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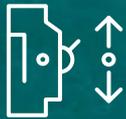
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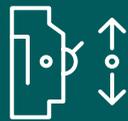
MINIATURE CIRCUIT BREAKERS - 5SL C CURVE

Suitable for use in load centres

RATED CURRENT	PART NUMBER	PART NUMBER
	SINGLE POLE, 6KA	SINGLE POLE, 10KA
1A	5SL6101-7CC	5SL4101-7CC
2A	5SL6102-7CC	5SL4102-7CC
4A	5SL6104-7CC	5SL4104-7CC
6A	5SL6106-7CC	5SL4106-7CC
10A	5SL6110-7CC	5SL4110-7CC
16A	5SL6116-7CC	5SL4116-7CC
20A	5SL6120-7CC	5SL4120-7CC
25A	5SL6125-7CC	5SL4125-7CC
32A	5SL6132-7CC	5SL4132-7CC
40A	5SL6140-7CC	5SL4140-7CC
50A	5SL6150-7CC	5SL4150-7CC
63A	5SL6163-7CC	5SL4163-7CC

	DOUBLE POLE, 6KA	DOUBLE POLE, 10KA
1A	5SL6201-7CC	5SL4201-7CC
2A	5SL6202-7CC	5SL4202-7CC
4A	5SL6204-7CC	5SL4204-7CC
6A	5SL6206-7CC	5SL4206-7CC
10A	5SL6210-7CC	5SL4210-7CC
16A	5SL6216-7CC	5SL4216-7CC
20A	5SL6220-7CC	5SL4220-7CC
25A	5SL6225-7CC	5SL4225-7CC
32A	5SL6232-7CC	5SL4232-7CC
40A	5SL6240-7CC	5SL4240-7CC
50A	5SL6250-7CC	5SL4250-7CC
63A	5SL6263-7CC	5SL4263-7CC

	TRIPLE POLE, 6KA	TRIPLE POLE, 10KA
1A	5SL6301-7CC	5SL4301-7CC
2A	5SL6302-7CC	5SL4302-7CC
4A	5SL6304-7CC	5SL4304-7CC
6A	5SL6306-7CC	5SL4306-7CC
10A	5SL6310-7CC	5SL4310-7CC
16A	5SL6316-7CC	5SL4316-7CC
20A	5SL6320-7CC	5SL4320-7CC
25A	5SL6325-7CC	5SL4325-7CC
32A	5SL6332-7CC	5SL4332-7CC
40A	5SL6340-7CC	5SL4340-7CC
50A	5SL6350-7CC	5SL4350-7CC
63A	5SL6363-7CC	5SL4363-7CC

MINIATURE CIRCUIT BREAKERS - 5SY C CURVE

Suitable for use on chassis

RATED CURRENT	PART NUMBER	PART NUMBER
	SINGLE POLE, 6KA	SINGLE POLE, 10KA
1A	5SY6101-7CC	5SY4101-7CC
2A	5SY6102-7CC	5SY4102-7CC
4A	5SY6104-7CC	5SY4104-7CC
6A	5SY6106-7CC	5SY4106-7CC
10A	5SY6110-7CC	5SY4110-7CC
16A	5SY6116-7CC	5SY4116-7CC
20A	5SY6120-7CC	5SY4120-7CC
25A	5SY6125-7CC	5SY4125-7CC
32A	5SY6132-7CC	5SY4132-7CC
40A	5SY6140-7CC	5SY4140-7CC
50A	5SY6150-7CC	5SY4150-7CC
63A	5SY6163-7CC	5SY4163-7CC

RATED CURRENT		27MM PITCH (HYBRID CHASSIS)
80A		5SP4180-7
100A		5SP4191-7
125A		5SP4192-7

	DOUBLE POLE, 6KA	DOUBLE POLE, 10KA
1A	5SY6201-7CC	5SY4201-7CC
2A	5SY6202-7CC	5SY4202-7CC
4A	5SY6204-7CC	5SY4204-7CC
6A	5SY6206-7CC	5SY4206-7CC
10A	5SY6210-7CC	5SY4210-7CC
16A	5SY6216-7CC	5SY4216-7CC
20A	5SY6220-7CC	5SY4220-7CC
25A	5SY6225-7CC	5SY4225-7CC
32A	5SY6232-7CC	5SY4232-7CC
40A	5SY6240-7CC	5SY4240-7CC
50A	5SY6250-7CC	5SY4250-7CC
63A	5SY6263-7CC	5SY4263-7CC

	TRIPLE POLE, 6KA	TRIPLE POLE, 10KA
1A	5SY6301-7CC	5SY4301-7CC
2A	5SY6302-7CC	5SY4302-7CC
4A	5SY6304-7CC	5SY4304-7CC
6A	5SY6306-7CC	5SY4306-7CC
10A	5SY6310-7CC	5SY4310-7CC
16A	5SY6316-7CC	5SY4316-7CC
20A	5SY6320-7CC	5SY4320-7CC
25A	5SY6325-7CC	5SY4325-7CC
32A	5SY6332-7CC	5SY4332-7CC
40A	5SY6340-7CC	5SY4340-7CC
50A	5SY6350-7CC	5SY4350-7CC
63A	5SY6363-7CC	5SY4363-7CC
80A	-	5SY4380-7CC*

RATED CURRENT		27MM PITCH
80A		5SP4380-7
100A		5SP4391-7
125A		5SP4392-7

* Not suitable for use on chassis

MINIATURE CIRCUIT BREAKERS - 5SY D CURVE

Suitable for use on chassis

RATED CURRENT	PART NUMBER
SINGLE POLE, 10KA	
4A	5SY4104-8CC
6A	5SY4106-8CC
10A	5SY4110-8CC
16A	5SY4116-8CC
20A	5SY4120-8CC
25A	5SY4125-8CC
32A	5SY4132-8CC
40A	5SY4140-8CC
50A	5SY4150-8CC
63A	5SY4163-8CC

TRIPLE POLE, 10KA	
4A	5SY4304-8CC
6A	5SY4306-8CC
10A	5SY4310-8CC
16A	5SY4316-8CC
20A	5SY4320-8CC
25A	5SY4325-8CC
32A	5SY4332-8CC
40A	5SY4340-8CC
50A	5SY4350-8CC
63A	5SY4363-8CC

MINIATURE CIRCUIT BREAKERS - 5SY5 (220 VDC PER POLE)

SINGLE POLE, 10KA	
2A	5SY5102-7CC
4A	5SY5104-7CC
6A	5SY5106-7CC
10A	5SY5110-7CC
16A	5SY5116-7CC
20A	5SY5120-7CC
25A	5SY5125-7CC
32A	5SY5132-7CC
40A	5SY5140-7CC
50A	5SY5150-7CC
63A	5SY5163-7CC

TWO POLE, 10KA	
2A	5SY5202-7CC
4A	5SY5204-7CC
6A	5SY5206-7CC
10A	5SY5210-7CC
16A	5SY5216-7CC
20A	5SY5220-7CC
25A	5SY5225-7CC
32A	5SY5232-7CC
40A	5SY5240-7CC
50A	5SY5250-7CC
63A	5SY5263-7CC

RCBOS & RCDS

Single Pole RCBO, 10KA Type A 30mA (long body suitable for Chassis Mount with 5SY MCB)

RATED CURRENT	PART NUMBER	DESCRIPTION
6A	5SU9304-7KK06	RCBO, Single Phase, 1 Pole, 10kA, 600mm Tail
10A	5SU9304-7KK10	RCBO, Single Phase, 1 Pole, 10kA, 600mm Tail
16A	5SU9304-7KK16	RCBO, Single Phase, 1 Pole, 10kA, 600mm Tail
20A	5SU9304-7KK20	RCBO, Single Phase, 1 Pole, 10kA, 600mm Tail
25A	5SU9304-7KK25	RCBO, Single Phase, 1 Pole, 10kA, 600mm Tail
32A	5SU9304-7KK32	RCBO, Single Phase, 1 Pole, 10kA, 600mm Tail
40A	5SU9304-7KK40	RCBO, Single Phase, 1 Pole, 10kA, 600mm Tail

Single Pole RCBO, 6KA Type A 30mA (compact suitable for load center with switched neutral)

6A	5SV9316-7PK06	RCBO, Single Phase, 1 Pole, 6kA, 300mm Tail
10A	5SV9316-7PK10	RCBO, Single Phase, 1 Pole, 6kA, 300mm Tail
16A	5SV9316-7PK16	RCBO, Single Phase, 1 Pole, 6kA, 300mm Tail
20A	5SV9316-7PK20	RCBO, Single Phase, 1 Pole, 6kA, 300mm Tail
32A	5SV9316-7PK32	RCBO, Single Phase, 1 Pole, 6kA, 300mm Tail

Single Pole RCBO, 6KA Type A 30mA (compact suitable for load center with switched neutral)

6A	5SV9316-7NK06	RCBO, Single Phase, 1 Pole, 6kA
10A	5SV9316-7NK10	RCBO, Single Phase, 1 Pole, 6kA
16A	5SV9316-7NK16	RCBO, Single Phase, 1 Pole, 6kA
20A	5SV9316-7NK20	RCBO, Single Phase, 1 Pole, 6kA
25A	5SV9316-7NK25	RCBO, Single Phase, 1 Pole, 6kA
32A	5SV9316-7NK32	RCBO, Single Phase, 1 Pole, 6kA

Three Pole and Neutral RCBO

6 A	5SU3 0630 FN	C curve 06A 10kA 30mA Type A, Fixed N
10 A	5SU3 1030 FN	C curve 10A 10kA 30mA Type A, Fixed N
16 A	5SU3 1630 FN	C curve 16A 10kA 30mA Type A, Fixed N
20 A	5SU3 2030 FN	C curve 20A 10kA 30mA Type A, Fixed N
25 A	5SU3 2530 FN	C curve 25A 10kA 30mA Type A, Fixed N
32 A	5SU3 3230 FN	C curve 32A 10kA 30mA Type A, Fixed N
40 A	5SU3 4030 FN	C curve 40A 10kA 30mA Type A, Fixed N
50 A	5SU3 5030 FN	C curve 50A 10kA 30mA Type A, Fixed N
63 A	5SU3 6330 FN	C curve 63A 10kA 30mA Type A, Fixed N

Single Phase RCBO, 10kA Type A (2 modules wide DIN Rail Mount)

6A	5SU9354-7KK06	RCBO, Single Phase, 2 Pole
10A	5SU9354-7KK10	RCBO, Single Phase, 2 Pole
16A	5SU9354-7KK16	RCBO, Single Phase, 2 Pole
20A	5SU9354-7KK20	RCBO, Single Phase, 2 Pole
25A	5SU9354-7KK25	RCBO, Single Phase, 2 Pole
32A	5SU9354-7KK32	RCBO, Single Phase, 2 Pole
40A	5SU9354-7KK40	RCBO, Single Phase, 2 Pole

Note: These can not have auxiliaries mounted.

MCB & RCBO ACCESSORIES

Auxiliary contacts (for 5SL, 5SY & 5SV)

PART NUMBER	DESCRIPTION
5ST3010	1N/O +1 N/C
5ST3011	2N/O
5ST3012	2N/C
5ST3020	1N/O +1 N/C Fault Signal Contact

Shunt trip (for 5SY & 5SL4 only)

5ST3030	110-415V AC
5ST3031	24-60V AC/DC

Undervoltage trip (for 5SY & 5SL4 only)

5ST3043	230V AC
5ST3041	110V DC
5ST3042	24V DC

Bus Combs - 16mm^2
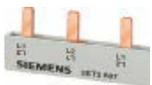
5ST3632	1 Phase, 12 Poles, Insulated 80A, 18mm Pitch
5ST3645	3 Phase, 12 Poles, Insulated 65A, 18mm Pitch
5ST3701	1 Phase, 57 Poles, Insulated 80A, 18mm Pitch, Can be cut to length
5ST3710	3 Phase, (19x3) Poles, Insulated 80A, 18mm Pitch, Can be cut to length
5ST3748	1 Phase end cap to suit 5ST3701
5ST3750	3 Phase end cap to suit 5ST3710
5ST3655	Bare connection cover for 5ST Busbar

Handle lock device

5ST3806	5SU9, 5TL, 5SV, 5SL & 5SY Handle locking device
LDCSIECB-M	Metal lock dog for 5SY MCB and 5SU 3P RCBO
LDCSIECB-R	Metal lock dog for 5SU9304-7KK RCBO

Busbar system for 5SV9316-7PK/NKxx Compact RCBO

5ST3762	Grey for phase connections, 10mm sq, Single Phase, 12 module, can be cut
5ST3763	Blue for neutral connections, 10mm sq, Single Phase, 12 module, can be cut
5ST3766	End caps for 5ST376 busbars Grey 1 set comprises a right and a left cap
5ST3767	End caps for 5ST376 busbars Blue 1 set comprises a right and a left cap

5SV RESIDUAL CURRENT DEVICES

RCD Type A 30mA (DIN Rail Mount)

RATED CURRENT	PART NUMBER	DESCRIPTION
5SV3312-6	25A	Type A 25A 1+N-Pole 30mA 230V 2 Modules Wide
5SV3314-6	40A	Type A 40A 1+N-Pole 30mA 230V 2 Modules Wide
5SV3316-6	63A	Type A 63A 1+N-Pole 30mA 230V 2 Modules Wide
5SV3344-6	40A	Type A 40A 3+N-Pole 30mA 400V 4 Modules Wide
5SV3347-6	80A	Type A 80A 3+N-Pole 30mA 400V 4 Modules Wide

RCD Type B 30mA (DIN Rail Mount)

5SV3322-4	25A	Type B 25A 1+N-Pole 30mA 230V 4 Modules Wide
5SV3324-4	40A	Type B 40A 1+N-Pole 30mA 230V 4 Modules Wide
5SV3326-4	63A	Type B 63A 1+N-Pole 30mA 230V 4Modules Wide
5SV3342-4	25A	Type B 25A 4-Pole 30mA 400V 4 Modules Wide
5SV3344-4	40A	Type B 40A 4-Pole 30mA 400V 4 Modules Wide
5SV3346-4	63A	Type B 63A 4-Pole 30mA 400V 4 Modules Wide

5SV8 MODULAR RESIDUAL CURRENT DEVICES

PART NUMBER	DESCRIPTION
5SV8101-6KK	Type A, 230VAC Control, 0.03A - 3A, Instantaneous to 10 sec selectable, 1 alarm & 1 tripping relay contact, 3MW Wide
5SV8101-4KK	Type B, 230VAC Control, 0.03A - 1A, Zero to 10 sec, 1 alarm & 1 tripping relay contact, 0-2kHz, 2MW Wide
5SV8111-4KK	Type B, 24VDC Control, 0.03A - 1A, Zero to 10 sec, 1 alarm & 1 tripping relay contact, 0-2kHz, 2MW Wide

5SV8 MODULAR RESIDUAL CURRENT DEVICES - SUMMATION CT'S

Summation Current Transformers Type A

PART NUMBER	RATED CURRENT	MAXIMUM CURRENT	LOWEST RESIDUAL CURRENT	DESCRIPTION
5SV8702-0KK	80A	480A	30mA	Internal Diameter 35mm, Wall or DIN rail mount(DIN Holder required)
5SV8703-0KK	200A	1200A	30mA	Internal Diameter 70mm, Wall or DIN rail mount(DIN Holder required)
5SV8704-0KK	250A	1500A	100mA	Internal Diameter 105mm, Wall Mount
5SV8705-0KK	500A	3000A	300mA	Internal Diameter 140mm, Wall Mount
5SV8706-0KK	600A	3600A	300mA	Internal Diameter 210mm, Wall Mount

Summation Current Transformers Type B

PART NUMBER	RATED CURRENT	MAXIMUM CURRENT	LOWEST RESIDUAL CURRENT	DESCRIPTION
5SV8701-2KK	80A	500A	10mA	Internal Diameter 35mm, Standard
5SV8701-2KP	80A	500A	10mA	Internal Diameter 35mm, with Shield
5SV8702-2KK	160A	1000A	10mA	Internal Diameter 60mm, Standard
5SV8702-2KP	160A	1000A	10mA	Internal Diameter 60mm, with Shield
5SV8703-2KK	330A	2000A	100mA	Internal Diameter 120mm, Standard
5SV8704-2KK	630A	3800A	300mA	Internal Diameter 210mm, Standard

5SV8 MODULAR RESIDUAL CURRENT DEVICES - ACCESSORIES

Magnetic field centering sleeves for Type A CT's

5SV8902-1KK	Magnetic field centering sleeves, 35mm Internal Diameter
5SV8903-1KK	Magnetic field centering sleeves, 70mm Internal Diameter
5SV8904-1KK	Magnetic field centering sleeves, 105mm Internal Diameter
5SV8905-1KK	Magnetic field centering sleeves, 140mm Internal Diameter
5SV8906-1KK	Magnetic field centering sleeves, 210mm Internal Diameter

5SV8900-1KK	DIN Holder for DIN rail Suitable for Type A summation CT's with internal diameter of 20, 30, 35, 70 mm Cannot be used together with magnetic field centering sleeves
5SV8900-2KK	Holders for DIN rails suitable for 5SV8701-2KK & 5SV8701-2KP
5SV8900-3KK	Holders for DIN rails suitable for 5SV8702-2KK & 5SV8702-2KP

DISTRIBUTION BOARD ACCESSORIES

DIN contactors

PART NUMBER	DESCRIPTION
5TT5800-0	20A 2 Pole N/O DIN Contactor, 230VAC Coil, 1 Module Wide
5TT5000-2	20A 2 Pole N/O DIN Contactor, 24VAC/DC Coil, 1 Module Wide
5TT5802-0	20A 2 Pole N/C DIN Contactor, 230VAC Coil, 1 Module Wide
5TT5002-2	20A 2 Pole N/C DIN Contactor, 24VAC/DC Coil, 1 Module Wide
5TT5840-0	40A 4 Pole N/O DIN Contactor, 230VAC Coil, 3 Modules Wide
5TT5040-2	40A 4 Pole N/O DIN Contactor, 24VAC/DC Coil, 3 Modules Wide
5TT5843-0	40A 4 Pole N/C DIN Contactor, 230VAC Coil, 3 Modules Wide
5TT5043-2	40A 4 Pole N/C DIN Contactor, 24VAC/DC Coil, 3 Modules Wide

Emergency lighting test kit

DBEMLTK25	25A Test/Reset, Timer & 4 NC Contactor
DBEMLTK40	40A Test/Reset, Timer & 4 NC Contactor

Isolators

5TL1163-1	1 N/O, 63A, Red Handle
5TL1191-1	1 N/O, 100A, Red Handle
5TL1363-1	3 N/O, 63A, Red Handle
5TL1391-1	3 N/O, 100A, Red Handle

EVA32502XLS4XVS	Katko 3 Pole 250A Main Switch

Digital time switch

7LF4501-5	Weekly time switch, 1 channel, 230VAC, 1 NO, 1 Module Wide

CT Block

7KT1202	Current Transformer AC 3x150/5A, Depth=70Mm

DISTRIBUTION BOARD - APS DB ESSENTIAL

High quality light-weight distribution board for high end commercial and medium duty industrial environments.

- IP55 Protection Rating
- Available in RAL 7035 Grey and Electrical Orange
- 1.2mm Mild Steel
- Encapsulated or Isolating MCB Chassis
- 18-72 Pole

- CAD Blocks Available
- Industry standard quarter turn locks
- Reversible White Escutcheon and Hinged Door
- Isolating Main Switch or MCCB Option
- In-feed Earth and Neutral Bars

MAIN SWITCH	MCB POLE CAPACITY	ENCLOSURE WIDTH AND DEPTH	ENCLOSURE HEIGHT	PART NUMBER
KATKO 250A Isolating Main Switch (Encapsulated Chassis)	18	600mm x 210mm	800mm	ESS18MG250EKT
	24			ESS24MG250EKT
	30			ESS30MG250EKT
	36		1000mm	ESS36MG250EKT
	42			ESS42MG250EKT
	48			ESS48MG250EKT
	60		1200mm	ESS60MG250EKT
	72			ESS72MG250EKT

Part Number Configuration Guide

The below table has been prepared as your guide to configuring the right part number for your individual enclosure requirements. As an example, we have used the part number: ESS18MG250EKT

There are 3 inputs that you are able to substitute:
1. Replace "MG" with "MO" for Electrical Orange
2. Replace "E" with "I" for Isolating Chassis
3. Replace "K" with "CB" for MCCB Main Switch

ESS	18	MG	250	E	K	T
TYPE	NUMBER OF POLES	COLOUR	MAIN SWITCH A	CHASSIS TYPE	SWITCH TYPE	CHASSIS FEED
ESS - Essential	18 - 18 Poles	MG - RAL 7035 Grey	250 - 250 A	E - Encapsulated	K - KATKO	T - Top
	24 - 24 Poles	MO - Electric Orange	400 - 400 A	I - Isolating	CB - Siemens MCCB	B - Bottom
	30 - 30 Poles					U - Universal
	36 - 36 Poles					
	42 - 42 Poles					
	48 - 48 Poles					
	60 - 60 Poles					
	72 - 72 Poles					

DISTRIBUTION BOARD - APS DB ULTIMATE

The true industrial distribution board that will perform in arduous and heavy-duty environments..
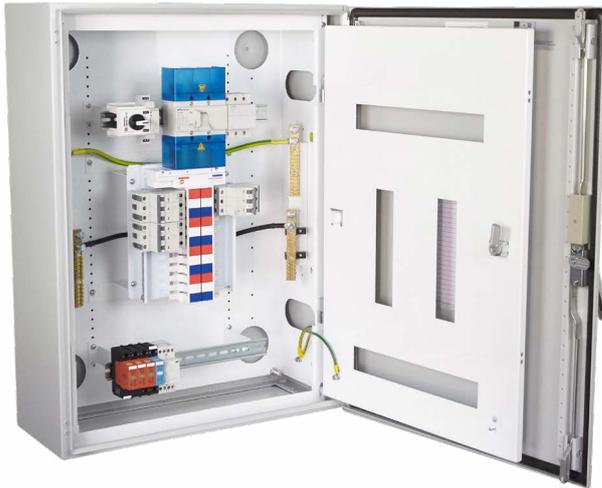
- | IP66 Protection Rating
- | Available in RAL 7035 Grey and Electrical Orange
- | 1.5mm Mild Steel
- | Encapsulated or Isolating MCB Chassis
- | 18-96 Pole
- | CAD Blocks Available

- | Semi Flush Rittal Swing Handle
- | 3 Point Locking With Rod
- | Reversible White Escutcheon and Hinged Door
- | Isolating Main Switch or MCCB Option
- | In-feed Earth and Neutral Bars

MAIN SWITCH	MCB POLE CAPACITY	ENCLOSURE WIDTH AND DEPTH	ENCLOSURE HEIGHT	PART NUMBER
KATKO 250A Isolating Main Switch (Encapsulated Chassis)	18	600mm x 250mm	800mm	ULT18MG250EKT
	24			ULT24MG250EKT
	30			ULT30MG250EKT
	36		1000mm	ULT36MG250EKT
	42			ULT42MG250EKT
	48			ULT48MG250EKT
	60		1200mm	ULT60MG250EKT
	72			ULT72MG250EKT
	84		1500mm	ULT84MG250EKT
	96			ULT96MG250EKT

Part Number Configuration Guide

The below table has been prepared as your guide to configuring the right part number for your individual enclosure requirements. As an example, we have used the part number: ULT18MG250EKT

There are 3 inputs that you are able to substitute:
1. Replace "MG" with "MO" for Electrical Orange
2. Replace "E" with "I" for Isolating Chassis
3. Replace "K" with "CB" for MCCB Main Switch

ESS	18	MG	250	E	K	T
TYPE	NUMBER OF POLES	COLOUR	MAIN SWITCH A	CHASSIS TYPE	SWITCH TYPE	CHASSIS FEED
ULT - Ultimate	18 - 18 Poles	MG - RAL 7035 Grey	250 - 250 A	E - Encapsulated	K - KATKO	T - Top
	24 - 24 Poles	MO - Electric Orange	400 - 400 A	I - Isolating	CB - Siemens MCCB	B - Bottom
	30 - 30 Poles					U - Universal
	36 - 36 Poles					
	42 - 42 Poles					
	48 - 48 Poles					
	60 - 60 Poles					
	72 - 72 Poles					
	84 - 84 Poles					
	96 - 96 Poles					

MCB CHASSIS & ISOLATING CHASSIS FOR USE WITH 5SY MCBS

Encapsulated chassis - 250A MCB chassis (rated at 25kA for 0.1sec & 10kA for 1sec)

POLES	PART NUMBER	PART NUMBER
	TOP FEED	UNIVERSAL FEED
12	ENCY25012T	ENCY25012U
18	ENCY25018T	ENCY25018U
24	ENCY25024T	ENCY25024U
30	ENCY25030T	ENCY25030U
36	ENCY25036T	ENCY25036U
42	ENCY25042T	ENCY25042U
48	ENCY25048T	ENCY25048U
60	ENCY25060T	ENCY25060U
72	ENCY25072T	ENCY25072U
84	ENCY25084T	ENCY25084U
96	ENCY25096T	ENCY25096U

Note: 400 Amp Chassis available on request.
Note: Hybrid chassis available, combination 18 and 27mm pitch
Note: MCB Chassis are supplied without the phase stickers fitted.
A pack of stickers is included inside each chassis box, these can be applied to suit the application, Top or Bottom feed.
Each pack includes one pole phase sticker, and two main ID labels.

Isolating chassis - 250A MCB chassis (rated at 30kA for 0.1sec)
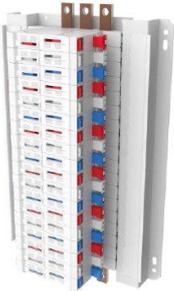
POLES	PART NUMBER	PART NUMBER
	TOP FEED	UNIVERSAL FEED
12	ISCY25012T	ISCY25012U
18	ISCY25018T	ISCY25018U
24	ISCY25024T	ISCY25024U
30	ISCY25030T	ISCY25030U
36	ISCY25036T	ISCY25036U
42	ISCY25042T	ISCY25042U
48	ISCY25048T	ISCY25048U
60	ISCY25060T	ISCY25060U
72	ISCY25072T	ISCY25072U
84	ISCY25084T	ISCY25084U
96	ISCY25096T	ISCY25096U

MOULDED CASE CIRCUIT BREAKERS TM 3VA1 SINGLE POLE

3VA1 MCCBs - TM120 fixed thermal & magnetic
1P, 16A - 160A
Thermal Magnetic Trip unit (TM120) - Fixed Settings

	In (A) RATED	Ir (A) SETTING	Ii (A) SETTING	PART NUMBER
25kA at 240V Line protection TM120	16A	16A	302A	3VA1196-3ED12-0AA0
	20A	20A	320A	3VA1120-3ED12-0AA0
	25A	25A	320A	3VA1125-3ED12-0AA0
	32A	32A	320A	3VA1112-3ED12-0AA0
	40A	40A	400A	3VA1140-3ED12-0AA0
	50A	50A	500A	3VA1150-3ED12-0AA0
	63A	63A	630A	3VA1163-3ED12-0AA0
	80A	80A	800A	3VA1180-3ED12-0AA0
	100A	100A	1000A	3VA1110-3ED12-0AA0
	125A	125A	1250A	3VA1112-3ED12-0AA0
	160A	160A	1600A	3VA1116-3ED12-0AA0
36kA at 240V Line protection TM120	16A	16A	302A	3VA1196-4ED12-0AA0
	20A	20A	320A	3VA1120-4ED12-0AA0
	25A	25A	320A	3VA1125-4ED12-0AA0
	32A	32A	320A	3VA1112-4ED12-0AA0
	40A	40A	400A	3VA1140-4ED12-0AA0
	50A	50A	500A	3VA1150-4ED12-0AA0
	63A	63A	630A	3VA1163-4ED12-0AA0
	80A	80A	800A	3VA1180-4ED12-0AA0
	100A	100A	1000A	3VA1110-4ED12-0AA0
	125A	125A	1250A	3VA1112-4ED12-0AA0
	160A	160A	1600A	3VA1116-4ED12-0AA0
55kA at 240V Line protection TM120	16A	16A	302A	3VA1196-5ED12-0AA0
	20A	20A	320A	3VA1120-5ED12-0AA0
	25A	25A	320A	3VA1125-5ED12-0AA0
	32A	32A	320A	3VA1132-5ED12-0AA0
	40A	40A	400A	3VA1140-5ED12-0AA0
	50A	50A	500A	3VA1150-5ED12-0AA0
	63A	63A	630A	3VA1163-5ED12-0AA0
	80A	80A	800A	3VA1180-5ED12-0AA0
	100A	100A	1000A	3VA1110-5ED12-0AA0
	125A	125A	1250A	3VA1112-5ED12-0AA0
	160A	160A	1600A	3VA1116-5ED12-0AA0

A = 25.4mm
B = 130mm
C = 70mm
D = 88mm
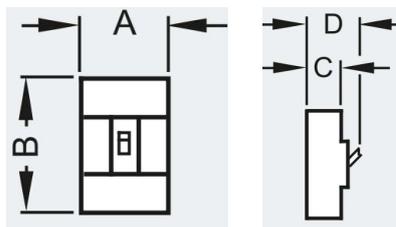
MOULDED CASE CIRCUIT BREAKERS TM 3VA1 2 POLE

3VA1 MCCBs - TM120 fixed thermal & magnetic
2P, 16A - 160A
Thermal Magnetic Trip unit (TM120) - Fixed Settings

	In (A) RATED	Ir (A) SETTING	Ii (A) SETTING	PART NUMBER
25kA at 240V Line protection TM120	16A	16A	302A	3VA1196-3ED22-0AA0
	20A	20A	320A	3VA1120-3ED22-0AA0
	25A	25A	320A	3VA1125-3ED22-0AA0
	32A	32A	320A	3VA1132-3ED22-0AA0
	40A	40A	400A	3VA1140-3ED22-0AA0
	50A	50A	500A	3VA1150-3ED22-0AA0
	63A	63A	630A	3VA1163-3ED22-0AA0
	80A	80A	800A	3VA1180-3ED22-0AA0
	100A	100A	1000A	3VA1110-3ED22-0AA0
	125A	125A	1250A	3VA1112-3ED22-0AA0
	160A	160A	1600A	3VA1116-3ED22-0AA0
36kA at 240V Line protection TM120	16A	16A	302A	3VA1196-4ED22-0AA0
	20A	20A	320A	3VA1120-4ED22-0AA0
	25A	25A	320A	3VA1125-4ED22-0AA0
	32A	32A	320A	3VA1132-4ED22-0AA0
	40A	40A	400A	3VA1140-4ED22-0AA0
	50A	50A	500A	3VA1150-4ED22-0AA0
	63A	63A	630A	3VA1163-4ED22-0AA0
	80A	80A	800A	3VA1180-4ED22-0AA0
	100A	100A	1000A	3VA1110-4ED22-0AA0
	125A	125A	1250A	3VA1112-4ED22-0AA0
	160A	160A	1600A	3VA1116-4ED22-0AA0
55kA at 240V Line protection TM120	16A	16A	302A	3VA1196-5ED22-0AA0
	20A	20A	320A	3VA1120-5ED22-0AA0
	25A	25A	320A	3VA1125-5ED22-0AA0
	32A	32A	320A	3VA1132-5ED22-0AA0
	40A	40A	400A	3VA1140-5ED22-0AA0
	50A	50A	500A	3VA1150-5ED22-0AA0
	63A	63A	630A	3VA1163-5ED22-0AA0
	80A	80A	800A	3VA1180-5ED22-0AA0
	100A	100A	1000A	3VA1110-5ED22-0AA0
	125A	125A	1250A	3VA1112-5ED22-0AA0
	160A	160A	1600A	3VA1116-5ED22-0AA0

A = 50.8mm
B = 130mm
C = 70mm
D = 88mm
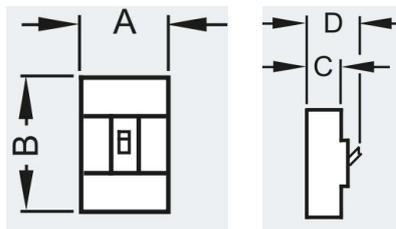
MOULDED CASE CIRCUIT BREAKERS TM 3VA1 3 POLE 25 & 36KA

3VA1 MCCBs - TM220/240 (25kA at 415V)
3 Pole, 16A - 160A
TM220 (Line Protection) = Adjustable Thermal (Ir), Fixed Magnetic (Ii) - ATFM (LI)

	FRAME SIZE (FS)	In (A) RATED	Ir (A) SETTING	Ii (A) SETTING	PART NUMBER
25kA at 415V Line protection TM220	1	16A	11 - 16A	160-320A	3VA1196-3EE32-0AA0
		20A	14 - 20A	160-320A	3VA1120-3EE32-0AA0
		25A	18 - 25A	160-320A	3VA1125-3EE32-0AA0
		32A	22 - 32A	160-320A	3VA1132-3EE32-0AA0
		40A	28 - 40A	200-400A	3VA1140-3EE32-0AA0
		50A	35 - 50A	250-500A	3VA1150-3EE32-0AA0
		63A	44 - 63A	315-630A	3VA1163-3EE32-0AA0
		80A	56 - 80A	400-800A	3VA1180-3EE32-0AA0
		100A	70 - 100A	500-1000A	3VA1110-3EE32-0AA0

TM240 (Line Protection) = Adjustable Thermal (Ir), Adjustable Magnetic (Ii) - ATAM (LI)

25kA at 415V Line protection	1	125A	88 - 125A	625-1250A	3VA1112-3EF32-0AA0
		160A	112 - 160A	800-1600A	3VA1116-3EF32-0AA0

3VA1 MCCBs - TM220/240 (36kA at 415V)
3 Pole, 16A - 630A
TM220 (Line Protection) = Adjustable Thermal (Ir), Fixed Magnetic (Ii) - ATFM (LI)

	FRAME SIZE (FS)	In (A) RATED	Ir (A) SETTING	Ii (A) SETTING	PART NUMBER
36kA at 415V Line protection TM220	1	16A	11 - 16A	320A	3VA1196-4EE32-0AA0
		20A	14 - 20A	320A	3VA1120-4EE32-0AA0
		25A	18 - 25A	320A	3VA1125-4EE32-0AA0
		32A	22 - 32A	320A	3VA1132-4EE32-0AA0
		40A	28 - 40A	400A	3VA1140-4EE32-0AA0
		50A	35 - 50A	500A	3VA1150-4EE32-0AA0
		63A	44 - 63A	630A	3VA1163-4EE32-0AA0
		80A	56 - 80A	800A	3VA1180-4EE32-0AA0
		100A	70 - 100A	1000A	3VA1110-4EE32-0AA0

TM240 (Line Protection) = Adjustable Thermal (Ir), Adjustable Magnetic (Ii) - ATAM (LI)

36kA at 415V Line protection TM240	1	125A	88 - 125A	625-1250A	3VA1112-4EF32-0AA0
		160A	112 - 160A	800-1600A	3VA1116-4EF32-0AA0
	2	160A	112 - 160A	800-1600A	3VA1216-4EF32-0AA0
		200A	140 - 200A	1000-2000A	3VA1220-4EF32-0AA0
		250A	175 - 250A	1250-2500A	3VA1225-4EF32-0AA0
	3	320A	220 - 320A	1600-3200A	3VA1332-4EF32-0AA0
		400A	280 - 400A	2000-4000A	3VA1340-4EF32-0AA0
		500A	350 - 500A	2500-5000A	3VA1450-4EF32-0AA0
		630A	440 - 630A	2520-5040A	3VA1463-4EF32-0AA0

3VA1 MCCBS DIMENSIONS					
Frame size (FS)	A (3P)	A (4P)	B	C	D
1	76.2	101.6	130	70	88
2	105	140	158	70	91
3	138	184	248	110	173
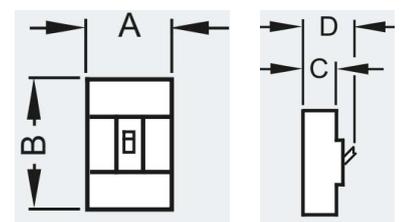
Note: All dimensions are in mm.

MOULDED CASE CIRCUIT BREAKERS TM 3VA1 3 POLE 55 & 70KA

3VA1 MCCBs - TM220/240 (55kA at 415V)
3 Pole, 16A - 1000A
TM220 (Line Protection) = Adjustable Thermal (Ir), Fixed Magnetic (Ii) - ATFM (LI)

	FRAME SIZE (FS)	In (A) RATED	Ir (A) SETTING	Ii (A) SETTING	PART NUMBER
55kA at 415V Line protection TM220	1	16A	11 - 16A	160-320A	3VA1196-5EE32-0AA0
		20A	14 - 20A	160-320A	3VA1120-5EE32-0AA0
		25A	18 - 25A	160-320A	3VA1125-5EE32-0AA0
		32A	22 - 32A	160-320A	3VA1132-5EE32-0AA0
		40A	28 - 40A	200-400A	3VA1140-5EE32-0AA0
		50A	35 - 50A	250-500A	3VA1150-5EE32-0AA0
		63A	44 - 63A	315-630A	3VA1163-5EE32-0AA0
		80A	56 - 80A	400-800A	3VA1180-5EE32-0AA0
		100A	70 - 100A	500-1000A	3VA1110-5EE32-0AA0

TM240 (Line Protection) = Adjustable Thermal (Ir), Adjustable Magnetic (Ii) - ATAM (LI)

	FRAME SIZE (FS)	In (A) RATED	Ir (A) SETTING	Ii (A) SETTING	PART NUMBER
55kA at 415V Line protection TM240	1	125A	88 - 125A	625-1250A	3VA1112-5EF32-0AA0
		160A	112 - 160A	800-1600A	3VA1116-5EF32-0AA0
	2	160A	112 - 160A	800-1600A	3VA1216-5EF32-0AA0
		200A	140 - 200A	1000-2000A	3VA1220-5EF32-0AA0
		250A	175 - 250A	1250-2500A	3VA1225-5EF32-0AA0
	3	320A	220 - 320A	1600-3200A	3VA1332-5EF32-0AA0
		400A	280 - 400A	2000-4000A	3VA1340-5EF32-0AA0
		500A	350 - 500A	2500-5000A	3VA1450-5EF32-0AA0
		630A	440 - 630A	2520-5040A	3VA1463-5EF32-0AA0
	4	800A	560-800A	5 to 10A x In	3VA1580-5EF32-0AA0
		1000A	700-1000A	5 to 10A x In	3VA1510-5EF32-0AA0

3VA1 MCCBs - TM240 (70kA at 415V)
3 Pole, 16A - 1000A
TM240 (Line Protection) = Adjustable Thermal (Ir), Adjustable Magnetic (Ii) - ATAM (LI)

	FRAME SIZE (FS)	In (A) RATED	Ir (A) SETTING	Ii (A) SETTING	PART NUMBER
70kA at 415V Line protection TM240	1	16A	11 - 16A	160-320A	3VA1196-6EF32-0AA0
		20A	14 - 20A	160-320A	3VA1120-6EF32-0AA0
		25A	18 - 25A	160-320A	3VA1125-6EF32-0AA0
		32A	22 - 32A	160-320A	3VA1132-6EF32-0AA0
		40A	28 - 40A	200-400A	3VA1140-6EF32-0AA0
		50A	35 - 50A	250-500A	3VA1150-6EF32-0AA0
		63A	44 - 63A	315-630A	3VA1163-6EF32-0AA0
		80A	56 - 80A	400-800A	3VA1180-6EF32-0AA0
		100A	70 - 100A	500-1000A	3VA1110-6EF32-0AA0
		125A	88 - 125A	625-1250A	3VA1112-6EF32-0AA0
		160A	112 - 160A	800-1600A	3VA1116-6EF32-0AA0
	2	160A	112 - 160A	800-1600A	3VA1216-6EF32-0AA0
		200A	140 - 200A	1000-2000A	3VA1220-6EF32-0AA0
		250A	175 - 250A	1250-2500A	3VA1225-6EF32-0AA0
	3	320A	220 - 320A	1600-3200A	3VA1332-6EF32-0AA0
		400A	280 - 400A	2000-4000A	3VA1340-6EF32-0AA0
		500A	350 - 500A	2500-5000A	3VA1450-6EF32-0AA0
		630A	440 - 630A	2520-5040A	3VA1463-6EF32-0AA0
	4	800A	560-800A	5 to 10A x In	3VA1580-6EF32-0AA0
		1000A	700-1000A	5 to 10A x In	3VA1510-6EF32-0AA0

Front view

Characteristic curve

TM240
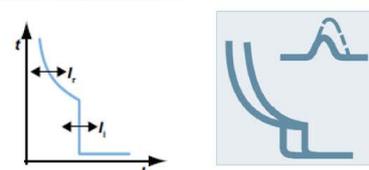
3VA1 MCCB ACCESSORIES

Auxiliary switches & alarm switches

PART NUMBER	TO SUIT	DESCRIPTION
3VA9988-0AA12	3VA1 - All	1 C/O Auxiliary Switch 1 Module (HQ)
3VA9988-0AA11	3VA1 - All	1 C/O Auxiliary Switch 2 Module (HP)
3VA9988-0AB12	3VA1 - All	1 C/O Trip Alarm Switch 1 Module (HQ)
3VA9988-0AB11	3VA1 - All	1 C/O Trip Alarm Switch 2 Module (HP)

Note: HP module can have two conductors per contact point for looping.

Shunt trips (left side)

3VA9988-0BL30	3VA1 - All	24V AC/DC
3VA9988-0BL32	3VA1 - All	110VAC
3VA9988-0BL33	3VA1 - All	240VAC

Undervoltage release (left side)

3VA9908-0BB11	3VA1 - All	24VDC
3VA9908-0BB25	3VA1 - All	220-230 VAC

Door mounted rotary operator standard IP65 with door interlock padlocking with 300mm shaft

3VA9157-0FK21	3VA11 100 & 160A	Includes - Handle, 300mm shaft and coupler
3VA9257-0FK21	3VA12 250A	Includes - Handle, 300mm shaft and coupler
3VA9467-0FK21	3VA13 & 14 400 & 630A	Includes - Handle, 300mm shaft and coupler
3VA9687-0FK21	3VA15 800 & 1000A	Includes - Handle, 300mm shaft and coupler

Castell Interlocking Adaptors for 3VA1 Handles with no Tolerance Compensator
(no Keys or Locks supplied)

Handle Kit no Tolerance
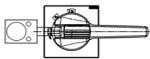
3VA9157-0FK61	3VA11 100 & 160A	Includes - Handle, 300mm shaft and coupler
3VA9257-0FK61	3VA12 250A	Includes - Handle, 300mm shaft and coupler
3VA9467-0FK61	3VA13 & 14 400 & 630A	Includes - Handle, 300mm shaft and coupler
3VA9687-0FK61	3VA15 800 & 1000A	Includes - Handle, 300mm shaft and coupler

Interlock Components (to K-FSB-25.4-2**) ** = Key Code
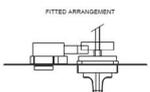
3VA-ILC8	3VA11 to 3VA14	Includes - Spacer and Cam for 8mm shaft
3VA-IL12	3VA15 800 & 1000A	Includes - Spacer and Cam for 12mm shaft

Terminal covers (one set only)

3VA9111-0WD30	3VA11 100 & 160A	Flush 3 Pole Cover
3VA9211-0WD30	3VA12 250A	Flush 3 Pole Cover
3VA9481-0WD30	3VA13 & 14 400 & 630A	Flush 3 Pole Cover
3VA9601-0WD30	3VA15 800 & 1000A	Flush 3 Pole Cover
3VA9111-0WF30	3VA11 100 & 160A	Extended 3 Pole Cover
3VA9211-0WF30	3VA12 250A	Extended 3 Pole Cover
3VA9481-0WF30	3VA13 & 14 400 & 630A	Extended 3 Pole Cover
3VA9601-0WF30	3VA15 800 & 1000A	Extended 3 Pole Cover

Offset terminal covers (one set only)

3VA9111-0WG30	3VA11 100 & 160A	Extended 3 Pole Cover for offset extension bars
3VA9211-0WG30	3VA12 250A	Extended 3 Pole Cover for offset extension bars
3VA9401-0WG30	3VA13 & 14 400 & 630A	Extended 3 Pole Cover for offset extension bars

FITTED ARRANGEMENT

3VA1 MCCB ACCESSORIES

Extension bars - straight

PART NUMBER	TO SUIT	DESCRIPTION
3VA9153-0QB00	3VA11 100 & 160A	Three phase extension bar with two phase barriers
3VA9253-0QB00	3VA12 250A	Three phase extension bar with two phase barriers
3VA9483-0QB00	3VA13 & 14 400 & 630A	Three phase extension bar with two phase barriers
3VA9603-0QB00	3VA15 800 & 1000A	Three phase extension bar with two phase barriers

Extension bars - offset

3VA9153-0QC00	3VA11 100 & 160A	Three phase extension bar with two phase barriers
3VA9253-0QC00	3VA12 250A	Three phase extension bar with two phase barriers
3VA9483-0QC00	3VA13 & 14 400 & 630A	Three phase extension bar with two phase barriers
3VA9603-0QC00	3VA15 800 & 1000A	Three phase extension bar with two phase barriers

Tunnel terminals (contains 3 single terminals)

3VA9153-0JA11	3VA11 100 & 160A	Box Terminals upto 70mm2
3VA9253-0JA11	3VA12 250A	Box Terminals upto 120mm2
3VA9483-0JA13	3VA13 & 4 400 & 630A	Box Terminals upto 300mm2 *

*Only up to 400A

Padlock attachment (Not captive)

3VA9088-0LB10	3VA11 & 12	Locking device for toggle levers
3VA9388-0LB10	3VA13 & 14	Locking device for toggle levers
3VA9588-0LB10	3VA15	Locking device for toggle levers

RCD modules (type A)

3VA9114-0RS10	3VA11 100 & 160A	* RCD310 4 Pole Side Mount, 0.03 to 5A, No Time Delay
3VA9113-0RS20	3VA11 100 & 160A	*RCD510 3 Pole Side Mount, 0.03 to 5A, Time Delay up to 3sec
3VA9213-0RS20	3VA12 250A	*RCD510 3 Pole Side Mount, 0.03 to 5A, Time Delay up to 3sec
3VA9114-0RS20	3VA11 100 & 160A	*RCD510 4 Pole Side Mount, 0.03 to 5A, Time Delay up to 3sec
3VA9214-0RS20	3VA12 250A	RCD510 4 Pole Side Mount, 0.03 to 5A, Time Delay up to 3sec

* Require tunnel terminals on the bottom connections

3VA9114-0RL10	3VA11 100 & 160A	RCD320 4 Pole Bottom Mount, 0.03 to 5A, No Time Delay
3VA9113-0RL20	3VA11 100 & 160A	RCD520 3 Pole Bottom Mount, 0.03 to 5A, Time Delay up to 3sec
3VA9213-0RL20	3VA12 250A	RCD520 3 Pole Bottom Mount, 0.03 to 5A, Time Delay up to 3sec
3VA9114-0RL20	3VA11 100 & 160A	RCD520 4 Pole Bottom Mount, 0.03 to 5A, Time Delay up to 3sec
3VA9214-0RL20	3VA12 250A	RCD520 4 Pole Bottom Mount, 0.03 to 5A, Time Delay up to 3sec

Motor operator without stored energy operator

3VA9117-0HB10	3VA11 100 & 160A	24 to 60VDC Side Mount (MO310)
3VA9117-0HB20	3VA11 100 & 160A	110 to 230VAC, 110 to 250VDC Side Mount (MO310)

3VA9157-0HA10	3VA11 100 & 160A	24 to 60VDC Front Mount (MO320)
3VA9257-0HA10	3VA12 250A	24 to 60VDC Front Mount (MO320)
3VA9467-0HA10	3VA13 & 4 400 & 630A	24 to 60VDC Front Mount (MO320)
3VA9157-0HA20	3VA11 100 & 160A	110 to 230VAC, 110 to 250VDC Front Mount (MO320)
3VA9257-0HA20	3VA12 250A	110 to 230VAC, 110 to 250VDC Front Mount (MO320)
3VA9467-0HA20	3VA13 & 4 400 & 630A	110 to 230VAC, 110 to 250VDC Front Mount (MO320)

MOULDED CASE CIRCUIT BREAKERS 3VA2 3 POLE ETU LI

3VA2 MCCBs - ETU320 LI
3 Pole, 25A - 1000A
Line protection - Electronic Trip unit (ETU320 LI)

	FRAME SIZE (FS)	In (A) RATED	Ir (A) SETTING	Ii (A) SETTING	PART NUMBER
55kA at 415V Line protection ETU320 LI	2A	25A	10 - 25A	38-300A	3VA2025-5HL32-0AA0
		40A	16 - 40A	60-480A	3VA2040-5HL32-0AA0
		63A	25 - 63A	95-756A	3VA2063-5HL32-0AA0
		100A	40 - 100A	150-1200A	3VA2010-5HL32-0AA0
		160A	63 - 160A	240-1600A	3VA2116-5HL32-0AA0
		250A	100 - 250A	375-2500A	3VA2225-5HL32-0AA0
	3	400A	160 - 400A	600-4000A	3VA2340-5HL32-0AA0
		630A	250 - 630A	945-5670A	3VA2463-5HL32-0AA0
	4	800A	320 - 800A	1200-9600A	3VA2580-5HL32-0AA0
		1000A	400 - 1000A	1500-10000A	3VA2510-5HL32-0AA0
		1250A	500 - 1250A	750 - 12500A	3VA2612-5HL32-0AA0
85kA at 415V Line protection ETU320 LI	2A	25A	10 - 25A	38-300A	3VA2025-6HL32-0AA0
		40A	16 - 40A	60-480A	3VA2040-6HL32-0AA0
		63A	25 - 63A	95-756A	3VA2063-6HL32-0AA0
		100A	40 - 100A	150-1200A	3VA2010-6HL32-0AA0
		160A	63 - 160A	240-1600A	3VA2116-6HL32-0AA0
		250A	100 - 250A	375-2500A	3VA2225-6HL32-0AA0
	3	400A	160 - 400A	600-4000A	3VA2340-6HL32-0AA0
		630A	250 - 630A	945-5670A	3VA2463-6HL32-0AA0
	4	800A	320 - 800A	1200-9600A	3VA2580-6HL32-0AA0
		1000A	400 - 1000A	1500-10000A	3VA2510-6HL32-0AA0
		1250A	500 - 1250A	750 - 12500A	3VA2612-6HL32-0AA0

ETU320 LI = Electronic Trip Unit with LI protection functions for 3P 3VA2 MCCBs includes following:
Adjustable parameter settings Ir and tr for overload protection (L)
Adjustable parameter setting Ii for instantaneous short-circuit protection (I)

3VA2 MCCBs Dimensions

FRAME SIZE (FS)	A (3P)	A (4P)	B	C	D
2A	105	140	181	83	107
3	138	184	248	110	173
4	210	280	320	117	253
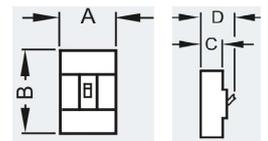
Note: All dimensions are in mm.

MOULDED CASE CIRCUIT BREAKERS 3VA2 3 POLE ETU LSI

3VA2 MCCBs - ETU350 LSI
3 Pole, 25A - 1600A
Line protection - Electronic Trip unit (ETU350 LSI)

	FRAME SIZE (FS)	IN (A) RATED	ISD (A) SETTING	IR (A) SETTING	II (A) SETTING	PART NUMBER
55kA at 415V Line protection ETU350 LSI	2A	25A	1.5 to 10A x Ir	10 - 25A	300A	3VA2025-5HN32-0AA0
		40A	1.5 to 10A x Ir	16 - 40A	480A	3VA2040-5HN32-0AA0
		63A	1.5 to 10A x Ir	25 - 63A	756A	3VA2063-5HN32-0AA0
		100A	1.5 to 10A x Ir	40 - 100A	1200A	3VA2010-5HN32-0AA0
		160A	1.5 to 10A x Ir	63 - 160A	1600A	3VA2116-5HN32-0AA0
		250A	1.5 to 10A x Ir	100 - 250A	2500A	3VA2225-5HN32-0AA0
	3	400A	1.5 to 10A x Ir	160 - 400A	4000A	3VA2340-5HN32-0AA0
		630A	1.5 to 9A x Ir	250 - 630A	5670A	3VA2463-5HN32-0AA0
	4	800A	1.5 to 10A x Ir	320 - 800A	9600A	3VA2580-5HN32-0AA0
		1000A	1.5 to 10A x Ir	400 - 1000A	10000A	3VA2510-5HN32-0AA0
		1250A	1.5 to 10A x Ir	500 - 1250A	12500A	3VA2612-5HN32-0AA0
	5*	1250A	1.0 to 10A x In	500-1250A	1.5 to 15A x In	3VA2712-5AC03-0AA0
		1600A	1.0 to 10A x In	640 - 1600A	1.5 to 15A x In	3VA2716-5AC03-0AA0
85kA at 415V Line protection ETU350 LSI	2A	25A	1.5 to 10A x Ir	25 - 10A	300A	3VA2025-6HN32-0AA0
		40A	1.5 to 10A x Ir	16 - 40A	480A	3VA2040-6HN32-0AA0
		63A	1.5 to 10A x Ir	25 - 63A	756A	3VA2063-6HN32-0AA0
		100A	1.5 to 10A x Ir	40 - 100A	1200A	3VA2010-6HN32-0AA0
		160A	1.5 to 10A x Ir	63 - 160A	1600A	3VA2116-6HN32-0AA0
		250A	1.5 to 10A x Ir	100 - 250A	2500A	3VA2225-6HN32-0AA0
	3	400A	1.5 to 10A x Ir	160 - 400A	4000A	3VA2340-6HN32-0AA0
		630A	1.5 to 9A x Ir	250 - 630A	5670A	3VA2463-6HN32-0AA0
	4	800A	1.5 to 10A x Ir	320 - 800A	9600A	3VA2580-6HN32-0AA0
		1000A	1.5 to 10A x Ir	400 - 1000A	10000A	3VA2510-6HN32-0AA0
		1250A	1.5 to 10A x Ir	500 - 1250A	12500A	3VA2612-6HN32-0AA0
	5*	1250A	1.0 to 10A x In	500-1250A	1.5 to 15A x In	3VA2712-6AC03-0AA0
		1600A	1.0 to 10A x In	640 - 1600A	1.5 to 15A x In	3VA2716-6AC03-0AA0
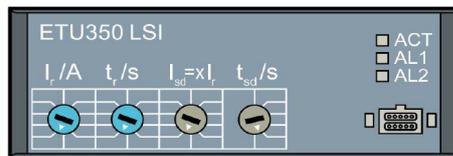
3VA20-25
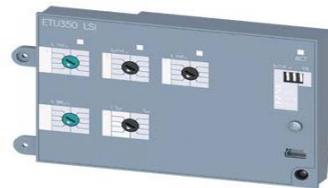
3VA27

3VA2 MCCBs Dimensions

FRAME SIZE (FS)	A (3P)	A (4P)	B	C	D
2A	105	140	181	83	107
3	138	184	248	110	173
4	210	280	320	117	253
5	214		236	184	285.9
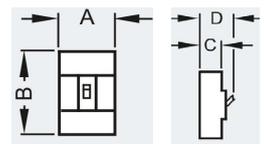
Note: All dimensions are in mm.

MOULDED CASE CIRCUIT BREAKERS 3VA2 3 POLE ETU LIG

3VA2 MCCBs - ETU330 LIG

3 Pole, 25A - 1000A
Line protection with Ground Fault - Electronic Trip unit (ETU330 LIG) for Balanced Loads

	FRAME SIZE (FS)	In (A) RATED	Ir (A) SETTING	Li (A) SETTING	Ig (A) SETTING	PART NUMBER
55kA at 415V Line protection ETU330 LIG	2A	25A	10 - 25A	38-300A	15-25A	3VA2025-5HM32-0AA0
		40A	16 - 40A	60-480A	16-40A	3VA2040-5HM32-0AA0
		63A	25 - 63A	95-756A	16-63A	3VA2063-5HM32-0AA0
		100A	40 - 100A	150-1200A	20-100A	3VA2010-5HM32-0AA0
		160A	63 - 160A	240-1600A	32-160A	3VA2116-5HM32-0AA0
		250A	100 - 250A	375-2500A	50-250A	3VA2225-5HM32-0AA0
	3	400A	160 - 400A	600-4000A	80-400A	3VA2340-5HM32-0AA0
		630A	250 - 630A	945-5670A	126-630A	3VA2463-5HM32-0AA0
	4	800A	320 - 800A	1200-9600A	160-800A	3VA2580-5HM32-0AA0
		1000A	400 - 1000A	1500-10000A	200-1000A	3VA2510-5HM32-0AA0
85kA at 415V Line protection ETU330 LIG	2A	25A	25 - 10A	38-300A	15-25A	3VA2025-6HM32-0AA0
		40A	16 - 40A	60-480A	16-40A	3VA2040-6HM32-0AA0
		63A	25 - 63A	95-756A	16-63A	3VA2063-6HM32-0AA0
		100A	40 - 100A	150-1200A	20-100A	3VA2010-6HM32-0AA0
		160A	63 - 160A	240-1600A	32-160A	3VA2116-6HM32-0AA0
		250A	100 - 250A	375-2500A	50-250A	3VA2225-6HM32-0AA0
	3	400A	160 - 400A	600-4000A	80-400A	3VA2340-6HM32-0AA0
		630A	250 - 630A	945-5670A	126-630A	3VA2463-6HM32-0AA0
	4	800A	320 - 800A	1200-9600A	160-800A	3VA2580-6HM32-0AA0
		1000A	400 - 1000A	1500-10000A	200-1000A	3VA2510-6HM32-0AA0
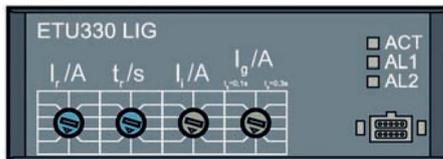
ETU330 LIG = Electronic Trip Unit with LIG protection functions for 3P 3VA2 MCCBs includes following:

| Adjustable parameter settings Ir and tr for overload protection (L)
| Adjustable parameter setting Ii for instantaneous short-circuit protection (I)
| Adjustable parameter settings Ig and tg for ground-fault protection (G)

3VA2 MCCBs Dimensions

FRAME SIZE (FS)	A (3P)	A (4P)	B	C	D
2A	105	140	181	83	107
3	138	184	248	110	173
4	210	280	320	117	253
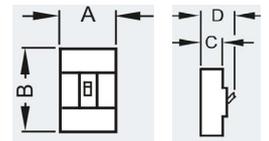
Note: All dimensions are in mm.

MOULDED CASE CIRCUIT BREAKERS 3VA2 3 POLE ETU LSI COMMUNICATIONS CAPABLE

3VA2 MCCBs - ETU550 LSI
3 Pole, 25A - 1000A
Line protection - Electronic Trip unit (ETU550 LSI)

	FRAME SIZE (FS)	In (A) RATED	Ir (A) SETTING	Li (A) SETTING	Ig (A) SETTING	PART NUMBER
55kA at 415V Line protection ETU550 LSI	2A	25	15-250	10 -25	38-300	3VA2025-5JP32-0AA0
		40	24-400	16 - 40	60-480	3VA2040-5JP32-0AA0
		63	38-630	25 - 63	95-756	3VA2063-5JP32-0AA0
		100	60-1000	40 - 100	150-1200	3VA2010-5JP32-0AA0
		160	96-1600	63 - 160	240-1600	3VA2116-5JP32-0AA0
		250	150-2500	100 - 250	375-2500	3VA2225-5JP32-0AA0
	3	400	240-4000	160 - 400	600-4000	3VA2340-5JP32-0AA0
		630	378-5670	250 - 630	945-5670	3VA2463-5JP32-0AA0
	4	800	480-8000	320 - 800	1200-8000	3VA2580-5JP32-0AA0
		1000	600-10000	400 - 1000	1500-10000	3VA2510-5JP32-0AA0
	5	1250	750-12500	500-1250	1875-12500	3VA2612-5JP32-0AA0
85kA at 415V Line protection ETU550 LSI	2A	25	15-250	10 -25	38-300	3VA2025-6JP32-0AA0
		40	24-400	16 - 40	60-480	3VA2040-6JP32-0AA0
		63	38-630	25 - 63	95-756	3VA2063-6JP32-0AA0
		100	60-1000	40 - 100	150-1200	3VA2010-6JP32-0AA0
		160	96-1600	63 - 160	240-1600	3VA2116-6JP32-0AA0
		250	150-2500	100 - 250	375-2500	3VA2225-6JP32-0AA0
	3	400	240-4000	160 - 400	600-4000	3VA2340-6JP32-0AA0
		630	378-5670	250 - 630	945-5670	3VA2463-6JP32-0AA0
	4	800	480-8000	320 - 800	1200-8000	3VA2580-6JP32-0AA0
		1000	600-10000	400 - 1000	1500-10000	3VA2510-6JP32-0AA0
	5	1250	750-12500	500-1250	1875-12500	3VA2612-6JP32-0AA0

With 5-series and 8-series electronic trip units, it is possible to set more parameters and to scale the selection of parameters more finely than on 3-series trip units.

ETU550 LSI = Electronic Trip Unit with LSI protection functions for 3P 3VA2 MCCBs includes following:
| Adjustable parameter settings Ir and tr for overload protection (L)
| Adjustable parameter settings Isd and tsd for short-time delayed short circuit protection (S)
| Adjustable parameter setting Ii for instantaneous short-circuit protection (I)
| Adjustable parameter settings Isd and tsd for short-time delayed short circuit protection (Isd)

3VA2 MCCBs Dimensions

FRAME SIZE (FS)	A (3P)	A (4P)	B	C	D
2A	105	140	181	83	107
3	138	184	248	110	173
4	210	280	320	117	253

Note: All dimensions are in mm.

MOULDED CASE CIRCUIT BREAKERS 3VA2 3 POLE ETU LSI COMMUNICATIONS CAPABLE WITH INBUILT METERING

3VA2 MCCBs - ETU850 LSI/LSIG

3 Pole, 25A - 1250A
Line protection - Electronic Trip unit (ETU850 LSI)

	FRAME SIZE (FS)	In (A) RATED	Ir (A) SETTING	Li (A) SETTING	Ig (A) SETTING	PART NUMBER
55kA at 415V Line protection ETU850 LSI	2A	25	15-250	10 -25	38-300	3VA2025-5KP32-0AA0
		40	24-400	16 - 40	60-480	3VA2040-5KP32-0AA0
		63	38-630	25 - 63	95-756	3VA2063-5KP32-0AA0
		100	60-1000	40 - 100	150-1200	3VA2010-5KP32-0AA0
		160	96-1600	63 - 160	240-1600	3VA2116-5KP32-0AA0
		250	150-2500	100 - 250	375-2500	3VA2225-5KP32-0AA0
	3	400	240-4000	160 - 400	600-4000	3VA2340-5KP32-0AA0
		630	378-5670	250 - 630	945-5670	3VA2463-5KP32-0AA0
55kA at 415V ETU860 LSIG	4	800	480-8000	320 - 800	1200-8000	3VA2580-5KQ32-0AA0
		1000	600-10000	400 - 1000	1500-10000	3VA2510-5KQ32-0AA0
	5	1250	750-12500	500-1250	1875-12500	3VA2612-5KQ32-0AA0
85kA at 415V Line protection ETU850 LSI	2A	25	15-250	10 -25	38-300	3VA2025-6KP32-0AA0
		40	24-400	16 - 40	60-480	3VA2040-6KP32-0AA0
		63	38-630	25 - 63	95-756	3VA2063-6KP32-0AA0
		100	60-1000	40 - 100	150-1200	3VA2010-6KP32-0AA0
		160	96-1600	63 - 160	240-1600	3VA2116-6KP32-0AA0
		250	150-2500	100 - 250	375-2500	3VA2225-6KP32-0AA0
	3	400	240-4000	160 - 400	600-4000	3VA2340-6KP32-0AA0
		630	378-5670	250 - 630	945-5670	3VA2463-6KP32-0AA0
85kA at 415V ETU860 LSIG	4	800	480-8000	320 - 800	1200-8000	3VA2580-6KQ32-0AA0
		1000	600-10000	400 - 1000	1500-10000	3VA2510-6KQ32-0AA0
	5	1250	750-12500	500-1250	1875-12500	3VA2612-6KQ32-0AA0

| With 5-series and 8-series electronic trip units, it is possible to set more parameters and to scale the selection of parameters more finely than on 3-series trip units.

ETU850 LSI = Electronic Trip Unit with LSI protection functions for 3P 3VA2 MCCBs includes following:
| Adjustable parameter settings Ir and tr for overload protection (L)
| Adjustable parameter settings Isd and tsd for short-time delayed short circuit protection (S)
| Adjustable parameter setting Ii for instantaneous short-circuit protection (I)
| Adjustable parameter settings Isd and tsd for short-time delayed short circuit protection (Isd)

3VA2 MCCBs Dimensions

FRAME SIZE (FS)	A (3P)	A (4P)	B	C	D
2A	105	140	181	86	107
3	138	184	248	110	137
4	210	280	320	120	253
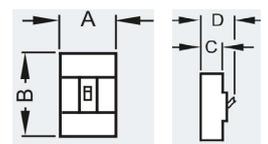
Note: All dimensions are in mm.

MCCB COMMUNICATION ACCESSORIES 3VA2

24V module ETU 5 & 8

PART NUMBER	TO SUIT	DESCRIPTION
3VA9187-0TB50	3VA20, 21 & 22	Optional 24V energy supply for ETU
3VA9387-0TB50	3VA23, 24 & 25	Optional 24V energy supply for ETU

COM 60 module (for communication with COM100/800)

3VA9187-0TB10	3VA20, 21 & 22	COM60 module (includes power supply, so external 24VDC not required)
3VA9387-0TB10	3VA23, 24 & 25	COM60 module (includes power supply, so external 24VDC not required)

Note: Mounts in right hand side of ETU, includes T connector & Cable

Breaker data server (ethernet with slot for optional Modbus RTU, Profibus DP or Profinet module)

3VA9987-0TA10	3VA2	COM800 for up to 8 3VA2 MCCB's
3VA9987-0TA20	3VA2	COM100 for one 3VA2 MCCB

Optional communication modules for breaker data server

7KM9300-0AB01-0AA0	COM100/800	Profibus DP expansion module
7KM9300-0AE02-0AA0	COM100/800	Profinet expansion module
7KM9300-0AM00-0AA0	COM100/800	RS485 Modbus RTU expansion module

Display

3VA9987-0TD10	3VA2	For displaying the status, measured values and parameters of up to 8 of 3VA2 moulded case circuit breakers

External function box

3VA9987-0UA10	3VA2	External function box for connection to the ETU, 4 digital outputs, 1 digital input The EFB300 external function box receives information from the ETU via a cable connection. This information can be used to output active trip alarms and tripping reasons (configurable using powerconfig) via four digital outputs.

Connection cables

3VA9987-0TC10	3VA2	Preassembled connecting cable 0.4m
3VA9987-0TC20	3VA2	Preassembled connecting cable 1.0m
3VA9987-0TC30	3VA2	Preassembled connecting cable 2.0m
3VA9987-0TC40	3VA2	Preassembled connecting cable 4.0m

Expansion modules
- 7KM PAC **PROFIBUS DP** 7KM9300-0AB01-0AA0
- 7KM **PAC Switched Ethernet PROFINET** 7KM9300-0AE01-0AA0
- 7KM **PAC RS485 Modbus RTU** 7KM9300-0AM00-0AA0

Connection cable for 3VA-line
Preassembled connecting cable for T-Connector – T-Connector or T-Connector – COM800/COM100

- 0,4 m   3VA9987-0TC10
- 1,0 m   3VA9987-0TC20
- 2,0 m   3VA9987-0TC30
- 4,0 m   3VA9987-0TC40

Communications modul COM060
For mounting in the right-hand accessories compartment of the 3VA2
Max.: FS250A: 3VA9187-0TB10
Min.: FS400A: 3VA9387-0TB10

Delivery incl. T-Connector

Extension cable for COM060
Preassembled connecting cable for extending the COM060-to-T-connector spur line connection
COM060 – T-Connector
- 0,4m   3VA9987-0TF20
- 0,8m   3VA9987-0TF10

24V DC

COM800/ COM100

3VA-line*

1…8
3VA2 molded case circuit breaker

* 3VA-line max. length 20m

Display DSP800
- For mounting in a cubicle door
- For displaying the status, measured values of up to 8 3VA2

- **DSP800:** 3VA9987-0TD10

COM800 / COM100 breaker data server
- DIN rail mounted
- Screw mounting

or

- **COM800:** 3VA9987-0TA10
- **COM100:** 3VA9987-0TA20

Delivery incl. 2 terminating resistors

Mounting options T-Conncetor
- Screw mounting M3
- Cable ties
- Cable duct

T-Connector (Spare part)
3VA9987-0TG10

MCCB ACCESSORIES - 3VA2

Auxiliary switches & alarm switches

PART NUMBER	TO SUIT	DESCRIPTION
3VA9988-0AA12	3VA2 3 & 4 Pole	1 C/O Auxiliary Switch 1 Module (HQ)
3VA9988-0AA11	3VA2 3 & 4 Pole	1 C/O Auxiliary Switch 2 Module (HP)
3VA9988-0AB12	3VA2 3 & 4 Pole	1 C/O Trip Alarm Switch 1 Module (HQ)
3VA9988-0AB11	3VA2 3 & 4 Pole	2 C/O Trip Alarm Switch 2 Module (HP)

Note: HP module can have two conductors per contact point for looping.

Shunt trips (left side)

3VA9988-0BL30	3VA2 3 & 4 Pole	24V AC/DC
3VA9988-0BL32	3VA2 3 & 4 Pole	110VAC
3VA9988-0BL33	3VA2 3 & 4 Pole	240VAC

Undervoltage release (left side)

3VA9908-0BB11	3VA2 3 & 4 Pole	24VDC
3VA9908-0BB25	3VA2 3 & 4 Pole	220-230 VAC

Door mounted rotary operator standard IP65 with door interlock padlocking with 300mm shaft

3VA9267-0FK21	3VA20,21 & 22 100, 160 & 250A	Includes - Handle, 300mm shaft and coupler
3VA9467-0FK21	3VA23 & 24 400 & 630A	Includes - Handle, 300mm shaft and coupler
3VA9687-0FK21	3VA25 800 & 1000A	Includes - Handle, 300mm shaft and coupler
3VW9727-0FK21	3VA27 1250 & 1600A	Includes - Handle, 300mm shaft and coupler

Note: Red/Yellow handles available, change FK21 to FK25 in part number.

Castell Interlocking Adaptors for 3VA1 Handles with no Tolerance Compensator
(no Keys or Locks supplied)

Handle Kit no Tolerance
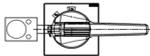
3VA9267-0FK61	3VA20,21 & 22 100, 160 & 250A	Includes - Handle, 300mm shaft and coupler
3VA9467-0FK61	3VA23 & 24 400 & 630A	Includes - Handle, 300mm shaft and coupler
3VA9687-0FK61	3VA25 & 26 800,1000 & 1250A	Includes - Handle, 300mm shaft and coupler

Interlock Components (to K-FSB-25.4-2**) ** = Key Code
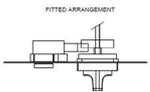
3VA-ILC8	3VA20 to 3VA24	Includes - Spacer and Cam for 8mm shaft
3VA-IL12	3VA25 & 26	Includes - Spacer and Cam for 12mm shaft

Terminal covers
(1 set = 1 unit)

3VA9221-0WD30	3VA20,21 & 22 100, 160 & 250A	Flush 3 Pole Cover
3VA9481-0WD30	3VA23 & 24 400 & 630A	Flush 3 Pole Cover
3VA9601-0WD30	3VA25 800,1000 & 1250A	Flush 3 Pole Cover
3VA9221-0WF30	3VA20,21 & 22 100, 160 & 250A	Extended 3 Pole Cover
3VA9481-0WF30	3VA23 & 24 400 & 630A	Extended 3 Pole Cover
3VA9601-0WF30	3VA25 800,1000 & 1250A	Extended 3 Pole Cover

Terminal covers - for offset extension bars (1 set = 1 unit)

3VA9221-0WG30	3VA20,21 & 22 100, 160 & 250A	Extended 3 Pole Cover for offset extension bars
3VA9481-0WG30	3VA23 & 24 400 & 630A	Extended 3 Pole Cover for offset extension bars

Padlock attachment (Not captive)

3VA9388-0LB10	3VA20,21,22,23 & 24	Locking device for toggle levers
3VA9588-0LB10	3VA25	Locking device for toggle levers

MCCB ACCESSORIES - 3VA2

Tunnel terminals (contains 3 single terminals)

PART NUMBER	TO SUIT	DESCRIPTION
3VA9163-0JA12	3VA20,1 & 2 100, 160 & 250A	Box Terminals up to 120 mm2
3VA9263-0JA12	3VA20,1 & 2 100, 160 & 250A	Box Terminals up to 185 mm2
3VA9483-0JA13	3VA23 & 4 400 & 630A	Box Terminals up to 300 mm2*

*Only up to 400A

Extension bars - straight

3VA9253-0QB00	3VA20,1 & 2 100, 160 & 250A	Three phase extension bar with two phase barriers
3VA9483-0QB00	3VA23 & 4 400 & 630A	Three phase extension bar with two phase barriers
3VA9603-0QB00	3VA25 800 & 1000A	Three phase extension bar with two phase barriers

Extension bars - offset

3VA9263-0QC00	3VA20,1 & 2 100, 160 & 250A	Three phase extension bar with two phase barriers
3VA9483-0QC00	3VA23 & 4 400 & 630A	Three phase extension bar with two phase barriers
3VA9603-0QC00	3VA25 800 & 1000A	Three phase extension bar with two phase barriers

Note: Distance between pole centers: 3VA20,1 & 2 100, 160 & 250A = 45 mm, 3VA23 & 4 400 & 630A = 70 mm.

RCD modules (type A)

3VA9123-0RL30	3VA20 & 1 100 & 160A	3P Bottom Mt., 0.03 to 30A, Time Delay to 10sec
3VA9223-0RL30	3VA22 250A	3P Bottom Mt., 0.03 to 30A, Time Delay to 10sec
3VA9323-0RL30	3VA23 400A	3P Bottom Mt., 0.03 to 30A, Time Delay to 10sec
3VA9423-0RL30	3VA24 630A	3P Bottom Mt., 0.03 to 30A, Time Delay to 10sec

3VA9124-0RL30	3VA20 & 1 100 & 160A	4P Bottom Mt., 0.03 to 30A, Time Delay to 10sec
3VA9224-0RL30	3VA22 250A	4P Bottom Mt., 0.03 to 30A, Time Delay to 10sec
3VA9324-0RL30	3VA23 400A	4P Bottom Mt., 0.03 to 30A, Time Delay to 10sec
3VA9424-0RL30	3VA24 630A	4P Bottom Mt., 0.03 to 30A, Time Delay to 10sec

Note: Suitable for single phase applications.

Motor operator without stored energy operator (MO320)

3VA9267-0HA10	3VA20,1 & 2 100, 160 & 250A	24 to 60VDC Front Mount
3VA9467-0HA10	3VA23 & 4 400 & 630A	24 to 60VDC Front Mount
3VA9267-0HA20	3VA20,1 & 2 100, 160 & 250A	110 to 230VAC, 110 to 250VDC Front Mount
3VA9467-0HA20	3VA23 & 4 400 & 630A	110 to 230VAC, 110 to 250VDC Front Mount

Motor operator with stored energy operator (SEO520)

3VA9267-0HC10	3VA20,1 & 2 100, 160 & 250A	24VDC Front Mount
3VA9267-0HC20	3VA20,1 & 2 100, 160 & 250A	42 to 60V AC/DC Front Mount
3VA9267-0HC30	3VA20,1 & 2 100, 160 & 250A	110 to 230VAC, 110 to 250VDC Front Mount
3VA9467-0HC10*	3VA23 & 4 400 & 630A	24VDC Front Mount
3VA9467-0HC20*	3VA23 & 4 400 & 630A	42 to 60V AC/DC Front Mount
3VA9467-0HC30*	3VA23 & 4 400 & 630A	110 to 230VAC, 110 to 250VDC Front Mount

Motor operator with stored energy operator (SEO520) with Communication Link

3VA9267-0HC15	3VA20,1 & 2 100, 160 & 250A	24VDC Front Mount
3VA9267-0HC35	3VA20,1 & 2 100, 160 & 250A	110 to 230VAC, 110 to 250VDC Front Mount
3VA9467-0HC15*	3VA23 & 4 400 & 630A	24VDC Front Mount
3VA9467-0HC35*	3VA23 & 4 400 & 630A	110 to 230VAC, 110 to 250VDC Front Mount

* Should be product version E06 or higher

Test Devices for 3VA2 ETU's (Not for 3VA27)

3VA9987-0MA10	TD300 test device for activation of the ETU 5 & 8 and initiation of a test tripping operation on ETU 3,5 & 8
3VA9987-0MB10	| A TD500 test device via powerconfig can be used to successively parameterize all 3VA2 molded case circuit breakers directly in situ. | USB interface for connecting a PC with SENTRON powerconfig | Includes external power supply | The device can store up to 100 test results. | Using the TD500 test device and the powerconfig software, it is possible to read out all diagnostic data of the 3VA2 molded case circuit breaker either digitally or as a hardcopy. | Test functions can be performed directly on the PC with the powerconfig software.

MCCB ENCAPSULATED CHASSIS 630A - 800A

630A EHC2 Chassis (suits 3VA12, 3VA20, 21 and 22 frames)
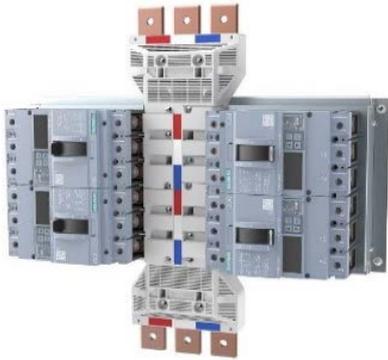
DOUBLE SIDED		LEFT / RIGHT HAND SIDED	
6	EHC26306◆	3	EHC2630LH03◆
12	EHC263012◆	6	EHC2630LH06◆
18	EHC263018◆	9	EHC2630LH09◆
24	EHC263024◆	12	EHC2630LH12◆
30	EHC263030◆	15	EHC2630LH15◆
36	EHC263036◆	18	EHC2630LH18◆
42	EHC263042◆	21	EHC2630LH21◆
48	EHC263048◆	24	EHC2630LH24◆
60	EHC263060◆	30	EHC2630LH30◆
72	EHC263072◆	36	EHC2630LH36◆

Universal Feed
Top Feed
Bottom Feed

U
T
B

Universal Feed
Top Feed
Bottom Feed

U
T
B

Replace LH with RH for Right Hand side

800A EHC2 Chassis (suits 3VA12, 3VA20, 21 and 22 frames)
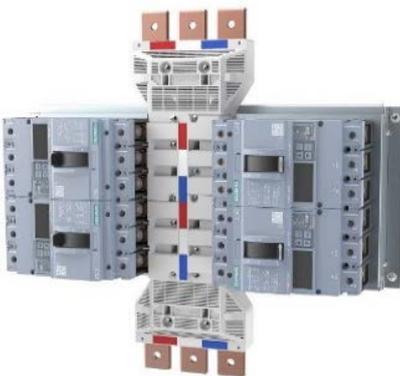
DOUBLE SIDED		LEFT / RIGHT HAND SIDED	
6	EHC28006◆	3	EHC2800LH03◆
12	EHC280012◆	6	EHC2800LH06◆
18	EHC280018◆	9	EHC2800LH09◆
24	EHC280024◆	12	EHC2800LH12◆
30	EHC280030◆	15	EHC2800LH15◆
36	EHC280036◆	18	EHC2800LH18◆
42	EHC280042◆	21	EHC2800LH21◆
48	EHC280048◆	24	EHC2800LH24◆
60	EHC280060◆	30	EHC2800LH30◆
72	EHC280072◆	36	EHC2800LH36◆

Universal Feed
Top Feed
Bottom Feed

U
T
B

Universal Feed
Top Feed
Bottom Feed

U
T
B

Replace LH with RH for Right Hand side

MCCB ENCAPSULATED CHASSIS 630A - 800A

630A EHC2 Chassis (suits 3VA12, 3VA20, 21 and 22 frames)

POLES	DIMENSIONS MM					
	A UNIVERSAL	A TOP/BOTTOM	B	C	D	E
6	393	268	137	117	105	107
12	498	373	242	222	210	212
18	603	478	347	327	315	317
24	708	583	452	432	420	422
30	813	688	557	537	525	527
36	918	793	662	642	630	632
42	1023	898	767	747	735	737
48	1128	1003	872	852	840	842
60	1338	1213	1082	1062	1050	1052
72	1548	1423	1292	1272	1260	1262
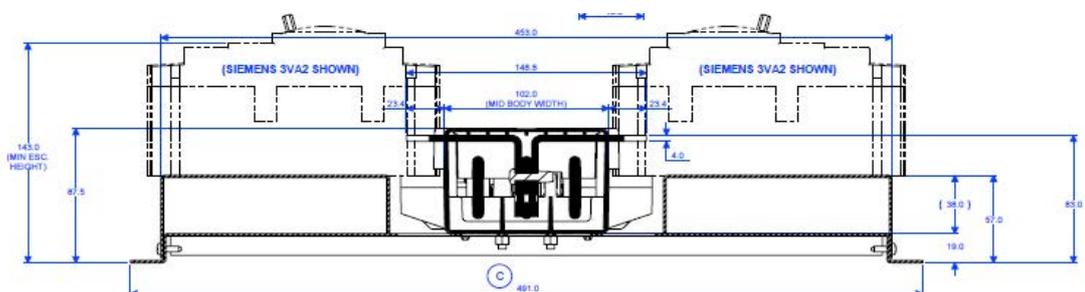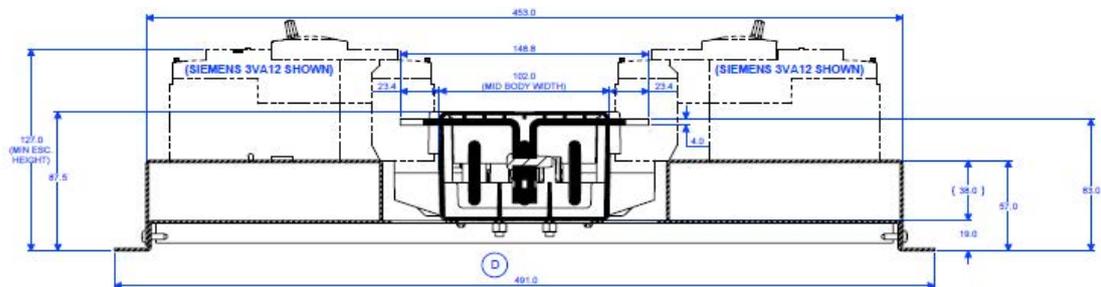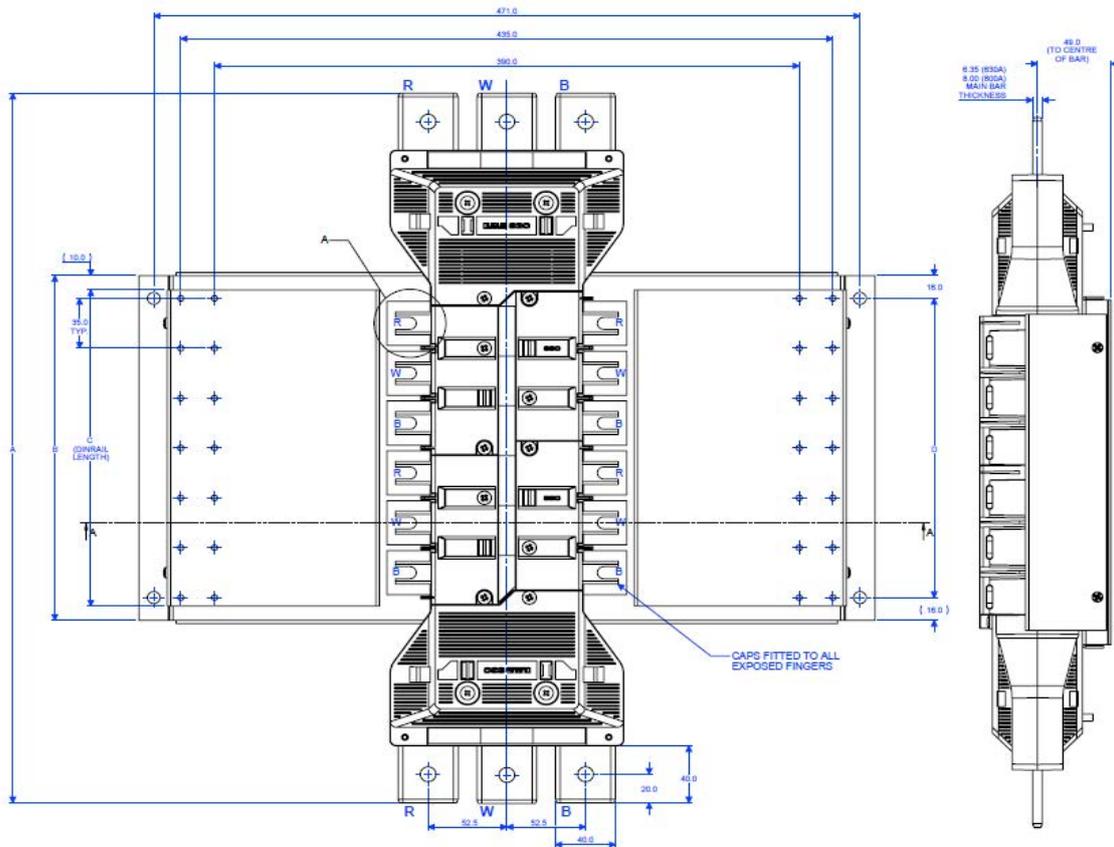
POWER METERS

PAC2200 - The energy meter solution for DIN rail mounting

PART NUMBER	TYPE	CONTROL VOLTAGE	DESCRIPTION
7KM2200-2EA30-1DA1	PAC2200	Self Powered	Measurement Via 1 A or 5 A CTs Modbus RTU Active/Reactive Energy Class 1
7KM2200-2EA30-1EA1	PAC2200	Self Powered	Measurement Via 1 A or 5 A CTs Modbus TCP Active/Reactive Energy Class 1

PAC1020- The cost-effective entry into power measurement and transparency

7KM1020-0BA01-1DA0	PAC1020	85V - 276V AC	Measurement Via 1 A or 5 A CTs Modbus RTU Active Energy Class 1

PAC3120 - The cost-effective solution for digital measurement

7KM3120-0BA01-1DA0	PAC3120	100 - 250V AC/DC	RS485 Communications, 2 x Digital I/O Class 0.5 For Active Energy,
7KM3120-1BA01-1EA0	PAC3120	22 - 60V DC	RS485 Communications, 2 x Digital I/OClass 0.5 For Active Energy,

PAC3220 - The specialist solution for precise energy measurement

7KM3220-0BA01-1DA0	PAC3220	100 - 250V AC/DC	Ethernet Modbus TCP Port, 2 Tarrif, 2 x Digital I/O Class 0.5S For Active Energy
7KM3220-1BA01-1EA0	PAC3220	22 - 60V DC	Ethernet Modbus TCP Port, 2 Tarrif, 2 x Digital I/O Class 0.5S For Active Energy

PAC4200 - The professional solution for communication and monitoring

7KM4212-0BA00-3AA0	PAC4200	95-240V AC 110-340V DC	Ethernet Modbus TCP Port, 2 Tarrif, Class 0.2S For Active Energy, Modbus Gateway, Clock/Calender Aux supply 95-240VAC 50/60HZ / 110-340VDC

PAC5200 - The specialist solution for measured value recording and power supply quality

7KM5412-6BA00-1EA2	PAC5200	95-230V AC 24-250V DC	Ethernet Modbus TCP Port and web interface Class 0.2S For Active Energy

Note - PAC 31, 32, 42, 51 & 52 are Panel Mount 96x96mm and all of the above PAC meters require CT's

Expansion modules for PAC Meters

PART NUMBER	SUITS	DESCRIPTION
7KM9300-0AB01-0AA0	PAC3220 & 4200	Profibus
7KM9300-0AE02-0AA0	PAC3220 & 4200	Profinet (has 2 ports)
7KM9300-0AM00-0AA0	PAC3220 & 4200	Modbus
7KM9200-0AB00-0AA0	PAC3220 & 4200	Expansion module 4 DI / 2 DO

7KT PAC1200 multichannel current measuring system

The 7KT PAC1200 multichannel current measuring system monitors and displays the energy consumption of up to 96 outgoing feeders. The Data Manager can supply up to eight sensor bars. The full configuration would thus be 8 sensor bars with 12 sensors each.

The system makes energy consumption and the resulting costs transparent for a given installation.

The system can be adapted to individual needs and application scenarios. In addition, single sensors can be named individually and compared with each other.

The system can also be configured flexibly as the number of sensor bars can be varied.

Up to eight different, selectable consumption sources can be compared with each other.

The measured values can be displayed via a Web browser. Both current values and statistical values can be displayed here. Display is possible in an application for mobile terminal devices, as a desktop application, or in powermanager.

Statistical values can be collected over different time periods and exported via a CSV file.

PART NUMBER	DESCRIPTION
7KT1260	7KT PAC1200 data manager, 3-phase active power and reactive power energy measurement Direct connection up to 63 A Optional use with external measuring transformer for extending the measuring range (eg. 100-600A) Operator input/configuration: Web interface Support of up to 96 sensors for single-phase measurement
7KT1233	3 sensor bar for PAC1200 system
7KT1236	6 sensor bar for PAC1200 system
7KT1238	9 sensor bar for PAC1200 system
7KT1242	12 sensor bar for PAC1200 system
7KT1254	Sensor (CT) 40A
7KT1255	Sensor (CT) 63A

POWER METERS

SENTRON PORTFOLIO FOR POWER MONITORING	PAC2200 THE ENERGY METER SOLUTION FOR DIN RAIL	PAC3120 THE COST-EFFECTIVE SOLUTION FOR DIGITAL MEASUREMENT	PAC3220 THE SPECIALIST SOLUTION FOR PRECISE ENERGY MEASUREMENT	PAC4200 THE PROFESSIONAL SOLUTION FOR COMMUNICATION AND MONITORING	PAC5200 THE SPECIALIST SOLUTION FOR MEASURED VALUE RECORDING
U, I, P, f, λ	x	x	x	x	x
Apparent | active | reactive energy | cosφ	x | x | x | –	x | x | x | x	x | x | x | x	x | x | x | x	x | x | x | x
Maximum input voltage L-L / L-N	480 V / 277 V	690 V / 276 V	690 V / 400 V	690 V / 400 V	690 V / 400 V galvanically separated
Current transformer connection | direct measuring	x | x (up to 65 A)	x | –	x | –	x | –	x | –
DI / DO	1/1	2/2	2/2 (10/6 with expansion Module)	2/2 (10/6 with expansion Module)	0/2
Integrated communication	Modbus TCP Modbus RTU M-Bus	Modbus RTU	Modbus TCP	Modbus TCP	Modbus TCP
Communication via expansion module	–	–	Modbus RTU PROFINET PROFIBUS	Modbus RTU PROFINET PROFIBUS	–
I(N), I(Diff)	–	–	with expansion module	with expansion module	–
Analog input	–	–	with expansion module	with expansion module	–
Load profile record	–	–	–	x	x
Software interfaces	Webinterface, powerconfig, powermanager	powerconfig, powermanager	Webinterface, SIMATIC Energy Suite, SIMATIC Energy Manager PRO, powerconfig, powermanager	Webinterface, SIMATIC Energy Suite, SIMATIC Energy Manager PRO, powerconfig, powermanager	Webinterface, powerconfig, powermanager
THD | Flicker, fault recorder,	– | –	x | –	x | –	x | –	x | x (5200)
Harmonics	–	–	–	1. ... 64.	2. ... 40.
Customizable display	–	–	x	x	x
Accuracy class active energy | reactive energy	1 | 1	0.5 | 2	0.5 S | 2	0.2 S | 2	0.5 S | 2
Dimensions WxHxD mm	90 x 108 x 64	96 x 96 x 56	96 x 96 x 56	96 x 96 x 82	96 x 96 x 100

PAC1200 System

① Mobile terminal device
② Web browser
③ powermanager
④ Power distribution
⑤ Device for which current is being monitored
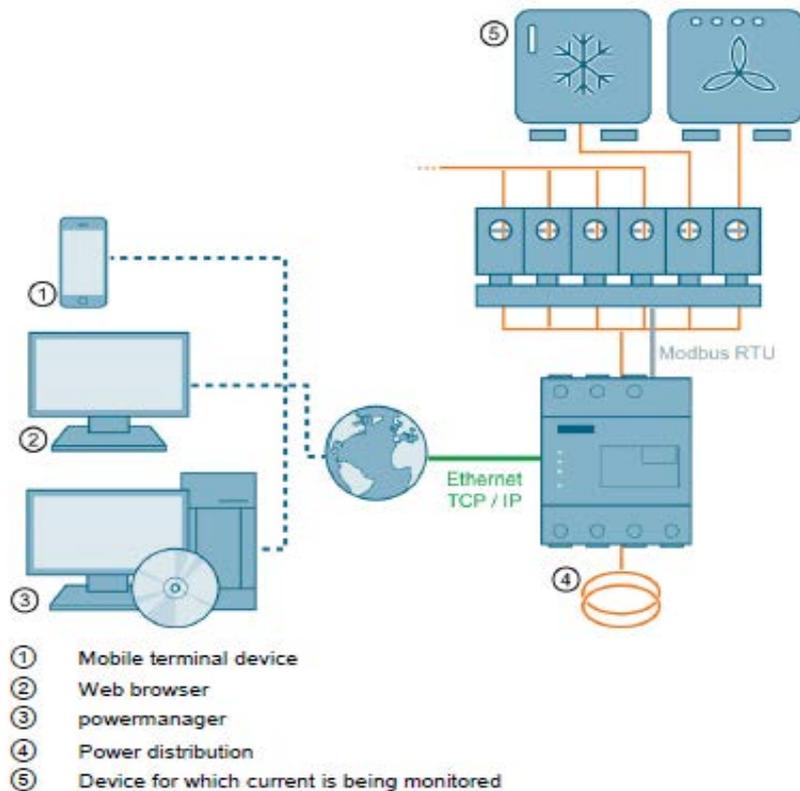
DISCONNECTION SWITCHES 63-2000A (3KD)

Switch - no handle and operating mechanism on the left

PART NUMBER	RATED CURRENT	FRAME SIZE	DESCRIPTION	RATED SHORT TIME WITHSTAND CURRENT (ICW) 1 SEC 1000VAC
3KD2630-2ME10-0	63A	1	3 Pole Disconnector with Box Terminals	3kA
3KD2830-0NE10-0	80A	2	3 Pole Disconnector with Lug Connections	4kA
3KD3030-0NE10-0	100A	2	3 Pole Disconnector with Lug Connections	4kA
3KD3230-0NE10-0	125A	2	3 Pole Disconnector with Lug Connections	4kA
3KD3430-0NE10-0	160A	2	3 Pole Disconnector with Lug Connections	4kA
3KD3630-0NE10-0	200A	2	3 Pole Disconnector with Lug Connections	4kA
3KD3630-0PE10-0	200A	3	3 Pole Disconnector with Lug Connections	13kA
3KD3830-0NE10-0	250A	2	3 Pole Disconnector with Lug Connections	4kA
3KD3830-0PE10-0	250A	3	3 Pole Disconnector with Lug Connections	13kA
3KD4030-0PE10-0	315A	3	3 Pole Disconnector with Lug Connections	13kA
3KD4230-0PE10-0	400A	3	3 Pole Disconnector with Lug Connections	13kA
3KD4430-0QE10-0	500A	4	3 Pole Disconnector with Lug Connections	30kA
3KD4630-0QE10-0	630A	4	3 Pole Disconnector with Lug Connections	30kA
3KD4830-0QE10-0	800A	4	3 Pole Disconnector with Lug Connections	30kA
3KD5030-0RE10-0	1000A	5	3 Pole Disconnector with Lug Connections	55kA
3KD5230-0RE10-0	1250A	5	3 Pole Disconnector with Lug Connections	55kA
3KD5430-0RE10-0	1600A	5	3 Pole Disconnector with Lug Connections	55kA
3KD5630-0RE10-0	2000A	5	3 Pole Disconnector with Lug Connections	55kA

The 3KD switch disconnectors are designed for floor mounting and the sizes 1 and 2 can optionally also be mounted on DIN rails

Handles - rotary door operating mechanisms, padlockable

PART NUMBER	FRAME SIZE	DESCRIPTION
8UD1171-2AF21	1/2	Door Handle Grey With 300mm Shaft
8UD1141-2AF21	3	Door Handle Grey With 300mm Shaft
8UD1151-3AF21	4	Door Handle Grey With 300mm Shaft
8UD1161-4AF21	5	Door Handle Grey With 300mm Shaft

Note: Red/Yellow handles available, change AF21 to AF25 in part number.

Handles - direct operating mechanisms

3KD9101-1	1	Direct Handle Grey
3KD9201-1	2	Direct Handle Grey
3KD9301-1	3	Direct Handle Grey
3KD9401-1	4	Direct Handle Grey
3KD9501-1	5	Direct Handle Grey

3KD ACCESSORIES

Auxiliary contacts

3KD9103-5	1/2	S1/2 AUX Switch Holder Up To 2 Switches
3KD9103-1	1/2	AUX Switch 1 C/O for Holder (50cm cables)
3SU1400-1AA10-1FA0	3 to 5	Auxiliary contact 1 NO+1 NC (no holder required)

4th Pole

3KD9205-0	2	4TH Contact, Switchable with Lug Connections
3KD9205-2	2	4TH Contact, Switchable with Lug Connections
3KD9305-0	3	4TH Contact, Switchable with Lug Connections
3KD9405-0	4	4TH Contact, Switchable with Lug Connections
3KD9505-0	5	4TH Contact, Switchable with Lug Connections

Terminal covers

3KD9204-6	2	Standard Cover 6 Pieces
3KD9304-6	3	Standard Cover 6 Pieces
3KD9404-6	4	Standard Cover 6 Pieces
3KD9504-6	5	Standard Cover 6 Pieces

Phase barriers

3KD9308-6	3	Phase Barrier Contains 6 Pieces
3KD9408-6	4	Phase Barrier Contains 6 Pieces
3KD9508-6	5	Phase Barrier Contains 6 Pieces

PANEL MOUNT AND ENCLOSED ISOLATING SWITCHES 16 TO 630A

3 Pole panel mount switch with red / yellow handle

PART NUMBER	AC21 RATING	AC23 RATING	DESCRIPTION
3LD3054-0TK53	16A	7.5kW	Front plate mounting with Central hole mounting 22.5mm
3LD3154-0TK53	25A	9.0kW	Front plate mounting with Central hole mounting 22.5mm
3LD3254-0TK53	32A	11.5kW	Front plate mounting with Central hole mounting 22.5mm
3LD3354-0TK53	40A	18.5kW	Front plate mounting with Central hole mounting 22.5mm
3LD3454-0TK53	63A	22.0kW	Front plate mounting with Central hole mounting 22.5mm
3LD2704-0TK53	100A	37.0kW	Front plate mounting with 4-hole mounting of the handle

4 Pole (3P + N) panel mount switch with red / yellow handle

3LD3054-0TL53	16A	7.5kW	Front plate mounting with Central hole mounting 22.5mm
3LD3154-0TL53	25A	9.0kW	Front plate mounting with Central hole mounting 22.5mm
3LD3254-0TL53	32A	11.5kW	Front plate mounting with Central hole mounting 22.5mm
3LD3354-0TL53	40A	18.5kW	Front plate mounting with Central hole mounting 22.5mm
3LD3454-0TL53	63A	22.0kW	Front plate mounting with Central hole mounting 22.5mm

Accessories

3LD9340-0B			Neutral switch leading contact for front mount 16 to 63A 3LD3
3LD9340-2B			Neutral terminal contact for front mount 16 to 63A 3LD3
3LD9340-3B			PE terminal contact for front mount 16 to 63A 3LD3
3LD9340-6B			1 NO + 1 NC Auxiliary contact for front mount 16 to 63A 3LD3
3LD9341-0A			Terminal cover for 3 pole 3LD3 16 to 63A
3LD9341-2A			Terminal cover for neutral terminal 3LD3 16 to 63A

| Degree of protection at front side IP65
| Including terminal cover for the infeed side
| Front plate 66 x 66 mm

AUTOMATIC TRANSFER CONTROL DEVICES

SENTRON ATC3100

The 3KC ATC3100 transfer control device offers customers flexible and fast commissioning for implementing simple applications. The 3KC ATC3100 can be mounted in a control cabinet door, on a standard rail or on a rear panel without additional accessories. By default, the transfer control device supplied with a lockable safety cover (IP41). The connecting cable is pre-assembled to assist in fast cabling.
The 3KC ATC3100 can be configured without software and automatic changeover applications can be implemented with ease.

For use with Siemens 3WL/3WA/3WT ACB's and 3VA MCCB's

PART NUMBER	DESCRIPTION
3KC9000-8EL10	Controller - Note 24VDC power supply is needed
3KC9000-8EL62	1.8m Connecting cable

Note: The 3KC9000-8EL62 connecting cable is required with the 3KC9000-8EL10

SENTRON ATC6300

The SENTRON ATC6300 is ideally suited for low voltage power supplies thanks to its wide voltage range covering 100 to 480V. SENTRON ATC6300 allows the implementation of an automatic transfer control unit in conjunction with compact molded case circuit breakers MCCB, air circuit breakers ACB, switch disconnectors LBS, or contactors.
The 3KC ATC6300 can be integrated into a communication environment using expansion modules. For communication, the 3KC ATC6300 supports Modbus RTU, Modbus TCP as well as Modbus ASCII protocols via the optional RS 485 and Ethernet interfaces.

The 3KC ATC6300 offers the following metering functions:

| Phase sequence
| Phase failure
| Minimum / maximum voltage
| Minimum / maximum frequency
| Voltage unbalance

For use with Siemens 3KC3 and 3KC4 Remote Transfer Switches, 3WL/3WA/3WT ACB's and 3VA MCCB's

PART NUMBER	DESCRIPTION
3KC9000-8TL40	Controller 100 to 240 V AC, 45 ... 65 Hz

SENTRON ATC6500

The 3KC ATC6500 transfer control device can do everything the 3KC ATC6300 can.
The 3KC ATC6500 also offers the option of controlling an additional tie breaker (eg. 2 sources and a bustie)
It can be used to implement a wide range of applications with critical load management. Load shedding of non-critical loads can therefore be implemented.
The ATC6500 also features a permanently integrated RS 485 interface.

For use with Siemens 3WL10, 3WL/3WA/3WT ACB's and 3VA MCCB's:

PART NUMBER	DESCRIPTION
3KC9000-8TL50	Controller 100 to 240 V AC, 45 ... 65 Hz

ACCESSORIES for ATC6300 & 6500

PART NUMBER	DESCRIPTION
3KC9000-8TL60	Expansion module 4 digital inputs
3KC9000-8TL63	Expansion module 2 relay outputs
3KC9000-8TL64	Expansion module 2 digital inputs and 2 relay outputs
3KC9000-8TL74	ATC6 RS 485 expansion module
3KC9000-8TL75	ATC6 Ethernet expansion module

BASIC TRANSFER SWITCHES, 3VA MCCBS

Two of 3VA MCCB's with motor operators pre-assembled and wired on a mounting plate complete with walking beam interlock.
Standard units include 230VAC operating motors and shunt trips, other voltage available on request.
3 Pole / 4 Pole units available on request.
3VA2 with Electronic Trip Unit available

55kA Thermal Magnetic protection using 3VA1 MCCB

IN CURRENT RATING	PART NUMBER 3 POLE / 3 POLE	PART NUMBER 4 POLE / 4 POLE
63A	APSBTS-11635EF-33	APSBTS-11635EF-44
100A	APSBTS-11105EF-33	APSBTS-11105EF-44
160A	APSBTS-11165EF-33	APSBTS-11165EF-44
250A	APSBTS-12255EF-33	APSBTS-12255EF-44
320A	APSBTS-13325EF-33	APSBTS-13325EF-44
400A	APSBTS-13405EF-33	APSBTS-13405EF-44
630A	APSBTS-14635EF-33	APSBTS-14635EF-44

70kA Thermal Magnetic protection using 3VA1 MCCB

63A	APSBTS-11636EF-33	APSBTS-11636EF-44
100A	APSBTS-11106EF-33	APSBTS-11106EF-44
160A	APSBTS-11166EF-33	APSBTS-11166EF-44
250A	APSBTS-12256EF-33	APSBTS-12256EF-44
315A	APSBTS-13326EF-33	APSBTS-13326EF-44
400A	APSBTS-13406EF-33	APSBTS-13406EF-44
630A	APSBTS-14636EF-33	APSBTS-14636EF-44
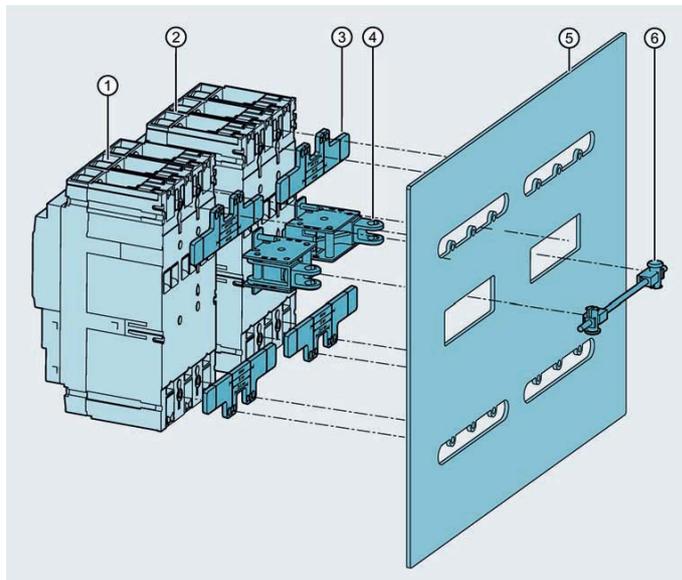
1	Molded case circuit breaker 1
2	Molded case circuit breaker 2
3	Mounting accessories
4	Interlocking modules
5	Panel mounting plate
6	Interlocking rod
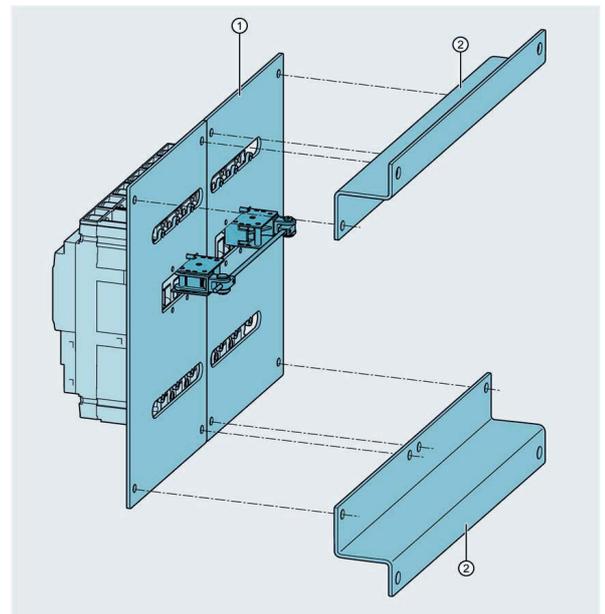
1	Mounting plates (specific to molded case circuit breaker)
2	Mounting rail

MANUAL TRANSFER SWITCHES 32-1600A (3KC)

Manual transfer switch - no handle
3 POLE / 3 POLE
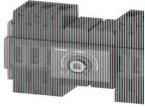
PART NUMBER	RATED CURRENT	SIZE	ICW (1S) 415V	ICM	TERMINALS
3 POLE / 3 POLE					
3KC0322-2ME00-0AA0	32A	1	3kA	7kA	Box
3KC0326-2ME00-0AA0	63A	1	3kA	7kA	Box
3KC0328-2NE00-0AA0	80A	2	4kA	12kA	Lug
3KC0330-2NE00-0AA0	100A	2	4kA	12kA	Lug
3KC0334-2NE00-0AA0	160A	2	4kA	12kA	Lug
3KC0336-0PE00-0AA0	200A	3	13kA	26kA	Lug
3KC0338-0PE00-0AA0	250A	3	13kA	26kA	Lug
3KC0340-0PE00-0AA0	315A	3	13kA	26kA	Lug
3KC0342-0PE00-0AA0	400A	3	13kA	26kA	Lug
3KC0344-0QE00-0AA0	500A	4	30kA	63kA	Lug
3KC0346-0QE00-0AA0	630A	4	30kA	63kA	Lug
3KC0348-0QE00-0AA0	800A	4	30kA	63kA	Lug
3KC0350-0RE00-0AA0	1000A	5	50kA	105kA	Lug
3KC0352-0RE00-0AA0	1250A	5	50kA	105kA	Lug
3KC0354-0RE00-0AA0	1600A	5	50kA	105kA	Lug

PART NUMBER	RATED CURRENT	SIZE	ICW (1S) 415V	ICM	TERMINALS
4 POLE / 4 POLE					
3KC0422-2ME00-0AA0	32A	1	3kA	7kA	Box
3KC0426-2ME00-0AA0	63A	1	3kA	7kA	Box
3KC0428-2NE00-0AA0	80A	2	4kA	12kA	Lug
3KC0430-2NE00-0AA0	100A	2	4kA	12kA	Lug
3KC0434-2NE00-0AA0	160A	2	4kA	12kA	Lug
3KC0436-0PE00-0AA0	200A	3	13kA	26kA	Lug
3KC0438-0PE00-0AA0	250A	3	13kA	26kA	Lug
3KC0440-0PE00-0AA0	315A	3	13kA	26kA	Lug
3KC0442-0PE00-0AA0	400A	3	13kA	26kA	Lug
3KC0444-0QE00-0AA0	500A	4	30kA	63kA	Lug
3KC0446-0QE00-0AA0	630A	4	30kA	63kA	Lug
3KC0448-0QE00-0AA0	800A	4	30kA	63kA	Lug
3KC0450-0RE00-0AA0	1000A	5	50kA	105kA	Lug
3KC0452-0RE00-0AA0	1250A	5	50kA	105kA	Lug
3KC0454-0RE00-0AA0	1600A	5	50kA	105kA	Lug

Short-time withstand current (Icw, 1 s, 415 V / 690 V) in compliance with IEC 60947-3
Short-circuit current making capacity (Icm, 690 V) in compliance with IEC 60947-3

MANUAL TRANSFER SWITCHES 32-1600A (3KC) ACCESSORIES

Direct mount handles

PART NUMBER	SIZE	DESCRIPTION
3KC9201-3	1/2	Size 1/2 Direct Operating Handle for 3KC
3KC9301-1	3	Size 3 Direct Operating Handle for 3KC
3KC9401-1	4	Size 4 Direct Operating Handle for 3KC
3KC9501-1	5	Size 5 Direct Operating Handle for 3KC

Door mount handle kits with 300mm shaft

8UD1131-2AE21	1/2	Size 1 & 2 Rotary Door Operating Handle 8x8mm shaft
8UD1141-2AE21	3	Size 3 Rotary Door Operating Handle 8x8mm shaft
8UD1151-3AE21	4	Size 4 Rotary Door Operating Handle 10x10mm shaft
8UD1161-4AE21	5	Size 5 Rotary Door Operating Handle 12x12mm shaft

Auxiliary contacts

3KD9103-5	1/2	S1/2 Aux Switch holder up to 2 switches
3KD9103-1	1/2	Auxiliary Switch 1 C/O to go with holder (50cm Cables)
3SU1400-1AA10-1FA0	3-5	Auxiliary contact 1 NO+1 NC (no holder required)

Note

The auxiliary switches indicate the switch position of the respective switch disconnector (I or II) to which they or the auxiliary switch module are connected.

Two auxiliary switches in total are required for each item of transfer switching equipment in order to be able to distinguish between all switching positions (I, 0, II). In the case of transfer switching equipment sizes 1 and 2, two auxiliary switch modules must be mounted on the transfer switching equipment, one on the left and one on the right.

At least one auxiliary switch must be installed for each auxiliary switch module.

In the case of transfer switching equipment sizes 3 to 5, the two auxiliary switches only need to be mounted in different rows on the underside of the transfer switching equipment, one auxiliary switch at switch disconnector I and one at switch disconnector II.

Terminal covers
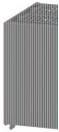
3KF9304-6	3	Standard Cover 6 Units for 3 Pole Switch
3KD9404-6	4	Standard Cover 6 Units for 3 Pole Switch
3KD9504-6	5	Standard Cover 6 Units for 3 Pole Switch
3KF9304-8	3	Standard Cover 8 Units for 4 Pole Switch
3KD9404-8	4	Standard Cover 8 Units for 4 Pole Switch
3KD9504-8	5	Standard Cover 8 Units for 4 Pole Switch

Bridging bars

3KC9118-1	1	Bridging Bar for Size 1 - 3 Pole (1 required)
3KC9118-2	1	Bridging Bar for Size 1 - 4 Pole (1 required)
3KC9218-1	2	Bridging Bar for Size 2 - 3 Pole (1 required)
3KC9218-2	2	Bridging Bar for Size 2 - 4 Pole (1 required)
3KC9318-0	3	Bridging Bar for Size 3, 1 Pole only (3 required for 3 Pole)
3KC9418-0	4	Bridging Bar for Size 4, 1 Pole only (3 required for 3 Pole)
3KC9518-0	5	Bridging Bar for Size 5, 1 Pole only (3 required for 3 Pole)

REMOTE (RTSE) AND AUTOMATIC (ATSE) TRANSFER SWITCHING EQUIPMENT

The 3KC transfer switching equipment offers reliable switchover between two current sources.

Remote transfer switching equipment (RTSE) 3KC3 3KC4

Remote transfer switching equipment is used wherever automatic remote switching is required, but there is already a separate controller (e.g. ATC6300 controller) in the plant. Remote transfer switching equipment consists of two switch disconnectors fused into one, forming an intrinsic electrical interlock.

Automatic transfer switching equipment (ATSE) 3KC6 3KC8

Automatic transfer switching equipment with motorized operating mechanisms and internal controllers are used as complete devices wherever automatic remote switching is required and a separate controller is not available. 3KC automatic transfer switching equipment is approved in compliance with IEC 60947-6-1.

FUNCTION	3KC3	3KC6	3KC4	3KC8
Remotely operated transfer switching (RTSE)	✓	-	✓	-
Automatic transfer switching (ATSE)	-	✓	-	✓
Load transfer switching (between two loads)	✓	-	-	-
Network / network applications	✓ 1)	✓	✓	✓
Generator/generator applications	✓ 1)	-	✓ 1)	-
Network / generator applications	✓ 1)	-	✓ 1)	✓
External power supply	✓	-	✓	-
Internal power supply	-	✓	-	✓
Manual operation of positions I, 0 and II	✓	✓	✓	✓
Remotely operated electrical actuation of positions I, 0 and II	✓	-	✓	✓
Monitoring of phase sequence in sources I and II	-	-	-	✓
Monitoring of voltage and frequency in sources I and II	-	✓	-	✓
Configuration of control unit using potentiometer and DIP switch	-	✓	-	✓
Setting of operating voltage and frequency, voltage threshold, frequency threshold	-	✓	-	✓2)
Operation with or without priority	-	✓	✓	✓
Selection of the prioritized source	-	✓	-	✓
Adjustable switching time	-	✓	-	✓
Actuation mode: impulse or continuous operation logic	✓	-	✓	✓
Actual switch position visible in two places	✓	✓	✓	✓
LED display for source availability, automatic mode, fault indication	-	✓	-	✓
Display of source availability (via output)	-	✓	-	-
Inhibiting of automatic mode (via inputs)	-	✓	-	✓
Actuation of position 0 (via inputs)	✓	✓	✓	✓
Power supply via 2 inputs (internal dual power supply)	-	✓	-	✓
Test on-load (network/generator application) (via inputs)	-	-	-	✓
Test off-load (network/generator application) (via inputs)	-	-	-	✓

1) Possible with an appropriate, separate transfer control device
2) Self-configuration of voltage and frequency settings

REMOTE/AUTOMATIC TRANSFER SWITCHES 40-3200A

Remote transfer switch (controller required)

| 3KC3 and 4 suitable for network to network, generator to generator, network to generator applications

CURRENT RATING	PART NUMBER (3 POLE)	PART NUMBER (4 POLE)	TERMINALS
40A	-	3KC3424-2AA22-0AA3	Box
63A	-	3KC3426-2AA22-0AA3	Box
80A	-	3KC3428-2AA22-0AA3	Box
100A	-	3KC3430-2AA22-0AA3	Box
125A	-	3KC3432-2AA22-0AA3	Box
160A	-	3KC3434-2AA22-0AA3	Box
250A	3KC4338-0CA21-0AA3	3KC4438-0CA21-0AA3	Lug
400A	3KC4342-0DA21-0AA3	3KC4442-0DA21-0AA3	Lug
630A	3KC4346-0EA21-0AA3	3KC4446-0EA21-0AA3	Lug
800A	3KC4348-0FA21-0AA3	3KC4448-0FA21-0AA3	Lug
1000A	3KC4350-0FA21-0AA3	3KC4450-0FA21-0AA3	Lug
1250A	3KC4352-0GA21-0AA3	3KC4452-0GA21-0AA3	Lug
1600A	3KC4354-0HA21-0AA3	3KC4454-0HA21-0AA3	Lug
2000A	3KC4356-0JA21-0AA3	3KC4456-0JA21-0AA3	Lug
2500A	3KC4358-0JA21-0AA3	3KC4458-0JA21-0AA3	Lug
3200A	3KC4360-0JA21-0AA3	3KC4460-0JA21-0AA3	Lug

Three-phase 3-wire network without neutral for the 3KC3
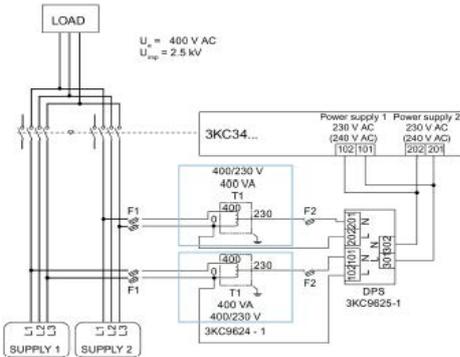
Three-phase 4-wire network with neutral for 3KC3
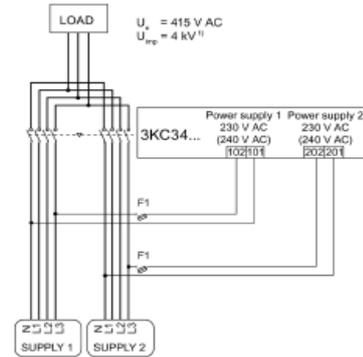
Three-phase 3-wire network without neutral for the 3KC4
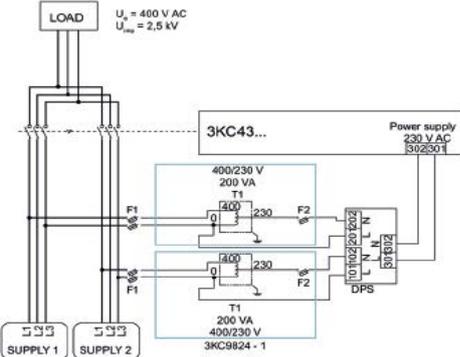
Three-phase 4-wire network with neutral for the 3KC44
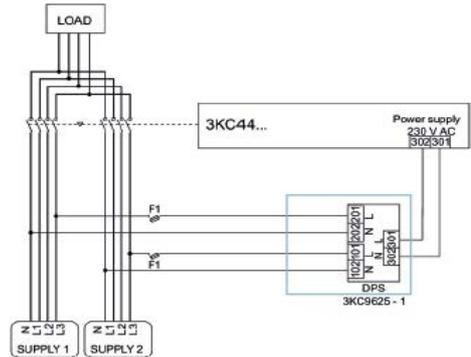
Single-phase network for 3KC4
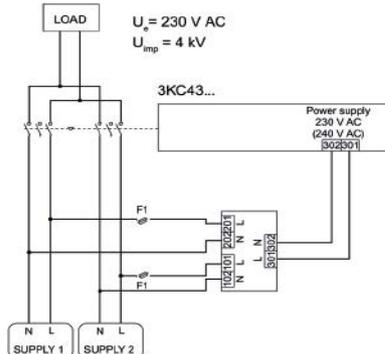
AUTOMATIC TRANSFER SWITCHES 40-3200A (ATSE)

Automatic transfer switch (integrated controller)

| 3KC6 suitable for network to network applications only (no generator start function)
| 3KC8 suitable for network to network and network to generator applications

CURRENT RATING	PART NUMBER (3 POLE)	PART NUMBER (4 POLE)	TERMINALS
40A	-	3KC6424-2TA20-0TA3	Box
63A	-	3KC6426-2TA20-0TA3	Box
80A	-	3KC6428-2TA20-0TA3	Box
100A	-	3KC6430-2TA20-0TA3	Box
125A	-	3KC6432-2TA20-0TA3	Box
160A	-	3KC6434-2TA20-0TA3	Box
250A	3KC8338-0CA22-0GA3	3KC8438-0CA22-0GA3	Lug
400A	3KC8342-0DA22-0GA3	3KC8442-0DA22-0GA3	Lug
630A	3KC8346-0EA22-0GA3	3KC8446-0EA22-0GA3	Lug
800A	3KC8348-0FA22-0GA3	3KC8448-0FA22-0GA3	Lug
1000A	3KC8350-0FA22-0GA3	3KC8450-0FA22-0GA3	Lug
1250A	3KC8352-0GA22-0GA3	3KC8452-0GA22-0GA3	Lug
16000A	3KC8354-0HA22-0GA3	3KC8454-0HA22-0GA3	Lug
2000A	3KC8356-0JA22-0GA3	3KC8456-0JA22-0GA3	Lug
2500A	3KC8358-0JA22-0GA3	3KC8458-0JA22-0GA3	Lug
3200A	3KC8360-0JA22-0GA3	3KC8460-0JA22-0GA3	Lug

Note: When using a 3 Pole transfer switch and there is no neutral available you require two autotransfomers for supply sensing and control voltage supply.

Three-phase 3-wire network without neutral for 3KC6
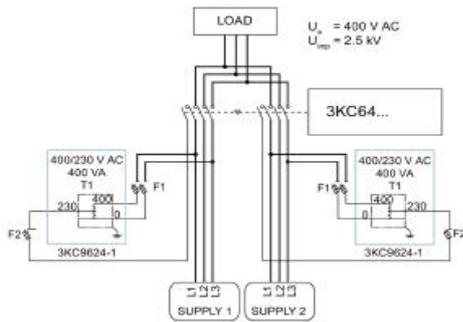
Three-phase 4-wire network with neutral for 3KC6
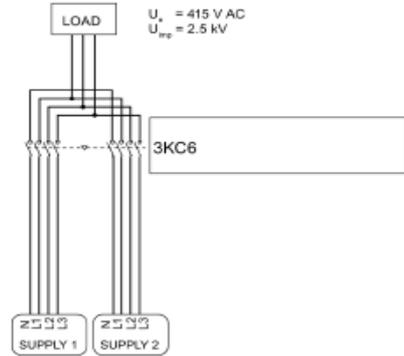
Three-phase 3-wire network without neutral for 3KC8
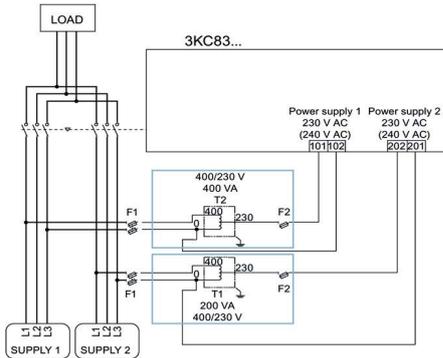
Three-phase 4-wire network with neutral for 3KC8
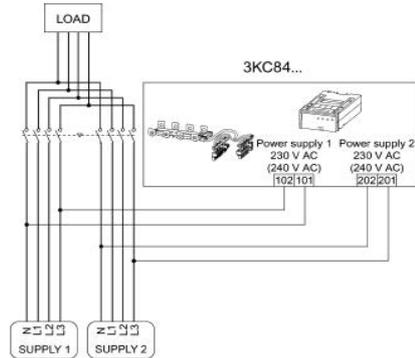
Single-phase system for 3KC8
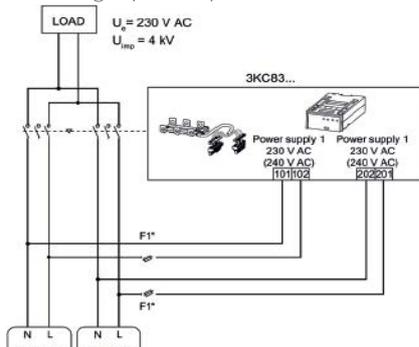
ACCESSORIES FOR AUTOMATIC TRANSFER SWITCHES - 3KC

Bridging bars
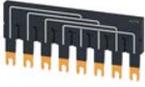
CURRENT RATING	PART NUMBER	DESCRIPTION
40 -125A	3KC9618-2	Bridging bar for 40 to 125A
160A	3KC9618-3	Bridging bar for 160A
250A	3KC9818-2	Bridging bar for 250A for 1 Pole
400A	3KC9818-3	Bridging bar for 400A for 1 Pole
630A	3KC9818-4	Bridging bar for 630A for 1 Pole
800 - 1000A	3KC9818-5	Bridging bar for 800 to 1000A for 1 Pole
1250A	3KC9818-6	Bridging bar for 1250A for 1 Pole
1600A	3KC9818-7	Bridging bar for 1600A for 1 Pole
2000 - 3000A	3KC9818-8	Bridging bar for 2000 to 3000A for 1 Pole

Power supply and voltage sensing cables
For **3 Pole** applications, with power supply to sut 3KC8 ATSE

CURRENT RATING	PART NUMBER	PART NUMBER
	Infeed from below	Infeed from above
250A	3KC9822-1	3KC9832-1
400A	3KC9822-2	3KC9832-2
630A	3KC9822-3	3KC9832-3
800 - 1000A	3KC9822-4	3KC9832-4
1250A	3KC9822-5	3KC9832-5
1600A	3KC9822-6	3KC9832-6
2000 - 3000A	3KC9822-7	3KC9832-7

Infeed from above
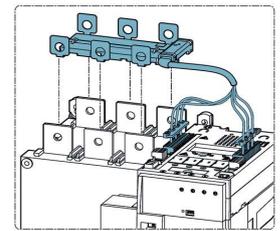
For **4 Pole** applications, with power supply to suit 3KC8 ATSE

	INFEED FROM BELOW	INFEED FROM ABOVE
250A	3KC9830-1	3KC9831-1
400A	3KC9830-2	3KC9831-2
630A	3KC9830-3	3KC9831-3
800 - 1000A	3KC9830-4	3KC9831-4
1250A	3KC9830-5	3KC9831-5
1600A	3KC9830-6	3KC9831-6
2000 - 3000A	3KC9830-7	3KC9831-7
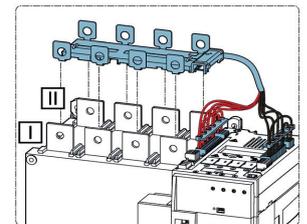
Autotransformers

CURRENT RATING	PART NUMBER	DESCRIPTION
40 -160A	3KC9624-1	Suits 3KC3 and 3KC6, 400 V to 230 V Transformer for Control Power
250 - 3200A	3KC9824-1	Suits 3KC4 and 3KC8, 400 V to 230 V Transformer for Control Power

Dual power supply

40-3200A	3KC9625-1	Suits 3KC4 and 3KC8, dual power supply for 230VAC Control Power

External display

40-3200A	3KC9823-0	External Display for ATSE 250 - 3200A
40-3200A	3KC9823-2	Connection Cable

Auxiliary switches

40 - 160A	3KC9603-1	1 C/O for each for position 0, I, II
250 - 630A	3KC9803-1	Two leading C/O contact for position I, II
800 - 1600A	3KC9803-2	Two leading C/O contact for position I, II

Terminal covers

40 - 160A	3KC9604-2	4 Pole cover contains 2 units
250 - 400A	3KC9804-1	Cover contains 3 units one per Pole
630A	3KC9804-3	Cover contains 3 units one per Pole
250 - 400A	3KC9804-2	Cover contains 4 units one per Pole
630A	3KC9804-4	Cover contains 4 units one per Pole

FUSE SWITCHES SURFACE MOUNT 32-800A (3KF)

3 Pole fuse switch with no handle - for DIN fuses

PART NUMBER	RATED CURRENT	FRAME SIZE	DESCRIPTION
3KF1303-0LB11	32A	1	DIN Fuse Size 000, Box Terminals, Handle Position Left
3KF1306-0LB11	63A	1	DIN Fuse Size 000, Box Terminals, Handle Position Left
3KF1308-0LB11	80A	1	DIN Fuse Size 000, Box Terminals, Handle Position Left
3KF2312-0LF11	125A	2	DIN Fuse Size 000 & 00, Flat Terminals, Handle Position Left
3KF2316-0LF11	160A	2	DIN Fuse Size 000 & 00, Flat Terminals, Handle Position Left
3KF3325-0LF11	250A	3	DIN Fuse Size 0 & 1, Flat Terminals, Handle Position Left
3KF4340-0LF11	400A	4	DIN Fuse Size 1 & 2, Flat Terminals, Handle Position Left
3KF5363-0LF11	630A	5	DIN Fuse Size 2 & 3, Flat Terminals, Handle Position Left
3KF5380-0LF11	800A	5	DIN Fuse Size 2 & 3, Flat Terminals, Handle Position Left

4 Pole fuse switch with no handle - for DIN fuses

PART NUMBER	RATED CURRENT	FRAME SIZE	DESCRIPTION
3KF1403-0LB11	32A	1	DIN Fuse Size 000, Box Terminals, Handle Position Left
3KF1406-0LB11	63A	1	DIN Fuse Size 000, Box Terminals, Handle Position Left
3KF1408-0LB11	80A	1	DIN Fuse Size 000, Box Terminals, Handle Position Left
3KF2412-0LF11	125A	2	DIN Fuse Size 000 & 00, Flat Terminals, Handle Position Left
3KF2416-0LF11	160A	2	DIN Fuse Size 000 & 00, Flat Terminals, Handle Position Left
3KF3425-0LF11	250A	3	DIN Fuse Size 0 & 1, Flat Terminals, Handle Position Left
3KF4440-0LF11	400A	4	DIN Fuse Size 1 & 2, Flat Terminals, Handle Position Left
3KF5463-0LF11	630A	5	DIN Fuse Size 2 & 3, Flat Terminals, Handle Position Left
3KF5480-0LF11	800A	5	DIN Fuse Size 2 & 3, Flat Terminals, Handle Position Left

4th contact element

PART NUMBER	FRAME SIZE	DESCRIPTION
3KF9105-2AA00	1	4TH Contact Element, Switchable for Fuse 000, Box Terminals
3KF9106-8AA00	1	N/PE Terminal, Pemanent Jumper Box Terminals
3KF9205-0AA00	2	4TH Contact Element, Switchable for Fuse 000 & 00, Flat Terminals
3KF9206-7AA00	2	N/PE Terminal, Pemanent Jumper Flat Terminals
3KF9305-0AA00	3	4TH Contact Element, Switchable for Fuse 0 & 1, Flat Terminals
3KF9306-7AA00	3	N/PE Terminal, Pemanent Jumper Flat Terminals
3KF9405-0AA00	4	4TH Contact Element, Switchable for Fuse 1 & 2, Flat Terminals
3KF9406-7AA00	4	N/PE Terminal, Pemanent Jumper Flat Terminals
3KF9505-0AA00	5	4TH Contact Element, Switchable for Fuse 2 & 3, Flat Terminals
3KF9506-7AA00	5	N/PE Terminal, Pemanent Jumper Flat Terminals

Note: Does not include fuses.

ACCESSORIES - 3KF

Direct mount handles

PART NUMBER	FRAME SIZE	DESCRIPTION
3KF9101-1AA00	1	Direct Operating Handle for 3KF1
3KF9201-1AA00	2	Direct Operating Handle for 3KF2
3KF9301-1AA00	3	Direct Operating Handle for 3KF3
3KF9401-1AA00	4	Direct Operating Handle for 3KF4
3KF9501-1AA00	5	Direct Operating Handle for 3KF5

Door mount handle kits with 300mm shaft

PART NUMBER	FRAME SIZE	DESCRIPTION
8UD1171-2AF21	1	Rotary Door Operating Handle for 3KF1
8UD1141-2AF21	2	Rotary Door Operating Handle for 3KF2
8UD1141-3AF21	3	Rotary Door Operating Handle for 3KF3
8UD1151-3AF21	4	Rotary Door Operating Handle for 3KF4
8UD1161-4AF21	5	Rotary Door Operating Handle for 3KF5

Note: Red/Yellow handles available, change AF21 to AF25 in part number.

Auxiliary contacts

PART NUMBER	FRAME SIZE	DESCRIPTION
3KD9103-5	1	S1/2 AUX Switch Holder Up To 2 Switches
3KD9103-2	1	Auxiliary Switch 1 C/O To Go With Holder
3SU1400-1AA10-1FA0	2-5	Auxiliary contact 1 NO+1 NC (no holder required)

Terminal covers

PART NUMBER	FRAME SIZE	DESCRIPTION
3KD9204-6	2	Standard Cover 6 Units for 3 Pole Switch
3KF9304-6	3	Standard Cover 6 Units for 3 Pole Switch
3KD9404-6	4	Standard Cover 6 Units for 3 Pole Switch
3KD9504-6	5	Standard Cover 6 Units for 3 Pole Switch
3KD9204-8	2	Standard Cover 8 Units for 4 Pole Switch
3KF9304-8	3	Standard Cover 8 Units for 4 Pole Switch
3KD9404-8	4	Standard Cover 8 Units for 4 Pole Switch
3KD9504-8	5	Standard Cover 8 Units for 4 Pole Switch

600mm Shaft

PART NUMBER	FRAME SIZE	DESCRIPTION
8UC6082	1/2	600mm Handle Shaft
8UC6083	3 & 4	600mm Handle Shaft
8UC6084	5	600mm Handle Shaft

A shaft jack is required for the 8UD1 handle when the 600 mm long shaft is used and for sizes 1 and 2

PART NUMBER	FRAME SIZE	DESCRIPTION
8UD1900-0FA00	1/2	Shaft jack for 8UD1 handle, for 3KF for shaft 600 mm

FUSE HOLDERS AND FUSES

Cylindrical fuse holders DIN rail mount

PART NUMBER	IN	DESCRIPTION
3NW7013	32A	Single Pole 32A to take 10x38mm Cylindrical fuse
3NW7033	32A	Three Pole 32A to take 10x38mm Cylindrical fuse
3NW7063	32A	Three Pole and Neutral 32A to take 10x38mm Cylindrical fuse

Cylindrical fuse links, operational class gG

3NW6011-1	1A	Cylindrical fuse link, 10 x 38 mm, 1 A, gG, Un AC: 500 V
3NW6002-1	2A	Cylindrical fuse link, 10 x 38 mm, 2 A, gG, Un AC: 500 V
3NW6004-1	4A	Cylindrical fuse link, 10 x 38 mm, 4 A, gG, Un AC: 500 V
3NW6001-1	6A	Cylindrical fuse link, 10 x 38 mm, 6 A, gG, Un AC: 500 V
3NW6003-1	10A	Cylindrical fuse link, 10 x 38 mm, 10 A, gG, Un AC: 500 V
3NW6005-1	16A	Cylindrical fuse link, 10 x 38 mm, 16 A, gG, Un AC: 500 V
3NW6007-1	20A	Cylindrical fuse link, 10 x 38 mm, 20 A, gG, Un AC: 500 V
3NW6010-1	25A	Cylindrical fuse link, 10 x 38 mm, 25 A, gG, Un AC: 500 V
3NW6012-1	32A	Cylindrical fuse link, 10 x 38 mm, 32 A, gG, Un AC: 400 V

3NP Fuse Disconnects for DIN Style Fuses

3NP1123-1CA20	160A	Surface Mount, Fuse Size 000, Box Terminals
3NP1133-1BC10	160A	60mm Bus Bar Mount, Fuse Size 00, Flat Terminals
3NP1133-1CA10	160A	Surface Mount, Fuse Size 00, Flat Terminals
3NP1143-1BC10	250A	60mm Bus Bar Mount, Fuse Size 1, Flat Terminals
3NP1143-1DA10	250A	Surface Mount, Fuse Size 1, Flat Terminals
3NP1153-1BC10	400A	60mm Bus Bar Mount, Fuse Size 2, Flat Terminals
3NP1153-1DA10	400A	Surface Mount, Fuse Size 2, Flat Terminals
3NP1163-1DA10	630A	Surface Mount, Fuse Size 3, Flat Terminals

DIN Fuses with front indicator, operational class gG (for cable and line protection)

3NA3802	2A	DIN fuse link Size 000 500VAC/250VDC
3NA3804	4A	DIN fuse link Size 000 500VAC/250VDC
3NA3801	6A	DIN fuse link Size 000 500VAC/250VDC
3NA3803	10A	DIN fuse link Size 000 500VAC/250VDC
3NA3805	16A	DIN fuse link Size 000 500VAC/250VDC
3NA3807	20A	DIN fuse link Size 000 500VAC/250VDC
3NA3810	25A	DIN fuse link Size 000 500VAC/250VDC
3NA3812	32A	DIN fuse link Size 000 500VAC/250VDC
3NA3814	35A	DIN fuse link Size 000 500VAC/250VDC
3NA3817	40A	DIN fuse link Size 000 500VAC/250VDC
3NA3820	50A	DIN fuse link Size 000 500VAC/250VDC
3NA3822	63A	DIN fuse link Size 000 500VAC/250VDC
3NA3824	80A	DIN fuse link Size 000 500VAC/250VDC
3NA3830	100A	DIN fuse link Size 000 500VAC/250VDC
3NA3832	125A	DIN fuse link Size 00 500VAC/250VDC
3NA3836	160A	DIN fuse link Size 00 500VAC/250VDC
3NA3030	100A	DIN fuse link Size 0 500VAC/400VDC
3NA3032	125A	DIN fuse link Size 0 500VAC/400VDC
3NA3036	160A	DIN fuse link Size 0 500VAC/400VDC
3NA3140	200A	DIN fuse link Size 1 500VAC/400VDC
3NA3144	250A	DIN fuse link Size 1 500VAC/400VDC
3NA3250	300A	DIN fuse link Size 2 500VAC/400VDC
3NA3252	315A	DIN fuse link Size 2 500VAC/400VDC
3NA3254	355A	DIN fuse link Size 2 500VAC/400VDC
3NA3260	400A	DIN fuse link Size 2 500VAC/400VDC
3NA3362	425A	DIN fuse link Size 3 500VAC/400VDC
3NA3365	500A	DIN fuse link Size 3 500VAC/400VDC
3NA3372	630A	DIN fuse link Size 3 500VAC/400VDC

Supplied in packs of 3 - Price per 1 fuse

AIR CIRCUIT BREAKERS - 3WA

| Three sizes with rated currents of 630 A to 6300 A for AC applications
| Up to 2500 A in Size 1 frame, 4000A Size 2 and 6300A Size 3
| Fixed and withdrawable in 3 and 4 pole available
| A single electronic trip unit that meets all requirements - ETU600
| Simple system access via USB-C/ COM190/ Wireless / Bluetooth
| Rating Plug for In rating also determines LSI or LSIG
| Communications capability as an option (Profinet, Modbus RTU & Modbus TCP)
| Power measurement to IEC 61557-12 (same as a meter). Accuracy class 0.5 is achieved for the voltages, class 1 for the currents and class 2 for active energy and active power.
| Improved endurance and operating cycles over the 3WL
| Can be integrated in place of a 3WL with no further testing required (IEC 61439-1)
| Software-supported testing - no external test devices required
| Dynamic Arc Flash Sentry (DAS+) - Maintenance mode as standard
| Power Monitoring Functionality (PMF) and metering functions upgradeable via sofware downloads

Build up your part number using the configurator link below.
https://mall.industry.siemens.com/spicecad/3waconfig/#/spicecad/3waconfig/configurationArea

Retro Fit and Installation Kits to replace existing ACBs with 3WA ACBs are available, contact your local APS office

aps SIEMENS
ACB ADAPTATION CENTRE
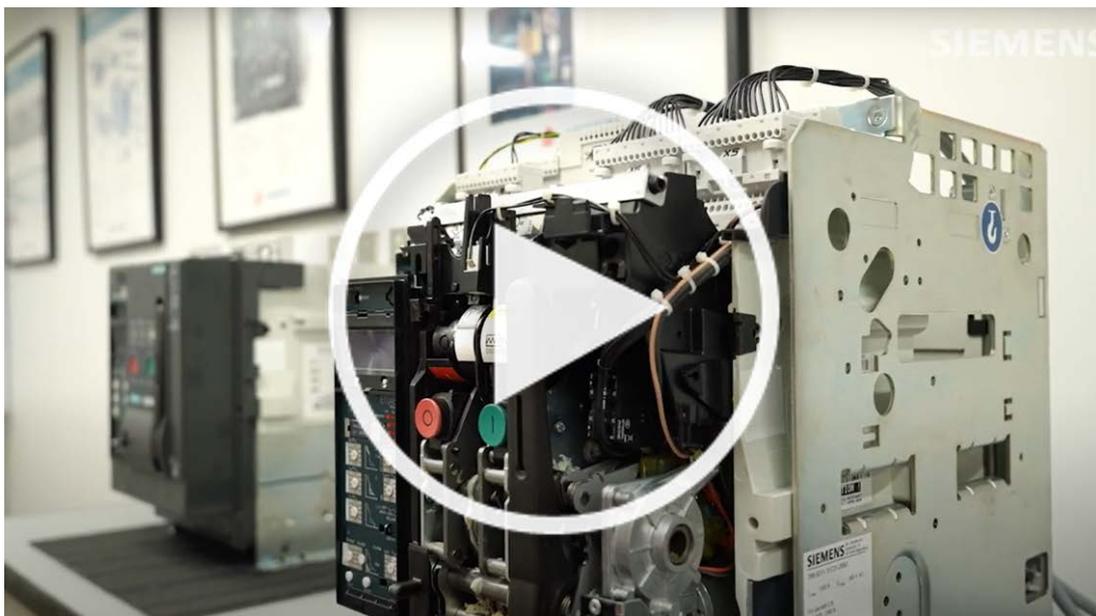
FASTER DELIVERY

WORLD FIRST NON-SIEMENS FACILITY

GREATER CUSTOMISATION

SIEMENS

INDUSTRIAL
CONTROL PRODUCTS
(SIRIUS)

CONTACTORS UP TO 450KW

KW	CURRENT A (AC3)	CURRENT A (AC1) @40 OC	AUXILIARY CONTACTS	PART NUMBER SCREW TERMINAL	PART NUMBER SPRING TERMINAL	CONTROL SUPPLY
Size 00						
3	7	18	1NO	3RT2015-1A.01	3RT2015-2A.01	AC
4	9	22	1NO	3RT2016-1A.01	3RT2016-2A.01	AC
5.5	12	22	1NO	3RT2017-1A.01	3RT2017-2A.01	AC
7.5	16	22	1NO	3RT2018-1A.01	3RT2018-2A.01	AC
3	7	18	1NO	3RT2015-1B.41	3RT2015-2B.41	DC
4	9	22	1NO	3RT2016-1B.41	3RT2016-2B.41	DC
5.5	12	22	1NO	3RT2017-1B.41	3RT2017-2B.41	DC
7.5	16	22	1NO	3RT2018-1B.41	3RT2018-2B.41	DC
4	9	22	1NO	3RT2016-1B.41	3RT2016-2B.41	DC
Note: 1NC available, change last digit from 1 to 2.						
Size 0						
4	9	40	1NO+1NC	3RT2023-1A.00	3RT2023-2A.00	AC
5.5	12	40	1NO+1NC	3RT2024-1A.00	3RT2024-2A.00	AC
7.5	16	40	1NO+1NC	3RT2025-1A.00	3RT2025-2A.00	AC
11	25	40	1NO+1NC	3RT2026-1A.00	3RT2026-2A.00	AC
15	32	50	1NO+1NC	3RT2027-1A.00	3RT2027-2A.00	AC
18.5	38	50	1NO+1NC	3RT2028-1A.00	3RT2028-2A.00	AC
4	9	40	1NO+1NC	3RT2023-1B.40	3RT2023-2B.40	DC
5.5	12	40	1NO+1NC	3RT2024-1B.40	3RT2024-2B.40	DC
7.5	16	40	1NO+1NC	3RT2025-1B.40	3RT2025-2B.40	DC
11	25	40	1NO+1NC	3RT2026-1B.40	3RT2026-2B.40	DC
15	32	50	1NO+1NC	3RT2027-1B.40	3RT2027-2B.40	DC
18.5	38	50	1NO+1NC	3RT2028-1B.40	3RT2028-2B.40	DC

KW	CURRENT A (AC3)	CURRENT A (AC1) @40 OC	AUXILIARY CONTACTS	PART NUMBER SCREW TERMINAL	CONTROL SUPPLY
Size 2					
18.5	40	60	1NO+1NC	3RT2035-1A.00	AC
22	51	70	1NO+1NC	3RT2036-1A.00	AC
30	65	80	1NO+1NC	3RT2037-1A.00	AC
37	80	90	1NO+1NC	3RT2038-1A.00	AC
18.5	40	60	1NO+1NC	3RT2035-1N.30	AC/DC
22	51	70	1NO+1NC	3RT2036-1N.30	AC/DC
30	65	80	1NO+1NC	3RT2037-1N.30	AC/DC
37	80	90	1NO+1NC	3RT2038-1N.30	AC/DC
18.5	40	60	1NO+1NC	3RT2035-1KB40*	24VDC
22	51	70	1NO+1NC	3RT2036-1KB40*	24VDC
30	65	80	1NO+1NC	3RT2037-1KB40*	24VDC
37	80	90	1NO+1NC	3RT2038-1KB40*	24VDC
Size 3					
37	80	125	1NO+1NC	3RT2045-1A.00	AC
45	95	130	1NO+1NC	3RT2046-1A.00	AC
55	110	130	1NO+1NC	3RT2047-1A.00	AC
37	80	125	1NO+1NC	3RT2045-1N.30	AC/DC
45	95	130	1NO+1NC	3RT2046-1N.30	AC/DC
55	110	130	1NO+1NC	3RT2047-1N.30	AC/DC
37	80	125	1NO+1NC	3RT2045-1KB40*	24VDC
45	95	130	1NO+1NC	3RT2046-1KB40*	24VDC

Replace (.) with: B = 24V F=110V P=230V

V	24	110	220	230	400
AC	B	F	-	P	V
DC	B	F	M	P	-

Other voltages available on request.
* PLC Compatible

CONTACTORS UP TO 450KW

KW	CURRENT A (AC3)	CURRENT A (AC1) @40 OC	AUXILIARY CONTACTS	PART NUMBER	PART NUMBER
Size S6				AC/DC CONTROL	AC/DC CONTROL W/ 24VDC PLC IN
55	115	160	2NO + 2NC	3RT1054-6A.36	3RT1054-6N.36
75	150	185	2NO + 2NC	3RT1055-6A.36	3RT1055-6N.36
90	185	215	2NO + 2NC	3RT1056-6A.36	3RT1056-6N.36
Size S10					
110	225	275	2NO + 2NC	3RT1064-6A.36	3RT1064-6N.36
132	265	330	2NO + 2NC	3RT1065-6A.36	3RT1065-6N.36
160	300	330	2NO + 2NC	3RT1066-6A.36	3RT1066-6N.36
Size S12					
200	400	430	2NO + 2NC	3RT1075-6A.36	3RT1075-6N.36
250	500	610	2NO + 2NC	3RT1076-6A.36	3RT1076-6N.36

Replace (.) with: B = 24V F=110V P=230V   ** NB = 24VAC/DC

V	24		110	230	400
AC/DC	B		F	P	V

Other voltages available on request.

Vacuum contactors 3TF68 & 69

335	630	700	4NO + 4NC	3TF6844-0C.7
450	820	910	4NO + 4NC	3TF6944-0C.7

Replace (.) with: F=110V M=230V

3RH contactor relays

CURRENT A (AC-15) @ 230VAC	AUXILIARY CONTACTS	PART NUMBER SCREW TERMINAL	PART NUMBER SPRING TERMINAL	CONTROL SUPPLY
10	2N/O + 2N/C	3RH2122-1A.00	3RH2122-2A.00	AC
10	3N/O + 1N/C	3RH2131-1A.00	3RH2131-2A.00	AC
10	4N/O	3RH2140-1A.00	3RH2140-2A.00	AC
10	2N/O + 2N/C	3RH2122-1B.40	3RH2122-2B.40	DC
10	3N/O + 1N/C	3RH2131-1B.40	3RH2131-2B.40	DC
10	4N/O	3RH2140-1B.40	3RH2140-2B.40	DC

Replace (.) with: B = 24V F=110V P=230V

V	24	48	110	125	220	230
AC	B		F		-	P
DC	B	W	F	G	M	P

Note: 3TH43 6A 10 Pole Contactor Relays avialable on an indent basis. These are available in 24VDC and 230VAC control and with a combination of 5 NO + 5 NC through to 10 NO + 0 NC.

CONTACTOR ACCESSORIES - 3RT

Front mount auxiliary contact blocks S00, S0, S2 & S3 (3RT201, 202 , 203 & 204)

PART NUMBER		DESCRIPTION	AUXILIARY CONTACTS
SCREW TERMINAL	SPRING TERMINAL		
3RH2911-1HA01	3RH2911-2HA01	Front mount with screw terminals	1N/C
3RH2911-1HA02	3RH2911-2HA02	Front mount with screw terminals	2N/C
3RH2911-1HA10	3RH2911-2HA10	Front mount with screw terminals	1N/O
3RH2911-1HA11	3RH2911-2HA11	Front mount with screw terminals	1N/O + 1N/C
3RH2911-1HA22	3RH2911-2HA22	Front mount with screw terminals	2N/O + 2N/C
3RH2911-1HA13	3RH2911-2HA13	Front mount with screw terminals	1N/O + 3N/C
3RH2911-1HA31	3RH2911-2HA31	Front mount with screw terminals	3N/O + 1N/C
3RH2911-1FA40	3RH2911-2FA40	Front mount with screw terminals	4N/O

Side mount auxiliary contact blocks S00 (3RT201)

3RH2911-1DA02	3RH2911-2DA02	Screw terminals, Right or Left side	2N/C
3RH2911-1DA11	3RH2911-2DA11	Screw terminals, Right or Left side	1N/O + 1N/C
3RH2911-1DA20	3RH2911-2DA20	Screw terminals, Right or Left side	2N/O

Side mount auxiliary contact blocks S0, S2 & S3 (3RT202 , 203 & 204)

3RH2921-1DA02	3RH2921-2DA02	Screw terminals, Right or Left side	2N/C
3RH2921-1DA11	3RH2921-2DA11	Screw terminals, Right or Left side	1N/O + 1N/C
3RH2921-1DA20	3RH2921-2DA20	Screw terminals, Right or Left side	2N/O

Front mount auxiliary contact blocks
For assembling contactor relays with 8 contacts

3RH2911-1GA22	3RH2911-2GA22	Front Mount Auxiliary Contact Block	2N/O + 2N/C
3RH2911-1GA13	3RH2911-2GA13	Front Mount Auxiliary Contact Block	1N/O + 3N/C
3RH2911-1GA31	3RH2911-2GA31	Front Mount Auxiliary Contact Block	3N/O + 1N/C
3RH2911-1GA40	3RH2911-2GA40	Front Mount Auxiliary Contact Block	4N/O
3RH2911-1GA04	3RH2911-2GA04	Front Mount Auxiliary Contact Block	4N/C

Note: 3RH2911-1GA Auxiliary contact blocks need to be used on 3RH2140 Relays.
Refer to Appendix H & I for selection guides.

Varistors

PART NUMBER	DESCRIPTION	VOLTAGE RANGE	
Size 00		VAC	VDC
3RT2916-1BB00	Varistor for 3RT2015 to 3RT2018	24...48	24...70
3RT2916-1BD00	Varistor for 3RT2015 to 3RT2018	127...240	150...250
Size 0			
3RT2926-1BB00	Varistor for 3RT2024 to 3RT2028	24...48	24...70
3RT2926-1BC00	Varistor for 3RT2024 to 3RT2028	48...127	70...150
3RT2926-1BD00	Varistor for 3RT2024 to 3RT2028	127...240	150...240
3RT2926-1BE00	Varistor for 3RT2024 to 3RT2028	240...400	
Size 2 & 3			
3RT2936-1BB00	Varistor for 3RT2035 to 3RT2038	24...48	24...70
3RT2936-1BC00	Varistor for 3RT2035 to 3RT2038	48...127	70...150
3RT2936-1BD00	Varistor for 3RT2035 to 3RT2038	127...240	150...240

3RT2936-1BE00	Varistor for 3RT2035 to 3RT2038	240...400	

Reversing kits (includes mechanical interlocks, top & bottom wiring modules)

Screw Terminal	Spring Terminal	
3RA2913-2AA1	3RA2913-2AA2	Size 00 3TR201 Reversing assembly kit
3RA2923-2AA1	3RA2923-2AA2	Size 0 3TR202 Reversing assembly kit
3RA2933-2AA1*		Size 2 3TR203 Reversing assembly kit
3RA2943-2AA1*		Size 3 3TR204 Reversing assembly kit

*Mechanical interlock not included S2 & 3 (3RA2934-2B)

Mechanical interlocks

3RA2912-2H	Size 00 Mechanical Interlock & Connecting Clips
3RA2922-2H	Size 0 Mechanical Interlock & Connecting Clips
3RA2934-2B	Size 2 & 3 Mechanical Interlock
3RA2932-2D	Size 2 & 3 Connecting Clips (required with 3RA2934-2B)
3RA1954-2A	Size 6,10 & 12 Lateral mounting for contactors 3RT105 to 3RT107

Terminal covers for box terminals (2 required per device)

3RT2936-4EA2	To suit Size S2 Contactor
3RT2946-4EA2	To suit Size S3 Contactor
3RT1956-4EA2	To suit Size S6 Contactor
3RT1966-4EA2	To suit Size 10 and 12 Contactors

Terminal covers for cable lugs & busbar (2 required per device)

3RT1946-4EA1	To suit Size 3 Contactor
3RT1956-4EA1	To suit Size 6 Contactor
3RT1966-4EA1	To suit Size S10 and S12 Contactors

SAFETY CONTACTORS UP TO 250KW

KW	CURRENT A (AC3)	AUXILIARY CONTACTS	PART NUMBER 230VAC CONTROL	PART NUMBER 24VDC CONTROL
Size 00				
3	7	2NO+2NC	3RT2015-1CP04-3MA0	3RT2015-1FB44-3MA0
4	9	2NO+2NC	3RT2016-1CP04-3MA0	3RT2016-1FB44-3MA0
5.5	12	2NO+2NC	3RT2017-1CP04-3MA0	3RT2017-1FB44-3MA0
7.5	16	2NO+2NC	3RT2018-1CP04-3MA0	3RT2018-1FB44-3MA0
Size 0				
5.5	12	2NO+2NC	3RT2024-1CL24-3MA0	3RT2024-1FB44-3MA0
7.5	16	2NO+2NC	3RT2025-1CL24-3MA0	3RT2025-1FB44-3MA0
11	25	2NO+2NC	3RT2026-1CL24-3MA0	3RT2026-1FB44-3MA0
15	32	2NO+2NC	3RT2027-1CL24-3MA0	3RT2027-1FB44-3MA0
18.5	38	2NO+2NC	3RT2028-1CL24-3MA0	3RT2028-1FB44-3MA0
Size 2				
22	51	2NO+2NC	3RT2036-1CL24-3MA0	3RT2036-1NB34-3MA0
30	65	2NO+2NC	3RT2037-1CL24-3MA0	3RT2037-1NB34-3MA0
37	80	2NO+2NC	3RT2038-1CL24-3MA0	3RT2038-1NB34-3MA0
Size 3				
37	80	2NO+2NC	3RT2045-1CP04-3MA0	3RT2045-1NB34-3MA0
45	95	2NO+2NC	3RT2046-1CL24-3MA0	3RT2046-1NB34-3MA0
55	110	2NO+2NC	3RT2047-1CL24-3MA0	3RT2047-1NB34-3MA0
Size 6				
75	150	2NO+2NC	3RT1055-6AP36-3PA0	3RT1055-6SP36-3PA0*
90	185	2NO+2NC	3RT1056-6AP36-3PA0	3RT1056-6SP36-3PA0*
Size 10				
110	225	2NO+2NC	3RT1064-6AP36-3PA0	3RT1064-6SP36-3PA0*
132	265	2NO+2NC	3RT1065-6AP36-3PA0	3RT1065-6SP36-3PA0*
160	300	2NO+2NC	3RT1066-6AP36-3PA0	3RT1066-6SP36-3PA0*
Size 12				
200	400	2NO+2NC	3RT1075-6AP36-3PA0	3RT1075-6SP36-3PA0*
250	500	2NO+2NC	3RT1076-6AP36-3PA0	3RT1076-6SP36-3PA0*

Note: All contactors have surge supression on the coils.
* 230VAC required to coil (A1 A2) with 24VDC control jack

Sealing cover required on safety contactors size 6...12	3RT1926-4MA10

New:

3RT1 size S6 for high motor outputs with new contactor with fail-safe F-PLC-IN

- A1-A2 supplied via standard power supply (unit)
- Normal switching duty via F-DQ and F-PLC-IN
- Safety-related tripping via the same signal
- Feedback of the two S6 size 3RT1 via standard IO
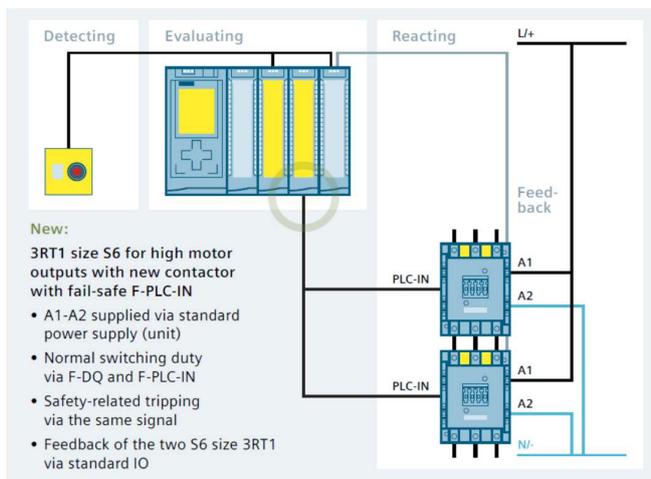
CURRENT A (AC-15) @ 230VAC	AUXILIARY CONTACTS	PART NUMBER AC CONTROL	PART NUMBER 24DC CONTROL
6	4NO+4NC	3RH2244-1AP00	3RH2244-1BB40
6	6NO+2NC	3RH2262-1AP00	3RH2262-1BB40

MOTOR CIRCUIT BREAKERS - 3RV20 THERMAL MAGNETIC

Thermal magnetic class 10

PART NUMBER		KW	RATED CURRENT In (A)	OVERLOAD SETTING (A)	INSTANTANEOUS RATING (A)	KA RATING
SCREW TERMINAL	SPRING TERMINAL					
Size 00						
3RV2011-0AA10	3RV2011-0AA20	0.04	0.2	0.11 -0.16	2.1	100
3RV2011-0BA10	3RV2011-0BA20	0.06	0.2	0.14 – 0.2	2.6	100
3RV2011-0CA10	3RV2011-0CA20	0.06	0.3	0.18 – 0.25	3.3	100
3RV2011-0DA10	3RV2011-0DA20	0.09	0.3	0.22 – 0.32	4.2	100
3RV2011-0EA10	3RV2011-0EA20	0.09	0.4	0.28 – 0.4	5.2	100
3RV2011-0FA10	3RV2011-0FA20	0.12	0.5	0.35 – 0.5	6.5	100
3RV2011-0GA10	3RV2011-0GA20	0.18	0.6	0.45 – 0.63	8.2	100
3RV2011-0HA10	3RV2011-0HA20	0.18	0.8	0.55 – 0.8	10	100
3RV2011-0JA10	3RV2011-0JA20	0.25	1	0.7 – 1	13	100
3RV2011-0KA10	3RV2011-0KA20	0.37	1.3	0.9 – 1.25	16	100
3RV2011-1AA10	3RV2011-1AA20	0.55	1.6	1.1 – 1.6	21	100
3RV2011-1BA10	3RV2011-1BA20	0.75	2	1.4 – 2	26	100
3RV2011-1CA10	3RV2011-1CA20	0.75	2.5	1.8 – 2.5	33	100
3RV2011-1DA10	3RV2011-1DA20	1.1	3.2	2.2 – 3.2	42	100
3RV2011-1EA10	3RV2011-1EA20	1.5	4	2.8 – 4	52	100
3RV2011-1FA10	3RV2011-1FA20	1.5	5	3.5 – 5	65	100
3RV2011-1GA10	3RV2011-1GA20	2.2	6.3	4.5 – 6.3	82	100
3RV2011-1HA10	3RV2011-1HA20	3	8	5.5 – 8	104	100
3RV2011-1JA10	3RV2011-1JA20	4	10	7 – 10	130	100
3RV2011-1KA10	3RV2011-1KA20	5.5	12.5	9 – 12.5	163	100
3RV2011-4AA10	3RV2011-4AA20	7.5	16	11 – 16	208	55
Size 0						
3RV2021-1AA10	3RV2021-1AA20	0.55	1.6	1.1 – 1.6	21	100
3RV2021-1BA10	3RV2021-1BA20	0.75	2	1.4 – 2	26	100
3RV2021-1CA10	3RV2021-1CA20	0.75	2.5	1.8 – 2.5	33	100
3RV2021-1DA10	3RV2021-1DA20	1.1	3.2	2.2 – 3.2	42	100
3RV2021-1EA10	3RV2021-1EA20	1.5	4	2.8 – 4	52	100
3RV2021-1FA10	3RV2021-1FA20	1.5	5	3.5 – 5	65	100
3RV2021-1GA10	3RV2021-1GA20	2.2	6.3	4.5 – 6.3	82	100
3RV2021-1HA10	3RV2021-1HA20	3	8	5.5 – 8	104	100
3RV2021-1JA10	3RV2021-1JA20	4	10	7 – 10	130	100
3RV2021-1KA10	3RV2021-1KA20	5.5	12.5	9 – 12.5	163	100
3RV2021-4AA10	3RV2021-4AA20	7.5	16	11 – 16	208	55
3RV2021-4BA10	3RV2021-4BA20	7.5	20	13 - 20	260	55
3RV2021-4CA10	3RV2021-4CA20	11	22	17 - 22	286	55
3RV2021-4DA10	3RV2021-4DA20	11	25	20 - 25	325	55
3RV2021-4NA10	3RV2021-4NA20	15	28	23 - 28	364	55
3RV2021-4EA10	3RV2021-4EA20	15	32	27 - 32	400	55
3RV2021-4PA10		18.5	36	30 - 36	432	20
3RV2021-4FA10		18.5	40	34 - 40	480	20

PART NUMBER	KW	RATED CURRENT In (A)	OVERLOAD SETTING (A)	INSTANTANEOUS RATING (A)	KA RATING
SCREW TERMINAL					
Size 2					
3RV2031-4EA10	15.0	32	22 - 32	416	65
3RV2031-4PA10	18.5	36	28 - 36	520	65
3RV2031-4UA10	18.5	40	32 - 40	585	65
3RV2031-4VA10	22	45	35 - 45	650	65
3RV2031-4WA10	22	52	42 - 52	741	65
3RV2031-4XA10	30	59	49 - 59	845	65
3RV2031-4JA10	30	65	54 - 65	845	65
3RV2031-4KA10	37	73	62 - 73	949	65
Size 3					
3RV2041-4JA10	30	63	45 - 63	819	65
3RV2041-4KA10	37	75	57 - 75	975	65
3RV2041-4RA10	45	84	65 - 84	1170	65
3RV2041-4YA10	45	93	75 - 93	1300	65
3RV2041-4MA10	45/55	100	80 - 100	1300	65

MOTOR CIRCUIT BREAKERS - 3RV23 MAGNETIC ONLY

Magnetic only for starter combinations

PART NUMBER		KW	RATED CURRENT In (A)	OVERLOAD SETTING (A)	KA RATING
SCREW TERMINAL	SPRING TERMINAL				
Size 00					
3RV2311-0JC10	3RV2311-0JC20	0.3	1	13	100
3RV2311-0KC10	3RV2311-0KC20	0.4	1.3	16	100
3RV2311-1AC10	3RV2311-1AC20	0.6	1.6	21	100
3RV2311-1BC10	3RV2311-1BC20	0.8	2	26	100
3RV2311-1CC10	3RV2311-1CC20	0.8	2.5	33	100
3RV2311-1DC10	3RV2311-1DC20	1.1	3.2	42	100
3RV2311-1EC10	3RV2311-1EC20	1.5	4	52	100
3RV2311-1FC10	3RV2311-1FC20	1.5	5	65	100
3RV2311-1GC10	3RV2311-1GC20	2.2	6.3	82	100
3RV2311-1HC10	3RV2311-1HC20	3	8	104	100
3RV2311-1JC10	3RV2311-1JC20	4	10	130	100
3RV2311-1KC10	3RV2311-1KC20	5.5	12.5	163	100
3RV2311-4AC10	3RV2311-4AC20	7.5	16	208	55
Size 0					
3RV2321-1GC10	3RV2321-1GC20	2.2	6.3	82	100
3RV2321-1HC10	3RV2321-1HC20	3	8	104	100
3RV2321-1JC10	3RV2321-1JC20	4	10	130	100
3RV2321-1KC10	3RV2321-1KC20	5.5	12.5	163	100
3RV2321-4AC10	3RV2321-4AC20	7.5	16	208	55
3RV2321-4BC10	3RV2321-4BC20	7.5	20	260	55
3RV2321-4CC10	3RV2321-4CC20	11	22	286	55
3RV2321-4DC10	3RV2321-4DC20	11	25	325	55
3RV2321-4NC10	3RV2321-4NC20	15	28	364	55
3RV2321-4EC10	3RV2321-4EC20	15	32	400	55
3RV2321-4PC10		18.5	36	432	20
3RV2321-4FC10		18.5	40	480	20

PART NUMBER	KW	RATED CURRENT In (A)	OVERLOAD SETTING (A)	KA RATING
SCREW TERMINAL				
Size 2				
3RV2331-4EC10	15.0	32	416	65
3RV2331-4UC10	18.5	40	585	65
3RV2331-4VC10	22	45	650	65
3RV2331-4WC10	22	52	741	65
Size 3				
3RV2341-4FC10	19	40	520	65
3RV2341-4HC10	22	50	650	65
3RV2341-4JC10	30	63	819	65
3RV2341-4KC10	37	75	975	65
3RV2341-4RC10	45	84	1170	65
3RV2341-4YC10	45	93	1300	65
3RV2341-4MC10	45/55	100	1300	65

MOTOR CIRCUIT BREAKERS WITH INCREASED SWITCHING CAPACITY - 3RV

Thermal magnetic class 10

PART NUMBER	KW	RATED CURRENT In (A)	OVERLOAD SETTING (A)	INSTANTANEOUS RATING (A)	KA RATING
Size S2, with increased switching capacity					
3RV2032-4EA10	15	32	22 - 32	416	100
3RV2032-4PA10	18.5	36	28 - 36	520	100
3RV2032-4UA10	18.5	40	32 - 40	585	100
3RV2032-4VA10	22	45	35 - 45	650	100
3RV2032-4WA10	22	52	42 - 52	741	100
3RV2032-4XA10	30	59	49 - 59	845	100
3RV2032-4JA10	30	65	54 - 65	845	100
3RV2032-4KA10	37	73	62 - 73	949	100
Size S3, with increased switching capacity					
3RV2042-4FB10	18.5	40	28 - 40	520	100
3RV2042-4HB10	22	50	36 - 50	650	100
3RV2042-4JB10	30	63	45 - 63	819	100
3RV2042-4KB10	37	75	57 - 75	975	100
3RV2042-4RB10	45	84	65 - 84	1170	100
3RV2042-4YB10	45	93	75 - 93	1300	100
3RV2042-4MB10	45/55	100	80 - 100	1300	100

Magnetic only

PART NUMBER	KW	RATED CURRENT In (A)	INSTANTANEOUS RATING (A)	KA RATING
Size 2, with increased switching capacity				
3RV2332-4SC10	5.5	14	416	100
3RV2332-4TC10	7.5	17	520	100
3RV2332-4BC10	7.5	20	585	100
3RV2332-4DC10	11	25	650	100
3RV2332-4EC10	15	32	741	100
3RV2332-4PC10	18.5	36	845	100
3RV2332-4VC10	22	45	845	100
3RV2332-4JC10	30	65	949	100
Size S3, with increased switching capacity				
3RV2342-4FC10	18.5	40	520	100
3RV2342-4HC10	22	50	650	100
3RV2342-4JC10	30	63	819	100
3RV2342-4KC10	37	75	975	100
3RV2342-4RC10	45	84	1170	100
3RV2342-4YC10	45	93	1300	100
3RV2342-4MC10	45/55	100	1300	100

MOTOR CIRCUIT BREAKERS ACCESSORIES

3RV2 accessories to suit size 00 to 3

PART NUMBER		DESCRIPTION
SCREW TERMINAL	SPRING TERMINAL	
3RV2901-1E	3RV2901-2E	Transverse (Front Mount) Auxiliary Switch 1NO+1NC
3RV2901-1A	3RV2901-2A	Lateral (Side Mount) Auxiliary Switch 1NO+1NC
3RV2921-1M	3RV2921-2M	Alarm (separate tripped & short circuit) 1NO+1NC **Will not work on Size S3**
3RV2902-1DB0	3RV2902-2DB0	Shunt Release 24V AC/DC
3RV2902-1DP0	3RV2902-2DP0	Shunt Release 230VAC
3RV2902-1AB4		Under Voltage Release 24VDC
3RV2902-1AP0	3RV2902-2AP0	Under Voltage Release 230VAC
3RV2902-1AV0	3RV2902-2AV0	Under Voltage Release 400V

Door coupling rotary handles suits 3RV2

Normal Duty	
3RV2926-1B	Normal Duty (130mm shaft), Size 00 to 3
3RV2926-1K	Normal Duty (330mm shaft), Size 00 to 3
3RV2926-1C	Emergency Off Normal Duty (130mm shaft), Size 00 to 3
3RV2926-1L	Emergency Off Normal Duty (330mm shaft), Size 00 to 3
Heavy Duty	
3RV2926-3B	Heavy Duty Size S00 & S0
3RV2936-3B	Heavy Duty Size S2
3RV2946-3B	Heavy Duty Size S3
3RV2926-3C	Emergency Off Heavy Duty Size S00 & S0
3RV2936-3C	Emergency Off Heavy Duty Size S2
3RV2946-3C	Emergency Off Heavy Duty Size S3
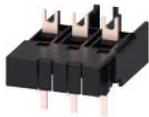
Link module suits 3RV2 MSP to 3RT2 contactor

3RA1921-1DA00	Between S00 3RT2 Contactor (AC/DC Coil) & S00/0 3RV2 MSP
3RA2921-1AA00	Between S0 3RT2 Contactor (AC Coil) & S00/0 3RV2 MSP
3RA2921-1BA00	Between S0 3RT2 Contactor (DC Coil) & S00/0 3RV2 MSP
3RA2931-1AA00	Between S2 3RT2 Contactor (AC/DC Coil) & S2 3RV2 MSP
3RA1941-1AA00	Between S3 3RT2 Contactor (AC/DC Coil) & S3 3RV2 MSP
3RA2911-2AA00	Between S00 3RT2 Contactor (AC/DC Coil) & S00 3RV2 MSP
3RA2921-2AA00	Between S0 3RT2 Contactor (AC/DC Coil) & S0 3RV2 MSP
3RA2911-1CA00	Optional spacer for S0 spring terminal contactor

3 phase busbar system for 3RV

3RV2925-5AB	Feeder Terminal, Size S0 2.5 - 16mm sq cable
3RV2935-5A	Feeder Terminal, Size S2 2.5 - 50mm sq cable
3RV1915-1AB	45mm Spacing for 2 Starters, Size S00 / 0
3RV1915-1BB	45mm Spacing for 3 Starters, Size S00 / 0
3RV1915-1CB	45mm Spacing for 4 Starters, Size S00 / 0
3RV1915-1DB	45mm Spacing for 5 Starters, Size S00 / 0
3RV1915-2AB	55mm Spacing for 2 Starters, Size S00 / 0 with side mount auxiliary
3RV1915-2BB	55mm Spacing for 3 Starters, Size S00 / 0 with side mount auxiliary
3RV1915-2CB	55mm Spacing for 4 Starters, Size S00 / 0 with side mount auxiliary
3RV1915-2DB	55mm Spacing for 5 Starters, Size S00 / 0 with side mount auxiliary
3RV1935-1A	55mm Spacing for 2 Starters, Size S2
3RV1935-1B	55mm Spacing for 3 Starters, Size S2
3RV1935-1C	55mm Spacing for 4 Starters, Size S2

THERMAL OVERLOAD RELAYS (3RU2)
TO SUIT 3RT2 CONTACTORS CLASS 10

Size S00 to suit 3RT20 1 contactor

PART NUMBER		KW AT 400V	THERMAL OVERLOAD RELEASE (A)
SCREW TERMINAL	SPRING TERMINAL		
3RU2116-0AB0	3RU2116-0AC0	0.04	0.11 - 0.16
3RU2116-0BB0	3RU2116-0BC0	0.06	0.14 - 0.2
3RU2116-0CB0	3RU2116-0CC0	0.06	0.18 - 0.25
3RU2116-0DB0	3RU2116-0DC0	0.09	0.22 - 0.32
3RU2116-0EB0	3RU2116-0EC0	0.09	0.28 - 0.4
3RU2116-0FB0	3RU2116-0FC0	0.12	0.35 - 0.5
3RU2116-0GB0	3RU2116-0GC0	0.18	0.45 - 0.63
3RU2116-0HB0	3RU2116-0HC0	0.18	0.55 - 0.8
3RU2116-0JB0	3RU2116-0JC0	0.25	0.7 - 1
3RU2116-0KB0	3RU2116-0KC0	0.37	0.9 - 1.25
3RU2116-1AB0	3RU2116-1AC0	0.55	1.1 - 1.6
3RU2116-1BB0	3RU2116-1BC0	0.75	1.4 - 2
3RU2116-1CB0	3RU2116-1CC0	0.75	1.8 - 2.5
3RU2116-1DB0	3RU2116-1DC0	1.1	2.2 - 3.2
3RU2116-1EB0	3RU2116-1EC0	1.1	2.8 - 4
3RU2116-1FB0	3RU2116-1FC0	1.5	3.5 - 5
3RU2116-1GB0	3RU2116-1GC0	2.2	4.5 - 6.3
3RU2116-1HB0	3RU2116-1HC0	3	5.5 - 8
3RU2116-1JB0	3RU2116-1JC0	4	7 – 10
3RU2116-1KB0	3RU2116-1KC0	5.5	9 - 12.5
3RU2116-4AB0	3RU2116-4AC0	7.5	11 - 16

Size S0 to suit 3RT20 2 contactor

3RU2126-1CB0	3RU2126-1CC0	0.75	1.8 – 2.5
3RU2126-1DB0	3RU2126-1DC0	1.1	2.2 – 3.2
3RU2126-1FB0	3RU2126-1FC0	1.5	3.5 – 5
3RU2126-1HB0	3RU2126-1HC0	3	5.5 – 8
3RU2126-1JB0	3RU2126-1JC0	4	7 – 10
3RU2126-1KB0	3RU2126-1KC0	5.50	9 – 12.5
3RU2126-4AB0	3RU2126-4AC0	7.5	11 – 16
3RU2126-4BB0	3RU2126-4BC0	7.5	14 – 20
3RU2126-4CB0	3RU2126-4CC0	11	17 – 22
3RU2126-4DB0	3RU2126-4DC0	11	18 – 25
3RU2126-4EB0	3RU2126-4EC0	15	27 - 32
3RU2126-4PB0	3RU2126-4PC0	15	30 - 36
3RU2126-4FB0	3RU2126-4FC0	18.5	34 - 40

Size S2 to suit 3RT20 3 contactor

3RU2136-4AB0		7.5	11 – 16
3RU2136-4BB0		7.5	14 – 20
3RU2136-4DB0		11	18 – 25
3RU2136-4EB0		15	22 – 32
3RU2136-4FB0		18.5	28 – 40
3RU2136-4GB0		22	36 – 45
3RU2136-4HB0		22	40 – 50
3RU2136-4QB0		30	47 – 57
3RU2136-4JB0		30	54 – 65
3RU2136-4KB0		37	62 – 73
3RU2136-4RB0		37	70 – 80

THERMAL OVERLOAD RELAYS (3RU2) AND ACCESSORIES TO SUIT 3RT2 CONTACTORS

Size S3 to suit 3RT20 4 contactor

PART NUMBER	KW AT 400V	THERMAL OVERLOAD RELEASE A
3RU2146-4FB0	18.5	28 - 40
3RU2146-4HB0	22	36 - 50
3RU2146-4JB0	30	45 - 63
3RU2146-4KB0	37	57 - 75
3RU2146-4LB0	45	70 - 90
3RU2146-4MB0	45	80 - 100

Accessories for 3RU2 and 3RB3

PART NUMBER	DESCRIPTION
3RU2916-3AA01	Mounting stand for 3RU2116...S00
3RU2926-3AA01	Mounting stand for 3RU2126...S0
3RU2936-3AA01	Mounting stand for 3RU2136...S2
3RU2946-3AA01	Mounting stand for 3RU2146...S3
3RU2900-1A	Resetting Plunger for 3RU2 S00/S3
3RB3980-0A	Resetting Plunger for 3RB3 S00/S3
3SU1900-0KG10-0AA0	Extension plunger for reset button
3SU1200-0FB10-0AA0	Pushbutton with extended stroke for reset
3RU2900-1B	Cable reset-400mm S00 - S3
3RU2900-1C	Cable reset-600mm S00 - S3
3RU1900-2AB71	Electrical reset module 24...30vac/dc for 3RU overloads
3RU1900-2AF71	Electrical reset module 110...127vac/dc for 3RU overloads
3RU1900-2AM71	Electrical reset module 220...250vac/dc for 3RU overloads

Note: Electrical reset modules are suitable for Sizes 00 to 3 3RU2 Overloads only.

For mechanical push button reset for 3RU2 and 3RB3 overloads, 3 items required:

3RU2
1. 3RU2900-1A
2. 3SU1900-0KG10-0AA0
3. 3SU1200-0FB10-0AA0

3RB3
1. 3RB3980-0A
2. 3SU1900-0KG10-0AA0
3. 3SU1200-0FB10-0AA0

ELECTRONIC OVERLOAD RELAYS (3RB) & ACCESSORIES CLASS 10

3RB30 Electronic overloads
| Trip class 10
| No remote reset
| Manual and auto reset

3RB31 Electronic overloads
| Trip class 5...30E selectable
| Integrated elect. remote reset
| Manual and auto reset
| Internal ground fault

PART NUMBER		KW AT 400V	CURRENT SETTING (A)
3RB30 ELECTRONIC OVERLOADS	3RB31 ELECTRONIC OVERLOADS		

Size S00 to suit 3RT20 1 contactor

3RB3016-1RB0	3RB3113-4RB0	0.04 - 0.09	0.1 - 0.4
3RB3016-1NB0	3RB3113-4NB0	0.12 - 0.37	0.32 - 1.25
3RB3016-1PB0	3RB3113-4PB0	0.55 - 1.5	1 - 4
3RB3016-1SB0	3RB3113-4SB0	1.1 - 5.5	3 - 12
3RB3016-1TB0	3RB3113-4TB0	2.2 - 7.5	4 - 16

Size S0 to suit 3RT20 2 contactor

3RB3026-1RB0	3RB3123-4RB0	0.04 - 0.09	0.1 - 0.4
3RB3026-1NB0	3RB3123-4NB0	0.12 - 0.37	0.32 - 1.25
3RB3026-1PB0	3RB3123-4PB0	0.55 - 1.5	1 - 4
3RB3026-1SB0	3RB3123-4SB0	1.1 - 5.5	3 - 12
3RB3026-1QB0	3RB3123-4QB0	3 - 11	6 - 25
3RB3026-1VB0	3RB3123-4VB0	5.5 - 18.5	10 - 40

Size S2 to suit 3RT20 3 contactor

3RB3036-1UB0	3RB3133-4UB0	7.5 - 22	12.5 - 50
3RB3036-1WB0	3RB3133-4WB0	11 - 37	20 - 80
3RB3036-1UW1*	3RB3133-4UW1*	7.5 - 22	12.5 - 50
3RB3036-1WW1*	3RB3133-4WW1*	11 - 37	20 - 80

* Straight through CT

Size S3 to suit 3RT20 4 contactor

3RB3046-1UB0	3RB3143-4UB0	7.5 - 22	12.5 - 50
3RB3046-1XB0	3RB3143-4XB0	18.5 - 55	32 - 115
3RB3046-1UW1*	3RB3143-4UW1*	7.5 - 22	12.5 - 50
3RB3046-1XW1*	3RB3143-4XW1*	18.5 - 55	32 - 115

* Straight through CT

Size S6 stand alone

3RB2056-1FW2*	3RB2153-4FW2*	30 - 90	50 – 200
3RB2056-1FC2	3RB2153-4FC2	30 - 90	50 – 200

* Straight through

Size S10/12 stand alone

3RB2066-1GC2	3RB2163-4GC2	37 - 132	55 – 250
3RB2066-1MC2	3RB2163-4MC2	110 - 355	160 – 630

Accessories

PART NUMBER	DESCRIPTION
3RU2916-3AA01	Mounting stand for 3RU2116...S00
3RU2926-3AA01	Mounting stand for 3RU2126...S0
3RU2936-3AA01	Mounting stand for 3RU213 - S2
3RU2946-3AA01	Mounting stand for 3RU214 - S3
3RU3900-1Z	Resetting Plunger S00/S0, with Extended Button
3RU2900-1B	Cable reset-400mm S00 - S3
3RU2900-1C	Cable reset-600mm S00 - S3

MOTOR STARTER INFEED SYSTEM - 3RV29

The 3RV29 infeed system is a convenient means of energy supply and distribution for a group of several motor starter protectors or complete load feeders with a screw or spring-type connection up to 18.5kW (40A) in size S00 and S0 circuit breakers and contactors.

The modular combination of basic module and expansion module by means of expansion plug enables requirement-oriented expansion of the infeed system. The system is set up extremely easily and quickly thanks to simple plug-in mounting, and it enables fast and uncomplicated installation and replacement of load feeders.

Benefits at a glance

| Time savings during installation thanks to simple plug-in technology
| Flexibility in mountin and expansion
| More free space in the control cabinet – thanks to compact design
| Maximum current-carrying capacity of 63 A
| Infeed optionally on the right or the left with up to 25 mm² conductor cross-section
| High vibration-resistance, especially for switching devices with spring-loaded terminals
| Reversing DOL starters can be accomodated.
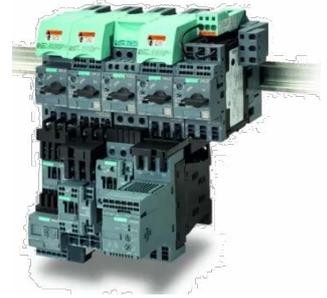
PART NUMBER	DESCRIPTION	LEGEND
3RV2917-1A	3-Phase Busbar with Infeed on the left, for 2 of 3RV2 Size S00 or S0 DIN Rail mount. MAX CURRENT 63A. Dimensions - 110mm W x 129mm H x 87mm D	1
3RV2917-4A	3-Phase Busbar including extension connector (3a),for 2 of 3RV2 Size S00 or S0. Dimensions - 92mm W x 129mm H x 59mm D	2
3RV2917-4B	3-Phase Busbar including extension connector (3a),for 3 of 3RV2 Size S00 or S0 Dimensions - 137mm W x 129mm H x 59mm D	2
3RV2917-5AA00	Connector Size S00 Spring Connection. Connects between 3 phase busbar and 3RV2 MSP	6
3RV2927-5AA00	Connector Size S0 Spring Connection. Connects between 3 phase busbar and 3RV2 MSP	6
3RV2917-5CA00	Connector Size S00 Screw Connection. Connects between 3 phase busbar and 3RV2 MSP	6
3RV1927-5AA00	Connector Size S0 Screw Connection. Connects between 3 phase busbar and 3RV2 MSP	6
3RV2917-7AA00	Contactor base for Size 00 3RT2 contactors. Two can be mounted side by side for reversing combinations.	7
3RV2927-7AA00	Contactor base for Size 00 & 0 3RT2 contactors. Two can be mounted side by side for reversing combinations.	7
3RV2917-5FA00	Terminal block for connecting non 3RV2 devices to the base	5
3RV2917-5D	Teminal block for 6mm sq cable. Can be used to feed out to other components from the 3 phase busbar.	8
3RA2911-2AA00	Link Module S00 AC/DC 3RT2 Contactor to S00 3RV2 MSP Spring Clamp	-
3RA2921-2AA00	Link Module S0 DC 3RT2 Contactor to S0 3RV2 MSP Spring Clamp	-
3RA2921-2AA00	Link Module S0 AC 3RT2 Contactor to S0 3RV2 MSP Spring Clamp #	-
3RA2911-1CA00	# Optional height compensation spacer for size S0 AC Contactor	-

① 3-phase busbar with infeed
② 3-phase busbar for system expansion
③a Expansion plug
③b Extra-wide expansion plug
④ End cover
⑤ Terminal block for device infeed
⑥ Plug-in connector
⑦ Contactor base
⑧ Terminal block
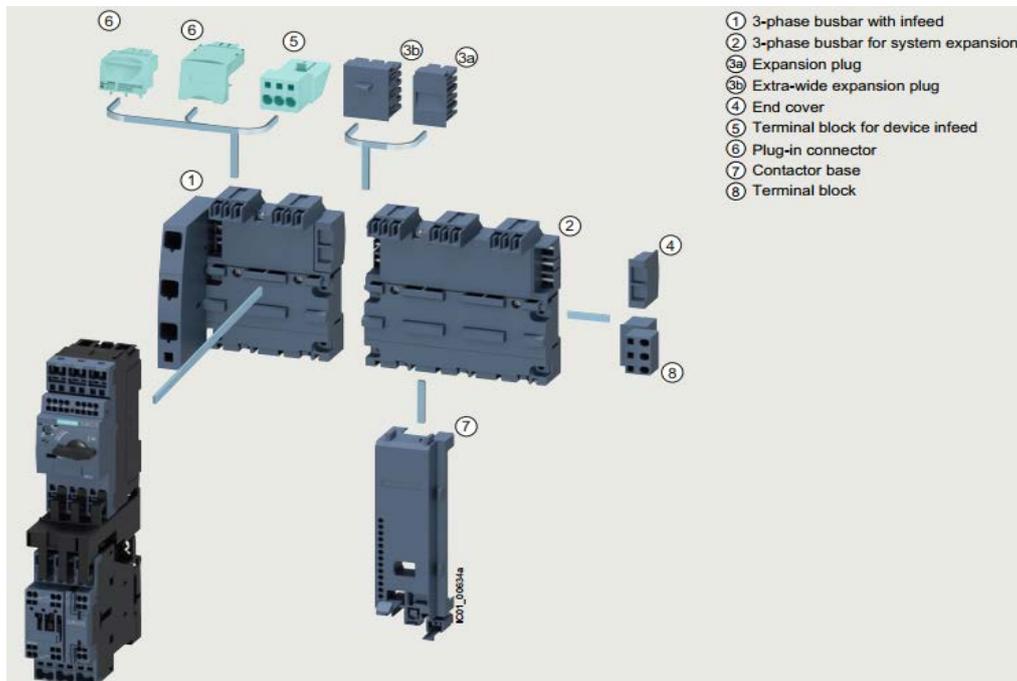
60 MM BUSBAR SYSTEMS 8US

Base assemblies up to 630 A

Busbar supports

End and intermediate holders for flat copper profiles 12 mm x 5 mm, 12 mm x 10 mm, 15 mm x 5 mm, 15 mm x 10 mm, 20 mm x 5 mm, 20 mm x 10 mm, 25 mm x 5 mm, 25 mm x 10 mm, 30 mm x 5 mm, 30 mm x 10 mm

PART NUMBER	DESCRIPTION	ARRANGEMENT
8US1923-1AA01	1-Pole, in addition for copper profiles 6 x 6 mm, mounting on 8US19 23-2AA01 3-Pole busbar supports or free standing	PE/N
8US1923-2AA01	3-Pole, with outside fixing	L1–L3
8US1923-3AA01	3-Pole, with inside fixing	L1–L3
9340000	3-Pole, with inside fixing Rittal	L1–L3
8US1923-4AA00	4-Pole, with inside fixing	L1–L3 + PE/N
8US1923-5AA00	2-Pole, with outside fixing	

End covers

8US1922-1AC00	For covering unterminated busbar ends For 8US19 23-2AA01 or 8US19 23-3AA01	L1–L3
9340070	For covering unterminated busbar ends Rittal	L1–L3
8US1922-1AB00	4-Pole, for 8US19 23-4AA00 (1 pack = 2 units, 1x right, 1x left)	L1–L3 + PE/N

Outgoing modules for PE/N

8US1200-0AA00	Connection module for 4-Pole (PE/N) up to 16 mm must be attached to an adapter/device holder	

Infeed - terminal plate with cover

8US1921-1BA00	3-Pole 200 long, 54 wide	6-50mm sq Cable 300A
8US1921-1AA00	3-Pole 200 long, 81 wide	35-120mm sq Cable 400A
9342270	Cable adaptor, 250A, compact, 690VAC, 1000VDC – 1500VDC	
9342310	Cable/busbar adaptor, 800A, multi-piece, 690VAC, 1000VDC – 1500VDC	

Cover profiles for busbars

PART NUMBER	DESCRIPTION
8US1922-2CA00	12 × 5 mm 1000 mm long
8US1922-2AA00	20 × 5 mm, 1000mm long 25 × 5 mm, 30 × 5 mm 1000mm long
8US1922-2BA00	12 x 10 mm, 15 x 10 mm, 1000mm long 20 × 10 mm, 25 x 10 mm, 1000mm long 30 × 10 mm 1000mm long
9340210	Busbar Cover 3 Pole 1100mm long Pack of 2 Rittal
9340130	Base Tray 3 Pole 1100mm Long, Pack of 2 Rittal
9340220	Support Panel for Cover 3 Pole Pack of 5 Rittal

Items in green are Rittal products

60MM BUSBAR ADAPTORS FOR MOTOR STARTERS

PART NUMBER	DESCRIPTION

60mm busbar adaptor

PART NUMBER	DESCRIPTION
8US12515DS10	"Busbar Adaptor, 25A, 200x45 with cables Suitable for Size 00/0 MSP & Size 00 contactor"
9340320	Busbar Adaptor, 25A, S00, 208x45 with cables (Rittal)
8US12515NT10	"Busbar Adaptor, 32A, 260x45 with cables Suitable for Size 00/0 MSP & Size 0 contactor"
9340390	Busbar Adaptor, 32A, S0, 237x45 with cables (Rittal)

Link module

PART NUMBER	DESCRIPTION
3RA1921-1DA00	Link module Size 00 Circuit Breaker & Contactor (AC/DC Coil)
3RA2921-1AA00	Link module Size 0 Circuit Breaker & Contactor (AC Coil)
3RA2921-1BA00	Link module Size 0 Circuit Breaker & Contactor (DC Coil)
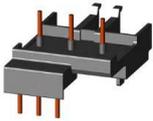
DOL starting for 60 mm busbar systems
Sizes S00 and S0

DOL starting for 60 mm busbar systems
Size S2

① **Motor starter protector**
Size S2
Screw terminals

② **Busbar adapter 60 mm**
8US1261-6MT10

③ **Link module**
3RA2931-1AA00
Screw terminals
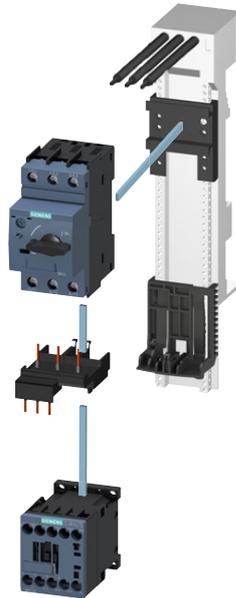
④ **Contactor**
Size S2
Screw terminals

S2 busbar adaptor
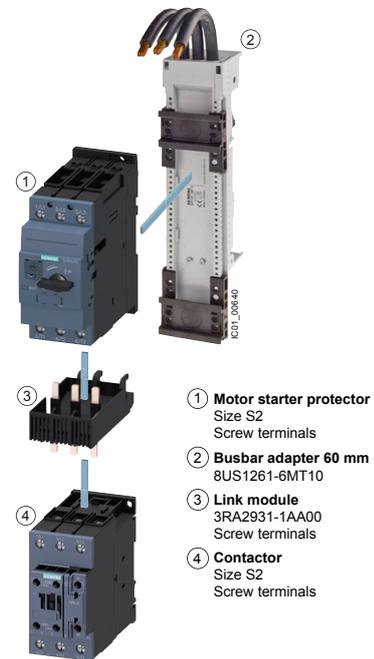
PART NUMBER	DESCRIPTION
8US12616MT10	Busbar Adaptor, 80A, 260x54 with cables Suitable for Size 2 MSP & Size 2 contactor
9340450	Busbar Adaptor, 65A, S2, 272x55 with cables (Rittal)

Link module

PART NUMBER	DESCRIPTION
3RA2931-1AA00	Link module between S2 3RT2 Contactor (AC Coil) & S2 3RV2 MSP

60MM MOUNTING ADAPTORS FOR 3VL AND 3VA MCCBS

Busbar adaptor

PART NUMBER	DESCRIPTION
8US12134AU01	Busbar Adaptor 60mm for 3VA10/11 MCCB 77mm Wide x 200mm High rated to 144A
8US12134AP03	Busbar Adaptor 60mm for 3VA12/20/21/221 MCCB to 250A 105mm Wide x 240mm High rated to 250A
8US12134AH04	Busbar Adaptor 60mm for 3VA23/24 MCCB to 400A & 630A 140mm Wide x 300mm High rated to 590A

Items in green are Rittal products

3RA8 INTELLIGENT MOTOR STARTER

Communication between the field and the cloud made simple. With the plug-and-play expansion module for the SIRIUS Modular System, you integrate load feeders on the field level directly into automation systems. SIRIUS 3RC7 Intelligent Link Modules are part of the SIRIUS Modular System, the comprehensive portfolio for industrial controls.

One system with SIMATIC – ET 200SP Flexible Rack Extension

Flexible Rack Extension
(ET-Connection)

Configuration
with SIMATIC STEP 7
in TIA Portal
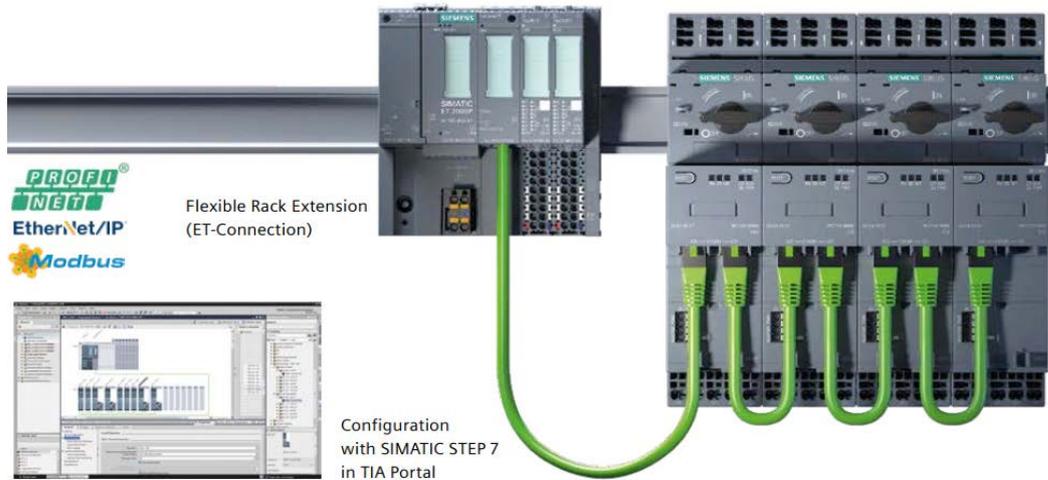
KW	A	PERFORMANCE	FRAME SIZE	PART NUMBER
DOL Starter				
0.12..1.5	0.4...4	Standard	S00	3RA8412-1EE00
2.2...15	3.5...32	Standard	S0	3RA8422-4EE00
0.12..1.5	0.4...4	High Feature	S00	3RA8412-1EE10
2.2...15	3.5...32	High Feature	S0	3RA8422-4EE10
Reversing Starter				
0.12..1.5	0.4...4	Standard	S00	3RA8512-1EE00
2.2...15	3.5...32	Standard	S0	3RA8522-4EE00
0.12..1.5	0.4...4	High Feature	S00	3RA8512-1EE10
2.2...15	3.5...32	High Feature	S0	3RA8522-4EE10

DESCRIPTION	PART NUMBER
Communication cable from ET200SP station to first starter	
Length 0.5m	3RC7940-0TE10
Length 2.0m	3RC7940-0TE20
Length 5.0m	3RC7940-0TE30
Length 10.0m	3RC7940-0TE40
Communication cable between starters	
DOL side by side mounting	3RC7940-0TE01
REVERSER side by side mounting	3RC7940-0TE02
Length 0.75m	3RC7940-0TE03
Length 1.5m	3RC7940-0TE04
Length 02.0m	3RC7940-0TE05
Power cable	
Connection of 24VDC bus between DOL starters	3RC7940-1TE01
Connection of 24VDC bus between REV starters	3RC7940-1TE02
Adapter to separately mount 3RV C/B	
Frame size S00	3RC7940-2TE00
Frame size S0	3RC7940-2TE01

3RC7940-0TE10

3RC7940-0TE01

SIMOCODE - INTELLIGENT MOTOR MANAGEMENT RELAY

SIMOCODE pro offers multifunctional, solid-state full motor protection. The motor management system monitors, protects and controls constant-speed motors and enables the implementation of predictive maintenance. It does not wait for a problem to occur before shutting down the motor, but establishes a level of transparency in advance. This avoids plant standstills and improves economic efficiency. SIMOCODE pro delivers detailed operating, service and diagnostic data from across the entire process. The engineering is simple and likewise the integration into process control systems. SIMOCODE pro communicates via PROFIBUS and PROFINET, Modbus, EtherNet / IP and OPC UA. It implements simple and economical motor management.

Simocode is a modular system. Choose 1 item from each selection group below.
Selections 1...3 are always required for a typical system. Selections 4...7 are optional.
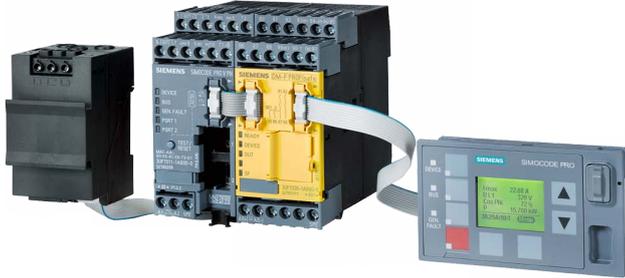
Measuring Modules

SELECTION	DESCRIPTION	PART NUMBER
1	Current measuring module 0.3...3A	3UF7100-1AA00-0
	Current measuring module 2.4...25A	3UF7101-1AA00-0
	Current measuring module 10...100A	3UF7102-1AA00-0
	Current measuring module 20...200A (through hole)	3UF7103-1AA00-0
	Current measuring module 20...200A (tags)	3UF7103-1BA00-0
	Current measuring module 63...630A (tags)	3UF7104-1BA00-0
	Current/voltage measuring module 0.3...4A	3UF7110-1AA01-0
	Current/voltage measuring module 3...40A	3UF7111-1AA01-0
	Current/voltage measuring module 10...115A	3UF7112-1AA01-0
	Current/voltage measuring module 20...200A (through hole)	3UF7113-1AA01-0
	Current/voltage measuring module 20...200A (tags)	3UF7113-1BA01-0
	Current/voltage measuring module 63...630A (tags)	3UF7114-1BA01-0

Connection cable (measuring module to Basic unit)

2	Ribbon cable 0.025m	3UF7930-0AA00-0
	Ribbon cable 0.15m	3UF7934-0AA00-0
	Ribbon cable 0.3m	3UF7935-0AA00-0
	Ribbon cable 0.5m	3UF7932-0AA00-0
	Round cable 1m	3UF7937-0BA00-0

Basic Units

3	Basic unit, Profibus DP, 24VDC	3UF7010-1AB00-0
	Basic unit, Profibus DP, 110...240VUC	3UF7010-1AU00-0
	Basic unit, Profinet, 24VDC	3UF7011-1AB00-0
	Basic unit, Profinet, 110...240VUC	3UF7011-1AU00-0
	Basic unit, Modbus RTU, 24VDC	3UF7012-1AB00-0
	Basic unit, Modbus RTU, 110...240VUC	3UF7012-1AU00-0
	Basic unit, Ethernet IP, 24VDC	3UF7013-1AB00-0
	Basic unit, Ethernet IP, 110...240VUC	3UF7013-1AU00-0

Connection cable (operator panel to Basic unit)

4	Ribbon cable 0.5m	3UF7932-0AA00-0
	Round cable 1m	3UF7937-0BA00-0
	Round cable 2.5m	3UF7933-0BA00-0

Operator Panel

5	Basic operator panel	3UF7200-1AA01-0
	Operator panel with display	3UF7210-1AA01-0

Connection cable (expansion modules to Basic unit)

6	Operator panel with display	3UF7930-0AA00-0

SIMOCODE - INTELLIGENT MOTOR MANAGEMENT RELAY

No more than 5 exp devices without checking in TIA selection tool

SELECTION	MAX QTY PER SIMOCODE			PART NUMBER
		3UF7010/7012	3UF7011/7013	
7	Digital I/O 4in/2out, 24VDC	2	2	3UF7300-1AB00-0
	Digital I/O 4in/2out, 110...240VUC	2	2	3UF7300-1AU00-0
	Safety module, 24VDC - DMF Local	1	1	3UF7320-1AB00-0
	Safety module, 110...240VUC - DMF Local	1	1	3UF7320-1AU00-0
	Safety module, 24VDC - DMF Profi	1	1	3UF7330-1AB00-0
	Safety module, 110...240VUC - DMF Profi	1	1	3UF7330-1AU00-0
	Analog module, 2in/1out	1	2	3UF7400-1AA00-0
	RTD Module	1	2	3UF7700-1AA00-0
	Ground fault module *	1	1	3UF7510-1AA00-0

* for every ground fault module, a residual current trasformer required.

DESCRIPTION	PART NUMBER
Residual-current transformer opening 35 mm range (<=22kW, 85A max)	3UL2302-1A
Residual-current transformer opening 55 mm range (30...55kW, 150A max)	3UL2303-1A
Residual-current transformer opening 80 mm range (75...90kW, 225A max)	3UL2304-1A
Residual-current transformer opening 105 mm range (110...160kW, 400A max)	3UL2305-1A
Residual-current transformer opening 140 mm range (200...250kW, 500A max)	3UL2306-1A
Residual-current transformer opening 210 mm range (>250kW, 630A max)	3UL2307-1A
Adapter for standard mounting rail mounting of 3UL23 up to 55 mm inside diameter	3UL2900

Accessories

DESCRIPTION	PART NUMBER
USB Programming cable	3UF7941-0AA00-0
Simocode ES V20 professional software	3ZS1322-6CC18-0YA5
Memory module	3UF7901-0AA01-0
Addressing plug (3UF7010/7012)	3UF7910-0AA00-0
Initialization module	3UF7902-0AA00-0
Y cable for each initialization module 0.1m	3UF7931-0CA00-0
Y cable for each initialization module 0.5m	3UF7932-0CA00-0
Y cable for each initialization module 1,0m	3UF7937-0CA00-0
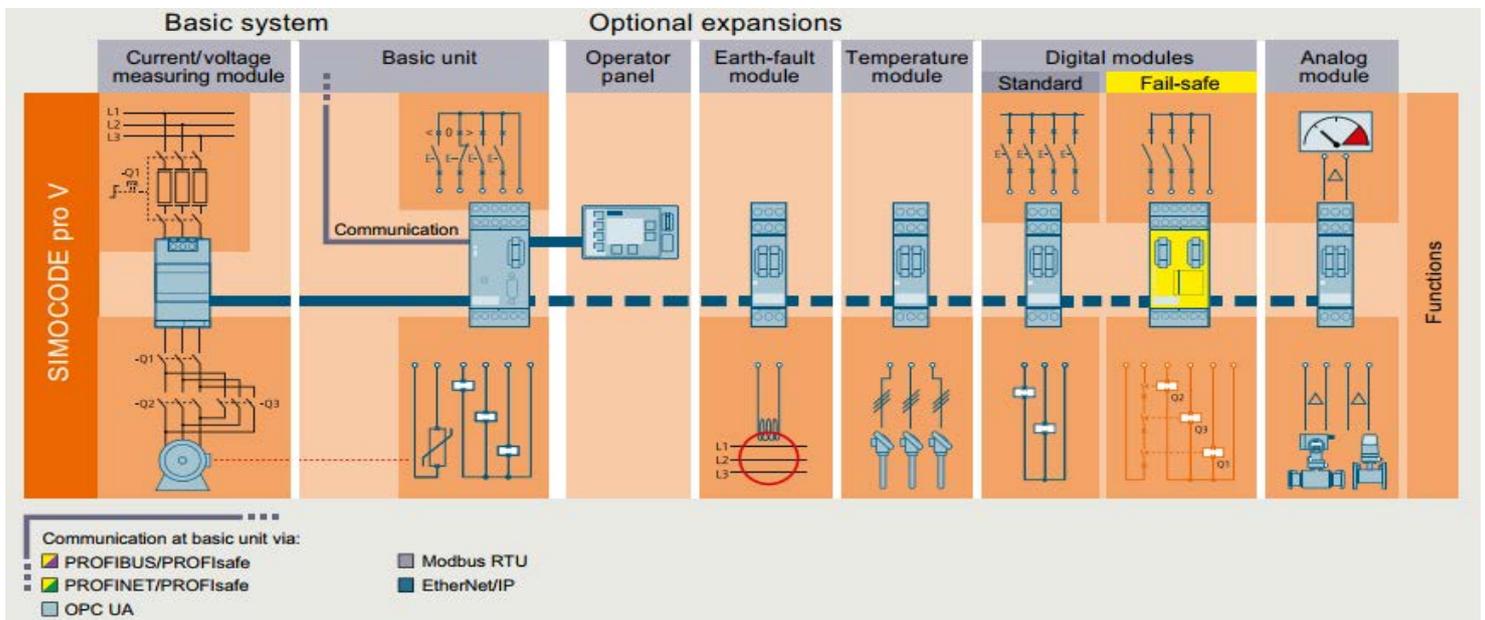
SIMOCODE - INTELLIGENT MOTOR MANAGEMENT RELAY

SIMOCODE M-CP controls and monitors your motors efficiently and reliably. Optimally designed for use in motor control centers, it offers highly compact and powerful hardware, the latest Ethernet-based communication, and easily scalable device functions – and it's embedded in complete solutions for time-saving planning and commissioning and safe, smooth operation.

Simocode is a modular system.
Choose 1 item from each selection group below.
Selections 1...3 are always required for a typical system.
Selections 4 (operator panel) is optional.

SELECTION	DESCRIPTION	PART NUMBER
	Measuring Modules	
	Current/voltage measuring module 0.3...40A	3UF8110-1AA00-0
	Current/voltage measuring module 10...115A	3UF8111-1AA00-0
1	Current/voltage measuring module 63...630A (tags)	3UF8112-1AA00-0
	Optional connection tags for 63...630A measuring module	3UF8950-0AA00-0
	Set of 6 bolts for optional connection tags for size S6 contactor	3UF8951-0AA00-0
	Set of 6 bolts for optional connection tags for size S10/12 contactor	3RT1966-4PA00
	Connection cable (measuring module to Basic unit)	
	Ribbon cable 0.3m	3UF7935-0AA00-0
	Ribbon cable 0.5m	3UF7932-0AA00-0
2	Round cable 0.5m	3UF7932-0BA00-0
	Round cable 1m	3UF7937-0BA00-0
	Round cable 2.5m	3UF7933-0BA00-0
	Basic Units	
3	Basic unit, Profinet, 24VDC	3UF8011-2AB00-0
	Basic unit, Profinet, 110...240VUC	3UF8011-2AU00-0
	Operator Panel	
4	Basic operator panel	3UF8200-1AA00-0

DESCRIPTION	PART NUMBER
If DIN rail mounting Simocode inside the switchboard	
DIN-rail adapter for basic unit or measuring module	3UF8920-0AA00-0
Connecting cable operator panel to basic unit 0.5m	3UF8932-0BA00-0
Connecting cable operator panel to basic unit 1.0m	3UF8937-0BA00-0
Operator panel door mount 95 x 58mm	3UF8922-0AA00-0
Operator panel door mount 105 x 42mm	3UF8922-0BA00-0

* for every ground fault module, a residual current trasformer required.

Residual-current transformer opening 35 mm range (<=22kW, 85A max)	3UL2302-1A
Residual-current transformer opening 55 mm range (30...55kW, 150A max)	3UL2303-1A
Residual-current transformer opening 80 mm range (75...90kW, 225A max)	3UL2304-1A
Residual-current transformer opening 105 mm range (110...160kW, 400A max)	3UL2305-1A
Residual-current transformer opening 140 mm range (200...250kW, 500A max)	3UL2306-1A
Residual-current transformer opening 210 mm range (>250kW, 630A max)	3UL2307-1A
Adapter for standard mounting rail mounting of 3UL23 up to 55 mm inside diameter	3UL2900

Accessories

USB Programming cable USBC to USB A, 2.0m	8WD4618-0FB
Simocode ES V20 professional software	3ZS1322-6CC18-0YA5
Initialization module	3UF8902-0AA00-0
Y cable for each initializtion module 0.5m	3UF7932-0CA00-0
Y cable for each initializtion module 1.0m	3UF7937-0CA00-0
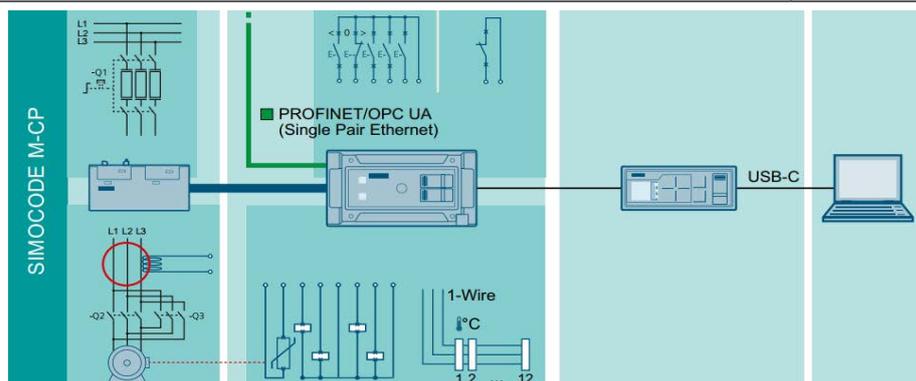
3RM1 COMPACT HYBRID MOTOR STARTERS

The new SIRIUS 3RM1 Motor Starters are designed for installation in control cabinets and require minimal space. They combine the functionality of contactors and overload relays in a package of just 22.5mm wide. The 3RM1 makes your work easier, offering easy adjustment of motor current, minimal wiring costs and fast trouble shooting. With these starters you can build more compact control cabinets.

DOL starters

PART NUMBER	DESCRIPTION	KW	A
3RM1001-1AA.4	DOL Hybrid Starter	0-0.12	0.1-0.5
3RM1002-1AA.4	DOL Hybrid starter	0.09-0.75	0.4-2
3RM1007-1AA.4	DOL Hybrid starter	0.55-3	1.6-7

Reversing DOL starters

3RM1201-1AA.4	Reversing Hybrid Starter	0-0.12	0.1-0.5
3RM1202-1AA.4	Reversing Hybrid Starter	0.09-0.75	0.4-2
3RM1207-1AA.4	Reversing Hybrid Starter	0.55-3	1.6-7

Failsafe DOL starters

3RM1101-1AA.4	Failsafe DOL Hybrid Starter	0-0.12	0.1-0.5
3RM1102-1AA.4	Failsafe DOL Hybrid Starter	0.09-0.75	0.4-2
3RM1107-1AA.4	Failsafe DOL Hybrid Starter	0.55-3	1.6-7

Failsafe Reversing DOL starters

3RM1301-1AA.4	Failsafe Reversing Hybrid Starter	0-0.12	0.1-0.5
3RM1302-1AA.4	Failsafe Reversing Hybrid Starter	0.09-0.75	0.4-2
3RM1307-1AA.4	Failsafe Reversing Hybrid Starter	0.55-3	1.6-7

Replace missing character (.) with number below for voltage required

V	24DC	110-230VAC
CODE	0	1

Spring terminal available - change -1AA.. To -2AA..

Accessories

3RM1910-1AA	3-Phase Busbar for 2 Starters Spacing 45mm
3RM1910-1BA	3-Phase Busbar for 3 Starters Spacing 45mm
3RM1910-1DA	3-Phase Busbar for 5 Starters Spacing 45mm
3RM1910-6AA	Cap for Busbar
3RM1920-1AA	3-Phase In feed terminal
3RM1932-1AB	Fuse module with 3NW6007-1
3RM1930-1AA	Fuse module without fuse.
3ZY1212-2EA00	3RM1 Device connector, 24VDC, 22.5mm
3ZY1212-2AB00	Connector for use to separate 3RM starters when the current exceeds 25A
3ZY1212-2FA00	3RM1 Device termination connector, 24VDC, 22.5mm

SAFETY RELAYS - 3SK1

PART NUMBER	DESCRIPTION	ADJUSTABLE OFF-DELAY TIME	CONTROL VOLTAGE	OUTPUTS	
				ENABLE CIRCUITS	SINALLING CIRCUITS
3SK1 Standard safety relay					
3SK1111-1AB30	Standard basic unit with Relay Outputs	—	24 V AC/DC	3	1
3SK1111-1AW20	Standard basic unit with Relay Outputs	—	110-240 V AC/DC	3	1
3SK1112-1BB40	Standard basic unit with Semiconductor Outputs	—	24V DC	2	1
3SK1 Expandable, DIP switch configurable safety relay relay					
3SK1121-1AB40	Advanced basic unit with Relay Outputs	—	24V DC	3	1
3SK1121-1CB41	Advanced basic unit with Relay Outputs	0.05 to 3 sec	24V DC	2/2*	
3SK1121-1CB42	Advanced basic unit with Relay Outputs	0.5 to 30 sec	24V DC	2/2*	
3SK1122-1AB40	Advanced basic unit with Semiconductor Outputs	—	24V DC	3	1
3SK1122-1CB42	Advanced basic unit with Semiconductor Outputs	0.5 to 30 sec	24V DC	2/2*	
3SK2 Programmable Safety Relay					
3SK2112-1AA10	Programmable basic unit with semiconductor outputs, 10 inputs, 22.5mm	—	24V DC	2	1
3SK2122-1AA10	Programmable basic unit with semiconductor outputs, 20 inputs, 45mm	—	24V DC	4	2
3ZS1326-2CE12-0YB5	Sirius Safety ES V19 Professional				
3UF7941-0AA00-0	USB Programming cable				
Expansion Modules					
3SK1211-1BB40	Output expansion module with Relay Outputs	—	24V DC	4	1
3SK1213-1AB40	10A Output expansion module with Relay Outputs	—	24V DC	3	1
3SK1220-1AB40	Input expansion module (for Advanced units only)	—	24V DC		
3SK2511-1FA10	Profinet interface module (3SK2 only)	—	—	—	—

PART NUMBER	DESCRIPTION
3SK1230-1AW20	Optional 24VDC power supply up to 6 devices

Device connectors
(for saving wiring between advanced units and input or output modules

3ZY1212-1BA00	17.5mm wide device connector
3ZY1212-2BA00	22.5mm wide device connector
3ZY1212-2GA00	22.5mm wide device connector for 3SK2
3ZY1212-4GA01	45mm wide device connector for 3SK2
3ZY1212-2DA00	Device termination connector 22.5mm for last unit

Note: Motors up to 3kW can be easily integrated into the safety relay system using SIRIUS 3RM1 and 3ZY1 device connectors, without having to run a cable between the evaluation unit and the motor starter.

COUPLING RELAYS

3RQ1 Force-guided coupling relays

PART NUMBER	DESCRIPTION	KW	A
Width 17.5mm			
3RQ1000-1EB00	Failsafe up to SIL2/PLc	1NO+1NC	24VDC
3RQ1000-1GB00	Failsafe up to SIL2/PLc	2NO+1NC	24VDC
3RQ1000-1EW00	Failsafe up to SIL2/PLc	1NO+1NC	24-240VAC/DC
3RQ1000-1GW00	Failsafe up to SIL2/PLc	2NO+1NC	24-240VAC/DC
3RQ1200-1EB00	Failsafe up to SIL3/Ple	1NO	24VDC
3RQ1200-1EW00	Failsafe up to SIL3/Ple	1NO+1NC	24-240VAC/DC
Width 22.5mm			
3RQ1000-1HB00	Failsafe up to SIL2/PLc	2NO+2NC	24VDC
3RQ1000-1LB00	Failsafe up to SIL2/PLc	4NO+1NC	24VDC
3RQ1000-1HW00	Failsafe up to SIL2/PLc	2NO+2NC	24-240VAC/DC
3RQ1000-1LW00	Failsafe up to SIL2/PLc	4NO+1NC	24-240VAC/DC

3RQ2 Coupling relay

3RQ2000-1AW00	Relay in 22.5mm housing	1CO	24-240VAC/DC
3RQ2000-1BW00	Relay in 22.5mm housing	2CO	24-240VAC/DC
3RQ2000-1CW00	Relay in 22.5mm housing	3CO	24-240VAC/DC
3RQ2000-1CW01	Relay in 22.5mm housing	3CO	24-240VAC/DC

3RQ3 Coupling relays

3RQ3038-.AB00	Input coupling relay	1 CO	24VAC/DC
3RQ3038-.AE00	Input coupling relay	1 CO	115VAC/DC
3RQ3038-.AF00	Input coupling relay	1 CO	230VAC/DC
3RQ3118-.AB00	Output coupling relay (plug in)	1 CO	24VAC/DC
3RQ3118-.AE00	Output coupling relay (plug in)	1 CO	115VAC/DC
3RQ3118-.AF00	Output coupling relay (plug in)	1 CO	230VAC/DC
3RQ3055-.SM30	Semiconductor output coupling link	1NO	24VDC

Replace missing character (.) with: 1 = screw and 2 = spring terminal
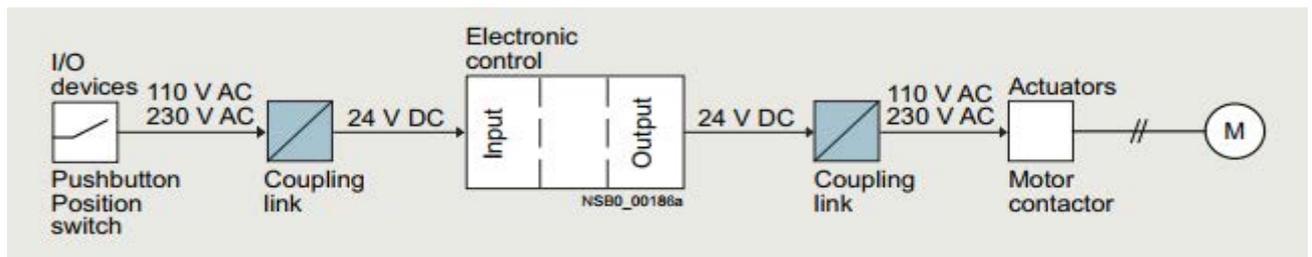
3RQ2 Coupling relay

LZS:RT3A4*	6A @ 230VAC (AC-15), 2A @ 24VDC (DC-13)		1CO
LZS:RT4A4*	3A @ 230VAC (AC-15), 2A @ 24VDC (DC-13)		2CO

Replace missing character (.) with code below for voltage required

LZS:PT3A5*	5A @ 230VAC (AC-15), 2A @ 24VDC (DC-13)		3CO
LZS:PT4A5*	4A @ 230VAC (AC-15), 2A @ 24VDC (DC-13)		4CO

Replace missing character (.) with code below for voltage required

V	24DC	24VAC	115VAC	230VAC
CODE	L24	R24	S15	T30

TIMING RELAYS - 3RP25

Multi function timing relays, 15 time setting ranges

PART NUMBER	DESCRIPTION	TIME SETTING	CONTACTS	CONTROL VOLTAGE
3RP2505-1AW30	13 Functions	(1, 3, 10, 30, 100), (S/MIN/HR)	1 C/O	12-240V AC/DC
3RP2505-1BW30	27 Functions	(1, 3, 10, 30, 100), (S/MIN/HR)	2 C/O	12-240V AC/DC

On delay timer

3RP2511-1AW30	0.5 to 10 sec		1 C/O	12-240V AC/DC
3RP2512-1AW30	1.5 to 30 sec		1 C/O	12-240V AC/DC
3RP2513-1AW30	5 to 100 sec		1 C/O	12-240V AC/DC
3RP2525-1BW30	0.05 sec to 100 hours		2 C/O	12-240V AC/DC

Off delay timer

3RP2535-1AW30	With auxiliary voltage	0.05 sec to 100 hours	1 C/O	12-240V AC/DC
3RP2540-1AW30	Without auxiliary voltage	0.05 to 600 sec	1 C/O	12-240V AC/DC
3RP2540-1BW30	Without auxiliary voltage	0.05 to 600 sec	2 C/O	12-240V AC/DC

Clock pulse timing relays, 15 time setting ranges

3RP2555-1AW30	0.05 sec to 100 hours		1 C/O	12-240V AC/DC

Star/Delta timing relay

3RP2574-1NW30	1 Instantaneous, 1 Delayed contact	1 to 20 sec	2 NO	12-240V AC/DC

Timing Function Chart

CODE LETTER OF THE SET FUNCTION	13 FUNCTIONS (A–M)	27 FUNCTIONS 13 functions (A–M), 2 CO parallel switching + 13 functions (A–M), 1 CO delayed + 1 CO instantaneous switching + 1 star/wye-delta function
A	ON delay	ON delay and instantaneous switching
B	OFF delay with control signal	OFF delay with control signal and instantaneous switching
C	ON/OFF delay with control signal	ON/OFF delay and instantaneous switching
D	Flashing, symmetrical, start with break	Flashing, symmetrical, start with break and instantaneous switching
E	Passing make contact function, interval relay	Passing make contact function, interval relay and instantaneous switching
F	Retriggerable interval relay with disconnected control signal (passing break contact function with control signal)	Retriggerable interval relay with disconnected control signal (passing break contact with control signal) and instantaneous switching
G	Passing make contact function, with control signal, not retriggerable (pulse-shaping with control signal)	Passing make contact function, with control signal, not retriggerable (pulse-shaping with control signal) and instantaneous switching
H	Additive ON delay, undelayed OFF with control signal	Additive ON delay, undelayed OFF with control signal and instantaneous switching
I	Additive ON delay with control signal	Additive ON delay with control signal and instantaneous switching
J	Flashing, symmetrical, start with pulse	Flashing, symmetrical, start with pulse and instantaneous switching
K	Pulse delay, pulse permanently set, pulse length 1s and pulse delay adjustable	Pulse delay, pulse permanently set, pulse length 1s and pulse delay adjustable and instantaneous switching
L	Pulse delay with control signal Pulse permanently set, pulse length 1s and pulse delay adjustable	Pulse delay, pulse permanently set, pulse length 1s and pulse delay adjustable and instantaneous switching
M	Retriggerable interval relay with connected control signal (watchdog)	Retriggerable interval relay with connected control signal (watchdog) and instantaneous switching
Y Δ		Star / Delta function

MONITORING RELAYS - VOLTAGE, CURRENT & GROUND FAULT

PART NUMBER	DESCRIPTION	TRIPPING DELAY	CONTACTS	CONTROL VOLTAGE
3UG5511-1AR20	Analogue Monitoring Relay	–	1 C/O	320-500VAC
3UG5511-1BR20	Analogue Monitoring Relay	–	2 C/O	320-500VAC

Monitoring of phase sequence, phase failure & phase unbalance

PART NUMBER	DESCRIPTION	TRIPPING DELAY	CONTACTS	CONTROL VOLTAGE
3UG5512-1AR20	Analogue Monitoring Relay	–	1 C/O	160-690VAC
3UG5512-1BR20	Analogue Monitoring Relay	–	2 C/O	160-690VAC
3UG5512-1AR21	Analogue Monitoring Relay SIL 1/PLc	–	1 C/O	160-690VAC
3UG5512-1BR21	Analogue Monitoring Relay SIL 1/PLc	–	2 C/O	160-690VAC

Monitoring of phase sequence, phase failure, unbalance & under voltage

PART NUMBER	DESCRIPTION	TRIPPING DELAY	CONTACTS	CONTROL VOLTAGE
3UG5514-1BR20	Analogue adjustable, Auto Reset	0.1 to 20 sec	2 C/O	160-690VAC

Monitoring of phase sequence, phase failure, unbalance, over & under voltage

PART NUMBER	DESCRIPTION	TRIPPING DELAY	CONTACTS	CONTROL VOLTAGE
3UG5616-1CR20	Digitally adjustable, Auto or Man Reset	0.1 to 20 sec	2 C/O	90-690VAC

Automatic correction of the direction of the rotation in case of wrong phase sequence, phase failure, unbalance, over & under voltage

PART NUMBER	DESCRIPTION	TRIPPING DELAY	CONTACTS	CONTROL VOLTAGE
3UG5618-1CR20	Digital Monitoring Relay	0.1 to 20 sec	2 C/O	90-690VAC
3UG5618-1CR20	Digital Monitoring Relay SIL 1/PLc	0.1 to 20 sec	2 C/O	90-690VAC

Voltage monitoring, internal power supply without auxiliary voltage

PART NUMBER	DESCRIPTION	TRIPPING DELAY	CONTACTS	CONTROL VOLTAGE
3UG5533-1AL30	Analogue adjustable, Auto or Man Reset	0.1 to 20 sec	1 C/O	20-275VAC/DC

Voltage monitoring, supplied from an external auxiliary voltage

PART NUMBER	DESCRIPTION	TRIPPING DELAY	CONTACTS	CONTROL VOLTAGE
3UG5532-1AW30	Analogue adjustable, Auto or Man Reset	0.1 to 20 sec	1 C/O	24 - 240V

Monitoring of under & over current

PART NUMBER	DESCRIPTION	TRIPPING DELAY	CONTACTS	CONTROL VOLTAGE
3UG5522-1AW30	Analogue adjustable, Auto or Man Reset measuring range 0.05 - 15A AC/DC	0.1 to 20 sec	1 C/O	24 - 240V AC/DC
3RR2241-1FW30	3 PH. current, ph seq, jam monitoring, measuring. range 1.6 - 16A	0 to 99 sec	1 C/O	24 - 240V AC/DC
3RR2242-1FW30	3 PH. current, ph seq, jam monitoring, measuring. range 4 - 40A	0 to 99 sec	1 C/O	24 - 240V AC/DC
3RR2243-1FW30	3 PH. current, ph seq, jam monitoring, measuring. range 8 - 80A	0 to 99 sec	1 C/O	24 - 240V AC/DC

Thermistor motor protection relay

PART NUMBER	DESCRIPTION	TRIPPING DELAY	CONTACTS	CONTROL VOLTAGE
3RN2010-1CW30	Compact Relay Auto Reset	–	1NO + 1NC	24 - 240V AC/DC
3RN2012-1BW30	Standard Relay, Manual/Auto/Remote reset 2 LEDs (READY/TRIPPED), Test/reset button, Open & Short circuit monitoring	–	2 C/O	24 - 240V AC/DC

Residual current monitoring relay with summation CT

PART NUMBER	DESCRIPTION	TRIPPING DELAY	CONTACTS	CONTROL VOLTAGE
3UG5625-1CW30	Monitoring residual currents 0.03 to 40A Requires 3UL23 Summation CT	0 to 999.9 sec	2 C/O 1 contact for warning 1 contact for tripping	24 - 240V AC/DC

Ground fault summation CTs

PART NUMBER	DESCRIPTION
3UL2302-1A	Summation CT with 35mm window
3UL2303-1A	Summation CT with 55mm window
3UL2304-1A	Summation CT with 80mm window
3UL2305-1A	Summation CT with 110mm window
3UL2306-1A	Summation CT with 140mm window
3UL2307-1A	Summation CT with 210mm window

Temperature monitoring relay

PART NUMBER	DESCRIPTION	TRIPPING DELAY	CONTACTS	CONTROL VOLTAGE
3RS2500-1AW30	PT100 and J,K thermocouples (analog)	–	1 C/O	24 - 240V AC/DC
3RS2600-1BW30	1 Sensor: PT100, PT1000, KTY83, KTY84 and Thermocouples TYPE: J, K, T, E, N, S, R, B (digital)	–	2 C/O	24 - 240V AC/DC
3RS2900-1AW30	2 Sensor expansion FOR 3RS2600...	–	1 C/O	24 - 240V AC/DC

PUSH BUTTONS AND INDICATOR LIGHTS - PLASTIC (3SU) IP69K

Complete push buttons

PART NUMBER	COLOUR	NO CONTACT	NC CONTACT	VOLTAGE
3SU1100-0AB10-1BA0	Black	1	-	-
3SU1100-0AB20-1CA0	Red	-	1	-
3SU1100-0AB30-1BA0	Yellow	1	-	-
3SU1100-0AB40-1BA0	Green	1	-	-
3SU1100-0AB50-1BA0	Blue	1	-	-
3SU1100-0AB60-1BA0	White	1	-	-

Complete push buttons - illuminated (integrated LED)

PART NUMBER	COLOUR	NO CONTACT	NC CONTACT	VOLTAGE
3SU1102-0AB20-1CA0	Red	-	1	24VAC/DC
3SU1102-0AB30-1BA0	Yellow	1	-	24VAC/DC
3SU1102-0AB40-1BA0	Green	1	-	24VAC/DC
3SU1102-0AB50-1BA0	Blue	1	-	24VAC/DC
3SU1102-0AB60-1BA0	White	1	-	24VAC/DC
3SU1103-0AB20-1CA0	Red	-	1	230VAC
3SU1103-0AB30-1BA0	Yellow	1	-	230VAC
3SU1103-0AB40-1BA0	Green	1	-	230VAC
3SU1103-0AB50-1BA0	Blue	1	-	230VAC
3SU1103-0AB60-1BA0	White	1	-	230VAC
3SU1106-0AB20-1CA0	Red	-	1	110VAC
3SU1106-0AB30-1BA0	Yellow	1	-	110VAC
3SU1106-0AB40-1BA0	Green	1	-	110VAC
3SU1106-0AB50-1BA0	Blue	1	-	110VAC
3SU1106-0AB60-1BA0	White	1	-	110VAC

Note: In addition to the colours above, also available in Amber (AMB).

Complete selector switch (can be illuminated)

3SU1100-2BF60-1BA0	2 Position	Black/White	1	-
3SU1100-2BF60-1MA0	2 Position	Black/White	1	1
3SU1100-2BL60-1NA0	3 Position	Black/White	2	-

Complete indicator light (integrated LED)

PART NUMBER	VOLTAGE
3SU1102-6AA.-1AA0	24VAC/DC
3SU1103-6AA.-1AA0	110VAC
3SU1106-6AA.-1AA0	230VAC

Replace missing character (.) with code below for colour required

V	RED	YELLOW	GREEN	BLUE	WHITE	CLEAR
CODE	20	30	40	50	60	70

Note: In addition to the colours above, also available in Amber (AMB).

Complete MRH push button - Emergency Stop

PART NUMBER	DESCRIPTION	NC CONTACT
3SU1100-1HB20-1CG0	40mm,Twist to Release	1
3SU1100-1HB20-1PG0	40mm,Twist to Release	2

PUSH BUTTONS AND INDICATOR LIGHTS - METAL (3SU) IP69K

Complete push buttons

PART NUMBER	COLOUR	NO CONTACT	NC CONTACT	VOLTAGE
3SU1150-0AB10-1BA0	Black		1	-
3SU1150-0AB20-1CA0	Red		-	1
3SU1150-0AB30-1BA0	Yellow		1	-
3SU1150-0AB40-1BA0	Green		1	-
3SU1150-0AB50-1BA0	Blue		1	-
3SU1150-0AB60-1BA0	White		1	-
PB-M-TWIN	Green/Red	1	1	-

Complete push buttons - illuminated (integrated LED)

PART NUMBER	COLOUR	NO CONTACT	NC CONTACT	VOLTAGE
3SU1152-0AB20-1CA0	Red	-	1	24VAC/DC
3SU1152-0AB30-1BA0	Yellow	1	-	24VAC/DC
3SU1152-0AB40-1BA0	Green	1	-	24VAC/DC
3SU1152-0AB50-1BA0	Blue	1	-	24VAC/DC
3SU1152-0AB60-1BA0	White	1	-	24VAC/DC
3SU1153-0AB20-1CA0	Red	-	1	110VAC
3SU1153-0AB30-1BA0	Yellow	1	-	110VAC
3SU1153-0AB40-1BA0	Green	1	-	110VAC
3SU1153-0AB50-1BA0	Blue	1	-	110VAC
3SU1153-0AB60-1BA0	White	1	-	110VAC
3SU1156-0AB20-1CA0	Red	-	1	230VAC
3SU1156-0AB30-1BA0	Yellow	1	-	230VAC
3SU1156-0AB40-1BA0	Green	1	-	230VAC
3SU1156-0AB50-1BA0	Blue	1	-	230VAC
3SU1156-0AB60-1BA0	White	1	-	230VAC

Note: In addition to the colours above, also available in Amber (AMB).

Complete selector switch (can be illuminated)

3SU1150-2BF60-1BA0	2 Position	Black/White	1	-	-
3SU1150-2BF60-1MA0	2 Position	Black/White	1	1	-
3SU1150-2BL60-1NA0	3 Position	Black/White	2	-	-

Complete indicator light (integrated LED)

PART NUMBER	VOLTAGE
3SU1152-6AA.-1AA0	24VAC/DC
3SU1153-6AA.-1AA0	110VAC
3SU1156-6AA.-1AA0	230VAC

Replace missing character (.) with code below for colour required

V	RED	YELLOW	GREEN	BLUE	WHITE	CLEAR
CODE	20	30	40	50	60	70

Note: In addition to the colours above, also available in Amber (AMB).

Complete MRH push button - Emergency Stop

PART NUMBER	DESCRIPTION	NC CONTACT
3SU1150-1HB20-1CG0	40mm, Twist To Release	1

ORDERING INDIVIDUAL COMPONENTS

Units required for complete push button

Actuator   **Contact Holder**   **Contact Block**

Modules
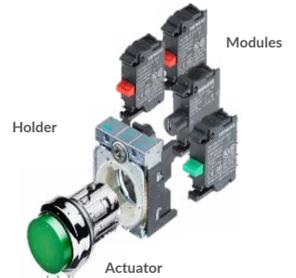
Holder

Actuator

=> Complete unit requires 1 actuator, 1 holder and upto 6 modules

Holders for contact blocks & LED modules

PART NUMBER	COLOUR
3SU1550-0AA10-0AA0	Universal Holder for 3 Modules
3SU1500-0BA10-0AA0	Module Holder For 4 Position Selector Switch, Plastic
3SU1550-0BA10-0AA0	Module Holder For 4 Position Selector Switch, Metal

Contact blocks - panel mount

3SU1400-1AA10-1FA0	Contact Block 1 NO + 1 NC
3SU1400-1AA10-1BA0	Contact Block 1 NO
3SU1400-1AA10-1CA0	Contact Block 1 NC
3SU1400-1AA10-1HA0	Contact Block 1 NC for installation monitoring on E Stop

Contact blocks - base mount (for use in enclosures)

3SU1400-2AA10-1BA0	Contact Block 1 NO
3SU1400-2AA10-1CA0	Contact Block 1 NC

Integrated LED (lamp holder) - panel mount

3SU1401-1BB.-1AA0	Integrated LED 24V AC/DC Lamp Holder
3SU1401-1BC.-1AA0	Integrated LED 110V AC Lamp Holder
3SU1401-1BF.-1AA0	Integrated LED 230V AC Lamp Holder
3SU1401-1BH.-1AA0	Integrated LED 24 to 240V AC/DC Lamp Holder

Integrated LED (lamp holder) - base mount

3SU1401-2BB.-1AA0	Integrated LED 24V AC/DC Lamp Holder
3SU1401-2BC.-1AA0	Integrated LED 110V AC Lamp Holder
3SU1401-2BF.-1AA0	Integrated LED 230V AC Lamp Holder
3SU1401-2BH.-1AA0	Integrated LED 24 to 240V AC/DC Lamp Holder

Replace missing character (.) with code below for colour required

V	RED	YELLOW	GREEN	BLUE	WHITE	CLEAR
CODE	20	30	40	50	60	70

3SU1400-1CK10-1AA0	LED Test Module

Note - Only to be used for SIRIUS ACT LED modules (6 to 24 V AC/DC, 24 V AC/DC, 24 to 240 V AC/DC)

ACTUATORS

PART NUMBER		DESCRIPTION	
PLASTIC	**METAL**		
3SU1000-0AB.-0AA0	3SU1050-0AB.-0AA0	Flat Pushbutton	Momentary
3SU1000-0AA.-0AA0	3SU1050-0AA.-0AA0	Flat Pushbutton	Latching
3SU1000-0BB.-0AA0	3SU1050-0BB.-0AA0	Pushbutton	Raised Momentary
3SU1001-0AB.-0AA0	3SU1051-0AB.-0AA0	Illuminated Pushbutton	Momentary
3SU1001-0AA.-0AA0	3SU1051-0AA.-0AA0	Illuminated Pushbutton	Latching
3SU1001-0BB.-0AA0	3SU1051-0BB.-0AA0	Illuminated Pushbutton	Raised Momentary
3SU1000-3AB42-0AK0	3SU1050-3AB42-0AK0	Twin Pushbutton	Green/Red "I"/"0"
3SU1000-3AB61-0AK0	3SU1050-3AB61-0AK0	Twin Pushbutton	White/Black "1"/"0"
3SU1000-3AB66-0AN0		Twin Pushbutton	White Vertical Arrows
3SU1000-3BB42-0AA0	3SU1050-3BB42-0AA0	Twin Pushbutton	Green/Red Raised
3SU1000-3BB42-0AK0	3SU1050-3BB42-0AK0	Twin Pushbutton	Green/Red "I"/"0" Raised
3SU1001-3AB42-0AK0	3SU1050-3AB42-0AK0	Illum. Twin Pushbutton	Green/Red "1"/"0"
3SU1001-3AB66-0AN0		Illum. Twin Pushbutton	White/White Vertical Arrows
3SU1001-3BB42-0AA0		Illum. Twin Pushbutton	Green/Red Raised
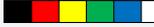
00	10	20	30	40	50	60	70	80
amber	black	red	yellow	green	blue	white	clear	grey

Replace " . " in part numbers above with the 2 digit code corresponding to required colour

ACTUATORS

		PART NUMBER		DESCRIPTION	
		PLASTIC	METAL		
		3SU1000-1AD.-0AA0	3SU1050-1AD.-0AA0	Mushroom pushbutton	30mm momentary
		3SU1000-1AA.-0AA0	3SU1050-1AA.-0AA0	Mushroom pushbutton	30mm pull to unlatch
		3SU1000-1BD.-0AA0	3SU1050-1BD.-0AA0	Mushroom pushbutton	40mm momentary
		3SU1000-1BA.-0AA0	3SU1050-1BA.-0AA0	Mushroom pushbutton	40mm pull to unlatch
		3SU1000-1CD.-0AA0	3SU1050-1CD.-0AA0	Mushroom pushbutton	60mm momentary
		3SU1000-1CA.-0AA0	3SU1050-1CA.-0AA0	Mushroom pushbutton	60mm pull to unlatch
		3SU1001-1AD.-0AA0	3SU1051-1AD.-0AA0	Illuminated Mushroom pushbutton	30mm momentary
		3SU1001-1AA.-0AA0	3SU1051-1AA.-0AA0	Illuminated Mushroom pushbutton	30mm pull to unlatch
		3SU1001-1BD.-0AA0	3SU1051-1BD.-0AA0	Illuminated Mushroom pushbutton	40mm momentary
		3SU1001-1BA.-0AA0	3SU1051-1BA.-0AA0	Illuminated Mushroom pushbutton	40mm pull to unlatch
			3SU1051-1CD.-0AA0	Illuminated Mushroom pushbutton	60mm momentary
			3SU1051-1CA.-0AA0	Illuminated Mushroom pushbutton	60mm pull to unlatch
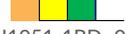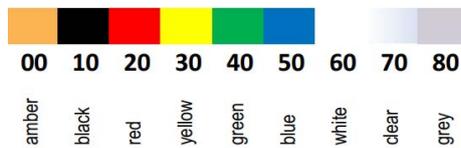
00	10	20	30	40	50	60	70	80
amber	black	red	yellow	green	blue	white	clear	grey

Replace " . " in part numbers above with the 2 digit code corresponding to required colour

ACTUATORS

		PART NUMBER		DESCRIPTION		
		PLASTIC	**METAL**			
		3SU1000-1HA20-0AA0	3SU1050-1HA20-0AA0	Emergency stop	40mm pull to unlatch	
		3SU1000-1GB20-0AA0	3SU1050-1GB20-0AA0	Emergency stop	33.8mm rotate to unlatch	
		3SU1000-1HB20-0AA0	3SU1050-1HB20-0AA0	Emergency stop	40mm rotate to unlatch	
		3SU1000-1HF20-0AA0	3SU1050-1HF20-0AA0	Emergency stop	40mm with Ronis lock (SB30) key release	
		3SU1000-1HG20-0AA0	3SU1050-1HG20-0AA0	Emergency stop	40mm with Ronis lock (455) key release	
		3SU1001-1GB20-0AA0	3SU1051-1GB20-0AA0	Illuminable Emergency stop	30mm rotate to unlatch	
		3SU1001-1HB20-0AA0	3SU1051-1HB20-0AA0	Illuminable Emergency stop	40mm rotate to unlatch	
			3SU1050-1JB20-0AA0	Emergency stop	60mm rotate to unlatch	
		3SU1000-3EA10-0AA0	3SU1050-3EA10-0AA0	Toggle switch	Black latching	
		3SU1002-2BC.-0AA0	3SU1052-2BC.-0AA0	Selector switch	2 Position momentary	
		3SU1002-2BF.-0AA0	3SU1052-2BF.-0AA0	Selector switch	2 Position latching	
		3SU1002-2CF.-0AA0	3SU1052-2CF.-0AA0	Selector switch long	2 Position latching	
		3SU1002-2AF.-0AA0		Rotary knob	2 Position latching	
		3SU1002-2BM.-0AA0	3SU1052-2BM.-0AA0	Selector switch	3 Position momentary	
		3SU1002-2BL.-0AA0	3SU1052-2BL.-0AA0	Selector switch	3 Position latching	
		3SU1002-2BP10-0AA0	3SU1052-2BP.-0AA0	Selector switch	3 Position momentary/ latching reset from left	
		3SU1002-2BN10-0AA0	3SU1052-2BN.-0AA0	Selector switch	3 Position latching/ momentary reset from right	
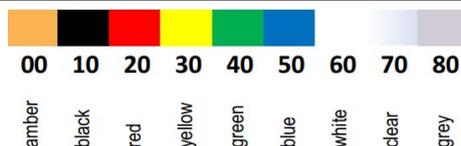
00	10	20	30	40	50	60	70	80
amber	black	red	yellow	green	blue	white	clear	grey

Replace " . " in part numbers above with the 2 digit code corresponding to required colour

ACTUATORS

4 Position selector switch (actuator only)

OPERATING PRINCIPLE	PART NUMBER	DESCRIPTION
Latching, 4x90° (3/6/9/12 o'clock)	3SU1000-2AS60-0AA0	Plastic rotary 4 position knob
	3SU1050-2AS60-0AA0	Metal rotary 4 position knob

Plastic - 2 Position key switch (actuator only)

	PART NUMBER	DESCRIPTION
	3SU1000-4BC01-0AA0	Momentary contact 45° key removeable in O position Ronis SB30 key
	3SU1000-4BF01-0AA0	Latching contact 90° key removeable in O position Ronis SB30 key
	3SU1000-4BF11-0AA0	Latching contact 90° key removeable in O + I position Ronis SB30 key

Plastic - 3 Position key switch (actuator only)

	PART NUMBER	DESCRIPTION
	3SU1000-4BM01-0AA0	Momentary contact, 2x45° key removeable in O position Ronis SB30 key"
	3SU1000-4BL11-0AA0	Latching contact, 2x45° key removeable in I-O-II positions Ronis SB30 key

Metal - 2 Position key switch (actuator only)

	PART NUMBER	DESCRIPTION
	3SU1050-4BC01-0AA0	Momentary contact 45° key removeable in O position Ronis SB30 key
	3SU1050-4BF01-0AA0	Latching contact 90° key removeable in O position Ronis SB30 key

Metal - 3 Position key switch (actuator only)

	PART NUMBER	DESCRIPTION
	3SU1050-4BM01-0AA0	Momentary contact, 2x45° key removeable in O position Ronis SB30 key
	3SU1050-4BL11-0AA0	Latching contact, 2x45° key removeable in I-O-II positions Ronis SB30 key

Potentiometers

PART NUMBER	DESCRIPTION
3SU1200-2PQ10-1AA0	1kΩ Rotary knob
3SU1200-2PW10-1AA0	2.2kΩ Rotary knob
3SU1200-2PR10-1AA0	4.7kΩ Rotary knob
3SU1200-2PS10-1AA0	10kΩ Rotary knob

Acoustic signaling devices

PART NUMBER	DESCRIPTION
3SU1200-6KB10-1AA0	24V AC/DC 90dB Acoustic unit
3SU1200-6KF10-1AA0	230V AC/DC 90dB Acoustic unit

PUSH BUTTONS 30MM METAL (3SU) 30MM CUTOUT IP69K

Push buttons - flush

PART NUMBER	COLOUR
3SU1060-0JB10-0AA0	Black
3SU1060-0JB20-0AA0	Red
3SU1060-0JB30-0AA0	Yellow
3SU1060-0JB40-0AA0	Green
3SU1060-0JB50-0AA0	Blue
3SU1060-0JB60-0AA0	White

Push buttons - illuminated - flush

3SU1061-0JB70-0AA0	Clear
3SU1061-0JB20-0AA0	Red
3SU1061-0JB30-0AA0	Yellow
3SU1061-0JB40-0AA0	Green
3SU1061-0JB50-0AA0	Blue

Indicator - flush

3SU1061-0JB70-0AA0	Clear
3SU1061-0JB20-0AA0	Red
3SU1061-0JB30-0AA0	Yellow
3SU1061-0JB40-0AA0	Green
3SU1061-0JB50-0AA0	Blue

Selector switch

3SU1062-2DF10-0AA0	2 position
3SU1062-2DL10-0AA0	3 position

PUSH BUTTON ACCESSORIES (3SU)

Sealing Plugs

3SU1900-0FA10-0AA0	Plastic Sealing Plugs for 22mm Holes
3SU1950-0FA80-0AA0	Metal Sealing Plugs for 22mm Holes

Note: The sealing plug is mounted with a holder

Mounting & Connecting

3SU1900-0KH80-0AA0	Adapter for DIN rail mounting
3SU1950-0KB10-0AA0	Adapters for 30.5mm to 22.5mm mounting hole**

3SU1900-0JJ10-0AA0	M12 plug adapter 4 pole
3SU1900-0JK10-0AA0	M12 plug adapter 5 pole

** Adapters for 30.5mm to 22.5mm mounting hole

PUSH BUTTON ACCESSORIES (3SU)

Label Holders, round bottom, self adhesive fixing

PART NUMBER	COLOUR
3SU1900-0AG10-0AA0	Label Holder,12.5x27mm
3SU1900-0AH10-0AA0	Label Holder,17.5x27mm

Label Holders, round bottom, snap on fixing

3SU1900-0AR10-0AA0	Label Holder,12.5x27mm
3SU1900-0AS10-0AA0	Label Holder,17.5x27mm

Label Holders, square bottom, self adhesive fixing

3SU1900-0AN10-0AA0	Label Holder,12.5x27mm
3SU1900-0AP10-0AA0	Label Holder,17.5x27mm
3SU1900-0AQ10-0AA0	Label Holder,27x27mm

Black label, white lettering, 12.5x27mm

3SU1900-0AC16-0AA0	Blank
3SU1900-0AC16-0DH0	"Off On"
3SU1900-0AC16-0DS0	"Stop"
3SU1900-0AC16-0DT0	"Start"
3SU1900-0AC16-0DU0	"Reset"
3SU1900-0AC16-0DY0	"MAN O AUTO"
	other standard and custom labals on request

Black label, white lettering, 17.5x27mm

3SU1900-0AD16-0AA0	Blank
3SU1900-0AD16-0DS0	"Stop"
3SU1900-0AD16-0DT0	"Start"
3SU1900-0AD16-0DL0	"Up"
3SU1900-0AD16-0DM0	"Down"
3SU1900-0AD16-0EB0	"Running"
3SU1900-0AD16-0EC0	"Fault"
	other standard and custom labals on request

Emergency Stop

3SU1900-0BC31-0DA0	Backing plate (0.3mm)
3SU1900-0BB31-0DA0	Backing plate (2mm)
3SU1901-0BD31-0DA0	Illuminated backing plate 24V AC/DC (5mm)

Protective Caps

3SU1900-0DB70-0AA0	PROTECTIVE SILICONE CAP FOR FLAT BUTTON
3SU1900-0DY30-0AA0	M/Room PB Protect Collar,180 Degree,Ylw
3SU1900-0EA30-0AA0	E/Stop Protective Collar,360 Degree,Ylw
3SU1900-0DG70-0AA0	Protection Cap,Silicone,Suit 3SU1 Twin
3SU1900-0EB10-0AA0	Dust cap for key-operated switch
3SU1900-0EF70-0AA0	SILICON FREE PROTECTIVE COVER For Selector Short
3SU1900-0EK70-0AA0	SILICONE FREE PROTECTIVE COVER FOR TWIN
3SU1900-0DF70-0AA0	PROT. SILICONE CAP FOR EM.STOP MRH 40mm

PUSH BUTTON ENCLOSURES (3SU)

Complete control station - plastic

PART NUMBER	ENCLOSURE COLOUR	ACTUATOR TYPE / COLOUR	NO CONTACT	NC CONTACT
3SU1801-0AB00-2AB1	Grey	Push Button / Green	1	-
3SU1802-0AB00-2AB1	Grey	Push Button / Green	1	-
		Push Button / Red	-	1
3SU1801-0NA00-2AA2	Yellow	Estop	-	1
3SU1801-0NA00-2AC2	Yellow with Collar	Estop	-	1
3SU1801-2NG00-2AA2	Yellow	Red Palm	1	1
3SU1801-2GA00-2AA1	Grey	Black Palm Momentary	1	-

Complete control station - metal

3SU1851-0AB00-2AB1	Grey	Push Button / Green	1	-
3SU1852-0AB00-2AB1	Grey	Push Button / Green	1	-
		Push Button / Red	-	1
3SU1851-0NA00-2AA2	Yellow	E-Stop / Red	-	1
3SU1851-0NA00-2AC2	Yellow with Collar	E-Stop / Red	-	1
3SU1851-2NG00-2AA2	Yellow	Red Palm	1	1
3SU1851-2GA00-2AA1	Grey	Black Palm Momentary	1	-

Empty enclosures - plastic

PART NUMBER	ENCLOSURE COLOUR	NUMBER OF HOLES
3SU1801-0AA00-0AA2	Yellow	1
3SU1801-0AA00-0AC2	Yellow with Collar	1
3SU1801-0AA00-0AB1	Grey	1
3SU1802-0AA00-0AB1	Grey	2
3SU1803-0AA00-0AB1	Grey	3
3SU1804-0AA00-0AB1	Grey	4
3SU1806-0AA00-0AB1	Grey	6

Empty enclosures - metal

3SU1851-0AA00-0AA2	Yellow	1
3SU1851-0AA00-0AC2	Yellow with Collar	1
3SU1851-0AA00-0AB1	Grey	1
3SU1852-0AA00-0AB1	Grey	2
3SU1853-0AA00-0AB1	Grey	3
3SU1854-0AA00-0AB1	Grey	4
3SU1856-0AA00-0AB1	Grey	6

Empty enclosures - 304 stainless steel

2384010	Natural	1
2384020	Natural	2
2384030	Natural	3

APS PUSH BUTTON CODES TO SIEMENS PART NUMBERS (FOR WHOLESALERS ONLY)

APS ORDER CODE	SIEMENS PART NUMBER
CONBM-01	3SU14002AA101CA0
CONBM-10	3SU14002AA101BA0
CONPM-01	3SU14001AA101CA0
CONPM-10	3SU14001AA101BA0
CONPM-11	3SU14001AA101FA0
CONPM-ESTOP	3SU14001AA101HA0
ENC-M-ESTOP1	3SU18510NA002AA2
ENC-M-ESTOP2	3SU18510NA002AC2
ENC-M-PB1	3SU18510AB002AB1
ENC-M-PB2	3SU18520AB002AB1
ENC-P-ESTOP1	3SU18010NA002AA2
ENC-P-ESTOP2	3SU18010NA002AC2
ENC-P-PB1	3SU18010AB002AB1
ENC-P-PB2	3SU18020AB002AB1
ESTOP-M	3SU11501HB201CG0
ESTOP-P	3SU11001HB201CG0
HOLDER3-M	3SU15500AA100AA0
HOLDER3-P	3SU15000AA100AA0
IND-M-110-BLU	3SU11536AA501AA0
IND-M-110-CLR	3SU11536AA701AA0
IND-M-110-GRN	3SU11536AA401AA0
IND-M-110-RED	3SU11536AA201AA0
IND-M-110-WHT	3SU11536AA601AA0
IND-M-110-YLW	3SU11536AA301AA0
IND-M-230-BLU	3SU11566AA501AA0
IND-M-230-CLR	3SU11566AA701AA0
IND-M-230-GRN	3SU11566AA401AA0
IND-M-230-RED	3SU11566AA201AA0
IND-M-230-WHT	3SU11566AA601AA0
IND-M-230-YLW	3SU11566AA301AA0
IND-M-24-BLU	3SU11526AA501AA0
IND-M-24-CLR	3SU11526AA701AA0
IND-M-24-GRN	3SU11526AA401AA0
IND-M-24-RED	3SU11526AA201AA0
IND-M-24-WHT	3SU11526AA601AA0
IND-M-24-YLW	3SU11526AA301AA0
IND-M30-BLU	3SU10610JD500AA0
IND-M30-CLR	3SU10610JD700AA0
IND-M30-GRN	3SU10610JD400AA0
IND-M30-RED	3SU10610JD200AA0
IND-M30-YLW	3SU10610JD300AA0
IND-P-110-BLU	3SU11036AA501AA0
IND-P-110-CLR	3SU11036AA701AA0
IND-P-110-GRN	3SU11036AA401AA0
IND-P-110-RED	3SU11036AA201AA0
IND-P-110-WHT	3SU11036AA601AA0
IND-P-110-YLW	3SU11036AA301AA0
IND-P-230-BLU	3SU11066AA501AA0
IND-P-230-CLR	3SU11066AA701AA0
IND-P-230-GRN	3SU11066AA401AA0
IND-P-230-RED	3SU11066AA201AA0
IND-P-230-WHT	3SU11066AA601AA0
IND-P-230-YLW	3SU11066AA301AA0

APS ORDER CODE	SIEMENS PART NUMBER
IND-P-24-BLU	3SU11026AA501AA0
IND-P-24-CLR	3SU11026AA701AA0
IND-P-24-GRN	3SU11026AA401AA0
IND-P-24-RED	3SU11026AA201AA0
IND-P-24-WHT	3SU11026AA601AA0
IND-P-24-YLW	3SU11026AA301AA0
LABEL BLANK	3SU19000AC160AA0
LEDBM-110-BLU	3SU14012BC501AA0
LEDBM-110-GRN	3SU14012BC401AA0
LEDBM-110-RED	3SU14012BC201AA0
LEDBM-110-WHT	3SU14012BC601AA0
LEDBM-110-YLW	3SU14012BC301AA0
LEDBM-230-BLU	3SU14012BF501AA0
LEDBM-230-GRN	3SU14012BF401AA0
LEDBM-230-RED	3SU14012BF201AA0
LEDBM-230-WHT	3SU14012BF601AA0
LEDBM-230-YLW	3SU14012BF301AA0
LEDBM-24-BLU	3SU14012BB501AA0
LEDBM-24-GRN	3SU14012BB401AA0
LEDBM-24-RED	3SU14012BB201AA0
LEDBM-24-WHT	3SU14012BB601AA0
LEDBM-24-YLW	3SU14012BB301AA0
LEDPM-110-BLU	3SU14011BC501AA0
LEDPM-110-GRN	3SU14011BC401AA0
LEDPM-110-RED	3SU14011BC201AA0
LEDPM-110-WHT	3SU14011BC601AA0
LEDPM-110-YLW	3SU14011BC301AA0
LEDPM-230-BLU	3SU14011BF501AA0
LEDPM-230-GRN	3SU14011BF401AA0
LEDPM-230-RED	3SU14011BF201AA0
LEDPM-230-WHT	3SU14011BF601AA0
LEDPM-230-YLW	3SU14011BF301AA0
LEDPM-24-BLU	3SU14011BB501AA0
LEDPM-24-GRN	3SU14011BB401AA0
LEDPM-24-RED	3SU14011BB201AA0
LEDPM-24-WHT	3SU14011BB601AA0
LEDPM-24-YLW	3SU14011BB301AA0
LHOLDER	3SU19000AN100AA0
PBI-M-110-BLU	3SU11530AB501BA0
PBI-M-110-GRN	3SU11530AB401BA0
PBI-M-110-RED	3SU11530AB201CA0
PBI-M-110-WHT	3SU11530AB601BA0
PBI-M-110-YLW	3SU11530AB301BA0
PBI-M-230-BLU	3SU11560AB501BA0
PBI-M-230-GRN	3SU11560AB401BA0
PBI-M-230-RED	3SU11560AB201CA0
PBI-M-230-WHT	3SU11560AB601BA0
PBI-M-230-YLW	3SU11560AB301BA0
PBI-M-24-BLU	3SU11520AB501BA0
PBI-M-24-GRN	3SU11520AB401BA0
PBI-M-24-RED	3SU11520AB201CA0
PBI-M-24-WHT	3SU11520AB601BA0
PBI-M-24-YLW	3SU11520AB301BA0

APS ORDER CODE	SIEMENS PART NUMBER
PBI-M30-BLU	3SU10610JB500AA0
PBI-M30-CLR	3SU10610JB700AA0
PBI-M30-GRN	3SU10610JB400AA0
PBI-M30-RED	3SU10610JB200AA0
PBI-M30-YLW	3SU10610JB300AA0
PBI-P-110-BLU	3SU11030AB501BA0
PBI-P-110-GRN	3SU11030AB401BA0
PBI-P-110-RED	3SU11030AB201CA0
PBI-P-110-WHT	3SU11030AB601BA0
PBI-P-110-YLW	3SU11030AB301BA0
PBI-P-230-BLU	3SU11060AB501BA0
PBI-P-230-GRN	3SU11060AB401BA0
PBI-P-230-RED	3SU11060AB201CA0
PBI-P-230-WHT	3SU11060AB601BA0
PBI-P-230-YLW	3SU11060AB301BA0
PBI-P-24-BLU	3SU11020AB501BA0
PBI-P-24-GRN	3SU11020AB401BA0
PBI-P-24-RED	3SU11020AB201CA0
PBI-P-24-WHT	3SU11020AB601BA0
PBI-P-24-YLW	3SU11020AB301BA0
PB-M30- BLK	3SU10600JB100AA0
PB-M30-BLU	3SU10600JB500AA0
PB-M30-GRN	3SU10600JB400AA0
PB-M30-RED	3SU10600JB200AA0
PB-M30-WHT	3SU10600JB600AA0
PB-M30-YLW	3SU10600JB300AA0
PB-M-BLK	3SU11500AB101BA0
PB-M-BLU	3SU11500AB501BA0
PB-M-GRN	3SU11500AB401BA0
PB-M-RED	3SU11500AB201CA0
PB-M-WHT	3SU11500AB601BA0
PB-M-YLW	3SU11500AB301BA0
PB-P-BLK	3SU11000AB101BA0
PB-P-BLU	3SU11000AB501BA0
PB-P-GRN	3SU11000AB401BA0
PB-P-RED	3SU11000AB201CA0
PB-P-WHT	3SU11000AB601BA0
PB-P-YLW	3SU11000AB301BA0
SEL2-M30	3SU10622DF600AA0
SEL2-M-NO	3SU11502BF601BA0
SEL2-M-NO+NC	3SU11502BF601MA0
SEL2-P-NO	3SU11002BF601BA0
SEL2-P-NO+NC	3SU11002BF601MA0
SEL3-M30	3SU10622DL600AA0
SEL3-M-NO	3SU11502BL601NA0
SEL3-P-NO	3SU11002BL601NA0

SIGNALLING COLUMNS 8WD4

Complete control station - plastic

PART NUMBER	DESCRIPTION	COLOUR	VOLTAGE
8WD4308-0CA	Bracket for wall mounting, for mounting on one side, without foot and pipe	Black	-
8WD4308-0DB	Mounting foot plastic will accept pipe up to 400 mm	Black	-
8WD4308-0DD	Connection socket for lateral cable entry Side cable outlet	Black	-
8WD4308-0EA	Aluminium pipe 250 mm for mounting foot	-	-
8WD4308-0EB	Aluminium pipe 400 mm for mounting foot	-	-
8WD4408-0AD	Connection element with cover for pipe mounting, spring-type terminal	Black	-
8WD4408-0AA	Connection element, with end cover, black, for pipe mounting, screw terminal	Black	-
8WD4408-0AB	Connection element with cover for floor/angle mounting, screw terminal	Black	-
8WD4420-0FA	Buzzer element, continuous tone or pulsating, adjustable, 85 dB, diameter 70 mm	Black	24V AC/DC
8WD4420-5AB	Continuous light element with integrated LED, Diameter 70 mm	Red	24V AC/DC
8WD4420-5AC	Continuous light element with integrated LED, Diameter 70 mm	Green	24V AC/DC
8WD4420-5AD	Continuous light element with integrated LED, Diameter 70 mm	Yellow	24V AC/DC
8WD4420-5AE	Continuous light element with integrated LED, Diameter 70 mm	Clear	24V AC/DC
8WD4420-5AF	Continuous light element with integrated LED, Diameter 70 mm	Blue	24V AC/DC

1	Acoustic element
2	Light element
3	Connection Element 8WD4408-0AB
4	Connection Element 8WD4408-0AA
5	Bracket for wall mounting 8WD4308-0CA
6	Bracket for wall mounting (two-sided) 8WD4308-0CB
7	Socket 8WD4308-0DD
8	Bracket for base mounting 8WD4408-0CD
9	Foot with pipe 8WD4308-0DA
10	Pipe 8WD4208-0EF/8WD4308-0E.
11	Foot for mounting with pipe 8WD4308-0DB
12	Socket 8WD4308-0DD
13	Socket (magnetic fixing) 8WD4308-0DE
14	Bracket for mounting with foot 8WD4408-0CC
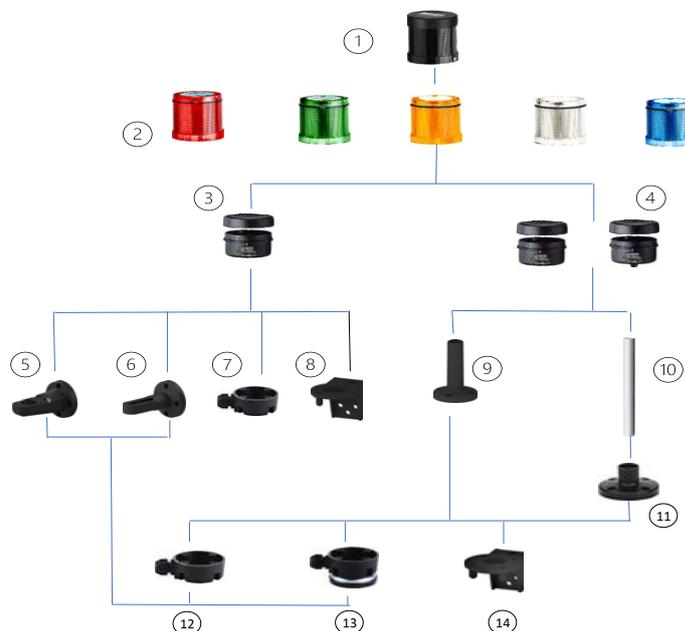
SIGNALLING COLUMNS 8WD46

Complete control station - plastic

PART NUMBER		DESCRIPTION		LEGEND
Conventional	**IO-link**			
8WD4613-5HH37	8WD4613-5HH47	9 Segment non acoustic		1
8WD4615-5HH37	8WD4615-5HH47	15 Segment non acoustic		2
8WD4613-5JH37	8WD4613-5JH47	9 segment acoustic		3
8WD4615-5JH37	8WD4615-5JH47	15 segment acoustic		4
8WD4618-0CA		Wall mount bracket		5
8WD4618-0DA		Foot with tube (100mm)		6
8WD4408-0CC		Bracket for foot		7
3SX5601-2GA03	3SX5601-3SB54	M12 plug, 8-pole - open	3m	8
3SX5601-2GA05			5m	
3SX5601-2GA10			10m	
3SX5601-2GA15			15m	
3SX5601-3SV18		M12 socket and M12 plug, 8 pin, 1m		9
	3SX5601-3SV15	M12 socket and M12 plug, 5 pin, 1m		0
8WD4618-0FB		USB prog. cable, 2m USB-A to USB-C		
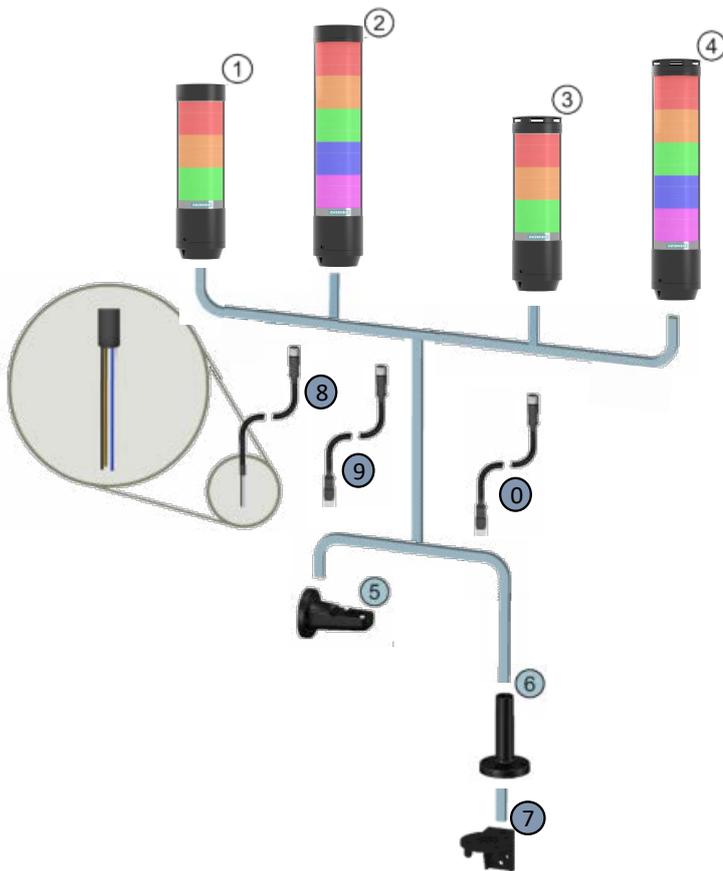
3SE5 POSITION SWITCHES
Commonly used complete position switches

31mm Plastic
1x (M20 x 1.5) 1 NO/1 NC quick action contacts

PART NUMBER	DESCRIPTION	CONTACTS
3SE5232-0CC05	Rounded plunger	1NO+1NC
3SE5232-0HE10	Roller lever	1NO+1NC*
3SE5232-0HF10	Angular roller lever	1NO+1NC*
3SE5232-0HK21	Twist lever	1NO+1NC*
3SE5232-0HK50	Twist lever adjustable length	1NO+1NC*

* Integrated contacts - not replaceable

40mm Metal
1x (M20 x 1.5) 1 NO/1 NC quick action contacts

PART NUMBER	DESCRIPTION	CONTACTS
3SE5112-0CC02	Rounded plunger, high grade steel	1NO+1NC
3SE5112-0CD02	Roller plunger	1NO+1NC
3SE5112-0CH01	Twist lever	1NO+1NC
3SE5112-0CH50	Twist lever adjustable length	1NO+1NC

56mm Metal
1x (M20 x 1.5) 1 NO/1 NC quick action contacts

PART NUMBER	DESCRIPTION	CONTACTS
3SE5122-0CE01	Roller lever	1NO+1NC
3SE5122-0CH01	Twist lever	1NO+1NC
3SE5122-0CH50	Twist lever, adjustable length	1NO+1NC

Other variants available in different sizes, connection methods and contact configurations refer IC10 catalogue
Above variants have snap action contacts, slow action also avalable.

3SE5 POSITION SWITCHES (COMPONENTS)

Commonly used complete position switches

31mm Switch

PART NUMBER		DESCRIPTION
PLASTIC	METAL	
3SE5232-0CC05	3SE5212-0CC05	Basic switch, 31mm plastic, 1NO+1NC
3SE5000-0AD03	3SE5000-0AD03	Roller plunger
3SE5000-0AE10	3SE5000-0AE11	Roller lever
3SE5000-0AF10	3SE5000-0AF11	Angular roller lever
3SE5000-0AR01	3SE5000-0AR01	Spring rod
3SE5000-0AK00	3SE5000-0AK00	Twist actuator required for the following:
3SE5000-0AA21	3SE5000-0AA22	Twist lever 21mm
3SE5000-0AA50	3SE5000-0AA51	Adjustable length twist lever - plastic roller
3SE5000-0AA60	3SE5000-0AA61	Adjustable grid length twist lever - plastic roller
3SE5000-0AA80	3SE5000-0AA80	Rod actuator 200mm

40mm Steel

PART NUMBER		DESCRIPTION
3SE5112-0CA00		Basic switch, 31mm plastic, 1NO+1NC
3SE5000-0AE01		Roller lever - plastic
3SE5000-0AE02		Roller lever - steel
3SE5000-0AF01		Angular roller lever - plastic
3SE5000-0AF02		Angular roller lever - steel
3SE5000-0AH00		Twist actuator required for the following:
3SE5000-0AA02		Twist lever 21mm
3SE5000-0AA51		Adjustable length twist lever - steel roller
3SE5000-0AA61		Adjustable grid length twist lever - steel roller
3SE5000-0AA80		Rod actuator 200mm

3SE5 SAFETY SWITCHES
Safety switch with separate actuator, 5 approach directions, without locking device

PART NUMBER		DESCRIPTION		
PLASTIC	METAL		WIDTH	COMPATIBLE ACTUATORS
3SE5232-0RV40	3SE5212-0RV40	Slow action 1NC/1NO	31mm	1,2,3,4,5
3SE5132-0QV20	3SE5112-0QV10	Slow action 2NC/1NO	40mm	1,2,3,4,5
3SE5242-0QV40	-	Slow action 2NC/1NO	50mm	1,2,3,4,5
-	3SE5122-0QV10	Slow action 2NC/1NO	56mm	1,2,3,4,5

Safety switch with tumbler

PLASTIC 1300N	METAL 2600N			
3SE5322-0SD21	3SE5312-0SD11	With Auxiliary release	24VDC	All
3SE5322-0SE21	3SE5312-0SE11	With Auxiliary release and lock	24VDC	All
3SE5322-0SF21	3SE5312-0SF11	With escape release from the front	24VDC	All
3SE5322-0SB21	3SE5312-0SB11	With solenoid lock	24VDC	All

Actuators

PLASTIC 1300N	METAL 2600N		
3SE5000-0AV01	Standard actuator	75.6mm	1
3SE5000-0AV02	Standard actuator with vertical fixing	53mm	2
3SE5000-0AV03	Standard actuator with transverse fixing	47mm	3
3SE5000-0AV04	Radius actuator - left approach	51mm	4
3SE5000-0AV05	Radius actuator - right approach	51mm	5
3SE5000-0AW51	H.G Steel Actuator	75.6mm	6
3SE5000-0AW52	H.G Steel Actuator with vertical fixing	53mm	7
3SE5000-0AW53	H.G Steel Actuator with transverse fixing	47mm	8

SOFT STARTERS - SIRIUS 3RW

SIRIUS 3RW soft starters are a cost-effective alternative to using direct or star-delta starters for starting three-phase motors. They avoid undesirable side effects such as mechanical stresses or voltage drops in the mains supply.

APPLICATION	BASIC PERFORMANCE			GENERAL PERFORMANCE	HIGH PERFORMANCE
	3RW30	3RW40	3RW50	3RW52	3RW55/55F
Normal starting (CLASS 10)	The soft starter rating can be selected to be as high as the rating of the motor used*				
Pumps	●	●	●	●	●
Pumps with special pump ramp-down (to prevent water hammer)			○	○	●
Heat pumps	●	●	●	●	●
Hydraulic pumps	○	●	●	●	●
Presses	○	●	●	●	●
Conveyor belts	○	●	●	●	●
Roller conveyors	○	●	●	●	●
Screw conveyors	○	●	●	●	●
Escalators		●	●	●	●
Piston compressors		●	●	●	●
Screw compressors		●	●	●	●
Small fans [1]		●	●	●	●
Centrifugal blowers		●	●	●	●
Bow thrusters		●	●	●	●
Heavy starting (CLASS 20)	The soft starter has to be selected one performance class higher than the motor used*				
Stirrer		○	○	○	●
Extruders		○	○	○	●
Lathes		○	○	○	●
Milling machines		○	○	○	●
Very heavy starting (CLASS 30)	The soft starter has to be selected two performance classes higher than the motor used*				
Large fans [2]					●
Circular saws/bandsaws					●
Centrifuges					●
Mills					●
Crushers					●

● Recommended soft starter
○ Possible soft starter
1) The mass inertia of the fan is <10 times the mass inertia of the motor
2) The mass inertia of the fan is ≥ 10 times the mass inertia of the motor

To select the appropriate softstarter, ideally the following questions need to be answered.
If we get answers to all questions below, STS can be used for selection. If only **blue** questions are answered, you can use the chart above.

Motor data

Rated Power or Current.	_____	kW or A
Rated voltage	_____	V
Motor Speed	_____	rpm

Load data

Type of load	_____	pump, conveyor, agitator ....
Load speed	_____	rpm
Rated torque or power	_____	Nm or kW
Moment of inertia	_____	kg*m²

Starting conditions

Ambient temperature	_____	deg C
Number of starts per hour	_____	
Current limit required?	_____	yes/no

Sundry					
Communications required?	no	Profibus	Modbus RTU	Profinet	Modbus TCP	Ethernet IP

Operator panel required?	No	Basic Panel	HF Panel

Control Voltage _____ V

Safety Level	SIL1	SIL3

Is feeder required?	Type 1	Type 2
If so type 1 or type 2 coordination		

3RW30, 40 AND 50 SOFT STARTERS TWO PHASE CONTROL

3RW30 soft starters with built-in bypass contactor

AMPS AT 40 DEG C	KW @ 400V	PART NUMBER	SIZE
9	4	3RW3016-1BB.4	0
12.5	5.5	3RW3017-1BB.4	0
17.6	7.5	3RW3018-1BB.4	0
25	11	3RW3026-1BB.4	0
32	15	3RW3027-1BB.4	0
38	18.5	3RW3028-1BB.4	0

3RW40 soft starters with built-in bypass contactor & overload

AMPS AT 40 DEG C	KW @ 400V	PART NUMBER	SIZE
12.5	5.5	3RW4024-1BB.4	0
25	11	3RW4026-1BB.4	0
32	15	3RW4027-1BB.4	0
38	18.5	3RW4028-1BB.4	0
45	22	3RW4036-1BB.4	2
63	30	3RW4037-1BB.4	2
72	37	3RW4038-1BB.4	2
80	45	3RW4046-1BB.4	3
106	55	3RW4047-1BB.4	3

3RW50 soft starters with built-in bypass contactor, overload and thermistor protection

AMPS AT 40 DEG C	KW @ 400V	PART NUMBER	SIZE
143	75	3RW5055-6TB.4	6
171	90	3RW5056-6TB.4	6
210	110	3RW5072-6TB.4	12
250	132	3RW5073-6TB.4	12
315	160	3RW5074-6TB.4	12
370	200	3RW5075-6TB.4	12
470	250	3RW5076-6TB.4	12
570	315	3RW5077-6TB.4	12

Replace missing character (.) with code for voltage required.

V	24VAC/DC	110...230VAC
Code	0	1

Covers for soft starters

PART NUMBER	SIZE
3RT1936-4EA2	2
3RT1946-4EA2	3
3RT1956-4EA2	6
3RT1966-4EA2	12

Terminal Covers For Cable Lugs & Busbar
(2 Required Per Device)

PART NUMBER	SIZE
3RT1946-4EA1	3
3RT1956-4EA1	6
3RT1966-4EA1	12

3RW52 SOFT STARTERS

SIRIUS 3RW52 soft starters provide true 3 phase control combined with minimal heat dissipation. As with all SIRIUS soft starters in-built bypass is included. Simple control allow for fast setup of motor start/stop as well as protection parameters. The 3RW52 can be ordered with either thermistor input or an analogue output.

Choice of analogue output or thermistor input

Choice of Standard or High Feature operator panel mounted on the 3RW52 or the door

Simple parameterization

Pump stopping function

TYPE	3RW521.	3RW522./3RW523	3RW524.
Installation dimensions (W x H x D)mm	Frame Size 1 170 x 275 x 152	Frame Size 2 185 x 306 x 203	Frame Size 4 210 x 393 x 203
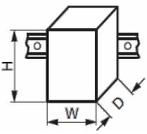
AMPS AT 40 DEG C	INLINE CIRCUIT kW RATING	FRAME SIZE	PART NUMBER
13	5.5	1	3RW5213-1 ◆ C ◆ 4
18	7.5	1	3RW5214-1 ■ C ■ 4
25	11	1	3RW5215-1 ◆ C ◆ 4
32	15	1	3RW5216-1 ■ C ■ 4
38	18.5	1	3RW5217-1 ◆ C ◆ 4
47	22	2	3RW5224-1 ■ C ■ 4
63	30	2	3RW5225-1 ◆ C ◆ 4
77	37	2	3RW5226-1 ■ C ■ 4
93	45	2	3RW5227-1 ◆ C ◆ 4
With analogue output			A ■
With thermistor input			T
24VAC/DC Control Voltage			0 ■
110...250VAC Control Voltage			1

AMPS AT 40 DEG C	INLINE CIRCUIT kW RATING	FRAME SIZE	PART NUMBER
113	55	3	3RW5234-2 ◆ C ◆ 4
143	75	3	3RW5235-2 ■ C ■ 4
171	90	3	3RW5236-2 ◆ C ◆ 4
210	110	4	3RW5243-2 ■ C ■ 4
250	132	4	3RW5244-2 ◆ C ◆ 4
315	160	4	3RW5245-2 ■ C ■ 4
370	200	4	3RW5246-2 ◆ C ◆ 4
470	250	4	3RW5247-2 ■ C ■ 4
570	315	4	3RW5248-2 ◆ C ◆ 4
With analogue output			A ■
With thermistor input			T
24VAC/DC Control Voltage			0 ■
110...250VAC Control Voltage			1

Thermistor input units stocked.

3RW55 SOFT STARTERS

SIRIUS 3RW55 is a high feature soft starter offering maximum flexibility for motor starting applications. As with all SIRIUS soft starters in-built bypass is included. To ensure correct setup, this softstarter includes an auto paramerterization feature which optimizes the parameters with every start. This enures soft and smooth starting every time.

Condition Monitoring
Pump-stopping /-cleaning function

Motor protection acc. to ATEX/IECEx
Torque-control function
Autoparameterization

Profinet-module with integrated Ethernet-switch

Safety-Function STO (SIL2/PLd)

TYPE		3RW551.	3RW552./3RW553.	3RW554.	3RW555.
Installation dimensions (W x H x D)mm		Frame Size 1 170 x 275 x 152	Frame Size 2/3 185 x 306 x 203	Frame Size 4 210 x 393 x 203	Frame Size 5 478 x 764 x 241

3RW55 HIGH FEATURE SOFTSTARTER

AMPS AT 40 DEG C	INLINE CIRCUIT kW RATING	FRAME SIZE	PART NUMBER
13	5.5	1	3RW5513-1HA◆4
18	7.5	1	3RW5514-1HA◆4
25	11	1	3RW5515-1HA◆4
32	15	1	3RW5516-1HA◆4
38	18.5	1	3RW5517-1HA◆4
47	22	2	3RW5524-1HA◆4
63	30	2	3RW5525-1HA◆4
77	37	2	3RW5526-1HA◆4
93	45	2	3RW5527-1HA◆4
113	55	3	3RW5534-6HA◆4
143	75	3	3RW5535-6HA◆4
171	90	3	3RW5536-6HA◆4
210	110	4	3RW5543-6HA◆4
250	132	4	3RW5544-6HA◆4
315	160	4	3RW5545-6HA◆4
370	200	4	3RW5546-6HA◆4
470	250	4	3RW5547-6HA◆4
570	315	4	3RW5548-6HA◆4
630	355	5	3RW5552-6HA◆4
720	400	5	3RW5553-6HA◆4
840	450	5	3RW5554-6HA◆4
1100	560	5	3RW5556-6HA◆4
1280	710	5	3RW5558-6HA◆4

3RW55F FAILSAFE SOFTSTARTER

13	5.5	1	3RW5513-1HF◆4
18	7.5	1	3RW5514-1HF◆4
25	11	1	3RW5515-1HF◆4
32	15	1	3RW5516-1HF◆4
38	18.5	1	3RW5517-1HF◆4
47	22	2	3RW5524-1HF◆4
63	30	2	3RW5525-1HF◆4
77	37	2	3RW5526-1HF◆4
93	45	2	3RW5527-1HF◆4
113	55	3	3RW5534-6HF◆4
143	75	3	3RW5535-6HF◆4
171	90	3	3RW5536-6HF◆4
210	110	4	3RW5543-6HF◆4
250	132	4	3RW5544-6HF◆4
315	160	4	3RW5545-6HF◆4
370	200	4	3RW5546-6HF◆4
470	250	4	3RW5547-6HF◆4
570	315	4	3RW5548-6HF◆4

Article No. supplement for rated control supply voltage	
24VAC/DC	0
110...250VAC	1

3RW5 ACCESSORIES

Communications modules

PART NUMBER	DESCRIPTION
3RW5980-0CP00	Profibus
3RW5980-0CS00	Profinet standard
3RW5980-0CH00	Profinet High - Feature with integrated switch
3RW5980-0CE00	Ethernet IP
3RW5980-0CT00	Modbus TCP
3RW5980-0CR00	Modbus RTU

HMI modules and connection cables
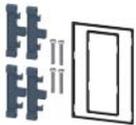
PART NUMBER	DESCRIPTION
3RW5980-0HF00	HMI high feature HMI with colour LCD display for softstarter control and monitoring of all measured variables and faults. Can be mounted on the softstarter or on cabinet door
3RW5980-0HL00	Interface cover (spare part)
3RW5980-0HS00	HMI standard (for 3RW50 & 52 Only) HMI with LED display for softstarter control and monitoring. Can be mounted on the 3RW52 softstarter or on cabinet door
3RW5980-0HD00	Door monitng kit IP65
3RW5980-0HC60	5m round cable for door mounting
3UF7933-0BA00-0	2.5m round cable for door mounting
3UF7937-0BA00-0	1m round cable for door mounting
3UF7932-0BA00-0	0.5m round cable for door mounting
3ZY1311-0AA00	Push in lugs for wall mounting (qty 2 required)

Terminal covers

PART NUMBER	DESCRIPTION
3RW5983-0TC20	3RW552, 3RW553 (qty 2 required)
3RW5984-0TC20	3RW554 (qty 2 required)

Housing parts

PART NUMBER	DESCRIPTION
3RW5954-0GF00	Front cover frame size 4
3RW5950-0GL20	Hinged door without cut out
3RW5950-0GL30	Hinged door with cut out for HF HMI
3RW5950-0GL40	Hinged door with cut out for Standard HMI (3RW52)
3RW5950-0GD20	Control-circuit duct cover

Fans

PART NUMBER	DESCRIPTION
3RW5983-0FF00 *	Fan for frame size 1, 2 and 3
3RW5984-0FF00 *	Fan for frame size 4
3RW5983-0FC00 *	Fan cover for frame size 1, 2 and 3
3RW5984-0FC00 *	Fan cover for frame size 4

* Refer to manual for quantity required for each 3RW softstarter

SIEMENS

FACTORY AUTOMATION
(SIMATIC)

LOGO! 8 LOGIC MODULE

Basic Unit with display (Cloud version V8.4)

PART NUMBER	DESCRIPTION
6ED1052-1CC08-0BA2	24CE - 8 digital Inputs 24Vdc / 4 digital outputs 24Vdc (V8.4)
6ED1052-1MD08-0BA2	12/24RCE - 8 digital Inputs 12/24Vdc / 4 digital outputs Relay (10A) (V8.4)
6ED1052-1HB08-0BA2	24RCE - 8 digital Inputs 24Vac/dc / 4 digital outputs Relay (10A) (V8.4)
6ED1052-1FB08-0BA2	230RCE - 8 digital Inputs 110/230Vac / 4 digital outputs Relay (10A) (V8.4)

Basic Unit without display (Cloud version V8.4)

6ED1052-1CC08-0BA2	24CE - 8 digital Inputs 24Vdc / 4 digital outputs 24Vdc (V8.4)
6ED1052-1MD08-0BA2	12/24RCE - 8 digital Inputs 12/24Vdc / 4 digital outputs Relay (10A) (V8.4)
6ED1052-1HB08-0BA2	24RCE - 8 digital Inputs 24Vac/dc / 4 digital outputs Relay (10A) (V8.4)
6ED1052-1FB08-0BA2	230RCE - 8 digital Inputs 110/230Vac / 4 digital outputs Relay (10A) (V8.4)

Digital I/O Expansion Modules

6ED1055-1CB00-0BA2	24 V DC supply voltage, 4 digital Inputs 24 V DC, 4 digital outputs 24 V DC
6ED1055-1MB00-0BA2	12/24 V DC supply voltage, 4 digital Inputs 12/24 V DC, 4 relay outputs 5 A
6ED1055-1HB00-0BA2	24 V DC supply voltage, 4 digital Inputs 24 V DC, 4 relay outputs
6ED1055-1FB00-0BA2	230 V AC supply, 4 digital Inputs 230 V AC, 4 relay outputs 5 A
6ED1055-1CB10-0BA2	24 V DC supply voltage, 8 digital Inputs 24 V DC, 8 digital outputs 24 V DC
6ED1055-1NB10-0BA2	24 V DC supply voltage, 8 digital Inputs 24 V DC, 8 relay outputs
6ED1055-1FB10-0BA2	230 V AC supply, 8 digital Inputs 230 V AC, 8 relay outputs

Analog I/O Expansion Modules

6ED1055-1MA00-0BA2	12/24 V DC supply voltage, 2 analog Inputs 0 to 10 V or 0 to 20 mA
6ED1055-1MD00-0BA2	12/24 V DC supply, 2 PT100/1000 analog Inputs, temperature range -50 degC to 200 degC
6ED1055-1MM00-0BA2	24 V DC supply voltage, 2 analog outputs 0 to 10 V or 0 to 20 mA

Communications Module

6ED1055-5MC08-0BA1	8 Modbus RTU interface (RS232/485) 4-port switch; without 4G/LTE/GPS engine; without antennas; web configurator
6BK1700-0BA20-0AA0	Communication module for building automation with KNX
6GK7177-1MA20-0AA0	SCALANCE LOGO! CSM 12/24, unmanaged switch, 4x RJ45, 1x front port
6GK7142-7BX00-0AX0	CMR2020 communication module for LOGO! 0BA8 to GSM/GPRS NET; 1 RJ45 port to connect to LOGO! 0BA8, 2xDI & 2xDO
6GK7142-7EX00-0AX0	CMR2040 communication module for LOGO! 0BA8 to LTE (4G); 1 RJ45 port to connect to LOGO!

Antennas

6GK5895-6ML00-0AA0	895-6ML, GPS, integr. amplifier, 3 dBi, N-female, IP67, 0.3 m cable
6XV1875-5LH50	IWLAN 1x N-Connect/1x SMA Male/Male flexible connection cable, 5 m
6NH9860-1AA00	Antenna ANT794-4MR, mobile communications, GSM/UMTS/LTE-EU, omnid., SMA 5 m cable

Software

6ED1058-0BA08-0YA1	LOGO! Soft Comfort version 8

S7-1200 BASIC CONTROLLERS

CPU 1211C - expandable up to 3 Comms Modules

PART NUMBER	DESCRIPTION
6ES72111-BE40-0XB0	85/265 VAC PSU, 6 DI (24 VDC), 4 Relay DQ, 2 AI (0-10V), 75kB
6ES72111-AE40-0XB0	24 VDC PSU, 6 DI (24 VDC), 4 DQ (24 VDC), 2 AI (0-10V), 75kB
6ES72111-HE40-0XB0	24 VDC PSU, 6 DI (24 VDC), 4 Relay DQ, 2 AI (0-10V), 75kB

CPU 1212C - expandable up to 3 Comms Modules & 2 Signal Modules

6ES7212-1BE40-0XB0	85/265 VAC PSU, 8 DI (24 VDC), 6 Relay DQ, 2 AI (0-10V), 100kB
6ES7212-1AE40-0XB0	24 VDC PSU, 8 DI (24 VDC), 6 DQ (24 VDC), 2 AI (0-10V), 100kB
6ES72121HE400XB0	24 VDC PSU, 8 DI (24 VDC), 6 Relay DQ, 2 AI (0-10V), 100kB

CPU 1214C - expandable up to 3 Comms Modules & 8 Signal Modules

6ES7214-1BG40-0XB0	85/265 VAC PSU, 14 DI (24 VDC), 10 Relay DQ, 2 AI (0-10V), 150kB
6ES7214-1AG40-0XB0	24 VDC PSU, 14 DI (24 VDC), 10 DQ (24 VDC), 2 AI (0-10V), 150kB
6ES7214-1HG40-0XB0	24 VDC PSU, 14 DI (24 VDC), 10 Relay DQ, 2 AI (0-10V), 150kB

CPU 1215C - expandable up to 3 Comms Modules & 8 Signal Modules

6ES7215-1BG40-0XB0	85/265 VAC PSU, 14 DI (24 VDC), 10 Relay DQ, 2 AI (0-10V), 2 AQ (0-20mA), 200kB, 2 port Switch
6ES7215-1AG40-0XB0	24 VDC PSU, 14 DI (24 VDC), 10 DQ (24 VDC), 2 AI (0-10V), 2 AQ (0-20mA) 200kB, 2 port Switch
6ES7215-1HG40-0XB0	24 VDC PSU, 14 DI (24 VDC), 10 Relay DQ, 2 AI (0-10V), 2 AQ (0-20mA),200kB, 2 port Switch

CPU 1217C - expandable up to 3 Comms Modules & 8 Signal Modules

6ES7217-1AG40-0XB0	24 VDC PSU, 14 DI (24 VDC), 10 DQ (24 VDC), 2 AI (0-10V), 2 AQ (0-20mA) 250kB, 2 port Switch

Failsafe CPU - expandable up to 3 Comms Modules & 2 Signal Modules

6ES7212-1AF40-0XB0	24 VDC PSU, 8 DI (24 VDC), 6 DQ (24 VDC), 2 AI (0-10V), 150kB
6ES7212-1HF40-0XB0	24 VDC PSU, 8 DI (24 VDC), 6 Relay DQ, 2 AI (0-10V), 150kB

Failsafe CPU - expandable up to 3 Comms Modules & 8 Signal Modules

6ES7214-1AF40-0XB0	24 VDC PSU, 14 DI (24 VDC), 10 DQ (24 VDC), 2 AI (0-10V), 200kB
6ES7214-1HF40-0XB0	24 VDC PSU, 14 DI (24 VDC), 10 Relay DQ, 2 AI (0-10V), 200kB
6ES7215-1AF40-0XB0	24 VDC PSU, 14 DI (24 VDC), 10 DQ (24 VDC), 2 AI (0-10V), 250kB
6ES7215-1HF40-0XB0	24 VDC PSU, 14 DI (24 VDC), 10 Relay DQ, 2 AI (0-10V), 250kB

Digital Input Expansion Modules

6ES7221-1BF32-0XB0	8 x 24VDC Input (Sink or Source)
6ES7221-1BH32-0XB0	16 x 24VDC Input (Sink or Source)

Digital Output Expansion Modules

6ES7222-1HF32-0XB0	DQ 8x relay/2 A
6ES7222-1BF32-0XB0	DQ 8x24 V DC/0.5 A
6ES7222-1XF32-0XB0	DQ 8x relay/2 A Changeover contact
6ES7222-1HH32-0XB0	DQ 16x relay/2 A
6ES7222-1BH32-0XB0	DQ 16x24 V DC/0.5 A

Digital I/O Expansion Modules

6ES7223-1PH32-0XB0	DI 8x24 V DC, DQ 8x relay
6ES7223-1BH32-0XB0	DI 8x24 V DC, DQ 8x24 V DC
6ES7223-1PL32-0XB0	DI 16x24 V DC, DQ 16x relay
6ES7223-1BL32-0XB0	DI 16x24 V DC, DQ 16x24 V DC
6ES7223-1QH32-0XB0	8 x 120V/240V AC inputs / 8 Relay outputs (2A)

Analogue Expansion Modules

Inputs

PART NUMBER	DESCRIPTION
6ES7231-4HD32-0XB0	4x13 bit
6ES7231-5ND32-0XB0	4x16 bit
6ES7231-4HF32-0XB0	8x13 bit

Outputs

PART NUMBER	DESCRIPTION
6ES7232-4HB32-0XB0	2 x Analogue Output 13 Bit
6ES7232-4HD32-0XB0	4 x Analogue Output 13 Bit

Inputs/Outputs

PART NUMBER	DESCRIPTION
6ES7234-4HE32-0XB0	4 x Analogue Input / 2 x Analog Output

Thermocouple

PART NUMBER	DESCRIPTION
6ES7231-5QD32-0XB0	4 x Analogue Input TC 16 bit (J,K,T,E,R,S,N,C,TXK/XK(L) +/-80mV)
6ES7231-5QF32-0XB0	8 x Analogue Input TC 16 bit (J,K,T,E,R,S,N,C,TXK/XK(L) +/-80mV)

RTD

PART NUMBER	DESCRIPTION
6ES7231-5PD32-0XB0	4 x Analogue Input RTD 16 bit (pt,cu & Ni)
6ES7231-5PF32-0XB0	8 x Analogue Input RTD 16 bit (pt,cu & Ni)

Weighing Module

PART NUMBER	DESCRIPTION
7MH4960-2AA01	SIWAREX WP231 calibratable weighing electronic (1 channel) for strain gauge load cells / full bridges (1-4 mV/V) for SIMATIC S7-1200 or stand alone, RS485 and Ethernet-Interface, onboard I/O: 4 DI /
7MH4900-1AK01	SIWAREX configuration software

Energy Measuring Module

PART NUMBER	DESCRIPTION
6ES7238-5XA32-0XB0	480 V AC

Communications Modules

PART NUMBER	DESCRIPTION
6ES7241-1AH32-0XB0	1241 RS 232
6ES7241-1CH32-0XB0	1241 RS 422 / 485
6ES7241-1CH30-1XB0	RS485 (Clamping block)
6GK7242-5DX30-0XE0	1242-5, connection SIMATIC S7-1200 to PROFIBUS DP
6GK7243-5DX30-0XE0	1243-5, connection SIMATIC S7-1200 to PROFIBUS DP
3RK7243-2AA30-0XB0	1243-2, communication module AS-i master according to AS-i spec. V3.0
3RK7271-1AA30-0AA0	1271, data decoupling unit for AS-i master CM 1243-2 in: 24 V/30 V DC
6ES7278-4BD32-0XB0	1278 4xIO-Link master
6GT2002-0LA00	RFID communication module RF120C for SIMATIC S7-1200 1 reader connectable RS-422

Communication Processors

PART NUMBER	DESCRIPTION
6GK7243-1BX30-0XE0	Communications processor CP 1243-1, connection S7-1200 to TeleControl Server
6GK7243-7KX30-0XE0	CP 1243-7 LTE (4G) Communication processor for connecting SIMATIC S7-1200 to LTE (4G) mobile wireless network

Signal Boards

6ES7221-3AD30-0XB0	1221, DI 4x5 V DC 200 kHz
6ES7221-3BD30-0XB0	1221, DI 4x24 V DC 200 kHz
6ES7222-1AD30-0XB0	1222, DQ 4x5 V DC 200 kHz
6ES7222-1BD30-0XB0	1222, DQ 4x24 V DC 200 kHz
6ES7223-0BD300-0XB0	1223 - 2DI/2DQ, 2 x 24VDC Input, 2 x 24VDC Output (0.5A)
6ES7223-3AD30-0XB0	1223, DI 2x5 V DC/DQ 2x5 V DC 200 kHz
6ES7223-3BD30-0XB0	1223, DI 2x24 V DC/DQ 2x24 V DC 200 kHz
6ES7231-4HA30-0XB0	1231 - 1 AI, +/- 10V DC or 0-20mA, 12 Bit
6ES7231-5PA30-0XB0	1231, AI 1x16 bit RTD
6ES7231-5QA30-0XB0	1231 - TC, 1 AI Thermocouple, Type J or K
6ES7232-4HA30-0XB0	1232 - 1 AO, +/- 10VDC (12 Bit) or 0-20mA (11 Bit)

Failsafe I/O

6ES7226-6BA32-0XB0	1226 F-DI 16 x 24 VDC, 16x24Vdc inputs (SIL2/Cat.3/PLd) or 8x24Vdc inputs (SIL3/Cat.4/PLe) Product Code: - 6ES72266BA320XB0
6ES7226-6DA32-0XB0	1226 F-DQ 4 x 24 VDC, 4 outputs 2A (pm) / SIL3
6ES7226-6RA32-0XB0	1226 F-DQ 2 x Relay, 2 relay outputs / SIL3

STEP 7 Basic V19

6ES7822-0AA23-0YA5	SIMATIC STEP 7 Basic V19 Floating License
6ES7822-0AA23-0YE5	Upgrade SIMATIC STEP 7 Basic V11..V18 -> V19 Floating License
6ES7822-0AA00-0YL0	SIMATIC STEP 7 Basic TIA Portal SUS

STEP 7 Safety Basic

6ES7833-1FB23-0YA5	STEP7 Safety Basic V19

S7-1500 ADVANCED CONTROLLERS

Standard CPUs

PART NUMBER	DESCRIPTION
6ES7511-1AL03-0AB0	1511-1 PN, 300 KB / 1.5 MB, 1xPN interface with 2 port switch, requires MMC
6ES7513-1AL02-0AB0	1513-1 PN, 300 kB / 1.5 MB, 1xPN interface with 2 port switch, requires MMC
6ES7515-2AN03-0AB0	1515-2 PN, 1 MB / 4.5 MB, 2xPN interface,1 with 2 port switch, requires MMC
6ES7516-3AP03-0AB0	1516-3 PN/DP, 2 MB / 7.5 MB, 2xPN interface, 1 with 2 port switch, 1xDP interface, requires MMC
6ES7517-3AP00-0AB0	1517-3 PN/DP, 2 MB / 8 MB, 2xPN interface, 1 with 2 port switch, 1xDP interface, requires MMC
6ES7518-4AP00-0AB0	1518-4 PN/DP, 4 MB / 20 MB, 3xPN interface, 1 with 2 port switch, 1xDP interface, requires MMC

Compact CPUs

PART NUMBER	DESCRIPTION
6ES7511-1CK01-0AB0	1511C-1 PN, 175 KB / 1 MB, 16 Inputs / 16 Outputs, 4+1 Analogue Inputs / 2 Analogue Outputs, 6 HSC (100 KHZ), 1 x PN (2 port Switch), includes push-in connector
6ES7512-1CK01-0AB0	1512C-1 PN, 250 KB / 1 MB, 32 Inputs / 32 Outputs, 4+1 Analogue Inputs / 2 Analogue Outputs, 6 HSC (100 KHZ), 1 x PN (2 port Switch), includes push-in connector

Failsafe CPUs

PART NUMBER	DESCRIPTION
6ES7511-1FL03-0AB0	1511F-1 PN, 450 KB / 1.5 MB, 1xPN interface with 2 port switch, requires MMC
6ES7513-1FM03-0AB0	1513F-1 PN, 900 KB / 2.5 MB, 1xPN interface with 2 port switch, requires MMC
6ES7515-2FN03-0AB0	1515F-2 PN, 1.5 MB / 4.5 MB, 2xPN interface,1 with 2 port switch, requires MMC
6ES7516-3FP03-0AB0	1516F-3 PN/DP, 3 MB / 7.5 MB, 2xPN interface, 1 with 2 port switch, 1xDP interface, requires MMC
6ES7517-3FP00-0AB0	1517F-3 PN/DP, 3 MB / 8 MB, 2xPN interface, 1 with 2 port switch, 1xDP interface, requires MMC
6ES7518-4FP00-0AB0	
6ES7518-4FX00-1AC0	1518F-4 PN/DP MFP, 6 MB / 20 MB, 3xPN interface, 1 with 2 port switch, 1xDP interface, requires MMC

Technology CPUs

PART NUMBER	DESCRIPTION
6ES7511-1TL03-0AB0	1511T-1 PN, 450 kB / 1.5 MB, 1xPN interface with 2 port switch, requires MMC
6ES7515-2TN03-0AB0	1515T-2 PN, 1.5 kB / 4.5 MB, 2xPN interface with 2 port switch, requires MMC
6ES7516-3TN00-0AB0	1516T-3 PN/DP, Central processing unit with 1.5 MB RAM for program and 5 MB fo
6ES7517-3TP00-0AB0	1517T-3 PN/DP, 3 MB / 8 MB, 2xPN interface, 1 with 2 port switch, 1xDP interface, requires MMC
6ES7518-4TP00-0AB0	1518T-4 PN/DP, 9MB Prog., 60MB data

Technology with Failsafe CPUs

PART NUMBER	DESCRIPTION
6ES7511-1UL03-0AB0	1511TF-1 PN, 450 kB / 1.5 MB, 1xPN interface with 2 port switch, requires MMC
6ES7515-2UN03-0AB0	1515TF-2 PN, 1.5 kB / 4.5 MB, 2xPN interface with 2 port switch, requires MMC
6ES7516-3UN00-0AB0	1516TF-3 PN, 1.5 MB / 5 MB, 2xPN interface, 1 with 2 port switch, 1xDP interface, requires MMC
6ES7517-3UP00-0AB0	1517TF-3 PN/DP, 3 MB / 8 MB, 2xPN interface, 1 with 2 port switch, 1xDP interface, requires MMC
6ES7518-4UP00-0AB0	1518TF-4 PN/DP, 9MB Prog, 60MB data

Redundant CPUs

PART NUMBER	DESCRIPTION
6ES7513-1RM03-0AB0	SIMATIC S7-1500R,CPU 1513R-1PN, central processing unit with work memory 600 KB for program and 2.5 MB for data, 1st interface: PROFINET RT with 2-port switch, SIMATIC Memory Card required
6ES7515-2RN03-0AB0	SIMATIC S7-1500R, CPU 1515R-2 PN central processing unit with work memory 1 MB for program and 4.5 MB for data, 1st interface: PROFINET RT with 2-port switch, 2nd interface: PROFINET, SIMATIC Memory

High-available CPUs (S7-1500 CPU)

PART NUMBER	DESCRIPTION
6ES7517-3HP00-0AB0	CPU 1517H-3 PN, 2 MB / 8 MB, 2xPN interface, 1 with 2 port switch, 1xH-SYNC, requires MMC
6ES7518-4JP00-0AB0	CPU 1518HF-4 PN, 9MB program/60MB data

High-available CPUs (Synchronisation Modules)

PART NUMBER	DESCRIPTION
6ES7960-1CB00-0AA5	SIMATIC S7-1500 Synchronization module for patch cable up to 10 m
6ES7960-1FB00-0AA5	SIMATIC S7-1500 Synchronization module for FO cables from 2 m up to 10 km

High-available CPUs (Synchronisation Cables)

PART NUMBER	DESCRIPTION
6ES7960-1BB00-5AA5	SIMATIC S7-1500 Sync cable FOC 1 m
6ES7960-1BC00-5AA5	SIMATIC S7-1500 Sync cable FOC 2 m
6ES7960-1CB00-5AA5	SIMATIC S7-1500 Sync cable FOC 10 m

High-available CPUs (S7-1500 Bundle)

PART NUMBER	DESCRIPTION
6ES7500-0HP00-0AB0	SIMATIC S7-1500H, CPU 1517H System Bundle consisting of: 2 x CPU 1517H-3 PN with display, without memory card, 4 sync-modules 10m, 2 x Sync-Cables 1m

High-available CPUs (MF & ODK)

6ES7518-4FX00-1AC0	CPU 1518F-4 PN/DP MFP, 6 MB / 20 MB, 3xPN interface, 1 with 2 port switch, 1xDP interface, requires MMC
6ES7518-4AX00-1AC0	CPU 1518-4 PN/DP MFP, 4 MB / 20 MB, 3xPN interface, 1 with 2 port switch, 1xDP interface, requires MMC

Header Modules

6ES7155-5AA00-0AA0	PROFINET IO header module (max 12 modules) - IM 155-5 PN Basic version
6ES7155-5AA01-0AB0	PROFINET IO header module (max 30 modules) - IM 155-5 PN Standard
6ES7155-5MU00-0CN0	SIMATIC ET 200MP IM 155-5 MF HF For up to 30 I/O modules, S2 redundancy for operation on S7-400H
6ES7155-5BA00-0AB0	SIMATIC ET 200MP IM 155-5 DP ST For up to 12 I/O modules incl. PROFIBUS connector

Power Modules (Left of CPU)

6EP1332-4BA00	Load power supply SIMATIC PM1507, single-phase 24 V DC/3 A
6EP1333-4BA00	Load power supply SIMATIC PM1507, single-phase 24 V DC/8 A

System Power Supplies (Right of CPU to boost Backplane)

6ES7505-0KA00-0AB0	System power supply 25W 24V DC
6ES7505-0RA00-0AB0	SIMATIC S7-1500 PS 60 W 24/48/60 V DC
6ES7505-0RB00-0AB0	System power supply 60W 24/48/60V DC, buffering functionality
6ES7507-0RA00-0AB0	SIMATIC S7-1500 PS 60 W 120/230 V AC/DC

Digital Inputs

6ES7521-1BH10-0AA0	16 x 24 V DC BA 25 mm Incl. front connector push-in
6ES7521-1BL10-0AA0	32x24 V DC BA 25 mm Incl. front connector push-in
6ES7521-1BH00-0AB0	16x24 V DC HF 35 mm, with operating mode counter
6ES7521-1BH50-0AA0	16x24 V DC SRC BA 35 mm, sourcing
6ES7521-7BH00-0AB0	16X24VDC HS
6ES7521-1BL00-0AB0	32x24 V DC HF 35 mm, with operating mode counter
6ES7521-1FH00-0AA0	16x230VAC BA 35 mm
6ES7521-7EH00-0AB0	16x24 ... 125 V UC HF 35 mm
6ES7521-7TH00-0AB0	16XNAMUR HF
6ES7521-1BP00-0AA0	64x24VDC BA 35 mm (Please order cables and terminal blocks separately)

Digital Outputs

6ES7522-1BH10-0AA0	16x24VDC/0.5A BA 25 mm Incl. front connector push-in
6ES7522-1BL10-0AA0	32x24VDC/0.5A BA 25 mm Incl. front connector push-in
6ES7522-1BH01-0AB0	16x24VDC/0.5A HF 35 mm
6ES7522-1BL01-0AB0	32x24VDC/0.5A HF 35 mm
6ES7522-1BF00-0AB0	8x24VDC/2A HF 35 mm, with operating mode PWM
6ES7522-5FF00-0AB0	8x230 V AC/2A ST (triac) 35 mm
6ES7522-5HF00-0AB0	8x230 V AC/5 A ST (relay) 35 mm
6ES7522-5FH00-0AB0	16x230VAC/1A ST (Triac) 35 mm
6ES7522-5HH00-0AB0	16x 230 V AC/2 A ST (relay) 35 mm
6ES7522-5EH00-0AB0	16x24 ... 48 V UC/125 V DC/0.5 A ST 35 mm
6ES7522-1BP00-0AA0	64x24VDC/0.3A BA 35 mm Please order cables and terminal blocks separately
6ES7522-1BP50-0AA0	64x24VDC/0.3A SNK BA

Digital Inputs & Outputs

PART NUMBER	DESCRIPTION
6ES7523-1BL00-0AA0	16x24VDC / DQ16x24VDC/0.5A BA 25 mm Incl. front connector push-in
6ES7523-1BP50-0AA0	32 x 24 V DC / DQ 32 x 24 V DC/0.3A SNK BA 35 mm Please order cables and terminal blocks separately

Analogue Inputs

PART NUMBER	DESCRIPTION
6ES7531-7QD00-0AB0	4xU/I/RTD/TC ST 25 mm Incl. front connector push-in, power supply element, shield bracket, and shield terminal
6ES7531-7QF00-0AB0	8xU/I/R/RTD BA 35 mm Incl. power supply element, shield bracket, and shield terminal
6ES7531-7KF00-0AB0	8xU/I/RTD/TC ST 35 mm Incl. power supply element, shield bracket, and shield terminal
6ES7531-7NF10-0AB0	8xU/I HS 35 mm, with operating mode oversampling Incl. power supply element, shield bracket, and shield terminal
6ES7531-7PF00-0AB0	8xU/R/RTD/TC HF 35 mm, with operating mode scale measuring range Incl. power supply element, shield bracket, and shield terminal
6ES7531-7NF00-0AB0	8xU/I HF 35 mm, with operating mode scale measured values, adaptation of measuring range Incl. power supply element, shield bracket

Analogue Outputs

PART NUMBER	DESCRIPTION
6ES7532-5NB00-0AB0	2xU/I ST 25 mm Incl. front connector push-in, power supply element, shield bracket, and shield terminal
6ES7532-5HD00-0AB0	4xU/I ST 35 mm Incl. power supply element, shield bracket, and shield terminal
6ES7532-5HF00-0AB0	8xU/I HS 35 mm, with operating mode oversampling Incl. power supply element, shield bracket, and shield terminal
6ES7532-5ND00-0AB0	4xU/I HF 35 mm Incl. power supply element, shield bracket, and shield terminal

Analogue Input / Output

PART NUMBER	DESCRIPTION
6ES7534-7QE00-0AB0	4xU/I/RTD/TC /AQ 2xU/I ST 25 mm Incl. front connector push-in, power supply element, shield bracket, and shield terminal

Failsafe I/O

PART NUMBER	DESCRIPTION
6ES7526-1BH00-0AB0	SIMATIC S7-1500, F digital input module, F-DI 16x 24 V DC PROFIsafe; 35 mm width; up to PL E (ISO 13849-1)/ SIL 3 (IEC 61508)
6ES7526-2BF00-0AB0	SIMATIC S7-1500, F digital output module, F-DQ 8x 24 V DC 2A PPM PROFIsafe; 35 mm width; up to PL E (ISO 13849-1)/ SIL3 (IEC 61508)

Technology Modules

PART NUMBER	DESCRIPTION
6ES7551-1AB01-0AB0	SIMATIC S7-1500 TM PosInput 2 2 channels, 1 MHz
6ES7550-1AA01-0AB0	2 x 24 VDC High Speed Counters (200kHz)
6ES7552-1AA00-0AB0	TM Timer DIDQ 16 x 24 V, Max. 16 time-controlled inputs or outputs
6ES7553-1AA00-0AB0	TM PTO 4 stepper drives, 4 Pulse Train Output PTO channels; PTO: 24 V or RS 422; 2 DQ PTO, 2 DI 24 V, 1 DIQ 24 V per channel
6ES7554-1AA00-0AB0	SIMATIC S7-1500, TM FAST Field Adaptable High-Speed Technology
6ES7556-1AA00-0AB0	SIMATIC S7-1500, TM NPU, Technology module for Applications with artificial Intelligence, 1 x Ethernet, 1 x USB, 1 x SD (Special sales release required)
6ES7558-1AA00-0AB0	SIMATIC S7-1500 TM MFP
7MH4980-1AA01	SIMATIC S7-1500, TM SIWAREX WP521 ST, single-channel weighing module for one platform or hopper scales with analog load cells / strain gauges (full bridges), 3xDI, 3xDQ, 1xRS485, 1xEthernet, 1xLC loa
7MH4980-2AA01	TM SIWAREX WP522 ST, 2-ch, for two separate platform or hopper scales with analog load cells / full-bridge strain gauges (1 - 4 mV/V), per channel 1 x LC, 4 x DQ, 3 x DI, 1 x RS 485, Ethernet port

Serial Interfaces

PART NUMBER	DESCRIPTION
6ES7540-1AD00-0AA0	CM 540 Comms Module with RS232 BA (Freeport, 3964 and USS)
6ES7541-1AD00-0AB0	CM 541 Comms Module with RS232 HF (Freeport, 3964, USS and Modbus RTU)
6ES7540-1AB00-0AA0	CM 540 Comms Module with RS422/485 BA (Freeport, 3964(R) and USS)
6ES7541-1AB00-0AB0	CM 541 Comms Module with RS422/485 HF - (Freeport, 3964, USS and Modbus RTU)

I/O Link

PART NUMBER	DESCRIPTION
6ES7547-1JF00-0AB0	8xIO-Link, communication module IO-Link Master V1.1 Front connector (screw terminals or push-in) to be ordered separately

Ethernet

6GK7543-1AX00-0XE0	Communications processor CP 1543-1, connection SIMATIC S7-1500 to IE
6GK7542-1AX10-0XE0	Communication module CM 1542-1, connection S7-1500 to IE
6GK7545-1GX00-0XE0	Communications processor CP 1545-1 for connection of SIMATIC S7-1500 to Industrial Ethernet TCP/IP, UDP, S7 communication, Security (firewall), SNMPv

Profibus

6GK7542-5DX10-0XE0	Communication module CM 1542-5, connection SIMATIC S7-1500 to PROFIBUS DP
6GK7542-5FX10-0XE0	Communications processor CP 1542-5, connection SIMATIC S7-1500 to PROFIBUS DP

TIA Portal - Step 7 Professional

6ES7822-1AA23-0YA5	SIMATIC STEP 7 Professional V19 Floating License
6ES7822-1AA00-0YL5	SIMATIC STEP 7 Professional TIA Portal SUS

TIA Portal - PowerPack & Upgrade

6ES7822-1AA23-0XC5	Powerpack & Upgrade SIMATIC STEP 7 V5.7 -> Professional V19/2021 SR2 Combo Floating License
6ES7810-5CC04-0YE2	SIMATIC STEP 7 Professional SUS Combo (TIA Portal & Classic)

TIA Portal - Safety Advanced

6ES7833-1FA23-0YA5	STEP 7 Safety Advanced V19

HMI UNIFIED PANELS

Basic Panels

PART NUMBER	DESCRIPTION
6AV2123-3DB32-0AW0	SIMATIC HMI MTP400, Unified Basic Panel, touch operation, 4 widescreen TFT display, 16 million colors, PROFINET interface, configurable as of WinCC Unified Basic V18 Update 3, contains open-source s
6AV2123-3GB32-0AW0	SIMATIC HMI MTP700, Unified Basic Panel, touch operation, 7 widescreen TFT display, 16 million colors, PROFINET interface, configurable as of WinCC Unified Basic V18 Update 3, contains open-source s
6AV2123-3KB32-0AW0	SIMATIC HMI MTP1000, Unified Basic Panel, touch operation, 10 widescreen TFT display, 16 million colors, PROFINET interface, configurable as of WinCC Unified Basic V18 Update 3, contains open-source
6AV2123-3MB32-0AW0	SIMATIC HMI MTP1200, Unified Basic Panel, touch operation, 12 widescreen TFT display, 16 million colors, PROFINET interface, configurable as of WinCC Unified Basic V18 Update 3, contains open-source

Comfort Panels

PART NUMBER	DESCRIPTION
6AV2128-3GB06-0AX1	SIMATIC HMI MTP700, Unified Comfort Panel, touch operation, 7 widescreen TFT display, 16 million colors, PROFINET interface, configurable as of WinCC Unified Comfort V16, contains open-source software, which is provided free of charge see enclosed DVD
6AV2128-3KB06-0AX1	SIMATIC HMI MTP1000, Unified Comfort Panel, touch operation, 10.1 widescreen TFT display, 16 million colors, PROFINET interface, configurable as of WinCC Unified Comfort V16, contains open-source software, which is provided free of charge see enclosed DVD
6AV2128-3MB06-0AX1	`SIMATIC HMI MTP1200, Unified Comfort Panel, touch operation, 12.1 widescreen TFT display, 16 million colors, PROFINET interface, configurable as of WinCC Unified Comfort V16, contains open-source software, which is provided free of charge see enclosed DVD
6AV2128-3QB06-0AX1	SIMATIC HMI MTP1500, Unified Comfort Panel, touch operation, 15.6 widescreen TFT display, 16 million colors, PROFINET interface, configurable as of WinCC Unified Comfort V16, contains open-source software, which is provided free of charge see enclosed DVD
6AV2128-3UB06-0AX1	SIMATIC HMI MTP1900, Unified Comfort Panel, touch operation, 18.5 widescreen TFT display, 16 million colors, PROFINET interface, configurable as of WinCC Unified Comfort V16, contains open-source software, which is provided free of charge see enclosed DVD
6AV2128-3XB06-0AX1	SIMATIC HMI MTP2200, Unified Comfort Panel, touch operation, 21.5 widescreen TFT display, 16 million colors, PROFINET interface, configurable as of WinCC Unified Comfort V16, contains open-source software, which is provided free of charge see enclosed DVD

POWER SUPPLIES PSU6200

24 V DC Output

PART NUMBER	DESCRIPTION
6EP3331-7SB00-0AX0	Input 120-230V UC - output 24V/1.3 amp DC
6EP3332-7SB00-0AX0	Input 120-230V UC - output 24V/2.5 amp DC
6EP3333-7LB00-0AX0	Input 120-230V UC - output 24V/3.7 amp DC
6EP3333-7SB00-0AX0	Input 120-230V UC - output 24V/5.0amp DC
6EP3334-7SB00-3AX0	Input 120-230V UC - output 24V/10.0 amp DC
6EP3336-7SB00-3AX0	Input 120-230V UC - output 24V/20.0 amp DC
6EP3433-7SB00-0AX0	3-phase 24 V DC/5 A
6EP3434-7SB00-3AX0	3-phase 24 V DC/10 A
6EP3436-7SB00-3AX0	3-phase 24 V DC/20 A

48 V DC Output

6EP3344-7SB00-3AX0	Input 120-230V UC - output 48V/5.0 amp DC

12 V DC Output

6EP3321-7SB00-0AX0	Input 120-230V UC - output 12V/2.0 amp DC
6EP3323-7SB00-0AX0	Input 120-230V UC - output 12V/7.0 amp DC
6EP3324-7SB00-3AX0	Input 120-230V UC - output 12V/12.0 amp DC

Current / selectivity monitoring

6EP4438-7FB00-3DX0	SITOP SEL1200 Selectivity module 8-channel switching characteristic Input: 24 V DC/60 A output: 24 V DC/8 x 10 A Level adjustable 2-10 A with monitoring interface
6EP4438-7EB00-3DX0	SITOP SEL1400 10 A Selectivity module 8-channel with limiting characteristic Input: 24 V DC/60 A output: 24 V DC/8x 10 A Threshold adjustable 2-10 A with monitoring interface
6EP4437-7FB00-3CX0	SITOP SEL1200 10 A Selectivity module 4-channel with switching characteristic Input: 24 V DC/40 A Output: 24 V DC/4x 10 A Threshold value adjustable 2-10 A With monitoring interface
6EP4437-7EB00-3CX0	SITOP SEL1400 10 A Selectivity module 4-channel with limiting characteristic Input: 24 V DC/40 A Output: 24 V DC/4x 10 A Threshold value adjustable 2-10 A With monitoring interface
6EP4437-7FB00-3DX0	SITOP SEL1200 5 A Selectivity module 8-channel with switching characteristic Input: 24 V DC/40 A Output: 24 V DC/8x 5 A Threshold adjustable 1-5 A With monitoring interface
6EP4437-7EB00-3DX0	SITOP SEL1400 5 A Selectivity module 8-channel with limiting characteristic Input: 24 V DC/40 A Output: 24 V DC/8x 5 A Threshold adjustable 1-5 A With monitoring interface

Redundancy & De-coupling Modules

6EP4346-7RB00-0AX0	SITOP RED1200 redundancy module Input/output: 24/48 V DC/20 A Suitable for decoupling two SITOP power supplies with max. 10 A output current each
6EP4347-7RB00-0AX0	SITOP RED1200 redundancy module Input/output: 24/48 V DC/40 A Suitable for decoupling two SITOP power supplies with max. 20 A output current each

SIEMENS

VARIABLE SPEED DRIVES (SINAMICS)

SINAMICS V20 - ENTRY (3PH)

Filtered

PART NUMBER	DESCRIPTION
6SL3210-5BE13-7CV0	IP20 / UL open type, FSA, A, 380-480 V 3 AC, 0,37 kW
6SL3210-5BE15-5CV0	IP20 / UL open type, FSA, A, 380-480 V 3 AC, 0,55 kW
6SL3210-5BE17-5CV0	IP20 / UL open type, FSA, A, 380-480 V 3 AC, 0,75 kW
6SL3210-5BE21-1CV0	IP20 / UL open type, FSA, A, 380-480 V 3 AC, 1,10 kW
6SL3210-5BE21-5CV0	IP20 / UL open type, FSA, A, 380-480 V 3 AC, 1,50 kW
6SL3210-5BE22-2CV0	IP20 / UL open type, FSA, A, 380-480 V 3 AC, 2,20 kW
6SL3210-5BE23-0CV0	IP20 / UL open type, FSB, A, 380-480 V 3 AC, 3,00 kW
6SL3210-5BE24-0CV0	IP20 / UL open type, FSB, A, 380-480 V 3 AC, 4,00 kW
6SL3210-5BE25-5CV0	IP20 / UL open type, FSC, A, 380-480 V 3 AC, 5,50 kW
6SL3210-5BE27-5CV0	IP20 / UL open type, FSD, A, 380-480 V 3 AC, 7,50 kW
6SL3210-5BE31-1CV0	IP20 / UL open type, FSD, A, 380-480 V 3 AC, 11,00 kW
6SL3210-5BE31-5CV0	IP20 / UL open type, FSD, A, 380-480 V 3 AC, 15,00 kW
6SL3210-5BE31-8CV0	IP20 / UL open type, FSE, A, 380-480 V 3 AC, 18,50 kW
6SL3210-5BE32-2CV0	IP20 / UL open type, FSE, A, 380-480 V 3 AC, 22,00 kW

SINAMICS G120C COMPACT

Filtered - Profinet

PART NUMBER	DESCRIPTION
6SL3210-1KE11-8AF2	EtherNet/IP, IP20 / UL open type, FSAA,A, 380-480 V, 3AC, 0,55 kW
6SL3210-1KE12-3AF2	EtherNet/IP, IP20 / UL open type, FSAA,A, 380-480 V, 3AC, 0,75 kW
6SL3210-1KE13-2AF2	EtherNet/IP, IP20 / UL open type, FSAA,A, 380-480 V, 3AC, 1,10 kW
6SL3210-1KE14-3AF2	EtherNet/IP, IP20 / UL open type, FSAA,A, 380-480 V, 3AC, 1,50 kW
6SL3210-1KE15-8AF2	EtherNet/IP, IP20 / UL open type, FSAA,A, 380-480 V, 3AC, 2,20 kW
6SL3210-1KE17-5AF1	EtherNet/IP, IP20 / UL open type, FSA,A, 380-480 V, 3AC, 3,00 kW
6SL3210-1KE18-8AF1	EtherNet/IP, IP20 / UL open type, FSA,A, 380-480 V, 3AC, 4,00 kW
6SL3210-1KE21-3AF1	EtherNet/IP, IP20 / UL open type, FSB,A, 380-480 V, 3AC, 5,50 kW
6SL3210-1KE21-7AF1	EtherNet/IP, IP20 / UL open type, FSB,A, 380-480 V, 3AC, 7,50 kW
6SL3210-1KE22-6AF1	EtherNet/IP, IP20 / UL open type, FSC,A, 380-480 V, 3AC, 11,00 kW
6SL3210-1KE23-2AF1	EtherNet/IP, IP20 / UL open type, FSC,A, 380-480 V, 3AC, 15,00 kW
6SL3210-1KE23-8AF1	EtherNet/IP, IP20 / UL open type, FSC,A, 380-480 V, 3AC, 18,50 kW
6SL3210-1KE24-4AF1	EtherNet/IP, IP20 / UL open type, FSD,A, 380-480 V, 3AC, 22,00 kW
6SL3210-1KE26-0AF1	EtherNet/IP, IP20 / UL open type, FSD,A, 380-480 V, 3AC, 30,00 kW
6SL3210-1KE27-0AF1	EtherNet/IP, IP20 / UL open type, FSD,A, 380-480 V, 3AC, 37,00 kW
6SL3210-1KE28-4AF1	EtherNet/IP, IP20 / UL open type, FSD,A, 380-480 V, 3AC, 45,00 kW
6SL3210-1KE31-1AF1	EtherNet/IP, IP20 / UL open type, FSE,A, 380-480 V, 3AC, 55,00 kW
6SL3210-1KE31-4AF1	EtherNet/IP, IP20 / UL open type, FSF,A, 380-480 V, 3AC, 75,00 kW
6SL3210-1KE31-7AF1	EtherNet/IP, IP20 / UL open type, FSF,A, 380-480 V, 3AC, 90,00 kW
6SL3210-1KE32-1AF1	EtherNet/IP, IP20 / UL open type, FSF,A, 380-480 V, 3AC, 110,00 kW
6SL3210-1KE32-4AF1	EtherNet/IP, IP20 / UL open type, FSF,A, 380-480 V, 3AC, 132,00 kW

SINAMICS G120 MODULAR (3PH)

380-480VAC - Filtered

PART NUMBER	DESCRIPTION
6SL3210-1PE11-8AL1	IP20 / UL open type, FSA, A, 380-480 V 3 AC, 0,55 kW
6SL3210-1PE12-3AL1	IP20 / UL open type, FSA, A, 380-480 V 3 AC, 0,75 kW
6SL3210-1PE13-2AL1	IP20 / UL open type, FSA, A, 380-480 V 3 AC, 1,10 kW
6SL3210-1PE14-3AL1	IP20 / UL open type, FSA, A, 380-480 V 3 AC, 1,50 kW
6SL3210-1PE16-1AL1	IP20 / UL open type, FSA, A, 380-480 V 3 AC, 2,20 kW
6SL3210-1PE18-0AL1	IP20 / UL open type, FSA, A, 380-480 V 3 AC, 3,00 kW
6SL3210-1PE21-1AL0	IP20 / UL open type, FSB, A, 380-480 V 3 AC, 4,00 kW
6SL3210-1PE21-4AL0	IP20 / UL open type, FSB, A, 380-480 V 3 AC, 5,50 kW
6SL3210-1PE21-8AL0	IP20 / UL open type, FSB, A, 380-480 V 3 AC, 7,50 kW
6SL3210-1PE22-7AL0	IP20 / UL open type, FSC, A, 380-480 V 3 AC, 11,00 kW
6SL3210-1PE23-3AL0	IP20 / UL open type, FSC, A, 380-480 V 3 AC, 15,00 kW
6SL3210-1PE23-8AL0	IP20 / UL open type, FSD, A, 380-480 V 3 AC, 18,50 kW
6SL3210-1PE24-5AL0	IP20 / UL open type, FSD, A, 380-480 V 3 AC, 22,00 kW
6SL3210-1PE26-0AL0	IP20 / UL open type, FSD, A, 380-480 V 3 AC, 30,00 kW
6SL3210-1PE27-5AL0	IP20 / UL open type, FSD, A, 380-480 V 3 AC, 37,00 kW
6SL3210-1PE28-8AL0	IP20 / UL open type, FSE, A, 380-480 V 3 AC, 45,00 kW
6SL3210-1PE31-1AL0	IP20 / UL open type, FSE, A, 380-480 V 3 AC, 55,00 kW
6SL3210-1PE31-5AL0	IP20 / UL open type, FSF, A, 380-480 V 3 AC, 75,00 kW
6SL3210-1PE31-8AL0	IP20 / UL open type, FSF, A, 380-480 V 3 AC, 90,00 kW
6SL3210-1PE32-1AL0	IP20 / UL open type, FSF, A, 380-480 V 3 AC, 110,00 kW
6SL3210-1PE32-5AL0	IP20 / UL open type, FSF, A, 380-480 V 3 AC, 132,00 kW
6SL3210-1PE33-0AL0	IP20 / UL open type, FSG, A, 380-480 V 3 AC, 160,00 kW
6SL3210-1PE33-7AL0	IP20 / UL open type, FSG, A, 380-480 V 3 AC, 200,00 kW
6SL3210-1PE34-8AL0	IP20 / UL open type, FSG, A, 380-480 V 3 AC, 250,00 kW

Control Units

6SL324-30BB30-1HA3	SINAMICS G120 Control Unit CU230P-2 HVAC USS/MODBUS RTU/BACnet MS/TP 6 DI, 3 DO, 4 AI, 2 AO 1 motor temperature sensor input 2 PSU-out (10 V DC, 24 V DC) 1 PSU-in (24 V DC) USB and MMC interface Degree of protection IP20
6SL324-40BB12-1BA1	SINAMICS G120 Control Unit CU240E-2 E-TYPE Safety Integrated STO RS485-INTERFACE, USS-PROTOCOL 6DI, 3DO, 2AI, 2AO, MAX 1F-DI PTC/KTY INTERFACE USB- and SD/MMC-interface protection IP20 ambient temp 0 TO +50 DEG C without power module and panel
6SL324-40BB12-1PA1	SINAMICS G120 Control Unit CU240E-2 DP E-TYPE Safety Integrated STO PROFIBUS DP 6DI, 3DO, 2AI, 2AO, MAX 1F-DI PTC/KTY interface USB- and SD/MMC-Interface protection IP20 ambient temp 0 to +50 DEG C without power module and panel
6SL324-40BB12-1FA0	SINAMICS G120 Control Unit CU240E-2 PN E-TYPE safety integrated STO PROFINET 6DI, 3DO, 2AI, 2AO, MAX 1F-DI PTC/KTY interface USB- and SD/MMC-interface protection IP20 ambient temp 0 to +50 DEG C without power module and panel
6SL324-40BB13-1FA0	SINAMICS G120 CU240E-2 PN-F Control Unit E-type Safety Integrated STO F-type SS1, SLS, SSM, SDI PROFINET interface 6 DI, 3 DQ, 2 AI, 2 AQ, max. 3 F-DI PTC/KTY interface USB and SD/MMC interface Degree of protection IP20 Ambient temperature 0 to +50 & ACIRC;°C without Power Module
6SL324-60BA22-1FA0	SINAMICS G120 Control Unit CU250S-2 PN INTEGRIERT PROFINET support of vector control, easy positioning EPOS via extended function license 4 configurable DI/DO, 6 DI (3 F-DI), 5 DI, 3 DO (1 F-DO), 2 AI, 2 AO safety integrated STO, SBC, SS1 further safety functions via extended safety license encoder: D-CLIQ + HTL/TTL/SSI, RESOLVER/HTL via terminal protection IP20 USB- and SD/MMC-interface

Accessories

6SL3054-4AG00-2AA0	SINAMICS system software SD card 512 MB SD-Card 512 V0.0.0
6SL3255-0AA00-4CA1	SINAMICS Basic Operator Panel (BOP-2) , IP55 / UL type 12, LCD, monochrome
6SL3255-0AA00-4JA2	SINAMICS Intelligent Operator Panel (IOP-2) , IP55 / UL type 12, LCD color

SINAMICS G220 (3PH)

380-500 VAC IP20 Filtered

PART NUMBER	DESCRIPTION
6SL4113-0CA08-2AF0	0.75/1.1KW HO/LO 400V
6SL4113-0CA10-2AF0	1.1/1.5KW HO/LO 400V
6SL4113-0CA11-2AF0	1.5/2.2KW HO/LO 400V
6SL4113-0CA12-2AF0	2.2/3.0KW HO/LO 400V
6SL4113-0CA13-2AF0	3.0/4.0KW HO/LO 400V
6SL4113-0CA15-2AF0	4.0/5.5KW HO/LO 400V
6SL4113-0CA16-2AF0	5.5/7.5KW HO/LO 400V
6SL4113-0CA17-2AF0	7.5/11KW HO/LO 400V
6SL4113-0CA18-2AF0	11/15KW HO/LO 400V
6SL4113-0CA20-2AF0	15/18.5KW HO/LO 400V
6SL4113-0CA21-2AF0	18.5/22KW HO/LO 400V
6SL4113-0CA23-2AF0	22/30KW HO/LO 400V
6SL4113-0CA24-2AF0	30/37KW HO/LO 400V
6SL4113-0CA26-2AF0	37/45KW HO/LO 400V
6SL4113-0CA27-2AF0	45/55KW HO/LO 400V FLT

380-500 VAC IP20 Un-Filtered

PART NUMBER	DESCRIPTION
6SL4113-0CA10-0AF0	1.1/1.5KW HO/LO 400V
6SL4113-0CA11-0AF0	1.5/2.2KW HO/LO 400V
6SL4113-0CA12-0AF0	2.2/3.0KW HO/LO 400V
6SL4113-0CA13-0AF0	3.0/4.0KW HO/LO 400V
6SL4113-0CA15-0AF0	4.0/5.5KW HO/LO 400V
6SL4113-0CA16-0AF0	5.5/7.5KW HO/LO 400V
6SL4113-0CA17-0AF0	7.5/11.0KW HO/LO 400V
6SL4113-0CA18-0AF0	11.0/15.0KW HO/LO 400V
6SL4113-0CA20-0AF0	15.0/18.5KW HO/LO 400V
6SL4113-0CA21-0AF0	18.5/22KW HO/LO 400V
6SL4113-0CA23-0AF0	22/30KW HO/LO 400V
6SL4113-0CA24-0AF0	30/37KW HO/LO 400V
6SL4113-0CA26-0AF0	37/45KW HO/LO 400V
6SL4113-0CA27-0AF0	45/55KW HO/LO 400V

380-500 VAC IP55 Filtered

PART NUMBER	DESCRIPTION
6SL4113-0JA08-2AF0	0.75/1.1KW HO/LO 400V
6SL4113-0JA10-2AF0	1.1/1.5KW HO/LO 400V
6SL4113-0JA11-2AF0	1.5/2.2KW HO/LO 400V
6SL4113-0JA12-2AF0	2.2/3.0KW HO/LO 400V
6SL4113-0JA13-2AF0	3.0/4.0KW HO/LO 400V
6SL4113-0JA15-2AF0	4.0/5.5KW HO/LO 400V
6SL4113-0JA16-2AF0	5.5/7.5KW HO/LO 400V
6SL4113-0JA17-2AF0	7.5/11KW HO/LO 400V
6SL4113-0JA18-2AF0	11/15KW HO/LO 400V
6SL4113-0JA20-2AF0	15/18.5KW HO/LO 400V
6SL4113-0JA21-2AF0	18.5/22KW HO/LO 400V
6SL4113-0JA23-2AF0	22/30KW HO/LO 400V
6SL4113-0JA24-2AF0	30/37KW HO/LO 400V
6SL4113-0JA26-2AF0	37/45KW HO/LO 400V
6SL4113-0JP27-2AF0	45/55KW HO/LO 400V

380-500 VAC IP55 Un-Filtered

6SL4113-0JA08-0AF0	0.75/1.1KW HO/LO 400V
6SL4113-0JA10-0AF0	1.1/1.5KW HO/LO 400V
6SL4113-0JA11-0AF0	1.5/2.2KW HO/LO 400V
6SL4113-0JA12-0AF0	2.2/3.0KW HO/LO 400V
6SL4113-0JA13-0AF0	3.0/4.0KW HO/LO 400V
6SL4113-0JA15-0AF0	4.0/5.5KW HO/LO 400V
6SL4113-0JA16-0AF0	5.5/7.5KW HO/LO 400V
6SL4113-0JA17-0AF0	7.5/11.0KW HO/LO 400V
6SL4113-0JA18-0AF0	11.0/15.0KW HO/LO 400V
6SL4113-0JA20-0AF0	15.0/18.5KW HO/LO 400V
6SL4113-0JA21-0AF0	18.5/22KW HO/LO 400V
6SL4113-0JA23-0AF0	22/30KW HO/LO 400V
6SL4113-0JA24-0AF0	30/37KW HO/LO 400V
6SL4113-0JA26-0AF0	37/45KW HO/LO 400V
6SL4113-0JP26-2AF0	45/55KW HO/LO 400V

SD card

6SL4170-1GC00-0AA0	8 GB including licensing (Certificate of License, stored on the card), V6.2 HF4
6SL4170-1GC000-AA0Z F01+H01	8 GB including licensing (Certificate of License, stored on the card), V6.2 HF4 F01: 1x SINAMICS Safety Integrated Extended H01: 1x SINAMICS Motor Control Extended
6SL4170-1GC000-AA0Z F01	8 GB including licensing (Certificate of License, stored on the card), V6.2 HF4 F01: 1x SINAMICS Safety Integrated Extended
6SL4170-1GC000-AA0Z H01	8 GB including licensing (Certificate of License, stored on the card), V6.2 HF4 H01: 1x SINAMICS Motor Control Extended

Option Modules

6SL4950-0AL00-0BA0	SINAMICS G220 options module OM-DQ DRIVE-CLiQ
6SL4950-0AL00-0FA0	SINAMICS G220 options module OM-SMT safe motor temperature

Additional Components

6SL4950-0AJ00-0AA0	SINAMICS Smart Adapter
6SL3055-0AA00-5BA3	Sensor Module SMC20 board for evaluation of incremental encoder: SIN/COS 1VPP absolute encoder: ENDAT without DRIVE-CLIQ cable 30 mm width
6SL3055-0AA00-5CA2	Sensor Module For incremental encoder: TTL/HTL or combi-encoder SSI with incremental tracks or encoder SSI without incremental signals/ without DRIVE-CLiQ cable 30 mm overall width

Software

6SL5977-0AA00-1DA0	SINAMICS Motor Control Extended; software option for axis ? V6.2; delivery of an electronic license (PDF) *** Consignee e-mail address required for delivery ***
6SL5977-0AA00-2HA0	SINAMICS Safety Integrated Extended; software option for axis ? V6.1; delivery of an electronic license (PDF) *** Consignee e-mail address required for delivery ***

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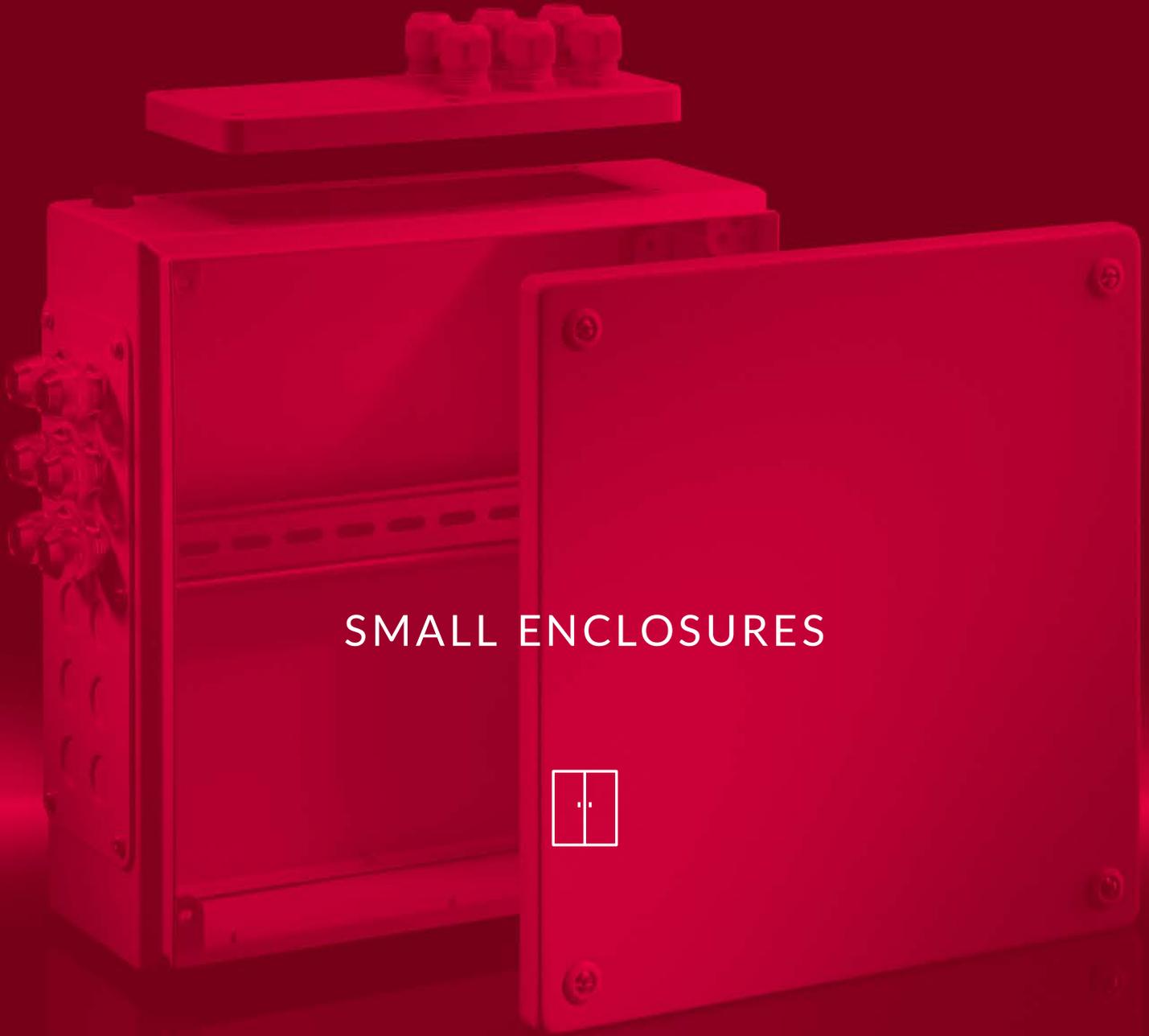
SMALL ENCLOSURES

aps

TERMINAL / JUNCTION BOX KL

Material:
| Enclosure: Mild steel
| Cover: Mild steel, all-round foamed-in PU seal

Surface finish:
| Enclosure and cover: Dipcoat primed, powder-coated on the outside, textured paint

Supply includes:
| Enclosure with cover
| Quick-release fastener including plastic bushes

Colour:
| RAL 7035

Protection category IP to IEC 60 529:
| IP 66 (*IP 55)

Protection category NEMA:
| NEMA 4 (* NEMA 12)
| IK Code:
| IK08

Mild Steel

WITHOUT GLAND PLATE		WITH GLAND PLATE	WIDTH MM	HEIGHT MM	PART NUMBER
D=80MM	D=120MM	D=120MM			MOUNTING PLATE
1514510	1500510	-	150	150	1560700
1528510	1529510	-	200	150	1575700
1516510	1502510	-	200	200	1562700
1515510	1501510	*1530510	300	150	1561700
1517510	1503510	*1531510	300	200	1563700
-	1507510	*1535510	300	300	1567700
-	1589510	-	400	150	1576700
1518510	1504510	*1532510	400	200	1564700
-	1508510	*1536510	400	300	1568700
-	1511510	*1539510	400	400	1571700
-	1505510	*1533510	500	200	1565700
-	1509510	*1537510	500	300	1569700
1519510	1506510	*1534510	600	200	1566700
-	1510510	*1538510	600	300	1570700
-	1512510	*1540510	600	400	1572700
-	1527510	*1542510	800	200	1574700
-	1513510	*1541510	800	400	1573700

Top Accessories

PART NUMBER	DESCRIPTION	PACKS OF
1590000	Wall Mounting Bracket (8mm wall distance)	4
1592000	Cover Hinge	6

SWITCH HOUSINGS STAINLESS STEEL

Material:
| Enclosure: Stainless steel 1.4301 (AISI 304)
| Cover: Stainless steel 1.4301 (AISI 304), all-round foamed-in PU seal

Surface finish:
| Enclosure and cover: Brushed, grain 240

Supply includes:
| Enclosure with cover
| Quick-release fastener including plastic bushes

Protection category NEMA:
| NEMA 4X
| Protection category to IEC 60 529:
| IP 66

Stainless Steel 304

PART NUMBER	WIDTH MM	HEIGHT MM	DEPTH MM	NO. OF SWITCH CUT-OUTS Ø 22.5 MM
2384010	100	100	90	1
2384020	160	100	90	2
2384030	220	100	90	3
2384040	280	100	90	4

Top Accessories

PART NUMBER	DESCRIPTION	PACKS OF
1594000	Wall Mounting Bracket (304 Stainless Steel - 8mm wall distance)	4

TERMINAL / JUNCTION BOX KX / KL STAINLESS STEEL

Material:
| Enclosure: Stainless steel 1.4301 (AISI 304) and 1.4404 (316L)
| Cover: Stainless steel, 1.4301 (AISI 304), and 1.4404 (316L)
| all-round foamed-in PU seal

Surface finish:
| Enclosure and cover: Brushed grain 180

Supply includes:
| Enclosure with cover
| Quick-release fastener including plastic bushes

Protection category IP to IEC 60 529:
| IP 66

Protection category NEMA:
| NEMA 4X

IK Code:
| IK08

KX Stainless Steel 304

PART NUMBER	WIDTH MM	HEIGHT MM	DEPTH MM	MOUNTING PLATE
1560000	150 mm	150 mm	80 mm	1560800
1561000	300 mm	150 mm	80 mm	1561800
1562000	200 mm	200 mm	80 mm	1562800
1563000	300 mm	200 mm	80 mm	1563800
1564000	150 mm	150 mm	120 mm	1560800
1565000	200 mm	200 mm	120 mm	1562800
1566000	300 mm	200 mm	120 mm	1563800
1567000	300 mm	300 mm	120 mm	1567800
1568000	400 mm	200 mm	120 mm	1564800
1569000	400 mm	300 mm	120 mm	1568800

KL Stainless Steel 316

PART NUMBER	WIDTH MM	HEIGHT MM	DEPTH MM	MOUNTING PLATE
1521510	150	150	80	1560700
1523510	200	200	80	1562700
1522510	300	150	80	1561700
1524510	300	200	80	1563700
1525510	400	200	120	1564700

Top Accessories

PART NUMBER	DESCRIPTION	PACKS OF
1594010	KX Wall Mounting Bracket (304 Stainless Steel - 10mm wall distance)	4
1594000	KL Wall Mounting Bracket (304 Stainless Steel - 8mm wall distance)	4

E-BOX ENCLOSURES EB

Material:
| Enclosure and door: Mild steel, all-round foamed-in PU seal

Surface finish:
| Enclosure and door: Dipcoat primed, powder-coated on the outside, textured paint
| Mounting plate: Zinc-plated

Supply includes:
| Enclosure with hinged door
| 180° hinge
| Cam lock with 3 mm double-bit insert
| Mounting plate

Colour:
| RAL 7035
| Protection category IP to IEC 60 529:
| IP 66

Protection category NEMA:
| NEMA 4

IK Code:
| IK08

Mild Steel

PART NUMBER	WIDTH MM	HEIGHT MM	DEPTH MM
1551500	150	150	80
1553500	150	150	120
1545500	150	300	80
1548500	150	300	120
1546500	200	200	80
1549500	200	200	120
1552500	200	300	80
1554500	200	300	120
1547500	200	400	80
1550500	200	400	120
1557500	200	500	120
1555500	300	300	120
1556500	300	400	120
1577500	300	400	155
1578500	300	600	155
1579500	300	800	155

Top Accessories

PART NUMBER	DESCRIPTION	PACKS OF
1590000	Wall Mounting Bracket (Mild Steel, Zinc Plated - 8mm wall distance)	4
2584000	Pole Clamp	2
2411601 / 2411611... / 2411671	Cable Gland, polyamide	3 - 50
2411801 / 2411811... / 2411871	Cable Gland, brass	1 - 15

BUS ENCLOSURES KX

Material:
| Enclosure: Mild steel
| Door: Mild steel
| Viewing window: made from polycarbonate, 4mm

Surface finish:
| Enclosure and door: Dipcoat primed, powder-coated on the outside, textured paint

Supply includes:
| Enclosure with hinged door
| Viewing window cover
| Mini cam locks

Colour:
| RAL 7035

Protection category IP to IEC 60 529:
| IP 65

Protection category NEMA:
| NEMA 12

Mild Steel

PART NUMBER	WIDTH MM	HEIGHT MM	DEPTH MM	DOOR HINGE
1610000	400 mm	200 mm	155 mm	1564800
1611000	400 mm	300 mm	155 mm	1568800
1612000	600 mm	300 mm	155 mm	1570800
1613000	800 mm	300 mm	155 mm	1570810

OTHER SMALL ENCLOSURES

Polycarbonate Enclosures PK

Material:
| Housing: Fibreglass reinforced polycarbonate
| Cover: Fibreglass reinforced polycarbonate, all-round foamed in PU seal (light grey/transparent)
| Cover screws: Polyamide
| Insulating bungs: Polyethylene

Supply includes:
| Enclosure with cover
| Cover screws
| Insulating bungs for wall mounting screws

Colour:
| RAL 7035

Protection category IP to IEC 60 529:
| IP 66

Protection category NEMA:
| NEMA 4X

Dimensions range:
| 65W x 65H x 57D to 360W x 254H x 165D

Cast Aluminium Enclosures GA

Material:
| Enclosure: Cast aluminium
| Cover: Cast aluminium, all-round CR cellular rubber cord seal

Surface finish:
| Textured paint
| Supply includes:
| Enclosure with cover
| Cover screws, captive
| Screws for attaching support rails
| Screw for connection of the PE conductor

Colour:
| RAL 7001

Protection category IP to IEC 60 529:
| IP 66

Protection category NEMA:
| NEMA 4

IK Code:
| IK08

Dimensions range:
| 58W x 64H x 34D to 330W x 230H x 181D

Part number reference:
| 9101210

Bus Enclosures KX Stainless Steel (304)

Material:
| Enclosure: Stainless steel 1.4301 (AISI 304)
| Cover: Stainless steel 1.4301 (AISI 304), all-round foamed-in PU seal
| Hinges: Die-cast zinc

Surface finish
| Enclosure and cover: Brushed, grain 180
| 180° hinges: chrome-plated

Supply includes
| Enclosure with cover
| 180° hinges
| Quick-release fastener including plastic bushes

Protection category to IEC 60 529
| IP 66

Protection category NEMA
| NEMA 4X

Rittal Modification Centre - Assembly

Rittal offers a fast and reliable assembly service working in conjunction with customer and end user to develop and deliver a complete solution.

Typical assemblies:
| Escutheons
| Swing frames
| Punch sections
| Side panels
| Plinths
| Cable management

Contact your APS Industrial product manager for more information

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COMPACT ENCLOSURES

COMPACT ENCLOSURES AE

Material:
| Enclosure: Mild steel
| Door: Mild steel, all-round foamed-in PU seal

Surface finish:
| Enclosure and door: Dipcoat primed, powder-coated on the outside, textured paint
| Mounting plate: Zinc-plated

Supply includes:
| Enclosure with hinged door(s), of all-round solid construction
| Gland plate(s) in enclosure base
| Mounting plate
| Lock: 3mm double-bit

| 3-point lock system is included for enclosures ≥1200 high

Colour:
| RAL 7035

Protection category IP to IEC 60 529:
| IP 66 (*IP55)

Protection category NEMA:
| NEMA 4 (*NEMA 12)

IK Code:
| IK08

Optional accessories:
| Internal mounting rails
| Baying kits,
| Door stay,
| Fans and filters,
| Wiring plan pocket
| Earthing kits,
| Lock covers, different lock types
| Pole mount brackets
| Lights

Mild Steel

PART NUMBER	WIDTH MM	HEIGHT MM	DEPTH MM	DOOR(S)	INNER DOOR
*1032500	200	300	120	1	XAU10350199
*1035500	200	300	155	1	XAU10350199
1033500	300	300	210	1	XAU10330199
1036500	300	300	155	1	XAU10330199
1034500	300	400	210	1	XAU10340199
1030500	380	300	155	1	XAU10310199
1031500	380	300	210	1	XAU10310199
1038500	380	600	210	1	XAU10380199
1380500	380	380	210	1	XAU13800199
1338500	380	600	350	1	XAU10380199
1045500	400	500	210	1	XAU10450199
1037500	400	800	300	1	ON REQUEST
1050500	500	500	210	1	XAU10500199
1057500	500	700	250	1	XAU10570199
1350500	500	500	300	1	XAU10500199
1039500	600	380	210	1	XAU10390199
1054500	600	600	250	1	XAU10600199
1060500	600	600	210	1	XAU10600199
1076500	600	760	210	1	XAU10760199
1058500	600	800	250	1	XAU10580199
1090500	600	1000	250	1	XAU10900199
1339500	600	380	350	1	XAU10390199
1360500	600	600	350	1	XAU10600199
1376500	600	760	350	1	XAU10760199
1260500	600	1200	300	1	XAU12600199

COMPACT ENCLOSURES AE

Material:
| Enclosure: Mild steel
| Door: Mild steel, all-round foamed in PU seal
| Surface finish:
| Enclosure and door: Dipcoat primed, powder-coated on the outside, textured paint
| Mounting plate: Zinc-plated

Supply includes:
| Enclosure with hinged door(s), of all-round solid construction
| Gland plate(s) in enclosure base
| Mounting plate
| Lock: 3mm double-bit

| 3-point lock system is included for enclosures ≥1200 high

Colour:
| RAL 7035

Protection category IP to IEC 60 529:
| IP 66 (*IP 55)

Protection category NEMA:
| NEMA 4 (*NEMA 12)

IK Code:
| IK08

Mild Steel

PART NUMBER	WIDTH MM	HEIGHT MM	DEPTH MM	DOOR(S)	INNER DOOR
1073500	760	760	300	1	XAU10770199
1077500	760	760	210	1	XAU10770199
1055500	800	600	300	1	ON REQUEST
1180500	800	1000	300	1	XAU11800199
1280500	800	1200	300	1	XAU12800199
*1100500	1000	760	210	2	ON REQUEST
*1130500	1000	760	300	2	ON REQUEST
*1110500	1000	1000	300	2	ON REQUEST
*1114500	1000	1400	300	2	ON REQUEST
*1213500	1000	1200	300	2	ON REQUEST

Outdoor Aluminium housing for AE compact enclosures

PART NUMBER	TO FIT ENCLOSURE TYPE	TO FIT WIDTH	TO FIT HEIGHT	TO FIT DEPTH
9792055	AE	= 300 mm	= 400 mm	= 210 mm
9792065	AE	= 500 mm	= 500 mm	= 210 mm
9792075	AE	= 600 mm	= 600 mm	= 350 mm

* Wall mount brackets see popular accessories

COMPACT ENCLOSURES AX

Material:
| Enclosure: Mild steel 1.5mm
| Door: Sheet steel 2mm, all-round foamed-in PU seal

Surface finish:
| Enclosure and door: Dipcoat primed, powder-coated on the outside, textured paint
| Mounting plate: 2.5mm Zinc-plated

Supply includes
| Enclosure with door(s)
| Gland plate(s) in enclosure base
| Mounting plate
| Perforated door strip
| Lock: 3 mm double-bit
| 3-point lock system is included for enclosures ≥1200 high

Colour:
| RAL 7035

Protection category IP to IEC 60 529:
| IP 66 (*IP 55)

Protection category NEMA:
| NEMA 12

IK Code
| IK10

Mild Steel

PART NUMBER	WIDTH MM	HEIGHT MM	DEPTH MM	DOOR(S)	PLINTH FRONT/REAR 100MM	PLINTH SIDES 100MM
1059000	600 mm	800 mm	400 mm	1	2830061	2830410
1091000	600 mm	1,000 mm	400 mm	1	2830061	2830410
1261000	600 mm	1,200 mm	400 mm	1	2830061	2830410
1181000	800 mm	1,000 mm	400 mm	1	2830081	2830410
1281000	800 mm	1,200 mm	400 mm	1	2830081	2830410
*1115000	1,000 mm	1,400 mm	400 mm	2	2830101	2830410
*1214000	1,000 mm	1,200 mm	400 mm	2	2830101	2830410
*1116000	1,200 mm	1,200 mm	400 mm	2	2830121	2830410

Accessories

PART NUMBER	DESCRIPTION
2508020	AX Wall mounting bracket 20 mm PK4
2503020	AX Wall mounting bracket 40 mm PK4
2505510	Wall angle PK4
2584100	AX Pole clamp PK2
4052000	Multitool with various application functions for AX/VX

Many more accessories available see Rittal web site for details

COMPACT ENCLOSURES AE STAINLESS STEEL (304L)

Material:
| Enclosure: Stainless steel
| Door: Stainless steel, all-round foamed-in PU seal
| Mounting plate: Mild steel
| Stainles steel 1.4301 (AISI 304)
| Lock insert: Die-cast zinc, nickel-plated

Surface finish:
| Enclosure and door: Brushed, grain 400, peak-to-valley height < 0.8µm
| Mounting plate: Zinc-plated
| Custom sloping roof available

Supply includes:
| Enclosure with door(s)
| Mounting plate
| Lock: 3mm double-bit 3-point lock system is included for enclosures ≥1200 high

Protection category IP to IEC 60 529:
| IP 66 (*IP 55)

Protection category NEMA:
| NEMA 4X (*NEMA 12)

IK Code:
| IK08

Stainless Steel 304

PART NUMBER	WIDTH MM	HEIGHT MM	DEPTH MM	DOOR(S)	INNER DOOR*	RAIN CANOPY STAINLESS STEEL
1001600	200	300	120	1	XAU10350199	-
1002600	200	300	155	1	XAUI10350199	2470000
1003600	300	300	210	1	XAU10330199	2361000
1005600	300	380	210	1	ON REQUEST	2361000
1004600	380	300	155	1	XAU10310199	2471000
1011600	380	300	210	1	XAU10310199	2472000
1006600	380	380	210	1	XAU13800199	2472000
1008600	380	600	210	1	XAU10380199	2472000
1015600	400	500	210	1	XAU10450199	-
1007600	500	500	210	1	XAU10500199	2362000
1013600	500	500	300	1	XAU10500199	-
1009600	600	380	210	1	XAU10390199	2473000
1010600	600	600	210	1	XAU10600199	2473000
1012600	600	760	210	1	XAU10760199	2473000
1014600	760	760	300	1	XAU10770199	2474000
1016600	800	1000	300	1	XAU11800199	2475000
1017600	800	1200	300	1	XAU12800199	2475000
*1018600	1000	1000	300	2	ON REQUEST	2363000
*1019600	1000	1200	300	2	ON REQUEST	2363000

* Modifications need to be made to enclosure to fit inner door. Studs need to be welded inside enclosure.
* Wall mount brackets see popular accessories

COMPACT ENCLOSURES AE STAINLESS STEEL (316L)

Material:
| Enclosure: Stainless steel
| Door: Stainless steel, all-round foamed-in PU seal
| Mounting plate: Mild steel
| Stainless steel 1.4404 (AISI 316L)
| Lock insert: Stainless steel 1.4404 (AISI 316L)

Surface finish:
| Enclosure and door: Brushed, grain 400, peak-to-valley height < 0.8 μm
| Mounting plate: Zinc-plated

Supply includes:
| Enclosure with door(s)

| Mounting plate
| Lock: 3mm double-bit
| 3-point lock system is included for enclosures ≥1200 high
| Nut-sert M8 to suit wall brackets

Protection category IP to IEC 60 529:
| IP 66 (*IP 55)

Protection category NEMA:
| NEMA 4X (*NEMA 12)

IK Code:
| IK08

Stainless Steel 316L

PART NUMBER	WIDTH MM	HEIGHT MM	DEPTH MM	INNER DOOR	DOOR(S)
XAU1001500	200	300	120	XAU10350199	1
XAU1002500	200	300	155	XAU10350199	1
XAU1003500	300	300	210	XAU10330199	1
XAU1005500	300	380	210	ON REQUEST	1
XAU1004500	380	300	155	XAU10310199	1
XAU1011500	380	300	210	XAU10310199	1
XAU1006500	380	380	210	XAU13800199	1
XAU1008500	380	600	210	XAU10380199	1
XAU1015500	400	500	210	XAU10450199	1
XAU1463999	400	600	320	ON REQUEST	1
XAU1007500	500	500	210	XAU10500199	1
XAU1013500	500	500	300	XAU10500199	1
XAU1009500	600	380	210	XAU10390199	1
XAU1010500	600	600	210	XAU10600199	1
XAU1663999	600	600	300	XAU10600199	1
XAU1664999	600	600	400	XAU10600199	1
XAU1012500	600	760	210	XAU10760199	1
XAU1068500	600	800	300	XAU10580199	1
XAU1684999	600	800	400	XAU10580199	1
XAU1063999	600	1000	300	XAU10900199	1
XAU1014500	760	760	300	XAU10770199	1
XAU1884999	800	800	400	ON REQUEST	1
XAU1016500	800	1000	300	XAU11800199	1
XAU1804999	800	1000	400	XAU11800199	1
XAU1017500	800	1200	300	XAU12800199	1
XAU1824999	800	1200	400	XAU12800199	1
*XAU1018500	1000	1000	300	ON REQUEST	2
*XAU1019500	1000	1200	300	ON REQUEST	2
*XAU1024999	1000	1200	400	ON REQUEST	2
*XAU1224999	1200	1200	400	ON REQUEST	2

Accessories

PART NUMBER	DESCRIPTION	PACK UNITS
2433000	Wall mount bracket - stainless steel 1.4301 (AISI 304), 10mm wall distance	4 pcs
2433500	Wall mount bracket - stainless steel 1.4404 (AISI 316L), 10mm wall distance	4 pcs
2584100	Pole mount Kit	2 pcs
XAU2535990	Padlockable Handle to suit 304 and 316 AE	1 pc

* Wall mount brackets see popular accessories
* Modifications need to be made to enclosure to fit inner door. Studs need to be welded inside enclosure.

SLOPED ROOF ENCLOSURES AE STAINLESS STEEL (316L)

Material:
| Enclosure: Stainless steel
| Door: Stainless steel, all-round foamed-in PU seal
| Mounting plate: Sheet steel, powder coated white
| Stainless steel 1.4404 (AISI 316)
| Lock insert: Cam lock made entirely from stainless steel 1.4404 (AISI 316)

Surface finish:
| Enclosure and door: Brushed, grain 400, peak-to-valley height <0.8 µm
| Mounting plate: Zinc-plated

Supply includes:
| Enclosure with door(s)
| Mounting plate
| Lock: 3mm double-bit
| 30 degree sloped roof
| Additional dust / water proofing provided by rubber seal across top of door
| Door set back underneath canopy
| Nut-sert M8 to suit wall brackets
| Gland plate included

Protection category IP to IEC 60 529:
| IP 66)

Protection category NEMA:
| NEMA 4X

Stainless Steel 316L

PART NUMBER	WIDTH (MM)	HEIGHT (MM)	DEPTH (MM)
XAU1002590	200	*300	155
XAU1006590	380	*380	210
XAU1008590	380	*600	210
XAU1012590	600	*760	210
XAU1068590	600	*800	300

* Usable height
* Modifications need to be made to enclosure to fit inner door. Studs need to be welded inside enclosure.
* Wall mount brackets see popular accessories

RIMINE SLOPED ROOF MINING ENCLOSURES STAINLESS STEEL (316L)

Material:
| Enclosure: Stainless steel
| Door: Stainless steel, all-round foamed-in PU seal
| Mounting plate: Sheet steel
| Stainless steel 1.4404 (AISI 316)

Surface finish:
| Enclosure and door: Brushed, grain 400, peak-to-valley height <0.8 μm
| Mounting plate: Zinc-plated

Supply includes:
| Enclosure with door(s)
| Mounting plate
| Lock: 3mm double-bit

| 3 point locking system
| Pad lockable handle
| 30 degree sloped roof with generous overhang
| Additional dust / water proofing provided by rubber seal across top of door
| Door set back underneath canopy
| Nut-sert M8 to suit wall brackets
| Gland plate included

Protection category IP to IEC 60 529:
| IP 66)

Stainless Steel 316L

PART NUMBER	WIDTH (MM)	HEIGHT (MM)	DEPTH (MM)	FINISH	MOUNTING PLATE	HANDLE
XAURM4425SS	400	400	270	Stainless Steel Finish	Zinc-plated	Stainless Steel
XAURM7522SS	500	700	220	Stainless Steel Finish	Zinc-plated	Stainless Steel
XAURM7535SS	500	700	370	Stainless Steel Finish	Zinc-plated	Stainless Steel
XAURM10822SS	800	1000	220	Stainless Steel Finish	Zinc-plated	Stainless Steel
XAURM10840SS	800	1000	420	Stainless Steel Finish	Zinc-plated	Stainless Steel

Material:
| Enclosure: Stainless steel
| Door: Stainless steel, all-round foamed-in PU seal
| Mounting plate: Sheet steel, powder coated white
| Stainless steel 1.4404 (AISI 316)

Surface finish:
| Enclosure and door: RAL 2000 powder coat finish
| Mounting plate: Zinc-plated, powder coated white

Supply includes:
| Enclosure with door(s)
| Depth adjustable mounting plate
| Lock: 3mm double-bit

| 3 point locking system
| Pad lockable handle
| 30 degree sloped roof with generous overhang
| Additional dust / water proofing provided by rubber seal across top of door
| Door set back underneath canopy
| Nut-sert M8 to suit wall brackets
| Document holder
| Door stay
| Gland plate included

Protection category IP to IEC 60 529:
| IP 66)

Stainless Steel 316L with RAL 2000 Powder Coat Finish

PART NUMBER	WIDTH (MM)	HEIGHT (MM)	DEPTH (MM)	FINISH	MOUNTING PLATE	HANDLE
XAURM4425SSX15	400	400	270	RAL 2000 White	White	Stainless Steel
XAURM7522SSX15	500	700	220	RAL 2000 White	White	Stainless Steel
XAURM7535SSX15	500	700	370	RAL 2000 White	White	Stainless Steel
XAURM10822SSX15	800	1000	220	RAL 2000 White	White	Stainless Steel
XAURM10840SSX15	800	1000	420	RAL 2000 White	White	Stainless Steel

APS RITTAL DISTRIBUTION BOARD ENCLOSURES

Material:
| Enclosure: 1.5mm Mild Steel
| Door: Mild steel, all-round foamed in PU seal
| Enclosure and door: Dipcoat primed, powder-coated on the outside textured paint.
| Semi Flush Rittal Swing Handle and 3 Point Locking System

Colour:
| RAL 7035 Grey
| Electrical Orange

Protection Category:
| IP66

Mild Steel

PART NUMBER	WIDTH MM	HEIGHT MM	DEPTH MM	COLOUR	MOUNTING PLATE
XAURE040212	600	380	250	GREY	Included
XAURE040219	600	380	250	ORANGE	Included
XAURE040405	600	600	250	GREY	Included
XAURE050205	600	600	250	ORANGE	Included
XAURE010206	600	800	250	GREY	DBMP800
XAURE010208	600	800	250	ORANGE	DBMP800
XAURE010210	600	1000	250	GREY	DBMP1000
XAURE010212	600	1000	250	ORANGE	DBMP1000
XAURE013362	600	1200	250	GREY	DBMP1200
XAURE040204	600	1200	250	ORANGE	DBMP1200
XAURE040206	600	1500	250	GREY	DBMP1500
XAURE040208	600	1500	250	ORANGE	DBMP1500

PART NUMBER INNER DOOR	WIDTH MM	HEIGHT MM
XAU10390199	600	380
XAU10600199	600	600
XAU10580199	600	800
XAU10900199	600	1000
XAU12600199	600	1200

FIBREGLASS ENCLOSURES AX

Material:
| Enclosure and door: Fibreglass-reinforced unsaturated polyester
| Door: All-round foamed-in PU seal
| Mounting plate: 2.5mm Mild steel
| Viewing window: Polycarbonate
| Fire protection corresponding to UL 94-V0

Surface finish:
| Enclosure and door: Dyed plastic with no after-treatment
| Mounting plate: Zinc-plated

Colour:
| Similar to RAL 7035

Protection category IP to IEC 60 529:
| IP 66 Solid
| IP 56 Window

Protection category NEMA:
| NEMA 4X Solid
| NEMA 12 Window

Protection class:
| II at 1000 V AC

Supply includes:
| Enclosure with hinged door, of all-round solid construction, 3 mm double-bit lock
| Door hinged on the right, may be swapped to the left
| Mounting plate
| Twin seal on the top and bottom edges of the door as integral rain protection strip
| Please note the product-specific scope of supply.

Note:
| Interior installation screws are required to secure components inside the enclosure
| Components such as punched sections with mounting flanges
| may be attached on a 25 mm pitch pattern using the universal bracket

Approvals:
| UL Further approvals can be found on the Internet

PART NUMBER STANDARD	PART NUMBER WITH WINDOW	WIDTH MM	HEIGHT MM	DEPTH MM	INNER DOOR
1432000	–	250 mm	350 mm	150 mm	
1434000	–	300 mm	400 mm	200 mm	
1444000	1448000	400 mm	400 mm	200 mm	1485744
1446000	1449000	400 mm	600 mm	200 mm	
1453000	1454000	500 mm	500 mm	300 mm	
1466000	1467000	600 mm	600 mm	200 mm	1485766
1468000	1469000	600 mm	800 mm	300 mm	1485768
1480000	1479000	800 mm	1000 mm	300 mm	

Accessories

PART NUMBER	DESCRIPTION
1485400	Wall mounting bracket for AX plastic 4 pc(s).
1485200	Universal Internal bracket for AX plastic
1485100	Door stay for AX plastic top or bottom mount PK2
1485300	Screws for interior installation for AX plastic
2584100	Pole Clamp Kit to suit
1485600	Mini-comfort handle only for AX lock inserts and semi-cylinders

EX ENCLOSURES

Applications:
| Zone 1 and 2 or 21 and 22 to 94/9/EC
| Ambient temperature range: -30 °C...+80 °C
| The specified temperatures may be limited by the installed equipment
| Explosion protection category to EN 60 079: Equipment protection thanks to increased safety (Ex e), equipment protection thanks to enclosure (Ex tB)

Material:
| Enclosure: Fibreglass reinforced unsaturated polyester, surface resistance: < 109 Ω
| Door: Fibreglass-reinforced unsaturated polyester, surface resistance: < 109 Ω all-round foamed-in silicone seal
| Mounting plate: Sheet steel, zinc-plated, passivated

Colour:
| RAL 9011
| Ex Enclosures

Protection category IP to IEC 60 529:
| IP 66

Supply includes:
| Enclosure
| Door
| Mounting plate

Certificates:
| Available on the Internet

Approvals:
| ATEX
| IECEx

Further approvals can be found
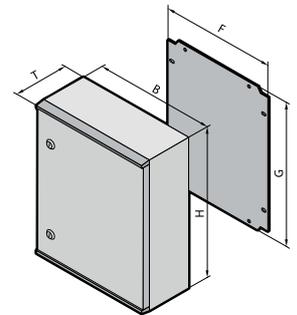
Mild Steel

PART NUMBER	WIDTH MM	HEIGHT MM	DEPTH BOTTOM MM	NUMBER OF LOCKS
9202100	250	350	150	1
9203100	300	400	200	2
9204100	400	400	200	2
9205100	400	600	200	2
9206100	600	600	200	2
9207100	500	500	300	2
9208100	600	800	300	3
9209100	800	1,000	300	3

PART NUMBER	DESCRIPTION	PACKS OF
1485500	Wallmount Bracket	4
2584100	Pole clamp	2
1485200	Universal bracket	4
1485300	Pan head screw, self tapping	50
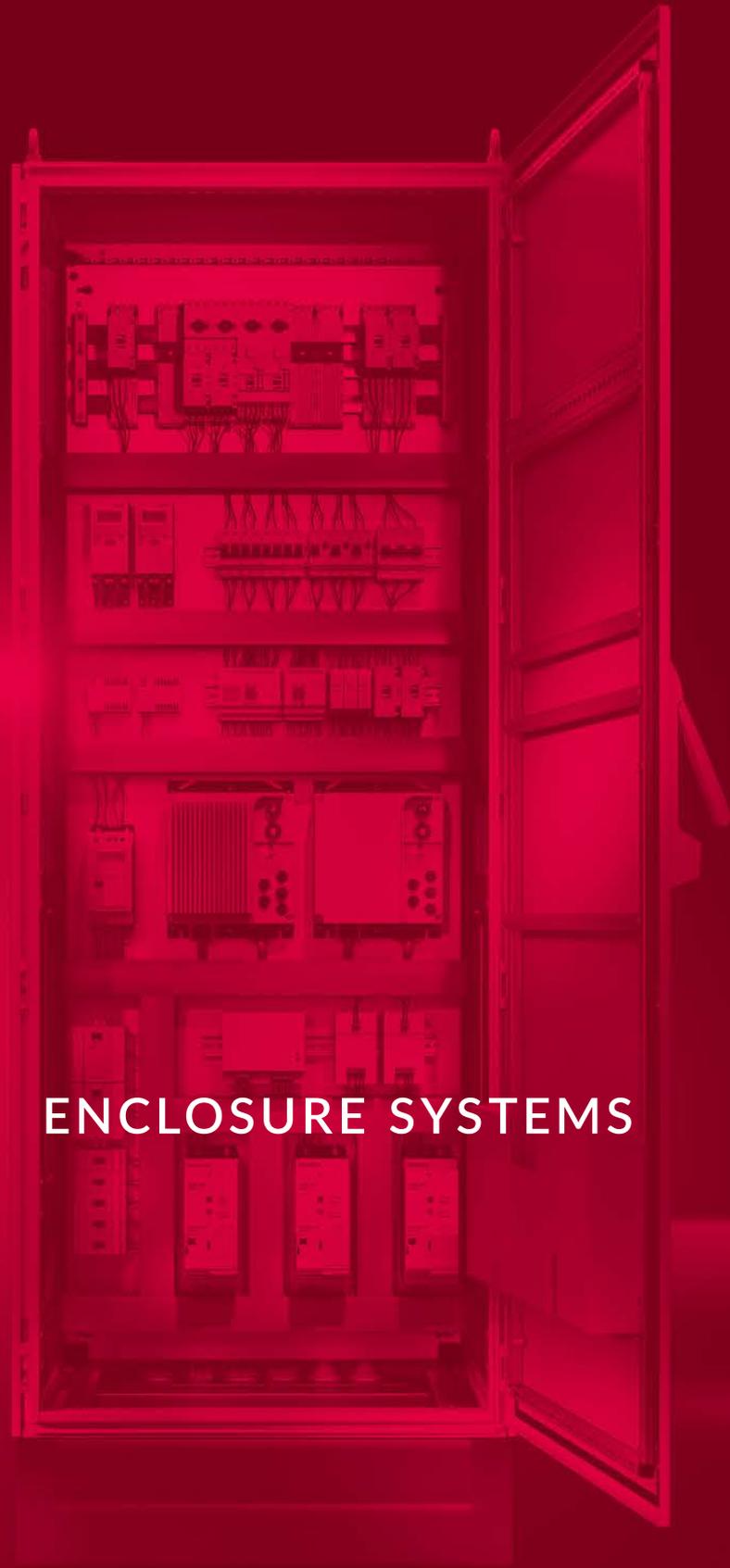
ENCLOSURE SYSTEMS

VX SE FREE-STANDING ENCLOSURE SYSTEM

Material:
| Enclosure: Mild steel, 1.5 mm,
| Door: Mild steel, 2.0 mm
| Rear panel: Mild steel, 1.5 mm
| Gland plates: Mild steel, 1.5 mm
| Mounting plate: Mild steel, 3.0 mm

Surface finish:
| Enclosure, door and rear panel: dipcoat-primed, powder-coated on the outside, textured paint
| Mounting plate and gland plates: Zinc-plated, passivated

Supply includes:
| Enclosure, solid top and sides
| Door(s), right hand door hinge with single-door enclosures, may be swapped to opposite side
| Mounting plate & gland plate
| Rear panel, detachable
| Lock: 3 mm double-bit
| 2 TS punched rails 18 x 38 mm
| Rear panel, one piece
| Rear panel, two pieces*

Colour:
| RAL 7035

Protection category IP to IEC 60 529:
| IP 55

Optional Accessories
| Door stays
| Lights and door switches
| Wiring plan pockets
| Internal mounting rails
| Comfort handles
| Earthing kits
| Cable Clamp Rails
| Cable Entry Systems
| Eye bolts

Mild Steel

| PART NUMBER | WIDTH MM | HEIGHT MM | DEPTH MM | DOOR(S) | BASE/PLINTH 100MM | | BASE/PLINTH 200MM | |
					FRONT/REAR	SIDE	FRONT/REAR	SIDE
5820600	600	1800	300	1	8660002	8660030	8660022	8660040
5821600	600	2000	300	1	8660002	8660030	8660022	8660040
5822600	800	1800	300	1	8660003	8660030	8660023	8660040
5823600	800	2000	300	1	8660003	8660030	8660023	8660040
5824600	1200	1800	300	2	8660007	8660030	8660025	8660040
5825600	1200	2000	300	2	8660007	8660030	8660025	8660040
5830600	600	1800	400	1	8660002	8660031	8660022	8660041
5831600	800	1800	400	1	8660003	8660031	8660023	8660041
5832600	800	2000	400	1	8660003	8660031	8660023	8660041
5833600	800	2000	500	1	8660003	8660032	8660023	8660042
5834600	800	2000	600	1	8660003	8660033	8660023	8660043
5840600	1000	1800	400	2	8660005	8660031	8660024	8660041
5841600	1200	1800	400	2	8660007	8660031	8660025	8660041
*5842600	1600	1800	400	2	8660008	8660031	8660026	8660041
5843600	1200	2000	400	2	8660007	8660031	8660025	8660041
5844600	1200	2000	500	2	8660007	8660032	8660025	8660042
5845600	1200	2000	600	2	8660007	8660033	8660025	8660043
*5846600	1800	2000	500	2	8660009	8660032	8660027	8660042
5847600	1800	2000	600	2	8660009	8660033	8660027	8660043

Enclosure Inner Doors

PART NUMBER	DESCRIPTION
XAU86860199M	Inner door to suit 600 x 1800 TS 8 & VX SE
XAU86060199M	Inner door to suit 600 x 2000 TS 8 & VX SE
XAU88860199M	Inner door to suit 800 x 1800 TS 8 & VX SE
XAU88060199M	Inner door to suit 800 x 2000 TS 8 & VX SE

VX SE STAINLESS STEEL 304 FREE-STANDING ENCLOSURE SYSTEM

Material and Surface finish:

| Enclosure: Stainless steel 1.4301 (AISI 304), 1.5 mm
| Door: Stainless steel 1.4301 (AISI304), 2 mm,
| Rear panel: Stainless steel 1.4301 (AISI 304), 1.5 mm exterior brushed grain size 400
| Mounting plate: Sheet steel, 3 mm zinc-plated, passivated
| Gland plates: Stainless steel 1.4301 (AISI 304), 1.5 mm, uncoated

Notes:

Due to the hardness of the material, we recommend using metal multitooth screw 2486.400 for the interior installation

Protection category IP to IEC 60 529:

| IP 55

Protection category NEMA:

| NEMA 12

Supply includes:

| Enclosure, solid top and sides
| Door(s)
| R/h door hinge with single-door enclosures, may be swapped to opposite side
| Rear panel, detachable
| Mounting plate
| Gland plates
| Lock: 3 mm double-bit
| 2 punched rails 18 x 39 mm

Stainless Steel 304

VX STAINLESS PART NUMBER	WIDTH MM	HEIGHT MM	DEPTH MM	DOOR(S)	BASE/PLINTH 100MM		BASE/PLINTH 200MM	
						SIDE	FRONT/REAR	SIDE
5850600	600 mm	1,600 mm	400 mm	1	8620050	8620070	8620060	8620080
5851600	600 mm	1,800 mm	500 mm	1	8620050	8620071	8620060	8620081
5856600	600 mm	1,200 mm	500 mm	1	8620050	8620071	8620060	8620081
5852600	800 mm	1,800 mm	500 mm	1	8620051	8620071	8620061	8620081
5853600	800 mm	2,000 mm	600 mm	1	8620051	8620072	8620061	8620082
5857600	800 mm	1,200 mm	500 mm	1	8620051	8620071	8620061	8620081
5854600	1,000 mm	1,800 mm	400 mm	1	8620052	8620070	8620062	8620080
5855600	1,200 mm	2,000 mm	500 mm	2	8620053	8620071	8620063	8620081
5858600	1,200 mm	1,200 mm	500 mm	2	8620053	8620071	8620063	8620081

Enclosure Inner Doors

PART NUMBER	DESCRIPTION
XAU86860199M	Inner door to suit 600 x 1800 TS 8 & VX SE
XAU86060199M	Inner door to suit 600 x 2000 TS 8 & VX SE
XAU88860199M	Inner door to suit 800 x 1800 TS 8 & VX SE
XAU88060199M	Inner door to suit 800 x 2000 TS 8 & VX SE

VX SE FREE-STANDING ENCLOSURE SYSTEM IP 66/NEMA 4

Material:
| Enclosure frame: Mild steel, 1.5 mm
| Door: Mild steel, 2.0 mm
| Rear panel: Mild steel, 1.5 mm
| Base: Mild steel, 1.5 mm
| Mounting plate: Mild steel, 3.0 mm

Surface finish:
| Enclosure, door and rear panel: Dipcoated-primed, powder-coated on the outside, textured paint
| Mounting plate: Zinc-plated
| Base: Dipcoat-primed and powder-coated, textured paint

Supply includes:
| Enclosure, solid top and sides
| Door(s)
| Door hinged on the right, may be swapped to the left
| Mounting plate
| Base, solid
| Rear panel, detachable Lock: 3mm double-bit
| 2 TS punched rails 18 x 38 mm

Colour:
| RAL 7035

Protection category IP to IEC 60 529:
| IP 66

Protection category NEMA:
| Type 4 (NEMA 4), 3R

IK code:
| IK10

Mild Steel

PART NUMBER	WIDTH MM	HEIGHT MM	DEPTH MM	MOUNTING PLATE WIDTH MM	MOUNTING PLATE HEIGHT MM	BASE/PLINTH 100MM	
						FRONT/REAR	SIDE
5830680	600	1800	400	499	1696	8660050	8660070
5831680	800	1800	400	699	1696	8660051	8660070
5834680	800	2000	600	699	1896	8660051	8660072

VX SE STAINLESS STEEL 304 ENCLOSURE SYSTEM IP 66/NEMA 4X

Material:
| Enclosure: Stainless steel, 1.4301 (AISI 304), 1.5 mm, exterior brushed
| Door: Stainless steel, 1.4301 (AISI 304), 2 mm, exterior brushed
| Rear panel: Stainless steel, 1.4301 (AISI 304), 1.5 mm, exterior brushed
| Gland plates: Stainless steel, 1.4301 (AISI 304), 1.5 mm
| Mounting plate: Mild steel, 3.0 mm

Surface finish:
| Enclosure, door and rear panel: Brushed, grain size 400
  Gland plates: Uncoated
| Mounting plate: Zinc-plated

Supply includes:
| Enclosure, solid top and sides
| Door(s)

| Door hinged on the right, may be swapped to the left
| Rear panel, detachable
| Mounting plate
| Base, solid
| Lock: 3mm double-bit
| 2 TS punched rails 18 x 38 mm

Protection category IP to IEC 60 529:
| IP 66

Protection category NEMA:
| Type 4 (NEMA 4X), 3R

IK code:
| IK10

Stainless Steel 304

PART NUMBER	WIDTH MM	HEIGHT MM	DEPTH MM	MOUNTING PLATE WIDTH MM	MOUNTING PLATE HEIGHT MM	BASE/PLINTH 100MM	
						FRONT/REAR	SIDE
5850680	600	1600	400	499	1496	8620050	8620070
5852680	800	1800	500	699	1696	8620051	8620071
5853680	800	2000	600	699	1896	8620051	8620072

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BASE/PLINTH SYSTEM VX

Conversion Assistant - New base/plinth system VX

Base/plinth corner pieces with base/plinth trim panels, height 100 mm

WIDTH	PART NUMBER
300	8660000
400	8660001
600	8660002
800	8660003
850	8660004
1000	8660005
1100	8660006
1200	8660007
1600	8660008
1800	8660009

Base/plinth trim panels, sides, height 100 mm

WIDTH	PART NUMBER
300	8660030
400	8660031
500	8660032
600	8660033
800	8660034
1000	8660035
1200	8660036

Base/plinth, vented, height 100 mm

WIDTH	PART NUMBER
600	8660090
800	8660091

Base/plinth corner pieces with base/plinth trim panels, height 200 mm

WIDTH	PART NUMBER
300	8660020
400	8660021
600	8660022
800	8660023
1000	8660024
1200	8660025
1600	8660026
1800	8660027

Base/plinth trim panels, sides, height 200 mm

WIDTH	PART NUMBER
300	8660040
400	8660041
500	8660042
600	8660043
800	8660044
1000	8660045
1200	8660046

Base/plinth trim panels with brush strip, height 100 mm

WIDTH	PART NUMBER
600	8660092
800	8660093
1000	8660094
1200	8660095

PART NUMBER	DESCRIPTION
8660110	Transport castor for base/plinth system VX
8660100	Base mounting plate for base/plinth system VX
8660400	Base/plinth installation bracket for support strips and punched sections
8619470	Bracket/spacer for cable clamp rails and C rails
8660120	Levelling component for base/plinth system VX, 100 mm
8660121	Levelling component for base/plinth system VX, 200 mm
–	No longer required
–	No longer required
8660130	Base/plinth adaptor for twin castors, sheet steel
8660131	Base/plinth adaptor for levelling feet, sheet steel
8660096	Trim panel attachment for base/plinth trim panels VX, vented and vented with brush strip
8660.140	Baying bracket for base/plinth system VX

FREESTANDING BAYABLE ENCLOSURES TS 8

Material:
| Enclosure frame: Mild steel, 1.5 mm – Roof: Mild steel, 1.5 mm
| Door: Mild steel, 2.0 mm – Rear panel: Mild steel, 1.5 mm
| Gland plates: Mild steel, 1.5 mm
| Mounting plate: Mild steel, 3.0 mm

Surface finish:
| Enclosure frame: Dipcoat-primed
| Door, roof and rear panel: Dipcoated-primed, powder-coated on the outside, textured paint
| Mounting plate and gland plates: Zinc-plated

Supply includes:
| Enclosure frame
| Door(s), right hand door hinge with single-door enclosures, may be swapped to opposite side
| Roof plate and rear panel
| Gland plates and Mounting plate
| 2 TS punched rails 18 x 38 mm
| 4 eyebolts
| Lock: 3mm double-bit
| 2 support strips fitted in the enclosure depth

Colour:
| RAL 7035

Protection category IP to IEC 60 529:
| IP 55

Protection category NEMA:
| NEMA 12

IK Code:
| IK09

Optional Accessories
| Punched rails for internal mounting
| 19" rails and swing frames
| Lights and door switches
| Comfort handles
| Door stays
| Wiring plan pockets
| Earthing Kits
| Cable entry systems
| Baying Kits
| Fans and filters
| Air conditioners

Mild Steel

PART NUMBER	WIDTH MM	HEIGHT MM	DEPTH MM	DOOR(S)	SIDE PANELS	BASE/PLINTH 100MM		BASE/PLINTH 200MM	
						FRONT/REAR	SIDE	FRONT/REAR	SIDE
8485510	400	1800	500	1	8185235	8660001	8660032	8660021	8660042
8486510	400	1800	600	1	8186235	8660001	8660033	8660021	8660043
8405510	400	2000	500	1	8105235	8660001	8660032	8660021	8660042
8406510	400	2000	600	1	8106235	8660001	8660033	8660021	8660043
8615500	600	1200	500	1	8115235	8660002	8660032	8660022	8660042
8665500	600	1400	500	1	8145235	8660002	8660032	8660022	8660042
8665500	600	1600	500	1	8165235	8660002	8660032	8660022	8660042
8684500	600	1800	400	1	8184235	8660002	8660031	8660022	8660041
8685500	600	1800	500	1	8185235	8660002	8660032	8660022	8660042
8686500	600	1800	600	1	8186235	8660002	8660033	8660022	8660043
8604500	600	2000	400	1	8104235	8660002	8660031	8660022	8660041
8605500	600	2000	500	1	8105235	8660002	8660032	8660022	8660042
8606500	600	2000	600	1	8106235	8660002	8660033	8660022	8660043
8608500	600	2000	800	1	8108235	8660002	8660034	8660022	8660044
8626500	600	2200	600	1	8126235	8660002	8660033	8660022	8660043
8815500	800	1200	500	1	8115235	8660003	8660032	8660023	8660042
8845500	800	1400	500	1	8145235	8660003	8660032	8660023	8660042
8865500	800	1600	500	1	8165235	8660003	8660032	8660023	8660042
8884500	800	1800	400	1	8184235	8660003	8660031	8660023	8660041

FREESTANDING BAYABLE ENCLOSURES TS 8

PART NUMBER	WIDTH MM	HEIGHT MM	DEPTH MM	DOOR(S)	SIDE PANELS	BASE/PLINTH 100MM		BASE/PLINTH 200MM	
						FRONT/REAR	SIDE	FRONT/REAR	SIDE
8885500	800	1800	500	1	8185235	8660003	8660032	8660023	8660042
8880500	800	1800	500	2	8185235	8660003	8660032	8660023	8660042
8886500	800	1800	600	1	8186235	8660003	8660033	8660023	8660043
8881500	800	1800	600	2	8186235	8660003	8660033	8660023	8660043
8804500	800	2000	400	1	8104235	8660003	8660031	8660023	8660041
8805500	800	2000	500	1	8105235	8660003	8660032	8660023	8660042
8806500	800	2000	600	1	8106235	8660003	8660033	8660023	8660043
8808500	800	2000	800	1	8108235	8660003	8660034	8660023	8660044
8826500	800	2200	600	1	8126235	8660003	8660033	8660023	8660043
8828500	800	2200	800	1	8128235	8660003	8660034	8660023	8660044
8084500	1000	1800	400	1	8184235	8660005	8660031	8660024	8660041
8080500	1000	1800	400	2	8184235	8660005	8660031	8660024	8660041
8004500	1000	2000	400	2	8104235	8660005	8660031	8660024	8660041
8005500	1000	2000	500	2	8105235	8660005	8660032	8660024	8660042
8006500	1000	2000	600	2	8106235	8660005	8660033	8660024	8660043
8215500	1200	1200	500	2	8115235	8660007	8660032	8660025	8660042
8245500	1200	1400	500	2	8145235	8660007	8660032	8660025	8660042
8265500	1200	1600	500	2	8165235	8660007	8660032	8660025	8660042
8284500	1200	1800	400	2	8184235	8660007	8660031	8660025	8660041
8285500	1200	1800	500	2	8185235	8660007	8660032	8660025	8660042
8286500	1200	1800	600	2	8186235	8660007	8660033	8660025	8660043
8204500	1200	2000	400	2	8104235	8660007	8660031	8660025	8660041
8205500	1200	2000	500	2	8105235	8660007	8660032	8660025	8660042
8206500	1200	2000	600	2	8106235	8660007	8660033	8660025	8660043
8208500	1200	2000	800	2	8108235	8660007	8660034	8660025	8660044
8226500	1200	2200	600	2	8126235	8660007	8660033	8660025	8660043
8228500	1200	2200	800	2	8128235	8660007	8660034	8660025	8660044

Inner Doors

PART NUMBER	DESCRIPTION
XAU86860199M	Inner door to suit 600 x 1800 TS 8 & VX SE
XAU86060199M	Inner door to suit 600 x 2000 TS 8 & VX SE
XAU88860199M	Inner door to suit 800 x 1800 TS 8 & VX SE
XAU88060199M	Inner door to suit 800 x 2000 TS 8 & VX SE

Material:
| Enclosure frame: Stainless steel, 1.4301 (AISI 304), 1.5 mm
| Roof: Stainless steel, 1.4301 (AISI 304), 1.5 mm, exterior brushed
| Door: Stainless steel, 1.4301 (AISI 304), 2 mm, exterior brushed
| Rear panel: Stainless steel, 1.4301 (AISI 304), 1.5 mm, exterior brushed
| Gland plates: Stainless steel, 1.4301 (AISI 304), 1.5 mm
| Mounting plate: Mild steel, 3.0 mm

Surface finish:
| Enclosure frame and gland plates: Exterior brushed, grain size 400
| Door, roof and rear panel: Exterior brushed, grain size 400
| Mounting plate: Zinc-plated

Supply includes:
| Enclosure frame
| Door(s), right hand door hinge with single-door enclosures, may be swapped to opposite side
| Roof plate, rear panel, gland plates and mounting plate
| 4 eyebolts - Lock: 3mm double-bit
| 2 TS punched rails 18 x 38 mm
| 2 support strips fitted in the enclosure depth

Protection category IP to IEC 60 529:
| IP 55

Protection category NEMA:
| NEMA 12

IK Code:
| IK09

Options:
| Models available in 316 Stainless Steel / Models available in NEMA 4X

Stainless Steel 304

PART NUMBER	WIDTH MM	HEIGHT MM	DEPTH MM	DOOR(S)	SIDE PANELS	BASE/PLINTH 100MM		BASE/PLINTH 200MM	
						FRONT/REAR	SIDE	FRONT/REAR	SIDE
8457600	600	1800	500	1	8700850	8701600	8701050	8702600	8702050
8452600	600	2000	600	1	8700060	8701600	8701060	8702600	8702060
8454600	800	1800	400	1	8700840	8701800	8701040	8702800	8702040
8455600	800	1800	500	1	8700850	8701800	8701050	8702800	8702050
8450600	800	2000	600	1	8700060	8701800	8701040	8702800	8702040
8453600	1200	1800	500	2	8700850	8701200	8701050	8702200	8702050
8456600	1200	1800	400	2	8700840	8701200	8701040	8702200	8702040
8451600	1200	2000	600	2	8700060	8701200	8701060	8702200	8702060

POPULAR ACCESSORIES

AE Enclosures

Baying kit for AE
Baying kit for individual adaptation to various AE enclosure sizes.

PART NUMBER	PACK QTY	PROTECTION CATEGORY
1199100	KIT	IP 66

Wall mounting bracket for AE
For attaching to the enclosure from the outside. Simply insert the expandable dowel into the enclosure hole from the outside, and screw-fasten the wall bracket from the outside.

PART NUMBER	PACK QTY	MATERIAL	WALL DISTANCE
2433000	Pack of 4	Stainless steel 1.4301 (AISI 304)	10 mm
2433500	Pack of 4	Stainless steel 1.4404 (AISI 316L)	10 mm
2503010	Pack of 4	Mild steel, zinc-plated	40 mm
2508010	Pack of 4	Mild steel, zinc-plated	10 mm
2508100	Pack of 4	Mild steel, zinc-plated attaches from the outside	15 mm

Rails for interior installation AE
For mounting in the enclosure, no machining required. Suitable for all-round mounting on the sides, base and roof areas.

PART NUMBER	PACK QTY	FOR DEPTH
2383210	Pack of 4	= 210 mm
2383250	Pack of 4	= 250 mm
2383300	Pack of 4	= 300 mm
2383350	Pack of 4	= 350 mm

Padlockable Handle for AE Stainless Steel Enclosure

PART NUMBER	PACK QTY	PROTECTION CATEGORY
XAU2535990	Pack of 1	IP66

To suit AE Stainless Steel 304 and 316 Complete with 10mm hasp.

TS 8 Enclosures

Quick-fit baying clamp, one-piece for TS/TS
Simply attach the screws, insert the quick-fit baying clamp, tap in with a hammer and lock.

PART NUMBER	PACK QTY	DESCRIPTION
8800500	Pack of 6	Quick-fit baying clamp, one-piece

Baying connector, external for TS/TS
For mounting on the vertical enclosure sections from the outside.

PART NUMBER	PACK QTY	MATERIAL
8700000	Pack of 6	Stainless steel 1.4301 (AISI 304)
8800490	Pack of 6	Mild steel

Angular baying bracket for TS/TS
For a stable connection when transporting bayed enclosure suites.

PART NUMBER	PACK QTY	DESCRIPTION	MATERIAL
8800430	Pack of 4	Angular baying bracket	Mild steel

TS punched section with mounting flange, 17 x 73 mm
Variable, with 5 rows of holes for universal skeleton structures or partial assembly. Simply locate onto the TS punchings and secure.

PART NUMBER	PACK QTY	DESIGN	TO FIT ENCLOSURE WIDTH/DEPTH	FOR DOOR WIDTH	LENGTH
8612040	Pack of 4	Inner mounting	400 mm	500 mm	390 mm
8612050	Pack of 4	Inner mounting	500 mm	600 mm	490 mm
8612060	Pack of 4	Inner mounting	600 mm	-	590 mm
8612080	Pack of 4	Inner mounting	800 mm	900 mm	790 mm
8612140	Pack of 4	Outer mounting	400 mm	–	340 mm
8612150	Pack of 4	Outer mounting	500 mm	–	440 mm
8612160	Pack of 4	Outer mounting	600 mm	–	540 mm
8612180	Pack of 4	Outer mounting	800 mm	–	740 mm

LED SYSTEM LIGHT

Material:
| Light body: Extruded aluminium
| Light cover: Polycarbonate (halogen-free)
| Light ends: PC-ABS (halogen-free)

Supply includes:
| Assembly screws

Colour:
| RAL 7016

Features:
| Fast, tool-free assembly, simply latch and secure
| May be fitted horizontally and vertically with no loss of space in the enclosure
| Lights with motion detectors are equipped with a rotating LED board as standard, allowing the light to be perfectly adapted to any installation situation
| Rotating connectors support installation in the most confined spaces
| Simple through-wiring based on the plug & play system

MODEL		2500100	2500110	2500200	2500220	2500300	2500320
Output (lumens)		400	600	900	900	1200	1200
Length (mm)		262	337	437	437	437	437
Motion sensor		-	-	-	-	●	-
Rated operating voltage	100 - 240 V AC	●	●	●	-	●	●
	24 - 56 V DC	-	-	-	●	-	●
Equipment	Socket	-	-	-	-	-	-
	90° rotating connector	-	-	●	●	●	●
	Adjustable light direction	-	-	-	-	●	●
	Adjustable light distribution	-	-	●	●	●	●
Protection class		II (all-insulated)			III (SELV)	II (all-insulated)	III (SELV)
Approvals	UL	●	-	●	●	●	●
	cUL	●	-	●	●	●	●
	CCC	●	●	●	-	●	●
	ENEC	●	●	●	●	●	●
Installation type	Screw fastening	●	●	●	●	●	●
	Clip attachment	●	●	●	●	●	●
	Magnetic	●	●	●	●	●	●
Connection options	Infeed	2-pole	2-pole	3-pole	2-pole	3-pole	2-pole
	Through-wiring	2-pole	2-pole	3-pole	2-pole	3-pole	2-pole
	Door-operated switch	●	●	●	●	-	-
Mounting options	Enclosures with a 25 mm pitch pattern	Screw fastening/clip	-	Directly on the profile	Directly on the profile	Directly on the profile	Directly on the profile	Directly on the profile
	AE	Screw fastening	With universal bracket					
Accessories							
Universal bracket		2373000	2373000	2373000	2373000	2373000	2373000
Mounting kit magnet		2500480	2500480	2500480	2500480	2500480	2500480
Door-operated switch		2500460	2500460	2500460	2500460	-	-
Door-operated switch, UL		-	-	2500470	2500470	-	-
Connection accessories							
Infeed, 2 pole *(pkt of 5)		*2500420	*2500420	-	2500410	2500400	2500410
Infeed, 3 pole		-	-	2500400	-	-	-
Infeed, 3-pole, ENEC, UL		-	-	2500500	-	-	-
Through-wiring, 2-pole		2500450	2500450	-	2500440	2500500	2500440
Through-wiring, 3-pole		-	-	2500430	-	-	-
Through-wiring, 3-pole. ENEC, UL		-	-	2500530	-	2500530	-

Note: Contact your local APS Industrial Sales Representative for pricing

SYSTEM LIGHTS

LED compact system light in 24 V (DC) (±10%) version
| Max. EMC compatibility
| Protected, as it operates within the safety
| extra-low voltage range
| Door operated switch connection supported
| Integral through-wiring
| Vertically hinged light cone

Material:
| Light body: Extruded aluminium
| Light cover: Polycarbonate (halogen-free)
| Light ends: PC-ABS

Colour: Similar to RAL 7035
| Protection category IP to IEC 60 529: IP 20

Supply includes:
| LED compact system light with clip and screw
| mounting kits, assembly parts

LED compact system light

PART NUMBER	INPUT VOLTAGE	LEDS	WIDTH
4140810	24 V (DC)	10	230 mm
4140820	24 V (DC)	20	330 mm
4140830	24 V (DC)	30	430 mm
4140840	24 V (DC)	40	530 mm

Connection accessories for LED compact system light

	CONNECTION CABLE	PART NUMBER	LENGTH MM	PACKS OF
1	LED connection cable	4315800	3000	1 pc(s).

	DOOR-OPERATED SWITCH	PART NUMBER	LENGTH MM	PACKS OF
2	With LED connection cable	4315810	3000	1 pc(s).
3	With LED interconnecting cable	4315820	1000	1 pc(s).

	INTERCONNECTING CABLE	PART NUMBER	LENGTH MM	PACKS OF
4	LED interconnecting cable	4315830	600	1 pc(s).
		4315840	1000	1 pc(s).
		4315850	3000	1 pc(s).

Layout diagram for LED compact system light 24 V (DC):
1 Connection cable
2 Door-operated switch with LED connection cable (open end/cable bush)
3 Door-operated switch with LED interconnecting cable
4 LED interconnecting cable for through-wiring
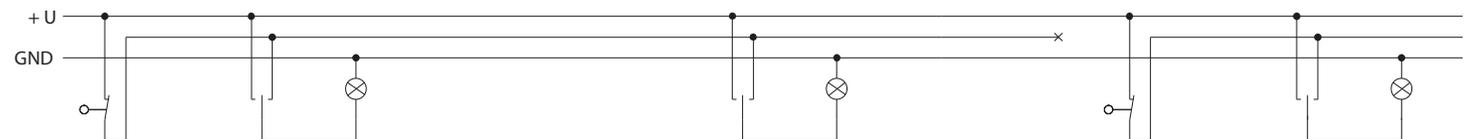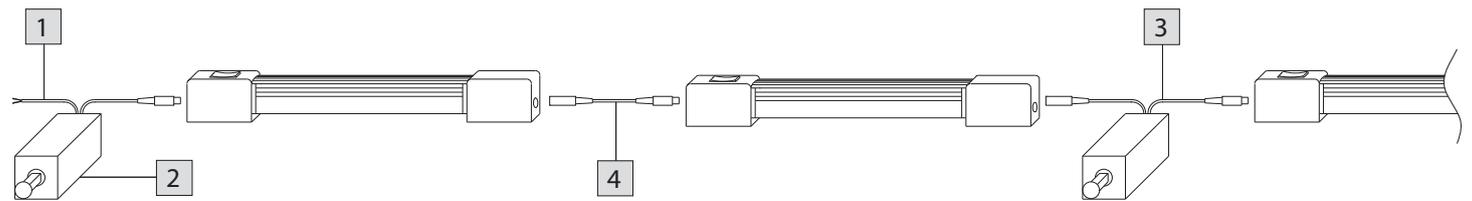
INDUSTRIAL CONSOLE
& PC ENCLOSURE SYSTEMS

CX ONE-PIECE CONSOLE

Material:
| Enclosure: Sheet steel 1.5 mm
| Door and console cover: Sheet steel, 2.0 mm, all-round foamed-in PU seal
| Mounting plate: Sheet steel, 2.5 mm Zinc-plated

Surface finish:
| Enclosure, cover and door: Dipcoat-primed, powder-coated on the outside,
| textured paint

supply includes
| Enclosure, solid back and sides
| Door or double-door at front, with 3-point locking system
| Mounting plate
| Cover with cam locks, hinged at the rear, 2 stays with automatic latching.
| Automatic unlatching on the left, manual on the right.
| Gland plate
| Lock: 3 mm double-bit

Colour:
| RAL 7035

Protection category IP to IEC 60 529:
| IP 55

IK Code
| IK10

Mild Steel

PART NUMBER	WIDTH MM	HEIGHT MM	DEPTH BOTTOM MM	DEPTH TOP MM	DOOR(S)	BASE/PLINTH 100MM		BASE/PLINTH 200MM	
						FRONT/REAR	SIDE	FRONT/REAR	SIDE
6748000	800	970	400	1	8660003	8660031	8660023	8660041	8660041
6740000	1000	970	400	2	8660005	8660031	8660024	8660041	8660041
6742000	1200	970	400	2	8660007	8660031	8660025	8660041	8660041

Accessories

PART NUMBER	DESCRIPTION
6730800	CX aluminium strip
2519020	Door stay for AX
8601450	Cross member for VX, TS, VX SE, TP, PC, IW, Blue e+ chillers
2515200	Wiring plan Pocket To fit door width 400mm – 500mm
2515400	Wiring plan Pocket To fit door width 760mm – 800mm

ONE-PIECE CONSOLES STAINLESS STEEL (304)

Material:
| Enclosure: Stainless steel 1.4301 (AISI 304) 1.5mm
| Door or double door and console lid; Stainless steel 1.4301 (AISI 304). 2.0 MM
| Mounting plate: Mild steel 3.0 mm

Surface finish:
| Enclosure, door, console lid and gland plates: Brushed grain 240
| Mounting plate: Zinc-plated

Supply includes:
| Enclosure, solid back and sides
| Door or double door at front, with locking rod
| Console lid with lid stay and cam lock latched in the enclosure
| Locks with double-bit insert
| Gland plates, divided
| Mounting plate

Protection category IP to IEC 60 529:
| IP 55

Protection category NEMA:
| NEMA 12

Stainless Steel 304

PART NUMBER	DOOR(S)	WIDTH MM	HEIGHT MM	DEPTH BOTTOM MM	DEPTH TOP MM	BASE/PLINTH 100MM COMPLETE
2683600	1	600	960	400	480	2865000
2684600	1	800	960	400	480	2869000
2685600	2	1000	960	400	480	2867000
2686600	2	1200	960	400	480	2870000

PC ENCLOSURES

PC Enclosures - Mild Steel

Material:
| Enclosure, door, rear door, mounting compartment, supports: Mild steel
| Handles, decorative trim panels: Plastic
| Door trim panels: Aluminium
| Viewing window: Single-pane safety glass

Surface finish:
| Enclosure and door: Dipcoat primed, powder-coated on the outside, textured paint
| Mounting compartment, support: Powder-coated

Supply includes:
| Enclosure, door, rear door
| Glazed door, top
| Keyboard drawer
| Component shelf

Colour:
| Colour: Enclosure, door, decorative trim panels, supports: RAL 7035
| Handle: RAL 7015
| Monitor panel, door centre part: RAL 7015

Protection category IP to IEC 60 529:
| IP 55

Protection category NEMA:
| NEMA 12

PART NUMBER	WIDTH MM	HEIGHT MM	DEPTH MM	DESIGN
5366050	600	1,600	636	with glazed door at the top, keyboard drawer and component shelf
5366150	600	1,600	636	with glazed door at the top, folding keyboard and component shelf
5366250	600	1,600	636	with glazed door at the top, desk section and component shelf
5366350	600	1,600	636	with glazed door at the top, keyboard drawer, small mounting compartment and component shelf
5366450	600	1,600	636	with keyboard drawer and large mounting compartment
5368050	600	1,600	836	with glazed door at the top, keyboard drawer and component shelf
5386050	800	1,600	636	with glazed door at the top, keyboard drawer and component shelf

PC Enclosures - Stainless Steel

Material:
| Enclosure: Stainless steel 1.4301 (AISI 304), 1.5 mm
| Rear door: Stainless steel 1.4301 (AISI 304), 2.0 mm
| Gland plates: Stainless steel 1.4301 (AISI 304), 1.5 mm
| Monitor field: Single-pane safety glass, 4 mm

Surface finish:
| Brushed, grain 400

Supply includes:
| Enclosure, solid top and side
| Rear door with locking rod
| Component shelf
| Keyboard drawer with swing-down front for handrest and mouse pad support
| Lock insert, lock no 3524 E
| Bottom door with locking rod
| Gland plates, divided

Protection category IP to IEC 60 529:
| IP 55

Protection category NEMA:
| NEMA 12

PART NUMBER	WIDTH MM	HEIGHT MM	DEPTH MM
4650150	600	1600	630

RITTAL

HYGIENIC DESIGN

HYGIENIC DESIGN TERMINAL BOXES HD

Material:
| Enclosure and cover: Stainless steel 1.4301 (AISI 304) 1.5 mm
| Screw plug: Stainless steel
| Seal: Silicone, compliant with FDA Guideline 21 CFR 177.2600

Surface finish
| Enclosure and cover: Brushed, grain 400, peak-to-valley height < 0.8 μm
| Seal: Blue, dyed (RAL 5010)

Supply includes
| Enclosure of all-round solid construction
| Cover with switch cut-out
| Seal and screw plug (supplied loose)

Lock
| Type of lock: Hygiene-compliant quick-release hexagon fastener
| Number locks: 4

IP protection category to IEC 60 529
| IP 66
| IP X9

Protection category NEMA
| NEMA 13
| NEMA 3R
| NEMA 4X

Type rating to UL 50E
| Type 1, 3, 3X, 4, 4X, 12, 13

PART NUMBER HD	NO. OF SWITCH CUT-OUTS Ø 22.5 MM	WIDTH FRONT	WIDTH (REAR)	HEIGHT, FRONT	HEIGHT REAR	DEPTH
1681600	1	100 mm	122 mm	100 mm	122 mm	90 mm
1682600	2	100 mm	122 mm	160 mm	182 mm	90 mm
1683600	3	100 mm	122 mm	220 mm	242 mm	90 mm
1684600	4	100 mm	122 mm	280 mm	302 mm	90 mm
1686600	6	160 mm	182 mm	220 mm	242 mm	90 mm

Accessories

Cable Glands HD

PART NUMBER HD	DESIGN	THREAD	MIN. CABLE DIAMETER	MAX. CABLE DIAMETER
2410001	Standard	M12 x 1.5	3 mm	6.5 mm
2410011	Standard	M16 x 1.5	5 mm	10 mm
2410021	Standard	M20 x 1.5	6 mm	12 mm
2410031	Standard	M25 x 1.5	12 mm	17 mm

PART NUMBER	DESCRIPTION
4000100	Wall Spacer Bracket HD 50mm Long x 34mm dia pack of 1 Note: Replacement seals available on request.
2459500	Pressure relief stoppers

HYGIENIC DESIGN TERMINAL BOXES HD

Design:
| Enclosure angled forwards by 3°

Material:
| Enclosure and cover: Stainless steel 1.4301 (AISI 304) 1.5 mm
| Mounting bracket: Sheet steel, zinc-plated, passivated, 2.0 mm
| Screw plug: Stainless steel
| Seal: Silicone, compliant with FDA Guideline 21 CFR 177.2600

Supply includes:
| Enclosure of all-round solid construction
| Cover
| Mounting bracket (pre-assembled)
| Seal and screw plug (supplied loose)

Surface finish:
| Enclosure and cover: Brushed, grain 400, peak-to-valley height < 0.8 µm
| Seal: Blue, dyed (RAL 5010)

Protection category IP to IEC 60 529:
| IP 66
| IP X9

Protection category NEMA:
| NEMA 13
| NEMA 3R
| NEMA 4X

Approvals:
| UL
| cUL

PART NUMBER HD	WIDTH FRONT MM	WIDTH REAR MM	HEIGHT FRONT MM	HEIGHT REAR MM	DEPTH MM	MOUNTING PLATE PACK OF 1
1670600	150	172	150	172	80	1560800
1671600	150	177	150	177	120	1560800
1672600	200	227	200	227	120	1562800
1674600	300	327	200	227	120	1563800
1675600	400	427	200	227	120	1564800
1676600	400	427	300	327	120	1568800

Accessories

PART NUMBER	DESCRIPTION
4000100	Wall Spacer Bracket HD 50mm Long x 34mm dia pack of 1.

Note: Replacement seals available on request.

HYGIENIC DESIGN COMPACT ENCLOSURES HD

Material:
| Enclosure and door: Stainless steel 1.4301 (AISI 304)
| Mounting plate: Mild steel

Lock inserts HD:
| Stainless steel 1.4404 (AISI 316L)

Seal:
| Silicone, compliant with FDA Guidline 21 CFR 177.2600

Surface finish:
| Enclosure and door: Brushed, grain 400, peak-to-valley height < 0.8µm
| Mounting plate: Zinc-plated
| Seal: Blue, dyed (RAL 5010)

Supply includes:
| Enclosure of all-round solid construction
| Door with inserted seal
| Door hinged on the

Protection category IP to IEC 60 529:
| IP 66

Protection category IP to DIN 40 050-9:
| IP 69K *(IP X9)

Protection category NEMA:
| NEMA 13
| NEMA 4X

PART NUMBER	WIDTH FRONT MM	HEIGHT FRONT MM	HEIGHT REAR MM	DEPTH MM	DOORS	MOUNTING PLATE WIDTH MM	MOUNTING PLATE HEIGHT MM	INTERNAL ASSEMBLY RAIL 4 PACK
1302600	220	350	437	155	1	160	275	
1304600	310	430	549	210	1	250	355	
1305600	390	550	669	210	1	330	475	
1306600	390	430	549	210	1	330	355	
1307600	510	550	669	210	1	450	475	
1308600	390	650	769	210	1	330	575	5001050
1310600	610	650	769	210	1	550	575	5001050
1311600	610	650	821	300	1	550	575	5001050
1312600	610	810	981	300	1	550	735	5001050
1314600	810	430	549	210	1	750	355	
1315600	810	650	821	300	1	750	575	5001050
1316600	810	1050	1221	300	1	745	975	5001052
1317600	810	1250	1421	300	1	745	1175	5001053
1320600	610	430	601	300	1	549	355	
1318600	1010	1050	1280	400	2	945	975	5001052
1319600	1010	1250	1480	400	2	945	1175	5001053

Accessories

PART NUMBER	DESCRIPTION
4000100	Wall Spacer Bracket HD 50mm Long x 34mm dia pack of 1.
4000065	T handle HD
4000110	HD wall spacer bracket 150 mm
4000080	HD Viewing window, WHD: 518x436x23 mm. For the protection of switches or displays.

Note: Replacement seals available on request.

HYGIENIC DESIGN SYSTEM ENCLOSURE HD

Material:
| Enclosure and door: Stainless steel 1.4301 (AISI 304)
| Lock inserts HD: Stainless steel 1.4404 (AISI 316L)
| Seal: Silicone, compliant with FDA Guidline 21 CFR 177.2600
| Mounting plate: Mild steel

Surface finish:
| Enclosure and door: Brushed, grain 400, peak-to-valley height < 0.8 μm
| Mounting plate: Zinc-plated
| Seal: Blue, dyed (RAL 5010)

Supply includes:
| Enclosure frame with welded rear panel gland plate
| Door with inserted seal
| Right hand door hinge with single-door enclosures, may be swapped to opposite side
| Mounting plate

Protection category IP to IEC 60 529:
| IP 66

Protection category DIN 40 050-9:
| IP 59K

PART NUMBER	WIDTH MM	HEIGHT MM	DEPTH MM	ACCESSORIES				
				HD SIDE PANELS 1 PAIR	HD BAYING FRAME PACK OF 1	MOUNTING PLATE INFILL PACK OF 1	HD ANGLED ROOF 30° OPEN AT THE SIDES PACK OF 1	HD SIDE PANELS FOR ANGLED ROOF 1 PAIR WW
4000485*	400	1800	500	4000185*	4000785	4000508*	4000545*	4000505*
4000685	600	1800	500	4000185	4000785	4000508	4000565	4000505
4000885	800	1800	500	4000185	4000785	4000508	4000585	4000505
4000285	1200	1800	500	4000185	4000785	4000508	4000525	4000505

*Customised/Extended delivery times

Accessories

PART NUMBER	DESCRIPTION
4000240	HD Levelling feet without base mount
4000250	HD Levelling feet with base mount

HYGIENIC DESIGN COMMAND PANEL AND PRINTER ENCLOSURE HD

Material:
| Enclosure and door: Stainless steel 1.4301 (AISI 304)
| Lock insert HD: Stainless steel 1.4404 (AISI 316L)
| Viewing window: Polycarbonate
| Seal: Silicone, compliant with FDA Guideline 21 CFR 177.2600
| Viewing window: Polycarbonate

Surface finish:
| Enclosure and door: Brushed, grain 400, peak-to-valley height < 0.8 µm
| Seal: Blue, dyed (RAL 5010)

Supply includes:
| Enclosure of all-round solid construction
| Door with viewing window and inserted seal
| R/h door hinge
| Holder for desktop TFT with VESA 75/100 locator

Protection category to IEC 60 529:
| IP 66

	PART NUMBER	WIDTH MM	HEIGHT, FRONT MM	HEIGHT REAR MM	DEPTH MM
Command Panel	4000062	810	692	848	266
Printer Enclosure	4000064	810	863	888	496

Accessories

PART NUMBER	DESCRIPTION
4000066	HD connection components for command panels HD, printer enclosures HD
4000072	HD keyboard support

HYGIENIC DESIGN FIRE EXTINGUISHER ENCLOSURE HD

Material:
| Enclosure and door: Stainless steel 1.4301 (AISI 304)
| Mounting plate: Mild steel

Material:
| Enclosure and door: Stainless steel 1.4301 (AISI 304)
| Handle and lock: Stainless steel 1.4301 (AISI 304)
| Viewing window: Polycarbonate

Seal:
| Silicone, compliant with FDA Guideline 21 CFR 177.2600

Roof:
| Angled forward by 30°

Surface finish:
| Enclosure and door: Brushed, grain 400, peak-to-valley height < 0.8 μm
| Seal: Blue, dyed (RAL 5010)

Supply includes:
| Enclosure of all-round solid construction
| Door with viewing window and inserted seal
| Interchangeable door hinge
| T handle with 3-point lock system

Protection category to IEC 60 529:
| IP 66 / IP59K

Protection category
| IP 69K

PART NUMBER	WIDTH MM	HEIGHT, FRONT MM	HEIGHT REAR MM	DEPTH MM
4000075	390	840	1010	300

Accessories

PART NUMBER	DESCRIPTION
4000100	Wall Spacer Bracket HD 50mm Long x 34mm dia pack of 1. Note: Replacement seals available on request.
4000110	HD wall spacer bracket 150 mm
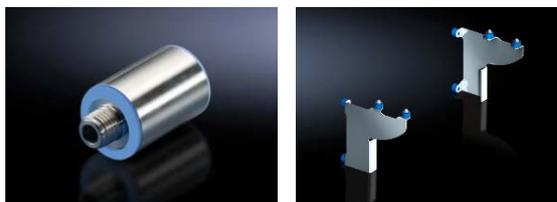
![RITTAL]

OUTDOOR ENCLOSURES

aps

WALL MOUNTED ENCLOSURES CS

Material:
| Enclosure: Aluminium AlMg3
| Mounting plate: Aluminium, 2 mm

Surface finish:
| Enclosure: Powder Coated, UV-resistant pure polyester
| Mounting plate: Clear chromated

Supply includes:
| Double-walled outdoor enclosure, fully preconfigured
| Inner enclosure with mounting plate, gland plate and security lock
| Mounting bracket for enclosure internal thermostat or hygrostat
| Outer enclosure with designer cover and security lock 3524 E
| Two C rails on the rear panel

Colour:
| RAL 7035
| Protection category IP to IEC 60 529:
| IP 55

Protection category NEMA:
| NEMA 4

IK Code:
| IK08

Double-walled

PART NUMBER	DESCRIPTION	WIDTH MM	HEIGHT MM	DEPTH MM
9791015	Inner	300	400	170
	Outer	370	522	210
9791025	Inner	350	440	170
	Outer	420	560	210
9791035	Inner	460	565	220
	Outer	530	700	265
9791045	Inner	580	580	333
	Outer	630	780	380

Top Accessories

PART NUMBER	DESCRIPTION	PACK OF
2584000	Pole Clamp	2
3110000	Enclosure Internal Thermostat	1
3118000	Hygrostat	1

BASIC ENCLOSURES CS

Material:
| Aluminium AlMg3
| Surface finish:
| Powder-coated
| UV-resistant pure polyester

Supply includes:
| Single-walled outdoor enclosure, fully preconfigured
| Basic enclosure with gland plate, three-part
| 25mm system punchings in the roof, base, front and in the enclosure depth
| Front door(s) with door stay, swing lever handle and semi-cylinder, lock BJ 20027
| Transport plinth with screw-fastened trim panels front and rear
| Rain canopy

Colour:

| RAL 7035

Protection category IP to IEC 60 529:
| IP 55

Protection category NEMA:
| NEMA 3R

IK Code:
| IK07

Single-walled and one-door, width 600 and 800mm

PART NUMBER	WIDTH MM	HEIGHT MM	DEPTH MM	MOUNTING PLATE
9783530	600	1200	500	9765092
9783610	800	1200	500	9765095
9784540	1200	1200	500	9765191

Note: 19 inch mounting angles available. Please contact your APS Industrial sales representative for a quotation

TOPTEC CS

Description

| Outdoor enclosure with 100 mm transport plinth and rain canopy with projections on all sides. Side panels, rear panel and door fully double-walled on the outside, the entire TS 8 frame is available for interior installation.

Material

| Enclosure frame: Stainless steel 1.4301 (AISI 304)
| Enclosure panels and base/plinth trim: Aluminium, AlMg3

Rain canopy:

| Aluminium

Surface finish

| Powder-coated
| UV-resistant pure polyester

Colour

| RAL 7035

Protection category IP to IEC 60 529

| IP 55

Supply includes

| Double-walled outdoor enclosure, fully preconfigured
| TS 8 frame with 25 mm system punchings in the roof and base frame plus vertical sections with two mounting levels
| Front door with door stay, swing lever handle and semi-cylinder, lock BJ 20027
| Side panels left and right
| Rear panel
| Rain canopy
| Base/plinth with screw-fastened gland plates and screw-fastened trim panels front and rear
| All enclosure panels are doubled and earthed (external wall onto internal wall)

Note: A climate control unit or adaptor plate is required to seal the enclosures with cut-out

PART NUMBER	WIDTH MM	HEIGHT MM	DEPTH MM	DESIGN
9774510	600 mm	1,800 mm	600 mm	Without cut-out
9828500	800 mm	1,200 mm	800 mm	Without cut-out
9828550	800 mm	1,200 mm	800 mm	With cut-out for outdoor cooling units 1.5 kW
9868500	800 mm	1,600 mm	800 mm	Without cut-out
9868550	800 mm	1,600 mm	800 mm	With cut-out for outdoor cooling units 1.5 kW
9888500	800 mm	1,800 mm	800 mm	Without cut-out
9888550	800 mm	1,800 mm	800 mm	With cut-out for outdoor cooling units 1.5 kW
9888560	800 mm	1,800 mm	800 mm	With cut-out for outdoor cooling units 2 - 5 kW

Accessories

PART NUMBER	DESCRIPTION	
9828110	CS Adaptor Plate	To accommodate fan-and-filter units for Enclosure with a cut-out.
3185330	Air Conditioner	Blue e+ outdoor cooling unit 1.5kW
3189340	Air Conditioner	Blue e+ outdoor cooling unit 4.9kW
7827160	19" (483.6mm) mounting angles Pack of 2	
7827480	Depth Stay Pack of 2	
5050063	Mounting plate attachment	
3243100	Fan & Filter 230VAC 500m³/h	
3244100	Fan & Filter 230VAC 700m³/h	
3243200	Outlet Filter 323 x 323 mm	

TOPTEC BAYABLE CS

Material:
| Base frame: Stainless steel
| Enclosure panels: Aluminium
| Rain canopy: Aluminium

Surface finish:
| Powder-coated
| UV-resistant pure polyester

Supply includes:
| Double-walled outdoor enclosure, fully preconfigured
| TS 8 frame with 25mm system punchings in the roof and base frame plus vertical sections with two mounting levels

Colour:
| RAL 7035

Protection category IP to IEC 60 529:
| IP 55

IK code:
| IK10

Variants and modifications available on request:
| Dimensions – Rear door – Mounting panel - Baying – Climate control – Battery tray - Side door – Mounting angles

PART NUMBER	WIDTH MM	HEIGHT MM	DEPTH MM	SIDE PANEL	OPTIONAL REAR DOOR	DESIGN
9781666	600	1600	600	9781660	5051444	-
9781686	600	1800	600	9781860	5051446	-
9781818	800	1200	800	9781180	5051443	-
9781828	800	2000	800	9781280	5051448	-
9781866	800	1600	600	9781660	5051445	-
9781868	800	1600	800	9781680	5051445	-
9781888	800	1800	800	9781880	5051447	-
9782818	800	1200	800	9781180	5051443	With cut-out for outdoor cooling units 1.5 kW
9782828	800	2000	800	9781280	5051448	With cut-out for outdoor cooling units 2 - 5 kW
9782866	800	1600	600	9781660	5051445	With cut-out for outdoor cooling units 1.5 kW
9782868	800	1600	800	9781680	5051445	With cut-out for outdoor cooling units 1.5 kW
9782888	800	1800	800	9781880	5051447	With cut-out for outdoor cooling units 1.5 kW
9783888	800	1800	800	9781880	5051447	With cut-out for outdoor cooling units 2 - 5 kW

Accessories

PART NUMBER	DESCRIPTION	PACKS OF
9828110	CS Adaptor Plate	1 pc
3185330	Blue e+ outdoor cooling unit	1 pcs
7827160	19" (483.6mm) mounting angles	2 pcs
7827480	Depth Stay	2 pcs
5050063	Mounting plate attachment	1 pc

The Ultimate In Efficiency

Blue e+, Rittal's revolution in energy efficiency through innovative hybrid technology, utilising two parallel cooling circuits working together.

| 75% energy saved due to inverter technology, demand-regulated components and heat pipe technology
| Unique multi-voltage capability for world wide use
| Intuitive operation via touch display
| Identical mounting cut-out (external mounting, partial internal mounting and full internal mounting) for four output categories

CLIMATE CONTROL

BLUE E+ FAN AND FILTER UNITS

Product description:
| Complete fan unit for tool-free mounting on surfaces.
| Air throughput from 20 - 1160 m³/h, standard protection category IP 54.

Protection category IP to IEC 60 529:
| IP54 with chopped-fibre filter/pleated filter
| IP55 with pleated filter and absorber mat
| IP56 with chopped-fibre filter/pleated filter
and hose-proof hood

Operating temperature range (environment):
| -30°C...+55°C

PART NUMBER (FAN)	PART NUMBER (FILTER)	AIR FLOW RATE (M³/H, UNIMPEDED - CHOPPED FIBER FILTER)	AIR FLOW RATE (M³/H, UNIMPEDED - PLEATED FILTER)	WIDTH (MM)	HEIGHT (MM)	DEPTH (MM)	VOLTAGE (V)	RATED CURRENT (A)
3237700	3237300	20/25	-	116.5	116.5	64.5	230	0.1/0.09
3237710	3237300	20/25	-	116.5	116.5	64.5	115	0.14/0.13
3237724	3237300	20	-	116.5	116.5	64.5	24 (DC)	0.06
3238700	3238300	53/64	-	148.5	148.5	82.5	230	0.1/0.12
3238710	3238300	53/64	63/72	148.5	148.5	82.5	115	0.2/0.21
3238724	3238300	53	63	148.5	148.5	82.5	24 (DC)	0.27
3239700	3239300	100/115	110/125	204	204	105	230	0.1/0.12
3239710	3239300	100/115	110/125	204	204	105	115	0.2/0.21
3239724	3239300	100	110	204	204	105	24 (DC)	0.27
3240700	3240300	175/157	218/191	255	255	129	230	0.2/0.21
3240710	3240300	175/157	218/191	255	255	129	115	0.41/0.42
3240724	3240300	175	218	255	255	129	24 (DC)	0.42
3241700	3240300	225/245	272/280	255	255	129	230	0.27/0.32
3241710	3240300	225/245	272/280	255	255	129	115	0.54/0.6
3241724	3240300	225	272	255	255	129	24 (DC)	0.8
3243700	3243300	540/590	625/716	323	323	144.5	230	0.39/0.47
3243710	3243300	540/590	625/716	323	323	144.5	115	0.81/0.9
3244700	3243300	700/770	867/910	323	323	156	230	0.51/0.68
3244710	3243300	700/770	867/910	323	323	156	115	1.06/1.47
3244740	3243300	700/770	867/910	323	323	156	400/460	0.22/0.28

BLUE E+ EC FAN AND FILTER UNITS

Product description:

| The energy-efficient version with EC technology stands out for more than just its unique IoT capabilities. The Blue e+ fan-and-filter unit unlocks countless other advantages, from energy efficiency, to monitoring and sustainability, through to a higher air throughput (175 – 1,160 m³/h).

Protection category IP to IEC 60 529:

| IP54 with chopped-fibre filter/pleated filter
| IP55 with pleated filter and absorber mat
| IP56 with chopped-fibre filter/pleated filter and hose-proof hood

Operating temperature range (environment) :

| -25°C...+55°C

PART NUMBER (FAN)	PART NUMBER (FILTER)	AIR FLOW RATE (M³/H) UNIMPEDED (WITH CHOPPED-FIBRE FILTER)	AIR FLOW RATE (M³/H) UNIMPEDED (WITH PLEATED FILTER)	WIDTH (MM)	HEIGHT (MM)	DEPTH (MM)	VOLTAGE (V) (50/60 HZ)	RATED CURRENT (A)
3240900	3240300	175	218	255	255	137.5	100-240	0.2
3241900	3240300	225	272	255	255	137.5	100-240	0.3
3243900	3243300	540	625	323	323	156.5	100-240	0.88
3244900	3243300	700	867	323	323	161	100-240	1.97
3245900	3243300	931	1161	323	323	161	200-240	1.38
3245910	3243300	931	1161	323	323	156	100 -130	2.52

We reserve the right to make technical modifications, EC & EMC fans/filters available.

BLUE E+ EMC FAN AND FILTER UNITS
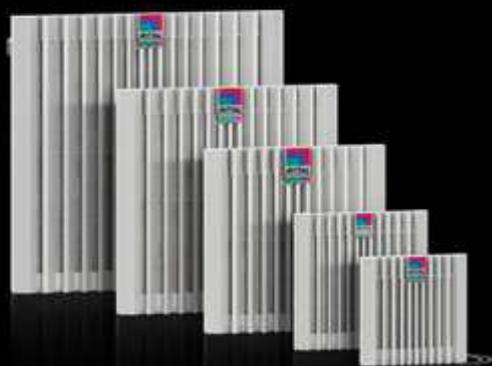
Product description:
| Complete fan unit with EMC shielding for tool-free mounting on surfaces.
   Air throughput from 20 - 900 m³/h, standard protection category IP 54

Protection category IP to IEC 60 529:
| IP54 with chopped-fibre filter
| IP56 with chopped-fibre filter and hose-proof hood

Operating temperature range (environment) :
| -25°C...+55°C

PART NUMBER (FAN)	PART NUMBER (FILTER)	AIR FLOW RATE (M³/H) UNIMPEDED (WITH CHOPPED-FIBRE FILTER)	AIR FLOW RATE (M³/H) UNIMPEDED (WITH PLEATED FILTER)	WIDTH (MM)	HEIGHT (MM)	DEPTH (MM)	VOLTAGE (V) (50/60 HZ)	RATED CURRENT (A)
3237800	3237400	20/25	-	116.5	116.5	64.5	230	0.1/0.09
3237810	3237400	20/25	-	116.5	116.5	64.5	115	0.14/0.13
3238800	3238400	53/64	-	148.5	148.5	82.5	230	0.1/0.12
3238810	3238400	53/64	-	148.5	148.5	82.5	115	0.2/0.21
3238824	3238400	53	-	148.5	148.5	82.5	24 (DC)	0.27
3239800	3239400	100/115	-	204	204	105	230	0.1/0.12
3239810	3239400	100/115	-	204	204	105	115	0.2/0.21
3239824	3239400	100	-	204	204	105	24 (DC)	0.27
3240800	3240400	175/157	-	255	255	129	230	0.2/0.21
3240810	3240400	175/157	-	255	255	129	115	0.41/0.42
3241800	3240400	225/245	-	255	255	129	230	0.27/0.32
3241810	3240400	225/245	-	255	255	129	115	0.54/0.6
3243800	3243400	540/590	-	323	323	144.5	230	0.39/0.47
3243810	3243400	540/590	-	323	323	144.5	115	0.81/0.9
3244800	3243400	700/770	-	323	323	156	230	0.51/0.68
3244810	3243400	700/770	-	323	323	156	115	1.06/1.47
3245800	3243400	931	-	323	323	161	200- 240	1.38
3245810	3243400	931	-	323	323	156	100 - 130	2.52

TOPTHERM FAN AND FILTER UNITS

Product description:

| Complete fan unit for tool-free mounting on surfaces. Air throughput from 20 - 700 m³/h, standard protection category
| IP 54.

Protection category IP to IEC 60 529:

| IP 54

Protection category NEMA:

| NEMA 12
| With additional hose-proof hood: the protection category would be improved to IP 56, NEMA 3 or NEMA 3R (for more details refer to the accessories section)

FAN AND FILTER MAT	OUTLET FILTER	AIR FLOW RATE (M³/H) 50HZ UNIMPEDED	EXTERNAL WIDTH MM	EXTERNAL HEIGHT (H1) MM	DEPTH (T2) MM	VOLTAGE (V) (50/60HZ)	RATED CURRENT A 50HZ
3237100	3237200	20	116.5	116.5	43	230	0.065
3237110	3237200	20	116.5	116.5	43	115	0.12
3237124	3237200	20	116.5	116.5	43	24 (DC)	0.125
3238100	3238200	55	148.5	148.5	58.5	230	0.12
3238110	3238200	55	148.5	148.5	58.5	115	0.24
3238124	3238200	55	148.5	148.5	58.5	24 (DC)	0.23
3239100	3239200	105	204	204	90	230	0.12
3239110	3239200	105	204	204	90	115	0.24
3239124	3239200	105	204	204	90	24 (DC)	0.23
3240100	3240200	180	255	255	107	230	0.21
3240110	3240200	180	255	255	107	115	0.42
3240124	3240200	180	255	255	107	24 (DC)	0.43
3241100	3240200	230	255	255	107	230	0.26
3241110	3240200	230	255	255	107	115	0.52
3241124	3240200	230	255	255	107	24 (DC)	0.78
3243100	3243200	550	323	323	118.5	230	0.37
3243110	3243200	550	323	323	118.5	115	0.75
3244100	3243200	700	323	323	130.5	230	0.43
3244110	3243200	700	323	323	130.5	115	0.9
3244140	3243200	700	323	323	130.5	400/460	0.17

Note: We reserve the right to make technical modifications, EC & EMC fans/filters available

Product description:

| The new generation of roof-mounted fans is one system for all sizes. Only one mounting cut-out is needed for all output categories. Air routing with minimal pressure losses ensures a high level of efficiency, while an innovative clamping attachment supports a high protection category of IP54.

Protection category IP to IEC 60 529:

| IP 21 without filter mat
| IP 54 including pleated filter

Operating temperature range (environment):

| -20°C...+55°C

ROOF VENT	OUTLET FILTER	AIR FLOW RATE (M³/H) UNIMPEDED (WITH PLEATED FILTER)	WIDTH MM	HEIGHT MM	DEPTH MM	VOLTAGE (V) (HZ)	RATED CURRENT A
3138000	3243200	-	400	133	400	-	-
3139100	3243200	417	400	133	400	230, 1~, 50/60	0.22 / 0.27
3139110	3243200	417	400	133	400	115, 1~, 50/60	0.43 / 0.55
3140100	3243200	725	400	133	400	230, 1~, 50/60	0.43 / 0.56
3140110	3243200	725	400	133	400	115, 1~, 50/60	0.88 / 1.17
3140140	3243200	700	400	133	400	400, 3~, 50/60 460, 3~, 60	0.17 / 0.19

EC TECHNOLOGY	OUTLET FILTER	AIR FLOW RATE (M³/H) UNIMPEDED (WITH PLEATED FILTER)	WIDTH MM	HEIGHT MM	DEPTH MM	VOLTAGE (V) (HZ)	RATED CURRENT A
3140500	3243200	976	400	133	400	220 - 240, 1~, 50/60	1
3140510	3243200	976	400	133	400	115, 1~, 60	1.51

WALL MOUNTED COOLING UNITS

Product description:

| SK Blue e cooling unit, wall-mounted, 0.36-3.95 kW, 230/115/400/460 V, 1/3~, 50/60 Hz, sheet steel/stainless steel (304)

Protection category IP to IEC 60 529:

| External circuit: IP 34
| Internal circuit: IP 54

Operating termperature range (environment):

| +10°C...+55°C

Refrigerant/cooling medium:

| R-513A

MILD STEEL		STAINLESS STEEL		COOLING OUTPUT (W)*	WIDTH MM	HEIGHT MM	DEPTH MM	OPERATING VOLTAGE (V) (50/60HZ)
BASIC CONTROL	COMFORT CONTROL	BASIC CONTROL	COMFORT CONTROL					
3302100	-	3302200	-	310	280	550	140	230
3302110	-	3302210	-	320	280	550	140	115
-	3303500	-	3303600	520	280	550	210	230
-	3303510	-	3303610	600	280	550	210	115
-	3361500	-	3361600	820	280	550	206	230
-	3361510	-	3361610	870	280	550	206	115
-	3361540	-	3361640	820	280	550	206	400
-	3304500	-	3304600	1100	400	950	260	230
-	3304510	-	3304610	1100	400	950	260	115
-	3304540	-	3304640	1100	400	950	260	400/460
-	3305500	-	3305600	1600	400	950	260	230
-	3305510	-	3305610	1600	400	950	260	115
-	3305540	-	3305640	1600	400	950	260	400/460
-	3328500	-	3328600	2100	400	1580	295	230
-	3328510	-	3328610	2100	400	1580	295	115
-	3328540	-	3328640	2050	400	1580	295	400/460
-	3329500	-	3329600	2550	400	1580	295	230
-	3329510	-	3329610	2550	400	1580	295	115
-	3329540	-	3329640	2550	400	1580	295	400/460
-	3332540	-	3332640	3950	500	1580	340	400/460

WALL MOUNTED COOLING UNITS BLUE E+

Product description:

| SK Blue e+ cooling unit, wall-mounted, 1.6 – 6.00 kW,
  110-240 V, 1~, 380-480 V, 3~, 50-60 Hz, sheet steel/stainless steel (304)

Protection category IP to IEC 60 529:

| Internal circuit IP 55

Operating temperature range (environment):

| -20°C...+60°C

Refrigerant/cooling medium:

| R-513A
| *Total cooling output 50Hz L35 L35 to DIN EN 14511

MILD STEEL	STAINLESS STEEL	COOLING OUTPUT (W)*	WIDTH MM	HEIGHT MM	DEPTH MM	OPERATING VOLTAGE (V)
3185830	3185530	1600	400	950	310	110 - 240, 1~, 50/60 380 - 480, 3~, 50/60
3186930	3186630	2000	450	1600	294	110 - 240, 1~, 50/60 380 - 480, 3~, 50/60
3187930	3187630	2600	450	1600	294	110 - 240, 1~, 50/60 380 - 480, 3~, 50/60
3188940	3188640	4000	450	1600	294	380 - 480, 3~, 50/60
3189940	3189640	5500	450	1600	294	380 - 480, 3~, 50/60

WALL MOUNTED COOLING UNITS BLUE E+ S

Product description:
| SK Blue e+ S cooling unit, wall-mounted, 0.3 – 1.0 kW,
| 110-240 V, 1~, 380-480 V, 3~, 50-60 Hz, sheet steel
| Protection category IP to IEC 60 529:
| IP54 with chopped-fibre filter
| IP56 with chopped-fibre filter and hose-proof hood

Operating termperature range (environment):
| -20°C...+60°C

Refrigerant/cooling medium:
| R-513A

*Total cooling output L35 L35/50Hz 60Hz to DIN EN 14511

SHEET STEEL	COOLING OUTPUT (W)*	WIDTH MM	HEIGHT MM	DEPTH MM	VOLTAGE (V) (50/60 HZ)	INTEGRAL ELECTRIC CONDENSATE EVAPORATION
3178800	300	300	570	159	110 - 240	Yes
3178801	300	300	570	159	110 - 240	No
3179800	520	300	570	199	110 - 240	Yes
3179801	520	300	570	199	110 - 240	No
3180800	780	300	570	250	110 - 240	Yes
3184800	1000	400	950	196	110 - 240	Yes
3184840	1000	400	950	196	380 - 480	Yes

WALL MOUNTED COOLING UNITS BLUE E+ OUTDOOR
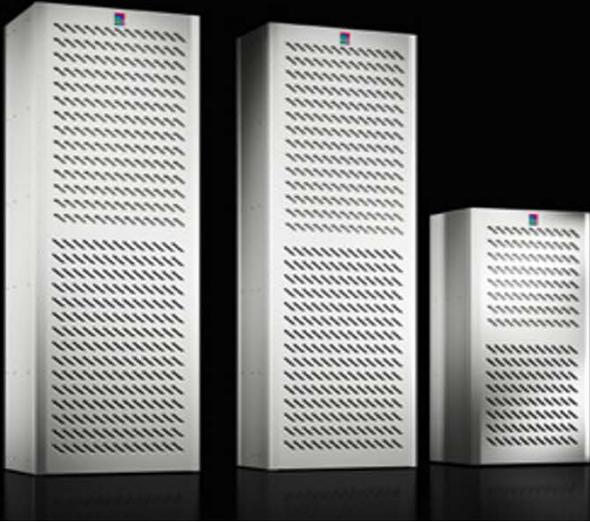
Product description:
| SK Blue e+ outdoor cooling unit, wall-mounted, 1.5 – 5.0 kW,
| 110-240 V, 1~, 380-480 V, 3~, 50-60 Hz, Aluminium AlMg3

Protection category IP to IEC 60 529:
| IP54 without mounting frame
| IP56 with mounting frame

Operating temperature range (environment):
| – -30°C...+60°C

Refrigerant/cooling medium:
| R-513A

*Total cooling output L35 L35/50Hz 60Hz to DIN EN 14511

SHEET STEEL	COOLING OUTPUT (W)*	WIDTH MM	HEIGHT MM	DEPTH MM	VOLTAGE (V) (50/60 HZ)
3185330	1500	415	990	280	110 - 240, 1~380 - 480, 3~
3186330	2000	465	1640	260	110 - 240, 1~380 - 480, 3~
3187330	2500	465	1640	260	110 - 240, 1~380 - 480, 3~
3188340	3700	465	1640	360	380 - 480, 3~
3189340	4900	465	1640	360	380 - 480, 3~

TOPTHERM WALL-MOUNTED COOLING UNIT BLUE E

Product Description:
| Energy-efficient Blue e wall-mounted cooling 0.5-2.5kW with integral e-Comfort controller, RiNano coating on the condenser, electric condensate evaporation, Mild Steel RAL 7035, Outdoor Mounting

Protection category:
| UL Type 3R/4, 12.   Suitable for outdoor use. May be linked to the IoT interface via the Blue e IoT adaptor

Operating temperature range (environment):
| -20 °C...+50 °C

Refrigerant/cooling medium:
| R-513A

TopTherm wall-mounted cooling unit Blue e, UL Type 3R/4 Total cooling output 0.50 – 2.50 kW

PART NUMBER COMFORT CONTROLLER	TOTAL COOLING OUTPUT W L35 L35 AT 50 HZ	TOTAL COOLING OUTPUT W L35 L35 AT 60 HZ	WIDTH MM	HEIGHT MM	DEPTH MM	RATED OPERATING VOLTAGE (V - HZ)
3303508	440	500	285	620	298	230 V, 1~, 50 Hz/60 Hz
3303518	_	500	285	620	298	115 V, 1~, 60 Hz
3304508	1100	1250	405	1020	358	230 V, 1~, 50 Hz/60 Hz
3304518	1100	1250	405	1020	358	115 V, 1~, 50 Hz/60 Hz
3304548	1100	1250	405	1020	358	400 V, 3~, 50 Hz 460 V, 3~, 60 Hz
3305508	1600	1730	405	1020	358	230 V, 1~, 50 Hz/60 Hz
3305518	1600	1730	405	1020	358	115 V, 1~, 50 Hz/60 Hz
3305548	1600	1610	405	1020	358	400 V, 3~, 50 Hz 460 V, 3~, 60 Hz
3329508	2550	2600	405	1650	388	230 V, 1~, 50 Hz/60 Hz
3329518	2550	2600	405	1650	388	115 V, 1~, 50 Hz/60 Hz
3329548	2550	2750	405	1650	388	400 V, 3~, 50 Hz 460 V, 3~, 60 Hz

Accessories

PART NUMBER	DESCRIPTION	PACKS OF
4127010	Door Operated Switch	1
31241001	Cable for SK BUS system	1

Product description:

| Energy-efficient Blue e wall-mounted cooling, 0.5-2.5 kW, 230/115/400/460 V, 1/3~, 50/60 Hz, stainless steel (316L), e-Comfort controller integrated as standard, RiNano coating on the condenser, electrical condensate evaporation.

Protection category NEMA:

| NEMA 4X

Operating temperature range (environment):

| +10°C...+55°C

Refrigerant/cooling medium:

| R-513A

*Total cooling output 50Hz L35 L35 to DIN EN 14511

TopTherm wall-mounted cooling unit Blue e, UL Type 3R/4 Total cooling output 0.50 – 2.50 kW

PART NUMBER COMFORT CONTROLLER	COOLING OUTPUT (W)*	WIDTH MM	HEIGHT MM	DEPTH MM	RATED OPERATING VOLTAGE (V - HZ)
3303504	520	285	620	298	230 - 50/60
3303514	600	285	620	298	115 - 60
3304504	1100	405	1020	358	230 - 50/60
3304514	1100	405	1020	358	115 - 50/60
3304544	1100	405	1020	358	400 - 50/460 - 60
3305504	1600	405	1020	358	230 - 50/60
3305514	1600	405	1020	358	115 - 50/60
3305544	1600	405	1020	358	400 - 50/460 - 60
3328504	2100	405	1650	388	230 - 50/60
3328514	2100	405	1650	388	115 - 50/60
3328544	2050	405	1650	388	400 - 50/460 - 60
3329504	2550	405	1650	388	230 - 50/60
3329514	2550	405	1650	388	115 - 50/60
3329544	2430	405	1650	388	400 - 50/460 - 60

ROOF MOUNTED COOLING UNITS

Product description:
| SK Blue e cooling unit, Roof-mounted, 0.55-3.8 kW, 230/115/400/460 V, 1/3~, 50/60 Hz, sheet steel, nano-coated condenser, integrated electric condensate evaporation

Protection category IP to IEC 60 529:
| External circuit IP 34
| Internal circuit IP 54

Operating temperature range (environment):
| +10°C...+55°C

Refrigerant/cooling medium:
| R-513A

Product description:
| Blue e+ cooling unit, Roof-mounted, 1.3 kW, 110 V - 240 V, 380 V - 480 V 1/3~, 50/60 Hz, sheet steel, pleated filter, fully
| wired ready for connection

Protection category IP to IEC 60 529:
| External circuit IP 54 with pleated filter
| Internal circuit IP 54 with pleated filter

Operating temperature range (environment):
| -20°C...+55°C

Refrigerant/cooling medium:
| R-513A

Total cooling output 50Hz L35 L35 to DIN EN 14511

MILD STEEL COMFORT CONTROL	STAINLESS STEEL COMFORT CONTROL	COOLING OUTPUT (W)*	WIDTH MM	HEIGHT MM	DEPTH MM	OPERATING VOLTAGE (V) (50/60HZ)
Blue e						
3382500	3382600	600	597	417	380	230
3382510	3382610	600	597	417	380	115
3273500	-	1100	597	417	475	230
3359500	3359600	770	597	417	380	230
3359510	3359610	770	597	417	380	115
3359540	3359640	770	597	417	380	400
3383500	3383600	1000	597	417	475	230
3383510	3383610	1000	597	417	475	115
3383540	3383640	1000	597	417	475	400
3384500	3384600	1600	597	417	475	230
3384510	3384610	1600	597	417	475	115
3384540	3384640	1600	597	417	475	400
3385500	3385600	2000	597	417	475	230
3385510	3385610	2000	597	417	475	115
3385540	3385640	2000	597	417	475	400
3386540	3386640	3000	796	470	580	400/460
3387540	3387640	3800	796	470	580	400/460
Blue e+						
3185730	-	1300	700	308	560	110 - 240, 1~ 380 - 480, 3~

TOPTHERM AIR/AIR HEAT EXCHANGERS

Temperature Control:
| Electronic Control with digital display (factory setting +35 °C)

Colour:
| RAL 7035

Protection category IP to IEC 60 529:
| Internal circuit IP 54

Supply includes:
| Complete unit ready for connection
| Plug-in terminal strip
| Floating fault signal contact in case of over temperature

MODEL	MOUNTING		THERMAL OUTPUT W/K	AIR THROUGHPUT (UNIMPEDED) M³/H	DIMENSIONS MM			IP/NEMA RATING
	WALL	ROOF			W	H	D	
3126100	X		17.5	265	280	550	150	54
3127100	X		30	480	400	950	205	54
3128100	X		45	600	400	950	205	54
3129100	X		60	860	400	950	225	54
3130100	X		90	850	400	1580	215	54
3248000		X	66	965	595	362	440	54

AIR/WATER HEAT EXCHANGERS

Description:
| Output classes 375 – 7,000 W. For use in tough environments.
| Convenient mounting options and flexible water connection options.
| Partial or full internal mounting possible.

Colour:
| RAL 7035

Protection category IP to IEC 60 529:
| IP 55*

Supply includes:
| Fully wired ready for connection (plug-in terminal strip)
| Drilling template
| Sealing and assembly parts
   Note: Integral non-return valve for version with e-Comfort controller

MODEL	MOUNTING		WATER-CARRYING PARTS		TEMPERATURE CONTROLLER			TOTAL COOLING OUTPUT L35 W10 (KW)		DIMENSIONS MM			IP/NEMA RATING
	WALL	ROOF	COPPER/ BRASS	STAINLESS STEEL	THERMOSTAT-CONTROLLED MAGNETIC VALVE	BASIC	E-COMFORT	200 L/H	400 L/H	W	H	D	
3212024	X		X					0.3		150	300	85	55
3212230	X		X					0.3		150	300	85	55
3363100	X		X			X			0.5	280	550	120	55
3363500	X		X				X		0.5	280	550	120	55
3214100	X		X		X			0.6	0.7	200	500	100	55
3364504	X			X			X		0.95	280	550	120	55
3364100	X		X			X			1	280	550	120	55
3364500	X		X				X		1	280	550	120	55
3215100	X		X		X			1.25	1.3	200	950	100	55
3373100	X		X			X			2	400	950	145	55
3373500	X		X				X		2	400	950	145	55
3374504	X			X			X		2.8	400	950	145	55
3374100	X		X			X			3	400	950	145	55
3374500	X		X				X		3	400	950	145	55
3375504	X			X			X		4.5	450	1400	220	55
3375100	X		X			X			5	450	1400	220	55
3375500	X		X				X		5	450	1400	220	55
3216480	X				X				7*	450	1800	300	55
3214700	X		X	X	X			0.6	0.65	220	526	100	4X
3215700	X		X	X	X			1	1.2	215	982	100	4X
3209504		X		X			X		1.88	597	417	475	55
3209100		X	X			X			2.5	597	417	475	55
3209500		X	X				X		2.5	597	417	475	55
3210504		X		X			X		3	597	417	475	55
3210100		X	X			X			4	597	417	475	55

CHILLER BLUE E+

Product description:
| Blue e+ chillers ensure centralised and efficient cooling of liquid media with a high level of temperature accuracy and innovative DC inverter technology
| Suitable for international use due to unique mulit-voltage capability (without rewiring) and high operating limits
| Maximum reliability thanks to integral overflow valve and monitoring sensors
| Intuitive operation due to touch display and intelligent interfaces

| Compact and modular layout ensures minimum footprint
| Pumps with highly efficient IE3 motors

Operating temperature range (environment):
| +5°C...+50°C

Refrigerant/cooling medium:
| R513A

PART NUMBER	COOLING OUTPUT (W)*	WIDTH MM	HEIGHT MM	DEPTH MM	RATED OPERATING VOLTAGE (V - HZ)
3320200	2500	400	820	670	380 - 450, 3~, 50 440 - 480, 3~, 60
3334300	4000	450	820	670	380 - 450, 3~, 50 440 - 480, 3~, 60
3334400	5500	450	1000	670	380 - 450, 3~, 50 440 - 480, 3~, 60

ENCLOSURE HEATERS

Product description:

| SK Enclosure PTC heater, 8-150 W without fan, 250-800 W with fan, 110-240 V, 1~, 50/60 Hz, with quick connection terminal
| Special voltages available on request
| For precise temperature control inside the enclosure, we recommend the enclosure internal thermostat or the digital enclosure internal temperature display and theromostat.

| In order to prevent condensation on assembly, a hygrostat is recommended to regulate heating.

Without Fan-Continuous Thermal Output 8-150 W

PART NUMBER	OPERATING THERMAL OUTPUT (W @ TU=10°C)	WIDTH MM	HEIGHT MM	DEPTH MM	OPERATING VOLTAGE (50/60HZ)	PRE-FUSE T
3105310	8 - 10	45	120	46	110-240V	2A
3105320	18 - 20	45	120	46	110-240V	2A
3105330	23 - 30	64	155	56	110-240V	4A
3105340	49 - 50	64	155	56	110-240V	4A
3105350	63 - 75	64	230	56	110-240V	4A
3105360	86 - 100	90	165	75	110-240V	4A
3105370	130 - 150	90	180	75	110-240V	4A

With Fan-Continuous Thermal Output 250-800 W

PART NUMBER	OPERATING THERMAL OUTPUT (W @ TU=10°C)	WIDTH MM	HEIGHT MM	DEPTH MM	OPERATING VOLTAGE (50/60HZ)	PRE-FUSE T
3105410	250	103	200	103	110	4A
3105380	250	103	200	103	230	4A
3105420	400	103	200	103	110	6A
3105390	400	103	200	103	230	6A
3105430	800	103	200	103	110	10A
3105400	800	103	200	103	230	6A

CLIMATE CONTROL ACCESSORIES

Filter Mats (for cooling units, air/air heat exchangers and chillers)

PART NUMBER	UNIT	DIMENSIONS MM	PACK OF
3286110	3302300/ 3302310	190 x 95 x 10	3
3286300	3302.../ 3303.../ 3361...	265 x 200 x 10	3
3286400	3304.../ 3305.../ 3328.../ 3329.../ 3332.../ 3366...	344 x 268 x 10	3
3286500	3273.../ 3382.../ 3383.../ 3384.../ 3385.../ 3359...	530 x 255 x 10	3
3286600	3386.../ 3387...	720 x 300 x 10	3
3253010	3377...	205 x 210 x 10	3
3285900	3186930 / 3187930 / 3188940 / 3189940	390 x 397 x 10	3

Metal Filters (for cooling units and chillers)
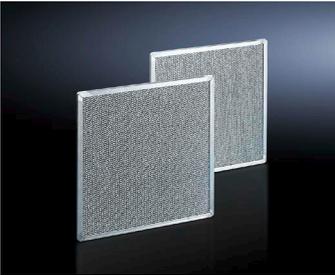
PART NUMBER	UNIT	DIMENSIONS MM	PACK OF
3286120	3302300/ 3302310	190 x 95 x 10	1
3286310	"3302100 / 3302110 / 3303.../ 3361..."	265 x 200 x 10	1
3286410	3304.../ 3305.../ 3328.../ 3329.../ 3332.../ 3366...	344 x 268 x 10	1
3286510	3273.../ 3382.../ 3383.../ 3384.../ 3385.../ 3359...	530 x 255 x 10	1
3286610	3386.../ 3387...	720 x 300 x 10	1
3285910	3186930 / 3187930 / 3188940 / 3189940	380 x 355 x 10	1
3285910	3186930 / 3187930 / 3188940 / 3189940	380 x 358 x 10	1

Chopped-Fibre Filter Mats (for fan/outlet filter)

PART NUMBER	FAN AND FILTER UNIT	FILTER CLASS DIN EN 779	PACK OF
3321700	3237...	G2	5
3322700	3238...	G2	5
3171100	3239...	G3	5
3172100	3240.../ 3241...	G3	5
3173100	3243.../ 3244...	G3	5
3174100	3138.../ 3139...../ 3140...	G3	12

Pleated Filter (for fan/outlet filter, cooling units and chillers)

PART NUMBER	UNIT	FILTER CLASS DIN EN 779	FILTER CLASS IEC 60 529	PACK OF
3171120	3239...	G4	IP 54	5
3172120	3240.../ 3241...	G4	IP 54	5
3173120	3240.../ 3241	G4	IP 54	5
3174120	3138.../ 3139.../ 3140...	M5	IP 54	12
3181125	3243.../ 3244.../ 3245...	-	IP 55	5
3182125	3239...	-	IP 55	5
3183125	3240.../ 3241...	-	IP 55	5
3238025	3243.../ 3244.../ 3245...	-	IP 55	5
3285700	3185.030/ 3185.730	G4	IP 54	3
3285940	3320.200/ 3334.300/ 3334.400	G3	-	3
3322720	3238...	G4	IP 54	5

CLIMATE CONTROL ACCESSORIES

IoT Interface

The IoT interface is used to link Rittal components such as Blue e+ cooling units, Blue e+ chillers, smart monitoring systems etc. to the customer's own monitoring and/or energy management systems. Data may be integrated both horizontally and vertically into data collectors and processors, to allow the long-term logging and evaluation of device data, statuses and system messages.

PART NUMBER	WIDTH MM	HEIGHT MM	DEPTH MM
3124300	18	117	120

Hose Proof Hood (for TopTherm fans and filter units)

Hose proof hood Stainless Steel (304) for TopTherm Fan and Filter units IP 56 when fitted over fan-and-filter unit/outlet filter with filter mat

PART NUMBER	FOR FAN AND FILTER UNIT	WIDTH MM	HEIGHT MM	DEPTH MM
3237080	3237...	150	230	40
3238080	3238...	176	245	55
3239080	3239...	233	330	55
3240080	3240.../ 3241...	282	390	85
3243080	3243.../ 3244...	350	480	110
3245080	3245...	350	480	160

Control Regulation (for TopTherm fans and filter units)

PART NUMBER	DESCRIPTION	PACK OF
3110000	Thermostat	1
3118000	Hygrostat	1

Air Duct System (for roof-mounted cooling units)

PART NUMBER	FOR UNIT	PACK OF
3286870	3209.../ 3210.../ 3273.../ 3359.../ 3382.../ 3383.../ 3384.../ 3385...	1
3286970	3386.../ 3387...	1

Metal Louvres

PART NUMBER	FOR UNIT	PACK OF
2541235	LOUVRE PLATE 160X110MM RAL7035	4
XAURWB504	S/S LOUVRE PLATE 126W X 114H	1

RITTAL

POWER DISTRIBUTION

aps

RI4POWER

Modular system

| For low-voltage switchgear with design verification to IEC 61 439-1/-2
| For control systems and power distributors
| Structured system solution for switch gear with Form separation 1-4b
| Simple, installation-friendly configuration of the system

Busbar systems up to 5500 A

| RiLine - The compact busbar system up to 1600 A
| Maxi-PLS - The assembly-friendly system
| Flat-PLS - The flat busbar system for discerning requirements
| Tested PE conductor system

Modular enclosure system

| Based on enclosure platform TS 8
| Flexible, modular front design
| Roof plates to suit most requirements
| Modular compartment configuration for internal compartmentalisation up to Form 4b
| Internal cover plates, contact hazard protection for NH fuse-switch-disconnector sections Form 2b
| Accessories for Ri4Power

Simple planning

| Rittal Power Engineering with update function
| Configuration of low-voltage switchgear with design verification
| Simple, fast assembly with automatically generated assembly plan
| Generation of parts list with graphical output

RILINE ACCESSORIES

RiLine Busbar Assembly

DESIGNATION	DESCRIPTION	SUB-DESCRIPTION	QTY /PACK	800A FLAT CU, 30X10 PART NUMBER	1600A PLS CU PART NUMBER
	Busbar support	3P	4	9340000	9342000
	Busbar support	4P	4	9340004	9342004
A	End covers	3P	2	9340070	9342070
A	End covers	4P	2	9340074	9342074
B	Base tray, 1100mm	3P	2	9340130	9342130
B		4P	2	9340134	9342134
D	Cover sections, 1100mm	3P	2	9340210	9340210
D	Cover sections, 1100mm	4P	2	9340214	9340214
E	Support panels	3P	5	9340220	9340220
E	Support panels	4P	5	9340224	9340224
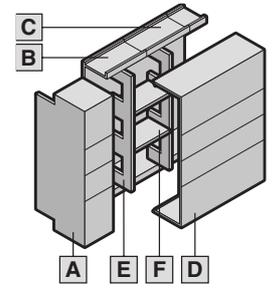
PLS Special Cu Busbars, 1600A

RATING	DESCRIPTION	LENGTH	QUANTITY/PACK	PART NUMBER
1600A	PLS cu busbars	L = 1750 mm	1	9675240
1600A	PLS cu busbars	L = 1950 mm	1	9675242
1600A	PLS cu busbars	L = 2400 mm	1	3516000
	Busbar sleeves, 30x10, 1M		4	3092000
	Busbar sleeves, 60x10, 1M		2	3085000

Cable Connection Adaptors

RATING	DESCRIPTION	QUANTITY/ PACK	PART NUMBER
63A, 3P	63A, 690V Top connect, 2.5-10mm2 Round Conductor	1	9342200
63A, 3P	63A, 690V Bottom connect, 2.5-10mm2 Round Conductor	1	9342210
125A, 3P	125A, 690V Top/Bottom connect, 10-35mm2 Round, clamping area 10 x 7.8 mm	1	9342240
250A, 3P	250A, 690V Top/Bottom connect, 35-120mm2, clamping area 18.5 x 15.5 mm	1	9342270
600A, 3P	600A, 690V Top/Bottom connect, 35-240mm2, clamping area 24 x 21 mm	1	3439010
800A, 3P	800A, 690V Top/Bottom connect, 95-300mm2, clamping area 33 x 20 mm	1	9342310
800A, 1P	800A, 690V Expansion set to make 4P 95-120mm2, clamping area 33 x 21/26 mm	1	9342314
1600A, 3P	1600A, 690V Top/Bottom connect, 65 x 27 x 5 mm, clamping area 65 x 22 x 10 mm	1	9342320
1600A, 1P	1600A, 690V Expansion set to make 4P 65 x 22/27mm	1	9342324

MCCB Adaptors

RATING	DESCRIPTION	QUANTITY/ PACK	PART NUMBER
100A, 3P	100A Bottom connect, 10 - 35 mm2, 10 x 7.8mm Cu	1	9342410
125A, 3P	125A Bottom connect, 35 - 120 mm2, 18.5 x 15.5mm Cu	1	9342550
160A, 3P	160A Bottom connect, 35 - 120 mm2, 18.5 x 15.5mm Cu	1	9342510
250A, 3P	250A Bottom connect, with copper connection tails	1	9345610
400A, 3P	400A Bottom connect, with copper connection tails	1	9345730
630A, 3P	630A Bottom connect, with copper connection tails	1	9345710

RILINE ACCESSORIES

Overload Motor (OM) Adaptors

RATING	DESCRIPTION	QUANTITY/PACK	PART NUMBER
16A, 3P	16A OM Adaptor with connection cables, 45W x 272H, AWG 12	1	9340760
25A, 3P	25A OM Adaptor with connection cables, 45W x 208H, AWG 12	1	9340320
32A, 3P	32A OM Adaptor with connection cables, 45W x 272H, AWG 10	1	9340770
32A, 3P	32A OM Adaptor with connection cables, 55W x 208H, AWG 10	1	9340470
40A, 3P	40A OM Adaptor with connection cables, 55W x 272H, AWG 8	1	9340730
40A, 3P	40A OM Adaptor with connection cables, 75W x 208H, AWG 8	1	9340710
65A, 3P	65A OM Adaptor with connection cables, 55W x 272H, AWG 6	1	9340450
65A, 3P	65A OM Adaptor with connection cables, 75W x 208H, AWG 6	1	9340700

Overload Motor (OM) Accessories

DESCRIPTION	QUANTITY/PACK	PART NUMBER
Connection pin	20	9340280
Insert strip	2	9340290
Sliding blocks	6	9342640
Connection brackets	3	9342570

RiLine Accessories

Conductor Connection Clamps

BAR THICKNESS	DESCRIPTION	QTY/PACK	PART NUMBER
10mm	Conductor connection clamps, Push In 1.5-16 mm2	10	3456505
	Laminated flexable copper bar 415A, W:15,5 x H:4,8 mm, L: 2000 mm	1	3568005
	Laminated flexable copper bar 605A, W:24 x H:5 mm, L: 2000 mm	1	3571005
	Laminated flexable copper bar 920A, W:24 x H:10 mm, L: 2000 mm	1	3572005
	Laminated flexable copper bar 1155A, W:32 x H:10 mm, L: 2000 mm	1	3574005
	Laminated flexable copper bar 1635A, W:50 x H:10 mm, L: 2000 mm	1	3578005
	Universal support, for laminated copper bar, WH: 20x5-63x10 mm	3	3079000
	Busbar support, 2-pole, 60 mm bar centre distance, for busbar WH: 12x5 - 30x10 mm, E & N	4	9340040

Note: All above items are indent products (2-3 weeks via air freight)

PERFOREX CUSTOM SOLUTIONS

CUSTOM SOLUTIONS FROM STANDARD RITTAL STEEL ENCLOSURES

As the national distributor of Rittal enclosures, we understand that some projects require unique solutions. Our APS

Modification service is here to meet those needs.

Our modification program allows for precise customisations of small, medium, and large Rittal enclosures. Whether you need cutouts for fans and filters, push buttons, or multi-pole connectors, our advanced Perforex machine and skilled modification team will tailor the enclosures to your exact specifications.

How to Place an Order:

1. Reference the Rittal enclosure part number (xxxx.xxx).
2. Attach detailed drawings and specifications. We accept files in Eplan, DWG, DXF, or Rittal Configurator formats.
3. Ensure all cutouts, holes, and thread specifications are clearly indicated.

For projects that demand something different, our APS Modification service provides the precise, customized solutions you need. Ask about our optional fitting of fans and filters to ensure your enclosure meets all your requirements.
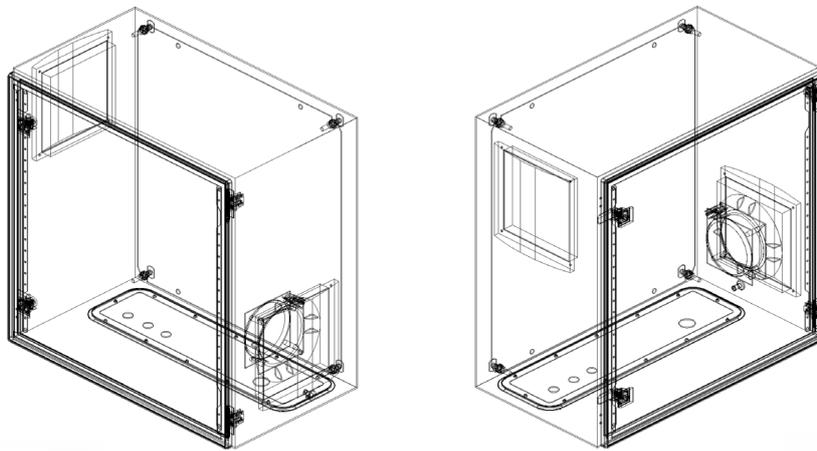
Scan the QR Code or follow the ▶ YouTube link below to see the drilling and milling centres from Rittal Automation Systems in action.

https://www.youtube.com/watch?v=6FbjYGjactM

190

FAST AND RELIABLE MACHINING AND ASSEMBLY SERVICE

MODIFICATION CENTRE

When it comes to industrial enclosures, one size does not fit all. Each application is unique, every industry has its own demands and requirements, and companies striving to compete on a global stage or in a variant-rich marketplace must be flexible and agile to respond to unpredictable market forces.

APS's commitment to industry-leading products and services goes beyond supplying modular enclosures. We offer best-in-class custom modifications that not only help companies meet the demands of their industry but also aid in better understanding their business potential and goals by reengineering their value chain.

This is where APS's value proposition as a partner in the industrial enclosure and automation space becomes clear. Simply put, we supply the most efficient and durable enclosures on the market, and we customize them to exact specifications in a cost-effective and scalable manner.

STATE-OF-THE-ART EQUIPMENT

Perforex MT2201S:
A 4-axis CNC machine renowned for its precision and Reliability.

Automated Machining:
Ensures accuracy and consistency in every cut.

Wide Work-piece Holder:
Perfect for handling fully welded enclosures.

VERSATILE CAPABILITIES

Hole Drilling:
Perfectly positioned and accurately sized holes.

Tapping:
Flawless tapping of threads for secure fastening.

Cut-Outs:
Custom shapes and sizes to meet your specific requirements.
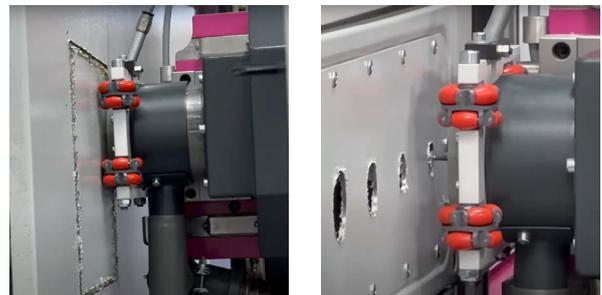
COST-EFFECTIVE

Reduce Manual Labor:
Save on time and labour costs with our automated system.

IDEAL FOR VARIOUS APPLICATIONS

Electrical Enclosures, Control Panels, Junction Boxes

CONFIGURATION MADE EASY

Large industrial enclosures

Small and compact enclosures

rittal.com/au-en/Rittal-Configuration-System

Weidmüller

WIRING & CONTROL

PUSH IN TECHNOLOGY (A-SERIES)

Build with the best with Weidmuller's Klippon Connect range.
It's our unwavering commitment to quality that has made Weidmuller the name synonymous with terminals in Australia & New Zealand for over 50 years.
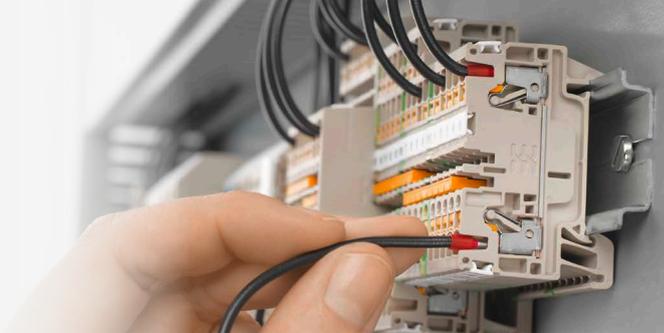
Series / family		Application	mm²	Levels	Connections per level	Description	Standard	Blue	Earth	End Plate
A-series PUSH IN	A2C A3C	Feed Through	1.5	1	2	A2C 1.5	1552790000	1552820000	1552680000	1552600000
					3	A3C 1.5	1552740000	1552770000	1552670000	1552620000
					4	A4C 1.5	1552690000	1552700000	1552660000	1552640000
				2	2	A2T 1.5	2469370000	2471430000	2469410000	2469420000
					3	A3T 1.5	2816930000	2816940000	2818000000	2816950000
	A2T A3T		2.5	1	2	A2C 2.5	1521850000	1521880000	1521680000	1514400000
					3	A3C 2.5	1521740000	1521780000	1521670000	1521510000
					4	A4C 2.5	1521690000	1521700000	1521540000	1521530000
				2	2	A2T 2.5	1547610000	1547620000	1547680000	1547690000
					3	A3T 2.5	2428510000	2428520000	2428550000	2428560000
	A2T DT/DT A4C		4	1	2	A2C 4	2051180000	2051210000	2051360000	2051680000
					3	A3C 4	2051240000	2051280000	2051410000	2051720000
					4	A4C 4	2051500000	2051520000	2051560000	2051900000
				2	2	A2T 4	2539970000	2540040000	2539990000	2540000000
			6		2	A2C 6	1992110000	1991790000	1991810000	1991970000
					3	A3C 6	1991820000	1991830000	1991850000	1991940000
	A2T DT-FT-PE ADT		10	1	2	A2C 10	2490360000	2490370000	2490440000	2490380000
					3	A3C 10	2490520000	2490510000	2490590000	2490530000
			16		2	A2C 16	2494000000	2494100000	2494010000	2490380000
					3	A3C 16	2494090000	2494080000	2494020000	2490530000
		Disconnect	1.5	1	2	ADT 1.5 2C	2918260000	-	-	1552620000
					3	ADT 1.5 3C	2918270000	-	-	2918290000
			2.5		2	ADT 2.5 2C	1989800000	1989810000	-	1521530000
					3	ADT 2.5 3C	1989830000	1989840000	-	1989970000
	A2T DT-FT-PE ADT				4	ADT 2.5 4C	1989860000	1989870000	-	1989980000
				2	2	A2T 2.5 DT/DT	2744110000	2744120000	-	2744150000
			4	1		ADT 4 2C	2429850000	2429880000	-	2051720000
		Disconnect & Feed Through	4	2	2	A2T 4 DT-FT	2831520000	-	-	2817060000
						A2T 4 DT-FT-PE	2831530000	-	-	
	AFS A2T FS-FT-PE	Fuse (5x20)	4	2	2	AFS 4 2C BK	2429860000	-	-	2486640000
						AFS 4 2C 10-36V BK	2429870000	-	-	
						AFS 4 2C 100-250V BK	2434390000	-	-	
		Fuse (5x20) & Feed Through				A2T 4 FS-FT BK	2816960000	-	-	2817060000
						A2T 4 FS-FT-PE BK	2817010000	-	-	
A-Series High Current		Feed Through	35	1	2	A2C 35	2551510000	2552090000	2551520000	Not Required
		3-phase + N			8	A2C 35 3FT-N	2552130000	-	-	
		3-phase + N + PE			10	A2C 35 3FT-N-PE	2551540000	-	-	
		Feed Through	50/70		2	A2C 50/70	2663250000	2663260000	2663280000	
		3-phase + N			8	A2C 50/70 3FT-N	2663300000	-	-	
		Feed Through	95/120		2	A2C 95/120	2694060000	2694070000	2694090000	
		3-phase + N			8	A2C 95/120 3FT-N	2694120000	-	-	

Series / family		mm²	Description	Red	White	Blue	Black	Orange	Yellow
Colour versions		2.5	A2C 2.5	1521900000	1521970000	1521880000	1521980000	1521930000	1521940000
		4	A2C 4	2051220000	2051290000	2051210000	2051310000	2051230000	2051250000

Series / family		mm²	Colour	2-pole	3-pole	4-pole	5-pole	10-pole	20-pole	50-pole
ZQV Cross-connectors		1.5	Orange	1985410000	1985480000	1985490000	1985500000	1985580000	1985600000	1985620000
			Red	1985650000	1985670000	1985690000	1985710000	1985800000	1985810000	1985590000
			Blue	1985530000	1985550000	1985570000	1985590000	1985680000	1985700000	1985720000
		2.5	Orange	1527540000	1527570000	1527590000	1527620000	1527690000	1527720000	1527730000
			Red	2108470000	2108690000	2108700000	2108710000	2108910000	2108920000	2109000000
			Blue	1527740000	1527770000	1527780000	1527790000	1527880000	1527890000	1527920000
		4	Orange	1527930000	1527940000	1527970000	1527980000	1528090000	2883800000	1528130000
			Red	2460450000	2460810000	2460800000	2460790000	2460740000	2810860000	2460730000
			Blue	1528040000	1528080000	1528120000	1528140000	1528230000	2810850000	1528240000
		6	Orange	1985740000	1985760000	1985780000		2733970000		
		10		2497250000						
		16		2497290000						
		35		2634950000						

PUSH IN TECHNOLOGY (A-SERIES)

Build with the best with Weidmuller's Klippon Connect range.
It's our unwavering commitment to quality that has made Weidmuller the name
synonymous with terminals in Australia & New Zealand for over 50 years.

The **AAP series can be used to easily provide high density control power distribution to your 24VDC consumers.** Simply pick your Feed-in with 6mm² or 10mm² input, and add extension terminals if more load connections are required.

Series / family		Feed-in Size Input	Distribution Size Output loads	Application	Description	Red	Blue	Earth	End Plate
Control Voltage Distribution		1 x 6mm²	6 x 1.5mm²	Feed in + Distribution	AAP11 6/6X1.5 LO-LI	**2464690000**	2464750000	2464740000	1988320000
		-		Extension	AAP11 1.5 LI	**1988160000**	1988170000	-	
		1 x 10mm²	4 x 2.5mm²	Feed in + Distribution	AAP12 10/4X2.5 LO-LI	**2464730000**	2464720000	2464710000	1988300000
		-		Extension	AAP12 2.5 LI	**1988290000**	1988100000	-	

AIO high-density instrumentation terminals. The AIO instrument terminals provide high density connection of signals between the field and PLC.

Series / family		mm²	Levels	Terminal Configuration	Application	Description	Standard	End Plate
Signal Wiring PUSH IN A-Series		1.5	2	1 x Red, 1 x Blue, 1 x Signal feedthrough pair	Instrumentation wiring, sensor to PLC	AIO21 1.5 SO	**1992240000**	1993580000
				1 x Red, 1 x Blue, 1 x Earth, 1 x Signal feedthrough pair		AIO21 1.5 SI	**1992260000**	
			3	1 x Red, 1 x Blue, 2 x Signal feedthrough pairs		AIO23 1.5 2SI	**1992220000**	1993600000

Series / family		Matching Terminal	Description	Part Number
Accessories Partition Plates		A2C 1.5, A2C 2.5	APP 1	**2488970000**
		A3C 1.5, A4C 1.5, A3C 2.5, A4C 2.5, A2C 4, A3C 4, A2C 6, ADT 4	APP 2	**2489090000**
		A3C 6, AAP11, AAP13, AIO21	APP 3	**2489100000**
		A2T 1.5, A2T 2.5	APP 4	**2489110000**

Series / family		Matching Terminal	Description	Part Number
Accessories Warning Labels		1.5m²	AAM 1.5 YELLOW FLASH	**2635520000**
		2.5mm²	AAM 2.5 YELLOW FLASH	**2635550000**
		4mm²	AAM 4 YELLOW FLASH	**2635560000**
		6mm²	AAM 6 YELLOW FLASH	**2635570000**
		10mm²	AAM 10 YELLOW FLASH	**2635580000**
		16mm²	AAM 16 YELLOW FLASH	**2635590000**
		35-185mm²	AAM 35-185 YELLOW FLASH	**2635600000**

Series / family		mm²	Colour	2-pole	3-pole	4-pole	5-pole	10-pole	20-pole	50-pole
ZQV Cross-connectors		1.5	Orange	1985410000	1985480000	1985490000	1985500000	1985580000	1985600000	1985620000
			Red	1985650000	1985670000	1985690000	1985710000	1985800000	1985810000	1985820000
			Blue	1985530000	1985550000	1985570000	1985590000	1985680000	1985700000	1985720000
		2.5	Orange	1527540000	1527570000	1527590000	1527620000	1527690000	1527720000	1527730000
			Red	2108470000	2108690000	2108700000	2108710000	2108910000	2108920000	2109000000
			Blue	1527740000	1527770000	1527780000	1527790000	1527880000	1527890000	1527920000
		4	Orange	1527930000	1527940000	1527970000	1527980000	1528090000	2883800000	1528130000
			Red	2460450000	2460810000	2460800000	2460790000	2460740000	2810860000	2460730000
			Blue	1528040000	1528080000	1528120000	1528140000	1528230000	2810850000	1528240000

AAP Control Voltage Distribution

AIO Instrumentation Terminals

PUSH IN TECHNOLOGY (A-SERIES)

Klippon A-Series with side PUSH IN connection.
Enjoy the advantages of PUSH IN technology with the increased wiring visibility and decreased installation height with side-entry wiring.

Series / family			Application	mm²	Levels	Connections per level	Description	Standard	Blue	Earth	End Plate
AL-Series PUSH IN Side Entry			Feed Through	2.5	1	2	AL2C 2.5	2847200000	2847210000	2847590000	2871750000
						3	AL3C 2.5	2847330000	2847340000	2847600000	2871770000
						4	AL4C 2.5	2847460000	2847470000	2847610000	2871790000
				4		2	AL2C 4	2847710000	2871870000	2847740000	2871810000
						3	AL3C 4	2847720000	2871990000	2847750000	2871830000
						4	AL4C 4	2847730000	2872110000	2847770000	2871850000
			Disconnect	2.5	1	2	ALDT 2.5 2C	2898660000	2898670000	-	2898830000
						3	ALDT 2.5 3C	2898700000	2898710000	-	2898850000
				4		2	ALDT 4 2C	2898740000	2898750000	-	2898890000
			Fuse (5x20)	4	1	2	ALFS 4 2C BK	2898780000	-	-	2898890000
							ALFS 4 2C 10-36V BK	2898790000	-	-	
							ALFS 4 2C 100-250V BK	2898820000	-	-	

TTB current transformer test/disconnect terminals. Isolate current tranformers safely and easily with the Klippon TTB series. Featuring new make-before-break functionality, CT testing and maintenance can be performed as simple as turning a switch!

Series / family		mm²	Phases	Application	Screw Terminal	Part Number	PUSH-IN	Part Number
TTB Current transformer disconnect kits		6	1	Single phase CT metering	WTTB CT KIT 1PH	7940127529	ATTB CT KIT 1PH	7940127934
			3	3-phase CT metering with or without earth	WTTB CT KIT 3PH	7940127530	ATTB CT KIT 3PH	7940127935
			3+E		WTTB CT KIT 3PH+E	7940127531	ATTB CT KIT 3PH+E	7940127936
			3+N+E	3 Phase + Neutral CT metering with earth	WTTB CT KIT 3PH+N+E	7940127938	ATTB CT KIT 3PH+N+E	7940127937
			3+E+VT	3 Phase CT + voltage feedthrough metering with earth	WTTB CT KIT 3PH+E+VT	7940127532	ATTB CT KIT 3PH+E+VT	7940128855
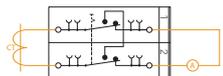
Wiring of current transformer and ammeter
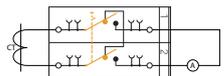
Switching the lever link
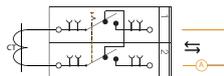
Replacing the ammeter
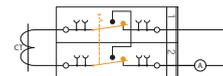
Restoring the lever link back into original position

SCREW TECHNOLOGY (W-SERIES)

We set the standard for screw clamp technology.
Our W-Series range has been the most popular and reliable screw connection terminal favoured across Australia & New Zealand for more than 50 years.

Series / family		Application	mm²	Levels	Connections per level	Description	Standard	Blue	Earth	End Plate
W-series Screw Terminal	WDU 2.5, WTR 2.5, WDTR 2.5, WFS 4, WSI 6, WSI 4, W2C 4, W2T	Feed Through	2.5	1	2	WDU 2.5 ●●	1020000000	1020080000	1010000000	1050000000
				2		WDK 2.5 ●	1021500000	1021580000	1036300000	1059100000
						WDK 2.5 ZQV ●	1041100000	1041180000	-	
						WDK 2.5N ●	1041600000	1041680000	1041620000	1084000000
				3		DLD 2.5 DB	1784180000	6269250000	-	1784210000
			4	1		WDU 4 ●●	1020180000	1020180000	1010100000	1050000000
				2		WDK 4N ●	1041900000	1041980000	1041920000	1084000000
			6	1		WDU 6 ●	1020200000	1020280000	1010200000	1050000000
			10			WDU 10 ●	1020300000	1020380000	1010300000	
			16			WDU 16 ●	1020400000	1020480000	1010400000	1050100000
			35			WDU 35 ●	1020500000	1020580000	1010500000	
			50			WDU 50N	1820840000	1820850000	1846040000	-
			70			WDU 70N/35	9512190000	9512420000	9512200000	-
			70/95			WDU 70/95	1024600000	-	1037300000	-
			95/120			WDU 95N/120N	1820550000	-	1846030000	-
			120/150			WDU 120/150	1024500000	-	1019700000	-
			240			WDU 240	1802780000	-	-	-
		Disconnect	2.5	1	2	WTR 2.5 ●	1855610000	8731640000	-	1050000000
						WTR 2.5 STB2.3 ●●	1855620000	8731660000	-	
				2		WDTR 2.5	2456000000	2456010000	-	
			4	1		WTR 4 ●	7910180000	7910190000	-	1050000000
						WTR 4 STB ●●	7910210000	7910220000	-	
		Fuse (5x20)	2.5	1	2	WTR 2.5/SI ●	1763940000	-	-	
			4			WFS 4 ●	2561900000	-	-	
						WSI 4	1886580000	-	-	-
						W2C 4 FS BK ●	2892920000	-	-	2894230000
				2		W2T 4 FS-FT BK STB ●●	2894000000	-	-	2894260000
			6	1		WSI 6	1011000000	1011080000	-	1050000000
						WSI 6/LD 10-36V DC/AC	1011300000	-	-	

● With test socket
● Supports WQV cross connect
● Supports ZQV cross connect

Series / family		mm²	Connections	Stud Thread	Application	Description	Part Number
WFF Stud terminal		35	2	M6	Stud terminal with protective covers	WFF 35/AH	1029300000
		70		M8		WFF 70/AH	1029400000
		120		M10		WFF 120/AH	1029500000
		185		M12		WFF 185/AH	1029600000
		300		M16		WFF 300/AH	1029700000

Series / family		mm²	Colour	2-pole	3-pole	4-pole	5-pole	10-pole	20-pole	50-pole
ZQV Cross-connectors		2.5	Orange	1527540000	1527570000	1527590000	1527620000	1527690000	1527720000	1527730000
			Red	2108470000	2108690000	2108700000	2108710000	2108910000	2108920000	2109000000
			Blue	1527740000	1527770000	1527780000	1527790000	1527880000	1527890000	1527920000
		4	Orange	1527930000	1527940000	1527970000	1527980000	1528090000	2883800000	1528130000
			Red	2460450000	2460810000	2460800000	2460790000	2460740000	2810860000	2460730000
			Blue	1528040000	1528080000	1528120000	1528140000	1528230000	2810850000	1528240000

Series / family		mm²	Colour	2-pole	3-pole	4-pole	5-pole	10-pole	20-pole	50-pole
WQV Cross-connectors		2.5	Yellow	1053660000	1053760000	1053860000	1053960000	1054460000	1577570000	-
		4		1051960000	1054560000	1054660000	1057860000	1052060000	-	-
		6		1052360000	1054760000	1054860000	1062660000	1052260000	-	-
		10		1052560000	1054960000	1055060000	2091130000	1052460000	-	-
		16		1053260000	1055160000	1055260000	-	1053360000	-	-
		35		1053060000	1055360000	1055460000	-	1053160000	-	-

SCREW TECHNOLOGY (W-SERIES)

We set the standard for screw clamp technology.
Our W-Series range has been the most popular and reliable screw connection terminal favoured across Australia & New Zealand for more than 50 years.

Series / family			mm²	Connections per level	Levels	Application	Description	Standard	Earth	End Plate
W-Series DCS Marshalling	W2C FT / W2C FT PE	W2C DT / W2C DT PE	4	2	1	Feed Through	W2C 4 FT STB ● ●	**2892680000**	**2892700000**	**2894210000**
						Disconnect	W2C 4 DT STB ● ●	**2892770000**	**2892820000**	**2894210000**
	W2C FS / W2C FS PE					Fuse (5x20)	W2C 4 FS BK STB ● ●	**2892930000**	**2893130000**	**2894230000**
	W2T DT-FT / W2T DT-FT PE				2	Disconnect + Feed Through	W2T 4 DT-FT STB ● ●	**2893720000**	**2893740000**	**2894240000**
	W2T FS-FT / W2T FS-FT PE					Fuse (5x20) + Feed Through	W2T 4 FS-FT BK STB ● ●	**2894000000**	**2894100000**	**2894260000**

● With test socket
● Supports ZQV cross connect

Series / family		mm²	Colour	2-pole	3-pole	4-pole	5-pole	10-pole	20-pole	50-pole
ZQV Cross-connectors		4	Orange	**1527930000**	**1527940000**	**1527970000**	**1527980000**	**1528090000**	**2883800000**	**1528130000**
			Red	**2460450000**	**2460810000**	**2460800000**	**2460790000**	**2460740000**	**2810860000**	**2460730000**
			Blue	**1528040000**	**1528080000**	**1528120000**	**1528140000**	**1528230000**	**2810850000**	**1528240000**

WPD Phase Distributor. WPD feed-in terminal blocks allow for an easy and safe installation of aluminium and copper conductors in a small footprint.

Series / family		Feeder Size mm²	Connections	Application	Grey (white)	Red	Blue	Black
WPD Phase Distributor		25	1x25mm² + 1x16mm² / 2x16mm² + 3x10mm²	Phase Distribution	**1562000000**	**2725260000**	**2518250000**	**2725360000**
		35	1x35mm² + 1x16mm² / 2x25mm² + 3x16mm²		**1562170000**	**2725310000**	**2518540000**	**2725410000**
		70	1x70mm² / 2x25mm² + 3x16mm²		**1562210000**	**2725340000**	**2518570000**	**2725440000**
		95	1x95mm² / 2x35mm² + 8x25mm²		**1562220000**	**2725350000**	**2521730000**	**2725450000**
		120	1x120mm² / 2x35mm² + 3x25mm² + 4x16mm²		**1562100000**	**2725280000**	**2519480000**	**2725380000**
		185	1x185mm² / 2x35mm² + 3x25mm² + 4x16mm²		**1562090000**	**2725270000**	**2519490000**	**2725370000**

Series / family		Matching Terminal	Description	Part Number
Accessories Test Plug		*With test socket	PS 2.3 RT	**0180400000**

See page 32 for marking solutions

TERMINAL ACCESSORIES

Build with the best with Weidmuller's Klippon Connect range.
It's our unwavering commitment to quality that has made Weidmuller
the name synonymous with terminals in Australia for over 50 years.

Series / family	Size	Type	Height	Material	Length	Description	Part Number
DIN Rail	TS 15	Slotted	5.5mm	Steel, zinc plated, passivated	2m	TS 15X5/LL 2M/ST/ZN	0117500000
	TS 32	No Slot	15mm	Steel, zinc plated, passivated		TS 32X15 2M/ST/ZN	0122800000
		Slotted				TS 32X15/LL 2M/ST/ZN	0514400000
		No Slot		Stainless steel		TS 32X15 2M/CRN	0293220000
				Aluminium		TS 32X15 2M/AL/BK	0169300000
	TS 35	No Slot	7.5mm	Steel, zinc plated, passivated		TS 35X7.5 2M/ST/ZN	0383400000
		Slotted				TS 35X7.5/LL 2M/ST/ZN	0514500000
						TS 35X7.5/LL/6 2M/ST/ZN	0514570000
		No Slot		Stainless steel		TS 35X7.5 2M/CRN	1747350000
				Aluminium		TS 35X7.5 2M/AL/BK	0330800000
		No Slot	15mm	Steel, zinc plated, passivated		TS 35X15 2M/ST/ZN	0236400000
		Slotted				TS 35X15/LL 2M/ST/ZN	0236500000
						TS 35X15/6X18 2M/ST/ZN	1805980000
		No Slot		PVC		TSK 35X15 2M PVC/GR	0514300000

Series / family	Size	Type	Height	Material	Description	Part Number
DIN Rail End Cap	TS 35	7.5mm	7.5mm	Polypropylene	TS END CAP 35X7.5	1283470000
		15mm	15mm		TS END CAP 35X15	1283480000

Series / family	Terminal Series	Application	Description	Standard	Black
End Bracket	A	End Bracket Screw Clamp	AEB 35 SC/1	1991920000	2475310000
AEB 35 SC/1 WEW 35/1	W		WEW 35/1	1059000000	1162600000
WEW 35/2 AEB 35			WEW 35/2	1061200000	1061210000
	A	Snap On	AEB 35 SCL/1 V0	2661280000	2661300000
ZEW 35 ZEW 35/2	Z		ZEW 35	9540000000	-
			ZEW 35/2	8630740000	1162610000

Series / family	Size	Rated Current	Characteristics	Description	Part Number
Fuse cartridge	5 x 20	0.1A	Fast Blow 1.5kA breaking capacity	G 20/0.10A/F	0430300000
		0.2A		G 20/0.20A/F	0430400000
		0.25A		G 20/0.25A/F	0430500000
		0.5A		G 20/0.50A/F	0430600000
		0.63A		G 20/0.63A/F	0439000000
		1A		G 20/1.00A/F	0430700000
		1.6A		G 20/1.60A/F	0430800000
		2A		G 20/2.00A/F	0430900000
		2.5A		G 20/2.50A/F	0431000000
		3.15A		G 20/3.15A/F	0431100000
		4A		G 20/4.00A/F	0431200000
		5A		G 20/5.00A/F	0431300000
		6.3A		G 20/6.30A/F	0431400000

Series / family	Type	Description	Part Number
Fuse Holder	Fuse holder	ZST 1	1269070000

Series / family	Width	Application	Description	Part Number
Tag Holder	7.2mm	Suits WEW 35/2, ZEW 35, AEB 35 SC/1	EM 8/30	1806120000
	9.5mm	Group marker carrier, DIN mount	SCHT 5 S	1631930000
	19.5mm		SCHT 5	0292460000

POWER SUPPLIES

Reliable production requires a reliable power source. We have solutions to suit your simpliest control board to your most complex and critical plant operations.

Series / family		Voltage	Output	Description	Single Phase	Three Phase
PRObas	Entry level, for general industrial loads	5V DC	6A	PRO BAS 30W 5V 6A	2838400000	-
		12V DC	2.6A	PRO BAS 30W 12V 2.6A	2838510000	-
			5A	PRO BAS 60W 12V 5A	2838420000	-
			10A	PRO BAS 120W 12V 10A	2838450000	-
		24V DC	1.3A	PRO BAS 30W 24V 1.3A	2838500000	-
			2.5A	PRO BAS 60W 24V 2.5A	2838410000	-
			5A	PRO BAS 120W 24V 5A	2838440000	-
			10A	PRO BAS 240W 24V 10A	2838460000	-
			20A	PRO BAS 480W 24V 20A	2838480000	-
		48V DC	5A	PRO BAS 240W 48V 5A	2838470000	-
			10A	PRO BAS 480W 48V 10A	2838490000	-
PROeco	Standard range, wide range options for single and 3-phase	12V	6A	PRO ECO 72W 12V 6A	1469570000	-
			10A	PRO ECO 120W 12V 10A	1469580000	-
		24V	3A	PRO ECO 72W 24V 3A	1469470000	-
			5A	PRO ECO 120W 24V 5A	1469480000	-
				PRO ECO3 120W 24V 5A	-	1469530000
			10A	PRO ECO 240W 24V 10A	1469490000	-
				PRO ECO3 240W 24V 10A	-	1469540000
			20A	PRO ECO 480W 24V 20A	1469510000	-
				PRO ECO3 480W 24V 20A	-	1469550000
			40A	PRO ECO 960W 24V 40A	1469520000	-
				PRO ECO3 960W 24V 40A	-	1469560000
		48V	5A	PRO ECO 240W 48V 5A	1469590000	-
			10A	PRO ECO 480W 48V 10A	1469610000	-
PROmax	Mid Level, 300% top boost for demanding loads	5V	14A	PRO MAX 70W 5V 14A	1478210000	-
		12V	6A	PRO MAX 72W 12V 6A	1478220000	-
			10A	PRO MAX 120W 12V 10A	1478230000	-
		24V	3A	PRO MAX 72W 24V 3A	1478100000	-
			5A	PRO MAX 120W 24V 5A	1478110000	-
				PRO MAX3 120W 24V 5A	-	1478170000
			7.5A	PRO MAX 180W 24V 7.5A	1478120000	-
			10A	PRO MAX 240W 24V 10A	1478130000	-
				PRO MAX3 240W 24V 10A	-	1478180000
			20A	PRO MAX 480W 24V 20A	1478140000	-
				PRO MAX3 480W 24V 20A	-	1478190000
			40A	PRO MAX 960W 24V 40A	1478150000	-
				PRO MAX3 960W 24V 40A	-	1478200000
		48V	5A	PRO MAX 240W 48V 5A	1478240000	-
			10A	PRO MAX 480W 48V 10A	1478250000	-
			20A	PRO MAX 960W 48V 20A	1478270000	-
PROtop	Top Level, 600% top boost, High Reliability, for heavy loads and circuit breaker tripping. Direct parallel connection without diode module via built-in ORing MOSFET	12V	10A	PRO TOP1 120W 12V 10A	2466910000	-
				PRO TOP1 120W 12V 10A EX ●	2467020000	-
		24V	3A	PRO TOP1 72W 24V 3A	2466850000	-
				PRO TOP1 72W 24V 3A CO ●	2466970000	-
			5A	PRO TOP1 120W 24V 5A	2466870000	-
				PRO TOP3 120W 24V 5A	-	2467060000
				PRO TOP1 120W 24V 5A EX ●	2466980000	-
				PRO TOP3 120W 24V 5A CO ●	-	2467070000
			10A	PRO TOP1 240W 24V 10A	2466880000	-
				PRO TOP3 240W 24V 10A	-	2467080000
				PRO TOP1 240W 24V 10A EX ●	2466990000	-
				PRO TOP3 240W 24V 10A CO ●	-	2467090000
			20A	PRO TOP1 480W 24V 20A	2466890000	-
				PRO TOP3 480W 24V 20A	-	2467100000
				PRO TOP1 480W 24V 20A EX ●	2467000000	-
				PRO TOP3 480W 24V 20A CO ●	-	2467110000
			40A	PRO TOP1 960W 24V 40A	2466900000	-
				PRO TOP3 960W 24V 40A	-	2467120000
				PRO TOP1 960W 24V 40A EX ●	2467010000	-
				PRO TOP3 960W 24V 40A CO ●	-	2467130000
		48V	10A	PRO TOP1 480W 48V 10A	2467030000	-
				PRO TOP3 480W 48V 10A	-	2467150000
				PRO TOP1 480W 48V 10A EX ●	2467040000	-
				PRO TOP3 480W 48V 10A CO ●	-	2467160000
			20A	PRO TOP1 960W 48V 20A	2466920000	-
				PRO TOP3 960W 48V 20A	-	2467170000
				PRO TOP1 960W 48V 20A CO ●	2467050000	-
				PRO TOP3 960W 48V 20A CO ●	-	2467180000

DC/DC CONVERTER

Flexible, reliable and safe in every environment.
Our buffer modules, redundancy modules and DC/DC converters improve the reliability and flexibility of your systems

Series / family		Nominal Voltage	Redundancy Type	Technology	Voltage Drop	Description	Part Number
Redundancy Modules	PRO DM10 PRO RM10 PRO RM 40	0-60 VDC	2 x 10A	Diode	Vin - 0.7V	PRO DM 10	2486070000
			2 x 20A			PRO DM 20	2486080000
		12 / 24 VDC	2 x 10A	MOSFET	< Vin - 0.2V	PRO RM 10	2486090000
			2 x 20A			PRO RM 20	2486100000
			2 x 40A			PRO RM 40	2486110000

Series / family		Nominal Input	Min/Max Voltage Input	Nominal Output	Min/Max Voltage Output	Rated Current	Description	Part Number
DC/DC Converter	PRO DCDC 10A PRO TOPDC 10A	12 VDC	9-18V DC	12V DC	5-15V DC	8A	PRO DCDC 96W 12V/12V 8A	2869000000
				24V DC	22-29V DC	5A	PRO DCDC 120W 12V/24V 5A	2869030000
		24V DC	18-32V DC	12V DC	5-15V DC	8A	PRO DCDC 96W 24V/12V 8A	2869010000
				24V DC	22-29V DC	5A	PRO DCDC 120W 24V 5A	2001800000
							PRO TOPDC 24V/24V 5A	2627650000
						10A	PRO DCDC 240W 24V 10A	2001810000
							PRO TOPDC 24V/24V 10A	2627640000
						20A	PRO DCDC 480W 24V 20A	2001820000
							PRO TOPDC 24V/24V 20A	2627630000
				48V DC	29-56V DC	5A	PRO DCDC 240W 24V/48V 5A	2869050000
					45-56V DC	10A	PRO TOPDC 24V/48V 10A	2627660000
		48V DC	28-58V DC	12V DC	5-15V DC	8A	PRO DCDC 96W 48V/12V 8A	2869020000
				24V DC	22-29V DC	5A	PRO DCDC 120W 48V/24V 5A	2869040000
				48V DC	29-56V DC	5A	PRO DCDC 240W 48V/48V 5A	2869060000

Series / family		Voltage	Output	Phase	Description	Part Number
PRO INSTA	Compact, for small loads and light control	5V	6A	1	PRO INSTA 30W 5V 6A	2580210000
		12V	2.6A		PRO INSTA 30W 12V 2.6A	2580220000
			5A		PRO INSTA 60W 12V 5A	2580240000
		24V	0.7A		PRO INSTA 16W 24V 0.7A	2580180000
			1.3A		PRO INSTA 30W 24V 1.3A	2580190000
			2.5A		PRO INSTA 60W 24V 2.5A	2580230000
			4A		PRO INSTA 96W 24V 4A	2580260000
		48V	2A		PRO INSTA 96W 48V 2A	2580270000

Power Supply Surge Protection

Series / family		Network	Voltage	Imax (8/20us)	Application	Fault Contact	Description	Part Number
Accessories		1-phase	240 VAC	20kA	Power supply surge protection	Yes	VPU AC II+III 1+1 R 275/20 S	2907940000
		3-phase					VPU AC II+III 3 R 275/20 S	2907880000

DC UPS

Avoid costly machine downtimes machine downtimes. Weidmüller's uninterruptible power supplies reliably protect 24 V DC consumers from power failures and voltage drops, which can affect system availability. Together with the associated battery module and the power supply unit, the UPS control unit forms a complete DC UPS system with backup times in the range of minutes to hours.

DC Buffering

1. If your duration is short (<5s), consider using a buffer module, otherwise consider a DC UPS.
2. Determine your maximum load current and maximum buffering time.
3. Refer to the battery selection table to choose the most suitable battery to go with your DC UPS.

Series / family		Nominal Voltage	Rated Current	Buffer Duration	Technology	Description	Part Number
DC UPS		24V DC	20A	-	VRLA charger	DC UPS 24V 10/20A	**1370050010**
			40A			DC UPS 24V 40A	**1370040010**
UPS Battery	DC UPS Controller PRO DC Buffer	24V DC	15A	6 min @ 5A	VRLA AGM	DURA ECO LA-BAT 24V 1.2AH	**2789890000**
			25A	10 min @ 10A		DURA ECO LA-BAT 24V 3.4AH	**2789900000**
			50A	23 min @ 10A		DURA ECO LA-BAT 24V 7AH	**2789910000**
				50 min @ 10A		DURA ECO LA-BAT 24V 12AH	**2789920000**
				72 min @ 10A		DURA ECO LA-BAT 24V 17AH	**2789930000**
Buffer Module		24V DC	20A	320ms @ 20A	Capacitor	PRO DC BUFFER 24V 20A	**2786240000**
			40A	230ms @ 40A		PRO DC BUFFER 24V 40A	**2786250000**

Battery selection graph

DURA ECO LA-BAT 24V 12AH
DURA ECO LA-BAT 24V 17AH
DURA ECO LA-BAT 24V 1.2AH
DURA ECO LA-BAT 24V 3.4AH
DURA ECO LA-BAT 24V 7AH

Wiring Diagram

Non-safe loads
Temperature sensor
Safe loads
Mains voltage
Interlock

Status of digital outputs
1 ○ Alarm
2 ○ Buffering
3 ● Charging
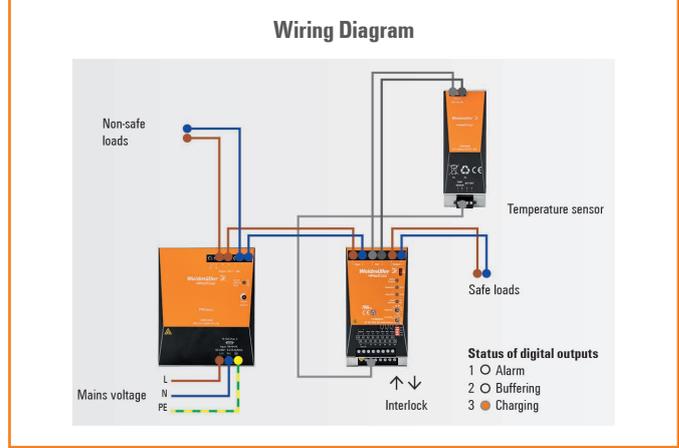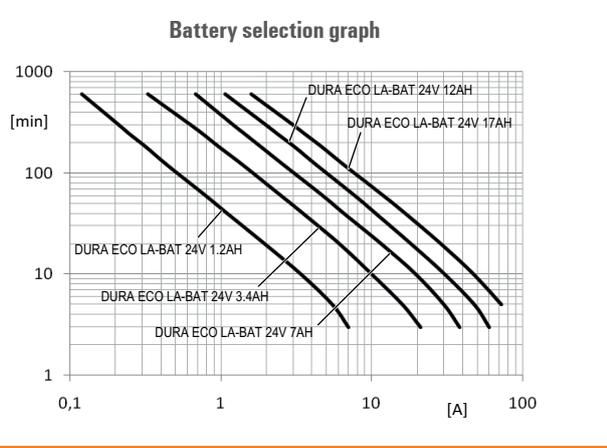
ELECTRONIC FUSE

maxGUARD. The modular electronic fuse. Protect your control voltage distribution with the flexible and modular maxGUARD electronic fuse terminal range.
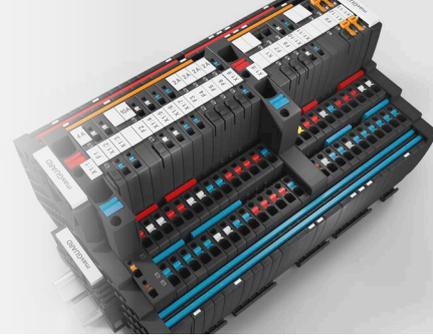
Series / family		Function	Description	Part Number
maxGUARD Feed in modules	AMG FIM	Feed in module basic. 40A max.	AMG FIM-O	2081870000
		Feed in module with remote reset and alarm. 40A max	AMG FIM-C	2081880000

Series / family			Function	Description	Part Number
maxGUARD function modules	AMG CM	AMG AM	Optional control module, with remote reset, alarm, >90% pre-warning alarm, ON/OFF. Use with AMG FIM-O	AMG CM	2081900000
			Optional alarm module with relay contacts for trip alarm & >90% pre-warning	AMG AM	2081890000

Series / family		Nominal Voltage	Rated Current	Adjustable	Description	Part Number
maxGUARD Electronic fuse modules	AMG ELM 1-6A AMG ELM 10-18A	24V DC	1A	Fixed	AMG ELM-1F	2080420000
			2A		AMG ELM-2F	2080480000
			4A		AMG ELM-4F	2080490000
			6A		AMG ELM-6F	2080500000
			8A		AMG ELM-8F	2080600000
			10A		AMG ELM-10F	2080650000
			0.1A, 0.2A, 0.5A, 0.8A, 1A	Yes	AMG ELM-1 LIM CL2 EX	2838530000
			1A, 2A, 3A, 4A, 6A		AMG ELM-6	2080360000
			4A, 6A, 8A, 10A, 12A		AMG ELM-12	2080410000
			10A ,12A ,14A, 16A,18A		AMG ELM-18	2859800000
			1A, 2A, 3A, 4A, 6A		AMG ELM-6D CO	2082440000
			4A, 6A, 8A, 10A		AMG ELM-10D CO	2082470000

Series / family		Poles	Description	Red	Blue	Orange
Cross Connect		10	ZQV 4N/10	2460740000	1528230000	1528090000
		50	ZQV 4N/50	2460730000	1528240000	1528130000

maxGUARD modular Electronic Fuse

1. Select feed in module depending if you need remote reset or not.
2. Select your required electronic fuse cards depending on your loads. Keep in mind not to exceed 40A max.
3. Select your cross connects for the positive, negative and communication channels. If the total current is >20A, you will need to use 2 cross connects each for the positive and negative channels.

Notes:
- Maximum limit of 25 fuse modules on a single AMG FIM-C or AMG CM module.
- EX, conformal coated fuses and additional accessories are available from the full catalogue.

2 Function Built-in Feed In Module

4 Function Control Module
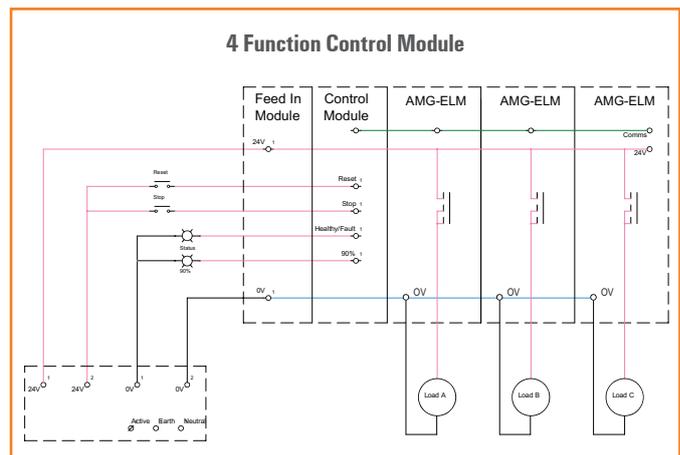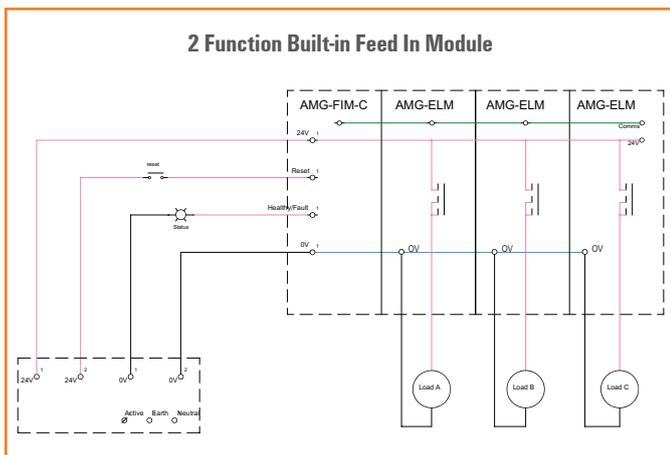
INDUSTRIAL ETHERNET SWITCHES

Stable process control requires a stable communication base.
Weidmüller's range of industrial ethernet switches provide the perfect link for data communication between Ethernet enabled devices in industrial automation. We offer a wide range of products to suit requirements in industrial networking.

Series / family		RJ45 Ports	Fibre Ports	SFP Ports	Speed	Temperature	Application	Power	Description	Part Number
B-Series Unmanaged Switch		5	-	-	10/100	-10°C to 60°C	Entry level networking applications, PROFINET conformance class A	12-48VDC, 24VAC	IE-SW-ELB-05-5TX	**2828540000**
		8	-	-	10/100				IE-SW-ELB-08-8TX	**2828550000**
		5	-	-	Gigabit				IE-SW-ELB-05-5GT	**2828560000**
		8	-	-	Gigabit				IE-SW-ELB-08-8GT	**2828570000**
		4	-	1	10/100				IE-SW-ELB-05-4TX-1FESFP	**2828590000**
		6	-	2	10/100				IE-SW-ELB-08-6TX-2FESFP	**2828600000**
		16	-	-					IE-SW-ELB-16-16TX	**2828580000**
Ecoline Unmanaged Switch		5	-	-	10/100	-40°C to 75°C	General Networking Applications	12-48VDC, 24VAC redundant	IE-SW-EL05-5TX	**2682130000**
		8	-	-	10/100				IE-SW-EL08-8TX	**2682140000**
		5	-	-	Gigabit			12-48VDC redundant	IE-SW-EL05-5GT	**2682210000**
		4	-	1	Gigabit				IE-SW-EL05-4GT-1GESFP	**2682220000**
		8	-	-	Gigabit		Compact Width		IE-SW-EL08-8GT	**2682230000**
		8	-	-	Gigabit		Compact Height		IE-SW-EL08-8GT-MINI	**2705000000**
		6	2 x SC MM	-	10/100		General Networking Applications	12-48VDC	IE-SW-EL08-6TX-2SC	**2682170000**
		6	2 x SC SM	-					IE-SW-EL08-6TX-2SCS	**2682180000**
		16	-	-	10/100+ 2xGigabit			12-48VDC redundant	IE-SW-EL16-16TX	**2682150000**
		14	-	2					IE-SW-EL16-14TX-2FESFP	**2682160000**
		18	-	2					IE-SW-EL18-16TX-2GC	**2682200000**
		24	-	-	10/100				IE-SW-EL24-24TX	**2682190000**
		8	-	2	Gigabit				IE-SW-EL10-8GT-2GESFP	**2682240000**
Ecoline PoE Switch		4	2 x SC MM	-	10/100	-40°C to 75°C	PoE 802.3af/at	12-48VDC redundant	IE-SW-EL6-4PoE-2SC	**2682390000**
		8	-	-	10/100				IE-SW-EL8-8PoE	**2682380000**
		8	-	-	Gigabit		Gigabit PoE 802.3af/at 120W Budget		IE-SW-EL8-8GTPoE	**2682400000**
		8	-	2	Gigabit				IE-SW-EL10-8GTPoE-2GESFP	**2682410000**
		2	-	-	Gigabit		Gigabit PoE Injector 802.3af/at 60W Budget		IE-INJ-EL02-2GTPOE	**2682440000**
AdvancedLine Managed Switch		5	-	-	10/100	-40°C to 75°C	Lite Managed, Economical Ring Switch	12-48VDC redundant	IE-SW-AL05LM-5TX	**2682250000**
		4	2 x SC MM	-					IE-SW-AL06LM-4TX-2SC	**2682260000**
		4	2 x SC SM	-					IE-SW-AL06LM-4TX-2SCS	**2682270000**
		8	-	-			General Managed Networking		IE-SW-AL08M-8TX	**2682280000**
		16	-	-					IE-SW-AL16M-16TX	**2682310000**
		24	-	-					IE-SW-AL24M-24TX	**2682320000**
		8	-	-	10/100+ 2xGigabit				IE-SW-AL08M-6TX-2GT	**2682290000**
		10	-	2	10/100+ 2xGigabit Combo				IE-SW-AL10M-8TX-2GC	**2740420000**
		18	-	2					IE-SW-AL18M-16TX-2GC	**2682330000**
		8	-	-	Gigabit		Profinet & Ethernet/IP Protocol Support		IE-SW-AL8M-8GT	**2682350000**
		8	-	4	Gigabit				IE-SW-AL12M-8GT-4GESFP	**2682340000**
		12	-	2	Gigabit				IE-SW-AL14M-12GT-2GESFP	**2682360000**
		16	-	8	Gigabit				IE-SW-AL24M-16GT-8GESFP	**2682370000**
AdvancedLine Managed PoE Switch		4	-	2	Gigabit	-40°C to 75°C	Gigabit PoE 802.3af/at 120W budget	12-48VDC redundant	IE-SW-AL06M-4GTPOE-2GESFP	**2682430000**
		8	-	-	Gigabit				IE-SW-AL08M-8GTPOE	**2682420000**

Series / family		Speed	Mode	Distance	Description	Part Number
SFP Modules		10/100mb/s	Multimode	2km	IE-SFP-1FE-MM-2	**2682450000**
			Singlemode	30km	IE-SFP-1FE-SM-30	**2682460000**
				60km	IE-SFP-1FE-SM-60	**2682470000**
		Gigabit	Multimode	0.5km	IE-SFP-1GE-MM-05	**2682480000**
				2km	IE-SFP-1GE-MM-2	**2682490000**
			Singlemode	10km	IE-SFP-1GE-SM-10	**2682500000**
				40km	IE-SFP-1GE-SM-40	**2682510000**

Series / family		Network	Voltage	Class	Imax (8/20us)	Application	Description	Part Number
Accessories		Data	48 VDC	-	10kA	Cat6A cabling, suitable for PoE devices to 802.3at/af/bt	VDATA CAT6	**1348590000**
		Data				Cat5E cabling, suitable for PoE devices to 802.3at/af/bt	VDATA CAT5E	**2916360000**

RACKMOUNT SWITCHES AND ROUTERS

Stable process control requires a stable communication base.
Managed switches supporting energy industry requirements of 61850-3

Series / family	RJ45 Ports	SFP Ports	Speed	Application	Power	Description	Part Number
61850-3 DIN Mount Managed Switch	10	3	10/100+ 3xGigabit Combo	IEC 61850-3 Substation	12 / 24 / 48 VDC	IE-SW-SL10M-7TX-3GC-LV	**2778960000**
					110/220 VDC 110/230 VAC	IE-SW-SL10M-7TX-3GC-HV	**2778950000**
	8	12	Gigabit		12 / 24 / 48 VDC	IE-SW-SL20M-8GT-12GESFP-LV	**2778980000**
					110/220 VDC 110/230 VAC	IE-SW-SL20M-8GT-12GESFP-HV	**2778970000**
61850-3 19" Rackmount Managed Switch	24	2	10/100+ 2xGigabit Combo	IEC 61850-3 Substation	24 / 28 VDC	IE-SW-SL26M-24TX-2GC-LV	**2779000000**
					110/220 VDC 110/230 VAC	IE-SW-SL26M-24TX-2GC-HV	**2778990000**

Series / family	Total Slots	Application	Power	Description	Part Number
61850-3 19" Modular Rackmount Managed Switch	4 (M1, M2, M3, M4)	IEC 61850-3 Substation	24 / 28 VDC	IE-SW-SL28M-LV	**2779020000**
			110/220 VDC 110/230 VAC	IE-SW-SL28M-HV	**2779010000**
61850-3 19" Modular Rackmount Layer 3 Managed Switch	4 (M1, M2, M3, M4)	IEC 61850-3 Substation, routing	24 / 28 VDC	IE-SW-L3-SL28M-LV	**2875590000**
			110/220 VDC 110/230 VAC	IE-SW-L3-SL28M-HV	**2875580000**

Series / family	Port Type	Supported Slots	Application	Description	Part Number
Modular Plug-in modules	8 x 10/100/1000 BaseT(X) RJ45	M1, M2, M3	To suit IE-SW-SL28M series	IE-SWM-SL08-8GT	**2779140000**
	8 x 100/1000Base SFP			IE-SWM-SL08-8GESFP	**2779150000**
	4 x 100BaseFX SC			IE-SWM-SL04-4SC	**2779170000**
	4 x 100BaseFX SCS			IE-SWM-SL04-4SCS	**2779160000**
	4 x 100BaseFX ST			IE-SWM-SL04-4ST	**2779190000**
	4 x 100BaseFX STS			IE-SWM-SL04-4STS	**2779180000**
	4 x 1000Base SFP	M4		IE-SWM-SL04-4GESFP	**2779200000**
	2 x 10GBaseSFP+			IE-SWM-SL02-2GESFP+	**2779210000**
	4 x 10GBaseSFP+			IE-SWM-SL04-4GESFP+	**2779220000**

Series / family	Ports	Function	Application	Power	Description	Part Number
Routers and 4G	2 x RJ45 + 1 x RS232/422/485 + 2DI + 1DO	Wifi 802.11b/g/n	Wifi Security Router	12 / 24 / 48 VDC, PoE	IE-SR-2TX-WL	**2682590000**
		Wifi 802.11b/g/n, 4G LTE	Wifi 4G Security Router		IE-SR-2TX-WL-4G-EU	2682560000

Series / family	Ports	Supported Protocols	Application	Power	Description	Part Number
Universal Gateway Protocol Converter	2 x RJ45 + 2 x RS232/RS485	Ethernet/IP (client), Modbus TCP (client/server), Modbus RTU (client/server), Modbus ASCII (client/server), S7comm (ISOTCP client),	Simultaneously converter between multiple protocols, enables communication between different fieldbuses and PLCs offered by Rockwell, Siemens, Schneider and more	12-24V DC	IE-UGW-2TX-2RS232/485	**7940124932**
	2 x RJ45 + 4 x RS232/RS485				IE-UGW-2TX-4RS232/485	**7940124933**

Series / family	Ports	Application	Power	Description	Part Number
Serial to Ethernet Converter	2 x RJ45 + 1 x RS232/422/485	Serial to Ethernet Conversion. Modbus RTU to Modbus TCP conversion.	12 / 24 / 48 VDC	IE-CS-MBGW-2TX-1COM	**2682600000**

INDUSTRIAL ETHERNET CONNECTIVITY

Solutions for connection of Ethernet cabling.
Choose from a large number of interfacing options
for RJ45, Fibre Optic, USB and more.

Series / family				
DIN rail outlets	Type	RJ45-RJ45 Coupling	RJ45-RJ45 Coupling Angled	RJ45 Field Wireable
	Description	IE-TO-RJ45-C	IE-XM-RJ45/RJ45	IE-TO-RJ45-FJ-A
	Part Number	8946920000	8879050000	8946930000
	Type	RJ45 Field Wireable Angled	LC-LC Multimode	LC-LC Singlemode
	Description	IE-XM-RJ45/IDC	IE-TO-LCD-MM	IE-TO-LCD-SM
	Part Number	8808360000	8947010000	8947020000
	Type	ST-ST Fibre	SC-SC Multimode	SC-SC Singlemode
	Description	IE-XM-ST/ST	IE-TO-SCD-MM	IE-TO-SCD-SM
	Part Number	8808340000	8946970000	8946980000
	Type	RJ45 Coupling	Single pair Ethernet (SPE)	
	Description	IE-TO-RJ45-C-LP	IE-TO-SPO-C-LP	
	Part Number	2812440000	2870790000	
RJ45 plugs	Type	Field wireable Plug	Field wireable Plug with Cable Gland	Field wireable Plug 90°
	Description	IE-PS-RJ45-FH-180-A-1.6	IE-PS-RJ45-FH-180-A-1.6-CG	IE-PS-RJ45-FH-90-A-1.6
	Part Number	1992820000	2703390000	1992870000
FrontCom Micro Service Interface	Type	RJ45-RJ45 Coupling	RJ45 Field wireable	USB Type A Coupling
	Description	IE-FCM-RJ45-C	IE-FCM-RJ45-FJ-A	IE-FCM-USB-A
	Part Number	1018790000	1018810000	1018840000
	Type	USB Type A to Type B	USB 3.0 Coupling	Single pair Ethernet (SPE)
	Description	IE-FCM-USB-AB	IE-FCM-USB 3.0-A/A	IE-FCM-SPO-C
	Part Number	1222550000	1427960000	2870820000
IP67 Connectivity - Bayonet Metal	Type	Field wireable Plug	RJ45-RJ45 Coupling bulkhead	Field wireable bulkhead
	Description	IE-PS-V01M-RJ45-FH-BP	IE-BS-V01M-RJ45-C	IE-BS-V01M-RJ45-FJ-A
	Part Number	1963130000	1963470000	1963480000
IP67 Connectivity - Bayonet Plastic	Type	Field wireable Plug	RJ45-RJ45 Coupling bulkhead	Field wireable bulkhead
	Description	IE-PS-V01P-RJ45-FH	IE-BS-V01P-RJ45-C	IE-BS-V01P-RJ45-FJ-A
	Part Number	1012490000	1012370000	1012380000

INDUSTRIAL ETHERNET CONNECTIVITY

Solutions for connection of Ethernet cabling.
Choose from a large number of interfacing options
for RJ45, Fibre Optic, USB and more.

Series / family				
D-Coded M12 Connectors	**Type**	Field wireable Plug Screw	Field wireable Plug PUSH-IN	M12 D-code female to RJ45 Straight
	Description	SAISM-4/8S-M12-4P D-COD	SAISP-M-4D-4/8-M12	IE-M12-ADAP 2
	Part Number	**1892120000**	**2681680000**	**8901620000**
	Type	Field wireable Plug 90° Screw	Field wireable Plug 90° PUSH-IN	M12 D-code male to RJ45 Straight
	Description	SAISW-4/8S-M12-4P D-COD	SAISWP-M-4D-4/8-M12	IE-AD-M12DRJ45-MF-180
	Part Number	**1160550000**	**2681690000**	**1514970000**
X-Coded M12 Connectors	**Type**	Field wireable Plug	M12 X-code to RJ45 Straight	-
	Description	IE-PS-M12X-P-FH	IE-AD-M12XRJ45-180	-
	Part Number	**1324020000**	**1400620000**	-

Series / family		Type	Grey	Blue	Black	Green	Red	Magenta	Yellow
RJ45 Patch Cabling		0.5 m	1165940005	1165900005	1251610005	1251590005	1166030005	1201270005	1251580005
		1 m	1165940010	1165900010	1251610010	1251590010	1166030010	1201270010	1251580010
		1.5 m	1165940015	1165900015	1251610015	1251590015	1166030015	1201270015	1251580015
		2 m	1165940020	1165900020	1251610020	1251590020	1166030020	1201270020	1251580020
		3 m	1165940030	1165900030	1251610030	1251590030	1166030030	1201270030	1251580030
		5 m	1165940050	1165900050	1251610050	1251590050	1166030050	1201270050	1251580050
		10 m	1165940100	1165900100	1251610100	1251590100	1166030100	1201270100	1251580100

Series / family		Plastic Lid – Cabinet Key Lock	Metal Lid – Cabinet Key Lock
IP65 Service Interface Kits	**Type**	1x 10A GPO + 1xRJ45 + 1xUSB + Touch Protection	1x 10A GPO + 1xRJ45 + 1xUSB + Touch Protection
	Description	IE-FC-SET-IPAUS01-CAB-P	IE-FC-SET-IPAUS01-CAB-M
	Part Number	**7940127809**	**7940127810**

REMOTE IO

Meet the most innovative I/O system on the market, u-remote.
u-remote takes the most user-friendly I/O concept and combines this with
high-performance hardware in a compact size.

- Built-in webserver for easy configuration
- Dual RJ45 ports (Ethernet Models)
- Separated dual 10A Input/output power bus
- Integration with most major PLC Vendors, Allen Bradley, Siemens, Schneider

Series / family		Description	Function	Power Bus	Max Modules	Part Number
Fieldbus Coupler	EtherNet/IP	UR20-FBC-EIP	Ethernet/IP	10A input module bus & 10A output module bus, expandable with Power Feed modules	64 active I/O	1334920000
	EtherNet/IP	UR20-FBC-EIP-V2 ●	Ethernet/IP, DLR & PRP redundancy support			1550550000
	ModbusTCP	UR20-FBC-MOD-TCP-V2	Modbus TCP			2476450000
	PROFINET	UR20-FBC-PN-IRT-V2	PROFINET IO (IRT, RT), MRP, S2 redundancy			2566380000
	PROFIBUS	UR20-FBC-PB-DP-V2	PROFIBUS DP-V1			2614380000
	EtherCAT	UR20-FBC-EC	EtherCAT			1334910000

● DLR + PRP Redundancy supported

Series / family		Type	Channels	Function	Description	Part Number
I/O Slice		Digital Input	16	1-wire	UR20-16DI-P	1315200000
				1-wire, PLC ribbon interface	UR20-16DI-P-PLC-INT	1315210000
			8	2-wire	UR20-8DI-P-2W	1315180000
		Digital Output	16	1-wire	UR20-16DO-P	1315250000
				1-wire, PLC ribbon interface	UR20-16DO-P-PLC-INT	1315270000
			8	2-wire	UR20-8DO-P	1315240000
			4	Changeover relay	UR20-4RO-CO-255	1315550000
		Digital In/Out	8	2/3-wire configurable in/out	UR20-8DIO-P-3W-DIAG	2456530000
		Relay Output	4	Relay output, 250V 6A max	UR20-4RO-CO-255	1315550000
		Solid State Output	4	SSR output, 250VAC 1A max	UR20-4RO-SSR-255	1315540000
		Analogue Input	4	4-wire 4-20mA / 0-10V input 16bit	UR20-4AI-UI-16	1315620000
				4-wire 4-20mA / 0-10V input 16bit, diagnostic	UR20-4AI-UI-16-DIAG	1315690000
				4-wire 4-20mA input 16bit + HART	UR20-4AI-I-HART-16-DIAG	2617520000
		Analogue Output	4	4-wire 4-20mA / 0-10V output 16bit	UR20-4AO-UI-16	1315680000
				4-wire 4-20mA / 0-10V output 16bit, diagnostic	UR20-4AO-UI-16-DIAG	1315730000
		Temperature Input	4	4-wire RTD input	UR20-4AI-RTD-DIAG	1315700000
				2-wire Thermocouple input	UR20-4AI-TC-DIAG	1315710000
		Load Cell	2	4-wire Load cell input 24bit	UR20-2AI-SG-24-DIAG	1990070000
		Serial	1	RS232,485,422 + Modbus RTU	UR20-1COM-232-485-422-V2	2826800000
Power Feed		Power Feed	0	Input bus 10A	UR20-PF-I	1334710000
		Power Feed		Output bus 10A	UR20-PF-O	1334740000

*More modules models in full catalogue

CONTROLLERS AND HMI

Modular controls for industrial automation and IoT applications. Industry trend drives towards convergence of IT and OT systems. The modular u-control M3000 and M4000 control systems lead the way to the future. The powerful controller works as an edge device for providing local information in the network and can be expanded by connecting function modules – ideal for automation and IIoT applications.

Series / family		Software applications	Hardware Specifications	Connections	Operating Temperature	Expandability	Description	Part Number
Edge & IIoT Controller		CODESYS ●, Node-RED, Docker, Easyconnect, PROCON-Web, u-link, App Hub, edgeML	Dual core A9, 624 MHz, 512 Mbyte RAM, 4GB embedded flash, 32GB via microSD, RTC, 128 KB NVRAM	2 x RJ45, 1 x Micro USB	-20°C ~ 55°C	Yes, with UR20 I/O slices	UC20-WL2000-AC	1334950000
			Dual core A53, 1200 MHz, 2 GB RAM, 16GB embedded flash, 32GB via microSD, RTC, 128 KB NVRAM	2 x 1Gbps RJ45, 2 x USB-A, 1 x USB-C	-40°C ~ 70°C		UC20-M3000	2839150000
			Quad core A53, 1200 MHz, 4 GB RAM, 16GB embedded flash, 32GB via microSD, RTC, 512 KB NVRAM	4 x 1Gbps RJ45, 2 x USB-A, 1 x USB-C			UC20-M4000	2839160000
			Dual core A9, 600 MHz, 1 GB ram, 4GB embedded flash, RTC	2 x RJ45, 1 x USB-A 1 x RS232/422/485, 1 x CAN, 2 x DI, 1 x DO	-20°C ~ 60°C	No	IOT-GW30	2682620000
				4G-LTE, 2 x RJ45, 1 x USB-A 1 x RS232/422/485, 1 x CAN, 2 x DI, 1 x DO			IOT-GW30-4G-NA	2682640000

● Requires license

Series / family		Resolution	Screen Size	Touch Technology	Technology	Operating Temperature	IP Rating	Description	Part Number
HMI Touch Panel (HTML5)		1024 x 600	7"	Multi-touch P-CAP	ARM® Cortex™-A53, quad-core 1.6 GHz, 4GB DDR4 RAM, 16 GB eMMC storage	-20°C ~ 60°C	IP66 (front)	UV66-ADV-7-CAP-W-V2	2932870000
		1280 x 800	10"					UV66-ADV-10-CAP-W-V2	2933040000
		1920 x 1080	15.6"					UV66-ADV-15-CAP-W-V2	2932860000
			21.5"					UV66-ADV-21-CAP-W-V2	2987520000

Series / family		Type	Code Size	Max I/O Channels	Basic Features*	Modbus/CANopen instances	EIP/PN/ECAT Instances	MultiCore (up to..)	Part Number
CODESYS Licences		U-OS-CODESYS-BASIC-S	500 kB	64	✓	-	-	-	2924000000
		U-OS-CODESYS-BASIC-M	1 MB	128	✓	2	-	-	2924020000
		U-OS-CODESYS-BASIC-L	3 MB	256	✓	2	-	-	2924030000
		U-OS-CODESYS-STANDARD-S	3 MB	512	✓	4	1	-	2924040000
		U-OS-CODESYS-STANDARD-M	5 MB	1024	✓	4	1	-	2924050000
		U-OS-CODESYS-STANDARD-L	6 MB	2048	✓	4	2	2 Cores	2924060000
		U-OS-CODESYS-PERFORMANCE-M	8 MB	4096	✓	4	2	4 Cores	2924070000
		U-OS-CODESYS-PERFORMANCE-L	10 MB	8192	✓	4	4	4 Cores	2924080000

ENERGY METERING

Energy data acquisition with an excellent price-performance ratio.
The practical solution for monitoring basic electrical data of machines and systems.

Series / family		Inputs	Voltage Range (L-N)	Input Type	Accuracy Class	Communication	Mounting	Description	Part Number
Energy Metering		1-phase	176-276V AC	1A/5A CT	Class 1	Modbus RTU RS485, Pulse	DIN mount	EM110-RTU-2P	**7760051002**
				Direct connect 45A				EM111-RTU-2P	**7760051001**
		3-phase	138-276V AC	1A/5A CT	Class 0.5			EM120-RTU-2P	**7760051004**
				Direct connect 100A				EM122-RTU-2P	**7760051003**
			50-345V AC	1A/5A CT	Class 0.5s	Modbus RTU RS485, Pulse, 4DI, 2DO	Panel mount	EM220-RTU-4DI2DO	**7760051005**
						Modbus TCP, Modbus RTU RS485, Pulse, 4DI, 2DO		EM220-RTU-4DI2DO-GW	**7760051006**

Series / family		Primary Current	Secondary Current	Class	Description	Part Number
Current Transformer		60A	5A	1	CMA-31-60-5A-1,25VA-1	**2421380000**
		75A			CMA-31-75-5A-2,5VA-1	**1482040000**
		100A			CMA-31-100-5A-2,5VA-1	**1482030000**
		150A			CMA-31-150-5A-5VA-1	**2420960000**
		200A			CMA-31-200-5A-5VA-1	**2420950000**
		250A			CMA-31-250-5A-5VA-1	**2420940000**
		400A			CMA-31-400-5A-5VA-1	**2420920000**
		500A			CMA-31-500-5A-5VA-1	**2420910000**
		600A			CMA-31-600-5A-5VA-1	**2420900000**
		750A			CMA-31-750-5A-5VA-1	**2420890000**

Series / family		Input	Output	Accuracy	Application	Description	Part Number
Rogowski Transducer		100-5000A AC (using RCMA-B22 Rogowski Coil)	0-1A AC	<0.5% of measuring range	Rogowski coil transducer, for connection to 1A input energy meter	RCMC-5000-1A-P	**2593400000**

Series / family		Max Primary Current	Conductor Size	Cable Length	Application	Description	Part Number
Rogowski Coil		5000A AC	70 mm	4.5m	Rogowski coil, large diameter cables	RCMA-B22-D70-4.5	**2593340000**
			125 mm			RCMA-B22-D125-4.5	**2593350000**
			175 mm			RCMA-B22-D175-4.5	**2593360000**

TERMSERIES PLC RELAYS

Termseries, the all-rounder interposing relay for PLCs and controls.
Choose from a wide range of electromechanical relays and solid-state relays
in screw or PUSH IN connection.

Series / family	Coil Voltage	Load* Max	Con-tacts	Contact material	Application	Description	Screw	PUSH IN
Electromechanical Relay (TRS 1CO, TRS 2CO, TRS 1CO PB, TRP 1CO, TRS 1CO 16A)	5VDC	6A	1CO	AgNi	General purpose	TRS 5VDC 1CO	1122740000	2614830000
	12VDC	6A	1CO			TRS 12VDC 1CO	1122750000	2618180000
		8A	2CO			TRS 12VDC 2CO	1123480000	2618550000
	24VDC	6A	1CO			TRS 24VDC 1CO	1122770000	2618000000
		8A	2CO			TRS 24VDC 2CO	1123490000	2618400000
		6A	1CO	AgNi + Gold	Very low current / voltage switching	TRS 24VDC 1CO AU	1123000000	2618110000
		8A	2CO			TRS 24VDC 2CO AU	1123730000	2618530000
		6A	1NO	AgNi	Actuator switching	TRS 24VDC ACT	1381900000	2618230000
		16A	1CO		General purpose	TRS 24VDC 1CO 16A	1479680000	2618100000
		6A	1CO	AgSnO	Moderate inrush	TRS 24VDC 1CO AGSNO	1984540000	2618020000
		16A	1NO			TRS 24VDC 1NO HC	1479780000	2618090000
				AgSnO + W	Capacitive loads, LED drivers	TRS 24VDC 1NO HCP	1479810000	2617930000
		6A	1CO	AgSnO	General purpose + Test button	TRS 24VDC 1CO AGSNO PB	2855870000	2855800000
	24V AC/DC	6A	1CO	AgNi	General purpose	TRS 24VUC 1CO	1122780000	2618220000
		8A	2CO			TRS 24VUC 2CO	1123500000	2618320000
		6A	1CO	AgSnO	General purpose + Test button	TRS 24VUC 1CO AGSNO PB	2855890000	2855810000
		6A	1CO	AgNi + Gold	Very low current / voltage switching	TRS 24VUC 1CO AU	1123010000	2618160000
		8A	2CO			TRS 24VUC 2CO AU	1123740000	2618540000
	48V AC/DC	6A	1CO	AgNi	General purpose	TRS 48VUC 1CO	1122790000	2618240000
		8A	2CO			TRS 48VUC 2CO	1123510000	2618520000
	120V AC/DC	6A	1CO			TRS 120VUC 1CO	1122810000	2618010000
	230V AC/DC	6A	1CO			TRS 230VUC 1CO	1122820000	2618050000
		8A	2CO			TRS 230VUC 2CO	1123540000	2618440000
	230VAC	6A	1CO		AC switching with RC filter	TRS 230VAC RC 1CO	1122840000	2618200000
	24-230V AC/DC	6A	1CO		General purpose	TRS 24-230VUC 1CO	2662850000	2663010000
		8A	2CO			TRS 24-230VUC 2CO	2662880000	2663040000
		6A	1CO	AgSnO	General purpose + Test button	TRS 24-230VUC 1CO AGSNO ED2 PB	2855930000	2855910000
Solid State Relay	12VDC	100mA	1NO	Transistor	PLC I/O Interposing	TOS 12VDC 48VDC0.1A	1126930000	2618600000
	24VDC	100mA				TOS 24VDC 48VDC0.1A	1126940000	2618790000
		2A		MOSFET	High load switching	TOS 24VDC 24VDC2A	1127170000	2618720000
		3.5A				TOS 24VDC 24VDC3.5A	1127630000	2618700000
		5A				TOS 24VDC 24VDC5A	1990960000	2618840000
	230V AC/DC	100mA		Transistor	AC interposing	TOS 230VUC 48VDC0.1A	1126990000	2618690000
	24-230V AC/DC					TOS 24-230VUC 48VDC0.1A	1127020000	2663070000
		1A AC		TRIAC		TOS 24-230VUC 230VAC1A	1127500000	2663090000
Forcibly Guided Relay	24V AC/DC	6A	2CO	AgNi	Forcibly guided to EN 61810-3 type B	TRS 24VUC 2CO FG	2706290000	2706430000
Timer Relay	24VDC	6A	1CO	AgSnO	Timer - On Delay, One Shot, Blinker, 0-100s	TRS T 24VDC 1CO M3	2639560000	2639730000
Compact Relay (TRPL 1CO, TRPL 1NO FUSE)	24V DC	6A	1NO	AgNi	PLC Interposing, built-in Fuse (5x20)	TRPL 24VDC 1NO F	-	2773930000
	5VDC		1CO		Compact General Purpose	TRPL 5VDC 1CO	-	2774030000
	24VDC					TRPL 24VDC 1CO	-	2773890000
	24V AC/DC					TRPL 24VUC 1CO	-	2773970000
	12-60V AC/DC		1CO		Compact General Purpose	TRPL 12-60VUC 1CO	-	2773770000
	24-230V AC/DC					TRPL 24-230VUC 1CO	-	2773860000
	120V AC					TRPL 120VAC 1CO	-	2773800000
	230V AC					TRPL 230VAC 1CO	-	2773830000
Accessories (TIAL)	-	-	-	-	8 x 6mm relays. 10-pole connector	TIA F10 8X1CO	-	1463520000
	-	-	-	-	16 x 6mm relays. 20-pole connector	TIAL F20 16X1CO	-	1463550000
	-	-	-	-	8 x 12mm relays. 10-pole connector	TIAL F10 8X2CO	-	1463540000
	-	-	-	-	Partition Plate	TXL PP	-	2774090000
	-	-	-	-	Feedthrough module	TXPL FT	-	2774080000
	-	-	-	-	Supply module	TXPL S	-	2774100000

Series / family	Colour	2-pole	10-pole	51-pole	Series / family	26-pole
1CO (6mm wide relay)	Orange	2556350000	2556360000	2556370000	**2CO** (12mm wide relay)	2556380000
	Red	2556390000	2556400000	2556410000		2556420000
	Blue	2556430000	2556440000	2556450000		2556460000
	Black	2556470000	2556480000	2556490000		2556500000

GENERAL RELAYS

General purpose industrial relays.
Compact relays for use in general purpose switching applications
with a wide selection of stocked models suited to your load.

Series / family		Coil Voltage	Load Max	Contacts	Contact material	Application	Description	Part Number
DRI Industrial relay - 1 C/O with Test button, LED, diode* (DC)		12V DC	10A	1CO	AgSnO	General Purpose Industrial Relay	DRI 12VDC LDT/1CO	7760056314
		24V DC					DRI 24VDC LDT/1CO	7760056315
		48V DC					DRI 48VDC LDT/1CO	7760056316
		110V DC					DRI 110VDC LDT/1CO	7760056317
		24V AC					DRI 24VAC LT/1CO	7760056318
		115V AC					DRI 115VAC LT/1CO	7760056319
		230V AC					DRI 230VAC LT/1CO	7760056320
DRI Industrial relay - 2 C/O with Test button, LED, diode* (DC)		12V DC	5A	2CO			DRI 12VDC LDT/2CO	7760056339
		24V DC					DRI 24VDC LDT/2CO	7760056340
		48V DC					DRI 48VDC LDT/2CO	7760056341
		110V DC					DRI 110VDC LDT/2CO	7760056342
		24V AC					DRI 24VAC LT/2CO	7760056343
		115V AC					DRI 115VAC LT/2CO	7760056344
		230V AC					DRI 230VAC LT/2CO	7760056345

Series / family		Type	Description	Part Number	Description	Cross Connect	Cross connect
Base DRI		PUSH-IN	SDI 1CO P	7760056364	SCM/SDI P CC	2 way	7760056366
		Screw	SDI 1CO	7760056350	SRC-I QV S	8 way	1132070000
		PUSH-IN	SDI 2CO P	7760056365	SCM/SDI P CC	2 way	7760056366
		Screw	SDI 2CO	7760056351	SRC-I QV S	8 way	1132070000

Series / family		Coil Voltage	Load Max	Con-tacts	Contact material	Application	Description	Part Number
DRM Industrial relay - 2 C/O with Test button, LED, diode* (DC)		12V DC	10A	2CO	AgNi	General Purpose Industrial Relay	DRM 12VDC 2CO LT	7760056068
		24V DC					DRM 24VDC 2CO LT	7760056069
		48V DC					DRM 48VDC 2CO LT	7760056070
		110V DC					DRM 110VDC 2CO LT	7760056071
		24V AC					DRM 24VAC 2CO LT	7760056073
		115V AC					DRM 115VAC 2CO LT	7760056075
		230V AC					DRM 230VAC 2CO LT	7760056076
DRM Industrial relay - 4 C/O with Test button, LED, diode* (DC)		12V DC	5A	4CO			DRM 12VDC 4CO LT	7760056096
		24V DC					DRM 24VDC 4CO LT	7760056097
		48V DC					DRM 48VDC 4CO LT	7760056098
		110V DC					DRM 110VDC 4CO LT	7760056099
		24V AC					DRM 24VAC 4CO LT	7760056101
		115V AC					DRM 115VAC 4CO LT	7760056103
		230V AC					DRM 230VAC 4CO LT	7760056104

Series / family		Type	Description	Part Number	Description	Cross Connect	Cross connect
Base DRM		PUSH-IN	SCM 2CO P	7760056362	SCM/SDI P CC	2 way	7760056366
		Screw	SCM 2CO ECO	7760056263	SCM-I QV S	8 way	1132080000
		PUSH-IN	SCM 4CO P	7760056363	SCM/SDI P CC	2 way	7760056366
		Screw	SCM 4CO ECO	7760056264	SCM-I QV S	8 way	1132080000

Series / family		Coil Voltage	Load Max	Contacts	Contact material	Application	Description	Part Number
Safeseries Forcibly Guided Relays		24V DC	6A	3NO1NC	AgSnO + Au	Forcibly Guided Safety relay	FSKIT 24VDC 3NO1NC FG LD	2759070000
				2NO2NC			FSKIT 24VDC 2NO2NC FG LD	2759080000
				4NO2NC			FSKIT 24VDC 4NO2NC FG LD	2759090000
				3NO3NC			FSKIT 24VDC 3NO3NC FG LD	2759100000
				5NO1NC			FSKIT 24VDC 5NO1NC FG LD	2860020000
MICROOPTO Special Loads		24V DC	10A	1NO	Power MOSFET	10A Solenoid driver	MOS 24VDC/5-33VDC 10A	8937940000
			2A			2A Solenoid driver	MOS 24VDC/8-30VDC 2A	8937970000
			50mA		Transistor	High switching frequency	MOS 12-24VDC 100KHZ	8937990000
Timer Relays		24-230V AC/DC	5A	1CO	AgNi	Timer: on-delay, off-delay, single shot, clock generator, flip-flop. 0-10 h	ITS 24-240VUC 1CO M7C	2496190000
		12-230V AC/DC	8A			Timer: on-delay, off-delay, single shot, clock generator, flip-flop. 0-100 h	TFIS 12-240VUC 1CO M7C	2697250000

SIGNAL CONDITIONING

Interface between analogue signals and control.
The ACT20 series of analogue signal converters provide a wide range of conversion and isolation solutions for typical industry instrumentation or process requirements.

Series / family		Input Type	Output Type	Channels (in/out)	Size	Application	Power	Description	Part Number
ACT20 Series	ACT20M	4-20mA	4-20mA	1/1	6mm	General isolation	24VDC	ACT20M-CI-CO-S	1175980000
				1/2	6mm	General isolation		ACT20M-CI-2CO-S	1175990000
				1/1	12mm	HART transparent	24VDC	ACT20P-CI-CO-S	7760054114
				1/2	12mm	HART splitter		ACT20P-CI-2CO-S	7760054115
				2/2	12mm	HART transparent		ACT20P-2CI-2CO-12-S	7760054117
				1/1	6mm	Active input	Output loop	ACT20M-CI-CO-OLP-S	1176040000
				2/2	6mm	Active input		ACT20M-2CI-2CO-OLP-S	1176050000
				1/1	12mm	General isolation		ACT20P-CI2-CO-OLP-S	7760054119
				1/2	12mm	Loop splitter		ACT20P-CI-2CO-OLP-S	7760054122
				1/1	6mm	General isolation	Input loop	ACT20M-CI-CO-ILP-S	1176070000
				2/2	6mm			ACT20M-2CI-2CO-ILP-S	1176080000
				1/1	12mm			ACT20P-CI-CO-ILP-S	7760054123
				2/2	12mm			ACT20P-2CI-2CO-ILP-S	7760054124
	ACT20P-PRO	0-10V 4-20mA	0-10V 4-20mA	1/1	6mm	Active input	24VDC	ACT20M-AI-AO-S	1176000000
					6mm	Passive input		ACT20M-AI-AO-E-S	1176010000
				1/2		Active input splitter		ACT20M-AI-2AO-S	1176020000
					12mm	Active Input		ACT20P-AI-AO-DC-S	1477420000
				1/1	6mm			ACT20M-UI-AO-S ●	1176030000
		Universal Input	4-20mA		12mm	Universal programmable isolator	Output Loop	ACT20P-UI-AO-DO-LP-S ●	1453210000
			2 x 1CO Relay	1/2	22mm		24VDC	ACT20P-UI-2RCO-DC-S ●	7940045760
		0-300VDC 0-100mA	0...±20mA 0...±10V		12mm	Universal V/I converter push-button configurable	24-230V AC/DC	ACT20P-PRO DCDC II-S	1481970000
	ACT20P-CMT	RTD	0-10V 4-20mA	1/1	6mm	Temperature Transducer	24VDC	ACT20M-RTI-AO-S	1375510000
		Thermocouple						ACT20M-TCI-AO-S	1375480000
		RTD Thermocouple	4-20mA				Output loop	ACT20M-RTCI-CO-OLP-S	1435590000
		RTD Thermocouple Resistance Potentiometer	0...±20mA 0...±10V		12mm	Universal temperature converter push-button configurable	24-230V AC/DC	ACT20P-PRO RTCI-AO-DO-S	2448100000
		0-10A AC/DC	0-10V 4-20mA 1CO Relay		17mm	Direct Connect	24VDC	ACT20P-CML-10-AO-RC-S	2044850000
					22mm	Hall Effect Current Transducer		ACT20P-CMT-10-AO-RC-S	1510470000
		0-30A AC/DC						ACT20P-CMT-30-AO-RC-S	1510540000
		0-60A AC/DC						ACT20P-CMT-60-AO-RC-S	1510440000
		0-660VDC 0-440VAC	0-10V 4-20mA			Voltage measurement	24-230V AC/DC	ACT20P-VM-AO-S ●	7760054306
		0-400VAC	2 x 1CO Relay	1/2		1phase Phase Monitoring Relay		ACT20P-VMR-1PH-H-S	7760054164
		200-480VAC		3/2		3phase Phase Monitoring Relay	Line powered	ACT20P-VMR-3PH-ILP-H-S	7760054165
		Frequency: NPN/PNP, TTL, NAMUR, Contact, Tacho, 0-100kHz	0-10V 4-20mA	1/1	6mm	Frequency measurement	24VDC	ACT20M-FRQ-AO-X-S	2825130000
		Frequency: NPN/PNP, TTL, NAMUR, Contact, PWM, 0-200kHz	0...+- 20mA, 0...+-10V Digital output		12mm		24-230V AC/DC	ACT20P-PRO-FI-AO-DO-S	2447940000
ACT20X Hazardous Area	ACT20X	Safe Digital in	Hazardous Digital out	1/1	22mm	Limit switches, NAMUR from hazardous to safe area	24VDC	ACT20X-HDI-SDO-S	8965360000
								ACT20X-HDI-SDO-RNO-S	8965340000
				2/2				ACT20X-2HDI-2SDO-S	8965390000
								ACT20X-2HDI-2SDO-RNO-S	8965370000
				1/1		Drive solenoids, valves, Alarms in the hazardous area		ACT20X-SDI-HDO-L-S	8965400000
								ACT20X-SDI-HDO-H-S	8965410000
				2/2				ACT20X-2SDI-2HDO-S	8965420000
		Hazardous Analogue in	Safe Analogue Out	1/1		Analogue sensor from hazardous to safe area		ACT20X-HAI-SAO-S ●	8965430000
				2/2				ACT20X-2HAI-2SAO-S ●	8965440000
		Safe Analogue in	Hazardous Analogue Out	1/1		Driving analogue valve in hazardous area		ACT20X-SAI-HAO-S ●	8965450000
				2/2				ACT20X-2SAI-2HAO-S ●	8965460000
		Hazardous Temperature in	Safe Analogue Out	1/1		RTD, Thermocouple from hazardous to safe analogue		ACT20X-HTI-SAO-S ●	8965470000
				2/2				ACT20X-2HTI-2SAO-S ●	8965480000
		Universal in	Safe Analogue Out	1/1		Universal hazardous input to safe analogue output		ACT20X-HUI-SAO-S ●	8965490000
CBX200								CBX200 USB	8978580000

● Requires CBX200 PC programming cable

PROCESS DISPLAYS

Simple monitoring of analogue instruments with ACT20D.
The universal range of indicators in the ACT20D series allows for measurement, display and alarming of typical process signals from analogue instruments.

Series / family		Input Type	Output	Power	Display	Application	Configuration	Mounting	Description	Part Number
Process Displays		4-20mA	-	Loop Powered	LCD ±9999, with backlight	Analogue process loop indicator, easy viewing in bright or dark installations	Push button programming	Panel mount 1/8 DIN, IP65 front	ACT20D-LCD-CI-ILP	**2920000000**
		4-20mA, 0-10V, 0-10kΩ Potentiometer, RTD, Thermocouple	-	21-253 VAC, 19.2-300 VDC	Red LED, 4 digit (-1999 to 9999)	Universal process indicator			ACT20D-LED-UI-AC-DC	**2920050000**
			4-20mA, 4xCO relay			Universal process indicator with programmable relay alarms and analogue output			ACT20D-LED-UI-AO-4RC-AC-DC	**2920060000**
		Frequency: NPN/PNP, TTL, Namur, Contact, Tacho, 0-50kHz	4-20mA, 2xCO relay			Frequency indicator, for measuring motor rotation, relay alarm for under/over speed, frequency to analogue conversion			ACT20D-LED-FI-AO-2RC-AC-DC	**2920070000**

Series / family		Output	Description	Part Number
Accessories		Extra protection for extreme environments. Flexible PVC	Protective Cover	**2964330000**

ACT20D-LED-UI Series

Input:

ACT20D-LED-FI Series

Input:
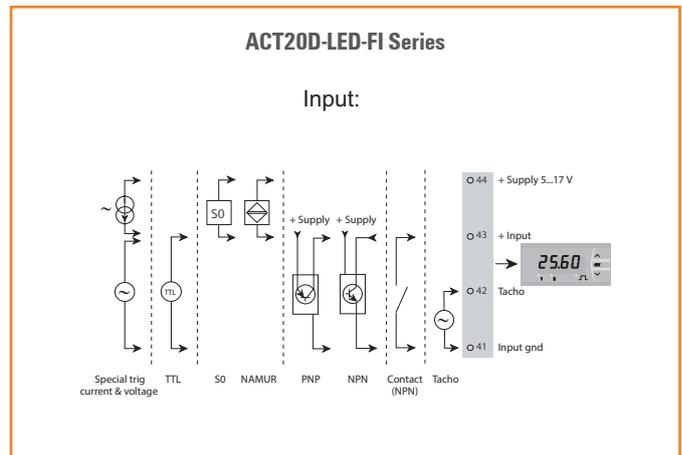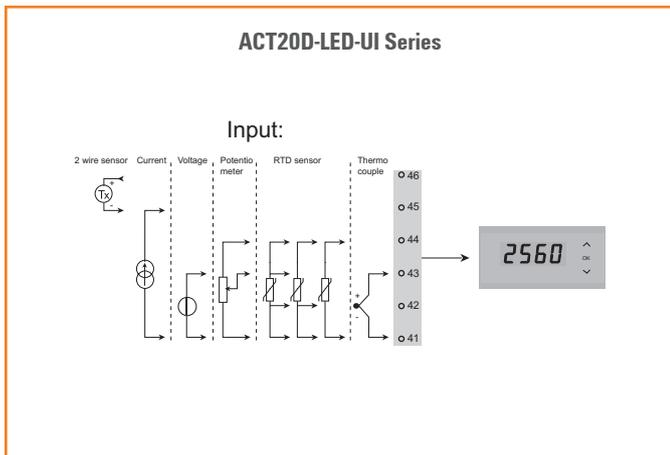
SURGE PROTECTION

Full protection for power, instrumentation and data.
Choose from a large number range of surge protection devices to suit your protection requirements.

Series / family		Network	Voltage	N-E Combined (MEN)	Imax (8/20us)	Application	Fault Contact	Description	Part Number
Power Protection - VPU AC		3-phase	240 / 415VAC	●	100kA	Main Switchboard (High Exposure) Category C	Yes	VPU AC I 3 R 275/25 MB	2774960000
				-				VPU AC I 3+1 R 275/25 MB	2638070000
		1-phase	240 VAC	-				VPU AC I 1+1 R 275/100kA MB	2775000000
				●				VPU AC I 1 R 275/100kA MB	2774940000
		3-phase	240 / 415VAC	●	50kA	Sub distribution board (Medium Exposure) Category B		VPU AC II 3 R 300V/50	2591170000
				-				VPU AC II 3+1 R 300V/50	2591090000
		1-phase	240 VAC	-				VPU AC II 1+1 R 300V/50	2591070000
								VPU AC II 1 R 300V/50	2591030000
				●			No	VPU AC II 1 300V/50	2591020000
			120 VAC		3kA	Final circuit or machine (Low Exposure) Category A	Yes	VPU III R 120V/6KV AC/DC	1351630000
		DC	48 VDC	-	2kA			VPU III R 48V/4KV AC/DC	1351600000
			24 VDC	-				VPU III R 24V/4KV AC/DC	1351580000
			12 VDC	-				VPU III R 12V/4KV AC/DC	1351550000
Power Protection - VPU AC with built-in fuse		1-phase	240 VAC	●	65kA	Main Switchboard (built-in fuse) Category B/C	Yes	VPU AC I F 1 R 275/25	2859340000
		3-phase	240 / 415VAC	-	40kA	Sub distribution board (built-in fuse) Category B		VPU AC II F 3 R 300/40	2807410000
								VPU AC II F 3+1 R 300/40	2807440000
		1-phase	240 VAC	-				VPU AC II F 1+1 R 300/40	2807430000
				●				VPU AC II F 1 R 300/40	2807390000
Compact Power Supply Surge Protection		1-phase	240 VAC	-	20kA	Power supply surge protection Category B	Yes	VPU AC II+III 1+1 R 275/20 S	2907940000
		3-phase						VPU AC II+III 3 R 275/20 S	2907880000

Series / family		Network	Voltage	Class	Imax (8/20us)	Application	Fault Contact	Description	Part Number
Photovoltaic - VPU PV		Photovoltaic	1000 VDC	I / II	40kA	Photovoltaic Systems (Separation distance not met)	Yes	VPU PV I+II 3 R 1000	2530620000
			1500 VDC		30kA			VPU PV I+II 3 R 1500V	2530590000
			1000 VDC	II	40kA	Photovoltaic Systems (Separation distance met)		VPU PV II 3 R 1000V	2530180000
			1500 VDC		30kA			VPU PV II 3 R 1500V	2530650000
Signal and Instrumentation - VSSC6		Analogue & Digital	30 VAC/DC	-	5kA	For current and voltage loops	No	VSSC6 CL 24VUC 0.5A	1064170000
				-	10kA	For digital signals		VSSC6 SL LD 24VUC 0.5A	1064350000
			15 VDC	-		RS485 2-wire		VSSC6 RS485	1064980000
			12 VDC	-		RS232 2-wire		VSSC6 RS232	1064990000
			24 VAC/DC	-	1kA	MOV protection for 24V devices		VSSC6 MOV 24VUC	1064540000
RJ45 Protection - VDATA		Data	48 VDC	-	10kA	Cat6A cabling, suitable for PoE devices to 802.3at/af/bt	No	VDATA CAT6	1348590000
		Data				Cat5E cabling, suitable for PoE devices to 802.3at/af/bt		VDATA CAT5E	2916360000

HEAVY DUTY CONNECTORS

Safe and reliable transmission of power, signals and data in industrial environments.
Weidmuller's RockStar heavy duty connectors offer a robust pluggable connection from cabinet to field.

Series / family		Poles	Insert Socket Female		Insert Plug Male		Bulkhead Base	Surface Base	Hood Side Entry	Hood Top Entry	Cable Gland
			Screw	PUSH-IN	Screw	PUSH-IN					
Rockstar HDC		4	1498400000	-	1498300000	-	1497600000	-	-	1788820000	1772220000
			HDC HA 4 F		HDC HA 4 M		HDC 04A ALU	-	-	HDC 04A TOLU 1M20G	VG M20 - MS 68
		6	1200200000	1873520000	1200000000	1873530000	1202500000	1900360000	1788100000	1788120000	1772220000
			HDC HE 6 F		HDC HE 6 M		HDC 06B ADLU	HDC 06B SDLU 1M20G	HDC 06B TSLU 1M20G	HDC 06B TOLU 1M20G	VG M20 - MS 68
		10	1204100000	1873540000	1203900000	1873550000	1206500000	1903410000	1787580000	1787620000	1772230000
			HDC HE 10 F		HDC HE 10 M		HDC 10B ADLU	HDC 24D SDLU 1M25G	HDC 10B TSLU 1M25G	HDC 10B TOLU 1M25G	VG M25 - MS 68
		16	1207700000	1873560000	1207500000	1873570000	1210100000	1415810000	1788200000	1788230000	1772230000
			HDC HE 16 F		HDC HE 16 M		HDC 16B ADLU	HDC 16B SDLU 1M25G	HDC 16B TSLU 1M25G	HDC 16B TOLU 1M25G	VG M25 - MS 68
		24	1211300000	1873580000	1211100000	1873590000	1214300000	1904440000	1787790000	1787850000	1772240000
			HDC HE 24 F		HDC HE 24 M		HDC 24B ADLU	HDC 64D SDLU 1M32G	HDC 24B TSLU 1M32G	HDC 24B TOLU 1M32G	VG M32 - MS 68

*Other models available in full catalogue

1. Set on the number of poles required.
2. Pick your male and female insert as required in screw or PUSH-IN wiring connection.
3. Finish the kit with the recommeneded base hood and cable gland.

ModuPlug modular heavy duty connection system. More power, signal and data connections in less space and exactly what you need.

1. Pick your ModuPlug frame depending on how many insert slots you need. You will need an A-B and B-A frame set.
2. Pick your required inserts, both male and female for either end of the plug.
3. Finish the kit with the recommeneded base and hood.

Series / family		Slots Max	ModuPlug Frame		Bulkhead Base	Surface Base	Hood Side Entry	Hood Top Entry	Cable Gland
			A-B	B-A					
ModuPlug Housing		2	1428920000	1428940000	1202500000	1900360000	1788100000	1788120000	1772220000
		3	1428960000	1428980000	1206500000	1903410000	1787580000	1787620000	1772230000
		4	1429010000	1429030000	1210100000	1415810000	1788200000	1788230000	1772230000
		6	1429050000	1429070000	1214300000	1904440000	1787790000	1787850000	1772240000

Series / family		Slots Used	Insert		Poles	Current Rated	Connection Type	Wiring Diameter	Rated Voltage
			Male	Female					
ModuPlug Inserts		1	2772820000	2772830000	2	40A	PUSH-IN	10mm^2	690V
			2772780000	2772790000	3				
			2772800000	2772810000	4				
			2748320000	2748330000	2	40A	Screw	25mm^2	1000V
			2748300000	2748310000	2	70A			
		2	2748280000	2748290000	2	100A		35mm^2	
			2748240000	2748250000	1	200A		70mm^2	
		1	2748400000	2748410000	5	16A	PUSH-IN	1.5mm^2	230V
			2748460000	2748470000	12	10A			
			2636180000	2636190000	5				400V
			2748420000	2748430000	6	16A		2.5mm^2	500V
			2748440000	2748450000	8				400V
		1	2592030000	RJ45-RJ45 Coupler Female	-		RJ45 Cat6A	-	-
			2592210000	RJ45 Plug Male	-			-	-
		0.5	1429040000	Dummy Module					

*Other models available in full catalogue

CIRCULAR CORDSETS

Secure connection of sensors and devices with Weidmuller's SAI range.
Explore our wide range of circular connectors suitable for signal, power and data.

Series / family		Size	Poles	Head Gender	Tail Gender	Length	Description	Straight	Angled
Cordsets		M8 A-Coded	3	Male	Free	3m	SAIL-M8G-3-3.0U	1824590300	1857550300
						5m	SAIL-M8G-3-5.0U	1824590500	1857550500
						10m	SAIL-M8G-3-10U	1824591000	1857551000
				Female		3m	SAIL-M8BG-3-3.0U	9457450300	9457380300
						5m	SAIL-M8BG-3-5.0U	9457450500	9457380500
						10m	SAIL-M8BG-3-10U	9457451000	9457381000
			4	Male		3m	SAIL-M8G-4-3.0U	1906270300	1857560300
						5m	SAIL-M8G-4-5.0U	1906270500	1857560500
						10m	SAIL-M8G-4-10U	1906271000	1857561000
				Female		3m	SAIL-M8BG-4-3.0U	9457850300	9456150300
						5m	SAIL-M8BG-4-5.0U	9457850500	9456150500
						10m	SAIL-M8BG-4-10U	9457851000	9456151000
		M12 A-Coded	3	Male		3m	SAIL-M12G-3-3.0U	9457810300	9456690300
						5m	SAIL-M12G-3-5.0U	9457810500	9456690500
						10m	SAIL-M12G-3-10U	9457811000	9456691000
				Female		3m	SAIL-M12BG-3-3.0U	9457820300	1061890300
						5m	SAIL-M12BG-3-5.0U	9457820500	1061890500
						10m	SAIL-M12BG-3-10U	9457821000	1061891000
			4	Male		3m	SAIL-M12G-4-3.0U	9456100300	1906260300
						5m	SAIL-M12G-4-5.0U	9456100500	1906260500
						10m	SAIL-M12G-4-10U	9456101000	1906261000
				Female		3m	SAIL-M12BG-4-3.0U	9457730300	9457740300
						5m	SAIL-M12BG-4-5.0U	9457730500	9457740500
						10m	SAIL-M12BG-4-10U	9457731000	9457741000
			5	Male		3m	SAIL-M12G-5-3.0U	9457610300	9457670300
						5m	SAIL-M12G-5-5.0U	9457610500	9457670500
						10m	SAIL-M12G-5-10U	9457611000	9457671000
				Female		3m	SAIL-M12BG-5-3.0U	9457910300	9457690300
						5m	SAIL-M12BG-5-5.0U	9457910500	9457690500
						10m	SAIL-M12BG-5-10U	9457911000	9457691000
			5	Male	Female	10m	SAIL-M12GM12G-5-10U	9457341000	-
						15m	SAIL-M12GM12G-5-15U	9457341500	-

Series / family		Size	Connection Type	Poles	Outlet Type	Description	Male	Female
Field Wireable Connectors		M8	Screw	3	Straight	SAIB-M8-3P	1803860000	1803870000
				4	Straight	SAIB-M8-4P	1803850000	1803880000
		M12 A-Coded	Screw	5	Straight	SAIS-5/9	1807350000	1807250000
					Angled	SAIBW-5/9	1807370000	1807330000

TOOLS

With Weidmüller's professional tools, you can work faster, better, and more precisely than ever before. For over 50 years, we have been developing and manufacturing our comprehensive range of durable, high quality tools to meet the highest demands of cabinet assembly.

Series / family		KT 8	KT 12	KT 22	KT 40	KT 50
Cutting Tools	Part Number	9002650000	9002660000	1157830000	2993490000	2993500000
	Application	Cable cutter, for copper or aluminium				
	Diameter	8mm	12mm	22mm	40mm	50mm

Series / family		STRIPAX	STRIPAX 16	STRIPAX ULTIMATE
Stripping Tools	Part Number	9005000000	9005610000	1468880000
	Application	Flexible and solid conductors with PVC insulation		Flexible and solid conductors with halogen-free or tough insulation
	Cross Section	0.08-10mm^2	6-16mm^2	0.25-6mm^2

Series / family		PZ 2.5 S	PZ 6 ROTO	PZ 16	PZ 10 HEX	PZ 50	CTI 6
Crimping Tools	Part Number	2903690000	9014350000	9012600000	1445070000	9006450000	9006120000
	Application	Trapezoidal crimp	Trapezoidal crimp	Indent crimp	Hexagonal crimp	Indent crimp	Insulated Spade and ring lugs
	Diameter	0.14-2.5mm^2	0.14-6mm^2	6-16mm^2	0.25-10mm^2	25-50mm^2	0.5-6mm^2

Series / family		STRIPAX PLUS 2.5
Stripping and Crimping Tools	Part Number	9020000000
	Application	Cutter, stripper and crimper, uses strips of linked ferrules
	Cross Section	0.5-2.5mm^2

Series / family		CUT/STRIP/CRIMP SET	CRIMPSET PZ 10 HEX T	CRIMP-SET PZ 6 ROTO L T	CRIMP-SET STRIPAX PLUS T
Sets	Part Number	8000120354	1542270000	9028700000	9028790000
	Contents	Stripax + PZ6 Roto + KT 8 + Screwdriver	PZ 10 HEX + Stripax + Ferrules (0.5 WT, 0.75 LTBL, 1.0 RD, 1.5 BK, 2.5 GY, 4.0 OR, 6.0 GN, 10.0 BRN)	Stripax + PZ6 Roto L + Ferrules (0.5 WT, 0.75 LTBL, 1.0 RD, 1.5 BK, 2.5 GY, 4.00 R, 6.0 GN)	Stripax Plus + Ferrules (0.5 WT, 0.75 LTBL, 1.0 RD, 1.5 BK, 2.5 GY)

*Ferrules Page 31

Cutting

Stripping

Crimping

TOOLS

With Weidmüller's professional tools, you can work faster, better, and more precisely than ever before. For over 50 years, we have been developing and manufacturing our comprehensive range of durable, high quality tools to meet the highest demands of cabinet assembly.

Series / family		VKSW	TSD 35	TSLD 5
Workplace Tools				
	Part Number	1137530000	1318510000	9918700000
	Application	Duct Cutter	DIN rail cutter	DIN rail cutter and perforator
	Suitable Material	125mm wide duct	TS 35/7.5, TS 35/15	TS 35/7.5, TS 35/15, TS32, TS 15/5.5

Series / family		IE-CST	AM 16	AM 25	AM 35	AM-X
Insulation Stripper						
	Part Number	9204350000	9204190000	9001540000	9001080000	2625720000
	Application	PVC cable insulation stripper				PVC round cable, unlimited size
	Cable Diameter	2.5-8mm	5-17mm	6-25mm	25-35mm	25mm-endless

Series / family		SDI SET S2.5-5.5/PH1/2	SDI SET SLIM S3.5-6.5/PH1/2	SD SET S2.5-5.5/PH1/2	SD EL SET 1.5-4.0/PH0/1
Screwdrivers					
	Part Number	2749750000	2749580000	2749200000	2750160000
	Type	Insulated	Slim insulated	Non-insulated	Pico swivelhead
	Contains	PH1 x 80, PX2 x 100, Slotted (2.5 x 75, 3.0 x 100, 4.0 x 100, 5.5 x 125)			PH0 x 60, PH1 x 80, Slotted (1.5 x 40, 2.0 x 60, 2.5 x7 5, 3.0 x 75, 4.0 x 100)

Series / family		CROSS-KEY UNIVERSAL	CROSS-KEY-DUO	CROSS-KEY-QUADRO
Cabinet Keys				
	Part Number	9918130000	1480190000	1480180000

AUTOMATED MACHINES

More efficiency, less waste. Our automated cable assembly machines allow for reduced installation times which translate into smaller production costs, enhanced value and thus greater competitiveness.
Get to know our automatic machines for professional and efficient cable preparation and processing.

Series / family		Type	Crimping range	Cable type	Cycle time	Details	Cycles per year	Description	Part Number
Automated Machines - Crimpfix Eco		Automated wire stripper-crimper	0.5-2.5mm²	PVC Cable only	<1.5s	Electrically driven, ferrule change by rotation of die. Weidmuller ferrules only	Up to 100,000	CRIMPFIX ECO	2833890000

Series / family		Type	Cutting Range	Cable type	Max number of cables	Details	Cycles per year	Description	Part Number
Automated Machines - Cutfix Pro		Automated wire cutting	1 x 0.14-10mm²	PVC, UL halogen free (soft/medium and hard insulation)	1	Electrically driven, software controlled wire change (FEEDER only)	Up to 200,000	CUTFIX PRO	2797190000
			11 x 0.5-2.5mm² + 1 x 4-10mm²		12			CUTFIX PRO FEEDER	2797200000

Series / family		Cross Section (mm²)	L1	L2	D2	Colour		Pack Size	Description	Part Number
Ferrules for Crimpfix Eco		0.5	14	8	2.6	○	White	4000	H0,5/14DS W BD GSP	2528590000
		0.75			2.8	●	Light Blue		H0,75/14TS HB BD GSP	2528630000
		1.0			3	●	Red		H1,0/14DS R BD GSP	2528610000
		1.5			3.5	●	Black		H1,5/14DS SW BD GSP	2528620000
		2.5			4.2	●	Grey	3000	H2,5/14T GR BD GSP	9005910000

Outstanding quality: we ensure long-term connections.
Using wire-end ferrules ensures the long-term, consistent quality of your electrical connections. Our wide range of products comprise of single and twin boot wire end ferrules in a variety of sizes and conforming to industry standard colours.

Series / family		Cross Section (mm²)	L1	L2	D2	Stripping Length	Colour	Pack Size	Description	Part Number
Ferrules with Plastic Collars - Packed loose		0.5	14	8	2.6	10	○ White	500 (loose pack)	H0,5/14D W	9019010000
		0.5	16	10	2.6	12	○ White		H0,5/16D W	9019020000
		0.75	14	8	2.8	10	● Light Blue		H0,75/14T HBL	9021040000
		0.75	18	12	2.8	14	● Light Blue		H0,75/18T HBL	9021060000
		1.0	14	8	3	10	● Red		H1,0/14D R	9019080000
		1.0	18	12	3	15	● Red		H1,0/18D R	9019110000
		1.5	14	8	3.5	10	● Black		H1,5/14D SW	9019120000
		1.5	16	10	3.5	12	● Black		H1,5/16D SW	9019130000
		1.5	18	12	3.5	15	● Black		H1,5/18D SW	9019140000
		2.5	15	8	4.2	10	● Grey		H2,5/15T GR	9021070000
		2.5	19	12	4.2	14	● Grey		H2,5/19T GR	9021080000
		2.5	25	18	4.2	20	● Grey		H2,5/25T GR	9021090000
		4.0	18	10	4.8	12	● Orange		H4,0/18T OR	9021100000
		4.0	20	12	4.8	14	● Orange		H4,0/20T OR	9021110000
		4.0	26	18	4.8	20	● Orange		H4,0/26T OR	9021120000
		6.0	20	12	6.3	14	● Green		H6,0/20T GN	9021130000
		6.0	26	18	6.3	20	● Green		H6,0/26T GN	9021140000
		10.0	22	12	7.6	15	● Brown		H10,0/22T BR	9021150000
		10.0	28	18	7.6	21	● Brown		H10,0/28T BR	9021160000
Ferrules with Wide Collar - Suitable for thicker insulation cable		0.5	14	8	2.9	10	○ White	500 (loose pack)	H0,5/14S W	9004590000
		0.75	14		3.4		● Light Blue		H0,75/14TS HBL	9018550000
		1.0	14		3.5		● Red		H1,0/14S R	9018560000
		1.5	14		4		● Black		H1,5/14DS SW	9025240000

Series / family		Cross Section (mm²)	L1	L2	A	Stripping Length	Colour	Pack Size	Description	Part Number
Twin Boot Ferrules with Plastic Collars - Packed loose		0.5	14	8	5	11	○ White	500	H0,5/14D ZH W	9037380000
		0.5	18	12	5	15	○ White		H0,5/18D ZH W	9037400000
		0.75	14	8	5.5	11	● Light Blue		H0,75/14T ZH HBL	9037610000
		0.75	16	10	5.5	13	● Light Blue		H0,75/16T ZH HBL	9037620000
		1.0	15	8	5.8	11	● Red		H1,0/15D ZH R	9037440000
		1.0	19	12	5.8	16	● Red		H1,0/19D ZH R	9037450000
		1.0	25	18	5.8	22	● Red		H1,0/25D ZH R	9037460000
		1.5	16	8	6.5	11	● Black		H1,5/16D ZH SW	9037470000
		1.5	20	12	6.5	15	● Black		H1,5/20D ZH SW	9037480000
		1.5	26	18	6.5	21	● Black	100	H1,5/26D ZH SW	9037490000
		2.5	19	10	8	13	● Grey	500	H2,5/19T ZH GR	9037640000
		2.5	21	12	8	15	● Grey		H2,5/21T ZH GR	9037650000
		2.5	27	18	8	21	● Grey	100	H2,5/27T ZH GR	9037660000
		4.0	22	12	9	15	● Orange		H4,0/22T ZH OR	9037670000
		4.0	28	18	9	21	● Orange		H4,0/28T ZH OR	9037680000

Series / family		Cross Section (mm²)	L1	L2	D2	Stripping Length	Colour	Pack Size	Description	Part Number
Ferrules for Stripax Plus 2.5 - Strip of ferrules		0.5	14	8	2.6	10	○ White	500 (strip of ferrules)	H0,5/14D W BD	9004280000
		0.75			2.8		● Light Blue		H0,75/14T HBL BD	9004310000
		1.0			3		● Red		H1,0/14D R BD	9004330000
		1.5			3.5		● Black		H1,5/14D SW BD	9004350000
		2.5			4.2		● Grey		H2,5/14T GR BD	9004370000

Series / family		Cross Section (mm²)	L1	L2	D2	Stripping Length	Colour	Pack Size	Description	Part Number
Ferrules Box		0.5	14	8	2.6	10	○ White	50	H-BOX 0.5-2.5QMM T	9023090000
		0.75			2.8		● Light Blue	100		
		1.0			3		● Red	100		
		1.5			3.5		● Black	100		
		2.5	15		4.2		● Grey	50		

MARKERS AND PRINTERS

Convenient, simple, multi-purpose.
The Multimark printing system provides a marking solution for the whole cabinet all from the same machine. From terminal marking, wire and cable marking or device label marking, a wide range of options exist for any application.

Series / family		Print Volume	Marking type	Big Pack (BP) support?	Description	Part Number
THM MultiMark Thermal Printer		Small and medium print volumes	Terminal markers, wire markers, adhesive label markers, heatshrink markers	No, external roll holder required*	THM MULTIMARK	2599430000
		Medium to large print volumes		Yes	THM MULTIMARK PLUS	2599440000

Series / family		Width	Application	Length	Description	Part Number
MultiMark Accessories		25mm	Terminal markers (DEK/WS)	360m	RIBBON MM-TB 25/360 BLACK	2005090000
		110mm	Wire markers (TM-I), Label markers		RIBBON MM 110/360 BLACK	2005070000
		60mm	Heatshrink markers	300m	RIBBON MM-HS 60/300 BLACK	2448880000
			External holder for big pack markers		THM MMP EXTENSION*	1302920000

Series / family			Height	Width	Marker Qty	Description	Supported Terminal Size*	A-series support	W-series support	Part Number
Dekafix Multimark	DEK 5/3.5	DEK 5/5	5mm	3.5mm	1000	DEK 5/3.5 MM WS	1.5mm²	●	●	2007100000
					15000	DEK 5/3.5 MM BP WS				2619760000
				5mm	800	DEK 5/5 MM WS	2.5mm²	●	●	2007110000
					10000	DEK 5/5 MM BP WS				2619770000
	DEK 5/6	DEK 5/8		6mm	600	DEK 5/6 MM WS	4mm²	●	●	2007120000
					9000	DEK 5/6 MM BP WS				2619780000
				8mm	500	DEK 5/8 MM WS	6mm²	●	●	2007130000
					6000	DEK 5/8 MM BP WS				2619790000

Series / family			Height	Width	Marker Qty	Description	Supported Terminal Size*	A-series support	W-series support	Part Number
WS Multimark	WS 8/3.5	WS 8/5	8mm	3.5mm	1000	WS 8/3.5 MM WS	1.5mm²	●	●	2007140000
					11000	WS 8/3.5 MM BP WS				2619800000
				5mm	800	WS 8/5 MM WS	2.5mm²	●	●	2007150000
					8000	WS 8/5 MM BP WS				2619810000
	WS 8/6	WS 8/8		6mm	600	WS 8/6 MM WS	4mm²	●	●	2007160000
					6000	WS 8/6 MM BP WS				2619820000
				8mm	500	WS 8/8 MM WS	6mm²	●	●	2007170000
					5000	WS 8/8 MM BP WS				2619830000
	WS 10/5	WS 10/6	10mm	5mm	800	WS 10/5 MM WS	2.5mm²	●	●	2712130000
				6mm	600	WS 10/6 MM WS	4mm²	●	●	2712140000
			12mm	5mm	800	WS 12/5 MM WS	2.5mm²	-	●	2007190000
					5500	WS 12/5 MM BP WS				2619850000
	WS 12/5	WS 12/8		6mm	600	WS 12/6 MM WS	4mm²	-	●	2007200000
					4500	WS 12/6 MM BP WS				2619860000
				8mm	500	WS 12/8 MM WS	6mm²	-	●	2007210000
					3500	WS 12/8 MM BP WS				2619870000

Series / family		Numbering	Pack Size	Description	Horizontal	Vertical
Preprinted Dekafix 5/5		1-10		DEK 5 FX 1-10	0523060001	0460660001
		11-20		DEK 5 FX 11-20	0523060011	0460660011
		21-30		DEK 5 FX 21-30	0523060021	0460660021
		31-40		DEK 5 FX 31-40	0523060031	0460660031
		41-50	5 lines per card, 10 cards per box	DEK 5 FX 41-50	0523060041	0460660041
		51-60		DEK 5 FX 51-60	0523060051	0460660051
		61-70		DEK 5 FX 61-70	0523060061	0460660061
		71-80		DEK 5 FX 71-80	0523060071	0460660071
		81-90		DEK 5 FX 81-90	0523060081	0460660081
		91-100		DEK 5 FX 91-100	0523060091	0460660091

MARKERS AND PRINTERS

Convenient, simple, multi-purpose.
The Multimark printing system provides a marking solution for the whole cabinet all from the same machine. From terminal marking, wire and cable marking or device label marking, a wide range of options exist for any application.
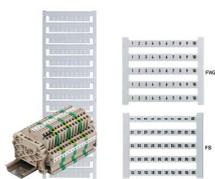
Series / family		Height	Width	Marker Qty	Description	Part Number
TM-I Wire Marker		12mm	4mm	2000	TM-I 12 MM WS	2005440000
		15mm			TM-I 15 MM WS	2005450000
		18mm			TM-I 18 MM WS	2005470000
		20mm			TM-I 20 MM WS	2005490000
		23mm			TM-I 23 MM WS	2005510000
		30mm			TM-I 30 MM WS	2005530000

Series / family		Cable size	Description	Width					
				12mm	15mm	18mm	20mm	23mm	30mm
TM Transparent Sleeve		0.25-1.5mm^2	TM 201	1798640000	1798620000	1798600000	1798580000	1507060000	1874850000
		0.5-2.5mm^2	TM 202	1798560000	1798540000	1798530000	1798520000	1507070000	1874760000
		2.5-10mm^2	TM 203	1798510000	1798490000	1798480000	1798470000	1507080000	1874770000
		6-16mm^2	TM 204	1806180000	1806240000	1806300000	1806360000	1507090000	1874780000
		16-35mm^2	TM 205	1806190000	1806250000	1806310000	1806370000	1507100000	1874790000
		35-120mm^2	TM 206	1806200000	1806260000	1806320000	1806380000	1507110000	1874800000

Series / family		Cable size	Width	Description	Marker Qty	White	Yellow
Heatshrink Cable Marker - Standard		0.5-1.5mm^2	12mm	HS 1.0-3.2/12 MM	4000	2526070000	2526080000
			25mm	HS 1.0-3.2/25 MM	2000	2437510000	2437520000
		1.5-4mm^2	25mm	HS 1.6-4.8/25 MM	2000	2437550000	2437560000
		4-16mm^2		HS 3.2-9.5/25 MM	1000	2437670000	2437680000
Heatshrink Cable Marker - Halogen Free		0.5-1.5mm^2	25mm	HSS-HF 1/8 1.8-2.8/25Y	10,000	-	1961970000
		1.5-4mm^2		HSS-HF 3/16 2.8-4.2/25Y	8000	-	1961980000
		4-10mm^2		HSS-HF 1/4 4.2-5.8/25Y	5000	-	1961990000
		10-16mm^2		HSS-HF 3/8 5.8-8.0/25Y	4000	-	1962000000
Heatshrink Halogen Free		25-35mm^2	25mm	HSS-HF 1/2 8.0-11.0/25Y	3000	-	1962010000
		35-70mm^2		HSS-HF 3/4 11.0-17.0/25Y	2500	-	1962020000
		70-120mm^2		HSS-HF 1 17.0-23.0/25Y	1500	-	1962030000

Series / family		Height	Width	Description	Marker Qty	White	Yellow	Silver
MT30X Adhesive Device Marker		6	15	THM MT30X 15/6	10,000	1753231044	1753231687	1753230001
		9	15	THM MT30X 15/9		1058750000	1058740000	-
		9	17	THM MT30X 17/9		1968130000	1856650000	1356500000
		8	20	THM MT30X 20/8		1753241044	1753241687	-
		10	20	THM MT30X 20/10		2556240000	-	-
		12	25	THM MT30X 25/12		1751751044	1751751687	-
		20	30	THM MT30X 30/20	6000	1753261044	1753261687	1753260001
		19	38	THM MT30X 38/19	2000	1751801044	1751801687	-
		35	65	THM MT30X 65/35	1000	1751831044	1751831687	1751830001
		48	101	THM MT30X 101/48	500	1751821044	1751821687	1751820001

Series / family		Height	Width	Description	Marker Qty	White	Yellow
SFX Cable Marker		9	24	SFX 9/24 MM	1000	2005320000	2005380000
		11	60	SFX 11/60 MM		2005340000	2005400000
		32	60	SFX 30/60 MM	300	2005360000	2005420000

CABLE ENTRY SYSTEMS

Cabtite - the modular cable entry system.
With the Cabtite cable entry system, assembled cables can be quickly and easily installed into an enclosure through the use of split sealing glands and frames which provide protection up to IP66.

Series / family			Installation	Protection Class	Frame Size	Description	Part Number
Cabtite Frame			Cabtite Standard Frame - Installation from inside enclosure	IP66	4 x small or 1 x large	CABTITE FR 4-1 BK SET	2583780000
					6 x small or 1 x large + 2 small	CABTITE FR 10/6 BK SET	2583760000
					8 x small or 2 x large or 1 x large + 4 x small	CABTITE FR 16/8 BK SET	2583740000
					10 x small or 1 x large + 6 small or 2 x large + 2 small	CABTITE FR 24/10 BK SET	2583720000
			Cabtite FrontTight - Installation from outside enclosure	IP66	4 x small or 1 x large	CABTITE FRFT 4-1 SET	2891470000
					6 x small or 1 x large + 2 small	CABTITE FRFT 10/6 SET	2891500000
					8 x small or 2 x large or 1 x large + 4 x small	CABTITE FRFT 16/8 SET	2891530000
					10 x small or 1 x large + 6 small or 2 x large + 2 small	CABTITE FRFT 24/10 SET	2891560000

Series / family		Installation	Protection Class	Frame Size	Cutout Size	Description	Part Number
Cabtite Circular		Cabtite Circular Frame	IP66	1 x small	M20	CABTITE CGS M20 BK	2584200000
					M25	CABTITE CGS M25 BK	2584180000
					M32	CABTITE CGS M32 BK	2584160000
				1 x large or 4 x small	M40	CABTITE CGS M40 BK	2584150000
					M50	CABTITE CGS M50 BK	2584130000
					M63	CABTITE CGS M63 BK	2584120000

Series / family			Colour	Material	Number of Entries	Clamping Range	Description	Part Number
Cabtite Sealing Element - Small			Black	TPE, halogen free, Flammability rating: HB, UV Stabilised	1	1.5...2 mm	CABTITE SE 1.5-2 SML	2584780000
						2...3 mm	CABTITE SE 2-3 SML	2584760000
						3...4 mm	CABTITE SE 3-4 SML	2584730000
						4...5 mm	CABTITE SE 4-5 SML	2584680000
						5...6 mm	CABTITE SE 5-6 SML	2584710000
						6...7 mm	CABTITE SE 6-7 SML	2584690000
						7...8 mm	CABTITE SE 7-8 SML	2584670000
						8...9 mm	CABTITE SE 8-9 SML	2584330000
						9...10 mm	CABTITE SE 9-10 SML	2584080000
						10...11 mm	CABTITE SE 10-11 SML	2584060000
						11...12 mm	CABTITE SE 11-12 SML	2584040000
						12...13 mm	CABTITE SE 12-13 SML	2584020000
						13...14 mm	CABTITE SE 13-14 SML	2584000000
						14...15 mm	CABTITE SE 14-15 SML	2583980000
						15...16 mm	CABTITE SE 15-16 SML	2583960000
					2	4...5 mm	CABTITE SE 2/4-5 SML	2583620000
						5...6 mm	CABTITE SE 2/5-6 SML	2583610000
						7...8 mm	CABTITE SE 2/7 SML	2583550000
						8...9 mm	CABTITE SE 2/8 SML	2583540000
					3	5...6 mm	CABTITE SE 3/5-6 SML	2652280000
					4	2...3 mm	CABTITE SE 4/2-3 SML	2583590000
						3...4 mm	CABTITE SE 4/3-4 SML	2583580000
						4...5 mm	CABTITE SE 4/4-5 SML	2583560000
					0	Blanking plug	CABTITE BSE SML	2584790000

Series / family			Colour	Material	Number of Entries	Clamping Range	Description	Part Number
Cabtite Sealing Element - Large			Black	TPE, halogen free, Flammability rating: HB, UV Stabilised	1	14...15 mm	CABTITE SE 14-15 LRG	2583880000
						15...16 mm	CABTITE SE 15-16 LRG	2583860000
						16...17 mm	CABTITE SE 16-17 LRG	2583850000
						17...18 mm	CABTITE SE 17-18 LRG	2583840000
						18...19 mm	CABTITE SE 18-19 LRG	2583830000
						19...20 mm	CABTITE SE 19-20 LRG	2583810000
						20...21 mm	CABTITE SE 20-21 LRG	2583790000
						21...22 mm	CABTITE SE 21-22 LRG	2583770000
						22...23 mm	CABTITE SE 22-23 LRG	2583750000
						23...24 mm	CABTITE SE 23-24 LRG	2583730000
						24...25 mm	CABTITE SE 24-25 LRG	2583710000
						25...26 mm	CABTITE SE 25-26 LRG	2583700000
						26...27 mm	CABTITE SE 26-27 LRG	2583690000
						27...28 mm	CABTITE SE 27-28 LRG	2583680000
						28...29 mm	CABTITE SE 28-29 LRG	2583670000
						29...30 mm	CABTITE SE 29-30 LRG	2583660000

*VO Sealing elements available on request

BELDEN

CABLE & CONNECTIVITY

aps

FIBRE OPTIC

FIBRE OPTIC SELECTION GUIDE

FIBRE CABLE - MODE
What mode of fibre is being used?

Single Mode (SM/SMOF)
| OS1/OS2 (9µm/125µm)

Multi Mode (MM/MMOF)
| OM1 (62.5µm/125µm)
| OM3 (50µm/125µm)
| OM4 (50µm/125µm)
| OM5 (50µm/125µm)

FIBRE TYPE	MARKET STANDARD CABLE SHEATH COLOUR FOR INDOORS CABLES	MARKET STANDARD COLOUR CONNECTORS & THRU ADAPTOR
OM1	Orange	Beige
OM3	Aqua	Aqua*
OM4	Erica Violet / Aqua	Erica Violet*
OM5	Lime Green	Lime
SM	Yellow	Blue
SM (APC)	Yellow	Green

FIBRE CABLE - TYPE
Where is the cable going?, What is the type of cable required?

Standard
| Indoor/Outdoor Riser Cable (GUMT^**)
| External Loose Tube (GOGN** / GBNH**)

Specialty
| Rodent Protected - NMA (Non Mettallic Armour)
| Rodent Protected - CST (Corregated Steel Tape Armour)
| Mil Spec / Rapid Deployable / Tactical fibre
| Other (Please contact your APS Representative)

INTERNAL RISER PART NUMBER MATRIX

G	U	M	T	^	*	*

MODE^	
CODE	MODE
A	SM
1	OM1
D	OM3
E	OM4

CORE COUNT**	
CODE	NO. OF CORES
06	6
12	12
24	24
48	48

TYPE	PART NUMBER	QTY	DESCRIPTION
FIBRE SOLUTION - SINGLE MODE (OS2)			
Internal Riser Cables	GUMTA06.012100	mtr	6f Indoor/Outdoor OS2 SM Riser Cable
	GUMTA12.012100	mtr	12f Indoor/Outdoor OS2 SM Riser Cable
U/G Cable	GOGN812.T62100	mtr	12f OS2 SM Loose Tube
	GOGN824.T62100	mtr	24f OS2 SM Loose Tube
FIBRE SOLUTION - MULTI MODE (OM3)			
Internal Riser Cables	GUMTD06.052100	mtr	6f Indoor/Outdoor OM3 Riser Cable
	GUMTD12.052100	mtr	12f Indoor/Outdoor OM3 Riser Cable
U/G Cable	GOGND12.T62100	mtr	12f OM3 Loose Tube
	GOGND24.T62100	mtr	24f OM3 Loose Tube

How many cores are required?

1	2	4	6	8	12	24	36	48	72	96	144	OTHER

TERMINATION

How are is the cable being terminated and which connector type?

Fibre Pigtails are only required where the Installing contractor is splicing, they are not required if patching or using preterminated cables
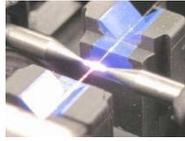
PRE-TERMINATED	FUSION SPLICING	FIELD TERMINABLE CONNECTOR

Match your mode of fibre cable with the correct connectivity e.g Singlemode fibre Cable should always be terminated using singlemode Connectors, Pigtails, Thruadaptors, etc

LC	LC/APC	MPO	SC	SC/APC	MTRJ

ST	FC	SIMPLEX (SC)	DUPLEX (LC)	OTHER

COMMON PRODUCTS & FOBOT CONFIGURATIONS
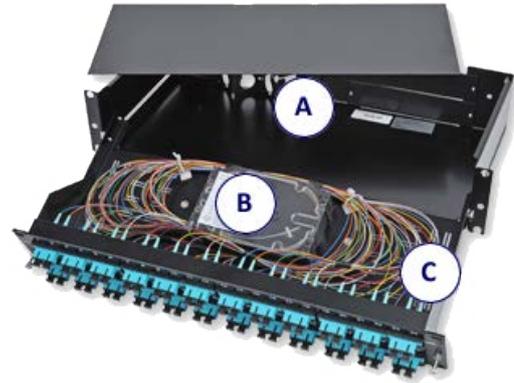
PRODUCT GROUP	PART NUMBER	QTY	DESCRIPTION
FIBRE SOLUTION - SINGLE MODE (OS2)			
FOBOT - LC Option (12f)	AP100041	x1	1RU 12/24 port 2 Slot FOBOT
	AP101731	x1	12f LC Duplex Adaptor Strip
	TFSLC900PR12	x1	LC Single Mode Pigtails - 12 Pack (Rainbow)
	AP100066	x1	Blanking Plate
	SPHS40	x1	Heat Shrink Splice protectors 25pk 40mm
FOBOT - LC Option (24f)	AP100041	x1	1RU 12/24 port 2 Slot FOBOT
	AP101731	x2	12f LC Duplex Adaptor Strip
	TFSLC900PR12	x2	LC Single Mode Pigtails - 12 Pack (Rainbow)
	SPHS40	x1	Heat Shrink Splice protectors 25pk 40mm
FOBOT - SC Option (12f)	AP100041	x1	1RU 12/24 port 2 Slot FOBOT
	AP101409	x1	12f SC Duplex Adaptor Strip
	TFSSC900PR12	x1	SC Single Mode Pigtails - 12 Pack (Rainbow)
	AP100066	x1	Blanking Plate
	SPHS40	x1	Heat Shrink Splice protectors 25pk 40mm
FOBOT - SC Option (24f)	AP100041	x1	1RU 12/24 port 2 Slot FOBOT
	AP101409	x2	12f SC Duplex Adaptor Strip
	TFSSC900PR12	x2	SC Single Mode Pigtails - 12 Pack (Rainbow)
	SPHS40	x1	Heat Shrink Splice protectors 25pk 40mm

PRODUCT GROUP	PART NUMBER	QTY	DESCRIPTION
FIBRE SOLUTION - MULTI-MODE (OM3)			
FOBOT - LC Option (12f)	AP100041	x1	1RU 12/24 port 2 Slot FOBOT
	AP101729AQ	x1	12f LC Duplex Adaptor Strip
	TF3LC900PR12	x1	LC OM3 Pigtails - 12 Pack (Rainbow)
	AP100066	x1	Blanking Plate
	SPHS40	x1	Heat Shrink Splice protectors 25pk 40mm
FOBOT - LC Option (24f)	AP100041	x1	1RU 12/24 port 2 Slot FOBOT
	AP101729AQ	x2	12f LC Duplex Adaptor Strip
	TF3LC900PR12	x2	LC OM3 Pigtails - 12 Pack (Rainbow)
	SPHS40	x1	Heat Shrink Splice protectors 25pk 40mm
FOBOT - SC Option (24f)	AP100041	x1	1RU 12/24 port 2 Slot FOBOT
	AP100098AQ	x1	12f SC Duplex Adaptor Strip
	TF3SC900PR12	x1	SC OM3 Pigtails - 12 Pack (Rainbow)
	AP100066	x1	Blanking Plate
	SPHS40	x1	Heat Shrink Splice protectors 25pk 40mm
FOBOT - SC Option (24f)	AP100041	x1	1RU 12/24 port 2 Slot FOBOT
	AP100098AQ	x2	12f SC Duplex Adaptor Strip
	TF3SC900PR12	x2	SC OM3 Pigtails - 12 Pack (Rainbow)
	SPHS40	x1	Heat Shrink Splice protectors 25pk 40mm
Patch Leads - LC-LC	PF3LDLD001ML2XA	ea	1m LC to LC OM3 Patch Lead
	PF3LDLD002ML2XA	ea	2m LC to LC OM3 Patch Lead
Patch Leads - SC-SC	PF3SDSD001ML2XA	ea	1m SC to SC OM3 Patch Lead
	PF3SDSD002ML2XA	ea	2m SC to SC OM3 Patch Lead
FIBRE SOLUTION - OM4 MULTI-MODE			
FOBOT - LC Option (12f)	AP100041	x1	1RU 12/24 port 2 Slot FOBOT
	AP101729EV	x1	12f LC Duplex Adaptor Strip
	TF4LC900PR12	x1	LC OM3 Pigtails - 12 Pack (Rainbow)
	AP100066	x1	Blanking Plate
	SPHS40	x1	Heat Shrink Splice protectors 25pk 40mm
FOBOT - LC Option (24f)	AP100041	x1	1RU 12/24 port 2 Slot FOBOT
	AP101729EV	x2	12f LC Duplex Adaptor Strip
	TF4LC900PR12	x2	LC OM3 Pigtails - 12 Pack (Rainbow)
	SPHS40	x1	Heat Shrink Splice protectors 25pk 40mm
Patch Leads - LC-LC	PF4LDLD001ML2XA	ea	1m LC to LC OM3 Patch Lead
	PF4LDLD002ML2XA	ea	2m LC to LC OM3 Patch Lead

COPPER CABLE

COPPER CABLE SELECTION GUIDE

CAT6 RETAIL (15 YEAR WARRANTY APPLICABLE*)

PART NUMBER	DESCRIPTION	COMMENTS
INTERNAL CABLE		
BEL601006U305M	Cat6 4pr 24awg UTP Dataconnect 305mtr Box	
EXTERNAL (UNDERGROUND) CABLE		
OSP6U0101000	Cat6 4pr UTP External BK 305mtr	
OUTLETS / RJ45 JACKS		
AX101342	Cat6+ RJ45 Jack Suits Clipstal White	Moulded Jack to suit Clipsal 2000 Series Faceplate (110 Tool Termination)
RA6MJ-BK	Retail CAT6 RJ45 Modular Jack, Black	Keystone Jack - to suit RA56CPP24 - retail Cat6 unloaded patch panel (110 Tool Termination)
AX101320	Cat6+ RJ45 Jack Keyconnect White	Keystone Jack - Suitable to use with Iconic Bezel or other bezel to suit any wall plate (Use 110 Tool or Rapid Termination Tool)
CLIPSAL STYLE BEZELS (IF USING KEYSTONE JACKS)		
BEZEL-WH	Bezel to suit Clipsal 2000 series faceplate - White	Required if using keystone jacks for outlets with Clipsal Face Plates
BEZEL-BK	Bezel to suit Clipsal 2000 series faceplate - Black	Required if using keystone jacks for outlets with Clipsal Face Plates
BEZEL-SH-WH	Shuttered Bezel to suit Clipsal 2000 series faceplate - White	Required using keystone jacks for outlets with Clipsal Face Plates - Added Shutter for dust protection
MALE PLUGS		
RA6RJ	8P8C MODULAR PLUG FOR CAT 6 UTP (box of 50)	Crimp Crystals to make your own patch leads
RA6BT	RJ45-PLUG BOOT FOR CAT 6 UTP (box of 50)	Boots to go on the back of the crystals for mechanical protection
RA6CT	Deluxe Hand Modular Plug Crimping Tool	Tool for Crimp Plugs
PATCH PANEL		
RA56CPP24	Patch Panel 24 Port 1RU (unloaded)	Requires 24x RA6MJ-BK Jacks, Belden Punchdown Tool Termination only at this stage
PATCH PANEL ACCESSORIES		
AX105931	Rear Cable Manager for PP 1RU 19"	Lacing Bar
CABLEMNDR5R	5 Ring Cable Manager	
PATCH LEADS		
RA6PC**M-BU	Cat6 Patch Leads LSZH Blue	See Patch leads part number matrix below

CAT6+ (25YR WARRANTY*)

PART NUMBER	DESCRIPTION	COMMENTS
Internal Cable		
7814A006A1000	Cat6 4pr 24awg PVC BL 305mtr Box	PVC Sheath
7814ANH006A1000	Cat6 4pr 24awg LSZH BL 305mtr Box	LSZH Sheath, Grey Option Also available - 7814ANH008A1000
EXTERNAL (UNDERGROUND) CABLE		
OSP6U0101000	Cat6 4pr UTP External BK 305mtr	
OUTLETS / RJ45 JACKS		
AX101342	Cat6+ RJ45 Jack Suits Clipstal White	Moulded Jack to suit Clipsal 2000 Series Faceplate (110 Tool Termination)
AX101320	Cat6+ RJ45 Jack Keyconnect White	Keystone Jack - Suitable to to use with Iconic Bezel or other bezel to suit any wall plate (Use 110 Tool or Rapid Termination Tool)
AX101321	Cat6+ RJ45 Jack Keyconnect Black	Keystone Jack - Suits AX101321 *included with patch panel

PART NUMBER	DESCRIPTION	COMMENTS
CLIPSAL STYLE BEZELS (IF USING KEYSTONE JACKS)		
BEZEL-WH	Bezel to suit Clipsal 2000 series faceplate - White	Required if using keystone jacks for outlets with Clipsal Face Plates
BEZEL-BK	Bezel to suit Clipsal 2000 series faceplate - Black	Required if using keystone jacks for outlets with Clipsal Face Plates
BEZEL-SH-WH	Shuttered Bezel to suit Clipsal 2000 series faceplate - White	Required using keystone jacks for outlets with Clipsal Face Plates - Added Shutter for dust protection
MALE PLUGS		
90000005	Cat6 Field Terminable RJ45 Plug	Toolless RJ45 Field Terminable Plug
PATCH PANEL		
AX103253	Cat6 24 Port Patch Panel 1RU (loaded)	Is supplied loaded w/ 24x AX101321
PATCH PANEL ACCESSORIES		
AX105931	Rear Cable Manager for PP 1RU 19"	Lacing Bar
CABLEMNDR5R	5 Ring Cable Manager	
PATCH LEADS		
RA6PC**M-BU	Cat6 Patch Leads LSZH Blue	See Patch leads part number matrix below

CAT6A UTP - UNSHIELDED (25YR WARRANTY*)

PART NUMBER	DESCRIPTION	COMMENTS
INTERNAL CABLE		
10GA24008305M	Cat 6A U/UTP LSZH (grey sheath), 305mtr Reel	Colour options available upon request
EXTERNAL (UNDERGROUND) CABLE		
OSP6AU0101000	CAT6A 4PR U/UTP OSP REEL, External, 305m Reel	
OUTLETS / RJ45 JACKS		
RVAMJKUEW-S1	REVConnect CAT6A UTP Jack, White (Keystone)	Keystone Jack - Requires Bezel for wall plate - RevConnect Tool termination
RVAMJKUBK-S1	REVConnect CAT6A UTP Jack, Black (Keystone)	Keystone Jack - suits AX106504-AP Unloaded Patch Panel
CLIPSAL STYLE BEZELS (REQUIRED FOR WALL OUTLETS)		
BEZEL-WH	Bezel to suit Clipsal 2000 series faceplate - White	Required if using keystone jacks for outlets with Clipsal Face Plates
BEZEL-BK	Bezel to suit Clipsal 2000 series faceplate - Black	Required if using keystone jacks for outlets with Clipsal Face Plates
BEZEL-SH-WH	Shuttered Bezel to suit Clipsal 2000 series faceplate - White	Required using keystone jacks for outlets with Clipsal Face Plates - Added Shutter for dust protection
MALE PLUGS		
RVAFPUBK-S1	Revconnect Cat 6A Unshielded Plug Black	RevConnect Tool termination
90000006	Cat6A Field Terminable RJ45 Plug	Toolless RJ45 Field Terminable Plug
PATCH PANEL		
AX106504-AP	Cat6a 24 Port Patch Panel Shielded 1RU (unloaded)	Requires 24x RVAMJKUBK-S1 Jacks, Belden Revconnect Tool Termination only
PATCH PANEL ACCESSORIES		
AX105931	Rear Cable Manager for PP 1RU 19"	Lacing Bar
CABLEMNDR5R	5 Ring Cable Manager	
PATCH LEADS		
CA241060***	Cat6a UTP Patch Leads LSZH Blue	See Patch leads part number matrix below

CAT6A F/UTP - SHIELDED (25YR WARRANTY*)

PART NUMBER	DESCRIPTION	COMMENTS
INTERNAL CABLE		
10GA25008305M	Cat 6A F/UTP LSZH (grey sheath), 305mtr Reel	Colour options available upon request
EXTERNAL (UNDERGROUND) CABLE		
OSP6AF0101000	CAT6A 4PR U/UTP OSP REEL, External, 305m Reel	

PART NUMBER	DESCRIPTION	COMMENTS
OUTLETS / RJ45 JACKS		
AX104562	Cat6A Shielded Jack Toolless (Keystone)	Requires Bezel to suit wall plate, also suits AX106504-AP patch panel
RVAMJKSME-S1	Revconnect Cat 6A Shielded Jack (Keystone)	Requires Bezel to suit wall plate, also suits AX106504-AP patch panel
CLIPSAL STYLE BEZELS (REQUIRED FOR WALL OUTLETS)		
BEZEL-WH	Bezel to suit Clipsal 2000 series faceplate - White	Required if using keystone jacks for outlets with Clipsal Face Plates
BEZEL-BK	Bezel to suit Clipsal 2000 series faceplate - Black	Required if using keystone jacks for outlets with Clipsal Face Plates
BEZEL-SH-WH	Shuttered Bezel to suit Clipsal 2000 series faceplate - White	Required using keystone jacks for outlets with Clipsal Face Plates - Added Shutter for dust protection
MALE PLUGS		
RVAFPSME-S1	Revconnect Cat 6A Shielded Plug Metal	RevConnect Tool termination
90000006	Cat6A Field Terminable RJ45 Plug	Toolless RJ45 Field Terminable Plug
PATCH PANEL		
AX106504-AP	Cat6a 24 Port Patch Panel Shielded 1RU (unloaded)	Requires 24x RVAMJKSME-S1 Jacks(Belden Revconnect Tool Termination only) Or 24x AX104562 (Toolless Shielded Jacks)
PATCH PANEL ACCESSORIES		
AX105931	Rear Cable Manager for PP 1RU 19"	Lacing Bar
CABLEMNDR5R	5 Ring Cable Manager	
PATCH LEADS		
A7JSJSA602106****	Cat6A S/FTP Patch Leads LSZH Blue	See Patch leads part number matrix below
A7JSJSA6021^^*****	Cat6A S/FTP Patch Leads LSZH Colours	See Patch leads part number matrix below

TOOLS

PART NUMBER	DESCRIPTION	JACKS REQUIRED / PRODUCT CODES
AX100749	Gigaflex Connecting Tool (110 Punchdown)	For use with All Jacks (excluding Revconnect) - Retail Range, Cat6+ etc.
AX105566	Rapid Termination Tool	Suitable for "Keyconnect" Jacks - AX101320 & AX101321
RVUTT01	Rev Connect Termination Tool (Inc. Cable Prep Tool)	Suitable for "RevConnect" Products (Shielded / Unshielded Jacks & Plugs)

PATCH LEADS PART NUMBER MATRIX

PART NUMBER	DESCRIPTION
CAT6	
RA6PC**M-BU	Cat6 Patch Leads LSZH Blue
C6541^^***M	Cat6 Patch Leads LSZH - Colours
CAT6A U/UTP - UNSHIELDED	
CA241060***	Cat6a UTP Patch Leads LSZH Blue
CAT6A F/UTP - SHIELDED	
A7JSJSA602106****	Cat6A S/FTP Patch Leads LSZH Blue
A7JSJSA6021^^*****	Cat6A S/FTP Patch Leads LSZH Colours
MAKE YOUR OWN PATCH LEADS	
RA6RJ	8P8C MODULAR PLUG FOR CAT 6 UTP (box of 50)
RA6BT	RJ45-PLUG BOOT FOR CAT 6 UTP (box of 50)
RA6CT	Deluxe Hand Modular Plug Crimping Tool

COMMENTS / PART NUMBER MATRIX				
	COLOUR^^		LENGTH**	
	CODE	COLOUR	CODE	LENGTH
Patch Leads are not usually included in the structured cabling warranty. Each length and colour option of Patch lead have their own code. Please see the matrix (right) and apply to the part numbers on this document,** Denotes length of lead required, ^^ Denotes Colour required (see below).	01	Brown	D5M	0.5mtr
	02	Red	01M	1mtr
	03	Orange	02M	2mtr
	04	Yellow	03M	3mtr
	05	Green	05M	5mtr
	06	Blue	10M	10mtr
	07	Purple	15M	15mtr
	08	Grey	20M	20mtr
	09	White	25M	25mtr
	00	Black	30M	30mtr
	10	Teal	50M	35mtr

CATEGORY 6 INDUSTRIAL AND OUTDOOR CABLES
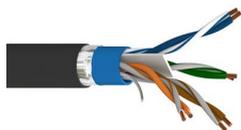
Belden Category 6 Industrial Ethernet Copper Cable offers Belden's patented Bonded-Pair technology for superior reliability and longer cable life even in harsh environments, DataTuff Cat6 cables are built to maximize uptime and performance. Available options include shielding, solid or stranded conductors,armoured and high temperature rating. Category 6 cables offer speeds up to 10 GBit.

PART NUMBER	DESCRIPTION	TYPE	JACKET	APPLICATION	NOM. CABLE OD (MM)	PACKAGE
7953A 0021000	4PR CAT6 F/UTP PVC 305M RED	F/UTP	DATATUFF® PVC	INDOOR/OUTDOOR, ABOVE GROUND, OIL RESISTANT	8.5	SPOOL
7953A 0061000	4PR CAT6 F/UTP PVC 305M BLUE	F/UTP	DATATUFF® PVC	INDOOR/OUTDOOR, ABOVE GROUND, OIL RESISTANT	8.5	SPOOL
7953A 0081000	4PR CAT6 F/UTP PVC 305M GREY	F/UTP	DATATUFF® PVC	INDOOR/OUTDOOR, ABOVE GROUND, OIL RESISTANT	8.5	SPOOL
7953A 0101000	4PR CAT6 F/UTP PVC 305M BLACK	F/UTP	DATATUFF® PVC	INDOOR/OUTDOOR, ABOVE GROUND, OIL RESISTANT	8.5	SPOOL
7953A 1NH1000	4PR CAT6 F/UTP PVC 305M TEAL	F/UTP	DATATUFF® PVC	INDOOR/OUTDOOR, ABOVE GROUND, OIL RESISTANT	8.5	SPOOL
7927A 0101000	4PR CAT6 UTP PVC 305M BLACK	UTP	DATATUFF® PVC	INDOOR/OUTDOOR, ABOVE GROUND, OIL RESISTANT	8.6 X 6.3	SPOOL

CATEGORY 5E CABLES
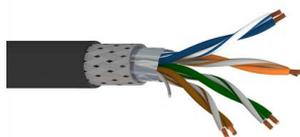
Belden DataTuff Category 5E Industrial Ethernet Copper Cable offers Belden's patented Bonded-Pair technology for superior reliability and longer cable life even in harsh environments.Available options include shielding, solid or stranded conductors,armoured and high temperature rating.Category 5E cables offer speeds up to1 GBit.Category 5E outdoor cables feature UV stabilized jackets for protection against sunlight damage. Depending on the application, additional protection including jelly filling and armouring are available.

PART NUMBER	DESCRIPTION	TYPE	JACKET	APPLICATION	NOM. CABLE OD (MM)	PACKAGE
7921A 0061000	4PR CAT5E SF/UTP OIL RES PVC 305M BLUE	S/UTP	PVC	INDOOR	8.4	SPOOL
7938A 0101000	4PR CAT5E SF/UTP HI FLEX TPE 305M BLACK	S/UTP - HIGH FLEX	TPE	INDOOR - CONTINUOUS FLEX	8.7	SPOOL
7918A 0061000	4PR CAT5E UTP OIL RES PVC 305M BLUE	UTP	PVC - SUNLIGHT & OIL RES	INDOOR/OUTDOOR	5.8	SPOOL
7918A 0101000	4PR CAT5E UTP OIL RES PVC 305M BLACK	UTP	PVC - SUNLIGHT & OIL RES	INDOOR/OUTDOOR	5.8	SPOOL
7919A 0061000	4PR CAT5E F/UTP OIL RES PVC 305M BLUE	F/UTP	PVC - SUNLIGHT & OIL RES	INDOOR/OUTDOOR	6.7	SPOOL
7919A 0101000	4PR CAT5E F/UTP OIL RES PVC 305M BLACK	F/UTP	PVC - SUNLIGHT & OIL RES	INDOOR/OUTDOOR	6.7	SPOOL
7918A 0101000	4PR CAT5E UTP OIL RES PVC 305M BLACK	UTP	PVC - SUNLIGHT & OIL RES	INDOOR/OUTDOOR	5.8	SPOOL
7919A 0061000	4PR CAT5E F/UTP OIL RES PVC 305M BLUE	F/UTP	PVC - SUNLIGHT & OIL RES	INDOOR/OUTDOOR	6.7	SPOOL
7919A 0101000	4PR CAT5E F/UTP OIL RES PVC 305M BLACK	F/UTP	PVC - SUNLIGHT & OIL RES	INDOOR/OUTDOOR	6.7	SPOOL
7932A 0021000	2PR CAT5E UTP OIL RES PVC 305M RED	UTP	PVC - SUNLIGHT & OIL RES	INDOOR/OUTDOOR	5.3	SPOOL
7932A 0101000	2PR CAT5E UTP OIL RES PVC 305M BLACK	UTP	PVC - SUNLIGHT & OIL RES	INDOOR/OUTDOOR	5.3	SPOOL
7932A 1NH1000	2PR CAT5E UTP OIL RES PVC 305M TEAL	UTP	PVC - SUNLIGHT & OIL RES	INDOOR/OUTDOOR	5.3	SPOOL
7933A 0101000	2PR CAT5E UTP OIL RES PVC 305M BLACK	UTP	PVC - SUNLIGHT & OIL RES	INDOOR/OUTDOOR	6	SPOOL
7933A 1NH1000	2PR CAT5E F/UTP OIL RES PVC 305M TEAL	F/UTP	PVC - SUNLIGHT & OIL RES	INDOOR/OUTDOOR	6	SPOOL
7937A 0101000	4PR CAT5E F/UTP JFILLED PE 305M BLACK	F/UTP - JELLY FILLED	PE	UNDERGROUND	7	SPOOL

DATATUFF®

INDUSTRIAL ETHERNET CABLE SELECTION GUIDE

PART NUMBER	CONDUCTOR		INSTALLATION		ENVIRONMENTAL										INDUSTRIAL GRADE JACKET		
	SOLID	STRANDED	INSTALLATION STRESS RESISTANCE*	PULL TENSION	OIL RES.	UV SUN RES.	WELD-SPLATTER RES.	CMX-OUTDOOR	DIRECT BURIAL	GAS RES.	LSZH	MSHA	HI/LOW TEMP.	600 V AWM	HEAVY	UPJACKET	ARMORED
CATEGORY 7 SHIELDED CABLE																	
74004E	•		80		•	•											
74004NH	•		80		•	•					•						
74005E		•	80		•	•											
74005NH		•	80		•	•					•						
74005PU		•	80		•	•					•						
CATEGORY 6 SHIELDED CABLE																	
7953A EtherNet/IP	•		•	40	•	•		•						•		•	
CATEGORY 6 UNSHIELDED CABLE																	
7940A EtherNet/IP	•		•	40	•	•		•							•		
7927A	•		•	45	•	•									•		
11872A	•		•	45											•	•	
121872A	•		•	200		•									•		•
7931A	•		•	40	•	•				•		•			•		
CATEGORY 5E SHIELDED CABLE																	
7929A	•		•	40	•	•		•				•			•		
7958A EtherNet/IP	•		•	35	•	•								•	•		
7919A	•		25		•	•		•				•			•		
7939A		•	•	40	•	•									•		
7921A EtherNet/IP	•		•	75	•	•		•							•		
7957A EtherNet/IP	•		•	75	•	•		•						•	•		
7937A	•		•	40	•	•			•							•	
7936A	•		•	40		•					•	•			•		
74001E	•		40		•	•											
74001NH	•		40		•	•					•						
74001PU	•		40		•	•											
74002E		•	30		•	•											
74002NH		•	30		•	•					•						
74002PU		•	30		•	•					•						
7938A HIGH FLEX		•	•	40	•	•	•									•	
74003PU HIGH FLEX TRAILING		•	30		•	•					•						
74009PU HIGH FLEX TORSION		•	30		•	•	•				•						

* Products with Bonded-Pair™ technology provide Installable Performance® advantages; refer to Belden's Bonded-Pair Cable Bulletin BP02.

DATA

RS-485 DATA CABLES

Belden Industrial RS-485 cables are designed with low capacitance to prevent data distortion or errors, ideal for long distance applications. RS-485 cabling is commonly used in the industrial sector for communications between various devices, controllers and PLC's.

PART NUMBER	DESCRIPTION	APPLICATION	NOM. CABLE OD (MM)	PACKAGE	TYPE	CONDUCTOR AWG	NO. OF PAIRS	INSULATION MATERIAL	JACKET MATERIAL
9841 0601000	1PR 24AWG RS485 PVC 305M CHROME	INTERNAL 120 OHM CABLE	5.9	SPOOL	PAIRED CABLE - OVERALL FOIL + BRAID SCREEN	24	1	PE	PVC
9842 0601000	2PR 24AWG RS485 PVC 305M CHROME	INTERNAL 120 OHM CABLE	8.6	SPOOL	PAIRED CABLE - OVERALL FOIL + BRAID SCREEN	24	2	PE	PVC
9843 0601000	3PR 24AWG RS485 PVC 305M CHROME	INTERNAL 120 OHM CABLE	9.1	SPOOL	PAIRED CABLE - OVERALL FOIL + BRAID SCREEN	24	3	PE	PVC
9844 0601000	4PR 24AWG RS485 PVC 305M CHROME	INTERNAL 120 OHM CABLE	9.9	SPOOL	PAIRED CABLE - OVERALL FOIL + BRAID SCREEN	24	4	PE	PVC
3105A 0101000	1PR 22AWG RS485 PVC 305M BLACK	INTERNAL 120 OHM CABLE	7.2	SPOOL	PAIRED CABLE - OVERALL FOIL + BRAID SCREEN	22	1	FOAM PE	PVC
3106A 0101000	1PR+1C 22AWG RS485 PVC 305M BLACK	INTERNAL 120 OHM CABLE	7.6	SPOOL	PAIRED CABLE - OVERALL FOIL SCREEN	22	1 + 1C	FOAM PE	PVC
3107A 0101000	2PR 22AWG RS485 PVC 305M BLACK	INTERNAL 120 OHM CABLE	9.0	SPOOL	PAIRED CABLE - OVERALL FOIL + BRAID SCREEN	22	2	FOAM PE	PVC
3105DB 0101000	1PR 22AWG RS485 PVC 305M BLACK	EXTERNAL 120 OHM CABLE	8.6	SPOOL	PAIRED CABLE - OVERALL FOIL + BRAID SCREEN	22	2	FOAM PE	CPE
3106DB 0101000	1PR+1C 22AWG RS485 PVC 305M BLACK	EXTERNAL 120 OHM CABLE	9.2	SPOOL	PAIRED CABLE - OVERALL FOIL + BRAID SCREEN	22	1 + 1C	FOAM PE	CPE
3107DB 0101000	2PR 22AWG RS485 PVC 305M BLACK	EXTERNAL 120 OHM CABLE	9.8	SPOOL	PAIRED CABLE - OVERALL FOIL + BRAID SCREEN	22	2	FOAM PE	CPE
3108DB 0101000	3PR 22AWG RS485 PVC 305M BLACK	EXTERNAL 120 OHM CABLE	10.4	SPOOL	PAIRED CABLE - OVERALL FOIL + BRAID SCREEN	22	3	FOAM PE	CPE
3109DB 0101000	4PR 22AWG RS485 PVC 305M BLACK	EXTERNAL 120 OHM CABLE	12.2	SPOOL	PAIRED CABLE - OVERALL FOIL + BRAID SCREEN	22	4	FOAM PE	CPE

RS-422 DATA CABLES

RS-422 screened twisted pair data cable was used for connecting data terminal equipment to computers before the advent of USB and wireless technology. It is now used in the security and industrial segments to connect sensors and monitors to controllers and PLC's.

PART NUMBER	DESCRIPTION	APPLICATION	NOM. CABLE OD (MM)	PACKAGE	TYPE	CONDUCTOR AWG	NO. OF PAIRS	INSULATION MATERIAL	JACKET MATERIAL
1419A 0601000	2PR 24AWG SCREENED PVC 305M CHROME	INTERNAL	6.3	SPOOL	OVERALL FOIL SCREEN	24	2	FOAM PE	PVC
1420A 0601000	3PR 24AWG SCREENED PVC 305M CHROME	INTERNAL	6.6	SPOOL	OVERALL FOIL SCREEN	24	3	FOAM PE	PVC
1421A 0601000	4PR 24AWG SCREENED PVC 305M CHROME	INTERNAL	7.1	SPOOL	OVERALL FOIL SCREEN	24	4	FOAM PE	PVC
1423A 0601000	6PR 24AWG SCREENED PVC 305M CHROME	INTERNAL	8.1	SPOOL	OVERALL FOIL SCREEN	24	6	FOAM PE	PVC
1424A 0601000	12PR 24AWG SCREENED PVC 305M CHROME	INTERNAL	10.6	SPOOL	OVERALL FOIL SCREEN	24	12	FOAM PE	PVC
8102 0601000	2PR 24AWG BRAID FOIL PVC 305M CHROME	INTERNAL, HIGH NOISE REJECTION	6.9	SPOOL	OVERALL FOIL + BRAID SCREEN	24	2	FOAM PE	PVC
9829 0601000	2PR 24AWG BRAID FOIL PVC 305M CHROME	INTERNAL, HIGH NOISE REJECTION	7.3	SPOOL	OVERALL FOIL + BRAID SCREEN	24	2	PE	PVC
8164 0601000	4PR 24AWG BRAID FOIL PVC 305M CHROME	INTERNAL, HIGH NOISE REJECTION	9.9	SPOOL	IND & OA FOIL + OA BRAID SCREEN	24	4	FOAM PE	PVC

RS-232 DATA CABLES

Belden RS 232 is a standard protocol used for serial communication. RS-232 screened multi-conductor data cable was used to connect older style data terminal equipment such as keyboards, printers, modems and scanners to computers.

PART NUMBER	DESCRIPTION	APPLICATION	NOM. CABLE OD (MM)	PACKAGE	TYPE	CONDUCTOR AWG	NO. OF CORES	INSULATION MATERIAL	JACKET MATERIAL
MULTICORE RS-232 CABLES									
9533 0601000	3C 24AWG SCREENED PVC 305M CHROME	INTERNAL	4.1	SPOOL	MULTI CORE - OVERALL FOIL SCREEN	24	3	PVC	PVC
9533 060U1000	3C 24AWG SCREENED PVC 305M CHROME	INTERNAL	4.1	PULL BOX	MULTI CORE - OVERALL FOIL SCREEN	24	3	PVC	PVC
MULTICORE RS-232 CABLES									
9538 0601000	8C 24AWG SCREENED PVC 305M CHROME	INTERNAL	5.7	SPOOL	MULTI CORE - OVERALL FOIL SCREEN	24	8	PVC	PVC
9538 060U1000	8C 24AWG SCREENED PVC 305M CHROME	INTERNAL	5.7	PULL BOX	MULTI CORE - OVERALL FOIL SCREEN	24	8	PVC	PVC
9541 0601000	15C 24AWG SCREENED PVC 305M CHROME	INTERNAL	7.2	SPOOL	MULTI CORE - OVERALL FOIL SCREEN	24	15	PVC	PVC
9541 060U1000	15C 24AWG SCREENED PVC 305M CHROME	INTERNAL	7.2	PULL BOX	MULTI CORE - OVERALL FOIL SCREEN	24	15	PVC	PVC
9542 0601000	20C 24AWG SCREENED PVC 305M CHROME	INTERNAL	7.9	SPOOL	MULTI CORE - OVERALL FOIL SCREEN	24	20	PVC	PVC
PAIRED RS-232 DATA CABLES									
9501 0601000	1PR 24AWG SCREENED PVC 305M CHROME	INTERNAL	4	SPOOL	PAIRED CABLE - OVERALL FOIL SCREEN	24	1	PVC	PVC
9501 060U1000	1PR 24AWG SCREENED PVC 305M CHROME	INTERNAL	4	PULL BOX	PAIRED CABLE - OVERALL FOIL SCREEN	24	1	PVC	PVC
9502 0601000	2PR 24AWG SCREENED PVC 305M CHROME	INTERNAL	5.6	SPOOL	PAIRED CABLE - OVERALL FOIL SCREEN	24	2	PVC	PVC
9502 060U1000	2PR 24AWG SCREENED PVC 305M CHROME	INTERNAL	5.6	PULL BOX	PAIRED CABLE - OVERALL FOIL SCREEN	24	2	PVC	PVC
9503 0601000	3PR 24AWG SCREENED PVC 305M CHROME	INTERNAL	5.9	SPOOL	PAIRED CABLE - OVERALL FOIL SCREEN	24	3	PVC	PVC
9503 060U1000	3PR 24AWG SCREENED PVC 305M CHROME	INTERNAL	5.9	PULL BOX	PAIRED CABLE - OVERALL FOIL SCREEN	24	3	PVC	PVC
9504 0601000	4PR 24AWG SCREENED PVC 305M CHROME	INTERNAL	6.7	SPOOL	PAIRED CABLE - OVERALL FOIL SCREEN	24	4	PVC	PVC
9504 060U1000	4PR 24AWG SCREENED PVC 305M CHROME	INTERNAL	6.7	PULL BOX	PAIRED CABLE - OVERALL FOIL SCREEN	24	4	PVC	PVC
9506 0601000	6PR 24AWG SCREENED PVC 305M CHROME	INTERNAL	7.3	SPOOL	PAIRED CABLE - OVERALL FOIL SCREEN	24	6	PVC	PVC
9506 060U1000	6PR 24AWG SCREENED PVC 305M CHROME	INTERNAL	7.3	PULL BOX	PAIRED CABLE - OVERALL FOIL SCREEN	24	6	PVC	PVC
9510 0601000	10PR 24AWG SCREENED PVC 305M CHROME	INTERNAL	9.3	SPOOL	PAIRED CABLE - OVERALL FOIL SCREEN	24	10	PVC	PVC
PAIRED RS-232 DATA CABLES									
9519 0601000	19PR 24AWG SCREENED PVC 305M CHROME	INTERNAL	11.4	SPOOL	PAIRED CABLE - OVERALL FOIL SCREEN	24	19	PVC	PVC
9525 0601000	25PR 24AWG SCREENED PVC 305M CHROME	INTERNAL	12.8	SPOOL	PAIRED CABLE - OVERALL FOIL SCREEN	24	25	PVC	PVC
8340 0601000	10PR 24AWG BRAIDFOIL PVC 305M CHROME	INTERNAL - HIGH NOISE REJECTION	9.7	SPOOL	PAIRED CABLE - OVERALL FOIL + BRAID SCREEN	24	10	PVC	PVC

TWINAX

150 Ohm twinaxial cables are used in some proprietary communications systems such as Honeywell serial interface and GE Fanuc I/O bus.

PART NUMBER	DESCRIPTION	APPLICATION	NOM. CABLE OD (MM)	PACKAGE	TYPE	CONDUCTOR AWG	NO. OF PAIRS	INSULATION MATERIAL	JACKET MATERIAL
9182 0101000	TWINAX 22AWG SCREENED PVC 305M BLACK	TWINAX - INTERNAL	8.8	SPOOL	TWINAXIAL - OVERALL FOIL SCREEN	22	1	FOAM PE	PVC

CABLE

4K UHD COAXIAL CABLE

Belden 4K UHD Coax Cables for 12G-SDI maximize 4K signal transmission distance over a single coax, minimizing weight and space utilization compared to multi-link solutions.

PART NUMBER	DESCRIPTION	NOM. CABLE OD (MM)	PACKAGE	RG STYLE	SCREEN TYPE	CONDUCTOR AWG	CONDUCTOR STRANDING	INSULATION MATERIAL	JACKET MATERIAL
4855R 0101000	4K UHD COAX FOR 12G-SDI , 75 OHM	4.0	SPOOL	MINI RG-59	FOIL + TC BRAID	23	SOLID	PE	PVC
4505R 0101000	4K UHD COAX FOR 12G-SDI , 75 OHM	5.9	SPOOL	RG-59	FOIL + TC BRAID	20	SOLID	PE	PVC
4694R 0101000	4K UHD COAX FOR 12G-SDI , 75 OHM	7.0	SPOOL	RG-6	FOIL + TC BRAID	18	SOLID	PE	PVC
4794R 0101000	4K UHD COAX FOR 12G-SDI , 75 OHM	8.1	SPOOL	SERIES 7	FOIL + TC BRAID + FOIL (TRI SHIELD)	16	SOLID	PE	PVC
4731R 010100	4K UHD COAX FOR 12G-SDI , 75 OHM	10.2	SPOOL	RG-11	FOIL + TC BRAID + FOIL (TRI SHIELD)	14	SOLID	PE	PVC

50 OHM RF & RADIO GRADE COAXIAL CABLES

Belden 50 Ohm coaxial cables are used for connecting point-to-point and point-to-multipoint wireless antenna communication; Wireless microphones, Two-Way Radios, Amateur (Ham) Radio, Low Power FM, GPS, RFID (Radio Frequency Identification)

PART NUMBER	DESCRIPTION	NOM. CABLE OD (MM)	PACKAGE	RG STYLE	SCREEN TYPE	CONDUCTOR AWG	CONDUCTOR STRANDING	INSULATION MATERIAL	JACKET MATERIAL
8267 0101000	COAX STRD 50 OHM PVC 305M BLACK	10.3	SPOOL	RG- 213	SINGLE SCREEN - BC BRAID	13	7/0.72 MM	SOLID PE	PVC
8259 0101000	COAX STRD RG58A/U PVC 305M BLACK	4.9	SPOOL	RG-58	SINGLE SCREEN - TACW BRAID	20	19/0.18 MM	SOLID PE	PVC
8259 010U1000	COAX STRD RG58A/U PVC 305M BLACK	4.9	PULL BOX	RG-58	SINGLE SCREEN - TACW BRAID	20	19/0.18 MM	SOLID PE	PVC
9913 0101000	COAX SOL RG8 DUALSHLD PVC 305M BLACK	10.3	SPOOL	RG-8	DUAL SCREEN -AL FOIL + TACW BRAID	10	SOLID	SEMI-SOLID PE	PVC
9913F7 B591000	COAX STRD RG8 DUALSHLD PVC 305M BLACK	10.3	SPOOL	RG-8	DUAL SCREEN -AL FOIL + TACW BRAID	10	7/0.91 MM	GAS INJECTED FHDPE	PVC
9913 010100	COAX SOL RG8 DUALSHLD PVC 30.5M BLACK	10.3	SPOOL	RG-8	DUAL SCREEN -AL FOIL + TACW BRAID	10	SOLID	SEMI-SOLID PE	PVC
7806A 0101000	COAX SOL RG58 DUALSHLD PE 305M BLACK	4.95	SPOOL	RG 58	DUAL SCREEN -AL FOIL + TACW BRAID	19	SOLID	GAS INJECTED FHDPE	PE

75 OHM VIDEO AND BROADCAST CABLES

Belden 75 Ohm coaxial cables are used for transmitting video signals. This type of coaxial can be used for connecting antenna to transmitting or receiving equipment, or for connecting video recording equipment to cameras or monitors. Belden 75 Ohm coaxial suitable in Broadband, Cable Television (CATV), RF drop cable, Over-The-Air (OTA) antennas.

PART NUMBER	DESCRIPTION	APPLICATION	NOM. CABLE OD (MM)	PACKAGE	RG STYLE	SCREEN TYPE	CONDUCTOR AWG	CONDUCTOR STRANDING	INSULATION MATERIAL	JACKET MATERIAL
1617A 0101000	COAX CCS RG11 QUADSHLD PVC 305M BLACK	CATV, MATV AND FREE-TO- AIR TV	10.3	SPOOL	RG-11	QUAD AL SCREEN-FOIL/ BRAID/FOIL/ BRAID	14	1/1.63 MM	GAS INJECTED HDPE	PVC
1618A 0031000	COAX CCS RG11 QUADSHLD PE 305M ORANGE	CATV, MATV AND FREE-TO- AIR TV	10.3	SPOOL	RG-11	QUAD AL SCREEN-FOIL/ BRAID/FOIL/ BRAID	14	1/1.63 MM	GAS INJECTED HDPE	PE
1618A 0101000	COAX CCS RG11 QUADSHLD PE 305M BLACK	CATV, MATV AND FREE-TO- AIR TV	10.3	SPOOL	RG-11	QUAD AL SCREEN-FOIL/ BRAID/FOIL/ BRAID	14	1/1.63 MM	GAS INJECTED HDPE	PE
7731A 0011000	COAX SOL RG11 DUALSHLD PVC 305M BROWN	BROADCAST, HD VIDEO	10.1	SPOOL	RG-11	DUAL SCREEN - AL FOIL + TACW BRAID	14	1/1.63 MM	GAS INJECTED HDPE	PVC
7731A 0021000	COAX SOL RG11 DUALSHLD PVC 305M RED	BROADCAST, HD VIDEO	10.1	SPOOL	RG-11	DUAL SCREEN - AL FOIL + TACW BRAID	14	1/1.63 MM	GAS INJECTED HDPE	PVC
7731A 0031000	COAX SOL RG11 DUALSHLD PVC 305M ORANGE	BROADCAST, HD VIDEO	10.1	SPOOL	RG-11	DUAL SCREEN - AL FOIL + TACW BRAID	14	1/1.63 MM	GAS INJECTED HDPE	PVC
7731A 0041000	COAX SOL RG11 DUALSHLD PVC 305M YELLOW	BROADCAST, HD VIDEO	10.1	SPOOL	RG-11	DUAL SCREEN - AL FOIL + TACW BRAID	14	1/1.63 MM	GAS INJECTED HDPE	PVC
7731A 0061000	COAX SOL RG11 DUALSHLD PVC 305M BLUE	BROADCAST, HD VIDEO	10.1	SPOOL	RG-11	DUAL SCREEN - AL FOIL + TACW BRAID	14	1/1.63 MM	GAS INJECTED HDPE	PVC
7731A 0071000	COAX SOL RG11 DUALSHLD PVC 305M VIOLET	BROADCAST, HD VIDEO	10.1	SPOOL	RG-11	DUAL SCREEN - AL FOIL + TACW BRAID	14	1/1.63 MM	GAS INJECTED HDPE	PVC
7731A 0081000	COAX SOL RG11 DUALSHLD PVC 305M GREY	BROADCAST, HD VIDEO	10.1	SPOOL	RG-11	DUAL SCREEN - AL FOIL + TACW BRAID	14	1/1.63 MM	GAS INJECTED HDPE	PVC
7731A 0091000	COAX SOL RG11 DUALSHLD PVC 305M WHITE	BROADCAST, HD VIDEO	10.1	SPOOL	RG-11	DUAL SCREEN - AL FOIL + TACW BRAID	14	1/1.63 MM	GAS INJECTED HDPE	PVC
7731A 0101000	COAX SOL RG11 DUALSHLD PVC 305M BLACK	BROADCAST, HD VIDEO	10.1	SPOOL	RG-11	DUAL SCREEN - AL FOIL + TACW BRAID	14	1/1.63 MM	GAS INJECTED HDPE	PVC
7731A N3U1000	COAX SOL RG11 DUALSHLD PVC 305M GREEN	BROADCAST, HD VIDEO	10.1	SPOOL	RG-11	DUAL SCREEN - AL FOIL + TACW BRAID	14	1/1.63 MM	GAS INJECTED HDPE	PVC
8233 0101000	TRIAX SOL RG11 PE 305M BLACK	OUTDOOR VIDEO, CCTV AND SECURITY	12.1	SPOOL	RG-11/U - TRIAX VERSION	2 X BC BRAIDS	14	1/ 1.63 MM	GAS INJECTED HDPE	PE
1189AP 8771000	COAX CCS RG6 QUADSHLD PVC 305M NATURAL	CATV AND FREE-TO-AIR TV. PLENUM RATED	6.3	SPOOL	RG-6	QUAD SCREEN - AL FOILS + AL BRAIDS	18	1/1.0 MM	FOAMED FEP	PVC - FLAMARREST ®
1190A 0031000	COAX CCS RG6 QUADSHLD PE 305M ORANGE	CATV AND FREE-TO-AIR TV. WATER BLOCKED	7.6	SPOOL	RG-6	QUAD SCREEN - AL FOILS + AL BRAIDS	18	1/1.0 MM	GAS INJECTED FPE	PE
1190A 0101000	COAX CCS RG6 QUADSHLD PE 305M BLACK	CATV AND FREE-TO-AIR TV. WATER BLOCKED	7.6	SPOOL	RG-6	QUAD SCREEN - AL FOILS + AL BRAIDS	18	1/1.0 MM	GAS INJECTED FPE	PE
5339X5 0101000	COAX SOL RG6 H2O BLOCK PVC 305M BLACK	OUTDOOR VIDEO, CCTV AND SECURITY	7.1	SPOOL	RG-6	SINGLE SCREEN - BC BRAID	18	1/1.0 MM	GAS INJECTED FPE	PVC
1694A 0011000	COAX SOL RG6 DUALSHLD PVC 305M BROWN	BROADCAST, HD VIDEO	7	SPOOL	RG-6/U	DUAL SCREEN - AL FOIL + TACW BRAID	18	1/1.0 MM	GAS INJECTED HDPE	PVC
1694A 0021000	COAX SOL RG6 DUALSHLD PVC 305M RED	BROADCAST, HD VIDEO	7	SPOOL	RG-6/U	DUAL SCREEN - AL FOIL + TACW BRAID	18	1/1.0 MM	GAS INJECTED HDPE	PVC
1694A 0031000	COAX SOL RG6 DUALSHLD PVC 305M ORANGE	BROADCAST, HD VIDEO	7	SPOOL	RG-6/U	DUAL SCREEN - AL FOIL + TACW BRAID	18	1/1.0 MM	GAS INJECTED HDPE	PVC
1694A 0041000	COAX SOL RG6 DUALSHLD PVC 305M YELLOWLLOW	BROADCAST, HD VIDEO	7	SPOOL	RG-6/U	DUAL SCREEN - AL FOIL + TACW BRAID	18	1/1.0 MM	GAS INJECTED HDPE	PVC
1694A 0061000	COAX SOL RG6 DUALSHLD PVC 305M BLUE	BROADCAST, HD VIDEO	7	SPOOL	RG-6/U	DUAL SCREEN - AL FOIL + TACW BRAID	18	1/1.0 MM	GAS INJECTED HDPE	PVC
1694A 0071000	COAX SOL RG6 DUALSHLD PVC 305M VIOLET	BROADCAST, HD VIDEO	7	SPOOL	RG-6/U	DUAL SCREEN - AL FOIL + TACW BRAID	18	1/1.0 MM	GAS INJECTED HDPE	PVC

75 OHM VIDEO AND BROADCAST CABLES

PART NUMBER	DESCRIPTION	APPLICATION	NOM. CABLE OD (MM)	PACKAGE	RG STYLE	SCREEN TYPE	CONDUCTOR AWG	CONDUCTOR STRANDING	INSULATION MATERIAL	JACKET MATERIAL
1694A 0075000	COAX SOL RG6 DUALSHLD PVC 1525M VIOLET	BROADCAST, HD VIDEO	7	SPOOL	RG-6/U	DUAL SCREEN - AL FOIL + TACW BRAID	18	1/1.0 MM	GAS INJECTED FHDPE	PVC
1694A 0081000	COAX SOL RG6 DUALSHLD PVC 305M GREY	BROADCAST, HD VIDEO	7	SPOOL	RG-6/U	DUAL SCREEN - AL FOIL + TACW BRAID	18	1/1.0 MM	GAS INJECTED FHDPE	PVC
1694A 0091000	COAX SOL RG6 DUALSHLD PVC 305M WHITEITE	BROADCAST, HD VIDEO	7	SPOOL	RG-6/U	DUAL SCREEN - AL FOIL + TACW BRAID	18	1/1.0 MM	GAS INJECTED FHDPE	PVC
1694A 0101000	COAX SOL RG6 DUALSHLD PVC 305M BLACK	BROADCAST, HD VIDEO	7	SPOOL	RG-6/U	DUAL SCREEN - AL FOIL + TACW BRAID	18	1/1.0 MM	GAS INJECTED FHDPE	PVC
1694A N3U1000	COAX SOL RG6 DUALSHLD PVC 305M GREEN	BROADCAST, HD VIDEO	7	SPOOL	RG-6/U	DUAL SCREEN - AL FOIL + TACW BRAID	18	1/1.0 MM	GAS INJECTED FHDPE	PVC
1694F B591000	COAX STRND RG6 DUALSHLD PVC 305M BLACK	BROADCAST, HD VIDEO	7	SPOOL	RG-6/U - FLEXIBLE	DUAL SCREEN - 2 X TACW BRAIDS	19	7/0.36 MM	GAS INJECTED FHDPE	PVC
1694F G7V1000	COAX STRND RG6 DUALSHLD PVC 305M RED	BROADCAST, HD VIDEO	7	SPOOL	RG-6/U - FLEXIBLE	DUAL SCREEN - 2 X TACW BRAIDS	19	7/0.36 MM	GAS INJECTED FHDPE	PVC
1694F G7W1000	COAX STRND RG6 DUALSHLD PVC 305M GREEN	BROADCAST, HD VIDEO	7	SPOOL	RG-6/U - FLEXIBLE	DUAL SCREEN - 2 X TACW BRAIDS	19	7/0.36 MM	GAS INJECTED FHDPE	PVC
1694F G7X1000	COAX STRND RG6 DUALSHLD PVC 305M BLUE	BROADCAST, HD VIDEO	7	SPOOL	RG-6/U - FLEXIBLE	DUAL SCREEN - 2 X TACW BRAIDS	19	7/0.36 MM	GAS INJECTED FHDPE	PVC
1694F G7Y1000	COAX STRND RG6 DUALSHLD PVC 305M WHITE	BROADCAST, HD VIDEO	7	SPOOL	RG-6/U - FLEXIBLE	DUAL SCREEN - 2 X TACW BRAIDS	19	7/0.36 MM	GAS INJECTED FHDPE	PVC
1694F G8L1000	COAX STRND RG6 DUALSHLD PVC 305M ORANGE	BROADCAST, HD VIDEO	7	SPOOL	RG-6/U - FLEXIBLE	DUAL SCREEN - 2 X TACW BRAIDS	19	7/0.36 MM	GAS INJECTED FHDPE	PVC
1694F G8M1000	COAX STRND RG6 DUALSHLD PVC 305M YELLOW	BROADCAST, HD VIDEO	7	SPOOL	RG-6/U - FLEXIBLE	DUAL SCREEN - 2 X TACW BRAIDS	19	7/0.36 MM	GAS INJECTED FHDPE	PVC
1694F Z4B1000	COAX STRND RG6 DUALSHLD PVC 305M VIOLET	BROADCAST, HD VIDEO	7	SPOOL	RG-6/U - FLEXIBLE	DUAL SCREEN - 2 X TACW BRAIDS	19	7/0.36 MM	GAS INJECTED FHDPE	PVC
1694SB 0101000	COAX SOL RG6 DUALSHLD LSZH 305M BLACK	BROADCAST, HD VIDEO. SHIPBOARD APPROVED	7	SPOOL	RG-6	DUAL SCREEN - AL FOIL + TACW BRAID	18	1/1.0 MM	GAS INJECTED FHDPE	LSZH
1694WB 0101000	DIGITAL COAX RG6 WATERBLOCKED	BROADCAST, HD VIDEO	7	SPOOL	RG-6/U	DUAL SCREEN-AL FOIL +TACW BRAID	18	1/1.0MM	GAS INJECTED FHDPE	PE
7712A B591000	COMPOSITE 5 X 1694A PVC 305M BLACK	BROADCAST, HD VIDEO	24.6	SPOOL	5 CORE RG-6/U WITH OA JACKET	DUAL SCREEN - AL FOIL + TACW BRAID	18	1/1.0 MM	GAS INJECTED FHDPE	PVC
1505A 0011000	COAX SOL RG59 DUALSHLD PVC 305M BROWN	BROADCAST, HD VIDEO	5.9	SPOOL	RG59/U	DUAL SCREEN - AL FOIL + TACW BRAID	20	1/0.81 MM	GAS INJECTED FHDPE	PVC
1505A 0021000	COAX SOL RG59 DUALSHLD PVC 305M RED	BROADCAST, HD VIDEO	5.9	SPOOL	RG59/U	DUAL SCREEN - AL FOIL + TACW BRAID	20	1/0.81 MM	GAS INJECTED FHDPE	PVC
1505A 0031000	COAX SOL RG59 DUALSHLD PVC 305M ORANGE	BROADCAST, HD VIDEO	5.9	SPOOL	RG59/U	DUAL SCREEN - AL FOIL + TACW BRAID	20	1/0.81 MM	GAS INJECTED FHDPE	PVC
1505A 0041000	COAX SOL RG59 DUALSHLD PVC 305M YELLOW	BROADCAST, HD VIDEO	5.9	SPOOL	RG59/U	DUAL SCREEN - AL FOIL + TACW BRAID	20	1/0.81 MM	GAS INJECTED FHDPE	PVC
1505A 0061000	COAX SOL RG59 DUALSHLD PVC 305M BLUE	BROADCAST, HD VIDEO	5.9	SPOOL	RG59/U	DUAL SCREEN - AL FOIL + TACW BRAID	20	1/0.81 MM	GAS INJECTED FHDPE	PVC
1505A 0071000	COAX SOL RG59 DUALSHLD PVC 305M VIOLET	BROADCAST, HD VIDEO	5.9	SPOOL	RG59/U	DUAL SCREEN - AL FOIL + TACW BRAID	20	1/0.81 MM	GAS INJECTED FHDPE	PVC
1505A 0081000	COAX SOL RG59 DUALSHLD PVC 305M GREY	BROADCAST, HD VIDEO	5.9	SPOOL	RG59/U	DUAL SCREEN - AL FOIL + TACW BRAID	20	1/0.81 MM	GAS INJECTED FHDPE	PVC
1505A 0091000	COAX SOL RG59 DUALSHLD PVC 305M WHITE	BROADCAST, HD VIDEO	5.9	SPOOL	RG59/U	DUAL SCREEN - AL FOIL + TACW BRAID	20	1/0.81 MM	GAS INJECTED FHDPE	PVC
1505A 0095000	COAX SOL RG59 DUALSHLD PVC 1525M WHITE	BROADCAST, HD VIDEO	5.9	SPOOL	RG59/U	DUAL SCREEN - AL FOIL + TACW BRAID	20	1/0.81 MM	GAS INJECTED FHDPE	PVC
1505A 0101000	COAX SOL RG59 DUALSHLD PVC 305M BLACK	BROADCAST, HD VIDEO	5.9	SPOOL	RG59/U	DUAL SCREEN - AL FOIL + TACW BRAID	20	1/0.81 MM	GAS INJECTED FHDPE	PVC

75 OHM VIDEO AND BROADCAST CABLES

PART NUMBER	DESCRIPTION	APPLICATION	NOM. CABLE OD (MM)	PACKAGE	RG STYLE	SCREEN TYPE	CONDUCTOR AWG	CONDUCTOR STRANDING	INSULATION MATERIAL	JACKET MATERIAL
1505A N3U1000	COAX SOL RG59 DUALSHLD PVC 305M GREEN	BROADCAST, HD VIDEO	5.9	SPOOL	RG59/U	DUAL SCREEN - AL FOIL + TACW BRAID	20	1/0.81 MM	GAS INJECTED FHDPE	PVC
1505F 0041000	COAX STRND RG59 DUAL SHLD PVC 305M YELLOW	BROADCAST, HD VIDEO	6.1	SPOOL	RG59/U - FLEXIBLE	DUAL SCREEN - 2 X TACW BRAIDS	22	7/0.29 MM	GAS INJECTED FHDPE	PVC
1505F B591000	COAX STRND RG59 DUAL SHLD PVC 305M BLACK	BROADCAST, HD VIDEO	6.1	SPOOL	RG59/U - FLEXIBLE	DUAL SCREEN - 2 X TACW BRAIDS	22	7/0.29 MM	GAS INJECTED FHDPE	PVC
1505F G7V1000	COAX STRND RG59 DUAL SHLD PVC 305M RED	BROADCAST, HD VIDEO	6.1	SPOOL	RG59/U - FLEXIBLE	DUAL SCREEN - 2 X TACW BRAIDS	22	7/0.29 MM	GAS INJECTED FHDPE	PVC
1505F G7W1000	COAX STRND RG59 DUAL SHLD PVC 305M GREEN	BROADCAST, HD VIDEO	6.1	SPOOL	RG59/U - FLEXIBLE	DUAL SCREEN - 2 X TACW BRAIDS	22	7/0.29 MM	GAS INJECTED FHDPE	PVC
1505F G7X1000	COAX STRND RG59 DUAL SHLD PVC 305M BLUE	BROADCAST, HD VIDEO	6.1	SPOOL	RG59/U - FLEXIBLE	DUAL SCREEN - 2 X TACW BRAIDS	22	7/0.29 MM	GAS INJECTED FHDPE	PVC
1505F G7Y1000	COAX STRND RG59 DUAL SHLD PVC 305M WHITE	BROADCAST, HD VIDEO	6.1	SPOOL	RG59/U - FLEXIBLE	DUAL SCREEN - 2 X TACW BRAIDS	22	7/0.29 MM	GAS INJECTED FHDPE	PVC
1505F G8L1000	COAX STRND RG59 DUAL SHLD PVC 305M ORANGE	BROADCAST, HD VIDEO	6.1	SPOOL	RG59/U - FLEXIBLE	DUAL SCREEN - 2 X TACW BRAIDS	22	7/0.29 MM	GAS INJECTED FHDPE	PVC
1505F Z4B1000	COAX STRND RG59 DUAL SHLD PVC 305M VIOLET	BROADCAST, HD VIDEO	6.1	SPOOL	RG59/U - FLEXIBLE	DUAL SCREEN - 2 X TACW BRAIDS	22	7/0.29 MM	GAS INJECTED FHDPE	PVC
1855A 0011000	COAX SOL 75 OHM DUALSHLD PVC 305M BROWN	BROADCAST, HD VIDEO	4	SPOOL	SUB-MINIATURE RG-59/U	DUAL SCREEN - AL FOIL + TACW BRAID	23	1/0.58 MM	GAS INJECTED FHDPE	PVC
1855A 0021000	COAX SOL 75 OHM DUALSHLD PVC 305M RED	BROADCAST, HD VIDEO	4	SPOOL	SUB-MINIATURE RG-59/U	DUAL SCREEN - AL FOIL + TACW BRAID	23	1/0.58 MM	GAS INJECTED FHDPE	PVC
1855A 0031000	COAX SOL 75 OHM DUALSHLD PVC 305M ORANGE	BROADCAST, HD VIDEO	4	SPOOL	SUB-MINIATURE RG-59/U	DUAL SCREEN - AL FOIL + TACW BRAID	23	1/0.58 MM	GAS INJECTED FHDPE	PVC
1855A 0041000	COAX SOL 75 OHM DUALSHLD PVC 305M YELLOW	BROADCAST, HD VIDEO	4	SPOOL	SUB-MINIATURE RG-59/U	DUAL SCREEN - AL FOIL + TACW BRAID	23	1/0.58 MM	GAS INJECTED FHDPE	PVC
1855A 0061000	COAX SOL 75 OHM DUALSHLD PVC 305M BLUE	BROADCAST, HD VIDEO	4	SPOOL	SUB-MINIATURE RG-59/U	DUAL SCREEN - AL FOIL + TACW BRAID	23	1/0.58 MM	GAS INJECTED FHDPE	PVC
1855A 0071000	COAX SOL 75 OHM DUALSHLD PVC 305M VIOLET	BROADCAST, HD VIDEO	4	SPOOL	SUB-MINIATURE RG-59/U	DUAL SCREEN - AL FOIL + TACW BRAID	23	1/0.58 MM	GAS INJECTED FHDPE	PVC
1855A 0081000	COAX SOL 75 OHM DUALSHLD PVC 305M GREY	BROADCAST, HD VIDEO	4	SPOOL	SUB-MINIATURE RG-59/U	DUAL SCREEN - AL FOIL + TACW BRAID	23	1/0.58 MM	GAS INJECTED FHDPE	PVC
1855A 0091000	COAX SOL 75 OHM DUALSHLD PVC 305M WHITE	BROADCAST, HD VIDEO	4	SPOOL	SUB-MINIATURE RG-59/U	DUAL SCREEN - AL FOIL + TACW BRAID	23	1/0.58 MM	GAS INJECTED FHDPE	PVC
1855A 0101000	COAX SOL 75 OHM DUALSHLD PVC 305M BLACK	BROADCAST, HD VIDEO	4	SPOOL	SUB-MINIATURE RG-59/U	DUAL SCREEN - AL FOIL + TACW BRAID	23	1/0.58 MM	GAS INJECTED FHDPE	PVC
1855A N3U1000	COAX SOL 75 OHM DUALSHLD PVC 305M GREEN	BROADCAST, HD VIDEO	4	SPOOL	SUB-MINIATURE RG-59/U	DUAL SCREEN - AL FOIL + TACW BRAID	23	1/0.58 MM	GAS INJECTED FHDPE	PVC
543945 0091000	COAX SOL RG59 PVC 305M WHITE	VIDEO, CCTV, MATV AND SECURITY	5.9	SPOOL	RG-59	SINGLE SCREEN - BC BRAID	20	1/0.81 MM	GAS INJECTED FPE	PVC
543945 009U1000	COAX SOL RG59 PVC 305M WHITE	VIDEO, CCTV, MATV AND SECURITY	5.9	PULL BOX	RG-59	SINGLE SCREEN - BC BRAID	20	1/0.81 MM	GAS INJECTED FPE	PVC
543945 0101000	COAX SOL RG59 PVC 305M BLACK	VIDEO, CCTV, MATV AND SECURITY	5.9	SPOOL	RG-59	SINGLE SCREEN - BC BRAID	20	1/0.81 MM	GAS INJECTED FPE	PVC
543945 010U1000	COAX SOL RG59 PVC 305M BLACK	VIDEO, CCTV, MATV AND SECURITY	5.9	PULL BOX	RG-59	SINGLE SCREEN - BC BRAID	20	1/0.81 MM	GAS INJECTED FPE	PVC
5439X5 0101000	COAX SOL RG59 H2O BLOCK PVC 305M BLACK	OUTDOOR VIDEO, CCTV, MATV AND SECURITY	6.2	SPOOL	RG-59	SINGLE SCREEN - BC BRAID	20	1/0.81 MM	GAS INJECTED FPE	WATER RESISTANCE TAPE UNDER PVC
8232 0101000	TRIAX SOL RG59 PE 305M BLACK	OUTDOOR VIDEO, CCTV, MATV AND SECURITY	8	SPOOL	RG-59/U -TRIAX VERSION	2 X BC BRAIDS	20	1/ 0.81 MM	GAS INJECTED FHDPE	PE
8232 0102000	TRIAX SOL RG59 PE 610M BLACK	OUTDOOR VIDEO, CCTV, MATV AND SECURITY	8	SPOOL	RG-59/U -TRIAX VERSION	2 X BC BRAIDS	20	1/ 0.81 MM	GAS INJECTED FHDPE	PE
8232A 0101000	TRIAX SOL RG59 PVC 305M BLACK	OUTDOOR VIDEO, CCTV, MATV AND SECURITY	8	SPOOL	RG-59/U -TRIAX VERSION	2 X BC BRAIDS	20	1/ 0.81 MM	GAS INJECTED FHDPE	PVC

75 OHM VIDEO AND BROADCAST CABLES

PART NUMBER	DESCRIPTION	APPLICATION	NOM. CABLE OD (MM)	PACKAGE	RG STYLE	SCREEN TYPE	CONDUCTOR AWG	CONDUCTOR STRANDING	INSULATION MATERIAL	JACKET MATERIAL
8241 002U1000	COAX CCS 75 OHM PVC 305M RED	CATV AND FREE- TO- AIR TV	6.1	PULL BOX	RG-59	SINGLE SCREEN - BC BRAID	23	1/0.58 MM	PE	PVC
8241 003U1000	COAX CCS 75 OHM PVC 305M ORANGE	CATV AND FREE- TO- AIR TV	6.1	PULL BOX	RG-59	SINGLE SCREEN - BC BRAID	23	1/0.58 MM	PE	PVC
8241 004U1000	COAX CCS 75 OHM PVC 305M YELLOW	CATV AND FREE- TO- AIR TV	6.1	PULL BOX	RG-59	SINGLE SCREEN - BC BRAID	23	1/0.58 MM	PE	PVC
8241 005U1000	COAX CCS 75 OHM PVC 305M GREEN	CATV AND FREE- TO- AIR TV	6.1	PULL BOX	RG-59	SINGLE SCREEN - BC BRAID	23	1/0.58 MM	PE	PVC
8241 006U1000	COAX CCS 75 OHM PVC 305M BLUE	CATV AND FREE- TO- AIR TV	6.1	PULL BOX	RG-59	SINGLE SCREEN - BC BRAID	23	1/0.58 MM	PE	PVC
8241 009U1000	COAX CCS 75 OHM PVC 305M WHITE	CATV AND FREE- TO- AIR TV	6.1	PULL BOX	RG-59	SINGLE SCREEN - BC BRAID	23	1/0.58 MM	PE	PVC
8241 0101000	COAX CCS 75 OHM PVC 305M BLACK	CATV AND FREE- TO- AIR TV	6.1	SPOOL	RG-59	SINGLE SCREEN - BC BRAID	23	1/0.58 MM	PE	PVC
8241 010U1000	COAX CCS 75 OHM PVC 305M BLACK	CATV AND FREE- TO- AIR TV	6.1	PULL BOX	RG-59	SINGLE SCREEN - BC BRAID	23	1/0.58 MM	PE	PVC
8241B 0101000	COAX SOL 75 OHM PVC 305M BLACK	VIDEO, CCTV, MATV AND SECURITY	6.1	SPOOL	RG-59	SINGLE SCREEN - BC BRAID	23	1/0.58 MM	PE	PVC
8241B 010U1000	COAX SOL 75 OHM PVC 305M BLACK	VIDEO, CCTV, MATV AND SECURITY	6.1	PULL BOX	RG-59	SINGLE SCREEN - BC BRAID	23	1/0.58 MM	PE	PVC
8241F G7V1000	COAX STRND 75 OHM PVC 305M RED	VIDEO, CCTV, MATV AND SECURITY	6.1	SPOOL	RG-59 - FLEXIBLE	SINGLE SCREEN - BC BRAID	22	7/0.25 MM	FOAM PE	PVC
8241F G7W1000	COAX STRND 75 OHM PVC 305M GREEN	VIDEO, CCTV, MATV AND SECURITY	6.1	SPOOL	RG-59 - FLEXIBLE	SINGLE SCREEN - BC BRAID	22	7/0.25 MM	FOAM PE	PVC
8241F G7X1000	COAX STRND 75 OHM PVC 305M BLUE	VIDEO, CCTV, MATV AND SECURITY	6.1	SPOOL	RG-59 - FLEXIBLE	SINGLE SCREEN - BC BRAID	22	7/0.25 MM	FOAM PE	PVC
8241F G7Y1000	COAX STRND 75 OHM PVC 305M WHITE	VIDEO, CCTV, MATV AND SECURITY	6.1	SPOOL	RG-59 - FLEXIBLE	SINGLE SCREEN - BC BRAID	22	7/0.25 MM	FOAM PE	PVC
8241F G8M1000	COAX STRND 75 OHM PVC 305M YELLOW	VIDEO, CCTV, MATV AND SECURITY	6.1	SPOOL	RG-59 - FLEXIBLE	SINGLE SCREEN - BC BRAID	22	7/0.25 MM	FOAM PE	PVC
8241F J5C1000	COAX STRND 75 OHM PVC 305M BLACK	VIDEO, CCTV, MATV AND SECURITY	6.1	SPOOL	RG-59 - FLEXIBLE	SINGLE SCREEN - BC BRAID	22	7/0.25 MM	FOAM PE	PVC
8241F U901000	COAX STRND 75 OHM PVC 305M GREY	VIDEO, CCTV, MATV AND SECURITY	6.1	SPOOL	RG-59 - FLEXIBLE	SINGLE SCREEN - BC BRAID	22	7/0.25 MM	FOAM PE	PVC

MICROPHONE CABLE

Belden microphone cable designed as a hanging microphone cable with higher rigidity for a more stable positioning. This allows hanging microphones to stay in the direction they're originally placed to capture the audio properly. Low-impedance microphone cables available in twin and quad core constructions. Belden microphone cable suitable for deployable microphone for studio or live performance.

PART NUMBER	DESCRIPTION	NO. OF CONDUCTORS	CONDUCTOR AWG	INSULATION MATERIAL	NOM. CABLE OD (MM)	COLOUR	PACKAGE
1192A B591000	MIC CABLE STAR QUAD, 4 WIRE 24AWG BLACK	4	24	POLYETHYLENE	6.22	BLACK	305M
8412 0101000	MIC CABLE 2 WIRE, 20AWG BLACK	2	20	EPDM RUBBER	6.65	BLACK	305M
1812A B591000	MIC CABLE 2 CORE, 24AWG BLACK	2	24	PVC	5.41	BLACK	305M

AUDIO AND SPEAKER CABLES

Belden offers audio and speaker cables for a wide range of applications, including plenum, indoor/ outdoor, halogen-free, direct burial, Class 1, and commercial and professional installations. Belden offer digital or analog audio cables for recording studios, radio and television stations or any multi-channel audio application.

PART NUMBER	DESCRIPTION	NO. OF CONDUCTORS	CONDUCTOR AWG	INSULATION MATERIAL	NOM. CABLE OD (MM)	COLOUR	PACKAGE
8471 0601000	AUDIO CABLE 2 CORE 16AWG, 1.3MM CHROME	2	16	PVC	6.96	CHROME	305M
8473 0601000	AUDIO CABLE 2 CORE 14AWG, 2.08MM CHROME	2	14	PVC	8.64	CHROME	305M
8477 0601000	AUDIO CABLE 2 CORE 12AWG, 2.30MM CHROME	2	12	PVC	9.8	CHROME	305M
1503A 010U1000	AUDIO CABLE 1 PR 22AWG PVC BLACK	2	22	PVC	3.6	BLACK	305M
1504A J77U1000	AUDIO CABLE 2PR BONDED 22AWG SCREENED	4	22	PVC	3.63 X 7.26	BLACK	305M
1509C B591000	AUDIO SNAKE 2PR 24AWG SCREENED	2	24	POLYOLEFIN	7.64	BLACK	305M
1510C B591000	AUDIO SNAKE 4PR 24AWG IND SCREENED	4	24	POLYOLEFIN	8.94	BLACK	305M
1512C B591000	AUDIO SNAKE 8PR 24AWG IND SCREENED	8	24	POLYOLEFIN	11.48	BLACK	305M
1513C B591000	AUDIO SNAKE 12PR 24AWG IND SCREENED	12	24	POLYOLEFIN	14.25	BLACK	305M
1800B 0071000	AUDIO CABLE DIGITAL 1PR 24AWG VIOLET	1	24	DATALENE	4.70	VIOLET	305M
1800B T5X1000	AUDIO CABLE DIGITAL 1PR 24AWG BLACK	1	24	DATALENE	4.70	BLACK	305M
1800F B591000	AUDIO CABLE DIGITAL 1PR 24AWG BLACK FLEXIBLE	1	24	DATALENE	5.35	BLACK	305M
1803F Z4B1000	AUDIO CABLE DIGITAL 4PR 24AWG VIOLET	4	24	POLYETHYLENE	12.39	VIOLET	305M
9180 0601000	AUDIO CABLE DIGITAL 1PR 26AWG CHROME	1	26	DATALENE	3.66	CHROME	305M
9180 Z4B1000	AUDIO CABLE DIGITAL 1PR 26AWG VIOLET	1	26	DATALENE	3.66	VIOLET	305M
1411R 0101000	AUDIO SNAKE 12PR, IND. SCREENED	12	24	POLYPROPYLENE	14.1	BLACK	305M
1502R 0101000	BELDEN AXLINK CABLE, 1PR 22AWG, 1 PR 18AWG	1	22	HDFPE/ PVC	6.35	BLACK	305M

INDUSTRIAL

INDUSTRIAL BUS CABLES

Industrial bus cables are designed to connect sensors and monitors to PLC's and control networks according to the application standard being implemented. Bus systems allow for less cabling than traditional analog control systems.

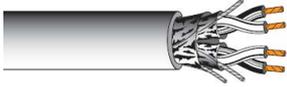| PART NUMBER	DESCRIPTION	CONSTRUCTION	APPLICATION	NO. OF PAIRS	AWG	CONDUCTOR MATERIAL	OUTER JACKET MATERIAL	CABLE OD (MM)
9463 0011000	1PR 20 AWG OA SCREEN PVC 305M BROWN	OVERALL FOIL + BRAID SCREEN	BLUE HOSE ®	1	20	TACW	PVC	6.1
9463 00110000	1PR 20 AWG OA SCREEN PVC 3050M BROWN	OVERALL FOIL + BRAID SCREEN	BLUE HOSE ®	1	20	TACW	PVC	6.1
9463 0031000	1PR 20 AWG OA SCREEN PVC 305M ORANGE	OVERALL FOIL + BRAID SCREEN	BLUE HOSE ®	1	20	TACW	PVC	6.1
9463 00310000	1PR 20 AWG OA SCREEN PVC 3050M ORANGE	OVERALL FOIL + BRAID SCREEN	BLUE HOSE ®	1	20	TACW	PVC	6.1
9463 0071000	1PR 20 AWG OA SCREEN PVC 305M VIOLET	OVERALL FOIL + BRAID SCREEN	BLUE HOSE ®	1	20	TACW	PVC	6.1
9463 J221000	1PR 20 AWG OA SCREEN PVC 305M BLUE	OVERALL FOIL + BRAID SCREEN	BLUE HOSE ®	1	20	TACW	PVC	6.1
9463 J22U1000	1PR 20 AWG OA SCREEN PVC 305MB BLUE	OVERALL FOIL + BRAID SCREEN	BLUE HOSE ®	1	20	TACW	PVC	6.1
9463DB S8Y1000	1PR 20 AWG OA SCREEN LDPE 305M BLUE	OVERALL FOIL + BRAID SCREEN	BLUE HOSE ®	1	20	TACW	PE	6.1
9463F J221000	1PR 20 AWG OA SCREEN PVC 305M BLUE	OVERALL FOIL + BRAID SCREEN	BLUE HOSE ®	1	20	TACW	PVC	6.2
139463 J221000	1PR 20 AWG OA SCRNARMOUR PVC 305M BLUE	INTERLOCK ARMOURED OVERALL FOIL + BRAID SCREEN	BLUE HOSE ®	1	20	TACW	PVC	14.3
3092A 0021000	COAX RG6 QUAD PVC 305M RED	QUAD SHIELDED COAX	CONTROLNET ™	COAX	18	BCCS	PVC	7.6
3092A 0101000	COAX RG6 QUAD PVC 305M BLACK	QUAD SHIELDED COAX	CONTROLNET ™	COAX	18	BCCS	PVC	7.6
3092A X7E1000	COAX RG6 QUAD PVC 305M BLUE	QUAD SHIELDED COAX	CONTROLNET ™	COAX	18	BCCS	PVC	7.6
3093A 0101000	COAX RG6 QUAD FEP 305M BLACK	QUAD SHIELDED COAX	CONTROLNET ™	COAX	18	BCCS	PVC	7
3093A X7E1000	COAX RG6 QUAD FEP 305M BLUE	QUAD SHIELDED COAX	CONTROLNET ™	COAX	18	BCCS	PVC	7
3094A F2V1000	COAX RG11 QUAD PVC 305M GREY	QUAD SHIELDED COAX	CONTROLNET ™	COAX	14	BCCS	PVC	10.3
123092A 0101000	COAX RG6 QUAD ARMOURED PVC 305M BLACK	INTERLOCK ARMOURED QUAD SHIELDED COAX	CONTROLNET ™	COAX	18	BCCS	PVC	15
123092A J221000	COAX RG6 QUAD ARMOURED PVC 305M BLUE	INTERLOCK ARMOURED QUAD SHIELDED COAX	CONTROLNET ™	COAX	18	BCCS	PVC	15
3092F 0101000	COAX RG6 QUAD PVC 305M BLACK	QUAD SHIELDED COAX	CONTROLNET ™ AND CONTROLBUS ™	COAX	20	BC	PVC	7.7
3079A 0071000	1PR 22AWG OA SCREEN PVC305 M VIOLET	OVERALL FOIL + BRAID SCREEN	PROFIBUS DP	1	22	BC	PVC	8
3079A 0601000	1PR 22AWG OA SCREEN PVC 305M CHROME	OVERALL FOIL + BRAID SCREEN	PROFIBUS DP	1	22	BC	PVC	8
3079E B021000	1PR 22AWG OA SCREEN PVC 305M PURPLE	OVERALL FOIL + BRAID SCREEN	PROFIBUS DP	1	22	BC	PVC	8
1334A 0031000	1PR 18AWG OA SCREEN PVC 305M ORANGE	OVERALL FOIL + BRAID SCREEN	DATABUS®ISA/SP- 50, FOUNDATION FIELDBUS OR PROFIBUS PA	1	18	TACW	OIL RESISTANT PVC	7.3
3076F 0031000	1PR 18AWG OA SCREEN PVC 1000M ORANGE	OVERAL FOIL SCREEN	DATABUS®ISA/SP- 50, FOUNDATION FIELDBUS OR PROFIBUS PA	1	18	TACW	PVC	7.1
3076F 0061000	1PR 18AWG OA SCREEN PVC 305M BLUE	OVERAL FOIL SCREEN	DATABUS®ISA/SP- 50, FOUNDATION FIELDBUS OR PROFIBUS PA	1	18	TACW	PVC	7.1
3072F C551000	TWINAX 18AWG OA SCREEN PVC 305M BLUE	OVERAL FOIL + BRAID SCREEN TWINAXIAL	DATATRAY® TWINAXIAL	1	18	TACW	PVC	8.2
3083A 5601000	1PR15 & 1PR18AWG IND/ OA CPE 305M GREY	INDIVIDUAL FOIL SCREEN + OVERALL BRAID SCREEN	DEVICEBUS® FOR ODVA DEVICENET ™	2	15 & 18	TACW	CPE	12.1
3084A 0021000	1PR22 & 1PR24AWG IND/ OA PVC 305M RED	INDIVIDUAL FOIL SCREEN + OVERALL BRAID SCREEN	DEVICEBUS® FOR ODVA DEVICENET ™	2	22 & 24	TACW	OIL RESISTANT PVC	7.1
3084A T5U1000	1PR22 & 1PR24AWG IND/ OA PVC 305M GREY	INDIVIDUAL FOIL SCREEN + OVERALL BRAID SCREEN	DEVICEBUS® FOR ODVA DEVICENET ™	2	22 & 24	TACW	OIL RESISTANT PVC	7.1
3084F T5U1000	1PR22 & 1PR24AWG IND/ OA PVC 305M GREY	INDIVIDUAL FOIL SCREEN + OVERALL BRAID SCREEN	DEVICEBUS® FOR ODVA DEVICENET ™	2	22 & 24	TACW	OIL RESISTANT PVC	7

INSTRUMENTATION

OVERALL SCREENED INSTRUMENTATION CABLES

Instrumentation and control cables are used to connect sensors and equipment to monitors and control panels. Overall screening provides moderate protection from induced noise and interference. Where extra physical protection is required, Steel Wire Armoured (SWA) versions are available. Blue jackets for intrinsically safe applications available upon request.

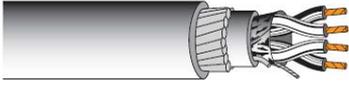| PART NUMBER	NO. OF PAIRS	DESCRIPTION	CONSTRUCTION	OUTER JACKET MATERIAL	DRUM SIZE	CUT
7/0.30MM (0.5MM) OVERALL FOIL SCREENED
BOAP05U01R BKC1	1 pr	0.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	100m	NO
BOAP05U01R BKA5	1 pr	0.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	500m	YES
BOAP05U02R BKA5	2 pr	0.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	500m	YES
BOAP05U02R BKC1	2 pr	0.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	100m	NO
BOAP05U03R BKA5	3 pr	0.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	500m	YES
BOAP05U03R BKC1	3 pr	0.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	100m	NO
BOAP05U04R BKA5	4 pr	0.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	500m	YES
BOAP05U04R BKC1	4 pr	0.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	100m	NO
BOAP05U06R BKA5	6 pr	0.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	500m	YES
BOAP05U06R BKC1	6 pr	0.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	100m	NO
BOAP05U08R BKB1	8 pr	0.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	1000m	YES
BOAP05U10R BKA5	10 pr	0.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	500m	YES
BOAP05U12R BKA5	12 pr	0.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	500m	YES
BOAP05U16R BKA5	16 pr	0.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	500m	YES
BOAP05U20RBKA5	20 pr	0.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	500m	YES
BOAP05U24RBKA5	24 pr	0.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	500m	YES
7/0.40MM (0.88MM) OVERALL FOIL SCREENED
BOAP10U01R BKA5	1 pr	1.0mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	500m	YES
BOAP10U01R BKC1	1 pr	1.0mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	500m	NO
BOAP10U02R BKA5	2 pr	1.0mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	500m	YES
BOAP10U02R BKC1	2 pr	1.0mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	100m	NO
7/0.50MM (1.5MM) OVERALL FOIL SCREENED
BOAP15U01R BKA5	1 pr	1.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	500m	YES
BOAP15U01R BKC1	1 pr	1.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	100m	NO
BOAP15U02R BKA5	2 pr	1.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	500m	YES
BOAP15U02R BKC1	2 pr	1.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	100m	NO
BOAP15U03R BKA5	3 pr	1.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	500m	YES
BOAP15U03R BKC1	3 pr	1.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	100m	NO
BOAP15U04R BKA5	4 pr	1.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	500m	YES
BOAP15U04R BKC1	4 pr	1.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	100m	NO
BOAP15U06R BKA5	6 pr	1.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	500m	YES
BOAP15U06R BKC1	6 pr	1.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	100m	NO
BOAP15U08R BKB1	8 pr	1.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	1000m	YES
BOAP15U10R BKA5	10 pr	1.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	500m	YES
BOAP15U12R BKA5	12 pr	1.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	500m	YES
BOAP15U16R BKA5	16 pr	1.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	500m	YES
BOAP15U20R BKA5	20 pr	1.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	500m	YES
BOAP15U24R BKA5	24 pr	1.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	500m	YES

INDIVIDUAL & OVERALL SCREENED INSTRUMENTATION CABLES

PART NUMBER	NO. OF PAIRS	DESCRIPTION	CONSTRUCTION	OUTER JACKET MATERIAL	DRUM SIZE	CUT
7/0.30MM (0.5MM) INDIVIDUAL & OVERALL FOIL SCREENED
BIOP05U02RBKC1	2 pr	0.5mm2 PVC I&O/A SCN PVC BK 110/150v	Individual and Overall Foil Screen	LSZH	100m	NO
BIOP05U02RBKA5	2 pr	0.5mm2 PVC I&O/A SCN PVC BK 110/150v	Individual and Overall Foil Screen	PVC	500m	YES
BIOP05U04RBKB1	4 pr	0.5mm2 PVC I&O/A SCN PVC BK 110/150v	Individual and Overall Foil Screen	PVC	1000m	YES
BIOP05U04RBKC1	4 pr	0.5mm2 PVC I&O/A SCN PVC BK 110/150v	Individual and Overall Foil Screen	PVC	100m	NO
BIOP05U06RBKB1	6 pr	0.5mm2 PVC I&O/A SCN PVC BK 110/150v	Individual and Overall Foil Screen	PVC	1000m	YES
BIOP05U06RBKC1	6 pr	0.5mm2 PVC I&O/A SCN PVC BK 110/150v	Individual and Overall Foil Screen	PVC	100m	YNO
BIOP05U10RBKA5	10 pr	0.5mm2 PVC I&O/A SCN PVC BK 110/150v	Individual and Overall Foil Screen	PVC	500m	YES
7/0.50MM (1.5MM) INDIVIDUAL & OVERALL FOIL SCREENED
BIOP15U02RBKC1	2 pr	1.5mm2 PVC I&O/A SCN PVC BK 110/150v	Individual and Overall Foil Screen	PVC	100m	NO
BIOP15U02RBKA5	2 pr	1.5mm2 PVC I&O/A SCN PVC BK 110/150v	Individual and Overall Foil Screen	PVC	500m	YES
BIOP15U04RBKC1	4 pr	1.5mm2 PVC I&O/A SCN PVC BK 110/150v	Individual and Overall Foil Screen	PVC	100m	NO
BOAP15U04RBKA5	4 pr	1.5mm2 PVC I&O/A SCN PVC BK 110/150v	Individual and Overall Foil Screen	PVC	500m	YES
BIOP15U04RBKB1	4 pr	1.5mm2 PVC I&O/A SCN PVC BK 110/150v	Individual and Overall Foil Screen	PVC	1000m	YES
BIOP15U06RBKC1	6 pr	1.5mm2 PVC I&O/A SCN PVC BK 110/150v	Individual and Overall Foil Screen	PVC	100m	NO
BOAP15U06RBKA5	6 pr	1.5mm2 PVC I&O/A SCN PVC BK 110/150v	Individual and Overall Foil Screen	PVC	500m	YES
BIOP15U06RBKB1	6 pr	1.5mm2 PVC I&O/A SCN PVC BK 110/150v	Individual and Overall Foil Screen	PVC	1000m	YES
BOAP15U08RBKB1	8 pr	1.5mm2 PVC I&O/A SCN PVC BK 110/150v	Individual and Overall Foil Screen	PVC	1000m	YES
BIOP15U10RBKB1	10 pr	1.5mm2 PVC I&O/A SCN PVC BK 110/150v	Individual and Overall Foil Screen	PVC	100m	NO
BIOP15U12RBKB1	12 pr	1.5mm2 PVC I&O/A SCN PVC BK 110/150v	Individual and Overall Foil Screen	PVC	1000m	YES

OVERALL SCREENED INSTRUMENTATION TRIAD CABLES

PART NUMBER	NO. OF PAIRS	DESCRIPTION	CONSTRUCTION	OUTER JACKET MATERIAL	DRUM SIZE	CUT
7/0.30MM (0.5MM) OVERALL FOIL SCREENED
BOAT05U01RBKA5	1 Tr	0.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	500m	YES
BOAT05U01RBKA5	1 Tr	0.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	500m	YES
7/0.50MM (1.5MM) OVERALL FOIL SCREENED
BOAT15U01RBKA5	1 Tr	1.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	500m	YES
BOAT15U06RBKB1	6 Tr	1.5mm2 PVC O/A SCN PVC BK 110/150v	Overall Foil Screen	PVC	500m	YES

OVERALL SCREENED INSTRUMENTATION SWA CABLES

PART NUMBER	NO. OF PAIRS	DESCRIPTION	CONSTRUCTION	OUTER JACKET MATERIAL	DRUM SIZE	CUT
7/0.30MM (0.5MM) OVERALL FOIL SCREENED SWA						
BOAP05S01LBKB1	1 pr	0.5mm2 XLPE O/A SCN SWA LSZH BK 110/150v	Overall Foil Screen SWA	Low Smoke Zero Halogen	1000m	YES
BOAP05S02LBKB1	2 pr	0.5mm2 XLPE O/A SCN SWA LSZH BK 110/150v	Overall Foil Screen SWA	Low Smoke Zero Halogen	1000m	YES
7/0.50MM (1.5MM) OVERALL FOIL SCREENED SWA						
BOAP15S01LBKB1	1 pr	1.5mm2 XLPE O/A SCN SWA LSZH BK 110/150v	Overall Foil Screen SWA	Low Smoke Zero Halogen	1000m	YES
BOAP15S01LBKB1	1 pr	1.5mm2 XLPE O/A SCN SWA LSZH BK 110/150v	Overall Foil Screen SWA	Low Smoke Zero Halogen	1000m	YES
BOAP15S02LBKB1	2 pr	1.5mm2 XLPE O/A SCN SWA LSZH BK 110/150v	Overall Foil Screen SWA	Low Smoke Zero Halogen	1000m	YES
BOAP15S02LBKB1	2 pr	1.5mm2 XLPE O/A SCN SWA LSZH BK 110/150v	Overall Foil Screen SWA	Low Smoke Zero Halogen	1000m	YES
BOAP15S04LBKB1	4 pr	1.5mm2 XLPE O/A SCN SWA LSZH BK 110/150v	Overall Foil Screen SWA	Low Smoke Zero Halogen	1000m	YES
BOAP15S04LBKB1	4 pr	1.5mm2 XLPE O/A SCN SWA LSZH BK 110/150v	Overall Foil Screen SWA	Low Smoke Zero Halogen	1000m	YES
BOAP15S06LBKB1	6 pr	1.5mm2 XLPE O/A SCN SWA LSZH BK 110/150v	Overall Foil Screen SWA	Low Smoke Zero Halogen	1000m	YES
BOAP15S06LBKB1	6 pr	1.5mm2 XLPE O/A SCN SWA LSZH BK 110/150v	Overall Foil Screen SWA	Low Smoke Zero Halogen	1000m	YES
BOAP15S10LBKB1	10 pr	1.5mm2 XLPE O/A SCN SWA LSZH BK 110/150v	Overall Foil Screen SWA	Low Smoke Zero Halogen	1000m	YES
BOAP15S12LBKB1	12 pr	1.5mm2 XLPE O/A SCN SWA LSZH BK 110/150v	Overall Foil Screen SWA	Low Smoke Zero Halogen	1000m	YES
BOAP15S12LBKB1	12 pr	1.5mm2 XLPE O/A SCN SWA LSZH BK 110/150v	Overall Foil Screen SWA	Low Smoke Zero Halogen	1000m	YES
BOAP15S24LBKB1	24 pr	1.5mm2 XLPE O/A SCN SWA LSZH BK 110/150v	Overall Foil Screen SWA	Low Smoke Zero Halogen	1000m	YES

INDIVIDUAL & OVERALL SCREENED INSTRUMENTATION SWA CABLES
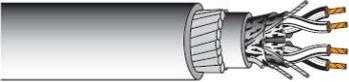
PART NUMBER	NO. OF PAIRS	DESCRIPTION	CONSTRUCTION	OUTER JACKET MATERIAL	DRUM SIZE	CUT
7/0.30MM (0.5MM) INDIVIDUAL & OVERALL FOIL SCREENED SWA						
BIOP05S02LBKB1	2 pr	0.5mm2 XLPE I&O/A SCN SWA LSZH BK 110/150v	Individual and Overall Foil Screen SWA	Low Smoke Zero Halogen	1000m	YES
BIOP05S02LBKB1	2 pr	0.5mm2 XLPE I&O/A SCN SWA LSZH BK 110/150v	Individual and Overall Foil Screen SWA	Low Smoke Zero Halogen	1000m	YES
BIOP05S04LBKB1	4 pr	0.5mm2 XLPE I&O/A SCN SWA LSZH BK 110/150v	Individual and Overall Foil Screen SWA	Low Smoke Zero Halogen	1000m	YES
BIOP05S04LBKB1	4 pr	0.5mm2 XLPE I&O/A SCN SWA LSZH BK 110/150v	Individual and Overall Foil Screen SWA	Low Smoke Zero Halogen	1000m	YES
7/0.50MM (1.5MM) INDIVIDUAL & OVERALL FOIL SCREENED						
BIOP15S02LBKB1	2 pr	1.5mm2 XLPE I&O/A SCN SWA LSZH BK 110/150v	Individual and Overall Foil Screen SWA	Low Smoke Zero Halogen	1000m	YES
BIOP15S04LBKB1	4 pr	1.5mm2 XLPE I&O/A SCN SWA LSZH BK 110/150v	Individual and Overall Foil Screen SWA	Low Smoke Zero Halogen	1000m	YES

BELDEN CLASSICS INSTRUMENTATION AWG CABLES

Belden Classic products are manufactured in a wide variety of gauge (AWG) sizes, insulation materials, shielding configurations, and jacketing materials, including Plenum and High-temperature versions. These Multi-conductor and Paired products offer best-in-class performance and reliability in many different systems.

PART NUMBER	DESCRIPTION	NO. OF PAIRS	CROSS SECTIONAL AREA	NOM. CABLE OD (MM)	PACK SIZE (M)	APPLICATION	PACKAGE
AWG STYLE TWINS - 300V UL							
8451 01010000	1PR 22 AWG OA SCREEN PVC 3050M BLACK	1	22	3.5	3048	INDOOR	SPOOL
8451 0081000	1PR 22 AWG OA SCREEN PVC 305M GREY	1	22	3.5	305	INDOOR	SPOOL
8451 008U1000	1PR 22 AWG OA SCREEN PVC 1000M GREY	1	22	3.5	305	INDOOR	SPOOL
8451 0101000	1PR 22 AWG OA SCREEN PVC 305M BLACK	1	22	3.5	305	INDOOR	SPOOL
8451 010U1000	1PR 22 AWG OA SCREEN PVC 305M BLACK	1	22	3.5	305	INDOOR	PULL BOX
8761 0601000	1PR 22AWG OA SCREEN PVC 305M CHROME	1	22	4.4	305	INDOOR	SPOOL
8761 060U1000	1PR 22AWG OA SCREEN PVC 305M CHROME	1	22	4.4	305	INDOOR	PULL BOX
9302 0601000	2PR 22AWG OA SCREEN PVC 305M CHROME	2	22	6.2	305	INDOOR	SPOOL
9302 060U1000	2PR 22AWG OA SCREEN PVC 305M CHROME	2	22	6.2	305	INDOOR	PULL BOX
8762 0601000	1PR 20AWG OA SCREEN PVC 305M CHROME	1	20	5.2	305	INDOOR	SPOOL
8762 060U1000	1PR 20AWG OA SCREEN PVC 305M CHROME	1	20	5.2	305	INDOOR	PULL BOX

PART NUMBER	DESCRIPTION	NO. OF PAIRS	CROSS SECTIONAL AREA	NOM. CABLE OD (MM)	PACK SIZE (M)	APPLICATION	PACKAGE
AWG STYLE TWINS - 300V UL							
8760 0601000	1PR 18AWG OA SCREEN PVC 305M CHROME	1	18	5.6	305	INDOOR	SPOOL
8760 060U1000	1PR 18AWG OA SCREEN PVC 305M CHROME	1	18	5.6	305	INDOOR	PULL BOX
9460 060U1000	1PR 18AWG OA SCREEN PVC 305M CHROME	1	18	5.8	305	INDOOR	PULL BOX
8719 0601000	1PR 16AWG OA SCREEN PVC 305M CHROME	1	16	8	305	INDOOR	SPOOL
8719 060U1000	1PR 16AWG OA SCREEN PVC 305M CHROME	1	16	8	305	INDOOR	PULL BOX
8719 06010000	1PR 16AWG OA SCREEN PVC 3050M CHROME	1	16	8	3048	INDOOR	SPOOL
8720 0601000	1PR 14 AWG OA SCREEN PVC 305M CHROME	1	14	9	305	INDOOR	SPOOL

PART NUMBER	DESCRIPTION	NO. OF TRIADS	AWG	NOM. CABLE OD (MM)	PACK SIZE (M)	APPLICATION	PACKAGE
AWG STYLE TRIADS - 300V UL							
8772 0601000	3C 20AWG OA SCREEN PVC 305M CHROME	1	20	5.5	305	INDOOR	SPOOL
8772 060U1000	3C 20AWG OA SCREEN PVC 305M CHROME	1	20	5.5	305	INDOOR	PULL BOX
8771 0601000	3C 22AWG OA SCREEN PVC 305M CHROME	1	22	5.1	305	INDOOR	SPOOL
8771 060U1000	3C 22AWG OA SCREEN PVC 305M CHROME	1	22	5.1	305	INDOOR	PULL BOX

PART NUMBER	DESCRIPTION	NO. OF PAIRS	CROSS SECTIONAL AREA	NOM. CABLE OD (MM)	PACK SIZE (M)	APPLICATION	PACKAGE
AWG STYLE TWINS - 300V UL							
9368 0601000	2PR 18AWG IND SCREEN PVC 305M CHROME	2	18	9.6	305	HIGH NOISE REJECTION	SPOOL
8723 0601000	2PR 22AWG IND SCREEN PVC 305M CHROME	2	22	4.1	305	HIGH NOISE REJECTION	SPOOL
AWG STYLE TWINS - 300V UL							
8723 060U1000	2PR 22AWG IND SCREEN PVC 305M CHROME	2	22	4.1	305	HIGH NOISE REJECTION	PULL BOX
8723NH 0601000	2PR 22AWG IND SCREEN LSZH 305M CHROME	2	22	4.1	305	HIGH NOISE REJECTION - LSZH	SPOOL
8723NH.00305	2PR 22AWG IND SCREEN LSZH 305M CHROME	2	22	4.1	305	HIGH NOISE REJECTION - LSZH	SPOOL
8777 0601000	3PR 22AWG IND SCREEN PVC 305M CHROME	3	22	6.9	305	HIGH NOISE REJECTION	SPOOL
8777 060U1000	3PR 22AWG IND SCREEN PVC 305M CHROME	3	22	6.9	305	HIGH NOISE REJECTION	PULL BOX

SECURITY & SOUND

TWIN CORE CABLE

Belden twin core cable suitable for Alarm, Siren,Bells,Fire Alarm and other security applications to central controller or to interconnect the parts of an intercom system. They may also be used as speaker cables for public address and background music.

PART NUMBER	DESCRIPTION	CONDUCTOR STRANDING	JACKET	TYPE	OUTER DIMENSIONS (MM)	CONDUCTOR AREA (MM2)	COLOUR	PACK	APPLICATION
5100UE 0021000	2C 14AWG SPEAKER/ SIREN PVC 305M RED	14AWG	PVC	DOUBLE INSULATED	5.5	305	RED	SPOOL	SIRENS, SPEAKERS AND PA
5100UE 0081000	2C 14AWG SPEAKER/ SIREN PVC 305M GREY	14AWG	PVC	DOUBLE INSULATED	5.5	305	GREY	SPOOL	SIRENS, SPEAKERS AND PA
5100UE 008U1000	2C 14AWG SPEAKER/ SIREN PVC 305M GREY	14AWG	PVC	DOUBLE INSULATED	5.5	305	GREY	PULL BOX	SIRENS, SPEAKERS AND PA
5100UE 0101000	2C 14AWG SPEAKER/ SIREN PVC 305M RED	14AWG	PVC	DOUBLE INSULATED	5.5	305	RED	SPOOL	SIRENS, SPEAKERS AND PA
5300UE 001U1000	2C 18AWG SPEAKER/ SIREN PVC 305M BROWN	18AWG	PVC	DOUBLE INSULATED	4	305	BROWN	PULL BOX	SIRENS, SPEAKERS AND PA
5300UE 005U1000	2C 18AWG SPEAKER/ SIREN PVC 305M GREEN	18AWG	PVC	DOUBLE INSULATED	4	305	GREEN	PULL BOX	SIRENS, SPEAKERS AND PA
5300UE 0081000	2C 18AWG SPEAKER/ SIREN PVC 305M GREY	18AWG	PVC	DOUBLE INSULATED	4	305	GREY	SPOOL	SIRENS, SPEAKERS AND PA
5300UE 008U1000	2C 18AWG SPEAKER/ SIREN PVC 305M GREY	18AWG	PVC	DOUBLE INSULATED	4	305	GREY	PULL BOX	SIRENS, SPEAKERS AND PA
5300UE 0091000	2C 18AWG SPEAKER/ SIREN PVC 305M WHITE	18AWG	PVC	DOUBLE INSULATED	4	305	WHITE	SPOOL	SIRENS, SPEAKERS AND PA
5300UE 009U1000	2C 18AWG SPEAKER/ SIREN PVC 305M WHITE	18AWG	PVC	DOUBLE INSULATED	4	305	WHITE	PULL BOX	SIRENS, SPEAKERS AND PA
5300UE 0101000	2C 18AWG SPEAKER/ SIREN PVC 305M BLACK	18AWG	PVC	DOUBLE INSULATED	4	305	BLACK	SPOOL	SIRENS, SPEAKERS AND PA
5300UE 010U1000	2C 18AWG SPEAKER/ SIREN PVC 305M BLACK	18AWG	PVC	DOUBLE INSULATED	4	305	BLACK	PULL BOX	SIRENS, SPEAKERS AND PA
5500UE 005U1000	2C 22AWG SPEAKER/ SIREN PVC 305M GREEN	22AWG	PVC	DOUBLE INSULATED	3.1	305	GREEN	PULL BOX	SIRENS, SPEAKERS AND PA
5500UE 0081000	2C 18AWG SPEAKER/ SIREN PVC 305M GREY	18AWG	PVC	DOUBLE INSULATED	3.1	305	GREY	SPOOL	SIRENS, SPEAKERS AND PA
5500UE 008U1000	2C 18AWG SPEAKER/ SIREN PVC 305M GREY	18AWG	PVC	DOUBLE INSULATED	3.1	305	GREY	PULL BOX	SIRENS, SPEAKERS AND PA
5T00UP 0081000	2C 10AWG SPEAKER/ SIREN PVC 305M GREY	10AWG	PVC	DOUBLE INSULATED	9	305	GREY	SPOOL	SIRENS, SPEAKERS AND PA
5T00UP 0101000	2C 10AWG SPEAKER/ SIREN PVC 305M BLACK	10AWG	PVC	DOUBLE INSULATED	9	305	BLACK	SPOOL	SIRENS, SPEAKERS AND PA

MULTICORE & MULTIPAIR SECURITY CABLES

Belden multicore & multipair security cables are most economical and suitable for Computer Interconnect, Alarm, Fire Alarm and other security applications. Where interference is a concern, screened cables may be used.
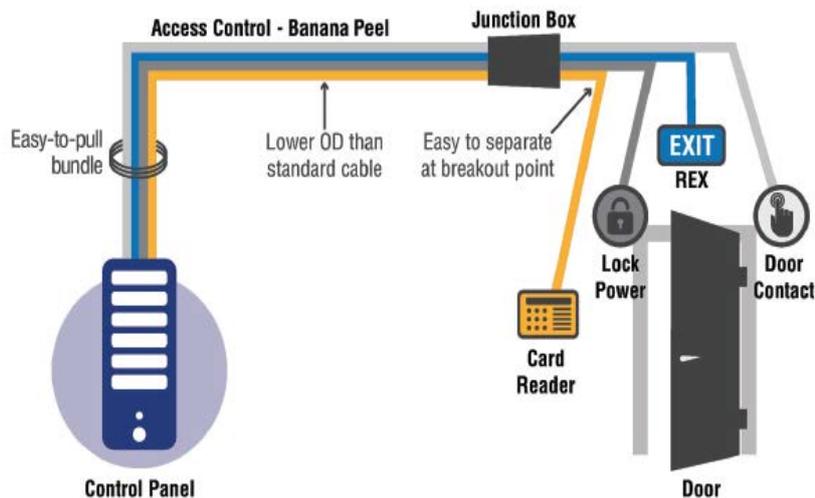
PART NUMBER	DESCRIPTION	CONDUCTOR STRANDING	NO. OF CORES	CABLE DIAMETER (MM)	TYPE	JACKET	LENGTH (M)	COLOUR	PACKAGE
5140U1 0101000	1P 14AWG UGROUNDSECURITY PVC 305M BLACK	14 AWG	1P	8	WATER BLOCKED UNSCREENED	PVC	305	BLACK	SPOOL
5102U1 0021000	4C 14AWG IN/OUT SECURITY PVC 305M RED	14 AWG	4	9	WATER BLOCKED UNSCREENED	PVC	305	RED	SPOOL
5102U1 0101000	4C 14AWG IN/OUT SECURITY PVC 305M BLACK	14 AWG	4	9	WATER BLOCKED UNSCREENED	PVC	305	BLACK	SPOOL
5240U1 0101000	1P 16AWG UGROUNDSECURITY PVC 305M BLACK	16 AWG	1P	6.4	WATER BLOCKED UNSCREENED	PVC	305	BLACK	SPOOL
5202UE 0081000	4C 16AWG SECURITY PVC 305M GREY	16 AWG	4	5.3	UNSCREENED	PVC	305	GREY	SPOOL
5202UE 009U1000	4C 16AWG SECURITY PVC 305M WHITE	16 AWG	4	5.3	UNSCREENED	PVC	305	WHITE	PULL BOX
5202UE 010U1000	4C 16AWG SECURITY PVC 305M BLACK	16 AWG	4	5.3	UNSCREENED	PVC	305	BLACK	PULL BOX
5300U1 0081000	2C 18AWG IN/OUT SECURITY PVC 305M GREY	18 AWG	2	5.5	WATER BLOCKED UNSCREENED	PVC	305	GREY	SPOOL
5300U1 008U1000	2C 18AWG IN/OUT SECURITY PVC305M GREY	18 AWG	2	5.5	WATER BLOCKED UNSCREENED	PVC	305	GREY	PULL BOX
5300U1 0101000	2C 18AWG IN/OUT SECURITY PVC 305M BLACK	18 AWG	2	5.5	WATER BLOCKED UNSCREENED	PVC	305	BLACK	SPOOL
5303FE 0081000	5C 18AWG SCREENED PVC 305M GREY	18 AWG	5	5.2	SCREENED	PVC	305	GREY	SPOOL
5303FE 008U1000	5C 18AWG SCREENED PVC 305M GREY	18 AWG	5	5.2	SCREENED	PVC	305	GREY	PULL BOX
5502G1 0081000	1P+2C 22AWG IN/OUT CABLE PVC 305M GREY	22 AWG	1P + 2	5.2	1 SCREENED PAIR + 2 CORE	PVC	305	GREY	SPOOL
5500F1 0081000	2C 22AWG UGROUNDSECURITY PVC 305M GREY	22 AWG	2	5	WATER BLOCKED SCREENED	PVC	305	GREY	SPOOL
5500F1 0101000	2C 22AWG UGROUNDSECURITY PVC 305M BLACK	22 AWG	2	5	WATER BLOCKED SCREENED	PVC	305	BLACK	SPOOL

ACCESS CONTROL CABLES

Belden patented Banana Peel construction affixes the individual cables to a center spline, eliminating the need for an overall jacket. The individual cable components are color coded by application and have the application printed on jackets, all jackets have a rip cords for easy removal. Access control cables are used to monitor, open and close gates, doors and booms. Composite access control cables allow for a single run from the controller to the door thereby saving installation costs and simplifying cable routing.

PART NUMBER	DESCRIPTION	SUB UNIT	NO. OF CORES	CONDUCTOR SIZE	SHEILDING	JACKET	APPLICATION	CABLE DIAMETER (MM)
558GMS 000 1000	4C18 + 4C22 + 6C22SHLD + 4C22 BANANAPEEL® 305M	4C18	4	18 AWG	NONE	PVC	LOCK POWER	10.8
		4C22	4	22 AWG	NONE	PVC	REX/SPARE	
		6C22	6	22 AWG	OVERALL	PVC	CARD READER	
		4C22	4	22 AWG	NONE	PVC	DOOR CONTACT	
558AFS 000 1000	4C18SHLD + 4C22SHLD + 3PR22SHLD + 2C22SHLD BANANAPEEL® 305M	4C18	4	18 AWG	OVERALL	PVC	LOCK POWER	11.4
		4C22	4	22 AWG	OVERALL	PVC	REX/SPARE	
		3PR22	3P	22 AWG	OVERALL	PVC	CARD READER	
		2C22	2	22 AWG	OVERALL	PVC	DOOR CONTACT	

Access Control - Banana Peel

Easy-to-pull bundle
Lower OD than standard cable
Easy to separate at breakout point
Junction Box
EXIT REX
Lock Power
Door Contact
Card Reader
Control Panel
Door

PANEL FLEX

PANEL FLEX CABLES

Belden Panel Flex products are manufactured using LSZH materials and are offered in a variety of sizes and designs to meet rigid industry specifications. Our products can be used in a wealth of applications including interconnection circuits, internal wiring of computer and data processing equipment, appliances, lighting, motor leads, heating and cooling equipment, and harness fabrication.

PART NUMBER	DESCRIPTION	CONSTRUCTION	JACKET MATERIAL	COLOUR	DRUM SIZE
0.5MM2 FLEX					
SH00050BE100	0.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Blue	100m
SH00050BK100	0.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Black	100m
SH00050BN100	0.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Brown	100m
SH00050EA100	0.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Green/Yellow	100m
SH00050GY100	0.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Grey	100m
SH00050OE100	0.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Oeange	100m
SH00050PK100	0.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Pink	100m
SH00050RD100	0.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Red	100m
SH00050VT100	0.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Violet	100m
SH00050WE100	0.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	White	100m
0.75MM2 FLEX					
SH00075BE100	0.75mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Blue	100m
SH00075BK100	0.75mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Black	100m
SH00075BK500	0.75mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Black	500m
SH00075BN100	0.75mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Brown	100m
SH00075BW100	0.75mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Black/White	100m
SH00075EA100	0.75mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Grren/Yellow	100m
SH00075GY100	0.75mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Grey	100m
SH00075LB100	0.75mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Light Blue	100m
SH00075OE100	0.75mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Orange	100m
SH00075OR100	0.75mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Orange/Red	100m
SH00075PK100	0.75mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Pink	100m
SH00075RD100	0.75mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Red	100m
SH00075RD500	0.75mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Red	500m
SH00075VT100	0.75mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Violet	100m
SH00075WE100	0.75mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	White	100m
1.0MM2 FLEX					
SH00100BE100	1.0mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Blue	100m
SH00100BE500	1.0mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Blue	500m
SH00100BK100	1.0mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Black	100m
SH00100BK500	1.0mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Black	500m
SH00100BN100	1.0mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Brown	100m
SH00100EA100	1.0mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Green/Yellow	100m
SH00100EA500	1.0mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Green/Yellow	500m
SH00100GY100	1.0mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Grey	100m
SH00100GY500	1.0mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Grey	500m
SH00100OE100	1.0mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Orange	100m
SH00100PK100	1.0mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Pink	100m
SH00100RD100	1.0mm2 Flex	Panel Copper 0.6/1KV HF125	XLP	Red	100m
SH00100RD500	1.0mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Red	500m
SH00100VT100	1.0mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Violet	100m
SH00100WE100	1.0mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	White	100m

PANEL FLEX CABLES

PART NUMBER	DESCRIPTION	CONSTRUCTION	JACKET MATERIAL	COLOUR	DRUM SIZE
SH00100WE500	1.0mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	White	500m
1.5MM2 FLEX					
SH00150BE100	1.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Blue	100m
SH00150BE500	1.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Blue	500m
SH00150BK100	1.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Black	100m
SH00150BK500	1.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Black	500m
SH00150BN100	1.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Brown	100m
SH00150BW100	1.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Balck/White	100m
SH00150EA100	1.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Green/Yellow	100m
SH00150EA500	1.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Green/Yellow	500m
SH00150GN100	1.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Green/Yellow	100m
SH00150GY100	1.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Grey	100m
SH00150GY500	1.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Grey	500m
SH00150LB100	1.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Light Blue	100m
SH00150OE100	1.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Orange	100m
SH00150OR100	1.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Orange/Red	100m
SH00150PK100	1.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Pink	100m
SH00150RD100	1.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Red	100m
SH00150RD500	1.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Red	500m
SH00150VT100	1.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Violet	100m
SH00150WE100	1.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	White	100m
SH00150WE500	1.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	White	500m
SH00150YW100	1.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Yellow	100m
2.5MM2 FLEX					
SH00250BE100	2.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Blue	100m
SH00250BE500	2.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Blue	500m
SH00250BK100	2.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Black	100m
SH00250BK500	2.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Black	500m
SH00250BN100	2.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Brown	100m
SH00250BW100	2.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Black/White	100m
SH00250EA100	2.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Green/Yellow	100m
SH00250EA500	2.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Green/Yellow	500m
SH00250GY100	2.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Grey	100m
SH00250LB100	2.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Light Blue	500m
SH00250OE100	2.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Orange	100m
SH00250PK100	2.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Pink	100m
SH00250RD100	2.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Red	100m
SH00250RD500	2.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Red	500m
SH00250VT100	2.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Violet	100m
SH00250WE100	2.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	White	100m

PANEL FLEX CABLES

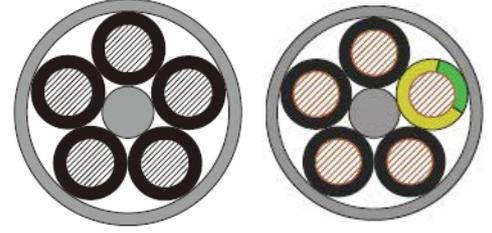| PART NUMBER	DESCRIPTION	CONSTRUCTION	JACKET MATERIAL	COLOUR	DRUM SIZE
SH00250WE500	2.5mm2 Flex	Tinned Copper 0.6/1KV HF125	XLP	White	500m
4.0M2 FLEX					
SH00400BE100	4.0m2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Blue	100m
SH00400BK100	4.0m2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Black	100m
SH00400BN100	4.0m2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Brown	100m
SH00400EA100	4.0m2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Green/Yellow	100m
SH00400GY100	4.0m2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Grey	100m
SH00400OE100	4.0m2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Orange	100m
SH00400PK100	4.0m2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Pink	100m
SH00400RD100	4.0m2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Red	100m
SH00400VT100	4.0m2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Violet	100m
SH00400WE100	4.0m2 Flex	Tinned Copper 0.6/1KV HF125	XLP	White	100m
6.0M2 FLEX					
SH00600BE100	6.0m2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Blue	100m
SH00600BK100	6.0m2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Black	100m
SH00600BN100	6.0m2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Brown	100m
SH00600EA100	6.0m2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Green/Yellow	100m
SH00600GY100	6.0m2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Grey	100m
SH00600OE100	6.0m2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Orange	100m
SH00600PK100	6.0m2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Pink	100m
SH00600RD100	6.0m2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Red	100m
SH00600VT100	6.0m2 Flex	Tinned Copper 0.6/1KV HF125	XLP	Violet	100m

MACHFLEX

MACHFLEX 350 YY UNSHIELDED PVC CONTROL CABLES

Unshielded PVC Control Cables

APPLICATIONS

Designed for applications which are installed in occasional flexing and fixed locations. Cable applications include precision control sensors, multi axis control machines, temperature controllers, control panels, machine cutting tools, auxiliary equipment, motor speed control, production machinery and many more.

GENERAL REFERENCE STANDARDS

| DIN VDE 0295, IEC 60228, BS6360

| DIN EN 50290-2-22, DIN VDE 0207-363-4-1, DIN EN 50525-2-51

| DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2

| RoHS, REACH & CE Directives

CONSTRUCTION AND PERFORMANCE

1.	Conductor Material	Stranded bare copper (DIN VDE 0295 Class 5)
2.	Insulation Material & Color	Insulation Material & Colour PVC (polyvinyl chloride). A) All black color with number coding = without protective conductor. B) Black color with number coding plus 1 green & yellow = with protective conductor.
3.	Jacket / Sheath Material	PVC (polyvinyl chloride)
4.	Flame Retardancy	VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
5.	Voltage Rating (Uo/U)	Up to 1.5 mm2: 300 / 500 V From 2.5 mm2: 450 / 750 V
6.	Oil Resistant	DIN EN 50290-2-22 (TM54)
7.	Temperature Range	-30 °C TO +70 °C (Occasional movement) -40 °C TO +80 °C (Fixed installation)
8.	Bending Radius	10 x OD (Occasional movement) 4 x OD (Fixed installation)
9.	Other Properties	Good UV resistance, chemical resistance & flexibility

| *Varies depending on the construction of the cable

| Putup length & tolerance of the cables will vary depending on the construction of the cable

| MOQ will vary depending on the construction of the cable & provided at the time of quotation

| Cable requested outside the above design criteria can be reviewed and quoted

Unshielded Cable With (G) Protective Ground
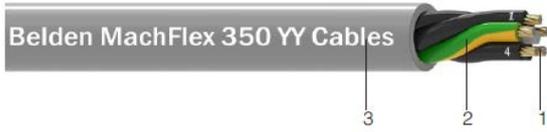
Belden MachFlex 350 YY Cables

1 = Conductor
2 = Insulation
3 = Inner Sheath

CONDUCTOR 0.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	4.9	3G0.5	3G0.5
4	5.3	4G0.5	4G0.5
5	5.9	5G0.5	5G0.5
7	6.4	7G0.5	7G0.5
12	8.6	12G0.5	12G0.5
20	10.8	20G0.5	20G0.5

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	5.4	3G0.75	3G0.75
4	5.9	4G0.75	4G0.75
5	6.5	5G0.75	5G0.75
7	7.2	7G0.75	7G0.75
12	9.6	12G0.75	12G0.75
20	12.1	20G0.75	20G0.75

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	5.8	3G0.75	3G0.75
4	6.4	4G0.75	4G0.75
5	7.1	5G0.75	5G0.75
7	7.8	7G0.75	7G0.75
12	10.5	12G0.75	12G0.75
20	13.2	20G0.75	20G0.75

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	6.4	3G1.5	3G1.5
4	7.0	4G1.5	4G1.5
5	7.8	5G1.5	5G1.5
7	8.5	7G1.5	7G1.5
12	11.5	12G1.5	12G1.5
20	14.5	20G1.5	20G1.5

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.3	3G2.5	3G2.5
4	9.2	4G2.5	4G2.5
5	10.1	5G2.5	5G2.5
7	11.2	7G2.5	7G2.5
12	15.2	12G2.5	12G2.5
20	19.2	20G2.5	20G2.5

CONDUCTOR 4.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	9.8	3G4	3G4
4	10.9	4G4	4G4
5	12.0	5G4	5G4
7	13.3	7G4	7G4
9	16.6	9G4	9G4
12	18.1	12G4	12G4

CONDUCTOR 6.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	11.8	3G6	3G6
4	13.1	4G6	4G6
5	14.5	5G6	5G6
7	16.0	7G6	7G6
9	20.1	9G6	9G6

CONDUCTOR 10.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	14.8	3G10	3G10
4	16.5	4G10	4G10
5	18.3	5G10	5G10
7	20.3	7G10	7G10
9	25.5	9G10	9G10

CONDUCTOR 16.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	18.1	3G16	3G16
4	20.2	4G16	4G16
5	22.4	5G16	5G16
7	24.8	7G16	7G16

CONDUCTOR 25.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	22.3	3G25	3G25
4	24.9	4G25	4G25
5	27.7	5G25	5G25
7	30.6	7G25	7G25

MACHFLEX 350 YY UNSHIELDED PVC CONTROL CABLES

Unshielded Cable Without (G) Protective Ground

Belden MachFlex 350 YY Cables

1 = Conductor
2 = Insulation
3 = Inner Sheath

CONDUCTOR 0.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	4.9	3X0.5	3X0.5
4	5.3	4X0.5	4X0.5
5	5.9	5X0.5	5X0.5
7	6.4	7X0.5	7X0.5
12	8.6	12X0.5	12X0.5
20	10.8	20X0.5	20X0.5

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	5.4	3X0.75	3X0.75
4	5.9	4X0.75	4X0.75
5	6.5	5X0.75	5X0.75
7	7.2	7X0.75	7X0.75
12	9.6	12X0.75	12X0.75
20	12.1	20X0.75	20X0.75

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	5.8	3X1.0	3X1.0
4	6.4	4X1.0	4X1.0
5	7.1	5X1.0	5X1.0
7	7.8	7X1.0	7X1.0
12	10.5	12X1.0	12X1.0
20	13.2	20X1.0	20X1.0

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	6.4	3X1.5	3X1.5
4	7.0	4X1.5	4X1.5
5	7.8	5X1.5	5X1.5
7	8.5	7X1.5	7X1.5
12	11.5	12X1.5	12X1.5
20	14.5	20X1.5	20X1.5

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.3	3X2.5	3X2.5
4	9.2	4X2.5	4X2.5
5	10.1	5X2.5	5X2.5
7	11.2	7X2.5	7X2.5
12	15.2	12X2.5	12X2.5
20	19.2	20X2.5	20X2.5

CONDUCTOR 4.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	9.8	3X4	3X4
4	10.9	4X4	4X4
5	12.0	5X4	5X4
7	13.3	7X4	7X4
9	16.6	9X4	9X4
12	18.1	12X4	12X4

CONDUCTOR 6.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	11.8	3X6	3X6
4	13.1	4X6	4X6
5	14.5	5X6	5X6
7	16.0	7X6	7X6
9	20.1	9X6	9X6

CONDUCTOR 10.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	14.8	3X10	3X10
4	16.5	4X10	4X10
5	18.3	5X10	5X10
7	20.3	7X10	7X10
9	25.5	9X10	9X10

CONDUCTOR 16.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	18.1	3X16	3X16
4	20.2	4X16	4X16
5	22.4	5X16	5X16
7	24.8	7X16	7X16

CONDUCTOR 25.00 MM2

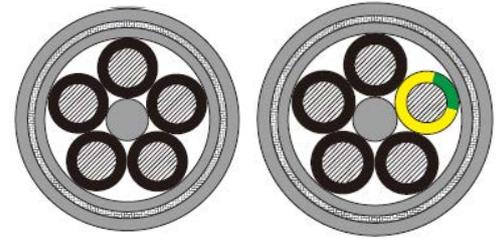| NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	22.3	3X25	3X25
4	24.9	4X25	4X25
5	27.7	5X25	5X25
7	30.6	7X25	7X25

MACHFLEX 350 CY CABLES

Shielded (CY) PVC Control Cables

Tinned Copper Braid Shield (TCB) - Excellent Noise Immunity

APPLICATIONS

Designed for applications which are installed in occasional flexing and fixed locations. Cable applications include precision control sensors, multi axis control machines, temperature controllers, control panels, machine cutting tools, auxiliary equipment, motor speed control, production machinery and many more.
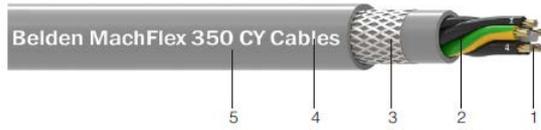
GENERAL REFERENCE STANDARDS

| DIN VDE 0295, IEC 60228, BS6360

| DIN EN 50290-2-22, DIN VDE 0207-363-4-1

| DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2

| DIN EN 50525-2-51

| RoHS, REACH & CE Directives

CONSTRUCTION AND PERFORMANCE

1.	Conductor Material	Stranded bare copper (DIN VDE 0295 Class 5)
2.	Insulation Material & Color	Insulation Material & Color PVC (polyvinyl chloride). A) All black color with number coding = without protective conductor. B) Black color with number coding plus 1 green & yellow = with protective conductor.
3.	Braid Shield Material	Tinned Copper Braid Shield
4.	Jacket / Sheath Material	PVC (polyvinyl chloride)
5.	Flame Retardancy	VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
6.	Voltage Rating (Uo/U)	300 / 500 V
7.	Oil Resistant	DIN EN 50290-2-22 (TM54)
8.	Temperature Range	-30 °C TO +70 °C (Occasional movement) -40 °C TO +80 °C (Fixed installation)
9.	Bending Radius	20 x OD (Occasional movement) 6 x OD (Fixed installation)
10.	Other Properties	Good UV resistance, chemical resistance & flexibility

MACHFLEX 350 CY SHIELDED (CY) PVC CONTROL CABLES

Tinned Copper Braid Shielded Cable With (G) Protective Ground

Belden MachFlex 350 CY Cables

5   4   3   2   1

1 = Conductor
2 = Insulation
3 = Inner Sheath
4 = Tinned Copper Braid Shielded
5 = Outer Sheath

CONDUCTOR 0.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	7.2	3G0.5	3G0.5CY
4	7.7	4G0.5	4G0.5CY
5	8.3	5G0.5	5G0.5CY
7	9.1	7G0.5	7G0.5CY
12	11.4	12G0.5	12G0.5CY
20	13.7	20G0.5	20G0.5CY

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	7.7	3G0.75	3G0.75CY
4	8.3	4G0.75	4G0.75CY
5	9.2	5G0.75	5G0.75CY
7	9.9	7G0.75	7G0.75CY
12	12.4	12G0.75	12G0.75CY
20	15.0	20G0.75	20G0.75CY

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.2	3G1.0	3G1.0CY
4	9.1	4G1.0	4G1.0CY
5	9.8	5G1.0	5G1.0CY
7	10.5	7G1.0	7G1.0CY
12	13.3	12G1.0	12G1.0CY
20	16.1	20G1.0	20G1.0CY

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	9.0	3G1.5	3G1.5CY
4	9.7	4G1.5	4G1.5CY
5	10.5	5G1.5	5G1.5CY
7	11.3	7G1.5	7G1.5CY
12	14.4	12G1.5	12G1.5CY
20	17.5	20G1.5	20G1.5CY

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	11.0	3G2.5	3G2.5CY
4	11.9	4G2.5	4G2.5CY
5	12.9	5G2.5	5G2.5CY
7	14.0	7G2.5	7G2.5CY
12	18.2	12G2.5	12G2.5CY
20	22.7	20G2.5	20G2.5CY

CONDUCTOR 4.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	12.6	3G4	3G4CY
4	13.7	4G4	4G4CY
5	14.9	5G4	5G4CY
7	16.2	7G4	7G4CY
9	20.0	9G4	9G4CY
12	21.5	12G4	12G4CY

CONDUCTOR 6.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	14.6	3G6	3G6CY
4	16.0	4G6	4G6CY
5	17.5	5G6	5G6CY
7	19.1	7G6	7G6CY
9	23.6	9G6	9G6CY

CONDUCTOR 10.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	17.8	3G10	3G10CY
4	19.8	4G10	4G10CY
5	21.7	5G10	5G10CY
7	23.8	7G10	7G10CY
9	29.2	9G10	9G10CY

CONDUCTOR 16.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	21.5	3G16	3G16CY
4	23.6	4G16	4G16CY
5	26.0	5G16	5G16CY
7	28.5	7G16	7G16CY

CONDUCTOR 25.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	25.9	3G25	3G25CY
4	28.6	4G25	4G25CY
5	31.5	5G25	5G25CY
7	34.2	7G25	7G25CY

MACHFLEX 350 CY SHIELDED (CY) PVC CONTROL CABLES

Tinned Copper Braid Shielded Cable Without (G) Protective Ground
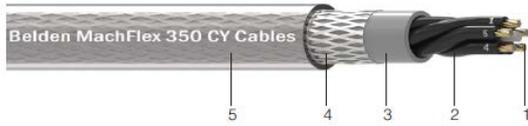
1 = Conductor
2 = Insulation
3 = Inner Sheath
4 = Tinned Copper Braid Shielded
5 = Outer Sheath

CONDUCTOR 0.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	7.2	3X0.5	3X0.5CY
4	7.7	4X0.5	4X0.5CY
5	8.3	5X0.5	5X0.5CY
7	9.1	7X0.5	7X0.5CY
12	11.4	12X0.5	12X0.5CY
20	13.7	20X0.5	20X0.5CY

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	7.7	3X0.75	3X0.75CY
4	8.3	4X0.75	4X0.75CY
5	9.2	5X0.75	5X0.75CY
7	9.9	7X0.75	7X0.75CY
12	12.4	12X0.75	12X0.75CY
20	15.0	20X0.75	20X0.75CY

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.2	3X1.0	3X1.0CY
4	9.1	4X1.0	4X1.0CY
5	9.8	5X1.0	5X1.0CY
7	10.5	7X1.0	7X1.0CY
12	13.3	12X1.0	12X1.0CY
20	16.1	20X1.0	20X1.0CY

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	9.0	3X1.5	3X1.5CY
4	9.7	4X1.5	4X1.5CY
5	10.5	5X1.5	5X1.5CY
7	11.3	7X1.5	7X1.5CY
12	14.4	12X1.5	12X1.5CY
20	17.5	20X1.5	20X1.5CY

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	11.0	3X2.5	3X2.5CY
4	11.9	4X2.5	4X2.5CY
5	12.9	5X2.5	5X2.5CY
7	14.0	7X2.5	7X2.5CY
12	18.2	12X2.5	12X2.5CY
20	22.7	20X2.5	20X2.5CY

CONDUCTOR 4.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	12.6	3X4	3X4CY
4	13.7	4X4	4X4CY
5	14.9	5X4	5X4CY
7	16.2	7X4	7X4CY
9	20.0	9X4	9X4CY
12	21.5	12X4	12X4CY

CONDUCTOR 6.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	14.6	3X6	3X6CY
4	16.0	4X6	4X6CY
5	17.5	5X6	5X6CY
7	19.1	7X6	7X6CY
9	23.6	9X6	9X6CY

CONDUCTOR 10.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	17.8	3X10	3X10CY
4	19.8	4X10	4X10CY
5	21.7	5X10	5X10CY
7	23.8	7X10	7X10CY
9	29.2	9X10	9X10CY

CONDUCTOR 16.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	21.5	3X16	3X16CY
4	23.6	4X16	4X16CY
5	26.0	5X16	5X16CY
7	28.5	7X16	7X16CY

CONDUCTOR 25.00 MM2

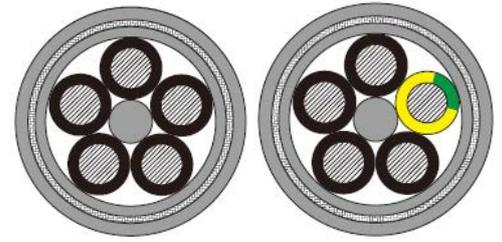| NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	25.9	3X25	3X25CY
4	28.6	4X25	4X25CY
5	31.5	5X25	5X25CY
7	34.2	7X25	7X25CY

MACHFLEX 350 SY CABLES

Armored (SY) PVC Control Cables

Galvanized Steel Wire Braid (GSWB) - Excellent Mechanical Protection

APPLICATIONS

Designed for applications which are installed in occasional flexing and fixed locations. Cable applications include precision control sensors, multi axis control machines, temperature controllers, control panels, machine cutting tools, auxiliary equipment, motor speed control, production machinery and many more.
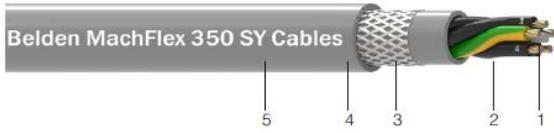
GENERAL REFERENCE STANDARDS

| DIN VDE 0295, IEC 60228, BS6360

| DIN EN 50290-2-22, DIN VDE 0207-363-4-1

| DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2

| DIN EN 50525-2-51

| RoHS, REACH & CE Directives

CONSTRUCTION AND PERFORMANCE

1.	Conductor Material	Stranded bare copper (DIN VDE 0295 Class 5)
2.	Insulation Material & Color	Insulation Material & Colour PVC (polyvinyl chloride). A) All black color with number coding = without protective conductor. B) Black color with number coding plus 1 green & yellow = with protective conductor.
3.	Braid Shield Material	GSWB (Galvanized Steel Wire Braid)
4.	Jacket / Sheath Material	PVC (polyvinyl chloride)
5.	Flame Retardancy	VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
6.	Voltage Rating (Uo/U)	300 / 500 V
7.	Oil Resistant	DIN EN 50290-2-22 (TM54)
8.	Temperature Range	-30 °C TO +70 °C (Occasional movement) -40 °C TO +80 °C (Fixed installation)
9.	Bending Radius	20 x OD (Occasional movement) 6 x OD (Fixed installation)
10.	Other Properties	Good UV resistance, chemical resistance & flexibility

MACHFLEX 350 SY ARMORED (SY) PVC CONTROL CABLES

Galvanized Steel Wire Braid Shield (Gswb) Cable With (G) Protective Ground

Belden MachFlex 350 SY Cables

1 = Conductor
2 = Insulation
3 = Inner Sheath
4 = Galvanized Steel Wire Braid Shield
5 = Outer Sheath

CONDUCTOR 0.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	7.5	3G0.5	3G0.5SY
4	8.0	4G0.5	4G0.5SY
5	8.5	5G0.5	5G0.5SY
7	9.1	7G0.5	7G0.5SY
12	11.4	12G0.5	12G0.5SY
20	13.9	20G0.5	20G0.5SY

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.0	3G0.75	3G0.75SY
4	8.6	4G0.75	4G0.75SY
5	9.2	5G0.75	5G0.75SY
7	9.9	7G0.75	7G0.75SY
12	12.4	12G0.75	12G0.75SY
20	15.2	20G0.75	20G0.75SY

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.4	3G1.0	3G1.0SY
4	9.1	4G1.0	4G1.0SY
5	9.8	5G1.0	5G1.0SY
7	10.5	7G1.0	7G1.0SY
12	13.3	12G1.0	12G1.0SY
20	16.3	20G1.0	20G1.0SY

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	9.0	3G1.5	3G1.5SY
4	9.7	4G1.5	4G1.5SY
5	10.5	5G1.5	5G1.5SY
7	11.3	7G1.5	7G1.5SY
12	14.6	12G1.5	12G1.5SY
20	17.7	20G1.5	20G1.5SY

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	11.0	3G2.5	3G2.5SY
4	11.9	4G2.5	4G2.5SY
5	12.9	5G2.5	5G2.5SY
7	14.2	7G2.5	7G2.5SY
12	18.4	12G2.5	12G2.5SY
20	22.6	20G2.5	20G2.5SY

CONDUCTOR 4.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	12.6	3G4	3G4SY
4	13.9	4G4	4G4SY
5	15.1	5G4	5G4SY
7	16.4	7G4	7G4SY
9	19.9	9G4	9G4SY
12	21.5	12G4	12G4SY

CONDUCTOR 6.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	14.9	3G6	3G6SY
4	16.2	4G6	4G6SY
5	17.7	5G6	5G6SY
7	19.3	7G6	7G6SY
9	23.5	9G6	9G6SY

CONDUCTOR 10.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	18.0	3G10	3G10SY
4	19.8	4G10	4G10SY
5	21.7	5G10	5G10SY
7	23.7	7G10	7G10SY
9	29.1	9G10	9G10SY

CONDUCTOR 16.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	21.4	3G16	3G16SY
4	23.6	4G16	4G16SY
5	26.1	5G16	5G16SY
7	28.4	7G16	7G16SY

CONDUCTOR 25.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	25.9	3G25	3G25SY
4	28.6	4G25	4G25SY
5	31.2	5G25	5G25SY
7	33.9	7G25	7G25SY

MACHFLEX 350 SY ARMORED (SY) PVC CONTROL CABLES

Galvanized Steel Wire Braid Shield (GSWB) Cable Without (G) Protective Ground
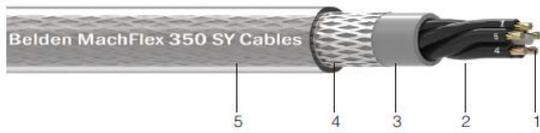
1 = Conductor
2 = Insulation
3 = Inner Sheath
4 = Galvanized Steel Wire Braid Shield
5 = Outer Sheath

CONDUCTOR 0.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	7.5	3X0.5	3X0.5SY
4	8.0	4X0.5	4X0.5SY
5	8.5	5X0.5	5X0.5SY
7	9.1	7X0.5	7X0.5SY
12	11.4	12X0.5	12X0.5SY
20	13.9	20X0.5	20X0.5SY

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.0	3X0.75	3X0.75SY
4	8.6	4X0.75	4X0.75SY
5	9.2	5X0.75	5X0.75SY
7	9.9	7X0.75	7X0.75SY
12	12.4	12X0.75	12X0.75SY
20	15.2	20X0.75	20X0.75SY

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.4	3X1.0	3X1.0SY
4	9.1	4X1.0	4X1.0SY
5	9.8	5X1.0	5X1.0SY
7	10.5	7X1.0	7X1.0SY
12	13.3	12X1.0	12X1.0SY
20	16.3	20X1.0	20X1.0SY

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	9.0	3X1.5	3X1.5SY
4	9.7	4X1.5	4X1.5SY
5	10.5	5X1.5	5X1.5SY
7	11.3	7X1.5	7X1.5SY
12	14.6	12X1.5	12X1.5SY
20	17.7	20X1.5	20X1.5SY

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	11.0	3X2.5	3X2.5SY
4	11.9	4X2.5	4X2.5SY
5	12.9	5X2.5	5X2.5SY
7	14.2	7X2.5	7X2.5SY
12	18.4	12X2.5	12X2.5SY
20	22.6	20X2.5	20X2.5SY

CONDUCTOR 4.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	12.6	3X4	3X4SY
4	13.9	4X4	4X4SY
5	15.1	5X4	5X4SY
7	16.4	7X4	7X4SY
9	19.9	9X4	9X4SY
12	21.5	12X4	12X4SY

CONDUCTOR 6.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	14.9	3X6	3X6SY
4	16.2	4X6	4X6SY
5	17.7	5X6	5X6SY
7	19.3	7X6	7X6SY
9	23.5	9X6	9X6SY

CONDUCTOR 10.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	18.0	3X10	3X10SY
4	19.8	4X10	4X10SY
5	21.7	5X10	5X10SY
7	23.7	7X10	7X10SY
9	29.1	9X10	9X10SY

CONDUCTOR 16.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	21.4	3X16	3X16SY
4	23.6	4X16	4X16SY
5	26.1	5X16	5X16SY
7	28.4	7X16	7X16SY

CONDUCTOR 25.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	25.9	3X25	3X25SY
4	28.6	4X25	4X25SY
5	31.2	5X25	5X25SY
7	33.9	7X25	7X25SY

MACHFLEX 350 HH CABLES

Unshielded LSZH Control Cables

APPLICATIONS

Designed for applications which are installed in occasional flexing and fixed locations. Cable applications include precision control sensors,multi axis control machines, temperature controllers, control panels,machine cutting tools, auxiliary equipment, motor speed control,production machinery and many more.

GENERAL REFERENCE STANDARDS

| DIN VDE 0295, IEC 60228,

| DIN EN 50290-2-22,

| DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2

| RoHS&REACH&CE Directives

CONSTRUCTION AND PERFORMANCE

1.	Conductor Material	Stranded bare copper (DIN VDE 0295 Class 5)
2.	Insulation Material & Color	LSZH (low smoke halogen-free), DIN VDE 0293-1 (colour) A) All black colour with number coding = without protective conductor. B) Black color colour with number coding plus 1 green & yellow = with protective conductor.
3.	Jacket / Sheath Material	LSZH (low smoke halogen-free)
4.	Flame Retardancy	VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
5.	Voltage Rating (Uo/U)	300 / 500 V
6.	Oil Resistant	IEC 60811-404
7.	Temperature Range	-30 C TO +70 C (Occasional movement) -40 CTO +80 C (Fixed installation)
8.	Bending Radius	10 x OD (Occasional movement) 4 x OD (Fixed installation)
9.	Other Properties	Good UV resistance(black jacket only), chemical resistance & flexibility

MACHFLEX 350 HH UNSHIELDED LSZH CONTROL CABLES

Unshielded Cable With (G) Protective Ground

Belden MachFlex 350 HH Cables

1 = Conductor
2 = Insulation
3 = Sheath

CONDUCTOR 0.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	4.9	3G0.5	3G0.5L
4	5.3	4G0.5	4G0.5L
5	5.9	5G0.5	5G0.5L
7	6.4	7G0.5	7G0.5L
12	8.6	12G0.5	12G0.5L
20	10.8	20G0.5	20G0.5L

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	5.4	3G0.75	3G0.75L
4	5.9	4G0.75	4G0.75L
5	6.5	5G0.75	5G0.75L
7	7.2	7G0.75	7G0.75L
12	9.6	12G0.75	12G0.75L
20	12.1	20G0.75	20G0.75L

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	5.8	3 G1.0	3G1.0L
4	6.4	4 G1.0	4G1.0L
5	7.1	5 G1.0	5G1.0L
7	7.8	7 G1.0	7G1.0L
12	10.5	12G1.0	12G1.0L
20	13.2	20G1.0	20G1.0L

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	6.4	3 G1.5	3G1.5L
4	7.0	4 G1.5	4G1.5L
5	7.8	5 G1.5	5G1.5L
7	8.5	7 G1.5	7G1.5L
12	11.5	12 G1.5	12G1.5L
20	14.5	20 G1.5	20G1.5L

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.3	3 G2.5	3G2.5L
4	9.2	4 G2.5	4G2.5L
5	10.2	5 G2.5	5G2.5L
7	11.2	7 G2.5	7G2.5L
9	14.0	9 G2.5	9G2.5L
12	15.2	12 G2.5	12G2.5L

CONDUCTOR 4.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	9.8	3G4	3G4L
4	10.9	4G4	4G4L
5	12.0	5G4	5G4L
7	13.3	7G4	7G4L
9	16.6	9G4	9G4L
12	18.1	12G4	12G4L

CONDUCTOR 6.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	11.8	3G6	3G6L
4	13.1	4G6	4G6L
5	14.5	5G6	5G6L

CONDUCTOR 10.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	14.9	3G10	3G10L
4	16.6	4G10	4G10L
5	18.4	5G10	5G10L

MACHFLEX 350 HH UNSHIELDED LSZH CONTROL CABLES

Unshielded Cable Without (G) Protective Ground
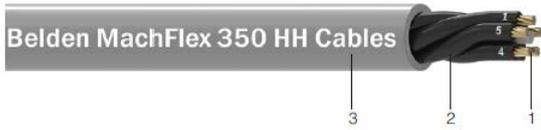
1 = Conductor
2 = Insulation
3 = Sheath

CONDUCTOR 0.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	4.9	3X0.5	3X0.5L
4	5.3	4X0.5	4X0.5L
5	5.9	5X0.5	5X0.5L
7	6.4	7X0.5	7X0.5L
12	8.6	12X0.5	12X0.5L
20	10.8	20X0.5	20X0.5L

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	5.4	3X0.75	3X0.75L
4	5.9	4X0.75	4X0.75L
5	6.5	5X0.75	5X0.75L
7	7.2	7X0.75	7X0.75L
12	9.6	12X0.75	12X0.75L
20	12.1	20X0.75	20X0.75L

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	5.8	3X1.0	3X1.0L
4	6.4	4X1.0	4X1.0L
5	7.1	5X1.0	5X1.0L
7	7.8	7X1.0	7X1.0L
12	10.5	12X1.0	12X1.0L
20	13.2	20X1.0	20X1.0L

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	6.4	3X1.5	3X1.5L
4	7.0	4X1.5	4X1.5L
5	7.8	5X1.5	5X1.5L
7	8.5	7X1.5	7X1.5L
12	11.5	12X1.5	12X1.5L
20	14.5	20X1.5	20X1.5L

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.3	3X2.5	3X2.5L
4	9.2	4X2.5	4X2.5L
5	10.2	5X2.5	5X2.5L
7	11.2	7X2.5	7X2.5L
9	14.0	9X2.5	9X2.5L
12	15.2	12X2.5	12X2.5L

CONDUCTOR 4.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	9.8	3X4	3X4L
4	10.9	4X4	4X4L
5	12.0	5X4	5X4L
7	13.3	7X4	7X4L
9	16.6	9X4	9X4L
12	18.1	12X4	12X4L

CONDUCTOR 6.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	11.8	3X6	3X6L
4	13.1	4X6	4X6L
5	14.5	5X6	5X6L

CONDUCTOR 10.00 MM2

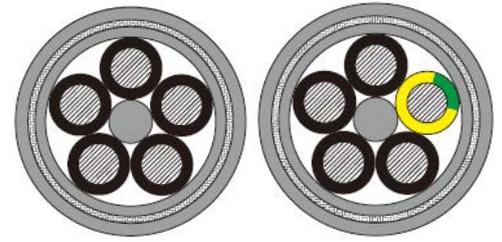| NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	14.9	3X10	3X10L
4	16.6	4X10	4X10L
5	18.4	5X10	5X10L

MACHFLEX 350 CH CABLES

Shielded (CH) LSZH Control Cables

Tinned Copper Braid Shield (TCB) -Excellent Noise Immunity

APPLICATIONS

Designed for applications which are installed in occasional flexing and fixed locations. Cable applications include precision control sensors,multi axis control machines, temperature controllers, control panels,machine cutting tools, auxiliary equipment, motor speed control,production machinery and many more.
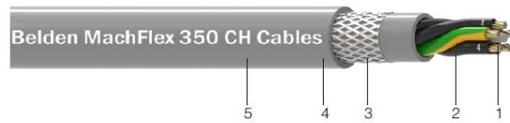
GENERAL REFERENCE STANDARDS

| DIN VDE 0295, IEC 60228,

| DIN EN 50290-2-22,

| DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2

| RoHS&REACH&CE Directives

CONSTRUCTION AND PERFORMANCE

1.	Conductor Material	Stranded bare copper (DIN VDE 0295 Class 5)
2.	Insulation Material & Colour	LSZH (low smoke halogen-free), DIN VDE 0293-1 (colour) A) All black colour with number coding = without protective conductor. B) Black color colour with number coding plus 1 green & yellow = with protective conductor.
3.	Braid Shield Material	Tinned Copper Braid Shield
4.	Jacket / Sheath Material	LSZH (low smoke halogen-free)
5.	Flame Retardancy	VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
6.	Voltage Rating (Uo/U)	300 / 500 V
7.	Oil Resistant	IEC 60811-404
8.	Temperature Range	-30 C TO +70 C (Occasional movement) -40 C TO +80 C (Fixed installation)
9.	Bending Radius	15 x OD (Flexible application) 6 x OD (Fixed installation)
10.	Other Properties	Good UV resistance(black jacket only), chemical resistance & flexibility

MACHFLEX 350 CH SHIELDED (CH) LSZH CONTROL CABLES

Tinned Copper Braid Shielded Cable With (G) Protective Ground

1 = Conductor
2 = Insulation
3 = Inner Sheath
4 = Tinned Copper Braid Shielded
5 = Outer Sheath

CONDUCTOR 0.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	7.1	3G0.5	3G0.5CH
4	7.7	4G0.5	4G0.5CH
5	8.1	5G0.5	5G0.5CH
7	9.0	7G0.5	7G0.5CH
12	11.3	12G0.5	12G0.5CH
20	13.6	20G0.5	20G0.5CH

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	7.7	3G0.75	3G0.75CH
4	8.2	4G0.75	4G0.75CH
5	9.1	5G0.75	5G0.75CH
7	9.8	7G0.75	7G0.75CH
12	12.3	12G0.75	12G0.75CH
20	14.9	20G0.75	20G0.75CH

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.1	3G1.0	3G1.0CH
4	9.0	4G1.0	4G1.0CH
5	9.7	5G1.0	5G1.0CH
7	10.4	7G1.0	7G1.0CH
12	13.2	12G1.0	12G1.0CH
20	16.0	20G1.0	20G1.0CH

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.9	3G1.5	3G1.5CH
4	9.6	4G1.5	4G1.5CH
5	10.4	5G1.5	5G1.5CH
7	11.2	7G1.5	7G1.5CH
12	14.3	12G1.5	12G1.5CH
20	17.4	20G1.5	20G1.5CH

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	10.9	3 G2.5	3G2.5CH
4	11.9	4 G2.5	4G2.5CH
5	12.9	5 G2.5	5G2.5CH
7	13.9	7 G2.5	7G2.5CH

CONDUCTOR 4.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	12.5	3G4	3G4CH
4	13.6	4G4	4G4CH
5	14.8	5G4	5G4CH
7	16.1	7G4	7G4CH

CONDUCTOR 6.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	14.5	3G6	3G6CH

CONDUCTOR 10.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	17.8	3G10	3G10CH

MACHFLEX 350 CH SHIELDED (CH) LSZH CONTROL CABLES

Tinned Copper Braid Shielded Cable Without (G) Protective Ground

Belden MachFlex 350 CH Cables
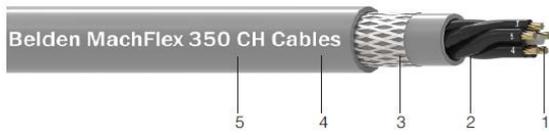
1 = Conductor
2 = Insulation
3 = Inner Sheath
4 = Tinned Copper Braid Shielded
5 = Outer Sheath

CONDUCTOR 0.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	7.1	3X0.5	3X0.5CH
4	7.7	4X0.5	4X0.5CH
5	8.1	5X0.5	5X0.5CH
7	9.0	7X0.5	7X0.5CH
12	11.3	12X0.5	12X0.5CH
20	13.6	20X0.5	20X0.5CH

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	7.7	3X0.75	3X0.75CH
4	8.2	4X0.75	4X0.75CH
5	9.1	5X0.75	5X0.75CH
7	9.8	7X0.75	7X0.75CH
12	12.3	12X0.75	12X0.75CH
20	14.9	20X0.75	20X0.75CH

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.1	3X1.0	3X1.0CH
4	9.0	4X1.0	4X1.0CH
5	9.7	5X1.0	5X1.0CH
7	10.4	7X1.0	7X1.0CH
12	13.2	12X1.0	12X1.0CH
20	16.0	20X1.0	20X1.0CH

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.9	3X1.5	3X1.5CH
4	9.6	4X1.5	4X1.5CH
5	10.4	5X1.5	5X1.5CH
7	11.2	7X1.5	7X1.5CH
12	14.3	12X1.5	12X1.5CH
20	17.4	20X1.5	20X1.5CH

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	10.9	3X2.5	3X2.5CH
4	11.9	4X2.5	4X2.5CH
5	12.9	5X2.5	5X2.5CH
7	13.9	7X2.5	7X2.5CH

CONDUCTOR 4.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	12.5	3X4	3X4CH
4	13.6	4X4	4X4CH
5	14.8	5X4	5X4CH
7	16.1	7X4	7X4CH

CONDUCTOR 6.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	14.5	3X6	3X6CH

CONDUCTOR 10.00 MM2

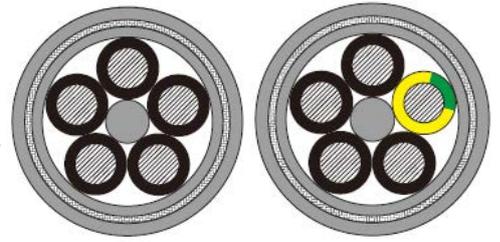| NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	17.8	3X10	3X10CH

MACHFLEX 350 SH CABLES

Armored (SH) LSZH Control Cables

Galvanlized Steel Wire Braid (GSWB) --> Excellent Mechanical Protection

APPLICATIONS

Designed for applications which are installed in occasional flexing and fixed locations. Cable applications include precision control sensors, multi axis control machines, temperature controllers, control panels, machine cutting tools, auxiliary equipment, motor speed control, production machinery and many more.
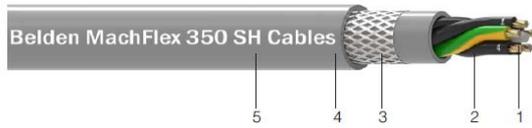
GENERAL REFERENCE STANDARDS

| DIN VDE 0295, IEC 60228,

| DIN EN 50290-2-22,

| DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2

| RoHS&REACH&CE Directives

CONSTRUCTION AND PERFORMANCE

1.	Conductor Material	Stranded bare copper (DIN VDE 0295 Class 5)
2.	Insulation Material & Colour	LSZH (low smoke halogen-free), DIN VDE 0293-1 (colour) A) All black colour with number coding = without protective conductor. B) Black color colour with number coding plus 1 green & yellow = with protective conductor.
3.	Braid Shield Material	GSWB (Galvanized Steel Wire Braid)
4.	Jacket / Sheath Material	LSZH (low smoke halogen-free)
5.	Flame Retardancy	VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
6.	Voltage Rating (Uo/U)	300 / 500 V
7.	Oil Resistant	IEC 60811-404
8.	Temperature Range	-30 C TO +70 C (Occasional movement) -40 C TO +80 C (Fixed installation)
9.	Bending Radius	20 x OD (Flexible application) 6 x OD (Fixed installation)
10.	Other Properties	Good UV resistance(black jacket only), chemical resistance & flexibility

MACHFLEX 350 HH UNSHIELDED LSZH CONTROL CABLES

Unshielded Cable Without (G) Protective Ground

1 = Conductor
2 = Insulation
3 = Inner Sheath
4 = Galvanized Steel Wire Braid Shield
5 = Outer Sheath

CONDUCTOR 0.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	7.4	3G0.5	3G0.5SH
4	7.9	4G0.5	4G0.5SH
5	8.4	5G0.5	5G0.5SH
7	9.0	7G0.5	7G0.5SH
12	11.3	12G0.5	12G0.5SH
20	13.7	20G0.5	20G0.5SH

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	7.9	3G0.75	3G0.75SH
4	8.5	4G0.75	4G0.75SH
5	9.1	5G0.75	5G0.75SH
7	9.8	7G0.75	7G0.75SH
12	12.3	12G0.75	12G0.75SH
20	15.1	20G0.75	20G0.75SH

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.3	3G1.0	3G1.0SH
4	9.0	4G1.0	4G1.0SH
5	9.7	5G1.0	5G1.0SH
7	10.4	7G1.0	7G1.0SH
12	13.2	12G1.0	12G1.0SH
20	16.2	20G1.0	20G1.0SH

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.9	3G1.5	3G1.5SH
4	9.6	4G1.5	4G1.5SH
5	10.4	5G1.5	5G1.5SH
7	11.2	7G1.5	7G1.5SH
12	14.5	12G1.5	12G1.5SH
20	17.6	20G1.5	20G1.5SH

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	10.9	3 G2.5	3G2.5SH
4	11.9	4 G2.5	4G2.5SH
5	12.9	5 G2.5	5G2.5SH
7	14.1	7 G2.5	7G2.5SH

CONDUCTOR 4.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	12.5	12.5	3G4SH
4	13.8	13.8	4G4SH
5	15.0	15.0	5G4SH
7	16.3	16.3	7G4SH

CONDUCTOR 6.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	14.7	3G6	3G6SH

CONDUCTOR 10.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	18.0	3G10	3G10SH

MACHFLEX 350 SH ARMORED (SH) LSZH CONTROL CABLES

Galvanlized Steel Wire Braid Shield (GSWB) Cable Without (G) Protective Ground

Belden MachFlex 350 SH Cables
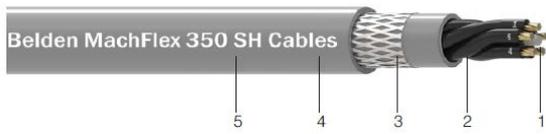
1 = Conductor
2 = Insulation
3 = Inner Sheath
4 = Galvanized Steel Wire Braid Shield
5 = Outer Sheath

CONDUCTOR 0.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	7.4	3X0.5	3X0.5SH
4	7.9	4X0.5	4X0.5SH
5	8.4	5X0.5	5X0.5SH
7	9.0	7X0.5	7X0.5SH
12	11.3	12X0.5	12X0.5SH
20	13.7	20X0.5	20X0.5SH

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	7.9	3X0.75	3X0.75SH
4	8.5	4X0.75	4X0.75SH
5	9.1	5X0.75	5X0.75SH
7	9.8	7X0.75	7X0.75SH
12	12.3	12X0.75	12X0.75SH
20	15.1	20X0.75	20X0.75SH

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.3	3X1.0	3X1.0SH
4	9.0	4X1.0	4X1.0SH
5	9.7	5X1.0	5X1.0SH
7	10.4	7X1.0	7X1.0SH
12	13.2	12X1.0	12X1.0SH
20	16.2	20X1.0	20X1.0SH

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.9	3X1.5	3X1.5SH
4	9.6	4X1.5	4X1.5SH
5	10.4	5X1.5	5X1.5SH
7	11.2	7X1.5	7X1.5SH
12	14.5	12X1.5	12X1.5SH
20	17.6	20X1.5	20X1.5SH

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	10.9	3X2.5	3X2.5SH
4	11.9	4X2.5	4X2.5SH
5	12.9	5X2.5	5X2.5SH
7	14.1	7X2.5	7X2.5SH

CONDUCTOR 4.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	12.5	3X4	3X4SH
4	13.8	4X4	4X4SH
5	15.0	5X4	5X4SH
7	16.3	7X4	7X4SH

CONDUCTOR 6.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	14.7	3X6	3X6SH

CONDUCTOR 10.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	18.0	18.0	3X10SH

MACHFLEX 610 YY CABLES

Unshielded PVC 600/1000V Control Cables

APPLICATIONS

Designed for applications which are installed in occasional flexing and fixed locations. Cable applications include precision control sensors, multi axis control machines, temperature controllers, control panels, machine cutting tools, auxiliary equipment, motor speed control, production machinery and many more.

GENERAL REFERENCE STANDARDS

| DIN VDE 0295, IEC 60228, BS6360

| DIN EN 50290-2-22, DIN VDE 0207-363-4-1, DIN VDE 0250-1

| DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2

| RoHS & REACH Directives

CONSTRUCTION AND PERFORMANCE

1.	Conductor Material	Stranded bare copper (DIN VDE 0295 Class 5)
2.	Insulation Material & Colour	PVC (polyvinyl chloride), DIN VDE 0293-1 (colour) A) All black colour with number coding = without protective conductor. B) Black color colour with number coding plus 1 green & yellow = with protective conductor.
4.	Jacket / Sheath Material	PVC (polyvinyl chloride)
5.	Flame Retardancy	VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
6.	Voltage Rating (Uo/U)	600 / 1000 V
7.	Oil Resistant	DIN EN 50290-2-22 (TM54)
8.	Temperature Range	-5 C TO +70 C (Occasional movement) -40 C TO +80 C (Fixed installation)
9.	Bending Radius	15 x OD (Occasional movement) 4 x OD (Fixed installation)
10.	Other Properties	Good UV resistance, chemical resistance & flexibility
10.	Other Properties	Good UV resistance(black jacket only), chemical resistance & flexibility

MACHFLEX 610 YY UNSHIELDED PVC 600/1000V CONTROL CABLES

Unshielded Cable With (G) Protective Ground

1 = Conductor
2 = Insulation
3 = Sheath

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	9.50	3G0.75	H3G0.75
4	10.2	4G0.75	H4G0.75
5	11.0	5G0.75	H5G0.75
7	11.8	7G0.75	H7G0.75
12	15.0	12G0.75	H12G0.75
20	18.2	20G0.75	H20G0.75

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	9.9	3G1.0	H3G1.0
4	10.6	4G1.0	H4G1.0
5	11.4	5G1.0	H5G1.0
7	12.3	7G1.0	H7G1.0
12	15.7	12G1.0	H12G1.0
20	19.1	20G1.0	H20G1.0

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	10.3	3G1.5	H3G1.5
4	11.2	4G1.5	H4G1.5
5	12.0	5G1.5	H5G1.5
7	13.0	7G1.5	H7G1.5
12	16.6	12G1.5	H12G1.5
20	20.2	20G1.5	H20G1.5

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	11.3	3G2.5	H3G2.5
4	12.3	4G2.5	H4G2.5
5	13.3	5G2.5	H5G2.5
7	14.3	7G2.5	H7G2.5
12	18.5	12G2.5	H12G2.5
20	22.7	20G2.5	H20G2.5

CONDUCTOR 4.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	13.5	3G4	H3G4
4	14.7	4G4	H4G4
5	16.0	5G4	H5G4
7	17.4	7G4	H7G4
9	21.0	9G4	H9G4

CONDUCTOR 6.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	14.8	3G6	H3G6
4	16.1	4G6	H4G6
5	17.6	5G6	H5G6
7	19.1	7G6	H7G6
9	23.3	9G6	H9G6

CONDUCTOR 10.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	17.0	3G10	H3G10
4	18.6	4G10	H4G10
5	20.3	5G10	H5G10
7	22.2	7G10	H7G10

CONDUCTOR 16.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	19.8	3G16	H3G16
4	21.8	4G16	H4G16
5	23.9	5G16	H5G16
7	26.1	7G16	H7G16

MACHFLEX 610 YY UNSHIELDED PVC 600/1000V CONTROL CABLES

Unshielded Cable Without (G) Protective Ground

1 = Conductor
2 = Insulation
3 = Sheath

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	9.50	3X0.75	H3X0.75
4	10.2	4X0.75	H4X0.75
5	11.0	5X0.75	H5X0.75
7	11.8	7X0.75	H7X0.75
12	15.0	12X0.75	H12X0.75
20	18.2	20X0.75	H20X0.75

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	9.9	3X1.0	H3X1.0
4	10.6	4X1.0	H4X1.0
5	11.4	5X1.0	H5X1.0
7	12.3	7X1.0	H7X1.0
12	15.7	12X1.0	H12X1.0
20	19.1	20X1.0	H20X1.0

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	10.3	3X1.5	H3X1.5
4	11.2	4X1.5	H4X1.5
5	12.0	5X1.5	H5X1.5
7	13.0	7X1.5	H7X1.5
12	16.6	12X1.5	H12X1.5
20	20.2	20X1.5	H20X1.5

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	11.3	3X2.5	H3X2.5
4	12.3	4X2.5	H4X2.5
5	13.3	5X2.5	H5X2.5
7	14.3	7X2.5	H7X2.5
12	18.5	12X2.5	H12X2.5
20	22.7	20X2.5	H20X2.5

CONDUCTOR 4.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	13.5	3X4	H3X4
4	14.7	4X4	H4X4
5	16.0	5X4	H5X4
7	17.4	7X4	H7X4
9	21.0	9X4	H9X4

CONDUCTOR 6.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	14.8	3X6	H3X6
4	16.1	4X6	H4X6
5	17.6	5X6	H5X6
7	19.1	7X6	H7X6
9	23.3	9X6	H9X6

CONDUCTOR 10.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	17.0	3X10	H3X10
4	18.6	4X10	H4X10
5	20.3	5X10	H5X10
7	22.2	7X10	H7X10

CONDUCTOR 16.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	19.8	3X16	H3X16
4	21.8	4X16	H4X16
5	23.9	5X16	H5X16
7	26.1	7X16	H7X16

MACHFLEX 610 CY CABLES

Tinned Copper Braid Shielded PVC 600/1000V Control Cables

APPLICATIONS

Designed for applications which are installed in occasional flexing and fixed locations. Cable applications include precision control sensors, multi axis control machines, temperature controllers, control panels, machine cutting tools, auxiliary equipment, motor speed control, production machinery and many more.
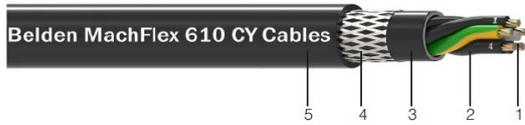
GENERAL REFERENCE STANDARDS

| DIN VDE 0295, IEC 60228, BS6360

| DIN EN 50290-2-22, DIN VDE 0207-363-4-1, DIN VDE 0250-1

| DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2

| RoHS & REACH Directives

CONSTRUCTION AND PERFORMANCE

1.	Conductor Material	Stranded bare copper (DIN VDE 0295 Class 5)
2.	Insulation Material & Colour	PVC (polyvinyl chloride), DIN VDE 0293-1 (colour) A) All black colour with number coding = without protective conductor. B) Black color colour with number coding plus 1 green & yellow = with protective conductor.
3.	Braid Shield Material	Tinned Copper Braid Shield
4.	Jacket / Sheath Material	PVC (polyvinyl chloride)
5.	Flame Retardancy	VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
6.	Voltage Rating (Uo/U)	600 / 1000 V
7.	Oil Resistant	DIN EN 50290-2-22 (TM54)
8.	Temperature Range	-5 C TO +70 C (Occasional movement) -40 C TO +80 C (Fixed installation)
9.	Bending Radius	20 x OD (Flexible application) 6 x OD (Fixed installation)
10.	Other Properties	Good UV resistance, chemical resistance & flexibility

MACHFLEX 610 CY SHIELDED (CY) PVC 600/1000V CONTROL CABLES

Tinned Copper Braid Shielded Cable With (G) Protective Ground

Belden MachFlex 610 CY Cables

5 4 3 2 1

1 = Conductor
2 = Insulation
3 = Inner Sheath
4 = Tinned Copper Braid Shielded
5 = Outer Sheath

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	12.2	3G0.75	H3G0.75CY
4	12.9	4G0.75	H4G0.75CY
5	13.6	5G0.75	H5G0.75CY
7	14.7	7G0.75	H7G0.75CY
12	17.9	12G0.75	H12G0.75CY
20	21.3	20G0.75	H20G0.75CY

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	12.5	3G1.0	H3G1.0CY
4	13.3	4G1.0	H4G1.0CY
5	14.1	5G1.0	H5G1.0CY
7	15.2	7G1.0	H7G1.0CY
12	18.6	12G1.0	H12G1.0CY
20	22.2	20G1.0	H20G1.0CY

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	13.0	3G1.5	H3G1.5CY
4	13.8	4G1.5	H4G1.5CY
5	14.9	5G1.5	H5G1.5CY
7	15.9	7G1.5	H7G1.5CY
12	19.5	12G1.5	H12G1.5CY
20	23.4	20G1.5	H20G1.5CY

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	14.0	3G2.5	H3G2.5CY
4	15.2	4G2.5	H4G2.5CY
5	16.2	5G2.5	H5G2.5CY
7	17.2	7G2.5	H7G2.5CY
12	21.6	12G2.5	H12G2.5CY
20	25.8	20G2.5	H20G2.5CY

CONDUCTOR 4.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	16.4	3G4	H3G4CY
4	17.6	4G4	H4G4CY
5	18.9	5G4	H5G4CY
7	20.5	7G4	H7G4CY
9	24.2	9G4	H9G4CY

CONDUCTOR 6.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	17.7	3G6	H3G6CY
4	19.0	4G6	H4G6CY
5	20.7	5G6	H5G6CY
7	22.3	7G6	H7G6CY
9	26.4	9G6	H9G6CY

CONDUCTOR 10.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	20.1	3G10	H3G10CY
4	21.7	4G10	H4G10CY
5	23.5	5G10	H5G10CY
7	25.3	7G10	H7G10CY

CONDUCTOR 16.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	22.9	3G16	H3G16CY
4	24.9	4G16	H4G16CY
5	27.0	5G16	H5G16CY
7	29.4	7G16	H7G16CY

MACHFLEX 610 CY SHIELDED (CY) PVC 600/1000V CONTROL CABLES

Tinned Copper Braid Shielded Cable Without (G) Protective Ground

Belden MachFlex 610 CY Cables

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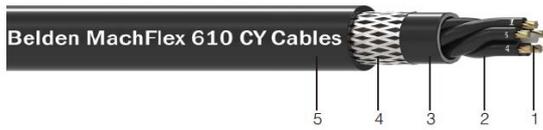
1 = Conductor
2 = Insulation
3 = Inner Sheath
4 = Tinned Copper Braid Shielded
5 = Outer Sheath

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	12.2	3X0.75	H3X0.75CY
4	12.9	4X0.75	H4X0.75CY
5	13.6	5X0.75	H5X0.75CY
7	14.7	7X0.75	H7X0.75CY
12	17.9	12X0.75	H12X0.75CY
20	21.3	20X0.75	H20X0.75CY

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	12.5	3X1.0	H3X1.0CY
4	13.3	4X1.0	H4X1.0CY
5	14.1	5X1.0	H5X1.0CY
7	15.2	7X1.0	H7X1.0CY
12	18.6	12X1.0	H12X1.0CY
20	22.2	20X1.0	H20X1.0CY

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	13.0	3X1.5	H3X1.5CY
4	13.8	4X1.5	H4X1.5CY
5	14.9	5X1.5	H5X1.5CY
7	15.9	7X1.5	H7X1.5CY
12	19.5	12X1.5	H12X1.5CY
20	23.4	20X1.5	H20X1.5CY

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	14.0	3X2.5	H3X2.5CY
4	15.2	4X2.5	H4X2.5CY
5	16.2	5X2.5	H5X2.5CY
7	17.2	7X2.5	H7X2.5CY
12	21.6	12X2.5	H12X2.5CY
20	25.8	20X2.5	H20X2.5CY

CONDUCTOR 4.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	16.4	3X4	H3X4CY
4	17.6	4X4	H4X4CY
5	18.9	5X4	H5X4CY
7	20.5	7X4	H7X4CY
9	24.2	9X4	H9X4CY

CONDUCTOR 6.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	17.7	3X6	H3X6CY
4	19.0	4X6	H4X6CY
5	20.7	5X6	H5X6CY
7	22.3	7X6	H7X6CY
9	26.4	9X6	H9X6CY

CONDUCTOR 10.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	20.1	3X10	H3X10CY
4	21.7	4X10	H4X10CY
5	23.5	5X10	H5X10CY
7	25.3	7X10	H7X10CY

CONDUCTOR 16.00 MM2

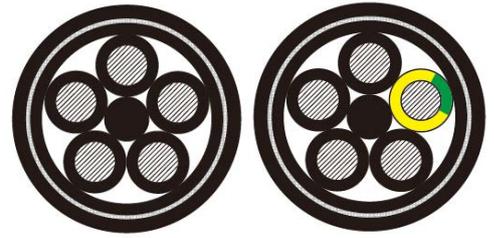| NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	22.9	3X16	H3X16CY
4	24.9	4X16	H4X16CY
5	27.0	5X16	H5X16CY
7	29.4	7X16	H7X16CY

MACHFLEX 610 SY CABLES

Armored (SY) PVC 600/1000V Control Cables

Galvanlized Steel Wire Braid (GSWB) --> Excellent Mechanical Protection

APPLICATIONS

Designed for applications which are installed in occasional flexing and fixed locations. Cable applications include precision control sensors, multi axis control machines, temperature controllers, control panels, machine cutting tools, auxiliary equipment, motor speed control, production machinery and many more.

GENERAL REFERENCE STANDARDS

| DIN VDE 0295, IEC 60228, BS6360

| DIN EN 50290-2-22, DIN VDE 0207-363-4-1, DIN VDE 0250-1

| DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2

| RoHS & REACH Directives

CONSTRUCTION AND PERFORMANCE

1.	Conductor Material	Stranded bare copper (DIN VDE 0295 Class 5)
2.	Insulation Material & Colour	PVC (polyvinyl chloride), DIN VDE 0293-1 (colour) A) All black colour with number coding = without protective conductor. B) Black color colour with number coding plus 1 green & yellow = with protective conductor.
3.	Braid Shield Material	GSWB (Galvanized Steel Wire Braid)
4.	Jacket / Sheath Material	PVC (polyvinyl chloride)
5.	Flame Retardancy	VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
6.	Voltage Rating (Uo/U)	600 / 1000 V
7.	Oil Resistant	DIN EN 50290-2-22 (TM54)
8.	Temperature Range	-5 C TO +70 C (Occasional movement) -40 CTO +80 C (Fixed installation)
9.	Bending Radius	20 x OD (Flexible application) 6 x OD (Fixed installation)
10.	Other Properties	Good UV resistance, chemical resistance & flexibility

MACHFLEX 610 SY ARMORED (SY) PVC 600/1000V CONTROL CABLES

Galvanlized Steel Wire Braid Shield (GSWB) Cable With (G) Protective Ground

Belden MachFlex 610 SY Cables

1 = Conductor
2 = Insulation
3 = Inner Sheath
4 = Galvanized Steel Wire Braid Shield
5 = Outer Sheath

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	12.4	3G0.75	H3G0.75SY
4	13.1	4G0.75	H4G0.75SY
5	13.9	5G0.75	H5G0.75SY
7	14.9	7G0.75	H7G0.75SY
12	18.0	12G0.75	H12G0.75SY
20	21.2	20G0.75	H20G0.75SY

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	12.8	3G1.0	H3G1.0SY
4	13.5	4G1.0	H4G1.0SY
5	14.3	5G1.0	H5G1.0SY
7	15.4	7G1.0	H7G1.0SY
12	18.7	12G1.0	H12G1.0SY
20	22.1	20G1.0	H20G1.0SY

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	13.2	3G1.5	H3G1.5SY
4	14.1	4G1.5	H4G1.5SY
5	15.1	5G1.5	H5G1.5SY
7	16.0	7G1.5	H7G1.5SY
12	19.7	12G1.5	H12G1.5SY
20	23.3	20G1.5	H20G1.5SY

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	14.2	3G2.5	H3G2.5SY
4	15.3	4G2.5	H4G2.5SY
5	16.3	5G2.5	H5G2.5SY
7	17.4	7G2.5	H7G2.5SY
12	21.6	12G2.5	H12G2.5SY
20	25.8	20G2.5	H20G2.5SY

CONDUCTOR 4.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	16.6	3G4	H3G4SY
4	17.8	4G4	H4G4SY
5	19.1	5G4	H5G4SY
7	20.5	7G4	H7G4SY
9	24.1	9G4	H9G4SY

CONDUCTOR 6.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	17.9	3G6	H3G6SY
4	19.2	4G6	H4G6SY
5	20.7	5G6	H5G6SY
7	22.2	7G6	H7G6SY
9	26.4	9G6	H9G6SY

CONDUCTOR 10.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	20.1	3G10	H3G10SY
4	21.7	4G10	H4G10SY
5	23.4	5G10	H5G10SY
7	25.3	7G10	H7G10SY

CONDUCTOR 16.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	22.9	3G16	H3G16SY
4	24.8	4G16	H4G16SY
5	27.0	5G16	H5G16SY
7	29.4	7G16	H7G16SY

MACHFLEX 610 SY ARMORED (SY) PVC 600/1000V CONTROL CABLES

Galvanlized Steel Wire Braid Shield (GSWB) Cable Without (G) Protective Ground
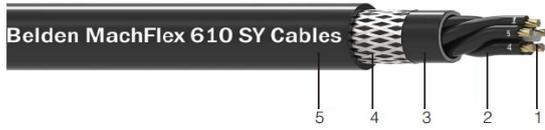
1 = Conductor
2 = Insulation
3 = Inner Sheath
4 = Galvanized Steel Wire Braid Shield
5 = Outer Sheath

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	12.4	3X0.75	H3X0.75SY
4	13.1	4X0.75	H4X0.75SY
5	13.9	5X0.75	H5X0.75SY
7	14.9	7X0.75	H7X0.75SY
12	18.0	12X0.75	H12X0.75SY
20	21.2	20X0.75	H20X0.75SY

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	12.8	3X1.0	H3X1.0SY
4	13.5	4X1.0	H4X1.0SY
5	14.3	5X1.0	H5X1.0SY
7	15.4	7X1.0	H7X1.0SY
12	18.7	12X1.0	H12X1.0SY
20	22.1	20X1.0	H20X1.0SY

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	13.2	3X1.5	H3X1.5SY
4	14.1	4X1.5	H4X1.5SY
5	15.1	5X1.5	H5X1.5SY
7	16.0	7X1.5	H7X1.5SY
12	19.7	12X1.5	H12X1.5SY
20	23.3	20X1.5	H20X1.5SY

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	14.2	3X2.5	H3X2.5SY
4	15.3	4X2.5	H4X2.5SY
5	16.3	5X2.5	H5X2.5SY
7	17.4	7X2.5	H7X2.5SY
12	21.6	12X2.5	H12X2.5SY
20	25.8	20X2.5	H20X2.5SY

CONDUCTOR 4.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	16.6	3X4	H3X4SY
4	17.8	4X4	H4X4SY
5	19.1	5X4	H5X4SY
7	20.5	7X4	H7X4SY
9	24.1	9X4	H9X4SY

CONDUCTOR 6.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	17.9	3X6	H3X6SY
4	19.2	4X6	H4X6SY
5	20.7	5X6	H5X6SY
7	22.2	7X6	H7X6SY
9	26.4	9X6	H9X6SY

CONDUCTOR 10.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	20.1	3X10	H3X10SY
4	21.7	4X10	H4X10SY
5	23.4	5X10	H5X10SY
7	25.3	7X10	H7X10SY

CONDUCTOR 16.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	22.9	3X16	H3X16SY
4	24.8	4X16	H4X16SY
5	27.0	5X16	H5X16SY
7	29.4	7X16	H7X16SY

MACHFLEX 375 YY CABLES

Unshielded PVC Control Cables

APPLICATIONS

Designed for applications which are installed in occasional flexing and fixed locations. Cable applications include precision control sensors, multi axis control machines, temperature controllers, control panels, machine cutting tools, auxiliary equipment, motor speed control, production machinery and many more.

GENERAL REFERENCE STANDARDS

| DIN VDE 0295, IEC 60228, BS 6360

| DIN EN 50290-2-22, DIN VDE 0207-363-4-1

| IEC 60227-5, EN 50525-2-51

| DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2

| RoHS & REACH Directives

CONSTRUCTION AND PERFORMANCE

1.	Conductor Material	Stranded bare copper (DIN VDE 0295 Class 5)
2.	Insulation Material & Colour	PVC (polyvinyl chloride), VDE 0293-308 (color) A) Up to 5 cores: color-coded according to VDE 0293-308, From 6 cores : Belden MachFlex Color code B) G = with GN-YE protective conductor; X = without protective conductor
3.	Jacket / Sheath Material	PVC (polyvinyl chloride)
4.	Flame Retardancy	VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
5.	Voltage Rating (Uo/U)	up to 1.5 mm2: 300 / 500 V From 2.5 mm2: 450 / 750 V
6.	Oil Resistant	DIN EN 50290-2-22 (TM54)
7.	Temperature Range	-5 C TO +70 C (Occasional movement) -40 C TO +80 C (Fixed installation)
8.	Bending Radius	15 x OD (Flexible application) 4 x OD (Fixed installation)
9.	Other Properties	Good UV resistance, chemical resistance & flexibility

MACHFLEX 375 YY UNSHIELDED PVC CONTROL CABLES
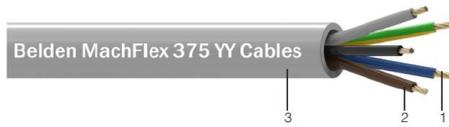
Unshielded Cable With (G) Protective Ground

1 = Conductor
2 = Insulation
3 = Sheath

CONDUCTOR 0.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	5.1	3G0.5	C3G0.5
4	5.6	4G0.5	C4G0.5
5	6.2	5G0.5	C5G0.5
7	6.8	7G0.5	C7G0.5
12	9.1	12G0.5	C12G0.5
20	11.4	20G0.5	C20G0.5

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	5.6	3G0.75	C3G0.75
4	6.2	4G0.75	C4G0.75
5	6.8	5G0.75	C5G0.75
7	7.5	7G0.75	C7G0.75
12	10.1	12G0.75	C12G0.75
20	12.7	20G0.75	C20G0.75

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	6.1	3G1.0	C3G1.0
4	6.7	4G1.0	C4G1.0
5	7.4	5G1.0	C5G1.0
7	8.1	7G1.0	C7G1.0
12	10.9	12G1.0	C12G1.0
20	13.8	20G1.0	C20G1.0

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	6.6	3G1.5	C3G1.5
4	7.3	4G1.5	C4G1.5
5	8.1	5G1.5	C5G1.5
7	8.9	7G1.5	C7G1.5
12	12.0	12G1.5	C12G1.5
20	15.1	20G1.5	C20G1.5

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	9.8	3G2.5	C3G2.5
4	10.9	4G2.5	C4G2.5
5	12.0	5G2.5	C5G2.5
7	13.3	7G2.5	C7G2.5
9	16.6	9G2.5	C9G2.5
12	18.1	12G2.5	C12G2.5

CONDUCTOR 4.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	11.3	3G4	C3G4
4	12.6	4G4	C4G4
5	13.9	5G4	C5G4
7	15.4	7G4	C7G4
9	19.3	C9G4	C9G4
12	21.0	C12G4	C12G4

CONDUCTOR 6.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	12.8	3G6	C3G6
4	14.2	4G6	C4G6
5	15.8	5G6	C5G6
7	17.4	7G6	C7G6
9	21.9	9G6	C9G6

CONDUCTOR 10.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	15.3	3G10	C3G10
4	17.1	4G10	C4G10
5	19.0	5G10	C5G10
7	21.0	7G10	C7G10
9	26.4	9G10	C9G10

CONDUCTOR 16.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	19.6	3G16	C3G16
4	21.9	4G16	C4G16
5	24.3	5G16	C5G16

CONDUCTOR 25.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	22.3	3G25	C3G25
4	24.9	4G25	C4G25
5	27.7	5G25	C5G25

MACHFLEX 375 YY UNSHIELDED PVC CONTROL CABLES

Unshielded Cable Without (G) Protective Ground

Belden MachFlex 375 YY Cables

1 = Conductor
2 = Insulation
3 = Sheath

CONDUCTOR 0.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	5.1	3X0.5	C3X0.5
4	5.6	4X0.5	C4X0.5
5	6.2	5X0.5	C5X0.5
7	6.8	7X0.5	C7X0.5
12	9.1	12X0.5	C12X0.5
20	11.4	20X0.5	C20X0.5

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	5.6	3X0.75	C3X0.75
4	6.2	4X0.75	C4X0.75
5	6.8	5X0.75	C5X0.75
7	7.5	7X0.75	C7X0.75
12	10.1	12X0.75	C12X0.75
20	12.7	20X0.75	C20X0.75

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	6.1	3X1.0	C3X1.0
4	6.7	4X1.0	C4X1.0
5	7.4	5X1.0	C5X1.0
7	8.1	7X1.0	C7X1.0
12	10.9	12X1.0	C12X1.0
20	13.8	20X1.0	C20X1.0

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	6.6	3X1.5	C3X1.5
4	7.3	4X1.5	C4X1.5
5	8.1	5X1.5	C5X1.5
7	8.9	7X1.5	C7X1.5
12	12.0	12X1.5	C12X1.5
20	15.1	20X1.5	C20X1.5

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	9.8	3X2.5	C3X2.5
4	10.9	4X2.5	C4X2.5
5	12.0	5X2.5	C5X2.5
7	13.3	7X2.5	C7X2.5
9	16.6	9X2.5	C9X2.5
12	18.1	12X2.5	C12X2.5

CONDUCTOR 4.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	11.3	3X4	C3X4
4	12.6	4X4	C4X4
5	13.9	5X4	C5X4
7	15.4	7X4	C7X4
9	19.3	9X4	C9X4
12	21.0	12X4	C12X4

CONDUCTOR 6.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	12.8	3X6	C3X6
4	14.2	4X6	C4X6
5	15.8	5X6	C5X6
7	17.4	7X6	C7X6
9	21.9	9X6	C9X6

CONDUCTOR 10.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	15.3	3X10	C3X10
4	17.1	4X10	C4X10
5	19.0	5X10	C5X10
7	21.0	7X10	C7X10
9	26.4	9X10	C9X10

CONDUCTOR 16.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	19.6	3X16	C3X16
4	21.9	4X16	C4X16
5	24.3	5X16	C5X16

CONDUCTOR 25.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	22.3	3X25	C3X25
4	24.9	4X25	C4X25
5	27.7	5X25	C5X25

MACHFLEX 375 CY CABLES

Shielded (CY) PVC Control Cables

Tinned Copper Braid Shield (TCB) - Excellent Noise Immunity

APPLICATIONS

Designed for applications which are installed in occasional flexing and fixed locations. Cable applications include precision control sensors, multi axis control machines, temperature controllers, control panels, machine cutting tools, auxiliary equipment, motor speed control, production machinery and many more.
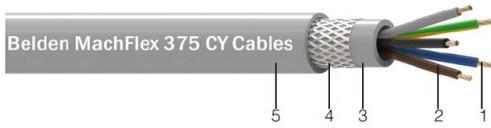
GENERAL REFERENCE STANDARDS

| DIN VDE 0295, IEC 60228, BS 6360

| DIN EN 50290-2-22, DIN VDE 0207-363-4-1

| IEC 60227-5, VDE 0281

| DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2

| RoHS & REACH Directives

CONSTRUCTION AND PERFORMANCE

1.	Conductor Material	Stranded bare copper (DIN VDE 0295 Class 5)
2.	Insulation Material & Colour	PVC (polyvinyl chloride), VDE 0293-308 (color) A) Up to 5 cores: color-coded according to VDE 0293-308, From 6 cores : Belden MachFlex Color code B) G = with GN-YE protective conductor; X = without protective conductor
3.	Braid Shield Material	Tinned Copper Braid Shield
3.	Jacket / Sheath Material	PVC (polyvinyl chloride)
4.	Flame Retardancy	VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
5.	Voltage Rating (Uo/U)	Up to 1.5 mm2: 300 / 500 V From 2.5 mm2: 450 / 750 V
6.	Oil Resistant	DIN EN 50290-2-22 (TM54)
7.	Temperature Range	-5 C TO +70 C (Occasional movement) -40 C TO +80 C (Fixed installation)
8.	Bending Radius	20 x OD (Flexible application) 6 x OD (Fixed installation)
9.	Other Properties	Good UV resistance, chemical resistance & flexibility

MACHFLEX 375 CY SHIELDED (CY) PVC CONTROL CABLES

Tinned Copper Braid Shielded Cable With (G) Protective Ground

1 = Conductor
2 = Insulation
3 = Inner Sheath
4 = Tinned Copper Braid Shielded
5 = Outer Sheath

CONDUCTOR 0.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	7.2	3G0.5	C3G0.5CY
4	7.7	4G0.5	C4G0.5CY
5	8.3	5G0.5	C5G0.5CY
7	8.9	7G0.5	C7G0.5CY
12	11.3	12G0.5	C12G0.5CY
20	13.9	20G0.5	C20G0.5CY

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	7.7	3G0.75	C3G0.75CY
4	8.3	4G0.75	C4G0.75CY
5	9.0	5G0.75	C5G0.75CY
7	9.7	7G0.75	C7G0.75CY
12	12.4	12G0.75	C12G0.75CY
20	15.2	20G0.75	C20G0.75CY

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.2	3G1.0	3G1.0
4	8.8	4G1.0	4G1.0
5	9.6	5G1.0	5G1.0
7	10.3	7G1.0	7G1.0
12	13.4	12G1.0	12G1.0
20	16.3	20G1.0	20G1.0

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.8	3G1.5	C3G1.5CY
4	9.5	4G1.5	C4G1.5CY
5	10.3	5G1.5	C5G1.5CY
7	11.1	7G1.5	C7G1.5CY
12	14.5	12G1.5	C12G1.5CY
20	17.7	20G1.5	C20G1.5CY

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	12.0	3G2.5	C3G2.5CY
4	13.3	4G2.5	C4G2.5CY
5	14.5	5G2.5	C5G2.5CY
7	15.8	7G2.5	C7G2.5CY
9	19.2	9G2.5	C9G2.5CY
12	20.8	12G2.5	C12G2.5CY

CONDUCTOR 4.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	13.7	3G4	C3G4CY
4	15.1	4G4	C4G4CY
5	16.5	5G4	C5G4CY
7	18.0	7G4	C7G4CY
9	22.0	C9G4	C9G4CY
12	24.0	C12G4	C12G4CY

CONDUCTOR 6.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	15.3	3G6	C3G6CY
4	16.8	4G6	C4G6CY
5	18.4	5G6	C5G6CY
7	20.1	7G6	C7G6CY
9	24.9	9G6	C9G6CY

CONDUCTOR 10.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	17.9	3G10	C3G10CY
4	19.8	4G10	C4G10CY
5	21.7	5G10	C5G10CY
7	24.0	7G10	C7G10CY
9	29.6	9G10	C9G10CY

CONDUCTOR 16.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	22.5	3G16	C3G16CY
4	24.9	4G16	C4G16CY
5	27.4	5G16	C5G16CY

CONDUCTOR 25.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	25.4	3G25	C3G25CY
4	28.1	4G25	C4G25CY
5	30.8	5G25	C5G25CY

MACHFLEX 375 CY SHIELDED (CY) PVC CONTROL CABLES

Tinned Copper Braid Shielded Cable Without (G) Protective Ground

Belden MachFlex 375 CY Cables
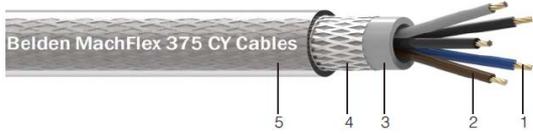
1 = Conductor
2 = Insulation
3 = Inner Sheath
4 = Tinned Copper Braid Shielded
5 = Outer Sheath

CONDUCTOR 0.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	7.2	3X0.5	C3X0.5CY
4	7.7	4X0.5	C4X0.5CY
5	8.3	5X0.5	C5X0.5CY
7	8.9	7X0.5	C7X0.5CY
12	11.3	12X0.5	C12X0.5CY
20	13.9	20X0.5	C20X0.5CY

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	7.7	3X0.75	C3X0.75CY
4	8.3	4X0.75	C4X0.75CY
5	9.0	5X0.75	C5X0.75CY
7	9.7	7X0.75	C7X0.75CY
12	12.4	12X0.75	C12X0.75CY
20	15.2	20X0.75	C20X0.75CY

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.2	3X1.0	C3X1.0CY
4	8.8	4X1.0	C4X1.0CY
5	9.6	5X1.0	C5X1.0CY
7	10.3	7X1.0	C7X1.0CY
12	13.4	12X1.0	C12X1.0CY
20	16.3	20X1.0	C20X1.0CY

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.8	3X1.5	C3X1.5CY
4	9.5	4X1.5	C4X1.5CY
5	10.3	5X1.5	C5X1.5CY
7	11.1	7X1.5	C7X1.5CY
12	14.5	12X1.5	C12X1.5CY
20	17.7	20X1.5	C20X1.5CY

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	12.0	3X2.5	C3X2.5CY
4	13.3	4X2.5	C4X2.5CY
5	14.5	5X2.5	C5X2.5CY
7	15.8	7X2.5	C7X2.5CY
9	19.2	9X2.5	C9X2.5CY
12	20.8	12X2.5	C12X2.5CY

CONDUCTOR 4.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	13.7	3X4	C3X4CY
4	15.1	4X4	C4X4CY
5	16.5	5X4	C5X4CY
7	18.0	7X4	C7X4CY
9	22.0	9X4	C9X4CY
12	24.0	12X4	C12X4CY

CONDUCTOR 6.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	15.3	3X6	C3X6CY
4	16.8	4X6	C4X6CY
5	18.4	5X6	C5X6CY
7	20.1	7X6	C7X6CY
9	24.9	9X6	C9X6CY

CONDUCTOR 10.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	17.9	3X10	C3X10CY
4	19.8	4X10	C4X10CY
5	21.7	5X10	C5X10CY
7	24.0	7X10	C7X10CY
9	29.6	9X10	C9X10CY

CONDUCTOR 16.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	22.5	3X16	C3X16CY
4	24.9	4X16	C4X16CY
5	27.4	5X16	C5X16CY

CONDUCTOR 25.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	25.4	3X25	C3X25CY
4	28.1	4X25	C4X25CY
5	30.8	5X25	C5X25CY

MACHFLEX 375 SY CABLES

Armored (SY) PVC Control Cables

Galvanized Steel Wire Braid (GSWB) --> Excellent Mechanical Protection

APPLICATIONS

Designed for applications which are installed in occasional flexing and fixed locations. Cable applications include precision control sensors, multi axis control machines, temperature controllers, control panels, machine cutting tools, auxiliary equipment, motor speed control, production machinery and many more.
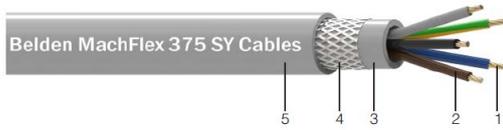
GENERAL REFERENCE STANDARDS

| DIN VDE 0295, IEC 60228, BS 6360

| DIN EN 50290-2-22, DIN VDE 0207-363-4-1

| IEC 60227-5, VDE 0281

| DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2

| RoHS & REACH Directives

CONSTRUCTION AND PERFORMANCE

1.	Conductor Material	Stranded bare copper (DIN VDE 0295 Class 5)
2.	Insulation Material & Colour	PVC (polyvinyl chloride), VDE 0293-308 (color) A) Up to 5 cores: color-coded according to VDE 0293-308, From 6 cores : Belden MachFlex Color code B) G = with GN-YE protective conductor; X = without protective conductor
3.	Braid Shield Material	GSWB (Galvanized Steel Wire Braid)
3.	Jacket / Sheath Material	PVC (polyvinyl chloride)
4.	Flame Retardancy	VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
5.	Voltage Rating (Uo/U)	Up to 1.5 mm2: 300 / 500 V From 2.5 mm2: 450 / 750 V
6.	Oil Resistant	DIN EN 50290-2-22 (TM54)
7.	Temperature Range	-5 C TO +70 C (Occasional movement) -40 C TO +80 C (Fixed installation)
8.	Bending Radius	20 x OD (Flexible application) 6 x OD (Fixed installation)
9.	Other Properties	Good UV resistance, chemical resistance & flexibility

MACHFLEX 375 SY ARMORED (SY) PVC CONTROL CABLES

Galvanized Steel Wire Braid Shield (GSWB) Cable With (G) Protective Ground

Belden MachFlex 375 SY Cables

1 = Conductor
2 = Insulation
3 = Inner Sheath
4 = Galvanized Steel Wire Braid Shield
5 = Outer Sheath

CONDUCTOR 0.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	7.7	3G0.5	C3G0.5SY
4	8.3	4G0.5	C4G0.5SY
5	8.8	5G0.5	C5G0.5SY
7	9.5	7G0.5	C7G0.5SY
12	11.9	12G0.5	C12G0.5SY
20	14.5	20G0.5	C20G0.5SY

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.3	3G0.75	C3G0.75SY
4	8.9	4G0.75	C4G0.75SY
5	9.5	5G0.75	C5G0.75SY
7	10.2	7G0.75	C7G0.75SY
12	12.9	12G0.75	C12G0.75SY
20	15.9	20G0.75	C20G0.75SY

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.7	3G1.0	C3G1.0SY
4	9.4	4G1.0	C4G1.0SY
5	10.1	5G1.0	C5G1.0SY
7	10.8	7G1.0	C7G1.0SY
12	14.0	12G1.0	C12G1.0SY
20	16.9	20G1.0	C20G1.0SY

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	9.3	3G1.5	C3G1.5SY
4	10.0	4G1.5	C4G1.5SY
5	10.8	5G1.5	C5G1.5SY
7	11.6	7G1.5	C7G1.5SY
12	15.1	12G1.5	C12G1.5SY
20	18.4	20G1.5	C20G1.5SY

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	12.6	3G2.5	C3G2.5SY
4	13.9	4G2.5	C4G2.5SY
5	15.1	5G2.5	C5G2.5SY
7	16.4	7G2.5	C7G2.5SY
9	19.9	9G2.5	C9G2.5SY
12	21.4	12G2.5	C12G2.5SY

CONDUCTOR 4.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	14.4	3G4	C3G4SY
4	15.7	4G4	C4G4SY
5	17.1	5G4	C5G4SY
7	18.6	7G4	C7G4SY
9	22.7	C9G4	C9G4SY
12	24.5	C12G4	C12G4SY

CONDUCTOR 6.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	15.9	3G6	C3G6SY
4	17.4	4G6	C4G6SY
5	19.0	5G6	C5G6SY
7	20.7	7G6	C7G6SY
9	25.4	9G6	C9G6SY

CONDUCTOR 10.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	18.6	3G10	C3G10SY
4	20.4	4G10	C4G10SY
5	22.3	5G10	C5G10SY
7	24.4	7G10	C7G10SY
9	30.0	9G10	C9G10SY

CONDUCTOR 16.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	23.0	3G16	C3G16SY
4	25.3	4G16	C4G16SY
5	27.9	5G16	C5G16SY

CONDUCTOR 25.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	25.9	3G25	C3G25SY
4	28.6	4G25	C4G25SY
5	31.2	5G25	C5G25SY

MACHFLEX 375 SY ARMORED (SY) PVC CONTROL CABLES

Galvanized Steel Wire Braid Shield (GSWB) Cable Without(G) Protective Ground

Belden MachFlex 375 SY Cables
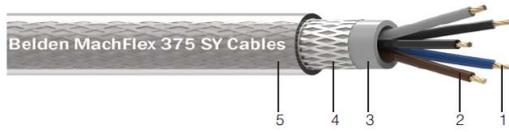
1 = Conductor
2 = Insulation
3 =Inner Sheath
4 = Galvanized Steel Wire Braid Shield
5 = Outer Sheath

CONDUCTOR 0.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	7.7	3X0.5	C3X0.5SY
4	8.3	4X0.5	C4X0.5SY
5	8.8	5X0.5	C5X0.5SY
7	9.5	7X0.5	C7X0.5SY
12	11.9	12X0.5	C12X0.5SY
20	14.5	20X0.5	C20X0.5SY

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.3	3X0.75	C3X0.75SY
4	8.9	4X0.75	C4X0.75SY
5	9.5	5X0.75	C5X0.75SY
7	10.2	7X0.75	C7X0.75SY
12	12.9	12X0.75	C12X0.75SY
20	15.9	20X0.75	C20X0.75SY

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.7	3X1.0	C3X1.0SY
4	9.4	4X1.0	C4X1.0SY
5	10.1	5X1.0	C5X1.0SY
7	10.8	7X1.0	C7X1.0SY
12	14.0	12X1.0	C12X1.0SY
20	16.9	20X1.0	C20X1.0SY

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	9.3	3X1.5	C3X1.5SY
4	10.0	4X1.5	C4X1.5SY
5	10.8	5X1.5	C5X1.5SY
7	11.6	7X1.5	C7X1.5SY
12	15.1	12X1.5	C12X1.5SY
20	18.4	20X1.5	C20X1.5SY

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	12.6	3X2.5	C3X2.5SY
4	13.9	4X2.5	C4X2.5SY
5	15.1	5X2.5	C5X2.5SY
7	16.4	7X2.5	C7X2.5SY
9	19.9	9X2.5	C9X2.5SY
12	21.4	12X2.5	C12X2.5SY

CONDUCTOR 4.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	14.4	3X4	C3X4SY
4	15.7	4X4	C4X4SY
5	17.1	5X4	C5X4SY
7	18.6	7X4	C7X4SY
9	22.7	9X4	C9X4SY
12	24.5	12X4	C12X4SY

CONDUCTOR 6.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	15.9	3X6	C3X6SY
4	17.4	4X6	C4X6SY
5	19.0	5X6	C5X6SY
7	20.7	7X6	C7X6SY
9	25.4	9X6	C9X6SY

CONDUCTOR 10.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	18.6	3X10	C3X10SY
4	20.4	4X10	C4X10SY
5	22.3	5X10	C5X10SY
7	24.4	7X10	C7X10SY
9	30.0	9X10	C9X10SY

CONDUCTOR 16.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	25.9	3X25	C3X25SY
4	28.6	4X25	C4X25SY
5	31.2	5X25	C5X25SY

CONDUCTOR 25.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	25.9	3X25	C3X25SY
4	28.6	4X25	C4X25SY
5	31.2	5X25	C5X25SY

MACHFLEX CABLES - LIYY

Unshielded PVC Control & Signal Cables

APPLICATIONS

Designed for applications which are installed in occasional flexing and fixed locations. Cable applications include precision control sensors, pressure gauge, temperature controllers, control panels, vibration monitoring systems, intelligent security controllers, production machinery and many more

GENERAL REFERENCE STANDARDS

| VDE0812, DIN47100

| DIN VDE 0295, IEC 60228, BS 6360

| DIN EN 50290-2-22, DIN VDE 0207-363-4-1

| DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2

| RoHS & REACH Directives

CONSTRUCTION AND PERFORMANCE

1.	Conductor Material	Stranded bare copper (DIN VDE 0295 Class 5)
2.	Insulation Material & Colour	PVC (polyvinyl chloride), DIN 47100 Color Code
3.	Jacket / Sheath Material	PVC (polyvinyl chloride)
4.	Flame Retardancy	VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
5.	Voltage Rating (Uo/U)	At 0.14 mm2: 350 V ≥ 0.25 mm2: 500 V
6.	Oil Resistant	DIN EN 50290-2-22 (TM54)
7.	Temperature Range	-5°C TO +70°C (Occasional movement) -40°C TO +80°C (Fixed installation)
8.	Bending Radius	15 x OD (Occasional movement) 6 x OD (Fixed installation)
9.	Nom. Mutual Capacitance	120 nF/km
10.	Nom. Inductivity	0.50 mH/km
11.	Insulation Resistance	> 20 GOhm x cm
12.	Other Properties	Good UV resistance, chemical resistance & flexibility

MACHFLEX 375 SY ARMORED (SY) PVC CONTROL CABLES

Galvanized Steel Wire Braid Shield (GSWB) Cable With (G) Protective Ground

Belden MachFlex LiYY Cables

1 = Conductor
2 = Insulation
3 = Sheath

CONDUCTOR 0.14 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	3.5	3X0.14	3C0.14YY
4	3.8	4X0.14	4C0.14YY
5	4.1	5X0.14	5C0.14YY
7	4.5	7X0.14	7C0.14YY
12	5.9	12X0.14	12C0.14YY
20	7.3	20X0.14	20C0.14YY

CONDUCTOR 0.25 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	4.0	3X0.25	3C0.25YY
4	4.4	4X0.25	4C0.25YY
5	4.7	5X0.25	5C0.25YY
7	5.2	7X0.25	7C0.25YY
12	7.1	12X0.25	12C0.25YY
20	8.6	20X0.25	20C0.25YY

CONDUCTOR 0.34 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	4.4	3X0.34	3C0.34YY
4	5.0	4X0.34	4C0.34YY
5	5.4	5X0.34	5C0.34YY
7	5.9	7X0.34	7C0.34YY
12	7.8	12X0.34	12C0.34YY
20	9.6	20X0.34	20C0.34YY

CONDUCTOR 0.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	5.0	3X0.5	3C0.5YY
4	5.6	4X0.5	4C0.5YY
5	6.1	5X0.5	5C0.5YY
7	7.0	7X0.5	7C0.5YY
12	9.0	12X0.5	12C0.5YY
20	11.5	20X0.5	20C0.5YY

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	5.7	3X0.75	3C0.75YY
4	6.2	4X0.75	4C0.75YY
5	7.1	5X0.75	5C0.75YY
7	7.7	7X0.75	7C0.75YY
9	9.2	9X0.75	9C0.75YY
20	12.6	20X0.75	20C0.75YY

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	6.0	6.0	3C1.0YY
4	6.6	6.6	4C1.0YY
5	7.4	7.4	5C1.0YY
7	8.2	8.2	7C1.0YY
9	10.3	10.3	9C1.0YY
20	13.5	13.5	20C1.0YY

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	6.9	3X1.5	3C1.5YY
4	7.8	4X1.5	4C1.5YY
5	8.7	5X1.5	5C1.5YY
7	9.6	7X1.5	7C1.5YY
9	11.9	9X1.5	9C1.5YY
20	16.5	20X1.5	20C1.5YY

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	7.9	3X2.5	3C2.5YY
4	8.9	4X2.5	4C2.5YY
5	9.9	5X2.5	5C2.5YY
7	11.2	7X2.5	7C2.5YY
9	14.0	9X2.5	9C2.5YY
20	19.4	20X2.5	20C2.5YY

MACHFLEX CABLES - LIYCY

Shielded (CY) PVC Control & Signal Cables

Tinned Copper Braid Shield (TCB) – Excellent Noise Immunity Applications

APPLICATIONS

Designed for applications which are installed in occasional flexing and fixed locations. Cable applications include precision control sensors, multi axis control machines, temperature controllers, control panels, machine cutting tools, auxiliary equipment, motor speed control, production machinery and many more.

GENERAL REFERENCE STANDARDS

| VDE0812, DIN47100

| DIN VDE 0295, IEC 60228, BS 6360

| DIN EN 50290-2-22, DIN VDE 0207-363-4-1

| DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2

| RoHS & REACH Directives

CONSTRUCTION AND PERFORMANCE

1.	Conductor Material	Stranded bare copper (DIN VDE 0295 Class 5)
2.	Insulation Material & Colour	PVC (polyvinyl chloride), DIN 47100 Color Code
3.	Braid Shielded Material	Tinned Copper
4.	Jacket / Sheath Material	PVC (polyvinyl chloride)
5.	Flame Retardancy	VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
6.	Voltage Rating (Uo/U)	At 0.14 mm2: 350 V ≥ 0.25 mm2: 500 V
7.	Oil Resistant	DIN EN 50290-2-22 (TM54)
8.	Temperature Range	-5°C TO +70°C (Occasional movement) -40°C TO +80°C (Fixed installation)
9.	Bending Radius	15 x OD (Occasional movement) 6 x OD (Fixed installation)
10.	Nom. Mutual Capacitance	120 nF/km
11.	Nom. Inductivity	0.50 mH/km
12.	Insulation Resistance	> 20 GOhm x cm
13.	Other Properties	Good UV resistance, chemical resistance & flexibility

MACHFLEX LIYCY SHIELDED (CY) PVC CONTROL & SIGNAL CABLES - LIYCY
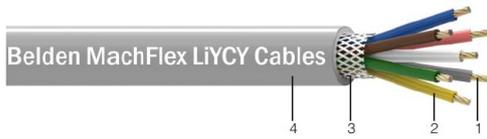
Belden MachFlex LiYCY Cables

1 = Conductor
2 = Insulation
3 = Tinned Copper Braid Shielded
4 = Outer Sheath

CONDUCTOR 0.14 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	4.1	3X0.14	3C0.14YCY
4	4.4	4X0.14	4C0.14YCY
5	4.8	5X0.14	5C0.14YCY
7	5.1	7X0.14	7C0.14YCY
12	6.5	12X0.14	12C0.14YCY
20	7.9	20X0.14	20C0.14YCY

CONDUCTOR 0.25 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	4.9	3X0.25	3C0.25YCY
4	5.2	4X0.25	4C0.25YCY
5	5.6	5X0.25	5C0.25YCY
7	6.0	7X0.25	7C0.25YCY
12	7.8	12X0.25	12C0.25YCY
20	9.4	20X0.25	20C0.25YCY

CONDUCTOR 0.34 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	5.3	3X0.34	3C0.34YCY
4	5.6	4X0.34	4C0.34YCY
5	6.5	5X0.34	5C0.34YCY
7	6.9	7X0.34	7C0.34YCY
12	8.6	12X0.34	12C0.34YCY
20	10.9	20X0.34	20C0.34YCY

CONDUCTOR 0.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	6.1	3X0.5	3C0.5YCY
4	6.5	4X0.5	4C0.5YCY
5	7.2	5X0.5	5C0.5YCY
7	7.7	7X0.5	7C0.5YCY
12	9.9	12X0.5	12C0.5YCY
20	12.3	20X0.5	20C0.5YCY

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	6.5	3X0.75	3C0.75YCY
4	7.0	4X0.75	4C0.75YCY
5	7.7	5X0.75	5C0.75YCY
7	8.3	7X0.75	7C0.75YCY
9	10.3	9X0.75	9C0.75YCY
20	13.9	20X0.75	20C0.75YCY

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	6.9	3X1.0	3C1.0YCY
4	7.4	4X1.0	4C1.0YCY
5	8.0	5X1.0	5C1.0YCY
7	8.8	7X1.0	7C1.0YCY
9	10.5	9X1.0	9C1.0YCY
20	14.4	20X1.0	20C1.0YCY

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	7.6	3X1.5	3C1.5YCY
4	8.2	4X1.5	4C1.5YCY
5	8.9	5X1.5	5C1.5YCY
7	9.7	7X1.5	7C1.5YCY
9	11.7	9X1.5	9C1.5YCY
20	16.1	20X1.5	20C1.5YCY

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	9.0	3X2.5	3C2.5YCY
4	9.7	4X2.5	4C2.5YCY
5	10.8	5X2.5	5C2.5YCY
7	11.7	7X2.5	7C2.5YCY
9	14.5	9X2.5	9C2.5YCY
20	19.5	20X2.5	20C2.5YCY

MACHFLEX CABLES - LIHH

Unshielded LSZH Control & Signal Cables

APPLICATIONS

Designed for applications which are installed in occasional flexing and fixed locations. Cable applications include precision control sensors, pressure gauge, temperature controllers, control panels, vibration monitoring systems, intelligent security controllers, production machinery and many more

GENERAL REFERENCE STANDARDS

| VDE0812, DIN47100

| DIN VDE 0295, IEC 60228, BS 6360

| DIN EN 50290-2-22, DIN VDE 0207-363-4-1

| DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2

| RoHS & REACH Directives

CONSTRUCTION AND PERFORMANCE

1.	Conductor Material	Stranded bare copper (DIN VDE 0295 Class 5)
2.	Insulation Material & Colour	PE (polyethylene), DIN 47100 Color Code
3.	Jacket / Sheath Material	LSZH (low smoke halogen free)
4.	Flame Retardancy	VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
5.	Voltage Rating (Uo/U)	At 0.14 mm2: 350 V ≥ 0.25 mm2: 500 V
6.	Oil Resistant	IEC 60811-404
7.	Temperature Range	-5°C TO +70°C (Occasional movement) -30°C TO +80°C (Fixed installation)
8.	Bending Radius	10 x OD (Occasional movement) 6 x OD (Fixed installation)
9.	Nom. Mutual Capacitance	80 nF/km
10.	Nom. Inductivity	0.65 mH/km
11.	Insulation Resistance	> 20 GOhm x cm
12.	Other Properties	Good UV resistance, chemical resistance & flexibility

MACHFLEX LIHH UNSHIELDED LSZH CONTROL & SIGNAL CABLES - LIHH
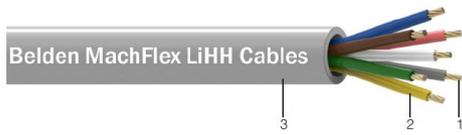
Belden MachFlex LiHH Cables

1 = Conductor
2 = Insulation
3 = Sheath

CONDUCTOR 0.14 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	3.5	3X0.14	3C0.14HH
4	3.8	4X0.14	4C0.14HH
5	4.1	5X0.14	5C0.14HH
7	4.5	7X0.14	7C0.14HH
12	5.9	12X0.14	12C0.14HH
20	7.3	20X0.14	20C0.14HH

CONDUCTOR 0.25 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	4.0	3X0.25	3C0.25HH
4	4.4	4X0.25	4C0.25HH
5	4.8	5X0.25	5C0.25HH
7	5.2	7X0.25	7C0.25HH
12	7.1	12X0.25	12C0.25HH
20	8.7	20X0.25	20C0.25HH

CONDUCTOR 0.34 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	4.4	3X0.34	3C0.34HH
4	5.0	4X0.34	4C0.34HH
5	5.4	5X0.34	5C0.34HH
7	5.8	7X0.34	7C0.34HH
12	7.9	12X0.34	12C0.34HH
20	9.6	20X0.34	20C0.34HH

CONDUCTOR 0.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	5.0	3X0.5	3C0.5HH
4	5.6	4X0.5	4C0.5HH
5	6.1	5X0.5	5C0.5HH
7	7.0	7X0.5	7C0.5HH
12	9.0	12X0.5	12C0.5HH
20	11.5	20X0.5	20C0.5HH

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	5.7	3X0.75	3C0.75HH
4	6.2	4X0.75	4C0.75HH
5	7.1	5X0.75	5C0.75HH
7	7.7	7X0.75	7C0.75HH
9	9.2	9X0.75	9C0.75HH
20	12.6	20X0.75	20C0.75HH

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	6.0	3X1.0	3C1.0HH
4	6.6	4X1.0	4C1.0HH
5	7.4	5X1.0	5C1.0HH
7	8.2	7X1.0	7C1.0HH
9	10.3	9X1.0	9C1.0HH
20	13.5	20X1.0	20C1.0HH

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	6.9	3X1.5	3C1.5HH
4	7.8	4X1.5	4C1.5HH
5	8.7	5X1.5	5C1.5HH
7	9.6	7X1.5	7C1.5HH
9	11.9	9X1.5	9C1.5HH
20	16.5	20X1.5	20C1.5HH

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	7.9	3X2.5	3C2.5HH
4	8.9	4X2.5	4C2.5HH
5	9.9	5X2.5	5C2.5HH
7	11.3	7X2.5	7C2.5HH
9	14.1	9X2.5	9C2.5HH
12	15.5	12X2.5	12C2.5HH

MACHFLEX CABLES - LIHCH

Shielded (CH) LSZH Control & Signal Cables

Tinned Copper Braid Shield (TCB) – Excellent Noise Immunity

APPLICATIONS

Designed for applications which are installed in occasional flexing and fixed locations. Cable applications include precision control sensors, multi axis control machines, temperature controllers, control panels, machine cutting tools, auxiliary equipment, motor speed control, production machinery and many more.

GENERAL REFERENCE STANDARDS

| VDE0812, DIN47100

| DIN VDE 0295, IEC 60228, BS 6360

| DIN EN 50290-2-22, DIN VDE 0207-363-4-1

| DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2

| RoHS & REACH Directives

CONSTRUCTION AND PERFORMANCE

1.	Conductor Material	Stranded bare copper (DIN VDE 0295 Class 5)
2.	Insulation Material & Colour	PE (polyethylene), DIN 47100 Color Code
3.	Braid Shielded Material	Tinned Copper
4.	Jacket / Sheath Material	LSZH (low smoke halogen free)
5.	Flame Retardancy	VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
6.	Voltage Rating (Uo/U)	At 0.14 mm2: 350 V ≥ 0.25 mm2: 500 V
7.	Oil Resistant	IEC 60811-404
8.	Temperature Range	-5°C TO +70°C (Occasional movement) -30°C TO +80°C (Fixed installation)
9.	Bending Radius	10 x OD (Occasional movement) 6 x OD (Fixed installation)
10.	Nom. Mutual Capacitance	80 nF/km
11.	Nom. Inductivity	0.65mH/km
12.	Insulation Resistance	> 20 GOhm x cm
13.	Other Properties	Good UV resistance, chemical resistance & flexibility

MACHFLEX LIHCH SHIELDED (CH) LSZH CONTROL & SIGNAL CABLES - LIHCH

Tinned Copper Braid Shielded Cable
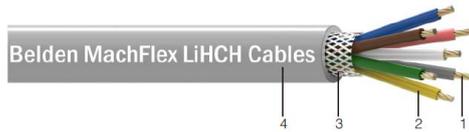
Belden MachFlex LiHCH Cables

1 = Conductor
2 = Insulation
3 = Tinned Copper Braid Shielded
4 = Outer Sheath

CONDUCTOR 0.14 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	4.1	3X0.14	3C0.14HCH
4	4.4	4X0.14	4C0.14HCH
5	4.8	5X0.14	5C0.14HCH
7	5.1	7X0.14	7C0.14HCH
12	6.5	12X0.14	12C0.14HCH
20	7.9	20X0.14	20C0.14HCH

CONDUCTOR 0.25 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	4.9	3X0.25	3C0.25HCH
4	5.2	4X0.25	4C0.25HCH
5	5.6	5X0.25	5C0.25HCH
7	6.0	7X0.25	7C0.25HCH
12	7.8	12X0.25	12C0.25HCH
20	9.4	20X0.25	20C0.25HCH

CONDUCTOR 0.34 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	5.3	3X0.34	3C0.34HCH
4	5.6	4X0.34	4C0.34HCH
5	6.5	5X0.34	5C0.34HCH
7	6.9	7X0.34	7C0.34HCH
12	8.6	12X0.34	12C0.34HCH
20	10.9	20X0.34	20C0.34HCH

CONDUCTOR 0.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	6.1	3X0.5	3C0.5HCH
4	6.5	4X0.5	4C0.5HCH
5	7.2	5X0.5	5C0.5HCH
7	7.7	7X0.5	7C0.5HCH
12	9.9	12X0.5	12C0.5HCH
20	12.3	20X0.5	20C0.5HCH

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	6.5	3X0.75	3C0.75HCH
4	7.0	4X0.75	4C0.75HCH
5	7.7	5X0.75	5C0.75HCH
7	8.3	7X0.75	7C0.75HCH
9	10.3	9X0.75	9C0.75HCH
20	13.9	20X0.75	20C0.75HCH

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	6.9	3X1.0	3C1.0HCH
4	7.4	4X1.0	4C1.0HCH
5	8.0	5X1.0	5C1.0HCH
7	8.8	7X1.0	7C1.0HCH
9	10.5	9X1.0	9C1.0HCH
20	14.4	20X1.0	20C1.0HCH

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	7.6	3X1.5	3C1.5HCH
4	8.2	4X1.5	4C1.5HCH
5	8.9	5X1.5	5C1.5HCH
7	9.7	7X1.5	7C1.5HCH
9	11.7	9X1.5	9C1.5HCH
20	16.1	20X1.5	20C1.5HCH

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	9.0	3X2.5	3C2.5HCH
4	9.7	4X2.5	4C2.5HCH
5	10.8	5X2.5	5C2.5HCH
7	11.7	7X2.5	7C2.5HCH
9	14.6	9X2.5	9C2.5HCH
12	15.8	12X2.5	12C2.5HCH

MACHFLEX CABLES - LIYY(TP)

Unshielded Instrumentation Cables

APPLICATIONS

Designed for applications which are installed in occasional flexing and fixed locations. Cable applications include precision control sensors, pressure gauge, temperature controllers, control panels, vibration monitoring systems, intelligent security controllers, production machinery and many more.

GENERAL REFERENCE STANDARDS

| VDE0812 ,DIN47100

| DIN VDE 0295, IEC 60228, BS 6360

| DIN EN 50290-2-22, DIN VDE 0207-363-4-1

| DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2

| RoHS & REACH Directives

CONSTRUCTION AND PERFORMANCE

1.	Conductor Material	Stranded bare copper (DIN VDE 0295 Class 5)
2.	Insulation Material & Colour	PVC (polyvinyl chloride), DIN 47100 Color Code
3.	Jacket / Sheath Material	PVC (polyvinyl chloride)
4.	Flame Retardancy	VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
5.	Voltage Rating (Uo/U)	At 0.14 mm2: 350 V ≥ 0.25 mm2: 1500 V
6.	Oil Resistant	DIN EN 50290-2-22 (TM54)
7.	Temperature Range	-5°C TO +70°C (Occasional movement) -40°C TO +80°C (Fixed installation)
8.	Bending Radius	15 x OD (Occasional movement) 6 x OD (Fixed installation)
9.	Nom. Mutual Capacitance	120 nF/km
10.	Nom. Inductivity	0.50 mH/km
11.	Insulation Resistance	> 20 GOhm x cm
12.	Other Properties	Good UV resistance, chemical resistance & flexibility

MACHFLEX LIYY(TP) UNSHIELDED PVC INSTRUMENTATION CABLES - LIYY(TP)
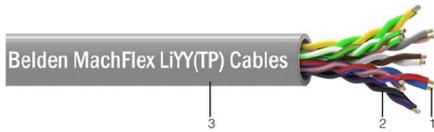
Belden MachFlex LiYY(TP) Cables

1 = Conductor
2 = Insulation
3 = Sheath

CONDUCTOR 0.14 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	5.5	3X2X0.14	3P0.14YY
4	6.1	4X2X0.14	4P0.14YY
5	6.7	5X2X0.14	5P0.14YY
7	7.6	7X2X0.14	7P0.14YY
12	10.1	12X2X0.14	12P0.14YY
20	12.3	20X2X0.14	20P0.14YY

CONDUCTOR 0.25 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	6.1	3X2X0.25	3P0.25YY
4	6.8	4X2X0.25	4P0.25YY
5	7.7	5X2X0.25	5P0.25YY
7	8.5	7X2X0.25	7P0.25YY
12	11.4	12X2X0.25	12P0.25YY
20	14.3	20X2X0.25	20P0.25YY

CONDUCTOR 0.34 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	6.5	3X2X0.34	3P0.34YY
4	7.2	4X2X0.34	4P0.34YY
5	7.9	5X2X0.34	5P0.34YY
7	9.0	7X2X0.34	7P0.34YY
12	12.1	12X2X0.34	12P0.34YY
20	14.7	20X2X0.34	20P0.34YY

CONDUCTOR 0.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	7.5	3X2X0.5	3P0.5YY
4	8.6	4X2X0.5	4P0.5YY
5	9.5	5X2X0.5	5P0.5YY
7	10.5	7X2X0.5	7P0.5YY
12	14.1	12X2X0.5	12P0.5YY
20	17.9	20X2X0.5	20P0.5YY

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.4	3X2X0.75	3P0.75YY
4	9.3	4X2X0.75	4P0.75YY
5	10.2	5X2X0.75	5P0.75YY
7	11.7	7X2X0.75	7P0.75YY
9	14.4	9X2X0.75	9P0.75YY
20	19.9	20X2X0.75	20P0.75YY

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	9.0	3X2X1.0	3P1.0YY
4	10.0	4X2X1.0	4P1.0YY
5	11.0	5X2X1.0	5P1.0YY
7	12.2	7X2X1.0	7P1.0YY
9	15.2	9X2X1.0	9P1.0YY
20	21.0	20X2X1.0	20P1.0YY

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	10.6	3X2X1.5	3P1.5YY
4	11.8	4X2X1.5	4P1.5YY
5	13.1	5X2X1.5	5P1.5YY
7	14.8	7X2X1.5	7P1.5YY
9	18.6	9X2X1.5	9P1.5YY
20	25.8	20X2X1.5	20P1.5YY

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	12.8	3X2X2.5	3P2.5YY
4	14.2	4X2X2.5	4P2.5YY
5	15.9	5X2X2.5	5P2.5YY
7	17.5	7X2X2.5	7P2.5YY
9	22.0	9X2X2.5	9P2.5YY
12	23.9	12X2X2.5	12P2.5YY

MACHFLEX CABLES - LIYCY(TP)

Shielded (CY) PVC Instrumentation Cables

Tinned Copper Braid Shield (TCB) – Excellent Noise Immunity

APPLICATIONS

Designed for applications which are installed in occasional flexing and fixed locations. Cable applications include precision control sensors, multi axis control machines, temperature controllers, control panels, machine cutting tools, auxiliary equipment, motor speed control, production machinery and many more.

GENERAL REFERENCE STANDARDS

| VDE0812 ,DIN47100

| DIN VDE 0295, IEC 60228, BS 6360

| DIN EN 50290-2-22, DIN VDE 0207-363-4-1

| DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2

| RoHS & REACH Directives

CONSTRUCTION AND PERFORMANCE

1.	Conductor Material	Stranded bare copper (DIN VDE 0295 Class 5)
2.	Insulation Material & Colour	PVC (polyvinyl chloride), DIN 47100 Color Code
3.	Braid Shielded Material	Tinned Copper
4.	Jacket / Sheath Material	PVC (polyvinyl chloride)
5.	Flame Retardancy	VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
6.	Voltage Rating (Uo/U)	At 0.14 mm2: 350 V ≥ 0.25 mm2: 500 V
7.	Oil Resistant	DIN EN 50290-2-22 (TM54)
8.	Temperature Range	-5°C TO +70°C (Occasional movement) -40°C TO +80°C (Fixed installation)
9.	Bending Radius	15 x OD (Occasional movement) 6 x OD (Fixed installation)
10.	Nom. Mutual Capacitance	120 nF/km
11.	Nom. Inductivity	0.50 mH/km
12.	Insulation Resistance	> 20 GOhm x cm
13.	Other Properties	Good UV resistance, chemical resistance & flexibility

MACHFLEX LIYCY(TP) SHIELDED (CY) PVC INSTRUMENTATION CABLES - LIYCY(TP)

Tinned Copper Braid Shielded Cable

1 = Conductor
2 = Insulation
3 = Tinned Copper Braid Shielded
4 = Outer Sheath

CONDUCTOR 0.14 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	6.5	3X2X0.14	3P0.14YCY
4	7.0	4X2X0.14	4P0.14YCY
5	7.6	5X2X0.14	5P0.14YCY
7	8.3	7X2X0.14	7P0.14YCY
12	10.5	12X2X0.14	12P0.14YCY
20	13.1	20X2X0.14	20P0.14YCY

CONDUCTOR 0.25 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	6.8	3X2X0.25	3P0.25YCY
4	7.5	4X2X0.25	4P0.25YCY
5	8.5	5X2X0.25	5P0.25YCY
7	9.2	7X2X0.25	7P0.25YCY
12	11.7	12X2X0.25	12P0.25YCY
20	14.7	20X2X0.25	20P0.25YCY

CONDUCTOR 0.34 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	7.2	3X2X0.34	3P0.34YCY
4	7.9	4X2X0.34	4P0.34YCY
5	8.6	5X2X0.34	5P0.34YCY
7	9.7	7X2X0.34	7P0.34YCY
12	12.9	12X2X0.34	12P0.34YCY
20	16.1	20X2X0.34	20P0.34YCY

CONDUCTOR 0.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.2	3X2X0.5	3P0.5YCY
4	9.0	4X2X0.5	4P0.5YCY
5	9.9	5X2X0.5	5P0.5YCY
7	10.8	7X2X0.5	7P0.5YCY
12	14.5	12X2X0.5	12P0.5YCY
20	18.1	20X2X0.5	20P0.5YCY

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	9.0	3X2X0.75	3P0.75YCY
4	9.9	4X2X0.75	4P0.75YCY
5	10.9	5X2X0.75	5P0.75YCY
7	12.0	7X2X0.75	7P0.75YCY
9	14.8	9X2X0.75	9P0.75YCY
20	20.1	20X2X0.75	20P0.75YCY

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	9.7	3X2X1.0	3P1.0YCY
4	10.7	4X2X1.0	4P1.0YCY
5	11.7	5X2X1.0	5P1.0YCY
7	13.0	7X2X1.0	7P1.0YCY
9	16.0	9X2X1.0	9P1.0YCY
20	21.9	20X2X1.0	20P1.0YCY

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	11.3	3X2X1.5	3P1.5YCY
4	12.6	4X2X1.5	4P1.5YCY
5	13.9	5X2X1.5	5P1.5YCY
7	15.2	7X2X1.5	7P1.5YCY
9	18.8	9X2X1.5	9P1.5YCY
20	25.9	20X2X1.5	20P1.5YCY

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	13.2	3X2X2.5	3P2.5YCY
4	14.6	4X2X2.5	4P2.5YCY
5	16.1	5X2X2.5	5P2.5YCY
7	17.7	7X2X2.5	7P2.5YCY
9	22.1	9X2X2.5	9P2.5YCY
12	24.0	12X2X2.5	12P2.5YCY

MACHFLEX CABLES - LIHH(TP)
UNSHIELDED LSZH INSTRUMENTATION CABLES

Tinned Copper Braid Shield (TCB) – Excellent Noise Immunity

APPLICATIONS

Designed for applications which are installed in occasional flexing and fixed locations. Cable applications include precision control sensors, pressure gauge, temperature controllers, control panels, vibration monitoring systems, intelligent security controllers, production machinery and many more

GENERAL REFERENCE STANDARDS

| DIN VDE 0295, IEC 60228, BS 6360

| DIN EN 50290-2-22, DIN VDE 0207-363-4-1

| IEC 60227-5, EN 50525-2-51

| DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2

| RoHS & REACH Directives

CONSTRUCTION AND PERFORMANCE

1.	Conductor Material	Stranded bare copper (DIN VDE 0295 Class 5)
2.	Insulation Material & Colour	PE (polyethylene), DIN 47100 Color Code
3.	Jacket / Sheath Material	LSZH (low smoke halogen free)
4.	Flame Retardancy	VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-1-2
5.	Voltage Rating (Uo/U)	At 0.14 mm2: 350 V ≥ 0.25 mm2: 500 V
6.	Oil Resistant	IEC 60811-404
7.	Temperature Range	-5°C TO +70°C (Occasional movement) -30°C TO +80°C (Fixed installation)
8.	Bending Radius	10 x OD (Occasional movement) 6 x OD (Fixed installation)
9.	Nom. Mutual Capacitance	80 nF/km
10.	Nom. Inductivity	0.65 mH/km
11.	Insulation Resistance	> 20 GOhm x cm
12.	Other Properties	Good UV resistance, chemical resistance & flexibility

MACHFLEX LIYCY(TP) SHIELDED (CY) PVC INSTRUMENTATION CABLES - LIYCY(TP)

Tinned Copper Braid Shielded Cable

Belden MachFlex LiHH(TP) Cables

1 = Conductor
2 = Insulation
3 = Sheath

CONDUCTOR 0.14 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	5.5	3X2X0.14	3P0.14HH
4	6.1	4X2X0.14	4P0.14HH
5	6.7	5X2X0.14	5P0.14HH
7	7.3	7X2X0.14	7P0.14HH
12	9.8	12X2X0.14	12P0.14HH
20	12.3	20X2X0.14	20P0.14HH

CONDUCTOR 0.25 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	6.1	3X2X0.25	3P0.25HH
4	6.8	4X2X0.25	4P0.25HH
5	7.5	5X2X0.25	5P0.25HH
7	8.2	7X2X0.25	7P0.25HH
12	11.0	12X2X0.25	12P0.25HH
20	13.9	20X2X0.25	20P0.25HH

CONDUCTOR 0.34 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	6.5	3X2X0.34	3P0.34HH
4	7.2	4X2X0.34	4P0.34HH
5	7.9	5X2X0.34	5P0.34HH
7	8.7	7X2X0.34	7P0.34HH
12	11.7	12X2X0.34	12P0.34HH
20	14.7	20X2X0.34	20P0.34HH

CONDUCTOR 0.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	7.5	3X2X0.5	3P0.5HH
4	8.3	4X2X0.5	4P0.5HH
5	9.2	5X2X0.5	5P0.5HH
7	10.1	7X2X0.5	7P0.5HH
12	13.7	12X2X0.5	12P0.5HH
20	17.3	20X2X0.5	20P0.5HH

CONDUCTOR 0.75 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	8.4	3X2X0.75	3P0.75HH
4	9.3	4X2X0.75	4P0.75HH
5	10.2	5X2X0.75	5P0.75HH
7	11.3	7X2X0.75	7P0.75HH
9	14.0	9X2X0.75	9P0.75HH
12	15.3	12X2X0.75	12P0.75HH

CONDUCTOR 1.00 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	9.0	3X2X1.0	3P1.0HH
4	10.0	4X2X1.0	4P1.0HH
5	11.0	5X2X1.0	5P1.0HH
7	12.2	7X2X1.0	7P1.0HH
9	15.2	9X2X1.0	9P1.0HH
12	16.5	12X2X1.0	12P1.0HH

CONDUCTOR 1.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	10.6	3X2X1.5	3P1.5HH
4	11.8	4X2X1.5	4P1.5HH
5	13.1	5X2X1.5	5P1.5HH
7	14.4	7X2X1.5	7P1.5HH

CONDUCTOR 2.50 MM2

NO. OF CORES	NOM. OVERALL DIAMETER (MM)	CABLE DESCRIPTION	PART NUMBER
3	12.4	3X2X2.5	3P2.5HH
4	13.8	4X2X2.5	4P2.5HH
5	15.3	5X2X2.5	5P2.5HH
7	16.9	7X2X2.5	7P2.5HH

KATKO

SWITCHING SOLUTIONS

aps
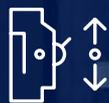
ABS SINGLE POLE ENCLOSED ISOLATORS 16 - 63 A (KEM)

| IP65 Enclosure types M2, M3 (ABS).
| ABS enclosure type (Acrylonitrile Butadiene Styrene).
| 1 Pole version,
| Available 16 A to 80 A.
| Self-extinguishing material.
| Wide operating temperature range.
| Padlockable OFF, lock ON optional.
| Door interlock when ON, with lid interlock defeat mechanism.
| Excellent insulating properties.
| High UV resistance.
| High chemical resistance.
| Enclosures can be grey black or yellow red.
| New KU 16 – 40A switch types have "IsoSafe" printed on the enclosure lids.

Enclosure type	Width mm	Height mm	Depth mm	Material	IP rating
M2	96.4	130.4	106	ABS	65
M3	144	190	96	ABS	65

1 Pole Enclosed Isolators

Part Number		AC-21A	400 V 415 V 690 V	AC-22A	400 V 415 V 690 V	AC-23A	400 V 415 V -	AC-23A	- - 690	Auxiliaries to suit
Grey Enclosure Black Handle	Grey Enclosure Yellow Red Handle	Ie / A	Ie / A	Ie / A	P / kW	Ie / A	P / kW	Ie / A	P / kW	
KEM116 M2 ABS	KEM116YR M2 ABS	16	16	16	3.0	-	-	-	-	1NO40KU (1NO) or 1NC40KU (1NC)
KEM125 M2 ABS	KEM125YR M2 ABS	25	25	25	4.0	-	-	-	-	
KEM140 M2 ABS	KEM140YR M2 ABS	40	40	40	7.5	-	-	-	-	
KEM163 M3 ABS	KEM163YR M3 ABS	80	63	40	7.5	-	-	-	-	
KEM180 M3 ABS	KEM180YR M3 ABS	100	80	63	11.0	-	-	-	-	

POLYCARBONATE ENCLOSED ISOLATORS 16 - 630 A (KEM)

| IP66; Enclosure types M2, M3, M4
| IP65; Enclosure types MF11, MF03, MF04
| Self-extinguishing material
| Wide operating temperature range
| Padlockable OFF, lock ON optional
| Door interlock when ON, with lid interlock defeat mechanism
| Excellent insulating properties
| High UV and chemical resistance
| Available up to 630 A,
| 3P, 4P, 6P, 8 Pole versions
| For M2, M3 enclosures Y/R is yellow cover with red handle
| For large enclosure sizes Y/R is grey enclosure with yellow/red handle
| Cable gland knockouts std: M1, M2, M3, MF11 enclosures – hole sizes ref. dimensions
| M4 enclosure – user makes own entries.
| Gland plate entries provided for enclosure types MF01, MF02, MF03, MF04.
| New KU 16 – 40A switch types have "IsoSafe" printed on the enclosure lids. Refer auxiliary fitting below.

Outline dimensions:

| Enclosure type	Width mm	Height mm	Depth mm	Material	IP rating
M2	96.4	130.4	106	Polycarbonate	66
M3	144	190	96	Polycarbonate	66
M4	180	255	100	Polycarbonate	66
MF11	280	380	130	Polycarbonate	65
MF03	380	560	180	Polycarbonate	65
MF04	560	760	250	Polycarbonate	65

Auxiliaries

Part Numbers shown in BOLD on the following pages include the new KU compact switches 16A – 40A. Select new side mount auxiliaries to suit from the table on the following pages or from the KU series pages in this catalogue. Older KU_N switches, use top mount auxiliary types KU1V and KU2V which are incompatible.
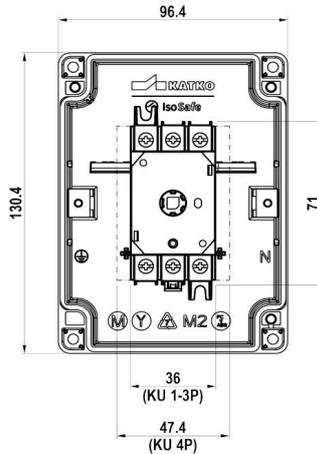
M2 Enclosure
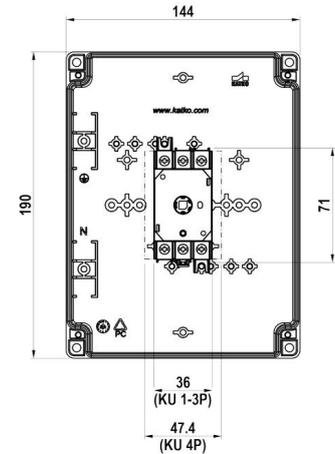
M3 Enclosure

< KU 16 – 40 A switch with side mounting auxiliary contact.

POLYCARBONATE ENCLOSED ISOLATORS 16 - 630 A (KEM)

3 Pole Enclosed Isolators

Part Number		AC-21A	400 V 415 V 690 V	AC-22A	400 V 415 V 690 V	AC-23A	400 V 415 V -	AC-23A	- - 690	Auxiliaries to suit
Grey Enclosure Black Handle	Grey Enclosure Yellow Red Handle	Ie / A	Ie / A	Ie / A	P / kW	Ie / A	P / kW	Ie / A	P / kW	
KEM316 M2	KEM316YR M2	16	16	16	7.5	16	11	1NO40KU (1NO) or 1NC40KU (1NC)
KEM325 M2	KEM325YR M2	25	25	25	11	25	22	
KEM325 M3	KEM325YR M3	40	25	25	11	25	22	
KEM340 M2	KEM340YR M2	40	40	40	22	25	22	
KEM340 M3	KEM340YR M3	40	40	40	22	25	22	
KEM363 M3	KEM363YR M3	80	63	40	22	40	37	KU1V: 1 NO/NC CO KU2V: 2 NO/NC CO
KEM380 M3	KEM380YR M3	100	80	63	30	40	37	
KEM3100 M4	KEM3100YR M4	125	100	100	55	63	55	
KEM3125 M4	KEM3125YR M4	160	125	125	55	80	75	
KEM3160 MF11	KEM3160YR MF11	160	160	160	90	100	90	1.V160KU (1 NO/NC CO) or 2.V160KU (2 NO/NC CO)
KEM3200 MF03	KEM3200YR MF03	200	200	200	110	200	160	
KEM3250 MF03	KEM3250YR MF03	250	250	250	132	250	250	
KEM3250C MF11 *	KEM3250CYRMF11 *	250	250	250	132	-	-	
KEM3400 MF03	KEM3400YR MF03	400	400	400	200	400	355	
KEM3630 MF04	KEM3630YR MF04	630	630	630	355	630	630	

*Compact type

4 Pole Enclosed Isolators

Part Number		AC-21A	400 V 415 V 690 V	AC-22A	400 V 415 V 690 V	AC-23A	400 V 415 V -	AC-23A	- - 690	Auxiliaries to suit
Grey Enclosure Black Handle	Grey Enclosure Yellow Red Handle	Ie / A	Ie / A	Ie / A	P / kW	Ie / A	P / kW	Ie / A	P / kW	
KEM416 M2	KEM416YR M2	16	16	16	7.5	16	11	1NO40KU (1NO) or 1NC40KU (1NC)
KEM425 M2	KEM425YR M2	25	25	25	11	25	22	
KEM425 M3	KEM425YR M3	40	25	25	11	25	22	
KEM440 M2	KEM440YR M2	40	40	40	22	25	22	
KEM440 M3	KEM440YR M3	40	40	40	22	25	22	
KEM463 M3	KEM463YR M3	80	63	40	22	40	37	KU1V: 1 NO/NC CO KU2V: 2 NO/NC CO
KEM480 M3	KEM480YR M3	100	80	63	30	40	37	
KEM4100 M4	KEM4100YR M4	125	100	100	55	63	55	
KEM4125 M4	KEM4125YR M4	160	125	125	55	80	75	
KEM4160 MF11	KEM4160YR MF11	160	160	160	90	100	90	1.V160KU (1 NO/NC CO) or 2.V160KU (2 NO/NC CO)
KEM4200 MF03	KEM4200YR MF03	200	200	200	110	200	160	
KEM4250 MF03	KEM4250YR MF03	250	250	250	132	250	250	
KEM4250C MF11 *	KEM4250CYRMF11 *	250	250	250	132	-	-	
KEM4400 MF03	KEM4400YR MF03	400	400	400	200	400	355	
KEM4630 MF04	KEM4630YR MF04	630	630	630	355	630	630	

*Compact type

POLYCARBONATE ENCLOSED ISOLATORS 16 - 630 A (KEM)

6 Pole Enclosed Isolators

| Part Number | | AC-21A | 400 V / 415 V / 690 V | AC-22A | 400 V / 415 V / 690 V | AC-23A | 400 V / 415 V / - | AC-23A | - / - / 690 | Auxiliaries to suit |
Grey Enclosure Black Handle	Grey Enclosure Yellow Red Handle	Ie / A	Ie / A	Ie / A	P / kW	Ie / A	P / kW	Ie / A	P / kW	
KEM616 M3	KEM616YR M3	16		16		16	7.5	16	11	1NO40KU (1NO) or 1NC40KU (1NC)
KEM625 M3	KEM625YR M3	25		25		25	11	25	22	
KEM640 M3	KEM640YR M3	40		40		40	22	25	22	
KEM663 M3	KEM663YR M3	80		63		40	22	40	37	Cannot be installed
KEM680 M3	KEM680YR M3	100		80		63	30	40	37	
KEM6100 MF11	KEM6100YR MF11	125		100		100	55	63	55	1V160KU 2V160KU
KEM6125 MF11	KEM6125YR MF11	160		125		125	55	80	75	
KEM6160 MF11	KEM6160YR MF11	160		160		160	90	100	90	

8 Pole Enclosed Isolators

| Part Number | | AC-21A | 400 V / 415 V / 690 V | AC-22A | 400 V / 415 V / 690 V | AC-23A | 400 V / 415 V / - | AC-23A | - / - / 690 | Auxiliaries to suit |
Grey Enclosure Black Handle	Grey Enclosure Yellow Red Handle	Ie / A	Ie / A	Ie / A	P / kW	Ie / A	P / kW	Ie / A	P / kW	
KEM816 M3	KEM816YR M3	16		16		16	7.5	16	11	1NO40KU (1NO) or 1NC40KU (1NC)
KEM825 M3	KEM825YR M3	25		25		25	11	25	22	
KEM840 M3	KEM840YR M3	40		40		40	22	25	22	
KEM863 M3	KEM863YR M3	80		63		40	22	40	37	Cannot be installed
KEM880 M3	KEM880YR M3	100		80		63	30	40	37	
KEM8100 MF11	KEM8100YR MF11	125		100		100	55	63	55	1V160KU 2V160KU
KEM8125 MF11	KEM8125YR MF11	160		125		125	55	80	75	
KEM8160 MF11	KEM8160YR MF11	160		160		160	90	100	90	

POLYCARBONATE ENCLOSED ISOLATORS 16 - 630 A (KEM)

| IP66; Enclosure types A2, A4
| IP65; Enclosure types A5, A6
| IK08; A2, A4 (Degree of mechanical impact)
| IK10: A4, A6
| Wide operating temperature range
| High resistance against many chemicals
| High UV resistance
| Excellent in extreme weather conditions
| Padlockable OFF, Lock ON optional
| Door interlock when ON, with lid interlock defeat mechanism
| Available up to 250 A
| Yellow-red handle versions in all enclosure sizes have a beige-grey base
  and cover
| Bottom knock-out cable gland entries provided in A2 enclosures.
| For A2 enclosure sizes with threaded bottom entries refer to KEA_A2 EMC types.
| Users make their own entries as required in A4 enclosures.
| Gland plate entries provided for enclosures types A5, A6
| New KU 16 – 40 A switch types have "IsoSafe" printed on the enclosure lids. Refer auxiliary fitting below.

Outline dimensions:

Enclosure type	Width mm	Height mm	Depth mm	Material	IP rating
A2	104	158.5	79.5	Aluminium	66
A4	162	262	108	Aluminium	66
A5	300	400	170	Aluminium	65
A6	400	500	170	Aluminium	65

Auxiliaries

Part Numbers shown in BOLD on the following pages include the new KU compact switches 16A – 40A. Select new side mount auxiliaries to suit from the table on the following pages or from the KU series pages in this catalogue. Older KU_N switches, use top mount auxiliary types KU1V and KU2V which are incompatible.

EMC Applications (Electro-Magnetic Compatibility)

Katko KEA_EMC enclosed switches are available using a single part number. However, to use a KEA standard switch for an EMC application, EMC cable glands must be used. Refer EMC Enclosed switch types in this catalogue for EMC cable gland part numbers.
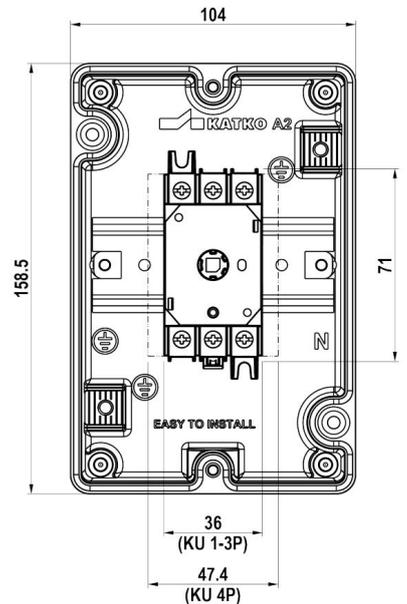
KEA 200/250A Isolator, cast aluminium enclosure, showing top, bottom, side gland plates.

A2 Enclosure

ALUMINIUM ENCLOSED ISOLATORS 16 - 250 A (KEA)

3 Pole Enclosed Isolators

Grey Enclosure Black Handle	Grey Enclosure Yellow Red Handle	AC-21A 400 V/415 V/690 V Ie/A	AC-22A 400 V/415 V/690 V Ie/A	AC-23A 400 V/415 V Ie/A	AC-23A 400 V/415 V P/kW	AC-23A 690 V Ie/A	AC-23A 690 V P/kW	Auxiliaries to suit
KEA316 A2	KEA316YR A2	16	16	16	7.5	16	11	1NO40KU (1NO) or 1NC40KU (1NC)
KEA316 A4	KEA316YR A4	16	16	16	7.5	16	11	
KEA325 A2	KEA325YR A2	25	25	25	11	25	22	
KEA325 A4	KEA325YR A4	25	25	25	11	25	22	
KEA340 A2	KEA340YR A2	40	40	40	22	25	22	
KEA340 A4	KEA340YR A4	40	40	40	22	25	22	
KEA363 A4	KEA363YR A4	80	63	40	22	40	37	KU1V: 1 NO/NC CO KU2V: 2 NO/NC CO
KEA380 A4	KEA380YR A4	100	80	63	30	40	37	
KEA3125 A4	KEA3125YR A4	160	125	125	55	80	75	1.V160KU (1 NO/NC CO) or 2.V160KU (2 NO/NC CO)
KEA3160 A4	KEA3160YR A4	160	160	160	90	100	90	
KEA3200 A6	KEA3200YR A6	200	200	200	110	200	160	
KEA3200C A5*	KEA3200CYR A5*	200	200	200	110	-	-	
KEA3250 A6	KEA3250YR A6	250	250	250	132	250	250	

*Compact type

4 Pole Enclosed Isolators

Grey Enclosure Black Handle	Grey Enclosure Yellow Red Handle	AC-21A 400 V/415 V/690 V Ie/A	AC-22A 400 V/415 V/690 V Ie/A	AC-23A 400 V/415 V Ie/A	AC-23A 400 V/415 V P/kW	AC-23A 690 V Ie/A	AC-23A 690 V P/kW	Auxiliaries to suit
KEA416 A2	KEA416YR A2	16	16	16	7.5	16	11	1NO40KU (1NO) or 1NC40KU (1NC)
KEA416 A4	KEA416YR A4	16	16	16	7.5	16	11	
KEA425 A2	KEA425YR A2	25	25	25	11	25	22	
KEA425 A4	KEA425YR A4	25	25	25	11	25	22	
KEA440 A2	KEA440YR A2	40	40	40	22	25	22	
KEA440 A4	KEA440YR A4	40	40	40	22	25	22	
KEA463 A4	KEA463YR A4	80	63	40	22	40	37	KU1V: 1 NO/NC CO KU2V: 2 NO/NC CO
KEA480 A4	KEA480YR A4	100	80	63	30	40	37	
KEA4125 A4	KEA4125YR A4	160	125	125	55	80	75	1.V160KU (1 NO/NC CO) or 2.V160KU (2 NO/NC CO)
KEA4160 A4	KEA4160YR A4	160	160	160	90	100	90	
KEA4200 A6	KEA4200YR A6	200	200	200	110	200	160	
KEA4200C A5*	KEA4200CYR A5*	200	200	200	110	-	-	
KEA4250 A6	KEA4250YR A6	250	250	250	132	250	250	

*Compact type

6 Pole Enclosed Isolators

Grey Enclosure Black Handle	Grey Enclosure Yellow Red Handle	AC-21A 400 V/415 V/690 V Ie/A	AC-22A 400 V/415 V/690 V Ie/A	AC-23A 400 V/415 V Ie/A	AC-23A 400 V/415 V P/kW	AC-23A 690 V Ie/A	AC-23A 690 V P/kW	Auxiliaries to suit
KEA616 A4	KEA616YR A4	16	16	16	7.5	16	11	1NO40KU (1NO) or 1NC40KU (1NC)
KEA625 A4	KEA625YR A4	25	25	25	11	25	22	
KEA640 A4	KEA640YR A4	40	40	40	22	25	22	
KEA663 A4	KEA663YR A4	80	63	40	22	40	37	KU1V (1NO+1NC) KU2V (2NO+2NC)
KEA680 A4	KEA680YR A4	100	80	63	30	40	37	
KEA6125 A5	KEA6125YR A5	160	125	125	55	80	75	1.V160KU 2.V160KU
KEA6160 A5	KEA6160YR A5	160	160	160	90	100	90	

*Compact type

8 Pole Enclosed Isolators

Grey Enclosure Black Handle	Grey Enclosure Yellow Red Handle	AC-21A 400 V/415 V/690 V Ie/A	AC-22A 400 V/415 V/690 V Ie/A	AC-23A 400 V/415 V Ie/A	AC-23A 400 V/415 V P/kW	AC-23A 690 V Ie/A	AC-23A 690 V P/kW	Auxiliaries to suit
KEA816 A4	KEA816YR A4	16	16	16	7.5	16	11	1NO40KU (1NO) or 1NC40KU (1NC)
KEA825 A4	KEA825YR A4	25	25	25	11	25	22	
KEA840 A4	KEA840YR A4	40	40	40	22	25	22	
KEA863 A4	KEA863YR A4	80	63	40	22	40	37	KU1V (1NO+1NC) KU2V (2NO+2NC)
KEA880 A4	KEA880YR A4	100	80	63	30	40	37	
KEA8125 A5	KEA8125YR A5	160	125	125	55	80	75	1.V160KU 2.V160KU
KEA8160 A5	KEA8160YR A5	160	160	160	90	100	90	

*Compact type

For applications such as when isolators for AC drives or other harmonic emitting applications, Katko EMC enclosed switches are available using a single part number. In order to use a standard metal enclosed switch for an EMC application, EMC cable glands must be used. Refer EMC switch types on the following pages for EMC cable glands.

STAINLESS STEEL ENCLOSED ISOLATORS 16 - 1600 A (KER)

| IP66; Enclosure types RA2, RA4, RA5 are AISI 316 stainless steel.
| Acid and other chemical proof.
| IP65; Enclosure types R6, R7, R8, R9, R10 are AISI 304 stainless steel. (316 stainless steel on request).
| Where hygiene and high protection against corrosion are required
| Padlockable OFF, Lock ON optional.
| Door interlock when ON, with lid interlock defeat mechanism.
| Available up to 1600 A.
| Unthreaded cable gland entries provided for enclosures as standard for RA2, RA4.
| RA2: 16-40 A, 3P/4P: 2 x M25 / 1 x M16. 6P/8P types include additional entries.
| RA4: 63-125 A, 3P/4P: 2 x M32 / 1 x M16. 6P/8P types include additional entries.
| RA5 to R10 – user to make own.
| New KU 16 – 40 A switch types have "IsoSafe" printed on the enclosure lids.
| Refer auxiliary fitting below.

Outline dimensions:

Enclosure type	Width mm	Height mm	Depth mm	Material	IP rating
RA2	120	160	77	AISI 316 SS	66
RA4	160	260	90	AISI 316 SS	66
RA5	300	420	120	AISI 316 SS	66
R6	400	600	200	AISI 304 SS	65
R7	600	800	200	AISI 304 SS	65
R8	800	800	300	AISI 304 SS	65
R9	800	1000	300	AISI 304 SS	65
R10	800	1200	300	AISI 304 SS	65

Auxiliaries

Part Numbers shown in BOLD below include the new KU compact switches 16A – 40A. Select new side mount auxiliaries to suit from the table on the following pages or from the KU series pages in this catalogue. Older KU_N switches, use top mount auxiliary types KU1V and KU2V which are incompatible.

EMC Applications (Electro-Magnetic Compatibility)

Katko KER_EMC enclosed switches are available using a single part number. However, to use a KER standard switch for an EMC application, EMC cable glands must be used. Refer EMC Enclosed switch types in this catalogue for EMC cable gland part numbers.
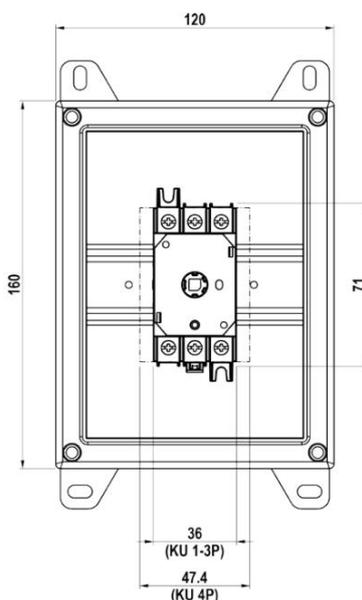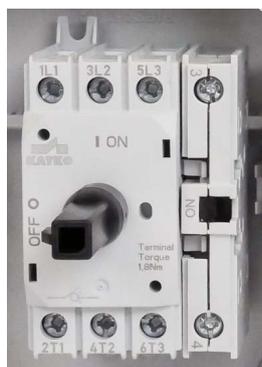
RA2 Enclosure

STAINLESS STEEL ENCLOSED ISOLATORS 16 - 1600 A (KER)

3 Pole Enclosed Isolators

Part Number		AC-21A	400 V / 415 V / 690 V	AC-22A	400 V / 415 V / 690 V	AC-23A	400 V / 415 V / -	AC-23A	- / - / 690	Auxiliaries to suit
Grey Enclosure Black Handle	Grey Enclosure Yellow Red Handle	Ie / A	Ie / A	Ie / A	P / kW	Ie / A	P / kW	Ie / A	P / kW	
KER316 RA2	KER316YR RA2	16	16	16	7.5	16	11			1NO40KU (1NO) or 1NC40KU (1NC)
KER325 RA2	KER325YR RA2	25	25	25	11	25	22			
KER340 RA2	KER340YR RA2	40	40	40	22	25	22			
KER363 RA4	KER363YR RA4	80	63	40	22	40	37			KU1V: 1 NO/NC CO KU2V: 2 NO/NC CO
KER380 RA4	KER380YR RA4	100	80	63	30	40	37			
KER3125 RA4	KER3125YR RA4	160	125	125	55	80	75			1.V160KU (1 NO/NC CO) or 2.V160KU (2 NO/NC CO)
KER3160 RA5	KER3160YR RA5	160	160	160	90	100	90			
KER3200 R6	KER3200YR R6	200	200	200	110	200	160			
KER3200C RA5*	KER3200CYR RA5*	200	200	200	110	-	-			
KER3250 R6	KER3250YR R6	250	250	250	132	250	250			
KER3315 R6	KER3315 YR R6	315	315	315	160	315	315			
KER3400 R6	KER3400YR R6	400	400	400	200	400	355			
KER3630 R7	KER3630 YR R7	630	630	630	355	630	630			
KER3800 R9	KER3800 YR R9	800	800	800	400	800	800			
KER31000 R10	KER31000 YR R10	1000	1000	1000	560	1000	800			VKT1V160 (1NO+1NC)
KER31250 R10	KER31250 YR R10	1250	1250	1250	710	1250	1000			
KER31600 R10	KER31600 YR R10	1600	1600	1600	900	1600	1200			

*Compact type

4 Pole Enclosed Isolators

Part Number		AC-21A	400 V / 415 V / 690 V	AC-22A	400 V / 415 V / 690 V	AC-23A	400 V / 415 V / -	AC-23A	- / - / 690	Auxiliaries to suit
Grey Enclosure Black Handle	Grey Enclosure Yellow Red Handle	Ie / A	Ie / A	Ie / A	P / kW	Ie / A	P / kW	Ie / A	P / kW	
KER416 RA2	KER416YR RA2	16	16	16	7.5	16	11			1NO40KU (1NO) or 1NC40KU (1NC)
KER425 RA2	KER425YR RA2	25	25	25	11	25	22			
KER440 RA2	KER440YR RA2	40	40	40	22	25	22			
KER463 RA4	KER463YR RA4	80	63	40	22	40	37			KU1V: 1 NO/NC CO KU2V: 2 NO/NC CO
KER480 RA4	KER480YR RA4	100	80	63	30	40	37			
KER4125 RA4	KER4125YR RA4	160	125	125	55	80	75			1.V160KU (1 NO/NC CO) or 2.V160KU (2 NO/NC CO)
KER4160 RA5	KER4160YR RA5	160	160	160	90	100	90			
KER4200 R6	KER4200YR R6	200	200	200	110	200	160			
KER4200C RA5*	KER4200CYR RA5*	200	200	200	110	-	-			
KER4250 R6	KER4250YR R6	250	250	250	132	250	250			
KER4315 R6	KER4315 YR R6	315	315	315	160	315	315			
KER4400 R6	KER4400YR R6	400	400	400	200	400	355			
KER4630 R7	KER4630 YR R7	630	630	630	355	630	630			
KER4800 R9	KER4800 YR R9	800	800	800	400	800	800			
KER41000 R10	KER41000 YR R10	1000	1000	1000	560	1000	800			VKT1V160 (1NO+1NC)
KER41250 R10	KER41250 YR R10	1250	1250	1250	710	1250	1000			
KER41600 R10	KER41600 YR R10	1600	1600	1600	900	1600	1200			

*Compact type

For applications such as when isolators for AC drives or other harmonic emitting applications, Katko EMC enclosed switches are available using a single part number. In order to use a standard metal enclosed switch for an EMC application, EMC cable glands must be used. Refer EMC switch types on the following pages for EMC cable glands.

STAINLESS STEEL ENCLOSED ISOLATORS 16 - 1600 A (KER)

6 Pole Enclosed Isolators

| Part Number | | AC-21A | AC-22A | AC-23A | | AC-23A | | Auxiliaries to suit |
| Grey Enclosure Black Handle | Grey Enclosure Yellow Red Handle | 400 V / 415 V / 690 V | 400 V / 415 V / 690 V | 400 V / 415 V / - | | - / - / 690 | | |
		Ie / A	Ie / A	Ie / A	P / kW	Ie / A	P / kW	
KER616 RA2	KER616YR RA2	16	16	16	7.5	16	11	1NO40KU (1NO) or 1NC40KU (1NC)
KER625 RA2	KER625YR RA2	25	25	25	11	25	22	
KER640 RA2	KER640YR RA2	40	40	40	22	25	22	
KER663 RA4	KER663YR RA4	80	63	40	22	40	37	KU1V: 1 NO/NC CO KU2V: 2 NO/NC CO
KER680 RA4	KER680YR RA4	100	80	63	30	40	37	
KER6125 RA4	KER6125YR RA4	160	125	125	55	80	75	1.V160KU (1 NO/NC CO) or 2.V160KU (2 NO/NC CO)
KER6160 RA5	KER6160YR RA5	160	160	160	90	100	90	
KER6200 R7	KER6200 YR R7	200	200	200	110	200	160	
KER6250 R7	KER6250 YR R7	250	250	250	132	250	250	
KER6315 R8	KER6315 YR R8	315	315	315	160	315	315	
KER6400 R8	KER6400 YR R8	400	400	400	200	400	355	

8 Pole Enclosed Isolators

| Part Number | | AC-21A | AC-22A | AC-23A | | AC-23A | | Auxiliaries to suit |
| Grey Enclosure Black Handle | Grey Enclosure Yellow Red Handle | 400 V / 415 V / 690 V | 400 V / 415 V / 690 V | 400 V / 415 V / - | | - / - / 690 | | |
		Ie / A	Ie / A	Ie / A	P / kW	Ie / A	P / kW	
KER816 RA2	KER816YR RA2	16	16	16	7.5	16	11	1NO40KU (1NO) or 1NC40KU (1NC)
KER825 RA2	KER825YR RA2	25	25	25	11	25	22	
KER840 RA2	KER840YR RA2	40	40	40	22	25	22	
KER863 RA4	KER863YR RA4	80	63	40	22	40	37	KU1V: 1 NO/NC CO KU2V: 2 NO/NC CO
KER880 RA4	KER880YR RA4	100	80	63	30	40	37	
KER8125 RA4	KER8125YR RA4	160	125	125	55	80	75	1.V160KU 2.V160KU
KER8160 RA5	KER8160YR RA5	160	160	160	90	100	90	

STAINLESS STEEL FLAT OR SLOPED TOP ENCLOSED ISOLATORS 16 - 160 A (KER)

| Designed for hygienic and industrial or outdoor environments
| Easy to install and to keep clean
| IP66, enclosure
| Acid proof, AISI 316 stainless steel
| Flat roof or angled rainhood roof versions for dusty or wet environments
| Padlockable in OFF position stainless steel handle
| Available up to 160 A (other versions 200 – 800A see following pages)
| Cable gland entries provided for enclosure type RA2R, RA2S, RA4R, RA4RS
| Unthreaded cable gland entries provided for enclosures as below,
| RA2R / RA2RS: 16-40 A, 3P/4P: 2 x M25 / 1 x M16. 6P types include additional entries.
| RA4R / RA4RS: 63-125 A, 3P/4P: 2 x M32 / 1 x M16. 6P types include additional entries.
| RA5R and 5RA5S – user to make own
| New KU 16 – 40 A switch types have "IsoSafe" printed on the enclosure lids.
| Refer auxiliary fitting below.

Outline dimensions:

Enclosure type	Width mm	Height mm	Depth mm	Material	IP rating
RA2R	120	160	77	AISI 316 SS	66
RA2RS	120	258	113	AISI 316 SS	66
RA4R	160	260	90	AISI 316 SS	66
RA4RS	160	369	127	AISI 316 SS	66
RA5R	300	400	120	AISI 316 SS	66
RA5RS	300	532	156	AISI 316 SS	66

Auxiliaries

Part Numbers shown in BOLD below include the new KU compact switches 16A – 40A. Select new side mount auxiliaries to suit from the table following pages or from the KU series pages in this catalogue. Older KU_N switches, use top mount auxiliary types KU1V and KU2V which are incompatible.

EMC Applications (Electro-Magnetic Compatibility)

Katko KER_EMC enclosed switches are available using a single part number. However, to use a KER standard switch for an EMC application, EMC cable glands must be used. Refer EMC Enclosed switch types in this catalogue for EMC cable gland part numbers.

STAINLESS STEEL FLAT TOP ENCLOSED ISOLATORS 16 - 160 A (KER_R)

3 Pole FLAT TOP Enclosed Isolators

Part Number SS Enclosure SS Handle	AC-21A	400 V 415 V 690 V	AC-22A	400 V 415 V 690 V	AC-23A	400 V 415 V -	AC-23A	- - 690	Auxiliaries to suit
	Ie / A	Ie / A	Ie / A	P / kW	Ie / A	P / kW	Ie / A	P / kW	
KER316 RA2R	16		16		16	7.5	16	11	1NO40KU (1NO) or 1NC40KU (1NC)
KER325 RA2R	25		25		25	11	25	22	
KER340 RA2R	40		40		40	22	25	22	
KER363 RA4R	80		63		40	22	40	37	KU1V: 1 NO/NC CO KU2V: 2 NO/NC CO
KER380 RA4R	100		80		63	30	40	37	
KER3125 RA4R	160		125		125	55	80	75	1.V160KU 2.V160KU
KER3160 RA5R	160		160		160	90	100	90	

4 Pole FLAT TOP Enclosed Isolators

Part Number SS Enclosure SS Handle	AC-21A	400 V 415 V 690 V	AC-22A	400 V 415 V 690 V	AC-23A	400 V 415 V -	AC-23A	- - 690	Auxiliaries to suit
	Ie / A	Ie / A	Ie / A	P / kW	Ie / A	P / kW	Ie / A	P / kW	
KER416 RA2R	16		16		16	7.5	16	11	1NO40KU (1NO) or 1NC40KU (1NC)
KER425 RA2R	25		25		25	11	25	22	
KER440 RA2R	40		40		40	22	25	22	
KER463 RA4R	80		63		40	22	40	37	KU1V: 1 NO/NC CO KU2V: 2 NO/NC CO
KER480 RA4R	100		80		63	30	40	37	
KER4125 RA4R	160		125		125	55	80	75	1.V160KU 2.V160KU
KER4160 RA5R	160		160		160	90	100	90	

6 Pole FLAT TOP Enclosed Isolators

Part Number SS Enclosure SS Handle	AC-21A	400 V 415 V 690 V	AC-22A	400 V 415 V 690 V	AC-23A	400 V 415 V -	AC-23A	- - 690	Auxiliaries to suit
	Ie / A	Ie / A	Ie / A	P / kW	Ie / A	P / kW	Ie / A	P / kW	
KER416 RA2R	16		16		16	7.5	16	11	1NO40KU (1NO) or 1NC40KU (1NC)
KER425 RA2R	25		25		25	11	25	22	
KER440 RA2R	40		40		40	22	25	22	
KER463 RA4R	80		63		40	22	40	37	KU1V: 1 NO/NC CO KU2V: 2 NO/NC CO
KER480 RA4R	100		80		63	30	40	37	
KER4125 RA4R	160		125		125	55	80	75	1.V160KU 2.V160KU
KER4160 RA5R	160		160		160	90	100	90	

For applications such as when isolators for AC drives or other harmonic emitting applications, Katko EMC enclosed switches are available using a single part number. In order to use a standard metal enclosed switch for an EMC application, EMC cable glands must be used. Refer EMC switch types on the following pages for EMC cable glands.

STAINLESS STEEL SLOPED TOP ENCLOSED ISOLATORS 16 - 160 A (KER_R)

3 Pole SLOPED TOP Enclosed Isolators

Part Number SS Enclosure SS Handle	AC-21A Ie / A	400 V 415 V 690 V Ie / A	AC-22A Ie / A	400 V 415 V 690 V P / kW	AC-23A Ie / A	400 V 415 V - P / kW	AC-23A Ie / A	- - 690 P / kW	Auxiliaries to suit
KER316 RA2RS	16		16		16	7.5	16	11	1NO40KU (1NO) or 1NC40KU (1NC)
KER325 RA2RS	25		25		25	11	25	22	
KER340 RA2RS	40		40		40	22	25	22	
KER363 RA4RS	80		63		40	22	40	37	KU1V: 1 NO/NC CO KU2V: 2 NO/NC CO
KER380 RA4RS	100		80		63	30	40	37	
KER3125 RA4RS	160		125		125	55	80	75	1.V160KU 2.V160KU
KER3160 RA5RS	160		160		160	90	100	90	

4 Pole SLOPED TOP Enclosed Isolators

Part Number SS Enclosure SS Handle	AC-21A Ie / A	400 V 415 V 690 V Ie / A	AC-22A Ie / A	400 V 415 V 690 V P / kW	AC-23A Ie / A	400 V 415 V - P / kW	AC-23A Ie / A	- - 690 P / kW	Auxiliaries to suit
KER416 RA2RS	16		16		16	7.5	16	11	1NO40KU (1NO) or 1NC40KU (1NC)
KER425 RA2RS	25		25		25	11	25	22	
KER440 RA2RS	40		40		40	22	25	22	
KER463 RA4RS	80		63		40	22	40	37	KU1V: 1 NO/NC CO KU2V: 2 NO/NC CO
KER480 RA4RS	100		80		63	30	40	37	
KER4125 RA4RS	160		125		125	55	80	75	1.V160KU 2.V160KU
KER4160 RA5RS	160		160		160	90	100	90	

6 Pole SLOPED TOP Enclosed Isolators

Part Number SS Enclosure SS Handle	AC-21A Ie / A	400 V 415 V 690 V Ie / A	AC-22A Ie / A	400 V 415 V 690 V P / kW	AC-23A Ie / A	400 V 415 V - P / kW	AC-23A Ie / A	- - 690 P / kW	Auxiliaries to suit
KER616 RA4RS	16		16		16	7.5	16	11	1NO40KU (1NO) or 1NC40KU (1NC)
KER625 RA4RS	25		25		25	11	25	22	
KER640 RA4RS	40		40		40	22	25	22	
KER663 RA4RS	80		63		40	22	40	37	KU1V: 1 NO/NC CO KU2V: 2 NO/NC CO
KER680 RA4RS	100		80		63	30	40	37	
KER6125 RA4RS	160		125		125	55	80	75	1.V160KU 2.V160KU
KER6160 RA5RS	160		160		160	90	100	90	

For applications such as when isolators for AC drives or other harmonic emitting applications, Katko EMC enclosed switches are available using a single part number. In order to use a standard metal enclosed switch for an EMC application, EMC cable glands must be used. Refer EMC switch types on the following pages for EMC cable glands.

STAINLESS STEEL SLOPED TOP ENCLOSED ISOLATORS 160 - 800 A (KER)

| AISI 316 stainless steel enclosed, IP66.
| Chemical and impact resistant, and many types of acid proof.
| Added rain protection via angled top.
| Single rotary handle on door with 3-point locking mechanism.
| Handles can be black or yellow red types.
| Padlockable in OFF. Padlock ON option.
| Door interlock when ON, with lid interlock defeat mechanism.
| Isolation rated to IEC 60947.3 and AS/NZS 60947.3.
| Visual status window in enclosure in front of KU switch body.
| KU load break switches include a visual status window in the front of the switch body.
| Available in ampere ratings 200 - 800 A.
| 3 and 4 pole versions standard, 6 and 8 pole versions optional.
| Rated to 415 VAC and 690 VAC.
| Earth and neutral terminals supplied with 3 pole, earth terminals only with 4 pole.
| 4 stainless steel wall fixing brackets supplied.
| Orange versions on request.

3 Pole Enclosed Isolators

Part Number		AC-22A	400 V / 415 V / 690 V	AC-23A	400 V / 415 V / -	AC-23A	- / - / 690	Auxiliaries to suit
SS Enclosure Black Handle	SS Enclosure Yellow Red Handle	Ie / A	P / kW	Ie / A	P / kW	Ie / A	P / kW	
KER3160 RA6 AVS	KER3160YR RA6 AVS	160	160	160	90	160	132	1.V160KU (1 NO/NC CO) or 2.V160KU (2 NO/NC CO)
KER3200 RA6 AVS	KER3200YR RA6 AVS	200	200	200	110	200	160	
KER3250 RA6 AVS	KER3250YR RA6 AVS	250	250	250	132	250	250	
KER3400 RA7 AVS	KER3400YR RA7 AVS	400	400	400	200	400	355	
KER3630 RA7 BVS	KER3630YR RA7 BVS	630	630	630	355	630	630	
KER3800 RA10 VS	KER3800YR RA10 VS	800	800	800	400	800	800	

4 Pole Enclosed Isolators

SS Enclosure Black Handle	SS Enclosure Yellow Red Handle	Ie / A	P / kW	Ie / A	P / kW	Ie / A	P / kW	Auxiliaries to suit
KER4160 RA6 AVS	KER4160YR RA6 AVS	160	160	160	90	160	132	1.V160KU (1 NO/NC CO) or 2.V160KU (2 NO/NC CO)
KER4200 RA6 AVS	KER4200YR RA6 AVS	200	200	200	110	200	160	
KER4250 RA6 AVS	KER4250YR RA6 AVS	250	250	250	132	250	250	
KER4400 RA7 AVS	KER4400YR RA7 AVS	400	400	400	200	400	355	
KER4630 RA7 BVS	KER4630YR RA7 BVS	630	630	630	355	630	630	
KER4800 RA10 VS	KER4800YR RA10 VS	800	800	800	400	800	800	

Typical internal arrangement RA7AVS enclosure shown, used for 315 – 400 A versions.
Note wall fixing brackets.
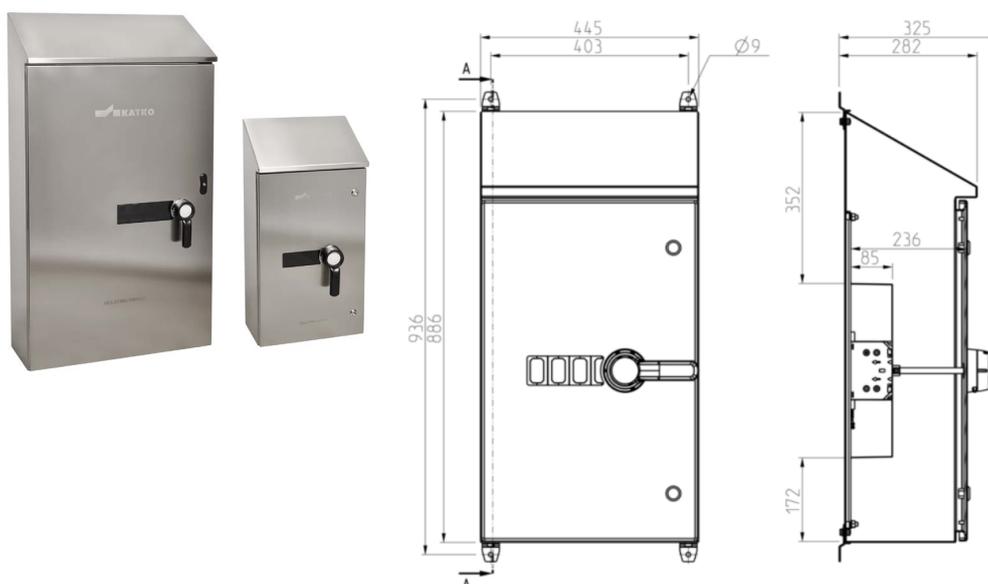
IP69K STAINLESS STEEL ENCLOSED ISOLATORS 16 - 160 A (KER)

| AISI 316 stainless steel enclosed
| Enclosure types, RA2, RA4 rated to IP69K
| IP69K safety switches protect against close range high pressure and high temperature spraydowns.
| Available in 2 different enclosure sizes and larger sizes on request
| 3 and 4 pole up to 125A, larger sizes available.
| Padlockable in OFF as standard
| Door interlock when ON, with lid interlock defeat mechanism
| Black handle or red/yellow safety handle versions
| Unthreaded cable gland entries provided for enclosures as standard for RA2, RA4.
| RA2: 16-40 A, 3P/4P: 2 x M25 / 1 x M16. 6P/8P types include additional entries.
| RA4: 63-160 A, 3P/4P: 2 x M32 / 1 x M16. 6P/8P types include additional entries.
| New KU 16 – 40 A switch types have "IsoSafe" printed on the enclosure lids. Refer auxiliary fitting below.

3 Pole Enclosed Isolators

Enclosure type	Width mm	Height mm	Depth mm	Material	IP rating
RA2	120	160	77	AISI 316 SS	66
RA4	160	260	90	AISI 316 SS	66

Auxiliaries
Part Numbers shown in BOLD below include the new KU compact switches 16A – 40A. Select new side mount auxiliaries to suit from the table on the following pages or from the KU series pages in this catalogue. Older KU_N switches, use top mount auxiliary types KU1V and KU2V which are incompatible.

EMC Applications (Electro-Magnetic Compatibility)
Katko KER_EMC enclosed switches are available using a single part number. However, to use a KER standard switch for an EMC application, EMC cable glands must be used. Refer EMC Enclosed switch types in this catalogue for EMC cable gland part numbers.

IP69K STAINLESS STEEL ENCLOSED ISOLATORS 16 - 160 A (KER)

3 Pole Enclosed Isolators

Part Number		AC-21A	400 V / 415 V / 690 V	AC-22A	400 V / 415 V / 690 V	AC-23A	400 V / 415 V / -	AC-23A	- / - / 690 V	Auxiliaries to suit
SS Enclosure Black Handle	SS Enclosure Yellow Red Handle	Ie / A	Ie / A		Ie / A	Ie / A	P / kW	Ie / A	P / kW	
KER316 IP69KRA2	KER316 YRIP69KRA2	16	16		16	7.5		16	11	1NO40KU (1NO) and / or 1NC40KU (1NC)
KER325 IP69KRA2	KER325 YRIP69KRA2	25	25		25	11		25	22	
KER340 IP69KRA2	KER340 YRIP69KRA2	40	40		40	22		25	22	
KER363 IP69KRA4	KER363 YRIP69KRA4	80	63		40	22		40	37	KU1V: 1 NO/NC CO KU2V: 2 NO/NC CO
KER380 IP69KRA4	KER380 YRIP69KRA4	100	80		63	30		40	37	
KER3100 IP69KRA4	KER3100 YRIP69KRA4	125	100		100	55		63	55	1.V160KU 2.V160KU
KER3125 IP69KRA4	KER3125 YRIP69KRA4	160	125		125	55		80	75	
KER3160 IP69KRA4	KER3160 YRIP69KRA4	160	160		160	90		100	90	

4 Pole Enclosed Isolators

Part Number		AC-21A	400 V / 415 V / 690 V	AC-22A	400 V / 415 V / 690 V	AC-23A	400 V / 415 V / -	AC-23A	- / - / 690 V	Auxiliaries to suit
SS Enclosure Black Handle	SS Enclosure Yellow Red Handle	Ie / A	Ie / A		Ie / A	Ie / A	P / kW	Ie / A	P / kW	
KER416 IP69KRA2	KER416 YRIP69KRA2	16	16		16	7.5		16	11	1NO40KU (1NO) and / or 1NC40KU (1NC)
KER425 IP69KRA2	KER425 YRIP69KRA2	25	25		25	11		25	22	
KER440 IP69KRA2	KER440 YRIP69KRA2	40	40		40	22		25	22	
KER463 IP69KRA4	KER463 YRIP69KRA4	80	63		40	22		40	37	KU1V: 1 NO/NC CO KU2V: 2 NO/NC CO
KER480 IP69KRA4	KER480 YRIP69KRA4	100	80		63	30		40	37	
KER4100 IP69KRA4	KER4100 YRIP69KRA4	125	100		100	55		63	55	1.V160KU 2.V160KU
KER4125 IP69KRA4	KER4125 YRIP69KRA4	160	125		125	55		80	75	
KER6160 IP69KRA4	KER4160 YRIP69KRA4	160	160		160	90		100	90	

6 Pole Enclosed Isolators

Part Number		AC-21A	400 V / 415 V / 690 V	AC-22A	400 V / 415 V / 690 V	AC-23A	400 V / 415 V / -	AC-23A	- / - / 690 V	Auxiliaries to suit
SS Enclosure Black Handle	SS Enclosure Yellow Red Handle	Ie / A	Ie / A		Ie / A	Ie / A	P / kW	Ie / A	P / kW	
KER616 IP69KRA4	KER616 YRIP69KRA4	16	16		16	7.5		16	11	1NO40KU (1NO) and / or 1NC40KU (1NC)
KER625 IP69KRA4	KER625 YRIP69KRA4	25	25		25	11		25	22	
KER640 IP69KRA4	KER640 YRIP69KRA4	40	40		40	22		25	22	
KER663 IP69KRA4	KER663 YRIP69KRA4	80	63		40	22		40	37	KU1V: 1 NO/NC CO KU2V: 2 NO/NC CO
KER680 IP69KRA4	KER680 YRIP69KRA4	100	80		63	30		40	37	

8 Pole Enclosed Isolators

Part Number		AC-21A	400 V / 415 V / 690 V	AC-22A	400 V / 415 V / 690 V	AC-23A	400 V / 415 V / -	AC-23A	- / - / 690 V	Auxiliaries to suit
SS Enclosure Black Handle	SS Enclosure Yellow Red Handle	Ie / A	Ie / A		Ie / A	Ie / A	P / kW	Ie / A	P / kW	
KER816 IP69KRA4	KER816 YRIP69KRA4	16	16		16	7.5		16	11	1NO40KU (1NO) and / or 1NC40KU (1NC)
KER825 IP69KRA4	KER825 YRIP69KRA4	25	25		25	11		25	22	
KER840 IP69KRA4	KER840 YRIP69KRA4	40	40		40	22		25	22	
KER863 IP69KRA4	KER863 YRIP69KRA4	80	63		40	22		40	37	KU1V: 1 NO/NC CO KU2V: 2 NO/NC CO
KER880 IP69KRA4	KER880 YRIP69KRA4	100	80		63	30		40	37	

IP69K STAINLESS STEEL SLOPED TOP ENCLOSED ISOLATORS 16 - 160 A

| AISI 316 stainless steel enclosed
| Enclosure types, RA2RS, RA4RS rated to IP69K
| IP69K safety switches protect against close range high pressure and high temperature spraydowns.
| Available in 2 different enclosure sizes and larger sizes on request
| 3 and 4 pole standard, 6 or 8 pole optional.
| Rated up to 160A, larger sizes on request.
| Door interlock when ON, with lid interlock defeat mechanism
| Black handle or red/yellow safety handle versions
| LK11 handle, Black handle or red/yellow safety handle versions
| Sloped roof for extra protection
| Where hygiene and high protection against corrosion are required
| Padlockable in OFF as standard, ON locking optional.
| Cable gland entries provided for enclosure type RA2S, RA4S
| Unthreaded cable gland entries provided for enclosures as below,
  • RA2RS: 16-40 A, 3P/4P: 2 x M25 / 1 x M16. 6P/8P types include additional entries.
  • RA4RS: 63-125 A, 3P/4P: 2 x M32 / 1 x M16. 6P/8P types include additional entries.
| New KU 16 – 40 A switch types have "IsoSafe" printed on the enclosure lids. Refer auxiliary fitting below.

Outline dimensions:

Enclosure type	Width mm	Height mm	Depth mm	Material	IP rating
RA2	120	160	77	AISI 316 SS	66
RA4	160	260	90	AISI 316 SS	66

Auxiliaries
Part Numbers shown in BOLD below include the new KU compact switches 16A – 40A. Select new side mount auxiliaries to suit from the table below or from the KU series pages in this catalogue. Older KU_N switches, use top mount auxiliary types KU1V and KU2V which are incompatible.

EMC Applications (Electro-Magnetic Compatibility)
Katko KER_EMC enclosed switches are available using a single part number. However, to use a KER standard switch for an EMC application, EMC cable glands must be used. Refer EMC Enclosed switch types in this catalogue for EMC cable gland part numbers.

IP69K STAINLESS STEEL ENCLOSED ISOLATORS, IP69K, 16 - 160 A (KER)

3 Pole Enclosed Isolators

Part Number		AC-21A	400 V 415 V 690 V	AC-22A	400 V 415 V 690 V	AC-23A	400 V 415 V -	AC-23A	- - 690 V	Auxiliaries to suit
SS Enclosure Black Handle	SS Enclosure Yellow Red Handle		Ie / A		Ie / A	Ie / A	P / kW	Ie / A	P / kW	
KER316 IP69KRA2S	KER316 YRIP69KRA2S	16		16		16	7.5	16	11	NO40KU and / or 1NC40KU
KER325 IP69KRA2S	KER325 YRIP69KRA2S	25		25		25	11	25	22	
KER340 IP69KRA2S	KER340 YRIP69KRA2S	40		40		40	22	25	22	
KER363 IP69KRA4S	KER363 YRIP69KRA4S	80		63		40	22	40	37	KU1V KU2V
KER380 IP69KRA4S	KER380 YRIP69KRA4S	100		80		63	30	40	37	
KER3100 IP69KRA4S	KER3100 YRIP69KRA4S	125		100		100	55	63	55	1.V160KU 2.V160KU
KER3125 IP69KRA4S	KER3125 YRIP69KRA4S	160		125		125	55	80	75	
KER3160 IP69KRA4S	KER3160 YRIP69KRA4S	160		160		160	90	100	90	

4 Pole Enclosed Isolators

Part Number		AC-21A	400 V 415 V 690 V	AC-22A	400 V 415 V 690 V	AC-23A	400 V 415 V -	AC-23A	- - 690 V	Auxiliaries to suit
SS Enclosure Black Handle	SS Enclosure Yellow Red Handle		Ie / A		Ie / A	Ie / A	P / kW	Ie / A	P / kW	
KER416 IP69KRA2S	KER416 YRIP69KRA2S	16		16		16	7.5	16	11	NO40KU and / or 1NC40KU
KER425 IP69KRA2S	KER425 YRIP69KRA2S	25		25		25	11	25	22	
KER440 IP69KRA2S	KER440 YRIP69KRA2S	40		40		40	22	25	22	
KER463 IP69KRA4S	KER463 YRIP69KRA4S	80		63		40	22	40	37	KU1V KU2V
KER480 IP69KRA4S	KER480 YRIP69KRA4S	100		80		63	30	40	37	
KER4100 IP69KRA4S	KER4100 YRIP69KRA4S	125		100		100	55	63	55	1.V160KU 2.V160KU
KER4125 IP69KRA4S	KER4125 YRIP69KRA4S	160		125		125	55	80	75	
KER4160 IP69KRA4S	KER4160 YRIP69KRA4S	160		160		160	90	100	90	

6 Pole Enclosed Isolators

Part Number		AC-21A	400 V 415 V 690 V	AC-22A	400 V 415 V 690 V	AC-23A	400 V 415 V -	AC-23A	- - 690 V	Auxiliaries to suit
SS Enclosure Black Handle	SS Enclosure Yellow Red Handle		Ie / A		Ie / A	Ie / A	P / kW	Ie / A	P / kW	
KER616 IP69KRA2S	KER616 YRIP69KRA2S	16		16		16	7.5	16	11	NO40KU and / or 1NC40KU
KER625 IP69KRA2S	KER625 YRIP69KRA2S	25		25		25	11	25	22	
KER640 IP69KRA2S	KER640 YRIP69KRA2S	40		40		40	22	25	22	
KER663 IP69KRA4S	KER663 YRIP69KRA4S	80		63		40	22	40	37	KU1V KU2V
KER680 IP69KRA4S	KER680 YRIP69KRA4S	100		80		63	30	40	37	

8 Pole Enclosed Isolators

Part Number		AC-21A	400 V 415 V 690 V	AC-22A	400 V 415 V 690 V	AC-23A	400 V 415 V -	AC-23A	- - 690 V	Auxiliaries to suit
SS Enclosure Black Handle	SS Enclosure Yellow Red Handle		Ie / A		Ie / A	Ie / A	P / kW	Ie / A	P / kW	
KER816 IP69KRA2S	KER816 YRIP69KRA2S	16		16		16	7.5	16	11	NO40KU and / or 1NC40KU
KER825 IP69KRA2S	KER825 YRIP69KRA2S	25		25		25	11	25	22	
KER840 IP69KRA2S	KER840 YRIP69KRA2S	40		40		40	22	25	22	
KER863 IP69KRA4S	KER863 YRIP69KRA4S	80		63		40	22	40	37	KU1V KU2V
KER880 IP69KRA4S	KER880 YRIP69KRA4S	100		80		63	30	40	37	

SHEET STEEL ENCLOSED ISOLATORS 16 - 1600 A (KET)

| IP65.
| Ratings from 16A to 1600A.
| 3P, 4P, 6P, 8 Pole versions.
| High corrosion resistance.
| Wide operating temperature range.
| Padlockable OFF, lock ON optional.
| Door interlock when ON, with lid interlock defeat mechanism
| High UV resistance.
| High resistance against many chemicals.
| Cable gland entries provided for enclosure T3.
| Gland plate entries provided for enclosures T7, T10A
| New KU 16 – 40A switch types have "IsoSafe" printed on the enclosure lids. Refer auxiliary fitting below.

Outline dimensions:

Enclosure type	Width mm	Height mm	Depth mm	Material	IP rating
T3	150	200	120	Sheet Steel	65
T4	150	300	120	Sheet Steel	65
T5	300	400	120	Sheet Steel	65
T6	400	600	200	Sheet Steel	65
T7	600	800	250	Sheet Steel	65
T10A	600	1200	300	Sheet Steel	65

Auxiliaries
Part Numbers shown in BOLD below include the new KU compact switches 16A – 40A. Select new side mount auxiliaries to suit from the table on the following pages or from the KU series pages in this catalogue. Older KU_N switches, use top mount auxiliary types KU1V and KU2V which are incompatible.

EMC Applications (Electro-Magnetic Compatibility)
Katko KET_EMC enclosed switches are available using a single part number. However, to use a KET standard switch for an EMC application, EMC cable glands must be used. Refer EMC Enclosed switch types in this catalogue for EMC cable gland part numbers.
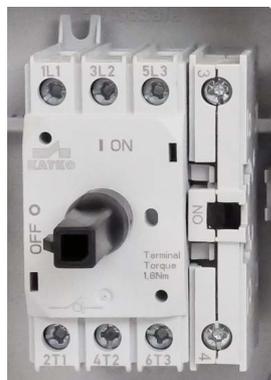
T3 Enclosure >
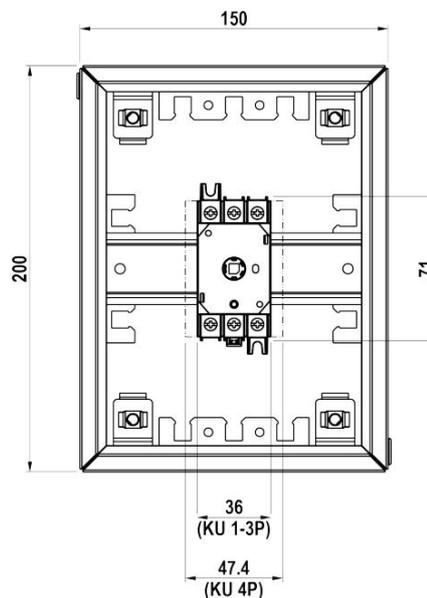
SHEET STEEL ENCLOSED ISOLATORS 16 - 1600 A (KET)

3 Pole Enclosed Isolators

Part Number		AC-21A	400 V / 415 V / 690 V	AC-22A	400 V / 415 V / 690 V	AC-23A	400 V / 415 V / -	AC-23A	- / - / 690 V	Auxiliaries to suit
Grey Enclosure Black Handle	Grey Enclosure Yellow Red Handle	Ie / A	Ie / A		Ie / A	P / kW	Ie / A	P / kW	
KET340 T3	KET340YR T3	40	40		40	22	25	22	1NO40KU or 1NC40KU
KET363 T3	KET363YR T3	80	63		40	22	40	37	KU1V: 1 NO/NC CO
KET380 T3	KET380YR T3	100	80		63	30	40	37	KU2V: 2 NO/NC CO
KET3100 T4	KET3100YR T4	125	100		100	55	63	55	
KET3125 T4	KET3125 YR T4	160	125		125	55	80	75	
KET3160 T5	KET3160 YR T5	160	160		160	90	100	90	1.V160KU (1 NO/NC CO) or
KET3200 T6	KET3200 YR T6	200	200		200	110	200	160	
KET3250 T6	KET3250 YR T6	250	250		250	132	250	250	
KET3400 T6	KET3400 YR T6	400	400		400	200	400	355	2.V160KU (2 NO/NC CO)
KET3630 T7	KET3630 YR T7	630	630		630	355	630	630	
KET3800 T10A	KET3800 YR T10A	800	800		800	400	800	800	
KET31000T T10A	KET31000T YR T10A	1000	1000		1000	560	1000	800	VKT1V160 (1NO+1NC)
KET31250T T10A	KET31250T YR T10A	1250	1250		1250	710	1250	1000	
KET31600T T10A	KET31600T YR T10A	1600	1600		1600	900	1600	1200	

4 Pole Enclosed Isolators

Part Number		AC-21A	400 V / 415 V / 690 V	AC-22A	400 V / 415 V / 690 V	AC-23A	400 V / 415 V / -	AC-23A	- / - / 690 V	Auxiliaries to suit
Grey Enclosure Black Handle	Grey Enclosure Yellow Red Handle	Yellow Red Handle	Ie / A		Ie / A	P / kW	Ie / A	P / kW	
KET440 T3	KET440YR T3	40	40		40	22	25	22	1NO40KU or 1NC40KU
KET463 T3	KET463YR T3	80	63		40	22	40	37	KU1V: 1 NO/NC CO
KET480 T3	KET480YR T3	100	80		63	30	40	37	KU2V: 2 NO/NC CO
KET4100 T4	KET4100YR T4	125	100		100	55	63	55	
KET4125 T4	KET4125 YR T4	160	125		125	55	80	75	
KET4160 T5	KET4160 YR T5	160	160		160	90	100	90	1.V160KU (1 NO/NC CO) or
KET4200 T6	KET4200 YR T6	200	200		200	110	200	160	
KET4250 T6	KET4250 YR T6	250	250		250	132	250	250	
KET4400 T6	KET4400 YR T6	400	400		400	200	400	355	2.V160KU (2 NO/NC CO)
KET4630 T7	KET4630 YR T7	630	630		630	355	630	630	
KET4800 T10A	KET4800 YR T10A	800	800		800	400	800	800	
KET41000T T10A	KET41000T YR T10A	1000	1000		1000	560	1000	800	
KET41250T T10A	KET41250T YR T10A	1250	1250		1250	710	1250	1000	VKT1V160 (1NO+1NC)
KET41600T T10A	KET41600T YR T10A	1600	1600		1600	900	1600	1200	

For applications such as when isolators for AC drives or other harmonic emitting applications, Katko EMC enclosed switches are available using a single part number. In order to use a standard metal enclosed switch for an EMC application, EMC cable glands must be used. Refer EMC switch types on the following pages for EMC cable glands.

SHEET STEEL ENCLOSED ISOLATORS 16 - 1600 A (KET)

6 Pole Enclosed Isolators

Part Number		AC-21A	400 V 415 V 690 V	AC-22A	400 V 415 V 690 V	AC-23A	400 V 415 V -	AC-23A	- - 690 V	Auxiliaries to suit
Grey Enclosure Black Handle	Grey Enclosure Yellow Red Handle	Ie / A		Ie / A		Ie / A	P / kW	Ie / A	P / kW	
KET640 T3	KET640YR T3	40		40		40	22	25	22	1NO40KU or 1NC40KU
KET663 T3	KET663YR T3	80		63		40	22	40	37	KU1V: 1 NO/NC CO KU2V: 2 NO/NC CO
KET680 T3	KET680YR T3	100		80		63	30	40	37	
KET6100 T4	KET6100YR T4	125		100		100	55	63	55	1.V160KU (1 NO/NC CO) or 2.V160KU (2 NO/NC CO)
KET6125 T4	KET6125 YR T4	160		125		125	55	80	75	
KET6160 T5	KET6160 YR T5	160		160		160	90	100	90	
KET6200 T6	KET6200 YR T6	200		200		200	110	200	160	
KET6250 T6	KET6250 YR T6	250		250		250	132	250	250	
KET6400 T6	KET6400 YR T6	400		400		400	200	400	355	

8 Pole Enclosed Isolators

Part Number		AC-21A	400 V 415 V 690 V	AC-22A	400 V 415 V 690 V	AC-23A	400 V 415 V -	AC-23A	- - 690 V	Auxiliaries to suit
Grey Enclosure Black Handle	Grey Enclosure Yellow Red Handle	Yellow Red Handle		Ie / A		Ie / A	P / kW	Ie / A	P / kW	
KET840 T3	KET840YR T3	40		40		40	22	25	22	1NO40KU or 1NC40KU
KET863 T3	KET863YR T3	80		63		40	22	40	37	KU1V: 1 NO/NC CO KU2V: 2 NO/NC CO
KET880 T3	KET880YR T3	100		80		63	30	40	37	
KET8100 T4	KET8100YR T4	125		100		100	55	63	55	1.V160KU 2.V160KU
KET8125 T4	KET8125 YR T4	160		125		125	55	80	75	
KET8160 T5	KET8160 YR T5	160		160		160	90	100	90	

EMC PROTECTED ENCLOSED ISOLATORS

| Electro-Magnetic Compatibility for safe use in electromagnetic disturbance applications.
| Tested according to EN 55011 with EMC glands with shielded power cables.
| IP ratings vary from IP65 to IP66 depending on enclosure type.
| Enclosed types available: Polycarbonate, Aluminium, Sheet Steel, Stainless Steel.
| Ampere ratings 16A to 630A.
| 1P, 3P, 4P, 6P and 8 Pole versions.
| Padlockable OFF, lock ON optional.
| Door interlock when ON, with lid interlock defeat mechanism
| EMC cable glands included as standard. More info next page.
| Cable gland entries standard in enclosures up to 160 A.
| Handle types available are black and yellow-red.
| New KU 16 – 40A switch types have "IsoSafe" printed on the enclosure lids.

Outline dimensions:

Enclosure type	Width mm	Height mm	Depth mm	Material	IP rating
A2	104	158.5	79.5	Aluminium	66
A4	162	262	108	Aluminium	66
M2	96.4	130.4	106	Polycarbonate	66
M3	144	190	96	Polycarbonate	65
M4	180	255	100	Polycarbonate	65
T5	300	400	120	Sheet Steel	65
T6	400	600	200	Sheet Steel	65
T7	600	800	250	Sheet Steel	65
RA2	120	160	77	AISI 316 SS	66
RA4	160	260	90	AISI 316 SS	66
RA5	300	420	120	AISI 316 SS	66

Auxiliaries
Part Numbers shown in BOLD below include the new KU compact 16 – 40 A switches.
Select new side mount auxiliaries to suit from the table on the following pages or from the KU series pages in this catalogue.
Older KU_N switches, use top mount auxiliary types KU1V and KU2V which are incompatible.

About EMC types in different Katko enclosures
| **KEM** Polycarbonate EMC enclosed switches include a copper spray coating inside the enclosure, and 2 x Nickel-plated Brass, EMC cable glands with a lock nut.
| **KEA** Aluminium EMC enclosed switches are intrinsically EMC resistant. They are supplied with 2 x Nickel-plated Brass, EMC cable glands as standard. EMC glands are also available individually for spares or replacements.
| **KER** Stainless Steel EMC enclosed switches are intrinsically EMC resistant. They are supplied with 2 x Nickel-plated Brass, EMC cable glands with lock nuts as standard. EMC glands are also available individually for spares or replacements.
| **KET** Sheet Steel EMC enclosed switches are intrinsically EMC resistant. They are supplied with 2 x Nickel-plated Brass, EMC cable glands with lock nuts as standard. EMC glands are also available individually for spares or replacements.

Questions and answers about EMC enclosed switches
What the difference is between standard brass and EMC brass or stainless steel EMC glands?
| Standard cable glands are not suitable for EMC use.
| EMC glands have contact springs that make contact with the shielding of the cable for correct earthing.
| Katko EMC cable glands are Nickel plated brass. However, brass or stainless steel types are common.
| EMC paint piercing locking nuts should be used with painted enclosures (KET types).

Are Katko KER Stainless Steel IP69K enclosed switches suitable for EMC applications?
| Yes, if they are supplied with the appropriate EMC cable glands, the glands themselves will have the same IP69K rating.

Are Katko EMC cable glands available for separate order for use with various metal enclosures?
| Yes - refer following pages.

EMC PROTECTED ENCLOSED ISOLATORS 16 - 630 A

POLYCARBONATE ENCLOSED, 16 A TO 160 A

M2 enclosures have 2 x M20/25 knockouts, top and bottom.
M3 enclosures have 2 x M25/32 knockouts and 1 x M16 knockout, top and bottom.

EMC cable glands included

3 Pole Enclosed Isolators

Part Number		AC-21A	400 V 415 V 690 V	AC-22A	400 V 415 V 690 V	AC-23A	400 V 415 V -	AC-23A	- - 690 V	Auxiliaries to suit
Grey Enclosure Black Handle	Enclosure with Yellow Red Handle		Ie / A		Ie / A	Ie / A	P / kW	Ie / A	P / kW	
KEM316 M2 EMC	KEM316YR M2 EMC	16		16		16	7.5	16	11	1NO40KU (1NO) or 1NC40KU (1NC)
KEM325 M2 EMC	KEM325YR M2 EMC	25		25		25	11	25	22	
KEM340 M2 EMC	KEM340YR M2 EMC	40		40		40	22	25	22	
KEM363 M3 EMC	KEM363YR M3 EMC	80		63		40	22	40	37	KU1V: 1 NO/NC CO KU2V: 2 NO/NC CO
KEM380 M3 EMC	KEM380YR M3 EMC	100		80		63	30	40	37	
KEM3125 M4 EMC	KEM3125YR M4 EMC	160		125		125	55	80	75	1.V160KU 2.V160KU
KEM3160 MF11 EMC	KEM3160YR MF11 EMC	160		160		160	90	100	90	

4 Pole Enclosed Isolators

KEM416 M2 EMC	KEM416YR M2 EMC	16		16		16	7.5	16	11	1NO40KU (1NO) or 1NC40KU (1NC)
KEM425 M2 EMC	KEM425YR M2 EMC	25		25		25	11	25	22	
KEM440 M2 EMC	KEM440YR M2 EMC	40		40		40	22	25	22	
KEM463 M3 EMC	KEM463YR M3 EMC	80		63		40	22	40	37	KU1V: 1 NO/NC CO KU2V: 2 NO/NC CO
KEM480 M3 EMC	KEM480YR M3 EMC	100		80		63	30	40	37	
KEM4125 M4 EMC	KEM4125YR M4 EMC	160		125		125	55	80	75	1.V160KU 2.V160KU
KEM4160 MF11 EMC	KEM4160YR MF11 EMC	160		160		160	90	100	90	

ALUMINIUM ENCLOSED, 16 A TO 160 A

A2 and A4 enclosures have 2 large threaded cable entries and 1 x threaded M16 entry for auxiliary wiring. Bottom entry only.

3 Pole Enclosed Isolators

Part Number		AC-21A	400 V 415 V 690 V	AC-22A	400 V 415 V 690 V	AC-23A	400 V 415 V -	AC-23A	- - 690 V	Auxiliaries to suit
Grey Enclosure Black Handle	Grey Enclosure Yellow Red Handle		Ie / A		Ie / A	Ie / A	P / kW	Ie / A	P / kW	
KEA316 A2 EMC	KEA316YR A2 EMC	16		16		16	7.5	16	11	1NO40KU (1NO) or 1NC40KU (1NC)
KEA325 A2 EMC	KEA325YR A2 EMC	25		25		25	11	25	22	
KEA340 A2 EMC	KEA340YR A2 EMC	40		40		40	22	25	22	
KEA363 A4 EMC	KEA363YR A4 EMC	80		63		40	22	40	37	KU1V: 1 NO/NC CO KU2V: 2 NO/NC CO
KEA380 A4 EMC	KEA380YR A4 EMC	100		80		63	30	40	37	
KEA3125 A4 EMC	KEA3125YR A4 EMC	160		125		125	55	80	75	1.V160KU 2.V160KU
KEA3160 A4 EMC	KEA3160YR A4 EMC	160		160		160	90	100	90	

4 Pole Enclosed Isolators

KEA416 A2 EMC	KEA416YR A2 EMC	16		16		16	7.5	16	11	1NO40KU (1NO) or 1NC40KU (1NC)
KEA425 A2 EMC	KEA425YR A2 EMC	25		25		25	11	25	22	
KEA440 A2 EMC	KEA440YR A2 EMC	40		40		40	22	25	22	
KEA463 A4 EMC	KEA463YR A4 EMC	80		63		40	22	40	37	KU1V: 1 NO/NC CO KU2V: 2 NO/NC CO
KEA480 A4 EMC	KEA480YR A4 EMC	100		80		63	30	40	37	
KEA4125 A4 EMC	KEA4125YR A4 EMC	160		125		125	55	80	75	1.V160KU 2.V160KU
KEA4160 A4 EMC	KEA4160YR A4 EMC	160		160		160	90	100	90	

Cable Glands EMC types, less lock nuts

Note: 2 x EMC cable glands included when enclosed EMC switches are ordered.

Part Number	Description	Suits enclosure types
KPKM16MEMC	EMC NP Brass Cable Gland M16	M2, M3, M4, MF11, A2, A4, RA2, RA2R, RA2RS, RA4, RA4R, RA4RS, T3 – T10
KPKM20MEMC	EMC NP Brass Cable Gland M20	M2, M4, MF11, A2, A4, RA4, RA4R, RA4RS, T4 – T10
KPKM25MEMC	EMC NP Brass Cable Gland M25	M2, M3, M4, MF11, A2, A4, RA2, RA2R, RA2RS, RA4, RA4R, RA4RS, T3 – T10
KPKM32MEMC	EMC NP Brass Cable Gland M32	M3, M4, A4, RA4, RA4R, RA4RS. T4 – T10
KPKM40MEMC	EMC NP Brass Cable Gland M40	M3, M4, MF11, A4, RA4, RA4R, RA4RS, T4 – T10
KPKM50MEMC	EMC NP Brass Cable Gland M50	RA5, RA5R, RA5RS, R6 – R10, T4 – T10
KPKM63MEMC	EMC NP Brass Cable Gland M63	RA5, RA5R, RA5RS, R6 – R10, T4 – T10

EMC PROTECTED ENCLOSED ISOLATORS 16 - 630 A

STAINLESS STEEL ENCLOSED, 16 A TO 160 A

3 Pole Enclosed Isolators

Part Number		AC-21A	400 V / 415 V / 690 V	AC-22A	400 V / 415 V / 690 V	AC-23A	400 V / 415 V / -	AC-23A	- / - / 690 V	Auxiliaries to suit
Grey Enclosure Black Handle	Enclosure with Yellow Red Handle	Ie / A	Ie / A		Ie / A		P / kW	Ie / A	P / kW	
KER316 RA2 EMC	KER316YR RA2 EMC	16	16		16		7.5	16	11	1NO40KU (1NO) or 1NC40KU (1NC)
KER325 RA2 EMC	KER325YR RA2 EMC	25	25		25		11	25	22	
KER340 RA2 EMC	KER340YR RA2 EMC	40	40		40		22	25	22	
KER363 RA4 EMC	KER363YR RA4 EMC	80	63		40		22	40	37	KU1V: 1 NO/NC CO KU2V: 2 NO/NC CO
KER380 RA4 EMC	KER380YR RA4 EMC	100	80		63		30	40	37	
KER3125 RA4 EMC	KER3125YR RA4 EMC	160	125		125		55	80	75	1.V160KU 2.V160KU
KER3160 RA5 EMC	KER3160YR RA5 EMC	160	160		160		90	100	90	

4 Pole Enclosed Isolators

KER416 RA2 EMC	KER416YR RA2 EMC	16	16		16		7.5	16	11	1NO40KU (1NO) or 1NC40KU (1NC)
KER425 RA2 EMC	KER425YR RA2 EMC	25	25		25		11	25	22	
KER440 RA2 EMC	KER440YR RA2 EMC	40	40		40		22	25	22	
KER463 RA4 EMC	KER463YR RA4 EMC	80	63		40		22	40	37	KU1V: 1 NO/NC CO KU2V: 2 NO/NC CO
KER480 RA4 EMC	KER480YR RA4 EMC	100	80		63		30	40	37	
KER4125 RA4 EMC	KER4125YR RA4 EMC	160	125		125		55	80	75	1.V160KU 2.V160KU
KER4160 RA5 EMC	KER4160YR RA5 EMC	160	160		160		90	100	90	

SHEET STEEL ENCLOSED, 100 A TO 630 A

3 Pole Enclosed Isolators

Part Number		AC-21A	400 V / 415 V / 690 V	AC-22A	400 V / 415 V / 690 V	AC-23A	400 V / 415 V / -	AC-23A	- / - / 690 V	Auxiliaries to suit
Grey Enclosure Black Handle	Enclosure with Yellow Red Handle	Ie / A	Ie / A		Ie / A		P / kW	Ie / A	P / kW	
KET3100 T4 EMC	KET3100 YR T4 EMC	125	100		100		55	63	55	1.V160KU (1 NO/NC CO) or 2.V160KU (2 NO/NC CO)
KET3125 T4 EMC	KET3125 YR T4 EMC	160	125		125		55	80	75	
KET3160 T5 EMC	KET3160 YR T5 EMC	160	160		160		90	100	90	
KET3200 T6 EMC	KET3200 YR T6 EMC	200	200		200		110	200	160	
KET3250 T6 EMC	KET3250 YR T6 EMC	250	250		250		132	250	250	
KET3400 T6 EMC	KET3400 YR T6 EMC	400	400		400		200	400	355	
KET3630 T7 EMC	KET3630 YR T7 EMC	630	630		630		355	630	630	

4 Pole Enclosed Isolators

KET4100 T4 EMC	KET4100 YR T4 EMC	125	100		100		55	63	55	1.V160KU (1 NO/NC CO) or 2.V160KU (2 NO/NC CO)
KET4125 T4 EMC	KET4125 YR T4 EMC	160	125		125		55	80	75	
KET4160 T5 EMC	KET4160 YR T5 EMC	160	160		160		90	100	90	
KET4200 T6 EMC	KET4200 YR T6 EMC	200	200		200		110	200	160	
KET4250 T6 EMC	KET4250 YR T6 EMC	250	250		250		132	250	250	
KET4400 T6 EMC	KET4400 YR T6 EMC	400	400		400		200	400	355	
KET4630 T7 EMC	KET4630 YR T7 EMC	630	630		630		355	630	630	

Cable Glands EMC types, less lock nuts

Part Number	Description	Suits enclosure types
KPKM16MEMC	EMC NP Brass Cable Gland M16	M2, M3, M4, MF11, A2, A4, RA2, RA2R, RA2RS, RA4, RA4R, RA4RS, T3 – T10
KPKM20MEMC	EMC NP Brass Cable Gland M20	M2, M4, MF11, A2, A4, RA4, RA4R, RA4RS, T4 – T10
KPKM25MEMC	EMC NP Brass Cable Gland M25	M2, M3, M4, MF11, A2, A4, RA2, RA2R, RA2RS, RA4, RA4R, RA4RS, T3 – T10
KPKM32MEMC	EMC NP Brass Cable Gland M32	M3, M4, A4, RA4, RA4R, RA4RS. T4 – T10
KPKM40MEMC	EMC NP Brass Cable Gland M40	M3, M4, MF11, A4, RA4, RA4R, RA4RS, T4 – T10
KPKM50MEMC	EMC NP Brass Cable Gland M50	RA5, RA5R, RA5RS, R6 – R10, T4 – T10

Note: 2 x EMC cable glands included when enclosed EMC switches are ordered.

SIDE OPERATED POLYCARBONATE ENCLOSED ISOLATORS 25 A (KSM)

| IP67 rated.
| Fully rated Load Break Switch.
| Padlockable handle in OFF position - allows one padlock.
| Handle sealable in ON position.
| High resistance against UV and many chemicals.
| Enclosure can be sealed against removal of lid.
| Membrane gasket cable entries with strain relief, 2 x 20mm on top, 2 x 20mm on bottom and 2 x 15mm on base.
| Membrane gasket cable entries are permanently fixed in position, and allow the user to punch a hole and feed the cable through. Nylon cable glands optional.
| Wall mounting dimensions: 90 x 62 mm.
| Available 2, 3, 4 poles.
| 1.5 - 16 mm² cable terminals for single or 3 phase connections.
| 1.5 - 16 mm² Neutral and earth terminals on 3P switch, earth on 2P and 4P switches.
| Door interlock in ON position.
| Applications include air-conditioning (split units, domestic HVAC), Neon light assemblies etc.

Outline dimensions:

Enclosure type	Width mm	Height mm	Depth mm	Material	IP rating

Waterproof membrane sealing cable entry standard

Cable gland option

Rear membrane cable entries
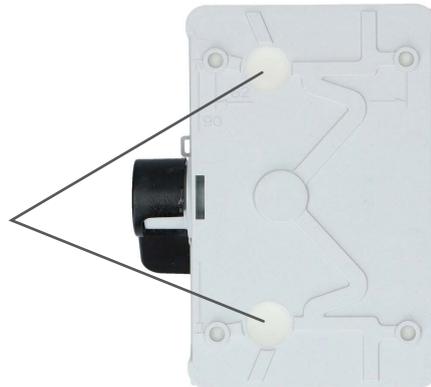
| M1 | 83 | 128 | 55.6 | Polycarbonate | 67 |

KSM side operated switches – Polycarbonate

Part Number		AC-21A	400 V / 415 V / 690 V	AC-22A	400 V / 415 V / 690 V	AC-23A	400 V / 415 V / -	AC-23A	- / - / 690 V	Auxiliaries to suit
Grey Enclosure Black Handle	Enclosure with Yellow Red Handle	Ie / A		Ie / A		Ie / A	P / kW	Ie / A	P / kW	
KSM225 M1	2	25		25		25	11	-	-	
KSM325 M1	3	25		25		25	11	-	-	
KSM425 M1	4	25		25		25	11	-	-	

FIRE RATED ALUMINIUM ENCLOSED ISOLATORS 16 A TO 200 A

Fire rated Aluminium Enclosed Isolators are suitable for installations that re quire high durability.
KEA_FR types have been to 200°C or 300°C for up to 2 or 3 hours, depending on the type.

| F200 rated 200°C for 3 hours
| F300 rated 300°C for 2 hours
| Rated to IEC 60947-3, AS/NZS 60947-3.
| IP66 rating in enclosures A2 and A4
| IP65 rating in enclosures A5 and A6
| Available up to 200 A
| Door interlock when ON, with lid interlock defeat mechanism
| Padlockable, OFF locking as standard, Lock ON types refer next page.
| High corrosion and UV resistance
| Suitable for extreme weather conditions
| Knock-out cable gland entries provided for A2 enclosure types.
| Users make their own entries as required in A4 enclosures.
| Gland plate entries provided for A5 enclosure.
| Standard Nickel plated brass or stainless steel cable glands can be used.
| Standard Katko auxiliary contact switches can be used for FR2 types.
| Suitable for use in Tunnels, Car Parks, Industrial Buildings, Warehouses, other smoke and heat applications.
| Load Break Switches used are the KU316N – KU380N series, and use auxiliaries for that series.

Outline dimensions:

Enclosure type	Width mm	Height mm	Depth mm	Material	IP rating
A2	104	158.5	79.5	Aluminium	66
A4	162	262	108	Aluminium	66
A5	300	400	170	Aluminium	65

EMC Applications (Electro-Magnetic Compatibility)

Katko KEA_EMC enclosed switches are available using a single part number. However, to use a KEA standard switch for an EMC application, EMC cable glands must be used. Refer EMC Enclosed switch types in this catalogue for EMC cable gland part numbers.

AC drives application with fire rated isolators >

FIRE RATED ALUMINIUM ENCLOSED ISOLATORS 16 A TO 200 A (KEA)

3 Pole, LOCK OFF types

Part Number		AC-21A	AC-22A	AC-23A	AC-23A	AC-23A	-	Auxiliaries to suit
		400 V	400 V	400 V	400 V	-	-	
F200 3H 200°C for 3 hours	F300 2H 300°C for 2 hours	415 V	415 V	415 V	415 V	-	690 V	
		690 V	690 V	-	-	-		
		le / A	le / A	le / A	P / kW	le / A	P / kW	
KEA316 FR A2	KEA316 FR3 A2	25	16	16	7.5	16	11	KU1V 1 NO/NC CO KU2V 2 NO/NC CO
KEA325 FR A2	KEA325 FR3 A2	40	25	25	11	25	22	
KEA340 FR A2	KEA340 FR3 A2	63	40	40	22	40	30	
KEA363 FR A4	KEA363 FR3 A4	80	63	40	22	40	37	
KEA380 FR A4	KEA380 FR3 A4	100	80	63	30	40	37	
KEA3125C FR A4	-	160	125	125	55	80	75	1.V160KU (1 NO/NC CO) or 2.V160KU (2 NO/NC CO)
-	KEA3125C FR3 A4	160	125 415V max.	100	55	80	55	
KEA3160C FR A4	-	160	160	160	90	100	90	
-	KEA3160C FR3 A4	200	160 415V max.	135	75	125	90	
KEA3200C FR A5	KEA3200C FR3 A5	200	200	200	110	-	-	

3 Pole, LOCK ON types

Part Number		AC-21A	AC-22A	AC-23A	AC-23A	AC-23A	-	Auxiliaries to suit
		400 V	400 V	400 V	400 V	-	-	
F200 3H 200°C for 3 hours	F300 2H 300°C for 2 hours	415 V	415 V	415 V	415 V	-	690 V	
		690 V	690 V	-	-	-		
		le / A	le / A	le / A	P / kW	le / A	P / kW	
KEA316 FRLON A2	KEA316 FR3LONA2	25	16	16	7.5	16	11	KU1V KU2V
KEA325 FRLON A2	KEA325 FR3LONA2	40	25	25	11	25	22	
KEA340 FRLON A2	KEA340 FR3LONA2	63	40	40	22	40	30	
KEA363 FRLON A4	KEA363 FR3LONA4	80	63	40	22	40	37	
KEA380 FRLON A4	KEA380 FR3LONA4	100	80	63	30	40	37	
KEA3125CFRLONA4	-	160	125	125	55	80	75	1.V160KU or 2.V160KU
-	KEA3125CFR3LONA4	160	125 415V max.	100	55	80	55	
KEA3160CFRLONA4	-	160	160	160	90	100	90	
-	KEA3160CFR3LONA4	200	160 415V max.	135	75	125	90	
KEA3200CFRLONA5	KEA3200CFR3LONA5	200	200	200	110	-	-	

4 Pole, LOCK OFF types [1]

Part Number		AC-21A	AC-22A	AC-23A	AC-23A	AC-23A	-	Auxiliaries to suit
		400 V	400 V	400 V	400 V	-	-	
F200 3H 200°C for 3 hours	F300 2H 300°C for 2 hours	415 V	415 V	415 V	415 V	-	690 V	
		690 V	690 V	-	-	-		
		le / A	le / A	le / A	P / kW	le / A	P / kW	
KEA416 FR A2	KEA416 FR3 A2	25	16	16	7.5	16	11	KU1V 1 NO/NC CO KU2V 2 NO/NC CO
KEA425 FR A2	KEA425 FR3 A2	40	25	25	11	25	22	
KEA440 FR A2	KEA440 FR3 A2	63	40	40	22	40	30	
KEA463 FR A4	KEA463 FR3 A4	80	63	40	22	40	37	
KEA480 FR A4	KEA480 FR3 A4	100	80	63	30	40	37	
KEA4125C FR A4	-	160	125	125	55	80	75	1.V160KU (1 NO/NC CO) or 2.V160KU (2 NO/NC CO)
-	KEA4125C FR3 A4	160	125 415V max.	100	55	80	55	
KEA4160C FR A4	-	160	160	160	90	100	90	
-	KEA4160C FR3 A4	200	160 415V max.	135	75	125	90	
KEA4200C FR A5	KEA4200C FR3 A5	200	200	200	110	-	-	

Ordering notes
1.   For Lock ON, insert "LON" before the letter "A". Example: KEA425FR LON A2. The Lock ON option allows lock ON only – it cannot be locked OFF.

FIRE RATED ALUMINIUM ENCLOSED ISOLATORS 16 A TO 200 A (KEA)

6 Pole, LOCK OFF types [1]

Part Number		AC-21A	400 V / 415 V / 690 V	AC-22A	400 V / 415 V / 690 V	AC-23A	400 V / 415 V / -	AC-23A	- / - / 690 V	Auxiliaries to suit
F200 3H 200°C for 3 hours	F300 2H 300°C for 2 hours	Ie / A		Ie / A		Ie / A	P / kW	Ie / A	P / kW	
KEA616 FR A2	KEA616 FR3 A2	25		16		16	7.5	16	11	KU1V 1 NO/NC CO KU2V 2 NO/NC CO
KEA625 FR A2	KEA625 FR3 A2	40		25		25	11	25	22	
KEA640 FR A2	KEA640 FR3 A2	63		40		40	22	40	30	
KEA663 FR A4	KEA663 FR3 A4	80		63		40	22	40	37	
KEA680 FR A4	KEA680 FR3 A4	100		80		63	30	40	37	
KEA6125C FR A4	-	160		125		125	55	80	75	1.V160KU (1 NO/NC CO) or 2.V160KU (2 NO/NC CO)
-	KEA6125C FR3 A4	160		125 415V max.		100	55	80	55	
KEA6160C FR A4	-	160		160		160	90	100	90	
-	KEA6160C FR3 A4	200		160 415V max.		135	75	125	90	
KEA6200C FR A5	KEA6200C FR3 A5	200		200		200	110	-	-	

8 Pole, LOCK OFF types [1]

Part Number		AC-21A	400 V / 415 V / 690 V	AC-22A	400 V / 415 V / 690 V	AC-23A	400 V / 415 V / -	AC-23A	- / - / 690 V	Auxiliaries to suit
F200 3H 200°C for 3 hours	F300 2H 300°C for 2 hours	Ie / A		Ie / A		Ie / A	P / kW	Ie / A	P / kW	
KEA816 FR A2	KEA816 FR3 A2	25		16		16	7.5	16	11	KU1V 1 NO/NC CO KU2V 2 NO/NC CO
KEA825 FR A2	KEA825 FR3 A2	40		25		25	11	25	22	
KEA840 FR A2	KEA840 FR3 A2	63		40		40	22	40	30	
KEA863 FR A4	KEA863 FR3 A4	80		63		40	22	40	37	
KEA880 FR A4	KEA880 FR3 A4	100		80		63	30	40	37	
KEA8125C FR A4	-	160		125		125	55	80	75	1.V160KU (1 NO/NC CO) or 2.V160KU (2 NO/NC CO)
-	KEA8125C FR3 A4	160		125 415V max.		100	55	80	55	
KEA8160C FR A4	-	160		160		160	90	100	90	
-	KEA8160C FR3 A4	200		160 415V max.		135	75	125	90	
KEA8200C FR A5	KEA8200C FR3 A5	200		200		200	110	-	-	

Ordering notes
1. For Lock ON, insert "LON" before the letter "A". Example: KEA625FR LON A2. The Lock ON option allows lock ON only – it cannot be locked OFF.

ENCLOSED CHANGEOVER SWITCHES 25 A – 160 A (TKM, KEM, KEA)

| Polycarbonate (TKM, KEM) or aluminium (KEA) enclosures.
| TKM-models with cam switch 25 to 40 A, other types to 160A.
| KEM and KEA models consist of two KU or VKA switches interlocked, from 40A to 160A.
| 3 and 4 pole types.
| IP66; enclosure types M2, M3.
| IP65; enclosure type MF11.
| Self-extinguishing material.
| Excellent insulating properties.
| Wide operating temperature range.
| High resistance against many chemicals.
| High UV resistance.
| Padlockable in OFF.
| Door interlock when in positions 1 or 2, with lid interlock defeat mechanism
| IEC 60947-3, AS /NZS 60947-3.
| Cable gland knock out entries provided for enclosure types M2, M3, MF11.

Outline dimensions:

Enclosure type	Width mm	Height mm	Depth mm	Material	IP rating
A4	162	262	108	Aluminium	66
M2	96.4	130.4	106	Polycarbonate	66
M3	144	190	96	Polycarbonate	66
M4	180	255	100	Polycarbonate	66
MF11	280	380	130	Polycarbonate	66

TK VV Changeover switch wiring and connections

These types consist of single integral changeover switch.
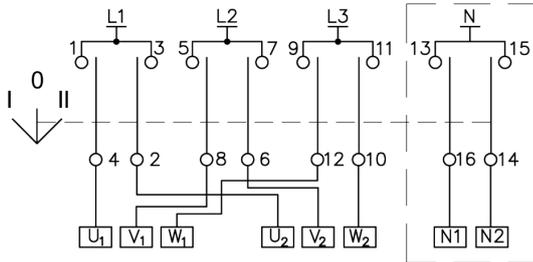
KEM / KEA changeover switch wiring and connections.

These types consist of two mechanically interlocked 3 or 4 pole KU switches.

ENCLOSED CHANGEOVER SWITCHES 25 A – 160 A (TKM, KEM, KEA)

CHANGEOVER SWITCHES - POLYCARBONATE

3 Pole

Part Number — Grey Enclosure Black Handle	Part Number — Enclosure with Yellow Red Handle	AC-21A	400 V / 415 V / 690 V	AC-22A	400 V / 415 V / 690 V	AC-23A	400 V / 415 V / -	AC-23A	- / - / 690 V	Auxiliaries to suit
		le / A	le / A	le / A	le / A	le / A	P / kW	le / A	P / kW	
TKM 325VV M2 3XM25P	TKM 325VV YR M2 3XM25P	25		25		25	11	-	-	
TKM 340VV M2 3XM32P	TKM 340VV YR M2 3XM32P	40		40		40	18.5	-	-	
KEM325VV M3	KEM325VV YR M3	40		25		25	11	25	22	-
KEM340VV M3	KEM340VV YR M3	63	40	40	22	25	22			
KEM363VV M3	KEM363VV YR M3	80	63	40	22	40	37			
KEM380VV M3	KEM380VV YR M3	100	80	63	30	40	37			
KEM3100 CVV MF11	KEM3100 CVV YR MF11	100	100	63	30	40	37			
KEM3125 CO MF11	KEM3125 CO YR MF11	160	125	125	55	80	75			1.V160KU
KEM3160 CO MF11	KEM3160 CO YR MF11	160	160	160	90	100	90			2.V160KU

4 Pole

Part Number — Grey Enclosure Black Handle	Part Number — Enclosure with Yellow Red Handle	AC-21A	400 V / 415 V / 690 V	AC-22A	400 V / 415 V / 690 V	AC-23A	400 V / 415 V / -	AC-23A	- / - / 690 V	Auxiliaries to suit
		le / A	le / A	le / A	le / A	le / A	P / kW	le / A	P / kW	
TKM 425VV M2 3XM25P	TKM 425VV YR M2 3XM25P	25		25		25	11	-	-	
TKM 440VV M2 3XM32P	TKM 440VV YR M2 3XM32P	40		40		40	18.5	-	-	
KEM425VV M3	KEM425VV YR M3	40		25		25	11	25	22	-
KEM440VV M3	KEM440VV YR M3	63	40	40	22	25	22			
KEM463VV M3	KEM463VV YR M3	80	63	40	22	40	37			
KEM480VV M3	KEM480VV YR M3	100	80	63	30	40	37			
KEM4100 CVV M4	KEM4100 CVV YR MF11	100	100	63	30	40	37			
KEM4125 CO MF11	KEM4125 CO YR MF11	160	125	125	55	80	75			1.V160KU
KEM4160 CO MF11	KEM4160 CO YR MF11	160	160	160	90	100	90			2.V160KU

CHANGEOVER SWITCHES – ALUMINIUM

3 Pole

Part Number — Grey Enclosure Black Handle	Part Number — Grey Enclosure Yellow Red Handle	AC-21A	400 V / 415 V / 690 V	AC-22A	400 V / 415 V / 690 V	AC-23A	400 V / 415 V / -	AC-23A	- / - / 690 V	Auxiliaries to suit
		le / A	le / A	le / A	le / A	le / A	P / kW	le / A	P / kW	
KEA325VV A4	KEA325VV YR A4	40		25		25	11	25	22	-
KEA340VV A4	KEA340VV YR A4	63		40		40	22	25	22	
KEA363VV A4	KEA363VV YR A4	80		63		40	22	40	37	
KEA380VV A4	KEA380VV YR A4	100		80		63	30	40	37	

4 Pole

Part Number — Grey Enclosure Black Handle	Part Number — Grey Enclosure Yellow Red Handle	AC-21A	400 V / 415 V / 690 V	AC-22A	400 V / 415 V / 690 V	AC-23A	400 V / 415 V / -	AC-23A	- / - / 690 V	Auxiliaries to suit
		le / A	le / A	le / A	le / A	le / A	P / kW	le / A	P / kW	
KEA425VV A4	KEA425VV YR A4	40		25		25	11	25	22	-
KEA440VV A4	KEA440VV YR A4	63		40		40	22	25	22	
KEA463VV A4	KEA463VV YR A4	80		63		40	22	40	37	
KEA480VV A4	KEA480VV YR A4	100		80		63	30	40	37	

ENCLOSED CHANGEOVER SWITCHES 25 A – 160 A (TKM, KEM, KEA)

| TK= star delta
| SK= reverse switch
| Cam switch based operation.
| Polycarbonate enclosure.
| Rated thermal current Ie 16 - 40 A.
| AC21, 22, 23 rated.
| Padlockable in OFF, Other locking options refer APS.
| Door interlock in 1 or 2, or Star / Delta.
| Door interlock defeat mechanism using red bottom lever.
| Terminals: Cu 1,5 - 16 mm²
| Max. terminal torque: 1.8 Nm
| IEC 60 947-3
| IP66NW (AS/NZS 60947-3: 2018)
| IEC 60947-3, AS/NZS 60947-3
| Cable gland knock out entries provided, top and bottom

Outline dimensions:

Enclosure type	Width mm	Height mm	Depth mm	Material	IP rating
M2	96.4	130.4	106	Polycarbonate	66

Connection diagrams
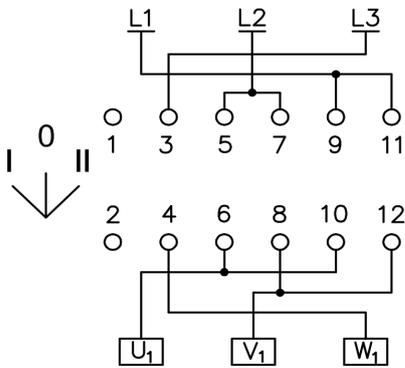
Reversing TKM _ SK
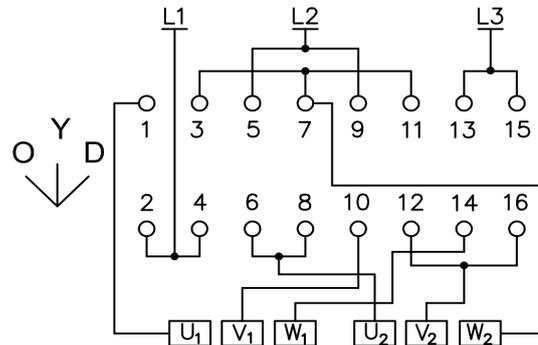
Star Delta TKM_TK

Star Delta Switch

Part Number		AC-21A	400 V 415 V 690 V	AC-22A	400 V 415 V 690 V	AC-23A	400 V 415 V -	AC-23A	- - 690 V	Auxiliaries to suit
Grey Enclosure Black Handle	Yellow Enclosure Yellow Red Handle		Ie / A		Ie / A		Ie / A	P / kW		Ie / A	P / kW
TKM 316TK M2 3XM25P	TKM 316TK YR M2 3XM25P	16		16		16	7.5	-	-	
TKM 325TK M2 3XM25P	TKM 325TK YR M2 3XM25P	25		25		25	11	-	-	-
TKM 340TK M2 3XM32P	TKM 340TK YR M2 3XM32P	40		40		40	18.5	-	-	

Reversing Switch

TKM 316SK M2 3XM25P	TKM 316SK YR M2 3XM25P	16		16		16	7.5	-	-	
TKM 325SK M2 3XM25P	TKM 325SK YR M2 3XM25P	25		25		25	11	-	-	-
TKM 340SK M2 3XM32P	TKM 340SK YR M2 3XM32P	40		40		40	18.5	-	-	

PROTECTIVE HOOD & EARTHING PLATES

| KSL type is Steel, AIZn: Aluminium-Zinc hot dipped galvanised.
| KSLR type is Stainless steel AISI 316.
| Installs on a wall at the same time as switch is installed.
| Offers a degree of protection against falling objects, or moisture from above
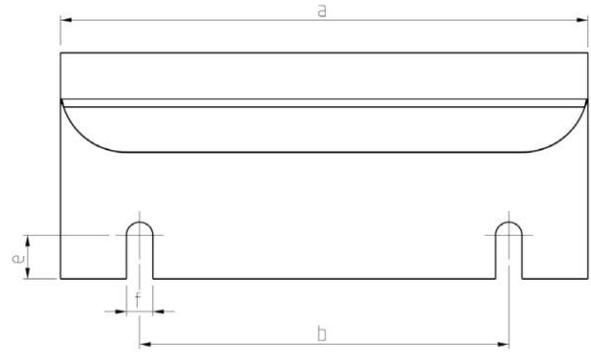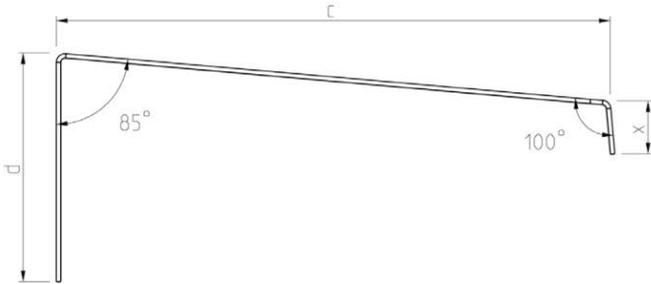
Protective Hood

Type	Enclosure	Dimensions mm						
		a	b	c	d	e	f	x
Steel, AIZn: Aluminium - Zinc hot dipped galvanised								
KSL 5	M1	130	62	75	52	10	6	12
KSL 10	M2	120	84	125	52	10	6	12
KSL 12	RA2	140	99	135	52	10	6	12
KSL 20	M3	156	131	140	62	10	6	13
KSL 22	RA4	180	139	145	55	10	6	13
KSL 25	M4, MF11	200	163	150	62	20	6	13
KSL 28	MF01, MF11	350	254	200	83	40	9	25
KSL 55	MF03	400	354	250	83	20	9	25
KSL 65	MF04	580	534	320	80	20	9	25
KSLE 15	T3, T4	200	108	200	80	20	9	12
KSLE 30	T5, RA5, A5	350	258	230	100	20	9	25
KSLE 50	T6, RA6, R6	450	358	300	100	20	9	25
KSLE 70	T7. RA7, R7	650	558	350	100	20	9	25
KSLE 80	T10A	650	558	400	110	20	9	25
KSLE 90	T8, RA8, R8	850	758	300	100	20	9	25
KSLE 100	T10, R10, RA10	850	758	400	110	20	9	25
Stainless Steel (AISI 316)								
KSLR 10	M2	120	84	125	52	10	6	12
KSLR 12	RA2	140	99	135	52	10	6	12
KSLR 20	M3	156	131	140	62	10	6	13
KSLR 22	RA4	180	139	145	55	10	6	13
KSLR 25	M4, MF10	200	163	150	62	20	9	13
KSLR 28	MF01, MF11	350	254	200	83	40	9	25
KSLR 55	MF03	400	354	250	83	20	9	25
KSLR 65	MF04	580	534	320	80	20	9	25
KSLRE 15	T3, T4, RA4	200	108	200	80	20	9	15
KSLRE 30	T5, RA5, A5	350	258	230	100	20	9	25
KSLRE 50	T6, RA6, R6	450	358	300	100	20	9	25
KSLRE 70	T7, RA7	650	558	350	100	20	9	25
KSLRE 80	T10A	650	558	400	110	20	9	25
KSLRE 90	T8, RA8. R8	850	758	300	100	20	9	25

EPM EARTHING PLATES

EARTHING PLATES

| Provides an earthing terminal for shielded cables and cable glands in Katko polycarbonate enclosures.
| Earthing plates are not a complete conversion device for EMC applications. Refer enclosed EMC types.
| Material: Copper.
| Quick connect lug terminal supplied with kit.
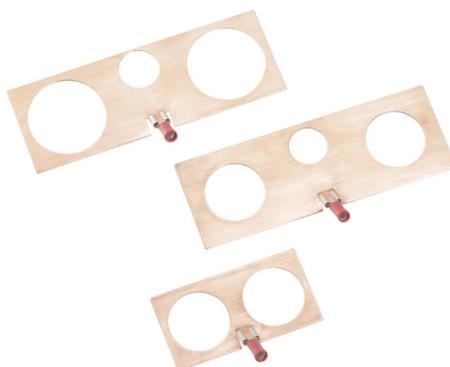
Earthing plate installed in a KEM Polycarbonate M2 size enclosure

Ordering

Part Number	Suits Enclosure types	Description
EPM20M2	M2 enclosure with 2 x M20	2 x M20
EPM25M2	M2 enclosure with 2 x M25	2 x M25
EPM25M16M3	M3 enclosure with 2 x M25 + M16	2 x M25 + M16
EPM32M16M3	M3 enclosure with 2 x M32 + M16	2 x M32 + M16
EPM32M16M4	M4 enclosure with 2 x M32 + M16	2 x M32 + M16
EPM40M4	M4 enclosure with 2 x M40	2 x M40
EPM40M16MF11	MF11 enclosure with 2 x M40 + M16	2 x M40 + M16
EPM20M16M3	M3 enclosure with 2 x M20 + M16	2 x M20 + M16

ENCLOSED SWITCH PART NUMBER CROSS REFERENCE

KEM340 YR M3

KEM3315 MF03

POLYCARBONATE 16 A – 630 A				
Katko part no.	Old Katko part no	Current box type	Older box type	Obsolete
KEM310 M2	KEM310U	M2	U2	ISO 316PG
KEM316 M2	KEM316U	M2	U2	ISO 325PG
KEM416 M2	KEM416U	M2	U2	ISO 425PG
KEM325 M2	KEM325U	M2	U2	ISO 340PG
KEM425 M2	KEM425U	M2	U2	ISO 440PG
KEM340 M2	KEM340U	M2	U2	ISO 363PG
KEM440 M2	KEM440U	M2	U2	ISO 463PG
KEM363 M3	KEM363U	M3	U3	ISO 380PG
KEM463 M3	KEM463U	M3	U3	ISO 480PG
KEM380 M3	KEM380U	M3	U3	ISO 3100PG
KEM480 M3	KEM480U	M3	U3	ISO 4100PG
KEM3125 M4	KEM3125U	M4	U4	ISO 3160PG
KEM4125 M4	KEM4125U	M4	U4	ISO 4160PG
KEM3160 MF01	KEM3160	MF01	MF01	ISO 3200PG
KEM4160 MF01	KEM4160	MF01	MF01	ISO 4200PG
KEM3250C MF01	KEM3250C	MFOI	MFOI	ISO 3250PG
KEM4250C MF01	KEM4250C	MFOI	MFOI	ISO 4250PG
KEM3315 MF03	KEM3315	MF03	MF03	ISO 3315PG
KEM3400 MF03	KEM3400	MF03	MF03	ISO 3400PG
KEM3630 MF04	KEM3630	MF04	MF04	ISO 3630PG
KEM310 YR M2	KEM310UY/R	M2	U2	ISO 316PYS
KEM316 YR M2	KEM316UY/R	M2	U2	ISO 325PYS
KEM416 YR M2	KEM416UY/R	M2	U2	ISO 425PYS
KEM325 YR M2	KEM325UY/R	M2	U2	ISO 340PY
KEM425 YR M2	KEM425UY/R	M2	U2	ISO 440PY
KEM340 YR M2	KEM340UY/R	M2	U2	ISO 363PY
KEM440 YR M2	KEM440UY/R	M2	U2	ISO 463PY
KEM363 YR M3	KEM363UY/R	M3	U3	ISO 380PY
KEM463 YR M3	KEM463UY/R	M3	U3	ISO 480PY
KEM380 YR M3	KEM380UY/R	M3	U3	ISO 3100PY
KEM480 YR M3	KEM480UY/R	M3	U3	ISO 4100PY
KEM3125 YR M4	KEM3125UY/R	M4	U4	ISO 3160PY
KEM4125 YR M4	KEM4125UY/R	M4	U4	ISO 4160PY
KEM3160 YR MF01	KEM3160Y/R	MF01	MF01	ISO 3200PY
KEM4160 YR MF01	KEM4160Y/R	MF01	MF01	ISO 4200PY
KEM3250 YR MF03	KEM3250Y/R	MF03	MF03	ISO 3250PY
KEM3315 YR MF03	KEM3315Y/R	MF03	MF03	ISO 3315PY
KEM3400 YR MF03	KEM3400Y/R	MF03	MF03	ISO 3400PY
KEM3630 YR MF04	KEM3630Y/R	MF04	MF04	ISO 3630PY

POLYCARBONATE Larger box versions 25 A – 40 A				
Katko part no.	Old Katko part no	Current box type	Older box type	Obsolete
KEM325 M3	KEM325/U3	M3	U3	ISO 340 PGLE
KEM340 M3	KEM340/U3	M3	U3	ISO 363 PGLE
KEM425 M3	KEM425/U3	M3	U3	ISO 440 PGLE
KEM440 M3	KEM440/U3	M3	U3	ISO 463 PGLE
KEM325 YR M3	KEM325/U3Y/R	M3	U3	ISO 340 PYLE
KEM340 YR M3	KEM340/U3Y/R	M3	U3	ISO 363 PYLE
KEM425 YR M3	KEM425/U3Y/R	M3	U3	ISO 440 PYLE
KEM440 YR M3	KEM440/U3Y/R	M3	U3	ISO 463 PYLE

EMC POLYCARBONATE 16 A – 125 A				
Older box type	Obsolete	Current box type	Older box type	Obsolete
KEM316 M2 EMC	KEM316U/EMC	M2	U2	ISO325PGEMC
KEM325 M2 EMC	KEM325U/EMC	M2	U2	ISO340PGEMC
KEM340 M2 EMC	KEM340U/EMC	M2	U2	ISO363PGEMC
KEM363 M3 EMC	KEM363U/EMC	M3	U3	ISO380PGEMC
KEM380 M3 EMC	KEM380U/EMC	M3	U3	ISO3100PGEMC
KEM3125 M4 EMC	KEM3125U/EMC	M4	U4	ISO3160PGEMC
KEM316 M2 EMC YR	KEM316U/EMCY/R	M2	U2	ISO325PYEMC
KEM325 M2 EMC YR	KEM325U/EMCY/R	M2	U2	ISO340PYEMC
KEM340 M2 EMC YR	KEM340U/EMCY/R	M2	U2	ISO363PYEMC
KEM363 M3 EMC YR	KEM363U/EMCY/R	M3	U3	ISO380PYEMC
KEM380 M3 EMC YR	KEM380U/EMCY/R	M3	U3	ISO3100PYEMC
KEM3125 M4 EMC YR	KEM3125U/EMCY/R	M4	U4	ISO3160PYEMC

ENCLOSED SWITCH PART NUMBER CROSS REFERENCE

ALUMINIUM 16 A – 250 A				
Katko part no.	Old Katko part no	Current box type	Older box type	Obsolete
KEA416 A2	KEA416	A2	A2	ISO 425MG
KEA325 A2	KEA325	A2	A2	ISO 340MG
KEA425 A2	KEA425	A2	A2	ISO 440MG
KEA340 A2	KEA340	A2	A2	ISO 363MG
KEA440 A2	KEA440	A2	A2	ISO 463MG
KEA625 A4	KEA625	A4	A3	ISO 640MG
KEA363 A4	KEA363	A4	A3	ISO 380MG
KEA463 A4	KEA463	A4	A3	ISO 480MG
KEA380 A4	KEA380	A4	A3	ISO 3100MG
KEA480 A4	KEA480	A4	A3	ISO 4100MG
KEA3125 A4	KEA3125	A4	A3	ISO 3160MG
KEA4125 A4	KEA4125	A4	A3	ISO 4160MG
KEA3160 A5	KEA3160	A5	A4	ISO 3200MG
KEA3200 A6	KEA3200	A6	A5	ISO 3250MG
KEA3200C A5	KEA3200C	A5	A4	ISO 3250MG
KEA3250 A6	KEA3250	A6	A5	ISO 3250MG
KEA4200C A5	KEA4200C	A5	A4	ISO 3250MG
KEA4250C A5	KEA4250C	A5	A4	ISO 3250MG
KEA4160 A4	KEA4160	A4	A3	ISO 4200MG
KEA316 YR A2	KEA316Y/R	A2	A2	ISO 325MY
KEA416 YR A2	KEA416Y/R	A2	A2	ISO 425MY
KEA325 YR A2	KEA325Y/R	A2	A2	ISO 340MY
KEA425 YR A2	KEA425Y/R	A2	A2	ISO 440MY
KEA340 YR A2	KEA340Y/R	A2	A2	ISO 363MY
KEA440 YR A2	KEA440Y/R	A2	A2	ISO 463MY
KEA363 YR A4	KEA363Y/R	A4	A3	ISO 380MY
KEA463 YR A4	KEA463Y/R	A4	A3	ISO 480MY
KEA380 YR A4	KEA380Y/R	A4	A3	ISO 3100MY
KEA480 YR A4	KEA480Y/R	A4	A3	ISO 4100MY
KEA3125 YR A4	KEA3125Y/R	A4	A3	ISO 3160MY
KEA4125 YR A4	KEA4125Y/R	A4	A3	ISO 4160MY
KEA3160 YR A5	KEA3160Y/R	A5	A4	ISO 3200MY
KEA4160 YR A4	KEA4160Y/R	A4	A3	ISO 4200MY
KEA3200 YR A6	KEA3200 Y/R	A6	A5	ISO 3250MY
KEA3200C YR A5	KEA3200C Y/R	A5	A4	ISO 3250MY
KEA3250 YR A6	KEA3250 Y/R	A6	A5	ISO 3250MY
KEA4200C YR A5	KEA4200C Y/R	A5	A4	ISO 4250MY
KEA4250C YR A5	KEA4250C Y/R	A5	A4	ISO 4200MY
KEA325 A4	KEA325/A3	A4	A3	ISO 340 MGLE
KEA340 A4	KEA340/A3	A4	A3	ISO 363 MGLE
KEA425 A4	KEA425/A3	A4	A3	ISO 440 MGLE
KEA440 A5	KEA440/A4	A5	A4	ISO 463 MGLE
KEA325 YR A4	KEA325/A3Y/R	A4	A3	ISO 340 MYLE
KEA340 YR A4	KEA340/A3Y/R	A4	A3	ISO 363 MYLE
KEA425 YR A4	KEA425/A3Y/R	A4	A3	ISO 440 MYLE
KEA440 YR A5	KEA440/A4Y/R	A5	A4	ISO 463 MYLE

EMC ALUMINUM 16 A – 125 A				
Katko part no.	Old Katko part no	Current box type	Older box type	Obsolete
KEA316 A2 EMC	KEA316U/EMC	A2	A2	ISO325MGEMC
KEA325 A2 EMC	KEA325U/EMC	A2	A2	ISO340MGEMC
KEA340 A2 EMC	KEA340U/EMC	A2	A2	ISO363MGEMC
KEA363 A4 EMC	KEA363/EMC	A4	A3	ISO380MGEMC
KEA380 A4 EMC	KEA380/EMC	A4	A3	ISO3100MGEMC
KEA3125 A4 EMC	KEA3125/EMC	A4	A3	ISO3160MGEMC
KEA316 A2 EMC YR	KEA316U/EMCY/R	A2	A2	ISO325MYEMC
KEA325 A2 EMC YR	KEA325U/EMCY/R	A2	A2	ISO340MYEMC
KEA340 A2 EMC YR	KEA340U/EMCY/R	A2	A2	ISO363MYEMC
KEA363 A4 EMC YR	KEA363/EMCY/R	A4	A3	ISO380MYEMC
KEA380 A4 EMC YR	KEA380/EMCY/R	A4	A3	ISO3100MYEMC
KEA3125 A4 EMC YR	KEA3125/EMCY/R	A4	A3	ISO3160MYEMC

ENCLOSED SWITCH PART NUMBER CROSS REFERENCE

KER363 RA4

KEA340 RA2RS

KEM340VV M3

STAINLESS STEEL 16 A – 200 A				
Katko part no.	Old Katko part no	Current box type	Older box type	Obsolete
KER316 RA2	KER316	RA2	H23	ISO 325SS
KER325 RA2	KER325	RA2	H23	ISO 340SS
KER340 RA2	KER340	RA2	H23	ISO 363SS
KER363 RA4	KER363	RA4	H32	ISO 380SS
KER380 RA4	KER380	RA4	H32	ISO 3100SS
KER316 YR RA2	KER316Y/R	RA2	H23	ISO 325SS Y/R
KER325 YR RA2	KER325Y/R	RA2	H23	ISO 340SS Y/R
KER340 YR RA2	KER340Y/R	RA2	H23	ISO 363SS Y/R
KER363 YR RA4	KER363Y/R	RA4	H32	ISO 380SS Y/R
KER380 YR RA4	KER380Y/R	RA4	H32	ISO 3100SS Y/R
KER616 YR RA4	KER616Y/R	RA4	H32	ISO 625 SSY
KER625 YR RA4	KER625Y/R	RA4	H32	ISO 640 SSY
KER640 YR RA4	KER640Y/R	RA4	H32	ISO 663 SSY
KER663 YR RA4	KER663Y/R	RA4	H32	ISO 680 SSY
KER680 YR RA4	KER680Y/R	RA4	H32	ISO 6100 SSY
KER6125 YR RA5	KER6125Y/R	RA5	H02	ISO 6160 SSY
KER6160 YR RA5	KER6160Y/R	RA5	H02	ISO 6200 SSY
KER3200 YR RA5	KER3200Y/R	RA5	H02	ISO 3250SSY

STAINLESS STEEL 16 A - 80 A SS HANDLE / FLAT ROOF OR SLOPED ROOF				
Katko part no.	Old Katko part no	Current box type	Older box type	Obsolete
KER316 RA2R	KER316R	RA2R	H23T	ISO 325SST
KER325 RA2R	KER325R	RA2R	H23T	ISO 340SST
KER340 RA2R	KER340R	RA2R	H23T	ISO 363SST
KER363 RA2R	KER363R	RA4R	H32T	ISO 380SST
KER380 RA2R	KER380R	RA4R	H32T	ISO 3100SST
KER416 RA2R	KER416R	RA2R	H23T	ISO 425SST
KER425 RA2R	KER425R	RA2R	H23T	ISO 440SST
KER440 RA2R	KER440R	RA2R	H23T	ISO 463SST
KER463 RA4R	KER463R	RA4R	H32T	ISO 480SST
KER480 RA4R	KER480R	RA4R	H32T	ISO 4100SST
KER616 RA4R	KER616R	RA4R	H32T	ISO 625SST
KER625 RA4R	KER625R	RA4R	H32T	ISO 640SST
KER640 RA4R	KER640R	RA4R	H32T	ISO 663SST
KER663 RA4R	KER663R	RA4R	H32T	ISO 680SST
KER680 RA4R	KER680R	RA4R	H32T	ISO 6100SST
KER316 RA2RS	KER316RS	RA2RS	H24T	ISO 325SSTS
KER325 RA2RS	KER325RS	RA2RS	H24T	ISO 340SSTS
KER340 RA2RS	KER340RS	RA2RS	H24T	ISO 363SSTS
KER416 RA2RS	KER 416RS	RA2RS	H24T	ISO 425SSTS
KER425 RA2RS	KER425RS	RA2RS	H24T	ISO 440SSTS
KER440 RA2RS	KER440RS	RA2RS	H24T	ISO 463SSTS
KER363 RA4RS	KER363RS	RA4RS	H34T	ISO 380SSTS
KER380 RA4RS	KER380RS	RA4RS	H34T	ISO 3100SSTS
KER463 RA4RS	KER463RS	RA4RS	H34T	ISO 480SSTS
KER480 RA4RS	KER480RS	RA4RS	H34T	ISO 4100SSTS

CHANGEOVER SWITCHES 16 A – 160 A (POLYCARBONATE)				
Katko part no.	Old Katko part no	Current box type	Older box type	Obsolete
KEM340VV M3	KEM340VV	M3	U3	ISO 363 VV
KEM363VV M3	KEM363VV	M3	U3	ISO 380 VV
KEM380VV M3	KEM380VV	M3	U3	ISO 3100 VV
KEM440VV M3	KEM440VV	M3	U3	ISO 463 VV
KEM463VV M3	KEM463VV	M3	U3	ISO 480 VV
KEM480VV M3	KEM480VV	M3	U3	ISO 4100 VV

KATKO ISOLATORS & AUXILIARIES TO SUIT FROM 2024 AND BEFORE

How to use the table below

| Part numbers in BOLD above are types that take the new auxiliaries 1NO40KU and 1NC40KU from 2024 onwards.

| Until the end of 2023, enclosed switches rated 16A – 40A used KU1V or KU2V auxiliaries.

| When ordering auxiliaries for enclosed switches, consider that only 1NO contact may be needed. There is usually no need for separate 1 x N/O and

| 1 x N/C contacts, which not only takes up more room in the enclosure, but costs more. 1 x NC should be ordered only if needed.

| 3 and 4 pole types fit the same auxiliaries.

| EMC types fit the same auxiliaries as standard 3 or 4 pole types.

| All larger enclosed and open switches 100A to 800A not shown below, use 1V160KU or 2V160KU auxiliaries.

Katko Switches and Auxiliaries used from 2024

KATKO part number	Enclosure Material	AC22 rating (A) 415-690VAC	AC23 rating (A) 415 VAC	KU Load Break switch used	Auxiliary to suit (1 NO)	Auxiliary to suit (1 NO)	Auxiliary to suit 1 x NO/NC CO	Auxiliary to suit 1 x NO/NC CO	Auxiliary mounting position	Enclosure
KEM316 M2	Polycarbonate	16	16	KU316	1NO40KU	1NC40KU	-	-	SIDE of switch	M2
KEM325 M2	Polycarbonate	25	25	KU325	1NO40KU	1NC40KU	-	-	SIDE of switch	M2
KEM340 M2	Polycarbonate	40	40	KU340	1NO40KU	1NC40KU	-	-	SIDE of switch	M2
KEM363 M3	Polycarbonate	63	40	KU363N	-	-	KU1V	KU2V	Front of switch	M3
KEM380 M3	Polycarbonate	80	63	KU380N	-	-	KU1V	KU2V	Front of switch	M3
KEM3100 M4	Polycarbonate	100	100	KU3100	-	-	1V160KU	2V160KU	SIDE of switch	M4
KEM3125 M4	Polycarbonate	125	125	KU3125	-	-	1V160KU	2V160KU	SIDE of switch	M4
KEA325 A2	Aluminium	25	25	KU325	1NO40KU	1NC40KU	-	-	SIDE of switch	A2
KEA340 A2	Aluminium	40	40	KU340	1NO40KU	1NC40KU	-	-	SIDE of switch	A2
KEA363 A4	Aluminium	63	40	KU363N	-	-	KU1V	KU2V	Front of switch	A4
KEA380 A4	Aluminium	80	63	KU380N	-	-	KU1V	KU2V	Front of switch	A4
KEA3125 A4	Aluminium	125	125	KU3125	-	-	1V160KU	2V160KU	SIDE of switch	A4
KEA363 A4	Aluminium	63	40	KU363N	-	-	KU1V	KU2V	Front of switch	A4
KEA380 A4	Aluminium	80	63	KU380N	-	-	KU1V	KU2V	Front of switch	A4
KEA3125 A4	Aluminium	125	125	KU3125	-	-	1V160KU	2V160KU	SIDE of switch	A4
KEA325 A4	Aluminium	25	25	KU325	1NO40KU	1NC40KU	-	-	SIDE of switch	A4
KEA340 A4	Aluminium	40	40	KU340	1NO40KU	1NC40KU	-	-	SIDE of switch	A4
KEA325 YR A4	Aluminium	25	25	KU325	1NO40KU	1NC40KU	-	-	SIDE of switch	A4
KEA340 YR A4	Aluminium	40	40	KU340	1NO40KU	1NC40KU	-	-	SIDE of switch	A4
KER316 YR RA2	Stainless Steel	16	16	KU316	1NO40KU	1NC40KU	-	-	SIDE of switch	RA2
KER325 YR RA2	Stainless Steel	25	25	KU325	1NO40KU	1NC40KU	-	-	SIDE of switch	RA2
KER340 YR RA2	Stainless Steel	40	40	KU340	1NO40KU	1NC40KU	-	-	SIDE of switch	RA2
KER363 YR RA4	Stainless Steel	63	40	KU363N	-	-	KU1V	KU2V	Front of switch	RA4
KER380 YR RA4	Stainless Steel	80	63	KU380N	-	-	KU1V	KU2V	Front of switch	RA4
KER3200C YR RA5	Stainless Steel	200	200	KU3200	-	-	1V160KU	2V160KU	SIDE of switch	RA5
KER316 RA2R	Stainless Steel	16	16	KU316	1NO40KU	1NC40KU	-	-	SIDE of switch	RA2R
KER325 RA2R	Stainless Steel	25	25	KU325	1NO40KU	1NC40KU	-	-	SIDE of switch	RA2R
KER340 RA2R	Stainless Steel	40	40	KU340	1NO40KU	1NC40KU	-	-	SIDE of switch	RA2R
KER363 RA2R	Stainless Steel	63	40	KU363N	-	-	KU1V	KU2V	Front of switch	RA4R
KER380 RA2R	Stainless Steel	80	63	KU380N	-	-	KU1V	KU2V	Front of switch	RA4R
KER316 RA2RS	Stainless Steel	16	16	KU316	1NO40KU	1NC40KU	-	-	SIDE of switch	RA2RS
KER325 RA2RS	Stainless Steel	25	25	KU325	1NO40KU	1NC40KU	-	-	SIDE of switch	RA2RS
KER340 RA2RS	Stainless Steel	40	40	KU340	1NO40KU	1NC40KU	-	-	SIDE of switch	RA2RS
KER363 RA4RS	Stainless Steel	63	40	KU363N	-	-	KU1V	KU2V	Front of switch	RA4RS
KER380 RA4RS	Stainless Steel	80	63	KU380N	-	-	KU1V	KU2V	Front of switch	RA4RS
KET3200 YR T6	Sheet Steel	200	200	KU3200	-	-	1V160KU	2V160KU	SIDE of switch	T6

Katko Switches and Auxiliaries used until 2023 and before

KATKO part number	Enclosure Material	AC22 rating (A) 415-690VAC	AC23 rating (A) 415 VAC	KU Load Break switch used	Auxiliary to suit (1 NO)	Auxiliary to suit (1 NC)	Auxiliary to suit 1 x NO/NC CO	Auxiliary to suit 1 x NO/NC CO	Auxiliary mounting position	Enclosure
KEM316 M2	Polycarbonate	16	16	KU316N	-	-	KU1V	KU2V	Front of switch	M2
KEM325 M2	Polycarbonate	25	25	KU325N	-	-	KU1V	KU2V	Front of switch	M2
KEM340 M2	Polycarbonate	40	40	KU340N	-	-	KU1V	KU2V	Front of switch	M2
KEA325 A2	Aluminium	25	25	KU325N	-	-	KU1V	KU2V	Front of switch	A2
KEA340 A2	Aluminium	40	40	KU340N	-	-	KU1V	KU2V	Front of switch	A2
KER316 YR RA2	Stainless Steel	16	16	KU316N	-	-	KU1V	KU2V	Front of switch	RA2
KER325 YR RA2	Stainless Steel	25	25	KU325N	-	-	KU1V	KU2V	Front of switch	RA2
KER340 YR RA2	Stainless Steel	40	40	KU340N	-	-	KU1V	KU2V	Front of switch	RA2
KER316 RA2R	Stainless Steel	16	16	KU316N	-	-	KU1V	KU2V	Front of switch	RA2R
KER325 RA2R	Stainless Steel	25	25	KU325N	-	-	KU1V	KU2V	Front of switch	RA2R
KER340 RA2R	Stainless Steel	40	40	KU340N	-	-	KU1V	KU2V	Front of switch	RA2R
KER316 RA2RS	Stainless Steel	16	16	KU316N	-	-	KU1V	KU2V	Front of switch	RA2RS
KER325 RA2RS	Stainless Steel	25	25	KU325N	-	-	KU1V	KU2V	Front of switch	RA2RS
KER340 RA2RS	Stainless Steel	40	40	KU340N	-	-	KU1V	KU2V	Front of switch	RA2RS

LOAD BREAK SWITCHES

DOOR MOUNT ROTARY SWITCHES 16 - 40 A (RT SERIES)

| Compact size, Door – Panel mounting
| Mounts in a 22.5 mm hole, using a rear retaining ring
| 3 pole versions
| Switch technology by means of silver contacts ensures safe and durable operation.
| RT version is suitable for door mounting and will be delivered with 42 mm shaft and LKX50 (black) or LKX50YR (yellow/red) handle
| AC21A, AC22A, AC23A rated to 690 VAC
| I_{th} thermal ratings, RT3 16 = 25A, RT3 25 = 40A, RT3 40 = 63 A

Switch supplied with door mounting bracket including door mount handle and 40mm shaft

RT 3P Black handle
Door mount type

RT 3P Yellow Red handle
Door mount type

Part Number		AC-21A	400 V 415 V 690 V	AC-22A	400 V 415 V 690 V	AC-23A	400 V 415 V -	AC-23A	- - 690 V	Switch type	Poles
Switch with Black Handle	Switch with Yellow Red Handle		Ie / A		Ie / A	Ie / A	P / kW	Ie / A	P / kW		
RT 316 L42 AD11 LKX50	RT 316 L42 AD11 LKX50YR	16		16		16	7.5	16	11	Door mount LBS	3
RT 325 L42 AD11 LKX50	RT 325 L42 AD11 LKX50YR	25		25		25	11	25	22		
RT 340 L42 AD11 LKX50	RT 340 L42 AD11 LKX50YR	40		40		25	22	25	22		

RT Switch related accessories

Part Number	Accessory	Description	For
1NO40RT	Auxiliary, RT screw type	1NO screw terminals, positive drive contacts	RT switch 16A to 40A
1NC40RT		1NC screw terminals, positive drive contacts	

Dimensions in (mm)
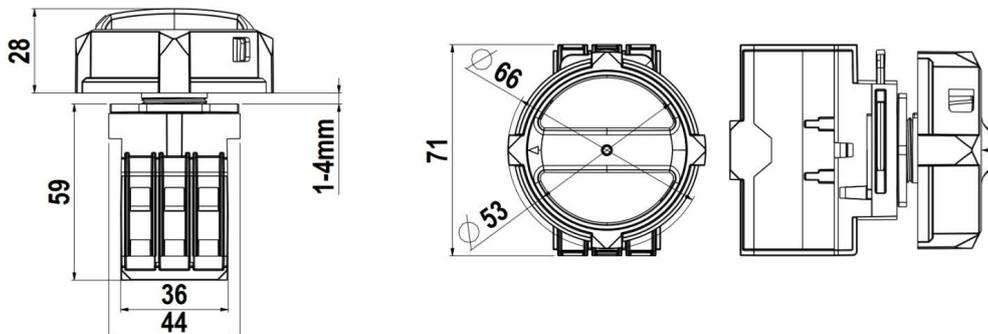
PANEL MOUNT ROTARY SWITCHES

16 - 40 A (KU SERIES)

| Compact size, DIN-rail or screw mounting.
| 3 pole and 4 pole versions.
| Used in Katko enclosed switches as standard for sizes 16A to 40A.
| Switching technology by means of silver contacts ensures safe and durable operation.
| Compatible with handles LKX50, LK10, LK11.
| KU switches are supplied standard with black direct mount, lock OFF handle.
| Direct mount and extension handles lock OFF as standard.
| Handle locking is via a padlock with a hasp size up to 5 mm.
| Yellow-red or black handle options.
| Shaft length options are 100, 200, 300 mm AD11 (aluminium) or AD11VT (steel).
| AC21A, AC22A, AC23A rated to 690 VAC.
| Ith thermal ratings, KU_16 = 25A, KU_25 = 40A, KU_40 = 63 A.
| Side mount clip-on auxiliary contacts, 1NO or 1NC, with a max. of 2 either side of switch.
| Auxiliaries are bridge contact types, direct drive, Early break, late make switching.

KU 3P Load Break Switch

KU 4 pole Load Break Switch

Switches supplied with direct mount black handle

Part Number		400 V	AC-22A	400 V	AC-23A	400 V	AC-23A	-	Switch type
AC-21A			415 V		415 V		415 V	
3 Pole	4 Pole	690 V		690 V		-		690 V	
		Ie / A		Ie / A	Ie / A	P / kW	Ie / A	P / kW	
KU 316	KU 416	16		16	16	7.5	16	11	Door mount LBS
KU 325	KU 425	25		25	25	11	25	22	
KU 340	KU 440	40		40	25	22	25	22	

KU Switch accessories

Shaft

Screw Auxiliary

Quick Connect Auxiliary

LKX Handle

LK10 Handle

Accessories

Part Number	Accessory	Description	For
LKX50	Handle, padlock OFF, Black	Black	KU switches 16A to 40A
LKX50YR	Handle, Padlock OFF, Yellow Red	Yellow/red	
LK10	Handle, padlock OFF, Black	Black	
LK10YR	Handle, Padlock OFF, Yellow Red	Yellow/red	
L200AD11	Shaft	Length 200 mm, aluminium	
L300AD11	Shaft	Length 300 mm, aluminium	
L100AD11VT	Shaft	Length 100 mm, steel, slanted	
L300AD11VT	Shaft	Length 300 mm, steel, slanted	
1NO40QC	Auxiliary, QC push on terminals	1NO quick connect terminals, positive drive	
KU40C	Changeover accessory	Changeover kit front mounting 3 or 4 pole	
1NC40QC	Auxiliary, QC push on terminals	1NC, positive drive contacts	
1NO40KU	Auxiliary, screw terminals	1NO, positive drive contacts	
1NC40KU	Auxiliary, screw terminals	1NC, posiitve drive contacts	

PANEL MOUNT ROTARY SWITCHES

63 - 80 A (KU SERIES)

| Compact size, DIN-rail mounting.
| 6 and 8-pole versions consist of two 3-pole or 4-pole KU-switches connected by a parallel kit.
| Switch technology by means of silver contacts ensures safe and durable operation.
| 4-pole versions with early-make and late-break neutral pole.
| Compatible with handles LK10 and LK11.
| Shafts L=100/200/300 AD11 and AD11/VT.
| Auxiliary contacts 1NO/NC or 2NO/NC changeover types, snap action, front mounting.
| KU 16A – 40 A types on the previous page have replaced the now obsolete KU_N, 16-40A 1) 2)

Switches supplied with direct mount red handle

Part Number		AC-21A	400 V	AC-22A	400 V	AC-23A	400 V	AC-23A	-
					415 V		415 V		-
3 Pole	4 Pole		690 V		690 V		-		690 V
		Ie / A		Ie / A		Ie / A	P / kW	Ie / A	P / kW
KU363N	KU463N	80		63		40	22	40	37
KU380N	KU480N	100		80		63	30	40	37

KU Switch accessories

Part Number	Accessory	Description	For
LK10	Handle	Black	3 & 4 pole, lock OFF
LK10YR	Handle	Yellow/red	3 & 4 pole, lock OFF
LK10YRON	Handle	Yellow/red	3 & 4 pole, lock ON
LK11	Handle	Black	3 & 4 pole, lock OFF, with lever
LK11YR	Handle	Yellow/red	3 & 4 pole, lock OFF, with lever
LK11IP69K	Handle	Black	3 & 4 pole, lock OFF, with lever
LK11YRIP69K	Handle	Yellow/red	3 & 4 pole, lock OFF, with lever
LK11YRON	Handle	Yellow/red	3 & 4 pole, lock ON, with lever
L200AD11	Shaft	Length 200 mm, Aluminium	With LK10 and LK11 handles
L300AD11	Shaft	Length 300 mm, Aluminium	With LK10 and LK11 handles
L100AD11VT	Shaft	Length 100 mm, steel, slanted	With LK10 and LK11 handles
L300AD11VT	Shaft	Length 300 mm, steel, slanted	With LK10 and LK11 handles
KKU3P	Front plate	Grey plate, black direct handle	3-pole
KKU4P	Front plate	Grey plate, black direct handle	4-pole
KKU3PYR	Front plate	Yellow plate, red direct handle	3-pole
KKU4PYR	Front plate	Yellow plate, red direct handle	4-pole
KU1V	Auxiliary contact	1 x NO/NC CO, fit max: 1	For all configurations 3-8 pole
KU2V	Auxiliary contact	2 x NO/NC CO, fit max: 1	For all configurations 3-8 pole
RV66	Parallel kit	Length 66 mm, center shaft	2 x 3-pole
RV66S	Parallel kit	Length 66 mm, side shaft	2 x 3-pole
RV80	Parallel kit	Length 80 mm, center shaft	2 x 4-pole
RV80S	Parallel kit	Length 80 mm, side shaft	2 x 4-pole
LK11CO102	Handle	Black	Change-over
LK11CO102YR	Handle	Yellow/red	Change-over
KUVV	Change-over kit	Positions 1, 0, 2, black handle	3 or 4-pole
KUVVYR	Change-over kit	Positions 1, 0, 2, red handle	3 or 4-pole

1. KU_N, 63 – 80 A, 3 and 4 pole switches have the same dimensions as the now obsolete KU_N, 16 – 40 A, types, and can therefore be used as a replacement substitute if required.

2. For KEM enclosed switch replacement, KU_N 63 – 80 A switches will plug in to replace 16A – 40 A switches, where as a new style KU 16A – 40 A type cannot be fitted to older enclosures.

LOAD BREAK SWITCHES

KU 100 TO 160 A, PANEL MOUNT ROTARY SWITCHES

| Compact size, Modular design, DIN-rail mounting
| Panel or DIN rail mount as standard
| 3, 4, 6 and 8 pole switches
| 4 pole versions with early-make and late-break neutral pole, on the right.
| 6 pole and 8 pole switches consist of two 3 pole or 4 pole switches and a parallel operation kit
| Silver contacts increase the degree of safety and overall reliability of switching
| Compatible with handles LK10, LK11(3 pole and 4 poles) and LK12 (6 and 8 poles and change-over switch)
| IP66 extension shaft handles LK10, LK11 or LK12.
| Black or yellow red handles
| Handles padlockable in OFF as standard. Padlock ON option 1)
| ON position door defeat via lever at base of handle
| Shafts: 100 or 300 mm lengths, 11VT steel types for use with LK11 handles, 3 and 4 pole switches
| Shafts: 100 or 300 mm lengths, 12VT steel types for use with LK12 handles, 6 and 8 pole switches
| Terminal cover option for additional installation safety.
| AC21, AC22, AC23 rated to 415 and 690 VAC.
| Auxiliary contacts 1NO/NC or 2NO/NC changeover types, snap action, side mount

RT 3P Black handle
Door mount type

RT 3P Black handle
Door mount type

RT 3P Black handle
Door mount type

Switches supplied with direct mount black handle

Part Number	AC-21A	400 V	AC-22A	400 V	AC-23A	400 V	AC-23A	-
		415 V		415 V		415 V		-
		690 V		690 V		-		690 V
	le / A		le / A		le / A	P / kW	le / A	P / kW
3 Pole								
KU3100	125		100		100	55	63	55
KU3125	160		125		125	55	80	75
KU3160	160		160		160	90	100	90
4 Pole								
KU4100	125		100		100	55	63	55
KU4125	160		125		125	55	80	75
KU4160	160		160		160	90	100	90
6 Pole	(pre-assembled type below, though 6 and 8 pole can be assembled from components)							
KU6100	125		100		100	55	63	55
KU6125	160		125		125	55	80	75
KU6160	160		160		160	90	100	90
8 Pole	(pre-assembled type below, though 6 and 8 pole can be assembled from components)							
KU8100	125		100		100	55	63	55
KU8125	160		125		125	55	80	75
KU8160	160		160		160	90	100	90

LOAD BREAK SWITCHES

KU 100 TO 160 A, PANEL MOUNT ROTARY SWITCH ACCESSORIES

Parallel or changeover mechanism

Handle shafts

Extension handles

Auxiliary contacts

KU SWITCH ACCESSORIES

Part Number	Accessory	Description	For
LK10	Handle	Black	3 & 4 pole, lock OFF
LK10YR	Handle	Yellow/red	3 & 4 pole, lock OFF
LK10YRON	Handle	Yellow/red	3 & 4 pole, lock ON
LK11	Handle	Black	3 & 4 pole, lock OFF, with lever
LK11YR	Handle	Yellow/red	3 & 4 pole, lock OFF, with lever
LK11IP69K	Handle	Black	3 & 4 pole, lock OFF, with lever
LK11YRIP69K	Handle	Yellow/red	3 & 4 pole, lock OFF, with lever
LK11YRON	Handle	Yellow/red	3 & 4 pole, lock ON, with lever
L200AD11	Shaft	Length 200 mm, Aluminium	With LK10 and LK11 handles
L300AD11	Shaft	Length 300 mm, Aluminium	With LK10 and LK11 handles
L100AD11VT	Shaft	Length 100 mm, steel, slanted	With LK10 and LK11 handles
L300AD11VT	Shaft	Length 300 mm, steel, slanted	With LK10 and LK11 handles
KKU3P	Front plate	Grey plate, black direct handle	3-pole
KKU4P	Front plate	Grey plate, black direct handle	4-pole
KKU3PYR	Front plate	Yellow plate, red direct handle	3-pole
KKU4PYR	Front plate	Yellow plate, red direct handle	4-pole
KU1V	Auxiliary contact	1 x NO/NC CO, fit max: 1	For all configurations 3-8 pole
KU2V	Auxiliary contact	2 x NO/NC CO, fit max: 1	For all configurations 3-8 pole
RV66	Parallel kit	Length 66 mm, center shaft	2 x 3-pole
RV66S	Parallel kit	Length 66 mm, side shaft	2 x 3-pole
RV80	Parallel kit	Length 80 mm, center shaft	2 x 4-pole
RV80S	Parallel kit	Length 80 mm, side shaft	2 x 4-pole
LK11CO102	Handle	Black	Change-over
LK11CO102YR	Handle	Yellow/red	Change-over
KUVV	Change-over kit	Positions 1, 0, 2, black handle	3 or 4-pole
KUVVYR	Change-over kit	Positions 1, 0, 2, red handle	3 or 4-pole

1.   Add "ON" to part number for a LOCK ON handle type.

Terminal cover for individual neutral poles

3 pole terminal cover

Parallel or changeover connection kit

Direct mount handle standard with CO or PK

4P + 4P Changeover switch configurations:
Refer pre-assembled types: KU4100CO, KU4125CO or KU4160CO, or refer APS. These are an APS factory assembled item.

LOAD BREAK SWITCHES

VKA 250A, PANEL MOUNT, EXTENSION HANDLE, ROTARY SWITCH

| Compact size for a 250A switch.
| Panel or DIN rail mount - either mounting option is standard.
| 3 pole and 4 pole types. The physical frame size is 4 poles wide for 3 and 4 pole types.
| AC21, AC22, AC23 rated to 415 VAC.
| AC21 rated to 690 VAC.
| Rated short time withstand current Icw for 1 second = 6.5 kA @ 690 VAC.
| Rated short time making capacity Icm = 11.4 kA @ 690 VAC
| Switching technology by means of silver contacts ensures safe and durable operation.
| 4 pole versions with early-make and late-break neutral pole, on the right.
| VKA_250 has external terminal bars. LS/VKAC terminal covers, and VS/VKAC phase barriers included.
| Black Handle LK12 and shaft L228AD12T6 included, suitable for 250 mm deep distribution boards.
| IP66 extension shaft handle
| Handles padlockable in OFF as standard. Padlock ON option.
| ON position door defeat via lever at base of handle.
| Terminal covers LSVKAC and phase barriers VSVKAC enable safe use.
| Auxiliary contacts 1NO/NC or 2NO/NC changeover types, snap action, front mount.

250A switches supplied with 228 mm EXTENSION SHAFT and LK12 HANDLE

Part Number		AC-21A	400 V	AC-22A	400 V	AC-23A	400 V	AC-23A	-		Auxiliaries to suit
					415 V		415 V		-		
			690 V		690 V		-		690 V		
VKA Switch type	Poles	Ie / A		Ie / A		Ie / A	P / kW	Ie / A	P / kW		
VKA3250S+HLSVS	3	250		250		250	132	-	-		VKAC1V (1NO + 1NC)
VKA4250S+HLSVS	4										VKAC2V (2NO + 2NC)

VKA series Accessories

Part Number	Accessory	Description	For
VKAC1V	Auxiliary contact	1 x NO/NC, CO, snap action MS	For VKA 3 and 4 pole, max. 2
VKAC2V	Auxiliary contact	2 x NO/NC, CO, snap action MS	For VKA 3 and 4 pole, max. 2
LSVKAC	Terminal Cover	Transparent blue plastic	For VKA 3 and 4 pole, Qty 1
VSVKAC	Phase barrier	Transparent white plastic	For VKA 3 and 3 pole, Qty 1
LK12	Handle	Black	For VKA 3 and 4 pole
LK12YR	Handle	Yellow/red	For VKA 3 and 4 pole
L228AD12T6	Shaft 228 mm	Length 228 mm, steel, slanted	Use with LK12 or LK12YR handles
L400AD12T6	Shaft 400 mm	Length 400 mm, steel, slanted	Use with LK12 or LK12YR handles

Dimensions in (mm)
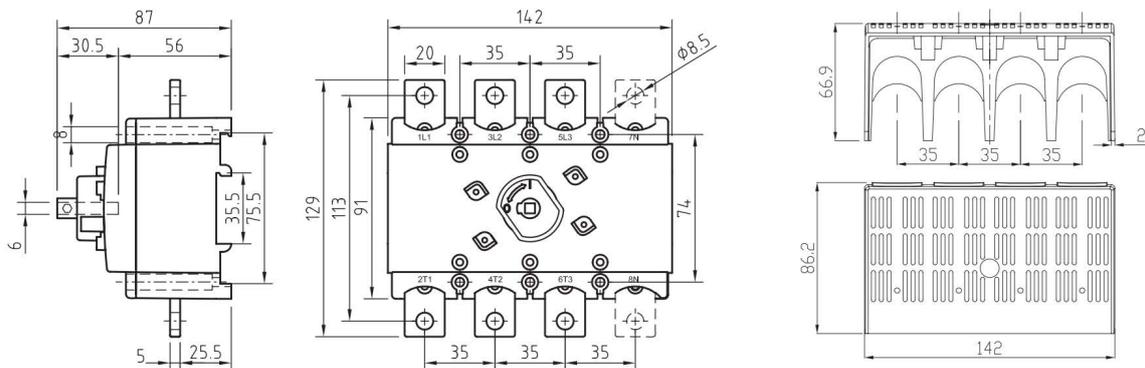
LOAD BREAK SWITCHES

VKA   250A, PANEL MOUNT, EXTENSION HANDLE, ROTARY SWITCH

RATINGS DATA		LOAD BREAK SWITCHES
		VKA
		250 A
Rated insulation voltage, Ui (V)		1000
Rated thermal current, Ith (A)		250
Nominal values with cable size (mm²)		120
Rated operational current, Ie (A)		
AC 21A	400/415 V	250
	500 V	250
	690 V	250
AC 22A	400/415 V	250
	500 V	-
	690 V	-
AC 23A`	400/415 V	250
	500 V	-
	690 V	-
	1000 V	-
Rated operational power for 3-phase (1500		
r.p.m.) squirrel cage induction motors (kW)		
AC 23A	400/415 V	132
	500 V	-
	690 V	-
Rated fused short circuit current		
Back up fuse (A)		250
R.M.S. value, Ik (kA)		50
Peak value (kA)		22
Impulse withstand voltage, Uimp (kV)		8
Rated short circuit making capacity, Icm (kA)		
	415 V	11.4
Rated short time withstand current (1 s), Icw (kA)		
	415 V	6.5
Rated breaking capacity, Icn (A) AC-23A		
AC 23A	400/415 V	2000
	500 V	-
	690 V	-
Electrical endurance (number of operations)		2000
Mechanical endurance (number of operations)		16000
Terminals / Bolt size Cu (mm²)		M8
Max terminal torque (Nm)		15 - 22
Standards		AS/NZS 60947.3 and IEC 60947.3
		RoHS
		CE
		IEC 60204.1

LOAD BREAK SWITCHES

PANEL MOUNT TOGGLE OPERATED SWITCHES 160 - 250 A (EVA SERIES)

| Compact size for a 250 A switch.
| Panel or DIN rail mount - either mounting option is standard.
| Switch technology using silver contacts ensures a long life expectancy and safe use in demanding conditions.
| EVA switches supplied with 2 terminal covers, phase barriers, and terminal bolt kit.
| Padlockable in OFF.
| Rated to AS/NZS 60947.3 and IEC 60947.3.
| AC21B, AC22B, AC23B rated to 415 VAC.
| Rated short time withstand current Icw for 1 second = 6.5 kA @ 415 VAC.
| Rated short time making capacity Icm = 11.4 kA @ 415 VAC.
| 4 pole versions with early-make and late-break neutral pole, on the right.
| EVA toggle switches are supplied as main switches for APS ECO, ESS and ULT distribution boards.
| EVA main switches TUV tested in Australia to AS/NZS 61439.2 for use in APS DB Distribution Boards.
| RED toggles as standard. Previous GREY toggle types have identical physical size and ratings.

Part Number	AC-21A	400 V	AC-22A	400 V	AC-23A	400 V	AC-23A	-	Auxiliaries to suit
		690 V		415 V		415 V		-	
				690 V		-		690 V	
	Ie / A		Ie / A		Ie / A	P / kW	Ie / A	P / kW	
3 Pole									
EVA 3160H	160		160		160	75	-	-	-
EVA 3250H	250		250		200	90	-	-	
Pole									
EVA 4160H	160		160		160	75	-	-	-
EVA 4250H	250		250		200	90	-	-	

EVA series Accessories

Part Number	Accessory
EVA LS2VS	A single 3 pole terminal cover and 2 internal phase barriers. For the top and bottom of switch order 2
EVA LS3VS	A single 4 pole terminal cover and 3 internal phase barriers. For the top and bottom of switch order 2

Dimensions in (mm)
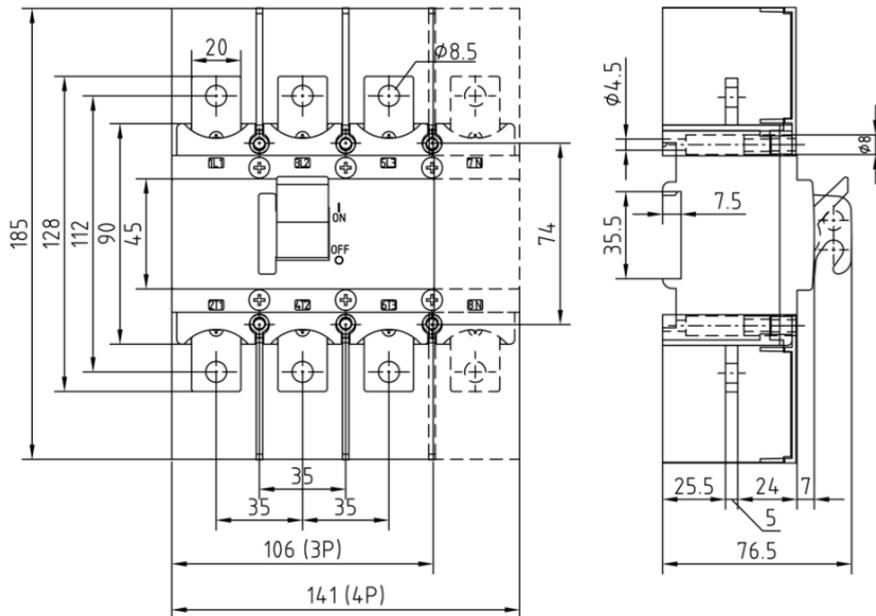
LOAD BREAK SWITCHES

EVA SERIES, 160 A – 250 A, PANEL MOUNT, TOGGLE OPERATED

RATINGS DATA		LOAD BREAK SWITCHES	
		EVA	EVA
		160 A	250 A
Rated insulation voltage, Ui (V)		690	690
Rated thermal current, Ith (A)		200	250
Nominal values with cable size (mm²)		95	120
Rated operational current, Ie (A)			
AC 21A	400/415 V	160	250
	500 V	-	-
	690 V	-	-
AC 22A	400/415 V	160	250
	500 V	-	-
	690 V	-	-
AC 23A	400/415 V	160	200
	500 V	-	-
	690 V	-	-
	1000 V	-	-
Rated operational power for 3-phase (1500 r.p.m.) squirrel cage induction motors (kW)			
AC 23A	400/415 V	75	90
	500 V	-	-
	690 V	-	-
Rated fused short circuit current			
Back up fuse (A)		250	250
R.M.S. value, Ik (kA)		50	50
Peak value (kA)		15	21
Impulse withstand voltage, Uimp (kV)		6	6
Rated short circuit making capacity, Icm (kA)			
415 V		11.4	11.4
Rated short time withstand current (1 s), Icw (kA)			
415 V		6.5	6.5
Rated breaking capacity, Icn (A) AC-23A			
AC 23A	400/415 V	840	1600
	500 V	-	-
	690 V	-	-
Electrical endurance (number of operations)		2000	2000
Mechanical endurance (number of operations)		16000	16000
Terminals / Bolt size Cu (mm²)		M8	M8
Max terminal torque (Nm)		15 - 22	15 - 22
Standards		AS/NZS 60947.3 and IEC 60947.3	
		RoHS	
		CE	
		IEC 60204.1	

ULTIMATE Distribution Board with EVA3250H main switch

LOAD BREAK SWITCHES

PANEL MOUNT 200 - 800 A (KU SERIES)

| KU 800, 400 & 250 A have been rated for AC-23A 1000V, and the whole range has been rated for AC-23A, 690V.
| All switches have been tested and approved by VDE according to DIN EN 60947-3 (VDE 0660 Teil 107):2017-02; EN 60947-3:2009/A1:2012/A2:2015
| The LoadSafe range has an option for a test position for testing auxiliary contacts while main contacts remain open. Note, only available on request.
| The LoadSafe range has excellent thermal resistance and short circuit withstand strength.
| The LoadSafe range is available in 3, 4, 6, 8 pole versions as well as 3 and 4 pole changeovers.

All LoadSafe switches from 200 to 800 amps & 160 amp (P) are available with direct handle or external handle. Both handles are easily installed and padlockable. Standard external handle for 315-800 amps is LKX 150 (left). For 200-250 amps and 160 amp (P) LKX 100 (middle) is the standard option. Both versions are also available in yellow/red colours when needed.

Easy to install auxiliary contacts are side mounting and available in 1NO/NC C/O and 2NO/NC C/O versions. It is possible to install two auxiliary units on either side making. The same auxiliary contact unit is compatible with KU switches ranging 100 to 800 amps.
1 x NO/NC CO, fit max: 2 each side
2 x NO/NC CO, fit max: 2 each side

LOAD BREAK SWITCHES

KU SERIES, 200 – 800 A, PANEL MOUNT

Terminal covers are available in two versions – flush (left) and high (middle). The high terminal cover type is specifically made to be used with KATKO's vertical cable connectors.

Phase barriers (right) are flexible rubber and can be fitted in with many types and sizes of connectors.

Visual contacts provide increased safety and reassurance to the user. Locking the switch to OFF-position and visually inspecting the contacts ensures safe operation of Katko LoadSafe switches.

KU 3 200A switch installed and wired.
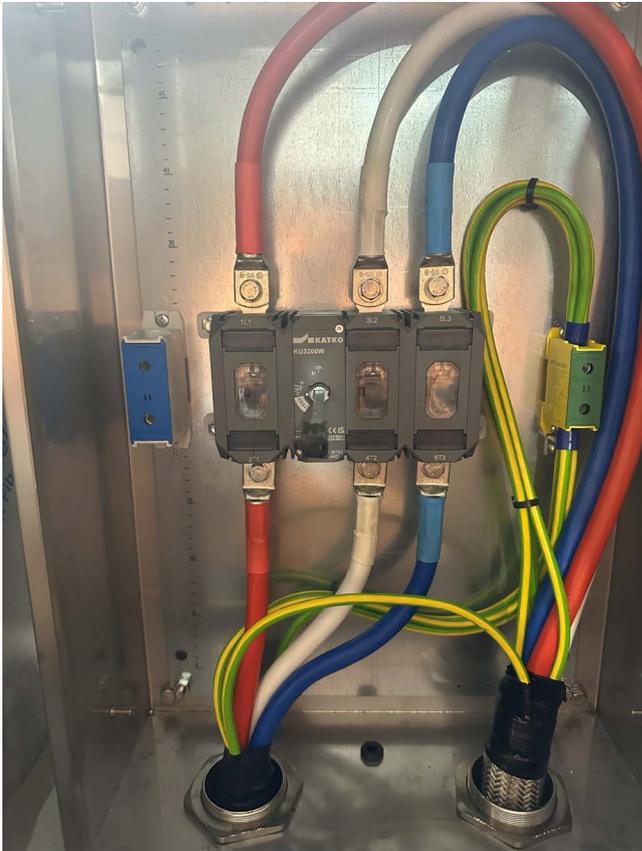
reddot winner 2021
industrial design

Made of recyclable halogen-free V0 plastic and next generation modular design.
The LoadSafe KU 200-800 A range was awarded with Red Dot (2021) industrial product design award

LOAD BREAK SWITCHES

KU SERIES, 200 – 800 A, PANEL MOUNT, EXTENSION SHAFT HANDLES

| Consists of 3, 4, 6 or 8 pole changeover switches integrally housed within the one switchbody.
| Switch technology by means of silver contacts ensures safe and durable operation.
| Available with extensions shaft handles, or direct mount handles.
| Handles available as black or yellow-red types.
| Due to the modular construction alternative handle shaft positions are optional.
| Side mount auxiliary contacts, either 1NO + 1NC or 2NO + 2NC.
| Auxiliaries can be side mounted for each switching position and stacked to a total of 4NO + 4NC.
| Supplied as standard with a 228 mm extension shaft and handle or a fitted direct mount handle, and a main terminal bolt set.

Load Break Switches, 3 and 4 pole, supplied with an EXTENSION SHAFT and HANDLE

Part Number	AC-21A 400 V 415 V 690 V -	AC-22A	AC-23A 400 V 415 V 690 V -	AC-23A 400 V 415 V - -		AC-23A - - 690 V -	AC-23A - - - 1000 VAC
	Ie / A	Ie / A	Ie / A	P / kW	Ie / A	P / kW	Ie / A
3 Pole							
KU3200WL200AD12T6LKX	200	200	200	110	200	132	-
KU3250WL250AD12T6LKX	250	250	250	132	250	250	135
KU3315LVK228LKX150	315	315	315	160	315	315	-
KU3400LVK228LKX150	400	400	400	200	400	355	200
KU3630LVK228LKX150	630	630	630	355	630	630	-
KU3800LVK228LKX150	800	800	800	400	800	800	400
4 Pole							
KU4200WL200AD12T6LKX	200	200	200	110	200	132	-
KU4250WL200AD12T6LKX	250	250	250	132	250	250	135
KU4315LVK228LKX150	315	315	315	160	315	315	-
KU4400LVK228LKX150	400	400	400	200	400	355	200
KU4630LVK228LKX150	630	630	630	355	630	630	-
KU4800LVK228LKX150	800	800	800	400	800	800	400
6 Pole							
KU6200WL200AD12T6LKX	200	200	200	110	200	132	-
KU6250WL250AD12T6LKX	250	250	250	132	250	250	135
KU6315LVK228LKX150	315	315	315	160	315	315	-
KU6400LVK228LKX150	400	400	400	200	400	355	200
KU6630LVK228LKX150	630	630	630	355	630	630	-
KU6800LVK228LKX150	800	800	800	400	800	800	400
8 Pole							
KU8200WL200AD12T6LKX	200	200	200	110	200	132	-
KU8250WL250AD12T6LKX	250	250	250	132	250	250	135
KU8315LVK228LKX150	315	315	315	160	315	315	-
KU8400LVK228LKX150	400	400	400	200	400	355	200
KU8630LVK228LKX150	630	630	630	355	630	630	-
KU8800LVK228LKX150	800	800	800	400	800	800	400

LOAD BREAK SWITCHES

KU SERIES, 200 – 800 A, PANEL MOUNT, DIRECT MOUNT HANDLES

| Consists of 3, 4, 6 or 8 pole changeover switches integrally housed within the one switchbody.
| Switch technology by means of silver contacts ensures safe and durable operation.
| Available with extensions shaft handles, or direct mount handles.
| Handles available as black or yellow-red types.
| Due to the modular construction alternative handle shaft positions are optional.
| Side mount auxiliary contacts, either 1NO + 1NC or 2NO + 2NC.
| Auxiliaries can be side mounted for each switching position and stacked to a total of 4NO + 4NC.
| Supplied as standard with a 228 mm extension shaft and handle or a fitted direct mount handle, and a main terminal bolt set.

Load Break Switches, 3 and 4 pole, supplied with a DIRECT MOUNT HANDLE

Part Number	AC-21A	AC-22A	AC-23A	AC-23A		AC-23A		AC-23A	
	400 V / 415 V / 690 V / -	400 V / 415 V / 690 V / -	400 V / 415 V / 690 V / -	400 V 415 V - -		- - 690 V -		- - - 1000 VAC
	Ie / A	Ie / A	Ie / A	Ie / A	P / kW	Ie / A	P / kW	Ie / A
3 Pole								
KU3200WSV	200	200	200	110	200	132	-
KU3250WSV	250	250	250	132	250	250	135
KU3315SV	315	315	315	160	315	315	-
KU3400SV	400	400	400	200	400	355	200
KU3630SV	630	630	630	355	630	630	-
KU3800SV	800	800	800	400	800	800	400
4 Pole								
KU4200WSV	200	200	200	110	200	132	-
KU4250WSV	250	250	250	132	250	250	135
KU4315SV	315	315	315	160	315	315	-
KU4400SV	400	400	400	200	400	355	200
KU4630SV	630	630	630	355	630	630	-
KU4800SV	800	800	800	400	800	800	400
6 Pole								
KU6200WSV	200	200	200	110	200	132	-
KU6250WSV	250	250	250	132	250	250	135
KU6315SV	315	315	315	160	315	315	-
KU6400SV	400	400	400	200	400	355	200
KU6630SV	630	630	630	355	630	630	-
KU6800SV	800	800	800	400	800	800	400
8 Pole								
KU8200WSV	200	200	200	110	200	132	-
KU8250WSV	250	250	250	132	250	250	135
KU8315SV	315	315	315	160	315	315	-
KU8400SV	400	400	400	200	400	355	200
KU8630SV	630	630	630	355	630	630	-
KU8800SV	800	800	800	400	800	800	400

LOAD BREAK SWITCHES

KU SERIES, 200 – 800 A, PANEL MOUNT SWITCH ACCESSORIES

Auxiliary Contacts

Snap action, Spade terminal, (lugs supplied), Side mount. Max. 2 auxiliaries each side of switch
Rated 16A - 250V (AC12), 4A - 250 VAC (AC13-15). Early break, late make operation.

Part Number	Accessory	Description	For
1V160KU	Auxiliary contact	1 x NO/NC C/O, snap action MS	KU 100 – 800
2V160KU	Auxiliary contact	2 x NO/NC C/O, snap action MS	KU 100 – 800

Terminal Covers

Suits 1 pole only. Order (x 3) or (x 4) as needed for 3 or 4 pole switches.

Part Number	Description	For
VS250	Flexible rubber phase barrier (1 piece), order qty as required	KU 200 – 250
VS400	Flexible rubber phase barrier (1 piece), order qty as required	KU 315 – 400
VS800	Flexible rubber phase barrier (1 piece), order qty as required	KU 630 – 800

Phase Barrier

| Part Number	Description	For
VS250	Flexible rubber phase barrier (1 piece), order qty as required	KU 200 – 250
VS400	Flexible rubber phase barrier (1 piece), order qty as required	KU 315 – 400
VS800	Flexible rubber phase barrier (1 piece), order qty as required	KU 630 – 800

Spreader Bars

Part Number	Description	For
ALK800C	Spreader Bar, 2 hole, 3 Pole, Qty 1, KU630-800	KU 630 – 800
ALK800	Spreader Bar, 4 hole, 3P or 4P, Qty 1, KU630-800	KU 630 – 800

Handle Operators

| Suits KU load break switches, 200A – 800A
| Handles and shafts are supplied with new load break switches. For spares or replacements refer below.
| Mounts in a 32 mm panel hole, with 4 mounting screws.
| Padlock OFF standard. Up to 4 padlocks.
| Can be field converted to padlock ON
| Door interlocking in ON position.
| Door defeat facility standard – will not operate if handle padlocked in ON position.
| IP66 rated.

Part Number	Description	For
LKX100	Black External Handle 0 – 1 (extension shaft needed)	KU 200 – 250
LKX100YR	Yellow/Red External Handle 0 – 1 (extension shaft needed)	KU 200 – 250
LKX150	Black External Handle, positions 0 – 1 (extension shaft needed)	KU 315 – 800
LKX150YR	Yellow/Red Ext. Handle, positions 0 – 1 (extension shaft needed)	KU 315 – 800
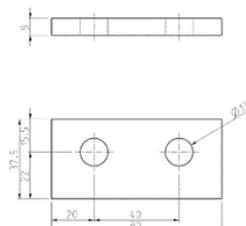
Extension Shafts

Handles and shafts are supplied with new load break switches. For alternative types, refer below

| Part Number	Description	For
L200AD12T6	Steel Shaft, length 200 mm, 6 mm2, suits LKX100	KU 200 – 250
L400AD12T6	Steel Shaft, length 400 mm, 6 mm2, suits LKX100	KU 200 – 250
LVK228	Steel Shaft. length 228 mm, 12.1 mm2, suits LKX150	KU 315 – 800
LVK320	Steel Shaft. length 320 mm, 12.1 mm2, suits LKX150	KU 315 – 800
LVK500	Steel Shaft. length 500 mm, 12.1 mm2, suits LKX150	KU 315 – 800

CHANGEOVER LOAD BREAK SWITCHES

KU_N SERIES, 63 – 80 A, PANEL MOUNT ROTARY OPERATION

| Features: KU_63N and KU_80N Changeover switches
| Compact design
| Switch technology by means of silver contacts ensures safe and durable operation
| KU_63N and KU_80N changeover switches are assembled from two 3 or 4 pole switches and a changeover switch kit.
| Can be operated with a direct handle or external handle and shaft. For KU_63N and KU_80N a shaft and external handle can be ordered separately as needed.
| Axiliary contacts are not available for this configuration of changeover switch. Refer following page for KU100 – 160 changeover types for auxiliary contact compatible types.

Changeover configurations consist of:

| Two 3 pole or 4 pole KU 63A or 80A switches
| 1 x Change over mechanism either : KUVV (grey-black) or KUVVYR (yellow-red)

Optional:

| 1 x Changeover type external handle (1 ON – OFF - 2 ON), either black or yellow red.
| 1 x Shaft

Ordering

Part Number	AC-21A	400 V 415 V 690 V -	AC-22A	400 V 415 V 690 V -	AC-23A	400 V 415 V - -	AC-23A	- - 690 V -
	Ie / A		Ie / A		Ie / A	P / kW	Ie / A	P / kW
3 Pole								
KU363N	80		63		40	22	40	37
KU380N	100		80		63	30	40	37
4 Pole								
KU463N	80		63		40	22	40	37
KU480N	100		80		63	30	40	37

Extension shafts

LK11CO handles

KUVV / KUVVYR changeover mechanisms

KU_N Accessories

Part Number	Accessory	Description	For
L200AD11	Shaft	Length 200 mm, Aluminium	With LK10 and LK11 handles
L300AD11	Shaft	Length 300 mm, Aluminium	With LK10 and LK11 handles
L100AD11VT	Shaft	Length 100 mm, steel, slanted	With LK10 and LK11 handles
L300AD11VT	Shaft	Length 300 mm, steel, slanted	With LK10 and LK11 handles
LK11CO102	Handle	Black	Change-over
LK11CO102YR	Handle	Yellow/red	Change-over
KUVV	Change-over kit	Positions 1, 0, 2, black handle	3 or 4-pole
KUVVYR	Change-over kit	Positions 1, 0, 2, red handle	3 or 4-pole

CHANGEOVER LOAD BREAK SWITCHES

KU SERIES, 100A, 125A, 160 A, PANEL MOUNT ROTARY OPERATION

| Consists of two 3 or 4-pole switches and a change-over kit.
| KU 100 - 160 A, 3 pole changeover switches are user assembled using two 3 pole switches and a changeover kit.
| KU 100 - 160 A, 4 pole changeover switches are APS factory assembled using two 4-pole switches and a changeover kit.
| Switch technology by means of silver contacts ensures safe and durable operation.
| All versions are operable with direct handle or external handle and shaft.
| For KU_100 to KU_160, a shaft and external handle can be ordered separately when needed.
| KU_100 to KU_160 use a side-mountable auxiliary contact, available in 1NO + 1NC or 2NO + 2NC.
| It is possible to mount two auxiliary contacts on each switch, making up a maximum number of contacts of 4NO + 4NC on each switch.

Assembly and ordering;
Example of a **KU3160CO**, 3 pole, 100 A, changover switch with direct mount or extension handle. A **KU3160CO** consists of 2 x KU3160, 3 pole load break switches, and 1 x CO160KU top mount, clip-on changeover kit.

Assembly and options:
Different switch configurations using the CO160KU changeover interlock using standard 3P or specially assembled 4 pole switches.

Assembly example: 2 x KU3160 load break switches

LK6 direct mounting handle (supplied with CO160KU interlock kits

LK12CO102 Extension shaft handle. Order a shaft for this also

L300AD12VT steel shaft. Shaft can be cut to length as required.

CO160KU changeover mechanical interlocking kit. Black LK6 direct mount handle included.
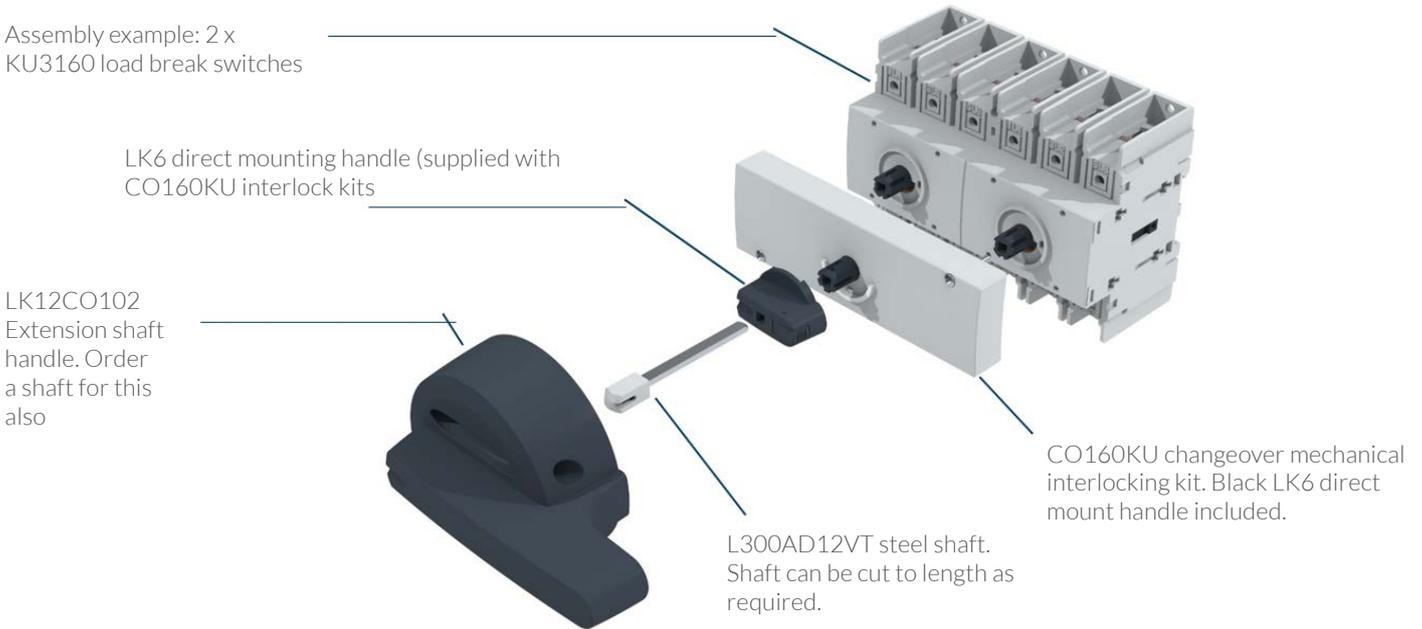
3P + 3P or 3P + 4P switch configurations
The standard CO160KU can be assembled straight onto a left 3P switch, and right side 3P or 4P switch.

4P + 3P switch configurations
For this combination, a factory re-assembly of the left side 4P switch is required, which makes this an APS factory assembled item – refer APS.

4P + 4P switch configurations
Refer pre-assembled types: KU4100CO, KU4125CO or KU4160CO, or refer APS.
If these changeover types are not in stock, in order to create them using stocked 4P switches. A factory reassembly of the left 4P switch is required, which makes this an APS factory assembled item.

4P + 4P configuration

CHANGEOVER LOAD BREAK SWITCHES

KU SERIES, 100A, 125A, 160 A, PANEL MOUNT ROTARY OPERATION

Individual Load Break Switches

(Order a changeover mechanism below for self assembly)

Part Number	AC-21A 400 V 415 V 690 V -		AC-22A 400 V 415 V 690 V -		AC-23A 400 V 415 V 690 V -		AC-23A 400 V 415 V - -		- - 690 V -
	le / A		le / A		le / A	P / kW	le / A		P / kW
3 Pole									
KU3100	125		100		100	55	63		55
KU3125	160		125		125	55	80		75
KU3160	160		160		160	90	100		90
4 Pole									
4 pole KU100 – 160 changeover switches are an APS factory or branch assembly item. Refer below for pre-assembled 4 pole changeover switches.									

Pre-Assembed, Interlocked Switches

Part Number	AC-21A 400 V 415 V 690 V -		AC-22A 400 V 415 V 690 V -		AC-23A 400 V 415 V 690 V -		AC-23A 400 V 415 V - -		- - 690 V -
	le / A		le / A		le / A	P / kW	le / A		P / kW
3 Pole									
KU3100CO	125		100		100	55	63		55
KU3125CO	160		125		125	55	80		75
KU3160CO	160		160		160	90	100		90
4 Pole									
KU4100CO	125		100		100	55	63		55
KU4125CO	160		125		125	55	80		75
KU4160CO	160		160		160	90	100		90

Extension shafts | Handles | Auxiliary contacts | Terminal covers

KU_100 - 160 Accessories

Part Number	Accessory	Description	For
CO160KU	Changeover Kit	CO kit for 3 pole changeover switches	3 Pole switches 100 A to 160 A
1V160KU	Auxiliary contact	1NO/1NC	For all configurations
2V160KU	Auxiliary contact	2NO/2NC	For all configurations
LS160	Cover	Terminal cover for 3 poles	For KU_100 – KU_160. Covers 3 poles
LSN160	Cover	Terminal cover for N-pole	4 & 8 pole and 4 pole change-over
LK12CO102	Handle	Black	Changeover switch
LK12CO102YR	Handle	Yellow/red	Changeover switch
L100AD12T	Shaft	Length 100 mm, steel, slanted	With LK12 handle

CHANGEOVER LOAD BREAK SWITCHES

KU SERIES, 200 – 800 A, PANEL MOUNT

| Consists of 3 or 4-pole changeover switches integrally housed within the one switchbody.
| Switch technology by means of silver contacts ensures safe and durable operation.
| Changeover side mount auxiliary contacts, either 1NO + 1NC or 2NO + 2NC.
| Auxiliaries can be side mounted for each switching position and stacked to a total of 4NO + 4NC.
| Changeover switches are supplied as standard with a 228 mm extension shaft, black handle, common load side C shape linking bars: 3 bars for 3P, 4 bars for 4P types, and a main terminal bolt set.

Changeover Load Break Switches, 3 and 4 pole, supplied with an EXTENSION SHAFT and HANDLE

Part Number	AC-21A	AC-22A	AC-23A	AC-23A		AC-23A		AC-23A
	400 V 415 V 690 V -	400 V 415 V 690 V -	400 V 415 V 690 V -	400 V 415 V - -		- - 690 V -		- - - 1000 VAC
	Ie / A	Ie / A	Ie / A	P / kW	Ie / A	P / kW		Ie / A
3 Pole								
KU3200WCOSH	200	200	200	110	200	132		-
KU3250WCOSH	250	250	250	132	250	250		135
KU3315COSH	315	315	315	160	315	315		-
KU3400COSH	400	400	400	200	400	355		200
KU3630COSH	630	630	630	355	630	630		-
KU3800COSH	800	800	800	400	800	800		400
4 Pole								
KU4200WCOSH	200	200	200	110	200	132		-
KU4250WCOSH	250	250	250	132	250	250		135
KU4315COSH	315	315	315	160	315	315		-
KU4400COSH	400	400	400	200	400	355		200
KU4630COSH	630	630	630	355	630	630		-
KU4800COSH	800	800	800	400	800	800		400

CHANGEOVER LOAD BREAK SWITCHES

KU SERIES, 200 – 800 A, PANEL MOUNT

| Consists of 3 or 4-pole changeover switches integrally housed within the one switchbody.
| Switch technology by means of silver contacts ensures safe and durable operation.
| Changeover side mount auxiliary contacts, either 1NO + 1NC or 2NO + 2NC.
| Auxiliaries can be side mounted for each switching position and stacked to a total of 4NO + 4NC.
| Changeover switches are supplied as standard with a black direct mount handle, common load side C shape linking bars: 3 bars for 3P, 4 bars for 4P types, and a main terminal bolt set.
| Tested and approved by VDE according to DIN EN 60947-3, EN 60947-3: 2009

Changeover Load Break Switches, 3 and 4 pole, supplied with a DIRECT MOUNT HANDLE

Part Number	AC-21A	AC-22A	AC-23A		AC-23A		AC-23A
	400 V / 415 V / 690 V / -	400 V / 415 V / 690 V / -	400 V / 415 V / 690 V / -	400 V / 415 V / - / -	- / - / 690 V / -	- / - / 690 V / -	- / - / - / 1000 VAC
	Ie / A	Ie / A	Ie / A	P / kW	Ie / A	P / kW	Ie / A
3 Pole							
KU3200WCOSV	200	200	200	110	200	132	-
KU3250WCOSV	250	250	250	132	250	250	135
KU3315COSV	315	315	315	160	315	315	-
KU3400COSV	400	400	400	200	400	355	200
KU3630COSV	630	630	630	355	630	630	-
KU3800COSV	800	800	800	400	800	800	400
4 Pole							
KU4200WCOSV	200	200	200	110	200	132	-
KU4250WCOSV	250	250	250	132	250	250	135
KU4315COSV	315	315	315	160	315	315	-
KU4400COSV	400	400	400	200	400	355	200
KU4630COSV	630	630	630	355	630	630	-
KU4800COSV	800	800	800	400	800	800	400

Note; Refer ratings chart in this catalogue for additional ratings and other information

CHANGEOVER LOAD BREAK SWITCHES

KU SERIES, 200 – 800 A, PANEL MOUNT SWITCH ACCESSORIES

Auxiliary Contacts

| Snap action, Spade terminal, (lugs supplied), Side mount.
| Maximum 2 auxiliaries in each 1 or 2 position on each side of switch, making up a total of 8 x 1NO/NC.
| Rated 16A - 250V (AC12), 4A - 250 VAC (AC13-15). Early break, late make

Part Number	Accessory	Description	For
1V160KU	Auxiliary contact	1 x NO/NC CO, fit max: 2 each side	For all configurations
2V160KU	Auxiliary contact	2 x NO/NC CO, fit max: 2 each side	For all configurations

Terminal Covers

| Suits 1 pole only. Order (x 3) or (x 4) as needed for 3 or 4 pole switches.

Part Number	Accessory	For
LS250F	Clear blue clip on terminal cover 200A – 250A	KU 200 – 250
LS400F	Clear blue clip on terminal cover 315A – 400A	KU 315 – 400
LS800F	Clear blue clip on terminal cover 630A – 800A	KU 630 – 800

Phase Barrier

Part Number	Accessory	For
VS250	Flexible rubber phase barrier (1 piece), order qty as required	KU 200 – 250
VS400	Flexible rubber phase barrier (1 piece), order qty as required	KU 315 – 400
VS800	Flexible rubber phase barrier (1 piece), order qty as required	KU 630 – 800

Spreader Bars

Part Number	Accessory	For
ALK800C	Spreader Bar, 2 hole, 3 Pole, Qty 1, KU630-800	KU 630 – 800
ALK800	Spreader Bar, 4 hole, 3P or 4P, Qty 1, KU630-800	KU 630 – 800
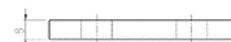
Handle Operators

| Suits KU Changeover switches, 200A – 800A Padlockable in 0 (OFF), field change for 1-0-2 locking.
| Door interlock in positions 1 or 2
| Handles and shafts are supplied with new changeover switches, though for other types, refer below/

Part Number	Accessory	For
LKX100CO102	Black External Handle (extension shaft needed)	KU 200 – 250
LKX100CO102YR	Yellow/Red External Handle (extension shaft needed)	KU 200 – 250
LKX150CO102	Black External Handle, positions 1-0-2 (extension shaft needed)	KU 315 – 800
LKX150CO102YR	Yellow/Red External Handle, positions 1-0-2 (extension shaft needed)	KU 315 – 800
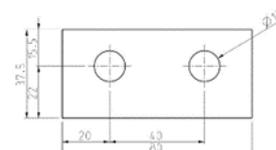
Extension Shafts

| Handles and shafts are supplied with new changeover switches, though for other types, refer below

Part Number	Accessory	For
L200AD12T6	Steel Shaft, length 200 mm, 6 mm sq, suits LKX100	KU 200 – 250
L400AD12T6	Steel Shaft, length 400 mm, 6 mm sq, suits LKX100	KU 200 – 250
LVK228	Steel Shaft. length 228 mm, 12.1 mm sq, suits LKX150	KU 315 – 800
LVK320	Steel Shaft. length 320 mm, 12.1 mm sq, suits LKX150	KU 315 – 800
LVK500	Steel Shaft. length 500 mm, 12.1 mm sq, suits LKX150	KU 315 – 800

AUXILIARY TYPES AND OPERATION

| 1NO or 1NC bridge contact or 1 x NO/NC or 2 x NO/NC changeover types
| Early Break, Late Make switching as standard
| 16 A, 250 VAC (EN 61058-1)
| For KU, 16 A to 800 A, VKA LBS Isolators
| For RT, 16 A – 40 A Door mount LBS isolators
| For KU_N, 16 A – 80 A LBS Isolators
| For KU_N, 63 A – 80 A : door mounting kit (OKA) with black or yellow/red handle (Y/R)
| 1NO40KU & 1NC40KU

1NO40KU & 1NC40KU

SWITCH DIAGRAMS:
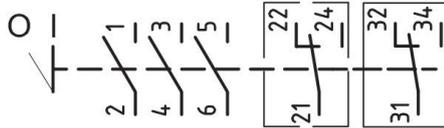
3 pole + 2NC/NO
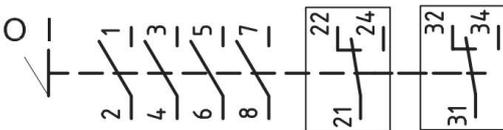
4 pole + 2NC/NO
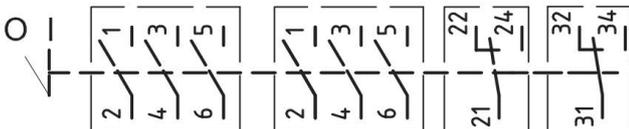
6 pole + 2NC/NO
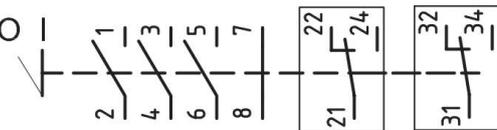
3 pole + NT + 2NC/NO
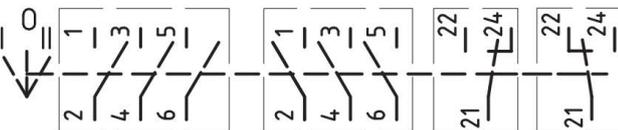
Change-over 3 pole + 2NC/NO

KU 1.V & KU 2.V

VKA 1.V & VKA 2.V
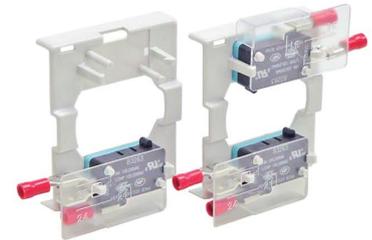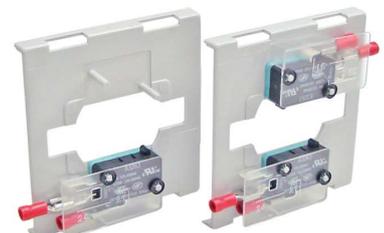
KVKE 1.V

1.V160KU

Auxiliary types, Mounting and Ratings, to IEC 60947.5.1 / AS/NZS 60947.5.1

Type	For	Auxiliary Operation	Description	Mounting	Ith A	AC12 250 VA			
1NO40KU	KU 16 – 40 A	Direct drive bridge contacts	1 NO	Side	16	16A	4A	1A	2.5 kV
1NC40KU	KU 16 – 40 A		1 NC						
1NO40RT	RT 16 – 40 A		1 NO	Side	16	16A	4A	1A	2.5 kV
1NC40RT	RT 16 – 40 A		1 NC						
KU1V	KU_N 16 – 80 A	Snap action Top	1 NO/NC CO	Top	16	16A	4A	-	2.5 kV
KU2V	KU_N 16 – 80 A		2 NO/NC CO						
1V160KU	KU 100 – 800 A		1 NO/NC CO	Side	16	16A	4A	-	2.5 kV
2V160KU	KU 100 – 800 A		2 NO/NC CO						
VKA1V	VKA250		1 NO/NC CO	Top	16	16A	4A	-	2.5 kV
VKA2V	VKA250		2 NO/NC CO						

EB/LM: The operation of the above auxiliary contacts is Early Break / Late Make, which means the contacts open at least 20ms before the main contacts of the load-break switch opens, while for closing, the auxiliary contacts should close at least the same time or shortly after, the main contacts of the load-break switch close.

HANDLES & SHAFTS (LK & KKX)

| Extension handles for switches 16 A to 800 A.

| For standard load break switches and changeover switches

| Padlocking in OFF-position, Padlock ON option.

| Door defeat facility standard – will not operate if handle padlocked in ON postion.

| Door defeat does not work when handle padlocked OFF.

| Available in black or yellow-red.

Extension Handle Types

Part Number	Suits switch type	Position Marking	IP Rating	Colour	Locking Position
LKX50	KU 16 – 160 A, RT, 16A to 40A	OFF-ON	IP65	Black	OFF
LKX50YR	KU 16 – 160 A, RT, 16A to 40A	OFF-ON	IP65	Yellow Red	OFF
LKX100	KU 100 – 250 A, VKA 250	OFF-ON	IP66 NW	Black	OFF, field converts to ON & OFF
LKX100YR	KU 100 – 250 A, VKA 250	OFF-ON	IP66 NW	Yellow Red	OFF, field converts to ON & OFF
LKX100CO102	KU 100 – 250 A	1 – O – 2	IP66 NW	Black	OFF, field converts to pos. 1 or 2
LKX100YRCO102YR	KU 100 – 250 A	1 – O – 2	IP66 NW	Yellow Red	OFF, field converts to pos. 1 or 2
LKX150	KU 315 – 800 A, PV 4400	OFF-ON	IP66 NW	Black	OFF, field converts to ON & OFF
LKX150YR	KU 315 – 800 A, PV 4400	OFF-ON	IP66 NW	Yellow Red	OFF, field converts to ON & OFF
LKX150CO102	KU 315 – 800 A	1 – O – 2	IP66 NW	Black	OFF, field converts to pos. 1 or 2
LKX150YRCO102YR	KU 315 – 800 A	1 – O – 2	IP66 NW	Yellow Red	OFF, field converts to pos. 1 or 2
LK10	KU 16 – 160 A	OFF-ON	IP66	Black	OFF
LK10YR	KU 16 – 160 A	OFF-ON	IP66	Yellow Red	OFF
LK10LON	KU 16 – 160 A	OFF-ON	IP66	Black	ON
LK10YRLON	KU 16 – 160 A	OFF-ON	IP66	Yellow Red	ON
LK11	KU 16 – 160 A	OFF-ON	IP66	Black	OFF
LK11YR	KU 16 – 160 A	OFF-ON	IP66	Yellow Red	OFF
LK11LON	KU 16 – 160 A	OFF-ON	IP66	Black	ON
LK11YRLON	KU 16 – 160 A	OFF-ON	IP66	Yellow Red	ON
LK11IP69K	KU 16 – 160 A	OFF-ON	IP67 – IP69K	Black	OFF
LK11YRIP69K	KU 16 – 160 A	OFF-ON	IP67 – IP69K	Yellow Red	OFF
LK11CO102	KU 63 – 160A Changeover	1 – O – 2	IP66	Black	OFF
LK11CO102YR	KU 63 – 160A Changeover	1 – O – 2	IP66	Yellow Red	OFF
LK12	VKA 250, KU 100 – 160A	OFF-ON	IP65	Black	OFF
LK12YR	VKA 250, KU 100 – 160A	OFF-ON	IP65	Yellow Red	OFF
LK12LON	VKA 250, KU 100 – 160A	OFF-ON	IP65	Black	ON
LK12YRON	VKA 250, KU 100 – 160A	OFF-ON	IP65	Yellow Red	ON
LK12CO102	KU 100 – 160A Changeover	1 – O – 2	IP65	Black	OFF
LK12CO102YR	KU 100 – 160A Changeover	1 – O – 2	IP65	Yellow Red	OFF

Handles and applicable shafts		Shaft types			
Handle Part Number	Suits switch types	Part Number	Length (mm)	Shaft sides (mm)	Material
LKX50 (YR)	KU 16 – 160, RT 16 - 40	L300 AD11	300	5 x 5	Aluminium
		L300, 400, 500 AD11VT	300, 400, 500	5 x 5	Steel
LK10 (YR)	KU 16 – 160, RT 16 - 40	L100, 300 AD11	100, 300	5 x 5	Aluminium
		L300, 400, 500 AD11VT	300, 400, 500	5 x 5	Steel
LK11 (YR)	KU 16 – 160, RT 16 - 40	L100, 300 AD11	100, 300	5 x 5	Aluminium
	VKA 125 – 160	L300, 400, 500 AD11VT	300, 400, 500	5 x 5	Steel
LK12 (YR)					
LKX100 (YR)	KU 100 – 160A, VKA 125 - 160	L228, 300 AD12VT	228, 300	5 x 5	Steel
		L400AD12VT	400	5 x 5	Steel
LKX100 (YR)					
LK12 (YR)	KU 200 – 250 A, VKA 250	L228AD12T6	228	6 x 6	Steel
		L400AD12T6	400	6 x 6	Steel
LKX150 (YR)	KU 315 – 800 A, PV 4400	LVK228, LVK320	228, 320	12 x 12	Steel
		LVK400, LVK500	400, 500	12 x 12	Steel

SHAFTS FOR HANDLES

| Shafts will fit various older and newer handle types.
| Lengths range 42 - 500 mm, refer table below.
| Available in aluminium, steel (T), or steel and slanted (VT).
| All 5 mm2 shafts have one corner of the shaft machined away, so
| that the shaft is "keyed" into the same hole in the switch which only
| accepts a similar keyed shaft.
| 6 mm2 and 12 mm2 shafts are square with no corner cut out.
| Shafts are easy to cut to suit the application depth required.
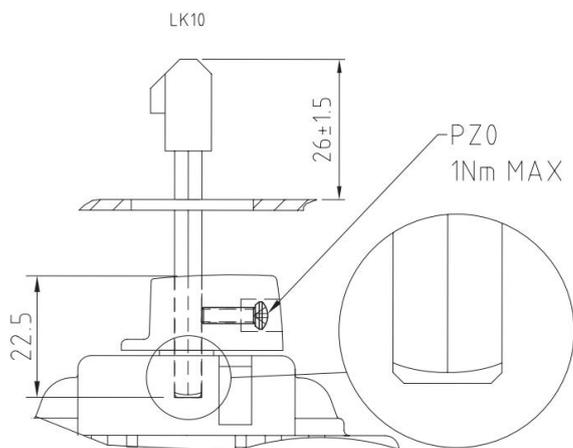
LK10

LK 10, 11, 12 handle mounted at top
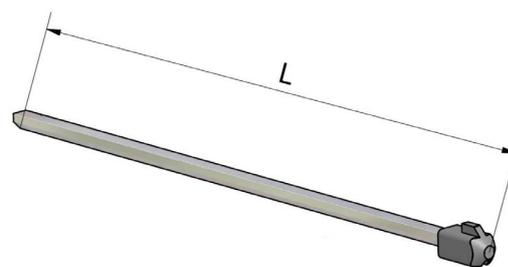
Length of the extension shafts for handles

Shafts to suit extension handles

Shaft Type					Handle Type	
Shaft Part Number	Length (mm)	Material	Shaft size (mm)	Corner cutout	Part Number	Suits switch types
L42AD11	42	Aluminium	5 x 5	Yes	LKX50 (YR)	KU 16 – 160, RT 16 to 40
L100AD11	100	Aluminium		Yes		
L300AD11	300	Aluminium		Yes		
L300AD11VT	300	Steel		Yes		
L400AD11VT	400	Steel		Yes		
L500AD11VT	500	Steel		Yes		
L100AD11	100	Aluminium	5 x 5	Yes	LK10 (YR)	KU 16 – 160, RT 16 - 40
L300AD11	300	Aluminium		Yes		
L300AD11VT	300	Steel		Yes		
L400AD11VT	400	Steel		Yes		
L500AD11VT	500	Steel		Yes		
L100AD11	100	Aluminium	5 x 5	Yes	LK11 (YR)	KU 16 – 160, RT 16 - 40
VKA 125 - 160						
L300AD11	300	Aluminium		Yes		
L300AD11VT	300	Steel		Yes		
L400AD11VT	400	Steel		Yes		
L500AD11VT	500	Steel		Yes		
L228AD12VT	228	Steel	5 x 5	Yes	LK12 (YR)	
LKX100 (YR)	KU 100 – 160, VKA 125 - 160					
L300AD12VT	300			Yes		
L400AD12VT	400			Yes		
L228AD12T6	228	Steel	6 x 6	No	LK12 (YR)	
LKX100 (YR)	VKA 250, KU 200 – 250					
L400AD12T6	400			No		
LVK228	228	Steel	12 x 12	No	LKX150 (YR)	KU 315 – 800, PV 4400
LVK320	320			No		
LVK400	400			No		
LVK500	500			No		

TERMINAL COVERS AND PHASE BARRIERS

Terminal covers are available in two versions – flush (left) and high (middle). The high terminal cover type is specifically made to be used with Katko's vertical cable connectors.
Phase barriers (right) are flexible rubber and can be fitted in with many types and sizes of connectors.

Terminal Covers

Type	For
LS1603P	KU 100 – 160
LSN160	4th Pole, KU 100 – 160
LSVKAC	VKA 250
LS250F	KU 200 – 250, Flush terminal cover
LS400F	KU 315 – 400, Flush terminal cover
LS800F	KU 630 – 800, Flush terminal cover
LS250H	KU 200 – 250, High termnal cover
LS400H	KU 315 – 400, High terminal cover
LS800H	KU 630 – 800, High terminal cover
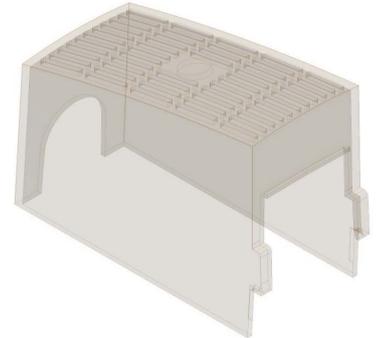
Phase Barriers

Type	For
VS160	KU 100 – 160
VSVKAC	VKA 250
VS250	KU 200 - 250
VS400	KU 315 – 400
VS800	KU 630 – 800, PV 4400

Flush covers fitted

High covers fitted

Phase Barriers fitted

PARALLEL SWITCH KITS

| For KU switches.
| Used to create 6 and 8 pole switches using two connected 3 or 4 pole switches.
| Ensures simultaneous operation of the two connected switches.
| Assembly depth for KU 155-300 mm.
| Length shown in the product code, for example: RV 66, L=66 mm.
| Suits steel shaft type L300AD11VT, cut to a maxiumum 200 mm in length.
| Handle not included.
| Length dimension indicated in the part number, for example: RV 66, L=66 mm

Parallel Kits

Part Number	Shaft position	L Dimension below	Description	Suits Switch type
RV52S	Left side S	52 mm	KU 16 A – 80 A	2 x KU 3P
RV66	Centre	66 mm	KU 16 A – 80 A	2 x KU 3P
RV66S	Left side S	66 mm	KU 16 A – 80 A	2 x KU 3P
RV80	Centre	80 mm	KU 16 A – 80 A	2 x KU 4P
RV80S	Left side S	80 mm	KU 16 A – 80 A	2 x KU 4P

Types:

RV66, RV80   RV52S, RV66S, RV80S
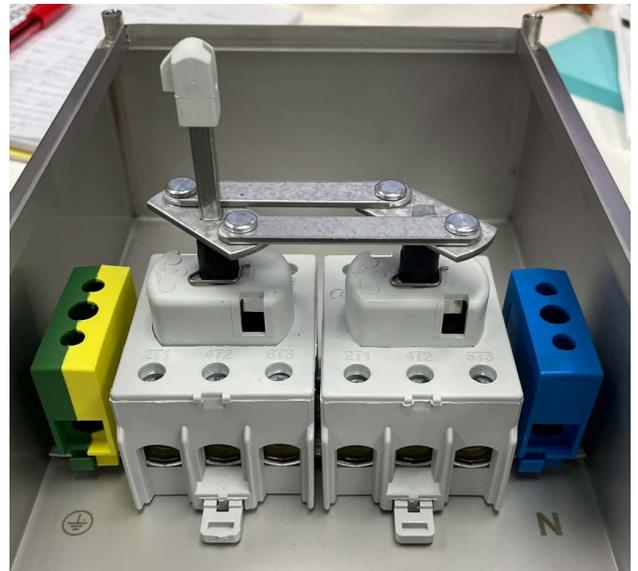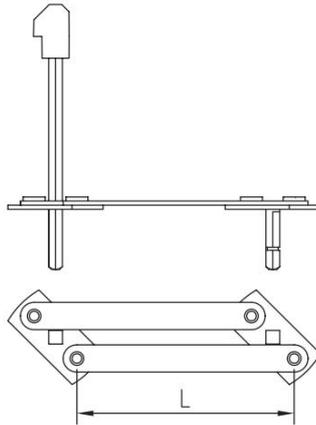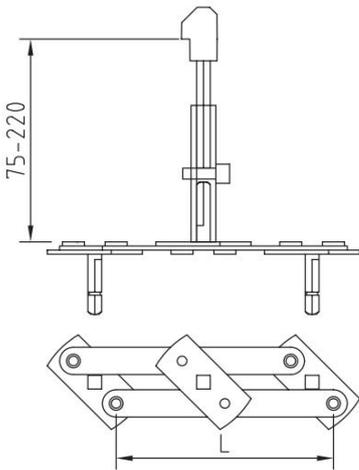
Example of a 6 pole switch in a KER Stainless Steel enclosure

JUNCTION BOX AND GENERAL PURPOSE ENCLOSURES

Discover Katko's KCS Junction Box / General Enclosure Range – durable, versatile, and made from environmentally sustainable materials.
Manufactured from either polycarbonate or ABS. With five sizes to choose from, these enclosures will accommodate a range of electrical components and configurations. These enclosures are a high quality European made design.

Applications:

| Junction boxes.
| Pushbutton, indicator light and selector switch enclosures.
| Motor starter enclosures.
| Enclosed load break switch enclosures.

**NEW
KCS Series**

Features:

| Available in Polycarbonate or ABS
| Polycarbonate types are offered with grey or transparent covers.
| Quick fixing quarter turn screws for stable & reliable sealing.
| IP ratings: IP66 (Polycarbonate) for indoor and outdoor applications, and IP65 (ABS) for indoor use.
| Polycarbonate grey lid enclosures: f1 tested: suitable for outdoor use with respect to exposure to ultraviolet light, water exposure and immersion in accordance with UL746C. Polycarbonate transparent lid enclosures f2 tested.
| ABS = Acrylonitrile Butadiene Styrene types, IP65 indoor use, no specific UV protection.
| Single packaging includes all necessary items for basic use (screws, cover & bottom).
| Multiple installation methods.
| Available with optional mounting plates and Din rail.

Certification and tested according to:

| IEC/EN 62208
| AS/NZS 61439.1
| AS/NZS 61439.4
| IEC/EN 61439.1
| IEC/EN 61439.4
| IEC/EN 60529
| IEC/EN 62262

KATKO KCS JUNCTION BOX AND GENERAL PURPOSE ENCLOSURES

Features:

| Either Polycarbonate or ABS
| Polycarbonate types are offered with a grey or transparent cover.
| Quick fixing quarter turn screws for stable & reliable sealing.
| IP Class: IP66 (Polycarbonate) for indoor and outdoor applications, and IP65 (ABS) for indoor use.
| Mechanical Impact: IK06 to IK08 rated, refer type below.
| Temperature range: - 40°C to + 60°C. Can go up to + 80°C with some derating for the internal equipment, refer APS.
| Polycarbonate grey lid enclosures: f1 tested: suitable for outdoor use with respect to exposure to ultraviolet light, water exposure and immersion in accordance with UL746C. Polycarbonate transparent lid enclosures f2 tested.
| ABS = Acrylonitrile Butadiene Styrene types, IP65 indoor use, no specific UV protection.
| Single packaging includes all necessary items for basic use (screws, cover & bottom).
| Multiple installation methods.
| Rear hole knock outs, as well as top, bottom and side hole location marker dots
| Available with optional mounting plates and Din rail.

Ordering:

Description	Dimensions H x W x D (mm)	IP rating	Application location	IK Impact (-25°C)	IK Impact (+35°C)	Part Number
Polycarbonate Grey Box & Cover						
Polycarbonate, Grey	95 x 95 x 65	IP66	Outdoor	IK06	IK07	KCS996PC
Polycarbonate, Grey	135 x 95 x 70	IP66	Outdoor	IK06	IK07	KCS1397PC
Polycarbonate, Grey	135 x 135 x 75	IP66	Outdoor	IK06	IK07	KCS13137PC
Polycarbonate, Grey	190 x 135 x 90	IP66	Outdoor	IK06	IK07	KCS19139PC
Polycarbonate, Grey	270 x 190 x 100	IP66	Outdoor	IK08	IK08	KCS271910PC
Polycarbonate Grey Box & Transparent Cover						
Polycarbonate, Grey, Transparent cover	95 x 95 x 65	IP66	Outdoor	IK06	IK06	KCS996PCT
Polycarbonate, Grey, Transparent cover	135 x 95 x 70	IP66	Outdoor	IK06	IK06	KCS1397PCT
Polycarbonate, Grey, Transparent cover	135 x 135 x 75	IP66	Outdoor	IK06	IK06	KCS13137PCT
Polycarbonate, Grey, Transparent cover	190 x 135 x 90	IP66	Outdoor	IK06	IK06	KCS19139PCT
Polycarbonate, Grey, Transparent cover	270 x 190 x 100	IP66	Outdoor	IK07	IK07	KCS271910PCT
ABS Recycled Grey Box & Cover						
ABS, Grey	95 x 95 x 65	IP65	Indoor	IK06	IK07	KCS996ABS
ABS, Grey	135 x 95 x 70	IP65	Indoor	IK06	IK07	KCS1397ABS
ABS, Grey	135 x 135 x 75	IP65	Indoor	IK06	IK07	KCS13137ABS
ABS, Grey	190 x 135 x 90	IP65	Indoor	IK06	IK07	KCS19139ABS
ABS, Grey	270 x 190 x 100	IP65	Indoor	IK07	IK08	KCS271910ABS

Optional mounting plates and DIN rail

| KCS enclosures are not supplied with mounting plates or DIN rail as standard.
| KCS enclosures when used as Junction Boxes, may not need mounting plates or DIN rail, though it is required for terminal blocks or other equipment. Refer next page for mounting plates and DIN rail.

Installing APS-Katko load break switches and handles

| KCS enclosures are ideally suited for installation of Katko KU & RT series load break switches, using
| Black or Yellow-red LK series handles. In fact Katko KEM 80 A to 125 A encloses switches are already using KCS271910PC enclosures. Example; KEM enclosed switch "M4" sizes use a KCS271910PC.

Ordering example: Enclosed Katko load break switch

| KCS271910PC   Enclosure, 270 x 190 x 100 mm
| KCS271910MTGPLATE   Mounting plate
| KCSDINRAIL175   Din rail horizontal
| KU4125   125A, 4 pole load break switch
| LK11YR   Yellow Red IP66 handle
| L300AD11VT   Steel shaft (cut to length)
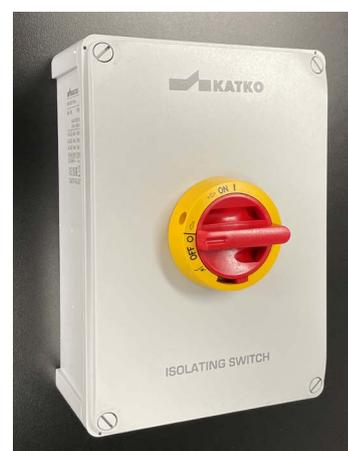
KATKO KCS JUNCTION BOX AND GENERAL PURPOSE ENCLOSURES

Optional Items

Mounting Plates		
KCS996 Mounting plate	Steel mounting plate	KCS996MTGPLATE
KCS1397 Mounting plate	Steel mounting plate	KCS1397MTGPLATE
KCS13137 Mounting plate	Steel mounting plate	KCS13137MTGPLATE
KCS19139 Mounting plate	Steel mounting plate	KCS19139MTGPLATE
KCS271910 Mounting plate	Steel mounting plate	KCS271910MTGPLATE

Mounting plates are available for all sizes and are ready to be installed out of the box. Mounting screws are always supplied with the enclosure.

DIN Rail		
KCS DIN RAIL 83	KCS 996 Horizontal & Vertical, KCS 1397 Horizontal	KCSDINRAIL83
KCS DIN RAIL 122	KCS 1397 Vertical, KCS 13137 Horizontal & Vertical, KCS 19139 Horizontal	KCSDINRAIL122
KCS DIN RAIL 175	KCS 19139 Vertical, KCS 271910 Horizontal	KCSDINRAIL175
KCS DIN RAIL 255	KCS 271910 Vertical	KCSDINRAIL255

Horizontal (short), Vertical (long)
Standard steel DIN rail is available as horizontal or vertical for all sizes. Please refer to the table and reference layout to select the correct type. Mounting screws are always supplied with the enclosure.
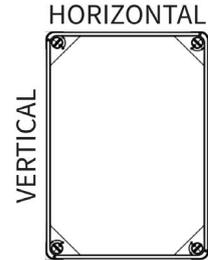
KCS Replament Parts		
Replacement lid peg screws	Replacement quarter-turn screws, 4 pcs, Polycarbonate	KCSQTPCSET

Katko KCS Switches are packaged in a cardboard partial box.

KATKO KCS JUNCTION BOX AND GENERAL PURPOSE ENCLOSURES

ADDITIONAL TECHNICAL INFORMATION

Outdoor Suitability - UL 746C (Underwriters Laboratories, USA)

Materials considered suitable for outdoor use have been subjected to ultraviolet (UV) light exposure and/or water immersion, via a standardised UL testing process. Materials whose properties are not significantly degraded in any of these areas are considered to have passed and are suitable for outdoor use.

Rating	Description	Applicable KCS product
f1	The material has met both UV and water immersion requirements.	Poly boxes with a grey lid
f2	The material has met either UV or water immersion requirements or has only been partially tested.	Poly boxes with a transparent lid

TDK

POWER QUALITY SOLUTIONS

aps

POWER QUALITY SOLUTIONS

General Overview

The increasing demand of electrical power and the awareness of the necessity of energy saving is very Important these days. Also the awareness of power quality is increasing and power factor correction (PFC) and harmonic filtering will be implemented on a growing scale. Enhancing power quality – improvement of power factor – saves costs and ensures a fast return on investment. In power distribution, in low- and medium-voltage networks, PQS focuses on the power flow (cos Φ) and the optimization of voltage stability by generating reactive power and compensation current to improve voltage quality and reliability at distribution level.

APS Industrial offers a comprehensive range on Electrical and Electronic components, equipment and services for the modern Power Factor Correction switchboard, Active Harmonic Filter Panel and Power Distribution Boards. We can measure and analyse from simple to complex electrical systems and offer PFC and/or AHF components or systems to rectify bad power factor and neutralise harmful harmonics.

Range Overview

Active Harmonic Filters and Static VAr Generators

| New approach to harmonic filters power factor correction and load balancing
| Fast response time < 15 ms, with dynamic reaction time less than 50 μs
| Modular design, compact structure, small footprint, simple operation, easy maintenance

PFC Functional Trays

| Capacitors rated at 525Vac for 415Vac systems
| 6.25; 12.5; 25 and 50kVar trays available
| Siemens Fuses and Fuse Switches
| AC6b rated Contactors
| 7% Detuned reactors

Complete PFC Panels

| Automatic multistep systems
| IP32 to IP54
| Floor Standing or Wall Mounted
| 6.25; 12.5; 25 and 50kVar steps
| Contactor or Thyristor switched
| 7% Detuned (other options available

MV PFC Systems and Components

| Fixed and Auto Switching systems
| Power Capacitors
| Surge Capacitors
| Reactors
| Vacuum Contactors
| Capacitor Switches

PFC Controllers

| Three phase measuring and controlling
| Intelligent control
| Automatic initialization
| Logs and stores alarms
| Four quadrant controller
| LED & OLED display

LV PFC Capacitors

| Self-healing Metalized Film
| Dry or Soft Resin
| Up to 200 000h life expectancy
| IEC 60831–1/2 and UL 810-5th edition approved

Additional PFC Components

| AC6b Contactors for Standard PFC
| Thyristor Modules for Dynamic PFC
| Detuned Harmonic Reactors
| 3-Line LCL filters for power electronics
| Power line filters for 3 phase systems
| Sine-wave output filters for 3-phase systems

Power Filtering Equipment

| 3-Line LCL Filters for Power Electronics
| Power Line Filters for 3 phase systems
| Sine-wave output filters for 3-phase systems

POWER FACTOR CORRECTION

How reactive power is generated

Every electric load that works with magnetic fields (motors, chokes,transformers, inductive heating, arc welding, generators) produces a varying degree of electrical lag, which is called inductance. This lag of inductive loads maintains the current sense (e.g. positive) for a time even though the negative-going voltage tries to reverse it. This phase shift between current and voltage is maintained, current and voltage having opposite signs. During this time, negative power or energy is produced and fed back into the network. When current and voltage have the same sign again, the same amount of energy is again needed to build up the magnetic fields in inductive loads. This magnetic reversal energy is called reactive power.

In AC networks (50/60 Hz) such a process is repeated 50 or 60 times a second. So an obvious solution is to briefly store the magnetic reversal energy in capacitors and relieve the network (supply line) of this reactive energy. For this reason, automatic reactive power compensation systems (detuned/conventional) are installed for larger loads like industrial machinery. Such systems consist of a group of capacitor units that can be cut in and cut out and which are driven and switched by a power factor controller.

Reactive
Power KVAr

Apparent
Power KVA

Real Power
KW
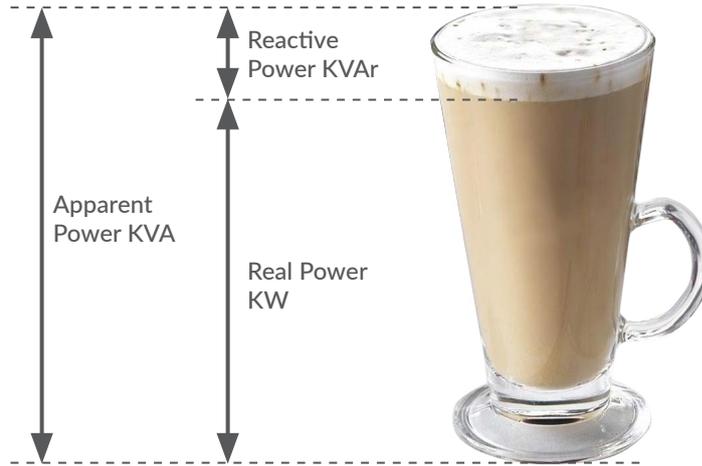
Power Factor
Low Power Factor (cos φ)

| Low cos φ results in higher energy consumption and costs,

| less power distributed via the network,

| power loss in the network,

| higher transformer losses,

| increased voltage drop in power distribution networks.

Power Factor Improvement

Power factor improvement can be achieved by

| compensation of reactive power with capacitors,

| active compensation – using semiconductors,

| overexcited synchronous machine (motor/ generator)

Types of PFC
(detuned or conventional)

| individual or fixed compensation (each reactive power producer is individually compensated),

| group compensation (reactive power producers connected as a group and compensated as a whole),

| central or automatic compensation (by a PFC system at a central point), mixed compensation.

Uninterruptible Power Supply (optional)

EMC filter

Power Factor Correction (PFC) and Harmonic Filtering

DC link (Aluminum electrolytic or film capacitors)

Frequency converter

Charging resistor

M 3~

Output filter   EMC filter

Tuned harmonic filters

Overvoltage protection

250/350/ 550 Hz

Linear load with fixed PFC

Overvoltage protection

M 3~

Dynamic PFC systems

Overvoltage protection

Passive harmonic filters

Overvoltage protection

(detuned PFC systems)

Active harmonic filters

Overvoltage protection

POWER FACTOR CORRECTION CAPACITORS

PFC capacitor series for power factor correction and detuned filter

PARAMETER	PHASECAP PREMIUM	PHICAP
POWER QR	5.0 … 33.0 kVAr	0.5 … 30.0 kVAr
RATED VOLTAGE VR	230 … 800 Vac	230 … 525 Vac
INRUSH CURRENT IS	Up to 300 * IR	Up to 200 * IR
TEMPERATURE CLASS	-40/D: Max: Temp. = 55 °C Max. Mean 24 h = 45 °C Max Mean 1 year = 35 °C Lowest Temp. = -40 °C	-40/D: Max: Temp. = 55 °C Max. Mean 24 h = 45 °C Max Mean 1 year = 35 °C Lowest Temp. = -40 °C
LOSSES - DIELECTRIC QL	< 0.2 W/kVAr	< 0.2 W/kVAr
LOSSES - TOTAL QL (WITHOUT DISCHARGE RESISTOR)	< 0.45 W/kVAr	< 0.45 W/kVAr
MAX. HUMIDITY	95%	95%
SAFETY	Triple (self-healing, overpressure disconnect, dry technology)	Duel (self-healing, overpressure disconnect)
IMPREGNATION	Inert Gas	Biodegradable soft resin, semi-dry
MEAN LIFE TLD (CO)	Up to 180 000 h (temp. class -40/C)	Up to 135 000 h (temp. class -40/C)
EXPECTANCY	Up to 130 000 h (temp. class -40/D)	Up to 100 000 h (temp. class -40/D)
CONNECTION	Optimised Capacitor Safety Terminal, Block-type	B32340/B32343 Series: Fats-on Terminals B32344 Series: Optimised Capacitor Safety Terminal, Block-type
DISCHARGE RESISTOR	Pre-Fitted	Pre-Fitted
COOLING	Natural or Forced	Natural or Forced
CASE / SHAPE	Aluminium / Cylindrical	Aluminium / Cylindrical
ENCLOSURE	IP20, indoor mounting, (optional IP54 with terminal cap)	B32340/B32343: IP00 B32344: IP20 (optional IP54 with terminal cap)
NUMBER OF SWITCHING OPERATIONS	Max. 7500 per year	Max. 5000 per year
STANDARD	IEC 60831-1+2, UL 810 5th edition, cUL file # E238746 (up to 690 V), GOST	IEC 60831-1+2, UL 810 5th edition, cUL file # E106388 CSA file # C22.2 N°190 MC #236094, (up to Ø 85mm), GOST
ORDERING CODE	B25667C*	B32340C* B32343C* B32344E*

KVAR @525VAC	PART NUMBER	KVAR @ 415VAC
PhaseCap Premium		
10 kVAr	B25667-C5127-A375	6.2 kVAr
20 kVAr	B25667-C5237-A375	12.5 kVAr
25 kVAr	B25667-C5287-A375	15.6 kVAr
PhiCap		
6.2 kVAr	B32344-E5071-A520	4 kVAr
10.4 kVAr	B32344-E5121-A520	6.5 kVAr
20 kVAr	B32344-E5202-A021	12.5 kVAr
25 kVAr	B32344-E5252-A021	15.6 kVAr

POWER FACTOR CONTROLLERS

Controllers for PFC are of major importance in the PFC system. They measure the actual power factor and connect or disconnect capacitor stages to achieve a specific desired value (cos ⬚).

BR6000 OLED series

The PF controller series BR6000 (six and twelve stages) offer highly intelligent control behaviour and are very user-friendly thanks to menu-driven handling (plain language). Their multifunctional display greatly simplifies installation, handling and maintenance.

Different versions of the BR6000 series provide solutions to various applications:

BR6000-R6 and BR6000-R12 for conventional applications with slowly changing loads

BR6000-T6 for dynamic PFC in applications with fast-changing loads

BR7000/I OLED series

The PF controller BR7000 is a follow-up development of the PF controller BR6000-series, featuring two devices in one: it can be used as a controller as well as a grid measuring tool.

The BR7000 offers a graphic display and 12 or 15 relay outputs for the steps and message/alarm relays. Due to the possibility of programming, the outputs can be used for a broad range of applications.

The BR7000 15 step controller features 3 current inputs that enables it to switch a combination on single and three phase capacitors.

The controller can be connected to a PC via a RS485 interface. The Windows-based software BR7000-SOFT allows the readout of acquired data. The possibility of graphical display of all values offers a comfortable visualization.

Data Logger

DataLogSD for BR7000/I controllers – B44066-R1311-E230

The data logger is used for recording, visualisation and evaluation for grid parameters after installation of a PFC system with a BR7000 and BR7000i controllers.

Features:

| Recording of grid parameters, switching behaviour and temperature values of a system
| Visualisation and evaluation via comfortable
| Windows-based software
| Compact design in plastic casing
| Evaluation software, SD-card, connection cable included in the delivery
| No extra auxiliary voltage supply needed

PART NUMBER	DESCRIPTION
BR6000 CONTROLLERS WITH RELAY OUTPUTS AND OLED DISPLAY	
B44066-R6006-E230	BR6000 CONTROLLER 6 RELAY
B44066-R6012-E230	BR6000 CONTROLLER 12 RELAY
BR7000 CONTROLLERS WITH RELAY OUTPUTS GRAPHIC DISPLAY	
B44066-R7112-E230	BR7000i CONTROLLER 12 RELAY WITH RS485
B44066-R7415-E230	BR7000 CONTROLLER 15 RELAY WITH RS485
BR7000 CONTROLLERS WITH TRANSISTOR OUTPUTS GRAPHIC DISPLAY	
B44066-R7615-E230	BR7000 T/HD CONTROLLER 15 with RS485
DATALOGSD FOR BR7000/I CONTROLLERS	
B44066-R1311-E230	DataLogSD for BR7000

GRID ANALYSIS TOOL

The measuring device MC7000-3 has been developed for three-phase measuring, display and storage of electric parameters in low-voltage grids. The Windows based software (included in the delivery) allows a fast and comfortable evaluation of the measured data. Based on the findings of this evaluation the optimum design for a tailor-made PFC solution or the inspection of an existing one is easily performed. The collected data is available in Excel-format giving the user further processing options. As an additional feature the MC7000-3 is equipped with an SD memory card slot. A memory card (1 GB) for data storage and easy passing on to a PC is already included in the delivery. Featuring an illuminated 128 x 64 graphic display and a large number of configuration options for data collection, display and storage the new standard measuring tool is flexible and easy to use in the field. Additionally its compact design and the light weight suitcase make it easy to transport. A further benefit for very user is the availability of not only English, but also German, Spanish, Russian and Turkish as menu languages.

Services

These analysers are available for sale or APS Industrial can offer rental of the equipment with partial reimbursement if the analysis leads to the sale of Power Factor corrections systems or components.

Features

| Measuring, display and storage of numerous parameters
| Voltage (3-phase)
| Current (3-phase)
| Frequency (3-phase)
| Active power (3-phase)
| Reactive power (3-phase)
| Apparent power (3-phase)
| Power factor (3-phase)
| Active, reactive and apparent energy
| Voltage harmonics (up to 51st)
| Harmonics of current (up to 51st)
| TDH-V (3-phase)
| THD-I (3-phase)
| Temperature
| Comfortable programming of recording interval and duration via timers
| Display and internal storage of maximum values with time stamp
| Display of date and time
| Display of harmonics, bar diagram available
| Large number of display options e.g. rotating display and adjustment of font size
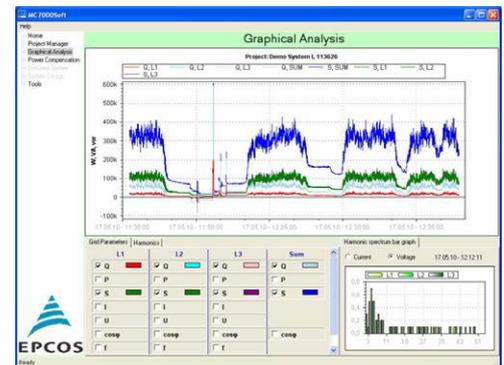
PC software included

| Software for evaluation of grid parameters for Windows operating system
| Administration of several projects possible
| Graphical display
| Several pre-configured graphical display of standard values
| Graphical display of selected grid values, large number of configuration options
| Comfortable editing of para meters and time interval
| Display as line graph or bar diagram
| Copy into clipboard and print function available
| Mathematical evaluation of measured values
| Automatic calculation of required kvar (target cos to be set by user)
| Evaluation of measured harmonics and recommendation of detuning factor of a PFC system of calculated size
| Influence of detuning on the harmonics for the calculated detuning factor and system size is provided

ACCESSORIES

Thyristor Modules for Dynamic PFC

Conventional systems for power factor correction are used to optimize the power factor and reduce the level of harmonics in the grid. The usage of new technologies in modern industry has negative impacts on electric power quality of the main supply networks, e.g. frequent high load fluctuations and harmonic oscillation.

Excessive currents, increased losses and flickering will not only influence the supply capacity but will also have a significant impact on the operation of sensitive electronic devices.

The solution for this are dynamic power factor correction systems. With the thyristor module series TSM-LC and TSM-HV, we provide the main component – "the electronic switch" – for dynamic power factor correction. The TSM module

Applications for Thyristor Modules

Main supply networks with high load fluctuations for dynamic PFC systems

| Presses
| Welding machines
| Elevators
| Cranes
| Wind turbines

Features of the Thyristor Modules

| Easy installation: it can be used similar to a contactor
| All the intelligence needed is offered within the thyristor module itself
| Reaction time: 5 milliseconds only
| Permanent self-controlling of:
  - voltage parameter
  - phase sequence
  - capacitor output
| Display of
  - operation
  - faults
  - activation
| TSM-LC-I:
  - Single-phase, for direct 2-phase switching of capacitive loads (L-N) or (L-L)
| TSM-LC-S:
  - Triggering of the module via system bus (patch cable) from PF-controller BR7000-I-TH/S485
  - Up to 32 devices at supported by controller
  - Display and monitoring of V, I, Q, temperature, switching state
  - Error display and evaluation via bus directly at PF-controller
  - Direct monitoring of temperature switch of filter reactor
| Voltage range:
  - TSM-LC-I: 230 … 525 V
  - TSM-LC*: 380 … 440 V
  - TSM-LC-S: 200 … 440 V
  - TSM-LC-N690: 380 … 690 V
  - TSM-HV: 690 V
| Output range:
  - TSM-LC-I: 10 … 22 kvar, depending on the voltage
  - TSM-LC: 10, 25, 50, 100, 200 kvar, depending on the voltage
  - TSM-HV: 200 kvar"

CONTACTORS

"When a capacitor is switched to an AC voltage, the result is a resonant circuit damped to a greater or lesser degree. The switching of capacitors can cause high inrush currents, particularly when they are switched in parallel to others already activated in the power line, and if high short-circuit powers are present on the line.

Capacitor contactors with damping resistors make use of preswitching auxiliary contacts. They close before the main contacts and pre-load the capacitor thus avoiding current peak values."

Contactor Features

| Excellent damping of inrush current
| Improved power quality (e.g. avoidance of voltage sags)
| Longer useful service life of main contacts of capacitor contactor
| Soft switching of capacitor and thus longer useful service life
| Enhanced mean life expectancy of PFC system
| Reduced ohmic losses

| Leading contacts with wiper function
| Tamper-proof and protected resistors
| Easy access for cable connection
| Voltage range: 400 … 690 V
| Output range: 12.5 … 100 kvar
| AC6b utilization category

Reactors – Antiresonance Harmonic Filter

General

The increasing use of modern power electronic apparatus (drives, uninterruptible power supplies, etc) produces nonlinear current and thus influences and loads the network with harmonics (line pollution).

The power factor correction or capacitance of the power capacitor forms a resonant circuit in conjunction with the feeding transformer.

Experience shows that the selfresonant frequency of this circuit is typically between 250 and 500 Hz, i.e. in the region of the 5th and 7th harmonics.

Such a resonance although can lead to the following undesirable effects:

| overloading of capacitors,
| overloading of transformers and transmission equipment,
| interference with metering and control systems, computers and electrical gear,
| resonance elevation, i.e. amplification of harmonics,
| voltage distortion.

These resonance phenomena can be avoided by connecting capacitors in series with filter reactors in the PFC system. These so called "detuned" PFC systems are scaled in a way that the self-resonant frequency is below the lowest line harmonic. The detuned PFC system is purely inductive seen by harmonics above this frequency. For the base line frequency (50 or 60 Hz usually), the detuned system on the other hand acts purely capacitive, thus correcting the reactive power."

Application

| Avoidance of resonance conditions
| Tuned and detuned harmonic filters
| Reduction of harmonic distortion (network clearing)
| Reduction of power losses

Features

| High harmonic loading capability
| Very low losses
| High linearity to avoid choke tilt
| Low noise
| Convenient mounting
| Long expected life time

| Temperature protection (NC contact)
| Typical Detuning Factors available:
| 5.67%
| 7% (Typically stocked)
| 14%
| Custom Reactors available on request

POWER FACTOR CORRECTION ACCESSORIES

Contactors for standard switched PFC systems. 3 Phase, Inrush damping, soft switching, AC6b rated

KVAR @ 415VAC	PART NUMBER	AC COIL VOLTAGE
0 ... 13 kVAr	B44066-S1810-J230	230 Vac
10.5 ... 27 kVAr	B44066-S3210-J230	230 Vac
23 ... 53 kVAr	B44066-S6210-J230	230 Vac
10.5 ... 27 kVAr	B44066-S3210-J400	415 Vac
23 ... 53 kVAr	B44066-S6210-J400	415 Vac

Thyristor Modules for Dynamic PFC

KVAR @ 415VAC	PART NUMBER	RATED AC VOLTAGE
25 ... 50 kVAr	B44066-T3850-E402	380 ... 440 V
100 kVAr	B44066-T0100-E402	440 V

Accessories for Thyristor unit

KVAR @ 415VAC	PART NUMBER	DESCRIPTION
12.5 .. 50 kVAr	B44066-T0022-E400	EW22 Discharge Resistor

Reactors for Detuned Harmonic Filters - 7% Detuned

KVAR @ 415VAC	PART NUMBER	RATED AC VOLTAGE
6 kVAr	B44066-D7006-L440	440 V
12.5 kVAr	B44066-D7012-L440	440 V
25 kVAr	B44066-D7025-L440	440 V
50 kVAr	B44066-D7050-L440	440 V

Fuses and Fuse Switches an Busbar holder

KVAR @ 415VAC	PART NUMBER	DESCRIPTION
6 kVAr	3NA3805	LV HRC, 16 A, Size 000, 500V
12.5 kVAr	3NA3812	LV HRC, 32 A, Size 000 , 500V
25 kVAr	3NA3822	LV HRC, 63 A, Size 000 , 500V
50 kVAr	3NA3832	LV HRC, 125 A, Size 00, 500V
All	3NP1133-1BC10	Fuse Switch, Lug, 60mm, Busbar Mount, 160A, Size 00
All	8US1923-2AA01	Busbar End Holder, 3P, Outside Fixings

POWER FACTOR CORRECTION FUNCTIONAL TRAYS

Each PFC Functional tray consist of Capacitors, a Contactor, a Detuned Harmonic Reactor, Fused and a Fuse Switch

KVAR @ 415VAC	PART NUMBER	DESCRIPTION
6.25 kVAr	PFCT6WR	6.25 kVAr Tray complete with Harmonic Reactor
12 kVAr	PFCT12WR	12.5 kVAr Tray complete with Harmonic Reactor
25 kVAr	PFCT25WR	25 kVAr Tray complete with Harmonic Reactor
50 kVAr	PFCT50WR	50 kVAr Tray complete with Harmonic Reactor

The tray is in a format easily adapted to fixing in standalone boards or inside main switchboards.

Characteristics

| Capacitor Rated Voltage 525V three phase 50Hz

| Maximum permissible voltage increase; 10% (up to 8 hours daily), 15% (up to 30min daily)

| Ambient Temperature; max 55 ˚C; max mean 24h = 45˚C

| Segregation between capacitors and reactor and contactor

Please contact your local APS Industrial Sales Representative to discuss your power factor project and its requirements. We can offer our services to measure and analyse problematic sites and offer components, trays or complete PFC panels to improve the Power Factor.
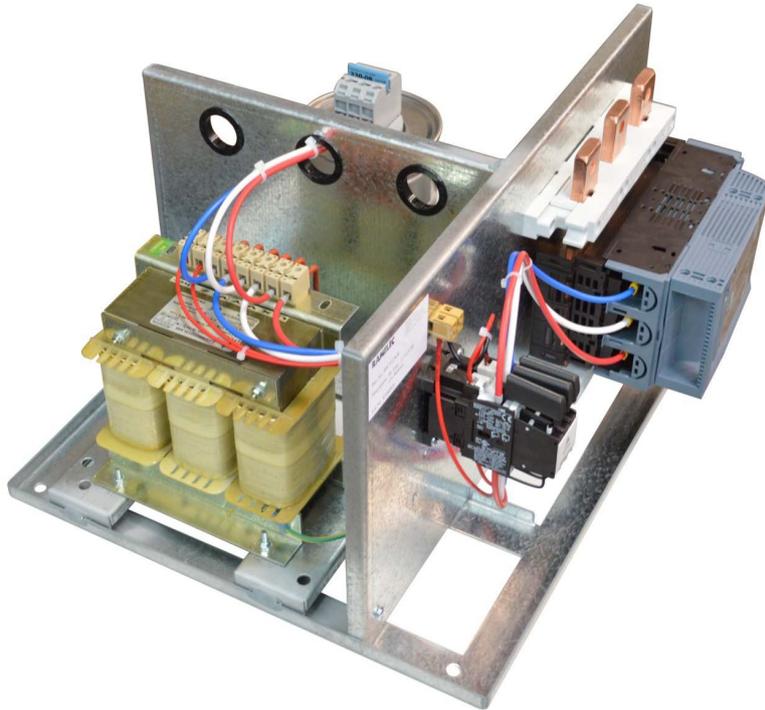
MV SOLUTIONS

Our latest addition to the APS Industrial - TDK line-up is power quality solutions and systems between 1kV and 33kV.
In this sector we can offer:

| MV PFC Capacitors

| MV Surge Capacitors

| MV Energy Storage Capacitors

| MV Vacuum Contactor for Capacitor Switching

| MV Vacuum Switches for Capacitor Switching

| MV Series Reactors for Detuning, Damping and Current Limiting

| MV Static VAr Generators

| Complete MV Automatic PFC systems

| Complete MV Tuned Harmonic Filters

Please contact your local APS Industrial Representative for further information.
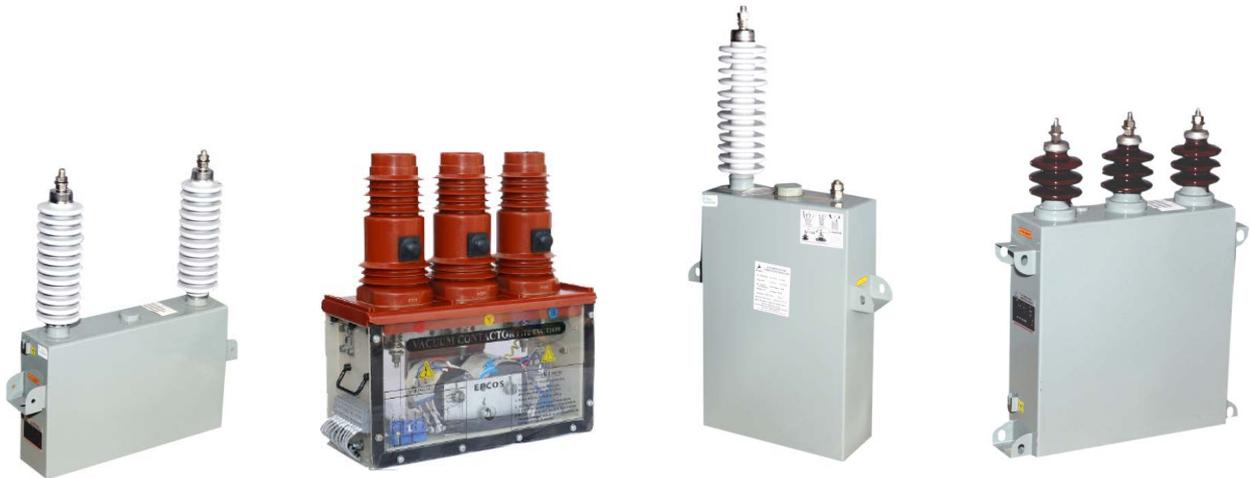
STATIC VAR GENERATOR

EPCOS has been offering a comprehensive range of key components for Power Factor Correction (PFC) and Power Quality Solutions (PQS) for many years. The rapid development of industry and infrastructure resulted in the increased usage of power electronic loads which demands a highly dynamic response time for reactive power compensation. Conventional reactive power compensation only with passive components cannot fully meet these conditions, especially when the reactive power requirement is rapidly changing.

| EPCOS Static Var Generator (SVG) PQvar Series utilizes three levels inverter topology to provide real time response to reactive power requirements)

| EPCOS Static Var Generator (SVG) PQvar Series is a Flexible AC Transmission Systems (FACTS) controller, whose capacitive or inductive output current can be controlled independent of the AC system voltage.

| SVG PQvar Series is a parallel device connected to the grid and the main circuit is based on a three phase voltage source converter (VSI) topology. External CT measures load current and external DSP helps to calculate and analyze the required reactive current.

| SVG PQvar Series controls PWM signals and sends control message to IGBT modules which generate reactive current in order to improve system power factor.

| SVG PQvar Series provides faster compensation compared to conventional compensation systems such as capacitor banks. Thus, it is an ideal solution especially for fast loads of inductive or capacitive behavior. It can compensate both inductive and capacitive reactive current without under or over compensation. Static Var Generator (SVG) PQvar™ Series

- New approach to power factor correction and load balancing
- Fast response time < 15 ms, with dynamic reaction time less than 50 µs
- Precise compensation after compensating the target power factor can reach a value of unity
- Capable of both inductive and capacitive compensation and will avoid under and over compensation issues
- Minimal loss, better energy efficiency, long-term safe and reliable operation
- Modular design, compact structure, small footprint, simple operation, easy maintenance

Operating principle of SVG PQvar Series

SVG PQvar Series generates a compensation current working as a dynamic current source, monitors the power factor value of power system, and generates real time compensation current in order to ensure to achieve the set target cos ϕ.

STEPLESS COMPENSATION

Unlike traditional stepped capacitor based PFC equipment, a SVG supplies stepless compensation

Load reactive demand in the application
PQSine compensation capacity

Under Compensation
Over Compensation

Load reactive demand in the application
Capacitor step compensation capacity
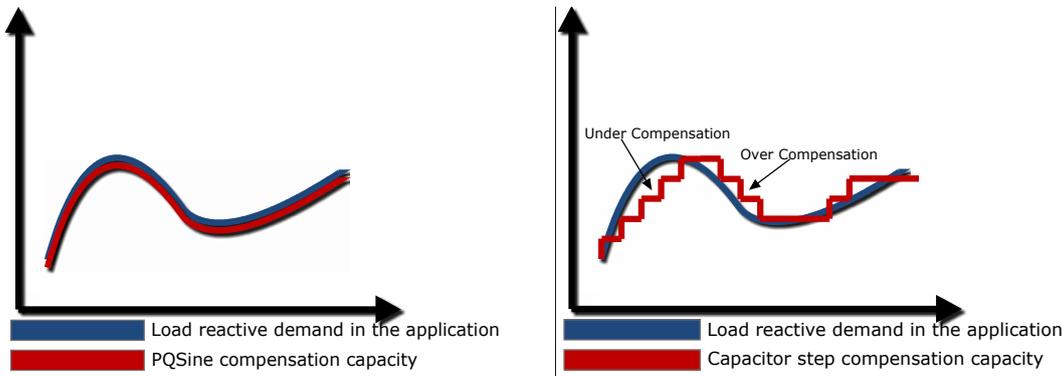
SVG PQvar Series load balancing for 3P3W and 3P4W

SVG PQvar Series can balance load between phases and unloaded neutral wire for input voltage connection systems such as three phase three wires (3P3W) and three phase four wires (3P4W). Therefore, it will be a perfect solution with applications having reactive power requirements along with unbalanced loads, which is the case with the electricity distribution in rural areas, some industrial applications and much more.
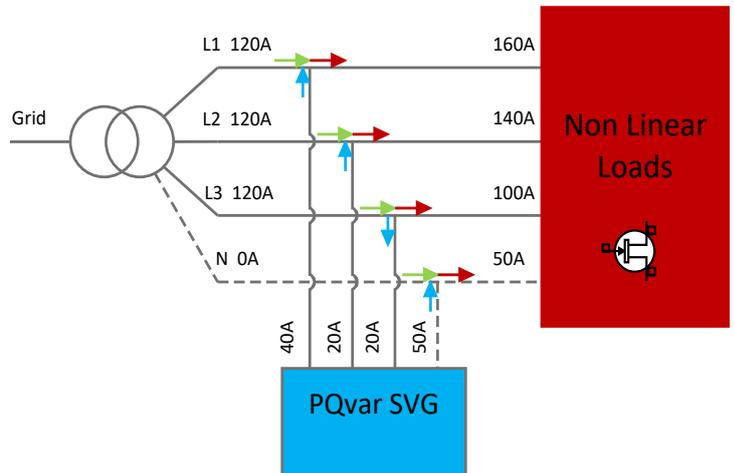
STATIC VAR GENERATOR

General information

SVG PQvar Series is a new product which has rewritten the conventional approach of power factor correction. It is designed to compensate the rapid reactive power requirement, thereby improving the power factor and consequently reducing the costs. SVG PQvar Series monitors the current signal and utilizes three levels inverter topology which generate the reactive part of the measured current to compensate dynamically in order to improve the power factor. It can dynamically compensate power factor from -1 to 1.

Features

| SVG PQvar Series can be considered as a controllable reactive current source, which helps to improve the system power factor to a target value of more than > 0.99 without any over or under compensation.

| SVG PQvar Series has extremely rapid dynamic compensation reaction time, which is less than 50 μs and a state response time of less than 15 ms.

| SVG PQvar Series is an active compensation device, which doesn't need capacitor or reactor for reactive power compensation which will avoid the condition of resonance caused by the traditional capacitor banks.

| SVG PQvar Series can compensate both inductive and capacitive reactive power and also provide load balancing.

| SVG PQvar Series can compensate reactive power in any scope and can be installed together with traditional capacitor banks.

| The grid voltage has no influence on the SVG PQvar Series compensation capacity. So even if the system voltage drops down, the required reactive power can be compensated by monitoring its requirement.

| SVG PQvar Series can compensate for the same capacity equivalent to the installed capacity, therefore it requires 20 to 30% lower capacity in comparison with the conventional capacitor banks.

Typical applications

Some typical applications which require rapid reactive power compensation includes the following:

| Data centers
| UPS systems
| Renewable power generation (e.g. photovoltaics and wind turbines)
| Sensitive equipment manufacturing (e.g. silicon wafer production, semiconductor production)
| Industrial production machines
| Electrical welding systems
| Plastic industry machinery (e.g. extruders, injection molders)

Safety features

| Overload protection
| Internal short-circuit protection
| Overheating protection
| Overvoltage and undervoltage protection
| Inverter bridge protection
| Fan fault alarm
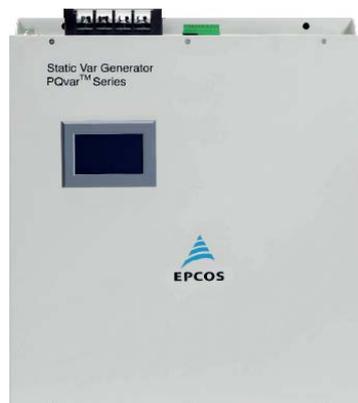
Technical data and specifications of low-voltage SVG PQvar Series 400 V

RATED VOLTAGE	400 V; −40 … +20%	
MAINS FREQUENCY	50/60 Hz (range: 45 … 63 Hz)	
PARALLEL OPERATION	Unlimited	
RESPONSE TIME	< 15 ms	
OVERALL EFFICIENCY	> 97%	
POWER GRID STRUCTURE	3P3W / 3P4W	
CURRENT TRANSFORMERS	150/5 … 10000/5	
CIRCUIT TOPOLOGY	3-level	
SINGLE-MODULE COMPENSATION CAPACITY	30/50 kvar	100/200 kvar
MODULE NET WEIGHT	21/35 kg	48/66 kg
DIMENSIONS (W × D × H)	30 kvar: 440 × 445 × 150 mm (module)	100 kvar: 500 × 470 × 270 mm (module)
	50 kvar: 500 × 510 × 190 mm (module)	200 kvar: 500 × 650 × 350 mm (module)
COOLING MODE	Smart air cooling: 220 L/sec	Smart air cooling: 405 L/sec
TARGET POWER FACTOR	Adjustable from −1 … +1	
CABINET MOUNTING	Floor-mounted, wall-mounted	
COMMUNICATION PORTS	RS485, CAN, and network port	
COMMUNICATION PROTOCOLS	Modbus and PMBus	
NOISE LEVEL	< 65 dB (depending on the model)	
PROTECTION FUNCTIONS	Overvoltage, undervoltage, short-circuit, inverter bridge inverse, over-compensation	
OPERATING TEMPERATURE	−10 … +40 °C (Up to 55°C with derating), other temperature ranges upon request	
RELATIVE HUMIDITY	5 … 95%, non-condensing	
PROTECTION CLASS	IP20 (other IP classes are customizable)	
PANEL COLOR	RAL7035 light grey (X15 Orange on request)	
ALTITUDE	1500 m, 1% derating per 100 m plus	
GENERAL SAFETY REQUIREMENTS FOR SVG PQVAR SERIES USE AND OPERATION AREA	EN 50178:1997/ IEC 50178:1997	
SVG PQVAR SERIES EMC REQUIREMENTS	EN 61000_6_2(2005)/ EN55011, GROUP1, CLASS A	
	IEC 61000_6_2(1999)/ CISPR11, GROUP1, CLASS A	
SVG PQVAR SERIES PERFORMANCE REQUIREMENTS	EN 50091-3/ IEC 62040-3/ AS 62040-3(VFI SS 111)	

Technical data and specifications of low-voltage SVG PQvar Series 400 V

PART NUMBER	DESCRIPTION
3 PHASE 3 WIRE - WALL MOUNT	
B44066F6030V344	PQSW6030V344 30kVAr 3P3W Wall mount
B44066F6050V344	PQSW6050V344 50kVAr 3P3W Wall mount
B44066F6100V344	PQSW6100V344 100kVAr 3P3W Wall mount
B44066F6200V344	PQSW6200V344 200kVAr 3P3W Wall mount
3 PHASE 4 WIRE - WALL MOUNT	
B44066F8030V344	PQSW8030V344 30kVAr 3P4W Wall mount
B44066F8050V344	PQSW8050V344 50kVAr 3P4W Wall mount
B44066F8100V344	PQSW8100V344 100kVAr 3P4W Wall mount
B44066F8200V344	PQSW8200V344 200kVAr 3P4W Wall mount
3 PHASE 3 WIRE - FLOOR STANDING	
B44066F6100V315	PQSF6100V315 100kVAr 3P3W Floor Standing
B44066F6200V315	PQSF6200V315 200kVAr 3P3W Floor Standing
B44066F6250V315	PQSF6250V315 250kVAr 3P3W Floor Standing
B44066F6300V315	PQSF6300V315 300kVAr 3P3W Floor Standing
B44066F6400V315	PQSF6400V315 400kVAr 3P3W Floor Standing
B44066F6500V315	PQSF6500V315 500kVAr 3P3W Floor Standing
B44066F6600V315	PQSF6600V315 600kVAr 3P3W Floor Standing
B44066F6800V315	PQSF6800V315 800kVAr 3P3W Floor Standing
3 PHASE 4 WIRE - FLOOR STANDING	
B44066F8100V315	PQSF8100V315 100kVAr 3P4W Floor Standing
B44066F8200V315	PQSF8200V315 200kVAr 3P4W Floor Standing
B44066F8250V315	PQSF8250V315 250kVAr 3P4W Floor Standing
B44066F8300V315	PQSF8300V315 300kVAr 3P4W Floor Standing
B44066F8400V315	PQSF8400V315 400kVAr 3P4W Floor Standing
B44066F8500V315	PQSF8500V315 500kVAr 3P4W Floor Standing
B44066F8600V315	PQSF8600V315 600kVAr 3P4W Floor Standing
B44066F8800V315	PQSF8800V315 800kVAr 3P4W Floor Standing
EXTRA MODULES	
B44066F6030V300	PQSM6030V300 30kVAr 3P3W Module
B44066F6050V300	PQSM6050V300 50kVAr 3P3W Module
B44066F6100V300	PQSM6100V300 100kVAr 3P3W Module
B44066F6200V300	PQSM6200V300 200kVAr 3P3W Module
B44066F6030V300	PQSM8030V300 30kVAr 3P4W Module
B44066F6050V300	PQSM8050V300 50kVAr 3P4W Module
B44066F6100V300	PQSM8100V300 100kVAr 3P4W Module
B44066F6200V300	PQSM8200V300 200kVAr 3P4W Module
ACCESSORIES	
B44066F9999V230	7" HMI Colour

ACTIVE HARMONIC FILTERING

Today, most loads react non-linear. When connected to a sinusoidal voltage, these loads produce non sinusoidal currents which in turn creates distortion in the voltage supply called "Harmonic Distortion". The most widely used examples of non-linear loads today are Power electronics like Switch Mode Power Supplies which power our every day devices e.g. TVs, Laptops and Mobile Phone Chargers. In our industrial environment power electronics are used in Variable Speed Drives, Un-Interruptible Power Supplies and Arc devices like Arc Welders and Arc Furnaces.

The voltage distortion caused by these machines can lead to:

| Additional investment due to faster equipment derating
| Higher energy consumption
| Higher downtime of production equipment
| Higher maintenance and repair cost
| Reduced product quality
| Reduced production output

Solutions for reducing the harmonic content can be:

| To increase fault level (reduction of impedances)
| Limiting total output / simultaneously working harmonic sources
| Balanced connection of 1-phase loads to the 3-phases
| Using equipment with higher pulse number

Use harmonic filtering techniques:

| De-tuned passive harmonic filters
| Tuned passive harmonic filters
| Active harmonic filtersActive Harmonic Filtering

EPCOS has been offering a comprehensive range of key components for power factor correction (PFC) and power quality solutions (PQS) for many years. In the past, most consumer loads were linear, i.e. when they were connected to a sinusoidal voltage, the current was also sinusoidal. In the meantime, the use of power electronics has significantly increased. These devices are usually non-linear, i.e. when connected to a sinusoidal voltage they produce non-sinusoidal currents which may create problems for other devices.

Besides passive filters, more and more active harmonic filters are now used, especially where the PF is close to 1 and harmonic disturbances change frequently.

The PQSine S-series of active filters and power optimizers from EPCOS:

| Eliminate harmonics up to the 50th order
| Offer dynamic VAR compensation
| Balance the load actively to all phases
| Offer high performance
| Have a three-level topology
| Improve power quality and enhance system reliability
| Ensure integrated overload, overvoltage and undervoltage protection
| Ensure low life-cycle costs thanks to a modular concept and low losses.

The cleaner the grid, the greater the benefit

EPCOS active harmonic filters and power optimizers help to eliminate harmonic pollution from the grid, reduce power quality problems and use energy more efficiently and reliably.

Harmonic pollution is a growing problem with the increasing use of power electronics and non-linear loads (such as variable speed drives, UPS, computers, servers, TV sets, etc.).

The presence of harmonics increases the RMS current in power networks. The circulation of harmonic currents through the system impedance creates voltage harmonics which produce voltage distortions and thus deteriorate the quality of the supply voltage. This leads to higher operating and energy costs, production/process downtimes, overheating and malfunction of equipment.

ACTIVE HARMONIC FILTERING

The active harmonic filters and power optimizers of the PQSine S-series from EPCOS are based on the latest state of the art in power electronics technology. They are installed in parallel to the polluting loads. The active filter analyzes the line current and its associated harmonics and generates a compensation current which neutralizes the harmonic currents and creates an almost sinusoidal waveform (see Figure 1). Figure 2 shows the total current harmonic distortion without PQSine S-series. Figure 3 shows the result with activated PQSine S-series, namely a cleaner grid.

In addition to eliminating the harmonics, the PQSine S-series active filter and power optimizer also actively balances the loads to all three phases, performs dynamic VAR compensation and even some transient compensation. These features avoid line resonance and ensure high performance and reliability.

Grid Current

Load Current

Mains

Load

Harmonic Soarce e.g. Electric Motor with VSD

Compensation Current

Figure 2

■ Harmonic Magnitude

Figure 3

■ Harmonic Magnitude after filtering
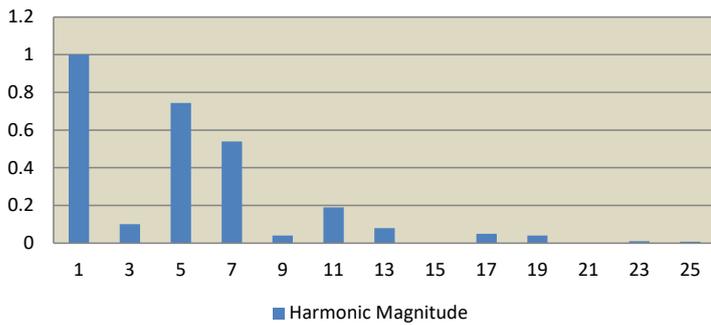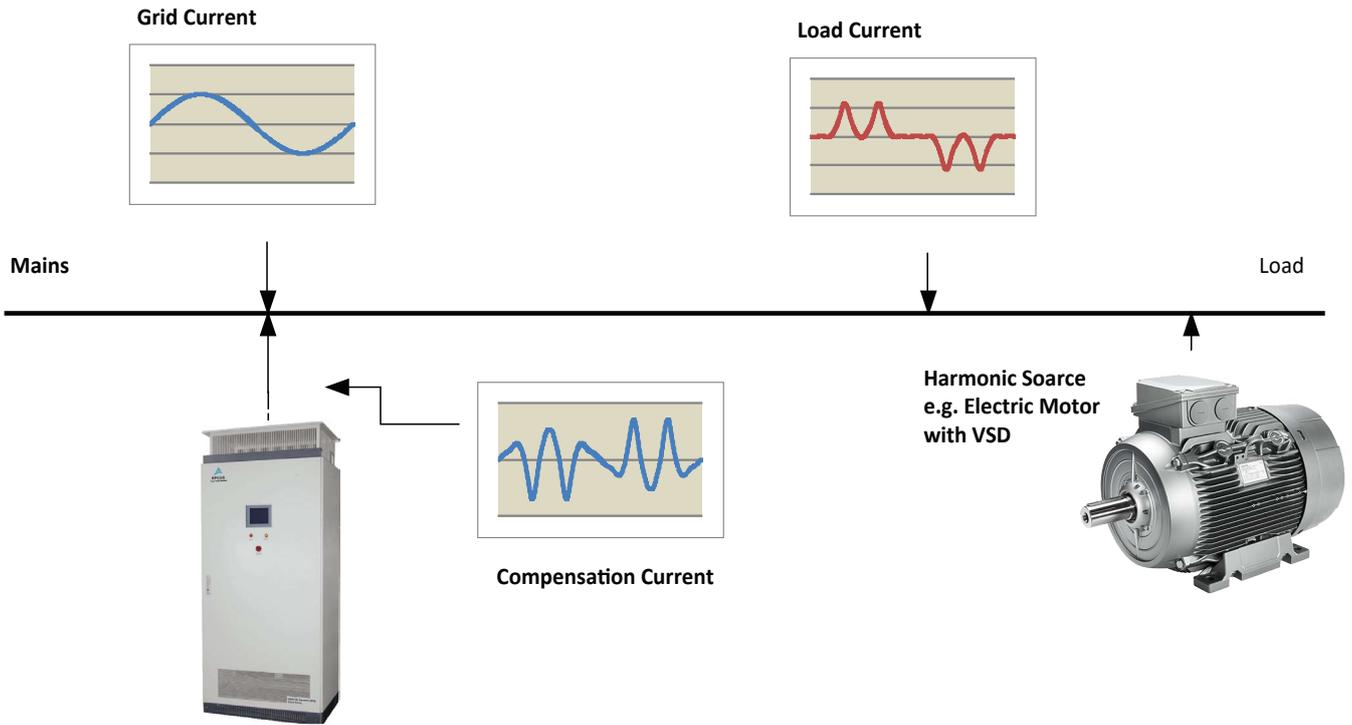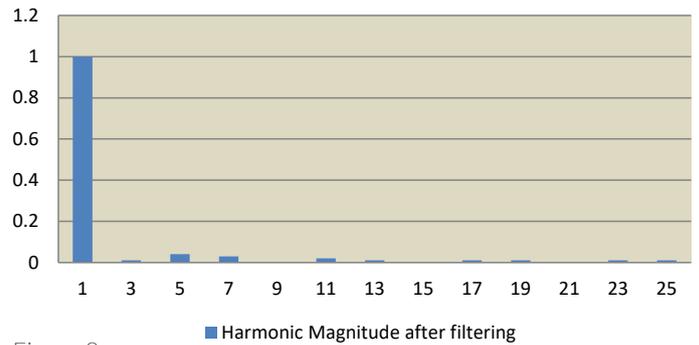
ACTIVE HARMONIC FILTERING

The PQSine S-series is an active harmonic filter system designed to eliminate harmonic oscillations and consequently reduce costs. PQSine S-series monitors the current signal and compensates the unwanted elements of the measured current. Thus, the filter ensures harmonic suppression independently of the number of loads. It also corrects the power factor,

improving the system efficiency while reducing harmonic pollution.

Features

| Harmonic compensation up to 50th harmonic (individually selectable)
| Flicker compensation
| Ultra-fast reactive power compensation (inductive and capacitive)
| Load balancing between phases and unloaded neutral wire
| *Compact design
| Modular system extendable from 25 A and up
| Grid resonance detection
| Advanced digital control with SDC (Selective Direct Control) algorithm
| Ethernet and Ethercat system for interconnection
| User-friendly menu operation
| High performance and reliability
| Insensitive to network conditions
| Simple installation

Typical applications

| Fast current harmonics and reactive power suppression e.g. for:
| Data centers
| UPS systems
| Green power generation (e.g. photovoltaics and wind turbines)
| Sensitive equipment manufacturing (e.g. silicon wafer production, semiconductor production)
| Industrial production machines
| Electrical welding systems
| Plastic industry machinery (extruders, injection molders)
| Office buildings and shopping centers (3rd and tripleharmonic cancellation and neutral conductor unloading)

Safety features

| Highest safety and reliability
| Overload protection
| Internal short-circuit protection
| Overheating protection
| Overvoltage and undervoltage protection
| Inverter bridge protection
| Resonance protection
| Fan fault alarmActive Harmonic Filtering

Depending on the requirements, APS Industrial offers either complete panels, wall-mounted cabinets or modules.

Floor-mounted Panels from 25 to 600A
Parallel operation beyond 600A possible

Wall-mounted Panel
25A up to 150A units available

Active Harmonic Filter - PQSine S Series

PART NUMBER	DESCRIPTION
3 PHASE 3 WIRE - WALL MOUNT	
B44066F3025S344	PQSW3025S344 25A 3P3W Wall mount
B44066F3035S344	PQSW3035S344 35A 3P3W Wall mount
B44066F3050S344	PQSW3050S344 50A 3P3W Wall mount
B44066F3075S344	PQSW3075S344 75A 3P3W Wall mount
B44066F3100S344	PQSW3100S344 100A 3P3W Wall mount
B44066F3150S344	PQSW3150S344 150A 3P3W Wall mount
3 PHASE 4 WIRE - WALL MOUNT	
B44066F4025S344	PQSW4025S344 25A 3P4W Wall mount
B44066F4035S344	PQSW4035S344 35A 3P4W Wall mount
B44066F4050S344	PQSW4050S344 50A 3P4W Wall mount
B44066F4060S344	PQSW4060S344 60A 3P4W Wall mount
B44066F4100S344	PQSW4100S344 100A 3P4W Wall mount
B44066F4150S344	PQSW4150S344 150A 3P4W Wall mount
3 PHASE 3 WIRE - FLOOR STANDING	
B44066F3100S315	PQSF3100S315 100A 3P3W Floor Standing
B44066F3150S315	PQSF3150S315 150A 3P3W Floor Standing
B44066F3200S315	PQSF3200S315 200A 3P3W Floor Standing
B44066F3250S315	PQSF3250S315 250A 3P3W Floor Standing
B44066F3300S315	PQSF3300S315 300A 3P3W Floor Standing
B44066F3350S315	PQSF3350S315 350A 3P3W Floor Standing
B44066F3400S315	PQSF3400S315 400A 3P3W Floor Standing
B44066F3450S315	PQSF3450S315 450A 3P3W Floor Standing
B44066F3500S315	PQSF3500S315 500A 3P3W Floor Standing
B44066F3550S315	PQSF3550S315 550A 3P3W Floor Standing
B44066F3600S315	PQSF3600S315 600A 3P3W Floor Standing
3 PHASE 4 WIRE - FLOOR STANDING	
B44066F4100S315	PQSF4100S315 100A 3P4W Floor Standing
B44066F4150S315	PQSF4150S315 150A 3P4W Floor Standing
B44066F4200S315	PQSF4200S315 200A 3P4W Floor Standing
B44066F4250S315	PQSF4250S315 250A 3P4W Floor Standing
B44066F4300S315	PQSF4300S315 300A 3P4W Floor Standing
B44066F4350S315	PQSF4350S315 350A 3P4W Floor Standing
B44066F4400S315	PQSF4400S315 400A 3P4W Floor Standing
B44066F4450S315	PQSF4450S315 450A 3P4W Floor Standing
B44066F4500S315	PQSF4500S315 500A 3P4W Floor Standing
B44066F4550S315	PQSF4550S315 550A 3P4W Floor Standing
B44066F4600S315	PQSF4600S315 600A 3P4W Floor Standing
EXTRA MODULES	
B44066F3025S300	PQSM3025S300 25A 3P3W Module
B44066F3035S300	PQSM3035S300 35A 3P3W Module
B44066F3050S300	PQSM3050S300 50A 3P3W Module
B44066F3075S300	PQSM3075S300 75A 3P3W Module
B44066F3100S300	PQSM3100S300 100A 3P3W Module
B44066F3150S300	PQSM3150S300 150A 3P3W Module
B44066F4025S300	PQSM4025S300 25A 3P4W Module
B44066F4035S300	PQSM4035S300 35A 3P4W Module
B44066F4050S300	PQSM4050S300 50A 3P4W Module
B44066F4060S300	PQSM4060S300 60A 3P4W Module
B44066F4100S300	PQSM4100S300 100A 3P4W Module
B44066F4150S300	PQSM4150S300 150A 3P4W Module
ACCESSORIES	
B44066F9999S230	7" HMI Colour

EMC COMPONENTS

APS Industrial can also offer many more components and systems for various power quality requirements:

| Power Line Chokes
| LCL Filters
| Power line EMC Filters
| Output Filters
| EMC Filters for Shielded Rooms
| EMC Feedthrough Capacitors
| EMC Feedthrough Filters
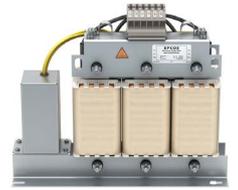
Sine-wave output filters for 3-phase systems

| Rated voltage VR: 400/690 V AC, 50/60 Hz
| Rated current IR: 10 A to 207 A
| 3-line filters
| Reduction of motor noise and eddy current losses
| Generation of sinusoidal phase-to-phase voltage with low ripple
| dv/dt reduction
| Easy to install
| Degree of protection: IP00
| Optional housing for degree of protection IP21 can be ordered separately with ordering code B84143Q*R229
| Optimized for long motor cables and operation under full load2)
| Natural cooling
| Wiring between inverter and filter must be shorter than 10 meters!
| Designed with reference to IEC 60939 and UL1283
| UL approved insulation system (system designation: T-EIS-CF1)

Filters for Shielded Rooms

| .2- and 4-line-filters 16 to 32 A Multi-stage
| .Stopband attenuation:
| - B84299*2*B/E001 150 kHz to 40 GHz
| - B84299*2*B/E003 14 kHz to 40 GHz
| General-purpose use through design with separate lines without intercoupling
| Use of single chokes. Thus the insertion loss values are not reduced under all operating current conditions and not when operated with artificial mains networks (AMN) or other equipment with high leakage currents
| Insertion loss to EN 55017
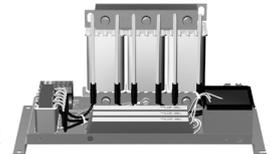
SineFormer

| Filters for converters and power electronics
| Rated voltage VR: 760 V AC
| Rated current IR: 95 A to 320 A
| Shielded motor cables are redundant
| Motor noise reduction
| Reduction of bearing current
| Low dv/dt values - reduced eddy current losses
| Easy to install
| Compact design
| Degree of protection: IP201)
| Significant reduction of EMC disturbances on the line side
| Optimized for long motor cables (up to 1000 m) and operation under full load2)
| No integrated forced ventilation (maintenance-free)
| No DC-link connection required

EMC COMPONENTS

| Design complies with EN 60939, UL 1283, CSA 22.2 No.8

Power line filters for 3-phase systems

| Rated voltage VR: 520/300 V AC and 760/440 V AC

| Rated current IR: 180 A to 1600 A

| 3-line filters

| Optimized leakage current

| Easy to install

| Very compact design

| Optimized for operation under full load

| Design complies with IEC 60939

| UL and cUL approval

3-line LCL filters for converters and power electronics

| Rated voltage VR: 300/520 V AC

| Rated current IR: 16 A to 400 A

| Open frame design

| Power quality improvement for Active Infeed Converter (AIC)

| High attenuation of pulse frequency to the grid side

| Integrated damping resistors to suppress current oscillation

| Degree of protection1): IP00

| o IP20 (16 A ... 200 A) with optional cover B84143Q*R405

| Modifications possible according customer specific

| requirements

| For natural convection

| Design complies with ENEC, UL and cUL

Feedthrough Capacitors

| Rated voltage VR: 110 V AC to 440 V AC

| Rated current IR: 16 A to 200 A

| Rated capacitance CR: 0.0025 mF to 4.7 mF

| MKP/MKT technology (dry, self-healing) Dielectric: polypropylene or polyester, metallized

| Metal case, polyurethane potting (UL 94 V-0)

| Compact dimensions

| High insertion loss

| Easy to install

| High contact reliability thanks to central screw fixing

| Design complies with IEC 60384-14

| UL 60384-14 pending

Baumer

SMART SENSORS

aps

INDUCTIVE PROXIMITY SENSORS

Standard Proximity Sensor (Flush Mount)

| Flush Mount / Shielded with Connector
| PNP N/O
| IP67

SIZE (MM)	MOUNTING TYPE	SENSING DISTANCE SN	SENSOR LENGTH	MATERIAL	CONNECTION	CODE	PART NUMBER
M8	Flush	2mm	36mm	Stainless steel	M8 3Pin	11084731	IGYX 08P17B3/S35L
M12	Flush	4mm	50mm	Brass nickel plated	M12 4Pin	11084740	IGYX 12P17B3/S14L
M18	Flush	8mm	60mm	Brass nickel plated	M12 4Pin	11078862	IGYX 18P17B3/S14L
M30	Flush	15mm	60mm	Brass nickel plated	M12 4Pin	11080998	IGYX 30P17B3/S14L

Standard Proximity Sensor (Non-Flush Mount)

| Non-Flush Mount / Un-Shielded with Connector
| PNP N/O
| IP67

SIZE (MM)	MOUNTING TYPE	SENSING DISTANCE SN	SENSOR LENGTH	MATERIAL	CONNECTION	CODE	PART NUMBER
M8	Non-Flush	6mm	46mm	Stainless steel	M8 3Pin	11148770	IR08.P06S-N46.PO1Z.7SL
M12	Non-Flush	10mm	60mm	Brass nickel plated	M12 4Pin	11148572	IR12.P10S-N60.PO1Z.7BO
M18	Non-Flush	15mm	60mm	Brass nickel plated	M12 4Pin	11149133	IR18.P15S-N60.PO1Z.7BO
M30	Non-Flush	24mm	60mm	Brass nickel plated	M12 4Pin	11174035	IR30.P24S-N60.PV1Z.7BO

Proximity Sensor Cables

DESCRIPTION	CODE	PART NUMBER
M8 Female A-coded 3-pole PUR 5m open end cable straight	11230324	CAM8.A3-11230324
M8 Female A-coded 3-pole PUR 5m open end cable Right Angle	9457380500	SAIL-M8BW-3-5.0U
M12, Female, A-coded, 4-poles; PUR, 5m, open end cable Straight	11230335	CAM12.A4-11230335
M12, Female, A-coded, 4-poles; PUR, 5m, open end cable Right Angle	9457740500	SAIL-M12BW-4-5.0U
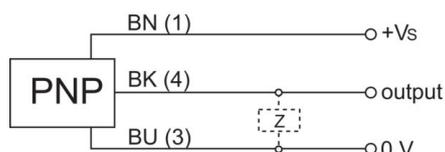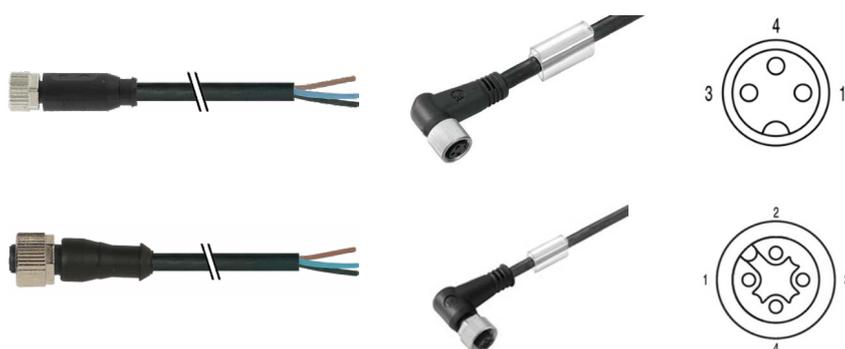
PROXIMITY MOUNTING BRACKETS

DESCRIPTION	CODE	PART NUMBER
M8 Sensofix round Universal mounting kit	10151719	Sensofix Serie 08 RD
M12 Sensofix round Universal mounting kit	10151720	Sensofix Serie 12 RD
M18 Sensofix round Universal mounting kit	10151658	Sensofix Serie 18 RD
M18 Mounting Bracket R/A Short Galvanised Steel	11171584	ZADAP-M18.SHORT
M18 Mounting Bracket R/A Long Galvanised Steel	11172095	ZADAP-M18.LONG
M18 Mounting Bracket Flat Standard Galvanised Steel	11172096	ZADAP-M18.STANDARD
M18 Mounting Bracket Plastic Swivel	11172110	ZADAP-M18.SWING
M30 Sensofix round Universal mounting kit	11200030	Sensofix Serie 30
M30 Mounting bracket (L design) S/steel	11199999	ZADAP-M30.LONG

Sensofix Range

Standard Range

PHOTOELECTRIC SENSORS

O300Y

| M8 4pin Connector
| IP67
| Plastic (ASA, PMMA)
| 10 ... 30 VDC
| QTeach
| PNP NO/NC Output
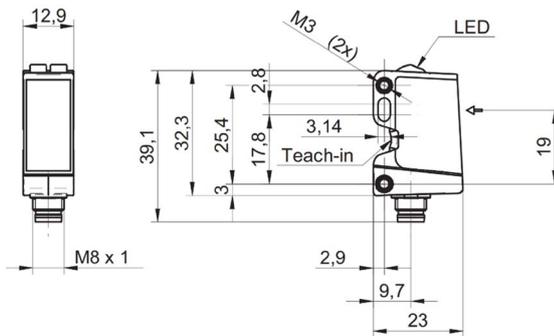
SENSOR TYPE	LIGHT SOURCE	SENSING RANGE	CODE	PART NUMBER
Diffuse background suppression	pulsed red LED	15 ... 300 mm	11175118	O300Y.GR-PV1T.72N/H006_T003
Diffuse background suppression	pulsed PinPoint LED	15 ... 200 mm	11175148	O300Y.GP-PV1T.72N/H006
Intensity difference	pulsed red LED	10 ... 400 mm	11175127	O300Y.ZR-PV1T.72N/H006_T003
Retro-reflective sensor	pulsed red LED	3,5 m	11175122	O300Y.QR-PV1Z.72N/H006
Through Beam Emitter	pulsed red LED	15m	11175149	O300Y.TR-ZZZZ.72N/H006 (emitter)
Through Beam Receiver	N/A	15m	11175161	O300Y.ER-PV1T.72N/H006 (receiver)

Sensor Cables

| DESCRIPTION	CODE	PART NUMBER
M8 Female A-coded 4-poles PUR 5m open end cable : IP65, IP66K, IP67	11232540	CAM8.A4-11232540
M8 Female A-coded 4-pole PUR 5m open end cable Right Angle	9456150500	SAIL-M8BW-4-5.0U

Sensor Accessories

DESCRIPTION	CODE
Sensofix O300 MTG Bracket Universal	11104963
O300 Mounting Bracket Right Angle	11102423

DESCRIPTION	CODE	PART NUMBER
Reflector rectangular 75 x 54 mm	10145961	FTDR 047A048
Reflector rectangular 84 x 84 mm	11101254	FTDR 084A084

pin assignment

light operate   dark operate
2   4
1   3
+Vs   0V

connection diagram

PNP
BN (1)   o +Vs
WH (2)   o light operate
BK (4)   o dark operate
BU (3)   o 0 V
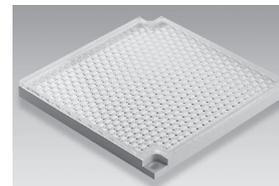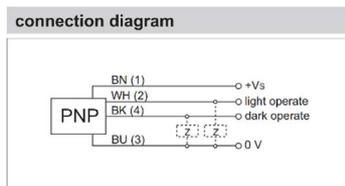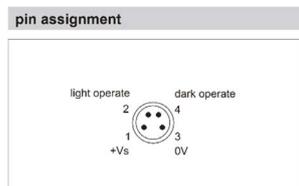
M18 PHOTOELECTRIC SENSORS

OR18 (Plastic)

| Plastic (ABS / PMMA)
| M12 4pin Connector
| IP67
| 12 ... 30 VDC
| PNP NO/NC Output
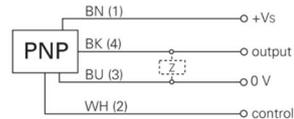
SENSOR TYPE	LIGHT SOURCE	SENSING RANGE	CODE	PART NUMBER
Diffuse background suppression	pulsed red LED	40 ... 120 mm	11157841	OR18.GR-PW1P.71O
Diffuse with intensity difference	pulsed infrared diode	< 800 mm	11157800	OR18.ZI-PW1P.71O/B005
Retro-reflective sensor	pulsed red LED	3,5m	11157680	OR18.RR-PW1P.71O
Retro-Reflective Transparent	Pulsed red LED	800mm	11157788	OR18.RR.T-PW1P.71O
Through beam sensor Emitter	pulsed infrared diode	13 m	11157821	OR18.TI-ZZZP.71O
Through beam sensor Receiver	N/A	13m	11157811	OR18.EI-PW1P.71O

OR18 (Brass nickel plated)

| Brass nickel plated
| M12 4pin Connector
| IP67
| 12 ... 30 VDC
| PNP NO/NC Output
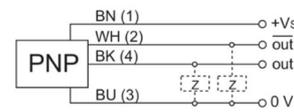
SENSOR TYPE	LIGHT SOURCE	SENSING RANGE	CODE	PART NUMBER
Diffuse background suppression	pulsed PinPoint LED	45 ... 200 mm	11129323	OR18.GP-PV1T.7BO

Sensor Cables

DESCRIPTION	CODE	PART NUMBER
M12, Female, A-coded, 4-poles; PUR, 5m, open end cable Straight	11230335	CAM12.A4-11230335
M12, Female, A-coded, 4-poles; PUR, 5m, open end cable Right Angle	9457740500	SAIL-M12BW-4-5.0U
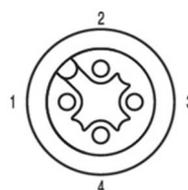
M18 PHOTOELECTRIC SENSOR ACCESSORIES

Brackets

DESCRIPTION	CODE	PART NUMBER
M18 Sensofix round Universal mounting kit	10151658	Sensofix Serie 18 RD
M18 Mounting Bracket R/A Short Galvanised Steel	11171584	ZADAP-M18.SHORT
M18 Mounting Bracket R/A Long Galvanised Steel	11172095	ZADAP-M18.LONG
M18 Mounting Bracket Flat Standard Galvanised Steel	11172096	ZADAP-M18.STANDARD
M18 Mounting Bracket Plastic Swivel	11172110	ZADAP-M18.SWING

Reflectors

DESCRIPTION	CODE	PART NUMBER
Reflector rectangular 75 x 54 mm	10145961	FTDR 047A048
Reflector rectangular 84 x 84 mm	11101254	FTDR 084A084
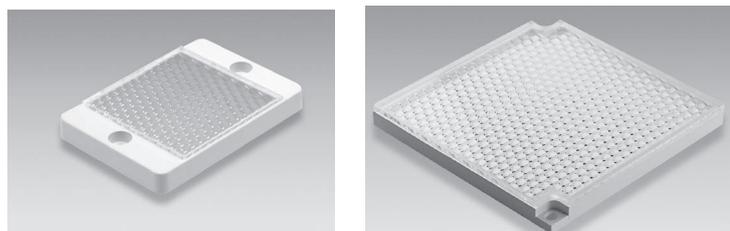
O500 PHOTOELECTRIC SENSORS

O500

| M12, 4pin and 5pin Connectors
| IP67
| Plastic (ASA, PMMA)
| 10 ... 30 VDC
| QTeach
| Push Pull NO/NC
| IO Link, Analogue out (Distance Sensor
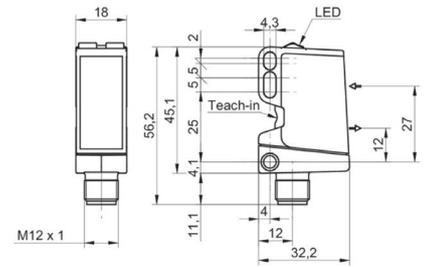
| SENSOR TYPE	LIGHT SOURCE	SENSING RANGE	CODE	PART NUMBER	M12
Diffuse with intensity difference	Red LED	20~600mm	11128018	O500.ZR-GW1T.72O	4Pin
Diffuse with background suppression	Red LED	30~600mm	11096062	O500.GR-GW1T.72O	4Pin
Through beam sensor Receiver	NA	~40m	11128072	O500.ER-GW1B.72O	4Pin
Through beam sensor Emitter	Red LED	~40m	11128041	O500.TR-ZZZZ.72O	4Pin
Retro-reflective sensors	Red LED	~8m	11096091	O500.RR-GD1Z.72O	4Pin
Retro-Reflective Transparent	PinPoint LED	~6m	11157351	O500.RP.T-GW1J.72O	4Pin
SmartReflect Transparent	PinPoint LED	60~1000mm	11136921	O500.SP.T-GW1J.72O/B005	4Pin
ToF with background suppression	Laser	100~2625mm	11235685	OT500.GL-GLGLJ.72F	5Pin
ToF Distance Measurement	Laser	150~2500mm	11240053	OT500.DL-GLIAJ.72F	5Pin
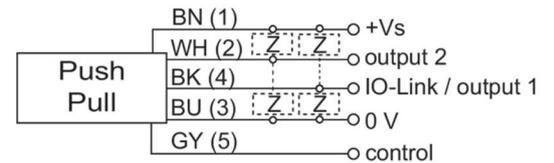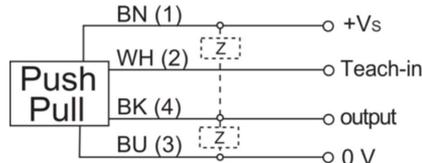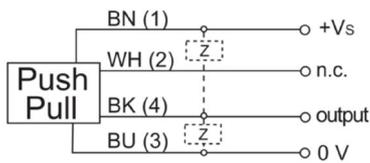
Sensor Cables

| DESCRIPTION	CODE	PART NUMBER
M12, Female, A-coded, 4-poles; PUR, 5m, open end cable Straight	11230335	CAM12.A4-11230335
M12, Female, A-coded, 4-poles; PUR, 5m, open end cable Right Angle	9457740500	SAIL-M12BW-4-5.0U
M12, female, A-coded, 5-poles; PUR, 5m, open end cable Straight	11230338	CAM12.A5-11230338
M12, female, A-coded, 5-poles; PUR, 5m, open end cable Right Angle	9457690500	SAIL-M12BW-5-5.0U
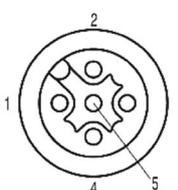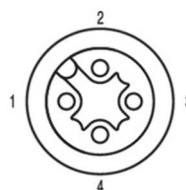
O500 SENSOR ACCESSORIES

Brackets

DESCRIPTION	CODE	PART NUMBER
O500/U500 Sensofix Universal mounting kit	11099942	Sensofix O500 / U500
O500/U500 (L design) Mounting bracket	11092246	Mounting bracket O500 / U500
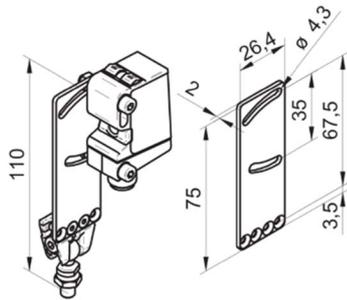
Reflectors

DESCRIPTION	CODE	PART NUMBER
Reflector rectangular 32 x 20 mm	11229662	FTDR 020U020
Reflector rectangular 43 x 20,3 mm Ultrafine micro	10145962	FTDR 017A027
Reflector rectangular 75 x 54 mm	10145961	FTDR 047A048
Reflector rectangular 60 x 51 mm Ultrafine micro	11229661	FTDR 048U048
Reflector rectangular 84 x 84 mm	11101254	FTDR 084A084
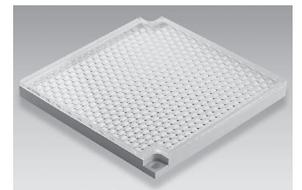
ULTRASONIC SENSORS

UR18 Series

| IO Link
| QTeach / Line Teach
| Beam forming
| M12 5pin, 12 … 30 VDC
| Stainless steel (V2A) / TR90
| IP67/IP69

SENSOR TYPE	SENSING RANGE	CODE	PART NUMBER
Ultrasonic 2 point proximity switch Push Pull / IO Link	20~1000mm	11200645	UR18.PA0.2-GP2J.9SF
Ultrasonic Retro Reflective Sensor Push Pull / IO Link	0~1000mm	11200646	UR18.RA0.2-GP1J.9SF
Ultrasonic Distance Sensor 4-20mA / IO Link	20~1000mm	11200640	UR18.DA0.2-IAMJ.9SF

U500 Series

| IO Link
| QTeach / Line Teach
| Housing Plastic (ASA, PMMA)
| M12 5pin
| 12 … 30 VDC
| IP67
| Beam forming

| SENSOR TYPE	SENSING RANGE	CODE	PART NUMBER
Ultrasonic 2 point proximity switch Push-pull / IO Link	20~1000mm	11200633	U500.PA0.2-GP2J.72F
Ultrasonic Retro Reflective Sensor Push Pull / IO Link	0~1000mm	11200634	U500.RA0.2-GP1J.72F
Ultrasonic Distance Sensor 4-20 mA / IO Link	20~1000mm	11200625	U500.DA0.2-IAMJ.72F

Ultrasonic Distance Sensor

| Teach in
| Current Output 4-20mA / 20-4mA
| Brass nickel plated
| M12 4pin
| 15 … 30 VDC
| IP67

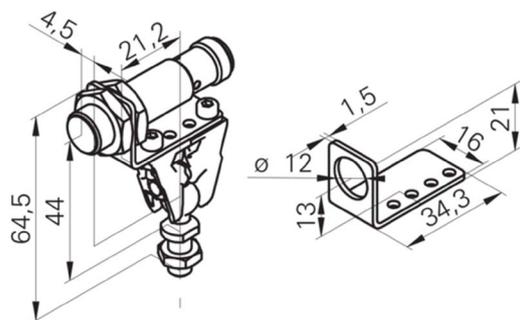| SENSOR TYPE	SENSING RANGE	CODE	PART NUMBER
Ultrasonic distance measuring sensor 4-20mA	600-6000mm	11099364	UNAM 70I6131/S14

SENSOR CABLES

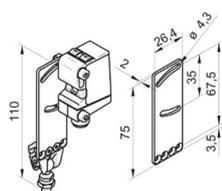| DESCRIPTION	CODE	PART NUMBER
M12, Female, A-coded, 4-poles; PUR, 5m, open end cable Straight	11230335	CAM12.A4-11230335
M12, Female, A-coded, 4-poles; PUR, 5m, open end cable Right Angle	9457740500	SAIL-M12BW-4-5.0U
M12, female, A-coded, 5-poles; PUR, 5m, open end cable Straight	11230338	CAM12.A5-11230338
M12, female, A-coded, 5-poles; PUR, 5m, open end cable Right Angle	9457690500	SAIL-M12BW-5-5.0U
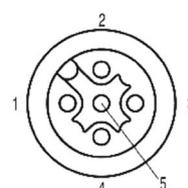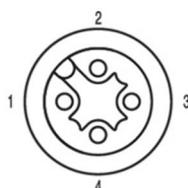
ULTRASONIC ACCESSORIES

Sensor Accessories Brackets

DESCRIPTION	CODE	PART NUMBER
M18 Sensofix round Universal mounting kit	10151658	Sensofix Serie 18 RD
M18 Mounting Bracket R/A Short Galvanised Steel	11171584	ZADAP-M18.SHORT
M18 Mounting Bracket R/A Long Galvanised Steel	11172095	ZADAP-M18.LONG
M18 Mounting Bracket Flat Standard Galvanised Steel	11172096	ZADAP-M18.STANDARD
M18 Mounting Bracket Plastic Swivel	11172110	ZADAP-M18.SWING

DESCRIPTION	CODE	PART NUMBER
O500/U500 Sensofix Universal mounting kit	11099942	Sensofix O500 / U500
O500/U500 (L design) Mounting bracket	11092246	Mounting bracket O500 / U500

DESCRIPTION	CODE	PART NUMBER
M30 Sensofix round Universal mounting kit	11200030	Sensofix Serie 30
M30 Mounting bracket (L design) S/Steel AISI 1.4301	11199999	ZADAP-M30.LONG

RAMTIGHT

FLEXIBLE CONDUIT & FITTINGS

aps

FLEXIBLE STEEL CONDUIT

Ramtight flexible steel conduit has been designed and manufactured to the highest standard ISO 9001:2008 and complies with AS/NZS 2053.8. This ensures you are getting a high quality product which is suitable for use in all arduous areas including industrial and hazardous areas.

Ramtight Flexible conduit is manufactured from a galvanised steel core with a nylon sealing core fitted between the spiral cores and is covered with a flexible flame retardant PVC jacket. Ramtight is also resistant to sun light and oil and has an IP66 rating when fitted with Ramtight nickel plated brass or steel fittings.

Ramtight's construction allows it to be very flexible and gives it the ability to both absorb vibration and continuous movement making it ideal to use on conveyors and automatic machinery or wherever heavy duty mechanical protection is required.

| Standards: AS/NZS 2053.8
| Galvanised steel core
| Nylon sealing core fitted between the spiral cores
| Flexible flame retardant PVC jacket
| Oil resistant
| IP66
| Temperature range -10° to +105°C

PART NUMBER	DESCRIPTION	I.D.	O.D.	MIN BENDING RADIUS	PACK QTY
RT-1625-B	16mm Black Conduit	12.00mm	18.00mm	50mm	25M
RT-2025-B	20mm Black Conduit	16.00mm	21.30mm	65mm	25M
RT-2525-B	25mm Black Conduit	21.00mm	26.70mm	75mm	25M
RT-3225-B	32mm Black Conduit	26.50mm	33.40mm	100mm	25M
RT-4010-B	40mm Black Conduit	35.00mm	42.20mm	120mm	10M
RT-5010-B	50mm Black Conduit	40.50mm	48.72mm	140mm	10M
RT-6310-B	63mm Black Conduit	51.00mm	61.30mm	180mm	10M

Long Runs

PART NUMBER	DESCRIPTION	I.D.	O.D.	MIN BENDING RADIUS	PACK QTY
RT-20150-B	20mm Black Conduit	16.00mm	21.30mm	65mm	150M
RT-25150-B	25mm Black Conduit	21.00mm	26.70mm	75mm	150M
RT-32120-B	32mm Black Conduit	26.50mm	33.40mm	100mm	120M

NICKEL PLATED FITTINGS

- Standards: Ex ta IIIC P66
- Nickel Plated Brass and Metal Fittings
- Metric Threads
- IP66

Also available:

- PG, BSP & NPT Fittings

Straight Nickel Plated Brass Fittings

PART NUMBER	DESCRIPTION	THREAD SIZE	PACK QTY
RTF-16	16mm Straight Conduit Fitting	16mm	25
RTF-16/20	16mm Straight Conduit Fitting	20mm	25
RTF-20	20mm Straight Conduit Fitting	20mm	25
RTF-25	25mm Straight Conduit Fitting	25mm	25
RTF-32	32mm Straight Conduit Fitting	32mm	10
RTF-40	40mm Straight Conduit Fitting	40mm	5
RTF-50	50mm Straight Conduit Fitting	50mm	2
RTF-63	63mm Straight Conduit Fitting	63mm	1

45° Brass Fittings

RTF-1645	16mm 45° Fitting	16mm	25
RTF-2045	20mm 45° Fitting	20mm	25
RTF-2545	25mm 45° Fitting	25mm	25
RTF-3245	32mm 45° Fitting	32mm	10
RTF-4045	40mm 45° Fitting	40mm	5
RTF-5045	50mm 45° Fitting	50mm	2
RTF-6345	63mm 45° Fitting	63mm	1

90° Brass Fittings

RTF-1690	16mm 90° Fitting	20mm	25
RTF-2090	20mm 90° Fitting	20mm	25
RTF-2590	25mm 90° Fitting	25mm	25
RTF-3290	32mm 90° Fitting	32mm	10
RTF-4090	40mm 90° Fitting	40mm	5
RTF-5090	50mm 90° Fitting	50mm	2
RTF-6390	63mm 90° Fitting	63mm	1

In-Line Joiners

RTJ-16	Joiner to suit conduit - 16mm	5
RTJ-20	Joiner to suit conduit - 20mm	5
RTJ-25	Joiner to suit conduit - 25mm	5
RTJ-32	Joiner to suit conduit - 32mm	5
RTJ-40	Joiner to suit conduit - 40mm	2
RTJ-50	Joiner to suit conduit - 50mm	2
RTJ-63	Joiner to suit conduit - 63mm	2

METAL FITTINGS

- Standards: Ex ta IIIC P66
- Metal Fittings
- Metric Threads
- IP66

Straight Metal Fittings

PART NUMBER	DESCRIPTION	THREAD SIZE	PACK QTY
RTFM-16	16mm Straight Fitting	16mm	25
RTFM-16/20	16mm Straight Fitting	20mm	25
RTFM-20	20mm Straight Fitting	20mm	25
RTFM-25	25mm Straight Fitting	25mm	25
RTFM-32	32mm Straight Fitting	32mm	10
RTFM-40	40mm Straight Fitting	40mm	5
RTFM-50	50mm Straight Fitting	50mm	2
RTFM-63	63mm Straight Fitting	63mm	1

45° Metal Fittings

PART NUMBER	DESCRIPTION	THREAD SIZE	PACK QTY
RTFM-1645	16mm 45° Fitting	16mm	25
RTFM-16/2045	16mm 45° Fitting	20mm	25
RTFM-2045	20mm 45° Fitting	20mm	25
RTFM-2545	25mm 45° Fitting	25mm	25
RTFM-3245	32mm 45° Fitting	32mm	10
RTFM-4045	40mm 45° Fitting	40mm	5
RTFM-5045	50mm 45° Fitting	50mm	2
RTFM-6345	63mm 45° Fitting	63mm	1

90° Metal Fittings

PART NUMBER	DESCRIPTION	THREAD SIZE	PACK QTY
RTFM-1690	16mm 90° Fitting	16mm	25
RTFM-16/2090	16mm 90° Fitting	20mm	25
RTFM-2090	20mm 90° Fitting	20mm	25
RTFM-2590	25mm 90° Fitting	25mm	10
RTFM-3290	32mm 90° Fitting	32mm	5
RTFM-4090	40mm 90° Fitting	40mm	4
RTFM-5090	50mm 90° Fitting	50mm	2
RTFM-6390	63mm 90° Fitting	63mm	2

ACCESSORIES

Ferrules

PART NUMBER	DESCRIPTION	THREAD SIZE	PACK QTY
LT-0F	16mm Conduit Ferrule		100
LT-1F	20mm Conduit Ferrule		100
LT-2F	25mm Conduit Ferrule		50
LT-3F	32mm Conduit Ferrule		50
LT-4F	40mm Conduit Ferrule		20
LT-5F	50mm Conduit Ferrule		5
LT-6F	63mm Conduit Ferrule		5

Locknuts

LNB-16N	16mm Nickel Plated Locknut		100
LNB-20N	20mm Nickel Plated Locknut		100
LNB-25N	25mm Nickel Plated Locknut		100
LNB-32N	32mm Nickel Plated Locknut		50
LNB-40N	40mm Nickel Plated Locknut		50
LNB-50N	50mm Nickel Plated Locknut		25
LNB-63N	63mm Nickel Plated Locknut		20

Flame Proof Exd Fittings

FLC-20	20mm Barrier Fitting	20mm	As Required
FLC-25	25mm Barrier Fitting	25mm	As Required
FLC-075	¾" BSP Female Barrier Fitting	¾" BSP	As Required
FLC-100	1" BSP Female Barrier Fitting	1" BSP	As Required

Standards: ANZEx 09-3018 Exd IIB DIP IP65

SEALSAFE FLEXIBLE PVC CONDUIT & FITTINGS

| Standards: AS/NZ 2053.8 ANZEx 09-3018 Exd IIB DIP IP65
| FC Fibre braided conduit
| A synthetic reinforcing braid woven over a flexible PVC inner core with an Orange flame retardant PVC jacket.

Flexible Conduit

PART NUMBER	DESCRIPTION	THREAD SIZE	PACK QTY
FC-16	16mm Orange Conduit		30M
FC-19	20mm Orange Conduit		30M

Exd Conduit Fittings

FHC-2003	20mm Male Barrier Fitting	20mm	1
FHC-2503	25mm Male Barrier Fitting	25mm	1

Standards: ANZEx 09-3018 Exd IIB DIP IP65

FHC-075	¾" BSP Female Fitting	¾" BSP	1
FHC-100	1" BSP Female Fitting	1" BSP	1

Standards: ANZEx 09-3018 Exd IIB DIP IP65

Zone 21 (DIP) Conduit Fittings

FHC-2002	20mm Male Fitting	20mm	1
FHC-2502	25mm Male Fitting	25mm	1

PLIABLE STAINLESS STEEL CONDUIT & FITTINGS

| Standards: IEC 61386-1: 2008 IEC 61386-22: 2002
| 304 Stainless Steel core
| Flame retardant due to no PVC jacket
| UV resistant
| IP 66/68
| Temperature range -60°C to +200°C using silicon "O" rings
| Sizes 16mm - 63mm

Pliable Stainless Steel Conduit

PART NUMBER	DESCRIPTION	THREAD SIZE	PACK QTY
RTS-16	16mm Straight Conduit	16mm	20M
RTS-20	20mm Straight Conduit	20mm	20M
RTS-25	25mm Straight Conduit	25mm	20M
RTS-32	32mm Straight Conduit	32mm	10M
RTS-40	40mm Straight Conduit	40mm	10M
RTS-50	50mm Straight Conduit	50mm	10M
RTS-63	63mm Straight Conduit	63mm	10M

Straight Nickel Plated Brass Fittings

RTSF-16B	16mm Straight Conduit Fitting	16mm	36
RTSF-20B	20mm Straight Conduit Fitting	20mm	20
RTSF-25B	25mm Straight Conduit Fitting	25mm	15
RTSF-32B	32mm Straight Conduit Fitting	32mm	15
RTSF-40B	40mm Straight Conduit Fitting	40mm	9
RTSF-50B	50mm Straight Conduit Fitting	50mm	2
RTSF-63B	63mm Straight Conduit Fitting	63mm	2

Straight Stainless Steel Fittings

Stainless fitting available on request only (304 only)

| Not all sizes available
| MOQ's apply

NYLON CONDUIT

PA6 Polyamide Nylon Conduit

- Material: Polyamide 6
- Temp Rating: -40°C to +115°C (Intermittent to +150°C)
- IP68
- Flame Retardant: HB UL 94 Self Extinguishing (FMVSS)
- Halogen free, free of phosphor and cadmium
- UV Resistant
- Colours: black and grey

PART NUMBER	DESCRIPTION	I.D.	O.D.	MIN BENDING RADIUS	PACK QTY
RTN-1250-B	Ramtight 12mm PA6 Polyamide Conduit	10.00mm	13.00mm	15mm	50M
RTN-1650-B	Ramtight 16mm PA6 Polyamide Conduit	12.00mm	15.80mm	22mm	50M
RTN-2050-B	Ramtight 20mm PA6 Polyamide Conduit	16.50mm	21.20mm	35mm	50M
RTN-2550-B	Ramtight 25mm PA6 Polyamide Conduit	23.00mm	28.50mm	45mm	50M
RTN-3250-B	Ramtight 32mm PA6 Polyamide Conduit	29.00mm	34.50mm	50mm	50M
RTN-4025-B	Ramtight 40mm PA6 Polyamide Conduit	36.00mm	42.50mm	80mm	25M
RTN-5025-B	Ramtight 50mm PA6 Polyamide Conduit	48.00mm	54.50mm	100mm	25M

PA6 Polyamide Extra Low Fire Hazard Nylon Conduit (VO UL 94)

- Material: Polyamide 6
- UL VO Temp Rating
- Temp Rating: -40°C to +115°C (Intermittent to +150°C)
- IP68
- Flame Retardant: V0 Self Extinguishing (FMVSS 302)
- Halogen free, free of phosphor and cadmium
- UV Resistant
- Colours: black and grey

RTNVO-1250-B	Ramtight 12mm PA6 VO Polyamide Conduit	10.00mm	13.00mm	15mm	50M
RTNVO-1650-B	Ramtight 16mm PA6 VO Polyamide Conduit	12.00mm	15.80mm	22mm	50M
RTNVO-2050-B	Ramtight 20mm PA6 VO Polyamide Conduit	16.50mm	21.20mm	35mm	50M
RTNVO-2550-B	Ramtight 25mm PA6 VO Polyamide Conduit	23.00mm	28.50mm	45mm	50M
RTNVO-3250-B	Ramtight 32mm PA6 VO Polyamide Conduit	29.00mm	34.50mm	50mm	50M
RTNVO-4025-B	Ramtight 40mm PA6 VO Polyamide Conduit	36.00mm	42.50mm	80mm	25M
RTNVO-5025-B	Ramtight 50mm PA6 VO Polyamide Conduit	48.00mm	54.50mm	100mm	25M

PA6 Polyamide Low Fire Hazard Nylon Conduit (V2 UL 94)

- Material: Polyamide 6
- UL V2 Temp Rating
- Temp Rating: -40°C to +115°C (Intermittent to +150°C)
- IP68
- Flame Retardant: Self Extinguishing (EN 50086-1)
- Halogen free, free of phosphor and cadmium
- UV Resistant
- Colours: black and grey

RTNV2-12-B	Ramtight 12mm PA6 V2 Polyamide Conduit	10.00mm	13.00mm	15mm	50M
RTNV2-16-B	Ramtight 16mm PA6 V2 Polyamide Conduit	12.00mm	15.80mm	22mm	50M
RTNV2-20-B	Ramtight 20mm PA6 V2 Polyamide Conduit	16.50mm	21.20mm	35mm	50M
RTNV2-25-B	Ramtight 25mm PA6 V2 Polyamide Conduit	23.00mm	28.50mm	45mm	50M
RTNV2-32-B	Ramtight 32mm PA6 V2 Polyamide Conduit	29.00mm	34.50mm	50mm	50M
RTNV2-40-B	Ramtight 40mm PA6 V2 Polyamide Conduit	36.00mm	42.50mm	80mm	25M
RTNV2-50-B	Ramtight 50mm PA6 V2 Polyamide Conduit	48.00mm	54.50mm	100mm	25M

NYLON FITTINGS

- Material: Polyamide 66
- Temp Rating: -40°C to +115°C (Intermittent to +150°C),
- IP66, IP68 with flat sealing ring
- Halogen free, free of phosphor and cadmium
- Flame Retardant: Self Extinguishing (EN 50086-1)
- UV Resistant
- Complete with Locknut
- Colours: black and grey

Straight Nylon Metric Fitting

PART NUMBER	DESCRIPTION	THREAD SIZE	PACK QTY
RTFN-10B	10mm Ramtight Straight Nylon Fitting	10mm	25
RTFN-12B	12mm Ramtight Straight Nylon Fitting	12mm	25
RTFN-16B	16mm Ramtight Straight Nylon Fitting	16mm	25
RTFN-20B	20mm Ramtight Straight Nylon Fitting	20mm	25
RTFN-25B	25mm Ramtight Straight Nylon Fitting	25mm	10
RTFN-32B	32mm Ramtight Straight Nylon Fitting	32mm	5
RTFN-40B	40mm Ramtight Straight Nylon Fitting	40mm	5
RTFN-50B	50mm Ramtight Straight Nylon Fitting	50mm	5

90° Nylon Metric Fitting

RTFN-1090B	10mm Ramtight 90° Nylon Fitting	10mm	25
RTFN-1290B	12mm Ramtight 90° Nylon Fitting	12mm	25
RTFN-1690B	16mm Ramtight 90° Nylon Fitting	16mm	25
RTFN-2090B	20mm Ramtight 90° Nylon Fitting	20mm	25
RTFN-2590B	25mm Ramtight 90° Nylon Fitting	25mm	10
RTFN-3290B	32mm Ramtight 90° Nylon Fitting	32mm	5
RTFN-4090B	40mm Ramtight 90° Nylon Fitting	40mm	5
RTFN-5090B	50mm Ramtight 90° Nylon Fitting	50mm	5

45° Nylon Metric Fitting

RTFN-2045B	20MM Ramtight 45° Nylon Fitting	20MM	25
RTFN-2545B	25MM Ramtight 45° Nylon Fitting	25MM	10
RTFN-3245B	32MM Ramtight 45° Nylon Fitting	32MM	5
RTFN-4045B	40MM Ramtight 45° Nylon Fitting	40MM	5
RTFN-5045B	50MM Ramtight 45° Nylon Fitting	50MM	5

Straight Nylon PG Fitting

PART NUMBER	DESCRIPTION	THREAD SIZE	CONDUIT SIZE	PACK QTY
RTFN-PG7	PG7 Ramtight Straight Nylon Fitting	PG7	10mm	25
RTFN-PG9	PG9 Ramtight Straight Nylon Fitting	PG9	12mm	25
RTFN-PG11	PG11Ramtight Straight Nylon Fitting	PG11	16mm	25
RTFN-PG16	PG16 Ramtight Straight Nylon Fitting	PG16	20mm	25
RTFN-PG21	PG21 Ramtight Straight Nylon Fitting	PG21	25mm	10
RTFN-PG29	PG29 Ramtight Straight Nylon Fitting	PG29	32mm	5
RTFN-PG36	PG36 Ramtight Straight Nylon Fitting	PG36	40mm	5
RTFN-PG48	PG48 Ramtight Straight Nylon Fitting	PG48	50mm	5

90° Nylon PG Fitting

RTFN-PG790	PG7 Ramtight 90 Degree Nylon Fitting	PG7	10mm	25
RTFN-PG990	PG9 Ramtight 90 Degree Nylon Fitting	PG9	12mm	25
RTFN-PG1190	PG11 Ramtight 90 Degree Nylon Fitting	PG11	16mm	25
RTFN-PG1690	PG16 Ramtight 90 Degree Nylon Fitting	PG16	20mm	25
RTFN-PG2190	PG21 Ramtight 90 Degree Nylon Fitting	PG21	25mm	10
RTFN-PG2990	PG29 Ramtight 90 Degree Nylon Fitting	PG29	32mm	5
RTFN-PG3690	PG36 Ramtight 90 Degree Nylon Fitting	PG36	40mm	5
RTFN-PG4890	PG48 Ramtight 90 Degree Nylon Fitting	PG48	50mm	5

45° Nylon PG Fitting

RTFN-PG1645	PG16 Ramtight 90 Degree Nylon Fitting	PG16	20mm	25
RTFN-PG2145	PG21 Ramtight 90 Degree Nylon Fitting	PG21	25mm	10
RTFN-PG2945	PG29 Ramtight 90 Degree Nylon Fitting	PG29	32mm	5
RTFN-PG3645	PG36 Ramtight 90 Degree Nylon Fitting	PG36	40mm	5
RTFN-PG4845	PG48 Ramtight 90 Degree Nylon Fitting	PG48	50mm	5

Couplings

RTCN-10	10mm Coupling	25
RTCN-12	12mm Coupling	25
RTCN-16	16mm Coupling	25
RTCN-20	20mm Coupling	25
RTCN-25	25mm Coupling	10
RTCN-32	32mm Coupling	5
RTCN-40	40mm Coupling	5
RTCN-50	50mm Coupling	5

Nylon FittingS

T-Fitting

PART NUMBER	DESCRIPTION	PACK QTY
RTTN-20	20mm T-Fitting	10
RTTN-25	25mm T-Fitting	5
RTTN-32	32mm T-Fitting	5

Y-Fitting

RTYN-12	12mm Y - Fitting	10
RTYN-16	16mm Y - Fitting	10
RTYN-20	20mm Y - Fitting	10
RTYN-25	25mm Y - Fitting	10

P Clamps

RTPN-10	10mm P Clamp	M4	25
RTPN-12	12mm P Clamp	M4	25
RTPN-16	16mm P Clamp	M4	25
RTPN-20	20mm P Clamp	M4	25
RTPN-25	25mm P Clamp	M5	10
RTPN-32	32mm P Clamp	M5	5
RTPN-40	40mm P Clamp	M6	5
RTPN-50	50mm P Clamp	M6	5

Mounting Brackets

RTMN-10B	10mm Mounting Bracket	4.2mm	25
RTMN-12B	12mm Mounting Bracket	4.2mm	25
RTMN-16B	16mm Mounting Bracket	4.2mm	25
RTMN-20B	20mm Mounting Bracket	4.2mm	25
RTMN-25B	25mm Mounting Bracket	4.2mm	10
RTMN-32B	32mm Mounting Bracket	4.2mm	5
RTMN-40B	40mm Mounting Bracket	4.2mm	5
RTMN-50B	50mm Mounting Bracket	4.2mm	5

Metric Nylon Locknuts

RTLN-10B	10mm Nylon LockNut	10mm	25
RTLN-12B	12mm Nylon LockNut	12mm	25
RTLN-16B	16mm Nylon LockNut	16mm	25
RTLN-20B	20mm Nylon LockNut	20mm	25
RTLN-25B	25mm Nylon LockNut	25mm	10
RTLN-32B	32mm Nylon LockNut	32mm	5
RTLN-40B	40mm Nylon LockNut	40mm	5
RTLN-50B	50mm Nylon LockNut	50mm	5

NYLON FITTINGS

P.G. Nylon Locknuts

PART NUMBER	DESCRIPTION	THREAD SIZE	PACK QTY
RTLN-PG7B	PG7 Nylon LockNut	PG7	25
RTLN-PG9B	PG9 Nylon LockNut	PG9	25
RTLN-PG11B	PG11 Nylon LockNut	PG11	25
RTLN-PG16B	PG16 Nylon LockNut	PG16	25
RTLN-PG21B	PG21 Nylon LockNut	PG21	10
RTLN-PG29B	PG29 Nylon LockNut	PG29	5
RTLN-PG36B	PG36 Nylon LockNut	PG36	5
RTLN-PG48B	PG48 Nylon LockNut	PG48	5

End Sleeves

RTES-12	12mm End Sleeve	12mm	As Required
RTES-16	16mm End Sleeve	16mm	As Required
RTES-20	20mm End Sleeve	20mm	As Required
RTES-25	25mm End Sleeve	25mm	As Required
RTES-32	32mm End Sleeve	32mm	As Required
RTES-40	40mm End Sleeve	40mm	As Required
RTES-50	50mm End Sleeve	50mm	As Required

Honeywell

LIMIT SWITCHES

HEAVY DUTY LIMIT SWITCHES

Honeywell's MICRO SWITCH heavy-duty limit switches' modular construction allows for a wide variety of actuator styles, operating heads, and electrical circuitry options. They are ideal for many applications with demanding indoor and/or outdoor environments, where they may be subjected to shock or vibration from equipment, temperature extremes, dust, splashing water, coolant, and/or hose-directed water.

Modular Design
Wide variety of actuators, switch options, and head styles Configurable product platform for design versatility

Easy to Install
All MICRO SWITCH™ Heavy Duty Limit Switches (HDLS) have exactly the same mounting dimensions. They may be mounted by either of two methods:
| use two screws from the front, or
| use two screws from the back.

Rugged Construction
Rugged, corrosion-resistant zinc head and body are phosphate treated and epoxy coated .NEMA 1, 3, 4, 4X, 6, 6P, 12, 13 and IP65/66/67 environmental sealing

Contact Options
| 1NC 1NO SPDT snap action, double break
| 2NC 2NO DPDT snap action, double break
| 2NC 2NO DPDT center neutral, snap action, double break
| 2NC 2NO DPDT sequential, snap action, double break

Electrical Rating
| 10A Continuos Carry for 240V AC
| 10A Continuous Current for 24V DC loads (Resistive/Inductive)

Hazardous Areas
HDLS Limit Switches available with Dust Ignition Protection (DIP) by Enclosure "tb"
BX Series Limit Switches available for hazardous areas.
Approvals: UL, CSA, ATEX (CE), IEC Ex, INMETRO (Brazil),NEPSI Ex (China), and KOSHA/KTL (select listings - Korea)

LIMIT SWITCHES - 1NC/1NO			ACTUATORS			
LS4A1A	LS4YAC1A	BX4A3K	LSZ52A or LSZ52B	LSZ52C or LSZ52D	LSZ54M	LSZ62S
LIMIT SWITCHES - 2NC/2NO						
LS4A2B	LS4YAC2B	BX4A4L				
	Side Rotary | 20mm Conduit Entry		Side Rotary | 20mm Conduit Entry | DIP | IECEx Ex tb Certified		Side Rotary | 20mm Conduit Entry | IECEx Ex d | IECEx Ex tb Certified		Fixed Roller Lever | Nylon or Steel Roller		Adjustable Roller Lever | Nylon or Steel Roller		Adjustable 5.5 Rod | Aluminium Rod		Belt Drift Roller Actuator

LOCALLY STOCKED

DIFFERENT HEAD STYLES

TOP OR SIDE ROLLER PLUNGER		TOP OR SIDE PIN PLUNGER		COIL SPRING	CAT WHISKER	DELRIN ROD
Top Roller Plunger	Side Roller Plunger	Top Pin Plunger	Side Pin Plunger	Wobble Coil Spring 330mm	Cat Whisker 140mm	Wobble Delrin Rod 140mm
20mm Conduit Entry						
LIMIT SWITCHES - 1NC/1NO						
LS4D1A	LS4F1A	LS4C1A	LS4E1A	LS4J1A-7M	LS4K1A-8A	LS4J1A-7A
LIMIT SWITCHES - 2NC/2NO						
LS4D2B	LS4F2B	LS4C2B	LS4E2B	LS4J2B-7M	LS4K2B-8A	LS4J2B-7A

PART NUMBER	DESCRIPTION
LS4A1A	Side Rotary, 1NO/1NC, 20mm Conduit Entry
LS4A2B	Side Rotary, 2NO/2NC, 20mm Conduit Entry
LS4P1A	Side Rotary, 1NO/1NC, 20mm Conduit Entry, Low Diff
LS4P2B	Side Rotary, 2NO/2NC, 20mm Conduit Entry, Low Diff
LS4M6D	Side Rotary, 2NO/2NC, 20mm Conduit Entry, Centre Neutral
LS4N1A	Side Rotary, 1NO/1NC, 20mm Conduit Entry, Maintained
LS4N2B	Side Rotary, 2NO/2NC, 20mm Conduit Entry, Maintained
LS4R1A	Side Rotary, 1NO/1NC, 20mm Conduit Entry, Low Torque
LS4H1A	Side Rotary, 1NO/1NC, 20mm Conduit Entry, Low Pre-Travel & Torque
LS4D1A	Top Roller Plunger, 1NO/1NC, 20mm Conduit Entry
LS4D2B	Top Roller Plunger, 2NO/2NC, 20mm Conduit Entry
LS4D1A	Top Roller Plunger, 1NO/1NC, 20mm Conduit Entry
LS4C1A	Top Pin Plunger, 1NO/1NC, 20mm Conduit Entry
LS4C2B	Top Pin Plunger, 2NO/2NC, 20mm Conduit Entry
LS4F1A	Side Roller Plunger, 1NO/1NC, 20mm Conduit Entry
LS4F2B	Side Roller Plunger, 2NO/2NC, 20mm Conduit Entry
LS4F1A	Side Roller Plunger, 1NO/1NC, 20mm Conduit Entry
LS4E1A	Side Pin Plunger, 1NO/1NC, 20mm Conduit Entry
LS4E2B	Side Pin Plunger, 2NO/2NC, 20mm Conduit Entry
LS4J1A-7A	Wobble Plastic Rod, 1NO/1NC, 20mm Conduit Entry
LS4J2B-7A	Wobble Plastic Rod, 2NO/2NC, 20mm Conduit Entry
LS4J1A-7A	Wobble Plastic Rod, 1NO/1NC, 20mm Conduit Entry
LS4J1A-7M	Wobble Spring Wire, 1NO/1NC, 20mm Conduit Entry
LS4J2B-7M	Wobble Spring Wire, 2NO/2NC, 20mm Conduit Entry
LS4K1A-8C	Wobble Coil Spring, 1NO/1NC, 20mm Conduit Entry
LS4K2B-8C	Wobble Coil Spring, 2NO/2NC, 20mm Conduit Entry
LS4K1A-8A	Cat Whisker Spring, 1NO/1NC, 20mm Conduit Entry

CABLE PULL SAFETY SWITCHES

The Honeywell CPS & 2CCP Series Cable-Pull Safety Switches provide an easily accessible emergency stop function for cable pull systems along conveyors and machines.
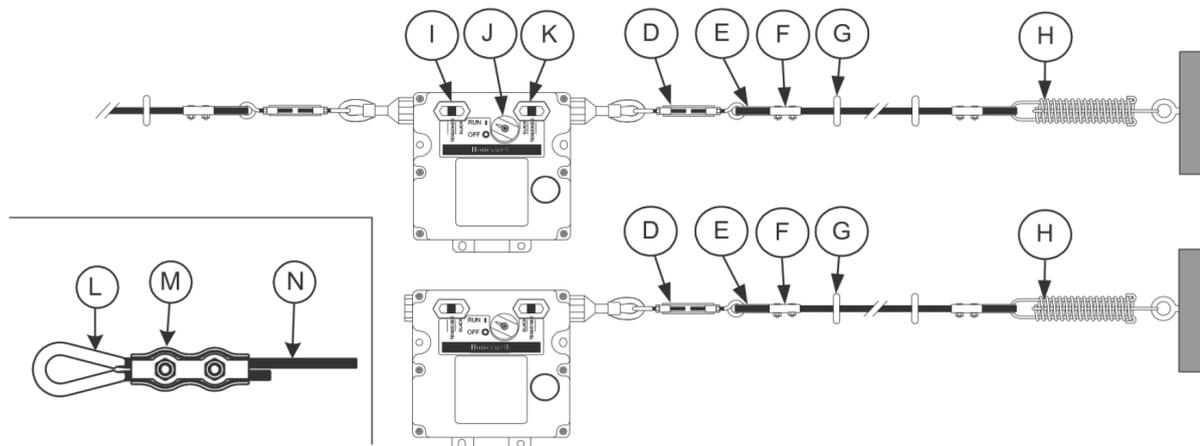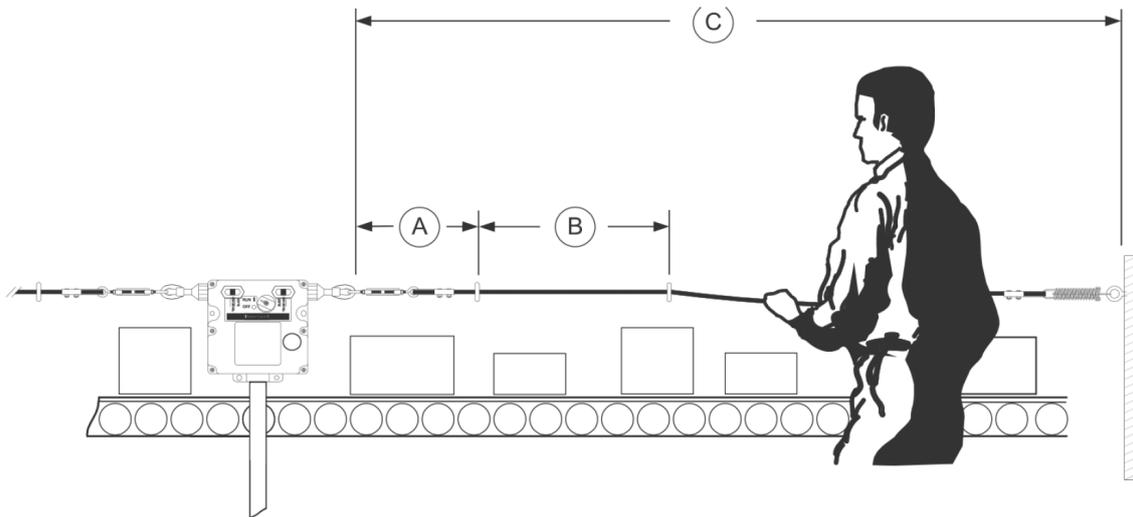
Features & Benefits:

| The Cable Pull Safety Switch's internal mechanism latches on both slackened cable (push) and pulled cable

| The cable pull switches have direct opening action of NC (Normally Closed) contacts

| For the 2CPS series - 2NO/2NC, 1NO/3NC, or 4NC contact configurations available

| For the 1CPS series - 1NO/1NC, 2NO/2NC, 1NO/3NC, or 4NC contact configurations available

| For the 2CCP series - 2NO/2NC, 1NO/3NC, or 4NC contact configurations available

| Typical cable span of 76m in an environment with a temperature change of ±17°C. Longer spans are possible depending upon temperature change and installation.

| Removable contact block version available

| Large wiring cavity with straight-through wiring

| CPS Series has electrostatic, epoxy-coated, die-cast zinc housing, IP67, NEMA 1, 4, 12, 13

| 24 Vdc bright, multi-cluster high-intensity LED status indicator light available on 2CPS

| 24 Vdc & 230VAC bright, multi-cluster high-intensity LED status indicator light available on 2CCP

| The Honeywell cable pull switch systems provide reliable performance, a highly configurable platform, easy installation, simplified maintenance, and faster equipment restart to meet the needs of a wide range of end-users.

| PART NUMBER	DESCRIPTION
2CPSC1A1	Dual Head Cable Pull Switch, 2NO/2NC, 20mm Conduit Entry, Maintained both sides, Die-Cast Housing
2CPSC1A1A	Dual Head Cable Pull Switch, 2NO/2NC, 20mm Conduit Entry, Maintained both sides, Die-Cast Housing, 24VDC LED Indicator
2CPSC1A2	Dual Head Cable Pull Switch, 2NO/2NC, 20mm Conduit Entry, Maintained Left side, Die-Cast Housing
2CPSC1A3	Dual Head Cable Pull Switch, 2NO/2NC, 20mm Conduit Entry, Maintained Right side, Die-Cast Housing
2CPSC1A2A	Dual Head Cable Pull Switch, 2NO/2NC, 20mm Conduit Entry, Maintained Left side, Die-Cast Housing, 24VDC LED Indicator
2CPSC1A3A	Dual Head Cable Pull Switch, 2NO/2NC, 20mm Conduit Entry, Maintained Right side, Die-Cast Housing, 24VDC LED Indicator

2CPS APPLICATION INFORMATION

A   46 cm [18 in] maximum
B   2,4 m [8 ft] maximum
C   76 m [250 ft] typical
D   J-hook turnbuckle (included)
E   Thimble
F   Cable clamp

G   Cable support
H   Endspring
I   Tension indicator line is in
    center of indicator window -
    left cable is properly tensioned
J   Reset knob

K   Tension indicator line is in
    center of indicator window -
    right cable is properly tensioned
L   Thimble
M   Cable clamp
N   Cable

ACCESSORIES

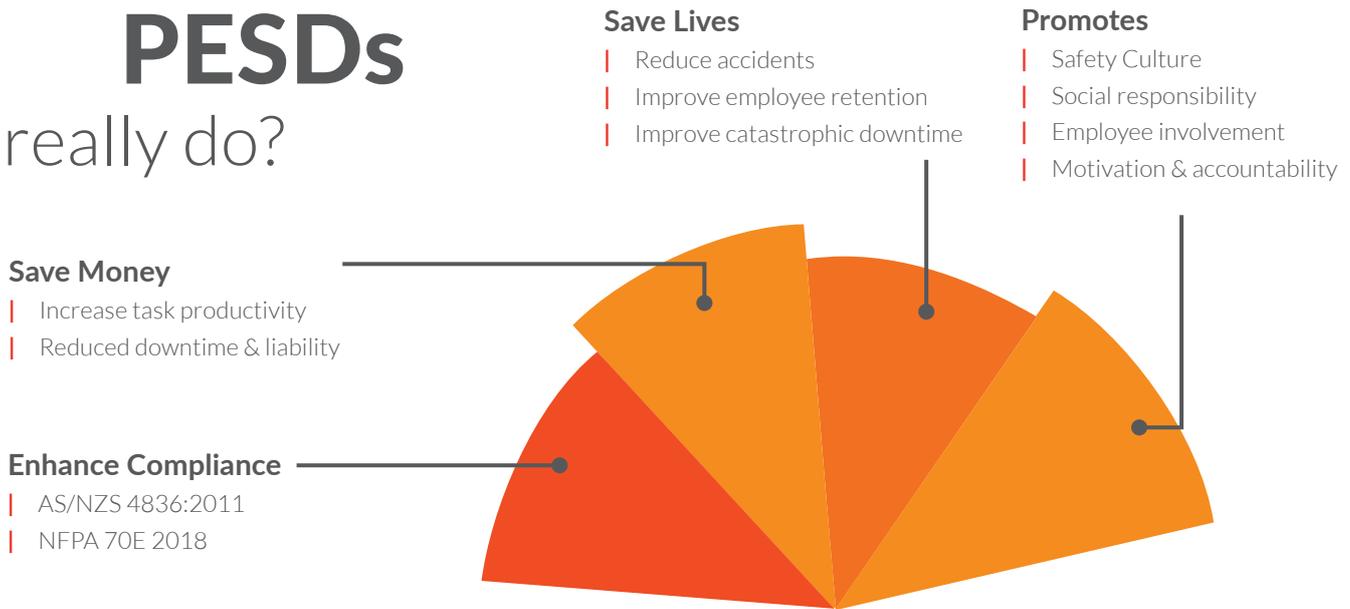| PART NUMBER	DESCRIPTION
CLSZC2	Cable - 15,2 m [50 ft] length
CLSZC3	Cable - 30,5 m [100 ft] length
CLSZC5	Cable - 61 m [200 ft] length
CLSZC7	Cable - 76,2 m [250 ft] length
CLSZTC	(2) Thimbles
	(2) Low-profile duplex cable clamps
CPSZ1E	M6 x 1 x 60 mm eyebolt
CPSZ1S	(1) Draw-bar endspring
CPSZK1	(1) J-hook turnbuckle with lock nuts
	(2) Thimbles
	(2) Low-profile duplex cable clamps
	(16) Sets of cable supports [(16) 1/4-20 eye bolts, (32) 1/4-20 nuts, (32) flat washers, (16) lock washers]
CPSZTB	J-hook turnbuckle with lock nuts (included with 2CPS)
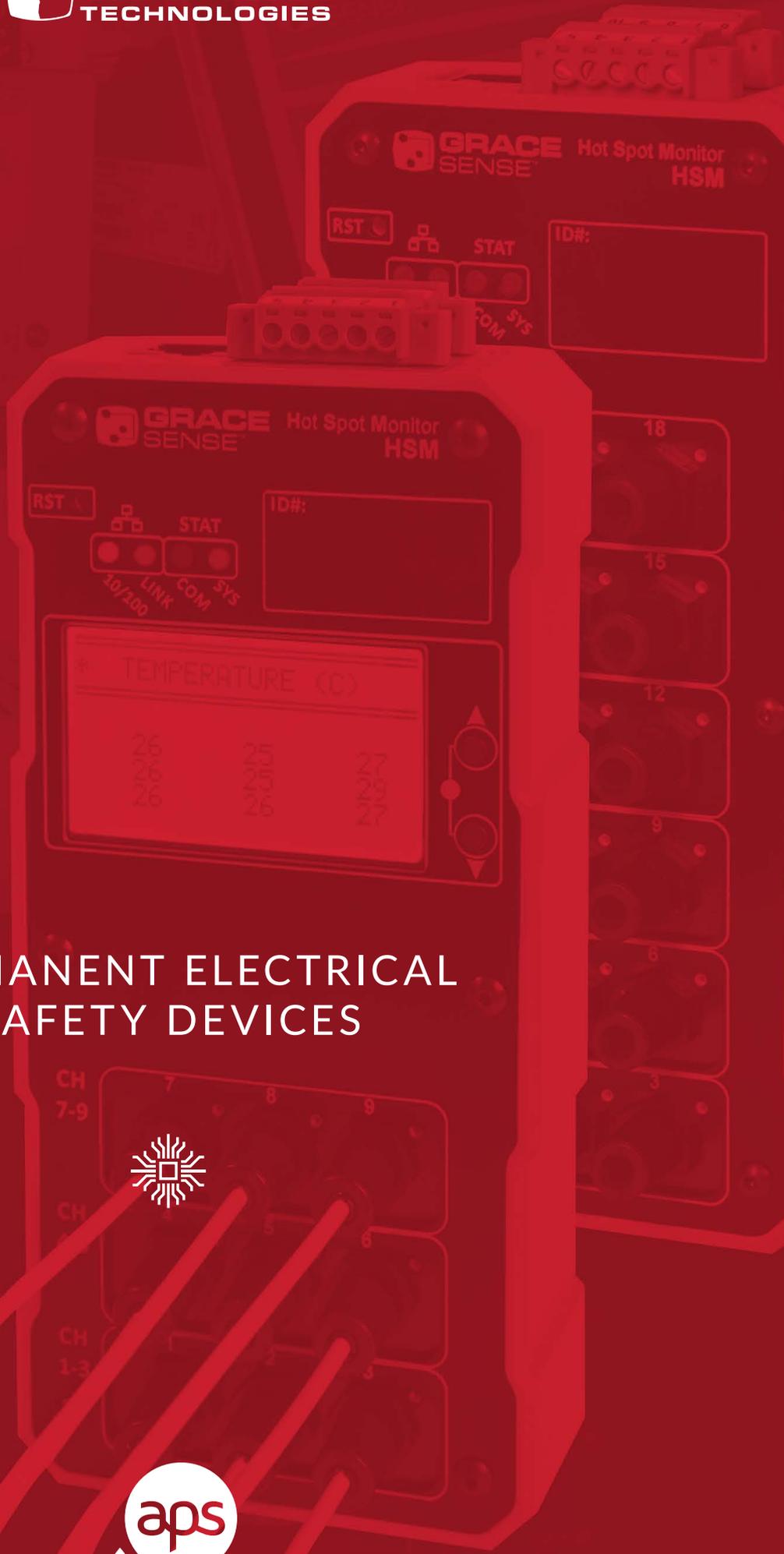
PERMANENT ELECTRICAL SAFETY DEVICES

The range of Grace Permanent Electrical Safety Devices (PESDs) from APS Industrial engineer out the risk associated with routine maintenance tasks allowing them to be safely conducted from outside of the electrical cabinet. In turn, this inherently reduces the risk of arc flash and shock hazards significantly.

When properly incorporated into a facility's electrical and mechanical Lockout/Tagout (LOTO) safety procedures, Grace PESDs enhance safety and increase productivity. In addition, when properly incorporated into a facility's LOTO procedure, Grace SafeSide® thru-door voltage indicators, Safe-Test Points™ and combination units inherently reduce risk by providing a safer and more productive method of performing verification of hazardous energy isolation, thereby enhancing energy isolation principles.

What do
PESDs
really do?

Save Lives
| Reduce accidents
| Improve employee retention
| Improve catastrophic downtime

Promotes
| Safety Culture
| Social responsibility
| Employee involvement
| Motivation & accountability

Save Money
| Increase task productivity
| Reduced downtime & liability

Enhance Compliance
| AS/NZS 4836:2011
| NFPA 70E 2018

GRACE SafeSide® VOLTAGE INDICATOR PESDs

Voltage indicators are PESDs that visually represent presence of voltage with flashing or non-flashing, redundant LED lights. Typically hardwired to the load side of disconnect, voltage indicators illuminate whenever hazardous voltage or stored energy is present in any individual phase.

GRACE SAFE TEST-POINT™ PESD

Safe-Test Point™ allows qualified personnel to perform absence of voltage tests safely from outside an electrical cabinet. The device reduces the risk of arc flash and shock hazards.

GRACE COMBINATION PESDs

Combination units include true voltage indicator and test point PESDs and place them both within a single protective housing to produce a Voltage Test Station (VTS).

Type of Energy Verification	Part Number	Description	Voltage Presence	Phase Loss	Stored Energy Dissipation	Voltage Absence	Primary Task	Type of Worker
Voltage Indicators (Suitable for AC/DC applications from 40-600VAC and 30-1000VDC)	R-3W-2	DIV 2 VoltageVision® UNIT	YES			NO	Mechanical Lockout/ Tagout	Machine Operator, Task Qualified Worker
	R-3F2-L24	Fiber optic unit with 600mm (24 inch) lead						
	R-3W-L	VoltageVision® label						
	R-3W-DR-C6	Door mount kit with 1800mm (6') cable includes 30mm adapter and 1800mm (6') of NW10 flexible conduit| Door Mount Kit for R-3W2						
	R-3W-BZL	Bezel for R-3W-2 as a separate item						
	R-3W-KB-L	VoltageVision® label used with Bezel						
	R-3D2	Flex-Mount Voltage Indicator (4 Wire, Flashing LEDs)						
Safe-Test Point	R-3MT-KIT-H	Safe Test Point/Dust Cover/ Label	YES (with meter)			Electrical Lockout/ Tagout		Qualified Electrician, Electrical Engineer
Medium Voltage Indicator	R-1VL003 (part number contains 3 units)	2kV - 15kV AC	YES	NO			Visual Indicator	
Multi-PESDs	R-3W2MT-LMH	Combination units include true voltage indicator and test point PESDs and place them both within a single protective housing to produce a Voltage Test Station (VTS).	YES			YES (with meter)	Enhanced Electrical Lockout/ Tagout	
	P-S11S21-M3RX						Enhanced Electrical Lockout/ Tagout	

R-3W-2

R-3W-DR-C6

R-3D2

R-3W2MT-LMH

R-3F2-L48

R-3W-BZL

R-3MT-KIT-H

P-S11S21-M3RX

R-3W-L

R-3W-KB-L

R-1VL003

Warning: When performing electrical maintenance, verify an electrical conductor has been de-energised using an adequately rated test instrument before working on it. Specifications listed above are subject to change with/without notice.

OUR LOCATIONS

National footprint with strategic local stockholdings.

APS Industrial is headquartered in Melbourne and in addition has a national network of offices in Adelaide, Perth, Sydney, Brisbane and Tasmania supported by strategic local stockholdings and expert technical and application knowledge.

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