



ELECTRICAL PRODUCTS CATALOGUE



Enclosures - Cable Management - Control Gear
Switchgear - Circuit Protection - Energy Management
Power Distribution - Terminals - Drives & Automation

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a

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CSE Are suppliers of Electrical Products and **Cables** to Control Panel Builders & OEMS

Our Cable brands include;



Our Cables Include;



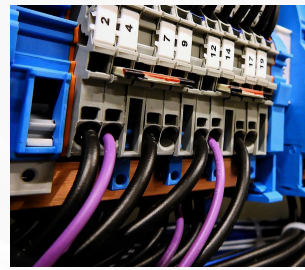
Power Cable

Such as SWA, LSZH SWA armoured, LSHF Single core 6491B



Flexible Rubber Cable

Such as HO7RN-F, HO5RR-F, 318TQ, 0361TQ, 657TQ



Flexible Control Cable

YY-PVC, SY Steel Wire Braided, LiYCY, 318B, CY, LiYCY Paired



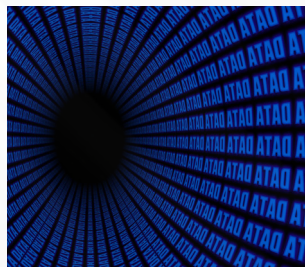
High Temperature cable

SIF, SID, SiHF, Tri-Rated, C-Tri -Rated



Events Cable

HO7RN-F, SiHF, Socable Cable



Data & Telephone Cable

Defence Standard Cable, CAT5E, CW1308, CW1128/1198, PAS508



Fire Alarm Cable

FP100, FP200, NX200, FP400, FP600



Nexans Handling cables

HO7W6-F, VCVH6-F, RHEY-FLAT, LSHF



VFD Inverter Cables

2YSLCY-J, NYCWY



Robotics & Crane Cables

PVC Extra Flex, PUR, HO7WH6-F, SMK

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Products Include;

Enclosures, Motor Control Gear, Circuit Protection, Switchgear, Cable Management, Tools, Control Products, Cable Accessories, Terminals / Connectors & Inverter Drives



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* ABB Drives - Drives & HVAC Inverters
* ABB Motors



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amethyst

* Transformers



* Fuse & Fuse holders.



* Thyristors, Timers, Relays, Sensors, Display units, temperature controllers & Transformers.



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* Danfoss Refrigeration



Motor control gear, push buttons, MCB's MCCB's, Soft starts, Air circuit breakers.



* Enclosures & Enclosure Thermal management.



* Rail Mounted Terminals



* Modular distribution blocks, Cooper busbar, Earthing braids, Low voltage insulators, Erico Caddy Products



* Transformers & Power Supplies



* PCB relays & Industrial relays



Earthing & Lightning protection



* Plastic Enclosures, Industrial plugs & sockets



* Time switches



* Hand Tools, Hydraulic tools, Crimps, Punches, Testing & Measuring Equipment.



* Himel Enclosures, cable protection



Hand Tools, Hydraulic tools & Crimps,



* Isolators, multi-pole switches, change-over switches.



* Fuses



* Motor control products & Pushbuttons



* Crimps, Ferrules, Lugs, Cable markers, tools and cable protection



Cable Protection



* Sensors, Photo E electric & Barrier products



* Isolators, Multi-pole switches, Open & Enclosed



* Enclosures.



* Heaters, Filter fans & thermostats

1 Enclosures

Wall Mounting

Floor Standing



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ABB Mild Steel



pg 3,4 & 5
Eldon Mild Steel
Enclosures &
Accessories



pg 6
Eldon Stainless Steel

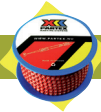


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Overloads & Accessories



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ABB AF Range
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ABB Softstarters



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Danfoss Softstarters



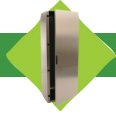
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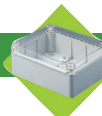
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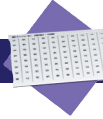
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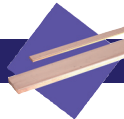
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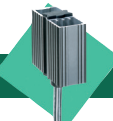
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IP Ratings (Ingress Protection)

The IP Code (or Ingress Protection Rating, sometimes also interpreted as International Protection Rating) consists of the letters IP followed by two digits. As defined in international standard IEC 60529, IP Code classifies and rates the degrees of protection provided against the intrusion of solid objects and water in mechanical casings and with electrical enclosures. See table below.

1st no.	Protection from solids	2nd no.	Protection Against Water
0	Not protected	0	Not protected
1	Protected against objects > 50 mm	1	Protected against dripping water
2	Protected against objects > 12 mm	2	Protected against dripping water tilted 15° N
3	Protected against objects > 2.5 mm	3	Protected against spraying water
4	Protected against objects > 1.0 mm	4	Protected against splashing water
5	Dust protected	5	Protected against water jets
6	Dust tight	6	Protected against heavy seas
		7	Protected against the effects of immersion
		8	Protected against submersion

NEMA Ratings

The United States National Electrical Manufacturers Association (NEMA) publishes protection ratings for enclosures similar to the IP rating system published by the International Electrotechnical Commission (IEC). However, it also dictates other product features not addressed by IP codes, such as corrosion resistance, gasket aging, and construction practices. Thus, while it is possible to map IP Codes to NEMA ratings that satisfy or exceed the IP Code criteria, it is not possible to map NEMA ratings to IP codes, as the IP Code does not mandate the additional requirements. The table below indicates the minimum NEMA rating that satisfies a given IP code, but can only be used in that way, not to map IP to NEMA

NEMA enclosure type no.	NEMA definition	IEC enclosure class
1	General-purpose. Protects against dust, light, and indirect splashing but is not dust-tight; primarily prevents contact with live parts; used indoors and under normal atmospheric conditions.	IP10
2	Drip-tight. Similar to Type 1 but with addition of drip shields; used where condensation may be severe (as in cooling rooms and laundries).	IP11
3 & 3S	Weather-resistant. Protects against weather hazards such as rain and sleet; used outdoors on ship docks, in construction work, and in tunnels and subways.	IP54
3R	Intended for outdoor use. Provides a degree of protection against falling rain and ice formation. Meets rod entry, rain, external icing, and rust-resistance design tests.	IP14
4 & 4X	Watertight (weatherproof). Must exclude at least 65 GPM of water from 1-in. nozzle delivered from a distance not less than 10 ft for 5 min. Used outdoors on ship docks, in dairies, and in breweries.	IP56
5	Dust-tight. Provided with gaskets or equivalent to exclude dust; used in steel mills and cement plants.	IP52
6 & 6P	Submersible. Design depends on specified conditions of pressure and time; submersible in water; used in quarries, mines, and manholes.	IP67
7	Hazardous. For indoor use in Class I, Groups A, B, C, and D environments as defined in the NEC.	-
8	Hazardous. For indoor and outdoor use in locations classified as Class I, Groups A, B, C, and D as defined in the NEC.	-
9	Hazardous. For indoor and outdoor use in locations classified as Class II, Groups E, F, or G as defined in the NEC.	-
10	MSHA. Meets the requirements of the Mine Safety and Health Administration, 30 CFR Part 18 (1978).	-
11	General-purpose. Protects against the corrosive effects of liquids and gases. Meets drip and corrosion-resistance tests.	-
12 & 12K	General-purpose. Intended for indoor use, provides some protection against dust, falling dirt, and dripping non corrosive liquids. Meets drip, dust, and rust resistance tests.	IP52
13	General-purpose. Primarily used to provide protection against dust, spraying of water, oil and non corrosive coolants. Meets oil exclusion and rust resistance design tests.	IP54

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SRN Single Door IP65

Protection: Complies with IP65, Nema 4, 12 & 13

Finish: RAL7035

Supplied With: Enclosure with door, Zinc plated backplate, with gasket, top and bottom gland plates,

Order Code	H (mm)	W (mm)	D (mm)	Locks
SRN3215K	300	200	150	1
SRN3315K	300	300	150	1
SRN3415K	300	400	150	1
SRN4315K	400	300	150	1
SRN4320K	400	300	200	1
SRN4420K	400	400	200	1
SRN4620K	400	600	200	1
SRN5320K	500	300	200	1
SRN5420K	500	400	200	1
SRN5425K	500	400	250	1
SRN6420K	600	400	200	2
SRN6425K	600	400	250	2
SRN6520K	600	500	200	2
SRN6630K	600	600	300	2
SRN6625K	800	600	250	2
SRN7520K	700	500	200	2
SRN7525K	700	500	250	2
SRN8625K	800	600	250	2
SRN8630K	800	600	300	2
SRN8830K	800	800	300	2
SRN10625K	1000	600	250	2
SRN10630K	1000	600	300	2
SRN10830K	1000	800	300	2
SRN12630K	1200	600	300	2
SRN12830K	1200	800	300	2
SRN12840K	1200	800	400	2



SRN Single Glazed Door IP65

Protection: Complies with IP65, Nema 4, 12 & 13

Finish: RAL7035

Supplied With: Enclosure with door, gasket, top and bottom gland plates,

** Mounting Plates order separately **

Order Code	H (mm)	W (mm)	D (mm)	Locks
SRN5420VK	500	400	200	1
SRN5425VK	500	400	250	1
SRN6420VK	600	400	200	2
SRN6425VK	600	400	250	2
SRN7520VK	700	500	200	2
SRN7525VK	700	500	250	2
SRN8625VK	800	600	250	2
SRN8630VK	800	600	300	2
SRN10635VK	1000	600	250	2
SRN10630VK	1000	600	300	2
SRN10830VK	1000	800	300	2
SRN12630VK	1200	600	300	2
SRN12830VK	1200	800	300	2



Mounting Plates

For use with single door and single door glazed enclosures

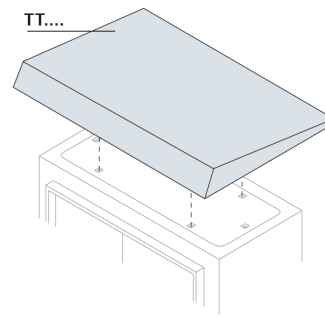
Order Code	H (mm)	W (mm)	For Enclosure Type
PF5040	500	400	SRN5420 & SRN5425
PF6040	600	400	SRN6420 & SRN6425
PF7050	700	500	SRN7520 & SRN7525
PF8060	800	600	SRN8625 & SRN8630
PF1060	1000	600	SRN10625 & SRN10630
PF1080	1000	800	SRN10830
PF1260	1200	600	SRN12630
PF1280	1200	800	SRN12830



Rainhood

To improve protection against sprays of water.
Made with 1.5mm steel plate Colour RAL7035

Order Code	W (mm)	D (mm)
TT2015	200	150
TT3015	300	150
TT4015	400	150
TT3020	300	200
TT4020	400	200
TT5020	500	200
TT6020	600	200
TT4025	400	250
TT5025	500	250
TT6025	600	250
TT6030	600	300
TT8030	800	300



IP55 Combining Gasket

Stacking accessory for use with single door
& single door glazed enclosures

Order Code	W (mm)	D (mm)
GZ4020	400	200
GZ4025	400	250
GZ6025	600	250
GZ6030	600	300



Plinths

For wall mounting enclosures 100mm Height

Order Code	W (mm)	D (mm)
ZA4020	400	200
ZA4025	400	250
ZA6025	600	250
ZA6030	600	300

Accessories

Order Code	Description
AA5600	Document Pocket
AA1206	Pack of 4 Wall mounting brackets
AA8001	Double tongue 7mm lock with DIN 5mm plastic key
AA8002	Lock with Yale insert & Key
AA8003	T handle with Yale insert and key

Enclosures - Mild Steel Wall Mounting

The Eldon Multi-Mount Range of Mild Steel wall mounting enclosures has been designed with the user in mind. Practical, efficient and with a wider range of standard sizes and accessories available, the multi mount range offers a solution to virtually every day application. For outdoor installation the ARF rain-hood is recommended

1

MAS Single Door IP66



Protection: Complies with IP66, Nema 4,12,13 and IK10

Finish: RAL7035 Structure powder Coating.

Supplied With: Enclosure with door, backplate, (all sizes from 800mm and above are strengthened by folded edges). Gland Plate(s) with gasket(s), plastic DIN 3mm key, earth studs and mounting accessories.

** Please note all mounting brackets to be ordered separately

Order Code	H (mm)	W (mm)	D (mm)	Gland Plates	Locks
MAS0202015R5	200	200	155	1	1
MAS0252015R5	200	200	155	1	1
MAS0252515R5	250	250	155	1	1
MAS0302515R5	300	250	155	1	1
MAS0302521R5	300	250	210	1	1
MAS0303015R5	300	300	155	1	1
MAS0303021R5	300	300	210	1	1
MAS0352515R5	350	250	155	1	1
MAS0403015R5	400	300	155	1	1
MAS0403021R5	400	300	210	1	1
MAS0404021R5	400	400	210	1	1
MAS0405021R5	400	500	210	1	1
MAS0406021R5	400	600	210	1	1
MAS0503021R5	500	300	210	1	1
MAS0504015R5	500	400	155	1	1
MAS0504021R5	500	400	210	1	1
MAS0504026R5	500	400	260	1	1
MAS0504030R5	500	400	300	1	1
MAS0505021R5	500	500	210	1	1
MAS0505030R5	500	500	300	1	1
MAS0604015R5	600	400	155	1	2
MAS0604021R5	600	400	210	1	2
MAS0604026R5	600	400	260	1	2
MAS0604030R5	600	400	300	1	2
MAS0605015R5	600	500	155	1	2
MAS0605021R5	600	500	210	1	2
MAS0605026R5	600	500	260	1	2
MAS0605030R5	600	500	300	1	2
MAS0606021R5	600	600	210	1	2
MAS0606030R5	600	600	300	1	2
MAS0606040R5	600	600	400	1	2
MAS0608030R5	600	800	300	2	2
MAS0705021R5	700	500	210	1	2
MAS0705026R5	700	500	260	1	2
MAS0804030R5	800	400	300	1	2
MAS0806021R5	800	600	210	1	2
MAS0806030R5	800	600	300	1	2
MAS0806040R5	800	600	400	1	2
MAS0808021R5	800	800	210	2	2
MAS0808030R5	800	800	300	2	2
MAS0808040R5	800	800	400	2	2
MAS1006026R5	1000	600	260	1	1*
MAS1006030R5	1000	600	300	1	1*
MAS1008026R5	1000	800	260	2	1*
MAS1008030R5	1000	800	300	2	1*
MAS1008040R5	1000	800	400	2	1*
MAS1206030R5	1200	600	300	1	1*
MAS1208030R5	1200	800	300	2	1*
MAS1208040R5	1200	800	400	2	1*



* 3 Point espagnolette lock

MAD Double Door IP55

The Multi-Mount Range includes double door sizes rated at IP55.
For Outdoor installation the use of rain hood ARF is recommended (see pg 5.)

Protection: Complies with IP55 and Nema 12

Finish: RAL7035 Structure powder Coating.

Supplied With: Enclosure with doors, two door mounting profiles on the right hand door.
Back plates with gaskets, plastic DIN 3mm key, earth studs and mounting accessories.



Order Code	H (mm)	W (mm)	D (mm)	Gland Plates	Locks
MAD0608030R5	600	800	300	2	1*
MAD0801230R5	800	1200	300	2	1*
MAD1001030R5	1000	1000	300	2	1*
MAD1201030R5	1200	1000	300	2	1*
MAD1201230R5	1200	1200	300	2	1*
MAD1401030R5	1400	1000	300	2	1*

* 3 Point espagnolette lock

Locks Handles and Mounting Accessories

To suit MAS & MAD Enclosures

Order Code	Description
AW41	Wall mounting brackets pack of 4
ALL503	Polyamide Standard Lock DIN 3mm
ALL504	MultiMount DIN 3mm Slam Lock
ALL506	ADA/ACA Ronis key lock C21323 Chrome Plated Cylinder Lock
ALL507	ADAB/ACB Ronis key lock C21323 Chrome Plated Cylinder Lock
ALL508	Ronis key lock C21323 Chrome Plated Cylinder Lock
ALL509	Key 333 Polyamide Cylinder Lock
ALLS304	Stainless steel lock, DIN 3mm
ALT560	MultiMount Plastic Handle
ALT561	Chrome Plated T-Handle Ronis key with cylinder lock
ALT526	Chrome Plated handle Ronis 21323c with cylinder lock
ALT563	Plastic Handle with 333 key with cylinder lock



ADI Mild Steel Inner Doors

To suit MAS Enclosures

RAL7035 Finish made from 1.5mm Mild steel

Order code	H (mm)	W (mm)	locks
ADI05040R5	500	400	1
ADI06040R5	600	400	2
ADI06060R5	600	600	2
ADI07050R5	700	500	2
ADI08060R5	800	600	2
ADI10060R5	1000	600	1*
ADI10080R5	1000	800	1*
ADI12060R5	1200	600	1*
ADI12080R5	1200	800	1*

- Mounting accessories not included

* Top & bottom espagnolette lock with single operator.



ARF Mild Steel Rainhoods

To suit MAS/MAD Enclosures

RAL7035 Finish made from 1.5mm Mild steel

Order Code	W (mm)	D (mm)
ARF04021R5	400	210
ARF04026R5	400	260
ARF04030R5	400	300
ARF05015R5	500	155
ARF05021R5	500	210
ARF05026R5	500	260
ARF05030R5	500	300
ARF06021R5	600	210
ARF06026R5	600	260
ARF06030R5	600	300
ARF06040R5	600	400
ARF08021R5	800	210
ARF08026R5	800	260
ARF08030R5	800	300
ARF08040R5	800	400
ARF10030R5	1000	300
ARF12030R5	1200	300
ARF12040R5	1200	400



ADT Acrylic Glazed Doors IP55

To suit MAS Enclosures. 1.2mm mild steel / 1.4mm ADT06060R5 and above / 1.8mm ADT10060R5 and above. Door with 3mm transparent acrylic glass.

Order Code	H (mm)	W (mm)	Locks
ADT03030R5	300	300	1
ADT04030R5	400	300	1
ADT04040R5	400	400	1
ADT05030R5	500	300	1
ADT05040R5	500	400	1
ADT06040R5	600	400	2
ADT06050R5	600	500	2
ADT06060R5	600	600	2
ADT07050R5	700	500	2
ADT08060R5	800	600	2
ADT10060R5	1000	600	1*
ADT10080R5	1000	800	1*
ADT12060R5	1200	600	1*
ADT12080R5	1200	800	1*

- Mounting accessories not included

* Top & bottom espagnolette lock with single operator.



The Eldon ASR Range of Stainless Steel enclosures offers the ideal solution for harsh environments, providing high resistance to corrosion. Manufactured from pre grained Stainless Steel AISI 304. These enclosures are ideal solutions for harsh, demanding environments such as the food, offshore & Chemical Industries.

ASR Single Door IP66

Protection: Complies with IP66, Nema 4,12,13 and IK10

Finish: Outer body and door: 240s pre grained (average 0.5 micron.) AISI 304 Grade stainless steel

Supplied With: Mounting plate, complete with fitting accessories and earth studs.

Order Code	H (mm)	W (mm)	D (mm)	Locks
ASR0182415	180	240	150	1
ASR0242415	240	240	150	1
ASR0243615	240	360	150	1
ASR0302015	300	200	150	1
ASR0362415	360	240	150	1
ASR0403015	400	300	150	1
ASR0403021	400	300	210	1
ASR0404021	400	400	210	1
ASR0406021	400	600	210	1
ASR0504021	500	400	210	2
ASR0505021	500	500	210	2
ASR0604021	600	400	210	2
ASR0606021	600	600	210	2
ASR0606030	600	600	300	2
ASR0608030	600	800	300	2
ASR0806021	800	600	210	2
ASR0806030	800	600	300	2
ASR0808030	800	800	300	2
ASR1008030	1000	800	300	3
ASR1208030	1200	800	300	3
ASR1208040	1200	800	300	3
ASR1408040	1400	800	300	3

Also some versions available in 316 Stainless steel, please enquire for more details.



ADR Double Door IP55

Protection: Complies with IP55, Nema 12, and IK10

Finish: Outer body and door: 240s pre grained (average 0.5 micron.)

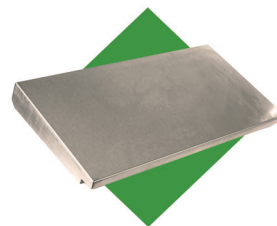
Supplied With: Mounting plate, complete with fitting accessories 3 point espagnolette lock and earth studs.

Order Code	H (mm)	W (mm)	D (mm)	Locks
ADR1001030	1000	1000	300	1
ADR1001230	1000	1200	300	1



ASST Stainless Steel Rainhoods

Order Code	W (mm)	D (mm)
ASST042	400	210
ASST062	600	210
ASST063	600	300
ASST082	800	210
ASST083	800	300
ASST084	800	400
ASST103	1000	300
ASST123	1200	300



Accessories

Order Code	Description
AWS41	Wall mounting brackets pack of 4
ALLS503	Polyamide Standard Lock DIN 3 mm



Enclosures - Polyester Wall Mounting

The Uniplast range of compact polyester enclosures conforms to IP66. Uniplast Compact is a fibre-glass reinforced polyester design and is double insulated to give maximum safety to users. A large range of standard sizes and numerous mounting possibilities makes Uniplast Compact extremely flexible.



1

Material: Fibre-glass reinforced polyester. UCPT viewing area: polycarbonate.
Body: Moulded 3mm thick. Four holes for direct wall fixing. No gland plate openings.
Door: 180° opening. Extruded one piece polyurethane gasket seal.
Lock: DIN 3mm insert and 90° movement. UCP/UCPT540 and above have three locking points. Other locks are available as an accessory.

Temperature resistance: -50°C to 70°C in continuous use (peak temperatures up to 150°C).

Characteristics: Self extinguishing and halogen free.

Protection: Complies with IP 66 and NEMA 4, 4X, 12 and 13.

Finish: RAL 7035

Supplied With: Enclosure with door, fixing screws for the mounting plate and self-adhesive rain strip.

** Order mounting plate separately.

UCP Single Door IP66

Plain Door Enclosure

Order Code	H (mm)	W (mm)	D (mm)	Locks
UCP320	315	215	170	1
UCP430	415	315	170	1
UCP540	516	415	230	3
UCP640	615	415	230	3
UCP750	735	535	270	3
UCP860	835	535	300	3
UCP1080	1035	835	300	3



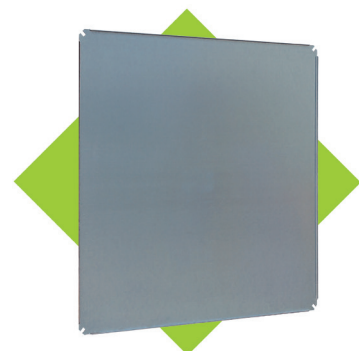
UCPT Single Door IP66

Transparent Door Window Enclosure

Order Code	H (mm)	W (mm)	D (mm)	Locks
UCPT430	415	315	170	1
UCPT540	515	415	230	3
UCPT640	615	415	230	3
UCPT750	735	535	270	3
UCPT860	835	635	300	3
UCPT1080	1035	835	300	3

UMPZ Steel Mounting Plate for Polyester Enclosures

Order Code	H (mm)	W (mm)
UMPZ320	250	150
UMPZ430	350	250
UMPZ540	450	350
UMPZ640	550	350
UMPZ750	650	450
UMPZ860	750	860
UMPZ1080	950	750



Accessories

Order Code	Description
UVMB01	304 Stainless Steel Wall mounting brackets pack of 4
UVMB02	Polyamidel Wall mounting brackets pack of 4
UDH0C	Neutral Handle
UDH1C	Handle with key E2432
UDH2C	Swinghandle for half cylinder
UDH3C	Swinghandle for pad-locking

The revolutionary Multi-Flex range of mild steel standing enclosures sets new standards when it comes to strength and ease of use. From the moment Multi-Flex arrives in the panel shop, the advantages are plain to see. It's delivered on a pallet of exactly the same size so that it can be combined before the pallet is removed, and the mounting plate is on the outside so you can begin work immediately.

MCS Single Door Combination IP56

Protection: Complies with IP56, Nema 4,12,13 and IK10

Finish: RAL7035 Structure powder Coating.

Supplied With: Body with fitted door, rear panel, roof panel, bottom plates, 3mm pin lock, mounting plate and door frame. Delivery also includes earthing bolts.

Order Code	H (mm)	W (mm)	D (mm)
MCS18064R5	1800	600	400
MCS18065R5	1800	600	500
MCS18066R5	1800	600	600
MCS18084R5	1800	800	400
MCS18085R5	1800	800	500
MCS18086R5	1800	800	600
MCS18104R5	1800	1000	400
MCS18105R5	1800	1000	500
MCS20064R5	2000	600	400
MCS20065R5	2000	600	500
MCS20066R5	2000	600	600
MCS20068R5	2000	600	800
MCS20074R5	2000	700	400
MCS20084R5	2000	800	400
MCS20085R5	2000	800	500
MCS20086R5	2000	800	600
MCS20088R5	2000	800	800
MCS20104R5	2000	1000	400
MCS20105R5	2000	1000	500
MCS20106R5	2000	1000	600
MCS20108R5	2000	1000	800
MCS22066R5	2200	600	600
MCS22068R5	2200	600	800
MCS22086R5	2200	800	600
MCS22088R5	2200	800	800

* Please note Side Panels sold as accessories



MCD Double Door Combination IP56.

Protection: Complies with IP55, Nema 12,13 and IK10

Finish: RAL7035 Structure powder Coating.

Supplied With: Body with fitted doors, rear panel, roof panel, bottom plates, 3mm pin lock, mounting plate and door frame. Delivery also includes earthing bolts.

Order Code	H (mm)	W (mm)	D (mm)
MCD18085R5	1800	800	500
MCD18104R5	1800	1000	400
MCD18105R5	1800	1000	500
MCD18124R5	1800	1200	400
MCD18125R5	1800	1200	500
MCD18164R5	1800	1600	400
MCD20085R5	2000	800	500
MCD20104R5	2000	1000	400
MCD20105R5	2000	1000	500
MCD20106R5	2000	1000	600
MCD20108R5	2000	1000	800
MCD20124R5	2000	1200	400
MCD20125R5	2000	1200	500
MCD20126R5	2000	1200	600
MCD20128R5	2000	1200	800
MCD20144R5	2000	1400	400
MCD20164R5	2000	1600	400
MCD20165R5	2000	1600	500
MCD20166R5	2000	1600	600
MCD22106R5	2200	1000	600
MCD22126R5	2200	1200	600

* Please note Side Panels sold as accessories



Enclosures - Mild Steel Floor Standing

innovative improved design, the multi-K range of mild steel floor standing enclosures offers any user maximum effectiveness. With one piece body and welded rear panel ensures superior rigidity. The front hole pattern guarantees the highest flexibility while maintaining IP66 / IP55 Protection degree

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EKS Single Door Compact IP66.



Protection: Complies with IP66, Nema 4, 12, 13 and IK10 (for IP66 rating please use gasket kit BG01)

Finish: RAL7035 Structure powder Coating.

Supplied With: One piece body with fitted door, bottom plates and mounting plates, including door earthing studs.

Order Code	H (mm)	W (mm)	D (mm)
EKS12064	1200	600	400
EKS12084	1200	800	400
EKS14063	1400	600	300
EKS14064	1400	600	400
EKS14083	1400	800	300
EKS14084	1400	800	400
EKS16063	1600	600	300
EKS16064	1600	600	400
EKS16083	1600	800	300
EKS16084	1600	800	400
EKS16085	1600	800	500
EKS16104	1600	1000	400
EKS18064	1800	600	400
EKS18084	1800	800	400
EKS18085	1800	800	500
EKS18104	1800	1000	400
EKS20064	2000	600	400
EKS20084	2000	800	400
EKS20085	2000	800	500
EKS20104	2000	1000	400



EKD Double Door Compact IP55

Protection: Complies with IP55, Nema 12, 13 and IK10

Finish: RAL7035 Structure powder Coating.

Supplied With: One piece body with fitted doors, bottom plates and mounting plate, including door earthing studs.

Order Code	H (mm)	W (mm)	D (mm)
EKD12123	1200	1200	300
EKD12124	1200	1200	400
EKD14103	1400	1000	300
EKD14104	1400	1000	400
EKD14123	1400	1200	300
EKD14124	1400	1200	400
EKD16124	1600	1200	400
EKD16125	1600	1200	500
EKD18124	1800	1200	400
EKD18125	1800	1200	500
EKD18164	1800	1600	400
EKD20124	2000	1200	400
EKD20125	2000	1200	500
EKD20164	2000	1600	400



Innovative improved design, the multi K stainless steel range is designed with cleanliness and ingress protection in mind. The sturdy construction, with the 25mm hole pattern, one piece body and removable rear panel ensures superior rigidity and easy access. The Ideal solution for food and chemical industries, outdoor applications and marine environments.

EKSS Compact Single Door IP66

Protection: Complies with IP66, Nema 4X, 12 and 13.

Finish: 240s pre grained (average 0.5 micron.)

Supplied With: One piece body with fitted door, bottom plate, Espagnolette 4 point locking with standard Din lock with 3mm pin mounting plate and door frame. Delivery also includes earthing studs.

Order Code	H (mm)	W (mm)	D (mm)
EKSS14084	1400	800	400
EKSS16064	1600	600	400
EKSS16084	1600	800	400
EKSS16104	1600	1000	400
EKSS18064	1800	600	400
EKSS18084	1800	800	400
EKSS18104	1800	1000	400
EKSS20084	2000	800	400
EKSS20104	2000	1000	400



EKDS Compact Double Door IP55

Protection: Complies with IP55, Nema 12 and IK10

Finish: 240s pre grained (average 0.5 micron.)

Supplied With: One piece body with fitted door, bottom plate, Espagnolette 4 point locking with standard Din lock with 3mm pin mounting plate and door frame. Delivery also includes earthing studs.

Order Code	H (mm)	W (mm)	D (mm)
EKDS12124	1200	1200	400
EKDS16124	1600	1200	400
EKDS18124	1800	1200	400
EKDS18164	1800	1600	400
EKDS20124	2000	1200	400
EKDS20164	2000	1600	400



Combination Version IP56

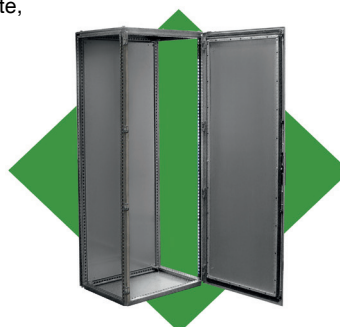
Protection: Complies with IP56, Nema 12, 13 and IK10

Finish: 240s pre grained (average 0.5 micron.)

Supplied With: Frame with fitted door, roof panel, rear panel, bottom plate, Espagnolette 4 point locking for single door and 3 point for double door, standard Din lock with 3mm pin mounting plate and door frame. Delivery also includes earthing bolts.

MCSS Single Door

Order Code	H (mm)	W (mm)	D (mm)
MCSS18065	1800	600	500
MCSS18085	1800	800	500
MCSS18105	1800	1000	500
MCSS20066	2000	600	600
MCSS20086	2000	800	600
MCSS20106	2000	1000	600



MCDS Double Door.

Order Code	H (mm)	W (mm)	D (mm)
MCDS18105	1800	1000	500
MCDS18125	1800	1200	500
MCDS20126	2000	1200	600





SPM Side Panels

(sold in pks of two)

Material: 1.35mm steel plate.

Protection: IP56, Nema 4 12, and 13.

Finish: RAL7035 Structure powder Coating.

Supplied With: 2 panels with mounting accessories.

Order Code	H (mm)	D (mm)
SPM1804R5	1800	400
SPM1805R5	1800	500
SPM1806R5	1800	600
SPM2004R5	2000	400
SPM2005R5	2000	500
SPM2006R5	2000	600
SPM2008R5	2000	800
SPM2206R5	2200	600
SPM2208R5	2200	800



SPMS Side Panels

(sold in pks of two)

Material: 1.5mm AISI304 pre-grained stainless steel.

Finish: 240s pre-grained stainless steel

Supplied With: 2 panels with mounting material.

Order Code	H (mm)	D (mm)
SPMS1805	1800	500
SPMS2006	2000	600



PF Plinths

(Front and Rear)

Material: Corner pieces in 2mm & panels in 1.5mm mild steel.

Finish: RAL7022 Structure powder Coating.

Supplied With: Front and rear plinths with mounting accessories

Order Code	H (mm)	W (mm)
PF1060	100	600
PF1080	100	800
PF1100	100	1000
PF1120	100	1200
PF2060	200	600
PF2080	200	800
PF2100	200	1000
PF2120	200	1200



PFS Plinths

(Front and Rear)

Material: AISI304 pre-grained stainless steel.

Finish: 240s pre-grained stainless steel.

Supplied With: Front and rear plinth with mounting material

Order Code	H (mm)	W (mm)
PFS1060	100	600
PFS1080	100	800
PFS1100	100	1000
PFS1120	100	1200
PFS2060	200	600
PFS2080	200	800
PFS2100	200	1000
PFS2120	200	1200



PSK Plinths

(Sides)

Material: 1.5mm mild steel.

Finish: RAL7022 Structure powder Coating.

Supplied With: 2 side panels

Order Code	H (mm)	D (mm)
PSK1030	100	300
PSK1040	100	400
PSK1050	100	500
PSK2030	200	300
PSK2040	200	400
PSK2050	200	500



PSS Plinths

(Sides)

Material: AISI304 Pre-grained stainless steel.

Finish: 240s Pre-grained stainless steel.

Supplied With: 2 side panels

Order Code	H (mm)	D (mm)
PSS1040	100	400
PSS1050	100	500
PSS1060	100	600
PSS2040	200	400
PSS2050	200	500
PSS2060	200	600



SPD Separation Plates

Material: 1.5mm zinc plated steel.

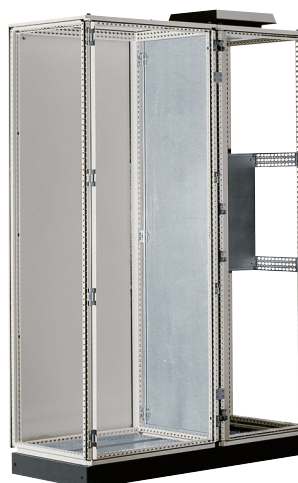
Description: Separates two bayed enclosures.

Pack Qty: 1 Piece.

Order Code	H (mm)	D (mm)
SPD1804	1800	400
SPD1805	1800	500
SPD2004	2000	400
SPD2005	2000	500
SPD2006	2000	600
SPD2008	2000	800
SPD2206	2200	600
SPD2208	2200	800

(For use with the above)

Order Code	Description
CCJ12	Baying kit (12 per pack)



LSC Swing handle lock cover

(for LSSI Inserts)

Order Code	Description
LSC501	Swinghandle cover
LSC503	Swinghandle cover with padlock facility



LST T handles

Order Code	Description
LST560	With Ronis cylinder key nr. C21323
LST560CE	Without Cylinder



LSK Keys

Material: Die cast alloy

Order Code	Description
LSK503	DIN 3mm
LSK505	DIN 5mm
LSK523	Square 7mm
LSK524	Square 8mm
LSK526	Triangle 7mm
LSK527	Triangle 8mm



LSI Inserts

(without cover)

Material: Aluminium alloy

Order Code	Description
LSI503	DIN 3mm
LSI505	DIN 5mm
LSI523	Square 7mm
LSI524	Square 8mm
LSI526	Triangle 7mm
LSI527	Triangle 8mm
LSI530	Daimler Benz



LSSI Profile half cylinder locks

To be used with the LSC Swing handle covers

Order Code	Description
LSSI521	Profile half cylinder Ronis key C2123
LSSI522	Ronde cylinder Ronis key C21323
LSSI523	Square 7mm
LSSI524	Square 8mm
LSSI526	Triangle 7mm
LSSI527	Triangle 8mm

LSSI Profile half cylinder locks

To be used with the LSC Swing handle covers

Order Code	Description
LSSI528	DIN 3mm
LSSI529	DIN 5mm
LSSI530	Daimler Benz
LSSI532	Push Button with round cylinder, key
LSSI536	Push Button Only





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STB IP66 Mild Steel Terminal Box

Protection: Complies with IP66, and IK09.

Finish: RAL7035, structure powder coating.

Comes With: Base, cover, cover screws, fixing screws cover plug and earthing facilities.

Order Code	H (mm)	W (mm)	D (mm)
STB151508	150	150	80
STB151512	150	150	120
STB153008	150	300	80
STB153012	150	300	120
STB202008	200	200	80
STB202012	200	200	120
STB203008	200	300	80
STB203012	200	300	120
STB204008	200	400	80
STB204012	200	400	120
STB205012	200	500	120
STB206012	200	600	120
STB208012	200	800	120
STB303008	300	300	80
STB303012	300	300	120
STB304012	300	400	120
STB305012	300	500	120
STB306012	300	600	120
STB404012	400	400	120
STB406012	400	600	120
STB408012	400	800	120

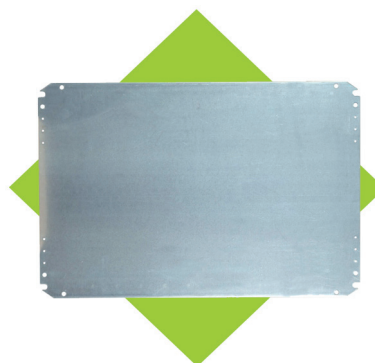


BMP Steel Mounting Plates

For STB & SSTB Terminal Boxes

Made from 2mm galvanised Steel

Order Code	H (mm)	W (mm)
BMP1515	150	150
BMP1530	150	300
BMP2020	200	200
BMP2030	200	300
BMP2040	200	400
BMP2050	200	500
BMP2060	200	600
BMP2080	200	800
BMP3030	300	300
BMP3040	300	400
BMP3050	300	500
BMP3060	300	600
BMP4040	400	400
BMP4060	400	600
BMP4080	400	800



Accessories

Order Code	Description
AW41	Zinc Plated Wall mounting brackets Pack of 4
STBH02	Zinc Plated steel Hinges Pack of 2



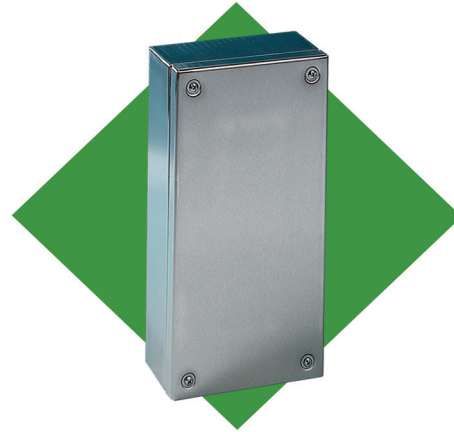
SSTB IP66 Stainless Steel Terminal Box

Protection: Complies with IP66, and IK10.

Finish: 240s pre-grained satinless steel (average 0,5 micron),
AISI 304 pre-grained stainless steel body 1mm. Door 1.5mm

Comes With: Base, cover, cover screws, fixing screws
cover plugs and earthing facilities

Order Code	H (mm)	W (mm)	D (mm)
SSTB151508	150	150	80
SSTB151512	150	150	120
SSTB153008	150	300	80
SSTB153012	150	300	120
SSTB202008	200	200	80
SSTB202012	200	200	120
SSTB203008	200	300	80
SSTB203012	200	300	120
SSTB204008	200	400	80
SSTB204012	200	400	120
SSTB205012	200	500	120
SSTB206012	200	600	120
SSTB208012	200	800	120
SSTB303008	300	300	80
SSTB303012	300	300	120
SSTB304012	300	400	120
SSTB305012	300	500	120
SSTB306012	300	600	120
SSTB404012	400	400	120
SSTB406012	400	600	120
SSTB408012	400	800	120

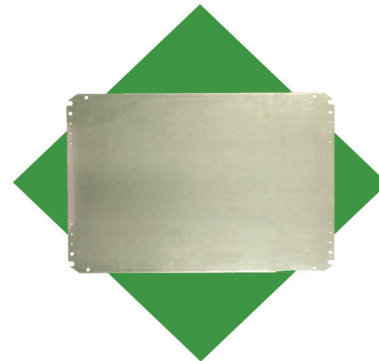


BMP Steel Mounting Plates

For STB & SSTB Terminal Boxes

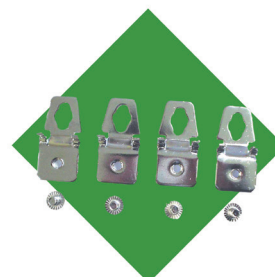
Made from 2mm galvanised Steel

Order Code	H (mm)	W (mm)
BMP1515	150	150
BMP1530	150	300
BMP2020	200	200
BMP2030	200	300
BMP2040	200	400
BMP2050	200	500
BMP2060	200	600
BMP2080	200	800
BMP3030	300	300
BMP3040	300	400
BMP3050	300	500
BMP3060	300	600
BMP4040	400	400
BMP4060	400	600
BMP4080	400	800



Accessories

Order Code	Description
AW41	Zinc Plated Wall mounting brackets Pack of 4
STBH02	Zinc Plated steel Hinges Pack of 2



Junction boxes with low-screwed Lid

IP56 - Grey (RAL7035)

Order Code	L (mm)	H (mm)	D (mm)
GW44204	100	100	50
GW44205	120	80	50
GW44206	150	110	70
GW44207	190	140	70
GW44208	240	190	90
GW44209	300	220	120
GW44210	380	300	120
GW44211	460	380	120



Junction boxes with high-screwed Lid

IP56 - Grey (RAL7035)

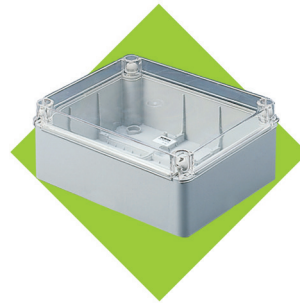
Order Code	L (mm)	H (mm)	D (mm)
GW44214	100	100	120
GW44215	120	80	120
GW44216	150	110	140
GW44217	190	140	140
GW44218	240	190	160
GW44219	300	220	180
GW44220	380	300	180
GW44221	460	380	180



Junction boxes with Transparent Plain Lid

For Junctions and for electrical and electronic components
Smooth walls, IP56 - Plain lid, Grey (RAL7035)

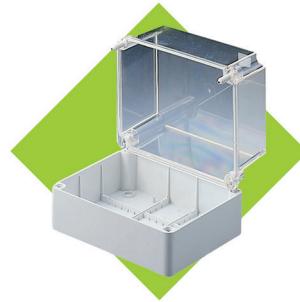
Order Code	L (mm)	H (mm)	D (mm)
GW44426	150	110	70
GW44427	190	140	70
GW44428	240	190	90
GW44429	300	220	120
GW44430	380	300	120
GW44431	460	380	120



Junction boxes with Transparent Deep Lid

For Junctions and for electrical and electronic components
Smooth walls, IP56 - Deep Lid Grey (RAL7035)

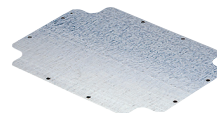
Order Code	L (mm)	H (mm)	D (mm)
GW44436	150	110	140
GW44437	190	140	140
GW44438	240	190	160
GW44439	300	220	180
GW44440	380	300	180
GW44441	460	380	180



Mounting Plate in Galvanised Steel

With self-tapping fixing screws

Order Code	L (mm)	H (mm)
GW44615	190	140
GW44616	240	190
GW44617	300	220
GW44618	380	300
GW44619	460	380



Accessories

Order Code	Description
GW44620	Watertight coupler - IP56. for 300x220, 380x300, 460x380
GW44621	Wall fixing bracket, complete with self-tapping screws.



Enclosures Without Terminal Blocks

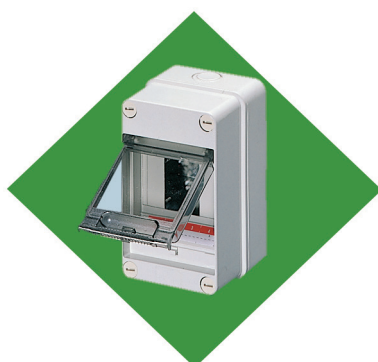
Surface-Mounting Distribution Boards

Smoked transparent door - walls with knockout holes

IP55 - Grey (RAL7035)

Halogen Free

Order Code	No. modules DIN	L (mm)	H (mm)	D (mm)	Installable terminal blocks	Dispersible Power (W)
GW40001	4	105	170	98	-	12
GW40003	8	180	180	98	GW40401 - 8 mod, N&E (1X25)+(7X10) mm ²	13
GW40005	12	250	250	135	GW40402 - 12 mod, N&E (3X25)+(10X10) mm ²	25
GW40007	24 (12x2)	250	375	135	2 x GW40401 - 8 mod, N&E (1X25)+(7X10) mm ²	27
GW40009	36 (18x2)	376	400	135	2 x GW40402 - 12 mod, N&E (3X25)+(10X10) mm ²	41



Enclosures Fitted With Terminal Block

Surface-Mounting Distribution Boards

Smoked transparent door - walls with knockout holes

IP55 - Grey (RAL7035)

Order Code	No. modules DIN	L (mm)	H (mm)	D (mm)	Terminal Block Neutral (mm ²)	Terminal Block Earth (mm ²)	Dispersible Power (W)
GW40004	12	250	250	135	(3x25)+(10x10)	(3x25)+(10x10)	25
GW40006	24 (12x2)	250	375	135	2x[(1x25)+7x10]	2x[(1x25)+7x10]	27
GW40008	36 (18x2)	376	400	135	2x[(3x25)+10x10]	2x[(3x25)+10x10]	31



1 Spelsberg TK Range Boxes



Junction boxes with Standard Lid

IP66, Empty enclosure - Ui=690 V.

Box and cover: Polystyrene, grey, similar to RAL 7035.

Order Code	Descriptive Code	H (mm)	W (mm)	D (mm)
105 901 01	PS 77-8-M	65	65	81
105 902 01	PS 97-8-M	94	65	81
105 903 01	PS 99-8-M	94	94	81
105 904 01	PS 1111-9-M	110	110	90
105 909 01	PS 1309-8-M	130	94	81
105 905 01	PS 1313-10-M	130	130	99



Junction boxes with Transparent Lid

IP66, Empty enclosure - Ui=690 V.

Box: Polystyrene, grey, similar to RAL 7035.

Cover: Polycarbonate transparent.

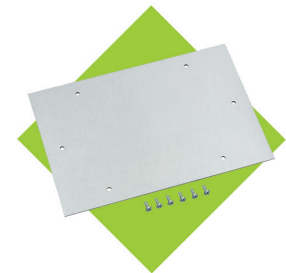
Order Code	Descriptive Code	H (mm)	W (mm)	D (mm)
106 501 01	PS 77-8-TM	65	65	81
106 502 01	PS 97-8-TM	94	65	81
106 503 01	PS 99-8-TM	94	94	81
106 504 01	PS 1111-9-TM	110	110	90
106 509 01	PS 1309-8-TM	130	94	81
106 505 01	PS 1313-10-TM	130	130	99



Mounting plates

Assembly plate made of insulating material including fixing screws and spacers

Order Code	Descriptive Code	TK Enclosure Type	H (mm)	W (mm)
195 001 01	TK MPI-77	77	45	45
195 002 01	TK MPI-97	97	74	45
195 003 01	TK MPI-99	99	74	74
195 004 01	TK MPI-1111	1111	90	90
195 009 01	TK MPI-1309	1309	110	74
195 005 01	TK MPI-1313	1313	110	110



Accessories

Order Code	Description
194 001 01	TK ABL - Plastic External fixing plates. (Pack of 4)
190 100 01	VSG - converting the enclosure cover to a hinged door that can be locked



Cable & Cable Management

Pages	Content
1	Cable Markers
2	Cable Markers
3	Cable Ties
4	Cable Ties
5	Ferrules
6	Copper Lugs
7	Insulated Terminals
8	Insulated Terminals
9	Insulated Terminals / Cable Glands
10	Cable Glands
11	Trunking
12	Cable Protection
13	Adaptaflex Steel Flexible Conduit & Accessories
14	Din Rail
15	Tri Rated Cable



PA Cable Markers

Partex Markers - Closed, secure, marker sleeve for unconnected wires and cables. Unique profile with spring-action bellows cover a wide variety of diameters with a single marker size. Designed to interlock when fitted, enabling easy alignment of multiple character markings. High Environmental tolerance and excellent legibility.



Material: Cadmium-free soft PVC to special Partex formula

Temperature: The shape is permanent between - 301° c and +70° c

Properties: Self-extinguishing, good resistance to chemicals, gamma and UV radiation.

2

Order Code	Number	Colour	Cable Size (mm ²)	Cable Diameter (mm)	Pack Qty
PA02-3-0-CC	0	Black	0.50-0.75	1.70-2.80	1,000 On Reel
PA02-3-1-CC	1	Brown	0.50-0.75	1.70-2.80	1,000 On Reel
PA02-3-2-CC	2	Red	0.50-0.75	1.70-2.80	1,000 On Reel
PA02-3-3-CC	3	Orange	0.50-0.75	1.70-2.80	1,000 On Reel
PA02-3-4-CC	4	Yellow	0.50-0.75	1.70-2.80	1,000 On Reel
PA02-3-5-CC	5	Green	0.50-0.75	1.70-2.80	1,000 On Reel
PA02-3-6-CC	6	Blue	0.50-0.75	1.70-2.80	1,000 On Reel
PA02-3-7-CC	7	Violet	0.50-0.75	1.70-2.80	1,000 On Reel
PA02-3-8-CC	8	Grey	0.50-0.75	1.70-2.80	1,000 On Reel
PA02-3-9-CC	9	White	0.50-0.75	1.70-2.80	1,000 On Reel
PA02-3-0-B/W	0	Black on White	0.50-0.75	1.70-2.80	1,000 On Reel
PA02-3-1-B/W	1	Black on White	0.50-0.75	1.70-2.80	1,000 On Reel
PA02-3-2-B/W	2	Black on White	0.50-0.75	1.70-2.80	1,000 On Reel
PA02-3-3-B/W	3	Black on White	0.50-0.75	1.70-2.80	1,000 On Reel
PA02-3-4-B/W	4	Black on White	0.50-0.75	1.70-2.80	1,000 On Reel
PA02-3-5-B/W	5	Black on White	0.50-0.75	1.70-2.80	1,000 On Reel
PA02-3-6-B/W	6	Black on White	0.50-0.75	1.70-2.80	1,000 On Reel
PA02-3-7-B/W	7	Black on White	0.50-0.75	1.70-2.80	1,000 On Reel
PA02-3-8-B/W	8	Black on White	0.50-0.75	1.70-2.80	1,000 On Reel
PA02-3-9-B/W	9	Black on White	0.50-0.75	1.70-2.80	1,000 On Reel

Order Code	Number	Colour	Cable Size (mm ²)	Cable Diameter (mm)	Pack Qty
PA1-3-0-CC	0	Black	0.75-4.0	2.5-4.0	1,000 On Reel
PA1-3-1-CC	1	Brown	0.75-4.0	2.5-4.0	1,000 On Reel
PA1-3-2-CC	2	Red	0.75-4.0	2.5-4.0	1,000 On Reel
PA1-3-3-CC	3	Orange	0.75-4.0	2.5-4.0	1,000 On Reel
PA1-3-4-CC	4	Yellow	0.75-4.0	2.5-4.0	1,000 On Reel
PA1-3-5-CC	5	Green	0.75-4.0	2.5-4.0	1,000 On Reel
PA1-3-6-CC	6	Blue	0.75-4.0	2.5-4.0	1,000 On Reel
PA1-3-7-CC	7	Violet	0.75-4.0	2.5-4.0	1,000 On Reel
PA1-3-8-CC	8	Grey	0.75-4.0	2.5-4.0	1,000 On Reel
PA1-3-9-CC	9	White	0.75-4.0	2.5-4.0	1,000 On Reel
PA1-3-0-B/W	0	Black on White	0.75-4.0	2.5-4.0	1,000 On Reel
PA1-3-1-B/W	1	Black on White	0.75-4.0	2.5-4.0	1,000 On Reel
PA1-3-2-B/W	2	Black on White	0.75-4.0	2.5-4.0	1,000 On Reel
PA1-3-3-B/W	3	Black on White	0.75-4.0	2.5-4.0	1,000 On Reel
PA1-3-4-B/W	4	Black on White	0.75-4.0	2.5-4.0	1,000 On Reel
PA1-3-5-B/W	5	Black on White	0.75-4.0	2.5-4.0	1,000 On Reel
PA1-3-6-B/W	6	Black on White	0.75-4.0	2.5-4.0	1,000 On Reel
PA1-3-7-B/W	7	Black on White	0.75-4.0	2.5-4.0	1,000 On Reel
PA1-3-8-B/W	8	Black on White	0.75-4.0	2.5-4.0	1,000 On Reel
PA1-3-9-B/W	9	Black on White	0.75-4.0	2.5-4.0	1,000 On Reel
PA1-3S-0-CC	0	Black	0.75-4.0	2.5-4.0	5 x 200 Packs
PA1-3S-1-CC	1	Brown	0.75-4.0	2.5-4.0	5 x 200 Packs
PA1-3S-2-CC	2	Red	0.75-4.0	2.5-4.0	5 x 200 Packs
PA1-3S-3-CC	3	Orange	0.75-4.0	2.5-4.0	5 x 200 Packs
PA1-3S-4-CC	4	Yellow	0.75-4.0	2.5-4.0	5 x 200 Packs
PA1-3S-5-CC	5	Green	0.75-4.0	2.5-4.0	5 x 200 Packs
PA1-3S-6-CC	6	Blue	0.75-4.0	2.5-4.0	5 x 200 Packs
PA1-3S-7-CC	7	Violet	0.75-4.0	2.5-4.0	5 x 200 Packs
PA1-3S-8-CC	8	Grey	0.75-4.0	2.5-4.0	5 x 200 Packs
PA1-3S-9-CC	9	White	0.75-4.0	2.5-4.0	5 x 200 Packs

Order Code	Number	Colour	Cable Size (mm ²)	Cable Diameter (mm)	Pack Qty
PA2-4-0-CC	0	Black	2.5-16.0	4.0-10.0	5 x 100 Packs
PA2-4-1-CC	1	Brown	2.5-16.0	4.0-10.0	5 x 100 Packs
PA2-4-2-CC	2	Red	2.5-16.0	4.0-10.0	5 x 100 Packs
PA2-4-3-CC	3	Orange	2.5-16.0	4.0-10.0	5 x 100 Packs
PA2-4-4-CC	4	Yellow	2.5-16.0	4.0-10.0	5 x 100 Packs
PA2-4-5-CC	5	Green	2.5-16.0	4.0-10.0	5 x 100 Packs
PA2-4-6-CC	6	Blue	2.5-16.0	4.0-10.0	5 x 100 Packs
PA2-4-7-CC	7	Violet	2.5-16.0	4.0-10.0	5 x 100 Packs
PA2-4-8-CC	8	Grey	2.5-16.0	4.0-10.0	5 x 100 Packs
PA2-4-9-CC	9	White	2.5-16.0	4.0-10.0	5 x 100 Packs

Order Code	Number	Colour	Cable Size (mm ²)	Cable Diameter (mm)	Pack Qty
PA3-6-0-CC	0	Black	16-70	8.0-16	5 x 20 Packs
PA3-6-1-CC	1	Brown	16-70	8.0-16	5 x 20 Packs
PA3-6-2-CC	2	Red	16-70	8.0-16	5 x 20 Packs
PA3-6-3-CC	3	Orange	16-70	8.0-16	5 x 20 Packs
PA3-6-4-CC	4	Yellow	16-70	8.0-16	5 x 20 Packs
PA3-6-5-CC	5	Green	16-70	8.0-16	5 x 20 Packs
PA3-6-6-CC	6	Blue	16-70	8.0-16	5 x 20 Packs
PA3-6-7-CC	7	Violet	16-70	8.0-16	5 x 20 Packs
PA3-6-8-CC	8	Grey	16-70	8.0-16	5 x 20 Packs
PA3-6-9-CC	9	White	16-70	8.0-16	5 x 20 Packs



Standard Nylon Cable Ties

Order Code (Natural)	Order Code (Black)	Length (mm)	Width (mm)	Max Bundle Diameter (mm)	Minimum Tensile Strength (kg)	Pack Qty
KCT80-2.5	KCT80-2.5BLK	80	2.5	15	8	100
KCT100-2.5	KCT100-2.5BLK	100	2.5	15	8	100
KCT100-2.5M	KCT100-2.5MBLK	100	2.5	15	8	1000
KCT120-4.8	KCT120-4.8BLK	120	4.8	24	22	100
KCT120-4.8M	KCT120-4.8MBLK	120	4.8	24	22	1000
KCT140-3.6	KCT140-3.6BLK	140	3.6	33	18	100
KCT140-3.6M	KCT140-3.6MBLK	140	3.6	33	18	1000
KCT150-7.6	KCT150-7.6BLK	150	7.6	36	55	100
KCT160-2.5	KCT160-2.5BLK	160	2.5	40	8	100
KCT160-2.5M	KCT160-2.5MBLK	160	2.5	40	8	1000
KCT160-4.8	KCT160-4.8MBLK	160	4.8	38	22	100
KCT160-4.8M	KCT160-4.8MBLK	160	4.8	38	22	1000
KCT200-3.6	KCT200-3.6BLK	200	3.6	50	18	100
KCT200-3.6M	KCT200-3.6BLK	200	3.6	50	18	1000
KCT200-4.8	KCT200-4.8BLK	200	4.8	50	22	100
KCT200-4.8M	KCT200-4.8MBLK	200	4.8	50	22	1000
KCT240-7.6	KCT240-7.6BLK	240	7.6	66	55	100
KCT250-4.8	KCT250-4.8BLK	250	4.8	50	22	100
KCT300-3.6	KCT300-3.6BLK	300	3.6	76	18	100
KCT300-4.8	KCT300-4.8BLK	300	4.8	76	22	100
KCT300-7.6	KCT300-7.6BLK	300	7.6	76	55	100
KCT365-4.8	KCT365-4.8BLK	365	4.8	102	22	100
KCT370-7.6	KCT370-7.6BLK	370	7.6	100	55	100
KCT430-4.8	KCT430-4.8BLK	430	4.8	110	22	100
KCT430-9.0	KCT430-9.0BLK	430	9	110	75	100
KCT530-4.8	KCT530-4.8BLK	530	4.8	140	22	100
KCT530-9.0	KCT530-9.0BLK	530	9	140	75	100
KCT580-12.7	KCT580-12.7BLK	580	12.7	280	75	100
KCT710-9.0	KCT710-9.0BLK	710	9	190	75	100
N/A	KCT1030-12.7BLK	1030	12.7	302	113	100



Nylon Cable Tie Bases

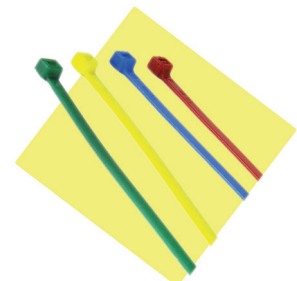
Order Code (Natural)	Order Code (Black)	A Length (mm)	B Width (mm)	C (MM)	D (MM)	Pack Qty
KCTMSA-20	KCTMSA-20BLK	20	20	4.5	5	100
KCTMSA-30	KCTMSA-30BLK	28	28	5.5	7.1	100



Coloured Cable Ties

Available in; Blue, Green, Red and Yellow
(Please specify colour when ordering)

Order Code	Length (mm)	Width (mm)	Max Bundle Diameter (mm)	Minimum Tensile Strength (kg)	Pack Qty
KCT100-2.5	100	2.5	18	8	100
KCT140-3.6	140	3.6	33	18	100
KCT200-4.8	200	4.8	50	22	100
KCT300-4.8	300	4.8	76	22	100



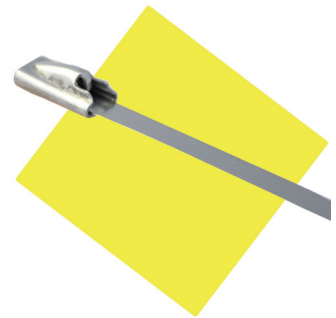
Releaseable Cable Ties

Order Code	Length (mm)	Width (mm)	Colour	Pack Qty
NT50RE	200	4.8	Natural	100
NTB50RE	200	4.8	Black	100
NT75RE	300	4.8	Natural	100
NTB75RE	300	4.8	Black	100
NT100RE	370	4.8	Natural	100
NTB100RE	370	4.8	Black	100



Stainless Steel Cable Ties

Order Code	Length (mm)	Width (mm)	Pack Qty
MBT5S	127	4.6	100
MBT8S	201	4.6	100
MBT14S	362	4.6	100
MBT20S	521	4.6	100
MBT27S	681	4.6	100
MBT33S	838	4.6	100
MBT8H	201	7.9	100
MBT14H	362	7.9	100
MBT20H	521	7.9	100
MBT27H	681	7.9	100
MBT33H	838	7.9	100
MBT14XH	362	12.3	100
MBT20XH	521	12.3	100
MBT27XH	681	12.3	100
MBT33XH	838	12.3	100



2

Polyester Coated Stainless Steel Cable Ties

Order Code	Length (mm)	Width (mm)	Pack Qty
MBT5SFC	127	4.6	100
MBT8SFC	201	4.6	100
MBT14SFC	362	4.6	100
MBT20SFC	521	4.6	100
MBT27SFC	681	4.6	100
MBT33SFC	838	4.6	100
MBT8HFC	201	7.9	100
MBT14HFC	362	7.9	100
MBT20HFC	521	7.9	100
MBT27HFC	681	7.9	100
MBT33HFC	838	7.9	100
MBT14XHFC	362	12.3	100
MBT20XHFC	521	12.3	100
MBT27XHFC	681	12.3	100
MBT33XHFC	838	12.3	100



Stainless Steel Cable Tie Tool

SSTG Stainless Steel Cable Tie Tool

The tool will correctly tension the ties and automatically cut off the tail when this is achieved. The SSTG tool can be used with any of the Partex stainless steel ties including the coated range. High quality construction for a long service life.

Order Code	Suitable for	Size (mm)	Length	Weight (kg)
SSTG	Stainless steel ties including the coated range	178		0.560



TT1 Cable Tie Tensioner and Cutter, up to 4.8mm Ties

Automatic cable tie tensioner and cutter for ties from 2.2mm to 4.8mm wide. This tool is very durable due to its quality construction and metal body. Suitable for continuous, volume use.

Order Code	Suitable for	Size (mm)	Length	Weight (kg)
TT1	For ties from 2.2mm to 4.8mm wide.	160		0.300



Cable Tie Tensioner and Cutter, 3.6 to 9mm Ties

Cable tie tensioning tool for ties from 3.6mm to 9.0mm wide. A simple but efficient tool. Manually cuts ties from 3.6 to 9mm width.

Order Code	Suitable for	Size (mm)	Length	Weight (kg)
TT3	For ties from 3.6 to 9mm wide.	195		0.320



Cable Tie Tensioner and Cutter, up to 13mm Ties

Automatic cable tie tensioner and cutter for ties up to 13mm wide. Manufactured to meet the increasing demand for the installation of heavy duty cable ties.

Order Code	Suitable for	Size (mm)	Length	Weight (kg)
TT4	For ties up to 13mm wide.	200		0.320



Ferrules

Uninsulated Ferrules

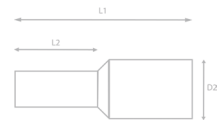
Order Code	Conductor Size (mm)	Length (mm)	Pack Qty
UCEF510	0.5	10	1,000
UCEF7510	0.75	10	1,000
UCEF110	1	10	1,000
UCEF1510	1.5	10	1,000
UCEF2512	2.5	12	1,000
UCEF412	4	12	1,000
UCEF618	6	18	1,000
UCEF1018-100	10	18	100
UCEF1618-100	16	18	100
UCEF25018-100	25	18	100
UCEF35018-100	35	18	100



2

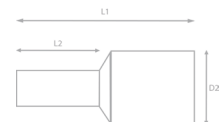
Pre-insulated Ferrules

Order Code (French)	Colour (French)	Order Code (German)	Colour (German)	Conductor Size (mm ²)	L1 (mm)	L2 (mm) Barrel Length	D2 (mm)	Pack Qty
CEF025F	Violet	CEF025G	Light Blue	0.25	10.4	6	1.8	1,000
CEF034F	Pink	CEF034G	Turquoise	0.34	10.4	8	2	1,000
CEF508F	White	CEF508G	Orange	0.5	14	8	2.6	1,000
CEF7508F	Blue	CEF7508G	White	0.75	14.6	8	2.8	1,000
CEF108F	Red	CEF108G	Yellow	1	14.6	8	3	1,000
CEF1508F	Black	CEF1508G	Red	1.5	14.6	8	3.5	1,000
CEF2508F	Grey	CEF2508G	Blue	2.5	15.2	8	4	1,000
CEF409F	Orange	CEF409G	Grey	4	16.5	9	4.4	1,000
CEF612F	Green	CEF612G	Black	6	20	12	6.3	100
CEF1012F	Brown	CEF1012G	Ivory	10	21.5	12	7.6	100
CEF1612F	Ivory	CEF1612G	Green	16	22.2	12	8.8	100
CEF25016F	Black	CEF25016G	Brown	25	29	16	11.2	100
CEF35016F	Red	CEF35016G	Beige	35	30	16	12.5	100
CET50F	Blue	CET50	Olive	50	36	19	15	50
CET70F	Yellow	CET70	Yellow	70	37	20	16	50
CET95F	Red	CET95	Red	95	44	25	18	50
CET120F	Blue	CET120	Blue	120	48	27	21	50
CET150F	Yellow	CET150	Yellow	150	58	32	23	50



Twin Entry Pre-insulated Ferrules

Order Code (French)	Colour (French)	Order Code (German)	Colour (German)	Conductor Size (mm ²)	L1 (mm)	L2 (mm) Barrel Length	D2 (mm)	Pack Qty
TCEF508F	White	TCEF508G	Orange	0.5	15	8	4.7	1,000
TCEF7508F	Grey	TCEF7508G	White	0.75	15	8	5	1,000
TCEF108F	Red	TCEF108G	Yellow	1	15	8	5.4	1,000
TCEF1508F	Black	TCEF1508G	Red	1.5	16	8	6.6	1,000
TCEF2510F	Blue	TCEF2510G	Blue	2.5	18.5	10	7.8	1,000
TCEF412F	Grey	TCEF412G	Grey	4	23	12	8.8	100
TCEF614F	Yellow	TCEF614G	Black	6	26	14	10	100
TCEF1014F	Red	TCEF1014G	Ivory	10	26	14	13	100
TCEF1614F	Blue	TCEF1614G	Green	16	30	14	18.4	100

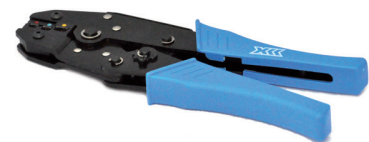


Ferrule Crimping Tool

The CEFT, TCEFT & UCT Crimping Tool has;

- Adjustable tensioner.
- Replaceable jaws.
- Ergonomically designed handles which reduce operator fatigue.
- CEFT tool has polished jaws so that ferrules release easily after crimping

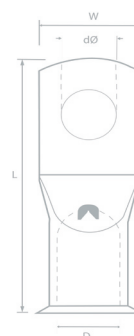
Order Code	Suitable for	Size(mm)	Capacity (mm)	Weight (kg)
CEFT1	Ferrules	205	0.5 - 6	0.390
CEFT2	Ferrules	205	4 - 16	0.390
CEFT3	Ferrules	226	16 - 35	0.540
UCT15	Un-insulated Ferrules	225	0.5 - 6	0.510
TCEFT1	Twin Entry Ferrules	230	0.5 - 6	0.600



Copper Lugs

Material: Seamless Copper Tube
 Manufactured from precision drawn tubes to BS2871.
 Designed and manufactured to meet performance requirements of BS4579 Part 1.
 Plated as standard to BS1872 Part 2 for corrosion resistance
 Suitable for use up to temperatures of 150°C

Order Code	Conductor Size (mm ²)	Stud Size (mm)	L (mm)	W (mm)	D (mm)	dØ (mm) Hole size	Pack Qty
CT6-6	6	6	24.6	10	4	6.3	100
CT6-8	6	8	27.3	12.5	4	8.3	100
CT10-6	10	6	30	10.5	4.5	6.3	100
CT10-8	10	8	30	12.5	4.5	8.2	100
CT10-10	10	10	34.1	14.7	4.5	10.4	100
CT10-12	10	12	34.1	14.7	4.5	12.7	100
CT16-6	16	6	30.7	11	5.5	6.3	100
CT16-8	16	8	30.7	11	5.5	6.3	100
CT16-10	16	10	35.9	15.1	5.5	10.3	100
CT16-12	16	12	35.9	17.5	5.5	12.8	100
CT25-6	25	6	32.2	13.1	6.7	6.3	50
CT25-8	25	8	32.2	13.1	6.7	8.3	50
CT25-10	25	10	36.9	15.1	6.7	10.2	50
CT25-12	25	12	36.9	17.5	6.7	12.8	50
CT35-6	35	6	37.6	15.8	8.6	6.3	50
CT35-8	35	8	37.6	15.8	8.6	8.3	50
CT35-10	35	10	41.5	16.2	8.6	10.3	50
CT35-12	35	12	41.5	18.6	8.6	12.9	50
CT50-6	50	6	40.2	17.6	9.6	6.3	30
CT50-8	50	8	40.2	17.6	9.6	8.3	30
CT50-10	50	10	43.2	17.6	9.6	10.3	30
CT50-12	50	12	43.2	18.7	9.6	12.8	30
CT70-6	70	6	50.4	21.8	12	6.3	30
CT70-8	70	8	50.4	21.8	12	8.2	30
CT70-10	70	10	50.4	21.8	12	10.2	30
CT70-12	70	12	50.4	21.8	12	12.7	30
CT95-8	95	8	53.2	24.3	13.5	8.3	20
CT95-10	95	10	53.2	24.3	13.5	10.3	20
CT95-12	95	12	53.2	24.3	13.5	12.7	20
CT95-16	95	16	56.8	24.3	13.5	16.3	10
CT120-8	120	8	59.1	27.5	15	8.3	20
CT120-10	120	10	59.1	27.5	15	10.3	20
CT120-12	120	12	59.1	27.5	15	12.7	20
CT120-16	120	16	64	27.5	15	16.3	20
CT120-20	120	20	76.6	30	15	20.9	10
CT150-10	150	10	66.3	30.3	16.5	10.2	10
CT150-12	150	12	66.3	30.3	16.5	12.7	10
CT150-16	150	16	71.4	30.3	16.5	16.2	10



Crimping Tools

The CT Ratchet crimping tool has

- Range CT1.5-16 & CT10-16 (style of picture 1)
 - Replaceable jaws.
 - Ergonomically designed handles which reduce operator fatigue.
- Ranges CT50 > CT150 (style of picture 2)
 - Hexagon crimping
 - Longer handles minimises the effort required to produce a perfect crimp

Order Code	Suitable for	Size Length (mm)	Capacity (mm)	Weight (kg)
CT1.5-16	Cooper Lugs / Connectors	225	0-16	0.510
CT10-16	Cooper Lugs / Connectors	242	10-16	0.540
CT50	Cooper Lugs / Connectors	390	6-50	1.300
CT120	Cooper Lugs / Connectors	620	16-120	4
CT150	Cooper Lugs / Connectors	620	25-150	4



Pre-Insulated Crimp Terminals

CSE provides a complete range of pre-insulated terminals that combine high quality with competitive pricing. Using high grade PVC Insulation makes crimping easy whilst ensuring complete integrity of termination.

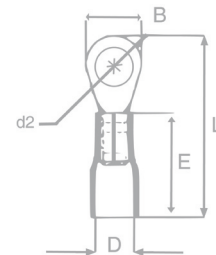
- Red Insulation: Conductor size 0.5 - 1.5mm² / 22 - 16 awg.
- Blue Insulation: Conductor size 1.5 - 2.5mm² / 16 - 14 awg.
- Yellow Insulation: Conductor size 4.0 - 6.0mm² / 12 - 10 awg.

2

Pre-Insulated Ring Terminals

- High grade PVC insulation. • Electro-tin plated copper. • VR versions indicate Vibration resistance • UL approval E163810

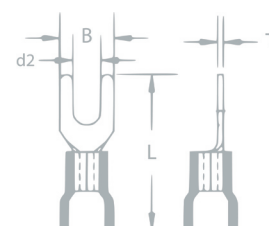
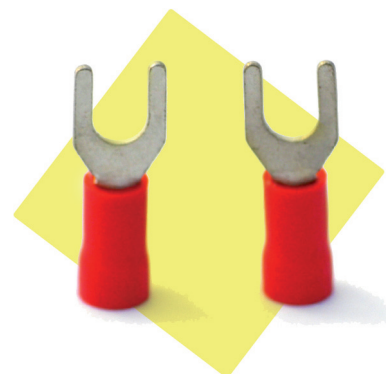
Insulation Colour	Order Code	Stud Size d2 (mm)	Width B (mm)	Length L (mm)	E (mm)	D (mm)	Pack Qty
Red 0.5 - 1.5mm ² 22 - 16 awg	RR32	3.2	5.5	17.5	10.5	4.3	100
	RR37	3.7	5.5	17.5	10.5	4.3	100
	RR43	4.3	8	21.7	10.5	4.3	100
	RR53	5.3	8	21.7	10.5	4.3	100
	RR64	6.4	11.6	27.6	10.5	4.3	100
	RR84	8.4	11.6	27.6	10.5	4.3	100
	RR105	10.5	13.7	31.5	10.5	4.3	100
Blue 1.5 - 2.5mm ² 16 - 14 awg	BR32	3.2	8.5	23	11	4.7	100
	BR37	3.7	6.6	20.6	11	4.7	100
	BR43	4.3	8.5	23	11	4.7	100
	BR53	5.3	9.5	23	11	4.7	100
	BR64	6.4	12	28.1	11	4.7	100
	BR84	8.4	12	28.1	11	4.7	100
	BR120	13	19	35.5	11	4.7	100
Yellow 4.0 - 6.0mm ² 12 - 10 awg	YR43	4.3	9.5	26.7	14	6.7	100
	YR53	5.3	9.5	26.7	14	6.7	100
	YR64	6.4	12	32.7	14	6.7	100
	YR84	8.4	15	34.9	14	6.7	100
	YR105	10.5	15	34.9	14	6.7	100
YR120	13	19.2	39.6	14	6.7	100	



Pre-Insulated Fork (Spade) Terminals

- High grade PVC insulation. • Electro-tin plated copper. • VR versions indicate Vibration resistance • UL approval E163810

Insulation Colour	Order Code	Stud Size d2 (mm)	B (mm)	L (mm)	D (mm)	T (mm)	Pack Qty
Red 0.5 - 1.5mm ² 22 - 16 awg	RS32N	3.2	5.7	22	4.3	0.75	100
	RS37N	3.7	6.2	22	4.3	0.75	100
	RS37	3.7	5.7	22	4.3	0.75	100
	RS43N	4.3	7.2	22	4.3	0.75	100
	RS43	4.3	6.4	22	4.3	0.75	100
	RS53	5.3	8	22	4.3	0.75	100
	RS64	6.4	10.7	23	4.3	0.75	100
Blue 1.5 - 2.5mm ² 16 - 14 awg	BS32N	3.2	5.7	22.5	4.7	0.80	100
	BS37N	3.7	6.2	22.5	4.7	0.80	100
	BS37	3.7	5.7	22.5	4.7	0.80	100
	BS43N	4.3	7.2	22.5	4.7	0.80	100
	BS43	4.3	6.4	22.5	4.7	0.80	100
	BS53	5.3	8	22.5	4.7	0.80	100
	BS64	6.4	10.7	23.5	4.7	0.80	100
Yellow 4.0 - 6.0mm ² 12 - 10 awg	YS37	3.7	8.1	26.7	6.7	1	100
	YS43	4.3	8.2	26.7	6.7	1	100
	YS53	5.3	9	26.7	6.7	1	100
	YS64	6.4	12	30.7	6.7	1	100
	YS84	8.4	13.5	32.6	6.7	1	100



Butt Connectors

Order Code	Inner Diameter (mm)	Insulation Colour	Pack Qty
RBC4	4	Red	100
BBC45	4.5	Blue	100
YBC68	6.8	Yellow	100



Pins

Order Code	Pin Length (mm)	Insulation Colour	Pack Qty
RP10	4	Red	100
BP10	4.5	Blue	100
YP14	6.8	Yellow	100



Blades

Order Code	Blade Length (mm)	Insulation Colour	Pack Qty
RB11	11	Red	100
RB14	14	Red	100
RB18	18	Red	100
BB9	9	Blue	100
BB18	18	Blue	100
YB10	10	Yellow	100
YB18	18	Yellow	100



Male Tabs

Order Code	Size (mm)	Thickness	Insulation Colour	Pack Qty
RM50-VR	4.8	0.8	Red	100
RM63-VR	6.3	0.8	Red	100
BM50-VR	4.8	0.8	Blue	100
BM63-VR	6.3	0.8	Blue	100
YM63-VR	6.3	0.8	Yellow	100



Female Push-on

Order Code	Male Tab (mm)	Insulation Colour	Pack Qty
RF32-08-VR	2.8	Red	100
RF50-08-VR	4.8	Red	100
RF66-08-VR	6.3	Red	100
BF50-08-VR	4.8	Blue	100
BF66-08-VR	6.3	Blue	100
BF80-08-VR	8	Blue	100
YF66-08-VR	6.3	Yellow	100
YF100-08-VR	9.5	Yellow	100



Fully Insulated Female Push-on

Order Code	Male Tab (mm)	Insulation Colour	Pack Qty
RF32-FI-VR	2.8	Red	100
RF50-FI-VR	4.8	Red	100
RF66-FI-VR	6.3	Red	100
BF50-FI-VR	4.8	Blue	100
BF66-FI-VR	6.3	Blue	100
YF66-FI-VR	6.3	Yellow	100



Piggy Backs

Order Code	Male Tab (mm)	Insulation Colour	Pack Qty
RPB63-VR	6.3	Red	100
BPB63-VR	6.3	Blue	100



Male Bullets

Order Code	Diameter of Bullet (mm)	Insulation Colour	Pack Qty
RMB40-VR	4	Red	100
BMB50-VR	5	Blue	100
YMB50-VR	5	Yellow	100



Female Bullets

Order Code	Diameter of Bullet (mm)	Insulation Colour	Pack Qty
RFB40-VR	4	Red	100
BFB50-VR	5	Blue	100
YFB50-VR	5	Yellow	100



Crimping Tool

The CT Terminal crimping tool has

- Range CT15 & UCT15 (style of picture 1)

- Adjustable tensioner.
- Replaceable jaws.
- Ergonomically designed handles which reduce operator fatigue.

- Ranges CT1 (style of picture 2)

- Economy crimp tool
- Cuts bolts.
- Integral wire cutter
- Strips wire 0.75mm² to 6mm²

Order Code	Suitable for	Size (mm) Length	Capacity (mm)	Weight (kg)
CT1	Pre-Insulated terminals	215	0.75-6	0.25
CT15	Pre-Insulated terminals	225	0.5-6	0.60
UCT15	Un-Insulated terminals	225	0.5-6	0.60



CT15 & UCT15 Crimping tool type



CT1 Crimping tool type

Cable Glands - EPN range

Our EPN 250 Nylon Cable Glands provide you with both the highest degree of functionality and safety:

Sealing Nut Designed for a perfect grip and effortless spanner tight seal.

Vibration Proof Built-in vibration protection system to eliminate loss of torque.

Neoprene Seal For a perfect, watertight seal IP68 - 5 bar.

Blade System For optimal strain relief and cable protection

combined with a generous clamping range

Multiple Threads For secure and rapid assembly

Material : Strong Nylon 6 V0 as per UL 94

Standard Colour :

light grey RAL 7035

dark grey RAL 7001

black RAL 9005

Other colours available on request.



Order Code	Model Type	Spanner Size	Thread Size	Thread Length (mm)	Clamping Range (mm)	Locknut Order Code
EPN250/M12	Standard	SW15	M12x1.5	8.0	3.0-6.5	EPN355/M12
EPN250/M16	Standard	SW19	M16x1.5	8.0	4.5-10.0	EPN355/M16
EPN250/M20	Standard	SW24	M20x1.5	9.0	6.0-12.0	EPN355/M20
EPN250/M25	Standard	SW27	M25x1.5	10.0	9.0-17.0	EPN355/M25
EPN250/M32	Standard	SW42	M30x1.5	10.0	18.0-25.0	EPN355/M30
EPN250/M40	Standard	SW53	M40x1.5	13.0	22.0-32.0	EPN355/M40
EPN250/M50	Standard	SW60	M50x1.5	13.0	30.0-38.0	EPN355/M50
EPN250/M63	Standard	SW68	M63x1.5	14.0	32.0-42.0	EPN355/M63

Cable Glands - M range

An Economical range cable gland. Lock nuts included



Order Code	Colour	Thread Size	Thread L (mm)	Clamping Range (mm)	Height (mm)	Gland L (mm)	Spanner Size
M12B-1	Black	M12x1.5	10mm	3-6.5mm	21	8	15
M12DG-1	Dark Grey	M12x1.5	10mm	3-6.5mm	21	8	15
M12LG-1	Light Grey	M12x1.5	10mm	3-6.5mm	21	8	15
M16B-1	Black	M16x1.5	10mm	5-10mm	25	8	22
M16DG-1	Dark Grey	M16x1.5	10mm	5-10mm	25	8	22
M16G-1	Light Grey	M16x1.5	10mm	5-10mm	25	8	22
M16W-1	White	M16x1.5	10mm	5-10mm	25	8	22
M16R-1	Red	M16x1.5	10mm	5-10mm	25	8	22
M20B-1	Black	M20x1.5	10mm	10-14mm	28	9	27
M20DG-1	Dark Grey	M20x1.5	10mm	10-14mm	28	9	27
M20G-1	Light Grey	M20x1.5	10mm	10-14mm	28	9	27
M20W-1	White	M20x1.5	10mm	10-14mm	28	9	27
M20R-1	Red	M20x1.5	10mm	10-14mm	28	9	27
M25B-1	Black	M25x1.5	10mm	13-18mm	31	11	33
M25DG-1	Dark Grey	M25x1.5	10mm	13-18mm	31	11	33
M25G-1	Light Grey	M25x1.5	10mm	13-18mm	31	11	33
M25W-1	White	M25x1.5	10mm	13-18mm	31	11	33
M32B-1	Black	M32x1.5	10mm	18-25mm	39	11	42
M32DG-1	Dark Grey	M32x1.5	10mm	18-25mm	39	11	42
M32G-1	Light Grey	M32x1.5	10mm	18-25mm	39	11	42
M32W-1	White	M32x1.5	10mm	18-25mm	39	11	42
M32R-1	Red	M32x1.5	10mm	18-25mm	39	11	42
M40B-1	Black	M40x1.5	10mm	22-32mm	48	13	53
M40DG-1	Dark Grey	M40x1.5	10mm	22-32mm	48	13	53
M40G-1	Light Grey	M40x1.5	10mm	22-32mm	48	13	53
M40W-1	White	M40x1.5	10mm	22-32mm	48	13	53
M40R-1	Red	M40x1.5	10mm	22-32mm	48	13	53

Long Thread

Order Code	Colour	Thread Size	Thread L (mm)	Clamping Range (mm)	Height (mm)	Gland L (mm)	Spanner Size
M16B-LT-1	Black	M16x1.5	15mm	5-10mm	25	15	22
M16DG-LT-1	Dark Grey	M16x1.5	15mm	5-10mm	25	15	22
M16LG-LT-1	Light Grey	M16x1.5	15mm	5-10mm	25	15	22
M20B-LT-1	Black	M20x1.5	15mm	10-14mm	28	15	27
M20DG-LT-1	Dark Grey	M20x1.5	15mm	10-14mm	28	15	27
M20LG-LT-1	Light Grey	M20x1.5	15mm	10-14mm	28	15	27

Long Thread, Small Hole

Order Code	Colour	Thread Size	Thread L (mm)	Clamping Range (mm)	Height (mm)	Gland L (mm)	Spanner Size
M16SB-LT-1	Black	M16x1.5	15mm	4-8mm	22	15	19
M16SDG-LT-1	Dark Grey	M16x1.5	15mm	4-8mm	22	15	19
M20SB-LT-1	Black	M20x1.5	15mm	6-12mm	27	15	24
M20SDG-LT-1	Dark Grey	M20x1.5	15mm	6-12mm	27	15	24
M20SLG-LT-1	Light Grey	M20x1.5	15mm	6-12mm	27	15	24

Small Hole

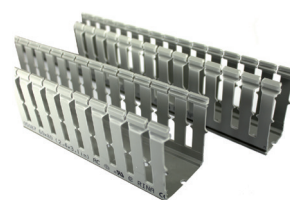
Order Code	Colour	Thread Size	Thread L (mm)	Clamping Range (mm)	Height (mm)	Gland L (mm)	Spanner Size
M16SB-1	Black	M16x1.5	10mm	4-8mm	22	8	19
M16SDG-1	Dark Grey	M16x1.5	10mm	4-8mm	22	8	19
M16SG-1	Light Grey	M16x1.5	10mm	4-8mm	22	8	19
M16SW-1	White	M16x1.5	10mm	4-8mm	22	8	19
M16SR-1	Red	M16x1.5	10mm	4-8mm	22	8	19
M20SB-1	Black	M20x1.5	10mm	6-12mm	27	9	24
M20SDG-1	Dark Grey	M20x1.5	10mm	6-12mm	27	9	24
M20SG-1	Light Grey	M20x1.5	10mm	6-12mm	27	9	24
M20SW-1	White	M20x1.5	10mm	6-12mm	27	9	24
M20SR-1	Red	M20x1.5	10mm	6-12mm	27	9	24

ABB Trunking

1 length = 2m

- Halogen free thermoplastic in conformity with VDE 0472 standard Part 815: Br + Cl < 0.2 %, F < 0.1 %
- toxic smoke index: 25.78 in conformity with NF X70-100 and NF F16-101 standards
- opacity of smoke*: Dm 352.2 (2 mm), V0F4 475.8 (2 mm) in conformity with NF X10- 702 standard (NF F16-101 reference)
- based on the values obtained in the opacity and toxicity tests of smoke, the material belongs to class F2 (in conformity with NF F16-101 standard)
- insulating, shock-resistant and self-extinguishing thermoplastic in conformity with UL 94 V0 standard, resistant to abnormal heat and fire up to 850 °C (glow-wire test) in conformity with IEC 60695-2-1 standard
- dimensional stability from -40 to +100 °C
- Length 2 m
- colour RAL 7035 grey
- conforms to EN 50085-2-3 standard
- conforms to RoHS directive

Order Code	Order Code	Width (mm)	Height (mm)	Box Quantity
8/12mm -Wide Slotted	4/6mm -Narrow Slotted			
05033	05133	25	30	29
05043	05143	25	40	24
05045	05145	40	40	15
05063	05163	25	60	17
05065	05165	40	60	11
05067	05167	60	60	16
05069	05169	80	60	12
05071	05171	100	60	10
05073	05173	120	60	7
05083	05183	25	80	14
05085	05185	40	80	18
05087	05187	60	80	12
05089	05189	80	80	8
05091	05191	100	80	8
05093	05193	120	80	6
05094	05194	25	100	10
05095	05195	40	100	14
05096	05196	60	100	10
05097	05197	80	100	7
05098	05198	100	100	4
05099	05199	150	100	4



8/12mm -Wide Slotted Trunking



4/6mm -Narrow Slotted Trunking

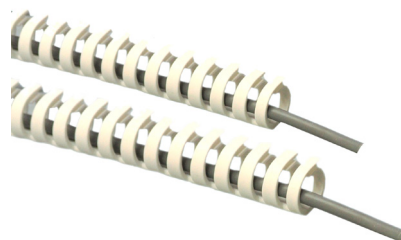
Hellermann Flexo Duct

Heladuct HTC

Flexible Supports for Cables and Wires

These Supports, for bundles, cables and wires, provide a simple, reliable and economical wiring system, which can be installed quickly. The supports are available in four standard sizes in lengths of 500mm and are particularly suitable for supporting and fixing cables/wires in switchgear, control gear enclosures, vehicles etc.

- Made from white polypropylene (self extinguishing UL94V-0)
- Good chemical resistance
- Operating Temperature range -20°C to +70°C
- Rectangular and circular sections
- Supplied with adhesive fixing strip. Also pre-drilled for additional screw fixing as required



Order Code	Alternative Code	Internal Dimensions (mm)	Capacity (Number of Wires) 1.5mm ²	Capacity (Number of Wires) 2.5mm ²	Pack Qty
HTC10SK	T10W	9 x 11	6	4	10 x 0.5m
HTC20SK	T20W	20 dia	22	14	10 x 0.5m
HTC30SK	T30W	30 dia	50	34	10 x 0.5m
HTC40SK	T40W	40 dia	81	60	10 x 0.5m

Braided Cable Sheathing

Glass Braided Sleeving

- Highly flexible glass fibre braided sleeving impregnated with silicone rubber
- Temperature range -60°C to +250°C
- Continuous (peak of +450°C)
- Breakdown voltage: 0.8kV
- Colour: White. Supplied in 25m coils

Order Code	Bore Diameter (mm)	Coil
GSS1	1.0	25M
GSS1.5	1.5	25M
GSS2	2.0	25M
GSS2.5	2.5	25M
GSS3	3.0	25M
GSS4	4.0	25M
GSS5	5.0	25M
GSS6	6.0	25M
GSS7	7.0	25M
GSS8	8.0	25M
GSS10	10	25M

PA66 Braided Sleeving

- Name Helaglass GSS
- Material Glass fibre
- Min Working Temperature -60°C
- Max. Working Temperature +250°C
- Intermittent Temperature +450°C
- Flammability Self-extinguishing
- Standard Colours White



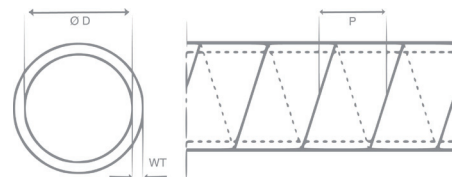
2

Spiral Binding

Standard Polyethylene Spiral Binding for general applications
SBPE spiral binding of polyethylene is used for organising and protecting cables and hoses for general applications. Due to the spiral structure, spiral binding can be applied to cables or hoses in situ. Cables can branch out at any point and in any direction.

Material Polyethylene (PE)

Operating Temperature -60 °C to +90 °C, intermittent +120 °C
Flammability UL94 HB



5M Lengths

Order Code	Type	Ø D	Wall (WT)	Pitch (P)	Bundle Ø min.	Bundle Ø max.	Colour
161-41103	SBPE4D	4.0	1.0	7.8	5.0	2.0	Natural (NA)
161-41104	SBPE4D	4.0	1.0	7.8	5.0	2.0	Black (BK)
161-41203	SBPE9D	9.0	1.4	12.5	10.0	100	Natural (NA)
161-41204	SBPE9D	9.0	1.4	12.5	10.0	100	Black (BK)

30M Lengths

Order Code	Type	Ø D	Wall (WT)	Pitch (P)	Bundle Ø min.	Bundle Ø max.	Colour
161-41000	SBPE1.5	1.5	0.8	6.0	1.6	8.0	Natural (NA)
161-41001	SBPE1.5	1.5	0.8	6.0	1.6	8.0	Black (BK)
161-41100	SBPE4	4.0	1.0	7.8	5.0	20.0	Natural (NA)
161-41101	SBPE4	4.0	1.0	7.8	5.0	20.0	Black (BK)
161-41200	SBPE9	9.0	1.4	12.5	10.0	100	Natural (NA)
161-41201	SBPE9	9.0	1.4	12.5	10.0	100	Black (BK)
161-41300	SBPE16	16.0	1.6	16.0	20.0	150	Natural (NA)
161-41302	SBPE16	16.0	1.6	16.0	20.0	150	Black (BK)



Partex Insulation Tape

A High quality PVC Insulation Tape to BS EN60454, Flame Retardant, Extremely flexible, good adhesion.

Available colours: (add to the end of the part code)

Black, Red, Yellow, Blue, Green White, Grey, Brown and Earth.

Order Code	Width (mm)	Length (mtr)	Tape Thickness (mm)	Per Pack
IT1-(colour)	19	20	0.15	10
IT2-(colour)	19	33	0.15	10



2

Steel Flexible Conduit

Liquid Resistant Covered

Order Code	Size (mm)	Colour	Description	Pack Length	IP Rating
SP20-BL-25M	20 mm	Black	pvc coated steel conduit	25 M	IP54
SP25-BL-25M	25 mm	Black	pvc coated steel conduit	25 M	IP54



Swivel External Thread

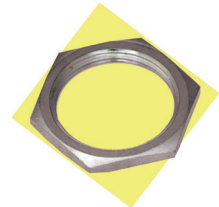
Straight Fitting

Order Code	Size (mm)	Colour	Description	Per Pack	IP Rating
SP20-M20-B	20 mm	Silver	M20 liquid resistant straight fitting with swivel external thread	10	IP54
SP25-M25-B	25 mm	Silver	M25 liquid resistant straight fitting with swivel external thread	10	IP54



Metallic Locknuts

Order Code	Size (mm)	Colour	Description	Per Pack
LNB-M20	20 mm	Silver	20mm brass locknut	10
LNB-M25	25 mm	Silver	25mm brass locknut	10
LNB-M32	32 mm	Silver	32mm brass locknut	1



Brass Female Coupler

Order Code	Size (mm)	Colour	Description	Per Pack
B-M20-C	20 mm	Brass	M20 coupling	10
B-M25-C	25 mm	Brass	M25 coupling	10



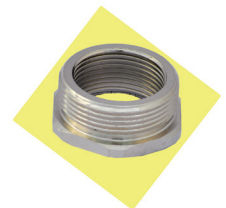
P Clip Conduit Support

Order Code	Size (mm)	Colour	Description	Per Pack
P-CLIP-20	20 mm	Black	20 mm P clip	10
P-CLIP-25	25 mm	Black	25 mm P clip	10



Reducers

Order Code	Size (mm)	Colour	Description	Per Pack
B-M25-M20-R	25 mm	Brass	Brass reducer M25 to M20	10
B-M32-M25-R	32 mm	Brass	Brass reducer M32 to M25	10



Enlarger

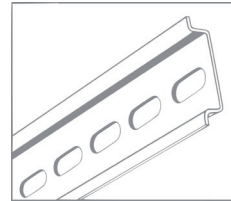
Order Code	Size (mm)	Colour	Description	Per Pack
B-M20-M25-E	20 mm	Brass	Brass enlarger M20 to M25	10



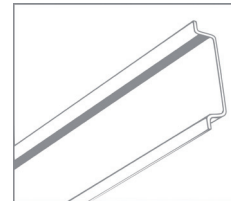
Din Rail

Supplied in 2 meter lengths

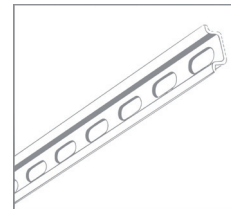
Order Code	Description	Length (M)
PR30-6	Zinc bichromate plated steel, - Slotted top hat Din rail 6mm. The length and prepunched cut out dimensions are approximate.	2



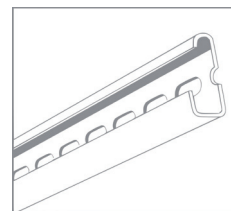
Order Code	Description	Length (M)
PR3.Z2	Zinc bichromate plated steel, Un-Slotted top hat Din rail	2



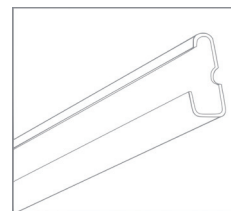
Order Code	Description	Length (M)
PR2	Zinc bichromate plated steel, Slotted Micro Din rail	2



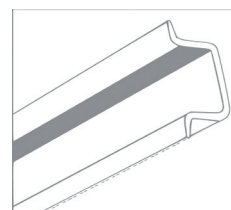
Order Code	Description	Length (M)
PR1	Zinc bichromate plated steel, Slotted G rail	2



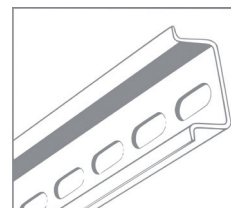
Order Code	Description	Length (M)
PR1.Z2	Zinc bichromate plated steel, Un-Slotted G rail	2



Order Code	Description	Length (M)
PR5	Zinc bichromate plated steel, Un-Slotted Deep section Top Hat rail	2



Order Code	Description	Length (M)
PR50-6	Zinc bichromate plated steel, Slotted Deep section Top Hat rail	2



Tri Rated Cable

2

Single core PVC insulated Tri-Rated cable

specifically designed for use in switch control, relay and instrumentation panels and for motor starters and controllers.

Plain annealed copper conductors with heat resisting PVC insulation rated up to +105°C.

UL, AWM, CSA, TEW, BS6231 and SEMCO recognised.

Maximum working voltage 600 Volts

Flexible plain annealed copper conductor, single core heat resistant PVC cable.

The minimum bending radius is 6x the overall diameter.



Size (mm ²)	Nominal Overall Diameter (mm)	AWG	Max amp	Available Tri-rated Colours (marked by dots)													
				Black	Earth	Yellow	Red	Grey	Brown	Blue	White	Light Blue	Green	Violet	Pink	Orange	Dark Blue
0.5	2.6	22	11	•	•	•	•	•	•	•	•	•	•	•	•	•	•
0.75	2.8	20	14	•	•	•	•	•	•	•	•	•	•	•	•	•	•
1	3	18	17	•	•	•	•	•	•	•	•	•	•	•	•	•	•
1.5	3.3	16	21	•	•	•	•	•	•	•	•	•	•	•	•	•	•
2.5	3.7	14	30	•	•	•	•	•	•	•	•	•	•	•	•	•	•
4	4.4	12	41	•	•	•	•	•	•	•	•	•	•	•	•	•	•
6	5.1	10	53	•	•	•	•	•	•	•	•	•	•	•	•	•	•
10	6.9	8	75	•	•	•	•	•	•	•	•	•	•	•	•	•	•
16	8.6	6	100	•	•	•	•	•	•	•	•	•	•	•	•	•	•
25	10.5	4	136	•	•	•	•	•	•	•	•	•	•	•	•	•	•
35	11.9	2	167	•	•	•	•	•	•	•	•	•	•	•	•	•	•
50	14.4	1	204	•	•	•	•	•	•	•	•	•	•	•	•	•	•
70	16.7	2/0	259	•	•	•	•	•	•	•	•	•	•	•	•	•	•
95	19	3/0	321	•	•	•	•	•	•	•	•	•	•	•	•	•	•
120	20.5	-	374	•	•	•	•	•	•	•	•	•	•	•	•	•	•
150	23.14	-	440	•	•	•	•	•	•	•	•	•	•	•	•	•	•
185	25.4	-	485	•	•	•	•	•	•	•	•	•	•	•	•	•	•
240	28.66	-	595	•	•	•	•	•	•	•	•	•	•	•	•	•	•
300	31.5	-	680	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Please note the above chart contains the most common Tri-Rated colours, other colours and sizes are available upon request.

Our Tri-rated part number - Tri (for Tri-rated) > Size > colour

For example: Tri-0.5-blue

Switchgear

3

Pages	Content
1	ABB Base & Din-Rail Mounted Isolators
2	ABB Base & Din-Rail Mounted Isolators Accessories
3	ABB Door Mounted Isolators & Accessories
4	Salzer Plastic Enclosed Disconnect Switches
5	Kraus & Naimer Stainless Steel Enclosed Disconnect Switches
6	ABB Manual Change Over Switches & Accessories
7	ABB Front Operated Switch Fuses
8	ABB Front Operated Switch Fuses & Accessories
9	ABB Front Operated Switch Fuse Accessories
10	ABB Switch Fuses - Fuses





ABB Front Operated Switch-Disconnectors Base & DIN-Rail mounting

Types OT16...125 include protected terminal clamps, IP20.

The type and ordering numbers are for one piece.

** OT16...125 Handles & Shafts sold separately

Order Code	Amps	Poles	Shaft Diameter (mm)	Auxiliary Contacts to Suit
OT16F3	16	3	6	OA1G01, OA1G10, OA2G11
OT16F4N2	16	4	6	OA1G01, OA1G10, OA2G11
OT25F3	25	3	6	OA1G01, OA1G10, OA2G11
OT25F4N2	25	4	6	OA1G01, OA1G10, OA2G11
OT40F3	40	3	6	OA1G01, OA1G10, OA2G11
OT40F4N2	40	4	6	OA1G01, OA1G10, OA2G11
OT63F3	63	3	6	OA1G01, OA1G10, OA2G11
OT63F4N2	63	4	6	OA1G01, OA1G10, OA2G11
OT80F3	80	3	6	OA1G01, OA1G10, OA2G11
OT80F4N2	80	4	6	OA1G01, OA1G10, OA2G11
OT100F3	100	3	6	OA1G01, OA1G10, OA2G11
OT100F4N2	100	4	6	OA1G01, OA1G10, OA2G11
OT125F3	125	3	6	OA1G01, OA1G10, OA2G11
OT125F4N2	125	4	6	OA1G01, OA1G10, OA2G11



Order Code	Amps	Poles	Shaft Diameter (mm)	Auxiliary Contacts to Suit
OT160G03P	160	3	6	OA1G01, OA1G10, OA2G11
OT160G04P	160	4	6	OA1G01, OA1G10, OA2G11

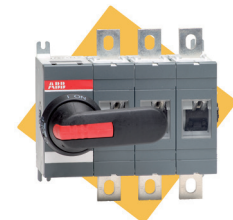
** OXP6X210 Shaft & OHB65J6 Handle comes with OT160 switches

Order Code	Amps	Poles	Shaft Diameter (mm)	Auxiliary Contacts to Suit
OT200E03P	200	3	6	OA1G10, OA3G01 needs OEA28 for side mounting
OT200E04P	200	4	6	OA1G10, OA3G01 needs OEA28 for side mounting
OT250E03P	250	3	6	OA1G10, OA3G01 needs OEA28 for side mounting
OT250E04P	250	4	6	OA1G10, OA3G01 needs OEA28 for side mounting

** OXP6X210 Shaft & OHB65J6 Handle comes with OT200...250 switches

Order Code	Amps	Poles	Shaft Diameter (mm)	Auxiliary Contacts to Suit
OT315E03P	315	3	12	OA1G10, OA3G01 needs OEA28 for side mounting
OT315E04P	315	4	12	OA1G10, OA3G01 needs OEA28 for side mounting
OT400E03P	400	3	12	OA1G10, OA3G01 needs OEA28 for side mounting
OT400E04P	400	4	12	OA1G10, OA3G01 needs OEA28 for side mounting

** OXP12X185 Shaft & OHB95J12 Handle comes with OT315...400 switches

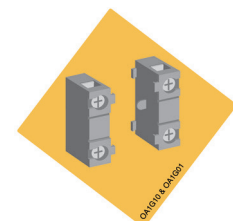


Order Code	Amps	Poles	Shaft Diameter (mm)	Auxiliary Contacts to Suit
OT630E03P	630	3	12	OA1G10, OA3G01 needs OEA28 for side mounting
OT630E04P	630	4	12	OA1G10, OA3G01 needs OEA28 for side mounting
OT800E03P	800	3	12	OA1G10, OA3G01 needs OEA28 for side mounting
OT800E04P	800	4	12	OA1G10, OA3G01 needs OEA28 for side mounting

** OXP12X185 Shaft & OHB125J12 Handle comes with OT630...800 switches

Auxiliaries

Order Code	Description
OA1G01	1 NC Auxiliary OT16...125 left side mounting
OA1G10	1 NO Auxiliary right side mounting
OA2G11	1 NO & 1 NC Auxiliary side mounted (OT160 requires OAZX1 adapter)
OAZX1	Adapter for OA2G11 for use with the OT160
OA3G01	1 NC Auxiliary OT200....2500 left side mounting
OEA28	Module for auxiliary contacts with OT200...2500, screw mounting to the left of the switch



Selector Type Handles IP54

Order Code	Colour	Door Interlocked	To Suit	Defeatable
OHBS1AH	Black	no	OT16...-OT80...	
OHYS1AH	Yellow / Red	no	OT16...-OT80...	
OHBS1AH1	Black	yes	OT16...-OT80...	
OHYS1AH1	Yellow / Red	yes	OT16...-OT80...	
OHBS3AH	Black	no	OT16...-OT125...	
OHYS3AH	Yellow / Red	no	OT16...-OT125...	
OHBS3AH1	Black	yes	OT16...-OT125...	
OHYS3AH1	Yellow / Red	yes	OT16...-OT125...	
OHBS2AJ	Black	yes	OT16...-OT125...	yes
OHYS2AJ	Yellow / Red	yes	OT16...-OT125...	yes
OHBS2AJ1	Black	yes	OT16...-OT125...	no
OHYS2AJ1	Yellow / Red	yes	OT16...-OT125...	no



3

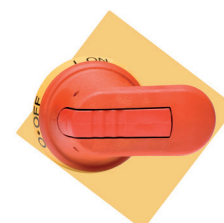
Shafts for the Above Selector Type Handles

Order Code	Shaft Length (mm)	Diameter (mm)
OXS6X105	105	6
OXS6X180	180	6
OXS6X250	250	6
OXS6X330	330	6



Pistol Type Handles Door Interlocked IP65

Order Code	Colour	Handle Length (mm)	Shaft Diameter (mm)	To Suit
OHB45J6	Black	45	6	OT16.....OT125...
OHY45J6	Yellow / Red	45	6	OT16.....OT125...
OHB65J6	Black	65	6	OT160...-OT250...
OHY65J6	Yellow / Red	65	6	OT160...-OT250...
OHB80J6	Black	80	6	OT160...-OT250...
OHY80J6	Yellow / Red	80	6	OT160...-OT250...
OHB65J6T (test)	Black	65	6	OT200...-OT250...
OHY65J6T (test)	Yellow / Red	65	6	OT200...-OT250...
OHB95J12	Black	95	12	OT315...-OT400...
OHY95J12	Yellow / Red	95	12	OT315...-OT400...
OHB125J12	Black	125	12	OT630...-OT800...
OHY125J12	Yellow / Red	125	12	OT630...-OT800...



Shafts for the Above Pistol Type Handles

Order Code	Shaft Length (mm)	Diameter (mm)
OSP6X150	150	6
OSP6X210	210	6
OSP6X290	290	6
OSP6X360	360	6
OSP6X400	400	6
OSP6X430	430	6
OSP12X166	166	12
OSP12X185	185	12
OSP12X250	250	12
OSP12X280	280	12
OSP12X325	325	12
OSP12X395	395	12
OSP12X465	465	12
OSP12X535	535	12

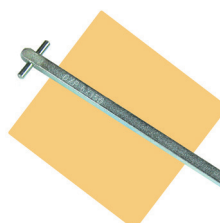




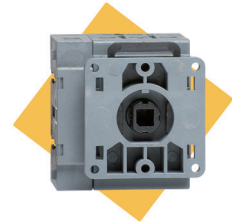
ABB Front Operated Switch-Disconnectors Door Mounted

Types OT16...125 include protected terminal clamps, IP20.

The type and ordering numbers are for one piece.

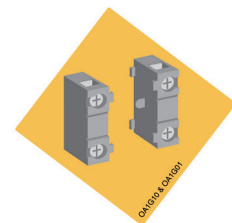
** OT16...125 Handles & Shafts sold separately

Order Code	Amps	Poles	Shaft Diameter (mm)	Auxiliary Contacts to suit
OT16FT3	16	3	6	OA1G01, OA1G10, OA2G11
OT16FT4N2	16	4	6	OA1G01, OA1G10, OA2G11
OT25FT3	25	3	6	OA1G01, OA1G10, OA2G11
OT25FT4N2	25	4	6	OA1G01, OA1G10, OA2G11
OT40FT3	40	3	6	OA1G01, OA1G10, OA2G11
OT40FT4N2	40	4	6	OA1G01, OA1G10, OA2G11
OT63FT3	63	3	6	OA1G01, OA1G10, OA2G11
OT63FT4N2	63	4	6	OA1G01, OA1G10, OA2G11
OT80FT3	80	3	6	OA1G01, OA1G10, OA2G11
OT80FT4N2	80	4	6	OA1G01, OA1G10, OA2G11
OT100FT3	100	3	6	OA1G01, OA1G10, OA2G11
OT100FT4N2	100	4	6	OA1G01, OA1G10, OA2G11
OT125FT3	125	3	6	OA1G01, OA1G10, OA2G11
OT125FT4N2	125	4	6	OA1G01, OA1G10, OA2G11



Auxiliaries

Order Code	Description
OA1G01	1 NC Auxiliary OT16...125 left side mounting
OA1G10	1 NO Auxiliary right side mounting
OA2G11	1 NO & 1 NC Auxiliary side mounted (OT160 requires OAZX1 adapter)



Handles For Door Mounted Switches

Order Code	Colour	Mounting Type	IP Rating	To Suit
OHBS1PH	Black	Snap on	54	OT16...-OT32FT
OHYS1PH	Yellow / Red	Snap on	54	OT16...-OT32FT
OHBS1RH	Black	Screw on	54	OT16...-OT63FT
OHYS1RH	Yellow / Red	Screw on	54	OT16...-OT63FT
OHBS3PH	Black	Snap on	54	OT16...-OT32FT
OHBS3RH	Black	Screw on	54	OT16...-OT63FT
OHYS3RH	Yellow / Red	Screw on	54	OT16...-OT63FT
OHBS2PJ	Black	Snap on	65	OT16...-OT32FT
OHBS2RJ	Black	Screw on	65	OT16...-OT125FT
OHYS2RJ	Yellow / Red	Screw on	65	OT16...-OT125FT



Salzer Main / Emergency-Off Switch Insulated Enclosure

IP66 Insulated polycarbonate enclosure.
Cover Interlock in On position

To order you need the following order codes **Type - Switching Program - Mounting Form**

For example: H216-41300-700N4

= 20A, 3 pole with no auxiliaries, 125 x 100 x 85, Yellow / red N- padlockable switch.



Type (A & Kw at 380-440v)

Order Code	Amps	AC-23A (kw)	AC-3 (kw)
H216	20	5.5	3.7
H220	25	7.5	5.5
H226	32	11	7.5
H233	40	15	11
H263	63	22	18.5
H406	63	22	18.5
H408	80	30	22
H410	100	37	30
H412	125	45	37

Switching Program (Poles & Auxiliaries)

Order Code	Poles	Aux. N/O	Aux. N/C
41300	3	0	0
41311	3	1	1
41320	3	2	0
41400	4	0	0
41411	4	1	1
41420	4	2	0

Mounting Form (Handle Style & Enclosure Size)

Order Code	Description	For Type	Enclosure Size (mm)
700N4	N-padlock device Yellow/ red	H216 - H226	125 x 100 x 85
700M4	M-padlock device Yellow / red	H216 - H226	125 x 100 x 85
700V4	V-padlock device Yellow / red	H216 - H226	125 x 100 x 85
700N1	N-padlock device Black	H216 - H226	125 x 100 x 85
700M1	M-padlock device Black	H216 - H226	125 x 100 x 85
700V1	V-padlock device Black	H216 - H226	125 x 100 x 85
710N4	N-padlock device Yellow/ red	H216 - H263	175 x 115 x 100
710M4	M-padlock device Yellow/ red	H216 - H263	175 x 115 x 100
710V4	V-padlock device Yellow/ red	H216 - H263	175 x 115 x 100
710N1	N-padlock device Black	H216 - H263	175 x 115 x 100
710M1	M-padlock device Black	H216 - H263	175 x 115 x 100
710V1	V-padlock device Black	H216 - H263	175 x 115 x 100
471N4	N-padlock device Yellow/ red	H406 - H412	320 x 220 x 180
471M4	M-padlock device Yellow/ red	H406 - H412	320 x 220 x 180
471N1	N-padlock device Black	H406 - H412	320 x 220 x 180
471M1	M-padlock device Black	H406 - H412	320 x 220 x 180

+

+

+

Select the 3 order code combinations to create the full order code

Operator		
N-Padlockable	M-Padlockable	V-Padlockable

Kraus and Naimer Stainless Steel Enclosed Isolators IP65



Including terminal clamps, IP20. Handles & shafts sold separately

•Enclosed Isolators - A range of enclosed 3, 4 and 6 pole
Stainless Steel Main / Emergency-Off switches suitable for use as Local Isolators.
(particularly suitable for food production areas)..

- Grade S316 Stainless Steel enclosure material.
- Padlockable red and yellow handle. (black handle available to order)
- Earth terminal and lid earthing link included
- Switch interlocked with lid to prevent opening in 'on' position (optional extra for 20amp / 32amp 3 / 4 pole)
- External mounting brackets included with type SB8 & SB9 enclosure.

Enclosed Switch Ratings

Rated Operational Power:

Category AC23A, 3 Phase, 380-440V 50/60 Hz. Expressed in (KW).

Category AC21A at max 690V. Expressed in (A).



Enclosure Sizes

Enclosure Ref	H (mm)	W (mm)	D (mm)	Cable Entries
SB1	164	94	81.5	-
SB2	194	119	116.5	-
SB3	254	149	126.5	-
SB4	309	234	151.5	-
SB8	400	300	175	2 x Gland Plates
SB9	500	400	175	2 x Gland Plates

3 Pole Switches

Ie AC21A	Order Code 3 Pole	Order Code 3 Pole & Auxiliary	Enclosure Ref
20A	KG 10 T203/GBA409*SB1	KG 10 T203/GBA458*SB1	SB1
25A	KG 20 T203/GBA409*SB1	KG 20 T203/GBA459*SB1	SB1
32A	KG 32 T203/GBA409*SB1	KG 32 T203/GBA459*SB1	SB1
40A	KG 41 T203/GBA409*SB2	KG 41 T203/GBA459*SB2	SB2
63A	KG 64 T203/GBA409*SB2	KG 64 T203/GBA459*SB2	SB2
80A	KG 80 T203/GBA409*SB3	KG 80 T203/GBA459*SB3	SB3
100A	KG100 T203/GBA409*SB3	KG100 T203/GBA459*SB3	SB3
125A		KG126 T203/GBA460*SB8	SB8
160A		KG161 T203/GBA460*SB8	SB8
250A		KG251 T203/GBA450*SB9	SB9
315A		KG316 T203/GBA450*SB9	SB9

4 Pole Switches

Ie AC21A	Order Code 4 Pole	Order Code 4 Pole & Auxiliary	Enclosure Ref
20A	KG 10 T204/GBA509*SB1	KG 10 T204/GBA558*SB1	SB1
25A	KG 20 T204/GBA509*SB1	KG 20 T204/GBA559*SB1	SB1
32A	KG 32 T204/GBA509*SB1	KG 32 T204/GBA559*SB1	SB1
40A	KG 41 T204/GBA509*SB2	KG 41 T204/GBA559*SB2	SB2
63A	KG 64 T204/GBA509*SB2	KG 64 T204/GBA559*SB2	SB2
80A	KG 80 T204/GBA509*SB3	KG 80 T204/GBA559*SB3	SB3
100A	KG100 T204/GBA509*SB3	KG100 T204/GBA559*SB3	SB3
125A		KG126 T204/GBA560*SB8	SB8
160A		KG161 T204/GBA560*SB8	SB8

6 Pole Switches

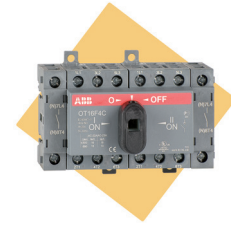
Ie AC21A	Order Code 6 Pole	Order Code 6 Pole & Auxiliary	Enclosure Ref
25A	KG20B T206/GBA609*SB2	KG20BT206/GBA659*SB2	SB2
32A	KG32B T206/GBA609*SB2	KG32BT206/GBA659*SB2	SB2
40A	KG41B T206/GBA609*SB3	KG41BT206/GBA659*SB3	SB3
63A	KG64B T206/GBA609*SB3	KG64BT206/GBA659*SB3	SB3
80A	KG 80 T206/GBA609*SB4	KG 80 T206/GBA659*SB4	SB4
100A	KG100 T206/GBA609*SB4	KG100T206/GBA659*SB4	SB4
125A		KG126T206/GBA660*SB9	SB9
160A		KG161T206/GBA660*SB9	SB9

ABB Manual Change-Over switches I-O-II operation, open transition

Including terminal clamps, IP20. Handles & shafts sold separately.
OT16....80 are UL Listed.

Order Code	Amps	Poles	Shaft Diameter (mm)	Auxiliary Contacts
OT16F3C	16	3	6	OA1G01, OA1G10
OT16F4C	16	4	6	OA1G01, OA1G10
OT25F3C	25	3	6	OA1G01, OA1G10
OT25F4C	25	4	6	OA1G01, OA1G10
OT40F3C	40	3	6	OA1G01, OA1G10
OT40F4C	40	4	6	OA1G01, OA1G10
OT63F3C	63	3	6	OA1G01, OA1G10, OA2G11
OT63F4C	63	4	6	OA1G01, OA1G10
OT80F3C	80	3	6	OA1G01, OA1G10, OA2G11
OT80F4C	80	4	6	OA1G01, OA1G10
OT100F3C	100	3	6	OA1G01, OA1G10, OA2G11
OT100F4C	100	4	6	OA1G01, OA1G10
OT125F3C	125	3	6	OA1G01, OA1G10, OA2G11
OT125F4C	125	4	6	OA1G01, OA1G10

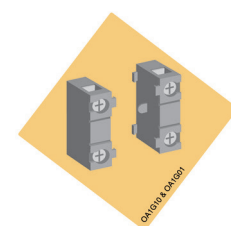
** Larger sizes available, please contact us for further details.



3

Auxiliaries

Order Code	Description
OA1G01	1 NC Auxiliary OT16...125F_C left side mounting
OA8G01	1 NC Auxiliary OT16...125F_C right side mounting
OA1G10	1 NO Auxiliary OT16...125F_C right side mounting
OA7G10	1 NO Auxiliary OT16...125F_C left side mounting
OA2G11	1 NO & 1 NC Auxiliary side mounted OT63...125F3C either side mounting



Pistol Type Handles Door Interlocked

Order Code	Colour	Shaft Diameter (mm)	IP Rating	To Suit
OHB45J6E311	Black	6	54	OT16...-OT125F_C
OHY45J6E311	Yellow / Red	6	54	OT16...-OT125F_C



Shafts for the Above Pistol Type Handles

Order Code	Shaft Length (mm)	Diameter (mm)
OSP6X150	150	6
OSP6X210	210	6
OSP6X290	290	6
OSP6X360	360	6
OSP6X400	400	6
OSP6X430	430	6

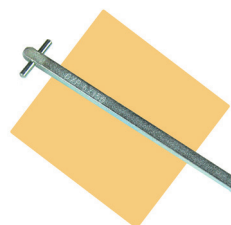


ABB Front Operated Switch Fuses



Includes a black On-Off plastic handle & Shaft. The handle is IP65 protected, padlockable in the Off - position and with door interlock in the On - position

Mini Range BS-Type

Includes a black On-Off plastic handle - OHB65J6 & an OXP6X150 - 150mm shaft

Order Code	Amps	Poles	Fuse Size	Handle Located
OS20FB12A1	20	3	A1	Centre Left
OS20FB22A1N1	20	4	A1	Centre
OS32FB12A1	32	3	A1	Centre Left
OS32FB22A1N1	32	4	A1	Centre
OS32FB12A2	32	3	A2	Centre Left

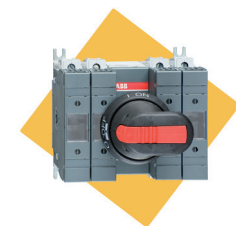
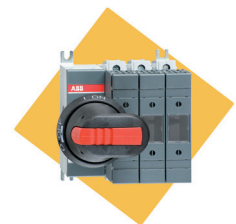


Gamma Range BS-Type

Includes a black On-Off plastic handle - OHB45J6 & an OXP6X161 - 161mm shaft

Order Code	Amps	Poles	Fuse Size	Handle Located
OS32GB12P	32	3	A2,A3	Centre Left
OS32GB22N1P	32	4	A2,A3	Centre
OS32GB03P	32	3	A2,A3	Left
OS32GB04N1P	32	4	A2,A3	Left
OS63GB12P	63	3	A2,A3	Centre Left
OS63GB22N1P	63	4	A2,A3	Centre
OS63GB03P	63	3	A2,A3	Left
OS63GB04N1P	63	4	A2,A3	Left

** Please note for the OS32GB - 63GB versions max fuse body diameter 22mm



Below includes a black On-Off plastic handle - OHB65J6, an OXP6X161 - 161mm shaft & Terminal bolts M8x25

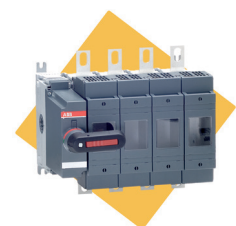
Order Code	Amps	Poles	Fuse Size	Handle Located
OS100GB12P	100	3	A2,A3,A4	Centre Left
OS100GB22N1P	100	4	A2,A3,A4	Centre
OS100GB03P	100	3	A2,A3,A4	Left
OS100GB04N1P	100	4	A2,A3,A4	Left
OS125GB12P	125	3	A2,A3,A4	Centre Left
OS125GB22N1P	125	4	A2,A3,A4	Centre
OS125GB03P	125	3	A2,A3,A4	Left
OS125GB04N1P	125	4	A2,A3,A4	Left
OS160GB12P	160	3	A2,A3,A4	Centre Left
OS160GB22N1P	160	4	A2,A3,A4	Centre
OS160GB03P	160	3	A2,A3,A4	Left
OS160GB04N1P	160	4	A2,A3,A4	Left

** Please note for the OS100GB - 160 GB versions max fuse body diameter 32mm



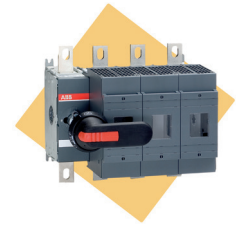
Below includes a black On-Off plastic handle - OHB65J6, an OXP6X210 - 210mm shaft & Terminal bolts M8x25

Order Code	Amps	Poles	Fuse Size	Handle Located
OS200B12P	200	3	B1,B2	Centre Left
OS200B22N2P	200	4	B1,B2	Centre
OS200B03P	200	3	B1,B2	Left
OS200B03N3P	200	3+N	B1,B2	Left
OS200B04N2P	200	4	B1,B2	Left
OS250B12P	250	3	B1,B2,B3	Centre Left
OS250B22N2P	250	4	B1,B2,B3	Centre
OS250B03P	250	3	B1,B2,B3	Left
OS250B03N3P	250	3+N	B1,B2,B3	Left
OS250B04N2P	250	4	B1,B2,B3	Left



Below includes a black On-Off plastic handle - OHB95J12, an OXP12X250 - 250mm shaft & Terminal bolts M10x30

Order Code	Amps	Poles	Fuse Size	Handle Located
OS315B12P	315	3	B1,B2,B3,B4	Centre Left
OS315B22N2P	315	4	B1,B2,B3,B4	Centre
OS315B03P	315	3	B1,B2,B3,B4	Left
OS315B03N3P	315	3+N	B1,B2,B3,B4	Left
OS315B04N2P	315	4	B1,B2,B3,B4	Left
OS400B12P	400	3	B1,B2,B3,B4	Centre Left
OS400B22N2P	400	4	B1,B2,B3,B4	Centre
OS400B03P	400	3	B1,B2,B3,B4	Left
OS400B03N3P	400	3+N	B1,B2,B3,B4	Left
OS400B04N2P	400	4	B1,B2,B3,B4	Left



3

Below includes a black On-Off plastic handle - OHB145J12, an OXP12X280 - 280mm shaft & Terminal bolts M12x40

Order Code	Amps	Poles	Fuse Size	Handle Located
OS630B12P	630	3	C1,C2	Centre Left
OS630B22N2P	630	4	C1,C2	Centre
OS630B03P	630	3	C1,C2	Left
OS630B03N3P	630	3+N	C1,C2	Left
OS630B04N2P	630	4	C1,C2	Left
OS800B12P	800	3	C1,C2,C3	Centre Left
OS800B22N2P	800	4	C1,C2,C3	Centre
OS800B03P	800	3	C1,C2,C3	Left
OS800B03N3P	800	3+N	C1,C2,C3	Left
OS800B04N2P	800	4	C1,C2,C3	Left



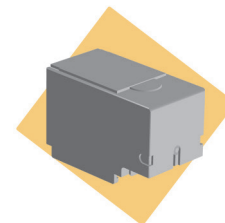
Below includes a black On-Off plastic handle - OHB274J12, an OXP12X395 - 395mm shaft & Terminal bolts M12x50

Order Code	Amps	Poles	Fuse Size	Handle Located
OS1250B12P	1250	3	D1	Centre Left
OS1250B22N2P	1250	4	D1	Centre
OS1250B03P	1250	3	D1	Left
OS1250B03N3P	1250	3+N	D1	Left
OS1250B04N2P	1250	4	D1	Left

Switch Fuse Accessories

Terminal Shrouds

Order Code	Handle Type	Poles	Suitable Switch
OSS160GG1L/3	Long	3	OS 100G....160G
OSS160GG1L/4	Long	4	OS 100G....160G
OSS160GG1S/3	Short	3	OS 100G....160G
OSS160GG1S/4	Short	4	OS 100G....160G
OSS200GG1L/3	Long	3	OS 200
OSS200GG1L/4	Long	4	OS 200
OSS200GG1S/3	Short	3	OS 200
OSS200GG1S/4	Short	4	OS 200
OSS250GG1L/3	Long	3	OS 250
OSS250GG1L/4	Long	4	OS 250
OSS250GG1S/3	Short	3	OS 250
OSS250GG1S/4	Short	4	OS 250
OSS400GG1L/3	Long	3	OS 315....400
OSS400GG1L/4	Long	4	OS 315....400
OSS400GG1S/3	Short	3	OS 315....400
OSS400GG1S/4	Short	4	OS 315....400
OSS800GG1L/3	Long	3	OS 630....800
OSS800GG1L/4	Long	4	OS 630....800

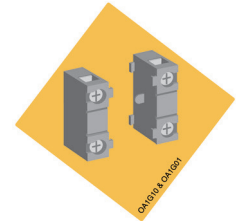


Switch Fuse Accessories



Auxiliary Contacts

Order Code	Description	For Switch Type
OA4B1C	Auxiliary test contacts (mounting to the switch mechanism)	OS20F...32F
OA4B10	1 NO Single Pole Contact (mounting to the switch mechanism) 3mm contact gap	OS20F...32F
OA4B01	1 NC Single Pole Contact (mounting to the switch mechanism) 3mm contact gap	OS20F...32F
MCB-10	1 NO Single Pole Contact (mounting on the side of the switch) with aux. frame OESAZX169	OS20F...32F
MCB-01	1 NC Single Pole Contact (mounting on the side of the switch) with aux. frame OESAZX169	OS20F...32F
OESAZX169	Frame for MCB type Single Pole contacts	OS20F...32F
OA1G10	1 NO Auxiliary	OS32G...1250
OA3G01	1 NC Auxiliary	OS32G...1250
OA1G10AU	1 NO Auxiliary Gold Plated Contacts	OS32G...1250
OA1G01AU	1 NC Auxiliary Gold Plated Contacts	OS32G...1250
OEA28	Module for up to 8 Auxiliaries	OS32G...1250



IP65 Handles

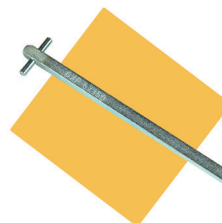
Order Code	Colour	Handle Length (mm)	For Shaft Diameter (mm)	To Suit
OHB45J6	Black	45	6	OS20...OS250
OHY45J6	Yellow/Red	45	6	OS20...OS250
OHB65J6	Black	65	6	OS20...OS250
OHY65J6	Yellow/Red	65	6	OS20...OS250
OHB80J6	Black	80	6	OS20...OS250
OHY80J6	Yellow/Red	80	6	OS20...OS250
OHB65J6T (test)	Black	65	6	OS20...OS250
OHY65J6T (test)	Yellow/Red	65	6	OS20...OS250
OHB95J12	Black	95	12	OS315...OS400
OHY95J12	Yellow/Red	95	12	OS315...OS400
OHB125J12	Black	125	12	OS315...OS400
OHY125J12	Yellow/Red	125	12	OS315...OS400
OHB145J12	Black	145	12	OS630...OS1250
OHY145J12	Yellow/Red	145	12	OS630...OS1250
OHB175J12	Black	175	12	OS630...OS1250
OHY175J12	Yellow/Red	175	12	OS630...OS1250
OHB200J12P	Black	200	12	OS630...OS1250
OHY200J12P	Yellow/Red	200	12	OS630...OS1250



Items ending in P - Butterfly type handles
Items ending in T - Test

Shafts

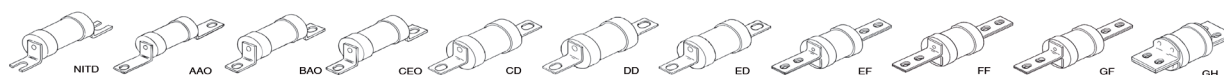
Order Code	Length (mm)	Diameter (mm)
OSP6X150	150	6
OSP6X210	210	6
OSP6X290	290	6
OSP6X360	360	6
OSP6X400	400	6
OSP6X430	430	6
OSP12X166	166	12
OSP12X185	185	12
OSP12X250	250	12
OSP12X280	280	12
OSP12X325	325	12
OSP12X395	395	12
OSP12X465	465	12
OSP12X535	535	12



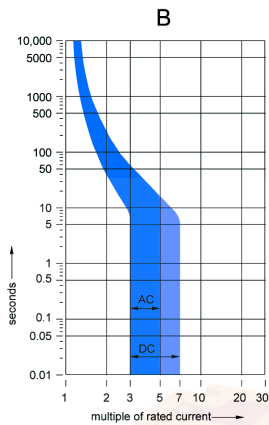
Switch Fuses

Fuse Cross Reference Chart

Fuse Size	Amps	Fixing Centres (mm)	ABB Order Code	Busmann Order Code	Lawsons Order Code
A1 Fuse Link	2	44	ANIT2	NITD2	NIT2
A1 Fuse Link	4	44	ANIT4	NITD4	NIT4
A1 Fuse Link	6	44	ANIT6	NITD6	NIT6
A1 Fuse Link	10	44	ANIT10	NITD10	NIT10
A1 Fuse Link	16	44	ANIT16	NITD16	NIT16
A1 Fuse Link	20	44	ANIT20	NITD20	NIT20
A1 Fuse Link	25	44	ANIT25	NITD25	NIT25
A1 Fuse Link	32	44	ANIT32	NITD32	NIT32
A2 Fuse Link	2	73	ATIA2	AA02	TIA2
A2 Fuse Link	4	73	ATIA4	AA04	TIA4
A2 Fuse Link	6	73	ATIA6	AA06	TIA6
A2 Fuse Link	10	73	ATIA10	AA10	TIA10
A2 Fuse Link	16	73	ATIA16	AA16	TIA16
A2 Fuse Link	20	73	ATIA20	AA20	TIA20
A2 Fuse Link	25	73	ATIA25	AA25	TIA25
A2 Fuse Link	32	73	ATIA32	AA32	TIA32
A3 Fuse Link	35	73	ATIS35	BAO35	TIS35
A3 Fuse Link	40	73	ATIS40	BAO40	TIS40
A3 Fuse Link	50	73	ATIS50	BAO50	TIS50
A3 Fuse Link	63	73	ATIS63	BAO63	TIS63
A4 Fuse Link	80	94	ATCP80	CEO80	TCP80
A4 Fuse Link	100	94	ATCP100	CEO100	TCP100
B1 Fuse Link	80	111	ATC80	CD80	TC80
B1 Fuse Link	100	111	ATC100	CD100	TC100
B2 Fuse Link	125	111	ATF125	DD125	CTF125
B2 Fuse Link	160	111	ATF160	DD160	CTF160
B2 Fuse Link	200	111	ATF200	DD200	CTF200
B3 Fuse Link	250	111	ATKF250	ED250	TKF250
B3 Fuse Link	315	111	ATKF315	ED315	TKF315
B4 Fuse Link	355	111	ATMF355	ED355	TMF355
B4 Fuse Link	400	111	ATMF400	ED400	TMF400
C1 Fuse Link	355	133/184	ATM355	EF355	TM355
C1 Fuse Link	400	133/184	ATM400	EF400	TM400
C2 Fuse Link	450	133/184	ATTM450	FF450	TTM450
C2 Fuse Link	500	133/184	ATTM500	FF500	TTM500
C2 Fuse Link	560	133/184	ATTM560	FF560	TTM560
C2 Fuse Link	630	133/184	ATTM630	FF630	TTM630
C3 Fuse Link	710	133/184	ATLM710	GF710	TLM710
C3 Fuse Link	800	133/184	ATLM800	GF800	TLM800
D1 Fuse Link	1000	149		GH1000	
D1 Fuse Link	1250	149		GH1250	

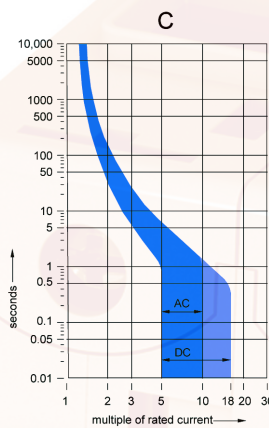


Tripping Curves



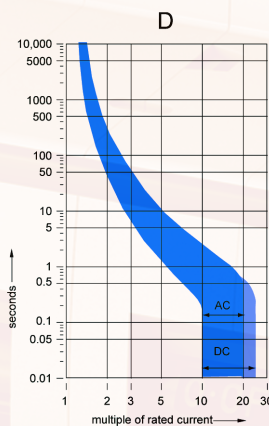
B Characteristic

The "B" time-current curve is designed primarily for use in cable protection applications. Instantaneous tripping occurs between approximately 3 to 5 times rated current in 50/60Hz systems. This quick trip curve maximizes protection of control circuits under low short circuit fault levels that could damage control wiring.



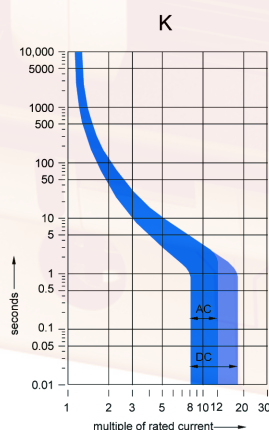
C Characteristic

The "C" time-current curve is designed for medium magnetic start-up currents. Instantaneous tripping occurs between 5 and 10 times rated current in 50/60 Hz systems.



D Characteristic

The "D" curve can be a good protective solution for applications involving high in-rush transformers, motors and other high inductive systems. It is also suitable for any application where a high instantaneous trip point is desired.



K Characteristic

The "K" time-current characteristic considers high magnetic start-up currents from motors, transformers and other equipment. Instantaneous tripping occurs between 8 and 12 times rated current in 50/60Hz systems. The "K" characteristic is available up through 63 amperes. The "K" curve offers the best protection for the broadest range of electrical systems. The higher magnetic trip settings maximizes protection while allowing for higher in-rush currents during system startup.

Circuit Protection

Pages	Content
1	Miniature Circuit Breakers S200 range B - C
2	Miniature Circuit Breakers S200 range D - K
3	Miniature Circuit Breakers S200 accessories & S800 C Series
4	Moulded Case Circuit Breakers XT1
5	Moulded Case Circuit Breakers XT2 - XT4
6	Moulded Case Circuit Breakers T5 - T6
7	Bussmann Fuses

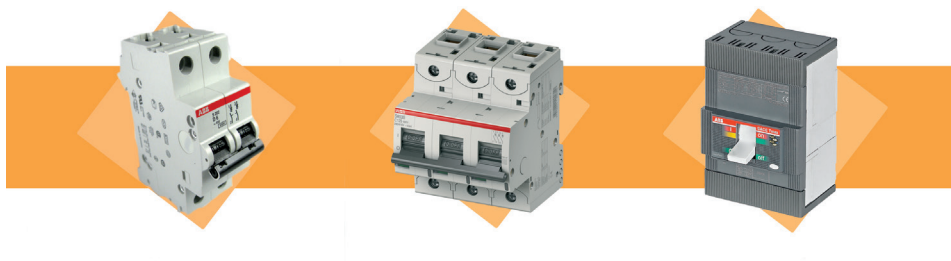


ABB S200M Series

B Characteristics

Function: Control and protection of circuits against overloads and short circuits: protection for people and big length cables in TN and IT systems.



Rated Current (A)	Single Pole Code	Double Pole Code	Triple Code	KA
6	S201MB6	S202MB6	S203MB6	10
10	S201MB10	S202MB10	S203MB10	10
13	S201MB13	S202MB13	S203MB13	10
16	S201MB16	S202MB16	S203MB16	10
20	S201MB20	S202MB20	S203MB20	10
25	S201MB25	S202MB25	S203MB25	10
32	S201MB32	S202MB32	S203MB32	10
40	S201MB40	S202MB40	S203MB40	10
50	S201MB50	S202MB50	S203MB50	10
63	S201MB63	S202MB63	S203MB63	10



4

C Characteristics

Function: Control and protection of circuits against overloads and short circuits: protection for resistive and inductive loads with low inrush current systems.

Rated Current (A)	Single Pole Code	Double Pole Code	Triple Code	KA
0.5	S201MC0.5	S202MC0.5	S203MC0.5	10
1	S201MC1	S202MC1	S203MC1	10
1.6	S201MC1.6	S202MC1.6	S203MC1.6	10
2	S201MC2	S202MC2	S203MC2	10
3	S201MC3	S202MC3	S203MC3	10
4	S201MC4	S202MC4	S203MC4	10
6	S201MC6	S202MC6	S203MC6	10
8	S201MC8	S202MC8	S203MC8	10
10	S201MC10	S202MC10	S203MC10	10
13	S201MC13	S202MC13	S203MC13	10
16	S201MC16	S202MC16	S203MC16	10
20	S201MC20	S202MC20	S203MC20	10
25	S201MC25	S202MC25	S203MC25	10
32	S201MC32	S202MC32	S203MC32	10
40	S201MC40	S202MC40	S203MC40	10
50	S201MC50	S202MC50	S203MC50	10
63	S201MC63	S202MC63	S203MC63	10



ABB S200 Series

C Characteristics

Function: Control and protection of circuits against overloads and short circuits: suitable for cable protection and moderate switching surges for short duration.

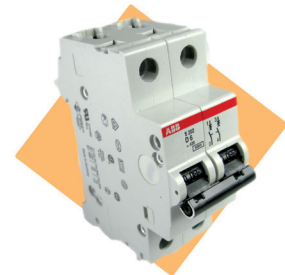
Rated Current (A)	Single Pole Code	Double Pole Code	Triple Code	KA
0.5	S201C0.5	S202C0.5	S203C0.5	6
1	S201C1	S202C1	S203C1	6
1.6	S201C1.6	S202C1.6	S203C1.6	6
2	S201C2	S202C2	S203C2	6
3	S201C3	S202C3	S203C3	6
4	S201C4	S202C4	S203C4	6
6	S201C6	S202C6	S203C6	6
8	S201C8	S202C8	S203C8	6
10	S201C10	S202C10	S203C10	6
13	S201C13	S202C13	S203C13	6
16	S201C16	S202C16	S203C16	6
20	S201C20	S202C20	S203C20	6
25	S201C25	S202C25	S203C25	6
32	S201C32	S202C32	S203C32	6
40	S201C40	S202C40	S203C40	6
50	S201C50	S202C50	S203C50	6
63	S201C63	S202C63	S203C63	6



D Characteristics

Function: Control and protection of circuits against overloads and short circuits: protection for circuits which supply loads with high inrush current at the circuit closing (LV/LV transformers, discharge lamps)

Rated Current (A)	Single Pole Code	Double Pole Code	Triple Code	KA
0.5	S201D0.5	S202D0.5	S203D0.5	6
1	S201D1	S202D1	S203D1	6
1.6	S201D1.6	S202D1.6	S203D1.6	6
2	S201D2	S202D2	S203D2	6
3	S201D3	S202D3	S203D3	6
4	S201D4	S202D4	S203D4	6
6	S201D6	S202D6	S203D6	6
8	S201D8	S202D8	S203D8	6
10	S201D10	S202D10	S203D10	6
13	S201D13	S202D13	S203D13	6
16	S201D16	S202D16	S203D16	6
20	S201D20	S202D20	S203D20	6
25	S201D25	S202D25	S203D25	6
32	S201D32	S202D32	S203D32	6
40	S201D40	S202D40	S203D40	6
50	S201D50	S202D50	S203D50	6
63	S201D63	S202D63	S203D63	6



K Characteristics

Function: Control and protection of circuits against overloads and short circuits:

Advantages: no nuisance tripping in the case of functional peak currents up to 8x_{in}, depending on the series; through its highly sensitive thermal bimetal trip, the K-type characteristic offers protection to damageable elements in the overcurrent range it also provides the best protection to cables and lines.

Rated Current (A)	Single Pole Code	Double Pole Code	Triple Code	KA
0.5	S201K0.5	S202K0.5	S203K0.5	6
1	S201K1	S202K1	S203K1	6
1.6	S201K1.6	S202K1.6	S203K1.6	6
2	S201K2	S202K2	S203K2	6
3	S201K3	S202K3	S203K3	6
4	S201K4	S202K4	S203K4	6
6	S201K6	S202K6	S203K6	6
8	S201K8	S202K8	S203K8	6
10	S201K10	S202K10	S203K10	6
13	S201K13	S202K13	S203K13	6
16	S201K16	S202K16	S203K16	6
20	S201K20	S202K20	S203K20	6
25	S201K25	S202K25	S203K25	6
32	S201K32	S202K32	S203K32	6
40	S201K40	S202K40	S203K40	6
50	S201K50	S202K50	S203K50	6
63	S201K63	S202K63	S203K63	6





S200 / S200M Series Accessories

Order Code	Description	Voltage
S2C-H6R	Auxiliary Contact	
S2C-H11L	Auxiliary Contact 1NO/1NC	
S2C-H20L	Auxiliary Contact 2NO	
S2C-H02L	Auxiliary Contact 2NC	
S2C-A1	Shunt Trip	12-60V AC/DC
S2C-A2	Shunt Trip	110-415V AC / 110-250V DC
S2C-UA... add voltage	Undervoltage Release	12,24,48,110,230 V AC/DC
PS1/60/16	1 Phase Busbar	
PS2/58/46	2 Phase Busbar	
PS3/60/16	3 Phase Busbar	
PS-END0	End cap for 1 Phase Busbar	
PS-END	End cap for 2/3 Phase Busbar	



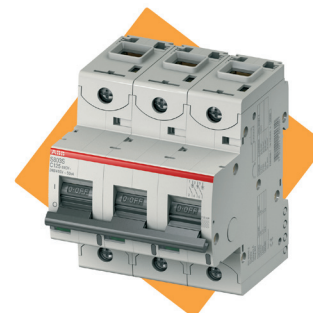
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ABB S800 Series

C Characteristics

Function: Control and protection of circuits against overloads and short circuits when high nominal currents are required; protection for resistive and inductive loads with low inrush current.

Rated Current (A)	Single Pole Code	Double Pole Code	Triple Pole Code	KA
10	S801C-C10	S802C-C10	S803C-C10	25
13	S801C-C13	S802C-C13	S803C-C13	25
16	S801C-C16	S802C-C16	S803C-C16	25
20	S801C-C20	S802C-C20	S803C-C20	25
25	S801C-C25	S802C-C25	S803C-C25	25
32	S801C-C32	S802C-C32	S803C-C32	25
40	S801C-C40	S802C-C40	S803C-C40	25
50	S801C-C50	S802C-C50	S803C-C50	25
63	S801C-C63	S802C-C63	S803C-C63	25
80	S801C-C80	S802C-C80	S803C-C80	25
100	S801C-C100	S802C-C100	S803C-C100	25
125	S801C-C125	S802C-C125	S803C-C125	25



S800 Series Accessories

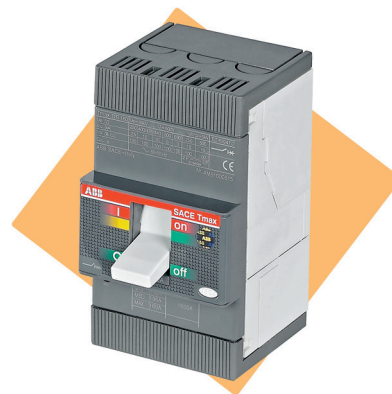
Order Code	Description	Voltage
S800-AUX	Auxiliary Contact	
S800-AUX-ALT	Auxiliary Signal Contact	
S800-SOR24	Shunt Trip	24v AC/DC
S800-SOR130	Shunt Trip	48....130v AC/DC
S800-SOR250	Shunt Trip	110....250v AC/DC
S800-SOR400	Shunt Trip	220....400v AC/DC
S800-UVR36	Undervoltage Release	24....36v AC/DC
S800-UVR60	Undervoltage Release	48....60v AC/DC
S800-UVR130	Undervoltage Release	110....130v AC/DC
S800-UVR250	Undervoltage Release	220....250v AC/DC

ABB TMAX XT Moulded Case Circuit Breakers

Below contains a **Thermomagnetic** trip unit with adjustable thermal and fixed magnetic threshold. Other trip Functions and KA ratings available please call for more details.

XT1 Dimensions

mm	3 Pole	4 Pole
Width	76	102
Height	130	130
Depth	70	70
Weight (kg)	1	1.3



XT1C 25KA

Order Code - 3 Pole	Order Code - 4 Pole	Type	Amps
1SDA067391R1	1SDA067400R1	XT1C160R25	25
1SDA067392R1	1SDA067401R1	XT1C160R32	32
1SDA067393R1	1SDA067402R1	XT1C160R40	40
1SDA067394R1	1SDA067403R1	XT1C160R50	50
1SDA067395R1	1SDA067404R1	XT1C160R63	63
1SDA067396R1	1SDA067405R1	XT1C160R80	80
1SDA067397R1	1SDA067410R1	XT1C160R100	100
1SDA067398R1	1SDA067409R1	XT1C160R125	125
1SDA067399R1	1SDA067641R1	XT1C160R160	160

XT1N 36KA

Order Code - 3 Pole	Order Code - 4 Pole	Type	Amps
1SDA067411R1	1SDA067419R1	XT1N160R32	32
1SDA067412R1	1SDA067647R1	XT1N160R40	40
1SDA067413R1	1SDA067421R1	XT1N160R50	50
1SDA067414R1	1SDA067422R1	XT1N160R63	63
1SDA067415R1	1SDA067423R1	XT1N160R80	80
1SDA067416R1	1SDA067424R1	XT1N160R100	100
1SDA067417R1	1SDA067427R1	XT1N160R125	125
1SDA067418R1	1SDA067428R1	XT1N160R160	160

XT1S 50KA

Order Code - 3 Pole	Order Code - 4 Pole	Type	Amps
1SDA067431R1	1SDA067439R1	XT1S160R50	50
1SDA067432R1	1SDA067440R1	XT1S160R63	63
1SDA067433R1	1SDA067441R1	XT1S160R80	80
1SDA067434R1	1SDA067442R1	XT1S160R100	100
1SDA067435R1	1SDA067445R1	XT1S160R125	125
1SDA067436R1	1SDA067446R1	XT1S160R160	160

ABB TMAX XT Moulded Case Circuit Breakers



Below contains a **Thermomagnetic** trip unit with adjustable thermal and fixed magnetic threshold. Other trip Functions and KA ratings available please call for more details.

XT2N 36KA

Order Code - 3 Pole	Order Code - 4 Pole	Type	Amps
1SDA067016R1	1SDA067037R1	XT2N160R63	63
1SDA067017R1	1SDA067038R1	XT2N160R80	80
1SDA067018R1	1SDA067039R1	XT2N160R100	100
1SDA067019R1	1SDA067042R1	XT2N160R125	125
1SDA067020R1	1SDA067043R1	XT2N160R160	160

XT2 Dimensions

mm	3 Pole	4 Pole
Width	90	120
Height	130	130
Depth	82.5	82.5
Weight (kg)	1.1	1.5

XT2S 50KA

Order Code - 3 Pole	Order Code - 4 Pole	Type	Amps
1SDA067556R1	1SDA067577R1	XT2S160R63	63
1SDA067557R1	1SDA067578R1	XT2S160R80	80
1SDA067558R1	1SDA067579R1	XT2S160R100	100
1SDA067559R1	1SDA067582R1	XT2S160R125	125
1SDA067560R1	1SDA067583R1	XT2S160R160	160



XT3N 36KA

Order Code - 3 Pole	Order Code - 4 Pole	Type	Amps
1SDA068054R1	1SDA068061R1	XT3N250R80	80
1SDA068055R1	1SDA068062R1	XT3N250R100	100
1SDA068056R1	1SDA068067R1	XT3N250R125	125
1SDA068057R1	1SDA068068R1	XT3N250R160	160
1SDA068058R1	1SDA068069R1	XT3N250R200	200

XT3 Dimensions

mm	3 Pole	4 Pole
Width	105	140
Height	150	150
Depth	70	70
Weight (kg)	1.6	2

XT3S 50KA

Order Code - 3 Pole	Order Code - 4 Pole	Type	Amps
1SDA068216R1	1SDA068223R1	XT3S250R80	80
1SDA068217R1	1SDA068224R1	XT3S250R100	100
1SDA068221R1	1SDA068229R1	XT3S250R125	125
1SDA068219R1	1SDA068230R1	XT3S250R160	160
1SDA068220R1	1SDA068231R1	XT3S250R200	200



XT4N 36KA

Order Code - 3 Pole	Order Code - 4 Pole	Type	Amps
1SDA068087R1	1SDA068101R1	XT4N160R100	100
1SDA068088R1	1SDA068107R1	XT4N160R125	125
1SDA068089R1	1SDA068108R1	XT4N160R160	160
1SDA068090R1	1SDA068109R1	XT4N160R200	200
1SDA068092R1	1SDA068111R1	XT4N160R250	250

XT4 Dimensions

mm	3 Pole	4 Pole
Width	105	140
Height	160	160
Depth	82.5	82.5
Weight (kg)	2.05	3.05

XT4S 50KA

Order Code - 3 Pole	Order Code - 4 Pole	Type	Amps
1SDA068307R1	1SDA068321R1	XT4S160R100	100
1SDA068308R1	1SDA068327R1	XT4S160R125	125
1SDA068309R1	1SDA068328R1	XT4S160R160	160
1SDA068310R1	1SDA068329R1	XT4S160R200	200
1SDA068312R1	1SDA068331R1	XT4S160R250	250



ABB TMAX

Moulded Case Circuit Breakers

Below contains a **Thermomagnetic** trip unit with adjustable thermal and fixed magnetic threshold. Other trip Functions and KA ratings available please call for more details.

T5 Dimensions

mm	3 Pole	4 Pole
Width	140	186
Height	205	205
Depth	103.5	103.5
Weight (kg)	4.8	5.8



T5N 36KA

Order Code - 3 Pole	Order Code - 4 Pole	Type	Amps
1SDA054436R1	1SDA054477R1	T5N400R320	320
1SDA054437R1	1SDA054478R1	T5N400R400	400
1SDA054456R1	1SDA054487R1	T5N630R500	500

T5S 50KA

Order Code - 3 Pole	Order Code - 4 Pole	Type	Amps
1SDA054440R1	1SDA054479R1	T5S400R320	320
1SDA054441R1	1SDA054480R1	T5S400R400	400
1SDA054461R1	1SDA054489R1	T5S630R500	500

T5H 70KA

Order Code - 3 Pole	Order Code - 4 Pole	Type	Amps
1SDA054444R1	1SDA054481R1	T5H400R320	320
1SDA054445R1	1SDA054482R1	T5H400R400	400
1SDA054465R1	1SDA054491R1	T5H630R500	500

T6 Dimensions

mm	3 Pole	4 Pole
Width	210	280
Height	268	268
Depth	103.5	103.5
Weight (kg)	9.5	12



T6N 36KA

Order Code - 3 Pole	Order Code - 4 Pole	Type	Amps
1SDA060202R1	1SDA060210R1	T6N630R630	630
1SDA060214R1	1SDA060222R1	T6N800R800	800

T6S 50KA

Order Code - 3 Pole	Order Code - 4 Pole	Type	Amps
1SDA060204R1	1SDA060211R1	T6S630R630	630
1SDA060216R1	1SDA060223R1	T6S800R800	800

T6H 70KA

Order Code - 3 Pole	Order Code - 4 Pole	Type	Amps
1SDA060206R1	1SDA060212R1	T6H630R630	630
1SDA060218R1	1SDA060224R1	T6H800R800	800



Fuses

BS88 Low voltage Fuse Links

Order Code (Add Amperage)	Amps available (Add to end of order code)	BS88 Ref	Fixing Centres (mm)	Diameter (mm)	Overall Length (mm)	Type (Tag)
NSD.....	2,4,6,10,16,20,25,32	F1	N/A	13.8	58.7	Offset Blade
ESD.....	2,4,6,10,16,20,25,32,40,50,63	F2	N/A	13.8 / 17.5	67.3	Offset Blade
NITD....	2,4,6,10,16,20,25,32	A1	44.5	13.8	55.4	Offset Bolted
AAO.....	2,4,6,10,16,20,25,32	A2	73	13.8	85	Offset Bolted
BAO.....	40,50,63	A3	73	21.4	87	Offset Bolted
OSD....	80,100		73	21.4	95	Offset Bolted
CEO....	32,40,50,63,80,100	A4	94	21.4	109.5	Offset Bolted
DEO....	125,160,200		94	31	110	Offset Bolted

Example of order code **NSD20** = 20A Motor rated fuse with a diameter of 13.8



4

BS88 Low voltage Motor Rated Fuse Links

Order Code (Add Amperage)	Amps available (Add to of order code)	Start up Ratings (A)	Fixing Centres (mm)	Diameter (mm)	Overall Length (mm)	Type (Tag)
NSD.....M	20,32	25,32,36,40,50,63	N/A	13.8/17.5	58.7	Offset Blade
ESD.....M	63	80,100	N/A	21.4	67.3	Offset Blade
NITD....M	20,32	25,32,40,50,63	44.5	13.8	54.5	Offset Bolted
AAO.....M	32	40,50,63	73	21.4	86	Offset Bolted
BAO.....M	63	80,100	73	21.4	87	Offset Bolted
OSD.....M	100	125,160	73	27	95	Offset Bolted
CEO.....M	100	125,160,200	94	31	111	Offset Bolted
DEO.....M	200	250,315	94	31	112	Offset Bolted

Example of order code **NSD20M** = 20A Motor rated fuse with a diameter of 13.8



BS88 Fuse Holders

Add W to the end of the order code for white fuse holders, Fuse holders come black in colour as standard.

Order Code	Rating (A)	Max Cable size (mm)	For Fuse Link Type
32NNSF	32	16	NSD
63ENSF	63	35	ESD
CM32FC	32	16	NITD
CM32F	32	16	AAO
CM63F	63	70	BAO
CM100F	100	70	OSD



Cylindrical Fuse Links 10 x 38mm

Order Code (Add Ampaerage)	Amps available (Add to of order code)	Type
C10G....	0.5,1,2,4,6,8,10,12,16,20,25,32	GL
C10M....	0.5,1,2,4,6,8,10,12,16,20,25	AM

Example of order code **C10G20** = 20A cylindrical fuse.



Cylindrical Fuse Holders for 10 x 38mm fuses

Order Code	Number of Poles
CHM1DU	1
CHM2DU	2
CHM3DU	3
CHM4DU	4



Motor Control Gear

Pages	Content
1	ABB AF Range 3 Pole Contactors 4-18.5 KW
2	ABB AF Range 4 Pole Contactors / Accessories & Overloads
3	ABB AF Range Contactors 18.5-200 KW, 3 & 4 Pole
4	ABB TF Overloads & AF Contactors 200-400 KW
5	ABB Mini Contactors 4-5.5 KW & Overloads
6	ABB Manual Motor Starters
7	ABB Manual Motor Starter Accessories
8	Danfoss CI5 Mini Contactors, Accessories & Overloads
9	Danfoss CI Contactors 2.2 - 25kw, Accessories & Overloads
10	Danfoss CI Contactors 30-45 kw, Accessories & Overloads
11	Moeller DILM Contactors 3 & 4 Pole
12	Moeller DILM Contactor accessories
13	Moeller Thermal Overloads



ABB AF Range 3 Pole Contactors

AC/DC operated with screw terminals



Coil Code	Voltage
11	24-60V 50/60 Hz DC
12	48-130V 50/60 Hz DC
13	100-250 V 50/60 Hz DC
14	250-500 V 50/60 Hz DC

When ordering a 3 pole contactor please add the coil voltage code to the end of the order code.
For example **AF09-30-10-13** = A 3 pole 1 NO - 100-250 v 50/60 Hz contactor.

Order Code	Built in Auxiliaries	KW AC3	Amps AC3	Amps AC1
AF09-30-10-	1 NO	4	9	25
AF09-30-01-	1 NC	4	9	25
AF12-30-10-	1 NO	5.5	12	28
AF12-30-01-	1 NC	5.5	12	28
AF16-30-10-	1 NO	7.5	18	30
AF16-30-01-	1 NC	7.5	18	30
AF26-30-00-	--	11	26	45
AF30-30-00-	--	15	32	50
AF38-30-00-	--	18.5	37	60



5

Reduced Coil Holding Consumption 3 Pole Contactors

Order Code	Voltage	Built in Auxiliaries	KW AC3	Amps AC3	Amps AC1
AF09Z-30-10-20	12-20 VDC	1 NO	4	9	25
AF09Z-30-10-21	24-60 V 50/60 Hz 20-60VDC	1 NO	4	9	25
AF09Z-30-01-20	12-20 VDC	1 NC	4	9	25
AF09Z-30-01-21	24-60 V 50/60 Hz 20-60VDC	1 NC	4	9	25
AF12Z-30-10-20	12-20 VDC	1 NO	5.5	12	28
AF12Z-30-10-21	24-60 V 50/60 Hz 20-60VDC	1 NO	5.5	12	28
AF12Z-30-01-20	12-20 VDC	1 NC	5.5	12	28
AF12Z-30-01-21	24-60 V 50/60 Hz 20-60VDC	1 NC	5.5	12	28
AF16Z-30-10-20	12-20 VDC	1 NO	7.5	18	30
AF16Z-30-10-21	24-60 V 50/60 Hz 20-60VDC	1 NO	7.5	18	30
AF16Z-30-01-20	12-20 VDC	1 NC	7.5	18	30
AF16Z-30-01-21	24-60 V 50/60 Hz 20-60VDC	1 NC	7.5	18	30
AF26Z-30-00-20	12-20 VDC	--	11	26	45
AF26Z-30-00-21	24-60 V 50/60 Hz 20-60VDC	--	11	26	45
AF30Z-30-00-20	12-20 VDC	--	15	32	50
AF30Z-30-00-21	24-60 V 50/60 Hz 20-60VDC	--	15	32	50
AF38Z-30-00-20	12-20 VDC	--	18.5	37	60
AF38Z-30-00-21	24-60 V 50/60 Hz 20-60VDC	--	18.5	37	60

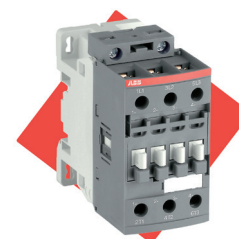


ABB AF Range 4 Pole Contactors

Coil Code	Voltage
11	24-60V 50/60 Hz DC
12	48-130V 50/60 Hz DC
13	100-250 V 50/60 Hz DC
14	250-500 V 50/60 Hz DC
20	12-20 VDC
21	24-60 V 50/60 Hz 20-60VDC



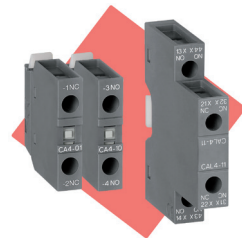
When ordering a 4 pole contactor please add the coil voltage code to the end of the order code. For example **AF09-40-00-13** = A 4 pole 4 NO - 100-250 v 50/60 Hz contactor.

Order Code	Built in Poles	Amps AC1
AF09-22-00-	2 NO & 2 NC	25
AF09-40-00-	4 NO	25
AF16-22-00-	2 NO & 2 NC	30
AF16-40-00-	4 NO	30
AF26-22-00-	2 NO & 2 NC	45
AF26-40-00-	4 NO	45
AF38-22-00-	2 NO & 2 NC	55
AF38-40-00-	4 NO	55



AF 3 & 4 Pole Accessories 09-38

Order Code	Description
CA4-10	1 NO Auxiliary Contact Front Mounted
CA4-01	1 NC Auxiliary Contact Front Mounted
CAL4-11	1 NO & 1 NC Side Mounted Auxiliary Contact
VM4	Mechanical & Electrical Interlock Unit
VM4	Mechanical Interlock Unit



TF Thermal Overloads

For AF Range 09- 38

Order Code	Amperage
TF42-0.13	0.10...0.13 A
TF42-0.17	0.13...0.17 A
TF42-0.23	0.17...0.23 A
TF42-0.31	0.23...0.31 A
TF42-0.41	0.31...0.41 A
TF42-0.55	0.41...0.55 A
TF42-0.74	0.55...0.74 A
TF42-1.0	0.74...1.00 A
TF42-1.3	1.00...1.30 A
TF42-1.7	1.30...1.70 A
TF42-2.3	1.70...2.30 A
TF42-3.1	2.30...3.10 A
TF42-4.2	3.10...4.20 A
TF42-5.7	4.20...5.70 A
TF42-7.6	5.70...7.60 A
TF42-10	7.60...10.0 A
TF42-13	10.0...13.0 A
TF42-16	13.0...16.0 A
TF42-20	16.0...20.0 A
TF42-24	20.0...24.0 A
TF42-29	24.0...29.0 A
TF42-35	29.0...35.0 A
TF42-38	35.0...38.0 A

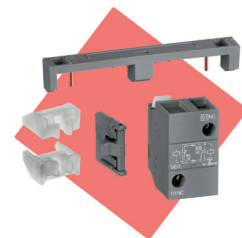


ABB A Range 3 Pole Contactors

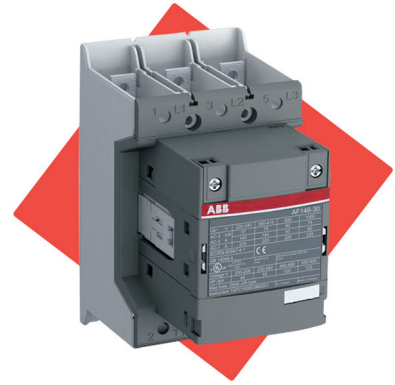
AC / DC operated



Coil Code	Voltage
11	24-60V 50/60 Hz DC
12	48-130V 50/60 Hz DC
13	100-250 V 50/60 Hz DC
14	250-500 V 50/60 Hz DC

When ordering a 3 pole contactor please add the coil voltage code to the end of the order code.
For example **AF52-30-11-13** = A 3 pole, 40KW, 100-250 v 50/60 Hz contactor.

Order Code	Built in Auxiliaries	KW AC3	Amps AC3	Amps AC1
AF40-30-11-	1 NO & 1 NC	18.5	40	70
AF52-30-11-	1 NO & 1 NC	40	53	100
AF65-30-11-	1 NO & 1 NC	30	65	105
AF80-30-11-	1 NO & 1 NC	37	80	125
AF96-30-11-	1 NO & 1 NC	45	96	130
AF116-30-11-	1 NO & 1 NC	55	116	160
AF140-30-11-	1 NO & 1 NC	75	140	200
AF146-30-11-	1 NO & 1 NC	75	146	225
AF190-30-11-	1 NO & 1 NC	90	190	275
AF205-30-11-	1 NO & 1 NC	110	205	350
AF265-30-11-	1 NO & 1 NC	132	265	400
AF305-30-11-	1 NO & 1 NC	160	305	500
AF370-30-11	1 NO & 1 NC	200	370	600



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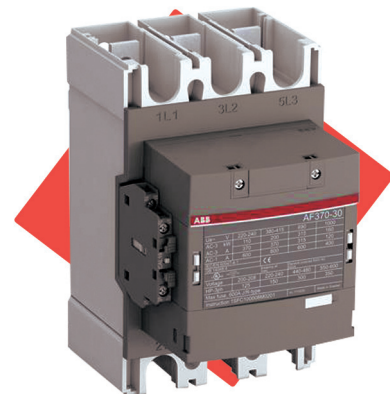
ABB AF Range 4 Pole Contactors

AC / DC operated

Coil Code	Voltage
11	24-60V 50/60 Hz DC
12	48-130V 50/60 Hz DC
13	100-250 V 50/60 Hz DC
14	250-500 V 50/60 Hz DC

When ordering a 4 pole contactor please add the coil voltage code to the end of the order code.
For example **AF40-40-11-13** = A 4 pole, 18.5KW, 100-250 v 50/60 Hz contactor.

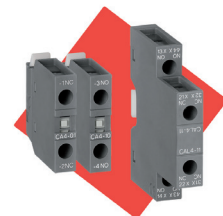
Order Code	Built in Auxiliaries	KW	Amps AC1
AF40-40-11-	1 NO & 1 NC	18.5	70
AF52-40-11-	1 NO & 1 NC	40	100
AF65-40-11-	1 NO & 1 NC	30	105
AF80-40-11-	1 NO & 1 NC	37	125
AF96-40-11-	1 NO & 1 NC	45	130
AF116-40-11-	1 NO & 1 NC	55	160
AF140-40-11-	1 NO & 1 NC	75	200
AF146-40-11-	1 NO & 1 NC	75	225
AF190-40-11-	1 NO & 1 NC	90	275
AF205-40-11-	1 NO & 1 NC	110	350
AF265-40-11-	1 NO & 1 NC	132	400
AF305-40-11-	1 NO & 1 NC	160	500
AF370-40-11	1 NO & 1 NC	200	600



Above Picture AF370-30-11

Accessories

Order Code	Description	For Contactors
CA4-10	1 NO Auxiliary Contact Front Mounted	AF09.....AF96
CA4-01	1 NC Auxiliary Contact Front Mounted	AF09.....AF96
CAL4-11	1 NO & 1 NC side mounted Auxiliary Contact	AF09.....AF96
CAL19-11	Side Mounting Auxiliary Block 1 NO & 1 NC	AF116...AF370
TEF4-ON	Electronic Timer On Delay	AF09.....AF96
TEF4-OFF	Electronic Timer Off Delay	AF09.....AF96
VM96-4	Interlock	AF40.....AF96
VM19	Interlock	AF116...AF370

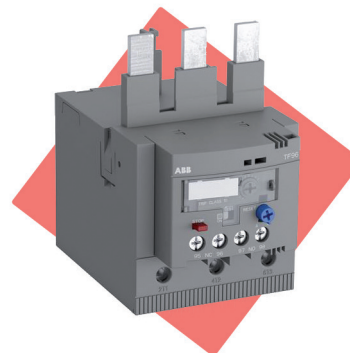


TF Thermal Overloads

For use with AF range Contactors

Order Code	Amperage	For Contactors
TF65-28	22...28 A	AF40...AF65
TF65-33	25...33 A	AF40...AF65
TF65-40	30...40 A	AF40...AF65
TF65-47	36...47 A	AF40...AF65
TF65-53	44...53 A	AF40...AF65
TF65-60	50...60 A	AF40...AF65
TF65-67	57...67 A	AF40...AF65
TF96-51	40...51 A	AF80...AF96
TF96-60	48...60 A	AF80...AF96
TF96-68	57...68 A	AF80...AF96
TF96-78	65...78 A	AF80...AF96
TF96-87	75...87 A	AF80...AF96
TF96-96	84...96 A	AF80...AF96
TF140DU-90	66...90 A	AF116...AF140
TF140DU-110	80...110 A	AF116...AF140
TF140DU-135	100...135 A	AF116...AF140
TF140DU-142	110...142 A	AF116...AF140
TA200DU-90	66...90 A	AF190...AF205
TA200DU-110	80...110 A	AF190...AF205
TA200DU-135	100...135 A	AF190...AF205
TA200DU-150	110...150 A	AF190...AF205
TA200DU-175	130...175 A	AF190...AF205
TA200DU-200	150...200 A	AF190...AF205
EF370-380 *	115...380 A	AF265...AF370

* EF range - Electronic type overload



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ABB AF Range Contactors

Order Code	Voltage	Built in Auxiliaries	KW AC3	Amps AC3	Amps AC1
AF400-30-11-250	100-250V AC/DC	1 NO & 1 NC	200	400	600
AF400-30-11-60	20-60 VDC	1 NO & 1 NC	200	400	600
AF460-30-11-250	100-250V AC/DC	1 NO & 1 NC	250	460	700
AF460-30-11-60	20-60 VDC	1 NO & 1 NC	250	460	700
AF580-30-11-250	100-250V AC/DC	1 NO & 1 NC	315	580	800
AF580-30-11-60	20-60 VDC	1 NO & 1 NC	315	580	800
AF750-30-11-250	100-250V AC/DC	1 NO & 1 NC	400	750	1050
AF750-30-11-60	20-60 VDC	1 NO & 1 NC	400	750	1050



AF Range Accessories

Order Code	Description
CAL18-11	Side Mounting Auxiliary Block 1 NO & 1 NC
VM750H	Mechanical Interlock
TE5S-24	Electronic Timer, supply voltage 24V AC/DC, Direct timing range
TE5S-120	Electronic Timer, supply voltage 110...120 AC, 0.8-8s / 6-60 S timing range
TE5S-240	Electronic Timer, supply voltage 220...240 AC, 0.8-8s / 6-60 S timing range
TE5S-440	Electronic Timer, supply voltage 380...440 AC/DC, 0.8-8s / 6-60 S timing range



E Thermal Overloads

Order Code	Amperage	For Contactors
E800DU500	150...500 A	AF400...AF460
E800DU800	250...800 A	AF580...AF750

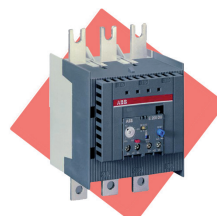


ABB Mini Contactor Range

Coil Code	Description	For Mini Contactor
24V	24VAC	B
110V	110VAC	B
220V	220VAC	B
230V	230VAC	B
24VDC	24VDC	BC
110VDC	110VDC	BC

When ordering a mini contactor please add the coil voltage code to the end of the order code. For example **B6-30-10-230** = A Mini 3 pole 1 NO - 230 v 50/60 Hz contactor.



Order Code	Built in Auxiliaries	KW AC3	Amps AC3	Amps AC1
B63010/...	1N/O	4	8.5	20
B63001/...	1N/C	4	8.5	20
B73010/...	1N/O	5.5	11.5	20
B73001/...	1N/C	5.5	11.5	20
BC63010/...	1N/O	4	8.5	20
BC63001/...	1N/C	4	8.5	20
BC73010/...	1N/O	5.5	11.5	20
BC73001/...	1N/C	5.5	11.5	20

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T16 Thermal Overloads

For use with B range Mini Contactors

Order Code	Amperage
T16-0.13	0.10...0.13
T16-0.17	0.13...0.17
T16-0.23	0.17...0.23
T16-0.31	0.23...0.31
T16-0.41	0.31...0.41
T16-0.55	0.41...0.55
T16-0.74	0.55...0.74
T16-1.0	0.74...1.00
T16-1.3	1.00...1.30
T16-1.7	1.30...1.70
T16-2.3	1.70...2.30
T16-3.1	2.30...3.10
T16-4.2	3.10...4.20
T16-5.7	4.20...5.70
T16-7.6	5.70...7.60
T16-10	7.60...10.0
T16-13	10.0...13.0
T16-16	13.0...16.0



Accessories

Order Code	Description
CA6-11M	1 NO & 1NC Side-Mounted Auxiliary to Suit B6,B7,BC6,BC7
CAF6-11M	1 NO & 1NC Top-Mounted Auxiliary to Suit B6,B7,BC6,BC7

MS116 Manual Motor Starters

Harmonized design in 45mm width. For use with B6-B7 & AF09 - AF30 Contactors
Switch Position On/Off , Max breaking capacity up to 50ka

Order Code	Setting Range (A)
MS116-0.16	0.10...0.16
MS116-0.25	0.16...0.25
MS116-0.40	0.25...0.40
MS116-0.63	0.40...0.63
MS116-1.0	0.63...1.0
MS116-1.6	1.0....1.6
MS116-2.5	1.6....2.5
MS116-4.0	2.5....4.0
MS116-6.3	4.....6.3
MS116-10.0	6.3...10.0
MS116-12.0	8.....12.0
MS116-16.0	10....16.0
MS116-20	16....20.0
MS116-25	20....25.0
MS116-32	25....32.0



MS132 Manual Motor Starters

Harmonized design in 45mm width. For use with B6-B7 & AF09 - AF30 contactors
Switch Position On/Off Trip, Max breaking capacity up to 100ka
with magnetic trip indication, with lockable handle.

Order Code	Setting Range (A)
MS132-0.16	0.10...0.16
MS132-0.25	0.16...0.25
MS132-0.40	0.25...0.40
MS132-0.63	0.40...0.63
MS132-1.0	0.63...1.0
MS132-1.6	1.0....1.6
MS132-2.5	1.6....2.5
MS132-4.0	2.5....4.0
MS132-6.3	4.0....6.3
MS132-10.0	6.3...10.0
MS132-12.0	8.0...12.0
MS132-16.0	10....16.0
MS132-20	16....20.0
MS132-25	20....25.0
MS132-32	25....32.0



MS450 / 495 Manual Motor Starters

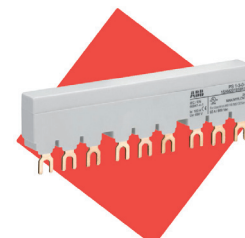
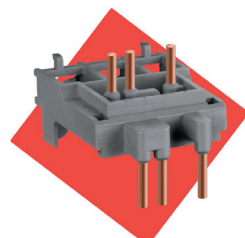
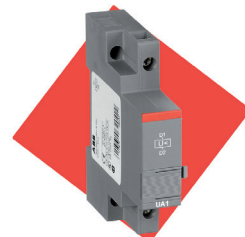
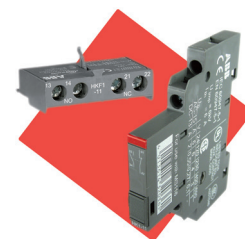
Thermal and Electromagnetic Trip, Short Circuit proof up to 50ka

Order Code	Setting Range (A)
MS450-16	11.0...16.0
MS450-20	14.0...20.0
MS450-25	18.0...25.0
MS450-32	22.0...32.0
MS450-40	28.0...40.0
MS450-45	36.0...45.0
MS450-50	40.0...50.0
MS495-40	28.0...40.0
MS495-50	36.0...50.0
MS495-63	45.0...63.0
MS495-75	57.0...75.0
MS495-90	70.0...90.0
MS495-100	80.0...100.0



MS116 & MS132 Accessories

Order Code	Description
HKF1-11	1N/O 1N/C Front Mounted Auxiliary
HK1-11	1N/O 1N/C Side Mounted Auxiliary
HK1-20	2N/O Side Side Mounted Auxiliary
HK1-02	2N/C Side Side Mounted Auxiliary
SK1-11	1N/O 1N/C Signal Contact
SK1-20	2N/O Signal Contact
SK1-02	2N/C Signal Contact
UA1-24	Undervoltage Release 24V
UA1-110/120	Undervoltage Release 110/120V
UA1-230	Undervoltage Release 230V
UA1-400	Undervoltage Release 400V
UA1-415	Undervoltage Release 415V
BEA16-4	Connection Links AF09.....AF16 - MS116 & MS132
BEA26-4	Connection Links AF26.....AF38 - MS116 & MS132-0.16 to 10
BEA38-4	Connection Links AF09.....AF16 - MS132-12 to 32
PS1-2-0	Phase Busbar for 2 Devices no Auxiliary
PS1-3-0	Phase Busbar for 3 Devices no Auxiliary
PS1-4-0	Phase Busbar for 4 Devices no Auxiliary
PS1-5-0	Phase Busbar for 5 Devices no Auxiliary
PS1-2-1	Phase Busbar for 2 Devices 1 Auxiliary
PS1-3-1	Phase Busbar for 3 Devices 1 Auxiliary
PS1-4-1	Phase Busbar for 4 Devices 1 Auxiliary
PS1-5-1	Phase Busbar for 5 Devices 1 Auxiliary
PS1-2-2	Phase Busbar for 2 Devices 2 Auxiliaries
PS1-3-2	Phase Busbar for 3 Devices 2 Auxiliaries
PS1-4-2	Phase Busbar for 4 Devices 2 Auxiliaries
PS1-5-2	Phase Busbar for 5 Devices 2 Auxiliaries
S1-M1	Power Infeed Block 63A, 690V, Flexible 16mm Flat
S1-M2	Power Infeed Block 63A, 690V, Flexible 16mm High
SA1	Lock Adapter
SA2	Padlock + 2 Keys
SA3	Lock Adapter + 3 Keys



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MS450/495 Accessories

Order Code	Description
HK4-11	1N/O 1N/C Front Mounted Auxiliary
HKS4-11	1N/O 1N/C Side Mounted Auxiliary
SK4-11	1N/O 1N/C Signal Contact

Danfoss CI5 Range Mini Contactors

Coil Code	Voltage
13	24V 50-60 Hz
23	110V 50 Hz, 120V/ 60 Hz
32	230V 50-60 Hz
37	400V 50-60 Hz
02	24V DC



When ordering a Mini Contactor please add the coil voltage code to the end of the order code.
For example **037H3502-13** = A 3 pole 1 NO - 24v 50/60 hz contactor.

Order Code	Descriptive Code	Built in Auxiliaries	KW AC3	Amps AC3	Amps AC1
037H3502-	CI5-5-10	1NO	2.2	4.9	14
037H3503-	CI5-5-01	1NC	2.2	4.9	14
037H3504-	CI5-9-10	1NO	4	8.5	14
037H3505-	CI5-9-01	1NC	4	8.5	14
037H3507-	CI5-12-10	1NO	5.5	11.5	14
037H3508-	CI5-12-01	1NC	5.5	11.5	14

CI5 Accessories

Order Code	Description
037H3514	CBN 11 Auxiliary Contact 1NO & 1NC
037H3515	CBN 22 Auxiliary Contact 2NO & 2NC

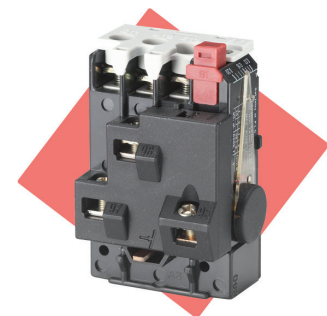


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TI9C Thermal Overloads

For use with CI5 range Mini Contactors

Order Code	Amperage
047H3130	0.13....0.20
047H3131	0.19....0.29
047H3132	0.27....0.42
047H3133	0.4.....0.62
047H3134	0.6.....0.92
047H3135	0.85....1.3
047H3136	1.2.....1.9
047H3137	1.8.....2.8
047H3138	2.7.....4.2
047H3139	4.0.....6.2
047H3140	6.0.....9.2



Danfoss CI Range Contactors 2.2 - 25KW



Coil Code	Voltage
13	24V 50-60 Hz
23	110V 50 Hz, 120V/ 60 Hz
31	230V 50-60 Hz
38	415V 50-60 Hz

When ordering a contactor please add the coil voltage code to the end of the order code.
For example **037H0015-13** = 2.2KW 3 pole - 24v 50/60 Hz contactor.



Order Code	Descriptive Code	KW AC3	Amps AC3	Amps AC1
037H0015..	CI6	2.2	6	20
037H0021..	CI9	4	9	25
037H0031..	CI12	5.5	12	25
037H0049..	CI15	7.5	16	25
037H0041..	CI16	7.5	16	40
037H0045..	CI20	10	20	40
037H0051..	CI25	11	25	40
037H0055..	CI30	15	30	40
037H0061..	CI32	15	32	63
037H0056..	CI37	18.5	37	80
037H0071..	CI45	22	45	80
037H0080..	CI50	25	52	80

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CI6-50 Accessories

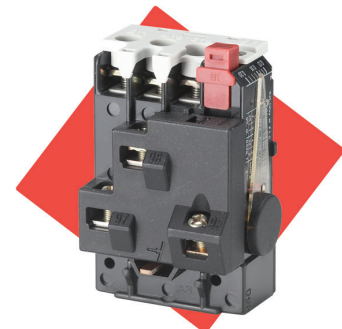
Order Code	Description
037H0111	CB-NO 1 NO Auxiliary Contact
037H0112	CB-NC 1 NC Auxiliary Contact
037H0113	CB-EM Early Make
037H0114	CB-LB Late Break
037H0110	CB-S Start



TI16-30C / TI80 Thermal Overloads

For use with CI6-50 range Contactors

Order Code	Type	Amperage	For Contactor
047H0200	TI16C	0.13.....0.20	CI6-CI30
047H0201	TI16C	0.19.....0.29	CI6-CI30
047H0202	TI16C	0.27.....0.42	CI6-CI30
047H0203	TI16C	0.4.....0.62	CI6-CI30
047H0204	TI16C	0.6.....0.92	CI6-CI30
047H0205	TI16C	0.85.....1.3	CI6-CI30
047H0206	TI16C	1.2.....1.9	CI6-CI30
047H0207	TI16C	1.8.....2.8	CI6-CI30
047H0208	TI16C	2.7.....4.2	CI6-CI30
047H0209	TI16C	4.0.....6.2	CI6-CI30
047H0210	TI16C	6.0.....9.2	CI6-CI30
047H0211	TI16C	8.0....12.0	CI6-CI30
047H0212	TI16C	11.....16.0	CI6-CI30
047H0213	TI25C	15.....20.0	CI6-CI30
047H0214	TI25C	19.....25.0	CI6-CI30
047H0215	TI30C	24.....32.0	CI6-CI30
047H1013	TI80	16.....23.0	CI32-CI50
047H1014	TI80	22.....32.0	CI32-CI50
047H1015	TI80	30.....45.0	CI32-CI50
047H1016	TI80	42.....63.0	CI32-CI50



Danfoss CI Range Contactors 30 - 45KW

Coil Code	Voltage
13	24V 50-60 Hz
23	110V 50 Hz, 120V/ 60 Hz
32	230V 50-60 Hz
39	380-400 V 50-60 Hz

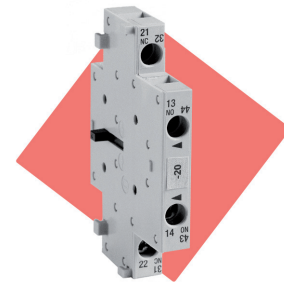
When ordering a contactor please add the coil voltage code to the end of the order code. For example **037H3061-13** = 30 KW, 3 pole - 24v 50/60 Hz contactor.



Order Code	Descriptive Code	KW AC3	Amps AC3	Amps AC1
037H3061..	CI61	30	60	100
037H3062..	CI73	37	72	100
037H3063	CI86	45	85	100

CI61-86 Accessories

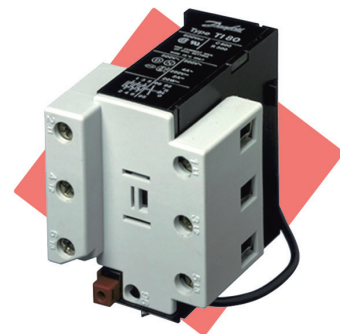
Order Code	Description
037H3066	CBDS-NC 1 NC Side Mounted Auxiliary
037H3067	CBDS-NO 1 NO Side Mounted Auxiliary
037H3069	CBDS-11 1 NO & 1 NC Side Mounted Auxiliary
037H3065	CBD-22 2 NO & 2 NC Front Mounted Auxiliary



TI80 Thermal Overloads

For use with CI61-86 range Contactors

Order Code	Type	Amperage
047H1017	TI80	60.....80
047H1018	TI86	74.....85



Moeller DILM Range 3 Pole Contactors



Coil Code	Voltage
24	24V 50 Hz
110	110V 50 Hz
230	230V 50 Hz
400	400V 50 Hz
24VDC	24V DC

When ordering a contactor please add the coil voltage code to the end of the order code.
For example **DILM7-10-24VAC** = 3 KW 3 pole - 24v 50 Hz AC contactor.



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Order Code	Built in Auxiliaries	KW AC3	Amps AC3	Amps AC1
DILM7-10-	1 NO	3	7	20
DILM7-01-	1 NC	3	7	20
DILM9-10-	1 NO	4	9	20
DILM9-01-	1 NC	4	9	20
DILM12-10-	1 NO	5.5	12	20
DILM12-01-	1 NC	5.5	12	20
DILM17-10-	1 NO	7.5	18	35
DILM17-01-	1 NC	7.5	18	35
DILM25-10-	1 NO	11	25	40
DILM25-01-	1 NC	11	25	40
DILM32-10-	1 NO	15	32	40
DILM32-01-	1 NC	15	32	40
DILM40-	--	18.5	40	50
DILM50-	--	22	50	65
DILM65-	--	30	65	80
DILM80-	--	37	80	90
DILM95-	--	45	95	110
DILM115-	--	55	115	130
DILM150-	--	75	150	160
DILM170-	--	90	170	185

4 Pole Contactors

Coil Code	Voltage
230V	230V 50 Hz
24VDC	24V DC

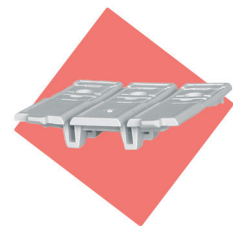
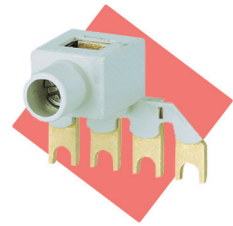
When ordering a 4 pole contactor please add the coil voltage code to the end of the order code.
For example **DILMP20-230** = A 4 pole 20 A - 230 v 50 Hz contactor.

Order Code	Built in Auxiliaries	Amps AC1
DILMP20-	--	20
DILMP32-01-	1 NC	28
DILMP32-10-	1 NO	28
DILMP45-01-	1 NC	39
DILMP45-10-	1 NO	39
DILMP63-	--	54
DILMP80-	--	69
DILMP125-	--	108
DILMP160-	--	138
DILMP200-	--	172



DILM Accessories

Order Code	Description	For Contactor Type
DILA-XHI10-S	1 NO Auxiliary Contact Side Mounting	DILM7 - DILM12
DILA-XHI01-S	1 NC Auxiliary Contact Side Mounting	DILM7 - DILM12
DILM32-XHI11	1 NO & 1 NC Auxiliary Contacts Top Mounting	DILM7 - DILM32 & DILMP20
DILM32-XHI02	2 NC Auxiliary Contacts Top Mounting	DILM7 - DILM32 & DILMP20
DILM32-XHI22	2 NO & 2 NC Auxiliary Contacts Top Mounting	DILM7 - DILM32 & DILMP20
DILM32-XHI11-S	1 NC & 1 NC Auxiliary Contact Side Mounting	DILM17 - DILM32
DILM1000-XHI11-SI	1 NC & 1 NC Auxiliary Contact Side Mounting	DILM40 - DILM170
DILM150-XHI11	1 NC & 1 NC Auxiliary Contact Top Mounting	DILM40 - DILM170
DILM150-XHI20	2 NO Auxiliary Contact Side Mounting	DILM40- DILM170
DILM150-XHI02	2 NC Auxiliary Contact Side Mounting	DILM40- DILM170
DILM150-XHI22	2 NO 2 NC Auxiliary Contact Side Mounting	DILM40- DILM170
DILM12-XMV	Mechanical Interlock (includes connection clips)	DILM7 - DILM12 & DILMP20
DILM32-XMV	Mechanical Interlock (includes connection clips)	DILM17 - DILM32
DILM65-XMV	Mechanical Interlock (includes connection clips)	DILM40 - DILM65
DILM150-XMV	Mechanical Interlock	DILM80 - DILM170
DILM12-XSL	Star Delta busbar connection kit	DILM7 - DILM12
DILM32-XSL	Star Delta busbar connection kit	DILM17 - DILM32
DILM65-XSL	Star Delta busbar connection kit	DILM40 - DILM65
DILM150-XSL	Star Delta busbar connection kit	DILM80 - DILM170
DILM12-XRL	Reversing Starter busbar connection kit	DILM7 - DILM12
DILM32-XRL	Reversing Starter busbar connection kit	DILM17 - DILM32
DILM65-XRL	Reversing Starter busbar connection kit	DILM40 - DILM65
DILM150-XRL	Reversing Starter busbar connection kit	DILM80 - DILM170
DILM12-XP1	Paralleling Links (pack of 2)	DILM7 - DILM12 & DILMP20
DILM32-XP1	Paralleling Links (pack of 2)	DILM17 - DILM32
DILM65-XP1	Paralleling Links (pack of 2)	DILM40 - DILM65
DILM150-XP1	Paralleling Links (pack of 2)	DILM80 - DILM170
DILM32-XIP2X	IP2X Terminal covers	DILM17- 38, DILMP38-45
DILM65-XIP2X	IP2X Terminal covers	DILM40- 72, DILMP63-80
DILM150-XIP2X	IP2X Terminal covers	DILM80-170, DILMP125-200



5

Electronic Timer Modules

Top mounting on contactor, cannot be combined with any other top mounting accessory.
Please add the coil voltage to the end of the order code

Order Code	Description
24	24V AC/DC
110	100 - 130 VAC
240	200 - 240 VAC
DILM32-XTEE11-	On Delay - Electronic timer module 0.05...1s, 0.5...10s, 5...100s
DILM32-XTED11-1-	Off Delay - Electronic timer module 0.05...1s
DILM32-XTED11-10 -	Off Delay - Electronic timer module 0.5.... 10s
DILM32-XTED11-100 -	Off Delay - Electronic timer module 5..... 100s

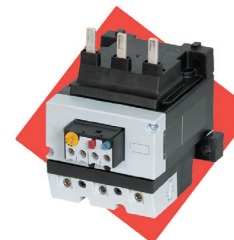
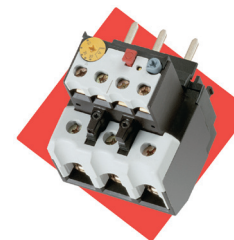


Moeller Thermal Overloads



For direct mounting on contactors.
 All Moeller Thermal overloads have phase failure sensitivity to IEC/EN 60947
 Each has an electrically separate pair of control contacts 1 NO & 1 NC.

Order Code	Type	Amperage	For Contactor
ZB12-0-16	ZB12	0.1.....0.16	DILM7-DILM12
ZB12-0-24	ZB12	0.16...0.24	DILM7-DILM12
ZB12-0-4	ZB12	0.24...0.4	DILM7-DILM12
ZB12-0-6	ZB12	0.4.....0.6	DILM7-DILM12
ZB12-1	ZB12	0.6.....1	DILM7-DILM12
ZB12-1-6	ZB12	1.....1.6	DILM7-DILM12
ZB12-2-4	ZB12	1.6.....2.4	DILM7-DILM12
ZB12-4	ZB12	2.4.....4	DILM7-DILM12
ZB12-6	ZB12	4.....6	DILM7-DILM12
ZB12-10	ZB12	6.....10	DILM7-DILM12
ZB12-12	ZB12	9.....12	DILM7-DILM12
ZB12-16	ZB12	12.....16	DILM7-DILM12
ZB32-0-16	ZB32	0.1.....0.16	DILM17-DILM32
ZB32-0-24	ZB32	0.16...0.24	DILM17-DILM32
ZB32-0-4	ZB32	0.24...0.4	DILM17-DILM32
ZB32-0-6	ZB32	0.4.....0.6	DILM17-DILM32
ZB32-1	ZB32	0.6.....1	DILM17-DILM32
ZB32-1-6	ZB32	1.....1.6	DILM17-DILM32
ZB32-2-4	ZB32	1.6.....2.4	DILM17-DILM32
ZB32-4	ZB32	2.4.....4	DILM17-DILM32
ZB32-6	ZB32	4.....6	DILM17-DILM32
ZB32-10	ZB32	6.....10	DILM17-DILM32
ZB32-16	ZB32	10.....16	DILM17-DILM32
ZB32-24	ZB32	16.....24	DILM17-DILM32
ZB32-32	ZB32	24.....32	DILM17-DILM32
ZB65-10	ZB65	6.....10	DILM40-DILM65
ZB65-16	ZB65	10.....16	DILM40-DILM65
ZB65-24	ZB65	16.....24	DILM40-DILM65
ZB65-40	ZB65	24.....40	DILM40-DILM65
ZB65-57	ZB65	40.....57	DILM40-DILM65
ZB65-65	ZB65	50.....65	DILM40-DILM65
ZB150-35	ZB150	25.....35	DILM80-DILM170
ZB150-50	ZB150	35.....50	DILM80-DILM170
ZB150-70	ZB150	50.....70	DILM80-DILM170
ZB150-100	ZB150	70.....100	DILM80-DILM170
ZB150-125	ZB150	95.....125	DILM80-DILM170
ZB150-150	ZB150	120....150	DILM80-DILM170
ZB150-175	ZB150	145....175	DILM80-DILM170



Softstarters & Drives

Pages	Content
1	ABB PSR Compact Softstarter
2	ABB PSTX Advanced Softstarter
3	Danfoss MCD202 Compact Softstarter
4	Danfoss MCD500 Advanced Softstarter
5	ABB ACH580 HVAC Inverter
6	ABB ACS580 Industrial Inverter
7	ABB ACS355 General Machinery Drive
8	ABB ACS310 Standard Drive For Pump & Fan
9	ABB ACS150 Basic Compact Variable speed drive
10	ABB ACS55 Miniature Drive
11	Danfoss FC102 HVAC Inverter
12	Danfoss FC302 Industrial Inverter
13	Danfoss FC280 Compact Industrial Drive
14	Danfoss FC51 Microdrive
15	Danfoss FC200 Aqua Drive



ABB PSR Compact Softstarts

The PSR range is the most compact of all the ABB softstarter ranges, thereby making it possible to fit many devices into the same enclosure. The system concept with Manual Motor Starters provides a far more compact starting solution than for example a star delta starter.

Flexible mounting: PSR softstarters from 3 to 45 A are possible to mount on a din rail, ensuring quick and easy mounting. Naturally, all sizes can be screw mounted.

Few settings: The set-up of the PSR is easily done and confirmed using the three clearly marked potentiometers on the front.

Built-in by-pass for energy saving: The built-in by-pass on all sizes does not only save energy it will also ensure the most compact ABB softstarter design and reduce the installation time. Thanks to the reduced heat generation, the softstarter can be mounted inside high IP class enclosures.

Suitable for stopping pumps
Even without using torque control, the PSR range is designed to reduce water hammering and will allow a superior stop compared to the direct stop resulting from a star delta starter or a DOL starter.



Supply Voltage 100-240VAC

Motor Voltage 208-600VAC

Order Code	Type	Motor Power (kW)			Amps
		230V	400V	500V	
1SFA896 103 R7000	PSR3-600-70	0.75	1.5	2.2	3.9
1SFA896 104 R7000	PSR6-600-70	1.5	3	4	6.8
1SFA896 105 R7000	PSR9-600-70	2.2	4	4	9
1SFA896 106 R7000	PSR12-600-70	3	5.5	5.5	12
1SFA896 107 R7000	PSR16-600-70	4	7.5	7.5	16
1SFA896 108 R7000	PSR25-600-70	5.5	11	15	25
1SFA896 109 R7000	PSR30-600-70	7.5	15	18.5	30
1SFA896 110 R7000	PSR37-600-70	7.5	18.5	22	37
1SFA896 111 R7000	PSR45-600-70	11	22	30	45
1SFA896 112 R7000	PSR60-600-70	15	30	37	60
1SFA896 113 R7000	PSR72-600-70	18.5	37	45	72
1SFA896 114 R7000	PSR85-600-70	22	45	55	85
1SFA896 115 R7000	PSR105-600-70	30	55	55	105

Supply Voltage 24VDC

Motor Voltage 208-600VAC

Order Code	Type	Motor Power (kW)			Amps
		230V	400V	500V	
1SFA896 103 R1100	PSR3-600-11	0.75	1.5	2.2	3.9
1SFA896 104 R1100	PSR6-600-11	1.5	3	4	6.8
1SFA896 105 R1100	PSR9-600-11	2.2	4	4	9
1SFA896 106 R1100	PSR12-600-11	3	5.5	5.5	12
1SFA896 107 R1100	PSR16-600-11	4	7.5	7.5	16
1SFA896 108 R1100	PSR25-600-11	5.5	11	15	25
1SFA896 109 R1100	PSR30-600-11	7.5	15	18.5	30
1SFA896 110 R1100	PSR37-600-11	7.5	18.5	22	37
1SFA896 111 R1100	PSR45-600-11	11	22	30	45
1SFA896 112 R1100	PSR60-600-11	15	30	37	60
1SFA896 113 R1100	PSR72-600-11	18.5	37	45	72
1SFA896 114 R1100	PSR85-600-11	22	45	55	85
1SFA896 115 R1100	PSR105-600-11	30	55	55	105

ABB PSTX Advanced Softstarts

The PSTX softstarter is the most advanced softstarter in the ABB product portfolio and is equipped with almost all imaginable features. This makes the PST ideal for almost every application.

The PSTX combines many years of research and product development with extensive knowledge of application specific requirements and needs. The PSTX is our latest advancement in motor control and protection and adds new functionality with increased reliability to any motor starting application.

Main benefits

- Secure motor reliability
- Improve installation efficiency
- Increase application productivity.

Main features

- Three-phase controlled
- Operational voltage: 208-690 V AC
- Wide rated control supply voltage: 100-250 V, 50/60 Hz
- Rated operational current: 30...1250 A (inside delta: 2160 A)
- Coated circuit boards
- Torque control for excellent control of pumps.



Supply Voltage 208-600VAC

Rated control supply voltage, Us, 100 - 250 V AC, 50/60 Hz

Order Code	Type	Motor Power (kW)				Amps
		400V	500V	690V		
1SFA898 103 R7000	PSTX30-600-70	15	18.5	--	30	
1SFA898 104 R7000	PSTX37-600-70	18.5	22	--	37	
1SFA898 105 R7000	PST45-600-70	22	25	--	45	
1SFA898 106 R7000	PSTX60-600-70	30	37	--	60	
1SFA898 107 R7000	PSTX72-600-70	37	45	--	72	
1SFA898 108 R7000	PSTX85-600-70	45	55	--	85	
1SFA898 109 R7000	PSTX105-600-70	55	75	--	106	
1SFA898 110 R7000	PSTX142-600-70	75	90	--	143	
1SFA898 111 R7000	PSTX170-600-70	90	110	--	171	
1SFA898 112 R7000	PSTX210-600-70	110	132	--	210	
1SFA898 113 R7000	PSTX250-600-70	132	160	--	250	
1SFA898 114 R7000	PSTX300-600-70	160	200	--	300	
1SFA898 115 R7000	PSTX370-600-70	200	257	--	370	

Supply Voltage 208-690VAC

Rated control supply voltage, Us, 100 - 250 V AC, 50/60 Hz

Order Code	Type	Motor Power (kW)				Amps
		400V	500V	690V		
1SFA898 203 R7000	PSTX30-690-70	15	18.5	25	30	
1SFA898 204 R7000	PSTX37-690-70	18.5	22	30	37	
1SFA898 205 R7000	PSTX45-690-70	22	25	37	44	
1SFA898 206 R7000	PSTX60-690-70	30	37	55	60	
1SFA898 207 R7000	PSTX72-690-70	37	45	59	72	
1SFA898 208 R7000	PSTX85-690-70	45	55	75	85	
1SFA898 209 R7000	PSTX105-690-70	55	75	90	105	
1SFA898 210 R7000	PSTX142-690-70	75	90	132	142	
1SFA898 211 R7000	PSTX170-690-70	90	110	160	175	
1SFA898 212 R7000	PSXT210-690-70	110	132	184	210	
1SFA898 213 R7000	PSTX250-690-70	132	160	220	250	
1SFA898 214 R7000	PSTX300-690-70	160	200	257	300	
1SFA898 215 R7000	PSTX370-690-70	200	257	355	370	





Danfoss Drives
Authorized
Sales Partner

Danfoss MCD202 Compact Softstarts

The MCD202 series offers easy DIN rail mounting for sizes up to 30 KW, 2 Wire or 3 wire start/ stop control and excellent starting duty (4xI_n for 6 seconds.) Heavy starting ratings at 4xI_n for 20 seconds. Compatible with grounded delta power systems.
The perfect match for: Pumps, fans, compressors, mixers, conveyors and more.

Features: Small footprint and compact size, built in bypass, advanced accessories, advanced SCR control algorithms balance output wave form.

Benefits: Saves panel space, minimises installation cost and eliminates power loss, reduces heat build up savings in components, cooling wiring and labour

Reliable: Essential motor protection, password protection of parameters, max ambient temperature 50°C without derating

Maximum up time: Reduces overall project investment, prevents unauthorized changes, no external cooling or oversizing necessary.

User Friendly: Easy to install and use, easy DIN rail mounting for sizes up to 30kw.



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Supply Voltage 200-440VAC

Order Code (CV3) Control supply voltage 110-240 v / 380-440 v	Order Code (CV1) Control supply voltage 24 v AC/DC	Type	KW motor size	Amps
175G5209	175G5220	MCD202-007-T4-	7.5	18
175G5210	175G5221	MCD202-015-T4-	15	34
175G5211	175G5222	MCD202-018-T4-	18.5	42
175G5212	175G5223	MCD202-022-T4-	22	48
175G5213	175G5224	MCD202-030-T4-	30	60
175G5214	175G5225	MCD202-037-T4-	37	75
175G5215	175G5226	MCD202-045-T4-	45	85
175G5216	175G5227	MCD202-055-T4-	55	100
175G5217	175G5228	MCD202-075-T4-	75	140
175G5218	175G5229	MCD202-090-T4-	90	170
175G5219	175G5230	MCD202-110-T4-	110	200

Supply Voltage 200-575VAC

Order Code (CV3) Control supply voltage 110-240 v / 380-440 v	Order Code (CV1) Control supply voltage 24 v AC/DC	Type	KW motor size	Amps
175G5231	175G5242	MCD202-007-T6-	7.5	18
175G5232	175G5243	MCD202-015-T6-	15	34
175G5233	175G5244	MCD202-018-T6-	18.5	42
175G5234	175G5245	MCD202-022-T6-	22	48
175G5235	175G5246	MCD202-030-T6-	30	60
175G5236	175G5247	MCD202-037-T6-	37	75
175G5237	175G5248	MCD202-045-T6-	45	85
175G5238	175G5249	MCD202-055-T6-	55	100
175G5239	175G5250	MCD202-075-T6-	75	140
175G5240	175G5251	MCD202-090-T6-	90	170
175G5241	175G5252	MCD202-110-T6-	110	200

Danfoss MCD500 Softstarts

The MCD500 is a total motor starting solution. Current transformers measure motor current and provide feedback for controlled motor ramp profiles. The perfect solution for more severe applications; Pumps, conveyors, fans, mixers, compressors, centrifuges, mills, saws and more.

AAC the adaptive Acceleration Control automatically employs the best starting and stopping profile for the application. Adaptive Acceleration Control means that for each start and stop, the soft starter compares and adapts the process to the chosen profile best suited to the application.

The MCD500 has a four line graphical display and logic keypad making programming easy. Advanced setup is possible displaying operational status. Three menu systems; Quick menu, application setup and main menu provide optimum programming approach.

User Friendly: AAC adaptive Acceleration Control, Adjustable busbars allow for both top and bottom entry, DC injection braking distributed evenly over 3 phases, Inside delta, log menus, 99 events and trip log provide information on events, auto reset, jog, internal bypass contactors, auto start/stop clock, compact size, 4 line graph display and multi programming setup.

Benefits: Automatically adapts to the chosen starting and stopping profile, space saving and easy retro fit, eases analysis of the application, less down-time, application flexibility, allows motors to be used to their full potential without damage from overloading.



Supply Voltage 200-525VAC

Order Code (cv2) Control supply voltage 110-120v / 220-240vac	Order Code (cv1) Control supply voltage 24 v AC/DC	Type	Amps	KW motor size	IP Rating
175G5525	175G5500	MCD5-0021B-T5-G1X-20	21	11	20
175G5526	175G5501	MCD5-0037B-T5-G1X-20	37	18.5	20
175G5527	175G5502	MCD5-0043B-T5-G1X-20	43	22	20
175G5528	175G5503	MCD5-0053B-T5-G1X-20	53	25	20
175G5529	175G5504	MCD5-0068B-T5-G1X-20	68	30	20
175G5530	175G5505	MCD5-0084B-T5-G1X-20	84	37	20
175G5531	175G5506	MCD5-0089B-T5-G1X-20	89	45	20
175G5532	175G5507	MCD5-0105B-T5-G1X-20	105	55	20
175G5533	175G5508	MCD5-0131B-T5-G1X-00	131	55	00
175G5534	175G5509	MCD5-0141B-T5-G1X-00	141	75	00
175G5535	175G5510	MCD5-0195B-T5-G1X-00	195	90	00
175G5536	175G5511	MCD5-0215B-T5-G1X-00	215	110	00
175G5537	175G5512	MCD5-0245B-T5-G1X-00	245	132	00
175G5538	175G5513	MCD5-0360B-T5-G1X-00	360	185	00
175G5539	175G5514	MCD5-0380B-T5-G1X-00	380	200	00

Supply Voltage 380-690VAC

Order Code (cv2) Control supply voltage 110-120v / 220-240vac	Order Code (cv1) Control supply voltage 24 v AC/DC	Type	Amps	KW motor size	IP Rating
175G5571	175G5548	MCD5-0021B-T7-G1X-20	21	11	20
175G5572	175G5549	MCD5-0037B-T7-G1X-20	37	18.5	20
175G5573	175G5550	MCD5-0043B-T7-G1X-20	43	22	20
175G5574	175G5551	MCD5-0053B-T7-G1X-20	53	25	20
175G5575	175G5552	MCD5-0068B-T7-G1X-20	68	30	20
175G5576	175G5553	MCD5-0084B-T7-G1X-20	84	37	20
175G5577	175G5554	MCD5-0089B-T7-G1X-20	89	45	20
175G5578	175G5555	MCD5-0105B-T7-G1X-20	105	55	20
175G5579	175G5556	MCD5-0131B-T7-G1X-00	131	55	00
175G5580	175G5557	MCD5-0141B-T7-G1X-00	141	75	00
175G5581	175G5558	MCD5-0195B-T7-G1X-00	195	90	00
175G5582	175G5559	MCD5-0215B-T7-G1X-00	215	110	00
175G5583	175G5560	MCD5-0245B-T7-G1X-00	245	132	00
175G5584	175G5561	MCD5-0360B-T7-G1X-00	360	185	00
175G5585	175G5562	MCD5-0380B-T7-G1X-00	380	200	00



ABB ACH580 HVAC Drive



The next step in HVAC drives

The new ACH580 drives come with a range of advanced features, such as a new primary settings menu that makes commissioning the drives much easier and faster. Bluetooth connectivity improves the accessibility of drives installed in remote areas and increases safety by giving users the ability to stay out of arc flash zones. ACH580 drives are ideal for the HVAC fans, pumps, compressors, air-handling units and chillers used in hospitals, data centers, shopping centers, tunnel ventilation, factories, office buildings, and more.

IP21 Dimensions

Frame Size	H1 (mm)	H2 (mm)	W (mm)	D (mm)	Weight (kg)
R1	303	303	125	223	4.6
R2	394	394	125	227	7.5
R3	454	454	203	228	14.9
R4	600	600	203	258	19
R5	732	596	203	295	28.5
R6	727	549	252	369	45
R7	880	601	284	370	54
R8	965	677	300	393	69
R9	955	680	380	418	97

IP55 Dimensions

Frame Size	H1 (mm)	H2 (mm)	W (mm)	D (mm)	Weight (kg)
R1	303	303	125	233	5.5
R2	394	394	125	239	7.8
R3	454	454	203	237	15.1
R4	600	600	203	265	20
R5	732	596	203	320	29
R6	727	549	252	380	46
R7	880	601	284	381	56
R8	965	677	300	452	77
R9	955	680	380	477	103



H1 = Height with cable connection box
H2 = Height without cable connection box

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Order Code IP21	Order Code IP55	KW	Amps	Frame
ACH580-01-02A7-4	ACH580-01-02A7-4+B056	0.75	2.6	R1
ACH580-01-03A4-4	ACH580-01-03A4-4+B056	1.1	3.3	R1
ACH580-01-04A1-4	ACH580-01-04A1-4+B056	1.5	4	R1
ACH580-01-05A7-4	ACH580-01-05A7-4+B056	2.2	5.6	R1
ACH580-01-07A3-4	ACH580-01-07A3-4+B056	3	7.2	R1
ACH580-01-09A5-4	ACH580-01-09A5-4+B056	4	9.4	R1
ACH580-01-12A7-4	ACH580-01-12A7-4+B056	5.5	12.6	R1
ACH580-01-018A-4	ACH580-01-018A-4+B056	7.5	17	R2
ACH580-01-026A-4	ACH580-01-026A-4+B056	11	25	R2
ACH580-01-033A-4	ACH580-01-033A-4+B056	15	32	R3
ACH580-01-039A-4	ACH580-01-039A-4+B056	18.5	38	R3
ACH580-01-046A-4	ACH580-01-046A-4+B056	22	45	R3
ACH580-01-062A-4	ACH580-01-062A-4+B056	30	62	R4
ACH580-01-073A-4	ACH580-01-073A-4+B056	37	73	R4
ACH580-01-088A-4	ACH580-01-088A-4+B056	45	88	R5
ACH580-01-106A-4	ACH580-01-106A-4+B056	55	106	R5
ACH580-01-145A-4	ACH580-01-145A-4+B056	75	145	R6
ACH580-01-169A-4	ACH580-01-169A-4+B056	90	169	R7
ACH580-01-206A-4	ACH580-01-206A-4+B056	110	206	R7
ACH580-01-246A-4	ACH580-01-246A-4+B056	132	246	R8
ACH580-01-293A-4	ACH580-01-293A-4+B056	160	293	R8
ACH580-01-363A-4	ACH580-01-363A-4+B056	200	363	R9
ACH580-01-430A-4	ACH580-01-430A-4+B056	250	430	R9

ABB ACS580 Drive

The ACS580 is an all-compatible ABB general purpose drive, offered in a range of wall mounted drives, drive modules and cabinet-built drives. It turns complicated to simple to control processes efficiently.

One product, many applications ACS580 drives include all the essential components for typical light industry applications, with a scalable offering from 0.75 kW to 500 kW.

The drive is ready to control compressors, conveyors, mixers, pumps and fans, as well as many other variable and constant torque applications.

IP21 Dimensions

Frame Size	H1 (mm)	H2 (mm)	W (mm)	D (mm)	Weight (kg)
R1	355	301	125	223	4.6
R2	449	394	125	229	7.5
R3	454	454	203	228	14.9
R4	600	600	203	258	19
R5	732	596	203	295	28.5
R6	727	549	252	369	45
R7	880	601	284	370	54
R8	965	677	300	393	69
R9	955	680	380	418	97

IP55 Dimensions

Frame Size	H1 (mm)	W (mm)	D (mm)	Weight (kg)
R1	387	125	233	5.5
R2	481	125	239	6.7
R3	456	206	237	13
R4	600	203	265	20
R5	732	203	320	29
R6	726	252	380	43
R7	880	284	381	56
R8	965	300	452	77
R9	955	380	477	103



H1 = Height with cable connection box
H2 = Height without cable connection box

Order Code IP21	Order Code IP55	KW	Amps	Frame
ACS580-01-02A7-4	ACS580-01-02A7-4+B056	0.75	2.6	R1
ACS580-01-03A4-4	ACS580-01-03A4-4+B056	1.1	3.3	R1
ACS580-01-04A1-4	ACS580-01-04A1-4+B056	1.5	4	R1
ACS580-01-05A7-4	ACS580-01-05A7-4+B056	2.2	5.6	R1
ACS580-01-07A3-4	ACS580-01-07A3-4+B056	3	7.2	R1
ACS580-01-09A5-4	ACS580-01-09A5-4+B056	4	9.4	R1
ACS580-01-12A7-4	ACS580-01-12A7-4+B056	5.5	12.6	R1
ACS580-01-018A-4	ACS580-01-018A-4+B056	7.5	17	R2
ACS580-01-026A-4	ACS580-01-026A-4+B056	11	25	R2
ACS580-01-033A-4	ACS580-01-033A-4+B056	15	32	R3
ACS580-01-039A-4	ACS580-01-039A-4+B056	18.5	38	R3
ACS580-01-046A-4	ACS580-01-046A-4+B056	22	45	R3
ACS580-01-062A-4	ACS580-01-062A-4+B056	30	62	R4
ACS580-01-073A-4	ACS580-01-073A-4+B056	37	73	R4
ACS580-01-088A-4	ACS580-01-088A-4+B056	45	88	R5
ACS580-01-106A-4	ACS580-01-106A-4+B056	55	106	R5
ACS580-01-145A-4	ACS580-01-145A-4+B056	75	145	R6
ACS580-01-169A-4	ACS580-01-169A-4+B056	90	169	R7
ACS580-01-206A-4	ACS580-01-206A-4+B056	110	206	R7
ACS580-01-246A-4	ACS580-01-246A-4+B056	132	246	R8
ACS580-01-293A-4	ACS580-01-293A-4+B056	160	293	R8
ACS580-01-363A-4	ACS580-01-363A-4+B056	200	363	R9
ACS580-01-430A-4	ACS580-01-430A-4+B056	250	430	R9



ABB ACS355 Drive

The ABB general machinery drives are designed to be the fastest drives to install, parameter-set and commission. They are highly compact and cost effective. Equipped with cutting edge intelligence & safety capability the drives are designed specifically to meet the production & performance needs of system integrators, original equipment manufacturers (OEMs) and panel builders, as well as the requirements of end users in a broad range of applications. The drives are ideal for food & beverage, material handling, lifting, textile, printing, rubber & plastics & woodworking applications.

Dimensions

Frame Size	H1 (mm)	H2 (mm)	H3 (mm)	W (mm)	D (mm)	Weight (kg)
R0	169	202	239	70	161	1.2
R1	169	202	239	70	161	1.2
R2	169	202	239	105	165	1.5
R3	169	202	236	169	169	2.5
R4	181	202	244	260	169	4.4

** H1 = Height without fastenings and clamping plate
 ** H2 = Height with fastenings but without clamping plate
 ** H3 = Height with fastenings and clamping plate

230V 1 Phase IP21

Order Code	KW	Amps	Frame
ACS355-01E-02A4-2	0.37	2.4	R0
ACS355-01E-04A7-2	0.75	4.7	R1
ACS355-01E-06A7-2	1.1	6.7	R1
ACS355-01E-07A5-2	1.5	7.5	R2
ACS355-01E-09A8-2	2.2	9.8	R2

230V 3 Phase IP21

Order Code	KW	Amps	Frame
ACS355-03E-02A4-2	0.37	2.4	R0
ACS355-03E-03A5-2	0.55	3.5	R0
ACS355-03E-04A7-2	0.75	4.7	R1
ACS355-03E-06A7-2	1.1	6.7	R1
ACS355-03E-07A5-2	1.5	7.5	R1
ACS355-03E-09A8-2	2.2	9.8	R2
ACS355-03E-13A3-2	3	13.3	R2
ACS355-03E-17A6-2	4	17.6	R2
ACS355-03E-24A4-2	5.5	24.4	R3
ACS355-03E-31A0-2	7.5	31	R4
ACS355-03E-46A2-2	11	46.2	R4

400V 3 Phase IP21

Order Code	KW	Amps	Frame
ACS355-03E-01A2-4	0.37	1.2	R0
ACS355-03E-01A9-4	0.55	1.9	R0
ACS355-03E-02A4-4	0.75	2.4	R1
ACS355-03E-03A3-4	1.1	3.3	R1
ACS355-03E-04A1-4	1.5	4.1	R1
ACS355-03E-05A6-4	2.2	5.6	R1
ACS355-03E-07A3-4	3	7.3	R1
ACS355-03E-08A8-4	4	8.8	R1
ACS355-03E-12A5-4	5.5	12.5	R3
ACS355-03E-15A6-4	7.5	15.6	R3
ACS355-03E-23A1-4	11	23.1	R3
ACS355-03E-31A0-4	15	31	R4
ACS355-03E-38A0-4	18.5	38	R4
ACS355-03E-44A0-4	22	44	R4

Accessories

Order Code	Description
ACS-CP-C	ACS Basic Control Panel
ACS-CP-A	ACS Assistant Control Panel
MUL1-R1	NEMA1 Kit (R0, R1, R2)
MUL1-R3	NEMA1 Kit (R3)
MUL1-R4	NEMA1 Kit (R4)
ACS/H-CP-EXT	ACS/H-CP Panel Extension Cable Kit 3m
ACS/H-CP-EXT-IP66	ACS/H-CP Panel Extension Cable Kit IP66 3m



*** Please note control panels are sold separately, ***
 ** LCP's do not come with this drive **

ABB ACS310 Drive

The ACS310, are dedicated to variable torque applications such as booster pumps and centrifugal fans.

The drive's dedicated pump and fan features lower operating costs, boost energy efficiency and reduce CO2 emissions. Included among these features are built-in PID controllers and PFC (pump and fan control) that varies the drive's performance in response to changes in pressure, flow or other external data.

IP20 Dimensions

Frame Size	H1 (mm)	H2 (mm)	H3 (mm)	W (mm)	D (mm)	Weight (kg)
R0	169	202	239	70	161	1.1
R1	169	202	239	70	161	1.3
R2	169	202	239	105	165	1.5
R3	169	202	236	169	169	2.9
R4	181	202	244	260	169	4.4

** H1 = Height without fastenings and clamping plate
 ** H2 = Height with fastenings but without clamping plate
 ** H3 = Height with fastenings and clamping plate

*** Please note control panels are sold separately, ***
 ** LCP's do not come with this drive **

230V 3 Phase IP20

Order Code	KW	Amps	Frame
ACS310-03E-02A6-2	0.37	2.64	R0
ACS310-03E-03A9-2	0.55	3.85	R0
ACS310-03E-05A2-2	0.75	5.17	R1
ACS310-03E-07A4-2	1.1	7.37	R1
ACS310-03E-08A3-2	1.5	8.25	R1
ACS310-03E-10A8-2	2.2	10.78	R2
ACS310-03E-14A6-2	3	14.63	R2
ACS310-03E-19A4-2	4	19.36	R2
ACS310-03E-26A8-2	5.5	26.84	R3
ACS310-03E-34A1-2	7.5	34.1	R4
ACS310-03E-50A8-2	11	50.82	R4

400V 3 Phase IP20

Order Code	KW	Amps	Frame
ACS310-03E-01A3-4	0.37	1.3	R0
ACS310-03E-02A1-4	0.55	2.1	R0
ACS310-03E-02A6-4	0.75	2.6	R1
ACS310-03E-03A6-4	1.1	3.6	R1
ACS310-03E-04A5-4	1.5	4.5	R1
ACS310-03E-06A2-4	2.2	6.2	R1
ACS310-03E-08A0-4	3	8	R1
ACS310-03E-09A7-4	4	9.7	R1
ACS310-03E-13A8-4	5.5	13.8	R3
ACS310-03E-17A2-4	7.5	17.2	R3
ACS310-03E-25A4-4	11	25.4	R3
ACS310-03E-34A1-4	15	34.1	R4
ACS310-03E-41A8-4	18.5	41.8	R4
ACS310-03E-48A4-4	22	48.4	R4



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Accessories

Order Code	Description
ACS-CP-C	ACS Basic Control Panel
ACS-CP-A	ACS Assistant Control Panel
MUL1-R1	NEMA1 Kit (R0, R1, R2)
MUL1-R3	NEMA1 Kit (R3)
MUL1-R4	NEMA1 Kit (R4)
ACS/H-CP-EXT	ACS/H-CP Panel Extension Cable Kit 3m
ACS/H-CP-EXT-IP66	ACS/H-CP Panel Extension Cable Kit IP66 3m



ABB ACS150 Drive

ABB component drives are designed to be incorporated into a wide variety of machines such as mixers, conveyors, fans or pumps or anywhere where a fixed speed motor needs to go variable speed motor.

The ABB component drives meet the requirements of OEMs, machinery builders and panel builders. These drives are widely available through the ABB distribution network. The drives are easy to select and provide a range of built-in features as standard including PID control, brake chopper, fixed keypad and speed control potentiometer.

IP20 Dimensions

Frame Size	H1 (mm)	H2 (mm)	H3 (mm)	W (mm)	D (mm)	Weight (kg)
R0	169	202	239	70	142	1.1
R1	169	202	239	70	142	1.3
R2	169	202	239	105	142	1.5

** H1 = Height without fastenings and clamping plate
 ** H2 = Height with fastenings but without clamping plate
 ** H3 = Height with fastenings and clamping plate



230V 1 Phase IP20

Order Code	KW	Amps	Frame
ACS150-01E-02A4-2	0.37	2.4	R0
ACS150-01E-04A7-2	0.75	4.7	R1
ACS150-01E-06A7-2	1.1	6.7	R1
ACS150-01E-07A5-2	1.5	7.5	R2
ACS150-01E-09A8-2	2.2	9.8	R2

230V 3 Phase IP20

Order Code	KW	Amps	Frame
ACS150-03E-02A4-2	0.37	2.4	R0
ACS150-03E-03A5-2	0.55	3.5	R0
ACS150-03E-04A7-2	0.75	4.7	R1
ACS150-03E-06A7-2	1.1	6.7	R1
ACS150-03E-07A5-2	1.5	7.5	R1
ACS150-03E-09A8-2	2.2	9.8	R2

400V 3 Phase IP20

Order Code	KW	Amps	Frame
ACS150-03E-01A2-4	0.37	1.2	R0
ACS150-03E-01A9-4	0.55	1.9	R0
ACS150-03E-02A4-4	0.75	2.4	R0
ACS150-03E-03A3-4	1.1	3.3	R1
ACS150-03E-04A1-4	1.5	4.1	R1
ACS150-03E-05A6-4	2.2	5.6	R1
ACS150-03E-07A3-4	3	7.3	R1
ACS150-03E-08A8-4	4	8.8	R1

ABB ACS55 Drive

ABB component drives meet the requirements of OEMs, installation companies and panel builders. These drives are components that are bought together with other components from a logistical distributor. The drives are stocked, and the number of options and variants is optimized for logistical distribution.

Applications; fans, pumps, gate control, material handling and conveyors.

Highlights; descriptive interface, compact and slim, fast and safe drive configuration with drive config kit, Ideal for dinrail mounting, suitable for domestic environment as standard, silent motor.

IP20 Dimensions

Frame Size	H1 (mm)	H2 (mm)	W (mm)	D (mm)
A	170	146.5	45	128
B	170	146.5	67.5	128
C	194	171	70	159
D	226	203	70	159

** H1 = Height with mounting clip
** H2 = Height without mounting clip



Inbuilt EMC Filter

1-Phase supply voltage 200/240V 3-Phase output 200/240V

Order Code	KW	Amps	Frame
ACS55-01E-01A4-2	0.18	1.4	A
ACS55-01E-02A2-2	0.37	2.2	A
ACS55-01E-04A3-2	0.75	4.3	B
ACS55-01E-07A6-2	1.5	7.6	D
ACS55-01E-09A8-2	2.2	9.8	D

No EMC Filter

1-Phase supply voltage 200/240V 3-Phase output 200/240V

Order Code	KW	Amps	Frame
ACS55-01N-01A4-2	0.18	1.4	A
ACS55-01N-02A2-2	0.37	2.2	A
ACS55-01N-04A3-2	0.75	4.3	B
ACS55-01N-07A6-2	1.5	7.6	C
ACS55-01N-09A8-2	2.2	9.8	C

Inbuilt EMC Filter

1-Phase supply voltage 110/120V 3-Phase output 200/240V

Order Code	KW	Amps	Frame
ACS55-01E-01A4-1	0.18	1.4	A
ACS55-01E-02A2-1	0.37	2.2	A

No EMC Filter

1-Phase supply voltage 110/120V 3-Phase output 200/240V

Order Code	KW	Amps	Frame
ACS55-01N-01A4-1	0.18	1.4	A
ACS55-01N-02A2-1	0.37	2.2	A



Danfoss FC102 HVAC Inverter

The VLT® HVAC Drive series is available in a wide power range designed for all HVAC applications. An advanced drive built on HVAC dedication.

The new VLT® HVAC Drive is the latest series of HVAC drives from Danfoss with built in intelligence. The VLT® HVAC Drive has a vast number of functions developed to meet the diverse needs of the HVAC business. It is the perfect match for pumps, fans and compressors in modern buildings that are fitted with increasingly sophisticated solutions.



IP20 Dimensions

Frame Size	H1 (mm)	H2 (mm)	W (mm)	D (mm)	Max Weight (kg)
1.1 - 4 kw	246	268	90	205	4.9
5.5 - 7.5 kw	246	268	130	205	6.6
11 - 18.5 kw	350	399	165	248	12
22 - 37 kw	460	520	231	242	23.5
45 - 55 kw	490	550	308	333	35
75 - 90 kw	600	660	370	333	50

H1 = Enclosure Height
H2 = Enclosure Height with backplate

IP55 Dimensions

Frame Size	H1 (mm)	H2 (mm)	W (mm)	D (mm)	MaxWeight (kg)
1.1 - 7.5 kw	420	420	242	200	14
11 - 18.5 kw	480	480	242	260	23
22 - 30 kw	650	650	242	260	27
37 - 55 kw	680	680	308	310	45
75 - 90 kw	770	770	370	335	65

H1 = Enclosure Height
H2 = Enclosure Height with backplate



IP20 / IP54 Dimensions

Frame Size	H (mm)	W (mm)	D (mm)	Max Weight (kg)
110- 160 kw (IP20)	909	250	375	62
110 kw (IP54)	909	250	375	62
132-160 kw (IP54)	901	325	378	62

RFI Filters
H1 - Class A1-B
H2 - Class A2

Order Code IP20	Order Code IP55	KW	Amps	Filter
131B4207	131B4221	1.1	3	H1
131B4217	131B3343	1.5	4.1	H1
131B4218	131B4222	2.2	5.6	H1
131B4219	131B4223	3	7.2	H1
131B3489	131B3318	4	10	H1
131B4220	131B4224	5.5	13	H1
131B3603	131B4225	7.5	16	H1
131F0427	131B1277	11	24	H1
131F6631	131B6126	15	32	H1
131F6632	131B3449	18.5	37.5	H1
131F6629	131B4267	22	44	H1
131B5945	131B4268	30	61	H1
131F6630	131B7008	37	73	H1
131F0340	131B7015	45	90	H1
131F0341	131B7025	55	106	H1
131F0342	131B8595	75	147	H1
131F0343	131B6204	90	177	H1
134F0374	134F0380 - (IP54)	110	212	H2
134F0383	134F4247 - (IP54)	132	260	H2
134F0386	134F4252 - (IP54)	160	300	H2

Danfoss FC302 Automation Inverter

The VLT® AutomationDrive is a single drive concept that covers the entire range of application, which is a major benefit in commissioning, operating and maintaining the equipment.

The modular open-technology platform that VLT® AutomationDrive is built on makes it exceptionally adaptable and programmable. Its configurable, user-friendly interface supports local languages and letters.

The perfect solution for: Industrial automation, High dynamic applications, Safety installations.

IP20 Dimensions

Frame Size	H1 (mm)	H2 (mm)	W (mm)	D (mm)	Max Weight (kg)
1.1 - 4 kw	257	268	90	205	4.9
5.5 - 7.5 kw	257	268	130	205	6.6
11 - 15 kw	380	399	165	249	12
18.5 - 30 kw	495	520	230	249	23.5
37 - 45 kw	521	550	308	333	35
55 - 75 kw	631	660	370	333	50

H1 = Enclosure Height

H2 = Enclosure Height with backplate

IP55 Dimensions

Frame Size	H1 (mm)	H2 (mm)	W (mm)	D (mm)	MaxWeight (kg)
1.1 - 7.5 kw	420	420	242	195	14
11 - 15 kw	480	480	242	260	23
18.5 - 22 kw	650	650	242	260	27
30 - 45 kw	680	680	308	310	45
55 - 75 kw	770	770	370	335	65

H1 = Enclosure Height

H2 = Enclosure Height with backplate

IP20 / IP54 Dimensions

Frame Size	H (mm)	W (mm)	D (mm)	Max Weight (kg)
90- 132 kw (IP20)	909	250	375	62
90 - 132 kw (IP54)	901	325	378	62
160 kw (IP20)	1122	350	375	125
160 kw (IP54)	1107	420	378	125

RFI Filters
H1 - Class A1-B
H2 - Class A2

Order Code IP20	Order Code IP55	KW	Amps	Filter
131B0036	131B1976	1.1	3	H1
131B0037	131B1977	1.5	4.1	H1
131B0038	131B1978	2.2	5.6	H1
131B0039	131B1979	3	7.2	H1
131B0040	131B1980	4	10	H1
131B0041	131B1546	5.5	13	H1
131B0042	131B1547	7.5	16	H1
131B9826	131B1168	11	24	H1
131F0430	131B1167	15	32	H1
131F0431	131B1854	18.5	37.5	H1
131B5946	131B1874	22	44	H1
131F0434	131B4575	30	61	H1
131F0437	131B4577	37	73	H1
131F0438	131B4579	45	90	H1
131F0444	131B4582	55	106	H1
131F0445	131B4584	75	147	H1
134F0292	134F0298 - (IP54)	90	177	H2
134F0300	134F0306 - (IP54)	110	212	H2
134F0310	134F0312 - (IP54)	132	260	H2
134F0313	134F0315 - (IP54)	160	300	H2



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Danfoss

Danfoss Drives
Authorized
Sales Partner

The Danfoss FC280 Midi Drive

The FC280 Midi Drive is built with a wide range of features designed to make installing, using, and maintaining the drive as cost-efficient as possible – just set it and forget it.

The VLT Midi Drive will offer 5 enclosure sizes in the extended power range 0.37 kW to 22 kW.

Unlock the true potential of your solutions

For precise and efficient motor control for machine builders in the food and beverage, material handling, and processing industries, the VLT® Midi Drive is ideal. It is strong on control performance, functional safety, and flexible fieldbus communication.

The right mix of features ensures the drive suits your task, whether for conveyor systems, mixers, and packaging systems or driving pumps, fans, and compressors. It's also an easy retrofit for VLT® 2800 in established plants or machine concepts.

*** Please note control panels are sold separately,, LCP's do not come with this drive **

FC280 Models come with Brake as standard.

Part numbers below are for standard with modbus option.

If further options are required please call the sales office as further options are available but these are not modular drives, options need to be added at the time of factory ordering.



Dimensions

	K1	K2	K3	K4	K5
Enclosure Height (mm)	210	272.5	272.5	320	410
Enclosure Width (mm)	75	90	115	135	150
Depth (mm)	168	168	168	245	245
Weight (kg)	2.5	3.6	4.1	9.5	12.5

Accessories

Order Code	Description
132B0254	Control Panel LCP 21 (Numeric)
130B0102	LCP Remote Mounting Kit W 3M Cable

200-240 VAC 3 Phase IP20

Order Code	KW	Amps	Description Code	Frame
134X3042	0.37	2.2	FC-280PK37S2E20H1XXCXXXSXXXAX	K1
134X3053	0.55	3.2	FC-280PK55S2E20H1XXCXXXSXXXAX	K1
134X3054	0.75	4.2	FC-280PK75S2E20H1XXCXXXSXXXAX	K1
134X3055	1.1	6	FC-280P1K1S2E20H1XXCXXXSXXXAX	K1
134X3056	1.5	6.8	FC-280P1K5S2E20H1XXCXXXSXXXAX	K1
134X3057	2.2	9.6	FC-280P2K2S2E20H1XXCXXXSXXXAX	K2

380-480 VAC 3 Phase IP20

Order Code	KW	Amps	Description Code	Frame
134U2184	0.37	1.2	FC-280PK37T4E20H1BXCXXXSXXXAX	K1
134U2978	0.55	1.7	FC-280PK55T4E20H1BXCXXXSXXXAX	K1
134U2979	0.75	2.1	FC-280PK75T4E20H1BXCXXXSXXXAX	K1
134U2980	1.1	3	FC-280P1K1T4E20H1BXCXXXSXXXAX	K1
134U2981	1.5	3.7	FC-280P1K5T4E20H1BXCXXXSXXXAX	K1
134U2982	2.2	5.2	FC-280P2K2T4E20H1BXCXXXSXXXAX	K1
134U2983	3	7	FC-280P3K0T4E20H1BXCXXXSXXXAX	K2
134U2984	4	9.1	FC-280P4K0T4E20H1BXCXXXSXXXAX	K2
134U2985	5.5	12	FC-280P5K5T4E20H1BXCXXXSXXXAX	K2
134U2986	7.5	12	FC-280P7K5T4E20H1BXCXXXSXXXAX	K3
134U2987	11	24	FC-280P11KT4E20H1BXCXXXSXXXAX	K4
134U2988	15	32	FC-280P15KT4E20H1BXCXXXSXXXAX	K4
134U2989	18.5	37.5	FC-280P18KT4E20H1BXCXXXSXXXAX	K5
134U2990	22	42	FC-280P22KT4E20H1BXCXXXSXXXAX	K5



The Danfoss FC51 Microdrive

The VLT® Micro Drive is a general purpose drive that can control AC motors up to 22 kW. It's a small drive with maximum strength and reliability.

RoHS compliant The VLT® Micro Drive is manufactured with respect for the environment, and it complies with the RoHS Directive.

The perfect match for: Industrial appliances, HVAC applications & OEM Micro drives 1.5 kw and up have built in brake chopper.

*** Please note control panels are sold separately,, LCP's do not come with this drive **

200-240 VAC 1 Phase IP20

Order Code	KW	Amps	Frame
132F0001	0.18	1.2	M1
132F0002	0.37	2.2	M1
132F0003	0.75	4.2	M1
132F0005	1.5	6.8	M2
132F0007	2.2	9.6	M3

200-240 VAC 3 Phase IP20

Order Code	KW	Amps	Frame
132F0008	0.25	1.5	M1
132F0009	0.37	2.2	M1
132F0010	0.75	4.2	M1
132F0012	1.5	6.8	M2
132F0014	2.2	9.6	M3
132F0016	3.7	15.2	M3

380-480 VAC 3 Phase IP20

Order Code	KW	Amps	Frame
132F0017	0.37	1.2	M1
132F0018	0.75	4.2	M1
132F0020	1.5	3.7	M2
132F0022	2.2	5.3	M3
132F0024	3	7.2	M3
132F0026	4	9	M3
132F0028	5.5	12	M3
132F0030	7.5	15.5	M3
132F0058	11	23	M4
132F0059	15	31	M4
132F0060	18.5	37	M5
132F0061	22	43	M5



Accessories

Order Code	Description
132B0100	LCP11 Control Panel without potentiometer
132B0101	LCP12 Control Panel with potentiometer
130B0102	LCP Remote Mounting Kit W 3M Cable

Dimensions

	M1 (mm)	M2 (mm)	M3 (mm)	M4 (mm)	M5 (mm)
Height	150	176	239	292	335
Width	70	75	90	125	165
Depth	148	168	194	241	248



Danfoss FC200 AQUA Drive



The VLT AQUA Drive is the perfect match for pumps and blowers in water, wastewater, and irrigation systems. With a wide range of powerful standard and optional features designed specifically for water and wastewater applications, the VLT® AQUA Drive provides the lowest overall cost of ownership of any drive available.

The Aqua drive is designed to optimise the supply of water and save energy while protecting pumps and piping in irrigation systems to reduce downtime and water loss.

IP20 Dimensions

Frame Size	H (mm)	W (mm)	D (mm)	Weight (kg)
0.37 - 4 kw	268	90	205	4.9
5.5 - 7.5 kw	268	130	205	6.6
11 - 18.5 kw	399	165	249	12
22 - 37 kw	520	231	242	23.5
45 - 55 kw	550	308	333	35
75 - 90 kw	660	370	333	50

IP55 Dimensions

Frame Size	H (mm)	W (mm)	D (mm)	Weight (kg)
0.37 - 4 kw	420	200	177	9.7
5.5 - 7.5 kw	420	242	200	14.2
11 - 18.5 kw	480	242	260	23
22 - 30 kw	650	242	260	27
37 - 55 kw	680	308	310	45
75 - 90 kw	770	370	335	65



IP20 / IP54 Dimensions

Frame Size	H (mm)	W (mm)	D (mm)	Max Weight (kg)
110- 160 kw (IP20)	909	250	375	62
110 -160 kw (IP54)	901	325	378	62

RFI Filters
 H1 - Class A1-B
 H2 - Class A2

Order Code IP20	Order Code IP55	KW	Amps	Filter
131B8872	131B8875	0.37	1.3	H1
131B8880	131B8883	0.55	1.8	H1
131B8888	131B8891	0.75	2.4	H1
131B8896	131B8900	1.1	3	H1
131B8290	131F0652	1.5	4.1	H1
131B8906	131B8909	2.2	5.6	H1
131B8914	131B8917	3	7.2	H1
131B8932	131B9332	4.0	10	H1
131B8942	131B8947	5.5	13	H1
131B8289	131B8972	7.5	16	H1
131F6639	131B9001	11	24	H1
131F6644	131B9008	15	32	H1
131F6648	131B9016	18.5	37.5	H1
131F6768	131B9025	22	44	H1
131F6773	131B9038	30	61	H1
131F6778	131B9046	37	73	H1
131F6653	131B9053	45	90	H1
131F6657	131B9064	55	106	H1
131F6661	131B9071	75	147	H1
131F6666	131B9078	90	177	H1
134F0366	134F4168 - (IP54)	110	212	H2
134F0368	134F4108 - (IP54)	132	260	H2
134F0371	134F4175 - (IP54)	160	300	H2

Pages	Content
1	ABB Pilot Devices
2	ABB Pilot Devices
3	Moeller Pushbutton actuators
4	Moeller Pushbutton actuators
5	Economy Pilot Lamps
6	Kraus and Naimer Control Switches
7	Tranilamp TCX Transformers
8	Single Phase Transformers
9	Carlo Gavazzi Thyristors, Timers & 3 Phase Voltage Relays
10	ABB Power supplies, Timers & Relays
11	Finder Relays
12	Carlo Gavazzi Relays & Gewiss UK Standard plug
13	Gewiss Industrial Plugs & Sockets



ABB Pilot Devices Modular Range

Push Button Colours

Add colour code to the end of your order code.

Order code	Description
R	Red
G	Green
Y	Yellow
L	Blue
W	White
B	Black
C	Clear

Push Buttons Non Illuminated

Order code ... (add colour)	Description
MP1-10...	Flush Button Momentary Black Plastic Bezel
MP1-20...	Flush Button Momentary Chrome Plastic Bezel
MP3-10...	Extended Button Momentary Black Plastic Bezel
MP3-20...	Extend Button Momentary Chrome Plastic Bezel
MPM1-10... (R, Y & B only)	40mm momentary Plastic Mushroom button



Push Buttons Illuminated

Order code ... (add colour)	Description
MP1-11...	Flush Button Momentary Black Plastic Bezel
MP1-21...	Flush Button Momentary Chrome Plastic Bezel
MP3-11...	Extended Button Momentary Black Plastic Bezel
MP3-21...	Extend Button Momentary Chrome Plastic Bezel
MPM1-10... (R, Y & B only)	40mm momentary Plastic Mushroom button
MPD1-11... (R, G, Y & C only)	Double Button Green upper, Red lower, no text
MPD2-11... (R, G, Y & C only)	Double Button Green upper, Red lower, text I / O

Pilot Lights

Order code ... (add colour)	Description
ML1-100 (B not available)	Pilot Light Head



Emergency Stop Buttons

Available in red only

Order code	Description
MPET4-10R	Non Illuminated 40mm Twist to Release
MPEP4-10R	Non Illuminated 40mm Pull to Release
MPMT3-11R	Illuminated 40mm Twist to release
MPMP3-11R	Illuminated 40mm Pull to release

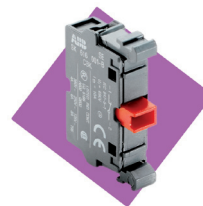
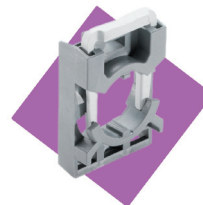
Selector Switches

Order code	Description
M2SS1-10B	Short handle 2 position Maintained Black Plastic Bezel
M3SS1-10B	Short handle 3 position Maintained Black Plastic Bezel
M2SS1-20B	Short handle 2 position Maintained Chrome Plastic Bezel
M3SS1-20B	Short handle 3 position Maintained Chrome Plastic Bezel
M2SSK1-10B	Key Operated 2 position key removable in both positions Black Plastic Bezel
M3SSK1-10B	Key Operated 3 position key removable in all positions Black Plastic Bezel
M2SSK1-20B	Key Operated 2 position key removable in both positions Chrome Plastic Bezel
M3SSK1-20B	Key Operated 3 position key removable in all positions Chrome Plastic Bezel

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Accessories

Order code	Description
MCBH-00	Holders for contact Blocks for all of the above
MCB-10	1 NO Contact Block
MCB-01	1 NC Contact Block
MLB-1	Lamp Block, Max 2W, 230VAC/ DC Filament Bulb or LED
MLB-2	Lamp Block, 115VAC Supply Voltage Max 1.2W, 60v Filament bulb
MLB-3	Lamp Block, 230VAC Supply Voltage Max 2W, 130v Filament bulb
1SFA616920R8120	Legend Plate Holder
1SFA616920R8121	Brushed Aluminium effect blank legend plate
SK615546-2	Metal 70mm Diameter black on yellow "Emergency Stop" Legend Plate



Filament Bulbs

Order code	Description
5911 086-11	Filament bulb 6v 200ma
5911 086-12	Filament bulb 12v 100 ma
5911 086-13	Filament bulb 24v 50 ma
5911 086-4	Filament bulb 30v 40 ma
5911 086-5	Filament bulb 48v 42 ma
5911 086-14	Filament bulb 60v 20 ma
5911 086-7	Filament bulb 110v 18 ma
5911 086-15	Filament bulb 130v 15 ma



LEDS

Order code	Description
KA2-2011	12 VDC Red
KA2-2012	12 VDC Green
KA2-2013	12 VDC Yellow
KA2-2014	12 VDC Blue
KA2-2015	12 VDC White
KA2-2021	24 V AC/DC Red
KA2-2022	24 V AC/DC Green
KA2-2023	24 V AC/DC Yellow
KA2-2024	24 V AC/DC Blue
KA2-2025	24 V AC/DC White
KA2-2131	110-130 V AC Red
KA2-2132	110-130 V AC Green
KA2-2133	110-130 V AC Yellow
KA2-2134	110-130 V AC Blue
KA2-2135	110-130 V AC White
KA2-2221	230 V AC
KA2-2222	230 V AC
KA2-2223	230 V AC
KA2-2224	230 V AC
KA2-2225	230 V AC



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Push Button Colours

Add colour code to the end of your order code.

Order code	Description
S	Black
W	White
R	Red
G	Green
Y	Yellow
B	Blue

Push Buttons

Pushbutton actuator, IP67, 69K Spring Return

Order code ... (add colour)	Description
M22-D-...	Non Illuminated, Flush
M22-DH-...	Non Illuminated, Extended
M22-DL-... (Not available in S)	Illuminated, Flush
M22-DLH-... (Not available in S)	Illuminated, Extended



Double Actuator Push Button

Double Pushbutton, IP67, Spring Return

Order code	Description
M22-DDL-GR-X1/X0	Green upper, Red lower, text I / O
M22-DDL-GR-GB1/GB0	Green upper, Red lower, text Start/ Stop
M22-DDL-WS-X1/X0	White upper, Black lower, text I / O



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Emergency Stop Button

Emergency Stop IP66, IP69K in Red

Order code	Description
M22-PV	Non Illuminated, pull to release
M22-PVL	Illuminated, pull to release
M22-PVT	Non Illuminated, twist to release
M22-PVLT	Illuminated, twist to release
M22-PVS	Key to release



Mushroom Actuators Button

Mushroom Actuators IP67, IP69K Spring Return

Order code	Description
M22-DP- ... (Available in S,R,G & Y)	Mushroom Buttons
M22-DP-R-X0	Mushroom Button Red Text 0



Push Button 4 way

4 Way Push Button, IP66 in Black. Use M22-A4 fixing adaptor.

Order code	Description
M22-D4-S-X7	Spring Return in all positions, 4 direction arrows
M22-D4-S	Spring Return in all positions, no inscription



Indicator Lights

Indicator Lights, IP67, 69K

Order code ... (add colour)	Description
M22-L-... (Not available in S)	Flush
M22-LH-... (Not available in S)	Extended



Selector Switch

Selector switch, IP66 Black

Order code	Description	Position
M22-W	Spring Return Rotary Putton Text I / O	2
M22-WR	Stay-Put Rotary Putton Text I / O	2
M22-WK	Spring Return Thumb Grip	2
M22-WRK	Stayput Thumb Grip	2
M22-W3	Spring Return Rotary Putton Text I / O / II	3
M22-WR3	Stay-Put Rotary Putton Text I / O / II	3
M22-WK3	Spring Return Thumb Grip	3
M22-WRK3	Stay-Put Thumb Grip	3



Illuminated Selector Switch

Illuminated Selector switch, IP66 Thumb Grip

Order code ... (add colour)	Description	Position
M22-WLK -... (Not available in S)	Spring Return Thumb Grip	2
M22-WRLK -... (Not available in S)	Stay-Put Thumb Grip	2
M22-WLK3 -... (Not available in S)	Spring Return Thumb Grip	3
M22-WRLK3 -... (Not available in S)	Stay-Put Thumb Grip	3



Key-Operated Actuators

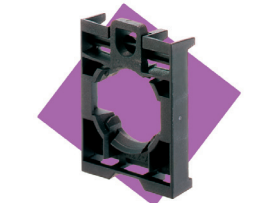
Key-Operated Actuators, IP66 Black

Order code	Description	Position
M22-WS	Spring Return	2
M22-WRS	Stay-Put	2
M22-WRS3	Stay-Put	3



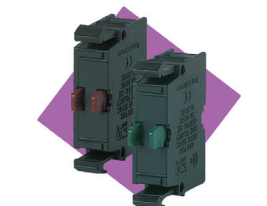
Fixing Adaptors

Order code	Description
M22-A	Fixing Adaptor (Front Fixing) for 3 contact - LED elements
M22-A4	Fixing Adaptor (Front Fixing) for 4 contact blocks



Contact Blocks

Order code	Description
M22-K10	Front Fixing 1 N/O
M22-K01	Front Fixing 1 N/C
M22-KC10	Base Fixing 1 N/O
M22-KC01	Base Fixing 1 N/C



LED Elements

With Screw Terminals

Order code ... (add colour)	Description
M22-LED-... (Not available in S&Y)	Front Fixing 12-30V AC/DC
M22-LED230-... (Not available in S&Y)	Front Fixing 85-264 AC
M22-LEDC-... (Not available in S&Y)	Base Fixing 12-30V AC/DC
M22-LEDC230-... (Not available in S&Y)	Base Fixing 85-264 AC/DC



Surface Mounting Enclosure

White, IP67, IP69K High Grade Steel Screws, base colour anthracite.

Order code	Description
M22-I1	Number of ways - 1
M22-I2	Number of ways - 2
M22-I3	Number of ways - 3
M22-I4	Number of ways - 4
M22-I6	Number of ways - 6



Economy LED Pilot Lamps

22.5mm IP65

Standard Pilot Lamp

Order code	Description	Voltage	Colour
AD56DS-24B	Pilot Lamp	24V AC/DC	Blue
AD56DS-24PG	Pilot Lamp	24V AC/DC	Green
AD56DS-24R	Pilot Lamp	24V AC/DC	Red
AD56DS-24W	Pilot Lamp	24V AC/DC	White
AD56DS-24Y	Pilot Lamp	24V AC/DC	Yellow
AD56DS-110B	Pilot Lamp	110V AC	Blue
AD56DS-110PG	Pilot Lamp	110V AC	Green
AD56DS-110R	Pilot Lamp	110V AC	Red
AD56DS-110W	Pilot Lamp	110V AC	White
AD56DS-110Y	Pilot Lamp	110V AC	Yellow
AD56DS-230B	Pilot Lamp	230V AC	Blue
AD56DS-230PG	Pilot Lamp	230V AC	Green
AD56DS-230R	Pilot Lamp	230V AC	Red
AD56DS-230W	Pilot Lamp	230V AC	White
AD56DS-230Y	Pilot Lamp	230V AC	Yellow



Pilot Lamp With Test Function

Order code	Description	Voltage	Colour
AD56LT-24BD	Pilot Lamp With Test Function	24V DC	Blue
AD56LT-24PGD	Pilot Lamp With Test Function	24V DC	Green
AD56LT-24RD	Pilot Lamp With Test Function	24V DC	Red
AD56LT-24WD	Pilot Lamp With Test Function	24V DC	White
AD56LT-24YD	Pilot Lamp With Test Function	24V DC	Yellow
AD56LT-24B	Pilot Lamp With Test Function	24V AC	Blue
AD56LT-24PG	Pilot Lamp With Test Function	24V AC	Green
AD56LT-24R	Pilot Lamp With Test Function	24V AC	Red
AD56LT-24W	Pilot Lamp With Test Function	24V AC	White
AD56LT-24Y	Pilot Lamp With Test Function	24V AC	Yellow
AD56LT-110B	Pilot Lamp With Test Function	110V AC	Blue
AD56LT-110PG	Pilot Lamp With Test Function	110V AC	Green
AD56LT-110R	Pilot Lamp With Test Function	110V AC	Red
AD56LT-110W	Pilot Lamp With Test Function	110V AC	White
AD56LT-110Y	Pilot Lamp With Test Function	110V AC	Yellow
AD56LT-230B	Pilot Lamp With Test Function	230V AC	Blue
AD56LT-230PG	Pilot Lamp With Test Function	230V AC	Green
AD56LT-230R	Pilot Lamp With Test Function	230V AC	Red
AD56LT-230W	Pilot Lamp With Test Function	230V AC	White
AD56LT-230Y	Pilot Lamp With Test Function	230V AC	Yellow



Flashing Pilot Lamp

Order code	Description	Voltage	Colour
AD56DF-G24	Flashing Pilot Lamp	24V AC/DC	Green
AD56DF-R24	Flashing Pilot Lamp	24V AC/DC	Red
AD56DF-G110	Flashing Pilot Lamp	110V AC	Green
AD56DF-R110	Flashing Pilot Lamp	110V AC	Red
AD56DF-G230	Flashing Pilot Lamp	230V AC	Green
AD56DF-R230	Flashing Pilot Lamp	230V AC	Red



Economy Buzzer

Order code	Description	Voltage	Colour
AD56-S-24	Buzzer	24V AC/DC	Black
AD56-S-110	Buzzer	110V AC	Black
AD56-S-230	Buzzer	230V AC	Black



Kraus and Naimer Control Switches

10 Amp Switch

With Rear Access Terminal Screws

Order code	No. of Poles	No. Of Positions	Type
CG4A 200-600FS1	1	2	Off / On
CG4A 201-600FS1	2	2	Off / On
CG4A 202-600FS1	3	2	Off / On
CG4A 203-600FS1	4	2	Off / On
CG4A 210-600FS1	1	3	Change over with Off
CG4A 211-600FS1	2	3	Change over with Off
CG4A 212-600FS1	3	3	Change over with Off
CG4A 213-600FS1	4	3	Change over with Off
CG4A 220-600FS1	1	2	Change over without Off
CG4A 221-600FS1	2	2	Change over without Off
CG4A 222-600FS1	3	2	Change over without Off
CG4A 223-600FS1	4	2	Change over without Off
CG4A 230-600FS1	1	3	3 Step without Off
CG4A 250-600FS1	2	3	3 Step without Off
CG4A 270-600FS1	3	3	3 Step without Off
CG4A 231-600FS1	1	4	4 Step without Off
CG4A 251-600FS1	2	4	4 Step without Off
CG4A 271-600FS1	3	4	4 Step without Off



20 Amp Switch

With Side Access Terminal Screws

Order code	No. of Poles	No. Of Positions	Type
CA10A 200-600FT1	1	2	Off / On
CA10A 201-600FT1	2	2	Off / On
CA10A 202-600FT1	3	2	Off / On
CA10A 203-600FT1	4	2	Off / On
CA10A 210-600FT1	1	3	Change over with Off
CA10A 211-600FT1	2	3	Change over with Off
CA10A 212-600FT1	3	3	Change over with Off
CA10A 213-600FT1	4	3	Change over with Off
CA10A 220-600FT1	1	2	Change over without Off
CA10A 221-600FT1	2	2	Change over without Off
CA10A 222-600FT1	3	2	Change over without Off
CA10A 223-600FT1	4	2	Change over without Off
CA10A 230-600FT1	1	3	3 Step without Off
CA10A 250-600FT1	2	3	3 Step without Off
CA10A 270-600FT1	3	3	3 Step without Off
CA10A 231-600FT1	1	4	4 Step without Off
CA10A 251-600FT1	2	4	4 Step without Off
CA10A 271-600FT1	3	4	4 Step without Off





amethyst TCX Transformers



TCX range of standard transformers provide a low cost high quality solution where double-wound transformers are required with standard primary and secondary voltages. TCX type are 1 input and 1 output only. Ideal for Control Panel Builders and Original Equipment Manufacturers and are suitable for mounting on back-plates or in enclosures.

Standard Specification

- Shrouded terminal blocks used up to 3kVA
- Design optimises size and efficiency, whilst giving a small footprint
- Earth screen fitted between primary and secondary windings
- Transformers impregnated with a polyester varnish to reduce vibration and noise from the laminations and windings
- Conform to the general requirements of BSEN61558
- Insulation to BS2757 ClassE(IEC 85)
- Maximum operating ambient temperature of 30°C without derating
- All transformers are CE labelled in accordance with the L.V. Directive



TCX/50



TCX/100

VA Ratings (add to Order code)

- 25
- 50
- 100
- 150
- 200
- 250
- 300
- 500
- 750
- 1000

Order code	Input V	Output V
TCX/....(Insert VA rating) - 1	0-415	0-240
TCX/....(Insert VA rating) - 2	0-240	0-110
TCX/....(Insert VA rating) - 3	0-415	0-110
TCX/....(Insert VA rating) - 4		
TCX/....(Insert VA rating) - 5	0-415	0-24
TCX/....(Insert VA rating) - 6	0-240	0-24

7

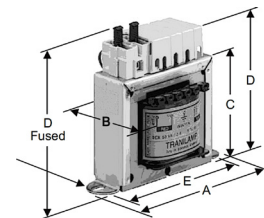
Example of order code **TCX25-2** = 25VA Transformer with an input of 0-240V and an output of 0-110V. If you require Fused Primary add an 'F' at the end of the order code.

**** Please contact us for a more extensive range of Transformers.**

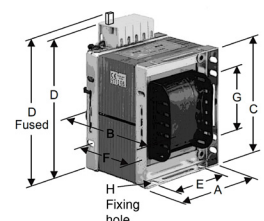
Data & Dimensions

VA Rating	Maximum Dimensions mm				Fixing Dimensions mm				Kg Weight	IP23 Enclosure	% V Reg	95%	90%	
	A	B	C	D	D Fused	E	F	G						H
25	99	50	57	78	87	84	-	-	5x8	0.7	ENV0	12	35	45
50	107	56	66	86	96	93	-	-	5x8	1.0	ENV0	10	70	90
100	83	78	100	119	129	63	53	63	4x7	2.3	ENV1	8	160	220
150	83	90	100	119	129	63	66	63	4x7	3.0	ENV1	9	250	350
200	99	92	118	139	149	64	57	63	5x9	3.5	ENV1	8	400	600
250	99	92	118	139	149	63	57	63	5x9	3.6	ENV1	8	450	675
300	99	105	118	139	149	63	66	63	5x9	4.5	ENV1	7	500	800
500	115	128	137	154	164	89	86	89	6x11	7.3	ENV3	5	800	1.25k
750	115	138	137	164	167	89	95	89	6x11	9.0	ENV3	5	1.5k	2k
1000	140	135	167	194	197	89	88	89	7x13	11.3	ENV3	4	2k	3.5k

25 - 50 VA



100 - 1000 VA



SV Single Phase Transformers

Designed to EN 61558-1: Class E insulation, high specification with IP20 touch proof terminals and class F varnish impregnation and core earth connection. Ambient temperature range -10°C to +35°C. Easy to install and with a DIN rail mounting option up to 150 VA.

Order Code	Primary Input
P4	0-240v 50/60hz
P5	0-415v 50/60hz

Order Code	Secondary Output
S4	0-110v
S5	0-240v
S6	0-24v



Order Code

Transformer Type (add to Order code)	+	VA Ratings (add to Order code)	+	Primary Input (add to Order code)	+	Secondary Output (add to Order code)
SV		25		P4		S4
		50		P5		S5
		100				S6
		150				
		200				
		250				
		300				
		400				
		500				
		750				
		1000				

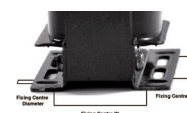
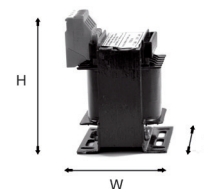


The Order code consists of, **Transformer Type + VA + Primary Input Voltage + Secondary Output Voltage**
 Example of order code **SV 50 P4 S6** = 50VA Transformer with an input of 0-240V and an output of 0-24V.

** Please contact us for a more extensive range of Transformers.

Data & Dimensions

VA Rating	Maximum Dimensions			Fixing Dimensions			Kg Weight	95% Inr VA	90% Inr VA
	L (mm)	W (mm)	H (mm)	L (mm)	W (mm)	Dia. (mm)			
25	66	60	76	50	40	5	0.7	35	60
50	75	65	88	56	45	5	1.00	60	85
100	85	70	93	64	47	5	1.50	150	225
150	96	76	103	84	59	5	2.30	250	400
200	96	87	103	84	69	5	2.80	350	600
250	120	88	120	90	70	5	3.90	400	750
300	120	100	120	90	82	5	4.70	650	1 k
400	120	108	120	90	90	5	5.50	900	1.5 k
500	120	120	120	90	102	5	6.20	1.2 k	1.75 k
750	150	108	145	122	84	6	7.60	2.2 k	3.8 k
1000	150	125	145	122	101	6	9.80	3.0 k	5.5 k





Thyristors (solid state relays)

The Carlo Gavazzi thyristors are designed to eliminate the problems of interfacing BMS (Building Management System) or other analogue output controllers to solid state relays (Thyristors) in heating applications. The innovative A/D input circuitry enables full-cycle control of the heater load with linear transfer.

The benefits over conventional systems include:
 Easy installation
 Reduced wiring
 Lower cost
 Space saving
 Reduced electromagnetic emissions.



Single phase (0-10v signal)

Order Code	Current rating	Description
RGC1P23V30ED	30A	85-265VAC, 24VAC/DC Supply
RGC1P23V42ED	43A	85-265VAC, 24VAC/DC Supply

3 Phase 2 Pole Switching (0-10v, 0-5v, 1-5v signal)

Order Code	Current rating (per phase)	Description	Heat Dissipation
RGC2P60V25C1DM	25A	180-660v AC, 24v AC/DC	60 w
RGC2P60V40C1DM	40A	180-660v AC, 24v AC/DC	105 w
RGC2P60V75C1DFM	75A	180-660v AC, 24v AC/DC, with fan	190 w



3 Phase 3 Pole Switching (0-10v, 0-5v, 1-5v signal)

Order Code	Current rating (per phase)	Description	Heat Dissipation
RGC3P60V20C1DM	20A	180-660v AC, 24v AC/DC	65 w
RGC3P60V30C1DM	30A	180-660v AC, 24v AC/DC	115 w
RGC3P60V65C1DFM	65A	180-660v AC, 24v AC/DC, with fan	235 w

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Timers

Multi function timer

Order Code	No of Functions	Time Range	Voltage
DMB51CM24	7	0.1s-100h	24VDC and 24-240 VAC

Star delta timer

Order Code	No of Functions	Time Range	Voltage
DAC51-CM24	0.1-600s	50-130ms	24VDC and 24-240 VAC



Three phase voltage relays

Order Code	Description	Measuring Range	Max Load AC1	Max Load DC12
DPA01CM44	Phase sequence total and partial phase loss	208 - 480 VAC	8A / 250 VAC	5A / 24 VDC
DPA51CM44	Phase sequence total and partial phase loss	208 - 480 VAC	5A / 250 VAC	5A / 24 VDC
DPC01DM48	Over and under voltage monitoring with phase loss phase sequence and asymmetry	380 - 480 VAC	8A / 250 VAC	5A / 24 VDC



ABB Power supplies

CP-E Range Economy

Type Code	Input Voltage	Output Voltage / Current	Order Code
CP-E 5/3.0	100-240 V AC	5VDC / 3.0A	1SVR 427 033 R3000
CP-E 12/2.5	100-240 V AC	12VDC / 2.5A	1SVR 427 032 R1000
CP-E 12/10.0	100-240 V AC	12VDC / 10.0A	1SVR 427 035 R1000
CP-E 24/0.75	100-240 V AC	24VDC / 0.75A	1SVR 427 030 R0000
CP-E 24/1.25	100-240 V AC	24VDC / 1.25A	1SVR 427 031 R0000
CP-E 24/2.5	100-240 V AC	24VDC / 2.5A	1SVR 427 032 R0000
CP-E 24/5.0	100-240 V AC	24VDC / 5.0A	1SVR 427 034 R0000
CP-E 24/10.0	100-240 V AC	24VDC / 10.0A	1SVR 427 035 R0000
CP-E 24/20.0	100-240 V AC	24VDC / 20.0A	1SVR 427 036 R0000
CP-E 48/0.62	100-240 V AC	48VDC / 0.62A	1SVR 427 030 2000
CP-E 48/1.25	100-240 V AC	48VDC / 1.25A	1SVR 427 031 R2000
CP-E 48/5.0	100-240 V AC	48VDC / 5.0A	1SVR 427 034 R2000
CP-E 48/10.0	100-240 V AC	48VDC / 10.0A	1SVR 427 035 R2000



CP-S Standard Range

Type Code	Input Voltage	Output Voltage / Current	Order Code
CP-S 24/5.0	100-240 V AC	24VDC / 5.0A	1SVR 427 014 R0000
CP-S 24/10.0	100-240 V AC	24VDC / 10.0A	1SVR 427 015 R0100
CP-S 24/20.0	100-240 V AC	24VDC / 20.0A	1SVR 427 016 R0100



CP-C Compact Range

Type Code	Input Voltage	Output Voltage / Current	Order Code
CP-C 24/5.0	100-240 V AC	24VDC / 5.0A	1SVR 427 024 R0000
CP-C 24/10.0	100-240 V AC	24VDC / 10.0A	1SVR 427 025 R0000
CP-C 24/20.0	100-240 V AC	24VDC / 20.0A	1SVR 4270 26 R0000



Timers

Multi function timer

Type Code	Order Code	No of Functions	Time Range	Voltage
CT-MFD	1SVR 500 020 R0000	7	0.05s - 100h	24 - 48 VDC and 24-240 VAC

Star delta timer

Type Code	Order Code	Star Time Range	Time Range	Voltage
CT-SDS-22P	1SVR 740 210 R3300	0.05-600	0.05 -10 min	24 - 48 VDC and 24-240 VAC



Relays

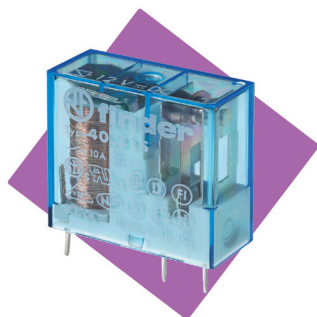
Type Code	Order Code	Description	Current ranges	Supply voltage
CM-LWN-5A	1SVR 450 335 R0000	Motor load monitor	0.5 - 5A	24 - 240 VAC / DC
CM-LWN-20A	1SVR 450 335 R0100	Motor load monitor	2 - 20A	24 - 240 VAC / DC
CM-MSE	1SVR 550 801 R9300	Thermistor motor protection relay	na	220 - 240 VAC



Finder Relays

Order Code	Poles	Pin	Amps	Description	Voltage
4031-7012	1	5	10	Miniature PCB plug in relay, 3.5mm pin pitch	12VDC
4031-7024	1	5	10	Miniature PCB plug in relay, 3.5mm pin pitch	24VDC
4031-8012	1	5	10	Miniature PCB plug in relay, 3.5mm pin pitch	12VAC
4031-8024	1	5	10	Miniature PCB plug in relay, 3.5mm pin pitch	24VAC
4031-8110	1	5	10	Miniature PCB plug in relay, 3.5mm pin pitch	110VAC
4031-8230	1	5	10	Miniature PCB plug in relay, 3.5mm pin pitch	230VAC
4052-7012	2	8	8	Miniature PCB plug in relay, 5mm pin pitch	12VDC
4052-7024	2	8	8	Miniature PCB plug in relay, 5mm pin pitch	24VDC
4052-8012	2	8	8	Miniature PCB plug in relay, 5mm pin pitch	12VAC
4052-8024	2	8	8	Miniature PCB plug in relay, 5mm pin pitch	24VAC
4052-8110	2	8	8	Miniature PCB plug in relay, 5mm pin pitch	110VAC
4052-8230	2	8	8	Miniature PCB plug in relay, 5mm pin pitch	230VAC
5533-9012	3	11	10	General purpose plug in relay	12VDC
5533-9024	3	11	10	General purpose plug in relay	24VDC
5533-8012	3	11	10	General purpose plug in relay	12VAC
5533-8024	3	11	10	General purpose plug in relay	24VAC
5533-8110	3	11	10	General purpose plug in relay	110VAC
5533-8230	3	11	10	General purpose plug in relay	230VAC
5534-9012-40	4	14	7	General purpose plug in relay with lockable test button & mechanical indicator	12VDC
5534-9024-40	4	14	7	General purpose plug in relay with lockable test button & mechanical indicator	24VDC
5534-8012-40	4	14	7	General purpose plug in relay with lockable test button & mechanical indicator	12VAC
5534-8024-40	4	14	7	General purpose plug in relay with lockable test button & mechanical indicator	24VAC
5534-8110-40	4	14	7	General purpose plug in relay with lockable test button & mechanical indicator	110VAC
5534-8230-40	4	14	7	General purpose plug in relay with lockable test button & mechanical indicator	230VAC

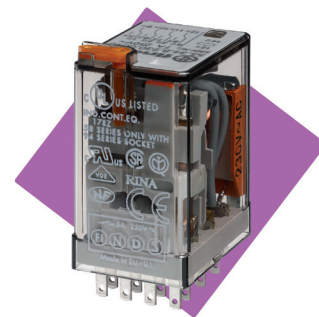
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4031 - Relays



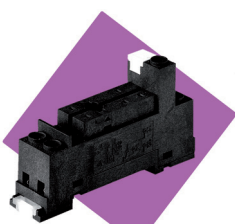
4052 - Relays



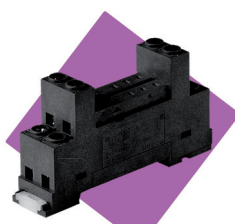
5534 - Relays

Relay Bases

Order Code	Poles	Pin	Description
9563-B	1	5	Din rail mounted black relay base
9565-B	2	8	Din rail mounted black relay base
9403-B	3	11	Din rail mounted black relay base (ferrules)
9473-B	3	11	Din rail mounted black relay base
9404-B	4	14	Din rail mounted black relay base (ferrules)
9474-B	4	14	Din rail mounted black relay base



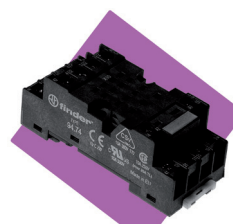
9563



9565



9404



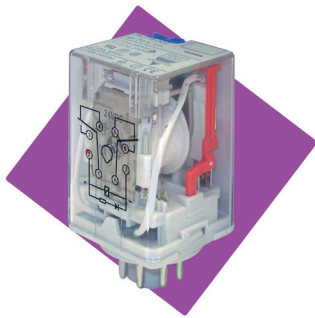
9474



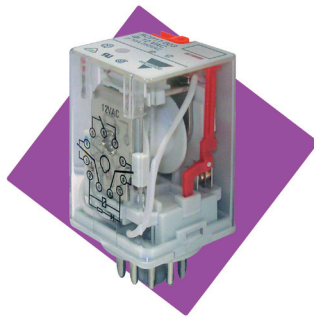


Carlo Gavazzi Relays

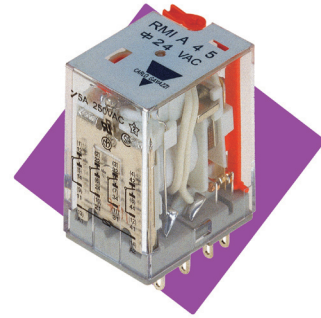
Order Code	Poles	Pin	Amps	Description	Voltage
RCP800224VDC	2	8	10	Test flag LED octal relay	24VDC
RCP800224VAC	2	8	10	Test flag LED octal relay	24VAC
RCP800115VAC	2	8	10	Test flag LED octal relay	115VAC
RCP800230VAC	2	8	10	Test flag LED octal relay	230VAC
RCP1100324VDC	3	11	10	Test flag LED undecal relay	24VDC
RCP1100324VAC	3	11	10	Test flag LED undecal relay	24VAC
RCP11003115VAC	3	11	10	Test flag LED undecal relay	115VAC
RCP11003230VAC	3	11	10	Test flag LED undecal relay	230VAC
RMIA4512VDC	4	14	10	Test flag LED relay	12VDC
RMIA4524VDC	4	14	10	Test flag LED relay	24VDC
RMIA4524VAC	4	14	10	Test flag LED relay	24VAC
RMIA45115VAC	4	14	10	Test flag LED relay	115VAC
RMIA45230VAC	4	14	10	Test flag LED relay	230VAC



RCP8 - Relays



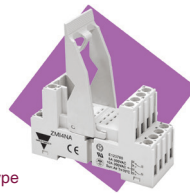
RCP11 - Relays



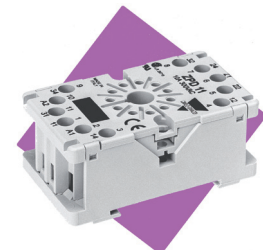
RMI - Relays

Relay Bases

Order Code	Poles	Pin	Description
ZPD8A	2	8	Din rail base for RCP8
ZPD11XA	3	11	Din rail base for RCP11
ZMI4NA	4	14	Din rail base for RMIA4



ZMI Type



ZPD Type

Gewiss Standard UK Plug

Order Code	Description
GW20208	British standard socket outlet 2P+E 13A For plug pins flat No. System modules 2
GW26410	Mounting system for the Above

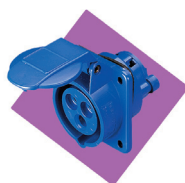


Industrial Plugs & Sockets Gewiss



Nominal Voltage (V)	Amps (A)	No. Poles	IP44 Standard Plug Order Code	IP67 Standard Plug Order Code	IP44 Connectors Order Code	IP67 Connectors Order Code
110 (110 - 130)	16	2P + E	GW 60 001 H	GW 60 023 H	GW 62 001 H	GW 62 023 H
110 (110 - 130)	16	3P + E	GW 60 002 H	GW 60 024 H	GW 62 002 H	GW 62 024 H
110 (110 - 130)	16	3P + N + E	GW 60 003 H	GW 60 025 H	GW 62 003 H	GW 62 025 H
230 (200 - 250)	16	2P + E	GW 60 004 H	GW 60 026 H	GW 62 004 H	GW 62 026 H
230 (200 - 250)	16	3P + E	GW 60 005 H	GW 60 027 H	GW 62 005 H	GW 62 027 H
230 (200 - 250)	16	3P + N + E	GW 60 006 H	GW 60 028 H	GW 62 006 H	GW 62 028 H
400 (380 - 415)	16	2P + E	GW 60 007 H	GW 60 029 H	GW 62 007 H	GW 62 029 H
400 (380 - 415)	16	3P + E	GW 60 008 H	GW 60 030 H	GW 62 008 H	GW 62 030 H
400 (380 - 415)	16	3P + N + E	GW 60 009 H	GW 60 031 H	GW 62 009 H	GW 62 031 H
110 (110 - 130)	32	2P + E	GW 60 012 H	GW 60 034 H	GW 62 012 H	GW 62 034 H
110 (110 - 130)	32	3P + E	GW 60 013 H	GW 60 035 H	GW 62 013 H	GW 62 035 H
110 (110 - 130)	32	3P + N + E	GW 60 014 H	GW 60 036 H	GW 62 014 H	GW 62 036 H
230 (200 - 250)	32	2P + E	GW 60 015 H	GW 60 037 H	GW 62 015 H	GW 62 037 H
230 (200 - 250)	32	3P + E	GW 60 016 H	GW 60 038 H	GW 62 016 H	GW 62 038 H
230 (200 - 250)	32	3P + N + E	GW 60 017 H	GW 60 039 H	GW 62 017 H	GW 62 039 H
400 (380 - 415)	32	2P + E	GW 60 018 H	GW 60 040 H	GW 62 018 H	GW 62 040 H
400 (380 - 415)	32	3P + E	GW 60 019 H	GW 60 041 H	GW 62 019 H	GW 62 041 H
400 (380 - 415)	32	3P + N + E	GW 60 020 H	GW 60 042 H	GW 62 020 H	GW 62 042 H

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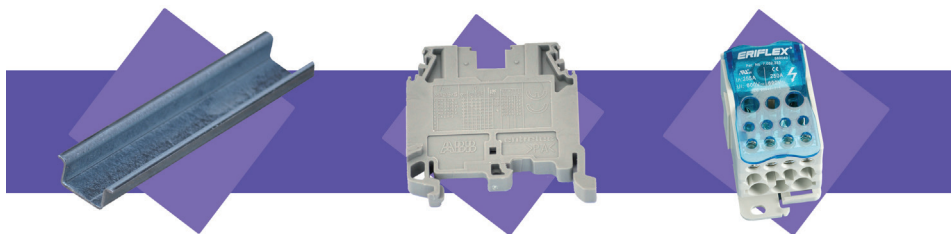


Nominal Voltage (V)	Amps (A)	No. Poles	10° Angled IP44 Flush mounting Receptacles Order Code	10° Angled IP67 Flush mounting Receptacles Order Code	90° Angled IP44 Surface mounting Receptacles Order Code	90° Angled IP67 Surface mounting Receptacles Order Code
110 (110 - 130)	16	2P + E	GW 62 201 H	GW 62 224 H	GW 62 474	GW 62 496
110 (110 - 130)	16	3P + E	GW 62 202 H	GW 62 225 H	GW 62 475	GW 62 497
110 (110 - 130)	16	3P + N + E	GW 62 203 H	GW 62 226 H	GW 62 476	GW 62 498
230 (200 - 250)	16	2P + E	GW 62 205 H	GW 62 227 H	GW 62 477	GW 62 499
230 (200 - 250)	16	3P + E	GW 62 206 H	GW 62 228 H	GW 62 478	GW 62 501
230 (200 - 250)	16	3P + N + E	GW 62 207 H	GW 62 229 H	GW 62 479	GW 62 502
400 (380 - 415)	16	2P + E	GW 62 208 H	GW 62 230 H	GW 62 480	GW 62 503
400 (380 - 415)	16	3P + E	GW 62 209 H	GW 62 231 H	GW 62 481	GW 62 504
400 (380 - 415)	16	3P + N + E	GW 62 210 H	GW 62 232 H	GW 62 482	GW 62 505
110 (110 - 130)	32	2P + E	GW 62 213 H	GW 62 235 H	GW 62 485	GW 62 508
110 (110 - 130)	32	3P + E	GW 62 214 H	GW 62 236 H	GW 62 486	GW 62 509
110 (110 - 130)	32	3P + N + E	GW 62 215 H	GW 62 237 H	GW 62 487	GW 62 510
230 (200 - 250)	32	2P + E	GW 62 216 H	GW 62 238 H	GW 62 488	GW 62 511
230 (200 - 250)	32	3P + E	GW 62 217 H	GW 62 239 H	GW 62 489	GW 62 512
230 (200 - 250)	32	3P + N + E	GW 62 218 H	GW 62 240 H	GW 62 490	GW 62 513
400 (380 - 415)	32	2P + E	GW 62 219 H	GW 62 241 H	GW 62 491	GW 62 514
400 (380 - 415)	32	3P + E	GW 62 220 H	GW 62 242 H	GW 62 492	GW 62 515
400 (380 - 415)	32	3P + N + E	GW 62 221 H	GW 62 243 H	GW 62 493	GW 62 516

Please check with sales staff on availability, alternative branded and unbranded plugs also available.

Power & Distribution

Pages	Content
1	ABB Entelec Standard Rail Mounted Terminals
2	ABB Entelec Standard Rail Mounted & Power Terminals
3	ABB Entelec End Stops and Marker Cards
4	ABB Entelec Marker Cards & Din Rail
5	ABB Entelec SNK Range Standard Terminals
6	ABB Entelec SNK Range Standard Terminals
7	Erico Busbars
8	Erico Earthing & Neutral Bars & Braids
9	Erico Low Voltage Insulators
10	Erico Distribution Blocks

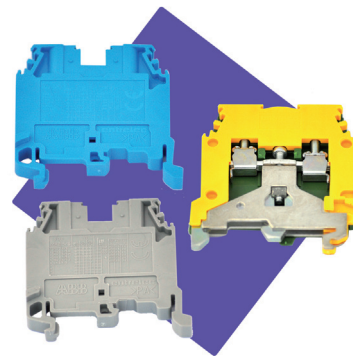


Entrelec Rail Mounted Terminals (Screw Clamp)

Suitable for mounting on either top-hat or G section din rail.
Available in standard grey polypropylene, or in other colours on request - (eg yellow, red, blue, black, orange, green)
All terminals are CE marked to comply with the latest EEC directives
All terminals are UL and CSA recognised.

Marker cards can be supplied with the standard legends, or, we are able to supply specialist markings to your instruction using computerised marking equipment.

Please note Jumper Bar available in: 2,3,4,5 & 10 Pole
Unless Otherwise Stated. (Add poles to the end of part number)



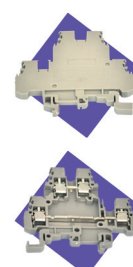
Feed Through Terminal Blocks

Colour	Entrelec Order Code	Descriptive Order Code	Spacing mm	Max wire size mm ²	End Section Order Code	Jumper bar Order Code
Standard Grey	011548603	MA2.5/5	5	2.5	FEM6	BJMI5.....(add Poles)
Neutral (Blue)	012548605	MA2.5/5-N	5	2.5	FEM6	BJMI5.....(add Poles)
Earth	016548827	MA2.5/5-P	5	2.5	FEM6	BJMI5.....(add Poles)
Standard Grey	011511607	M4/6	6	4	FEM6	BJMI6.....(add Poles)
Neutral (Blue)	012511601	M4/6-N	6	4	FEM6	BJMI6.....(add Poles)
Earth	016511316	M4/6-P	6	4	FEM6	BJMI6.....(add Poles)
Standard Grey	011511811	M6/8	8	6	FEM6	BJMI8.....(add Poles)
Neutral (Blue)	012511813	M6/8-N	8	6	FEM6	BJMI8.....(add Poles)
Earth	016511417	M6/8-P	8	6	FEM6	BJMI8.....(add Poles)
Standard Grey	011512017	M10/10	10	10	FEM6	BJMI10.....(add Poles)
Neutral (Blue)	012512011	M10/10-N	10	10	FEM6	BJMI10.....(add Poles)
Earth	016511510	M10/10-P	10	10	FEM6	BJMI10.....(add Poles)
Standard Grey	011512914	M16/12	12	16	FEM12	BJMI12.....(add Poles)
Neutral (Blue)	012512916	M16/12-N	12	16	FEM12	BJMI12.....(add Poles)
Earth	016513023	M16/12-P	12	16	FEM12	BJMI12.....(add Poles)
Standard Grey	011512407	M35/16	16	35	Sealed Unit	BJMI16.....(add Poles)
Neutral (Blue)	012512401	M35/16-N	16	35	Sealed Unit	BJMI16.....(add Poles)
Earth	016511114	M35/16-P	16	35	Sealed Unit	BJMI16.....(add Poles)
Standard Grey	040030510	D70/22	22	70	Sealed Unit	Ask For Details
Neutral (Blue)	040030611	D70/22-N	22	70	Sealed Unit	Ask For Details
Earth	040077213	D70/22-P	22	70	Sealed Unit	Ask For Details
Standard Grey	040037024	D95/26	26	95	Sealed Unit	Ask For Details
Neutral (Blue)	040037111	D95/26-N	26	95	Sealed Unit	Ask For Details
Earth	040062017	D95/26-P	26	95	Sealed Unit	Ask For Details



Double Deck Terminal Blocks

Colour	Entrelec Order Code	Descriptive Order Code	Spacing mm	Max wire size mm ²	End Section Order Code	Jumper bar Order Code
Standard Grey	011549013	MA2.5/5.D2	5	2.5	FEM6D	BJMI5D.....(add Poles)
Neutral (Blue)	012549015	MA2.5/5.D2-N	5	2.5	FEM6D	BJMI5D.....(add Poles)
Standard Grey	011527122	M4/6.D2	6	4	FEM6D	BJMI6D.....(add Poles)
Standard Grey	011550112	M6/8.D2	8	6	FEM8D1	BJMI8D.....(add Poles)



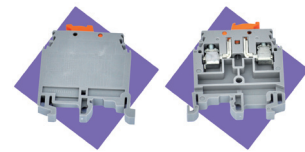
Triple Deck Terminal Blocks

Colour	Entelec Order Code	Descriptive Order Code	Spacing mm	Max wire size mm ²	End Section Order Code	Jumper bar Order Code
Standard Grey	011554111	D2.5/6.DA	6	2.5	FED3E	BJD6.....(add Poles)
Standard Grey	029968301	D4/6.T3	6	4	Sealed Unit	BJMI62.....(add Poles)



Switch Terminal Blocks

Colour	Entelec Order Code	Descriptive Order Code	Spacing mm	Max wire size mm ²	End Section Order Code	Jumper bar Order Code
Standard Grey with Orange Lever	011569920	MA2,5/5.SNB	5	2.5	FEM6	PC5-10
Standard Grey with Orange Lever	011598600	M4/6.SNB	6	4	FEM62	PC61-10
Standard Grey with Grey Lever	011568825	M6/8.SNB	8	6	FEM8	PC8-10



Fuse Holder Terminal Blocks

Colour	Entelec Order Code	Descriptive Order Code	Spacing mm	Max wire size mm ²	End Section Order Code	Fuse Size	Jumper bar Order Code
Standard Grey	011565725	M4/8.SF	8	4	FEM8S	5x20 & 5x25	PC81-10
Black	019909513	ML10/13.SF	13	10	FEM13U	6.35 x 25.4 & 6.35 X32	PC13-10

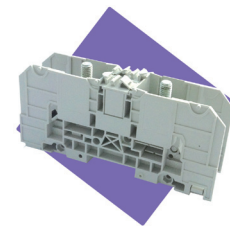


Power Terminals

Din Rail or Base Mounted

Standard Grey in Colour

Entelec Order Code	Descriptive Order Code	Spacing mm	Max wire size mm ²	Studs	Cover Order Code
019000120	D35/27.FF	27	35	2xM6	CPUF35
019000221	D70/32.FF	32	70	2xM8	CPUF70
019000322	D120/42.FF	42	120	2xM10	CPUF120
019000423	D185/55.FF	55	185	2xM12	CPUF185
019000524	D300/55.FF	55	300	2xM16	CPUF185

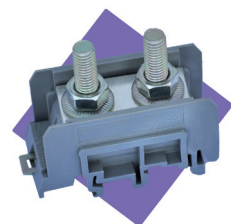


Type 1 Power Terminals

Standard Grey in Colour.

For cover add blocks 1,2 or 3 to the end of part number

Entelec Order Code	Descriptive Order Code	Spacing mm	Max wire size mm ²	Studs	Partition for Cover Order Code	Cover Order Code
011514110	M35/26.F	26	35	1xM6	ECP26	CPP26.....(add blocks)
011514413	M70/31.F	31	70	1xM8	ECP31	CPP31.....(add blocks)
011514716	M120/35.F	35	120	1xM8	ECP35	CPP35.....(add blocks)
011515025	M300/42.F	42	300	1xM10	ECP42	CPP42.....(add blocks)
011514023	M35/26.FF	26	35	2xM6	ECP26	CPP26.....(add blocks)
011514312	M70/31.FF	31	70	2xM8	ECP31	CPP31.....(add blocks)
011514615	M120/35.FF	35	120	2xM8	ECP35	CPP35.....(add blocks)
011514920	M300/42.FF	42	300	2xM10	ECP42	CPP42.....(add blocks)

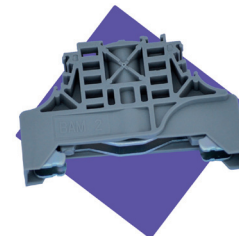


Accessories



End Stops

Entrelec Order Code	Descriptive Order Code	Spacing mm	Rail	Description
1SNK900001R0000	BAM4	10	DIN3	Grey, end stop with screw
039990302	BADL	9	DIN3	Grey, end stop without screw
011690027	BADH	12	DIN3	Grey, end stop with screw, high
016451924	BAR	10	DIN1	Beige, end stop with screw
019942021	BADRL	6.5	DIN2	Grey, end stop without screw



Markers

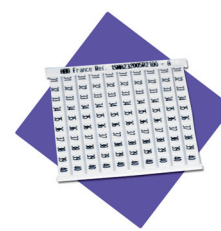
Selection Table

O = Recommended Mounting
p = Possible Mounting
x = Impossible Mounting

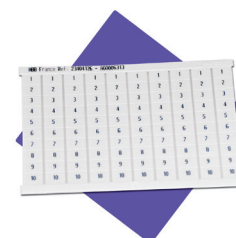
Markers For Blocks:	RC510	RC610	RC810	RC1010	RC55	RC65
5mm Spacing	O	x	x	x	O	x
6mm Spacing	p	O	x	x	p	O
8mm Spacing	p	p	O	x	p	p
10mm Spacing	p	p	p	O	O	p
12mm Spacing	p	O	p	p	p	O
16mm Spacing	p	p	O	p	p	p

8

	RC510 Order Code	RC610 Order Code	RC810 Order Code	RC55 Order Code	RC65 Order Code
Blank Cards	023100007	023300001	023400002	023000012	023200000
Horizontal Marking					
10 Strips 1 to 10	023100225	023300227	023400220	023000200	023200226
10 Strips 11 to 20	023100326	023300320	023400321	023000301	023200327
10 Strips 21 to 30	023100427	023300421	023400422	023000402	023200420
10 Strips 31 to 40	023100520	023300522	023400523	023000503	023200521
10 Strips 41 to 50	023100621	023300623	023400624	023000604	023200622
10 Strips 51 to 60	023100722	023300724	023400725	023000705	023200723
10 Strips 61 to 70	023100803	023300805	023400806	023000816	023200804
From 1 to 100	023103024	023303026	023403027	023003007	023203025
From 101 to 200	023103111	023303113	023403114	023003124	023203112
20 x L1,L2,L3,N & PE	023113112	023313114		023013125	023213113
Vertical Marking					
10 Strips 1 to 10	023104123	023304125	023404126	023004106	023204124
10 Strips 11 to 20	023104224	023304226	023404227	023004207	023204225
10 Strips 21 to 30	023104325	023304327	023404320	023004300	023204326
10 Strips 31 to 40	023104426	023304420	023404421	023004401	023204427
From 1 to 100	023106002	023306004	023406005	023006015	023206003



RC65 Vertical



RC810 Vertical

**RC1010
Order Code**

Blank Cards 023800016

Horizontal Marking

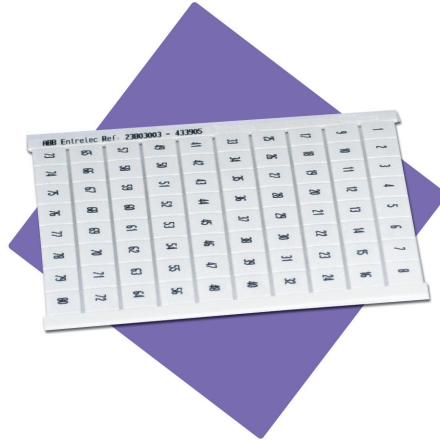
10 Strips 1 to 8 023800204
 10 Strips 9 to 16 023800305
 10 Strips 17 to 24 023800406
 10 Strips 25 to 32 023800507
 10 Strips 33 to 40 023800600
 10 Strips 41 to 48 023800701
 10 Strips 49 to 56 023800812

From 1 to 80 023803003
 From 81 to 160 023803120

Vertical Marking

10 Strips 1 to 8 023805104
 10 Strips 9 to 16 023805205
 10 Strips 17 to 24 023805306
 10 Strips 25 to 32 023805407

From 1 to 80 023808006



Din Rail

Available in 2 meter lengths.
 Stocked product manufacturers of Din Rail may vary please state if your preference is for ABB at the time of order, though manufacturer box quantities may apply and please check with sales staff on availability.

Order Code	Description
PR1	Slotted G rail (DIN1)
PR1.Z2	Unslotted G rail (DIN1)
PR2	Slotted Micro din rail (DIN2)
PR3.Z2	Unslotted top hat din rail (DIN3)
PR30	Slotted top hat din rail 5mm slots (DIN3)
PR30-6	Slotted top hat din rail 6mm slots (DIN3)
PR5	Deep section top hat din rail (DIN3)
PR50-6	Deep section slotted din rail (DIN3)

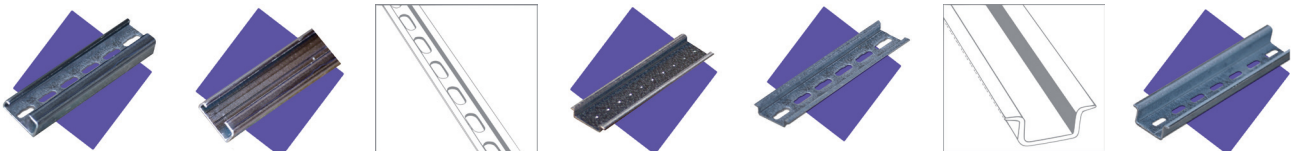


ABB SNK Series Terminal Blocks

Feed Through Terminal Blocks - 20% Size Reduction compared to the standard Entelec range.



Maximized flexibility

The two terminal blocks central channels-aligned from 4 mm² 10 AWG up to 16 mm² 4 AWG terminal blocks-offer flexibility of use:

- Common and polarity distribution with JB screwless jumper bars,
- Power distribution with JB85-3 cross-spacing jumpers,
- Continuity control with TP4 or TP2 test adapters, Advanced testing (simulation, dielectric control, etc.) prior customer acceptance with TC test connectors
- Overvoltage protection and temperature control with PG5-R2 components holder.

Reduce use of accessories

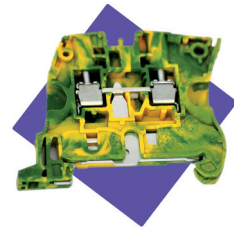
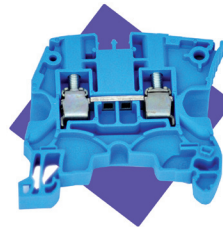
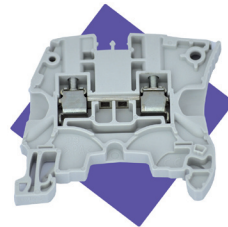
One unique end section and circuit separator fits all feed through terminal blocks.

Jumper Bar

Add the below Jumper Bar code with the Poles you require to the 1SNK number in to the ___ spaces for the complete part number.

Example: 1SNK 905 302 R0000 = a 2 pole Jumper bar.

Code	Poles
02	2
03	3
04	4
05	5
10	10



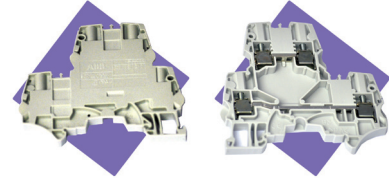
** 4 Pole not available for ZS70 & ZS95

Feed Through Terminal Blocks

Colour	ABB Order Code	Descriptive Order Code	Spacing mm	Max wire size mm ²	End Section Order Code	Jumper Bar - IP20 Order Code
Standard Grey	1SNK 505 010 R0000	ZS4	5.2	4	1SNK 505 910 R0000	1SNK 905 3__ R0000
Neutral (Blue)	1SNK 505 020 R0000	ZS4-BL	5.2	4	1SNK 505 910 R0000	1SNK 905 3__ R0000
Earth	1SNK 505 150 R0000	ZS4-PE	5.2	4	1SNK 505 910 R0000	1SNK 905 3__ R0000
Standard Grey	1SNK 506 010 R0000	ZS6	6	6	1SNK 505 910 R0000	1SNK 906 3__ R0000
Neutral (Blue)	1SNK 506 020 R0000	ZS6-BL	6	6	1SNK 505 910 R0000	1SNK 906 3__ R0000
Earth	1SNK 506 150 R0000	ZS6-PE	6	6	1SNK 505 910 R0000	1SNK 906 3__ R0000
Standard Grey	1SNK 508 010 R0000	ZS10	8	10	1SNK 505 910 R0000	1SNK 908 3__ R0000
Neutral (Blue)	1SNK 508 020 R0000	ZS10-BL	8	10	1SNK 505 910 R0000	1SNK 908 3__ R0000
Earth	1SNK 508 150 R0000	ZS10-PE	8	10	1SNK 505 910 R0000	1SNK 908 3__ R0000
Standard Grey	1SNK 510 010 R0000	ZS16	10	16	1SNK 505 910 R0000	1SNK 910 3__ R0000
Neutral (Blue)	1SNK 510 020 R0000	ZS16-BL	10	16	1SNK 505 910 R0000	1SNK 910 3__ R0000
Earth	1SNK 510 150 R0000	ZS16-PE	10	16	1SNK 505 910 R0000	1SNK 910 3__ R0000
Standard Grey	1SNK 516 010 R0000	ZS35	16	35	Sealed Unit	1SNK 916 3__ R0000
Neutral (Blue)	1SNK 516 020 R0000	ZS35-BL	16	35	Sealed Unit	1SNK 916 3__ R0000
Earth	1SNK 516 150 R0000	ZS35-PE	16	35	Sealed Unit	1SNK 916 3__ R0000
Standard Grey	1SNK 522 010 R0000	ZS70	22	70	Sealed Unit	1SNK 922 3__ R0000
Neutral (Blue)	1SNK 522 020 R0000	ZS70-BL	22	70	Sealed Unit	1SNK 922 3__ R0000
Earth	1SNK 522 150 R0000	ZS70-PE	22	70	Sealed Unit	1SNK 922 3__ R0000
Standard Grey	1SNK 526 010 R0000	ZS95	26	95	Sealed Unit	1SNK 926 3__ R0000
Neutral (Blue)	1SNK 526 020 R0000	ZS95-BL	26	95	Sealed Unit	1SNK 926 3__ R0000
Earth	1SNK 526 150 R0000	ZS95-PE	26	95	Sealed Unit	1SNK 926 3__ R0000

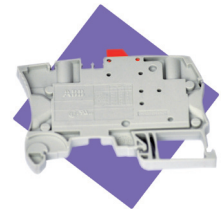
Double Deck Terminal Blocks

Colour	ABB Code	Order	Descriptive Order Code	Spacing mm	Max wire size mm ²	End Section Order Code	Jumper Bar - IP20 Order Code
Standard Grey	1SNK 505 210 R0000		ZS4-D2	5.2	4	1SNK 505 960 R0000	1SNK 905 3__ R0000
Standard Grey	1SNK 506 210 R0000		ZS6-D2	6	6	1SNK 505 960 R0000	1SNK 906 3__ R0000



Disconnect Terminal Block with Blade

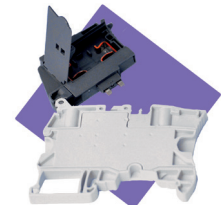
Colour	ABB Order Code	Descriptive Order Code	Spacing mm	Max wire size mm ²	End Section Order Code	Jumper Bar - IP20 Order Code
Standard Grey with Orange Lever	1SNK 505 310 R0000	ZS4-S	5.2	4	1SNK 505 910 R0000	
Standard Grey with Orange Lever	1SNK 506 310 R0000	ZS4-S-R1	6	4	Sealed Unit	1SNK 906 3__ R0000



Fuse Holder Terminal Block

Takes 5x20mm Fuses

Colour	ABB Order Code	Descriptive Order Code	Spacing mm	Max wire size mm ²	End Section Order Code	Jumper Bar - IP20 Order Code
Standard Grey/ Dark Grey	1SNK 506 410 R0000	ZS4-SF	6	4	Sealed Unit	1SNK 906 3__ R0000
Standard Grey/ Dark Grey	1SNK 508 410 R0000	ZS4-SF.1	8	4	1SNK 508 960 R0000	



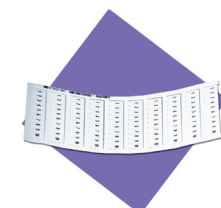
End Stops

ABB Order Code	Descriptive Order Code	Rail	Spacing mm	Description
1SNK 900 001 R0000	BAM4	DIN3-TH35	10	End Stop
1SNK 900 102 R0000	BAZH1	DIN3-TH35	10	High End Stop for double deck and feed through terminal blocks with rated section more than 16mm ² 4awg.



Marker Cards

Order Code	Type	For Blocks with spacing of(mm)	Marking
1SNK 140 000 R0000	MC512	5.2,6,8,>8	Blank
1SNK 140 011 R0000	MC512	5.2,6,8,>8	1-10
1SNK 145 011 R0000	MC512	5.2,6,8,>8	1-100
1SNK 150 000 R0000	MC612	6,8,>8	Blank
1SNK 150 011 R0000	MC612	6,8,>8	1-10
1SNK 155 011 R0000	MC612	6,8,>8	1-100
1SNK 160 000 R0000	MC812	8,>8	Blank
1SNK 160 011 R0000	MC812	8,>8	1-10
1SNK 165 011 R0000	MC812	8,>8	1-100



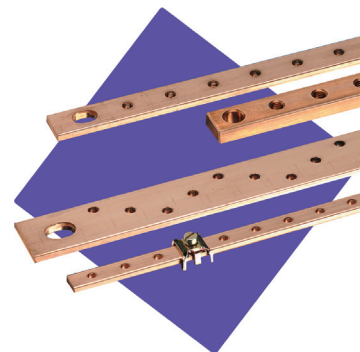
Erico Copper Busbars

The Erico Eriflex range of copper busbars offers more than 50 types of electrolytic copper bars - plain, punched or threaded.



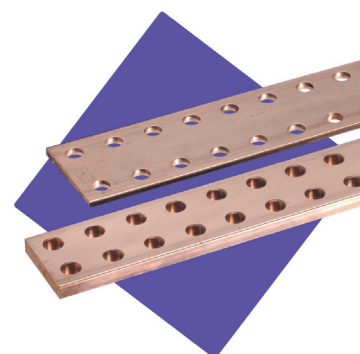
Threaded Busbar

Order Code	Width (mm)	Depth (mm)	Length (mm)	Hole Size
549230	12	2	1000	M5
550200	12	4	1000	M5
549200	18	4	1000	M8
549210	25	4	1000	M6
550190	12	4	2000	M5
549220	12	5	1000	M5
550210	15	5	1000	M6
550220	20	5	1000	M6
550230	32	5	1000	M6
549000	15	5	2000	M6
549010	20	5	2000	M6
549020	30	5	2000	M6
549030	32	5	2000	M6
550290	20	10	1000	M8
550180	30	10	1000	M8
550160	30	10	2000	M8



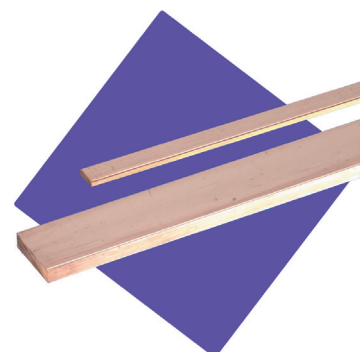
Punched Busbar

Order Code	Width (mm)	Depth (mm)	Length (mm)	Hole Size
550400	25	5	1750	10.5
550410	50	5	1750	10.5
550420	63	5	1750	10.5
550430	80	5	1750	10.5
550440	100	5	1750	10.5
550450	125	5	1750	10.5
550350	50	10	1750	10.5
550360	60	10	1750	10.5
550370	80	10	1750	10.5
550380	100	10	1750	10.5
550390	120	10	1750	10.5



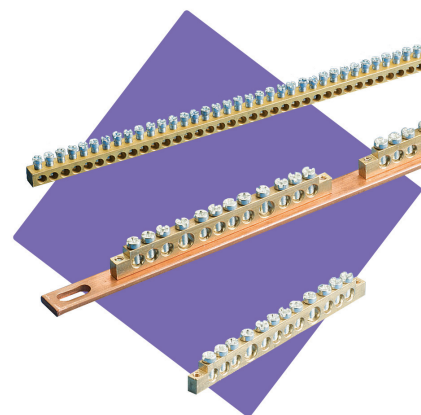
Plain Busbar

Order Code	Width (mm)	Depth (mm)	Length (mm)
550780	12	4	1000
550790	12	4	2000
550770	12	5	2000
549600	25	5	2000
549610	50	5	2000
549620	63	5	2000
549630	80	5	2000
549640	100	5	2000
549650	125	5	2000
549700	30	10	2000
549710	40	10	2000
549720	50	10	2000
549730	60	10	2000
549740	80	10	2000
549750	100	10	2000
549760	120	10	2000



Earthing & Neutral Bars

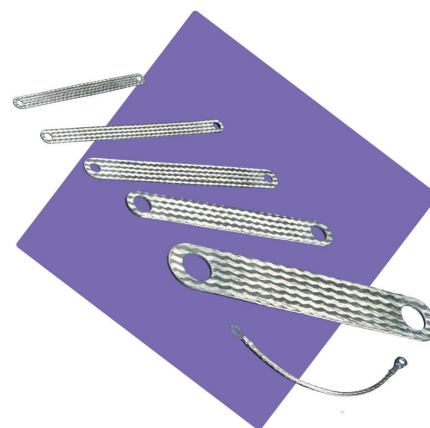
Order Code	Type	No. of Connections	Length (mm)
568610	EB12	10x16mm ² & 2x35mm ²	120
568620	EB36	3 of above fixed to Copper Bar	470
568630	EB168	168x10mm ²	1000



Earth Braids

- Tinned electrolytic copper 0.15mm wire
- UL467 File E220029
- Possible to bend very close to the contact
- Area working temperature up to 105 °C

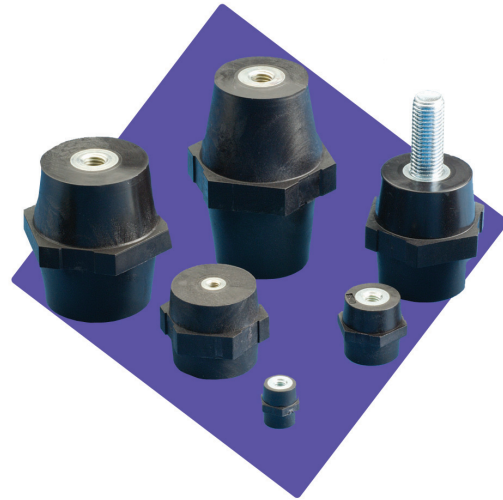
Order Code	Intensity A	Section (mm ²)	Length (mm)	Hole Size
556600	40	6	150	6.5
563410	40	6	200	6.5
556930	75	10	200	6.5
556610	75	10	300	6.5
563540	120	16	100	6.5
556620	120	16	100	8.5
563550	120	16	150	6.5
556630	120	16	150	8.5
563300	120	16	200	6.5
556640	120	16	200	8.5
556650	120	16	250	8.5
563320	120	16	300	6.5
556660	120	16	300	8.5
556940	120	16	500	8.5
556670	150	25	100	10.5
556680	150	25	150	10.5
563340	150	25	200	6.5
556690	150	25	200	10.5
563430	150	25	200	12.5
556700	150	25	250	10.5
556710	150	25	300	10.5
556950	150	25	500	10.5



Low Voltage Insulators

Features

Manufactured of rugged polyamide - an environmentally friendly, halogen-free nylon material which is reinforced with glass fibre low-voltage insulators, from 15 to 100 mm height, for indoor use.
 Very high resistance to leakage current
 Bichromated galvanized steel inserts
 Great stability of electrical and mechanical parameters
 Meets the requirements of UL 94 V0 f or self-extinguishing materials
 Working temperature -40°C +130°C
 UL Recognized to Standard 891, Supplement B, Dead-front Switchboards and Accessories, 600 volt, File no. E125470



Electrical Characteristics
Nominal Voltage

Order Code	Height (mm)	Max Width (mm)	Hole Size	VAC	VDC
548400	15	16	M4	250	300
548410	20	20	M4	400	500
548420	20	20	M6	400	500
548700	25	20	M5	400	500
548430	25	20	M6	400	500
548440	30	34	M6	750	900
548450	30	34	M8	750	900
548470	35	46	M6	750	900
548480	35	46	M8	750	900
548490	35	46	M10	750	900
548500	40	53	M6	1000	1500
548510	40	53	M8	1000	1500
548520	40	53	M10	1000	1500
548511	40	53	M12	1000	1500
548530	45	47	M6	1000	1500
548540	45	47	M8	1000	1500
548550	45	57	M8	1000	1500
548560	45	57	M10	1000	1500
548570	50	57	M6	1000	1500
548580	50	57	M8	1000	1500
548590	50	57	M10	1000	1500
548581	50	57	M12	1000	1500
548600	60	63	M8	1000	1500
548610	60	63	M10	1000	1500
548601	60	63	M12	1000	1500
548602	60	63	M16	1000	1500
548609	70	75	M10	1000	1500
548620	70	75	M12	1000	1500
548630	70	75	M16	1000	1500
548629	75	75	M10	1000	1500
548640	75	75	M12	1000	1500
548650	75	75	M16	1000	1500
548660	80	75	M12	1000	1500
548670	80	75	M16	1000	1500
548680	100	75	M12	1000	1500
548690	100	75	M16	1000	1500

Distribution Blocks

ERICO offers a wide range of halogen-free, four pole distribution blocks.

Also offered are single pole blocks and supports for assembling distribution blocks.

Features

- Large accessibility in a minimal space
- Minimum space for maximum power
- Easy fixing on all types of DIN rail or steel sheet
- Safe and easy connections
- Fixings provided for protective screen
- High resistance to short-circuit forces
- Quick to install

Applications

- Products available from 40 A to 630 A.
- 40 A – 2 Poles & 4 Poles
- 80/100 A – 2 Poles & 4 Poles
- 100/125 A – 2 Poles & 4 Poles, Neutral Bar
- 160 A – 4 Poles, Neutral Bar

More Information

- TD / TR - Four Pole Distribution Blocks
- BD - Double Pole Distribution Blocks
- UD - Single Pole Distribution Block



Order Code	Descriptive Code	Description	Amps	No. Of Outputs
569010	UD80A	Single Pole Distribution Block	80	6
569020	UDJ125A	Single Pole Distribution Block	125	6
569030	UDJ160A	Single Pole Distribution Block	160	6
569040	UD250A	Single Pole Distribution Block	250	11
569050	UD400A	Single Pole Distribution Block	400	11
569060	UDF500A	Single Pole Distribution Block	500	11
563720	BD40A	Two Pole Distribution Block	40	2x16
563900	BD80/100A	Two Pole Distribution Block	80/100	4x6
563910	BD80/100AL	Two Pole Distribution Block	80/100	2x14
563800	BD100/125A	Two Pole Distribution Block	100/125	2x6
563810	BD100/125AL	Two Pole Distribution Block	100/125	2x14
563740	TD40A	Four Pole Distribution Block	40	4x12
563920	TD80/100A	Four Pole Distribution Block	80/100	4x6
563930	TD80/100AL	Four Pole Distribution Block	80/100	4x10
563940	TD80/100ALL	Four Pole Distribution Block	80/100	4x14
563820	TD100/125A	Four Pole Distribution Block	100/125	4x6
563830	TD100/125AL	Four Pole Distribution Block	100/125	4x10
563840	TD100/125ALL	Four Pole Distribution Block	100/125	4x14
563200	TD160A	Four Pole Distribution Block	160	4x11
563990	TD160AL	Four Pole Distribution Block	160	4x11

Common Terminology for Solenoid Valves

2/2 Way:	Simplest form of valve, with one inlet & one outlet.
3/2 Way:	Valve with one inlet and 2 outlets, which the flow can be directed between.
Normally Closed or NC:	Valve which is closed when the coil is not energised.
Normally Open or NO:	Valve which is open when the coil is not energised .
Kv value:	The maximum flow capacity of a valve, measured with water at 1 bar pressure.
WRAS:	Valves with this approval are suited for water which may be used for human consumption.
Orifice:	The smallest opening within a valve that allows the main flow of media to pass through.
Differential pressure:	The difference in pressure between the inlet and the outlet ports.
Coil:	The unit which electrically controls the opening or closing of a solenoid valve.
NBR:	Otherwise known as Nitrile - a general purpose seal, good for air, oil or water.
EPDM:	Otherwise known as Ethylene polypropylene - a seal which is good for water, glycol or low pressure steam.
FKM:	Otherwise known as Vitron - a general purpose seal good for more aggressive media.

Common Terminology for Pressure Switches

Setpoint:	Exact pressure at which the snap-action switch is actuated to either open or close the electrical circuit.
Adjustable Range:	Actuation range within which the actuation point of a pressure actuated switch may be adjusted. (Also known as Working Pressure.)
Deadband:	The deadband is the difference between the actuation point and the reactivation point in a pressure switch.
Pressure Sensing Element:	A pressure sensing element is the portion of the pressure switch that moves due to a change in pressure.
System Pressure:	The rated pressure of a hydraulic or pneumatic system which does not include the maximum surges that the system may encounter.

Measurement Conversions

Designation	PSI	kPa	kg/cm ²	cm of H ₂ O	feet of H ₂ O	inches of HG	mm of HG	inches of H ₂ O	ounces per square inch	atmospheres	bar	mbar	Mpa
psi	1	6.89	0.07	70.31	2.31	2.04	51.71	27.68	16	0.07	0.07	68.95	0.01
kPa	0.15	1	0.01	10.20	0.33	0.30	7.50	4.01	2.32	0.01	0.01	10	0.00
kg/cm ²	14.22	98.07	1	1000.03	32.81	28.96	735.56	393.71	227.57	0.97	0.98	1013.25	0.10
cm of H ₂ O	0.01	0.10	0.00	1	0.03	0.03	0.74	0.39	0.23	0.00	0.00	0.98	0.00
feet of H ₂ O	0.43	2.97	0.03	30.48	1	0.88	22.42	12	6.94	0.03	0.03	29.69	0.00
inches of HG	0.49	3.39	0.03	34.53	1.13	1	25.4	13.60	7.86	0.03	0.03	33.86	0.00
mm of HG	0.02	0.13	0.00	1.36	0.04	0.04	1	0.54	0.31	0.00	0.00	1.33	0.00
inches of H ₂ O	0.04	0.25	0.00	2.54	0.08	0.07	1.87	1	0.58	0.00	0.00	2.49	0.00
ounces per square inch	0.06	0.43	0.00	4.39	0.14	0.13	3.23	1.73	1	0.00	0.00	4.31	0.00
atmospheres	14.70	101.33	1.03	1033.26	33.90	29.92	760	406.79	235.14	1	1.01	1013.25	0.10
bar	14.50	100	1.02	1019.75	33.48	29.53	750.06	401.86	232.06	0.99	1	1000	0.1
mbar	0.01	0.1	0.00	1.02	0.00	0.03	0.75	0.40	0.23	0.00	0.00	1	0.00
Mpa	145.04	1000	10.20	10197.45	334.56	295.30	7500.61	4014.74	2320.60	9.67	10	10000	1

Danfoss Industrial Controls

Pages	Content
1	Solenoid Valves EV210B & EV250B
2	Solenoid Valves EV220B
3	Solenoid Valves EV220B, EV310B & EV225B
4	Solenoid Coils & Thermostatic Valve
5	Pressure Switches RT, KP, KPI & CS
6	Pressure Switches KPS & MBC 5100
7	Thermostats RT & KP
8	Thermostats KPS
9	Pressure Transmitters EMP2, MBS 3000 & MBS 5100
10	Temperature Sensors MBT3260, MBT5252 & MBT153
11	Danfoss Industrial Control Spares



Seals	Use
EPDM	For use on Water or Glycol
NBR	General use, air oil or water
FKM	General use more aggressive media



Danfoss EV210B 2/2 Way Direct Operated Valve

The EV210B is a real robust valve program with high performance and can be used in all kind of tough working conditions.



Brass Normally Closed Valve

Order Code	Connection (")	Kv m ³ /h	Orifice (mm)	Seal Material	Type code	Differential Pressure based on BB & BE Coils		
						Min (Bar)	10w AC (Bar)	18w DC (Bar)
032U5704	G 1/8	0.15	2	FKM	EV210B2.0B G18FNC000	0	30	30
032U5708	G 1/4	0.15	2	FKM	EV210B2.0B G14FNC000	0	30	30
032U5710	G 1/4	0.3	3	FKM	EV210B3.0B G14FNC000	0	20	13
032U3601	G 1/4	0.55	4.5	FKM	EV210B4.5B G14FNC000	0	10	4.5
032U3608	G 3/8	0.7	6	FKM	EV210B6.0B G38FNC000	0	4	2

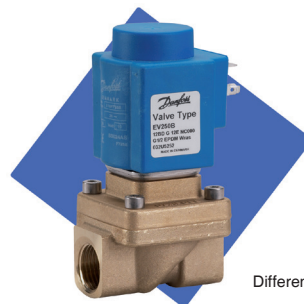
Brass Normally Open Valve

Order Code	Connection (")	Kv m ³ /h	Orifice (mm)	Seal Material	Type code	Differential Pressure based on BB & BE Coils		
						Min (Bar)	10w AC (Bar)	18w DC (Bar)
032U3633	G 1/8	0.15	2	FKM	EV210B2.0B G18FNO000	0	12	12
032U3639	G 1/4	0.3	3	FKM	EV210B3.0B G14FNO000	0	5	5

** EV210B Uses BA, BB & BE coils

Danfoss EV250B 2/2 Way assisted lift, servo operated Valve

The EV250B with assisted lift can operate from 0-10 bar differential Pressure. The 2/2-way valve programme is especially to use in closed circuits with low differential pressure, but demanding moderate flow rates. The Valve body is made in dezincification resistant brass for ensuring a long life even in connection with aggressive media.



*EPDM versions
WRAS approved

Brass Normally Closed Valve

Order Code	Connection (")	Kv m ³ /h	Orifice (mm)	Seal Material	Type code	Differential Pressure based on BB & BE Coils		
						Min (Bar)	10w AC (Bar)	18w DC (Bar)
032U5250	G 3/8	2.5	10	EPDM	EV250B10BD G38ENC000	0	16	10
032U5251	G 3/8	2.5	10	FKM	EV250B10BD G38FNC000	0	16	10
032U5252	G 1/2	4	12	EPDM	EV250B12BD G12ENC000	0	16	10
032U5253	G 1/2	4	12	FKM	EV250B12BD G12FNC000	0	16	10
032U5254	G 3/4	4	18	EPDM	EV250B18BD G34ENC000	0	10	6
032U5255	G 3/4	4	18	FKM	EV250B18BD G34FNC000	0	10	6
032U5256	G1	4	22	EPDM	EV250B22BD G1ENC000	0	10	6
032U5257	G1	4	22	FKM	EV250B22BD G1FNC000	0	10	6

Brass Normally Open Valve

Order Code	Connection (")	Kv m ³ /h	Orifice (mm)	Seal Material	Type code	Differential Pressure based on BB & BE Coils		
						Min (Bar)	10w AC (Bar)	18w DC (Bar)
032U5350	G 3/8	2.5	10	EPDM	EV250B10BD G38ENO000	0	10	10
032U5352	G 1/2	4	12	EPDM	EV250B12BD G12ENO000	0	10	10
032U5354	G 3/4	4.9	18	EPDM	EV250B18BD G34ENO000	0	10	10
032U5356	G1	5.2	22	EPDM	EV250B22BD G1ENO000	0	10	10

** Uses BB & BE Coils Only with EV250B

* EPDM versions
WRAS approved

Danfoss EV220B 6-22

2/2 Way Direct servo operated Valve

This Program is especially for OEM applications demanding a robust Solution and moderate flow rate.



Brass Normally Closed Valve

Order Code	Connection (")	Kv m ³ /h	Orifice (mm)	Seal Material	Type code	Differential Pressure based on BB & BE Coils		
						Min (Bar)	10w AC (Bar)	18w DC (Bar)
032U1236	G 1/4	0.7	6	EPDM	EV220B6B G14ENC000	0.1	20	10
032U1237	G 1/4	0.7	6	FKM	EV220B6B G14FNC000	0.1	20	10
032U1242	G 3/8	0.7	6	FKM	EV220B6B G38FNC000	0.1	30	-
032U1246	G 3/8	1.5	10	EPDM	EV220B10B G38ENC000	0.1	20	10
032U1251	G 1/2	1.5	10	EPDM	EV220B10B G12ENC000	0.1	20	10
032U1252	G 1/2	1.5	10	FKM	EV220B10B G12ENC000	0.1	30	-
032U1256	G 1/2	2.5	12	EPDM	EV220B12B G12ENC000	0.1	10	-
032U1255	G 1/2	2.5	12	FKM	EV220B12B G12FNC000	0.1	10	-
032U1261	G 3/4	6	18	EPDM	EV220B18B G34ENC000	0.3	10	-
032U1260	G 3/4	6	18	FKM	EV220B18B G34FNC000	0.3	10	-
032U1263	G 1	6	22	EPDM	EV220B22B G1ENC000	0.3	10	-
032U1266	G1	6	22	FKM	EV220B22B G1FNC000	0.3	10	-

Brass Normally Open Valve

Order Code	Connection (")	Kv m ³ /h	Orifice (mm)	Seal Material	Type code	Differential Pressure based on BB & BE Coils		
						Min (Bar)	10w AC (Bar)	18w DC (Bar)
032U1238	G 3/8	0.7	6	EPDM	EV220B6B G38ENO000	0.1	10	10
032U1239	G 3/8	0.7	6	FKM	EV220B6B G38FNO000	0.1	10	10
032U1249	G 1/2	1.0	10	FKM	EV220B10B G12FNO000	0.1	10	10

** EV220B Uses BA, BB & BE coils

*EPDM versions
WRAS approved

Danfoss EV220B 15-50

2/2 Way Servo operated Valve

A Universal indirect servo-operated 2/2 way solenoid Valve.
Built in pilot filter as standard, adjustable closing time and water hammer damped.



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Brass Normally Closed Valve

Order Code	Connection (")	Kv m ³ /h	Orifice (mm)	Seal Material	Type code	Differential Pressure based on all coils	
						Min (Bar)	Max (Bar)
032U7116	G 1/2	4	15	FKM	EV220B15B G12FNC000	0.3	10
032U7121	G 3/4	8	20	FKM	EV220B20B G34FNC000	0.3	10
032U7126	G1	11	25	FKM	EV220B25B G1FNC000	0.3	10
021U7133	G1 1/4	18	32	FKM	EV220B32B G114FNC000	0.3	10
032U7141	G1 1/2	24	40	FKM	EV220B40B G112FNC000	0.3	10
032U7151	G2	40	50	FKM	EV220B50G G2FNC000	0.3	10
032U7115	G 1/2	4	15	EPDM	EV220B15B G12ENC000	0.3	16
032U7120	G 3/4	8	20	EPDM	EV220B20B G34ENC000	0.3	16
032U7125	G1	11	25	EPDM	EV220B25B G1ENC000	0.3	16
032U7132	G1 1/4	18	32	EPDM	EV220B32B G114NC000	0.3	16
032U7140	G1 1/2	24	40	EPDM	EV220B40B G112ENC000	0.3	16
032U7150	G2	40	50	EPDM	EV220B50G G2ENC000	0.3	16

** EV220B Uses BA, BB & BE coils



Danfoss EV220B 15-50 2/2 Way Servo operated Valve

A Universal indirect servo-operated 2/2 way solenoid Valve.
Built in pilot filter as standard, adjustable closing time and water hammer damped.



Brass Normally Closed Valves

Order Code	Connection (")	Kv m³/h	Orifice (mm)	Seal Material	Type code	Differential Pressure based on all coils	
						Min (Bar)	Max (Bar)
032U7170	G 1/2	4	15	NBR	EV220B15B G12NNO000	0.3	16
032U7171	G 3/4	8	20	NBR	EV220B20B G34NNO000	0.3	16
032U7172	G1	11	25	NBR	EV220B25B G11NNO000	0.3	16
032U7173	G1 1/4	18	32	NBR	EV220B32B G114NNO000	0.3	16
032U7174	G1 1/2	24	40	NBR	EV220B40B G112NNO000	0.3	16
032U7175	G2	40	50	NBR	EV220B50B G2NNO000	0.3	16

*EPDM versions
WRAS approved



Stainless Steel Normally Closed Valve

Order Code	Connection (")	Kv m³/h	Orifice (mm)	Seal Material	Type code	Differential Pressure based on all coils	
						Min (Bar)	Max (Bar)
032U8500	G 1/2	4	15	EPDM	EV220B15SS G12ENC000	0.3	16
032U8506	G 1/2	4	15	FKM	EV220B15SS G12FNC000	0.3	10
032U8501	G 3/4	8	20	EPDM	EV220B20SS G34ENC000	0.3	16
032U8507	G 3/4	8	20	FKM	EV220B20SS G34FNC000	0.3	10
032U8502	G1	11	25	EPDM	EV220B25SS G1ENC000	0.3	16
032U8508	G1	11	25	FKM	EV220B25SS G1FNC000	0.3	10

** EV220B Uses BA, BB & BE coils

Danfoss EV310B 1.5-5B 3/2 Way direct operated Valve

A Universal 3/2 way solenoid Valve. Robust with high performance and can be used in all kind of tough working conditions.

Brass Normally Closed Valve

Order Code	Connection (")	Kv m³/h	Orifice (mm)	Seal Material	Type code	Differential Pressure based on BA Coils (Bar)		
						Min	9w AC	15w DC
032U4901	G 1/8	0.08	2	FKM	EV310B2.0B G18FNC000	0	16	16
032U4904	G 1/4	0.15	2	FKM	EV310B2.0B G14FNC000	0	16	16

** Uses BA Coils Only with EV310B



Danfoss EV225B 2/2 Way servo operated Steam Valve

A servo operated 2/2 way solenoid valve for use with steam applications. The design is based on a PTFE diaphragm concept ensuring high reliable function even in connection with contaminated steam.

DZR Brass Normally Closed Valve

Order Code	Connection (")	Kv m³/h	Orifice (mm)	Seal Material	Steam Temperature Range °C	Coil BR V AC 50hz	Differential Pressure Bar
032U380431	G 1/2	2.2	10	PTFE	-10 > 185	230	0.2 > 10
032U380531	G 1/2	3	15	PTFE	-10 > 185	230	0.2 > 10
032U380631	G 3/4	5	20	PTFE	-10 > 185	230	0.2 > 10
032U380731	G1	6	25	PTFE	-10 > 185	230	0.2 > 10

** come with 230VAC BQ coil



Danfoss Type B Coils

Danfoss Solenoid valves and coils are usually ordered separately, this allows maximum flexibility and enables the users of these products to select a valve and coil which best suits their needs. If you require further valves or coils not listed so far please contact us for a more extensive range.



BA Coil



BB Coil



BE Coil

IP Protection:	IP00	IP00	IP67
Watts:	9W AC / 15W DC	10W AC / 18W DC	10W AC / 18WDC
For use with Valves:	EV210B, EV220B, EV310B	EV210B, EV220B, EV250B	EV210B, EV220B, EV250B

AC Coil Order Codes

24 V 50hz	042N7508	018F7358	018F6707
48 V 50hz	042N7510		018F6709
110 V 50/60 hz		018F7360	
115 V 50hz	042N7512	018F7361	018F6711
220 - 230 V 50hz	042N7501	018F7351	018F6701
240 V 50hz	042N7502	018F7352	018F6702
380 - 400 V 50hz	042N7504	018F7353	018F6703

DC Coil Order Codes

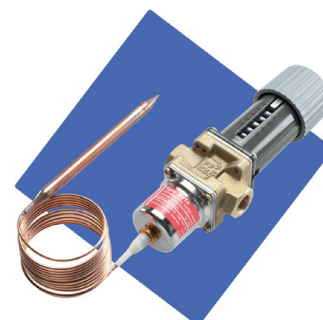
12 V	042N7550	018F7396	018F6756
24 V	042N7551	018F7397	018F6757

Cable Plug to IP65 Enclosure	042N0156	042N0156	IP67 Cable plug fitted as standard
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Order Code	Description
018F0091	Permanent Magnet

Danfoss AVTA Thermostatically Self-acting cooling water valve

The AVTA thermostatic valves are widely used for temperature control in many different sorts of equipment and installation where cooling is required. The below models are Brass bodies, a more extensive range is available including stainless steel. Please contact us for more details.



Adsorption Charge 2.3m Capillary Tube

Order Code	Type	Connection (")	Kv m ³ /h	Max Sensor Temperature °C	Temperature Setting Range °C	Sensor Dimensions ØxL mm
003N0107	AVTA15	G 1/2	1.9	130	10 > 80	9.5 x 150
003N0108	AVTA20	G 3/4	3.4	130	10 > 80	9.5 x 150
003N0109	AVTA25	G1	5.5	130	10 > 80	9.5 x 150

Universal Charge 2m Capillary Tube

Order Code	Type	Connection (")	Kv m ³ /h	Max Sensor Temperature °C	Temperature Setting Range °C	Sensor Dimensions ØxL mm
003N2132	AVTA15	G 1/2	1.9	57	0 > 30	18 x 210
003N3132	AVTA20	G 3/4	3.4	57	0 > 30	18 x 210
003N2162	AVTA15	G1/2	1.9	90	25 > 65	18 x 210
003N3162	AVTA20	G 3/4	3.4	90	25 > 65	18 x 210
003N4162	AVTA25	G1	5.5	90	25 > 65	18 x 210



Danfoss RT Range Pressure Switch, Pressostat



RT switches are used in general industrial, heating and marine sectors. The RT Single pressure switches series consists of a variety of controls including neutral zone pressure switches and safety pressure switches for steam boiler plants.

Order Code	Type	Connection (")	Setting Range (Bar)	Adjustable / Fixed Differential (Bar)	Max Operating Pressure (Bar)	Enclosure Protection
017-5215	RT121	G 3/8 A	-1 > 0	0.09 > 0.4	7	IP66
017-5196	RT113	G 3/8 A	0 > 0.3	0.01 > 0.05	0.4	IP66
017-5191	RT112	G 3/8 A	0.1 > 1.1	0.07 > 0.16	7	IP66
017-5291	RT110	G 3/8 A	0.2 > 3	0.08 > 0.25	7	IP66
017-5237	RT200	G 3/8 A	0.2 > 6	0.25 > 1.2	22	IP66
017-5203	RT116	G 3/8 A	1 > 10	0.3 > 1.3	22	IP66
017-5255	RT5	G 3/8 A	4 > 17	1.2 > 4	22	IP66
017-5295	RT117	G 3/8 A	10 > 30	1 > 4	42	IP66



Danfoss KP & KPI Range Pressure Switch

Danfoss KP & KPI pressure switches are used for regulating, monitoring and alarm systems in industrial applications. The KP series are suitable for gaseous media and air. The KPI series switches are suitable for plant in connection with liquid and gaseous media. The KP & KPI are both fitted with a single-pole switch changeover (SPDT), and can control single-phase ac motors of up to 2 kW directly.

Order Code	Type	Connection (")	Setting Range (Bar)	Adjustable Differential (Bar)	Permissible Operating Pressure (Bar)	Enclosure Protection
KP for gases & air						
060-113366	KP35	G 1/4 A	-0.2 to 7.5	0.7 to 4.0	17	IP30
060-110866	KP36	G 1/4 A	2 to 14	0.7 to 4	17	IP30
060-122166	KP36	G 1/4 A	4 to 12	0.5 to 1.6	17	IP30
KPI for liquid & gases:						
060-121766	KPI35	G 1/4A	-0.2 to 8	0.4 to 1.5	18	IP30
060-121966	KPI35	G 1/4A	-0.2 to 8	0.5 to 2	18	IP30
060-118966	KPI36	G 1/4A	4 to 12	0.5 to 1.6	18	IP30



Danfoss CS Range Pressure Switch

CS pressure switches have a three-pole switch and adjustable differential. The pressure switches are fitted with a manual switch that will lock the contact system in the open position independently of the pressure in the system. The CS pressure switch is used for air and water.

Order Code	Type	Connection (")	Setting Range (Bar)	Differential (Bar)	Permissible Operating Pressure (Bar)	Enclosure Protection
031E0215	CS	G 1/2A	2 > 6	0.72 > 2.0	10	IP55
031E0220	CS	G 1/4A	4 > 12	1.0 > 4.0	20	IP43
031E0235	CS	G 1/2A	4 > 12	1.0 > 4.0	20	IP55
031E0255	CS	G 1/2A	7 > 20	2.0 > 7.0	32	IP55



Danfoss KPS Range Heavy Duty Pressure Switches

KPS units are pressure-controlled switches. The position of the contacts depends on the pressure in the inlet connection and the set scale value. In this series, special attention has been given to meeting important demands for: a high level of enclosure, robust and compact construction, resistance to shock and vibration KPS series covers most outdoor as well as indoor application requirements. KPS pressure switches are suitable for use in alarm and regulation systems in factories, diesel plant, compressors, power stations and on board ship.



Heavy Duty Pressure Switch

Order Code	Type	Connection (")	Setting Range (Bar)	Adjustable / Fixed Differential (Bar)	Permissible Operating Pressure (Bar)	Max Test Pressure (Bar)	Enclosure Protection
060-311066	KPS 31	G 1/4	0 > 2.5	0.1	6	6	IP67
060-310966	KPS 31	G 3/8A	0 > 2.5	0.1	6	6	IP67
060-310466	KPS 33	G 1/4	0 > 3.5	0.2	10	10	IP67
060-310366	KPS 33	G 3/8A	0 > 3.5	0.2	10	10	IP67
060-310566	KPS 35	G 1/4	0 > 8	0.4 > 1.5	12	12	IP67
060-310066	KPS 35	G 3/8A	0 > 8	0.4 > 1.5	12	12	IP67
060-310866	KPS 35	G 1/4	0 > 8	0.4	12	12	IP67
060-310666	KPS 37	G 1/4	6 > 18	0.85 > 2.5	22	27	IP67
060-310166	KPS 37	G 3/8 A	6 > 18	0.85 > 2.5	22	27	IP67
060-310766	KPS 39	G 1/4	10 > 35	2.0 > 6	45	53	IP67
060-310266	KPS 39	G 3/8 A	10 > 35	2.0 > 6	45	53	IP67

Pressure Switch for High Pressure & Strongly Pulsating Media

Ambient temperature: -25 > 70 °C

Order Code	Type	Connection (")	Setting Range (Bar)	Adjustable Differential (Bar)	Permissible Operating Pressure (Bar)	Max Test Pressure (Bar)	Min Bursting Pressure (Bar)	Enclosure Protection
060-312066	KPS 43	G 1/4	1 > 10	0.7 > 2.8	120	180	240	IP67
060-312166	KPS 45	G 1/4	4 > 40	2.2 > 11	120	180	240	IP67
060-312266	KPS 47	G 1/4	6 > 60	3.5 > 17	120	180	240	IP67

Danfoss MBC 5100 Block-type compact Pressure Switches

MBC pressure switches are used in marine applications where space and reliability are the most important features. MBCs are compact pressure switches, designed according to Danfoss new block design to survive in the harsh conditions known from machine rooms on board ships. MBCs have high vibration resistance and feature all common marine approvals.

The fixed, but low differential guarantees accurate monitoring of critical pressures.



Order Code	Type	Setting Range (Bar)	Min Diff. Setting (Bar)	Max Diff. Setting (Bar)	Max Working Pressure (Bar) P.	Connection (")	Ambient Temperature °C
061B0005	Low Pressure bellows	0.2 > 1	0.15	0.45	15	G 1/4 A & Flange	-40 > 85
061B0004	Low Pressure bellows	0.2 > 4	0.15	0.45	15	G 1/4 A & Flange	-40 > 85
061B0010	Low Pressure bellows	0.2 > 4	0.15	0.45	15	G 1/4 A & Flange	-40 > 85
061B0002	Low Pressure bellows	0.2 > 10	0.15	0.45	15	G 1/4 A & Flange	-40 > 85
061B1004	Low Pressure diaphragm	1 > 10	0.30	2.5	150	G 1/4 A & Flange	-10 > 85
061B1008	Low Pressure diaphragm	1 > 10	0.30	2.5	150	G 1/4 A & Flange	-10 > 85
061B1002	Low Pressure diaphragm	5 > 20	0.4	2.5	150	G 1/4 A & Flange	-10 > 85
061B1005	High Pressure diaphragm	5 > 40	1.0	7	150	G 1/4 A & Flange	-10 > 85
061B1003	High Pressure diaphragm	10 > 100	1.7	14	150	G 1/4 A & Flange	-10 > 85
061B5100	High Pressure piston	16 > 160	12	30	600	G 1/4 A	-40 > 85
061B5101	High Pressure piston	25 > 250	12	40	600	G 1/4 A	-40 > 85
061B5102	High Pressure piston	40 > 400	15	50	600	G 1/4 A	-40 > 85

Danfoss RT Range Temperature Switches



RT controls are used in general industrial and marine sectors.

The RT temperature switch series consist of a variety of ordinary room temperature switches and remote sensor temperature switches including neutral zone temperature switches. RT temperature switches are generally recommended for applications where safety or economical consequences are critical factors.

RT with Automatic Reset. IP66

Order Code	Type	Setting Range (°C)	At Lowest Range Setting (°C)	At Highest Range Setting (°C)	Maximum Sensor temp. (°C)	Capillary Tube Length (m)
017-5099	RT14	-5 > 30	2 > 8	2 > 10	150	2
017-5048	RT106	20 > 90	4 > 20	2 > 7	120	2
017-5003	RT101	25 > 90	2.4 > 10	3.5 > 20	300	2
017-5060	RT108	30 > 140	5 > 20	4 > 14	220	2
017-5135	RT107 +	70 > 150	6 > 25	1.8 > 8	215	2
017-5208	RT120 +	120 > 215	7 > 30	1.8 > 9	260	2
017-5220	RT123 +	150 > 250	6.5 > 30	1.8 > 9	300	2
017-5227	RT124 +	200 > 300	5 > 25	2.5 > 10	350	2

+ Partial charge: sensor must not be the coolest part



RT Room Sensor. IP66

Order Code	Type	Setting Range (°C)	At Lowest Range Setting (°C)	At Highest Range Setting (°C)	Maximum Sensor temp. (°C)
017-5036	RT4	-5 > 30	1.5 > 7	1.2 > 4	75
017-5155	RT103	10 > 45	1.3 > 7	1 > 5	100
017-5118	RT34	-25 > 15	2 > 10	1 > 12	100
017L0024 ¹	RT16L	0 > 38	1.5 > 5	0.7 > 1.9	100

¹ Neutral zone setting: 0.7 - 1.5 bar



Sensor Pockets For RT Thermostats

Order Code	Description	Pocket Dimensions	Material	Sensor L (mm)
017-4370	Sensor Pocket for RT120 & 101 with stuffing box	L 112 mm x D 11	Brass	80
017-4369	Sensor Pocket for RT120, 101, 14, 107 & 123 with stuffing box	L 112 mm x D 11	18/8 Steel	80/97
017-4367	Sensor Pocket for RT14 with stuffing box	L 182 mm x D 11	Brass	150
017-4216	Sensor Pocket for RT108 with stuffing box	L 465 mm x D 11	Brass	410
060L3330	Sensor Pocket for RT106 with stuffing box	L 110 mm x D 15	Brass	76
060L3331	Sensor Pocket for RT106 with stuffing box	L 110 mm x D 15	18/8 Steel	76



Danfoss KP Range Thermostats

KP thermostats are single-pole, double-throw (SPDT) temperature operated electric switches. KP is used for regulation, but can also be seen in safety monitoring systems. It is here that the electronic mechanism shows its superiority. KP thermostats are available with vapour charge or with adsorption charge.

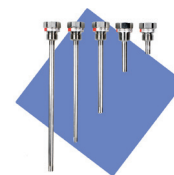
Enclosure: IP30

Order Code	Type	Setting Range (°C)	Adjustable Differential range (°C)	Max sensor Temperature (°C)	Sensor size (ØxL) mm	Capillary Tube Length (m)
060L1113	KP71	-5 > 20	2.2 > 10	80	9.5 x 115	2
060L1121	KP77	20 > 60	3.5 > 10	130	9.5 x 85	2
060L1184	KP78	30 > 90	5 > 15	150	9.5 x 85	2
060L1126	KP79	50 > 100	5 > 15	150	9.5 x 85	2
060L1125	KP81	80 > 150	7 > 20	200	9.5 x 85	2



Sensor Pockets For KP Thermostats

Order Code	Description	Pocket Dimensions	Material
060L3330	Sensor Pocket for KP77, 78, 79, & 81. With stuffing box	L 110 x Ø 15 mm	Brass
060L3331	Sensor Pocket for KP77, 78, 79, & 81. With stuffing box	L 110 x Ø 15 mm	Stainless Steel

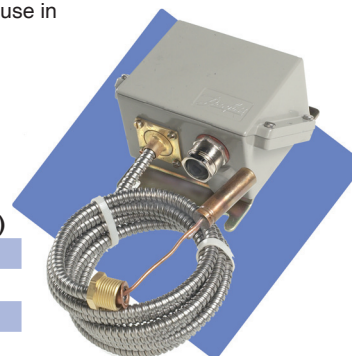


Danfoss KPS Range Harsh Environment Thermostats

In the KPS thermostats series, special attention has been given to meeting important demands for a high level of enclosure, a robust, compact construction and resistance to shock and vibration. The KPS range covers most outdoor as well as indoor application requirements, and are suitable for use in monitoring, alarm and regulation systems in factories, diesel plant, compressors, power station and on board ships.
Enclosure IP67

With Armoured Capillary Tube

Order Code	Type	Setting Range (°C)	Adjustable Differential range (°C)	Max sensor Temperature (°C)	Sensor size (ØxL) mm	Capillary Tube Length (m)
060L3112	KPS76	-10 > 30	3 > 10	80	13 x 63	2
060L3101	KPS77	20 > 60	3 > 14	130	13 x 63	2
060L3104	KPS79	50 > 100	4 > 16	200	13 x 63	2
060L3128	KPS80	70 > 120	4.5 > 18	220	13 x 63	2
060L3106	KPS81	60 > 150	5 > 25	250	13 x 63	2
060L3108	KPS83	100 > 200	6.5 > 30	300	13 x 63	2



Rigid Sensor

Order Code	Type	Setting Range (°C)	Adjustable Differential range (°C)	Max sensor Temperature (°C)	Sensor size (ØxL) mm	Sensor Pocket min Length (mm)
060L3100	KPS77	20 > 60	3 > 14	130	13 x 63	110
060L3118	KPS77	20 > 60	3 > 14	130	13 x 63	75
060L3103	KPS79	50 > 100	4 > 16	200	13 x 63	110
060L3121	KPS79	50 > 100	4 > 16	200	13 x 63	75
060L3126	KPS80	70 > 120	4.5 > 18	200	13 x 63	75



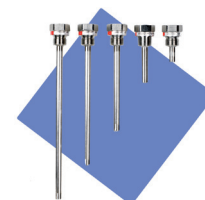
With Remote Sensor & Capillary Tube

Order Code	Type	Setting Range (°C)	Adjustable Differential range (°C)	Max sensor Temperature (°C)	Sensor size (ØxL) mm	Capillary Tube Length (m)
060L3102	KPS77	20 > 60	3 > 14	130	13 x 63	2
060L3105	KPS79	50 > 100	4 > 16	200	13 x 63	2
060L3129	KPS80	70 > 120	4.5 > 18	220	13 x 63	2



Sensor Pockets For KPS Thermostats

Order Code	Description	Sensor Dimensions (mm)	Material	Pocket Thread - B
060L3262	Sensor Pocket without stuffing box	L 75 mm x D 15	Brass	G 1/2 A
060L3266	Sensor Pocket without stuffing box	L 75 mm x D 15	Brass	G 3/8 A
060L3281	Sensor Pocket without stuffing box	L 75 mm x D 15	Brass	G 1/2 A
060L3271	Sensor Pocket without stuffing box	L 110 mm x D 15	Brass	G 1/2 A
060L3403	Sensor Pocket without stuffing box	L 110 mm x D 15	Brass	G 3/4 A
060L3263	Sensor Pocket without stuffing box	L 160 mm x D 15	Brass	G 1/2 A
060L3206	Sensor Pocket without stuffing box	L 200 mm x D 15	Brass	G 1/2 A
060L3254	Sensor Pocket without stuffing box	L 250 mm x D 15	Brass	G 1/2 A
060L3267	Sensor Pocket without stuffing box	L 75 mm x D 15	18/8 Steel	G 1/2 A
060L3268	Sensor Pocket without stuffing box	L 110 mm x D 15	18/8 Steel	G 1/2 A
060L3269	Sensor Pocket without stuffing box	L 160 mm x D 15	18/8 Steel	G 1/2 A



Danfoss EMP2 Pressure Transmitter

The ship approved pressure transmitter EMP 2 is designed for use in almost all marine and industrial applications, and offers a reliable pressure measurement, even under harsh environmental conditions. The pressure transmitter programme in box design is approved according to LR, DNV, GL, RINA, ABS, BV, NKK, CCS, KRS requirements, and covers a 4-20 mA output signal, gauge (relative) versions.



Pressure Connection G 1/2 A"

Order Code	Operating Pressure Relative (gauge) P _e (Bar)	Test Pressure P _e (Bar)	Min. Bursting Pressure P _e (Bar)
084G2102	0 > 1	3.2	100
084G2106	0 > 4	8	200
084G2107	0 > 6	18	400
084G2109	0 > 10	20	400
084G2111	0 > 16	32	400
084G2112	0 > 25	50	400
084G2113	0 > 40	80	400
084G2114	0 > 60	120	400
084G2115	0 > 100	200	400
084G2116	0 > 160	260	640
084G2117	0 > 250	375	1000
084G2118	0 > 400	600	1600



Danfoss MBS 3000 Pressure Transmitter

The compact pressure transmitter MBS 3000 is designed for use in almost all industrial applications, and offers a reliable pressure measurement, even under harsh environmental conditions. The flexible pressure transmitter programme covers a 4-20 mA output signal. Excellent vibration stability, robust construction, and a high degree of EMC/EMI protection equip the pressure transmitter to meet the most stringent industrial requirements.

Pressure Connection G 1/4 A"

Order Code	Pressure Range P _e (Bar)	Max Operating Pressure P _e (Bar)	Min Bursting Pressure P _e (Bar)
060G1123	0 > 4	8	50
060G1124	0 > 6	20	50
060G1125	0 > 10	20	50
060G1133	0 > 16	50	100
060G1430	0 > 25	50	100
060G1105	0 > 40	100	300
060G1106	0 > 60	200	800



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Danfoss MBS 5100 Pressure Transmitter

The ship approved high accuracy pressure transmitter MBS 5100 is designed for use in almost all marine applications, and offers a reliable pressure measurement, even under harsh environmental conditions. The pressure transmitter programme in block design is approved according to LR, DNV, GL, RINA, ABS, BV, NKK, PRS, MRS, KRS requirements, and covers a 4-20 mA output signal. Excellent vibration stability, robust construction, and a high degree of EMC/EMI protection.

Pressure Connection G 1/4 A"

Order Code	Pressure Range P _e (Bar)	Max Operating Pressure P _e (Bar)	Min Bursting Pressure P _e (Bar)
060N1081	0 > 1 bar	2	50
060N1083	0 > 2.5 bar	8	50
060N1084	0 > 4 bar	8	50
060N1063	0 > 6 bar	20	50
060N1064	0 > 10 bar	20	50
060N1065	0 > 16 bar	50	100
060N1085	0 > 25 bar	50	100
060N1066	0 > 40 bar	80	800
060N1086	0 > 60 bar	200	800
060N1087	0 > 100 bar	200	800



Danfoss MBT 3260 Temperature Sensors with fixed insert

The MBT 3260 is a light duty temperature sensor that can be used for measuring and regulation in piping and ventilation systems and other light industrial applications. Due to the fact that the protection tube is made of copper the MBT 3260 has a very short response time of down to $t_{0,5} = 2$ sec. in water. This temperature sensor is based on a standardized Pt100 or Pt1000 element, which gives a reliable and accurate measurement.

Order Code	Insertion Length (mm)	Resistance Value
084Z6055	50	Pt100
084Z6056	50	Pt1000
084Z8180	100	Pt1000
084Z8181	100	Pt100
084Z8183	250	Pt100



Danfoss MBT 5252 Temperature Sensors

The MBT 5252 is a heavy-duty temperature sensor that can be used for controlling cooling water, lubrication oil, hydraulic oil and refrigeration plants within general industry and marine applications. This temperature sensor is based on a standardized Pt100 or Pt1000 element, which gives a reliable and accurate measurement. The MBT 5252 can be delivered with NTC/PTC elements on request.

Order Code	Measuring Range °C	Insertion length	Electrical connection	Process Connection	Protection Tube Diameter
084Z8210	-50 to 200	50 mm	2 wire, 3 terminals	G 1/2A	ø10 x 2 mm
084Z8211	-50 to 200	100 mm	2 wire, 3 terminals	G 1/2A	ø10 x 2 mm
084Z8212	-50 to 200	150 mm	2 wire, 3 terminals	G 1/2A	ø10 x 2 mm
084Z8213	-50 to 200	200 mm	2 wire, 3 terminals	G 1/2A	ø10 x 2 mm
084Z6139	-50 to 200	250 mm	2 wire, 3 terminals	G 1/2A	ø10 x 2 mm
084Z8230	-50 to 200	50 mm	2 wire, 3 terminals	G 3/4A	ø10 x 2 mm
084Z6164	-50 to 200	80 mm	2 wire, 3 terminals	G 3/4A	ø10 x 2 mm
084Z8231	-50 to 200	100 mm	2 wire, 3 terminals	G 3/4A	ø10 x 2 mm



Danfoss MBT 153 Cable Type Temperature Sensors

The MBT 153 is a heavy-duty temperature sensor that can be used for controlling cooling water and ventilation systems within general industry and marine applications. This temperature sensor is based on a standardized Pt100 or Pt1000 element, which gives a reliable and accurate measurement. On request the MBT 153 can also be delivered with NTC/PTC elements. The sensor is based on a stainless steel housing with a cable, which makes the sensor extremely flexible.

Order Code	Product	Cable	Sensor element PT	Cable length (M)	Connection Wire
084Z6030	MBT 153	PVC Max. 100°C	100	3.5	2
084Z6032	MBT 153	PVC Max. 100°C	100	8.5	2
084Z6033	MBT 153	PVC Max. 100°C	1000	3.5	2
084Z6034	MBT 153	PVC Max. 100°C	1000	5.5	2
084Z6035	MBT 153	PVC Max. 100°C	1000	8.5	2
084Z6036	MBT 153	Silicone max 200°C	100	3.5	2
084Z6037	MBT 153	Silicone max 200°C	100	5.5	2
084Z6038	MBT 153	Silicone max 200°C	100	8.5	2
084Z6039	MBT 153	Silicone max 200°C	1000	3.5	2
084Z6215	MBT 153	Silicone max 200°C	100	3.5	4
084Z6042	MBT 153	Silicone max 200°C	100	5.5	4
084Z6216	MBT 153	Silicone max 200°C	100	8.5	4





Spare Parts for Solenoids

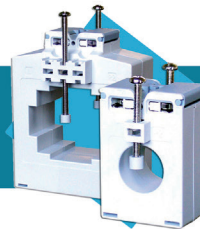
Order Code	Solenoid Type	Orifice	Seal Material	Description
042U1009	EV210B	1.5 - 4.5	EPDM	Isolating diaphragm kit NC
042U1010	EV210B	1.5 - 4.5	FKM	Isolating diaphragm kit NC
032U5315	EV250B	10 - 12	EPDM	Spare parts kit NC
032U5317	EV250B	18 - 22	EPDM	Spare parts kit NC
032U5271	EV250B	10 - 12	FKM	Spare parts kit NC
032U5273	EV250B	18 - 22	FKM	Spare parts kit NC
032U5319	EV250B	10 - 12	EPDM	Spare parts kit NO
032U5321	EV250B	18 - 22	EPDM	Spare parts kit NO
032U5320	EV250B	10 - 12	FKM	Spare parts kit NO
032U5322	EV250B	18 - 22	FKM	Spare parts kit NO
032U1062	EV220B 6-22	6	EPDM	Spare parts kit NC
032U1063	EV220B 6-22	6	FKM	Spare parts kit NC
032U1065	EV220B 6-22	10	EPDM	Spare parts kit NC
032U1066	EV220B 6-22	10	FKM	Spare parts kit NC
032U1068	EV220B 6-22	12	EPDM	Spare parts kit NC
032U1067	EV220B 6-22	12	FKM	Spare parts kit NC
032U1070	EV220B 6-22	18	EPDM	Spare parts kit NC
032U1069	EV220B 6-22	18	FKM	Spare parts kit NC
032U0165	EV220B 6-22	6	EPDM	Spare parts kit NO
032U0166	EV220B 6-22	6	FKM	Spare parts kit NO
032U0167	EV220B 6-22	10	FKM	Spare parts kit NO
032U1071	EV220B 15-50	15	EPDM	Spare parts kit NC
032U1072	EV220B 15-50	15	FKM	Spare parts kit NC
032U1073	EV220B 15-50	20	EPDM	Spare parts kit NC
032U1074	EV220B 15-50	20	FKM	Spare parts kit NC
032U1075	EV220B 15-50	25	EPDM	Spare parts kit NC
032U1076	EV220B 15-50	25	FKM	Spare parts kit NC
032U1077	EV220B 15-50	32	EPDM	Spare parts kit NC
032U1078	EV220B 15-50	32	FKM	Spare parts kit NC
032U1079	EV220B 15-50	40	EPDM	Spare parts kit NC
032U1080	EV220B 15-50	40	FKM	Spare parts kit NC
032U1081	EV220B 15-50	50	EPDM	Spare parts kit NC
032U1082	EV220B 15-50	50	FKM	Spare parts kit NC
032U0299	EV220B 15-50	15-50	NBR	Spare parts kit NO
032U3171	EV225B	6 - 10	PTFE	Spare parts kit
032U3172	EV225B	15	PTFE	Spare parts kit
032U3173	EV225B	20 - 25	PTFE	Spare parts kit
032U0150	EV220B	15-50 Brass		Manual override kit
018Z0089	BE coils			LED Power indicator terminal box AC supply only.
042N0263	BA & BB coils			Translucent power LED connector 24VAC/DC
042N0265	BA & BB coils			Translucent power LED connector 230V

Switch Spares

Order Code	Switch Type	Description
060-0086	KP	Front Cover for single control
060-0330	KP	IP55 Enclosure for Single Control, not transparent
060-1097	KP	Single control Top Cover
031E0298	CS	Pressure relief valve 1/4in pipe/hose.

Energy Management

Pages	Content
1	Carlo Gavazzi Energy Meters & Current Transformers
2	ABB Basic & Compact Energy Meters
3	ABB Advanced Energy Meters
4	Grasslin Time Switches



Carlo Gavazzi EM21 72D Energy Meter



The Carlo Gavazzi Energy Meter is a three phase energy meter with removable front LCD display unit. The same unit can be used either as a DIN-rail mounting or a panel mounting energy meter. This general purpose three phase energy meter is suitable for both active and reactive energy metering for cost allocation but also for main electrical parameter measurement and retransmission (transducer function). Housing for DIN rail mounting with IP50 (front) protection degree. Current measurements carried out by means of external current transformers and voltage measurements carried out either by means of direct connection or by means of potential transformers.

EM21-72D is provided as standard with a pulsating output for active energy retransmission. In addition, a 2 wire RS485 communication port is available as an option.

Features and Benefits

- * Inventory Reduction - Detachable display allowing three installation modes: Din-rail energy meter, panel mounting, energy meter and transducer
- * Space Optimisation - Compact size (4-Din modules or 72 x 72 mm panel mounting) for space saving also in panel boards
- * Minimising Energy Costs - Application adaptable energy metering for detailed cost allocation and analysis
- * Communication Capabilities - Pulsing output for simple and quick data transmission to PC / PLC for full load control; RS485 communication port for full BMS integration
- * Simplified Set-Up - Application-orientated programming procedure (Easyprog function) and simple connections management
- * Tamper Resistant - MID compliant product, with tamper proof features



Self powered 2.6VA
Input 3x230 (400)v 0.05-5 (6)A 50hz

Order Code	Description	Output
EM21-72D-AV5.3.XOX.X	Pulse version	Static
EM21-72D-AV5.3.XOS.X	Pulse & modbus version	RS485 & Static

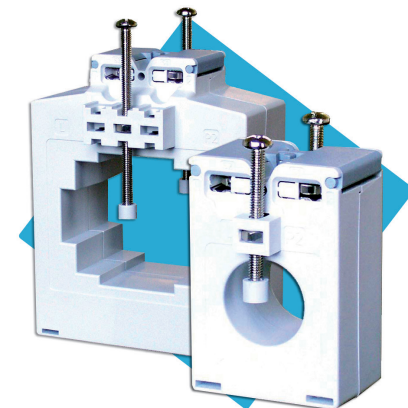
Carlo Gavazzi CTD Current Transformers

The CTD Series has been developed to provide the market with an application-oriented range of current transformers, which are easily installed, thus providing optimum safety and flexibility. They are connectable with all types of wiring terminals and can be installed on DIN-rail or directly to the back panel, therefore giving the possibility of bridging the secondary without changing the connections, thus avoiding dangerous over-voltages

Split core transformers simplify installation by not requiring disconnection of the wire or busbar connection, whereas the CTD Series solid core transformers offer more precision and a more economical price. Furthermore their size allows their use where limited space is available amongst bus-bars, in applications such as those found within Motor Control Centres (MCCs) or Power Control Centres (PCCs).

Key Features

- Solid and split core types in 12 frame sizes
- Types for cable, horizontal and vertical busbar mounting
- Primary currents up to 2,000A AC
- Secondary currents of 1A or 5A AC
- Sealable terminal block covers
- 2 to 10 bus-bar isolating fixing screws



Order Code	Primary (A)	Secondary (A)	Diameter (mm)
CTD-1X-50-5A-XXX	50	5	23
CTD-1X-60-5A-XXX	60	5	23
CTD-1X-75-5A-XXX	75	5	23
CTD-1X-100-5A-XXX	100	5	23
CTD-1X-125-5A-XXX	125	5	23
CTD-1X-200-5A-XXX	200	5	23
CTD-1X-250-5A-XXX	250	5	23
CTD-2X-150-5A-XXX	150	5	24
CTD-2X-200-5A-XXX	200	5	24
CTD-2X-250-5A-XXX	250	5	24
CTD-2X-400-5A-XXX	400	5	24
CTD-2X-600-5A-XXX	600	5	24
CTD-3X-800-5A-XXX	800	5	41
CTD-4X-1000-5A-XXX	1000	5	51
CTD-4X-1500-5A-XXX	1500	5	51

ABB B - series Basic Energy Meters

The B series EQ meters are meters for single phase and three phase metering. The B series meters are mounted on a DIN rail and are suitable for installation in distribution boards and small enclosures such as consumer units. The B series are suitable in applications where there is a need for reliable energy measurements and where space is limited.

Order Code	Descriptive Order Code	Description
2CMA100149R1000	B21 111-100	Single phase meter 65A, DIN mount with IR port IEC approval Direct connected electricity meter Voltage 230v Accuracy Class - B (Cl. 1) I/O - Pulse output
2CMA100154R1000	B21 311-100	Single phase meter 65A, DIN mount with IR port IEC approval Direct connected electricity meter, Resettable register Voltage 230v Accuracy Class - B (Cl. 1) I/O - Pulse output
2CMA100163R1000	B23 111-100	Three phase meter 65A, DIN mount with IR port IEC approval Direct connected electricity meter Voltage 3 x 230/400 V Accuracy Class - B (Cl. 1) I/O - Pulse output
2CMA100177R1000	B24 111-100	Three phase meter 6A, DIN mount with IR port IEC approval CTVT connected electricity meter Voltage 3 x 230/400 V Accuracy Class - B (Cl. 1) I/O - Pulse output



ABB C - series Compact Energy Meters

The C11 meter is a truly compact meter for single phase metering. The C11 is mounted on a DIN rail and is suitable for installation in distribution boards and small consumer units. The C11 is suitable for many applications.

Order Code	Descriptive Order Code	Description
2CMA170550R1000	C11 110-300	Single Phase 40A, 1 DIN with ProM terminal IEC approval Voltage 1 x 230 VAC Accuracy Class - B (Cl.1) I/O - Pulse Output



ABB A - series Advance Range Energy Meters



The A-series meters are mounted on a DINrail and are suitable for installation in distribution boards and small enclosures such as consumer units. With the main terminals in accordance with DIN 43857 and accessible from the below the meters, the A-series is suitable for many applications. The meters support a wide voltage range as well as a wide temperature range. The display is pixel-oriented and can display up to four quantities at the same time. Navigating the meter is easily done via the push-buttons below the display. To configure the meter settings, the set button must be accessed and this button is protected against unauthorized use when the "glass lid" on the front of the meter is closed and sealed. The power consumption of the meter is very low, less than 0.8 VA.

Verified and approved according to MID
With IEC approval

Single Phase

80A, 4 DIN with IR port
Voltage 57...288 VAC
Accuracy Class - B (Cl.1)
I/O - 2 Output, 2 Input

Order Code	Descriptive Order Code	Description
2CMA170505R1000	A41 412 -100	Direct connected electricity meter, RS-485

6A, 4 DIN with IR port
Voltage 57...288 VAC
Accuracy Class - B (Cl.1)
I/O - Pulse Output

Order Code	Descriptive Order Code	Description
2CMA170555R1000	A42 111-100	CTVT connected electricity meter
2CMA170510R1000	A42 112-100	CTVT connected electricity meter, RS-485



Three Phase

80A, 7 DIN with IR port
Voltage 3 x 57/100 ... 288/500 VAC
Accuracy Class - B (Cl.1)
I/O - Pulse Output

Order Code	Descriptive Order Code	Description
2CMA170520R1000	A43 111 -100	Direct connected electricity meter
2CMA170522R1000	A43 212 - 100	Direct connected electricity meter, RS-485



6A, 7 DIN with IR port
Voltage 3 x 57/100 ... 288/500 VAC

Order Code	Descriptive Order Code	Description
2CMA170533R1000	A44 111 - 100	CTVT connected electricity meter. Accuracy Class - B (Cl.1) I/O - Pulse Output
2CMA170534R1000	A44 212 - 100	CTVT connected electricity meter, RS-485 Accuracy Class - B (Cl.1) I/O - Pulse Output
2CMA170545R1000	A44 552 - 100	CTVT connected electricity meter, RS-485 Accuracy C (Cl. 0.5) Reactive Cl.2 I/O - Configurable
2CMA170535R1000	A44 213 - 100	CTVT connected electricity meter, M-Bus Accuracy B (Cl. 1) I/O - Pulse output



10

Grasslin Tactic Universal -Timeswitches

GRÄSSLIN

Grässlin's state-of-the-art time switch technology makes life in residential, office, commercial and industrial buildings easier, safer and helps to save energy efficiently. The innovative products convince through self-explanatory menu navigation and problem-free installation. Universal time switches from the tactic product range offer diverse use options both indoors and outdoors, for universal switching tasks in switching stations, in machine controls or specific solutions such as swimming pool or sprinkler system controls. Universal time switches and time switch modules are offered in digital and in analog versions. With their exemplary quality workmanship, Grässlin's universal time switches and time switch modules enable a broad spectrum of smart and energy saving applications.

Analog Timeswitches

Order Code	Model Type	Descriptive Order Code	Dial Type	Switching Capacity	Reserve	Type	Voltage
TACTIC1111240	Tactic 111.1	72ST	24 Hour	16 Amps	No Reserve	Synchronous	230 Vac
TACTIC1711230	Tactic 171.1	72SW	7 Day	16 Amps	No Reserve	Synchronous	230 Vac
TACTIC2111240	Tactic 211.1	72QT	24 Hour	16 Amps	150 Hour	Quarts	230 Vac
TACTIC2711230	Tactic 271.1	72QW	7 Day	16 Amps	150 Hour	Quarts	230 Vac



Tactic Type 111.1

Digital Timeswitches

Order Code	Model Type	Memory spaces	Digital Type	Switching Capacity	Reserve	Type	Voltage	Channel
TACTIC3711240	Tactic 371.1	20	7 Day & 24h	16 Amps	3 Year	Digital	230 Vac	1
TACTIC571-1	Tactic 571.1	50	7 Day & 24h	16 Amps	3 Year	Digital	230 Vac	1
TACTIC5721240	Tactic 572.1	50	7 Day & 24h	16 Amps	3 Year	Digital	230 Vac	2



Tactic Type 37 _ _



Tactic Type 57 _ _

ABB Low Voltage Motors



CSE are able to offer a wide range of ABB Motors.
Below are general options needed to create a Motor.

Selection Options

1. Motor Types

General Performance (standard)

Process Performance	Water Cooled
Brake Motor	High Ambient Temperature
Permanent Magnet	Roller Table
Single Phase	Smoke Extraction

2. Standards

Cast Iron or Aluminium Motors
Efficiencies

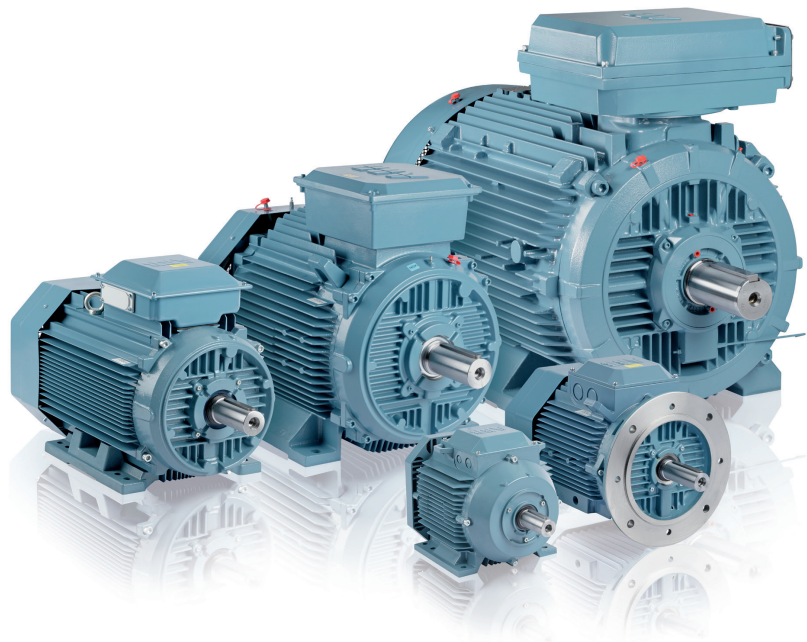
IE2	IE3	IE4
High (for use with Inverter only)	Premium	Super Premium

3. Voltage & Frequency

Frequency - 50 or 60 Hz

Voltage

220
380
380-420
400
415
440
460
500
575
690



4. Output

Motor power kW selections from 0.06 to 1000 kW

5. Poles

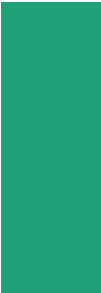
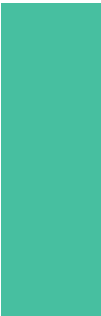
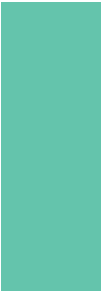
2 Pole	4 Pole	6 Pole	8 Pole	10 Pole	12 Pole
3000 rpm	1500 rpm	1000 rpm	750 rpm	600 rpm	500 rpm

6. Mounting

B3	B5	Other
Foot Mounting (Standard)	Flange Mounting	Other mountings available

Please note the above selection is only a basic guide, options may vary depending on your combination selection.

Temperature Controls

	Pages	Content
	1	Eldon EF fan and EFA filter
	2	Eldon EFP fan and EFAP filter
	3	Stego FF018 fan and filters
	4	Stego semi conductor heaters and thermostats
	5	Stego Semi conductor heaters





Eldon EF High flow Filter fan

Material: Front cover made of injection-moulded thermoplastic, self-extinguishing, UL94V0.

Filter Grade G3, and grade G4 for EF500R5 and above (according to EN 779).

Temperature resistance: -15°C to +55°C.

Type of connection:

Depending on the filter fan size,

- type 1 cable length 310mm,

- type 2 terminal strip,

- type 3 spring-type terminal.

Protection: IP 54, NEMA12.

Finish: RAL 7035.

Approvals: CE, cUL, UL.

Pack quantity: 1 fan with filter.



230 v 50/60 hz

Order Code	Free air flow (m³/h)	EF+EFA Air flow (m³/h)	Noise (dB)	Current (A)	Connection Type	Size (mm)	Cut out size (mm)
EF100-230R5	25	16	33	0.07	1	105 x 105	92 x 92
EF200-230R5	61	44	44	0.12	2	150 x 150	125 x 125
EF250-230R5	156	116	40	0.12	3	250 x 250	223 x 223
EF300-230R5	256	231	42	0.32	3	250 x 250	223 x 223
EF500-230R5	480	370	54	0.30	3	325 x 325	291 x 291
EF600-230R5	640	445	63	0.51	3	325 x 325	291 x 291

115 v 50/60 hz

Order Code	Free air flow (m³/h)	EF+EFA Air flow (m³/h)	Noise (dB)	Current (A)	Connection Type	Size (mm)	Cut out size (mm)
EF100-115R5	29	18	33	0.15	1	105 x 105	92 x 92
EF200-115R5	70	52	44	0.23	2	150 x 150	125 x 125
EF250-115R5	171	127	40	0.25	3	250 x 250	223 x 223
EF300-115R5	292	265	42	0.50	3	250 x 250	223 x 223
EF500-115R5	480	370	54	0.80	3	325 x 325	291 x 291
EF600-115R5	653	445	63	1.40	3	325 x 325	291 x 291

24 v DC

Order Code	Free air flow (m³/h)	EF+EFA Air flow (m³/h)	Noise (dB)	Current (A)	Connection Type	Size (mm)	Cut out size (mm)
EF100-115R5	25	16	33	0.10	1	105 x 105	92 x 92
EF200-115R5	61	44	44	0.21	1	150 x 150	125 x 125
EF250-115R5	156	116	40	0.20	3	250 x 250	223 x 223
EF300-115R5	256	231	42	0.50	3	250 x 250	223 x 223

Eldon EFA Exhaust filter

Material: Front cover made of injection-moulded thermoplastic, self-extinguishing, UL94V0.

Filter Grade G3, and grade G4 for EFA500R5 and above (according to EN 779).

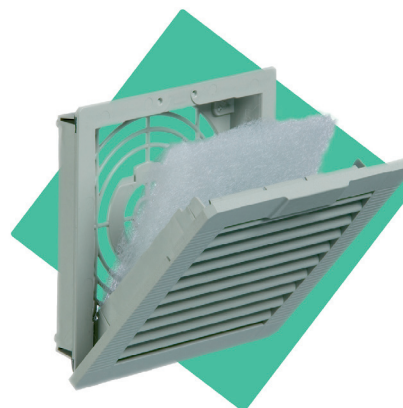
Temperature resistance: -15°C to +55°C.

Protection: IP54, NEMA12.

Finish: RAL 7035.

Approvals: CE, cUL, UL.

Pack quantity: One exhaust filter..



Order Code	Size (mm)	Cut out size (mm)
EFA100R5	105 x 105	92 x 92
EFA200R5	150 x 150	125 x 125
EFA250-300R5	250 x 250	223 x 223
EFA500-600R5	325 x 325	291 x 291

Eldon EFP

Outdoor filter fan

Material: Front cover made of injection-moulded thermoplastic, self-extinguishing, UL94V0. UV resistance.

Filter Grade G4 (according to EN 779).

Temperature resistance: -15°C to +55°C.

Type of connection:

Depending on the filter fan size,

- type 1 cable length 310mm

- type 2 terminal strip

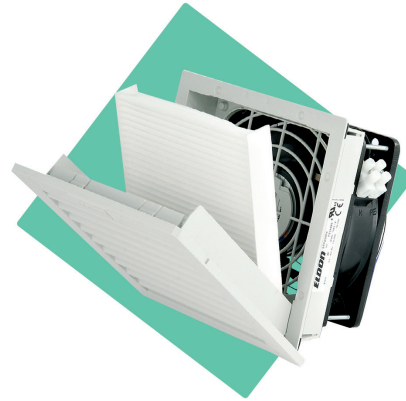
- type 3 spring-type terminal.

Protection: IP 55, NEMA12.

Finish: RAL 7035.

Approvals: CE, cUL, UL.

Pack quantity: One fan with filter.



230 v 50/60 hz

Order Code	Free air flow (m³/h)	EF+EFA Air flow (m³/h)	Noise (dB)	Current (A)	Connection Type	Size (mm)	Cut out size (mm)
EFP200-230R5	56	40	44	0.12	2	150 x 150	125 x 125
EFP250-230R5	145	109	40	0.12	2	250 x 250	223 x 223
EFP300-230R5	233	180	42	0.32	3	250 x 250	223 x 223
EFP500-230R5	505	380	54	0.30	3	325 x 325	291 x 291
EFP600-230R5	770	490	63	0.51	3	325 x 325	291 x 291

115 v 50/60 hz

Order Code	Free air flow (m³/h)	EF+EFA Air flow (m³/h)	Noise (dB)	Current (A)	Connection Type	Size (mm)	Cut out size (mm)
EFP200-115R5	64	46	44	0.23	2	150 x 150	125 x 125
EFP250-115R5	160	43	40	0.25	2	250 x 250	223 x 223
EFP300-115R5	265	46	42	0.50	3	250 x 250	223 x 223
EFP500-115R5	505	52	54	0.80	3	325 x 325	291 x 291
EFP600-115R5	785	64	63	1.40	3	325 x 325	291 x 291

24 v AC

Order Code	Free air flow (m³/h)	EF+EFA Air flow (m³/h)	Noise (dB)	Current (A)	Connection Type	Size (mm)	Cut out size (mm)
EFP200-24VACR5	56	40	44	0.21	1	150 x 150	125 x 125

Eldon EFAP

Exhaust filter, outdoor version

Material: Front cover made of injection-moulded thermoplastic, self-extinguishing, UL94V0. UV resistance.

Filter Grade G4 (according to EN 779).

Temperature resistance: -15°C to +55°C.

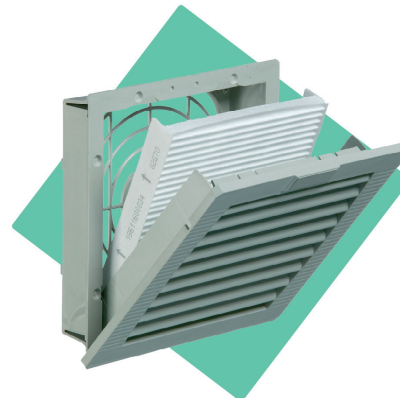
Protection: IP 55, NEMA12.

Finish: RAL 7035.

Approvals: CE, cUL, UL.

Pack quantity: One exhaust filter.

Order Code	Size (mm)	Cut out size (mm)
EFAP200R5	150 x 150	125 x 125
EFAP250-300R5	250 x 250	223 x 223
EFAP500-600R5	325 x 325	291 x 291



Stego FF 018 Series Filter Fans



The filter fans are used to provide an optimum climate in enclosures. The interior temperature of an enclosure can be reduced by channelling cooler filtered outside air into the enclosure thus expelling heated internal air. The resulting air flow prevents formation of localised hot pockets and protects the electronic components from overheating. The plastic used for the hood of this filter fan series is highly weather proof and UV light resistant.

Material:

Fan body aluminium, rotor plastic
Filter material: synthetic fibre with progressive construction, temperature resistance to 100°C, self extinguishing class F1.
Casing - plastic according to UL94 V-0 light grey.
Hood - plastic according to UL94 V-0 light grey.

Connection: 2 wires with pressure clamps 2.5mm², length 100mm

Protection: IP 54 / I (earthed)

Operating/ Storage temperature: -45 to + 70°C (-49 to 158°F)



230 v 50 Hz

Approval: VDE + UL File No. E234324

Order Code	Free air flow (m ³ /h)	Air volume with exit filters (m ³ /h)	Current (mA)	Power (W)	Average noise level (DIN EN ISO 4871)	Depth (mm)	Cut out size (mm)
01800.0-00	21	16	80	13	31 db (A)	45	97 x 97 + 0.4
01801.0-00	55	42	100	15	40 db (A)	58	125 x 125 + 0.4
01802.0-00	102	68	100	15	39 db (A)	86	176 x 176 + 0.4

120 v 50 Hz

Approval: UL File No. E234324

Order Code	Free air flow (m ³ /h)	Air volume with exit filters (m ³ /h)	Current (mA)	Power (W)	Average noise level (DIN EN ISO 4871)	Depth (mm)	Cut out size (mm)
01800.0-01	24	18	160	13	31 db (A)	45	97 x 97 + 0.4
01801.0-01	63	48	180	15	40 db (A)	58	125 x 125 + 0.4
01802.0-01	117	78	180	15	39 db (A)	86	176 x 176 + 0.4

FF 018 Series Exit Filter

Order Code	Depth in enclosure (mm)	Enclosure cut-out (mm)	Filter mat	Protection type
11800.0-00	16	97 x 97 + 0.4	G4 acc. to DIN EN 779, filtering degree 94%	IP54
11801.0-00	16	125 x 125 + 0.4	G4 acc. to DIN EN 779, filtering degree 94%	IP54
11802.0-00	16	176 x 176 + 0.4	G4 acc. to DIN EN 779, filtering degree 94%	IP54

FM 086 / FFM086 Filter Mats

Filter mat	89 x 89 mm	118 x 118 mm	168 x 168 mm
G4 (1 packing unit = 3 pcs)	08600.0-00	08601.0-00	08602.0-00
F5 (1 packing unit = 3 pcs)	08603.0-00	08604.0-00	08608.0-00

Stego KTO 011 / KTS 011 Series

Small compact Thermostat

KTO 011: Thermostat (normally closed); contact breaker for regulating heaters.

KTS 011: Thermostat (normally open); contact maker for regulating of filter fans and heat exchangers or for switching signal devised when temperature limit has been exceeded.

DIN Rail mounted IP20

Connection: 2-pole terminal, clamping torque 0.5Nm max.:

rigid wire 2.5mm² stranded wire (with wire end ferrule) 1.5mm²

Dimensions: 160 x 33 x 43mm

Max. switching capacity: 250VAC, 10 (2) A

120VAC, 15 (2) A 30WDC at 24VDC to 72VDC



Order Code	Stego Code	Setting range	Colour	Max. inrush current	Normally open/closed	Approvals
KTO1140	01140.0-00	0 to +60°C	Red	16AAC for 10 sec.	closed	VDE
KTS1141	01141.0-00	0 to +60°C	Blue	16AAC for 10 sec.	open	VDE

Stego ZR 011 Series

Dual Thermostat

Two thermostats in one casing:

Thermostat (contact breaker, normally closed) for regulating heaters.

Thermostat (contact maker, normally open) for regulating filter fans and heat exchangers or switching signal devices when temperature limit has been exceeded.

Heaters and cooling equipment can be switched independently from

each other with a temperature offset as opposed to the usual change-over contacts.

DIN Rail mounted IP20

Connection: 4-pole terminal, clamping torque 0.5Nm max.:

rigid wire 2.5mm² stranded wire (with wire end ferrule) 1.5mm²

Dimensions: 67 x 50 x 46mm

Max. switching capacity: 250VAC, 10 (2) A

120VAC, 15 (2) A 30WDC at 24VDC to 72VDC



Order Code	Stego Code	Setting range	Max. inrush current	Approvals
ZR01172	01172.0-00	0 to +60°C	Contact breaker (NC) / Contact maker (NO)	VDE + UL File No. E164102

Stego CR 027 Series

Semiconductor Fan Heater

Semiconductor fan heater prevents formation of condensation and frost and provides an evenly distributed interior air temperature in enclosures with electric/electronic components. The integrated thermostat is used to set the desired temperature.

DIN Rail mounted IP20

Connection: 2-pole clamp 2.5mm², clamping torque 0.8Nm max.

Operating voltage: 220-240VAC, 50/60Hz

Dimensions: 100 x 128 x 165mm

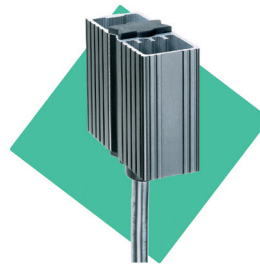


Order Code	Stego Code	Heating capacity 50hz	Inrush current max.	Pre-fuse T (time-delay)	Airflow, free flow	Setting range Temp. regulator	Approvals
CR027-350W	02700.0-00	475w	11.0 A	6.3 A	35m ³ /h	0 to +60°C	UL File No. E204590
CR027-550W	02700.9-00	550w	13.0 A	8.0 A	45m ³ /h	0 to +60°C	UL File No. E204590



Stego HGK 047 Series Small semiconductor Heater

The heaters are used in enclosures where condensation is to be prevented or the temperature may not fall below a minimum value. In this way corrosion is avoided and an even temperature is ensured.



DIN Rail mounted IP54

Order Code	Stego Code	Operating voltage	Heating capacity	Inrush current max.	Length (mm)	Connection	Approvals
HGK047-10W	04700.0-00	120-250V AC/DC2)	10w	1.0 A	50	3 x 0.5mm ² x 300mm sheathed cable (silicone)	VDE
HGK047-20W	04701.0-00	120-250V AC/DC2)	20w	2.5 A	60	3 x 0.5mm ² x 300mm sheathed cable (silicone)	VDE
HGK047-30W	04702.0-00	120-250V AC/DC2)	30w	3.0 A	70	3 x 0.5mm ² x 300mm sheathed cable (silicone)	VDE

Stego HG 040 Series Semiconductor Heater

Compact heaters are used in control cabinets to prevent condensation and to regulate the temperature. The aluminium profile creates a chimney effect and distributes heat evenly in the enclosure.

DIN Rail mounted IP44

Connection: Silicone cable, 3 x 0,75 mm², length 500 mm or via 3 x AWG 18, length 500 mm (UL-version)
Operating voltage: 120-240V AC/DC* (min. 110V, max. 265V)

Order Code	Stego Code	Heating capacity	Inrush current max.	Length (mm)	Cable	Approvals
HG040-15W	04000.0-00	15w	1.5 A	65	Comes with cable	VDE
HG040-30W	04001.0-00	30w	3.0 A	65	Comes with cable	VDE
HG040-45W	04003.0-00	45w	3.5 A	65	Comes with cable	VDE
HG040-60W	04005.0-00	60w	2.5 A	140	Comes with cable	VDE
HG040-75W	04006.0-00	75w	4.0 A	140	Comes with cable	VDE
HG040-100W	04007.0-00	100w	4.5 A	140	Comes with cable	VDE
HG040-150W	04008.0-00	150w	9.0 A	220	Comes with cable	VDE



Stego HG 140 Series Semiconductor Heater

These heaters are used in enclosures where damage from condensation must be prevented, or where the temperature may not fall below a minimum value. The aluminium profile heater body design has a chimney effect and distributes the heat evenly. The heaters are designed for permanent operation. Pressure clamp connectors save time and simplify installation.

DIN Rail mounted IP20

Connection: 3 pressure clamps for stranded wire 0.5-1.5mm² (with wire end ferrule) and rigid wire 0.5-2.5mm²
Operating voltage: 120-240V AC/DC* (min. 110V, max. 265V)

Order Code	Stego Code	Heating capacity	Inrush current max.	Length (mm)	Approvals
HG140-15W	14000.0-00	15w	1.5 A	65	VDE + UL File No. E150057
HG140-30W	14001.0-00	30w	3.0 A	65	VDE + UL File No. E150057
HG140-45W	14003.0-00	45w	3.5 A	65	VDE + UL File No. E150057
HG140-60W	14005.0-00	60w	2.5 A	140	VDE + UL File No. E150057
HG140-75W	14006.0-00	75w	4.0 A	140	VDE + UL File No. E150057
HG140-100W	14007.0-00	100w	4.5 A	140	VDE + UL File No. E150057
HG140-150W	14008.0-00	150w	9.0 A	220	VDE + UL File No. E150057



Pages	Content
1	CK Power Tool Accessories
2	CK General Tools
3	CK General Tools & Tool Bags



Power Tool Accessories

CK Hole Saws

- Professional quality High Speed Steel Bi-metal holesaws for performance and a long life
- Vari-pitch teeth for fast clean cutting
- Perfect for cutting clean holes in soft and hardwood, plywood, chipboard, steel, stainless steel, Die cast metals, nail embedded wood, plastics etc.

Order Code	Size
424001	16 mm (5/8")
424002	19 mm (3/4")
424003	20 mm (25/32")
424005	22 mm (7/8")
424006	25 mm (1")
424007	29 mm (1.1/8")
424008	32 mm (1.1/4")
424010	38 mm (1.1/2")
424011	40 mm (1.9/16")
424012	41 mm (1.5/8")
424013	43 mm (1.11/16")
424014	44 mm (1.3/4")
424015	48 mm (1.7/8")
424016	51 mm (2")
424017	54 mm (2.1/8")
424018	57 mm (2.1/4")
424019	60 mm (2.3/8")
424020	64 mm (2.1/2")
424021	65 mm (2.9/16")
424022	67 mm (2.5/8")
424024	70 mm (2.3/4")
424025	73 mm (2.7/8")
424026	76 mm (3")
424027	79 mm (3.1/8")
424028	83 mm (3.1/4")
424030	89 mm (3.1/2")
424031	92 mm (3.5/8")
424032	95 mm (3.3/4")
424033	102 mm (4")
424034	105 mm (4.1/8")
424035	111 mm (4.3/8")
424036	114 mm (4.1/2")



CK High Speed Drill Bits

Order Code	Size (mm)
T3182-01	1
T3182-015	1.5
T3182-02	2
T3182-025	2.5
T3182-03	3
T3182-035	3.5
T3182-04	4
T3182-045	4.5
T3182-05	5
T3182-055	5.5
T3182-06	6
T3182-065	6.5
T3182-07	7
T3182-08	8
T3182-09	9
T3182-10	10
T3182-11	11
T3182-12	12
T3182-13	13



CK Arbor's

Order Code	Description	To Fit Hole Saw
424037	Arbor with 8mm Hex Drive & 1/4" Pilot drill	up to 30mm
424038	Arbor with 11mm Hex Drive & 1/4" Pilot drill,	up to 30mm
424039	Quick release Arbor with 11mm Hex Drive, 1/4" Pilot drill and fixing pins	32mm-150mm
424040	Heavy duty Arbor with 11mm Hex Drive, 1/4" Pilot drill, fixing pins and locking plate,	32mm-150mm
424047	Arbor with SDS Drive & 1/4" Pilot drill	up to 30mm
424048	Quick release Arbor with SDS Drive, 1/4" Pilot drill and fixing pins	32mm-150mm



424037



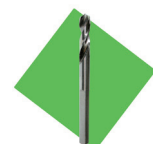
424038



424039

CK Replacement 1/4" Pilot drill bit

Order Code	Description	For use with Arbor
424041	Replacement 1/4" Pilot drill bit	424037
424042	Replacement 1/4" Pilot drill bit	424038-424039-424040



424042

General Tools

CK Pliers

Order Code	Type	Size (mm)	Cutting Capacity (mm)		
			Hard	Med/Hard	Soft
431002	Combination	185	1.6	2.5	>4.0
431003	Combination	205	2	2.8	>4.0
431013	Snipe Nose	175	1.4	2	>4.0
431014	Snipe Nose	200	1.6	2	>4.0

Order Code	Type	Size (mm)	Jaw Size (mm)
T3657-250	Waterpump	250	50
T3659A-240	Waterpump	250	32
T3659A-300	Waterpump	300	38



431002



T3659A-240

CK Cutters

Order Code	Type	Size (mm)	Cutting Capacity (mm)
430007	Ratchet Cable Cutter	190	32
431031	Cable Cutter	210	25
T3963	Cable Cutter	210	11
T3963-240	Cable Cutter	240	13

Order Code	Type	Size (mm)	Cutting Capacity (mm)		
			Hard	Med/Hard	Soft
431008	Combination	160	1	1.5	>4.0
431006	Side Cutters	175	2	2.5	>4.0
431007	Side Cutters	200	2.5	3	>4.0



431031



431006

CK Crimpers

Order Code	Suitable For	Size (mm)	Capacity (mm)
430018	Ferrules	190	0.14-2.5
430021	R/B/Y Insulated Terminals	220	0.5-6.0
430022	Ferrules	230	10.0-25.0
430025	Non Insulated Terminals	230	1.5-10
430029	Ferrules	190	0.25-6.0



430021

CK Screwdrivers

Sensor plus VDE

Order Code	Size
341010	PZD0
341011	PZD1
341012	PZD2
341013	PZD3
341018	Slotted 75x2.5
341019	Slotted 100x3.0
341020	Slotted 100x3.5
341021	Slotted 100x4.0
341022	Slotted 125x5.5
341023	Slotted 150x6.5
341024	Slotted 175x8.0
341025	Slotted 200x10.0
440003	Modulo Terminal
440007	Mains tester 220-250VAC
440013	Mains tester 100-250VAC
441034	6 Piece set
441037	8 Piece set



341012



CK General Tools



Order Code	Description
357001	Claw Hammer 16oz
357005	Club Hammer 3lb



357001

484001	Electricians Knife 95mm
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484001

495002	Universal Switch Key
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T0814	Quick Change Hacksaw 12"
T0905	Hacksaw 12"
T0931R-12	Hacksaw blades 12" Pack of 3
T0834	Junior Hacksaw 6"
T0835	Junior Hacksaw Blades pack of 10
495001	Automatic Wire Stripper



T0814

T3442-16	Tape measure 5 Meters
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T3442-16

T3482	Pocket level 210mm
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T3482

CK Tool Bags

Order Code	Description
T1627	Minibag 32 pockets
T1628	Maxibag 36 pockets
T1630	Technicians Tool Case
T1719	Chisel Roll (Takes up to 9 Chisels)
T1723	Padded Tool Belt



T1628



T1630

Account Application Form



Please send back via email or fax too:

Wooburn Green (Buckinghamshire) - Fax: 01628 810093 or - Email: sales@cseuk.com
 Southampton (Hampshire) - Fax: 02380 274082 or - Email: southampton@cseuk.com

Application Statement:

I /We make this application to open a credit account with CSE Industrial Electrical Distributors Ltd
 I/We understand that we are committing to pay according to the credit terms agreed on this form.
 We hereby agree to pay in accordance with these terms.

Date		Name	
Position in company		Signature	

Your company details

Registered trading name		Company registration no.	
Registered address		Trading address (if different)	
Invoicing address above	yes / no (Please circle)	Invoicing address above	yes / no (Please circle)
Directors / Partners names			
1.	2.		3.
How long established		Previous trading names	
Number of employees		Do you require monthly statements	yes / no if yes via post / email (Please circle)

Your contact details

	General	Purchasing	Accounts
Name			
Telephone No.			
Fax No.			
Email address			

Company references

Please provide two company names with whom you have a trading history for credit reference.

1.) Company name & address		2.) Company name & address	
Fax or email address		Fax or email address	
Telephone		Telephone	

Bank details

VAT Registration no.	Account number	Sort code
Bank name:		Credit limit required Credit days 30 days nett monthly £
Bank address:		

Terms and Conditions

The Company as named in this document shall hereafter be referred to as “the vendor” The Company to whom the vendor is selling the goods shall hereafter be referred to as “the purchaser”. The following terms and conditions shall apply to all quotations, orders and contracts unless specifically agreed to by us in writing to the contrary.

1. Orders are subject to our acceptance. Quotations are without engagement and are subject to goods and/or services being available when the order is received. The vendor reserves the right not to complete an order if the purchaser's credit worthiness subsequently proves unsatisfactory. If an error is discovered in the price of the item(s) you have ordered, we will inform you and issue a full refund as soon as possible. We shall be under no obligation to fulfil an order for an item which was advertised at an incorrect price, if the item(s) has been charged and not despatched we will cancel and refund your order.
2. The time or date given for delivery is given as accurately as possible but is not guaranteed and we do not accept liability for non-delivery or delays of any kind.
3. Under no circumstances can we accept any liability for consequential loss/damages
4. Claims for material damaged in transit or short deliveries must be notified to us within three days; either by telephone, fax or e-mail. Non-delivery of goods which are expected on a particular day must be reported to CSE within 24 hours otherwise no liability can be accepted in these cases.
5. The prices quoted refer to the quantities stated and do not apply to smaller or larger quantities unless agreed to by us in writing.
6. The vendor will, at all times, supply product in accordance with Manufacturers' specifications. However when dealing with cables the lengths supplied are subject to a tolerance factor of +/-1.5%
7. All quotations are subject to the conditions that the prices and terms will be those ruling on the day that the goods are ready for delivery.
8. Terms of payment for credit account holders are promptly nett 30 (thirty) days from the end of the month of invoice unless otherwise agreed in writing by us and also always providing any account has been approved and opened. Payment of account on the due date is a vital condition of the contract. On placing an order (whether verbal or written) with CSE Industrial Electrical Distributors Ltd with or without an official sequential order number, the Purchaser or Purchaser's employee will be deemed to have read and accepted the following statement:
'I am duly authorised by the applicant business to enter into this agreement on its behalf. We agree that payment of CSE Industrial Electrical Distributors Ltd's invoices will be made strictly in accordance with the credit terms stated thereon. We recognise that if payment of CSE invoices is not made by the due date for payment, it may result in the matter being referred to the company's solicitors for recovery of the invoice debt. If so, we agree to indemnify the vendor against the legal and other costs that they may incur in referring the matter to solicitors to pursue the debt including their current applicable fees for writing to the purchaser, any commission payable by the purchaser (to our solicitors) and all reasonable incidental costs incurred by CSE in recovering the debt and interest (at 3% over the Base Rate in force on the date upon which the Invoice was raised) as applicable'
9. Additionally, we reserve the right to recharge preferential discounts given on overdue accounts together with any costs incurred in recovery of a debt, which has exceeded our payment terms.
10. The property in the goods shall only pass to the purchaser when the whole of the price invoiced has been paid and until payment the purchaser shall hold the goods on trust for the vendor and the purchaser shall be responsible for all loss or damage howsoever caused.
11. In the event of any sale or other disposition of the goods by the purchaser before the property in the goods shall have passed to the purchaser, the purchaser shall hold on trust for the vendor the whole of the proceeds of sale.
12. If the purchaser defaults in the punctual payment of any sum owing to the vendor then the vendor reserves the right to the immediate return by the purchaser of all goods (or the documents of title thereto) in which the property has not passed to the purchaser. Furthermore the purchaser hereby authorises the vendor to recover the goods (or documents) and to enter any premises of the purchaser for that purpose. Any demand for or recovery of the goods (or documents) by the vendor shall not of itself discharge either the purchaser's liability to pay the whole of the price and take delivery of the goods or the vendor's right to sue for the whole of the price.
13. No goods may be returned for credit without our prior agreement. If CSE deem it necessary a handling charge shall be applied to any goods accepted for credit, which were correctly supplied. Cancelled orders shall be liable to cancellation charges to cover the cost of goods/services bought or committed and work done. Additionally, if non-stock goods ordered specially need to be returned for any reason whatsoever these goods can only be accepted back by the vendor once confirmation has been received from the vendor's Supplier that they in turn will accept the goods back for credit.
14. The vendor cannot accept any liability for any product if it has been installed, cut or tampered with in any way after delivery.
15. No quotation issued by the vendor is to be treated as an offer by the purchaser, but as a basis to treat, open for the period stated therein or when no period is so stated, then within thirty days after the date of the quotation. If an order is placed on the basis of a quotation, such order will be treated as an offer subject to these conditions and shall not be binding upon the vendor unless and until accepted by the purchaser in writing. Quotations are subject to the vendor being able to purchase and obtain the necessary materials.
16. Where cables are supplied on returnable drums the purchaser shall promptly arrange with the vendor to return the drums in good condition. Such drums will be automatically invoiced and only credited on return to the place from which the vendor despatched them.
17. Where the vendor has given the appropriate notice that goods are available for inspection and/or shipping, then if a delay occurs in inspecting and/or shipping through no fault of the vendor, then the purchaser will pay against the invoice for the value of the goods held awaiting inspection and/or shipping.
18. The vendor will, wherever possible, ensure that products held as stock are procured from a Quality Assured source. However, if this is not possible the vendor may supply a product from sources other than the above, after ensuring that the goods supplied conform in every respect to the requirements of the order.
19. Force Majeure. If the vendor is prevented (directly or indirectly) from making delivery of the goods or any part thereof by reason of Act of God, war, strikes, industrial disputes, fires, explosions, breakdowns, failure of sources in supply of material, shortages or delay in obtaining fuel supplies, interruptions of transport, Government action, or any cause whatsoever outside the vendor's reasonable control, then the vendor shall be under no liability whatsoever to the purchaser.
20. Any contract between the vendor and the purchaser shall be deemed to be made at London.

