PROTEUS SWITCHGEAR

PRODUCT CATALOGUE

LV Switchgear
Distribution Boards
Consumer Units
Circuit Protection Devices

Installation Materials Division
...the name behind the brands



INDUSTRIAL SWITCHGEAR DIVISION

Proteus are committed to bringing our customers solutions for power distribution and energy efficiency, whilst focusing on the manufacture of switchgear products specifically designed to offer reliability from 'plant room to plug top'. With many years of experience in Power & Distribution, we can help you make your energy use and distribution systems safer in order to protect your people, assets and business. Our comprehensive array of electrical distribution products, technologies and services, allows architects and facility owners a flexible approach to their electrical distribution needs. With considerable stock within our UK based factory and 800 distributors worldwide, we are ready and able to satisfy all of your power distribution needs.

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CONSUMER UNIT DIVISION

For over 30 years, Proteus Switchgear has been at the forefront of British manufacturing - specialising in the production of domestic consumer units and circuit protective devices, working proficiently to supply a full and varied product range. In addition to our standard product range, we have the ability to offer fully bespoke units, tailored to customer needs to suit any individual installation. At Proteus, we are entirely committed to the design and development of our products with the future in mind. Our values insist that we are continuously endeavouring to provide 100% tested products alongside features and benefits that allow us to excel within the Switchgear industry.

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Please refer to page 50 for circuit protection devices











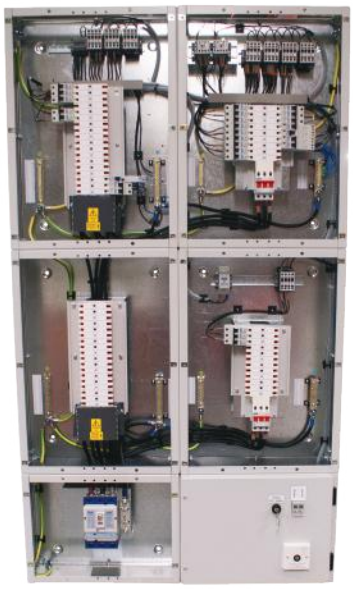
GENERAL CONSTRUCTION TO BSEN 61439-1&2
SPECIFIABLE OPTIONS:

Form 2, Form 3 and Form 4 levels of segregation.
Multi-function, analogue/digital tariff and non tariff metering.
Restricted earth fault protection utilising Class X CTs providing protection of transformer LV windings.
Cableways positioned to left or right hand of switchgear or with high/low level pre-connected terminals for front access applications.

All switchgear has the option of 3 or 4 pole switching.

Manual and automatic changeover systems.
Fully integrated automatic PFC including multi-stage 'switching' hand/off/auto selection, automatic control relays, contactors, fuse protection (25KVAr, 50KVAr stages as standard, other sizes available).
Sealable supply authority CT chambers.
Surge suppression.

Modular design to customer requirements.
Main incomer options up to 2500 amps.



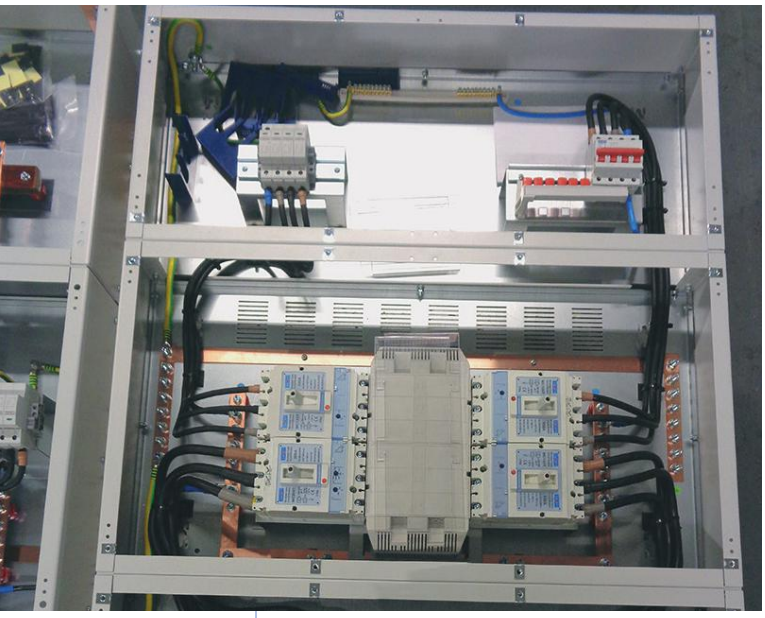
ENERGY MANAGEMENT PANELS
GENERAL CONSTRUCTION TO BSEN 61439-1&2

With increasing emphasis on energy conservation, Proteus Switchgear offers the complete range of intrinsic energy management, varying from timeswitch and relay logic to electronic microprocessor control* of lighting, heating and ventilation and fire/security systems.

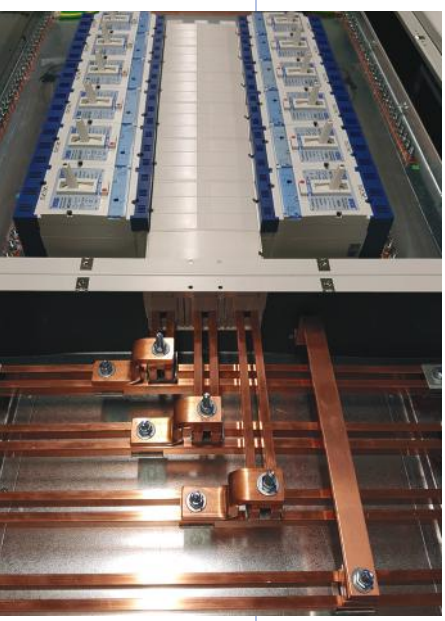
To meet these changing requirements in retail, commercial and industrial applications, Proteus Switchgear manufactures custom-designed energy management panels, typically incorporating the following options:
Main incoming isolation/protection up to 800 amps.
24 hour essential services distribution.
Point of entry/exit key switch controlled services.
Fire alarm interlocking.
Signage control/extended hours manual override.
Emergency lighting test/battery discharge facility.
Panels built to specification or in conjunction with our technical departments.

*Microprocessor specification to be confirmed by client and system supplier, i.e. unit free issued to Proteus for inclusion within panel.

CUSTOM BUILT MCCB BOARDS

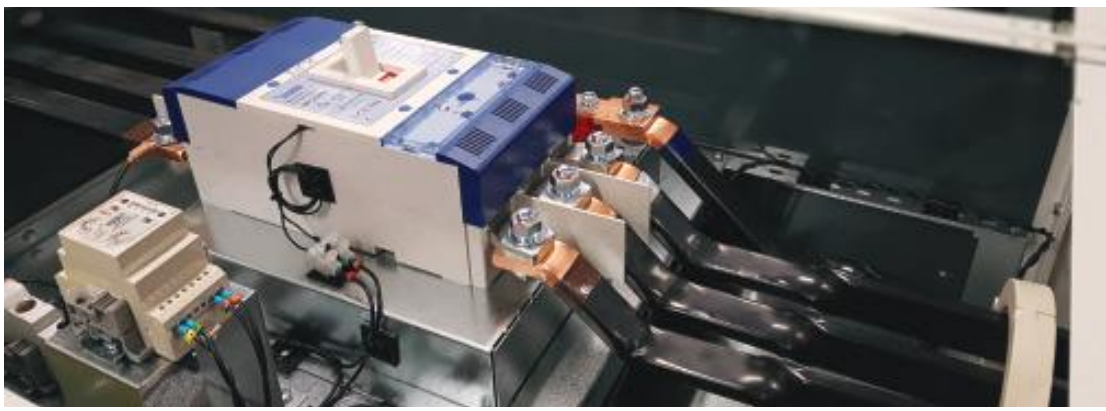












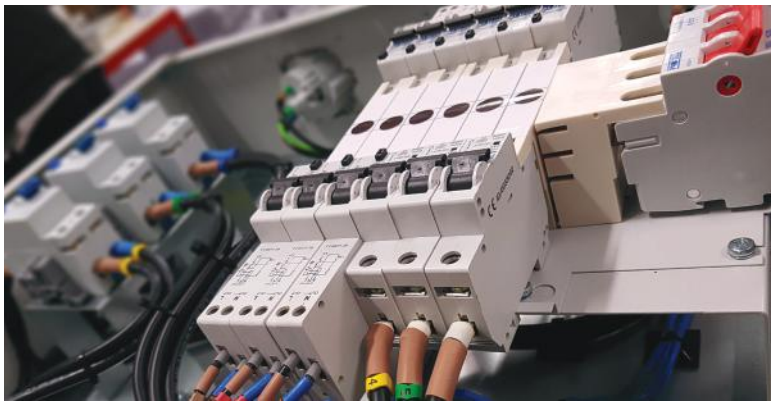
GENERAL CONSTRUCTION TO BSEN 61439-1&2

Option of lockable doors for all MCCBs and MCB housings.
Segregated cableways to suit specific cable sizes and types. Width and depth to suit.
Feeder MCCB busbar section accepts MCCBs rated up to 250 amps as standard. Larger rated outgoing MCCBs can be factory fitted to busbar systems (upto 800A).
Distribution busbars up to 800 amps.
Standard enclosures to IP3X.
IP65 enclosures are also available.
Options of main incomer as 3 or 4 pole switching.
Options of MCB or multi-function distribution boards.
Busbar ratings from 200A to 800A.

ADDITIONAL FACILITIES THAT CAN BE INCLUDED IN CUSTOM BUILT PANELS:

Changeover systems
Sealable Supply Authority Chambers
Tariff and non-tariff kWh metering
Multi-function metering
Surge suppression

Custom built assemblies to customer requirements



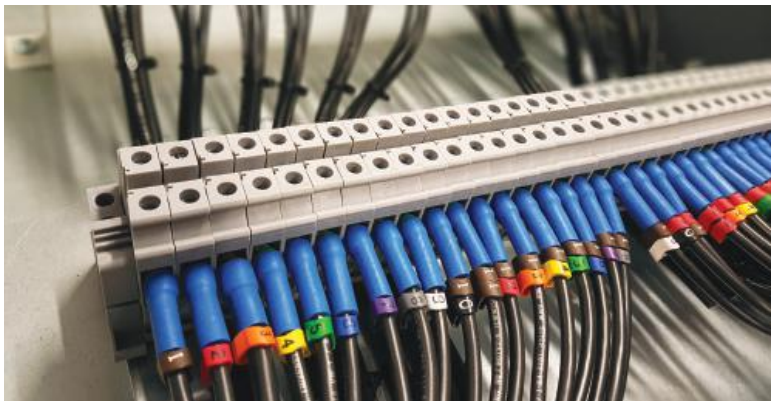
FITTED DEVICES

MCBs and RCBOs can be fitted and cabled to terminals and contactors / 3 or 5 pin sockets

SURGE ARRESTORS

Type 2 surge arrestor cabled in parallel with supply. Din rail mounted.





CABLING ASSISTANCE

Devices can be cabled to panel mounted terminals to aid cabling

SUPPLY AUTHORITY C.T. CHAMBER

Supply authority C.T. chamber with C.T. support plates. Built to specific supply authority requirements



KEY FEATURES:

3-PHASE PANELBOARDS FULLY COMPLIANT TO BS EN 61439-1&2

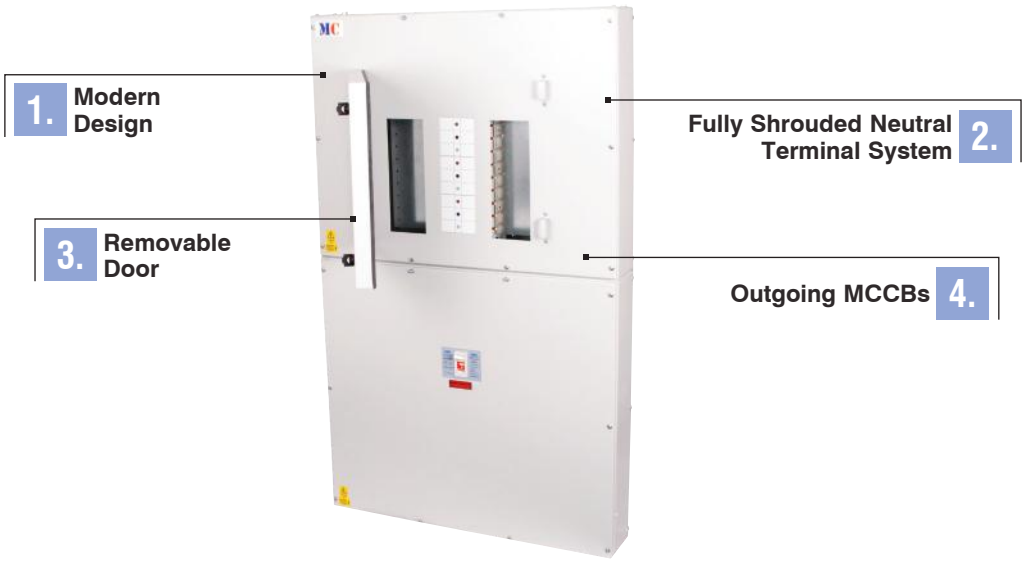
FEATURES:

250A, 400A and 800A busbar MCCB Panelboards.
Available from 3 to 18 triple pole outgoing ways as standard.
Factory fitted incoming MCCB/Isolator up to 800A (3 & 4 pole).
Outgoing MCCBs can be factory fitted on request.
High fault level rating, 36kA Icc.
Removable end plates for easy glanding and ease of installation.
Standard board width 900 mm allowing easy cabling.
Construction gives type 2 and type 3 group mounted segregation to BS EN 61439:Pt1 & 2:2011.
Constructed with 1.6 mm thick steel with an epoxy paint finish to RAL7035.
Other paint finishes available upon request.
Key hole foot fixings for wall mounting.
Lift off door hinges.





MC PANEL BOARD FEATURES





1. Modern Design

Modern design allows ultimate flexibility with SP & TP MCCBs which can be fitted in any position.



2. Shrouded Neutral Terminal System

Fully shrouded neutral terminal system with clear perspex covers.



3. Removable Door

Door fitted over outgoing MCCBs as standard using high quality, steel pin hinges. Removable for ease of fitting.



4. Outgoing MCCBs

Outgoing MCCBs up to 250A TP and 200A SP.





5. Main Earth Termination

Main earthing termination point onto high conductivity copper plate and robust bonding throughout.

OFFERING A COMPREHENSIVE RANGE



Measurements: Millimetres (mm) unless stated otherwise

Outgoing Switchgear: Supplied separately

Outgoing MCCB's: Upto 250A TP and 200A SP

FEATURES:

- Available from 3 to 18 triple pole outgoing ways.
- Factory fitted incoming MCCB/isolator up to 250A 3/4 pole.
- These boards utilise the busbar ability to accept 250A MCCBs by using one way as the incoming position when a 3 pole incomer is acceptable.
- Reduced height where space is at a premium.
- Any rating of MCCB up to 250A can be used as the incomer.
- The incoming device is fitted at the top right as standard to allow cable spreading room, this can be moved to any position.
- Range of side extension boxes, side meter boxes, bottom extension boxes and corner boxes to suit 250A range of MC panels.
- Bottom extension boxes are available in 200 or 300 mm height as standard.
- Side extension and meter boxes are available in left/right hand and 3/4 pole versions sized to suit all 250A range MC panels
- Corner boxes available when using side and bottom boxes to give a clean look.
- Meters, SPDs and Earth Leakage Units are also available.

WALL MOUNTED

SIDE HINGED DOOR



200A MCCB INCOMER OR SWITCH DISCONNECTOR FITTED BOARDS

MCP32/I200

NO. of O/G WAYS	CAT. NO. - 3 POLE	H	W	D
3	**MCP32/I200 (S)**	500	900	170
5	**MCP52/I200 (S)**	700	900	170
7	**MCP72/I200 (S)**	700	900	170
11	**MCP112/I200 (S)**	950	900	170
15	**MCP152/I200 (S)**	1300	900	170
17	**MCP172/I200 (S)**	1300	900	170

(S) - Add suffix 'S' for Switch Disconnector Incomer Fitted Boards e.g. MCP32/I200S

SIDE HINGED DOOR

WALL MOUNTED



MCP42/I200F

200A MCCB INCOMER FITTED BOARDS

NO. of O/G WAYS	CAT. NO. - 4 POLE	H	W	D
4	**MCP42/I200F**	1000	900	170
6	**MCP62/I200F**	1200	900	170
8	**MCP82/I200F**	1200	900	170
12	**MCP122/I200F**	1450	900	170
16	**MCP162/I200F**	1800	900	170
18	**MCP182/I200F**	1800	900	170

WALL MOUNTED

SIDE HINGED DOOR



250A MCCB INCOMER OR SWITCH DISCONNECTOR FITTED BOARDS

MCP72/I250

NO. of O/G WAYS	CAT. NO. - 3 POLE	H	W	D
3	**MCP32/I250 (S)**	500	900	170
5	**MCP52/I250 (S)**	700	900	170
7	**MCP72/I250 (S)**	700	900	170
11	**MCP112/I250 (S)**	950	900	170
15	**MCP152/I250 (S)**	1300	900	170
17	**MCP172/I250 (S)**	1300	900	170

(S) - Add suffix 'S' for Switch Disconnector Incomer Fitted Boards e.g. MCP72/I250S

SIDE HINGED DOOR

WALL MOUNTED



MCP62/I250F

250A MCCB INCOMER FITTED BOARDS

NO. of O/G WAYS	CAT. NO. - 4 POLE	H	W	D
4	**MCP42/I250F**	1000	900	170
6	**MCP62/I250F**	1200	900	170
8	**MCP82/I250F**	1200	900	170
12	**MCP122/I250F**	1450	900	170
16	**MCP162/I250F**	1800	900	170
18	**MCP182/I250F**	1800	900	170

Measurements: Millimetres (mm) unless stated otherwise

Outgoing Switchgear: Supplied separately

Outgoing MCCB's: Upto 250A TP and 200A SP

3 POLE



4 POLE





MCPEB32L

SIDE EXTENSION BOX 3 & 4 POLE INCOMER

* - To suit four pole boards.

CAT. NO. (LEFT SIDE)	CAT. NO. (RIGHT SIDE)	H	W	D
MCPEB32L	MCPEB32R	500	200	170
MCPEB52L	MCPEB52R	700	200	170
MCPEB72L	MCPEB72R	700	200	170
MCPEB112L	MCPEB112R	950	200	170
MCPEB152L	MCPEB152R	1300	200	170
MCPEB172L	MCPEB172R	1300	200	170
MCPEB42FL*	MCPEB42FR*	1000	200	170
MCPEB62FL*	MCPEB62FR*	1200	200	170
MCPEB82FL*	MCPEB82FR*	1200	200	170
MCPEB122FL*	MCPEB122FR*	1450	200	170
MCPEB162FL*	MCPEB162FR*	1800	200	170
MCPEB182FL*	MCPEB182FR*	1800	200	170

3 POLE



4 POLE





MCPMB52R

SIDE METER EXTENSION BOX 3 & 4 POLE INCOMER

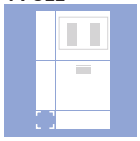
* - To suit four pole boards.

NO. of METER POSITIONS	CAT. NO. (LEFT SIDE)	CAT. NO. (RIGHT SIDE)	H	W	D
2	MCPMB32L	MCPMB32R	500	400	170
3	MCPMB52L	MCPMB52R	700	400	170
4	MCPMB72L	MCPMB72R	700	400	170
6	MCPMB112L	MCPMB112R	950	400	170
8	MCPMB152L	MCPMB152R	1300	400	170
9	MCPMB172L	MCPMB172R	1300	400	170
2	MCPMB42FL*	MCPMB42FR*	1000	400	170
3	MCPMB62FL*	MCPMB62FR*	1200	400	170
4	MCPMB82FL*	MCPMB82FR*	1200	400	170
6	MCPMB122FL*	MCPMB122FR*	1450	400	170
8	MCPMB162FL*	MCPMB162FR*	1800	400	170
9	MCPMB182FL*	MCPMB182FR*	1300	400	170

3 POLE



4 POLE





MCPCB34L

CORNER EXTENSION BOX

CAT. NO. (LEFT SIDE)	CAT. NO. (RIGHT SIDE)	H	W	D
MCPCB22L	MCPCB22R	200	200	170
MCPCB32L	MCPCB32R	300	200	170
MCPCB24L	MCPCB24R	200	400	170
MCPCB34L	MCPCB34R	300	400	170



MCPBEB200

3 POLE



4 POLE



BOTTOM EXTENSION BOX

CAT. NO.	H	W	D
MCPBEB200	200	900	170
MCPBEB300	300	900	170

Bottom extension boxes can also be used as a top extension box

Measurements: Millimetres (mm) unless stated otherwise

Outgoing Switchgear: Supplied separately

Outgoing MCCB's: Upto 250A TP and 200A SP

FEATURES:

- Available from 4 to 18 triple pole outgoing ways.
- Factory fitted incoming MCCB/isolator up to 400A 3/4 pole.
- Ample cabling space for incoming cables.
- Space next to incomer for metering, earth leakage protection and surge protection to monitor and protect whole board.
- Range of side extension boxes, side metering boxes, bottom extension boxes and corner boxes to suit 400A range of MC panels.
- Bottom extension boxes are available in 200 or 300 mm heights as standard.
- Side extension and meter extension boxes are available in left/right hand versions sized to suit all 400A range MC panels.
- Corner boxes available when using side and bottom extension boxes to give a clean look.
- Meters, SPDs and Earth Leakage Units are also available.



MCP44/I315

WALL MOUNTED

SIDE HINGED DOOR

315A MCCB INCOMER FITTED BOARDS

NO. of O/G WAYS	CAT. NO. 3 POLE	CAT. NO. 4 POLE	H	W	D
4	**MCP44/I315**	**MCP44/I315F**	1300	900	170
6	**MCP64/I315**	**MCP64/I315F**	1500	900	170
8	**MCP84/I315**	**MCP84/I315F**	1500	900	170
12	**MCP124/I315**	**MCP124/I315F**	1750	900	170
16	**MCP164/I315**	**MCP164/I315F**	2100	900	170
18	**MCP184/I315**	**MCP184/I315F**	2100	900	170



MCP84/I400S

WALL MOUNTED

SIDE HINGED DOOR

400A MCCB INCOMER OR SWITCH DISCONNECTOR FITTED BOARDS

NO. of O/G WAYS	CAT. NO. 3 POLE	CAT. NO. 4 POLE	H	W	D
4	**MCP44/I400 (S)**	**MCP44/I400F**	1300	900	170
6	**MCP64/I400 (S)**	**MCP64/I400F**	1500	900	170
8	**MCP84/I400 (S)**	**MCP84/I400F**	1500	900	170
12	**MCP124/I400 (S)**	**MCP124/I400F**	1750	900	170
16	**MCP164/I400 (S)**	**MCP164/I400F**	2100	900	170
18	**MCP184/I400 (S)**	**MCP184/I400F**	2100	900	170

(S) - Add suffix 'S' for Switch Disconnector Incomer option e.g. MCP84/I400S. Triple pole only

Measurements: Millimetres (mm) unless stated otherwise

Outgoing Switchgear: Supplied separately

Outgoing MCCB's: Upto 250A TP and 200A SP

MCPEB64L





SIDE EXTENSION BOX

CAT. NO. (LEFT SIDE)	CAT. NO. (RIGHT SIDE)	H	W	D
MCPEB44L	MCPEB44R	1300	200	170
MCPEB64L	MCPEB64R	1500	200	170
MCPEB84L	MCPEB84R	1500	200	170
MCPEB124L	MCPEB124R	1750	200	170
MCPEB164L	MCPEB164R	2100	200	170
MCPEB184L	MCPEB184R	2100	200	170

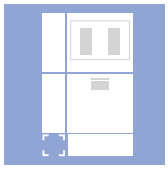
MCPMB84R





SIDE METER EXTENSION BOX

NO. of METER POSITION	CAT. NO. (LEFT SIDE)	CAT. NO. (RIGHT SIDE)	H	W	D
2	MCPMB44L	MCPMB44R	1300	400	170
3	MCPMB64L	MCPMB64R	1500	400	170
4	MCPMB84L	MCPMB84R	1500	400	170
6	MCPMB124L	MCPMB124R	1750	400	170
8	MCPMB164L	MCPMB164R	2100	400	170
9	MCPMB184L	MCPMB184R	2100	400	170





MCPCB34L

CORNER EXTENSION BOX

CAT. NO. (LEFT SIDE)	CAT. NO. (RIGHT SIDE)	H	W	D
MCPCB22L	MCPCB22R	200	200	170
MCPCB32L	MCPCB32R	300	200	170
MCPCB24L	MCPCB24R	200	400	170
MCPCB34L	MCPCB34R	300	400	170



MCPBEB200



BOTTOM EXTENSION BOX

CAT. NO.	H	W	D
MCPBEB200	200	900	170
MCPBEB300	300	900	170

Bottom extension boxes can also be used as a top extension box

Measurements: Millimetres (mm) unless stated otherwise

Outgoing Switchgear: Supplied separately

Outgoing MCCB's: Upto 250A TP and 200A SP

FEATURES:

- Available from 4 to 18 triple pole outgoing ways.
- Factory fitted incoming MCCB/isolator up to 800A 3/4 pole.
- Ample cabling space for incoming cables.
- Space next to incomer for metering, earth leakage protection and surge protection to monitor and protect whole board.
- Range of side extension boxes, side metering boxes, bottom extension boxes and corner boxes to suit 800A range of MC panels.
- Bottom extension boxes are available in 200 or 300 mm heights as standard.
- Side extension and meter extension boxes are available in left/right hand versions sized to suit all 800A range MC panels.
- Corner boxes available when using side and bottom extension boxes to give a clean look.
- Meters, SPDs and Earth Leakage Units are also available.

MCP48/I500

SIDE HINGED DOOR

WALL MOUNTED



500A MCCB INCOMER FITTED BOARDS

NO. of O/G WAYS	CAT. NO. 3 POLE	CAT. NO. 4 POLE	H	W	D
4	**MCP48/I500**	**MCP48/I500F**	1450	900	170
6	**MCP68/I500**	**MCP68/I500F**	1650	900	170
8	**MCP88/I500**	**MCP88/I500F**	1650	900	170
12	**MCP128/I500**	**MCP128/I500F**	1900	900	170
16	**MCP168/I500**	**MCP168/I500F**	2250	900	170
18	**MCP188/I500**	**MCP188/I500F**	2250	900	170

MCP48/I630S

SIDE HINGED DOOR

WALL MOUNTED



630A MCCB INCOMER OR SWITCH DISCONNECTOR FITTED BOARDS

NO. of O/G WAYS	CAT. NO. 3 POLE	CAT. NO. 4 POLE	H	W	D
4	**MCP48/I630 (S)**	**MCP48/I630F**	1450	900	170
6	**MCP68/I630 (S)**	**MCP68/I630F**	1650	900	170
8	**MCP88/I630 (S)**	**MCP88/I630F**	1650	900	170
12	**MCP128/I630 (S)**	**MCP128/I630F**	1900	900	170
16	**MCP168/I630 (S)**	**MCP168/I630F**	2250	900	170
18	**MCP188/I630 (S)**	**MCP188/I630F**	2250	900	170

(S) - Add suffix 'S' for Switch Disconnector Incomer option e.g. MCP88/I630S. Triple pole only

MCP128/I800F

SIDE HINGED DOOR

WALL MOUNTED



800A MCCB INCOMER OR SWITCH DISCONNECTOR FITTED BOARDS

NO. of O/G WAYS	CAT. NO. 3 POLE	CAT. NO. 4 POLE	H	W	D
4	**MCP48/I800 (S)**	**MCP48/I800F**	1450	900	170
6	**MCP68/I800 (S)**	**MCP68/I800F**	1650	900	170
8	**MCP88/I800 (S)**	**MCP88/I800F**	1650	900	170
12	**MCP128/I800 (S)**	**MCP128/I800F**	1900	900	170
16	**MCP168/I800 (S)**	**MCP168/I800F**	2250	900	170
18	**MCP188/I800 (S)**	**MCP188/I800F**	2250	900	170

(S) - Add suffix 'S' for Switch Disconnector Incomer option e.g. MCP88/I800S. Triple pole only

Measurements: Millimetres (mm) unless stated otherwise

Outgoing Switchgear: Supplied separately

Outgoing MCCB's: Upto 250A TP and 200A SP

MCPEB68L





SIDE EXTENSION BOX

CAT. NO. (LEFT SIDE)	CAT. NO. (RIGHT SIDE)	H	W	D
MCPEB48L	MCPEB48R	1450	200	170
MCPEB68L	MCPEB68R	1650	200	170
MCPEB88L	MCPEB88R	1650	200	170
MCPEB128L	MCPEB128R	1900	200	170
MCPEB168L	MCPEB168R	2250	200	170
MCPEB188L	MCPEB188R	2250	200	170

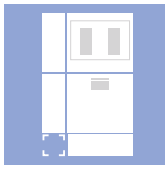
MCPMB48R





SIDE METER EXTENSION BOX

NO. of METER POSITION	CAT. NO. (LEFT SIDE)	CAT. NO. (RIGHT SIDE)	H	W	D
2	MCPMB48L	MCPMB48R	1450	400	170
3	MCPMB68L	MCPMB68R	1650	400	170
4	MCPMB88L	MCPMB88R	1650	400	170
6	MCPMB128L	MCPMB128R	1900	400	170
8	MCPMB168L	MCPMB168R	2250	400	170
9	MCPMB188L	MCPMB188R	2250	400	170





MCPCB34L

CORNER EXTENSION BOX

CAT. NO. (LEFT SIDE)	CAT. NO. (RIGHT SIDE)	H	W	D
MCPCB22L	MCPCB22R	200	200	170
MCPCB32L	MCPCB32R	300	200	170
MCPCB24L	MCPCB24R	200	400	170
MCPCB34L	MCPCB34R	300	400	170



MCPBEB200



BOTTOM EXTENSION BOX

CAT. NO.	H	W	D
MCPBEB200	200	900	170
MCPBEB300	300	900	170

Bottom extension boxes can also be used as a top extension box

Measurements: Millimetres (mm) unless stated otherwise

FEATURES:

- Tariff and non tariff multifunction meters.
- Fitting into side meter boxes for outgoing devices or 250A TP incomers.
- Fitted next to incomer on 250A 4P, 400A and 800A panelboards.

Tariff or MID approved meters are used in situations where it is necessary to charge clients in a Landlord – Tenant type arrangement. The landlord uses the individual meters to charge clients for their energy usage. These meters have a higher accuracy class than Non-Tariff meters.

Non-Tariff (check) meters are used in situations where the electricity bill is apportioned to different departments within a company but there is only one company paying the bill.



MCPMFM063T

NON-TARIFF MULTIFUNCTION MULTIMETERS (1 & 3 PHASE)

To be fitted in meter extension boxes to monitor outgoing / incoming circuits up to 250A. e.g.6 way panelboard c/w 400A TP MCCB incomer (MCP64/I400). Compatible meter extension boxes could be fitted on left (MCPMB64L) or right (MCPMB64R). Associated switchgear could be 6 x 100A TP MCCBs (MC100T) and 6 x Digital multimeters (MCPMFM100T).

AMPERAGE	CAT. NO. (3 PHASE)	CAT. NO. (1 PHASE)
63A	**MCPMFM063T**	**MCPMFM063S**
100A	**MCPMFM100T**	**MCPMFM100S**
125A	**MCPMFM125T**	**MCPMFM125S**
160A	**MCPMFM160T**	**MCPMFM160S**
200A	**MCPMFM200T**	**MCPMFM200S**
250A	**MCPMFM250T**	**-**



MCPMFM315T

NON-TARIFF MULTIFUNCTION MULTIMETERS

Fitted adjacent to main incomer to monitor total panelboard power usage.
No meter extension box required.

AMPERAGE	CAT. NO. (3 PHASE)
315A	**MCPMFM315T**
400A	**MCPMFM400T**
500A	**MCPMFM500T**
630A	**MCPMFM630T**
800A	**MCPMFM800T**



MCPMFM063TMID

MID/TARIFF MULTIMETERS (1 & 3 PHASE)

To be fitted in meter extension boxes to monitor outgoing / incoming circuits up to 250A. e.g.6 way panelboard c/w 400A TP MCCB incomer (MCP64/I400). Compatible meter extension boxes could be fitted on left (MCPMB64L) or right (MCPMB64R). Associated switchgear could be 6 x 125A TP MCCBs (MC125T) and 6 x digital multimeters (MCPMFM125TMID).

AMPERAGE	CAT. NO. (3 PHASE)	CAT. NO. (1 PHASE)
63A	**MCPMFM063TMID**	**MCPMFM063SMID**
100A	**MCPMFM100TMID**	**MCPMFM100SMID**
125A	**MCPMFM125TMID**	**MCPMFM125SMID**
160A	**MCPMFM160TMID**	**MCPMFM160SMID**
200A	**MCPMFM200TMID**	**MCPMFM200SMID**
250A	**MCPMFM250TMID**	**-**



MCPMFM315MID

MID/TARIFF MULTIMETERS (1 & 3 PHASE)

To be fitted adjacent to main incomer to monitor total panelboard power usage.
No meter extension box required.

AMPERAGE	CAT. NO. (3 PHASE)
315A	**MCPMFM315TMID**
400A	**MCPMFM400TMID**
500A	**MCPMFM500TMID**
630A	**MCPMFM630TMID**
800A	**MCPMFM800TMID**

FEATURES:

- It is intended that the earth leakage units are under the supervision of instructed or skilled persons.
- Earth leakage relay has adjustable trip current and time settings.
- The MCCB is tripped via its integral shunt trip coil.
- The full breaking capacity of the MCCB is retained.
- Type A filtering.

Measurements: Millimetres (mm) unless stated otherwise

EARTH LEAKAGE UNITS

To be fitted in meter extension boxes to monitor outgoing / incoming circuits earth leakage up to 250A. e.g.6 way panelboard c/w 400A TP MCCB incomer (MCP64/ I400). Compatible meter extension boxes could be fitted on left (MCPMB64L) or right (MCPMB64R). Associated switchgear could be 6 x 100A TP MCCBs (MC100T) and 6 x Earth Leakage Units (MCPEL100).



MCPEL100

AMPERAGE	CAT. NO.
100A	**MCPEL100**
125A	**MCPEL125**
160A	**MCPEL160**
200A	**MCPEL200**
250A	**MCPEL250**



Fitted adjacent to main incomer to monitor total panelboard earth leakage.
No meter extension box required.

AMPERAGE	CAT. NO.
400A	**MCPEL400**
630A	**MCPEL630**



MCEL200T

STAND ALONE EARTH LEAKAGE UNITS

Triple Pole 36kA Moulded Case Circuit Breaker in Steel Enclosure fitted with Earth Fault Relay Device

AMPERAGE	CAT. NO. (3 POLE+N)	CAT. NO. (4 POLE)	MIN. SENSITIVITY AMPS	H	W	D
100A	**MCEL100T**	**MCEL100F**	0.03	700	300	170
125A	**MCEL125T**	**MCEL125F**	0.03	700	300	170
160A	**MCEL160T**	**MCEL160F**	0.03	700	300	170
200A	**MCEL200T**	**MCEL200F**	0.03	700	300	170
250A	**MCEL250T**	**MCEL250F**	0.1	950	400	170
315A	**MCEL315T**	**MCEL315F**	0.1	950	400	170
400A	**MCEL400T**	**MCEL400F**	0.1	950	400	170
500A	**MCEL500T**	**MCEL500F**	0.1	950	400	170
630A	**MCEL630T**	**MCEL630F**	0.1	950	400	170

CT internal diameters of 70 mm from 100A to 200A and 120 mm for current ratings from 250A to 630A.



MCE100T

IP3X ENCLOSED MCCBS

Triple Pole 36kA Moulded Case Circuit Breaker in IP3X Steel Enclosures

AMPERAGE	CAT. NO. (3 POLE)	CAT. NO. (4 POLE)	H	W	D
63A	**MCE063T**	**MCE063F**	400	300	170
80A	**MCE080T**	**-**	400	300	170
100A	**MCE100T**	**MCE100F**	400	300	170
125A	**MCE125T**	**MCE125F**	700	300	170
160A	**MCE160T**	**MCE160F**	700	300	170
200A	**MCE200T**	**MCE200F**	700	300	170
250A	**MCE250T**	**MCE250F**	950	400	170
315A	**MCE315T**	**MCE315F**	950	400	170
400A	**MCE400T**	**MCE400F**	950	400	170
500A	**MCE500T**	**MCE500F**	950	400	170
630A	**MCE630T**	**MCE630F**	950	400	170
800A	**MCE800T**	**MCE800F**	1300	500	300

Measurements:
Millimetres (mm) unless stated otherwise



ENCLOSURES TO SUIT INDIVIDUAL MCCBS (3 & 4 POLE)

MCENC1

3 pole units will accept 1 x SP or 1 x TP MCCB.
4 pole units will accept 1 x 4P MCCB only.
When fitting a SP MCCB, 2 blanking modules (MCCBM1) will also need to be installed.
250A MCCB must be large frame size MCCB (MC250TLF, MC250FLF).

AMPERAGE	3 POLE CAT. NO.	4 POLE CAT. NO.	H	W	D
16A - 100A	**MCENC1**	**MCENC1F**	400	300	170
125A - 200A	**MCENC2**	**MCENC2F**	700	300	170
250A - 630A	**MCENC6**	**MCENC6F**	950	400	170
800A	**MCENC8**	**MCENC8F**	1300	500	300

220 VOLTS



SHUNT TRIP UNITS

MCST4P630

DESCRIPTION	CAT. NO.	VOLTAGE	DEVICE
For MCCB up to 250A	**MCST3P250***	220V	3+4 pole
For MCCB 315A-630A	**MCST3P630**	220V	3 pole
For MCCB 800A	**MCST3P800**	220V	3 pole
For MCCB up to 100A	**MCST4P100**	220V	4 pole
For MCCB 315A-400A	**MCST4P400****	220V	4 pole
For MCCB 500A-630A	**MCST4P630**	220V	4 pole
For MCCB 800A	**MCST4P800**	220V	4 pole

MCA3P250 - Auxiliary contact for MC016T to MC250T.
Wire in series with shunt trip MCST3P250.
* - For MC250TLF use S/T MCST3P630.
** - For MC250FLF use MCST4P400

SURGE PROTECTION DEVICES 3 PHASE + N (4 POLE)

For 250A TP incomer boards, the SPD will be fitted in the included 300 mm bottom extension box. Type 1+2 and Type 2 device kits include a 125A TP MCCB to be fitted into board taking an outgoing way to feed SPD.

For 250A 4P incomer boards, the SPD will be fitted adjacent to the incoming device. Type 1+2 and Type 2 device kits include a 125A TP MCCB to be fitted into board taking an outgoing way to feed SPD.

For 315 - 800A TP and 4P incomer boards, the SPD will be fitted adjacent to the incoming device. Kits include a 250A TP MCCB to be fitted into board taking an outgoing way to feed SPD.

Type 1: Protection against the effects of lightning.
Type 2: Protection against the effects of man-made surges on the mains supply system.



MCP84/I400 & MCPT12/800
(Blanks sold separately)

INCOMER AMPERAGE	INCOMER POLES	TYPE	PROTECTIVE DEVICE	CAT. NO.	H	W	D
≤250A	3	Type 1+2	125A TP MCCB	**MCPT12/250**	300	900	170
≤250A	3	Type 2	125A TP MCCB	**MCPT2/250**	300	900	170
≤250A	4	Type 1+2	125A TP MCCB	**MCPT12/250F**			
≤250A	4	Type 2	125A TP MCCB	**MCPT2/250F**			
>315 - 800A	3 & 4	Type 1+2	250A TP MCCB	**MCPT12/800**			
>315 - 800A	3 & 4	Type 2	250A TP MCCB	**MCPT2/800**			

Fitted adjacent to incomer

SURGE PROTECTION DEVICES

For surge protection Info, SPD selection chart, loose surge arrestors and enclosed surge arrestors please go to **pages 57, 58 & 59**





MCCBM1



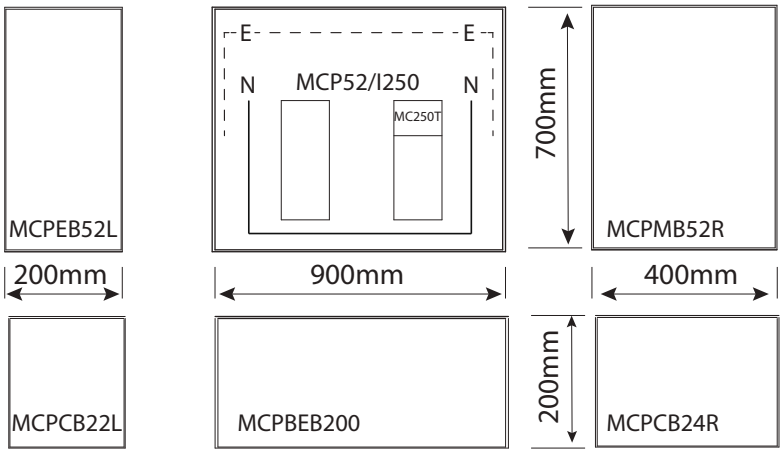
MCNUTM8

ADDITIONAL ACCESSORIES

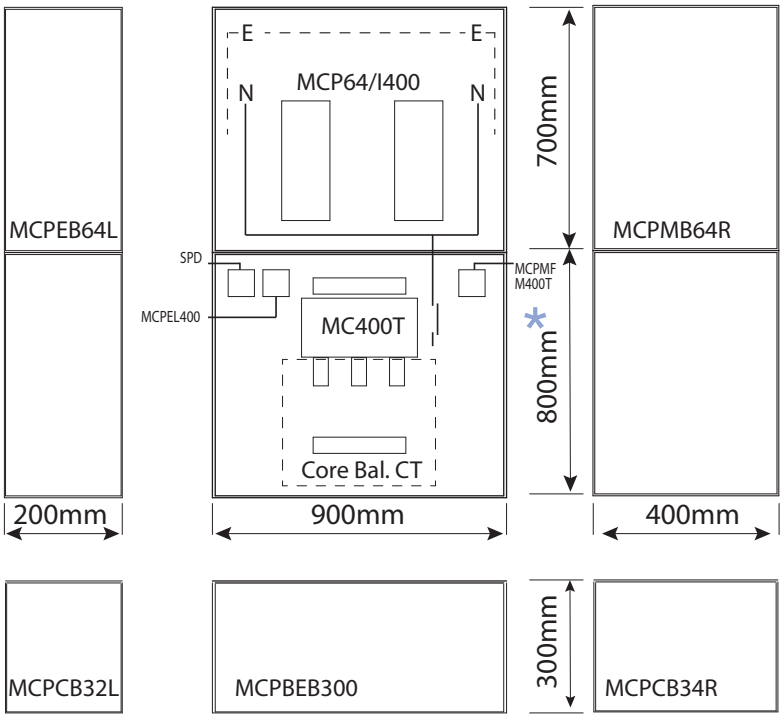
DESCRIPTION	CAT. NO.
Padlocking device - for 3P & adj 4P MCCBs (16A to 630A)	**MCPD**
SP MCCB blank	**MCCBM1**
Incomer door	**MCPID**
120 mm² lug connection kit for MC016T-MC250T	**MCLK120**
150 mm² lug connection kit for MC016T-MC250T	**MCLK150**
185 mm² lug connection kit for MC016T-MC250T	**MCLK185**
MC063T-MC250T long terminal shield	**MCLTS**
M8 nut insert and bolt for MC016T-MC250T	**MCNUTM8**
Key lock for door	**XLKL**

Measurements:
Millimetres (mm) unless stated otherwise

250A BUSBAR SYSTEM



400A AND 800A BUSBAR SYSTEMS



* - 800 mm height only up to 400A incomer. 950 mm 500A - 800A. Depth 170 mm/215 mm over door.

KEY FEATURES:

MOULDED CASE CIRCUIT BREAKERS
BS EN 60947 1-2

FEATURES:

The moulded case circuit breakers are housed in fibre reinforced thermoset polyester that combines ruggedness, high dielectric and mechanical strength.

High quality silver alloy contacts (with elements of tungsten and graphite) ensure both high conductivity at point contact and minimal pitting during switching for a longer contact life.

Positive contact indication is by means of the operating lever position.









1. Technical Detail

Full technical detail, markings and adjustable parameters clearly identified.



2. Box Clamp Terminals

Box clamp terminals for connection of cables upto 120 mm² (upto MC250T).



3. Fully Shrouded Terminals

Fully shrouded terminals.



4. Trip Position

Mid-trip position of MCCB dolly.



5. Phase Barriers

Phase barriers supplied with lug connected MCCBs.

OFFERING A COMPREHENSIVE RANGE



Measurements: Millimetres (mm) unless stated otherwise

FEATURES:

- The moulded case circuit breakers are housed in fibre reinforced thermoset polyester that combines ruggedness, high dielectric and mechanical strength.
- High quality silver alloy contacts (with elements of tungsten and graphite) ensure both high conductivity at point contact and minimal pitting during switching for a longer contact life.
- Positive contact indication is by means of the operating lever position.



MC125S

SINGLE POLE MCCBS

Single Pole 36kA Moulded Case Circuit Breakers

CURRENT RATING (A)	NO. of POLES	kA RATING (kA)	THERMAL RELEASE	MAGNETIC RELEASE	TERMINAL CAPACITY	CAT. NO.
16	SP	36	F	500A	120 mm²	**MC016S**
20	SP	36	F	500A	120 mm²	**MC020S**
25	SP	36	F	500A	120 mm²	**MC025S**
32	SP	36	F	500A	120 mm²	**MC032S**
40	SP	36	F	500A	120 mm²	**MC040S**
50	SP	36	F	500A	120 mm²	**MC050S**
63	SP	36	F	500A	120 mm²	**MC063S**
80	SP	36	F	800A	120 mm²	**MC080S**
100	SP	36	F	1000A	120 mm²	**MC100S**
125	SP	36	F	1250A	120 mm²	**MC125S**
160	SP	36	F	1600A	120 mm²	**MC160S**
200	SP	36	F	2000A	120 mm²	**MC200S**



MC032T

TRIPLE POLE MCCBS

Triple Pole 36kA Moulded Case Circuit Breakers

** - For panel boards only.

CURRENT RATING (A)	NO. of POLES	kA RATING (kA)	THERMAL RELEASE	MAGNETIC RELEASE	TERMINAL CAPACITY	CAT. NO.
16	TP	36	A (0.8-1xIn)	250A	120 mm²	**MC016T**
20	TP	36	A (0.8-1xIn)	250A	120 mm²	**MC020T**
25	TP	36	A (0.8-1xIn)	250A	120 mm²	**MC025T**
32	TP	36	A (0.8-1xIn)	320A	120 mm²	**MC032T**
40	TP	36	A (0.8-1xIn)	400A	120 mm²	**MC040T**
50	TP	36	A (0.8-1xIn)	500A	120 mm²	**MC050T**
63	TP	36	A (0.8-1xIn)	630A	120 mm²	**MC063T**
80	TP	36	A (0.8-1xIn)	800A	120 mm²	**MC080T**
100	TP	36	A (0.8-1xIn)	1000A	120 mm²	**MC100T**
125	TP	36	A (0.8-1xIn)	1250A	120 mm²	**MC125T**
160	TP	36	A (0.8-1xIn)	1600A	120 mm²	**MC160T**
200	TP	36	A (0.8-1xIn)	A (5-10xIn)	120 mm²	**MC200T**
250	TP	36	A (0.8-1xIn)	A (5-10xIn)	120 mm²	**MC250T****



MC100TMR

MOTOR RATED MCCBS

Triple Pole 36kA Motor Rated Moulded Case Circuit Breakers

** - For panel boards only.

MOTOR RATING KW (APPROX.)	MCCB AMPS	kA RATING (kA)	THERMAL RELEASE	MAGNETIC RELEASE	TERMINAL CAPACITY	CAT. NO.
30	63A	36	A (0.7-1x In)	15xIn	120 mm²	**MC063TMR**
37	80A	36	A (0.7-1x In)	15xIn	120 mm²	**MC080TMR**
51	100A	36	A (0.7-1x In)	15xIn	120 mm²	**MC100TMR**
63	125A	36	A (0.7-1x In)	15xIn	120 mm²	**MC125TMR**
80	160A	36	A (0.7-1x In)	15xIn	120 mm²	**MC160TMR**
90	200A	36	A (0.7-1x In)	10-15xIn	120 mm²	**MC200TMR**
110	250A	36	A (0.7-1x In)	10-15xIn	120 mm²	**MC250TMR****

F - Fixed | A - Adjustable | LF - Large frame.

Measurements:
Millimetres (mm) unless stated otherwise



MC250TLF

LARGE FRAME TRIPLE POLE MCCBS

Large Frame Triple Pole 36 - 70kA Moulded Case Circuit Breakers

CURRENT RATING (A)	NO. of POLES	kA RATING (kA)	THERMAL RELEASE	MAGNETIC RELEASE	TERMINAL CAPACITY	CAT. NO.
250	TP	36	A (0.8-1xIn)	A (5-10xIn)	Lugged(M12)	**MC250TLF**
315	TP	36	A (0.8-1xIn)	A (4-8xIn)	Lugged(M12)	**MC315T**
400	TP	36	A (0.8-1xIn)	A (4-8xIn)	Lugged(M12)	**MC400T**
500	TP	36	A (0.8-1xIn)	A (4-8xIn)	Lugged(M12)	**MC500T**
630	TP	36	A (0.8-1xIn)	A (4-8xIn)	Lugged(M12)	**MC630T**
800	TP	36	A (0.8-1xIn)	A (4-8xIn)	Lugged(M12)	**MC800T**
1000	TP	70	A (0.4-1xIn)	A (2-10xIn)	Lugged	**MC1000T*** **
1250	TP	70	A (0.4-1xIn)	A (2-10xIn)	Lugged	**MC1250T*** **
1600	TP	70	A (0.4-1xIn)	A (2-10xIn)	Lugged	**MC1600T*** **

Large Frame TP MCCBs can not be fitted as an outgoing device.
MC250TLF must be used when using as an individual cable in, cable out MCCB device.
*** - This MCCB does not fit in MCP panelboards.



MC800F

FOUR POLE MCCBS

Four Pole 36 - 50kA Moulded Case Circuit Breakers

CURRENT RATING (A)	NO. of POLES	kA RATING (kA)	THERMAL RELEASE	MAGNETIC RELEASE	TERMINAL CAPACITY	CAT. NO.
63	FP	36	A 0-8-1	630	Tunnel-120mm²	**MC063FA**
100	FP	36	A 0-8-1	1000	Tunnel-120mm²	**MC100FA**
125	FP	36	A 0-8-1	1250	Tunnel-120mm²	**MC125FA**
160	FP	36	A 0-8-1	1600	Tunnel-120mm²	**MC160FA**
200	FP	36	A 0-8-1	5-10X	Tunnel-120mm²	**MC200FA**
250	FP	36	A 0-8-1	5-10X	Tunnel-120mm²	**MC250FA**
250	FP	50	A 0-8-1	5-10X	Lugged(M12)	**MC250FALF**
315	FP	50	A 0-8-1	5-10X	Lugged(M12)	**MC315FA**
400	FP	50	A 0-8-1	5-10X	Lugged(M12)	**MC400FA**
500	FP	50	A 0-8-1	5-10X	Lugged(M12)	**MC500FA**
630	FP	50	A 0-8-1	5-10X	Lugged(M12)	**MC630FA**
800	FP	36	F 800A	A (8-10xIn)	Lugged(M12)	**MC800F**

4 Pole MCCBs cannot be fitted as outgoing devices in MCP panelboards.
MC250FALF must be used when using as an individual cable in, cable out MCCB device.



MC250TNA

TRIPLE POLE NON-AUTO MCCBS

*Non-Auto MCCBs should be protected by a Proteus MC..T/F MCCB of the same rating.
Non-Auto MCCBs cannot be fitted as outgoing devices in MCP panelboards.

CURRENT RATING (A)	NO. of POLES	kA* RATING (kA)	THERMAL RELEASE	MAGNETIC RELEASE	TERMINAL CAPACITY	CAT. NO.
200	TP	36	-	-	Tunnel-120mm²	**MC200TNA**
250	TP	36	-	-	Tunnel-120mm²	**MC250TNA**
400	TP	36	-	-	Lugged(M12)	**MC400TNA**
630	TP	36	-	-	Lugged(M12)	**MC630TNA**
800	TP	36	-	-	Lugged(M12)	**MC800TNA**

F - Fixed | A - Adjustable | LF - Large frame.

Measurements:
Millimetres (mm) unless stated otherwise

Outgoing Switchgear:
Supplied separately

Circuit Protection Devices:
Please refer to page 22 & 52

FEATURES:

- The MCX range 'combination board' brings together the standard TP&N MCB distribution board with typical 17.5 mm module MCBs with the opportunity to fit larger amperage MCCBs upto 160A.
- Accepts MCBs up to 63A and RCBOs up to 45A (17.5 mm wide module).
- Accepts MCCBs 16A to 160A
- Isolator incomer fitted as standard.
- Manufactured to BSEN 61439 - Part 1 & 3.



MCX22/I200

200A MCB/MCCB DISTRIBUTION BOARDS

MCX range offers versatile use of standard MCBs upto 63A, RCBOs upto 45A and MCCBs upto 160A.

INCOMER FACTORY FITTED	NO. of O/G WAYS	CAT. NO.	H	W	D
200A TP Isolator	2 W-63A, 2 W-160A	**MCX22/I200**	950	600	170
200A TP Isolator	2 W-63A, 4 W-160A	**MCX24/I200**	1100	600	170
200A TP Isolator	4 W-63A, 2 W-160A	**MCX42/I200**	1000	600	170
200A TP Isolator	4 W-63A, 4 W-160A	**MCX44/I200**	1100	600	170
200A TP Isolator	6 W-63A, 2 W-160A	**MCX62/I200**	1100	600	170
200A TP Isolator	6 W-63A, 4 W-160A	**MCX64/I200**	1200	600	170
200A TP Isolator	8 W-63A, 2 W-160A	**MCX82/I200**	1100	600	170
200A TP Isolator	8 W-63A, 4 W-160A	**MCX84/I200**	1200	600	170
200A TP Isolator	12 W-63A, 2 W-160A	**MCX122/I200**	1200	600	170
200A TP Isolator	12 W-63A, 4 W-160A	**MCX124/I200**	1300	600	170



MCX22/I250

250A MCB/MCCB DISTRIBUTION BOARDS

MCX range offers versatile use of standard MCBs upto 63A, RCBOs upto 45A and MCCBs upto 160A.

INCOMER FACTORY FITTED	NO. of O/G WAYS	CAT. NO.	H	W	D
250A TP Isolator	2 W-63A, 2 W-160A	**MCX22/I250**	950	600	170
250A TP Isolator	2 W-63A, 4 W-160A	**MCX24/I250**	1100	600	170
250A TP Isolator	4 W-63A, 2 W-160A	**MCX42/I250**	1000	600	170
250A TP Isolator	4 W-63A, 4 W-160A	**MCX44/I250**	1100	600	170
250A TP Isolator	6 W-63A, 2 W-160A	**MCX62/I250**	1100	600	170
250A TP Isolator	6 W-63A, 4 W-160A	**MCX64/I250**	1200	600	170
250A TP Isolator	8 W-63A, 2 W-160A	**MCX82/I250**	1100	600	170
250A TP Isolator	8 W-63A, 4 W-160A	**MCX84/I250**	1200	600	170
250A TP Isolator	12 W-63A, 2 W-160A	**MCX122/I250**	1200	600	170
250A TP Isolator	12 W-63A, 4 W-160A	**MCX124/I250**	1300	600	170

FEATURES:

- The CBX range 'combination board' brings together the standard TP&N MCB distribution board with typical 17.5 mm module MCBs with the opportunity to fit larger amperage MCBs upto 125A rated.
- Accepts MCBs up to 63A and RCBOs up to 45A (17.5 mm wide module).
- Accepts MCBs 80A to 125A (26.3 mm wide module).
- Isolator incomer fitted as standard.
- Manufactured to BSEN 61439 - Part 1 & 3.

Measurements: Millimetres (mm) unless stated otherwise

Outgoing Switchgear: Supplied separately

Circuit Protection Devices: Please refer to page 52



CBX22/I200

200A MCB DISTRIBUTION BOARDS

CBX range offers versatile use of standard size MCB's upto 63A, RCBO's upto 45A and larger frame size MCB's 80A to 125A

INCOMER FACTORY FITTED	NO. of O/G WAYS	CAT. NO.	H	W	D
200A TP Isolator	2 W-63A, 2 W-125A	**CBX22/I200**	950	600	170
200A TP Isolator	2 W-63A, 4 W-125A	**CBX24/I200**	1100	600	170
200A TP Isolator	4 W-63A, 2 W-125A	**CBX42/I200**	1000	600	170
200A TP Isolator	4 W-63A, 4 W-125A	**CBX44/I200**	1100	600	170
200A TP Isolator	6 W-63A, 2 W-125A	**CBX62/I200**	1100	600	170
200A TP Isolator	6 W-63A, 4 W-125A	**CBX64/I200**	1200	600	170
200A TP Isolator	8 W-63A, 2 W-125A	**CBX82/I200**	1100	600	170
200A TP Isolator	8 W-63A, 4 W-125A	**CBX84/I200**	1200	600	170
200A TP Isolator	12 W-63A, 2 W-125A	**CBX122/I200**	1200	600	170
200A TP Isolator	12 W-63A, 4 W-125A	**CBX124/I200**	1300	600	170



CBX24/I250

250A MCB DISTRIBUTION BOARDS

CBX range offers versatile use of standard size MCB's upto 63A, RCBO's upto 45A and larger frame size MCB's 80A to 125A

INCOMER FACTORY FITTED	NO. of O/G WAYS	CAT. NO.	H	W	D
250A TP Isolator	2 W-63A, 2 W-125A	**CBX22/I250**	950	600	170
250A TP Isolator	2 W-63A, 4 W-125A	**CBX24/I250**	1100	600	170
250A TP Isolator	4 W-63A, 2 W-125A	**CBX42/I250**	1000	600	170
250A TP Isolator	4 W-63A, 4 W-125A	**CBX44/I250**	1100	600	170
250A TP Isolator	6 W-63A, 2 W-125A	**CBX62/I250**	1100	600	170
250A TP Isolator	6 W-63A, 4 W-125A	**CBX64/I250**	1200	600	170
250A TP Isolator	8 W-63A, 2 W-125A	**CBX82/I250**	1100	600	170
250A TP Isolator	8 W-63A, 4 W-125A	**CBX84/I250**	1200	600	170
250A TP Isolator	12 W-63A, 2 W-125A	**CBX122/I250**	1200	600	170
250A TP Isolator	12 W-63A, 4 W-125A	**CBX124/I250**	1300	600	170



CB125T/C

LARGE FRAME TYPE C MCB

DESCRIPTION	kA RATING	CAT. NO.
80A SP	10	**CB080S/C**
80A TP	10	**CB080T/C**
100A SP	10	**CB100S/C**
100A TP	10	**CB100T/C**
125A SP	10	**CB125S/C**
125A TP	10	**CB125T/C**



CBENCTP

LARGE FRAME MCB IP3X STEEL ENCLOSURES

DESCRIPTION	CAT. NO.	H	W	D
80-125 SP	**CBENCSP**	385	205	116
80-125 TP	**CBENCTP**	385	205	116



XLKL

LOCKING

DESCRIPTION	CAT. NO.
Key lock for door	**XLKL**
CB MCB padlock device	**DLPX1**

Measurements: Millimetres (mm) unless stated otherwise

Outgoing Switchgear: Supplied separately

FEATURES:

Proteus Switchgear offers a comprehensive range of Lightning and Surge Protection Devices for single and three phase applications. Whether it's a stand-alone device or a pre-assembled SPD in a distribution board, Proteus can provide a coordinated system to meet your specific requirements



125A ISOLATOR INCOMER c/w TYPE 2 SPD

XL4S125T2

NO. of O/G TP WAYS	CAT. NO. TYPE 2 SPD	H	W	D
3	**XL4S125T2**	457	600	132
5	**XL6S125T2**	512	600	132
7	**XL8S125T2**	567	600	132
11	**XL12S125T2**	732	600	132
15	**XL16S125T2**	842	600	132
19	**XL20S125T2**	942	600	132
23	**XL24S125T2**	1217	600	132



125A ISOLATOR INCOMER c/w TYPE 1+2 SPD

XL6S125T12

NO. of O/G TP WAYS	CAT. NO. TYPE 2 SPD	H	W	D
3	**XL4S125T12**	457	600	132
5	**XL6S125T12**	512	600	132
7	**XL8S125T12**	567	600	132
11	**XL12S125T12**	732	600	132
15	**XL16S125T12**	842	600	132
19	**XL20S125T12**	942	600	132
23	**XL24S125T12**	1217	600	132



200A ISOLATOR INCOMER c/w TYPE 2 SPD

XL8S2T2

NO. of O/G TP WAYS	CAT. NO. TYPE 2 SPD	H	W	D
3	**XL4S2T2**	732	600	132
5	**XL6S2T2**	732	600	132
7	**XL8S2T2**	732	600	132
11	**XL12S2T2**	842	600	132
15	**XL16S2T2**	942	600	132
19	**XL20S2T2**	1217	600	132
23	**XL24S2T2**	1217	600	132



200A ISOLATOR INCOMER c/w TYPE 1+2 SPD

XL12S2T12

NO. of O/G TP WAYS	CAT. NO. TYPE 2 SPD	H	W	D
3	**XL4S2T12**	732	600	132
5	**XL6S2T12**	732	600	132
7	**XL8S2T12**	732	600	132
11	**XL12S2T12**	842	600	132
15	**XL16S2T12**	942	600	132
19	**XL20S2T12**	1217	600	132
23	**XL24S2T12**	1217	600	132

SURGE PROTECTION DEVICES

For surge protection Info, SPD selection chart, loose surge arrestors and enclosed surge arrestors please go to **pages 57, 58 & 59**



FEATURES:

- Available from 4 to 24 triple pole outgoing ways.
- Accepts MCBs from 2A to 63A and RCBOs from 6A to 45A (17.5 mm wide module).
- Key lock available for door (XLKL).
- Dual Earth and Neutral terminal bars.
- Removable gland plates top & bottom.
- Manufactured to BSEN 61439 - Part 1 & 3.
- The XL range of kWh metered boards and split load kWh metered boards, which can be used to meter lighting and power, have over 100% more cabling space than the standard equivalent three phase board. kWh meters are factory fitted to monitor the number of ways chosen to suit the application. Non-tariff as standard, tariff meter available on request

Measurements: Millimetres (mm) unless stated otherwise

Outgoing Switchgear: Supplied separately



XL8S125

125A ISOLATOR INCOMER DISTRIBUTION BOARDS

INCOMER FACTORY FITTED	NO. of O/G WAYS	CAT. NO.	H	W	D
125A TP Isolator	4	**XL4S125**	457	600	132
125A TP Isolator	6	**XL6S125**	512	600	132
125A TP Isolator	8	**XL8S125**	567	600	132
125A TP Isolator	12	**XL12S125**	732	600	132
125A TP Isolator	16	**XL16S125**	842	600	132
125A TP Isolator	20	**XL20S125**	942	600	132
125A TP Isolator	24	**XL24S125**	1217	600	132



XL4S2

200A ISOLATOR INCOMER DISTRIBUTION BOARDS

INCOMER FACTORY FITTED	NO. of O/G WAYS	CAT. NO.	H	W	D
200A TP Isolator	4	**XL4S2**	732	600	132
200A TP Isolator	6	**XL6S2**	732	600	132
200A TP Isolator	8	**XL8S2**	732	600	132
200A TP Isolator	12	**XL12S2**	842	600	132
200A TP Isolator	16	**XL16S2**	942	600	132
200A TP Isolator	20	**XL20S2**	1217	600	132
200A TP Isolator	24	**XL24S2**	1217	600	132



XL84SL

THREE PHASE SPLIT LOAD DISTRIBUTION BOARDS

INCOMER FACTORY FITTED	NO. of TP WAYS		CAT. NO.	H	W	D
	ISOLATOR	RCD				
100A TP Isolator	4	6	**XL46SL**	842	600	132
100A TP Isolator	4	8	**XL48SL**	842	600	132
100A TP Isolator	6	4	**XL64SL**	842	600	132
100A TP Isolator	6	6	**XL66SL**	842	600	132
100A TP Isolator	8	4	**XL84SL**	842	600	132

Fitted with a 100A 4pole 30 mA RCD as standard.



XLKL

KEY LOCK

DESCRIPTION	CAT. NO.	W	D
Key lock for door	**XLKL**	-	-

Measurements:
Millimetres (mm) unless stated otherwise

Outgoing Switchgear:
Supplied separately



XL8S1MD

METERED DISTRIBUTION BOARDS c/w METER

DESCRIPTION	kWh METER	CAT. NO.	H	W	D
4 way TP&N MCB Board	Digital	**XL4S1MD**	567	600	132
6 way TP&N MCB Board	Digital	**XL6S1MD**	732	600	132
8 way TP&N MCB Board	Digital	**XL8S1MD**	732	600	132
12 way TP&N MCB Board	Digital	**XL12S1MD**	842	600	132
16 way TP&N MCB Board	Digital	**XL16S1MD**	942	600	132

All above units are supplied complete with a 100A 4 pole incoming isolator as standard.



XL68MD

DID YOU KNOW?
Additional split load configurations available on request.

SPLIT LOAD METERED DISTRIBUTION BOARDS

TP METER WAYS (LIGHTING)	TP METER WAYS (POWER)	kWh METER	CAT. NO.	H	W	D
4	6	Digital	**XL46MD**	969	600	132
6	8	Digital	**XL68MD**	1079	600	132
8	12	Digital	**XL812MD**	1299	600	132

SPLIT LOAD METERED BOARD INCOMING ISOLATOR KITS

Each individual XL distribution board unit with meter fitted must not exceed 100A full load current per phase. Select isolator incoming kit to satisfy the total load current demand.

DESCRIPTION	CAT. NO.	H	W	D
125A 4 pole isolator incoming kit	**XLI125**	400	600	132
200A 4 pole isolator incoming kit	**XLI200**	400	600	132



KWH2D

METERS & ENCLOSURES

DESCRIPTION	kWh METER	CAT. NO.	H	W	D
100A DP direct connect meter	Digital	**KWH2D**	90	75	73
100A 4P direct connect meter	Digital	**KWH4D**	90	125	73
100A DP meter enclosure only	-	**KWH2E**	383	235	125
100A 4P meter enclosure only	-	**KWH4E**	383	235	125

CASE STUDY:

HALFORDS
SPECIAL DISTRIBUTION BOARDS



Halfords were previously purchasing pre-assembled, standard switch boards from an alternative overseas manufacturer, the design and lead time of which was becoming an issue and Halfords realised they required a more bespoke, future proof solution.

Following contact with Proteus Industrial Switchgear of Telford, a site visit to an existing store was arranged where further design discussions were held with the installation electricians. The discussions resulted in the design of a distribution panel incorporating multiple mcb boards, contactors, time switches and emergency lighting test equipment which were all designed to meet their future requirements.

An initial trial installation was successfully completed at the new Halfords store in Beckton.

The Store Development Manager said, “with Proteus being a UK based manufacturer it was easy to discuss our requirements and make any changes as the design progressed. The end result was a more cost effective panel board with reduced supply and site installation time.”

BESPOKE SOLUTION

SITE VISITS

TECHNICAL SUPPORT FROM MANUFACTURER

Measurements: Millimetres (mm) unless stated otherwise

Outgoing Switchgear: Supplied separately

FEATURES:

Proteus Switchgear offers a comprehensive range of Lightning and Surge Protection Devices for single and three phase applications. Whether it's a stand-alone device or a pre-assembled SPD in a distribution board, Proteus can provide a coordinated system to meet your specific requirements



BX6S125T12

125A ISOLATOR INCOMER c/w SPD

NO. of O/G TP WAYS	CAT. NO. TYPE 2 SPD	CAT. NO. TYPE 1+2 SPD	H	W	D
3	**BX4S125T2**	**BX4S125T12**	390	410	110
5	**BX6S125T2**	**BX6S125T12**	442	410	110
7	**BX8S125T2**	**BX8S125T12**	495	410	110
11	**BX12S125T2**	**BX12S125T12**	600	410	110
15	**BX16S125T2**	**BX16S125T12**	810	410	110
19	**BX20S125T2**	**BX20S125T12**	1000	410	110
23	**BX24S125T2**	**BX24S125T12**	1180	410	110



BX8S2T12

200A ISOLATOR INCOMER c/w SPD

NO. of O/G TP WAYS	CAT. NO. TYPE 2 SPD	CAT. NO. TYPE 1+2 SPD	H	W	D
3	**BX4S2T2**	**BX4S2T12**	600	410	110
5	**BX6S2T2**	**BX6S2T12**	600	410	110
7	**BX8S2T2**	**BX8S2T12**	700	410	110
11	**BX12S2T2**	**BX12S2T12**	810	410	110
15	**BX16S2T2**	**BX16S2T12**	1000	410	110
19	**BX20S2T2**	**BX20S2T12**	1180	410	110
23	**BX24S2T2**	**BX24S2T12**	1180	410	110



BX12S250T2

250A ISOLATOR INCOMER c/w SPD

NO. of O/G TP WAYS	CAT. NO. TYPE 2 SPD	CAT. NO. TYPE 1+2 SPD	H	W	D
7	**BX8S250T2**	**BX8S250T12**	950	500	170
11	**BX12S250T2**	**BX12S250T12**	950	500	170
15	**BX16S250T2**	**BX16S250T12**	1300	500	170
19	**BX20S250T2**	**BX20S250T12**	1300	500	170
23	**BX24S250T2**	**BX24S250T12**	1300	500	170

SURGE PROTECTION DEVICES

For surge protection Info, SPD selection chart, loose surge arrestors and enclosed surge arrestors please go to **pages 57, 58 & 59**



FEATURES:

- Available in 4, 6, 8, 12, 16, 20 to 24 triple pole outgoing ways.
- Wide selection of factory fitted incoming devices to choose from to meet the demands of modern installations.
- Accepts MCBs from 2A to 63A and RCBOs from 6A to 45A (17.5 mm wide module).
- Dual Earth and Neutral terminal bars.
- Manufactured to BSEN 61439 parts 1 & 3.
- Removable gland plates, top and bottom.

Measurements: Millimetres (mm) unless stated otherwise

Outgoing Switchgear: Supplied separately

Door Options: Supplied with a solid door as standard and can be ordered with a clear door fitted be adding /CD to the part code. (For example: BX6S125/CD)



BX8S125

125A ISOLATOR INCOMER DISTRIBUTION BOARDS

INCOMER (FACTORY FITTED)	NO. of O/G TP WAYS	CAT. NO. (SOLID DOOR)	H	W	D
125A TP Isolator	4	**BX4S125 (4P)**	390	410	110
125A TP Isolator	6	**BX6S125 (4P)**	442	410	110
125A TP Isolator	8	**BX8S125 (4P)**	495	410	110
125A TP Isolator	12	**BX12S125 (4P)**	600	410	110
125A TP Isolator	16	**BX16S125 (4P)**	810	410	110
125A TP Isolator	20	**BX20S125 (4P)**	1000	410	110
125A TP Isolator	24	**BX24S125 (4P)**	1180	410	110

(4P) - Add suffix '4P' for 4 pole incomer fitted boards e.g. BX4S1254P



BX12S2

200A ISOLATOR INCOMER DISTRIBUTION BOARDS

INCOMER (FACTORY FITTED)	NO. of O/G TP WAYS	CAT. NO. (SOLID DOOR)	H	W	D
200A TP Isolator	4	**BX4S2**	600	410	110
200A TP Isolator	6	**BX6S2**	600	410	110
200A TP Isolator	8	**BX8S2**	700	410	110
200A TP Isolator	12	**BX12S2**	810	410	110
200A TP Isolator	16	**BX16S2**	1000	410	110
200A TP Isolator	20	**BX20S2**	1180	410	110
200A TP Isolator	24	**BX24S2**	1180	410	110



BX8S250

250A ISOLATOR INCOMER DISTRIBUTION BOARDS

INCOMER (FACTORY FITTED)	NO. of O/G TP WAYS	CAT. NO. (SOLID DOOR)	H	W	D
250A TP Isolator	8	**BX8S250**	950	500	170
250A TP Isolator	12	**BX12S250**	950	500	170
250A TP Isolator	16	**BX16S250**	1300	500	170
250A TP Isolator	20	**BX20S250**	1300	500	170
250A TP Isolator	24	**BX24S250**	1300	500	170

Measurements:
Millimetres (mm) unless stated otherwise

Outgoing Switchgear:
Supplied separately



BX6P30

63A TYPE A 4 POLE 30 mA RCD INCOMER DISTRIBUTION BOARDS

INCOMER (FACTORY FITTED)	NO. of O/G TP WAYS	CAT. NO. (SOLID DOOR)	H	W	D
63A 4P 30 mA RCD	4	**BX4P30**	390	410	110
63A 4P 30 mA RCD	6	**BX6P30**	442	410	110
63A 4P 30 mA RCD	8	**BX8P30**	495	410	110
63A 4P 30 mA RCD	12	**BX12P30**	600	410	110
63A 4P 30 mA RCD	16	**BX16P30**	810	410	110
63A 4P 30 mA RCD	20	**BX20P30**	1000	410	110
63A 4P 30 mA RCD	24	**BX24P30**	1180	410	110



BX6Q30

80A TYPE A 4 POLE 30 mA RCD INCOMER DISTRIBUTION BOARDS

INCOMER (FACTORY FITTED)	NO. of O/G TP WAYS	CAT. NO. (SOLID DOOR)	H	W	D
80A 4P 30 mA RCD	4	**BX4Q30**	390	410	110
80A 4P 30 mA RCD	6	**BX6Q30**	442	410	110
80A 4P 30 mA RCD	8	**BX8Q30**	495	410	110
80A 4P 30 mA RCD	12	**BX12Q30**	600	410	110
80A 4P 30 mA RCD	16	**BX16Q30**	810	410	110
80A 4P 30 mA RCD	20	**BX20Q30**	1000	410	110
80A 4P 30 mA RCD	24	**BX24Q30**	1180	410	110



BXM14

BX MULTI PURPOSE UNITS

DESCRIPTION	CAT. NO. (SOLID DOOR)	H	W	D
14 Modules	**BXM14**	265	410	110
28 Modules (2x 14 mod banks)	**BXM28**	495	410	110



DID YOU KNOW?

BX boards are supplied with a solid door as standard and can be ordered with a clear door fitted by adding /CD to the part code (For example: BX6S2/CD).



BX4R30

100A TYPE A 4 POLE 30 mA RCD INCOMER DISTRIBUTION BOARDS

INCOMER (FACTORY FITTED)	NO. of O/G TP WAYS	CAT. NO. (SOLID DOOR)	H	W	D
100A 4P 30 mA RCD	4	**BX4R30**	390	410	110
100A 4P 30 mA RCD	6	**BX6R30**	442	410	110
100A 4P 30 mA RCD	8	**BX8R30**	495	410	110
100A 4P 30 mA RCD	12	**BX12R30**	600	410	110
100A 4P 30 mA RCD	16	**BX16R30**	810	410	110
100A 4P 30 mA RCD	20	**BX20R30**	1000	410	110
100A 4P 30 mA RCD	24	**BX24R30**	1180	410	110



BX6R100

100A TYPE A 4 POLE 100 mA RCD INCOMER DISTRIBUTION BOARDS

INCOMER (FACTORY FITTED)	NO. of O/G TP WAYS	CAT. NO. (SOLID DOOR)	H	W	D
100A 4P 100 mA RCD	4	**BX4R100**	390	410	110
100A 4P 100 mA RCD	6	**BX6R100**	442	410	110
100A 4P 100 mA RCD	8	**BX8R100**	495	410	110
100A 4P 100 mA RCD	12	**BX12R100**	600	410	110
100A 4P 100 mA RCD	16	**BX16R100**	810	410	110
100A 4P 100 mA RCD	20	**BX20R100**	1000	410	110
100A 4P 100 mA RCD	24	**BX24R100**	1180	410	110

100A 100 mA boards available with Type S RCD on request.

Measurements:
Millimetres (mm) unless stated otherwise

Outgoing Switchgear:
Supplied separately

Door Options:
Supplied with a solid door as standard and can be ordered with a clear door fitted be adding /CD to the part code. (For example: BX6R30/CD)



BX6R300

100A TYPE A 4 POLE 300 mA RCD INCOMER DISTRIBUTION BOARDS

INCOMER (FACTORY FITTED)	NO. of O/G TP WAYS	CAT. NO. (SOLID DOOR)	H	W	D
100A 4P 300 mA RCD	4	**BX4R300**	390	410	110
100A 4P 300 mA RCD	6	**BX6R300**	442	410	110
100A 4P 300 mA RCD	8	**BX8R300**	495	410	110
100A 4P 300 mA RCD	12	**BX12R300**	600	410	110
100A 4P 300 mA RCD	16	**BX16R300**	810	410	110
100A 4P 300 mA RCD	20	**BX20R300**	1000	410	110
100A 4P 300 mA RCD	24	**BX24R300**	1180	410	110

100A 300 mA boards available with Type S RCD on request.



BXSB2

BX ACCESSORIES

DESCRIPTION	CAT. NO.	H	W	D
Spreader box	**BXSB1**	265	410	110
Spreader box	**BXSB2**	495	410	110
100/125A Single phase conv kit	**BXSCK1**	-	-	-
200A Single phase conv kit	**BXSCK2**	-	-	-
Key lock for door	**XLKL**	-	-	-

Measurements: Millimetres (mm) unless stated otherwise

Outgoing Switchgear: Supplied separately

Door Options: Supplied with a solid door as standard and can be ordered with a clear door fitted be adding /CD to the part code. (For example: ABX6S1/CD)

FEATURES:

- Busbars are 80A max with 100A intermittent rating and are one piece construction.
- Cleanline overall hinged door (key operated lockable door optional).
- Accepts RCBOs and MCBs, 17.5 mm wide module.
- Isolators can be locked in ON or OFF position (using DLPX1 locking device).
- Robust IP3X steel construction.
- ABX Manufactured to BSEN 61439 parts 1 & 3.



ABX2S1

3-PHASE ABX BOARD - HORIZONTAL

INCOMER FACTORY FITTED	NO. of O/G TP WAYS	CAT. NO. (SOLID DOOR)	H	W	D
100A 4P Isolator	2	**ABX2S1**	269	326	110
100A 4P Isolator	4	**ABX4S1**	269	436	110
100A 4P Isolator	6	**ABX6S1**	269	562	110
100A 4P Isolator	8	**ABX8S1**	269	673	110
100A 4P Isolator	12	**ABX12S1**	269	900	110



ABX4S1V

3-PHASE ABX BOARD - VERTICAL

INCOMER FACTORY FITTED	NO. of O/G TP WAYS	CAT. NO. (SOLID DOOR)	H	W	D
100A 4P Isolator	2	**ABX2S1V**	326	269	110
100A 4P Isolator	4	**ABX4S1V**	436	269	110
100A 4P Isolator	6	**ABX6S1V**	562	269	110
100A 4P Isolator	8	**ABX8S1V**	673	269	110
100A 4P Isolator	12	**ABX12S1V**	900	269	110



ABX2R30

HORIZONTAL ABX TYPE A RCD BOARDS

NO. of O/G TP WAYS	CAT. NO. 100A 30 mA RCD INCOMER	CAT. NO. 100A 100 mA RCD INCOMER	CAT. NO. 100A 300 mA RCD INCOMER	H	W	D
2	**ABX2R30**	**ABX2R100**	**ABX2R300**	269	326	110
4	**ABX4R30**	**ABX4R100**	**ABX4R300**	269	436	110
6	**ABX6R30**	**ABX6R100**	**ABX6R300**	269	562	110
8	**ABX8R30**	**ABX8R100**	**ABX8R300**	269	673	110
12	**ABX12R30**	**ABX12R100**	**ABX12R300**	269	900	110



ABX4R300V

VERTICAL ABX TYPE A RCD BOARDS

NO. of O/G TP WAYS	CAT. NO. 100A 30 mA RCD INCOMER	CAT. NO. 100A 100 mA RCD INCOMER	CAT. NO. 100A 300 mA RCD INCOMER	H	W	D
2	**ABX2R30V**	**ABX2R100V**	**ABX2R300V**	326	269	110
4	**ABX4R30V**	**ABX4R100V**	**ABX4R300V**	436	269	110
6	**ABX6R30V**	**ABX6R100V**	**ABX6R300V**	562	269	110
8	**ABX8R30V**	**ABX8R100V**	**ABX8R300V**	673	269	110
12	**ABX12R30V**	**ABX12R100V**	**ABX12R300V**	900	269	110

CASE STUDY:

DRAYTON MANOR THEME PARK - THOMAS LAND
PRO2000 LV SWITCHBOARDS



Proteus Switchgear PRO2000 LV switchboard was designed to tap off from an 11kV ring to supply the vast majority of the Thomas Land's electrical needs.

The timescale for the project was tight from the onset and as quoted by the contractor only Proteus Switchgear offered to meet the challenge. The goods were specified, quoted, designed and supplied within 8 weeks. Keeping the progress of the project on schedule and supporting the contractor along the way with respect to technical support and advice were key to customer satisfaction.

Proteus Switchgear were also noted for their excellent co-operation and team work when it came to accommodating a significant mid-project modification to the switchboard involving the upgrading of an outgoing switch fuse from 100A to 250A. With the assistance of Proteus staff the work involved in changeover was completed in less than 1 hour

The contractor claims the high profile of the installation and overall successful completion and handover of the project has also increased the profile of his company and led to further job opportunities for his team with work on this scale.

BESPOKE SOLUTION

IN-HOUSE DESIGN FACILITIES

TECHNICAL SUPPORT FROM MANUFACTURER

Measurements: Millimetres (mm) unless stated otherwise

RCD Incomer: Factory fitted 100A 4 pole RCD incomer options available on request

Key Lock Options: GRP boards part code - GRPKL

Steel boards part code - STLKL

FEATURES:

- All boards will accept RCBOs and MCBs 17.5 mm wide modules.
- Isolators can be locked in ON or OFF position (using DL1 locking device).
- Manufactured to BSEN 61439 parts 1 & 3.



PDU4SS

125A TP ISOLATOR - STEEL ENCLOSURE

INCOMER FACTORY FITTED	NO. of O/G TP WAYS	CAT. NO. (SOLID DOOR)	H	W	D
125A TP isolator	4	**PDU4SS**	500	400	200
125A TP isolator	6	**PDU6SS**	600	400	200
125A TP isolator	8	**PDU8SS**	600	400	200
125A TP isolator	12	**PDU12SS**	800	400	200
125A TP isolator	16	**PDU16SS**	800	400	200



PDU6S2S

200A TP ISOLATOR - STEEL ENCLOSURE

INCOMER FACTORY FITTED	NO. of O/G TP WAYS	CAT. NO. (SOLID DOOR)	H	W	D
200A TP isolator	4	**PDU4S2S**	600	400	200
200A TP isolator	6	**PDU6S2S**	600	400	200
200A TP isolator	8	**PDU8S2S**	800	400	200
200A TP isolator	12	**PDU12S2S**	1100	400	200
200A TP isolator	16	**PDU16S2S**	1300	400	200



PDU4S

125A TP ISOLATOR - GRP ENCLOSURE

INCOMER FACTORY FITTED	NO. of O/G TP WAYS	CAT. NO. (SOLID DOOR)	H	W	D
125A TP isolator	4	**PDU4S**	500	400	200
125A TP isolator	6	**PDU6S**	600	500	250
125A TP isolator	8	**PDU8S**	600	500	250
125A TP isolator	12	**PDU12S**	800	600	300
125A TP isolator	16	**PDU16S**	800	600	300



PDU4S2

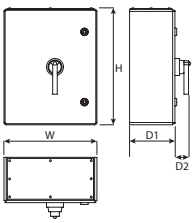
200A TP ISOLATOR - GRP ENCLOSURE

INCOMER FACTORY FITTED	NO. of O/G TP WAYS	CAT. NO. (SOLID DOOR)	H	W	D
200A TP isolator	4	**PDU4S2**	600	500	250
200A TP isolator	6	**PDU6S2**	600	500	250
200A TP isolator	8	**PDU8S2**	800	600	300

FEATURES:

- AC21 - Switching of resistive loads, including moderate overloads
- AC23 - Switching of motor loads or other high inductive loads

Measurements: Millimetres (mm) unless stated otherwise



Additional ratings available upon request. Manufactured to BSEN 60947.



WFS100/IP65

AC23 RATED SWITCH DISCONNECTOR FUSES IP65 STEEL ENCLOSURE

CURRENT RATING A AC21 / AC23	NO. of POLES	CAT. NO.	H	W	D1	D2
63	3P + N	**WFS63/IP65SS**	500	400	200	70
100	3P + N	**WFS100/IP65SS**	500	400	200	70
125	3P + N	**WFS125/IP65SS**	600	400	200	70
160	3P + N	**WFS160/IP65SS**	600	400	200	70
200	3P + N	**WFS200/IP65SS**	700	500	300	70

AC23 RATED SWITCH DISCONNECTOR FUSES IP65 GRP ENCLOSURE

CURRENT RATING A AC21 / AC23	NO. of POLES	CAT. NO.	H	W	D1	D2
63	3P + N	**WFS63/IP65**	500	400	200	70
100	3P + N	**WFS100/IP65**	500	400	200	70
125	3P + N	**WFS125/IP65**	600	500	250	70
160	3P + N	**WFS160/IP65**	600	500	250	70
200	3P + N	**WFS200/IP65**	800	600	300	70



WSF63/IP65SS

SWITCH DISCONNECTOR FUSES IP65 STEEL ENCLOSURE

CURRENT RATING A AC21 / AC23	NO. of POLES	CAT. NO.	H	W	D1	D2
20/11	3P + N	**WSF20/IP65SS**	400	300	200	40
32/18	3P + N	**WSF32/IP65SS**	400	300	200	40
63/35	3P + N	**WSF63/IP65SS**	500	400	200	40
100/70	3P + N	**WSF100/IP65SS**	500	400	200	40

SWITCH DISCONNECTOR FUSES IP65 GRP ENCLOSURE

CURRENT RATING A AC21 / AC23	NO. of POLES	CAT. NO.	H	W	D1	D2
20/11	3P + N	**WSF20/IP65**	400	300	200	40
32/18	3P + N	**WSF32/IP65**	400	300	200	40
63/35	3P + N	**WSF63/IP65**	500	400	200	40
100/70	3P + N	**WSF100/IP65**	500	400	200	40

IP67 ROTARY ISOLATORS

For 3 & 4 pole IP67 rotary isolators please go to **pages 122 & 123**

IP67 PROTECTION | LOCK OFF POSITION | 20A TO 100A



Measurements: Millimetres (mm) unless stated otherwise

FEATURES:

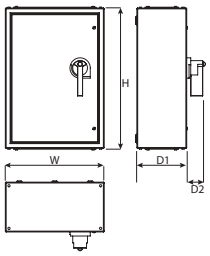
- Switch mechanism rated at 65kA when fitted with appropriate BS88 fuses.
- Heavy duty interlocking handle.
- Fully rated BS88 fuses fitted.
- 4 pole configuration available on request.
- Built-in cable box suitable for most applications.
- Manufactured to BSEN 60947 parts 1 & 3.
- AC21 - Switching of resistive loads, including moderate overloads
- AC23 - Switching of motor loads or other high inductive loads
- Removable endplates

STEEL ENCLOSURE

OFF FOR SECURITY

AC23 RATED SWITCH DISCONNECTOR FUSES

63A - 800A Triple Pole and Neutral Fuse Switch complete with Built In Spreader Boxes and Fuses





U200FS

CURRENT RATING A-AC23	CSA MAX mm²	BOLT SIZE (METRIC)	POWER RATING AT 400 V (kW)	PROTEUS BS88 PT.2 FUSE FITTED	CAT. NO.	H	W	D1	D2
63	95*	M8	33	PBD	**U63FS**	500	350	185	70
100	95*	M8	55	PCD	**U100FS**	500	350	185	70
125	95*	M8	59	PDD	**U125FS**	500	350	185	70
160	95*	M8	75	PDD	**U160FS**	500	350	185	70
200	150/185**	M10	110	PDD	**U200FS**	700	400	255	70
250	150/185**	M10	132	PED	**U250FS**	700	400	255	70
315	185**	M10	185	PED	**U315FS**	700	400	255	70
400	185/240#	M10	220	PED	**U400FS**	900	400	330	70
500	-	M12	275	PFF	**U500FS**	1300	500	300	70
630	-	M12	300	PFF	**630FS**	1300	500	300	55
800	-	M12	450	PGF	**800FS*** **	1625	654	500	55

* - when using 95 mm² cable it is recommended that the UCB1 is fitted.
** - when using 185 mm² cable it is recommended that the UCB2 is fitted.
# - when using 240 mm² cable it is recommended that the UCB4 is fitted.
*** - Floor standing unit.

IP67 ROTARY ISOLATORS

For 3 & 4 pole IP67 rotary isolators please go to **pages 122 & 123**

IP67 PROTECTION

LOCK OFF POSITION

20A TO 100A



FEATURES:

- AC21 - Switching of resistive loads, including moderate overloads
- AC23 - Switching of motor loads or other high inductive loads

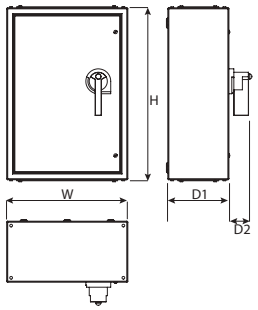
Measurements: Millimetres (mm) unless stated otherwise

STEEL ENCLOSURE

OFF FOR SECURITY

AC23 RATED SWITCH DISCONNECTORS

63A - 630A Triple Pole and Neutral Metalclad Switch Disconnector





U200S

CURRENT RATING A-AC23	CSA MAX mm²	BOLT SIZE (METRIC)	POWER RATING AT 400 V (kW)	CAT. NO.	H	W	D1	D2
63	95*	M8	33	**U63S**	500	350	185	70
100	95*	M8	55	**U100S**	500	350	185	70
125	95*	M8	59	**U125S**	500	350	185	70
160	95*	M8	75	**U160S**	500	350	185	70
200	150/185**	M10	110	**U200S**	700	400	255	70
250	150/185**	M10	132	**U250S**	700	400	255	70
315	185**	M10	185	**U315S**	700	400	255	70
400	185/240#	M10	220	**U400S**	900	400	330	70
500	-	M12	275	**U500S**	1300	500	300	70
630	-	M12	300	**U630S**	1300	500	300	70

* - when using 95 mm² cable it is recommended that the UCB1 is fitted.
** - when using 185 mm² cable it is recommended that the UCB2 is fitted.
\# - when using 240 mm² cable it is recommended that the UCB4 is fitted.



UCB2

ACCESSORIES

DESCRIPTION	CAT. NO.	H	W	D
Cable spreader box to suit up to U160FS/ U160S	**UCB1**	200	350	185
Cable spreader box to suit U200FS/U200S upto U315FS/U315S	**UCB2**	200	400	255
Cable spreader box to suit U400FS/U400S	**UCB4**	200	400	330
Fuse barrier for U250FS/S - U400FS/S	**UFB200**	-	-	-
Fuse barrier for U063FS/S - U160FS/S	**UFB63**	-	-	-
Handle for UFS/S	**UFH**	-	-	-
Shaft for UFS/S	**UFS**	-	-	-

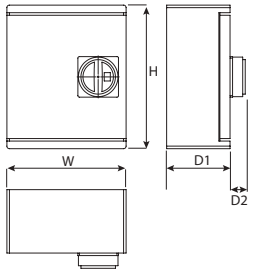
Measurements: Millimetres (mm) unless stated otherwise

FEATURES:

- Fully insulated high visibility rotary operating handle.
- Padlockable in off position for security.
- Finger protected cable terminations.
- Epoxy powder coat finish.
- Robust, heavy duty steel enclosure.
- Folded steel construction for extra rigidity.
- Flush fitting door.
- Door removable for ease of installation.
- Manufactured to BSEN 60947 parts 1 & 3.

STEEL ENCLOSURE

OFF FOR SECURITY





EF20TN

SWITCH DISCONNECTOR FUSES

20A - 100A Triple Pole and Neutral Switch Fuse c/w Fuses

CURRENT RATING A-AC21A/AC22A	NO. of POLES	CURRENT RATING A-AC23A	POWER AT 400 V (kW) AC23A	MAX. STRANDED CABLE CSA mm²	PROTEUS FUSE TO BS88 PT.2&6 SPARE FUSE UNIT		CAT. NO.	H	W	D1	D2
20	3 P+N	11	5.5	16	PNSD/TDH2	Part [6]	**EF20TN**	283	235	125	35
20	1 P+N	-	-	16	PNSD/TDH2	Part [6]	**EF20S**	283	235	125	35
20	2 P+N	-	-	16	PNSD/TDH2	Part [6]	**EF20D**	283	235	125	35
32	3 P+N	18	9	16	PNSD/TDH3	Part [6]	**EF32TN**	283	235	125	35
32	1 P+N	-	-	16	PNSD/TDH3	Part [6]	**EF32S**	283	235	125	35
32	2 P+N	-	-	16	PNSD/TDH3	Part [6]	**EF32D**	283	235	125	35
63	3 P+N	63	35	35	TIS/TDH6	Part [2]	**EF63TN**	420	300	145	45
63	1 P+N	-	-	35	TIS/TDH6	Part [2]	**EF63S**	420	300	145	45
63	2 P+N	-	-	35	TIS/TDH6	Part [2]	**EF63D**	420	300	145	45
100	3 P+N	100	50	70 (in) 35 (out)	TCP/TDH10	Part [2]	**EF100TN**	420	350	145	45
100	1 P+N	-	-	35	TCP/TDH10	Part [2]	**EF100S**	420	350	145	45
100	2 P+N	-	-	35	TCP/TDH10	Part [2]	**EF100D**	420	350	145	45

Key features - as above plus, Fully rated fuses fitted. Cable Termination Type - Tunnel. TIS and TCP are 'Bolt in' fuses to BS88 pt2. Accessory - MN10 is a screw fixed add-on switched neutral pole for 63/100A units

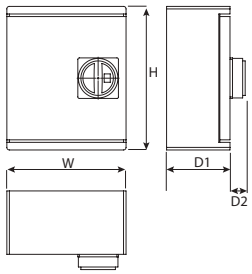
Measurements:
Millimetres (mm) unless stated otherwise

STEEL ENCLOSURE

OFF FOR SECURITY

SWITCH DISCONNECTORS

20A - 200A Triple Pole and Neutral Metalclad Switch Disconnector





E20TN

CURRENT RATING A-AC21A/AC22A	CURRENT RATING A-AC23A	POWER AT 400 V (kW) AC23A	MAX. STRANDED CABLE CSA mm²	CABLE TERMINATION TYPE	CAT. NO.	H	W	D1	D2
20	11	6.5	16	Tunnel	**E20TN**	195	235	125	35
32	28	15	16	Tunnel	**E32TN**	195	235	125	35
63	63	37	35	Tunnel	**E63TN**	383	235	125	35
100	100	50	70	Tunnel	**E100TN**	383	235	125	35
160	80	75	70	Tunnel	**E160TN**	420	300	145	45
200	125	75	70	Tunnel	**E200TN**	420	300	145	45

ADD ON NEUTRAL

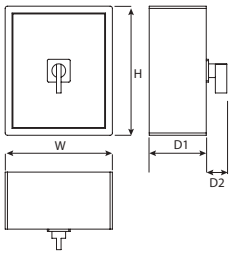
Suitable for Switch Disconnectors & Switch Disconnector Fuses



EN100

DESCRIPTION	CURRENT RATING	CAT. NO.
20 / 32 A Add on neutral	20 A / 32 A	**EN20/32**
63 A Add on neutral	63 A	**EN63**
100 A Add on neutral	100 A	**EN100**

Measurements:
Millimetres (mm) unless stated otherwise



FEATURES:

- Manufactured to BSEN 60947 Parts 1 & 3.
- Robust enclosure powder coated to RAL7035.
- Removable end plates.



TCO1254

STEEL ENCLOSURES TO IP3X - 100 - 800A

CURRENT RATING A AC21	NO. of POLES	CABLE SIZE mm²	CAT. NO.	H	W	D1	D2
100	4	50 (M8)	**TCO1004**	500	440	175	50
125	4	50 (M8)	**TCO1254**	500	440	175	50
160	4	95 (M8)	**TCO1604**	700	565	190	50
200	4	95 (M8)	**TCO2004**	700	565	190	50
250	4	240 (M10)	**TCO2504**	800	720	220	50
315	4	240 (M10)	**TCO3154**	800	720	220	50
400	4	240 (M10)	**TCO4004**	800	720	220	50
630	4	300 (M12)	**TCO6304**	1300	1300	300	70
800	4	300 (M12)	**TCO8004**	1300	1300	300	70



CO204

GRP ENCLOSURES TO IP65 - 20 & 32A

CURRENT RATING A AC21	NO. of POLES	CABLE SIZE mm²	CAT. NO.	H	W	D1	D2
20	2	2.5	**CO/202**	126	101	96	25
20	4	2.5	**CO/204**	126	101	96	25
32	2	6	**CO/322**	176	116	111	25
32	4	6	**CO/324**	176	116	111	25



CO633

GRP ENCLOSURES TO IP65 - 63 & 100A

CURRENT RATING A AC21	NO. of POLES	CABLE SIZE mm²	CAT. NO.	H	W	D1	D2
63	2	35	**CO/632**	240	160	169	25
63	4	35	**CO/634**	246	160	169	25
100	2	35	**CO/1002**	240	160	169	25
100	4	35	**CO/1004**	240	160	169	25

CASE STUDY:

INNOVIA FILMS
PRO2000 SWITCHBOARDS



In March 2014, Innovia Films announced that they had signed a contract with the Bank of England for Innovia Security to supply Guardian® polymer substrate for the next generation of UK sterling bank notes.

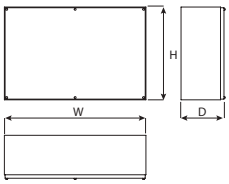
Proteus Industrial has supplied Innovia Films since 2010 in an on-going programme of replacing much of their old switchgear with the latest, and in some cases totally bespoke, control equipment. By working closely with the Electrical Engineering Manager and the electrical team at Innovia, a new order has just been placed by City Electrical Factors (CEF) Carlisle branch, for two purpose built PRO2000 switchboards to distribute 400V power throughout the state of the art Innovia Security facility as part of the programme.
Designed and built in the Proteus factory in Telford, the customer was able to see the switch board being built to their unique specification. “As a British manufacturer ourselves it is great to be able to talk and actually see our own panel being built” said the customer, “I cannot think of another company left in the UK that could offer this service”.

BESPOKE SOLUTION

IN-HOUSE DESIGN FACILITIES

TECHNICAL SUPPORT FROM MANUFACTURER

Measurements:
Millimetres (mm) unless stated otherwise



Higher Ratings:
Available on request

FEATURES:

- Manufactured to BSEN 61439-1 & 2.
- 4 pole configuration.
- 6 ratings from 100A to 800A.
- 36kA Icc.
- Fully rated neutral.
- Twin bar design from 100A up to 800A.
- Set of 4 clamps supplied with each chamber.



100BC2

100A BUSBAR CHAMBERS

CURRENT RATING A	NO. of POLES	CAT. NO.	H	W	D
100	4	**100BC2**	400	610	190
100	4	**100BC3**	400	915	190
100	4	**100BC4**	400	1220	190
100	4	**100BC6**	400	1830	190



200BC3

200A BUSBAR CHAMBERS

CURRENT RATING A	NO. of POLES	CAT. NO.	H	W	D
200	4	**200BC2**	400	610	190
200	4	**200BC3**	400	915	190
200	4	**200BC4**	400	1220	190
200	4	**200BC6**	400	1830	190



300BC3

315A BUSBAR CHAMBERS

CURRENT RATING A	NO. of POLES	CAT. NO.	H	W	D
315	4	**300BC2**	400	610	190
315	4	**300BC3**	400	915	190
315	4	**300BC4**	400	1220	190
315	4	**300BC6**	400	1830	190



400BC4

400A BUSBAR CHAMBERS

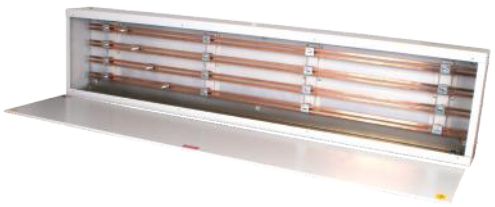
CURRENT RATING A	NO. of POLES	CAT. NO.	H	W	D
400	4	**400BC2**	400	610	190
400	4	**400BC3**	400	915	190
400	4	**400BC4**	400	1220	190
400	4	**400BC6**	400	1830	190



600BC6

630A BUSBAR CHAMBERS

CURRENT RATING A	NO. of POLES	CAT. NO.	H	W	D
630	4	**600BC2**	400	610	190
630	4	**600BC3**	400	915	190
630	4	**600BC4**	400	1220	190
630	4	**600BC6**	400	1830	190



800BC6

800A BUSBAR CHAMBERS

CURRENT RATING A	NO. of POLES	CAT. NO.	H	W	D
800	4	**800BC3**	400	915	190
800	4	**800BC4**	400	1220	190
800	4	**800BC6**	400	1830	190

Measurements:
Millimetres (mm) unless stated otherwise



BLC6/23

M6 BOLT SIZE

BOLTS TO SUIT BUSBAR	BOLT SIZE (METRIC)	MAX. CABLE SIZE mm²	CAT. NO.
100 - 200A Rated	M6	70	**BLC6/23**
315 - 800A Rated	M6	70	**BLC6/48**



BLC8/23

M8 BOLT SIZE

BOLTS TO SUIT BUSBAR	BOLT SIZE (METRIC)	MAX. CABLE SIZE mm²	CAT. NO.
100 - 200A Rated	M8	150	**BLC8/23**
315 - 800A Rated	M8	150	**BLC8/48**



BLC10/48

M10 BOLT SIZE

BOLTS TO SUIT BUSBAR	BOLT SIZE (METRIC)	MAX. CABLE SIZE mm²	CAT. NO.
315 - 800A Rated	M10	150	**BLC10/48**



BCC240/48

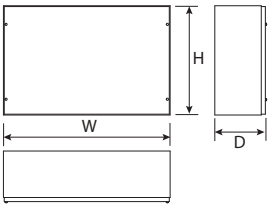
CLAMP

BOLTS TO SUIT BUSBAR	BOLT SIZE (METRIC)	MAX. CABLE SIZE mm²	CAT. NO.
100 - 200A Rated	Clamp	185	**BCC185/23**
315 - 800A Rated	Clamp	185	**BCC185/48**
315 - 800A Rated	Bolt	240	**BCC240/48**

Measurements: Millimetres (mm) unless stated otherwise

FEATURES:

- Designed to meet protection and combustible standards IP65 and IK08.
- Available in 6 sizes.
- Supplied in grey (RAL 7035) with solid door and base unit (internal mounting plate).
- Wall thickness on the range is 3 – 3.5 mm.
- Made from UL approved ABS-HB flame retardant plastic.
- Complying with BS EN 60529, BS EN 62208,
- CEI23-48 & CEI23-49



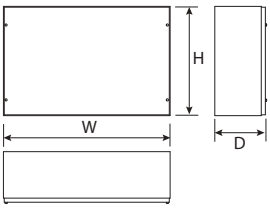


IP65E504024

MULTIPURPOSE IP65 ENCLOSURES

IP65 ABS Enclosure with Back Plate Fitted and A Solid Grey Door

DESCRIPTION	CAT. NO.	H	W	D
IP65 enclosure	**IP65E302013**	300	200	130
IP65 enclosure	**IP65E352515**	350	250	150
IP65 enclosure	**IP65E403022**	400	300	220
IP65 enclosure	**IP65E504024**	500	400	240
IP65 enclosure	**IP65E604020**	600	400	200
IP65 enclosure	**IP65E705025**	700	500	250





IP65E604020/CD

MULTIPURPOSE IP65 ENCLOSURES

IP65 ABS Enclosure with Back Plate Fitted and A Translucent Door

DESCRIPTION	CAT. NO.	H	W	D
IP65 enclosure	**IP65E302013/CD**	300	200	130
IP65 enclosure	**IP65E352515/CD**	350	250	150
IP65 enclosure	**IP65E403022/CD**	400	300	220
IP65 enclosure	**IP65E504024/CD**	500	400	240
IP65 enclosure	**IP65E604020/CD**	600	400	200
IP65 enclosure	**IP65E705025/CD**	700	500	250

FEATURES:

- Compliant with BSEN 60947-4, CSA approved and UL Listing.
- Terminal marking to EN50005.
- Climate rating tested to DIN50 016 and IEC68.
- Standard 230V a.c. coil voltage.
- Generous cabling connections.
- Clear identification of contact position and function.
- Full range of auxiliary components.

Measurements:
Millimetres (mm) unless stated otherwise



PC063230V

3 POLE CONTACTORS

POWER RATING (KW) 400 V	AC1 RATING A AT 400 V	AC3 RATING A AT 400 V	3 POLE CAT. NO.
4	20	9	**PC020230V**
5.5	25	12	**PC025230V**
11	32	22	**PC032230V**
22	63	50	**PC063230V**
45	100	85	**PC100230V**
75	200	150	**PC200230V**



HLC100

ENCLOSED HEATING AND LIGHTING CONTACTORS

Conform to BSEN 60947-4.

AC1 RATING A	AC3 RATING A	AUX. CONTACTS FITTED	CAT. NO.	H	W	D
25	12	1 NO	**HLC25**	200	200	170
32	22	1 NO	**HLC32**	200	200	170
63	50	1 NO/1 NC	**HLC63**	300	300	170
100	85	1 NO/1 NC	**HLC100**	300	300	170
200	150	1 NO/1 NC	**HLC200**	700	400	300



EM/STOP

IP65 EMERGENCY STOP PUSH BUTTONS

DESCRIPTION	CAT. NO.	H	W	D
Emergency Stop Push Button - Twist Release	**EM/STOP***	72	70	63
N/C Contact Block To Suit EM/STOP	**EMCB1NC**	-	-	-
N/O Contact Block To Suit EM/STOP	**EMCB1NO**	-	-	-

* - Contact configuration - 1NC



MEMI

IP65 EMERGENCY STOP PUSH BUTTONS

DESCRIPTION	CAT. NO.	H	W	D
Neon Ind./Twist Release	**MEMI***	72	80	50
Key release	**MEMK***	72	80	50
Twist release	**MEMT***	72	80	50
Twist release w/ safety snap	**MEMSS***	72	80	50
N/C Contact Block To Suit MEM....	**PCB1NC**	-	-	-
N/O Contact Block To Suit MEM...	**PCB1NO**	-	-	-

* - Contact configuration - 1NC/1NO

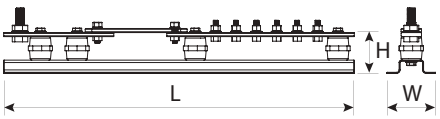
Measurements:
Millimetres (mm) unless stated otherwise

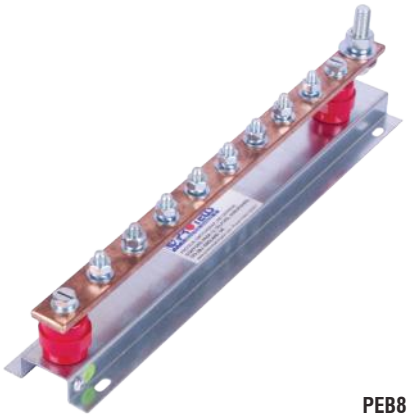
Bolt Sizes:
Main bolts M12
Outgoing bolts M8

Higher Rating:
Available on request up to 2000A

FEATURES:

- Earth Bars are manufactured from HDHC copper supported on glass reinforced polyester insulators. The CSA of the bar is nominally 150 mm² (25 mm x 6 mm / 1" x 1/4") with a current rating of 400A and 300 mm² (30 mm x 10 mm) for 800A.
- The insulators are mounted on a steel 'top hat' section for fixing to the wall.
- Mounted on insulated supports (may be used as neutral bars).

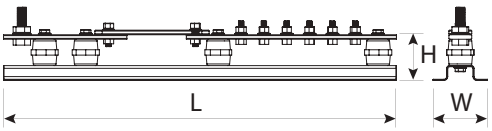


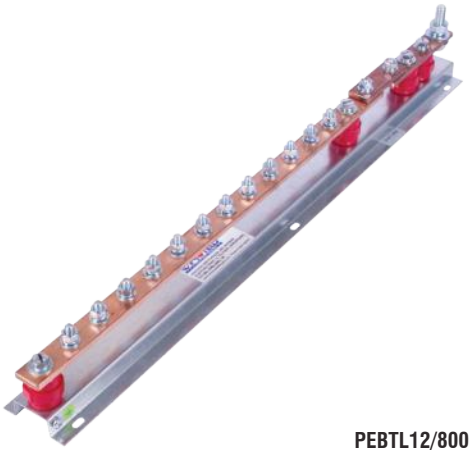


PEB8

15 kA Is, 30 kA PEAK. 400A EARTH BARS

NO. of O/G CONNECTIONS	INTEGRAL TEST LINK	CAT. NO.	L	W	H
4	No	**PEB4**	245	65	68
6	No	**PEB6**	315	65	68
8	No	**PEB8**	385	65	68
12	No	**PEB12**	525	65	68
6	Yes	**PEBTL6**	470	65	68
8	Yes	**PEBTL8**	540	65	68
12	Yes	**PEBTL12**	680	65	68





PEBTL12/800

30 kA Is, 63 kA PEAK. 800A EARTH BARS

NO. of O/G CONNECTIONS	INTEGRAL TEST LINK	CAT. NO.	L	W	H
6	No	**PEB6/800**	315	65	68
8	No	**PEB8/800**	385	65	68
12	No	**PEB12/800**	525	65	68
6	Yes	**PEBTL6/800**	470	65	68
8	Yes	**PEBTL8/800**	540	65	68
12	Yes	**PEBTL12/800**	680	65	68



BESPOKE POWER DISTRIBUTION CONFIGURATIONS
FROM PROTEUS

Proteus offer a large range of custom designed, bespoke LV switchboards, panelboards, distribution boards and consumer units. Ensure your customer's exact requirements are met with a completely bespoke solution.

On-Site Survey

Our team are happy to visit your site to establish your project requirements

Designed to Your Specification

Proteus utilise the latest drawing software and provide panel layout drawings at both quotation and construction stages

Testing & Compliance

All products tested to relevant British & European Standards and the 18th Edition Wiring Regulations

Be involved

You're welcome to visit the factory to see your board being built and discuss build requirements



Measurements: Millimetres (mm) unless stated otherwise

Use the colour code to identify the supplying Proteus Division:

Blue box: Proteus Consumer

No box: Proteus Industrial



616B

SINGLE POLE MCBs - B CURVE

CURRENT RATING (A)	6 kA	10 kA	15 kA
1	601B	-	-
2	602B	1002/2	1502/2
4	604B	1004/2	1504/2
6	606B	1006/2	1506/2
10	610B	1010/2	1510/2
16	616B	1016/2	1516/2
20	620B	1020/2	1520/2
25	625B	-	1525/2
32	632B	1032/2	1532/2
40	640B	1040/2	1540/2
45	645B	-	-
50	650B	1050/2	1550/2
63	663B	1063/2	1563/2



1025/3

SINGLE POLE MCBs - C CURVE

CURRENT RATING (A)	6 kA	10 kA	15 kA
1	-	-	-
2	-	1002/3	1502/3
4	-	1004/3	1504/3
6	606C	1006/3	1506/3
10	610C	1010/3	1510/3
16	616C	1016/3	1516/3
20	620C	1020/3	1520/3
25	625C	1025/3	1525/3
32	632C	1032/3	1532/3
40	640C	1040/3	1540/3
45	-	-	-
50	650C	1050/3	1550/3
63	663C	1063/3	1563/3



1532/4

SINGLE POLE MCBs - D CURVE

CURRENT RATING (A)	10 kA	15 kA
1	-	-
2	-	1502/4
4	-	1504/4
6	1006/4	1506/4
10	1010/4	1510/4
16	1016/4	1516/4
20	1020/4	1520/4
25	-	1525/4
32	1032/4	1532/4
40	1040/4	1540/4
45	-	-
50	1050/4	1550/4
63	1063/4	1563/4



21016/3

DOUBLE POLE MCBs - C CURVE

CURRENT RATING (A)	10 kA DP
6	21006/3
10	21010/3
16	21016/3
20	21020/3
25	21025/3
32	21032/3
40	21040/3
50	21050/3
63	21063/3



31032/2

TRIPLE POLE MCBs - B CURVE

CURRENT RATING (A)	10 kA TP	15 kA TP
2	-	31502/2
4	-	31504/2
6	31006/2	31506/2
10	31010/2	31510/2
16	31016/2	31516/2
20	31020/2	31520/2
25	-	31525/2
32	31032/2	31532/2
40	31040/2	31540/2
50	31050/2	31550/2
63	31063/2	31563/2



31032/3

TRIPLE POLE MCBs - C CURVE

CURRENT RATING (A)	6 kA	10 kA	15 kA
2	-	31002/3	31502/3
4	-	31004/3	31504/3
6	3606C	31006/3	31506/3
10	3610C	31010/3	31510/3
16	3616C	31016/3	31516/3
20	3620C	31020/3	31520/3
25	3625C	31025/3	31525/3
32	3632C	31032/3	31532/3
40	3640C	31040/3	31540/3
50	3650C	31050/3	31550/3
63	3663C	31063/3	31563/3

Measurements:
Millimetres (mm) unless stated otherwise

Use the colour code to identify the supplying Proteus Division:

Blue box:
Proteus Consumer

No box:
Proteus Industrial



31516/4

TRIPLE POLE MCBs - D CURVE

CURRENT RATING (A)	10 kA TP	15 kA TP
2		31502/4
4		31504/4
6	31006/4	31506/4
10	31010/4	31510/4
16	31016/4	31516/4
20	31020/4	31520/4
25	-	31525/4
32	31032/4	31532/4
40	31040/4	31540/4
50	31050/4	31550/4
63	31063/4	31563/4



41032/3

FOUR POLE MCBs - C CURVE

CURRENT RATING (A)	10 kA
6	41006/3
10	41010/3
16	41016/3
20	41020/3
32	41032/3
40	41040/3
50	41050/3
63	41063/3

4 Pole MCBs cannot be fitted in MCB boards.

Measurements: Millimetres (mm) unless stated otherwise

Use the colour code to identify the supplying Proteus Division:

Blue box: Proteus Consumer

No box: Proteus Industrial

RCBOs and RCDs: Are fitted with a 'Test-Button' facility which will check the detection and mechanical tripping function of the device, this must be operated regularly.



TYPE A

XL6BR

B CURVE

* - 4.5kA rating. **- 6kA rating.

SINGLE MODULE RCBOs - 1 POLE & SOLID NEUTRAL

CURRENT RATING (A)	6 kA CAT. NO.	6 kA COMP. CAT. NO.	6 kA CAT. NO.	10 kA CAT. NO.	10 kA COMP. CAT. NO.
6	6MBRSPA	6MBRSPKA	66MBRSP	XL6BR	XL6BRK
10	10MBRSPA	10MBRSPKA	106MBRSP	XL10BR	XL10BRK
16	16MBRSPA	16MBRSPKA	166MBRSP	XL16BR	XL16BRK
20	20MBRSPA	20MBRSPKA	206MBRSP	XL20BR	XL20BRK
25	25MBRSPA	25MBRSPKA	-	-	XL25BRK
32	32MBRSPA	32MBRSPKA	326MBRSP	XL32BR	XL32BRK
40	40MBRSPA	40MBRSPKA*	406MBRSP	XL40BR	XL40BRK**
45	45MBRSPA	45MBRSPKA*	-	XL45BR	-



TYPE A

20MCRSPK

C CURVE

* - 4.5kA rating. **- 6kA rating.

SINGLE MODULE RCBOs - 1 POLE & SOLID NEUTRAL

CURRENT RATING (A)	6 kA CAT. NO.	6 kA COMP. CAT. NO.	6 kA CAT. NO.	10 kA CAT. NO.	10 kA COMP. CAT. NO.
6	6MCRSPA	6MCRSPK	66MCRSP	XL6CR	XL6CRK
10	10MCRSPA	10MCRSPK	106MCRSP	XL10CR	XL10CRK
16	16MCRSPA	16MCRSPK	166MCRSP	XL16CR	XL16CRK
20	20MCRSPA	20MCRSPK	206MCRSP	XL20CR	XL20CRK
25	-	25MCRSPK	-	XL25CR	XL25CRK
32	32MCRSPA	32MCRSPK	326MCRSP	XL32CR	XL32CRK
40	40MCRSPA	40MCRSPK*	406MCRSP	XL40CR	XL40CRK**
45	45MCRSPA	45MCRSPK*	-	XL45CR	-



TYPE A

1BK10

SINGLE MODULE RCBOs - DOUBLE POLE

CURRENT RATING (A)	6 kA B CURVE COMP. CAT. NO.	6 kA C CURVE COMP. CAT. NO.
6	1BK6	1CK6
10	1BK10	1CK10
16	1BK16	1CK16
20	1BK20	1CK20
32	1BK32	1CK32
40	1BK40	1CK40



TYPE A

10MRBE

B CURVE

MRBA range are suitable for 'cable in-cable out' applications and with DP comb busbar.

DOUBLE MODULE RCBOs - 1POLE & SWITCHED NEUTRAL B CURVE

CURRENT RATING (A)	6 kA CAT. NO.
6	6MRBA
10	10MRBA
16	16MRBA
20	20MRBA
32	32MRBA
40	40MRBA



25/2/30T

DIRECTIONAL TYPE AC 2 POLE RCDs

TYPE AC

CURRENT RATING (A)	MAX. CABLE SIZE mm²	30 mA SENSITIVITY CAT. NO.	100 mA SENSITIVITY CAT. NO.	300 mA SENSITIVITY CAT. NO.	500 mA SENSITIVITY CAT. NO.
25	35	**25/2/30T**	**25/2/100T**	**25/2/300T**	**25/2/500T**
40	35	**40/2/30T**	**40/2/100T**	**40/2/300T**	**40/2/500T**
63	35	**63/2/30T**	**63/2/100T**	**63/2/300T**	**63/2/500T**
80	35	**80/2/30T**	**80/2/100T**	**80/2/300T**	**80/2/500T**
100	50	**100/2/30T**	**100/2/100T**	**100/2/300T**	**100/2/500T**



25/2/30TA

DIRECTIONAL TYPE A 2 POLE RCDs

TYPE A

CURRENT RATING (A)	MAX. CABLE SIZE mm²	30 mA SENSITIVITY CAT. NO.	100 mA SENSITIVITY CAT. NO.
25	35	**25/2/30TA**	**25/2/100TA**
40	35	**40/2/30TA**	**40/2/100TA**
63	35	**63/2/30TA**	**63/2/100TA**
80	35	**80/2/30TA**	**80/2/100TA**
100	50	**100/2/30TA**	**-**



25/4/30A

Supply can be connected to top or bottom terminals.

BI-DIRECTIONAL TYPE A 4 POLE RCDs

TYPE A

CURRENT RATING (A)	MAX. CABLE SIZE mm²	30 mA SENSITIVITY CAT. NO.	100 mA SENSITIVITY CAT. NO.	300 mA SENSITIVITY CAT. NO.
25	35	**25/4/30A**	**-**	**-**
40	35	**40/4/30A**	**40/4/100A**	**-**
63	35	**63/4/30A**	**63/4/100A**	**-**
80	35	**80/4/30A**	**80/4/100A**	**-**
100	35	**100/4/30A**	**100/4/100A**	**100/4/300A**

IP3X STEEL ENCLOSURE TO SUIT 4 POLE RCD

CAT. NO.	H	W	D
ENCRCD4P	385	205	116



100/2/100D

BI-DIRECTIONAL TIME DELAY RCDs

CURRENT RATING (A)	MAX. CABLE SIZE mm²	RCD SENSITIVITY (mA)	DIRECTIONAL CAT. NO.	BI-DIRECTIONAL CAT. NO.
100 (1P+N)	50	100	**100/2/100D**	**-**
100 (3P+N)	35	100	**-**	**100/4/100TD**
100 (3P+N)	35	300	**-**	**100/4/300TD**

Type S - Time delay >150ms.



63/2/30B

TYPE B RCDs

CURRENT RATING (A)	MAX. CABLE SIZE mm²	RCD SENSITIVITY (mA)	2 POLE CAT. NO.	4 POLE CAT. NO.
63	35	30	**63/2/30B**	**63/4/30B**

Measurements:
Millimetres (mm) unless stated otherwise

Use the colour code to identify the supplying Proteus Division:

Blue box:
Proteus Consumer

No box:
Proteus Industrial

RCBOs and RCDs:
Are fitted with a 'Test-Button' facility which will check the detection and mechanical tripping function of the device, this must be operated regularly.

Measurements: Millimetres (mm) unless stated otherwise

WHAT IS AN ARC FAULT?

An arc-fault occurs when loose or corroded connections make intermittent contact and causes sparking or arcing between the connections. This translates into heat, which will break down the insulations of the wire and potentially trigger an electrical fire. Such arc's can range in power and vary a great deal in strength and duration. Potential causes of arc faults could include:-



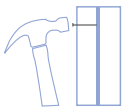
Trapped/damaged cables



Cable wear

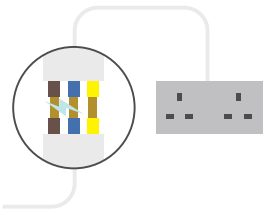


Loose terminations



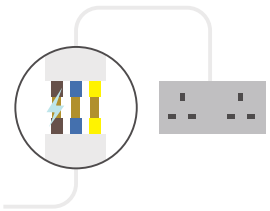
Damage caused by construction work

PARALLEL ARC FAULT



Parallel arc faults are found with damage caused to insulation which allows current to flow between conductors, usually between phase and neutral.

SERIES ARC FAULT



Series arc faults are found in loose terminal connections, damaged cords or frayed/ damaged conductors. These arc's are created in one conductor only, either phase or neutral.

WHAT IS AN AFDD?

Arc Fault Detection Devices use digital electronics to analyse the waveform of an A.C. circuit to detect arc faults.

The device continuously monitors the circuit for different variations including the duration of an arc and the waveform. Once the device detects an irregular fault the device trips and disconnects the circuit, reducing the chance of it over heating and potentially causing an electrical fire.

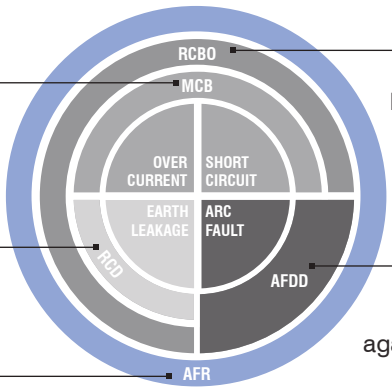
WHAT IS AN AFR?

The Proteus AFR is an arc fault detection device combined with short circuit, overload and earth leakage detection.

COMPLETE CIRCUIT PROTECTION



AFR10B1



MCB
Protection against overcurrent and short circuit

RCD
Protection against earth leakage

RCBO
Protection against overcurrent, short circuit and earth leakage

AFDD
Protection against arc fault

AFR
Complete comprehensive circuit protection

Proteus offer a range of combined Arc Fault Detection (AFD) and Residual Current Circuit Breaker with Overload (RCBO) devices in B & C curve with Type A 30mA earth leakage.
The single module device is designed to fit single and three phase distribution boards without the need to modify the bus bar fixing.

- 6-40 A Rated
- Series and parallel arc fault detection
- 30 mA earth leakage Type A
- B and C curve tripping characteristics
- Switched Live & Neutral
- Fits existing busbar system
- Self testing (AFDD function only)

CURRENT RATING (A)	KA RATING	B CURVE CAT. NO.	C CURVE CAT. NO.
6	6	**AFR06B1**	**AFR06C1**
10	6	**AFR10B1**	**AFR10C1**
16	6	**AFR16B1**	**AFR16C1**
20	6	**AFR20B1**	**AFR20C1**
32	6	**AFR32B1**	**AFR32C1**
40	6	**AFR40B1**	**AFR40C1**

WHAT ARE SURGES AND HOW ARE THEY PRODUCED?

Surges are short-term high voltage impulses, other names being, transients, glitches and spikes, these show themselves for a very short duration of time, typically some micro seconds.

Remember, it doesn't need a direct lightning strike on an installation to cause damaging voltage surges – a ground strike in the near vicinity is quite sufficient. Also remember there are many other sources of voltage transients, such as the starting of large motors and the switching of large capacitive and inductive loads. Common examples of internal switching events are a lift motor in a hotel or fluorescent strip lights being turned on or off.

Measurements:
Millimetres (mm) unless stated otherwise

WHERE IS IT IN THE REGS?

- **Chapter 44** - Protection against overvoltage's of atmospheric origin or due to switching.
- **Chapter 53** - Devices for protection against overvoltage

REG:

443.4 - Protection against transient overvoltage's **shall be** provided where the consequence caused by overvoltage…

- Results in serious injury to, or loss of, human life, or
- Public services or damage to cultural heritage, or
- Commercial or industry activity, or
- A large number of co-located individuals

For all other cases, a risk assessment according to Regulation **443.5 shall be** performed in order to determine if protection against transient overvoltage is required.

If the risk assessment is not performed, the electrical installation shall be provided with protection against transient overvoltage, except for single dwelling units where the total value of the installation and equipment therein does not justify such protection.

RATING OF SURGE PROTECTION DEVICES

I_{imp} - Type 1 devices, Maximum Impulse Current 100kA. (25kA per module)

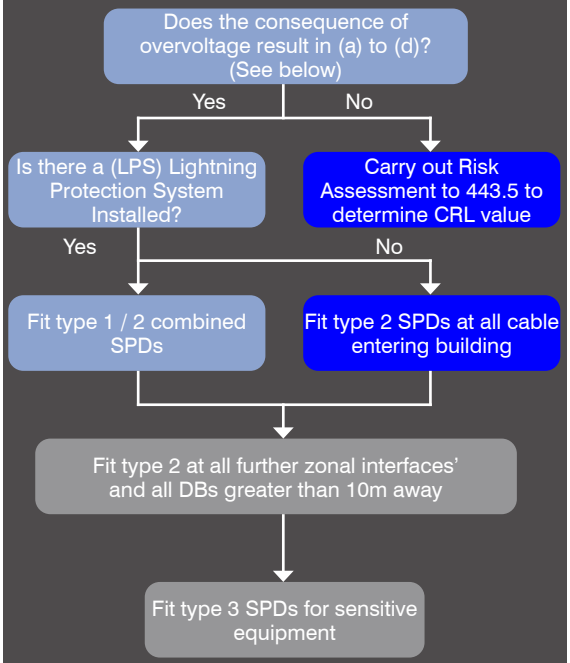
I_{max} - Type 2/3 devices, Maximum Discharge Current 12.5kA.

I_n - Nominal Discharge Current – the device must be able to withstand a current of this magnitude 20 times without damage.

U_p - Voltage protection level, is the voltage that will appear across the terminals of the device when it is carrying the nominal discharge current. Typical value is 1.5 kV.

U_c - Maximum Continuous Operating Voltage. This is the maximum RMS that can be applied to the terminals of the device without causing excessive leakage current to flow.

SPD SELECTION CHART



Consequences:
(a) - Serious injury to, or loss of, human life, or
(b) - Interruption of public services and/or damage to cultural heritage, or
(c) - Interruption of commercial or industrial activity, or
(d) - Affects a large number of co-located individuals

Note: CRL value <1000 = fit SPDs
CRL value >1000 = No SPD required

* - Refer to BS EN 62305 Risk Assessment

TYPES OF LIGHTNING AND SURGE ARRESTORS

Type 1 – Surge arrestor for protection against lightning strikes.

Type 2 – Surge arrestor for protection against man-made surges.

Type 3 – Surge arrestor for socket outlets / strips and other sensitive control panels (i.e. intruder alarms, fire panels).

Measurements:
Millimetres (mm) unless stated otherwise

Use the colour code to identify the supplying Proteus Division:

Blue box:
Proteus Consumer

No box:
Proteus Industrial



THREE PHASE TYPE 1 + 2 SPD

SPD/T12/4P

SPD TYPE	NO. of POLES	THREE PHASE CAT. NO.
1 + 2	4	**SPD/T12/4P**
1 + 2	4	**SPD/T12/4PA***

* - Fitted with an aux contact for remote signaling



THREE PHASE TYPE 1 + 2 SPD

SPD TYPE	NO. of POLES	THREE PHASE CAT. NO.
1 + 2	4	**SPD/T12/100KA/4P**



SINGLE PHASE TYPE 1 + 2 SPD

SPD TYPE	NO. of POLES	SINGLE PHASE CAT. NO.
1 + 2	2	**SPD/T12**

		SPD/T12/4P	SPD/T12/100KA/4P	SPD/T12
Designation according to EN 61643-11		Type 1+2	Type 1+2	Type 1+2
Nominal voltage AC 50-60 Hz	Un [V]	230/400	230/400	230/-
Maximum continuous operating voltage (L-N)	Uc (L-N) [V]	275	275	275
Lightning impulse current (10/350) (L-N)	Iimp (L-N) [kA]	12,5	25	12,5
Lightning impulse current (10/350) (N-PE)	Iimp (N-PE) [kA]	50	100	25
Maximum discharge current (8/20) (L-N)	Imax (L-N) [kA]	50	100	50
Maximum discharge current (8/20) (N-PE)	Imax (N-PE) [kA]	50	100	50
Nominal discharge current (8/20) (L-N)	In (L-N) [kA]	20	25	20
Nominal discharge current (8/20) (N-PE)	In (N-PE) [kA]	50	50	25
Voltage protection level (L-N) at In	Up (L-N) [kV]	≤1,3	1,5	≤1,3
Maximum back-up fuse	A [gL]	250	315	200
Short circuit withstand	Icc [kA]	25	25	25



SPD/T2/4PE

SPD'S IN INSULATED IP RATED ENCLOSURES

SPD TYPE	IP RATING	CAT. NO.	H	W	D
1+ 2	IP65	**SPD/T12/4PE**	155	115	95
1 + 2	IP65	**SPD/T12/100KA/4PE**	190	250	120
2	IP65	**SPD/T2/4PE**	155	115	95
1 + 2	IP65	**SPD/T12E**	150	100	100
2	IP65	**SPD/T2E**	150	100	100
2 + 3	IP65	**SPD/T23E**	150	100	100

Measurements:
Millimetres (mm) unless stated otherwise

Use the colour code to identify the supplying Proteus Division:

Blue box:
Proteus Consumer

No box:
Proteus Industrial



THREE PHASE TYPE 2 SPD

SPD/T2/4P

SPD TYPE	NO. of POLES	THREE PHASE CAT. NO.
2	4	**SPD/T2/4P**
2	4	**SPD/T2/4PA***

* - Fitted with an aux contact for remote signaling



SINGLE PHASE TYPE 2 SPD

SPD TYPE	NO. of POLES	SINGLE PHASE CAT. NO.
2	2	**SPD/T2**



SINGLE PHASE TYPE 2 + 3 SPD

SPD TYPE	NO. of POLES	SINGLE PHASE CAT. NO.
2 + 3	2	**SPD/T23**

		SPD/T2/4P	SPD/T2	SPD/T23
Designation according to EN 61643-11		Type 2	Type 2	Type 2+3
Nominal voltage AC 50-60 Hz	Un [V]	230/400	230/-	230/-
Maximum continuous operating voltage (L-N)	Uc (L-N) [V]	275	275	275
Maximum discharge current (8/20) (L-N)	Imax (L-N) [kA]	40	40	15
Nominal discharge current (8/20) (L-N)	In (L-N) [kA]	20	20	5
Voltage protection level (L-N) at In	Up (L-N) [kV]	≤1,3	≤1,3	≤1,2
Voltage protection level (N-PE) at In	Up (N-PE) [kV]	≤1,5	≤1,5	≤1,5
Maximum back-up fuse	A [gL]	250	125	63
Short circuit withstand	Icc [kA]	25	25	10



SPD/T12/4PES

SPD'S IN STEEL ENCLOSURES

SPD TYPE	IP RATING	CAT. NO.	H	W	D
2	IP3X	**SPD/T2/4PES**	385	205	116
1+2	IP3X	**SPD/T12/4PES**	385	205	116
1 + 2	IP3X	**SPD/T12/100KA/4PES**	385	205	116





EMIST2

SURGE PROTECTED ELECTRICITY METER ISOLATOR SWITCHES

Pre-made insulated Bus bar Connections

DESCRIPTION	CAT. NO.	H	W	D	TERMINAL CAPACITY (UP TO)
100A isolator with Type 2 surge protection	**EMIST2**	145	95	82	50 mm²
100A isolator with Type 1+2 surge protection	**EMIST12**	145	95	82	50 mm²



PROTEUS DISTRIBUTION UNITS FOR ELECTRIC CAR CHARGERS

Proteus offer a large range of custom designed single & three phase distribution units for EV chargers. Ensure your customer's exact requirements are met with a completely bespoke solution.

DOMESTIC, COMMERCIAL, INDUSTRIAL OR PUBLIC

Proteus can offer EV charging switchgear solutions for a variety of installations from charging at home, the workplace, public access and commercial applications.

COMPATIBILITY WITH DIFFERENT CHARGERS

Whether the installation is for electric car charger for home or work or if it requires a slow unit, fast charger or rapid charger, Proteus can offer a standard or bespoke solution to supply and protect your electric car charging stations.

PROTEUS EV

STANDARD DISTRIBUTION UNITS FOR EV CHARGERS
GENERAL CONSTRUCTION TO BSEN 61439-1 & 2

Proteus Switchgear offer a wide range of standard products which suit a variety of EV installations. Not only do they distribute power, offer short circuit, overcurrent and earth leakage protection, but they are also off-the-shelf items which makes them a quick and affordable option.

They are a complete solution which comes fully assembled and with all the required devices already fitted.

We offer a 1 way unit, all the way up to a 12 way unit and many different configurations in-between. Outgoing ways are described as the kW rating of the required chargers so you can easily choose the switchgear to match your EV charging requirements.



BESPOKE DISTRIBUTION UNITS FOR EV CHARGERS
GENERAL CONSTRUCTION TO BSEN 61439-1 & 2

Proteus Switchgear also offer pre-built bespoke solutions including MCCBs, MCBs, RCDs, RCBOs in IP3X steel enclosures or steel/GRP IP65 Enclosures to suit various applications.

Not all EV charging installations are exactly the same, so specialist solutions are often required. Proteus Switchgear are able to design and build bespoke configurations to distribute power and offer protection to all of your required EV charging points.

With state-of-the-art manufacturing facilities and dedicated sales, technical and production staff, we specialise in offering solutions to problems that often cannot be addressed by standard product offerings.



Ensure your customer's exact requirements are met with a completely bespoke solution.

ON-SITE SURVEY

Our team are happy to visit your site to establish your project requirements.

TESTING & COMPLIANCE

All products tested to relevant British & European Standards.

DESIGNED TO YOUR SPECIFICATION

Proteus utilise the latest drawing software and provide board layout drawings at both quotation and construction stages.

BE INVOLVED

You're welcome to visit the factory to see your board being built and discuss build requirements.

PROTEUS ASSIST THE FAST CHARGER ROLL-OUT

Proteus Industrial Switchgear are working with major names in electric vehicle (EV) charging. They design and build bespoke and standard switchgear solutions for protecting and distributing power to EV chargers.

A recent project saw a roll-out of 150kW chargers across 6,500 public charging points throughout the UK. The roll-out will help future-proof the UK's charging facilities, as currently very few EVs are capable of charging at 150kW.

To provide suitable power distribution, control and circuit protection Proteus Industrial designed and manufactured a range of products to cover the various installation types.

The main panels for the 150kW Ultra Chargers include 1250A or 1600A incomers supplying two or four 315A MCCBs. All are fitted with type A earth leakage and surge protection with a further sub-distribution board providing lighting and maintenance outlets.

As a UK manufacturer Proteus Switchgear offer such customised solutions with quality products which are fully compliant with BS 61439 parts 1 & 2.









Measurements:
Millimetres (mm) unless stated otherwise

Use the colour code to identify the supplying Proteus Division:

Blue box:
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No box:
Proteus Industrial



AEV40PME

6kA EV DISTRIBUTION BOARDS c/w PME FAULT DETECTION

For 1 Single Pole EV Charger Circuit

OUTGOING WAYS	kW RATING	PROTECTION DEVICE	CAT. NO.	H	W	D
1	7.2 kW	RCBO 40 A	**AEV40PME**	225	225	119
1	7.2 kW	RCD 63 A / MCB 40 A	**AEVB40PME**	256	309	119



AVE40PMES

16kA EV DISTRIBUTION BOARDS c/w PME FAULT DETECTION

For 1 Single Pole EV Charger Circuit

OUTGOING WAYS	kW RATING	PROTECTION DEVICE	CAT. NO.	H	W	D
1	7.2 kW	RCBO 40 A	**AEV40PMES**	225	225	119
1	7.2 kW	RCD 63 A / MCB 40 A	**AEVB40PMES**	256	309	119



AVE8PME40

ISOLATOR CONTROLLED EV CONSUMER UNITS c/w PME FAULT DETECTION

For 1 Single Pole EV Charger Circuit

OUTGOING WAYS	kW RATING	PROTECTION DEVICE	CAT. NO.	H	W	D
8	7.2 kW	RCBO 40 A	**AEV8PME40**	256	417	119
12	7.2 kW	RCBO 40 A	**AEV12PME40**	256	489	119



AVE55PME40

DUAL RCD EV CONSUMER UNITS c/w PME FAULT DETECTION

For 1 Single Pole EV Charger Circuit

OUTGOING WAYS	kW RATING	PROTECTION DEVICE	CAT. NO.	H	W	D
10	7.2 kW	RCBO 40 A	**AEV55PME40**	256	489	119
16	7.2 kW	RCBO 40 A	**AEV88PME40**	256	597	119

Measurements:
Millimetres (mm) unless stated otherwise

Use the colour code to identify the supplying Proteus Division:

Blue box:
Proteus Consumer

No box:
Proteus Industrial



AEVB40PMEIP

IP65 6kA EV DISTRIBUTION BOARDS c/w PME FAULT DETECTION

For 1 Single Pole EV Charger Circuit

OUTGOING WAYS	kW RATING	PROTECTION DEVICE	CAT. NO.	H	W	D
1	7.2 kW	RCBO 40 A	**AEV40PMEIP**	201	202	120
1	7.2 kW	RCD 63 A / MCB 40 A	**AEVB40PMEIP**	259	319	144



AEV40PMESIP

IP65 16kA EV DISTRIBUTION BOARDS c/w PME FAULT DETECTION

For 1 Single Pole EV Charger Circuit

OUTGOING WAYS	kW RATING	PROTECTION DEVICE	CAT. NO.	H	W	D
1	7.2 kW	RCBO 40 A	**AEV40PMESIP**	201	202	120
1	7.2 kW	RCD 63 A / MCB 40 A	**AEVB40PMESIP**	259	319	144



TP 100A 4P ISOLATOR INCOMER

Suitable For 3/6 x 7.2 kW SP EV Chargers

Supplied with:
- 100A 4 Pole isolator
- Type A 40A 30 mA C Curve SP RCBO **PEV230**

SP RCBOs	CAT. NO.	H	W	D
3 x 40 A	**PEV230**	269	326	110
6 x 40 A	**PEV260**	269	326	110



PEV260RCD

100A TP+N POPULATED DISTRIBUTION BOARD - MAINS INCOMER

Suitable For: 3/6 x 7.2 kW SP EV Chargers
Dimensions: 538 mm(H), 326 mm(W) & 110 mm(D)

Supplied with:
- 100A 4 Pole isolator
- 40A C Curve 10kA SP MCBs
- Type A 40A 30 mA 2 Pole RCDs

SP MCBs	2P RCDs	CAT. NO.
3 x 40 A	3 x 40A	**PEV230RCD**
6 x 40 A	6 x 40 A	**PEV260RCD**

Measurements:
Millimetres (mm) unless stated otherwise

Compliant:
BS EN 61439-3

Use the colour code to identify the supplying Proteus Division:

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Proteus Industrial



100A TP+N POPULATED DISTRIBUTION BOARD - MAINS INCOMER

Suitable For: 3 x 7.2 kW SP & 1 x 22kW TP EV Chargers
Dimensions: 538 mm(H), 326 mm(W) & 110 mm(D)
Supplied with:
- 100A 4 Pole isolator
- Type A 40A 30 mA C Curve SP RCBOs
- 40A C Curve 10kA TP MCBs
- Type A 40A 30 mA 4 Pole RCDs

SP RCBOS	3P MCBS	4P RCDS	CAT. NO.
3 x 40A	1 x 40A	1 x 40A	**PEV231**



100A TP+N POPULATED DISTRIBUTION BOARD - MAINS INCOMER

Suitable For: 3 x 7.2 kW SP & 1 x 22kW TP EV Chargers
Dimensions: 538 mm(H), 326 mm(W) & 110 mm(D)
Supplied with:
- 100A 4 Pole isolator
- 40A C Curve 10kA SP MCBs
- 40A C Curve 10kA TP MCBs
- Type A 40A 30 mA 2 Pole RCDs
- Type A 40A 30 mA 4 Pole RCDs

SP MCBS	3P MCBS	2P RCDS	4P RCDS	CAT. NO.
3 x 40A	1 x 40A	3 x 40A	1 x 40A	**PEV231RCD**



PEV1-11-IRA

TP+N POPULATED DISTRIBUTION BOARD - MAINS INCOMER

Suitable For: 11/22kW TP EV Chargers
Dimensions: 385mm(H), 205 mm(W) & 112 mm(D)
Supplied with:
- 4 Pole isolator
- 30 mA 4 Pole RCDs

4P ISOLATOR	4P RCDS	RCD TYPE	CAT. NO.
25A	25A	A	**PEV1-11-IRA**
25A	63A	B	**PEV1-11-IRB**
40A	40A	A	**PEV1-22-IRA**
40A	63A	B	**PEV1-22-IRB**



PEV1-11-MRA

TP+N POPULATED DISTRIBUTION BOARD - MCB INCOMER

Suitable For: 11/22kW TP EV Chargers
Dimensions: 385mm(H), 205 mm(W) & 112 mm(D)
Supplied with:
- C Curve 10kA 4 Pole MCB
- 30 mA 4 Pole RCD

4P RCDS	RCD TYPE	4P MCBS	CAT. NO.
25A	A	20A	**PEV1-11-MRA**
63A	B	20A	**PEV1-11-MRB**
40A	A	40A	**PEV1-22-MRA**
63A	B	40A	**PEV1-22-MRB**



PEV4S12532

125A TP+N POPULATED DISTRIBUTION BOARD - MAINS INCOMER

Suitable For: 3/6 x 7.2 kW SP & 2 x 22kW TP EV Chargers
Dimensions: 655 mm(H), 410 mm(W) & 110 mm(D)

Supplied with:
- 125A 4 Pole isolator
- Type A 40A 30 mA C Curve SP RCBOs
- 40A C Curve 10kA TP MCBs
- Type A 40A 30 mA 4 Pole RCDs

SP RCBOS	3P MCBS	4P RCDS	CAT. NO.
3 x 40A	2 x 40A	2 x 40A	**PEV4S12532**
6 x 40A	2 x 40A	2 x 40A	**PEV4S12562**



PEV4S12532RCD

125A TP+N POPULATED DISTRIBUTION BOARD - MAINS INCOMER

Suitable For: 3/6 x 7.2 kW SP & 2 x 22kW TP EV Chargers
Dimensions: 885 mm(H), 410 mm(W) & 110 mm(D)

Supplied with:
- 125A 4 Pole isolator
- Type A 40A 30 mA C Curve SP RBCOs
- 40A C Curve 10kA TP MCBs
- Type A 40A 30 mA 2 Pole RCDs
- Type A 40A 30 mA 4 Pole RCDs

SP MCBS	3P MCBS	2P RCDS	4P RCDS	CAT. NO.
3 x 40A	2 x 40A	3 x 40A	2 x 40A	**PEV4S12532RCD**
6 x 40A	2 x 40A	6 x 40A	2 x 40A	**PEV4S12562RCD**



200A TP+N POPULATED DISTRIBUTION BOARD - MAINS INCOMER

Suitable For: 9 x 7.2 kW SP & 3 x 22kW TP EV Chargers
Dimensions: 1,045 mm(H), 410 mm(W) & 110 mm(D)

Supplied with:
- 200A 4 Pole isolator
- Type A 40A 30 mA C Curve SP RCBOs
- 40A C Curve 10kA TP MCBs
- Type A 40A 30 mA 4 Pole RCDs

SP RCBOS	3P MCBS	4P RCDS	CAT. NO.
9 x 40A	3 x 40A	3 x 40A	**PEV6S293**



200A TP+N POPULATED DISTRIBUTION BOARD - MAINS INCOMER

Suitable For: 9 x 7.2 kW SP & 3 x 22kW TP EV Chargers
Dimensions: 1,380 mm(H), 410 mm(W) & 110 mm(D)

Supplied with:
- 200A 4 Pole isolator
- 40A C Curve 10kA SP MCBs
- 40A C Curve 10kA TP MCBs
- Type A 40A 30 mA 2 Pole RCDs
- Type A 40A 30 mA 4 Pole RCDs

SP MCBS	3P MCBS	2P RCDS	4P RCDS	CAT. NO.
9 x 40A	3 x 40A	9 x 40A	3 x 40A	**PEV6S293RCD**

Measurements:
Millimetres (mm) unless stated otherwise

Compliant:
BS EN 61439-3

Use the colour code to identify the supplying Proteus Division:

Blue box:
Proteus Consumer

No box:
Proteus Industrial


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CONSUMER UNIT DIVISION

For over 30 years, Proteus Switchgear has been at the forefront of British manufacturing - specialising in the production of domestic consumer units and circuit protective devices, working proficiently to supply a full and varied product range.

In addition to our standard product range, we have the ability to offer fully bespoke units, tailored to customer needs to suit any individual installation.

At Proteus, we are entirely committed to the design and development of our products with the future in mind. Our values insist that we are continuously endeavouring to provide 100% tested products alongside features and benefits that allow us to excel within the Switchgear industry.

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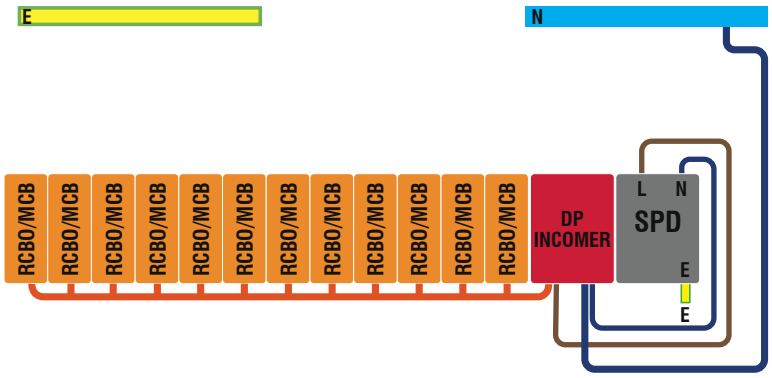
Please refer to page 50 for circuit protection devices

This guide to Consumer Units has been compiled in order to assist in understanding the new wiring regulations. However it is not intended to be a substitute for BS 7671 which should always be consulted in order to ensure that all installations are constructed in accordance with these regulations.

- Is the Consumer Unit being installed in a domestic (household) premise (Reg. 421.1.201), i.e. metalclad consumer unit?
- To avoid hazards and minimise inconvenience in the event of a fault, take into account the danger caused by failure of a single circuit such as a lighting circuit. Reduce the possibility of tripping of an RCD due to excessive protective conductor currents (Reg. 314.1).
- Socket outlets up to 32A must be protected by a residual-current device (Reg. 411.3.3).
- Is Lightning or Surge Protection required under Regulation 443.4 & 5?
- Are Arc Fault Detection Devices (AFDDs) required to provide additional protection against fire under regulation 421.1.7?

ISOLATOR CONTROLLED BOARD

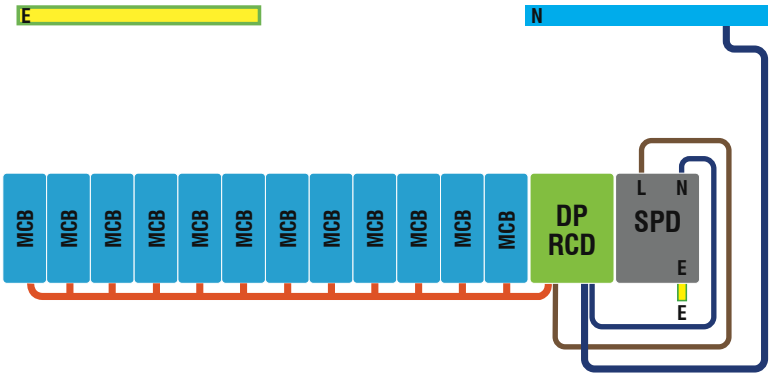
- Allows the use of single module RCBO devices for individual circuit protection at 30 mA.
- Reduces risk of nuisance tripping.
- An earth fault on one circuit would not adversely affect other circuits in the installation.
- Can be used as main domestic Consumer Unit.



See page **72** for Metalclad boards (82 for insulated boards)

RCD CONTROLLED BOARD

- Suitable for Grouped Circuit Protection of small numbers of circuits, usually downstream of main consumer unit.
- Typical applications include garages, showers and small extensions.
- If fed from main Consumer Unit also with RCD protection, earth leakage discrimination must be considered.
- Can be used as sub-distribution board, but should not be used as main domestic Consumer Unit.

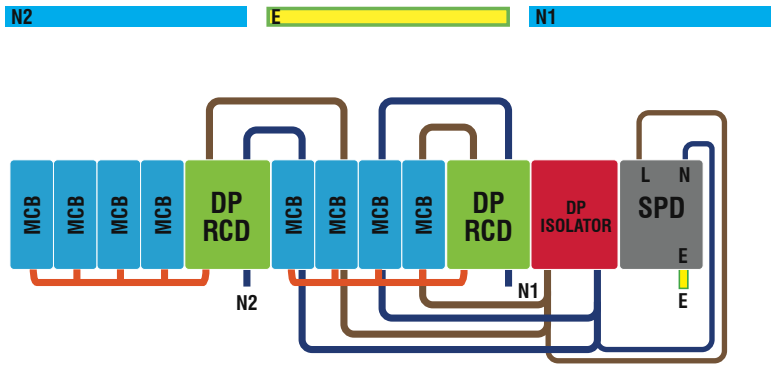


See page **73** for Metalclad boards (82 for insulated boards)

DUAL RCD BOARD

- Offers Grouped Circuit Protection using two 30 mA RCDs
- Circuits can be segregated to reduce unwanted tripping, for example upstairs lights + downstairs ring main off RCD1 and downstairs lights + upstairs ring main off RCD2.
- Can be used as main domestic Consumer Unit.

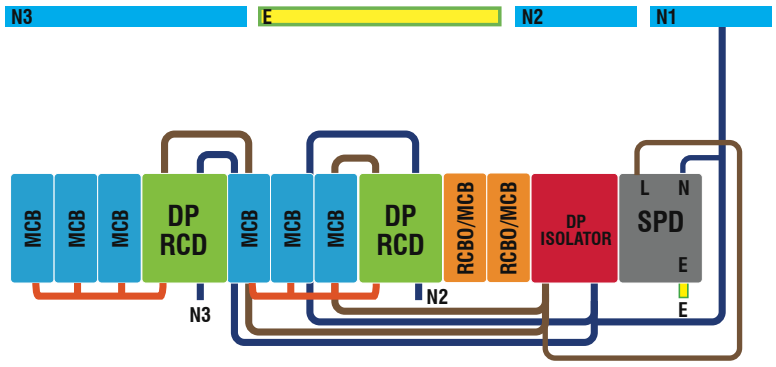
See page **74** for Metalclad boards



HIGH INTEGRITY DUAL RCD BOARD

- High Integrity circuit ways off the isolator are available for dedicated circuit protection - i.e. Smoke Alarms.
- Dual 30 mA RCD configuration offering Grouped Circuit Protection.
- Circuits can be segregated to reduce unwanted tripping.
- Can be used as main domestic Consumer Unit.

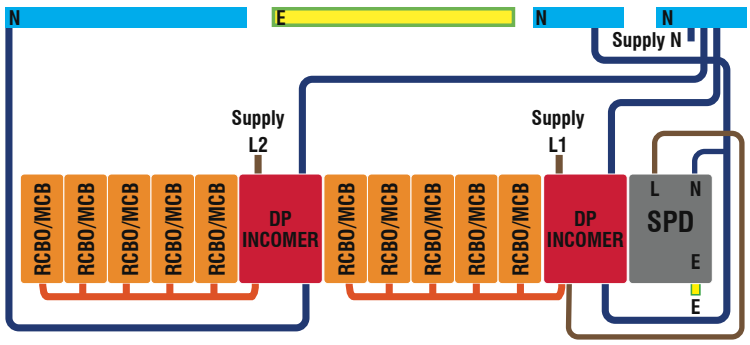
See page **75** for Metalclad boards



DUAL TARIFF BOARD

- For segregation of On Peak and Off Peak circuits.
- Optional split load and isolator incomer options available.
- Additional configurations available upon request.
- Can be used as main domestic Consumer Unit.

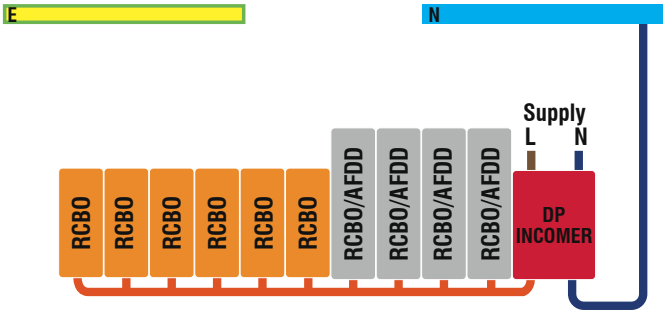
See page **76** for Metalclad boards



AFDD BOARD

- For compliance to Regulation 421.1.7 - recommended use of Arc Fault Detection Devices as a means of providing additional protection against fire caused by arc faults in final AC circuits.
- Use standard Isolator Controlled Consumer Units and fit 1 module combined AFD/RCBO Devices offering Arc Fault, Earth Leakage, Overload and Short Circuit protection.
- Can be used as main domestic Consumer Unit.

See page **56** for Combined AFD/RCBOs



KEY FEATURES:

METALCLAD RANGE

FEATURES:

The new range of Metalclad Consumer Units from Proteus Switchgear have been designed in conjunction with contractors and housing authorities specifically to meet the requirements of BS 7671 - The Wiring Regulations.

With its linear design and matt white (RAL9010) finish, the consumer unit offers the home owner a discreet and contemporary product, whilst providing suitable protection to meet today's need.

The All-Metal construction ensures compliance to Regulation 421.1.201, whilst the optional Surge Protection feature means you are up to date with the latest 18th Edition regulations.

The Proteus Metalclad range meets these requirements and offers additional features providing a more versatile product for the installing contractor.





METALCLAD CONSUMER UNIT FEATURES



1. 18th Edition / SPD Compliant

Removable blank for SPD installation.





2. Increased Height

Increased height for added cabling space.



3. Preformed cables

Added cabling capacity



4. Installation of Devices

Comb bus bar / Half Din Rail for quick fitting of devices.



5. BS EN 61439-3 Compliant.

6. Easy access for meter tail connections.

7. Bespoke consumer units made to order.

OFFERING A COMPREHENSIVE RANGE



Measurements: Millimetres (mm) unless stated otherwise

Circuit Protection Devices: Please refer to page 52

FEATURES:

The Proteus Metalclad range of metal consumer units are designed and manufactured to BS EN 61439 pt3 and meets the requirements of BS 7671, regulation 421.1.201 - effects against thermal influences specifically for domestic household dwellings.
With the addition of a removable blank adjacent to the main switch, these consumer units are 18th Edition compliant for Surge Protection Devices.

LIFT UP LIDS

18th COMPLIANT



ISOLATOR CONTROLLED CONSUMER UNITS

63 A / 100 A Double Pole Switch Disconnector Incomer Metalclad Consumer Unit

- Available range of outgoing circuits from 2 to 26 way
- Units will accept 6 kA and 10 kA MCBs and RCBOs
- Optional Surge Protection Device (SPD) fitted
- Non-combustible enclosure

AYXLM8UT2

O/G WAYS	ISOLATOR RATING	WITHOUT SPD CAT. NO.	WITH SPD TYPE 2 CAT. NO.	H	W	D
2	63 A	**AYXLM2**	-	220	115	85
4	100 A	**AYXLM4U**	**AYXLM4UT2**	256	201	119
6	100 A	**AYXLM6U**	**AYXLM6UT2**	256	273	119
8	100 A	**AYXLM8U**	**AYXLM8UT2**	256	273	119
10	100 A	**AYXLM10U**	**AYXLM10UT2**	256	309	119
12	100 A	**AYXLM12U**	**AYXLM12UT2**	256	381	119
14	100 A	**AYXLM14U**	**AYXLM14UT2**	256	381	119
16	100 A	**AYXLM16U**	**AYXLM16UT2**	256	417	119
18	100 A	**AYXLM18U**	**AYXLM18UT2**	256	489	119
20	100 A	**AYXLM20U**	**AYXLM20UT2**	256	489	119
26	100 A	**AYXLM26U**	**AYXLM26UT2**	256	597	119

For TYPE 1 lightning protection replace suffix T2 for T1

For TYPE 2+3 overvoltage transient replace suffix T2 for T23

FEATURES:

The Proteus range of RCD incomer metalclad consumer units are available with 63 A, 80 A and 100 A RCD incomer ratings and 30 mA earth leakage protection.

For higher earth leakage protection, 100 mA to 500 mA, please contact our sales office for further details on 01527 517 117.

Measurements: Millimetres (mm) unless stated otherwise

Circuit Protection Devices: Please refer to page 52

LIFT UP LIDS

18th COMPLIANT



AJBXM8UA

RCD INCOMER CONSUMER UNITS

63 A / 100 A 30 mA RCD Incomer Metalclad Consumer Unit

- Available range of outgoing circuits from 2 to 12 way
- Incoming RCD fitted can be a choice of either 63 A, 80 A, or 100 A
- Units will accept 6 kA and 10 kA MCBs
- Optional Surge Protection Device (SPD) fitted
- Non-combustible enclosure

O/G WAYS	RCD RATING*	WITHOUT SPD CAT. NO.	WITH SPD TYPE 2 CAT. NO.	H	W	D
2	63 A	**AJBXM2UA**	-	220	115	85
4	63 A	**AJBXM4UA**	**AJBXM4UAT2**	256	201	119
6	63 A	**AJBXM6UA**	**AJBXM6UAT2**	256	273	119
8	63 A	**AJBXM8UA**	**AJBXM8UAT2**	256	273	119
12	63 A	**AJBXM12UA**	**AJBXM12UAT2**	256	381	119
2	80 A	**AKBXM2UA**	-	232	150	119
4	80 A	**AKBXM4UA**	**AKBXM4UAT2**	256	201	119
6	80 A	**AKBXM6UA**	**AKBXM6UAT2**	256	273	119
8	80 A	**AKBXM8UA**	**AKBXM8UAT2**	256	273	119
12	80 A	**AKBXM12UA**	**AKBXM12UTA2**	256	381	119
2	100 A	**ALBXM2UA**	-	232	150	119
4	100 A	**ALBXM4UA**	**ALBXM4UAT2**	256	201	119
6	100 A	**ALBXM6UA**	**ALBXM6UAT2**	256	273	119
8	100 A	**ALBXM8UA**	**ALBXM8UAT2**	256	273	119
12	100 A	**ALBXM12UA**	**ALBXM12UAT2**	256	381	119

* - 30 mA trip rating.

For TYPE 1 lightning protection replace suffix T2 for T1

For TYPE 2+3 overvoltage transient replace suffix T2 for T23

Measurements: Millimetres (mm) unless stated otherwise

Circuit Protection Devices: Please refer to page 52

FEATURES:

This selection of Consumer Units offer the facility to spread the load circuits across one or two 30 mA RCDs.

In addition, our standard range of dual RCD consumer units are available with SPDs pre-fitted.



LIFT UP LIDS

18th COMPLIANT



DUAL RCD CONSUMER UNITS

Metalclad Consumer Units Dual RCD Controlled

- Supplied with 2x Type A 30mA RCDs, 1x 100A DP isolator and full complement of earth and neutral terminals along with marking labels, busbar and instructions
- Non-combustible enclosure

AYXLMJB5JB5UAT2

O/G WAYS	ISOLATOR RATING	RCD 1 RATING*	RCD 2 RATING*	WITHOUT SPD CAT. NO.	WITH SPD TYPE 2 CAT. NO.	H	W	D
6	100 A	63 A	63 A	**AYXLMJB3JB3UA**	**AYXLMJB3JB3UAT2**	256	309	119
10	100 A	63 A	63 A	**AYXLMJB5JB5UA**	**AYXLMJB5JB5UAT2**	256	381	119
10	100 A	80 A	80 A	**AYXLMKB5KB5UA**	**AYXLMKB5KB5UAT2**	256	381	119
10	100 A	100 A	100 A	**AYXLMLB5LB5UA**	**AYXLMLB5LB5UAT2**	256	381	119
12	100 A	63 A	63 A	**AYXLMJB6JB6UA**	**AYXLMJB6JB6UAT2**	256	417	119
12	100 A	80 A	80 A	**AYXLMKB6KB6UA**	**AYXLMKB6KB6UAT2**	256	417	119
12	100 A	100 A	100 A	**AYXLMLB6LB6UA**	**AYXLMLB6LB6UAT2**	256	417	119
16	100 A	80 A	80 A	**AYXLMKB8KB8UA**	**AYXLMKB8KB8UAT2**	256	489	119
16	100 A	100 A	100 A	**AYXLMLB8LB8UA**	**AYXLMLB8LB8UAT2**	256	489	119
20	100 A	80 A	80 A	**AYXLMKB10KB10UA**	**AYXLMKB10KB10UAT2**	256	597	119
20	100 A	100 A	100 A	**AYXLMLB10LB10UA**	**AYXLMLB10LB10UAT2**	256	597	119

For TYPE 1 lightning protection replace suffix T2 for T1

For TYPE 2+3 overvoltage transient replace suffix T2 for T23

FEATURES:

For applications where 'High Integrity' circuit protection is required, for example smoke detectors, these units allow dedicated RCBO installation.

Standard configurations listed below supplied with DP Isolator and RCD/s factory fitted, link leads for both Live and Neutral connections also pre-installed.

Measurements: Millimetres (mm) unless stated otherwise

Circuit Protection Devices: Please refer to page 52

LIFT UP LIDS

18th COMPLIANT



AYXLM2JB4JB4UAT2

HIGH INTEGRITY DUAL RCD CONSUMER UNITS

Dual RCD High Integrity Metalclad Consumer Unit

- Supplied with 2x Type A 30 mA RCD's, 1x 100 A DP Isolator and full complement of earth and neutral terminals along with marking labels, bus bar and instructions
- Non-combustible enclosure
- DSLV units are flexible/variable

O/G WAYS	ISOLATOR RATING	RCD 1 RATING*	RCD 2 RATING*	WITHOUT SPD CAT. NO.	WITH SPD TYPE 2 CAT. NO.	H	W	D
6	100 A	63 A	63 A	**AYXLM1JB2JB3UA**	**AYXLM1JB2JB3UAT2**	256	309	119
10	100 A	63 A	63 A	**AYXLM2JB4JB4UA**	**AYXLM2JB4JB4UAT2**	256	381	119
12	100 A	63 A	63 A	**AYXLM2JB5JB5UA**	**AYXLM2JB5JB5UAT2**	256	417	119
14	100 A	63 A	63 A	**AYXLM2JB6JB6UA**	**AYXLM2JB6JB6UAT2**	256	489	119
20	100 A	80 A	80 A	**AYXLM4KB8KB8UA**	**AYXLM4KB8KB8UAT2**	256	597	119
6	100 A	63 A	63 A	**AYXLMDSLV6UA**	**AYXLMDSLV6UAT2**	256	309	119
10	100 A	63 A	63 A	**AYXLMDSLV10UA**	**AYXLMDSLV10UAT2**	256	381	119
10	100 A	100 A	100 A	**AYXLMDSLV10UNA**	**AYXLMDSLV10UNAT2**	256	381	119
12	100 A	63 A	63 A	**AYXLMDSLV12UA**	**AYXLMDSLV12UAT2**	256	417	119
12	100 A	100 A	100 A	**AYXLMDSLV12UNA**	**AYXLMDSLV12UNAT2**	256	417	119
16	100 A	80 A	80 A	**AYXLMDSLV16UA**	**AYXLMDSLV16UAT2**	256	489	119
16	100 A	100 A	100 A	**AYXLMDSLV16UNA**	**AYXLMDSLV16UNAT2**	256	489	119
22	100 A	80 A	80 A	**AYXLMDSLV22UA**	**AYXLMDSLV22UAT2**	256	597	119
22	100 A	100 A	100 A	**AYXLMDSLV22UNA**	**AYXLMDSLV22UNAT2**	256	597	119

* - 30 mA trip rating.

For TYPE 1 lightning protection replace suffix T2 for T1

For TYPE 2+3 overvoltage transient replace suffix T2 for T23

Measurements: Millimetres (mm) unless stated otherwise

Circuit Protection Devices: Please refer to page 52

FEATURES:

Our standard range of dual tariff consumer units provide dedicated segregation of on peak and off peak circuits.

LIFT UP LIDS

18th COMPLIANT



DUAL TARIFF CONSUMER UNITS

Isolator controlled dual tariff consumer units. For RCD incomers, please contact our sales office.

- Available in bespoke configurations
- Suitable for Multi-Tariff installations
- Optional Surge Protection Device (SPD) fitted

AYXLM8Y4U

ON PEAK	OFF PEAK	WITHOUT SPD CAT. NO.	WITH SPD TYPE 2 CAT. NO.	H	W	D
100 A isolator 6 ways	100 A isolator 2 ways	**AYXLM6Y2U**	**AYXLM6Y2UT2**	256	309	119
100 A isolator 8 ways	100 A isolator 4 ways	**AYXLM8Y4U**	**AYXLM8Y4UT2**	256	381	119
100 A isolator 8 ways	100 A isolator 6 ways	**AYXLM8Y6U**	**AYXLM8Y6UT2**	256	417	119
100 A isolator 10 ways	100 A isolator 4 ways	**AYXLM10Y4U**	**AYXLM10Y4UT2**	256	417	119
100 A isolator 12 ways	100 A isolator 4 ways	**AYXLM12Y4U**	**AYXLM12Y4UT2**	256	446	119
100 A isolator 12 ways	100 A isolator 6 ways	**AYXLM12Y6U**	**AYXLM12Y6UT2**	256	489	119
100 A isolator 10 ways	100 A isolator 10 ways	**AYXLM10Y10U**	**AYXLM10Y10UT2**	500	309	119
3 & 3 Dual RCD	100 A isolator 2 ways	**AYXLMJB3JB3Y2U**	**AYXLMJB3JB3Y2UT2**	256	381	119
4 & 4 Dual RCD	100 A isolator 4 ways	**AYXLMJB4JB4Y4U**	**AYXLMJB4JB4Y4UT2**	256	446	119
5 & 5 Dual RCD	100 A isolator 4 ways	**AYXLMJB5JB5Y4U**	**AYXLMJB5JB5Y4UT2**	256	489	119

LIFT UP LIDS

18th COMPLIANT



SPLIT LOAD CONSUMER UNITS

Metalclad Consumer Units Split Load

- Supplied with 1 x 30 mA RCDs, 1 x 100A DP isolator and full complement of earth and neutral terminals
- Units are variable / configurable
- Non-combustible enclosure

AYXLMSLV12UA

O/G WAYS	ISOLATOR RATING	RCD 1 RATING*	WITHOUT SPD CAT. NO.	WITH SPD TYPE 2 CAT. NO.	H	W	D
6	100 A	63 A	**AYXLMSLV6UA**	**AYXLMSLV6UAT2**	256	273	110
12	100 A	63 A	**AYXLMSLV12UA**	**AYXLMSLV12UAT2**	256	381	110

* - 30 mA trip rating.

For TYPE 1 lightning protection replace suffix T2 for T1

For TYPE 2+3 overvoltage transient replace suffix T2 for T23

ISOLATOR CONTROLLED CONSUMER UNITS

100 A Double Pole Switch Disconnector Incomer Metalclad Consumer Unit

- Available range of outgoing circuits from 22 to 42 way
- Units will accept 6 kA and 10 kA MCBs and RCBOs
- Optional Surge Protection Device (SPD) fitted
- Non-combustible enclosure



AYXLM22DBUT2

O/G WAYS	ISOLATOR RATING	WITHOUT SPD CAT. NO.	WITH SPD TYPE 2 CAT. NO.	H	W	D
22	100 A	**AYXLM22DBU**	**AYXLM22DBUT2**	500	301	119
30	100 A	**AYXLM30DBU**	**AYXLM30DBUT2**	500	381	119
34	100 A	**AYXLM34DBU**	**AYXLM34DBUT2**	500	417	119
42	100 A	**AYXLM42DBU**	**AYXLM42DBUT2**	500	489	119

DUAL RCD CONTROLLED CONSUMER UNITS

Metalclad Consumer Units Dual RCD Controlled

- Supplied with 2x Type A 30mA RCDs, 1x 100A DP isolator and full complement of earth and neutral terminals
- Non-combustible enclosure



AYXLMKB12KB14UA

O/G WAYS	ISOLATOR RATING	RCD 1 RATING*	RCD 2 RATING*	WITHOUT SPD CAT. NO.	WITH SPD TYPE 2 CAT. NO.	H	W	D
18	100 A	80 A	80 A	**AYXLMKB8KB10UA**	**AYXLMKB8KB10UAT2**	500	309	119
26	100 A	80 A	80 A	**AYXLMKB12KB14UA**	**AYXLMKB12KB14UAT2**	500	381	119
30	100 A	80 A	80 A	**AYXLMKB14KB16UA**	**AYXLMKB14KB16UAT2**	500	417	119

* - 30 mA trip rating.

HIGH INTEGRITY DUAL RCD CONSUMER UNITS

Dual RCD High Integrity Metalclad Consumer Unit

- Supplied with 2x Type A 30 mA RCD's, 1x 100 A DP Isolator and full complement of earth and neutral terminals
- Non-combustible enclosure
- DSLV units are variable / configurable



AYXLM2KB6KB10UAT2

O/G WAYS	ISOLATOR RATING	RCD 1 RATING*	RCD 2 RATING*	WITHOUT SPD CAT. NO.	WITH SPD TYPE 2 CAT. NO.	H	W	D
18	100 A	80 A	80 A	**AYXLM2KB6KB10UA**	**AYXLM2KB6KB10UAT2**	500	309	119
26	100 A	80 A	80 A	**AYXLM2KB10KB14UA**	**AYXLM2KB10KB14UAT2**	500	381	119
30	100 A	80 A	80 A	**AYXLM2KB12KB16UA**	**AYXLM2KB12KB16UAT2**	500	417	119

* - 30 mA trip rating.

More double banked configurations available on request

For TYPE 1 lightning protection replace suffix T2 for T1
For TYPE 2+3 overvoltage transient replace suffix T2 for T23

Measurements: Millimetres (mm) unless stated otherwise

Circuit Protection Devices: Please refer to page 52

FEATURES:

The Proteus Metalclad range offers a selection of din rail mount enclosures for building your own switchgear assembly.

A range of Garage and Shower Units are also available, prefitted with MCBs and bus bar.



AENC204ML

MODULAR METALCLAD ENCLOSURES

- Centralised dinrail

NO. OF MODULES	BANKS	CAT. NO.	H	W	D
2	1	**AENC202ML**	230	67	90
4	1	**AENC204ML**	235	113	105
8	1	**AENC208ML**	235	185	105
12	1	**AENC212ML**	237	259	105



METALCLAD ENCLOSURES

- Consumer unit style enclosures

APXLM10U

NO. OF MODULES	BANKS	CAT. NO.	H	W	D
6	1	**APXLM6U**	256	201	119
10	1	**APXLM10U**	256	273	119
12	1	**APXLM12U**	256	309	119
16	1	**APXLM16U**	256	381	119
18	1	**APXLM18U**	256	417	119
22	1	**APXLM22U**	256	489	119
28	1	**APXLM28U**	256	597	119



APGU2A

GARAGE UNITS

Metal Clad Garage Unit with 40 A RCD with 6 A and 16 A MCB

- Compact design

O/G WAYS	RCD 1 RATING*	RCD 2 RATING*	CAT. NO.	H	W	D
2	40 A	6 A+16 A	**APGU2A**	220	115	85
4	4 0A	6 A+16 A	**APGU4MUA**	256	201	119



APSU115A

SHOWER UNITS

Metal Shower Unit complete with 40 A RCD and 40 A MCB or 63 A RCD and 50 A MCB

- Non-combustible enclosure

O/G WAYS	RCD 1 RATING*	RCD 2 RATING*	CAT. NO.	H	W	D
1	40 A	40 A	**APSU95A**	220	115	85
1	63 A	50 A	**APSU115A**	232	150	85

FEATURES:

To compliment the Proteus range of Metalclad consumer units, a selection of spacer mounts are available for use where retrofitting to surface mount cables are necessary.

In addition, Meter Tail glands are available for providing Class II insulation protection for incoming supply cables.

Measurements:
Millimetres (mm) unless stated otherwise



ASM12

CONSUMER UNIT SPACER MOUNTS

For 6 - 28 Module Metalclad Boards

- 30 mm deep
- Aids surface cable entry
- Accepts mini trunking adaptors
- Supplied with fixing screws

NO. OF MODULES	BANKS	CAT. NO.	H	W	D
6	1	**ASM6**	256	201	30
10	1	**ASM10**	256	273	30
12	1	**ASM12**	256	309	30
16	1	**ASM16**	256	381	30
18	1	**ASM18**	256	417	30
22	1	**ASM22**	256	489	30
28	1	**ASM28**	256	597	30

For more information contact our sales office or see below.

	SPACER MOUNT						
CONSUMER UNIT	ASM6	ASM10	ASM12	ASM16	ASM18	ASM22	ASM28
ISOLATOR CONTROLLED	4 Way	6 + 8 Way	10 Way	12/14 Way	16 Way	20 Way	26 Way
RCD CONTROLLED	4 Way	6 + 8 Way	10 Way	12 Way	-	-	-
DUAL RCD	-	-	6 Way	10 Way	12 Way	16 Way	22 Way
HIGH INTEGRITY	-	-	6 Way	10 Way	12 Way	16 Way	22 Way



MTGP40B

METER TAIL GLAND PACKS

DESCRIPTION	CAT. NO.	DIA
2x 25 mm / 1x 16 mm M32 - brass	**MTGP32B**	32
2x 25 mm / 1x 16 mm M40 - brass	**MTGP40B**	40
2x 25 mm / 1x 16 mm M32 - plastic	**MTGP32P**	32
2x 25 mm / 1x 16 mm M40 - plastic	**MTGP40P**	40
Meter tail reducer 40-32 mm	**EA40/32**	-



INTUMESCENT PUTTY PAD

DESCRIPTION	CAT. NO.
Intumescent putty pad (210 mm x 148 mm x 3 mm)	**IP21X15**

KEY FEATURES:

INSULATED RANGE

FEATURES:

The Proteus range of insulated Consumer Units has quickly become one of the most innovative insulated boards in the market. Developed through a keen interest in customer feedback, Proteus Switchgear created a Consumer Unit that was flexible to any imaginable on-site scenario.

The options available include Isolator Incomer units and also RCD Incomer units - suitable for single Phase MCBs and also RCBOs, offering complete peace of mind for those essential circuits requiring dedicated earth fault protection.





INSULATED CONSUMER UNIT FEATURES





1. Stacking

Unique stacking system.



2. Removable Endplates

Removable endplates for maximum cable access.



3. Comb Bus Bar

Comb bus bar greater connection.



4. Cable Entry

Rear, side and top/ bottom cable entries.

5. Half Din Rail for quick fitting of devices.

6. BS EN 61439-3 Compliant.

7. Increased height for added cabling space.

8. Translucent front door.

9. Manufactured from thermoplastic materials to BS 60695.

10. Bespoke consumer units made to order.

OFFERING A COMPREHENSIVE RANGE



Measurements:
Millimetres (mm) unless stated otherwise

Circuit Protection Devices:
Please refer to page 52

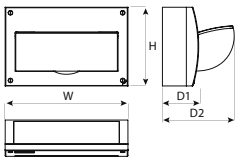
LIFT UP LIDS

GLOW WIRE 960° RATED

ISOLATOR CONTROLLED CONSUMER UNITS

Double Pole Switch Disconnector Incomer Insulated Consumer Unit

- Outgoing circuits from 2 to 14 ways available on request
- Incoming Isolators fitted range from 63 A / 100 A
- Modular principle, allows limitless permutations
- Original installations can be supplemented to keep pace with user requirements
- Easy wiring access provided by removable endplates
- Four quarter turn screws provide easy removal of front cover
- Units will accept 6kA and 10kA MCBs and RCBOs





YXL6

O/G WAYS	ISOLATOR RATING (A)	NO. of MODULES	CAT. NO.	H	W	D1	D2
2	63	4	**YXL2***	230	116	110	220
4	100	6	**YXL4***	230	152	110	220
6	100	10	**YXL6**	230	252	106	205
8	100	10	**YXL8**	230	252	106	205
12	100	16	**YXL12**	230	359	106	205
14	100	16	**YXL14**	230	359	106	205

For Isolator controlled Consumer Units with over 30 outgoing ways contact factory for availability.
* - Cannot be banked
YXL# units are supplied with translucent cover.

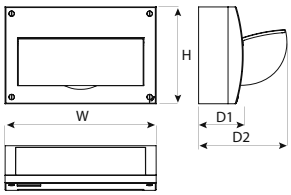
LIFT UP LIDS

GLOW WIRE 960° RATED

RCD CONTROLLED CONSUMER UNITS

Residual Current Device Incomer Insulated Consumer Unit

- Offers a range of outgoing circuits from 2 to 12 ways
- Incoming RCD fitted can be a choice of 25 A / 40 A / 63 A / 80 A / 100 A
- Comes with Earth Fault sensitivity ratings of 30 mA or 100 mA
- Easy wiring access provided by removable endplates
- Four quarter turn screws provide easy removal of front cover
- Units will accept 6kA and 10kA MCBs, RCBOs and DIN Rail mounting HRC carriers"

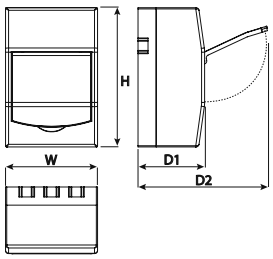




JBX4

O/G WAYS	ISOLATOR RATING (A)	NO. of MODULES	CAT. NO.	H	W	D1	D2
2	63	4	**JBX2***	230	116	110	220
4	63	6	**JBX4***	230	152	110	220
6	63	10	**JBX6**	230	252	106	205
8	63	10	**JBX8**	230	252	106	205
10	63	14	**JBX10**	200	320	106	205
12	63	14	**JBX12**	200	320	106	205
4	80	6	**KBX4***	230	152	110	220
6	80	10	**KBX6**	230	252	106	205
8	80	10	**KBX8**	230	252	106	205
10	80	14	**KBX10**	200	320	106	205
12	80	14	**KBX12**	200	320	106	205
6	100	10	**LBX6**	230	252	106	205
8	100	10	**LBX8**	230	252	106	205
10	100	14	**LBX10**	200	320	106	205
12	100	14	**LBX12**	200	320	106	205

RCD incomer units are available in higher earth leakage sensitivity options on request.
* - Insulated boards which cannot be banked.



Measurements: Millimetres (mm) unless stated otherwise



PXL4

LIFT UP LIDS

GLOW WIRE 960° RATED

MULTI-PURPOSE UNITS

- Build your own consumer unit or multi-purpose board simply clip on your required equipment to the DIN Rail and if necessary fit the Comb Busbar.
- Fitted with full DIN rail, Earth and Neutral terminal bars.

NO. of MODULES	CAT. NO.	H	W	D1	D2
4	**PXL4***	230	116	110	220
6	**PXL6***	230	152	110	220
10	**PXL10**	230	252	106	205
16	**PXL16**	230	359	106	205
18	**PXL18***	230	390	110	220

* - Insulated enclosures which cannot be banked.



ENC654

LIFT UP LIDS

GLOW WIRE 960° RATED

INSULATED IP ENCLOSURES

- Surface mounting units suitable for use with Proteus modular isolation and protection devices to provide local or individual circuit control eg. Workshop.

NO. of MODULES	IP RATING	CAT. NO.	H	W	D
1 or 2	20	**ENC202***	135	40	65
4	20	**ENC204***	135	75	65
4	40	**ENC404**	230	116	110
4	55	**ENC544**	160	120	95
2	65	**ENC652**	150	100	100
4	65	**ENC654**	200	127	120
8	65	**ENC658**	200	200	120
12	65	**ENC6512**	258	318	142
18	65	**ENC6518**	259	428	142
24	65	**ENC6524**	383	318	142
36	65	**ENC6536**	507	318	142

* - Enclosure supplied without transparent front cover.

Measurements:
Millimetres (mm) unless stated otherwise

FEATURES:

- Surface mounting switch disconnector fuse unit in robust steel enclosure.
- Powder coated paint finish.
- Unit is designed to accommodate fuse links to BS 88: Part 1,2 & 6.
- All switches are lockable in ON or OFF position.

DOUBLE POLE HRC SWITCH FUSES

20 - 100 A Single Pole Plus Neutral Switch Complete With High Rupture Capacity Fuse

- Top Hinged Steel Door
- Incorporating DP isolator and BS88 fuse all enclosed in a robust metal clad enclosure
- Isolation switch can be locked in ON or OFF position
- Tough polyester epoxy paint coating

DP Isolator can be locked in the ON or OFF position using DLPX1.



SF20

CURRENT RATING	CAPACITY IN (mm^2)	CAPACITY OUT (mm^2)	CAT. NO.	H	W	D
20	50	25	**SF20**	225	114	90
32	50	25	**SF32**	225	114	90
40	50	25	**SF40**	225	114	90
50	50	25	**SF50**	225	114	90
63	50	25	**SF63**	225	114	90
80	50	50	**SF100/80**	307	192	93
100	50	50	**SF100**	307	192	93

FIRE ALARM PANEL SWITCH

For Use When Connecting A Fire Alarm To A Public Or Private Power Distribution Supply.

- Compliant with B5839 pt 1-2002 & BSEN 54 pt4-1997
- Three module steel enclosure.
- 45 A DP Isolator and 6 A Type B SP MCB fitted
- Both devices can be locked in the 'ON' position using locking accessories supplied.
- Surface mounted c/w top and bottom knockouts.
- Ingress protection: IP20.



DESCRIPTION	CAPACITY IN (mm^2)	CAPACITY OUT (mm^2)	CAT. NO.	H	W	D
Metalclad unit	50	25	**FS1**	175	110	85

NB: MCB will trip under fault conditions even when lock is fitted.

BESPOKE POWER DISTRIBUTION CONFIGURATIONS
FROM PROTEUS

Proteus offer a large range of custom designed, bespoke LV switchboards, panelboards, distribution boards and consumer units. Ensure your customer's exact requirements are met with a completely bespoke solution.

On-Site Survey

Our team are happy to visit your site to establish your project requirements

Designed to Your Specification

Proteus utilise the latest drawing software and provide panel layout drawings at both quotation and construction stages

Testing & Compliance

All products tested to relevant British & European Standards and the 18th Edition Wiring Regulations

Be involved

You're welcome to visit the factory to see your board being built and discuss build requirements



Measurements:
Millimetres (mm) unless stated otherwise

FEATURES:

Proteus Switchgear offer a comprehensive range of ancillary products specifically developed for the metering industry, featuring single and three phase isolators, heating contactors and terminal blocks.

Utilising a 3 mm hex drive throughout, the one-tool-fits-all design offers the installing engineer complete peace of mind.



EMIS4P



EMIS

SINGLE & 3 PHASE ISOLATORS

Our Meter Isolator Switches offer unrivalled performance and safety for metering applications. Hosting a number of unique features, these switches provide increased connectivity for meter tail connections.

DESCRIPTION	CAT. NO.	H	W	D	TERMINAL CAPACITY (UP TO)
100 A 1 P+N isolator	**EMIS**	145	59	82	35 mm²
100 A 1 P+N isolator - LHS neutral	**EMISN**	145	59	82	35 mm²
24 Hr/Off peak	**EMIS2**	145	95	82	35 mm²
24 Hr/Off peak - coupled neutrals	**EMIS2NB**	145	95	82	35 mm²
100 A 2 P+N isolator	**EMIS3**	145	95	82	35 mm²
100 A 3 P+N isolator	**EMIS4P**	145	95	82	35 mm²
100 A 3 P+N isolator - LHS neutral	**EMIS4PN**	145	95	82	35 mm²



1. Unique patented twin screw terminal.



2. Same 3 mm hex drive for all screws.



3. Blanks for all cable entries includes 16 mm² strain relief function.



EMIST2

100 A DP SURGE PROTECTED ELECTRICITY METER ISOLATOR SWITCHES

DESCRIPTION	CAT. NO.	H	W	D	TERMINAL CAPACITY (UP TO)
100 A isolator with Type 2 surge protection	**EMIST2**	145	95	82	50 mm²
100 A isolator with Type 1+2 surge protection	**EMIST12**	145	95	82	50 mm²



KWH100AMID

KILOWATT HOUR METERS

DESCRIPTION	CAT. NO.	NO. of MODULES
45 A Direct connect MID approved kWh meter	**KWH45AMID**	1
100 A Direct connect MID approved kWh meter	**KWH100AMID**	2

Measurements: Millimetres (mm) unless stated otherwise

SINGLE & 3 PHASE HEATING CONTACTORS

Our range of single and three phase heating contactors is available in two variants – a switched Live and Switched Neutral option offering control of heating systems within multi-tariff installations up to 100 A.



EHC1

DESCRIPTION	CAT. NO.	H	W	D	TERMINAL CAPACITY (UP TO)
100 A heating contactor	**EHC1**	110	90	84	35 mm²
100 A heating contactor, switched live version	**EHC1L**	110	90	84	35 mm²
100 A heating contactor, 3P version	**EHC3**	146	195	84	35 mm²
100 A heating contactor, 3P switched live version	**EHC3L**	146	195	84	35 mm²



1. Unique patented terminal design.



2. Lockable cover screws.



3. Dual load output terminals.



4. Same 3 mm hex drive for all connections & screws.

100 A 5 WAY TERMINAL BLOCK

Our range of 100 A terminal blocks provides a quick and easy solution for making additional terminations safely. Utilising the common 3 mm hexagonal screw throughout for a one-tool-tightens-all feature, there are also optional Brown and Blue coloured units for quick and easy identification of line and neutral phases.



COLOUR	CAT. NO.	H	W	D	TERMINAL CAPACITY (UP TO)
Grey	**ETB5**	64	50	40	35 mm²
Blue	**ETB5BL**	64	50	40	35 mm²
Brown	**ETB5BR**	64	50	40	35 mm²
TPE Cable grommet	**30044**	Cable size 1.0 mm² - 10 mm²			

Cable grommets provide additional ingress protection when using smaller cables.



1. Same 3 mm hex drive for all screws.



2. Unique joining pieces.



3. Optional phase/ neutral coloured mouldings.



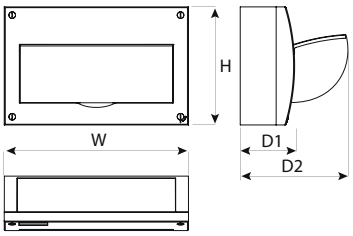
4. Thermoplastic elastomer grommet for small cables.

Measurements: Millimetres (mm) unless stated otherwise

Circuit Protection Devices: Please refer to page 52

FEATURES:

When space is limited and the installation requires a three phase distribution board, the range of Proteus TPX consumer units is the solution.
A choice of 1 to 4 outgoing TP ways fed via a 3-phase comb busbar arrangement are available in either insulated, metalclad or IP55 enclosures.
All units are pre-fitted with 100A TP Isolator incomer and busbar to suit.





TPXIC4

INSULATED ENCLOSURES

NO. of MODULES	CAT. NO.	H	W	D1	D2
1	**TPXIC1**	230	250	105	220
2	**TPXIC2 ***	230	250	105	220
3	**TPXIC3 ****	200	320	105	220
4	**TPXIC4 ****	230	360	105	220

* - Will accept metal gland plate MGP2.
** - Will accept metal gland plate MGP3.



TPXIPC1

IP55 ENCLOSURES

1 - 4 Module Triple Pole and Neutral Type B Insulated Enclosures, Top Hinged Tinted Door, IP55

NO. of MODULES	CAT. NO.	H	W	D
1	**TPXIPC1**	150	190	90
2	**TPXIPC2**	190	250	115
3	**TPXIPC3**	270	340	130
4	**TPXIPC4**	270	340	130



TPXMC2

METAL ENCLOSURES

1 - 3 Module Triple Pole and Neutral Type B Metalclad Distribution Boards, Side Hinged Steel Door, IP30

NO. of MODULES	CAT. NO.	H	W	D
1	**TPXMC1**	210	230	110
2	**TPXMC2**	225	300	110
3	**TPXMC3**	225	300	110

FEATURES:

Proteus offer a variety of Mantel Consumer Units (also known as skeleton or spine units) to meet and comply with the recent changes in the wiring regulations.
Designed and developed with the needs of both the installer and installation conditions in mind these units offer

Key features:
16 module units.
Pre-wired switchgear where applicable.
Clean cover plate / barrier of non-combustible material.

Measurements:
Millimetres (mm) unless stated otherwise



SKSLV12

SPLIT LOAD SPINE UNITS c/w 63 A DP 30 mA RCD

O/G WAYS	ISOLATOR RATING	RCD 1 RATING*	RCD 2 RATING*	CAT. NO.	H	W	D
10	3	7	-	**SK3JB7**	250	333	92
10	4	6	-	**SK4JB6**	250	333	92
10	5	5	-	**SK5JB5**	250	333	92
10	6	4	-	**SK6JB4**	250	333	92
10	7	3	-	**SK7JB3**	250	333	92
10	up-to 7	up-to 7	-	**SKSLV12**	250	333	92



SKJB5JB5

DUAL RCD SPINE UNITS c/w 63 A DP 30 mA RCD

O/G WAYS	ISOLATOR RATING	RCD 1 RATING*	RCD 2 RATING*	CAT. NO.	H	W	D
8	-	4	4	**SKJB4JB4**	250	333	92
10	-	5	5	**SKJB5JB5**	250	333	92



SK2JB4JB4

HIGH INTEGRITY & DUAL RCD SPINE UNITS c/w 63 A DP 30 mA RCD

O/G WAYS	ISOLATOR RATING	RCD 1 RATING*	RCD 2 RATING*	CAT. NO.	H	W	D
10	up-to 4	6	4	**SKSLV6R4**	250	333	92
10	2	4	4	**SK2JB4JB4**	250	333	92

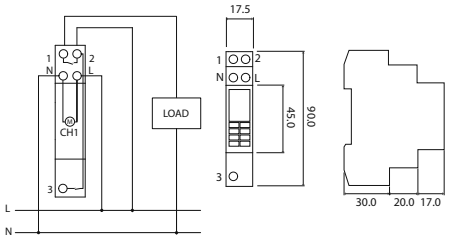
Measurements:
Millimetres (mm) unless stated otherwise

FEATURES:

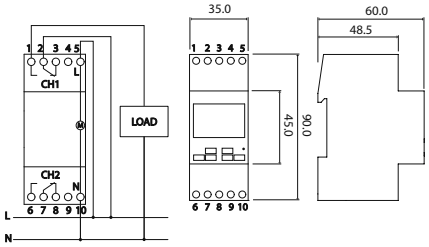
A range of digital, mechanical & staircase timers available in 24-hour or 7-day options, predetermining the scheduling of automated switching options.

Wiring Schematic And Dimensions/Terminal Arrangement*

1 channel digital timer



2 channel digital timer





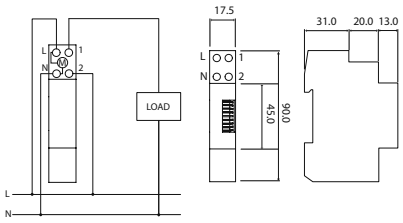
DIGITAL TIMERS

72ST

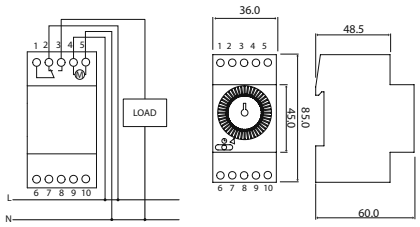
NO. of CHANNELS	CURRENT RATING (A) RESISTIVE LOAD	CAT. NO.	MODULE SIZE
1	16	**71ST**	1
2	16	**72ST**	2

Wiring Schematic And Dimensions/Terminal Arrangement*

1 NO contact 24 hr



1 Changeover contact 24 hr





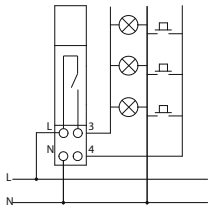
MECHANICAL TIMERS

242SQ

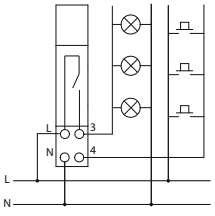
NO. of CHANNELS	CAT. NO.	MODULE SIZE
1 Channel 24 hr synchronous timer 16A rated	**241S**	1
2 Channel 24 hr synchronous timer 16A rated	**242S**	2
2 Channel 24 hr quartz timer 16A rated	**242SQ**	2

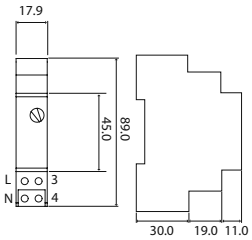
Dimensions/Terminal Arrangement*

3-wire



4-wire







STAIRCASE TIMERS

1SCT

NO. of CHANNELS	CAT. NO.
Staircase timer switch 1 module Adjustable 30 seconds to 20 minutes.	**1SCT**

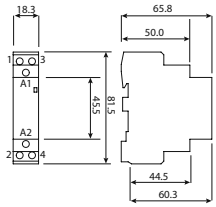
*-Please check the wiring instructions supplied with your device.

FEATURES:

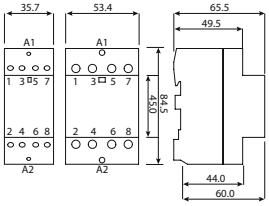
Proteus contactors are available from 20A up-to 63A in 2 pole and 4 pole options, suitable for din-rail mounting in consumer units fitted with full standard din-rail.
Contactors offer method of remote switching of loads and are suitable for AC1 switching - general heating and lighting loads.
Contactors are available with normally open (NO) or normally closed (NC) contacts.
Standard: EN61095.

Measurements:
Millimetres (mm) unless stated otherwise

Dimensions/Terminal Arrangement
2 pole contactor



4 pole contactor



CONTACTORS - NORMALLY OPEN 230V COIL

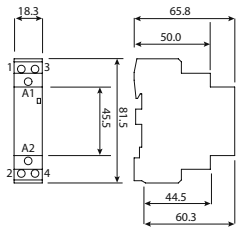


CT202

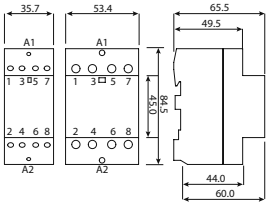
CURRENT RATING (A)	VOLTAGE RATING (V)	POWER AT RATED VOLTAGE AC 1 (kW)	POWER AT RATED VOLTAGE AC 3 (kW)	NO. of POLES	NO. of MODULES	CAT. NO.
20	400	4	-	2	1	**CT202**
20	400	16	4	4	2	**CT204**
40	400	25	8	4	3	**CT404**
40	400	25	8	4	3	**CT404D***
63	400	37	15	4	3	**CT634**

*-DC rectified coil

Dimensions/Terminal Arrangement
2 pole contactor



4 pole contactor



CONTACTORS - NORMALLY CLOSED 230V COIL

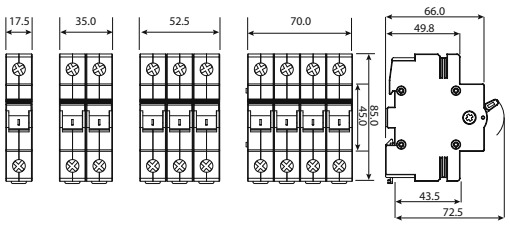


CT202NC

CURRENT RATING (A)	VOLTAGE RATING (V)	POWER AT RATED VOLTAGE AC 1 (kW)	POWER AT RATED VOLTAGE AC 3 (kW)	NO. of POLES	NO. of MODULES	CAT. NO.
20	400	4	-	2	1	**CT202NC**
20	400	16	4	4	2	**CT204NC**
40	400	25	8	4	3	**CT404NC**
63	400	37	15	4	3	**CT634NC**

ISOLATORS

- Choice of current ratings from 45A up to 100A.
- Operating dolly can be locked in ON or OFF state.
- Neutral pole designed to 'make first / break last'.
- Positive contact status indication therefore can be used as an isolating switch.
- Switch disconnector is designed to accept cable-in/ cable-out and direct to busbar connection.





100S2

CURRENT RATING (A)	DP CAT. NO.	TP CAT. NO.	4P CAT. NO.
45	**45S2**	**45S3**	**-**
63	**63S2**	**63S3**	**63S4**
100	**100S2**	**100S3**	**100S4**

Measurements: Millimetres (mm) unless stated otherwise



BLANKING PLATE

DESCRIPTION	CAT. NO.
Blanking plate	**B1**



BLANKING MODULE

DESCRIPTION	CAT. NO.
Blanking module	**BM1**



METAL BLANKING PLATE

DESCRIPTION	CAT. NO.
2 Module blanking plate	**MB2**



BUSBAR TERMINAL SHROUD

DESCRIPTION	CAT. NO.
Busbar terminal shroud	**BBS1**

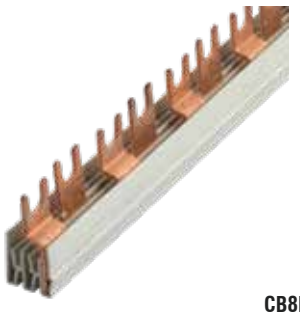


CB19SP

INSULATED COMB BUSBARS SINGLE POLE

DESCRIPTION	CAT. NO.
19 Ways, single pole	**CB19SP**
28 Ways, single pole	**CB28SP**

80A max. 100A intermittent rating.

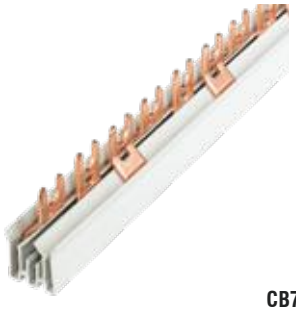


CB8DP

INSULATED COMB BUSBARS DOUBLE POLE

DESCRIPTION	CAT. NO.
8 Ways, double pole	**CB8DP**
12 Ways, double pole	**CB12DP**

80A max. 100A intermittent rating.



CB7TP

INSULATED COMB BUSBARS TRIPLE POLE

DESCRIPTION	CAT. NO.
7 Ways, triple pole	**CB7TP**
12 Ways, triple pole	**CB12TP**

80A max. 100A intermittent rating.



CBC3

END CAP

DESCRIPTION	CAT. NO.
End Cap For DP/TP Insulated comb busbar	**CBC3**



CBCT1

CABLE TERMINAL

DESCRIPTION	CAT. NO.
Cable terminal for insulated comb busbar	**CBCT1**

80A max. 100A intermittent rating.

Measurements:
Millimetres (mm) unless stated otherwise



TB8

BRASS TERMINAL BARS

DESCRIPTION	CAT. NO.
5 Hole terminal bar	**TB5**
8 Hole terminal bar	**TB8**



TB12

BRASS TERMINAL BARS

DESCRIPTION	CAT. NO.
10 Hole terminal bar	**TB10**
12 Hole terminal bar	**TB12**



TB16

BRASS TERMINAL BARS

DESCRIPTION	CAT. NO.
14 Hole terminal bar	**TB14**
16 Hole terminal bar	**TB16**



PMS32

BS88 FUSES

DESCRIPTION	CAT. NO.
20A BS88 HRC Fuse	**PMS20**
32A BS88 HRC Fuse	**PMS32**



PMS63

BS88 FUSES

DESCRIPTION	CAT. NO.
40A BS88 HRC Fuse	**PMS40**
50A BS88 HRC Fuse	**PMS50**
63A BS88 HRC Fuse	**PMS63**



PMS100

BS88 FUSES

DESCRIPTION	CAT. NO.
63A BS88 HRC Fuse (Fits SF100 & SF100/80)	**PMS63**
80A BS88 HRC Fuse	**PMS80**
100A BS88 HRC Fuse	**PMS100**

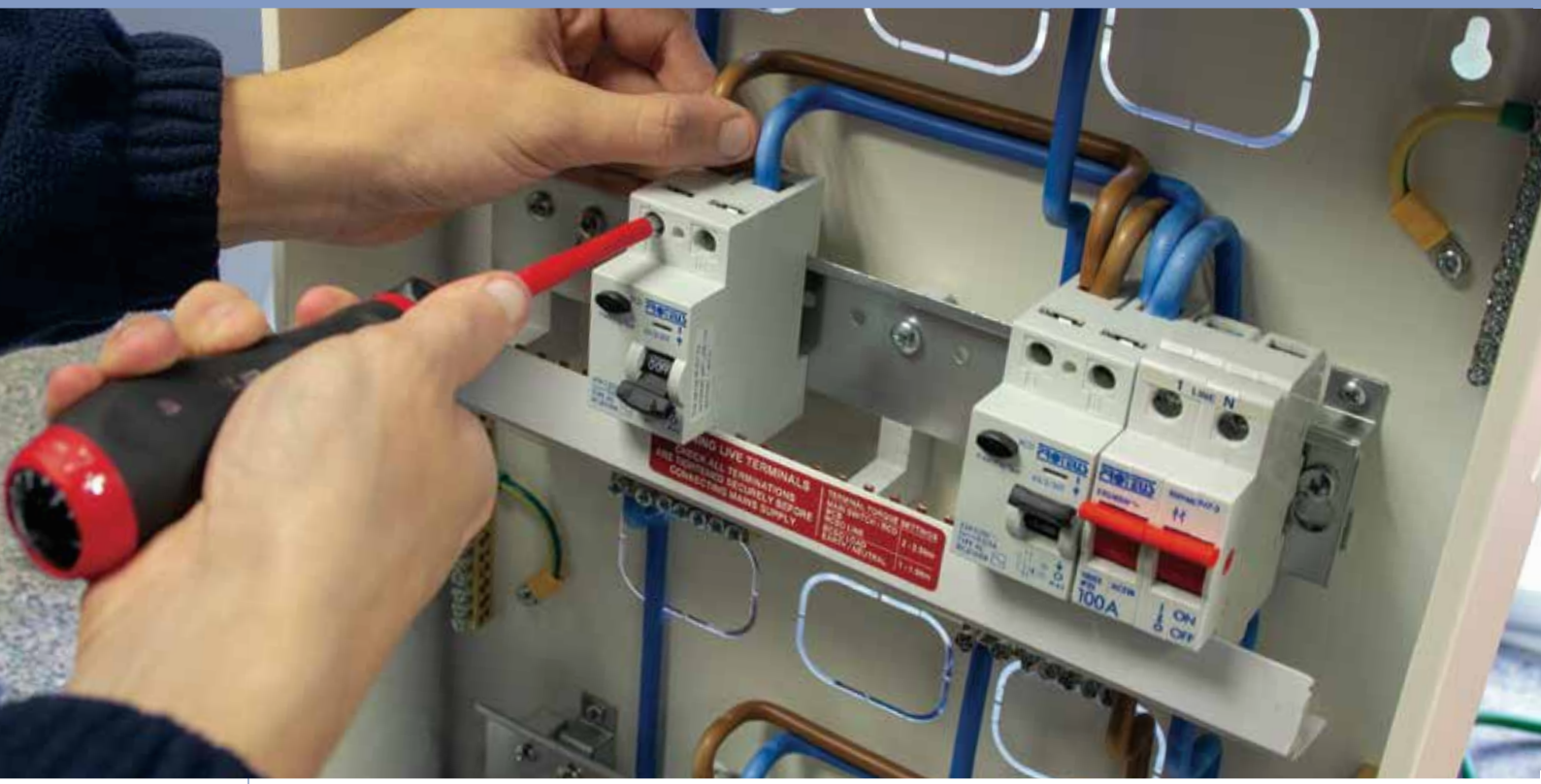


DLPX1P

LOCKING DEVICES

DESCRIPTION	CAT. NO.
MCB Dolly locking device	**DLPX1**
MCB Dolly locking device c/w padlock	**DLPX1P**

CUSTOMER BUILT CONSUMER UNITS



At Proteus, our custom build service ensure we design and manufacture a diverse range of insulated and metalclad consumer units to meet your specific requirements.

DESIGN

MANUFACTURE

TECHNICAL SUPPORT



BESPOKE UNITS

- Insulated, IP rated or metalclad units.
- Multiple distribution options.
- Optional circuit control devices.
- Pre-wired short circuit protective devices.
- Fully tested assembly.



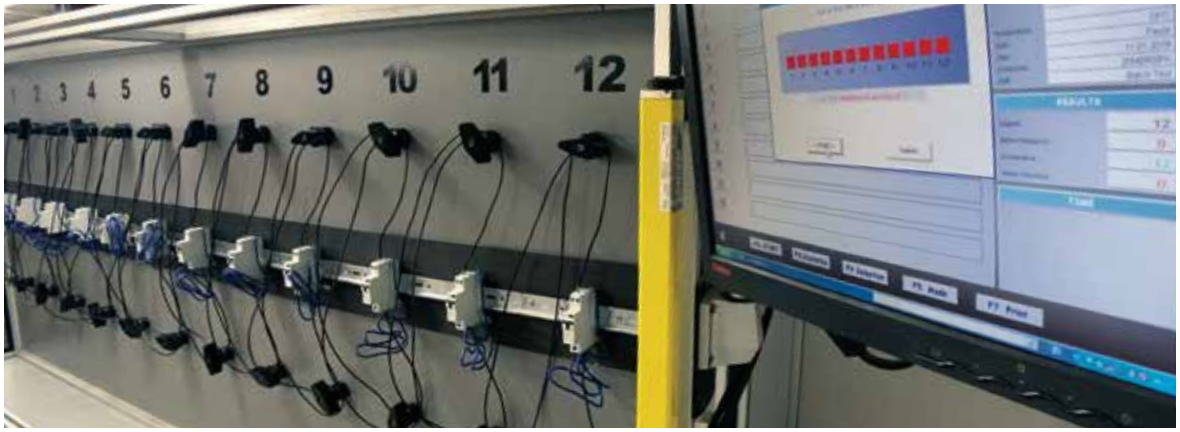
MULTIPLE BANKED UNITS

Larger than average homes require larger than the average Consumer Units, building bulk quantities to specification is made simple when specifying Proteus Switchgear.



STREET LIGHTING APPLICATIONS

Special locations often require special solutions. A street lighting application demanded a compact unit incorporating Double Pole RCBO, a 2 pole contactor and a 7 day digital timer. Proteus Switchgear were able to offer a pre-cabled and configured unit with electrical noise suppression component included to meet this customers specification.



THERMAL TESTING

As part of our UK testing facility, thermal testing of miniature circuit breakers and RCBO devices ensure our products meet the performance requirements of BS EN 60898.





RCD/RCBO TESTING

Our range of RCD and RCBO devices undergo 100% electronic testing to ensure each device trips within the required time parameters.

Each device is given a unique code following testing for complete traceability.

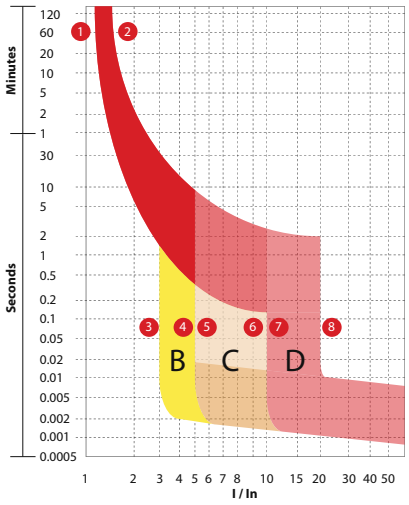




MINIATURE CIRCUIT BREAKERS
MCB TRIPPING CURVES

Proteus MCBs are of thermo-magnetic, current limiting type and are available in a range of kA ratings (6kA up to 10kA) and operating characteristics (B, C and D Curve). A selection of SP (single pole), DP (double pole), TP (triple pole) and 4P (four pole) options are offered.

- All MCBs have a 'trip free mechanism'.
- Positive contact status indication in accordance with IEE wiring regulations.
- Tunnel design, touch proof and captive terminals.
- Can be used as isolating switches.
- Lockable in both ON and OFF state without affecting the ability of the trip mechanism to operate.



GENERAL SPECIFICATION

STANDARDS:	BSEN 60898
OPERATING VOLTAGE:	230 / 400V a.c.
OPERATING FREQUENCY:	50Hz
AMBIENT OPERATING TEMP.:	-5°C to +40°C
MAXIMUM TERMINAL TORQUE:	2.5Nm
ENCLOSURE MATERIAL:	V0 rated Polyamide (self extinguishing at 960C)
SUPPLY:	Can be supplied from top or bottom.
IP RATING:	IP4X (front face) IP20 (terminals)
DIELECTRIC VOLTAGE:	2500V a.c.
INSULATION VOLTAGE:	500V a.c.

MCB
INSTALLATION VOLTAGES

B & C Curve 1 pole 230V AC
B & C Curve Multi-pole 400V AC

CURVE	INSTANTANEOUS TRIPPING RANGE	CIRCUIT APPLICATIONS
B	3 - 5	Used in domestic situations where maximum sensitivity is required and very little equipment with high start-up current is connected.
C	5 - 10	Suitable for commercial / industrial situations where close protection is not required and start up currents of devices can run upto 5 times rated current for a short period. Where many low voltage lights are used in a domestic situation then, due to the inrush currents of the transformers, C Curve MCBs may be required to avoid nuisance tripping.
D	10 - 20	Suitable for industrial application where start-up currents may be up to 10 times rated current, for example protection for machines with electric motors fitted, welding units etc.

1 Steady current value 1.13xIn: t>1hr
All MCBs are capable of carrying full load current continuously (derating factors apply for ambient conditions and no. of circuits within an enclosure).

2 Steady current value 1.45xIn: t<1hr
As load current increases above current rating the thermal release mechanism will disconnect MCB.

B-CURVE

3 3xIn: 0.1sec<t<45sec (In<=32A)
3xIn: 0.1sec<t<90sec (In>32A)
MCB will trip within times specified.

4 5xIn: t<0.1sec
B Curve MCB ensured to trip in less than 0.1sec via magnetic release.

C-CURVE

5 5xIn: 0.1sec<t<15sec (In<=32A)
5xIn: 0.1sec<t<30sec (In>32A)
MCB will trip within times specified.

6 10xIn: t<0.1sec
C Curve MCB ensured to trip in less than 0.1sec via magnetic release.

D-CURVE

7 10xIn: 0.1sec<t<4sec (In<=32A)
10xIn: 0.1sec<t<8sec (In>32A)
MCB will trip within times specified.

8 20xIn: t<0.1sec
D Curve MCB ensured to trip in less than 0.1sec via magnetic release.

t = Tripping time

TERMINAL CAPACITIES

RANGE OF MCBs	CAPACITY
MCBs	25 mm² (In and Out)
RCBOs	25 mm² (In) ; 16 mm² (Out)
RCDs (<100A)	50 mm² (In and Out)

RANGE OF MCBs	CAPACITY
RCDs (100A)	50 mm² (In and Out)
Isolators	50 mm² (In and Out)
Earth and Neutral bars	25 mm² and 16 mm²

SWITCHGEAR DERATING

Adjacent MCBs, RCBOs or MCB/RCD combinations should not be continuously loaded at, or approaching, their normal rated currents when mounted in enclosures. It is also good engineering practice to make provisions for adequate free air between devices.
Under these circumstances and, in common with other manufacturers, we recommend a diversity factor of 66% is applied to the MCB nominal rated current, especially if the MCB is expected to be loaded near to or at full rating for more than one hour.
Thermal issues should also be taken into consideration when choosing conductor size for the protected circuits.

MCB INSTALLATION CURRENTS

Generally the MCBs detailed are not intended to provide close overload protection for motors. However they can be employed in conjunction with the customary motor overload current device as an alternative to the isolator/fuse combination. In this condition the MCB will protect the cable to the motor and the motor will be protected by its own protective device.
The tables A and B detailed below give recommendations on MCB selection for motor circuits, for C Curve only.
Note: The values of full load current and starting current will approximately be 10% higher at 380/220V ac than the figures stated for 400/230V motors. The figures given in table A for the starting current and its duration are intended to be used as a guide only. In practice the motor run up time will depend upon the type of drive and the loading of the motor when it is started. Consultation with the motor manufacturer should give an indication of the magnitude of the starting current and the duration. The selection of the most suitable circuit breaker can then be found from the time/current characteristics of the circuit breaker.

Table A: Recommended MCB current ratings for the protection of cables to single phase 230V a.c. motors.

HORSE POWER (HP)	POWER	FLC	STARTING CURRENT	DURATION OF STARTING CURRENT	MCB CURRENT RATING
0.25	0.18 kW	1.5 A	10.5 A	3.0 sec	10 A
0.50	0.37 kW	3.0 A	21.0 A	3.0 sec	10 A
0.75	0.55 kW	5.0 A	35.0 A	3.0 sec	16 A
1.00	0.75 kW	5.5 A	38.5 A	3.1 sec	20 A
1.50	1.12 kW	8.5 A	59.5 A	3.15 sec	32 A
2.00	1.50 kW	10.5 A	73.5 A	3.2 sec	50 A
3.00	2.25 kW	15.5 A	108.0 A	3.3 sec	50 A
4.00	3.00 kW	20.0 A	140.0 A	3.4 sec	63 A
5.00	3.80 kW	24.0 A	168.0 A	3.5 sec	-
6.00	4.50 kW	28.0 A	196.0 A	3.6 sec	-
7.00	5.20 kW	32.0 A	224.0 A	3.7 sec	-

Maximum Earth fault loop impedance (ie Zs ohms) for circuits supplying socket outlets in accordance with BS7671 regulation 411.3.2 at @ 218.5V (230V x 0.95 Cmin)

BS7671: 2018 requirements: Electrical installations (18th Edition of the IEE Wiring regulations) specifically identifies B and C Curve. Lower earth fault loop impedance's (Zs) are generally necessary for D Curve to achieve the operating times required by regulation 411-3-2. Where the requirement can not be achieved, use of the circuit breakers as overcurrent protective devices is not precluded, but the use of residual current circuit breakers (RCDs) to provide protection against indirect earth fault condition is implied. Establishment of the value of the earth fault loop impedance (Zs) at the design stage of installation will determine which type of circuit breaker should be used.

At these levels of earth loop impedance, MCBs will provide disconnection times in accordance with BS7671 for circuits supplying socket outlets .

DEVICE	STANDARD	6A	10A	16A	20A	32A	40A	50A	63A	80A	100A	125A
B Curve	BSEN 60898	7.43	4.46	2.79	2.23	1.39	1.11	0.89	0.71	-	-	-
C Curve	BSEN 60898	3.83	2.30	1.44	1.15	0.72	0.58	0.46	0.37	0.30	0.24	0.19
D Curve	BSEN 60898	1.87	1.12	0.70	0.56	0.35	0.28	0.22	0.18	-	-	-

Table B: Recommended MCB current ratings for the protection of cables to three phase 400V a.c. motors.

HORSE POWER (HP)	POWER	FLC	STARTING CURRENT	DURATION OF STARTING CURRENT	MCB CURRENT RATING	STARTING CURRENT	DURATION OF STARTING CURRENT	MCB CURRENT RATING
0.25	0.18	0.5	3.5	3.0	6	1.75	9.0	6
0.50	0.37	0.9	6.3	3.0	6	3.15	9.1	6
0.75	0.55	1.3	9.1	3.0	6	4.59	9.2	6
1.00	0.75	1.9	13.3	3.1	6	6.6	9.3	6
1.50	1.12	2.5	17.5	3.15	10	8.7	9.5	10
2.00	1.50	3.4	23.8	3.2	10	11.9	9.6	10
3.00	2.25	4.8	33.6	3.3	16	16.8	10.0	16
4.00	3.00	6.4	44.8	3.4	20	22.4	10.3	20
5.00	3.80	7.8	54.6	3.5	20	27.3	10.7	20
6.00	4.50	9.0	63.0	3.6	20	31.5	11.0	20
7.00	5.20	10.3	72.1	3.7	32	36.0	11.3	20
7.50	5.60	11.6	81.2	3.75	32	40.6	11.5	32
10.00	7.50	14.4	100.8	4.0	40	50.4	12.3	40
12.50	9.30	17.3	121.1	4.25	40	60.5	13.2	40
15.00	11.00	21.1	148.0	4.5	63	73.8	14.0	50
20.00	15.00	28.0	196.0	5.0	63	93.0	15.7	63
25.00	18.50	35.0	245.0	5.5	-	122.0	17.3	-
7.00	5.20	32.0	224.0	3.7	-			

RCBOs

Providing both overcurrent protection and earth leakage protection in a combined unit, Proteus offers a range of RCBOs which will fit all Proteus modular consumer units and B Curve 3-phase distribution boards.
RCBOs are available in a range of current ratings from 6A to 45A and with short circuit capacities (Ics) from 4.5kA up to 10kA.
RCBOs are offered in both B and C Curve tripping characteristics.
All single module RCBOs contain a switched live and solid neutral where as the double module unit offers both Live and Neutral switching.

Similar to our MCB technology all devices have a 'trip free mechanism' and positive contact status indication. Connection of load circuit cables is via tunnel design cable clamps with touch proof and captive terminal screws. Lockable in both ON and OFF position without affecting the ability of the trip mechanism to operate.
RCBOs allow earth fault protection to be restricted to individual circuits, thus ensuring that only the circuit with the fault is interrupted. (When groups of circuits are protected by an RCD, all circuits would be interrupted under a fault condition, which may cause unnecessary inconvenience).

GENERAL SPECIFICATION

STANDARDS:	BSEN 61009
OPERATING VOLTAGE:	230V a.c.
EARTH LEAKAGE SENSITIVITY:	30 mA
SWITCHING:	Single pole - L (switched) + N (solid) Double pole - L + N (switched)
OPERATING FREQUENCY:	50Hz
AMBIENT OPERATING TEMP.:	-5°C - +40°C
MAXI. TERMINAL TORQUE:	2Nm
ENCLOSURE MATERIAL:	VO rated PBT (both self extinguishing at 960°C)
SUPPLY CONNECTIONS:	Consult specific product data sheet
IP RATING:	IP4X (front face); IP20 (terminals)
DIELECTRIC VOLTAGE:	2500V a.c.
INSULATION VOLTAGE:	500V a.c.

RCDs

Proteus RCDs are available in a wide range of earth leakage sensitivities and current ratings to meet the majority of applications. Residual Current Devices (RCDs) come in both 2 pole and 4 pole options. Proteus RCDs incorporate the latest in electronic earth leakage detection technology ensuring consistent reliable performance. With sufficient contact gap, switching of all Live and Neutral conductors and positive contact indication in accordance with the IEE wiring regulation these devices can be used for isolation purposes. RCDs also incorporate 'trip free mechanism' technology and can be locked ON or OFF with suitable locking device (eg.DLPX1) without affecting the devices ability to offer protection under fault conditions.

General use RCDs for domestic single phase or light commercial three phase systems are required to be either Type AC or Type A. This type reference defines the nature of the earth leakage which the RCD is expected to detect and protect against.

Type AC: Tripping is ensured for residual sinusoidal alternating currents, whether suddenly applied or slowly rising.
Identified by the symbol: 
Type A: Tripping is ensured for residual sinusoidal alternating currents and residual pulsating direct currents, whether suddenly applied or slowly rising.
Identified by the symbol: 

GENERAL SPECIFICATION

STANDARDS:	BSEN 61008
OPERATING VOLTAGE:	2P-230V a.c. 4P-230/400V a.c.
OPERATING FREQUENCY:	50Hz
AMBIENT OPERATING TEMP.:	-5°C - +40°C
MAXI. TERMINAL TORQUE:	2.5Nm
ENCLOSURE MATERIAL:	VO rated polyamide or PBT (both self extinguishing at 960°C)

SUPPLY CONNECTIONS:	Consult specific product data sheet
IP RATING:	IP4X (front face); IP20 (terminals)
DIELECTRIC VOLTAGE:	2500V a.c.
INSULATION VOLTAGE:	500V a.c.

SURGE PROTECTION DEVICES

Type 1 SPDs are key to providing necessary protection of the installation against the effects of lightning strikes entering the building. Type 1 SPDs are designed to carry partial lightning currents and are defined as being tested with a high energy 10/350μs (limp) wave shape.

These Type 1 SPDs must be installed on incoming services (e.g. mains power and data) when an external Lightning Protection System (LPS) is installed on a building. Where partial lightning currents can also flow due to a direct lightning strike on overhead supplies or externally mounted equipment, Type 1 SPDs should also be used. Combined Type 1 + Type 2 SPDs are installed at the origin of the supply to the building, normally within the main switchboard. If the installation being protected is already fitted with an SCPD of 250 A or less then the SPD can be connected direct to the busbar otherwise ensure the device is adequately protected.

Type 2 SPDs in this modular form offer more general surge protection for equipment within the installation from sources of problematic electrical surges internal to the building (typically switching transients). If the installation being protected is already fitted with an SCPD of 250 A or less then the SPD can be connected direct to the busbar otherwise ensure the device is adequately protected.

Their protection is limited by distance with a general protection zone of <10m. Equipment further away necessitate the installation of an additional Type 2 units in sub-distribution boards.

Type 2 and Type 3 SPDs are designed to discharge the induced surges created by lightning electromagnetic fields and also other transient surge events such as switching surges, supply faults etc. These devices are defined as being tested with a specific energy wave shape of 8/20μs (In) for Type 2 SPDs or a combination wave shapes for Type 3 SPDs. For many applications where the requirement is to provide surge protection only, Type 2 and Type 3 SPDs play a critical role in protecting electronic equipment.

Type 3 SPDs provide the primary 'fine protection' from surges, giving high sensitive equipment that added level of security. As a rule they should be installed as close as possible to the equipment being protected.

The below table lists only categories applicable to BSEN 60974-3 - Switches, Disconnectors, Switch-disconnectors and Fuse-combination units.
The letter A or B can be suffixed dependent on whether the intended application requires frequent (A) or infrequent (B) operation. [For full details consult the full chart in BSEN 60947-1]

IEC UTILIZATION CATEGORIES FOR LOW VOLTAGE SWITCHGEAR

CURRENT	CATEGORY	TYPICAL APPLICATION
AC	AC - 20	Connecting and disconnecting under no-load conditions
	AC - 21	Switching of resistive loads including moderate overloads
	AC - 22	Switching of mixed resistive and inductive loads, including moderate overloads
	AC - 23	Switching of motor loads or other highly inductive loads
DC	DC - 20	Connecting and disconnecting under no-load conditions
	DC - 21	Switching of resistive loads including moderate overloads
	DC - 22	Switching of mixed resistive and inductive loads, including moderate overloads
	DC - 23	Switching of motor loads or other highly inductive loads

MOULDED CASE CIRCUIT BREAKERS
MCCB PROTECTION OF MOTOR CIRCUITS

Moulded case circuit breakers are not in themselves intended to afford close thermal protection on motor circuits. However, when used in tandem with any intrinsic motor overload device they provide an excellent alternative to the combined isolator and fuse arrangements. In this case the motor is protected by its own circuit breaker.
In order to select the correct MCCB, consideration should be given to individual MCCB time/current characteristics (for full details please refer to works). This should only be undertaken in conjunction with information provided by the motor manufacturer as to starting current and duration.
The motor protection table shown provides a guide to MCCB selection based on the start current and duration indicated and it must always be noted that the drive and motor loading will affect the motor run up time.
(i) The figures shown are based on the assumption that the motor starting conditions are: Direct On-Line =7 x full load current for 5 seconds max.

MOTOR RATING (kW)	MOTOR RATING (HP)	APPROX. FLC (A) AT 400V	DIRECT ON LINE MCCB TYPE/CURRENT RATING	
< 5.5	< 7.5	< 11.5	16 A	**MC016T**
< 11	< 15	< 22.5	25 A	**MC025T**
< 15	< 20	< 30	32 A	**MC032T**
< 18	< 25	< 36	40 A	**MC040T**
< 22	< 30	< 43	50 A	**MC050T**
< 30	< 40	< 58	63 A	**MC063TMR**
< 37	< 50	< 72	80 A	**MC080TMR**
< 51	< 70	< 98	100 A	**MC100TMR**
< 63	< 85	< 117	125 A	**MC125TMR**
< 80	< 110	< 147	160 A	**MC160TMR**
< 90	< 125	< 169	200 A	**MC200TMR**
< 110	< 150	< 205	250 A	**MC250TMR**
< 160	< 220	< 292	315 A	**MC315T**
< 200	< 270	< 368	400 A	**MC400T**
< 250	< 340	< 465	500 A	**MC500T**
< 315	< 430	< 580	630 A	**MC630T**

MCCB PROTECTION OF CAPACITOR CIRCUITS

Moulded case circuit breakers are commonly applied to capacitor currents. However, due to high in-rush currents and harmonic content found in capacitor circuits, MCCBs should be rated > 1.5 times the current rating of the capacitor.
It is recommended that the MCCB should be utilized as a main isolation/protection device to the capacitor bank. (i.e. occasional switching). Capacitors should be individually protected and switched by appropriately rated contactors.

INGRESS PROTECTION (IP RATING)

IEC/EN 60529 is an international set of test specification standards for classifying the degrees of protection provided by the enclosures of electrical equipment against the intrusion into the equipment of foreign bodies (i.e. tools, dust, fingers, etc) and moisture. This classification system utilizes the letters “IP” (“Ingress Protection”) followed by two or three digits. (A third digit is sometimes used. An “x” is used for one of the digits if there is only one class of protection; i.e. IPX4 which addresses moisture resistance only.)

The first digit of the IP code indicates the degree that persons are protected against contact with moving parts (other than smooth rotating shafts, etc.) and the degree that equipment is protected against solid foreign bodies intruding into an enclosure.
The second digit indicates the degree of protection of the equipment inside the enclosure against the harmful entry of various forms of moisture (e.g. dripping, spraying, submersion, etc.)
[For full details consult IEC/EN60529]

1ST DIGIT	PROTECTION FROM SOLID OBJECTS	2ND DIGIT	PROTECTION FROM MOISTURE
1	Protected against solid object greater than 50 mm	1	Protection against vertically dripping water
2	Protected against solid object greater than 12.5 mm	2	Protection against dripping water when tilted upto 15degrees
3	Protected against solid object greater than 2.5 mm	3	Protection against spraying water
4	Protected against solid object greater than 1 mm	4	Protection against splashing water
5	Dust protected	5	Protection against jetting water
6	Dust tight	6	Protection against powerfully jetting water
		7	Protection against the temporary affects of immersion
		8	Protection against continuous submersion

APPLICABLE STANDARDS

Though not exhaustive the below table lists the British / European harmonised standards to which products in this catalogue comply (where applicable).

STANDARD	TITLE
BS88	Cartridge fuses for voltages up to and including 1000A a.c. and 1500V d.c.
BS EN 60269	Low-voltage Fuses
BS EN 61439	Low-voltage switchgear and controlgear assemblies
BS EN 61439-2	Power switchgear and controlgear assemblies
BS EN 61439-3	Distribution boards intended to be operated by ordinary persons (DBO)
BS EN 60529	Specification for degree of protection provided by enclosures (IP code)
BS EN 60898	Specification for circuit-breakers for overcurrent protection for household and similar installations
BS EN 60947	Low-voltage switchgear and control gear
BS EN 60947-2	Circuit-breakers
BS EN 60947-3	Switches, disconnectors, switch-disconnectors and fuse-combination units
BS EN 60947-4	Electromechanical contactors and motor starters
BS EN 61008	Residual current operated circuit breakers without integral overcurrent protection for household and similar use (RCCBs / RCDs)
BS EN 61009	Residual current operated circuit breakers with integral overcurrent protection for household and similar use (RCBOs)
BS EN 61095	Specification for electromechanical contactors for household and similar purposes
IEC/EN 61643-11	Surge Protection Devices
BS EN 62606	Arc Fault Detection Devices

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