

Modis 12 LV Modular Distribution System





There are numerous considerations which can influence the layout and configuration of a switchboard. The modular concept of Modis 12 has been specifically designed to offer the OEM customer with ultimate flexibility, allowing the design and build of distribution systems to meet the exact power expectations and space limitations of individual schemes up to 1250A.

Utilising the latest MCB, MCCB and fuse combination unit technology, Modis 12 offers an extensive range of incomers, busbars, interconnections, service centres, MCB distribution boards, and ancillary devices which are easily assembled in a variety of switchboard configurations, from simple Form 2 single section panels through to complex Form 4 Type 2 multi section switchboards.

Modis 12 offers enclosures of 750mm wide and cableways of 250mm wide, with a selectable modular height increasing in 152.4mm increments up to 8 modules (1219.2mm high). This innovative system enables horizontal and/or vertical stacking of selected device enclosures, all with a common depth of 200mm.

## Features

- Flexible compact modular design
- Wall, or wall and floor mounting
- Form 2 and Form 4 Type 2 options in accordance with EN 60439-1
- ASTA Certified busbars at 50kA for 1 second at 1250A
- Fully extendable
- Front access with top or bottom cable entries to suit application
- MCCB and fuse combination unit options
- Service centres and MCB distribution boards

## Benefits

- Highly flexible system
- Consistent modular width and depth
- Ideal where space is a premium
- Simple design and build
- Utilises fuse and breaker technology
- Good stacking densities
- Complete range of complementary devices
- Cost effective

## Applications

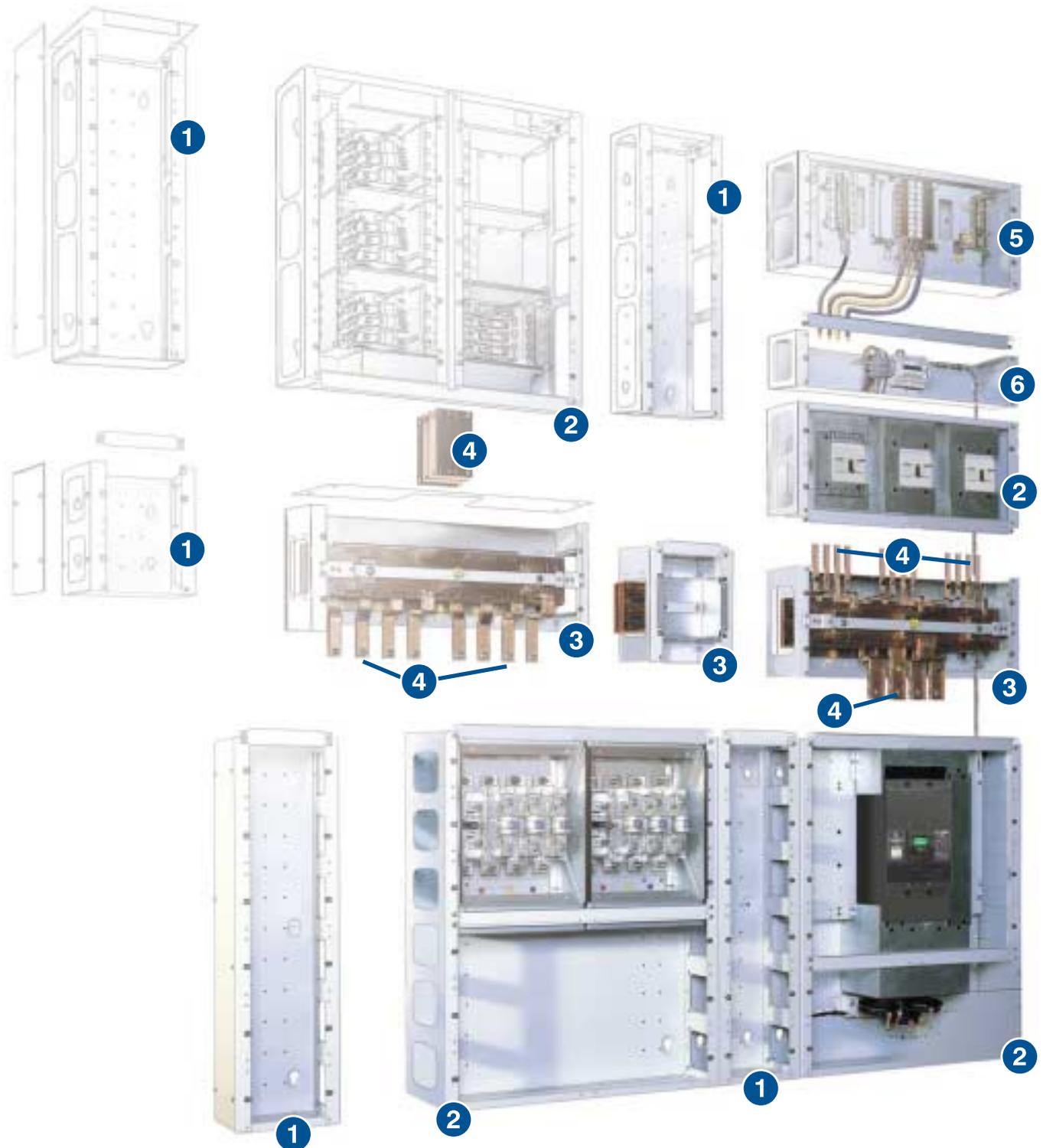
- LV power distribution incorporating main and sub main switchboards

## Approvals

- BS EN 60439-1
- EN 60439-1
- IEC 60439-1
- BS EN 60529
- EN 60529
- IEC 60529
- ISO9001

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The modular concept of Modis 12 allows the design and build of distribution systems to meet the exact power expectations and space limitations of individual applications up to 1250A.

- 1 Cable access
  - 2 Incoming and outgoing devices enclosures
- 3 Busbars
  - 4 Interconnections
- 5 Service centres and MCB distribution boards
  - 6 Accessories



## Cable Access

Consideration of the direction of incoming and outgoing cables will influence the configuration of the switchboard. The modular design of Modis 12 allows front access with top or bottom cable entry to suit the application. The unrivalled flexibility of the Modis 12 system eradicates common problems such as cable spreading distances and bending radii, whilst maximizing the available space within the switchboard.

Modis 12 offers additional vertical cableway chambers of 250mm wide, which simply bolt to either side of the main enclosures if required. Chambers incorporate one aperture per module allowing cable access to any adjacent enclosure within the switchboard.

## MCCBs and Fuse Combination Units

To suit all power applications up to 1250A, Modis 12 offers MCCBs from 16A through to 1250A, and fuse combination units from 63A to 800A. All devices can be incorporated into the selected Modis 12 enclosure in a panel board arrangement, or vertically mounted as required.



## Incoming and Outgoing Device Enclosures

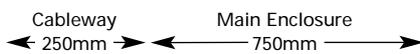
Modis 12 offers a wide range of device enclosures for both MCCBs and fuse combination units. Panel board enclosures offer a compact solution where space of the finished switchboard is a primary consideration. Vertically mounted enclosures allow top or bottom access for cables of up to 630mm<sup>2</sup>, and provide additional space for connection to other ancillary equipment such as contactors, timers CTs, metering etc.

## Horizontal Busbar Systems

Four pole busbars used to link together multiple sections of device enclosures are rated at 400A, or ASTA certified at 50kA for 1 second up to 1250A. The modular design of Modis 12 allows the busbar to be positioned at any height within the switchboard, thus achieving the most compact and cost-effective design. Busbars passing through cableway chambers are offset; ensuring cable room for multiple enclosures remains unaffected.

## Modular Dimensions

Modis 12 provides enclosures of 750mm wide and cableways of 250mm wide, with a selectable modular height increasing in 152.4mm increments up to 8 modules (1219.2mm high). This innovative system enables horizontal and/or vertical stacking of selected device enclosures, all within a common depth of 200mm.



	8 Module Height-1219.2mm
	6 Module Height-914.4mm
	5 Module Height-762.0mm
	4 Module Height-609.6mm
	3 Module Height-457.2mm
	2 Module Height-304.8mm
	1 Module Height-152.4mm

Depth of all Enclosures - 200mm

## Interconnections

The configuration of the Modis 12 switchboard, selected devices and busbar sizes determines the criteria for the selection of the correct interconnection. Interconnections between individual devices and the horizontal main busbar system are supplied in pre-formed, pre-punched copper strip. The devices must be mounted in an enclosure adjacent to the busbars.

## Service Centres and MCB Distribution Boards

MCBs up to 63A and a host of DIN rail mounted components including earth leakage protection, control / command devices, kilowatt hour energy meters and transient voltage surge suppression (TVSS) devices can be accommodated within the wide range of Modis 12 distribution boards and service centres.

## Meter Packs

Modis 12 offers meter pack enclosures for the measurement and indication of incoming power. Analogue meter packs provide traditional measurement and indication of current and voltage, complete with selector switch and current transformers. Multi function digital metering packs provide measurement, display and communication of all major electrical and power parameters including THD.

## General Purpose Enclosures

For ultimate flexibility, Modis 12 offers empty enclosures for mounting meters, contactors, timers etc., or for incorporating additional cable space into the switchboard design.

## Accessories

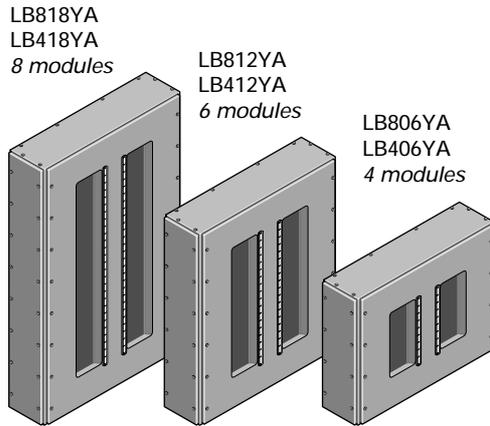
Modis 12 offers various accessories including door locking devices, insulation kits, front plates, side plates, and non-ferrous metal top or bottom gland plates ideally suited for single core cable applications.



YA Frame MCCB Panel Boards - Form 2

## YA3 Frame MCCB Panel Boards – Form 2

Complete with 1 end plate and 2 side plates



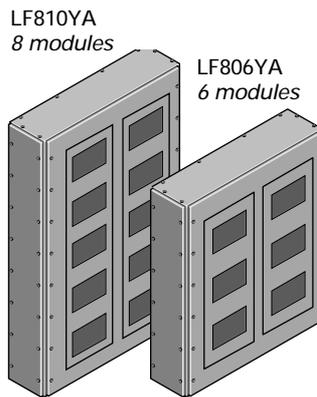
18-12-6 TP Outgoing ways 250A Max. 400A/800A  
 56kg/78kg      52kg/62kg      36kg/42kg



YA Frame MCCB Panel Boards - Form 2/4

## YA3 Frame MCCB Panel Boards – Form 2/4

Complete with 2 end plates and 2 side plates



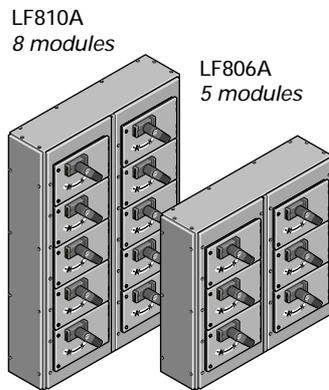
10/6 Outgoing ways 250A Max.  
 98kg      59kg



Fuse Switch Panel Boards - Form 2/4

## Fuse Switch Panel Boards – Form 2/4

Complete with 2 end plates and 2 side plates



10/6 Outgoing ways 63 - 200A  
 98kg      59kg



Fuse Switch Enclosures - Form 2/4

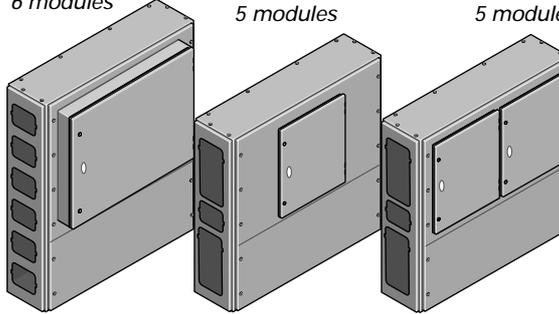
## Fuse Switch Enclosures – Form 2/4

Complete with 1 end plate only

Shielded MFS16A  
Unshielded MFU16A  
6 modules

Shielded MFS15A  
Unshielded MFU15A  
5 modules

Shielded MFS25A  
Unshielded MFU25A  
5 modules



1 x N Frame      1 x L Frame      2 x L Frame



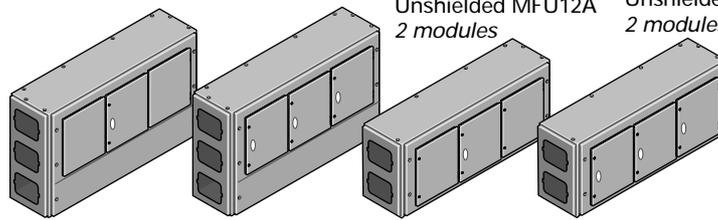
Fuse Switch Enclosures - Form 2/4

Shielded MFS13A  
Unshielded MFU13A  
3 modules

Shielded MFS33A  
Unshielded MFU33A  
3 modules

Shielded MFS12A  
Unshielded MFU12A  
2 modules

Shielded MFS32A  
Unshielded MFU32A  
2 modules



1 x F Frame      3 x F Frame      1 x F Frame      3 x F Frame

## MCCB Shielded Enclosures – Form 4

Complete with 1 end plate only

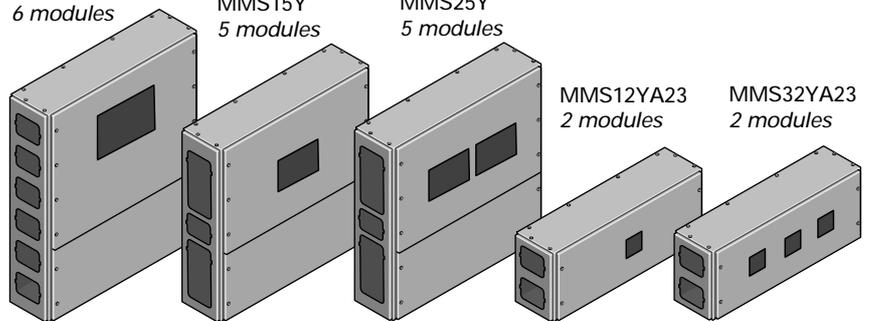
MMS16Y  
6 modules

MMS15Y  
5 modules

MMS25Y  
5 modules

MMS12YA23  
2 modules

MMS32YA23  
2 modules



1 x Y7 MCCB  
1250A Max

1 x Y6 MCCB  
800A Max

2 x Y6 MCCB  
800A Max

1 x YA3 MCCB

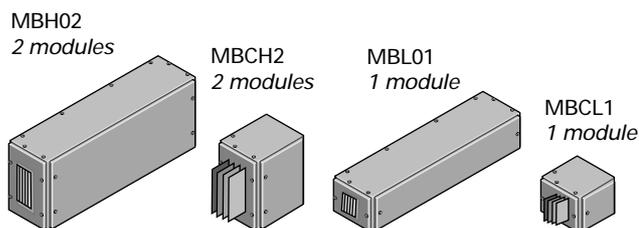
3 x YA3 MCCB



MCCB Shielded Enclosures - Form 4

## Horizontal Busbar Systems

MBH02 and MBL01 complete with 1 end plate and 2 side plates  
MBCH2 and MBCL1 complete with 1 end plate only



MBH02  
2 modules

MBCH2  
2 modules

MBL01  
1 module

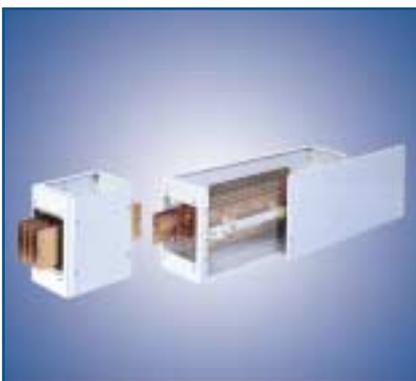
MBCL1  
1 module

1250A 4 Pole Busbar

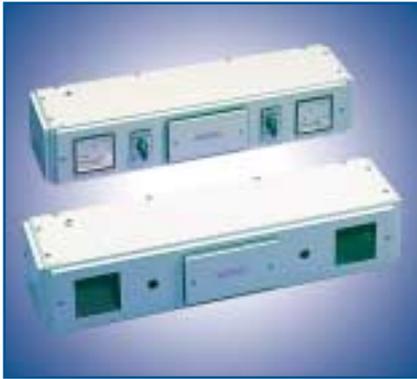
1250A 4 Pole Cableway Busbar

400A 4 Pole Busbar

400A 4 Pole Cableway Busbar



Horizontal Busbar Systems

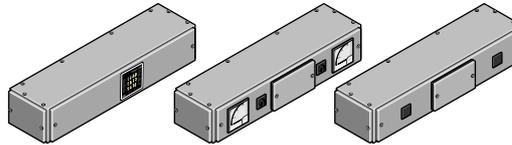


**Ammeter / Voltmeter Meter Packs**

## Meter Packs

Complete with 1 end plate and 2 side plates

LEM1530      LEMF2 - 250A      LEMAV - no meters  
 LEMF6 - 630A      1 module  
 LEMF8 - 800A



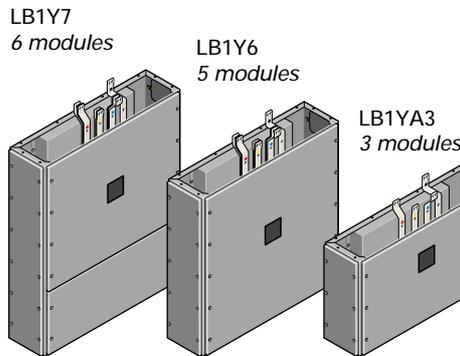
1 x Integra 1530      1 x Ammeter      11kg  
 1 x Voltmeter & Selector Switches



**Digital Metering Meter Packs**

## Incoming Enclosures for Direct Connection to YA3 Frame MCCB Panel Boards – Form 2

Complete with 1 end plate and 2 side plates



Y7 Frame 800A 68kg\*      Y6 Frame 630A 45.2kg\*      YA3 Frame 250A 26kg\*



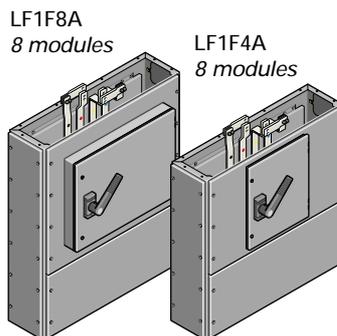
**Incoming Enclosures - Form 2**

LB1F4A 5 modules      LB1F2A 3 modules      LBDR8 3 modules      LBDR4 2 modules

400A Switch 48.5kg\*      200A Switch 31.5kg\*      800A Direct Connection 23kg\*      400A Direct Connection 18kg\*

## Fuse Switch Incoming Enclosures for Direct Connection to Form 4 Panel Boards

Complete with 1 end plate and 2 side plates

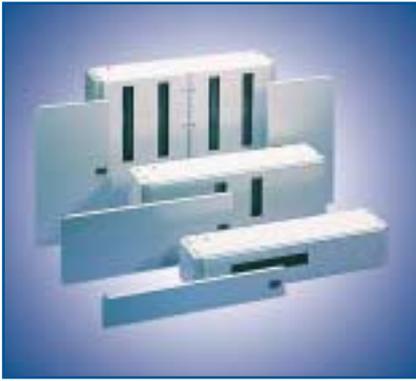


630A/800A Switch 66.5kg\*      400A Switch 48.5kg\*

\* Weight of incoming enclosures incorporates incoming device.



**Fuse Switch Enclosures - Form 4**

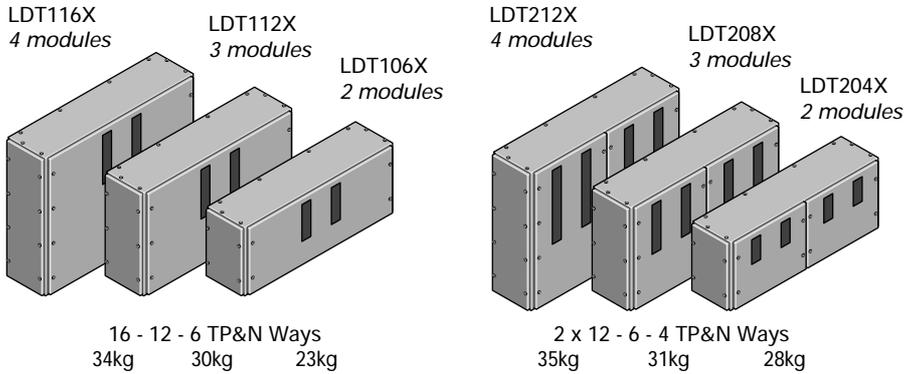


MCB Distribution Boards

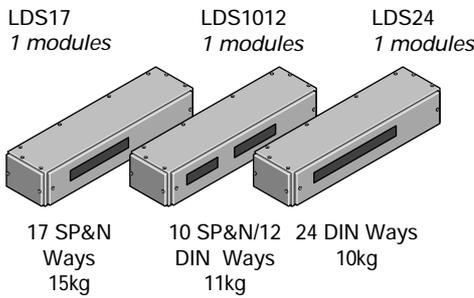
## MCB Distribution Boards and Service Centres

LDT116X, LDT112X, LDT106X, LDS17, LDS1012 and LDS24 complete with 1 end plate and 2 side plates

LDT212X, LDT208X and LDT204X complete with 2 end plates and 2 side plates



Service Centres

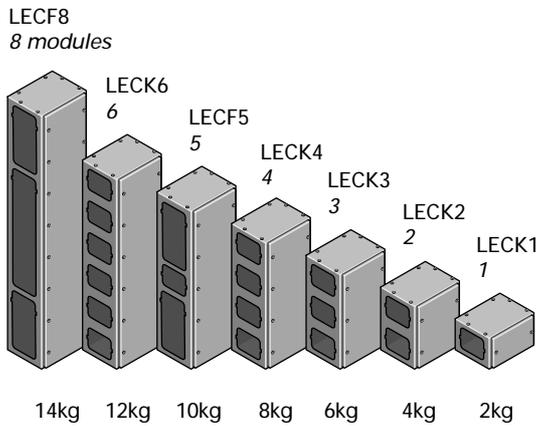


## General Purpose Add-on Cableways

Complete with 2 end plates only



General Purpose Cableways

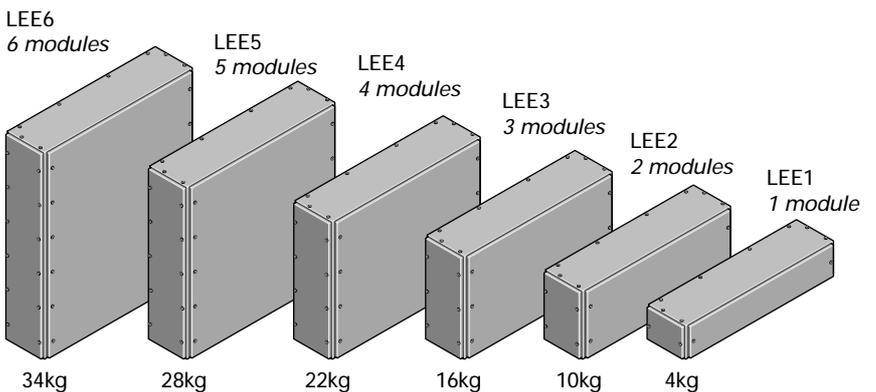


## General Purpose Enclosures

Complete with 2 end plates, 2 side plates, and front plates



General Purpose Enclosures



<b>Name of Manufacturer:</b>	Tyco Electronics UK Ltd - Dorman Smith Switchgear Blackpool Road, Preston, PR2 2DQ, UK
<b>Quality Certificate of Manufacturer:</b>	ISO9001
<b>Country of Origin:</b>	England
<b>Type of Product:</b>	L.V. Switchboard
<b>Standards:</b>	BS EN 60439-1      BS EN 60529 EN 60439-1      EN 60529 IEC 60439-1      IEC 60529
<b>Forms of Separation:</b>	Forms 2 and 4
<b>IP Rating: External</b>	IP3X as standard. IP4X when doors fitted
<b>Construction: Frame Structure</b>	1.2mm gauge folded steel
<b>Construction: Cover Plates</b>	1.2mm screw fixed sheet steel
<b>Construction: Integral Segregation</b>	Aluzinc perforated sheet steel or transparent polycarbonate sheet
<b>Cabling Access:</b>	Front access cabling. Entry via gland plates facilitating either top and/or bottom entry
<b>Busbars: Material</b>	HDHC Copper
<b>Busbars: Mounting</b>	3 and 4-pole air insulated mounted in glass fibre reinforced moulded supports
<b>Busbars: Shielding</b>	Non-conductive rigid insulated barriers or rigid sheet steel barriers
<b>Busbars: Maximum Current and Fault Withstand Ratings</b>	Up to 1250A: 50kA for 1s
<b>Rated Operational Voltage:</b>	400V AC
<b>Power Frequency Withstand Voltage:</b>	2500V
<b>Paint Finish:</b>	Colour light grey RAL 7035 semi-gloss
<b>Paint Depth:</b>	40/60 microns
<b>Paint Process:</b>	4 stage process of chemical spray degreasing, iron phosphate coating, automatic electro-static epoxy polyester film application and curing in a high temperature controlled oven
<b>Testing Recommendations</b>	All Modis 12 switchboards are to be electrically and mechanically inspected and tested throughout the assembly process. Final testing and inspection must include a dielectric test, in accordance with EN 60439-1 and an insulation resistance megger test.



YA Frame MCCB Panel Boards Form 2

## YA3 Frame MCCB Panel Boards – Form 2

- 25kA for 1 second
- IP3X (IP4X with door) ingress protection
- Accommodates SP + TP MCCBs up to 250A
- Cableway units available for cable sizes above 70mm<sup>2</sup>
- 750mm wide x 200mm deep
- Complete with 1 end plate and 2 side plates
- Please see page 20 for outgoing MCCBs

Busbar Rating (A)	Outgoing Ways	Modular Height	Height (mm)	Panel Board Cat No	Door Kit Cat No
400A	6	4	609	LB406YA	LBDD06
	12	6	914	LB412YA	LBDD12
	18	8	1219	LB418YA	LBDD18
800A	6	4	609	LB806YA	LBDD06
	12	6	914	LB812YA	LBDD12
	18	8	1219	LB818YA	LBDD18
3 Pole Blank	-	-	-	LBBP3PYA3	



Typical Interconnection  
(Horizontal Busbar System not included)

## Interconnections to Horizontal Busbars

Description	Catalogue Number
1250A horizontal busbar to 800A panel board	MCHL8
1250A horizontal busbar to 400A panel board	MCHL4
400A horizontal busbar to 400A panel board	MCLL4
<b>Vertical Linking kits</b>	
800A to 800A panel board	LBK8
400A to 400A panel board	LBK4



YA Frame MCCB Panel Boards - Form 2/4

## YA3 Frame MCCB Panel Boards – Form 2/4

- 50kA for 1 second
- Incoming device 800A max.
- Outgoing MCCB 250A max.
- Form 2 Type 2 as standard. Form 4 Type 2 with optional shields
- Complete with 2 end plates and 2 side plates
- See page 20 for outgoing MCCBs.

Busbar Rating (A)	Outgoing Ways	Modular Height	Height (mm)	Panel Board Cat No §	Door Kit Cat No
<b>Form 2 Unsheilded</b>					
800A	6	5	762	LF806YA	MXD06
800A	10	8	1219	LF810YA	MXD10
<b>Form 4 Sheilding</b>					
70mm <sup>2</sup> cables		-		LFS41YA	
150mm <sup>2</sup> cables		-		LFS42YA*	
Blanking Kit				YA3F4BP	

\* Cable way must be used



Typical Interconnection  
(Horizontal Busbar System not included)

## Interconnections to Horizontal Busbars

Description	Catalogue Number
1250A	MCHFC
400A	MCLFC



Fuse Switch Panel Boards - Form 2/4

## Fuse Switch Panel Boards 800A – Form 2/4

- 50kA for 1 second
- Form 2 Type 2 as standard. Form 4 Type 2 with optional shields
- Cableway units available for cable sizes above 70mm<sup>2</sup>
- IP4X ingress protection
- 750mm wide x 200mm deep
- Complete with 2 end plates and 2 side plates
- See page 28 for outgoing fuse switches

Busbar Rating (A)	Outgoing Ways	Modular Height	Height (mm)	Catalogue Number
800A	6	5	762	LF806A
800A	10	8	1219	LF810A

### Accessories

Form 4 shields suitable for outgoing cables up to 70mm <sup>2</sup>	LFS41A
Form 4 shields suitable for outgoing cables up to 150mm <sup>2</sup>	LFS42A
Vertical connection kit for 800A panelboard	LCFVK
Blank cover plate for fuse switch handle	LFXHBA



Typical Interconnection  
(Horizontal Busbar System not included)

## Interconnections to Horizontal Busbars

Description	Catalogue Number
1250A	MCHFC
400A	MCLFC



Fuse Switch Enclosures - Form 2/4

## Fuse Switch Enclosures - Form 2/4

- Range from 63A to 800A
- Shielded units comply to Form 4 type 2
- Unshielded units comply to Form 2
- See page 28 for switch fuse units
- Complete with 1 end plate only

Description	Modular Height	Height (mm)	Unshielded Cat No	Shielded Cat No
1 x N frame fuse switch (630A-800A)	6	914	MFU16A	MFS16A(*)
2 x L frame fuse switch (400A)	5	762	MFU25A	MFS25A(*)
1 x L frame fuse switch (400A)	5	762	MFU15A	MFS15A
1 x F frame fuse switch (63-200A)	3	457	MFU13A	MFS13A
1 x F frame fuse switch (63-200A)	3	457	MFU33A	MFS33A
1 x F frame fuse switch (63-200A)	2	308	MFU12A	MFS12A
3 x F frame fuse switch (63-200A)	2	308	MFU32A	MFS32A

(\*) Only to be used with 1250A busbar



Fuse Switch Enclosures - Form 2/4

## Interconnections from Horizontal Busbars to Fuse Switch Enclosures

Description	Catalogue Number
1250A busbar to F frame 63A to 125A	MCHF1A
1250A busbar to F frame 160A to 200A	MCHF2A
1250A busbar to L frame 400A	MCHF4A
1250A busbar to N frame 630A to 800A	MCHF8A
400A busbar to F frame 63A to 125A	MCLF1A
400A busbar to F frame 160A to 200A	MCLF2A



MCCB Shielded Enclosures - Form 4

## MCCB Shielded Enclosures - Form 4

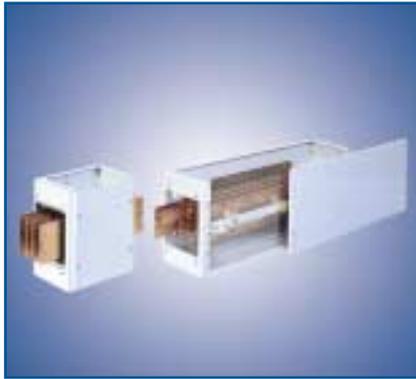
- Range from 16A to 800A
- Shielded units comply to Form 4 Type 2
- See page 20, 22 and 24 for MCCBs
- Complete with 1 end plate only

Description	Modular Height	Height (mm)	Catalogue Number
Accepts 1 x Y7 frame MCCB	6	914	MMS16Y
Accepts 1 x Y6 frame MCCB	5	762	MMS15Y
Accepts 2 x Y6 frame MCCBs	5	762	MMS25Y
Accepts 1 x YA3 MCCB	2	304	MMS12YA23
Accepts 3 x YA3 MCCBs	2	304	MMS32YA23
Accepts 3 x YA3 MCCBs	3	457	MMS33YA23

Note - Neutral sold separately

## Interconnections from Horizontal Busbars to MCCBs

Description	Max. Device Rating (A)	Catalogue Number
1250A busbar to YA3 MCCB	250	MCHMYA3
1250A busbar to Y6 MCCB	400	MCHM4Y
1250A busbar to Y6 MCCB	800	MCHM8Y
1250A busbar to Y7 MCCB	1250	MCHM12Y
400A busbar to Y6 MCCB MCCB below busbar	400	MCLM4BY
400A busbar to Y6 MCCB MCCB above busbar	400	MCLM4TY
400A busbar to YA3 MCCB	250	MCLMYA3



Horizontal Busbar Systems

## Horizontal Busbar Systems

- Rated at 1250A and 400A
- Pre-punched 4 pole, air insulated and mounted in polyester glass fibre moulded supports
- 1250A busbar tested to 50kA for 1 second and holds ASTA certification
- MBH02 and MBL01 complete with 1 end plate and 2 side plates
- MBCH2 and MBCL1 complete with 1 end plate only

Description	Modular Height	Width (mm)	Catalogue Number
<b>1250A Busbar Assemblies &amp; Links</b>			
4 pole busbar assembly	2	750	MBH02
4 pole busbar assembly	2	250	MBCH2
Busbar links	-	-	MCHBL
<b>400A Busbar Assemblies &amp; Links</b>			
4 pole busbar assembly	1	750	MBL01
4 pole busbar assembly	1	250	MBCL1
Busbar links	-	-	MCLBL



**Ammeter/Voltmeter Enclosures**

## Ammeter/Voltmeter Enclosures

- Supplied complete with meters, selector switches and CTs
- Compact modular construction
- IP4X ingress protection
- 750mm wide x 200mm deep
- Complete with 1 end plate and 2 side plates

Description	Modular Height	Height (mm)	CT Ratios	Catalogue Number
Ammeter/Voltmeter	1	152	250/5A CT	LEMF2
(Complete with meters, selector switch and 3 loose CTs)	1	152	630/5A CT	LEMF6
	1	152	800/5A CT	LEMF8
No meters fitted	1	152	N/A	LEMAV



**Digital Metering Enclosures**

## Multi Function Digital Metering Enclosures

- Utilises Integra 1530 multi function digital metering system
- Current transformers not included, please see below
- Fully programmable 3 phase configuration
- Measurement and display of up to 34 electrical and power parameters including THD
- Multiple communication options for building management systems available on request
- IP4X ingress protection
- Compact modular construction
- Complete with 1 end plate and 2 side plates

Description	Modular Height	Height (mm)	Catalogue Number
DM enclosure complete with Integra 1530	1	152	LEM1530



**Measuring Current Transformers**

## Measuring Current Transformers

- For use with Integra 1530 digital metering
- Provides safe measurement of current by the ammeter
- Use to drive ammeter indicators, transducers, overload protection and control devices
- Accuracy up to Class 0.5
- System voltage up to 720V
- Secondary output 5A
- Operating temperature -20 to +70° C
- Foot or busbar mounting screws

Primary Current (A)	Case Size mm			Cable Aperture Diameter mm	Catalogue Number
	H	W	D		
250	78	60	32	28	CR401-250/5
400	108	85	32	45	CR601-400/5
600	108	85	32	45	CR601-600/5
800	122	100	40	60	CR801-800/5
1000	122	100	40	60	CR801-1000/5
1250	122	100	40	60	CR801-1250/5

The selection shown represents the most common sizes and ratios of an extensive range. Comprehensive details available on request.



Incoming Enclosures / Adaptor Kits

## Incoming Enclosures For Direct Connection to YA3 Frame MCCB Panel Boards – Form 2

- Supplied with all necessary copper connections
- 750mm wide x 200mm deep
- Complete with 1 end plate and 2 side plates
- Complete with all interconnections for direct connections to YA3 MCCB panel boards

Incomer Housing	Maximum Rating (A)	Modular Height	Height (mm)	IP Rating	Catalogue Number	Device Ref Page
YA3 MCCB	250	3	457	3X	LB1YA3	20
Y6 MCCB	630	5	762	3X	LB1Y6	24
Y7 MCCB*	800	6	914	3X	LB1Y7	26
Fuse switch	200	3	457	4X	LB1F2A	28
Fuse switch	400	5	762	4X	LB1F4A	28
Direct connection	400	2	305	4X	LBDR4	-
Direct connection	800	3	457	4X	LBDR8	-

\* Y7 1000A MCCB must be used with base current set at 0.8( $I_o = 0.8$ )

\*\* Y6 630A maximum



Fuse Switch Incoming Enclosures - Form 4

## Fuse Switch Incoming Enclosures for Direct Connection to Form 4 Panel Boards

- Supplied with all necessary copper connections
- Incoming terminations fully shrouded
- IP4X ingress protection
- 750mm wide x 200mm deep
- Complete with 1 end plate and 2 side plates

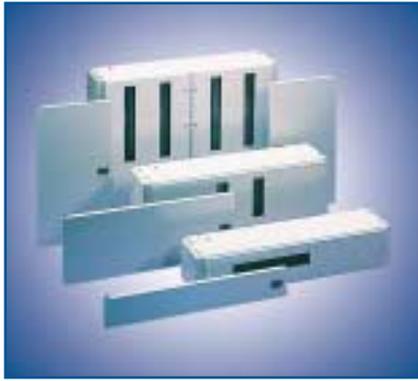
Incomer Housing	Maximum Rating (A)	Modular Height	Height (mm)	Cat No
Fuse switch	400	5	762	LF1F4A
Fuse switch	800	6	914	LF1F8A

Fuse switch devices must be ordered separately

## Adaptor Kits for Housed Fuse Switch

Incomer Unit Max. Rating (A)	Description	Catalogue Number
200A	Kit including connections, to fit HBF3P200N*	LBSK2B
400A	Kit including connections, to fit HBL3P400N*	LBSK4B

\*Adaptor kit to enable enclosed fuse-switch to be connected to MCCB panel board



MCB Distribution Boards

## SP&N MCB Distribution Boards

- Exceeds the requirements of EN 60439-3
- Fully shielded busbars and interconnections
- IP3X (IP4X with door fitted) ingress protection
- 750mm wide x 200mm deep
- Complete with 1 end plate and 2 side plates

Number of SP MCB Ways	Modular Height	Height (mm)	Enclosure Cat No	Door Kit Cat No
17	1	152	LDS17	LD1DS

## TP&N MCB Distribution Boards

- Exceeds the requirements of EN 60439-3
- Fully shielded busbars and interconnections
- Space saving 'Twin' distribution board option
- IP3X (IP4X with door fitted) ingress protection
- 750mm wide x 200mm deep
- LDT106X, LDT112X and LDT116X complete with 1 end plate and 2 side plates
- LDT204X, LDT208X and LDT212X complete with 2 end plates and 2 side plates



Service Centres

Number of TP MCB Ways*	Modular Height	Height (mm)	Enclosure Cat No	Door Kit Cat No
6	2	305	LDT106X*	LD1D06X
12	3	457	LDT112X*	LD1D12X
16	4	609	LDT116X*	LD1D16X
2 x 4	2	305	LDT204X	LD2D04X
2 x 8	3	457	LDT208X	LD2D08X
2 x 12	4	609	LDT212X	LD2D12X
Door lock/key kit for above	-	-	-	DBXCL
Door padlock device	-	-	-	DBXPL

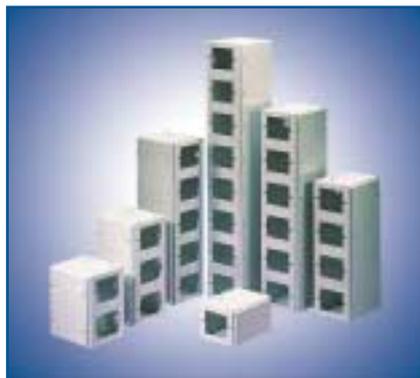
A one module general purpose enclosure LEE1 will assist in cabling of twin distribution boards

\*Single module RCBOs can only be fitted into LDT1-- TP&N Distribution Boards

## Service Centres

- Fully shielded busbars and interconnections
- IP3X (IP4X with door fitted) ingress protection
- 750mm wide x 200mm deep
- Complete with 1 end plate and 2 side plates

Description	Modular Height	Height (mm)	Enclosure Cat No	Door Kit Cat No
24 DIN modules	1	152	LDS24	LD1DS
10 MCB ways/12 DIN mods	1	152	LDS1012	LD1DS
Door lock/key kit for above	-	-	-	DBXCL
Door padlock device	-	-	-	DBXPL



General Purpose Cableways

## General Purpose Add-on Cableways

- IP4X ingress protection
- Recommended for cables above 70mm<sup>2</sup>
- 250mm wide x 200mm deep
- Complete with 2 end plates only

Description	Modular Height	Height (mm)	Catalogue Number
Cableway	1	152	LECK1
Cableway	2	305	LECK2
Cableway	3	457	LECK3
Cableway	4	609	LECK4
Cableway	5	762	LECF5
Cableway	6	914	LECK6
Cableway	8	1219	LECF8
<b>Accessories</b>			
Vertical insulation kit	5	762	LBIP5
Vertical insulation kit	6	914	LBIP6
Vertical insulation kit	8	1219	LBIP8
Brass end plate	-	-	LGCB
Aluminium (4mm) end plate	-	-	LGCA

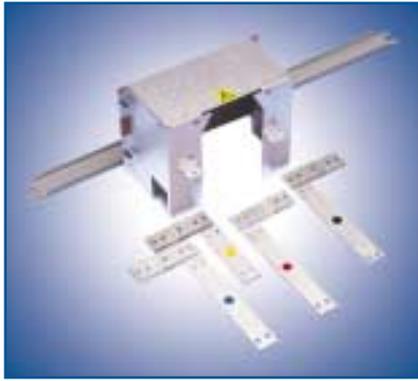


General Purpose Enclosures

## General Purpose Enclosures

- Wide range of modular sizes
- IP4X ingress protection
- Complete with 2 end plates, 2 side plates and front plates
- 750mm wide x 200mm deep

Description	Modular Height	Height (mm)	Catalogue Number
G.P. enclosure	1	152	LEE1
G.P. enclosure	2	305	LEE2
G.P. enclosure	3	457	LEE3
G.P. enclosure	4	609	LEE4
G.P. enclosure	5	762	LEE5
G.P. enclosure	6	914	LEE6
<b>Accessories</b>			
Horizontal insulation kit			LGEPK
Brass end plate			LGEB
Steel end plate			LGES
Aluminium (4mm) end plate			LGEA



Vertical Stacking Kit

## Accessories

Description	Modular Height	Height (mm)	Catalogue Number
<b>Door Locking</b>			
Cylinder lock/key kit for door kits			DBXCL
Padlocking kit for door kits			DBXPL
Padlock			LLDL
<b>Blanking Piece</b>			
3 Pole MCCB (1 front shield blank)			LBBP3PYA3
<b>Busbar Terminals</b>			
Busbar extensions with shield (Required if connecting housing units to both ends of busbar)			LBSKE
<b>Side plates</b>			
Flat side plate	1	152	MXPE1F
Flat side plate	2	305	MXPE2F
Flat side plate	3	457	MXPE3F
Flat side plate	4	609	MXPE4F
Flat side plate	5	762	MXPE5F
Flat side plate	6	914	MXPE6F
Flat side plate	8	1219	MXPE8F
Flat side plate for 400A busbar	1	152	MXPEHF
Flat side plate for 1250A busbar	2	305	MXPPLF
<b>Gland Plates</b>			
Steel end plate (Painted)		250	MXESC
Steel end plate (Painted)		750	LGES
Aluminium end plate		250	LGCA
Aluminium end plate		750	LGEA
Brass end plate		250	LGCG
Brass end plate		750	LGEB
<b>Horizontal Insulation</b>			
Horizontal partition kit		750	MXEPF
Horizontal cross strap		750	MXEXF
<b>Vertical Insulation</b>			
Vertical Insulation kit	5	609	MXPI5
Vertical Insulation kit	6	914	MXPI6
Vertical Insulation Kit	8	1219	MXPI8

Continued



Dished Front Plate



Extension Collars

## Accessories (Continued)

Description	Modular Height	Height (mm)	Catalogue Number
<b>Optional Front plates</b>			
Dished front plate – full width	1	152	MXPF1
Dished front plate – full width	2	304	MXPF2
Dished front plate – full width	3	457	MXPF3
Dished front plate – full width	4	609	MXPF4
Dished front plate – full width	5	762	MXPF5
Dished front plate – full width	6	914	MXPF6
Dished front plate – half width	1	152	MXPH1
Dished front plate – half width	2	304	MXPH2
Dished front plate – half width	3	457	MXPH3
Dished front plate – half width	4	609	MXPH4
Dished front plate – half width	5	762	MXPH5
Dished front plate – half width	6	914	MXPH6
Vertical strap for half width plate	1	152	MXEV1
Vertical strap for half width plate	2	304	MXEV2
Vertical strap for half width plate	3	457	MXEV3
Vertical strap for half width plate	4	609	MXEV4
Vertical strap for half width plate	5	762	MXEV5
Vertical strap for half width plate	6	914	MXEV6
<b>Optional Hinged Front Plates</b>			
Dished front plate – full width hinged	1	152	MXPF1HS
Dished front plate – full width hinged	2	304	MXPF2HS
Dished front plate – full width hinged	3	457	MXPF3HS
Dished front plate – full width hinged	4	609	MXPF4HS
Dished front plate – full width hinged	5	762	MXPF5HS
Dished front plate – full width hinged	6	914	MXPF6HS
Dished front plate – half width hinged	1	152	MXPH1HS
Dished front plate – half width hinged	2	304	MXPH2HS
Dished front plate – half width hinged	3	457	MXPH3HS
Dished front plate – half width hinged	4	609	MXPH4HS
Dished front plate – half width hinged	5	762	MXPH5HS
Dished front plate – half width hinged	6	914	MXPH6HS
Dished front plate – cable way hinged	1	152	MXPC1HS
Dished front plate – cable way hinged	2	304	MXPC2HS
Dished front plate – cable way hinged	3	457	MXPC3HS
Dished front plate – cable way hinged	4	609	MXPC4HS
Dished front plate – cable way hinged	5	762	MXPC5HS
Dished front plate – cable way hinged	6	914	MXPC6HS
Dished front plate – cable way hinged	8	1219	MXPC8HS
<b>Extension Collars</b>			
100mm deep extension collar	1	152	MXEC1
100mm deep extension collar	2	304	MXEC2
100mm deep extension collar	3	457	MXEC3
100mm deep extension collar	4	609	MXEC4
100mm deep extension collar	5	762	MXEC5
100mm deep extension collar	6	914	MXEC6
Steel end plate 300mm deep For use with extension collar	-	-	MXESF3



Single Pole YA3 Frame MCCB

## YA3 Frame Thermal Magnetic - Icu 25kA Ics 19kA

- Exceeds the requirements of IEC947-2 and EN 60947-2
- Rated insulation voltage 800Vac (Ui)
- Adjustable thermal and magnetic trip settings (Triple and 4 pole only)

Current Rating (A)		1 Pole	3 Pole	4 Pole
Max	Min	Cat No	Cat No	Cat No
16	16	YA3N1P16T	-	-
20	12.5	YA3N1P20T	YA3N3P20T	YA3N4P20T
32	20	YA3N1P32T	YA3N3P32T	YA3N4P32T
40	25	YA3N1P40T	-	-
50	32	YA3N1P50T	YA3N3P50T	YA3N4P50T
63	40	YA3N1P63T	YA3N3P63T	YA3N4P63T
80	50	YA3N1P80T	-	-
100	63	YA3N1P100T	YA3N3P100T	YA3N4P100T
125	80	YA3N1P125T	YA3N3P125T	YA3N4P125T
160	100	YA3N1P160T	YA3N3P160T	YA3N4P160T
200	125		YA3N3P200T	YA3N4P200T
250	160		YA3N3P250T	YA3N4P250T



Triple Pole YA3 Frame MCCB

## YA3 Frame Thermal Magnetic - Icu 36kA Ics 36kA

Current Rating (A)		3 Pole	4 Pole
Max	Min	Cat No	Cat No
20	12.5	YA3S3P20T	YA3S4P20T
32	20	YA3S3P32T	YA3S4P32T
50	32	YA3S3P50T	YA3S4P50T
63	40	YA3S3P63T	YA3S4P63T
100	63	YA3S3P100T	YA3S4P100T
125	80	YA3S3P125T	YA3S4P125T
160	100	YA3S3P160T	YA3S4P160T
200	125	YA3S3P200T	YA3S4P200T
250	160	YA3S3P250T	YA3S4P250T

## YA3 Frame Thermal Magnetic - Icu 65kA Ics 35kA

Current Rating (A)		3 Pole	4 Pole
Max	Min	Cat No	Cat No
20	12.5	YA3J3P20T	YA3J4P20T
32	20	YA3J3P32T	YA3J4P32T
50	32	YA3J3P50T	YA3J4P50T
63	40	YA3J3P63T	YA3J4P63T
100	63	YA3J3P100T	YA3J4P100T
125	80	YA3J3P125T	YA3J4P125T
160	100	YA3J3P160T	YA3J4P160T
200	125	YA3J3P200T	YA3J4P200T
250	160	YA3J3P250T	YA3J4P250T

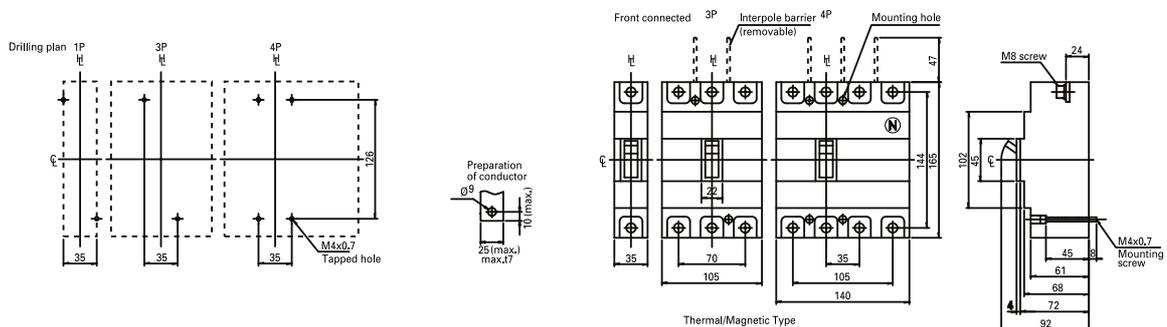
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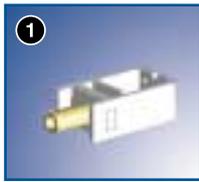
## YA3 Frame Switch Disconnectors

Current Rating (A)	3 Pole	4 Pole
	Cat No	Cat No
250	YA3B3P250D	YA3B4P250D

## YA3 Frame Dimensions (mm)

ASL: Arrangement Standard Line Ht: Handle/Frame Centre Line





Accessories



Accessories

## YA3 Frame Accessories

Description	Picture	Cat No
<b>Terminal Covers 1 Pole</b>		
YA3 frame long terminal shroud (1 off)	-	YA3TS1P
YA3 frame short terminal shroud (1 off)	-	YA3TS1PS
<b>Terminal Covers 3 Pole</b>		
YA3 frame terminal cover (IP20)	-	YA3TC3P
YA3 frame set of 2 interphase barriers	-	YA3TB3P
YA3 frame long terminal shroud (1 off)	-	YA3TS3P
YA3 frame short terminal shroud (1 off)	-	YA3TS3PS
<b>Terminations 3 Pole</b>		
YA3 frame cable clamps (3 off)	1	YA3CC3P
<b>Terminal Covers 4 Pole</b>		
YA3 frame terminal cover (IP20)	-	YA3TC4P
YA3 frame set of 3 interphase barriers	-	YA3TB4P
YA3 frame long terminal shroud (1 off)	-	YA3TS4P
YA3 frame short terminal shroud (1 off)	2	YA3TS4PS
<b>Terminations 4 Pole</b>		
YA3 frame cable clamps (4 off)	1	YA3CC4P
<b>Shunt Trips</b>		
YA frame shunt trip AC 100-115V	3	YAST115AC
YA frame shunt trip AC 380-480V	3	YAST450AC
YA frame shunt trip DC 24V	3	YAST24DC
YA frame shunt trip AC 200-240V	3	YAST240AC
<b>Motor Actuators</b>		
YA frame motor actuator AC 100-110V	4	YA3MA110
YA frame motor actuator AC 200-240V	4	YA3MA240
<b>Auxiliary and Alarm Switches</b>		
YA frame 1AB auxiliary switch	5	YAAUX1
YA frame alarm switch	5	YAAL
<b>Under Voltage Releases</b>		
YA frame under volt release AC 100-120V	6	YAUVR120AC
YA frame under volt release AC 200-240V	6	YAUVR240AC
YA frame under volt release DC 24V	6	YAUVR24DC
YA frame under volt release AC 380-450V	6	YAUVR450AC
<b>Locking Devices</b>		
YA frame dolly padlock device	7	YADL1
YA frame castell (DS1) lock direct mtg trapped On	-	YAACL

## Neutral Links

For use with Y-Frame & YA-Frame MCCBs in Modis 12 device enclosures

Description	Picture	Cat No
YA3 neutral link	8	YA3NL

## Adaptor Kits

For use when replacing AA-Frame MCCBs with YA3 MCCBs into existing equipment

Description	Picture	Cat No
1P, YA3 to AA adaptor kit for Loadbank	-	YAA1PLB
3P, YA3 to AA adaptor kit for Loadbank	-	YAA3PM
3P, YA3 to AA adaptor kit for Modis 12 MCCB enclosures	-	YAA3PM
3P, YA3 to F Frame adaptor kit for Loadbank	-	YAF3PLB



Y6 Frame MCCB

## Y6 Frame Thermal/Magnetic – Icu 50kA Ics 25kA

- Exceeds the requirements of IEC947-2 and EN 60947-2
- Rated insulation voltage 690Vac (Ui)
- Adjustable thermal and adjustable magnetic trip settings
- Plug-in option available

Current Rating (A)		Calibrated @ 45°C*	
max.	min.	3 Pole Cat No	4 Pole Cat No
400	250	Y6H3P400T	Y6H4P400T
630	400	Y6H3P630T	Y6H4P630T
800	500	Y6H3P800T	Y6H4P800T

\* For 50°C calibration add "5" to end of catalogue number

## Y6 Frame Thermal/Magnetic – Icu 85kA Ics 50 kA

Current Rating (A)		3 Pole Cat No	4 Pole Cat No
max.	min.		
400	250	Y6K3P400T	Y6K4P400T
630	400	Y6K3P630T	Y6K4P630T
800	500	Y6K3P800T	Y6K4P800T

\* For 50°C calibration add "5" to end of catalogue number

## Y6 Frame Electronic – Icu 50kA Ics 25kA

Current Rating (A)		3 Pole Cat No	4 Pole Cat No
max.	min.		
630	315	Y6H3P630E	Y6H4P630E
800	400	Y6H3P800E	Y6H4P800E

## Y6 Frame Electronic – Icu 65kA Ics 50kA

Current Rating (A)		3 Pole Cat No	4 Pole Cat No
max.	min.		
630	315	Y6J3P630E	Y6J4P630E
800	400	Y6J3P800E	Y6J4P800E

## Y6 Frame Switch Disconnectors

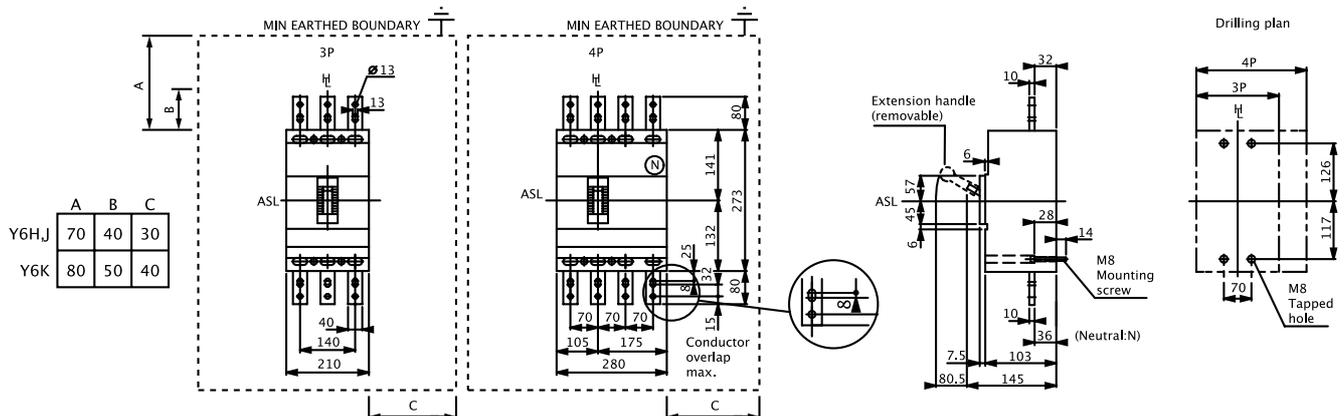
Current Rating (A)	3 Pole Cat No	4 Pole Cat No
630	Y6B3P630D	Y6B4P630D
800	Y6B3P800D	Y6B4P800D

NOTE: Terminals are supplied loose with MCCB.

## Y6 Frame Dimensions (mm)

Weight: 3P – 9.6kg 4P – 12.5kg

ASL: Arrangement Standard Line H: Handle/Frame Centre Line





Termination and External Accessories



Internal Accessories

## Y6 Frame Accessories

Description	Picture	Cat No
<b>Terminal Covers 3 Pole</b>		
Terminal shroud (1 off)	1	Y6TS3P
Set of 2 interphase barriers	-	Y5TB3P
<b>Terminal Covers 4 Pole</b>		
Terminal shroud (1 off)	1	Y6TS4P
Set of 3 interphase barriers	-	Y5TB4P
<b>Terminations 3 Pole</b>		
Cable clamps (3 off) 240mm <sup>2</sup> or 2 x 120mm <sup>2</sup>	2	Y6CC3P
<b>Terminations 4 Pole</b>		
Cable clamps (4 off) 240mm <sup>2</sup> or 2 x 120mm <sup>2</sup>	2	Y6CC4P
<b>Locking Devices</b>		
Dolly padlock device	3	Y6DL
Padlock for above device	-	LLDL
Castell lock (DS1 direct mounting)	-	Y6CL
Castell lock (door mounted)	-	Y5DCL
Castell lock door mounted cam for shaft only (Use castell K lock form 4 unit)	-	Y5DCLCAM
<b>Motor Actuators</b>		
Motor actuators AC 100-110V	4	Y6MA110
Motor actuators AC 200-240V	4	Y6MA240
<b>Shunt Trips</b>		
Shunt AC 100-115V	5	Y6ST115AC
Shunt AC 200-480V	5	Y6ST480AC
Shunt DC 24V	5	Y6ST24DC
<b>Under Voltage Release</b>		
UVR AC 100-120V	6	Y6UVR120AC
UVR AC 200-240V	6	Y6UVR240AC
UVR AC 380-450V	6	Y6UVR450AC
UVR DC 24V	6	Y6UVR24DC
<b>Auxiliary Switches</b>		
1AB auxiliary switch	7	Y6AUX1
2AB auxiliary switch	7	Y6AUX2
Alarm switch + 1-Aux	7	Y6AUXAL

## Neutral Links

For use with Y-Frame MCCBs in Modis 12 device enclosures.

Description	Picture	Cat No
Y6 neutral link	8	Y6NL



Y7 Frame MCCB

## Y7 Frame Electronic – Icu 65kA Ics 49kA

- Exceeds the requirements of IEC947-2 and EN 60947-2
- Rated insulation voltage 690Vac (Ui)
- Microprocessor controlled fully adjustable trip settings
- Plug-in option available

Current Rating (A)		3 Pole	4 Pole
max.	min.	Cat No	Cat No
1000	500	Y7J3P1000E	Y7J4P1000E
1250	630	Y7J3P1250E	Y7J4P1250E

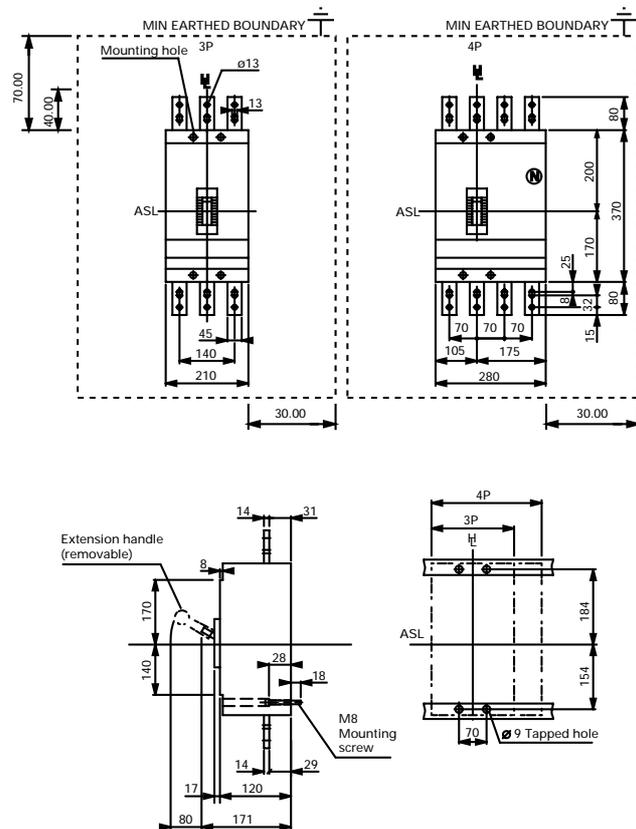
## Y7 Frame Switch Disconnectors

Current Rating (A)	3 Pole	4 Pole
	Cat No	Cat No
1250A	Y7B3P1250D	Y7B4P1250D

## Y7 Frame Dimensions (mm)

Weight: 3P – 22kg 4P – 28kg

ASL: Arrangement Standard Line Ht: Handle/Frame Centre Line





Termination and External Accessories



External Accessories

## Y7 Frame Accessories

Description	Picture	Cat No
<b>Terminal Covers 3 Pole</b>		
Terminal shroud (1 off)	1	Y7TS3P
Set of 2 interphase barriers	-	Y5TB3P
<b>Terminal Covers 4 Pole</b>		
Terminal shroud (1 off)	1	Y7TS4P
Set of 3 interphase barriers	-	Y5TB4P
<b>Locking Devices</b>		
Dolly padlock device	2	Y7DL
Padlock for above device	-	LLDL
Castell lock (DS1 direct mounting)	-	Y7CL
Castell lock (door mounted)	-	Y5DCL
Castell lock door mounted cam for shaft only (Use castell K lock form 4 unit)	-	Y5DCLCAM
<b>Motor Actuators</b>		
Motor actuators AC 100-110V	3	Y7MA110
Motor actuators AC 200-240V	3	Y7MA240
<b>Shunt Trips</b>		
Shunt AC 100-115V	4	Y7ST115AC
Shunt AC 200-480V	4	Y7ST480AC
Shunt DC 24V	4	Y7ST24DC
<b>Under Voltage Release</b>		
UVR AC 100-120V	5	Y7UVR120AC
UVR AC 200-240V	5	Y7UVR240AC
UVR AC 380-450V	5	Y7UVR450AC
UVR DC 24V	5	Y7UVR24DC
<b>Auxiliary Switches 3 Pole MCCB</b>		
1AB auxiliary switch	6	Y7AUX3P1
2AB auxiliary switch	6	Y7AUX3P2
Alarm switch + 1-Aux	6	Y7AUX3PAL
<b>Auxiliary Switches 4 Pole MCCB</b>		
1AB auxiliary switch	6	Y7AUX4P1
2AB auxiliary switch	6	Y7AUX4P2
Alarm switch + 1-Aux	6	Y7AUX4PAL

## Neutral Links

For use with Y-Frame MCCBs in Modis 12 device enclosures

Description	Picture	Cat No
Y7 neutral link	7	Y7NL



160/200A Skeleton Switch



315/400A Skeleton Switch



630/800A Skeleton Switch

## 63/125A Skeleton Switches

- Conforms to EN 60947-3
- 80kA RMS fused short circuit capacity
- AC23A utilisation category
- Full uninterrupted duty
- 415V ac rated voltage

Current Rating (A)	3 Pole+N Cat No	4 Pole Cat No
63A	SF3P63N	SF4P63
100A	SF3P100N	SF4P100
125A	SF3P125N	SF4P125

## 160/200A Skeleton Switches

- Conforms to EN 60947-3
- 80kA RMS fused short circuit capacity
- AC23A utilisation category
- Full uninterrupted duty
- 415V ac rated voltage

Current Rating (A)	3 Pole+N Cat No	4 Pole Cat No
160A	SF3P160N	SF4P160
200A	SF3P200N	SF4P200

## 315/400A Skeleton Switches

- Conforms to EN 60947-3
- 80kA RMS fused short circuit capacity
- AC23A utilisation category
- Full uninterrupted duty
- 415V ac rated voltage

Current Rating (A)	3 Pole+N Cat No	4 Pole Cat No
315A	SK3P315N	SK4P315
400A	SL3P400N	SL4P400

## 630/800A Skeleton Switches

- Conforms to EN 60947-3
- 80kA RMS fused short circuit capacity
- AC23A utilisation category
- Full uninterrupted duty
- 415V ac rated voltage

Current Rating (A)	3 Pole+N Cat No	4 Pole Cat No
630A	SN3P630N	SN4P630
800A	SN3P800N	SN4P800

Maximum Current Rating (A)	125			200		400		800	
	63	100	125	160	200	315	400	630	800
Rated Current (A)	63	100	125	160	200	315	400	630	800
Frame Size	F			F		K L		N	
Mechanical Endurance	10,000	10,000	8,000	8,000	8,000	8,000	5,000	5,000	3,000
Fused s/c Current kA RMS	80	80	80	80	80	80	80	80	80
kW @ 415V ac	30	55	75	90	110	160	230	330	450
Max Cable (mm <sup>2</sup> )††	70	70	70	150	150	185*	300	630	630
Terminals	M8	M8	M8	M8	M8	M10	M10	4xM8	1xM16†
Max Cable Lug	22	22	22	22	22	35	50	80	80
Weight (kg)	6	6	6	12	12	21	21	37	37

\* 240mm<sup>2</sup> with terminal barriers † only with cable extension terminals (SNCET)

†† These figures are for guidance only and are dependant on lug palm width



Accessories for Skeleton Switches



Accessories for Skeleton Switches

## Accessories for Skeleton Switches

Current Rating (A)	Picture	Cat No
<b>Cable Extension Terminals (set of 8)</b>		
630/800A	-	SN CET

Current Rating (A)	Picture	Cat No
<b>Cable Clamps</b>		
63/200A	-	SFCC

Current Rating (A)	Picture	Cat No
<b>Solid Links</b>		
63A	1	HFL63
100/200A	1	HFL200A
315/400A	1	HLL400
630/800A	1	HNL800

Current Rating (A)	Picture	Cat No
<b>2 Bank Auxiliary Switch</b>		
63/200A	3	SAUX2F
315/800A	3	SAUX2N

Current Rating (A)	Picture	Cat No
<b>4 Bank Auxiliary Switch</b>		
63/200A	3	SAUX4F
315/800A	3	SAUX4N

Current Rating (A)	Picture	Cat No
<b>6 Bank Auxiliary Switch</b>		
315/800A	3	SAUX6N

Current Rating (A)	Picture	Cat No
<b>Castell Lock Mounting Kit</b>		
32/800A	-	SCLK

Current Rating (A)	Picture	Cat No
<b>Castell Lock with Key</b>		
32/800A	2	FS2

Current Rating (A)	Picture	Cat No
<b>Handle Assembly</b>		
F Frame	5	SHA2
K+L Frame	5	SHA3
KL+N Frame	5	SHA4

Current Rating (A)	Picture	Cat No
<b>Shaft Extensions</b>		
63/200A	4	SXT127 SXT160*
315/400A	4	SXT227 SXT260**
630/800A	4	SXT260

\* 63-200A – for panel depths above 270mm select SXT160  
 \*\* 315-800A – for panel depths above 270mm select SXT260

Current Rating (A)	Picture	Cat No
<b>Terminal Shrouds and Barriers</b>		
63/200A	-	SFTSS
315A	-	SKTS
400A	-	SLTS
630/800A	-	SNTS

Current Rating (A)	Picture	Cat No
<b>Terminal Barriers (set of 3)</b>		
63/200A	-	SFTB
315A	-	SKTB
400A	-	SLTB
630/800A	-	Supplied

Current Rating (A)	Picture	Cat No
<b>Fuse Shrouds</b>		
63/125A	-	SFFS125
160/200A	-	SFFS200
315A	-	SKFS
400A	-	SLFS
630/800A	-	SNFS

Current Rating (A)	Picture	Cat No
<b>Rating Label (strip of 8)</b>		
62A Strip	6	SRLB62
100A Strip	6	SRLB100
125A Strip	6	SRLB125
160A Strip	6	SRLB160
200A Strip	6	SRLB200
315A Strip	6	SRLB315
400A Strip	6	SRLB400
630A Strip	6	SRLB630
800A Strip	6	SRLB800

## Fuse References

Current Rating (A)	BS88 Reference	Lawson	GEC	Bussmann	MEM Paramount
63	A3, A2	TIS, TIA GTIA	TIS, TIA	BAO, AAO	SB4, SB3
100	A4 (DIA 33 max)	TCP	-	CEO SD5	
125	AS A4	TFP	TFP	DEO, CEO	SD6, SD5
160	AS A4 (DIA 38 max)	TFP	TFP	DEO, CEO	SD6, SD5
200	AS A4 (DIA 38 max)	TFP	TFP	DEO, CEO	SD6, SD5
315	B3 (DIA 50 max), B2, B1	TFK, TF	TF	ED, DD, CD	SF7, SF6, SF5
400	B4, B3, B2, B1	TMF, TFK, TF, TC	TMF, TFK, TF, TC	ED, DD, CD	SF8, SF7, SF6, SF5
630	C2, C1	TTM, TM	TTM, TM	FF, EF	SH9, SH8
800		TLM, TTM, TM	TLM, TTM, TM	GF, FF, EF	SH10, SH9, SH8



Single Pole MCBs

## Single Pole MCBs

- Conforms to EN 60898
- 10kA rated breaking capacity
- 6kA rated breaking capacity option\*
- Contact position indicator
- 35mm<sup>2</sup> cable capacity

Current Rating (A)	B Type* Cat No	C Type* Cat No	D Type* Cat No
6	X1PB06	X1PC06	X1PD06
10	X1PB10	X1PC10	X1PD10
13	X1PB13	X1PC13	X1PD13
16	X1PB16	X1PC16	X1PD16
20	X1PB20	X1PC20	X1PD20
25	X1PB25	X1PC25	X1PD25
32	X1PB32	X1PC32	X1PD32
40	X1PB40	X1PC40	X1PD40
50	X1PB50	X1PC50	X1PD50
63	X1PB63	X1PC63	X1PD63



Double Pole MCBs

## Double Pole MCBs

Current Rating (A)	B Type* Cat No	C Type* Cat No	D Type* Cat No
6	X2PB06	X2PC06	X2PD06
10	X2PB10	X2PC10	X2PD10
13	X2PB13	X2PC13	X2PD13
16	X2PB16	X2PC16	X2PD16
20	X2PB20	X2PC20	X2PD20
25	X2PB25	X2PC25	X2PD25
32	X2PB32	X2PC32	X2PD32
40	X2PB40	X2PC40	X2PD40
50	X2PB50	X2PC50	X2PD50
63	X2PB63	X2PC63	X2PD63



Triple Pole MCBs

## Triple Pole MCBs

Current Rating (A)	B Type* Cat No	C Type* Cat No	D Type* Cat No
6	X3PB06	X3PC06	X3PD06
10	X3PB10	X3PC10	X3PD10
13	X3PB13	X3PC13	X3PD13
16	X3PB16	X3PC16	X3PD16
20	X3PB20	X3PC20	X3PD20
25	X3PB25	X3PC25	X3PD25
32	X3PB32	X3PC32	X3PD32
40	X3PB40	X3PC40	X3PD40
50	X3PB50	X3PC50	X3PD50
63	X3PB63	X3PC63	X3PD63

\* For 6kA version of MCB place prefix X with V e.g. X1PB06 = V1PB06



RCBOs

## RCBOs

- Conforms to EN 61009
- Single module: Type A
- Single module unit 10kA rated breaking capacity
- Terminal capacity: Top terminals 10mm<sup>2</sup> Bottom terminals 25mm<sup>2</sup>
- For use with LDT1 Type TP&N distribution boards

Current Rating (A)	Sensitivity (mA)	Single Module Cat No
6	30	XR1PC0630
10	30	XR1PC1030
16	30	XR1PC1630
20	30	XR1PC2030
32	30	XR1PC3230
40	30	XR1PC4030
6	100	XR1PC06100
10	100	XR1PC10100
16	100	XR1PC16100
20	100	XR1PC20100
32	100	XR1PC32100
40	100	XR1PC40100



2 Pole RCCBs

## 2 Pole RCCBs

- Conforms to EN 61008
- Equipped with transient suppression filter
- Voltage 230/400V 50/60Hz
- Type AC and Type A
- Terminal capacity: 40A-63A – 25mm<sup>2</sup> 100A – 35mm<sup>2</sup>
- 35mm<sup>2</sup> cable capacity

Current Rating (A)	Sensitivity (mA)	Width	2 Pole Type AC Cat No	2 Pole Type A Cat No
25	30	35	LLM25/30/2	LLMA25/30/2
40	30	35	LLM40/30/2	LLMA40/30/2
63	30	35	LLM63/30/2	LLMA63/30/2
100	30	35	LLM100/30/2	LLMA100/30/2
40	100	35	LLM40/100/2	LLMA40/100/2
63	100	35	LLM63/100/2	LLMA63/100/2
100	100	35	LLM100/100/2	LLMA100/100/2
63	300	35	LLM63/300/2	LLMA63/300/2

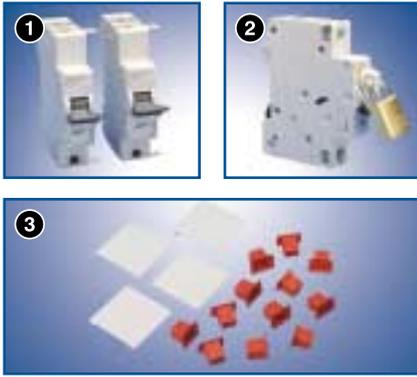


4 Pole RCCBs

## 4 Pole RCCBs

- Conforms to EN 61008
- Equipped with transient suppression filter
- Voltage 230/400V 50/60Hz
- Type AC and Type A
- Terminal capacity: 40A-63A – 25mm<sup>2</sup> 100A – 35mm<sup>2</sup>
- 35mm<sup>2</sup> cable capacity

Current Rating (A)	Sensitivity (mA)	Width	2 Pole Type AC Cat No	2 Pole Type A Cat No
40	30	70	LLM40/30/4	LLMA40/30/4
63	30	70	LLM63/30/4	LLMA63/30/4
100	30	70	LLM100/30/4	LLMA100/30/4
40	100	70	LLM40/100/4	LLMA40/100/4
63	100	70	LLM63/100/4	LLMA63/100/4
100	100	70	LLM100/100/4	LLMA100/100/4
63	300	70	LLM63/300/4	LLMA63/300/4
100	300	70	LLM100/300/4	LLMA100/300/4



Accessories for MCBs and RCBOs



Contactors



Auxiliary Devices

## MCB and RCBO Accessories

Description	Picture	Catalogue Number
<b>Auxiliary Equipment</b>		
MCB aux contact (one changeover contact)	-	XAC2
MCB signal/aux contact (one changeover contact or signal)	1	XCS2
MCB shunt trip (110-415V ac, 110-125V dc)	-	XST415
MCB shunt trip 48V ac/dc	-	XST48
MCB undervoltage release (240V ac)	-	XUVR240
Time delay adjustable 0-300mS	-	XUVR240
<b>Padlocking</b>		
MCB/RCBO dolly locking device	2	XDL
Padlock for dolly locking device	2	XPL
<b>Blanking Pieces</b>		
MCB blanks (4x3 MCB ways + 12 busbar terminal blanks)	3	DBXBP
MCB blanks (5x1 MCB ways + 5 busbar terminal blanks)	3	DBXBM
MCB blanks (5x1/2 MCB ways)	-	DBXBH

## Contactors – DIN Rail Mounted

- Conforms to EN 61095
- 240V control voltage

Current Rating (AC7a)	No of Poles	Width (mm)	Without Manual Override Catalogue Number	With Manual Override Catalogue Number
25	2	17.5	LLM2P25C	LLM2P25CM
25	3	35	LLM3P25C	LLM3P25CM
25	4	35	LLM4P25C	LLM4P25CM
40	3	53	LLM3P40C	LLM3P40CM
40	4	53	LLM4P40C	LLM4P40CM
63	3	53	LLM3P63C	-
63	4	53	LLM4P63C	-
Venting kit*		9	LLMV	LLMV

\* 9mm wide ventilation module for fitting between alternate pairs of contactors to prevent overheating.

## Auxiliary Devices – DIN Rail Mounted

- 240V ac
- 2.5mm terminal capacity
- 17.5mm width

Current Rating (A)	Function	Cat No	Function	Catalogue Number
<b>Switches</b>				
16	1 n.o.	LLM1P16N0	1 n.o. + neon	LLM1P16N0N
16	2 n.o. + neon	LLM2P16N0N	1 changeover/c.o.	LLM1P16C0
16	1P 2 way c.o.	LLM1P162W	2P 2 way c.o.	LLM2P162W
<b>Pushbuttons</b>				
6	1 n.o.	LLMPBNO	1 n.o. + neon	LLMPBNON
6	1 n.o. + 1 n.c.	LLMPBNONC		
<b>Indicators</b>				
6	red	LLMPLR	green	LLMPLG
6	clear	LLMPLC		



Programmable Timers

## Programmable Timers – DIN Rail Mounted

- 240V ac 50-60Hz
- 250 hour reserve
- 7 day
- For use with LDT1 Type TP&N distribution boards

Nominal Current Rating (AC7a)	(AC7b)	Function	Width (mm)	Catalogue Number
<b>Lux Controller</b>				
10	6	2-2000 Lux	72	RLP1
<b>Timer</b>				
16	–	1 channel	35	RTIDWR
16	10	2 channel	35	RT2DWR

A suitably rated contactor should be employed with timers, programmers and relays when highly inductive or capacitive loads are to be controlled.



Transient Voltage Surge Suppression

## Transient Voltage Surge Suppression - DIN Rail Mounted

- Protection of equipment connected to incoming LV a.c power supplies against transient over voltages
- Modular DIN rail connection bases with plug-in surge protection modules
- 6kA SAD, 40kA MOV and neutral/earth hot working replaceable modules
- Single phase nominal voltage 230V rms. Operating range 200-300V rms max
- 3 phase nominal voltage 400V rms. Operating range 380-515V rms max
- Thermal and current overload fusing
- Integral protection status indicator
- Compliant with EN 61643-11:2002 and BS6651:1999 Annex C

Description	Catalogue Number
6kA SAD single phase with neutral/earth. Complete assembly	A1SPM/6/230N
6kA SAD 3 phase with neutral/earth. Complete assembly	A3SPM/6/230N
40kA MOV 3 phase with neutral/earth. Complete assembly	A3SPM/40/230N
6kA SAD replacement plug-In surge protection module	SPM/6/230
6kA SAD neutral/earth replacement plug-In surge protection module	SPM/NE/6/230
40kA MOV replacement plug-In surge protection module	SPM/40/230
40kA MOV neutral/earth replacement plug-In surge protection module	SPM/NE/40/230



Earth Leakage Relay

## Earth Leakage Relay – DIN Rail Mounted

- Precision digital protection relay
- Adjustable sensitivity 30mA to 10A
- Adjustable time delay 0 to 10 seconds
- 2 pole relay contacts 8A 250V
- Supply voltage 100-250V dc/ac (50/100HZ)

Frequency	Auxiliary Supply	Catalogue Number
50Hz	100-250V AC & DC	ELR1

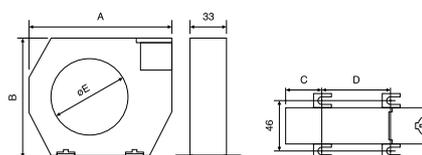


Core Balanced Current Transformers

## Core Balanced Current Transformers

- For use with ELR1 earth leakage protection relay
- Leakage measurement range 0-10 Amps
- Integral wire sealable terminal cover
- Flame retardant high impact moulded case

Aperture Dim E	Dim A	Dim B	Dim C	Dim D	Catalogue Number
35mm	100mm	79mm	26mm	48.5mm	CR250CT
70mm	130mm	110mm	32mm	66mm	CR630CT
105mm	170mm	146mm	38mm	94mm	CR1000CT





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