



Palazzoli
GROUP



Now **included**
in the range:

AFDD/RCBO
6kA Multi-pole MCBs
Surge Extension Boxes
and more!



TP&N DISTRIBUTION BOARD TYPE B RANGE

A comprehensive distribution board range
for modern commercial & industrial installations

TP&N DISTRIBUTION BOARD - TYPE B



- **Designed & Engineered in the UK**
- **Compliant to BS EN 61439-3:2012**
- **Supplied unpopulated for maximum design flexibility**
- **Compatible with the Lewden 6kA & 10kA circuit protection range**
- **Four modular sizes available: 4, 8, 12 & 16 TP outgoing ways**

TP&N Distribution Boards

The complete solution to managing the distribution of electricity in commercial premises such as offices, warehouses, factories, schools, hospitals etc.

Lewden distribution boards provide the flexibility required allowing engineers to design a functional distribution system that protects the electrical installation in a compact, modern enclosure. Each board has been designed to save space and provide quick and easy connection.

Each Board has an all steel construction finished with a powder coated finish to RAL 9003, white.



Attractive and ergonomic profile designed for commercial premises



- Optimal space for simple and safe wiring.
- Earth and neutral termination on both the left and right hand side of board for clear identification of load circuit connections.



- Supplied with lock and key for security

- Suitable for use with 6kA* or 10kA MCB's & RCBO's (*when used in conjunction with the relevant accessories)



- Detachable undrilled gland plates (top and bottom)

Main features:

- Heavy gauge (1.2mm) robust & modular steel construction, suitable for wall mounting
- Allows compliance with BS7671:2008 - 2018+A2:2022 + Amendment 3:2015
- Optimal cabling space
- Rigid construction prevents distortion
- Lockable hinged access door for safety and security
- Removable top and bottom gland plates
- Powder coated texture finish to RAL 9003 white

LIMITLESS DESIGN OPTIONS FOR BESPOKE CONFIGURATIONS

Our range of extension boxes allow engineers to customise their design to meet the requirements of larger distribution networks with an ingress protection rating of IP2XC. Designed to simply bolt on to the top and bottom of Lewden TPN boards, they provide greater cabling space and can be used multiple extension boxes can be utilised at the end to accommodate meters, time clocks, contactors, terminals etc. Can be used to accommodate meters, time clocks, contractors, terminals etc. Multiple extension boxes can be utilised.



E-TPN LW Board with TPN-MKSI metering enclosure



E-TPN LW Board with surge protection device enclosure

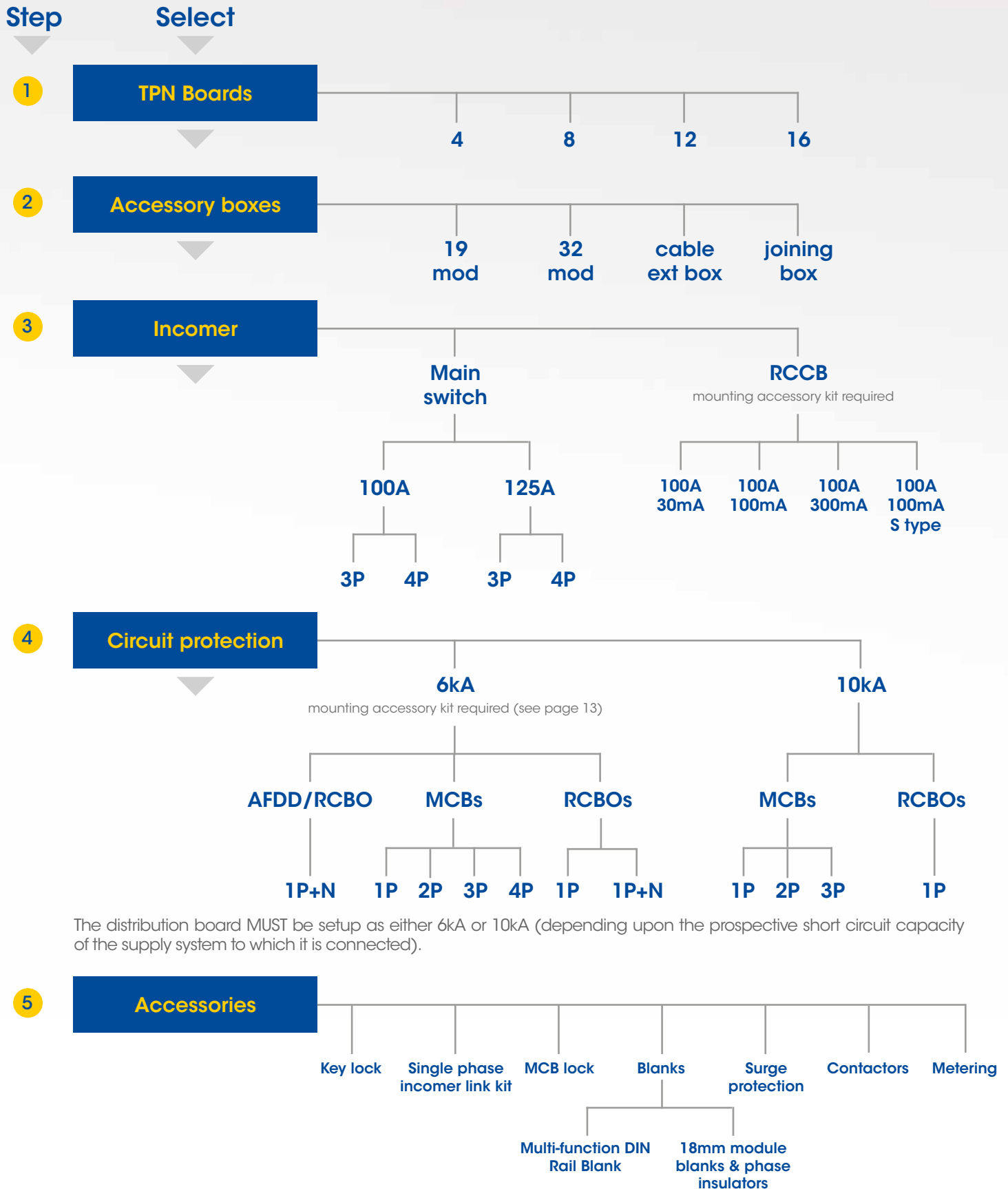


E-TPN LW Board with TPN-JB125 Joining Box & QFS-MC32ENC 32 Module Extension Box



E-TPN LW Board utilized with joining & cabling box

BUILD A FUNCTIONAL DESIGN TO SUIT YOUR INSTALLATION



The distribution board MUST be setup as either 6kA or 10kA (depending upon the prospective short circuit capacity of the supply system to which it is connected).

TP&N DISTRIBUTION BOARDS - TYPE B



PART NUMBERS	DESCRIPTION	OUTGOING WAYS	DRAWING REFERENCE
E-TPN04LW	4 way, 125A, Type B, without incomer	4 x TP / 12 x SP	MODULE 4
E-TPN08LW	8 way, 125A, Type B, without incomer	8 x TP / 24 x SP	MODULE 8
E-TPN12LW	12 way, 125A, Type B, without incomer	12 x TP / 36 x SP	MODULE 12
E-TPN16LW	16 way, 125A, Type B, without incomer	16 x TP / 48 x SP	MODULE 16

The board is supplied complete with mounting brackets to suit 100/125A main switch and 10kA circuit protection devices. For other devices, mounting accessory kits will be required.


Technical Data

Rated Operational Voltage U _e	IP Rating	Rated Conditional Short Circuit Current ICC:	Standards
230V/400V 50Hz	IP2XC	16kA RMS (backed up by a 125A fuse)	BS EN 61439-3

EXTENSION BOXES

	PART NUMBERS	DESCRIPTION	DRAWING REFERENCE
	TPN-EXT19	19 Module Extension Box with key lockable door and DIN Rail	MODULE 19
	QFS-MC32ENC	32 Module Extension Box (to be used in conjunction with TPN-JB125)	MODULE 32
	TPN-EXTCB	Cable Extension Box with screw on cover and internal equipment mounting plate	EXTENSION
	TPN-JB125	Required for connection of TPN Distribution board to QFSMC32ENC extension box	JOINING

METERING ENCLOSURE

	PART NUMBERS	DESCRIPTION	DRAWING REFERENCE
	TPN-MKSI	Multi-function Metering Panel. Can be mounted at the top or bottom of TPN distribution board	MODULE 19

METER KIT INFORMATION (TPN-MSKI) Easy to read backlit LCD screen • Suitable for single or 3 phase four wire networks • Built in pulsed output and RS485 modbus communication • 3ph 140-460VAC / 1ph 80-265V measured voltage • CT ratio 160A / 330mV with RJ45 connection cable • Wide range of measured parameters: - Voltage L-N L-L - Current per phase - Power factor - Frequency - Active and reactive power - Max demand


SURGE PROTECTION ENCLOSURES

	PART NUMBERS	DESCRIPTION	DRAWING REFERENCE
	TPN-SPD1PT1	Extension Box fitted with Single Phase Type 1 & 2 SPD (SRG1123)	MODULE 19
	TPN-SPD1PT2	Extension Box fitted with Single Phase Type 2 SPD (SRG1V1G)	MODULE 19
	TPN-SPD3PT1	Extension Box fitted with Three Phase Type 1 & 2 SPD (SRG3123)	MODULE 19
	TPN-SPD3PT2	Extension Box fitted with Three Phase Type 2 SPD (SRG3V1G)	MODULE 19

TPN-EXT19 Extension Box fitted with 50mm² Loop-in/Loop-out Terminals - Surge Protection/Isolation device (in the form of Fuses for Type 1 SPD's and MCB's for Type 2 SPD's), negating the need to use outgoing ways on associated TPN Board - For mounting at the bottom of TPN distribution boards - Supplied prewired with all necessary cabling

UNPOPULATED TPN MOUNTED IN IP66 HEAVY DUTY GRP ENCLOSURE



	PART NUMBERS	SIZE (H x W x D) MM
	E-TPN04GRP	655 x 560 x 260
	E-TPN08GRP	655 x 560 x 260
	E-TPN12GRP	655 x 560 x 260
	E-TPN16GRP	810 x 630 x 300

Go to pages 14 - 15 to see the modular dimensional drawings

INCOMERS

MAIN SWITCH



RATED CURRENT	POLE	PART NUMBERS
100	3	EMS-1003P
	4	EMS-1004P
125	3	EMS-1253P
	4	EMS-1254P

Technical Data

Rated Operational Voltage (Ue)	Category of Duty	Terminal Capacity	Standards
230/400V, 50Hz	AC22B	50mm ²	EN60947-3

RCCB - 4 Pole



RATED CURRENT	TYPE	TRIPPING THRESHOLD	PART NUMBERS
100	A	30mA	RCD10-100/30/4A
	A	100mA	RCD10-100/100/4A
	A [s]	100mA time delayed	RCD10-100/100/4S
	A	300mA	RCD10-100/300/4A



Scan to access the CPD course on RCCBs from our Lewden Academy

Technical Data

Part No.	Type	Rated Operational Voltage (Ue)	Standard Tripping Time 1 x IΔn	Standard Tripping Time 5 x IΔn	Terminal Capacity	Standards
RCD10-100/30/4A	A	400V, 50Hz	<300ms	<40ms	35mm ²	EN61008-1
RCD10-100/100/4A						
RCD10-100/300/4A						
RCD10-100/100/4S	A [s]*	400V, 50Hz	130-500ms	50 - 150ms	35mm ²	EN61008-1

Where an RCCB is to be used as incoming device, mounting accessory kit TPN-RCCBAK is required (see page 13).
* [s] = Time Delayed

RCCB Type	Classification	Symbol	Type of load suited to	Examples
A	Suitable for use on pure AC and where pulsating DC exists up to 6mA		Equipment that features electronic components Type A devices are also suitable for AC applications	<ul style="list-style-type: none"> Inverters Class 1 IT and multimedia equipment Power supplies for class 2 equipment Washing machines that are not frequency controlled Lighting controls such as electronic dimmer switches and building electronic systems LED drivers Induction hobs Electric vehicle charging where any smooth DC fault current is <6mA

CIRCUIT PROTECTION - 10kA

MCB's



RATED CURRENT	10 kA - B Trip Curve		10 kA - C Trip Curve			10 kA - D Trip Curve		
	1 POLE	3 POLES	1 POLE	2 POLES	3 POLES	1 POLE	2 POLES	3 POLES
6A	E10-1B06	E10-3B06	E10-1C06	E10-2C06	E10-3C06	E10-1D06	E10-2D06	E10-3D06
10A	E10-1B10	E10-3B10	E10-1C10	E10-2C10	E10-3C10	E10-1D10	E10-2D10	E10-3D10
16A	E10-1B16	E10-3B16	E10-1C16	E10-2C16	E10-3C16	E10-1D16	E10-2D16	E10-3D16
20A	E10-1B20	E10-3B20	E10-1C20	E10-2C20	E10-3C20	E10-1D20	E10-2D20	E10-3D20
25A	E10-1B25	E10-3B25	E10-1C25	E10-2C25	E10-3C25	E10-1D25	E10-2D25	E10-3D25
32A	E10-1B32	E10-3B32	E10-1C32	E10-2C32	E10-3C32	E10-1D32	E10-2D32	E10-3D32
40A	E10-1B40	E10-3B40	E10-1C40	E10-2C40	E10-3C40	-	-	-
50A	E10-1B50	E10-3B50	E10-1C50	E10-2C50	E10-3C50	-	-	-
63A	E10-1B63	E10-3B63	E10-1C63	E10-2C63	E10-3C63	-	-	-



Scan to access the CPD course on MCBs from our Lewden Academy

Technical Data

Trip Curve	Rated Operational Voltage (Ue)	Terminal Capacity	Standards
B/C/D	230/400V 50/60Hz	25mm ²	EN60898-1 & EN60947-2

RCBO's - 1 Pole + unswitched neutral

Suitable for use in TN-S, TN-C-S & TT Network systems*



RATED CURRENT	TYPE A	
	10 kA B Trip Curve 30mA	10 kA C Trip Curve 30mA
6A	RCBO10-06/30/1MBA	RCBO10-06/30/1MCA
10A	RCBO10-10/30/1MBA	RCBO10-10/30/1MCA
13A	RCBO10-13/30/1MBA	RCBO10-13/30/1MCA
16A	RCBO10-16/30/1MBA	RCBO10-16/30/1MCA
20A	RCBO10-20/30/1MBA	RCBO10-20/30/1MCA
25A	RCBO10-25/30/1MBA	RCBO10-25/30/1MCA
32A	RCBO10-32/30/1MBA	RCBO10-32/30/1MCA
40A	RCBO10-40/30/1MBA	RCBO10-40/30/1MCA
45A	RCBO10-45/30/1MBA	RCBO10-45/30/1MCA

Technical Data

Type	Rated Operational Voltage (Ue)	Standard Tripping Time 1 x IΔn	Terminal Capacity	Neutral Lead Length	Standards
A	230V, 50Hz	<300ms	25mm ²	600mm	EN61009-1

CIRCUIT PROTECTION - 6kA

MCB's - Multi-Pole



RATED CURRENT	1 Pole		2 Pole		3 Pole		4 Pole	
	6kA B Trip Curve	6kA C Trip Curve	6kA B Trip Curve	6kA C Trip Curve	6kA B Trip Curve	6kA C Trip Curve	6kA B Trip Curve	6kA C Trip Curve
6A	G06-1B06	G06-1C06	G06-2B06	G06-2C06	G06-3B06	G06-3C06	G06-4B06	G06-4C06
10A	G06-1B10	G06-1C10	G06-2B10	G06-2C10	G06-3B10	G06-3C10	G06-4B10	G06-4C10
16A	G06-1B16	G06-1C16	G06-2B16	G06-2C16	G06-3B16	G06-3C16	G06-4B16	G06-4C16
20A	G06-1B20	G06-1C20	G06-2B20	G06-2C20	G06-3B20	G06-3C20	G06-4B20	G06-4C20
25A	G06-1B25	G06-1C25	G06-2B25	G06-2C25	G06-3B25	G06-3C25	G06-4B25	G06-4C25
32A	G06-1B32	G06-1C32	G06-2B32	G06-2C32	G06-3B32	G06-3C32	G06-4B32	G06-4C32
40A	G06-1B40	G06-1C40	G06-2B40	G06-2C40	G06-3B40	G06-3C40	G06-4B40	G06-4C40
50A	G06-1B50	G06-1C50	G06-2B50	G06-2C50	G06-3B50	G06-3C50	G06-4B50	G06-4C50
63A	G06-1B63	G06-1C63	G06-2B63	G06-2C63	G06-3B63	G06-3C63	G06-4B63	G06-4C63

Note: if using 6kA circuit breakers, a mounting kit will be required (See page 13).
4 pole MCBs cannot be used directly onto the TPN Busbar.

Technical Data

Rated Operational Voltage (Ue)	Terminal Capacity	Standards
230V, 50Hz	16mm ²	EN60898-1

RCBO's - 1 Pole + unswitched neutral

Suitable for use in TN-S and TN-C-S & TT Network systems*



RATED CURRENT	TYPE AC	
	B Trip Curve	C Trip Curve
6	RCBO-06/30/SPA	RCBO-06/30/1M/CA
10	RCBO-10/30/SPA	RCBO-10/30/1M/CA
16	RCBO-16/30/SPA	RCBO-16/30/1M/CA
20	RCBO-20/30/SPA	RCBO-20/30/1M/CA
32	RCBO-32/30/SPA	RCBO-32/30/1M/CA
40	RCBO-40/30/SPA	RCBO-40/30/1M/CA
50	RCBO-50/30/SPA	RCBO-50/30/1M/CA

Note: if using 6kA circuit breakers, a mounting kit will be required (See page 13).

Technical Data

Type	Rated Operational Voltage (Ue)	Standard Tripping Time 1 x IΔn	Terminal Capacity	Neutral Lead Length	Standards
A	230V, 50Hz	300ms	16mm ²	360mm	EN61009-1

Compact RCBOs 30mA Switched Neutral



RATED CURRENT	TYPE A	
	B TRIP CURVE	C TRIP CURVE
6	RCBO-B06/30/1PNA	RCBO-C06/30/1PNA
10	RCBO-B10/30/1PNA	RCBO-C10/30/1PNA
16	RCBO-B16/30/1PNA	RCBO-C16/30/1PNA
20	RCBO-B20/30/1PNA	RCBO-C20/30/1PNA
32	RCBO-B32/30/1PNA	RCBO-C32/30/1PNA
40	RCBO-B40/30/1PNA	RCBO-C40/30/1PNA

Note: if using 6kA circuit breakers, a mounting kit will be required (See page 13).

Technical Data

Type	RatedOperational Voltage (Ue)	Standard Tripping Time $1 \times I\Delta n$	Terminal Capacity	Neutral Lead Length	Standards
A	230V, 50Hz	300ms	16mm ²	400mm	EN61009-1

AFDD RCBOs



PART NUMBER	RATED CURRENT
P04-B06/30/1PNA	6A
P04-B10/30/1PNA	10A
P04-B16/30/1PNA	16A
P04-B20/30/1PNA	20A
P04-B32/30/1PNA	32A
P04-B40/30/1PNA	40A

Note: if using 6kA circuit breakers, a mounting kit will be required (See page 13).

Technical Data

Type	RatedOperational Voltage (Ue)	Standard Tripping Time $1 \times I\Delta n$	Terminal Capacity	Neutral Lead Length	Standards
A	230V, 50Hz	300ms	16mm ²	400mm	EN61009-1

SURGE PROTECTION

Type 1 Surge Protection Devices



PART NUMBERS	TYPE	VAC	DESCRIPTION
SRG1123	1, 2	230V	Single phase - Type 1, 2



SRG3123	1, 2	400V	Three phase - Type 1, 2
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Technical Data

Nominal Discharge Current	Max Discharge Current	Earthing Systems	Voltage protection level	Standards
20kA 8/20uS	50kA 8/20uS	TN-C-S / TN-S / TT network systems	<1.3kV	EN61643-11

Type 2 Surge Protection Devices



PART NUMBERS	TYPE	VAC	DESCRIPTION
SRG1V1G	2	230V	Single phase - Type 2



SRG3V1G	2	400V	Three phase - Type 2
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Scan to access the CPD course on SPDs from our Lewden Academy

Technical Data

Nominal Discharge Current	Max Discharge Current	Earthing Systems	Voltage protection level	Standards
20kA 8/20uS	40kA 8/20uS	TN-C-S / TN-S / TT network systems	1.25kV	EN61643-11

ACCESSORIES

MCB Accessories



- E10-SHT**
 - 230V AC/DC SHT
- E10-AUX**
 - Auxiliary Contact for 10kA MCB E10 range

PART NUMBERS
E10-SHT
E10-AUX

Note: Cannot be mounted onto MCBs mounted on the TPN Busbar.

Installation Contactors

DIN Rail Mounted



RATED CURRENT	VOLTS	POLES	PART NUMBERS
20A	230V	2 N/O	IC20
40A		2 N/O	IC40/2
63A		4 N/O	IC63/4

IC20 max cable: 4mm sq
IC40/2 max cable: 10mm sq
IC63/4 max cable: 16mm sq

6kA MCB/RCBO/AFDD Mounting Kit

Enables the use of 6kA circuit breakers within the TPN board



PART NUMBERS	DESCRIPTION
E-TPNZB04	for use with 4 way TP&N board (E-TPN04LW)
E-TPNZB08	for use with 8 way TP&N board (E-TPN08LW)
E-TPNZB12	for use with 12 way TP&N board (E-TPN12LW)
E-TPNZB16	for use with 16 way TP&N board (E-TPN16LW)

Important note that the TPN board can be set up for either 10kA or 6kA devices according to the short circuit rating of the electrical supplier network. 10kA and 6kA circuit protection devices cannot be mixed.

RCCB Accessory Kit

TPN-RCCBAK is required where an RCCB is to be used as the incoming device.



PART NUMBER
TPN-RCCBAK

Door Barrel Key Lock

For extra security, supplied with 2 keys. Direct replacement for standard double bar locks on TPN boards and extension boxes.



PART NUMBER
E-TPNKL

Single phase supply kit

Converts TPN board to a single phase incoming 125A supply. For installation to the supply side of 3 or 4 pole incoming device.



PART NUMBER
TPN-SPL

Phase insulators

For blanking of unused outgoing ways Pack Qty: 100
Fits directly to outgoing ways. For use in conjunction with CU-BL blanking strips



PART NUMBER
PI

MCB/RCBO/AFDD Padlock

Suitable for 6kA and 10kA MCB and RCBO in the "ON" or "OFF" position. Includes yellow, hazard indicator.
Not suitable for incoming devices.



PART NUMBER
MCBBLOCK

Multi-Function Din Rail Blank

Increased safety blanks. Conceals unused ways.
Fits directly in place of 1Pole MCB/RCBO to shroud unused outgoing ways. Suitable for use with both 6kA and 10kA breaker sets. Also compatible with Lewden single phase consumer units.



PART NUMBER
MFDRB

18mm module blanks

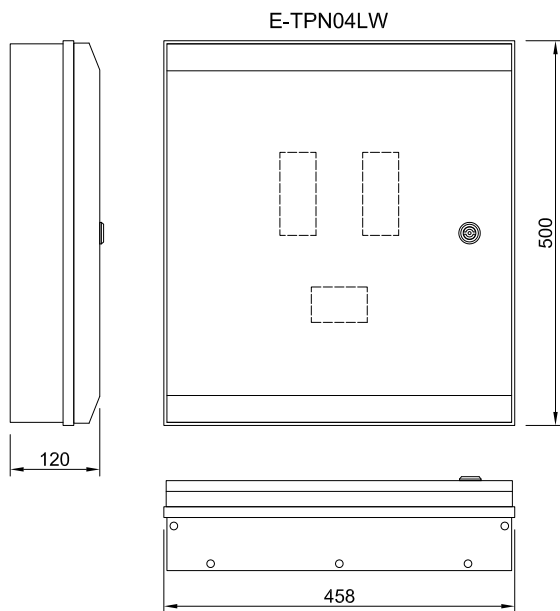
For door cut out 2 x 6 ways strips



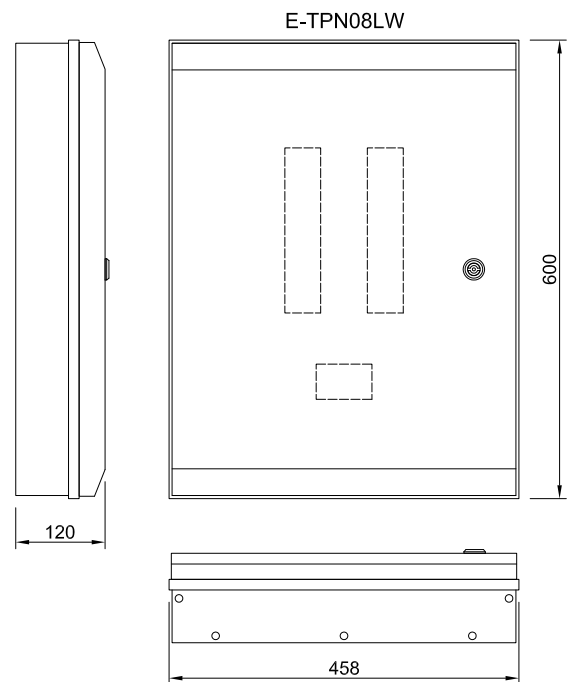
PART NUMBER
CU-BL

DIMENSIONAL DRAWINGS

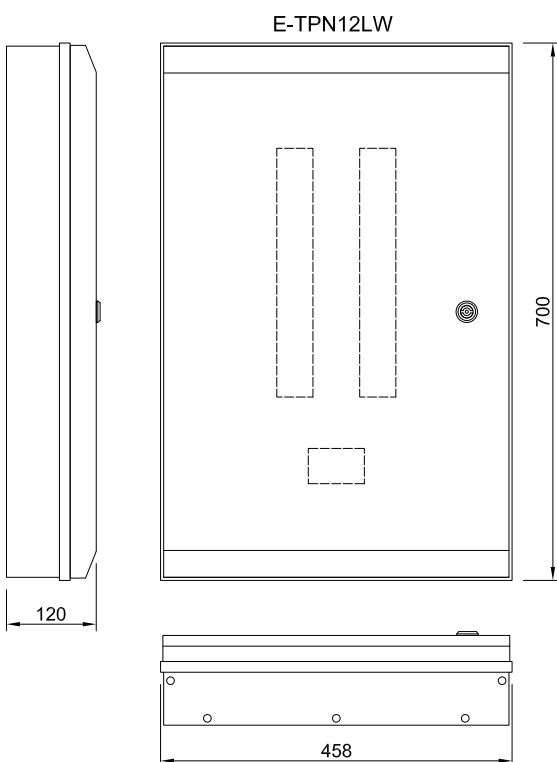
MODULE 4



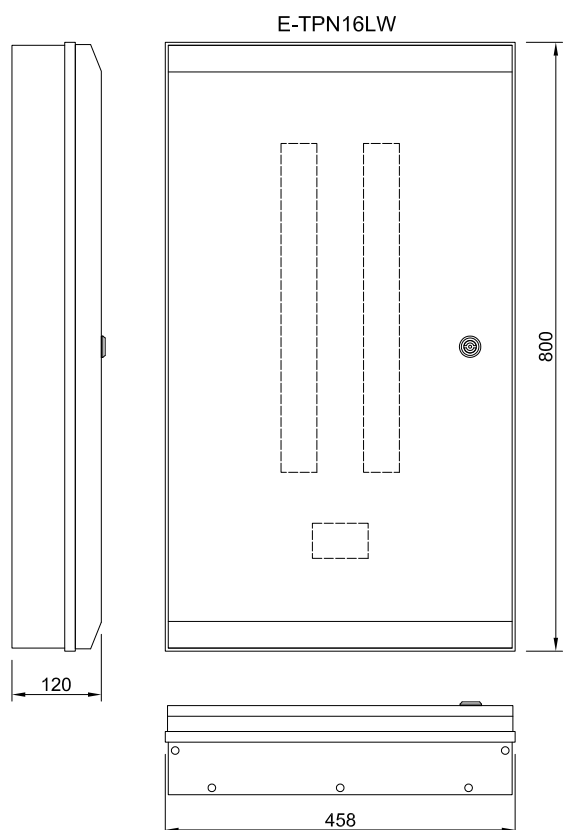
MODULE 8



MODULE 12

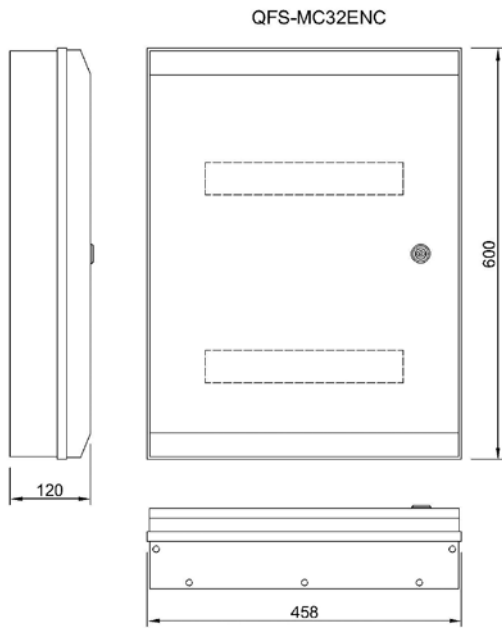


MODULE 16

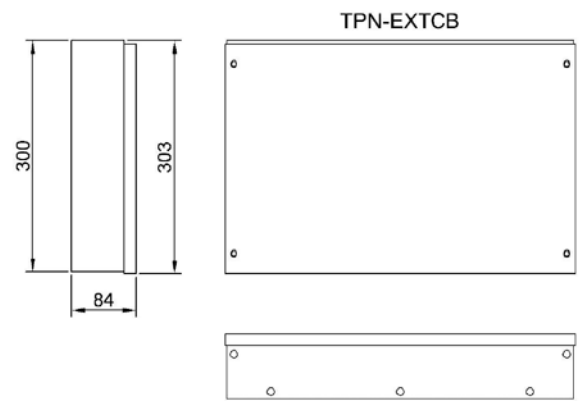


DIMENSIONAL DRAWINGS

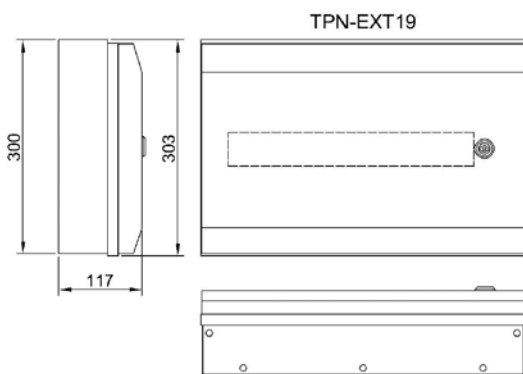
MODULE 32



EXTENSION



MODULE 19



JOINING

