



Three Phase Distribution Board **Excel**

General Information

- TPN distribution boards are designed for use with the 10kA range of circuit protection devices.
- This unit must be installed by a qualified electrician in accordance with the latest edition of the IET wiring regulations for electrical installations BS7671.
- The total load current supplied from the unit must not exceed the rating of the main switch or any additional limitation.
- The total sum of the individual outgoing MCB ratings may exceed this value where there is appropriate diversity in the installation. The unit and associated components conform to the following standards

Distribution board <BS EN61439-3>

Main switch <BS EN60947-3> MCB <BS EN60898-1>

RCBO <BS EN61009-1> RCCB <BS EN61008-1>

- This ingress protection rating of this unit is IP4X (Indoor use only) when appropriate blanks used.
- Ambient temperature: MCBs are calibrated at 30 °C according to the calibration temperature requirements of <BS EN60898>.
- Adjacent thermal magnetic MCBs should not be continuously loaded at their nominal rated currents when mounted in enclosures. We recommend a 60% de-rating factor is applied to the MCB nominal rated current where it is intended to load the MCBs continuously.
- Torque settings;

Incoming Device	Torque setting Nm	Outgoing Device	Torque setting Nm
Main switch	2.5Nm	MCB	2.5Nm
RCCB	2.5Nm	RCBO	2.5Nm line 1.2Nm load

Enclosure mounting

Fix the enclosure base to a flat vertical surface using appropriate screws and wall plugs in fixing holes provided

Connection of the main incoming device



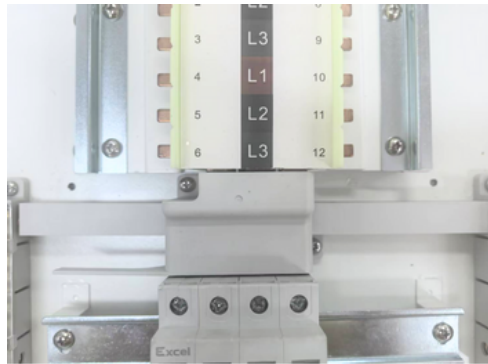
Push the incoming device upwards onto the copper busbars and then backwards onto the DIN rail. Close the DIN rail clips and tighten the terminals to 2.5Nm.

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60° tilt angle for easier terminations



Fully enclosed bus bars for additional safety



The door can be removed easily to aid installation and the hinges can be mounted on either side to aid versatility



Front cover removeable for ease of installation and knockouts for installation of surge device

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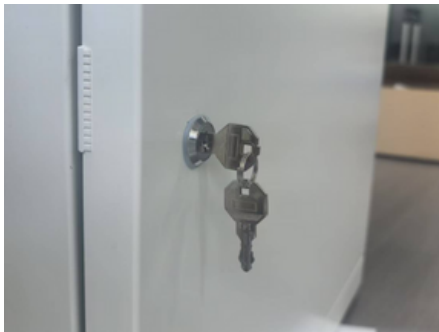
General Information



To avoid swarf, the top and bottom gland entry plates should be removed prior to cutting cable entry holes



It can reduce the noise when closing the door. If used for a long time, it can also protect the door.

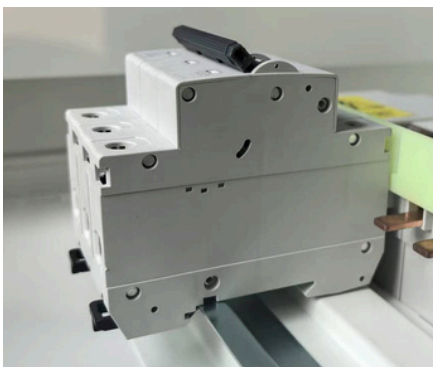


Each lock is equipped with an independent key to protect the safety of all products inside the housing.



The back panel is fully enclosed, dustproof, waterproof and insect-proof.

Connection of outgoing devices(MCBs / RCBOs)



Slide devices onto bus bar with the bottom of the device facing towards the centre of the distribution board.

Ensure devices engage firmly onto the mounting rail

Tighten terminal screw to the recommended torque.

When installing RCBOs, connect the blue neutral lead to the terminal of the corresponding outgoing way on the neutral bar

Testing of the installation

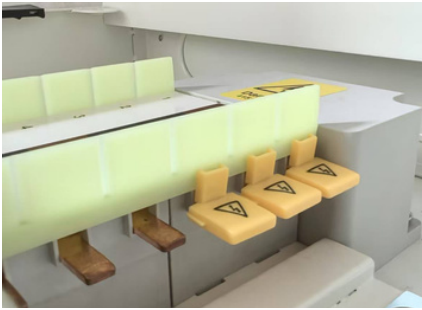
After completion of the installation, it is essential that it is tested in accordance with the latest edition of the IET wiring regulations for electrical installations (BS7671)

Ensure that all electrical connections are tight before fitting the cover, including any factory made connections



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Blanking of unused ways



Unused ways on the distribution board should be blanked using phase insulators (PI)



Unused ways in the outer cover must be blanked using appropriate blanks.

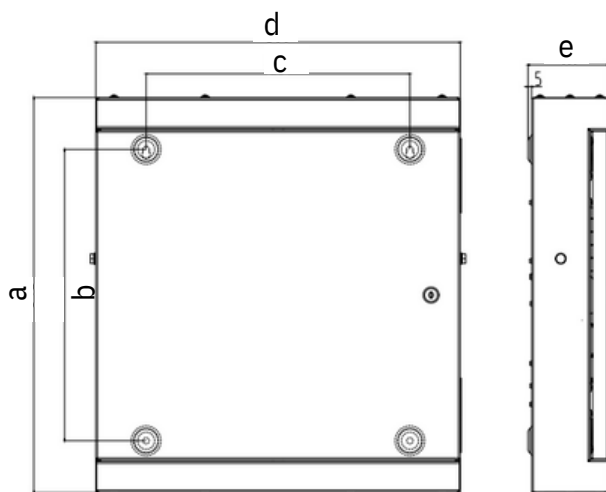
Circuit identification

The duty of all outgoing circuits must be clearly marked on the circuit identification label

Maximum cable capacities

Incoming Device	Max cable size	Outgoing Device	Max cable size
Main switch	50mm ²	MCB	25mm ²
		RCBO	16mm ²
Earth & Neutral bar	50mm ²	Earth & Neutral bar	16mm ²

Dimensions (mm)



Model	a	b	c	d	e
TPN04	542	403	362	500	111
TPN08	650	503	362	500	111
TPN12	758	603	362	500	111
TPN16	866	703	362	500	111
TPN24	1082	940	363	500	111