

E-TPN04LW
E-TPN08LW
E-TPN12LW
E-TPN16LW



General Information

- Lewden TPN distribution boards are designed for use with the Lewden 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 IP2XC (Indoor use only)
- Ambient temperature: MCBs are calibrated at 30degC 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;

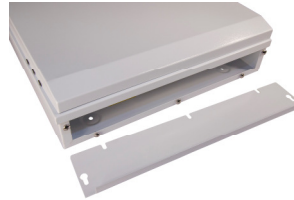
Incoming Device	Torque setting Nm	Outgoing Device	Torque setting Nm
Main switch	4Nm	MCB	2.5Nm
RCCB	4Nm	RCBO	2.5Nm line 1.2Nm load

Enclosure mounting

- Fix the enclosure base to a flat vertical surface using appropriate screws and wall plugs in fixing holes provided
- Unit weights (Unpopulated);

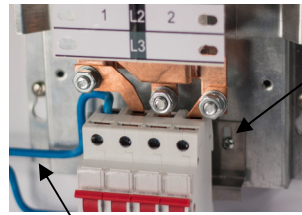
Model	Weight	Model	Weight
E-TPN04LW	11kg	E-TPN12LW	15kg
E-TPN08LW	13kg	E-TPN16LW	19kg

Cable installation



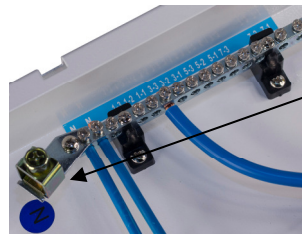
To avoid swarf, the top and bottom gland entry plates should be removed prior to cutting cable entry holes

Connection of the main incoming device



Slightly loosen the two mounting bracket screws. Install the device onto the mounting bracket and close the din rail clip. Push the device firmly upwards towards the copper fingers to ensure full insertion. Secure the mounting bracket screws. Tighten all terminals to 4Nm

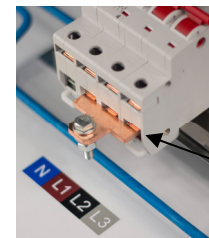
Note: For TN –S or TN-C-S earthing systems it is not necessary to isolate or switch the neutral conductor where it is regarded as being reliably connected to earth by a suitably low impedance. Refer to BS7671:2008 inc Amd 3: 2015 Clauses 537.1.2 & 537.2.1.1 In this configuration, a 3P main switch may be utilised, and the switch to neutral bar link removed.



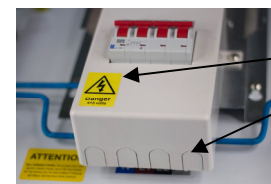
An un-switched incoming neutral connection is available at the neutral terminal bar.

For TT & IT earthing systems the neutral conductor must be switched for isolation purposes.

125A Single phasing kit installation TPN-SPL

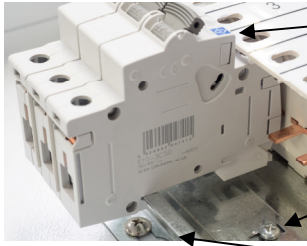


When configuring the DB for a single phase 230VAC incoming supply, use single phasing kit TPN-SPL. Install the copper link on the supply side of the incoming device, shorting out terminals L1, L2, L3. Tighten terminals to 4Nm. **IMPORTANT: Do not** install the link into the neutral terminal.



Break out the required cable entries on the incoming device shroud. Replace the 400V danger label with the 230V label supplied in the kit. Mask L1, L2, L3 markings on the outer door using the label provided.

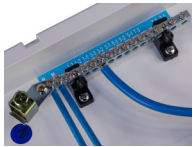
Connection of outgoing devices (MCBs / RCBOs)



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

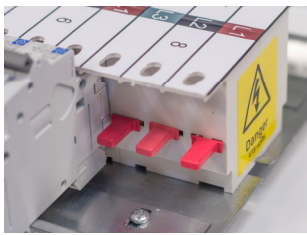
Ensure devices engage firmly onto the mounting rail (note; the rail is adjustable to left & right)

Tighten terminal screw to the recommended torque.

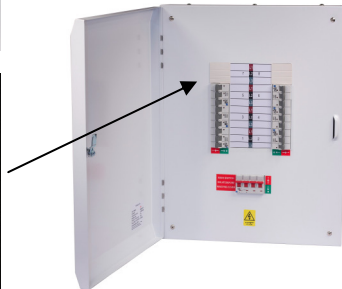
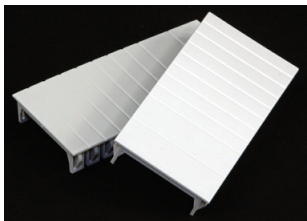


When installing RCBOs, connect the blue neutral lead to the terminal of the corresponding outgoing way on the neutral bar

Blanking of unused ways



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



Unused ways in the outer cover must be blanked using CU-BL blanking strips (supplied in 6 module lengths)

Equipotential bonding



Before fitting the front cover, ensure that the earth bond is connected between the enclosure base and the front cover. To relieve undue pressure on the stud, first fit the M6 plain nut and washer. Fit the earth cable to the stud, and secure using the nylok nut; by locking the two nuts against each other.



Circuit identification

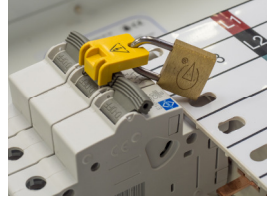
The duty of all outgoing circuits must be clearly marked on the circuit identification label

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

Maintenance isolation



Individual outgoing circuits can be locked off for safe isolation using MCBLOCK (sold separately)



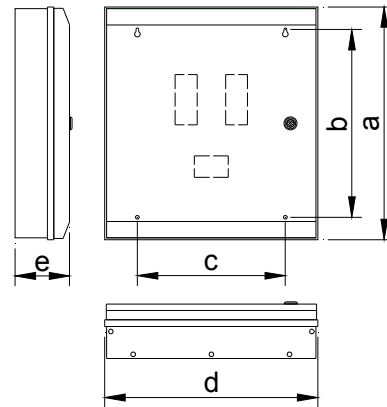
The outer cover door can be secured using the key provided

Ensure that all power supplying this equipment is switched OFF before working on or inside the unit

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
E-TPN04LW	500	403	318	458	120
E-TPN08LW	600	503	318	458	120
E-TPN12LW	700	603	318	458	120
E-TPN16LW	800	703	318	458	120

USER GUIDE MUST BE LEFT WITH THE UNIT FOR FUTURE REFERENCE