

**MEMSHIELD 4 INSTALLATION INSTRUCTIONS FOR
EM4PBSPD34 / EM4PBSPD1234 SURGE PROTECTION DEVICE**
Instruction leaflet LT1225 (01/19)

IMPORTANT NOTES

1. This product should be installed, commissioned and maintained by or under the supervision of a competent electrician in accordance with current electrical engineering Codes of Practice, Requirements for the Electrical Installations (IET Wiring Regulations BS7671), Construction (Design and Management) Regulations, HSG150 - Health and Safety in Construction, Statutory requirements and any Specific instruction issued by the Company.
2. After completing the installation and testing of this product it is essential that this leaflet is drawn to the attention of the person responsible for its future operation and maintenance, and is at all times available for ready reference.
3. These notes assume throughout that the product is disconnected from the supply. It is essential that this is done before any work is carried out.
4. These Panelboards are only designed for use with Eaton MCCBs. Failure to comply will result in invalid warranty and certification.

Items supplied with Surge Protection Modules

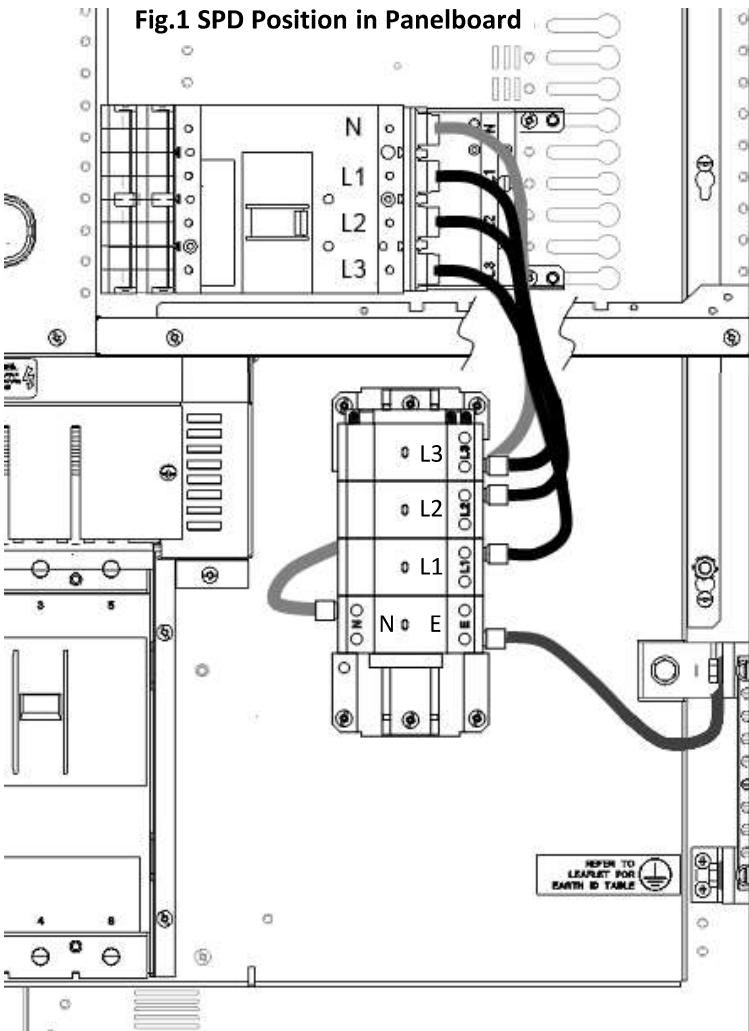
M5 x 12mm self tapping screw	4 Qty
Cable Tie	4 Qty
Cable Tie Base	2 Qty
92mm x 92mm window	1 Qty

25mm ² M8 Ring Connector	1 Qty
25mm ² Cable Ferrules	4 Qty
25mm ² Cables	5 Qty
Grommet 25mm diameter	1 Qty
Surge Supression Device Label	1 Qty

BEFORE INSTALLATION:

- A. Verify that the system is wired in a Three Phase Star configuration (fig. 5) and that the voltage rating of the system matches the voltage rating of the SPD as shown on the label.
- If the Neutral to Earth voltage is greater than 5 VAC, then a problem may exist in the electrical system. The SPD may be installed; however, a qualified person should be consulted to correct the problem.
- B. The SPD must be connected to the Panelboard via a 4 Pole 63A MCCB and adaptor. If the board is compartmentalised then the appropriate compartment kit is required to segregate the 4 Pole MCCB. (needs to be ordered separately)

Fig.1 SPD Position in Panelboard



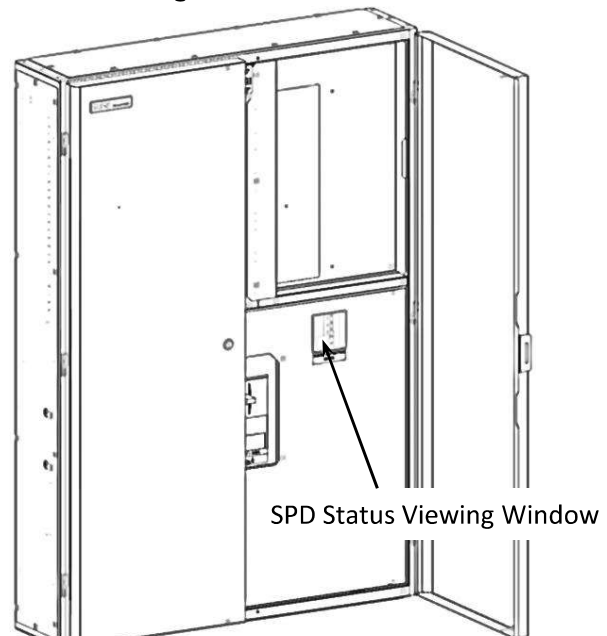
SPD MOUNTING POSITION

There are two positions for the SPD. Position 1 is in the panel board (fig. 1 & 2) and Position 2 is in the cable way (fig.3 & 4).

1. As standard the SPD is mounted in the panel board on the RH side for the shortest possible wire installation. The 4 Pole NZM1 must be fitted on the FIRST outgoing way to minimise the connecting wire lengths.

The SPD status indicators can be viewed through the window in the inner cover and an auxiliary contact is provided for external monitoring.

Fig.2 SPD Window in Inner Cover



2. Alternative SPD position is adjacent to first outgoing way in the Meter Cableway which allows the SPD Status Indicator to be viewed externally through a meter aperture.

Mount the SPD in the LH cableway for shortest possible wire installation and optimal viewing of the SPD status indicators, through the nearest meter aperture.

The 4 Pole NZM1 must be fitted on the FIRST outgoing way to minimise the Earth connecting wire length.

Fig.3 SPD Position in Cableway

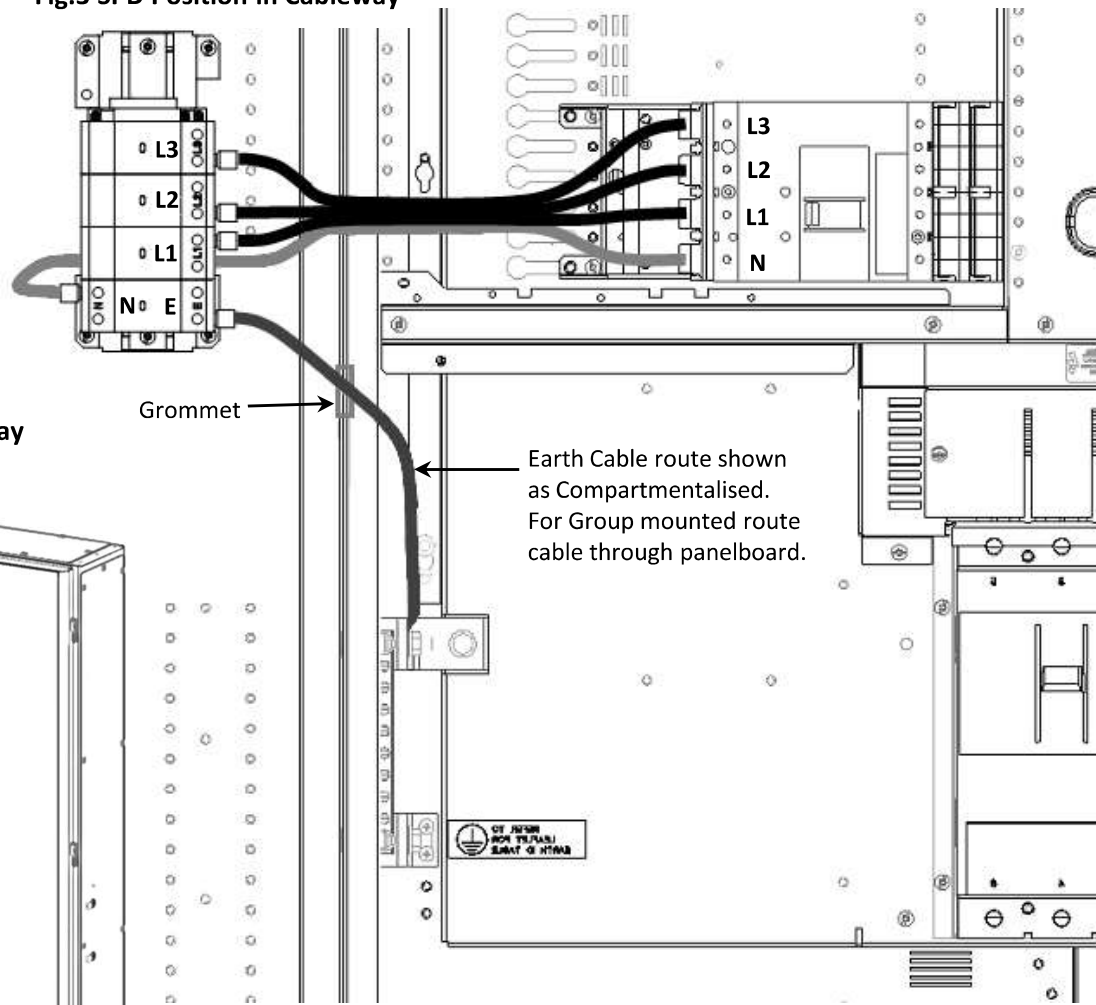
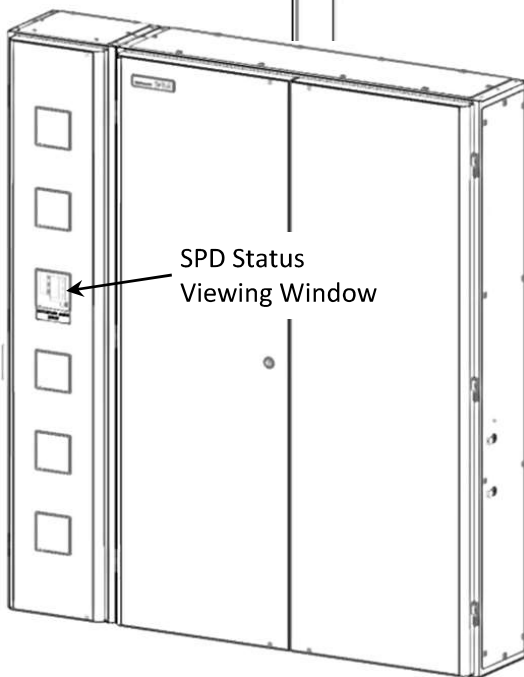


Fig.4 SPD Window in Meter Cableway

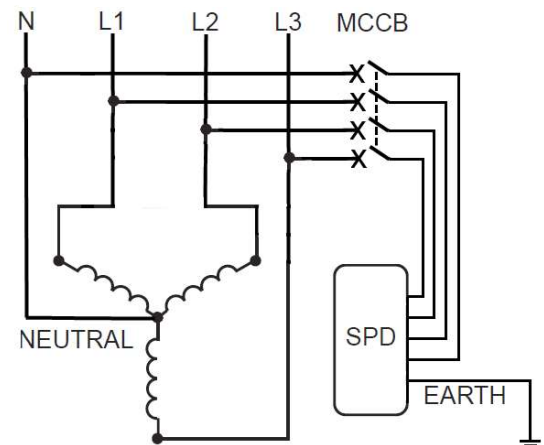


INSTALLATION INSTRUCTIONS:

3. CABLE SPD. (As shown in Fig.1 or 3)

- Excessive wire length and sharp bends degrade SPD performance: therefore, avoid sharp bends when at all possible and cut excessive wire lengths to suit the installation.
 - Refer to phase ID printed on SPD device for Connecting MCCB Phase wires N, L1, L2 & L3.
 - Bind Cables together with Cable ties for optimum SPD performance.
 - Connect the EARTH wire to the nearest bolt on common earth. (see Fig.1 or 3)
4. Energise the System.
- The Indicator should remain green. If the indicator turns RED, de-energise and contact the Technical Services department. (See below).

Fig.5 Wiring Diagram



Warning - Intellectual Property Rights

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The use to which this product is put and its place of installation is outside our control. Particular care should therefore be taken to follow the instructions given here and to ensure their continued availability in conjunction with the use of the product.

No responsibility can be accepted by us if these instructions are disregarded. Further copies of these instructions and information concerning the installation and proper use of this product can be obtained by contacting the:

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