

## MEMSHIELD 3 SURGE PROTECTION DEVICE INSTALLATION INSTRUCTIONS FOR EM3SSK3T2 AND EM3SSK3T12

Instruction leaflet LT1193 (12/18)

### 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, Regulations for the Electrical equipment of Buildings (BS7671), CDM2007 - Construction (Design and Management) Regulations 2007, 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.

FIG1.

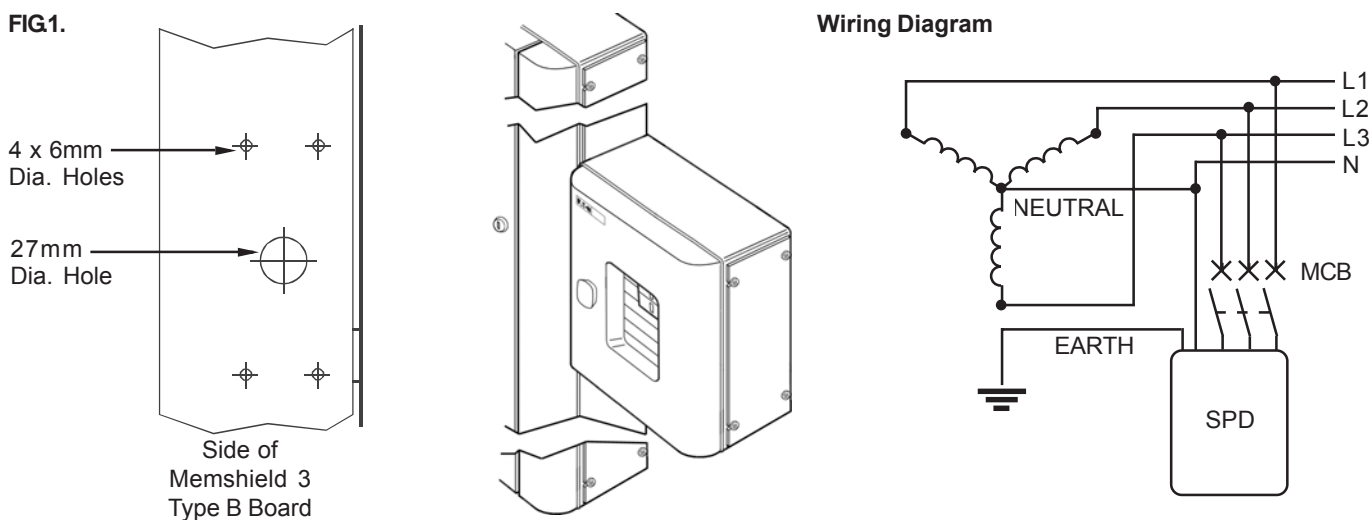
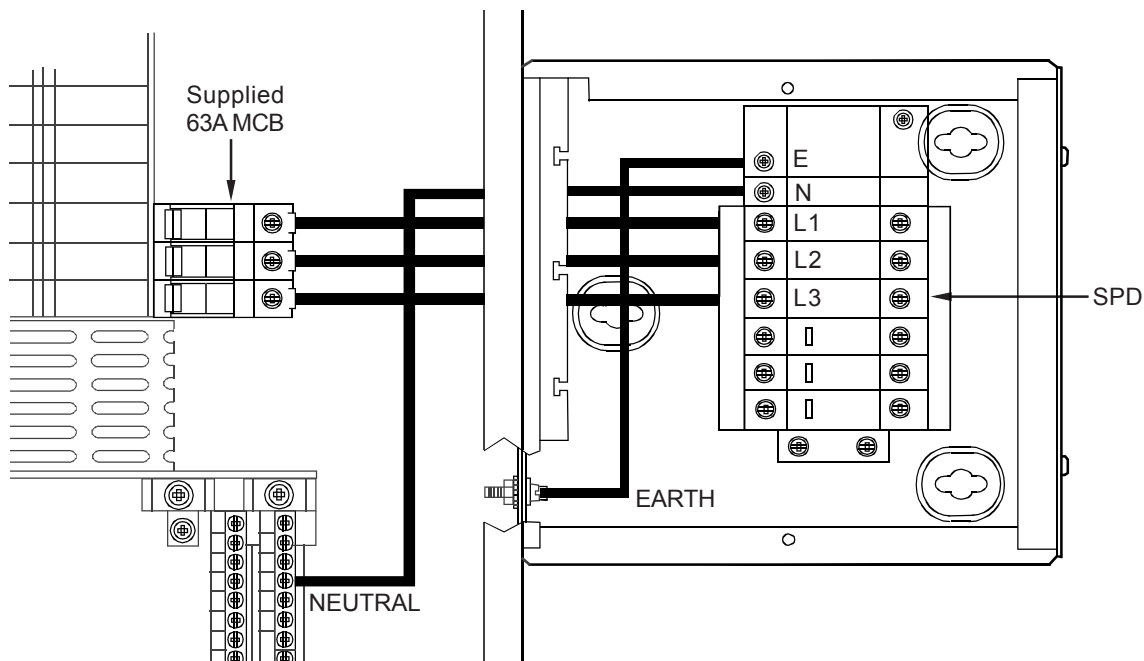


FIG2. Cabling



## BEFORE INSTALLATION

- A.** Verify that the system is wired in a Three Phase Star configuration and that the voltage rating of the system matches the voltage rating of the SPD as shown on label.  
If 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 Memshield 3 Distribution Board via the Triple Pole 63A Miniature Circuit Breaker (MCB) supplied. **NOTE:** If the SPD is to be used in conjunction with equipment other than a Memshield 3 Distribution Board, the SPD must be connected via an appropriate protective device for the location of the installation.

### NOTE FOR CLEAN EARTH:

If the system utilises a clean earth, the green/yellow earth wire must be connected to the clean earth bar.

### INSTALLATION INSTRUCTIONS:

- 1. ISOLATE INCOMING ELECTRICAL SUPPLY.**
- 2. SPD MOUNTING POSITION**  
The SPD should be mounted for the shortest and straightest possible wire installation from the SPD to the MCB and Earth/Neutral Busbar. It is strongly recommended that the FIRST outgoing MCB way be installed to minimise the connecting wire length.  
**Excessive wire length and sharp bends degrade SPD performance: therefore, avoid excessive wire length and sharp bends when at all possible.**
- 3a. ASSEMBLE SPD ENCLOSURE TO STANDARD TYPE B BOARD** (As shown in Fig.1.).
  - Position the SPD enclosure on the right hand side of the B-Board (Note that the door should open to the right) and align it so that the handle is approximately in line with the bottom of the lowest MCB.
  - Using the SPD enclosure as a template, mark position of pre-pierced holes (4 off) onto the B-Board side panel.
  - With care, drill 4 holes 6mm dia into the B-Board and 1 hole 27mm dia in line with the middle of the MCB. Fig.1.
  - Remove burrs and ensure both enclosures are free of debris.
  - Bolt both enclosures in position and insert grommet (ensure that the nuts and shakeproof washers are inside the B-Board).
- 3b. ASSEMBLE SPD ENCLOSURE TO SMART METER TYPE B BOARD**
  - Remove right hand side plate of the Smart Meter Board.
  - Using the SPD enclosure as template, align it with the pre-pierced hole over the lowest gland aperture, and with care, drill 3 corresponding holes into the Smart Meter Board.
  - Remove burrs and ensure both enclosures are free of debris
  - Bolt both enclosures in position (ensure that the nuts and shakeproof washers are inside the Smart Meter Board).
  - Trim right hand side plate to suit and re-fit.
- 4. Cable SPD. (AS SHOWN IN FIG.2).**
  - Keep the wire(s) as short as possible for optimum SPD performance.
  - Connect the EARTH wire to the nearest bolt (see Fig.2.).
  - Refer to the NOTE for systems utilising the clean earth.
  - Connect the NEUTRAL wire to the Neutral Busbar.
  - Connect Phase wire to the MCB at L1, L2 & L3.
- 5. Energise the System.**
  - For the SPD 'EM3SSK3T2' the Indicator should remain green.  
If the indicator turns RED, de-energise and contact the Technical Services department.
  - For the SPD 'EM3SSK3T12' the red Indicator should remain locked in position.  
If the red indicator POPS UP, de-energise and contact the Technical Services department.  
(See below).

#### Warning -

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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:

Technical Services Department

Eaton Electric Limited, Middleton, Manchester, M24 1GQ.

Tel: +44(0)8700 545 333,

Tel: +44(0)121 685 2100,

email: [ukcommorders@eaton.com](mailto:ukcommorders@eaton.com)