

Part Number: **SPDCUKITT2TPN**
 Description: **T2 SPD 3P+NPE**
 Document: **Jan2023**

3 Phase (3P+NPE) T2 Surge Protection Device (SPD) supplied complete with 32A B Curve triple pole MCB and 6mm² connecting cables.

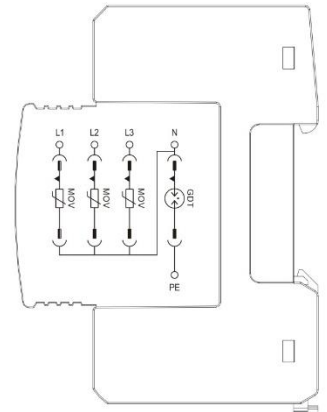
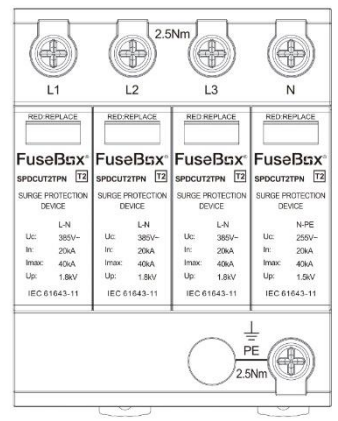
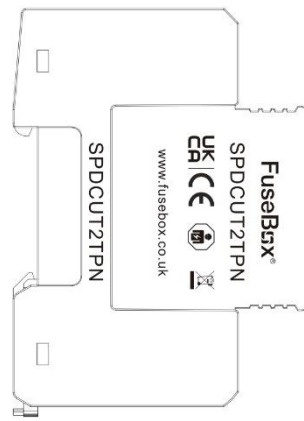
This device must be installed and tested by a qualified electrician in accordance with the current IET Wiring Regulations BS7671.

CAUTION

WHEN CONDUCTING INSULATION RESISTANCE TESTING WITH SPD FITTED IT IS RECOMMENDED EITHER THE **EARTH CONNECTION OR THE PLUG IN CARTRIDGES ARE REMOVED.**

IF YOU DO NOT WISH TO REMOVE THE CARTRIDGES OR EARTH CONNECTION, THEN TESTING MUST BE AT A **MAXIMUM OF 250V DC.**

Before powering up the installation check all connections are TORQUED 2.5Nm. Loose connections cause fires!

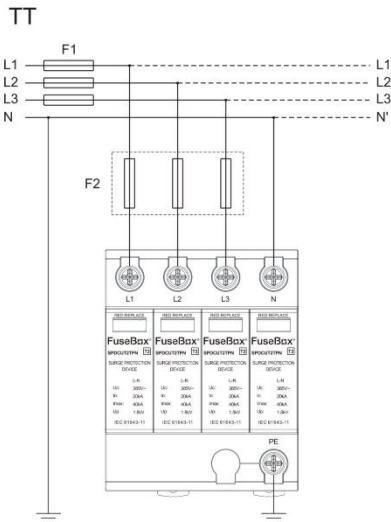
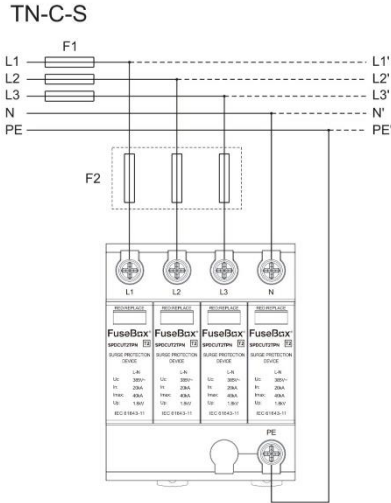


| TECHNICAL (TABLE A) | |
|--------------------------------|--|
| PART NUMBER | SPDCUKITT2TPN |
| BARCODE | 5060523525096 |
| DESCRIPTION | SURGE PROTECTION DEVICE T2 Includes 32A TP B TYPE MCB and cables (6mm ²) |
| WIDTH | 72mm (4 module) |
| STANDARD | IEC/EN 61643-11 |
| FLAG INDICATION | GREEN: GOOD RED: REPLACE |
| TECHNOLOGY | MOV (METAL OXIDE VARISTOR) L -PE /GDT (GAS DISCHARGE TUBE) N - PE |
| Nominal VOLTAGE (Un) | 400V~ 50/60Hz |
| SYSTEM | TN-C-S, TN-S, TT |
| TERMINAL CAPACITY (max.) | 6mm ² - 35mm ² |
| RECOMMENDED TORQUE | 2.5Nm |
| DEGREE OF PROTECTION | IP20 |
| MOUNTING | 35mm DIN RAIL (to EN 60715) |
| MAXIMUM OPERATING VOLTAGE (Uc) | 385V |
| RESPONSE TIME (ta) | ≤100Ns |
| MAXIMUM BACK UP FUSE (F1) | 125A fuse gG |
| RECOMMENDED BACKUP MCB (F2) | 32A |
| SHORT CIRCUIT WITHSTAND (IscR) | 50kA |

| TECHNICAL (TABLE B) | | |
|--|-------------------------------|--------------------------------|
| Energy coordination with terminal equipment (≤10m) | Type 2 + Type 3 | |
| Type | 3P+NPE | |
| | L-N MOV (Varistors) | N-PE GDT (Spark gap) |
| Max. continuous operating voltage (AC) (Uc) | 385V (50/60Hz) | 255V (50/60Hz) |
| Nominal discharge current (8/20µs) L-N /N-PE (In) | 20KA | 20KA |
| Maximum Discharge Current (8/20µs) L-N/N-PE (Imax) | 40KA | 40KA |
| Voltage protection level L-N /N-PE (Up) | <1.8kV | <1.5kV |
| Temporary overvoltage (TOV) L-N (UT) | 440V/12 min-- withstand | |
| Temporary overvoltage (TOV) L-N (UT) | 1200V/200ms - withstand | |
| Operating temperature range | -40 °C +80 °C | |
| Material (housing) | Thermoplastic UL94 V0 | |
| Weight (Kg) | 0.4Kg | |

After installation and testing of this product it is essential that the INSTRUCTION LEAFLET is available for reference.

1 **SYSTEM CONNECTION DIAGRAMS**

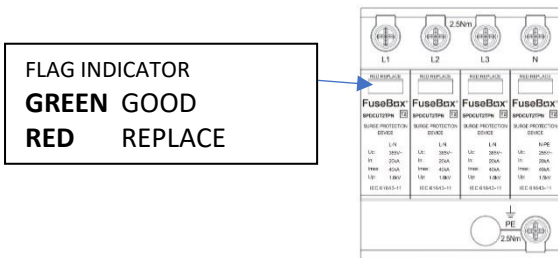


2 **TORQUE SETTING**

Before powering up the installation check all connections are TORQUED to 2.5Nm. Loose connections cause fires!

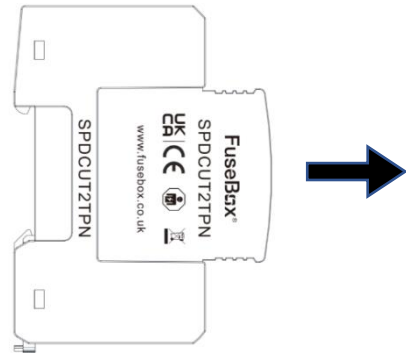
3 **FLAG INDICATOR STATUS**

- Please ensure the SPD flag indicator status is checked regularly.
- Should the indicator change to RED the module should be replaced ASAP to continue to provide surge protection.
- The SPD is in parallel to the supply so in no way affects the power to the final circuits if activated (RED).

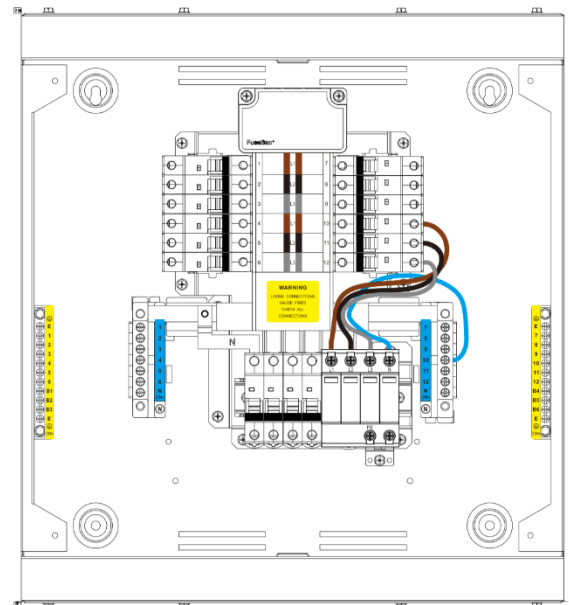


4 **SPD MODULE REPLACEMENT**

- Before changing the SPD cartridges switch OFF supply.
- The 18mm modules can be removed as shown below.
- Pull cartridge out of the holder firmly.
- When refitting module ensure it is pushed home firmly and is keyed in the slots on the base. Neutral cartridge is keyed differently.
- Once changed switch power to ON.



5 **INSTALLATION INTO A TPN DISTRIBUTION BOARD**



6 **ENVIRONMENT**

WASTE ELECTRICAL PRODUCTS SHOULD NOT BE DISPOSED OF IN HOUSEHOLD WASTE. CONTACT YOUR RETAILER OR LOCAL AUTHORITY FOR RECYCLING INFORMATION.

After installation and testing of this product it is essential that the INSTRUCTION LEAFLET is available for reference.

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TPN DISTRIBUTION BOARD

(125A main switch fitted)

Suitable for 6kA and 10kA FuseBox devices

After installation and testing of this product it is essential that the INSTRUCTION LEAFLET is available for reference.

This distribution board must be installed and tested by a qualified electrician in accordance with the current IET Wiring Regulations BS7671.

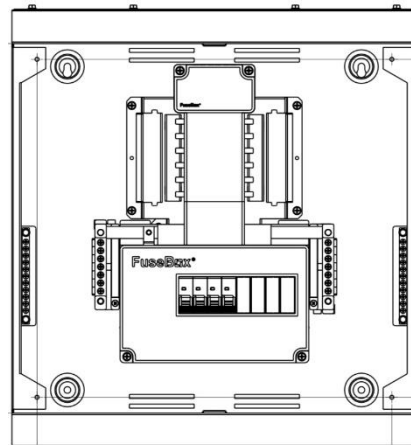
| Standards (TABLE 1) | |
|-----------------------|---|
| Device | Standard |
| Consumer Unit | EN 61439-3 |
| Main Switch 4P | IEC EN 60947-3 |
| RCD | IEC EN 61008-1 |
| MCB | IEC EN 60898-1 |
| RCBO | IEC EN 61009-1 |
| IP RATING | IP3X |
| Main Switch | 125A 4 pole (factory fitted) |
| Busbar Current Rating | 125A |
| Busbar Rating | 16kA |
| Voltage Rating | 230/400V ~ |
| Number of Ways (3P) | Without SPD fitted: 4,8,12,16 With SPD fitted: 3,7,11,15 |
| Material | Steel |
| | 1mm |
| | Electro galvanised steel (zinc) |
| Finish | RAL 9001 powder coated finish |
| Mounting | Keyhole fixings in all corners |
| Lock | Standard coin slot |

| Recommended Torque Settings (TABLE 2) | | |
|---------------------------------------|---------------------|--------------------|
| Device | Max. Cable Capacity | Recommended Torque |
| MAIN SWITCH | 50mm ² | 2.5Nm |
| RCD | 35mm ² | 2.5Nm |
| MCB | 16mm ² | 2.5Nm |
| Earth/Neutral Terminals | 25mm ² | 2.5Nm |

| Dimensions | |
|-------------|----------------------|
| Part number | Dimensions (HxWxD)mm |
| TPN03FBX | 542 x 500 x 106 |
| TPN04FB | 542 x 500 x 106 |
| TPN07FBX | 642 x 500 x 106 |
| TPN08FB | 642 x 500 x 106 |
| TPN11FBX | 812 x 500 x 106 |
| TPN12FB | 812 x 500 x 106 |
| TPN15FBX | 992 x 500 x 106 |
| TPN16FB | 992 x 500 x 106 |
| TPNEFBF | 352 x 500 x 106 |

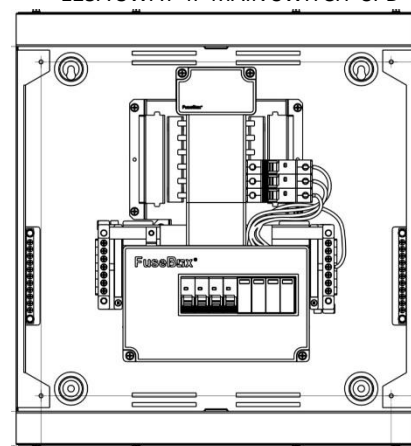
TPN04FB

125A 4WAY 4P MAIN SWITCH



TPN03FBX

125A 3WAY 4P MAIN SWITCH+SPD



Technical information

- 1a Distribution Board must be installed by a qualified electrician in accordance with the current IET Wiring Regulations BS 7671
- 1b Total load must not exceed the rating of the incoming isolator or any additional limitation.
- 1c The total sum of the individual MCBs may exceed this value where there is appropriate diversity in the installation.
- 1d The distribution board and associated components have been manufactured to the following specifications (table 1).
- 1e Ambient Temperature: MCBs are calibrated at 30°C according to the calibration temperature requirements of EN60898. At other temperatures the following rating factors should be used: At 60°C 0.85 At 20°C 1.0 At 0°C 1.15
- 1f 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 MCBs nominal rated current where it is intended to load the MCBs continuously.

2 Enclosure Mounting

- 2a Remove front cover and door assembly (4x screws). Front cover assembly should be pivoted on the LHS then lifted forward.
- 2b Gland plates are fitted top and bottom and should be removed if drilling holes to prevent swarf inside the enclosure. In order to maintain the IP rating and fire containment of the enclosure we recommend glands are used.
- 2c Fix base to wall using 4 screws and rawl plugs as appropriate and remove any debris from inside the Distribution Board.
- 2d Adjust to the square.
- 2e Route incoming cables to desired positions.

ATTENTION

ENSURE SUPPLY IS SAFELY ISOLATED BEFORE COMMENCING INSTALLATION



3 Connection of Tails

- 3a Cut and dress the main incoming cables and earth conductor.
- 3b Connect into the appropriate terminals on Main Switch / RCD and earth terminal bar and torque (TABLE 2).

4 Connections

- 4a Cut, dress and connect circuit conductors to appropriate MCBs neutral and earth terminals.
- 4b ALL CONNECTIONS (including factory made connections) MUST BE TORQUED (TABLE 2).
- 4c Make sure that each earth and neutral outgoing circuit is correctly made to the corresponding numbered terminals as this will ensure final testing and fault finding is easier.

5 Circuit Identification

- 5a All circuits must be clearly labelled on the front cover.

6 Enclosure Earthing

- 6a An M8 bolt is fitted on the base.

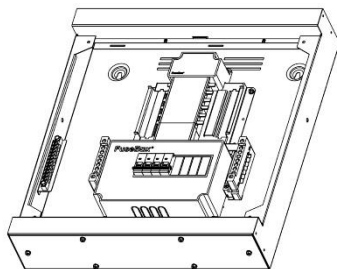
7 Operation of the TEST button on RCD/RCBOs

- 7a When newly fitted systems do not trip on the TEST button of the RCD/RCBO or using the RCD tester the problem is normally caused by an earth to neutral fault on the circuit (PME supply).

8 Testing

- 8a After completion of the installation, it must be tested in accordance with the latest edition of the IET Wiring Regulations for Electrical Installations (BS 7671).

Before fitting the front cover, check all connections including factory made connections are TORQUED (table 2).
Loose connections can cause fires!



TPN RANGE

| Part number | Description |
|---------------|---------------------------------------|
| SPDCUKITT2TPN | T2 SPD 3P+NPE (INC CABLES+3P B32 MCB) |
| TPN03FBX | TPN DB 3 WAY SPD 125A MS |
| TPN04FB | TPN DB 3 WAY SPD 125A MS |
| TPN07FBX | TPN DB 7 WAY SPD 125A MS |
| TPN08FB | TPN DB 8 WAY 125A MS |
| TPN11FBX | TPN DB 11 WAY SPD 125A MS |
| TPN12FB | TPN DB 12 WAY 125A MS |
| TPN15FBX | TPN DB 15 WAY SPD 125A MS |
| TPN16FB | TPN DB 16 WAY 125A MS |
| TPNEFB | TPN EXTENSION BOARD 14MOD |
| TPNSPLFB | TPN SINGLE PHASE FORK 125A |

| 1 Pole 10kA MCB | | | |
|-----------------|----------|----------|----------|
| Current rating | B curve | C curve | D curve |
| 6A | MT10B061 | MT10C061 | MT10D061 |
| 10A | MT10B101 | MT10C101 | MT10D101 |
| 16A | MT10B161 | MT10C161 | MT10D161 |
| 20A | MT10B201 | MT10C201 | MT10D201 |
| 25A | MT10B251 | MT10C251 | MT10D251 |
| 32A | MT10B321 | MT10C321 | MT10D321 |
| 40A | MT10B401 | MT10C401 | MT10D401 |
| 50A | MT10B501 | MT10C501 | MT10D501 |
| 63A | MT10B631 | MT10C631 | MT10D631 |

| 2 Pole 10kA MCB | | |
|-----------------|--|----------|
| Current rating | | D curve |
| 6A | | MT10D062 |
| 10A | | MT10D102 |
| 16A | | MT10D162 |
| 20A | | MT10D202 |
| 25A | | MT10D252 |
| 32A | | MT10D322 |
| 40A | | MT10D402 |
| 50A | | MT10D502 |
| 63A | | MT10D632 |

| 3 Pole 10kA MCB | | | |
|-----------------|----------|----------|----------|
| Current rating | B curve | C curve | D curve |
| 6A | MT10B063 | MT10C063 | MT10D063 |
| 10A | MT10B103 | MT10C103 | MT10D103 |
| 16A | MT10B163 | MT10C163 | MT10D163 |
| 20A | MT10B203 | MT10C203 | MT10D203 |
| 25A | MT10B253 | MT10C253 | MT10D253 |
| 32A | MT10B323 | MT10C323 | MT10D323 |
| 40A | MT10B403 | MT10C403 | MT10D403 |
| 50A | MT10B503 | MT10C503 | MT10D503 |
| 63A | MT10B633 | MT10C633 | MT10D633 |

| RCBO 1 P+N 10kA | | | |
|-----------------|------------|------------|--|
| Current rating | B curve | C curve | |
| 6A | RTA100630B | RTA100630C | |
| 10A | RTA101030B | RTA101030C | |
| 16A | RTA101630B | RTA101630C | |
| 20A | RTA102030B | RTA102030C | |
| 25A | RTA102530B | RTA102530C | |
| 32A | RTA103230B | RTA103230C | |
| 40A | RTA104030B | RTA104030C | |
| 50A | RTA105030B | RTA105030C | |
| 63A | RTA106330B | RTA106330C | |

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