

User guide

FuseBox Consumer Unit (F3 Series)

- 1 **Technical information**
- 1a FuseBox metal consumer unit must be installed by a qualified electrician in accordance with the current IET Wiring Regulations BS7671.
- 1b Total load must not exceed the rating of the incoming isolator or any additional limitation.
- 1c The total sum of the individual MCBs/ RCBOs may exceed this value where there is appropriate diversity in the installation.
- 1d The Consumer Unit and associated components have been manufactured to the following specifications:

Standards (TABLE 1)

Device	Standard
Consumer Unit	BS EN 61439-3
Main Switch	EN 60947-3
RCD	EN 61008-1
MCB	EN 60898-1
RCBO	EN 61009-1
SPD	EN 61643-11
IP RATING	IP2XC

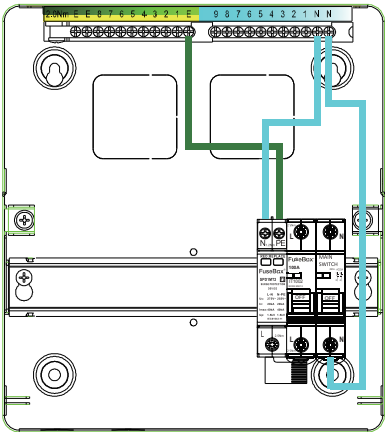
- 1e Ambient Temperature: MCBs are calibrated at 30°C according to the calibration temperature requirements of BSEN60898. At other temperatures the following rating factors should be used: *At 60°C 0.85 At 20°C 1.0 At 0°C 1.15*
- 1f **Adjacent thermal-magnetic MCBs should not be continuously loaded at 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 (2x captive screws).
- 2b Din rail assembly can be removed if preferred to make mounting on to wall and first fix easier.
- 2c Remove **minimum** appropriate **knockouts with a punch, in order to maintain the IP rating and fire containment of the enclosure.** We recommend glands are used to secure the incoming cables and grommet strip is used on the rear knockouts to prevent possible damage to the cable insulation.
- 2d Fix base to wall using screws and rawl plugs as appropriate **and remove any debris from inside the consumer unit.**
- 2e Adjust to the square and route incoming cables to desired positions.
- 3 **Connection of Tails**
- 3a Cut and dress the main incoming cables and earth conductor and route L and N to the incomer (main switch or RCD). A tail clamp (PN: ACCF) can be fitted to the majority of FuseBox consumer units.
- 4 **Installation of devices**
- 4a MCBs and or RCBOs should be clipped on the Din Rail,
- 4b Cut, dress and connect circuit conductors to appropriate MCBs or RCBOs neutral and earth terminals.
- 4c The incoming supply for time switches, installation contactors, bell transformers etc must be fed from an MCB (not directly from the busbar).

Torque Settings (TABLE 2)

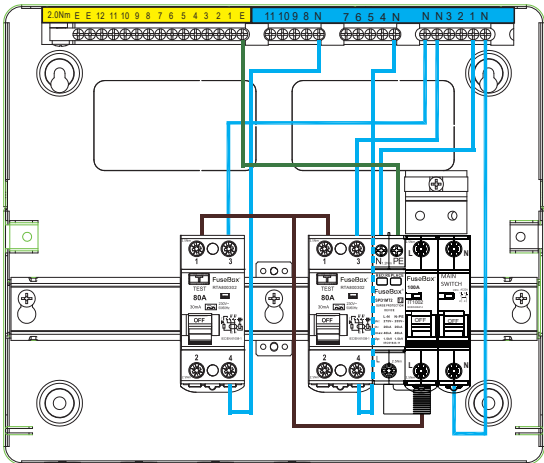
Device	Max Cable Capacity	Recommended Torque
Main Switch	35mm ²	2.5Nm
RCD	35mm ²	2.5Nm
MCB	16mm ²	2.5Nm
RCBO	16mm ²	2.5/1.2Nm
SPD1MT2	16mm ²	2.5/1.2Nm
Earth/Neutral Terminals	16mm ²	2.0Nm

- 4d ALL CONNECTIONS (including factory made connections) MUST BE TORQUED (TABLE 2 above).
- 4e **Make sure that each earth and neutral outgoing circuit is correctly made to the corresponding numbered terminals.**
- 4f Module blanks must be fitted to cover any spare modular ways on the cover.
- 5 **Circuit Identification**
- 5a All circuits must be clearly marked on the front cover. Pre-printed labels are supplied in the accessory pack.
- 6 **Operation of the TEST button on RCD/RCBO (if fitted)**
- 6a When newly fitted systems do not trip on the TEST button or using the RCCB tester the problem is normally caused by an earth to neutral fault on the circuit (PME supply).
- 7 **Testing**
- 7a 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).

Main switch & SPD layout



DUAL RCD & SPD layout



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

User guide

What To do if an MCB OR RCBO trips to OFF position



MCB

RCBO

RCBO

MCB/RCBO TRIPPED (OFF POSITION)

- TRY TO RESET MCB/RCBO (SWITCH TO **ON** POSITION)
- IF MCB/RCBO RESETS TO **ON** POSITION USE AS NORMAL
- IF MCB/RCBO **DOES NOT** RESET TO **ON** POSITION AND IS A SOCKET CIRCUIT, **UNPLUG ALL APPLIANCES.**
- NOW TRY TO RESET MCB/RCBO TO **ON** POSITION WITH ALL APPLIANCES UNPLUGGED.
- IF MCB/RCBO DOES NOT RESET TO **ON** POSITION CALL AN ELECTRICIAN.
- IF MCB/RCBO RESETS TO **ON** POSITION WITHOUT APPLIANCES PLUGGED IN, THERE IS A POSSIBLE FAULT WITH AN APPLIANCE. PLUG IN ONE APPLIANCE AT A TIME UNTIL THE MCB/RCBO TRIPS TO THE **OFF** POSITION.
- A FAULTY APPLIANCE WILL TRIP THE MCB/RCBO TO THE **OFF** POSITION
- THIS FAULTY APPLIANCE MUST NOT BE PLUGGED IN UNTIL IT IS TESTED AND REPAIRED BY A QUALIFIED PERSON.

What To do if an RCD trips to OFF position



RCD

RCD TRIPPED (OFF POSITION)

- IF RCD RESETS TO **ON** POSITION USE AS NORMAL
- IF RCD **DOES NOT** RESET TO **ON** POSITION SWITCH OFF ALL MCBS TO THE LHS OF THE RCD
- IF RCD NOW RESETS TO **ON** POSITION WITH ALL MCBS IN **OFF** POSITION, THEN SWITCH **ON** ONE MCB AT A TIME
- IF THE RCD TRIPS (**OFF**) WHEN YOU ARE SWITCHING **ON** AN MCB THIS IS THE CIRCUIT WITH THE FAULT.
- IF MCB IS A SOCKET CIRCUIT, UNPLUG ALL APPLIANCES CONNECTED TO THAT CIRCUIT.
- PLUG IN ONE APPLIANCE AT A TIME UNTIL THE RCD TRIPS TO THE **OFF** POSITION
- THIS FAULTY APPLIANCE MUST NOT BE PLUGGED IN UNTIL IT IS TESTED AND REPAIRED BY A QUALIFIED PERSON.
- IF THE MCB IS NOT A SOCKET CIRCUIT OR AFTER THESE CHECKS IF THE RCD DOES NOT RESET TO **ON** POSITION PLEASE CALL AN ELECTRICIAN



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