Consumer



Metal Consumer Unit (MCU)

Specifications and Dimensions

It is the responsibility of the person installing the electrical equipment to ensure that the installation meets the requirements of the IET wiring regulations and is therefore 'fit for purpose'. Factors such as correct selection of components, cable sizing, protective devices and Earth bonding are all critical and should be checked prior to full testing and power-up. Any other regulations applicable to the equipment being installed such as the Machinery Directive and current health and safety legislation must also be adhered to. Terminals, including factory fitted, must be checked first and periodically checked to ensure correct tightness.

DO NOT USE POWER TOOLS ON THESE PRODUCTS.

1. Important Information

- 1.1 This unit must be installed by a qualified competent person in accordance with all relevant legislation and regulations including building regulations and wiring regulations BS7671. If in doubt contact a qualified competent person. Install the MCU in the horizontal plane only.
- 1.2 The total current supplied by the unit must not exceed the rating of the incoming main switch or RCCB or any additional limitation (as shown on the way label).
- 1.3 The total sum of the individual MCB ratings may exceed this value where there is appropriate diversity on the installation.
- 1.4 This product is suitable for indoor use only and is rated at IP2X.
- 1.5 The consumer unit and associated devices have been type tested to the following specifications:
 CONSUMER UNIT: BS EN IEC61439-3
 DISTRIBUTION BOX: BS EN IEC 62208:2011

•ISOLATOR: BS EN IEC 60947-3

- •RCD: BS EN IEC 61008-1
- •MCBs: BS EN IEC 60898-1
- •RCBOs: BS EN IEC 61009-1
- 1.6 The MCBs fitted to this unit are calibrated at 30°C in accordance with temperature calibration requirements of EN60898.
- 1.7 Adjacent Thermal Magnetic MCBs should not be continuously loaded or approach their nominal rated currents when mounted in Enclosures. It is recommended that a 60% diversity factor be applied to the MCBs nominal rated current where it is intended to load the MCB continuously.

* All line images on this manual is for reference only





2. Enclosure Mounting

- 2.1 Loosen front cover screws using suitable tool (note: cover screws are held in place with captive washer)
- 2.2 Remove appropriate cutouts with suitable tool and smooth edges if necessary. If using compression glands, fit them in the appropriate cutout prior to fixing unit to the wall.
- 2.3 Mount the unit using appropriate screws and rawplugs as appropriate.
- 2.4 Bring all cables in through appropriate cutouts and route to their final location.
- 2.5 Ensure consumer unit is suitably bonded to earth using either the main earth stud provided OR by terminating main earth cable directly to earth terminal bar within the consumer unit.

3.Connection of Main Incoming Device

- 3.1 Main incoming device is positioned on the extreme right of the din rail.
- 3.2 Cut and dress the main incoming cables and earth conductor.
 - Fit them into the appropriate terminals.
- 3.3 The larger terminals at the far end of the earth bar are for bonding purposes.
- 3.4 Tighten the main incoming terminals securely. The recommended torque figure is 2.5Nm.

4.Installation of MCBs and RCBOs

- 4.1 Isolate the electrical supply from the consumer unit
- 4.2 Remove the front cover by loosening the two captive screws
- 4.3 Fully slacken the lower terminal of the device
- 4.4 Fully open the bottom device clip
- 4.5 Fit busbars onto the base of the RCDs
- 4.6 Slide MCBs and/or RCBOs onto the busbars and clip onto the mounting rail in the desired position and push fully home. Ensure retaining clip engages.
- 4.7 For Removal, please insert a small screwdriver into the retaining clip and push down
- 4.8 To connect High Integrity Circuits slide the RCD next to the main switch to the left and fit RCBOs and busbar.
- 4.9 While holding the device firmly onto the busbar, fully tighten the lower terminal screw.

- 4.10 It is recommended that the highest rated MCB or RCBO is fitted nearest to the main incoming device.
- 4.11 After fitting all outgoing devices and connecting all outgoing cables, please check the tightness of all cable connections. This should include all factory made connections, which may have loosened during installation or transit.

5. Circuit Connections to MCBs and RCBOs

Device	Max cable Capacity	Recommended Torque
Main Switch / RCD	50mm ²	2.5Nm
МСВ	16mm ²	2.0Nm
RCBO	16mm ²	2.0Nm
Earth & Neutral Terminals	16mm ²	2.0Nm

- 5.1 Cut, dress and connect circuit conductors to appropriate MCB, RCBO, neutral and earth terminals.
- 5.2 Ensure that each earth and neutral outgoing circuit is correctly made to its corresponding numbered terminal.

6.Blanking Of Unused Ways

6.1 Blanking plates should be fitted to cover any spare modular ways. Blanking plates are available if required.

7.Circuit Identification

- 7.1 The consumer unit way label is supplied with the consumer unit. This should be fixed into position below the circuit devices on the front cover.
- 7.2 Pre printed identification labels are provided and should be fixed in position on the way label according to the outgoing circuit.

8.Testing Of The Installation

- 8.1 After completion of the installation, it is essential that it is tested in accordance with the latest edition of the IEE Wiring Regulations for Electrical Installations (BS7671).
- 8.2 It is important that the following are included in the above. Operation of the test button of any RCDs fitted. Verify that the earth loop impedance requirements are satisfactory.

9.Installation Of Control Devices

9.1 Control devices such as timers, transformers and contactors can be fitted to the consumer unit in any position on the mounting rail. The incoming supply for the device must be fed from an MCB Not directly from the busbar).



Guidance Notes:

The total load must not exceed the rating of the incoming device or the assigned assembly rating (InA) whichever is the lower. Each neutral and earth connection must correspond numerically to its outgoing way.

Cable Access:

Cable access into the metal consumer unit must maintain the integrity of the non-combustable consumer unit so far as reasonably practical. This can generally be achieved by the installer ensuring that cable access holes they make in the enclosure do not leave gaps greater than: •1.0mm for all horizontal top surface and

•2.5mm for all other surfaces of the enclosure that are accessible after installation.

Note: Only BASEC approved cable should be used. 1.0mm² to 16mm² for outgoing cables and up to 35.0mm² for incoming live cables. Single conductors below 1.5mm² need to be doubled back in the terminal bar.

For any further comments or assistance please contact:

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