

# INSTALLATION INSTRUCTIONS

## Fully Loaded Metal Clad Consumer Units

Product Codes: **ZC14-17MC-8L, ZC16-17MC-10L, ZC18-17MC-12L, ZC21-17MC-12L**

### Safety Warning



- The installation should be carried out by a qualified electrician in compliance with the current edition of the IEE Wiring Regulations.
- Prior to installation, carry out the necessary risk assessment considering the people who could be at risk, the level of risk and the precautions required to control the risk
- Ensure that the circuit supply is isolated either by the circuit supply fuse being removed or the applicable circuit breaker being turned off before installation or any maintenance.
- Check the total load on the circuit ensuring the luminaire does not exceed the rating of the circuit cable, fuse or circuit breaker.
- Long-term use and voltage fluctuations can reduce the life span of the fitting.
- If the fitting incorporates control gear, ensure careful sizing to avoid instances of nuisance tripping of the protective device used in the installation.
- Follow the provided installation instructions, using the fixings supplied or recommended.
- Keep out of reach of children.

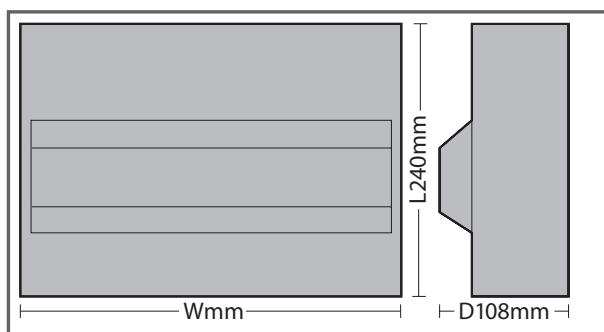


### Specification

#### Box Contents -

1 x Fully Loaded Metal Clad Consumer Unit, 1 x Customer Sheet, 1 x Safety Label, 1 x Accessory Pack

<b>Dimensions:</b>	ZC14-17MC-8L: L: 240 x W: 325 x D: 108mm ZC16-17MC-10L: L: 240 x W: 361 x D: 108mm ZC18-17MC-12L: L: 240 x W: 397 x D: 108mm ZC21-17MC-12L: L: 240 x W: 451 x D: 108mm
<b>Material:</b>	Metal
<b>Working Temperature:</b>	-5°C - 40°C
<b>Included:</b>	Accessory Pack includes 1 x Busbar, 2 x Earth / Neutral Rails, 2 x End Caps for Busbar, 2 x Half Plastic Blanks, 3 x Full Plastic Blanks, 8 x Screws, Round 20mm / 32mm knock-outs & Removable DIN Rail



### Installation Instructions

- The total current supplied by the unit must not exceed the rating of the incoming main switch, RCDs or any additional limitation (as shown on the way label).
- The total sum of the individual MCBs ratings may exceed this value where there is appropriate diversity on the installation.
- This product is suitable for indoor use only and is rated at IP2XC.
- MCBs are calibrated to meet the 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
- Adjacent thermal-magnetic MCBs should not be continuously loaded or approaching their normal rated currents when mounted in enclosures. Therefore it is recommended a 60% diversity factor is applied to the MCBs nominal rated current where it is intended to load the MCBs continuously.
- Before fitting the front cover check the tightness of all connections including factory made connection:

Main Switch / RCDs	35mm <sup>2</sup>	2.5Nm
MCBs	16mm <sup>2</sup>	2.0Nm
RCBO	16mm <sup>2</sup>	2.0Nm
Earth & Neutral Terminals	16mm <sup>2</sup>	2.0Nm

It is the installers responsibility to make sure all the connections (including factory connections) are tightened to the specified torque.

- Make sure to replace the busbar insulation shield and fit the front cover to complete the installation.

### Enclosure Mounting

- Select and remove the appropriate cable entries.
- Fix the base to the wall using screws and plugs as appropriate.
- Bring the cables through the appropriate apertures (using an appropriate gland, not supplied).
- Route the main incoming cables to the desired position.

### Connection of the Main Incoming Device

Cut and prepare the main incoming cables and earth conductor. Fit them into the appropriate terminals.

## Installation of MCBs

1. Slide the MCBs on to the busbar.
2. Ensure the MCBs engage onto the mounting rail.
3. Tighten the terminal screw. (See recommended tightening torques).
4. It is recommended that the highest rated MCB is fitted nearest to the main incoming device.

## Circuit Connections of MCBs and RCD

1. Cut, prepare and connect the circuit conductors to the appropriate MCBs, RCD, neutral and earth terminals.
2. Make sure that each earth and neutral outgoing circuit is correctly made to its corresponding numbered terminals.

## Blanking of Unused Ways

Blanking plates (included) should be fitted to cover any spare modular ways.

## Installation of Control Devices

Control devices such as timers, transformers and contactors can only be fitted to a consumer unit supplied with an accessory rail. The incoming supply for the device must be fed from a MCB (not directly from the busbar).

## Circuit Identification

1. The consumer unit way label fixed on the front cover of the consumer unit.
2. Pre-printed identification labels are provided and should be fixed in position on the way label, according to the outgoing circuit.

## Guarantee

---

This product is guaranteed for a period of 5 years from the date of purchase. The guarantee is invalid in the case of improper use, tampering, removal of the Q.C. date label, installation in an improper working environment or installation not according to the current edition of the I.E.E. Wiring Regulations (BS7671). Should this product fail during the guarantee period it will be replaced free of charge, subject to correct installation and return of the faulty unit. We do not accept responsibility for any installation costs associated with the replacement of this product. Your statutory rights are not affected. We reserve the right to alter specifications without prior notice.

## Maintenance

---

- This product will require routine cleaning if used in adverse (dust, paint, welding, oils etc) environments. Do not use solvents, aggressive detergents or abrasives.
- 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 (BS 7671).
- It is important that the following are included in the above:
  - Operation of the test button of any RCD
  - Verification that the earth loop impedance requirements are satisfactory.
- When this product comes to the end of its life or you choose to replace it, please do not dispose of it with your normal waste. Please recycle where the facilities exist, check with your local authority for suitable options.

## Additional Information

---

- The consumer unit and associated components have been type tested to the following specifications:
  - Consumer Unit - BSEN60439-3
  - MCBs - BSEN60898
  - RCDs - BSEN61008-1
  - RCBO - BSEN61009-1
  - Main Switch - BSEN60947-3
- Continual earthing through the casing door

INS/ELECTRICAL/0001/ZC-L/V1