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SURGE PROTECTED CONSUMER UNIT INSTALLATION AND USAGE GUIDE

Description

The surge protected distribution equipment range of metal consumer units by Live Distribution UK LTD is designed to fully comply with the requirements of BS EN 61439-3 and requirements of the 18th Edition of BS 7671 IET Wiring Regulations. With multiple sizes available, the range offers flexible versatile solutions for installations.

Features & Benefits

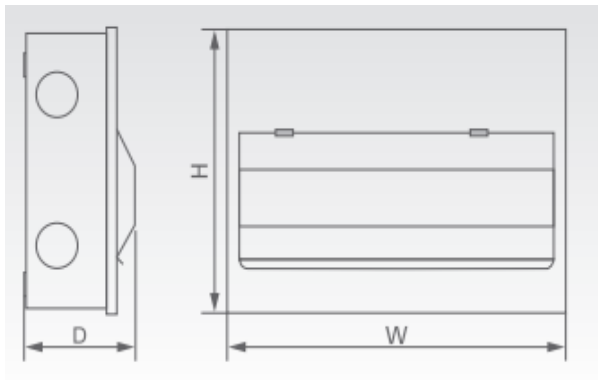
- ❖ Standard: BS EN 61008, BS EN 60898, BS EN 61439-3
- ❖ Operating Voltage: 230/50Hz
- ❖ Protection Degree: IP40
- ❖ Maximum Load(A): As indicated on incoming device
- ❖ Material: manufactured from robust steel
- ❖ Fully enclosed metal construction body with drop down metal lid
- ❖ Multiple circular cable entry knock-outs (25&32mm) on the top and bottom, 40mm on the sides, and back plus larger rear slots
- ❖ Raised key holes for secure easy installation
- ❖ Raised Din rail improves cable routing
- ❖ Modern style finished in white polyester powder coating to RAL9010
- ❖ Large and accessible wiring space, with extra space for RCBOs
- ❖ Flexible connection allows for various configurations of protected ways

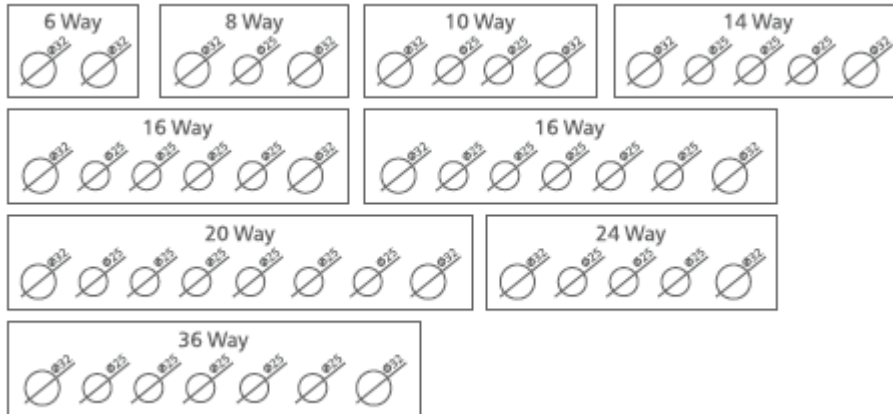


Unit Dimension

Part No.	Description	Dimensions		
		W	H	D
MCU04M-SP	Surge Modification Metal Clad Consumer Unit Enclosure	125	252	110
MCU06M-SP	2 Way Metal Clad Consumer Unit Enclosure	161	252	110
MCU08M-SP	4 Way Metal Clad Consumer Unit Enclosure	197	252	110
MCU10M-SP	6 Way Metal Clad Consumer Unit Enclosure	233	252	110
MCU12M-SP	8 Way Metal Clad Consumer Unit Enclosure	269	252	110
MCU14M-SP	10 Way Metal Clad Consumer Unit Enclosure	305	252	110
MCU16M-SP	12 Way Metal Clad Consumer Unit Enclosure	341	252	110
MCU18M-SP	14 Way Metal Clad Consumer Unit Enclosure	377	252	110
MCU22M-SP	18 Way Metal Clad Consumer Unit Enclosure	449	252	110
MCU24M-SP	20 Way Metal Clad Consumer Unit Enclosure	279	465	110
MCU36M-SP	32 Way Metal Clad Consumer Unit Enclosure	377	465	110

Outline Dimensions





Notes:

Knockout placements are symmetrical between top and bottom / left and right sides.

Double-tier board has double the number of side knockouts.

Unit Characteristics

Rated and Operational Voltage (Un / Ue)	230V AC at 50Hz
Rated Impulse Withstand Voltage (Uimp)	4kV
Rated Current of Assembly (InA)	100A
Rated Frequency (fn)	50Hz
Degree of Protection	IP20
Mechanical Impact Protection	IK05
Note: Rated diversity factor (RDF) only applies to continuously and simultaneously loaded circuits.	

Safety Instructions

- This unit must be installed and tested in accordance with the requirements of all relevant legislation, regulations and accepted practice.
- After completion of the installation draw users attention to the instructions contained inside this booklet and leave with user.
- The total load supplied by this unit must not exceed the rating of the main switch.
- The total load of the RCBO's may exceed this value where appropriate diversity is applied.
- This unit is suitable for indoor use only and is rated at IP20.

- The unit and all its components have been type tested to the following specifications:

Device	Standard
Consumer Unit	BS EN 61439-3
Main Switch	BS EN 60947-3
RCBO	BS EN 61009-1
SPD	BS EN 61643-11

- The RCBO's fitted to this unit are calibrated at 30°C in accord with temperature calibration requirements of EN60898. At other temperatures the following rating factors should be used.

60°C 0.85 20°C 1.0 0°C 1.15
- Adjacent Thermal Magnetic RCBO's 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 RCBO's nominal rated current where it is intended to load the RCBO continuously.

Installation

1. Enclosure Mounting

- 1.1. Remove lid by turning lid fixing screws until they are free from the base.
- 1.2. Remove appropriate cable entry holes. If using compression glands, fit them in the appropriate knockout prior to fixing unit to the wall.
- 1.3. Mount the unit using appropriate screws and fixings.
- 1.4. Bring all cables in through appropriate cutouts and route to their final location.

2. Connection of Main Incoming Device

- 2.1. Cut and dress the main incoming cables and connect them into the appropriate terminals.
- 2.2. Tighten the main incoming terminals securely.

3. RCBO Connection

- 3.1. Fit busbar clips onto base of Din rail.
- 3.2. Cut the busbar into the required split configuration.
- 3.3. Slide RCBO onto busbar ensuring it engages onto the mounting rail.
- 3.4. It is recommended that the largest rating RCBO's be fitted closest to the Main Switch.
- 3.5. Tighten terminal screw onto busbar to recommended torque of 2.0Nm and fit Terminal cover.

3.6. Cut and dress circuit conductors and connect them to the appropriate RCBO and corresponding Earth and Neutral terminals. Recommended torque 2.0Nm.

4. Installation of Control Devices

4.1. Control devices such as Timers Modular, Contactors and Transformers can be fitted to this unit. The incoming supply for the device should be fed from an MCB and not direct from the busbar.

5. Completion of Installation

5.1. Test installation in accordance with relevant regulations.

5.2. Once all circuits are connected, replace lid and lock fixing screws in place by turning clockwise.

5.3. Fit any Blanking plates that are required by cutting to size and clipping into place on the front cover.

5.4. Labels are provided and should be used as required.

5.5. Once the above is complete hand this booklet to the end user.

Cable and Torque Settings

Check the tightness of all terminals, including factory made terminations, as follows:

Device	Max Cable Capacity (mm²)	Recommended Tightening Torque (Nm)
Main Switch	35	2.5
1 Pole RCBO	16	In 2.0 Out 1.2
Earth and Neutral Terminals	25	2.0

Operating Instructions

- In normal use all toggles should be in the upward position indicated by **I** or **ON**.
- To isolate the supply to all the circuits, switch the RED toggle on the main isolating switch (if it is a split load board),
- To isolate the individual circuits, switch OFF the RCBO controlling that particular circuit.

CAUTION: THIS ONLY ISOLATES ONE CIRCUIT THE REMAINDER OF THE CIRCUITS AIR STILL LIVE.

- Should any RCBO trip, reset the RCBO by pushing toggle upwards. Should it trip again, the circuit may require attention. Leave the RCBO in the OFF position and seek qualified advice.

WARNING!

ALL CONNECTIONS, INCLUDING FACTORY-MADE, MUST BE CHECKED FOR THE CORRECT INSTALLATION AND TIGHTNESS, PRIOR TO THE COMMISSIONING OF THE ELECTRICAL INSTALLATION. ELECTRICITY IS DANGEROUS IF IN ANY DOUBT PLEASE SEEK QUALIFIED ADVICE



ENSURE THAT THESE INSTRUCTIONS ARE MADE AVAILABLE TO THE END USER FOR FUTURE REFERENCE.