

High Integrity Surface Mounting Consumer Units	BV5034 – BV5036
Mains Switch only Surface Mounting Consumer Units	BV0003 – BV0005

Description

High Integrity and Mains Switch only Consumer Units and can have SPDs easily fitted

The high integrity consumer units can have a maximum of 2 ways for RCBOs or MCBs controlled by the Main Switch, and two RCDs to protect remaining circuits.

The Mains Switch only consumer units have up to 10, 14 or 16 out-going ways, controlled by the mains switch.

The metal enclosures have rear cable entry and plain edges on side walls. The top and bottom walls have 20mm, 25mm and 32mm knockouts



Safety Instructions

- All products must be installed by a competent/qualified person in accordance with relevant regulations and legislation, including the current Building Regulations and BS 7671, the IET Wiring Regulations.
- The total current supplied by the Consumer Unit must not exceed the rating of the Main Switch or the incoming supply.
- This Consumer Unit is suitable for use indoors and is rated at IP2X
- Only DETA devices (MCBs, RCBOs RCDs etc.) should be installed into DETA Consumer Units.
- All unused out-going ways must have a blank fitted.
- Before fitting the front cover, check that all terminations are tight, including factory made connections.
- Ensure all busbar shields are fitted.
- Ambient temperature
 - The DETA range of the MCBs are calibrated to meet the 30°C calibration temperature requirements of BS EN 60898.
 - At other temperatures the following rating factors should be used:

40°C	0.85	20°C	1.00	0°C	1.15
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- Thermal-magnetic MCBs that are adjacent to each other should not be continuously loaded at or approaching their nominal rating when mounted in enclosures. If MCBs are to be continuously loaded, it is recommended that a factor of 0.6 is applied to its nominal rating.

Installation

- Remove the front cover.
- Remove knockouts to facilitate cable entry as required, and insert grommets.
- Mount the enclosure base using wall plugs and screws as appropriate, ensuring it is fixed.
- Feed circuit cables through the knockouts as required.
- Route the meter tails into the enclosure to terminate in the Main Switch, using a suitable gland as necessary. BEAMA recommendations should be followed, including flattening the cable end, use of a meter tail clamp and 19 strand 25mm² cable.
- For Mains Switch only consumer unit**
Populate the enclosure with the RCBOs as required. The highest rating RCBOs should be closest to the Main Switch.
For High Integrity consumer unit
Populate the enclosure with the MCBs as required. The highest rating MCBs should be closest to the Main Switch or RCD that feed them.
- Fit the blanks to the DIN rail in the spare MCB/RCBO spaces.
- Fit the live busbar in to either the Main Switch or RCD and MCBs. The busbar may need cutting and shortening to less MCBs/RCBOs than it is made for. Fit the live busbar shield.
- Cut, dress and terminate the circuit cables, making sure the neutral and earth conductors are terminated in the corresponding circuit number terminals. Earth conductors should be appropriately sleeved.
- Test the installation in accordance with the latest edition of the IET Wiring Regulations (BS 7671). It is important that the RCD/RCBO operation times and test button are tested, as well as verification that the earth loop impedance requires are met.
- Fit the front cover and attach the circuit identification labels.

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

Device	Max. Cable Capacity	Recommended Tightening Torque
Main Switch	35mm ²	3.0 Nm
RCD	25mm ²	2.5 Nm
MCB	16mm ²	2.0 Nm
RCBO	16mm ²	2.0 Nm
Earth & Neutral	16mm ²	2.0 Nm

Lid Barrel Lock

It is possible to lock the lid closed to prevent circuits being switched on whilst other trades are working within the plot.

- To do this, a barrel lock needs fittings by removing the screw and locking lever, remove the nut, insert the lock through the hole and replace the nut, locking lever and screw.
- Once the installation is completed, the lock should be removed and the blanking cap should be fitted.



User Information

RCD / RCBO Testing

- The RCD and RCBO (where fitted) should be tested regularly. To test, press the Test button and the switch should flip to the off position.
- To reset, push the switch to the on position.

Resetting the Devices (Trip Switches)

- The 'trip switches' will operate if a fault has occurred. To reset, push the switch into the on position.
- If the fault is still present, the switch will not stay in the on position. If this happens, a competent person or electrician will need to inspect the installation.

Product Specification

Voltage	220 – 240V 50Hz	Compliance	Enclosure: BS EN 61439-3 Main Switch: BS EN 60947-3 RCD: BS EN 61008-1 MCB: BS EN 60898-1 RCBO: BS EN 61009-1
Current	100A max.		
Main Switch HI Enclosure RCD	AC-22B 80A 30mA Type A		

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