



# Fortress Circuit Protection

## Metal Enclosure

This provides a guide to the assembly and installation of the BG Electrical enclosure unit.

This product must be installed by a competent person in accordance with the current IET Wiring Regulations (BS 7671) and Building Regulations.

Ensure ALL screws are fully tightened before use. (Please refer to torque settings table)

Please ensure electrical supply is disconnected before installation.

### Instructions

1. Remove front cover by opening the visor, and undo retaining screws. Note - screws are captive and will not fall out.
2. Provide cable access via either 20mm or 32mm knockouts on the top and bottom faces, 32mm knockouts on the side faces or a large knockout in the base. Only remove the minimum number required. Ensure IP rating is maintained e.g. use of glands.
3. Secure to wall. Use one key hole slot to hang in position, ensure fitted level, use other fixing holes to firmly secure.
4. Fit different devices to DIN rail if required, ensure cables are connected to the devices and the neutral and earth terminal bars.  
Note: Busbar and neutral cable are supplied with this enclosure.
5. Ensure all connections are secure and terminal screws fully tightened. Recommended max torque for terminal screws, MCBs and RCB0s is 2Nm, Switch is 3.5Nm, RCD is 2.5Nm. (Please refer to torque settings table)
6. Test in accordance with the current IET wiring regulations.
7. Add cover mounted blanks supplied if required.
8. Refit cover, and secure using screws.
9. Apply RCD test label and circuit identification labels to front cover above devices.

### General

Tools – Screwdriver PZ 2 or Flat screwdriver, knife and pliers.

Cleaning – use a soft damp cloth with luke warm water (only clean outside of unit).

Standards – All consumer units have been designed to comply with the requirements of BS EN 62208, BS EN 61439-3, BS 7671 and Part P document.

### Guarantee

BG Electrical products are guaranteed against faulty materials and workmanship for a period of 10 years from date of delivery: products will be repaired or (at BG Electrical's discretion) replacements will be supplied or (at BG Electrical's discretion) a credit note will be issued. This guarantee is subject to BG Electrical's conditions of sale and in particular to the following conditions being met:

1. Notification of any defect is given to BG Electrical as soon as reasonably practicable after becoming apparent, and the products then returned to BG Electrical.
2. The products have only been operated under normal operating conditions and have only been subject to normal use.
3. No work (other than normal and proper maintenance) has been carried out to the products without BG Electrical's prior written consent.
4. The products have been assembled, or incorporated into other goods, by a qualified and recognised electrician and only in accordance with any instructions issued by BG Electrical.
5. The defect has not arisen from an item manufactured or supplied by a person other than BG Electrical.

This guarantee does not affect any consumer statutory rights.

All components used in a BG Electrical enclosure, must be supplied by BG Electrical. The use of any other components will negate compliance to BS EN 61439 and the BG Electrical Guarantee. Failure to fit the enclosure in accordance with these instructions will invalidate the guarantee.

### Batch Code Explanation

yyWxx: Manufacturing date code; year of manufacturing (yy) and week of manufacturing (Wxx)

### Address/Helpline

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If you have further technical assistance you can get in touch with our

**Technical Helpline on:**

**+44 (0)3300 249 279**



**[technical.support@bgelectrical.co.uk](mailto:technical.support@bgelectrical.co.uk)**

### Environmental Protection



This symbol is known as the "Crossed-out Wheeled Bin Symbol". When this symbol is marked on a product or battery. It means that it should not be disposed of with your general household waste. Some chemicals contained within electrical/electronic products or batteries can be harmful to health and the environment. Only dispose of electrical/electronic/battery items in separate collection schemes, which cater for the recovery and recycling of materials contained within. Your co-operation is vital to ensure the success of these schemes and for the protection of the environment.

## Torque Settings

Torque Settings	 PZNo.	 (mm)	Cable >1.5mm <sup>2</sup> Tightening torque (Nm)	Cable ≤1.5mm <sup>2</sup> Tightening torque (Nm)	Cable stripping (mm)
<b>Consumer Unit Terminals</b>					
Earth and Neutral Terminal Bars	M5	6.5	2	1.3	11
<b>Isolation</b>					
Switch Disconnecter	M7	9	3.5	2.3	14
<b>Circuit Protection</b>					
MCB	M5	9	2	1.3	12
RCBO	M5	9	2Nm L / in - 1.2Nm L / N out	1.3	12
RCD	M6	9.5	2.5	1.3	14
SPD	M5	9	2Nm PE 1.2Nm L / N	1.3	12

## Interface Characteristics

Rated & Operational voltage (Un / Ue)	230V A.C 50Hz		
Rated & Insulation voltage (Ui)	500V A.C 50Hz		
Rated impulse withstand voltage (Uimp)	4kV		
Rated current of the Assembly (InA)	40A, 63A, 80A, 100A		
Note: dependant upon rating of main incoming device			
Rated current of an outgoing circuit (Inc)	MCB 6A-50A (marked rating of current on device) RCBO 6A-40A (marked rating of current on device)		
Rated current of outgoing unit (InC)	RCD 40A 63A 80A 100A (marked rated current on device)		
Rated conditional short-circuit current of the assembly (Icc)	ICC=16KA		
Protection against electric shock	Consumer unit shall be installed in an electrical system conforming to the current edition of IEC 60364 / BS7671		
Rated diversity factor (RDF) / Values of assumed loading	Note: RDF only applies to continuously and simultaneously loading circuits. In principle this means adjacent circuit breakers having a load 'on' time exceeding 30 minutes or where a load not exceeding 30 minutes has an 'off' time less than the 'on' time will need to have the rating diversity factor applied as indicated Table and ratings based on a continuous rating of 90A		
Number of outgoing circuits			Assumed Loading factor
2 and 3			0,8
4 and 5	0,7		
Rated Frequency (fn)	50Hz		
Pollution degree	2		
Types of earthing system for which the assembly is designed	Indoor use only Stationary Assembly		
Degree of protection	IP2XC/IP65 Intended for use in domestic (residential) or similar premises		
Electromagnetic compatibility (EMC) classification	A		
External design	Wall-mounted, surface type, enclosed assembly		
Mechanical impact protection	IK05		
The type of construction	Fixed parts		
Type A DBO	Distribution board for use by ordinary persons		