

Front

Rear

Part No.: CFUGA2BLD

### Safety Warning

For your safety, this product must be installed in accordance with local Building Regulations. This product **MUST** be installed by a competent person who is registered with an electrical self-certification scheme. Further information is available online or from your local authority. Please read carefully and use in accordance with these safety wiring instructions. Before commencing any electrical work ensure the supply is disconnected, and securely locked off. Wiring should be in accordance with the latest edition of the IET regulations BS 7671.

**Note:** - Most illustrations relate to a typical Dual RCD unit, exact configuration will depend on type, size and material of consumer unit purchased.  
Ensure all screws are fully tightened before use. (Please refer to torque settings table)

### Instructions

- Remove front cover by opening visor and turning screws anti-clockwise, until notched screw dis-engages.
- Provide cable access via 20 or 22mm knock outs in sides, top and bottom, or access via cut outs in base. Push in cable protector provided. Only remove minimum required. Ensure IP rating is maintained, e.g. use of glands.
- Optional removal of DIN rail is possible, disconnect neutral cables from terminal bars or devices, loosen screws either end of DIN rail, slide DIN rail sideways and lift out.
- Secure to wall, use the keyhole slots to hang in position, use the integral spirit level to ensure the unit is level, secure with remaining fixing holes. For uneven walls use 2 point fixing. Use appropriate wall fixings suitable for the mounting surface when installing this unit.
- Refit DIN rail if previously removed and re-connect neutral cables, locate and prepare main incoming cables.
- Fit devices, ensure the main switch is aligned with the matches on the right hand side of the DIN rail. Place required devices on to the DIN rail, attach the top of the device onto the rail first and then push down bottom of device, the retaining clip will snap onto the rail. Devices can be removed by pulling out the bottom clip device (use a thin bladed screwdriver) and remove by lifting the bottom part of the device first.

7. Configure by cutting the supplied busbar to desired length, depending on number of ways protected by RCD or RCBO if Dual, wired and unprotected. Ensure one finger for incoming plus number of ways required, plus any spare ways which may need to be added later.

**Note:** - Please cut busbar square to finger edge, and discard excess.

8. Fit busbars, and fit additional cable kits if required, e.g. for Split Load or Dual RCD.

**Note:** - Please ensure the live cables to RCD/RCBO are fitted under the busbar in the main switch live terminal.

9. Locate, prepare and connect all incoming cables as required, suggest cable strip length of 16mm.

**Important:** - Ensure connectives are secure and terminal screws fully tightened. Recommended max torque for Terminal screws, MCBs and RCBOs is 2Nm, Switch is 2.5Nm, RCD is 2.5Nm. (Please refer to torque settings table)

10. Test in accordance with the current IET wiring regulations.

11. Ensure busbar shield and busbar are refitted.

12. Refit front cover, by opening visor and turning screws clockwise until cover is secured in position.

13. Apply labels - open hinged visor and apply warning and circuit identification labels as shown.

**Note:** - Fill any unused ways with cover blanks provided.

### Torque Settings

Torque Settings	⊕	⊖	Cable <1.5mm <sup>2</sup> Tightening torque (Nm)	Cable <1.5mm <sup>2</sup> Tightening torque (Nm)	Cable stripping (mm)
Earth and Neutral Terminal Bars	M5	6.5	2	1.3	11

### Consumer Unit Terminals

Isolation	M7	9	3.5	2.3	14
Switch Disconnector	M7	9	3.5	2.3	14

### Circuit Protection

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 (U <sub>n</sub> / U <sub>e</sub> )	230V A.C 50Hz
Rated & Insulation voltage (U <sub>i</sub> )	690V A.C 50Hz
Rated impulse withstand voltage (U <sub>imp</sub> )	6kV
Rated current of the Assembly (I <sub>nA</sub> )	40A, 43A, 80A, 100A
Rated current of the Assembly (I <sub>nA</sub> )	40A, 43A, 80A, 100A
Rated current of an outgoing circuit (I <sub>nc</sub> )	MCB 6A-20A (marked rating of current on device) RCBO 6A-40A (marked rating of current on device)
Rated current of outgoing unit (I <sub>nc</sub> )	RCD 40A 43A 80A 100A (marked rated current on device)
Rated conditional short-circuit current of the assembly (I <sub>cc</sub> )	10kA-16kA
Protection against electric shock	Consumer unit shall be installed in an electrical system conforming to the current edition of BS 7671
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	2 and 3
Assumed Loading factor	0.9
Load 5	0.7
4 to 9 inclusive	0.6
10 and above	0.5
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	IP20 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	IP25
The type of construction	Fixed parts
Type A DBO	Distribution board for use by ordinary persons

### General

Tools - Screwdriver P2 or Flat screwdriver, knife and pliers.  
Cleaning - use a soft damp cloth with lukewarm water (only clean outside of unit).  
Standards - All consumer units have been designed to comply with the requirements of BS EN 61439-3, BS 7671 and Part P document.

### Guarantee

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

- Notification of any defect is given to BO Electrical as soon as reasonably practicable after becoming apparent, and the products then returned to BO Electrical.
- The products have only been operated under normal operating conditions and have only been subject to normal use.
- No work (other than normal and proper maintenance) has been carried out to the products without BO Electrical's prior written consent.
- 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 BO Electrical.
- The defect has not arisen from an item manufactured or supplied by a person other than BO Electrical.

This guarantee does not affect any consumer statutory rights.

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

### Batch Code Explanation

yy/mm: Manufacturing date code, year of manufacturing (yy) and month of manufacturing (mm)

### Address/Hotline

Lucock PLC  
Stafford Park 1  
Telford TF3 3BD  
ENGLAND

EU: Lucock SE  
C/ Babilonia 1, 5  
0802 Mataró  
SPAIN

If you have further technical assistance you can get in touch with our  
**Technical Hotline on:**  
+44 103300 549 279  
technical.support@lucock.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.

210mm

297mm

145mm

## Type 2 Single Phase Surge Arrester Installation Guide - CUSPDT21

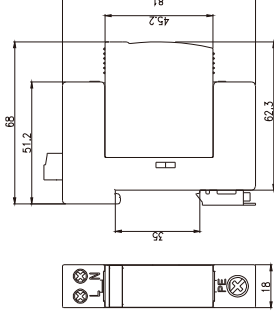
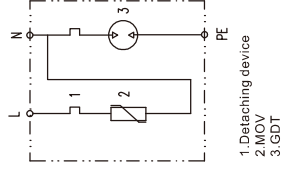
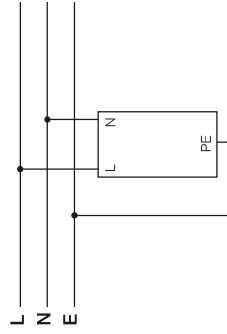
Fully Compliant to BSEN61643, BSEN62305 and the latest requirements of the 18th Edition Wiring Regulations BS7671

### Installation notes for guidance


- Cable Size 1.5mm<sup>2</sup> min. - 6mm<sup>2</sup> max.
- Cable connecting length max. 500mm / shorter if possible
- Connect to 32amp MCB b or c curve
- Neutral connection to neutral bar
- Earth connection to earth bar
- These SPD's are connected in parallel not series so can be used on any rating of current
- When carrying out insulation test, remove earth cable to device, or remove module, or do test at reduced voltage 250V DC max. Failure to abide by this advice may damage the arrester
- Please note these devices are earth leakage free and may be connected before or after rod's, rcbo's etc
- These surge arresters are ideal for domestic installations
- You only need one arrester per board and all your outgoing circuits on that board will be protected
- CUSPDT21 can be used on TNS, PME, TT systems
- This surge arrester is easy to install, just connect it in parallel to your board, see the diagram below

210mm

SPD According to	IEC61643-11 EN61643-11
Maximum continuous operating voltage U <sub>CV</sub>	275V
Voltage protection level up 3kA (8/20us)kA	< 1.5kV
Nominal discharge current I <sub>n</sub> (8/20us)kA	L- N 20kA N-PE 20kA
Max. discharge current I <sub>max</sub> (8/20us)kA	L- N 40kA N-PE 40kA
Response time	L- N < 25ns N-PE < 100ns
Torque	PE :2.0Nm L&N:1.2Nm
Dimensions	W 18mm x H81mm x D 68mm
Degree of protection	IP20
Recommended backup MCB/rise	32A
Terminal capacity	1.5-6mm <sup>2</sup>
Visual indication of status	Green: OK Red: Replace Module
DIN rail mountable	Yes



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Technical Helpline: 03300 249 279

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