

6kA Compact RCBO 1P Type A

Residual current circuit breaker with integral overcurrent protection

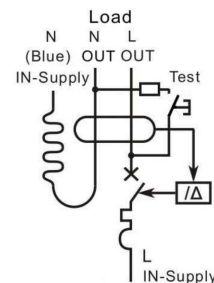
General Information

The Lewden range of circuit protection devices are designed and tested for use with Lewden branded distribution boards.

This device must be installed by a qualified electrician in accordance with the latest edition of the IET wiring regulations for electrical installations BS7671

Compact (reduced height) RCBOs occupy less space within a consumer unit (CU) or distribution board (DB) than conventional RCBOs, therefore offering the advantage of increased space for the

Current rating	B trip part No A type	C trip Part No A type
6A	RCBO-B06/30/SPA	RCBO-C06/30/SPA
10A	RCBO-B10/30/SPA	RCBO-C10/30/SPA
16A	RCBO-B16/30/SPA	RCBO-C16/30/SPA
20A	RCBO-B20/30/SPA	RCBO-C20/30/SPA
32A	RCBO-B32/30/SPA	RCBO-C32/30/SPA
40A	RCBO-B40/30/SPA	RCBO-C40/30/SPA
50A	RCBO-B50/30/SPA	RCBO-C50/30/SPA



Technical Data	
Reference standard	IEC /BS EN61009-1
Rated Voltage (Un)	230-240V ac
Rated Current (In)	6-50A
Rated Frequency (Fn)	50/60Hz
Rated short circuit capacity	6kA
Rated impulse withstand (Uimp)	4kV
Tripping Characteristic	B or C
Rated residual current	30mA
Residual Current Class	A
Neutral pole	Un-Switched / Solid
Terminals line/load	1-16mm ²
Neutral conductor length	400mm (can be cut to suit)
Terminal tightening torque	Line 2.5Nm Load 1.2-1.5Nm
Dimension (mm)	W18 x H96
Operating temperature	-5 to +40°C
Reference calibration temp.	+30°C
IΔ m	500A

Single module RCBOs are suitable for use in TN-S, TN-C-S, & TT * network systems.

(* when used in conjunction with a 2 pole mains isolation switch). Note that alone, single pole RCBOs are not considered as a suitable means of isolation on systems with IT & TT earthing arrangements, where it may be necessary to disconnect the neutral connection in order to achieve safe isolation of individual circuits.

Appliance manufacturer's instructions must be considered when selecting the appropriate type of RCBO for a particular item of equipment.

Type	Protection level
A	Provides protection against AC earth fault currents and pulsating DC currents, whether suddenly applied or slowly increasing. Tripping is achieved for residual pulsating DC currents superimposed on a smooth DC current up to 6mA. Particularly suited to single phase loads featuring electronic components. e.g. Lighting controls and LED drivers, induction hobs, power supplies for class II equipment, multimedia equipment, inverters etc. Type A devices are also suitable for type AC RCD applications such as immersion heaters, tungsten and halogen lighting, ovens, showers etc.

Adjacent thermal magnetic MCBs/RCBOs should not be continuously loaded at their nominal rated currents when mounted within enclosures.

A rated diversity factor (RDF) should be applied to the nominal rated current of the MCB/RCBO where it is intended to load circuits continuously and simultaneously.

CU ways	RDF	CU ways	RDF
1 way	1	6-9 ways	0.6
2-3 ways	0.8	10 ways +	0.5
4-5 ways	0.7		

Testing of the Installation

After completion of the installation, it is essential that it is tested in accordance with the latest edition of the IET wiring regulations for electrical installations (BS7671)

RCBOs with a solid neutral pole require the blue neutral flying lead to be disconnected during insulation resistance testing.

Residual Current Test Parameter		Result
'AC' setting	0.5x IΔn	RCBO will not trip
	1.0x IΔn	0 & 180° RCBO must trip within 300ms
	5.0x IΔn	0 & 180° RCBO must trip within 40ms
'A' setting **	1.4x IΔn	RCBO must trip within 300ms
	350mA	RCBO must trip within 40ms

**Test equipment manufacturers instructions should be referred to in order to establish the correct machine settings for testing type A devices.

Compliance to BS7671 is deemed to have been verified with an alternating current (AC) test at rated residual operating current 1.0x IΔn

Maintenance

The RCBO should be tested on a regular basis (every six months) by pressing the TEST button (T) in accordance with the latest edition of the IET wiring regulations for electrical installation (BS7671)

What to do if an MCB/RCBO trips

Reset tripped MCB/RCBO to the ON position. If device trips again, disconnect all appliances connected to this circuit. Switch RCBO ON and safely connect appliances one at a time to identify which one trips the device. **In all cases, once the faulty appliance has been identified, do not continue to use the item until it has been checked.**

If fault persists, call a qualified electrician to check the installation.

Tripping characteristics

