

# 6kA RCBO Types A & AC

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

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
Types Available	A or AC
Neutral pole	Un-switched
Terminals line/load	1-16mm <sup>2</sup>
Neutral conductor length	360mm (can be cut to suit)
Terminal tightening torque	2.5Nm
Dimension	1x 18mm module
Operating temperature	-5 to +40°C
Reference calibration temp.	+30°C
I $\Delta$ m	500A

Current rating	B trip part No AC type	B trip part No A type	C trip Part No AC type	C trip Part No A type
6A	RCBO-06/30/SP	RCBO-06/30/SPA	RCBO-06/30/1M/C	RCBO-06/30/1M/CA
10A	RCBO-10/30/SP	RCBO-10/30/SPA	RCBO-10/30/1M/C	RCBO-10/30/1M/CA
16A	RCBO-16/30/SP	RCBO-16/30/SPA	RCBO-16/30/1M/C	RCBO-16/30/1M/CA
20A	RCBO-20/30/SP	RCBO-20/30/SPA	RCBO-20/30/1M/C	RCBO-20/30/1M/CA
32A	RCBO-32/30/SP	RCBO-32/30/SPA	RCBO-32/30/1M/C	RCBO-32/30/1M/CA
40A	RCBO-40/30/SP	RCBO-40/30/SPA	RCBO-40/30/1M/C	RCBO-40/30/1M/CA
50A	RCBO-50/30/SP	RCBO-50/30/SPA	RCBO-50/30/1M/C	RCBO-50/30/1M/CA

Lewden single module RCBOs are available in two types; A and AC. In all cases, appliance manufacturer's instructions must be considered when selecting the appropriate type of RCBO for a particular item of equipment.

Type	Protection level
AC	Provides protection against AC earth fault currents, whether suddenly applied or slowly increasing
A	Provides protection against AC earth fault currents and pulsating DC currents, whether suddenly applied or slowly increasing

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.

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

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.

### 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) Test equipment manufacturers instructions should be referred to in order to establish the correct procedure for testing type A and AC devices.

Test Parameter	Result
0.5x I $\Delta$ n	RCBO will not trip
1.0x I $\Delta$ n	0 & 180° RCBO must trip within 300ms
5.0x I $\Delta$ n	0 & 180° RCBO must trip within 40ms

### Maintenance

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

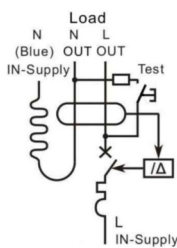
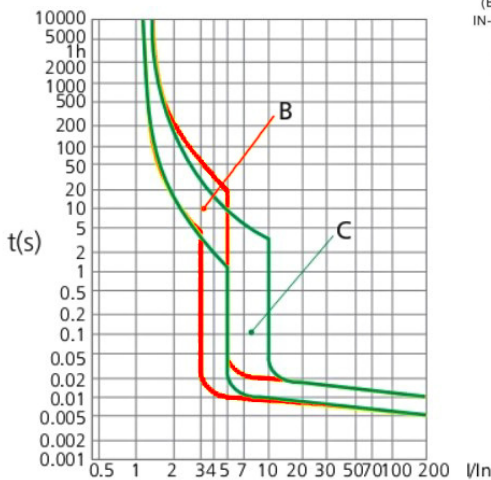
### What to do if an MCB/RCBO trips

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



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