

Technical Information

Polestar Compact RCBOs



Overview:

Devices (RCBOs)

- 16kA Breaking Capacity to EN 61009, IEC 61009
- 230V 50Hz Rated Voltage
- 6A – 50A Current Range
- 'C' Characteristic Curve
- Type A Residual Device (AC plus pulsed DC residual current)
- 30mA sensitivity

Features:

- 18mm wide modules
- Suitable for use within Polestar Compact Distribution Boards
- Unswitched Neutral
- Terminal Capacity 16mm²

Part No's

Current Rating	Type C (600mm tail)	Type C (1200mm tail)
6A	701C/063	701C/063/LT
10A	701C/103	701C/103/LT
16A	701C/163	701C/163/LT
20A	701C/203	701C/203/LT
32A	701C/323	701C/32/LT
40A	701C/403	701C/403/LT
50A	701C/503	701C/503/LT

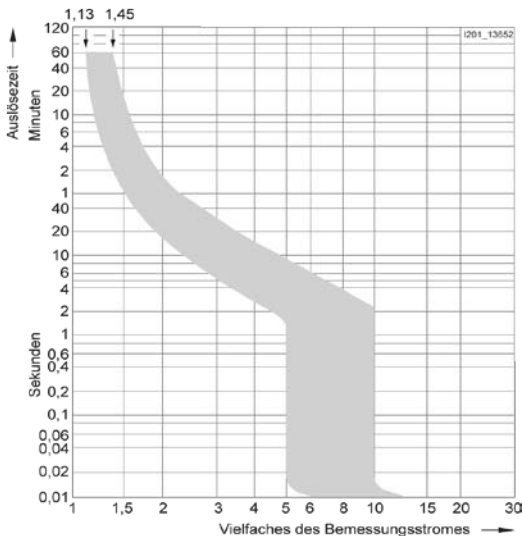
Technical Specification:

Standards Approved acc. to		IEC/EN 61009-1, IEC/EN 61009-2-1 & IEC/EN 61543
Rated Voltages U_n	V AC	230 (240)
Rated Frequency f_n	Hz	50...60
Rated Currents I_n	A	6, 10, 16, 20, 32, 40, 50
Sensitivity	mA	30
Rated Switching Capacity	kA	16
Terminals/Conductor Cross-sections	mm ²	0.75...16
Terminal Tightening Torque	Nm	2
Mounting Position		Any
Degree of Protection – according to EN 60529		IP20, with connected conductors
Service life on average, with rated load		20,000 operations (6A to 32A); 10,000 operations (40A to 63A)
Ambient Temperature	°C	-25...+45, occasionally +55, max, 95% humidity, storage temperature: -40...+75
Resistance to Climate Acc. to IEC 60068-2-30		6 cycles
Resistance to Vibrations Acc to IEC 60068-2-6	m/s ²	60 at 10Hz...150Hz

Technical Information continued:

Polestar Compact RCBOs

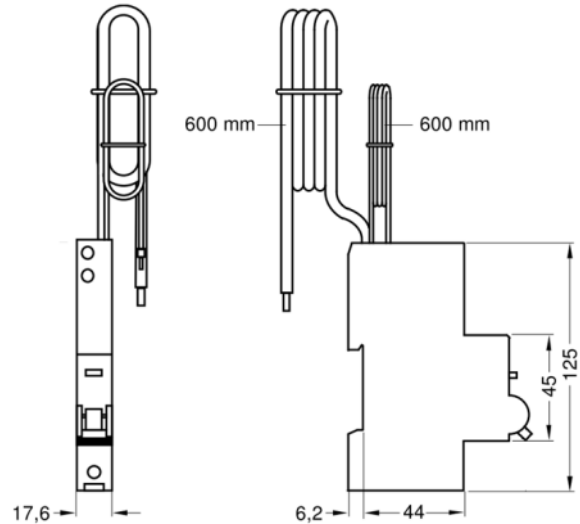
Trip Curves:



'C' Curve:

Advantageous in lighting and motor circuits with higher starting currents

Dimensions*:



*Please note the length of the rcbo tails suffixed /LT are 1200mm long

Earth Loop Impedance Values:

Maximum earth fault loop impedance (Z_s) for circuit breakers with U_o of 230V, incorporating the 0.95 C_{min} factor, 17th Edition IET Wiring Regulations (BS7671:2008), Amendment 3 effective from 1st January 2015

Maximum earth fault loop impedance (Ohms)			
Device Rating	C Curve 0.4s / 5s Ω		
6A	3.61 / 7.22		
10A	2.19 / 4.37		
16A	1.33 / 2.66		
20A	1.05 / 2.09		
32A	0.67 / 1.33		
40A	0.57 / 1.14		
50A	0.48 / 0.95		

Where an RCD is used to satisfy the requirements of regulation 411.3.2.2 the max value of earth fault loop impedance in table 41.5 may be applied to non-delayed RCDs

Earth fault loop impedance (Z_s ohms) to give compliance with BS7671 regulations Table 41.5

Maximum earth fault loop impedance (Ohms)			
Device Rating	RCBO (Ω) Live to Earth		
6A	1666		
10A	1666		
16A	1666		
20A	1666		
32A	1666		
40A	1666		
50A	1666		

Further Information:

Crabtree Sales: 01543 455010
 Crabtree Technical: 01543 438310
 Website: www.electrium.co.uk

Issue No. 2
 20160203