10000 25 KV G

DATA SHEET

Article number : 09934421

residual current operated circuit-breakers with integral overcurrent protection DRCBO 2 C06/0,03/2-A KV

sensitive to pulsating and alternating currents Type A, short-time delayed

Function

RCCB/MCB combinations (RCBO) are residual current operated circuit-breakers with integral overcurrent protection for protecting systems in the event of a short-circuit and overload as per the requirements of VDE 0100 Part 430, and for protecting persons, farm animals and material items in the event of earth leakage currents as per VDE 0100 Part 410. Overload tripping occurs at currents in the overload range through a short-time delayed, heat-sensitive bimetal trip and at short-circuit currents through an electromagnetic instantaneous trip. The high-quality residual current operated circuit-breakers with integral overcurrent protection from series DRCBO 2 are independent of the mains voltage and have a high rated switching capacity of 10 kA. The residual current tripping indicator allows for a quick overview of the operating status of the devices. Two features make mounting and removal easier: terminal protection against wires being lodged behind them and the bi-stable snap-in slider. Type A residual current circuit-breakers are sensitive to pulsating and alternating currents. This function is independent of the mains voltage. RCBOs with tripping characteristic C are primarily suitable for power circuits with high switch-on or peak currents, as their short-circuit trip value is five to ten times the rated current. Due to a response delay, residual current operated circuit-breakers with integral overcurrent protection in the KV design respond only to residual currents with a duration of more than a half-period of the mains frequency. In contrast to instantaneous breakers, they are significantly less sensitive to brief impulse-like residual currents and facilitate problem-free operation, even when lightning or switching overvoltage in the system causes capacitative surge residual currents or insulation flashovers with a secondary current up to the zero point of the mains voltage. They therefore meet the requirements for lightning-resistant RCBOs as per Austrian standard ÖVE E 8601. The tripping times set out in national and international design regulations for instantaneous RCBOs are also observed by the KV design devices. In principle, therefore, they may be used instead of a standard breaker.

Accessories

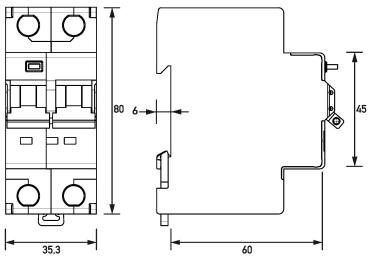
auxiliary switches DHi

Technical Data

Series	DRCBO 2
Number of poles	2
Residual current type	A
Rated current (AC)	6 A
Rated residual current IΔn	0.03 A
Short-time delayed	true
Selective	false
Non-trip time	10 ms
Tripping characteristic	C
Test current factor tripping electromagnetic	1.45
Test current factor retaining electromagnetic	1.13
Reference temperature thermal release	30 °C
Rated voltage (AC)	230 V
Rated current (AC)	6 A
Rated short-circuit current	10 kA
Surge current strength	3 kA
max. Total rated switching capacity	10 kA
Rated insulation voltage	250 V
Rated impulse withstand voltage	4 kV
Rated frequency	50 Hz
Current heat loss per current path	1.1 W
Short-circuit backup-fuse SCPD	100 A
Back-up fuse type	gL
Overvoltage class	III
	screw-type terminal top, bottom (load circuit)
Neutral conductor position	left or right
Protection against direct contact	VBG4, ÖVE-EN 6, finger and back-of-hand proof
Clamping area	1 mm² ... 25 mm²

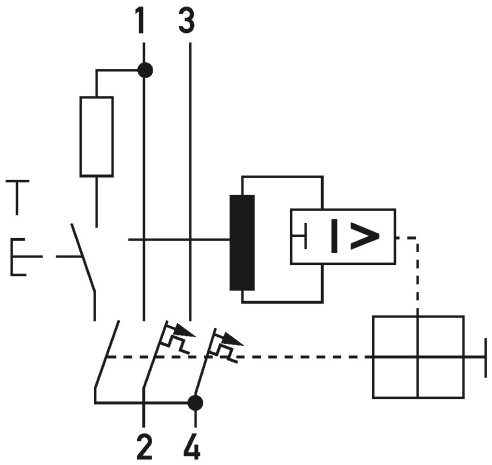
Connection C1 Maximum number of conductors per terminal	2 (conductors of same type and cross-section)
Cross section solid	1-wire: 1 mm² ... 25 mm²
Connecting capacity flexible	1-wire: 1 mm² ... 16 mm²
Cross section stranded	1-wire: 1 mm² ... 16 mm²
Tightening torque	2 Nm ... 2.4 Nm
Thickness busbar	0.8 mm ... 2 mm
	General data
mechanical endurance	min. 20000 switching cycles
electrical endurance	min. 4000 switching cycles
Storage temperature	-40 °C ... 70 °C
Ambient temperature	-25 °C ... 40 °C
Climate resistance	According to IEC 68-2 (25–55°C / 90–95% RH) and IEC/EN 61009
Housing type	distribution board housing
Installation type	Mounting rail (35 mm)
Housing material	thermoplastic
Protection class	IP20 (installed: IP40)
Width	35 mm
Height	80 mm
Depth	74 mm
Installation depth	68 mm
Module widths	2
Weight	0.214 kg
Design requirements/Standards	EN 61009-1, EN 61009-2-1, ÖVE/ÖNORM E 8601
Power limitation category	3
Degree of pollution	2

Dimensions



Dimensional drawing Group view

Wiring example



Wiring diagram