

DATA SHEET

residual current operated circuit-breakers with integral overcurrent protection

DRCBO 3 C32/0,03/1N-A KV

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

Article number 09932427



10000 **₹ 🕸 KV G**

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 a are independent of the mains voltage and have a high switching capacity of 10 kA. The green-red contact position indicator and the residual current tripping indicator allow 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 tri-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.

Features

tripping not dependent on mains and auxiliary voltage, sensitive to AC residual currents and pulsating DC residual currents (type A), compact design for all rated currents, high short-circuit resistance, green/red switching position indicator, residual current tripping indicator, Strain-relief clamps with protection against wires being lodged behind them and wide terminal cross-section range for rail and line wiring on both connection sides, Use of conventional wiring rails possible, Neutral conductor right, tri-stable snap-in slider for easy mounting and removal, high electromagnetic compatibility (immunity to interference for industrial applications)

Mounting

quick fastening to mounting rail, any installation position, supply as desired

Applications

Protection of circuits in residential and purpose-built buildings as well as industrial facilities with TN-S, TT and TN-C-S networks. In IT networks, the RCCB/MCBs can be set to switch off in the event of a second earth fault, Not permitted for use in systems with TN-C networks; not permitted for protecting circuits in which the power electronics equipment may cause smooth DC residual currents or residual currents with frequencies not equal to 50/60 Hz.

Accessories

auxiliary switches DHi, wiring components RCCB and MCB busbars 2-pole, wiring components RCCB and MCB busbars 4-pole, operating current trip FAM, auxiliary switches Hi, restart locks RH-SPE

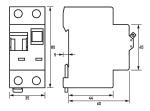
Technical Data

Technical Data	DRCBO 3 C32/0,03/1N-A KV
Series	DRCBO 3
Number of poles	1+N
Residual current type	A
Rated current (AC)	32 A

Technical Data DRCBO 3 C32/0,03/1N-A KV Rated residual current IΔn O.03 A Short-time delayed true Selective false min. Operating voltage range of test circuit max. Operating voltage range of test circuit Non-trip time Tripping characteristic C load circuit Specification Rated voltage (AC) DRCBO 3 C32/0,03/1N-A KV 0.03 A 10 ms 196 V 196 V 10 ms To ms Tripping characteristic C	
Short-time delayed true Selective false min. Operating voltage range of test circuit max. Operating voltage range of test circuit Non-trip time 10 ms Tripping characteristic C Ioad circuit Specification load disconnect contact	
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Rated voltage (AC)	
Rated current (AC) 32 A	
Rated short-circuit current 10 kA	
Surge current strength 3 kA	
max. Total rated switching 10 kA	
capacity	
Rated insulation voltage 440 V	
Rated impulse withstand voltage 4 kV	
Rated frequency 50 Hz	
Current heat loss per current 3.1 W	
Back-up fuse type gG	
Overvoltage class III screw-type terminal top, bottom (load circuit)	
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Connection C1 Maximum 2 (conductors of same type and cross-section) number of conductors per terminal	
Cross section solid 1-wire: 1 mm ² 25 mm ²	
Connecting capacity flexible 1-wire: 1 mm ² 16 mm ²	
Cross section stranded 1-wire: 1 mm ² 16 mm ²	
Tightening torque 2 Nm 2.4 Nm	
General data	
Mechanical endurance min. 10000 switching cycles	
Electrical endurance min. 4000 switching cycles	
Storage temperature -35 °C 60 °C	
Ambient temperature -25 °C 40 °C	
Climate resistance According to IEC 68-2 (25–55°C / 90–95% RH)	
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	
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Depth 74 mm	
Installation depth 68 mm	
Installation depth 68 mm Module widths 2	
Installation depth 68 mm Module widths 2 Weight 0.228 kg	
Installation depth 68 mm Module widths 2	

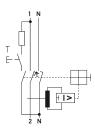
Technical Data	DRCBO 3 C32/0,03/1N-A KV
Degree of pollution	2

Dimensions



Dimensional drawing Group view

Wiring example



Wiring diagram