

DATA SHEET

residual current operated circuit-breakers with integral overcurrent protection DRCBO 4 C13/0,03/3N-A



sensitive to pulsating and alternating currents Type A, characteristic C
Article number 09945123



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 DRCBO 4 have a rated switching capacity of 6 kA. They provide a labelling area in addition to the tripping indicator. 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. Devices in standard design are intended for monitoring circuits with a rated voltage of 230 V or 400 V and a rated frequency of 50 Hz.

Features

pulsating current-sensitive and AC current-sensitive, mains-voltage-independent tripping, compact design for all rated currents, switch position indicator, separate indication of tripping cause, strain-relief clamps with a wide terminal cross-section range on both connection sides, neutral conductor right, labelling area

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

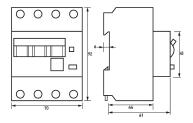
auxiliary switches DRCBO 4 Hi 2, wiring components RCCB and MCB busbars 4-pole

Technical Data

Technical Data	DRCBO 4 C13/0,03/3N-A
Series	DRCBO 4
Number of poles	3+N
Residual current type	A
Rated current (AC)	13 A
Rated residual current I∆n	o.o ₃ A
Short-time delayed	false
Selective	false
min. Operating voltage range of test circuit	170 V
max. Operating voltage range of test circuit	250 V
Tripping characteristic	С
Operating voltage (AC)	max. 440 V

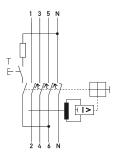
Ioad circuit	Technical Data	DRCBO 4 C13/0,03/3N-A
Rated voltage (AC) Rated current (AC) Rated current (AC) Rated current (AC) Rated short-circuit current Rated shor		
Rated current (AC) Rated short-circuit current 6 kA Surge current strength max. Total rated switching capacity Rated insulation voltage Rated several sev	Specification	load disconnect contact
Rated short-circuit current Surge current strength Ouzy kA max. Total rated switching capacity Rated insulation voltage Rated insulation voltage Rated insulation voltage Rated frequency So Hz, 60 Hz Current heat loss per current path back-up fuse type GG Overvoltage class III Screw-type terminal top, bottom (load circuit) Neutral conductor position Connection Ca Maximum number of conductors per terminal Cross section solid 1-wire: 1 mm² 35 mm², 2-wire: 1 mm² 10 mm² Consecting capacity flexible 1-wire: 1 mm² 25 mm², 2-wire: 1 mm² 10 mm² General data Operating position Operating position Deptath Consection class Installation type Mounting rail (35 mm) Housing material Protection class IP20 (installed: IP40) Width 70 mm Height 92 mm Depth Installation depth 68 mm Module widths 4 Weight Ouspel Fin 64009-12, VDE 0664-20 Power limitation category 3	-	230 V, 400 V
Rated short-circuit current Surge current strength o.25 kA max. Total rated switching capacity Rated insulation voltage Rated insulation voltage Rated insulation voltage Rated frequency So Hz, 60 Hz Current heat loss per current path Back-up fuse type GG Overvoltage class III Screw-type terminal top, bottom (load circuit) Neutral conductor position Connection C1 Maximum number of conductors per terminal Cross section solid 1-wire: 1 mm² 35 mm², 2-wire: 1 mm² 10 mm² Consecting capacity flexible 1-wire: 1 mm² 25 mm², 2-wire: 1 mm² 10 mm² General data Operating position Optional Electrical endurance min. 2000 switching cycles Ambient temperature 1-cs 9 C C C C Housing type Mounting material Housing material Housing material Frotection class IP20 (installed: IP40) Width 70 mm Height 92 mm Depth Installation depth 68 mm Module widths 4 Weight Design requirements/Standards EN 61009-2-1, VDE 0664-20 Power limitation category 3	Rated current (AC)	
max. Total rated switching capacity Rated insulation voltage Rated impulse withstand voltage Rated impulse withstand voltage Rated requency 50 Hz, 60 Hz Current heat loss per current path Back-up fuse type 9G Overvoltage class III Neutral conductor position right Connection Ca Maximum a (conductors of same type and cross-section) number of conductors per terminal Cross section solid 1wire: 1 mm² 25 mm², 2-wire: 1 mm² 10 mm² Consection standed 1wire: 1 mm² 25 mm², 2-wire: 1 mm² 10 mm² Consecting capacity flexible 1wire: 1 mm² 25 mm², 2-wire: 1 mm² 10 mm² General data Operating position Oper	Rated short-circuit current	
capacity Rated insulation voltage Rated insulation voltage Rated insulation voltage Rated insulation voltage Rated frequency So Hz, 6o Hz Current heat loss per current path Back-up fuse type gG Overvoltage class III Neutral conductor position Cannection Ca Maximum number of conductors per terminal Connection Cannection of the conductors of same type and cross-section) number of conductors per terminal Cross section solid 21-wire: 1 mm² 35 mm²; 2-wire: 1 mm² 10 mm² Consecting capacity flexible 21-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² General data Operating position Operating position Delectrical endurance min. 2000 switching cycles Ambient temperature 2-25 °C 40 °C Housing type distribution board housing Installation type Mounting rail (35 mm) Housing material thermoplastic Protection class IP 20 (installed: IP 40) Width 70 mm Height 92 mm Depth 74 mm Installation depth Module widths 4 Weight 0.501 kg Desorrance installace on 50 conductors EN 61009-12, EN 61009-2-1, VDE 0664-20 Power limitation category 3	Surge current strength	0.25 kA
Rated insulation voltage Rated impulse withstand voltage Rated frequency 50 Hz, 60 Hz Current heat loss per current path Back-up fuse type Overvoltage class III Screw-type terminal top, bottom (load circuit) right Connection C1 Maximum number of conductors per terminal Cross section solid Connection C2 maximum 1 - wire: 1 mm² 35 mm²; 2 - wire: 1 mm² 10 mm² Cross section stranded 1 - wire: 1 mm² 25 mm²; 2 - wire: 1 mm² 10 mm² Cross section stranded 1 - wire: 1 mm² 25 mm²; 2 - wire: 1 mm² 10 mm² General data Operating position Electrical endurance Ambient temperature - 25 °C 40 °C Housing type distribution board housing Installation type Mounting rail (35 mm) Housing material Protection class IP20 (installed: IP40) Width 70 mm Height 92 mm Depth 1 maximum 1 not 1050 kg Design requirements/Standards EN 6109-1, EN 61009-2-1, VDE 0664-20 Power limitation category 8 GBC 1 - Wire: 1 mm² 25 mm² 1 - A k VV 1 - A k VV 2 - A k VV 3 - A k VV 4 - A k VV 5 - A k VV 5 - A k VV 5 - A k VV 6 - A mm 6 -	max. Total rated switching	6 kA
Rated impulse withstand voltage Rated frequency Current heat loss per current path Back-up fuse type Gy Overvoltage class III Connection C1 Maximum number of conductors per terminal Cross section solid Connecting capacity flexible 1-wire: 1 mm² 35 mm²; 2-wire: 1 mm² 10 mm² Consecting capacity flexible 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Consecting section stranded 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section stranded 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section stranded 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section stranded 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section stranded 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section stranded 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section stranded 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section stranded 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section stranded 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section stranded 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section stranded 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section stranded 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section stranded 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section stranded 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section stranded 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section stranded 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section stranded 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section stranded 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section strander 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section strander 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section strander 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section strander 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section strander 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm²	• •	
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path Back-up fuse type QG Overvoltage class III Neutral conductor position Connection C1 Maximum number of conductors per terminal Cross section solid 1-wire: 1 mm² 35 mm²; 2-wire: 1 mm² 10 mm² Connecting capacity flexible 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section stranded 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Consesting capacity flexible 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section stranded 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Ceneral data Operating position General data Optional Electrical endurance min. 2000 switching cycles Ambient temperature -25 °C 40 °C Housing type distribution board housing Installation type Mounting rail (35 mm) Housing material thermoplastic Protection class IP20 (installed: IP40) Width 70 mm Height 92 mm Depth 174 mm Installation depth 68 mm Module widths 4 Weight 0.501 kg EN 61009-1, EN 61009-2-1, VDE 0664-20 Power limitation category 3	Rated frequency	50 Hz, 60 Hz
Back-up fuse type Overvoltage class III Neutral conductor position Connection C1 Maximum number of conductors per terminal Cross section solid 1-wire: 1 mm² 35 mm²; 2-wire: 1 mm² 10 mm² Connecting capacity flexible 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section stranded 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section stranded 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section stranded Operating position Electrical endurance Ambient temperature -25 °C 40 °C Housing type distribution board housing Installation type Mounting rail (35 mm) Housing material Protection class IP20 (installed: IP40) Width 70 mm Height 92 mm Depth 74 mm Installation depth 68 mm Module widths 4 Weight 0.501 kg Design requirements/Standards EN 61009-1, EN 61009-2-1, VDE 0664-20 Power limitation category 3	•	1.8 W
Screw-type terminal top, bottom (load circuit) Neutral conductor position right	•	
Screw-type terminal top, bottom (load circuit) Neutral conductor position right		
Neutral conductor position Connection C1 Maximum number of conductors per terminal Cross section solid 1-wire: 1 mm² 35 mm², 2-wire: 1 mm² 10 mm² Connecting capacity flexible 1-wire: 1 mm² 25 mm², 2-wire: 1 mm² 10 mm² Cross section stranded 1-wire: 1 mm² 25 mm², 2-wire: 1 mm² 10 mm² Cross section stranded 1-wire: 1 mm² 25 mm², 2-wire: 1 mm² 10 mm² General data Operating position Optional Electrical endurance Ambient temperature 1-25 °C 40 °C Housing type Installation type Mounting rail (35 mm) Housing material Protection class IP20 (installed: IP40) Width 70 mm Height 92 mm Depth 74 mm Installation depth Module widths 4 Weight 0.501 kg Design requirements/Standards EN 61009-1, EN 61009-2-1, VDE 0664-20 Power limitation category 3	Overvoltage class	
Connection C1 Maximum number of conductors per terminal Cross section solid 1-wire: 1 mm² 35 mm²; 2-wire: 1 mm² 10 mm² Connecting capacity flexible 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section stranded 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² General data Operating position Electrical endurance Ambient temperature -25 °C 40 °C Housing type distribution board housing Installation type Mounting rail (35 mm) Housing material Protection class IP20 (installed: IP40) Width 70 mm Height 92 mm Depth 74 mm Installation depth 68 mm Module widths 4 Weight 0.501 kg Design requirements/Standards EN 61009-1, EN 61009-2-1, VDE 0664-20 Power limitation category 3		
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Cross section solid 1-wire: 1 mm² 35 mm²; 2-wire: 1 mm² 10 mm² Connecting capacity flexible 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section stranded 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² General data Operating position Optional Electrical endurance Ambient temperature 1-25 °C 40 °C Housing type Installation type Mounting rail (35 mm) Housing material Thermoplastic Protection class IP20 (installed: IP40) Width 70 mm Height 92 mm Depth 74 mm Installation depth 68 mm Module widths 4 Weight Design requirements/Standards EN 61009-1, EN 61009-2-1, VDE 0664-20 Power limitation category 3		
Connecting capacity flexible 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² Cross section stranded 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² General data Operating position Optional Electrical endurance Ambient temperature 1-25 °C 40 °C Housing type Installation type Mounting rail (35 mm) Housing material Protection class IP20 (installed: IP40) Width 70 mm Height 92 mm Depth 74 mm Installation depth 68 mm Module widths 4 Weight Design requirements/Standards EN 61009-1, EN 61009-2-1, VDE 0664-20 Power limitation category 3		1-wire: 1 mm ² 35 mm ² ; 2-wire: 1 mm ² 10 mm ²
Cross section stranded 1-wire: 1 mm² 25 mm²; 2-wire: 1 mm² 10 mm² General data Operating position Electrical endurance Ambient temperature -25 °C 40 °C Housing type Installation type Mounting rail (35 mm) Housing material Protection class IP20 (installed: IP40) Width 70 mm Height 92 mm Depth 74 mm Installation depth 68 mm Module widths 4 Weight 0.501 kg Design requirements/Standards EN 61009-1, EN 61009-2-1, VDE 0664-20 Power limitation category 3		
General data Operating position optional Electrical endurance min. 2000 switching cycles Ambient temperature -25 °C 40 °C Housing type distribution board housing Installation type Mounting rail (35 mm) Housing material thermoplastic Protection class IP20 (installed: IP40) Width 70 mm Height 92 mm Depth 74 mm Installation depth 68 mm Module widths 4 Weight 0.501 kg Design requirements/Standards EN 61009-1, EN 61009-2-1, VDE 0664-20 Power limitation category 3		
Electrical endurance Ambient temperature -25 °C 40 °C Housing type Installation type Mounting rail (35 mm) Housing material Protection class IP20 (installed: IP40) Width 70 mm Height 92 mm Depth Installation depth Module widths 4 Weight Design requirements/Standards EN 61009-1, EN 61009-2-1, VDE 0664-20 Power limitation category 3		
Electrical endurance Ambient temperature -25 °C 40 °C Housing type Installation type Mounting rail (35 mm) Housing material Protection class IP20 (installed: IP40) Width 70 mm Height 92 mm Depth Installation depth Module widths 4 Weight Design requirements/Standards EN 61009-1, EN 61009-2-1, VDE 0664-20 Power limitation category 3	Operating position	optional
Housing type Installation type Mounting rail (35 mm) Housing material Protection class IP20 (installed: IP40) Width 70 mm Height 92 mm Depth 74 mm Installation depth 68 mm Module widths 4 Weight Design requirements/Standards EN 61009-1, EN 61009-2-1, VDE 0664-20 Power limitation category 3	<u> </u>	min. 2000 switching cycles
Installation type Mounting rail (35 mm) Housing material thermoplastic Protection class IP20 (installed: IP40) Width 70 mm Height 92 mm Depth 74 mm Installation depth 68 mm Module widths 4 Weight Design requirements/Standards EN 61009-1, EN 61009-2-1, VDE 0664-20 Power limitation category 3	Ambient temperature	-25 °C 40 °C
Housing material Protection class IP20 (installed: IP40) Width 70 mm Height 92 mm Depth 74 mm Installation depth 68 mm Module widths 4 Weight Design requirements/Standards EN 61009-1, EN 61009-2-1, VDE 0664-20 Power limitation category 3	Housing type	distribution board housing
Protection class IP20 (installed: IP40) Width 70 mm Height 92 mm Depth 74 mm Installation depth 68 mm Module widths 4 Weight Design requirements/Standards EN 61009-1, EN 61009-2-1, VDE 0664-20 Power limitation category 3	Installation type	Mounting rail (35 mm)
Width 70 mm Height 92 mm Depth 74 mm Installation depth 68 mm Module widths 4 Weight 0.501 kg Design requirements/Standards EN 61009-1, EN 61009-2-1, VDE 0664-20 Power limitation category 3	Housing material	thermoplastic
Height 92 mm Depth 74 mm Installation depth 68 mm Module widths 4 Weight 0.501 kg Design requirements/Standards EN 61009-1, EN 61009-2-1, VDE 0664-20 Power limitation category 3	Protection class	IP20 (installed: IP40)
Depth 74 mm Installation depth 68 mm Module widths 4 Weight 0.501 kg Design requirements/Standards EN 61009-1, EN 61009-2-1, VDE 0664-20 Power limitation category 3	Width	70 mm
Installation depth 68 mm Module widths 4 Weight 0.501 kg Design requirements/Standards EN 61009-1, EN 61009-2-1, VDE 0664-20 Power limitation category 3	Height	92 mm
Module widths 4 Weight 0.501 kg Design requirements/Standards EN 61009-1, EN 61009-2-1, VDE 0664-20 Power limitation category 3	Depth	74 mm
Weight 0.501 kg Design requirements/Standards EN 61009-1, EN 61009-2-1, VDE 0664-20 Power limitation category 3	Installation depth	68 mm
Weight 0.501 kg Design requirements/Standards EN 61009-1, EN 61009-2-1, VDE 0664-20 Power limitation category 3	Module widths	4
Power limitation category 3	Weight	
	Design requirements/Standards	EN 61009-1, EN 61009-2-1, VDE 0664-20
	Power limitation category	3
	Degree of pollution	

Dimensions



Dimensional drawing Group view

Wiring example



Wiring diagram