DATASHEET - DRCM-80/4/003-G/A+

No.



Digital residual current circuit-breaker, 80A, 4p, 30mA, type G/A

dRCM-80/4/003-G/A+ Part no. Catalog No. 120840 Alternate Catalog DRCM-80-4-003-G-A **EL-Nummer** 1654979 (Norway)



Similar to illustration

Delivery program

Basic function			Residual current circuit-breakers , digital
Number of poles			4 pole
Application			Switchgear for residential and commercial applications
Rated current	In	А	80
Rated short-circuit strength	I _{cn}	kA	10
Rated fault current	$I_{\Delta N}$	А	0.03
Туре			Type G/A (ÖVE E 8601)
Tripping		s	Short time-delayed
Product range			dRCM
Sensitivity			AC and pulsating DC current sensitive
Impulse withstand current			Surge-proof, 3 kA

Technical data Electrical

Current test marks As per inscription Standards FC/KN 61008 Rated operational voltage Ue V Rated operating voltage Ue VAC Rated operating voltage Ue VAC Rated frequency L VAC Initivalues of the operating voltage YAC So/00 Rated frequency K KAC Rated frequency KAC So/00 Initivalues of the operating voltage YAC So/00 Rated frequency KAC So/00 Rated frequency KAC So/00 Rated frequency NAC So/00 Rated frequency VAC So/00 Rated frequency VAC So/00 Rated frequency VAC So/00 Rated frequency VAC So/00 Rated frequency Nam So/00 Rated frequency Nam So/00 Rated frequency Nam So/00 Rated frequency So/00 So/00 Rated frequency Vac So/00 Rated frequency Vac So/00 Rated frequency So/00 So/00 Rated non-tripping current So/00 <td< th=""><th></th></td<>	
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Arrow of the operating voltage Ue V AC Rated operating voltage Ue V AC 30/400 Rated frequency f Hz 50/60 Limit values of the operating voltage VAC 140 100 Test circuit VAC 184 - 440 140 140 Rated fault currents Idan MA 30,300 140 140 Rated non-tripping current Idan MA 15,81,2 15,81,2 15,81,2 Rated insulation voltage Jan MA AC and pulsating DC current sensitive 160 Sensitivity Jan MA 16,0	
Rated operating voltage V AC 20/400 Rated frequency f Hz 50/60 Limit values of the operating voltage V AC 84 - 440 Test circuit V AC 84 - 440 Comment for range of the test button V AC 9-phase application without N (400V AC Phase-Phase) not allowed Rated fault currents IAn MA 30,300 Sensitivity IAn IAn Kard not pulsating DC current sensitive Rated insulation voltage Un V 40 Sensitivity Vac Adot IAn Sensitivity Vac Adot IAn	
Rated frequency f Hz 50/60 Limit values of the operating voltage r r Test circuit VAC 184 - 440 Comment for range of the test button r 3-phase application without N (400V AC Phase-Phase) not allowed Rated fault currents IΔn mA 30, 300 Rated non-tripping current IΔn r 5.x I_Δn Sensitivity I I VAC Ma Rated insulation voltage U ₁ V Vac Ma Sensitivity U ₁ V Vac Ma Ma	
Limit values of the operating voltage Test circuit Comment for range of the test button Rated fault currents Rated non-tripping current Sensitivity Rated insulation voltage Ui	
Test circuit V AC 184 - 440 Comment for range of the test button	
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Rated fault currents IΔn MA 30, 300 Rated non-tripping current ΙΔno 5, x Ι Δn Sensitivity L L 0, 5, x Ι Δn Rated insulation voltage Uj Y 440 Sensitivity L DC and pulsed current	
Rated non-tripping current I∆no 0.5 x I ∆n Sensitivity AC and pulsating DC current sensitive Rated insulation voltage Ui Y Sensitivity Y 440 Sensitivity DC and pulsed current	
Sensitivity AC and pulsating DC current sensitive Rated insulation voltage U _i V 440 Sensitivity DC and pulsed current DC and pulsed current	
Rated insulation voltage Ui V 440 Sensitivity DC and pulsed current	
Sensitivity DC and pulsed current	
Rated impulse withstand voltage U _{imp} kV 4	
Rated short-circuit strength I _{cn} kA 10	
Maximum max. as short-circuit protective device AgL	
Back-up fuse A gL Short-circuit and overload: 80 A gG/GL	
lifespan	
Electrical Operations ≥ 4000	
Mechanical Operations ≥ 20000	
References	
Auxiliary switch for subsequent installation Z-HK 248432	
Tripping signal contact for subsequent installation Z-NHK 248434	
Remote control and automatic switching device Z-FW/LP 248296	
Compact enclosure KLV-TC-4 276241	
Sealing cover set Z-RC/AK-4MU 101062	
Mechanical	
Standard front dimension mm 45	

Standard front dimension	mm	45
Device height	mm	80
Enclosure height	mm	
Enclosure width	mm	80
Built-in width	mm	70 (4TE)
Mounting		Quick attachment with 2 latch positions on top-hat rail IEC/EN 60715
Degree of Protection		IP40, IP54 (with moisture-proof enclosure)
Terminals top and bottom		Twin-purpose terminals
Terminal protection		DGUV VS3, EN 50274
Degree of protection		
Integrated		IP40
Terminal cross-section		
Solid	mm ²	1.5 - 35
Stranded	mm ²	2 x 16
flexible	mm ²	2 x 16
Terminal cross-section		M5 (Pozidriv PZ2)
Thickness of busbar material	mm	0.8 - 2
Admissible ambient temperature range	°C	-25 +40
Permissible storage and transport temperatures	°C	-35 - +60
Climatic proofing		25-55°C/90-95% relative humidity according to IEC 60068-2
Thickness of busbar material	mm	
Material thickness	mm	0.8 - 2

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	In	А	80
Heat dissipation per pole, current-dependent	P _{vid}	W	0
Equipment heat dissipation, current-dependent	P _{vid}	W	12.9
Static heat dissipation, non-current-dependent	P _{vs}	W	0
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	40
			Starting at 40 °C, the max. permissible continuous current decreases by 3% for every 1 °C
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
10.2.2 Corrosion resistance			Meets the product standard's requirements.
10.2.3.1 Verification of thermal stability of enclosures			Meets the product standard's requirements.
10.2.3.2 Verification of resistance of insulating materials to normal heat			Meets the product standard's requirements.
10.2.3.3 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects			Meets the product standard's requirements.
10.2.4 Resistance to ultra-violet (UV) radiation			Meets the product standard's requirements.
10.2.5 Lifting			Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 Mechanical impact			Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 Inscriptions			Meets the product standard's requirements.
10.3 Degree of protection of ASSEMBLIES			Does not apply, since the entire switchgear needs to be evaluated.
10.4 Clearances and creepage distances			Meets the product standard's requirements.
10.5 Protection against electric shock			Does not apply, since the entire switchgear needs to be evaluated.
10.6 Incorporation of switching devices and components			Does not apply, since the entire switchgear needs to be evaluated.
10.7 Internal electrical circuits and connections			Is the panel builder's responsibility.
10.8 Connections for external conductors			Is the panel builder's responsibility.
10.9 Insulation properties			
10.9.2 Power-frequency electric strength			Is the panel builder's responsibility.
10.9.3 Impulse withstand voltage			Is the panel builder's responsibility.
10.9.4 Testing of enclosures made of insulating material			Is the panel builder's responsibility.

10.10 Temperature rise	The panel builder is responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 Short-circuit rating	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 Electromagnetic compatibility	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 Mechanical function	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Technical data ETIM 7.0

Circuit breakers and fuses	(EG000020) / Residual current circ	uit breaker (RCCB) (EC000003)

Electric engineering, automation, process control engineering / Electrical installation, device / Residual current protection system / Residual current circuit breaker (RCCB) (ecl@ss10.0.1-27-14-22-01 [AAB906014])

Rade votage V is Rade votage A 0 Rade votage Uir MA 0 Rade insulation votage Uir MA 0 Rade insulation votage Uir V 40 Mounting method V V Leakage current type No No Selective protection V No Short-circuit breaking capacity (low) KA 0 Suge current capacity (low) KA 0 Suge current possible KA 0 Vet Interlocking device KA 0 Degree of protection (IP) KA 0 With in number of modular spacings Ma 1 Built-in depth Ma 0.5 Anbient temperature during operating C 25-40 Pollution degree C 25-40 Pollution degree SC 25-40				
Rated current A B Rated furt current mA B Rated invitation voltage Ui mA B Rated invitation voltage Uinp V 40 Mounting method MA B Leakage current type MA B Selective protection MA MA Short-tircuit breaking capacity (lew) MA B Surg current capacity MA B Additional equipment possible MA B Virt hinterlocking device MA B Built-in depth MA Selective protection (IP) MA Muint in number of modular spacings MA Selective protection (IP) Selective protection (IP) Muint in number of modular spacings MA Selective protection (IP) Selective protection (IP) Selective protection (IP) Muint in number of modular spacings MA Selective protection (IP) Selective protective	Number of poles			4
Arad fault current Rate dinult current	Rated voltage	V		415
Rate insulation voltage Uinp V 40 Bated insulation voltage Uinp K 4 Mounting method IN rail Leakage current type No No Selective protection K A Short-tirce delayed tripping V No Solective protection K No Surge current capacity (low) K No Surge current capacity (low) K No Additional equipment possible K No With interdocking device K No Built-in defay K No Built-in defay K No Aubient temperature during operating K No Built-in defay M No Aubient temperature during operating No No	Rated current	А	L .	80
Rated impulse withstand voltage Uimp kV 4 Mounting method IN rail Leakage current type A A Selective protection KV 8 Short-time delayed tripping KA 9 Short-circuit breaking capacity (Icw) KA 0 Surge current capacity KA 0 Frequency KA 0 Additional equipment possible KA 0 With interlocking device KA 0 Digree of protection (IP) KA 9 With interlocking popariting Mm 0.5 Built-in depth Mm 0.5 Anbient temperature during operating Mm 0.5 Pollution degree Mm 0.5 Pollution degree mm ² 0.5	Rated fault current	m	hΑ	30
Mounting method Dil rail Leakage current type A Selective protection No Short-time delayed tripping Ve Stage current capacity (lew) KA Stage current capacity Ve Frequency Ve Additional equipment possible Ve With interlocking device Ve Built-in depth Ve Mabient temperature during operating Me Pollution degre C 25 40 Pollution degre Se 16 15 16	Rated insulation voltage Ui	V		440
Leakage current type A A Selective protection No No Short-time delayed tripping Yes No Short-circuit breaking capacity (lcw) KA 0 Surge current capacity (lcw) KA 3 Strege current capacity (lcw) KA 0 Additional equipment possible Yes Yes With interlocking device Yes Yes Degree of protection (IP) Yes Yes With in number of modular spacings Yes Yes Built-in depth Yes Yes Ambient temperature during operating Yes Yes Pollution degree Yes Yes Ruite in depth Yes Yes Ambient temperature during operating Yes Yes Pollution degree Yes Yes Polution terr	Rated impulse withstand voltage Uimp	k۱	V	4
Selective protection Selective protection Selective protection Selective protection Short-time delayed tripping Sh	Mounting method			DIN rail
Short-tire delayed tripping Yes Short-circuit breaking capacity (lcw) KA 0 Surge current capacity (lcw) KA 3 Frequency KA 0 Additional equipment possible 50 Hz 50 Hz With interlocking device Yes 10 Degree of protection (IP) Yes 10 With in number of modular spacings mm 70 Built-in depth mm 705 Anbient temperature during operating °C 20 Pollution degree mm 15 - 16	Leakage current type			Α
Short-circuit breaking capacity (lcw) KA 1 Surge current capacity KA 3 Frequency 0 Hz 0 Hz Additional equipment possible Ves 10 Degree of protection (IP) Yes 10 With in number of modular spacings Imm 10 Ablient temperature during operating Imm 10 Pollution degree C 25 Pollution degree Imm 10 Short-circuit breaking conductor cross section multi-wired Imm 10	Selective protection			No
Surge current capacity KA 3 Frequency 50 Hz Additional equipment possible Yes With interlocking device 1200 Degree of protection (IP) 1200 With in number of modular spacings mm Built-in depth 70 Anbient temperature during operating °C Pollution degree 2 Pollution degree mm State 1200 State 1200 <	Short-time delayed tripping			Yes
Frequency 50 Hz Additional equipment possible Yes With interlocking device 120 Degree of protection (IP) 120 With in number of modular spacings mm Built-in depth mm Anbient temperature during operating 125 40 Pollution degree 12 10 Pollution degree mm² 15 16	Short-circuit breaking capacity (Icw)	kA	A	10
Additional equipment possible Yes With interlocking device Yes Degree of protection (IP) IP20 With in number of modular spacings Imm Built- in depth mm Ambient temperature during operating Imm Pollution degree Imm2 Interception Imm2 Interception Imm2	Surge current capacity	kÆ	A	3
With interlocking deviceYesDegree of protection (IP)IP20Width in number of modular spacingsmmBuilt-in depthmmAmbient temperature during operating°CPollution degree25 - 40Connectable conductor cross section multi-wiredmm²Interlocking device15 - 16	Frequency			50 Hz
Degree of protection (IP) IP20 Width in number of modular spacings Imm Built-in depth mm Ambient temperature during operating °C Pollution degree °C Connectable conductor cross section multi-wired mm²	Additional equipment possible			Yes
Width in number of modular spacings mm 4 Built-in depth mm 70.5 Ambient temperature during operating °C -25 - 40 Pollution degree 2 -20 Connectable conductor cross section multi-wired mm² 1.5 - 16	With interlocking device			Yes
Built-in depth mm 70.5 Ambient temperature during operating °C 25 - 40 Pollution degree 2 2 Connectable conductor cross section multi-wired mm² 1.5 - 16	Degree of protection (IP)			IP20
Ambient temperature during operating °C -25 - 40 Pollution degree 2 Connectable conductor cross section multi-wired mm² 1.5 - 16	Width in number of modular spacings			4
Pollution degree 2 Connectable conductor cross section multi-wired mm ²	Built-in depth	m	ım	70.5
Connectable conductor cross section multi-wired mm ² 1.5 - 16	Ambient temperature during operating	°C	С	-25 - 40
	Pollution degree			2
Connectable conductor cross section solid-core mm ² 1.5 - 35	Connectable conductor cross section multi-wired	m	nm²	1.5 - 16
	Connectable conductor cross section solid-core	m	nm²	1.5 - 35

Dimensions



