DATASHEET - DRCM-40/4/03-U+



Similar to illustration

Digital residual current circuit-breaker, 40A, 4p, 300mA, type U

Part no.	**dRCM-40/4/03-U+**
Catalog No.	**120851**
Alternate Catalog No.	**DRCM-40-4-03-U**
EL-Nummer (Norway)	**0001654990**

Powering Business Worldwide™

Delivery program

Basic function			Residual current circuit-breakers , digital
Number of poles			4 pole
Application			Switchgear for residential and commercial applications
Rated current	I_n	A	40
Rated short-circuit strength	I_{cn}	kA	10
Rated fault current	$I_{\Delta N}$	A	0.3
Type			Type U
Tripping		s…	selective switch off
Product range			dRCM
Sensitivity			Frequency converter-proof
Impulse withstand current			surge-proof 5 kA

Technical data

Electrical

Current test marks			As per inscription
Standards			IEC/EN 61008
Rated operational voltage	U_e	V	
	U_e	V AC	
Rated operating voltage	U_e	V AC	230/400
Rated frequency	f	Hz	50/60
Limit values of the operating voltage			
Test circuit		V AC	184 - 440
Comment for range of the test button			3-phase application without N (400V AC Phase-Phase) not allowed
Rated fault currents	$I_{\Delta n}$	mA	30, 300
Rated non-tripping current	IΔno		0.5 x I $\triangle_n$
Sensitivity			Frequency converter-proof
Rated insulation voltage	U_i	V	440
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		A gL	
Back-up fuse		A gL	Short-circuit and overload: 63 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

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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	I_n	A	40
Heat dissipation per pole, current-dependent	P_{vid}	W	0
Equipment heat dissipation, current-dependent	P_{vid}	W	3.8
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.

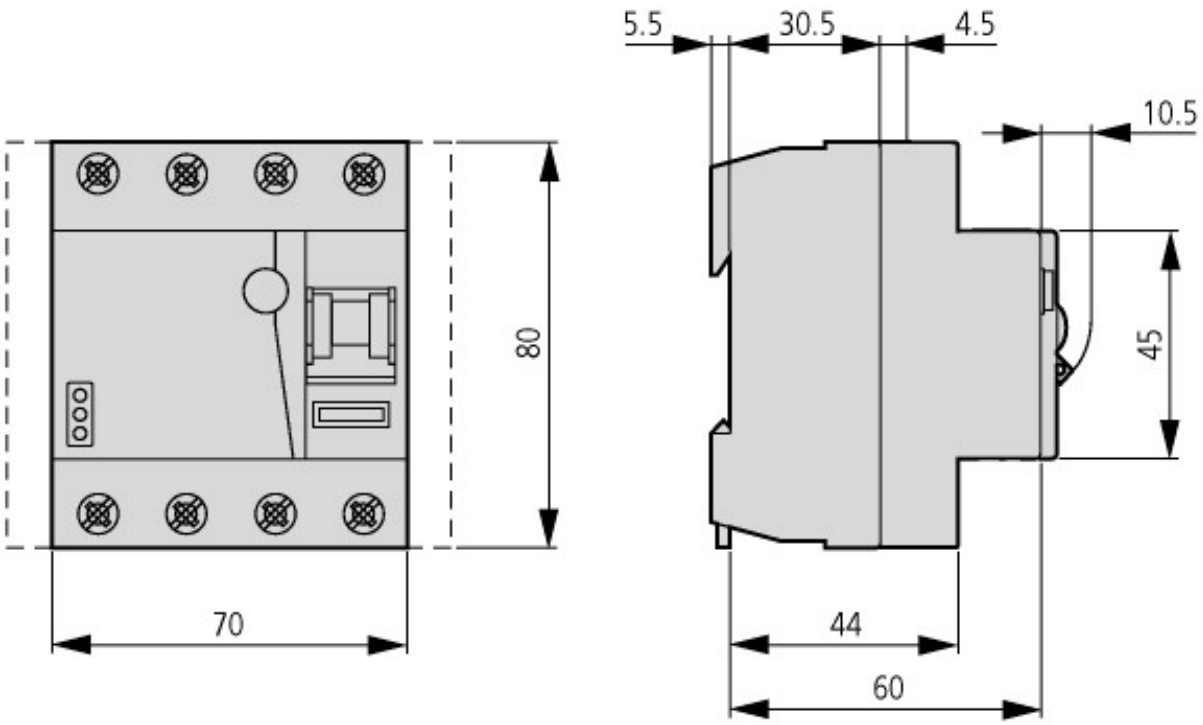
Technical data ETIM 7.0

Circuit breakers and fuses (EG000020) / Residual current circuit 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])

Number of poles		4
Rated voltage	V	415
Rated current	A	40
Rated fault current	mA	300
Rated insulation voltage Ui	V	440
Rated impulse withstand voltage Uimp	kV	4
Mounting method		DIN rail
Leakage current type		A
Selective protection		Yes
Short-time delayed tripping		No
Short-circuit breaking capacity (Icw)	kA	10
Surge current capacity	kA	5
Frequency		50 Hz
Additional equipment possible		Yes
With interlocking device		Yes
Degree of protection (IP)		IP20
Width in number of modular spacings		4
Built-in depth	mm	70.5
Ambient temperature during operating	°C	-25 - 40
Pollution degree		2
Connectable conductor cross section multi-wired	mm^2	1.5 - 16
Connectable conductor cross section solid-core	mm^2	1.5 - 35

Dimensions



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