DATASHEET - MRB4-25/3N/C/003-A



RCD/MCB combination, 25 A, 30 mA, MCB trip characteristic: C, 3p+N, **RCD trip characteristic: A**



Part no. Catalog No. mRB4-25/3N/C/003-A 120678

1654845

Similar to illustration

EL-Nummer (Norway)

Delivery program

Basic function			Combined RCD/MCB devices
Number of poles			3 pole+N
Tripping characteristic			C
Application			Switchgear for residential and commercial applications
Rated current	In	А	25
Rated switching capacity acc. to IEC/EN 60947-2	l _{cu}	kA	4.5
Rated switching capacity according to IEC/EN 61009		kA	4.5
Rated fault current	$I_{\Delta N}$	А	0.03
Туре			Туре А
Tripping		s	non-delayed
Product range			mRB4
Sensitivity			Pulse-current sensitive
Impulse withstand current			Partly surge-proof 250 A
Contact sequence			

Technical data Electrical

Rate doperating voltage Ve VAC 20400 Limit values of the operating voltage Ve VAC 35x 1.1 x Un Rated frequency f VaC 30400 Rated frequency f VaC 305x 1.1 x Un Rated frequency f VaC 30400 Rated frequency f VaC 305x 1.1 x Un Rated frequency f VaC 305x 1.1 x Un Rated frequency f VaC 305x 1.1 x Un Rated fourterits fan Na 305x 1.1 x Un Sensitivity f f So 1 Jan four Rated switching capacity fan f So 201 Jan four Rated fourterit f f f So 201 Jan four Rated fourterits f f f f f Rated fourterits f f f f f f Rated fourterits f f f f f f f f f	Electrical			
Rade operating voltage ν μe ν λe v λe0 Limit voltage VAC 85x 1.1 x ln Rade foreuring voltage F H2 5 Rade foreuring voltage Mano Mano So Rade foreuring voltage Inon Mano So So Rade foreuring voltage Inon Mano So So So So sortivity Inon Mano So	Standards			IEC/EN 61009
Initial values of the operating voltage NAC 8x1.1 x Un Rated frequency F 82 52 Rated frequency Ino Ino 5x1 _n Rated non-tripping current Ino 5x1 _n 5x1 _n Sensitivity Ino 5x1 _n 5x1 _n Rated non-tripping current Ino 5x1 _n 5x1 _n Rated southing capacity Ino 1x0 1x0 Rated southing capacity Ino X 5x1 _n Rated multise withstand voltage Ino X 5x1 _n Maximum max as short-circuit protective device Ino X 4x0 Selectivity Class Ino X 5x1 _n Iterpan Ino X 5x1 _n Maximum max as short-circuit protective device X X X Selectivity Class Ino 1x0 1x0 Iterpan X X X X Maximum max as short-circuit protective device X X X Iterpan </td <td>Tripping</td> <td></td> <td>s</td> <td>non-delayed</td>	Tripping		s	non-delayed
RelatingFH2H2IndexRelatingIndexMMMRelatingIndexIndexIndexIndexRelating apartingIndexMMMRelating aparting apartingIndexMMMRelating aparting	Rated operating voltage	U _e	V AC	230/400
Ate data function Index Mate Mate </td <td>Limit values of the operating voltage</td> <td></td> <td>V AC</td> <td>0.85 x 1.1 x Un</td>	Limit values of the operating voltage		V AC	0.85 x 1.1 x Un
Arrow Solution <	Rated frequency	f	Hz	50
SensitivityIcmIcmDe and pulsed currentRated switching capacityIcnKa5Rated currentIcnKa5Rated switching capacityIcn12/50 μs)Rated impulse withstand voltageIcn12/50 μs)CharacteristicIcnIcn12/50 μs)Maximum max. as short-circuit protective deviceIcnIcnSelectivity ClassIcnIcnIcnIterspanIcnIcnIcnMechanicalIcnIcnIcnMechanicalIcnIcnIcnStandard front dimensionIcnIcnIcnEnclosure heightIcnIcnIcnIrminal protectionIcnIcnIcnIrminal protectionIcnIcnIcnIrmi	Rated fault currents	I _{∆n}	mA	30
Rated switching capacityIcnKA5Rated currentIcnKa5Rated impulse withstand voltageUmpKV41.2/50 μSCharacteristicIcnKGMaximum ax. as short-circuit protective deviceIcnIcnSelectivity ClassIcnSelectivity ClassIcnLifespanIcnSelectivity ClassIcnMachanicalOperatorVoltageVoltageMechanicalIcnSelectivity ClassIcnMechanicalIcnSelectivity ClassIcnMachanicalIcnSelectivity ClassIcnInternationIcnSelectivity ClassIcn <td>Rated non-tripping current</td> <td>I∆no</td> <td></td> <td>$0.5 \times I_{\Delta n}$</td>	Rated non-tripping current	I∆no		$0.5 \times I_{\Delta n}$
Rated current le A 2 Rated impulse withstand voltage Ump K/W 4(1.2/50 μs) Characteristic Impulse withstand voltage C Maximum max. as short-circuit protective device Impulse Y Y Y Y Y Y Y Y Y Y Y Y Y Y <	Sensitivity			DC and pulsed current
Product of the section of th	Rated switching capacity	I _{cn}	kA	4.5
Characteristic C Characteristic C Maximum max. as short-circuit protective device A gL Selectivity Class 00 Lifespan S Electrical Operator Mechanical Operator Mechanical S Standard front dimension Maximum and the short of the short	Rated current	le	А	25
Maximum max. as short-circuit protective device A gL Maximum max. as short-circuit protective device Maximum max. as short-circuit protective device A gL 10 Selectivity Class 3 3 Lifespan 0 peration 0 Electrical 0 peration 0 Mechanical 0 peration 2000 Mechanical 0 peration 0 Standard front dimension mm 4 Enclosure height mm 40 Function mm 4	Rated impulse withstand voltage	U _{imp}	kV	4 (1.2/50 µs)
Selectivity Class 3 Lifespan S Electrical Operation Mechanical Operation Standard front dimension mm Enclosure height mm Fundard front dimension mm Standard front dimension mm Biology and the standard front dimension Methanical	Characteristic			C
Selectivity Class 3 Lifespan S Electrical Operation Mechanical Operation Standard front dimension mm Enclosure height mm Fundard front dimension mm Standard front dimension mm Biology and the standard front dimension Methanical				
Lifespan S Electrical Operations 4000 Mechanical Operations 20000 Mechanical Operations 20000 Standard front dimension mm 45 Enclosure height mm 80 Forming protection mm 8usbartag shroud to VBG4	Maximum max. as short-circuit protective device		A gL	100
Electrical Operation Mechanical Operation Mechanical Operation Standard front dimension mm Enclosure height mm Furninal protection idia idia idia idia idia idia idia idi	Selectivity Class			3
Mechanical Operation Mechanical Operation Mechanical mm Standard front dimension mm Enclosure height mm Terminal protection Global of the standard to VBG4	Lifespan		S	
Mechanical Standard front dimension mm 45 Enclosure height mm 80 Terminal protection Geodefield Busbar tag shroud to VBG4	Electrical		Operation	ns 4000
Standard front dimension mm 45 Enclosure height mm 80 Terminal protection Gale Busbar tag shroud to VBG4	Mechanical		Operation	ns 20000
Enclosure height mm 80 Terminal protection MM Busbar tag shroud to VBG4	Mechanical			
Terminal protection Busbar tag shroud to VBG4	Standard front dimension		mm	45
	Enclosure height		mm	
Mounting width mm 70 (4 SU)	Terminal protection			Busbar tag shroud to VBG4
	Mounting width		mm	70 (4 SU)

Mounting			Tristable slide catch enables removal from existing combination.
Degree of protection			
Switch			IP20
Integrated			IP40
Terminals top and bottom			Twin-purpose terminals
Terminal capacities	r	nm ²	
Solid	r	mm ²	1 - 25
Thickness of busbar material	r	nm	0.8 2
Admissible ambient temperature range	c	°C	-25 +40
Climatic proofing			according to IEC 68-2 (25 - 55 °C, 90 - 95 % Humidity)

Design verification as per IEC/EN 61439

Technical data for design varification			
Technical data for design verification Rated operational current for specified heat dissipation		٨	25
	I _n	A	25
Heat dissipation per pole, current-dependent	P _{vid}	W	0
Equipment heat dissipation, current-dependent	P _{vid}	W	11.6
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
			0
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) / Earth leakage circuit breaker (EC000905)

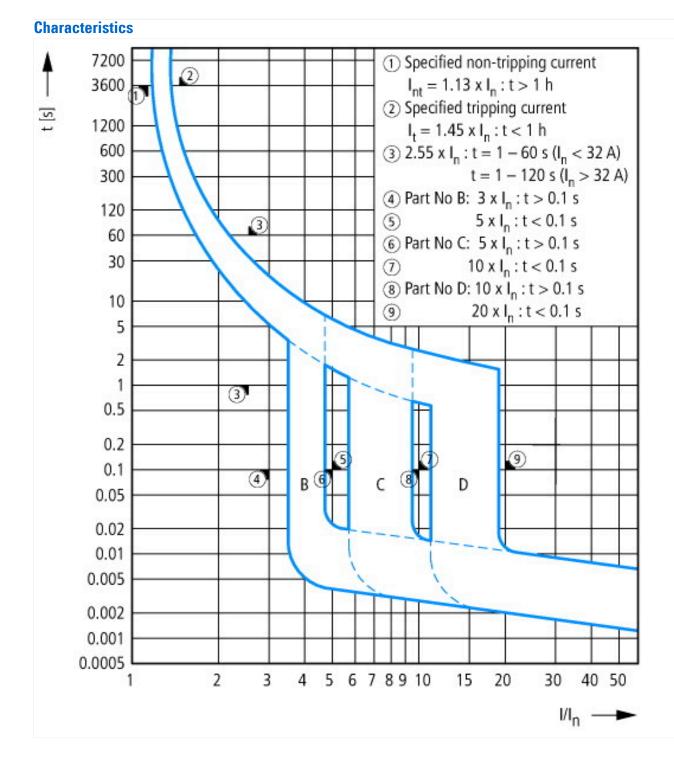
Electric engineering, automation, process control engineering / Electrical installation, device / Residual current protection system / MCB/RCCB combination (ecl@ss10.0.1-27-14-22-07 [AFZ810015])			
Number of poles (total)	4		

Number of protected poles

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4

Dete due la se			400
Rated voltage	V		400
Rated insulation voltage Ui	V	V	500
Rated impulse withstand voltage Uimp	k	kV	4
Rated current	A	A	25
Rated fault current	A	A	0.03
Leakage current type			Α
Current limiting class			3
Rated short-circuit breaking capacity acc. EN 61009	k	kA	4.5
Rated short-circuit breaking capacity IEC 60947-2	k	kA	0
Rated short-circuit breaking capacity Icn acc. EN 61009-1	k	kA	4.5
Disconnection characteristic			
Surge current capacity	k	kA	0.25
Voltage type			AC
Frequency			50 Hz
Release characteristic			С
Concurrently switching N-neutral			Yes
With interlocking device			No
Over voltage category			3
Pollution degree			2
Ambient temperature during operating	٥	°C	-25 - 40
Width in number of modular spacings			4
Built-in depth	n	mm	70
Suitable for flush-mounted installation			No
Anti-nuisance tripping version			No
Degree of protection (IP)			IP20
Connectable conductor cross section solid-core	n	mm²	1 - 25
Connectable conductor cross section multi-wired	n	mm²	1 - 25



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