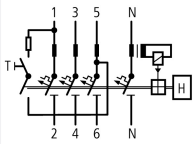


RCD/MCB combination switch, 20A, 30mA, C-LS-Char, 3N pole, FI-Char: A

Part no. mRB4-20/3N/C/003-A
Article no. 120677

Similar to illustration

Delivery programme

Basic function			Combined RCD/MCB devices
Number of poles			3 pole+N
Tripping characteristic			C
Application			Switchgear for residential and commercial applications
Rated current	I_n	A	20
Rated switching capacity acc. to IEC/EN 60947-2		kA	4.5
Rated switching capacity according to IEC/EN 61009		kA	4.5
Rated fault current	$I_{\Delta N}$	A	0.03
Type			Type A
Tripping		A	non-delayed
Product range			mRB4
Sensitivity			Pulse-current sensitive
Impulse withstand current			Partly surge-proof 250 A
Contact sequence			

Technical data

Electrical

Standards			IEC/EN 61009
Tripping		A	non-delayed
Rated operating voltage	U_e	V AC	230/400
Rated frequency	f	Hz	50
Rated fault currents	$I_{\Delta n}$	mA	30, 100, 300
Rated non-tripping current	IΔno		0.5 x I $\triangle_n$
Sensitivity			DC and pulsed current
Rated switching capacity	I_{cn}	kA	4.5
Rated current	I_e	A	6 - 25
Rated impulse withstand voltage	U_{imp}	kV	4 (1.2/50 µs)
Characteristic			C, D
Maximum max. as short-circuit protective device		A gL	100
Selectivity Class			3
Lifespan		S	
Electrical		Operations	> 4000
Mechanical		Operations	> 20000

Mechanical

Standard front dimension		mm	45
Enclosure height		mm	80
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		mm^2	
Solid		mm^2	1 - 25
Thickness of busbar material		mm	0.8 … 2
Admissible ambient temperature range		°C	-25 … +40
Climatic proofing			according to IEC 68-2 (25 - 55 °C, 90 - 95 % Humidity)

Design verification as per IEC/EN 61439

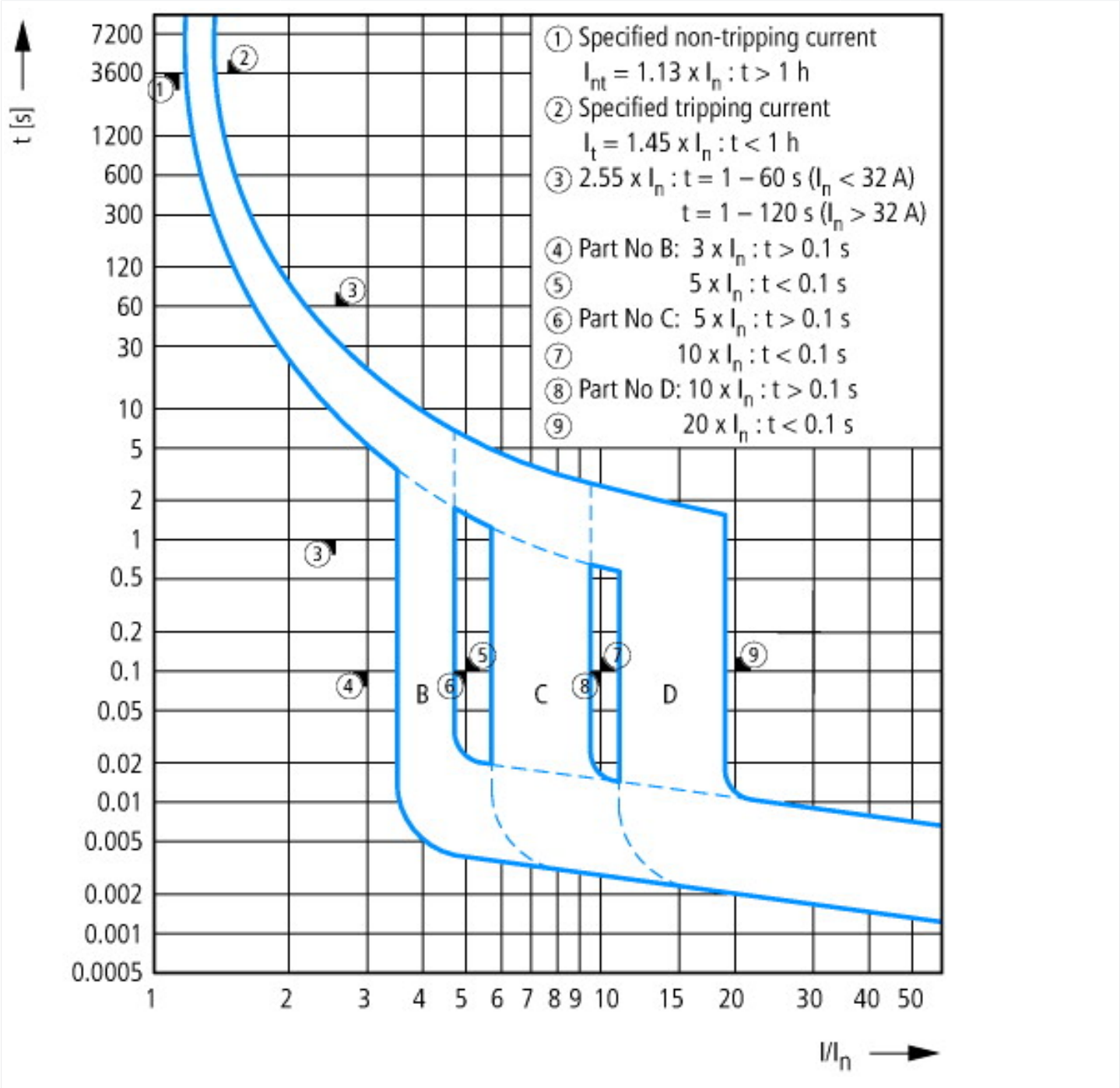
Technical data for design verification			
Rated operational current for specified heat dissipation	I_n	A	20
Heat dissipation per pole, current-dependent	P_{vid}	W	0
Equipment heat dissipation, current-dependent	P_{vid}	W	11.8
Static heat dissipation, non-current-dependent	P_{vs}	W	0
Heat dissipation capacity	P_{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	40
			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 6.0

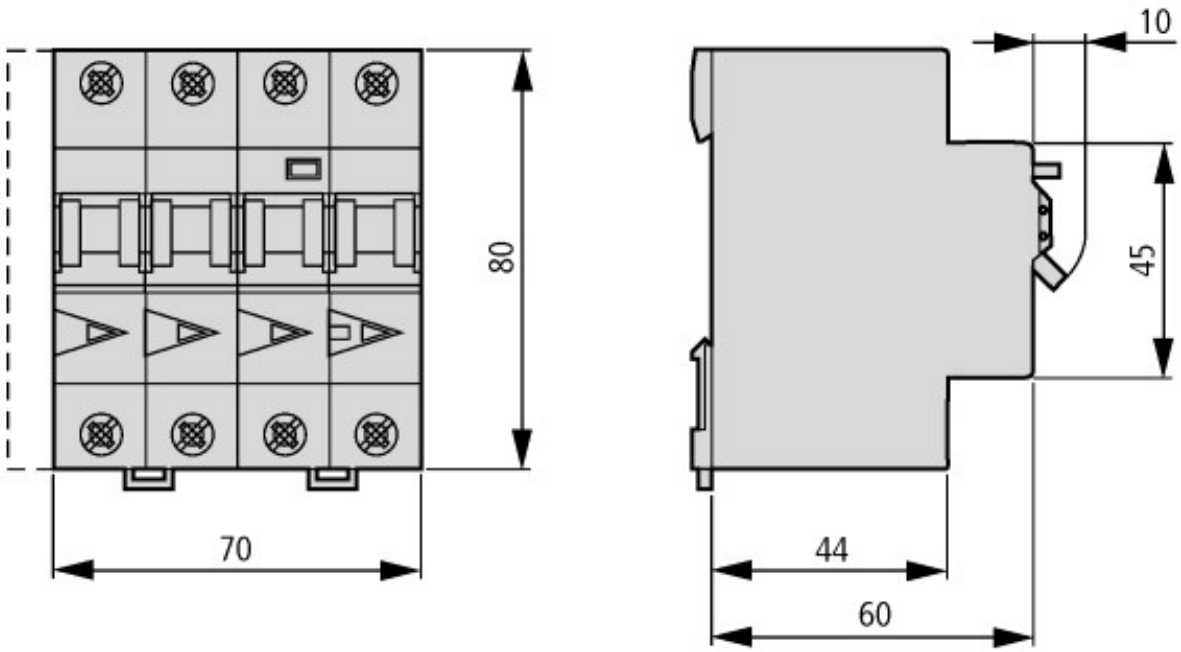
Circuit breakers and fuses (EG000020) / Earth leakage circuit breaker (EC000905)			
Electric engineering, automation, process control engineering / Electrical installation, device / Residual current protection system / MCB/RCCB combination (ecl@ss8.1-27-14-22-07 [AFZ810012])			
Number of poles (total)			4
Number of protected poles			1
Nominal rated voltage		V	400
Nominal rated current		A	20
Rated fault current		A	0.03
Leakage current type			A

Current limiting class		3
Rated short-circuit breaking capacity EN 60898	kA	4.5
Rated short-circuit breaking capacity IEC 60947-2	kA	0
Frequency		50 Hz
Release characteristic		C
Concurrently switching N-neutral		Yes
Over voltage category		3
Pollution degree		2
Width in number of modular spacings		4
Built-in depth	mm	70
Suitable for flush-mounted installation		No
Degree of protection (IP)		IP20
Surge current capacity	kA	0.25
Voltage type		AC
Antinuisance tripping version		No

Characteristics



Dimensions



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