



Residual current circuit-breaker, 100A, 4p, 3A, A-Char



Part no. FI-100/4/03-A/-
Catalog No. 102937
Alternate Catalog No. FI-100-4-03-A--

Similar to illustration

Delivery program

Basic function			Residual current circuit-breakers
Number of poles			4 pole
Rated current	I_n	A	100
Rated short-circuit strength	I_{cn}	kA	10
Rated fault current	$I_{\Delta N}$	A	0.3
Type			Type A
Tripping		s...	non-delayed
Product range			FI
Sensitivity			AC and pulsating DC current sensitive
Impulse withstand current			Partly surge-proof 250 A

Technical data

Electrical

Standards			IEC/EN 61008
Tripping		s...	non-delayed
Rated operating voltage	U_e	V AC	230/400
Limit values of the operating voltage		V AC	184 ... 440
Rated frequency	f	Hz	50
Rated fault currents	$I_{\Delta n}$	mA	30, 100, 300, 500
Rated non-tripping current	$I_{\Delta no}$		$0.5 \times I_{\Delta n}$
Rated fault switching capacity			
Rated fault switching capacity	$I_{\Delta m}$	A	$I_n = 125$ A: 1250 for part no. B: 60. 80: 100 40 A: 500 125 A: 1250
Sensitivity			Pulsed current and AC/DC
Rated switching capacity	I_{cn}	kA	10
Rated current	I_e	A	100
Rated impulse withstand voltage	U_{imp}	kV	6
Maximum max. as short-circuit protective device		A gL	$I_n = 125$ A: 125 for Type B: $I_n \leq 80$: 100 $I_n = 125$: 125
Lifespan		S	
Electrical		Operations	2000
Mechanical		Operations	5000

Mechanical

Standard front dimension		mm	45
Enclosure height		mm	85
Terminal protection			Protection against electric shock to IEC 536
Mounting width		mm	70 (4 space unit)
Mounting			Top-hat rail IEC/EN 60715
Degree of protection			
Integrated			IP40
Terminals top and bottom			Twin-purpose terminals

Terminal capacities		mm ²	
Solid		mm ²	1.5 ... 50
flexible		mm ²	2 x (1.5 - 16)
Thickness of busbar material		mm	0.8 ... 2
Admissible ambient temperature range		°C	-25 ... +40
Climatic proofing			IEC/EN 61008

Design verification as per IEC/EN 61439

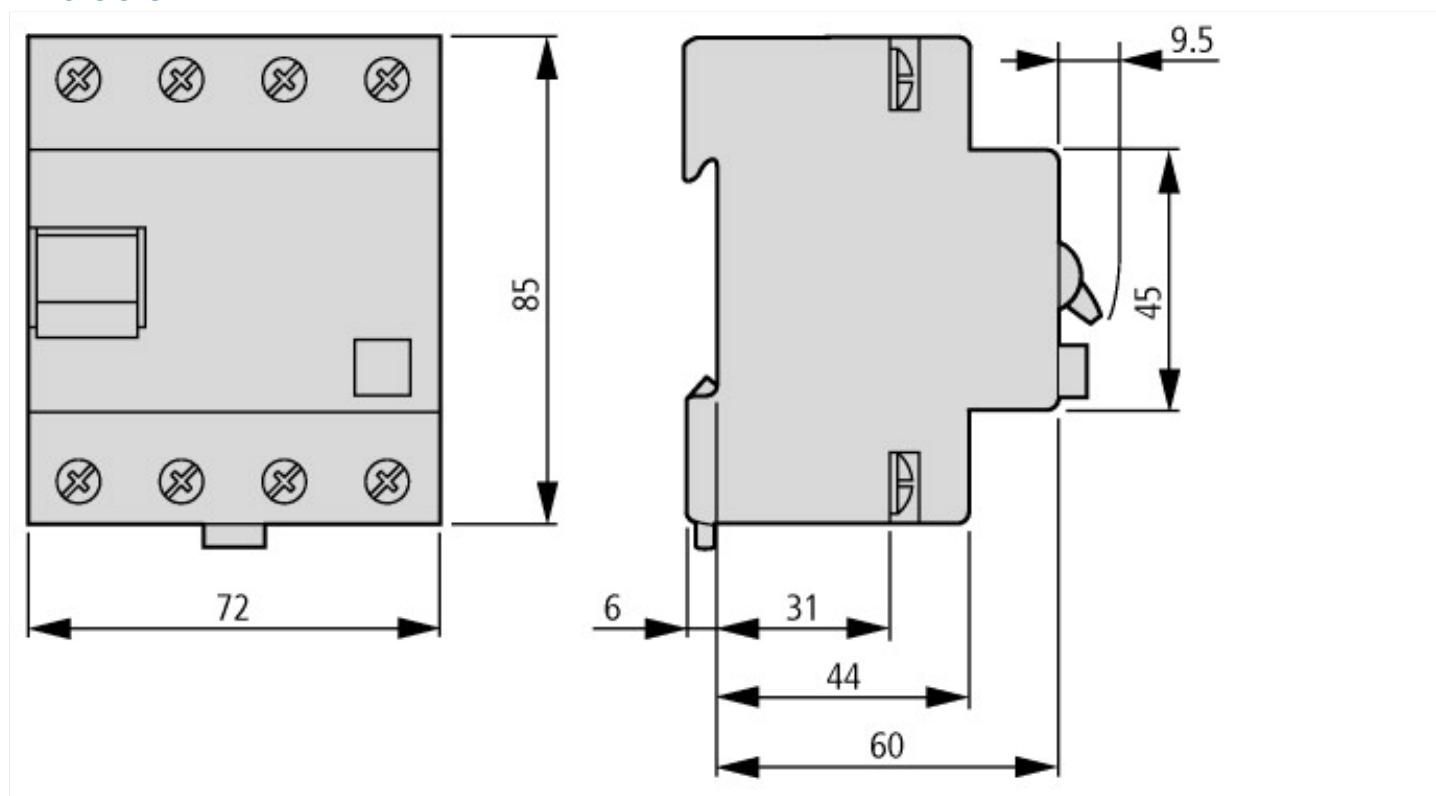
Technical data for design verification			
Rated operational current for specified heat dissipation	I _n	A	100
Heat dissipation per pole, current-dependent	P _{vid}	W	0
Equipment heat dissipation, current-dependent	P _{vid}	W	18.8
Static heat dissipation, non-current-dependent	P _{vs}	W	0
Heat dissipation capacity	P _{diss}	W	0
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	60
			Starting at 40 °C, the max. permissible continuous current decreases by 1.2% 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) (ecI@ss10.0.1-27-14-22-01 [AAB906014])			
Number of poles			4
Rated voltage		V	400
Rated current		A	100
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		No
Short-time delayed tripping		No
Short-circuit breaking capacity (Icw)	kA	10
Surge current capacity	kA	0.25
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	69.5
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 - 50

Dimensions



Additional product information (links)

AWA1290-1756 Residual-current-circuit-breaker

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https://es-assets.eaton.com/DOCUMENTATION/AWA_INSTRUCTIONS/17560403.pdf