

# RCD/MCB combination switch, 6A, 30mA, miniature circuit-br. type C trip characteristic, 3-phase+N, residual current circuit-br. trip characteristic: A



Part no. FRBM6-C6/3N/003-A
Article no. 170996
Catalog No. FRBM6-C6/3N/003-A

Similar to illustration

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Basic function			Combined RCD/MCB devices
Number of poles			3 pole+N
Tripping characteristic			C
Application			Switchgear for industrial and advanced commercial applications
Rated current	In	Α	6
Rated switching capacity according to IEC/EN 61009		kA	6
Rated fault current	$I_{\Delta N}$	Α	0.03
Tripping		Α	non-delayed
Product range			FRBm6
Sensitivity			Pulse-current sensitive
Impulse withstand current			Partly surge-proof 250 A
Contact sequence			T - 2 4 6 N

#### Technical data Electrical

Sensitivity			Pulse-current sensitive
Rated current	In	Α	6
Tripping characteristic			C

## Design verification as per IEC/EN 61439

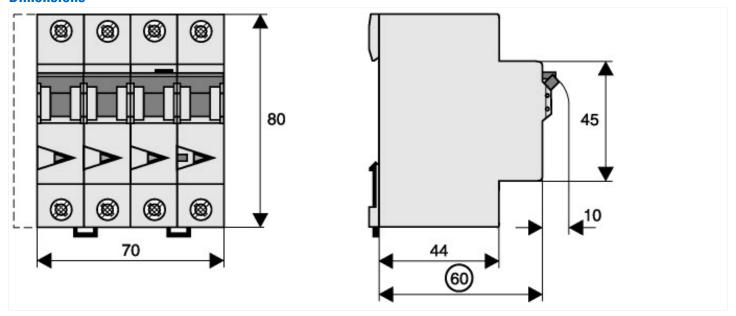
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Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	6
Heat dissipation per pole, current-dependent	P <sub>vid</sub>	W	0
Equipment heat dissipation, current-dependent	P <sub>vid</sub>	W	4.8
Static heat dissipation, non-current-dependent	P <sub>vs</sub>	W	0
Heat dissipation capacity	P <sub>diss</sub>	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**

Technical data ETIM 6.0		
Circuit breakers and fuses (EG000020) / Earth leakage circuit breaker (EC00	00905)	
Electric engineering, automation, process control engineering / Electrical [AFZ810012])	installation, device / Residual c	current protection system / MCB/RCCB combination (ecl@ss8.1-27-14-22-07
Number of poles (total)		4
Number of protected poles		3
Nominal rated voltage	V	415
Nominal rated current	A	6
Rated fault current	A	0.03
Leakage current type		A
Current limiting class		3
Rated short-circuit breaking capacity EN 60898	kA	6
Rated short-circuit breaking capacity IEC 60947-2	kA	0
Frequency		50 Hz
Release characteristic		С
Concurrently switching N-neutral		Yes
Over voltage category		3
Pollution degree		2
Width in number of modular spacings		4
Built-in depth	mm	75.5
Suitable for flush-mounted installation		No
Degree of protection (IP)		IP20
Surge current capacity	kA	0.25
Voltage type		AC
Antinuisance tripping version		No

### **Dimensions**



## **Additional product information (links)**

Product overview (Web)

http://www.eaton.eu/Europe/Electrical/ProductsServices/CircuitProtection/DigitalCircuitBreakers/index.htm