

RCD/MCB combination switch, 6A, 10mA, miniature circuit-breaker type C trip characteristic, 2p, residual current circuit-breaker trip characteristic: A



Part no. FRBDM-C6/2/001-G/A
Article no. 168297
Catalog No. PDC-TBD6529

Similar to illustration

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Delivery program			
Basic function			Combined RCD/MCB devices
Number of poles			2 pole
Tripping characteristic			С
Application			Switchgear for industrial and advanced commercial applications
Rated current	In	Α	6
Rated switching capacity according to IEC/EN 61009		kA	10
Rated fault current	$I_{\Delta N}$	Α	0.01
Tripping		Α	Short time-delayed
Product range			FRBdM
Sensitivity			Pulse-current sensitive
Impulse withstand current			Surge-proof, 3 kA
Contact sequence			

## **Technical data**

#### **Electrical**

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

## Design verification as per IEC/EN 61439

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	2.1
Static heat dissipation, non-current-dependent	$P_{vs}$	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.

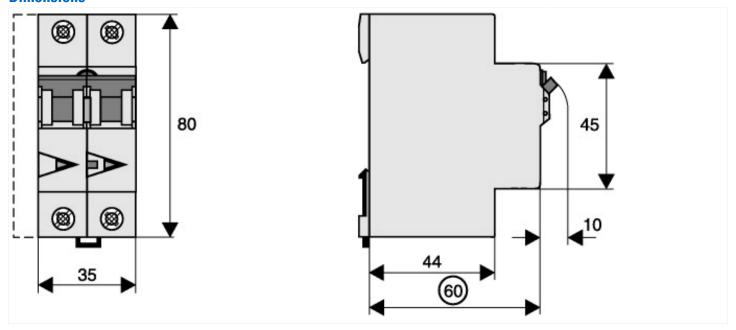
### **Technical data ETIM 6.0**

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 protected poles         2           Number of protected poles         2           Nominal rated voltage         V         240           Nominal rated current         A         6           Rated fault current         A         0.01           Leakage current type         A         0.01           Current limiting class         3         3           Rated short-circuit breaking capacity EN 60898         K         0           Release characteristic         SO HZ         0           Concurrently switching N-neutral         SO HZ         0           Over voltage category         SO HZ         0           Pollution degree         SO HZ         2           Width in number of modular spacings         SO HZ         2           Built-in depth         SO HZ         0           Suitable for flush-mounted installation         MP M         0           Degree of protection (IP)         IP20         1000			
Nominal rated voltage Nominal rated current Nominal Rated Security Nominal N	Number of poles (total)		2
Nominal rated current Rated fault current Rated fault current Leakage current type Current limiting class Rated short-circuit breaking capacity EN 60898 Rated short-circuit breaking capacity EC 60947-2 Release characteristic Concurrently switching N-neutral Over voltage category Pollution degree Vidith in number of modular spacings Built-in depth Suitable for flush-mounted installation	Number of protected poles		2
Rated fault current Leakage current type Current limiting class Rated short-circuit breaking capacity EN 60898 Rated short-circuit breaking capacity EC 60947-2 Release characteristic Concurrently switching N-neutral Over voltage category Pollution degree Width in number of modular spacings Built-in depth Sutable for flush-mounted installation	Nominal rated voltage	V	240
Leakage current type Current limiting class Rated short-circuit breaking capacity EN 60898 Rated short-circuit breaking capacity IEC 60947-2 Release characteristic Release characteristic Concurrently switching N-neutral Over voltage category Pollution degree Width in number of modular spacings Built-in depth Suitable for flush-mounted installation	Nominal rated current	А	6
Current limiting class Rated short-circuit breaking capacity EN 60898 Rated short-circuit breaking capacity IEC 60947-2 Release characteristic Roucurrently switching N-neutral Over voltage category Pollution degree Width in number of modular spacings Built-in depth Suitable for flush-mounted installation  A	Rated fault current	A	0.01
Rated short-circuit breaking capacity EN 60898 Rated short-circuit breaking capacity IEC 60947-2 Release characteristic Release characteristic Concurrently switching N-neutral Over voltage category Pollution degree Width in number of modular spacings Built-in depth Suitable for flush-mounted installation	Leakage current type		A
Rated short-circuit breaking capacity IEC 60947-2 Frequency Release characteristic Concurrently switching N-neutral Over voltage category Pollution degree Width in number of modular spacings Built-in depth Suitable for flush-mounted installation  KA  O  D  D  D  D  D  D  D  D  D  D  D  D	Current limiting class		3
Frequency Release characteristic Concurrently switching N-neutral Over voltage category Pollution degree Width in number of modular spacings Built-in depth Suitable for flush-mounted installation    Suitable for flush-mounted installation   Suitable for flush-mounted installation   Suitable for flush-mounted installation   Suitable for flush-mounted installation   Suitable for flush-mounted installation   Suitable for flush-mounted installation   Suitable for flush-mounted installation   Suitable for flush-mounted installation   Suitable for flush-mounted installation   Suitable for flush-mounted installation   Suitable flush-mounte	Rated short-circuit breaking capacity EN 60898	kA	10
Release characteristic Concurrently switching N-neutral Over voltage category Pollution degree Width in number of modular spacings Built-in depth Suitable for flush-mounted installation  C C C C C C C C C C C C C C C C C C	Rated short-circuit breaking capacity IEC 60947-2	kA	0
Concurrently switching N-neutral Over voltage category Pollution degree Width in number of modular spacings Built-in depth Suitable for flush-mounted installation  No  No  No  No  No  No  No  No  No	Frequency		50 Hz
Over voltage category  Pollution degree  Width in number of modular spacings  Built-in depth  Suitable for flush-mounted installation  Solution degree  3  2  2  3  3  7  9  9  9  9  9  9  9  9  9  9  9  9	Release characteristic		C
Pollution degree  Width in number of modular spacings  Built-in depth  Suitable for flush-mounted installation  2  2  2  3  4  70  No	Concurrently switching N-neutral		No
Width in number of modular spacings 2 Built-in depth mounted installation mm 70 Suitable for flush-mounted installation No	Over voltage category		3
Built-in depth mm 70 Suitable for flush-mounted installation mm No	Pollution degree		2
Suitable for flush-mounted installation No	Width in number of modular spacings		2
	Built-in depth	mm	70
Degree of protection (IP) IP20	Suitable for flush-mounted installation		No
	Degree of protection (IP)		IP20
Surge current capacity kA 3	Surge current capacity	kA	3
Voltage type AC	Voltage type		AC
Antinuisance tripping version Yes	Antinuisance tripping version		Yes

## **Dimensions**



# **Additional product information (links)**

Product overview (Web)

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