

RCD/MCB combination switch, 6A, 100mA, miniature circuit-breaker type C trip characteristic, 2p, residual current circuit-breaker trip characteristic: A



Part no. FRBDM-C6/2/01-G/A
Article no. 168216
Catalog No. PDC-TBD6559

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	0.1
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**

Dooign vormoution to por 120, 211 or 100			
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.

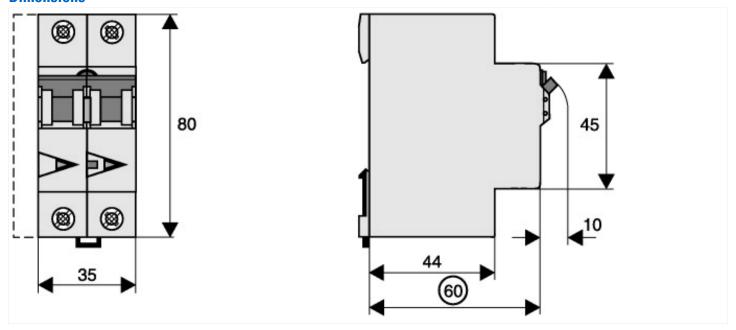
### **Technical data ETIM 6.0**

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 poles (total)     2       Number of protected poles     V     20       Nominal rated voltage     V     240       Nominal rated current     A     6       Rated fault current     A     0.1       Leakage current type     A     3       Current limiting class     3     3       Rated short-circuit breaking capacity EN 60898     KA     10       Rated short-circuit breaking capacity EC 60947-2     KA     0       Release characteristic     SO Hz     C       Concurrently switching N-neutral     No     No       Over voltage category     3     3       Pollution degree     2     2       Width in number of modular spacings     2     2       Built-in depth     mm     70
Nominal rated voltage  Nominal rated current  A 6 Rated fault current  Leakage current type  A 0.1  Leakage current type  A 0.1  Rated short-circuit breaking capacity EN 60898  Rated short-circuit breaking capacity IEC 60947-2  Rated short-circuit breaking capacity IEC 60947-2  Release characteristic  C C  Concurrently switching N-neutral  Over voltage category  Pollution degree  Width in number of modular spacings  V 240  A 6  A 0.1  A 0.1  A 0  Current limiting class  A 10  NO  Over voltage capacity IEC 60947-2  No  2  Width in number of modular spacings
Nominal rated current Rated fault current A Bated fault current Leakage current type A Current limiting class Rated short-circuit breaking capacity EN 60898 Rated short-circuit breaking capacity IEC 60947-2 Rated short-circuit breaking capacity IEC 60947-2 Release characteristic C Concurrently switching N-neutral Over voltage category Pollution degree Width in number of modular spacings  A 6 B 6 C C Concurrently switching N-neutral No 2 Width in number of modular spacings
Rated fault current Leakage current type A Current limiting class Rated short-circuit breaking capacity EN 60898 Rated short-circuit breaking capacity IEC 60947-2 Rated short-circuit breaking capacity IEC 60947-2 Release characteristic Concurrently switching N-neutral Over voltage category Pollution degree Width in number of modular spacings  A 0.1  A 0.1  A 0.2  VA 10  VA 0  C C C C C C C C C C C C C C C C C C
Leakage current type  Current limiting class  Rated short-circuit breaking capacity EN 60898  Rated short-circuit breaking capacity IEC 60947-2  kA  0  Frequency  Release characteristic  C  Concurrently switching N-neutral  Over voltage category  Pollution degree  Width in number of modular spacings  A  A  A  A  D  No  2  Width in number of modular spacings
Current limiting class Rated short-circuit breaking capacity EN 60898 Rated short-circuit breaking capacity IEC 60947-2 Release characteristic Concurrently switching N-neutral No Over voltage category Pollution degree Width in number of modular spacings  3  AA 10  CO Concurrently switching N-neutral No 2  Concurrently switching N-neutral Solution degree 2  Width in number of modular spacings
Rated short-circuit breaking capacity EN 60898  Rated short-circuit breaking capacity IEC 60947-2  kA  0  Frequency  Frequency  Release characteristic  Concurrently switching N-neutral  Over voltage category  Pollution degree  Width in number of modular spacings  kA  10  No  50 Hz  C  C  2
Rated short-circuit breaking capacity IEC 60947-2 kA 0  Frequency 50 Hz  Release characteristic C  Concurrently switching N-neutral No  Over voltage category 3  Pollution degree 2  Width in number of modular spacings 2
Frequency 50 Hz Release characteristic C Concurrently switching N-neutral No Over voltage category 3 Pollution degree 2 Width in number of modular spacings 2
Release characteristic  Concurrently switching N-neutral  No  Over voltage category  3  Pollution degree  2  Width in number of modular spacings  C  No  2
Concurrently switching N-neutral  Over voltage category  3  Pollution degree  2  Width in number of modular spacings  2
Over voltage category 3 Pollution degree 2 Width in number of modular spacings 2
Pollution degree 2 Width in number of modular spacings 2
Width in number of modular spacings 2
Built-in depth mm 70
Suitable for flush-mounted installation No
Degree of protection (IP)
Surge current capacity kA 3
Voltage type AC
Antinuisance tripping version Yes

## **Dimensions**



# **Additional product information (links)**

Product overview (Web)

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