

RCD/MCB combination switch, 13A, 100mA, miniature circuit-br. type B trip characteristic, 2p, residual current circuit-br. trip characteristic: A



Part no. FRBDM-B13/2/01-G/A Article no. 168214

Catalog No. PDC-TBD6557

Similar to illustration

Delivery program

Delivery program			
Basic function			Combined RCD/MCB devices
Number of poles			2 pole
Tripping characteristic			В
Application			Switchgear for industrial and advanced commercial applications
Rated current	In	Α	13
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	13
Tripping characteristic			В

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	13
Heat dissipation per pole, current-dependent	P _{vid}	W	0
Equipment heat dissipation, current-dependent	P _{vid}	W	4.9
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 (II) is observed

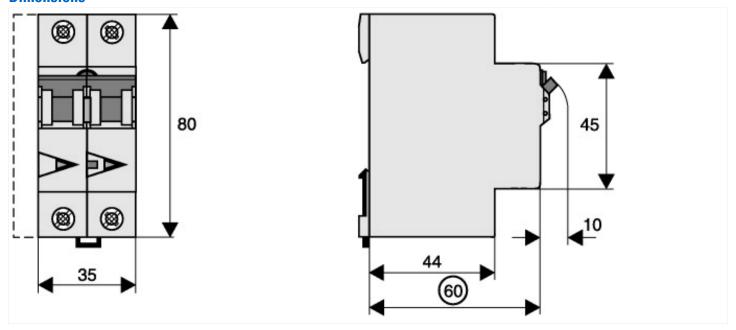
Technical data ETIM 6.0

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 Nominal rated voltage V 240 Nominal rated current A 13 Rated fault current A 0.1 Leakage current type A A Current limiting class 3 3 Rated short-circuit breaking capacity EN 60898 kA 10 Rated short-circuit breaking capacity IEC 60947-2 kA 0 Frequency 50 Hz B Release characteristic B No 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 No No Suitable for flush-mounted installation No No Degree of protection (IP) IP20 Surge current capacity KA 3 Voltage type AC AC			
Nominal rated voltage Nominal rated current Rated fault current Leakage current type Current limiting class Rated short-circuit breaking capacity EN 60898 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 Built-in depth Suitable for flush-mounted installation Degree of protection (IP) Surge current capacity V 240 13 14 15 16 17 18 18 18 10 10 10 10 10 10 10 10 10 10 10 10 10	Number of poles (total)		2
Nominal rated current Rated fault current Leakage current type Leakage current type Current limiting class Rated short-circuit breaking capacity EN 60898 Rated short-circuit breaking capacity EC 60947-2 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 degth Suitable for flush-mounted installation Degree of protection (IP) Surge current capacity Voltage type A 0.1 A 0.1 A 0 0 0 0 0 0 0 0 0 0 0 0	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 IEC 60947-2 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 Degree of protection (IP) Surge current capacity Voltage type A 0.1 A A 0.1 A A 0 FA 10 NA 0 FA C FA FA	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 Degree of protection (IP) Surge current capacity Voltage type A A A B A B A D A D D A D D D D D D D D	Nominal rated current	Α	13
Current limiting class Rated short-circuit breaking capacity EN 60898 Rated short-circuit breaking capacity IEC 60947-2 Release characteristic Release characteristic Roucirently switching N-neutral Over voltage category Pollution degree Width in number of modular spacings Built-in depth Suitable for flush-mounted installation Degree of protection (IP) Surge current capacity Voltage type Surge current capacity RA 10 0 0 0 0 0 0 0 0 0 0 0 0	Rated fault current	Α	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 Release chara	Leakage current type		A
Rated short-circuit breaking capacity IEC 60947-2	Current limiting class		3
Frequency Release characteristic Concurrently switching N-neutral Over voltage category Over voltage category Pollution degree Width in number of modular spacings Built-in depth Suitable for flush-mounted installation Degree of protection (IP) Surge current capacity Voltage type 50 Hz B 00 Hz No No No No AC	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 Degree of protection (IP) Surge current capacity Voltage type B No Release characteristic B No No No AC	Rated short-circuit breaking capacity IEC 60947-2	kA	0
Concurrently switching N-neutral Over voltage category Pollution degree Pollution degree Width in number of modular spacings Built-in depth Suitable for flush-mounted installation Degree of protection (IP) Surge current capacity Voltage type No No No AC	Frequency		50 Hz
Over voltage category Suitable for flush-mounted installation Degree of protection (IP) Surge current capacity Voltage type 3 2 2 2 3 4 7 7 7 8 1 1 1 1 1 1 1 1 1 1 1 1	Release characteristic		В
Pollution degree 2 Width in number of modular spacings 2 Built-in depth 70 Suitable for flush-mounted installation No Degree of protection (IP) IP20 Surge current capacity kA 3 Voltage type AC	Concurrently switching N-neutral		No
Width in number of modular spacings 2 Built-in depth mm 70 Suitable for flush-mounted installation No Degree of protection (IP) IP20 Surge current capacity kA 3 Voltage type AC	Over voltage category		3
Built-in depth Suitable for flush-mounted installation No Degree of protection (IP) Surge current capacity Voltage type mm 70 No IP20 AC	Pollution degree		2
Suitable for flush-mounted installation Degree of protection (IP) Surge current capacity kA 3 Voltage type AC	Width in number of modular spacings		2
Degree of protection (IP) Surge current capacity kA 3 Voltage type AC	Built-in depth	mm	70
Surge current capacity kA 3 Voltage type AC	Suitable for flush-mounted installation		No
Voltage type AC	Degree of protection (IP)		IP20
	Surge current capacity	kA	3
Antinuisance trinning version	Voltage type		AC
Antimidiative disping votation	Antinuisance tripping version		Yes

Dimensions



Additional product information (links)

Product overview (Web)

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