DATASHEET - FBHMV-80/4/003-A



Residual-current circuit breaker trip block for AZ, 80A, 4p, 30mA, type A



FBHMV-80/4/003-A Part no. 170265 Catalog No. Alternate Catalog FBHMV-80/4/003-A No.

Powering Business Worldwide

Similar to illustration

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Delivery program			
Basic function			Add-on residual current protection unit
Number of poles			4 pole
Application			Switchgear for industrial and advanced commercial applications
Rated current	In	Α	80
Rated short-circuit strength	I _{cn}	kA	same as connected AZ
Rated fault current	$I_{\Delta N}$	Α	0.03
Туре			Туре А
Tripping		s	non-delayed
Product range			FBHmV
Sensitivity			Pulse-current sensitive
Impulse withstand current			Partly surge-proof 250 A
Contact sequence			1' 3' 5' 7'/N 13 T 2' 4' 6' 8'/N 14

Technical data

Electrical

Rated frequency	f	Hz	50
Sensitivity			Pulse-current sensitive
Rated current	In	Α	80
Rated impulse withstand voltage	U_{imp}	kV	4
lifespan			
Electrical	Operations		≧ 1500
Mechanical	Operations		≧ 10000
Mechanical			

Standard front dimension	mm	45
Device height	mm	90
Built-in width	mm	95 (5.5TE)
Mounting		screwed onto AZ 2-, 3-, 4-pole; Z-BHASA
Degree of Protection		IP20, IP40 with suitable enclosure
Terminals top and bottom		Lift terminals
Terminal protection		DGUV VS3, EN 50274
Permissible storage and transport temperatures	°C	-35 - +60
Climatic proofing		25-55°C/90-95% relative humidity according to IEC 60068-2

Design verification as per IEC/EN 61439

echnical data for design verification			
Rated operational current for specified heat dissipation	In	Α	80
Heat dissipation per pole, current-dependent	P_{vid}	W	0
Equipment heat dissipation, current-dependent	P_{vid}	W	7
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

	Starting at 40 °C, the max. permissible continuous current decreases by 3% 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) (ecl@ss10.0.1-27-14-22-01 [AAB906014])

Number of poles 4 Rated voltage V 45 Rated current A 80 Rated all current mA 30 Rated insulation voltage Uin V 44 Rated insulation voltage Uimp K V 40 Mounting method DIN rail 10 10 10 Leakage current type No No 10	(ecl@ss10.0.1-27-14-22-01 [AAB906014])			
Rated current A 80 Rated fault current mA 30 Rated insulation voltage Uin V 440 Rated impulse withstand voltage Uimp kV 4 Mounting method IV 4 Leakage current type IV A Selective protection IV A Short-time delayed tripping IV No Short-circuit breaking capacity (Icw) IV A Surge current capacity IV 50 Hz Frequency IV 50 Hz Additional equipment possible IV Yes With interlocking device IV 120 Degree of protection (IP) IV 920 With in number of modular spacings IV 5.5 Built-in depth IV 70 Ambient temperature during operating IV 25-40 Pollution degree 10 25-50 Connectable conductor cross section multi-wired IV 25-50	Number of poles			4
Rated fault current mA 9 Rated insulation voltage Uin V 440 Rated impulse withstand voltage Uimp KV 4 Mounting method DIN rail Leakage current type A No Selective protection No No Short-time delayed tripping KA 0 Sturge current capacity (Icw) KA 0.25 Surge current capacity Yes Yes Additional equipment possible Yes Yes With interlocking device Yes Yes Degree of protection (IP) Yes Yes Width in number of modular spacings Fee Fee Yes Built-in depth Test of Section multi-wired Yes Yes Ambient temperature during operating Test of Section Section multi-wired Yes Yes Connectable conductor cross section multi-wired Yes Yes Yes Yes	Rated voltage	\	V	415
Rated insulation voltage Ui V 440 Rated impulse withstand voltage Uimp kV 4 Mounting method DIN rail Incompany Leakage current type A A Selective protection No No Short-time delayed tripping No No Short-circuit breaking capacity (lcw) KA 0 Surge current capacity KA 0.25 Frequency No So Hz Additional equipment possible Yes Yes With interlocking device Po Po Degree of protection (IP) Po Yes Width in number of modular spacings Fo 5.5 Built-in depth To 7.5 25-40 Ambient temperature during operating Co 25-40 Pollution degree To 25-50	Rated current	,	A	80
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Mounting method Leakage current type Selective protection Short-time delayed tripping Short-circuit breaking capacity (Icw) Surge current capacity Frequency Additional equipment possible With interlocking device Degree of protection (IP) Width in number of modular spacings Built-in depth Ambient temperature during operating Mounting method Ambient temperature during operating Pollution degree Connectable conductor cross section multi-wired Mounting method A A A A A A A A A A A A A A A A A A A	Rated insulation voltage Ui	\	V	440
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Surge current capacity Frequency Additional equipment possible With interlocking device Degree of protection (IP) Width in number of modular spacings Built-in depth Abhient temperature during operating Pollution degree Connectable conductor cross section multi-wired KA 0.25 1	Short-time delayed tripping			No
Frequency Additional equipment possible With interlocking device Degree of protection (IP) Width in number of modular spacings Built-in depth Ambient temperature during operating Pollution degree Connectable conductor cross section multi-wired So Hz Yes Yes Yes Possible on Hz Yes Yes Yes Possible on Hz Yes	Short-circuit breaking capacity (Icw)	ŀ	kA	0
Additional equipment possible With interlocking device Ves Degree of protection (IP) Width in number of modular spacings Built-in depth Ambient temperature during operating Pollution degree Connectable conductor cross section multi-wired Yes Yes Yes Pole Pole Pole Pole Pole Pole Pole Pol	Surge current capacity	ŀ	kA	0.25
With interlocking device Pegree of protection (IP) Width in number of modular spacings Width in number of modular spacings Built-in depth Mmm 70 Ambient temperature during operating Pollution degree Connectable conductor cross section multi-wired Pollution degree Connectable conductor cross section multi-wired Pollution degree	Frequency			50 Hz
Degree of protection (IP) Width in number of modular spacings Built-in depth Ambient temperature during operating Pollution degree Connectable conductor cross section multi-wired IP20 IP20 TO TO TO TO TO TO TO TO TO T	Additional equipment possible			Yes
Width in number of modular spacings 5.5 Built-in depth mm 70 Ambient temperature during operating °C -25 - 40 Pollution degree 2 Connectable conductor cross section multi-wired mm² 2.5 - 50	With interlocking device			Yes
Built-in depth mm 70 Ambient temperature during operating °C -25 - 40 Pollution degree 2 Connectable conductor cross section multi-wired mm² 2.5 - 50	Degree of protection (IP)			IP20
Ambient temperature during operating °C -25 - 40 Pollution degree Connectable conductor cross section multi-wired mm² 2.5 - 50	Width in number of modular spacings			5.5
Pollution degree 2 Connectable conductor cross section multi-wired mm² 2.5 - 50	Built-in depth	r	mm	70
Connectable conductor cross section multi-wired mm ² 2.5 - 50	Ambient temperature during operating	c	°C	-25 - 40
	Pollution degree			2
Connectable conductor cross section solid-core mm ² 2.5 - 50	Connectable conductor cross section multi-wired	ī	mm²	2.5 - 50
	Connectable conductor cross section solid-core	ı	mm²	2.5 - 50

Dimensions

