DATASHEET - FBSMV-40/2/03-A

Part no.



Residual-current circuit breaker trip block for FAZ, 40A, 2p, 300mA, type A

FBSMV-40/2/03-A 170211

General sp	ecifications
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EM 60501377 Poder length 50101102 Poder length 60001102 Poder le	Product name	Eaton Moeller series xEffect - FBSmV RCCB add-on unit
Product Leaph/Daph Billimitra Product Hability Smillimitra Product Wath Difference Product Matheman Difference Product Tardemane Difference <t< td=""><td>Part no.</td><td>FBSMV-40/2/03-A</td></t<>	Part no.	FBSMV-40/2/03-A
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Product withit Product wight 0.1 klingtam Product wight 0.1 klingtam Compliances 0.1 klingtam Carifications 1.1 klingtam Product Tools 2.1 klingtam	Product Length/Depth	90 millimetre
Preduct weight Exprising and a construction of the construction of	Product height	75 millimetre
Compliance ReHS cartor Certifications EVEXSS 2 EVEXSS 2 Fonduct Trademane EVEXSS 2 EVEXSS 2 EVEX SS 2 EVEXSS 2 EVEX EVEXSS 2 EVEX EVEX EVEXSS 2 EVEX EVEX EVEXSS 2 EVEX EVEX EVEX EVEX EVEX EVEX EVEX EVE	Product width	70 millimetre
Cartifications F49598-2 (ECFR S1000 Product Tademame FBSmV Product Tademame FBSmV Product Tademame FBSmV Product Sub Type More Delivery program FGEC Bad-so mult Application FGEC Bad-so mult Application FGEC Bad-so mult Application FGEC Bad-so mult Application FGEC Bad-so mult Tripping Time FGEC Bad-so mult Approage Rining FGEC Bad-so mult Raid barbc-circuis strongth FGEC Bad-so mult Synabioty Type 404 Same as connected FAZ up to max: 10 kA Fait current rating Same as connected FAZ up to max: 10 kA Synabioty Type GGEC Bad-so mult Type A FGEC Bad-so mult Synabioty Type GGEC Bad-so mult Fait current rating Same as connected FAZ up to max: 10 kA Synabioty Type GGEC Bad-so mult Type A FGEC Bad-so mult York A FGEC Bad-so mult Synabioty Type GGEC Bad-so mult Type A FGEC Bad-so mult York A FGEC Bad-so mult York A FGEC Bad-so mult Number of uning Subity Mult Had Subatage Current product Type GGEC Bad-so mult </td <td>Product weight</td> <td>0.17 kilogram</td>	Product weight	0.17 kilogram
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Product Type RCCB add-on unit Polacet Sub Type None Delivery program States Application States Application States Number of poles Too-pole Toping fine Non-delayod Angreage Rating Ander Control States and States Rated short-circuit strength States as connected FAZ up to max. T0 LA Rated short-circuit strength Alor Generation Sonsitivity type States as connected FAZ up to max. T0 LA Sonsitivity type States as connected FAZ up to max. T0 LA Sonsitivity type States as connected FAZ up to max. T0 LA Sonsitivity type Poles-current sensitive Inpulse withstand current resting States and current sensitive Voltage rating - min 2010 Voltage rating - max 2010 Rated fuelt current - min States Rated situation voltage (Uip) States Rated fuelt current - min States Rated fuelt current vipo States Rated fuelt current vipo States Rated fuelt current vipo		IEC 61373 IEC/EN 61009
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Delivery param Image: Control of the section of the sect		RCCB add-on unit
Application Kether - Switchgeer for industrial and advanced commercial applications Switchgeer for industrial and advanced commercial applications Switchgeer for industrial and advanced commercial applications Number of pales Two pole Tripping time Wo Adalyad Anperage Rating 40 A Rated abtric-ticuit strength Same as connected FAZ up to max. 10 kA Fault current rating Same as connected FAZ up to max. 10 kA Switchty type Pulse-current sensitive Impulse withstand current Pulse-current sensitive Type Pype A Voltage rating - min Pype A Voltage rating - min 240 V Nated insulation voltage (Ue) - max 415 V Rated insulation voltage (Uh) 440 V Rated insulation voltage (Uh) 410 V Rated insulation voltage (Uh) 50 Hz Rated insulatin voltage (Uhp) 50 Hz	Product Sub Type	None
Number of poles Switchgeer for industrial and advanced commercial applications Number of poles Noo-pole Topping time Anderage Rating Anderage Rating Rated short-circuit strength Same as connected FA2 up to max. 10 bA Fauted short-circuit strength Pulse-current ransing Sanshirity type Pulse-current ransing Innulues withstand current Pulse-current ransing Type Pulse-current ransing Voltage rating - min Pulse-current ransing Voltage rating - min 240 V Notage (U) - max 240 V Rated factourent - min 240 V Rated factourent - min 240 V Rated factourent - max 30.A Surge current type A <td>Delivery program</td> <td></td>	Delivery program	
Tripping time Non-delayed Amparage Rating 40 A Rated short-circuit strength 60 A Fauted short-circuit strength 300 mA Sensitivity type 90 mA Impulse withstand current rating 90 mA Sensitivity type Pulse-current sensitive Impulse withstand current 7 ppe A Yordeg rating - min 7 ppe A Voltage rating - min 240 V Rated short-circuid 240 V Rated short-circuid 440 V Rated short-circuid 240 V Rated rating - min 240 V Rated short-circuid (Up) - max 15 V Rated short-circuid (Up) - max 3 A Rated short-circuid (Up) 3 A Rated short-circuid (Up) 3 A Rated short-circuid (Up) 20 V Rated fault-current - max 3 A Rated short-c	Application	
Amperage Rating Image: Second et al. (SAZ up to max. 10 kA Rated short-circuit strength Sens is a connected FAZ up to max. 10 kA Sensitivit type Som as connected FAZ up to max. 10 kA Sensitivit type Som as connected FAZ up to max. 10 kA Inpulse withstand current Poles-current sensitive Type Sensitivit type Type Party surge-proof 250 A Yotage rating - min Yotage rating - max Votage rating - max Yotage rating - max Rated inpulse withstand votage (Uin) Yotage rating - max Rated inpulse withstand votage (Uinp) Yotage rating - max Rated fault current - min Yotage rating - max Rated fault current - min Yotage rating - max Rated fault current type O3 A Rated short-me withstand current (low)	Number of poles	Two-pole
Rated short-circuit strength Image: Some and concerted FA2 up to max. 10 kA Fault current rating S00 mA Sonsitivity type Pulse-current sensitive Impulse withstand current Pulse-current sensitive Type Figs: Som Main and Current protection unit Voltage rating - min VO Voltage rating - min VO Voltage rating - min VO Notage rating - min VO Rated inpulse withstand voltage (U) AV Rated inpulse withstand voltage (U) VO Rated inpulse withstand voltage (Uimp) VO Rated inpulse withstand current (Icw) VO Signe current type VO Persource withstand current (Icw) VO	Tripping time	Non-delayed
Fault current rating Impulse withstand current Pulse-current sensitive Impulse withstand current Partly surge-proof 250 A Type Fype A Toping Fype A Voltage rating - min You A Voltage rating - min 240 V Voltage rating - max 445 V Rated operational voltage (Ui) 440 V Rated insulation voltage (Uip) 440 V Rated insulation voltage (Uip) 440 V Rated insulation voltage (Uip) 440 V Rated spectro max 50 82 400 Rated spectro max 50 82 50 82 Polution degree 20 50 82 Vi	Amperage Rating	40 A
Sensitivity type Pulse-current sensitive Impulse withstand current Party surge-proof 280 A Type Party surge-proof 280 A Type Party surge-proof 280 A Technical Data - Electrical Party surge-proof 280 A Voltage rating - min 240 V Voltage rating - max 240 V Rated operational voltage (Ui) - max 240 V Rated operational voltage (Uinpo) 240 V Rated operational voltage (Uinpo) 240 V Rated fault current - min 240 V Rated fault current - mix 340 V Rated fault current - mix 340 V Rated fault current - mix 340 V Rated fault current (Low) 340 V Surge current type 340 V Rated short-time withstand current (Low) 240 V Surge current type 340 V Rated short-time withstand current (Low) 340 V Surge current type 250 Hz Rated short-time withstand current (Low) 250 Hz Voltage current type 250 Hz Rated fault current - mix 250 Hz	Rated short-circuit strength	Same as connected FAZ up to max. 10 kA
Impulse withstand current Impulse withstand current Perty surge-prof 250 A Type Pipe A FBSm/ FSSSm/ FSSSm/ FSSSm/ FSSm/ FSSSm/ FSSm/ FSSm/ FSSSm/ FSSSm/ FSSM/ F	Fault current rating	300 mA
Type Type A Type A Spe A Type A Spe A Add-on residual current protection unit Add-on residual current protection unit Type A Add-on residual current protection unit Type A Add-on residual current protection unit Voltage rating - min 240 V Nated operational voltage (U) 415 V Rated perational voltage (U) 40 V Rated perational voltage (U) 40 V Rated fault current - min 34 Add-on Call Rated fault current - max 03 A Rated fault current - max 03 A Rated fault current + max 04 V Rated fault current + max 04 V Rated short-time withstand current (Icw) 04 A Rated short-time withstand current (Icw) 04 A Surge current type A Pollution degree 24 V Frame 4 With in number of molular spacings 4 Buil-in ideph 0 mm Buil-in ideph 0 mm Buil-in ideph 0 mm Buil-in ideph 0 mm Buil-in ideph <	Sensitivity type	Pulse-current sensitive
Technical Data - Electrical FBSM Voltage rating - min 240 V Voltage rating - max 415 V Rated operational voltage (Ui) 440 V Rated insulation voltage (Uin) 440 V Rated risulation voltage (Uin) 440 V Rated fault current - min 0.3 A Rated fault current - max 0.3 A Perquency rating 0.4 A Rated short-time withstand current (Icw) 0.1 A Surge current type 0.1 A Pollution degree 0.25 kA Pollution degree 25 kA Frame 5 mm Mutht in number of modular spacings 6 mm (2 SU) Built-in width (number of units) 7 mm Built-in width (number of units) 7 mm Built-in width (number of units) 7 mm (2 SU) Built-in depth 7 mm Built-in depth 7 mm Built-in depth 7 mm (2 SU) Built-in depth 7 mm (2 SU) Built-in depth 7 mm (2 SU) Built-in depth 7 mm Built-in depth 7 mm Built-in depth 7 mm	Impulse withstand current	Partly surge-proof 250 A
Voltage rating - min 40 V Voltage rating - max 415 V Rated operational voltage (Ue) - max 40 V Rated insulation voltage (Uinp) 40 V Rated insulation voltage (Uimp) 40 V Rated alut current - min 0.3 A Rated fault current - max 0.3 A Frequency rating 50 Hz Rated short-time withstand current (Icw) 50 Hz Surge current type 0.10 A Rated short-time withstand current (Icw) 0.25 kA Pollution degree 2 Frame 4 Sim Width in number of modular spacings 50 min (2 SU) Built-in width (number of units) 70 min (2 SU) Built-in depth 70 min	Туре	FBSmV
Votage rating - max155 VRated operational voltage (Ue) - max240 VRated insulation voltage (Uimp)440 VRated insulation voltage (Uimp)45 VRated insulation voltage (Uimp)0.3 ARated fault current - min0.3 ARated fault current - max0.3 AIs frequency rating0.4 VLeakage current type0.4 VRated short-time withstand current (low)0.4 NVoltage active rent capacity0.2 S kAPolution degree2Frame5 mmVolta in number of modular spacings5 mmBuit-in worth funder of units)7 mmBuit-in depth7 mmSurge Active funder7 mmSurge Active funder10 Marce Active funderMonting Method10 maneet screw connection with FAZ	Technical Data - Electrical	
Rated operational voltage (Ue) - max 240 V Rated insulation voltage (Ui) 440 V Rated insulation voltage (Uimp) 440 V Rated fault current - min 0.3 A Rated fault current - max 0.3 A Rated fault current / max 0.4 V Rated fault current / max 0.4 C Rated short-time withstand current (Icw) 0.4 C Surge current capacity 0.4 C Pollution degree 2 Pollution degree 2 If rame 45 mm Witht in number of modular spacings 45 mm Built-in witht (number of units) 0 mm (2 SU) Built-in witht (number of units) 0 mm Built-in depth 0 mm Mounting Method 10 mm	Voltage rating - min	240 V
Rated insulation voltage (Ui) 40 V Rated ingulse withstand voltage (Uimp) 4kV Rated fault current - min 0.3 A Rated fault current - max 0.3 A Frequency rating 0.4 KZ Rated short-time withstand current (Icw) 0.4 KZ Rated short-time withstand current (Icw) 0.4 KZ Surge current capacity 0.25 KA Pollution degree 2 Frame 45 Mam With in number of modular spacings 4 Mam Built-in with (number of units) 70 mm Built-in with (number of units) 70 mm Built-in depth 70 mm Mounting Method 10 Narial	Voltage rating - max	415 V
Rated inpulse withstand voltage (Uimp) Image: State of ault current - min Image: State of ault current - max Rated fault current - max 0.3 A Frequency rating 0.3 A Frequency rating 0.4 C Leakage current type A Rated short-time withstand current (lcw) Image: State of ault current (lcw) Surge current capacity 0.0 KA Pollution degree 0.25 kA Technical Data - Mechanical Image: State of modular spacings Width in number of modular spacings Modular State of modular spacings Built-in width (number of units) Image: State of modular spacings Built-in depth To mm Mounting Method Image: State of modular space of modular	Rated operational voltage (Ue) - max	240 V
Rated fault current - min 0.3 A Rated fault current - max 0.3 A Frequency rating 0.3 A Leakage current type 50 Hz Rated short-time withstand current (lcw) A Surge current capacity 10 kA Pollution degree 22 kA Frame 4 Width in number of modular spacings 54 C Built-in width (number of units) 64 C Built-in depth 70 mm Mounting Method DIN rail	Rated insulation voltage (Ui)	440 V
Rated fault current - max 0.3 A Frequency rating 50 Hz Leakage current type A Rated short-time withstand current (Icw) 10 kA Surge current capacity 0.25 kA Pollution degree 2 Frame 4 With in number of modular spacings 6 Built-in with (number of units) 6 Built-in depth 70 mm (2 SU) Mounting Method DN rail	Rated impulse withstand voltage (Uimp)	4 kV
Frequency rating 60 50 Hz Leakage current type A Rated short-time withstand current (Icw) 10 kA Surge current capacity 025 kA Pollution degree 20 KA Frame 45 mm Width in number of modular spacings 66 K Built-in width (number of units) 66 K Built-in depth 70 mm (2 SU) Mounting Method 10 ka	Rated fault current - min	0.3 A
Leakage current type A Rated short-time withstand current (lcw) Image: Construct capacity Image: Construct capacity Surge current capacity Daka Image: Construct capacity Pollution degree Image: Construct capacity Image: Construct capacity Frame Some construct capacity Image: Construct capacity Frame Image: Construct capacity Image: Construct capacity Width in number of modular spacings Image: Construct capacity Image: Construct capacity Built-in width (number of units) Image: Construct capacity Image: Construct capacity Built-in depth Image: Construct capacity Image: Construct capacity Mounting Method Image: Construct capacity Image: Construct capacity	Rated fault current - max	0.3 A
Leakage current type A Rated short-time withstand current (lcw) Image: Construct capacity Image: Construct capacity Surge current capacity Daka Image: Construct capacity Pollution degree Image: Construct capacity Image: Construct capacity Frame Some construct capacity Image: Construct capacity Frame Image: Construct capacity Image: Construct capacity Width in number of modular spacings Image: Construct capacity Image: Construct capacity Built-in width (number of units) Image: Construct capacity Image: Construct capacity Built-in depth Image: Construct capacity Image: Construct capacity Mounting Method Image: Construct capacity Image: Construct capacity	Frequency rating	50 Hz
Rated short-time withstand current (lcw) Image: Pollution degree Image: Po	Leakage current type	A
Pollution degree 2 Technical Data - Mechanical 2 Frame 45 mm Width in number of modular spacings I 3 Built-in width (number of units) I 1 Built-in depth I 70 mm (2 SU) Mounting Method I 10 mm	Rated short-time withstand current (Icw)	
Technical Data - Mechanical Image: Base of the sector of	Surge current capacity	0.25 kA
Frame 45 mm Width in number of modular spacings 4 Built-in width (number of units) 70 mm (2 SU) Built-in depth 70 mm Mounting Method Image: Space sp	Pollution degree	2
Width in number of modular spacings 4 Built-in width (number of units) 70 mm (2 SU) Built-in depth 70 mm Mounting Method Image: Space s	Technical Data - Mechanical	
Built-in width (number of units) 70 mm (2 SU) Built-in depth 70 mm Mounting Method Image: Strate Str	Frame	45 mm
Built-in width (number of units) Mounting Method Mounting Me	Width in number of modular spacings	
Built-in depth 70 mm Mounting Method Image: Comparison of the second se		
Mounting Method DIN rail Permanent screw connection with FAZ		
		DIN rail
Degree of protection in 20, if 40 with suitable enclosure	Degree of protection	IP20, IP40 with suitable enclosure

Terminals (top and bottom)	Lift terminals
Connectable conductor cross section (solid-core) - min	0.75 mm ²
Connectable conductor cross section (solid-core) - max	35 mm ²
Connectable conductor cross section (multi-wired) - min	0.75 mm ²
Connectable conductor cross section (multi-wired) - max	35 mm ²
Terminal protection	Finger and hand touch safe, DGUV VS3, EN 50274
Busbar material thickness	0.8 mm - 2 mm
Permitted storage and transport temperature - min	-35 °C
Permitted storage and transport temperature - max	60 °C
Climatic proofing	25-55 °C / 90-95% relative humidity according to IEC 60068-2
Design verification as per IEC/EN 61439 - technical data	
Rated operational current for specified heat dissipation (In)	40 A
Heat dissipation per pole, current-dependent	0 W
Equipment heat dissipation, current-dependent	13 W
Heat dissipation capacity	0 W
Ambient operating temperature - min	-25 °C
Ambient operating temperature - max	40 °C
Design verification as per IEC/EN 61439	
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 Resist. of insul. mat. to abnormal heat/fire by internal elect. effects	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.
10.6 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.
10.9.2 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.
Additional information	
Features	Additional equipment possible Add-on residual current protection unit
Fitted with:	Interlocking device
Special features	Ambient temperature hint: Starting at 40 °C, the max. permissible continuous current decreases by 3% for every 1 °C
Used with	FBSmV Add-on residual current protection unit Type A

Technical data ETIM 9.0

Rated fault current adjustable

Circuit breakers and fuses (EG000020) / Residual current circuit breaker (RCCB) module (EC002297)

Electric engineering, automation, process control engineering / Electrical installation, device / Residual current protection system / Residual current circuit breaker (RCCB) module (ecl@ss13-27-14-22-10 [ACN357016])					
Nominal voltage	V	240 - 415			
Nominal current	А	40			

No

Rated fault current	А	0.3 - 0.3
Max. delay time	ms	0
Delay adjustable		No
Number of poles		2
Leakage current type		A
Surge current capacity	kA	0.25
Frequency		50 Hz
Rated insulation voltage Ui	V	440
Rated impulse withstand voltage Uimp	kV	4
Power loss	W	3.1
Connectable conductor cross section solid-core	mm ²	0.75 - 35
Connectable conductor cross section multi-wired	mm ²	0.75 - 35
Anti-nuisance tripping version		No
With interlocking device		Yes
Degree of protection (IP)		IP20
Pollution degree		2
Ambient temperature during operating	°C	-25 - 40