## DATASHEET - PF7-40/2/03-A-DE



## Residual current circuit breaker (RCCB), 40A, 2 p, 300mA, type A

Part no. PF7-40/2/03-A-DE 263604

General specifications	
Product name	Eaton Moeller series xPole - PF6/7 RCCB
Part no.	PF7-40/2/03-A-DE
EAN	4015082636043
Product Length/Depth	80 millimetre
Product height	71 millimetre
Product width	35 millimetre
Product weight	0.22 kilogram
Compliances	RoHS conform
Certifications	IEC/EN 61008
Product Tradename	xPole - PF6/7
Product Type	RCCB
Product Sub Type	None
elivery program	
Application	xPole - Switchgear for residential and commercial applications
Аррисации	Residual current circuit breaker for residential and commercial applications
Number of poles	Two-pole
Tripping time	Non-delayed
Amperage Rating	40 A
Rated short-circuit strength	10 kA
Fault current rating	300 mA
Sensitivity type	Pulse-current sensitive
Impulse withstand current	Partly surge-proof 250 A
Туре	Type A Residual current circuit breakers PF7
echnical Data - Electrical	
Voltage rating	230 V AC
Rated operational voltage (Ue) - max	230 V
Rated insulation voltage (Ui)	440 V
Rated impulse withstand voltage (Uimp)	4 kV
Rated fault current - min	0.3 A
Rated fault current - max	0.3 A
Frequency rating	50 Hz
Short-circuit rating	63 A (max. admissible back-up fuse)
Leakage current type	A
Rated residual making and breaking capacity	500 A
Admissible back-up fuse overload - max	25 A gG/gL
Rated short-time withstand current (Icw)	10 kA
Surge current capacity	0.25 kA
Test circuit range	184 V AC - 250 V AC
Pollution degree	104 V AC - 230 V AC
Lifespan, electrical	4000 operations
echnical Data - Mechanical	
Frame	45 mm
Width in number of modular spacings	2
Built-in width (number of units)	35 mm (2 SU)
Built-in depth	69.5 mm
Mounting Method	DIN rail Quick attachment with 2 latch positions for DIN-rail IEC/EN 60715

Degree of protection	IP20 IP20, IP40 with suitable enclosure
Terminals (top and bottom)	Open mouthed/lift terminals
Terminal capacity (solid wire)	1.5 mm² - 35 mm²
Connectable conductor cross section (solid-core) - min	1.5 mm <sup>2</sup>
Connectable conductor cross section (solid-core) - max	35 mm <sup>2</sup>
Terminal capacity (stranded cable)	16 mm² (2x)
Connectable conductor cross section (multi-wired) - min	1.5 mm²
Connectable conductor cross section (multi-wired) - max	16 mm²
Terminal protection	Finger and hand touch safe, DGUV VS3, EN 50274
Busbar material thickness	0.8 mm - 2 mm
Lifespan, mechanical	20000 operations
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
	23-33 C / 30-33 /6 relative numbers according to IEC 00000-2
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	5.4 W
Static heat dissipation, non-current-dependent	0 W
Heat dissipation capacity	0 W
Ambient operating temperature - min	-25 °C
Ambient operating temperature - max	60 °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.
10.2.4 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.
10.9.2 Power-frequency electric strength	Is the panel builder's responsibility.
10.9.2 Power-frequency electric strength  10.9.3 Impulse withstand voltage	Is the panel builder's responsibility.
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10.9.4 Testing of enclosures made of insulating material  10.10 Temperature rise	Is the panel builder's responsibility.  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 b observed.
10.12 Electromagnetic compatibility	Is the panel builder's responsibility. The specifications for the switchgear must b observed.
10.13 Mechanical function	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.
Additional information	
Accessories required	Z-HK 248432
Features	Residual current circuit breaker Additional equipment possible
Fitted with:	IS/SPE-1TE 101911 Interlocking device
Special features	Tripping signal contact for subsequent installation Z-NHK 248434 Maximum operating temperature is 60 °C: Starting at 40 °C, the max. permissible continuous current decreases by 2.5% for every 1 °C
Used with	Z-RC/AK-2TE 285385 (sealing cover set)

## **Technical data ETIM 9.0**

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)

Rated voltage         V         330           Rated current         A         40           Rated fault current         A         3.3           Rated insulation voltage Uin         V         440           Rated impulse withstand voltage Uimp         V         4           Power loss         W         Image: Comment voltage Uimp           Mounting method         W         Image: Comment voltage Uimp           Selective protection         No         No           Short-time delayed tripping         No         No           Short-circuit breaking capacity (lcw)         K         A           Surge current capacity         K         A           Voltage type         K         AC           Village type         AC         AC           Village type         So Hz         AC           Frequency         So Hz         AC           Additional equipment possible         Yes         Yes           Degree of protection (IP)         P20           With in number of modular spacings         Yes         Yes           Bull is indepth         Yes         Yes	Electric engineering, automation, process control engineering / Electrical installation, de (ecl@ss13-27-14-22-01 [AAB906019])	vice / Residual cur	rent protection system / Residual current circuit breaker (RCCB)
Rated current         A         4           Rated fault current         A         3           Rated insulation voltage Ui         V         440           Rated impulse withstand voltage Uimp         W         4           Power loss         W         In Interpolation (Interpolation)           Mounting method         Image: Current type         Interpolation (Interpolation)         No           Selective protection         No         No           Short-time dalayed tripping         No         1           Short-circuit breaking capacity (Icw)         K         10           Surge current capacity         K         10           Village type         K         10           With interlocking device         Yes         10           Frequency         Soltz         10           Additional equipment possible         Yes         10           Begree of protection (IP)         Yes         10           Within interlocking device         Yes         10           Frequency         Yes         10           Begree of protection (IP)         Yes         10           Within in umber of mould are specings         Yes         10           Built-in depth         9	Number of poles		2
Rated fault current         A         0.3           Rated insulation voltage Ui         V         440           Rated inpulse withstand voltage Uimp         W         V           Power loss         W         U           Mounting method         I         M         VI           Leakage current type         I         No         No           Selective protection         I         No         No           Short-time delayed tripping         I         No         No           Storge current capacity (Icw)         KA         10         No           Surge current capacity         KA         0.25         No           With interlocking device         Y         Yes         No           Feequency         Solva         No         No           Additional equipment possible         Yes         No           Degree of protection (IP)         Yes         Yes           With in number of modular spacings         Yes         Yes           Bullt-in depth         Yes         Yes           Annient temperature during operating         Yes         Yes           Pollution degree         Yes         Yes           Connectable conductor cross section multi-wired	Rated voltage	V	230
Rated insulation voltage Ui         V         440           Rated impulse withstand voltage Uimp         kV         4           Power loss         W         Image: Ima	Rated current	Α	40
Rated impulse withstand voltage Ulimp         KV         4           Power loss         W         Image: Power loss         W         Image: Power loss         W         Image: Power loss         W         Image: Power loss         Image: Power loss         Molecular loss         Image: Power loss	Rated fault current	Α	0.3
Power loss         W         In ail           Mounting method         In ail         In ail           Leakage current type         A         A           Selective protection         No         No           Short-time delayed tripping         No         No           Short-circuit breaking capacity (low)         K         A         10           Surge current capacity         K         AC         AC           Voltage type         AC         Yes           Frequency         Yes         Yes           Additional equipment possible         Yes         Yes           Degree of protection (IP)         Yes         Yes           With in number of modular spacings         Yes         Yes           Built-in depth         Se         Yes           Ambient temperature during operating         Yes         Yes           Pollution degree         Yes         Yes           Connectable conductor cross section multi-wired         Yes         Yes           Connectable conductor cross section solid-core         Yes         Yes           Connectable conductor cross section solid-core         Yes         Yes           Connectable conductor cross section solid-core         Yes         Yes </td <td>Rated insulation voltage Ui</td> <td>V</td> <td>440</td>	Rated insulation voltage Ui	V	440
Mounting method Leakage current type Selective protection Short-time delayed tripping Short-time delayed tripping Surge current capacity (Icw) Surge current capacity Voltage type Voltage	Rated impulse withstand voltage Uimp	kV	4
Leakage current type         A           Selective protection         No           Short-time delayed tripping         No           Short-circuit breaking capacity (lcw)         M           Surge current capacity         D           Voltage type         AC           With interlocking device         S           Frequency         S           Additional equipment possible         S           Degree of protection (IP)         Y2           With in number of modular spacings         Y2           Built-in depth         M           Ambient temperature during operating         Y2           Pollution degree         Y2           Connectable conductor cross section multi-wired         Y2           Connectable conductor cross section solid-core         Y2           Rh-number (similar)         Y3           15-16	Power loss	W	
Selective protection Short-time delayed tripping Short-time delayed tripping Short-cruit breaking capacity (Icw) Surge current capacity Voltage type Voltage type With interlocking device Frequency Additional equipment possible Degree of protection (IP) Width in number of modular spacings Built-in depth Ambient temperature during operating Ambient temperature during operating Follution degree Connectable conductor cross section multi-wired Built-in depth RL-number (similar)  RL-number (similar)  No  RA  No  RA  Ambient temperature during operating RL-number (similar)  No  No  RA  No  No  RA  No  RA  No  No  No  No  No  No  No  No  No  N	Mounting method		DIN rail
Short-time delayed tripping Short-circuit breaking capacity (Icw) Surge current capacity Voltage type Voltage	Leakage current type		A
Short-circuit breaking capacity (Icw)  Surge current capacity  Voltage type  Voltage type  With interlocking device  Frequency  Additional equipment possible  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  RAL-number (similar)  RAL-number (similar)	Selective protection		No
Surge current capacity  Voltage type  Voltage type  With interlocking device Frequency  Additional equipment possible  Degree of protection (IP)  Width in number of modular spacings  Built-in depth  Ambient temperature during operating  Pollution degree  Pollution degree  Connectable conductor cross section multi-wired  RAL-number (similar)  ARL-number (similar)  ADS  AC  Ves  Pollution  Pollo  Pol	Short-time delayed tripping		No
Voltage type  With interlocking device Frequency Additional equipment possible Degree of protection (IP) Width in number of modular spacings Built-in depth Ambient temperature during operating Pollution degree Pollution degree Connectable conductor cross section multi-wired RAL-number (similar)  ARL-number (similar)  ARL  Yes  50 Hz  Yes  120  60 92	Short-circuit breaking capacity (Icw)	kA	10
With interlocking device Frequency Additional equipment possible 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 RAL-number (similar)  With interlocking device  Yes  1 P20  1 P20  2 P2  4 P20  5 P2  6 P3  6 P3  7 P3  1 P3	Surge current capacity	kA	0.25
Frequency Additional equipment possible Pegree of protection (IP) Width in number of modular spacings Width in number of modular spacings Wiltin depth Ambient temperature during operating Pollution degree Pollution degree Connectable conductor cross section multi-wired  Mind Mind Mind Mind Mind Mind Mind Mi	Voltage type		AC
Additional equipment possible  Degree of protection (IP)  Width in number of modular spacings  Built-in depth  Ambient temperature during operating  Pollution degree  Pollution degree  Connectable conductor cross section multi-wired  RAL-number (similar)  Wes  Pres  Pres  Pollow  Pollo	With interlocking device		Yes
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 RAL-number (similar)  Poly Poly Poly Poly Poly Poly Poly Pol	Frequency		50 Hz
Width in number of modular spacings  Built-in depth  Ambient temperature during operating  Pollution degree  Connectable conductor cross section multi-wired  Connectable conductor cross section solid-core  RAL-number (similar)  Description of the productor of the product of t	Additional equipment possible		Yes
Built-in depth 69.5 Ambient temperature during operating °C -25 - 60 Pollution degree 70.0 Connectable conductor cross section multi-wired 70.0 Connectable conductor cross section solid-core 70.0 RAL-number (similar) 70.0 70.0 70.0 70.0 70.0 70.0 70.0 70.0	Degree of protection (IP)		IP20
Ambient temperature during operating  Pollution degree  Connectable conductor cross section multi-wired  Connectable conductor cross section solid-core  RAL-number (similar)  PC -25 - 60  2  1.5 - 16  1.5 - 35  7.035	Width in number of modular spacings		2
Pollution degree 2 2 Connectable conductor cross section multi-wired 2 1.5 - 16 Connectable conductor cross section solid-core mm² 1.5 - 35 RAL-number (similar) 7035	Built-in depth	mm	69.5
Connectable conductor cross section multi-wired mm² 1.5 - 16  Connectable conductor cross section solid-core mm² 1.5 - 35  RAL-number (similar) 7035	Ambient temperature during operating	°C	-25 - 60
Connectable conductor cross section solid-core mm² 1.5 - 35 RAL-number (similar) 7035	Pollution degree		2
RAL-number (similar) 7035	Connectable conductor cross section multi-wired	mm <sup>2</sup>	1.5 - 16
	Connectable conductor cross section solid-core	mm <sup>2</sup>	1.5 - 35
Explosion-proof No	RAL-number (similar)		7035
	Explosion-proof		No