

Earth-fault release, 0.03-3A, 4p, right



Part no. **NZM1-4-XFIR**
104608

General specifications	
Product name	Eaton Moeller series NZM - Molded Case Circuit Breaker
Part no.	NZM1-4-XFIR
EAN	4015081044184
Product Length/Depth	220 millimetre
Product height	80 millimetre
Product width	135 millimetre
Product weight	1.659 kilogram
Compliances	IEC RoHS conform
Certifications	IEC/EN 60947-2 annex B IEC/EN 60947-2
Product Tradename	NZM
Product Type	Molded Case Circuit Breaker
Product Sub Type	None
Delivery program	
Application	In three-phase systems
Type	Accessory Earth-fault releases
Number of poles	Four-pole
Features	Sealable, setting buttons
Special features	Earth-fault release to IEC/EN 60947-2 Not UL/CSA approved Suitable for use in three-phase systems Pulse-current sensitive type A according to core-balance principle For 4 pole NZM1-4 circuit-breakers and N1-4 switch-disconnectors Supply voltage-dependent U _e = 200 – 415 V 50/60 Hz Control knobs, sealable. Fitted on the right side up to I _n = 160 A at I _{Cu} = 50 kA
Frame	45 mm NZM1
Used with	N1-4 Four-pole NZM1-4
Technical Data - Electrical	
Sensitivity type	Pulse-current sensitive as per core-balance principle (type A)
Voltage rating	200 - 415 V AC, min. 80 V AC for detection of fault currents type A/AC (dependent on mains voltage)
Rated operating voltage (U _e) - max	415 V
Rated control supply voltage (U _s) at AC, 50 Hz - min	200 V
Rated control supply voltage (U _s) at AC, 50 Hz - max	415 V
Rated control supply voltage (U _s) at AC, 60 Hz - min	200 V
Rated control supply voltage (U _s) at AC, 60 Hz - max	415 V
Rated control supply voltage (U _s) at DC - min	0 V
Rated control supply voltage (U _s) at DC - max	0 V
Current rating - min	15 A
Current rating - max	160 A
Rated fault current - min	0.03 A
Rated fault current - max	3 A
Fault current detection range	50/60 Hz
Frequency rating	50 Hz / 60 Hz
Power on-delay time - min	30 ms
Power on-delay time - max	30 ms
Technical Data - Mechanical	
Mounting Method	On the right side
Mounting position	Vertical and 90° in all directions

Degree of protection		IP20 (operating component area)
Shock resistance		20 g (half-sinusoidal shock 20 ms)
Special features		Earth-fault release to IEC/EN 60947-2 Not UL/CSA approved Suitable for use in three-phase systems Pulse-current sensitive type A according to core-balance principle For 4 pole NZM1-4 circuit-breakers and N1-4 switch-disconnectors Supply voltage-dependent $U_e = 200 - 415$ V 50/60 Hz Control knobs, sealable. Fitted on the right side up to $I_n = 160$ A at $I_{Cu} = 50$ kA
Lifespan, mechanical		20000 operations
Technical Data - Mechanical - Terminals		
Terminal capacity (solid/flexible conductor)		As NZM1 standard terminal with ferrules As NZM1 standard terminal without ferrules
Design verification as per IEC/EN 61439 - technical data		
Ambient operating temperature - min		-5 °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.
10.2.4 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.
10.9.3 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		
Functions		Delay adjustable

Technical data ETIM 9.0

Low-voltage industrial components (EG000017) / Residual current release for power circuit breaker (EC001021)			
Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Fault current switch for circuit breakers (ecl@ss13-27-37-04-11 [AKF009018])			
Rated control supply voltage AC 50 Hz	V	200 - 415	
Rated control supply voltage AC 60 Hz	V	200 - 415	
Rated control supply voltage DC	V	0 - 0	
Rated fault current	A	0.03 - 3	
Max. power on-delay time	ms	30	
Delay adjustable		Yes	
Max. rated operation voltage U_e	V	415	