Specifications



Photo is representative

Eaton 104613

Eaton Moeller series NZM Earth-fault release, 300mA, 4p, bottom

General specifications		
PRODUCT NAME	Eaton Moeller series NZM Earth leakage relay	
CATALOG NUMBER	104613	
MODEL CODE	NZM1-4-XFI300U	
EAN	4015081044238	
PRODUCT LENGTH/DEPTH	180 mm	
PRODUCT HEIGHT	80 mm	
PRODUCT WIDTH	120 mm	
PRODUCT WEIGHT	0.9 kg	
COMPLIANCES	IEC RoHS conform	
CERTIFICATIONS	IEC/EN 60947-2 IEC/EN 60947-2 annex B	



Product specification	S
USED WITH	Four-pole NZM1-4 N1-4
VOLTAGE RATING	200 - 415 V AC, min. 80 V AC for detection of fault currents type A/AC (dependent on mains voltage)
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.
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	Does not apply, since the

Resources	
BROCHURES	eaton-digital-nzm- brochure-br013003en-en- us.pdf
	eaton-feerum-the-whole- grain-solution-success- story-en-us.pdf
CATALOGUES	eaton-digital-nzm-catalog- ca013003en-en-us.pdf
DECLARATIONS OF CONFORMITY	eaton-accessories- declaration-of-conformity- eu250144en.pdf
DRAWINGS	eaton-circuit-breaker- release-nzm-earth-fault- release-dimensions.eps
	eaton-circuit-breaker- release-nzm-earth-fault- release-3d-drawing- 002.eps
	eaton-circuit-breaker- symbol-nzm-earth-fault- release-symbol.eps
ECAD MODEL	ETN.104613.edz
INSTALLATION INSTRUCTIONS	eaton-residual-current- module-mount-below- nzm1-il01219027z.pdf
INSTALLATION VIDEOS	The new digital NZM Range
	Introduction of the new digital circuit breaker NZM
MCAD MODEL	DA-CD-nzm1 4 xfi DA-CS-nzm1 4 xfi
TECHNICAL DATA SHEETS	eaton-nzm-technical- information-sheet

IMPACT	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	ls the panel builder's responsibility.
10.9.2 POWER- FREQUENCY ELECTRIC STRENGTH	ls the panel builder's responsibility.
10.9.3 IMPULSE WITHSTAND VOLTAGE	ls the panel builder's responsibility.
10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL	ls the panel builder's responsibility.
FRAME	NZM1 45 mm
FREQUENCY RATING	50 Hz / 60 Hz
MOUNTING METHOD	Bottom
AMBIENT OPERATING TEMPERATURE - MAX	40 °C
AMBIENT OPERATING TEMPERATURE - MIN	-5 ℃
CURRENT RATING - MAX	100 A
POWER ON-DELAY TIME - MAX	300 ms
POWER ON-DELAY TIME - MIN	300 ms
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX	415 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN	200 V
RATED CONTROL SUPPLY	415 V

VOLTAGE (US) AT AC, 60 HZ - MAX RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX CURRENT RATING - MIN DEGREE OF PROTECTION MOUNTING POSITION LIFESPAN, MECHANICAL FAULT CURRENT DETECTION RANGE NUMBER OF POLES TERMINAL CAPACITY (SOLID/FLEXIBLE CONDUCTOR) TYPE - Accessory - Earth-fault releases - 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 Ue = - 200 - 415 V 50/60 - Hz - Control knobs, - sealable, - Bottom mounting - Bottom mounting - Bottom mounting - Up to 100 A APPLICATION In three-phase systems SHOCK RESISTANCE 20 g (half-sinusoidal shock - 20 ms)		
VOLTAGE (US) AT AC, 60 HZ - MIN RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX CURRENT RATING - MIN DEGREE OF PROTECTION MOUNTING POSITION LIFESPAN, MECHANICAL POURCE OF PROTECTION LIFESPAN, MECHANICAL DOUGO operations FAULT CURRENT DETECTION RANGE NUMBER OF POLES TERMINAL CAPACITY (SOLID/FLEXIBLE CONDUCTOR) TYPE AS NZM1 standard terminal with ferrules AS NZM1 standard terminal without ferrules AS NZM1 standard terminal without ferrules AS NZM1 standard terminal without ferrules AS NZM1 standard terminal without ferrules SEATH-fault releases Earth-fault releases Earth-fault releases Earth-fault releases 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 Ue = 200 - 415 V 50/60 HZ Control knobs, sealable. Bottom mounting up to 100 A APPLICATION In three-phase systems 20 g (half-sinusoidal shock		
VOLTAGE (US) AT DC - MAX CURRENT RATING - MIN 15 A DEGREE OF PROTECTION	VOLTAGE (US) AT AC, 60	200 V
DEGREE OF PROTECTION MOUNTING POSITION LIFESPAN, MECHANICAL FAULT CURRENT DETECTION RANGE NUMBER OF POLES TERMINAL CAPACITY (SOLID/FLEXIBLE CONDUCTOR) TYPE AS NZM1 standard terminal with ferrules AS NZM1 standard terminal without ferrules AS NZM1 standard terminal without ferrules AS NZM1 standard terminal without ferrules AS NZM1 standard terminal without ferrules AS NZM1 standard terminal without ferrules SEATH-fault releases Earth-fault releases 1 Earth-fault release 1 to IEC/EN 60947-2 1 not UL/CSA approved 2 Suitable for use in three-phase systems 2 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 Ue = 200 - 415 V 50/60 Hz Control knobs, sealable. Bottom mounting up to 100 A APPLICATION In three-phase systems 1 P20 (operating component area) Vertical and 90° in all directions As NZM1 standard terminal with ferrules As NZM1 standard terminal with ferrules As NZM1 standard terminal with ferrules As NZM1 standard terminal with ferrules As NZM1 standard terminal with ferrules As NZM1 standard terminal with ferrules As NZM1 standard terminal with ferrules As NZM1 standard terminal with ferrules As NZM1 standard terminal with ferrules As NZM1 standard terminal with ferrules As NZM1 standard terminal with ferrules As NZM1 standard terminal with ferrules As NZM1 standard terminal with ferrules As NZM1 standard terminal with ferrules As NZM1 standard terminal with ferrules As NZM1 standard terminal with ferrules As NZM1 standard terminal with ferrules As NZM1 standard terminal with ferrules As NZM1 standard terminal without ferrules As NZM1 standard terminal without ferrules As NZM1 standard terminal without ferrules As NZM1 standard terminal without ferrules As NZM1 standard terminal without ferrules As NZM1 standard terminal without ferrules As NZM1 standard terminal without ferrules As NZM1 standard terminal without ferrules As NZM1 standard terminal without ferrules As NZM1 standard	VOLTAGE (US) AT DC -	0 V
MOUNTING POSITION Vertical and 90° in all directions LIFESPAN, MECHANICAL 20000 operations FAULT CURRENT DETECTION RANGE NUMBER OF POLES TERMINAL CAPACITY (SOLID/FLEXIBLE CONDUCTOR) TYPE AS NZM1 standard terminal with ferrules AS NZM1 standard terminal without ferrules AS NZM1 standard terminal without ferrules AS NZM1 standard terminal without ferrules AS NZM1 standard terminal without ferrules ACCESSORY Earth-fault releases 1 Earth-fault release to IEC/EN 60947-2 1 not UL/CSA approved 2 Suitable for use in three-phase systems 1 Pulse-current sensitive type A according to corebalance principle 2 For 4 pole NZM1-4 circuit-breakers and N1-4 switch-disconnectors 2 Supply voltage-dependent Ue = 200 - 415 V 50/60 Hz Control knobs, sealable. Bottom mounting up to 100 A APPLICATION In three-phase systems 1 Pulse-current sensitive type A according to corebalance principle 200 - 415 V 50/60 Hz 1 Control knobs, sealable. Bottom mounting up to 100 A	CURRENT RATING - MIN	15 A
LIFESPAN, MECHANICAL 20000 operations FAULT CURRENT DETECTION RANGE NUMBER OF POLES TERMINAL CAPACITY (SOLID/FLEXIBLE CONDUCTOR) TYPE - ACCESSORY - Earth-fault releases - Earth-fault releases - Earth-fault releases - Suitable for use in three-phase systems - Pulse-current sensitive type A according to corebalance principle - For 4 pole NZM1-4 circuit-breakers and N1-4 switch-disconnectors - Supply voltage-dependent Ue = 200 - 415 V 50/60 Hz - Control knobs, sealable Bottom mounting up to 100 A APPLICATION In three-phase systems 20 g (half-sinusoidal shock	DEGREE OF PROTECTION	
FAULT CURRENT DETECTION RANGE NUMBER OF POLES TERMINAL CAPACITY (SOLID/FLEXIBLE CONDUCTOR) TYPE AS NZM1 standard terminal with ferrules AS NZM1 standard terminal without ferrules - Accessory - Earth-fault releases Earth-fault releases - 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 corebalance principle SPECIAL FEATURES - For 4 pole NZM1-4 circuit-breakers and N1-4 switch-disconnectors - Supply voltage-dependent Ue = 200 - 415 V 50/60 Hz - Control knobs, sealable Bottom mounting up to 100 A APPLICATION In three-phase systems 20 g (half-sinusoidal shock	MOUNTING POSITION	
TERMINAL CAPACITY (SOLID/FLEXIBLE CONDUCTOR) AS NZM1 standard terminal with ferrules AS NZM1 standard terminal without ferrules AS NZM1 standard terminal without ferrules - Accessory - Earth-fault releases 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 Ue = 200 - 415 V 50/60 Hz - Control knobs, sealable Bottom mounting up to 100 A APPLICATION In three-phase systems 20 g (half-sinusoidal shock	LIFESPAN, MECHANICAL	20000 operations
TERMINAL CAPACITY (SOLID/FLEXIBLE CONDUCTOR) AS NZM1 standard terminal with ferrules As NZM1 standard terminal without ferrules • Accessory • Earth-fault releases • Earth-fault releases • 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 corebalance principle • For 4 pole NZM1-4 circuit-breakers and N1-4 switch-disconnectors • Supply voltage-dependent Ue = 200 - 415 V 50/60 Hz • Control knobs, sealable. • Bottom mounting up to 100 A APPLICATION In three-phase systems 20 g (half-sinusoidal shock		50/60 Hz
TERMINAL CAPACITY (SOLID/FLEXIBLE CONDUCTOR) terminal with ferrules As NZM1 standard terminal without ferrules • Accessory • Earth-fault releases • Earth-fault releases • Earth-fault releases • 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 Ue = 200 - 415 V 50/60 Hz • Control knobs, sealable. • Bottom mounting up to 100 A APPLICATION In three-phase systems 20 g (half-sinusoidal shock	NUMBER OF POLES	Four-pole
• Earth-fault releases • Earth-fault releases • 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 corebalance principle • For 4 pole NZM1-4 circuit-breakers and N1-4 switch-disconnectors • Supply voltage-dependent Ue = 200 - 415 V 50/60 Hz • Control knobs, sealable. • Bottom mounting up to 100 A APPLICATION In three-phase systems 20 g (half-sinusoidal shock	(SOLID/FLEXIBLE	terminal with ferrules As NZM1 standard
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 Ue = 200 - 415 V 50/60 Hz • Control knobs, sealable. • Bottom mounting up to 100 A APPLICATION In three-phase systems 20 g (half-sinusoidal shock	ТҮРЕ	
SHOCK RESISTANCE 20 g (half-sinusoidal shock	SPECIAL FEATURES	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 Ue = 200 - 415 V 50/60 Hz Control knobs, sealable. Bottom mounting
SHUCK RESISTANCE	APPLICATION	In three-phase systems
	SHOCK RESISTANCE	=

RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN	0 V
RATED FAULT CURRENT - MAX	0.3 A
RATED FAULT CURRENT - MIN	0.3 A
RATED OPERATING VOLTAGE (UE) - MAX	415 V
SENSITIVITY TYPE	Pulse-current sensitive as per core-balance principle

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:
DATE:



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