

Specifications



Eaton 104605

Eaton Moeller series NZM Earth-fault release, 0.03-3A, 3p, right

General specifications

PRODUCT NAME	Eaton Moeller series NZM Earth leakage relay
CATALOG NUMBER	104605
MODEL CODE	NZM1-XFIR
EAN	4015081044153
PRODUCT LENGTH/DEPTH	220 mm
PRODUCT HEIGHT	80 mm
PRODUCT WIDTH	105 mm
PRODUCT WEIGHT	1.6 kg
COMPLIANCES	IEC RoHS conform
CERTIFICATIONS	IEC/EN 60947-2 IEC/EN 60947-2 annex B

Product specifications

USED WITH	N(S)1 Three-pole NZM1
VOLTAGE RATING	200 - 415 V AC, min. 80 V AC for detection of fault currents type A/AC (dependent on mains voltage)
FEATURES	Sealable, setting buttons
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.

Resources

BROCHURES	eaton-feerum-the-whole-grain-solution-success-story-en-us.pdf eaton-digital-nzm-brochure-br013003en-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-symbol-nzm-earth-fault-release-symbol.eps eaton-circuit-breaker-release-dimensions.eps eaton-circuit-breaker-release-nzm-earth-fault-release-3d-drawing.eps
ECAD MODEL	ETN.104605.edz
INSTALLATION INSTRUCTIONS	eaton-residual-current-module-mount-right-nzm1-il01219028z.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

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.
FRAME	45 mm NZM1
FREQUENCY RATING	50 Hz / 60 Hz
MOUNTING METHOD	On the right side
AMBIENT OPERATING TEMPERATURE - MAX	40 °C
AMBIENT OPERATING TEMPERATURE - MIN	-5 °C
CURRENT RATING - MAX	160 A
POWER ON-DELAY TIME - MAX	30 ms
POWER ON-DELAY TIME - MIN	30 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 VOLTAGE (US) AT AC, 60 HZ - MAX	415 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN	200 V
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX	0 V
CURRENT RATING - MIN	15 A
DEGREE OF PROTECTION	IP20 (operating component area)
MOUNTING POSITION	Vertical and 90° in all directions
LIFESPAN, MECHANICAL	20000 operations
FAULT CURRENT DETECTION RANGE	50/60 Hz
NUMBER OF POLES	Three-pole
FUNCTIONS	Delay adjustable
TERMINAL CAPACITY (SOLID/FLEXIBLE CONDUCTOR)	As NZM1 standard terminal with ferrules As NZM1 standard terminal without ferrules
TYPE	Accessory Earth-fault releases
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 3 pole NZM1 circuit-breakers and N1 switch-disconnectors Supply voltage-dependent $U_e = 200 - 415 \text{ V } 50/60 \text{ Hz}$ Control knobs, sealable. Fitted on the right side up to $I_n = 160 \text{ A}$ at $I_{Cu} = 50 \text{ kA}$
APPLICATION	In three-phase systems
SHOCK RESISTANCE	20 g (half-sinusoidal shock 20 ms)
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN	0 V
RATED FAULT CURRENT - MAX	3 A
RATED FAULT CURRENT - MIN	0.03 A

RATED OPERATING VOLTAGE (UE) - MAX	415 V
SENSITIVITY TYPE	Pulse-current sensitive as per core-balance principle (type A)

PROJECT NAME:

PROJECT NUMBER:

PREPARED BY:

DATE:



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