

Specifications



Eaton 284405

Eaton Moeller series NZM Undervoltage release, 24VDC +2N/Oem

General specifications

PRODUCT NAME	Eaton Moeller series NZM Undervoltage release
CATALOG NUMBER	284405
MODEL CODE	NZM2/3-XUHIV20LK24DC
EAN	4015082844059
PRODUCT LENGTH/DEPTH	42 mm
PRODUCT HEIGHT	90 mm
PRODUCT WIDTH	30 mm
PRODUCT WEIGHT	0.074 kg
COMPLIANCES	IEC UL/CSA RoHS conform
CERTIFICATIONS	UL489 CSA-C22.2 No. 5-09 CSA certified CE marking CSA (File No. 22086) UL (File No. E140305) IEC60947 UL listed CSA (Class No. 1437-01) UL (Category Control Number DIHS)
GLOBAL CATALOG	284405

Product specifications

USED WITH	NZM2(-4), N(S)2(-4) NZM3(-4), N(S)3(-4)
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 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	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
CATALOGS	eaton-digital-nzm-catalog-ca013003en-en-us.pdf
DRAWINGS	eaton-circuit-breaker-undervoltage-nzm-mccb-3d-drawing.eps
ECAD MODEL	DA-CE-ETN.NZM2_3-XUHIV20LK24DC
INSTALLATION INSTRUCTIONS	eaton-circuit-breaker-voltage-release-nzm2-3-il012141zu.pdf
INSTALLATION VIDEOS	Introduction of the new digital circuit breaker NZM The new digital NZM Range
TECHNICAL DATA SHEETS	eaton-nzm-technical-information-sheet

PROTECTION OF ASSEMBLIES	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.
ELECTRIC CONNECTION TYPE	Screw connection
FITTED WITH:	Two separate early-make auxiliary contacts
FRAME	NZM2/3
MINIMUM COMMAND TIME - MAX	15 ms
MINIMUM COMMAND TIME - MIN	10 ms
NUMBER OF CONTACTS (NORMALLY OPEN CONTACTS)	2
REACTION TIME	19 ms
PICK-UP POWER CONSUMPTION AT AC (UNDervOLTAGE RELEASE)	1.5 VA
PICK-UP POWER CONSUMPTION AT DC (UNDervOLTAGE RELEASE)	0.8 W
VOLTAGE TOLERANCE - MAX	1.1
VOLTAGE TOLERANCE - MIN	.85

RATED CONTROL SUPPLY VOLTAGE	24 V DC
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MAX	0 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 50 HZ - MIN	0 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MAX	0 V
RATED CONTROL SUPPLY VOLTAGE (US) AT AC, 60 HZ - MIN	0 V
SUITABLE FOR	Off-load switch
CONNECTION TYPE	Coil terminals with 3 m of loose connection cables Auxiliary contact terminals wired to terminal block
VOLTAGE TYPE	DC
DROP-OUT VOLTAGE OF UNDERVOLTAGE RELEASE AC/DC - MAX	0.7 x U_s
DROP-OUT VOLTAGE OF UNDERVOLTAGE RELEASE AC/DC - MIN	0.35 x U_s
TERMINAL CAPACITY (SOLID/FLEXIBLE CONDUCTOR)	0.75 mm ² - 2.5 mm ² (1x) at shunt release with ferrule 18 - 14 AWG (2x) for undervoltage releases, off-delayed 0.75 mm ² - 2.5 mm ² (1x) for undervoltage releases, off-delayed with ferrule 18 - 14 AWG (2x) at shunt release 0.75 mm ² - 2.5 mm ² (2x) at shunt release with ferrule 0.75 mm ² - 2.5 mm ² (2x) for undervoltage releases, off-delayed with ferrule 18 - 14 AWG (1x) for undervoltage releases, off-delayed 18 - 14 AWG (1x) at shunt release
TYPE	Accessory Undervoltage release Undervoltage release with early-make auxiliary contact
SPECIAL FEATURES	Undervoltage release with 2 early-make auxiliary

	contacts, e.g., for early-make connection of undervoltage release in main switch applications, as well as for interlock and load shedding circuits. For use with emergency-stop devices in connection with an emergency-stop button. When the undervoltage trip is switched off, accidental contact with the circuit breaker's primary contacts is prevented when switched on. Early make of auxiliary contacts on switching on and off (manual operation): approx. 20 ms Cannot be used in conjunction with NZM...-XR... remote operator. Undervoltage releases cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XA... shunt release.
POWER CONSUMPTION	0.8 W (sealing DC) 1.5 VA (sealing AC)
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MAX	24 V
RATED CONTROL SUPPLY VOLTAGE (US) AT DC - MIN	24 V
NUMBER OF CONTACTS (NORMALLY CLOSED CONTACTS)	0
NUMBER OF CONTACTS (CHANGE-OVER CONTACTS)	0
UNDELAYED SHORT-CIRCUIT RELEASE - MIN	0 A
UNDELAYED SHORT-CIRCUIT RELEASE - MAX	0 A
RATED CONTROL VOLTAGE (RELAY CONTACTS)	24 V DC

PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:
DATE:



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