## Specifications







## Eaton 259589

Eaton Moeller series NZM Undervoltage release, 110-130VAC, +2early N/O, for NZM2/3, WITH 2 VHI

| General specifications  | 5   |
|-------------------------|---|
| PRODUCT NAME            | Eaton Moeller series NZM<br>Undervoltage release  |
| CATALOG NUMBER          | 259589  |
| MODEL CODE              | NZM2/3-XUHIV110-130AC   |
| EAN                     | 4015082595890   |
| PRODUCT<br>LENGTH/DEPTH | 42 mm   |
| PRODUCT HEIGHT          | 90 mm   |
| PRODUCT WIDTH           | 30 mm   |
| PRODUCT WEIGHT          | 0.074 kg  |
| WARRANTY                | Eaton Selling Policy 25-<br>000, one (1) year from the<br>date of installation of the<br>Product or eighteen (18)<br>months from the date of<br>shipment of the Product,<br>whichever occurs first. |
| COMPLIANCES             | IEC<br>UL/CSA<br>RoHS conform   |
| CERTIFICATIONS          | UL489 UL (File No. E140305) CSA (File No. 22086) UL (Category Control Number DIHS) IEC60947 UL listed CSA-C22.2 No. 5-09 CE marking CSA certified CSA (Class No. 1437-01)                           |
| GLOBAL CATALOG          | 259589  |



| Product specification  | S  |
|--|--|
| USED WITH  | NZM2(-4), N(S)2(-4)<br>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<br>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<br>FUNCTION   | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.                         |
| 10.2.2 CORROSION<br>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<br>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-feerum-the-whole-grain-solution-success-story-en-us.pdf  eaton-digital-nzm-brochure-br013003en-en-us.pdf |
| CATALOGS                     | eaton-digital-nzm-catalog-<br>ca013003en-en-us.pdf   |
| ECAD MODEL                   | ETN.NZM2_3-XUHIV110-<br>130AC  |
| INSTALLATION<br>INSTRUCTIONS | eaton-circuit-breaker-<br>voltage-release-nzm2-3-<br>il012141zu.pdf  |
| INSTALLATION VIDEOS          | The new digital NZM Range Introduction of the new digital circuit breaker NZM                                  |
| TECHNICAL DATA SHEETS        | eaton-nzm-technical-<br>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        | ls the panel builder's responsibility.                             |
| 10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS                 | ls the panel builder's responsibility.                             |
| 10.9.2 POWER-<br>FREQUENCY ELECTRIC<br>STRENGTH          | ls the panel builder's responsibility.                             |
| 10.9.3 IMPULSE<br>WITHSTAND VOLTAGE                      | ls the panel builder's responsibility.                             |
| 10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL | ls the panel builder's responsibility.                             |
| ELECTRIC CONNECTION TYPE                                 | Screw connection   |
| FITTED WITH:   | Two early-make auxiliary contacts                                  |
| FRAME  | NZM2/3   |
| MINIMUM COMMAND<br>TIME - MAX                            | 15 ms  |
| MINIMUM COMMAND<br>TIME - MIN                            | 10 ms  |
| NUMBER OF CONTACTS<br>(NORMALLY OPEN<br>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 -<br>MAX                               | 1.1  |
| VOLTAGE TOLERANCE -<br>MIN                               | .85  |

| RATED CONTROL SUPPLY VOLTAGE                               | 110 - 130 V 50/60 Hz  |
|--|---|
| RATED CONTROL SUPPLY<br>VOLTAGE (US) AT AC, 50<br>HZ - MAX | 130 V   |
| RATED CONTROL SUPPLY<br>VOLTAGE (US) AT AC, 50<br>HZ - MIN | 110 V   |
| RATED CONTROL SUPPLY<br>VOLTAGE (US) AT AC, 60<br>HZ - MAX | 130 V   |
| RATED CONTROL SUPPLY<br>VOLTAGE (US) AT AC, 60<br>HZ - MIN | 110 V   |
| SUITABLE FOR   | Off-load switch   |
| CONNECTION TYPE  | With bolt connection  |
| CONNECTION   | Screw   |
| VOLTAGE TYPE   | AC  |
| DROP-OUT VOLTAGE OF<br>UNDERVOLTAGE RELEASE<br>AC/DC - MAX | 0.7 x Us  |
| DROP-OUT VOLTAGE OF<br>UNDERVOLTAGE RELEASE<br>AC/DC - MIN | 0.35 x Us   |
| TERMINAL CAPACITY<br>(SOLID/FLEXIBLE<br>CONDUCTOR)         | 0.75 mm² - 2.5 mm² (1x) at shunt release with ferrule 0.75 mm² - 2.5 mm² (1x) for undervoltage releases, off-delayed with ferrule 0.75 mm² - 2.5 mm² (2x) for undervoltage releases, off-delayed with ferrule 18 - 14 AWG (1x) for undervoltage releases, off-delayed 18 - 14 AWG (2x) for undervoltage releases, off-delayed 18 - 14 AWG (1x) at shunt release 18 - 14 AWG (2x) at shunt release 0.75 mm² - 2.5 mm² (2x) at shunt release with ferrule |
| ТҮРЕ   | <ul> <li>Accessory</li> <li>Undervoltage<br/>release with early-<br/>make auxiliary<br/>contact</li> </ul>  |

- 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
- Undervoltage releases cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XA... shunt release.
- Cannot be used in conjunction with NZM...-XR... remote operator.

## **POWER CONSUMPTION**

**SPECIAL FEATURES** 

0.8 W (sealing DC) 1.5 VA (sealing AC)

RATED CONTROL SUPPLY VOLTAGE (US) AT DC -

0 V

MAX

RATED CONTROL SUPPLY VOLTAGE (US) AT DC -

0 V

MIN

| NUMBER OF CONTACTS<br>(NORMALLY CLOSED<br>CONTACTS) | 0                    |
|---|----------------------|
| NUMBER OF CONTACTS<br>(CHANGE-OVER<br>CONTACTS)     | 0                    |
| UNDELAYED SHORT-<br>CIRCUIT RELEASE - MIN           | 0 A                  |
| UNDELAYED SHORT-<br>CIRCUIT RELEASE - MAX           | 0 A                  |
| RATED CONTROL<br>VOLTAGE (RELAY<br>CONTACTS)        | 110 V AC<br>130 V AC |

| PROJECT NAME:   |  |
|-----------------|--|
| PROJECT NUMBER: |  |
| PREPARED BY:    |  |
| DATE:           |  |



## **Eaton Corporation plc**

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