## Undervoltage release, 48VAC



Part no. NZM2/3-XU48AC 259493

| Product name   | Eaton Moeller series NZM release   |
|--|--|
| Part no.   | NZM2/3-XU48AC  |
| EAN  | 4015082594930  |
| Product Length/Depth                                   | 42 millimetre  |
| Product height   | 90 millimetre  |
| Product width  | 30 millimetre  |
| Product weight   | 0.064 kilogram   |
| Compliances  | IEC<br>UL/CSA<br>RoHS conform  |
| Certifications   | UL489 CSA certified CE marking CSA-C22.2 No. 5-09 UL listed UL (Category Control Number DIHS) UL (File No. E140305) IEC60947 CSA (File No. 22086) CSA (Class No. 1437-01)  |
| Product Tradename                                      | NZM  |
| Product Type   | Accessories  |
| Product Sub Type                                       | Release  |
|  |  |
| Туре   | Accessory Undervoltage release   |
| Special features                                       | Non-delayed disconnection of NZM circuit-breaker or N switch-disconnector when the control voltage sinks below 35 – 70% US. For use with emergency-stop devices in connection with an emergency-stop button. When the under-voltage trip is switched off, accidental contact with the circuit breaker's primary contacts is prevented when switched on. Undervoltage releases cannot be installed simultaneously with NZMXHIV early-make auxiliary contact or NZMXA shunt release. |
| Frame  | NZM2/3   |
| Suitable for   | Off-load switch  |
| Used with  | NZM2(-4), N(S)2(-4)<br>NZM3(-4), N(S)3(-4)   |
|  | 142140(-4), 14(0)0(-4)   |
| Voltage type   | AC   |
| Rated control voltage (relay contacts)                 | 48 V AC  |
| Rated control supply voltage                           | 48 V 50/60 Hz  |
| Rated control supply voltage (Us) at AC, 50 Hz - min   | 48 V   |
|  |  |
| Rated control supply voltage (Us) at AC, 50 Hz - max   | 48 V   |
| Rated control supply voltage (Us) at AC, 60 Hz - min   | 48 V   |
| Rated control supply voltage (Us) at AC, 60 Hz - max   | 48 V   |
| Rated control supply voltage (Us) at DC - min          | 0 V  |
| Rated control supply voltage (Us) at DC - max          | 0 V  |
| Voltage tolerance - min                                | 0.85   |
| Voltage tolerance - max                                | 1.1  |
| Drop-out voltage of undervoltage release AC/DC - min   | 0.35 x Us  |
| Drop-out voltage of undervoltage release AC/DC - max   | 0.7 x Us   |
| Power consumption                                      | 0.8 W (sealing DC)<br>1.5 VA (sealing AC)  |
| Pick-up power consumption at AC (undervoltage release) | 1.5 V-A  |
| Pick-up power consumption at DC (undervoltage release) | 0.8 W  |
| Reaction time  | 19 ms  |
| Minimum command time - min                             | 10 ms  |

| Minimum command time - max   | 15 ms   |
|--|---|
| Electric connection type   | Screw connection  |
| Number of contacts (change-over contacts)  | 0   |
| Number of contacts (normally closed contacts)                                    | 0   |
| Number of contacts (normally open contacts)                                      | 0   |
| Connection type  | With bolt connection  |
| Special features   | Non-delayed disconnection of NZM circuit-breaker or N switch-disconnector when the control voltage sinks below 35 – 70% US. For use with emergency-stop devices in connection with an emergency-stop button. When the under-voltage trip is switched off, accidental contact with the circuit breaker's primary contact is prevented when switched on. Undervoltage releases cannot be installed simultaneously with NZMXHIV early-make auxiliary contact or NZMXA shunt release.         |
| Terminal capacity (solid/flexible conductor)                                     | 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 0.75 mm² - 2.5 mm² (2x) at shunt release with ferrule 18 - 14 AWG (1x) at shunt release 0.75 mm² - 2.5 mm² (1x) at shunt release with ferrule 18 - 14 AWG (2x) at shunt release 18 - 14 AWG (2x) at shunt release 18 - 14 AWG (1x) for undervoltage releases, off-delayed 18 - 14 AWG (1x) for undervoltage releases, off-delayed |
| 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 observed.   |
| 10.12 Electromagnetic compatibility  | Is the panel builder's responsibility. The specifications for the switchgear must observed.   |
| 10.13 Mechanical function  | The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.  |

## **Technical data ETIM 8.0**

| Low-voltage industrial components (EG000017) / Under voltage coil (EC001022)   |  |   |                  |  |  |
|--|--|---|------------------|--|--|
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Undervoltage trip (ecl@ss10.0.1-27-37-04-17 [AKF015013]) |  |   |                  |  |  |
| Rated control supply voltage Us at AC 50HZ   |  | V | 48 - 48          |  |  |
| Rated control supply voltage Us at AC 60HZ   |  | V | 48 - 48          |  |  |
| Rated control supply voltage Us at DC  |  | V | 0 - 0            |  |  |
| Voltage type for actuating   |  |   | AC               |  |  |
| Type of electric connection  |  |   | Screw connection |  |  |
| Number of contacts as normally open contact  |  |   | 0                |  |  |
| Number of contacts as normally closed contact  |  |   | 0                |  |  |
| Number of contacts as change-over contact  |  |   | 0                |  |  |
| Delayed  |  |   | No               |  |  |

| Suitable for power circuit breaker | No  |
|------------------------------------|-----|
| Suitable for off-load switch       | Yes |
| Suitable for motor safety switch   | No  |
| Suitable for overload relay        | No  |