



Undervoltage release, 24VAC +2early N/O

Part no. **NZM1-XUHIV20LK24AC**
 Catalog No. **284402**

Similar to illustration

Delivery program

| | | | |
|-----------------------|-------|---|--|
| Product range | | | Accessories |
| Accessories | | | Undervoltage release |
| Accessories | | | Undervoltage release with early-make auxiliary contact |
| Standard/Approval | | | UL/CSA, IEC |
| Construction size | | | NZM1 |
| Description | | | 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 under-voltage 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. |
| Connection type | | | Coil terminals with 3 m of loose connection cables Auxiliary contact terminals wired to terminal block |
| Auxiliary contacts | | | with two separate early-make auxiliary contacts |
| Rated control voltage | U_s | V | 24 V 50/60 Hz |
| For use with | | | NZM1(-4), N(S)1(-4) |

Technical data

Undervoltage release

| | | | |
|--|---------|---------|---------------|
| Rated control voltage | U_s | V | |
| AC | U_s | V AC | 24 - 24 |
| Rated control voltage | U_s | V | 24 V 50/60 Hz |
| Operating range | | | |
| Drop-out voltage | | $x U_s$ | 0.35 - 0.7 |
| Pick-up voltage | $x U_c$ | | 0.85 - 1.1 |
| Power consumption | | | |
| AC | | | |
| Pick-up AC | | VA | 1.5 |
| Sealing AC | | VA | 1.5 |
| DC | | $x U_s$ | |
| Pick-up DC | | W | 0.8 |
| Sealing DC | | W | 0.8 |
| Maximum opening delay (response time until opening of the main contacts) | | ms | 19 |
| Minimum command time | | ms | 10 - 15 |

Terminal capacities

| | | | |
|---|--|--------|--------------------------------------|
| Solid or flexible conductor, with ferrule | | mm^2 | 1 x (0,75 - 2,5) 2 x (0,75 - 2,5) |
| | | AWG | 1 x (18 ... 14) 2 x (18 ... 14) |

Design verification as per IEC/EN 61439

| | | | |
|--|--|--|--|
| IEC/EN 61439 design verification | | | |
| 10.2 Strength of materials and parts | | | |
| 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 Verification of resistance of insulating materials to abnormal heat and fire due to internal electric 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 Insulation properties | | | |
| 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 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. |

Technical data ETIM 7.0

| | | | |
|--|---|--|------------------|
| 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 | | 24 - 24 |
| Rated control supply voltage Us at AC 60HZ | V | | 24 - 24 |
| 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 | | | 2 |
| Number of contacts as normally closed contact | | | 0 |
| Number of contacts as change-over contact | | | 0 |
| Delayed | | | No |
| Suitable for power circuit breaker | | | Yes |
| Suitable for off-load switch | | | Yes |
| Suitable for motor safety switch | | | No |
| Suitable for overload relay | | | No |

Approvals

| | | | |
|-----------------------------|--|--|---|
| Product Standards | | | UL489; CSA-C22.2 No. 5-09; IEC60947, CE marking |
| UL File No. | | | E140305 |
| UL Category Control No. | | | DIHS |
| CSA File No. | | | 022086 |
| CSA Class No. | | | 1437-01 |
| North America Certification | | | UL listed, CSA certified |

Dimensions



- ①
NZM1-XA(HIV)
NZM1-XU(HIV)(20)
NZM1-XHIV
- ②
NZM1-XA(HIV)(L)
NZM1-XU(V)(HIV)(L)(20)
NZM1-XHIV(L)
- ③
NZM1-XHIVR

Additional product information (links)

IL01203002Z (AWA1230-1914) Shunt release, Undervoltage release, Early-make auxiliary contact

IL01203002Z (AWA1230-1914) Shunt release, Undervoltage release, Early-make auxiliary contact

ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL01203002Z2010_11.pdf