



Undervoltage release, 24 V DC

Part no. **NZM1-XU24DC**
 Catalog No. **259452**

Similar to illustration

Delivery program

| | | | |
|-----------------------|-------|---|---|
| Product range | | | Accessories |
| Accessories | | | Undervoltage release |
| Accessories | | | Undervoltage releases |
| Standard/Approval | | | UL/CSA, IEC |
| Construction size | | | NZM1 |
| Description | | | Non-delayed disconnection of NZM circuit-breaker or N switch-disconnector when the control voltage sinks below 35 – 70% U_s . For use with emergency switching off devices in conjunction with Emergency switching off button. When the undervoltage release is de-energized, accidental contact with the main contacts of the switch during attempts to switch on is safely prevented. Undervoltage releases cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XA... shunt release. |
| Connection type | | | with terminal block on the left-hand switch side |
| Auxiliary contacts | | | without auxiliary contact |
| Rated control voltage | U_s | V | 24 V DC |
| 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 - 600 |
| DC | U_s | V DC | 12 - 250 |
| Rated control voltage | U_s | V | 24 V DC |
| 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. |

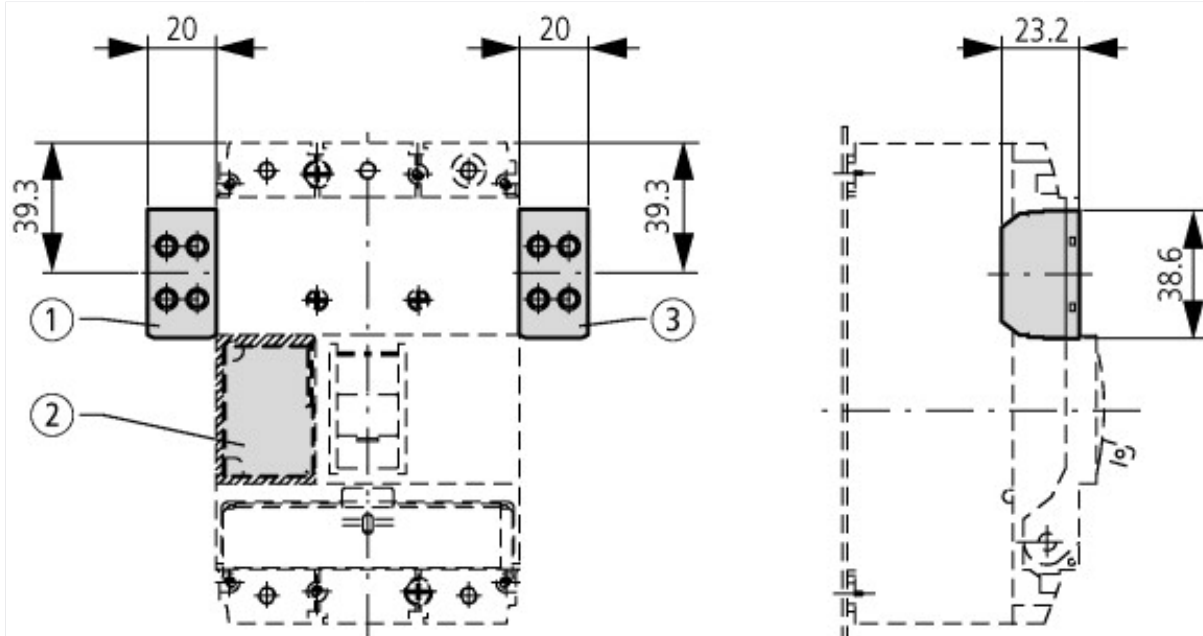
Technical data ETIM 6.0

| | | |
|---|---|------------------|
| 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@ss8.1-27-37-04-17 [AKF015010]) | | |
| Rated control supply voltage Us at AC 50HZ | V | 0 - 0 |
| Rated control supply voltage Us at AC 60HZ | V | 0 - 0 |
| Rated control supply voltage Us at DC | V | 24 - 24 |
| Voltage type for actuating | | DC |
| 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 | | 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