



Shunt release, 380-440VAC/DC

Part no. **NZM1-XA380-440AC/DC**  
 Catalog No. **259728**

Similar to illustration

## Delivery program

|                       |                |   |  |
|-----------------------|----------------|---|--|
| Product range         |                |   | Accessories  |
| Accessories           |                |   | Shunt release  |
| Accessories           |                |   | Shunt releases   |
| Standard/Approval     |                |   | UL/CSA, IEC  |
| Construction size     |                |   | NZM1   |
| Description           |                |   | Switches are tripped by a voltage pulse or by the application of uninterrupted voltage.<br>If the shunt trip is live, contact with the circuit breaker's primary contacts is prevented when switched on.<br>Shunt releases cannot be installed simultaneously with NZM...-XHIV... early-make auxiliary contact or NZM...-XU... undervoltage release. |
| Connection type       |                |   | with terminal block on the left-hand switch side   |
| Auxiliary contacts    |                |   | without auxiliary contact  |
| Rated control voltage | U <sub>s</sub> | V | 380 - 440 V AC/DC  |
| For use with          |                |   | NZM1(-4), N(S)1(-4)  |

## Technical data

### Shunt release

|  |                  |                 |                                      |
|--|------------------|-----------------|--------------------------------------|
| Rated control voltage  | U <sub>s</sub>   | V               |                                      |
| AC   | U <sub>s</sub>   | V AC            | 380 - 440                            |
| DC   | U <sub>s</sub>   | V DC            | 380 - 440                            |
| Frequency  |                  | Hz              | 50/60/200/400, DC                    |
| Operating range  |                  |                 |                                      |
| AC   | x U <sub>s</sub> |                 | 0.7 - 1.1                            |
| DC   | x U <sub>s</sub> |                 | 0.7 - 1.1                            |
| Power consumption  |                  |                 |                                      |
| Pick-up AC/DC  |                  | VA/W            | 2.5                                  |
| Power consumption Pick-up = Sealing                                      |                  | VA/W            | 2.5                                  |
| Maximum opening delay (response time until opening of the main contacts) |                  | ms              | 20                                   |
| Maximum duty factor  |                  | ms              | ∞                                    |
| Minimum command time   |                  | ms              | 10 ... 15                            |
| Terminal capacities  |                  | mm <sup>2</sup> |                                      |
| Solid or flexible conductor, with ferrule                                |                  | mm <sup>2</sup> | 1 x (0,75 - 2,5)<br>2 x (0,75 - 2,5) |
|  |                  | AWG             | 1 x (18 ... 14)<br>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) / Shunt release (for power circuit breaker) (EC001023)  |   |                  |
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Full load current trip (ec@ss10.0.1-27-37-04-18 [AKF016013]) |   |                  |
| Rated control supply voltage Us at AC 50HZ   | V | 380 - 440        |
| Rated control supply voltage Us at AC 60HZ   | V | 380 - 440        |
| Rated control supply voltage Us at DC  | V | 380 - 440        |
| Voltage type for actuating   |   | AC/DC            |
| Initial value of the undelayed short-circuit release - setting range   | A | 0                |
| End value adjustment range undelayed short-circuit release   | A | 0                |
| 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                |
| 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](ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL01203002Z2010_11.pdf)