



Auxiliary contact, 2early N/O, operates as an early-make contact

**Part no.** NZM1-XHIV  
**Catalog No.** 259426

**EL-Nummer (Norway)** 4358868

## Technical data

### Auxiliary contacts

|  |                                  |                  |   |                         |
|--|----------------------------------|------------------|---|-------------------------|
| Rated operational voltage  | U <sub>e</sub>                   | V                |   |                         |
| Rated operational voltage  | U <sub>e</sub>                   | V AC             | 500   |                         |
| Rated operational voltage, max.  | U <sub>e</sub>                   | V DC             | 220   |                         |
| Conventional thermal current   | I <sub>th</sub> = I <sub>e</sub> | CSA              | 4   |                         |
| Rated operational current  | I <sub>e</sub>                   | A                |   |                         |
| <b>Different rated operational currents</b> when used as auxiliary contact for NZM circuit-breaker |                                  |                  |   |                         |
|  |                                  |                  | bei AC = 50/60 Hz   |                         |
|  |                                  |                  | Bemessungsbetriebsstrom   |                         |
|  | AC-15                            | 15 V             | I <sub>e</sub> A  | M22-K... M22-CK... XHIV |
|  | 230 V                            | I <sub>e</sub> A | 4 4 4   |                         |
|  | 400 V                            | I <sub>e</sub> A | 2 - 2   |                         |
|  | 500 V                            | I <sub>e</sub> A | 1 - 1   |                         |
|  | DC-14                            | 14 V             | I <sub>e</sub> A  | 3 3 3                   |
|  | 42 V                             | I <sub>e</sub> A | 1.7 1 1.5   |                         |
|  | 60 V                             | I <sub>e</sub> A | 1.2 0.8 0.8   |                         |
| 110 V  | I <sub>e</sub> A                 | 0.8 0.5 0.5      |   |                         |
| 220 V  | I <sub>e</sub> A                 | 0.3 0.2 0.2      |   |                         |
| Short-circuit protection   |                                  |                  |   |                         |
| max. fuse  |                                  | A gG/gL          | 10  |                         |
| Max. miniature circuit-breaker   |                                  | A                | FAZ-B6  |                         |
| Operating times  |                                  |                  |   |                         |
|  |                                  |                  | Early-make time of the HIV compared to the main contacts during with make and break switching.<br>(switch times with manual operation):<br>NZM1, PN1, N(S)1: ca. 20 ms<br>NZM2, PN2, N(S)2: ca. 20 ms<br>NZM3, PN3, N(S)3: ca. 20 ms<br>NZM4, N(S)4: approx. 90 ms, the HIV switch early <b>Offswitching not</b> forward. |                         |
| 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)  |                         |
| UL/CSA   |                                  |                  |   |                         |
| Rated operational current  | I <sub>e</sub>                   | A                | 2.5 A - 240 V AC<br>1 A - 250 V DC  |                         |
| Heavy Pilot Duty   |                                  |                  | C300/R300   |                         |
| Other technical data (sheet catalogue)   |                                  |                  | Maximum equipment and position of the internal accessories<br>Time differences ON-OFF   |                         |

## 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.                         |

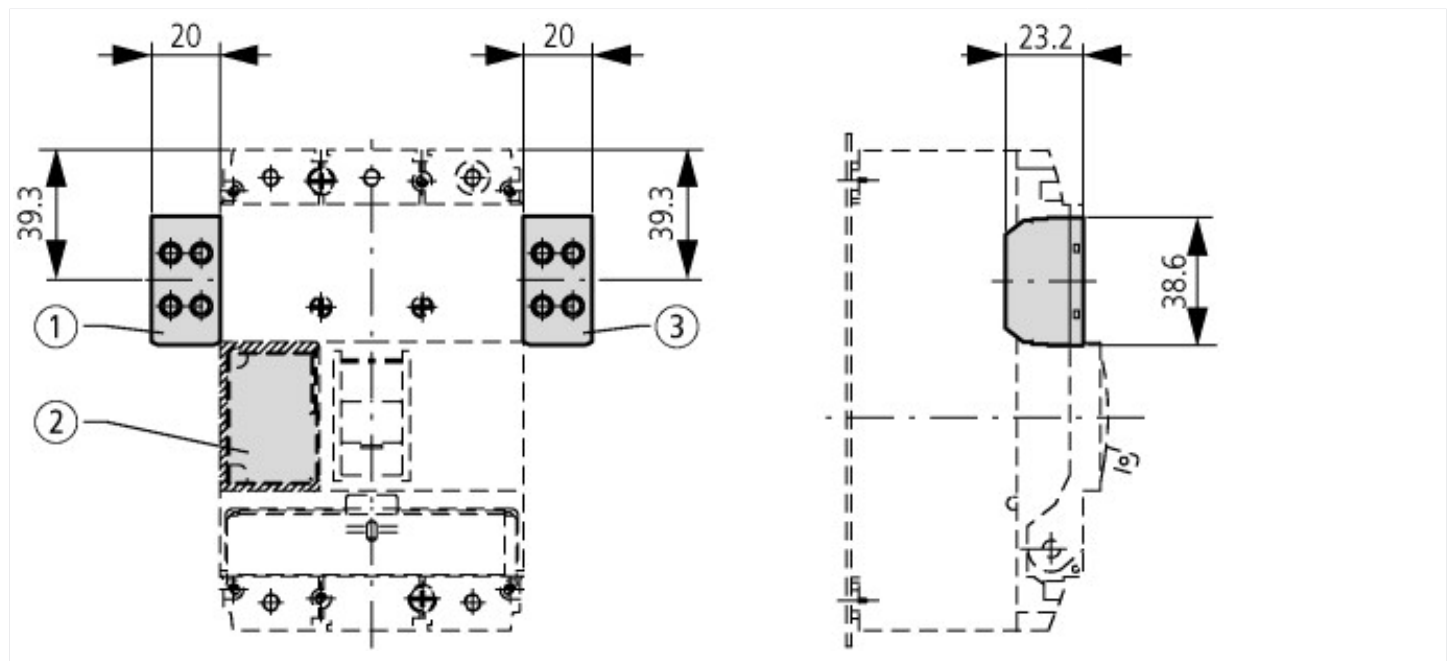
## Technical data ETIM 6.0

|   |  |   |                  |
|---|--|---|------------------|
| Low-voltage industrial components (EG000017) / Auxiliary contact block (EC000041)   |  |   |                  |
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Component for low-voltage switching technology / Auxiliary switch block (ecl@ss8.1-27-37-13-02 [AKN342010]) |  |   |                  |
| Number of contacts as change-over contact   |  |   | 0                |
| Number of contacts as normally open contact   |  |   | 2                |
| Number of contacts as normally closed contact   |  |   | 0                |
| Rated operation current I <sub>e</sub> at AC-15, 230 V  |  | A | 4                |
| Type of electric connection   |  |   | Screw connection |
| Model   |  |   | Half-integrated  |
| Mounting method   |  |   | -                |

## 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



## 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)

Maximum equipment and position of the internal accessories <http://ecat.moeller.net/flip-cat/?edition=HPLEN&startpage=17.178>

Time differences ON-OFF <http://ecat.moeller.net/flip-cat/?edition=HPLEN&startpage=17.178>