





**Contact element, Cage Clamp, Front fixing, 1 N/O, 1 NC, 24 V 3 A, 220 V 230 V 240 V 4 A**

**Part no. M22-CK11**  
**Catalog No. 107940**  
**Alternate Catalog M22-CK11Q**  
**No.**  
**EL-Nummer 4355492**  
**(Norway)**

**Delivery program**

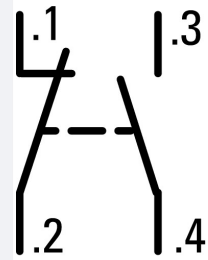
|                            |  |  |
|----------------------------|--|--|
| Product range              |  | Accessories  |
| Basic function accessories |  | Contact elements   |
| Accessories                |  | Auxiliary contact  |
| Accessories                |  | Standard auxiliary contact, trip-indicating auxiliary switch   |
| Standard/Approval          |  | UL/CSA, IEC  |
| Construction size          |  | NZM1/2/3/4   |
| Description                |  | When using emergency switching off actuators M22-PV... max. 2 contact elements = 4 NC / N/O contacts<br>Cage Clamp is a registered trademark of Wago Kontakttechnik GmbH/Minden, Germany |
| Connection technique       |  | Cage Clamp   |
| Fixing                     |  | Front fixing   |
| Degree of Protection       |  | IP20   |
| Connection to SmartWire-DT |  | no   |
| For use with               |  | NZM1(-4), 2(-4), 3(-4), 4(-4)<br>PN1(-4), 2(-4), 3(-4)<br>N(S)1(-4), 2(-4), 3(-4), 4(-4)   |

**Contacts**

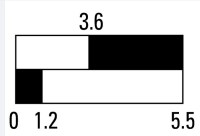
|                       |  |  |
|-----------------------|--|--|
| N/O = Normally open   |  | 1 N/O  |
| N/C = Normally closed |  | 1 NC    |
| Notes                 |  |  = safety function, by positive opening to IEC/EN 60947-5-1 |

**Actuator travel and actuation force as per DIN EN 60947-5-1, K.5.4.1**

|                                    |    |     |
|------------------------------------|----|-----|
|                                    | mm | 4.8 |
| Maximum travel                     | mm | 5.7 |
| Minimum force for positive opening | N  | 20  |

|                  |  |  |
|------------------|--|--|
| Contact sequence |  |  |
|------------------|--|--|

**Contact travel diagram, stroke in connection with front element**

|                 |  |  |
|-----------------|--|--|
| Contact diagram |  |  |
|-----------------|--|--|

|  |  |   |
|--|--|---|
| Connection type                                      |  | Double contact  |
| Description of HIA trip-indicating auxiliary contact |  | General trip indication '+', when tripped by shunt release, overload release, short-circuit release or by the residual-current release due to residual-current. |

|   |  |   |
|---|--|---|
|   |  | Can be used with NZM1, 2, 3 circuit-breaker: a trip-indicating auxiliary contact can be clipped into the circuit-breaker.<br>Can be used with NZM4 circuit-breaker: up to two standard auxiliary contacts can be clipped into the circuit-breaker.<br>Any combinations of the auxiliary contact types are possible.<br>Not in combination with switch-disconnector PN...<br>Marking on switch: HIA<br>Labeling in FI-Block: HIAFI.<br>If the trip-indicating auxiliary switch in the fault current block is used, the NC contacts operates as a N/O contact and the NC contact operates as an N/O contact.  |
| Description standard auxiliary contact HIN  |  | Switching with the main contacts Used for indicating and interlocking tasks.<br>Can be used with NZM1 circuit-breaker: a standard auxiliary contact can be clipped into the circuit-breaker.<br>Can be used with NZM2 size circuit-breaker: a standard auxiliary contact can be clipped into the circuit-breaker.<br>Can be used with NZM3, 4 circuit-breaker: up to three standard auxiliary contacts can be clipped into the circuit-breaker.<br>Any combinations of the auxiliary contact types are possible.<br>Marking on switch: HIN.<br>On combination with remote operator NZM-XR... the right mounting location of standard auxiliary contact HIN can be fitted only with individual contacts. |
| Connection technique  |  | Cage Clamp  |
| <b>Notes</b>  |  |   |
| The following can be clipped into the switches:   |  |   |
| <ul style="list-style-type: none"> <li>NZM1: a standard auxiliary contact</li> <li>NZM2: up to two M22-(C)K... standard auxiliary contacts</li> <li>NZM3: up to three M22-(C)K... standard auxiliary contacts</li> <li>NZM4: up to three M22-(C)K... standard auxiliary contacts</li> </ul> |  |   |
| Any combinations of the auxiliary contact types are possible.   |  |   |
| Marking on switch: HIN  |  |   |
| In combination with remote operator NZM-XR... only single contacts can be fitted to some installation locations of the standard auxiliary contact.  |  |   |
| NZM2: Only single contact can be fitted in left installation location of standard auxiliary contact.  |  |   |
| NZM3: Only single contact can be fitted in installation locations of standard auxiliary contact.  |  |   |
| NZM4: Only single contact can be fitted in right installation location of standard auxiliary contact.   |  |   |

## Technical data

### General

|                       |                 |  |  |
|-----------------------|-----------------|--|--|
| Standards             |                 |  | IEC 60947-5-1  |
| Operating frequency   | Operations/h    |  | ≤ 3600   |
| Actuating force       | n               |  | ≤ 10   |
| Degree of Protection  |                 |  | IP20   |
| Climatic proofing     |                 |  | Damp heat, constant, to IEC 60068-2-78<br>Damp heat, cyclic, to IEC 60068-2-30 |
| Ambient temperature   |                 |  |  |
| Open                  | °C              |  | -25 - +70  |
| Terminal capacities   | mm <sup>2</sup> |  |  |
| Solid                 | mm <sup>2</sup> |  | 0.5 - 1.5  |
| Stranded              | mm <sup>2</sup> |  | 0.5 - 1.5  |
| Flexible with ferrule | mm <sup>2</sup> |  | 0.5 - 1.5  |

### Contacts

|                                       |                  |                   |   |
|---------------------------------------|------------------|-------------------|---|
| Rated impulse withstand voltage       | U <sub>imp</sub> | V AC              | 4000  |
| Rated insulation voltage              | U <sub>i</sub>   | V                 | 250   |
| Overvoltage category/pollution degree |                  |                   | III/3   |
| Control circuit reliability           |                  |                   |   |
| at 24 V DC/5 mA                       | H <sub>F</sub>   | Fault probability | < 10 <sup>-7</sup> (i.e. 1 failure to 10 <sup>7</sup> operations)         |
| at 5 V DC/1 mA                        | H <sub>F</sub>   | Fault probability | < 5 × 10 <sup>-6</sup> (i.e. 1 failure in 5 × 10 <sup>6</sup> operations) |
| Max. short-circuit protective device  |                  |                   |   |
| Fuseless                              |                  | Type              | PKZM0-10/FAZ-B6/1   |
| Fuse                                  | gG/gL            | A                 | 10  |

### Switching capacity

|                           |                |   |  |
|---------------------------|----------------|---|--|
| Rated operational current | I <sub>e</sub> | A |  |
| AC-15                     |                |   |  |

|                   |       |   |     |
|-------------------|-------|---|-----|
| 115 V             | $I_e$ | A | 4   |
| 220 V 230 V 240 V | $I_e$ | A | 4   |
| DC-13             |       |   |     |
| 24 V              | $I_e$ | A | 3   |
| 42 V              | $I_e$ | A | 1   |
| 60 V              | $I_e$ | A | 0.8 |
| 110 V             | $I_e$ | A | 0.5 |
| 220 V             | $I_e$ | A | 0.3 |

### Auxiliary contacts

|  |                |                            |   |
|--|----------------|----------------------------|---|
| Rated operational voltage  | $U_e$          | V                          |   |
| Rated operational voltage  | $U_e$          | V AC                       | 230   |
| Rated operational voltage, max.  | $U_e$          | V DC                       | 220   |
| Conventional thermal current   | $I_{th} = I_e$ | CSA                        | 4   |
| Rated operational current  | $I_e$          | A                          |   |
| <b>Different rated operational currents</b> when used as auxiliary contact for NZM circuit-breaker |                |                            |   |
|  |                |                            | M22-<br>(C)K10(01) M22-<br>CK11(02)<br>(20) XHIV  |
|  |                | bei<br>AC =<br>50/60<br>Hz |   |
|  |                | Bemessungsbetriebsstrom    |   |
|  |                | AC-13 15<br>V              | $I_e$ A 4 4 4   |
|  |                | 230<br>V                   | $I_e$ A 4 4 4   |
|  |                | 400<br>V                   | $I_e$ A 2 - 2   |
|  |                | 500<br>V                   | $I_e$ A 1 - 1   |
|  |                | DC-13 4<br>V               | $I_e$ A 3 3 3   |
|  |                | 42 V                       | $I_e$ A 1.7 1 1.5   |
|  |                | 60 V                       | $I_e$ A 1.2 0.8 0.8   |
|  |                | 110<br>V                   | $I_e$ A 0.6 0.5 0.5   |
|  |                | 220<br>V                   | $I_e$ A 0.3 0.2 0.2   |
| Rated conditional short-circuit current  | $I_q$          | kA                         | 1   |
| Short-circuit protection   |                |                            |   |
| max. fuse  |                | A gG/gL                    | 10  |
| Max. miniature circuit-breaker   |                | A                          | FAZ-B6/B1   |
| 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>Off</b> switching <b>not</b> forward. |
| Terminal capacities  |                | mm <sup>2</sup>            |   |
| Solid or flexible conductor, with ferrule  |                | mm <sup>2</sup>            | 1 x (0,5 - 1,5)<br>2 x (0,5 - 0,75)   |
|  |                | AWG                        | 1 x (20 - 18)<br>2 x (20 - 18)  |
| Other technical data (sheet catalogue)   |                |                            | Maximum equipment and position of the internal accessories  |

### Design verification as per IEC/EN 61439

|  |            |    |      |
|--|------------|----|------|
| Technical data for design verification                   |            |    |      |
| Rated operational current for specified heat dissipation | $I_n$      | A  | 4    |
| Heat dissipation per pole, current-dependent             | $P_{vid}$  | W  | 0.05 |
| Equipment heat dissipation, current-dependent            | $P_{vid}$  | W  | 0    |
| Static heat dissipation, non-current-dependent           | $P_{vs}$   | W  | 0    |
| Heat dissipation capacity                                | $P_{diss}$ | W  | 0    |
| Operating ambient temperature min.                       |            | °C | -25  |

|  |  |    |  |
|--|--|----|--|
| Operating ambient temperature max.   |  | °C | 70   |
| 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.                         |

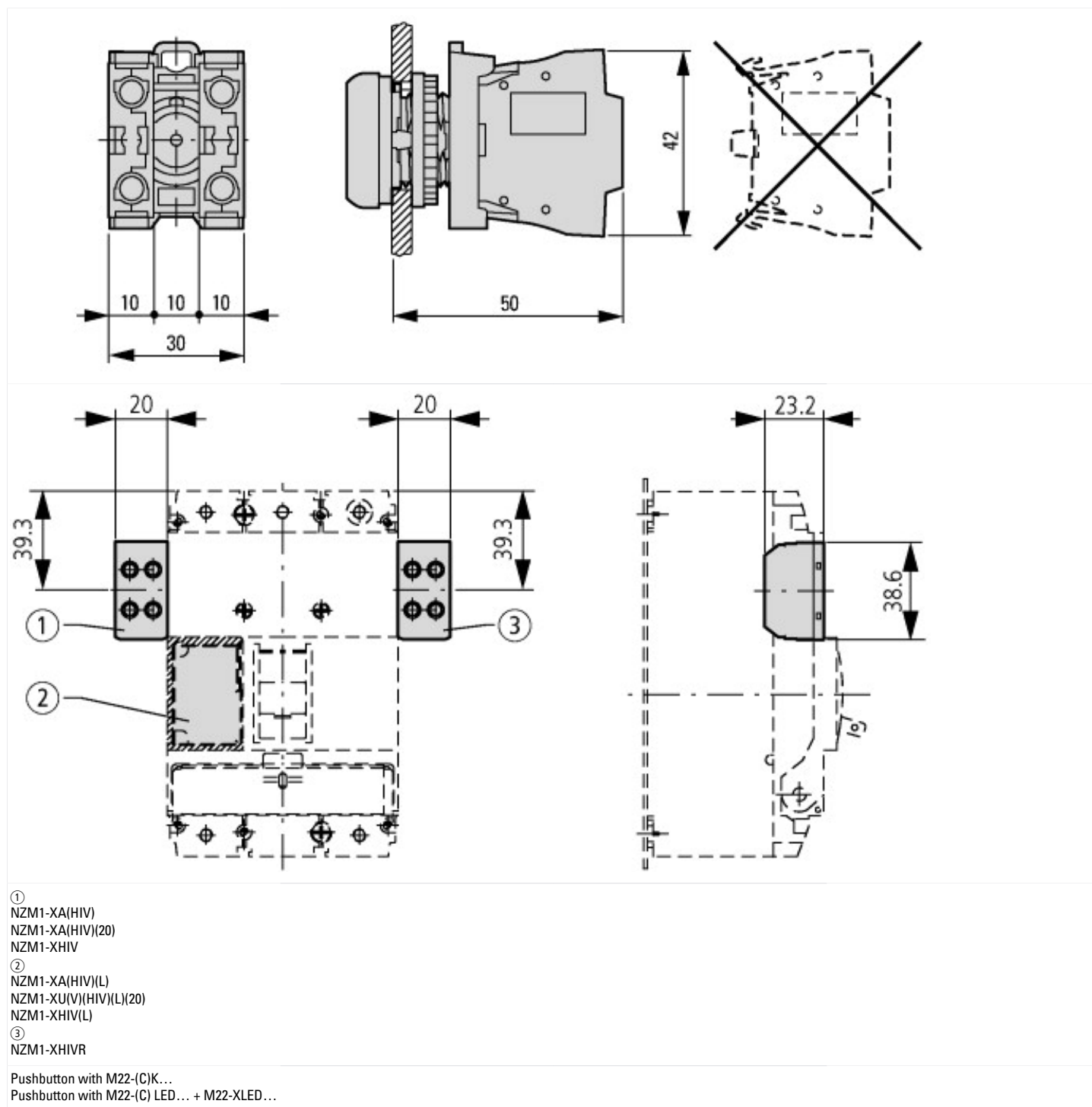
## Technical data ETIM 8.0

|  |  |   |                             |
|--|--|---|-----------------------------|
| 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@ss10.0.1-27-37-13-02 [AKN342013]) |  |   |                             |
| Number of contacts as change-over contact  |  |   | 0                           |
| Number of contacts as normally open contact  |  |   | 1                           |
| Number of contacts as normally closed contact  |  |   | 1                           |
| Number of fault-signal switches  |  |   | 0                           |
| Rated operation current I <sub>e</sub> at AC-15, 230 V   |  | A | 6                           |
| Type of electric connection  |  |   | Spring clamp connection     |
| Model  |  |   | Top mounting and integrable |
| Mounting method  |  |   | Front fastening             |
| Lamp holder  |  |   | None                        |

## Approvals

|                             |  |  |  |
|-----------------------------|--|--|--|
| Product Standards           |  |  | IEC/EN 60947-5; UL 508; CSA-C22.2 No. 14-05; CSA-C22.2 No. 94-91; CE marking |
| UL File No.                 |  |  | E29184   |
| UL Category Control No.     |  |  | NKCR   |
| CSA File No.                |  |  | 012528   |
| CSA Class No.               |  |  | 3211-03  |
| North America Certification |  |  | UL listed, CSA certified   |
| Degree of Protection        |  |  | UL/CSA Type: -   |

## Dimensions



## Additional product information (links)

### IL04716002Z (AWA1160-1745) RMQ-Titan System

IL04716002Z (AWA1160-1745) RMQ-Titan System

[https://es-assets.eaton.com/DOCUMENTATION/AWA\\_INSTRUCTIONS/IL04716002Z2021\\_07.pdf](https://es-assets.eaton.com/DOCUMENTATION/AWA_INSTRUCTIONS/IL04716002Z2021_07.pdf)

DGUV Test Mark Customer Information

[http://www.dguv.de/medien/dguv-test-medien/\\_pdf\\_zip\\_doc\\_ppt/agb-und-pzo/dguv\\_test\\_zeichen\\_infoblatt\\_kunden.pdf](http://www.dguv.de/medien/dguv-test-medien/_pdf_zip_doc_ppt/agb-und-pzo/dguv_test_zeichen_infoblatt_kunden.pdf)

Maximum equipment and position of the internal accessories

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