



## Circuit-breaker, 4p, 400A, plug-in module

|                       |                  |  |  |
|-----------------------|------------------|--|--|
| Part no.              | NZMN3-4-A400-SVE |  |  |
| Catalog No.           | 168510           |  |  |
| Alternate Catalog No. | NZMN3-4-A400-SVE |  |  |
| EL-Nummer (Norway)    | 4357595          |  |  |

Similar to illustration

## Delivery program

## Switching capacity

|                 |          |    |    |
|-----------------|----------|----|----|
| 400/415 V 50 Hz | $I_{cu}$ | kA | 50 |
|-----------------|----------|----|----|

## Rated current = rated uninterrupted current

|   |                      |   |     |
|---|----------------------|---|-----|
| Rated current = rated uninterrupted current | $I_n = I_u$          | A | 400 |
| Neutral conductor                           | % of phase conductor | % | 100 |

## Setting range

|               |       |   |           |
|---------------|-------|---|-----------|
| Overload trip | $I_r$ | A | 320 - 400 |
|---------------|-------|---|-----------|

|           |       |   |           |
|-----------|-------|---|-----------|
| Main pole | $I_r$ | A | 320 - 400 |
|-----------|-------|---|-----------|

|                        |       |   |           |
|------------------------|-------|---|-----------|
| Short-circuit releases | $I_r$ | A | 320 - 400 |
|------------------------|-------|---|-----------|

|             |                          |  |        |
|-------------|--------------------------|--|--------|
| Non-delayed | $I_i = I_n \times \dots$ |  | 6 - 10 |
|-------------|--------------------------|--|--------|

## Technical data

## General

|                              |          |    |           |
|------------------------------|----------|----|-----------|
| Ambient temperature          | $I_{cu}$ | kA | 50        |
| Ambient temperature, storage | $I_{cu}$ | °C | -40 - +70 |
| Operation                    | $I_{cu}$ | °C | -25 - +70 |

## Circuit-breakers

|   |             |   |     |
|---|-------------|---|-----|
| Rated current = rated uninterrupted current | $I_n = I_u$ | A | 400 |
|---|-------------|---|-----|

## Switching capacity

|  |          |    |    |
|--|----------|----|----|
| Rated short-circuit breaking capacity $I_{cn}$ | $I_{cn}$ |    |    |
| Icu to IEC/EN 60947 test cycle 0-t-CO          | $I_{cu}$ | kA | 50 |
| 400/415 V 50/60 Hz                             | $I_{cu}$ | kA | 50 |
| 500 V DC                                       | $I_{cu}$ | kA | 30 |
| 750 V DC                                       | $I_{cu}$ | kA | 30 |
| Ics to IEC/EN 60947 test cycle 0-t-CO-t-CO     | $I_{cs}$ | kA |    |
| 500 V DC                                       | $I_{cs}$ | kA | 30 |
| 750 V DC                                       | $I_{cs}$ | kA | 30 |

## Design verification as per IEC/EN 61439

|  |           |    |  |
|--|-----------|----|--|
| Technical data for design verification                   | $P_{vid}$ | W  | 96.48                                      |
| Equipment heat dissipation, current-dependent            |           | °C | -25  |
| Operating ambient temperature min.                       |           | °C | 70   |
| 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 7.0

Low-voltage industrial components (EG000017) / Power circuit-breaker for trafo/generator/installation protection (EC000228)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Circuit breaker for power transformer, generator and system protection (ecl@ss10.0.1-27-37-04-09 [AJZ716013])

|  |    |                                   |
|--|----|-----------------------------------|
| Rated permanent current $I_u$                                  | A  | 400                               |
| Rated voltage  | V  | 690 - 690                         |
| Rated short-circuit breaking capacity $I_{cu}$ at 400 V, 50 Hz | kA | 50                                |
| Overload release current setting                               | A  | 320 - 400                         |
| Adjustment range short-term delayed short-circuit release      | A  | 0 - 0                             |
| Adjustment range undelayed short-circuit release               | A  | 6 - 10                            |
| Integrated earth fault protection                              |    | No                                |
| Type of electrical connection of main circuit                  |    | Screw connection                  |
| Device construction  |    | Built-in device plug-in technique |
| Suitable for DIN rail (top hat rail) mounting                  |    | No                                |
| DIN rail (top hat rail) mounting optional                      |    | No                                |
| Number of auxiliary contacts as normally closed contact        |    | 0                                 |
| Number of auxiliary contacts as normally open contact          |    | 0                                 |
| Number of auxiliary contacts as change-over contact            |    | 0                                 |
| With switched-off indicator                                    |    | No                                |
| With under voltage release                                     |    | No                                |
| Number of poles  |    | 4                                 |
| Position of connection for main current circuit                |    | Front side                        |
| Type of control element  |    | Rocker lever                      |
| Complete device with protection unit                           |    | Yes                               |
| Motor drive integrated   |    | No                                |
| Motor drive optional   |    | Yes                               |
| Degree of protection (IP)                                      |    | IP20                              |

## Additional product information (links)

additional technical information for NZM power switch

[https://es-assets.eaton.com/DOCUMENTATION/PDF/nzm\\_technic\\_de\\_en.pdf](https://es-assets.eaton.com/DOCUMENTATION/PDF/nzm_technic_de_en.pdf)