



**NH fuse-switch 3p flange connection M10 max. 240 mm<sup>2</sup>; busbar 60 mm; NH2**

**Part no. XNH2-S400**  
**Catalog No. 183065**  
**EL-Nummer 1624040**  
**(Norway)**

**Delivery program**

|                                            |                |      |                                                                                                         |
|--------------------------------------------|----------------|------|---------------------------------------------------------------------------------------------------------|
| Basic function                             |                |      | Basic device                                                                                            |
| Number of poles                            |                |      | 3 pole                                                                                                  |
| Mounting type                              |                |      | Busbars of 60 mm                                                                                        |
| Size                                       |                |      | 2                                                                                                       |
| Type of connection                         |                |      | Flat connection                                                                                         |
| Rated operational current                  | I <sub>e</sub> | A    | 400                                                                                                     |
| Front degree of protection (XNH installed) |                |      | IP20 (Operating status)<br>IP2XC (Contact protection)<br>IP10 (Handle cover open)                       |
| Rated operational voltage                  | U <sub>e</sub> | V AC | 690                                                                                                     |
| Rated operational voltage                  | U <sub>e</sub> | V DC | 440                                                                                                     |
| Rated conditional short-circuit current    |                | kA   | 120 (500 V)<br>100 (690 V)                                                                              |
| Flammability characteristics               |                |      | Self-extinguishing as per UL 94                                                                         |
| Description                                |                |      | Current paths of electrolytic copper, silver-plated<br>Cable connection optionally at the top or bottom |
| Successor to                               |                |      | 107252<br>107253<br>284648                                                                              |

**Technical data**

**Electrical**

|                                                           |                  |      |                            |
|-----------------------------------------------------------|------------------|------|----------------------------|
| Standards                                                 |                  |      | IEC/EN 60947-3             |
| Rated operational voltage                                 | U <sub>e</sub>   | V AC | 690                        |
| Rated operational voltage                                 | U <sub>e</sub>   | V DC | 440                        |
| Rated operational current                                 | I <sub>e</sub>   | A    | 400                        |
| Rated frequency                                           | f                | Hz   | 40 - 60                    |
| Rated insulation voltage                                  | U <sub>i</sub>   | V AC | 800                        |
| Total heat dissipation at I <sub>th</sub> (without fuses) | P <sub>v</sub>   | W    | 36                         |
| Heat dissipation at 80% (without fuses)                   | P <sub>v</sub>   | W    | 22.9                       |
| Rated impulse withstand voltage                           | U <sub>imp</sub> | kV   | 8                          |
| Utilization category AC-23B                               |                  |      |                            |
| Rated operating voltage                                   | U <sub>e</sub>   | V AC | 400                        |
| Rated operating current                                   | I <sub>e</sub>   | A    | 400                        |
| Utilization category AC22B                                |                  |      |                            |
| Rated operating voltage                                   | U <sub>e</sub>   | V AC | 500                        |
| Rated operating current                                   | I <sub>e</sub>   | A    | 400                        |
| Utilization category AC-21B                               |                  |      |                            |
| Rated operating voltage                                   | U <sub>e</sub>   | V AC | 690                        |
| Rated operating current                                   | I <sub>e</sub>   | A    | 400                        |
| Utilization category DC-22B                               |                  |      |                            |
| Rated operating voltage                                   | U <sub>e</sub>   | V DC | 440                        |
| Rated operating current                                   | I <sub>e</sub>   | A    | 400                        |
| Rated conditional short-circuit current                   |                  | kA   | 120 (500 V)<br>100 (690 V) |
| Rated short-time withstand current                        | I <sub>cw</sub>  | kA   | 10                         |
| Max. fuse                                                 |                  |      |                            |

|                                         |                |   |     |
|-----------------------------------------|----------------|---|-----|
| Size according to DIN VDE 0636-2        |                |   | 2   |
| Max. permitted power loss per fuse link | P <sub>v</sub> | W | 34  |
| Lifespan, electrical                    | Operations     |   | 200 |

## Mechanical

|                                                                                       |            |    |                                                                                   |
|---------------------------------------------------------------------------------------|------------|----|-----------------------------------------------------------------------------------|
| Front degree of protection (XNH installed)                                            |            |    | IP20 (Operating status)<br>IP2XC (Contact protection)<br>IP10 (Handle cover open) |
| Ambient temperature                                                                   |            | °C | -25 - +55                                                                         |
| Rated operating mode                                                                  |            |    | Permanent operation                                                               |
| Activation                                                                            |            |    | Dependent manual activation                                                       |
| Mounting position                                                                     |            |    | Vertical, horizontal                                                              |
| Altitude                                                                              |            | m  | Max. 2000                                                                         |
| Overvoltage category/pollution degree                                                 |            |    | III/3                                                                             |
| RoHS (in accordance with Directive 2002/95/EC of the European Parliament and Council) |            |    | Yes                                                                               |
| Direction of incoming supply                                                          |            |    | as required (FLEX System)                                                         |
| Lockable                                                                              |            |    | Yes, optional                                                                     |
| Sealable                                                                              |            |    | Yes, Standard                                                                     |
| Material characteristics                                                              |            |    |                                                                                   |
| Material                                                                              |            |    | Polyamide                                                                         |
| Colour                                                                                |            |    | Grey                                                                              |
| Flammability characteristics                                                          |            |    | Self-extinguishing as per UL 94                                                   |
| Halogen-free                                                                          |            |    | Yes                                                                               |
| Voltage test                                                                          |            |    | Yes, sliding inspection windows                                                   |
| Lifespan, mechanical                                                                  | Operations |    | 800                                                                               |
| Track resistance                                                                      |            |    | CTI 600                                                                           |
| Heat deflection temperature                                                           |            | °C | 125                                                                               |

## Terminal capacity

|                            |                                        |                 |                            |
|----------------------------|----------------------------------------|-----------------|----------------------------|
| Flange connection          |                                        |                 |                            |
| Bolt diameter              |                                        |                 | M10                        |
| Cable lug max. width       |                                        | mm              | 48                         |
| Flat busbar                |                                        | mm              | 40 x 10                    |
| Box terminal               |                                        |                 |                            |
| Stranded                   |                                        | mm <sup>2</sup> | 95 - 300 Cu/Al             |
| Copper strip               | Number of segments x width x thickness | mm              | 6 x 16 x 0,8 - 10 x 32 x 1 |
| Box terminal               |                                        |                 |                            |
| Stranded                   |                                        | mm <sup>2</sup> | 25 - 240 Cu                |
| Copper band                | Number of segments x width x thickness | mm              | 10 x 16 x 0,8              |
| Clamp-type terminal        |                                        |                 |                            |
| Stranded                   |                                        | mm <sup>2</sup> | 120 - 240 Cu/Al            |
| Double clamp-type terminal |                                        |                 |                            |
| Stranded                   |                                        | mm <sup>2</sup> | 2x (120 - 150) Cu/Al       |

## Design verification as per IEC/EN 61439

|                                                          |                  |   |                                            |
|----------------------------------------------------------|------------------|---|--------------------------------------------|
| Technical data for design verification                   |                  |   |                                            |
| Rated operational current for specified heat dissipation | I <sub>n</sub>   | A | 400                                        |
| Heat dissipation per pole, current-dependent             | P <sub>vid</sub> | W | 7.3                                        |
| Equipment heat dissipation, current-dependent            | P <sub>vid</sub> | W | 22                                         |
| 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                                                                                 |  | Is the panel builder's responsibility.                                                                                           |
| 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                                                                               |  | $U_i = 800 \text{ V AC}$                                                                                                         |
| 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) / Fuse switch disconnecter (EC001040)                                                                                                                                 |    |                  |
| Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Fuse switch disconnecter (ecl@ss10.0.1-27-37-14-01 [AKF058013]) |    |                  |
| Version as main switch                                                                                                                                                                                             |    | No               |
| Version as safety switch                                                                                                                                                                                           |    | No               |
| Max. rated operation voltage $U_e \text{ AC}$                                                                                                                                                                      | V  | 690              |
| Rated permanent current $I_u$                                                                                                                                                                                      | A  | 400              |
| Rated operation power at AC-23, 400 V                                                                                                                                                                              | kW | 0                |
| Conditioned rated short-circuit current $I_q$                                                                                                                                                                      | kA | 120              |
| Rated short-time withstand current $I_{cw}$                                                                                                                                                                        | kA | 3                |
| Suitable for fuses                                                                                                                                                                                                 |    | NH2              |
| Number of poles                                                                                                                                                                                                    |    | 3                |
| With error protection                                                                                                                                                                                              |    | No               |
| Type of electrical connection of main circuit                                                                                                                                                                      |    | Screw connection |
| Cable entry                                                                                                                                                                                                        |    | Other            |
| Equipped with connectors                                                                                                                                                                                           |    | No               |
| Suitable for ground mounting                                                                                                                                                                                       |    | No               |
| Suitable for front mounting 4-hole                                                                                                                                                                                 |    | No               |
| Suitable for busbar mounting                                                                                                                                                                                       |    | Yes              |
| Type of control element                                                                                                                                                                                            |    | Cover grip       |
| Position control element                                                                                                                                                                                           |    | Front side       |
| Motor drive optional                                                                                                                                                                                               |    | No               |
| Motor drive integrated                                                                                                                                                                                             |    | No               |
| Version as emergency stop installation                                                                                                                                                                             |    | No               |
| Degree of protection (IP), front side                                                                                                                                                                              |    | Other            |

# Dimensions

