



NH fuse-switch 3p with lowered box terminal BT2 1,5 - 95 mm<sup>2</sup>; busbar 60 mm; light fuse monitoring; NH000 & NH00



Powering Business Worldwide™

Part no. XNH00-FCL-S160-BT2  
Article no. 183038

## Delivery programme

|  |       |      |  |
|--|-------|------|--|
| Basic function                             |       |      | Fuse control - light   |
| Number of poles                            |       |      | 3 pole   |
| Mounting type                              |       |      | Busbars of 60 mm   |
| Size                                       |       |      | 00   |
| Type of connection                         |       |      | Box terminal   |
| Rated operational current                  | $I_e$ | A    | 160  |
| Front degree of protection (XNH installed) |       |      | IP20 (Operating status)<br>IP2XC (Contact protection)<br>IP10 (Handle cover open)  |
| Rated operational voltage                  | $U_e$ | V AC | 690  |
| Rated operational voltage                  | $U_e$ | 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<br>With optical signalling of triggered fuse-links |

## Technical data

### Electrical

|  |           |      |                            |
|--|-----------|------|----------------------------|
| Standards  |           |      | IEC/EN 60947-3             |
| Rated operational voltage                          | $U_e$     | V AC | 690                        |
| Rated operational voltage                          | $U_e$     | V DC | 440                        |
| Rated operational current                          | $I_e$     | A    | 160                        |
| Rated frequency                                    | f         | Hz   | 40 - 60                    |
| Rated insulation voltage                           | $U_i$     | V AC | 800                        |
| Total heat dissipation at $I_{th}$ (without fuses) | $P_v$     | W    | 14                         |
| Heat dissipation at 80% (without fuses)            | $P_v$     | W    | 9                          |
| Rated impulse withstand voltage                    | $U_{imp}$ | kV   | 8                          |
| Utilization category AC-23B                        |           |      |                            |
| Rated operating voltage                            | $U_e$     | V AC | 400                        |
| Rated operating current                            | $I_e$     | A    | 160                        |
| Utilization category AC22B                         |           |      |                            |
| Rated operating voltage                            | $U_e$     | V AC | 500                        |
| Rated operating current                            | $I_e$     | A    | 160                        |
| Utilization category AC-21B                        |           |      |                            |
| Rated operating voltage                            | $U_e$     | V AC | 690                        |
| Rated operating current                            | $I_e$     | A    | 160                        |
| Utilization category DC-22B                        |           |      |                            |
| Rated operating voltage                            | $U_e$     | V DC | 250                        |
| Rated operating current                            | $I_e$     | A    | 160                        |
| Utilization category DC21B                         |           |      |                            |
| Rated operating voltage                            | $U_e$     | V DC | 440                        |
| Rated operating current                            | $I_e$     | A    | 160                        |
| Rated conditional short-circuit current            |           | kA   | 120 (500 V)<br>100 (690 V) |
| Rated short-time withstand current                 | $I_{cw}$  | kA   | 7                          |
| Max. fuse  |           |      |                            |

|   |                |   |          |
|---|----------------|---|----------|
| Size according to DIN VDE 0636-2        |                |   | 000 / 00 |
| Max. permitted power loss per fuse link | P <sub>v</sub> | W | 12       |
| Lifespan, electrical                    | Operations     |   | 300      |

## 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 |    | 1400  |
| Track resistance  |            |    | CTI 600   |
| Heat deflection temperature   |            | ?C | 125   |

## Terminal capacity

|                            |  |                 |               |
|----------------------------|--|-----------------|---------------|
| Flange connection          |  |                 |               |
| Bolt diameter              |  |                 | M8            |
| Cable lug max. width       |  | mm              | 25            |
| Flat busbar                |  | mm              | 20 x 10       |
| Box terminal               |  |                 |               |
| Stranded                   |  | mm <sup>2</sup> | 1,5 - 95 Cu   |
| Copper strip               | Number of segments x width x thickness | mm              | 9 x 9 x 0,8   |
| Box terminal               |  |                 |               |
| Stranded                   |  | mm <sup>2</sup> | 1,5 - 50 Cu   |
| Copper band                | Number of segments x width x thickness | mm              | 6 x 9 x 0,8   |
| Clamp-type terminal        |  |                 |               |
| Stranded                   |  | mm <sup>2</sup> | 10 - 70 Cu/Al |
| Double clamp-type terminal |  |                 |               |
| Stranded                   |  | mm <sup>2</sup> | -             |

## Design verification as per IEC/EN 61439

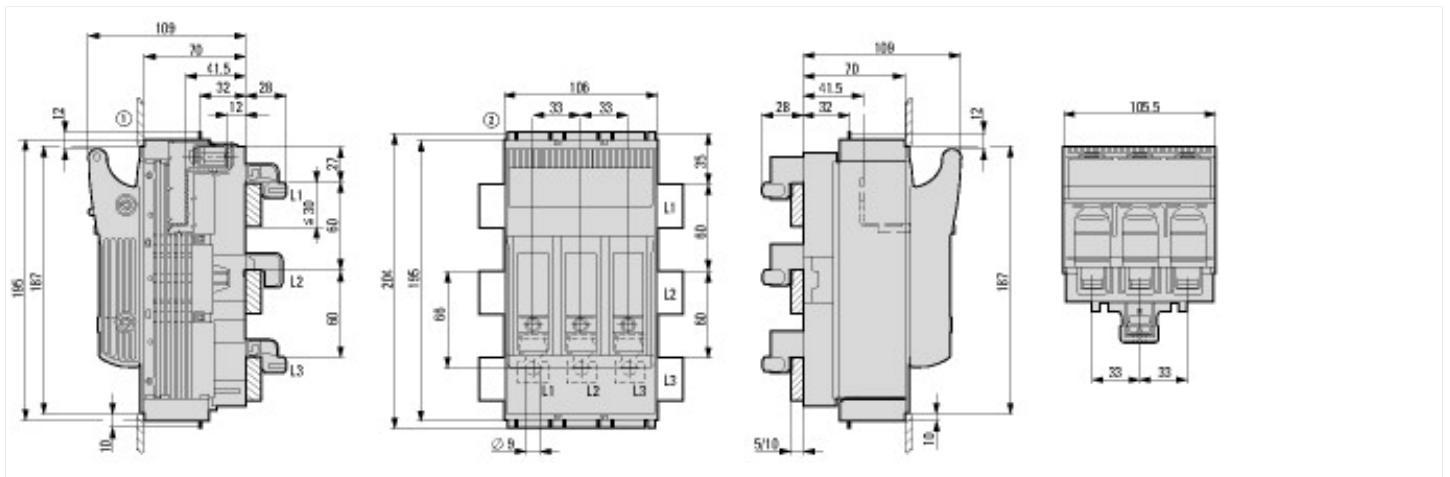
|  |                  |   |  |
|--|------------------|---|--|
| Technical data for design verification                   |                  |   |  |
| Rated operational current for specified heat dissipation | I <sub>n</sub>   | A | 160  |
| Heat dissipation per pole, current-dependent             | P <sub>vid</sub> | W | 4.7  |
| Equipment heat dissipation, current-dependent            | P <sub>vid</sub> | W | 14   |
| 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 6.0

|   |    |             |
|---|----|-------------|
| 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@ss8.1-27-37-14-01 [AKF058010]) |    |             |
| Version as main switch  |    | Yes         |
| Version as safety switch  |    | Yes         |
| Max. rated operation voltage $U_e \text{ AC}$   | V  | 690         |
| Rated permanent current $I_u$   | A  | 160         |
| Rated operation power at AC-23, 400 V   | kW | 64          |
| Conditioned rated short-circuit current $I_q$   | kA | 120         |
| Rated short-time withstand current $I_{cw}$   | kA | 7           |
| Suitable for fuses  |    | NH00        |
| Number of poles   |    | 3           |
| With error protection   |    | Yes         |
| Type of electrical connection of main circuit   |    | Frame clamp |
| Suitable for ground mounting  |    | No          |
| Suitable for front mounting 4-hole  |    | Yes         |
| 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   |    | IP2X        |

## Dimensions



## Additional product information (links)

**IL0131111ZU Fuse switch-disconnector XNH**

IL0131111ZU Fuse switch-disconnector XNH

[ftp://ftp.moeller.net/DOCUMENTATION/AWA\\_INSTRUCTIONS/IL0131111ZU2016\\_01.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL0131111ZU2016_01.pdf)