

**NH fuse-switch 3p flange connection M10 max. 240 mm<sup>2</sup>; mounting plate; electronic fuse monitoring; NH2**



**Part no.** XNH2-FCE-A400  
**183061**  
**EL Number** 1624036  
**(Norway)**

| General specifications                                |  |  |
|---|--|--|
| Product name  |  | Eaton xEffect XNH device for mounting plate                          |
| Part no.  |  | XNH2-FCE-A400  |
| EAN   |  | 4015081779888  |
| Product Length/Depth                                  |  | 306 millimetre   |
| Product height  |  | 165 millimetre   |
| Product width   |  | 210 millimetre   |
| Product weight  |  | 3.387 kilogram   |
| Compliances   |  | RoHS conform   |
| Certifications  |  | IEC/EN 60947-3   |
| Product Tradename                                     |  | xEffect  |
| Product Type  |  | XNH device for mounting plate  |
| Product Sub Type                                      |  | None   |
| Delivery program                                      |  |  |
| Type  |  | Fuse control - electronic  |
| Color   |  | Gray   |
| Number of poles                                       |  | Three-pole   |
| Actuator type   |  | Cover grip   |
| Technical Data - Electrical                           |  |  |
| Voltage test  |  | Yes, sliding inspection windows                                      |
| Voltage inputs  |  | 400 V AC - 500 V AC (+/-10%)   |
| Voltage rating at AC                                  |  | 400 V (AC-23B)<br>500 V (AC-22B)<br>690 V (AC-21B)                   |
| Voltage rating at AC - max                            |  | 250 V AC   |
| Voltage rating at DC                                  |  | 440 V (DC-22B)   |
| Voltage rating at DC - max                            |  | 24 V DC  |
| Rated operating voltage (Ue) at AC - max              |  | 500 V  |
| Rated insulation voltage (Ui)                         |  | 800 V AC   |
| Rated impulse withstand voltage (Uimp)                |  | 8 kV   |
| Rated uninterrupted current (Iu)                      |  | 400 A  |
| Rated conditional short-circuit current (Iq)          |  | 120 kA   |
| Rated operation current (Ie)                          |  | 400 A  |
| Rated operational current                             |  | 400 A (AC-21B)<br>400 A (AC-22B)<br>400 A (AC-23B)<br>400 A (DC-22B) |
| Switching current of electronic fuse monitoring - max |  | 1 A  |
| Rated short-time withstand current (Icw)              |  | 3 kA   |
| Rated conditional short-circuit rating                |  | 120 kA (500 V)<br>100 kA (690 V)                                     |
| Conditioned rated short-circuit current Iq            |  | 120 kA   |
| Frequency rating                                      |  | 40 Hz - 60 Hz  |
| Frequency rating of contacts                          |  | 40 Hz - 60 Hz  |
| Frequency rating (electronic fuse monitoring)         |  | 50 - 60 Hz   |
| Creepage resistance                                   |  | CTI 600  |
| Power rating at AC-23, 400 V                          |  | 0 kW   |
| Rated operation power at AC-23, 400 V                 |  | 0 kW   |
| Permitted power loss per fuse link - max              |  | 34 W   |

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| Electronic fuse monitoring   |  | 3 LEDs (F1, F2, F3) red<br>1 NC<br>1.5 VA<br>Test button for relay + LEDs<br>> 1 kOhm/V<br>1 LED green<br>Self-supplied<br>1 NO<br>NH with live handle straps   |
| Electrical connection type of main circuit                                       |  | Screw connection  |
| Operating altitude without derating - max  |  | 2000 mm   |
| Overvoltage category   |  | III (230/400 V)<br>III<br>II (500 V)  |
| Pollution degree   |  | 3   |
| Direction of incoming supply   |  | As required   |
| Lifespan, electrical   |  | 200 operations  |
| <b>Technical Data - Mechanical</b>   |  |   |
| Activation type  |  | Dependent manual activation   |
| Actuator position  |  | Front side  |
| Size   |  | NH2 fuse  |
| Mounting method  |  | Mounting plate<br>DIN rail  |
| Mounting position  |  | Vertical or horizontal  |
| Material   |  | Polyamide   |
| Degree of protection   |  | IP20 (operating status, XNH installed)<br>IP3X<br>IP2XC (contact protection, XNH installed)<br>IP10 (handle cover open, XNH installed)  |
| Degree of protection (front side)  |  | Other   |
| Connection type  |  | Flat connection   |
| Terminal capacity (copper band)  |  | 10 mm x 16 mm x 0.8 mm (10x) at box terminal  |
| Terminal capacity (copper busbar)  |  | Bolt diameter at flange connection: M10<br>40 mm x 10 mm<br>Max. 48 mm cable lug width at flange connection   |
| Terminal capacity (copper strip)   |  | 16 mm x 0.8 mm (6x) - 32 mm x 1 mm (10x) at box terminal  |
| Terminal capacity (stranded cable)   |  | 25 mm <sup>2</sup> - 240 mm <sup>2</sup> at box terminal<br>120 mm <sup>2</sup> - 150 mm <sup>2</sup> (2x) at double clamp-type terminal<br>95 mm <sup>2</sup> - 300 mm <sup>2</sup> (1x) at box terminal<br>120 mm <sup>2</sup> - 240 mm <sup>2</sup> at clamp-type terminal |
| Cable entry type   |  | Other   |
| Locking facility   |  | Yes, optional   |
| Suitable for fuses   |  | NH2   |
| Lifespan, mechanical   |  | 800 operations  |
| <b>Design verification as per IEC/EN 61439 - technical data</b>                  |  |   |
| Rated operational current for specified heat dissipation (In)                    |  | 400 A   |
| Equipment heat dissipation, current-dependent                                    |  | 22 W  |
| Heat dissipation per pole, current-dependent                                     |  | 7.3 W   |
| Heat dissipation at 80% without fuses  |  | 17.8 W  |
| Ambient operating temperature details  |  | Ambient temperature range: -25 °C - 55 °C<br>Operating temperature range: -5 °C - 55 °C   |
| Heat deflection temperature  |  | 125 °C  |
| <b>Design verification as per IEC/EN 61439</b>                                   |  |   |
| 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 Resist. of insul. mat. to abnormal heat/fire by internal elect. 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.  |

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| 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.  |
| 10.9.2 Power-frequency electric strength                 |  | U <sub>i</sub> = 800 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.  |
| <b>Additional information</b>                            |  |   |
| Features   |  | Standard sealable<br>Electronic fuse monitoring and EMC (Electromagnetic compatibility) as of IEC 61000-4-5<br>Electronic fuse monitoring and EMC (Electromagnetic compatibility) as of IEC 61000-4-4<br>Halogen free |
| Fitted with:   |  | Error protection<br>Connectors  |
| Flammability characteristics (UL)                        |  | Self-extinguishing (UL 94)  |
| Special features   |  | Permanent operation (rated operating mode)<br>Current paths of electrolytic copper, silver-plated<br>With electronic monitoring of fuse-links   |
| Suitable for   |  | Ground mounting   |

## Technical data ETIM 9.0

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| 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 (ec1@ss13-27-37-14-01 [AKF058018]) |    |                  |
| Version as main switch   |    | No               |
| Version as safety switch   |    | No               |
| Max. rated operation voltage U <sub>e</sub> AC   | V  | 500              |
| Rated permanent current I <sub>u</sub>   | A  | 400              |
| Rated operation power at AC-23, 400 V  | kW | 0                |
| Conditioned rated short-circuit current I <sub>q</sub>   | kA | 120              |
| Rated short-time withstand current I <sub>cw</sub>   | kA | 3                |
| Suitable for fuses   |    | NH2              |
| Number of poles  |    | 3                |
| With error protection  |    | Yes              |
| Type of electrical connection of main circuit  |    | Screw connection |
| Cable entry  |    | Other            |
| Equipped with connectors   |    | Yes              |
| Suitable for floor mounting  |    | Yes              |
| Suitable for front mounting  |    | No               |
| Suitable for busbar mounting   |    | No               |
| 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            |