



**NH fuse-switch 3p flange connection M10 max. 150 mm<sup>2</sup>; mounting plate; electronic fuse monitoring; NH1**

**EATON**  
Powering Business Worldwide™

**Part no.** XNH1-FCE-A250  
183047  
**EL Number (Norway)** 1624022

#### General specifications

Product name	Eaton xEffect XNH device for mounting plate
Part no.	XNH1-FCE-A250
EAN	4015081779741
Product Length/Depth	306 millimetre
Product height	148 millimetre
Product width	184 millimetre
Product weight	2.174 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) 500 V (AC-22B) 690 V (AC-21B)
Voltage rating at AC - max	250 V AC
Voltage rating at DC	250 V (DC-22B) 440 V (DC-21B)
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)	250 A
Rated conditional short-circuit current (Iq)	120 kA
Rated operation current (Ie)	250 A
Rated operational current	250 A (DC-21B) 250 A (DC-22B) 250 A (AC-22B) 250 A (AC-21B) 250 A (AC-23B)
Switching current of electronic fuse monitoring - max	1 A
Rated short-time withstand current (Icw)	6 kA
Rated conditional short-circuit rating	100 kA (690 V) 120 kA (500 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	23 W
Electronic fuse monitoring	Test button for relay + LEDs NH with live handle straps 1 NO 1 NC Self-supplied 1.5 VA 3 LEDs (F1, F2, F3) red 1 LED green > 1 kOhm/V
Electrical connection type of main circuit	Screw connection
Operating altitude without derating - max	2000 mm
Overvoltage category	III II (500 V) III (230/400 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	NH1 fuse
Mounting method	Mounting plate DIN rail
Mounting position	Vertical or horizontal
Material	Polyamide
Degree of protection	IP20 (operating status, XNH installed) IP2XC (contact protection, XNH installed) IP10 (handle cover open, XNH installed) IP3X
Degree of protection (front side)	Other
Connection type	Flat connection
Terminal capacity (copper band)	6 mm x 16 mm x 0.8 mm (6x) at box terminal
Terminal capacity (copper busbar)	Bolt diameter at flange connection: M10 Max. 37 mm cable lug width at flange connection 30 mm x 10 mm
Terminal capacity (copper strip)	16 mm x 0.8 mm (10x) at box terminal
Terminal capacity (stranded cable)	35 mm <sup>2</sup> - 150 mm <sup>2</sup> at box terminal 25 mm <sup>2</sup> - 150 mm <sup>2</sup> at box terminal 70 mm <sup>2</sup> - 95 mm <sup>2</sup> (2x) at double clamp-type terminal 10 mm <sup>2</sup> - 150 mm <sup>2</sup> at clamp-type terminal
Cable entry type	Other
Locking facility	Yes, optional
Suitable for fuses	NH1
Lifespan, mechanical	1400 operations
<b>Design verification as per IEC/EN 61439 - technical data</b>	
Rated operational current for specified heat dissipation (In)	250 A
Equipment heat dissipation, current-dependent	16 W
Heat dissipation per pole, current-dependent	5.3 W
Heat dissipation at 80% without fuses	10.2 W
Ambient operating temperature details	Ambient temperature range: -25 °C - 55 °C 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.
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	Ui = 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.

## Additional information

Features	Electronic fuse monitoring and EMC (Electromagnetic compatibility) as of IEC 61000-4-5 Standard sealable Electronic fuse monitoring and EMC (Electromagnetic compatibility) as of IEC 61000-4-4 Halogen free
Fitted with:	Connectors Error protection
Flammability characteristics (UL)	Self-extinguishing (UL 94)
Special features	Permanent operation (rated operating mode) Current paths of electrolytic copper, silver-plated With electronic monitoring of fuse-links
Suitable for	Ground mounting

## Technical data ETIM 9.0

Low-voltage industrial components (EG000017) / Fuse switch disconnector (EC001040)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Fuse switch disconnector (ecl@ss13-27-37-14-01 [AKF058018])

Version as main switch	No
Version as safety switch	No
Max. rated operation voltage Ue AC	V 500
Rated permanent current Iu	A 250
Rated operation power at AC-23, 400 V	kW 0
Conditioned rated short-circuit current Iq	kA 120
Rated short-time withstand current Icw	kA 6
Suitable for fuses	NH1
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