## DATASHEET - XNH2-FCE-A400-BT



NH fuse-switch 3p box terminal 95 - 300 mm²; mounting plate; electronic fuse monitoring; NH2



Part no. Catalog No. XNH2-FCE-A400-BT 183062

EL-Nummer (Norway) 1624037

#### **Delivery program**

Basic function			Fuse control - electronic
Number of poles			3 pole
Mounting type			DIN rails Mounting plate
Size			2
Type of connection			Box terminal
Rated operational current	le	Α	400
Front degree of protection (XNH installed)			IP20 (Operating status) IP2XC (Contact protection) IP10 (Handle cover open)
Rated operational voltage	Ue	V AC	690
Rated operational voltage	U <sub>e</sub>	V DC	440
Rated conditional short-circuit current		kA	120 (500 V) 100 (690 V)
Flammability characteristics			Self-extinguishing as per UL 94
Description			Current paths of electrolytic copper, silver-plated With electronic monitoring of fuse-links

### **Technical data**

Electrical			
Standards			IEC/EN 60947-3
Rated operational voltage	Ue	V AC	690
Rated operational voltage	U <sub>e</sub>	V DC	440
Rated operational current	l <sub>e</sub>	А	400
Rated frequency	f	Hz	40 - 60
Rated insulation voltage	Ui	V AC	800
Total heat dissipation at $I_{th}$ (without fuses)	Pv	W	28
Heat dissipation at 80% (without fuses)	P <sub>v</sub>	W	17.8
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	l <sub>e</sub>	А	400
Utilization category AC22B			
Rated operating voltage	U <sub>e</sub>	V AC	500
Rated operating current	l <sub>e</sub>	А	400
Utilization category AC-21B			
Rated operating voltage	U <sub>e</sub>	V AC	690
Rated operating current	l <sub>e</sub>	А	400
Utilization category DC-22B			
Rated operating voltage	U <sub>e</sub>	V DC	DC values on request
Rated operating current	le	А	DC values on request
Utilization category DC21B			
Rated operating voltage	U <sub>e</sub>	V DC	DC values on request
Rated operating current	le	А	DC values on request
Rated conditional short-circuit current		kA	120 (500 V) 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	Pv	W	34
Lifespan, electrical	Operations		200
Mechanical			
Front degree of protection (XNH installed)			IP20 (Operating status) IP2XC (Contact protection) 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			111/3
RoHS (in accordance with Directive 2002/95/EC of the European Parliament and Council)			Yes
Direction of incoming supply			as required
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			
Flange connection Bolt diameter		mm	M10
Flange connection Bolt diameter Cable lug max. width		mm	M10 48
Flange connection Bolt diameter Cable lug max. width Flat busbar		mm	M10
Flange connection         Bolt diameter         Cable lug max. width         Flat busbar         Box terminal		mm	M10 48 40 x 10
Flange connection Bolt diameter Cable lug max. width Flat busbar Box terminal Stranded			M10 48 40 x 10 95 - 300 Cu/Al
Flange connection Bolt diameter Cable lug max. width Flat busbar Box terminal Stranded Copper strip	Number of segments x width x thickness	mm	M10 48 40 x 10
Flange connection Bolt diameter Cable lug max. width Flat busbar Box terminal Copper strip Box terminal Box terminal	segments x width x	mm mm <sup>2</sup> mm	M10 48 40 x 10 95 - 300 Cu/Al 6 x 16 x 0,8 - 10 x 32 x 1
Flange connection Bolt diameter Cable lug max. width Flat busbar Box terminal Stranded Copper strip	segments x width x	mm mm <sup>2</sup>	M10 48 40 x 10 95 - 300 Cu/Al
Flange connection   Bolt diameter   Cable lug max. width   Flat busbar   Box terminal   Stranded   Copper strip   Box terminal Stranded Copper band	segments x width x	mm mm <sup>2</sup> mm	M10 48 40 x 10 95 - 300 Cu/Al 6 x 16 x 0,8 - 10 x 32 x 1
Flange connection Bolt diameter Cable lug max. width Flat busbar Box terminal Stranded Copper strip Box terminal Stranded Stranded	segments x width x thickness Number of segments x width x	mm mm <sup>2</sup> mm mm <sup>2</sup>	M10 48 40 x 10 95 - 300 Cu/Al 6 x 16 x 0,8 - 10 x 32 x 1 25 - 240 Cu
Flange connection   Bolt diameter   Cable lug max. width   Flat busbar   Box terminal   Stranded   Copper strip   Box terminal Stranded Copper band	segments x width x thickness Number of segments x width x	mm mm <sup>2</sup> mm mm <sup>2</sup>	M10 48 40 x 10 95 - 300 Cu/Al 6 x 16 x 0,8 - 10 x 32 x 1 25 - 240 Cu
Flange connection   Bolt diameter   Cable lug max. width   Flat busbar   Box terminal   Stranded   Copper strip   Box terminal   Stranded   Copper band   Clamp-type terminal	segments x width x thickness Number of segments x width x	mm mm <sup>2</sup> mm mm <sup>2</sup>	M10 48 40 x 10 95 - 300 Cu/Al 6 x 16 x 0,8 - 10 x 32 x 1 25 - 240 Cu 10 x 16 x 0,8
Flange connection         Bolt diameter         Cable lug max. width         Flat busbar         Box terminal         Stranded         Copper strip         Box terminal         Stranded         Copper strip         Copper band         Clamp-type terminal         Stranded	segments x width x thickness Number of segments x width x	mm mm <sup>2</sup> mm mm <sup>2</sup>	M10 48 40 x 10 95 - 300 Cu/Al 6 x 16 x 0,8 - 10 x 32 x 1 25 - 240 Cu 10 x 16 x 0,8
Flange connection         Bolt diameter         Cable lug max. width         Flat busbar         Box terminal         Stranded         Copper strip         Box terminal         Stranded         Copper band         Clamp-type terminal         Stranded         Double clamp-type terminal	segments x width x thickness Number of segments x width x	mm mm <sup>2</sup> mm mm	M10 48 40 x 10 95 - 300 Cu/Al 6 x 16 x 0,8 - 10 x 32 x 1 25 - 240 Cu 10 x 16 x 0,8
Flange connection         Bolt diameter         Cable lug max. width         Flat busbar         Box terminal         Stranded         Copper strip         Box terminal         Stranded         Copper strip         Copper band         Clamp-type terminal         Stranded         Double clamp-type terminal         Stranded	segments x width x thickness Number of segments x width x	mm mm <sup>2</sup> mm mm	M10 48 40 × 10 95 - 300 Cu/Al 6 × 16 × 0,8 - 10 × 32 × 1 25 - 240 Cu 10 × 16 × 0,8
Flange connection   Bolt diameter   Cable lug max. width   Flat busbar   Box terminal   Stranded   Copper strip   Box terminal   Stranded   Copper band   Clamp-type terminal   Stranded   Double clamp-type terminal   Stranded   Electronic fuse monitoring	segments x width x thickness Number of segments x width x	mm mm <sup>2</sup> mm mm	M10 48 40 x 10 95 - 300 Cu/Al 6 x 16 x 0,8 - 10 x 32 x 1 25 - 240 Cu 10 x 16 x 0,8 120 - 240 Cu/Al 22 (120 - 150) Cu/Al
Flange connection   Bolt diameter   Cable lug max. width   Flat busbar   Box terminal   Stranded   Copper strip   Box terminal   Stranded   Copper band   Clamp-type terminal   Stranded   Double clamp-type terminal   Stranded   Electronic fuse monitoring   Power supply	segments x width x thickness Number of segments x width x	mm <sup>2</sup> mm <sup>2</sup> mm mm <sup>2</sup> mm <sup>2</sup>	M10 48 40 × 10 95 - 300 Cu/Al 6 × 16 × 0,8 - 10 × 32 × 1 25 - 240 Cu 10 × 16 × 0,8 120 - 240 Cu/Al 2x (120 - 150) Cu/Al
Flange connection   Bolt diameter   Cable lug max. width   Flat busbar   Box terminal   Stranded   Copper strip   Box terminal   Stranded   Copper band   Clamp-type terminal   Stranded   Double clamp-type terminal   Stranded   Electronic fuse monitoring   Power supply   Power consumption	segments x width x thickness Number of segments x width x	mm <sup>2</sup> mm <sup>2</sup> mm mm <sup>2</sup> mm <sup>2</sup>	M10 48 40 x 10 95 - 300 Cu/Al 6 x 16 x 0,8 - 10 x 32 x 1 25 - 240 Cu 10 x 16 x 0,8 120 - 240 Cu/Al 120 - 240 Cu/Al Self-supplied 1.5 S30/400V : III 500 V : III 500 Cu/Al
Flange connection         Bolt diameter         Cable lug max. width         Flat busbar         Box terminal         Stranded         Copper strip         Box terminal         Stranded         Copper band         Clamp-type terminal         Stranded         Double clamp-type terminal         Stranded         Electronic fuse monitoring         Power consumption         Overvoltage category	segments x width x thickness Number of segments x width x	mm <sup>2</sup> mm <sup>2</sup> mm mm <sup>2</sup> mm <sup>2</sup>	M10 48 40 x 10 95 - 300 Cu/Al 6 x 16 x 0,8 - 10 x 32 x 1 25 - 240 Cu 10 x 16 x 0,8 120 - 240 Cu/Al 120 - 240 Cu/Al Self-supplied 1.5 S30/400V : III 500 V : III 500 Cu/Al
Flange connection         Bolt diameter         Cable lug max. width         Flat busbar         Box terminal         Stranded         Copper strip         Box terminal         Stranded         Copper strip         Copper band         Copper band         Stranded         Double clamp-type terminal         Stranded         Electronic fuse monitoring         Power supply         Power consumption         Overvoltage category         Frequency range	segments x width x thickness Number of segments x width x	mm <sup>2</sup> mm <sup>2</sup> mm mm <sup>2</sup> mm <sup>2</sup>	M10 48 40 x 10 95 - 300 Cu/Al 6 x 16 x 0,8 - 10 x 32 x 1 25 - 240 Cu 10 x 16 x 0,8 120 - 240 Cu/Al 120 - 240 Cu/Al Self-supplied 1.5 S30/400V : III 500 V : III 500 Cu/Al

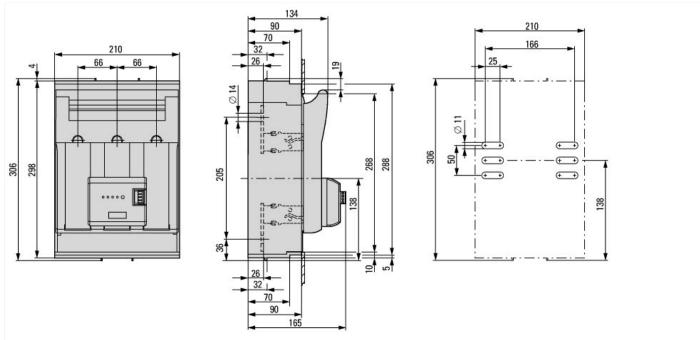
Operation indicator		1 LED green
Failure indicator		3 LEDs (F1, F2, F3) red
Degree of protection		IP3X
Function test		Test button for relay + LEDs
EMC (Electromagnetic compatibility)		IEC 61000-4-4 IEC 61000-4-5
Fuse links		NH with live handle straps
Outputs		
Relay output		1 NC 1 NO
Max. voltage	V AC	250
Max. voltage	V DC	24
Max. switching current	А	1
Contact sequence		
Function diagram		

# Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	I <sub>n</sub>	А	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 <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.

Technical data ETIM 7.0			
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@ss10.0.1-27-37-14-01 [AKF058013])			
Version as main switch		No	
Version as safety switch		No	
Max. rated operation voltage Ue AC	V	500	
Rated permanent current lu	А	400	
Rated operation power at AC-23, 400 V	kW	0	
Conditioned rated short-circuit current Iq	kA	120	
Rated short-time withstand current lcw	kA	3	
Suitable for fuses		NH2	
Number of poles		3	
With error protection		Yes	
Type of electrical connection of main circuit		Frame clamp	
Cable entry		Other	
Equipped with connectors		Yes	
Suitable for ground mounting		Yes	
Suitable for front mounting 4-hole		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	

### **Dimensions**



# Additional product information (links)

IL0131110ZU Fuse switch-disconnector XNH

IL0131110ZU Fuse switch-disconnector XNH

https://es-assets.eaton.com/DOCUMENTATION/AWA\_INSTRUCTIONS/IL0131110ZU2017\_02.pdf

IL0131114ZU Fuse switch-disconnector XNH IL0131114ZU Fuse switch-disconnector XNH

https://es-assets.eaton.com/DOCUMENTATION/AWA\_INSTRUCTIONS/IL0131114ZU2015\_11.pdf