

# NH fuse-switch 3p flange connection M10 max. 300 $\mathrm{mm^2}$ busbar 60 mm; NH3

Powering Business Worldwide\*

Part no. XNH3-S630 Article no. 183077

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Basic function			Basic device
Number of poles			3 pole
Mounting type			Busbars of 60 mm
Size			3
Type of connection			Flat connection
Rated operational current	I <sub>e</sub>	Α	630
Front degree of protection (XNH installed)			IP20 (Operating status) IP2XC (Contact protection) 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) 100 (690 V)
Flammability characteristics			Self-extinguishing as per UL 94
Description			Current paths of electrolytic copper, silver-plated Cable connection optionally at the top or bottom
Successor to			107254 107255

## **Technical data**

#### Electrical

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>	Α	630
Rated frequency	f	Hz	40 - 60
Rated insulation voltage	$U_{i}$	V AC	800
Total heat dissipation at I <sub>th</sub> (without fuses)	$P_{v}$	W	86
Heat dissipation at 80% (without fuses)	$P_{v}$	W	54.8
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	I <sub>e</sub>	Α	630
Utilization category AC22B			
Rated operating voltage	U <sub>e</sub>	V AC	500
Rated operating current	I <sub>e</sub>	Α	630
Utilization category AC-21B			
Rated operating voltage	U <sub>e</sub>	V AC	690
Rated operating current	l <sub>e</sub>	Α	630
Utilization category DC-22B			
Rated operating voltage	U <sub>e</sub>	V DC	DC values on request
Rated operating current	I <sub>e</sub>	Α	DC values on request
Utilization category DC21B			
Rated operating voltage	U <sub>e</sub>	V DC	DC values on request
Rated operating current	I <sub>e</sub>	Α	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			3/2
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Max. permitted power loss per fuse link	$P_{v}$	W	48
Lifespan, electrical	Operations		200
Mechanical			Inno to the state of the state
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			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	56
Flat busbar		mm	50 x 10
Box terminal			
Stranded		$\text{mm}^2$	95 - 300 Cu/AI
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>	auf Anfrage
Copper band	Number of segments x width x thickness	mm	11 x 21 x 1
Clamp-type terminal Stranded		mm <sup>2</sup>	120 - 300 Cu/Al
Double clamp-type terminal			

## Design verification as per IEC/EN 61439

Stranded

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	630
Heat dissipation per pole, current-dependent	$P_{\text{vid}}$	W	7.3
Equipment heat dissipation, current-dependent	$P_{\text{vid}}$	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.

2x (120 - 240) Cu/Al

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 observed.
10.12 Electromagnetic compatibility	Is the panel builder's responsibility. The specifications for the switchgear must observed.
10.13 Mechanical function	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

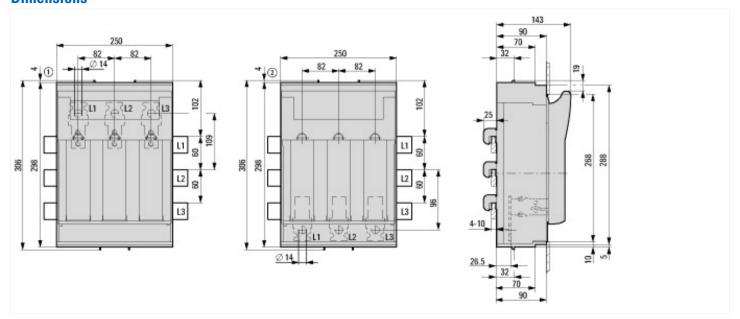
#### **Technical data ETIM 6.0**

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

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Fuse switch disconnector

Version as safety switch         Yes           Max. rated operation voltage Ue AC         V         990           Rated permanent current Iu         A         630           Rated operation power at AC-23, 400 V         kW         252           Conditioned rated short-circuit current Iq         kA         120           Rated short-time withstand current Icw         kA         10           Suitable for fuses         NH3         NH3           Number of poles         3         No           With error protection         No         Bolt connection           Suitable for ground mounting         No         No           Suitable for front mounting 4-hole         Yes         Yes           Suitable for bushar mounting         Yes         Yes           Suitable for bushar mounting         Yes         Cover grip           Position control element         Cover grip         Front side           Motor drive optional         No         No           Motor drive integrated         No         No           Version as emergency stop installation         No         No	(ecl@ss8.1-27-37-14-01 [AKF058010])		
Max. rated operation voltage Ue AC         V         690           Rated permanent current Iu         A         630           Rated operation power at AC-23, 400 V         kW         252           Conditioned rated short-circuit current Iq         kA         120           Rated short-time withstand current Icw         kA         10           Suitable for fuses         NH3         NH3           Number of poles         3         No           With error protection         No         No           Type of electrical connection of main circuit         No         No           Suitable for ground mounting         No         Yes           Suitable for front mounting 4-hole         Yes         Cover grip           Suitable for bushar mounting         Yes         Cover grip           Position control element         No         No           Motor drive optional         No         No           Motor drive integrated         No         No           Version as emergency stop installation         No         No	Version as main switch		Yes
Rated permanent current lu Rated operation power at AC-23, 400 V Conditioned rated short-circuit current Iq Rated short-time withstand current Icw Rated short-time withstand current Icw Routable for fuses Number of poles With error protection Type of electrical connection of main circuit Suitable for ground mounting Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting 4-hole Suitable for front mounting Suitable for front mounting Suitable for ground mounting Suitable for ground mounting Suitable for ground mounting Suitable for ground mounting Suitable for front mounting 4-hole Suitable for short mounting Front side Suitable for bushar mounting Type of control element Position control element Notor drive optional Motor drive integrated Version as emergency stop installation  A 630  AU  630  AU  70  70  70  70  70  70  70  70  70  7	Version as safety switch		Yes
Rated operation power at AC-23, 400 V  Conditioned rated short-circuit current Iq  Rated short-time withstand current Icw  Rated short-time withstand current Icw  Suitable for fuses  Number of poles  With error protection  Type of electrical connection of main circuit  Suitable for ground mounting  Suitable for front mounting 4-hole  Suitable for front mounting 4-hole  Suitable for foront mounting  Suitable for front mounting  Suitable for front mounting  With error protection  Type of control element  Footsiion control element  Motor drive optional  Motor drive integrated  Version as emergency stop installation	Max. rated operation voltage Ue AC	V	690
Conditioned rated short-circuit current Iq Rated short-time withstand current Icw Rated short-time withstand current Icw Rutbel for fuses Number of poles Number of poles With error protection Type of electrical connection of main circuit Suitable for ground mounting Suitable for ground mounting Suitable for front mounting 4-hole Suitable for font mounting 4-hole Suitable for busbar mounting Type of control element Type of control element No Cover grip Position control element Motor drive optional Motor drive integrated Version as emergency stop installation  No Cover grip No	Rated permanent current lu	Α	630
Rated short-time withstand current Icw  Suitable for fuses  Number of poles  With error protection  Type of electrical connection of main circuit  Suitable for ground mounting  Suitable for ground mounting  Suitable for ground mounting  Suitable for front mounting 4-hole  Suitable for busbar mounting  Type of control element  Position control element  Motor drive optional  Motor drive integrated  Ves  No  No  No  No  No  No  No  No  No  N	Rated operation power at AC-23, 400 V	kW	252
Suitable for fuses  Number of poles  With error protection  Type of electrical connection of main circuit  Suitable for ground mounting  Suitable for front mounting 4-hole  Suitable for front mounting 4-hole  Suitable for busbar mounting  Type of control element  Position control element  Motor drive optional  Motor drive integrated  Ves  No  No  No  No  No  No  No  No  No  N	Conditioned rated short-circuit current Iq	kA	120
Number of poles  With error protection  Type of electrical connection of main circuit  Suitable for ground mounting Suitable for front mounting 4-hole Suitable for busbar mounting  Type of control element  Position control element  Motor drive optional  Motor drive integrated  Version as emergency stop installation  Motor drive stops and stop	Rated short-time withstand current lcw	kA	10
With error protection  Type of electrical connection of main circuit  Suitable for ground mounting Suitable for front mounting 4-hole Suitable for busbar mounting Type of control element  Position control element Motor drive optional Motor drive integrated Version as emergency stop installation  No  Bolt connection  No  Yes  Yes  Cyes  Front side  No  No  No  No  No  No  No  No  No  N	Suitable for fuses		NH3
Type of electrical connection of main circuit  Suitable for ground mounting  Suitable for front mounting 4-hole  Suitable for busbar mounting  Type of control element  Position control element  Motor drive optional  Motor drive integrated  Version as emergency stop installation  Bolt connection  Bolt connection  Suitable connection  No  Cover grip  Front side  No  No  No  No  No  No  No  No  No  N	Number of poles		3
Suitable for ground mounting Suitable for front mounting 4-hole Suitable for busbar mounting Suitable for front mounting 4-hole Suitable for front mounting 4-hole Suitable for ground mounting Suitable for ground su	With error protection		No
Suitable for front mounting 4-hole Suitable for busbar mounting Yes  Type of control element Cover grip  Position control element Front side Motor drive optional Motor drive integrated No Version as emergency stop installation Yes  Yes  Cover grip  Front side No No	Type of electrical connection of main circuit		Bolt connection
Suitable for busbar mounting  Yes  Type of control element  Position control element  Motor drive optional  Motor drive integrated  Version as emergency stop installation  Yes  Cover grip  Front side  No  No  No  No  No  No  No  No  No  N	Suitable for ground mounting		No
Type of control element  Position control element  Motor drive optional  Motor drive integrated  Version as emergency stop installation  Cover grip  Front side  No  No  No	Suitable for front mounting 4-hole		Yes
Position control element  Motor drive optional  Motor drive integrated  Version as emergency stop installation  Front side  No  No  No	Suitable for busbar mounting		Yes
Motor drive optional No Motor drive integrated No Version as emergency stop installation No	Type of control element		Cover grip
Motor drive integrated No Version as emergency stop installation No	Position control element		Front side
Version as emergency stop installation No	Motor drive optional		No
	Motor drive integrated		No
Degree of protection (IP), front side	Version as emergency stop installation		No
	Degree of protection (IP), front side		IP2X

## **Dimensions**



## **Additional product information (links)**

IL0131112ZU Fuse switch-disconnector XNH

IL0131112ZU Fuse switch-disconnector XNH

ftp://ftp.moeller.net/DOCUMENTATION/AWA\_INSTRUCTIONS/IL0131112ZU2015\_11.pdf