

# NH fuse-switch 3p with lowered box terminal BT2 1,5 - 95 mm²; busbar 60 mm; NH000 & NH00

Powering Business Worldwide

Part no. XNH00-S160-BT2 Article no. 183035

#### **Delivery program**

		Basic device
		3 pole
		Busbars of 60 mm
		00
		Box terminal
l <sub>e</sub>	Α	160
		IP20 (Operating status) IP2XC (Contact protection) IP10 (Handle cover open)
U <sub>e</sub>	V AC	690
U <sub>e</sub>	V DC	440
	kA	120 (500 V) 100 (690 V)
		Self-extinguishing as per UL 94
		Current paths of electrolytic copper, silver-plated Cable connection optionally at the top or bottom
	U <sub>e</sub>	U <sub>e</sub> VAC

#### **Technical data**

#### **Flectrical**

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	160
Rated frequency	f	Hz	40 - 60
Rated insulation voltage	Ui	V AC	800
Total heat dissipation at $I_{th}$ (without fuses)	$P_{\nu}$	W	14
Heat dissipation at 80% (without fuses)	$P_{\nu}$	W	9
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	160
Utilization category AC22B			
Rated operating voltage	U <sub>e</sub>	V AC	500
Rated operating current	I <sub>e</sub>	Α	160
Utilization category AC-21B			
Rated operating voltage	U <sub>e</sub>	V AC	690
Rated operating current	I <sub>e</sub>	Α	160
Utilization category DC-22B			
Rated operating voltage	U <sub>e</sub>	V DC	250
Rated operating current	I <sub>e</sub>	Α	160
Utilization category DC21B			
Rated operating voltage	U <sub>e</sub>	V DC	440
Rated operating current	I <sub>e</sub>	Α	160
Rated conditional short-circuit current		kA	120 (500 V) 100 (690 V)
Rated short-time withstand current	I <sub>cw</sub>	kA	7
Max. fuse			

Circumstants DIN VDF 0000 0			000 / 00
Size according to DIN VDE 0636-2			000 / 00
Max. permitted power loss per fuse link	$P_{v}$	W	12
Lifespan, electrical	Operations		300
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			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	9×9×0,8
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			

## **Design verification as per IEC/EN 61439**

Stranded

Technical data for design verification			
Rated operational current for specified heat dissipation	In	Α	160
Heat dissipation per pole, current-dependent	$P_{vid}$	W	4.7
Equipment heat dissipation, current-dependent	$P_{\text{vid}}$	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.

mm<sup>2</sup>

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.

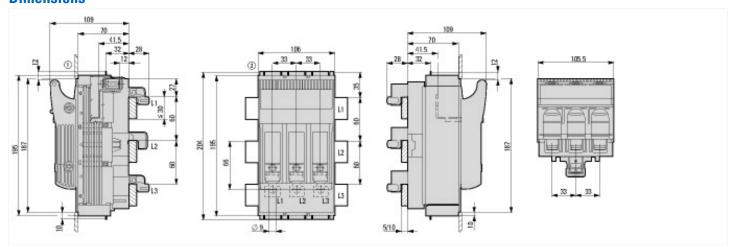
#### **Technical data ETIM 6.0**

Low-voltage industrial components (EG000017) / Fuse switch 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  Max. rated operation voltage Ue AC  Rated permanent current Iu  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  Rated short-time virthstand current Icw  Rated short-time virthstand current Icw  Suitable for fuses  Number of poles  Number of poles  Number of poles  Suitable for ground mounting  Suitable for ground mounting  Suitable for ground mounting  Suitable for front mounting 4-hole  Suitable for font mounting 4-hole  Suitable for font mounting  Suitable for busbar mounting  Fype of control element  Position control element  Motor drive optional  Motor drive integrated  Motor drive integrated  Version as emergency stop installation	(ecl@ss8.1-27-37-14-01 [AKF058010])		
Max. rated operation voltage Ue AC         V         690           Rated permanent current Iu         A         160           Rated operation power at AC-23, 400 V         kW         64           Conditioned rated short-circuit current Iq         kA         120           Rated short-time withstand current Icw         kA         7           Suitable for fuses         NH00         NH00           Number of poles         3         NG           With error protection         NO         Frame clamp           Suitable for ground mounting         NO         Yes           Suitable for front mounting 4-hole         Yes         Yes           Suitable for busbar mounting         Yes         Cover grip           Position control element         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 Iu  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	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 Rumber of poles Number of poles With error protection No 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 busbar mounting Suitable for busbar mounting Frame clamp No Cover grip Yes Suitable for busbar mounting Front side Motor drive optional Motor drive integrated Version as emergency stop installation No No	Max. rated operation voltage Ue AC	V	690
Conditioned rated short-circuit current Iq kA 7  Rated short-time withstand current Icw kA 7  Suitable 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 busbar mounting Type of control element Type of control element Motor drive optional Motor drive integrated Wersion as emergency stop installation  KA 7  NH00  Type of control element No  Cover grip Front side No	Rated permanent current lu	Α	160
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 front mounting 4-hole Suitable for busbar mounting  Suitable for busbar mounting  Position control element  Motor drive optional  Motor drive integrated  Wersion as emergency stop installation	Rated operation power at AC-23, 400 V	kW	64
Suitable for fuses Number of poles 3 With error protection No Type of electrical connection of main circuit Frame clamp Suitable for ground mounting Suitable for front mounting 4-hole Suitable for front mounting 4-hole Suitable for busbar mounting Yes Type of control element Position control element Motor drive optional Motor drive integrated Version as emergency stop installation NHOO  NHOO  NHOO  Roa  NHOO  No  No  NO  NO  NHOO  NHO	Conditioned rated short-circuit current Iq	kA	120
Number of poles  With error protection  No  Type of electrical connection of main circuit  Suitable for ground mounting Suitable for front mounting 4-hole Suitable for busbar mounting  Suitable for busbar mounting  Yes  Type of control element  Position control element  Motor drive optional  Motor drive integrated  Version as emergency stop installation  3  No  No  No  No  No  No  No  No  No	Rated short-time withstand current lcw	kA	7
With error protection No 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 Cover grip Position control element Motor drive optional Motor drive integrated Version as emergency stop installation  No	Suitable for fuses		NH00
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 Cover grip Position control element Motor drive optional Motor drive integrated Version as emergency stop installation  Frame clamp  No  Yes  Yes  Yes  Cover grip Front side No	Number of poles		3
Suitable for ground mounting Suitable for front mounting 4-hole Suitable for busbar mounting Yes Suitable for busbar mounting Cover grip Position control element Position control element Motor drive optional Motor drive integrated Version as emergency stop installation No	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 Version as emergency stop installation  Yes  No  No	Type of electrical connection of main circuit		Frame clamp
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 Front side Motor drive optional No Motor drive integrated No Version as emergency stop installation 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)**

IL0131111ZU Fuse switch-disconnector XNH

IL0131111ZU Fuse switch-disconnector XNH

ftp://ftp.moeller.net/DOCUMENTATION/AWA\_INSTRUCTIONS/IL0131111ZU2016\_01.pdf