NH fuse-switch 3p flange connection M10 max. 150 mm²; mounting plate; NH1

Part no. XNH1-A250
Article no. 183043

Powering Business Worldwide

Delivery programme

Basic function			Basic device
Number of poles			3 pole
Mounting type			DIN rails Mounting plate
Size			1
Type of connection			Flat connection
Rated operational current	I_e	A	160
Front degree of protection (XNH installed)			IP20 (Operating status) IP2XC (Contact protection) IP10 (Handle cover open)
Rated operational voltage	U_e	V AC	690
Rated operational voltage	U_e	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
Successor to			017250 269140

Technical data

Electrical

Standards			IEC/EN 60947-3
Rated operational voltage	U_e	V AC	690
Rated operational voltage	U_e	V DC	440
Rated operational current	I_e	A	160
Rated frequency	f	Hz	40 - 60
Rated insulation voltage	U_i	V AC	800
Total heat dissipation at I_{th} (without fuses)	P_v	W	16
Heat dissipation at 80% (without fuses)	P_v	W	10.2
Rated impulse withstand voltage	U_{imp}	kV	8
Utilization category AC-23B			
Rated operating voltage	U_e	V AC	400
Rated operating current	I_e	A	250
Utilization category AC22B			
Rated operating voltage	U_e	V AC	500
Rated operating current	I_e	A	250
Utilization category AC-21B			
Rated operating voltage	U_e	V AC	690
Rated operating current	I_e	A	250
Utilization category DC-22B			
Rated operating voltage	U_e	V DC	DC values on request
Rated operating current	I_e	A	DC values on request
Utilization category DC21B			
Rated operating voltage	U_e	V DC	DC values on request
Rated operating current	I_e	A	DC values on request
Rated conditional short-circuit current		kA	120 (500 V) 100 (690 V)
Rated short-time withstand current	I_{cw}	kA	10

Max. fuse			
Size according to DIN VDE 0636-2			000 / 00
Max. permitted power loss per fuse link	P_v	W	23
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			III/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		1400
Track resistance			CTI 600
Heat deflection temperature		?C	125

Terminal capacity

Flange connection			
Bolt diameter			M10
Cable lug max. width		mm	37
Flat busbar		mm	30 x 10
Box terminal			
Stranded		mm^2	35 - 150 Cu/Al
Copper strip	Number of segments x width x thickness	mm	10 x 16 x 0,8
Box terminal			
Stranded		mm^2	25 - 150 Cu
Copper band	Number of segments x width x thickness	mm	6 x 16 x 0,8
Clamp-type terminal			
Stranded		mm^2	10 - 150 Cu/Al
Double clamp-type terminal			
Stranded		mm^2	2x (70 - 95) Cu/Al

Design verification as per IEC/EN 61439

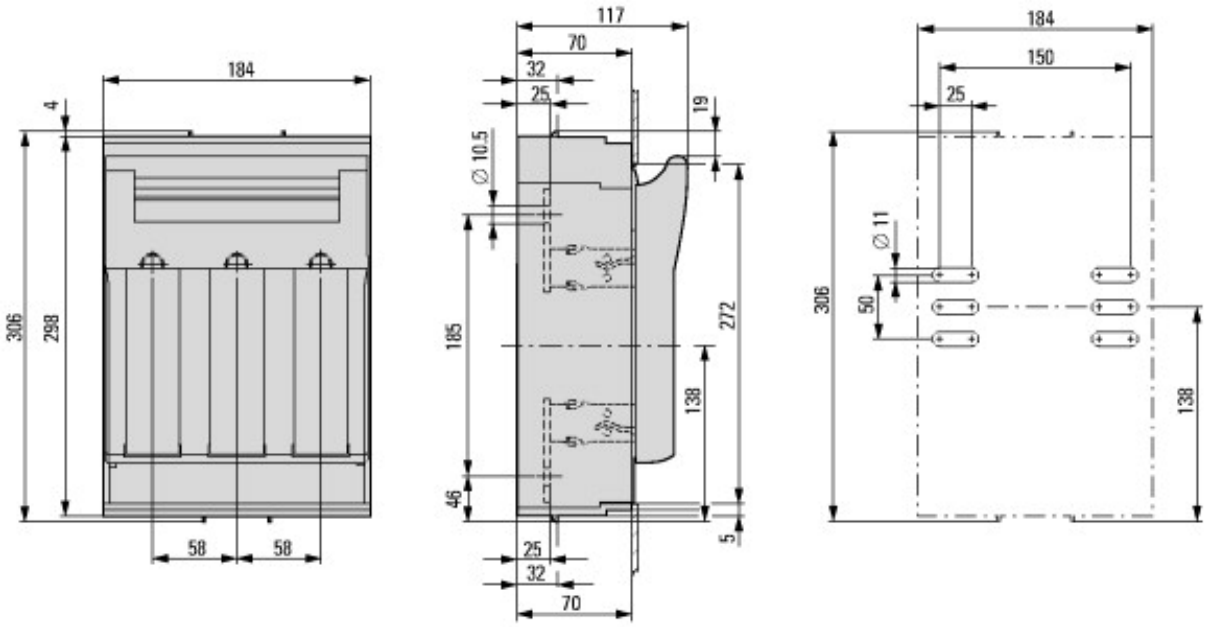
Technical data for design verification			
Rated operational current for specified heat dissipation	I_n	A	250
Heat dissipation per pole, current-dependent	P_{vid}	W	5.3
Equipment heat dissipation, current-dependent	P_{vid}	W	16
IEC/EN 61439 design verification			
10.2 Strength of materials and parts			
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_i = 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 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 (ecl@ss8.1-27-37-14-01 [AKF058010])			
Version as main switch			Yes
Version as safety switch			Yes
Max. rated operation voltage Ue AC		V	690
Rated permanent current Iu		A	250
Rated operation power at AC-23, 400 V		kW	100
Conditioned rated short-circuit current Iq		kA	120
Rated short-time withstand current Icw		kA	10
Suitable for fuses			NH1
Number of poles			3
With error protection			No
Type of electrical connection of main circuit			Bolt connection
Suitable for ground mounting			Yes
Suitable for front mounting 4-hole			Yes
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			IP2X

Dimensions



Additional product information (links)

IL0131110ZU Fuse switch-disconnector XNH	
IL0131110ZU Fuse switch-disconnector XNH	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL0131110ZU2015_11.pdf