DATASHEET - XNH1-1-A250



NH fuse-switch 1p flange connection M10 max. 150 $\mathrm{mm^2}$; mounting plate; NH1

Powering Business Worldwide*

Part no. XNH1-1-A250 Catalog No. 183049

EL-Nummer (Norway)

1624024

Delivery program

zomor, program			
Basic function			Basic device
Number of poles			1 pole
Mounting type			DIN rails Mounting plate
Size			1
Type of connection			Flat connection
Rated operational current	l _e	Α	250
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

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	Α	250
Rated frequency	f	Hz	40 - 60
Rated insulation voltage	Ui	V AC	800
Total heat dissipation at I _{th} (without fuses)	P_{v}	W	22
Heat dissipation at 80% (without fuses)	P_{v}	W	14.1
Rated impulse withstand voltage	U_{imp}	kV	8
Utilization category AC-23B			
Rated operating voltage	U _e	V AC	400
Rated operating current	le	Α	250
Utilization category AC22B			
Rated operating voltage	U _e	V AC	500
Rated operating current	l _e	Α	250
Utilization category AC-21B			
Rated operating voltage	U _e	V AC	690
Rated operating current	l _e	Α	250
Utilization category DC-22B			
Rated operating voltage	U _e	V DC	250

Binate operating values 1				
Mate departing outring current	Rated operating current	l _e	Α	250
The set of specialing current	Utilization category DC21B			
Rate decodificate short-direct cument Rate debot-direct withstand current Very Mon. Insert Mon. Inse	Rated operating voltage	U _e	V DC	440
	Rated operating current	l _e	Α	250
Max. Intel Sine according to DIN VIC 60812 Max. promining power loss per fuse link As per principal (NATH installed) Weechant of deprese of processin (NATH installed) All began, wheering (NATH installed) All began principal (NATH installed) All began p	Rated conditional short-circuit current		kA	
Mone securing to DIN VDE 0056-2 Mone securing to DIN VDE 0056-2 Mone securing to provide link of the provided of the pro	Rated short-time withstand current	I _{cw}	kA	10
Main permitted power less per fusee link Power less per fusee link Power less Power less	Max. fuse			
	Size according to DIN VDE 0636-2			1
Mechanical Figure of protection DXH installed) Ambient temperature Am	Max. permitted power loss per fuse link	P_{v}	W	23
Provide protection (XMH installed)	Lifespan, electrical	Operations		200
Prof. Contact protection Prof. Contact prof. Contact protection Prof. Contact p	Mechanical			
Activation does not operating mode Activation does not operated operating mode Activation does not operated operating mode Activation does not operated operating mode and operating supply does not operating supply and operating mode and operating supply and operating mode and operating supply and operating and operating supply and operating and operating supply sup	Front degree of protection (XNH installed)			IP2XC (Contact protection)
Activation Mounting peaton Mounting peaton Albitude Perverolage category/pollution degree Rel Si in accordance with Directive 2002/95/EC of the European Parliament and Robert Control of incoming supply Leckable Boeslable Advancial characteristics Material Colour Relmanubility characteristics Material Colour Relambality characteristics Material Relambality characteristics Material Colour Relambality characteristics Note of the European Parliament and Polymanuffer Avent Colour Relambality characteristics Material Relambality characteristics Note of the European Parliament and Polymanuffer Avent Colour Relambality characteristics Note of the European Parliament and Polymanuffer Avent Colour Relambality characteristics Note of the European Parliament and Polymanuffer Avent Colour Relambality characteristics Note of the European Parliament and Polymanuffer Avent Colour Relambality characteristics Note of the European Parliament and Polymanuffer Avent Colour Relambality characteristics Note of the European Parliament and Polymanuffer Avent Colour Relambality characteristics Note of the European Parliament and Polymanuffer Avent Colour Relambality characteristics Note of the European Parliament and Polymanuffer Avent Colour Note of the European Parliament and Polymanuffer Avent Colour Note of the European Parliament and Polymanuffer A	Ambient temperature		°C	-25 - +55
Munising position Abilitude Divervoltage category/pollulion degree Polivection of incoming supply Leckable Discretion of incoming supply Material Colorur Hammability characteristics Discretion of incoming supply Leckable Discretion of incoming supply Material Discretion of incoming supply Leckable Discretion of incoming supply Material Discretion of incoming supply Leckable Discretion of incoming supply Material Discretion of incoming supply Leckable Leckable Discretion of incoming supply Leckable Leckable Discretion of incoming supply Leckable Discretion of incoming supply Leckable Leckable Discretion of incoming supply Leckable L	Rated operating mode			Permanent operation
Altertude m Max. 2000 Deverotlage category/pollution degree (Not Si in accordance with Directive 2002/295/€C of the European Parliament and Examination of incoming supply Direction of incoming supply Pers, Optional Pers, Standard Polyamide Groy Groy Groy Self-extinguishing as per UL 94 Hallogen free Ves, Stinging inspection windows Self-extinguishing as per UL 94 Hallogen free Ves, Stinging inspection windows Hallogen free Ves, Standard Hallogen free Ves, St	Activation			Dependent manual activation
Altertude m Max. 2000 Deverotlage category/pollution degree (Not Si in accordance with Directive 2002/295/€C of the European Parliament and Examination of incoming supply Direction of incoming supply Pers, Optional Pers, Standard Polyamide Groy Groy Groy Self-extinguishing as per UL 94 Hallogen free Ves, Stinging inspection windows Self-extinguishing as per UL 94 Hallogen free Ves, Stinging inspection windows Hallogen free Ves, Standard Hallogen free Ves, St	Mounting position			Vertical, horizontal
Rois Sin accordance with Directive 2002/95/EC of the European Parliament and Directive of incoming supply concluded in froming supply concluded in from the froming supply concluded in froming supply concluded in from the froming supply concluded in froming supply concluded in from the froming supply concluded in from the froming supply concluded in from the froming supplies supplies supplies supplies supplies supplies supplies supplies sup	Altitude		m	Max. 2000
Rois Sin accordance with Directive 2002/95/EC of the European Parliament and Directive of incoming supply concluded in froming supply concluded in from the froming supply concluded in froming supply concluded in from the froming supply concluded in froming supply concluded in from the froming supply concluded in from the froming supply concluded in from the froming supplies supplies supplies supplies supplies supplies supplies supplies sup	Overvoltage category/pollution degree			III/3
Lackable Sealable Sealable Material Colour Flammability characteristics Material Colour Flammability characteristics Halogen-free Worlange lest Hologen-free Hologen-f	RoHS (in accordance with Directive 2002/95/EC of the European Parliament and Council)			
Lackable Sealable Sealable Material Colour Flammability characteristics Material Colour Flammability characteristics Halogen-free Worlange lest Hologen-free Hologen-f	Direction of incoming supply			as required
Sealable Yes, Standard Material characteristics Polyamide Material Coclour Gerey Flammability characteristics Self-extinguishing as per UL 94 Hallogen-free Yes, sliding inspection windows Voltage text Yes, sliding inspection windows Lifespan, mechanical To 1600 Heat deflection temperature To 1600 Heat deflection temperature capacity M10 Ferminal Capacity M10 Cable lug max. width M10 Flat busbar M10 Box terminal M10 Stranded M10 Copper strip M10 M10 M10 M10 M10	Lockable			
Material Characteristics Polyamide Material Color Polyamide Hammability characteristics Grey Self-extinguishing as per UL 94 Hallogen-free test Yes, sliding inspection windows Voltage test 1400 Lifespan, mechanical Operations 1400 Track resistance 1500 Heat defection temperature **** To 1800 Forminal Capacity **** Mill Range connection **** Mill Mill Bold diameter Mill 37 Cable lug max. width mm 35 - 150 Cu/Al Box terminal mm² 35 - 150 Cu/Al Stranded mm² 25 - 150 Cu Copper strip width mm² 25 - 150 Cu Box terminal mm² 25 - 150 Cu Clooper band mm² 26 - 150 Cu/Al Clooper band mm² 27 - 150 Cu	Sealable			
Material Polyamide Colour Grey Hammability characteristics Self-extinguishing as per UL 94 Hallogen-free Yes Volkage test Ves, sliding inspection windows Litespan, mechanical Operations H00 Brack resistance CT1600 Heat deflection temperature ***C 125 Ferminal Capacity *** M10 Flange connection *** M10 Bolt diameter M10 37 Gable lug max width *** M10 Box terminal *** M10 Stranded *** M10 Copper strip *** M10 Box terminal *** M2 35 - 150 Cu/Al Box terminal *** M2 35 - 150 Cu/Al Box terminal *** *** *** *** Copper band *** *** *** *** *** Copper band *** *** *** *** ***				
Colour Flammability characteristics Flammability characteristics Halogon-free Voltage test Voltage Voltage test Voltage t				Polyamide
Flammability characteristics Hallogen-free Voltage test Voltage Voltage test Voltage Voltage test Voltage tes				
Vestage test Vest				
Voltage test Yes, sliding inspection windows Lifespan, mechanical Operations 1400 Track resistance °C 125 Heat deflection temperature "C 125 Ferminal capacity "T 1400 Page connection "T 125 Bolt diameter "M 1400 Cable lug max. width "T 1400 Box terminal "T 1400 Stranded "T 1400 Box terminal "T 1400 Box terminal "T 37 Box terminal "T 1500 Cu/Al Box terminal "T 25-150 Cu Copper band "M 25-150 Cu Copper band "M 25-150 Cu Clamp-type terminal "T 25-150 Cu/Al Stranded "T 25-150 Cu/Al	,			
Lifespan, mechanical Operations 400 Brack resistance °C 125 Ferminal capacity ************************************				
Track resistance Heat deflection temperature Ferminal capacity Flange connection Bolt diameter Cable lug max. width Flat busbar Box terminal Stranded Copper strip Stranded Stranded Stranded Aumber of segments x width x thickness Stranded Stranded Stranded Stranded Stranded Aumber of segments x width x thickness Stranded Stranded Aumber of segments x width x thickness Aumber of segments x width x thickness	•	Onerations		
Heat deflection temperature Ferminal capacity Flange connection Bolt diameter Cable lug max. width Flat busbar Box terminal Stranded Copper strip Stranded Stranded	· ·	Орогалоно		
Flange connection Bolt diameter Cable lug max width Flat busbar Box terminal Stranded Copper strip Stranded Stranded Topper band Copper band Stranded Clamp-type terminal Stranded Stranded Clamp-type terminal Stranded Clamp-type terminal Stranded Couble clamp-type terminal Couble clamp-type terminal			°C	
Flange connection Bolt diameter Cable lug max width Flat busbar Box terminal Copper strip Copper strip Stranded Copper band Copper band Clamp-type terminal Stranded Clamp-type terminal Clamp-type terminal Copper strip Clamp-type terminal Clamp-t			· ·	123
Bolt diameter Cable lug max. width Flat busbar Box terminal Stranded Copper strip Stranded Stranded Number of segments x width x thickness Number of segments x thic				
Flat busbar Box terminal Stranded Copper strip Copper strip Stranded Number of segments x width x thickness Stranded Stranded Topper band Copper band Stranded Stranded Number of segments x width x thickness mm Stranded Number of segments x width x thickness mm 6 x 16 x 0,8 mm 10 x 16 x 0,8 mm 10 x 16 x 0,8 mm 10 x 16 x 0,8				M10
Flat busbar Box terminal Stranded Copper strip Copper strip Stranded Number of segments x width x thickness Stranded Stranded Topper band Copper band Stranded Stranded Number of segments x width x thickness mm Stranded Number of segments x width x thickness mm 6 x 16 x 0,8 mm 10 x 16 x 0,8 mm 10 x 16 x 0,8 mm 10 x 16 x 0,8	Cable lug max. width		mm	37
Box terminal Stranded Copper strip Copper strip Box terminal Stranded Stran				
Stranded Copper strip Box terminal Stranded Copper band Copper band Stranded Copper band Clamp-type terminal Stranded Double clamp-type terminal	Box terminal			
Copper strip Number of segments x width x thickness Stranded Number of segments x width x thickness Number of segments x width x thickness x w			mm ²	35 - 150 Cu/Al
Stranded mm² 25 - 150 Cu Copper band Number of segments x width x thickness width x thickness of Stranded Double clamp-type terminal Double clamp-type term	Copper strip	segments x width x		
Stranded Copper band Number of segments x width x thickness Clamp-type terminal Stranded Double clamp-type terminal	Paytomias	UIICKNESS		
Copper band Number of segments x width x thickness Clamp-type terminal Stranded Double clamp-type terminal				0F 4F0 Cv
Segments x width x thickness Clamp-type terminal Stranded Double clamp-type terminal			mm ²	25 - 150 UU
Stranded mm ² 10 - 150 Cu/Al Double clamp-type terminal	Copper band	segments x width x	mm	6 x 16 x 0,8
Double clamp-type terminal	Clamp-type terminal			
	Stranded		mm^2	10 - 150 Cu/Al
	Double clamp-type terminal			
mm" 4/1/0 00/ 00/ 70	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	In	Α	250
Heat dissipation per pole, current-dependent	P _{vid}	W	5.3
Equipment heat dissipation, current-dependent	P _{vid}	W	16
EC/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 7.0

Low-voltage industrial components	(EGNN017) / Fuse switch	h disconnector (EC001040)
LOW VOILUGE ITTUUSTITUI COMPONENTS	(LUUUUU 17// TUSC SWILL	in disconnector (Lood 1040)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Fuse switch disconnector (pc)(@s10.01-27-37-14-01 [AKF058013])

Version as safety switch Max. rated operation voltage Ue AC 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 Rated short-time vithstand curren	(ecl@ss10.0.1-27-37-14-01 [AKF058013])		
Max. rated operation voltage Ue AC V 690 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 1 No With error protection No Screw connection Type of electrical connection of main circuit Screw connection Cable entry Other Equipped with connectors No 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	Version as main switch		No
Rated permanent current lu Rated peration power at AC-23, 400 V Conditioned rated short-circuit current Iq Rated short-time withstand current Icw Rated short-time	Version as safety switch		No
Rated operation power at AC-23, 400 V Conditioned rated short-circuit current Iq Rated short-time withstand current Icw Rated short-circuit current Iq Rated short	Max. rated operation voltage Ue AC	V	690
Conditioned rated short-circuit current Iq	Rated permanent current lu	А	250
Rated short-time withstand current lcw kA Suitable for fuses NH1 Number of poles I With error protection Type of electrical connection of main circuit Cable entry Equipped with connectors Suitable for ground mounting Suitable for front mounting 4-hole Suitable for busbar mounting Suitable for control element Position control element Motor drive optional	Rated operation power at AC-23, 400 V	kW	0
Suitable for fuses NH1 Number of poles I With error protection No Type of electrical connection of main circuit Cable entry Equipped with connectors Suitable for ground mounting Yes Suitable for front mounting 4-hole Suitable for busbar mounting Type of control element Position control element Motor drive optional NH1 I Author of the connectors No Cover grip Front side Motor drive optional	Conditioned rated short-circuit current Iq	kA	120
Number of poles With error protection No Type of electrical connection of main circuit Cable entry Equipped with connectors Suitable for ground mounting Suitable for front mounting 4-hole Suitable for busbar mounting Type of control element Position control element Motor drive optional I No Surew connection Other Other No Other No Cover grip Front side No	Rated short-time withstand current lcw	kA	6
With error protection Type of electrical connection of main circuit Cable entry Equipped with connectors Suitable for ground mounting Suitable for front mounting 4-hole Suitable for busbar mounting Type of control element Position control element Motor drive optional No Suitable for busbar mounting No No Type of control dement Motor drive optional	Suitable for fuses		NH1
Type of electrical connection of main circuit Cable entry Cquipped with connectors Suitable for ground mounting Suitable for front mounting 4-hole Suitable for busbar mounting Type of control element Position control element Motor drive optional Screw connection No Other No No Suitable for busbar mounting No No No No No No No No No N	Number of poles		1
Cable entry Equipped with connectors No Suitable for ground mounting Suitable for front mounting 4-hole Suitable for busbar mounting Type of control element Position control element Motor drive optional Other No Cover grip Front side No	With error protection		No
Equipped with connectors Suitable for ground mounting Yes Suitable for front mounting 4-hole No Suitable for busbar mounting No Type of control element Position control element Motor drive optional No No	Type of electrical connection of main circuit		Screw connection
Suitable for ground mounting Suitable for front mounting 4-hole No Suitable for busbar mounting No Type of control element Position control element Motor drive optional Yes No Cover grip Front side No	Cable entry		Other
Suitable for front mounting 4-hole Suitable for busbar mounting No Type of control element Cover grip Position control element Motor drive optional No	Equipped with connectors		No
Suitable for busbar mounting No Type of control element Cover grip Position control element Front side Motor drive optional No	Suitable for ground mounting		Yes
Type of control element Cover grip Position control element Front side Motor drive optional No	Suitable for front mounting 4-hole		No
Position control element Front side Motor drive optional No	Suitable for busbar mounting		No
Motor drive optional No	Type of control element		Cover grip
·	Position control element		Front side
Motor drive integrated No	Motor drive optional		No
	Motor drive integrated		No

Dimensions



