

NH fuse-switch 3p box terminal 35 - 150 mm²; mounting plate; electronic fuse monitoring; NH1

Powering Business Worldwide*

Part no. XNH1-FCE-A250-BT Article no. 183048

Delivery programme

Basic function			Fuse control - electronic
Number of poles			3 pole
Mounting type			DIN rails Mounting plate
Size			1
Type of connection			Box terminal
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 With electronic monitoring of fuse-links

Technical data

Electrical

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_{ν}	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	Α	250
Utilization category AC22B			
Rated operating voltage	Ue	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	DC values on request
Rated operating current	l _e	Α	DC values on request
Utilization category DC21B			
Rated operating voltage	U _e	V DC	DC values on request
Rated operating current	l _e	Α	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			

Front degree of protection (XoRF installed) Fig. 100 (Querating states) IP20 (Querating states)	Size according to DIN VDE 0636-2			1
### ### ### ### ### ### ### ### ### #	Max. permitted power loss per fuse link	P_{v}	W	23
Read op proaches (NAM installed) Ambient temperature Ambient temperature Ambient temperature Read op proaches (NAM installed) Read	Lifespan, electrical	Operations		200
Marie of the composition of t	Mechanical			
Recliency of control of the	Front degree of protection (XNH installed)			IP2XC (Contact protection)
Activation	Ambient temperature		°C	-25 - +55
About this position A Principal position degrees A	Rated operating mode			Permanent operation
Abtuiled Max. 2008 Over-oldinge castegory/pullution degree 10	Activation			Dependent manual activation
Overloting accognifyolipidition degree Incidentify controlling accognified with Directive 2002/80/EG of the European Parliament and Conceil of Incention (anceming supply) Incidentify Conceil of Incention (anceming supply) Incidentify Conceil of In	Mounting position			Vertical, horizontal
Robbs in sordance with Directive 2002년5년E of the European Furliament of Direction of incoming supply Direction of incoming s	Altitude		m	Max. 2000
Cameral or Incoming supply Amount of Incoming Supply A	Overvoltage category/pollution degree			III/3
Leckable Personal Sealable Pe	Council)			
Schelole Muterial Characteristics Monterial Characteristics Polymaride Moterial Colour Fee 2 1 20 20 20 20 20 20 20 20 20 20 20 20 20				
Material characteristrics Material Color Polymende Color Prey Prey Hallogan-free Self-scringuishing as per UL 94 Yes Voltage test Yes Self-scringuishing as per UL 94 Voltage test Till 500 Yes Voltage test Self-scringuishing as per UL 94 1400 Self-scripgishing as per UL 94 1400 Self-scripgishing as per UL 94 1400<				
Material Colour Manaballey characteristics File Polyamide (Director) Color (Director) Color (Director) Color (Director) Color (Director) Color (Director) Color (Director) Sel extinguishing as par UL 94 Sel (Director) Sel (Director) Sel (Director) Sel (Director) Sel (Director)				Yes, Standard
Colour Flammability characteristics				
Ramashility characteristics				
Malogen-free				
Vottage test Ves., sliding inspection windows Lifespan, mechanical Operations 1400 Track resistance 1600 1600 Hand deflection temperature 2 25 Terminal capacity Beht diameter MID MID Cable lug max width mm 37 Box terminal mm 30 x 10 Stranded mm 35 x 150 Cu/l Copper strip mm 35 x 150 Cu/l Stranded mm² 25 x 150 Cu Copper bend mm² 25 x 150 Cu Copper bend mm² 25 x 150 Cu Clamp-type terminal mm² 25 x 150 Cu Stranded mm² 25 x 150 Cu Clamp-type terminal mm² 25 x 100 Cu/l Stranded mm² 25 x 100 Cu/l Clamp-type terminal mm² 25 x 100 Cu/l Stranded mm² 25 x 100 Cu/l Centerious (see mm² 25 x 100 Cu/l Stranded mm² 25 x 100 Cu/l	Flammability characteristics			Self-extinguishing as per UL 94
Lifespan, mechanical Operations 1400 Track resistance 125 CTR00 Heat deflection temperature 2 125 Torminal Capacity Flange connection 4 M10 Bott dismeter 4 M10 Cable lug max width 5 M10 Flat bushar 7 M10 Box terminal 8 M10 Copper strip M10 35 - 150 Ch/MI Box terminal 8 M10 Svanded m10 25 - 150 Ch/MI Copper strip m10 25 - 150 Ch/MI Svanded m10 25 - 150 Ch/MI Copper shand m10 25 - 150 Ch/MI Svanded m10 25 - 150 Ch/MI Double clamp-type terminal m10 25 - 150 Ch/MI Stranded m10 10 - 150 Ch/MI Double clamp-type terminal m10 25 - 150 Ch/MI Stranded m10 10 - 150 Ch/MI Power soughty m10 - 150 Ch/MI	Halogen-free			Yes
Tack resistance 7c 156 (Bold Commons of Comporature) 7c 125 Terminal capacity Ball diameter 1c 1c 1c Cable lug max width 2c 1c 1c Flat busbar 2c 1c 30 x 10 Box terminal 2c 1c 1c 1c Stranded 2c 1c 1c 1c 1c Box terminal 3c 1c	Voltage test			Yes, sliding inspection windows
Heat deflection temperature 7C 125 Terminal capacity 125 125 Bott dameter MID 125 Cable lug max. width mm 37 Flat busbar mm 30 x 10 Box terminal mm2 35 - 150 Cw/Al Copper strip Number of segments x vidih x vidih x vidih x vidih x vidih x vidin x vidih x vidin x vidih x vidin x vidih x vidin x vidih x vidi	Lifespan, mechanical	Operations		1400
Flamper connection Flamper connection Flamper connection Flamp connection Mombout collabor in many connection Mombout collabor in many c	Track resistance			CTI 600
Bott dismeter	·		?C	125
Bolt diameter				
Cable lug max_width				
Flat busbar Box terminal Box terminal Box terminal Stranded Box terminal Box terminal Box terminal Sumber of segments x width x thickness Box terminal				
Box terminal Stranded Copper strip Copper strip Box terminal Stranded Copper band Copper band Copper band Stranded Copper band Stranded Clamp-type terminal Stranded Touch clamp-type terminal Stranded Stranded Clamp-type terminal Stranded Stranded				
Stranded mm² 35 - 150 Cu/Al Copper strip Number of segments width x thickness mm 10 x 16 x 0.8 Box terminal mm² 25 - 150 Cu Copper band Number of segments x width x thickness mm² 6 x 16 x 0.8 Clamp-type terminal mm² 10 - 150 Cu/Al Stranded mm² 10 - 150 Cu/Al Double clamp-type terminal mm² 2 x (70 - 95) Cu/Al Stranded mm² 2 x (70 - 95) Cu/Al Electronic fuse monitoring x 8lf-supplied Power supply Self-supplied Power consumption y A 15 Overvoltage category y A 15 Frequency range x 0 x 0 x 0 x 0 x 0 x 0 x 0 x 0 x 0 x 0			111111	30 X 10
Copper strip Copper strip Box terminal Stranded Copper band Copper band Stranded Stranded Stranded Copper band Stranded Stranded Stranded Copper band Stranded Copper band Stranded Stra			2	25 150 0./AL
Stranded mm² 5 5-150 Cu Copper band Number of segments width x width				
Stranded mm² 25 - 150 Cu Copper band Number of segments x width x thickness width x thickness width x thickness width x thickness mm 6 x 16 x 0,8 Clamp-type terminal mm² 10 - 150 Cu/Al Stranded mm² 2 x (70 - 95) Cu/Al Double clamp-type terminal stranded Stranded Stranded mm² 2 x (70 - 95) Cu/Al Electronic fuse monitoring Self-supplied Power supply Self-supplied Power consumption VA 1.5 Overvoltage category 230/400V : III 500V : II Frequency range 50 - 60 KOhm/V > 1 Input resistance V AC 400 - 500 (+/-10%) VAC 400 - 500 (+/-10%) Temperature range °C -5 - +55 1 LED green		segments x width x	mm	10 x 16 x 0,8
Number of segments x width x thickness mm 6 x 16 x 0.8				
Segments x width x thickness Clamp-type terminal Stranded Double clamp-type terminal Stranded The stranded stranded Stranded stranded Stranded stranded stranded Stranded stran	Stranded		mm ²	25 - 150 Cu
Stranded mm² 10 - 150 Cu/AI Double clamp-type terminal mm² 2 x (70 - 95) Cu/AI Stranded mm² 2 x (70 - 95) Cu/AI Electronic fuse monitoring Self-supplied Power supply VA 1.5 Power consumption VA 1.5 Overvoltage category 230/400V : III 500V : II Frequency range 50 - 60 Input resistance kOhm/V > 1 Voltage inputs V AC 400 - 500 (+/-10%) Temperature range °C -5 - +55 Operation indicator 1 LED green	Copper band	segments x width x	mm	6 x 16 x 0,8
Double clamp-type terminal Stranded mm² 2x (70 - 95) Cu/Al Electronic fuse monitoring Power supply Power consumption VA 1.5 Overvoltage category Frequency range Input resistance VA (00 - 50 - 60 Input resistance VA (00 - 500 (+/-10%) Temperature range Operation indicator Indicator Input resistance VA (10 - 95) Cu/Al Self-supplied Self-supplied VA (1.5 Sol/V-III 500V: III 500V: III	Clamp-type terminal			
Stranded mm² 2x (70 - 95) Cu/Al Electronic fuse monitoring Self-supplied Power supply Self-supplied Power consumption VA 1.5 Overvoltage category 230/400V : III 500V : II Frequency range 50 - 60 Input resistance kOhm/V > 1 Voltage inputs V AC 400 - 500 (+/-10%) Temperature range °C -5 - +55 Operation indicator 1 LED green	Stranded		mm^2	10 - 150 Cu/AI
Electronic fuse monitoring Power supply Power consumption Overvoltage category Frequency range Input resistance VA VA Self-supplied VA 1.5 230/400V : III 500V : II Frequency range Input resistance KOhm/V > 1 Voltage inputs VAC 400 - 500 (+/-10%) Temperature range Operation indicator ILED green	Double clamp-type terminal			
Electronic fuse monitoring Power supply Self-supplied Power consumption VA 1.5 Overvoltage category 230/400V : III 500V : II Frequency range 50 - 60 Input resistance kOhm/V > 1 Voltage inputs V AC 400 - 500 (+/-10%) Temperature range °C -5 - +55 Operation indicator 1 LED green	Stranded		mm ²	2x (70 - 95) Cu/Al
Power consumption VA 1.5 Overvoltage category 230/400V : III 500V : II Frequency range 50 - 60 Input resistance kOhm/V > 1 Voltage inputs V AC 400 - 500 (+/-10%) Temperature range °C -5 - +55 Operation indicator 1 LED green	Electronic fuse monitoring			
Overvoltage category 230/400V : III 500V : III 500V : II Frequency range 50 - 60 Input resistance k0hm/V > 1 Voltage inputs V AC 400 - 500 (+/-10%) Temperature range °C -5 - +55 Operation indicator 1 LED green	Power supply			Self-supplied
500V : II 50 - 60 50 - 60	Power consumption		VA	1.5
Input resistance k0hm/V > 1 Voltage inputs V AC 400 - 500 (+/-10%) Temperature range °C -5 - +55 Operation indicator 1 LED green				500V : II
Voltage inputs V AC 400 - 500 (+/-10%) Temperature range °C -5 - +55 Operation indicator 1 LED green				
Temperature range °C -5 - +55 Operation indicator 1 LED green				
Operation indicator 1 LED green				
			°C	
Failure indicator 3 LEDs (F1, F2, F3) red				
	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	Α	1
Contact sequence		L1 12 L3 11 23 11
Function diagram		

Design verification as per IEC/EN 61439

3			
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
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

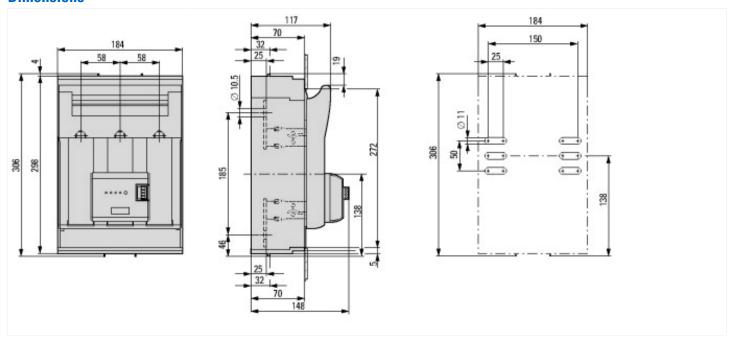
Low-voltage industrial components (EG000017) / Fuse switch disconnector (EC001040)

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

Version as safety switch		Yes
Max. rated operation voltage Ue AC	V	690
Rated permanent current lu	А	250
Rated operation power at AC-23, 400 V	kW	100
Conditioned rated short-circuit current Iq	kA	120
Rated short-time withstand current lcw	kA	10
Suitable for fuses		NH1
Number of poles		3
With error protection		Yes
Type of electrical connection of main circuit		Frame clamp
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
IL0131114ZU Fuse switch-disconnector XNH	
IL0131114ZU Fuse switch-disconnector XNH	ftp://ftp.moeller.net/DOCUMENTATION/AWA INSTRUCTIONS/IL0131114ZU2015 11.pdf