

NH fuse-switch 3p flange connection M10 max. 240 mm²; mounting plate; electronic fuse monitoring; NH2



Part no. Article no.

XNH2-FCE-A400 183061

Delivery programme

Basic function			Fuse control - electronic
Number of poles			3 pole
Mounting type			DIN rails Mounting plate
Size			2
Type of connection			Flat connection
Rated operational current	le	А	400
Front degree of protection (XNH installed)			IP20 (Operating status) IP2XC (Contact protection) IP10 (Handle cover open)
Rated operational voltage	Ue	V AC	690
Rated operational voltage	Ue	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

Rated operational voltage Vector Productional voltage Rated operational voltage Vector Vector Vector Rated operational current Vector Vector Vector Rated operational current Vector Vector Vector Rated insulation voltage Vector Vector Vector Rated operating voltage <t< th=""><th>Electrical</th><th></th><th></th><th></th></t<>	Electrical			
Rated operational voltageVector40Rated operational currentIIVectorVectorRated insulation voltageVectorVectorVectorVectorRated insulation voltageVectorVectorVectorVectorRated insulation voltageVectorVectorVectorVectorRated insulation voltageVectorVectorVectorVectorRated insulation voltageVectorVectorVectorVectorRated operating voltageVector <t< td=""><td>Standards</td><td></td><td></td><td>IEC/EN 60947-3</td></t<>	Standards			IEC/EN 60947-3
Rated operational current Note A 40 Rated frequency f Hz 40-80 Rated insulation voltage U/A VAC 30 Total hear dissipation at l _b (without fuses) Pv W 32 Rated insulation voltage Umag VAC 32 Rated operating kuthout fuses) Pv W 32 Rated operating voltage Umag VAC 40 Rated operating voltage Vac 40 40 Utilization category AC-23B VAC 40 40 Rated operating voltage Vac 50 50 Rated operating voltage Vac	Rated operational voltage	U _e	V AC	690
Rated requencyrrR0Rated insulation voltageViViC80Total heat dissipation at lu/ (without fuses)PvVi12Rated insulation voltageVimeVime12Rated insulation voltageVimeVime12Rated operating voltageVimeVime0Rated operating voltageVimeVimeVimeRated operating voltageVimeVimeVime	Rated operational voltage	U _e	V DC	440
Rated insulation voltageIqVACØTotal hast dissipation at ly (without fuses)PVVRated insubse withstand voltagePVNRated inpulse withstand voltageUmpVNRated operating voltage<	Rated operational current	I _e	А	400
Note Part Part <th< td=""><td>Rated frequency</td><td>f</td><td>Hz</td><td>40 - 60</td></th<>	Rated frequency	f	Hz	40 - 60
Head dissipation at 80% (without fuses)PvVi78Rated impulse withstand voltageVimpKVSRated impulse withstand voltageVimpVimpVimpRated operating voltageVimpVimpVimpRated ope	Rated insulation voltage	Ui	V AC	800
Rated inpulse withstand voltage Nump KP 8 Hard inpulse withstand voltage Imp Ket Imp Rated operating voltage Vac Vac Vac Rated operating voltage Imp Ket Imp Rated operating voltage Imp Vac Vac Rated operating voltage Imp Vac Imp Rated operating voltage Imp Vac Imp Rated operating voltage Imp Imp </td <td>Total heat dissipation at I_{th} (without fuses)</td> <td>Pv</td> <td>W</td> <td>28</td>	Total heat dissipation at I_{th} (without fuses)	Pv	W	28
Note of the second se	Heat dissipation at 80% (without fuses)	Pv	W	17.8
Rated operating voltage Ue VAC 400 Rated operating current L 400 Rated operating voltage Ue VAC 500 Rated operating voltage Ue VAC Calues on request Rated operating voltage Ue VAC Calues on request Rated operating voltage Ue VAC VAC VAC Rated operating voltage Ue VAC VAC VAC VAC Rated operat	Rated impulse withstand voltage	U _{imp}	kV	8
Rated operating current Image: Part of the second	Utilization category AC-23B			
Huikation category AC22B Image: Constraint of the second sec	Rated operating voltage	Ue	V AC	400
Rated operating voltage Vac 50 Rated operating current Ie A0 Utilization category AC-21B VAC 50 Rated operating voltage Ve VAC Rated operating voltage Ve 50 Rated operating voltage Ve VAC Rated operating vo	Rated operating current	le	А	400
Rated operating current Read Apple	Utilization category AC22B			
Utilization category AC-21B Ve Ve Sed Rated operating voltage Ve VC Sed Rated operating current Ve Au 400 Utilization category DC-22B Ve VC Devalues on request Rated operating voltage Ve VD Devalues on request Rated operating voltage Ve ND Devalues on request Rated operating voltage Ve Devalues on request Rated operating voltage Ve Devalues on request Rated operating voltage Ve Devalues on request Rated operating current Ve Max Store operation (Store operation (S	Rated operating voltage	Ue	V AC	500
Rated operating voltage Ue VAC 60 Rated operating current Ie Au 400 Utilization category DC-22B VE VE Ve Rated operating voltage Ve VC Cvalues on request Rated operating voltage Ie VE Ve Rated operating voltage Ve VC Cvalues on request Rated operating voltage Ve VE Ve Rated operating voltage Ve Ve <t< td=""><td>Rated operating current</td><td>le</td><td>Α</td><td>400</td></t<>	Rated operating current	le	Α	400
Rated operating current Ie A 40 Utilization category DC-22B VDC C values on request Rated operating voltage Ue VDC C values on request Rated operating current Ie A C values on request Utilization category DC-22B Ie A C values on request Rated operating current Ie A C values on request Utilization category DC21B Ie VDC C values on request Rated operating voltage Ue VDC C values on request Rated operating current Ie A D c values on request Rated operating current Ie A D c values on request Rated conditional short-circuit current Ie A D c values on request Rated short-time withstand current Ie A D could conditional short-circuit current Max. fuse Ie A D D could conditional short-circuit current	Utilization category AC-21B			
Utilization category DC-22B Ve Ve VDC Dc values on request Rated operating voltage Ie A Dc values on request Rated operating voltage Ie VE Second Parameter Second Pa	Rated operating voltage	U _e	V AC	690
Rated operating voltage Ue V DC DC values on request Rated operating current Ie A DC values on request Utilization category DC21B Ue V DC DC values on request Rated operating voltage Ue V DC DC values on request Rated operating current Ue V DC DC values on request Rated operating current Ie A DC values on request Rated conditional short-circuit current Ie A DC values on request Rated short-time withstand current Ie A DC values on request Rated short-time withstand current Ie A DC values on request	Rated operating current	l _e	Α	400
Rated operating current Ie A DC values on request Utilization category DC21B Ie VDC DC values on request Rated operating voltage Ue VDC DC values on request Rated operating current Ie A DC values on request Rated operating current Ie A DC values on request Rated short-circuit current Ie A DC values on request Rated short-time withstand current Ie A DC values on request Max. fuse Ie A DC values on request	Utilization category DC-22B			
Utilization category DC21B Image: Constraint of the second seco	Rated operating voltage	Ue	V DC	DC values on request
Rated operating voltage Ue V DC DC values on request Rated operating current Ie A DC values on request Rated conditional short-circuit current Ie A DC values on request Rated short-time withstand current Iew A DC values on request Max. fuse Iew A DC values on request	Rated operating current	l _e	Α	DC values on request
Rated operating current Ie A DC values on request Rated conditional short-circuit current Image: Condit current Image: Conditional short-circuit current </td <td>Utilization category DC21B</td> <td></td> <td></td> <td></td>	Utilization category DC21B			
Rated conditional short-circuit current kA 120 (500 V) 100 (690 V) Rated short-time withstand current Icw kA 10 Max. fuse KA 10	Rated operating voltage	U _e	V DC	DC values on request
Rated short-time withstand current Icw KA 10 Max. fuse Icw KA Icw	Rated operating current	l _e	Α	DC values on request
Max. fuse	Rated conditional short-circuit current		kA	
	Rated short-time withstand current	I _{cw}	kA	10
Size according to DIN VDE 0636-2 2	Max. fuse			
	Size according to DIN VDE 0636-2			2

Max. permitted power loss per fuse link Lifespan, electrical	Pv	W	34
	Operations		200
Mechanical	operations		200
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			111/3
RoHS (in accordance with Directive 2002/95/EC of the European Parliament and Council) $\label{eq:constant}$			Yes
Direction of incoming supply			as required
Lockable			Yes, optional
Sealable			Yes, Standard
Material characteristics			
Material Colour			Polyamide 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	48
Flat busbar		mm	40 x 10
Box terminal			
Stranded		mm ²	95 - 300 Cu/Al
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 ²	25 - 240 Cu
Copper band	Number of segments x width x thickness	mm	10 x 16 x 0,8
Clamp-type terminal			
Stranded		mm ²	120 - 240 Cu/Al
Double clamp-type terminal			
Stranded		mm ²	2x (120 - 150) Cu/Al
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		k0hm/V	>1
Voltage inputs		V AC	400 - 500 (+/-10%)
		°C	-5 - +55
Temperature range			
Operation indicator			1 LED green
			1 LED green 3 LEDs (F1, F2, F3) red

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	А	1
Contact sequence		
Function diagram		

Design verification as per IEC/EN 61439

Technical data for design verification			
Rated operational current for specified heat dissipation	l _n	А	400
Heat dissipation per pole, current-dependent	P _{vid}	W	7.3
Equipment heat dissipation, current-dependent	P _{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.
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.

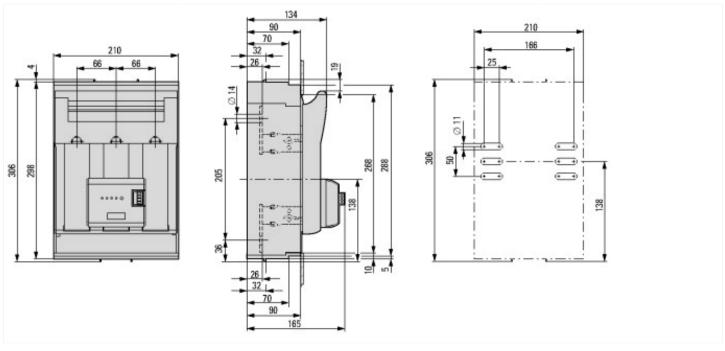
Technical data ETIM 6.0

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 lu	А	400
Rated operation power at AC-23, 400 V	kW	160
Conditioned rated short-circuit current Iq	kA	120
Rated short-time withstand current Icw	kA	10
Suitable for fuses		NH2
Number of poles		3
With error protection		Yes
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-disconne	ctor 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