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Worldwide English



Powering Business Worldwide

XNH1-FCE-A250-BT - NH fuse-switch 3p box terminal 35 - 150 mm²; mounting plate; electronic fuse monitoring; NH1



183048 XNH1-FCE-A250-BT

[Overview](#) [Specifications](#) [Resources](#)



183048 XNH1-FCE-A250-BT

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

EL-Nummer (Norway)

1624023

NH fuse switch-disconnector 3 pole with box terminal 35 - 150 mm²; mounting plate; electronic fuse monitoring; for NH1 fuse-links; smartWire ready with XNH...-SWD-KIT



- [Delivery program](#)
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- [Design verification as per IEC/EN 61439](#)
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Delivery program

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 [kA]

250 A
 Front degree of protection (XNH installed)
 IP20 (Operating status)
 IP2XC (Contact protection)
 IP10 (Handle cover open)
 Rated operational voltage [U_e]
 690 V AC
 Rated operational voltage [U_e]
 440 V DC
 Rated conditional short-circuit current
 120 (500 V)
 100 (690 V) kA
 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
 Standards
 IEC/EN 60947-3
 Rated operational voltage [U_e]
 690 V AC
 Rated operational voltage [U_e]
 440 V DC
 Rated operational current [I_e]
 250 A
 Rated frequency [f]
 40 - 60 Hz
 Rated insulation voltage [U_i]
 800 V AC
 Total heat dissipation at I_{th} (without fuses) [P_d]
 16 W
 Heat dissipation at 80% (without fuses) [P_d]
 10.2 W
 Rated impulse withstand voltage [U_{imp}]
 8 kV
 Utilization category AC-23B Rated operating voltage [U_e]
 400 V AC
 Utilization category AC-23B Rated operating current [I_e]
 250 A
 Utilization category AC22B Rated operating voltage [U_e]
 500 V AC
 Utilization category AC22B Rated operating current [I_e]
 250 A
 Utilization category AC-21B Rated operating voltage [U_e]
 690 V AC
 Utilization category AC-21B Rated operating current [I_e]
 250 A
 Utilization category DC-22B Rated operating voltage [U_e]
 250 V DC
 Utilization category DC-22B Rated operating current [I_e]
 250 A
 Utilization category DC21B Rated operating voltage [U_e]
 440 V DC
 Utilization category DC21B Rated operating current [I_e]
 250 A
 Rated conditional short-circuit current
 120 (500 V)
 100 (690 V) kA
 Rated short-time withstand current [I_{cw}]
 10 kA
 Max. fuseSize according to DIN VDE 0636-2
 1
 Max. fuseMax. permitted power loss per fuse link [P_d]
 23 W
 Lifespan, electrical [Operations]

200

Mechanical

Front degree of protection (XNH installed)

IP20 (Operating status)

IP2XC (Contact protection)

IP10 (Handle cover open)

Ambient temperature

-25 - +55 °C

Rated operating mode

Permanent operation

Activation

Dependent manual activation

Mounting position

Vertical, horizontal

Altitude

Max. 2000 m

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 characteristicsMaterial

Polyamide

Material characteristicsColour

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

125 °C

Terminal capacity

Flange connectionBolt diameter

M10

Flange connectionCable lug max. width

37 mm

Flange connectionFlat busbar

30 x 10 mm

Box terminalStranded

35 - 150 Cu/Al mm²

Box terminalCopper strip [Number of segments x width x thickness]

10 x 16 x 0,8 mm

Box terminalStranded

25 - 150 Cu mm²

Box terminalCopper band [Number of segments x width x thickness]

6 x 16 x 0,8 mm

Clamp-type terminalStranded

10 - 150 Cu/Al mm²

Double clamp-type terminalStranded

2x (70 - 95) Cu/Al mm²

Electronic fuse monitoring

Power supply

Self-supplied

Power consumption

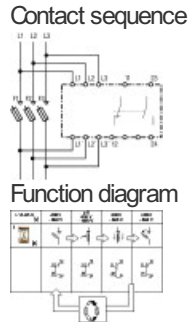
1.5 VA

Overvoltage category

230/400V : III

500V : II

Frequency range
 50 - 60
 Input resistance
 > 1 kOhm/V
 Voltage inputs
 400 - 500 (+/-10%) V AC
 Temperature range
 -5 - +55 °C
 Operation indicator
 1 LED green
 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
 Outputs Max. voltage
 250 V AC
 Outputs Max. voltage
 24 V DC
 Outputs Max. switching current
 1 A



Design verification as per IEC/EN 61439

Technical data for design verification

Rated operational current for specified heat dissipation [I_n]

250 A

Heat dissipation per pole, current-dependent [P_{id}]

5.3 W

Equipment heat dissipation, current-dependent [P_{id}]

16 W

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 Strength of materials and parts 10.2.3.1 Verification of thermal stability of enclosures

Meets the product standard's requirements.

10.2 Strength of materials and parts 10.2.3.2 Verification of resistance of insulating materials to normal heat

Meets the product standard's requirements.

10.2 Strength of materials and parts 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 Strength of materials and parts 10.2.4 Resistance to ultra-violet (UV) radiation

Meets the product standard's requirements.

10.2 Strength of materials and parts 10.2.5 Lifting

Does not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts 10.2.6 Mechanical impact

Does not apply, since the entire switchgear needs to be evaluated.

10.2 Strength of materials and parts 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 Insulation properties 10.9.3 Impulse withstand voltage

Is the panel builder's responsibility.

10.9 Insulation properties 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 (EG000017) / Fuse switch disconnecter (EC001040)

Electric engineering, automation, process control engineering / Low-voltage switch technology / Off-load switch, circuit breaker, control switch / Fuse switch disconnecter (ecl@ss10.0.1-27-37-14-01 [AKF058013])

Version as main switch

No

Version as safety switch

No

Max. rated operation voltage U_e AC

500 V

Rated permanent current I_u

250 A

Rated operation power at AC-23, 400 V

0 kW

Conditioned rated short-circuit current I_q

120 kA

Rated short-time withstand current I_{cw}

6 kA

Suitable for fuses

NH1

Number of poles

3

With error protection

Yes

Type of electrical connection of main circuit

Frame clamp

Cable entry

Other

Equipped with connectors

Yes

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
Motor drive integrated
No
Version as emergency stop installation
No
Degree of protection (IP), front side
Other

Dimensions

Product photo



[vt01616](#)
Photo
3-pole fuse switch-disconnector, box terminals

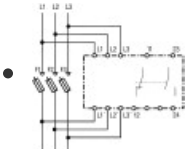


[vt04816](#)
Photo
Fuse switch-disconnectors

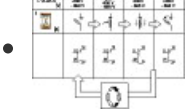


[vt06716](#)
Photo
Fuse switch-disconnectors

Wiring diagram



[NH_SL_SL_SI_1](#)
Line drawing
XNH...FCE... fuse switch-disconnectors



[NH_SLS_SI_Funkt_2](#)
Line drawing
XNH fuse switch-disconnectors

Dimensions single product

- [1230DIM-359](#)
Line drawing

Instruction Leaflet

- [IL0131110ZU](#)
Asset
(PDF, Language independent)

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