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Worldwide English



XNH1-FCE-S250-BT - NH fuse-switch 3p box terminal 35 - 150 mm²; busbar 60 mm; electronic fuse monitoring; NH1



183056 XNH1-FCE-S250-BT

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



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• [Delivery program](#)

• [Technical data](#)

• [Design verification as per IEC/EN 61439](#)

• [Technical data ETIM 7.0](#)

• [Dimensions](#)

183056 XNH1-FCE-S250-BT

NH fuse-switch 3p box terminal 35 - 150 mm²; busbar 60 mm; electronic fuse monitoring; NH1
EL-Nummer (Norway) 1624031

NH fuse switch-disconnector 3 pole with box terminal 35 - 150 mm²; busbar 60 mm; electronic fuse monitoring; for NH1 fuse-links; smartWire ready with XNH...-SWD-KIT; upper/lower cable connection can be changed in seconds.

Delivery program

Basic function
Fuse control - electronic
Number of poles
3 pole
Mounting type
Busbars of 60 mm
Size
1
Type of connection
Box terminal
Rated operational current [I_b]
250 A
Front degree of protection (XNH installed)
IP20 (Operating status)
IP2XC (Contact protection)
IP10 (Handle cover open)
Rated operational voltage [U_b]
690 V AC
Rated operational voltage [U_b]
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
Cable connection optionally at the top or bottom
With electronic monitoring of fuse-links

Technical data

Electrical

Standards

IEC/EN 60947-3

Rated operational voltage [U_b]

690 V AC

Rated operational voltage [U_b]

440 V DC

Rated operational current [I_b]

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]

22 W

Heat dissipation at 80% (without fuses) [P_d]

14.1 W

Rated impulse withstand voltage [U_{imp}]

8 kV

Utilization category AC-23B Rated operating voltage [U_b]

400 V AC

Utilization category AC-23B Rated operating current [I_b]

250 A

Utilization category AC-22B Rated operating voltage [U_b]

500 V AC

Utilization category AC-22B Rated operating current [I_b]

250 A

Utilization category AC-21B Rated operating voltage [U_b]

690 V AC

Utilization category AC-21B Rated operating current [I_b]

250 A

Utilization category DC-22B Rated operating voltage [U_b]

250 V DC

Utilization category DC-22B Rated operating current [I_b]

250 A

Utilization category DC-21B Rated operating voltage [U_b]

440 V DC

Utilization category DC-21B Rated operating current [I_b]

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

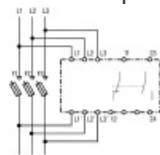
-25 - +55 °C

Rated operating mode

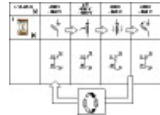
Permanent operation

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 (FLEX System)
 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
 Contact sequence



Function diagram



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_{vid}]
 7.3 W
 Equipment heat dissipation, current-dependent [P_{vid}]
 22 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

No

Suitable for front mounting 4-hole

No

Suitable for busbar mounting

Yes

Type of control element

Cover grip

Position control element

Front side

Motor drive optional

No

Motor drive integrated

No

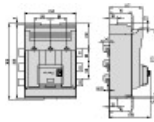
Version as emergency stop installation

No

Degree of protection (IP), front side

Other

Dimensions



Product photo

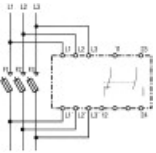


vt02316
Photo
3-pole fuse switch-disconnector, box terminals

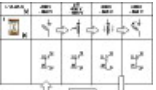
vt05516
Photo
Fuse switch-disconnectors

vt06816
Photo
Fuse switch-disconnectors

Wiring diagram

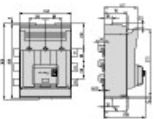


NH_SLSL_SI_1
Line drawing
XNH...FCE... fuse switch-disconnectors



NH_SLS_SI_Funkt_2
Line drawing
XNH fuse switch-disconnectors

Dimensions single product



1230DIM-370
Line drawing

Instruction Leaflet

IL0131112ZU
Asset
(PDF, Language independent)

Download-Center

- Download-Center (this item)
Eaton EMEA Download-Center - download data for this item
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