

Specifications



Eaton 183078

Eaton xEffect - XNH circuit protection. NH fuse-switch 3p box terminal 95 - 300 mm², busbar 60 mm, NH3

General specifications

PRODUCT NAME	Eaton xEffect XNH device for busbar system
CATALOG NUMBER	183078
MODEL CODE	XNH3-S630-BT
EAN	4015081780051
PRODUCT LENGTH/DEPTH	306 mm
PRODUCT HEIGHT	168 mm
PRODUCT WIDTH	250 mm
PRODUCT WEIGHT	4.474 kg
COMPLIANCES	RoHS conform
CERTIFICATIONS	IEC/EN 60947-3

Additional information

FEATURES	Standard sealable Halogen free
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FLAMMABILITY CHARACTERISTICS (UL)	Self-extinguishing (UL 94)
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SPECIAL FEATURES	• Permanent operation (rated operating mode) • Current paths of electrolytic copper, silver-plated • Cable connection optionally at the top or bottom
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SUITABLE FOR	Busbar mounting Front mounting
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Delivery programme

ACTUATOR TYPE	Cover grip
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COLOR	Gray
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NUMBER OF POLES	Three-pole
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TYPE	Basic device
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Design verification to IEC/EN 61439

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.
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 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. 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	Does not apply, since the

Design verification to IEC/EN 61439 - technical data

AMBIENT OPERATING TEMPERATURE DETAILS	Ambient temperature range: -25 °C - 70 °C
EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT	22 W
HEAT DEFLECTION TEMPERATURE	125 °C
HEAT DISSIPATION AT 80% WITHOUT FUSES	54.8 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT	7.3 W
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	630 A
TOTAL HEAT DISSIPATION WITHOUT FUSES AT ITH	86 W

AGAINST ELECTRIC SHOCK	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.
10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH	$U_i = 800 \text{ V AC}$
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.

Technical data - electrical

CREEPAGE RESISTANCE	CTI 600
DIRECTION OF INCOMING SUPPLY	As required (FLEX System)
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Frame clamp
FREQUENCY RATING	40 Hz - 60 Hz
FREQUENCY RATING OF CONTACTS	40 Hz - 60 Hz
LIFESPAN, ELECTRICAL	200 operations
OPERATING ALTITUDE WITHOUT DERATING - MAX	2000 mm
OVERVOLTAGE CATEGORY	III
PERMITTED POWER LOSS PER FUSE LINK - MAX	48 W
POLLUTION DEGREE	3
POWER RATING AT AC-23, 400 V	0 kW
RATED CONDITIONAL SHORT-CIRCUIT RATING	100 kA (690 V) 120 kA (500 V)
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	8 kV
RATED INSULATION VOLTAGE (UI)	800 VAC
RATED OPERATING VOLTAGE (UE) AT AC - MAX	690 V
RATED OPERATION CURRENT (IE)	630 A
RATED OPERATIONAL CURRENT	630 A (DC-22B) 630 A (AC-21B) 630 A (AC-22B) 630 A (DC-21B) 630 A (AC-23B)
RATED SHORT-TIME WITHSTAND CURRENT (ICW)	3 kA
RATED UNINTERRUPTED CURRENT (IU)	630 A
VOLTAGE RATING AT AC	• 400 V (AC-23B) • 500 V (AC-22B) • 690 V (AC-21B)
VOLTAGE RATING AT DC	• 440 V (DC-22B)

Technical data - mechanical

ACTIVATION TYPE	Dependent manual activation
ACTUATOR POSITION	Front side
CABLE ENTRY TYPE	Other
DEGREE OF PROTECTION (FRONT SIDE)	Other
LIFESPAN, MECHANICAL	800 operations
LOCKING FACILITY	Yes, optional
MATERIAL	Polyamide
MOUNTING METHOD	Busbars of 60 mm
MOUNTING POSITION	Vertical or horizontal
SIZE	NH3
SUITABLE FOR FUSES	NH3
TERMINAL CAPACITY (COPPER BAND)	21 mm x 1 mm (11x) at box terminal
TERMINAL CAPACITY (COPPER BUSBAR)	Bolt diameter at flange connection: M10 Max. 56 mm cable lug width at flange connection 50 mm x 10 mm
TERMINAL CAPACITY (COPPER STRIP)	16 mm x 0.8 mm (6x) - 32 mm x 1 mm (10x) at box terminal
TERMINAL CAPACITY (STRANDED CABLE)	On demand 120 mm ² - 300 mm ² at clamp-type terminal 95 mm ² - 300 mm ² (1x) at box terminal 120 mm ² - 240 mm ² (2x) at double clamp-type terminal
CONNECTION TYPE	Box terminal
DEGREE OF PROTECTION	IP20 (operating status, XNH installed) IP10 (handle cover open, XNH installed) IP2XC (contact protection, XNH installed)

- 250 V (DC-21B)

VOLTAGE TEST	Yes, sliding inspection windows
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CONDITIONED RATED SHORT-CIRCUIT CURRENT IQ	120 kA
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RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ)	120 kA
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Resources

BROCHURES	eaton-xeffect-xnh-fuse-switch-disconnector-brochure-br019002en-en-us.pdf
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CATALOGUES	eaton-panel-building-accessories-catalog-ca008008en-en-us.pdf
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CERTIFICATION REPORTS	eaton-xeffect-xnh-fuse-switch-disconnector-declaration-of-conformity-en-us.pdf
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DECLARATIONS OF CONFORMITY	eaton-xnh-device-for-mounting-plate-declaration-of-conformity-eu250264en.pdf
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DRAWINGS	eaton-circuit-breaker-xeffect-xeffect-xnh-circuit-protection-dimensions-014.eps
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ECAD MODEL	ETN.XNH3-S630-BT.edz
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INSTALLATION INSTRUCTIONS	eaton-xeffect-xnh-fuse-switch-disconnector-installation-leaflet-il0131112z.pdf
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MCAD MODEL	eaton-XNH3-S630-3d-model.stp eaton-fuse-switch-disconnectors-mcad-drawings-xnh3-s630.dwg
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PROJECT NAME:
PROJECT NUMBER:
PREPARED BY:
DATE:



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