Specifications



Photo is representative





Eaton 183051

Eaton xEffect - XNH circuit protection. NH fuse-switch 3p flange connection M10 max. 150 mm², busbar 60 mm, NH1

General specifications	
PRODUCT NAME	Eaton xEffect XNH device for busbar system
CATALOG NUMBER	183051
MODEL CODE	XNH1-S250
EAN	4015081779789
PRODUCT LENGTH/DEPTH	142 mm
PRODUCT HEIGHT	306 mm
PRODUCT WIDTH	184 mm
PRODUCT WEIGHT	2.109 kg
COMPLIANCES	RoHS conform
CERTIFICATIONS	IEC/EN 60947-3

Additional information

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

Delivery program

ACTUATOR TYPE	Cover grip
COLOR	Gray
NUMBER OF POLES	Three-pole
TYPE	Basic device

Design verification as per 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 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.

Design verification as per 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	14.1 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT	7.3 W
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	250 A
TOTAL HEAT DISSIPATION WITHOUT FUSES AT ITH	22 W

10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH	Ui = 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.

Technical data - electrical

CREEPAGE RESISTANCE	CTI 600
DIRECTION OF INCOMING SUPPLY	As required (FLEX System)
ELECTRICAL CONNECTION TYPE OF MAIN CIRCUIT	Screw connection
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	23 W
POLLUTION DEGREE	3
POWER RATING AT AC-23, 400 V	0 kW
RATED CONDITIONAL SHORT-CIRCUIT RATING	120 kA (500 V) 100 kA (690 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)	250 A
RATED OPERATIONAL CURRENT	250 A (AC-21B) 250 A (AC-22B) 250 A (DC-21B) 250 A (AC-23B) 250 A (DC-22B)
RATED SHORT-TIME WITHSTAND CURRENT (ICW)	6 kA
RATED UNINTERRUPTED CURRENT (IU)	250 A
VOLTAGE RATING AT AC	• 400 V (AC-23B) • 500 V (AC-22B) • 690 V (AC-21B)
VOLTAGE RATING AT DC	• 250 V (DC-22B) • 440 V (DC-21B)
VOLTAGE TEST	Yes, sliding inspection windows
CONDITIONED RATED SHORT-CIRCUIT CURRENT IQ	120 kA
RATED CONDITIONAL	120 kA

Technical data - mechanical

ACTIVATION TYPE	Dependent manual activation
ACTUATOR POSITION	Front side
CABLE ENTRY TYPE	Other
DEGREE OF PROTECTION (FRONT SIDE)	Other
LIFESPAN, MECHANICAL	1400 operations
LOCKING FACILITY	Yes, optional
MATERIAL	Polyamide
MOUNTING METHOD	Busbars of 60 mm
MOUNTING POSITION	Vertical or horizontal
SIZE	NH1 fuse
SUITABLE FOR FUSES	NH1
TERMINAL CAPACITY (COPPER BAND)	6 mm x 16 mm x 0.8 mm (6x) at box terminal
TERMINAL CAPACITY (COPPER BUSBAR)	30 mm x 10 mm Bolt diameter at flange connection: M10 Max. 37 mm cable lug width at flange connection
TERMINAL CAPACITY (COPPER STRIP)	16 mm x 0.8 mm (10x) at box terminal
TERMINAL CAPACITY (STRANDED CABLE)	25 mm² - 150 mm² at box terminal 35 mm² - 150 mm² at box terminal 70 mm² - 95 mm² (2x) at double clamp-type terminal 10 mm² -150 mm² at clamp-type terminal
CONNECTION TYPE	Flat connection
DEGREE OF PROTECTION	IP20 (operating status, XNH installed) IP10 (handle cover open, XNH installed) IP2XC (contact protection, XNH installed)

SHORT-CIRCUIT CURRENT (IQ)	

Resources

BROCHURES	eaton-xeffect-xnh-fuse-switch-disconnector-brochure-br019002en-en-us.pdf
CATALOGUES	eaton-panel-building-accessories-catalog-ca008008en-en-us.pdf
CERTIFICATION REPORTS	eaton-xeffect-xnh-fuse-switch-disconnector-declaration-of-conformity-en-us.pdf
DECLARATIONS OF CONFORMITY	eaton-fuse-switch-disconnectors-declaration-eu260110en.pdf
DRAWINGS	eaton-circuit-breaker-xeffect-xeffect-xnh-circuit-protection-dimensions-012.eps
ECAD MODEL	ETN.XNH1-S250.edz
INSTALLATION INSTRUCTIONS	eaton-xeffect-xnh-fuse-switch-disconnector-installation-leaflet-il0131112z.pdf
MCAD MODEL	eaton-XNH1-S250-3d-model.stp

PROJECT NAME:	
PROJECT NUMBER:	
PREPARED BY:	
DATE:	

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