

**NH fuse-switch 3p flange connection M8 max. 95 mm²; busbar 60 mm;
electronic fuse monitoring; NH000 & NH00**

Part no. XNH00-FCE-S160

183039

**EL Number
(Norway)**

1624014

General specifications

Product name	Eaton xEffect XNH device for busbar system
Part no.	XNH00-FCE-S160
EAN	4015081779666
Product Length/Depth	204 millimetre
Product height	161 millimetre
Product width	106 millimetre
Product weight	0.907 kilogram
Compliances	RoHS conform
Certifications	IEC/EN 60947-3
Product Tradename	xEffect
Product Type	XNH device for busbar system
Product Sub Type	None

Delivery program

Type	Fuse control - electronic
Color	Gray
Number of poles	Three-pole
Actuator type	Cover grip

Technical Data - Electrical

Voltage test	Yes, sliding inspection windows
Voltage inputs	400 V AC - 500 V AC (+/-10%)
Voltage rating at AC	400 V (AC-23B) 500 V (AC-22B) 690 V (AC-21B)
Voltage rating at AC - max	250 V AC
Voltage rating at DC	250 V DC at DC-22B 440 V DC at DC-21B
Voltage rating at DC - max	24 V DC
Rated operating voltage (Ue) at AC - max	500 V
Rated insulation voltage (Ui)	800 V AC
Rated impulse withstand voltage (Uimp)	8 kV
Rated uninterrupted current (Iu)	160 A
Rated conditional short-circuit current (Iq)	120 kA
Rated operation current (Ie)	160 A
Rated operational current	160 A 160 A (AC-23B) 160 A (AC-22B) 160 A (AC-21B)
Switching current of electronic fuse monitoring - max	1 A
Rated short-time withstand current (Icw)	7 kA
Rated conditional short-circuit rating	100 kA (690 V) 120 kA (500 V)
Conditioned rated short-circuit current Iq	120 kA
Frequency rating	40 Hz - 60 Hz
Frequency rating of contacts	40 Hz - 60 Hz
Frequency rating (electronic fuse monitoring)	50 - 60 Hz
Creepage resistance	CTI 600
Power rating at AC-23, 400 V	0 kW
Rated operation power at AC-23, 400 V	0 kW
Permitted power loss per fuse link - max	12 W

Electronic fuse monitoring			1.5 VA 1 NC > 1 kOhm/V NH with live handle straps Self-supplied Test button for relay + LEDs 1 LED green 3 LEDs (F1, F2, F3) red 1 NO
Electrical connection type of main circuit			Screw connection
Operating altitude without derating - max			2000 mm
Overvoltage category			II (500 V) III III (230/400 V)
Pollution degree			3
Direction of incoming supply			As required (FLEX System)
Lifespan, electrical			300 operations
Technical Data - Mechanical			
Activation type			Dependent manual activation
Actuator position			Front side
Size			NH000 / NH00 fuse
Mounting method			Busbars of 60 mm
Mounting position			Vertical or horizontal
Material			Polyamide
Degree of protection			IP3X IP20 (operating status, XNH installed) IP2XC (contact protection, XNH installed) IP10 (handle cover open, XNH installed)
Degree of protection (front side)			Other
Connection type			Flat connection
Terminal capacity (copper band)			9 mm x 0.8 mm (6x) at box terminal
Terminal capacity (copper busbar)			20 mm x 10 mm Max. 25 mm cable lug width at flange connection Bolt diameter at flange connection: M8
Terminal capacity (copper strip)			9 mm x 0.8 mm (9x) at box terminal
Terminal capacity (stranded cable)			1.5 mm ² - 50 mm ² at box terminal 1.5 mm ² - 95 mm ² at box terminal 10 mm ² - 70 mm ² at clamp-type terminal
Cable entry type			Other
Locking facility			Yes, optional
Suitable for fuses			NH00
Lifespan, mechanical			1400 operations
Design verification as per IEC/EN 61439 - technical data			
Rated operational current for specified heat dissipation (In)			160 A
Equipment heat dissipation, current-dependent			14 W
Heat dissipation per pole, current-dependent			4.7 W
Heat dissipation at 80% without fuses			9 W
Ambient operating temperature details			Ambient temperature range: -25 °C - 55 °C Operating temperature range: -5 °C - 55 °C
Heat deflection temperature			125 °C
Design verification as per IEC/EN 61439			
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.
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.
Additional information		
Features		Electronic fuse monitoring and EMC (Electromagnetic compatibility) as of IEC 61000-4-4 Standard sealable Halogen free Electronic fuse monitoring and EMC (Electromagnetic compatibility) as of IEC 61000-4-5
Fitted with:		Connectors Error protection
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 With electronic monitoring of fuse-links
Suitable for		Busbar mounting

Technical data ETIM 9.0

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 (ecI@ss13-27-37-14-01 [AKF058018])

Version as main switch		No
Version as safety switch		No
Max. rated operation voltage U _e AC	V	500
Rated permanent current I _u	A	160
Rated operation power at AC-23, 400 V	kW	0
Conditioned rated short-circuit current I _q	kA	120
Rated short-time withstand current I _{cw}	kA	7
Suitable for fuses		NH00
Number of poles		3
With error protection		Yes
Type of electrical connection of main circuit		Screw connection
Cable entry		Other
Equipped with connectors		Yes
Suitable for floor mounting		No
Suitable for front mounting		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