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With 2015 sales \$20.9 billion, Eaton has approximately 97.000 employees around the world and sells products in more than 175 countries.

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# Eaton XNH fuse-switch disconnectors - Smart, compact, safe, ingenious!

## **Smart** and communicative



- The communication module can simply be snapped onto the cable area cover included in the scope of delivery of the XNH switchgear
- The electronic fuse control at the switchgear provides the maintenance staff with information on the operating and fuse status
- Thanks to SmartWire-DT it is possible to continuously document and monitor the fuse status, the switch position and the power values
- Possibility to transmit the data to all commonly used industrial field busses via gateways
- A lateral cable duct included in the scope of delivery holds the control lines in place



For more information, please visit www.eaton.eu/swd



XNH<sub>00</sub>



XNH<sub>1</sub>



XNH2



XNH3

## **Compact** and truly lean







- Reduced installation depth: Solution without adapter, direct contacting of the busbars
- Available in 1- and 3-pole standard versions, can be combined with 2- and 4-pole versions
- Compatible with mounting plate, DIN rail and SASY 60i busbar system
- Busbar supports for flat copper for all XNH sizes, can be overbuilt
- Switchboard covers can be removed while the switch cover is closed

# Safety thanks to reliable testing

Design verification of Eaton switchgear and control gear assemblies according to EN 61439 provides safety and peace of mind



- Integrated into Eaton switchgear assemblies acc. to EN 61439 by testing, therefore they can carry the maximum nominal current instead of only 80% as otherwise usual
- Provide a lot more safety functions than required by the EN 60947-3 standard
- FCL switchgear with integrated LED flashing function when the fuse has tripped
- Short current paths, little power loss

# Personal safety

Protection against unauthorized actions, for example





- XNH switch covers are locked by a padlock or a special bolt to prevent unauthorized individuals and laymen from getting access
- High degree of protection IP2XC in the operating status
- Safe switching thanks to integrated hand protection at the left/right + top of the switch cover
- Power theft protection: Inspection glass with lock, so it cannot be removed
- Park position for XNH switch cover during maintenance and service work

## Quick and easy installation



XNH00 with new box terminal to 95 mm<sup>2</sup>

- Bending of copper in the switchboard is no longer necessary thanks to different options of front plate supports at the switchgear
- Fast cable connection thanks to different connection options at the switchgear
- SASY60i FLEX: Easy inversing of output top/bottom with just a few touches, reduced inventory require-
- Mixing of XNH and D-fuse elements on a 60 mm busbar system is possible
- Connection area is closed by covers provided for top & bottom
- FCE or FCL fuse control and SmartWire-DT® are easy to retrofit at any time
- Very plain pre-cut blanks for switchboard covers with XNH sizes 00, 1, 2 and 3

# All advantages at a glance

### 1. Advantages for system operators / object owners

- + Shorter downtimes thanks to LED flashing function when a fuse has tripped
- + Increased safety for maintenance personnel and laymen
- + Thanks to SmartWire-DT it is possible to continuously document and monitor fuse status, switch position and current values

## 2. Advantages for installers

- + Maximum safety during switching processes, fuse replacements, maintenance jobs and expansion
- + Fast cable connection thanks to different connection options at the device
- + Easy expansion of device functions thanks to comprehensive accessories

#### 3. Advantages for panel builders

- + Smart system architecture in the switchboard because there is no more need to bend copper
- + Full rated current thanks to design verification by testing in Eaton switchgear and control gear assemblies according to EN 61439
- + Perfect appearance thanks to a single-source solution
- + Completely integrated into Eaton software tools
- + Fast installation and wiring

# System overview

## Basic devices without flashing function, series XNH-...









## Devices with LED flashing function, series XNH-...-FCL









## Devices with electronic fuse control, series XNH-...-FCE









# SmartWire-DT option



## Fuse Switch Disconnectors XNH...

## Fuse Switch Disconnectors XNH...

- Degree of protection IP2XC in operating mode
- According to IEC/EN 60947-3
- AC 690 V / DC 440 V
- Conditional rated short-circuit current 120kA (500V) and 100kA (690V)
- Reaction to fire according to UL 94, self-extinguishing
- Current paths of electrolytic copper, silver-plated
- For fixing on mounting plates and DIN rails
- Fuse Control Light with optical signalling of triggered fuse-links
- Fuse Control FCE with electronic monitoring of fuse-links



### Size Type of connection

 $I_e$  (A) Type designation

Article No.

(pcs.)

## Basic

### 3-pole for mounting plate



00	Flat connection M8 max. 95 mm <sup>2</sup>	160	XNH00-A160	183025	1	
	Box terminal 1.5 - 95 mm <sup>2</sup>	160	XNH00-A160-BT	183026	1	
1	Flat connection M10 max. 150 mm <sup>2</sup>	250	XNH1-A250	183043	1	
	Box terminal 35 - 150 mm <sup>2</sup>	250	XNH1-A250-BT	183044	1	
2	Flat connection M10 max. 240 mm <sup>2</sup>	400	XNH2-A400	183057	1	
	Box terminal 95 - 300 mm <sup>2</sup>	400	XNH2-A400-BT	183058	1	
3	Flat connection M10 max. 300 mm <sup>2</sup>	630	XNH3-A630	183071	1	
	Box terminal 95 - 300 mm <sup>2</sup>	630	XNH3-A630-BT	183072	1	

## Fuse Control Light 3-pole for mounting plate



00	Flat connection M8 max. 95 mm <sup>2</sup>	160	XNH00-FCL-A160	183027	1
	Box terminal 1.5 - 95 mm <sup>2</sup>	160	XNH00-FCL-A160-BT	183028	1
1	Flat connection M10 max. 150 mm <sup>2</sup>	250	XNH1-FCL-A250	183045	1
	Box terminal 35 - 150 mm <sup>2</sup>	250	XNH1-FCL-A250-BT	183046	1
2	Flat connection M10 max. 240 mm <sup>2</sup>	400	XNH2-FCL-A400	183059	1
	Box terminal 95 - 300 mm <sup>2</sup>	400	XNH2-FCL-A400-BT	183060	1
3	Flat connection M10 max. 300 mm <sup>2</sup>	630	XNH3-FCL-A630	183073	1
	Box terminal 95 - 300 mm <sup>2</sup>	630	XNH3-FCL-A630-BT	183074	1
	DOX torrilliar 55 000 mm	000	ANTIO TOL AGGO DI	10007	'

## Fuse Control FCE 3-pole for mounting plate



00	Flat connection M8 max. 95 mm <sup>2</sup>	160	XNH00-FCE-A160	183029	1	
	Box terminal 1.5 - 95 mm <sup>2</sup>	160	XNH00-FCE-A160-BT	183030	1	
1	Flat connection M10 max. 150 mm <sup>2</sup>	250	XNH1-FCE-A250	183047	1	
	Box terminal 35 - 150 mm <sup>2</sup>	250	XNH1-FCE-A250-BT	183048	1	
2	Flat connection M10 max. 240 mm <sup>2</sup>	400	XNH2-FCE-A400	183061	1	
	Box terminal 95 - 300 mm <sup>2</sup>	400	XNH2-FCE-A400-BT	183062	1	
3	Flat connection M10 max. 300 mm <sup>2</sup>	630	XNH3-FCE-A630	183075	1	
	Box terminal 95 - 300 mm <sup>2</sup>	630	XNH3-FCE-A630-BT	183076	1	

### 1-pole for mounting plate

00	Flat connection M8 max. 95 mm <sup>2</sup>	160	XNH00-1-A160	183031	1	
	Box terminal 1.5 - 95 mm <sup>2</sup>	160	XNH00-1-A160-BT	183032	1	
1	Flat connection M10 max. 150 mm <sup>2</sup>	250	XNH1-1-A250	183049	1	
	Box terminal 35 - 150 mm <sup>2</sup>	250	XNH1-1-A250-BT	183050	1	
3	Flat connection M10 max. 300 mm <sup>2</sup>	400/630	XNH32-1-A630	183063	1	
	Box terminal 95 - 300 mm <sup>2</sup>	400/630	XNH32-1-A630-BT	183064	1	

## Fuse Switch Disconnectors XNH...

## Fuse Switch Disconnectors XNH...

- Degree of protection IP2XC in operating mode
- According to IEC/EN 60947-3
- AC 690 V / DC 440 V
- Conditional rated short-circuit current 120kA (500V) and 100kA (690V)
- Reaction to fire according to UL 94, self-extinguishing
- Current paths of electrolytic copper, silver-plated
- For fixing on busbars of 60mm (SASY 60i)
- Cable connection optionally at the top or bottom
- Fuse Control Light with optical signalling of triggered fuse-links
- Fuse Control FCE with electronic monitoring of fuse-links



## ze Type of connection

 $I_e$  (A) Type designation

Article No.

(pcs.)

## Basic 3-pole for SASY 60i



00	Flat connection M8 max. 95 mm <sup>2</sup>	160	XNH00-S160	183033	1	
	Box terminal 1.5 - 95 mm <sup>2</sup>	160	XNH00-S160-BT1	183034	1	
	Box terminal 1.5 - 95 mm <sup>2</sup>	160	XNH00-S160-BT2	183035	1	
1	Flat connection M10 max. 150 mm <sup>2</sup>	250	XNH1-S250	183051	1	
	Box terminal 35 - 150 mm <sup>2</sup>	250	XNH1-S250-BT	183052	1	
2	Flat connection M10 max. 240 mm <sup>2</sup>	400	XNH2-S400	183065	1	
	Box terminal 95 - 300 mm <sup>2</sup>	400	XNH2-S400-BT	183066	1	
3	Flat connection M10 max. 300 mm <sup>2</sup>	630	XNH3-S630	183077	1	
	Rox terminal 95 - 300 mm <sup>2</sup>	630	XNH3-S630-BT	183078	1	

## Fuse Control Light 3-pole for SASY 60i



00	Flat connection M8 max. 95 mm <sup>2</sup>	160	XNH00-FCL-S160	183036	1	
	Box terminal 1.5 - 95 mm <sup>2</sup>	160	XNH00-FCL-S160-BT1	183037	1	
	Box terminal 1.5 - 95 mm <sup>2</sup>	160	XNH00-FCL-S160-BT2	183038	1	
1	Flat connection M10 max. 150 mm <sup>2</sup>	250	XNH1-FCL-S250	183053	1	
	Box terminal 35 - 150 mm <sup>2</sup>	250	XNH1-FCL-S250-BT	183054	1	
2	Flat connection M10 max. 240 mm <sup>2</sup>	400	XNH2-FCL-S400	183067	1	
	Box terminal 95 - 300 mm <sup>2</sup>	400	XNH2-FCL-S400-BT	183068	1	
3	Flat connection M10 max. 300 mm <sup>2</sup>	630	XNH3-FCL-S630	183079	1	
	Box terminal 95 - 300 mm <sup>2</sup>	630	XNH3-FCL-S630-BT	183080	1	

# Fuse Control FCE 3-pole for SASY 60i



00	Flat connection M8 max. 95 mm <sup>2</sup>	160	XNH00-FCE-S160	183039	1
	Box terminal 1.5 - 95 mm <sup>2</sup>	160	XNH00-FCE-S160-BT1	183040	1
	Box terminal 1.5 - 95 mm <sup>2</sup>	160	XNH00-FCE-S160-BT2	183041	1
1	Flat connection M10 max. 150 mm <sup>2</sup>	250	XNH1-FCE-S250	183055	1
	Box terminal 35 - 150 mm <sup>2</sup>	250	XNH1-FCE-S250-BT	183056	1
2	Flat connection M10 max. 240 mm <sup>2</sup>	400	XNH2-FCE-S400	183069	1
	Box terminal 95 - 300 mm <sup>2</sup>	400	XNH2-FCE-S400-BT	183070	1
3	Flat connection M10 max. 300 mm <sup>2</sup>	630	XNH3-FCE-S630	183081	1
	Box terminal 95 - 300 mm <sup>2</sup>	630	XNH3-FCE-S630-BT	183082	1

## 1-pole for SASY 60i

00	Flat connection M8 max. 95 mm <sup>2</sup>	160	XNH00-1-S160	183042	1

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