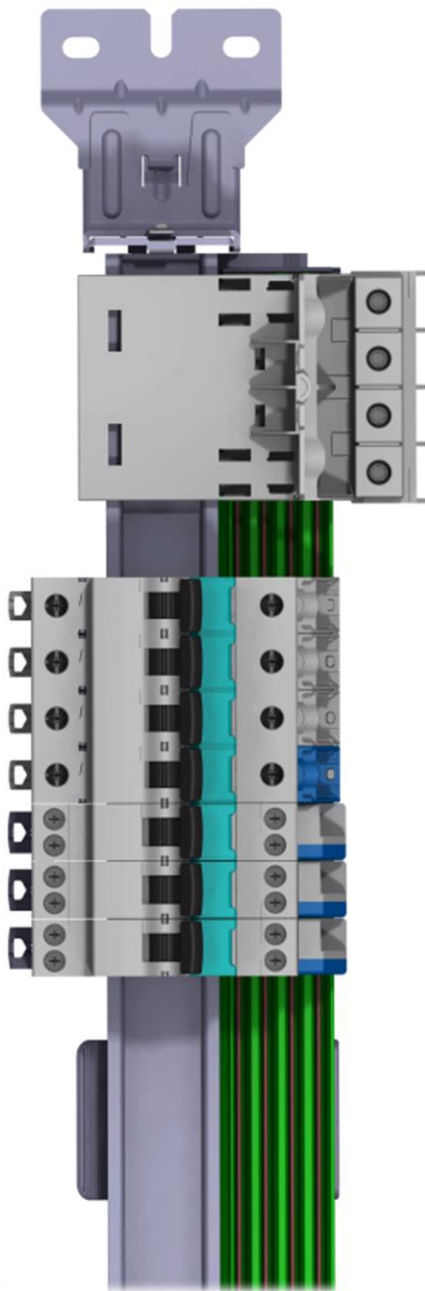


## Distribution busbar HX<sup>3</sup> plug 80/100A

Cat. N° :405232/33/34/35/36/37/46/47/48/49/55

CONTENTS	Pages
1. Description .....	1
2. Range .....	1
3. Overall dimensions .....	2
4. Preparation - Connection .....	5
5. General Characteristics .....	10
6. Compliance and approvals.....	11



### 1. DESCRIPTION

#### 1. DESCRIPTION - USE

Plug-in horizontal distribution system: used for 3-phase distribution without wiring of modular devices up to 100A on a single row. Automatic connection and disconnection of equipment totally safely, even when the distribution busbar is powered-up, thanks to the IP XXB insulation and the integral connection modules in the devices. Total freedom to install and combine devices: 1P+N, 2P, 3P, 4P, add-on modules, auxiliaries, control devices, etc. Selection of the phase to be connected by selecting the connection module.

### 2. RANGE

#### Automatic distribution blocks :

Cat. no **405232**: 56 modulesCat. no **405233**: 100 modules

#### Connection modules :

. Used for automatic connection and disconnection of modular devices on the horizontal distribution busbar.

Cat. n° **405247**: set of 10 connection modules L1Cat. n° **405248**: set of 10 connection modules L2Cat. n° **405249**: set of 10 connection modules L3Cat. n° **405246**: set of 10 connection modules N

for devices 1 module per pole.

Cat. n° **405235**: set of 3 connection modules L1N, L2N, L3N for devices 1P+N in 1 module screws.

#### Power supply module :

Cat. n° **405234** : used to supply the distribution busbar

#### Rail aluminium 2mt :

Cat. n° **405236**

#### Fixing bars:

Cat. n° **405237** :

#### Protection IP40 :

Cat. n° **405255**

#### Rated Voltages and Frequency:

. 230 V ~ / 400 V~ - 50 / 60 Hz with standard tolerances.

#### Rated Currents:

. Max.100 A (with the power supply module).

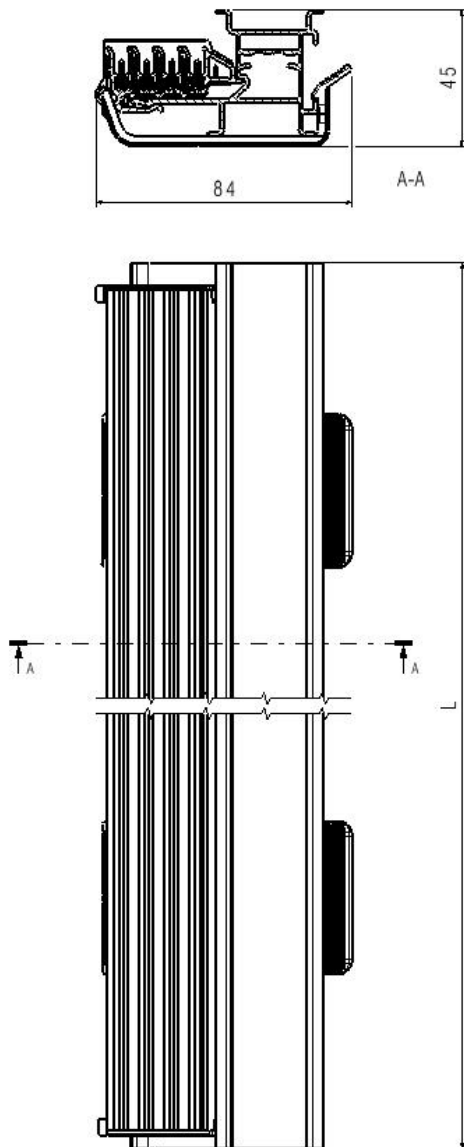
. Max.80 A (without the power supply module).

# Distribution busbar HX<sup>3</sup> plug 80/100A

Cat. N° :405232/33/34/35/36/37/46/47/48/49/55

## 3. OVERALL DIMENSIONS

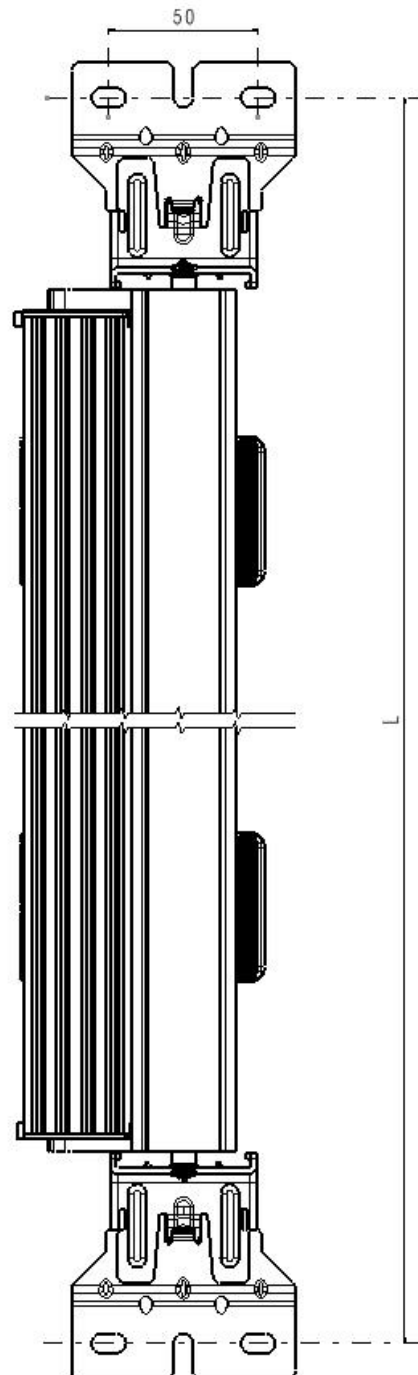
. Distribution busbar ( cat. n° 405232/33 ):



Modules	L (mm)
56	1015
100	1815

## 3. OVERALL DIMENSIONS (continued)

. Distribution busbar with fixing bars ( cat. n° 405237 ):



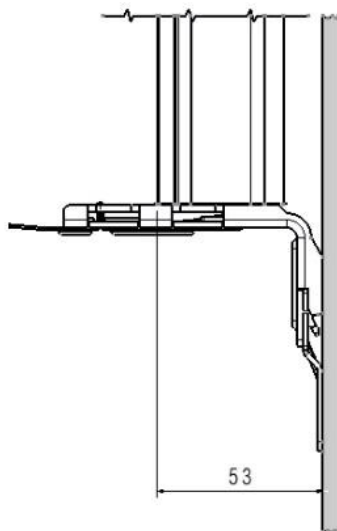
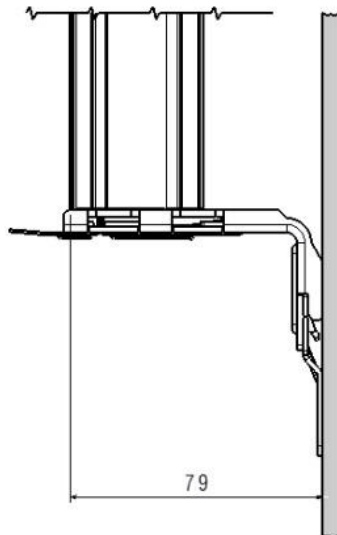
Modules	L ( mm )
56	1145
100	1945

# Distribution busbar HX<sup>3</sup> plug 80/100A

Cat. N° : 405232/33/34/35/36/37/46/47/48/49/55

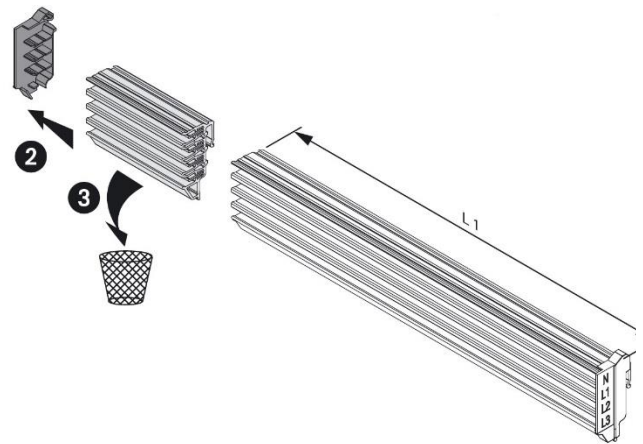
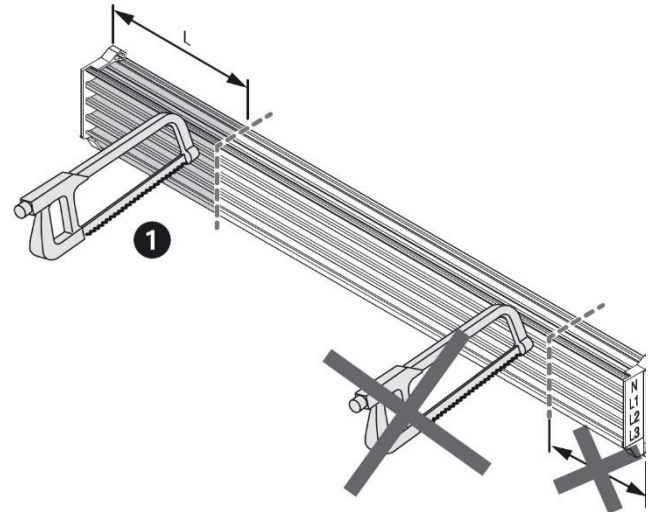
### 3. OVERALL DIMENSIONS (continued)

Distribution busbar with fixing bars ( cat. n° 405237 ):



### 3. OVERALL DIMENSIONS (continued)

Other modularity of the Distribution busbar



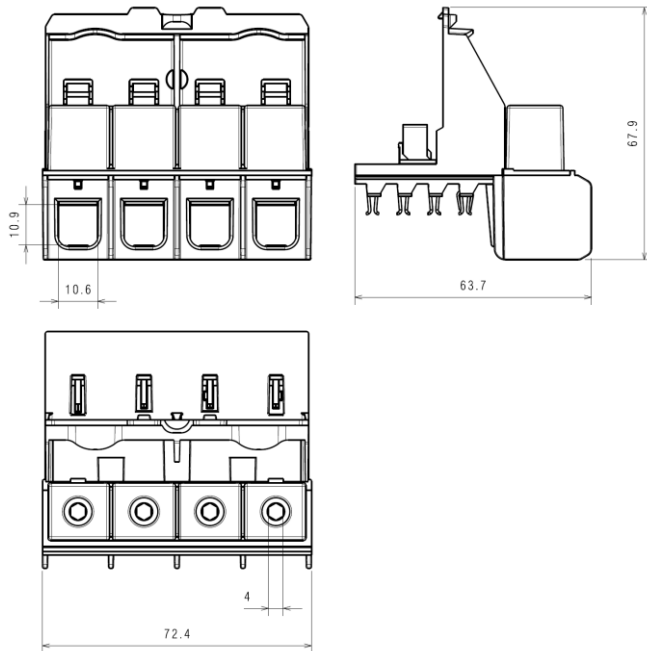
	4 052 32 56 M		4 052 33 100 M	
	48 M	52 M	84 M	88 M
L	136 mm	64 mm	288 mm	216 mm

# Distribution busbar HX<sup>3</sup> plug 80/100A

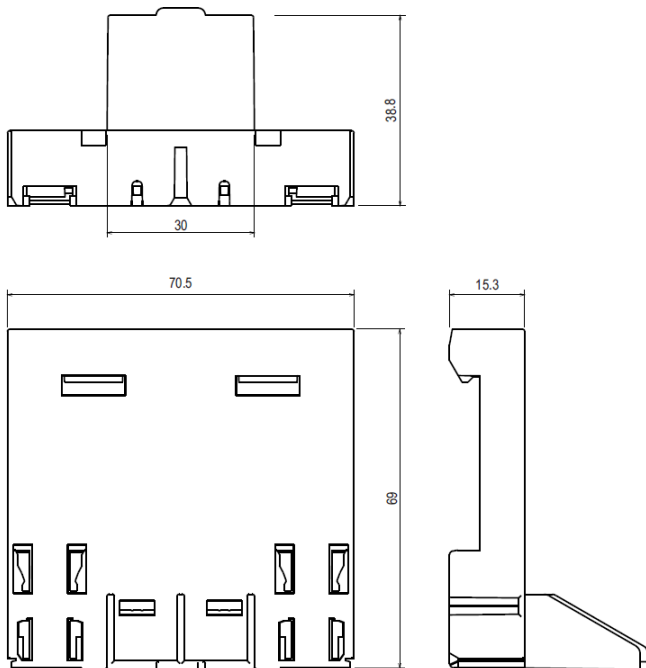
Cat. N° : 405232/33/34/35/36/37/46/47/48/49/55

### 3. OVERALL DIMENSIONS (continued)

. Power supply module, cat n° 405234, Identification of the phases and N with transparent adhesive label ( N on the right ) :

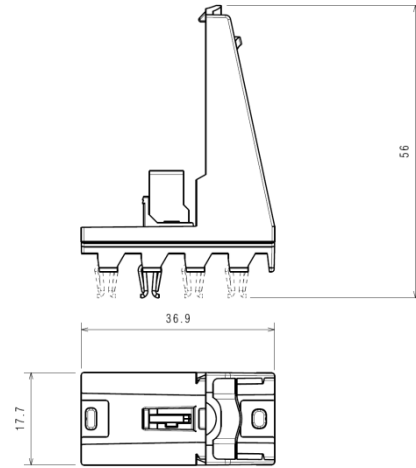


. Power supply security module (delivered with power supply module):

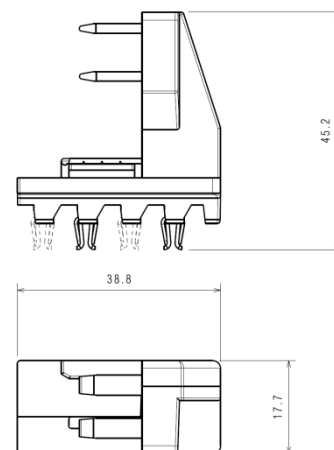


### 3. OVERALL DIMENSIONS (continued)

. Connection module 1P, cat n° (s) 405246/47/48/49, Identification of the phases and N with writing in relief :



. Connection module 1P+N (Cat. no 405235), Identification of the phases and N with pad printing ( N on the right ):



## 4. PREPARATION - CONNECTION

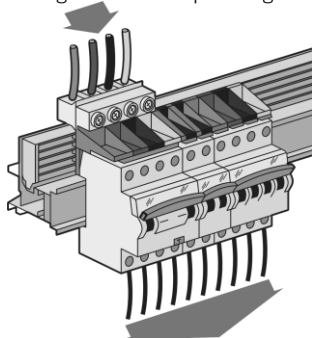
### List of modular compatible devices:

DX <sup>3</sup> Modular compatible device:	Connection modules
MCBs 1P+N in 1 module, screws terminals	405235 (L1N, L2N, L3N) neutral on the right
RCBOs 1P+N feeder protection	
RCDs 1P+N feeder protection	
RCDs 2P feeder protection	4 052 47: L1 4 052 48: L2 4 052 49: L3 4 052 46: N
RCDs 4P feeder protection	
RCBOs 2P feeder protection	
RCBOs 4P feeder protection	
MCBs 1P, 2P, 3P, 4P 1module/pole (*)	
MCBs 2p and 4P associated to RCD add-on modules	
IS	

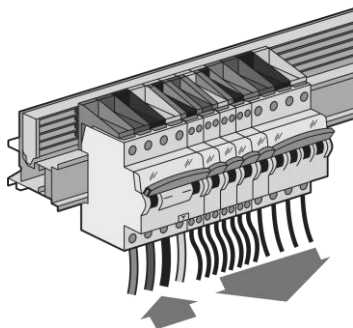
(\*)Except products dedicated to four pole Prong busbars HX<sup>3</sup>

### System power supply:

. Direct power supply via the power supply module. In this configuration the operating current can be max 100A.



. Indirect power supply via head of row device:  
The distribution busbar is protected by the head of group device. In this configuration the operating current is limited by the rated current of the head device (max. 80A).

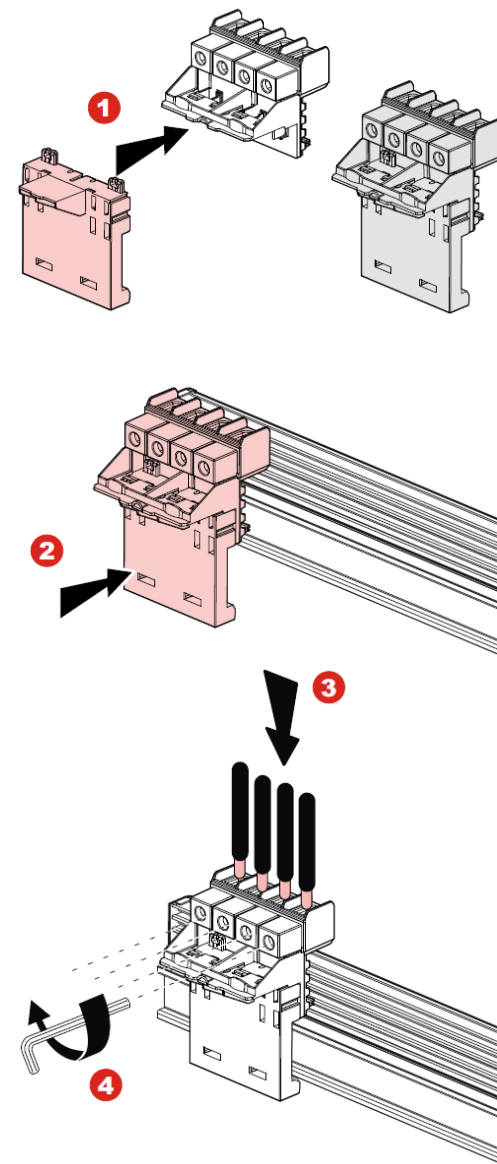


## 4. PREPARATION - CONNECTION (continued)

### Assembly of the various elements of the system

(continued):

. Supply module (cat n° 405234) associated to the power supply security module: used to supply directly the busbar.



Supply module - Terminal capacity:

	Copper cables	
	Without ferrule	With ferrule
Rigid cable	6 mm <sup>2</sup> a 50 mm <sup>2</sup>	-
Flexible cable	6 mm <sup>2</sup> a 35 mm <sup>2</sup>	6 mm <sup>2</sup> a 35 mm <sup>2</sup>

Tightening torque:

. Recommended: 4Nm.  
. Min: 3 Nm. Max: 5 Nm.

Tools required:

. For the terminals: Allen wrench 4 mm.

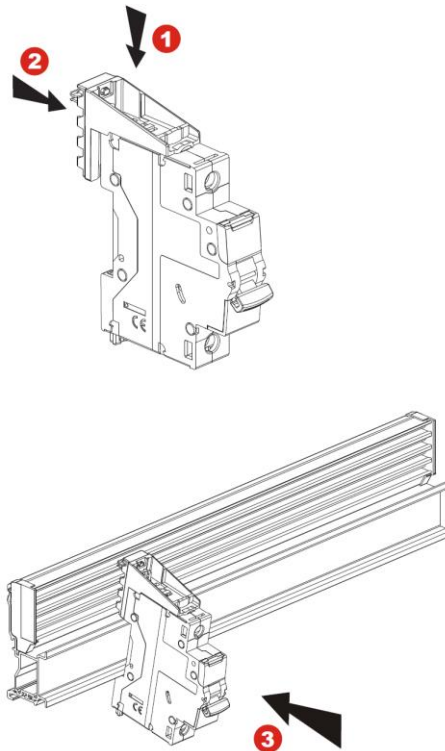
## 4. PREPARATION - CONNECTION *(continued)*

### Assembly of the various elements of the system

*(continued):*

. Connection modules 1P (cat. n° 405246/47/48/49):

No tools required to assembly the connection module to the device.



## 4. PREPARATION - CONNECTION *(continued)*

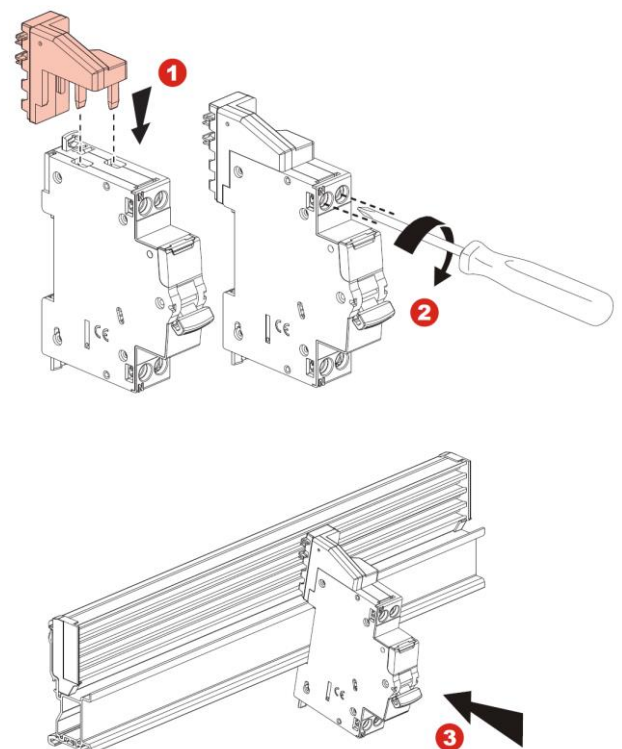
### Assembly of the various elements of the system

*(continued):*

. Connection module 1P+N (cat. n° 405235: neutral on the right):

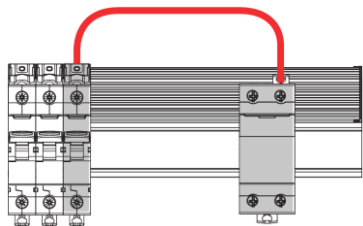
To assembly the connection module to the device 1P+N in 1 module is necessary a screwdriver Pozidriv n° 2.

Recommended tightening torque: 1,6 to 2 Nm

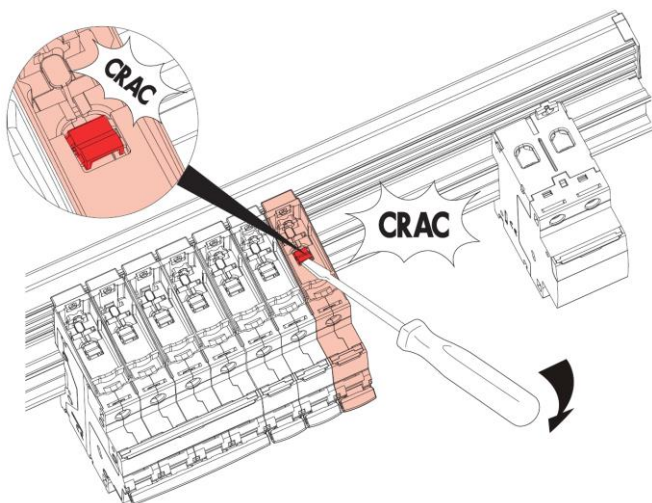


## 4. PREPARATION - CONNECTION (continued)

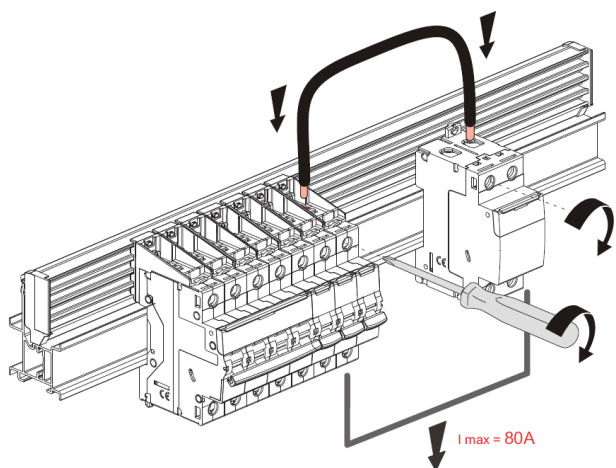
Supply of a device that can't be equipped with the connection modules:



- . This operation is possible with the connection modules 1P.
- . Fix the device to be powered on the DIN rail Cat nos 0 202 06, 0 206 01/51.
- . Break the pre-fracture on the connection module and connect the supply cables between the switch and the device to be powered.

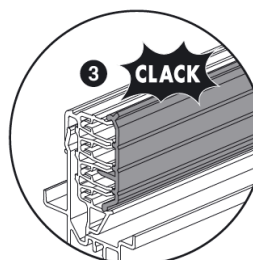
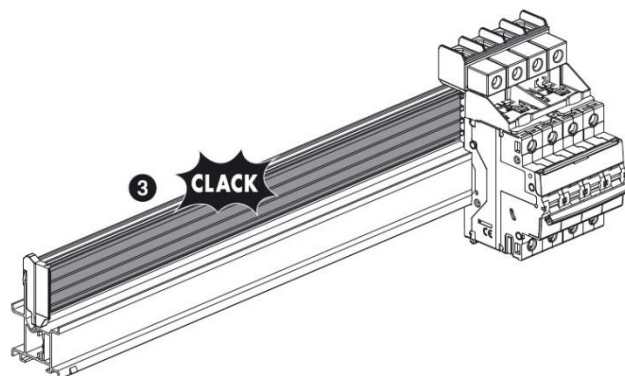
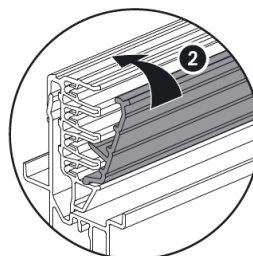
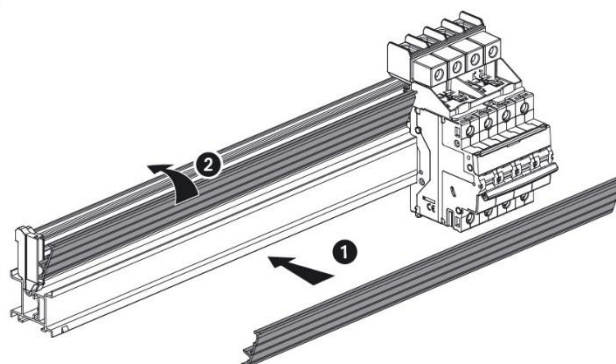


**WARNING:** In this configuration the maximum current derivable from the devices is 80A.



## 4. PREPARATION - CONNECTION (continued)

Use of protection IP40 ( cat. n° 405255 )

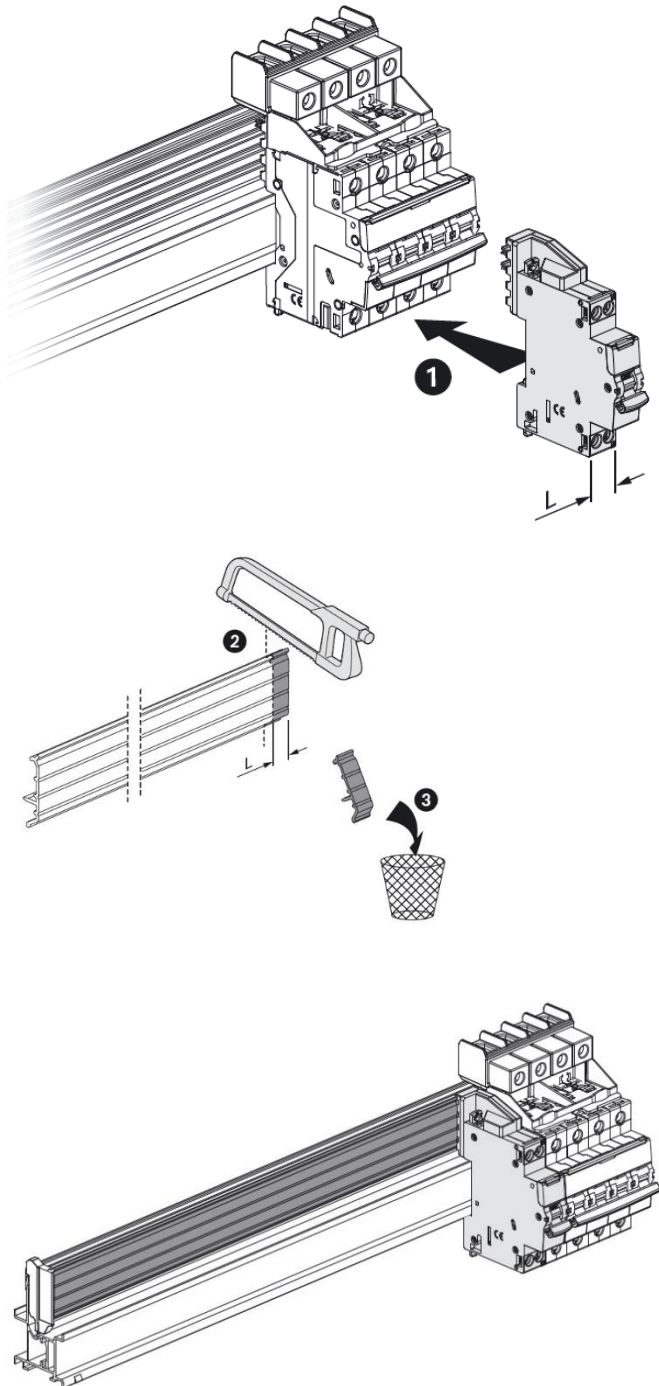


# Distribution busbar HX<sup>3</sup> plug 80/100A

Cat. N° : 405232/33/34/35/36/37/46/47/48/49/55

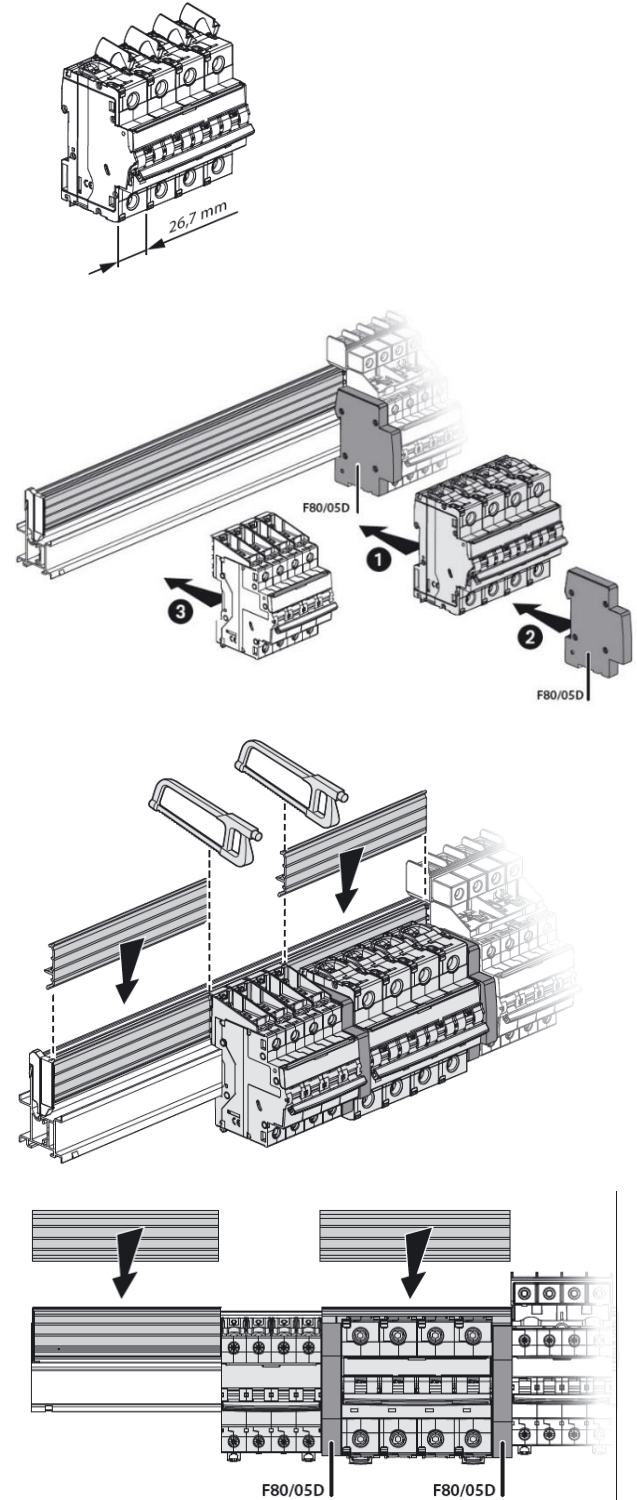
## 4. PREPARATION - CONNECTION *(continued)*

Use of protection IP40 ( cat. n° 405255 )



## 4. PREPARATION - CONNECTION *(continued)*

Use of protection IP40 ( cut. n° 405255 ) Assembly of the different elements of the system in case of use of MCB DX3 HP

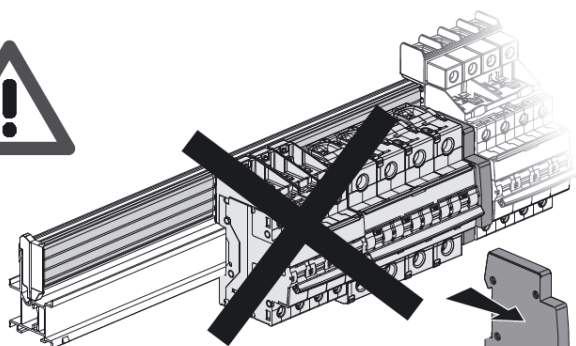
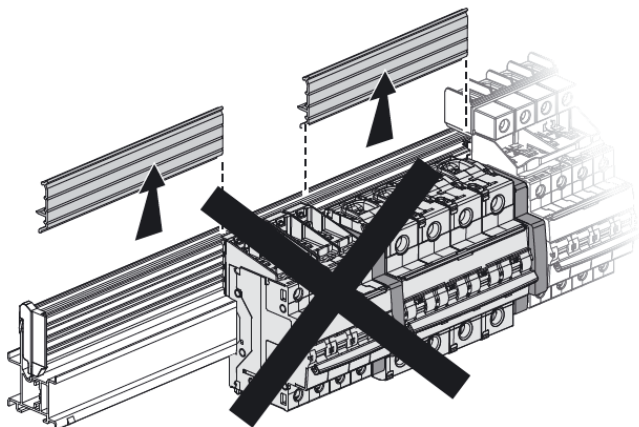




## 4. PREPARATION - CONNECTION *(continued)*

Use of protection IP40 ( cut. n° 405255 )

Assembly of the different elements of the system in case of use of MCB DX3 HP



F80/05D

# Distribution busbar HX<sup>3</sup> plug 80/100A

Cat. N° : 405232/33/34/35/36/37/46/47/48/49/55

## 5 GENERAL CHARACTERISTICS

### Rated peak withstand current (I<sub>pk</sub>):

. 25kA at 400V

### Rated short-time current (I<sub>cw</sub>):

. 6 kA per 0,1 s  
. 2,5 kA per 0,3 s  
. 2 kA per 1 s

### Rated impulse withstand voltage:

. U<sub>imp</sub> = 4kV according to IEC 61439-2, 61439-3

### Rated insulation voltage:

. U<sub>i</sub> = 500 V according to IEC 60493-1

### Pollution degree:

. 2.

### Higher calorific value (HCV):

. Distribution busbar 56 modules: 7.261 MJ  
. Distribution busbar 100 modules: 12.966 MJ  
. Connection module (1P and 1P+N): 0,159 MJ  
. Power supply module: 0,636 MJ  
. Power supply security module: 0,154 MJ

### Protection index:

. Protection index against solid and liquid bodies: IP 20 (IEC 529, EN 60529 et NF C 20-010).

### Resistance to sinusoidal vibrations:

. According to IEC 60068-2-35.  
. Axis: x, y, z.  
. Frequency range: 5 ÷ 100 Hz; duration 90 minutes  
. Displacement (5 ÷ 13,2 Hz): 1mm.  
. Acceleration (13,2 ÷ 100 Hz): 0,7g (g=9,81 m/s<sup>2</sup>)

### Average weight of each element of the system:

. Distribution busbar 56 modules: 2.1 kg  
. Distribution busbar 100 modules: 3.7 kg  
. Power supply module: 0,173 kg  
. Connection module 1P: 0,010 kg  
. Connection module 1P+N: 0,019 kg.  
. Protection IP 40: 0.046kg  
. Fixing bars : 0.174kg  
. Rail aluminium 2mt : 1.517kg

## 5 GENERAL CHARACTERISTICS (continued)

### Volume when packed:

	Volume (dm <sup>3</sup> )
Distribution busbar 56 modules	6.5
Distribution busbar 100 modules	11.4
Supply module + Power supply security module	0,2
Connection module 1P	0,2
Connection module 1P+N, in bag of 3 pieces	1
Protection IP 40	4.8
Fixing bars	0.2
Rail aluminium 2mt	6.3

### Ambient operating temperature:

. Min. = -25° C. Max. = +70° C

### Ambient storage temperature:

. Min. = -40° C. Max. = +70° C

---

## 6. COMPLIANCE AND APPROVALS

### Compliance to standards:

. Reference standard: IEC 61439

### Environment respect – Compliance with CEE directives:

- . Compliance with Directive 2011/65 / EU as amended by Directive 2015/863 (RoHS 2) on the restriction of the use of certain hazardous substances in electrical and electronic equipment.
- . Compliance with Decree 94-647 of 27/07/04.
- . Compliance with REACH (1907/2006): At the date of publication of this document, no substances included in Annex XIV (updated 27/06/2018) are present in these products.
- . DEEE Directive (2019/19 / EU): the marketing of this product is the subject of a contribution to the eco-organisms responsible, for each country of Europe, to control the end of life of the products within the scope of the European Directive on Waste Electrical and Electronic Equipment.

### Plastic materials:

- . Halogen-free plastic materials.
- . Marking of parts according to ISO 11469 and ISO 1043.

### Packaging:

- . Design and manufacture of packaging in accordance with decree 98-638 of 20.07.1998 and Directive 94/62/EC.