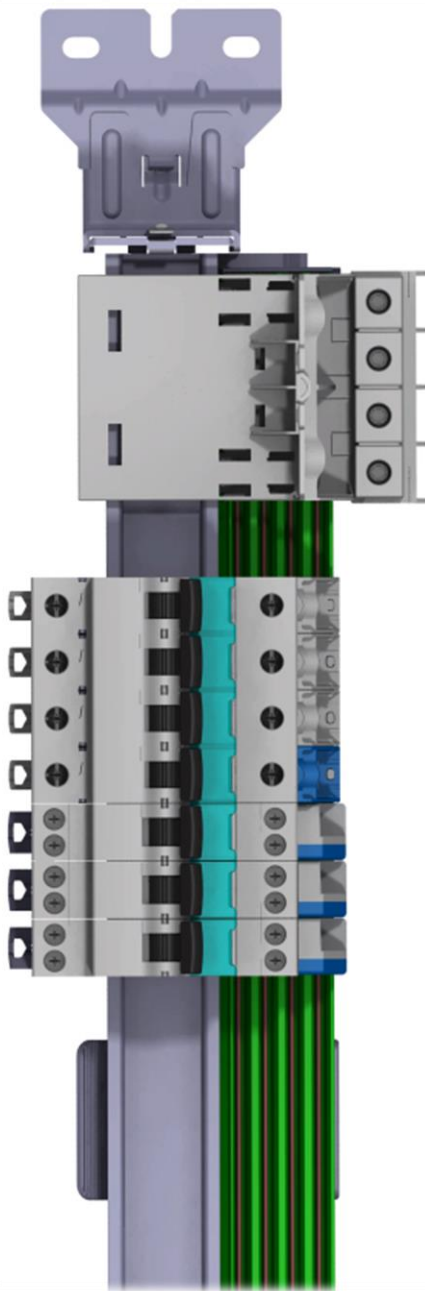


Distribution busbar HX³ plug 80/100A

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 or automatic terminals.

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).

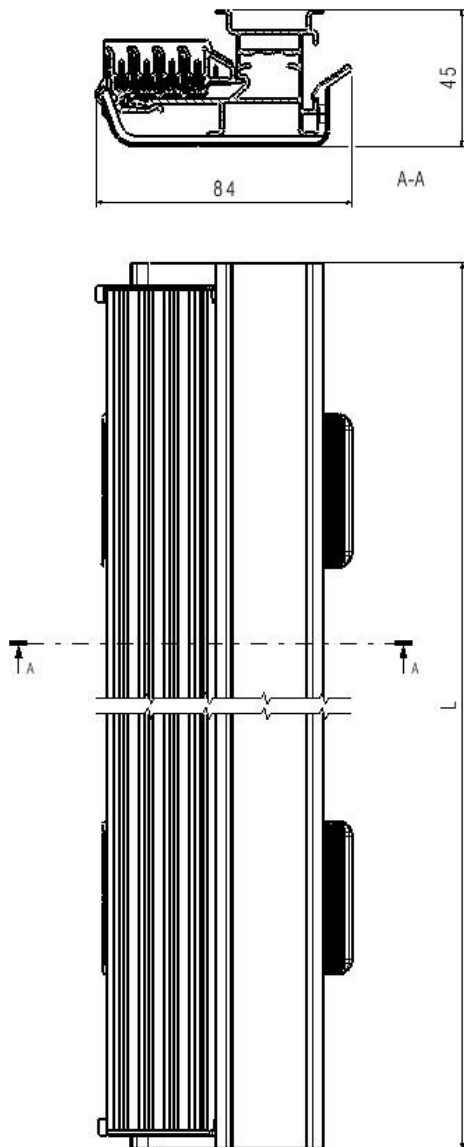
. Max.80 A (without the power supply module).

Distribution busbar HX³ plug 80/100A

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

3. OVERALL DIMENSIONS

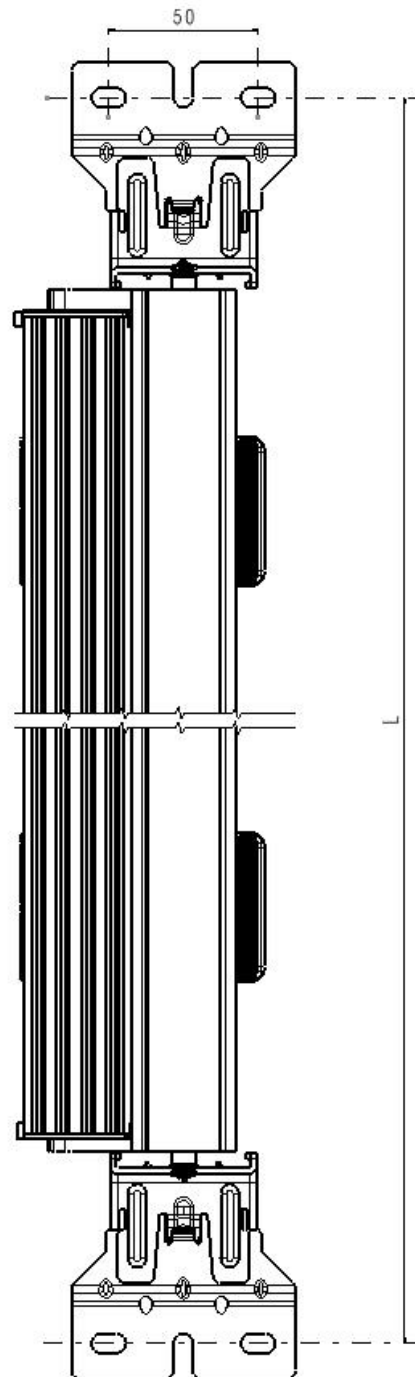
. Distribution busbar (cat. n° 405232/33):



Modules	L (mm)
56	1015
100	1815

3. OVERALL DIMENSIONS (continued)

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



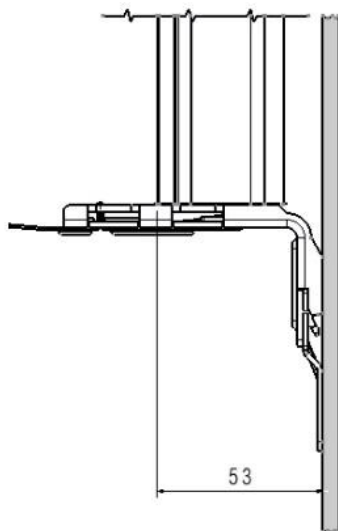
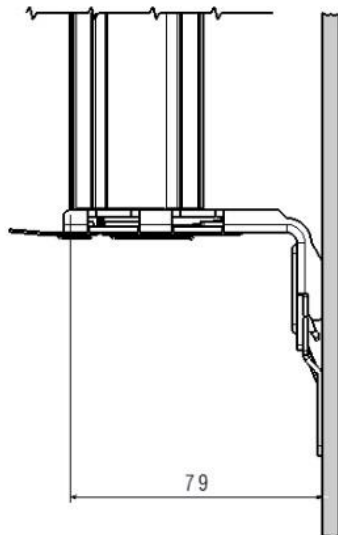
Modules	L (mm)
56	1145
100	1945

Distribution busbar HX³ plug 80/100A

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

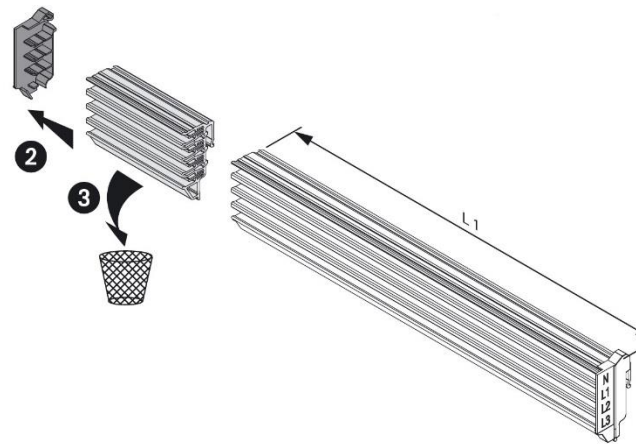
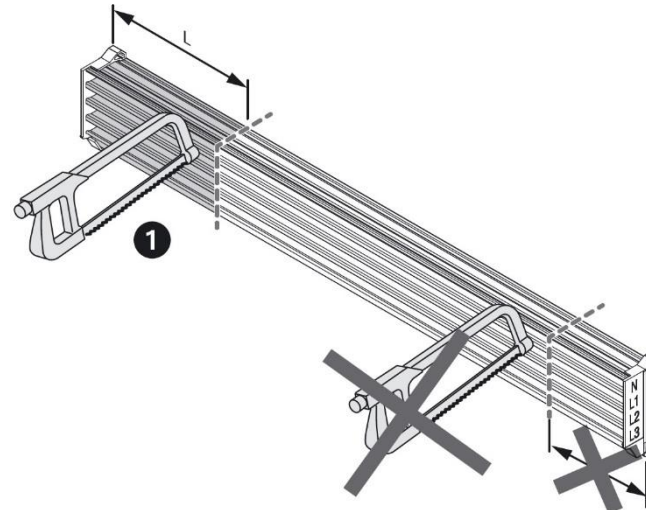
3. OVERALL DIMENSIONS (continued)

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



3. OVERALL DIMENSIONS (continued)

Other modularity of the Distribution busbar



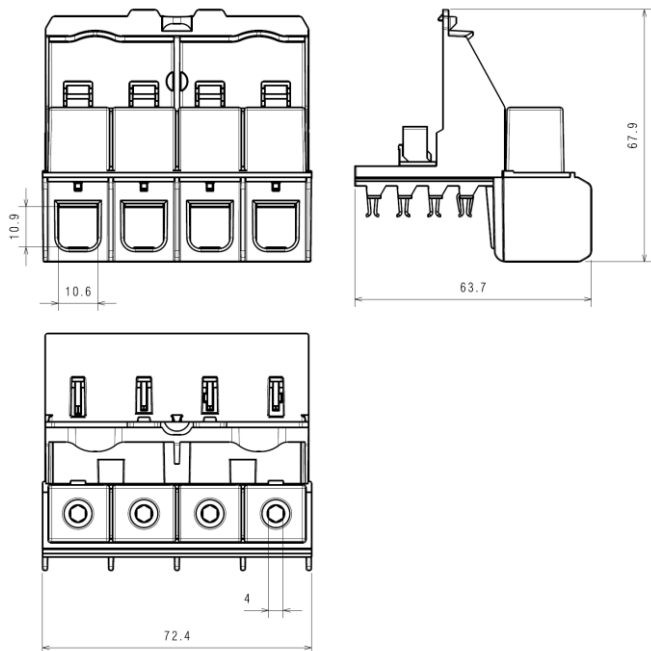
	4 052 32 56 M		4 052 33 100 M	
	48 M	52 M	84 M	88 M
L	136 mm	64 mm	288 mm	216 mm

Distribution busbar HX³ plug 80/100A

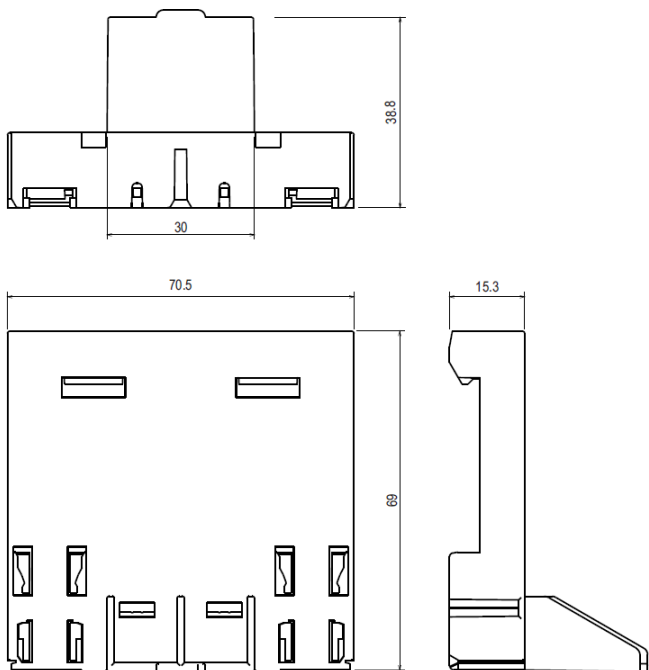
Cat. N° : 405232/33/34/35/36/37/46/47/48/49/55

3. OVERALL DIMENSIONS (continued)

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

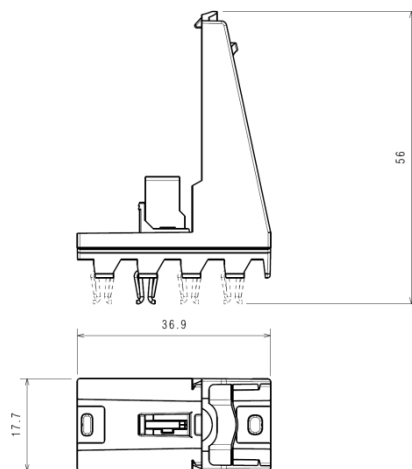


. Power supply security module (delivered with power supply module):

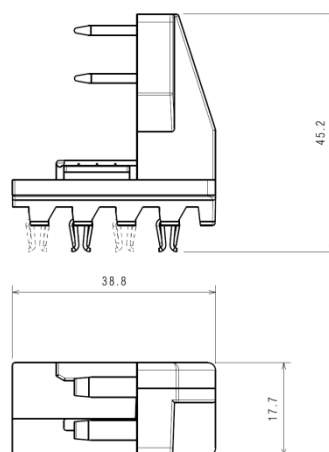


3. OVERALL DIMENSIONS (continued)

. 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

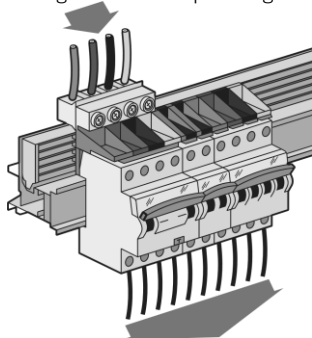
List of modular compatible devices:

DX ³ Modular compatible device:	Connection modules
MCBs 1P+N in 1 module, automatic or 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	

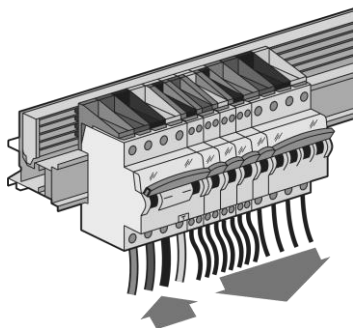
(*)Except products dedicated to four pole Prong busbars HX³

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).

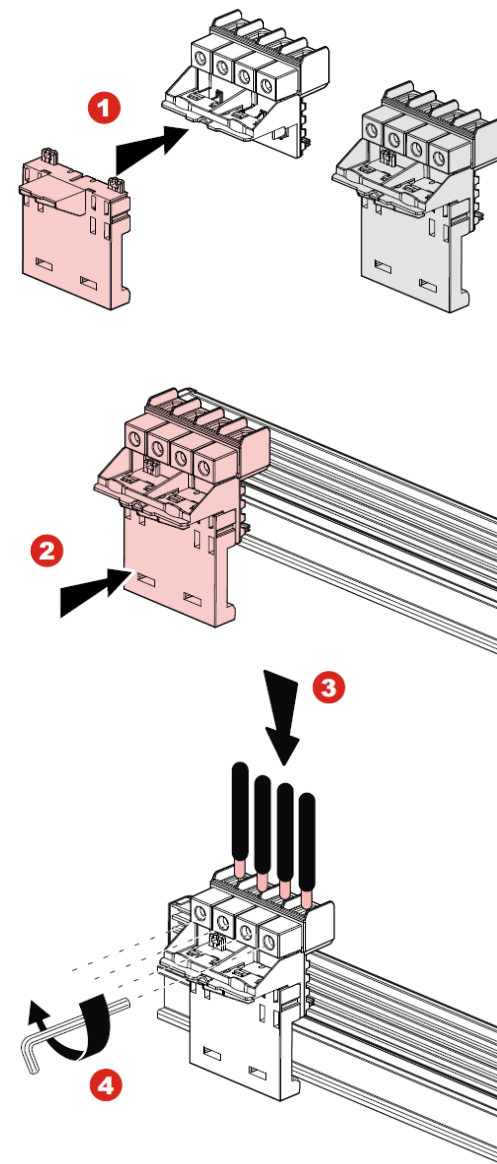


4. PREPARATION - CONNECTION (continued)

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 ² a 50 mm ²	-
Flexible cable	6 mm ² a 35 mm ²	6 mm ² a 35 mm ²

Tightening torque:

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

Tools required:

. For the terminals: Allen wrench 4 mm.

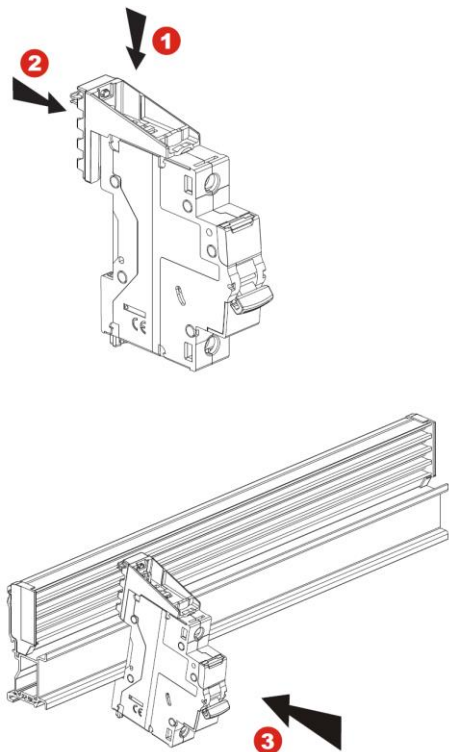
4. PREPARATION - CONNECTION *(continued)*

Assembly of the various elements of the system

(continued):

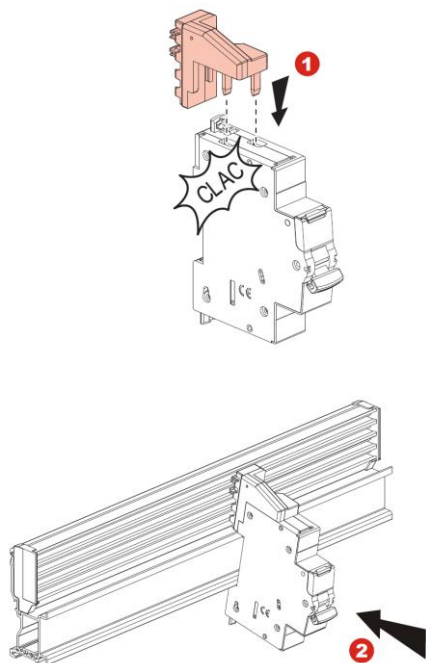
. Connection modules 1P (cat. n° 405246/47/48/49):

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



. Connection module 1P+N (cat. n° 405235):

No tools required to assembly the connection module to the MCB 1P+N in 1 module with automatic terminals



4. PREPARATION - CONNECTION *(continued)*

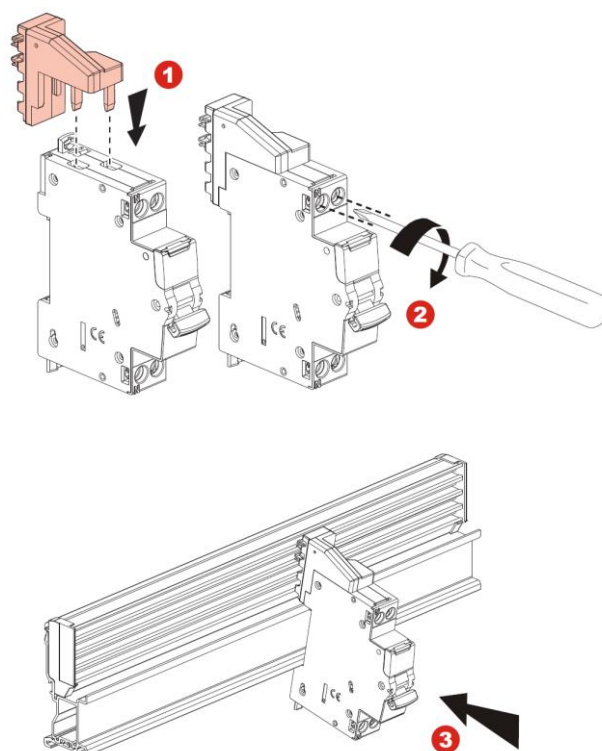
Assembly of the various elements of the system

(continued):

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

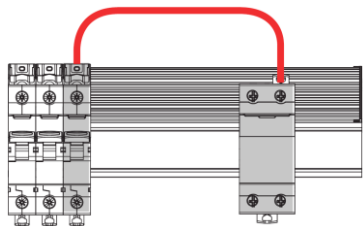
To assembly the connection module to the device 1P+N in 1 module is necessary a screwdriver Pozidriv n° 2.

Recommended tightening torque: 1,6 to 2 Nm

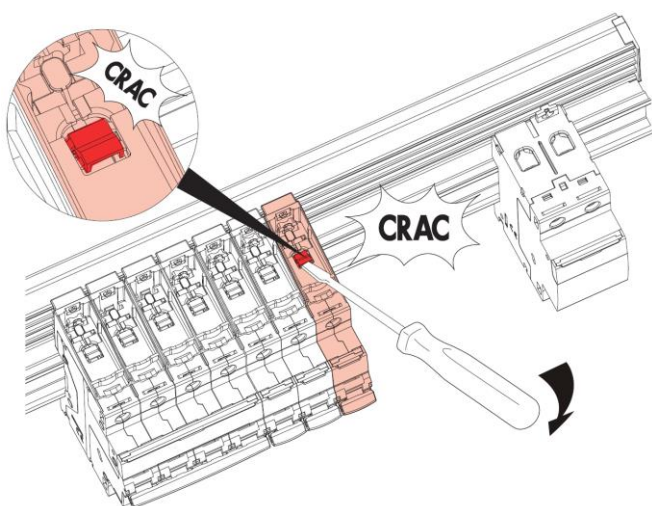


4. PREPARATION - CONNECTION (continued)

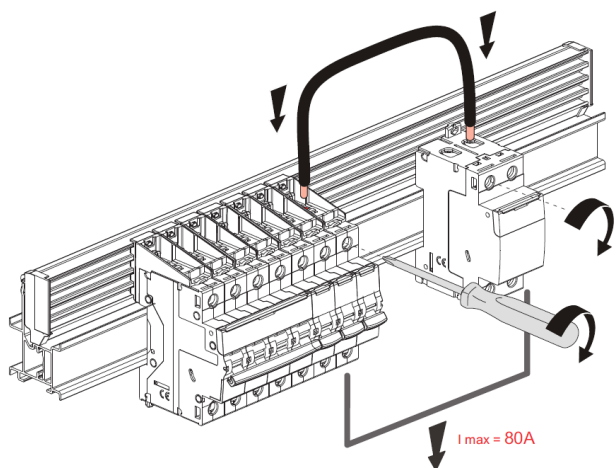
Supply of a device that can't be equipped with the connection modules:



- . 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.

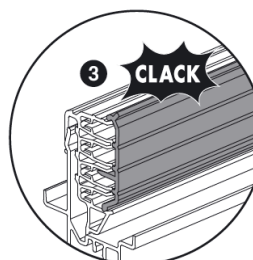
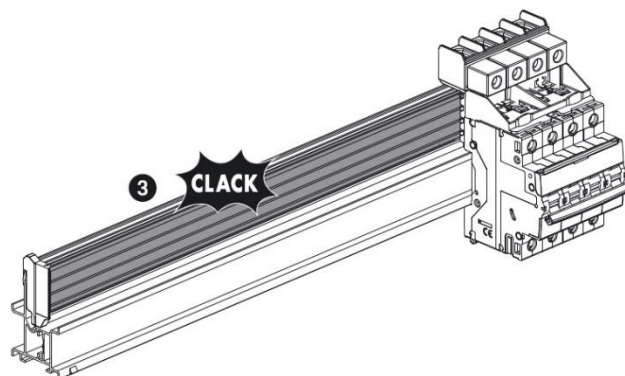
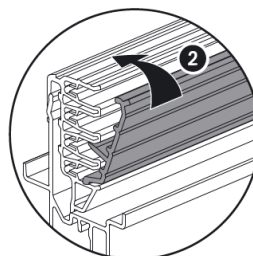
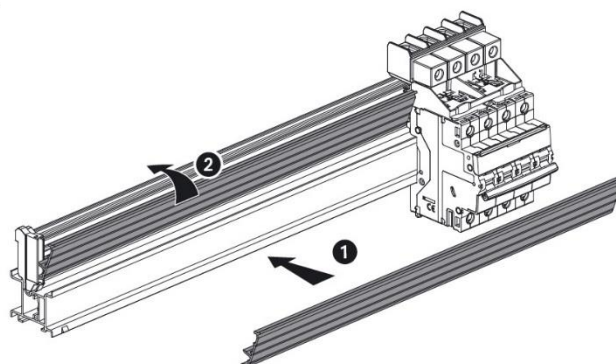


WARNING: In this configuration the maximum current derivable from the devices is 80A.



4. PREPARATION - CONNECTION (continued)

Use of protection IP40 (cat. n° 405255)

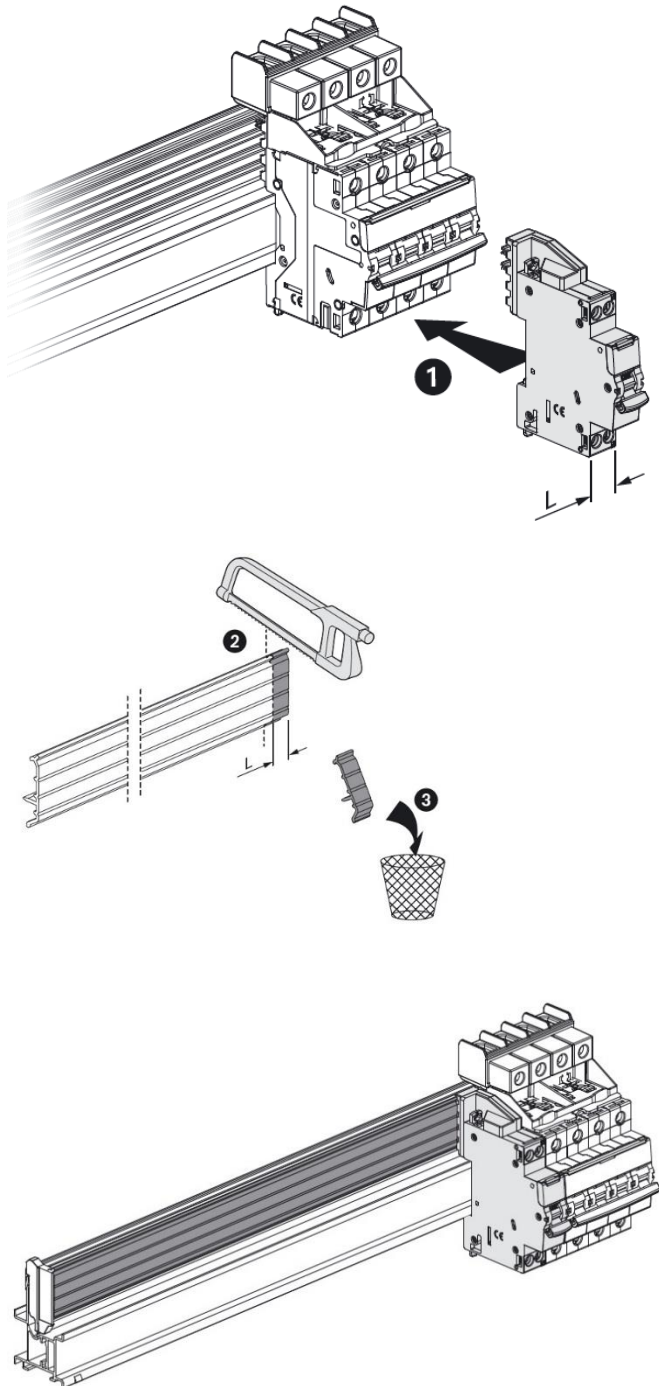


Distribution busbar HX³ plug 80/100A

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

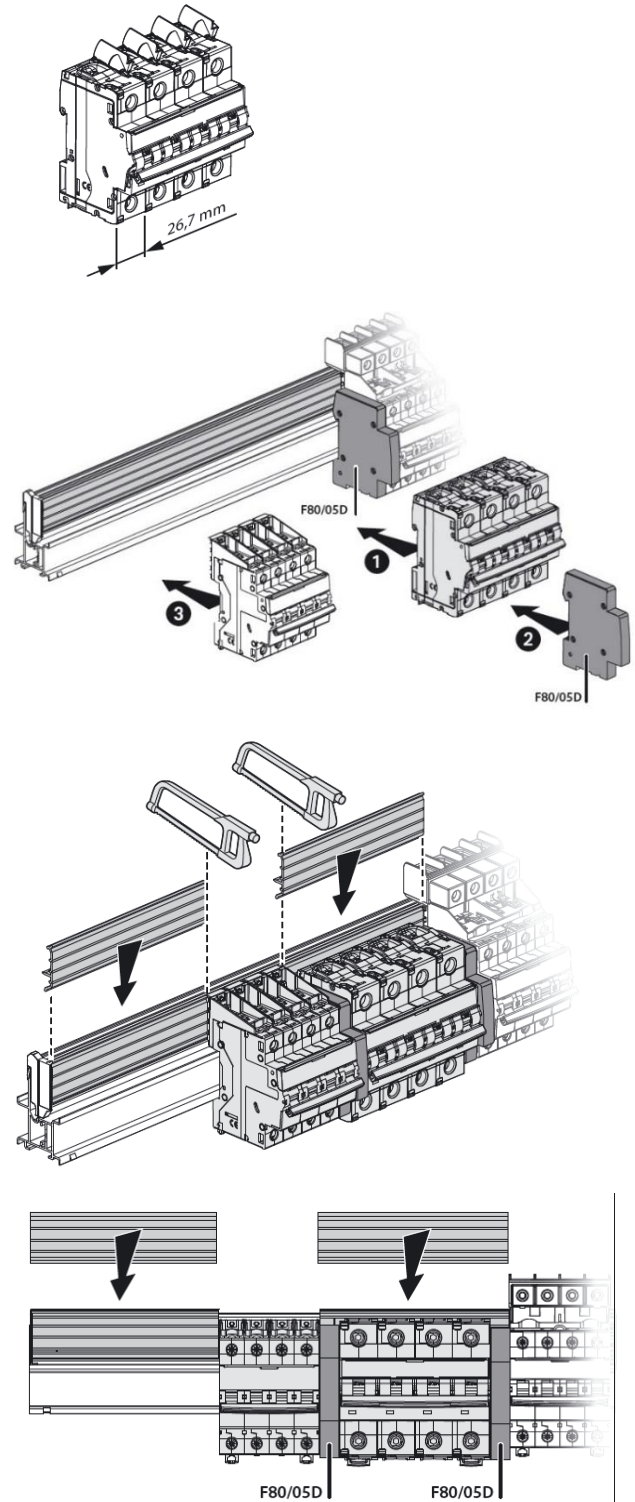
4. PREPARATION - CONNECTION (continued)

Use of protection IP40 (cat. n° 405255)



4. PREPARATION - CONNECTION (continued)

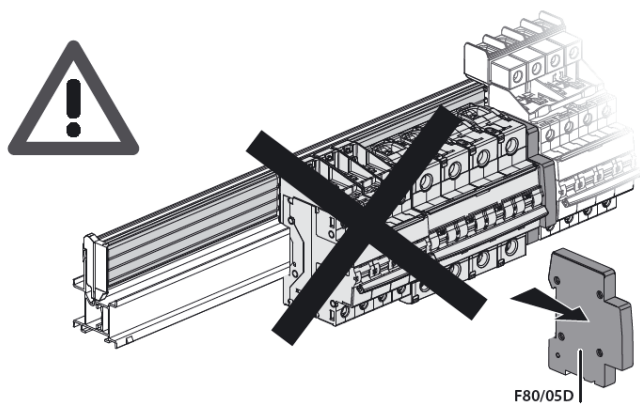
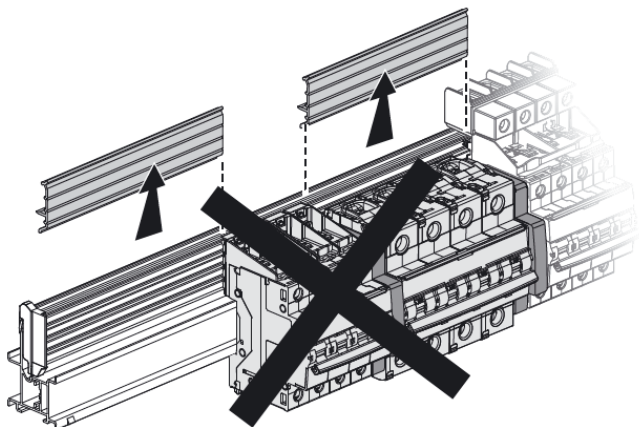
Use of protection IP40 (cut. n° 405255) Assembly of the different elements of the system in case of use of MCB DX3 HP



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



Distribution busbar HX³ plug 80/100A

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

5 GENERAL CHARACTERISTICS

Rated peak withstand current (I_{pk}):

. 25kA at 400V

Rated short-time current (I_{cw}):

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

Rated impulse withstand voltage:

. U_{imp} = 4kV according to IEC 61439-2, 61439-3

Rated insulation voltage:

. U_i = 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/s²)

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 ³)
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.