WORKSHOP SPECIFICATIONS

DISTRIBUTION CABINET

XL³ S 160

THE **GLOBAL SPECIALIST** IN ELECTRICAL
AND DIGITAL BUILDING INFRASTRUCTURE

legrand®

XL³ S 160 cabinets are "fully modular" cabinets, from 2 to 8 rows of **24 modules** and from 4 to 8 rows of **36 modules** supplied ready to use (rails and multi-row faceplates mounted).

They are available in 2 metallic versions: **surface mounting** and **flush-mounting** cabinets.

They can receive, modular devices, DPX³ 160, DRX 125 MCCBs and Vistop isolating switches up to 160 A.

XL³ S 160 has been designed to make wiring and connection easier with removable and adjustable DIN rails.

It is supplied with multi-row faceplates.

CONTENTS

SURFACE MOUNTING CABINETS

XL³ S 160 cabinets are ready to use cabinets with high capacity (up to 288 modules) and optimized dimensions for electrical distribution up to 160 A.

They have been designed in order to simplify the protection equipment installation and the wiring operations.

- Adjustable DIN rail on 3 position,
- Removable chassis,
- Flexibility in the choice of the terminal blocks.

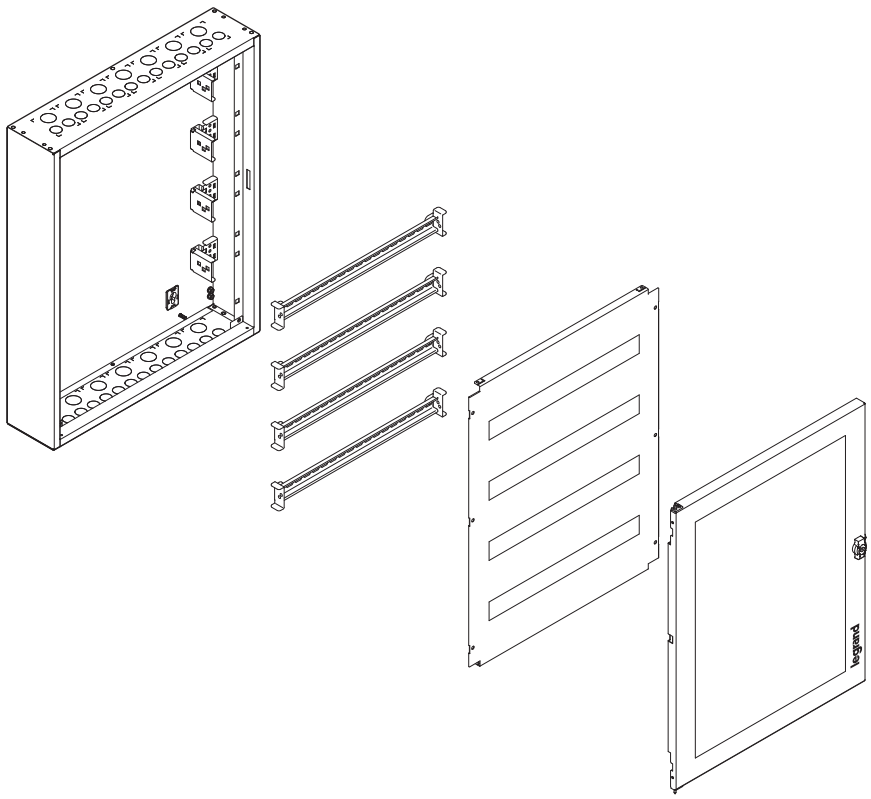
SPECIFICATIONS

- **Class I metal cabinet**
- **Rated peak withstand current Ipk: 34 kA**
- **IP 30 without door, IP 40 with door**
- **IK 07 without door, IK 08 with door**
- **Conforming to standard IEC 61439-2**
- **Can take devices up to 160 A**
- **Colour RAL 9003**
- **Maximum rated voltage (Ue) up to 500 V ∿**
- **Rated insulation voltage: (Ui) 1000 V ∿**
- **Rated impulse withstand voltage (Uimp):**

8 kV (moulded case)

4 kV (modular)

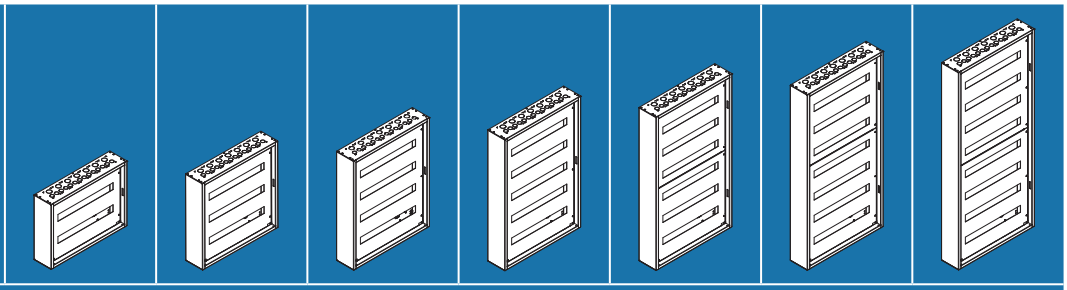
- **Supplied complete with rails, multi-rows faceplates, knock-out cable entry and support for terminal blocks (neutral and earth)**



PRODUCTS SELECTION

The XL³ S 160 range contains "fully modular" cabinets, from 2 to 8 rows of 24 modules and from 4 to 8 rows of 36 modules.

THE XL³ S 160 SURFACE MOUNTING CABINET RANGE

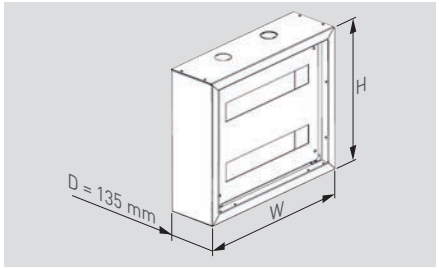
							
24 MODULES PER ROW							
Cat. Nos	3 372 02	3 372 03	3 372 04	3 372 05	3 372 06	3 372 07	3 372 08
Number of rows	2	3	4	5	6	7	8
Number of modules	48	72	96	120	144	168	192
Metal door (flat)	3 372 52	3 372 53	3 372 54	3 372 55	3 372 56	3 372 57	3 372 58
Glass door (flat)	3 372 72	3 372 73	3 372 74	3 372 75	3 372 76	3 372 77	3 372 78
36 MODULES PER ROW							
Cat. Nos	-	-	3 372 14	3 372 15	3 372 16	3 372 17	3 372 18
Number of rows	-	-	4	5	6	7	8
Number of modules	-	-	144	180	216	252	288
Metal door (flat)	-	-	3 372 64	3 372 65	3 372 66	3 372 67	3 372 68
Glass door (flat)	-	-	3 372 84	3 372 85	3 372 86	3 372 87	3 372 88

Preparing the cabinets for use

The XL³ S 160 cabinets are supplied in a cardboard packaging, reusable for delivery to the site.

The cabinet is supplied with a bag containing 2 screws to fix the terminal block supports, 2 terminal block supports, 4 blanking plates for keyhole, 8 covers (plugs) for joining /combination and 4 caps for the hinge holes.

1 DIMENSIONS



Useful depth: 102 mm

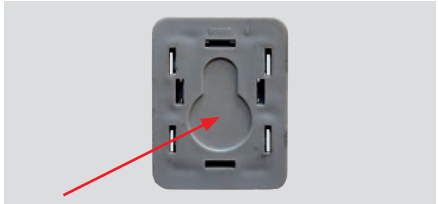
Cat. Nos		H (mm)	Useful H	W (mm)	Useful W
24 mod.	3 372 02	440	400	595	555
	3 372 03	590	550		
	3 372 04	740	700		
	3 372 05	890	850		
	3 372 06	1040	1000		
	3 372 07	1190	1150		
	3 372 08	1340	1300		
36 mod.	3 372 14	740	700	810	760
	3 372 15	890	850		
	3 372 16	1040	1000		
	3 372 17	1190	1150		
	3 372 18	1340	1300		

2 FIXING

The XL³ S 160 surface mounting cabinets can be fixed on a wall or a partition. This can be realized with the internal fixing points or with mounting lugs.

■ Internal fixing

Each cabinet has 4 internal fixing points. The shape of the knocked out holes is used to attach and detach the cabinets.

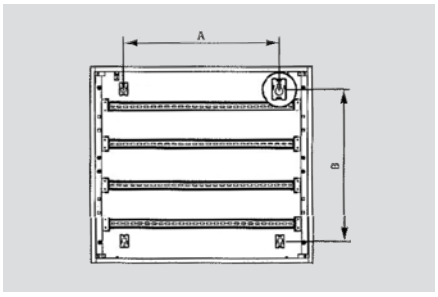


1- Knock out the keyhole shaped holes.

2- Fix the cabinet by using 4 screws (Ø 6mm minimum) and 4 washers.

In case of cabinet joining, it is recommended to use the mounting lugs (see page 5).

■ Internal fixing centres



Cat. Nos		A (mm)	B (mm)
24 mod.	3 372 02	350	297
	3 372 03		447
	3 372 04		597
	3 372 05		747
	3 372 06		897
	3 372 07		1047
	3 372 08		1197
36 mod.	3 372 14	566	597
	3 372 15		747
	3 372 16		897
	3 372 17		1047
	3 372 18		1197

2 FIXING (CONTINUED)

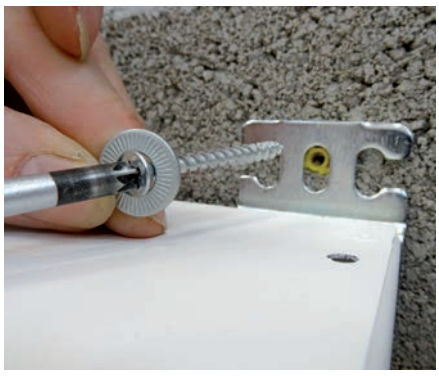
■ Fixing with wall-mounting lugs

The wall-mounting lugs Cat. No 3 374 00 can be installed in horizontal or vertical position.

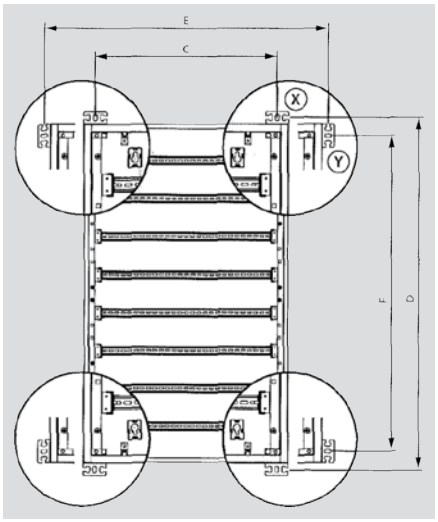
1- Screw the lug in the required position with the 2 screws + nuts supplied in the pack.

View inside the cabinet:

2- Fix the cabinet on the wall by using 4 screws Ø 6mm.



■ External fixing centres



Cat. Nos		D (mm)	C (mm)	F (mm)	E (mm)
24 mod.	3 372 02	470	540	383	625
	3 372 03	620		533	
	3 372 04	770		683	
	3 372 05	920		833	
	3 372 06	1070		983	
	3 372 07	1220		1133	
	3 372 08	1370		1283	
36 mod.	3 372 14	770	756	683	841
	3 372 15	920		833	
	3 372 16	1070		983	
	3 372 17	1220		1133	
	3 372 18	1370		1283	

Preparing the cabinets for use (continued)

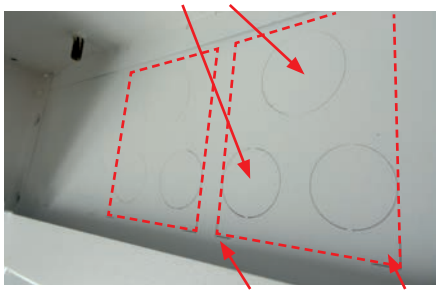
3 COMBINATION/JOINING KIT (CAT. NO 3 374 07)

The cabinets can be combined vertically by using the kit Cat. No 3 374 04 composed of 4 screws and 4 nuts.

■ Preparing

Knock out or cut the top/bottom of the sides in order to insert the cables.

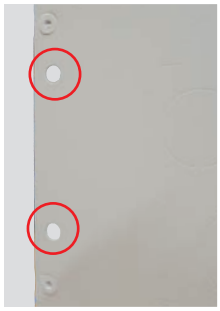
Knocked-out for cable gland.



Rectangular area.

■ Fitting

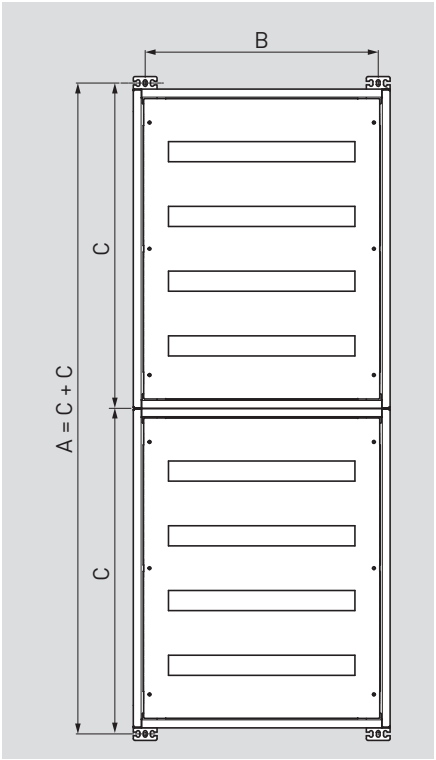
Join the cabinets together by using the 4 screws + nuts provided in the kit Cat. No 3 374 04. You might knock out the caps of the cabinets before joining.



Internal view of the 1st cabinet

External view of the 2nd cabinet

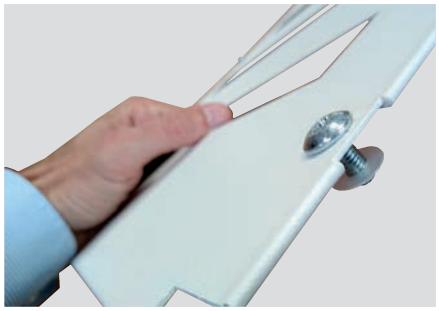
■ Vertical assembly fixing centres



Cat. Nos		C (mm)	B (mm)
24 mod.	3 372 02	455	540
	3 372 03	605	
	3 372 04	755	
	3 372 05	905	
	3 372 06	1055	
	3 372 07	1205	
	3 372 08	1355	
36 mod.	3 372 14	755	756
	3 372 15	905	
	3 372 16	1055	
	3 372 17	1205	
	3 372 18	1355	

4 FACEPLATES MOUNTING

The XL³ S 160 are supplied with 1 or 2 faceplates (see the components in the opposite table). The faceplates are fixed on the cabinet with captive screws:



The plastic washer holds the screw on the faceplate and makes the handling easier.

The earth continuity between the faceplate and the cabinet is possible thanks to a claw (see picture below).

■ **Configuration by cabinet size**

Cat. Nos		Number of faceplates		Number of fixing points
24 modules	3 372 02	1 faceplate of 2 rows		4
	3 372 03	1 faceplate of 3 rows		4
	3 372 04	1 faceplate of 4 rows		6
	3 372 05	1 faceplate of 5 rows		6
	3 372 06	2 faceplates of 3 rows	+	8
	3 372 07	1 faceplate of 4 rows + 1 faceplate of 3 rows	+	10
	3 372 08	2 faceplates of 4 rows	+	12
36 modules	3 372 14	1 faceplate of 4 rows		6
	3 372 15	1 faceplate of 5 rows		6
	3 372 16	2 faceplates of 3 rows	+	8
	3 372 17	1 faceplate of 4 rows + 1 faceplate of 3 rows	+	10
	3 372 18	2 faceplates of 4 rows	+	12

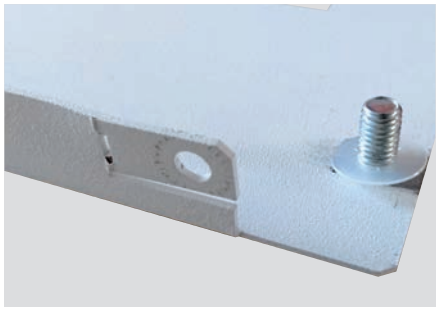
Preparing the cabinets for use (continued)

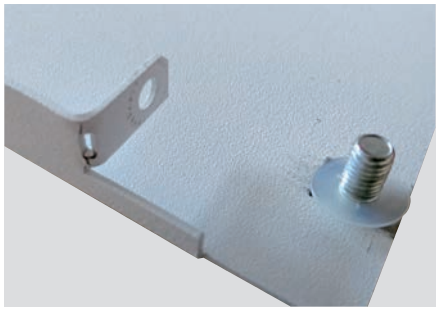
4 FACEPLATES MOUTING (CONTINUED)

■ Fitting

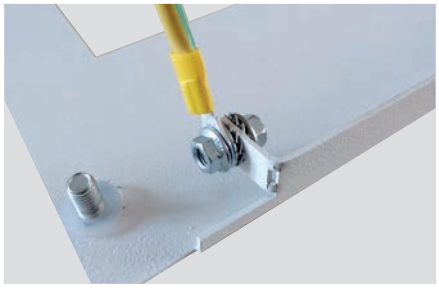
For the installation of control and signalling units or devices with a voltage U>50 V on the faceplate, it is necessary to add an equipotential link conductor between the faceplate and the cabinet.

To achieve this, you must bend the connecting lug of the faceplate with pliers.





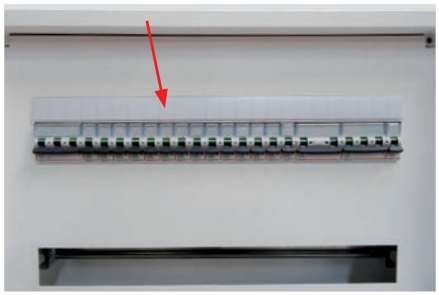
Connect the conductor (Cat. No 3 397 53) to the faceplate with a screw, a nut and 2 washers (not supplied) in order to ensure the continuity.



The connection on the cabinet is made by screwing a M6 nut (not supplied) on the specified attachment points.

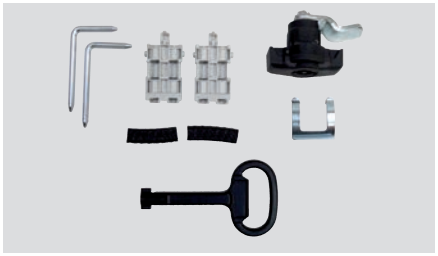
5 SIGNALLING

As well as the label-holders on all DIN rail mounting equipment and the plastic marking strip Cat. No 0 203 99, a clip-on holder accessory is available for 24 modules (Cat. No 3 397 55) and 36 modules (Cat. No 3 397 56).



6 FITTING THE DOORS

The solid or glass doors can be fitted to open to the left or the right (see selection table page 3).
The slots for the hinges and the door release are provided on both sides of the cabinet.



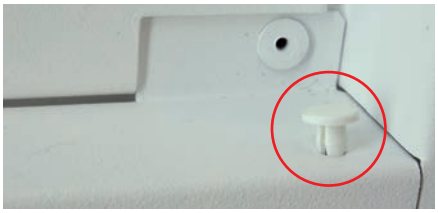
Door kit components: 2 axis, 2 hinges, 1 handle up to 5 rows or 2 handles from 6 rows, 1 key and 1 cross bolt.

■ Finishes

To ensure the IP (Protection Index) of the cabinet you must:

1- Clip the blanking keyhole (supplied with the cabinet) on the side of the hinges.

2- Seal the holes at the opposite of the hinges (1 at the top and 1 at the bottom) by using the caps supplied with the cabinet.

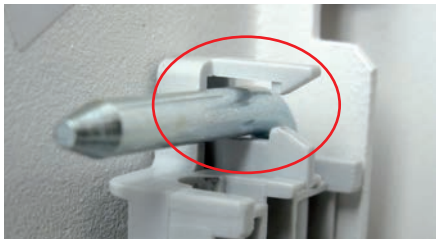


■ Fitting the hinges

1- Fit and clip the hinges in the specified slots on the door side.


2- Insert the axis of the hinge in the specified hole.

3- Rotate the axis on 90° to lock the system.

The axis should be properly clipped in the specified location (see photo above).

■ Fitting the handle

1- Fit and insert the handle in the hole at the opposite of the hinges.


2- Insert the cross bolt at the back of the handle, against the door.


3- Once the door released of the handle installed, turn it with the key in lock position in order to check the proper functioning.

Metal flat doors Cat. Nos 3 372 57, 3 372 58, 3 372 67, 3 372 68 and glass doors Cat. Nos 3 372 77, 3 372 78, 3 372 87, 3 372 88 are equipped with 2 handles.

The door axis are designed to be and removed without tools. So the door installation is made easier.

■ Equipotential link

You have to make an equipotential link if control and signalling units or devices with voltage U>50 V are fitted on the door.

The doors are equipped with studs for connecting the equipotential link conductor Cat. No 3 397 53.

1- Remove the dedicated plastic cover on the cabinet (2 covers available). Then, cut it to enable the cable to pass:

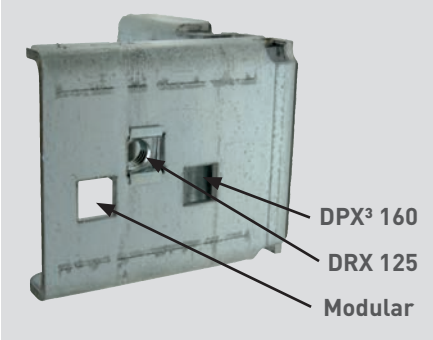

2- Put the plastic cover back in its location, fit the cable on the stud of the cabinet (with a M6 nut). Then, pass it through the cover:

3- Remove the protection cover of the earth stud on the door and fit the cable end with the help of a M6 nut.


Mounting protection devices

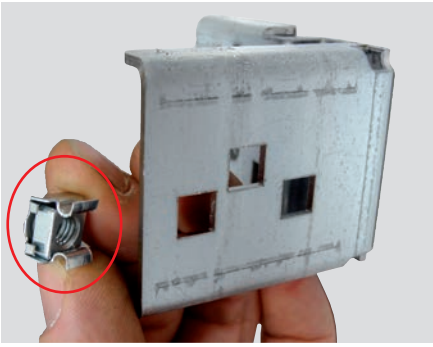
The chassis offers 3 possibilities of DIN rail height adjustment:

- Upper position for modular products and Vistop < 160A;
- Middle position for DRX 125 MCCBs;
- Low position for DPX³ 160 MCCBs.



The cabinets are supplied with rails in upper position.

To adjust the rail in middle or low position, you need to remove the clip-nut and clip it in the square hole of the desired position.



The rail adjustment facilitates the integration of our power and modular products.

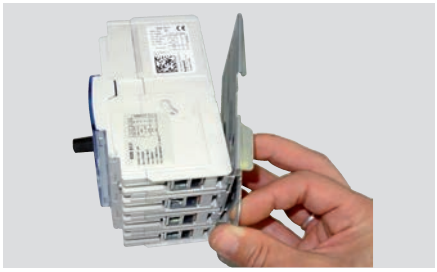
■ **Upper position**

■ **Middle position**

■ **Low position**

1 MOUNTING THE DPX³ 160

The DPX³ 160 is mounted on a ⊔ rail in low position with the help of the plate Cat. No 4 210 71.



Installation of a plate + MCCB on the rail.

A height spacer Cat. No 3 382 40 can be added in order to align modular devices (MCB) at the same level as the DPX³ 160.

After adjusting the length of the height spacer, you need to clip it to the ⊔ rail beside the DPX³ 160.

The depth is thus correct to install the faceplate.

2 MOUNTING THE DRX 125 (AVAILABLE FOR CERTAIN COUNTRIES)

The DRX 125 MCCB is directly mounted on the rail in middle position.

As for the DPX³ 160, it's possible to fit modular devices beside a DRX. For this, you need to use the height-spacer Cat. No 3 382 41. The installation is the same than the height-spacer Cat. No 3 382 40 (DPX³ 160).

3 MOUNTING OF A DPX³ 160 AND A DRX 125 ON THE SAME ROW

It's also possible to install these 2 products on the same row by mounting the DRX 125 on the height-spacer Cat. No 3 382 42.

The rail must to be in the low position.

The DPX³ 160 mounting is detailed in the paragraph 1 (page 10).

4 MOUNTING OF THE VISTOP ISOLATING SWITCHES

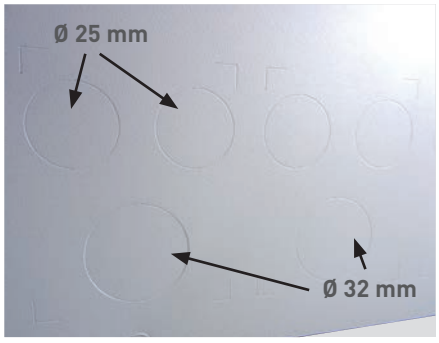
The Vistop isolating switches with side handle from 63 A to 160 A are supplied with the accessories needed to fix the handle outside the enclosure. A template is provided for drilling the side panel. (Installation instructions supplied with the Vistop contain detailed information)

Wiring and connection

1 INSERTING OF THE CABLES/ CABLES ENTRY

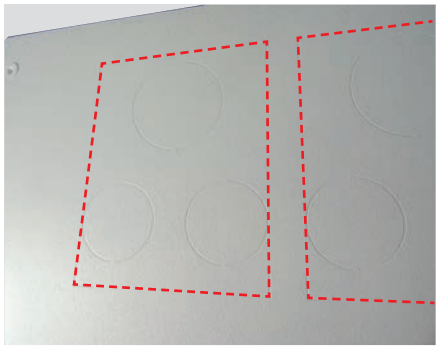
The XL³ S 160 are fitted with knockout cable entries in order to mount cable glands ISO 25 and/or ISO 32:

- 24 modules: 14 entries Ø 25 and 7 entries Ø 32
- 36 modules: 20 entries Ø 25 and 10 entries Ø 32



It's also possible to cut rectangular areas to allow the circulation of several cables.

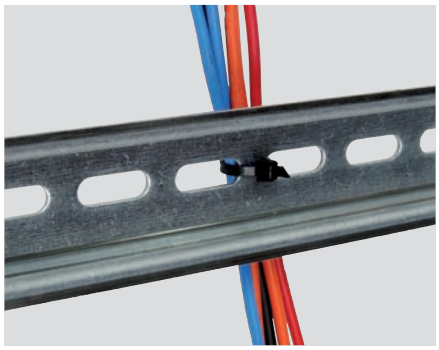
The angles are pre-marked on the top and at the bottom of the cabinet. The cutting is done using a jigsaw or a tube cutter.



Number of modules	Rectangular knockout entries Number and dimension
24	7 (62x80) mm
36	10 (62x80) mm

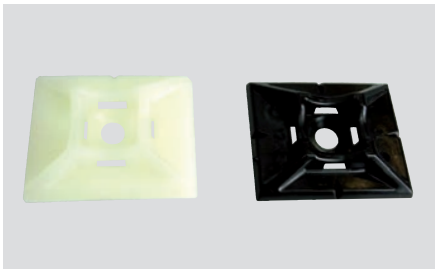
2 CABLES FIXING

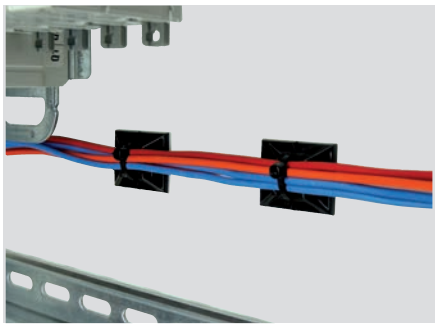
Cables can be fixed with the help of Colson™ cable ties directly behind the rail (all Colson™ and Colring™ cable ties can be used).



Fixing base can be placed between the rails for fixing the cable:

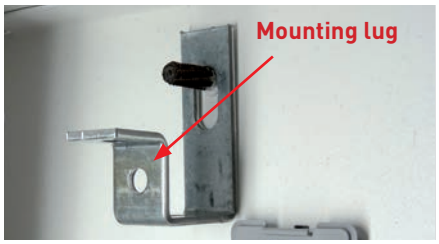
Self-adhesive base Cat. No 0 320 65 (white) and Cat. No 0 320 67 (black).





3 PROTECTIVE CONDUCTORS AND IP 2X DISTRIBUTION TERMINAL BLOCKS

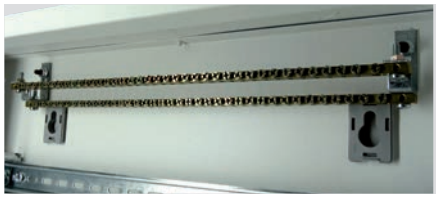
First, you need to fit the mounting lugs which are supplied with the cabinet (2 lugs) by using the nuts.



The brass terminal block Cat. No 0 373 00 can be fixed on the lugs supplied with the cabinet (with the 2 screws and 2 nuts supplied with the Cat. No 0 373 00).

4 positions in the cabinets are possible. → 2 at the top and/or 2 at the bottom.

Here is example with 2 earth terminal blocks at the top of the cabinet.

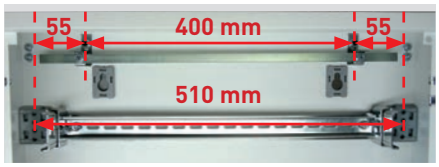


To make the wiring of the protective conductors, it's also possible to use one (or more) copper bars Cat. No 0 373 89 that you have to cut. (Original length → 990 mm).

As the holes of the bar are threaded, the mounting lugs are placed between the copper bar and the screw heads (M5 screws, not supplied)

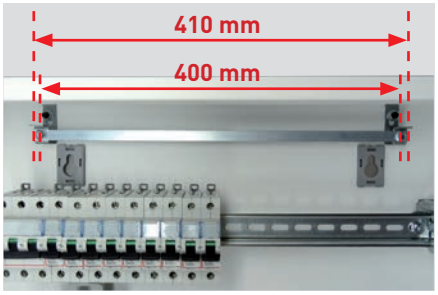
For the installation of an IP 2X distribution terminal block, you need to use a flat bar 12 x 2 mm Cat. No 0 048 19. This bar is also fixed on the lugs supplied with the cabinet. You must cut and drill it, as follows:

Maximum lenght:
24 modules → maximum length 510 mm
36 modules → maximum length 726 mm
Fixing centres: 400 mm in 24 modules cabinets and 616 mm in 36 modules cabinets.
Drilling: Ø 5 mm. Fixing screw: M5 + nuts (not supplied).

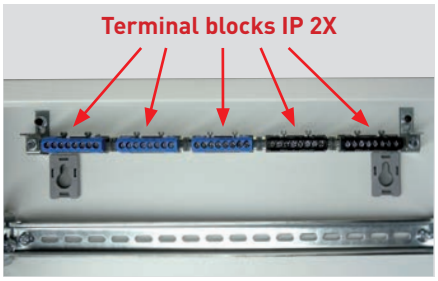


Example with 24 modules cabinet

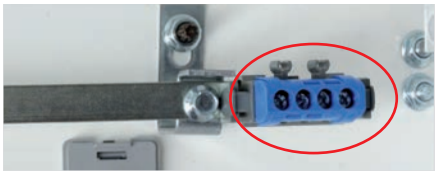
Minimum lenght:
24 modules → minimum length 410 mm
36 modules → minimum length 630 mm
Fixing centres: 400 mm in 24 modules cabinets and 616 mm in 36 modules cabinets.
Drilling: Ø 5 mm. Fixing screw: M5 + nuts (not supplied).



Example with 24 modules cabinet



2 additional 47 mm (maximum) terminal blocks (IP 2X or bare) Cat. Nos 0 048 20, 0 048 30, 0 048 40 or 0 048 50 can be fixed on each side of the 12 x 2 mm flat bar, when cut to the maximum length.



Accessories mounting

BLANKING PLATES

5 MODULES (CAT. NO 0 016 60)
24 MODULES (CAT. NO 3 397 54)
36 MODULES (CAT. NO 3 397 55)

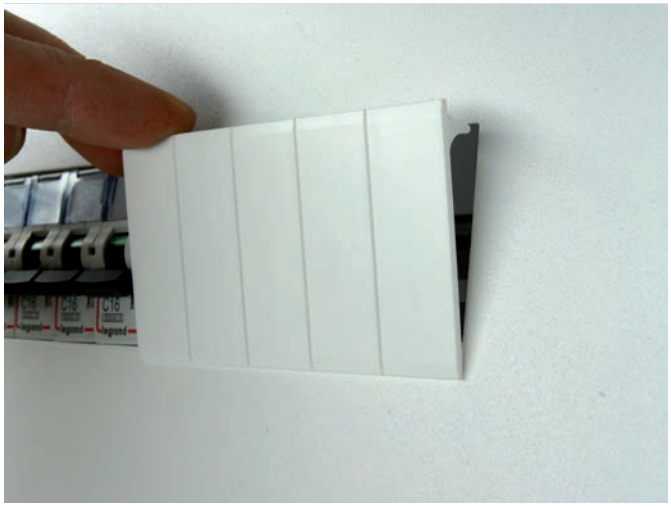
The blanking plates allow covering the modular frames of the XL³ S 160 faceplates.

You can use the 5 modules blanking plates Cat. No 0 016 60 (white colour RAL9003) and divisible in a half-module.

It's also possible to use the 24 modules Cat. No 3 397 54, and 36 modules Cat. No 3 397 55 blanking plate.

■ **Example of a blanking plate mounting Cat. No 0 016 60:**

First, insert the lower part of the blanking plate in the modular frame.



Clip the upper part by pushing in direction of the faceplate.

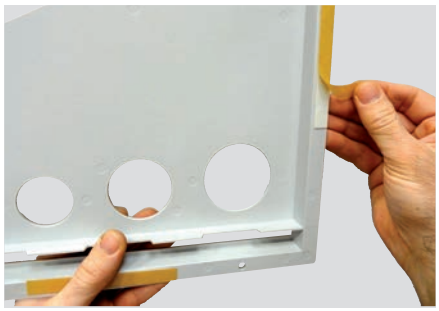
DOCUMENTS HOLDER

OPEN: WIDTH 340 X 235 (CAT. NO 0 365 80)
OPEN: WIDTH 260 X 165 (CAT. NO 0 365 81)
CLOSED: IP50 WIDTH 324 X 120 (CAT. NO 0 365 82)
FLEXIBLE: WIDTH 305 X 220 (CAT. NO 0 097 99)

The adhesive document holders allow storing the electrical plan, instruction manual, technical sheets... in the cabinet.
They are fixed on the lower part of the door.

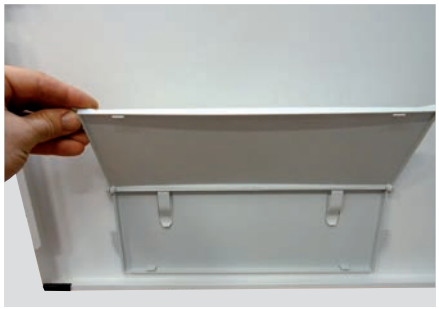
■ **Example of a document holder mounting**

Remove the plastic film of the double-sided adhesive type positioned at the back of the holder. Then, stick it wherever you want.



Cat. Nos 0 365 80, 0 365 81 :

Cat. No 0 365 82 :



Cat. No 0 097 99 :

FLUSH-MOUNTING CABINETS

The XL³ S 160 flush-mounting cabinets have optimised dimensions for distribution up to 160 A.
They have been designed in order to simplify the protection equipment installation and the wiring operations.
- Removable chassis,
- Removable insulated finishing frame,
- Adjustable flush-mounting box for cable insertion.

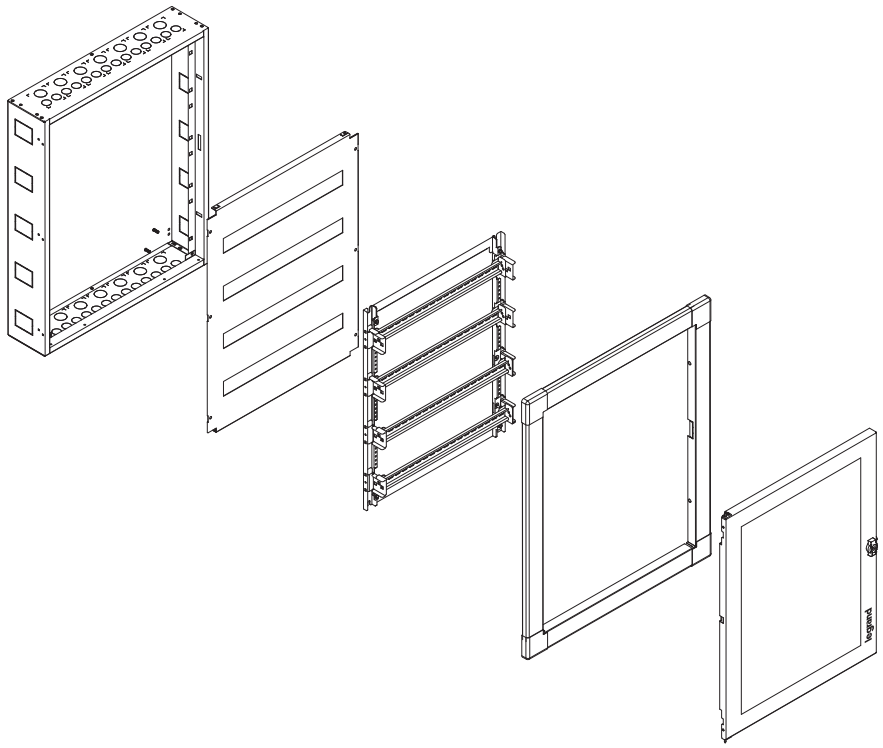
XL³ S 160 also offers original solutions for holding and running the wiring, a large working area.

SPECIFICATIONS

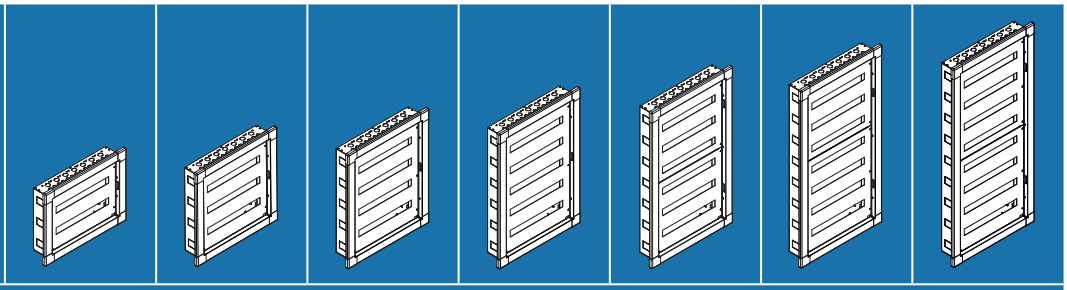
- **Class I metal cabinet**
- **Rated peak withstand current Ipk: 34kA**
- **IP 30 without door, IP 40 with door**
- **IK 07 without door, IK 08 with door**
- **Conforming to standard IEC 61439-2**
- **Can take devices up to 160 A**
- **Colour RAL 9003**
- **Maximum rated voltage (Ue) up to 500V ∿**
- **Rated insulation voltage: (Ui) 1000V ∿**
- **Rated impulse withstand voltage (Uimp):**

- 8 kV (moulded case)
- 4 kV (modular)

- **Supplied complete with rails, multi-rows faceplates, knock-out cable entry and support for terminal blocks (neutral and earth)**



THE XL³ S 160 FLUSH-MOUNTING CABINET RANGE

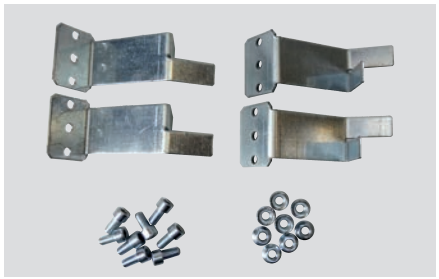
							
24 MODULES PER ROW							
Cat. Nos	3 372 22	3 372 23	3 372 24	3 372 25	3 372 26	3 372 27	3 372 28
Number of rows	2	3	4	5	6	7	8
Number of modules	48	72	96	120	144	168	192
Metal door (flat)	3 372 52	3 372 53	3 372 54	3 372 55	3 372 56	3 372 57	3 372 58
Glass door (flat)	3 372 72	3 372 73	3 372 74	3 372 75	3 372 76	3 372 77	3 372 78
36 MODULES PER ROW							
Cat. Nos	-	-	3 372 34	3 372 35	3 372 36	3 372 37	3 372 38
Number of rows	-	-	4	5	6	7	8
Number of modules	-	-	144	180	216	252	288
Metal door (flat)	-	-	3 372 64	3 372 65	3 372 66	3 372 67	3 372 68
Glass door (flat)	-	-	3 372 84	3 372 85	3 372 86	3 372 87	3 372 88

Preparing the cabinets for use

The XL³ S 160 cabinets are supplied in a cardboard packaging reusable for delivery to the site.

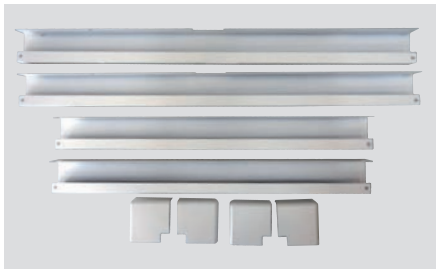
The cabinet is supplied with 3 packs. The 1st one contains 2 screws to fix the terminal block supports, 2 terminal block supports, 4 blanking plates for keyhole, 8 covers (plugs) for joining/combination, 4 caps for the hinge holes.

The 2nd pack contains: 4 masonry anchors, 8 fixing screws and 8 nuts:

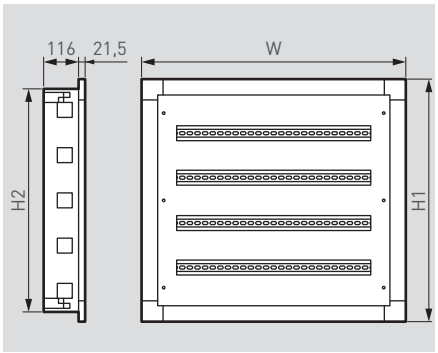


The 3rd pack contains: 4 clip-nuts, 4 screws (for clip-nuts) and 8 screw for corners fixing:

The frame and the corners are supplied with the cabinet:



1 DIMENSIONS

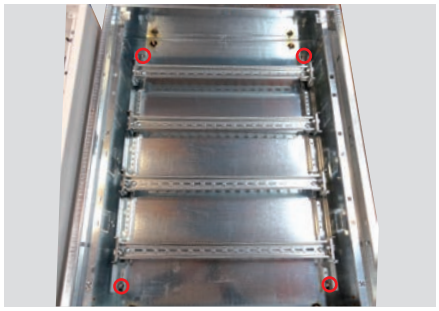


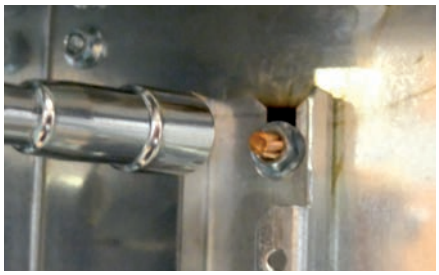
Cat. Nos		H1 (mm)	H2 (mm)	W (mm)
24 mod.	3 372 22	512	440	667
	3 372 23	662	590	
	3 372 24	812	740	
	3 372 25	962	890	
	3 372 26	1112	1040	
	3 372 27	1262	1190	
	3 372 28	1412	1340	
36 mod.	3 372 34	812	740	883
	3 372 35	962	890	
	3 372 36	1112	1040	
	3 372 37	1262	1190	
	3 372 88	1412	1340	

2 REMOVING THE CHASSIS

The chassis can be removed from the enclosure in order to carry out the wiring in the workshop if the flush-mounting box is already installed on site.

You need to unscrew the 4 fixing screws by using a 10 mm spanner.





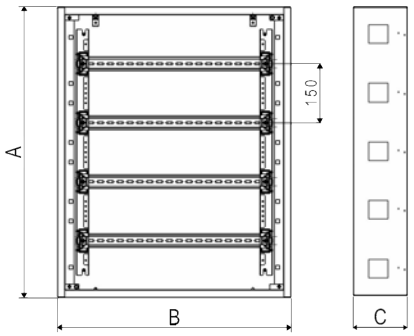
Chassis left:

3 FLUSH-MOUNTING

It's only possible by fixing the cabinet in a masonry wall (cinder block, engineering/ plain brick and aerated concrete) or a partition in hard materials (partition brick, precast plaster blocks and aerated concrete) associated to isolation in many cases.

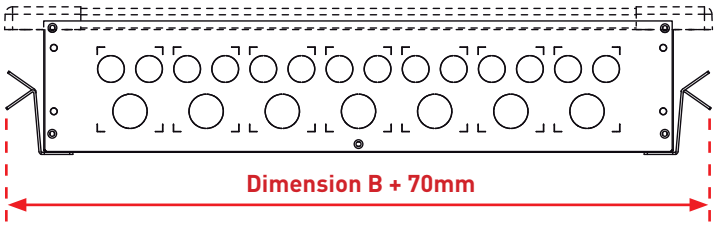
Cabinets can be fixed using plaster, adhesive mortar or cement, as required.

■ **Flush-mounting dimensions of the 24 and 36 modules cabinets**



Cat. Nos		A	B	C
24 modules	3 372 22	595	440	135
	3 372 23	590	595	
	3 372 24	740	595	
	3 372 25	811	740	
	3 372 26	890	595	
	3 372 27	890	811	
	3 372 28	1040	595	
36 modules	3 372 34	1040	811	135
	3 372 35	1190	595	
	3 372 36	1190	811	
	3 372 37	1340	595	
	3 372 38	1340	811	

The flush-mounting width must be expanded at the masonry anchors (+ 35mm in width per anchor).



The hole in the masonry wall must have a minimum depth of 135 mm.

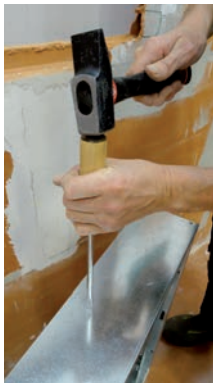
The set partition + isolation must have a minimum depth of 135 mm, including a minimum depth of 100 mm for the partition. (The anchors sealing is made at mid-depth of the cabinet, i.e. approximately 70 mm).

Preparing the cabinets for use (continued)

3 FLUSH-MOUTING (CONTINUED)

■ Cut of the cable entries

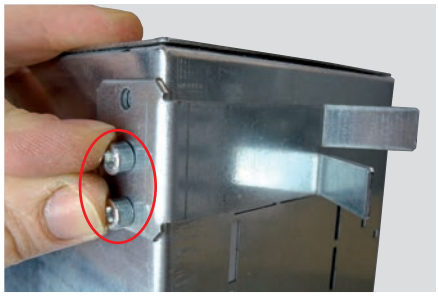
Knockout and cut the upper or bottom side panel of the cabinets in order to run the cables.



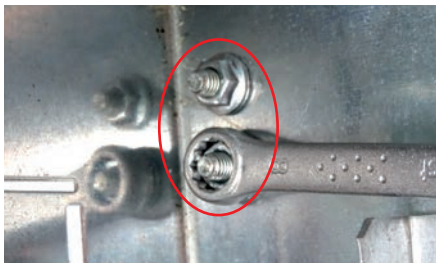

■ Masonry anchors mounting

Fit the masonry anchors which are supplied with the cabinet (x 4) by using the screws (x 8) and the nuts (x 8) supplied.

Screws at the back of the cabinet:



Nuts inside the cabinet:



■ Installation in the wall

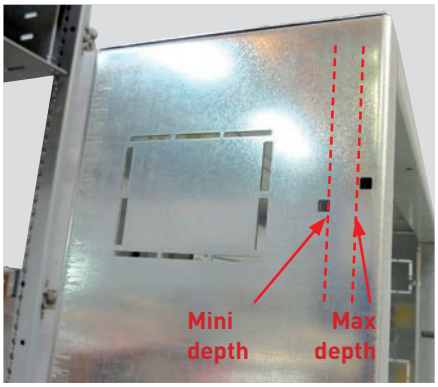
Position the cabinet at level against the wall and draw the outlines. The position of the 4 fixing lugs can be made in the same time:


Cut of the wall or the partition:


Fit the cabinet in the hole and insert all sheaths.

Seal the lugs then, furnish around the cabinet with some plaster, adhesive mortar or concrete:

On the side panel of the cabinet, 2 marks indicate the maximum and the minimum depth for the flush-mounting (including the finishing).



Minimum depth:

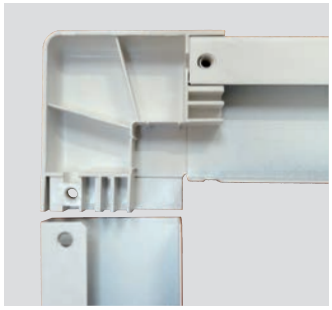
Maximum depth:

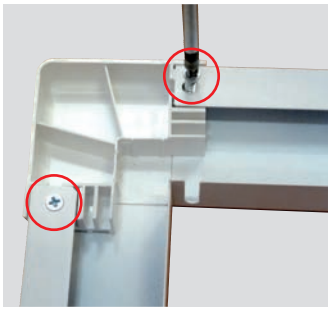
4 FRAME MOUNTING AND INSTALLATION

■ Frame mounting

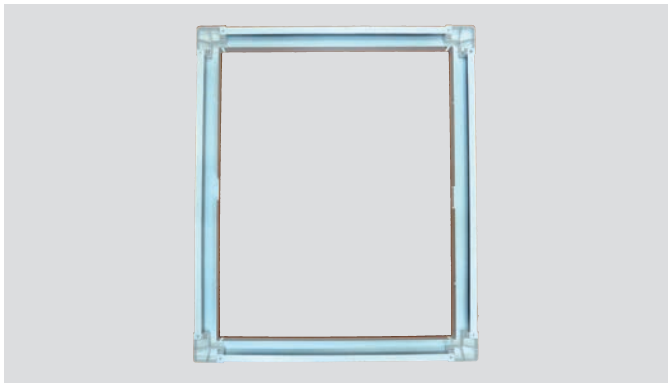
Gather the 4 parts of the frame with the corners and fix them together by using the 8 screws supplied (2 per angle).

Example for one corner:





Picture of the assembled frame (interior side):

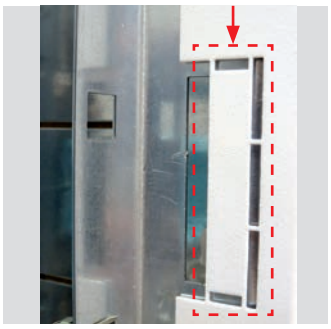


Frame fitting

1- Fit the clip-nuts supplied on the sides of the cabinets in order to fix and adjust the frame:

2- Depending on the flush-mounting depth of the cabinet, it will be necessary to remove the pre-cut on the frame to allow the handle latch to be inserted.

Minimum depth → yes
Maximum depth → no
Put the frame (in the stop/abutment) on the wall to define the correct option.
Part to remove in case of need.



3- Put the frame on the wall and screw it in the clip-nuts with the screws supplied:

4-Still depending on the flush-mounting depth, it will be necessary to clip one or many plastic covers (depending on the number of handles on the door) supplied at the opposite of one (or many) keyhole → side of the hinges

Minimum depth → no

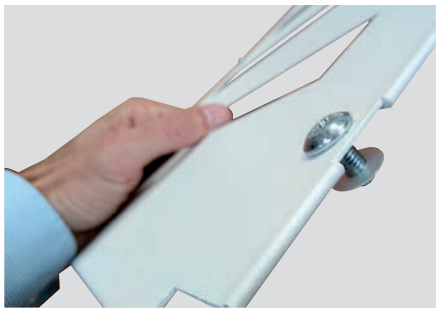
Maximum depth → yes

Preparing the cabinets for use (continued)

5 FACEPLATES MOUNTING

■ Fitting

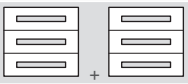
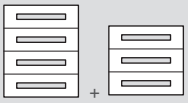
The XL³ S 160 are supplied with 1 or 2 faceplates (see the components in the adjacent table). The faceplates are fixed on the cabinet with captive screws:



The plastic washer holds the screw on the faceplate and makes the handling easier.

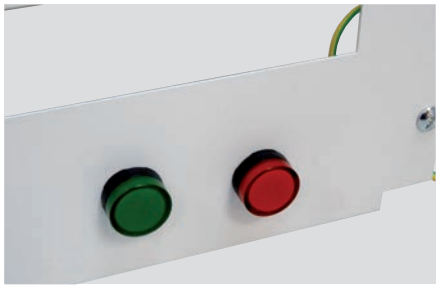
The earth continuity between the faceplate and the cabinet is possible thanks to a claw (see picture below).

■ Configuration by cabinet size

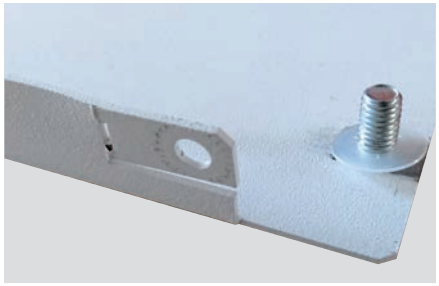
Cat. Nos		Number of faceplates		Number of fixing points
24 modules	3 372 22	1 faceplate of 2 rows		4
	3 372 23	1 faceplate of 3 rows		4
	3 372 24	1 faceplate of 4 rows		6
	3 372 25	1 faceplate of 5 rows		6
	3 372 26	2 faceplates of 3 rows		8
	3 372 27	1 faceplate of 4 rows + 1 faceplate of 3 rows		10
	3 372 28	2 faceplates of 4 rows		12
36 modules	3 372 34	1 faceplate of 4 rows		6
	3 372 35	1 faceplate of 5 rows		6
	3 372 36	2 faceplates of 3 rows		8
	3 372 37	1 faceplate of 4 rows + 1 faceplate of 3 rows		10
	3 372 38	2 faceplates of 4 rows		12

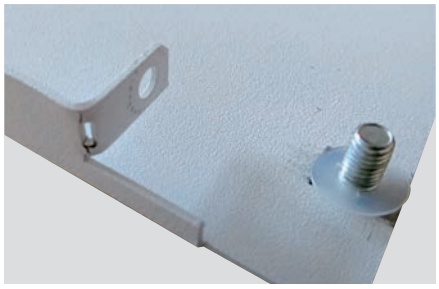
5 FACEPLATES MOUTING (CONTINUED)

For the installation of control and signalling units or devices with a voltage U>50 V on the faceplate, it is necessary to add an equipotential link conductor between the faceplate and the cabinet.

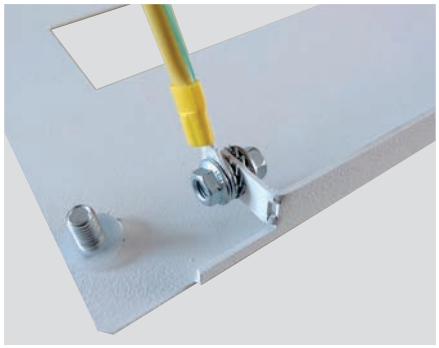


To achieve this, you must bend the connecting lug of the faceplate with pliers.

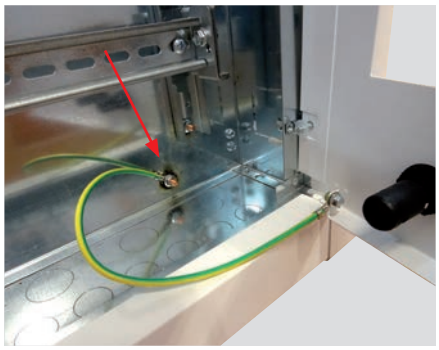




Connect the conductor (Cat. No 3 397 53) to the faceplate with a screw, a nut and 2 washers (not supplied) in order to ensure the continuity.

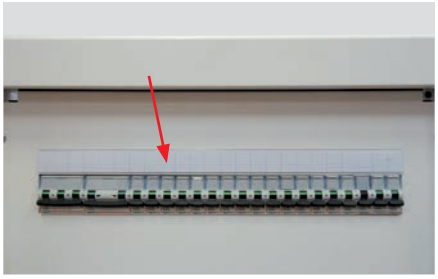


The connection on the cabinet is made by screwing a M6 nut (not supplied) on the specified attachment points.



6 SIGNALLING

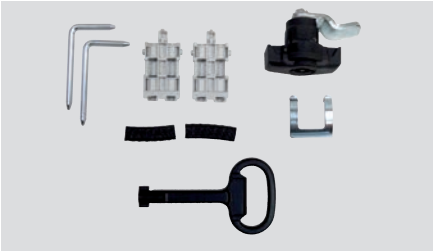
As well as the label-holders on all DIN rail mounting equipment and the plastic marking strip Cat. No 0 203 99, a clip-on holder accessory is available for 24 modules (Cat. No 3 397 55) and 36 modules (Cat. No 3 397 56).



Preparing the cabinets for use (continued)

7 FITTING THE DOORS

The solid or glass doors can be fitted to open to the left or the right (see selection table page 3).
The slots for the hinges and the door release are provided on both sides of the cabinet.



Door kit components: 2 axis, 2 hinges, 1 handle up to 5 rows or 2 handles from 5 rows, 1 key and 1 cross bolt.

■ Finishes

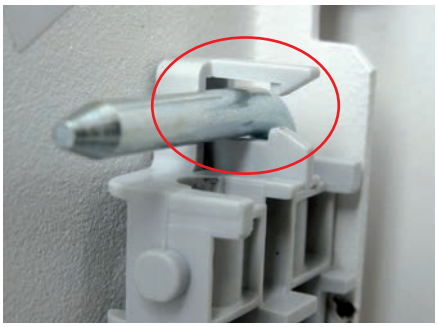
To ensure the IP (Protection Index) of the cabinet you must plug the holes in the opposite of the hinges (1 at the top and 1 at the bottom) by using the cap supplied with the cabinet.

■ Fitting the hinges

1- Fit and clip the hinges in the specified slots on the door side.

2- Insert the axis of the hinge in the specified hole.

3- Rotate the axis on 90° to lock the system.



The axis should be properly clipped in the specified location (see photo above).

■ Fitting the handle

1- Fit and introduce the handle in the hole at the opposite of the hinges.


2- Insert the cross bolt at the back of the handle, against the door.


3- Once the door release of the handle installed, turn it with the key in lock position in order to check the proper functioning.

Metal doors Cat. Nos 3 372 57, 3 372 58, 3 372 67, 3 372 68 and glass doors Cat. Nos 3 372 77, 3 372 78, 3 372 87, 3 372 88 are equipped with 2 handles.

The door axis are designed to be fit and removed without tools. The door installation is made easier.

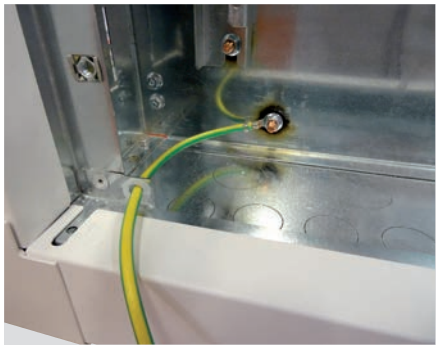
■ Equipotential link

You have to make an equipotential link if control and signalling units or device with voltage U>50 V are fitted on the door.

The doors are equipped with studs for connecting the equipotential link conductor Cat. No 3 397 53.

1- Remove the dedicated plastic cover on the cabinet (2 covers available). Then, cut it to enable the cable to pass:


2- Put the plastic cover back in its location, fit the cable on the stud of the cabinet (with a M6 nut). Then, pass it through the cover:



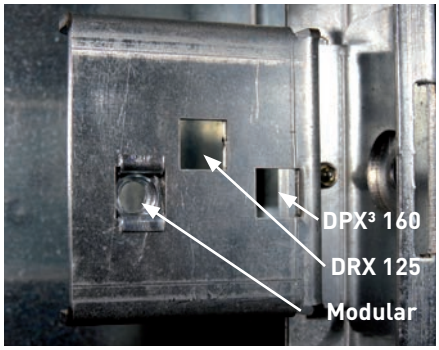
3- Remove the protection cover of the earth stud and fit the cable and with the help of a M6 nut.


Preparing the cabinets for use (continued)

Mounting protection devices

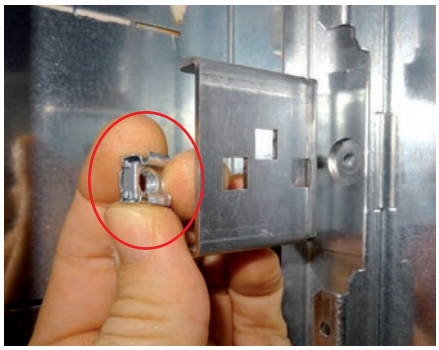
The chassis offers 3 possibilities of DIN rail adjustment:

- Upper position for modular products and Vistop < 160A;
- Middle position for DRX 125 MCCBs;
- Low position for DPX³ 160 MCCBs.



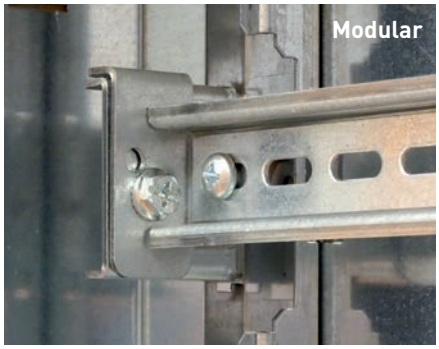
The cabinets are supplied with rails in upper position.

To adjust the rail in middle or low position, you need to remove the clip-nut and clip it in the square hole of the desired position.



The rail adjustment facilitates the integration of our power and modular products.

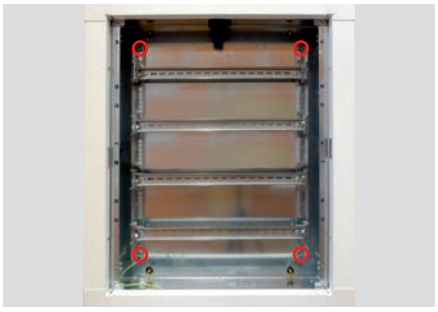
■ **Upper position**



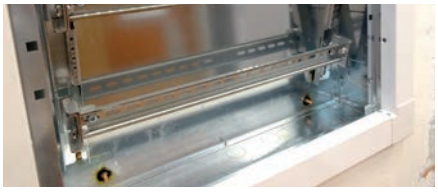
■ **Middle position**

■ **Low position**

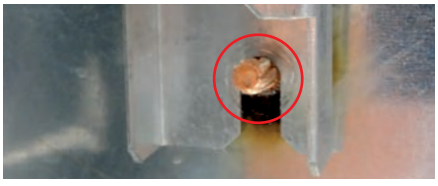
The removable function of the chassis allows adjusting the rail and fitting the products outside the cabinet, on a workbench or something else.
To remove the chassis from the cabinet, you must take out the the 4 10 mm screws (2 at the top and 2 at the bottom):



To put the chassis back, you must insert it in the 2 attachment points at the top. Screw the 4 nuts by starting with the 2 at the top.

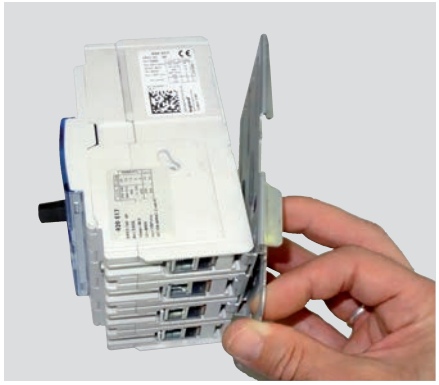


Low part:

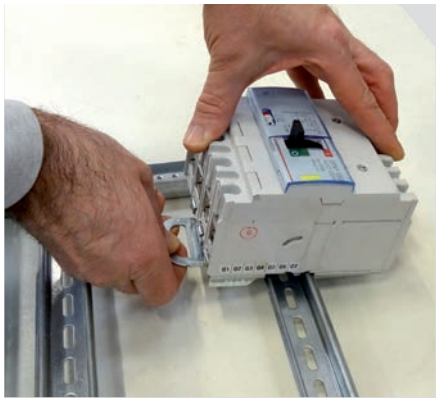


1 MOUNTING THE DPX³ 160

The DPX³ 160 is mounted on a ⊔ rail in low position by associating it to the plate Cat. No 4 210 71.



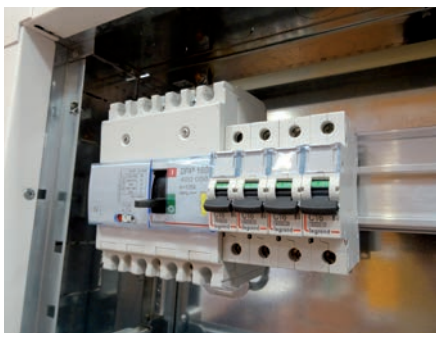
Installation of a plate + MCCB on the rail.



A height spacer Cat. No 3 382 40 can be added in order to fit modular devices (MCB) at the same level as the DPX³ 160.

After adjusting the length the height spacer, you need to clip it to the ⊔ rail beside the DPX³ 160.

The depth is thus correct to install the faceplate.



2 MOUNTING THE DRX 125

(available for certain countries)

The DRX 125 MCCB is directly mounted on the rail in middle position.

As for the DPX³ 160, it's possible to fit modular devices beside a DRX. For this, you need to use the height-spacer Cat. No 3 382 41. The installation is the same than the height-spacer Cat. No 3 382 40 (DPX³ 160).

3 MOUNTING OF A DPX³ 160 AND A DRX 125 ON THE SAME ROW

It's also possible to install these 2 products on the same row by mounting the DRX 125 on the height-spacer Cat. No 3 382 42.

The rail must to be in the low position.

The DPX³ 160 mounting is detailed in the paragraph 1 (page 27).

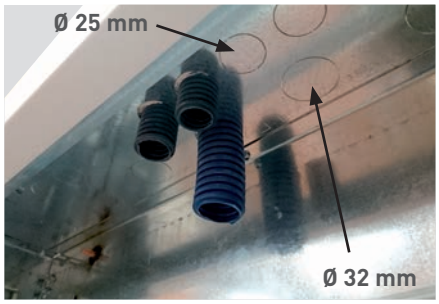
Wiring and connection

1 INSERTING OF THE CABLES/ CABLES ENTRY

The XL³ S 160 are fitted with knockout cable entries in order to mount cable glands ISO 25 and/or ISO 32:

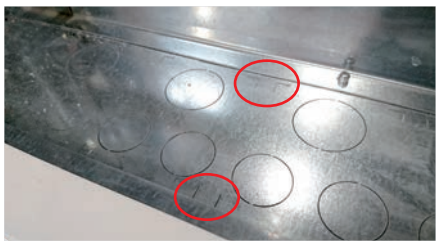
■ **Number of cylindrical entries**

- 24 modules: 14 entries Ø 25 and 7 entries Ø 32
- 36 modules: 20 entries Ø 25 and 10 entries Ø 32



It's also possible to cut rectangular areas to allow the circulation of several cables.

The angles are pre-marked on the top and at the bottom of the cabinet. The cutting is done using a jigsaw or a tube cutter.

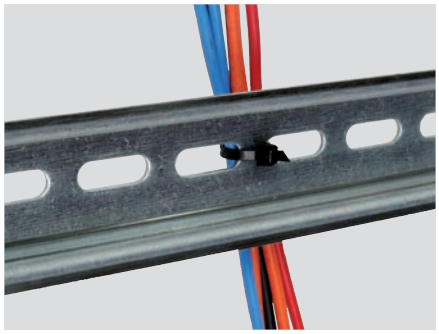


■ **Number of rectangular entries**

Number of modules	Rectangular knockout entries Number and dimension
24	7 (62x80) mm
36	10 (62x80) mm

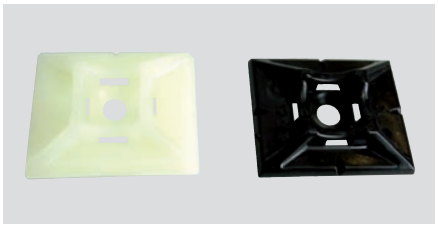
2 CABLES FIXING

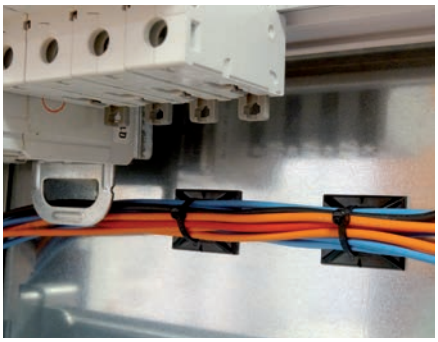
Cables can be fixed with the help of Colson™ cable ties directly behind the rail (all Colson™ and Colring™ cable ties can be used).



Fixing base can be placed between the rails for fixing the cable:

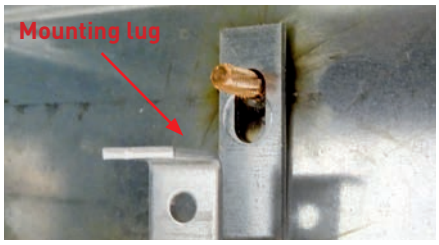
Self-adhesive base Cat. No 0 320 65 (white) and Cat. No 0 320 67 (black).





3 PROTECTIVE CONDUCTORS AND IP 2X DISTRIBUTION TERMINAL BLOCKS

First, you need to fit the mounting lugs which are supplied with the cabinet (2 lugs) by using the nuts.



The brass terminal block Cat. No 0 373 00 that is fixed on the lugs supplied with the cabinet (with the 2 screws and 2 nuts supplied with the Cat. No 0 373 00).

4 positions in the cabinets are possible. → 2 at the top and/or 2 at the bottom.

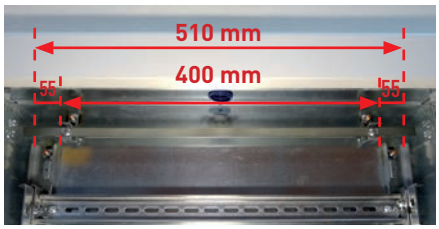
Here is example with 2 earth terminal blocks at the top of the cabinet.

To make the wiring of the protective conductors, it's also possible to use one (or more) copper bars Cat. No 0 373 89 that you have to cut. (Original length → 990 mm).

As the holes of the bar are threaded, the mounting lugs are placed between the copper bar and the screw heads (M5 screws, not supplied)

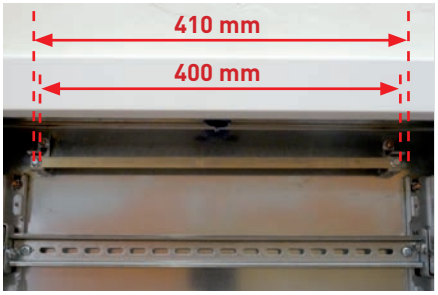
For the installation of an IP 2X distribution terminal block, you need to use a flat bar 12 x 2 mm Cat. No 0 048 19. This bar is also fixed on the lugs supplied with the cabinet. You must cut and drill it, as follows:

Maximum lenght:
24 modules → maximum length 510 mm
36 modules → maximum length 726 mm
Fixing centres: 400 mm in 24 modules cabinets and 616 mm in 36 modules cabinets.
Drilling: Ø 5 mm. Fixing screw: M5 + nuts (not supplied).

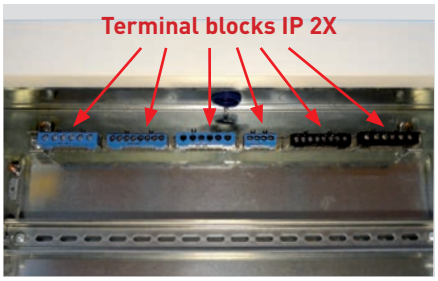


Exemple with 24 modules cabinet

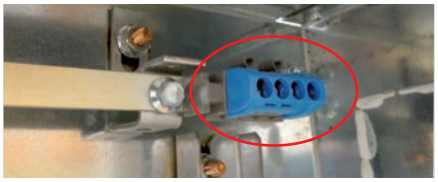
Minimum lenght:
24 modules → minimum length 410 mm
36 modules → minimum length 630 mm
Fixing centres: 400 mm in 24 modules cabinets and 616 mm in 36 modules cabinets
Drilling: Ø 5 mm. Fixing screw: M5 + nuts (not supplied).



Example with 24 modules cabinet



2 additional 47 mm (max.) terminal blocks (IP 2X or bare) Cat. Nos 0 048 20, 0 048 30, 0 048 40 or 0 048 50 can be fixed on each side of the 12 x 2 mm flat bar, when cut to the maximum length.



Accessories mounting

BLANKING PLATES

5 MODULES (CAT. NO 0 016 60)
24 MODULES (CAT. NO 3 397 54)
36 MODULES (CAT. NO 3 397 55)

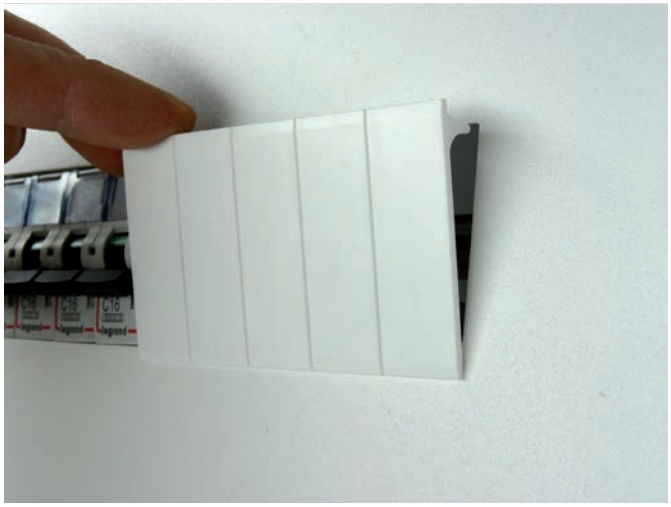
The blanking plates allow covering the modular frames of the XL³ S 160 faceplates.

You can use the 5 modules blanking plates Cat. No 0 016 60 (white colour RAL9003) and divisible in a half-module.

It's also possible to use the 24 modules Cat. No 3 397 54, and 36 modules Cat. No 3 397 55 blanking plate.

■ **Example of a blanking plate mounting Cat. No 0 016 60:**

First, insert the lower part of the blanking plate in the modular frame.



Clip the upper part by pushing in direction of the faceplate.

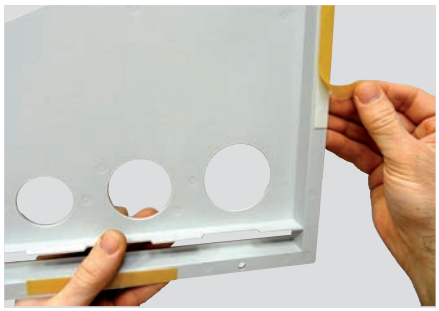
DOCUMENTS HOLDER

OPEN: WIDTH 340 X 235 (CAT. NO 0 365 80)
OPEN: WIDTH 260 X 165 (CAT. NO 0 365 81)
CLOSED: IP50 WIDTH 324 X 120 (CAT. NO 0 365 82)
FLEXIBLE: WIDTH 305 X 220 (CAT. NO 0 097 99)

The adhesive document holders allow storing the electrical plan, instruction manual, technical sheets... in the cabinet.
They are fixed on the lower part of the door.

■ **Example of a document holder mounting**

Remove the plastic film of the double-sided adhesive type positioned at the back of the holder. Then, stick it wherever you want.

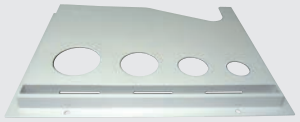


Cat. Nos 0 365 80, 0 365 81 :

Cat. No 0 365 82 :

Cat. No 0 097 99 :

ACCESSORIES AND SPARE PARTS

CAT. NOS	DESIGNATION	CONTENTS	
3 374 00	Wall mounting lugs (supplied by 4)		4 lugs, 8 screws, 8 nuts
0 048 19	12x2 flat bar 1 m length		x 1
0 373 00	Additional brass bar		1 bar 2 screws, 2 nuts
3 374 04	Kit for joining		4 screws, 4 nuts
0 365 80	Open adhesive document holder - width 340x height 165 grey RAL 7035		x 1
0 365 81	Open adhesive document holder - width 260x height 165 grey RAL 7035		x 1
0 365 82	Closed adhesive document holder - IP50 - 324x120x18 grey RAL 7035		x 1
0 097 99	Plastic flexible document holder - 305x220 mm - transparent		x 1
3 382 40	Rail DPX³ + modular adaptor		x 1

CAT. NOS	DESIGNATION	CONTENTS	
0 016 60	White 5 modules blanking plate RAL 9010		1 blanking plate 5 modules
3 397 10	Handle		1 handle 1 cross bolt
3 397 53	Equipotential link conductor		x 1
3 397 55	24 modules Clip-on adhesive holder		1 holder 1 labels sheet
3 397 57	36 modules Brass bar		x 1
3 397 54	24 modules blanking plate		x 1
3 397 56	36 modules Clip-on adhesive holder		1 holder 1 labels sheet
9 809 01	Door hinge		1 hinge 1 axis
9 809 03	2 terminal block supports kit		2 supports 2 nuts

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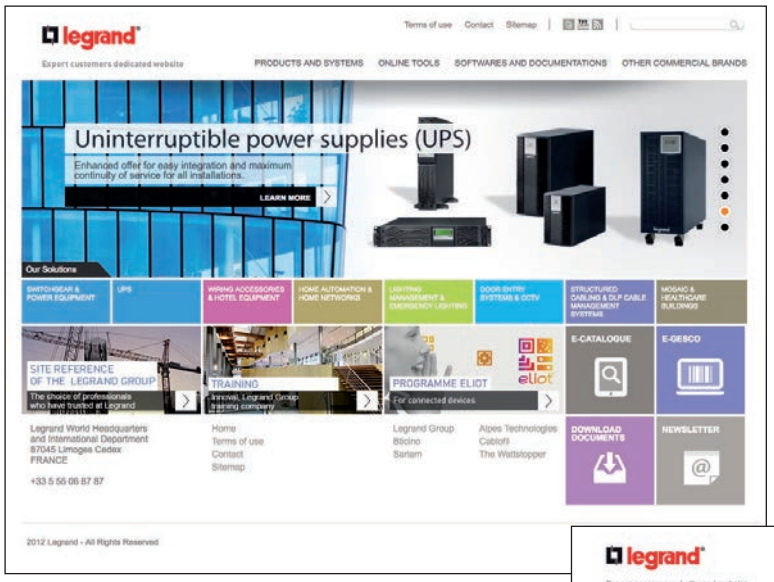

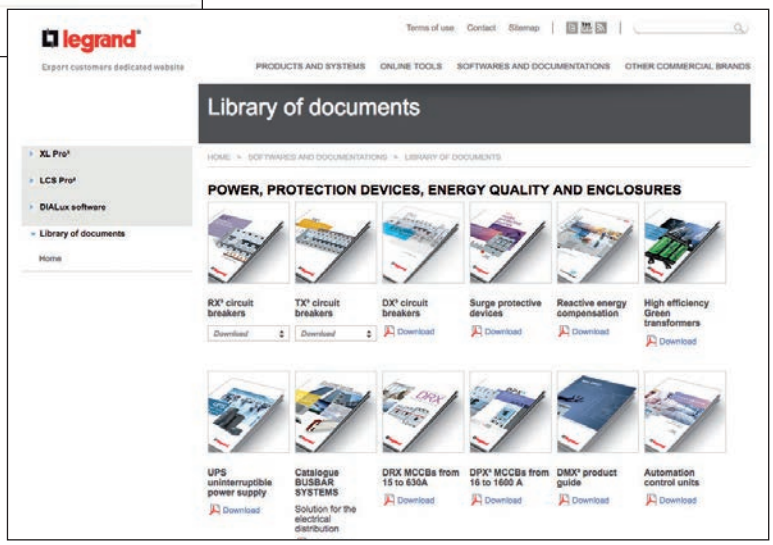

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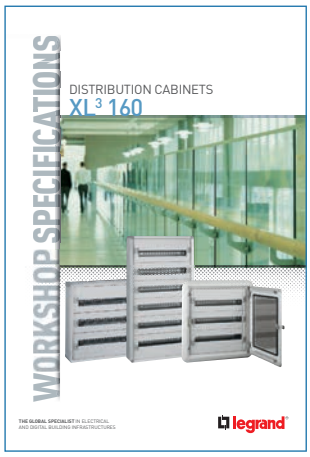

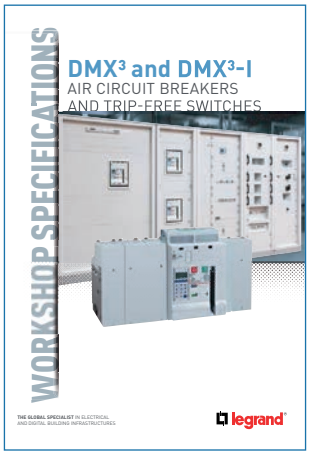

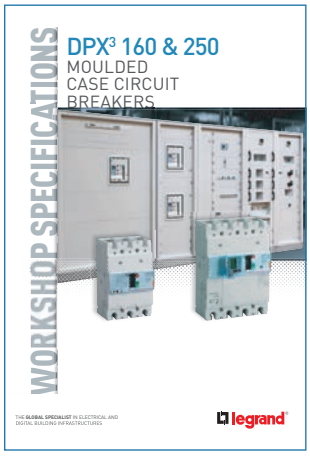

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Head office
and International Department
87045 Limoges Cedex - France
Tel: + 33 (0) 5 55 06 87 87
Fax: + 33 (0) 5 55 06 74 55

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