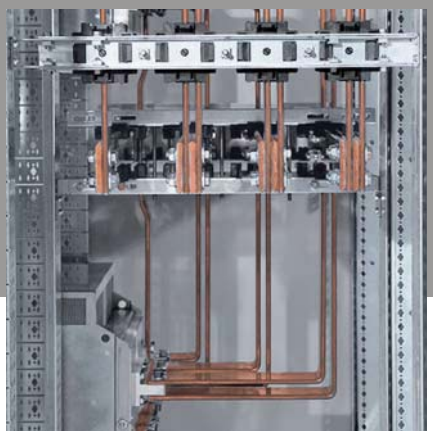
XL³ 4000

Distribution enclosures



WORKSHOP SPECIFICATIONS

legrand®

www.legrand.fr

With its extensive ranges, the Legrand offer meets your quality standards and provides real freedom and simplicity of installation together with acknowledged reliability.

The new XL³ 4000 enclosures are available in 3 widths and 3 depths, so it is easy for you to create the configuration you want. Enclosures can be joined side by side or back to back, and each panel can be replaced by a door to define the composition most suited to your requirements. There are no restrictions with these fully modular enclosures.

Likewise, freedom of distribution has received particular attention: "standard" or "optimised" distribution which not only make for easy assembly, but also enable you to save time when installing them as well as during maintenance and extension operations.

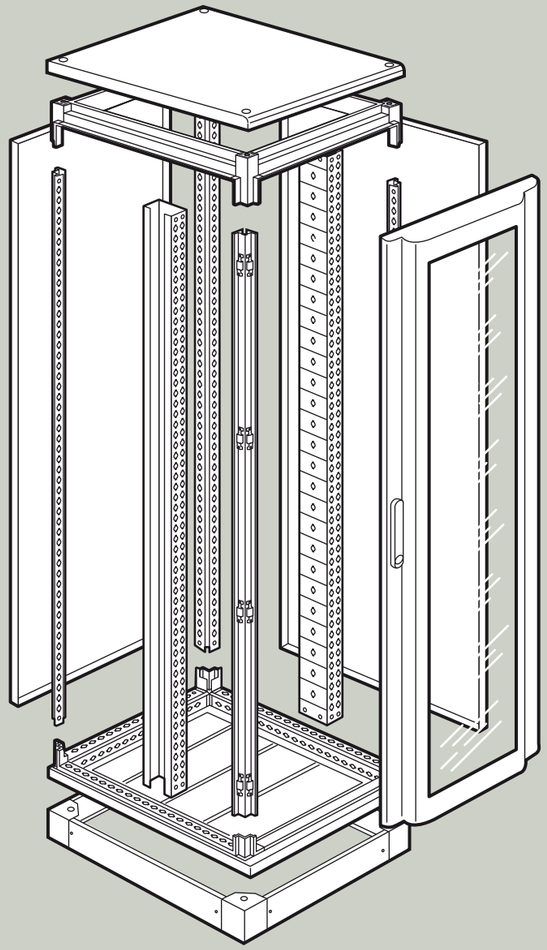
These enclosures fit in perfectly with the whole range of XL³ enclosures, both in terms of appearance andinstallation method.

Contents

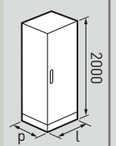
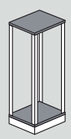
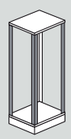
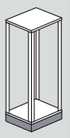
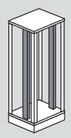
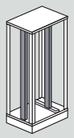
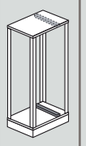
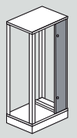
The XL³ 4000 range

CHARACTERISTICS

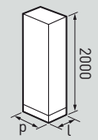
- IP 30 / IP 55 (with door and seal for joining)
- IK 08
- Fire resistance: 750°/30 s
- Short time withstand current Icw: up to 110 kA (with 4000 A busbar)
- 3 widths
  - 475 mm (wiring sleeve)
  - 725 mm (24 modules per row)
  - 975 mm (36 modules per row or 24 modules per row + internal wiring sleeve)
- Take devices up to 4000 A
- 3 types of faceplate (¼ turn sealable, screw-mounting with or without hinge, with hinges and locks)
- Choice of distribution: standard or optimised (XL-Part 800 and XL-Part 1600 column chassis, 250 A and 400 A row distribution blocks)
- Separation types: up to 4b
- Service index: up to IS 333
- Colour: RAL 7035
- Conform to standard IEC 60439-1



ENCLOSURES

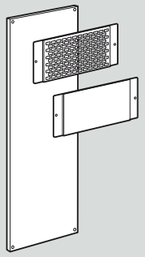
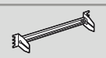
External dimensions l x d (mm)	Roof-base assemblies	Structural uprights	Plinths	Functional uprights		Crosspieces for internal wiring sleeves	Front covers for internal wiring sleeves	Rear panels	Side panels	Doors			
				without internal wiring sleeve	with internal wiring sleeve					Rounded		Flat	
										Metal	Glass	Metal	Glass
													
725 x 475	205 04	205 00	205 14	205 24	-	-	-	205 42	205 41	205 54	205 64	205 74	205 84
725 x 725	205 05	205 00	205 15	205 24	-	-	-	205 42	205 42	205 54	205 64	205 74	205 84
725 x 975	205 06	205 00	205 18	205 24	-	-	-	205 42	205 43	205 54	205 64	205 74	205 84
975 x 475	205 07	205 00	205 17	205 24	205 27	205 21	205 47	205 43	205 41	205 57	205 67	205 77	205 87
975 x 725	205 08	205 00	205 18	205 24	205 27	205 22	205 47	205 43	205 42	205 57	205 67	205 77	205 87
975 x 975	205 09	205 00	205 19	205 24	205 27	205 23	205 47	205 43	205 43	205 57	205 67	205 77	205 87

EXTERNAL WIRING SLEEVES

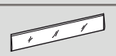
External dimensions l x d (mm)	Roof-base assemblies	Structural upright	Plinths	Front covers	Rear panels	Side panels	Doors
							
475 x 475	205 01	205 00	205 11	205 48	205 41	205 41	205 71
475 x 725	205 02	205 00	205 14	205 48	205 41	205 42	205 71
475 x 975	205 03	205 00	205 17	205 48	205 41	205 43	205 71

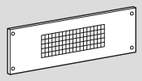
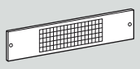
The XL³ 4000 range (continued)

ACCESSORIES

Equipment and accessories for enclosures		24 modules	36 modules
	Perforated plate (Height 200 mm)	206 41	
	Perforated plate (Height 400 mm)	206 42	
	Solid plate (Height 200 mm)	206 43	
	Solid plate (Height 400 mm)	206 44	206 46
	Solid plate (Height 600 mm)	206 45	
	Adjustable solid plate (Height 200 mm)	206 47	206 49
	Adjustable solid plate (Height 400 mm)	206 48	
	Solid plate supplied with runners (Height 1800 mm)	205 40	
	Universal ⊔ rail	206 04	206 54
	Adjustable universal fixing device	206 02	206 52
	Clip-nuts for M6 screw (x 20)	200 92	
	M6 screw (x 50)	200 91	
	Aerosol paint spray RAL 7035	200 98	
	Lifting rings (x 4)	205 82	
	Screws for structural joining	205 86	
	Flat reinforcement plates (x 2)	205 89	
	L-shaped reinforcement plates (x 2)	205 88	
	IP 55 sealing kit for use when joining enclosures	205 85	
	Kit for joining plinths	205 10	
	Spacers for functional upright (x2)	207 50	

Wiring accessories		24 modules	36 modules
	Cable fixing support	204 35	204 36
	Set of 2 Lina 25 ducting fixing supports	205 70	204 70
	Lina 25 ducting (W x H mm): 40 x 60	362 07	
	40 x 80	362 08	
	60 x 60	362 12	
	60 x 80	362 13	
	Isolating rivet for direct fixing on functional uprights	200 80	

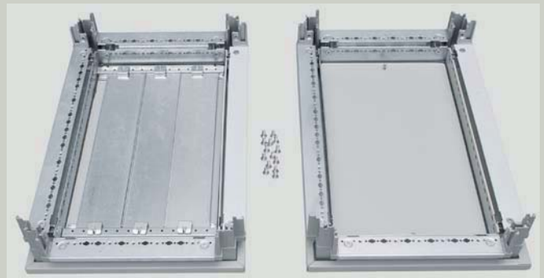
Accessories for faceplates		
	Set of 2 hinges (for screw-mounting faceplate)	209 59
	24-module smooth adjustable blanking plate	200 51
	18 module separable blanking plate	016 65
	Clip-on holder for adhesive labels	203 99

Accessories for natural ventilation		
	Perforated faceplate for natural ventilation (H 200 mm, 24 mod)	209 49
	Perforated faceplate for natural ventilation (H 200 mm, 36 mod)	209 99
	Ventilation panel for plinth (24 modules)	205 44
	Ventilation panel for plinth (36 modules)	205 45
	Spacers for raising the roof	205 46

Assembling the enclosures

A ASSEMBLING THE STRUCTURE

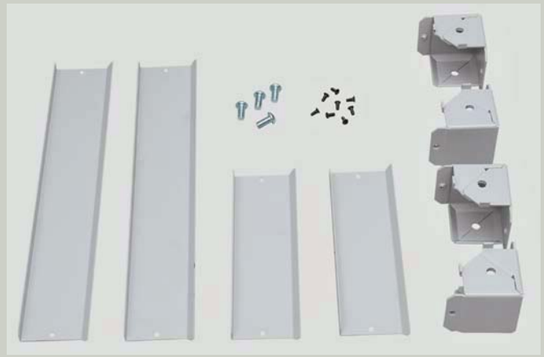
An XL³ 4000 enclosure or wiring sleeve consists of a "roof-base" assembly, 4 structural uprights and a plinth, to which a rear panel and 2 side panels can be added.



The "roof-base" assembly is supplied with the screws and cable gland plates

1. Fitting the plinths

The plinths are 100 mm high. They can be fitted side by side using kit Cat. No. 205 10. Their side panels can be removed to allow cables to be fed through from one cell to the other.



The plinths consist of 4 corner pieces and 4 side panels

Turn the base upside down to access the plinth fixing points

The fixing screws for the cornier pieces are supplied with the "roof-base" assembly.

The corner pieces are drilled so that an 8 mm Allen key can be inserted (the handle supplied with the "Debro-lift" mechanism for DPX is suitable)

Fit the side panels as required, then turn the assembly upside down to insert the structural uprights

2. Fitting the structural uprights

Structural uprights Cat. No. 205 00 are supplied in sets of 4 and are common to all the enclosures and wiring sleeves in the range.

Clip each upright on the base and fix it using two M8 countersunk head screws without permanently locking them.

Caution: the 2 painted uprights must be placed at the front of the structure (painted side of the base) ensuring that their perforated side is at the back

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The rear panel and side panels can be replacedwith doors

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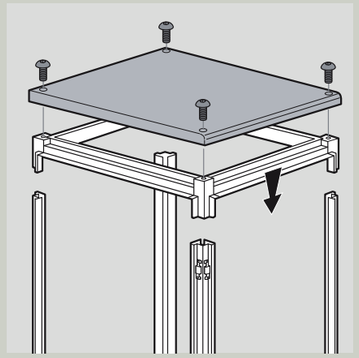
For bases whose width and depth are identical, the direction of the runners on the cable gland plate can be reversed

Assembling the enclosures (continued)

3. Assembling the roof

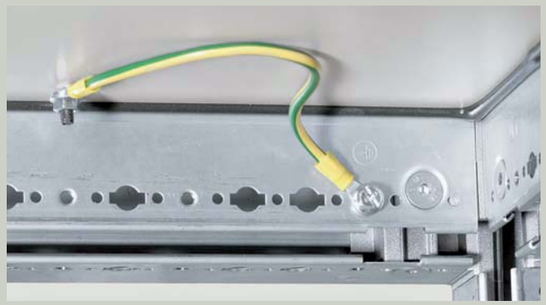


Insert the 2 pieces that make up the roof in the ends of the structural uprights

Attach the roof using M8 countersunk head screws then permanently tighten all the structural assembly screws

Caution: the painted part and the rounded part of the roof must be placed at the front of the structure

Create the equipotential links from the roof and the plinth to the structure using the conductors and screws supplied with the "roof-base" assembly.
The connection points provided for this are marked with the ⏚ symbol.



Caution: use the connection points at the back of the enclosure, as those located at the front are reserved for fitting the faceplate support uprights

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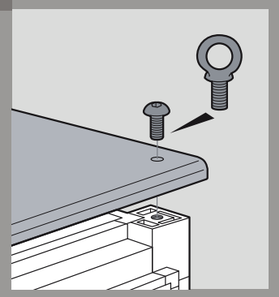


The 4 fixing screws for the roof can be replaced by lifting rings Cat. No. 205 82

4. Joining 2 structures

IP 30

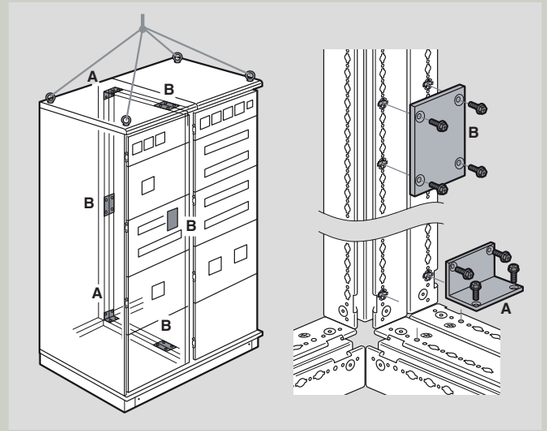
The structural uprights are pre-equipped, on their outer sides, with linking pieces for joining.

These pieces are also used for fitting the panels and doors.

Join the linking pieces of the 2 structures using the M6 screws in joining kit Cat. No. 205 86

The joining kit comprises 8 x M6 screws and a tool for holding the screws in place while they are tightened

If the panel is to be moved or transported, the structure must be reinforced after joining using reinforcement plates Cat. Nos 205 88/89



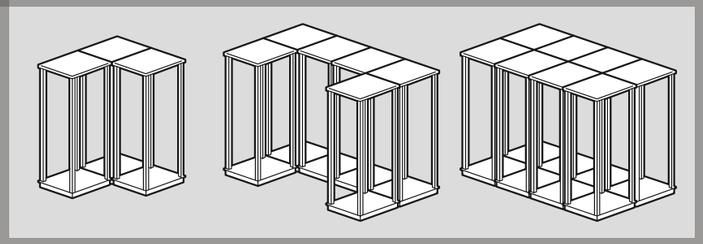
Example of reinforcement of a joined assembly
A: 1 set of 2 L-shaped plates Cat. No. 205 88
B: 2 sets of 2 flat plates Cat. No. 205 89

IP 55

The joining operations are identical to those described for IP 30 protection. However weatherproof seal Cat. No. 205 85 is required between the structures to be joined.

Apply the seal in one piece and ensure that it is attached at the bottom

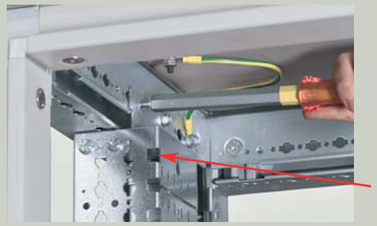
Assembling the enclosures (continued)



Due to the modularity of the structure, it is possible to join enclosures side by side or back to back. Numerous configurations can therefore be created to meet the specific requirements of services areas

5. Fitting the functional uprights

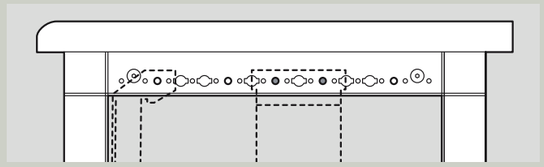
The functional uprights are essential in enclosures. They take the fixing devices or plates for all Legrand Lexic, DPX and DMX devices in all versions and all configurations. They are also used for fitting the XL-Part 800 and 1600 column chassis.



Fix the functional uprights using the tapped holes provided for the purpose

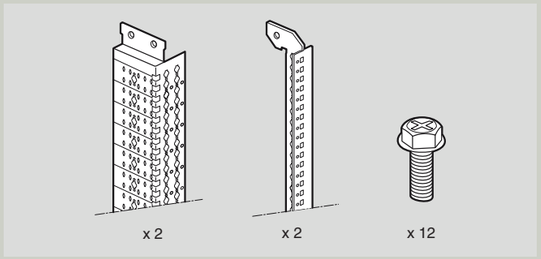
Square cut-outs at the front

Do the same for the faceplate support uprights



Caution: in 475 mm deep enclosures, use the tapped holes that are furthest back for fixing the functional uprights

■ Without internal wiring sleeve

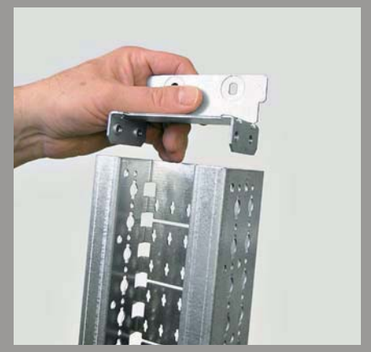


Functional uprights Cat. No. 205 24 are supplied with 2 faceplate support uprights and the associated screws

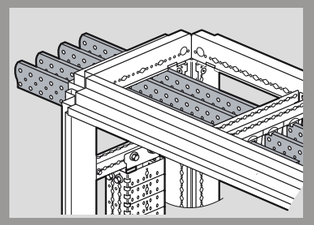
Creating a partial chassis : cutting the functional uprights

XL³ 4000 enclosures have been specially designed to have 2 separate compartments:
- 1 compartment for the functional units
- 1 compartment for the busbars

Use at least 725 mm depth enclosures for fitting 1600 A busbar supports (Cat. Nos 373 22/23), and 925 mm depth enclosures for fitting 4000 A busbar supports (Cat. Nos 373 24/25).
If there are size restrictions, it is possible to work with smaller depth enclosures, by cutting the functional uprights.

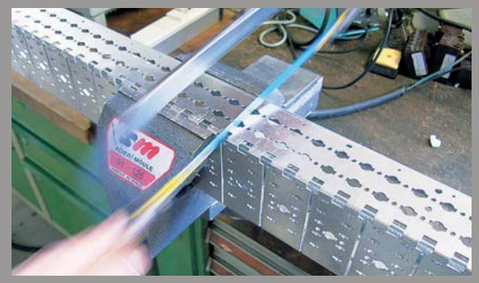


Refit the brackets on the ends of the functional uprights that have been cut



Example: busbar with supports Cat. Nos 373 22/23 in 475 mm depth

Fit the crosspieces on the structure of the enclosure (crosspiece Cat. No. 205 31 for 475 mm depth and Cat. No. 205 32 for 725 mm depth)

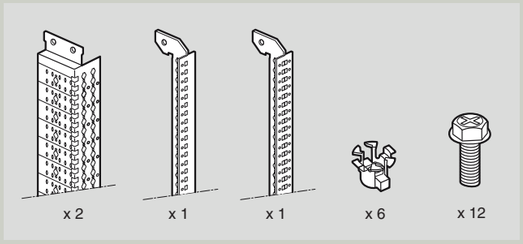


Cut the functional uprights by 200 mm for a 1600 A busbar and 300 mm for a 4000 A busbar

The functional uprights are fitted on the separate crosspieces equipped with clip-nuts

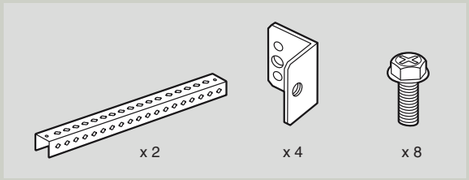
Assembling the enclosures (continued)

With internal wiring sleeve



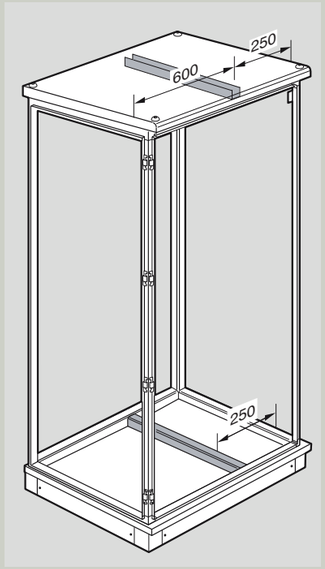
Functional uprights 205 27 are supplied with 1 single faceplate support upright, 1 double faceplate support upright and the associated screws

Before installing the uprights, the enclosure must be fitted with 2 crosspieces.



Crosspieces Cat. Nos 205 21/22/23 are supplied in pairs with their brackets and fixing screws

Selection of crosspieces		
Enclosure depth (mm)	Crosspieces	
	Cat. No.	Length (mm)
475	205 21	350
725	205 22	600
975	205 23	850

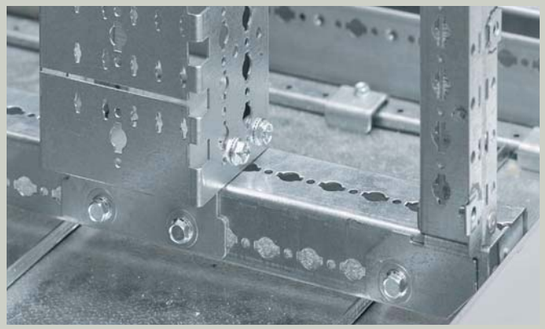


In 975 mm wide enclosures, the internal wiring sleeve can be used to obtain a mounting area with 600 mm usable space and a sleeve with 250 mm usable space. This sleeve can be created on the right or left side of the structure

Tapped holes are provided for fitting the crosspiece fixing brackets

Caution: the screw fixing the crosspiece on the bracket must be on the sleeve side so that it does not obstruct the fitting of equipment in the enclosure

Insert the clip-nuts in the 2nd, 7th and 9th holes in the crosspieces



The functional uprights and faceplate support uprights are fitted on the structure of the enclosure on one side and on separate crosspieces on the other

Assembling the enclosures (continued)

B FINISHING THE STRUCTURE

1. Obtaining IP protection levels

IP 30

IP 30 protection is obtained without doors. The finish can be improved by using one of the 3 finishing kits.

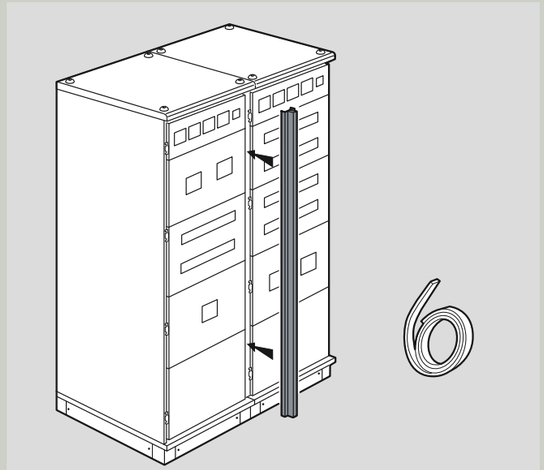
- Cat. No. 205 61: 475 mm width
- Cat. No. 205 62: 725 mm width
- Cat. No. 205 63: 975 mm width

Finishing profiles clip onto the structure

A perfect finish between the 2 joined enclosures

IP 55

IP 55 protection is obtained by using a door



When joining enclosures, seal Cat. No. 205 85 must be inserted between the structural uprights of the enclosures to be joined. The finish between the doors is achieved by using strip Cat. No. 205 65

2. Types of faceplate

There are 3 types of faceplate in the XL³ 4000 range:

¼ turn faceplates

These are specifically for fixed 24-module wide devices.

Screw-mounting faceplates

These are specifically for fixed 24-module and 36-module wide devices.

They can be mounted on hinges (on the left or the right) for ease of working.

Hinge Cat. No. 209 59 for screw-mounting faceplate

Faceplates with hinges and locks

These are specifically for plug-in and draw-out devices in the DPX range, and all devices in the DMX range.

3. Fitting the back and front panels

In addition to the faceplates, finishing an enclosure generally consists of adding a back panel and 2 side panels.

The panels are fixed on the structural uprights using 8 x M6 screws

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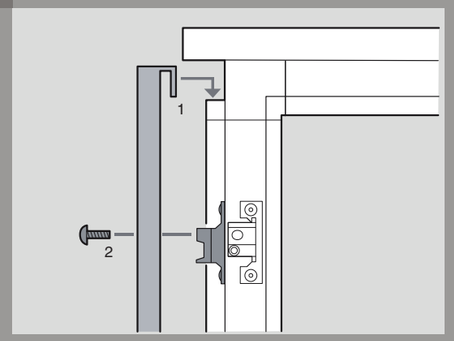


The internal fold on the panels makes them easier to install on the structure (the long fold indicates the top of the panel)

Assembling the enclosures (continued)

4. Fitting the front covers on wiring sleeves

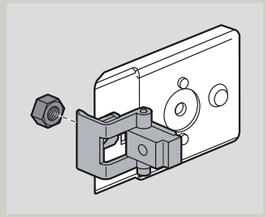
There are 2 types of wiring sleeve in the XL³ 4000 range: internal wiring sleeves and external wiring sleeves.

Each wiring sleeve has a specific front cover:

- Cat No. 205 47: front cover for internal wiring sleeves
- Cat No. 205 48: front cover for external wiring sleeves

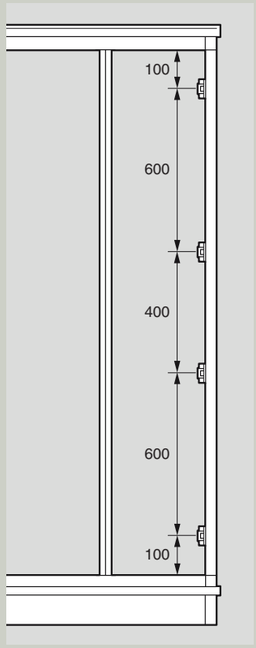
These 2 front covers are equipped with hinges and locks.

Fitting the front cover on internal wiring sleeves

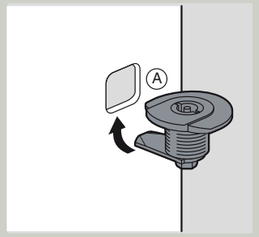


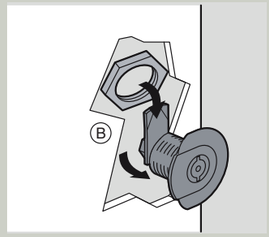
Fit the hinges on the fixing lugs

Fix the 4 "lug + hinge" assemblies on the back of the structural upright using clip-nuts and M6 screws



Position of the lugs

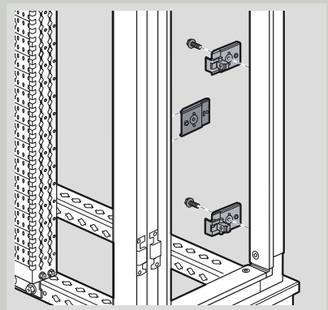




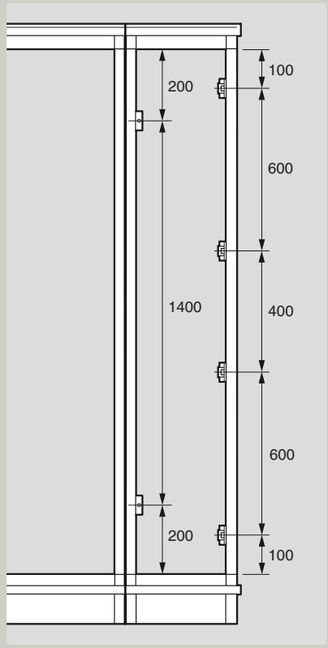
On the side opposite the hinges, insert the 2 locks in the cut-outs on the front cover and fix them using the nuts provided

Fix the front cover on the hinges using the countersunk head screws provided, then insert the plastic covers in the screw heads to improve the finish

Fitting the front cover on external wiring sleeves



The 2 additional lugs are used for attaching the locks and must be fixed on the structural upright in the wiring sleeve, on the side opposite the hinges



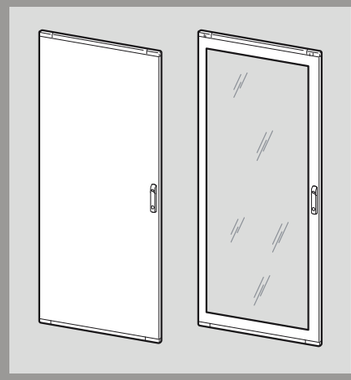
Position of the lugs

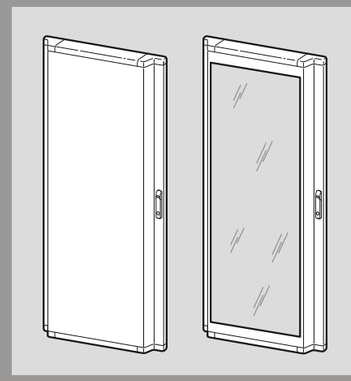
5. Fitting the doors

There are 4 types of door for XL³ 4000 enclosures (flat metal, flat glass, rounded metal and rounded glass), available in 2 widths: 725 mm and 975 mm.

For external wiring sleeves, there is a flat metal door, width 475 mm.

+ A choice of 4 types of door





Assembling the enclosures (continued)

The doors are fitted on the structural uprights using linking pieces.

The linking pieces are also used for fixing panels and joining enclosures

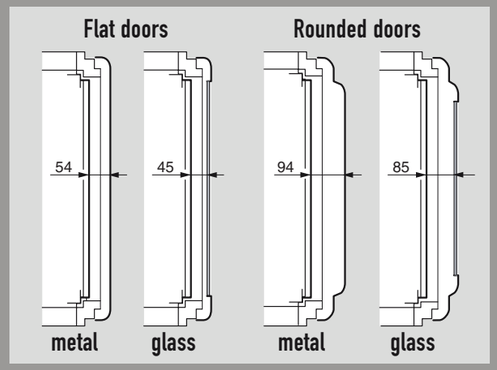
The doors are simply fixed on these pieces via 4 pins. They can be fitted on the left or the right hand side.

Fitting the pin

The linking pieces on the structural uprights can take either finishing panels or doors. It is therefore possible to fit doors on all 4 sides of enclosures. Total accessibility is therefore maintained whatever the configuration of the panel

Rounded doors

Rounded doors increase the distance between the faceplate and the door by 40 mm in comparison with flat doors. They are specifically for use when fitting devices on doors or for remote handles, equipment on faceplates, etc.



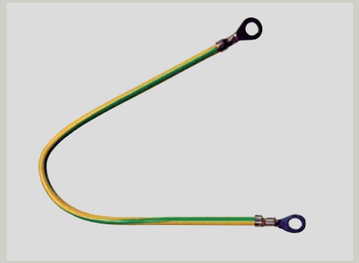
6. Creating the equipotential links

The roof and base equipotential links are described on page 8.

The equipotentiality of the faceplates and panels is provided directly by the mounting elements.

Likewise, the equipotential link of the doors is created automatically via the hinges.

When electrical equipment with an operating voltage of more than 50 V is fitted on the door, the faceplates or the finishing panels, an additional equipotential link must be created. For this purpose all these elements have copper-plated M6 studs providing a reliable contact.



Use link cord Cat. No. 373 85 length: 350 mm

At one end the cord is fixed onto the structure of the enclosure using a clip-nut and an M6 screw

... at the other it is fixed on the door stud...

... or on the stud on a faceplate

Creating a side panel equipotential link

Fitting the distribution systems

CHOICE OF DISTRIBUTION

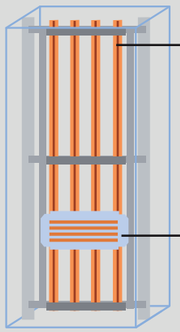
XL³ 4000 enclosures offer you great freedom of choice for distribution:

- 2 optimised solutions with XL-Part 800 column chassis with the addition of the 250 A row distribution block, and XL-Part 1600 column chassis with the addition of the 400 A row distribution block. This chassis and these row distribution blocks provide direct connection of the bases for DPX and Lexic devices

- Numerous compositions of standard busbars enable all possible configurations up to 4000 A, in both enclosures and wiring sleeves.

Optimised distribution

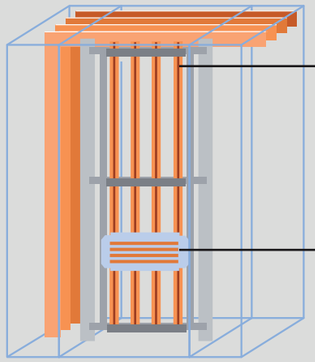
up to 800 A



XL-Part 800
Cat. No. 373 40
C-section busbar
Cat. No. 374 61

250 A row
distribution block
Cat. Nos 373 46/47

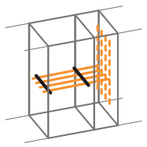
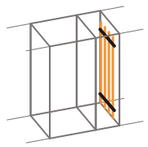
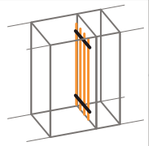
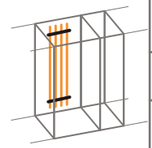
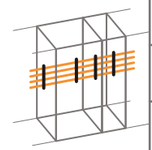
up to 1600 A



XL-Part 1600
Cat. No. 373 28
C-section busbar
Cat. Nos 374
60/61/62,
098 82/83

400 A row
distribution block
Cat. No. 373 27

Standard distribution

Standard busbars	Depth of enclosure (mm)	Isolating supports 373 20 In ⩽ 800 A	373 21 In ⩽ 1000 A	373 22/23 In ⩽ 1600 A	373 24/25 In ⩽ 4000 A	Mounting crosspiece(1)
Horizontal main top or bottom 	475			●		205 51
	725			●	●	205 52
	925			●	●	205 53
Horizontal transfer 	725			●	● (2)	205 51
	925			●	●	205 52
Lateral vertical in internal or external wiring sleeve 	475	●	●	●		205 51
	725	●	●	●	●	205 52
	925	●	●	●	●	205 53
Lateral vertical in enclosure 	725	●		●	●	205 51
	925	●		●	●	205 52
Vertical at the back of the enclosure 	475	●		●		w: 725 mm = 205 52 w: 975 mm = 205 53
	725	●		●		
	925	●		●		
Horizontal at the back of the enclosure 	475			●		w: 475 mm = 205 51 w: 725 mm = 205 52 w: 975 mm = 205 53
	725			●	●	
	925			●	●	

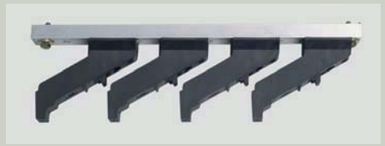
(1) For supports Cat. Nos 373 20/21/22
(2) Using 2 internal or external wiring sleeves

Fitting the distribution systems (continued)

B STANDARD DISTRIBUTION

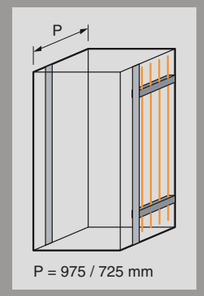
1. In ≤ 800 A: Support Cat. No. 373 20

Isolating supports Cat. No. 373 20 are used to create sloping vertical busbars. They take flat bars up to 63 x 5 mm. They can be fitted at the side of enclosures and wiring sleeves (internal and external) as well as at theback of enclosures, whatever the width and depth of the enclosure. They are fixed on mounting crosspieces Cat. Nos 205 51/52/53 (see page 21).

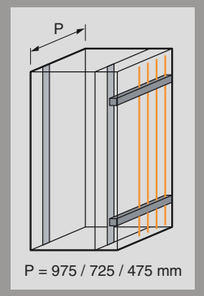


Isolating support Cat. No. 373 20

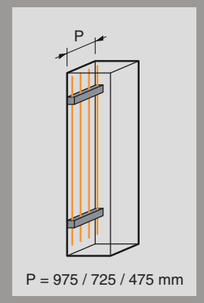
Support Cat. No. 373 20: 4 possibilities for assembly



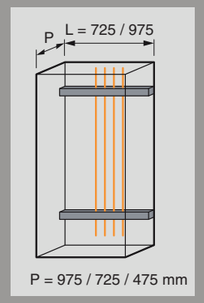
Lateral in enclosure



Lateral in internal wiring sleeve



Lateral in external wiring sleeve



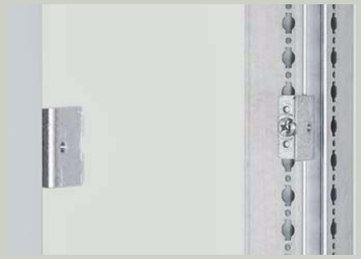
At the back of the enclosure

Selection of bars

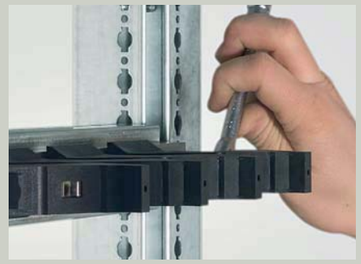
Bars		I (A)	
Cat. No.	Cross-section (mm)	IP ≤ 30	IP > 30
374 18	25 x 5	330	270
374 19	32 x 5	450	400
374 40	50 x 5	700	630
374 41	63 x 5	800	700

Maximum distance (in mm) between the supports according to the peak current (Ipk)

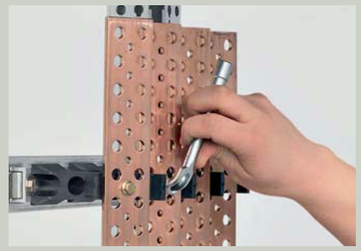
Bars		374 18 25 x 5	374 19 32 x 5	374 40 50 x 5	374 41 63 x 5
Ipk (kÂ)	10	800	900		
	15	600	600	700	800
	20	450	500	600	700
	25	350	400	500	550
	30	300	350	400	450
	35	250	300	350	400
	40	200	250	275	300
	45	200	200	225	250
	50	150	150	200	200
	60	125	125	150	150
	70	100	100	150	150
	80				100



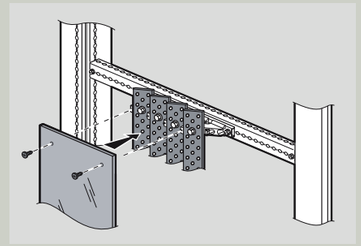
Fix the crosspiece on the uprights using the brackets provided



Fix the support using M6 screws (tightening torque 10 Nm)



Fix the copper bars on the support (tightening torque 7 Nm)



It is possible to fix a protective screen on the support (do this yourself)

Fitting the distribution systems (continued)

2. In ⩽ 1000 A: support Cat. No. 373 21

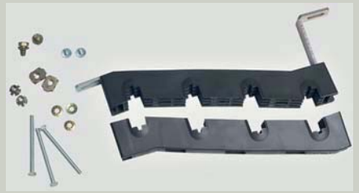
Isolating supports Cat. No. 373 21 are used to create staggered vertical busbars. They take flat bars up to 80 x 5 mm and C-section bars up to 440 mm².
They are fitted at the side of internal and external wiring sleeves (all depths) using crosspieces Cat. Nos 205 51/52/53 (see page 21).

Selection of bars

Type	Bars		I (A)	
	Cat. No.	Cross-section	IP ⩽ 30	IP > 30
flat	374 40	50 x 5 mm	700	630
	374 41	63 x 5 mm	800	700
	374 59	75 x 5 mm	950	850
	374 43	80 x 5 mm	1000	900
C-section	374 60	155 mm²	500	400
	374 61	265 mm²	800	630
	374 62	440 mm²	1250	1000

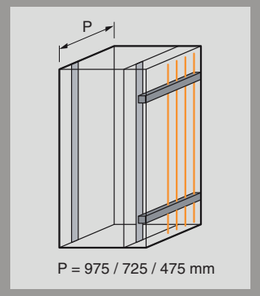
Maximum distance (in mm) between the supports according to the peak current (Ipk)

Ipk (kÂ)	Flat bars				C-section busbars		
	374 40 50 x 5	374 41 63 x 5	374 59 75 x 5	374 43 80 x 5	374 60 155 mm²	374 61 265 mm²	374 62 440 mm²
10	1000	1200	1200	1200	1100	1600	1600
15	800	900	1000	1000	800	1000	1300
20	650	700	750	750	600	800	1000
25	500	550	600	600	450	650	800
30	400	500	550	550	400	550	700
35	350	450	450	450	350	450	600
40	300	350	400	400	300	400	550
45	300	300	350	350	250	350	500
50	250	250	300	300	250	300	450
60	200	250	250	250	200	300	400
70	150	200	200	200	150	250	350
80	100	150	200	200		200	300
90	100	150	200	200		200	250
100	100	150	150	150		150	250
110	100	100	150	150		150	200
120	100	100	100	100		150	200



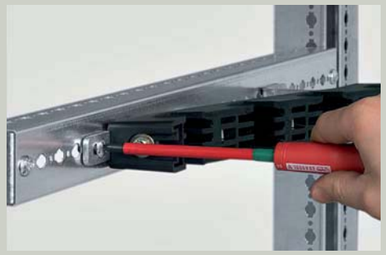
Isolating support Cat. No. 373 21

+ Support Cat. No. 373 20

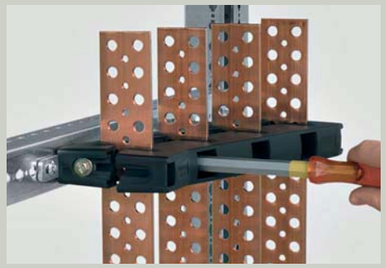


Lateral in internal or external wiring sleeve

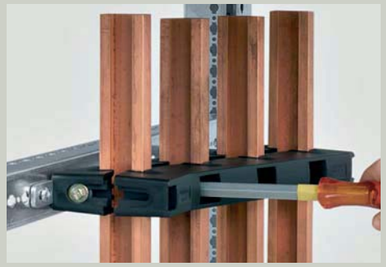
Fix the crosspieces Cat. Nos 205 51/52/53 on the structure of the enclosure, then attach the clip-nuts



Fix the supports on the crosspieces using M6 screws (tightening torque 10 Nm)



Insert the bars then fix the movable part of the isolating supports (tightening torque 7 Nm): flat bars Cat. Nos 374 40/41/43/59 …



…or C-section busbars Cat. Nos 374 60/61/62

Fitting the distribution systems (continued)

3. In ⩽ 1600 A: support Cat. Nos 373 22/23

Isolating supports Cat. Nos 373 22/23 take one or two flat bars per pole, up to 100 x 5 mm.

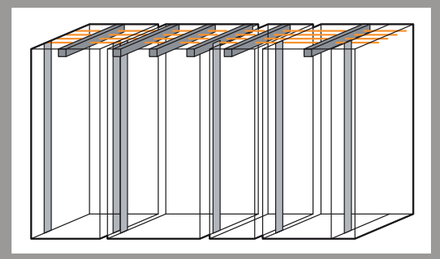
They can be used to create numerous busbar configurations:

- Main busbar at the top or the bottom
- Transfer busbars
- Side-mounted vertical busbar in enclosure and wiring sleeve (internal and external)
- Vertical busbar at the back of the enclosure
- Horizontal main busbar at the back of the enclosure

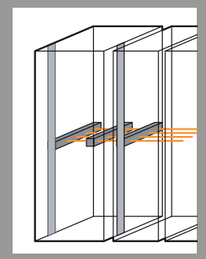
Fixed support Cat. No. 373 22

Additional support Cat. No. 373 23 used in addition to the fixed supports

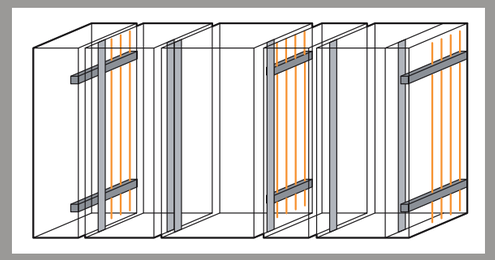
Support Cat. Nos 373 22/23: 5 possibilities for assembly



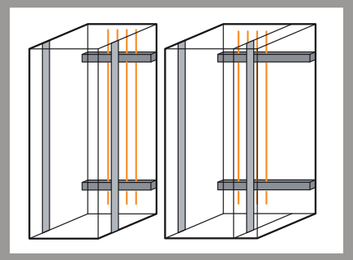
Top or bottom horizontal main busbar(1)



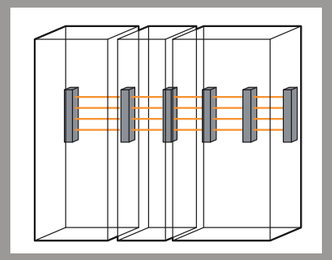
Transfer busbar



Side-mounted vertical busbars



Vertical busbar at the back



Main busbar at the back

(1) Fitting a top or bottom main busbar in a 475 mm depth enclosure requires the creation of a partial chassis (see page 11)

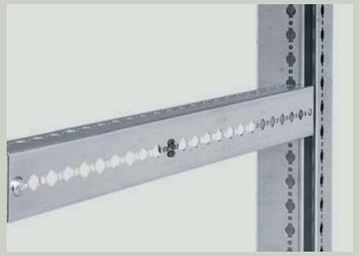
Selection of bars

Bars		I (A)							
		1 bar per pole				2 bars per pole			
		edgewise		flat		edgewise		flat	
Cat. No.	Cross-section (mm)	IP ⩽ 30	IP > 30	IP ⩽ 30	IP > 30	IP ⩽ 30	IP > 30	IP ⩽ 30	IP > 30
374 40	50 x 5	700	630	430	350	1150	1000	650	510
374 41	63 x 5	800	700	500	400	1350	1150	770	590
374 59	75 x 5	950	850	600	475	1500	1300	890	700
374 43	80 x 5	1000	900	630	500	1650	1450	940	740
374 46	100 x 5	1200	1050	750	580	1900	1600	1120	900

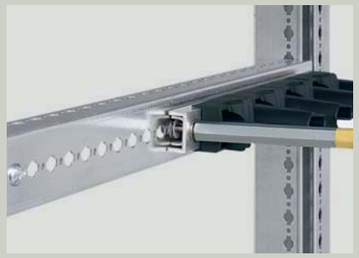
Maximum distance (in mm) between the supports according to the peak current (Ipk)

Ipk (kÂ)	1 bar per pole					2 bars per pole				
	374 40 50 x 5	374 41 63 x 5	374 59 75 x 5	374 43 80 x 5	374 46 100 x 5	374 40 50 x 5	374 41 63 x 5	374 59 75 x 5	374 43 80 x 5	374 46 100 x 5
10	1000	1200	1200	1200	1200					
15	800	900	1000	1000	1200					
20	650	700	750	750	900					
25	500	600	600	600	700					
30	400	500	550	550	600	700	800			
35	350	450	450	450	550					
40	300	350	400	400	450	550	600	650	650	700
45	300	300	350	350	400					
50	250	250	300	300	350	450	500	500	500	550
60	200	250	250	250	300	350	400	400	400	450
70	150	200	250	250	250	250	350	350	350	400
80	100	150	200	200	200	250	300	300	300	300
90	100	150	200	200	200	200	250	300	300	300
100	100	150	150	150	150	200	200	250	250	250
110	100	100	150	150	150	150	200	200	200	200
120	100	100	100	100	100	150	150	200	200	200

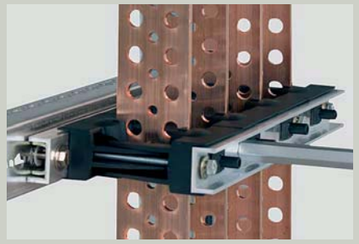
Fitting the distribution systems (continued)



Fix the crosspieces Cat. Nos 205 51/52/53 on the structure of the enclosure, then attach the clip-nuts

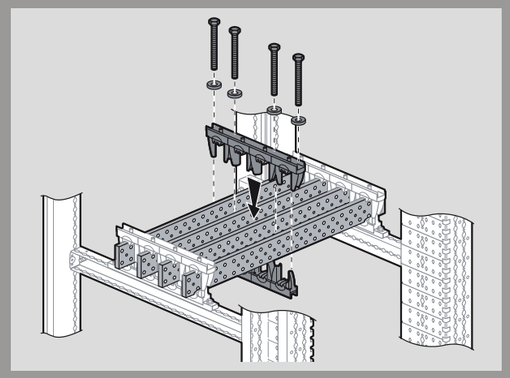


Fix the supports on the crosspieces using M6 screws (tightening torque 10 Nm)

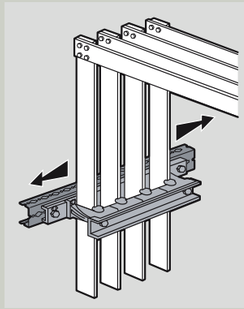


Insert the bars then fix the movable part of the isolating supports (tightening torque 7 Nm):
flat bars
Cat. Nos 374 40/ 41/43/46/59 ...

+ Additional support Cat. No. 373 23



To withstand high short-circuit currents, the number of busbar supports must be increased. Occasionally, due to their position, supports cannot be fixed on the frame. Additional supports have been developed for this situation. They are not fixed to the frame, but hold the bars in relation to one another to withstand the electrodynamic stresses arising in the event of short-circuits



Crosspieces Cat. No. 205 51/52/53 enable the position of the bars to be adjusted by 5 mm for ease of connecting a vertical busbar to a horizontal busbar

4. In ⩽ 4000 A: supports Cat. Nos 373 24/25

Isolating supports Cat, Nos 373 24/25 take one to four 5 mm thick flat bars up to 120 x 5 or one to three 10 mm thick flat bars up to 125 x 10.

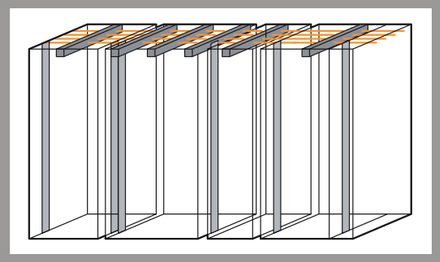
They can be used to create numerous busbar configurations:

- Transfer busbars
- Main busbars at the top or the bottom
- Horizontal main busbars at the back of the enclosure
- Side-mounted vertical busbars in enclosure and wiring sleeve (internal and external)

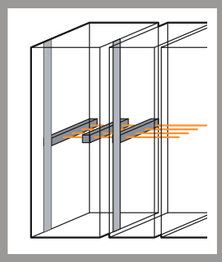
Fixed support Cat. No. 373 24

Additional support Cat. No. 373 25 used in addition to the fixed supports

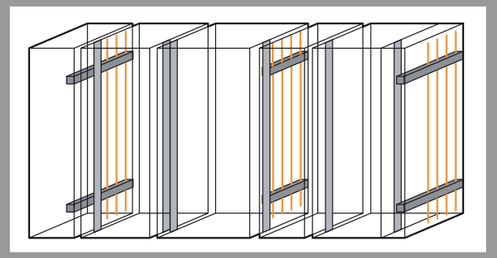
+ Support Cat. Nos 373 24/25: 4 possibilities for assembly



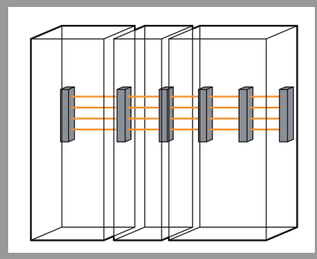
Top or bottom horizontal main busbar(1)



Transfer busbar(2)



Side-mounted vertical busbars



Main busbar at the back

(1) Fitting a top or bottom main busbar in a 725 mm depth enclosure requires the creation of a partial chassis (see page 11)

(2) Fitting a transfer busbar in a 725 mm depth enclosure requires the creation of a partial chassis (see page 11) and the use of 2 internal or external wiring sleeves.

Fitting the distribution systems (continued)

Selection of 5 mm thick bars

Bars		I (A)												I (A)							
		1 bar per pole				2 bars per pole				3 bars per pole				4 bars per pole							
		edgewise		flat		edgewise		flat		edgewise		flat		edgewise		flat					
Cat. No.	Cross-section (mm)	IP ≤ 30	IP > 30	IP ≤ 30	IP > 30	IP ≤ 30	IP > 30	IP ≤ 30	IP > 30	IP ≤ 30	IP > 30	IP ≤ 30	IP > 30	IP ≤ 30	IP > 30	IP ≤ 30	IP > 30				
374 40	50 x 5	700	630	500	420	1180	1020	750	630	1600	1380	1000	900	2020	1720	1120	1000				
374 41	63 x 5	800	700	600	500	1380	1180	750	630	1900	1600	1100	1000	2350	1950	1350	1200				
374 59	75 x 5	950	850	700	600	1600	1400	1000	850	2200	1900	1250	1100	2700	2300	1600	1400				
374 43	80 x 5	1000	900	750	630	1700	1480	1050	900	2350	2000	1300	1150	2850	2400	1650	1450				
374 46	100 x 5	1200	1050	850	700	2050	1800	1200	1050	2900	2450	1600	1400	3500	2900	1900	1650				
	125 x 5	1450	1270	1150	950	2500	2150	1450	1250	3450	2900	1800	1600	4150	3450	2150	1950				

Maximum distance (in mm) between the supports according to the peak current (Ipk)

Ipk (kÂ)	1 bar per pole					2 bars per pole					3 bars per pole					4 bars per pole				
	50 x 5	63 x 5	75 x 5 80 x 5	100 x 5	125 x 5	50 x 5	63 x 5	75 x 5 80 x 5	100 x 5	125 x 5	50 x 5	63 x 5	75 x 5 80 x 5	100 x 5	125 x 5	50 x 5	63 x 5	75 x 5 80 x 5	100 x 5	125 x 5
10	1550	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
15	1050	1200	1350	1550	1700	1550	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700	1700
20	800	900	1000	1150	1350	1200	1350	1500	1700	1550	1550	1700	1700	1700	1700	1700	1700	1700	1700	1700
25	650	750	800	950	1100	950	1100	1200	1400	1100	1250	1450	1600	1700	1700	1550	1700	1700	1700	1700
30	550	600	700	800	900	800	900	1000	1150	1350	1050	1200	1350	1550	1700	1300	1500	1700	1700	1700
35	450	550	600	650	800	700	800	900	1000	1150	900	1050	1150	1300	1500	1150	1250	1450	1650	1700
40	400	450	550	600	700	600	700	800	900	1000	800	900	1050	1150	1300	1000	1100	1300	1450	1650
45	350	400	450	550	600	550	600	700	800	900	700	800	900	1050	1200	900	1000	1150	1300	1450
50	350	350	450	500	550	500	550	650	700	800	650	750	850	950	1050	800	900	1050	1150	1350
60	300	300	350	400	450	400	450	550	600	700	550	600	700	800	900	650	750	850	1000	1100
70	250	250	300	350	400	350	400	450	500	650	450	550	600	700	750	600	650	750	850	950
80		250	250	300	350	300	350	400	450	550	400	450	550	600	700	500	600	650	750	850
90			250	250	300	300	300	350	400	500	350	400	500	550	600	450	500	600	650	750
100				250	300	250	300	300	350	500	350	400	450	500	550	400	450	550	600	700
110				250	250	250	250	300	350	450	300	350	400	450	500	350	450	500	550	600
120					250		250	250	300	450	300	300	350	400	450	350	400	450	550	550
130					250			250	300	400	250	300	350	350	400	300	350	400	500	550
140								250	250	400	250	250	300	350	400	300	350	400	450	500
150									250	350	250	250	300	350	350	300	300	350	400	450
160									250	350		250	250	300	350	250	300	350	400	350
170										350		250	250	300	350	250	300	300	350	300
180										300			250	300	300	250	250	300	350	300
190													250	250	300	250	250	300	300	250
200														250	300		250	250	300	250
210														250	250		250	250	250	200
220														250	250			250	250	200

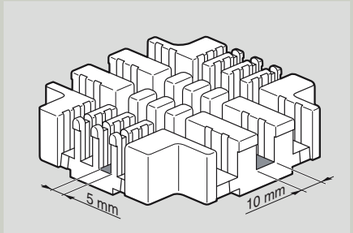
Fitting the distribution systems (continued)

Selection of 10 mm thick bars

Bars	I (A)											
	1 bar per pole				2 bars per pole				3 bars per pole			
Cross-section (mm)	edgewise		flat		edgewise		flat		edgewise		flat	
	IP ≤ 30	IP > 30	IP ≤ 30	IP > 30	IP ≤ 30	IP > 30	IP ≤ 30	IP > 30	IP ≤ 30	IP > 30	IP ≤ 30	IP > 30
80 x 10	1460	1270	1150	950	2500	2150	1700	1500	3450	2900	2500	2000
100 x 10	1750	1500	1350	1150	3050	2550	2000	1650	4150	3500	2900	2400
120 x 10	2000	1750	1650	1450	3600	2920	2500	2000	4800	4000	3500	3000

Maximum distance (in mm) between the supports according to the peak current (Ipk)

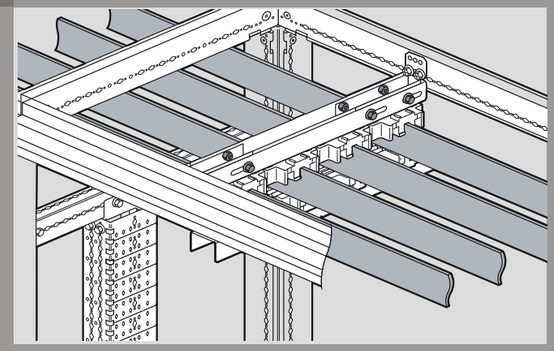
Ipk (kÂ)	1 bar per pole			2 bars per pole			3 bars per pole		
	80 x 10	100 x 10	120 x 10	80 x 10	100 x 10	120 x 10	80 x 10	100 x 10	120 x 10
20	1700	1700	1700	1700	1700	1700	1700	1700	1700
25	1600	1700	1700	1700	1700	1700	1700	1700	1700
30	1350	1550	1700	1700	1700	1700	1700	1700	1700
35	1150	1300	1450	1700	1700	1700	1700	1700	1700
40	1050	1150	1300	1500	1700	1700	1700	1700	1700
45	900	1050	1150	1350	1550	1700	1700	1700	1700
50	850	950	1050	1200	1400	1550	1600	1700	1700
60	700	800	850	1000	1150	1300	1350	1550	1700
70	600	700	750	900	1000	1100	1150	1300	1500
80	550	600	650	750	900	1000	1000	1150	1300
90	500	550	600	700	800	900	900	1050	1100
100	450	500	550	600	700	800	850	900	950
110	400	450	500	550	650	750	750	800	800
120	350	400	450	550	600	650	700	750	750
130	350	350	400	500	550	600	650	700	700
140	300	350	400	450	500	600	600	650	650
150	300	350	350	450	500	550	550	650	600
160	250	300	350	400	450	500	550	600	500
170	250	300	300	350	450	500	500	500	500
180	250	300	300	350	400	450	500	450	450
190	250	250	300	350	400	450	450	400	400
200	200	250	300	300	350	400	450	400	400
210	200	250	250	300	350	350	400	350	350
220		250	250	300	350	300	350	300	300
230		200	250	300	300	300	300	300	300
240			200	250	300	250	300	250	250
250			200	250	300	250	250	250	250



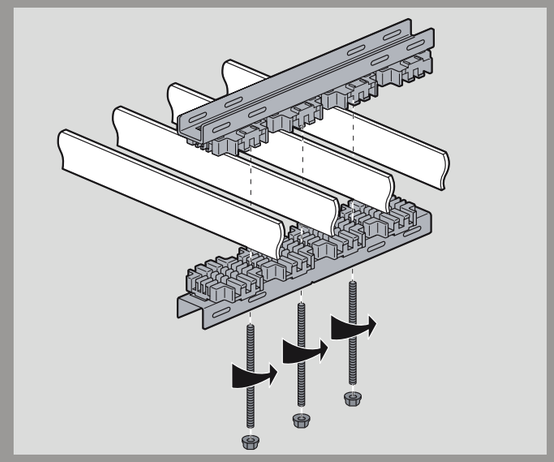
Position the insulators on the supports according to the thickness of the copper bars

Fix the supports on the uprights using 4 clip-nuts + screws (tightening torque 10 Nm)

Adjust the depth of the busbar to connect with it other busbars (tightening torque 20 Nm)



Support Cat. No. 373 24 enables the depth of the busbar to be adjusted so that it can be aligned with and connected to other busbars



Additional support Cat. No. 373 25 holds the bars in relation to one another and maintains the maximum distances between supports when it is not possible to fix them on the enclosure frame

Fitting the distribution systems (continued)

C OPTIMISED DISTRIBUTION

1. XL-Part 800 column chassis

Column chassis Cat. No. 373 40 is used for distribution via C-section busbars Cat. No. 374 61 up to 800 A. It consists of 3 isolating supports including 1 lug support, 3 fixing crosspieces and 2 uprights for fixing device support bases. It is fixed on functional uprights Cat. No. 205 24 in 24-module enclosures, or Cat. No. 205 27 in 36-module enclosures with internal wiring sleeve. It takes the support bases for fixed version DPX 125 (with adaptor), 250 ER and 630 and can also take the 250 A row distribution block.

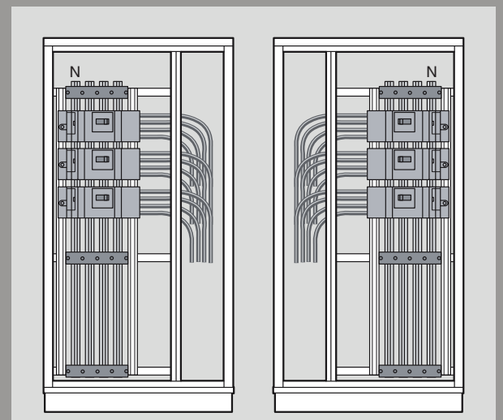
The XL-Part 800 column chassis is fitted in exactly the same way as the XL-Part 1600 column chassis (see next page).

The position of the supports must be determined according to the faceplate layout. Provide at least a 50 mm solid faceplate at the top and bottom.

Faceplate heights (in mm)		
Solid faceplate	for top and bottom supports	50 min.
Special faceplate	for DPX 630	300
	for DPX 250 ER or 125	200
Modular faceplate	for 250 A row distribution block with DPX 250 ER and 160	300
	for 250 A row distribution block with DPX 125 and Lexic	200

The permissible short-circuit current values for C-section busbars Cat. No. 374 61 according to the number of device bases are given on the next page.

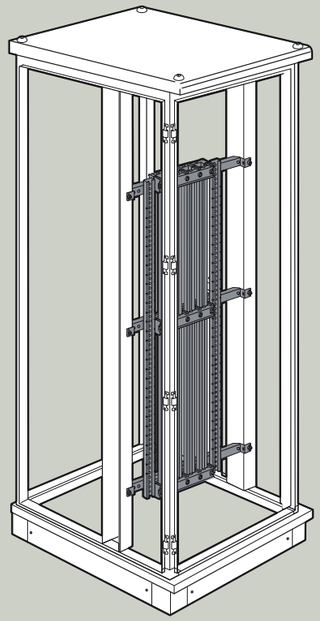
+ Total reversibility



The XL-Part 800 and 1600 chassis column busbar is off-centre in order to make the maximum amount of space available for the connection cables. It can be placed on the left or the right.

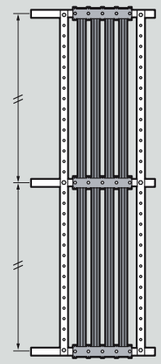
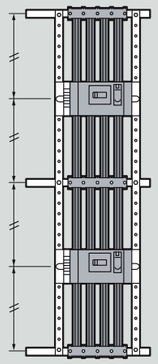
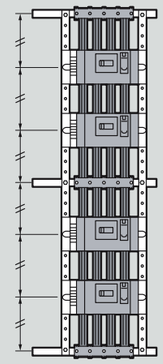
2. XL-Part 1600 column chassis

Column chassis Cat. No. 373 28 is used for distribution via C-section busbars up to 1600 A.
It consists of 3 isolating supports including 1 lug support, 3 fixing crosspiecesand 2 uprights for fixing device support bases. It is fixed on functional uprights Cat. No. 205 24 in 24-module enclosures, or Cat. No. 205 27 in 36-module enclosures with internal wiring sleeve. It takes the support bases for fixed, plug-in or draw-out DPX 250 and 630 and can also take the 400 A row distribution block.



Choice of C-section busbars			
Bars		I (A)	
Cat. No.	**Cross-section (mm²)**	**IP ⩽ 30**	**IP > 30**
374 60	155	500	400
374 61	265	800	630
374 62	440	1250	1000
098 82	640	1450	1250
098 83	710	1900	1600

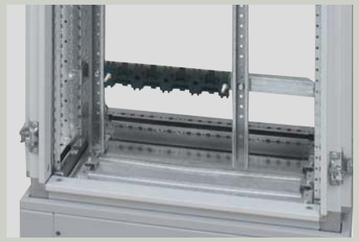
Permissible peak short circuit current value Isc (Ipk in kÂ) according to the configuration

C-section busbars	 With no DPX support base	 With 2 DPX support bases	 With 4 DPX support bases
347 60 155 mm²	40	70	90
347 61 265 mm²	50	90	120
347 62 440 mm²	60	120	150
098 82 640 mm²	70	140	170
098 83 710 mm²	75	150	180

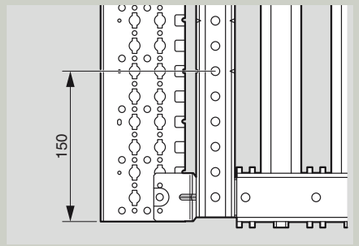
Fitting the distribution systems (continued)

Fit the fixed part of the supports on the crosspieces, then fix the crosspieces on the functional uprights

The crosspiece, equipped with the lug support, must be installed at the bottom of the enclosure.



Fix the 2 uprights on the crosspieces



Maintain the 50 mm intervals for the faceplates

Insert the C-section bars then fix the movable part of the isolating supports (tightening torque 15 Nm)

The position of the supports must be determined according to the faceplate layout. Provide at least a 50 mm solid faceplate at the top and bottom.

Faceplate heights (in mm)		
Solid faceplate	for top and bottom supports	50 min.
Special faceplate	for DPX 630	300
	for fixed or plug-in DPX 250	200
	for draw-out DPX 250	300
Modular faceplate	for 400 A row distribution block with DPX 250 ER and 160	300
	for 400 A row distribution block with DPX 125 and Lexic	200

+

The lug support holds the bars while they are being fitted

3. Fitting the DPX support bases

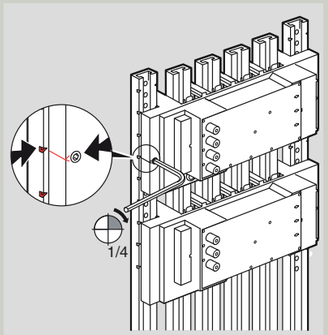
The XL-Part 800 support bases are used to install and supply power to fixed version four-pole DPX 125 (with adaptor), 250 ER and 630.

The XL-Part 1600 support bases are used to install and supply power to fixed, plug-in or draw-out version three and four-pole DPX 250 and 630.

DPX bases and faceplates for XL-Part 800 column chassis				
Devices	**Bases**		**Faceplates**	
	device only	**elcbs underneath**	**height (mm)**	**Cat. No.**
DPX 125	373 41 + 373 43	373 42 + 373 43	200	209 14
DPX 250 ER	373 41	373 42	200	209 16
DPX 630	373 44	373 45	300	209 25

DPX bases and faceplates for the XL-Part 1600 column chassis								
Devices	**Version**	**Bases**				**Faceplates**		
		device only		**device with elcbs underneath**		**height (mm)**	**without motor-driven control**	**with motor-driven control**
		3 P	**4P**	**3P**	**4P**			
DPX 250	fixed	098 67	098 69	098 68	098 70	200	209 24	209 28
	plug-in	098 25	098 27	098 26	098 28	200	209 24	209 28
	draw-out	098 25 + 265 45	098 27 + 265 46		098 28 + 265 47	300	212 26	212 06
DPX 630	fixed	098 71	098 73	098 72	098 74	300	209 25	209 29
	plug-in	098 29	098 31	098 30	098 32	300	209 25	209 29
	draw-out	098 29 + 265 66	098 31 + 265 67		098 32 + 265 68	300	212 26	212 07

Before fitting the bases check the position of the connecting screws on the C-section bars (slots vertical)

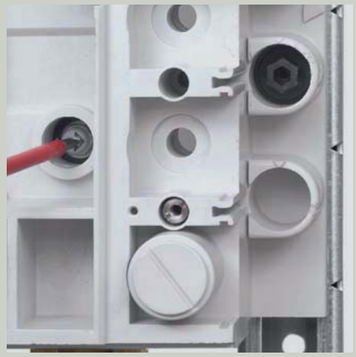


To ensure correct positioning of the device in relation to its faceplate, ensure the markings on the bases are aligned with the markings on the uprights (at 50 mm intervals)

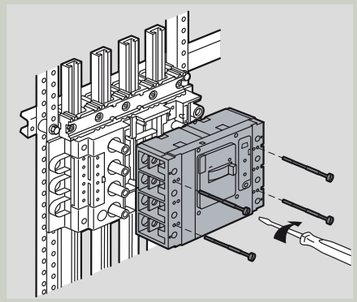
Fitting the distribution systems (continued)

Tighten the base on the uprights by ¼ turn

The bases for devices are supplied with a terminal shield protecting the terminals connected to the base



Connect the base to the busbar, rotating the ¼ turn screws, (slots horizontal) then tighten the lock nuts (8 to 10 Nm) (socket spanner provided)



Fix the devices on the base (fixed version) using the screws supplied with the device

+ IP xxB protection

Isolating rail Cat. No. 098 20 is used to isolate the accessible parts of the C-section bars

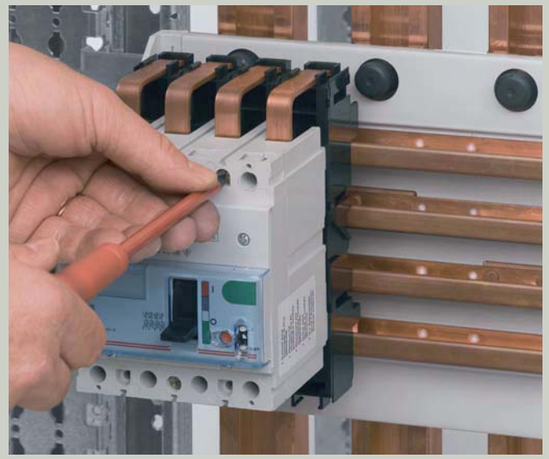
4. Fitting the 250 A row distribution block

250 A row distribution blocks take the bases for DPX 125, 160, 250 ER and Lexic devices. The bases are the same as for the 400 A row distribution block (see base selection chart on page 40).

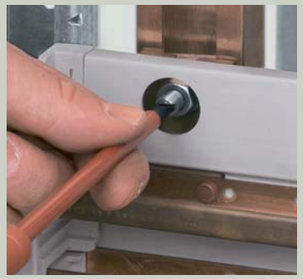
The distribution blocks are fitted in 24-module width enclosures, or 36-module enclosures with internal wiring sleeve. They are fixed on the functional uprights using M6 screws and clip-nuts

This is for use with the XL-Part 800 column chassis. Distribution block Cat. No. 373 46 connects directly on the C-section bars and supplies all the devices in the row.

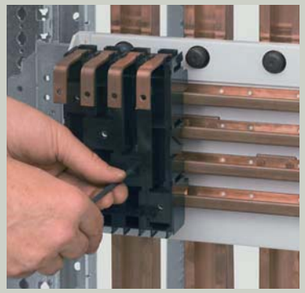
Distribution block Cat. No. 373 47 is supplied indirectly via the head of row device.



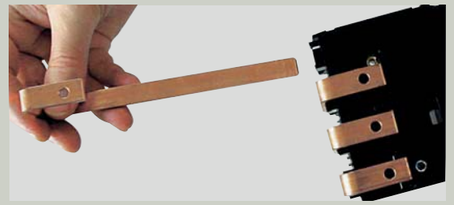
DPX units are held in place on the base by their usual fixing screws. Their power supply is provided via 4 copper links inserted in the top of the base



Insert the hammer head screw in the C-section bars of the column chassis. Once the nut has been tightened (8 to 10 Nm), it is advisable to protect it using the cover provided



Fixing the bases also connects them to the distribution block bars



For distribution block Cat. No. 373 47 insert the 4 copper links in the bottom of the base of the head of row device

Fitting the distribution systems (continued)

5. Fitting the 400 A row distribution block

400 A row distribution blocks take the bases for DPX 125, 160, 250 ER and Lexic devices.

These bases are the same as for the 250 A row distribution block.

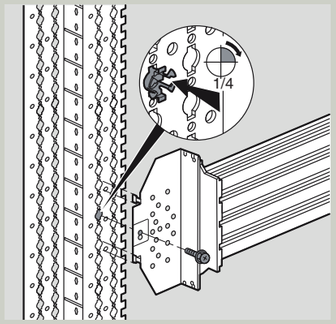
They are fixed on the functional supports in 24-module enclosures, or 36-module enclosures with internal wiring sleeve.

Four pole support bases for DPX

Device	Base		Height of faceplate (mm)
	for device only	for lateral elcbs	
DPX 125	098 57	098 58	200
DPX 160	098 59	098 60	300
DPX 250 ER	098 65	098 66	300

Bases for Lexic devices

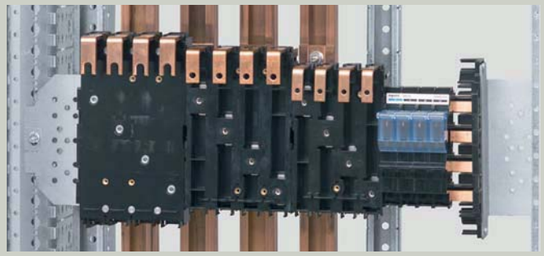
Poles	"Plug-in" base for Lexic 1 module per pole	Wired base for Lexic		
		1 module per pole up to 63 A	1.5 modules per pole up to 125 A	1P+N 1 module up to 40 A
N	098 00	098 42	098 48	
L1	098 01	098 43	098 49	
L2	098 02	098 44	098 50	
L3	098 03	098 45	098 51	
Triple pole	098 04	098 46	098 52	
Four pole	098 05	098 47	98 53/54	
L1+N				098 08
L2+N				098 09
L3+N				098 10



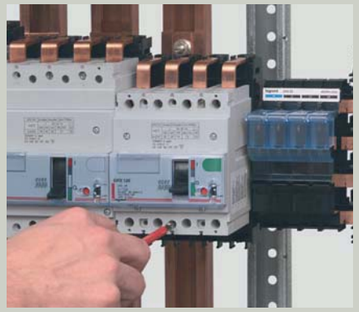
Insert the clip-nuts on the functional uprights then attach and screw on the distribution block

It is connected on the column chassis using kit Cat. No. 373 19. This kit consists of 3 brackets for the phases and 2 brackets for the neutral according to the position of the neutral bar on the column chassis (on the right or left hand side).

It is connected using hammer head screws (tightening torque 8 to 10 Nm)



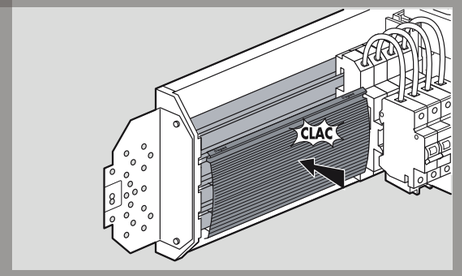
The bases simply hook onto the bars of the distribution block



The devices are installed on the bases with their usual fixing screws

The bases are supplied with their terminal shields

+ IP xxB protection



Isolating protection kit Cat. No. 098 79 is used to isolate the the accessible parts on the front and back of the 250 and 400 A distribution block bars

6. Connection and tap-offs

Tap-off via lugs with hammer head bolt Cat. No. 374 64 (M8) or Cat. No. 374 64 (M12)

The hammer head bolts are fitted with a spring which prevents them slipping in the C-section bar

The 125 A tap-off terminal Cat. No. 373 29 can be used for two 35 mm^2 connections

Fitting devices and equipment

A MOUNTING SOLUTION

Choice of fixing devices and faceplates						XL³4000 - 24 modules						XL³4000 - 36 modules				
Device	Version	Position	Configuration	Connection	Rotary handle/motor-driven	Fixing device	Plate	Metal faceplate Height (mm)	Metal faceplate ¼ turn	Metal faceplate Screw	Lock	Fixing device	Plate	Metal faceplate Height (mm)	Metal faceplate Screw	Lock
Fitting on modular rail																
Lexic < 63 A		vertical			-	206 00	-	150	208 00	209 00	-	206 50	-	150	209 50	-
Lexic > 63 A		vertical			-	206 00	-	200	208 01	209 01	-	206 50	-	200	209 51	-
Vistop 63 to 160 A	modular	vertical			-	206 00	-	200	208 01	209 01	-	206 50	-	200	209 51	-
DPX 125	fixed	vertical	with modular equipment	front or back	-	206 00	262 08	200	208 01	209 01	-	206 50	262 08	200	209 51	-
DPX 160	fixed	vertical	with modular equipment	front or back	-	206 00	262 09	300	208 10	209 10	-	206 50	262 09	300	209 60	-
DPX 250 ER	fixed	vertical	with modular equipment	front or back	-	206 00	262 09	300	208 10	209 10	-	206 50	262 09	300	209 60	-
DPX-IS 250	fixed	vertical	with modular equipment	front or back	-	206 00	262 39	300	208 10	209 10	-	206 50	262 39	300	209 60	-
Fitting on plate																
DPX 125 (Combination possible with DPX 160 and DPX 250 ER)	fixed	vertical	no elcbs	front	-	-	206 10	300	208 10	209 10	-	-	206 60	300	209 60	-
			no elcbs	front or back	with or without motor	207 10	207 45	300	208 10	209 10	-	207 60	207 45	300	209 60	-
			no elcbs	front	rotary handle	207 10	207 45	300	208 11	-	-	207 60	207 45	200	209 93[2]	-
			with elcbs underneath	front	-	-	206 12	400	208 12[1]	209 12[1]	-	-	206 62	400	209 62[1]	-
			with elcbs underneath	front or back	with or without motor	207 12	207 46	400	208 12[1]	209 12[1]	-	207 62	207 46	400	209 62[1]	-
			with elcbs underneath	front or back	rotary handle	207 12	207 46	400	208 45[2]	209 45[2]	-	207 62	207 46	400	209 95[2]	-
		horizontal	with or without elcbs underneath	front	-	-	206 14	200	208 14	209 14	-	-	-	-	-	-
			with or without elcbs underneath	front or back	with or without motor	-	207 14	200	208 14	209 14	-	-	-	-	-	-
			with or without elcbs underneath	front or back	rotary handle	-	207 14	200	208 43[2]	209 43[2]	-	-	-	-	-	-
	plug-in	vertical	no elcbs	front or back	with or without motor	207 11	207 47	300	-	-	212 10	-	-	-	-	-
			no elcbs	front or back	rotary handle	207 11	207 47	200	-	209 43[2]	-	-	-	-	-	-
			with elcbs underneath	front or back	with or without motor	207 13	207 48	400	-	-	212 12[1]	-	-	-	-	-
			with elcbs underneath	front or back	rotary handle	207 13	207 48	400	-	209 45[2]	-	-	-	-	-	-
		horizontal	with or without elcbs underneath	front or back	with or without motor	-	207 17	200	-	-	212 14	-	-	-	-	-
			with or without elcbs underneath	front or back	rotary handle	-	206 17	200	-	209 43[2]	-	-	-	-	-	-
DPX 160 (Combination possible with DPX 125 and DPX 250 ER)	fixed	vertical	no elcbs	front	-	-	206 10	300	208 10	209 10	-	-	206 60	300	209 60	-
			no elcbs	front or back	with or without motor	207 10	207 55	300	208 10	209 10	-	207 60	207 55	300	209 60	-
			no elcbs	front or back	rotary handle	207 10	207 55	300	208 11	-	-	207 60	207 55	200	209 93[2]	-
			with elcbs underneath	front	-	-	206 12	400	208 12[1]	209 12[1]	-	-	206 62	400	209 62[1]	-
			with elcbs underneath	front or back	with or without motor	207 12	207 56	400	208 12[1]	209 12[1]	-	207 62	207 56	400	209 62[1]	-
			with elcbs underneath	front or back	rotary handle	207 12	207 56	400	208 45[2]	209 45[2]	-	207 62	207 56	400	209 95[2]	-
		horizontal	with or without elcbs underneath	front	-	-	206 14	200	208 15	209 15	-	-	-	-	-	-
			with or without elcbs underneath	front or back	with or without motor	-	207 15	200	208 15	209 15	-	-	-	-	-	-
			with or without elcbs underneath	front or back	rotary handle	-	207 15	200	208 43[2]	209 43[2]	-	-	-	-	-	-
		vertical	supply inverters	front or back	-	-	206 64	300	208 10	209 10	-	-	-	-	-	-
			supply inverters	front or back	with motor	-	206 65	300	208 10	209 10	-	-	-	-	-	-
	plug-in	vertical	no elcbs	front or back	with or without motor	207 11	207 57	300	-	-	212 10	-	-	-	-	-
			no elcbs	front or back	rotary handle	207 11	207 57	200	-	209 43[2]	-	-	-	-	-	-
			with elcbs underneath	front or back	with or without motor	207 13	207 58	400	-	-	212 12[1]	-	-	-	-	-
			with elcbs underneath	front or back	rotary handle	207 13	207 58	400	-	209 45[2]	-	-	-	-	-	-
		horizontal	with or without elcbs underneath	front or back	with or without motor	-	207 18	200	-	-	212 15	-	-	-	-	-
			with or without elcbs underneath	front or back	rotary handle	-	207 18	200	-	209 43[2]	-	-	-	-	-	-
		vertical	supply inverters	front or back	with or without motor	-	206 65	300	-	209 10	212 10	-	-	-	-	-

(1) With window adaptor, to be ordered separately. DPX 125 + elcbs: Cat. No. 203 67 - DPX 160 + elcbs: Cat. No. 203 68 - DPX 250 ER + elcbs: Cat. No. 203 69

(2) Cut-out to be made

Fitting devices and equipment (continued)

Choice of fixing devices and faceplates (continued)

Device	Version	Position	Configuration	Connection	Rotary handle/motor-driven	XL³4000 - 24 modules						XL³4000 - 36 modules				
						Fixing device	Plate	Metal faceplate			Lock	Fixing device	Plate	Metal faceplate		Lock
								Height (mm)	¼ turn	Screw				Height (mm)	Screw	
DPX 250 ER (Combination possible with DPX 125 and DPX 160)	fixed	vertical	no elcbs	front	-	-	206 10	300	208 10	209 10	-	-	206 60	300	209 60	-
			no elcbs	front or back	-	207 10	207 65	300	208 10	209 10	-	207 60	207 65	300	209 60	-
			no elcbs	front or back	rotary handle	207 10	207 65	300	208 11	-	-	207 60	207 65	300	209 94[2]	-
			with elcbs underneath	front	-	-	206 12	400	208 12[1]	209 12[1]	-	-	206 62	400	209 62[1]	-
			with elcbs underneath	front or back	-	207 12	207 66	400	208 12[1]	209 12[1]	-	207 62	207 66	400	209 62[1]	-
			with elcbs underneath	front or back	rotary handle	207 12	207 66	400	208 45[2]	209 45[2]	-	207 62	207 66	400	209 95[2]	-
		horizontal	with or without elcbs underneath	front	-	-	206 16	200	208 16	209 16	-	-	-	-	-	-
			with or without elcbs underneath	front or back	-	-	207 16	200	208 16	209 16	-	-	-	-	-	-
			with or without elcbs underneath	front or back	rotary handle	-	207 16	200	208 43[2]	209 43[2]	-	-	-	-	-	-
		vertical	supply inverters	front	-	-	206 66	300	208 10	209 10	-	-	-	-	-	-
			supply inverters	front	-	-	206 67	300	-	209 65	-	-	-	-	-	-
	plug-in	vertical	no elcbs	front or back	-	207 11	207 67	300	-	-	212 10	-	-	-	-	-
			no elcbs	front or back	rotary handle	207 11	207 67	300	-	209 44[2]	-	-	-	-	-	-
			with elcbs underneath	front or back	-	207 13	207 68	400	-	-	212 12[1]	-	-	-	-	-
			with elcbs underneath	front or back	rotary handle	207 13-	206 68	400	-	209 45[2]	-	-	-	-	-	-
		horizontal	with or without elcbs underneath	front or back	-	-	207 19	200	-	-	212 16	-	-	-	-	
			with or without elcbs underneath	front or back	rotary handle	-	207 19	200	-	209 43[2]	-	-	-	-	-	
		vertical	supply inverters	front	-	-	206 67	300	-	209 10	212 10	-	-	-	-	
DPX-IS 250	fixed	vertical	device only, centred	front terminals	-	-	206 05	300	208 10	209 10	-	-	206 55	300	209 60	
			1 or 2 devices	front terminals	-	-	206 05	300	208 06	209 06	-	-	206 55	300	209 60	
DPX 250	fixed	vertical	no elcbs	front	-	-	206 20	400	208 20	209 20	-	-	206 70	400	209 70	-
			no elcbs	front or back	with or without	207 20	207 75	400	208 20	209 20	-	207 70	207 75	400	209 70	-
			with elcbs	front	-	-	206 22	600	208 22	209 22	-	-	206 72	600	209 72	-
			with elcbs	front or back	with or without	207 22	207 76	600	208 22	209 22	-	207 72	207 76	600	209 72	-
		horizontal	with or without elcbs underneath	front	-	-	206 24	200	208 24	209 24	-	-	-	-	-	-
			with or without elcbs underneath	front or back	with or without	-	207 24	200	208 24	209 24	-	-	-	-	-	-
		vertical	supply inverters	front or back	with or without	-	206 74	400	-	209 74	-	-	-	-	-	-
	plug-in	vertical	no elcbs	front or back	with or without	207 21	207 77	400	-	-	212 20	-	-	-	-	-
			with elcbs	front or back	with or without	207 23	207 78	600	-	-	212 22	-	-	-	-	-
		horizontal	with or without elcbs underneath	front or back	with or without	-	207 27	200	-	-	212 24	-	-	-	-	-
	detachable	vertical	no elcbs	front or back	with or without rotary handle	207 21	207 77	400	-	-	212 21	-	-	-	-	-
			no elcbs	front or back	motor-driven control	207 21	207 77	400	-	-	212 02	-	-	-	-	-
			with elcbs	front or back	with or without rotary handle	207 23	207 78	600	-	-	212 23	-	-	-	-	-
			with elcbs	front or back	motor-driven control	207 23	207 78	600	-	-	212 03	-	-	-	-	-
		horizontal	with or without elcbs underneath	front or back	with or without rotary handle	-	207 26	300	-	-	212 26	-	-	-	-	-
			with or without elcbs	front or back	motor-driven control	-	207 26	300	-	-	212 27	-	-	-	-	-
		vertical	supply inverters	front or back	-	-	207 74	400	-	-	212 90	-	-	-	-	-
			supply inverters	front or back	motor-driven control	-	206 74	400	-	-	212 91	-	-	-	-	-

(1) With window adaptor, to be ordered separately. DPX 125 + elcbs: Cat. No. 203 67 - DPX 160 + elcbs: Cat. No. 203 68 - DPX 250 ER + elcbs: Cat. No. 203 69
(2) Cut-out to be made

Fitting devices and equipment (continued)

Choice of fixing devices and faceplates (continued)

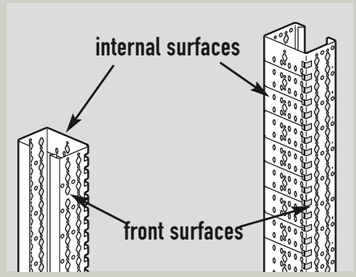
Device	Version	Position	Configuration	Connection	Rotary handle/motor-driven	XL³4000 - 24 modules						XL³4000 - 36 modules				
						Fixing device	Plate	Metal faceplate			Lock	Fixing device	Plate	Metal faceplate		Lock
								Height (mm)	¼ turn	Screw				Height (mm)	Screw	
DPX 630	fixed	vertical	no elcbs	front	-	-	206 20	400	208 20	209 20	-	-	206 70	300	209 60	-
			no elcbs	front or back	with or without	207 20	207 85	400	208 20	209 20	-	207 70	207 85	300	209 60	-
			with elcbs	front	-	-	206 22	600	208 22	209 22	-	-	206 72	200	209 93[2]	-
			with elcbs	front or back	with or without	207 22	207 86	600	208 22	209 22	-	207 72	207 86	400	209 62[1]	-
		horizontal	with or without elcbs underneath	front	-	-	206 25	300	208 25	209 25	-	-	-	400	209 62[1]	-
			with or without elcbs underneath	front or back	with or without	-	207 25	300	208 25	209 25	-	-	-	400	209 95[2]	-
		vertical	supply inverters	front or back	with or without	-	206 76	400	-	209 76	-	-	-	-	-	-
	plug-in	vertical	no elcbs	front or back	with or without	207 21	207 87	400	-	-	212 20	-	-	-	-	-
			with elcbs	front or back	with or without	207 23	207 88	600	-	-	212 22	-	-	-	-	-
		horizontal	with or without elcbs underneath	front or back	with or without	-	207 28	300	-	-	212 25	-	-	-	-	-
	draw-out	vertical	no elcbs	front or back	with or without rotary handle	207 21	207 87	400	-	-	212 21	-	-	-	-	-
			no elcbs	front or back	motor-driven control	207 21	207 87	400	-	-	212 04	-	-	-	-	-
			with elcbs	front or back	with or without rotary handle	207 23	207 88	600	-	-	212 23	-	-	-	-	-
			with elcbs	front or back	motor-driven control	207 23	207 88	600	-	-	212 05	-	-	-	-	-
		horizontal	with or without elcbs underneath	front or back	with or without rotary handle	-	207 28	300	-	-	212 26	-	-	-	-	-
			with or without elcbs underneath	front or back	motor-driven control	-	207 28	300	-	-	212 29	-	-	-	-	-
		vertical	supply inverters	front or back	-	-	206 76	400	-	-	212 94	-	-	-	-	-
			supply inverters	front or back	motor-driven control	-	206 76	400	-	-	212 95	-	-	-	-	-
DPX-IS 630	fixed	vertical	device only	front terminals	-	-	206 07	300	208 07	209 07	-	-	206 57	300	209 57	-
Vistop 800	fixed	vertical	device only	front terminals	-	-	206 09	300	-	209 09	-	-	-	-	-	-
1250 and 1600 A switch	fixed	vertical	device only	front terminals	-	-	206 31	400	-	209 31	-	-	-	-	-	-
DPX 1 600	fixed	vertical	no elcbs	front terminals	-	-	206 30	400	208 30	209 30	-	-	206 80	400	209 80	-
			no elcbs	front terminals	rotary handle or motor-driven	-	207 30	400	-	209 32	-	-	-	-	-	-
			no elcbs	rear terminals	-	-	207 32	400	208 30	209 30	-	-	207 82	400	209 80	-
			no elcbs	rear terminals	rotary handle or motor-driven	-	207 32	400	-	209 32	-	-	-	-	-	-
		horizontal	no elcbs	front terminals	-	-	206 30	400	208 34	209 34	-	-	206 80	400	209 84	-
			no elcbs	front terminals	rotary handle or motor-driven	-	207 34	400	-	209 35	-	-	-	-	-	-
			no elcbs	rear terminals	-	-	207 36	400	208 34	209 34	-	-	-	-	-	-
			no elcbs	rear terminals	rotary handle or motor-driven	-	207 36	400	-	209 35	-	-	-	-	-	-
		horizontal	supply inverters	front or back	-	-	206 86	800	-	209 86	-	-	-	-	-	-
			supply inverters	front or back	motor-driven control	-	206 86	800	-	209 87	-	-	-	-	-	-
	draw-out	vertical	no elcbs	front terminals	-	-	207 31	400	-	-	212 31	-	-	-	-	-
			no elcbs	front terminals	rotary handle or motor-driven	-	207 31	400	-	-	212 32	-	-	-	-	-
		horizontal	no elcbs	front terminals	-	-	207 35	400	-	-	212 34	-	-	-	-	-
			no elcbs	front terminals	rotary handle or motor-driven	-	207 35	400	-	-	212 35	-	-	-	-	-
			supply inverters	front or back	-	-	206 87	800	-	-	212 36	-	-	-	-	-
			supply inverters	front or back	motor-driven control	-	206 87	800	-	-	212 37	-	-	-	-	-
DMX 2500	fixed	vertical	supply inverters	-	-	-	-	600	-	-	212 40	207 41	-	-	-	207 41
	draw-out	vertical	device only	-	-	-	-	600	-	-	212 42	207 43	-	-	-	207 43
DMX-L 2500	fixed	vertical	device only	-	-	-	-	-	-	-	-	207 41	-	-	-	207 41
	draw-out	vertical	device only	-	-	-	-	-	-	-	-	207 43	-	-	-	207 43
DMX 4000	fixed	vertical	device only	-	-	-	-	-	-	-	-	207 41	-	-	-	207 41
	draw-out	vertical	device only	-	-	-	-	-	-	-	-	207 43	-	-	-	207 43
DMX-L 4000	fixed	vertical	device only	-	-	-	-	-	-	-	-	207 41	-	-	-	207 41
	draw-out	vertical	device only	-	-	-	-		-	-	-	207 43	-	-	-	207 43

(1) With window adaptor, to be ordered separately. DPX 125 + elcbs: Cat. No. 203 67 - DPX 160 + elcbs: Cat. No. 203 68 - DPX 250 ER + elcbs: Cat. No. 203 69

(2) Cut-out to be made

Fitting devices and equipment (continued)

B POSITIONING THE FIXING DEVICES



The functional uprights in XL³ 4000 enclosures have 2 usable surfaces with numerous perforations

Fitting the clip-nuts

Front surfaces

These are used for fitting 2-position ⌴ rails and for fitting plates for fixed devices, with front terminals, without rotary or motor-driven handle. The shaped holes are designed to take ¼ turn clip-nuts.
The Ø 6 mm holes are used when the functional uprights are cut in order to refit the fixing bracket (see page 11).

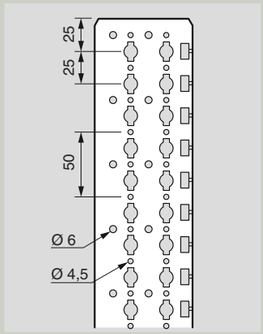
The uprights also have Ø 4.5 mm holes for fixing various products using self-tapping screws.

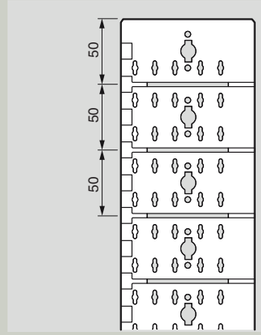
Internal surfaces

These are used for fitting adjustable fixing devices for fixed DPX with front terminals equipped with a rotary or motor-driven handle, fixed DPX with rear terminals, and plug-in or draw-out DPX, as well as plates for DPX supply inverters and plates for DMX devices.

Runners, at 50 mm intervals, are used to guide adjustable plates. The oblong notches are used to lock the plates at the correct depth.

Perforations on the front surface



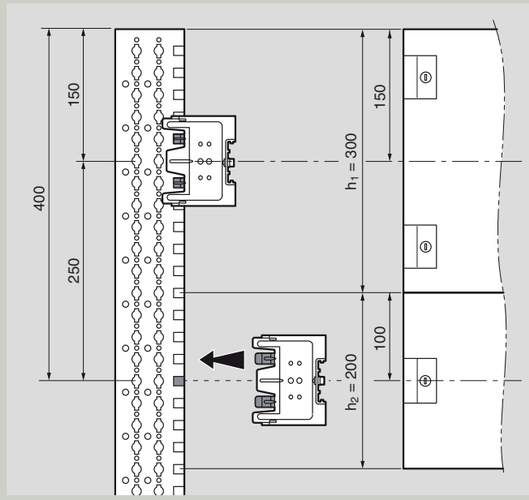


Runners and perforations on the internal surface

1. Fitting 2-position rails

The position of the rail depends on the height and position of the associated faceplate. The centre of the rail fixing pieces corresponds to the axis of the faceplate. It is therefore very easy to determine the position for inserting the attachment pieces on the functional uprights. The top of the functional upright corresponds to the top of the 1st faceplate, this is the reference point or point 0.

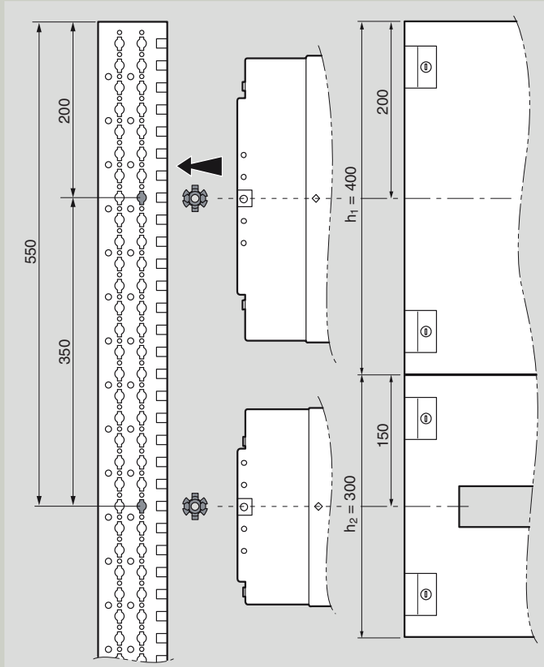
Example: fitting 2 rails and their faceplates at the to of enclosures.
- 1st faceplate: height h_1 = 300 mm
Position of the attachment pieces of the 1st rail in relation to point 0: 300 / 2 = 150 mm
- 2nd faceplate: height h_2 = 200 mm
Position of the attachment pieces of the 2nd rail in relation to the bottom of the 1st faceplate: 200 / 2 = 100 mm
giving a total of: 300 + 100 = 400 mm from point 0



2. Fitting fixed plates

The fixing point for plates (for fixed devices with front terminals) always corresponds to the axis of the associated faceplate. As with rails, it is easy to determine the insertion point for the clip-nuts on the functional upright according to the height and position of the faceplate. The clip-nuts will be inserted in the innermost holes.

Example: fitting 2 plates and their faceplates at the top of enclosures.
- 1st faceplate: height h_1 = 400 mm
Position of the clip-nuts in relation to point 0:
400 / 2 = 200 mm
- 2nd faceplate: height h_2 = 300 mm
Position of the clip-nuts in relation to the bottom of the 1st faceplate: 300 / 2 = 150 mm
giving a total of: 400 + 150 = 550 mm from point 0



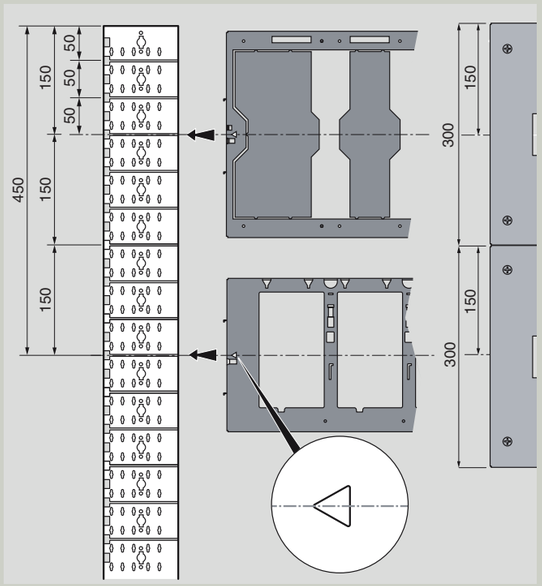
Fitting devices and equipment (continued)

3. Fitting fixing devices and faceplates

Adjustable fixing devices are used for fitting all DPX devices vertically in all configurations (fixed, plug-in, draw-out, front terminal, rear terminal, with or without elcbs underneath, etc). Adjustable plates can be used for fitting all these devices horizontally.

Positioning in terms of height

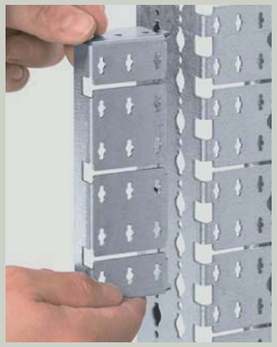
There are markings , corresponding to the axis of the faceplate, on the front of the devices. It is therefore easy to determine the vertical position of the device according to the height and position of the associated faceplate.



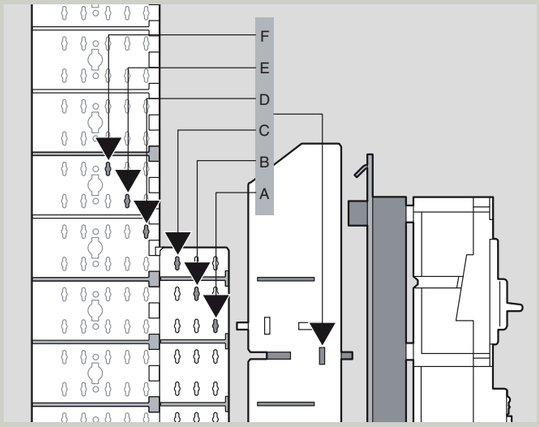
Positioning devices with two 300 mm faceplates at the top of the enclosure. 1st plate at 150 mm, 2nd plate at 450 mm

Positioning in terms of depth

The greater the depth of the device, the further back it must be positioned (rotary handles, motor-driven controls, etc). Conversely, for shallow devices with no accessories, spacers Cat. No. 207 50 must be used.



Hooking spacers Cat. No. 207 50 on the functional upright



Using a combination of uprights and spacers it is possible to have 6 adjustable positions in terms of depth, marked A to F in the above diagram

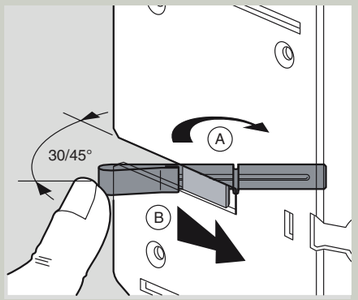
Depth of fixing devices and adjustable plates

Version	Device	Manual	Rotary handle	Motor-driven	Direction of mounting the fixing device
Fixed	DPX 125/160	A	C	E	
	DPX 250 ER	A	C		
	DPX 250/650	A	C	F	
	DPX 1600	A	B	D	
Plug-in	DPX 125/160	B	D	F	
	DPX 250 ER	B	D		
	DPX 250/630	D	F		
				D	
Draw-out	DPX 250/630	B	B	B	
	DPX 1600	E	E	E	

Positions A, B and C require the use of spacers Cat. No. 207 50

Slide the plate to the required position

The locking springs of the fixing devices and plates can be fitted either way round, and are not factory-fitted. Their position depends on the direction of mounting.



Fitting the springs

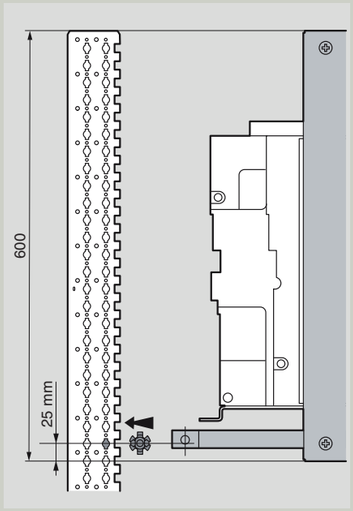
Pressing the spring unlocks the plate

Fitting devices and equipment (continued)

4. Fitting plates for DMX

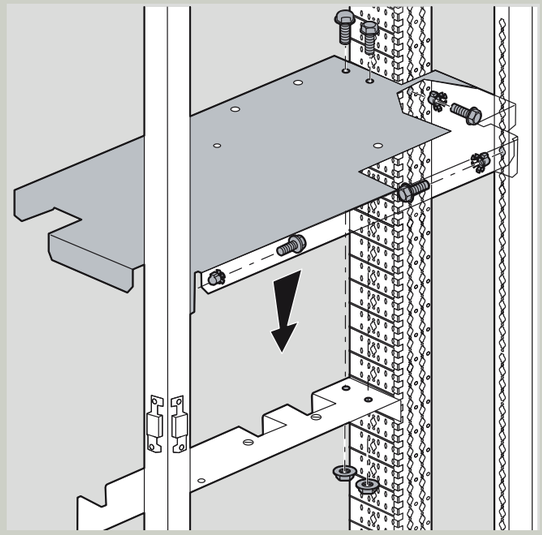
These plates are available for fixed and draw-out version DMX, for 24 and 36 module enclosures. They consist of a plate and a strengthening crosspiece.

Start by fitting the 3 clip-nuts on either side: 1 on the faceplate support frame, and 2 on the rear surface of the functional upright.

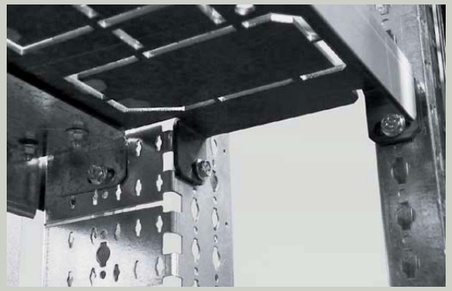


The clip-nuts are inserted 25 mm above the bottom of the faceplate, i.e. 575 mm from the reference point

Fix the strengthening crosspiece on the rear and internal surfaces of the functional uprights using four M6 screws.



The plate is then fixed using 8 x M6 screws:
- **4 on the top of the strengthening crosspiece**
- **2 on the front surfaces of the functional uprights**
- **2 on the structural uprights of the enclosure**



5. Fitting plates for DPX supply inverters

Using the special plates, fixed, plug-in or draw-out version supply inverters, from the DPX 160 up to the DPX 1600, can be created, with manual or motor-driven control.

Plate for supply inverters

Version	Device	Manual control	Motor-driven
Fixed front/rear terminals	DPX 160	206 64	206 65
	DPX 250 ER	206 66	
	DPX 250	206 74	206 74
	DPX 630	206 76	206 76
	DPX 1600	206 86	206 86
Plug-in	DPX 160	206 65	206 65
	DPX 250 ER	206 67	
Draw-out	DPX 250	206 74	206 74
	DPX 630	206 76	206 76
	DPX 1600	206 87	206 87

The plates for supply inverters are supplied with all the parts for creating the mechanical interlock for the devices

DPX 1600 supply inverter being fitted

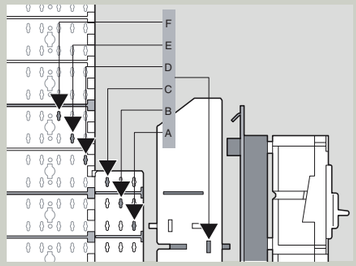
Fitting devices and equipment (continued)

Plates Cat. Nos 206 64/66 for fixed DPX 160 and 250 ER are fitted on the front surface of the functional uprights (see fitting fixed plates on page 49)

Plates Cat. Nos 206 65/67/74/76 are fitted in the runners of the functional uprights (see fitting adjustable devices page 50)

Positioning adjustable plates in terms of depth

Version	Device	Manual control	Motor-driven
Fixed front/rear terminals	DPX 160		C
	DPX 250/630	A	F
Plug-in	DPX 160	B	F
	DPX 250 ER	B	
Draw-out	DPX 250/630	B	B



Positions A, B and C require the use of spacers Cat. No. 207 50

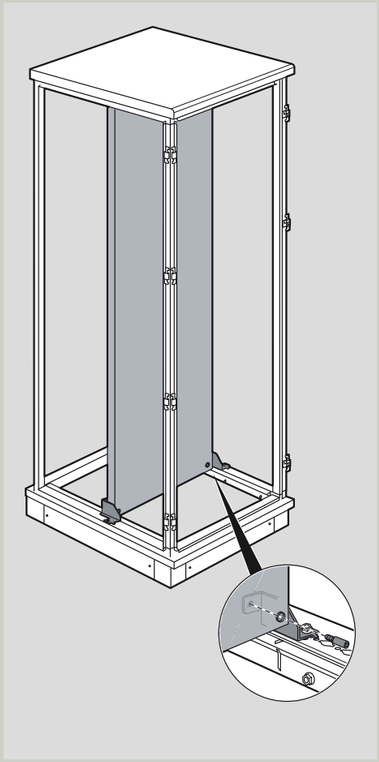
Plates Cat. Nos 206 86/87 for DPX 1600 are fixed either directly on the uprights (draw-out devices), or via the support provided (fixed devices).

Direct insertion of plate Cat. No. 206 86 on the functional upright

Locking the plate using M6 screws and clip-nuts

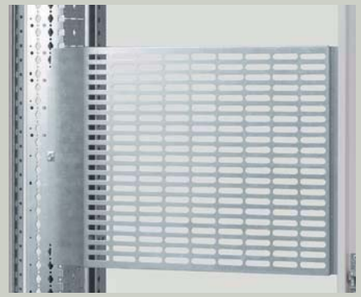
6. Universal plates

The depth of solid plate Cat. No. 205 40 can be adjusted. Fitted in an XL³ 4000 725 mm width enclosure, it enables the whole faceplate height to be used for fitting non-modular control and automation products. This solid plate can be fixed at different depths.

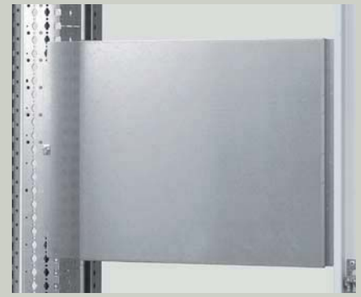


Fitting the solid plate

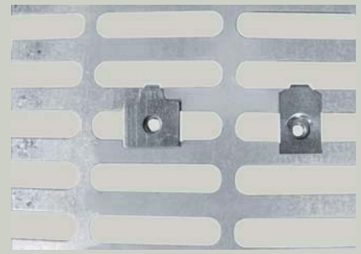
Perforated universal plates Cat. Nos 206 41/42 or solid universal faceplates Cat. Nos 206 43/44/45 can be used for fitting any device at the back of the enclosure (maximum height available under faceplate: 145 mm).



Perforated plate



Solid plate



The perforated plates take M4 and M5 clip-nuts Cat. Nos 364 40/41

Fitting devices and equipment (continued)

C FITTING DEVICES ON ⊔ RAILS

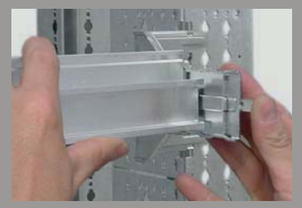
Indexed 2-position ⊔ rails Cat. Nos 206 00/50 (capacity 24 and 36 modules respectively) are made of a particularly rigid aluminium profile.

- In upper position they are used for the direct fitting of Lexic modular devices.
- In lower position they take DPX 125, 160, 250 ER and DPX-IS 250 via plates Cat. Nos 262 08/09/39 and Lexic modular devices using spacer Cat. No. 262 99.

+ Rail fixing device with 2 indexed positions Cat. Nos 206 00/50

Tool-free fitting:

1 - Fitting the attachment pieces on the functional uprights

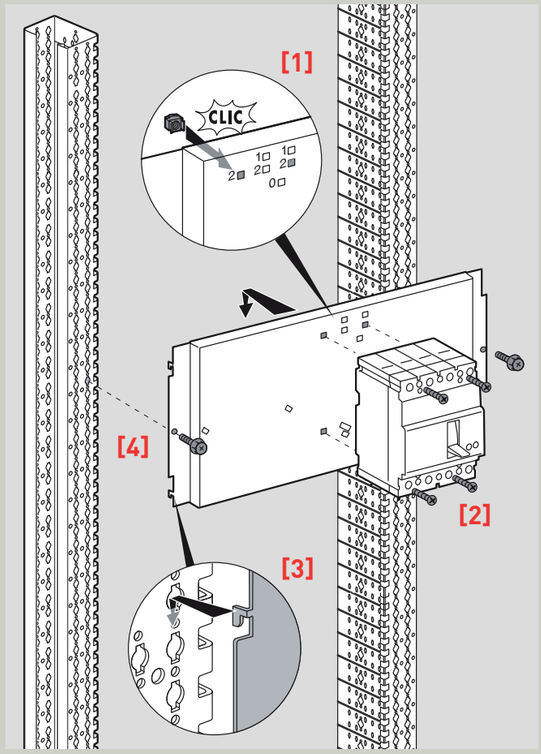


2 - Clipping the rail on the attachment pieces (2 positions)

D FITTING DEVICES ON ON PLATES

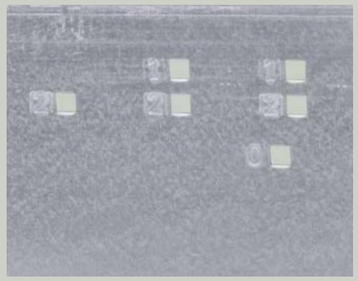
1. Fixed plates

After fitting the cage-nuts [1], the next steps consist of fixing the devices on their plates [2] then attaching [3] and locking [4] the plates on the functional uprights previously fitted with clip-nuts.

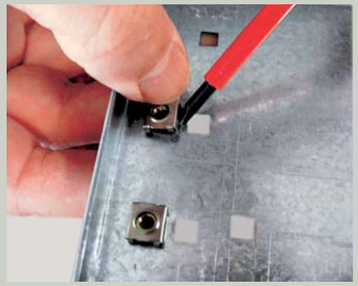


When one plate can take various types of DPX, the fixing holes are marked with numbers (the same numbers are always used for the same type of device):
- 0 for the DPX 125
- 1 for the DPX 160
- 2 for the DPX 250 ER
- 3 for the DPX 250
- 4 for the DPX 630.

Plates that are dedicated to a single device (e.g.: DPX-IS) have no markings.



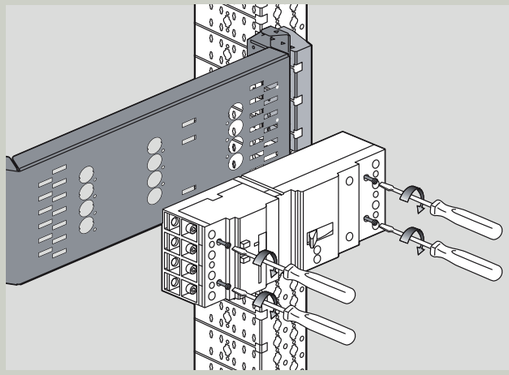
Each plate has the numbers corresponding to the DPX units it can take



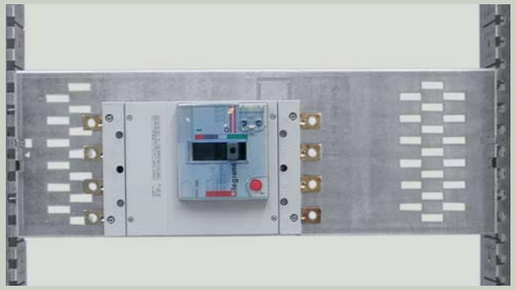
Insert the cage-nuts in the holes provided for the device

2. Adjustable plates

These plates are used for fitting DPX units horizontally. They are specifically for one model of device.



Fix the device with its fixing screws in the tapped holes on the plate

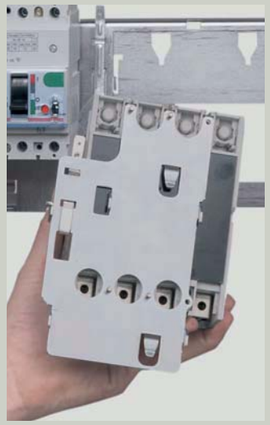


Plug-in DPX 250 with front terminals in horizontal position on adjustable plate Cat. No. 207 27

Fitting devices and equipment (continued)

3. Adjustable fixing devices

These devices are used for fitting DPX units vertically. The devices are fixed using a special mounting plate.

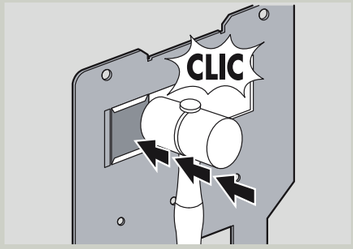


DPX units are screwed directly onto the plate, which is then attached on the fixing device. Most plates lock automatically with no need for any tool

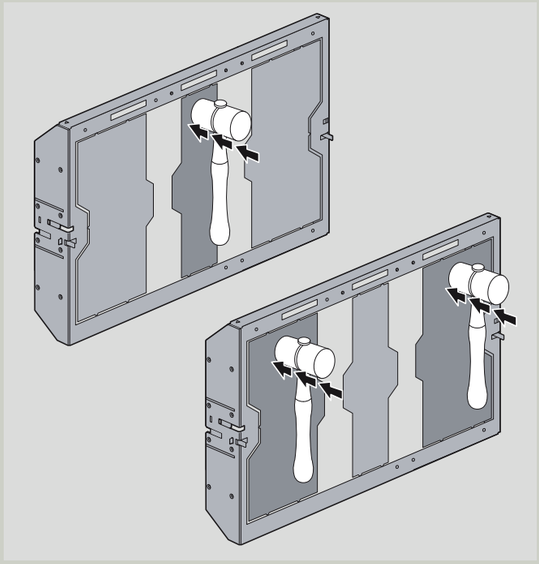
Attaching and locking a plate equipped with its DPX

Locking spring

The devices and plates for plug-in or draw-out DPX 250 and 630 require preparation according to the configuration (number of poles, number of devices). These plates lock onto the device using 4 screws.



Knocking out the hole in the plate for a 4P plug-in base with rear terminals



Knocking out the holes in the fixing device for a centred device on its own or for two devices side by side

4. Fitting DMX

Fixed or draw-out DMX devices are placed on the plate and fixed using screws and nuts (see page 52). Given the weight of the devices, the use of lifting equipment is strongly recommended.

Installing a draw-out DMX in its base

4000 A assembly with DMX supply inverter at the top

Fitting devices and equipment (continued)

D EQUIPMENT ON DOORS AND REMOTE HANDLES

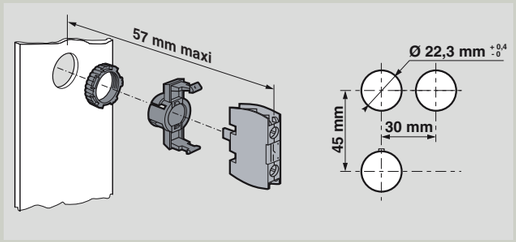
1. Front handles on doors

The rotary handles of DPX and DPX-IS can be remotely located on rounded doors only.

Remote rotary handle Cat. No. 262 23 for DPX 250

2. Control and signalling devices on the door

Metal rounded doors with a distance of 94 mm between the faceplate and the door enable 50 mm deep Signis control and signalling units to be mounted. Hole drilled using 22.3 mm diameter punch.



If the supply voltage of the control and signalling units is greater than 50 V, an equipotential link must be created with the door or the side panel using conductor Cat. No. 373 85.

To feed through the conductors, use a solid faceplate fitted with a Plexo gland (see page 19)

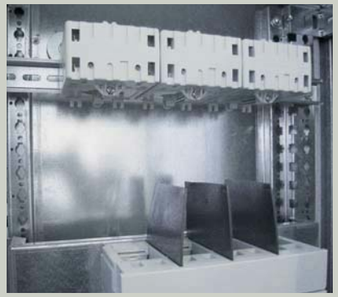
+

Lexic indicators can be fitted on a rail Cat. No. 206 00 and made visible by using a glass door

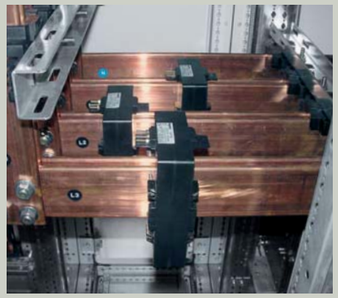
E MEASUREMENT EQUIPMENT

1. Current transformers (CT)

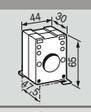
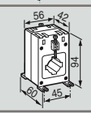
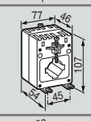
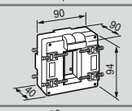
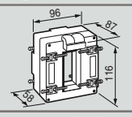
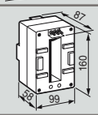
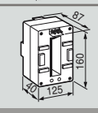
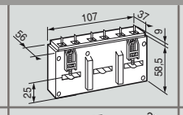
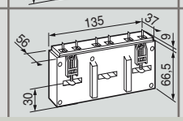
Current transformers can be fitted on rails, bars or plates in XL³ 4000 enclosures.



Fixing on rail



Fixing on busbar

Cat. No.	Transformation ratio	Dimensions (mm)	Aperture for cables ∅ max. (mm)	Aperture for bar width x thickness (mm)	Fixing on rail	Fixing on plate	Direct fixing on cables or bars
Single phase CT							
046 31 046 34 046 36	50/5 100/5 200/5		21	16 x 12.5	●	●	
047 75	300/5		23	20.5 x 12.5 25.5 x 11.5 30.5 x 10.5	●	●	●
046 38	400/5		35	40.5 x 10.5	●		●
047 76 047 77 047 78	600/5 800/5 1000/5			32 x 65			●
047 79	1250/5			34 x 84			●
046 45 046 46	1500/5 2000/5			38 x 127			●
047 80 046 48	2500/5 4000/5			54 x 127			●
3-phase CT							
046 98	250/5		8	20.5 x 5.5			●
046 99	400/5			30.5 x 5.5			●

Fitting devices and equipment (continued)

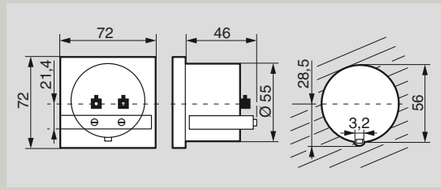
2. Measuring devices

Measuring devices can be fitted on the doors, solid faceplates or ⊔ rails in XL³ 4000 enclosures.

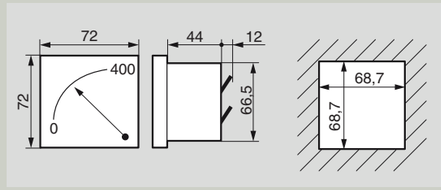
Type	Cat. No.	Modular mounting (1)	Flush-mounting		
			Round body Ø (mm)	Square body l x h (mm)	Special cut-out
Ammeter	046 00/02/05	●			
	146 00		56		
	146 01			68 x 68	
Voltmeter	046 60/62	●			
	146 60		56		
	146 61			68 x 68	
Digital ammeter/ voltmeter	046 63	●			
Selector switch	046 50/52/53	●			
	146 50/52/53				●
Frequency meter	046 64	●			
Central measuring unit	046 65	●			
	146 65			96 x 96	
Electricity meter	046 71/72/ 73/74/81	●			
Hour counter	046 91/94	●			
	495 52/53/55/ 58/59/60		50	45 x 45	

(1) 2 to 6 modules

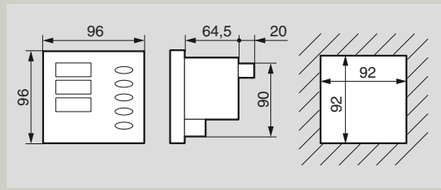
Central measuring unit Cat. No. 146 65 on solid faceplate at top of enclosure



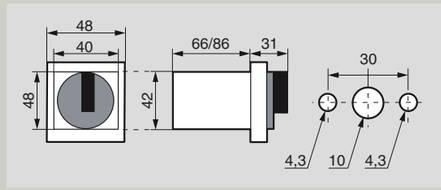
Round body ammeters and voltmeters on door



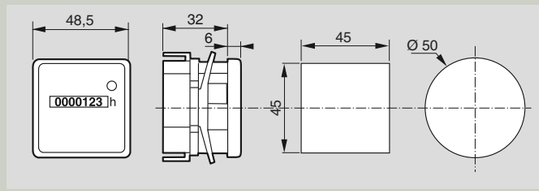
Square body ammeters and voltmeters on door



Square body central measuring unit on door



Switches on door special cut-out



Round body hour counters on door

Fitting devices and equipment (continued)

XL Pro²: distribution panel design software

Based on the components needed to create your project, the XL Pro² software determines the enclosures to use. It also creates the circuit diagram, calculates the costs, prints out the purchase order, draws the installation diagram, etc.

With XL Pro², you can convert XL designs to XL³ designs, incorporate DPX on XL-Part distribution blocks and create assemblies up to 4000 A using the new Legrand power range, in particular circuit breakers and trip-free switches (DMX).

Example of a design

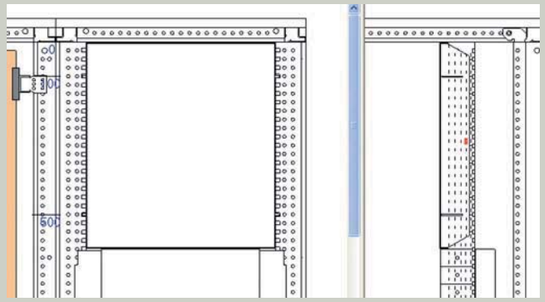
This is the list of all the devices used to make up the panel:

Désignation	Référence	Quantité
Disj. DPX 4P 1600A Electronique 50KA	025708	1
Contact embroché/débroché	026574	1
Base débro. PAR DPX1600 4P	026585	1
Connecteur 8 contacts	026399	1
Disjoncteur ouvert DMX 4P 3200A débro	026816	1
Jeux de barres	JDB	1
Disj. DPX 4P4D 250A Magn.thermique	025349	4
Bloc diff réglable 250A 4P aval	026055	4
Disj. DPX 4P4D 630A Magn.thermique	025540	1
Bloc diff réglable 630A 4P aval	026065	1
Disj diff 300mA type ACDX C 4P 32A	007980	2
Centrale de mesure sur porte	014665	1
Coupure d'urgence diam. 40	024582	1

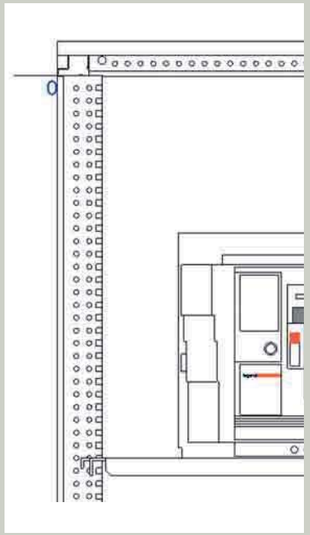
Project parts list

In this example the enclosure determined by XL Pro² is made up of 2 XL³ 4000 enclosures (width 975 mm and 725 mm) and an external wiring sleeve.

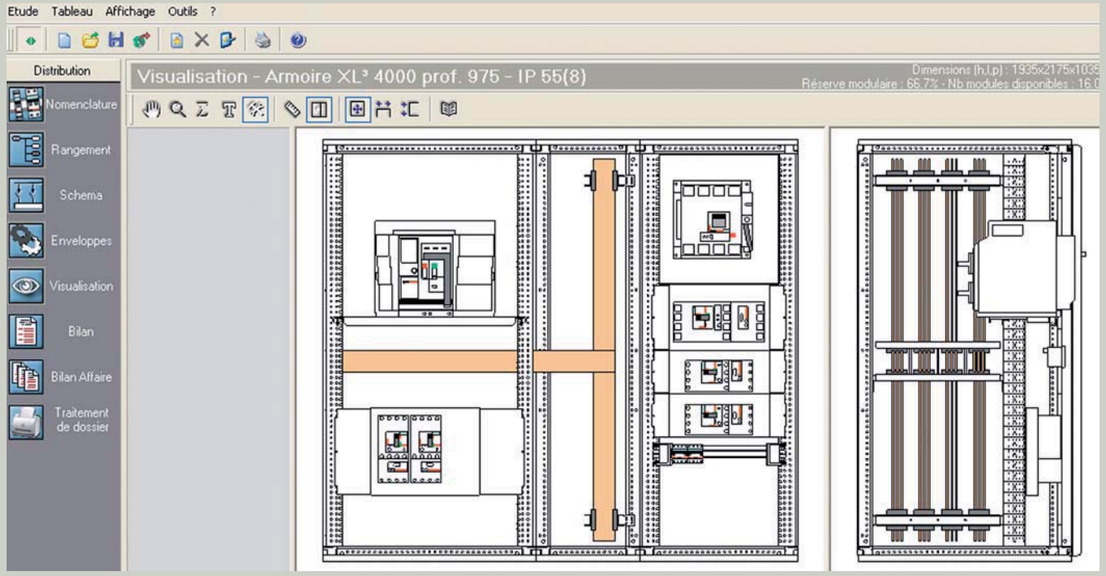
As the enclosure can be displayed in side view for each device, it is therefore very easy to determine the position of the plates in relation to the functional uprights (example of adjustable plate used for fixing draw-out DPX 1600).



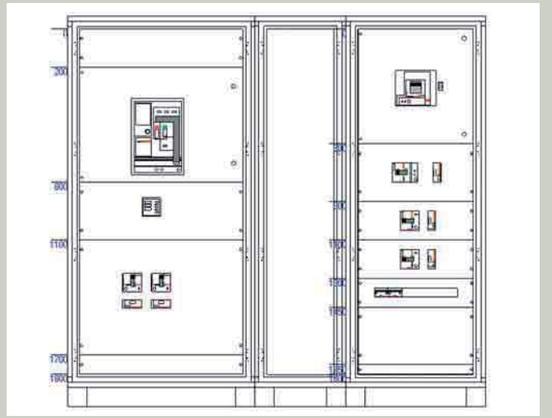
Display in “chassis” mode



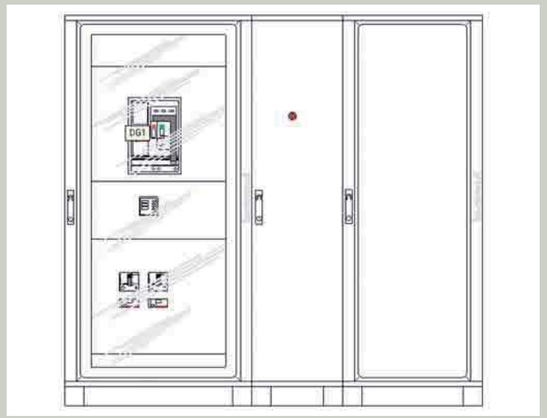
The dimensions indicating the positions of the faceplates are given in relation to point 0, located at the upper end of the functional uprights



Display in “device” mode



Display in “faceplate” mode



Display of the complete panel with doors. The emergency stop button is located on the wiring sleeve door

Wiring and connection

A CONNECTING DEVICES

The section entitled "Connection capacities" in the XL³ general specifications gives the maximum connection capacities per pole for each type of device according to the chosen connection method (direct on plate, cage terminals, distribution terminals, rear terminal, etc).

Direct connection of a DPX 630 via cage terminals

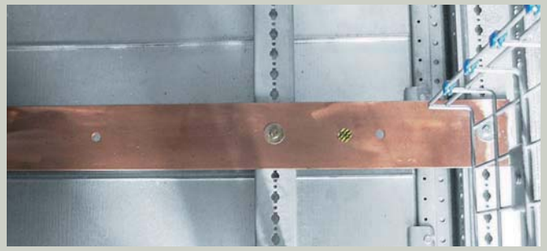
Connection of four 100 x 10 bars on each rear terminal of a draw-out DMX 4000

B PROTECTIVE CONDUCTORS

As a general rule, the main terminal of the protective conductors in XL³ 4000 distribution assemblies is created using a copper bar fixed at the bottom of the enclosure. The following must be connected to this terminal:
- The main protective conductor
- Optionally, the protective conductor of the transformer
- The protective conductors of the operating circuits
- The equipotential links

The minimum cross-section of this bar can be determined using the table below:

Minimum cross-section of the protective conductor according to the cross-section of the phase conductor (according to EN 60439-1)	
Cross-section of the supply phase conductors S (mm²)	Minimum cross-section of the corresponding protective conductor S_{PE} (mm²)
S ⩽ 16	S
16 < S ⩽ 35	16
35 < S ⩽ 400	S/2
400 < S ⩽ 800	200
S > 800	S/4



Main terminal consisting of a copper bar at the back of the enclosure

C INSERTING THE CABLES

1. Cable entry aperture

The enclosures and wiring sleeves in the XL³ 4000 range all have cable entry apertures at the bottom.

Sliding plates enable the size of the aperture to be adapted to the quantity of cables to be fed through

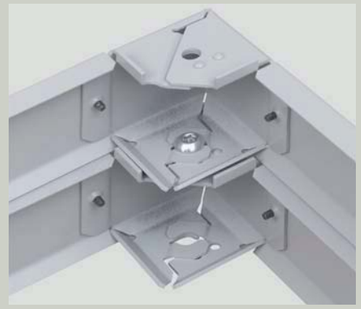
+

For enclosures whose width and depth are identical, the direction in which the compartment opens can be altered

2. Plinths

The plinths consist of 4 corner pieces and 4 side panels. They are 100 mm high.

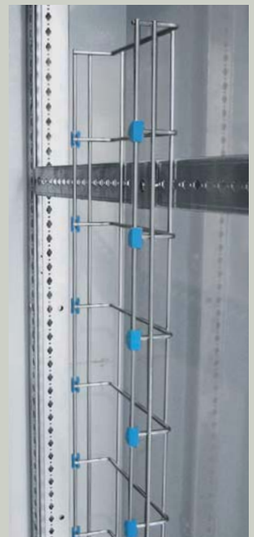
The side panels can be removed for the insertion of cables. They can be removed from one or more sides as required.



The plinths can be placed on top of one another for better spreading of the cables

3. Cable guide

Cable guide Cat. No. 332 34 is used to fix cables in XL³ 4000 wiring sleeves.

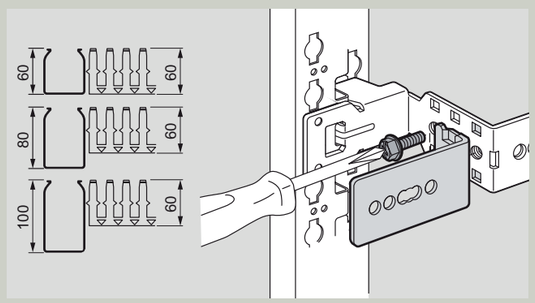


Fix the cable guide on 2 crosspieces Cat. Nos 205 21/22/23 using the 2 metal pieces provided

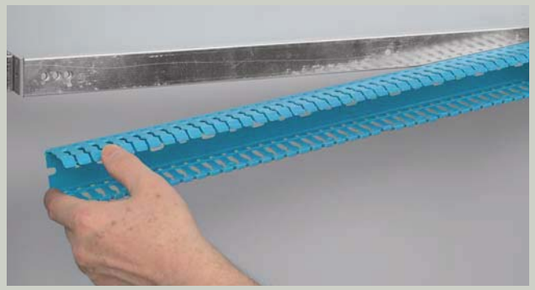
Wiring and connection (continued)

D LINA 25™ DUCTING

Supports Cat. Nos 204 70 and 205 70 are used for fixing Lina 25 ducting horizontally and vertically. They are adjustable so that different heights of ducting can be aligned. Supports Cat. No. 205 70 are specifically for 24-module width enclosures, and supports Cat. No. 204 70 are for 36-module width enclosures.



The supports enable different ducting heights to be mixed together

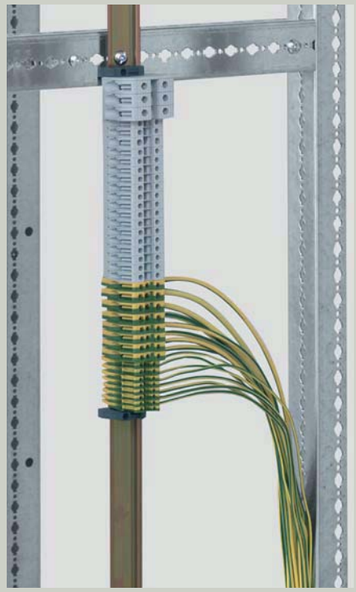


The profile supplied with supports Cat. No. 205 70 is fixed using the rivets at the same time as the ducting. An additional rivet is supplied for fixing the ducting at the centre

E OUTPUT TERMINAL BLOCKS

1. Vertical terminal block in wiring sleeve

Use crosspieces Cat. Nos 205 21/22/23 according to the depth of the wiring sleeve. The ⊔ rail is cut to the required size then fixed on the crosspieces using M6 clip-nuts Cat. No. 200 92.

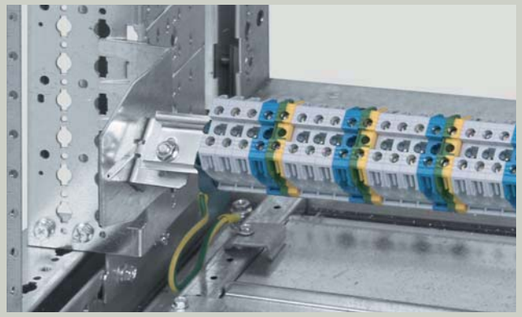


2. Horizontal terminal blocks in enclosures

■ Adjustable and inclinable terminal blocks

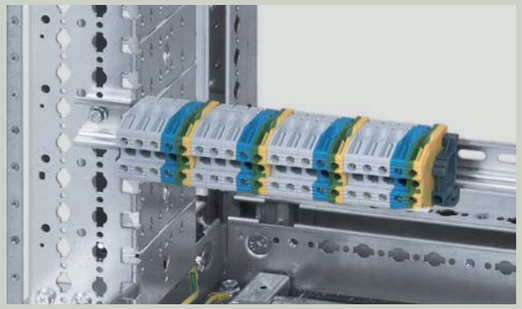
Devices Cat. Nos 206 02/52 consist of a ⊔ rail and 2 supports, enabling the depth and slope of the rail to be adjusted.

They are designed to create staggered terminal blocks at the top or bottom of 24-module or 36-module enclosures.



■ Fixed terminals

Universal rails Cat. Nos 206 04 (24 modules) and 206 54 (36 modules), are fixed directly on the functional uprights at the top or bottom of the enclosure.



+ Service indices (IS) (1)

The XL³ 4000 system meets the requirements of the highest service indices, up to IS 333.
IS 333 can be obtained by combining the advantages of XL³ 4000 enclosures with those of DPX and DMX draw-out circuit-breakers.

Examples of IS 333 installations:
– Use of DPX and DMX draw-out devices for isolation, interlocking and testing auxiliary circuits off-load, as well as maintenance and fast extraction.
– Use of the XL Part system
– Use of forms 3 and 4
– Use of devices equipped with rear terminals with screen separating the compartments for easy and totally safe maintenance and extraction operations.

For further information, see the "distribution and power" guide and the XL³ general workshop specifications.

(1) The service indices are defined by the UTE C63-429 guide

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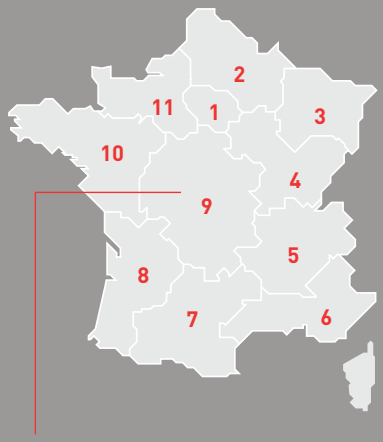
Le samedi de 8h à 13h



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