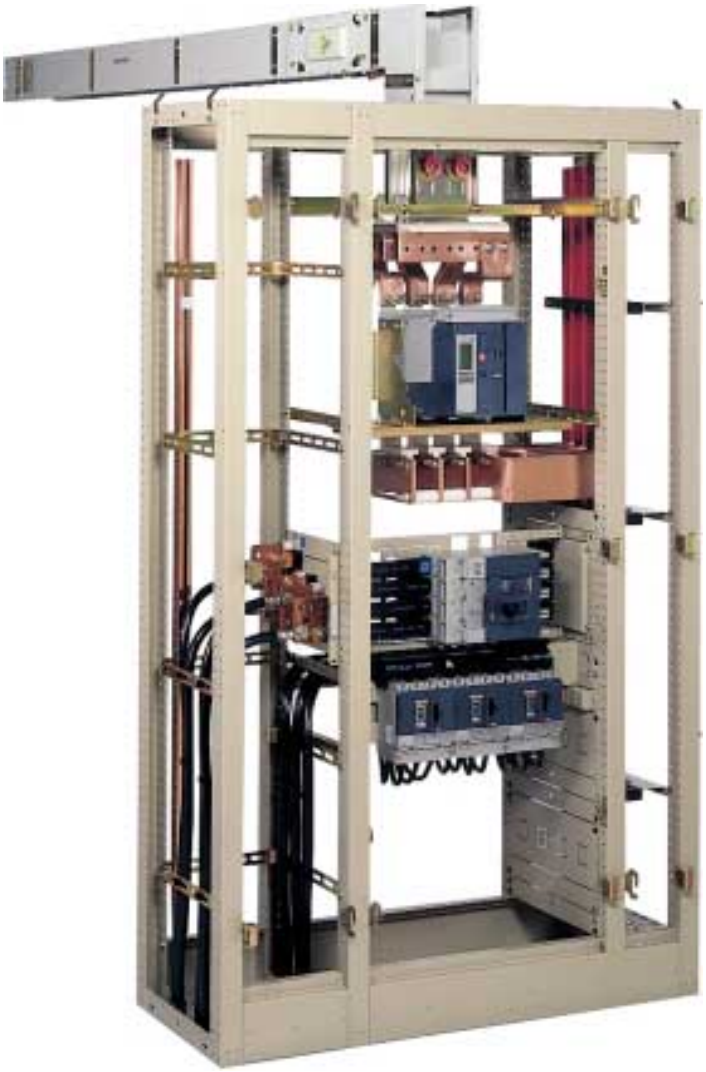
Enclosures and cubicles

Functional system Prisma P

Catalogue



Merlin Gerin
Modicon
Square D
Telemecanique

Schneider Electric

Contents general

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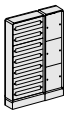
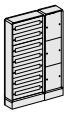
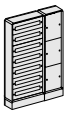
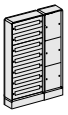
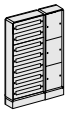
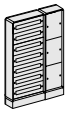
Selection table
Prisma functional system

	Commercial buildings	Industrial buildings
	 	 
Main low voltage switchboards up to 3200 A	Prisma G functional system, refer to catalogue ART 94848 Prisma P functional system    *Prisma G* *Prisma GX* *Prisma P*	Prisma G functional , system, refer to catalogue ART 94848 Prisma P functional system      *Prisma G* *Prisma GX* *Prisma GK* *Prisma P* *Prisma PH*
Secondary distribution switchboard	Prisma G functional system, refer to catalogue ART 94848 Prisma P functional system    *Prisma G* *Prisma GX* *Prisma P*	Prisma G functional system, refer to catalogue ART 94848 Prisma P functional system     *Prisma GX* *Prisma GK* *Prisma P* *Prisma PH*
Final distribution switchboard	Prisma G functional system, refer to catalogue ART 94848   *Prisma G* *Prisma GX*	Prisma G functional system, refer to catalogue ART 94848  *Prisma GK*
Building machinery switchboard	Prisma G functional system, refer to catalogue ART 94848   *Prisma G* *Prisma GX*	Prisma G functional system, refer to catalogue ART 94848 Prisma P functional system   *Prisma GK* *Prisma PH*

Electrical switchboard
up to 630 A

Prisma G functional system
refer to Prisma G functional system catalogue, Art 94848

Prisma G, GK enclosures and Prisma GX cubicles

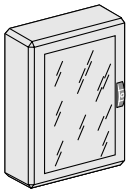
The Prisma G functional system can be used to build all types of main, secondary and final low-voltage switchboards up to 630 A, for industrial and commercial buildings.
The same components, whether for switchgear installation, current distribution, cable running, etc., may be installed in any of four types of enclosures or cubicles, depending on the size of the switchboard and the installation site.

■ **Prisma G enclosures:**
❑ IP30, 40, 43,
❑ IK07, 08,
❑ may be dismantled,
❑ may be joined side by side or one on top of the other,
❑ 300 mm duct may be added on side, top or bottom,
❑ 6 heights ranging from 200 to 1200 mm,
❑ width: 550 mm;

■ **Prisma GX cubicles:**
❑ IP30, 40, 43,
❑ IK07, 08,
❑ may be dismantled,
❑ may be joined side-by-side,
❑ a Prisma G enclosure may be added on top,
❑ 300 mm add-on duct,
❑ 2 heights: 1550 and 1850 mm,
❑ width: 550 mm;

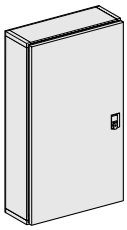
■ **Prisma GK enclosures:**
❑ IP55,
❑ IK10,
❑ may be dismanteled,
❑ may be joined side by side and/or top bottom,
❑ 300 mm add-on duct,
❑ 7 heights from 450 to 1750 mm,
❑ width 600 mm.

General characteristics



Prisma G enclosure

Prisma GX cubicle



Prisma GK

Enclosure

■ **material**
❑ Prisma G, GX, GK: sheet steel,
anti-corrosion protection,

■ **surface treatment**
Anti-corrosion coating, smooth or textured thermal polymerised polyester-epoxy powder. Colour Prisma beige;

■ **busbar insulating supports**
All plastic parts withstand fire or excessive heat caused by internal electrical phenomena, as per IEC 695-2.1: 960° 30 s / 30 s for supports for live metal parts;

■ **building up installations**
Functional Prisma G components can be used to build switchgear assemblies that comply with standards IEC 439-1 and EN 60439-1, with the following electrical characteristics:
❑ rated insulation voltage for the main busbars at the rear of the switchboard: 1000 V,
❑ rated operating current Ie (40° C): 630 A,
❑ peak withstand current: Ipk = 53 kA,
❑ short time withstand current:
Icw = 25 kA rms / 1 s,
❑ frequency 50 / 60 Hz.

Electrical switchboards
Up to 3200 A

Prisma P switchboard and Canalis busbar trunking

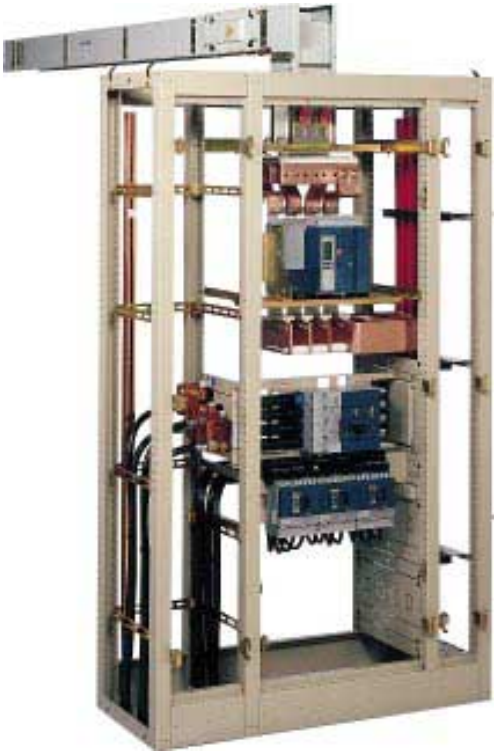
Prisma electrical switchboards

For a dependable electrical installation
Total compatibility between Merlin Gerin switchgear devices and the Prisma system helps build dependability into every electrical installation.
The design of the system has been validated by type tests in compliance with standard IEC 60439-1 and benefits from experience acquired with Schneider customers over many years.

An electrical installation capable of evolving
Modular in structure, Prisma can keep pace with evolving switchboard needs and integrate new functional units as required. Maintenance is carried out with the switchboard de-energised.
Maintenance operations are fast and easy with total access to all switchgear devices.

Total safety for users
Switchgear devices are installed behind a protective front plate that leaves only the operating handle visible. Other barriers can be mounted inside to provide form 2, 3 or 4 separation.

When implemented in compliance with Schneider recommendations, the Prisma functional system can be used to build electrical switchboards that comply with international standard IEC 60439-1.



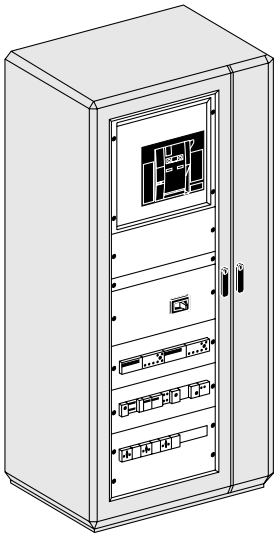
ATTENTION PHOTOS 130 %

Prisma P functional system

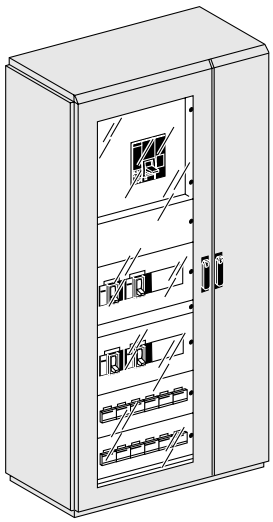
The Prisma P functional system can be used to build all types of main, secondary and final low-voltage switchboards up to 3200 A, for industrial and commercial buildings.
The same components, whether for switchgear installation, current distribution, cable running, etc., may be installed in any of two types of enclosure, depending on the installation site.

■ **Prisma P cubicles:**
❑ IP20, 30, 31, 54
❑ IK08
❑ may be dismantled
❑ may be joined side by side
❑ 3 basic widths: 700, 900, 1100 mm
❑ 2 extension widths: 700, 900 mm
❑ 1 cable duct: 600 mm
❑ 1 extension duct: 300 or 400 mm
❑ 2 depths: 400, 600 mm
❑ height: 2000 mm

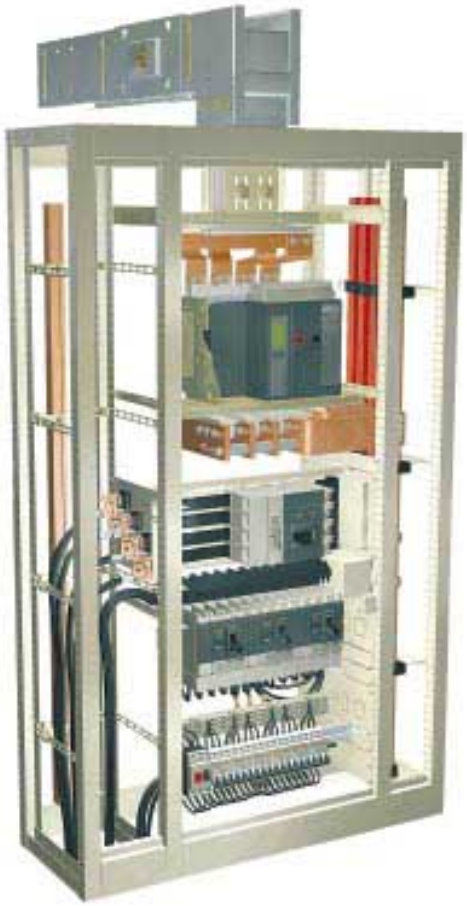
■ **Prisma PH cubicles:**
❑ IP55
❑ IK10
❑ may be dismantled
❑ may be joined side by side
❑ basic width: 700 mm
❑ duct width: 300 mm
❑ 2 depths: 500 and 700 mm
❑ height: 2000 mm.



Prisma P



Prisma PH



General characteristics

Enclosure

■ **material**

❑ Prisma P: sheet steel, anti-corrosion protection

❑ Prisma PH: phosphatised TC sheet steel, 1.5 mm thick

■ **surface treatment**

Anti-corrosion coating, thermal polymerised polyester-epoxy powder. Colour Prisma beige.

■ **busbar insulating supports**

All plastic parts withstand fire or excessive heat caused by internal electrical phenomena, as per IEC 695-2.1: 960° 30s/30s for supports for live metal parts.

Building up installations

Functional Prisma components can be used to build switchgear assemblies in compliance with: standards IEC 60439-1.

■ with the following electrical specifications:

❑ rated insulation voltage for the main busbars: 1000 V

❑ rated current 3200 A

❑ peak withstand current: Ipk 187 kÂ

❑ short time withstand current: Icw 85 kA rms/1 s

❑ frequency 50/60 Hz.

Prisma P functional system

Contents

Switchboard examples

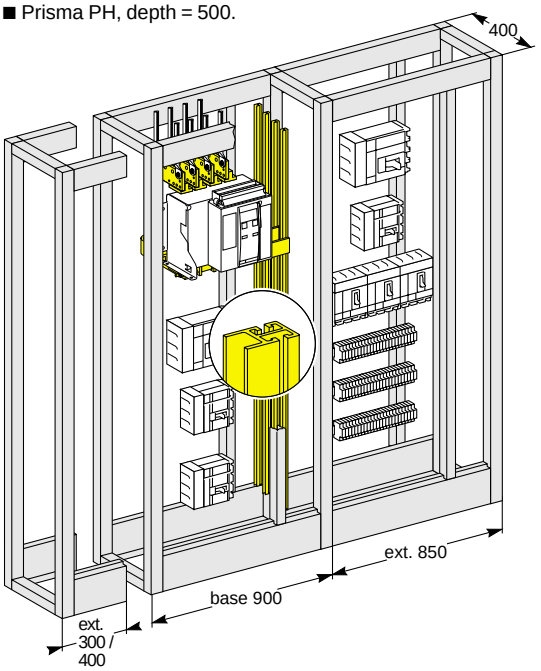
Up to 1600 A

Front connection of cables:

Incoming unit: Compact circuit breaker NS630b/1600 or Masterpact NT06/16 circuit breaker.

Choice of cubicles:

- Prisma P, depth = 400
- Prisma PH, depth = 500.



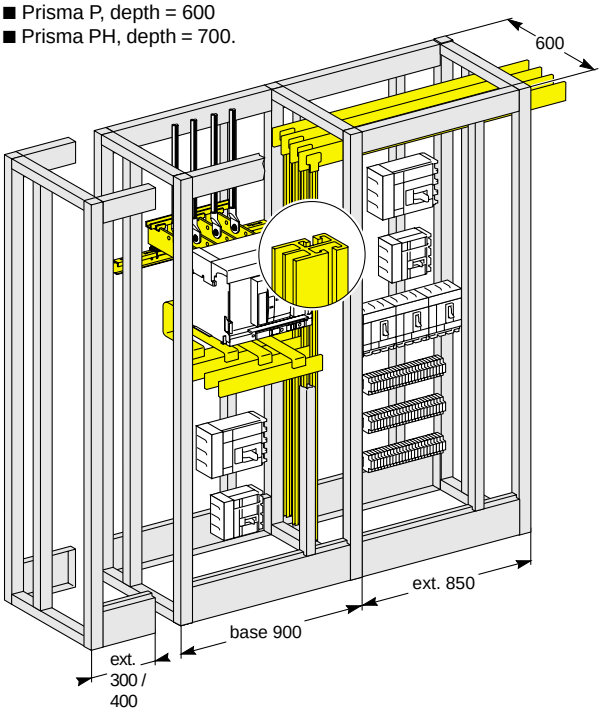
Linergy 1600 A busbars in a 400 mm depth Prisma P switchboard. They are supplied directly by a fixed Masterpact NT circuit breaker (edgewise downstream terminals).

Connection of the cables from the rear:

Incoming unit: Compact NS630b/1600 Masterpact NT06/16 or NW 08/16 circuit breaker rear connected.

Choice of cubicles:

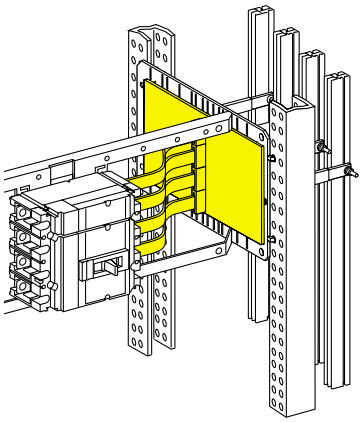
- Prisma P, depth = 600
- Prisma PH, depth = 700.



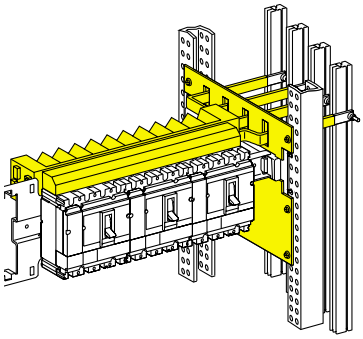
Linergy 1600 A busbars in a 600 mm depth Prisma P switchboard. They are supplied by a Masterpact NW16 drawout circuit breaker (flat downstream terminals) via horizontal transfer busbars.

Connection with Form 2 barrier between Linergy busbars and Compact circuit breaker

Prefabricated connection for horizontal Compact NS circuit breaker. The connection is supplied with a metal barrier to protect against direct access to the Linergy busbars and comply with Form 2 separation requirements.
Polypact distribution block, fitted with a prefabricated connection. It supplies three Compact NS 3-pole circuit breakers mounted in a vertical position. Supplied with Form 2 barrier.



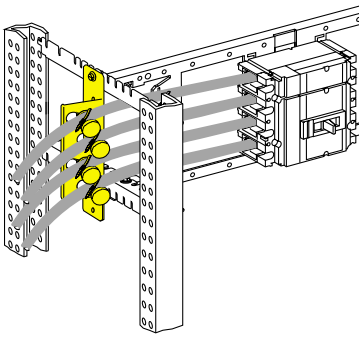
Prefabricated connection



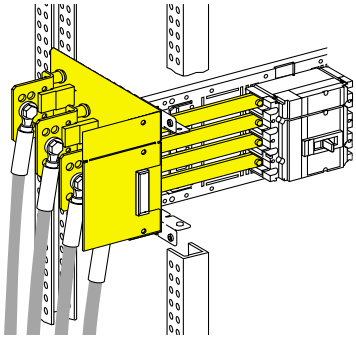
Polypact distribution block

On-site connection of Compact devices

A cable tie support is used to avoid excessive forces on the circuit-breaker terminals and secure connections.
A prefabricated connection assembly fitted to the circuit breakers ensures easy on-site connection of switchgear to large cables in the duct. It comes with a protective barrier.



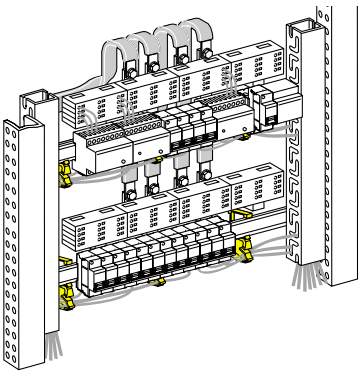
Cable tie support



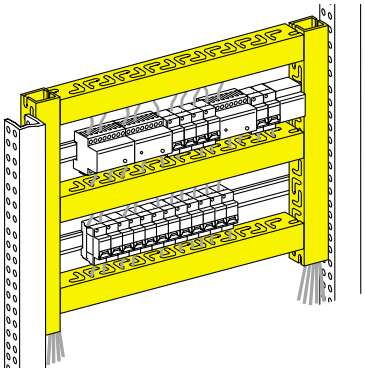
On site connection in the duct

Connection of Multi 9 devices

Distribution by a Multiclip block, horizontal cables supported by straps and vertical cables by trunking.
All incoming and outgoing cables run in horizontal and vertical trunking.



Distribution by a Multiclip block



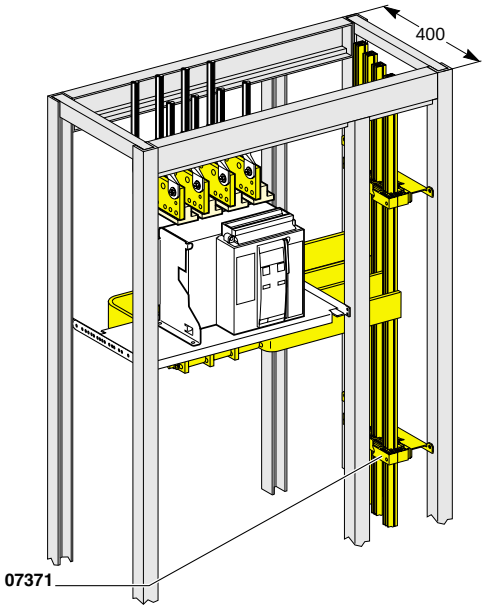
Incoming and outgoing cables

Switchboard examples with Masterpact NT fixed front connected

Up to 1600 A

Front connection of cables:

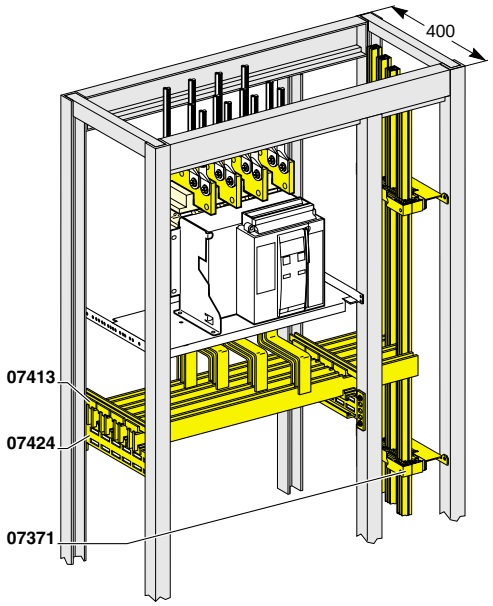
Incoming unit: Compact NS630b/1600 or Masterpact NT06/16 circuit breaker.
Choice of cubicles:
■ Prisma P, depth = 400.



Linergy 1600 A busbars in a 400 mm depth Prisma P switchboard. They are supplied directly by a fixed Masterpact NT circuit breaker (edgewise downstream terminals).

Front connection of cables:

Incoming unit: Compact circuit breaker NS630b/1600 or Masterpact NT06/16 circuit breaker.
Choice of cubicles:
■ Prisma P, depth = 400.

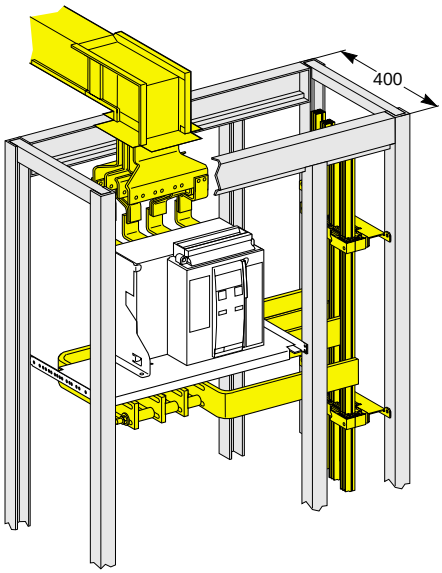


Linergy 1600 A busbars in a 400 mm depth Prisma P switchboard. They are supplied directly by a fixed Masterpact NT circuit breaker (flat downstream terminals) via horizontal transfer busbars.

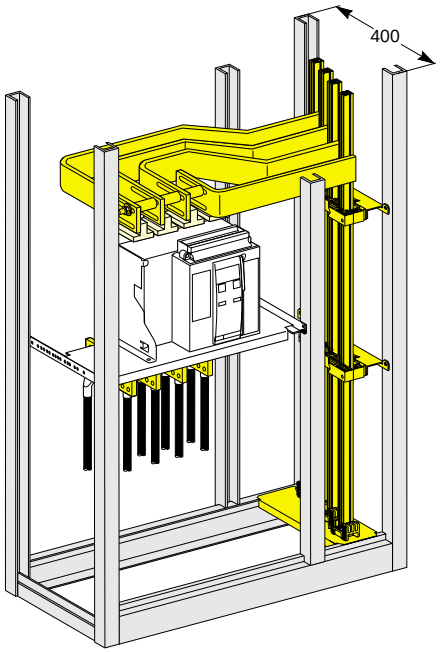
Up to 1600 A

Prefabricated connection.

Masterpact NT, fixed



- top incomer
- supplied by busbar trunking system (Telemecanique)
- connected to a Linergy busbar with a prefabricated connection.

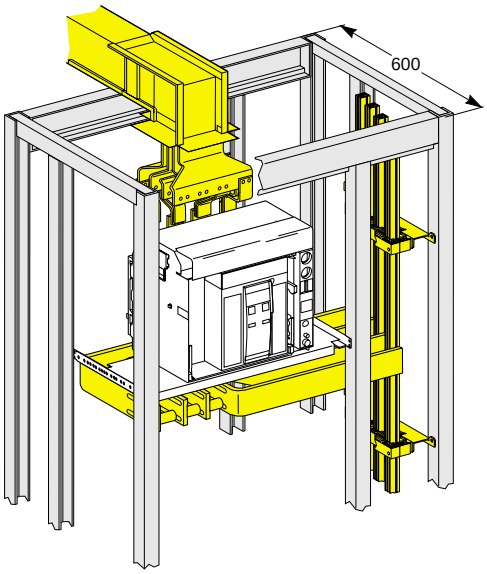


- bottom incomer
- supplied by cables
- connected to a Linergy busbar with a prefabricated connection.

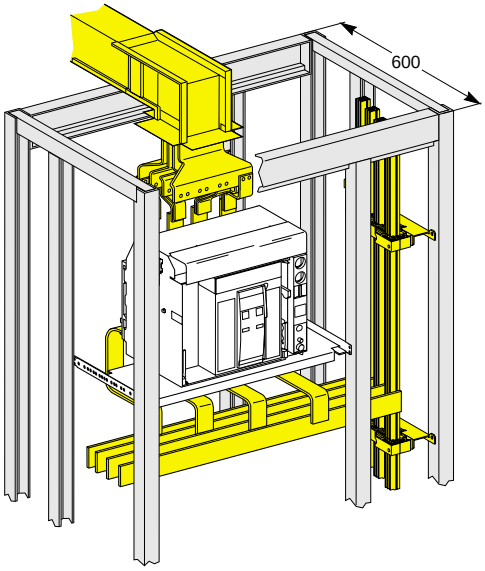
Flat 1600 A busbars in a 800 mm depth Prisma P switchboard. They are supplied directly by a fixed Masterpact NT circuit breaker (edgewise downstream terminals).

Switchboard examples with Masterpact NT, drawout, front connected

Up to 1600 A

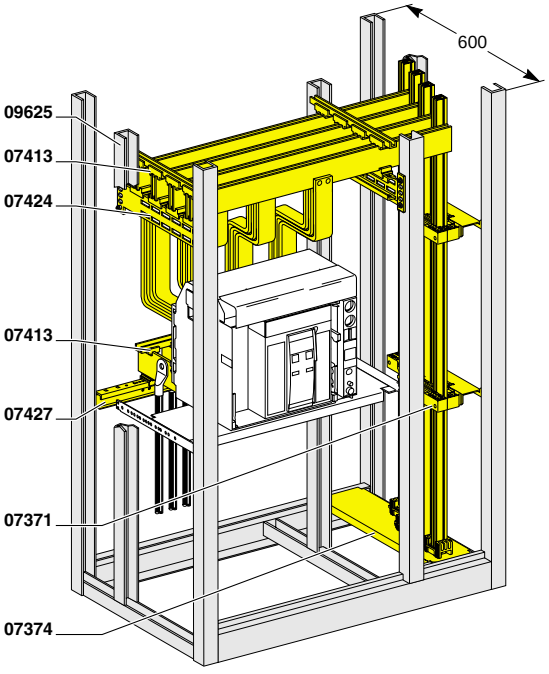


■ top incomer
■ supplied by busbar trunking system (Telemecanique)
■ connected to a Linergy busbar with a prefabricated connection.

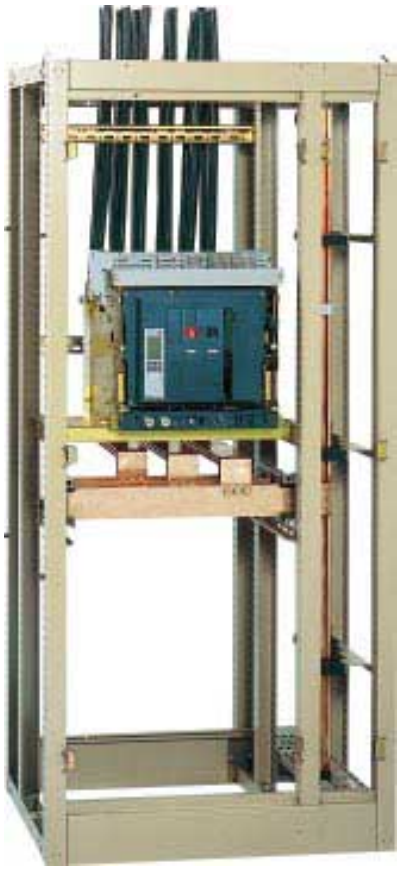


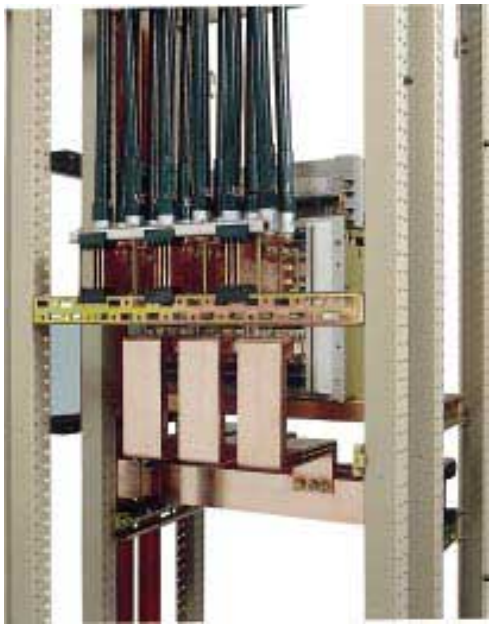
■ top incomer
■ supplied by busbar trunking system (Telemecanique)
■ connected to a Linergy busbar via horizontal transfer busbar.

Masterpact NT, drawout, rear connected



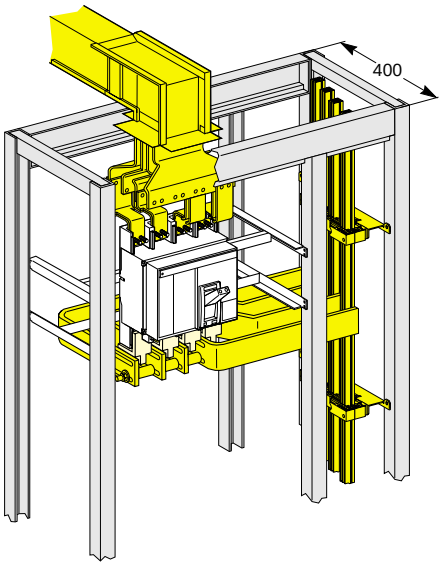
■ bottom incomer
■ supplied by cables
■ connected to a Linergy busbar via horizontal transfer busbar.



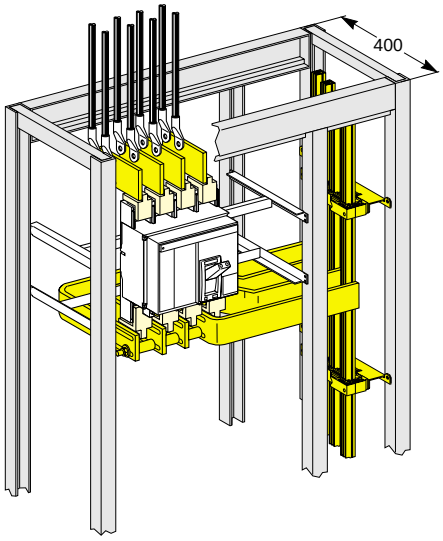


Switchboard examples with Compact NS, fixed, front connected

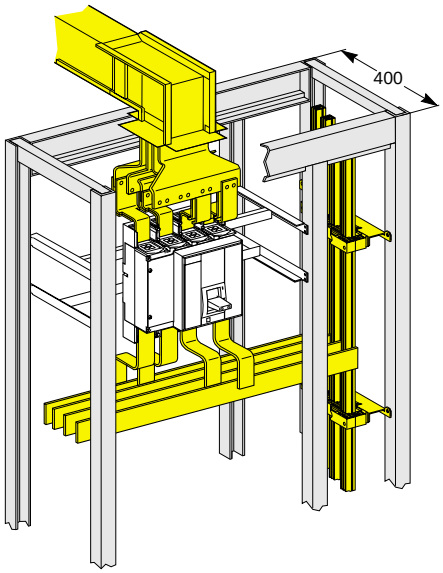
Up to 1600 A



■ top incomer
■ supplied by busbar trunking system (Telemecanique)
■ connected to a Linergy busbar with a prefabricated connection.



■ top incomer
■ supplied by cables
■ connected to a Linergy busbar with a prefabricated connection.

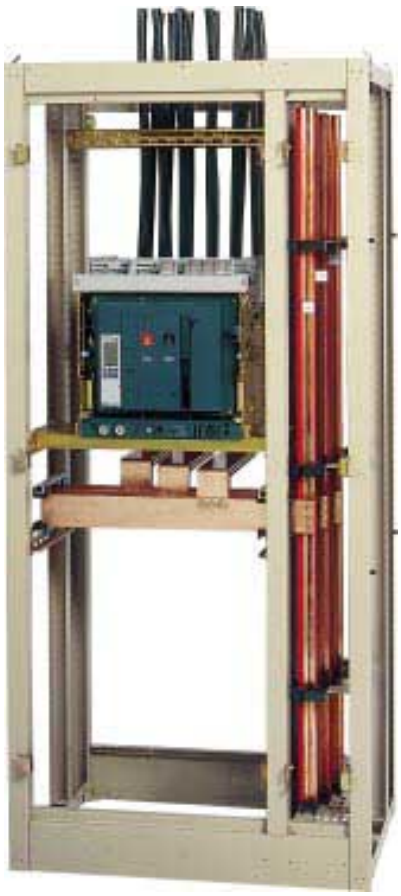


■ top incomer
■ supplied by busbar trunking system (Telemecanique)
■ connected to a Linergy busbar via horizontal transfer busbar.

Switchboard examples with Masterpact NW

Up to 1600 A

Masterpact NW, drawout, rear connected:
The Linergy busbar is supplied via horizontal transfer busbars.
Supply cables are connected to the terminal extension at the rear of the device.



Switchboard examples with Masterpact NW

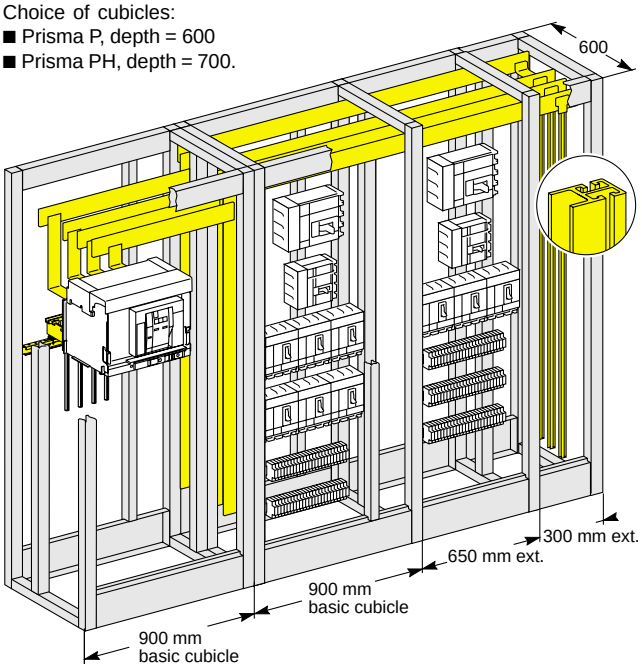
Up to 2000 A

Connection of the cables from the front:

Incoming device: Masterpact NW 08/20 circuit breaker.

Choice of cubicles:

- Prisma P, depth = 600
- Prisma PH, depth = 700.



Main 2000 A busbars (flat bars) in a Prisma P switchboard with a depth of 600 mm, supplied via the top terminals of a Masterpact NW20 circuit breaker (flat upstream terminals).

Linergy busbars are used for distribution to the circuit breakers installed in the adjoining cubicles.

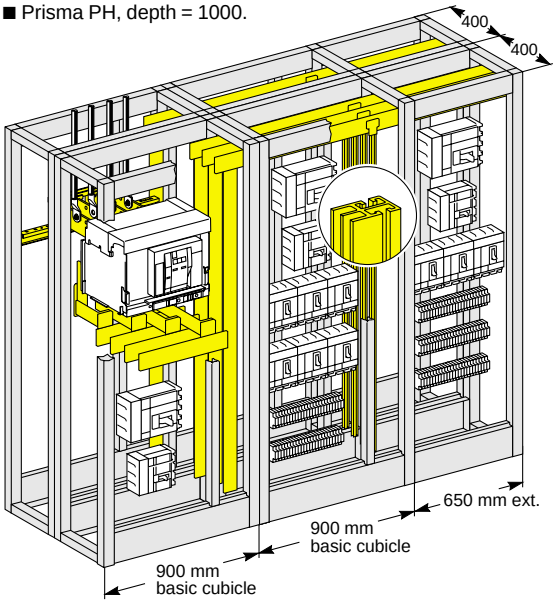
Up to 2500 A

Connection of the cables from the rear:

Incoming device: Masterpact NW 08/25 circuit breaker.

Choice of cubicles:

- Prisma P, depth = 800
- Prisma PH, depth = 1000.



Main 2500 A busbars (flat bars) in a Prisma P switchboard with a depth of 800 mm.

They are supplied by a Masterpact NW25 circuit breaker (edgewise downstream terminals) via horizontal transfer busbars.

Linergy busbars are used for distribution to the circuit breakers installed in the adjoining cubicles.

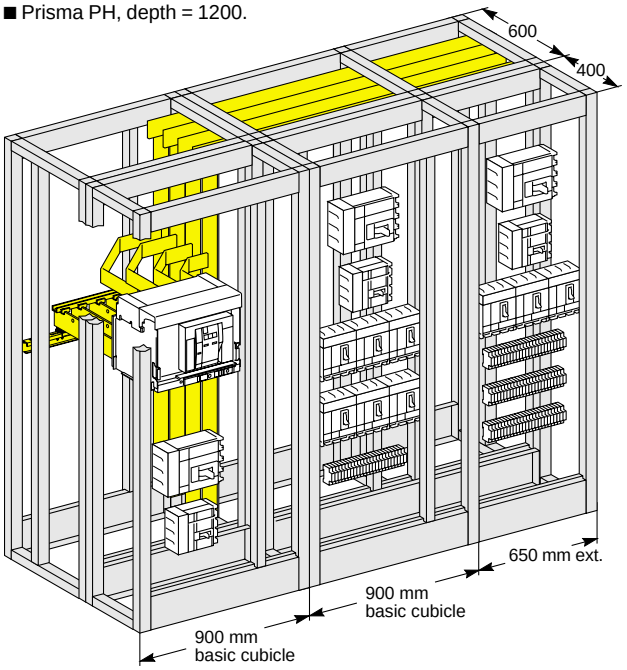
Up to 3200 A

Connection of the cables from the rear:

Incoming device: Masterpact NW08/32 circuit breaker.

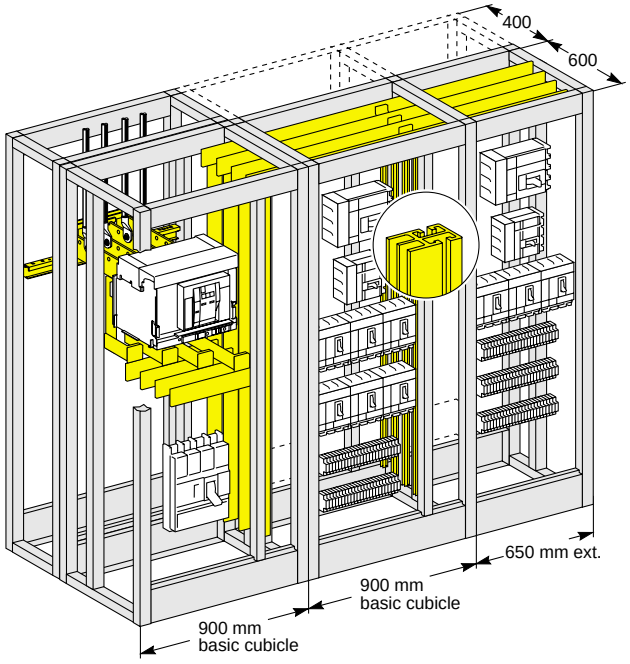
Choice of cubicles:

- Prisma P, depth = 1000
- Prisma PH, depth = 1200.



Main 3200 A busbars (flat bars) in the rear of a double-depth (1000 mm) Prisma P switchboard.

They are supplied directly by a Masterpact NW32 circuit breaker (edgewise upstream terminals).



Main 3200 A busbars (flat bars) in the front of a double-depth (1000 mm) Prisma P switchboard.

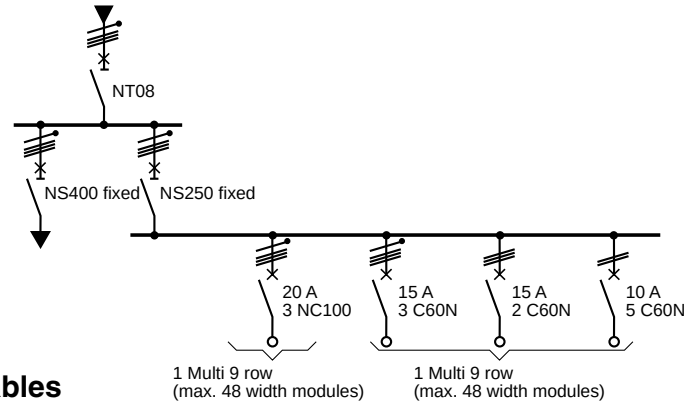
They are supplied by a Masterpact NW32 circuit breaker (downstream terminals edgewise) via horizontal transfer busbars.

Linergy busbars are used for distribution to the circuit breakers installed in the adjoining cubicles.

Determining the catalogue numbers

Using the circuit diagram

Draw up the list of devices to be installed grouping them by functional units.



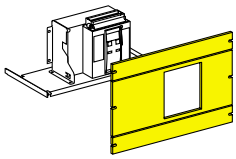
And using the catalogue number tables

1 For the incoming unit, determine:
- the number of vertical modules required
- the part numbers of the mounting plate and front plate.

Choose the mounting plates and front plates **page 34.**

- the connections

device	no. of vert. mod.	mounting plate	barrier	front plate
NT08 fixed front connected	**12**	**07622**	**07286**	**07803 + 07920 + 07802**



connection of devices

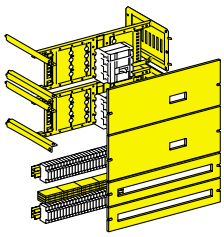
nb of poles	upstream terminals: front connect.	upstream terminals: vert. connect.	upstream terminals: pads for cables connect.	upstream terminals: vert. rear	downstream terminals: front connect.	downstream terminals: pref. link / Linergy (Prisma P) connector	downstream terminals: pref. link / Linergy (Prisma P) link	rear connections: horiz.	rear connections: vert.
4P	■	***33643 +47336***			■	***33643***	**07241**		

2 For the outgoing units, determine:
- the number of vertical modules required
- the catalogue numbers of the mounting plate (or the rail), front plate, prefabricated upstream connection between the devices and the busbars or the connection support screen.

Choose the mounting plates and front plates **page 56.**

device	no. of vert. mod.	mounting plate	barrier with connec.	front plate
NS400	**5**	**07735**	**07235**	**07975**
NS250	**4**	**07731**	**07231**	**07852**
1 Multi 9 row**(1)**	**4**	**07603**	**07263(2)**	**07814**
1 Multi 9 row**(1)**	**4**	**07603**	**07263(2)**	**07814**

(1) *48 Multi 9 modules per row.*
(2) *Without connection.*

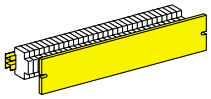


3 For the terminal blocks, determine:
- the space required (number of modules)
- the part numbers of the rail and the front plate.

Choose the mounting plates and front plates **page 68.**

terminal blocks	no. of. vert. mod.	mounting plate	barrier with connec.	front plate
terminal blocks	**3**	**07603**	**07263(2)**	**07803**

(2) *Without connection.*



4 Add up the number of modules required (each cubicle can contain 35 vertical modules).

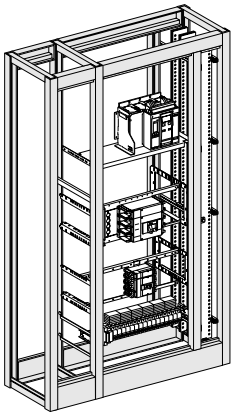
32

5 Determine the optimum layout of the devices and chooses the frames, based on:
- the degree of protection IP
- the dimensions of the incoming unit (see examples)
- the current rating and layout of the busbars
- duct requirements (busbars, cables).

Choice of frames **page 74.**

For IP20

description	cat. No.
frame	**09306**



6 Determine the catalogue numbers for:
- the busbars, the distribution blocks (Multiclip)
- cable running accessories
- site installation accessories
- other accessories.

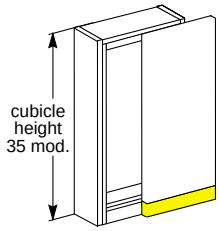
Choice of busbars, **pages 90 to 100.**
Choice of accessories, **pages 102 to 119.**

description	cat. No.
Cu bar	4 x **07363**
vertical busbar support	3 x **07371**
bottom support	**07373**
set of cable tie bars	3 x **07420**
Multiclip	**07004**
earth bar	**07362**

7 If the device to be installed do not take up the 35 modules of the cubicle, determine the plain front plates required to cover up the remaining modules.

Choice of front plates, **page 68.**

no. of extra modules	extra plain front plate
35 - 32 = 3	**07803**



8 According to the desired degree of protection and the frames selected, choose the appropriate cover components (backs, doors, side panels, gaskets).

Choice of covers, **page 77.**

description	cat. No.
front plate support door W = 700	**09322**
plain wicket-door	**09325**
wicket-door with cutouts	**09326**
screw-on back (width 900)	**09354**
screw-closed rear door (width 200)	**09358**
2 side panels (depth = 400)	**09364**

Practical help in designing switchboards

Software

Developed in collaboration with Schneider customers, special computer programs may be used to design and calculate prices for electrical installations. They offer the following main functions:
- design of electrical diagrams
- parts list
- view of the layout in the enclosure
- illustration of the front panel
- printing of the quotation and the order form.

They may be installed on most computers currently available on the market (PCs and compatible) under MS Windows.

Software offered by Schneider:
- ECOelec: for electrical installations up to 630 A (french "tarif bleu" and "tarif jaune")
- ECObat: for electrical installations up to 3200 A.

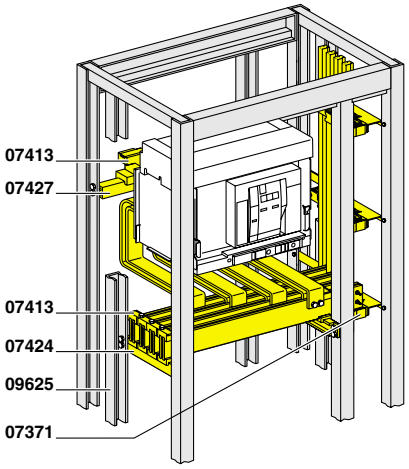
Consult your Schneider sales office.

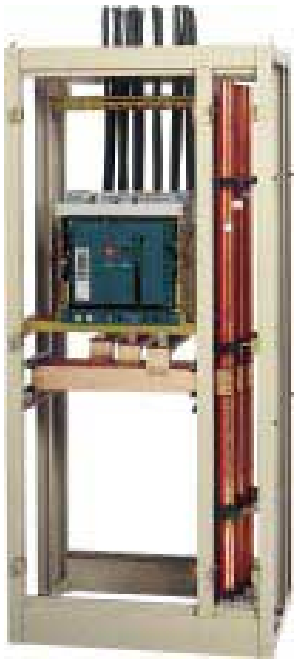
Design guides

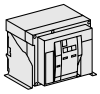
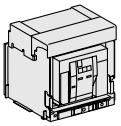
Design guides are short booklets containing:
- an example of how to determine the equipment required on the basis of an electrical diagram
- illustrated selection tables that may be used to rapidly determine the right catalogue numbers
- several forms specially designed for:
  - ❑ listing the catalogue numbers of parts to be ordered
  - ❑ laying out the devices in the switchboard
  - ❑ facilitating quotations
- illustrated examples of correctly installed and connected switchboards.

They are free and may be obtained from your nearest Schneider sales office.

Masterpact NW08 to NW32
Top incomer





	Device	Installation of device
	vertical mounting	vertical modules required (1 module = 50 mm)
fixed Masterpact 	**NW08 to NW16 fixed, rear connections**	
	direct downstream connection on flat vertical busbar	13
	downstream connection on vertical busbar via a transfer busbar	17
	NW20 fixed, rear connections	
	direct downstream connection on flat vertical busbar	13
	downstream connection on flat vertical busbar via a transfer busbar	18
	NW25 to NW32 fixed, rear connections	
	direct downstream connection on flat vertical busbar	16
	downstream connection on flat vertical busbar via a transfer busbar	22
draw-out Masterpact 	**NW08 to NW16 draw-out, rear connections**	
	direct downstream connection on flat vertical busbar	13
	downstream connection on vertical busbar via a transfer busbar	17
	NW20 draw-out, rear connections	
	direct downstream connection on flat vertical busbar	13
	downstream connection on flat vertical busbar via a transfer busbar	18
	NW25 to NW32 draw-out, rear connections	
	direct downstream connection on flat vertical busbar	16
	downstream connection on flat vertical busbar via a transfer busbar	22

(1) *In the floor standing enclosure Prisma P depth 600 and Prisma PH depth 700, if the device is supplied with more than 3 cables per phase, bar tails must be fitted above the device. You then need to count 3 extra modules and add a plain top front plate 07803.*

(2) *A door frame (reference 48601 for fixed device and 48603 for draw-out device) to be ordered with the device, is installed on the front plate, and ensures a degree of protection of IP40 at device level.*

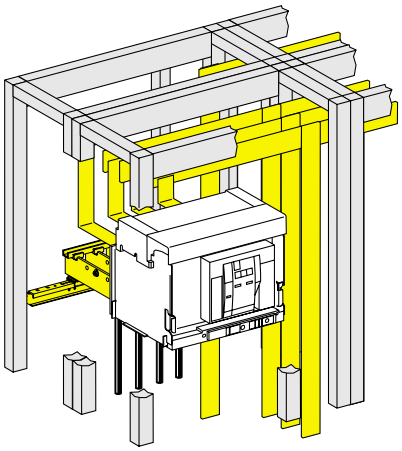
						Connection of devices			Busbars layout in Prisma cubicle			
							upstream terminals	downstream terminals				
	mounting plate	cut-out front plate	top front plate	bottom front plate	Form 2 partition	nb. of poles	vert. rear connections	rear connections horiz.	rear connections vert.	connection possible / connection not possible			
										Prisma P D = 400 Prisma PH D = 500	Prisma P D = 600 Prisma PH D = 700	Prisma P D = 800 Prisma PH D = 1000	Prisma P D = 1000 Prisma PH D = 1200
	07655	**07935 (2)**	**07802**			**3P** **4P**	■ ■		■ ■			●	●
	07655	**07935 (2)**	**07802**	**07804**	**07283**	**3P** **4P**	■ ■	■ ■			■	●	●
	07655	**07935 (2)**	**07802**			**3P** **4P**	■ ■		■ ■				●
	07655	**07935 (2)**	**07802**	**07805**	**07283**	**3P** **4P**	■ ■	■ ■			■ (1)	●	●
	07655	**07935 (2)**	**07805**			**3P** **4P**	■ ■		■ ■				●
	07655	**07935 (2)**	**07805**	**07806**	**07283 + 07260**	**3P** **4P**	■ ■		■ ■			2500 ●	●
	07655	**07936 (2)**	**07802**			**3P** **4P**	■ ■		■ ■			●	●
	07655	**07936 (2)**	**07802**	**07804**	**07283**	**3P** **4P**	■ ■	■ ■			■	●	●
	07655	**07936 (2)**	**07802**			**3P** **4P**	■ ■		■ ■				●
	07655	**07936 (2)**	**07802**	**07805**	**07283**	**3P** **4P**	■ ■	■ ■			■ (1)	●	●
	07655	**07936 (2)**	**07805**			**3P** **4P**	■ ■		■ ■				●
	07655	**07936 (2)**	**07805**	**07806**	**07283 + 07260**	**3P** **4P**	■ ■		■ ■			2500 ●	●

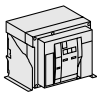
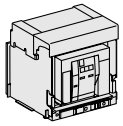
● *Optional connection on a complete busbar at the enclosure back.*

■ *Optional connection on a partial busbar at the enclosure back (under the incoming unit).*

In event of connection by busbar at the enclosure back, there is no form 2 partitioning as standard.

Masterpact NW08 to NW32
Bottom incomer



	Device	Installation of device
	vertical mounting	vertical modules required (1 module = 50 mm)
fixed Masterpact 	**NW08 to NW16 fixed, rear connections**	
	direct downstream connection on flat vertical busbar	13
	downstream connection on vertical busbar via a transfer busbar	17
	NW20 fixed, rear connections	
	direct downstream connection on flat vertical busbar	13
	downstream connection on flat vertical busbar via a transfer busbar	18
	NW25 to NW32 fixed, rear connections	
	direct downstream connection on flat vertical busbar	16
	downstream connection on flat vertical busbar via a transfer busbar	22
draw-out Masterpact 	**NW08 to NW16 draw-out, rear connections**	
	direct downstream connection on flat vertical busbar	13
	downstream connection on vertical busbar via a transfer busbar	17
	NW20 draw-out, rear connections	
	direct downstream connection on flat vertical busbar	13
	downstream connection on flat vertical busbar via a transfer busbar	18
	NW25 to NW32 draw-out, rear connections	
	direct downstream connection on flat vertical busbar	16
	downstream connection on flat vertical busbar via a transfer busbar	22

(1) *In the floor standing enclosure Prisma P depth 600 and Prisma PH depth 700, if the device is supplied with more than 3 cables per phase, bar tails must be fitted above the device. You then need to count 3 extra modules and add a plain top front plate 07803.*

(2) *A door frame (reference 48601 for fixed device and 48603 for draw-out device) to be ordered with the device, is installed on the front plate, and ensures a degree of protection of IP40 at device level.*

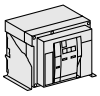
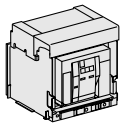
						Connection of devices				Busbars layout in Prisma cubicle			
							upstream terminals		downstream terminals	connection possible connection not possible			
	mounting plate	cut-out front plate	top front plate	bottom front plate	Form 2 partition	nb of poles	rear connections vert.	horiz.	vert. rear connections	Prisma P D = 400 Prisma PH D = 500	Prisma P D = 600 Prisma PH D = 700	Prisma P D = 800 Prisma PH D = 1000	Prisma P D = 1000 Prisma PH D = 1200
	07655	**07935 (2)**		**07802**		**3P** **4P**	■ ■		■ ■			●	●
	07655	**07935 (2)**	**07804**	**07802**	**07283**	**3P** **4P**		■ ■	■ ■		■	●	●
	07655	**07935 (2)**		**07802**		**3P** **4P**	■ ■		■ ■				●
	07655	**07935 (2)**	**07805**	**07802**	**07283**	**3P** **4P**		■ ■	■ ■		■ (1)	●	●
	07655	**07935 (2)**		**07805**		**3P** **4P**	■ ■		■ ■				●
	07655	**07935 (2)**	**07806**	**07805**	**07283 +** **07260**	**3P** **4P**	■ ■		■ ■			2500 ●	●
	07655	**07936 (2)**		**07802**		**3P** **4P**	■ ■		■ ■			●	●
	07655	**07936 (2)**	**07804**	**07802**	**07283**	**3P** **4P**		■ ■	■ ■		■	●	●
	07655	**07936 (2)**		**07802**		**3P** **4P**	■ ■		■ ■				●
	07655	**07936 (2)**	**07805**	**07802**	**07283**	**3P** **4P**		■ ■	■ ■		■ (1)	●	●
	07655	**07936 (2)**		**07805**		**3P** **4P**	■ ■		■ ■				●
	07655	**07936 (2)**	**07806**	**07805**	**07283 +** **07260**	**3P** **4P**	■ ■		■ ■			2500 ●	●

● *Optional connection on a complete busbar at the enclosure back.*

■ *Optional connection on a partial busbar at the enclosure back (under the incoming unit).*

In event of connection by busbar at the enclosure back, there is no form 2 partitioning as standard.

Source changeover switch Masterpact NW08 to NW32

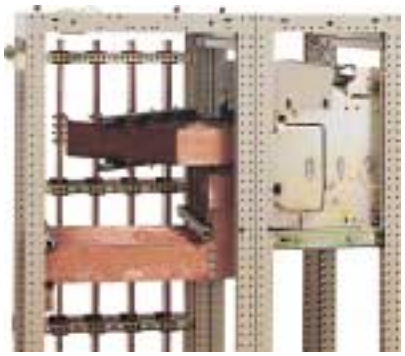
	Device	Installation of devices				Busbars layout in Prisma cubicle			
		vertical modules required H = 50 mm	mounting plate	cut-out front plate	top front plate	bottom front plate	connection possible / connection not possible		
	vertical mounting						Prisma P D = 400 Prisma PH D = 500	Prisma P D = 600 Prisma PH D = 700	Prisma P D = 800 Prisma PH D = 1000	Prisma P D = 1000 Prisma PH D = 1200
fixed device (1) 	**800/2000 A, fixed, rear connections**									
	direct connection on BB vertical rear connections	29	2 **x 07655**	2 **x 07935 + 07803 (2)**	**07802**	**07802**			1600	
	connec. on horiz. transfer horiz. down. rear connec. (up. device) horiz. up. rear connec. (down. device)	29	2 **x 07655**	2 **x 07935 + 07803 (2)**	**07802**	**07802**				
	2500/3200 A, fixed, rear connections									
	direct connection on BB vertical rear connections	35	2 **x 07655**	2 **x 07935 + 07803 (2)**	**07805**	**07805**				
draw-out device (1) 	**800/2000 A, draw-out, rear connections**									
	direct connection on BB vertical rear connections	29	2 **x 07655**	2 **x 07936 + 07803 (2)**	**07802**	**07802**			1600	
	connec. on horiz. transfer horiz. down. rear connec. (up. device) horiz. up. rear connec. (down. device)	29	2 **x 07655**	2 **x 07936 + 07803 (2)**	**07802**	**07802**				
	2500/3200 A, draw-out, rear connections									
	direct connection on BB vertical rear connections	35	2 **x 07655**	2 **x 07936 + 07803 (2)**	**07805**	**07805**				

(1) *Interlocking by cables.*

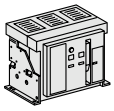
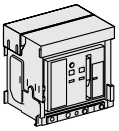
(2) *A door frame (reference 48601 for fixed device and 48603 for draw-out device) to be ordered with the device, is installed on the front plate, and ensures a degree of protection of IP40 at device level.*

Masterpact M 08/32

Masterpact 1600 A circuit breaker connected to Linergy busbars in a Prisma P cubicle, 600 mm depth

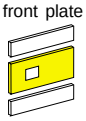
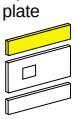
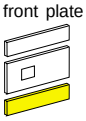


Masterpact circuit breaker supplied from below in Prisma P cubicle, 1000 mm depth. It is connected to vertical busbars the duct.

	Device
	vertical mounting rear connections
Masterpact circuit breaker and switch fixed 	**800/1600 A, fixed**
	connected directly to busbar, edgewise terminals: upstream + downstream **note:** rear access imperative
	connected directly to busbar, edgewise terminals: upstream + downstream
	connected to horizontal transfer, flat downstream terminals edgewise upstream terminals
	2000 A, fixed
	connected directly to busbar, edgewise terminals: upstream + downstream
	connected to horizontal transfer, flat downstream terminals edgewise upstream terminals
	2500/3200 A, fixed
	connected directly to busbar, edgewise terminals: upstream + downstream
	connected to horizontal transfer, edgewise terminals: upstream + downstream
Masterpact circuit breaker and switch drawout 	**800/1600 A, drawout (1)**
	connected directly to busbar, edgewise terminals: upstream + downstream **note**: rear access imperative
	connected directly to busbar, edgewise terminals: upstream + downstream
	connected to horizontal transfer, flat downstream terminals edgewise upstream terminals
	2000 A, drawout (1)
	connected directly to busbar, edgewise terminals: upstream + downstream
	connected to horizontal transfer, flat downstream terminals edgewise upstream terminals
	2500/3200 A, drawout (1)
	connected directly to busbar, edgewise terminals: upstream + downstream
	connected to horizontal transfer, edgewise terminals: upstream + downstream

(1) Install an arc chute cover, **685960C** (for 3P devices) or **685961C** (for 4P devices).

(2) Only type N and H devices, installed behind a door or front plate support frame.
If more than 3 cables per phase are used to supply the device, terminal extension bars must be installed above the device.
In this case, add 3 modules and one plain top front plate **07803**.
Type L devices are only installed in the following cubicles:
- Prisma P, depth = 800 or 1000 mm
- Prisma PH, depth = 1000 or 1200 mm.

	Module	Mounting plate and front plate				Busbars layout in Prisma cubicle				
	vertical modules required H = 50 mm	mounting plate 	Form 2 partition 	cut-out front plate 	top front plate 	bottom front plate 	possible connection impossible connection			
							Prisma P, d = 400 Prisma PH, d = 500	Prisma P, d = 600 Prisma PH, d = 700	Prisma P, d = 800 Prisma PH, d = 1000	Prisma P d = 1000 Prisma PH, d = 1200
	11	**07651**		**07931 (3)**					●	●
	13	**07651**		**07931 (3)**	**07802**					
	17	**07651**	**07283**	**07931 (3)**	**07802**	**07804**		●	●	●
	13	**07651**		**07931 (3)**	**07802**					●
	18	**07651**	**07283**	**07931 (3)**	**07802**	**07805**		■ (2)	●	●
	16	**07651**		**07931 (3)**	**07805**					●
	22	**07651**	**07283 + 07260**	**07931 (3)**	**07805**	**07806**			● (4)	●
	11	**07651**		**07932 (3)**					●	●
	13	**07651**		**07932 (3)**	**07802**					
	17	**07651**	**07283**	**07932 (3)**	**07802**	**07804**		●	●	●
	13	**07651**		**07932(3)**	**07802**					●
	18	**07651**	**07283**	**07932(3)**	**07802**	**07805**		■ (2)	●	●
	16	**07651**		**07932(3)**	**07805**					●
	22	**07651**	**07283 + 07260**	**07932(3)**	**07805**	**07806**			● (4)	●

(3) An escutcheon (CDP) **685980C**, to be ordered with the device, is installed on the front plate. It provides IP40 protection.

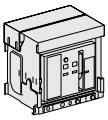
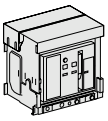
(4) Only type N and H devices.

● Can be connected to complete busbar set at rear of cubicle.

■ Can be connected to partial busbar set at rear of cubicle (below incoming unit).

In the case of connection using busbars at the rear of the cubicle, no Form 2 partitioning is available in the catalogue.

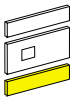
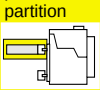
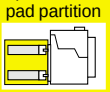
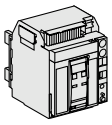
Masterpact M 08/32

	Device	Module	Mounting plate and front plate			Busbars layout in Prisma cubicle				
		vertical modules required H = 50 mm	mounting plate	cut-out front plate	top front plate	bottom front plate	possible connection / impossible connection			
	vertical mounting						Prisma P d = 400 Prisma PH d = 500	Prisma P d = 600 Prisma PH d = 700	Prisma P d = 800 Prisma PH d = 1000	Prisma P prof. = 1000 Prisma PH prof. = 1200
Masterpact source changeover fixed	**800/2000 A, fixed, rear connections**									
	direct connection to busbar, edgewise terminals	29	2 **x 07652**	2 **x 07931** + **07803** 2 **x 685980C**	**07802**	**07802**			1600	
	conn. to horiz. transfer **(1)** flat downstream term. (upstream device) flat upstream term. (downstream device)	29	2 **x 07652**	2 **x 07931** + **07803** 2 **x 685980C**	**07802**	**07802**				
	2500/3200 A, fixed, rear connections									
	direct connection to busbar, edgewise terminals	35	2 **x 07652**	2 **x 07931** + **07803** 2 **x 685980C**	**07805**	**07805**				
Masterpact source changeover drawout	**800/2000 A, drawout, rear connections (2)**									
	direct connection to busbar, edgewise terminals	29	2 **x 07652**	2 **x 07932** + **07803** 2 **x 685980C**	**07802**	**07802**			1600	
	conn. to horiz. transfer **(1)** flat downstream term. (upstream device) flat upstream term. (downstream device)	29	2 **x 07652**	2 **x 07932** + **07803** 2 **x 685980C**	**07802**	**07802**				
	2500/3200 A, drawout, rear connections (2)									
	direct connection to busbar, edgewise terminals	35	2 **x 07652**	2 **x 07932** + **07803** 2 **x 685980C**	**07805**	**07805**				

(1) When rod interlocking is used, the busbar must be installed to the left of the incoming unit to allow clearance for the interlocking system.

(2) Fit a cover on the arc chute, cat. No. **685960C** (3P devices) or **685961C** (4P devices).

Masterpact NT08 to NT16
Cable connection (incoming from the top)

	Device	Installation of devices					Partition (optional)		
	vertical mounting	vertical modules required (1 module = 50 mm)	mounting plate 	cut-out front plate 	top front plate 	bottom front plate 	Form 2 partition 	upstream pad partition 	Form 4 up. and down. pad partition 
fixed Masterpact 	**NT08 to NT10, fixed**								
	front connection, direct connection on Linergy vertical BB **(8)**	12	**07622**	**07920 (2)**	**07803**	**07802**	**07286 (6)**	**07376 (3)**	**07387 (3)**
	front connection, connection with transfer BB on vertical busbar **(8)**	14	**07622**	**07920 (2)**	**07803**	**07804**	**07286 (6)**	**07376 (3)**	**07387 (3)**
	rear connection, direct connection on vertical BB	10	**07622**	**07920 (2)**	**07802**	**07801**		**07376** x 2	**07387** x 2 **(7)**
	rear connection, connection with transfer BB on vertical busbar	12	**07622**	**07920 (2)**	**07801**	**07804**	**07286 (6)**	**07376 (3)**	**07387 (3)**
	NT12 to NT16, fixed								
	front connection, direct connection on Linergy vertical BB **(8)**	14	**07622**	**07920 (2)**	**07804**	**07803**	**07286 (6)**	**07376 (3)**	**07387 (3)**
	front connection, connection with transfer BB on vertical busbar **(8)**	15	**07622**	**07920 (2)**	**07804**	**07804**	**07286 (6)**	**07376 (3)**	**07387 (3)**
	rear connection, direct connection on vertical BB	10	**07622**	**07920 (2)**	**07802**	**07801**		**07376** x 2	**07387** x 2 **(7)**
	rear connection, connection with transfer BB on vertical busbar	12	**07622**	**07920 (2)**	**07801**	**07804**	**07286 (6)**	**07376 (3)**	**07387 (3)**
draw-out Masterpact 	**NT08 to NT10, draw-out**								
	front connection, direct connection on Linergy vertical BB	14	**07622**	**07921(2)**	**07802**	**07802**	**07286 (6)**	**07376 (3)**	**07387 (3)**
	front connection, connection with transfer BB on vertical busbar	16	**07622**	**07921(2)**	**07802**	**07804**	**07286** (6)	**07376 (3)**	**07387 (3)**
	rear connection, direct connection on vertical BB	10	**07622**	**07921(2)**				**07376** x 2	**07387** x 2 **(7)**
	rear connection, connection with transfer BB on vertical busbar	14	**07622**	**07921(2)**		**07804**	**07286 (6)**	**07376 (3)**	**07387 (3)**
	NT12 to NT16, draw-out								
	front connection, direct connection on Linergy vertical BB	16	**07622**	**07921(2)**	**07803**	**07803**	**07286 (6)**	**07376 (3)**	**07387 (3)**
	front connection, connection with transfer BB on vertical busbar	17	**07622**	**07921(2)**	**07803**	**07804**	**07286 (6)**	**07376 (3)**	**07387 (3)**
	rear connection, direct connection on vertical BB	10	**07622**	**07921(2)**				**07376** x 2	**07387** x 2 **(7)**
	rear connection, connection with transfer BB on vertical busbar	14	**07622**	**07921(2)**		**07804**	**07286 (6)**	**07376 (3)**	**07387 (3)**

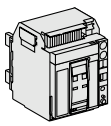
(1) To connect using four 300 mm^2 cables, install complementary pads on the additional vertical pads.
Set of 3 complementary pads, ref. 33644 + 07251. Set of 4 complementary pads, ref. 33645 + 07251.
In this case, count 2 additional modules and add a plain top front plate 07802.
(2) A door frame (reference 33718 for fixed device and 33857 for draw-out device) to be ordered with the device, is installed on the front plate, and ensures a degree of protection of IP40 at device level.
(3) In the floor standing enclosure Prisma P depths 800 and 1000 and Prisma PH depths 1000 and 1200, order 2 ref. (add. information on page 52).
(4) The link 07240 is used when the Linergy busbar is installed to the right of the incoming unit. When the Linergy busbar is installed to the left of the incoming unit, use link 07245.

	Connection of devices										Busbars layout in Prisma cubicle			
		upstream terminals				downstream terminals					connection possible connection not possible			
	nb of poles	front connect.	vert. connect.	pads for cables	vert. rear connect.	front connect.	pref. link / Linergy (Prisma P) connector	+ link	rear connections horiz.	vert.	Prisma P D = 400 Prisma PH D = 500	Prisma P D = 600 Prisma PH D = 700	Prisma P D = 800 Prisma PH D = 1000	Prisma P D = 1000 Prisma PH D = 1200
		ref. in italics: to be ordered with the device												
	3P	■	**33642 (1) + 47335**			■	**33642**	**07240 (4)**			■	●	●	●
	4P	■	**33643 (1) + 47336**			■	**33643**	**07241**						
	3P	■	**33642 (1) + 47335**			■					■	●	●	●
	4P	■	**33643 (1) + 47336**			■								
	3P				■					■			●	●
	4P				■					■				
	3P				■				■			●	●	●
	4P				■				■					
	3P	■	**33642 + 47335**	**33644 + 07251**		■	**33642**	**07242 (5)**			■	●	●	●
	4P	■	**33643 + 47336**	**33645 + 07251**		■	**33643**	**07243**						
	3P	■	**33642 + 47335**	**33644 + 07251**		■					■	●	●	●
	4P	■	**33643 + 47336**	**33645 + 07251**		■								
	3P				■					■			●	●
	4P				■					■				
	3P				■				■			●	●	●
	4P				■				■					
	3P	■	**33642 (1)**			■	**33642**	**07240(4) + 07244**x3			■	●	●	●
	4P	■	**33643 (1)**			■	**33643**	**07241 + 07244**x4						
	3P	■	**33642 (1)**			■					■	●	●	●
	4P	■	**33643 (1)**			■								
	3P				■					■			●	●
	4P				■					■				
	3P				■				■			●	●	●
	4P				■				■					
	3P	■	**33642**	**33644 + 07251**		■	**33642**	**07242(5) + 07244**x3			■	●	●	●
	4P	■	**33643**	**33645 + 07251**		■	**33643**	**07243 + 07244**x4						
	3P	■	**33642**	**33644 + 07251**		■					■	●	●	●
	4P	■	**33643**	**33645 + 07251**		■								
	3P				■					■			●	●
	4P				■					■				
	3P				■				■			●	●	●
	4P				■				■					

(5) The link 07242 is used when the Linergy busbar is installed to the right of the incoming unit. When the Linergy busbar is installed to the left of the incoming unit, use link 07246.
(6) Ref. 07284 (instead of 07286) protect people against direct contact with live parts.
(7) Add one extra module and a bottom plain front plate 07801.
(8) Use an arc chute 33596 (3P), 33597 (4P).

● Optional connection on a complete busbar at the enclosure back.
■ Optional connection on a partial busbar at the enclosure back (under the incoming unit).
In event of connection by busbar at the enclosure back, there is no form 2 partitioning as standard.

Masterpact NT08 to NT16
Busbar trunking connection (incoming from the top)

Device		Installation of devices					Partition (optional)		
	vertical mounting	vertical modules required (1 module = 50 mm)	mounting plate	cut-out front plate	top front plate	bottom front plate	Form 2 partition	upstream pad partition	Form 4 up. and down. pad partition
fixed Masterpact 	**NT08 to NT10, fixed**								
	front connection, direct connection on Linergy vertical BB **(7)**	15	**07622**	**07920 (2)**	**07806**	**07802**	**07286 (6) +07260**	**07376 (3) + 09502**	**07387 (3) + 09502**
	front connection, connection with transfer BB on vertical busbar **(7)**	17	**07622**	**07920 (2)**	**07806**	**07804**	**07286 (6) +07260**	**07376 (3) + 09502**	**07387 (3) + 09502**
	rear connection, direct connection on vertical BB	13	**07622**	**07920 (2)**	**07806**			**07376** x 2 **+ 09502**	**07387** x 2 **(1) + 09502**
	rear connection, connection with transfer BB on vertical busbar	17	**07622**	**07920 (2)**	**07806**	**07804**	**07286 (6) +07260**	**07376 (3) + 09502**	**07387 (3) + 09502**
	NT12 to NT16, fixed								
	front connection, direct connection on Linergy vertical BB **(7)**	16	**07622**	**07920 (2)**	**07806**	**07803**	**07286 (6) +07260**	**07376 (3) + 09502**	**07387 (3) + 09502**
	front connection, connection with transfer BB on vertical busbar **(7)**	17	**07622**	**07920 (2)**	**07806**	**07804**	**07286 (6) +07260**	**07376 (3) + 09502**	**07387 (3) + 09502**
	rear connection, direct connection on vertical BB	13	**07622**	**07920 (2)**	**07806**			**07376** x 2 **+ 09502**	**07387** x 2 **(1) + 09502**
	rear connection, connection with transfer BB on vertical busbar	17	**07622**	**07920 (2)**	**07806**	**07804**	**07286 (6) +07260**	**07376 (3) + 09502**	**07387 (3) + 09502**
draw-out Masterpact 	**NT08 to NT10, draw-out**								
	front connection, direct connection on Linergy vertical BB	17	**07622**	**07921(2)**	**07805**	**07802**	**07286 (6) +07260**	**07376 (3) + 09502**	**07387 (3) + 09502**
	front connection, connection with transfer BB on vertical busbar	19	**07622**	**07921(2)**	**07805**	**07804**	**07286 (6) +07260**	**07376 (3) + 09502**	**07387 (3) + 09502**
	rear connection, direct connection on vertical busbar	14	**07622**	**07921(2)**	**07804**			**07376** x 2 **+ 09502**	**07387** x 2 **(1) + 09502**
	rear connection, connection with transfer BB on vertical busbar	18	**07622**	**07921(2)**	**07804**	**07804**	**07286 (6) +07260**	**07376 (3) + 09502**	**07387 (3) + 09502**
	NT12 to NT16, draw-out								
	front connection, direct connection on Linergy vertical BB	18	**07622**	**07921(2)**	**07805**	**07803**	**07286 (6) +07260**	**07376 (3) + 09502**	**07387 (3) + 09502**
	front connection, connection with transfer BB on vertical busbar	19	**07622**	**07921(2)**	**07805**	**07804**	**07286 (6) +07260**	**07376 (3) + 09502**	**07387 (3) + 09502**
	rear connection, direct connection on vertical BB	14	**07622**	**07921(2)**	**07804**			**07376** x 2 **+ 09502**	**07387** x 2 **(1) + 09502**
	rear connection, connection with transfer BB on vertical busbar	18	**07622**	**07921(2)**	**07804**	**07804**	**07286 (6) +07260**	**07376 (3) + 09502**	**07387 (3) + 09502**

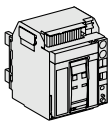
(1) Add one extra module and a bottom plain front plate 07801.
(2) A door frame (reference 33718 for fixed device and 33857 for draw-out device) to be ordered with the device, is installed on the front plate, and ensures a degree of protection of IP40 at device level.
(3) In the floor standing enclosure Prisma P depths 800 and 1000 and Prisma PH depths 1000 and 1200, order 2 ref. (add. information on page 52).
(4) The link 07240 is used when the Linergy busbar is installed to the right of the incoming unit. When the Linergy busbar is installed to the left of the incoming unit, use link 07245.

	Connection of devices										Busbars layout in Prisma cubicle			
		upstream terminals				downstream terminals					connection possible connection not possible			
	nb of poles	front connect.	horiz. rear connect.	CEP support	link CEP/ device	front connect.	pref. link / Linergy (Prisma P) connector + link		rear connections horiz.	vert.	Prisma P D = 400 Prisma PH D = 500	Prisma P D = 600 Prisma PH D = 700	Prisma P D = 800 Prisma PH D = 1000	Prisma P D = 1000 Prisma PH D = 1200
		ref. in italics: to be ordered with the device												
	3P 4P	■ ■		09501 09501	09504 +47335 09505 +47336	■	33642 33643	07240 (4) 07241			■	●	●	●
	3P 4P	■ ■		09501 09501	09504 +47335 09505 +47336	■ ■					■	●	●	●
	3P 4P		■+09508 ■+09508	09501 09501	09504 +47335 09505 +47336					■ ■			●	●
	3P 4P		■+09508 ■+09508	09501 09501	09504 +47335 09505 +47336				■ ■			●	●	●
	3P 4P	■ ■		09501 09501	09506 +47335 09507 +47336	■	33642 33643	07242 (5) 07243			■	●	●	●
	3P 4P	■ ■		09501 09501	09506 +47335 09507 +47336	■ ■					■	●	●	●
	3P 4P		■+09509 ■+09509	09501 09501	09506 +47335 09507 +47336					■ ■			●	●
	3P 4P		■+09509 ■+09509	09501 09501	09506 +47335 09507 +47336				■ ■			●	●	●
	3P 4P	■ ■		09501 09501	09504 09505	■ ■	33642 33643	07240(4) + 07244x3 07241 + 07244x4				●	●	●
	3P 4P	■ ■		09501 09501	09504 09505	■ ■						●	●	●
	3P 4P		■+09508 ■+09508	09501 09501	09504 09505					■ ■			●	●
	3P 4P		■+09508 ■+09508	09501 09501	09504 09505				■ ■			●	●	●
	3P 4P	■ ■		09501 09501	09506 09507	■ ■	33642 33643	07242(5) + 07244x3 07243 + 07244x4				●	●	●
	3P 4P	■ ■		09501 09501	09506 09507	■ ■						●	●	●
	3P 4P		■+09509 ■+09509	09501 09501	09506 09507					■ ■			●	●
	3P 4P		■+09509 ■+09509	09501 09501	09506 09507				■ ■			●	●	●

(5) The link 07242 is used when the Linergy busbar is installed to the right of the incoming unit. When the Linergy busbar is installed to the left of the incoming unit, use link 07246.
(6) Ref. 07284 (instead of 07286) protect people against direct contact with live parts.
(7) Use an arc chute 33596 (3P), 33597 (4P).

● Optional connection on a complete busbar at the enclosure back.
■ Optional connection on a partial busbar at the enclosure back (under the incoming unit).
In event of connection by busbar at the enclosure back, there is no form 2 partitioning as standard.

Masterpact NT08 to NT16
Cable connection (incoming from the bottom)

	Device	Installation of devices					Partition (optional)		
	vertical mounting	vertical modules required (1 module = 50 mm)	mounting plate	cut-out front plate	top front plate	bottom front plate	Form 2 partition	upstream pad partition	Form 4 up. and down. pad partition
fixed Masterpact 	**NT08 to NT10, fixed**								
	front connection, direct connection on Linergy vertical BB **(8)**	12	**07622**	**07920 (2)**	**07802**	**07803**	**07286 (6)**	**07376 (3)**	**07387 (3)**
	front connection, connection with transfer BB on vertical busbar **(8)**	15	**07622**	**07920 (2)**	**07805**	**07803**	**07286 (6)**	**07376 (3)**	**07387 (3)**
	rear connection, direct connection on vertical BB	10	**07622**	**07920 (2)**	**07801**	**07802**		**07376** x 2	**07387** x 2 **(7)**
	rear connection, connection with transfer BB on vertical busbar	13	**07622**	**07920 (2)**	**07805**	**07801**	**07286 (6)**	**07376 (3)**	**07387 (3)**
	NT12 to NT16, fixed								
	front connection, direct connection on Linergy vertical BB **(8)**	14	**07622**	**07920 (2)**	**07803**	**07804**	**07286 (6)**	**07376 (3)**	**07387 (3)**
	front connection, connection with transfer BB on vertical busbar **(8)**	16	**07622**	**07920 (2)**	**07805**	**07804**	**07286 (6)**	**07376 (3)**	**07387 (3)**
	rear connection, direct connection on vertical BB	10	**07622**	**07920 (2)**	**07801**	**07802**		**07376** x 2	**07387** x 2 **(7)**
	rear connection, connection with transfer BB on vertical busbar	13	**07622**	**07920 (2)**	**07805**	**07801**	**07286 (6)**	**07376 (3)**	**07387 (3)**
draw-out Masterpact 	**NT08 to NT10, draw-out**								
	front connection, direct connection on Linergy busbar BB	14	**07622**	**07921(2)**	**07802**	**07802**	**07286 (6)**	**07376 (3)**	**07387 (3)**
	front connection, connection with transfer BB on vertical busbar	16	**07622**	**07921(2)**	**07804**	**07802**	**07286 (6)**	**07376 (3)**	**07387 (3)**
	rear connection, direct connection on vertical BB	10	**07622**	**07921(2)**				**07376** x 2	**07387** x 2 **(7)**
	rear connection, connection with transfer BB on vertical busbar	14	**07622**	**07921(2)**	**07804**		**07286 (6)**	**07376 (3)**	**07387 (3)**
	NT12 to NT16, draw-out								
	front connection, direct connection on Linergy vertical BB	16	**07622**	**07921(2)**	**07803**	**07803**	**07286 (6)**	**07376 (3)**	**07387 (3)**
	front connection, connection with transfer BB on vertical busbar	17	**07622**	**07921(2)**	**07804**	**07803**	**07286 (6)**	**07376 (3)**	**07387 (3)**
	rear connection, direct connection on vertical BB	10	**07622**	**07921(2)**				**07376** x 2	**07387** x 2 **(7)**
	rear connection, connection with transfer BB on vertical busbar	14	**07622**	**07921(2)**	**07804**		**07286 (6)**	**07376 (3)**	**07387 (3)**

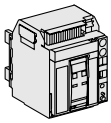
(1) To connect using four 300 mm^2 cables, install complementary pads on the additional vertical pads.
Set of 3 complementary pads, ref. 33644 + 07251. Set of 4 complementary pads, ref. 33645 + 07251.
In this case, count 2 additional modules and add a plain top front plate 07802.
(2) A door frame (reference 33718 for fixed device and 33857 for draw-out device) to be ordered with the device, is installed on the front plate, and ensures a degree of protection of IP40 at device level.
(3) In the floor standing enclosure Prisma P depths 800 and 1000 and Prisma PH depths 1000 and 1200, order 2 ref. (add. information on page 52).
(4) The link 07240 is used when the Linergy busbar is installed to the right of the incoming unit. When the Linergy busbar is installed to the left of the incoming unit, use link 07245.

	Connection of devices										Busbars layout in Prisma cubicle			
		downstream terminals				upstream terminals					connection possible connection not possible			
	nb of poles	front connect.	vert. connect.	pads for cables	vert. rear connect.	front connect.	Linergy BB link (Prisma P) connector + link		rear connection horiz.	rear connection vert.	Prisma P D = 400 Prisma PH D = 500	Prisma P D = 600 Prisma PH D = 700	Prisma P D = 800 Prisma PH D = 1000	Prisma P D = 1000 Prisma PH D = 1200
		ref. in italics: to be ordered with the device												
	3P	■	**33642 (1)**			■	**33642** **+47335**	**07240 (4)**			■	●	●	●
	4P	■	**33643 (1)**			■	**33643** **+47336**	**07241**						
	3P	■	**33642 (1)**			■**+47335**					■	●	●	●
	4P	■	**33643 (1)**			■**+47336**								
	3P				■					■			●	●
	4P				■					■				
	3P				■				■**+47335**			●	●	●
	4P				■				■**+47336**					
	3P	■	**33642**	**33644 + 07251**		■	**33642** **+47335**	**07242 (5)**			■	●	●	●
	4P	■	**33643**	**33645 + 07251**		■	**33643** **+47336**	**07243**						
	3P	■	**33642**	**33644 + 07251**		■**+47335**					■	●	●	●
	4P	■	**33643**	**33645 + 07251**		■**+47336**								
	3P				■					■			●	●
	4P				■					■				
	3P				■				■**+47335**			●	●	●
	4P				■				■**+47336**					
	3P	■	**33642 (1)**			■	**33642**	**07240(4) + 07244**x3			■	●	●	●
	4P	■	**33643 (1)**			■	**33643**	**07241 + 07244**x4						
	3P	■	**33642 (1)**			■					■	●	●	●
	4P	■	**33643 (1)**			■								
	3P				■					■			●	●
	4P				■					■				
	3P				■				■			●	●	●
	4P				■				■					
	3P	■	**33642**	**33644 + 07251**		■	**33642**	**07242(5) + 07244**x3			■	●	●	●
	4P	■	**33643**	**33645 + 07251**		■	**33643**	**07243 + 07244**x4						
	3P	■	**33642**	**33644 + 07251**		■					■	●	●	●
	4P	■	**33643**	**33645 + 07251**		■								
	3P				■					■			●	●
	4P				■					■				
	3P				■				■			●	●	●
	4P				■				■					

(5) The link 07242 is used when the Linergy busbar is installed to the right of the incoming unit. When the Linergy busbar is installed to the left of the incoming unit, use link 07246.
(6) Ref. 07284 (instead of 07286) protect people against direct contact with live parts.
(7) Add one extra module and a bottom plain front plate 07801.
(8) Use an arc chute 33596 (3P), 33597 (4P).

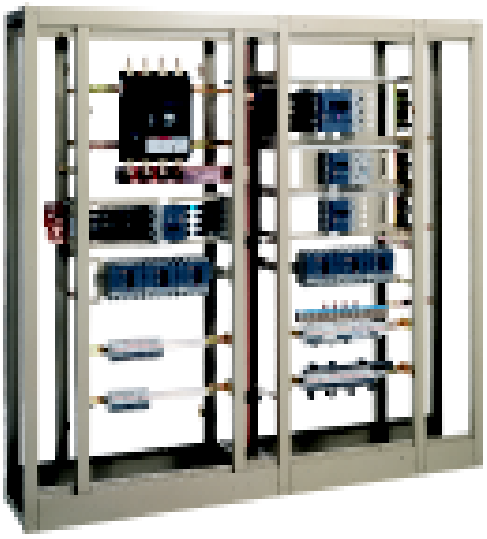
● Optional connection on a complete busbar at the enclosure back.
■ Optional connection on a partial busbar at the enclosure back (under the incoming unit).
In event of connection by busbar at the enclosure back, there is no form 2 partitioning as standard.

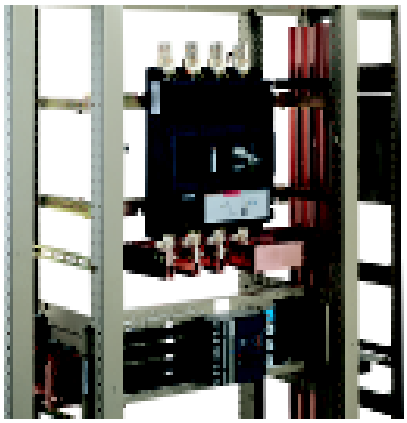
Source changeover system
Masterpact NT08 to NT16

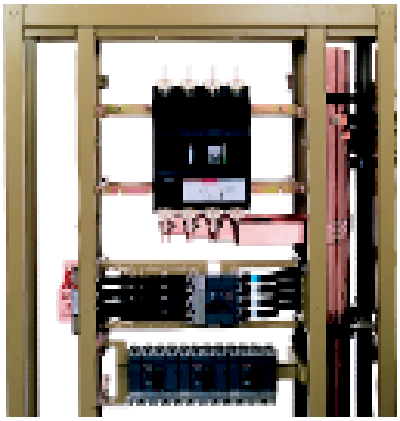
	Device	Module	Mounting plate and front plate			Busbars layout in Prisma cubicle				
		vertical modules required H = 50 mm	mounting plate	cut-out front plate **(2)**	top front plate	bottom front plate	connection possible / connection not possible			
	vertical mounting						Prisma P D = 400 Prisma PH D = 500	Prisma P D = 600 Prisma PH D = 700	Prisma P D = 800 Prisma PH D = 1000	Prisma P D = 1000 Prisma PH D = 1200
fixed device (1)	**800/1600 A, fixed, rear connections**									
	direct connection on BB, vertical rear connections	16	**07622 x 2**	**07920 x 2**	**07802**					
	connect. on horiz. transfer horiz. downstream rear connections (up. device) horiz. upstream rear connections (down. device)	21	**07622 x 2**	**07920 x 2 + 07805**	**07802**					
draw-out device (1)	**800/1600 A, draw-out, rear connections**									
	direct connection on BB, vertical rear connections	20	**07622 x 2**	**07921 x 2**						
	connect. on horiz. transfer horiz. downstream rear connections (up. device) horiz. upstream rear connections (down. device)	24	**07622 x 2**	**07921 x 2 + 07804**						

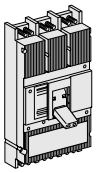
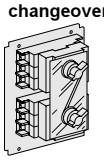
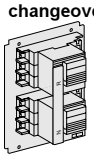
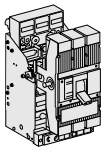
(1) Interlocking by cables. Install an arc chute cover on the fixed Masterpact NT.

(2) A door frame (ref. 33718 for fixed device and 33857 for drawout device) to be ordered with the device, is installed on the front plate, and ensures a degree of protection of IP40 at device level.

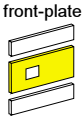
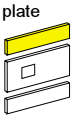
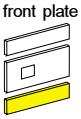






	Device	
	description	horizontal or vertical mounting H = horizontal V = vertical
Compact circuit breaker 	**C801 to C1251, fixed**	
	rear connection + toggle	V
	rear connection with display of settings + toggle or rotary handle	V
	rear connection + motor mechanism	V
	front connection + toggle	V
	rear connection with display of settings + toggle or rotary handle	V
	front connection + motor mechanism	V
	front connection to horizontal transfer + toggle	V
	front connection with display of settings, connected to horizontal transfer + toggle or rotary handle	V
	front connection + motor mechanism connected to horizontal transfer	V
Visucompact circuit breaker	**C801 to C1251, fixed**	**toggle**
	front connection	V
manual source changeover 	**C801/C1251, fixed, front connection**	**rotary handle**
	devices in horizontal position with mechanical interlocking	H
automatic source changeover 	**C801/C1251, fixed, front connection**	**motor mechanism**
	devices without controller	H
	controller only	
withdrawable Compact circuit breaker 	**C801/C1001, withdrawable**	**all types of control**
	N, H, NI edgewise terminals: up. and down. direct connection to busbars	V
	L edgewise terminals: up. and down. direct connection to busbars	V
	N, H, NI edgewise up. and flat down. terminals connected to horizontal transfer	V
	L edgewise up. and flat down. terminals connected to horizontal transfer	V
	C1251, withdrawable	**all types of control**
	N, H, NI edgewise terminals: up. and down. direct connection to busbars	V
	N, H, NI edgewise up. and flat down. terminals connected to horizontal transfer	V

***(1)** Devices equipped with rotary handle: replace the device front plate **46831** by **46832**.*
*Withdrawable devices equipped with motor mechanism: replace the device front plate and Prisma front plate by Prisma front plate **07929**.*
These devices may only be installed in the following cubicles:
n Prisma P, depth = 800 or 1000 mm
n Prisma PH, depth = 1000 or 1200 mm.

	Module	Mounting plate and front plate					Busbars layout in Prisma cubicle			
							possible connection impossible connection			
	vertical modules required H = 50 mm	mounting plate 	barrier (without connection) 	cut-out front-plate 	top front plate 	bottom front plate 	Prisma P, D = 400 Prisma PH, D = 500	Prisma P, D = 600 Prisma PH, D = 700	Prisma P, D = 800 Prisma PH, D = 1000	Prisma P D = 1000 Prisma PH, D = 1200
	11	**07619**	**07281**	**07923**					**all busbar**	
	11	**07619**	**07281**	**07925 + 46831(1)**						
	11	**07619**	**07281**	**07924**						
	13 **(4)**	**07619**	**07281**	**07923**	**07801**	**07801**				
	13 **(4)**	**07619**	**07281**	**07925 + 46831(1)**	**07801**	**07801**				
	13 **(4)**	**07619**	**07281**	**07924**	**07801**	**07801**				
	16 **(2) (4)**	**07619**	**07281**	**07923**	**07801**	**07804**				
	16 **(2) (4)**	**07619**	**07281**	**07925 + 46831(1)**	**07801**	**07804**				
	16 **(2) (4)**	**07619**	**07281**	**07924**	**07801**	**07804**				
	24	**07619** x 2	**07281+07260**	**07959**	**07805**	**07805**				
	14	**07619**		**07953**					**all busbar layouts permitted**	
	14	**07619**			**07804 x 3 + 07802**				**all busbar layouts permitted**	
	4	**07729**		**07949**						
	13	**07631**	**07281**	**07928 + 46831(1) + 46830**	**07801**	**07801**			**all busbar layouts permitted**	
	13	**07631**	**07281**	**07928 + 46831(1) + 46830**	**07801**	**07801**				
	17 **(3)**	**07631**	**07281**	**07928 + 46831(1) + 46830**	**07803**	**07803**				
	17	**07631**	**07281**	**07928 + 46831(1) + 46830**	**07803**	**07803**				
	13	**07631**	**07281**	**07928 + 46831(1) + 46830**	**07801**	**07801**			**all busbar layouts permitted**	
	18 **(3)**	**07631**	**07281**	**07928 + 46831(1) + 46830**	**07803**	**07804**				

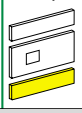
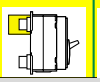
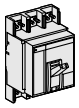
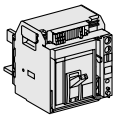
***(2)** Limiting circuit breakers (C801L and C1001L) are installed in the following cubicles:*
n Prisma P, depth = 600 mm (min. depth)
n Prisma PH, depth = 700 mm (min. depth).
***(3)** In Prisma P, depth = 400 mm, this assembly may only be mounted behind the door or front plate support frame with power supply from the top on the top terminals.*
***(4)** For Compact C1251, include an extra vertical module and add a plain bottom front plate **07801**.*

l Can be connected to complete busbar set at rear of cubicle.

n Can be connected to partial busbar set at rear of cubicle (below incoming unit).

In the case of connection using busbars at the rear of the cubicle, no Form 2 partitioning is available in the catalogue.

Compact NS 630b/1600A
Cable connection (incoming from the top)

Device		Installation of devices						Partition (option)		
	vertical mounting	vertical modules required (1 module = 50 mm)	mounting plate 	cut-out type of handle	front plate 	top front plate 	bottom front plate 	Form 2 partition 	upstream pad partition 	up. and down. partition 
fixed Compact NS 	**NS 630b/1000A, fixed**									
	front connection, direct connection on Linergy vertical BB	12	**07620**	toggle rotative / motor	**07922** / **07920 (2)**	**07803**	**07802**	**07286**	**07376 (3)**	**07387 (3)**
	front connection, connection with transfer BB on vertical busbar	14	**07620**	toggle rotative / motor	**07922** / **07920 (2)**	**07803**	**07804**	**07286**	**07376 (3)**	**07387 (3)**
	rear connection, direct connection on vertical BB	8	**07620**	toggle rotative / motor	**07922** / **07920 (2)**	**07801**			**07376** x 2	**07387** x 2 **(6)**
	rear connection, connection with transfer BB on vertical busbar	12	**07620**	toggle rotative / motor	**07922** / **07920 (2)**	**07801**	**07804**	**07286**	**07376 (3)**	**07387 (3)**
	NS 1200/1600A, fixed									
	front connection, direct connection on Linergy vertical BB	14	**07620**	toggle rotative / motor	**07922** / **07920 (2)**	**07804**	**07803**	**07286**	**07376 (3)**	**07387 (3)**
	front connection, connection with transfer BB on vertical busbar	15	**07620**	toggle rotative / motor	**07922** / **07920 (2)**	**07804**	**07804**	**07286**	**07376 (3)**	**07387 (3)**
	rear connection, direct connection on vertical BB	8	**07620**	toggle rotative / motor	**07922** / **07920 (2)**	**07801**			**07376** x 2	**07387** x 2 **(6)**
	rear connection, connection with transfer BB on vertical busbar	12	**07620**	toggle rotative / motor	**07922** / **07920 (2)**	**07801**	**07804**	**07286**	**07376 (3)**	**07387 (3)**
draw-out Compact NS 	**NS 630b/1000A, draw-out**									
	front connection, direct connection on Linergy vertical BB	14	**07622**		**07921 (2)** +special collar	**07802**	**07802**	**07286**	**07376 (3)**	**07387 (3)**
	front connection, connection with transfer BB on vertical busbar	16	**07622**		**07921 (2)** +special collar	**07802**	**07804**	**07286**	**07376 (3)**	**07387 (3)**
	rear connection, direct connection on vertical BB	10	**07622**		**07921 (2)** +special collar				**07376** x 2	**07387** x 2 **(6)**
	rear connection, connection with transfer BB on vertical busbar	14	**07622**		**07921 (2)** +special collar		**07804**	**07286**	**07376 (3)**	**07387 (3)**
	NS 1200/1600A, draw-out									
	front connection, direct connection on Linergy vertical BB	16	**07622**		**07921 (2)** +special collar	**07803**	**07803**	**07286**	**07376 (3)**	**07387 (3)**
	front connection, connection with transfer BB on vertical busbar	17	**07622**		**07921 (2)** +special collar	**07803**	**07804**	**07286**	**07376 (3)**	**07387 (3)**
	rear connection, direct connection on vertical BB	10	**07622**		**07921 (2)** +special collar				**07376** x 2	**07387** x 2 **(6)**
	rear connection, connection with transfer BB on vertical busbar	14	**07622**		**07921 (2)** +special collar		**07804**	**07286**	**07376 (3)**	**07387 (3)**

(1) To connect using four 300 mm² cables, install complementary pads on the additional vertical pads. Set of 3 complementary pads, ref. 33644. Set of 4 complementary pads, ref. 33645. In this case, count 2 additional modules and add a plain top front plate 07802.
(2) A door frame (reference 33718 for fixed device and 33857 for draw-out device) to be ordered with the device, is installed on the front plate, and ensures a degree of protection of IP40 at device level.
(3) In the floor standing enclosure Prisma P depths 800 and 1000 and Prisma PH depths 1000 and 1200, order 2 ref. (add. information on page 52).

	Connection of devices										Busbars layout in Prisma cubicle			
		upstream terminals				downstream terminals					connection possible connection not possible			
	nb of poles	front connect.	vert. connect.	pads for cables	vert. rear connect.	front connect.	Linergy BB link (Prisma P) connector + link		rear connections horiz.	vert.	Prisma P D = 400 Prisma PH D = 500	Prisma P D = 600 Prisma PH D = 700	Prisma P D = 800 Prisma PH D = 1000	Prisma P D = 1000 Prisma PH D = 1200
		ref. in italics: to be ordered with the device												
	3P	n	***33642 (1) + 33596***			n	***33642***	**07240 (4)**						
	4P	n	***33643 (1) + 33597***			n	***33643***	**07241**						
	3P	n	***33642 (1) + 33596***				n							
	4P	n	***33643 (1) + 33597***			n								
	3P				n					n				
	4P				n					n				
	3P				n				n					
	4P				n				n					
	3P	n	***33642 + 33596***	***33644 + 07251***		n	***33642***	**07242 (5)**						
	4P	n	***33643 + 33597***	***33645 + 07251***		n	***33643***	**07243**						
	3P	n	***33642 + 33596***	***33644 + 07251***		n								
	4P	n	***33643 + 33597***	***33645 + 07251***		n								
	3P				n					n				
	4P				n					n				
	3P				n				n					
	4P				n				n					
	3P	n	***33642 (1)***			n	***33642***	**07240(4) + 07244**x3						
	4P	n	***33643 (1)***			n	***33643*** **07244**x4	**07241 +**						
	3P	n	***33642 (1)***				n							
	4P	n	***33643 (1)***				n							
	3P				n					n				
	4P				n					n				
	3P				n				n					
	4P				n				n					
	3P	n	***33642***	***33644 + 07251***		n	***33642***	**07242(5) + 07244**x3						
	4P	n	***33643***	***33645 + 07251***		n	***33643***	**07243 + 07244**x4						
	3P	n	***33642***	***33644 + 07251***		n								
	4P	n	***33643***	***33645 + 07251***		n								
	3P				n					n				
	4P				n					n				
	3P				n				n					
	4P				n				n					

(4) *The link 07240 is used when the Linergy busbar is installed to the right of the incoming unit. When the Linergy busbar is installed to the left of the incoming unit, use link 07245.*

(5) *The link 07242 is used when the Linergy busbar is installed to the right of the incoming unit. When the Linergy busbar is installed to the left of the incoming unit, use link 07246.*

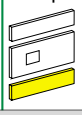
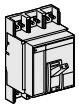
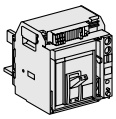
(6) *Add one extra module and a bottom plain front plate 07801.*

l *Optional connection on a complete busbar at the enclosure back.*

n *Optional connection on a partial busbar at the enclosure back (under the incoming unit).*

In event of connection by busbar at the enclosure back, there is no form 2 partitioning as standard.

Compact NS 630b/1600A
Busbar trunking connection (incoming from the top)

Device		Installation of devices						Partition (option)		
	vertical mounting	vertical modules required (1 module = 50 mm)	mounting plate 	cut-out type of handle	front plate 	top front plate 	bottom front plate 	Form 2 partition 	upstream pad partition 	up. and down. partition 
fixed Compact NS 	**NS 630b/1000A, fixed**									
	front connection, direct connection on Linergy vertical BB	15	**07620**	toggle rotative / motor	**07922** / **07920 (2)**	**07806**	**07802**	**07286 + 07260**	**07376 (3) + 09502**	**07387 (3) + 09502**
	front connection, connection with transfer BB on vertical busbar	17	**07620**	toggle rotative / motor	**07922** / **07920 (2)**	**07806**	**07804**	**07286 + 07260**	**07376 (3) + 09502**	**07387 (3) + 09502**
	rear connection, direct connection on vertical BB	13	**07620**	toggle rotative / motor	**07922** / **07920 (2)**	**07806**			**07376** x 2 **+ 09502**	**07387** x 2 **(1) + 09502**
	rear connection, connection with transfer BB on vertical busbar	17	**07620**	toggle rotative / motor	**07922** / **07920 (2)**	**07806**	**07804**	**07286 + 07260**	**07376 (3) + 09502**	**07387 (3) + 09502**
	NS 1200/1600A, fixed									
	front connection, direct connection on Linergy vertical BB	16	**07620**	toggle rotative / motor	**07922** / **07920 (2)**	**07806**	**07803**	**07286 + 07260**	**07376 (3) + 09502**	**07387 (3) + 09502**
	front connection, connection with transfer BB on vertical busbar	17	**07620**	toggle rotative / motor	**07922** / **07920 (2)**	**07806**	**07804**	**07286 + 07260**	**07376 (3) + 09502**	**07387 (3) + 09502**
	rear connection, direct connection on vertical BB	13	**07620**	toggle rotative / motor	**07922** / **07920 (2)**	**07806**			**07376** x 2 **+ 09502**	**07387** x 2 **(1) + 09502**
	rear connection, connection with transfer BB on vertical busbar	17	**07620**	toggle rotative / motor	**07922** / **07920 (2)**	**07806**	**07804**	**07286 + 07260**	**07376 (3) + 09502**	**07387 (3) + 09502**
draw-out Compact NS 	**NS 630b/1000A, draw-out**									
	front connection, direct connection on Linergy vertical BB	17	**07622**		**07921 (2)** +special collar	**07805**	**07802**	**07286 + 07260**	**07376 (3) + 09502**	**07387 (3) + 09502**
	front connection,connection with transfer BB on vertical busbar	19	**07622**		**07921 (2)** +special collar	**07805**	**07804**	**07286 + 07260**	**07376 (3) + 09502**	**07387 (3) + 09502**
	rear connection, direct connection on vertical BB	14	**07622**		**07921 (2)** +special collar	**07804**			**07376** x 2 **+ 09502**	**07387** x 2 **(1) + 09502**
	rear connection, connection with transfer BB on vertical busbar	18	**07622**		**07921 (2)** +special collar	**07804**	**07804**	**07286 + 07260**	**07376 (3) + 09502**	**07387 (3) + 09502**
	NS 1200/1600A, draw-out									
	front connection, direct connection on Linergy vertical BB	18	**07622**		**07921 (2)** +special collar	**07805**	**07803**	**07286 + 07260**	**07376 (3) + 09502**	**07387 (3) + 09502**
	front connection, connection with transfer BB on vertical busbar	19	**07622**		**07921 (2)** +special collar	**07805**	**07804**	**07286 + 07260**	**07376 (3) + 09502**	**07387 (3) + 09502**
	rear connection, direct connection on vertical BB	14	**07622**		**07921 (2)** +special collar	**07804**			**07376** x 2 **+ 09502**	**07387** x 2 **(1) + 09502**
	rear connection, connection with transfer BB on vertical busbar	18	**07622**		**07921 (2)** +special collar	**07804**	**07804**	**07286 + 07260**	**07376 (3) + 09502**	**07387 (3) + 09502**

(1) *Add one extra module and a bottom plain front plate 07801.*
(2) *A door frame (reference 33718 for fixed device and 33857 for draw-out device) to be ordered with the device, is installed on the front plate, and ensures a degree of protection of IP40 at device level.*
(3) *In the floor standing enclosure Prisma P depths 800 and 1000 and Prisma PH depths 1000 and 1200, order 2 ref. (add. information on page 52).*

	Connection of devices										Busbars layout in Prisma cubicle			
		upstream terminals				downstream terminals					connection possible connection not possible			
	nb of poles	front connect.	horiz. rear connect.	CEP support	link CEP/ device	front connect.	pref. link / Linergy (Prisma P) connector + link		rear connections horiz.	rear connections vert.	Prisma P D = 400 Prisma PH D = 500	Prisma P D = 600 Prisma PH D = 700	Prisma P D = 800 Prisma PH D = 1000	Prisma P D = 1000 Prisma PH D = 1200
		ref. in italics: to be ordered with the device												
	3P	n		09501	09504 + *33596*	n	*33642*	07240 (4)			■	●	●	●
	4P	n		09501	09505 + *33597*	n	*33643*	07241						
	3P	n		09501	09504 + *33596*	n					■	●	●	●
	4P	n		09501	09505 + *33597*	n								
	3P		n+09508	09501	09504 + *33596*					n			●	●
	4P		n+09508	09501	09505 + *33597*					n				
	3P		n+09508	09501	09504 + *33596*				n			●	●	●
	4P		n+09508	09501	09505 + *33597*				n					
	3P	n		09501	09506 + *33596*	n	*33642*	07242 (5)			■	●	●	●
	4P	n		09501	09507 + *33597*	n	*33643*	07243						
	3P	n		09501	09506 + *33596*	n					■	●	●	●
	4P	n		09501	09507 + *33597*	n								
	3P		n+09509	09501	09506 + *33596*					n			●	●
	4P		n+09509	09501	09507 + *33597*					n				
	3P		n+09509	09501	09506 + *33596*				n			●	●	●
	4P		n+09509	09501	09507 + *33597*				n					
	3P	n		09501	09504	n	*33642*	07240(4) + 07244x3			●	●	●	●
	4P	n		09501	09505	n	*33643*	07241 + 07244x4						
	3P	n		09501	09504	n					●	●	●	●
	4P	n		09501	09505	n								
	3P		n+09508	09501	09504					n	l	●	●	●
	4P		n+09508		09501	09505				n				
	3P		n+09508	09501	09504				n		●	●	●	●
	4P		n+09508		09501	09505				n				
	3P	n		09501	09506	n	*33642*	07242(5) + 07244x3			●	●	●	●
	4P	n		09501	09507	n	*33643*	07243 + 07244x4						
	3P	n		09501	09506	n					●	●	●	●
	4P	n		09501	09507	n								
	3P		n+09509	09501	09506					n	l	●	●	●
	4P		n+09509		09501	09507				n				
	3P		n+09509	09501	09506				n		●	●	●	●
	4P		n+09509		09501	09507				n				

(4) *The link 07240 is used when the Linergy busbar is installed to the right of the incoming unit. When the Linergy busbar is installed to the left of the incoming unit, use link 07245.*

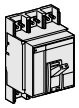
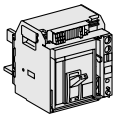
(5) *The link 07242 is used when the Linergy busbar is installed to the right of the incoming unit. When the Linergy busbar is installed to the left of the incoming unit, use link 07246.*

l *Optional connection on a complete busbar at the enclosure back.*

n *Optional connection on a partial busbar at the enclosure back (under the incoming unit).*

In event of connection by busbar at the enclosure back, there is no form 2 partitioning as standard.

Compact NS 630b/1600A
Cable connection (incoming from the bottom)

Device		Installation of devices						Partition (option)		
	vertical mounting	vertical modules required (1 module = 50 mm)	mounting plate	cut-out front plate type of handle	cut-out front plate	top front plate	bottom front plate	Form 2 partition	upstream pad partition	up./down. partition (Form 4)
fixed Compact NS 	**NS 630b/1000A, fixed**									
	front connection, direct connection on Linergy vertical BB	12	**07620**	toggle rotative / motor	**07922** / **07920 (2)**	**07802**	**07803**	**07286**	**07376 (3)**	**07387 (3)**
	front connection, connection with transfer BB on vertical busbar	14	**07620**	toggle rotative / motor	**07922** / **07920 (2)**	**07804**	**07803**	**07286**	**07376 (3)**	**07387 (3)**
	rear connection, direct connection on vertical BB	8	**07620**	toggle rotative / motor	**07922** / **07920 (2)**		**07801**		**07376** x 2	**07387** x 2 **(6)**
	rear connection, connection with transfer BB on vertical busbar	12	**07620**	toggle rotative / motor	**07922** / **07920 (2)**	**07804**	**07801**	**07286**	**07376 (3)**	**07387 (3)**
	NS 1200/1600A, fixed									
	front connection, direct connection on Linergy vertical BB	14	**07620**	toggle rotative / motor	**07922** / **07920 (2)**	**07803**	**07804**	**07286**	**07376 (3)**	**07387 (3)**
	front connection, connection with transfer BB on vertical busbar	15	**07620**	toggle rotative / motor	**07922** / **07920 (2)**	**07804**	**07804**	**07286**	**07376 (3)**	**07387 (3)**
	rear connection, direct connection on vertical BB	8	**07620**	toggle rotative / motor	**07922** / **07920 (2)**		**07801**		**07376** x 2	**07387** x 2 **(6)**
	rear connection, connection with transfer BB on vertical busbar	12	**07620**	toggle rotative / motor	**07922** / **07920 (2)**	**07804**	**07801**	**07286**	**07376 (3)**	**07387 (3)**
draw-out Compact NS 	**NS 630b/1000A, draw-out**									
	front connection, direct connection on Linergy vertical BB	14	**07622**		**07921 (2)** +special collar	**07802**	**07802**	**07286**	**07376 (3)**	**07387 (3)**
	front connection, connection with transfer BB on vertical busbar	16	**07622**		**07921 (2)** +special collar	**07804**	**07802**	**07286**	**07376 (3)**	**07387 (3)**
	rear connection, direct connection on vertical BB	10	**07622**		**07921 (2)** +special collar				**07376** x 2	**07387** x 2 **(6)**
	rear connection, connection with transfer BB on vertical busbar	14	**07622**		**07921 (2)** +special collar	**07804**		**07286**	**07376 (3)**	**07387 (3)**
	NS 1200/1600A, draw-out									
	front connection, direct connection on Linergy vertical BB	16	**07622**		**07921 (2)** +special collar	**07803**	**07803**	**07286**	**07376 (3)**	**07387 (3)**
	front connection, connection with transfer BB on vertical busbar	17	**07622**		**07921 (2)** +special collar	**07804**	**07803**	**07286**	**07376 (3)**	**07387 (3)**
	rear connection, direct connection on vertical BB	10	**07622**		**07921 (2)** +special collar				**07376** x 2	**07387** x 2 **(6)**
	rear connection, connection with transfer BB on vertical busbar	14	**07622**		**07921 (2)** +special collar	**07804**		**07286**	**07376 (3)**	**07387 (3)**

(1) To connect using four 300 mm² cables, install complementary pads on the additional vertical pads. Set of 3 complementary pads, ref. 33644. Set of 4 complementary pads, ref. 33645. In this case, count 2 additional modules and add a plain top front plate 07802.
(2) A door frame (reference 33718 for fixed device and 33857 for draw-out device) to be ordered with the device, is installed on the front plate, and ensures a degree of protection of IP40 at device level.
(3) In the floor standing enclosure Prisma P depths 800 and 1000 and Prisma PH depths 1000 and 1200, order 2 ref. (add. information on page 52).

Connection of devices										Busbars layout in Prisma cubicle			
	downstream terminals				upstream terminals					connection possible connection not possible			
nb of poles	front connect.	vert. connect.	pads for cables	vert. rear connect.	front connect.	Linergy BB link (Prisma P) connector + link		rear connections horiz.	vert.	Prisma P D = 400 Prisma PH D = 500	Prisma P D = 600 Prisma PH D = 700	Prisma P D = 800 Prisma PH D = 1000	Prisma P D = 1000 Prisma PH D = 1200
	ref. in italics: to be ordered with the device												
3P	n	***33642 (1)***			n	***33642 + 33596***	**07240 (4)**						
4P	n	***33643 (1)***			n	***33643 + 33597***	**07241**						
3P 4P	n n	***33642 (1)*** ***33643 (1)***				n ***+33596*** n ***+33597***							
3P 4P				n n					n n				
3P 4P				n n				n n					
3P	n	***33642***	***33644 +*** **07251**		n	***33642 +*** **33596**	**07242 (5)**						
4P	n	***33643***	***33645 +*** **07251**		n	***33643 +*** **33597**	**07243**						
3P	n	***33642***	***33644 +*** **07251**		n***+33596***								
4P	n	***33643***	***33645*** **07251**		n***+33597***								
3P 4P				n n					n n				
3P 4P				n n				n n					
3P	n	***33642 (1)***			n	***33642***	**07240(4) +** **07244**x3						
4P	n	***33643 (1)***				n	***33643*** **07244**x4	**07241 +**					
3P 4P	n n	***33642 (1)*** ***33643 (1)***				n n							
3P 4P				n n					n n				
3P 4P				n n				n n					
3P	n	***33642***	***33644 +*** **07251**		n	***33642***	**07242(5) +** **07244**x3						
4P	n	***33643***	***33645 +*** **07251**		n	***33643***	**07243 +** **07244**x4						
3P	n	***33642***	***33644 +*** **07251**		n								
4P	n	***33643***	***33645 +*** **07251**		n								
3P 4P				n n					n n				
3P 4P				n n				n n					

(4) *The link 07240 is used when the Linergy busbar is installed to the right of the incoming unit. When the Linergy busbar is installed to the left of the incoming unit, use link 07245.*

(5) *The link 07242 is used when the Linergy busbar is installed to the right of the incoming unit. When the Linergy busbar is installed to the left of the incoming unit, use link 07246.*

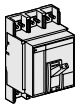
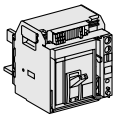
(6) *Add one extra module and a top plain front plate 07801.*

l *Optional connection on a complete busbar at the enclosure back.*

n *Optional connection on a partial busbar at the enclosure back (under the incoming unit).*

In event of connection by busbar at the enclosure back, there is no form 2 partitioning as standard.

Source changeover system Compact NS 630b/1600A

	Device	Module	Mounting plate and front plate			Busbars layout in Prisma cubicle				
		vertical modules required H = 50 mm	mounting plate	cut-out front plate	top front plate	bottom front plate	connection possible / connection not possible			
	vertical mounting						Prisma P D = 400 Prisma PH D = 500	Prisma P D = 600 Prisma PH D = 700	Prisma P D = 800 Prisma PH D = 1000	Prisma P D = 1000 Prisma PH D = 1200
fixed device (1) (2) 	**630b/1600 A, fixed, rear connections**									
	direct connection on BB, vertical rear connections									
	connect. on horiz. transfer horiz. downstream rear connections (up. device) horiz. upstream rear connections (down. device)									
draw-out device (1) 	**630b/1600 A, draw-out, rear connections**									
	direct connection on BB, vertical rear connections	**20**	**07622 x 2**	**07921 x 2**						
	connect. on horiz. transfer horiz. downstream rear connections (up. device) horiz. upstream rear connections (down. device)	**24**	**07622 x 2**	**07921 x 2 + 07804**						

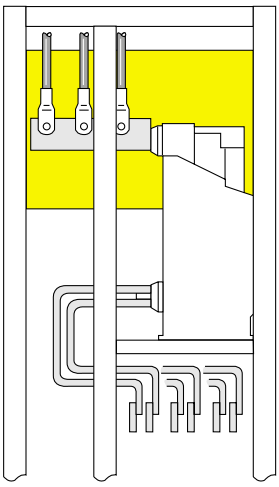
(1) *Interlocking by cables.*
(2) *Install an arc chute cover on the fixed Compact NS.*

Incoming unit connections

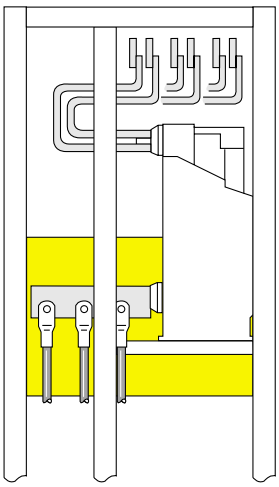
Partitioning of the supply to an incoming unit

Presentation

The partitions make it possible for operating personnel to work in complete safety on an electrical switchboard when the device is in the "off" position.
They may be fitted to Compact C801/1251 and Masterpact devices in Prisma P and PH cubicles.
They represent a ready-made solution that takes into account the space required to install current transformers. All the components have been validated with Merlin Gerin circuit breakers on Prisma P switchboards. The parts that may accidentally come into contact with live parts are made of insulating materials.

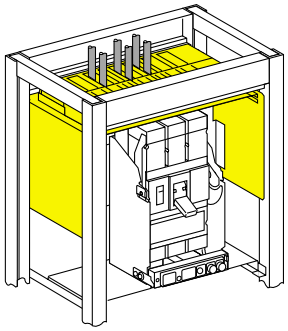


Partitioning of the supply (top terminals) on a withdrawable Compact circuit breaker in a Prisma P cubicle, D = 600 mm, supplied from above.

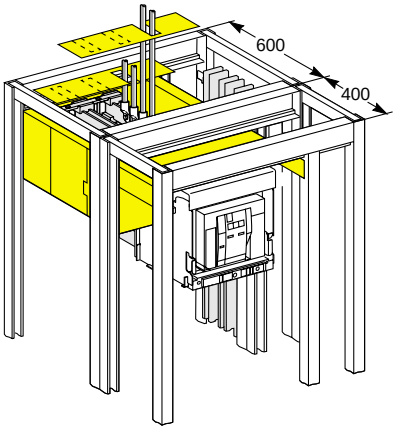


Partitioning of the supply (bottom terminals) on a withdrawable Compact circuit breaker in a Prisma P cubicle, D = 600 mm, supplied from below.

Incoming unit connections



Partitioning of the top terminals on a withdrawable Compact C801 circuit breaker.

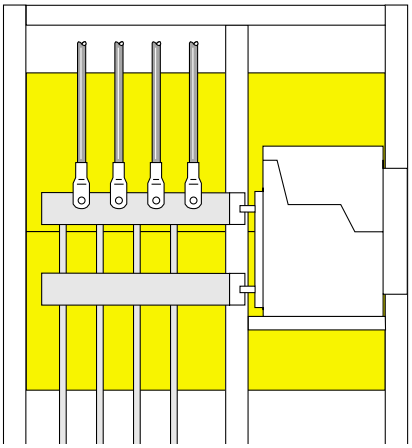


Partitioning of the top terminals on a draw-out Masterpact NW circuit breaker.

Device	Type of partition	Part numbers for Prisma P cubicle: D = 400	D = 600	D = 800	D = 1000
		for Prisma PH cubicle: D = 500	D = 700	D = 1000	D = 1200
Compact C fixed	or (1)	07375	07375	07375 + 07398	07375 + 07398
Compact C withdrawable	or (1)	07377	07377	07377 + 07398	07377 + 07398
Masterpact NW fixed	800/1600/2000/3200 A				
	or		07380	07380 + 07398	07380 + 07398
Masterpact NW draw-out	800/1600 A				
			07382 + 07397	07382 + 07398	07382 + 07398
				07383 + 07398	07383 + 07398
	2000 A				
			07382 + 07397	07382 + 07398 + 07397	07382 + 07398 + 07397
				07383 + 07398	07383 + 07398
	2500/3200 A				
					07382 + 07398 + 07397 x 2
					07383 + 07398 + 07397
Masterpact NT fixed	or	07376	07376	07376 x 2	07376 x 2
Masterpact NT draw-out	or	07376	07376	07376 x 2	07376 x 2

(1) *Compact type L circuit breakers cannot be supplied via the bottom terminals.*

Partitioning of the supply to an incoming unit and its connection with the busbars



This type of partitioning is installed in double-depth cubicles.
It provides Form 4 partitioning of the incoming device.
Schneider recommends using this partitioning with the Form 2 partitioning.

■ for Prisma P cubicle, depth = 400/600 and Prisma PH cubicle, depth = 500/700.

device		partition cat. No
Masterpact NT	fixed	**07387**
NT06/16	draw-out	**07387**

■ pour armoire Prisma P, profondeur 800/1000 et Prisma PH, profondeur 1000/1200.

device		partition cat. No
Compact	fixed	**07391**
C801/1251	withdrawable	**07392**
Masterpact NT	fixed	**07387** x 2
NT06/16	draw-out	**07387** x 2
Masterpact NW	fixed	**07393**
NW08/32	draw-out	**07394**

The partitioning may be extended upwards (see below).

Installation characteristics

■ supply cables are connected to the terminal extension bars at the rear of the device

■ to facilitate connection and save as much space as possible, the circuit breaker is connected:

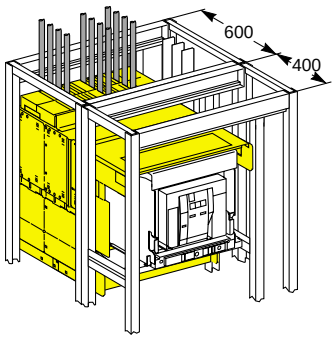
❑ via the top terminals, if cables enter from the top

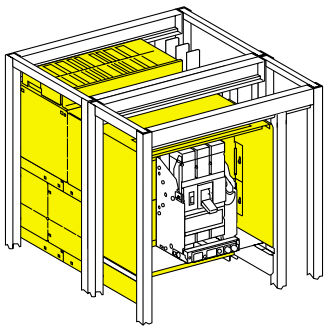
❑ via the bottom terminals, if cables enter from the bottom

❑ and, in all cases, directly to the terminal extension bars, without passing through the lateral partitions

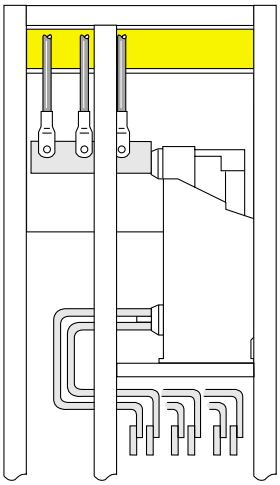
■ essential information is provided in the instructions supplied with mounting plates to optimise the layout of connections at the rear of Masterpact circuit breakers

■ partitioning is possible with vertical busbars located to the left or right of the incoming device.





Partitioning extension (height 100 mm)



The extension increases the partitioned space around the supply terminals on Compact C801/1251 and Masterpact devices. It can be added to the basic partitioning used for:

■ the supply to an incoming unit

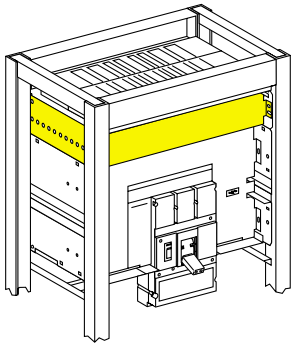
■ the supply to an incoming unit and its connection with the busbars.

It is suitable for:

■ single-depth cubicles

■ double-depth cubicles.

description	depth (mm)	partitioning extension
Prisma P	400/600	**07397**
	800/1000	**07397** x 2
Prisma PH	500/700	**07397**
	1000/1200	**07397** x 2



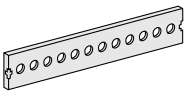
Digipact, Vigilohm system, Magellis, Power logic

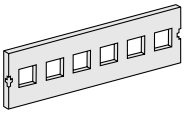
Digipact
PM100 power meter and CLS150 indication and local control module on the front panel of the switchboard.

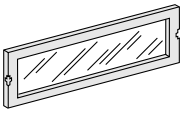
Vigilhom system

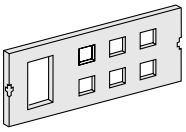
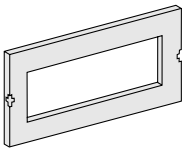
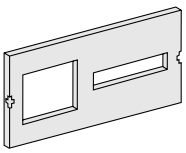
Power logic

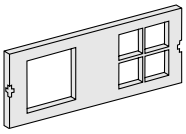
Special front plates

front plate for round indication lights and push-buttons		cat. No.
	(2 mod.)	07894

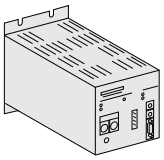
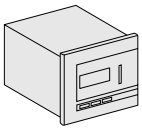
front plate for 72 x 72 mm meters		cat. No.
	round body (3 mod.) square body (3 mod.)	07896 07898

transparent front plate		cat. No.
	(4 mod.) (6 mod.)	07890 07892

front plate for Vigilohm system		cat. No.
	(4 mod.)	07893
	(5 mod.)	07973
	(5 mod.)	07972

front plate for Digipact		cat. No.
	(4 mod.)	07891

Digipact
DC150 data concentrator and SC150 indication and control interface SC150 mounted on a slotted plate at the rear of the switchboard.

	Device		Installation of device				Form 2
	description	number per row	vertical modules required (H = 50 mm)	mounting plate or rail	cut-out front plate	plain front plate	barrier without connection
Digipact	**control and monitoring**						
	DC150 data concentrator SC150 indication and control interface mounted inside cubicle behind plain front plate		3	**07660 (1)**		**07803**	**07263**
	metering, control and indications (mounted on front panel) six 72 x 72 mm devices (CLS150, UM100, IM100)	6	3		**07898**		**07260**
	144 x 144 mm PM power meter + four 72 x 72 mm devices		4		**07891**		**07260**
Vigilohm system	**control and monitoring**						
	XM200 or XM300C + 3 XD301 or + 2 XD312 or + 1 XD301 and 1 XD312		5	**07642 + 07619**	**07972**		**07264 x 2**
	XML 308/316 or XM300C + 2 interfaces of type : XLI300 or XTU300 or XAS or XD or XD 308C (all combinations possible) XM300C or XML308/316 + 1 XL308 or 1 XL316		5	**07643 + 07619**	**07973**		**07264 x 2**
metering, control, monitoring	Vigilhom TR22A/AH, TR9	1 TR + 6 NE 72 x 72	4		**07893**		**07260**
	Multi 9 type meter		2	**07603**	**07812**		**07263**
	72 x 72 NE meter round body	6	3		**07896**		**07260**
	square body	6	3		**07898**		**07260**
	pushbuttons and 22.2 mm Ø indic. lamps on front plate with knock-outs	12	2		**07894**		**07260**
	on blanking plate 07347 (72 x 72) **(2)**	12	3		**07896**		**07260**
Digipact display modules	DMB 300	1	3		**07882**		
	DMC 300	1	4		**07883**		
Power logic	circuit monitor CM 2150/2450	1	7		**07880**		
							

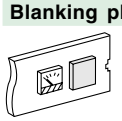
(1) *Front plate* ***07660*** *can also be mounted vertically in a Prisma P cubicle duct of width 200 mm.*

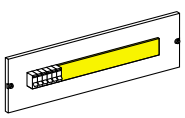
(2) *Set of punches cat. No.* ***03112*** *(for holes in blanking plate* ***07347****) including Ø 22.2 mm and ❑ 46 mm.*

Accessories

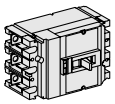
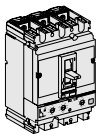
Blanking plates

See page 125





Compact NS 400/630, NB 400/600

Device			horizontal or vertical mounting H = horiz. V = vert.	number per row
Compact circuit breaker 	**400 to 630 A, fixed or plug-in**		**front or rear connected (mounting plate for standard use)**	
	Compact NS400/630	toggle	H	1 3P
			H	1 4P
	NB400/600	rotary handle	H	1
		motor mechanism	H	1
	Vigicompact NS400/630	toggle	H	1 3P
			H	1 4P
		rotary handle **(1)**	H	1
		motor mechanism **(3)**	H	1
	400 to 630 A, fixed or plug-in		**front or rear connected (wide mounting plate for connection with terminal spreaders)**	
	Compact	toggle	H	1
	NS400/630	rotary handle	H	1
	NB400/600	motor mechanism	H	1
	Vigicompact	toggle	H	1
	NS400/630	rotary handle **(1)**	H	1
		motor mechanism **(3)**	H	1
	**400 to 630 A, fixed or plug-in**		**front or rear connected**	
	Compact	toggle	V	1
	NS400/NB400	rotary handle	V	1
	Compact	toggle	V	1
	NS630/NB600	rotary handle	V	1
	Vigicompact	toggle	V	1
	NS400	rotary handle	V	1
	Vigicompact	toggle	V	1
	NS630	rotary handle	V	1
	Compact,	toggle	V	1
	Vigicompact NS400	rotary handle	V	1
	Compact,	toggle	V	1
	Vigicompact NS630	rotary handle	V	1

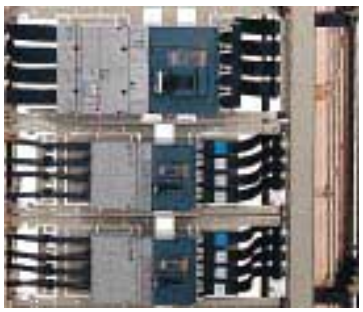
(1) *For access to the Vigi module test button, order the special collar* ***29285*** *with the circuit breaker.*

(2) Connecting horizontal devices:

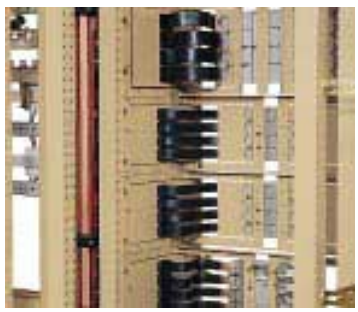
The prefabricated connection for horizontally mounted devices can be installed on front-connected circuit breakers only, whatever the type of operating mechanism (except for the motor mechanism for the NS400/630) in Prisma P cubicles with Linergy busbars. For all other cases, including connection to conventional busbars (flat bars) or connection in a Prisma PH cubicle, use the barrier without connection (see opposite).

(3) *No access to the Vigi module test button.*

Connecting devices to the busbars



Fixed, horizontal, front-connected Compact NS circuit breaker, connected to the busbars using the prefabricated connection.



The connection is supplied with a barrier that secures the conductors and provides Form 2 separation.

Module	Mounting plate and connection to busbars						Front plate		
vertical modules required H = 50 mm	fixed device: mounting plate	fixed device: upstream connection (2) with barrier	fixed device: barrier without connection	plug-in device: mounting plate	plug-in device: upstream connection with barrier	plug-in device: barrier without connection	cut-out front plate	top front plate	bottom front plate
4 5	**07734** **07735**	**07234** **07235**		**07734** **07735**		**07274** **07275**	**07916** **07975**		
5	**07735**	**07235**		**07735**		**07275**	**07976**		
5	**07735**		**07275**	**07735**		**07275**	**07976**		
4 5	**07734** **07735**	**07234** **07235**		**07734** **07735**		**07274** **07275**	**07916** **07975**		
5	**07735**	**07235**		**07735**		**07275**	**07976**		
5	**07735**		**07275**	**07735**		**07275**	**07976**		
6	**07736**	**07235**		**07736**		**07275**	**07977**		
6	**07736**	**07235**		**07736**		**07275**	**07978**		
6	**07736**		**07275**	**07736**		**07275**	**07978**		
6	**07736**	**07235**		**07736**		**07275**	**07977**		
6	**07736**	**07235**		**07736**		**07275**	**07978**		
6	**07736**		**07275**	**07736**		**07275**	**07978**		
wide mounting plate for connection with terminal sprearders									
11	**07750**						**07834**	**07802**	
11	**07750**						**07835**	**07802**	
13	**07750**						**07834**	**07803**	**07801**
13	**07750**						**07835**	**07803**	**07801**
13	**07750**						**07834**	**07802**	**07802**
13	**07750**						**07835**	**07802**	**07802**
15	**07750**						**07834**	**07803**	**07803**
15	**07750**						**07835**	**07803**	**07803**
12				**07750**			**07834**	**07802**	**07801**
12				**07750**			**07835**	**07802**	**07801**
14				**07750**			**07834**	**07803**	**07802**
14				**07750**			**07835**	**07803**	**07802**

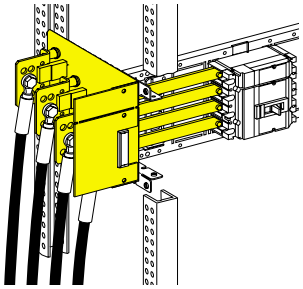
Barrier without connection

A metal barrier enabling:
■ the passage and support of connections (not supplied) to a horizontal Compact NS400/630 circuit breaker
■ implementation of Form 2 separation.
It is used when the prefabricated connection and barrier are not available or for certain switchboard configurations such as:
■ connection to vertical busbars (flat bars) in a Prisma P cubicle
■ connection to any vertical busbars (flat bars or Linergy busbars) in a Prisma PH cubicle.

choice of barrier without connection		cat. No.
NS400/630	3P	**07274**
	4P	**07275**

Downstream connection

In duct via special assembly



Four-pole connection assembly making device connections possible in the duct.
See page 117

Direct using lugs
Connection of Compact NS400/630 circuit breakers using cables 240 mm^2, with crimped lugs.
Two solutions:
■ small lugs (for direct connection to the device terminals)
❑ For 3P device.

cable cross-section	set of 3
240 mm^2	**32500**
300 mm^2	**32502**

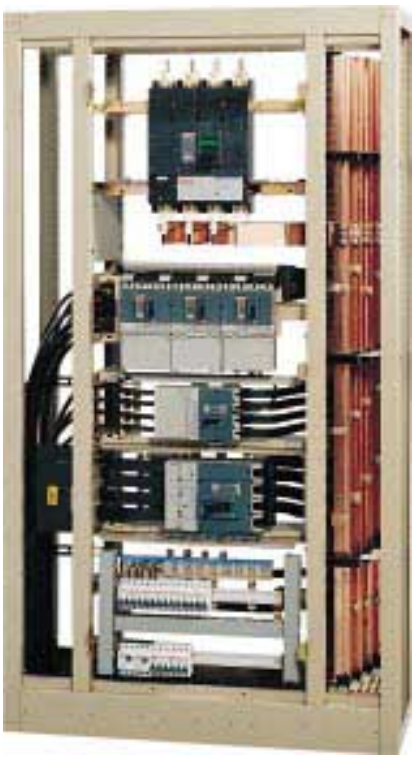
❑ for 4P device

cable cross-section	set of 4
240 mm^2	**32501**
300 mm^2	**32503**

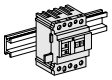
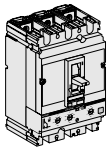
■ normal lugs: use 52.5 mm pitch spreaders

type of device	1 set of terminal spreaders
3P device	**32490**
4P device	**32491**

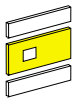
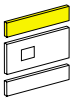
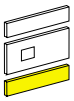
Compact NS 100/250, NB 225 NSA 125/160, C100E



Fixed, vertical Compact NS100/250 circuit breakers connected to the busbars by the Polypact distribution block.
The distribution block is supplied with prefabricated connections and a barrier that secures the conductors and implements Form 2 separation.

	Device			horizontal or vertical mounting H = horiz. V = vert.	number per row
Compact circuit breaker 	**125 A, fixed, toggle**			**front connected**	
	NSA125/160			V	4 3P, 3 4P
	Vigi NSA125/160			V	2 3P, 1 4P
Compact circuit breaker 	**100 to 160 A, fixed or plug-in**			**front or rear connected**	
	C100E			H	1
				V	4
	NB50 3P			V	5
	NB100 3P			V	4
	Compact NS100/160 NS125E	toggle		H	1 2P, 1 3P
				H	1 4P
				V	4 2P, 4 3P, 3 4P
		rotary handle		H	1 2P, 1 3P
				H	1 4P
				V	3 2P, 3 3P, 3 4P
		motor mechanism		H	1 2P, 1 3P
				H	1 4P
				V	4 2P, 4 3P, 3 4P
	Vigicompact NS100/160 NS125E	toggle		H	1 2P, 1 3P
				H	1 4P
				V	3 2P, 3 3P, 3 4P
		rotary handle **(1)**		H	1 2P, 1 3P
				H	1 4P
				V	3 2P, 3 3P, 3 4P
		motor mechanism **(1)**		H	1 2P, 1 3P
				H	1 4P
				V	3 2P, 3 3P, 3 4P
	250 A, fixed or plug-in			**front or rear connected**	
	Compact NS250 NB225	toggle		H	1 2P, 1 3P
				H	1 4P
				V	4 2P, 4 3P, 3 4P
		rotary handle		H	1 2P, 1 3P
				H	1 4P
				V	3 2P, 3 3P, 3 4P
		motor mechanism		H	1 2P, 1 3P
				H	1 4P
				V	4 2P, 4 3P, 3 4P
	Vigicompact NS250	toggle		H	1 2P, 1 3P
				H	1 4P
				V	3 2P, 3 3P, 3 4P
		rotary handle or motor mechanism **(1)**		H	1 2P, 1 3P
				H	1 4P
				V	3 2P, 3 3P, 3 4P
	combinations (3), NS100/160/250, fixed or plug-in			**front or rear connected**	
	Compact NS100/250 NB225	toggle/rotary handle		V	4 2P, 4 3P, 3 4P
		motor mechanism		V	4 2P, 4 3P, 3 4P
	Vigicompact NS100/250	toggle		V	3 2P, 3 3P, 3 4P
		rotary handle		V	3 2P, 3 3P, 3 4P
		motor mechanism **(1)**		V	3 2P, 3 3P, 3 4P

(1) *For access to the Vigi module test button, order the special collar* ***29285*** *with the circuit breaker.*
(2) Connecting horizontal devices:
The connection for horizontally mounted devices can be installed only on front-connected circuit breakers, whatever the type of operating mechanism, and in Prisma P cubicles with Linergy busbars. For all other cases, including connection to conventional busbars (flat bars) or connection in a Prisma PH cubicle, use flexible copper straps (see page 102) and the barrier without connection (see opposite).
Connecting vertical front-connected devices (Polypact):
In Prisma P cubicles, Polypact distribution blocks ***07013*** *and* ***07014*** *may only be connected to Linergy busbars. In Prisma PH cubicles, connections must always be made using Polypact distribution blocks* ***07012*** *and* ***07015*** *regardless of the type of busbar, supplied without prefabricated connections and without barriers.*

Module	Mounting plate and connection to busbars					Front plate		
vertical modules required H = 50 mm	fixed device: mounting plate	fixed device: upstream connection **(2)** with barrier	plug-in device: mounting plate	plug-in device: upstream connection **or** with barrier	plug-in device: barrier (without connection)	cut-out front plate	top front plate	bottom front plate
								
6	**07639**	**07262** (barrier without connection)				**07814**	**07801**	**07801**
6	**07639**	**07262** (barrier without connection)				**07814**	**07801**	**07801**
4	**07614 + 39993**					**07901**		
5	**07633 + 39993**					**07850**		
5	**07619 + 07580**					**07839**		
5	**07619 + 07580**					**07839**		
3	**07730**	**07230**	**07730**	**07230**		**07900**		
4	**07731**	**07231**	**07731**	**07231**		**07852(5)**		
6	**07732**	Polypact **07013**(3P) or **07014**(4P)	**07733**		**07276**	**07853**		**07801**
3	**07730**	**07230**	**07730**	**07230**		**07914**		
4	**07731**	**07231**	**07731**	**07231**		**07855**		
6	**07732**	Polypact **07014**(4P)	**07733**		**07276**	**07853**		**07801**
3	**07730**	**07230**	**07730**	**07230**		**07914**		
4	**07731**	**07231**	**07731**	**07231**		**07855**		
6	**07732**	Polypact **07012**(3P) or **07015**(4P)	**07733**		**07276**	**07853**		**07801**
3	**07730**	**07230**	**07730**	**07230**		**07900**		
4	**07731**	**07231**	**07731**	**07231**		**07852**		
8	**07732**	Polypact **07014**	**07733**		**07276+07260**	**07854**		**07801**
3	**07730**	**07230**	**07730**	**07230**		**07914**		
4	**07731**	**07231**	**07731**	**07231**		**07855**		
8	**07732**	Polypact **07014**	**07733**		**07276+07260**	**07964**		**07801**
3	**07730**	**07230**	**07730**	**07230**		**07914**		
4	**07731**	**07231**	**07731**	**07231**		**07855**		
8	**07732**	Polypact **07015**(4P)	**07733**		**07276+07260**	**07964**		**07801**
3	**07730**	**07230**	**07730**	**07230**		**07900**		
4	**07731**	**07231**	**07731**	**07231**		**07852(5)**		
9	**07732**	**07276** + **07260(4)**	**07733**		**07276+07260**	**07853**	**07802**	**07802**
3	**07730**	**07230**	**07730**	**07230**		**07914**		
4	**07731**	**07231**	**07731**	**07231**		**07855**		
9	**07732**	**07276** + **07260(4)**	**07733**		**07276+07260**	**07853**	**07802**	**07802**
3	**07730**	**07230**	**07730**	**07230**		**07914**		
4	**07731**	**07231**	**07731**	**07231**		**07855**		
9	**07732**	**07276** + **07260(4)**	**07733**		**07276+07260**	**07853**	**07802**	**07802**
3	**07730**	**07230**	**07730**	**07230**		**07900**		
4	**07731**	**07231**	**07731**	**07231**		**07852**		
11	**07732**	**07276** + **07260(4)**	**07733**		**07276+07260**	**07854**	**07802**	**07802**
3	**07730**	**07230**	**07730**	**07230**		**07914**		
4	**07731**	**07231**	**07731**	**07231**		**07855**		
11	**07732**	**07276** + **07260(4)**	**07733**		**07276+07260**	**07964**	**07802**	**07802**
9	**07732**	Polypact **07013**(3P) or **07014**(4P)	**07733**		**07276+07260**	**07853**	**07802**	**07802**
9	**07732**	Polypact **07015**(4P) or **07012**(3P)	**07733**		**07276+07260**	**07853**	**07802**	**07802**
11	**07732**	Polypact **07014** + **07260**	**07733**		**07276+07260**	**07854**	**07802**	**07802**
11	**07732**	Polypact **07014** + **07260**	**07733**		**07276+07260**	**07964**	**07802**	**07802**
11	**07732**	Polypact **07015**	**07733**		**07276+07260**	**07964**	**07802**	**07802**

(3) *Vertically mounted 100 A to 250 A circuit breakers may be combined on the same row under the following conditions:*
- *same type (normal circuit breaker or Vigi version)*
- *same control (toggle, rotary handle or motor mechanism)*
- *no terminal spreaders.*

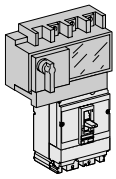
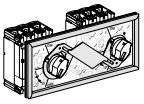
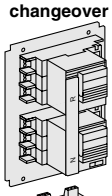
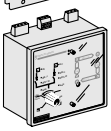
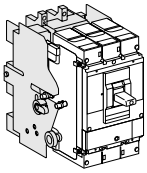
The following configurations can be supplied by Polypact:
- *3P devices:*
  - *100/100/100/250*
  - *100/100/160/250*
  - *100/160/160/250*
- *4P devices:*
  - *100/100/250*
  - *100/160/250.*

(4) *Barriers without connections.*
(5) *If the device is fitted with a measurement module, use mounting plate* ***07856.***

Visucompact NS 100/630, source changeovers NS 100/630, Compact NS withdrawable

Prisma P switchboard with front plate support uprights + transparent door

Prisma P switchboard equipped with functional doors

	Device	horizontal or vertical mounting H = horizontal V = vertical	number per row
Visucompact circuit breaker 	**100 to 630 A, fixed, front connected**	**toggle**	
	NS100/250 Visu	V	1
	NS100/250 Visu earth-fault protec.	V	1
	NS400/630 Visu	V	1
	NS400/630 Visu earth-fault protec.	V	1
manual source changeover 	**100 to 630 A front or rear connected**	**rotary handle**	
	NS100/250 and Vigi NS100/250 with mechanical interlocking ref. 29347	V	1
	NS100/250 and Vigi NS100/250 with mechanical interlocking ref. 29369 (3)	V	1
	NS400/630 and Vigi NS400/630 with mechanical interlocking ref. 29347	H	1
	NS400/630 and Vigi NS400/630 with mechanical interlocking ref. 32621 (3)	H	1
automatic source changeover  	**100 to 630 A fixed or plug-in front and rear connected**	**motor mechanism**	
	NS100/250 and Vigi NS100/250 without controller	H	
	NS400/630 and Vigi NS400/630 without controller	H	
	controller only		
Compat withdrawable circuit breaker 	**100 to 630 A front or rear connected**	**toggle or motor mechanism (1)**	
	NS100/160/250	H	1
	NS100/160	V	2 2P, 2 3P, 1 4P
	NS250	V	2 2P, 2 3P, 1 4P
	NS400/630	H	1
	NS400	V	1
	NS630	V	1

(1) *For devices fitted with a toggle, order the special collar* ***29284*** *for NS100/250 or* ***32534*** *for NS400/630. For devices fitted with a rotary handle, please consult us.*

(2) *4-pole device with keylock: include an extra vertical module and add a plain top front plate* ***07801*** *+ 1 to 6 module divisible barrier ref.* ***07260****.*

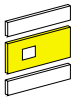
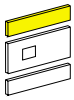
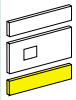
(3) *Downstream coupling accessory:*
- *for NS 100/250, 3P 29358 and 4P 29359*
- *for NS 400/630, 3P 32619 and 4P 32620.*

Barrier without connection

A metal barrier enabling:
- the passage and support of connections (not supplied) to a horizontal Compact NS100/250 circuit breaker
- implementation of Form 2 separation.

It is used when the prefabricated connection with barrier is not available or for certain switchboard configurations such as:
- connection to vertical busbars (flat bars) in a Prisma P cubicle
- connection to any vertical busbars (flat bars or Linergy busbars) in a Prisma PH cubicle.

choice of barrier without connection		cat. No.
NS100/250	3P	**07270**
	4P	**07271**

	Device installation					Form 2
	vertical modules required H = 50 mm	mounting plate 	cut-out front plate 	top front plate 	bottom front plate 	barrier (without connection) 
	11	**07528 + 07619**	**07888**			**07273**
	11	**07528 + 07619**	**07888**			**07273**
	16	**07529 + 07619**	**07889**	**07801**		**07278**
	18	**07529 + 07619**	**07889**	**07801**	**07802**	**07278**
	10	**07629**	**07954**	**07802**	**07803**	**07262**
	10	**07579 + 07619**	**07829**	**07802**	**07803**	**07262**
	10	**07737**	**07957**		**07801**	**07280**
	11	**07749**	**07830**			**07280**
	8	**07729**	**07947**			**07277**
	10	**07739**	**07948**			**07280**
	4	**07729**	**07949**			**07264**
	6	**07731**	**07919**			**07271 + 07260**
	7	**07733**	**07853**	**07801**	**07801**	**07276 + 07260**
	9	**07733**	**07853**	**07802**	**07802**	**07276 + 07260**
	6 **(2)**	**07736**	**07978**			**07275**
	12	**07750**	**07834**	**07802**	**07801**	
	14	**07750**	**07834**	**07803**	**07802**	

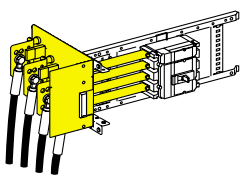
Downstream connections

NS100/250 A

Connection of Compact NS100/250 circuit breakers using cables ≥ 120 mm^2, with crimped lugs.
Use small crimped lugs.

cable cross-section	set of 4
120 mm^2	**29256**
150 mm^2	**29257**
185 mm^2	**29258**

In duct via special assembly



See page 117.

NS400/630 A

Connection of Compact NS400/630 circuit breakers using cables ≥ 240 mm^2, with crimped lugs.
Two solutions:

■ small crimped lugs (for direct connection to the terminals of the device):

❑ for 3P device

cable cross-section	set of 4
240 mm^2	**32500**
300 mm^2	**32502**

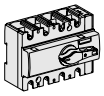
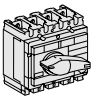
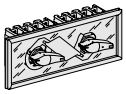
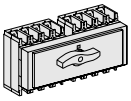
❑ for 4P device

cable cross-section	set of 4
240 mm^2	**32501**
300 mm^2	**32503**

■ normal lugs: use 52.5 mm pitch spreaders

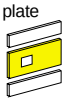
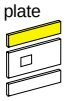
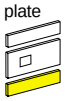
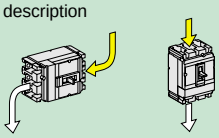
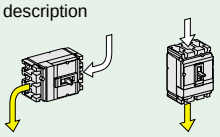
type of device	1 set of terminal spreaders
3P device	**32490**
4P device	**32491**

INS 40/250, INV 250
switch-disconnector

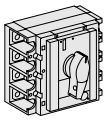
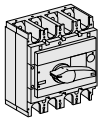
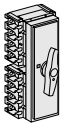
	Description of device		Form 2
		number per row	barrier (without protection)
INS switch-disconnector 	INS40/80	4	**07263**
	INS100/160	3	**07263**
	INS100/160 with long terminal shield	3	**07263 + 07260**
INS switch-disconnector 	**100 to 250 A, horizontal mounting, fixed, front connection (1) direct or extended front handle**		
	INS100/250 INV100/250	1	
INS switch-disconnector 	**100 to 250 A, vertical mounting, fixed, front or rear connections direct or extended front handle**		
	INS100/250	1	
	INV100/250	3	**07267**
manual source changeover 	**100 to 250 A, vertical mounting, fixed, front or rear connections, rotary handle**		
	mechanical interlock INS100/250 INV100/250	1	**07262**
	**100 to 250 A, vertical mounting, rotary handle**		
	INS100/250 one-piece source changeover INV100/250	1	**07262**

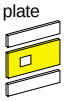
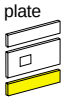
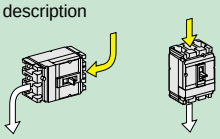
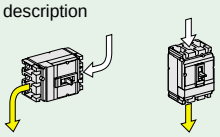
(1) *Possibility of using front connections upstream and rear connections dowstream or vice versa.*

(2) *To be ordered with the device.*

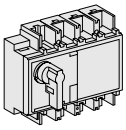
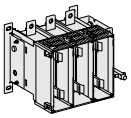
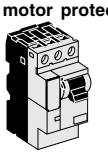
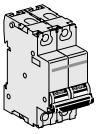
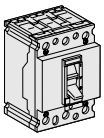
Installation					Upstream connection			Downstream connect./distribution		
vertical modules required H=50 mm	mounting plate 	cut-out front plate 	add. top front plate 	add. bottom front plate 	description 	add. mod.	add. front plate	description 	add. mod.	add. front plate
3	**07603**	**07813**								
4	**07603**	**07814**								
5	**07603**	**07815**								
4	**07731**	**07865**			**direct** to device if **lugs** are used, see device documentation **supplied from Linergy busbars** prefabricated upstream connection assembly and Form 2 barrier 07231	0 0		**by Polybloc distribution block** Polybloc 160 A 6 circ. 4P 07100 Polybloc 250 A 9 circ. 3P 07103 Polybloc 250 A 9 circ. 4P 07101 Polybloc 250 A 12 circ. 4P 07102 **by multi-hole terminals** terminals 6x35² (set of 3) 29248 terminals 6x35² (set of 4) 29249 **by busbars in the rear of the switchboard** connection to rear busbars not supplied	 0 0 1 2 0 0 2	 **07801** **07801**x2 **07802**
7	**07732**	**07866**		**07801**	**direct** to device if **lugs** are used, see device documentation **by Polypact 4P** 07014 **supplied from Linergy busbars**	0 0 0		**by Polybloc distribution block** Polybloc 160 A 6 circ. 4P 07100 Polybloc 250 A 9 circ. 3P 07103 Polybloc 250 A 9 circ. 4P 07101 Polybloc 250 A 12 circ. 4P 07102 **by multi-hole terminals** terminals 6x35² (set of 3) 29248 terminals 6x35² (set of 4) 29249 **by busbars in the rear of the switchboard** 250 A connection to rear busbars not supplied	 0 0 1 2 0 0 2	 **07801** **07801**x2 **07802**
7	**07732**	**07867**	**07801**	**07801**						
9	**07579 + 07619 + 31064 x 2 (2)**	**07829**	**07802**	**07802**	**direct** to device	0		use downstream coupling accessory references 29358 3P and 29359 4P	0	
9	**07579 + 07619 + 31064 x 2 (2)**	**07828**	**07802**	**07802**						

INS 320/630, switch-disconnector INV 320/630

	Description of device		Form 2
		number per row	barrier (without connection)
INS switch-disconnector 	**320 to 630 A, horizontal mounting, front and rear connections, direct or extended front handle**		
	INS320/400/500/630 INV320/400/500/630	1	**07275**
INS switch-disconnector 	**320 to 630 A, vertical mounting, front and long rear connections, direct or extended front handle**		
	INS320/400 / INV320/400	1	**07262 + 07260**
	INV500/630 / INV300/630	1	**07262 + 07260**
manual source changeover 	**horizontal mounting, front and rear connections, rotary handle**		
	mechanical interlock INS320/400 INV320/400	1	**07280**
	**horizontal mounting, rotary handle**		
	INS320/400 one-piece source changeover INV320/400	1	**07280**

Installation					Upstream connection			Downstream connect./distribution		
vertical modules required H=50 mm	mounting plate 	cut-out front plate 	add. top front plate 	add bottom front plate 	description 	add. mod.	add. front plate	description 	add. mod.	add. front plate
5	**07735**	**07873**			**direct** to device **supplied from Linergy busbars** if **lugs** are used, see device documentation	0 0		**by busbars in the rear of switchboard** 400 A connection to rear busbars not supplied **by Linergy busbars in duct**	 2 0	**07802**
10	**07750**	**07872**	**07802**	**07802**	**direct** to device **supplied from Linergy busbars** if **lugs** are used, see device documentation	0 0		**by busbars in the rear of switchboard** 400 A connection to rear busbars not supplied **by Linergy busbars in duct**	 2 0	**07802**
12	**07750**	**07872**	**07803**	**07803**						
11	**07749**	**07830**			**direct** to device	0		use downstream coupling accessory references 32619 3P and 32620 4P	0	
11	**07749**	**07831**								

Interpact IN, Fupact, motor protection

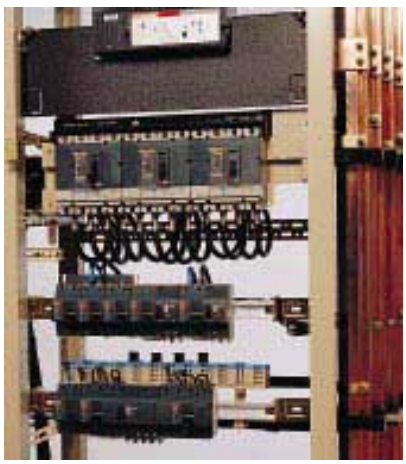
	Device			Installation of device					Form 2
	description	horizontal or vertical mounting H: horiz. V: vert.	number per row	vertical modules required H = 50 mm	mounting plate	cut-out front plate	top front plate	bottom front plate	barrier without connec.
Interpact switch 	IN1000/1600	V	1	12	**07619**	**07940**	**07803**	**07803**	
	IN2500 **(1)**	V	1	14	**07619**	**07940**	**07804**	**07804**	
Fupact switch 	UC50/UD63	V	2	5	**07625**	**07868 (2)**			**07267**
	UC/UD125/UD160	V	2x3P, 1x4P	5	**07625**	**07868 (2)**			**07267**
	UD250/400T	V	1	9	**07627**	**07868 (2)**	**07802**	**07802**	**07269**
	UD630T	V	1	11	**07627**	**07868 (2)**	**07802**	**07804**	**07273**
motor protection 	Integral 32	H	1	2	**07610**	**07870**			**07260**
	Integral 32	H	2	4	**07611**	**07871**			**07261**
	Integral 63/ Integral 32/63 changeover	H	1	4	**07611**	**07871**			**07261**
	Integral 32	V	6	8	**07612**	**07814**	**07802**	**07802**	**07269**
	Integral 32 changeover	V	3	8	**07612**	**07814**	**07802**	**07802**	**07269**
	C60L-MA + contactor/relay assembly or changeover contactor/ relay assembly ≤ 40 A	H	18 mod.	4	**07611**	**07871**			**07261**
	**circuit breaker 80 A, fixed, front connected, toggle**								
	NS80H-MA + contactor/relay assembly	H	1	4	**07667**	**07968**			**07264**
	NS80H-MA + contactor/relay assembly	V	4	5 + 5	**07668 + 07661**	**07969**		**07805**	**07276 + 07260**

(1) *In Prisma P cubicles, mounts behind front plate support door or front plate support frame without removing the handle.*

(2) *The front plate comes with a blanking plate.*

(3) *Connection by cables in tunnel terminals up to 70 mm².*

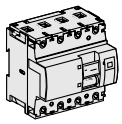
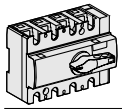
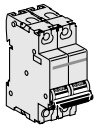
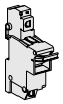
(4) *Connection by cables with lugs or in tunnel terminals up to 95 mm².*



Connection of NG125 circuit breaker via comb busbars and Multiclip distribution block.

Connection via comb busbars and Multiclip distribution block.

Modular devices

	Device			Installation of device				Form 2
	description	horizontal or vertical mounting H : horiz. V : vert.	width in 9 mm modules	vertical modules required H = 50 mm	mounting plate or Multifix rail	cut-out front plate	top front plate	barrier (without connec.)
Compact modular circuit breaker 	**160 A, modular, fixed, front connected, mounting on symmetrical rail, toggle**							
	NSA 63/160	V	10 mod. (3P) 14 mod. (4P)	5	**07603**	**07815**		**07263 + 07260**
	Vigi NSA 63/160	V	24 mod. (3P) 27 mod. (4P)	5	**07603**	**07815**		**07263 + 07260**
NG125 modular circuit breaker 	**supply via point-to-point wiring**							
	NG125 Vigi NG125	V		4	**07603**	**07814**		**07263**
	Multiclip supply							
	NG125 Vigi NG125	V		5	**07603**	**07814**	**07801**	**07263 + 07260**
Interpact switch 	INS40/80	V	10 mod.	3	**07603**	**07813**		**07263**
	INS100/160 **(1)**	V	14 mod.	4	**07603**	**07814**		**07263**
	INS100/160 with long terminal shields **(2)**	V	14 mod.	5	**07603**	**07815**		**07263 + 07260**
Multi 9 	**1 Multi 9 row** for measurement devices or Diazed fuse connection: point-to-point wiring	V		2	**07603**	**07812**		**07263**
	1 Multi 9 row connection: comb busbars or point-to-point wiring cable running: cable straps H = 30 mm	V		3	**07603**	**07813**		**07263**
	1 Multi 9 row all types of connections including Multiclip cable running: ■ with cable straps, H = 30 or 60 mm ■ via horizontal trunking **(3)**, H = 30 mm	V		4	**07603**	**07814**		**07263**
	1 Multi 9 row with Multiclip located: ■ all the head of cubicle ■ or immediately below a mounting plate other than a Multifix rail cable running: ■ with cable straps, H = 30 or 60 mm ■ via horizontal trunking **(3)**, H = 30 mm	V		5	**07603**	**07814**	**07801**	**07263 + 07260**
	3 Multi 9 row connection: comb busbars or point-to-point wiring cable running: cable straps H = 30 mm	V		8	**07603 x 3**	**07755**		**07264 x 3**
Fuses 	Type Gould MS22	V	4 mod.	4	**07603**	**07756**		**07263**
Other devices				2 3 4 5 6		**07812** **07813** **07814** **07815** **07816**		

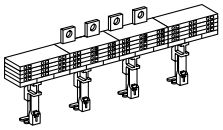
(1) *Connection by cables in tunnel terminals up to 70 mm².*

(2) *Connection by cables with crimped lugs or in tunnel terminals up to 95 mm².*

(3) *For cable running in horizontal trunking H > 30 mm, add one extra module and a plain front plate* ***07801****.*

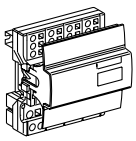
Accessories for modular devices

Multiclip 180 A distribution block



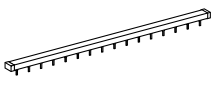
See page 109

Distribloc distribution block



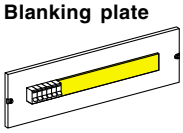
See page 106

Comb busbars



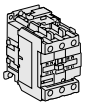
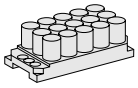
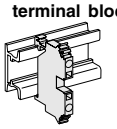
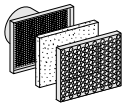
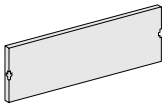
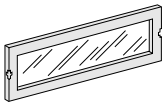
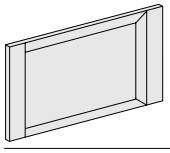
See page 112

Blanking plate

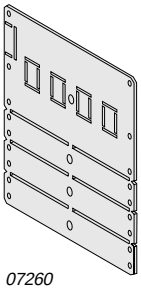


See page 125

Other devices
Reserve barriers

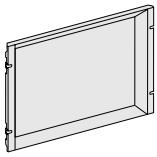
	Device			Installation of device				Form 2
	description		number per row	vertical modules required (H = 50 mm)	mounting plate or rail	cut-out front plate	plain front plate	barrier (without connection)
isolating switches contactor 	Mounting on: 2 sup. + 4 cross-members (large devices)				**07619**			**07264+07260**
	2 Multifix rails + 4 slide rails (small devices)				**07645**		**07264+07260**	
	slotted plate	H = 150		3	**07660**		**07803**	**07263**
		H = 250		5	**07661**		**07805**	**07267**
		H = 500		10	**07662**		**07805 x 2**	**07262**
Varplus 	**power compensation**							
	Varplus + contactor + fuse base integral: up to 30 kvar/230 V up to 60 kvar/400 V modular: up to 25 kvar/230 V up to 50 kvar/400 V		1	5	**07647**		**07805**	**07267**
	reactive power regulator 144 x 144 mm		1	4		**07891**		**07260**
terminal blocks 	**connection to terminals**							
	4 mm² L = 6 mm		70	3	**07603**		**07803**	**07263**
	6 mm² L = 8 mm		52	3	**07603**		**07803**	**07263**
	10 mm² L = 10 mm		42	5	**07603**		**07805**	**07263+07260**
	16 mm² L = 12 mm		36	6	**07603**		**07806**	**07263+07260**
air conditionning accessories 	**air conditionning**							
	IP 20 ventilating front plate			1		**07980**		**07260**
				5		**07981**		**07260**
	front plate for fan **07988** and **07989** or filter grill support **07985**			5		**07984**		**07260**
reserve 	**flat plain front plate**							
	Height (mm)	50		1			**07801**	**07260**
		100		2			**07802**	**07260**
		150		3			**07803**	**07260**
		200		4			**07804**	**07260**
		250		5			**07805**	**07260**
		300		6			**07806**	**07260**
		550		11			**07773**	**07260 x 2**
		750		15			**07774**	**07260 x 3**
		950		19			**07775**	**07260 x 4**
		1150		23			**07776**	**07260 x 4**
	**transparent front plate**							
	Height (mm)	200		4			**07890**	**07260**
		300		6			**07892**	**07260**
	**recessed plain front plate (34 mm deep)**							
	Height (mm)	300		6			**07943**	**07260**
		550		11			**07946**	**07260 x 2**

Barrier form 2



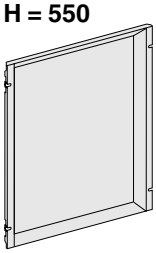
07260

Recessed front plate H = 300



07943

Recessed front plate H = 550

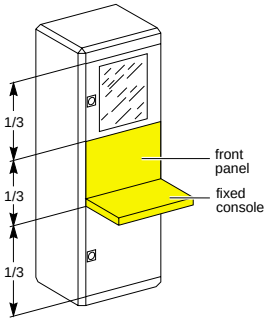


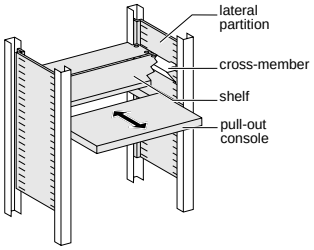
07946

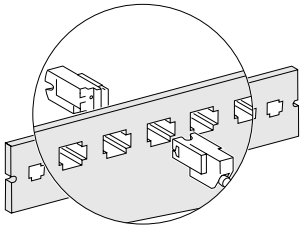
Consoles and shelves
Switchboard lighting

Prisma P cubicles may hold computer hardware (monitor, CPU, printer, etc.). Equipment may be placed on shelves. The front of the resulting compartments is protected using partial doors.
In addition, keyboards, telephones, etc. may be placed on the fixed shelves or pull-out consoles.

description		cat. No.
consoles		
fixed console H = 100 mm, D = 370 mm		**07688**
front panel for fixed console		**07689**
pull-out console D = 260 mm		**07687**
shelves		
for frame D = 400 mm	2 lateral 11 mod. partitions	**07690**
	+ 2 cross-members	**07678**
	+ 1 shelf	**07685**
for frame D = 600	2 lateral 11 mod. partitions	**07691**
	+ 2 cross-members	**07679**
	+ 1 shelf	**07685 + 07686**
special front plate for installation of IBM-TR connectors on the front panel of the switchboard		
front plate for 10 IBM-TR connectors (2 modules)		**07858**





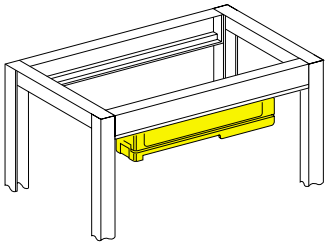


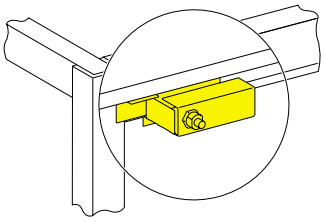
*Front plate **07858***

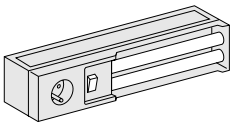
Fluorescent lighting for cubicles

- lighting fixtures are mounted under the top cover plate of the Prisma P cubicle:
  - behind a front plate support door
  - behind a plain or transparent door, without front plate support uprights
- they are fitted with a power socket 10/16 A + earth
- they take up no useful space in the switchboard.

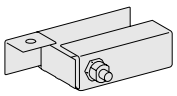
description	cat. No.
fluorescent lighting for Prisma P cubicle power: 11 W supply voltage: 220/240 V	**09970**
door contact for Prisma P cubicle	**09971**







09970



09971

Multifix rail

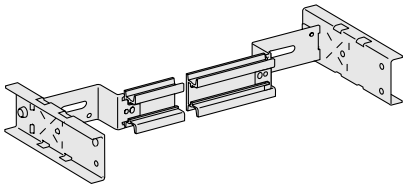
07603

07645

07646

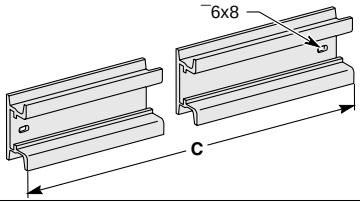
09862

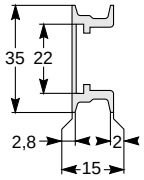
description		cat. No.
2 Multifix rails L = 573 mm supplied with 4 slide rails for adjusting depth. To be installed in: ■ Prisma P cubicle, D = 400 mm, ■ Prisma PH cubicle, D = 500 mm, equipped with functional uprights		**07645**
set of 2 slide rails + fittings. To be installed in: ■ Prisma P cubicle, D = 400 mm, ■ Prisma PH cubicle, D = 500 mm, equipped with functional uprights.		**07646**
Multifix rail L = 430 mm supplied with 2 support brackets To be installed in: ■ Prisma P cubicle, ■ Prisma PH cubicle, equipped with functional uprights.		**07603**



07603

description		cat. No.
2 Multifix rails	L = 1750 mm	**09850**
10 Multifix rails		
length of rail	L = 473 mm	**09861**
	L = 573 mm	**09862**
	L = 673 mm	**09863**
	L = 773 mm	**09864**

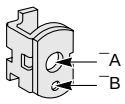


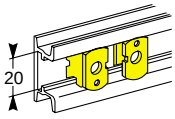


Sliding nuts for Multifix rail

For fixing mounting plates or special devices to Multifix rails.

20 sliding nuts for Multifix rail		cat. No.
Ø A	Ø B	
M3	M5	**09923**
M4	M6	**09924**
M5	M3	**09925**
M6	M4	**09926**

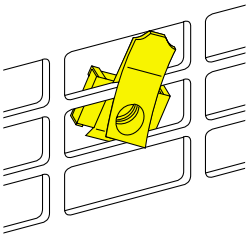




Clip-on nuts

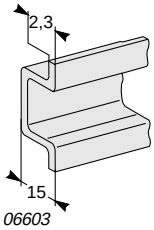
Used for mounting various devices (contactors, transformers, etc.) on slotted plates.

clip-on nuts for slotted mounting plates		cat. No.
20 clip-on nuts	M4	**05114**
	M5	**05115**
	M6	**05116**



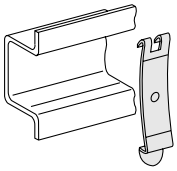
Symmetrical rails

description	cat. No.
symmetrical rail L = 2000 mm, reinforced rail (th = 2.3, D = 15)	**06603**



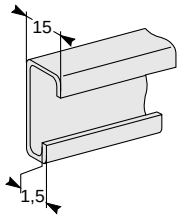
06603

clip-on nuts for symmetrical rail	cat. No.
20 clip-on nuts Ø 4	**14914**



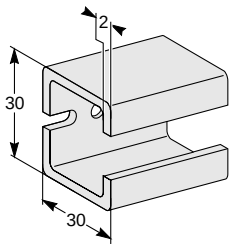
Asymmetrical rails

description	cat. No.
asymmetrical rail L = 2000, reinforced rail (th = 1.5, D = 15)	**06602**

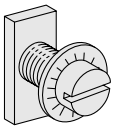


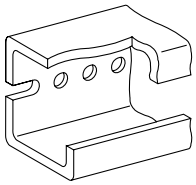
C section

description	cat. No.
C section L = 2000 2 slotted C sections Ø 7 at 20 mm centres, L = 1710	**09855**



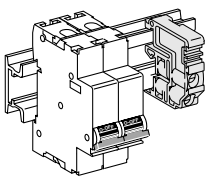
description	cat. No.
20 M6 x 16 bolts + nuts for C sections	**09918**



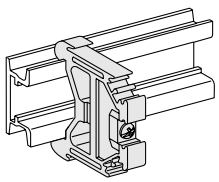


Stops

description	cat. No.
10 lateral stops for Multifix, symmetrical and asymmetrical rails	**14915**
1 stop for Multifix or symmetrical rail	**07180**



14915

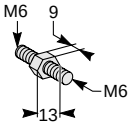


07180

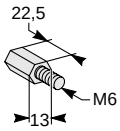
Raising of rails

Raising of rails

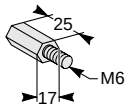
raising of rails or chassis using stackable spacers	cat. No.
1 spacer D = 9	**05209**
1 spacer D = 22.5	**05223**
4 spacers D = 25	**02407**
4 spacers D = 40 + 10	**05224**
1 spacer D = 55	**05056**
2 support for Multifix inclined at 45°	**07552**



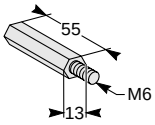
05209



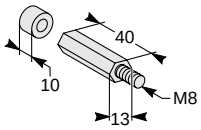
05223



02407

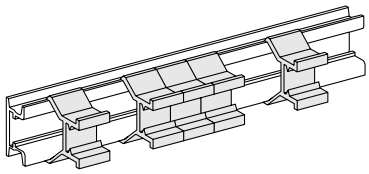


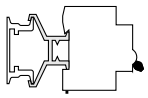
05056



05224

raiser for Multifix rail or symmetrical rail	cat. No.
10 raisers D = 15, W = 18 mm	**14860**



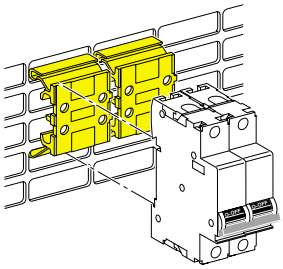


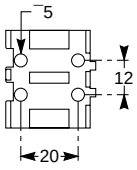
Pratic

Pratic adapters

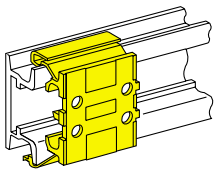
Clipped on slotted plates, Multifix rails, symmetrical and asymmetrical rails. Accommodates terminal strips, terminal blocks, terminals, modular devices, etc. Also accommodates Prisma cable straps and may be used as a raiser D = 10, W = 27 mm.

description	cat. No.
5 Pratic adapters	**06619**





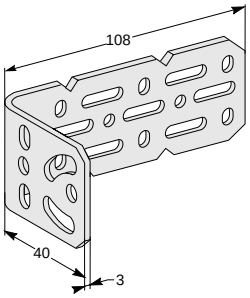
06619



Special bracket

Bracket for installing mounting plates (plain plates, slotted mounting plates) for specific devices, trunking, etc.
It is fixed to cross-members or directly to the frame of the cubicle.

description	cat. No.
special bracket	**09915**



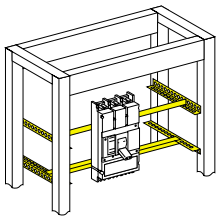
Mounting plate for large devices

07619

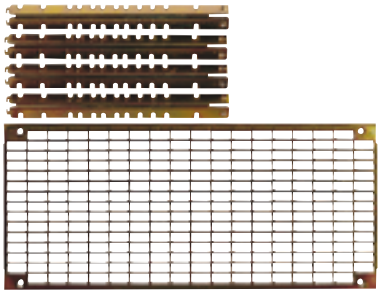
The plate consists of 2 U-shaped metal bars, 3 mm thick. Supplied with 4 slide rails for adjusting depth. To be installed in:
- Prisma P cubicles, mounted directly on the frame
- Prisma PH cubicles, equipped with functional uprights.

Catalogue numbers

description		cat. No.
mounting plate for large devices		**07619**



Slotted plates

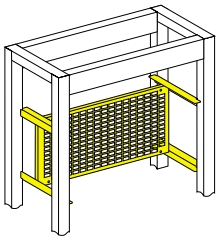


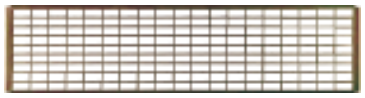
07661

Zinc-plated and chromated metal mounting plate. Supplied with 4 slide rails for adjusting depth. To be installed in:
- Prisma P cubicles
- Prisma PH cubicles, equipped with functional uprights.

Catalogue numbers

description		cat. No.
slotted plate	H = 250 mm	**07661**
	H = 500 mm	**07662**

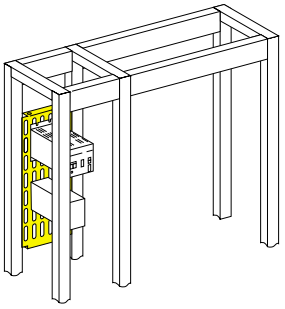


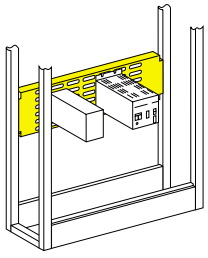


Zinc-plated and chromated metal mounting plate. To be installed in:
- horizontally at the rear of a switchboard:
  - ❑ in Prisma P cubicles, fixed directly to the frame
  - ❑ in Prisma PH cubicles, equipped with functional uprights
- vertically in the duct, L = 200 mm, of a Prisma P cubicle.

Catalogue numbers

description		cat. No.
slotted plate	H = 150 mm	**07660**

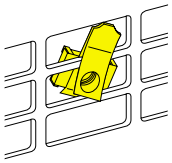




Clip-on nuts

Used for mounting various devices (contactors, transformers, etc.) on slotted plates.

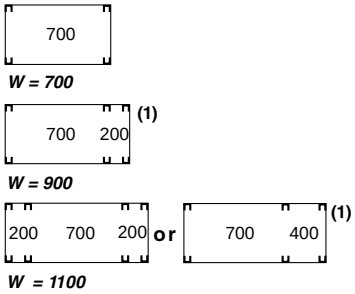
clip-on nuts for slotted mounting plates		cat. No.
20 clip-on nuts	M4	**05114**
	M5	**05115**
	M6	**05116**



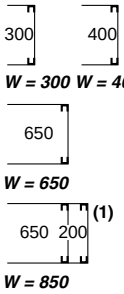
Frames and side panels for Prisma P cubicle

D = 400 frames

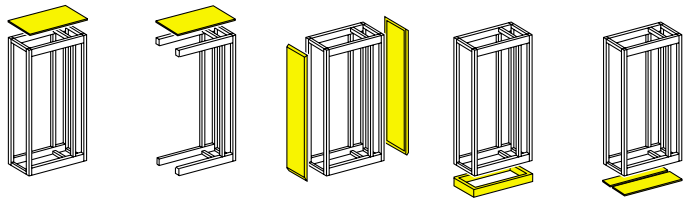
Basic frame



Extension frame



(1) *The cable or bar duct can be installed on the right or left side of the frame in which the devices are mounted.*



width of frame (4)	basic frame (2)	extension frame (2) (3)	2 side panels	plinth H = 250	gland plate
W = 300		**09310**		**09380**	**09399**
W = 400		**09311**		**09385**	**09400**
W = 700 (basic frame) or W = 650 (extension)	**09302**	**09312**	**09364**	**09382**	**09392**
W = 900 (basic frame) or W = 850 (extension)	**09304**	**09314**	**09364**	**09384**	**09394**
W = 1100	**09306**		**09364**	**09386**	**09396**

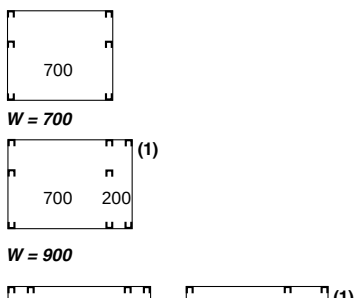
(2) *The frame is supplied with a roof.*

(3) *The extension frame is moved together with the basic frame.*

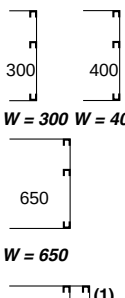
(4) *The width of the cubicle, equipped with its side panels, is equal to the width of the frame + 25 mm (12.5 mm per side panel).*

D = 600 frames

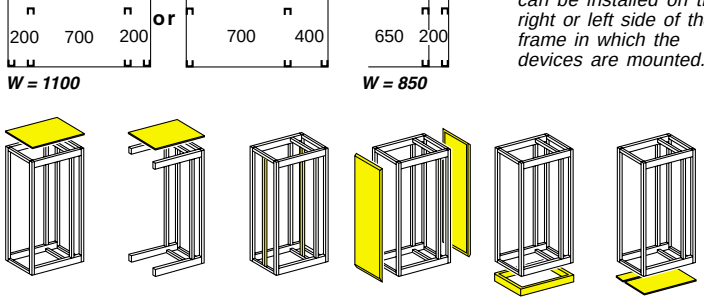
Basic frame



Extension frame



(1) *The cable or bar duct can be installed on the right or left side of the frame in which the devices are mounted.*



width of frame (5)	basic frame (2)	Extension frame (2) (3)	2 functional uprights (4)	2 side panels	plinth H = 250	gland plate
W = 300		**09610**			**09380 + 09389**	**09640**
W = 400		**09499**			**09385 + 09389**	**09641**
W = 700 (basic frame) or W = 650 (extension)	**09602**	**09612**	**09625**	**09368**	**09382 + 09389**	**09642**
W = 900 (basic frame) or W = 850 (extension)	**09604**	**09614**	**09625**	**09368**	**09384 + 09389**	**09644**
W = 1100	**09606**		**09625**	**09368**	**09386 + 09389**	**09646**

(2) *The frame is supplied with a roof.*

(3) *The extension frame is moved together with the basic frame.*

(4) *Required for installation of the device mounting plates.*

(5) *The width of the cubicle, equipped with its side panels, is equal to the width of the frame + 25 mm (12.5 mm per side panel).*

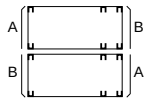
Back to back

A depth of 800 or 1000 is obtained by installing the basic or extension frames in all existing widths back to back.
In the back to back layout, cubicle sides are covered by half-panels.
e.g.: for frame D = 1000, side covers consist of:
1/2 panel A 400, 1/2 panel B 400, 1/2 panel C 600, 1/2 panel D 600, i.e. 4 parts to order.
The choice of side panels is not affected by the width of the frame.

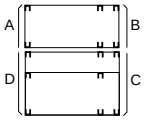
Side panels

description	cat. No.
1/2 panel A (400)	**09632**
1/2 panel B (400)	**09633**
1/2 panel C (600)	**09634**
1/2 panel D (600)	**09635**

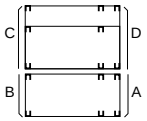
Note: The width of the cubicle, equipped with its side panels, is equal to the frame width + 25 mm (12.5 mm per side panel).



D = 800



D = 1000



Side by side

Two 900 mm wide basic frames side by side.

A 900 mm wide basic frame and a 300 mm wide extension frame side by side.

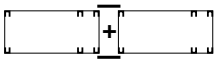
Two basic frames of the same depth
Two basic frames of the same depth can be joined up using a combination kit.

Combination kit

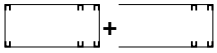
description		cat. No.
for basic frames	depths 400 and 800	**09370**
	depths 600 and 1000	**09371**

Fitting side by side a basic frame and an extension frame saves one combination kit. In this layout, the cubicles cannot be transported separately.

Side panels:
See opposite or above, depending on the depth of the frame.



Two basic frames.



One basic frame and one extension.

Two basic frames of different depths
Two basic frames of different depths can be joined up using a combination kit.

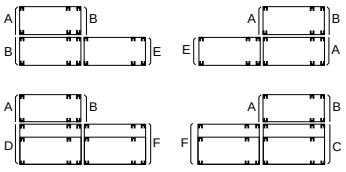
Combination kit

description	cat. No.
D = 400 + D = 800	**09370**
D = 600 + D = 1000	**09371**

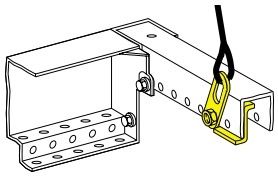
Side panels

description	cat. No.
1/2 panel A (400)	**09632**
1/2 panel B (400)	**09633**
1/2 panel C (600)	**09634**
1/2 panel D (600)	**09635**
end panel E (400)	**09630**
end panel F (600)	**09631**

Note:
■ maximum degree of protection: IP31;
■ the width of the cubicle, equipped with its side panels, is equal to the frame width + 25 mm (12.5 mm per side panel).



Lifting lugs



description	cat. No.
2 lifting lugs for frame D = 400	**03101**
4 lifting lugs for frame D = 600, 800, 1000	2 x **03101**

Front and rear covers for Prisma P cubicles

Degree of protection

The degree of protection of a Prisma P cubicle depends on the choice of front and back covers.
IP20/IK08: cubicle with front plate support door or front plate support frame,
IP30/IK08: cubicle with front plate support uprights + plain or transparent door,
IP31/IK08: IP30 cubicle + gasket **09372** (order 1 per frame),
IP54/IK08: IP30 cubicle + gasket kit + gland plate (except for wicket doors with cut-outs **09326** and **09330**).

IP54 gasket kit

dimensions of frame (in mm)			
W =	700	900	1100
D = 400	**09374**	**09374**	**09377**
D = 600 to 1000	**09378**	**09378**	**09378**

Note:
- *the choice of front and rear covers is not affected by the depth of the frame;*
- *doors and wicket doors are supplied with a handle with barrel and 2 keys 405;*
- *when the cubicle is installed over a cable trough (cables connected from below), use gland plates to obtain the original degree of protection.*

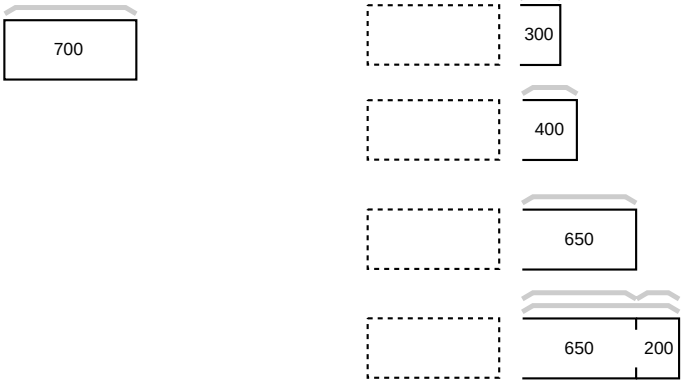
Combinations of doors and wicket doors for the different basic frames and extensions

Cubicle with front plate support door.

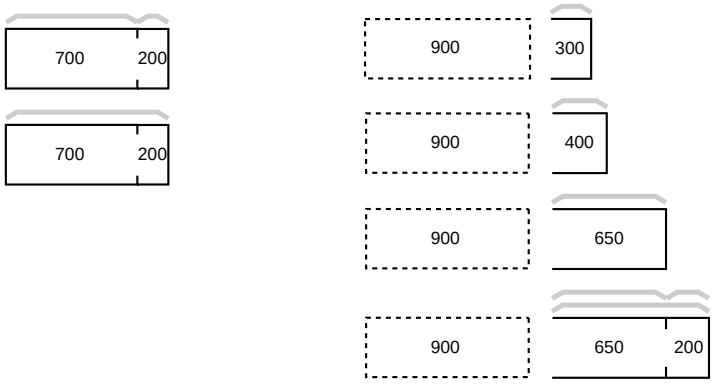
Cubicle with front plate support uprights + transparent door

Basic frame / Extensions

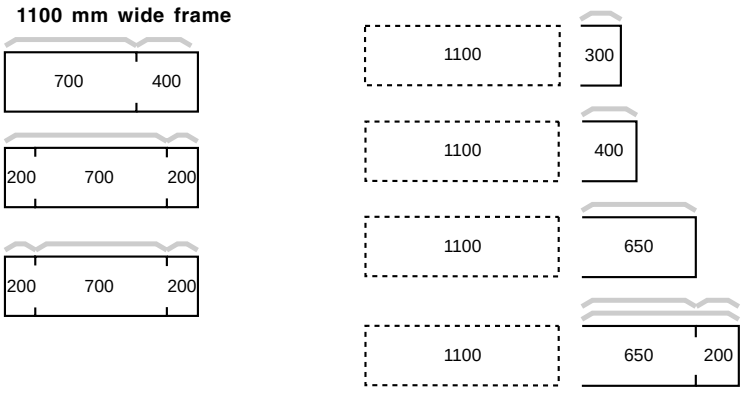
700 mm wide frame



900 mm wide frame

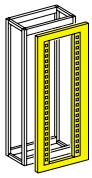
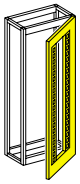
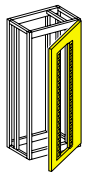
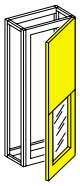
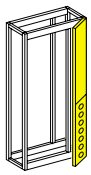


1100 mm wide frame

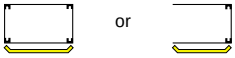
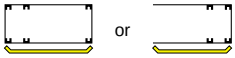
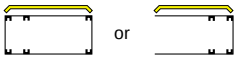
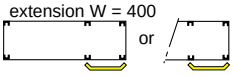


Note: The extensions may be installed on the right or left side of the basic frames.

front covers

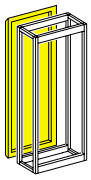
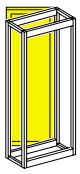
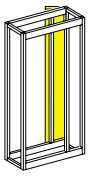
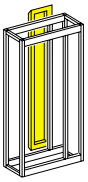






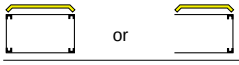
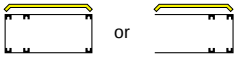
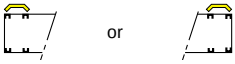
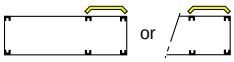
TOUS LES DESSINS DES TETIERES A 80 %

	front plate (1) support frame	front plate support door W = 700	front plate support door W = 900	front plate support uprights + door plain	front plate support uprights + door transp.	wicket door plain	wicket door with cut-outs for twenty 72 x 72 devices round body	wicket door with cut-outs for twenty 72 x 72 devices square body
basic frame W = 700 or extension W = 650 	09320	09322		09327	09328			
basic frame W = 900 or extension W = 850 			09324					
duct W = 200, in basic frame or extension 						09325	09326	09330
duct W = 400, in basic frame extension W = 400 						09329		
extension W = 300 						09339		

(1) Mounted without door.

Rear covers

	screw-on back	door plain	door transparent	plain wicket door closure screw	plain wicket door closure with handle	screw-on panel
basic frame W = 700 or extension W = 650 	09352	09332	09342			
basic frame W = 900 or extension W = 850 	09354	09334				
duct W = 200, in basic frame 				09358	09325	
duct W = 400, in basic frame extension W = 400 					09329	09359
extension W = 300 					09339	09360

***Note:** All front cover panels may be installed in the rear and vice versa.*

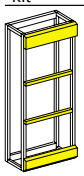
Partial door for Prisma P cubicles

Installation of computer equipment, see MGA P155.

The front of Prisma P cubicles may be divided using covers of different heights: 1/3, 1/2, 2/3. The choice may include:
- front plate support frames;
- front plate support doors;
- front plate support uprights + plain or transparent door with possibility of combinations.

Important
Max combination: 3 doors.
For each cubicle, order a **partial door support kit** comprising:
- 2 cover plates (for top and bottom)
- 2 intermediate cross-members.

description	cat. No.
kit	**09440**



	no. of modules H = 50 mm	front plate support frame	front plate support door	front plate support uprights + plain door	front plate support uprights transp. door	door only plain	door only transp.
	4					**09453**	
	6					**09455**	
1/3	11	**09441**	**09441 + 09950**	**09444**	**09447**	**09450**	**09451**
1/2	17	**09442**	**09442 + 09950**	**09445**	**09448**		
2/3	23	**09443**	**09443 + 09950**	**09446**	**09449**		

Accessories

Gasket
for IP54 partial door (1 gasket per cubicle, cut as required)

description	cat. No.
1 gasket	**09375**

Prisma PH cubicles, metal, IP55

Heavy-duty cubicles for industrial applications
- the structure is made up of top and bottom frames and four uprights connected by 3-dimensional corner pieces made of moulded zamack, rigidifying the overall enclosure
- eight-point mounting of all cover panels ensures adequate pressure on the gaskets for a proper seal.

All the design flexibility of Prisma enclosures
- cubicles may be combined widthwise and depthwise
- cover panel configurations adaptable to all needs.

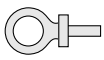
Practical implementation
- equipment may be mounted directly on the frame
- cover panels fitted only in final installation phase.

Characteristics
- degree of protection as per IEC 529: IP55
- degree of protection against mechanical impacts as per EN 50102: IK10
- material: 1.5 mm thick phosphatised and chrome passivated TC sheet steel
- surface treatment: Polyester-epoxy paint, textured finish, Prisma beige colour
- reversible door with 4 point locking system with casement bolt controlled by handle with barrel + key 405.

The Prisma PH cubicle, W = 715 mm, is designed to house the Prisma P functional system. Switchgear is installed using the same parts (mounting plates and front plates) as for Prisma P cubicles.

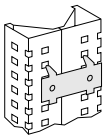
functional adaptors

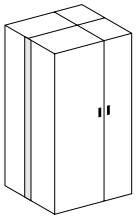
Used for installation of a Prisma P system function (busbar support mounting plate, etc.) on a frame that is not equipped with functional uprights.



description	cat. No.
earthing braid	
earthing braid 6 mm^2, L = 180 mm	**07082**
lifting rings	
4 lifting rings	**05819**

Accessories

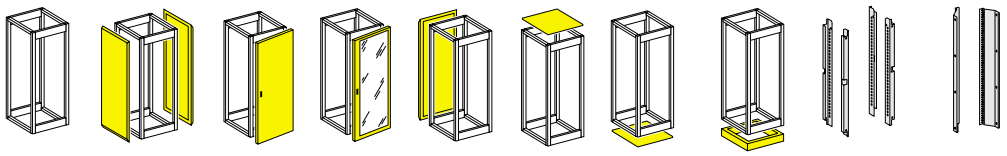




description	cat. No.
combination kit	
frame combination kit (widthwise and depthwise)	**05818**
cover panel kit	
set of additional cover panels (for depthwise combinations)	**05850**

Composition of cubicle

Cubicles for assembly



outside dimensions H x W x D	frame	2 side panels	door plain	transp.	rear panel	roof panel (2)	gland plate	plinth H = 200	functional uprights	front plate support upright
2010 x 315 x 515**(1)**	**05807**	**05848**	**05827**		**05847**	**05857**	**05877**	**05865**		
2010 x 715 x 515	**05802**	**05848**	**05822**	**05832**	**05842**	**05852**	**05872**	**05867**	**05900**	**05820**
2010 x 315 x 715**(1)**	**05817**	**05849**	**05827**		**05847**	**05860**	**05880**	**05865 + 05870**		
2010 x 715 x 715	**05812**	**05849**	**05822**	**05832**	**05842**	**05862**	**05882**	**05867 + 05870**	**05900 + 05921**	**05820**

(1) *The 315 mm wide duct can be added to the cubicle to house the vertical busbars or to run the cables.*

(2) *For sites exposed to water, a canopy is recommended to prevent water accumulation. It is compulsory for outdoor installations (please consult us).*

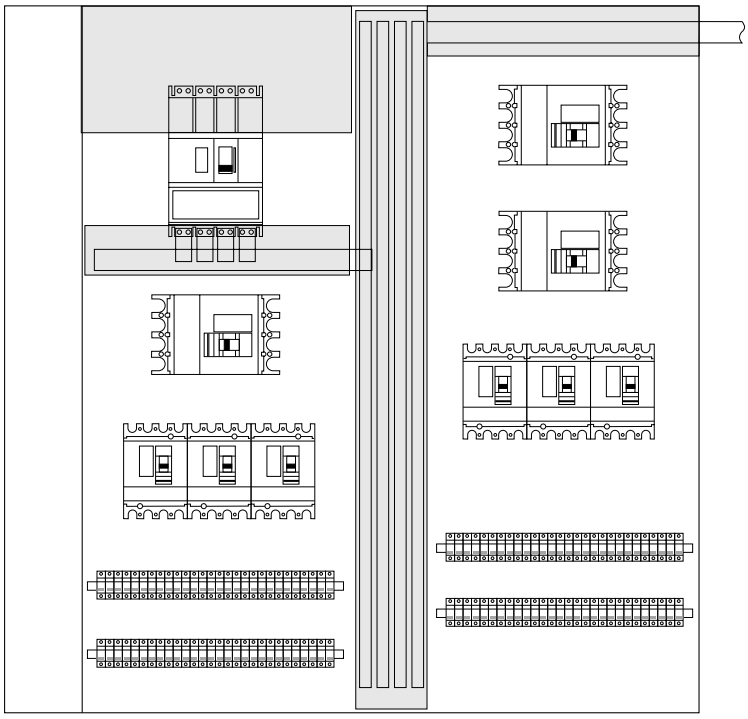
Type of partitioning in Prisma P and PH cubicles

For most installations Prisma cubicles require no special partitioning.
The standard cubicles are designed to protect both people and the installation:
- via front plates
- door locks requiring a key or special tool for access to live parts.

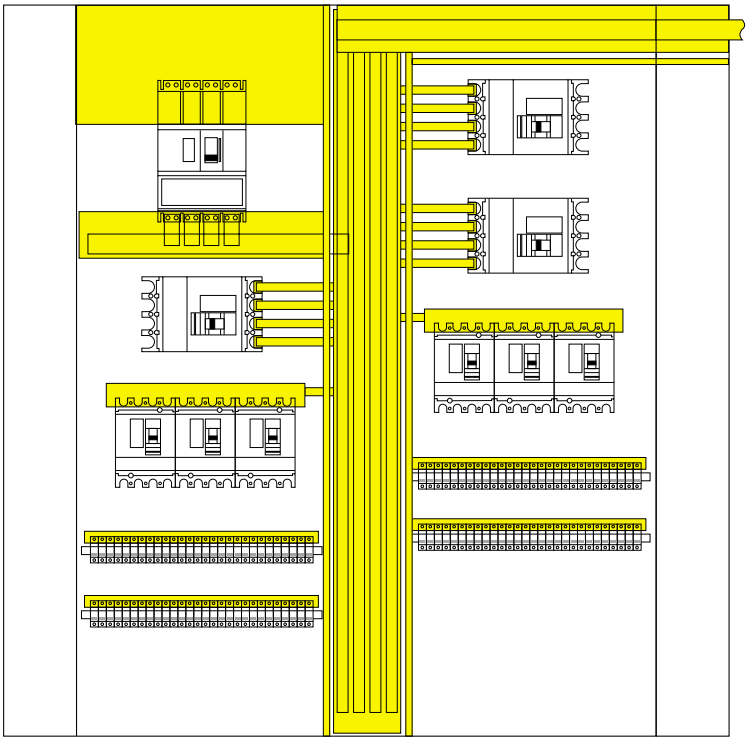
In addition, various types of partitioning are available.
They make it possible to build Form 2, 3 and 4 electrical switchboards.
The form of separation is covered by an agreement between the manufacturer and the user.

Minimum protection recommended for maintenance operations

The recommended protection includes:
- barriers on the horizontal and vertical transfer busbars to protect against accidental direct contact with live parts
- upstream partitioning of the incoming device so that maintenance can be carried out safely once this device is in the "off" position.



Form 2 switchboard

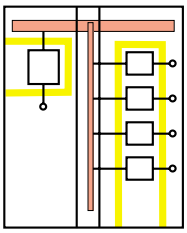


Example of form 2b switchboard: Prisma P with fixed front-connected circuit breakers.

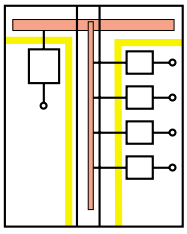
Definition of form 2:

■ separation of busbars from the functional units:
❑ protection against contact with live parts upstream from outgoing devices
❑ limitation of the risk of propagation of short-circuit currents between functional units and busbars (electrical arcs or solid bodies).

Two types of form 2 separation as specified by standard IEC 60439-1



Form 2a



Form 2b

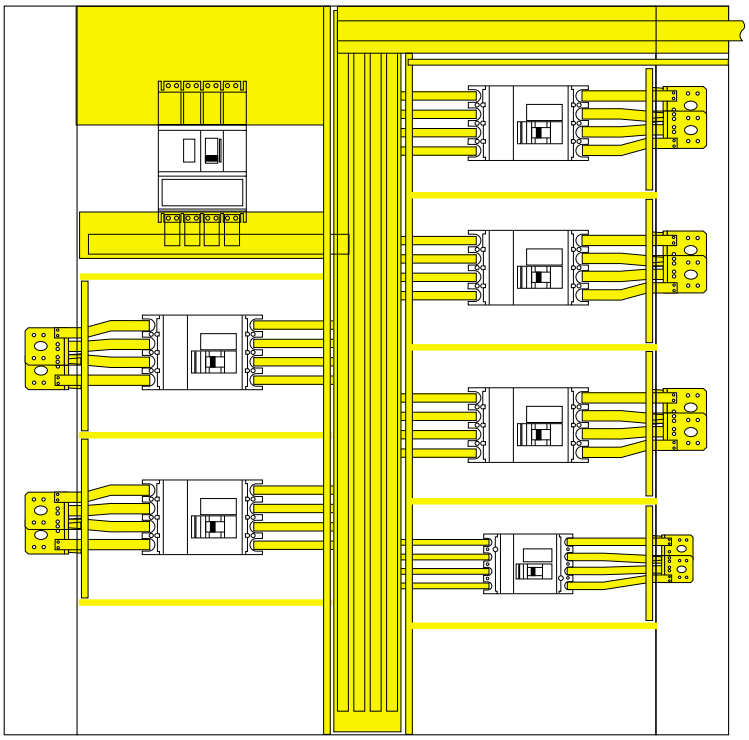
■ form 2a:
Terminals for external conductors not separated from the busbars
Functional units are separated from the busbars, but not the terminals for external conductors
■ form 2b:
Terminals for external conductors separated from the busbars
Functional units and terminals for external conductors are separated from the busbars.

Prisma offers form 2b separation:

■ with partitioning between main and distribution busbars
■ for the protection of persons, Schneider recommends in addition:
❑ partitioning of upstream and downstream connections on the incoming device (form 4 on incoming device)
❑ use of prefabricated connections with integrated terminal shields or installation of upstream terminal shields on outgoing devices.

Type of partitioning in Prisma P and PH cubicles

Form 3 switchboard



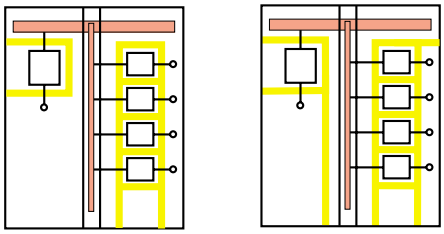
Example of form 3b switchboard: Prisma P with fixed front-connected circuit breakers.

Definition of form 3:

Separation of busbars from the functional units and separation of all functional units from one another. Separation of the terminals for external conductors from the functional units but not from one another.

- protection against contact with live parts
- limitation of the risk of faults between each of the functional units (propagation of electrical arcs, etc.).

Two types of Form 3 separation as specified by standard IEC 60439-1



Form 3a **Form 3b**

- form 3a:

Terminals for external conductors not separated from the busbars
The functional units are separated from one another and from the busbars, but the terminals for external conductors are not.

- form 3b:

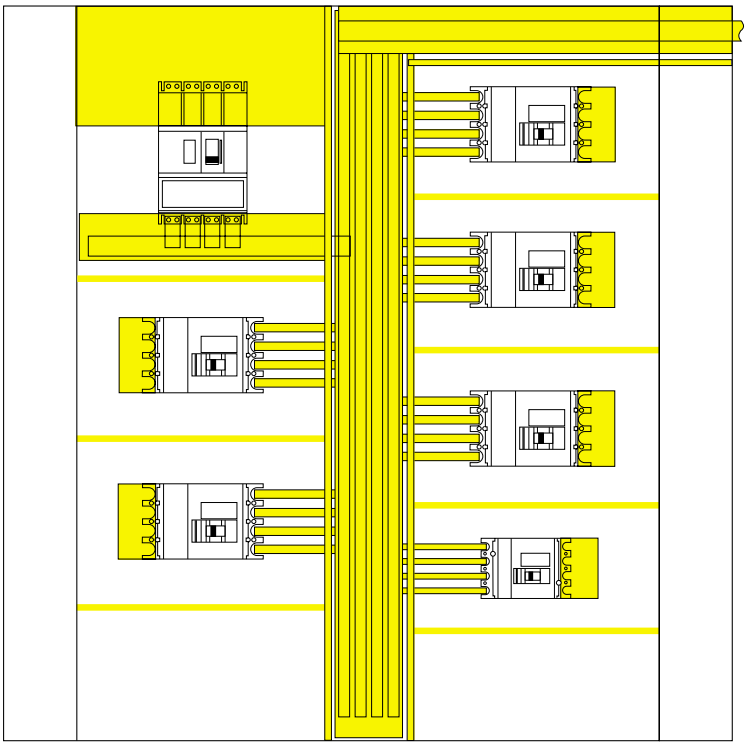
Terminals for external conductors separated from the busbars
The functional units are separated from one another and from the busbars. The terminals for external conductors are separated from the functional units but not from one another.

Prisma offers form 3b separation:
In addition to form 2 partitioning, add:

- horizontal barriers.

In-duct connection assemblies can be used to separate the downstream terminals of the device from the functional unit .

Form 4 switchboard



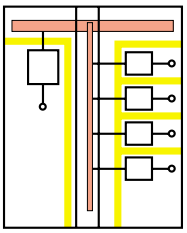
Example of form 4 switchboard: Prisma P with fixed front-connected circuit breakers.

Definition of form 4:

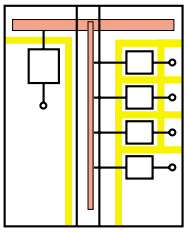
Separation of busbars from the functional units and separation of all functional units from one another, including the terminals for external conductors which are an integral part of the functional unit.

■ protection against contact with live parts and limitation of the faults between each of the functional units (propagation of electrical arcs, etc.).

Two types of form 4 separation as specified by standard IEC 60439-1



Form 4a



Form 4b

■ form 4a:
Terminals for external conductors in the same compartment as the associated functional unit

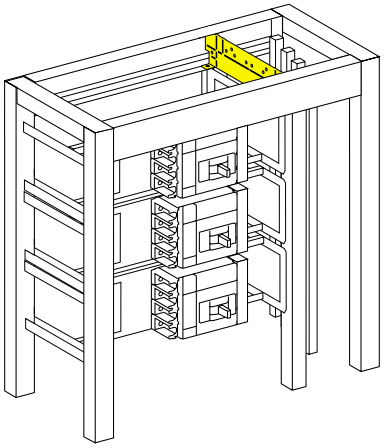
■ form 4b:
Terminals for external conductors not in the same compartment as the associated functional unit, but in protected spaces or separate closed compartments.

Prisma offers form 4a separation:
In addition to form 2 partitioning and horizontal barriers, add downstream terminal shields to outgoing devices.

Form 2 in single-depth Prisma P and PH cubicles

Form 2 partitioning

A set of metal partitions can be installed in Prisma P and PH cubicles.
They physically separate the horizontal and vertical busbars from the functional units in accordance with standard IEC 439-1.
Form 2 partitioning protects against direct contact between operating personnel and the main busbars when work is carried out on the switchboard.
It also protects the electrical installation by preventing contact between all foreign objects and the live parts.

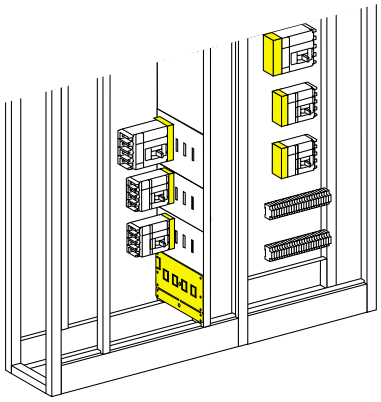


07479

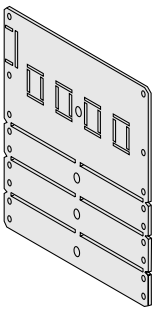
Partitioning between vertical busbars and devices

This is achieved using:
■ prefabricated connections between devices and busbars, complete with a Form 2 barrier or barriers without connections (see selection table for mounting plates and front plates).
When the switchboard includes modules reserved for future use, install a 1- to 6-module divisible barrier
■ a set of additional metal barriers, installed at the top and bottom of the duct.

description	cat. No.
1- to 6-module divisible barrier	**07260**
set of 2 additional form 2 barriers	**07479**



07260

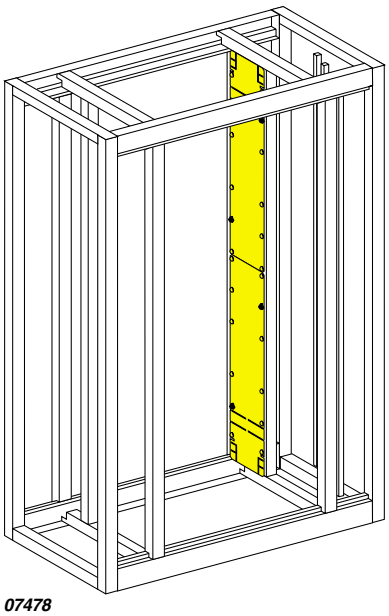


07260

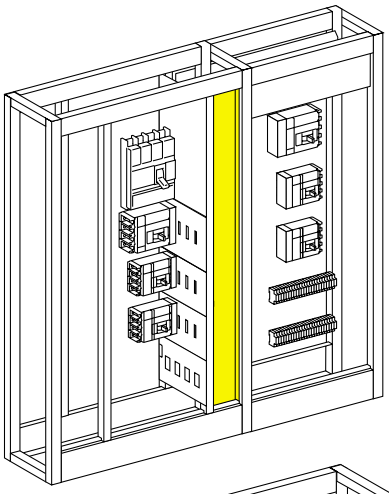
Partitioning extension

For Prisma P, D = 600 mm, and Prisma PH, D = 700 mm switchboards, add a depthwise partitioning extension.

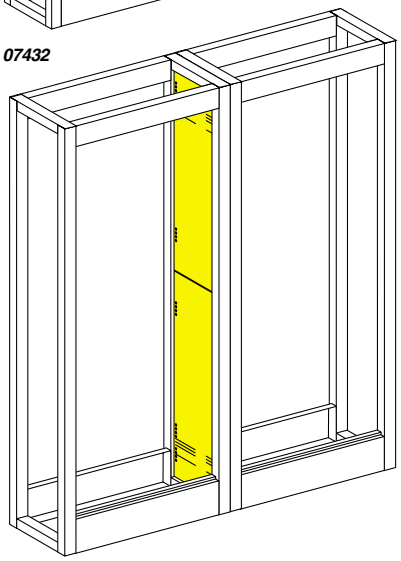
description		cat. No.
depthwise partitioning extension		
for cubicles:	Prisma P, D = 600 mm	**07478**
	Prisma PH, D = 700 mm	**07478**



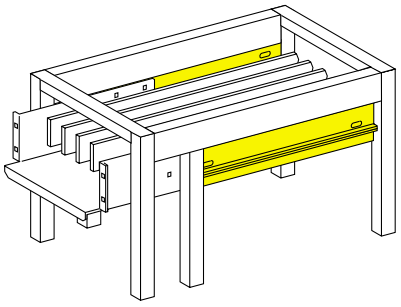
07478



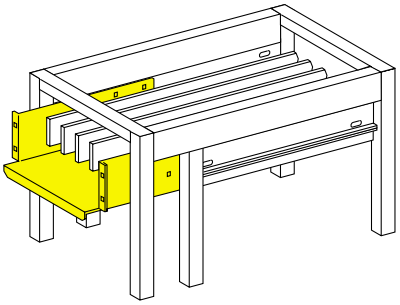
07432



07433



Partition, W = 700 mm, for horizontal busbars.



Add-on partition for duct.

Front partitioning

Use a wicket door supplied with a lock and key.
A front barrier for a duct can be fitted to protect against direct access to the busbars when the wicket door is open.
This barrier is mandatory if devices are mounted on the wicket door (indicator lights, push buttons, etc.).

description		cat. No.
front barrier for duct		
for Prisma P cubicle:	W = 200 mm	**07432**
	W = 300 mm	**07443**
	W = 400 mm	**07440**
for Prisma PH cubicle:	W = 300 mm	**07430**

Metal partition made up of 2 H = 850 mm panels, with ready-to-cut openings at each end.
The barrier is supplied with:
- a fuse-carrier mounting plate designed to take 4 Pratic adapters
- a Pratic adapter **06619.**

Note:

For rear partitioning, use a wicket door or a screw-on back panel.

Inter-cubicle partitioning

When, in the adjoining cubicle, there are no devices connected to the busbars, inter-cubicle partitioning is used to protect the busbars.

description		cat. No.
inter-cubicle partitioning		
for Prisma P cubicle:	D = 400 mm	**07433**
	D = 600 mm	**07434**
pour armoire Prisma PH :	D = 500 mm	**07433**
	D = 700 mm	**07434**

Metal partition made up of 2 H = 850 mm panels used to separate 2 cubicles joined side-by-side. Ready-to-cut openings are provided at the top and bottom for the passage of horizontal busbars. The partition is fitted to cable tie bars in Prisma P and PH cubicles. The cubicles must be equipped with functional uprights.

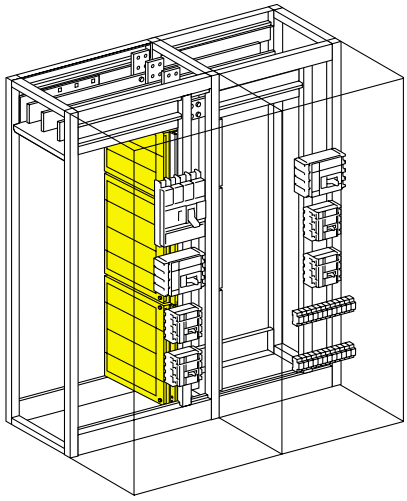
Horizontal partitioning

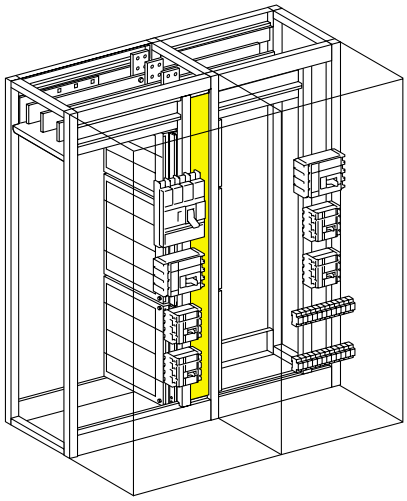
Metal barrier for partitioning of horizontal busbars running across the top or bottom of 700 mm wide Prisma P and PH cubicles.
Extensions for ducts may be added on either side (W = 200, 300 or 400 mm).
Vertical space occupied: three 50 mm vertical modules.

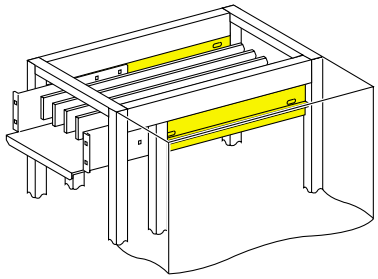
description		cat. No
partition, W = 700 mm, for horizontal busbars		
for Prisma P frame:	D = 400 mm	**07473**
	D = 600 mm	**07474**
for Prisma PH frame:	D = 500 mm	**07473 +**
		07477
	D = 700 mm	**07474 +**
		07477
add-on partition for duct, W = 200, 300 or 400 mm		
for Prisma P frame:	D = 400 mm	**07475**
	D = 600 mm	**07476**
for Prisma PH frame:	D = 500 mm	**07475**
	D = 700 mm	**07476**

Form 2 in double-depth Prisma P and PH cubicles

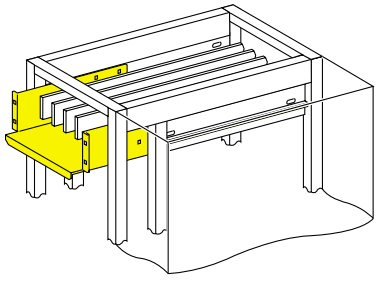
Form 2 partitioning







Partition, W = 700 mm, for horizontal busbars.



Add-on partition for duct.

Partitioning between vertical busbars and devices

A metal assembly comprising:

■ an element fixed directly to the frame. It is equipped with systems for securing cables or copper straps

■ a cover with ready-to-cut openings for the passage of horizontal busbars at 1/3 and 2/3 the full height and at the top and bottom.

The assembly comes with self-adhesive gaskets designed to protect the cables. The lateral partitioning can be installed on the right or left side of the busbars in a Prisma P or PH cubicle.

Note:

■ *when the vertical busbars are located at one end of the switchboard, partitioning with respect to the outside is provided by the side cover panel*

■ *when, in the adjoining cubicle, there are no devices connected to the busbars, inter-cubicle partitioning is used to protect the busbars (see page 3).*

description		cat. No.
partition for vertical busbar		
for Prisma P cubicle:	D = 800 mm	**07471**
	D = 1000 mm	**07472**
for Prisma PH cubicle:	D = 1000 mm + functional uprights	**07471 + 05900**
	D = 1200 mm + functional uprights	**07472 + 05900**

Front partitioning

Use a wicket door supplied with a lock and key.

A front barrier for a duct can be fitted to protect against direct access to the busbars when the wicket door is open.

This barrier is mandatory if devices are mounted on the wicket door (indicator lights, push buttons, etc.).

description		cat. No.
front barrier for duct		
for Prisma P cubicle:	W = 200 mm	**07432**
	W = 400 mm	**07440**
for Prisma PH cubicle:	W = 300 mm	**07430**

A metal barrier made up of two 850 mm high components, with ready-to-cut openings at each end.

The barrier is supplied with:

■ a fuse-carrier mounting plate designed to take 4 Pratic adapters

■ a Pratic adapter **06619.**

Horizontal partitioning

Metal barrier for partitioning of horizontal busbars running across the top or bottom of 700 mm wide Prisma P and PH cubicles.

Extensions for ducts may be added on either side (W = 200, 300 or 400 mm).

Vertical space occupied: three 50 mm.

description		cat. No.
partition, W = 700 mm, for horizontal busbars		
for Prisma P frame:	D = 800 mm (400 + 400)	**07473**
	D = 1000 mm (400 + 600)	**07474**
for Prisma PH frame:	D = 1000 mm (500 + 500)	**07473 + 07477**
	D = 1200 mm (500 + 700)	**07474 + 07477**
add-on partition for duct, W = 200, 300 or 400 mm		
for Prisma P frame:	D = 800 mm (400 + 400)	**07475**
	D = 1000 mm (400 + 600)	**07476**
for Prisma PH frame:	D = 1000 mm (500 + 500)	**07475**
	D = 1200 mm (500 + 700)	**07476**

Form 3 in Prisma P and PH cubicles

Form 3 partitioning

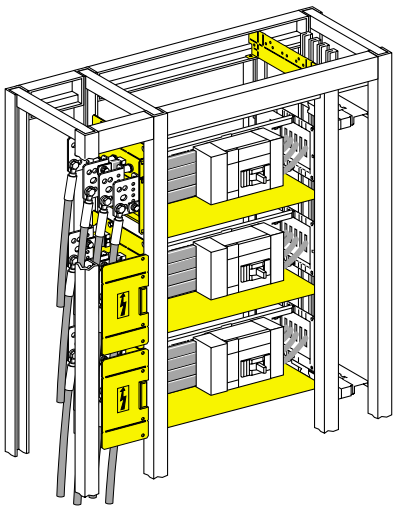
A form 3 switchboard includes the following protective elements in addition to form 2 partitioning:
- horizontal barriers to separate functional units from one another
- in-duct connection assemblies (see page ESB110F_5_1710) can be used to separate the downstream terminals from the functional unit.

Form 3 partitioning protects personnel working within a switchboard against contact with live parts belonging to adjacent functional units.
It also limits the risk of fault propagation between each of the functional units and busbars (via electric arcs or falling objects, e.g. screwdrivers, tools, etc.).

Horizontal partitioning

The metal barriers can be installed in Prisma P and PH cubicles, whatever their depth.

description	cat. No.
form 3 horizontal shield	07445



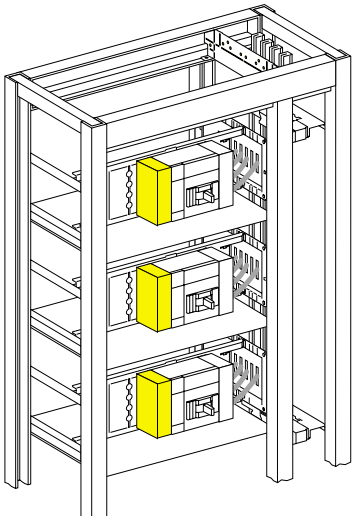
Form 4 partitioning

A form 4 switchboard is built by adding the following to a form 2 switchboard:
- horizontal barriers to separate functional units from one another (see form 3)
- downstream terminal shields on outgoing devices.

In-duct connection assemblies cannot be used.
Form 4 partitioning protects personnel working within a switchboard against contact with live parts belonging to adjacent functional units, including the terminals for external conductors.

Choice of downstream terminal shields

A range of downstream terminal shields may be ordered with the device.



Protective barriers

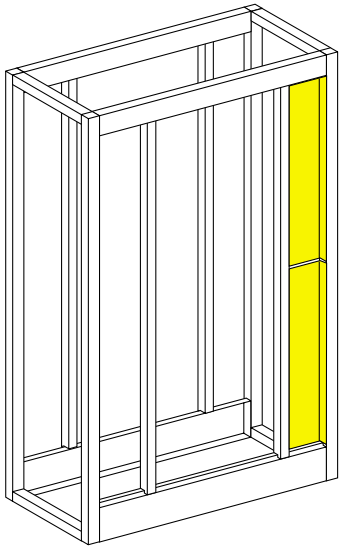
Front barriers

Front barrier for duct

A metal barrier made up of two 850 mm high components, with ready-to-cut openings at each end. The barrier is supplied with:
- a fuse-carrier mounting plate designed to take 4 Pratic adapters
- a Pratic adapter **06619**

This barrier is used to obtain form 2 separation when devices are mounted on the wicket door of the duct (indicator lights, push buttons, etc.).

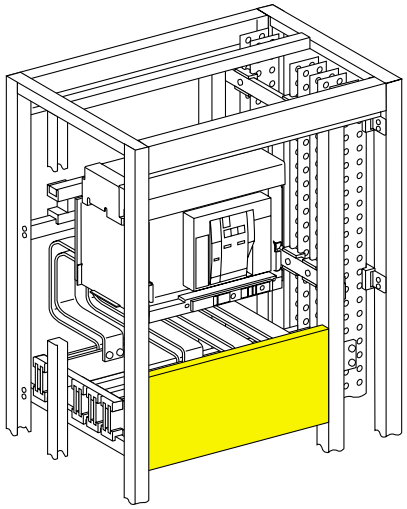
description		cat. No.
front barrier for duct		
for Prisma P cubicle	W = 200	**07432**
	W = 300	**07443**
	W = 400	**07440**
for Prisma PH cubicle	W = 300	**07430**



Barrier for transfer busbars

Black insulated barrier, 3 mm thick.

description	cat. No.
barrier for transfer busbars	**07444**



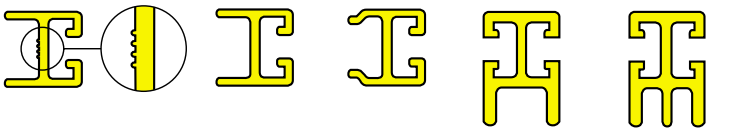
Current distribution and accessories

Linergy busbars up to 1600 A

Linergy is a set of vertical busbars. Like all vertical busbars, it is usually fitted in a lateral duct, W = 200 mm, located to the left or right of the device installation area. It offers total accessibility to the various connection points from the front.
The busbars are channelled copper sections. The continuous channel makes it possible to connect to the busbars at any point without holes.
The bars are secured to the frame using supports that are staggered to provide direct access to all busbars connection points from the front of the switchboard. Three supports over the full height are sufficient for most installations.

Installation flexibility

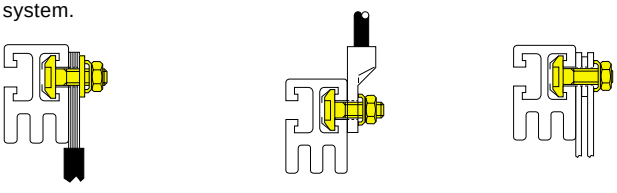
Linergy busbars come in five different sections: L = 1700 mm
■ Linergy 630 / 800 / 1000 / 1250 / 1600.
They offer:
■ a continuous channel over the full height for connection at any point without holes
■ maximum ventilation via the cooling ribs
■ optimised sections.



Linergy 630 A busbars | *Linergy 800 A busbars* | *Linergy 1000 A busbars* | *Linergy 1250 A busbars* | *Linergy 1600 A busbars*

Easy connections

■ the heads of Linergy connection bolts fit inside the busbar channel
■ a spring holds the bolt at the connection point and keeps it from falling into the switchboard
■ a mark on the end of the bolt indicates that the head of the bolt is properly positioned
■ the M8 bolt diameter is suitable for all prefabricated connections of the Prisma system.



Connection with copper straps | *Connection with cables* | *Connection with copper bars*

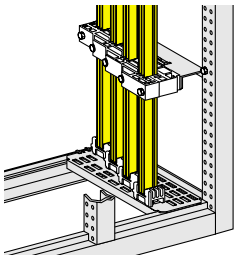
Prefabricated electrical connections

Fully-tested prefabricated copper connections make a direct electrical connection between the horizontal busbars, on 75 mm centres, and vertical Linergy busbars. They are supplied with the corresponding mounting hardware.

Prefabricated connection 1000 A | *Prefabricated connection 1600 A*

Easy installation

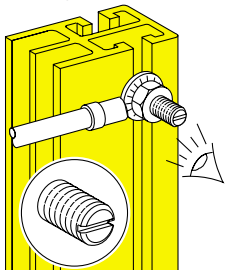
■ a bottom support holds the busbars in place
■ the counter-support can then be mounted without having to hold the busbars.



The busbar support and bottom support hold the 4 Linergy busbars.

Connection points wherever required

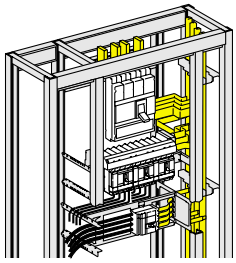
The channel inside the busbar makes it possible to connect to any point along the full height of the busbar.

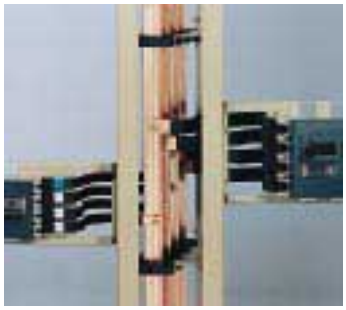


A mark on the end of the bolt indicates that the head of the bolt is properly positioned.

Totally accessible from the front

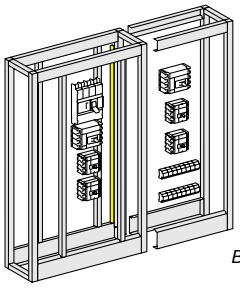
The staggering of the bars provides direct access to all connection points from the front of the switchboard.
■ connection of an incoming device via copper bars to supply the busbars
■ connection via flexible copper straps to supply a Polypact distribution block, Multiclip rail or circuit breaker mounted horizontally.





Distribution on both sides

When an extension frame is added to the basic frame, special prefabricated connections may be used to supply devices on both sides of the busbars.
This new type of connection has undergone full mechanical and electrical testing in our approved laboratories to guarantee trouble-free switchboard operation under the most severe conditions.



Basic frame combined with an extension frame.

Linergy busbars up to 1600 A

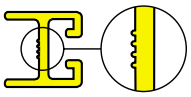
Choice of Linergy busbars

The following table indicates:
- different models of Linergy busbars to use as a function of the current rating of the incoming device
- the number of supports to use as a function of the rated short-time withstand current Icw (kA rms/1s).

Catalogue numbers

In incomer (A)	1 busbar for cubicle with		number of supports as a function of rated short-time withstand current Icw (kA rms/1s)						
	IP ⩽ 30	IP ⩾ 31	25	30	39	52	60	66	85
570		**07361**	3						
630	**07361**		3						
630		**07362**	3	3					
750	**07362**	**07362**	3	3					
800	**07362**		3	3					
800		**07363**	3	3	3				
900	**07363**	**07363**	3	3	3				
1000	**07363**		3	3	3				
1000		**07364**	3	3	3	3	3		
1050	**07364**	**07364**	3	3	3	3	3		
1250	**07364**		3	3	3	3	3		
1250		**07365**	3	3	3	3	3	4	6
1450	**07365**	**07365**	3	3	3	3	3	4	6
1600	**07365**		3	3	3	3	3	4	6

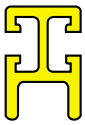
Note: *When the supply to the switchboard is made via cables directly to the Linergy busbars, add a busbar support.*



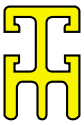
Linergy 630 busbars
Cat. No. : 07361

Linergy 800 busbars
Cat. No. : 07362

Linergy 1000 busbars
Cat. No. : 07363



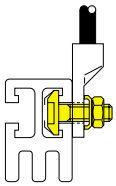
Linergy 1250 busbars
Cat. No. : 07364



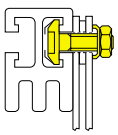
Linergy 1600 busbars
Cat. No. : 07365

Nuts and bolts

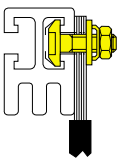
set of 20 bolts	cat. No.
(bolt L = 23 mm + nut + contact washer) for connection with cable lugs	**07368**
(bolt L = 33 mm + nut + contact washer) for connection with copper bars	**07369**
(bolt L = 23 mm + nut + contact washer) for connection with copper straps	**07370**



07368



07369



07370

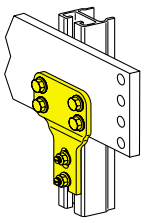
1000/1600 A connection

07407

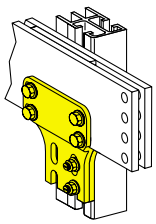
07408

Prefabricated copper connections for connecting horizontal busbars, on 75 mm centres, to vertical Linergy busbars. Supplied with mounting hardware.

description	cat. No.
1 connection Linergy 1000 A horizontal busbars	**07407**
1 connection Linergy 1600 A horizontal busbars	**07408**



Prefabricated connection 1000 A

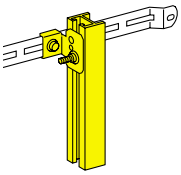


Prefabricated connection 1600 A

PE conductors

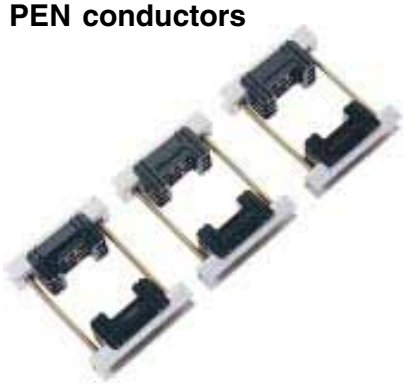
The PE conductor comprises:
- a Linergy busbar
- 3 brackets for direct connection to cable tie bars
- 20 connection points for Linergy busbars
- 1 PE marker.

description	cat. No.
PE conductor	07428



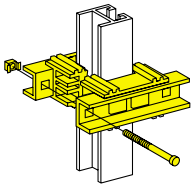
PE conductor

PEN conductors



The PEN conductor installation kit includes a set of 3 insulated supports that can be secured to the cable tie bars. The kit comes with labels and a neutral disconnecting device.

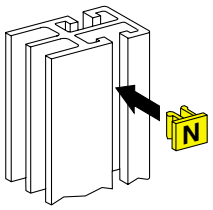
description	cat. No.
installation kit for PEN conductor	07429



PE conductor

Phase markers

description	cat. No.
set of 12 phase markers (12 clip-on supports + labels N, L1, L2, L3, L+, L-, PE, PEN)	07350

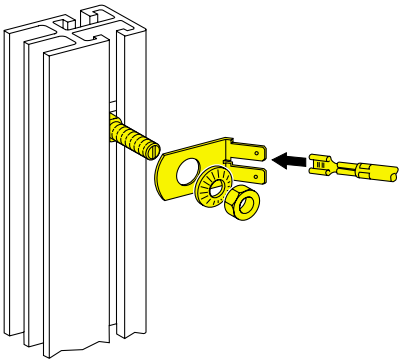


07350

Tab connectors

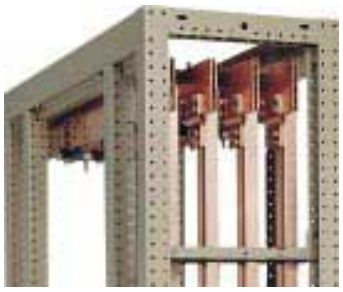
tab connectors	cat. No.
set of 20 M10 tab connectors for 6.35 mm tab receptacles	07048
set of 20 M16 tab connectors for 6.35 mm tab receptacles	07049

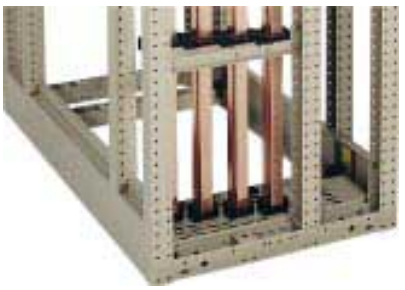
For direct connection of small cable lugs (low power cables or measurement connections), fit a conducting washer between the Linergy busbar and the lug.

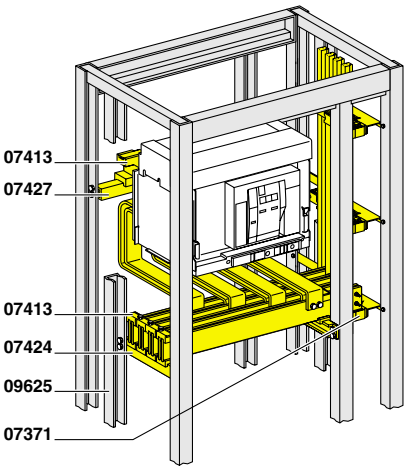


07048

Choice of linergy supports







Linergy busbars, supplied by a 1600 A Masterpact NW16 drawout circuit breaker via transfer busbars.

Incoming device:
Compact circuit breaker
Masterpact NT 06/16 circuit breaker
Cubicle types:
- Prisma P, depth = 400 mm
- Prisma PH, depth = 500 mm.

Busbar layout

Linergy busbars

description		cat. No.
Linergy busbar supports for Prisma	P, D = 400	**07371**
	PH, D = 500	**07490**
Linergy bottom support for Prisma	P, D = 400	**07373**
	PH, D = 500	**07492**

Transfer busbar support
The bars are secured to 2 cross-members by 2 insulated supports

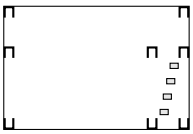
description		cat. No.
set of 2 side cross-members		**07424**
insulated support	2 x	**07413**

Terminal extension bar support
The bars are secured to a rear cross-member by an insulated support.

description	cat. No.
1 rear cross-member	**07427**
1 insulated support	**07413**

Incoming device:
Masterpact NW 08/16 circuit breaker (1600 A)
Cubicle type:
- Prisma P, depth = 600 mm
- Prisma PH, depth = 700 mm.

Busbar layout



Linergy busbar

description		cat. No.
Linergy busbar supports for Prisma	P, D = 600 **(1)**	**07371**
	PH, D = 700	**07491**
Linergy bottom support for Prisma	P, D = 600	**07374**
	PH, D = 700	**07493**

(1) *Linergy busbar supports should be mounted on a functional upright installed in the duct.*

description	cat. No.
Set of 2 functional uprights	**09625**

Transfer busbar support
The bars are secured to 2 cross-members by 2 insulated supports.

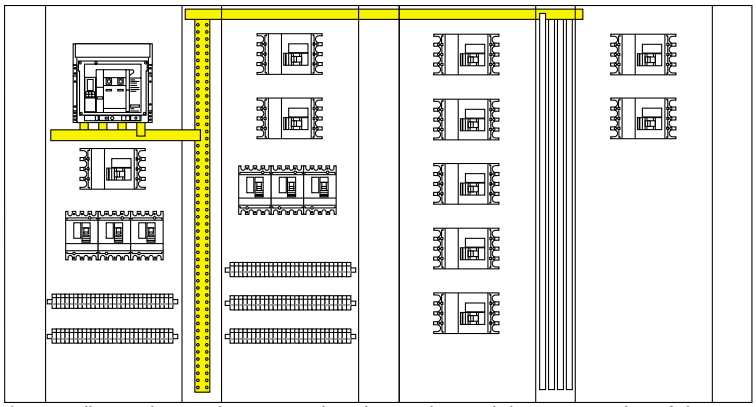
description		cat. No.
set of 2 side cross-members		**07424**
insulated support	2 x	**07413**

Terminal extension bar support
The bars are secured to a rear cross-member by an insulated support.

description	cat. No.
1 rear cross-member	**07427**
1 insulated support	**07413**

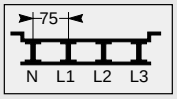
Flat busbars up to 3200 A

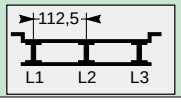
Selecting the main busbars



1. *According to the rated current, select the number and the cross-section of the bars for one phase (3 max. per phase)* ***in table A.***
2. *According to the short-circuit current Isc rms (kArms/1s), select* ***in table B*** *the maximum distance between the busbar support centres. Determine the number of supports required.*
3. Table C *indicates the required distance between phase and neutral center lines and the required type of frame.*

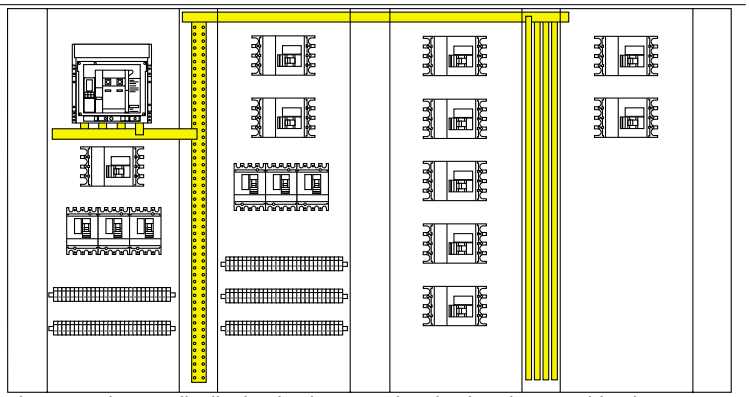
	table A				table B									table C
	permissible (1) current (A)		number of bars per phase	cross-section (mm)	maximum distance between busbar support centres (mm) Icw (kArms/1s)									distance between phase and neutral centre lines
	IP ⩽ 30	IP ⩾ 31			12	23	30	39	52	66	69	75	85	
In ⩽ 1650 A	650	600	1	50 x 5	475	250	175							**Prisma P cubicle: D = 400**
	750	700	1	63x 5	550	275	200	150						**Prisma PH cubicle: D = 500**
	1000	900	1	80 x 5	625	325	250	175	125					
	1150	1000	2	50 x 5	1 000	725	550	425	275	175				
	1200	1050	1	100 x 5	725	375	275	225	150	125				
	1350	1200	1	125 x 5	850	425	325	250	175	150	125	125		
	1350	1150	2	63x 5	1000	850	650	500	275	175	150	125	100	
	1650	1450	2	80 x 5	1000	975	750	525	300	175	175	125	100	
	1750	1600	3	63 x 5	1000	1000	725	550	350	225	175	150	125	
	1900	1600	2	100 x 5	1000	1000	650	400	325	225	175	150	125	
In ⩽ 3200 A	1750	1600	3	63x 5	1000	1000	1000	725	400	250	225	175	150	**Prima P cubicle:**
	1900	1600	2	100 x 5	1000	1000	1000	775	425	275	250	200	150	**D = 600-800-1000**
	2150	1950	2	125 x 5	1000	1000	1000	825	450	275	250	200	175	**Prisma PH cubicle:**
	2150	1900	3	80 x 5	1000	1000	1000	750	400	250	225	175	150	**D = 700-1000-1200**
	2550	2200	3	100 x 5	1000	1000	1000	775	425	250	250	200	150	
	3200	2800	3	125 x 5	1000	1000	1000	800	450	275	250	200	175	





(1) *The permissible current values are given for an ambient temperature of 35 °C.*
■ *for higher temperatures up to 50 °C, derate 12 % for IP 20 and 15 % for IP 54*
■ *for lower temperatures not below 25 °C, uprate 6 % for IP 20 and 5 % for IP 54.*

Selecting the secondary busbars



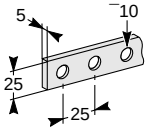
The secondary or distribution busbars can be sized to the actual load current, since the devices connected to these bars are not necessarily used at full load or at the same time.
Consequently, in compliance with standard practice taking the diversity factor into account (§ 4.7 and 7.3 of standard EN 60439-1), the current rating of these bars may be less than the sum of the current ratings of the various circuit-breakers supplied by them.
For further details concerning the selection of secondary busbars, see page 144.

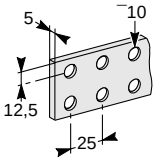
Flat busbars up to 3200 A

Drilled copper bars

cross-section	L (mm)	cat. No.
25 x 5	1750	**07401**
50 x 5	1750	**07402**
63 x 5	1750	**07403**
80 x 5	1750	**07404**
100 x 5	1750	**07405**
125 x 5	1750	**07406**

An overlap of 25 mm is required when joining bars together.



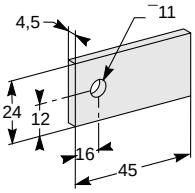


Steel bar spacers

Accessories

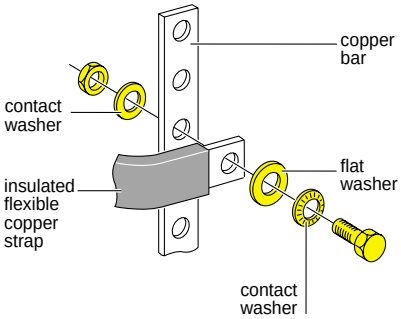
description	cat. No.
100 steel spacers for busbars	**07410**

For insertion between 2 bars belonging to the same phase (for example to reinforce the phase assembly at a lug connection point).



8/8 class bolts

See page 102

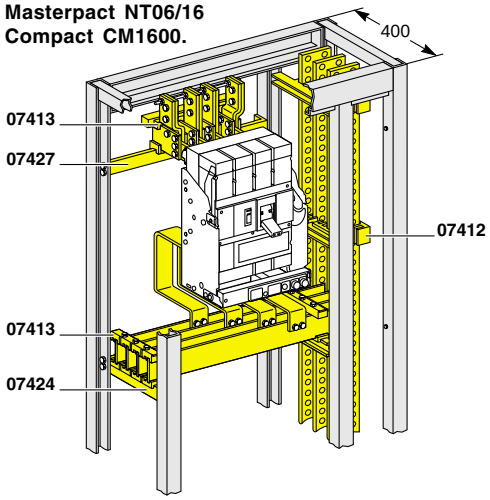


Choice of supports for flat busbars

Up to 1600 A

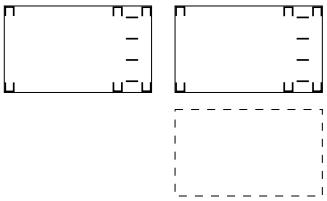
Incoming device:

Compact C801/1251
Masterpact NT06/16
Compact CM1600.

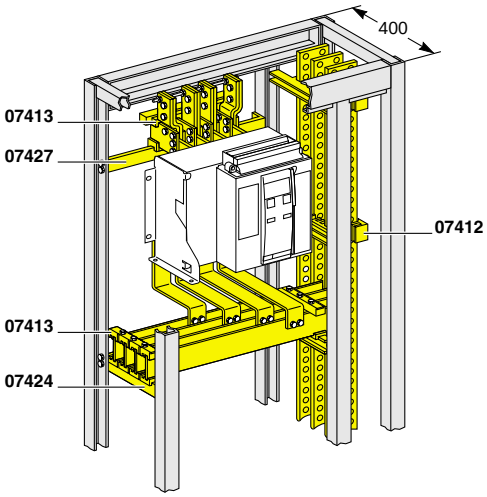


Compact C1001N drawout circuit breaker supplying 1600 A busbars in a 400 mm depth Prisma P cubicle (17 modules).

Busbar layout



Distance between busbar centres: 75 mm.



Masterpact NT fixed, supplying 1600 A flat busbars in a 400 mm depth Prisma P cubicle.

Vertical busbars

Cubicle types:
- Prisma P, depth = 400 mm
- Prisma PH, depth = 500 mm.

The busbars is fitted in the duct. It consits of bars 5 mm thick and insulated supports.

Busbar layout

description		cat. No.
No. for Prisma frame	P, D = 400	07412
	PH, D = 500	07485

Bottom support

description		cat. No.
No. for Prisma frame	P, D = 400	07414
	PH, D = 500	07495

Transfer busbar support

description		cat. No.
set of 2 side cross-members (P and PH frames)		07424
busbar supports (P and PH frames)	2 x	07413

Terminal extension bar support

description	cat. No.
1 rear cross-member (P and PH frame)	07427
1 busbar support (P and PH frames)	07413

Note:

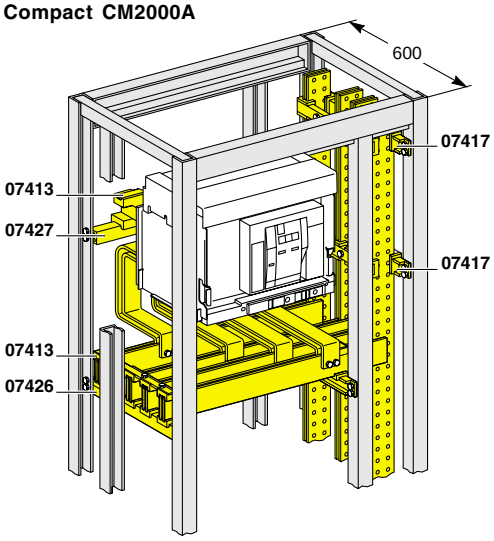
- *for horizontal transfer busbars, order a set of 2 side cross-members (**07424**) and 2 busbar supports (**07413** x 2)*
- *to secure terminal extension bars connecting an incoming device, order a rear cross-member (**07427**) and a busbar support (**07413**)*
- *all busbar supports are supplied with the corresponding hardware.*

Choice of supports for flat busbars

Up to 2000 A

Incoming device:

Masterpact NW08/20
Compact CM2000A



Masterpact NW20 drawout circuit breaker supplying 2000 A busbars in a 600 mm wide Prisma P cubicle (18 modules).

Busbar layout

Distance between busbar centres: 112.5 mm.

Vertical busbars

Cubicle types:
- Prisma P, depth = 600 mm
- Prisma PH, depth = 700 mm.

Busbar layout (1)

description		cat. No.
for Prisma frame	P, D = 600	07417
	PH, D = 700	07487

***(1)** The quantity to order is equal to the number of supports determined using the table on page ESB110E_5_1320.*

Bottom support

description		cat. No.
for Prisma frame	P, D = 600	07418
	PH, D = 700	07497

Transfer busbar support

description		cat. No.
set of 2 side cross-members (P and PH frames)		07426
busbar supports (P and PH frames)	2 x	07413

Terminal extension bar support

description		cat. No.
1 rear cross-member (P and PH frames)		07427
1 busbar supports (P and PH frames)		07413

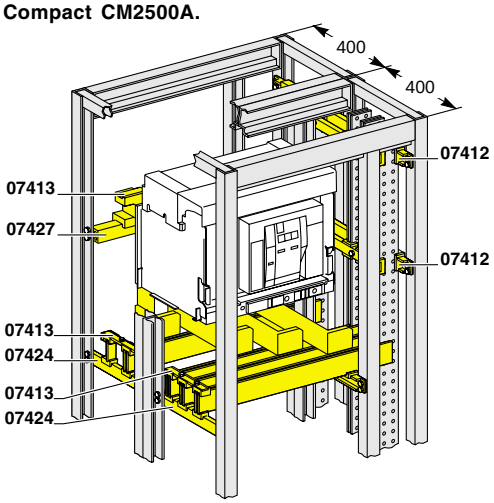
Note:

- *for horizontal transfer busbars, order a set of 2 side cross-members (**07426**) and 2 busbar supports (**07413** x 2)*
- *to secure terminal extension bars connecting an incoming device, order a rear cross-member (**07427**) and a busbar support (**07413**)*
- *for cubicles combining a basic frame and an extension frame, the vertical busbars, located between the two cubicles, must be installed in a 400 mm wide duct, if the width of the busbars exceeds 80 mm*
- *all busbar supports are supplied with the corresponding hardware.*

Up to 2500 A

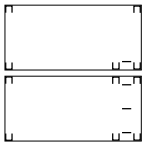
Incoming device:

Masterpact NW08/25
Compact CM2500A.



Masterpact NW25 circuit breaker supplying 2500 A busbars in a 800 mm wide Prisma P cubicle (22 modules).

Busbar layout



Distance between busbar centres: 112.5 mm.

Vertical busbars

Cubicle types:
- Prisma P, depth = 800 mm
- Prisma PH, depth = 1000 mm.

Vertical busbar supports (1)

description			cat. No.
for Prisma frame	P, D = 800	2 x	07412
	PH, D = 1000	2 x	07485

***(1)** The quantity to order is equal to the number of supports determined using the table on page ESB110E_5_1320.*

Bottom support

description			cat. No.
for Prisma frame	P, D = 800	2 x	07414
	PH, D = 1000	2 x	07495

Transfer busbar support

description			cat. No.
set of 2 side cross-members (P and PH frames)		2 x	07424
busbar supports (P and PH frames)		4 x	07413

Terminal extension bar support

description		cat. No.
1 rear cross-member (P and PH frame)		07427
1 busbar support (P and PH frames)		07413

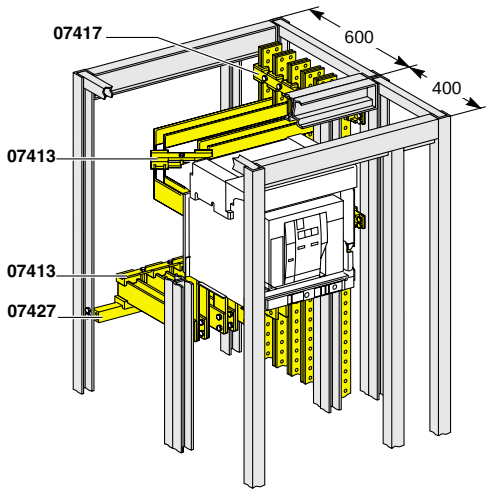
Note:

- *for horizontal transfer busbars, order 2 sets of 2 cross-members (**07424** x 2) and 4 supports (**07413** x 4)*
- *to secure terminal extension bars connecting an incoming device, order a rear cross-member (**07427**) and a busbar support (**07413**)*
- *all busbar supports are supplied with the corresponding hardware.*

Choice of supports for vertical and horizontal flat busbars

Up to 3200 A

Incoming device:
Masterpact NW32.

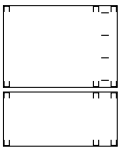


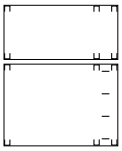
Masterpact NW32 drawout circuit breaker supplying 3200 A busbars in a 1000 mm wide Prisma P cubicle (11 modules).

Vertical busbars

Cubicle types:
- Prisma P, depth = 1000 mm
- Prisma PH, depth = 1200 mm.

Busbar layout





Distance between busbar centres: 112.5 mm.

Vertical busbar supports (1)

description		cat. No.
for Prisma frame	P	**07417**
	PH	**07487**

***(1)** The quantity to order is equal to the number of supports determined using the table on page ESB110E_5_1320. Supplied with the corresponding hardware.*

Bottom support

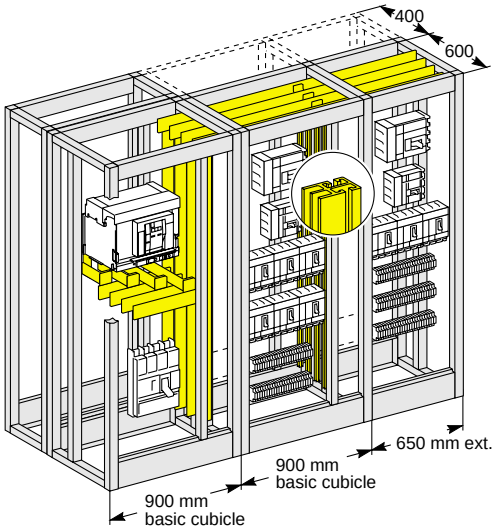
description		cat. No.
for Prisma frame	P	**07418**
	PH	**07497**

Terminal extension bar support

description	cat. No.
1 side cross-member (P and PH frames)	**07427**
1 busbar support (P and PH frames)	**07413**

Note:
- *to secure terminal extension bars supplying an incoming device, order a rear cross-member (**07427**) and a bar support (**07413**)*
- *all busbar supports are supplied with the corresponding hardware.*

Up to 3200 A



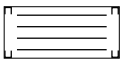
Masterpact NW32 drawout circuit breaker supplying 3200 A horizontal busbars in a 1000 mm wide Prisma P cubicle.

Horizontal busbars

Cubicle types: Prisma P and Prisma PH cubicles, all depths.

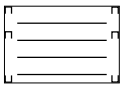
Busbar layout

1600 A *distance between bar centres: 75 mm*

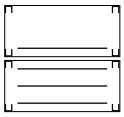


Prisma P, D = 400,
Prisma PH, D = 500

2500 A *distance between bar centres: 112,5 mm*

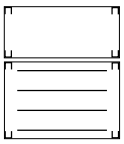


Prisma P, D = 600,
Prisma PH, D = 700

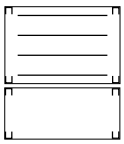


Prisma P, D = 800,
Prisma PH, D = 1000

3200 A *distance between bar centres: 112,5 mm*



Prisma P, D = 1000,
Prisma PH, D = 1200



Prisma P, D = 1000,
Prisma PH, D = 1200

Height requirements for horizontal busbars

■ horizontal busbars alone

❑ 75 or 112,5 mm centres:
horiz. bars W ≤ 80 mm: 2 modules
horiz. bars W ≥ 100 mm: 3 modules

■horizontal busbars + connection to vertical Linergy busbars

❑ 75 mm between centres:
horiz. bars W ≤ 80 mm: 2 modules
horiz. bars W ≥ 100 mm: 3 modules
❑ 112.5 mm between centres:
horiz. bars W = 50 mm: 3 modules
horiz. bars W ≥ 63 mm: 4 modules

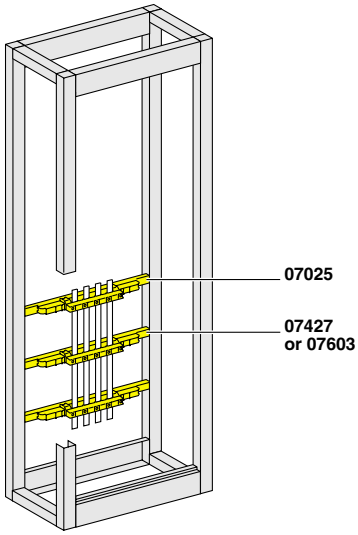
Horizontal busbar supports (1)

for Prisma frame P	D = 400	**07411**
	D = 600	**07416**
for Prisma frame PH	D = 500	**07485**
	D = 700	**07487**

***(1)** Supplied with the corresponding hardware.*

Busbars at rear of cubicle

Up to 400 A



Cubicle type:
- Prisma P, D = 400
- Prisma PH, D = 500.

The busbars are 15, 20 or 32 mm wide and 5 mm thick, with M6 threaded holes on 25 mm centres. They are mounted on insulating supports that may either be:
- screwed onto a rear cross-member
- or clipped onto a Multifix rail.

A fifth bar can be added for an earth connection with a cross-section of 15 x 5 or 20 x 5 mm.

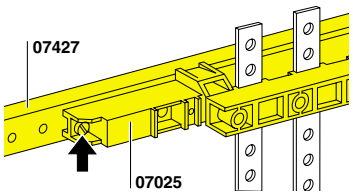
description	cat. No.
busbar support	**07025**
Multifix rail	**07603**
rear cross-member	**07427**

copper bars:

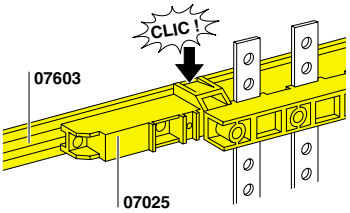
length	cross-section	cat. No.
4 copper bars	15 x 5 (160 A)	**07021**
L = 1000 mm	20 x 5 (250 A)	**07022**
	32 x 5 (400 A)	**07023**
4 copper bars	15 x 5 (160 A)	**07017**
L = 1400 mm	20 x 5 (250 A)	**07018**
	32 x 5 (400 A)	**07019**

Note:

The distance between busbar support centres depends on the rated short-time withstand current Icw (kA rms/1s).



*Support **07025** screwed onto rear cross member.*



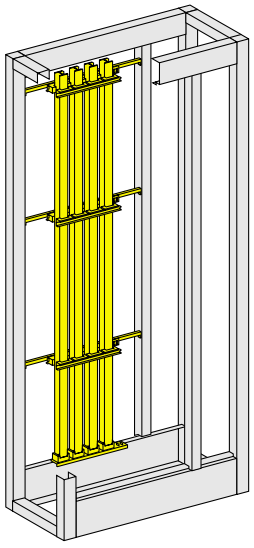
*Support **07025** clipped onto Multifix rail.*

Distance between support centres

permissible current (A)	bar cross-section (mm)	distance between busbar support centres (1) Icw in kA rms/1s 10	13	15	20	25
160	15 x 5	450				
250	20 x 5	450	450	450		
400	32 x 5	450	450	450	300	225

***(1)** Multiclip distribution blocks (with a maximum distance between centres of 200 mm) may act as intermediary supports.*

Up to 1600 A



Cubicle type:
- Prisma P, depth = 400
- Prisma PH, depth = 500.

Linergy bars are secured to insulated supports attached directly to the frame. A bottom support is used to position the bars and hold them in place during installation.

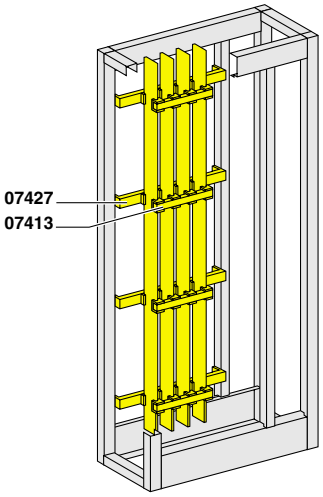
description		cat. No.
Linergy busbars support (P, PH)		**07498**
Linergy bottom support	P	**07499**
	PH	**07499 + 07427**
Linergy copper busbars: see page 96		

Number of Linergy busbar supports

In	23 kA	30 kA	39 kA	52 kA
630 A	3			
800 A	3	3		
1000 A	3	3	3	
1250 A	3	3	3	5
1600 A	3	3	3	5

The number of supports to use depends on the rated short-time withstand current Icw (kA rms/1s).

Up to 3200 A



1600 A in cubicle:
- Prisma P, D = 400
- Prisma PH, D = 500.

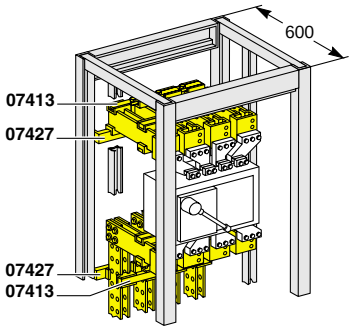
2500 A in cubicle:
- Prisma P, D = 600 and 800
- Prisma PH, D = 700 and 1000.

3200 A in cubicle:
- Prisma P, D = 1000
- Prisma PH, D = 1200.

The 5 mm thick bars are fixed to the insulating supports. Each support is mounted on a rear cross-member.

description	cat. No.
rear cross-member	**07427**
busbar support	**07413**
copper bars: see page 95	

Distance between busbar support centres
See table page 95.



Important :

These busbars cannot be mounted with certain Compact and Vigicompact devices.
The table below indicates their limits.

Compact installation possibilities in cubicles equipped with rear busbars

Compact and Vigicompact all ratings:

front cover	busbar width (mm)	without motor mechanism N, H fixed	without motor mechanism N, H plug-in	without motor mechanism L fixed	without motor mechanism L plug-in	with motor mechanism N, H fixed	with motor mechanism N, H plug-in	with motor mechanism L fixed	with motor mechanism L plug-in
front plate	25-50	4	4	4	4	4	4 **(1)** 6	4	6
support door	63	4	4	4	6	4	6	4	6
	80	4	4	4	6	4	6	4	6
	100	4	4	4	6	4	6	6	6 **(1)**
	125	4	4	4	6	4	6	6	
front plate	25-50	4	4	4	6	4	6	6	6
support	63	4	4	4	6	4	6	6	6
uprights	80	4	4	4	6	4	6	6	6 **(1)**
+ door	100	4	4 **(1)**	4	6	4	6	6	
	125	6	6	6	6	6	6	6	

***(1)** Compact NS 100/250 circuit breakers only.*

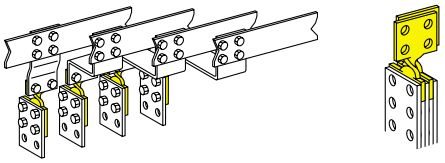
Caption:

***fixed** = fixed device, front connection.*

***plug-in** = plug-in device, rear connection.*

***4** = mounting possible in Prisma P, D = 400,*

***6** = mounting possible in Prisma P, D = 600.*



Connection of horizontal busbars to busbars at rear of cubicle, 1600 A maximum

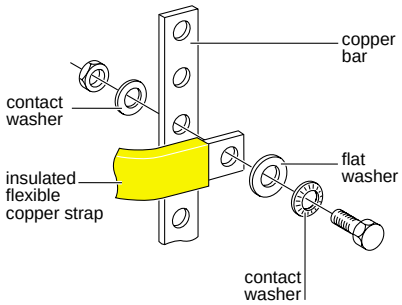
This connection is made using right-angle splices:
- 1 splice for busbars with 1 or 2 bars per phase
- 2 splices for busbars with 2 or 3 bars per phase.

This connection, together with the horizontal busbars at the top or bottom of the cubicle, takes up:
- 3 modules (H = 150 mm) for horizontal bars (25 x 5 to 100 x 5)
- 4 modules (H = 200 mm) for horizontal bars (125 x 5).

description		cat. No.
4 right-angle splices		**07409**
permissible current (A)	IP20/30/43	IP54/55
1 splice	1000	900
2 splices	1650	1450

Connection
Insulated flexible copper straps
Earth/neutral bar

Flexible copper straps



Flexible copper straps L = 1750 mm, with insulated covering.
■ for circuit breakers (or contactors with the same rating), switches, fuse switches, Polypact distribution blocks and Multiclip.

devices	cross-section (mm) (1)	cat. No.
NS100/160	20 x 2	**07071**
NS250	20 x 3	**07070**
NS400	32 x 5	**07074**
NS630	32 x 8	**07075**
INS and IN125/160	20 x 2	**07071**
IN250	20 x 3	**07070**
IN400	32 x 5	**07074**
IN630	32 x 8	**07075**
Multiclip	20 x 2	**07071**
Polypact 3P	24 x 8	**07077**
Polypact 4P	24 x 6	**07076**
Fupact 250	24 x 5	**07073**
Fupact 400	32 x 5	**07074**
Fupact 630	32 x 8	**07075**

■ for disconnectors, busbar to busbar connections.

maximum Ie (A)	cross-section (mm) (2)	cat. No.
200	20 x 2	**07071**
220	24 x 2	**07072**
250	20 x 3	**07070**
400	24 x 5	**07073**
480	24 x 6	**07076**
520	32 x 5	**07074**
580	24 x 8	**07077**
660	32 x 8	**07075**

(1) *Cross-section of flexible copper straps calculated as a function of connected switchgear regardless of the internal temperature of the switchboard.*

(2) *Cross-section calculated for a temperature of 60 °C inside the switchboard.*

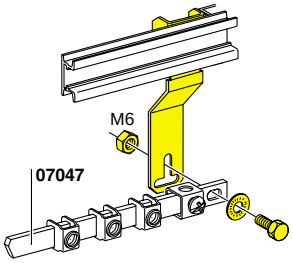
NB:
The temperature of 60 °C corresponds to the average temperature measured inside the switchboard, when installed in an ambient temperature of 40 °C.

Electrical characteristics
Rated insulation voltage: Ui = 1000 V.

Earth/neutral bar

07047

07067



*Installation of earth bar **07047** on special supports **07422** in Prisma P cubicle.*

earth/neutral bar 40 clamps	cat. No.
earth/neutral bar 40 clamps distance between screw centres: 450 mm	**07047**

Installation
■ in Prisma G/GX/GE/GR enclosures, direct installation in horizontal position on functional uprights
■ in Prisma G/GX ducts, installation in vertical position on terminal block supports **07548**
■ in Prisma P and PH cubicles, installation in horizontal position using 1 set of 2 supports fixed to the rear of the Multifix rail.

Supplied with
■ 1 connector for rigid or semi-rigid cable 35 mm^2
■ 2 insulating spacers for use on a neutral bar
■ mounting hardware.

2 earth/neutral bars with 20 clamps	cat. No.
earth/neutral bar with 20 clamps distance between screw centres: 200 mm	**07067**

Installation
■ in Prisma P and PH cubicles, installation on 2 supports, to be ordered separately.

Supplied with
■ 1 connector for rigid or semi-rigid cable 35 mm^2
■ 2 insulating spacers for neutral bar
■ mounting hardware.

accessories	cat. No.
set of 2 supports for mounting earth/neutral bar in Prisma P and PH cubicles	**07422**

Connection Hardware

8/8 class hardware

07027

07028

07026

8/8 class bolts withstand the tightening torque recommended by Schneider. It is possible to achieve very accurate tightening torques and contact pressures that remain within ±10% over time.
Anticorrosion protection (Zn 8c).

For fixing directly to copper bars

set of 40 bolts with 2 contact washers	cat. No.
M6 x 16	**07027**

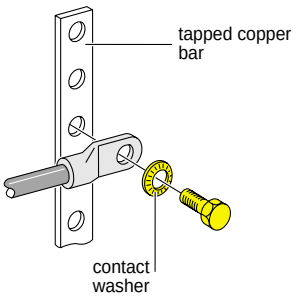
For connection of flexible copper straps to copper bars

set of 20 bolts with 2 contact washers and 1 flat washer each	cat. No.
M8 x 20	**07028**
M8 x 25	**07029**
M8 x 30	**07044**

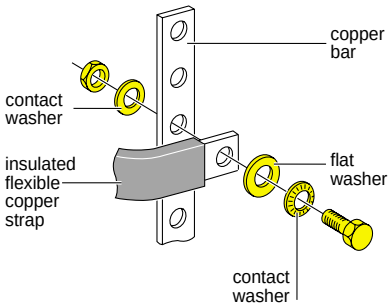
For connection of copper bars or lugs to copper bars

set of 20 bolts with 2 contact washers each	cat. No.
M6 x 20	**07026**
M10 x 20	**07085**
M10 x 25	**07030**
M10 x 30	**07086**
M10 x 35	**07087**
M10 x 40	**07088**
M10 x 45	**07089**
M10 x 50	**07090**

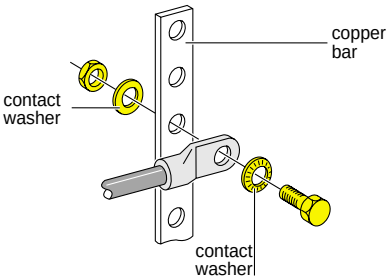
Tightening torque values to be used with 8/8 class hardware:
■ electrical connection obtained using 8/8 class hardware (bolt + nut + washers):
❑ M6: 1.3 mdaN
❑ M8: 2.8 mdaN
❑ M10: 5 mdaN
■ electrical connection obtained using 8/8 class bolt + contact washer screwed directly to 1 tapped copper bar:
❑ M6: 0.52 mdaN.



07027 *hardware for fixing a lug to a tapped copper bar*



07028 *hardware for connecting flexible copper straps to a copper bar*



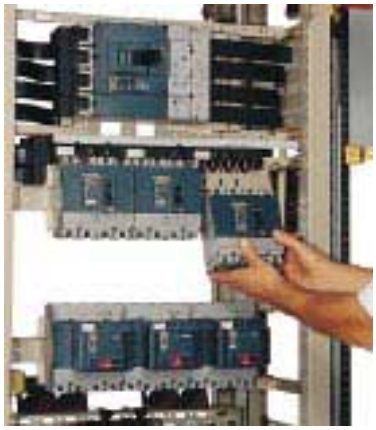
07026 *hardware for connecting a lug to a tapped copper bar*

Polypact distribution block

Polypact

07014

07015



Easy connection of a Compact NS circuit breaker to a Polypact distribution block.

The auxiliary wiring is run in trunking.

A Polypact distribution block can be used to supply three 4-pole or four 3-pole Compact NS circuit breakers, ratings 100, 160 and 250 A and types N, H and L, fixed, front-connected.
It connects to the right or left side of Linergy busbars in Prisma P or PH cubicles.
It is equipped with systems permitting the passage of control wires (for Compact circuit breaker auxiliaries).
Compact NS circuit breakers connect to the Polypact distribution block from the front with the basic circuit breaker mounting hardware.

2 configurations are possible

■ connection in Prisma P cubicle, with Linergy busbar only

description	cat. No.
3P Polypact with connection	**07013**
4P Polypact with connection	**07014**

supplied with prefabricated connection mounted.

■ connection in Prisma P and PH cubicles

description	cat. No.
3P Polypact without connection	**07012**
4P Polypact without connection	**07015**

supplied without prefabricated connection system.

Electrical characteristics

■ rated operating current: no temperature derating is required other than the normal temperature derating of Compact NS devices
■ rated insulation voltage: 750 V
■ rated impulse withstand voltage: Uimp = 8 kV
■ short-circuit withstand current compatible with the breaking capacities of Compact NS devices installed on the distribution block.

Supplied with

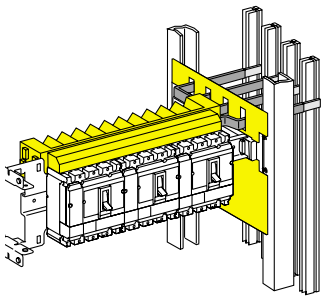
■ 1 protective barrier separating devices and busbars (Form 2 partitioning)
■ labels for marking the phases
■ labels for marking the outgoing circuits
■ 1 prefabricated connection system, supplied fully mounted for connection on the right or left to Linergy busbars in a Prisma P cubicle (for **07013** and **07014** only).

Supply

■ **07013** and **07014** by prefabricated connection system, supplied fully mounted. Connects directly to Linergy busbars in a Prisma P cubicle
■ **07012** and **07015** by flexible copper straps in a Prisma P cubicle equipped with flat busbars and in a Prisma PH cubicle regardless of the type of busbars used. Choice of flexible copper straps: see page 102.

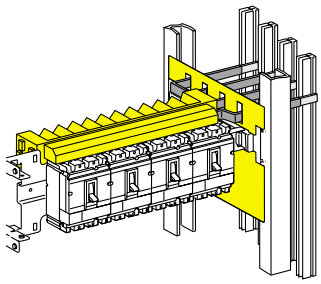
Distribution

See table of configurations opposite.



Maximum configurations possible with a 4-pole Polypact distribution block, whatever the degree of protection of the switchboard.

description		
NS160	NS160	NS160
NS100	NS160	NS250



Maximum configurations possible with a 3-pole Polypact distribution block, whatever the degree of protection of the switchboard.

description			
NS160	NS160	NS160	NS160
NS100	NS160	NS160	NS250

In most types of installation, the temperature around the switchboard is around 40 °C which implies an average temperature of 60 °C inside the switchboard. Under certain conditions, the inside temperature may vary: excessively high temperature around the switchboard, enclosure ventilation, etc.
In this case, use the following table to determine the rated operating current for Polypact.

Selection table for special Polypact operating conditions

rated operating current as a function of the internal temperature of the switchboard								
temperature (°C)		40	45	50	55	60	65	70
rated operating current: Ie (A)	3P Polypact	650	640	620	600	540	500	460
	4P Polypact	620	600	540	500	460	380	320

Remark

To supply a maximum number of devices using a Polypact distribution block, always take into account the diversity factor K:

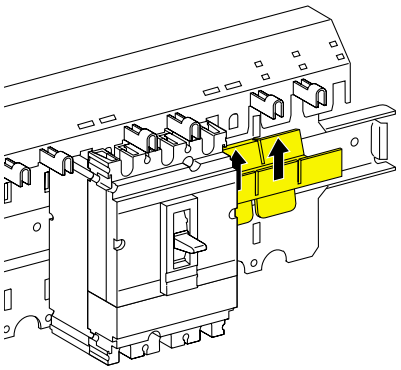
- 3P Polypact: K = 0.8
- 4P Polypact: K = 0.9.

For further information concerning the diversity factor, see the LV application guide.

Connection covers

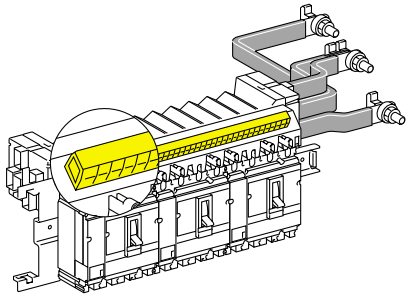
description	cat. No.
Polypact terminal covers	07011

Insulates terminals reserved for future use on a 3P or 4P Polypact distribution block. Made of insulating material.
Clipped on directly from the front and easily removed.



Trunking for auxiliary wiring

See page 120



Distribloc 125/160 A

Outgoing circuits are connected from the front, in spring cages.
The contact pressure of the spring is automatically adjusted to suit the cross-section of the conductor.
The pressure is not affected by vibrations and heat variations
Each cage can only accommodate a single flexible or rigid cable, with or without a crimped metal ferrules.
Degree of protection: IPXXB.

Advantages
- reliable, maintenance-free, electrical connection
- very rapid connection
- very simple re-balancing of phases
- easy switchboard extensions or modifications.

Distribloc

3-pole distribution block comprising:
- a fully insulated, one-piece distribution block in compliance with IPXXB requirements (protection against direct contact)
- a modular cover.

Designed with a 45 mm high nose for perfect integration in a row alongside modular devices.

3P Distribloc	cat. No.
Distribloc 125	**07105**
Distribloc 160	**07106**

Electrical characteristics
- rated insulation voltage: Ui = 690 V
- rated operating current: Ie (40°C):
  - 125 A for Distribloc 125
  - 160 A for Distribloc 160 with prefabricated connection system for INS160
- rated short-time withstand current: Icw = 4.5 kA rms/1s in compliance with standard IEC 947.7.1
- peak withstand current: Ipk = 20 kÂ in compliance with standard IEC 439.1

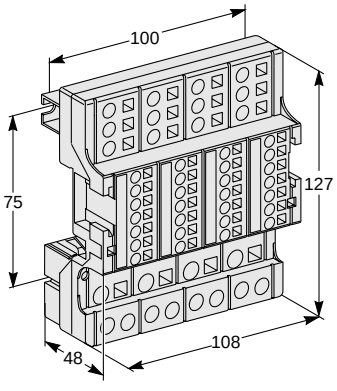
for detailed table taking into account the cross-section of connecting cables, see page 4

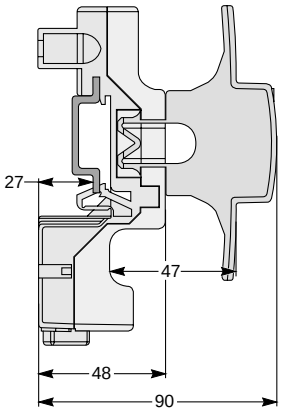
- complies with low voltage switchgear and controlgear standard IEC 947.7.1 and/or IEC 439.1
- rated impulse withstand voltage: Uimp = 8 kV.

Supply
- Distribloc 125 in a tunnel terminal by 6 to 35 flexible cables (10 to 35 rigid)
- Distribloc 160 by a flexible prefabricated connection system supplied with the device. It is designed for connection to an INS100/160 switch, mounted on the left or right.

Distribution (for Distribloc 125 and 160)
- in spring cages:
  - 2 outgoing circuits connected by flexible or rigid cable 1 to 10
  - 3 outgoing circuits connected by flexible or rigid cable 1 to 6
  - 7 outgoing circuits connected by flexible or rigid cable 1 to 4
- in tunnel terminal:
  - 1 outgoing circuit connected by flexible cable 4 to 16 (4 to 25 rigid).

Supplied with
- a label for identification
- self-adhesive labels for marking the various phases
- a flexible prefabricated connection system for use with INS100/160 switches (Distribloc 160 only).





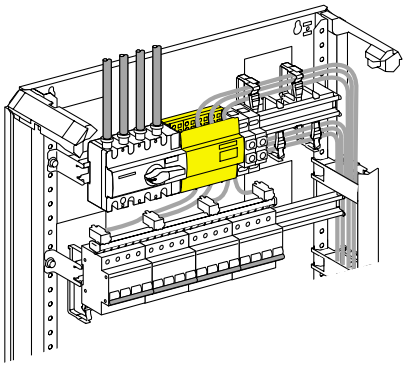
Accessory

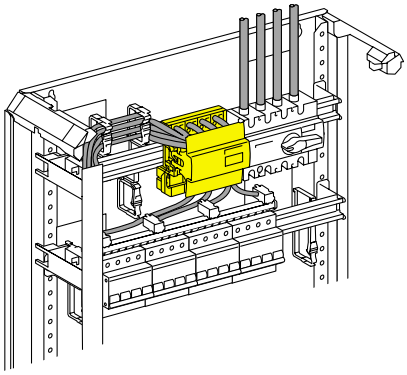
Set of 4 flexible connections consisting of insulated copper cables, cross-section 35, L = 210 mm.
Connects an NG125 or any other modular circuit breaker, with or without Vigi, or 1 INS125 switch fitted with ordinary terminals to:
- 1 Distribloc 125 located on the same row
- 1 Distribloc 125 located on the row directly below.

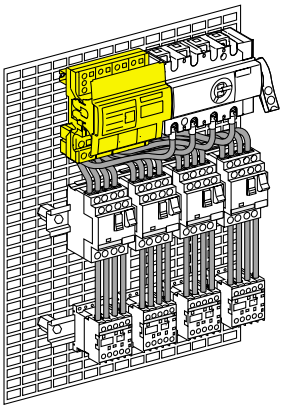
connections 125 A	cat. No.
set of 4 connections 125 A	07054

Mounting
- clipped onto Multifix or symmetrical rail
- horizontal space occupied: twelve 9 mm modules
- screwed onto plain or slotted plate. Distance between screw centres: 100 x 75.

Note
Distribloc distribution blocks cannot be installed in Opale, mini-Pragma, Pragma C, Pragma D flush-mounted and EK9 enclosures.







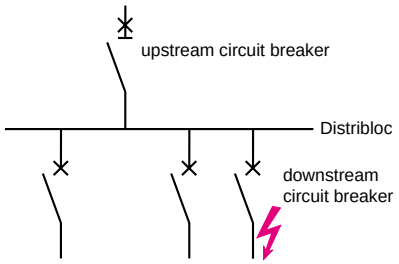
Distribloc 125/160 A

Short-circuit withstand current

The following table indicates the short-circuit withstand current (in kA rms) for various combinations of upstream and downstream devices on a three-phase 380/415 V installation.

down. device	up. device													
	NC100	NS100		NG125				NS125E	NSA160	NS160		NS250		NS400/630
	LH	N	L/H	a	N	H	L			N	L/H	N	L/H	
C60a (5 kA)	50	10	20	16	25	36	50	10	15	15	15/20	15	20	5
C60N (6 kA)	50	25	30	16	25	36	50	15	25	25	30	25	30	10
C60H (10 kA)	50	25	40	16	25	36	50	25	25	30	30	30	30	15
C60L 25 A (25 kA)	50	25	40	16	25	36	50	25	25	30	40	30	40	25
C60L 32-40 A (20 kA)	50	25	40	16	25	36	50	25	25	30	40	30	40	20
C60L 50-63 A (15 kA)	50	25	40	16	25	36	50	25	25	30	40	30	30	15
NC100H (10 kA)	50	25	30	10	10	10	50	25	25	25	30	25	30	10
other devices	**(1)**	**(1)**	**(1)**	**(1)**	**(1)**	**(1)**	**(1)**	**(1)**	**(1)**	**(1)**	**(1)**	**(1)**	**(1)**	**(1)**

(1) *Check that the peak short-circuit current, which is limited by the downstream device, is lower than the permissible peak current of the terminal cross-section used.*
Check that the thermal stress produced by the downstream device does not exceed the permissible thermal stress of the cable used.



Peak withstand current (IEC 439.1).

cross-section of connection terminals (mm^2)	Ipk
4	5 kÂ/60ms
6	11 kÂ/60ms
10	17 kÂ/60ms
16	20 kÂ/60ms

This table indicates the peak withstand current values for connecting cables ranging from 4 to 16 mm^2.

Multiclip distribution blocks

Outgoing circuits are connected from the front, without screws, in spring cages. The contact pressure of the spring is automatically adjusted to suit the cross-section of the conductor (minimum cross-section 1 mm^2).
The pressure is not affected by vibrations or heat variations.
Each cage can only accommodate a single flexible or rigid cable, with or without a crimped metal ferrules.
Degree of protection: IPXXB.

Advantages
- reliable, maintenance-free, electrical connection
- very rapid connection; very simple re-balancing of phases
- easy switchboard extensions or modifications.

Multiclip distribution block

Multiclip distribution block	cat. No.
Multiclip 2P (phase + neutral)	**07002**
Multiclip 3P (3 phases)	**07003**
Multiclip 4P (3 phases + 1 neutral)	**07004**
Multiclip 5P (3 phases + 2 neutral)	**07005**

Electrical characteristics
- rated operating current:
  - Ie 180 A (40 °C)
  - 220 A (20 °C)
- rated insulation voltage: Ui = 440 V
- rated impulse withstand voltage: Uimp = 8 kV
- rated short-circuit withstand current: see page 4.

Supply
Directly to terminals via cable with crimped lug, connector, flexible copper straps (20 x 2 mm) or busbars at the rear of the enclosure.

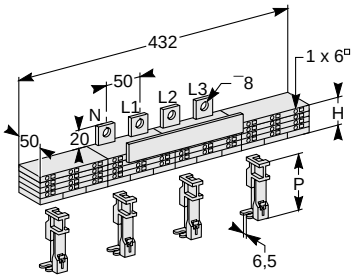
Distribution
Each phase (+ neutral) comprises 12 connection points for flexible or rigid 6 cable, with or without crimped metal ferrules.

Installation
- clipped to the rear of the Multifix rail. In this way, the supply terminals of the Multiclip are in direct contact with the busbars at the rear of the enclosure or cubicle
- screwed to plain or slotted mounting plates.

Supplied with
- prestripped connection cables 40 A:
  - 24 connections for Multiclip 2P, 3P and 4P distribution blocks
  - 48 connections for Multiclip 5P distribution blocks.

accessories	cat. No.
Multiclip wiring cover	**07331**

protects wires and prevents direct access to the terminals of modular devices.



dimensions				
	2P	3P	3P + N	3P + 2N
H	28	38	48	58
P	70 + 5	80	80	70

Multiclip distribution blocks

Multiclip 1/2 row distribution block

Multiclip 1/2 row distribution block	cat. No.
Multiclip 1/2 row 3P distribution block	**07008**

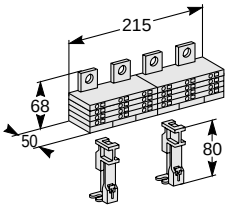
Supply
Directly to terminals via cable with crimped lug, connector or flexible copper straps (20 x 2 mm).

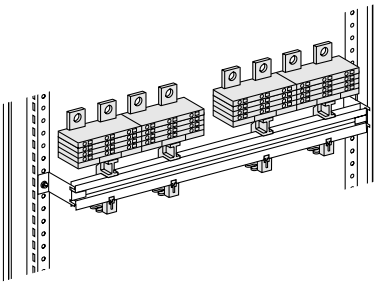
Distribution
4 poles comprising 6 connection points for flexible or rigid 6 cable, with or without crimped metal ferrule.

Installation
Clipped to the rear of the Multifix rail.

Supplied with
- a set of labels (neutral, phase 1, 2 and 3, and earth)
- 12 prestripped connections 40 A
- a cover to protect incoming circuits.

Electrical characteristics
Same as Multiclip.





Multiclip distribution blocks

Short-circuit withstand current

The following table indicates the short-circuit withstand current (in kA rms) for various combinations of upstream devices, Multiclip and downstream devices on a 380/415 V installation.

downstream device	short-circuit withstand current in kA rms, depending on upstream device:															
	NC100	NSA125 NS125	NG125				NS100			NS160			NS250			NS400/630/
	LH	E	a	N	H	L	N	H	L	N	H	L	N	H	L	
C60a (5 kA)	50	10	16	25	36	50	15	20	20	15	20	15	15	20	20	5
C60N (6 kA)	50	15	16	25	36	50	25	30	30	25	30	30	25	30	30	10
C60H (10 kA)	50	15	16	25	36	50	25	40	40	30	30	30	30	30	30	15
C60L 25 A (25 kA)	50	15	16	25	36	50	25	40	40	30	40	40	30	40	40	25
C60L 32-40 A (20 kA)	50	15	16	25	36	50	25	40	40	30	40	40	30	40	40	20
NC100H (10 kA)	50	10	10	10	10	50	25	30	30	25	30	30	25	30	30	10
other devices	**(1)**	**(1)**	**(1)**	**(1)**	**(1)**	**(1)**	**(1)**	**(1)**	**(1)**	**(1)**	**(1)**	**(1)**	**(1)**	**(1)**	**(1)**	**(1)**

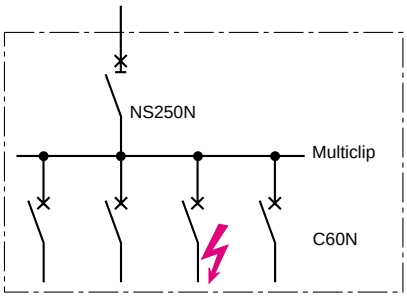
(1) *Check that the peak short-circuit current, limited by the downstream device, is lower than 12 kA.*
Check that the thermal stress delivered by the downstream device does not exceed the permissible thermal stress of the 6 mm² cable (4.76 x 105 A2s).

1st example

Incoming circuit:
NS250N circuit breaker.

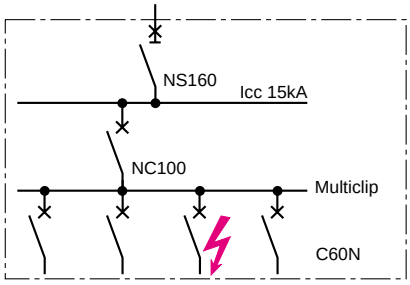
Outgoing circuits:
Multi 9 C60N circuit breakers.
Can a Multiclip be used to distribute the supply to the C60N units?

Answer:
Yes, with a maximum Icw value of 25 kA (see shaded strip in the table above).



2nd example
After combining NS160 and NC100 in accordance with the rules for cascading (Icc 15 kA/NC100), can a Multiclip be used to distribute the supply to the C60N units?

Answer:
Yes, because the layout is equivalent to direct NS160-C60N connection.
The Multiclip has been designed to adapt perfectly to Merlin Gerin switchgear and equipment systems.
This example shows that using the Multiclip in the standard configuration (fitted on a Multifix rail with an incoming wiring cover) maintains the performance achieved by cascading circuit breakers.



Comb busbars for DPN, SFT and C60 devices

Range of comb busbars for 18 mm terminal spacing
- supplied with two IP2 end-caps
- markers can be fitted for circuit identification
- cutting locations are marked on the copper bars and on the insulation
- self-extinguishing insulating material, colour RAL 7016
- unused teeth may be insulated by fitting tooth-caps.

1P + N and 3P + N comb busbars

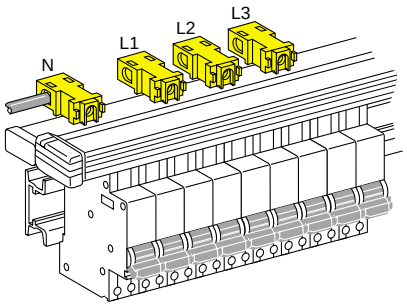
comb busbars		cat. No.
for Declic, DPN, DPN N, SFT and STI	26-mod. comb	**14880**
1P + N	set of two 48-mod. combs	**14890**
3P + N	set of two 48-mod. combs	**14899**

Electrical characteristics
- rated operating current: Ie (40 °C):
  - 100 A with 1 central supply point
  - 125 A with 2 supply points
- rated insulation voltage: 250 V
- short-circuit withstand capacity compatible with the breaking capacities of Merlin Gerin modular circuit breakers.

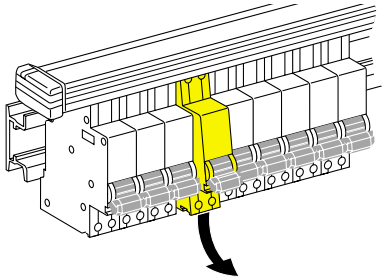
Connection

Supply:
- by semi-rigid cable:
  - 16 with DPN circuit breakers
  - 10 with SFT and STI devices, directly in their tunnel terminals
- by 25 semi-rigid cable via connector **14885**.

accessories	for comb busbars	cat. No.
set of 40 end-caps	1P + N	**14886**
	3P + N	**14887**
set of 40 tooth-caps	1P + N and 3P + N	**14898**

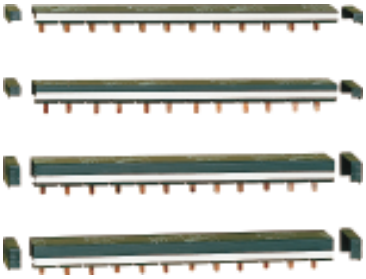


*3P + N comb busbar **14899**.*



1P + N comb busbars make it possible to dismount Declic and DPN circuit breakers.

1P, 2P, 3P and 4P comb busbars



comb busbars		cat. No.
for C60a/N/H/L, SFT, STI (except 3P + N)		
1P	24-mod. comb	**14881**
	108-mod. comb (L = 1 m)	**14801**
	set of two 48-mod. combs	**14891**
2P	24-mod. comb	**14882**
	108-mod. comb (L = 1 m)	**14802**
	set of two 48-mod. combs	**14892**
3P	24-mod. comb	**14883**
	108-mod. comb (L = 1 m)	**14803**
	set of two 48-mod. combs	**14893**
4P	24-mod. comb	**14884**
	108-mod. comb (L = 1 m)	**14804**
	set of two 48-mod. combs	**14894**

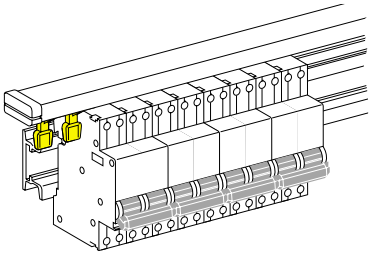
accessories	for comb busbars	cat. No.
set of 40 end-caps	1P, 2P	**14886**
	3P, 4P	**14887**
set of 40 tooth-caps	1P, 2P, 3P, 4P	**14888**

Electrical characteristics

■ rated operating current: Ie (40 °C):
❑ 100 A with 1 central supply point
❑ 125 A with 2 supply points
■ rated insulation voltage: 500 V (as per IEC 664)
■ short-circuit withstand capacity compatible with the breaking capacities of Merlin Gerin modular circuit breakers.

Connection

Supply:
■ by semi-rigid cable:
❑ 25 with C60 circuit breakers (all ratings)
❑ 10 with SFT and STI devices, directly in their tunnel terminals
■ by 25 semi-rigid cable via connector **14885**.

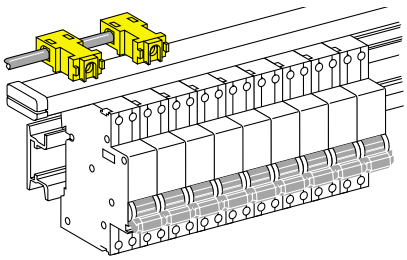


Tooth-caps may be fitted to insulate unused teeth.

Connectors

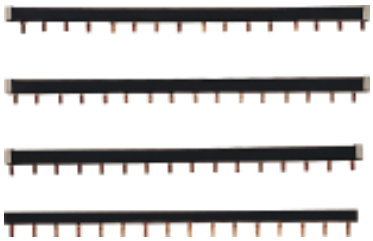
■ compatible with SFT, STI, C60 comb busbars
■ clipped firmly onto insulated parts of comb busbars
■ can be fitted with Telemecanique clip-on markers for circuit identification.

connectors	cat. No.
set of 4 insulated connectors for 25 cables	**14885**



Comb busbars for NG125

1P, 2P, 3P and 4P comb busbars



Description

- range of 1P, 2P, 3P and 4P comb busbars for 27 mm terminal spacing
- length:
  - 432 mm (16 x 27 mm) for 1P, 2P and 4P comb busbars
  - 405 mm (15 x 27 mm) for 3P comb busbar
- insulating material, colour grey RAL 7016
- IPXXB protection with tooth-caps
- may be cut to length.

Choice of comb busbars

comb busbars	cat. No.
for NG125	
1P	**14811**
2P	**14812**
3P	**14813**
4P	**14814**

The comb busbars are supplied with:
- 8 tooth-caps + 2 end-caps for 2P comb busbars
- 4 tooth-caps + 2 end-caps for 3P and 4P comb busbars.

Accessories	cat. No.
end-caps and tooth-caps	**14818**

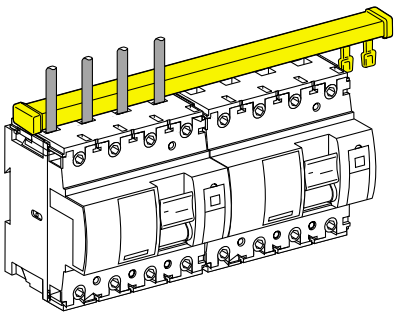
comprising:
- 20 tooth-caps
- 4 end-caps for 2P and 3P comb busbars
- 4 end-caps for 4P comb busbars.

Electrical characteristics

- rated operating current: Ie (40 °C) = 125 A
- maximum rated current per outgoing circuit: 63 A
- rated insulation voltage: 690 V
- rated impulse withstand voltage: Uimp = 8 kV
- short-circuit withstand capacity compatible with the breaking capacities of Merlin Gerin modular circuit breakers.

Connection

Supply by cables with a maximum cross-section of 50 mm^2, directly in the tunnel terminals of the device.
To supply the comb busbar from a busbar set located at the rear of the enclosure, use the 100 A prefabricated connection system (see page 115).



Tooth-caps may be fitted to insulate unused teeth.

2P auxiliary bus duct 100 A connection

2P auxiliary bus duct

Duct with two conductors for distribution of auxiliary voltages used in power and regulation equipment to relays and control and indication auxiliaries.

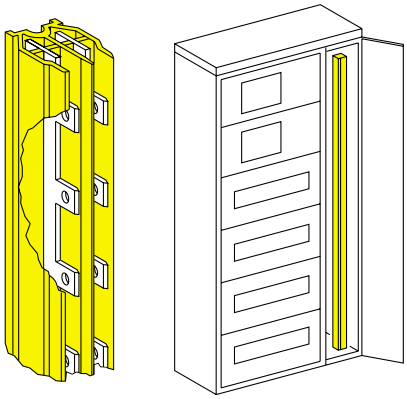
Composition

- one insulated duct L = 1900 mm, colour black, protecting against direct contact (IP20)
- two brass conductors for 80 tap-offs per linear metre by 6.35 lugs
- brackets for securing to cable tie bars.

Characteristics

- rated insulation voltage: Ui = 660 V
- rated operating current: Ie (40 °C) = 63 A.

2P auxiliary bus duct	cat. No.
2P auxiliary bus duct	**07400**



100 A connection

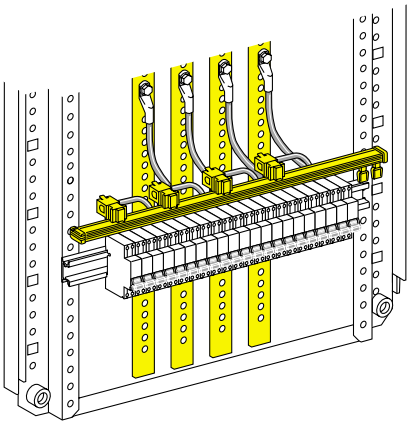
Flexible connection system, made of insulated copper cables (class 2: 1000 V insulation) with:

- 6.9 x 2.5 mm ferrule crimped at one end for 16 tunnel terminals
- 90° lugs with 8.5 mm holes crimped at the other end.

Applications

- direct connection between busbars at the rear of an enclosure and a comb busbar.

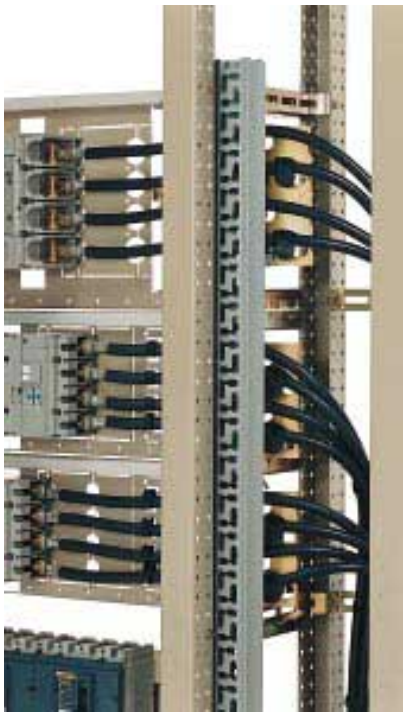
100 A connection	L (mm)	cat. No.
set of four 100 A cables	420	**07038**



Direct connection between busbars at the rear of a Prisma G enclosure and a row of modular devices.

On-site connection
Cable securing

Cable tie supports



Metal support, fitted with insulated posts, used to guide and secure cables. Cables may be secured to the support with ties to keep them from pulling on device terminals.
Two possibilities for installation:
- directly on the mounting plate cross-members (fig. 1 and 2)
- on 1 or 2 rear cross-members **07427** (fig. 3 and 4).

description		cat. No.
cable tie support		
for devices up to 250 A	3P	**07210**
	4P	**07211**
for devices up to 630 A	3P	**07212**
	4P	**07213**

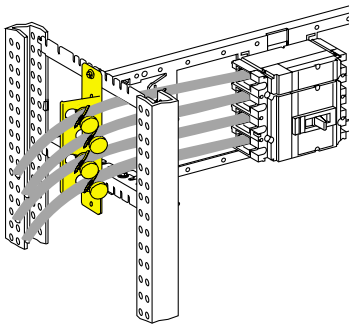


Fig. 1

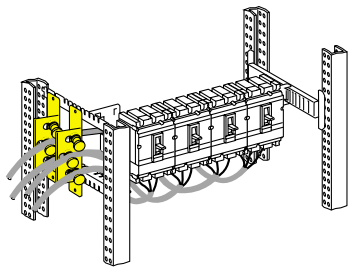


Fig. 2

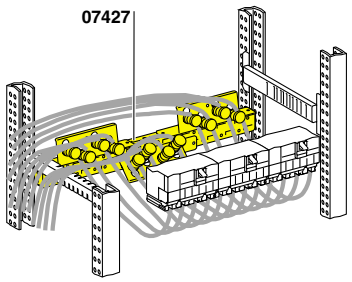


Fig. 3

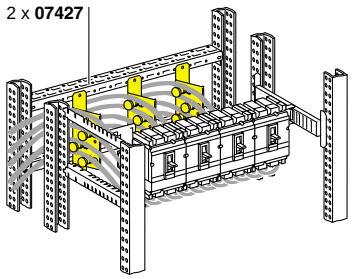
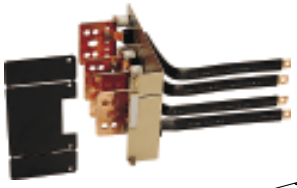
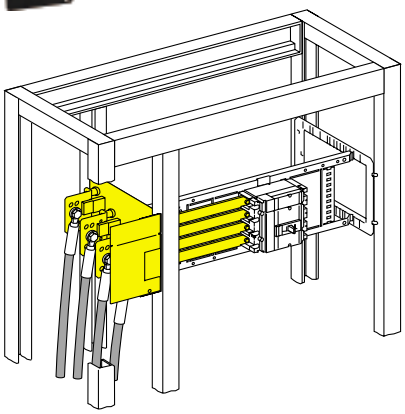


Fig. 4

On-site connection
Cable connection

Cable connection





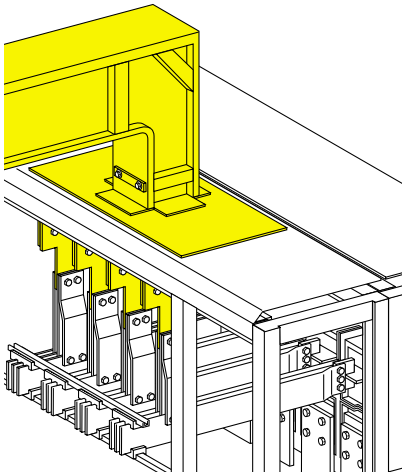
For cable

Device connections can be made in the duct using this 4-pole prefabricated connection assembly.
Takes 2 cables per phase (max. cross-section for bi-metal lug: 2 x 250 mm^2 or 1 x 300 mm^2).
Supplied with front barrier to prevent direct contact with the connection terminals.

description		cat. No.
in-duct connection assembly		
for Compact NS	100/250 fixed	**07200**
and Vigicompact	400/630 fixed **(1)**	**07201**

(1) *May only be used with mounting plate* ***07735*** *(5 modules).*

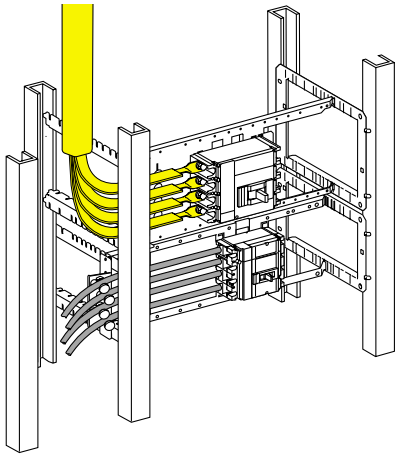
Busbar trunking system



Prisma P switchboard supplied by a Canalis KT.

For incoming device

Telemecanique Canalis KT and KV busbar trunking systems may be used to supply an incoming device of an electrical switchboard. The busbar system enters the cubicle via the roof through openings made on request.
The busbar system is connected to terminal extension bars on the back of the device.



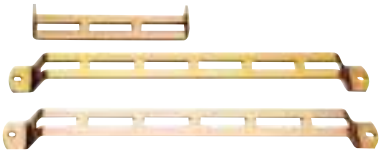
Connection of an NS400 circuit breaker via Canalis KV.

For outgoing circuits

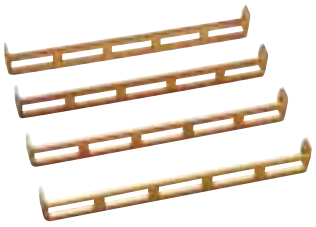
Outgoing circuits can be connected in a switchboard via Telemecanique Canalis busbar trunking systems.
The busbar systems enter the cubicle via the roof through openings made on request.
They are sufficiently flexible to be connected directly to horizontal outgoing devices without exerting excessive forces on the connection terminals.
They can also be connected to an in-duct connection assembly.

On-site connection
Cable connection

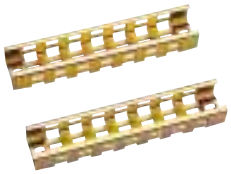
Cable tie bars



07420



07425

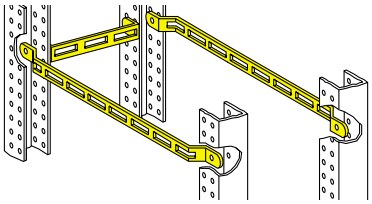


05930

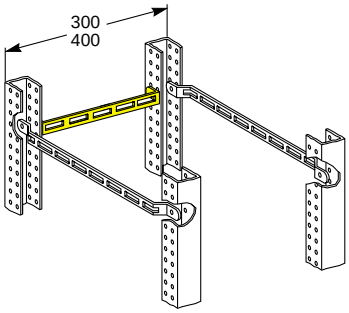
05940

For Prisma P cubicle

description		cat. No.
1 set of cable tie bars		
for duct W = 200 mm :	frame, depth = 400 mm	**07420**
	frame, depth = 600 mm	**07421**
4 rear cross-members		
for extension, W = 300 mm		**07425**
for duct, W = 400 mm		**07423**



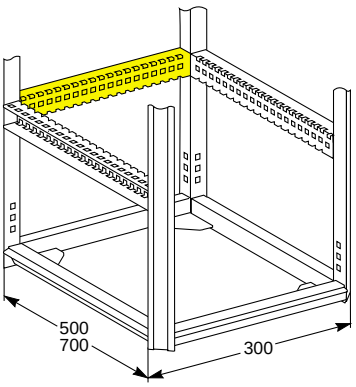
Cable tie bars for duct, W = 200 mm.



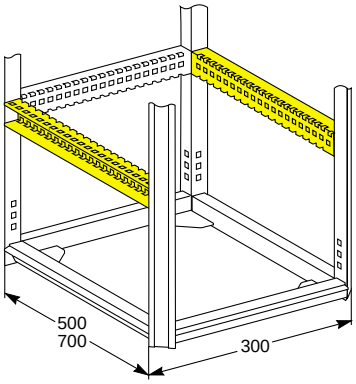
Rear cross-members for duct, W = 400 mm, or extension, W = 300 mm.

For Prisma PH cubicle

description		cat. No.
2 side cross-members		
for duct W = 300 mm :	frame, depth = 500 mm	**05940**
	frame, depth = 700 mm	**05942**
2 rear cross-members		
for duct, W = 300 mm		**05930**



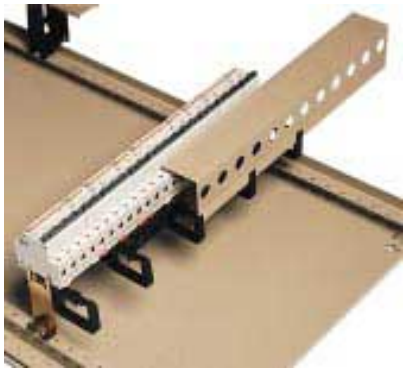
Rear cross-members for duct, W = 300 mm.



Side cross-members for duct, W = 300 mm.

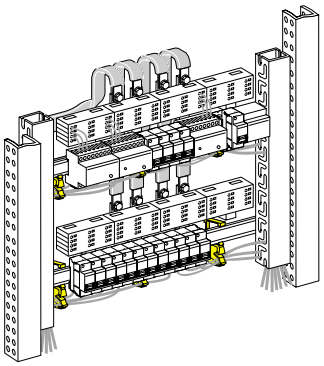
Cable running

Horizontal straps

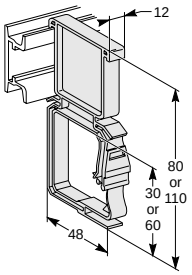


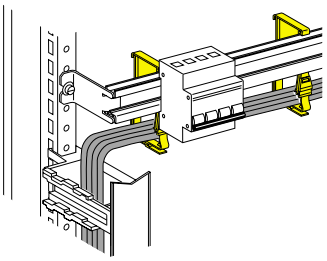
Horizontal cable straps may be clipped to the front or rear of Multifix rails. They do not obstruct the space required for installing switchgear (use one pack of five straps per modular row). Cable guides may be fixed between straps and a cable cover fits over the cable straps to protect cables and provide a neat finish.

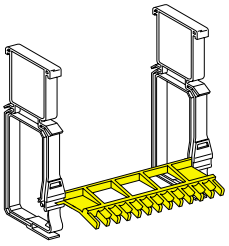
description		cat. No.
5 horizontal cable straps	30 x 48	**07300**
	60 x 48	**07301**
horizontal cable cover	H = 30	**07332**
L = 1000 mm	H = 60	**07333**
4 cable guides (only for straps H = 60)		**07302**



Horizontal straps in a Prisma P cubicle

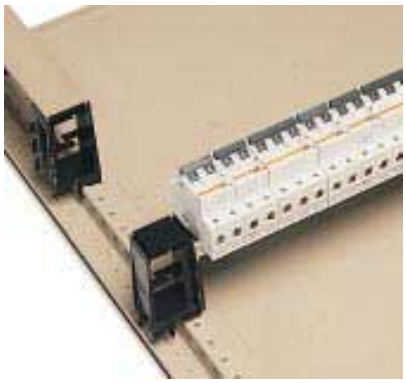






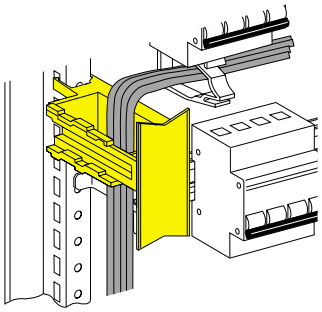
07302

Vertical straps

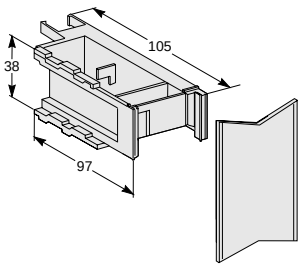


Vertical cable straps may either be clipped to the fixing lug of a Multifix rail (Prisma G, P) or directly to the functional uprights of enclosures or cubicles (Prisma G).
A cable cover fits over the cable straps to protect cables and provide a neat finish.

description	cat. No.
10 vertical cable straps	**07305**
vertical cable cover, L = 1000 mm	**07334**



Vertical straps in a Prisma G enclosure.



07305 *07334*

Cable running

Cable trunking

07321

07323

For low power cables

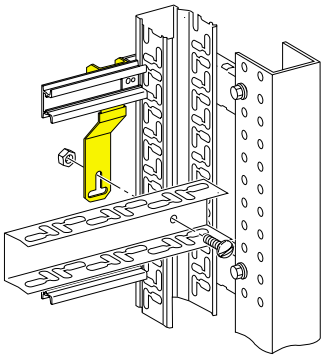
Vertical trunking can be installed:

- in the side duct, secured to the cable tie bars
- on either side of Multifix rails, with special adaptation of the support.

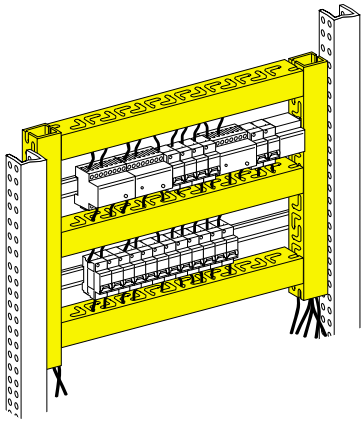
In addition, horizontal trunking can be installed between vertical trunking using the trunking supports.

The various trunking parts can be perfectly interconnected to provide a sufficiently large conduit for all needs.

description	cat. No.
10 trunking supports for connection of horizontal to vertical trunking	**07321**



*Horizontal trunking support **07321**.*



Vertical and horizontal trunking.

For auxiliary wiring

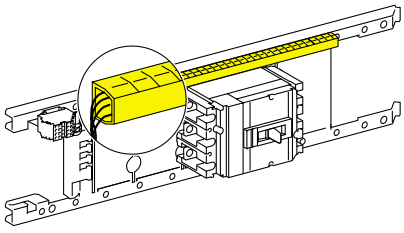
This trunking can be used to run auxiliary wiring (circuit breaker auxiliaries, etc.) to the right or to the left of the switchgear zone.

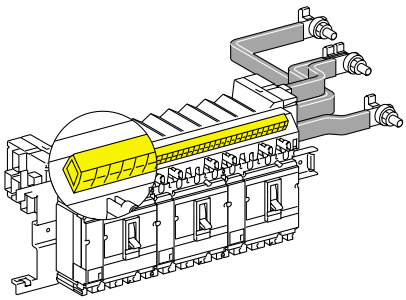
It can be installed either on the mounting plate or directly on the Polypact distribution block.

description	cat. No.
auxiliary wiring trunking, L = 470 mm	**07323**

This wiring can be run to a junction block, clipped to an adapter.

description	cat. No.
terminal block adapter for mounting plates	**07324**





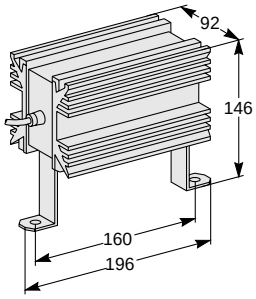
Heating elements

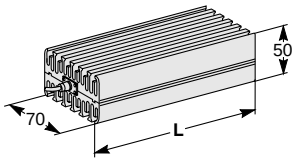
Resistors for horizontal or vertical mounting. Used to prevent condensation, corrosion and surface leakage currents.
They maintain an above-freezing temperature in enclosures when outside temperatures are very low.

Characteristics

- aluminium ribbed casing
- built-in thermostat, off at 60 °C and on at 25-30 °C (actual temperature of the resistor)
- comes with 50 cm of flexible cable (3 x 0.75 mm^2)
- equipped with a symmetrical rail for rapid fitting (snap-on).

heating elements	cat. No.
55 W, 230 V	**07995**
90 W, 230 V	**07996**
250 W, 230 V	**07998**



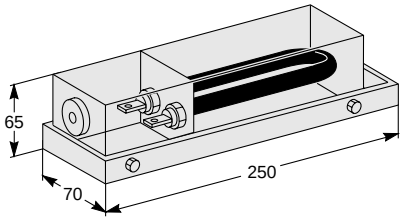


H	W	D (mm)	cat. No.
50	140	70	**07995**
50	180	70	**07996**

Heating rods

Heating assembly to prevent condensation.
A stainless steel heating rod is clamped to a protective cover.
Supplied without thermostat.
Mounting: with M6 screws (25 mm between centres).

heating rods	cat. No.
60 W, 230 V	**07992**
150 W, 230 V	**07993**
250 W, 230 V	**07994**



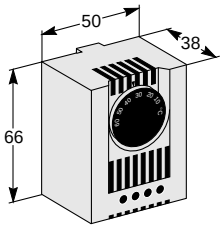
H	W	D (mm)	cat. No.
65	250	70	**07992**
65	250	70	**07993**
65	250	70	**07994**

Thermostat

Used to control and limit the temperature inside electrical enclosures equipped with heating rods and fans.

description	cat. No.
thermostat	07999

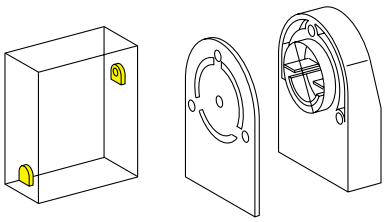
Temperature range: +10 °C to +50 °C.
Voltage: 230 V.
Mounting: clips onto Multifix rail.

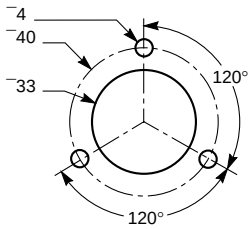


Ventilation openings

description	cat. No.
2 ventilation openings	02991

Airway cross-section: 3.3 cm^2.
Dimensions (mm): H = 69, W = 51, D = 19.
Degree of protection: IP44.





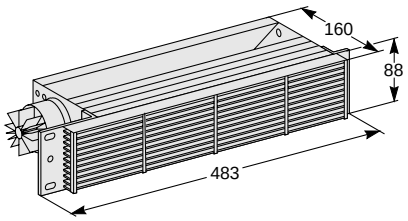
Hole locations

Ventilation unit 19 ″

Air is drawn in from the front through a filter, deflected 90° and forced vertically through equipment.

description	cat. No.
19 ventilation unit for electronic equipment	07990

Height = 2 units.
IP 42.
Voltage: 230 V.
Output: 300 m^3/h, without backpressure.
Power: 12 W.

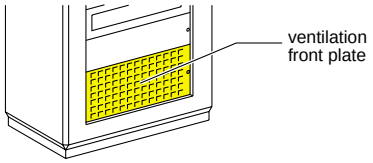


Ventilation front plates

Located at the top and bottom of cubicles, these IP20 ventilation front plates allow air to flow through the enclosure.

ventilation front plates	cat. No.
H = 50, CSA = 65 cm^2	07980
H = 250, CSA = 425 cm^2	07981

CSA = cross-sectional area of the airway.

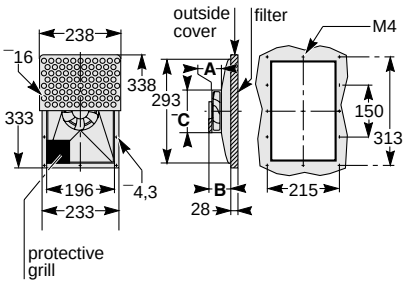


Fans

■ assembly made up of an axial fan, a grill and a standard filter
■ the case and the grill are made of self- extinguishing plastic
■ IP 54. These fans draw in fresh air. They come complete with mounting screws and maintenance instructions.

dim. A	dim. B	Ø C	cat. No.
45	75	118	**07988**
75	112	150	**07989**

Accessories	cat. No.
fan support front plate with cutout (5 modules)	**07984**

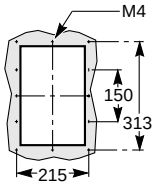


power (W)	voltage (V)	current (mA)	throughput without backpressure m³/h		throughput with outlet grill m³/h		max. back pressure Pa	acoustic noise dB	weight (kg)	fan cat. No.
			with standard filter	with fine filter	with standard filter	with fine filter				
18	230	110	83	63	65	50	24,5	49,5	1,1	**07988**
38	230	250	170	90	130	70	40,2	56	1,8	**07989**

Outlet filter

■ filter grill, supplied with a standard filter (max. air throughput 130 m³/h)
■ IP54.

description	cat. No.
filter grill with standard filter	**07985**
standard filter	**07982**
fine filter	**07983**
filter support front plate with cutout (5 modules)	**07984**



Ventilated roof

Accessories
The ventilated roof can be mounted on 700 mm wide Prisma P frames (D = 400 or 600 mm).
It improves cubicle ventilation by either natural or forced convection.
■ for an IP20 cubicle, the ventilated roof replaces the standard roof. Maximum effectiveness is obtained with the addition of an IP 20 ventilation front plate at the bottom of the cubicle
■ for an IP30 cubicle, the IP20 ventilated roof is covered by a 150 mm high ventilated top. Addition of a ventilation front plate at the bottom of the cubicle is recommended
■ for an IP41 cubicle, a filter is added to the IP30 ventilated roof.
A fan (IP54) is generally necessary at the bottom of the cubicle.

ventilated roof		cat. No.
IP 20 ventilated roof	D = 400	**09421**
	D = 600	**09422**
IP 30 ventilated roof	D = 400	**09418**
	D = 600	**09419**
filter for IP 41 ventilated roof D = 400 and 600		**09420**
spacers for raised ventilated roof 6 spacers M6, H = 17.5 mm improves the ventilation and ensures a degree of protection of IP20		**05222**

Finishing accessories

Labels

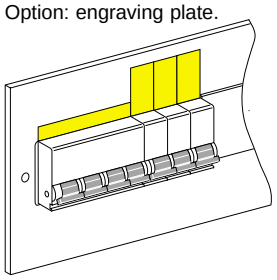
Label holder

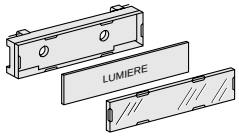
for modular devices		cat. No.
12 label holders	18 x 35	**07351**
12 engraving plates	18 x 35	**07352**
12 label holders	18 x 72	**07353**
12 engraving plates	18 x 72	**07354**

for Compact circuit breaker and other units		cat. No.
12 label holders	25 x 85	**07355**
12 engraving plates	25 x 85	**07356**
Prisma beige adhesive label holder 10 self-adhesive label holders L = 430 mm		**07360**

Prisma beige label holder:
- clip-on support + paper labels + transparent cover
- horizontal or vertical mounting with clips or screws.

Also takes Dymo type strips, H = 12 mm.
Option: engraving plate.





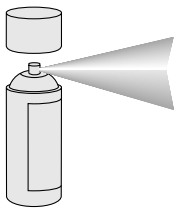
Adhesive labels

label	white	black	red
10 strips 900 mm (L = 7 mm)	**03511**	**03521**	**03531**
10 outgoing arrows	**03512**	**03522**	**03532**
10 incoming arrows	**03513**	**03523**	**03533**
5 transformers	**03514**	**03524**	**03534**
5 earths	**03515**	**03525**	**03535**

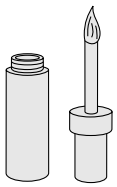
Note:
Range of temperature for adhesive –25 °C to +70 °C (has undergone tests according to standard HN63 S60 damp heat tests without unsticking of labels occurring or any traces of oxidation being noted).

Spray paint

description		cat. No.
spray paint	Prisma beige	**09059**
touch-up brush	Prisma beige	**09058**
spray paint	RAL 7032	**02499**



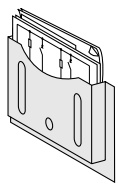
09059



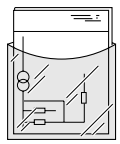
09058

Drawing holder

description	cat. No.
rigid adhesive drawing holder H = 215, W = 215, D = 20, colour: RAL7032	**06617**
5 flexible drawing holders	**05207**

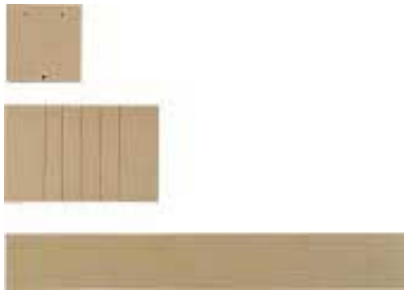


06617

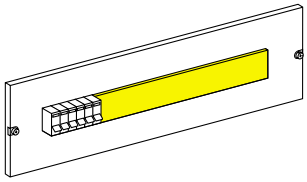


05207

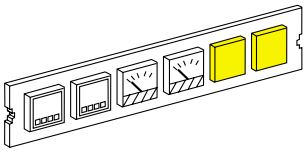
Blanking plates



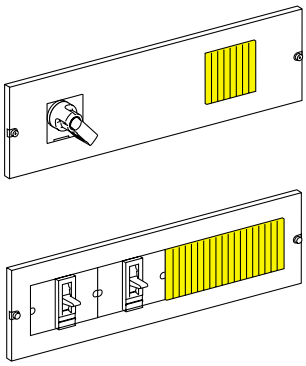
for Multi 9 device	cat. No.
1 strip blanking plate Prisma beige L = 1000 mm for Multi 9 (H = 46 mm)	07340



for 72 x 72 mm device	cat. No.
72 x 72 mm blanking plate Prisma beige	07347
set of hole punches for 72 x 72 mm blanking plate including Ø 22 mm and ❑ 46 mm	03112

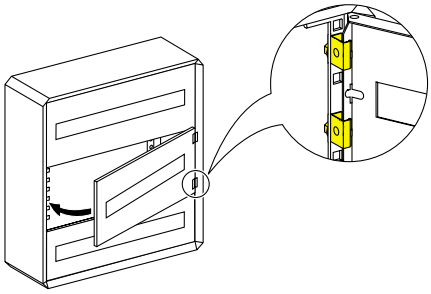


for Compact/Interpact device	cat. No.
divisible blanking plate Prisma beige for Compact NS100/250 and Interpact IN125/160T vertical mounting (H = 80 mm, W = 122 mm)	07348



Hinges for front plate

description	cat. No.
4 hinges for front plate	09053



Spare mounting hardware

description	cat. No.
spare nuts and bolts	07395

Composition

- 4 mounting plate fixing screws
- 4 front plate fixing screws
- 1 fixing screw for corner pillar
- 2 pillar inserts
- 2 clip-on nuts for fixing mounting plates and ducts
- door earthing fixture.

Special locking fixtures

Handles, barrels, combinations

locks for handle 09940 **and** 09944 **and all Prisma P and PH doors after disassembly of barrel 405**

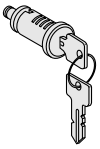

09932


09931


09946


09937


09947

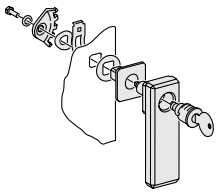


slot for screwdriver		**09931**
female square	6 mm	**09946**
male square	6 mm	**09949**
	7 mm	**09947**
	8 mm	**09948**
male triangle	7 mm	**09937**
	8 mm CNOMO	**09938**
	9 mm EDF	**09939**
double bar	3 mm	**09932**
padlocking device		**09951**

barrel + 2 keys 2433 A	**09933**
barrel + 2 keys 455	**09945**
barrel + 2 keys 1242 E	**09942**
barrel + 2 keys 3113 A	**09943**

Please consult us for other combination of A and E type Ronis locks.

handle with barrel + 2 keys 405



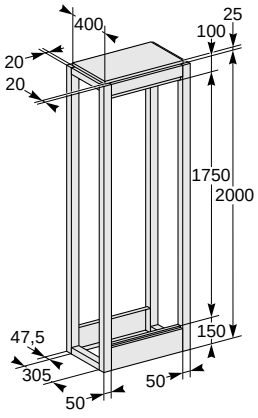
for Prisma P cubicle	black	**09936**
	beige	**09940**
for Prisma PH cubicle	beige	**09944**

Dimensions

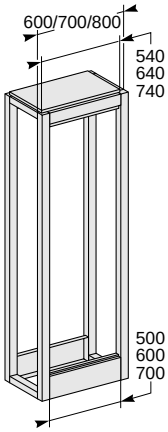
Prisma P cubicle
Frame

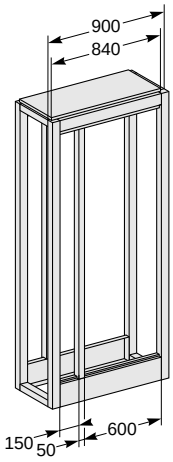
Frame, depth D = 400

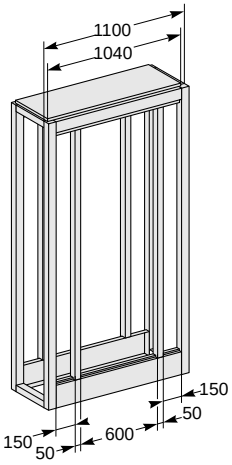
Common dimensions



Specific dimensions

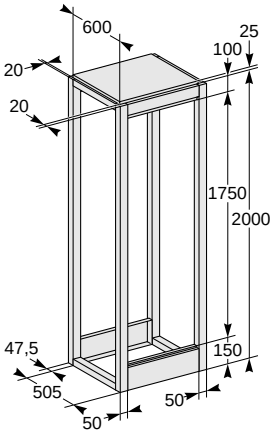




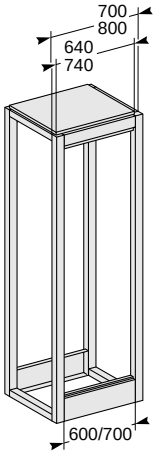


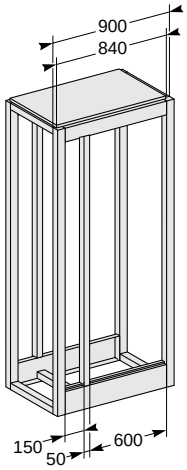
Frame, depth D = 600

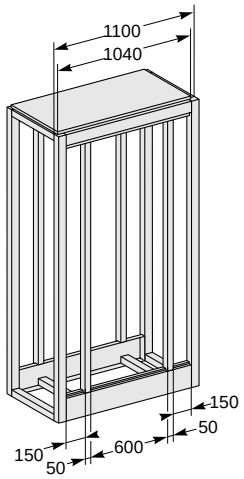
Common dimensions

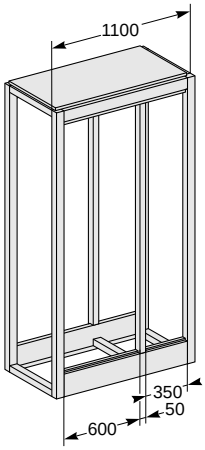


Specific dimensions



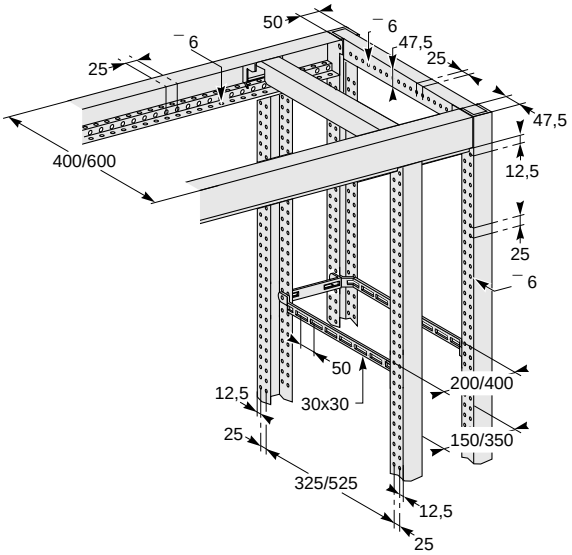




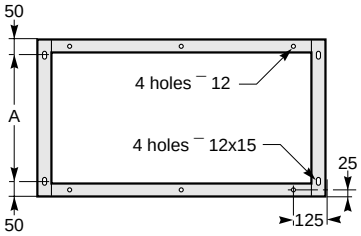


Detail of uprights

Cable tie bar



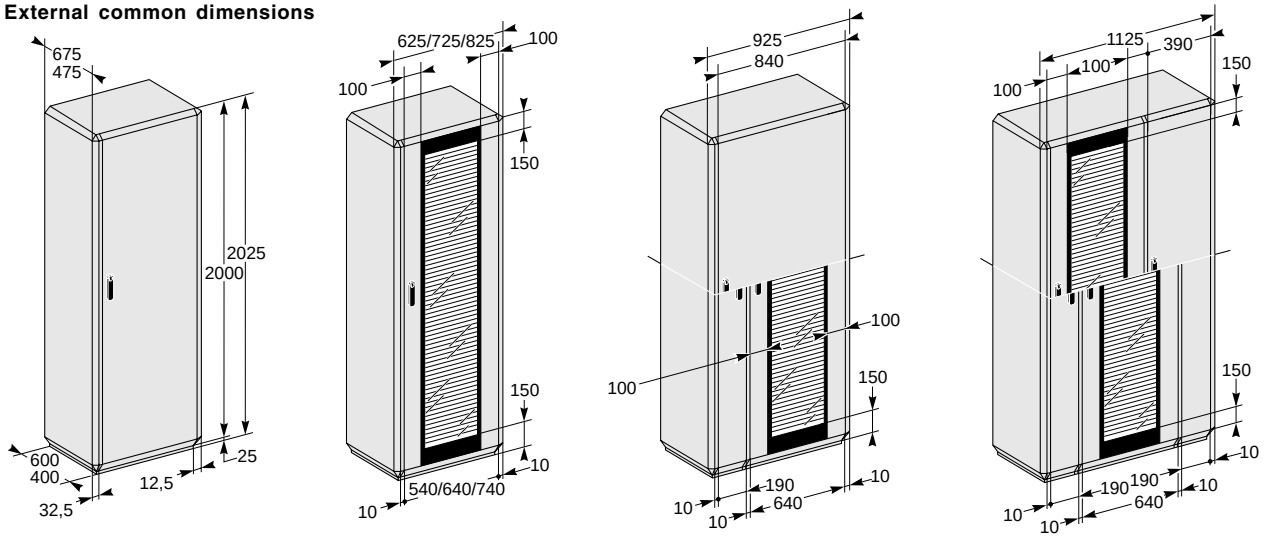
Floor fixing



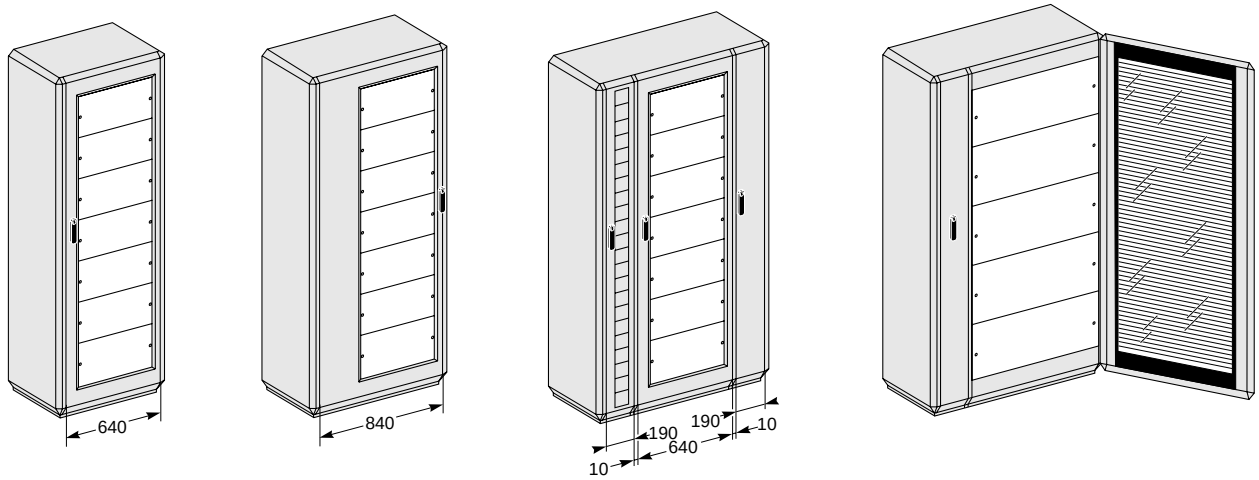
centres	A
for frame depth D = 400	300
for frame depth D = 600	500

Prisma P cubicle
cover

External common dimensions

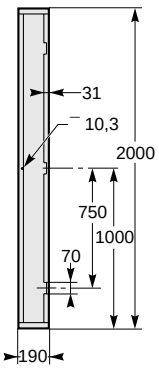


Front plate support door - Front plate support uprights + plain or transparent door

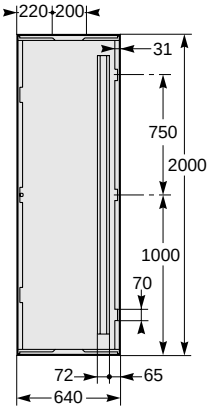


Effective area on wicket door and door

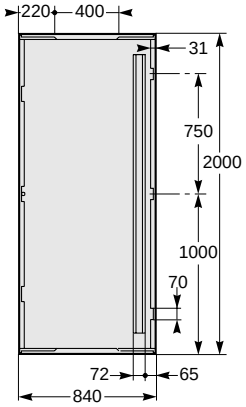
Wicket door



Plain door W = 700

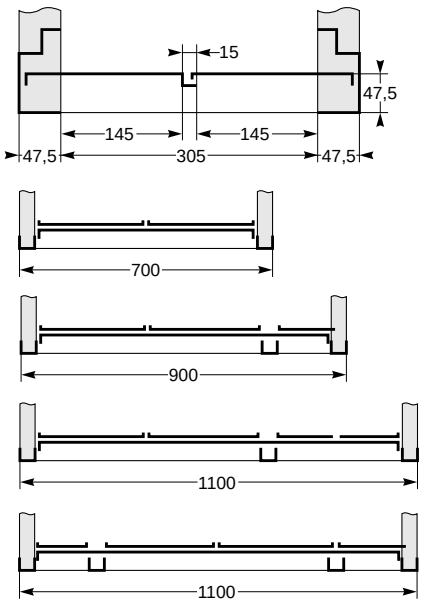


Plain door W = 900



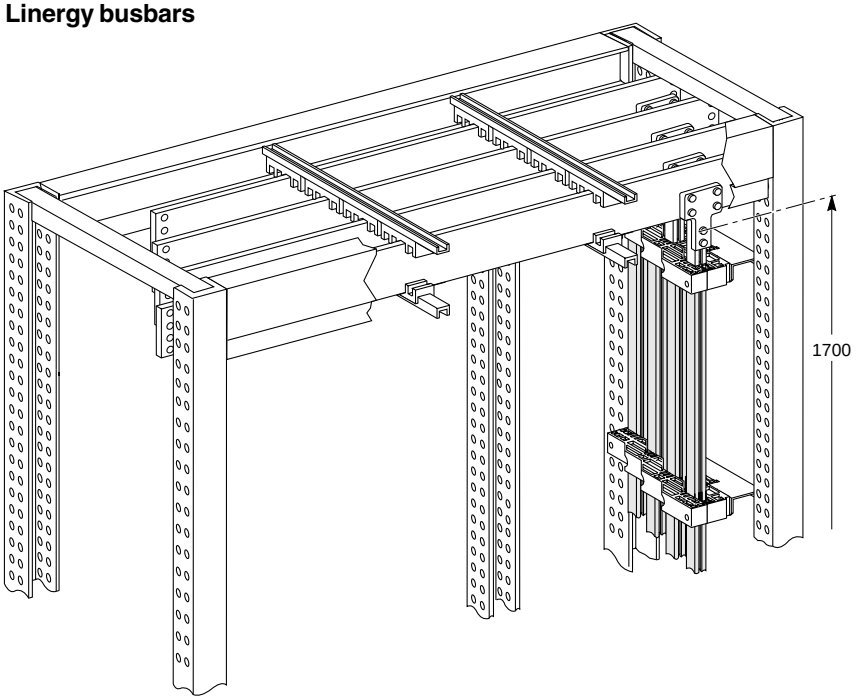
Gland plate

For depth D = 400

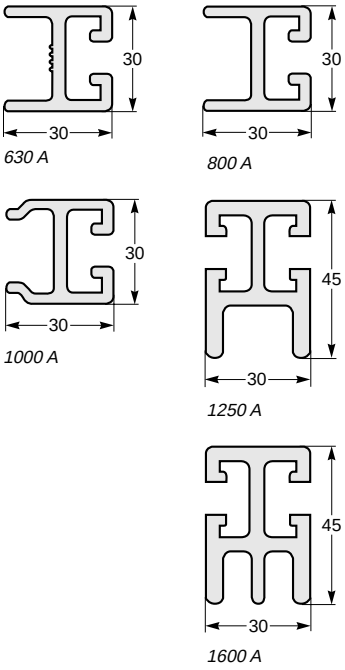


Prisma P cubicle
Linergy 1600 A busbars

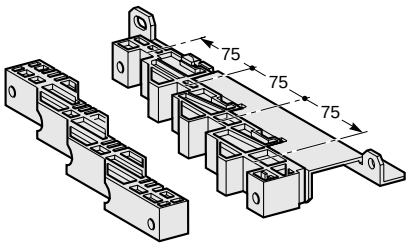
Linergy busbars



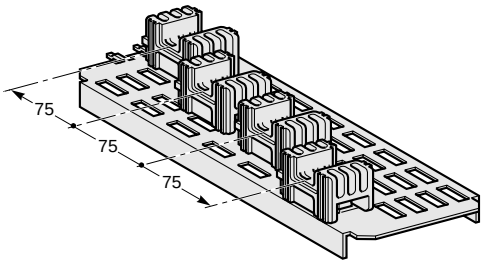
Linergy busbar connections



Linergy supports

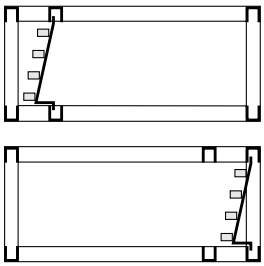


Linergy bottom supports

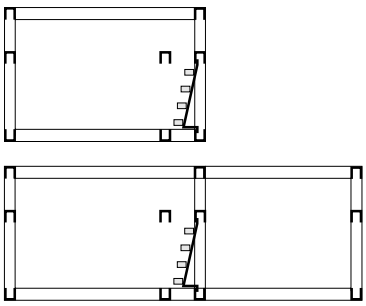


Busbar layout

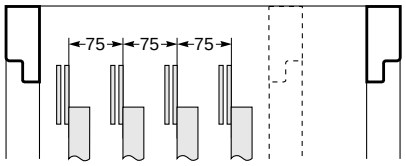
Prisma P, depth D = 400



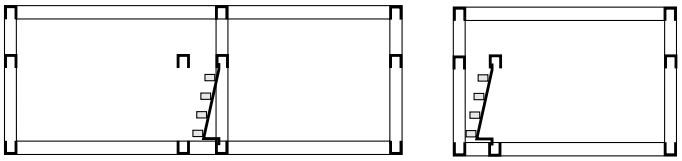
Prisma P, depth D = 600



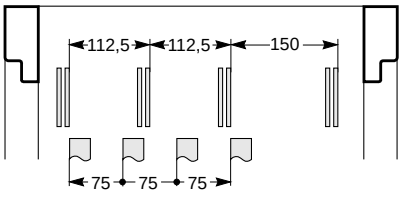
Direct connection with horizontal busbars on 75 mm centres
Depth D = 400 or 600



Two Prisma P frames installed side by side
D = 400 or D = 600

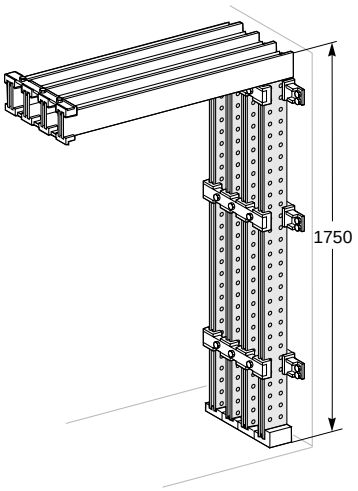


Connection with horizontal busbars on 112.5 mm centres
Depth D = 600

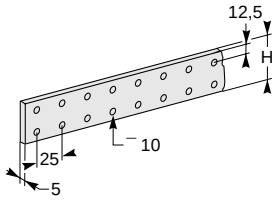


Prisma P cubicle
Vertical busbars > 1600 A

Lateral vertical busbars

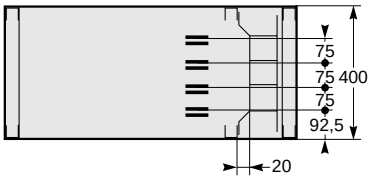


Bars, width W = 50/63/80/100/125

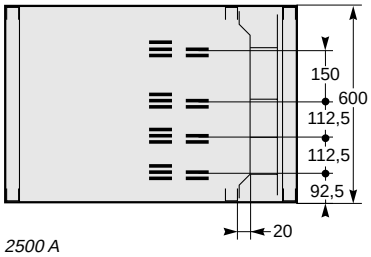


1 bar/phase

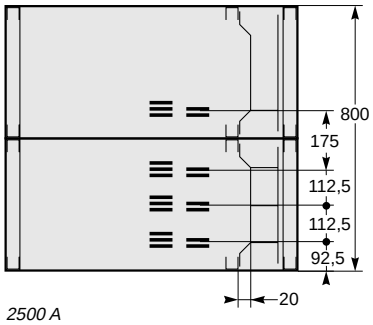
Prisma P cubicle, width W = 900 and 1100



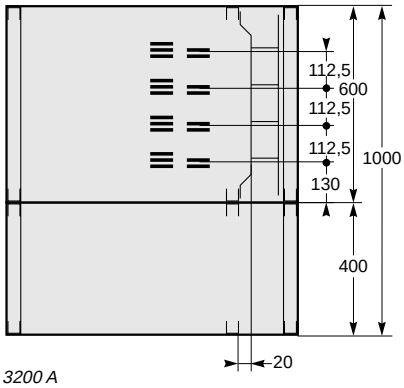
1600 A



2500 A



2500 A

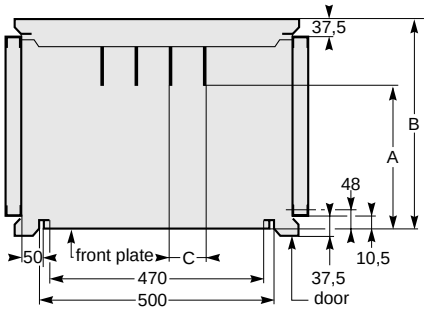


3200 A

Rear vertical busbars

Available space behing the front plate support door

- without busbars;
- with rear busbars.

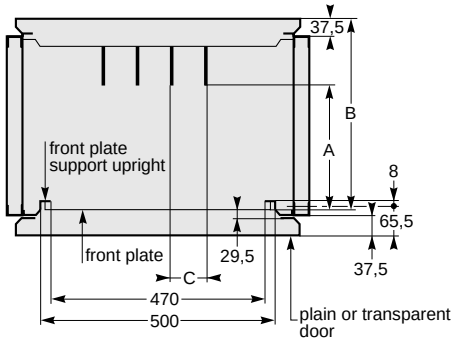


bar width	dimension A depth D = 400	dimension A depth D = 600	dimension B depth D = 400	dimension B depth D = 600
25	318	518	446	646
50	293	493	446	646
63	280	480	446	646
80	263	463	446	646
100	243	443	446	646
125	218	418	446	646

	centres C
≤ 1600 A	75
≤ 3200 A	112,5

Available space behing the front plate support uprights + door

- without busbars;
- with rear busbars.

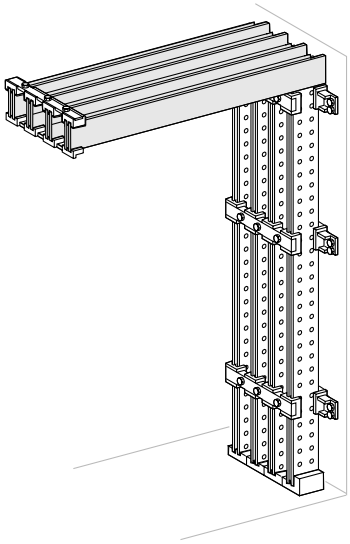


bar width	dimension A depth D = 400	dimension A depth D = 600	dimension B depth D = 400	dimension B depth D = 600
25	278	478	406	606
50	253	453	406	606
63	240	440	406	606
80	223	423	406	606
100	203	403	406	606
125	178	378	406	606

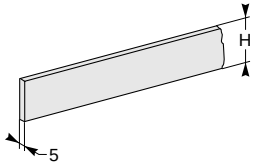
	centres C
≤ 1600 A	75
≤ 3200 A	112,5

Prisma P cubicle
Horizontal busbars

Top and bottom horizontal busbars

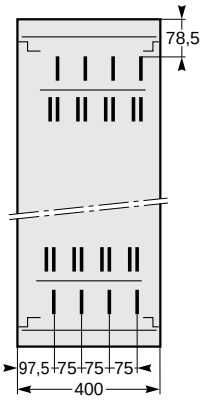


Bars, width W = 50/63/80/100/125

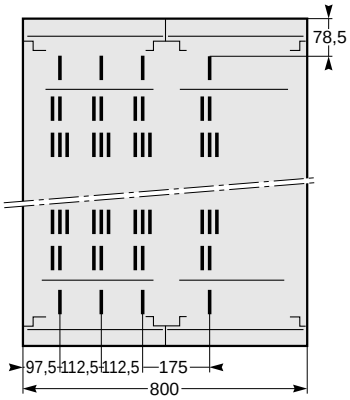


| *1 bar/phase*
|| *2 bars/phase*
||| *3 bars/phase*

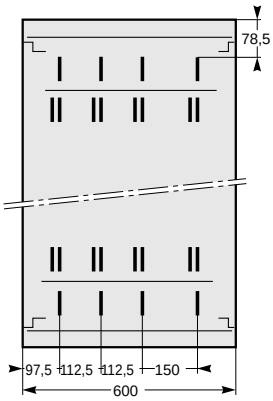
Prisma P cubicle, width W = 600 to 1100



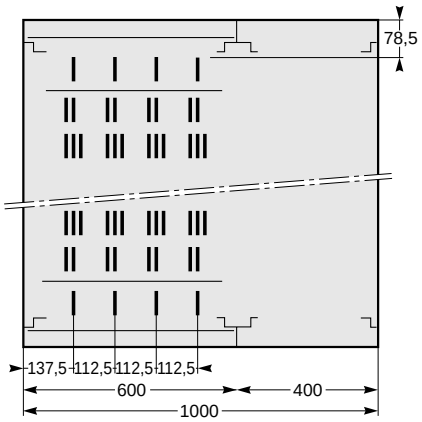
1600 A



2500 A



2500 A

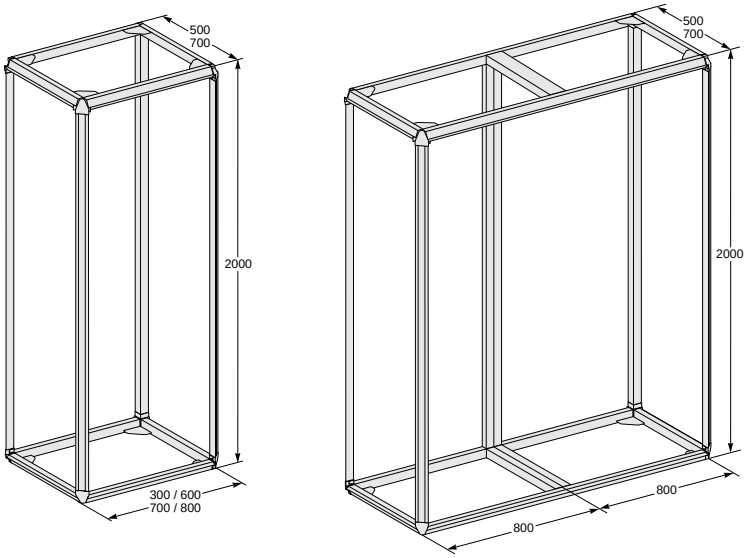


3200 A

Prisma PH cubicle

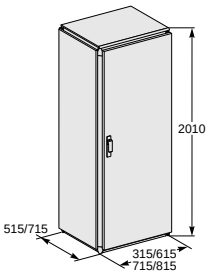
Frames

Section

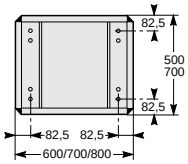


Covering

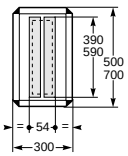
Plain or transparent door, side panels

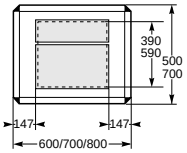


Floor fixing



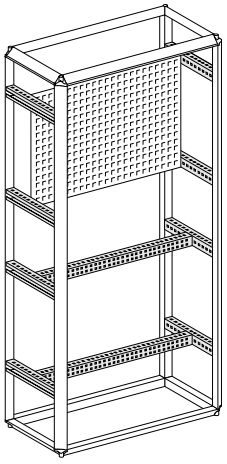
Gland plate



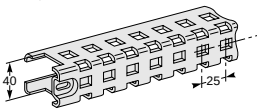


Device installation

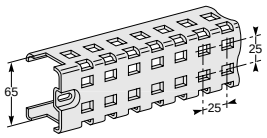
Use of rear and side cross-member



Single holes



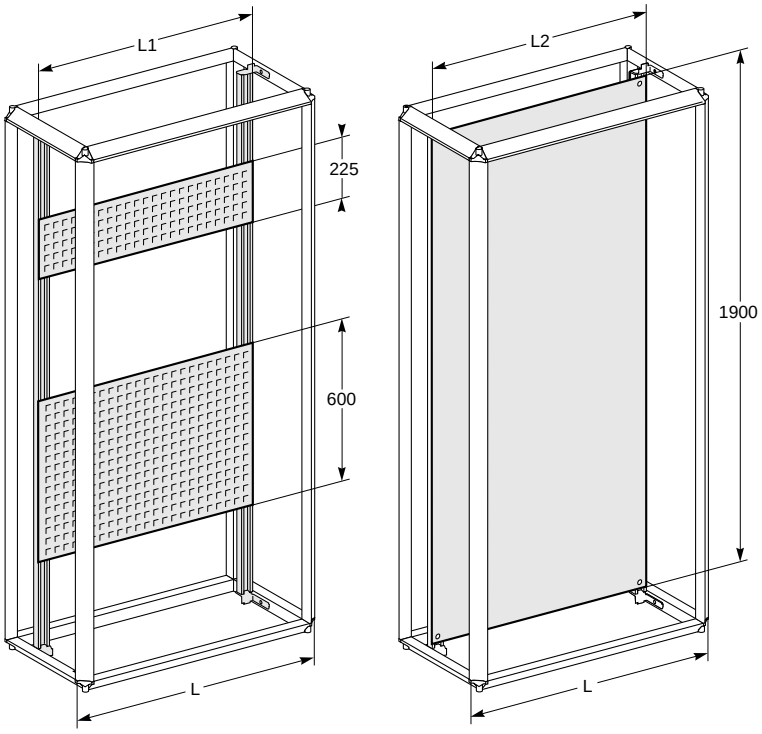
Double holes



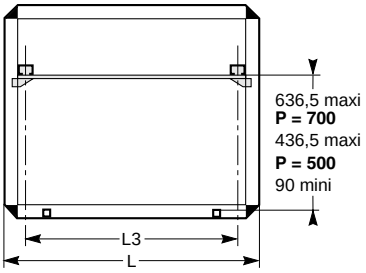
Prisma PH cubicle

Use of plain and slotted plates

width	L1	L2	L3
600	510	500	450
800	710	700	650

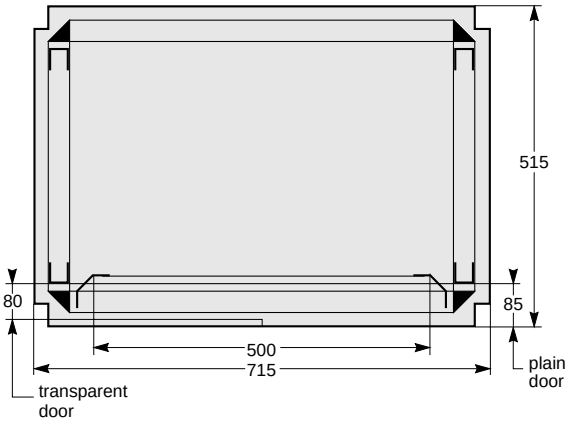


Upright depth adjustement

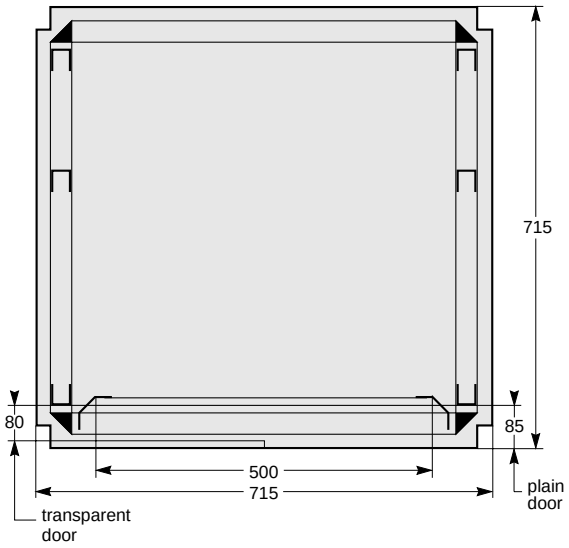


Functional system for Prisma PH cubicle

Cubicle assembly



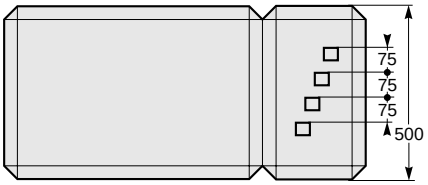
P = 500



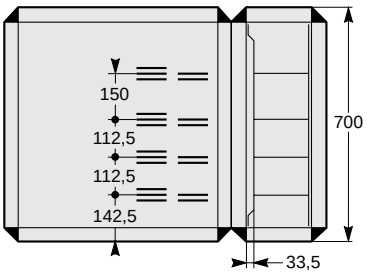
P = 700

Busbar installation

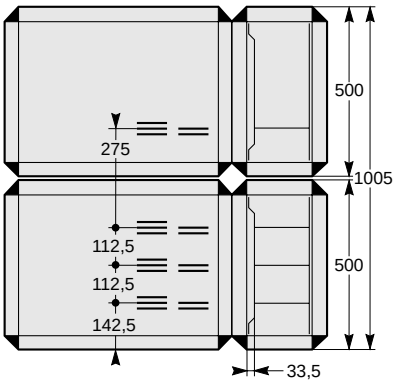
Lateral vertical busbars



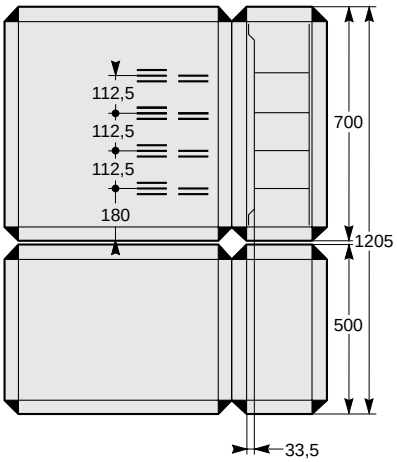
1600 A



2500 A

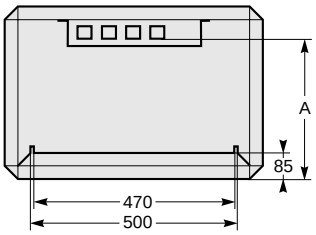


2500 A



3200 A

Root busbars



type of bar section	dim. A
Linergy 800	384
Linergy 1 000	384
Linergy 1 250	369
Linergy 1 600	369

Width of Multi 9 devices (in number of 9 mm modules)

description	9 mm module width 1P	1P + N 2P	3P	4P
AMP analogue ammeter	**8**			
AMP digital ammeter	**4**			
C32H-DC auxiliary	**1-2**			
NO/NC auxiliary	**2**			
ACTp and ACTr contactor auxiliary	**2**			
ACTo+f contactor auxiliary	**1**			
Vigi C60 ≤ 25 A module		**3**	**6**	**6**
Vigi C60 ≤ 40 and 63 A module		**4**	**7**	**7**
Vigi XC40 module		**3**	**4**	**5**
Vigi XC40 (30 mA) module		**3**	**5**	**5**
Vigi C120 module all ratings		**7**	**10**	**10**
pushbuttons	**2**			
fuse switch combinations	**2**	**4**	**6**	**8**
CM selector switches	**2**	**4**		
Zero recall 2P selector switch	**6**			
CMA ammeter selector switch	**6**			
CMV voltmeter selector switch	**6**			
CME 2-direction selector switch	**6**			
CMD 4-direction selector switch	**6**			
CE, CEr kilowatt hour meter	**12**			
CE ch. Kilowatt hour meter**	**6**			
CI impulse meter	**4**			
CH hour counter	**4**			
CT 16/25 A contactor	**2**	**2**	**4**	**4**
CT 40/63/100 A contactor		**4-6**	**4-6**	**6-12**
CT contactor: ACTc auxiliary	**2**			
CDS single-phase load-shedding contactor	**10**			
CDSc and CDSt single-phase load-shedding cont.	**16**			
CDS three-phase load-shedding contactor			**16**	
SM21 insulation monitor	**8**			
TC16-6 A static switch	**5**	**7**		
TC16-10/16 A static switch	**7**	**9**		
Déclic, DPN, DPN N circuit-breaker		**2**		
DPNa, DPN, DPN N Vigi residual current device		**4**		
C32H-DC circuit-breaker	**2**	**4**		
C60a/N/H/L/LMA circuit-breaker	**2**	**4**	**6**	**8**
C120/N/H circuit-breaker	**3**	**6**	**9**	**12**
NC100 circuit-breaker	**3**	**6**	**9**	**12**
NG125 circuit-breaker	**3**	**6**	**9**	**12**
2 OF or OF + SD auxiliary	**1**			
ID, DPN, C60, C120 auxiliary	**1-2-4**			
MX + OF or MN auxiliary	**2**			
MN S auxiliary	**4**			
NG125 Vigi S circuit-breaker		**11**	**18**	**21**
NG125 Vigi I/S/R circuit-breaker		**11**	**20**	**23**
P25 M circuit-breaker			**5**	
MN auxiliaries	**1**			
MX auxiliaries	**2**			
Réflex XC40 circuit-breaker		**8**	**10**	**12**
TL, ETL extension	**2**			
ERL extension	**2**			
FREQ frequency meter	**4**			
insert	**1**			
20 A and 32 A switch	**2**	**2**	**4**	**4**
40, 63, 100, 125 A switch	**2**	**4**	**6**	**8**
IB dual circuit switch**		**4**		
IC200 light sensitive switch	**5**			
IC2000 light sensitive switch	**7**			
IC2000P light sensitive switch	**10**			
ICWo, ICWs light sensitive switch	**6**			

description	9 mm module width 1P	1P + N 2P	3P	4P
IC7502 light sensitive switch	**10**			
ID-RCCB residual current circuit-breaker		**4**		**8**
IF fuse switch	**2**	**4**	**6**	**8**
IHP, IHH, IH time switch	**2**			
IH time switch	**6**			
IH time switch	**12**			
day IHP	**5**			
week IHP	**5**			
week IHP, impulse 1-2 channels	**7**			
week IHP, impulse 3-4 channels	**10**			
annual IHP	**10**			
MIN timer	**2**			
MINe, MINp, MINs timer	**2**			
MDI current module	**1**			
MDU voltage module	**1**			
PF8, PF15 2P surge arrester		**4**		
PF30 (r) 2P surge arrester		**6**		
PF8, PF15, PF30 (r) 4P surge arrester			**8**	
PF65(r) 4P surge arrester			**14**	
PE65/40/15/8 1P surge arrester	**2**			
PRC telephone surge arrester	**2**			
SBI 14 x 51 fuse holder	**3**	**6**	**9**	**12**
SBI 22 x 58 fuse holder	**4**	**8**	**12**	**16**
PRE early switch-off warning	**2**			
PC comfort 10 A et 16 A power socket		**5**		
PC 20 A power socket	**8**			
RGo regulator	**6**			
REG/REG1/REG2 regulator	**8**			
REGad1, REGad2 regulator	**12**			
RBN low level relay	**2**			
DD subdistribution load-shedding relay	**2**			
DSC changeover relay	**2**			
RCU/RCI/RCP and RCC relay	**4**			
RTA, RTB, RTC, RTH, RTL, RTMF time-delay relay	**2**			
RLI relay	**2**			
STI fuse disconnector	**2**	**2-4**	**6**	**6**
bell and buzzer	**2**			
TBS remote control	**8**			
Tm60-Tm120 remote control	**7**			
TL 16 A and 32 A, ETL 16 and 32 A impulse relay	**2**			
TLI 16 A,TLc changeover impulse relay	**2**			
TLm, TLs impulse relay	**2**			
impulse relay: ATLc+c, ATLc+s auxiliaries	**2**			
impulse relay: ATLt, ATLz auxiliaries	**2**			
impulse relay: ATL4 auxiliary	**4**			
TC16P 10/16 A static impulse relay	**7**	**9**		
time delay relays	**2**			
TH3 and TH6 thermostat	**8**			
THP1 thermostat	**10**			
THP2 thermostat	**10**			
TR, 4 VA transformer	**4**			
TR, 8 and 16 VA transformer	**4**			
TR transformer, 25 VA	**6**			
TR transformer, 16 to 63 VA	**10**			
Vigilhom EM (9, 9B)	**8**			
Vigilhom TR5A and SM21	**11**			
Vigirex RH (10 A/AP, 320 A/AP, 328 A/AP)	**8**			
VLT analogue voltmeter	**8**			
VLT digital voltmeter	**4**			
indicator lights	**2**			

Determining the power circuits
Presentation and method

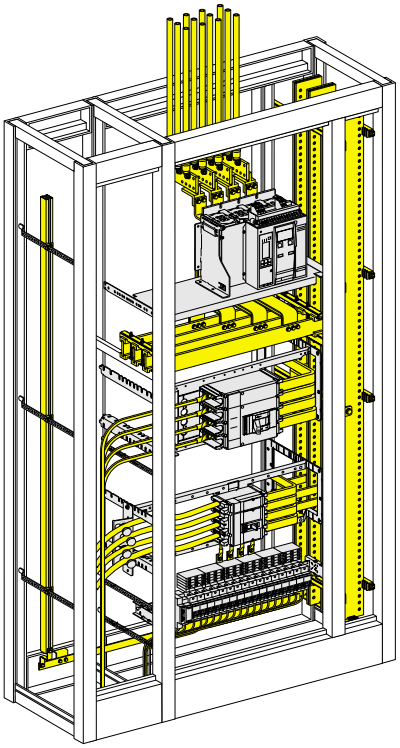
The following pages present an example, based on a Prisma P switchboard, to help you determine the necessary busbars and upstream and downstream connections for your installation.
This example assumes that the equipment and devices have already been selected.
A complete procedure would include the previous phases (selection of transformer, conductors, protective devices, etc.).
Schneider Electric offers a number of tools to help you design a complete installation (technical guides, design software, etc.).

Example

Cubicle:
- Prisma, D = 400 mm
- 900 mm wide
- 300 mm extension
- form 2
- IP 20: The necessary IP depends on the location where the switchboard is to be installed (see page ESB120E_8_580/580)
- ambient temperature around switchboard: 35°C
- prospective Isc: 36 kA
- TT system

Incoming circuit breaker:
- Masterpact NT16 H1 fixed, front-connected, 4P

Outgoing devices
- Compact NS630 horizontal
- Compact NS250 horizontal
- 1 row of modular circuit breakers



The Prisma functional system takes into account the installation and connection requirements of Schneider Electric devices in enclosures. The resulting switchboards represent type-test assemblies complying with standard IEC 60439-1.

Standards

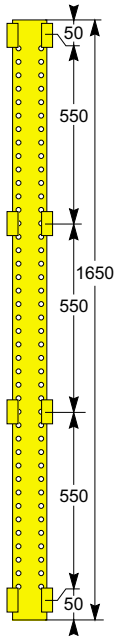
For devices installed in enclosures, the reference standard is IEC 60439-1.
Standard IEC 60947 deals with devices alone (circuit breakers, contactors, switch-disconnectors).

The difference between these two standards is clearly demonstrated by the temperature-rise tests:
Temperature-rise tests for switchboards according to IEC 60439-1.
Main test characteristics:
- the tests are carried out in a room in which the temperature is regulated, to obtain values at a reference temperature of 35°C
- the devices, connections and busbars are installed inside an enclosure (internal temperature approximately 60°C)
- the different temperatures inside the switchboard are measured
- the behaviour of the devices in the switchboard configuration is checked.

Temperature-rise tests for devices according to IEC 60947.
Main test characteristics:
- the tests are carried out in open air (reference temperature of 40°C)
- the tests are carried out on a single device
- various temperatures inside and around the device are measured
- the lengths and cross-sectional areas of the connection between the device and the power source do not correspond to a switchboard configuration

Temperature-rise tests for insulated flexible copper bars according to IEC 60947-1
Main test characteristics:
- the tests are carried out in open air (reference temperature of 40°C)
- the tests are carried out on a single conductor, 6 metres long (no device connected, no power dissipation, no additional heating)
- temperature-rise is measured according to the current carried
- this test does not take into account the installation conditions inside the enclosure nor the device connected.

1 - busbars



Linergy busbars (table page 141): I ⩽ *1600 A.*
The table indicates:
■ the Linergy busbar to be used depending on the current and the temperature around the switchboard
■ the number of supports required depending on Icw in kA rms/1s.

Flat busbars (table page 142): I ⩽ 3200 A
The table indicates:
■ the permissible current according to:
□ the cross-section area of the bars
□ the number of bars
□ the temperature around the enclosure
□ the degree of protection IP
■ the distance between phase centres depending on current
■ the required distance between supports depending on Icw (in kA rms/1s), which must be greater than or equal to Isc (in kA rms/1s).

Example:
Flat busbars
■ *T = 35°C, IP ⩽ 30, In 1600 A ⇨ 1650; two 80 x 5 mm busbars are required*
■ *I ⩽ 1650 A, 75 mm spacing between phase centres*
■ *securing: Isc = 36 kA ⇨ 37 kA; therefore with two 80 mm wide bars, the distance between supports is 600 mm, the bars are 1750 mm long; 1750 - 100 = 1650/600 ⇨ gives 3 intervals, therefore we need 4 supports*
(see illustration opposite) (+ the bottom busbar support).

Example using Schneider Electric prefabricated solutions:
Lynergy busbars: table page 141
■ *In = 1600 A, IP ⩽ 30, T = 35°C: use the Linergy 1600 section, cat. No.* ***07635***
■ *securing: Isc = 36 kA ⇨ 39 kA, therefore we need 3 supports cat. No.* ***07371*** *and one bottom support cat. No.* ***07373****.*

2 - upstream/downstream devices connections

To determine the cross-section of the upstream and downstream device connections, use the tables on pages 147 according to:
■ the type of circuit breaker
■ the IP
■ the ambient temperature around the switchboard
■ the type of installation.
We must determine:
□ the number and type of 5 mm thick copper bars
□ the maximum permissible current

Example
Upstream: incoming connection by cables to terminal extension bars
■ *device: fixed Masterpact NT16*
■ *IP ⩽* 30, edgewise bars
■ *ambient temperature outside switchboard T = 35°C*
□ *3b x 63 mm wide per phase, I = 1600 A.*

Downstream: connection to flat busbars via transfer busbars
■ *device: fixed Masterpact NT16*
■ *IP ⩽ 30, flat bars*
■ *ambient temperature outside switchboard T = 35°C*
□ *4b x 50 mm wide, I = 1600 A*
□ *horizontal part: edgewise bars: 3b x 63 x 5mm, I =1600 A.*

Example using Schneider Electric prefabricated solutions:
Upstream and downstream NT16 connections

Upstream: incoming connection by cables to terminal extension bars
■ *device: fixed Masterpact NT16, 4P*
■ *use:*
□ *vertical connectors cat. No.* ***33643***
□ *cable-lug adapters cat. No.* ***33645***
□ *spacer cat. No.* ***07251***

Downstream: direct connection to Linergy busbars
■ *use:*
□ *vertical connection adapters cat. No.* ***33643***
□ *prefabricated downstream connection cat. No.* ***07243***

Determining the power circuits
Presentation of the method

3 - device connection

By insulated flexible copper straps:
■ an insulated flexible bar alone is covered by standards:
IEC 60243-1 (dielectric), NFC 32201 (insulation), IEC 60332-1 (fire)
■ a flexible bar connected to a device in an enclosure is covered by standard IEC 60439-1 (see explanation on page 139).
To determine the cross-section of the insulated flexible bars to be used, refer to the table on page 139 that gives the required cross-section for each type of device.

Example:
■ *to supply an NS630:*
■ *required cross-section: 32 x 8 mm*

By cables:
Use the table on page 163

Example:
■ *to supply an NS250:*
□ *required cross-section: 95 mm²*

Example using Schneider Electric prefabricated solutions:
■ *NS630 circuit breaker: prefabricated connection*
□ *use connection cat. No.* ***07235***
■ *NS250 circuit breaker: prefabricated connection*
□ *use connection cat. No.* ***07231***

4 - PE conductor

Two methods are available:
■ method 1: Use the formula given in standard IEC 60439-1 to obtain an optimised value (see page 164)

$$S_{PE} = \frac{\sqrt{I^2 t}}{k}$$

Example:
□ *Isc = 36 kA ⇨ value of the phase-to-earth fault current = 60% of the value of the phase-to-phase fault current (standard IEC 60438-1 §8.2.4.2).*
➡ *36 x 0.6 = 21.6 kA*
□ *maximum delay on the control unit: 0.5 s*
□ *k = 143 for PVC-insulated copper conductors.*
Therefore, the calculation gives:

$$S_{PE} = \frac{\sqrt{21600^2 \times 0{,}5}}{143} = 106{,}8\ mm^2$$

Which gives the cross-section of the PE conductor to be used: a 25 x 5 mm bars (= 125 mm²).

■ method 2: Use the Schneider Electric table based on the standard (see page 164)

Example:
■ *directly from the table: Masterpact NT, Isc ⩽ 40 kA:*
⇨ *cross-section to be used: one 25 x 5 mm bar*

Example using Schneider Electric prefabricated solutions:
■ *PE conductor:*
□ *use the PE conductor set cat. No.* ***07428*** *(up to an Isc of 85 kA)*

Determining Linergy busbars

Linergy busbars (In ⩽ 1600 A)

Current depending on of temperature

The maximum current for busbars depends on the surrounding thermal environment.

The type and cross-section of conductors must be sufficient to allow the flow of the required current depending on the temperatures reached in the switchboard (refer to the section on “thermal management of switchboards” to determine these temperatures).

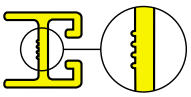
These conductors are subject to additional heating by the current that flows through them.

The temperatures reached on the conductors and on the insulation material must not exceed the maximum temperatures for which they were designed.

Merlin Gerin busbars and distribution blocks are sized for use in Prisma switchboards without any specific constraints under normal ambient conditions (standard switchboard configuration, temperature of 35°C outside the switchboard).

Choice of type of section

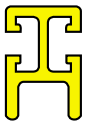
Temperature around the switchboard	25 °C		30 °C		35 °C		40 °C		45 °C		50 °C	
Section/phase	IP ⩽ 30	IP ⩾ 31	IP ⩽ 30	IP ⩾ 31	IP ⩽ 30	IP ⩾ 31	IP ⩽ 30	IP ⩾ 31	IP ⩽ 30	IP ⩾ 31	IP ⩽ 30	IP ⩾ 31
Linergy 630	730	680	680	630	630	570	600	540	570	520	540	500
Linergy 800	880	810	850	780	810	750	780	700	750	720	700	680
Linergy 1000	1120	1020	1060	960	1020	920	960	880	920	840	860	800
Linergy 1250	1320	1250	1280	1140	1250	1060	1140	1000	1060	980	1000	920
Linergy 1600	1830	1650	1740	1570	1650	1480	1570	1360	1480	1400	1360	1300



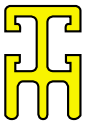
Linergy 630 section
Cat. No. 07361

Linergy 800 section
***Cat. No.* 07362**

Linergy 1000 section
***Cat. No.* 07363**



Linergy 1250 section
***Cat. No.* 07364**



Linergy 1600 section
***Cat. No.* 07365**

Number of supports according to Icw

Icw (kA rms/1s)	25	30	39	52	60	66	85
Linergy 630	3						
Linergy 800	3	3					
Linergy 1000	3	3	3				
Linergy 1250	3	3	3	3	3		
Linergy 1600	3	3	3	3	3	4	6

Note: *When the switchboard is supplied directly from the Linergy busbars via a cable, fit an additional bar support.*

The above values are valid for installation in a Prisma switchboard

Determining flat busbars

Flat busbars up to 3200 A

Choice of bars and permissible current
Optimise the busbar cross-sections according to installation and operating criteria.
Cu bar, thickness: 5 mm

Temperature around the switchboard	25 °C		30 °C		35 °C		40 °C		45 °C		50 °C	
Section/phase	IP ⩽ 30	IP ⩾ 31	IP ⩽ 30	IP ⩾ 31	IP ⩽ 30	IP ⩾ 31	IP ⩽ 30	IP ⩾ 31	IP ⩽ 30	IP ⩾ 31	IP ⩽ 30	IP ⩾ 31
1b x 25	390	350	370	335	350	320	340	310	320	290	300	250
1b x 32	460	440	450	420	440	400	410	370	390	350	370	330
2b x 32	840	780	810	750	770	710	740	670	700	630	660	600
3b x 32	1110	1030	1070	1000	1030	950	990	900	940	850	890	790
1b x 40	610	550	580	520	550	500	520	480	490	450	460	430
2b x 40	1100	960	1050	920	1000	890	960	850	920	810	870	760
3b x 40	1380	1250	1330	1210	1280	1160	1230	1100	1170	1050	1100	990
1b x 50	700	650	670	620	650	600	620	570	590	530	570	510
2b x 50	1250	1100	1200	1050	1150	1000	1100	950	1050	910	1000	860
3b x 50	1630	1430	1560	1380	1500	1320	1430	1260	1360	1200	1300	1150
1b x 63	810	760	770	730	750	700	710	670	670	640	640	600
2b x 63	1460	1260	1400	1200	1350	1150	1280	1100	1220	1050	1160	990
3b x 63	1900	1740	1820	1670	1750	1600	1660	1530	1580	1450	1500	1380
1b x 80	1080	970	1040	940	1000	900	950	860	920	830	870	790
2b x 80	1790	1580	1710	1520	1650	1450	1570	1380	1500	1320	1430	1260
3b x 80	2330	2070	2250	1990	2150	1900	2050	1820	1950	1730	1850	1650
1b x100	1300	1140	1250	1100	1200	1050	1150	1000	1100	960	1050	920
2b x 100	2060	1750	1980	1680	1900	1600	1810	1520	1720	1450	1630	1370
3b x 100	2760	2400	2650	2300	2550	2200	2430	2100	2320	2000	2200	1900
4b x 100	3200	2700	3070	2600	2950	2500	2820	2400	2700	2300	2580	2200
1b x125	1460	1300	1400	1250	1350	1200	1290	1150	1230	1100	1150	1040
2b x 125	2350	2120	2250	2040	2150	1950	2050	1860	1950	1770	1850	1680
3b x 125	3470	3030	3320	2920	3200	2800	3050	2680	2920	2570	2800	2460

The above values are valid for installation in a Prisma switchboard

Securing of flat busbars up to 1600 A

75 mm between phase centres
Cu bar, thickness: 5 mm

			Rated short-time withstand current Icw (kA rms/1s)																	
Current at 35 °C			12	15	19	23	26	29	33	35	37	39	42	44	46	52	66	69	75	85
IP ⩽ 30	IP ⩾ 31	section	maximum distance in mm																	
350	320	1b x 25	425	325	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
440	400	1b x 32	425	325	250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
770	710	2b x 32	1000	775	650	575	500	450	400	350	275	200	-	-	-	-	-	-	-	-
1030	950	3b x 32	1000	1000	750	700	650	600	550	425	350	250	225	200	175	-	-	-	-	-
550	500	1b x 40	425	325	250	225	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1000	890	2b x 40	1000	1000	775	650	575	500	450	400	325	250	225	200	175	-	-	-	-	-
1280	1160	3b x 40	1000	1000	1000	750	650	550	500	450	400	325	250	225	200	175	150	125	-	-
650	600	1b x 50	475	375	300	250	200	175	-	-	-	-	-	-	-	-	-	-	-	-
1150	1000	2b x 50	1000	1000	900	725	650	575	500	475	450	425	400	375	350	275	175	-	-	-
750	700	1b x 63	550	425	350	275	250	225	200	175	150	150	-	-	-	-	-	-	-	-
1350	1150	2b x 63	1000	1000	1000	850	750	675	575	550	525	500	425	400	350	275	175	150	125	100
1750	1600	3b x 63	1000	1000	1000	1000	1000	1000	950	850	750	650	625	450	475	375	225	200	175	150
1000	900	1b x 80	625	575	450	325	325	300	250	250	225	175	175	150	150	125	-	-	-	-
1650	1450	2b x 80	1000	1000	1000	975	850	775	675	625	600	525	450	425	375	300	175	175	125	100
1200	1050	1b x 100	725	575	450	375	325	300	250	250	225	225	200	175	175	150	125	-	-	-
1900	1600	2b x 100	1000	1000	1000	1000	1000	1000	1000	900	800	700	650	600	550	400	250	225	175	150
1350	1200	1b x 125	850	675	525	425	375	350	300	275	275	250	225	225	200	175	150	125	125	-

Securing of flat busbars up to 3200 A

Entraxe entre phases 112,5 mm
Cu bar, thickness: 5 mm.

			Rated short-time withstand current Icw (kA rms/1s)															
Current at 35 °C			12	23	30	35	37	39	42	44	46	52	55	58	66	69	75	85
IP ⩽ 30	IP ⩾ 31	section	maximum distance in mm															
1000	900	1b x 80	700	550	350	250	225	225	200	200	175	150	-	-	-	-	-	-
1200	1050	1b x 100	850	650	375	275	250	250	225	225	200	175	175	175	150	125	125	100
1350	1200	1b x 125	950	700	425	325	300	275	275	250	250	200	200	200	175	150	150	125
1000	890	2b x 40	850	700	600	500	475	400	425	350	300	-	-	-	-	-	-	-
1150	1000	2b x 50	1000	800	650	575	550	525	475	450	425	375	300	250	200	-	-	-
1350	1150	2b x 63	1000	850	750	650	625	575	550	525	500	400	350	300	225	200	150	125
1650	1450	2b x 80	1000	900	850	750	700	675	625	575	525	400	375	325	250	225	175	125
1900	1600	2b x 100	1000	950	900	850	800	775	675	600	550	425	375	350	275	250	200	150
2150	1950	2b x 125	1000	1000	1000	975	900	825	700	625	575	450	400	350	275	250	200	175
1280	1160	3b x 40	1000	900	825	775	725	700	600	550	500	375	350	300	-	-	-	-
1500	1320	3b x 50	1000	1000	925	875	775	700	600	550	500	400	350	300	225	225	175	-
1750	1600	3b x 63	1000	1000	1000	900	800	725	625	550	525	400	350	325	250	225	175	150
2150	1900	3b x 80	1000	1000	1000	925	825	750	625	575	525	400	375	350	250	250	200	150
2550	2200	3b x 100	1000	1000	1000	950	850	775	650	600	550	425	375	350	250	250	200	150
3200	2800	3b x 125	1000	1000	1000	1000	900	800	700	625	575	450	400	350	275	250	200	175

The above values are valid for installation in a Prisma switchboard

Sizing the busbars
Secondary busbars

Calculations for Linergy secondary busbars

Types of bars

All the loads supplied by a set of busbars are not necessarily used at full rated load or all at the same time. The rated diversity factor is used to determine the maximum rated current which is, in turn, used to size the busbars.

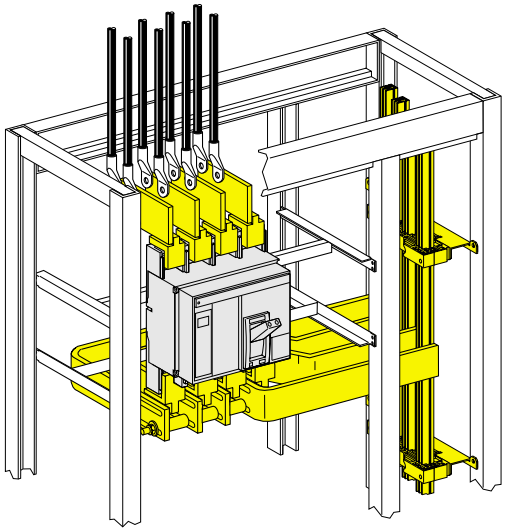
Standard EN 60439-1 §4.7 gives the following table.

number of circuits	diversity factor
2 and 3	0.9
4 and 5	0.8
6 to 9 inclusive	0.7
10 and above	0.6

The above values are valid for installation in a Prisma switchboard

Prefabricated connections
Compact NS and Masterpact NT circuit-breakers

Compact circuit breakers NS630b to 1600 fixed



	NS630b	NS800	NS1000	NS1250	NS1600
	I (A)	I (A)	I (A)	I (A)	I (A)
IP ⩽ 30	**prefabricated connection**				
20	630	800	1000	1250	1600
25	630	800	1000	1250	1600
30	630	800	1000	1250	1600
35	630	800	1000	1250	1600
40	630	800	1000	1250	1600
45	630	800	1000	1250	1560
50	630	800	1000	1220	1460
IP ⩾ 31	**prefabricated connection**				
20	630	800	1000	1250	1600
25	630	800	1000	1250	1600
30	630	800	1000	1250	1600
35	630	800	1000	1250	1560
40	630	800	1000	1220	1460
45	630	800	980	1140	1360
50					

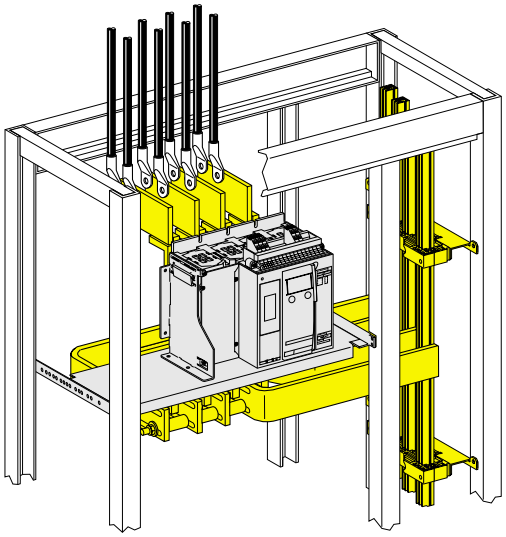
Compact circuit breakers NS630b to 1600 withdrawable

	NS630b	NS800	NS1000	NS1250	NS1600
	I (A)	I (A)	I (A)	I (A)	I (A)
IP ⩽ 30	**prefabricated connection**				
20	630	800	1000	1250	1600
25	630	800	1000	1250	1600
30	630	800	1000	1250	1600
35	630	800	1000	1250	1600
40	630	800	1000	1250	1540
45	630	800	1000	1250	1490
50	630	800	1000	1210	1400
IP ⩾ 31	**prefabricated connection**				
20	630	800	1000	1250	1600
25	630	800	1000	1250	1600
30	630	800	1000	1250	1540
35	630	800	1000	1250	1490
40	630	800	1000	1210	1400
45	630	800	1000	1130	1300
50					

The above values are valid for installation in a Prisma switchboard

Prefabricated connections
Compact NS and Masterpact NT circuit-breakers

Masterpact circuit beakers NT06 to 16 fixed



	NT06	NT08	NT10	NT12	NT16
	I (A)	I (A)	I (A)	I (A)	I (A)
IP ⩽ 30	**prefabricated connection**				
20	630	800	1000	1250	1600
25	630	800	1000	11250	1600
30	630	800	1000	1250	1600
35	630	800	1000	1250	1600
40	630	800	1000	1250	1600
45	630	800	1000	1250	1560
50	630	800	1000	1220	1460
IP ⩾ 31	**prefabricated connection**				
20	630	800	1000	1250	1600
25	630	800	1000	1250	1600
30	630	800	1000	1250	1600
35	630	800	1000	1250	1580
40	630	800	1000	1250	1500
45	630	800	1000	1220	1400
50					

Masterpact circuit breakers NT06, 16 withdrawable

	NT06	NT08	NT10	NT12	NT16
	I (A)	I (A)	I (A)	I (A)	I (A)
IP ⩽ 30	**prefabricated connection**				
20	630	800	1000	1250	1600
25	630	800	1000	1250	1600
30	630	800	1000	1250	1600
35	630	800	1000	1250	1600
40	630	800	1000	1250	1540
45	630	800	1000	1250	1490
50	630	800	1000	1210	1400
IP ⩾ 31	**prefabricated connection**				
20	630	800	1000	1250	1600
25	630	800	1000	1250	1600
30	630	800	1000	1250	1540
35	630	800	1000	1250	1490
40	630	800	1000	1210	1400
45	630	800	1000	1130	1300
50					

The above values are valid for installation in a Prisma switchboard

Sizing of device connections
Compact circuit breakers
NS100 to NS630

Compact circuit breakers NS100/250

5 mm thick copper bars.

		NS100 TMD-TMG		NS125 TMD-TMG		NS160 (1) TMD-TMG		NS250 (1) TMD-TMG		NS100 electronic trip unit		NS160 electronic trip unit		NS250 (2) electronic trip unit	
		section/ phase	I (A)	section/ phase	I (A)	section/ phase	I (A)	section/ phase	I (A)	section/ phase	I (A)	section/ phase	I (A)	section/ phase	I (A)
IP ⩽ 54	T° around the switchboard														
	20 °C	20 x 2	100	20 x 2	125	20 x 3	160	20 x 3	250	20 x 2	100	20 x 3	160	20 x 3	250
	25 °C	20 x 2	100	20 x 2	125	20 x 3	160	20 x 3	250	20 x 2	100	20 x 3	160	20 x 3	250
	30 °C	20 x 2	97.5	20 x 2	122	20 x 3	156	20 x 3	244	20 x 2	100	20 x 3	160	20 x 3	250
	35 °C	20 x 2	95	20 x 2	119	20 x 3	152	20 x 3	238	20 x 2	100	20 x 3	160	20 x 3	237.5
	40 °C	20 x 2	92.5	20 x 2	116	20 x 3	147	20 x 3	231	20 x 2	100	20 x 3	160	20 x 3	237.5
	45 °C	20 x 2	90	20 x 2	113	20 x 3	144	20 x 3	225	20 x 2	100	20 x 3	160	20 x 3	225
	50 °C	20 x 2	85	20 x 2	100	20 x 3	140	20 x 3	198	20 x 2	100	20 x 3	160	20 x 3	225

(1) *for an NS160 or NS250 withdrawable equipped with a Vigi earth-leakage protection module or an insulation monitoring device, multiply the values by 0.9.*
(2) *for an NS250 withdrawable equipped with a Vigi earth-leakage protection module or an insulation monitoring device, multiply the values by 0.86.*

Compact circuit breakers NS400/630

5 mm thick copper bars.

		NS400N/H/L fixed		NS400N/H/L with Vigi		NS400N/H/L withdrawable		NS630N/H/L fixed		NS630N/H/L with Vigi or withdrawable	
		section/ phase	I (A)	section/ phase	I (A)	section/ phase	I (A)	section/ phase	I (A)	section/ phase	I (A)
IP ⩽ 54	T° around the switchboard										
	25	32 x 5	400	32 x 5	400	32 x 5	400	32 x 6	630	32 x 8	570
	30	32 x 5	400	32 x 5	390	32 x 5	390	32 x 6	615	32 x 8	550
	35	32 x 5	400	32 x 5	380	32 x 5	380	32 x 6	600	32 x 8	535
	40	32 x 5	390	32 x 5	370	32 x 5	370	32 x 6	585	32 x 8	520
	45	32 x 5	380	32 x 5	360	32 x 5	360	32 x 6	570	32 x 8	505
	50	32 x 5	370	32 x 5	350	32 x 5	350	32 x 6	550	32 x 8	490

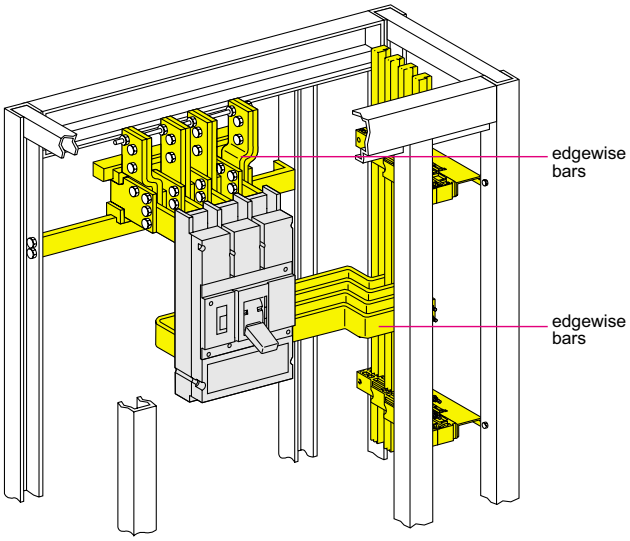
The above values are valid for installation in a Prisma switchboard

Sizing of device connections
Compact circuit breakers C801 to C1251 fixed and withdrawable

Compact circuit breakers C801/C1001/C1251 fixed

Depending on the way it is laid, a connection may be considered edgewise or flat.

5 mm thick copper bars.



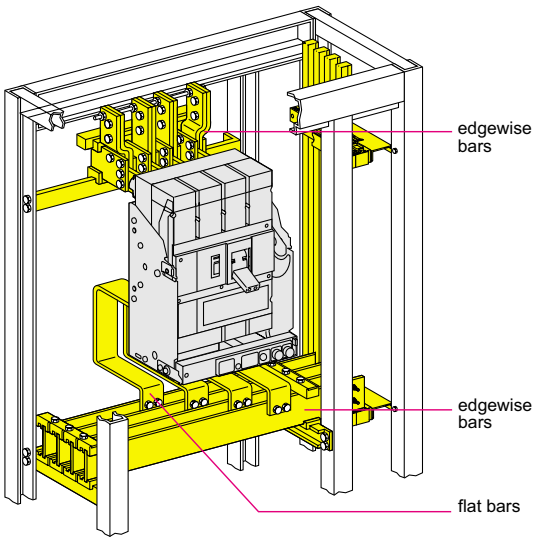
		C801N/H/L STR		C1001N/H STR		C1001L STR		C1251N/H STR	
		nb of bars per phase	I (A)	nb of bars per phase	I (A)	nb of bars per phase	I (A)	nb of bars per phase	I (A)
IP ⩽ 30	**T° around the switchboard**								
Edgewise bars	20 °C	2b x 50	800	2b x 50	1000	2b x 50	1000	2b x 63	1250
	25 °C	2b x 50	790	2b x 50	975	2b x 50	975	2b x 63	1200
	30 °C	2b x 50	780	2b x 50	950	2b x 50	950	2b x 63	1150
	35 °C	2b x 50	770	2b x 50	925	2b x 50	925	2b x 63	1100
	40 °C	2b x 50	760	2b x 50	900	2b x 50	900	2b x 63	1050
	45 °C	2b x 50	735	2b x 50	840	2b x 50	840	2b x 63	930
	50 °C	2b x 50	715	2b x 50	780	2b x 50	780	2b x 63	810
Flat bars	20 °C	2b x 50	800	3b x 50	1000	3b x 50	1000	3b x 50	1250
	25 °C	2b x 50	790	3b x 50	975	3b x 50	975	3b x 50	1200
	30 °C	2b x 50	780	3b x 50	950	3b x 50	950	3b x 50	1150
	35 °C	2b x 50	770	3b x 50	925	3b x 50	925	3b x 50	1100
	40 °C	2b x 50	760	3b x 50	900	3b x 50	900	3b x 50	1050
	45 °C	2b x 50	735	3b x 50	840	3b x 50	840	3b x 50	930
	50 °C	2b x 50	715	3b x 50	780	3b x 50	780	3b x 50	810
IP ⩾ 31	**T° around the switchboard**								
Edgewise bars	20 °C	2b x 50	790	2b x 50	975	2b x 50	975	2b x 63	1200
	25 °C	2b x 50	780	2b x 50	950	2b x 50	950	2b x 63	1150
	30 °C	2b x 50	770	2b x 50	925	2b x 50	925	2b x 63	1100
	35 °C	2b x 50	750	2b x 50	900	2b x 50	900	2b x 63	1050
	40 °C	2b x 50	735	2b x 50	840	2b x 50	840	2b x 63	930
	45 °C	2b x 50	715	2b x 50	780	2b x 50	780	2b x 63	810
	50 °C	2b x 50	690	2b x 50	710	2b x 50	710	2b x 63	665
Flat bars	20 °C	2b x 50	790	3b x 50	975	3b x 50	975	4b x 50	1200
	25 °C	2b x 50	780	3b x 50	950	3b x 50	950	4b x 50	1150
	30 °C	2b x 50	770	3b x 50	925	3b x 50	925	4b x 50	1100
	35 °C	3b x 50	760	3b x 50	900	3b x 50	900	4b x 50	1050
	40 °C	3b x 50	735	3b x 50	840	3b x 50	840	4b x 50	930
	45 °C	3b x 50	715	3b x 50	780	3b x 50	780	4b x 50	810
	50 °C	3b x 50	690	3b x 50	710	3b x 50	710	4b x 50	665

The above values are valid for installation in a Prisma switchboard

Compact circuit breakers C801/C1001/C1251 withdrawable

Depending on the way it is laid, a connection may be considered edgewise or flat. See examples opposite

5 mm thick copper bars.



		C801N/H/L STR		C1001N/H STR		C1001L STR		C1251N/H STR	
		nb of bars per phase	I (A)	nb of bars per phase	I (A)	nb of bars per phase	I (A)	nb of bars per phase	I (A)
IP ⩽ 30	**T° around the switchboard**								
Edgewise bars	20 °C	2b x 50	800	2b x 50	1000	2b x 50	910	2b x 63	1160
	25 °C	2b x 50	790	2b x 50	975	2b x 50	885	2b x 63	1120
	30 °C	2b x 50	780	2b x 50	950	2b x 50	860	2b x 63	1080
	35 °C	2b x 50	770	2b x 50	925	2b x 50	835	2b x 63	1040
	40 °C	2b x 50	760	2b x 50	900	2b x 50	800	2b x 63	1000
	45 °C	2b x 50	735	2b x 50	840	2b x 50	730	2b x 63	910
	50 °C	2b x 50	715	2b x 50	780	2b x 50	665	2b x 63	820
Flat bars	20 °C	2b x 50	800	3b x 50	1000	2b x 50	910	3b x 50	1160
	25 °C	2b x 50	790	3b x 50	975	2b x 50	885	3b x 50	1120
	30 °C	2b x 50	780	3b x 50	950	2b x 50	860	3b x 50	1080
	35 °C	2b x 50	770	3b x 50	925	2b x 50	835	3b x 50	1040
	40 °C	2b x 50	760	3b x 50	900	3b x 50	800	3b x 50	1000
	45 °C	2b x 50	735	3b x 50	840	3b x 50	730	3b x 50	910
	50 °C	2b x 50	715	3b x 50	780	3b x 50	665	3b x 50	820
IP ⩾ 31	**T° around the switchboard**								
Edgewise bars	20 °C	2b x 50	790	2b x 50	975	2b x 50	885	2b x 63	1120
	25 °C	2b x 50	780	2b x 50	950	2b x 50	860	2b x 63	1080
	30 °C	2b x 50	770	2b x 50	925	2b x 50	835	2b x 63	1040
	35 °C	2b x 50	760	2b x 50	900	2b x 50	800	2b x 63	1000
	40 °C	2b x 50	735	2b x 50	840	2b x 50	730	2b x 63	910
	45 °C	2b x 50	715	2b x 50	780	2b x 50	665	2b x 63	820
	50 °C	2b x 50	690	2b x 50	710	2b x 50	580	2b x 63	710
Flat bars	20 °C	2b x 50	790	3b x 50	975	3b x 50	885	3b x 50	1120
	25 °C	2b x 50	780	3b x 50	950	3b x 50	860	3b x 50	1080
	30 °C	2b x 50	770	3b x 50	925	3b x 50	835	3b x 50	1040
	35 °C	3b x 50	760	3b x 50	900	3b x 50	800	3b x 50	1000
	40 °C	3b x 50	735	3b x 50	840	3b x 50	730	3b x 50	910
	45 °C	3b x 50	715	3b x 50	780	3b x 50	665	3b x 50	820
	50 °C	3b x 50	690	3b x 50	710	3b x 50	580	3b x 50	710

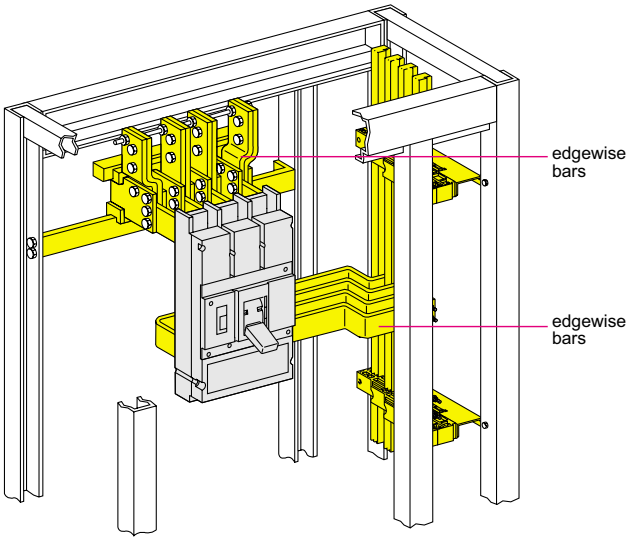
The above values are valid for installation in a Prisma switchboard

Sizing of device connections
Compact circuit breakers C801 to C1251 fixed and withdrawable

Compact circuit breakers C801/C1001/C1251 fixed

Depending on the way it is laid, a connection may be considered edgewise or flat.

5 mm thick copper bars.



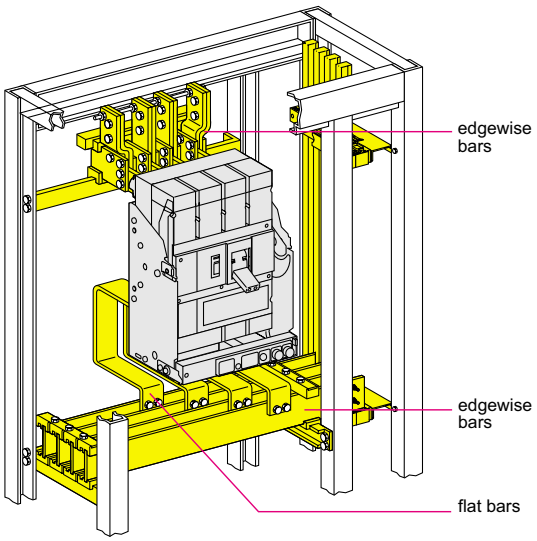
		C801N/H/L STR		C1001N/H STR		C1001L STR		C1251N/H STR	
		nb of bars per phase	I (A)	nb of bars per phase	I (A)	nb of bars per phase	I (A)	nb of bars per phase	I (A)
IP ⩽ 30	**T° around the switchboard**								
Edgewise bars	20 °C	2b x 50	800	2b x 50	1000	2b x 50	1000	2b x 63	1250
	25 °C	2b x 50	790	2b x 50	975	2b x 50	975	2b x 63	1200
	30 °C	2b x 50	780	2b x 50	950	2b x 50	950	2b x 63	1150
	35 °C	2b x 50	770	2b x 50	925	2b x 50	925	2b x 63	1100
	40 °C	2b x 50	760	2b x 50	900	2b x 50	900	2b x 63	1050
	45 °C	2b x 50	735	2b x 50	840	2b x 50	840	2b x 63	930
	50 °C	2b x 50	715	2b x 50	780	2b x 50	780	2b x 63	810
Flat bars	20 °C	2b x 50	800	3b x 50	1000	3b x 50	1000	3b x 50	1250
	25 °C	2b x 50	790	3b x 50	975	3b x 50	975	3b x 50	1200
	30 °C	2b x 50	780	3b x 50	950	3b x 50	950	3b x 50	1150
	35 °C	2b x 50	770	3b x 50	925	3b x 50	925	3b x 50	1100
	40 °C	2b x 50	760	3b x 50	900	3b x 50	900	3b x 50	1050
	45 °C	2b x 50	735	3b x 50	840	3b x 50	840	3b x 50	930
	50 °C	2b x 50	715	3b x 50	780	3b x 50	780	3b x 50	810
IP ⩾ 31	**T° around the switchboard**								
Edgewise bars	20 °C	2b x 50	790	2b x 50	975	2b x 50	975	2b x 63	1200
	25 °C	2b x 50	780	2b x 50	950	2b x 50	950	2b x 63	1150
	30 °C	2b x 50	770	2b x 50	925	2b x 50	925	2b x 63	1100
	35 °C	2b x 50	750	2b x 50	900	2b x 50	900	2b x 63	1050
	40 °C	2b x 50	735	2b x 50	840	2b x 50	840	2b x 63	930
	45 °C	2b x 50	715	2b x 50	780	2b x 50	780	2b x 63	810
	50 °C	2b x 50	690	2b x 50	710	2b x 50	710	2b x 63	665
Flat bars	20 °C	2b x 50	790	3b x 50	975	3b x 50	975	4b x 50	1200
	25 °C	2b x 50	780	3b x 50	950	3b x 50	950	4b x 50	1150
	30 °C	2b x 50	770	3b x 50	925	3b x 50	925	4b x 50	1100
	35 °C	3b x 50	760	3b x 50	900	3b x 50	900	4b x 50	1050
	40 °C	3b x 50	735	3b x 50	840	3b x 50	840	4b x 50	930
	45 °C	3b x 50	715	3b x 50	780	3b x 50	780	4b x 50	810
	50 °C	3b x 50	690	3b x 50	710	3b x 50	710	4b x 50	665

The above values are valid for installation in a Prisma switchboard

Compact circuit breakers C801/C1001/C1251 withdrawable

Depending on the way it is laid, a connection may be considered edgewise or flat. See examples opposite

5 mm thick copper bars.



		C801N/H/L STR		C1001N/H STR		C1001L STR		C1251N/H STR	
		nb of bars per phase	I (A)	nb of bars per phase	I (A)	nb of bars per phase	I (A)	nb of bars per phase	I (A)
IP ⩽ 30	**T° around the switchboard**								
Edgewise bars	20 °C	2b x 50	800	2b x 50	1000	2b x 50	910	2b x 63	1160
	25 °C	2b x 50	790	2b x 50	975	2b x 50	885	2b x 63	1120
	30 °C	2b x 50	780	2b x 50	950	2b x 50	860	2b x 63	1080
	35 °C	2b x 50	770	2b x 50	925	2b x 50	835	2b x 63	1040
	40 °C	2b x 50	760	2b x 50	900	2b x 50	800	2b x 63	1000
	45 °C	2b x 50	735	2b x 50	840	2b x 50	730	2b x 63	910
	50 °C	2b x 50	715	2b x 50	780	2b x 50	665	2b x 63	820
Flat bars	20 °C	2b x 50	800	3b x 50	1000	2b x 50	910	3b x 50	1160
	25 °C	2b x 50	790	3b x 50	975	2b x 50	885	3b x 50	1120
	30 °C	2b x 50	780	3b x 50	950	2b x 50	860	3b x 50	1080
	35 °C	2b x 50	770	3b x 50	925	2b x 50	835	3b x 50	1040
	40 °C	2b x 50	760	3b x 50	900	3b x 50	800	3b x 50	1000
	45 °C	2b x 50	735	3b x 50	840	3b x 50	730	3b x 50	910
	50 °C	2b x 50	715	3b x 50	780	3b x 50	665	3b x 50	820
IP ⩾ 31	**T° around the switchboard**								
Edgewise bars	20 °C	2b x 50	790	2b x 50	975	2b x 50	885	2b x 63	1120
	25 °C	2b x 50	780	2b x 50	950	2b x 50	860	2b x 63	1080
	30 °C	2b x 50	770	2b x 50	925	2b x 50	835	2b x 63	1040
	35 °C	2b x 50	760	2b x 50	900	2b x 50	800	2b x 63	1000
	40 °C	2b x 50	735	2b x 50	840	2b x 50	730	2b x 63	910
	45 °C	2b x 50	715	2b x 50	780	2b x 50	665	2b x 63	820
	50 °C	2b x 50	690	2b x 50	710	2b x 50	580	2b x 63	710
Flat bars	20 °C	2b x 50	790	3b x 50	975	3b x 50	885	3b x 50	1120
	25 °C	2b x 50	780	3b x 50	950	3b x 50	860	3b x 50	1080
	30 °C	2b x 50	770	3b x 50	925	3b x 50	835	3b x 50	1040
	35 °C	3b x 50	760	3b x 50	900	3b x 50	800	3b x 50	1000
	40 °C	3b x 50	735	3b x 50	840	3b x 50	730	3b x 50	910
	45 °C	3b x 50	715	3b x 50	780	3b x 50	665	3b x 50	820
	50 °C	3b x 50	690	3b x 50	710	3b x 50	580	3b x 50	710

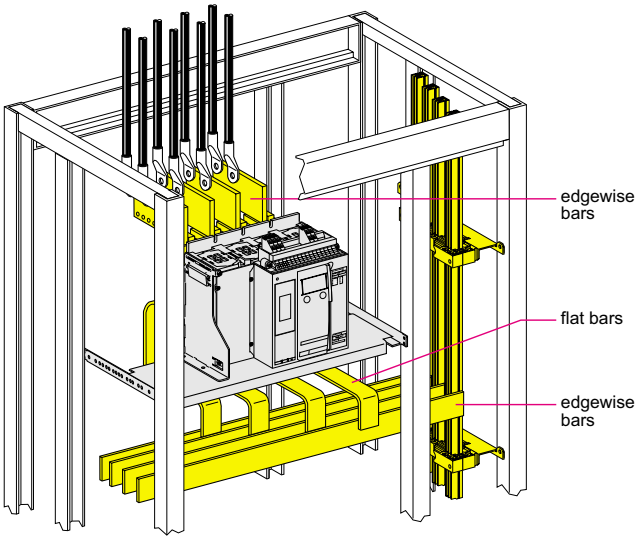
The above values are valid for installation in a Prisma switchboard

Sizing of device connections
Masterpact circuit breakers
NT06 to NT16 fixed and drawout

Masterpact circuit breakers NT06/NT16 fixed

Depending on the way it is laid, a connection may be considered edgewise or flat. See examples opposite

5 mm thick copper bars.



		NT06		NT08		NT10		NT12		NT16	
		nb of bars per phase	I (A)	nb of bars per phase	I (A)	nb of bars per phase	I (A)	nb of bars per phase	I (A)	nb of bars per phase	I (A)
IP ⩽ 30	**T° around the switchboard**										
Edgewise bars	20 °C	1b 63 x 5	630	1b 80 x 5	800	2b 50 x 5	1000	2b 63 x 5	1250	3b 63 x 5	1600
	25 °C	1b 63 x 5	630	1b 80 x 5	800	2b 50 x 5	1000	2b 63 x 5	1250	3b 63 x 5	1600
	30 °C	1b 63 x 5	630	1b 80 x 5	800	2b 50 x 5	1000	2b 63 x 5	1250	3b 63 x 5	1600
	35 °C	1b 63 x 5	630	1b 80 x 5	800	2b 50 x 5	1000	2b 63 x 5	1250	3b 63 x 5	1600
	40 °C	1b 63 x 5	630	1b 80 x 5	800	2b 50 x 5	1000	2b 63 x 5	1250	3b 63 x 5	1600
	45 °C	1b 63 x 5	630	1b 80 x 5	800	2b 50 x 5	1000	2b 63 x 5	1250	3b 63 x 5	1600
	50 °C	1b 63 x 5	630	1b 80 x 5	800	2b 50 x 5	1000	2b 63 x 5	1250	3b 63 x 5	1550
Flat bars	20 °C	1b 50 x 5	630	2b 50 x 5	800	2b 50 x 5	1000	3b 50 x 5	1250	4b 50 x 5	1600
	25 °C	1b 50 x 5	630	2b 50 x 5	800	2b 50 x 5	1000	3b 50 x 5	1250	4b 50 x 5	1600
	30 °C	1b 50 x 5	630	2b 50 x 5	800	2b 50 x 5	1000	3b 50 x 5	1250	4b 50 x 5	1600
	35 °C	1b 50 x 5	630	2b 50 x 5	800	2b 50 x 5	1000	3b 50 x 5	1250	4b 50 x 5	1600
	40 °C	1b 50 x 5	630	2b 50 x 5	800	2b 50 x 5	1000	3b 50 x 5	1250	4b 50 x 5	1600
	45 °C	1b 50 x 5	630	2b 50 x 5	800	2b 50 x 5	1000	3b 50 x 5	1250	4b 50 x 5	1560
	50 °C	1b 50 x 5	630	2b 50 x 5	800	2b 50 x 5	1000	3b 50 x 5	1250	4b 50 x 5	1480
IP ⩾ 31	**T° around the switchboard**										
Edgewise bars	20 °C	1b 63 x 5	630	1b 80 x 5	800	2b 50 x 5	1000	2b 63 x 5	1250	3b 63 x 5	1600
	25 °C	1b 63 x 5	630	1b 80 x 5	800	2b 50 x 5	1000	2b 63 x 5	1250	3b 63 x 5	1600
	30 °C	1b 63 x 5	630	1b 80 x 5	800	2b 50 x 5	1000	2b 63 x 5	1250	3b 63 x 5	1600
	35 °C	1b 63 x 5	630	1b 80 x 5	800	2b 50 x 5	1000	2b 63 x 5	1250	3b 63 x 5	1600
	40 °C	1b 63 x 5	630	1b 80 x 5	800	2b 50 x 5	1000	2b 63 x 5	1250	3b 63 x 5	1550
	45 °C	1b 63 x 5	630	1b 80 x 5	800	2b 50 x 5	1000	2b 63 x 5	1200	3b 63 x 5	1460
	50 °C	■		■		■		■		■	
Flat bars	20 °C	1b 50 x 5	630	2b 50 x 5	800	2b 50 x 5	1000	3b 50 x 5	1250	4b 50 x 5	1600
	25 °C	1b 50 x 5	630	2b 50 x 5	800	2b 50 x 5	1000	3b 50 x 5	1250	4b 50 x 5	1600
	30 °C	1b 50 x 5	630	2b 50 x 5	800	2b 50 x 5	1000	3b 50 x 5	1250	4b 50 x 5	1600
	35 °C	1b 50 x 5	630	2b 50 x 5	800	2b 50 x 5	1000	3b 50 x 5	1250	4b 50 x 5	1560
	40 °C	1b 50 x 5	630	2b 50 x 5	800	2b 50 x 5	1000	3b 50 x 5	1250	4b 50 x 5	1480
	45 °C	1b 50 x 5	630	2b 50 x 5	800	2b 50 x 5	1000	3b 50 x 5	1180	4b 50 x 5	1380
	50 °C	■		■		■		■		■	

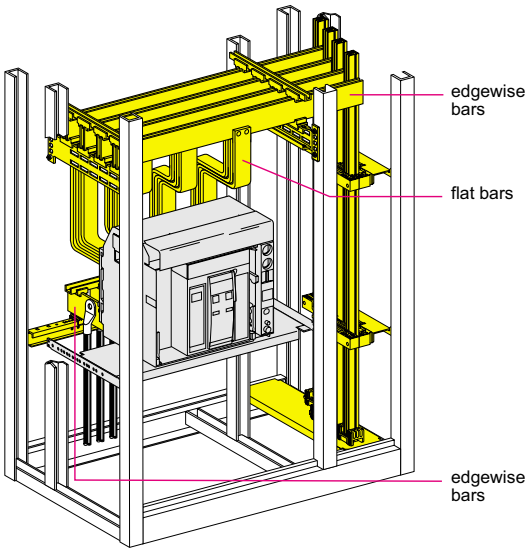
■ *connection not possible*

The above values are valid for installation in a Prisma switchboard

Masterpact circuit breakers NT08/NT16 drawout

Depending on the way it is laid, a connection may be considered edgewise or flat. See examples opposite

5 mm thick copper bars.



		NT06		NT08		NT10		NT12		NT16	
		nb of bars per phase	I (A)	nb of bars per phase	I (A)	nb of bars per phase	I (A)	nb of bars per phase	I (A)	nb of bars per phase	I (A)
IP ⩽ 30	**T° around the switchboard**										
Edgewise bars	20 °C	1b 63 x 5	630	1b 80 x 5	800	2b 50 x 5	1000	2b 63 x 5	1250	3b 63 x 5	1600
	25 °C	1b 63 x 5	630	1b 80 x 5	800	2b 50 x 5	1000	2b 63 x 5	1250	3b 63 x 5	1600
	30 °C	1b 63 x 5	630	1b 80 x 5	800	2b 50 x 5	1000	2b 63 x 5	1250	3b 63 x 5	1600
	35 °C	1b 63 x 5	630	1b 80 x 5	800	2b 50 x 5	1000	2b 63 x 5	1250	3b 63 x 5	1600
	40 °C	1b 63 x 5	630	1b 80 x 5	800	2b 50 x 5	1000	2b 63 x 5	1250	3b 63 x 5	1600
	45 °C	1b 63 x 5	630	1b 80 x 5	800	2b 50 x 5	1000	2b 63 x 5	1250	3b 63 x 5	1530
	50 °C	1b 63 x 5	630	1b 80 x 5	800	2b 50 x 5	1000	2b 63 x 5	1180	3b 63 x 5	1440
Flat bars	20 °C	1b 50 x 5	630	2b 50 x 5	800	2b 50 x 5	1000	3b 50 x 5	1250	4b 50 x 5	1600
	25 °C	1b 50 x 5	630	2b 50 x 5	800	2b 50 x 5	1000	3b 50 x 5	1250	4b 50 x 5	1600
	30 °C	1b 50 x 5	630	2b 50 x 5	800	2b 50 x 5	1000	3b 50 x 5	1250	4b 50 x 5	1600
	35 °C	1b 50 x 5	630	2b 50 x 5	800	2b 50 x 5	1000	3b 50 x 5	1250	4b 50 x 5	1600
	40 °C	1b 50 x 5	630	2b 50 x 5	800	2b 50 x 5	1000	3b 50 x 5	1250	4b 50 x 5	1520
	45 °C	1b 50 x 5	630	2b 50 x 5	800	2b 50 x 5	1000	3b 50 x 5	1230	4b 50 x 5	1470
	50 °C	1b 50 x 5	630	2b 50 x 5	800	2b 50 x 5	1000	3b 50 x 5	1160	4b 50 x 5	1390
IP ⩾ 31	**T° around the switchboard**										
Edgewise bars	20 °C	1b 63 x 5	630	1b 80 x 5	800	2b 50 x 5	1000	2b 63 x 5	1250	3b 63 x 5	1600
	25 °C	1b 63 x 5	630	1b 80 x 5	800	2b 50 x 5	1000	2b 63 x 5	1250	3b 63 x 5	1600
	30 °C	1b 63 x 5	630	1b 80 x 5	800	2b 50 x 5	1000	2b 63 x 5	1250	3b 63 x 5	1600
	35 °C	1b 63 x 5	630	1b 80 x 5	800	2b 50 x 5	1000	2b 63 x 5	1250	3b 63 x 5	1530
	40 °C	1b 63 x 5	630	1b 80 x 5	800	2b 50 x 5	1000	2b 63 x 5	1180	3b 63 x 5	1440
	45 °C	1b 63 x 5	630	1b 80 x 5	800	2b 50 x 5	980	2b 63 x 5	1100	3b 63 x 5	1340
	50 °C	■		■		■		■		■	
Flat bars	20 °C	1b 50 x 5	630	2b 50 x 5	800	2b 50 x 5	1000	3b 50 x 5	1250	4b 50 x 5	1600
	25 °C	1b 50 x 5	630	2b 50 x 5	800	2b 50 x 5	1000	3b 50 x 5	1250	4b 50 x 5	1600
	30 °C	1b 50 x 5	630	2b 50 x 5	800	2b 50 x 5	1000	3b 50 x 5	1250	4b 50 x 5	1520
	35 °C	1b 50 x 5	630	2b 50 x 5	800	2b 50 x 5	1000	3b 50 x 5	1230	4b 50 x 5	1470
	40 °C	1b 50 x 5	630	2b 50 x 5	800	2b 50 x 5	1000	3b 50 x 5	1160	4b 50 x 5	1390
	45 °C	1b 50 x 5	630	2b 50 x 5	800	2b 50 x 5	960	3b 50 x 5	1080	4b 50 x 5	1290
	50 °C	■		■		■		■		■	

■ *connection not possible*

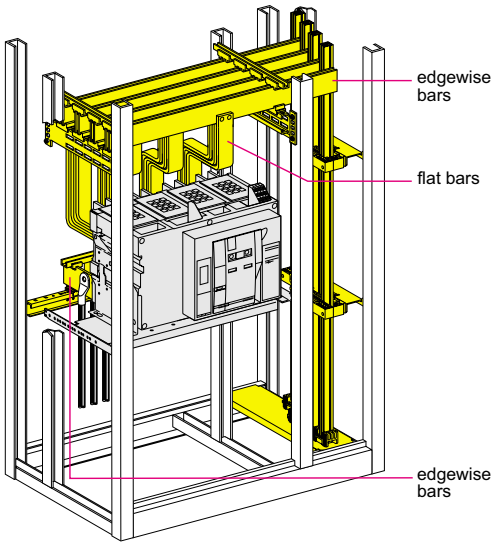
The above values are valid for installation in a Prisma switchboard

Sizing of device connections
Masterpact circuit breakers NW08 to NW32 fixed

Masterpact circuit breakers NW08/NW16 fixed

Depending on the way it is laid, a connection may be considered edgewise or flat. See examples opposite

5 mm thick copper bars.



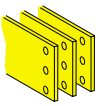
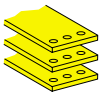
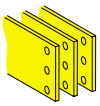
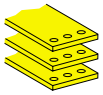
		NW08		NW10		NW12		NW16	
		nb of bars per phase	I (A)	nb of bars per phase	I (A)	nb of bars per phase	I (A)	nb of bars per phase	I (A)
IP ⩽ 30	**T° around the switchboard**								
Edgewise bars	20 °C	2b x 50	800	2b x 50	1000	2b x 63	1250	2b x 80	1600
	25 °C	2b x 50	800	2b x 50	1000	2b x 63	1250	2b x 80	1600
	30 °C	2b x 50	800	2b x 50	1000	2b x 63	1250	2b x 80	1600
	35 °C	2b x 50	800	2b x 50	1000	2b x 63	1250	2b x 100	1600
	40 °C	2b x 50	800	2b x 50	1000	2b x 80	1250	2b x 100	1600
	45 °C	2b x 50	800	2b x 50	1000	2b x 80	1250	2b x 100	1600
	50 °C	2b x 50	800	2b x 50	1000	2b x 80	1250	2b x 125	1600
Flat bars	20 °C	2b x 50	800	2b x 63	1000	2b x 80	1250	3b x 80	1600
	25 °C	2b x 50	800	2b x 63	1000	2b x 80	1250	3b x 80	1600
	30 °C	2b x 50	800	2b x 63	1000	2b x 80	1250	3b x 80	1600
	35 °C	2b x 50	800	2b x 63	1000	2b x 80	1250	4b x 80	1600
	40 °C	2b x 63	800	2b x 63	1000	2b x 80	1250	4b x 80	1600
	45 °C	2b x 63	800	2b x 63	1000	2b x 80	1250	4b x 80	1600
	50 °C	2b x 63	800	2b x 63	1000	2b x 80	1250	4b x 80	1600
IP ⩾ 31	**T° around the switchboard**								
Edgewise bars	20 °C	2b x 50	800	2b x 50	1000	2b x 80	1250	2b x 100	1600
	25 °C	2b x 50	800	2b x 50	1000	2b x 80	1250	2b x 100	1600
	30 °C	2b x 50	800	2b x 63	1000	2b x 80	1250	3b x 80	1600
	35 °C	2b x 50	800	2b x 63	1000	2b x 80	1250	3b x 80	1600
	40 °C	2b x 50	800	2b x 63	1000	2b x 80	1250	3b x 80	1600
	45 °C	2b x 50	800	2b x 80	1000	2b x 80	1250	3b x 80	1600
	50 °C	■	■	■	■	■	■	■	■
Flat bars	20 °C	2b x 50	800	2b x 80	1000	3b x 63	1250	4b x 80	1600
	25 °C	2b x 63	800	2b x 80	1000	3b x 63	1250	4b x 80	1600
	30 °C	2b x 63	800	2b x 80	1000	3b x 63	1250	4b x 80	1600
	35 °C	2b x 63	800	2b x 80	1000	3b x 80	1250	4b x 80	1600
	40 °C	2b x 80	800	2b x 80	1000	3b x 80	1250	4b x 80	1600
	45 °C	2b x 80	800	2b x 63	1000	3b x 80	1250	■	■
	50 °C	■	■	■	■	■	■	■	■

■ *connection not possible*

The above values are valid for installation in a Prisma switchboard

Masterpact circuit breakers
NW20/NW32 fixed

5 mm thick copper bars.

		NW20		NW25		NW32	
		nb of bars per phase	I (A)	nb of bars per phase	I (A)	nb of bars per phase	I (A)
IP ⩽ 30	**T° around the switchboard**						
Edgewise bars	20 °C	2b x 100	2000	3b x 100	2500	4b x 125	3200
	25 °C	2b x 125	2000	3b x 100	2500	4b x 125	3200
	30 °C	2b x 125	2000	3b x 100	2500	4b x 125	3200
	35 °C	2b x 125	2000	4b x 100	2500	4b x 125	3150
	40 °C	3b x 100	2000	4b x 100	2500	4b x 125	3100
	45 °C	3b x 100	2000	4b x 100	2500	4b x 125	3050
	50 °C	3b x 100	2000	4b x 100	2250	■	■
Flat bars	20 °C	3b x 100	2000	■	■	■	■
	25 °C	3b x 100	2000	■	■	■	■
	30 °C	4b x 100	2000	■	■	■	■
	35 °C	4b x 100	2000	■	■	■	■
	40 °C	4b x 100	2000	■	■	■	■
	45 °C	4b x 100	2000	■	■	■	■
	50 °C	■	■	■	■	■	■
IP ⩾ 31	**T° around the switchboard**						
Edgewise bars	20 °C	2b x 125	2000	4b x 100	2500	4b x 125	3200
	25 °C	2b x 125	2000	4b x 100	2500	4b x 125	3200
	30 °C	3b x 100	2000	4b x 100	2500	4b x 125	3150
	35 °C	3b x 100	2000	3b x 125	2500	4b x 125	3100
	40 °C	3b x 100	2000	3b x 125	2500	4b x 125	3050
	45 °C	3b x 100	2000	4b x 100	2500	■	■
	50 °C	■	■	■	■	■	■
Flat bars	20 °C	4b x 100	2000	■	■	■	■
	25 °C	4b x 100	2000	■	■	■	■
	30 °C	5b x 100	2000	■	■	■	■
	35 °C	5b x 100	2000	■	■	■	■
	40 °C	5b x 100	2000	■	■	■	■
	45 °C	5b x 100	2000	■	■	■	■
	50 °C	■	■	■	■	■	■

■ *connection not possible*

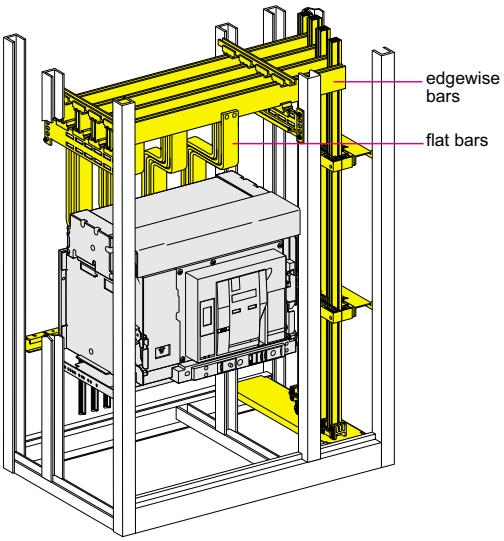
The above values are valid for installation in a Prisma switchboard

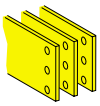
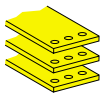
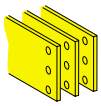
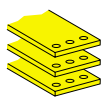
Sizing of device connections
Masterpact circuit breakers NW08 to NW32 drawout

Masterpact circuit breakers NW08/NW16 drawout

Depending on the way it is laid, a connection may be considered edgewise or flat. See examples opposite

5 mm thick copper bars.



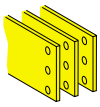
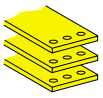
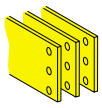
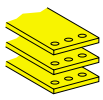
		NW08		NW10		NW12		NW16	
		nb of bars per phase	I (A)	nb of bars per phase	I (A)	nb of bars per phase	I (A)	nb of bars per phase	I (A)
IP ⩽ 30	**T° around the switchboard**								
Edgewise bars 	20 °C	2b x 50	800	2b x 50	1000	2b x 63	1250	2b x 80	1600
	25 °C	2b x 50	800	2b x 50	1000	2b x 63	1250	2b x 80	1600
	30 °C	2b x 50	800	2b x 50	1000	2b x 63	1250	2b x 80	1600
	35 °C	2b x 50	800	2b x 50	1000	2b x 63	1250	3b x 63	1600
	40 °C	2b x 50	800	2b x 50	1000	2b x 50	1250	3b x 63	1600
	45 °C	2b x 50	800	2b x 63	1000	2b x 50	1250	3b x 80	1520
	50 °C	2b x 50	800	2b x 63	1000	2b x 50	1250	3b x 80	1480
Flat bars 	20 °C	2b x 50	800	2b x 50	1000	2b x 80	1250	3b x 80	1600
	25 °C	2b x 50	800	2b x 50	1000	2b x 80	1250	3b x 80	1600
	30 °C	2b x 50	800	2b x 50	1000	2b x 80	1250	3b x 80	1600
	35 °C	2b x 50	800	2b x 50	1000	3b x 80	1250	3b x 80	1600
	40 °C	2b x 50	800	2b x 50	1000	3b x 80	1250	4b x 80	1600
	45 °C	2b x 50	800	2b x 50	1000	3b x 80	1250	4b x 80	1500
	50 °C	2b x 50	800	2b x 50	1000	3b x 80	1250	4b x 80	1400
IP ⩾ 31	**T° around the switchboard**								
Edgewise bars 	20 °C	2b x 50	800	2b x 50	1000	2b x 80	1250	3b x 80	1600
	25 °C	2b x 50	800	2b x 50	1000	2b x 80	1250	3b x 80	1600
	30 °C	2b x 50	800	2b x 63	1000	2b x 80	1250	3b x 80	1600
	35 °C	2b x 50	800	2b x 63	1000	2b x 80	1250	3b x 80	1550
	40 °C	2b x 50	800	2b x 63	1000	3b x 80	1250	3b x 80	1520
	45 °C	2b x 50	800	2b x 63	1000	3b x 80	1250	3b x 80	1480
	50 °C	■	■	■	■	■	■	■	■
Flat bars 	20 °C	2b x 63	800	2b x 80	1000	3b x 80	1250	4b x 80	1600
	25 °C	2b x 63	800	2b x 80	1000	3b x 80	1250	4b x 80	1600
	30 °C	2b x 63	800	2b x 80	1000	3b x 80	1250	4b x 80	1600
	35 °C	3b x 63	800	2b x 80	1000	3b x 80	1250	4b x 80	1600
	40 °C	2b x 80	800	2b x 80	1000	3b x 80	1250	4b x 80	1500
	45 °C	2b x 80	800	2b x 80	1000	3b x 80	1250	4b x 80	1400
	50 °C	■	■	■	■	■	■	■	■

■ *connection not possible*

The above values are valid for installation in a Prisma switchboard

Masterpact circuit breakers
NW20/NW32 drawout

5 mm thick copper bars.

		NW20		NW25		NW32	
		nb of bars per phase	I (A)	nb of bars per phase	I (A)	nb of bars per phase	I (A)
IP ⩽ 30	**T° around the switchboard**						
Edgewise bars 	20 °C	2b x 125	2000	3b x 100	2500	3b x 125	3200
	25 °C	2b x 125	2000	3b x 100	2500	3b x 125	3200
	30 °C	2b x 125	2000	3b x 100	2500	3b x 125	3140
	35 °C	2b x 125	2000	4b x 100	2500	3b x 125	3020
	40 °C	3b x 100	2000	4b x 100	2500	3b x 125	2900
	45 °C	3b x 100	1900	4b x 100	2400	3b x 125	2820
	50 °C	3b x 100	1800	4b x 100	2320	4b x 125	2750
Flat bars 	20 °C	3b x 100	2000	■	■	■	■
	25 °C	3b x 100	2000	■	■	■	■
	30 °C	3b x 100	2000	■	■	■	■
	35 °C	4b x 100	2000	■	■	■	■
	40 °C	4b x 100	1900	■	■	■	■
	45 °C	4b x 100	1825	■	■	■	■
	50 °C	4b x 100	1750	■	■	■	■
IP ⩾ 31	**T° around the switchboard**						
Edgewise bars 	20 °C	3b x 100	2000	4b x 100	2500	4b x 125	3200
	25 °C	3b x 100	2000	4b x 100	2500	4b x 125	3140
	30 °C	3b x 100	2000	4b x 100	2500	4b x 125	3020
	35 °C	3b x 100	2000	4b x 100	2400	4b x 125	2900
	40 °C	3b x 100	1900	4b x 100	2320	4b x 125	2820
	45 °C	3b x 100	1800	3b x 125	2250	4b x 125	2750
	50 °C	■	■	■	■	■	■
Flat bars 	20 °C	4b x 100	2000	■	■	■	■
	25 °C	4b x 100	2000	■	■	■	■
	30 °C	5b x 100	1900	■	■	■	■
	35 °C	5b x 100	1825	■	■	■	■
	40 °C	5b x 100	1900	■	■	■	■
	45 °C	5b x 100	1750	■	■	■	■
	50 °C	■	■	■	■	■	■

■ *connection not possible*

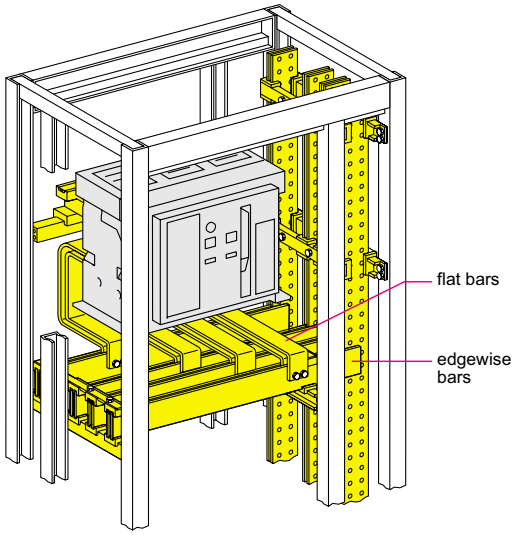
The above values are valid for installation in a Prisma switchboard

Sizing of device connections
Masterpact circuit breakers M08 to M16 fixed

Masterpact circuit breakers M08/M16 fixed

Depending on the way it is laid, a connection may be considered edgewise or flat. See examples opposite

5 mm thick copper bars.



		M08		M10		M12		M16	
		nb of bars per phase	I (A)	nb of bars per phase	I (A)	nb of bars per phase	I (A)	nb of bars per phase	I (A)
IP ⩽ 30	**T° around the switchboard**								
Edgewise bars	20 °C	2b x 50	800	2b x 50	1000	2b x 63	1250	2b x 80	1600
	25 °C	2b x 50	800	2b x 50	1000	2b x 63	1250	4b x 80	1600
	30 °C	2b x 50	800	2b x 50	1000	2b x 63	1250	2b x 80	1600
	35 °C	2b x 50	800	2b x 50	1000	2b x 63	1250	2b x 100	1600
	40 °C	2b x 50	800	2b x 50	1000	2b x 80	1250	2b x 100	1600
	45 °C	2b x 50	800	2b x 50	1000	2b x 80	1250	2b x 100	1600
	50 °C	2b x 50	800	2b x 50	1000	2b x 80	1250	2b x 125	1600
Flat bars	20 °C	2b x 50	800	2b x 63	1000	2b x 80	1250	3b x 80	1600
	25 °C	2b x 50	800	2b x 63	1000	2b x 80	1250	3b x 80	1600
	30 °C	2b x 50	800	2b x 63	1000	2b x 80	1250	3b x 80	1600
	35 °C	2b x 50	800	2b x 63	1000	2b x 80	1250	4b x 80	1600
	40 °C	2b x 63	800	2b x 63	1000	2b x 80	1250	4b x 80	1600
	45 °C	2b x 63	800	2b x 63	1000	2b x 80	1250	4b x 80	1600
	50 °C	2b x 63	800	2b x 63	1000	2b x 80	1250	4b x 80	1600
IP ⩾ 31	**T° around the switchboard**								
Edgewise bars	20 °C	2b x 50	800	2b x 50	1000	2b x 80	1250	2b x 100	1600
	25 °C	2b x 50	800	2b x 50	1000	2b x 80	1250	2b x 100	1600
	30 °C	2b x 50	800	2b x 63	1000	2b x 80	1250	3b x 80	1600
	35 °C	2b x 50	800	2b x 63	1000	2b x 80	1250	3b x 80	1600
	40 °C	2b x 50	800	2b x 63	1000	2b x 80	1250	3b x 80	1600
	45 °C	2b x 50	800	2b x 80	1000	2b x 80	1250	3b x 80	1600
	50 °C	■	■	■	■	■	■	■	■
Flat bars	20 °C	2b x 50	800	2b x 80	1000	3b x 63	1250	4b x 80	1600
	25 °C	2b x 63	800	2b x 80	1000	3b x 63	1250	4b x 80	1600
	30 °C	2b x 63	800	2b x 80	1000	3b x 63	1250	4b x 80	1600
	35 °C	2b x 63	800	2b x 80	1000	3b x 80	1250	4b x 80	1600
	40 °C	2b x 80	800	2b x 80	1000	3b x 80	1250	4b x 80	1600
	45 °C	2b x 80	800	2b x 63	1000	3b x 80	1250	■	■
	50 °C	■	■	■	■	■	■	■	■

■ *connection not possible*

The above values are valid for installation in a Prisma switchboard

Masterpact circuit breakers M20/M32 fixed

5 mm thick copper bars.

		M20		M25		M32	
		nb of bars per phase	I (A)	nb of bars per phase	I (A)	nb of bars per phase	I (A)
IP ⩽ 30	**T° around the switchboard**						
Edgewise bars	20 °C	2b x 100	2000	3b x 100	2500	4b x 125	3200
	25 °C	2b x 125	2000	3b x 100	2500	4b x 125	3200
	30 °C	2b x 125	2000	3b x 100	2500	4b x 125	3200
	35 °C	2b x 125	2000	4b x 100	2500	4b x 125	3150
	40 °C	3b x 100	2000	4b x 100	2500	4b x 125	3100
	45 °C	3b x 100	2000	4b x 100	2500	4b x 125	3050
	50 °C	3b x 100	2000	4b x 100	2500	■	■
Flat bars	20 °C	3b x 100	2000	■	■	■	■
	25 °C	3b x 100	2000	■	■	■	■
	30 °C	4b x 100	2000	■	■	■	■
	35 °C	4b x 100	2000	■	■	■	■
	40 °C	4b x 100	2000	■	■	■	■
	45 °C	4b x 100	2000	■	■	■	■
	50 °C	■	■	■	■	■	■
IP ⩾ 31	**T° around the switchboard**						
Edgewise bars	20 °C	2b x 125	2000	4b x 100	2500	4b x 125	3200
	25 °C	2b x 125	2000	4b x 100	2500	4b x 125	3200
	30 °C	3b x 100	2000	4b x 100	2500	4b x 125	3150
	35 °C	3b x 100	2000	3b x 125	2500	4b x 125	3100
	40 °C	3b x 100	2000	3b x 125	2500	4b x 125	3050
	45 °C	3b x 100	2000	4b x 100	2500	■	■
	50 °C	■	■	■	■	■	■
Flat bars	20 °C	4b x 100	2000	■	■	■	■
	25 °C	4b x 100	2000	■	■	■	■
	30 °C	5b x 100	2000	■	■	■	■
	35 °C	5b x 100	2000	■	■	■	■
	40 °C	5b x 100	2000	■	■	■	■
	45 °C	5b x 100	2000	■	■	■	■
	50 °C	■	■	■	■	■	■

■ *connection not possible*

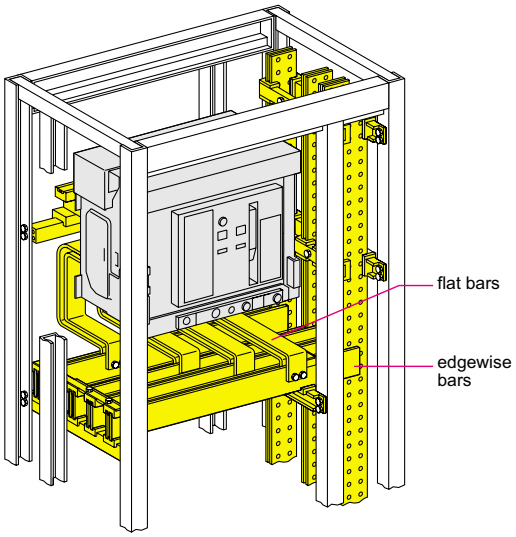
The above values are valid for installation in a Prisma switchboard

Sizing of device connections
Masterpact circuit breakers M08 to M16 drawout

Masterpact circuit breakers M08/M16 drawout

Depending on the way it is laid, a connection may be considered edgewise or flat. See examples opposite

5 mm thick copper bars.



		M08		M10		M12		M16	
		nb of bars per phase	I (A)	nb of bars per phase	I (A)	nb of bars per phase	I (A)	nb of bars per phase	I (A)
IP ⩽ 30	**T° around the switchboard**								
Edgewise bars	20 °C	2b x 50	800	2b x 50	1000	2b x 63	1250	2b x 80	1600
	25 °C	2b x 50	800	2b x 50	1000	2b x 63	1250	2b x 80	1600
	30 °C	2b x 50	800	2b x 50	1000	2b x 63	1250	2b x 80	1600
	35 °C	2b x 50	800	2b x 50	1000	2b x 63	1250	3b x 63	1600
	40 °C	2b x 50	800	2b x 50	1000	3b x 50	1250	3b x 63	1550
	45 °C	2b x 50	800	2b x 63	1000	3b x 50	1250	3b x 80	1520
	50 °C	2b x 50	800	2b x 63	1000	3b x 50	1250	3b x 80	1480
Flat bars	20 °C	2b x 50	800	3b x 50	1000	2b x 80	1250	3b x 80	1600
	25 °C	2b x 50	800	3b x 50	1000	2b x 80	1250	3b x 80	1600
	30 °C	2b x 50	800	3b x 50	1000	2b x 80	1250	3b x 80	1600
	35 °C	2b x 50	800	3b x 50	1000	3b x 80	1250	3b x 80	1600
	40 °C	3b x 50	800	3b x 50	1000	3b x 80	1250	4b x 80	1600
	45 °C	3b x 50	800	3b x 50	1000	3b x 80	1250	4b x 80	1500
	50 °C	3b x 50	800	3b x 50	1000	3b x 80	1250	4b x 80	1400
IP ⩾ 31	**T° around the switchboard**								
Edgewise bars	20 °C	2b x 50	800	2b x 50	1000	2b x 80	1250	3b x 80	1600
	25 °C	2b x 50	800	2b x 50	1000	2b x 80	1250	3b x 80	1600
	30 °C	2b x 50	800	2b x 63	1000	2b x 80	1250	3b x 80	1600
	35 °C	2b x 50	800	2b x 63	1000	2b x 80	1250	3b x 80	1550
	40 °C	2b x 50	800	2b x 63	1000	3b x 80	1250	3b x 80	1520
	45 °C	2b x 50	800	2b x 63	1000	3b x 80	1250	3b x 80	1480
	50 °C	■	■	■	■	■	■	■	■
Flat bars	20 °C	2b x 63	800	2b x 80	1000	3b x 80	1250	4b x 80	1600
	25 °C	2b x 63	800	2b x 80	1000	3b x 80	1250	4b x 80	1600
	30 °C	2b x 63	800	2b x 80	1000	3b x 80	1250	4b x 80	1600
	35 °C	3b x 63	800	2b x 80	1000	3b x 80	1250	4b x 80	1600
	40 °C	2b x 80	800	2b x 80	1000	3b x 80	1250	4b x 80	1500
	45 °C	2b x 80	800	3b x 80	1000	3b x 80	1250	4b x 80	1400
	50 °C	■	■	■	■	■	■	■	■

■ *connection not possible*

The above values are valid for installation in a Prisma switchboard

Masterpact circuit breakers M20/M32 drawout

5 mm thick copper bars.

		M20		M25		M32	
		nb of bars per phase	I (A)	nb of bars per phase	I (A)	nb of bars per phase	I (A)
IP ⩽ 30	**T° around the switchboard**						
Edgewise bars	20 °C	2b x 125	2000	3b x 100	2500	3b x 125	3200
	25 °C	2b x 125	2000	3b x 100	2500	3b x 125	3200
	30 °C	2b x 125	2000	3b x 100	2500	3b x 125	3140
	35 °C	2b x 125	2000	4b x 100	2500	3b x 125	3020
	40 °C	3b x 100	2000	4b x 100	2500	3b x 125	2900
	45 °C	3b x 100	1900	4b x 100	2320	3b x 125	2820
	50 °C	3b x 100	1800	4b x 100	2250	3b x 125	2750
Flat bars	20 °C	3b x 100	2000	■	■	■	■
	25 °C	3b x 100	2000	■	■	■	■
	30 °C	3b x 100	2000	■	■	■	■
	35 °C	4b x 100	2000	■	■	■	■
	40 °C	4b x 100	1900	■	■	■	■
	45 °C	4b x 100	1825	■	■	■	■
	50 °C	4b x 100	1750	■	■	■	■
IP ⩾ 31	**T° around the switchboard**						
Edgewise bars	20 °C	3b x 100	2000	4b x 100	2500	4b x 125	3200
	25 °C	3b x 100	2000	4b x 100	2500	4b x 125	3140
	30 °C	3b x 100	2000	4b x 100	2500	4b x 125	3020
	35 °C	3b x 100	2000	4b x 100	2400	4b x 125	2900
	40 °C	3b x 100	1900	4b x 100	2320	4b x 125	2820
	45 °C	3b x 100	1800	3b x 125	2250	4b x 125	2750
	50 °C	■	■	■	■	■	■
Flat bars	20 °C	4b x 100	2000	■	■	■	■
	25 °C	4b x 100	2000	■	■	■	■
	30 °C	5b x 100	1900	■	■	■	■
	35 °C	5b x 100	1825	■	■	■	■
	40 °C	5b x 100	1900	■	■	■	■
	45 °C	5b x 100	1750	■	■	■	■
	50 °C	■	■	■	■	■	■

■ *connection not possible*

The above values are valid for installation in a Prisma switchboard

Connection by insulated flexible copper bars
Device connections

Insulated flexible copper bars

To obtain an installation complying with IEC 60439-1
Always use the values given below. They have been validated for an installation comprising devices installed in a Prisma enclosure.

The parameters determining the cross-section of a flexible copper bars are:
- **the environment in which it is installed:**
  - location in the enclosure
  - dimensions of the other conductors of the circuit
  - ambient temperature around the enclosure
- **the characteristics of the connected device:**
  - power dissipated by the device (heat loss)
  - temperature-rise caused by the device

Only an electrical equipment manufacturer knows both:
- the characteristics of the devices to be installed
- the configuration of the devices inside the enclosure.

In this way, an equipment manufacturer can indicate the cross-sections of flexible copper bars for a permissible current.

Technical characteristics:
- insulation thickness: between 1.5 mm and 2.5 mm
- rated insulation voltage: Ui = 1000 V
- rated impulse withstand voltage = Uimp = 12 kV
- maximum temperature of copper bars: 105°C
- maximum temperature of copper bars in continuous duty: 80°C.

Circuit breakers, switch-disconnectors and fuses
- in a Prisma P or PH cubicle
- temperature inside the switchboard: 60°C

Device	IN125	IN160	IN250	IN400	IN630	NS100(1)	NS160(1)
S (mm)	20 x 2	20 x 2	20 x 3	32 x 5	32 x 8	20 x 2	20 x 2
Device	**NS250(1)**	**NS400(1)**	**NS630**	**Fu250**	**Fu400**	**Fu630**	
S (mm)	20 x 3	32 x 5	32 x 8	24 x 5	32 x 5	32 x 8	

(1) The values for circuit breakers are applicable for contactors with the same ratings

Disconnectors, terminal blocks, connections, busbar/busbar
- in a Prisma P or PH cubicle
- temperature inside the switchboard: 60°C

I maxi (60 °C)	200 A	250 A	400 A	480 A	520 A	580 A	660 A
S (mm)	20 x 2	20 x 3	24 x 5	24 x 6	32 x 5	24 x 8	32 x 8

The above values are valid for installation in a Prisma switchboard

Connection by cables

Cables

Practical rules:
Schneider Electric recommends cabling according to the circuit breaker **rating**.
The cable cross-section must be chosen depending on:
- the current to be carried
- the ambient temperature around the conductors
- the degree of protection of the switchboard.

The following tables take into account the installation conditions related to the type of device (permissible temperatures near the connection terminals, etc.). They ensure consistency with the temperature derating values of the installed devices.

Enclosures: the volume, power and connection lengths are low. Always choose the values in the "bundled" column as a function of the IP.

Connection of circuit-breaker by cables

- in a Prisma P or PH cubicle
- temperature inside the switchboard: 60°C
- copper cables.

Device	**NS100**	**NS160**	**NS250**	**NS400/NS630**
Section (mm²)	25	50	95	straps or bars

Permissible current with cables secured individually											
Current (A)											
IP ⩽ 30	16	25	32	40	63	90	110	135	180	230	275
IP ⩾ 31	14	25	29	39	55	77	100	125	150	190	230
Cable											
Section (mm²)	1.5	2.5	4	6	10	16	25	35	50	70	95

Permissible current with cables secured in bundles								
Current (A)								
IP ⩽ 30	14	22	28	36	55	80	100	125
IP ⩾ 31	12	20	24	33	50	70	93	120
Cable								
Section (mm²)	1.5	2.5	4	6	10	16	25	35

Connection of other devices by cables

- in a Prisma P or PH cubicle
- temperature inside the switchboard: 60°C
- copper cables.

Permissible current with cables secured individually											
Current (A)											
IP ⩽ 30	13	23	28	36	55	80	100	120	165	210	250
IP ⩾ 31	12	21	26	35	50	70	90	115	135	176	210
Cable											
Section (mm²)	1.5	2.5	4	6	10	16	25	35	50	70	95

Permissible current with cables secured in bundles								
Current (A)								
IP ⩽ 30	12	20	25	32	50	72	90	110
IP ⩾ 31	10	19	22	30	46	63	84	103
Cables								
Section (mm²)	1.5	2.5	4	6	10	16	25	35

The above values are valid for installation in a Prisma switchboard

Cross-section of protective conductor PE

Optimised method:
Use the calculation formula given by standard IEC 60439-1:

$$S_{PE} = \frac{\sqrt{I^2 t}}{k}$$

■ S_{PE}: cross-sectional area of PE in mm^2
■ I^2: value of the phase-to-earth fault current = 60% of the value of the phase-to-phase fault current (standard IEC 60438-1 §8.2.4.2).
■ t: duration of the fault current in seconds
■ k: a factor depending on the conductor material. k = 143 for a PVC-insulated copper PE conductor.

Simplified method (based on the above formula):
■ Use the table below.
■ Depending on the Isc of the device, determine the cross-sectional area of the PE conductor.

Cross-sectional area of the PE conductor (mm)	Masterpact NWH3 with a 0.5 second time delay	Other Schneider Electric device
Isc ⩽ 40 kA	1 bar 25 x 5	1 bar 25 x 5
40 < Isc < 50 kA	1 bar 50 x 5	1 bar 25 x 5
Isc ⩾ 50 kA	1 bar 50 x 5	1 bar 50 x 5

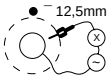
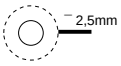
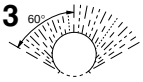
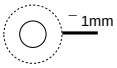
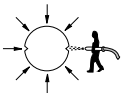
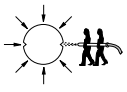
Schneider Electric prefabricated solutions:
■ PE conductor:
□ use the PE conductor see cat. No 07428 (up to an Isc of 85 ka).

Degree of protection
General

Standard IEC 60364-3 lists and codes a large number of external influences to which an electrical installation may be subjected: presence of water, presence of solid bodies, risk of impacts, vibrations, presence of corrosive substances.
These influences are exerted with an intensity varying according to installation conditions: the presence of water may be simply a few drops falling...or complete immersion.

Degree of protection IP code

International standard IEC 60529 (2nd edition 1989-11), European standard EN 60529 (October 1992), French standard NF C 20-010 (1st edition October 1986) and German standards DIN 40050 (July 1980) and DIN-VDE 0470 (part 1) all define in a similar manner an IP code to indicate the degree of protection provided by an electrical enclosure against access to hazardous parts and against the penetration of solid bodies or liquids.
These standards do not cover protection against explosion hazards or conditions such as humidity, corrosive vapours, mould or vermin.
The IP code is made up of 2 digits to which a letter may be added when the actual protection against access to hazardous parts is better than that indicated by the first digit.
The first digit characterises protection provided by the enclosure against penetration by solid bodies.
The second digit characterises protection against the ingress of liquids with harmful effects.

1st digit Protection against solid bodies		2nd digit Protection against liquids	
1 	protection against solid bodies ≥ 50 mm diam.	1 	protection against vertical dripping (condensation)
2 	protection against solid bodies ≥ 12.5 mm diam.	2 	protection against dripping at an angle of up to 15° with respect to vertical
3 	protection against solid bodies ≥ 2.5 mm diam.	3 	protection against water sprayed at an angle up to 60° with respect to vertical
4 	protection against solid bodies ≥ 1 mm diam.	4 	protection against splashing from all directions
5 	dust-protected (no harmful deposit)	5 	protection against water jets projected from any direction
6 	dust-tight (total protection against dust)	6 	protection against powerful water jets projected from any direction
		7 	protection against temporary immersion
		8 	protection against continuous immersion

Example

IP 30.D
- 3 → protection against solid bodies ≥ 2.5 mm diameter
- 0 → no protection
- D → protection against access with a 1 mm diameter tool (wire)

Degree of protection
General

Remarks on degree of protection IP code

■ the degree of protection IP must always be read and understood digit by digit and not as a whole.
For example, an IP31 enclosure is suitable for an environment requiring a minimum degree of protection IP21. However, an IP30 enclosure is not suitable.
■ the degrees of protection indicated in this catalogue are valid for the enclosures as they are presented. However, for this degree of protection to be maintained, devices must be mounted and the installation must be implemented in accordance with standard working practices.

Additional letter (optional)

Protection of persons against access to hazardous parts.

letter	description
A	protection against access with the back of the hand
B	protection against access with a finger
C	protection against access with a 2.5 mm diam. tool
D	protection against access with a 1 mm diam. tool (wire)

It is used only if effective protection of persons is greater than that indicated by the 1st letter of the IP.
When only protection of persons needs to be specified, the two characteristic letters of the IP are replaced with X.
Example: IPXXB.

Degree of protection against mechanical impact: IK code

Draft European standard EN50102 now defines an IK code for the protection against mechanical impact.
The following table indicates the equivalencies between the 3rd digit of the French IP code of NF C 20-010 (1986) standard and the IK code.

impact energy (Joules)	3rd digit (old description)	IK code as defined by EN 50-102 (new description)
0.00	0	00
0.15		01
0.2	1	02
0.35		03
0.375	2	
0.5	3	04
0.7		05
1		06
2	5	07
5		08
6	7	
10		09
20	9	10

Selection of enclosures according to the premises

How to use the table

1 Opposite the relevant premises, read the minimum degree of protection required by standard IEC 60364-3 and the UTEC C 15-103 guide dated November 1997.

2 On the same line, the ❑ and ■ signs indicate the enclosures providing the required degree of protection.

3 If several degrees of protection are possible (refer to the standard for more details) and the ❑ and ■ signs are shown (for example, 24❑/25■), the enclosures that correspond to the higher degree of protection (■) are suitable for the lower degree of protection (❑).

Example: selection of an enclosure for a battery room. Minimum degree of protection in accordance with standard IEC 60364-3 as stipulated in the tables below: IP23. The Prisma G enclosure with a door (plain or transparent) and canopy + gasket kit provides an IP43 degree of protection and is therefore perfectly suitable for this application.

Remarks

The degree of protection only takes into account protection against penetration by solid bodies and water.
In the case of specific risks, the IP rating is not sufficient in itself and you must consult the relevant standard (e.g. IEC 60364-3).
For the first figure (protection against solid bodies) the value “2” has been selected as a minimum, in such a way as to take into account protection against direct contacts.

As per standard IEC 60364-3 and the UTE C 15-103 guide dated November 1997

				enclosures and cubicles								
				Prisma P cubicle (with front plate support frame or door)	**Prisma G enclosure** (with front plates) **Prisma GX cubicle**	**Prisma P cubicle** (with front plate support uprights + door) **Prisma P cubicle** (with plain or transparent door)	**Prisma G enclosure** (with plain or transparent door) **Prisma GX cubicle**	**Prisma G enclosure Prisma GX cubicle** (with plain or transparent door and canopy + gasket kit)	**Prisma P cubicle** (with plain or transparent door + gland plate + gasket kit) **UT enclosure**	**Prisma GE and GK enclosure Prisma PH cubicles**	**US enclosures**	**UP enclosures**
mini required degree of protection IP				**20**	**30**	**30**	**40**	**43**	**54**	**55**	**65**	**55**
mini required degree of protection IK				**08**	**07**	**08**	**08**	**08**	**08**	**10**	**10**	**10**
domestic or comparable premises or locations		**IP**	**IK**									
bathrooms (see washrooms)												
laundries		23	02					■	■	■	■	■
cellars		21	02❑/07■					■	■	■	■	■
bedrooms		20	02	■	■	■	■	■	■	■	■	■
courtyards		24❑/25■	02						❑	■	■	■
kitchens		21	02					■	■	■	■	■
shower rooms (see washrooms)												
showers (row of)		25	02							■	■	■
attics (roof space)		20	02	■	■	■	■	■	■	■	■	■
gardens		24❑/25■	02					❑	■	■		■
latrines		21	02					■	■	■	■	■
dustbin sheds		25	02❑/07■							■	■	■
ironing rooms		21	02					■	■	■	■	■
washrooms	safety envelope volume	27	02	consult us								
	protection volume	23	02					■	■	■	■	■
	other locations	21	02					■	■	■	■	■
lounges, living rooms, etc.		20	02	■	■	■	■	■	■	■	■	■
drying rooms		21	02					■	■	■	■	■
basements		21	02❑/07■					■	■	■	■	■
WCs		21	02					■	■	■	■	■
verandas		21	02					■	■	■	■	■
crawl space		23	02❑/07■					■	■	■	■	■
technical premises												
battery rooms		23	02❑/07■					■	■	■	■	■
cold storage rooms		33	02❑/07■					■	■	■	■	■
electrical rooms		20	07	■	■	■	■	■	■	■	■	■
control rooms		20	04	■	■	■	■	■	■	■	■	■
workshops		21	07❑/08■									
		23	07❑/08■					■	■	■	■	■
laboratories		21	02❑/07■									
		31	02❑/07■					■	■	■	■	■
machine rooms		31	07❑/08■					■	■	■	■	■
air conditioning washers		24	07						■	■	■	■
garages (used exclusively for parking vehicles) of an area not exceeding 100 m^2		21	07					■	■	■	■	■
water pressurisers		23	07❑/08■					■	■	■	■	■

Selection of enclosures according to the premises

As per standard IEC 60364-3 and the UTE C 15-103 guide dated November 1997

				enclosures and cubicles								
				Prisma P cubicle (with front plate support frame or door)	**Prisma G enclosure** (with front plates) **Prisma GX cubicle**	**Prisma P cubicle** (with front plate support uprights + door) **Prisma P cubicle** (with plain or transparent door)	**Prisma G enclosure** (with plain or transparent door) **Prisma GX cubicle**	**Prisma G enclosure** **Prisma GX cubicle**(with plain or transparent door and canopy + gasket kit)	**Prisma P cubicle** (with plain or transparent door + gland plate + gasket kit) **UT enclosure**	**Prisma GE and GK enclosure** **Prisma GR and PH cubicles**	**US enclosures**	**UP enclosures**
		mini required degree of protection IP		**20**	**30**	**30**	**40**	**43**	**54**	**55**	**65**	**55**
		mini required degree of protection IK		**08**	**07**	**08**	**08**	**08**	**08**	**10**	**10**	**10**
boiler houses and adjoining premises (power in excess of 70 kW)		**IP**	**IK**									
boiler rooms	coal fuel	51❑/61■	07❑/08■					❑	❑	■		■
	other fuel	21	07❑/08■					■	■	■	■	■
	electrical	21	07❑/08■					■	■	■	■	■
fuel storage	coal	50❑/60	08						❑	❑	■	■
areas	oil	20	07❑/08■	■	❑	■	■	■	■	■	■	■
	liquefied gas	20	07❑/08■	■	❑	■	■	■	■	■	■	■
slag tips		50❑/60■	08					❑	❑	■		■
pump rooms		23	07❑/08■					■	■	■	■	■
pressure reduction rooms (gas)		20	07❑/08■	■	❑	■	■	■	■	■	■	■
expansion vessel rooms		21	02					■	■	■	■	■
garages and car parks of an area exceeding 100 m²												
parking lots		21	07❑/08■					❑	❑	❑	■	■
carwash areas (inside premises)		25	07							■	■	■
safety areas	indoors	21	07					■	■	■	■	■
	outdoors	24	07						■	■	■	■
lubrication areas		23	08					■	■	■	■	■
battery recharging	traction batteries	23	07					■	■	■	■	■
areas	other	23	07					■	■	■	■	■
workshops		21	08					■	■	■	■	■
sanitary facilities for communal usage												
rooms containing individual washbasins		21	07					■	■	■	■	■
WCs		21	07					■	■	■	■	■
rooms containing urinals		21	07					■	■	■	■	■
rooms containing communal washbasins		23	07					■	■	■	■	■
WCs (squat closet)		23	07					■	■	■	■	■
shower rooms with individual cabins		23	07					■	■	■	■	■
communal shower rooms		25	07							■	■	■
communal laundry rooms		24	07						■	■	■	■
buildings for communal usage												
offices		20	02	■	■	■	■	■	■	■	■	■
libraries		20	02	■	■	■	■	■	■	■	■	■
archives		20	02	■	■	■	■	■	■	■	■	■
rooms containing punch-card machines, statistics and accounting equipment		20	07	■	■	■	■	■	■	■	■	■
design offices		20	02	■	■	■	■	■	■	■	■	■
rooms containing reprographic machines		20	07	■	■	■	■	■	■	■	■	■
rooms containing the main telephone switchboard for an office building		20	07	■	■	■	■	■	■	■	■	■
rooms containing counters, sorting office		20	07	■	■	■	■	■	■	■	■	■
teaching establishments, excluding laboratories		20❑/21■	07	❑	❑	❑	❑	■	■	■	■	■
refectories in restaurants or canteens		21	07					■	■	■	■	■
large kitchens		35	07							■	■	■
communal bedrooms or dormitories		20	07	■	■	■	■	■	■	■	■	■
sports rooms		21	07❑/08■					■	■	■	■	■
leisure or vacation centres		21	07					■	■	■		■
barracks		21	07					■	■	■	■	■
meeting rooms		20	07	■	■	■	■	■	■	■	■	■
waiting rooms, lounges, halls		20	07	■	■	■	■	■	■	■	■	■
medical consulting rooms, not fitted with specific equipment		20	02❑/07■	■	■	■	■	■	■	■	■	■
demonstration or exhibition rooms		20	07	■	■	■	■	■	■	■	■	■

As per standard IEC 60364-3 and the UTE C 15-103 guide dated November 1997

				enclosures and cubicles							
				Prisma P cubicle (with front plate support frame or door)	**Prisma G enclosure** (with front plates) **Prisma GX cubicle**	**Prisma P cubicle** (with front plate support uprights + door) **Prisma P cubicle** (with plain or transparent door)	**Prisma G enclosure** (with plain or transparent door) **Prisma GX cubicle**	**Prisma G enclosure** **Prisma GX cubicle**(with plain or transparent door and canopy + gasket kit)	**Prisma P cubicle** (with plain or transparent door + gland plate + gasket kit) **UT enclosure**	**Prisma GE and GK enclosure** **Prisma PH cubicles** **UP enclosure**	**US enclosures**
mini required degree of protection IP				**20**	**30**	**30**	**40**	**43**	**54**	**55**	**65**
mini required degree of protection IK				**08**	**07**	**08**	**08**	**08**	**08**	**10**	**10**
farm premises or locations		**IP**	**IK**								
alcohol (storage)		23	07					■	■	■	■
closed cattle sheds		35	07							■	■
threshing floors		50❑/60■	07						❑	❑	■
distilling cellars		23	07					■	■	■	■
vat rooms (wine)		23	07					■	■	■	■
courtyards		35	07							■	■
troughs		23	07					■	■	■	■
stables		45	07							■	■
fertiliser (storage)		50❑/60■	07						❑	❑	■
stables		45	07							■	■
manure heaps		24	07						■	■	■
haystacks, forage (storage)		50❑/60■	07						❑	❑	■
granaries, barns		50❑/60■	07						❑	❑	■
greenhouses		23	07					■	■	■	■
milking rooms		35	07							■	■
pig sties		35	07							■	■
chicken houses		45	07							■	■
miscellaneous installations											
camping and caravan sites		34	07						UT54/UD	■	■
construction sites		44	08							■	■
streets, courtyards, gardens and other outdoor facilities		34/35■	07						UT54/UD	■	■
fair facilities		33	08					■	UT54/UD	■	■
swimming pools	pools	37	02	consult us							
	protection volume	35	02							■	■
	corridors and barefoot areas	35	02							■	■
saunas		34	02						UT54/UD	■	■
industrial facilities											
slaughter houses		55❑/65■	08							❑	■
acid (manufacture and storage)		33	07					■	■	■	■
alcohol (manufacture and storage)		33	07					■	■	■	■
aluminium (manufacture and storage)		51❑/53❑ 61■/63■	08						❑	❑	■
livestock (raising, fattening and sale)		45	07							■	■
industrial laundry		23❑/24■	07					❑	■	■	■
wood (processing)		50❑/60■	08						❑	❑	■
butcher's shops		24❑/25■	07					❑	■	■	
bakeries		50❑/60■	07						❑	❑	■
breweries		24	07						■	■	■
brickworks		53❑/54❑ 63■/64■	09					❑	❑	■	
rubber (production and processing)		54❑/64■	07						❑	❑	■
ammunition factories		53❑/63■	08					❑	❑	■	
carton board (production)		33	07					■	■	■	■
quarries		55❑/65■	08							❑	■
celluloid (manufacture of objects)		30	08			■	■	■	■	■	■
coal (depots)		53❑/63■	08						❑	❑	■
boiler-making works		30	08			■	■	■	■	■	■
rag (storage)		30	08	■	■	■	■	■	■	■	■
chrome-plating		33	07						■	■	■

Selection of enclosures according to the premises

As per standard IEC 60364-3 and the UTE C 15-103 guide dated November 1997

			enclosures and cubicles							
			Prisma P cubicle (with front plate support frame or door)	**Prisma G enclosure** (with front plates) **Prisma GX cubicle**	**Prisma P cubicle** (with front plate support uprights + door) **Prisma P cubicle** (with plain or transparent door)	**Prisma G enclosure** (with plain or transparent door) **Prisma GX cubicle**	**Prisma G enclosure** **Prisma GX cubicle**(with plain or transparent door and canopy + gasket kit)	**Prisma P cubicle** (with plain or transparent door + gland plate + gasket kit) **UT enclosure**	**Prisma GE and GK enclosure** **Prisma PH cubicles** **UP enclosure**	**US enclosures**
	mini required degree of protection IP		**20**	**30**	**30**	**40**	**43**	**54**	**55**	**65**
	mini required degree of protection IK		**08**	**07**	**08**	**08**	**08**	**08**	**10**	**10**
industrial establishments (continued)	**IP**	**IK**								
cement works	50❑/60■	08						■	■	■
coking plant	53❑/63.7■	08						■	■	■
adhesives (production)	33	07					■	■	■	■
liquid fuels (storage)	31❑/33■	08					■	■	■	■
fats (processing)	51❑/61■	07						■	■	■
leather (tanning and storage)	31	08					■	■	■	■
paint stripping	54❑/64■	08						■	■	■
detergents (manufacture)	53❑/63■	07						■	■	■
distilleries	33	07					■	■	■	■
électrolysis	33	08					■	■	■	■
fertilisers (manufacture and storage)	53❑/63■	07						■	■	■
explosives (manufacture and storage)	55❑/65■	08							■	■
iron (production and processing)	51❑/61■	08						■	■	■
spinning mills	50❑/60■	07						■	■	■
refrigerators (storage)	33	07					■	■	■	■
cheese factories	25	07							■	■
printworks	20	07	■		■	■	■	■	■	■
dairies	25	07							■	■
public wash-houses	25	07							■	■
inflammable liquids (storage and workshops where they are used)	21	08					■	■	■	■
machine rooms	20	08	■		■	■	■	■	■	■
plastics (production)	51❑/61■	08						■	■	■
metals (processing)	31❑/33■	08					■	■	■	■
combustion engines (testing of)	30	08			■	■	■	■	■	■
household waste (processing)	53❑/54❑ 63■/64■	07						■	■	■
paper (production)	33❑/34■	07						■	■	■
paper (storage)	31	07					■	■	■	■
perfume (production and storage)	31	07					■	■	■	■
paint (production and storage)	33	08					■	■	■	■
plaster (processing and storage)	50❑/60■	07						■	■	■
pig farms	25	07							■	■
chemicals (production)	30❑/50■/60■	08			❑	❑	❑	■	■	■
oil refineries	34	07						■	■	■
cured meat factories	33	07					■	■	■	■
soap (production)	31	07					■	■	■	■
metal works	30	08			■	■	■	■	■	■
caustic soda (processing and storage)	33	07					■	■	■	■
sulphur (processing)	51❑/61■	07						■	■	■
spirits (storage)	33	07					■	■	■	■
sugar mills	55❑/65■	07							■	■
dye works	35	07							■	■
textile and fabric (production)	51❑/61■	08						■	■	■
glass works	33	08					■	■	■	■

As per standard IEC 60364-3 and the UTE C 15-103 guide dated November 1997

					enclosures and cubicles							
					Prisma P cubicle (with front plate support frame or door)	**Prisma G enclosure** (with front plates) **Prisma GX cubicle**	**Prisma P cubicle** (with front plate support uprights + door) **Prisma P cubicle** (with plain or transparent door)	**Prisma G enclosure** (with plain or transparent door) **Prisma GX cubicle**	**Prisma G enclosure** **Prisma GX cubicle**(with plain or transparent door and canopy + gasket kit)	**Prisma P cubicle** (with plain or transparent door + gland plate + gasket kit) **UT enclosure**	**Prisma GE and GK enclosure** **Prisma PH cubicles** **UP enclosure**	**US enclosures**
			mini required degree of protection IP		**20**	**30**	**30**	**40**	**43**	**54**	**55**	**65**
			mini required degree of protection IK		**08**	**07**	**08**	**08**	**08**	**08**	**10**	**10**
buildings open to the general public			**IP**	**IK**								
L	lecture halls	halls	20	02❑/07■	■	■	■	■	■	■	■	■
	meeting rooms	stage areas	20	08	■		■	■	■	■	■	■
	auditoriums	projection facilities	20	02	■	■	■	■	■	■	■	■
	and halls used for several purposes	adjoining premises (dressing rooms, workshops, store rooms)	20	08	■		■	■	■	■	■	■
M	retail premises, shopping malls		20	08	■		■	■	■	■	■	■
	areas for storage, reception, packing, display		20	08	■		■	■	■	■	■	■
N	restaurants and cafes		20	02	■	■	■	■	■	■	■	■
	large kitchens (see UTE 15-201)											
O	hotels and boarding houses		20	02	■	■	■	■	■	■	■	■
P	dance halls and gaming parlours		20	07	■	■	■	■	■	■	■	■
R	teaching establishments, holiday camps		20	02	■	■	■	■	■	■	■	■
S	libraries and documentation centres		20	02	■	■	■	■	■	■	■	■
T	exhibitions	halls and rooms	20	07	■	■	■	■	■	■	■	■
		areas for storage, reception, packing, workshops, garages	20	08	■		■	■	■	■	■	■
U	healthcare establishments,		20	02	■	■	■	■	■	■	■	■
	operating theatres		20	07	■	■	■	■	■	■	■	■
V	places of worship,		20	02	■	■	■	■	■	■	■	■
	organ bellows,		20	02	■	■	■	■	■	■	■	■
	bell towers		23	02					■	■	■	■
W	administrative premises, banks		20	02	■	■	■	■	■	■	■	■
X	indoor sports facilities		21	07❑/08■					■	■	■	■
Y	museums		20	02	■	■	■	■	■	■	■	■
PA	open air facilities		25	08							■	■
CT	marquees and tents		44	08						■	■	■
SG	inflatable structures		44	08						■	■	■
PS	covered parking lots		21	07❑/10■					■	■	■	■
commercial premises and adjoining areas												
gunsmiths (storage area, workshop)			31❑/33■	08					■	■	■	■
laundries (wash room)			24	07						■	■	■
butchers		shop	24	07						■	■	■
		refrigerator	23.5						■	■	■	■
bakers, cake shops (kitchens)			50❑/60■	07						❑	❑	■
coffee roasters			21	02					■	■	■	■
coal, wood, oil			20	08	■		■	■	■	■	■	■
delicatessen (production)			24	07						■	■	■
sweets (production)			20	02	■	■	■	■	■	■	■	■
shoe repair shops			20	02	■	■	■	■	■	■	■	■
dairies			24	02						■	■	■
hardware stores (storage areas for chemicals and paint)			33	07					■	■	■	■
wood workers			50❑/60■	07						❑	❑	■
art galleries			20	07	■	■	■	■	■	■	■	■
florists			24	02						■	■	■
furriers			20	02	■	■	■	■	■	■	■	■
fruit and vegetable merchants			24	07						■	■	■
grain shops			50❑/60■	07						❑	❑	■
bookshops, stationers			20	02	■	■	■	■	■	■	■	■

Selection of enclosures according to the premises

As per standard IEC 60364-3 and the UTE C 15-103 guide dated November 1997

			enclosures and cubicles							
			Prisma P cubicle (with front plate support frame or door)	**Prisma G enclosure** (with front plates) **Prisma GX cubicle**	**Prisma P cubicle** (with front plate support uprights + door) **Prisma P cubicle** (with plain or transparent door)	**Prisma G enclosure** (with plain or transparent door) **Prisma GX cubicle**	**Prisma G enclosure** **Prisma GX cubicle**(with plain or transparent door and canopy + gasket kit)	**Prisma P cubicle** (with plain or transparent door + gland plate + gasket kit) **UT enclosure**	**Prisma GE and GK enclosure** **Prisma PH cubicles** **UP enclosure**	**US enclosures**
mini required degree of protection IP			**20**	**30**	**30**	**40**	**43**	**54**	**55**	**65**
mini required degree of protection IK			**08**	**07**	**08**	**08**	**08**	**08**	**10**	**10**
commercial premises and adjoining areas (continued)	**IP**	**IK**								
motorcycle and bicycle repairs and accessories	20	09	■		■	■	■	■	■	■
messenger services	20	09	■		■	■	■	■	■	■
furniture shops (antiques, second-hand)	20	07	■	■	■	■	■	■	■	■
glass and mirror merchants (workshop)	20	07	■	■	■	■	■	■	■	■
wallpaper shop (storage area)	21	07					■	■	■	■
cosmetics shop (storage area)	31	02					■	■	■	■
chemists (storage area)	20	02	■	■	■	■	■	■	■	■
photographers (dark room)	23	02					■	■	■	■
plumbers (storage area)	20	07	■	■	■	■	■	■	■	■
fishmongers	25	07							■	■
dry cleaners	23	02					■	■	■	■
hardware store (without paint, chemicals, etc.)	20	07	■	■	■	■	■	■	■	■
locksmiths	20	07❑/08■	■	❑	■	■	■	■	■	■
vintners, spirits (cellars and storage areas)	23	07					■	■	■	■
interior decorator (carding)	50❑/60■	07						❑	❑	■
tailors, clothing retailers (storage area)	20	02	■	■	■	■	■	■	■	■
pet care	35	07							■	■

Properties of metal enclosures

The sheet metal used for Merlin Gerin enclosures and cubicles receives a coating of a thermosetting, polyester-resin-modified epoxy powder.
This provides excellent finish and corrosion protection.
The characteristics of this coating are much better than those of traditional epoxy powders:
- improved colour stability
- wider operating temperature range.

Mechanical properties

test conditions: samples made of 0.8 mm thick sheet steel, hot-cleaned and phosphatized		
adhesion (cross-hatch and pull-off)	class 0	(ISO 2409)
Erichsen indentation **(1)**	> 8 mm	(ISO 1520)
impact strength **(2)**	> 1 kg/40 cm	(ISO 6272)
mandrel bending test **(3)**	3 mm	(ISO 1519)
cone bending test **(4)**	< 15 mm	(ISO 6860)
Persoz hardness	300-320 sec.	(ISO 1522)

(1) *No cracks for a stamping depth of 6 mm; no detachment for a stamping depth of 8 mm.*
(2) *No cracking of the paint film after dropping a weight of 1 kg on the test piece from a height of 40 cm.*
(3) *No detachment of paint after bending the test piece around a 5 mm diameter axis.*
(4) *Film cracks over a length of 15 mm maximum.*

Chemical properties

Tests carried out at ambient temperature on phosphatized samples coated with a 150 to 200 µ film.

test duration (months)			**2**	**4**	**6**	**8**	**10**	**12**
acids		concentration						
	acetic	20 %						
	sulphuric	30 %						
	nitric	30 %						
	phosphoric	30 %						
	hydrochloric	30 %						
	lactic	10 %						
	citric	10 %						
bases	soda	10 %						
	ammonia	10 %						
water	distilled water							
	seawater							
	tap water							
	diluted bleach							
solvant	petrol							
	high alcohols							
	aliphatics							
	aromatics							
	ketones, esters							
	tri-perchloroethylene							

film intact
film damaged (blisters, yellowing, loss of shine)

Corrosion resistance

salt mist: ISO 7253

720 hours for enclosures made of 1 mm thick sheet metal, zinc-plated after phosphatizing:
- degree of rusting Ri0 (ISO 4628/3)
- blistering 0 (ISO 4628/2).

Properties of plastic enclosures

Characteristics

The UP and US enclosures are particularly suitable for highly corrosive environments (coastlines, chemical industries, dairies, etc.).

	polycarbonate (US transp. cover)	polyester (UP + US enclosures)	standard
mechanical properties			
shock resistance in N/cm^2	> 294	882	DIN 53453
bending strength in N/cm^2	> 9300	17 640	DIN 53452
tensile strength in N/cm^2	6500	8330	DIN 53455
electrical properties			
comparative tracking resistance (class)	275 V	600 V	DIN 53480
surface resistance in W	10^{15}	10^{12}	DIN 53482
dielectric strength in kV/cm	350	180-200	DIN 53481
volume (bulk) resistivity in W/cm	10^{16}	10^{14}	DIN 53482
fire resistance			
oxygen index in % of O_2	26	24.4	ASTM D-2863-70
flame test	V2 at 1.5 mm	V0 at 1.5 mm	ISO 1210
incandescent wire test	750 °C 5 s	960 °C 5 s	IEC 695-2-1
other properties			
dimensional stability (Martens) in C°	115 to 125	> 250	DIN 53458
melting temperature (Vicat) in C°	145		DIN 53460
temperature resistance (continuous) in C°	– 50 to + 125	– 50 to + 140	
light-fastness (blue wool 1-8)	4	7-8	DIN 53388
tropicalisation and mould resistance	no damage	no damage	IEC 68-2-10
water absorption in mg	10	45	DIN 53472
specific mass in g/cm^3	1.2	1.75	DIN 53479

Resistance to chemicals
(at ambient temperature)

	polycarbonate maximum concentration %		polyester maximum concentration %	
acetone, ketones and derivatives		❑		❑
hydrochloric acid	20	**(1)**	30	**(1)**
citric acid	10	**(1)**		**(1)**
lactic acid	10	**(1)**		**(1)**
nitric acid	10	**(1)**	10	**(2)**
phosphoric acid		**(1)**		**(1)**
sulphuric acid	50	**(1)**	70	**(1)**
alcohols excepting benzyl, allyl and furfural alcohol		**(1)**		**(1)**
pure aniline		❑		**(2)**
mineral bases		**(2)**	5	**(2)**
benzyne		❑		**(1)**
liquid bromine		❑		
liquid chlorine		❑		
seawater		**(1)**		**(1)**
petrol		❑		**(1)**
ethers		❑		**(2)**
hexane		**(1)**		❑
oils and fats		**(1)**		**(1)**
aromatic hydrocarbons		❑		❑
diesel oil		**(2)**		**(1)**
phenol		❑	10	**(1)**
iodine tincture		❑		
toluene		❑		**(2)**
trichlorethylene		❑		❑
urea		**(1)**		

(1) *resistant*
(2) *limited resistance*
❑ *not resistant*

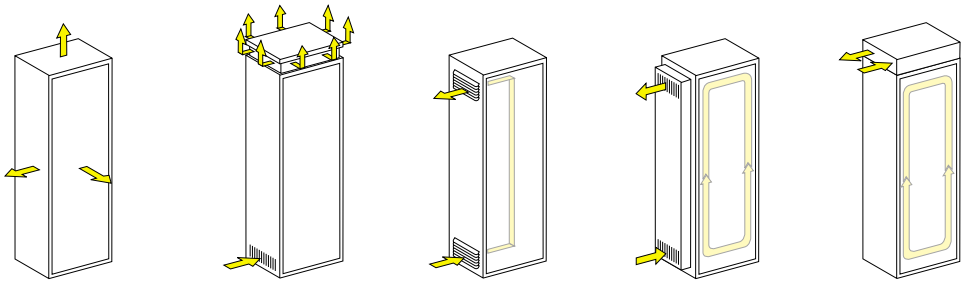
Thermal management of switchboards
General

A switchboard is designed for operation under normal ambient conditions. Most devices do not operate properly outside a temperature range of – 10 °C and + 50 °C.
It is therefore important to maintain the internal switchboard temperature within this range by:
- **correctly sizing the switchboard during design**
- **adjusting the temperature using appropriate means.**

Ways of adjusting internal temperature

Cooling
There are a number of ways to dissipate heat from the switchboard. The table below lists the various means. The first two are by natural means available on Merlin Gerin enclosures, the third is frequently requested and the last two may be provided on special request.

Heating
The means used to raise the internal temperature in a switchboard is a resistor-based heater, used to:
- avoid condensation by limiting variations in temperature
- ensure that the switchboard does not freeze.



cooling means	natural convection	natural ventilation	forced-air ventilation	forced-air ventilation with exchanger	forced convection and cooling
P. max. dissipated 2000 x 800 x 400	400 W	700 W	2000 W	2000 W	2400 W
internal temperature	greater than the external temperature				regulated + 20 to + 45 °C
external temperature	max. 40 °C	max. 40 °C	max. 40 °C	max. 40 °C	max. 55 °C
max. IP	IP 55	IP 20	IP 54	IP 55	IP 55

Calculating the internal switchboard temperature

The internal temperature is calculated to check that the thermal limits of devices are not overrun.

Method defined by IEC 890 report
This IEC guide contains a calculation method for cases where convection and natural ventilation are the means of cooling. Users should consult this report whenever undertaking the general design of a switchboard.

Rapid calculation charts (see next page)
These charts are based on the experience acquired by Schneider Electric. They may be used to determine, with a satisfactory degree of accuracy, temperature differences and heat losses depending on the type of cubicle or enclosure.

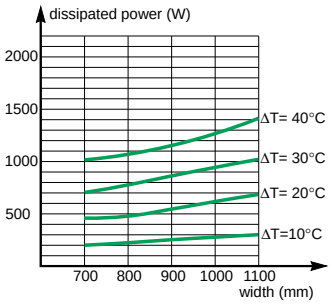
Note: *when cubicles or enclosures are placed side by side, the power dissipated is reduced by 10%.*

For the cubicles and enclosures not presented on the next page, the following equation may be used:
$P = \Delta T \times S \times K$
where:
P : power dissipated by the devices, connections and busbars (in Watts)
$\Delta \mathbf{T} = T_i - T_e$
S : total free surface area of the enclosure (in square meters)
K : thermal-conduction coefficient of the material ($W/m^2\,°C$)
$K = 5.5\ W/m^2\,°C$ for painted sheet metal
$K = 4\ W/m^2\,°C$ for polyester

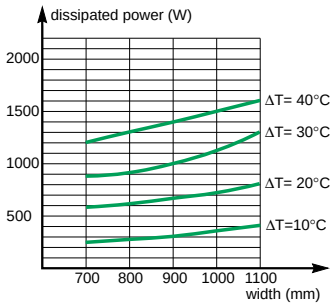
Note: *the power dissipated by devices is indicated by the manufacturers. Add approximately 30% to account for the connections and the busbars.*

Rapid calculation charts for internal temperature: Prisma P

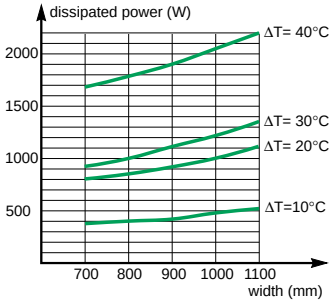
Test condition: cubicle placed on the floor against a wall. The internal temperature rises indicated are those taken at mid height of the enclosure.



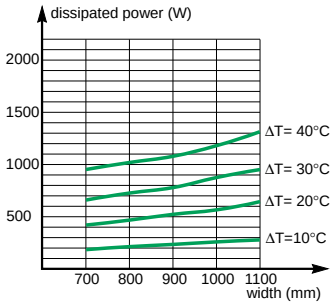
Prisma P cubicle *(IP 2, depth 400)*



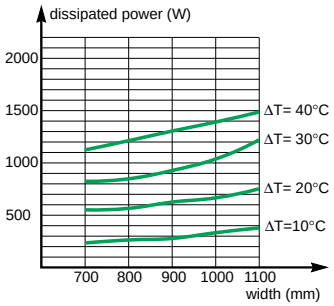
Prisma P cubicle *(IP 2, depth 600)*



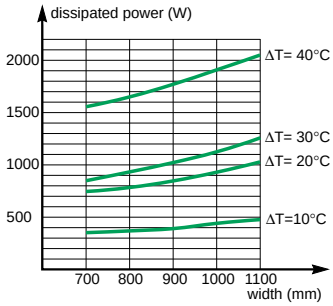
Prisma P cubicle *(IP 2, depth 1000)*



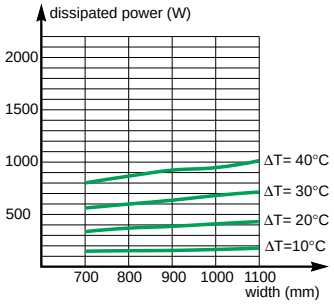
Prisma P cubicle *(IP 3, depth 400)*



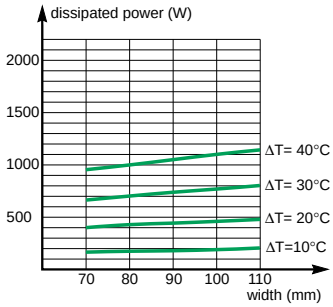
Prisma P cubicle *(IP 3, depth 600)*



Prisma P cubicle *(IP 3, depth 1000)*



Prisma P cubicle *(IP 5, depth 400)*

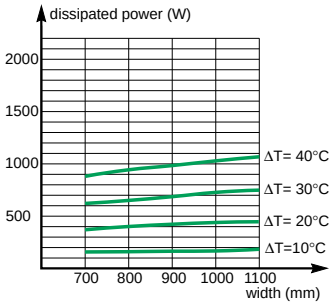


Prisma P cubicle *(IP 5, depth 600)*

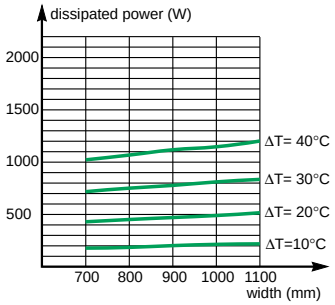
Prisma P cubicle *(IP 5, depth 1000)*
(see page 4)

Rapid calculation charts for internal temperature: Prisma PH

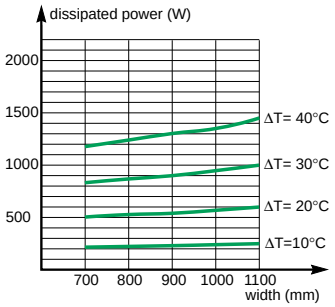
Test condition: cubicle placed on the floor against a wall. The internal temperature rises indicated are those taken at mid height of the enclosure.



Prisma PH cubicle *(IP 5, depth 500)*



Prisma PH cubicle *(IP 5, depth 700)*

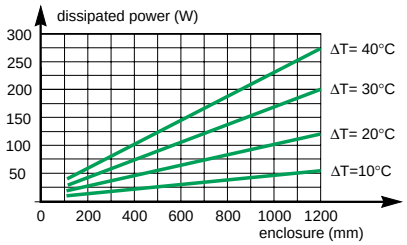


Prisma P/PH cubicle *(IP 5, depth 1000)*

Thermal management of switchboards
General

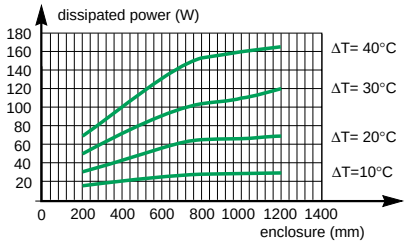
Rapid calculation charts for internal temperature: Prisma G / GX / GK

The internal temperature rises indicated are those taken at mid height of the enclosure.



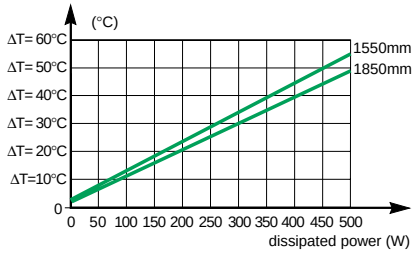
Prisma G cubicle *(IP3)*

Test condition:
500 mm wide enclosure
Wall mounted directly without fixing lugs.



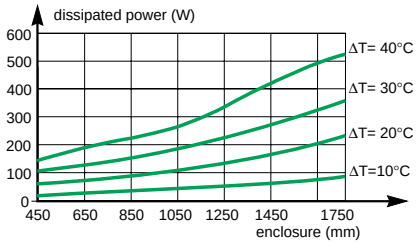
Prisma G cubicle *(IP4)*

Test condition:
500 mm wide enclosure
Wall mounted directly without fixing lugs.



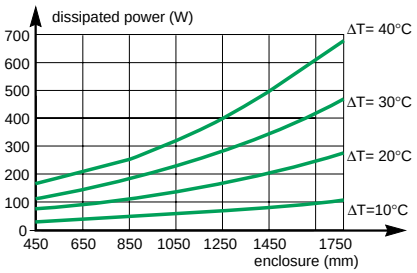
Prisma GX cubicle *(IP4)*

Test condition:
500 mm wide enclosure
Placed on the floor against a wall.



Prisma GK cubicle *(IP5)*

Test condition:
550 mm wide enclosure
wall mounted using wall fixing lugs or on the wall fixing uprights.



Prisma GK cubicle *(IP5)*

Test condition:
550 mm wide enclosure
wall mounted directly without fixing lugs or uprights.

Thermal management of switchboards
Ventilation

Switchboard ventilation

Air enters through the bottom section via the fan and exits through the top section:
- via a ventilated roof or
- via a ventilation outlet.

Throughput of the fan is calculated by the equation:

$$D = 3.1 \times \left(\frac{P}{\Delta T} - KS \right)$$

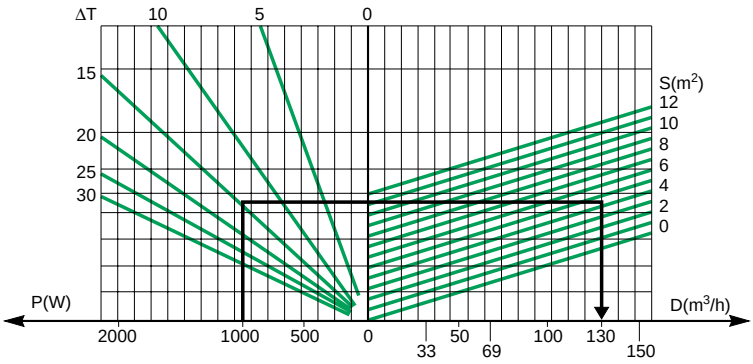
The chart below can be used to determine the required throughput on the basis of the power to be dissipated, the difference in temperature (internal / external) and the free surface area of the enclosure.

Example

A Prisma P cubicle, 400 mm deep and 700 mm wide, contains equipment (devices, busbars, etc.) dissipating 1000 W.
The difference in temperature (internal / external) is limited to 15 °C. The free surface area of the enclosure is 4.9 square meters.
What is the required throughput of the fan? Using the equation:

$$D = 3.1 \times \left(\frac{1000}{15} - 5.5 \times 4.9 \right)$$

$D = 122\ m^3/h$.
Among the range of accessories for Prisma cubicles, the user must select a 38 W fan with an outlet grill.

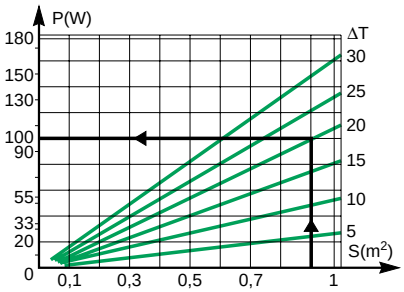


Thermal management of switchboards
Heating

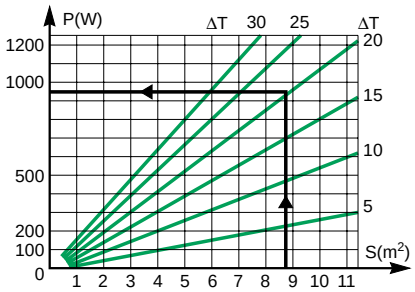
Switchboard heating

The heating element, placed at the bottom of the switchboard, maintains the internal temperature to within 10° C of the external temperature. When the switchboard is not in operation, the heater compensates the heat normally produced in the switchboard.
The required power rating for the heater is determined by:
- the equation Pr = (ΔT x S x K) - P, or
- the charts below, on the basis of the free surface area of the enclosure and the desired maximum difference in temperature.

Calculation chart for heaters in small enclosures (surface area ≤ 1 m²).



Calculation chart for heaters in all types of cubicles and enclosures



Variables used in calculations

P : power dissipated by the devices, connections and busbars (in Watts)
P_r : heater power rating (in Watts)
T_m : maximum internal temperature in the device zone (°C)
Ti : average internal temperature (°C)
Te : average external temperature (°C)
$\Delta T_m = T_m - T_e$
$\Delta T = T_i - T_e$
S : total free surface area of the enclosure (in square meters)
K : thermal-conduction coefficient of the material (W/m² °C)
K = 5.5 W/m² °C for painted sheet metal.
K = 4 W/m² °C for polyester
D : fan throughput (m³/h)

Note: *The power dissipated by devices is indicated by the manufacturers. Add approximately 30 % to account for the connections and the busbars.*

Thermal management of switchboards
Temperature rise test

Masterpact NT, drawout front connected:
- supplied by busbar trunking system (Telemecanique)
- connected to a Linergy busbar with a prefabricated connection.

Thermal management of switchboards
Temperature rise test