XCP

ZUCCHINI BUSBAR FOR POWER APPLICATIONS

GLOBAL SPECIALIST IN ELECTRICAL
AND DIGITAL BUILDING INFRASTRUCTURE

legrand®

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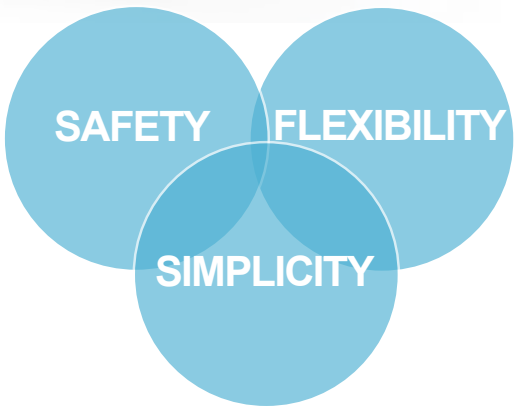
XCP IP55
busbar trunking



XCP is the new Zucchini busbar trunking system ranging from 630 A to 6300 A with an IP55* degree of protection. It is the most suitable solution for the transport and distribution of energy in industrial, commercial and service sector installations. The main features of the range are SAFETY, FLEXIBILITY and SIMPLICITY

CERTIFICATION AND TESTS

The busbar trunking has been tested and approved according to IEC 61439-6 Low voltage switchgear and controlgear assemblies. Part 6 refers to busbar trunking systems (busways)

Typical applications

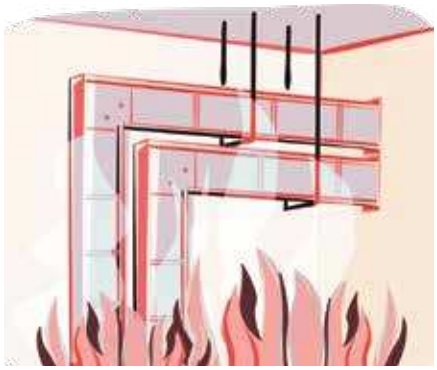
- Industry.
- Riser end feed units.
- Commercial and service sector buildings (banks, hospital, data center, business centres).

*The standard degree of protection is IP55. IP65 is available by request for transport of energy.

Safety

Fire resistance

In installations where there is a high risk of fire, the XCP busbar trunking system solution can provide technical advantages. Thanks to the low fire load of the busbar, the safety of the building is much improved.
XCP has been fire resistance tested in accordance with IEC 60331-1.



Insulation technology

In order to achieve a superior quality and safety, XCP conductor bars are wrapped by two PET sheets, each of them is sufficient to ensure the full required dielectric level. PET is a non-hygroscopic thermoplastic polymer resin and therefore preserves its performance whatever the level of humidity.
For more information about the characteristics of this material, see page 103.

Maximum strength

The XCP range has been designed and manufactured for heavy industrial environments.
The busbar is self-supporting and the degree of impact resistance of the casing which houses this line, is the maximum stated in IEC EN 60068-2-62: IK10.

Electromagnetic emission

The ferromagnetic structure of the casing and the compactness of the bars significantly reduce the electromagnetic field emitted. The magnetic induction measured at 1 metre from the XCP busbar is much lower than 3µT which represents the quality objective of several countries.

Sprinkler proof

Upon request it is possible to accessorise XCP with a sprinkler kit that makes the busbar system resistant to the sprinkler test.

Tests under sprinkler conditions are available. For more information please contact Legrand


SPRINKLER KIT

Resistance to seismic events

All busbar systems and their supports are tested with laboratory tests and guarantee, if the product is installed in accordance with the rule of art, the resistance to seismic events of territory.
The XCP-HP and XCP-S ranges and the related tap-off boxes, have passed seismic tests at a value of ZPA 1.5g * in accordance with IEEE Std 693-2018. Considering that: ZPA 1.5g = 1.5 x 9.81 m/s² = 14.71 m/s² . The maximum acceleration value obtained corresponds to extremely intense earthquakes.

Flexibility

By using the outlet windows located on the straight elements, XCP provides high flexibility, both when planning (electrical engineer) and when installing the system (installer); they are also used for the unavoidable changes required by the electric system to adapt to the various needs of the end user during the life of the plant.

The XCP range provides all the necessary components needed for the installation of rising mains.
This is an excellent solution for all high-rise buildings; residential or commercial blocks, hospitals and office blocks which have power distribution on every floor.

*g=9,81m/s² (gravitational acceleration)

Simplicity

With **XCP**, the design and installation of the power distribution line become quick and simple.

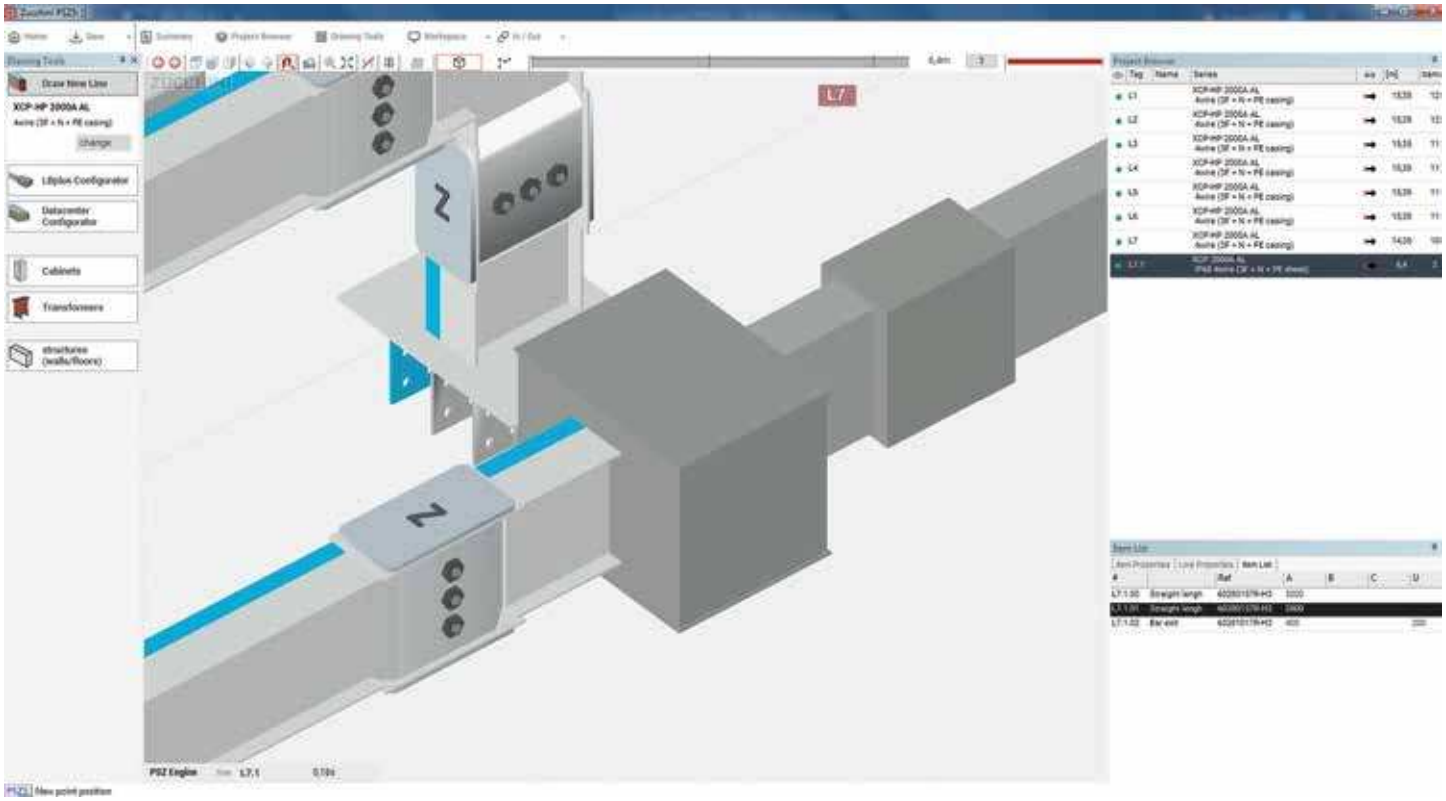
In order to facilitate and reduce the installation time, the elements are supplied with a monobloc which is pre-installed at the factory and the connections between them are keyed, which ensures that the installation of the components is in the correct position.

PSZ software

To guarantee a fast and accurate service to its customers, Legrand has developed **PSZ,** a proprietary software for the processing and realization of projects with busbar trunking.
This service supports the customer in detailed and complex projects.
PSZ transforms a graphic project into a list of materials, including mandatory accessories, to get an offer identical to the final design and it is fully compatible with **Autocad 2021** and **Revit 2021** (and previous versions of both programs).

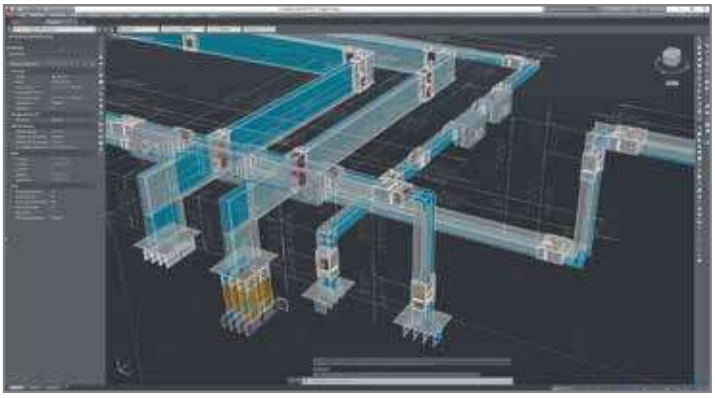
With this software you can:

- **draw the layout of the distribution system;**
- **automatically obtain the material list (including accessories) from the drawing;**
- **export the drawing to Autocad® and Revit®****

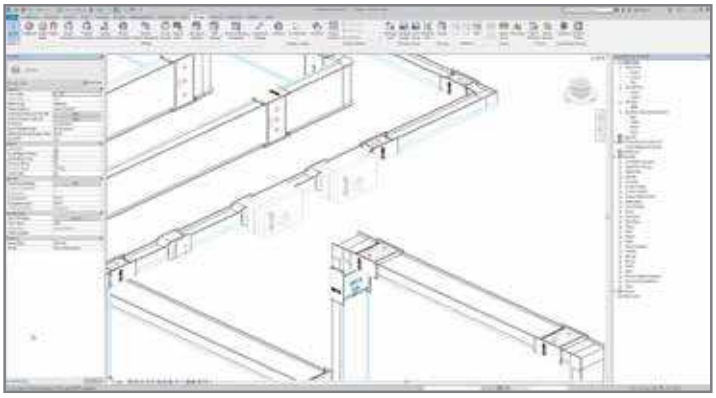


EXAMPLE OF A DRAWING USING LEGRAND SOFTWARE

With PSZ* you can have a detailed list of the item codes that you find in this catalogue.
Furthermore, the possibility to export the drawing to Autocad or Revit**, allows you to enter the paths of the busbar directly into the design of the building and to follow any design changes quickly and professionally.

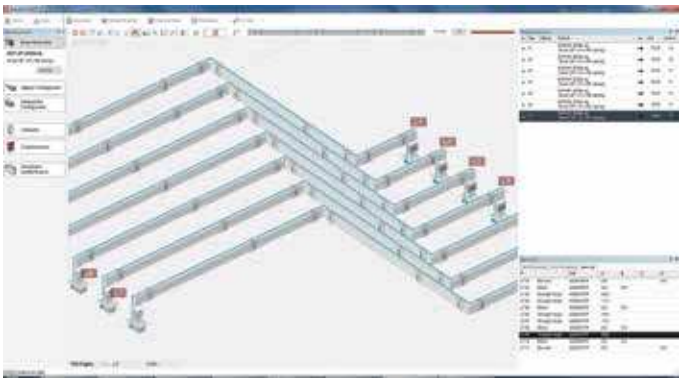


EXAMPLE OF A DRAWING EXPORT IN AUTOCAD

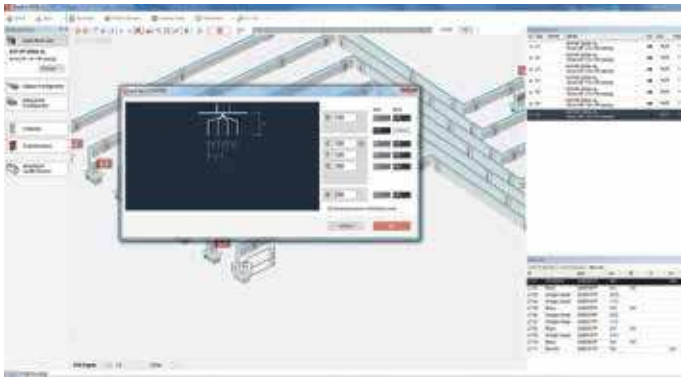


EXAMPLE OF THE DRAWING EXPORT IN REVIT

The new release of the program has been implemented with new features that make PSZ even more complete and high performing.



THE POSSIBILITY TO MANAGE SINGLE PIECES THROUGH A NEW ALGORITHM WHICH IS ABLE TO OPTIMISE ROUTES



SPECIAL CONNECTION INTERFACES MANAGEMENT FUNCTIONS

** Autodesk Revit is a building information modeling software for architects, landscape architects, structural engineers, MEP engineers, designers and contractors. The software allows users to design a building structure and its components in 3D, annotate the model with 2D drafting elements, and access building information from the building model's database.

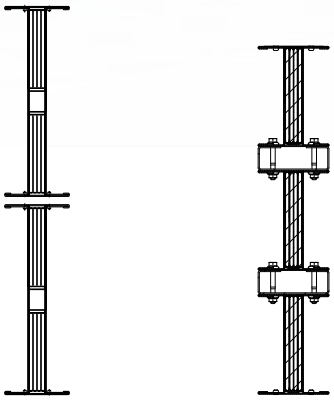
* For more information about the request and use of the Legrand PSZ software, please contact Legrand

RANGE features

Xtra-compact design

XCP is available with aluminium or copper conductors and is characterised by a smart and extra-compact design.
The external dimensions do not change based on the number of conductors.
The length and height change with the rating, but are the same for all three combinations of conductors (3 - 4 - 5 conductors) available.

Often, for the transport and the distribution of high power (5000A Al /6300A Cu rated current), the energy distribution consists of a parallel of two independant busbars.
With XCP multi-bar design is always supplied in a single structure so as to be simpler to install compared to independent run designs.



STANDARD BUSBAR XCP

XCP is available in aluminium versions (630 - 5000 A) or with copper conductors (800 - 6300 A)

XCP-HP and XCP-S 2 product lines

The range of XCP busbars consists of two different product lines:

- XCP-HP
- XCP-S

While maintaining the same basic characteristics, such as the range of rated current, the construction materials and the same amount of accessories available, XCP-HP and XCP-S have different properties that make them able to satisfy all the demands of the world market.

XCP-HP is the busbar system characterised by higher performance on energy saving and higher short circuit withstand. It is designed to work at 50 °C of ambient temperature.
Thanks to these features, XCP-HP is the ideal solution for heavy duty applications, higher temperature environments and installations where high energy efficiency is required.

FOR HEAVY DUTY APPLICATIONS

XCP-S is the optimised solution for most performance requirements.

FOR STANDARD APPLICATIONS

NUMBER OF INTERNAL BARS OF XCP-HP AND XCP-S

RATED CURRENT	630 A	800 A	1000 A	1250 A	1600 A	2000 A	2500 A	3200 A	4000 A	5000 A	6300 A
XCP-HP ALUMINIUM	SINGLE BAR configuration						DOUBLE BAR configuration			*	
XCP-HP COPPER		SINGLE BAR configuration						DOUBLE BAR configuration			*

RATED CURRENT	630 A	800 A	1000 A	1250 A	1600 A	2000 A	2500 A	3200 A	4000 A	5000 A	6300 A
XCP-S ALUMINIUM	SINGLE BAR configuration						DOUBLE BAR configuration			*	
XCP-S COPPER		SINGLE BAR configuration					DOUBLE BAR configuration				*

* Triple bar

RANGE composition

XCP includes all the necessary components to enable any path for the busbar run that the project requires.

The busbar system is composed of:

STRAIGHT ELEMENTS:
for transport and distribution (with tap-off outlets) of high-power energy.

ADDITIONAL ELEMENTS:
able to meet any installation requirement (fire barrier, phase inversion...)

ELBOWS:
able to meet any change of direction and plan with standard or special solutions.

TAP-OFF BOXES:
for connecting and energising electric loads. Available in plug-in and bolt-on versions.

CONNECTION INTERFACES:
for connecting the busbar to the electric board or transformer.

FIXING SUPPORTS:
for fixing the busbar to the structure of the building, for horizontal and vertical installations and special applications (seismic areas).

HORIZONTAL ELBOW WITH DOUBLE BAR

VERTICAL ELBOW WITH DOUBLE BAR

CONNECTION INTERFACES

TAP-OFF BOXES PLUG-IN TYPE

STRAIGHT ELEMENTS WITH TAP OFF OUTLETS FOR DISTRIBUTION

IT IS POSSIBLE (ON REQUEST) TO HAVE XCP IN SPECIAL VERSIONS. BELOW YOU CAN SEE SOME EXAMPLES OF SPECIAL VERSION CODES AVAILABLE.

Reference	Version description
64280102PF	**standard** 4 conductors (3Ph + N + PE casing)
64280102PF-R5	4 conductors RAL painted on request
64240102PF	5 conductors (3Ph + N + FE + PE casing)
64250102PF	double neutral
64280102PF-3W	3 conductors (3Ph + PE casing)
64280102PF	Class F insulation (155 °C)
64280102PF-RL	PEN conductor
64280102PF-R3	with aluminum extra-ground (reinforced PE)
64280102PF-R4	with copper extra-ground (reinforced PE)

Conductor versions

3 conductors + PE: for applications where neutral distribution is not required
4 conductors + PE: with pariphase neutral
4 conductors + PE: with double neutral with respect to the phase section for applications with high values of third order harmonics (THD%)
5 conductors + PE: 3 phases + Neutral pariphase + FE functional earth + PE

Versions of PE:

PE1 with casing used as earth conductor
PE2: with additional earth in copper plate
PE3: with additional earth in aluminium plate

PRODUCT news

End feed unit for rising mains

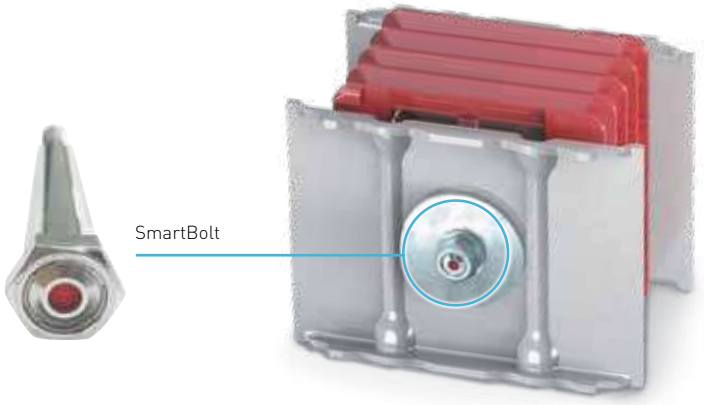
New feed units are used at the start of the riser mains lines, when the busbar must be placed against the wall and powered using cables.
These new feed units allow you to install the product at a minimum distance of 40 mm from the wall.

New monobloc

XCP is equipped with a new monobloc covered by a Legrand patent. This new monobloc ensures a better connection of the junction with less contact resistance.
The insulation part of the monobloc is made by termo-set insulation material Class F (155°C) and for each conductor there are two plates that assure the continuity between each conductor. A system of Belleville washers ensure the correct pressure during thermal expansion of the conductors. A double head nut breaks when it reaches the nominal torque (85 N•m). In the double/triple configurations, the monobloc ensures the current balancing on the same conductors.

SmartBolts®

SmartBolts are available on request. These bolts are equipped with a visual indication system that turns from red to black when you reach the right tightening torque (85 N•m). They are also useful after installation and during checks and maintenance operations because they allow you to see at a glance if a bolt has come loose or if it has lost the right torque by turning back to red.



DTI (Direct Tension Indicating) SmartBolts are specialty fasteners with a built-in indicator that shows the tension that has been achieved as the bolt is installed.

METAL
tap-off boxes

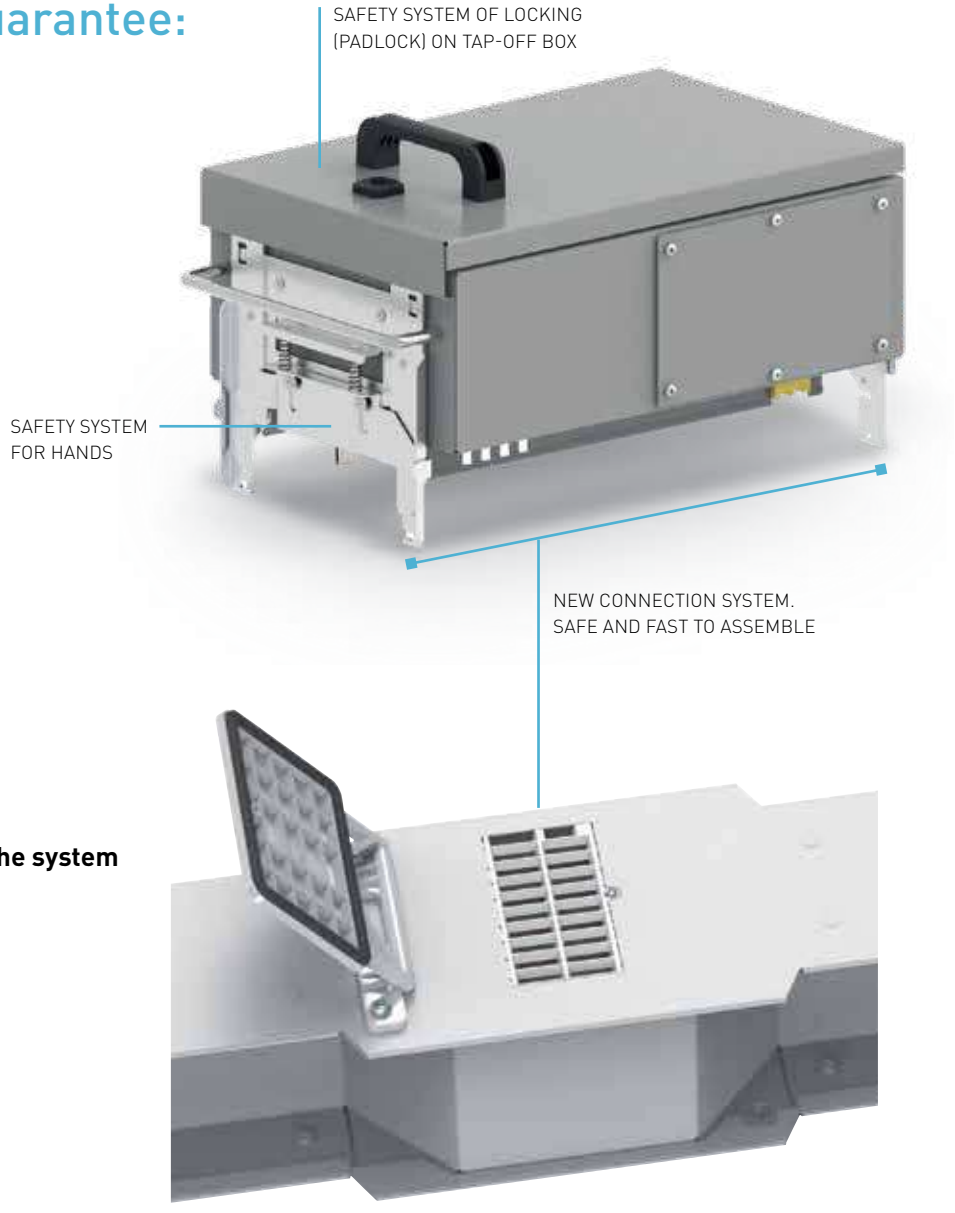
XCP distribution elements are equipped with new outlets suitable for the **new range of dedicated tap-off boxes.**
The new tap-off boxes are available in two different construction materials:

- with metal sheet case, with rating up to 630 A for plug-in type (to be installed on outlets) and up to 1250 A for bolt-on type (to be installed on the junction)

They are **universal** and therefore **can be used on both (XCP-HP and XCP-S) product lines.**

The new tap-off boxes guarantee:

- **Safety**
- **Optimised dimensions**
- **Reduced maintenance costs**
- **Ready for MCCB circuit breakers**



The degree of protection of the outlets and the system is IP 55.

Tap-off boxes for XCP are available in **metal sheet,** characterised by a simple installation and fast connection thanks to the new layout of hooks that offer safety and speed of assembly.

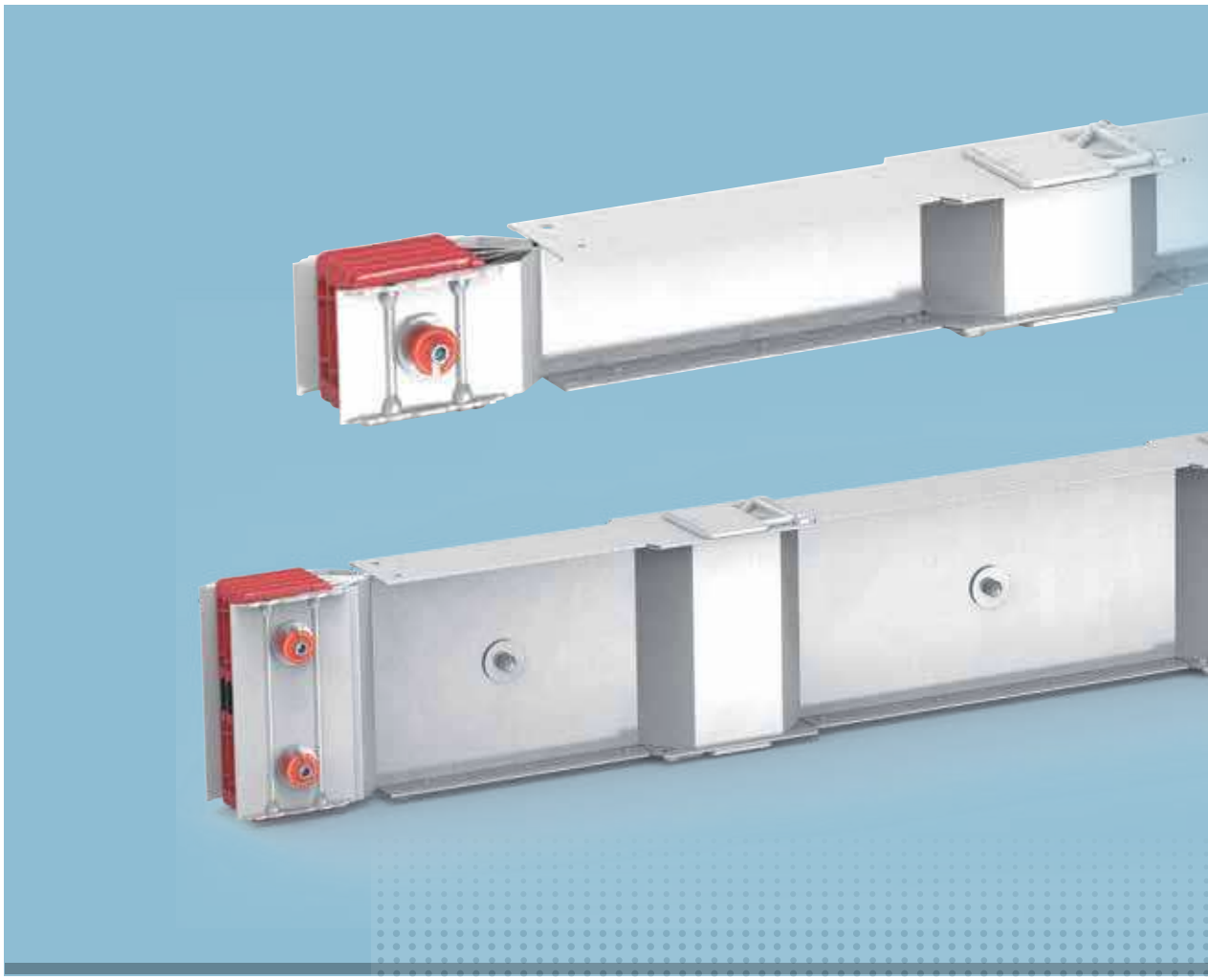
Tap-off boxes can be installed and removed when the busbar is energised and it can be used for DPX^3 moulded case circuit breakers.

Metal version:

- **Range from 63 A to 630 A**
- **Optimised installation of Legrand circuit breakers (MCCB)**
- **Ready for data center applications**
- **Equipped with:**
  - **anti manoeuvre security system**
  - **anti accidental closing and opening of the box**
  - **unlooseable screws**
  - **blocked opened cover**
  - **safer vertical installation (the cover remains in an open position)**
- **Plug-in / Plug-out under live voltage**

METAL VERSION FROM 63 A TO 630 A

SELECTION GUIDE



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16 Selection of the busbar trunking system based on voltage drop
17 Short circuit withstand
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20 IP and IK degree of protection

Selection of the busbar based on the rated transformer data

Technical information

During the planning concept of the power supply system, it is necessary to consider the technical specifications and standards of single items, but also well fix the technology and economy correlations. Each piece of electrical equipment (transformers, panel boards, busbars, protection devices) must be selected after correct dimensioning in order to represent a coherent selection to the complete system.
All the component must be correctly dimensioned to support loads peak in the event of a fault or during rated current operations.

RATED CURRENTS AND SHORT-CIRCUIT CURRENTS OF STANDARD TRANSFORMERS

	Rated voltage Un					
	400V, 50Hz			690V, 50Hz		
	Rated short circuit voltage Uk			Rated short circuit voltage Uk		
		4%	6%		4%	6%
Rated power [kVA]	Rated current In [A]	Short circuit current Ik [kA]		Rated current In [A]	Short circuit current Ik [kA]	
400	577	14,4	9,6	335	8,4	5,6
500	722	18,0	12,0	418	10,5	7,0
630	909	22,7	15,2	527	13,2	8,8
800	1.155	28,9	19,2	669	16,7	11,2
1000	1.443	36,1	24,1	837	20,9	13,9
1250	1.804	45,1	30,1	1046	26,1	17,4
1600	2.309	57,7	38,5	1339	33,5	22,3
2000	2.887	72,2	48,1	1673	41,8	27,9
2500	3.608	90,2	60,1	2092	52,3	34,9
3150	4.547	113,7	75,8	2636	65,9	43,9
4000	5.774	144,3	96,2	3347	83,7	55,8

$$I_n = \frac{P}{\sqrt{3} \cdot U_n} \leftrightarrow P = I_n \cdot \sqrt{3} \cdot U_n \qquad I_k = \frac{I_n}{U_k} \leftrightarrow I_n \cdot I_k = I_k \cdot U_n$$

Crossing busbars datasheet with previous chart, the proper busbar trunking systems can be selected. First selection parameter for appropriate busbar is linked to transformer's rated current In (lower than rated current of selected busbar). Second parameter to be evaluated is short-circuit rating of busbar trunking system, which usually must be higher than transformer's peak short-circuit current Ik.

NOTE: previous consideration applies if just a single transformer is used for LV supply. For system with ring, meshed network or with transformers connected in parallel, the short-circuit current Ik increases (i.e. Ik double if two transformers in parallel).

Selection example:
As practical example, given a transformer
P = 1000 kVA
Uk = 6%
Un = 400 V
from previous calculation and table,

$$I_n = \frac{P}{\sqrt{3} \cdot U_n} \rightarrow I_n = \frac{1000000}{\sqrt{3} \cdot 400} = 1443 \text{ A};$$

$$I_k = \frac{I_n}{U_k} \rightarrow I_k = \frac{1443}{6\% \cdot 1000} = 24{,}05 \text{ kA}$$

from here:
possible choice of XCP-S (50 Hz, Al, 4C) having In=1600A and short-circuit rating Icw = 42 kA or XCP-HP (50 Hz, Al, 4C) having In=1600A and short-circuit rating Icw = 70 kA

Temperature impact on the rating of the busbar trunking system

Technical information

The ambient temperature where the busbar trunking system is installed impacts on its rating
During the design stages, it will be necessary to multiply the rating value at the reference temperature by a correction coefficient referred to the final operating temperature.

All Legrand products have been sized and tested for an average ambient temperature specific for each line. For installation in environments with different average daily temperatures, the rated current of the busbar must be multiplied by a k1 factor, which gives the correct value to consider.

$I_z = I_z0 \cdot Kt$

Where:

- I_z0 is the current that the busbar trunking system can carry for an indefinite time at its reference temperature
- **Kt** is the correction coefficient for ambient temperature values other than the reference temperature, as shown in the following table

KT CORRECTION COEFFICIENT FOR AMBIENT TEMPERATURE

XCP-HP (Al)

Ambient temperature [°C]

-5	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70
1.38	1.34	1.31	1.28	1.25	1.21	1.18	1.15	1.11	1.07	1.04	1	0.96	0.92	0.88	0.84

kt thermal correction factor

XCP-HP (Cu)

Ambient temperature [°C]

-5	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70
1.43	1.40	1.37	1.33	1.30	1.26	1.23	1.19	1.16	1.12	1.08	1.04	1	0.96	0.92	0.87

kt thermal correction factor

XCP-S

Ambient temperature [°C]

-5	0	5	10	15	20	25	30	35	40	45	50
1,24	1.21	1.18	1.15	1.12	1.09	1.06	1.03	1	0.97	0.93	0.90

kt thermal correction factor

To select other system trunking paths (not just the main units at the transformer output), you need to consider and calculate the parameters on the following pages.

Joule effect losses in busbar

Technical information

Losses due to the Joule effect are essentially caused by the electrical resistance of the busbar.
Lost energy is transformed into heat and contributes to the heating of the conduit of the environment.
The calculation of power loss is a useful data for correct sizing of the building air conditioning system.

Three-phase regime losses are:

$$Pj = \frac{3 \cdot Rt \cdot Ib^2 \cdot L}{1000}$$

In one-phase regime:

$$Pj = \frac{2 \cdot Rt \cdot Ib^2 \cdot L}{1000}$$

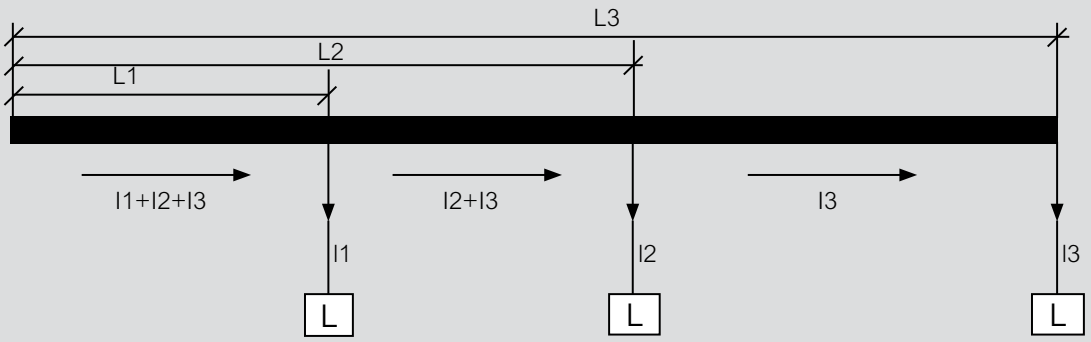
Where:

I_b = Utilisation current (A)
R_t = Phase resistance for unit of length of the busbar trunking system, measured at thermal regime (mΩ/m)
L = Busbar length (m)

For accurate calculation, losses must be assessed trunk by trunk taking into account the transiting currents; for example, in the case of the distribution of the loads represented in the figure one has:

	Length	Transiting current	Losses
1st trunk	L1	I1+I2+I3	$P1 = 3R_tL1\ (I1+I2+I3)^2$
2nd trunk	L2-L1	I2+I3	$P2 = 3R_t\ (L2-L1)\ (I2+I3)^2$
3rd trunk	L3-L2	I3	$P3 = 3R_t\ (L3-L2)\ (I3)^2$

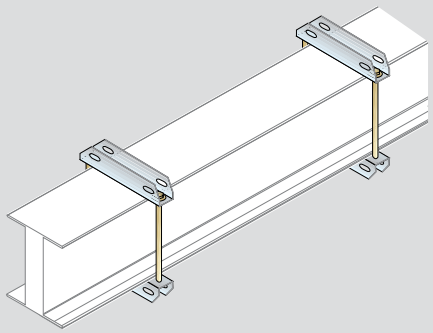
Total losses in the busbar trunking system Pt = P1+P2+P3



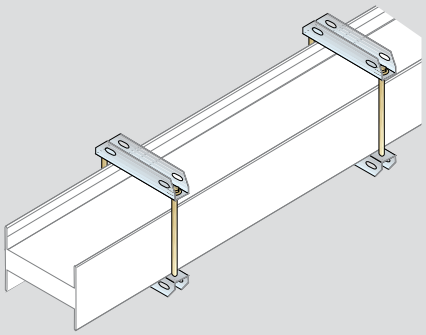
Losses based on the installation method

Thermal dispersion, rating and IP protection degree are independent from the type of installation (edgewise, flat, vertical)

This means that it is possible to install the XCP busbar trunking system as preferred, without having to consider a possible system downgrade



Edgewise element



Flat element

Selection of the busbar trunking system based on voltage drop

Technical information

If the line is particularly long (> 100 m), it will be necessary to check the value of the voltage drop. For systems with power factor (cosφm) not lower than 0.8 the voltage loss can be calculated using the following formulas:

THREE PHASE SYSTEM

$$\Delta v = \frac{b \cdot \sqrt{3} \cdot I_b \cdot L \cdot (R_t \cdot \cos\varphi m + x \cdot \sin\varphi m)}{1000}$$

SINGLE PHASE SYSTEM

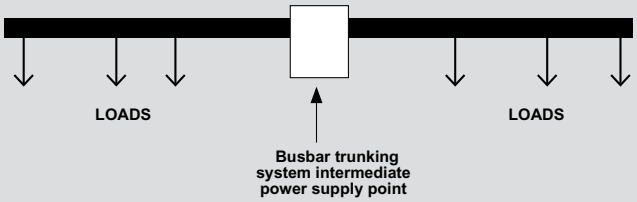
$$\Delta v = \frac{b \cdot 2 \cdot I_b \cdot L \cdot (R_t \cdot \cos\varphi m + x \cdot \sin\varphi m)}{1000}$$

The percentage voltage drop can be obtained from:

$$\Delta v\% = \frac{\Delta v}{Vr} \cdot 100$$

Where Vr is the system rated voltage

In order to limit the voltage drop in case of very long busbar trunking systems, it is possible to allow for a power supply at an intermediate position, rather than at the terminal point



Calculation of the voltage drop with loads not evenly distributed

In case the load cannot be considered evenly distributed, the voltage drop may be determined more accurately using the relationships shown below
For the distribution of three-phase loads, the voltage drop can be calculated using the following formula, on the assumption (generally verified) that the section of the busbar trunking system is consistent:

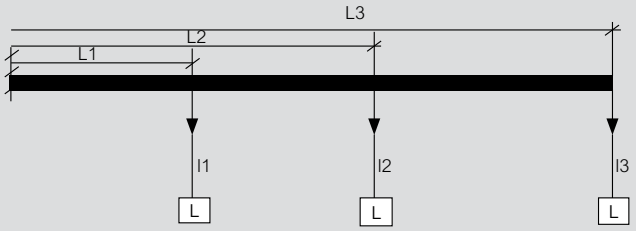
$$\Delta v = \sqrt{3} [Rt (I1L1\cos\varphi 1 + I2L2 \cos\varphi 2 + I3L3 \cos\varphi 3) + x (I1L1\sin\varphi 1 + I2L2 \sin\varphi 2 + I3L3 \sin\varphi 3)]$$

In general terms this becomes:

$$\Delta v = \frac{\sqrt{3}(R_t \cdot \sum Ii \cdot Li \cdot \cos\varphi mi + x \cdot \sum Ii \cdot Li \cdot \sin\varphi mi)}{1.000}$$

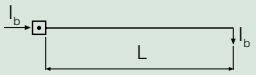
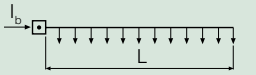
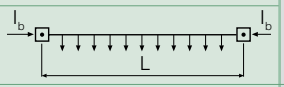
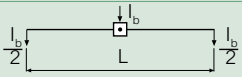
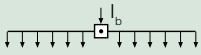
If the three-phase system and the power factor are not lower than cosφ = 0.7, the voltage loss may be calculated using the voltage drop coefficient shown in table 1

$$\Delta v\% = 2b \cdot \frac{k \cdot Ib \cdot L}{Vn} \cdot 100$$



The current distribution factor "b" depends on how the circuit is fed and on the distribution of the electric loads along the busbar:

Table 1 - The distribution factor of the current "b"

b = 1	Supplies at one end and load at the end of the line	
b = 1/2	Supplies at one end and with load evenly distributed	
b = 1/4	Supplies at both ends and with load evenly distributed	
b = 1/4	Central supply with loads at both ends	
b = 1/8	Central supply with load distributed evenly	

Example: XCP 2000A Al for riser mains feed

I_b	=	1600A operating current
b	=	1/2 load evenly distributed
k	=	27.3 see technical data table (XCP 2000 A Al cosφ = 0.85)
cosφ	=	0.85
L	=	100 m line length
Vn	=	400 V operating voltage

$$\Delta v\% = \frac{27.3 \cdot 10^6 \cdot 1600 \cdot 100}{400} \cdot 100 = 1.09\%$$

Legend:

I_b	=	the current that supplies the busbar [A]
Vn	=	the voltage power supply of the busbar [V]
L	=	the length of the busbar [m]
Δv%	=	the voltage drop percentage
b	=	the distribution factor of the current
k	=	corresponding voltage drop factor a cosφ [V/m/A] (see technical data table)
cosφ m	=	Average power factor of the loads
x	=	phase reactance by unit of length of the busbar (mΩ/m)
Rt	=	phase resistance by unit of length of the busbar (mΩ/m)
cosφ mi	=	i-th load average power factor
Ii	=	i-th load current (A)
Li	=	distance of the i-th load from the origin of the busbar trunking system

Technical information

The IEC 64-8 standard indicates that, for the protection of the circuits of the system, it is necessary to allow for devices aimed at interrupting short circuit currents before these become dangerous due to the thermal and mechanical effects generated in the conductors and the connections.
In order to size the electric system and the protection devices correctly, it is necessary to know the value of the estimated short circuit current at the point where this is to be created.
This value enables in fact to correctly select protection devices based on their own tripping and closing powers, and to check the resistance to electro-dynamic stress of the busbar supports installed in control panels, and/or of the busbar trunking systems.

Characterisation of short circuit current

The estimated short circuit current at a point of the user system is the current that would occur if in the considered point a connection of negligible resistance was created between conductors under voltage.
The magnitude of this current is an estimated value that represents the worst possible condition (null fault impedance, tripping time long enough to enable the current to reach the maximum theoretical values).
In reality, the short circuit always occurs with significantly lower effective current values.

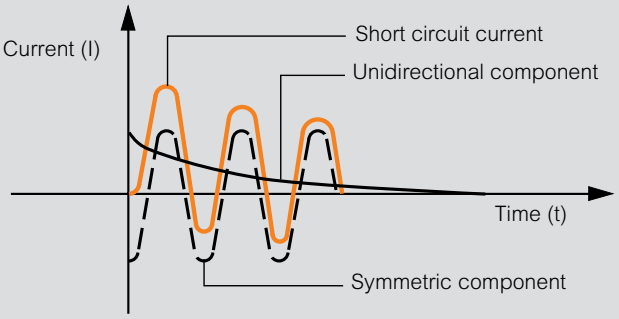
The intensity of the estimated short circuit current essentially depends on the following factors:
- Power of the cabin transformer, meaning that the higher is the power, the higher is the current;
- length of the line upstream

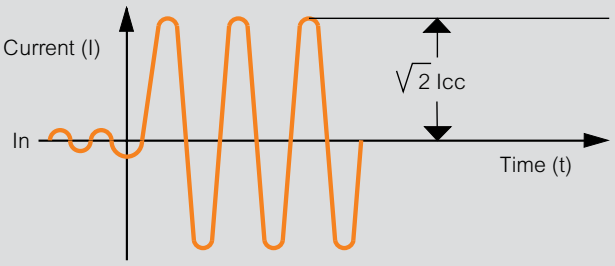
In three-phase circuits with neutral it is possible to have three different types of short circuit:
- phase-phase;
- phase-neutral;
- balanced three-phase (most demanding condition)

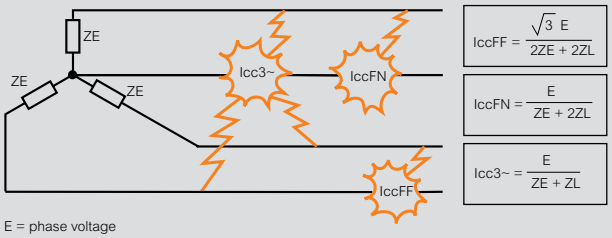
The formula for the calculation of the symmetric component is:

$$\overline{Icc} = \frac{\overline{E}}{\overline{ZE}+\overline{ZL}}$$

Where:
- **E** is the phase voltage;
- **ZE** is the secondary equivalent impedance of the TRANSFORMER measured between the phase and the neutral;
- **ZL** is the impedance of the phase conductor only





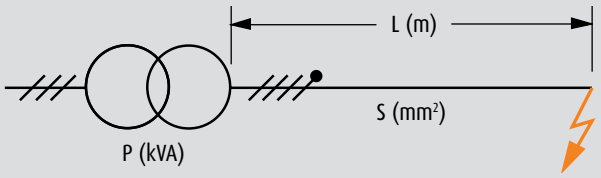


E = phase voltage

Short circuit withstand (continued)

Analytical determination of short circuit currents

In order to calculate the value of the estimated short circuit current at any point of the circuit, it is sufficient to apply the formulas shown below, knowing the impedance calculated at the origin of the system up to the point being assessed
In the formulas shown below, the value of the short circuit power is considered infinite and the short circuit impedance is equal to 0. This makes it possible to define short circuit current values higher than the actual ones, but generally acceptable.



Line resistance $RL = r \cdot L$	**RL** = resistance of the line upstream (m) **r** = specific line resistance (m/m) **L** = upstream line length (m)
Line reactance $XL = x \cdot L$	**XL** = upstream line reactance (m) **x** = specific line reactance (m/m)
TRANSFORMER resistance $RE = \frac{1000\ Pcu}{3In^2}$	**RE** = transformer secondary equivalent resistance (m) **Pcu** = transformer COPPER losses (W) **In** = transformer Rated current (A)
TRANSFORMER impedance $ZE = \frac{Vcc\%\ V^2c}{100\ P}$	**ZE** = transformer secondary equivalent impedance (m) **Vc** = phase voltage (V) **Vcc%** = percentage short circuit voltage **P** = transformer power (kVA)
TRANSFORMER reactance $XE = \sqrt{ZE^2 - RE^2}$	**XE** = transformer secondary equivalent reactance (m)
Short circuit impedance $Zcc = \sqrt{(RL + RE)^2 + (XL + XE)^2}$	**Zcc** = total short circuit impedance (m)
Estimated short circuit current $Icc = \frac{Vcc}{\sqrt{3} \cdot Zcc}$	**Icc** = symmetric component of the short circuit current (kA)

XCP-HP 4C (AL)											
Rated current	In [A]	630	800	1000	1250	1600	2000	2500	3200	4000	5000
Rated short-time current (1 s)	Icw [kA]rms	36	36	50	70	70	85	120	120	150	150
Peak current	Ipk [kA]	76	76	105	154	154	187	264	264	330	330
Rated short-time current of the neutral bar (1 s)	Icw [kA]rms	22	22	30	42	42	51	72	72	90	90
Peak current of the neutral bar	Ipk [kA]	45	45	63	88	88	112	158	158	198	198

XCP-HP 4C (CU)											
Rated current	In [A]	800	1000	1250	1600	2000	2500	3200	4000	5000	6300
Rated short-time current (1 s)	Icw [kA]rms	36	50	70	70	85	120	120	150	150	150
Peak current	Ipk [kA]	76	105	154	154	187	264	264	330	330	330
Rated short-time current of the neutral bar (1 s)	Icw [kA]rms	22	30	42	42	51	72	72	90	90	90
Peak current of the neutral bar	Ipk [kA]	45	63	88	88	112	158	158	198	198	198

XCP-S 4C (AL)											
Rated current	In [A]	630	800	1000	1250	1600	2000	2500	3200	4000	5000
Rated short-time current (1 s)	Icw [kA]rms	25*	25*	36	42	42	50	65	80	100	120
Peak current	Ipk [kA]	53	53	76	88	88	105	143	176	220	264
Rated short-time current of the neutral bar (1 s)	Icw [kA]rms	15*	15*	22	25	25	30	39	48	60	72
Peak current of the neutral bar	Ipk [kA]	30	30	46	53	53	63	82	101	132	158

XCP-S 4C (CU)											
Rated current	In [A]	800	1000	1250	1600	2000	2500	3200	4000	5000	6300
Rated short-time current (1 s)	Icw [kA]rms	25	36	42	42	50	65	80	100	120	150
Peak current	Ipk [kA]	53	78	88	88	105	143	176	220	264	330
Rated short-time current of the neutral bar (1 s)	Icw [kA]rms	15	22	25	25	30	39	48	60	72	90
Peak current of the neutral bar	Ipk [kA]	30	46	53	53	63	82	101	132	158	198

* Icw value at 0,5 s.

Technical information

In a distribution system, currents and voltages should have a perfectly sinusoidal shape. However, in practice the equipment contains electric devices such as changeover devices or dimmers that make the load not linear

The currents absorbed, although at regular intervals and with frequencies equal to that of the rated voltage, sometime have a non-sinusoidal wave form, which has the following negative effects:

- worsening of the power factor;
- heating of the neutral;
- additional losses in electric machinery (transformers and motors);
- instable operation of the protection elements (thermal magnetic and earth leakage circuit breakers)

In industrial plants these conditions have been occurring for a long time, However, they are now occurring more and more in service sector distribution systems, where, from backbone distribution (which uses three-phase lines), one-phase loads are often distributed, which contributes to increasing the unbalance of the electric system

Each type of non-sinusoidal periodical wave may be split into a more or less large number of sinusoids (called harmonic components), which frequency a whole multiple of the frequency of the wave shape observed

A deformed current at a frequency of 50 Hz, like for example that represented by the red line on the figure, consists of many sinusoidal currents with frequency of 50 Hz (fundamental), 100 Hz (second harmonic components), 150 Hz (third harmonics), and so on

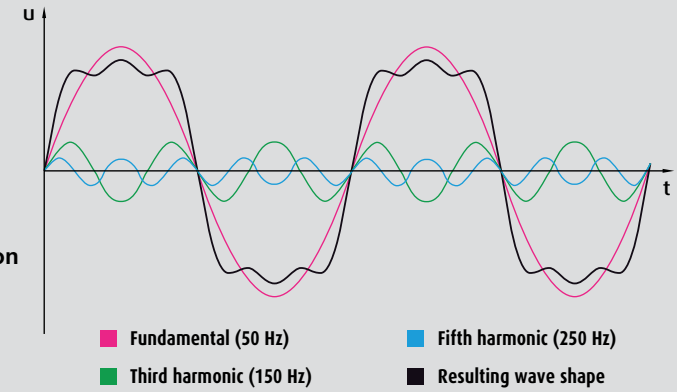
The presence of current harmonics represents an important problem, causing overload conditions both on phase conductors, and on any neutral conductor, and results in the reduction of the conductor permitted load

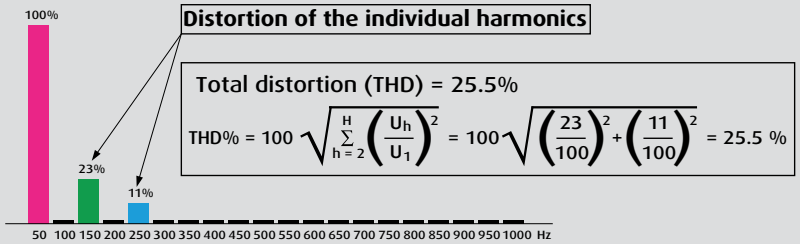
Choice of the rating when in the presence of harmonics

When in the presence of harmonics, and when using the chosen Int rated current, the XCP busbar to be used shall have the rating specified in the table below

Rated current [A]	630	800	1000	1250	1600	2000	2500	3200	4000	5000	6300
XCP busbar to be used:											
THD ≤ 15%	630	800	1000	1250	1600	2000	2500	3200	4000	5000	6300
15% < THD ≤ 33%	800	1000	1250	1600	2000	2500	3200	4000	5000	6300	-
THD > 33%	1000	1250	1600	2000	2500	3200	4000	5000	6300	-	-

Measurement of harmonic distortion carried out with a network analyser





A solution to guarantee protection against overloads due to the presence of harmonics, is the choice of XCP busbars equipped with double neutral

Degrees of protection

IP: degree of protection provided against intrusion

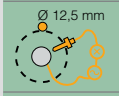
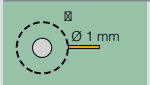
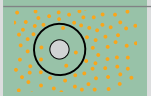
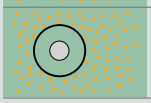
IP

The protection enclosures are classified (IEC 60529) according to their degree of protection against weather conditions and external agents. The degree of protection is indicated by two digits (protection against solid bodies and liquids) following the symbol IP

To increase the ease of choice of the most suitable busbar, in according to installation requirements, below there is a summary of their performance, based on the IP degree of protection according to the IEC 60529 standard

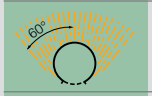
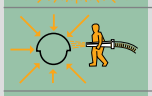
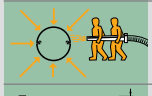
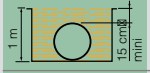
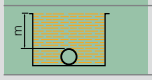
1st digit IP

Protection against penetration of solid bodies

	0	No protection
	1	Protection against solid bodies larger than 50 mm (e.g.: accidental contact)
	2	Protection against solid bodies larger than 12 mm (e.g.: finger)
	3	Protection against solid bodies larger than 2.5 mm
	4	Protection against solid bodies larger than 1 mm
	5	Protection against dust
	6	Complete protection against dust

2nd digit IP

Protection against penetration of liquids

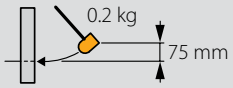
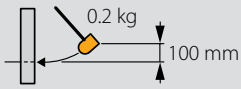
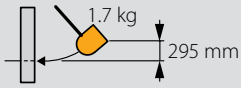
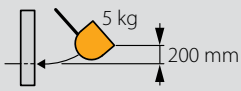
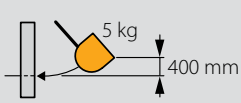
	0	No protection
	1	Protection against vertically-falling drops of water (condensation)
	2	Protection against drops of water falling up to 15° from the vertical
	3	Protection against drops of water up to 60° from the vertical
	4	Protection against sprays of water from all directions
	5	Protection against jets of water from all directions
	6	Protection against jets of water (similar force to heavy seas)
	7	Protection against effects of immersion
	8	Protection against effects of immersion under pressure

Degrees of protection

IK: degree of protection of equipment against mechanical impact

IK

Standard IEC 62262 defines an IK code that characterises the aptitude of equipment to resist mechanical impacts on all sides

IK	Test	Impact energy (In Joules)
IK 00		0
IK 01		0.15
IK 02		0.2
IK 03		0.35
IK 04		0.5
IK 05		0.7
IK 06		1
IK 07		2
IK 08		5
IK 09		10
IK 10		20

XCP-HP

The High Performance power solutions for industrial and service sector applications

BUSBAR FROM 630 TO 6300 A

XCP-HP is a busbar trunking system characterised by high performance and low losses due to the joule effect.
Used for transport and distribution of High Power, and is also highly valued in rising mains. The applications include all industrial, commercial and service sector buildings (factories, banks, trade and business centres, hospitals, data center, etc.)

Xtra Compact (XCP-HP)

straight elements

63280100PF

XCP-HP Line:
Reference standard: IEC 61439-6. Reference temperature: up to 55 °C.
Protection degree: IP55. Thickness of metal sheet: 1.5 mm.
N° of conductors: 3, 4 or 5. Painted: RAL 7035. Halogen Free.
The insulation between bars is ensured by a double sheet made with polyester film class B(130°C), class F (155°C) thermal resistance available on request. All plastic components have a V1 self-extinguishing degree (as per UL94); they are fire retardant and comply with the glow-wire test according to standards.

Item

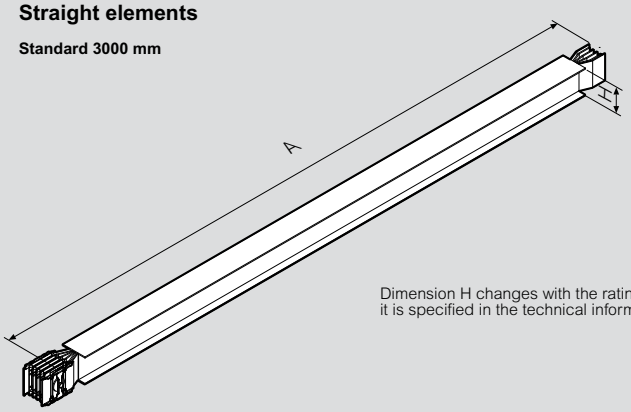
Straight elements for transport

Al	Cu	In (A)	A (mm)
63280100PF	-	630	3000
63280101PF	66280100PF	800	
63280102PF	66280101PF	1000	
63280104PF	66280103PF	1250	
63280106PF	66280105PF	1600	
63280107PF	66280106PF	2000	
63390104PF	66280108PF	2500	
63390106PF	66390105PF	3200	
63390107PF	66390106PF	4000	
63390108PF	66390108PF	5000	
-	66390109PF	6300	
63280110PF	-	630	500-1000
63280111PF	66280110PF	800	
63280112PF	66280111PF	1000	
63280114PF	66280113PF	1250	
63280116PF	66280115PF	1600	
63280117PF	66280116PF	2000	
63390114PF	66280118PF	2500	
63390116PF	66390115PF	3200	
63390117PF	66390116PF	4000	
63390118PF	66390118PF	5000	
-	66390119PF	6300	
63280170PF	-	630	1001-1500
63280171PF	66280170PF	800	
63280172PF	66280171PF	1000	
63280174PF	66280173PF	1250	
63280176PF	66280175PF	1600	
63280177PF	66280176PF	2000	
63390174PF	66280178PF	2500	
63390176PF	66390175PF	3200	
63390177PF	66390176PF	4000	
63390178PF	66390178PF	5000	
-	66390179PF	6300	
63280120PF	-	630	1501-2000
63280121PF	66280120PF	800	
63280122PF	66280121PF	1000	
63280124PF	66280123PF	1250	
63280126PF	66280125PF	1600	
63280127PF	66280126PF	2000	
63390124PF	66280128PF	2500	
63390126PF	66390125PF	3200	
63390127PF	66390126PF	4000	
63390128PF	66390128PF	5000	
-	66390129PF	6300	
63280180PF	-	630	2001-2500
63280181PF	66280180PF	800	
63280182PF	66280181PF	1000	
63280184PF	66280183PF	1250	
63280186PF	66280185PF	1600	
63280187PF	66280186PF	2000	
63390184PF	66280188PF	2500	
63390186PF	66390185PF	3200	
63390187PF	66390186PF	4000	
63390188PF	66390188PF	5000	
-	66390189PF	6300	

Dimensions

Straight elements

Standard 3000 mm

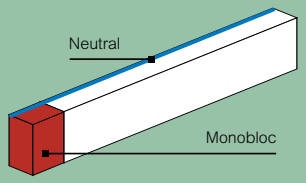


Dimension H changes with the ratings and it is specified in the technical information

MIN AND MAX DIMENSIONS OF SINGLE AND DOUBLE BAR	
Aluminium (Al)	630A – 5000A
Copper (Cu)	800A – 6300A
(L) min/MAX [mm]	500/3000

Straight elements are available on reques only for transport of energy:
Al: 5000A
Cu: 6300A

Notes
The product versions in this catalogue will be simplified as shown opposite, highlighting the part with the monobloc installed in red and the neutral side in blue.
In this catalogue, the measurements shown refer to the element centre distance



The range is also available in different versions on request: (5 conductors with dedicated PE conductor, double neutral and more others...)

Item

Straight elements for transport

Al	Cu	In (A)	A (mm)
63280150PF	-	630	2501-2999
63280151PF	66280150PF	800	
63280152PF	66280151PF	1000	
63280154PF	66280153PF	1250	
63280156PF	66280155PF	1600	
63280157PF	66280156PF	2000	
63390154PF	66280158PF	2500	
63390156PF	66390155PF	3200	
63390157PF	66390156PF	4000	
63390158PF	66390158PF	5000	
-	66390159PF	6300	

Single bar:
630A-2000A (Al)
800A-2500A (Cu)

Double bar:
2500A-4000A (Al)
3200A-5000A (Cu)

Triple bar:
5000A (Al)
6300A (Cu)

Xtra Compact (XCP-HP)

straight elements

63280130PF

Straight elements for distribution

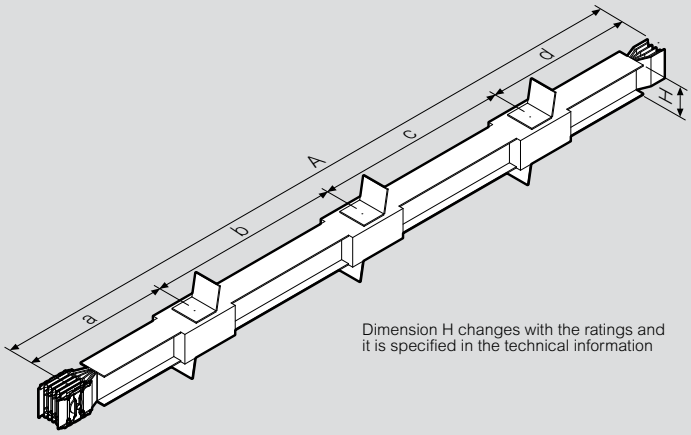
Item				
Al	Cu	In (A)	N° outlets	A (mm)
63280130PF	-	630	3+3 **	3000
63280131PF	*66280130PF	800		
63280132PF	66280131PF	1000		
63280134PF	66280133PF	1250		
63280136PF	66280135PF	1600		
63280137PF	66280136PF	2000		
63390134PF	66280138PF	2500		
63390136PF	66390135PF	3200		
63390137PF	66390136PF	4000		
63390138PF	66390138PF	5000		
-	66390139PF	6300		
63280970PF	-	630	1+1	1001-1500
63280971PF	*66280970PF	800		
63280972PF	66280971PF	1000		
63280974PF	66280973PF	1250		
63280976PF	66280975PF	1600		
63280977PF	66280976PF	2000		
63390974PF	66280978PF	2500		
63390976PF	66390975PF	3200		
63390977PF	66390976PF	4000		
63390978PF	66390978PF	5000		at request: outlets in special position 1+1 only combination
-	66390979PF	6300		
63280920PF	-	630	2+2 **	1501-2000
63280921PF	*66280920PF	800		
63280922PF	66280921PF	1000		
63280924PF	66280923PF	1250		
63280926PF	66280925PF	1600		
63280927PF	66280926PF	2000		
63390924PF	66280928PF	2500		
63390926PF	66390925PF	3200		
63390927PF	66390926PF	4000		
63390928PF	66390928PF	5000		
-	66390929PF	6300		
63280980PF	-	630	2+2 **	2001-2500
63280981PF	*66280980PF	800		
63280982PF	66280981PF	1000		
63280984PF	66280983PF	1250		
63280986PF	66280985PF	1600		
63280987PF	66280986PF	2000		
63390984PF	66280988PF	2500		
63390986PF	66390985PF	3200		
63390987PF	66390986PF	4000		
63390988PF	66390988PF	5000		
-	66390989P	6300		
63280950PF	-	630	3+3 **	2501-2999
63280951PF	*66280950PF	800		
63280952PF	66280951PF	1000		
63280954PF	66280953PF	1250		
63280956PF	66280955PF	1600		
63280957PF	66280956PF	2000		
63390954PF	66280958PF	2500		
63390956PF	66390955PF	3200		
63390957PF	66390956PF	4000		
63390958PF	66390958PF	5000		
-	66390959PF	6300		

Dimensions

Straight elements for distribution

- Straight elements for plug-in type tap-off boxes
- Standard 3000 mm
- Tap-off outlets on both sides

These straight elements enable the application of plug-in boxes on dedicated outlets
Available in lengths from 1 to 3 meters, these elements have respectively 1, 2 and 3 outlets at preset distances with centre distances of 850 mm on both sides.
(*) The exception to these are 630-800 A elements with aluminium conductors (Al) and 800-1000 A elements with copper conductors (Cu), where distribution is only available on the top side (in standard execution) for example “3+0”
On request, the length of the elements and the number and position of distribution outlets may be different from the standards measures.



Dimension H changes with the ratings and it is specified in the technical information

MIN AND MAX DIMENSIONS OF SINGLE AND DOUBLE BAR	
Aluminium (Al)	630A – 5000A
Copper (Cu)	800A – 6300A
(L) min/MAX [mm]	1001 ***/3000

(***) Lengths from 1001 mm to 1250 mm can only be installed with type 1 and 3 plug-in boxes
From 1250 mm to 3000 mm it is possible to install all types of plug-in boxes. Compatible boxes are listed in dedicated chapter. See page 96.

(**) on request it is possible to have other combinations of outlets:
length: 1501÷2000 - outlets: (1+1)
length: 2001÷2500 - outlets: (1+1)
length: 2501÷2999 - outlets: (1+1) and (2+2)
length: 3000 - outlets: (1+1) and (2+2)
Possibility to have outlets in special position

Xtra Compact (XCP-HP)

straight elements

673IFB01

Fire barrier elements S120 EI120 (EN 1366-3)

When the busbar trunking system crosses fire resistant walls or ceilings, it must be fitted with appropriate fire barriers.
The fire barrier is 630 mm (Al) and 1000 mm (Cu) long and must always be positioned in the middle of the fire resistant wall or ceiling crossed by the busbar.
After crossing fire resistant walls or ceilings, any cavity must be sealed with material meeting current regulations for the required building fire resistance class.

Item			
Al	**Cu**	In (A)	Type
*	-	630	internal fire barrier
*	**673IFB01**	800	
*	*	1000	
*	*	1250	
*	*	1600 – 2000	
673IFB01	**673IFB01**	2500 – 4000	
*	**673IFB01**	5000	
-	*	6300	
672EFB01	-	630	external fire barrier
672EFB01	**672EFB51**	800 – 1000	
672EFB01	**672EFB51**	1250	
672EFB03	**672EFB52**	1600	
672EFB04	**672EFB52**	2000	
673EFB02	**672EFB54**	2500	
673EFB03	**673EFB52**	3200	
673EFB04	**673EFB53**	4000	
673EFB07	**673EFB54**	5000	
-	**673EFB56**	6300	

*There are no air gaps inside these busbar therefore there is no need to add internal fire barriers

Fire resistance tested

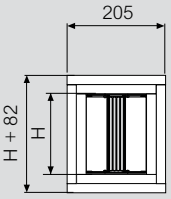
Single bar:
630A-2000A (Al)
800A-2500A (Cu)

Double bar:
2500A-4000A (Al)
3200A-5000A (Cu)

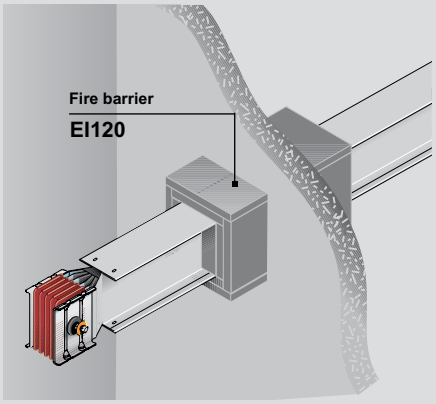
Triple bar:
5000A (Al)
6300A (Cu)

Dimensions

Fire barrier elements EI120 (EN 1366-3)



Fire barrier sizes
Dimension H changes with the rating; it is specified in the technical information



For some ratings it is necessary to have an internal fire barrier fitted at the factory following the guidelines on the table.
It is therefore necessary to indicate at the order stage which elements will cross fire resistant walls or ceilings

Figure 1 minimum straight dimensions

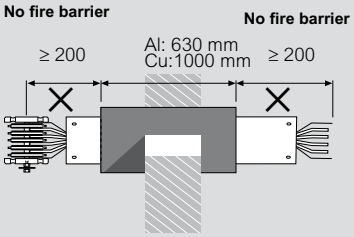
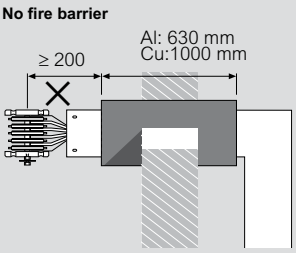


Figure 2 minimum dimensions in an elbow



USE OF INTERNAL OR EXTERNAL BARRIER					
Al			**Cu**		
In (A)	Internal	External	In (A)	Internal	External
630–800	–	√	800	√	√
1000	√	√	1000–2500	–	√
1250	–	√	3200–5000	√	√
1600–4000	√	√	6300	–	√
5000	–	√			

The external fire barrier can be used on any trunking component in compliance with the operating instructions specified in figures 1 and 2

To comply to the Certification of fire resistance it is necessary to install both internal* and external fire barriers supplied by Legrand.

* Internal barriers on some ratings are not required

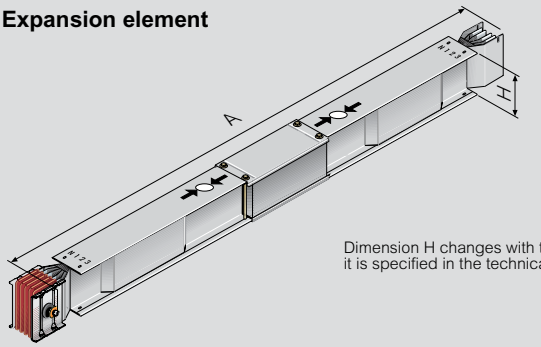
63280200PF

Item	Expansion element
	Due to being subjected to temperature changes, both the busbar and the building suffer thermal expansions. The expansion element can absorb expansion and contraction of both the busbar trunking system section and the building, up to the maximum permitted length (± 50 mm approx.). The expansion element must be fitted near the expansion joints of the building and in straight sections of the line (horizontal and/or vertical) longer than 40 m. For straight line sections longer than 40 m, expansion elements must be fitted in a way that splits the path into equal sections not longer than 40 m. XCP-HP busbar trunking system elements are designed to compensate for thermal expansion if the straight sections of the installation are less than 40 m; in this case no expansion element is necessary.

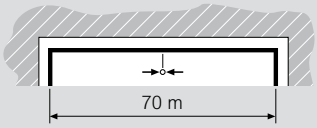
Al	Cu	In (A)	Type
63280200PF	**-**	630	
63280201PF	**66280200PF**	800	
63280202PF	**66280201PF**	1000	
63280204PF	**66280203PF**	1250	
63280206PF	**66280205PF**	1600	
63280207PF	**66280206PF**	2000	A = 1.5 m
63390204PF	**66280208PF**	2500	
63390206PF	**66390205PF**	3200	
63390207PF	**66390206PF**	4000	
63390208PF	**66390208PF**	5000	
-	**66390209PF**	6300	

Dimensions

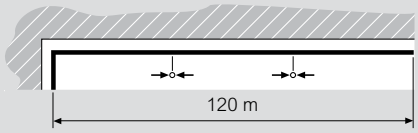
Expansion element



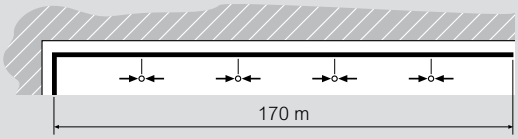
Dimension H changes with the ratings and it is specified in the technical information



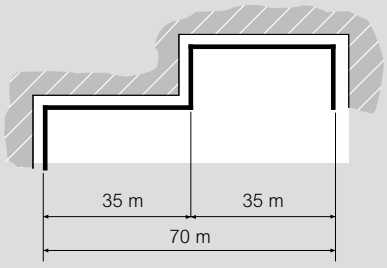
Example:
Straight section length 70 m = n°1 expansion element in the center of the line



Example:
Straight section length 120 m = n°2 expansion elements, one every 40 m



Example:
Straight section length 170 m = no. 4 expansion elements, one every 34 m



Example:
Section length 70 m. When the section is not straight, no expansion element is necessary

Xtra Compact (XCP-HP)

straight elements

63287100PF

63287120PF

63287140PF

Item			Phase balancing
Al	Cu	In (A)	
63287100PF	-	630	Straight elements with phase balancing are used to reduce and balance mutual phase reactance and impedance in case of long lines. In particularly long sections (> 100 metres) it is recommended that two transposition elements are fitted (one at one third and one at two thirds of the path), to balance the system electric impedance: In this way, it will be possible to have along the installation path all the possible combinations, of reciprocal positions among phases, minimising load losses (Fig.1). If it's necessary to have the same phase sequence at the start and the end, use 3 phase balancing elements (fig.2).
63287101PF	66287100PF	800	
63287102PF	66287101PF	1000	
63287104PF	66287103PF	1250	
63287106PF	66287105PF	1600	
63287107PF	66287106PF	2000	
63397104PF	66287108PF	2500	
63397106PF	66397105PF	3200	
63397107PF	66397106PF	4000	
63397108PF	66397108PF	5000	
-	66397109PF	6300	

			Phase inversion
Al	Cu	In (A)	
63287120PF	-	630	The function of this element is to completely reverse the positions of the phases and the neutral. It is normally used in connections between the transformer and electric board, or in the connections between electric boards, when the starting sequence is different from the arrival sequence
63287121PF	66287120PF	800	
63287122PF	66287121PF	1000	
63287124PF	66287123PF	1250	
63287126PF	66287125PF	1600	
63287127PF	66287126PF	2000	
63397124PF	66287128PF	2500	
63397126PF	66397125PF	3200	
63397127PF	66397126PF	4000	
63397128PF	66397128PF	5000	
-	66397129PF	6300	

			Element with neutral rotation
Al	Cu	In (A)	
63287140PF	-	630	The straight element with neutral rotation is used to adapt the sequence of the busbar phases to the sequence of the connections required at the ends of the connections, should these be different. In the connection between electric boards, the neutral jump is normally used, as only the neutral position is normally identified
63287141PF	66287140PF	800	
63287142PF	66287141PF	1000	
63287144PF	66287143PF	1250	
63287146PF	66287145PF	1600	
63287147PF	66287146PF	2000	
63397144PF	66287148PF	2500	
63397146PF	66397145PF	3200	
63397147PF	66397146PF	4000	
63397148PF	66397148PF	5000	
-	66397149PF	6300	

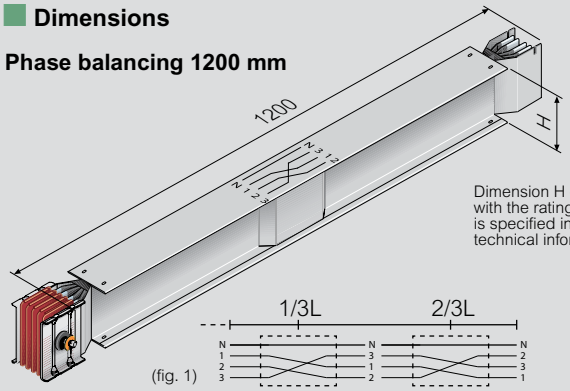
Single bar:
630A-2000A (Al)
800A-2500A (Cu)

Double bar:
2500A-4000A (Al)
3200A-5000A (Cu)

Triple bar:
5000A (Al)
6300A (Cu)

Dimensions

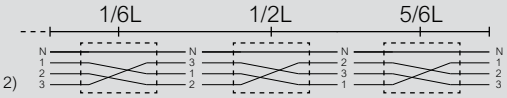
Phase balancing 1200 mm



Dimension H changes with the rating; it is specified in the technical information.

(fig. 1)

Electric diagram: 2 elements offer all the possible reciprocal positions among the phases along the line.



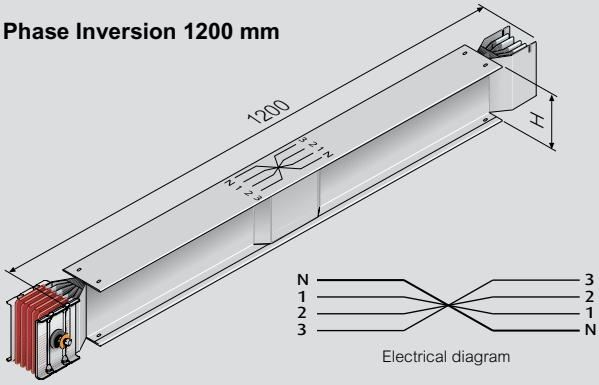
(fig. 2)

If it's necessary to have the same phase sequence at the start and the end, use 3 phase balancing elements.

In particularly long carrying sections (L> 100 meters) it is recommended to insert 2 elements: (one placed at 1/3 and one placed at 2/3 of the trunking path) to balance the electric impedance of the system.
"L" is the total length of the path.

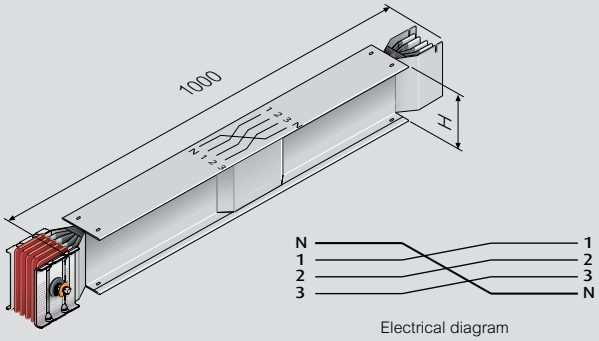
For example, in a line exceeding 300 m it is recommended that one phase transposition is fitted at 100 m, and another one at 200 m.

Phase Inversion 1200 mm



Electrical diagram

Element with neutral rotation 1000 mm



Electrical diagram

When the position of neutral of the distribution board phases is different from that of the transformer, it is possible to use an element that allows a neutral rotation only.

⚠ **Warning:** Use **phase inversion and neutral rotation elements** ONLY for energy transport paths, and not for derivations (do not use it when the line includes straight elements with derivations, or when they are provided for tap-off boxes even if bolted on the junction). The position of all the conductors, including the neutral, changes, and may cause serious problems on a connected load, if one is not fully aware that the phase sequence and the position of the neutral DO NOT comply with those indicated in the pre-printed labels.

Xtra Compact (XCP-HP)

feed unit

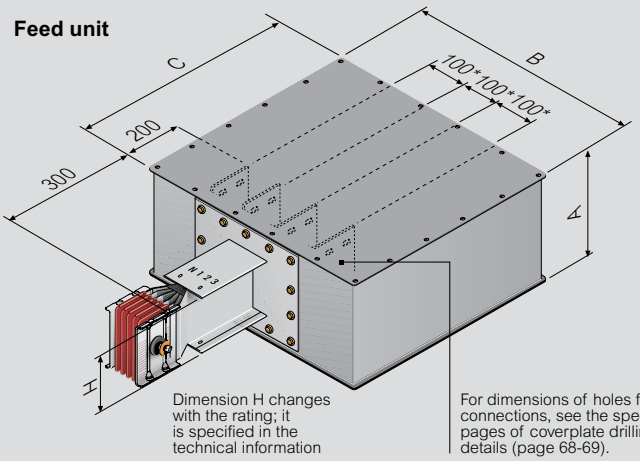
63281106PF

The feed units are used at the end of the lines, when the busbar must be powered using cables.
Right-hand feed units do not come with a Monobloc but left-hand feed units come with a pre-fitted Monobloc.
They are available with non-standard execution, on request.
End feed units for single bar busbars are supplied with an aluminium blind back closing plate. For double bar busbar trunking systems the plates are 2. Both versions are fitted with 2 extra side steel flanges and 2 inspection steel flanges (dark grey colour). The cable is connected directly to the busbars using bolts.
For more information on board/busbar connection see the tables (Dimensions For The Box).
To feed the power supply cable through the back power supply flanges it will be necessary to drill a hole in case of single bar and two holes in case of double bar. The size of the holes is 170 x 410 mm.

Item		**Feed unit**	
Al	**Cu**	In (A)	Type
63281100PF	**-**	630	Right type 2
63281101PF	**66281100PF**	800	
63281102PF	**66281101PF**	1000	
63281104PF	**66281103PF**	1250	
63281106PF	**66281105PF**	1600	
63281107PF	**66281106PF**	2000	
63391104PF	**66281108PF**	2500	
63391106PF	**66391105PF**	3200	
63391107PF	**66391106PF**	4000	
63391108PF	**66391108PF**	5000	
-	**66391109PF**	6300	
63281110PF	**-**	630	Left type 1
63281111PF	**66281110PF**	800	
63281112PF	**66281111PF**	1000	
63281114PF	**66281113PF**	1250	
63281116PF	**66281115PF**	1600	
63281117PF	**66281116PF**	2000	
63391114PF	**66281118PF**	2500	
63391116PF	**66391115PF**	3200	
63391117PF	**66391116PF**	4000	
63391118PF	**66391118PF**	5000	
-	**66391119PF**	6300	

Dimensions

Feed unit



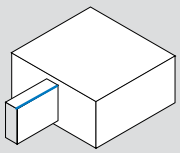
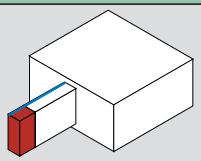
* 120 mm for 6300 A (Cu) and 5000 A (Al)

Rear cable input

Aluminium gland plate(s) for cable entry 170 x 410 mm
Single bar: 1 plate
Double bar: 2 plates

Dimensions FOR THE BOX				
Al	630A÷1250A	1600A÷2000A	2500A÷4000A	
Cu	800A÷1250A	1600A÷2000A	2500A÷5000A	6300A
(A) [mm]	320	320	600	815
(B) [mm]	615	615	615	615
(C) [mm]	610	810	810	810

Special dimensions (not standard) are available on request, please contact Legrand

Type 2 (without monobloc)	**Type 1 (with monobloc)**
	

CONNECTIONS				
Load (A)	**The copper (Cu) phase section is rounded up (mm^2)**	**No. of connection holes for each busbar conductor**	**No. of one-pole cables that can be connected to each phase**	
630	600	4	4x150	2x300
800				
1000				
1250	700	4	4x240	3x300
1600	850	8	4x240	3x300
2000	1100	8	5x240	4x300
2500	1400	8	6x240	5x300
3200	1700	16	8x240	6x300
4000	2100	16	9x240	7x300
5000	3000	16	14x240	10x300

Xtra Compact (XCP-HP)

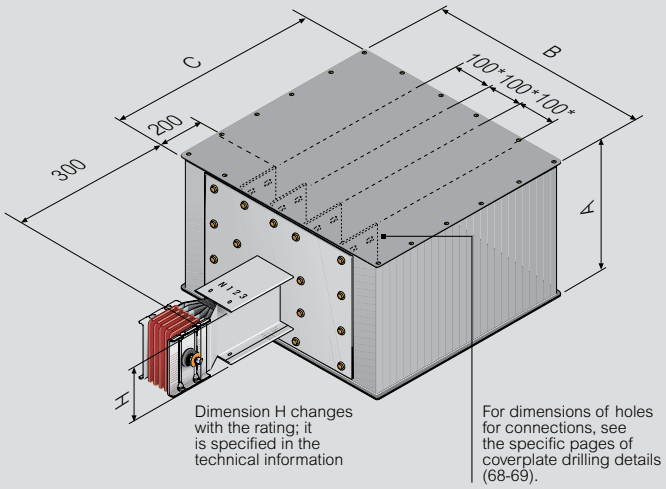
rising mains feed unit

66281133PF

The rising mains feed units are used at the departure of the riser mains lines, when the busbar must be placed close to the wall and powered using cables. They **allow the busbar to be installed 40 mm away from the wall.**
Right-hand feed units do not come with a Monobloc but left-hand feed units come with a pre-fitted Monobloc.
They are available with non-standard execution, on request. End feed units for single bar busbars are supplied with an aluminium blind back closing plate. For double bar busbar trunking systems the plates are 2. Both versions are fitted with 2 extra side steel flanges and 2 inspection steel flanges (dark grey colour). The cable is connected directly to the busbars using bolts.
For more information on board/busbar connection see the tables below (Dimensions For The Box).
To feed the power supply cable through the back power supply flanges it will be necessary to drill a hole in case of single bar and two holes in case of double bar. The size of the holes is 170 x 410 mm.

Item **Rising mains feed unit**

Al	Cu	In (A)	Type
63281120PF	**-**	630	Right type 2
63281121PF	**66281120PF**	800	
63281122PF	**66281121PF**	1000	
63281124PF	**66281123PF**	1250	
63281126PF	**66281125PF**	1600	
63281127PF	**66281126PF**	2000	
63391124PF	**66281128PF**	2500	
63391126PF	**66391125PF**	3200	
F63391127P	**66391126PF**	4000	
63391128PF	**66391128PF**	5000	
-	**66391129PF**	6300	
63281130PF	**-**	630	Left type 1
63281131PF	**66281130PF**	800	
63281132PF	**66281131PF**	1000	
63281134PF	**66281133PF**	1250	
63281136PF	**66281135PF**	1600	
63281137PF	**66281136PF**	2000	
63391134PF	**66281138PF**	2500	
63391136PF	**66391135PF**	3200	
63391137PF	**66391136PF**	4000	
63391138PF	**66391138PF**	5000	
-	**66391139PF**	6300	



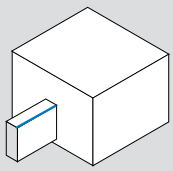
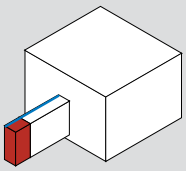
* 120 mm for 6300 A (Cu) and 5000 A (Al)

Rear cable input

Aluminium gland plate(s) for cable entry 170 x 410 mm
Single bar: 1 plate
Double bar: 2 plates

Dimensions FOR THE BOX				
Al	630A÷1250A	1600A÷2000A	2500A÷4000A	
Cu	800A÷1250A	1600A÷2000A	2500A÷5000A	6300A
(A) [mm]	320	320	600	815
(B) [mm]	615	615	615	615
(C) [mm]	610	810	810	810

Special dimensions (not standard) are available on request, please contact Legrand

Type 2 (without monobloc)	Type 1 (with monobloc)
	

CONNECTIONS				
Load (A)	**The copper (Cu) phase section is rounded up (mm^2)**	**No. of connection holes for each busbar conductor**	**No. of one-pole cables that can be connected to each phase**	
630	600	4	4x150	2x300
800				
1000				
1250	700	4	4x240	3x300
1600	850	8	4x240	3x300
2000	1100	8	5x240	4x300
2500	1400	8	6x240	5x300
3200	1700	16	8x240	6x300
4000	2100	16	9x240	7x300
5000	3000	16	14x240	10x300

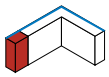
Single bar:	**Double bar:**	**Triple bar:**
630A-2000A (Al)	2500A-4000A (Al)	5000A (Al)
800A-2500A (Cu)	3200A-5000A (Cu)	6300A (Cu)

Xtra Compact (XCP-HP)

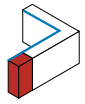
elbows

63280306PF

Item		Horizontal elbow		
Al	Cu	In (A)	Type	Type
63280300PF	-	630		
63280301PF	66280300PF	800		
63280302PF	66280301PF	1000		
63280304PF	66280303PF	1250		
63280306PF	66280305PF	1600		
63280307PF	66280306PF	2000		Standard
63390304PF	66280308PF	2500		
63390306PF	66390305PF	3200		
63390307PF	66390306PF	4000		
63390308PF	66390308PF	5000		
-	66390309PF	6300		
63280320PF	-	630		
63280321PF	66280320PF	800		
63280322PF	66280321PF	1000		
63280324PF	66280323PF	1250		
63280326PF	66280325PF	1600		
63280327PF	66280326PF	2000		Special lengths
63390324PF	66280328PF	2500		
63390326PF	66390325PF	3200		
63390327PF	66390326PF	4000		
63390328PF	66390328PF	5000		
-	66390329PF	6300		
63280310PF	-	630		
63280311PF	66280310PF	800		
63280312PF	66280311PF	1000		
63280314PF	66280313PF	1250		
63280316PF	66280315PF	1600		
63280317PF	66280316PF	2000		Standard
63390314PF	66280318PF	2500		
63390316PF	66390315PF	3200		
63390317PF	66390316PF	4000		
63390318PF	66390318PF	5000		
-	66390319PF	6300		
63280330PF	-	630		
63280331PF	66280330PF	800		
63280332PF	66280331PF	1000		
63280334PF	66280333PF	1250		
63280336PF	66280335PF	1600		
63280337PF	66280336PF	2000		Special lengths
63390334PF	66280338PF	2500		
63390336PF	66390335PF	3200		
63390337PF	66390336PF	4000		
63390338PF	66390338PF	5000		
-	66390339PF	6300		



Right Type 1

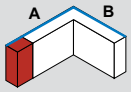
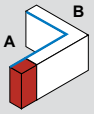


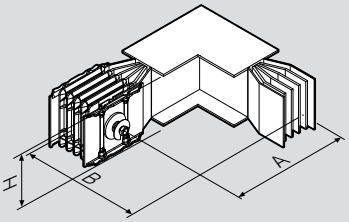
Left Type 2

Dimensions

Horizontal elbow

In order to define the type of horizontal elbow required, consider to place the element “edgewise” (conductors perpendicular to the ground). In this configuration “horizontal” elbows enable a path variation which is parallel to the ground.
When the neutral busbar conductor faces the outside of the elbow, there will be a Right horizontal elbow (type 1)
Contrariwise, with the neutral busbar conductor facing the inside of the elbow there will be a Left horizontal elbow (type 2)

Type 1	Type 2
	



The dimensions refer to the standard elements.
Single/double/triple bar (A+B): 300+300 mm

MIN AND MAX DIMENSIONS	
Single bar min/MAX	
A	250/1299*
B	250/1299*
Double bar min/MAX	
A	250/1299*
B	250/1299*
Triple bar min/MAX	
A	250/999*
B	250/999*

Dimension H changes with the rating; it is specified in the technical information

Non-standard elements “Special” (with measurements that are different from those show in the figure) are referred to the Min and Max dimensions specified in the table

* For all the non standard horizontal elbows (special), it is possible to have only one of the two sides in size exceeding 600 mm. For example, when ordering a horizontal elbow with size A=1000 mm, the B size will have to be ≤ 600 mm

Xtra Compact (XCP-HP)

elbows

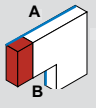
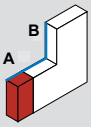
66280415PF

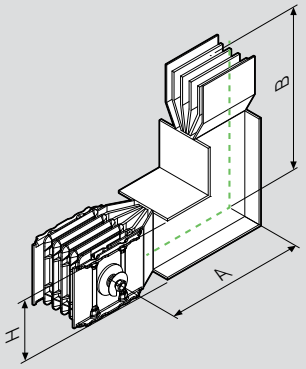
Item		Vertical elbow		
Al	Cu	In (A)	Type	Type
63280400PF	-	630	Right Type 2	Standard
63280401PF	66280400PF	800		
63280402PF	66280401PF	1000		
63280404PF	66280403PF	1250		
63280406PF	66280405PF	1600		
63280407PF	66280406PF	2000		
63390404PF	66280408PF	2500		
63390406PF	66390405PF	3200		
63390407PF	66390406PF	4000		
63390408PF	66390408PF	5000		
-	66390409PF	6300		
63280420PF	-	630		Special length
63280421PF	66280420PF	800		
63280422PF	66280421PF	1000		
63280424PF	66280423PF	1250		
63280426PF	66280425PF	1600		
63280427PF	66280426PF	2000		
63390424PF	66280428PF	2500		
63390426PF	66390425PF	3200		
63390427PF	66390426PF	4000		
63390428PF	66390428PF	5000		
-	66390429PF	6300		
63280410PF	-	630	Left Type 1	Standard
63280411PF	66280410PF	800		
63280412PF	66280411PF	1000		
63280414PF	66280413PF	1250		
63280416PF	66280415PF	1600		
63280417PF	66280416PF	2000		
63390414PF	66280418PF	2500		
63390416PF	66390415PF	3200		
63390417PF	66390416PF	4000		
63390418PF	66390418PF	5000		
-	66390419PF	6300		
63280430PF	-	630		Special length
63280431PF	66280430PF	800		
63280432PF	66280431PF	1000		
63280434PF	66280433PF	1250		
63280436PF	66280435PF	1600		
63280437PF	66280436PF	2000		
63390434PF	66280438PF	2500		
63390436PF	66390435PF	3200		
63390437PF	66390436PF	4000		
63390438PF	66390438PF	5000		
-	66390439PF	6300		

Dimensions

Vertical elbow

In order to define the type of vertical elbow, it is necessary to still place the element "edgewise" (conductors perpendicular to the ground), with the section with Monobloc facing the observer and the section without facing up.
In this configuration, vertical “elbows” enable an up or down facing variation If the neutral is on the left side, there will be a left vertical elbow (Type 1).
If, on the other side, it is on the right side, there will be a right vertical elbow (Type 2)

Type 2	Type 1
	



MIN AND MAX DIMENSIONS	
Single bar min/MAX	
A	250/1299*
B	250/1299*
Double bar min/MAX	
A	340/1449*
B	340/1449*
Triple bar min/MAX	
A	560/1199* (AL) 530/1199* (CU)
B	560/1199* (AL) 530/1199* (CU)

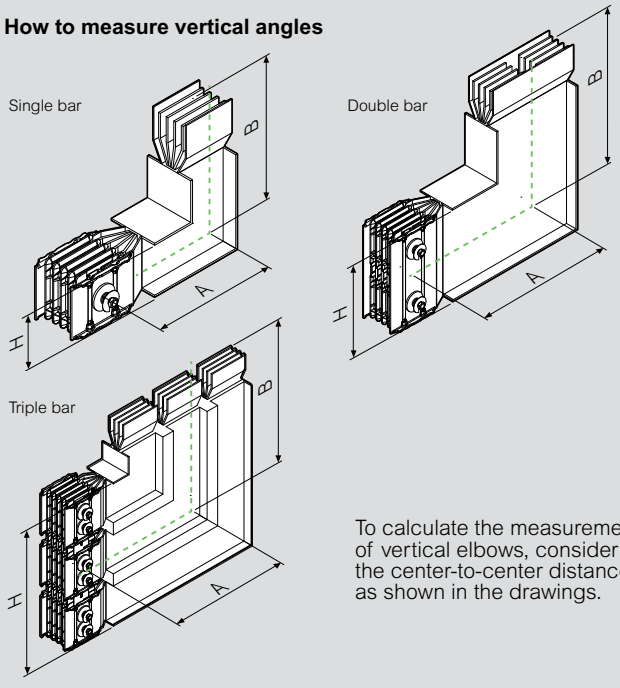
Dimension H changes with the rating;
it is specified in the technical information

The dimensions are referred to the standard elements.
Single bar (A+B) : 300+300 mm
Double bar (A+B) : 450+450 mm
Triple bar (A+B) : 600+600 mm

Non-standard elements “Special” (with measurements that are different from those show in the figure) are referred to the Min and Max dimensions specified in the table

* For all the non standard vertical elbows (special), it is possible to have only one of the two sides in size exceeding 600 mm
For example, when ordering a vertical elbow with size A=1000 mm, the B size will have to be ≤ 600 mm

How to measure vertical angles

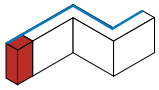


To calculate the measurements of vertical elbows, consider the center-to-center distance as shown in the drawings.

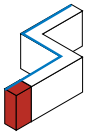
63280346PF

63280456PF

Item		Double horizontal elbow	
Al	Cu	In (A)	Type
63280340PF	-	630	
63280341PF	66280340PF	800	
63280342PF	66280341PF	1000	
63280344PF	66280343PF	1250	
63280346PF	66280345PF	1600	
63280347PF	66280346PF	2000	
63390344PF	66280348PF	2500	
63390346PF	66390345PF	3200	
63390347PF	66390346PF	4000	
63390348PF	66390348PF	5000	
-	66390349PF	6300	
63280350PF	-	630	
63280351PF	66280350PF	800	
63280352PF	66280351PF	1000	
63280354PF	66280353PF	1250	
63280356PF	66280355PF	1600	
63280357PF	66280356PF	2000	
63390354PF	66280358PF	2500	
63390356PF	66390355PF	3200	
63390357PF	66390356PF	4000	
63390358PF	66390358PF	5000	
-	66390359PF	6300	

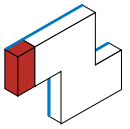


Right Type 1

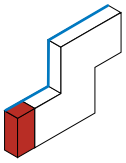


Left Type 2

		Double vertical elbow	
Al	Cu	In (A)	Type
63280440PF	-	630	
63280441PF	66280440PF	800	
63280442PF	66280441PF	1000	
63280444PF	66280443PF	1250	
63280446PF	66280445PF	1600	
63280447PF	66280446PF	2000	
63390444PF	66280448PF	2500	
63390446PF	66390445PF	3200	
63390447PF	66390446PF	4000	
63390448PF	66390448PF	5000	
-	66390449PF	6300	
63280450PF	-	630	
63280451PF	66280450PF	800	
63280452PF	66280451PF	1000	
63280454PF	66280453PF	1250	
63280456PF	66280455PF	1600	
63280457PF	66280456PF	2000	
63390454PF	66280458PF	2500	
63390456PF	66390455PF	3200	
63390457PF	66390456PF	4000	
63390458PF	66390458PF	5000	
-	66390459PF	6300	



Right Type 2



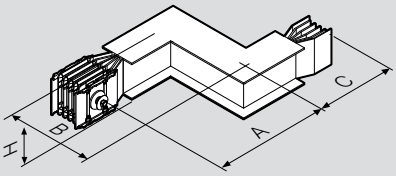
Left Type 1

Single bar:	Double bar:	Triple bar:
630A-2000A (Al) 800A-2500A (Cu)	2500A-4000A (Al) 3200A-5000A (Cu)	5000A (Al) 6300A (Cu)

Dimensions

Double horizontal elbow

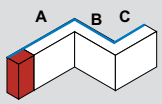
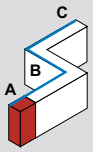
Double horizontal elbows are the union of two horizontal elbows; in order to define the type, it is enough to observe them starting from the Monobloc; if the first elbow met is left, we will have a double horizontal elbow left + right (Type 2). Contrariwise, if the first elbow met is right, we will have a double horizontal elbow right + left (Type 1)



The dimensions are referred to the standard elements.
Single/double/triple bar (A+B+C): 300+300+300 mm

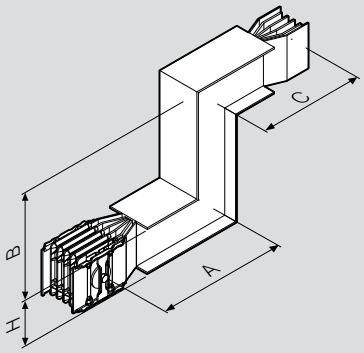
MIN AND MAX DIMENSIONS	
Single bar min/MAX	
A	250/1299*
B	50/599*
C	250/1299*
Double bar min/MAX	
A	250/1299*
B	50/599*
C	250/1299*
Triple bar min/MAX	
A	250/999*
B	50/599*
C	250/999*

Dimension H changes with the rating; it is specified in the technical information

Type 1	Type 2
	

Double vertical elbow

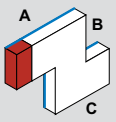
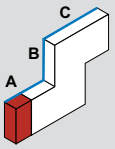
Double vertical elbows are the union of two vertical elbows; in order to define the type, it is enough to observe them starting from the Monobloc; if the first elbow met is left, we will have a double vertical elbow left + right (Type 1). Contrariwise, if the first elbow met is right, we will have a double vertical elbow right + left (Type 2)



MIN AND MAX DIMENSIONS	
Single bar min/MAX	
A	250/1299*
B	50/599*
C	250/1299*
Double bar min/MAX	
A	340/1449*
B	50/899*
C	340/1449*
Triple bar min/MAX	
A	560/1199* (AL) 530/1199* (CU)
B	50/999*
C	560/1199* (AL) 530/1199* (CU)

Dimension H changes with the rating; it is specified in the technical information

The dimensions are referred to the standard elements.
Single bar (A+B+C): 300+300+300 mm
Double bar (A+B+C): 450+450+450 mm
Triple bar (A+B+C):600+600+600 mm

Type 2	Type 1
	

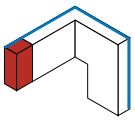
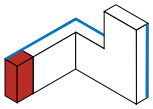
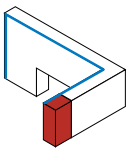
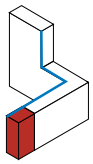
Non-standard elements “Special” (with measurements that are different from those show in the figure) are referred to the Min and Max dimensions specified in the table.

* Warning: for safety reasons in production and also to help in the installation, if one dimension is pulled close to the maximum length (i.e. A=1100 mm) then the other two dimensions should be kept as close as possible to their standard lengths (i.e. B=300 mm, C=310 mm).

Xtra Compact (XCP-HP)

elbows

63280606PF

Item		Double elbow horizontal + vertical	
Al	Cu	In (A)	Type
63280600PF	-	630	 Type 1
63280601PF	66280600PF	800	
63280602PF	66280601PF	1000	
63280604PF	66280603PF	1250	
63280606PF	66280605PF	1600	
63280607PF	66280606PF	2000	
63390604PF	66280608PF	2500	
63390606PF	66390605PF	3200	
63390607PF	66390606PF	4000	
63390608PF	66390608PF	5000	
-	66390609PF	6300	
63280610PF	-	630	 Type 2
63280611PF	66280610PF	800	
63280612PF	66280611PF	1000	
63280614PF	66280613PF	1250	
63280616PF	66280615PF	1600	
63280617PF	66280616PF	2000	
63390614PF	66280618PF	2500	
63390616PF	66390615PF	3200	
63390617PF	66390616PF	4000	
63390618PF	66390618PF	5000	
-	66390619PF	6300	
63280620PF	-	630	 Type 3
63280621PF	66280620PF	800	
63280622PF	66280621PF	1000	
63280624PF	66280623PF	1250	
63280626PF	66280625PF	1600	
63280627PF	66280626PF	2000	
63390624PF	66280628PF	2500	
63390626PF	66390625PF	3200	
63390627PF	66390626PF	4000	
63390628PF	66390628PF	5000	
-	66390629PF	6300	
63280630PF	-	630	 Type 4
63280631PF	66280630PF	800	
63280632PF	66280631PF	1000	
63280634PF	66280633PF	1250	
63280636PF	66280635PF	1600	
63280637PF	66280636PF	2000	
63390634PF	66280638PF	2500	
63390636PF	66390635PF	3200	
63390637PF	66390636PF	4000	
63390638PF	66390638PF	5000	
-	66390639PF	6300	

Single bar:
630A-2000A (Al)
800A-2500A (Cu)

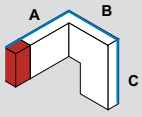
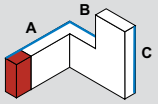
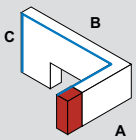
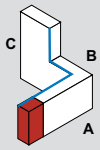
Double bar:
2500A-4000A (Al)
3200A-5000A (Cu)

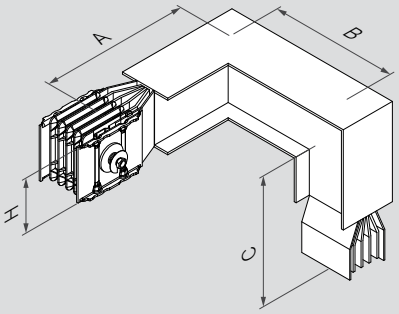
Triple bar:
5000A (Al)
6300A (Cu)

Dimensions

Double elbow horizontal + vertical

Double elbows horizontal + vertical are the union of a horizontal and a vertical elbow, placed in succession starting from the side with Monobloc
Depending on the type of elbows, the double horizontal + vertical elbow may be of four different types:
- Double elbow Horizontal RH + Vertical RH (Type 1)
- Double elbow Horizontal RH + Vertical LH (Type 2)
- Double elbow Horizontal LH + Vertical RH (Type 3)
- Double elbow Horizontal LH + Vertical LH (Type 4)

Type 1	Type 2	Type 3	Type 4
			



The dimensions refer to the standard elements
Single bar (A+B+C): 300+300+300 mm
Double bar (A+B+C): 300+450+450 mm
Triple bar (A+B+C): 300+600+600 mm

MIN AND MAX DIMENSIONS OF SINGLE	
Single bar min/MAX	
A	250/1299*
B	150/599*
C	250/1299*
Double bar min/MAX	
A	250/1299*
B	235/899*
C	340/1449*
Triple bar min/MAX	
A	250/999*
B	458/799* (AL) 428/799* (CU)
C	560/999* (AL) 530/999* (CU)

Dimension H changes with the rating; it is specified in the technical information

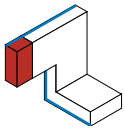
Non-standard elements “Special” (with measurements that are different from those show in the figure) are referred to the Min and Max dimensions specified in the table.

* Warning: for safety reasons in production and also to help in the installation, if one dimension is pulled close to the maximum length (i.e. A=1100 mm) then the other two dimensions should be kept as close as possible to their standard lengths (i.e. B=300 mm, C=310 mm).

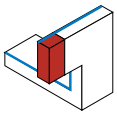
Note:
RH - Right
LH - Left

63280506PF

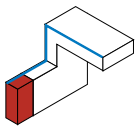
Item		Double elbow vertical + horizontal	
Al	Cu	In (A)	Type
63280500PF	-	630	
63280501PF	66280500PF	800	
63280502PF	66280501PF	1000	
63280504PF	66280503PF	1250	
63280506PF	66280505PF	1600	
63280507PF	66280506PF	2000	
63390504PF	66280508PF	2500	
63390506PF	66390505PF	3200	
63390507PF	66390506PF	4000	
63390508PF	66390508PF	5000	
-	66390509PF	6300	
63280510PF	-	630	
63280511PF	66280510PF	800	
63280512PF	66280511PF	1000	
63280514PF	66280513PF	1250	
63280516PF	66280515PF	1600	
63280517PF	66280516PF	2000	
63390514PF	66280518PF	2500	
63390516PF	66390515PF	3200	
63390517PF	66390516PF	4000	
63390518PF	66390518PF	5000	
-	66390519PF	6300	
63280520PF	-	630	
63280521PF	66280520PF	800	
63280522PF	66280521PF	1000	
63280524PF	66280523PF	1250	
63280526PF	66280525PF	1600	
63280527PF	66280526PF	2000	
63390524PF	66280528PF	2500	
63390526PF	66390525PF	3200	
63390527PF	66390526PF	4000	
63390528PF	66390528PF	5000	
-	66390529PF	6300	
63280530PF	-	630	
63280531PF	66280530PF	800	
63280532PF	66280531PF	1000	
63280534PF	66280533PF	1250	
63280536PF	66280535PF	1600	
63280537PF	66280536PF	2000	
63390534PF	66280538PF	2500	
63390536PF	66390535PF	3200	
63390537PF	66390536PF	4000	
63390538PF	66390538PF	5000	
-	66390539PF	6300	



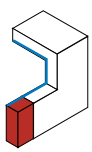
Type 1



Type 2



Type 3



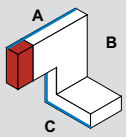
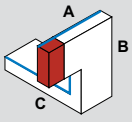
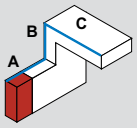
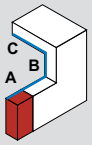
Type 4

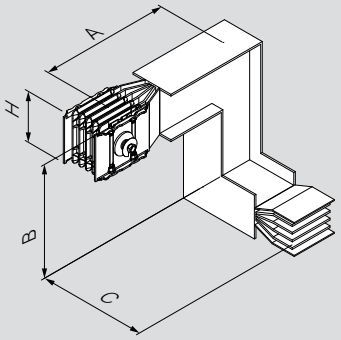
Dimensions

Double elbow vertical + horizontal

Double elbows vertical + horizontal are the union of a vertical and a horizontal elbow, placed in succession starting from the side with Monobloc

Depending on the type of elbows, the double vertical + horizontal elbow may be of four different types:
- Double elbow vertical RH + horizontal RH (Type 1)
- Double elbow vertical RH + horizontal LH (Type 2)
- Double elbow vertical LH + horizontal RH (Type 3)
- Double elbow vertical LH + horizontal LH (Type 4)

Type 1	Type 2	Type 3	Type 4
			



MIN AND MAX DIMENSIONS	
Single bar min/MAX	
A	250/1299*
B	150/599*
C	250/1299*
Double bar min/MAX	
A	340/1449*
B	325/899*
C	250/1299*
Triple bar min/MAX	
A	560/1199* (AL) 530/1199* (CU)
B	458/799* (AL) 428/799* (CU)
C	250/999*

Dimension H changes with the rating; it is specified in the technical information

The dimensions refer to the standard elements.
Single bar (A+B+C): 300+300+300 mm
Double bar (A+B+C): 450+450+300 mm
Triple bar (A+B+C): 600+600+300 mm

Non-standard elements “Special” (with measurements that are different from those show in the figure) are referred to the Min and Max dimensions specified in the table.

* Warning: for safety reasons in production and also to help in the installation, if one dimension is pulled close to the maximum length (i.e. A=1100 mm) then the other two dimensions should be kept as close as possible to their standard lengths (i.e. B=300 mm, C=310 mm)

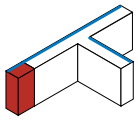
Note:
RH - Right
LH - Left

Xtra Compact (XCP-HP)

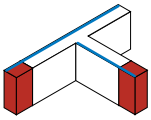
T elements

63280706PF

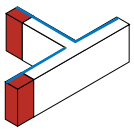
Item		Horizontal T element	
Al	Cu	In (A)	Type
63280700PF	-	630	
63280701PF	66280700PF	800	
63280702PF	66280701PF	1000	
63280704PF	66280703PF	1250	
63280706PF	66280705PF	1600	
63280707PF	66280706PF	2000	
63390704PF	66280708PF	2500	
63390706PF	66390705PF	3200	
63390707PF	66390706PF	4000	
63390708PF	66390708PF	5000	
-	66390709PF	6300	
63280710PF	-	630	
63280711PF	66280710PF	800	
63280712PF	66280711PF	1000	
63280714PF	66280713PF	1250	
63280716PF	66280715PF	1600	
63280717PF	66280716PF	2000	
63390714PF	66280718PF	2500	
63390716PF	66390715PF	3200	
63390717PF	66390716PF	4000	
63390718PF	66390718PF	5000	
-	66390719PF	6300	
63280720PF	-	630	
63280721PF	66280720PF	800	
63280722PF	66280721PF	1000	
63280724PF	66280723PF	1250	
63280726PF	66280725PF	1600	
63280727PF	66280726PF	2000	
63390724PF	66280728PF	2500	
63390726PF	66390725PF	3200	
63390727PF	66390726PF	4000	
63390728PF	66390728PF	5000	
-	66390729PF	6300	
63280730PF	-	630	
63280731PF	66280730PF	800	
63280732PF	66280731PF	1000	
63280734PF	66280733PF	1250	
63280736PF	66280735PF	1600	
63280737PF	66280736PF	2000	
63390734PF	66280738PF	2500	
63390736PF	66390735PF	3200	
63390737PF	66390736PF	4000	
63390738PF	66390738PF	5000	
-	66390739PF	6300	



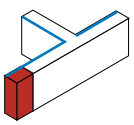
Type 1



Type 2



Type 3



Type 4

Single bar:
630A-2000A (Al)
800A-2500A (Cu)

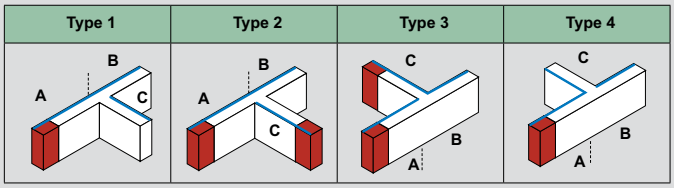
Double bar:
2500A-4000A (Al)
3200A-5000A (Cu)

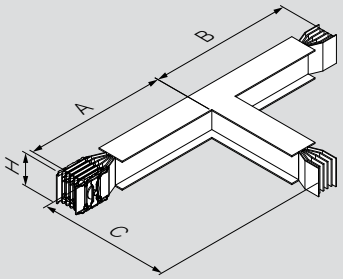
Triple bar:
5000A (Al)
6300A (Cu)

Dimensions

Horizontal T element

T-elements can be used to split the line in two branches, adding together the effect of two diverging elbows
There are four types of horizontal "T" elements, as shown below





The dimensions refer to the standard elements.
Single/double/triple bar (A+B+C): 600+600+600 mm

MIN AND MAX DIMENSIONS	
Single bar min/MAX	
A	600/1449*
B	600/1449*
C	600/1449*
Double bar min/MAX	
A	600/1449*
B	600/1449*
C	600/1449*
Triple bar min/MAX	
A	600/1449*
B	600/1449*
C	600/1449*

Dimension H changes with the rating; it is specified in the technical information

Non-standard elements "Special" (with measurements that are different from those show in the figure) are referred to the Min and Max dimensions specified in the table

* For all the non standard Horizontal T elements (special), it is possible to have only one of the three sides in size exceeding 600 mm.
For example, when ordering a T horizontal element with size A=650 mm, the B and C size will have to be ≤ 600 mm

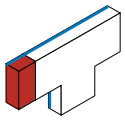
Note:
Only in special cases, where is not possible to use the standard element, is possible to have only one of three arms with minimum dimension of 300mm.
For more informations please contact Legrand

Xtra Compact (XCP-HP)

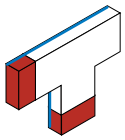
T elements

63280806PF

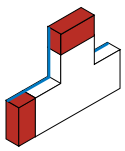
Item		Vertical t element	
Al	Cu	In (A)	Type
63280800PF	-	630	
63280801PF	66280800PF	800	
63280802PF	66280801PF	1000	
63280804PF	66280803PF	1250	
63280806PF	66280805PF	1600	
63280807PF	66280806PF	2000	
63390804PF	66280808PF	2500	
63390806PF	66390805PF	3200	
63390807PF	66390806PF	4000	
63390808PF	66390808PF	5000	
-	66390809PF	6300	
63280810PF	-	630	
63280811PF	66280810PF	800	
63280812PF	66280811PF	1000	
63280814PF	66280813PF	1250	
63280816PF	66280815PF	1600	
63280817PF	66280816PF	2000	
63390814PF	66280818PF	2500	
63390816PF	66390815PF	3200	
63390817PF	66390816PF	4000	
63390818PF	66390818PF	5000	
-	66390819PF	6300	
63280820PF	-	630	
63280821PF	66280820PF	800	
63280822PF	66280821PF	1000	
63280824PF	66280823PF	1250	
63280826PF	66280825PF	1600	
63280827PF	66280826PF	2000	
63390824PF	66280828PF	2500	
63390826PF	66390825PF	3200	
63390827PF	66390826PF	4000	
63390828PF	66390828PF	5000	
-	66390829PF	6300	
63280830PF	-	630	
63280831PF	66280830PF	800	
63280832PF	66280831PF	1000	
63280834PF	66280833PF	1250	
63280836PF	66280835PF	1600	
63280837PF	66280836PF	2000	
63390834PF	66280838PF	2500	
63390836PF	66390835PF	3200	
63390837PF	66390836PF	4000	
63390838PF	66390838PF	5000	
-	66390839PF	6300	



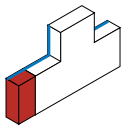
Type 1



Type 2



Type 3

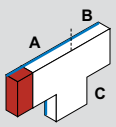
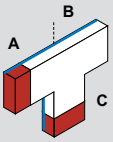
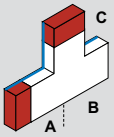
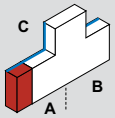


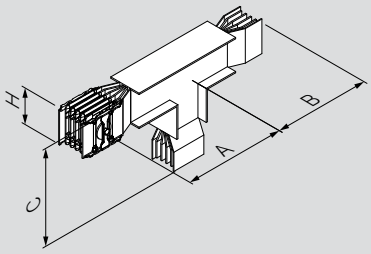
Type 4

Dimensions

Vertical T element

T-elements can be used to split the line in two branches, adding together the effect of two diverging elbows
There are four types of verticals “T” elements, as shown below

Type 1	Type 2	Type 3	Type 4
			



MIN AND MAX DIMENSIONS	
Single bar min/MAX	
A	300/1299*
B	300/1299*
C	300/1299*
Double bar min/MAX	
A	450/1449*
B	450/1449*
C	450/1449*
Triple bar min/MAX	
A	560/1449* (AL) 530/1449* (CU)
B	560/1449* (AL) 530/1449* (CU)
C	560/1449* (AL) 530/1449* (CU)

Dimension H changes with the rating; it is specified in the technical information

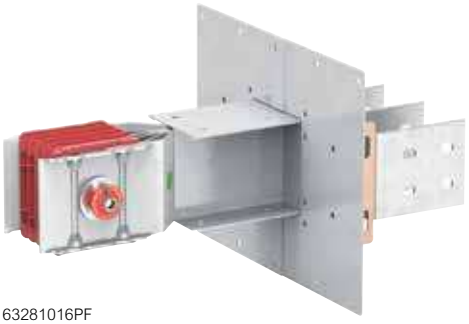
The dimensions refer to the standard elements
Single bar (A+B+C): 300+300+300 mm
Double bar (A+B+C): 600+600+600 mm
Triple bar (A+B+C): 600+600+600 mm

Non-standard elements “Special” (with measurements that are different from those show in the figure) are referred to the Min and Max dimensions specified in the table

* For all the non standard Vertical T elements (special), it is possible to have only one of the three sides in size exceeding 600 mm.
For example, when ordering a T vertical element with size A=650 mm, the B and C size will have to be ≤ 600 mm

Xtra Compact (XCP-HP)

connection interfaces with exit bars



63281016PF

Connection interfaces with exit bars for panel boards

Item				
Al	Cu	In (A)	Type	Type
63281000PF	-	630		
63281001PF	66281000PF	800		
63281002PF	66281001PF	1000		
63281004PF	66281003PF	1250		
63281006PF	66281005PF	1600		
63281007PF	66281006PF	2000		Standard
63391004PF	66281008PF	2500		
63391006PF	66391005PF	3200		
63391007PF	66391006PF	4000		
63391008PF	66391008PF	5000		
-	66391009PF	6300		
63281020PF	-	630		
63281021PF	66281020PF	800		
63281022PF	66281021PF	1000	Right Type 2	
63281024PF	66281023PF	1250		
63281026PF	66281025PF	1600		
63281027PF	66281026PF	2000		Special
63391024PF	66281028PF	2500		
63391026PF	66391025PF	3200		
63391027PF	66391026PF	4000		
63391028PF	66391028PF	5000		
-	66391029PF	6300		
63281010PF	-	630		
63281011PF	66281010PF	800		
63281012PF	66281011PF	1000		
63281014PF	66281013PF	1250		
63281016PF	66281015PF	1600		
63281017PF	66281016PF	2000		Standard
63391014PF	66281018PF	2500		
63391016PF	66391015PF	3200		
63391017PF	66391016PF	4000		
63391018PF	66391018PF	5000		
-	66391019PF	6300		
63281030PF	-	630		
63281031PF	66281030PF	800		
63281032PF	66281031PF	1000	Left Type 1	
63281034PF	66281033PF	1250		
63281036PF	66281035PF	1600		
63281037PF	66281036PF	2000		Special
63391034PF	66281038PF	2500		
63391036PF	66391035PF	3200		
63391037PF	66391036PF	4000		
63391038PF	66391038PF	5000		
-	66391039PF	6300		

Single bar:
630A-2000A (Al)
800A-2500A (Cu)

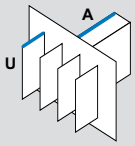
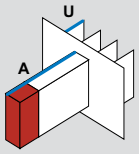
Double bar:
2500A-4000A (Al)
3200A-5000A (Cu)

Triple bar:
5000A (Al)
6300A (Cu)

Dimensions

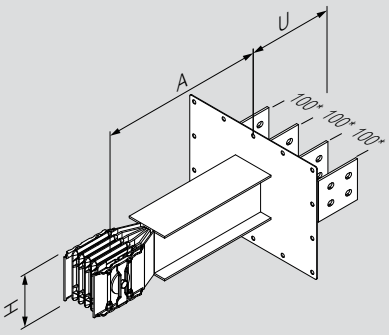
Connection interfaces with exit bars

Standard connection interfaces are used at the end of the lines to connect the busbar to boards or transformers. They are available in right (without Monobloc) and left (with Monobloc fitted) versions. The drawings below refer to the standard versions. Different combinations are available on request (e.g.: length, centre distance between bar conductors, drilling, etc.)

Standard connection interface RH (Type 2 without monoblock fitted)	Standard connection interface LH (Type 1 with monoblock fitted)
	

Note:
RH - Right
LH - Left

Standard connection interface



See on page 68-69 the drawings with all drilling details for dimensions of coverplate (1) and bars (2)

MIN AND MAX DIMENSIONS	
Single bar min/MAX	
U	150/400
A	200/1299
Double bar min/MAX	
U	150/400
A	200/1299
Triple bar min/MAX	
U	150/400
A	200/1299

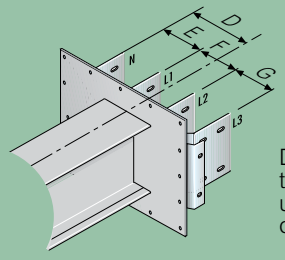
Dimension H changes with the rating; it is specified in the technical information

The dimensions refer to the standard elements.
Single/double/triple bar (U+A): 200+300 mm

* 120 mm for 6300 A (Cu) and 5000 A (Al)

Non-standard elements “Special” (with measurements that are different from those show in the figure) are referred to the Min and Max dimensions specified in the table.

Special connection interface with interaxes not standard



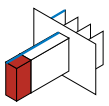
Dimensioning indications to be provided when using a non-standard centre distance

Xtra Compact (XCP-HP)

connection interfaces with exit bars

6328T016PF

Connection interfaces with exit bars for transformers*

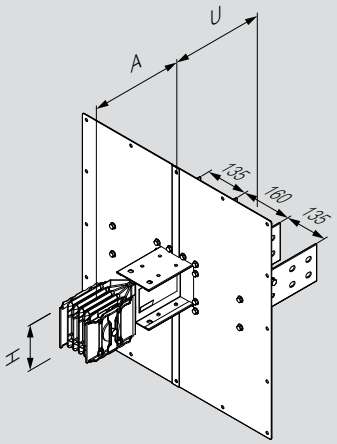
Item				
Al	Cu	In (A)	Type	Type
6328T000PF	-	630	 Right Type 2	CRT
6328T001PF	6628T000PF	800		
6328T002PF	6628T001PF	1000		
6328T004PF	6628T003PF	1250		
6328T006PF	6628T005PF	1600		
6328T007PF	6628T006PF	2000		
6339T004PF	6628T008PF	2500		
6339T006PF	6639T005PF	3200		
6339T007PF	6639T006PF	4000		
6339T008PF	6639T008PF	5000		
-	6639T009PF	6300		
6328T010PF	-	630	 Left Type 1	CRT
6328T011PF	6628T010PF	800		
6328T012PF	6628T011PF	1000		
6328T014PF	6628T013PF	1250		
6328T016PF	6628T015PF	1600		
6328T017PF	6628T016PF	2000		
6339T014PF	6628T018PF	2500		
6339T016PF	6639T015PF	3200		
6339T017PF	6639T016PF	4000		
6339T018PF	6639T018PF	5000		
-	6639T019PF	6300		

*** cast resin, air insulated or oil filled transformers**

Dimensions

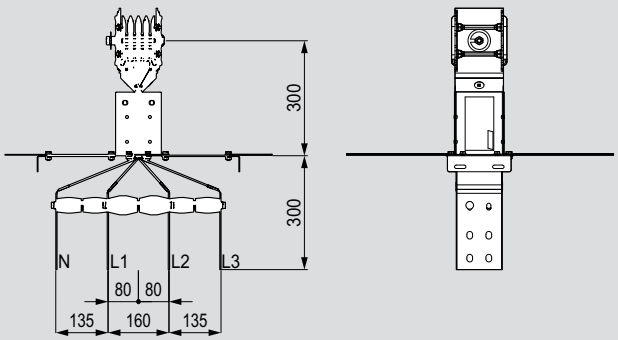
Connection interfaces with exit bars

Special connection interfaces are used at the end of the lines to connect the busbar to dry transformers. They are available in right (without Monobloc) and left (with Monobloc fitted) versions. The drawings below refer to the standard versions. Different combinations are available on request (e.g.: length, centre distance between bar conductors, drilling, etc.)

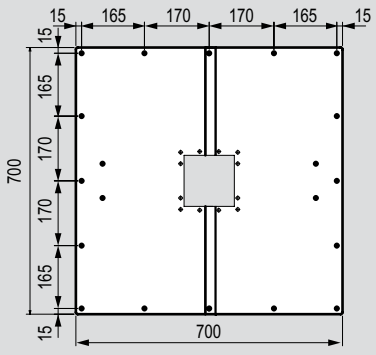


MIN AND MAX DIMENSIONS	
Single bar min/MAX	
U	300/400
A	200/1299
Double bar min/MAX	
U	300/400
A	200/1299
Triple bar min/MAX	
U	300/400
A	200/1299

Dimension H changes with the rating; it is specified in the technical information



Flange size details



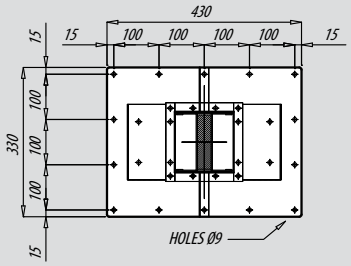
For the versions of XCP-HP 5000A Al and 6300A Cu, the dimensions are different. For more details please contact Legrand.

Xtra Compact (XCP-HP)

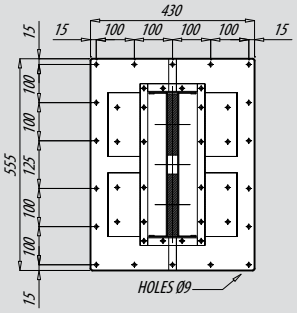
dimensions

Coverplate drilling details (1)

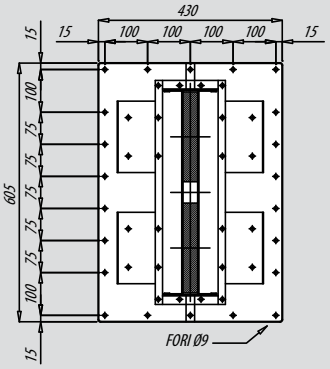
Al 630A–2000A
Cu 800A–2500A



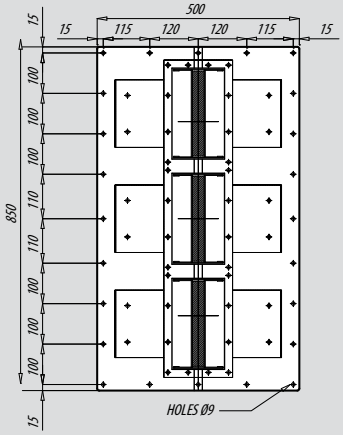
Al 2500A–3200A
Cu 3200A–4000A



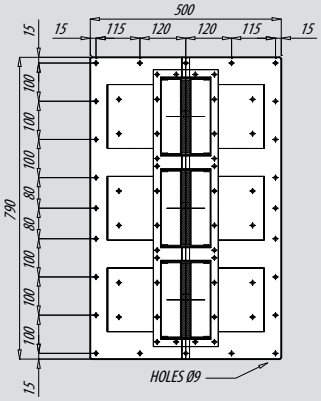
Al 4000A
Cu 5000A



Al 5000A

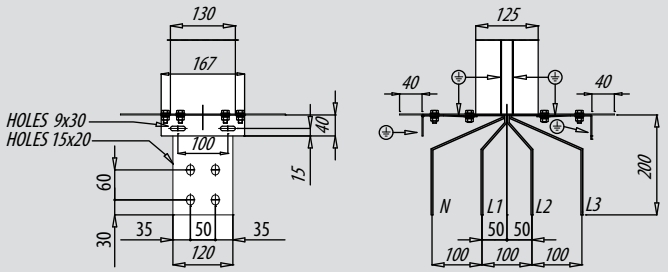


Cu 6300A

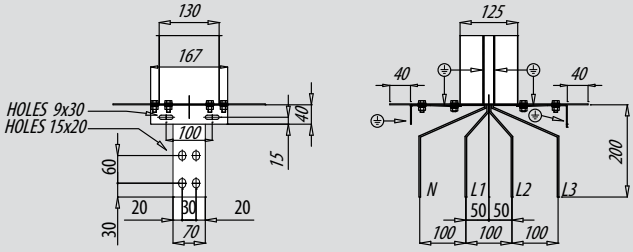


Bar drilling details (2) Side and front view

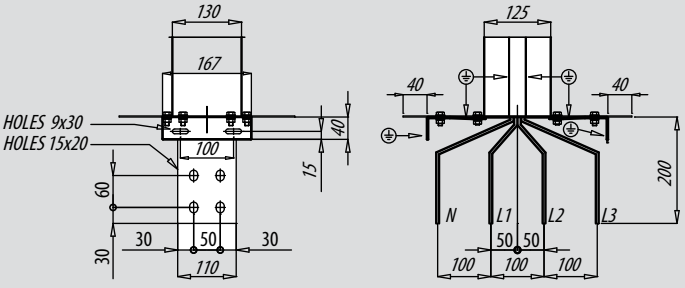
Al 630A–800A



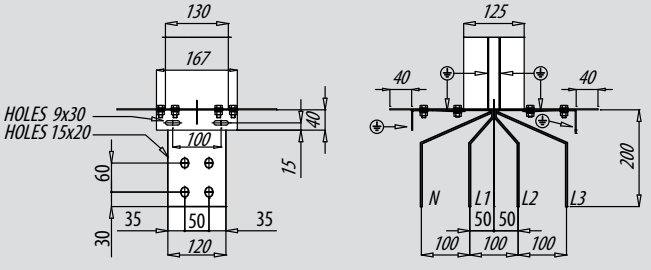
Cu 800A



Al 1000A



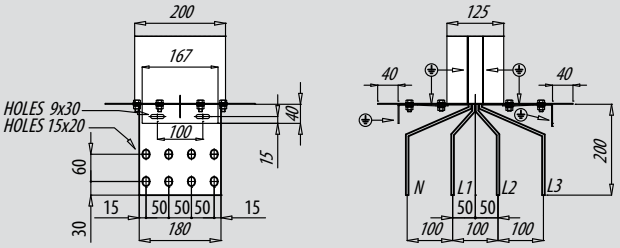
Al 1250A
Cu 1000A–1250A



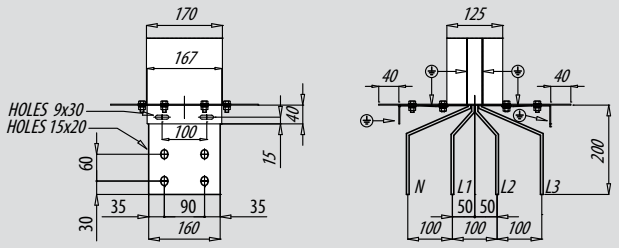
X= 6 (**Al** 1250A)
3.3 (**Cu** 1000A)
3.9 (**Cu** 1250A)

Bar drilling details (2) Side and front view

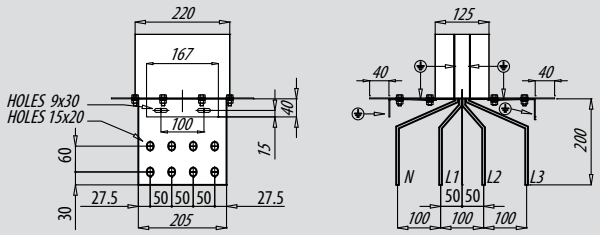
Al 1600A



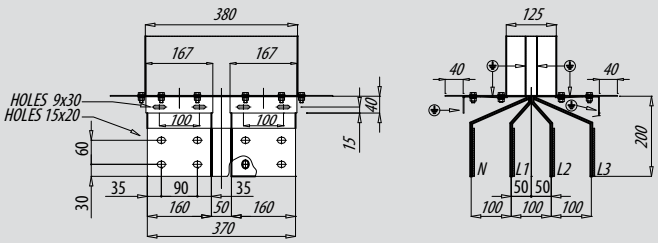
Cu 1600A–2000A



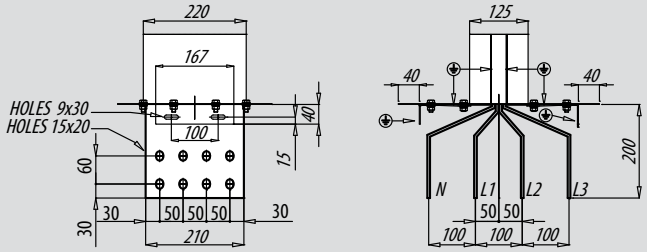
Al 2000A



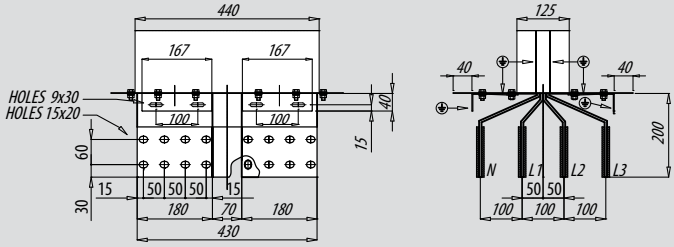
Al 2500A
Cu 3200A



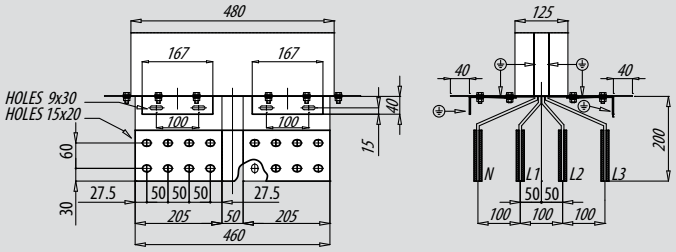
Cu 2500A



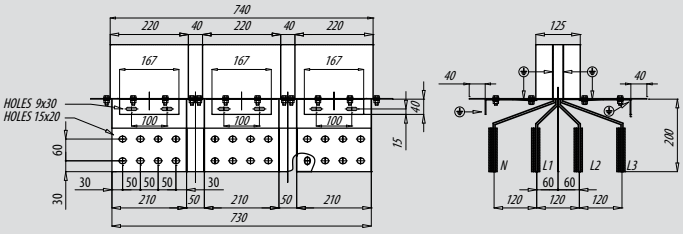
Al 3200A
Cu 4000A



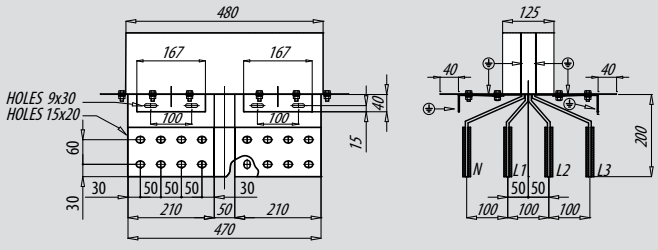
Al 4000A



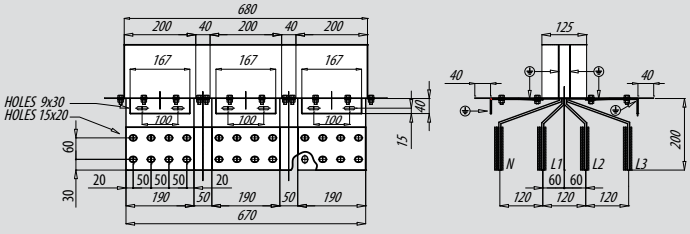
Al 5000A



Cu 5000A



Cu 6300A



Xtra Compact (XCP-HP)

technical information

General features

XCP-HP line is available in the standard range:
From **630A to 5000A with aluminum alloy** conductors and **from 800A to 6300A with copper conductors**
The extra-compact dimensions of the XCP-HP enhance **its resistance to short circuit stresses**; in addition, they can reduce the impedance of the circuit by controlling the voltage drops and allow for the installation of high power electrical systems, even in extremely confined spaces.
XCP-HP is available with **a wide selection of tap-off boxes that range from 63A up to 1250A**, thus allowing you to locally protect and feed different types of loads by housing protective devices such as MCCBs
XCP-HP is not only in **compliance with** the harmonised **Standards IEC EN 61439-6** but also answers specifically to many clients needs for more severe conditions of use
Thus **the rated current** of Legrand's busbar trunking systems is **always referred to the average ambient temperature of up to 55 °C**
The nominal range of all XCP-HP is guaranteed both for horizontal installations (flat and edgewise) and for vertical installations without derating.
XCP-HP busbar trunking systems are designed so that they can **be maintenance-free**, except for the periodic and compulsory inspections required by the Standard IEC 60364
The tightening torque inspection of the junction can be carried out by qualified personnel, even when the busbar is energised.

Structural features

The outer casing of the XCP-HP line consists of four C-ribbed section bars, bordered and riveted (thickness 1.5mm), **with excellent mechanical, electric** and heat loss efficiency. **The sheet metal is made of galvanized steel,** treated according to UNI EN10327 and **painted with RAL7035 resins** with a **high resistance to chemical agents**
The standard degree of protection is IP55, on request IP65 (only for transport of energy); with certain accessories, it can also be installed outdoors.
The busbar conductors have a rectangular cross section with rounded corners; there are two versions:

- **Electrolytic copper ETP 99.9 UNI EN 13601**
- **Aluminum alloy** treated over the entire surface with **5 galvanic processes** (copper plating + tin plating)

The insulation between bars is ensured by a **double sheath made with polyester film** (total thickness 2x0.23 mm) **class F (155°C)** thermal resistance. All plastic components have a **V1 self-extinguishing degree**; they are fire retardant and comply with the glow-wire test according to standards The XCP-HP line is **Halogen Free.** In order to facilitate storage operations especially to reduce the installation time, the straight elements, trunking **components** as well as all the components of the XCP-HP line are **supplied with a monobloc pre-installed at the factory**
The junction contact is ensured by **tin plated aluminium for XCP-HP Al and copper for XCP-HP Cu for each phase**, insulated with red **class F thermosetting plastic material**. The **monobloc** has **shear head bolts**: after tightening the nuts with a standard wrench, the outer head will break at the correct torque value, hence giving you the certainty that the connection has been made properly so as to guarantee safety and maximum performance over time.
Finally, in order to completely verify the insulation level, every finished product undergoes an **insulation test** (phase-phase, phase-PE) at the factory with a test voltage of 3500 Vac for 1.5 seconds. The test is performed on the finished product, completely assembled.
IP55 and IP65 is intended for internal use only, for outdoor applications a canopy designed by us or RCP resin IP68 busbar is needed.

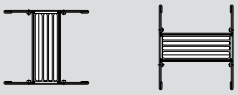
RATED CURRENT OF XCP-HP BARS (A)											
Al	630	800	1000	1250	1600	2000	2500	3200	4000	5000	
Single bar							Double bar			Triple bar	
Cu		800	1000	1250	1600	2000	2500	3200	4000	5000	6300
Single bar							Double bar				Triple bar

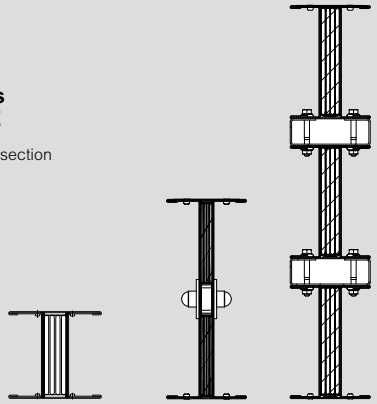
Standard versions:

XCP-HP line with 4 conductors 3P+N+PE, 3P+PEN, 3P+FE+PE

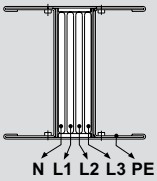
Note: For dimension H, see technical data section
PE: Protection Earth
FE: Functional Earth (Clean Earth)

Edgewise element **Flat element**





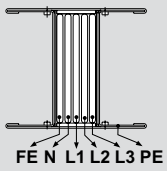
Phase sequence



XCP-HP 5 line with 5 conductors 3P+N+FE+PE

Note: For dimension H, see technical data section
PE: Protection Earth
FE: Functional Earth (Clean Earth)

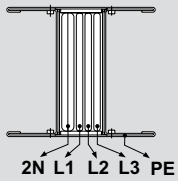
Phase sequence



XCP-HP 2N 200% neutral line 3P+2N+PE

Note: For dimension H, see technical data section
PE: Protection Earth
2N : 200% neutral

Phase sequence



GENERAL CORRECTION FACTOR FOR AMBIENT TEMPERATURES (Kt)

XCP-HP (AL)

Daily avg Ambient temperature	-5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C	65°C	70°C
Kt factor	1,38	1,34	1,31	1,28	1,25	1,21	1,18	1,15	1,11	1,07	1,04	1	0,96	0,92	0,88	0,84

XCP-HP (CU)

Daily avg Ambient temperature	-5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C	65°C	70°C
Kt factor	1,43	1,40	1,37	1,33	1,30	1,26	1,23	1,19	1,16	1,12	1,08	1,04	1	0,96	0,92	0,87

Special versions on request

Xtra Compact (XCP-HP)

technical data

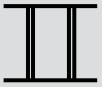
XCP-HP Al (4 Conductors)

3P+N+PE		SINGLE BAR						DOUBLE BAR			TRIPLE BAR
Rated current	**In [A]**	**630**	**800**	**1000**	**1250**	**1600**	**2000**	**2500**	**3200**	**4000**	**5000**
Overall dimension of the busbars	L x H [mm]	125 x 130	125 x 130	125 x 130	125 x 130	125 x 200	125 x 220	125 x 380	125 x 440	125 x 480	125 x 740
Rated operational voltage	Ue [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated insulation voltage	Ui [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Frequency	f [Hz]	50	50	50	50	50	50	50	50	50	50
Rated short-time current (1 s)	I_{CW} [kA]$_{rms}$	36	36	50	70	70	85	120	120	150	150
Peak current	I_{pk} [kA]	76	76	105	154	154	187	264	264	330	330
Allowable specific energy for three-phase fault	I^2t [MA^{2}s]	1296	1296	2500	4900	4900	7225	14400	14400	22500	22500
Rated short-time current of the neutral bar (1 s)	I_{CW} [kA]$_{rms}$	36	36	50	70	70	85	120	120	150	150
Peak current of the neutral bar	I_{pk} [kA]	70	70	98	143	143	174	246	246	307	307
Rated short-time current of the protective circuit (1 s)	I_{CW} [kA]$_{rms}$	22	22	30	42	42	51	72	72	90	90
Peak current of the protective circuit	I_{pk} [kA]	45	45	63	88	88	112	158	158	198	198
Phase resistance at 20°C	R_{20} [mΩ/m]	0.077	0.077	0.056	0.045	0.031	0.025	0.022	0.015	0.012	0.010
Phase reactance (50hz)	X [mΩ/m]	0.023	0.017	0.017	0.015	0.014	0.011	0.006	0.006	0.006	0.005
Phase impedance	Z [mΩ/m]	0.080	0.079	0.059	0.047	0.034	0.027	0.023	0.017	0.014	0.011
Phase resistance at thermal conditions	R [mΩ/m]	0.101	0.102	0.076	0.062	0.043	0.035	0.032	0.022	0.018	0.014
Phase impedance at thermal conditions	Z [mΩ/m]	0.104	0.103	0.078	0.064	0.045	0.037	0.032	0.023	0.019	0.015
Neutral resistance	R_{20} [mΩ/m]	0.077	0.077	0.056	0.045	0.031	0.025	0.022	0.015	0.012	0.010
Resistance of the protective bar (PE 1)	R_{PE} [mΩ/m]	0.132	0.132	0.132	0.133	0.111	0.106	0.078	0.072	0.068	0.035
Resistance of the protective bar (PE 2)	R_{PE} [mΩ/m]	0.049	0.049	0.049	0.049	0.032	0.025	0.019	0.016	0.014	0.010
Resistance of the protective bar (PE 3)	R_{PE} [mΩ/m]	0.084	0.084	0.084	0.084	0.054	0.049	0.032	0.027	0.025	0.016
Reactance of the protective bar	X_{PE} [mΩ/m]	0.080	0.078	0.078	0.048	0.039	0.028	0.020	0.015	0.016	0.014
Resistance of the fault loop (PE 1)	R_o [mΩ/m]	0.208	0.208	0.188	0.178	0.142	0.131	0.101	0.087	0.080	0.045
Resistance of the fault loop (PE 2)	R_o [mΩ/m]	0.126	0.126	0.106	0.094	0.063	0.050	0.041	0.031	0.027	0.019
Resistance of the fault loop (PE 3)	R_o [mΩ/m]	0.161	0.161	0.140	0.129	0.085	0.074	0.054	0.043	0.037	0.026
Reactance of the fault loop (50hz)	X_o [mΩ/m]	0.10	0.10	0.10	0.06	0.05	0.04	0.03	0.02	0.02	0.02
Impedance of the fault loop (PE 1)	Z_o [mΩ/m]	0.232	0.229	0.210	0.189	0.151	0.137	0.104	0.089	0.083	0.049
Impedance of the fault loop (PE 2)	Z_o [mΩ/m]	0.163	0.158	0.142	0.114	0.082	0.064	0.049	0.038	0.035	0.027
Impedance of the fault loop (PE 3)	Z_o [mΩ/m]	0.191	0.187	0.169	0.144	0.100	0.084	0.060	0.047	0.043	0.032
Zero-sequence short-circuit average resistance phase - N	R_o [mΩ/m]	0.102	0.102	0.075	0.060	0.041	0.033	0.030	0.021	0.017	0.013
Zero-sequence short-circuit average reactance phase - N	X_o [mΩ/m]	0.031	0.023	0.023	0.020	0.019	0.015	0.008	0.008	0.008	0.007
Zero-sequence short-circuit average impedance phase - N	Z_o [mΩ/m]	0.107	0.105	0.078	0.063	0.045	0.036	0.031	0.022	0.018	0.014
Zero-sequence short-circuit average resistance phase - PE	R_o [mΩ/m]	0.157	0.157	0.150	0.148	0.121	0.115	0.086	0.077	0.072	0.039
Zero-sequence short-circuit average reactance phase - PE	X_o [mΩ/m]	0.088	0.084	0.084	0.053	0.044	0.032	0.022	0.017	0.018	0.016
Zero-sequence short-circuit average impedance phase - PE	Z_o [mΩ/m]	0.180	0.178	0.172	0.157	0.129	0.119	0.088	0.079	0.074	0.042
Voltage drop with distribuited load ΔV [V/(m*A)]10^{-6}	cosφ = 0,70	75.6	72.1	56.5	47.0	34.7	27.9	23.0	17.2	14.6	11.5
	cosφ = 0,75	79.0	75.7	59.0	49.0	36.0	28.9	24.1	17.9	15.1	11.9
	cosφ = 0,80	82.1	79.2	61.3	50.9	37.1	29.9	25.1	18.5	15.6	12.2
	cosφ = 0,85	85.1	82.6	63.5	52.7	38.1	30.7	26.1	19.1	16.0	12.5
	cosφ = 0,90	87.7	85.6	65.5	54.2	38.8	31.3	27.0	19.6	16.3	12.7
	cosφ = 0,95	89.6	88.2	66.9	55.3	39.2	31.7	27.8	19.9	16.4	12.8
	cosφ = 1,00	87.7	88.0	65.6	53.9	37.3	30.2	27.5	19.3	15.6	12.0
Weight (PE 1)	p [kg/m]	16.0	16.0	17.8	19.3	25.4	29.4	37.7	47.3	54.3	91.0
Weight (PE 2)	p [kg/m]	19.3	19.3	21.1	22.6	30.5	35.9	46.4	57.6	65.7	108.0
Weight (PE 3)	p [kg/m]	17.1	17.1	18.9	20.3	27.1	31.2	40.5	50.7	58.0	96.5
Fire load	[kWh/m]	4.5	5.5	5.5	6.0	8.5	10.5	16.0	19.0	21.0	21.0
Degree of protection	IP	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***
Insulation material thermal resistance class		B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*
Losses for the Joule effect at nominal current	P [W/m]	121	195	227	292	330	418	596	683	863	1042
Ambient temperature min/ MAX (daily average)**	[°C]	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**

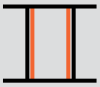
*Class F available under request
**From 35°C it will be necessary to derate the busbar and for ambient temperatures under -5°C contact the tecnical support.

***IP 65 available under request

The data on this page refer to the 50 Hz frequency. For 60 Hz, please contact Legrand.



PE 1
Standard version



PE 2
Extra earth - COPPER

PE 3
Extra earth - ALUMINUM
XCP Al 3L+N+50%PE
(available on request)

Xtra Compact (XCP-HP)

technical data

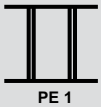
XCP-HP Al (5 Conductors - clean earth)

3P+N+PE+FE		SINGLE BAR						DOUBLE BAR			TRIPLE BAR
Rated current	**In [A]**	**630**	**800**	**1000**	**1250**	**1600**	**2000**	**2500**	**3200**	**4000**	**5000**
Overall dimension of the busbars	L x H [mm]	125 x 130	125 x 130	125 x 130	125 x 130	125 x 200	125 x 220	125 x 380	125 x 440	125 x 480	125 x 740
Rated operational voltage	Ue [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated insulation voltage	Ui [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Frequency	f [Hz]	50	50	50	50	50	50	50	50	50	50
Rated short-time current (1 s)	I_{CW} [kA]$_{rms}$	36	36	50	70	70	85	120	120	150	150
Peak current	I_{pk} [kA]	76	76	105	154	154	187	264	264	330	330
Allowable specific energy for three-phase fault	I^2t [MA^2s]	1296	1296	2500	4900	4900	7225	14400	14400	22500	22500
Rated short-time current of the neutral bar (1 s)	I_{CW} [kA]$_{rms}$	36	36	50	70	70	85	120	120	150	150
Peak current of the neutral bar	I_{pk} [kA]	70	70	98	143	143	174	246	246	307	307
Rated short-time current of the protective circuit (1 s)	I_{CW} [kA]$_{rms}$	22	22	30	42	42	51	72	72	90	90
Peak current of the protective circuit	I_{pk} [kA]	45	45	63	88	88	112	158	158	198	198
Phase resistance at 20°C	R_{20} [mΩ/m]	0.077	0.077	0.056	0.045	0.031	0.025	0.022	0.015	0.012	0.010
Phase reactance (50hz)	X [mΩ/m]	0.023	0.017	0.017	0.015	0.014	0.011	0.006	0.006	0.006	0.005
Phase impedance	Z [mΩ/m]	0.080	0.079	0.059	0.047	0.034	0.027	0.023	0.017	0.014	0.011
Phase resistance at thermal conditions	R [mΩ/m]	0.101	0.102	0.076	0.062	0.043	0.035	0.032	0.022	0.018	0.014
Phase impedance at thermal conditions	Z [mΩ/m]	0.104	0.103	0.078	0.064	0.045	0.037	0.032	0.023	0.019	0.015
Neutral resistance	R_{20} [mΩ/m]	0.077	0.077	0.056	0.045	0.031	0.025	0.022	0.015	0.012	0.010
Functional Earth resistance (FE)	R_{20} [mΩ/m]	0.077	0.077	0.056	0.045	0.031	0.025	0.022	0.015	0.012	0.010
Functional Earth reactance (FE)	X [mΩ/m]	0.023	0.017	0.017	0.015	0.014	0.011	0.006	0.006	0.006	0.005
Resistance of the protective bar (PE 1)	R_{PE} [mΩ/m]	0.133	0.133	0.266	0.266	0.222	0.213	0.156	0.143	0.136	0.035
Resistance of the protective bar (PE 2)	R_{PE} [mΩ/m]	0.049	0.049	0.049	0.049	0.032	0.025	0.019	0.016	0.014	0.010
Resistance of the protective bar (PE 3)	R_{PE} [mΩ/m]	0.084	0.084	0.084	0.084	0.054	0.049	0.032	0.027	0.025	0.016
Reactance of the protective bar	X_{PE} [mΩ/m]	0.080	0.078	0.078	0.048	0.039	0.028	0.020	0.015	0.016	0.014
Resistance of the fault loop (PE 1)	R_o [mΩ/m]	0.210	0.210	0.322	0.311	0.253	0.238	0.179	0.158	0.148	0.045
Resistance of the fault loop (PE 2)	R_o [mΩ/m]	0.126	0.126	0.106	0.094	0.063	0.050	0.041	0.031	0.027	0.019
Resistance of the fault loop (PE 3)	R_o [mΩ/m]	0.161	0.161	0.140	0.129	0.085	0.074	0.054	0.043	0.037	0.026
Reactance of the fault loop (50hz)	X_o [mΩ/m]	0.10	0.10	0.10	0.06	0.05	0.04	0.03	0.02	0.02	0.02
Impedance of the fault loop (PE 1)	Z_o [mΩ/m]	0.234	0.230	0.336	0.318	0.258	0.241	0.181	0.160	0.150	0.049
Impedance of the fault loop (PE 2)	Z_o [mΩ/m]	0.163	0.158	0.142	0.114	0.082	0.064	0.049	0.038	0.035	0.027
Impedance of the fault loop (PE 3)	Z_o [mΩ/m]	0.191	0.187	0.169	0.144	0.100	0.084	0.060	0.047	0.043	0.032
Zero-sequence short-circuit average resistance phase - N	R_o [mΩ/m]	0.102	0.102	0.075	0.060	0.041	0.033	0.030	0.021	0.017	0.013
Zero-sequence short-circuit average reactance phase - N	X_o [mΩ/m]	0.031	0.023	0.023	0.020	0.019	0.015	0.008	0.008	0.008	0.007
Zero-sequence short-circuit average impedance phase - N	Z_o [mΩ/m]	0.107	0.105	0.078	0.063	0.045	0.036	0.031	0.022	0.018	0.014
Zero-sequence short-circuit average resistance phase - PE	R_o [mΩ/m]	0.159	0.159	0.285	0.281	0.232	0.221	0.164	0.148	0.140	0.039
Zero-sequence short-circuit average reactance phase - PE	X_o [mΩ/m]	0.088	0.084	0.084	0.053	0.044	0.032	0.022	0.017	0.018	0.016
Zero-sequence short-circuit average impedance phase - PE	Z_o [mΩ/m]	0.181	0.179	0.297	0.286	0.236	0.223	0.165	0.149	0.141	0.042
Voltage drop with distribuited load ΔV [V/(m*A)]10^{-6}	cosφ = 0,70	75.6	72.1	56.5	47.0	34.7	27.9	23.0	17.2	14.6	11.5
	cosφ = 0,75	79.0	75.7	59.0	49.0	36.0	28.9	24.1	17.9	15.1	11.9
	cosφ = 0,80	82.1	79.2	61.3	50.9	37.1	29.9	25.1	18.5	15.6	12.2
	cosφ = 0,85	85.1	82.6	63.5	52.7	38.1	30.7	26.1	19.1	16.0	12.5
	cosφ = 0,90	87.7	85.6	65.5	54.2	38.8	31.3	27.0	19.6	16.3	12.7
	cosφ = 0,95	89.6	88.2	66.9	55.3	39.2	31.7	27.8	19.9	16.4	12.8
	cosφ = 1,00	87.7	88.0	65.6	53.9	37.3	30.2	27.5	19.3	15.6	12.0
Weight (PE 1)	p [kg/m]	17.5	17.5	19.7	21.7	28.8	33.6	42.8	54.4	62.9	102.2
Weight (PE 2)	p [kg/m]	20.8	20.8	23.0	25.0	34.0	40.1	51.5	64.7	74.2	119.2
Weight (PE 3)	p [kg/m]	21.0	18.6	20.8	22.7	30.5	35.5	45.6	57.7	66.6	107.8
Fire load	[kWh/m]	5.6	6.9	6.9	7.5	10.6	13.1	20.0	23.8	26.3	27.3
Degree of protection	IP	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***
Insulation material thermal resistance class		B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*
Losses for the Joule effect at nominal current	P [W/m]	121	195	227	292	330	418	596	683	863	1042
Ambient temperature min/ MAX (daily average)**	[°C]	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**

*Class F available under request
**From 35°C it will be necessary to derate the busbar and for ambient temperatures under -5°C contact the tecnical support.

***IP 65 available under request

The data on this page refer to the 50 Hz frequency. For 60 Hz, please contact Legrand.



PE 1
Standard version

PE 2
Extra earth - COPPER

PE 3
Extra earth - ALUMINUM
XCP Al 3L+N+50%PE
(available on request)

Xtra Compact (XCP-HP)

technical data

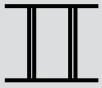
XCP-HP Al (5 Conductors - double neutral)

3P+2N+PE		SINGLE BAR						DOUBLE BAR			TRIPLE BAR
Rated current	**In [A]**	**630**	**800**	**1000**	**1250**	**1600**	**2000**	**2500**	**3200**	**4000**	**5000**
Overall dimension of the busbars	L x H [mm]	125 x 130	125 x 130	125 x 130	125 x 130	125 x 200	125 x 220	125 x 380	125 x 440	125 x 480	125 x 740
Rated operational voltage	Ue [V]	125 x 130	125 x 130	125 x 130	125 x 130	125 x 200	125 x 220	125 x 380	125 x 440	125 x 480	125 x 740
Rated insulation voltage	Ui [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Frequency	f [Hz]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated short-time current (1 s)	I_{CW} [kA]$_{rms}$	50	50	50	50	50	50	50	50	50	50
Peak current	I_{pk} [kA]	36	36	50	70	70	85	120	120	150	150
Allowable specific energy for three-phase fault	I^2t [MA^{2}s]	76	76	105	154	154	187	264	264	330	330
Rated short-time current of the neutral bar (1 s)	I_{CW} [kA]$_{rms}$	1296	1296	2500	4900	4900	7225	14400	14400	22500	22500
Peak current of the neutral bar	I_{pk} [kA]	36	36	50	70	70	85	120	120	150	150
Rated short-time current of the protective circuit (1 s)	I_{CW} [kA]$_{rms}$	70	70	98	143	143	174	246	246	307	307
Peak current of the protective circuit	I_{pk} [kA]	22	22	30	42	42	51	72	72	90	90
Phase resistance at 20°C	R_{20} [mΩ/m]	45	45	63	88	88	112	158	158	198	198
Phase reactance (50hz)	X [mΩ/m]	0.077	0.077	0.056	0.045	0.031	0.025	0.022	0.015	0.012	0.010
Phase impedance	Z [mΩ/m]	0.023	0.017	0.017	0.015	0.014	0.011	0.006	0.006	0.006	0.005
Phase resistance at thermal conditions	R [mΩ/m]	0.080	0.079	0.059	0.047	0.034	0.027	0.023	0.017	0.014	0.011
Phase impedance at thermal conditions	Z [mΩ/m]	0.101	0.102	0.076	0.062	0.043	0.035	0.032	0.022	0.018	0.014
Neutral resistance	R_{20} [mΩ/m]	0.104	0.103	0.078	0.064	0.045	0.037	0.032	0.023	0.019	0.015
Resistance of the protective bar (PE 1)	R_{PE} [mΩ/m]	0.133	0.133	0.266	0.266	0.222	0.213	0.156	0.143	0.136	0.035
Resistance of the protective bar (PE 2)	R_{PE} [mΩ/m]	0.049	0.049	0.049	0.049	0.032	0.025	0.019	0.016	0.014	0.010
Resistance of the protective bar (PE 3)	R_{PE} [mΩ/m]	0.084	0.084	0.084	0.084	0.054	0.049	0.032	0.027	0.025	0.016
Reactance of the protective bar	X_{PE} [mΩ/m]	0.080	0.078	0.078	0.048	0.039	0.028	0.020	0.015	0.016	0.014
Resistance of the fault loop (PE 1)	R_o [mΩ/m]	0.210	0.210	0.322	0.311	0.253	0.238	0.179	0.158	0.148	0.045
Resistance of the fault loop (PE 2)	R_o [mΩ/m]	0.126	0.126	0.106	0.094	0.063	0.050	0.041	0.031	0.027	0.019
Resistance of the fault loop (PE 3)	R_o [mΩ/m]	0.161	0.161	0.140	0.129	0.085	0.074	0.054	0.043	0.037	0.026
Reactance of the fault loop (50hz)	X_o [mΩ/m]	0.10	0.10	0.10	0.06	0.05	0.04	0.03	0.02	0.02	0.02
Impedance of the fault loop (PE 1)	Z_o [mΩ/m]	0.234	0.230	0.336	0.318	0.258	0.241	0.181	0.160	0.150	0.049
Impedance of the fault loop (PE 2)	Z_o [mΩ/m]	0.163	0.158	0.142	0.114	0.082	0.064	0.049	0.038	0.035	0.027
Impedance of the fault loop (PE 3)	Z_o [mΩ/m]	0.191	0.187	0.169	0.144	0.100	0.084	0.060	0.047	0.043	0.032
Zero-sequence short-circuit average resistance phase - N	R_o [mΩ/m]	0.064	0.064	0.047	0.037	0.026	0.021	0.019	0.013	0.010	0.008
Zero-sequence short-circuit average reactance phase - N	X_o [mΩ/m]	0.019	0.014	0.014	0.013	0.012	0.009	0.005	0.005	0.005	0.004
Zero-sequence short-circuit average impedance phase - N	Z_o [mΩ/m]	0.247	0.225	0.225	0.212	0.206	0.228	0.159	0.177	0.114	0.114
Zero-sequence short-circuit average resistance phase - PE	R_o [mΩ/m]	0.157	0.157	0.150	0.148	0.121	0.115	0.086	0.077	0.072	0.039
Zero-sequence short-circuit average reactance phase - PE	X_o [mΩ/m]	0.088	0.084	0.084	0.053	0.044	0.032	0.022	0.017	0.018	0.016
Zero-sequence short-circuit average impedance phase - PE	Z_o [mΩ/m]	0.180	0.178	0.172	0.157	0.129	0.119	0.088	0.079	0.074	0.042
Voltage drop with distribuited load ΔV [V/(m*A)]10^{-6}	cosφ = 0,70	75.6	72.1	56.5	47.0	34.7	27.9	23.0	17.2	14.6	11.5
	cosφ = 0,75	79.0	75.7	59.0	49.0	36.0	28.9	24.1	17.9	15.1	11.9
	cosφ = 0,80	82.1	79.2	61.3	50.9	37.1	29.9	25.1	18.5	15.6	12.2
	cosφ = 0,85	85.1	82.6	63.5	52.7	38.1	30.7	26.1	19.1	16.0	12.5
	cosφ = 0,90	87.7	85.6	65.5	54.2	38.8	31.3	27.0	19.6	16.3	12.7
	cosφ = 0,95	89.6	88.2	66.9	55.3	39.2	31.7	27.8	19.9	16.4	12.8
	cosφ = 1,00	87.7	88.0	65.6	53.9	37.3	30.2	27.5	19.3	15.6	12.0
Weight (PE 1)	p [kg/m]	17.5	17.5	19.7	21.7	28.8	33.6	42.8	54.4	62.9	102.2
Weight (PE 2)	p [kg/m]	20.8	20.8	23.0	25.0	34.0	40.1	51.5	64.7	74.2	119.2
Weight (PE 3)	p [kg/m]	21.0	18.6	20.8	22.7	30.5	35.5	45.6	57.7	66.6	107.8
Fire load	[kWh/m]	5.6	6.9	6.9	7.5	10.6	13.1	20.0	23.8	26.3	27.3
Degree of protection	IP	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***
Insulation material thermal resistance class		B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*
Losses for the Joule effect at nominal current	P [W/m]	121	195	227	292	330	418	596	683	863	1042
Ambient temperature min/ MAX (daily average)**	[°C]	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**

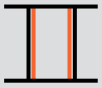
*Class F available under request
**From 35°C it will be necessary to derate the busbar and for ambient temperatures under -5°C contact the tecnical support.

***IP 65 available under request

The data on this page refer to the 50 Hz frequency. For 60 Hz, please contact Legrand.



PE 1
Standard version



PE 2
Extra earth - COPPER

PE 3
Extra earth - ALUMINUM
XCP Al 3L+N+50%PE
(available on request)

Xtra Compact (XCP-HP)

technical data

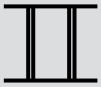
XCP-HP Al (3 Conductors)

3P+PE		SINGLE BAR						DOUBLE BAR			TRIPLE BAR
Rated current	**In [A]**	**630**	**800**	**1000**	**1250**	**1600**	**2000**	**2500**	**3200**	**4000**	**5000**
Overall dimension of the busbars	L x H [mm]	125 x 130	125 x 130	125 x 130	125 x 130	125 x 200	125 x 220	125 x 380	125 x 440	125 x 480	125 x 740
Rated operational voltage	Ue [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated insulation voltage	Ui [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Frequency	f [Hz]	50	50	50	50	50	50	50	50	50	50
Rated short-time current (1 s)	I_{CW} [kA]$_{rms}$	36	36	50	70	70	85	120	120	150	150
Peak current	I_{pk} [kA]	76	76	105	154	154	187	264	264	330	330
Allowable specific energy for three-phase fault	I^2t [MA^{2}s]	1296	1296	2500	4900	4900	7225	14400	14400	22500	22500
Rated short-time current of the protective circuit (1 s)	I_{CW} [kA]$_{rms}$	22	22	30	42	42	51	72	72	90	90
Peak current of the protective circuit	I_{pk} [kA]	45	45	63	88	88	112	158	158	198	198
Phase resistance at 20°C	R_{20} [mΩ/m]	0.077	0.077	0.056	0.045	0.031	0.025	0.022	0.015	0.012	0.010
Phase reactance (50hz)	X [mΩ/m]	0.023	0.017	0.017	0.015	0.014	0.011	0.006	0.006	0.006	0.005
Phase impedance	Z [mΩ/m]	0.080	0.079	0.059	0.047	0.034	0.027	0.023	0.017	0.014	0.011
Phase resistance at thermal conditions	R [mΩ/m]	0.101	0.102	0.076	0.062	0.043	0.035	0.032	0.022	0.018	0.014
Phase impedance at thermal conditions	Z [mΩ/m]	0.104	0.103	0.078	0.064	0.045	0.037	0.032	0.023	0.019	0.015
Resistance of the protective bar (PE 1)	R_{PE} [mΩ/m]	0.132	0.132	0.132	0.133	0.111	0.106	0.078	0.072	0.068	0.035
Resistance of the protective bar (PE 2)	R_{PE} [mΩ/m]	0.049	0.049	0.049	0.049	0.032	0.025	0.019	0.016	0.014	0.010
Resistance of the protective bar (PE 3)	R_{PE} [mΩ/m]	0.084	0.084	0.084	0.084	0.054	0.049	0.032	0.027	0.025	0.016
Reactance of the protective bar	X_{PE} [mΩ/m]	0.080	0.078	0.078	0.048	0.039	0.028	0.020	0.015	0.016	0.014
Resistance of the fault loop (PE 1)	R_o [mΩ/m]	0.208	0.208	0.188	0.178	0.142	0.131	0.101	0.087	0.080	0.045
Resistance of the fault loop (PE 2)	R_o [mΩ/m]	0.126	0.126	0.106	0.094	0.063	0.050	0.041	0.031	0.027	0.019
Resistance of the fault loop (PE 3)	R_o [mΩ/m]	0.161	0.161	0.140	0.129	0.085	0.074	0.054	0.043	0.037	0.026
Reactance of the fault loop (50hz)	X_o [mΩ/m]	0.10	0.10	0.10	0.06	0.05	0.04	0.03	0.02	0.02	0.02
Impedance of the fault loop (PE 1)	Z_o [mΩ/m]	0.232	0.229	0.210	0.189	0.151	0.137	0.104	0.089	0.083	0.049
Impedance of the fault loop (PE 2)	Z_o [mΩ/m]	0.163	0.158	0.142	0.114	0.082	0.064	0.049	0.038	0.035	0.027
Impedance of the fault loop (PE 3)	Z_o [mΩ/m]	0.191	0.187	0.169	0.144	0.100	0.084	0.060	0.047	0.043	0.032
Zero-sequence short-circuit average resistance phase - PE	R_o [mΩ/m]	0.157	0.157	0.150	0.148	0.121	0.115	0.086	0.077	0.072	0.039
Zero-sequence short-circuit average reactance phase - PE	X_o [mΩ/m]	0.088	0.084	0.084	0.053	0.044	0.032	0.022	0.017	0.018	0.016
Zero-sequence short-circuit average impedance phase - PE	Z_o [mΩ/m]	0.180	0.178	0.172	0.157	0.129	0.119	0.088	0.079	0.074	0.042
Voltage drop with distribuited load ΔV [V/(m*A)]10^{-6}	cosφ = 0,70	75.6	72.1	56.5	47.0	34.7	27.9	23.0	17.2	14.6	11.5
	cosφ = 0,75	79.0	75.7	59.0	49.0	36.0	28.9	24.1	17.9	15.1	11.9
	cosφ = 0,80	82.1	79.2	61.3	50.9	37.1	29.9	25.1	18.5	15.6	12.2
	cosφ = 0,85	85.1	82.6	63.5	52.7	38.1	30.7	26.1	19.1	16.0	12.5
	cosφ = 0,90	87.7	85.6	65.5	54.2	38.8	31.3	27.0	19.6	16.3	12.7
	cosφ = 0,95	89.6	88.2	66.9	55.3	39.2	31.7	27.8	19.9	16.4	12.8
	cosφ = 1,00	87.7	88.0	65.6	53.9	37.3	30.2	27.5	19.3	15.6	12.0
Weight (PE 1)	p [kg/m]	14.5	14.5	15.8	16.9	22.0	25.1	32.6	40.2	45.8	79.7
Weight (PE 2)	p [kg/m]	17.8	17.8	19.1	20.2	27.1	31.6	41.3	50.5	57.1	96.7
Weight (PE 3)	p [kg/m]	15.5	15.5	16.9	18.0	23.6	27.0	35.4	43.6	49.5	85.2
Fire load	[kWh/m]	3.4	4.1	4.1	4.5	6.4	7.9	12.0	14.3	15.8	14.8
Degree of protection	IP	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***
Insulation material thermal resistance class		B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*
Losses for the Joule effect at nominal current	P [W/m]	121	195	227	292	330	418	596	683	863	1042
Ambient temperature min/ MAX (daily average)**	[°C]	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**

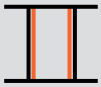
*Class F available under request
**From 35°C it will be necessary to derate the busbar and for ambient temperatures under -5°C contact the tecnical support.

***IP 65 available under request

The data on this page refer to the 50 Hz frequency. For 60 Hz, please contact Legrand.



PE 1
Standard version



PE 2
Extra earth - COPPER

PE 3
Extra earth - ALUMINUM
XCP Al 3L+N+50%PE
(available on request)

Xtra Compact (XCP-HP)

technical data

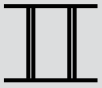
XCP-HP CU (4 Conductors)

3P+N+PE		SINGLE BAR						DOUBLE BAR			TRIPLE BAR
Rated current	**In [A]**	**800**	**1000**	**1250**	**1600**	**2000**	**2500**	**3200**	**4000**	**5000**	**6300**
Overall dimension of the busbars	L x H [mm]	125 x 130	125 x 130	125 x 130	125 x 170	125 x 170	125 x 220	125 x 380	125 x 440	125 x 480	125 x 680
Rated operational voltage	Ue [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated insulation voltage	Ui [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Frequency	f [Hz]	50	50	50	50	50	50	50	50	50	50
Rated short-time current (1 s)	I_{CW} [kA]$_{rms}$	36	50	70	70	85	120	120	150	150	150
Peak current	I_{pk} [kA]	76	105	154	154	187	264	264	330	330	330
Allowable specific energy for three-phase fault	I^2t [MA^{2}s]	1296	2500	4900	4900	7225	14400	14400	22500	22500	22500
Rated short-time current of the neutral bar (1 s)	I_{CW} [kA]$_{rms}$	36	50	70	70	85	120	120	150	150	150
Peak current of the neutral bar	Ipk [kA]	70	98	143	143	174	246	246	307	307	307
Rated short-time current of the protective circuit (1 s)	I_{CW} [kA]$_{rms}$	22	30	42	42	51	72	72	90	90	90
Peak current of the protective circuit	I_{pk} [kA]	45	63	88	88	112	158	158	198	198	198
Phase resistance at 20°C	R_{20} [mΩ/m]	0.077	0.045	0.038	0.034	0.018	0.015	0.013	0.009	0.006	0.006
Phase reactance (50hz)	X [mΩ/m]	0.023	0.017	0.017	0.015	0.014	0.011	0.007	0.006	0.006	0.004
Phase impedance	Z [mΩ/m]	0.080	0.048	0.042	0.037	0.023	0.018	0.015	0.011	0.009	0.007
Phase resistance at thermal conditions	R [mΩ/m]	0.100	0.055	0.048	0.044	0.024	0.019	0.017	0.012	0.009	0.008
Phase impedance at thermal conditions	Z [mΩ/m]	0.103	0.058	0.051	0.047	0.028	0.022	0.019	0.014	0.011	0.009
Neutral resistance	R_{20} [mΩ/m]	0.077	0.045	0.038	0.034	0.018	0.015	0.013	0.009	0.006	0.006
Resistance of the protective bar (PE 1)	R_{PE} [mΩ/m]	0.132	0.132	0.132	0.119	0.119	0.106	0.078	0.072	0.068	0.037
Resistance of the protective bar (PE 2)	R_{PE} [mΩ/m]	0.049	0.049	0.049	0.038	0.038	0.025	0.019	0.016	0.014	0.011
Resistance of the protective bar (PE 3)	R_{PE} [mΩ/m]	0.084	0.084	0.084	0.064	0.064	0.025	0.032	0.027	0.025	0.018
Reactance of the protective bar	X_{PE} [mΩ/m]	0.054	0.054	0.054	0.044	0.044	0.032	0.022	0.017	0.016	0.014
Resistance of the fault loop (PE 1)	R_o [mΩ/m]	0.209	0.176	0.170	0.153	0.137	0.121	0.091	0.081	0.074	0.043
Resistance of the fault loop (PE 2)	R_o [mΩ/m]	0.126	0.094	0.087	0.072	0.056	0.040	0.032	0.025	0.021	0.016
Resistance of the fault loop (PE 3)	R_o [mΩ/m]	0.16	0.13	0.12	0.10	0.08	0.04	0.05	0.04	0.03	0.02
Reactance of the fault loop (50hz)	X_o [mΩ/m]	0.077	0.071	0.071	0.059	0.058	0.043	0.029	0.023	0.022	0.018
Impedance of the fault loop (PE 1)	Z_o [mΩ/m]	0.222	0.190	0.184	0.164	0.149	0.129	0.096	0.084	0.078	0.046
Impedance of the fault loop (PE 2)	Z_o [mΩ/m]	0.148	0.118	0.113	0.093	0.081	0.059	0.043	0.034	0.030	0.024
Impedance of the fault loop (PE 3)	Z_o [mΩ/m]	0.179	0.147	0.141	0.114	0.101	0.058	0.054	0.043	0.038	0.030
Zero-sequence short-circuit average resistance phase - N	R_o [mΩ/m]	0.103	0.060	0.050	0.045	0.025	0.020	0.018	0.012	0.009	0.008
Zero-sequence short-circuit average reactance phase - N	X_o [mΩ/m]	0.031	0.023	0.023	0.020	0.019	0.015	0.009	0.008	0.008	0.005
Zero-sequence short-circuit average impedance phase - N	Z_o [mΩ/m]	0.107	0.064	0.055	0.050	0.031	0.025	0.020	0.015	0.012	0.009
Zero-sequence short-circuit average resistance phase - PE	R_o [mΩ/m]	0.157	0.147	0.144	0.130	0.125	0.111	0.083	0.075	0.070	0.039
Zero-sequence short-circuit average reactance phase - PE	X_o [mΩ/m]	0.062	0.060	0.060	0.049	0.049	0.036	0.024	0.019	0.018	0.015
Zero-sequence short-circuit average impedance phase - PE	Z_o [mΩ/m]	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Voltage drop with distribuited load ΔV [V/(m*A)]10^{-6}	cosφ = 0,70	74.9	43.9	39.4	36.1	23.3	18.5	14.8	11.1	9.0	7.1
	cosφ = 0,75	78.2	45.5	40.7	37.3	23.7	18.8	15.2	11.4	9.1	7.2
	cosφ = 0,80	81.3	47.0	41.9	38.4	24.0	19.0	15.6	11.6	9.1	7.3
	cosφ = 0,85	84.1	48.3	42.9	39.4	24.1	19.2	15.9	11.8	9.1	7.4
	cosφ = 0,90	86.7	49.3	43.6	40.1	24.1	19.1	16.1	11.8	9.0	7.4
	cosφ = 0,95	88.5	49.9	43.9	40.4	23.6	18.8	16.1	11.7	8.7	7.3
	cosφ = 1,00	86.7	47.7	41.3	38.3	20.9	16.6	14.9	10.6	7.5	6.6
Weight (PE 1)	p [kg/m]	21.2	26.9	29.6	33.5	50.4	62.2	74.2	97.9	130.3	173.6
Weight (PE 2)	p [kg/m]	24.5	30.2	32.9	37.8	54.8	68.7	83.0	108.2	141.6	189.1
Weight (PE 3)	p [kg/m]	22.3	28.0	30.7	34.9	51.8	65.9	77.1	101.3	133.9	178.7
Fire load	[kWh/m]	4.5	5.5	5.5	8	8.2	10.5	16	19	21	22
Degree of protection	IP	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***
Insulation material thermal resistance class		B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*
Losses for the Joule effect at nominal current	P [W/m]	192	165	224	339	289	360	529	588	648	901
Ambient temperature min/ MAX (daily average)**	[°C]	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**

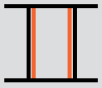
*Class F available under request
**From 35°C it will be necessary to derate the busbar and for ambient temperatures under -5°C contact the tecnical support.

***IP 65 available under request

The data on this page refer to the 50 Hz frequency. For 60 Hz, please contact Legrand.



PE 1
Standard version



PE 2
Extra earth - COPPER XCP Cu 3L+N+50%PE (tinned copper conductors available on request)

PE 3
Extra earth - ALUMINUM

Xtra Compact (XCP-HP)

technical data (continued)

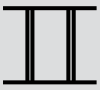
XCP-HP CU (5 Conductors - clean earth)

3P+N+PE+FE		SINGLE BAR						DOUBLE BAR			TRIPLE BAR
Rated current	**In [A]**	**800**	**1000**	**1250**	**1600**	**2000**	**2500**	**3200**	**4000**	**5000**	**6300**
Overall dimension of the busbars	L x H [mm]	125 x 130	125 x 130	125 x 130	125 x 170	125 x 170	125 x 220	125 x 380	125 x 440	125 x 480	125 x 680
Rated operational voltage	Ue [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated insulation voltage	Ui [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Frequency	f [Hz]	50	50	50	50	50	50	50	50	50	50
Rated short-time current (1 s)	I_{CW} [kA]$_{rms}$	36	50	70	70	85	120	120	150	150	150
Peak current	I_{pk} [kA]	76	105	154	154	187	264	264	330	330	330
Allowable specific energy for three-phase fault	I^2t [MA^{2}s]	1296	2500	4900	4900	7225	14400	14400	22500	22500	22500
Rated short-time current of the neutral bar (1 s)	I_{CW} [kA]$_{rms}$	36	50	70	70	85	120	120	150	150	150
Peak current of the neutral bar	I_{pk} [kA]	70	98	143	143	174	246	246	307	307	307
Rated short-time current of the protective circuit (1 s)	I_{CW} [kA]$_{rms}$	22	30	42	42	51	72	72	90	90	90
Peak current of the protective circuit	I_{pk} [kA]	45	63	88	88	112	158	158	198	198	198
Phase resistance at 20°C	R_{20} [mΩ/m]	0.077	0.045	0.038	0.034	0.018	0.015	0.013	0.009	0.006	0.006
Phase reactance (50hz)	X [mΩ/m]	0.023	0.017	0.017	0.015	0.014	0.011	0.007	0.006	0.006	0.004
Phase impedance	Z [mΩ/m]	0.080	0.048	0.042	0.037	0.023	0.018	0.015	0.011	0.009	0.007
Phase resistance at thermal conditions	R [mΩ/m]	0.100	0.055	0.048	0.044	0.024	0.019	0.017	0.012	0.009	0.008
Phase impedance at thermal conditions	Z [mΩ/m]	0.103	0.058	0.051	0.047	0.028	0.022	0.019	0.014	0.011	0.009
Neutral resistance	R_{20} [mΩ/m]	0.077	0.045	0.038	0.034	0.018	0.015	0.013	0.009	0.006	0.006
Functional Earth resistance (FE)	R_{20} [mΩ/m]	0.077	0.045	0.038	0.034	0.018	0.015	0.013	0.009	0.006	0.006
Functional Earth reactance (FE)	X [mΩ/m]	0.023	0.017	0.017	0.015	0.014	0.011	0.007	0.006	0.006	0.004
Resistance of the protective bar (PE 1)	R_{PE} [mΩ/m]	0.132	0.132	0.132	0.119	0.122	0.108	0.078	0.072	0.068	0.037
Resistance of the protective bar (PE 2)	R_{PE} [mΩ/m]	0.049	0.049	0.049	0.038	0.038	0.025	0.019	0.016	0.014	0.011
Resistance of the protective bar (PE 3)	R_{PE} [mΩ/m]	0.084	0.084	0.084	0.064	0.064	0.025	0.032	0.027	0.025	0.021
Reactance of the protective bar	X_{PE} [mΩ/m]	0.054	0.054	0.054	0.044	0.044	0.032	0.022	0.017	0.016	0.014
Resistance of the fault loop (PE 1)	R_o [mΩ/m]	0.209	0.176	0.170	0.153	0.140	0.123	0.091	0.081	0.075	0.043
Resistance of the fault loop (PE 2)	R_o [mΩ/m]	0.126	0.094	0.087	0.072	0.056	0.040	0.032	0.025	0.021	0.016
Resistance of the fault loop (PE 3)	R_o [mΩ/m]	0.16	0.13	0.12	0.10	0.08	0.04	0.05	0.04	0.03	0.03
Reactance of the fault loop (50hz)	X_o [mΩ/m]	0.077	0.071	0.071	0.059	0.058	0.043	0.029	0.023	0.022	0.018
Impedance of the fault loop (PE 1)	Z_o [mΩ/m]	0.222	0.190	0.184	0.164	0.152	0.130	0.096	0.084	0.078	0.047
Impedance of the fault loop (PE 2)	Z_o [mΩ/m]	0.148	0.118	0.113	0.093	0.081	0.059	0.043	0.034	0.030	0.024
Impedance of the fault loop (PE 3)	Z_o [mΩ/m]	0.179	0.147	0.141	0.114	0.101	0.058	0.054	0.043	0.038	0.032
Zero-sequence short-circuit average resistance phase - N	R_o [mΩ/m]	0.103	0.060	0.050	0.045	0.025	0.020	0.018	0.012	0.009	0.008
Zero-sequence short-circuit average reactance phase - N	X_o [mΩ/m]	0.031	0.023	0.023	0.020	0.019	0.015	0.009	0.008	0.008	0.005
Zero-sequence short-circuit average impedance phase - N	Z_o [mΩ/m]	0.107	0.064	0.055	0.050	0.031	0.025	0.020	0.015	0.012	0.009
Zero-sequence short-circuit average resistance phase - PE	R_o [mΩ/m]	0.157	0.147	0.144	0.130	0.128	0.113	0.083	0.075	0.070	0.039
Zero-sequence short-circuit average reactance phase - PE	X_o [mΩ/m]	0.062	0.060	0.060	0.049	0.049	0.036	0.024	0.019	0.018	0.015
Zero-sequence short-circuit average impedance phase - PE	Z_o [mΩ/m]	0.169	0.158	0.156	0.139	0.137	0.118	0.086	0.077	0.073	0.042
Voltage drop with distribuited load ΔV [V/(m*A)]10^{-6}	cosφ = 0,70	74.9	43.9	39.4	36.1	23.3	18.5	14.8	11.1	9.0	7.1
	cosφ = 0,75	78.2	45.5	40.7	37.3	23.7	18.8	15.2	11.4	9.1	7.2
	cosφ = 0,80	81.3	47.0	41.9	38.4	24.0	19.0	15.6	11.6	9.1	7.3
	cosφ = 0,85	84.1	48.3	42.9	39.4	24.1	19.2	15.9	11.8	9.1	7.4
	cosφ = 0,90	86.7	49.3	43.6	40.1	24.1	19.1	16.1	11.8	9.0	7.4
	cosφ = 0,95	88.5	49.9	43.9	40.4	23.6	18.8	16.1	11.7	8.7	7.3
	cosφ = 1,00	86.7	47.7	41.3	38.3	20.9	16.6	14.9	10.6	7.5	6.6
Weight (PE 1)	p [kg/m]	23.8	31.1	34.5	39.0	59.9	74.3	88.2	117.3	157.4	200.3
Weight (PE 2)	p [kg/m]	27.2	34.5	37.8	43.4	64.3	80.8	96.9	127.6	168.8	215.7
Weight (PE 3)	p [kg/m]	24.9	32.2	35.5	40.4	61.3	78.0	91.1	120.6	161.1	204.5
Fire load	[kWh/m]	5.625	6.875	6.875	10	10.25	13.125	20	23.75	26.25	27.25
Degree of protection	IP	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***
Insulation material thermal resistance class		B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*
Losses for the Joule effect at nominal current	P [W/m]	192	165	224	339	289	360	529	588	648	901
Ambient temperature min/ MAX (daily average)**	[°C]	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**

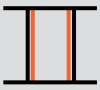
*Class F available under request
**From 35°C it will be necessary to derate the busbar and for ambient temperatures under -5°C contact the tecnical support.

***IP 65 available under request

The data on this page refer to the 50 Hz frequency. For 60 Hz, please contact Legrand.



PE 1
Standard version



PE 2
Extra earth - COPPER XCP Cu 3L+N+50%PE (tinned copper conductors available on request)

PE 3
Extra earth - ALUMINUM

Xtra Compact (XCP-HP)

technical data

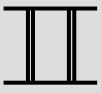
XCP-HP CU (5 Conductors - double neutral)

3P+2N+PE		SINGLE BAR						DOUBLE BAR			TRIPLE BAR
Rated current	**In [A]**	**800**	**1000**	**1250**	**1600**	**2000**	**2500**	**3200**	**4000**	**5000**	**6300**
Overall dimension of the busbars	L x H [mm]	125 x 130	125 x 130	125 x 130	125 x 170	125 x 170	125 x 220	125 x 380	125 x 440	125 x 480	125 x 680
Rated operational voltage	Ue [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated insulation voltage	Ui [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Frequency	f [Hz]	50	50	50	50	50	50	50	50	50	50
Rated short-time current (1 s)	I_{CW} [kA]$_{rms}$	36	50	70	70	85	120	120	150	150	150
Peak current	I_{pk} [kA]	76	105	154	154	187	264	264	330	330	330
Allowable specific energy for three-phase fault	I^2t [MA^{2}s]	1296	2500	4900	4900	7225	14400	14400	22500	22500	22500
Rated short-time current of the neutral bar (1 s)	I_{CW} [kA]$_{rms}$	36	50	70	70	85	120	120	150	150	150
Peak current of the neutral bar	I_{pk} [kA]	70	98	143	143	174	246	246	307	307	307
Rated short-time current of the protective circuit (1 s)	I_{CW} [kA]$_{rms}$	22	30	42	42	51	72	72	90	90	90
Peak current of the protective circuit	I_{pk} [kA]	45	63	88	88	112	158	158	198	198	198
Phase resistance at 20°C	R_{20} [mΩ/m]	0.077	0.045	0.038	0.034	0.018	0.015	0.013	0.009	0.006	0.006
Phase reactance (50hz)	X [mΩ/m]	0.023	0.017	0.017	0.015	0.014	0.011	0.007	0.006	0.006	0.004
Phase impedance	Z [mΩ/m]	0.080	0.048	0.042	0.037	0.023	0.018	0.015	0.011	0.009	0.007
Phase resistance at thermal conditions	R [mΩ/m]	0.100	0.055	0.048	0.044	0.024	0.019	0.017	0.012	0.009	0.008
Phase impedance at thermal conditions	Z [mΩ/m]	0.103	0.058	0.051	0.047	0.028	0.022	0.019	0.014	0.011	0.009
Neutral resistance	R_{20} [mΩ/m]	0.038	0.022	0.019	0.017	0.009	0.007	0.007	0.005	0.003	0.003
Resistance of the protective bar (PE 1)	R_{PE} [mΩ/m]	0.132	0.132	0.132	0.119	0.122	0.108	0.078	0.072	0.068	0.037
Resistance of the protective bar (PE 2)	R_{PE} [mΩ/m]	0.049	0.049	0.049	0.038	0.038	0.025	0.019	0.016	0.014	0.011
Resistance of the protective bar (PE 3)	R_{PE} [mΩ/m]	0.084	0.084	0.084	0.064	0.064	0.025	0.032	0.027	0.025	0.021
Reactance of the protective bar	X_{PE} [mΩ/m]	0.054	0.054	0.054	0.044	0.044	0.032	0.022	0.017	0.016	0.014
Resistance of the fault loop (PE 1)	R_o [mΩ/m]	0.209	0.176	0.170	0.153	0.140	0.123	0.091	0.081	0.075	0.043
Resistance of the fault loop (PE 2)	R_o [mΩ/m]	0.126	0.094	0.087	0.072	0.056	0.040	0.032	0.025	0.021	0.016
Resistance of the fault loop (PE 3)	R_o [mΩ/m]	0.16	0.13	0.12	0.10	0.08	0.04	0.05	0.04	0.03	0.03
Reactance of the fault loop (50hz)	X_o [mΩ/m]	0.077	0.071	0.071	0.059	0.058	0.043	0.029	0.023	0.022	0.018
Impedance of the fault loop (PE 1)	Z_o [mΩ/m]	0.222	0.190	0.184	0.164	0.152	0.130	0.096	0.084	0.078	0.047
Impedance of the fault loop (PE 2)	Z_o [mΩ/m]	0.148	0.118	0.113	0.093	0.081	0.059	0.043	0.034	0.030	0.024
Impedance of the fault loop (PE 3)	Z_o [mΩ/m]	0.179	0.147	0.141	0.114	0.101	0.058	0.054	0.043	0.038	0.032
Zero-sequence short-circuit average resistance phase - N	R_o [mΩ/m]	0.064	0.037	0.032	0.028	0.015	0.012	0.011	0.008	0.005	0.005
Zero-sequence short-circuit average reactance phase - N	X_o [mΩ/m]	0.019	0.014	0.014	0.013	0.012	0.009	0.006	0.005	0.005	0.003
Zero-sequence short-circuit average impedance phase - N	Z_o [mΩ/m]	0.067	0.040	0.035	0.031	0.019	0.015	0.012	0.009	0.007	0.006
Zero-sequence short-circuit average resistance phase - PE	R_o [mΩ/m]	0.157	0.147	0.144	0.130	0.125	0.111	0.083	0.075	0.070	0.039
Zero-sequence short-circuit average reactance phase - PE	X_o [mΩ/m]	0.062	0.060	0.060	0.049	0.049	0.036	0.024	0.019	0.018	0.015
Zero-sequence short-circuit average impedance phase - PE	Z_o [mΩ/m]	0.169	0.158	0.156	0.139	0.134	0.117	0.086	0.077	0.072	0.042
Voltage drop with distribuited load ΔV [V/(m*A)]10^{-6}	cosφ = 0,70	74.9	43.9	39.4	36.1	23.3	18.5	14.8	11.1	9.0	7.1
	cosφ = 0,75	78.2	45.5	40.7	37.3	23.7	18.8	15.2	11.4	9.1	7.2
	cosφ = 0,80	81.3	47.0	41.9	38.4	24.0	19.0	15.6	11.6	9.1	7.3
	cosφ = 0,85	84.1	48.3	42.9	39.4	24.1	19.2	15.9	11.8	9.1	7.4
	cosφ = 0,90	86.7	49.3	43.6	40.1	24.1	19.1	16.1	11.8	9.0	7.4
	cosφ = 0,95	88.5	49.9	43.9	40.4	23.6	18.8	16.1	11.7	8.7	7.3
	cosφ = 1,00	86.7	47.7	41.3	38.3	20.9	16.6	14.9	10.6	7.5	6.6
Weight (PE 1)	p [kg/m]	23.8	31.1	34.5	39.0	59.9	74.3	88.2	117.3	157.4	200.3
Weight (PE 2)	p [kg/m]	27.2	34.5	37.8	43.4	64.3	80.8	96.9	127.6	168.8	215.7
Weight (PE 3)	p [kg/m]	24.9	32.2	35.5	40.4	61.3	78.0	91.1	120.6	161.1	204.5
Fire load	[kWh/m]	5.625	6.875	6.875	10	10.25	13.125	20	23.75	26.25	27.25
Degree of protection	IP	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***
Insulation material thermal resistance class		B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*
Losses for the Joule effect at nominal current	P [W/m]	192	165	224	339	289	360	529	588	648	901
Ambient temperature min/ MAX (daily average)**	[°C]	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**

*Class F available under request
**From 35°C it will be necessary to derate the busbar and for ambient temperatures under -5°C contact the tecnical support.

***IP 65 available under request

The data on this page refer to the 50 Hz frequency. For 60 Hz, please contact Legrand.



PE 1
Standard version

PE 2
Extra earth - COPPER XCP Cu 3L+N+50%PE (tinned copper conductors available on request)

PE 3
Extra earth - ALUMINUM

Xtra Compact (XCP-HP)

technical data

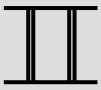
XCP-HP CU (3 Conductors)

3P+PE		SINGLE BAR						DOUBLE BAR			TRIPLE BAR
Rated current	**In [A]**	**800**	**1000**	**1250**	**1600**	**2000**	**2500**	**3200**	**4000**	**5000**	**6300**
Overall dimension of the busbars	L x H [mm]	125 x 130	125 x 130	125 x 130	125 x 170	125 x 170	125 x 220	125 x 380	125 x 440	125 x 480	125 x 680
Rated operational voltage	Ue [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated insulation voltage	Ui [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Frequency	f [Hz]	50	50	50	50	50	50	50	50	50	50
Rated short-time current (1 s)	I_{CW} [kA]$_{rms}$	36	50	70	70	85	120	120	150	150	150
Peak current	I_{pk} [kA]	76	105	154	154	187	264	264	330	330	330
Allowable specific energy for three-phase fault	I^2t [MA^{2}s]	1296	2500	4900	4900	7225	14400	14400	22500	22500	22500
Rated short-time current of the protective circuit (1 s)	I_{CW} [kA]$_{rms}$	22	30	42	42	51	72	72	90	90	90
Peak current of the protective circuit	I_{pk} [kA]	45	63	88	88	112	158	158	198	198	198
Phase resistance at 20°C	R_{20} [mΩ/m]	0.077	0.045	0.038	0.034	0.018	0.015	0.013	0.009	0.006	0.006
Phase reactance (50hz)	X [mΩ/m]	0.023	0.017	0.017	0.015	0.014	0.011	0.007	0.006	0.006	0.004
Phase impedance	Z [mΩ/m]	0.080	0.048	0.042	0.037	0.023	0.018	0.015	0.011	0.009	0.007
Phase resistance at thermal conditions	R [mΩ/m]	0.100	0.055	0.048	0.044	0.024	0.019	0.017	0.012	0.009	0.008
Phase impedance at thermal conditions	Z [mΩ/m]	0.103	0.058	0.051	0.047	0.028	0.022	0.019	0.014	0.011	0.009
Resistance of the protective bar (PE 1)	R_{PE} [mΩ/m]	0.130	0.130	0.130	0.118	0.110	0.089	0.078	0.071	0.067	0.040
Resistance of the protective bar (PE 2)	R_{PE} [mΩ/m]	0.049	0.049	0.049	0.038	0.038	0.025	0.019	0.016	0.014	0.011
Resistance of the protective bar (PE 3)	R_{PE} [mΩ/m]	0.084	0.084	0.084	0.064	0.064	0.025	0.032	0.027	0.025	0.021
Reactance of the protective bar	X_{PE} [mΩ/m]	0.054	0.054	0.054	0.044	0.044	0.032	0.022	0.017	0.016	0.014
Resistance of the fault loop (PE 1)	R_o [mΩ/m]	0.206	0.174	0.167	0.152	0.128	0.104	0.091	0.080	0.074	0.045
Resistance of the fault loop (PE 2)	R_o [mΩ/m]	0.126	0.094	0.087	0.072	0.056	0.040	0.032	0.025	0.021	0.016
Resistance of the fault loop (PE 3)	R_o [mΩ/m]	0.16	0.13	0.12	0.10	0.08	0.04	0.05	0.04	0.03	0.03
Reactance of the fault loop (50hz)	X_o [mΩ/m]	0.077	0.071	0.071	0.059	0.058	0.043	0.029	0.023	0.022	0.018
Impedance of the fault loop (PE 1)	Z_o [mΩ/m]	0.220	0.188	0.182	0.163	0.141	0.113	0.095	0.083	0.077	0.049
Impedance of the fault loop (PE 2)	Z_o [mΩ/m]	0.148	0.118	0.113	0.093	0.081	0.059	0.043	0.034	0.030	0.024
Impedance of the fault loop (PE 3)	Z_o [mΩ/m]	0.179	0.147	0.141	0.114	0.101	0.058	0.054	0.043	0.038	0.032
Zero-sequence short-circuit average resistance phase - PE	R_o [mΩ/m]	0.157	0.147	0.144	0.130	0.125	0.111	0.083	0.075	0.070	0.039
Zero-sequence short-circuit average reactance phase - PE	X_o [mΩ/m]	0.062	0.060	0.060	0.049	0.049	0.036	0.024	0.019	0.018	0.015
Zero-sequence short-circuit average impedance phase - PE	Z_o [mΩ/m]	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Voltage drop with distribuited load ΔV [V/(m*A)]10^{-6}	cosφ = 0,70	74.9	43.9	39.4	36.1	23.3	18.5	14.8	11.1	9.0	7.1
	cosφ = 0,75	78.2	45.5	40.7	37.3	23.7	18.8	15.2	11.4	9.1	7.2
	cosφ = 0,80	81.3	47.0	41.9	38.4	24.0	19.0	15.6	11.6	9.1	7.3
	cosφ = 0,85	84.1	48.3	42.9	39.4	24.1	19.2	15.9	11.8	9.1	7.4
	cosφ= 0,90	86.7	49.3	43.6	40.1	24.1	19.1	16.1	11.8	9.0	7.4
	cosφ = 0,95	88.5	49.9	43.9	40.4	23.6	18.8	16.1	11.7	8.7	7.3
	cosφ = 1,00	86.7	47.7	41.3	38.3	20.9	16.6	14.9	10.6	7.5	6.6
Weight (PE 1)	p [kg/m]	18.7	22.9	24.9	28.0	41.6	52.2	60.3	78.6	103.2	136.2
Weight (PE 2)	p [kg/m]	22.0	26.2	28.2	32.4	45.9	58.6	69.0	88.9	114.5	151.6
Weight (PE 3)	p [kg/m]	19.7	23.9	25.9	29.5	43.0	55.8	63.1	82.0	106.9	140.4
Fire load	[kWh/m]	3.375	4.125	4.125	6	6.15	7.875	12	14.25	15.75	16.75
Degree of protection	IP	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***
Insulation material thermal resistance class		B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*
Losses for the Joule effect at nominal current	P [W/m]	192	165	224	339	289	360	529	588	648	901
Ambient temperature min/ MAX (daily average)**	[°C]	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**	-5/70**

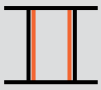
*Class F available under request
**From 35°C it will be necessary to derate the busbar and for ambient temperatures under -5°C contact the tecnical support.

***IP 65 available under request

The data on this page refer to the 50 Hz frequency. For 60 Hz, please contact Legrand.

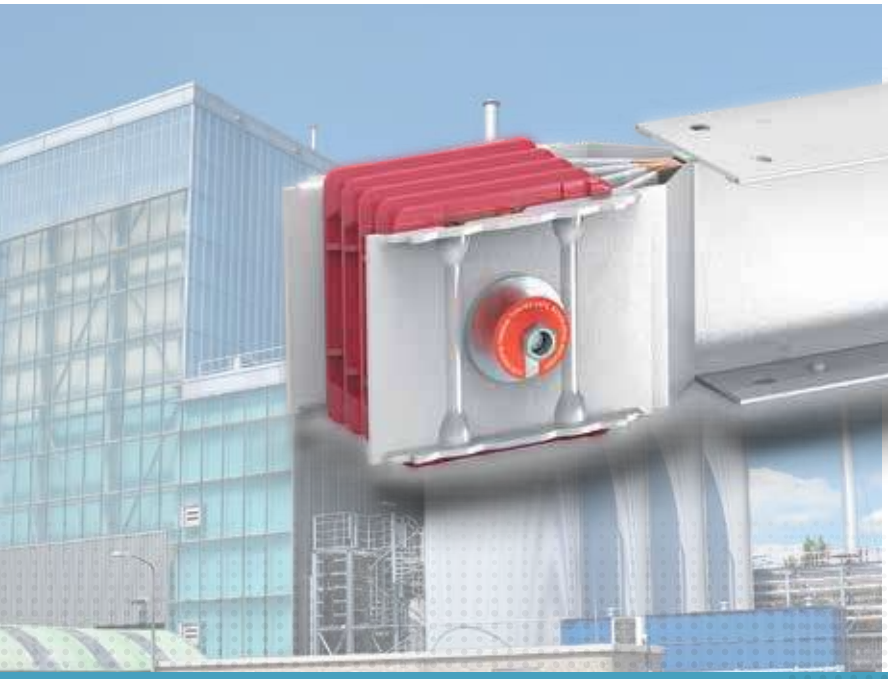


PE 1
Standard version



PE 2
Extra earth - COPPER XCP Cu 3L+N+50%PE
(tinned copper conductors available on request)

PE 3
Extra earth - ALUMINUM



XCP-S

The light and compact power solutions, optimised for standard applications

BUSBAR FROM 630 TO 6300 A

XCP-S is an extra compact and light busbar trunking system. It is the range used for transport and distribution of high power, and is also highly valued in rising mains. The applications include all industrial, commercial and service sector buildings (factories, banks, trade and business centres, hospitals, data centres, etc.)

Xtra Compact (XCP-S)

straight elements

64280100PF

XCP-S Line:
Reference standard: IEC 61439-6. Reference temperature: 35 °C.
Protection degree: IP55. Thickness of metal sheet: 1.5 mm.
N° of conductors: 3, 4 or 5. Painted: RAL 7035. Halogen Free.
The insulation between bars is ensured by a double sheet made with polyester film class F (155°C) thermal resistance. All plastic components have a V1 self-extinguishing degree (as per UL94); they are fire retardant and comply with the glow-wire test according to standards.

Item

Straight elements for transport

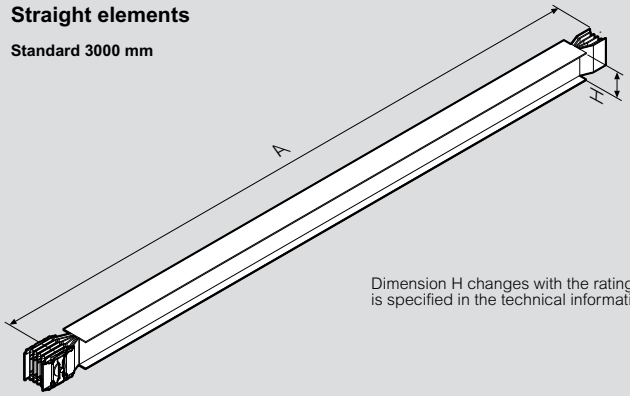
Al	Cu	In (A)	A (mm)
64280100PF	-	630	3000
64280101PF	67280100PF	800	
64280102PF	67280101PF	1000	
64280104PF	67280103PF	1250	
64280106PF	67280105PF	1600	
64280107PF	67280106PF	2000	
64390104PF	67390104PF	2500	
64390106PF	67390105PF	3200	
64390107PF	67390106PF	4000	
64390108PF	67390108PF	5000	
-	67390109PF	6300	
64280110PF	-	630	500-1000
64280111PF	67280110PF	800	
64280112PF	67280111PF	1000	
64280114PF	67280113PF	1250	
64280116PF	67280115PF	1600	
64280117PF	67280116PF	2000	
64390114PF	67390114PF	2500	
64390116PF	67390115PF	3200	
64390117PF	67390116PF	4000	
64390118PF	67390118PF	5000	
-	67390119PF	6300	
64280170PF	-	630	1001-1500
64280171PF	67280170PF	800	
64280172PF	67280171PF	1000	
64280174PF	67280173PF	1250	
64280176PF	67280175PF	1600	
64280177PF	67280176PF	2000	
64390174PF	67390174PF	2500	
64390176PF	67390175PF	3200	
64390177PF	67390176PF	4000	
64390178PF	67390178PF	5000	
-	67390179PF	6300	
64280120PF	-	630	1501-2000
64280121PF	67280120PF	800	
64280122PF	67280121PF	1000	
64280124PF	67280123PF	1250	
64280126PF	67280125PF	1600	
64280127PF	67280126PF	2000	
64390124PF	67390124PF	2500	
64390126PF	67390125PF	3200	
64390127PF	67390126PF	4000	
64390128PF	67390128PF	5000	
-	67390129PF	6300	
64280180PF	-	630	2001-2500
64280181PF	67280180PF	800	
64280182PF	67280181PF	1000	
64280184PF	67280183PF	1250	
64280186PF	67280185PF	1600	
64280187PF	67280186PF	2000	
64390184PF	67390184PF	2500	
64390186PF	67390185PF	3200	
64390187PF	67390186PF	4000	
64390188PF	67390188PF	5000	
-	67390189PF	6300	

Single bar:	Double bar:	Triple bar:
630A-2000A (Al)	2500A-4000A (Al)	5000A (Al)
800A-2000A (Cu)	2500A-5000A (Cu)	6300A (Cu)

Dimensions

Straight elements

Standard 3000 mm

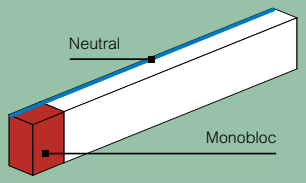


Dimension H changes with the ratings and is specified in the technical information

MIN AND MAX DIMENSIONS OF SINGLE AND DOUBLE BAR	
Aluminium (Al)	630A – 5000A
Copper (Cu)	800A – 6300A
(L) min/MAX [mm]	500/3000

Straight elements are available on reques only for transport of energy:
Al: 5000A
Cu: 6300A

Notes
The product versions in this catalogue will be simplified as shown opposite, highlighting the part with the monobloc installed in red and the neutral side in blue.
In this catalogue, the measurements shown refer to the element centre distance



The range is also available in different versions on request: (5 conductors with dedicated PE conductor, double neutral and more others...)

Item

Straight elements for transport

Al	Cu	In (A)	A (mm)
64280150PF	-	630	2501-2999
64280151PF	67280150PF	800	
64280152PF	67280151PF	1000	
64280154PF	67280153PF	1250	
64280156PF	67280155PF	1600	
64280157PF	67280156PF	2000	
64390154PF	67390154PF	2500	
64390156PF	67390155PF	3200	
64390157PF	67390156PF	4000	
64390158PF	67390158PF	5000	
-	67390159PF	6300	

Xtra Compact (XCP-S)

straight elements

64280130PF

Straight elements for distribution

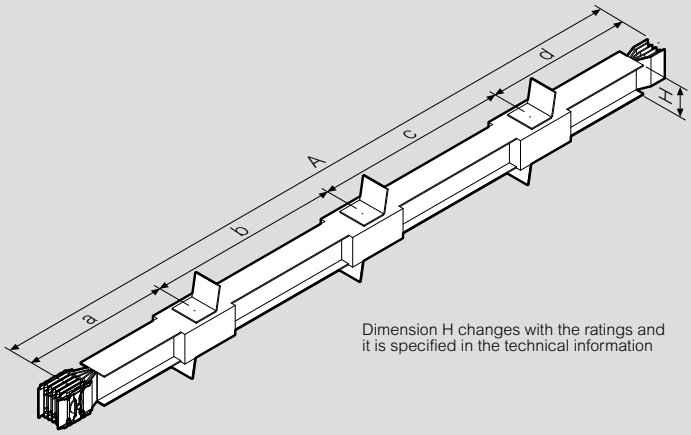
Item				
Al	Cu	In (A)	N° outlets	A (mm)
*64280130PF	-	630	3+3 **	3000
*64280131PF	*67280130PF	800		
64280132PF	*67280131PF	1000		
64280134PF	67280133PF	1250		
64280136PF	67280135PF	1600		
64280137PF	67280136PF	2000		
64390134PF	67390134PF	2500		
64390136PF	67390135PF	3200		
64390137PF	67390136PF	4000		
64390138PF	67390138PF	5000		
-	67390139PF	6300		
*64280970PF	-	630	1+1	1001-1500
*64280971PF	*67280970PF	800		
64280972PF	*67280971PF	1000		
64280974PF	67280973PF	1250		
64280976PF	67280975PF	1600		
64280977PF	67280976PF	2000		
64390974PF	67390974PF	2500		
64390976PF	67390975PF	3200		
64390977PF	67390976PF	4000		
64390978PF	67390978PF	5000		at request: outlets in special position 1+1 only combination
-	67390979PF	6300		
*64280920PF	-	630	2+2 **	1501-2000
*64280921PF	*67280920PF	800		
64280922PF	*67280921PF	1000		
64280924PF	67280923PF	1250		
64280926PF	67280925PF	1600		
64280927PF	67280926PF	2000		
64390924PF	67390924PF	2500		
64390926PF	67390925PF	3200		
64390927PF	67390926PF	4000		
64390928PF	67390928PF	5000		
-	67390929PF	6300		
*64280980PF	-	630	2+2 **	2001-2500
*64280981PF	*67280980PF	800		
64280982PF	*67280981PF	1000		
64280984PF	67280983PF	1250		
64280986PF	67280985PF	1600		
64280987PF	67280986PF	2000		
64390984PF	67390984PF	2500		
64390986PF	67390985PF	3200		
64390987PF	67390986PF	4000		
64390988PF	67390988PF	5000		
-	67390989PF	6300		
*64280950PF	-	630	3+3 **	2501-2999
*64280951PF	*67280950PF	800		
64280952PF	*67280951PF	1000		
64280954PF	67280953PF	1250		
64280956PF	67280955PF	1600		
64280957PF	67280956PF	2000		
64390954PF	67390954PF	2500		
64390956PF	67390955PF	3200		
64390957PF	67390956PF	4000		
64390958PF	67390958PF	5000		
-	67390959PF	6300		

Dimensions

Straight elements for distribution

- Straight elements for plug-in type tap-off boxes
- Standard 3000 mm
- Tap-off outlets on both sides

These straight elements enable the application of plug-in boxes on dedicated outlets
Available in lengths from 1 to 3 meters, these elements have respectively 1, 2 and 3 outlets at preset distances with centre distances of 850 mm on both sides.
(*) The exception to these are 630-800 A elements with aluminium conductors (Al) and 800-1000 A elements with copper conductors (Cu), where distributions are only available on the top side (in standard execution) for example “3+0”
On request, the length of the elements and the number and position of distribution outlets may be different from the standards measures.



Dimension H changes with the ratings and it is specified in the technical information

MIN AND MAX DIMENSIONS OF SINGLE AND DOUBLE BAR	
Aluminium (Al)	630A – 5000A
Copper (Cu)	800A – 6300A
(L) min/MAX [mm]	1001 ***/3000

(***) Lengths from 1001 mm to 1250 mm can only be installed with type 1 and 3 plug-in boxes.
From 1250 mm to 3000 mm it is possible to install all types of plug-in boxes.
Compatible boxes are listed in dedicated chapter. See page 96.

(**) on request it is possible to have other combinations of outlets:
length: 1501÷2000 - outlets: (1+1)
length: 2001÷2500 - outlets: (1+1)
length: 2501÷2999 - outlets: (1+1) and (2+2)
length: 3000 - outlets: (1+1) and (2+2)
Possibility to have outlets in special position

For a correct evaluation of the number of outlets, take into account the length of the element and the size of the boxes to be installed.

Xtra Compact (XCP-S)

straight elements

673IFB01

Fire barrier elements S120 EI120 (EN 1366-3)

When the busbar trunking system crosses fire resistant walls or ceilings, it must be fitted with appropriate fire barriers.
The fire barrier is 630 mm (Al) and 1000 mm (Cu) long and must always be positioned in the middle of the fire resistant wall or ceiling crossed by the busbar.
After crossing fire resistant walls or ceilings, any cavity must be sealed with material meeting current regulations for the required building fire resistance class.

Item			
Al	**Cu**	In (A)	Type
673IFB01	**-**	630	internal fire barrier
673IFB01	**673IFB01**	800	
*	**673IFB01**	1000	
*	*	1250 – 2000	
673IFB01	**673IFB01**	2500 – 4000	
*	**673IFB01**	5000	
-	*	6300	
672EFB01	**-**	630	external fire barrier
672EFB01	**672EFB51**	800 – 1000	
672EFB02	**672EFB51**	1250	
672EFB03	**672EFB52**	1600	
672EFB04	**672EFB53**	2000	
673EFB02	**673EFB51**	2500	
673EFB03	**673EFB52**	3200	
673EFB04	**673EFB53**	4000	
673EFB05	**673EFB54**	5000	
-	**673EFB55**	6300	

*There are no air gaps inside these busbar therefore there is no need to add internal fire barriers.

Fire resistance tested

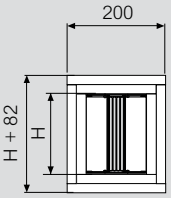
Single bar:
630A-2000A (Al)
800A-2000A (Cu)

Double bar:
2500A-4000A (Al)
2500A-5000A (Cu)

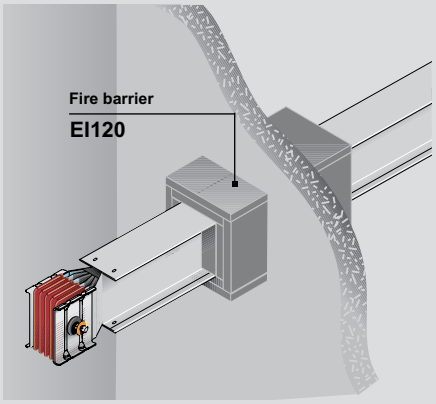
Triple bar:
5000A (Al)
6300A (Cu)

Dimensions

Fire barrier elements EI120 (EN 1366-3)



Fire barrier sizes
Dimension H changes with the rating; it is specified in the technical information



For some ratings it is necessary to have an internal fire barrier fitted at the factory following the guidelines on the table.
It is therefore necessary to indicate at the order stage which elements will cross fire resistant walls or ceilings

Figure 1 minimum straight dimensions

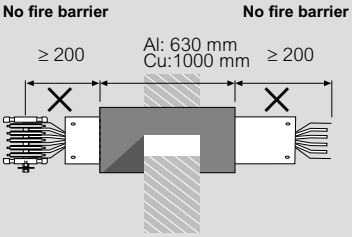
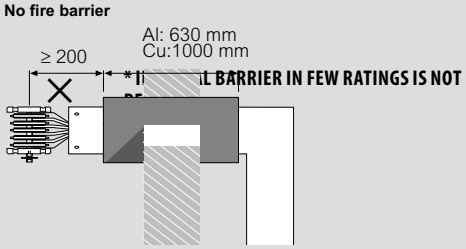


Figure 2 minimum dimensions in an elbow



USE OF INTERNAL OR EXTERNAL BARRIER					
Al			**Cu**		
In (A)	Internal	External	In (A)	Internal	External
630–800	√	√	800–1000	√	√
1000–2000	–	√	1250–2000	–	√
2500–4000	√	√	2500–5000	√	√
5000	–	√	6300	–	√

The external fire barrier can be used on any trunking component in compliance with the operating instructions specified in figures 1 and 2

To comply to the Certification of fire resistance it is necessary to install both the internal* and external fire barriers supplied by Legrand.

* Internal barriers on some ratings are not required

64280200PF

Item

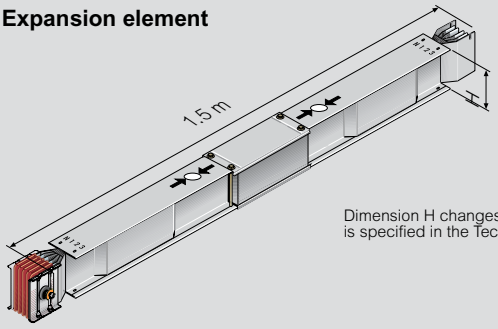
Expansion element

Due to being subjected to temperature changes, both the busbar and the building suffer thermal expansions.
The expansion element can absorb expansion and contraction of both the busbar trunking system section and the building, up to the maximum permitted length (± 50 mm approx.).
The expansion element must be fitted near the expansion joints of the building and in straight sections of the line (horizontal and/or vertical) longer than 40 m.
For straight line sections longer than 40 m, expansion elements must be fitted in a way that splits the path into equal sections not longer than 40 m.
XCP-S busbar trunking system elements are designed to compensate for thermal expansion if the straight sections of the installation are less than 40 m; in this case no expansion element is necessary.

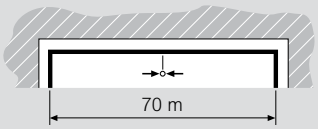
Al	Cu	In (A)	Length
64280200PF	**-**	630	
64280201PF	**67280200PF**	800	
64280202PF	**67280201PF**	1000	
64280204PF	**67280203PF**	1250	
64280206PF	**67280205PF**	1600	
64280207PF	**67280206PF**	2000	1.5 m
64390204PF	**67390204PF**	2500	
64390206PF	**67390205PF**	3200	
64390207PF	**67390206PF**	4000	
64390208PF	**67390208PF**	5000	
-	**67390209PF**	6300	

Dimensions

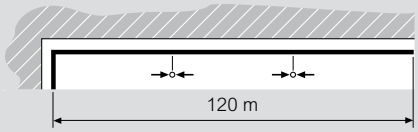
Expansion element



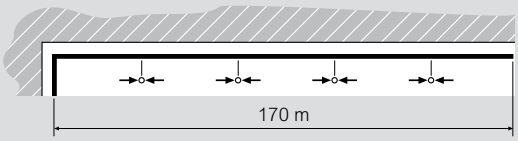
Dimension H changes with the ratings and is specified in the Technical information



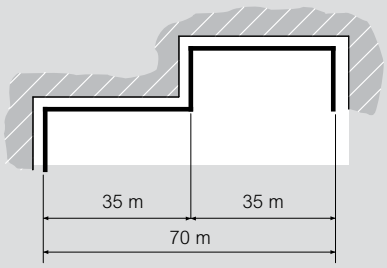
Example:
Straight section length 70 m = n°1 expansion element in the centre of the line



Example:
Straight section length 120 m = n°2 expansion elements, one every 40 m



Example:
Straight section length 170 m = no. 4 expansion elements, one every 34 m



Example:
Section length 70 m. When the section is not straight, no expansion element is necessary

Xtra Compact (XCP-S)

straight elements

64287100PF

64287120PF

64287140PF

Item			Phase balancing
Al	Cu	In (A)	
64287100PF	-	630	Straight elements with phase balancing are used to reduce and balance mutual phase reactance and impedance in case of long lines. In particular long sections (> 100 metres) it is recommended that two transposition elements are fitted (one at one third and one at two thirds of the path), to balance the system electric impedance: In this way, it will be possible to have along the installation path all the possible combinations, of reciprocal positions among phases, minimising load losses (Fig.1). If it's necessary to have the same phase sequence at the start and the end, use 3 phase balancing elements (fig.2).
64287101PF	67287100PF	800	
64287102PF	67287101PF	1000	
64287104PF	67287103PF	1250	
64287106PF	67287105PF	1600	
64287107PF	67287106PF	2000	
64397104PF	67397104PF	2500	
64397106PF	67397105PF	3200	
64397107PF	67397106PF	4000	
64397108PF	67397108PF	5000	
-	67397109PF	6300	

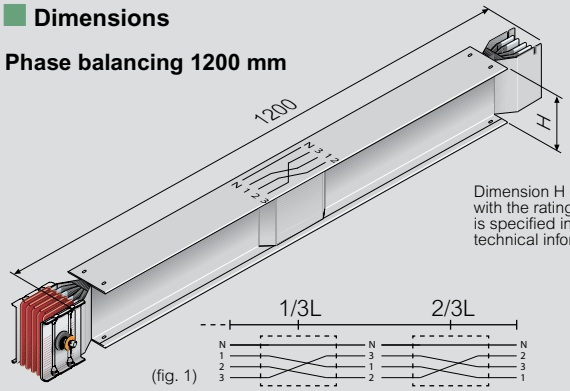
			Phase inversion
Al	Cu	In (A)	
64287120PF	-	630	The function of this element is to completely reverse the positions of the phases and the neutral. It is normally used in the connection between the transformer and the electric board, or in the connection between electric boards, when the starting sequence is different to the arrival sequence
64287121PF	67287120PF	800	
64287122PF	67287121PF	1000	
64287124PF	67287123PF	1250	
64287126PF	67287125PF	1600	
64287127PF	67287126PF	2000	
64397124PF	67397124PF	2500	
64397126PF	67397125PF	3200	
64397127PF	67397126PF	4000	
64397128PF	67397128PF	5000	
-	67397129PF	6300	

			Element with neutral rotation
Al	Cu	In (A)	
64287140PF	-	630	The straight element with neutral rotation is used to adapt the sequence of the busbar phases to the sequence of the connections required at the ends of the connections, should these be different. In the connection between electric boards, the neutral jump is normally used, as only the neutral position is normally identified
64287141PF	67287140PF	800	
64287142PF	67287141PF	1000	
64287144PF	67287143PF	1250	
64287146PF	67287145PF	1600	
64287147PF	67287146PF	2000	
64397144PF	67397144PF	2500	
64397146PF	67397145PF	3200	
64397147PF	67397146PF	4000	
64397148PF	67397148PF	5000	
-	67397149PF	6300	

Single bar:	Double bar:	Triple bar:
630A-2000A (Al)	2500A-4000A (Al)	5000A (Al)
800A-2000A (Cu)	2500A-5000A (Cu)	6300A (Cu)

Dimensions

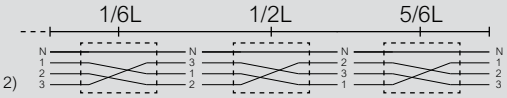
Phase balancing 1200 mm



Dimension H changes with the rating; it is specified in the technical information.

(fig. 1)

Electric diagram: 2 elements offer all the possible reciprocal positions among the phases along the line.



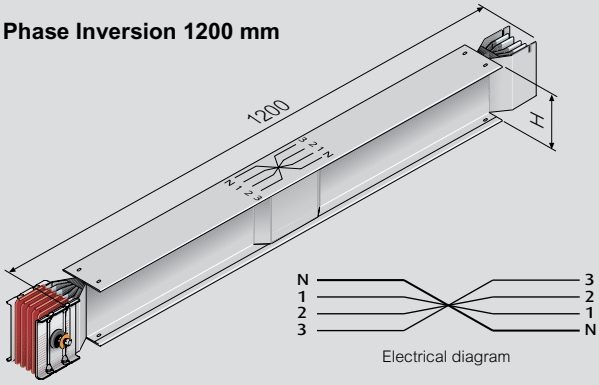
(fig. 2)

If it's necessary to have the same phase sequence at the start and the end, use 3 phase balancing elements.

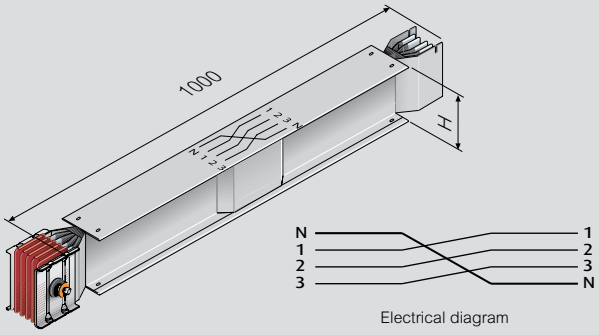
In particularly long carrying sections (L> 100 meters) it is recommended to insert 2 elements: (one placed at 1/3 and one placed at 2/3 of the trunking path) to balance the electric impedance of the system. "L" is the total length of the path.

For example, in a line exceeding 300 m it is recommended that one phase transposition is fitted at 100 m, and another one at 200 m.

Phase Inversion 1200 mm



Element with neutral rotation 1000 mm



When the position of neutral of the distribution board phases is different from that of the transformer, it is possible to use an element that allows a neutral rotation only.

⚠ **Warning:** Use **phase inversion and neutral rotation elements** ONLY for energy transport paths, and not for derivations (do not use it when the line includes straight elements with derivations, or when they are provided for tap-off boxes even if bolted on the junction).
The position of all the conductors, including the neutral, changes, and may cause serious problems on a connected load, if one is not fully aware that the phase sequence and the position of the neutral DO NOT comply with those indicated in the pre-printed labels.

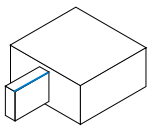
Xtra Compact (XCP-S)

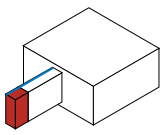
feed unit

64281106PF

The feed units are used at the end of the lines, when the busbar must be powered using cables.
Right-hand feed units do not come with a Monobloc but left-hand feed units come with a pre-fitted Monobloc.
They are available with non-standard execution, on request.
End feed units for single bar busbars are supplied with an aluminium blind back closing plate. For double bar busbar trunking systems the plates are 2.
Both versions are fitted with 2 extra side steel flanges and 2 inspection steel flanges (dark grey colour).
The cable is connected directly to the busbars using bolts.
For more information on board/busbar connection see the tables (Dimensions For The Box).
To feed the power supply cable through the back power supply flanges it will be necessary to drill a hole in case of single bar and two holes in case of double bar. The size of the holes is 170 x 410 mm.

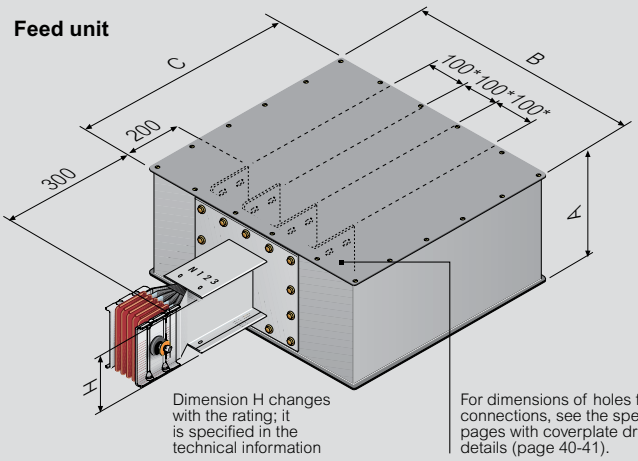
Item		Feed unit	
Al	Cu	In (A)	Type
64281100PF	-	630	Right type 2
64281101PF	67281100PF	800	
64281102PF	67281101PF	1000	
64281104PF	67281103PF	1250	
64281106PF	67281105PF	1600	
64281107PF	67281106PF	2000	
64391104PF	67391104PF	2500	
64391106PF	67391105PF	3200	
64391107PF	67391106PF	4000	
64391108PF	67391108PF	5000	
-	67391109PF	6300	
64281110PF	-	630	Left type 1
64281111PF	67281110PF	800	
64281112PF	67281111PF	1000	
64281114PF	67281113PF	1250	
64281116PF	67281115PF	1600	
64281117PF	67281116PF	2000	
64391114PF	67391114PF	2500	
64391116PF	67391115PF	3200	
64391117PF	67391116PF	4000	
64391118PF	67391118PF	5000	
-	67391119PF	6300	





Dimensions

Feed unit



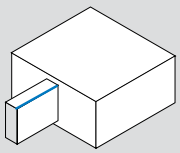
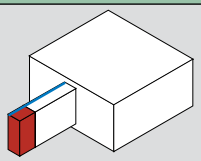
* 120 mm for 6300 A (Cu) and 5000 A (Al)

Rear cable input

Aluminium gland plate(s) for cable entry 170 x 410 mm
Single bar: 1 plate
Double bar: 2 plates

Dimensions FOR THE BOX				
Al	630A÷1250A	1600A÷2000A	2500A÷4000A	
Cu	800A÷1250A	1600A÷2000A	2500A÷5000A	6300A
(A) [mm]	320	320	600	815
(B) [mm]	615	615	615	615
(C) [mm]	610	810	810	810

Special dimensions (not standard) are available on request, please contact Legrand

Type 2 (without monobloc)	Type 1 (with monobloc)
	

CONNECTIONS				
Load (A)	**The copper (Cu) phase section is rounded up (mm^2)**	**No. of connection holes for each busbar conductor**	**No. of one-pole cables that can be connected to each phase**	
630	600	4	4x150	2x300
800				
1000				
1250	700	4	4x240	3x300
1600	850	8	4x240	3x300
2000	1100	8	5x240	4x300
2500	1400	8	6x240	5x300
3200	1700	16	8x240	6x300
4000	2100	16	9x240	7x300
5000	3000	16	14x240	10x300

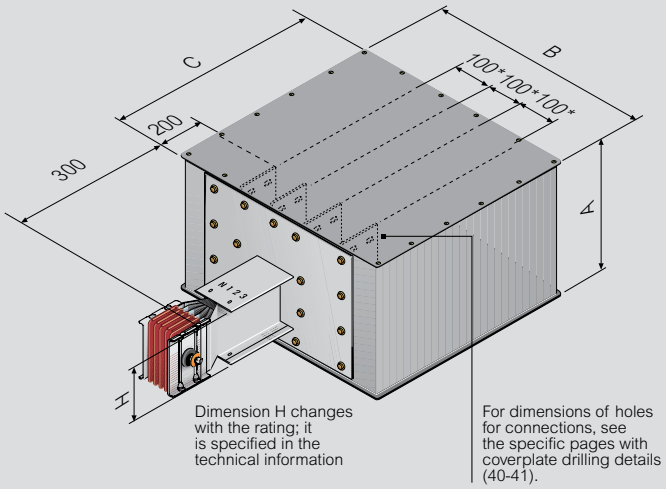
Xtra Compact (XCP-S)

rising mains feed unit

67281133PF

The rising mains feed units are used at the departure of the riser mains lines, when the busbar must be placed close to the wall and powered using cables. They **allow the busbar to be installed 40 mm away from the wall.**
Right-hand feed units do not come with a Monobloc but left-hand feed units come with a pre-fitted Monobloc.
They are available with non-standard execution, on request.
End feed units for single bar busbars are supplied with an aluminium blind back closing plate. For double bar busbar trunking systems the plates are 2.
Both versions are fitted with 2 extra side steel flanges and 2 inspection steel flanges (dark grey colour). The cable is connected directly to the busbars using bolts.
For more information on board/busbar connection see the tables below (Dimensions For The Box).
To feed the power supply cable through the back power supply flanges it will be necessary to drill a hole in case of single bar and two holes in case of double bar. The size of the holes is 170 x 410 mm.

Item		Rising mains feed unit	
Al	**Cu**	In (A)	Type
64281120PF	**-**	630	Right type 2
64281121PF	**67281120PF**	800	
64281122PF	**67281121PF**	1000	
64281124PF	**67281123PF**	1250	
64281126PF	**67281125PF**	1600	
64281127PF	**67281126PF**	2000	
64391124PF	**67391124PF**	2500	
64391126PF	**67391125PF**	3200	
64391127PF	**67391126PF**	4000	
64391128PF	**67391128PF**	5000	
-	**67391129PF**	6300	
64281130PF	**-**	630	Left type 1
64281131PF	**67281130PF**	800	
64281132PF	**67281131PF**	1000	
64281134PF	**67281133PF**	1250	
64281136PF	**67281135PF**	1600	
64281137PF	**67281136PF**	2000	
64391134PF	**67391134PF**	2500	
64391136PF	**67391135PF**	3200	
64391137PF	**67391136PF**	4000	
64391138PF	**67391138PF**	5000	
-	**67391139PF**	6300	



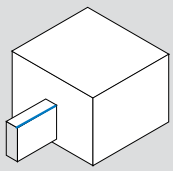
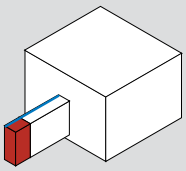
* 120 mm for 6300 A (Cu) and 5000 A (Al)

Rear cable input

Aluminium gland plate(s) for cable entry 170 x 410 mm
Single bar: 1 plate
Double bar: 2 plates

Dimensions FOR THE BOX				
Al	630A÷1250A	1600A÷2000A	2500A÷4000A	
Cu	800A÷1250A	1600A÷2000A	2500A÷5000A	6300A
(A) [mm]	320	320	600	815
(B) [mm]	615	615	615	615
(C) [mm]	610	810	810	810

Special dimensions (not standard) are available on request, please contact Legrand

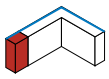
Type 2 (without monobloc)	Type 1 (with monobloc)
	

CONNECTIONS				
Load (A)	**The copper (Cu) phase section is rounded up (mm^2)**	**No. of connection holes for each busbar conductor**	**No. of one-pole cables that can be connected to each phase**	
630	600	4	4x150	2x300
800				
1000				
1250	700	4	4x240	3x300
1600	850	8	4x240	3x300
2000	1100	8	5x240	4x300
2500	1400	8	6x240	5x300
3200	1700	16	8x240	6x300
4000	2100	16	9x240	7x300
5000	3000	16	14x240	10x300

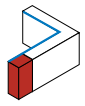
Single bar:	**Double bar:**	**Triple bar:**
630A-2000A (Al)	2500A-4000A (Al)	5000A (Al)
800A-2000A (Cu)	2500A-5000A (Cu)	6300A (Cu)

64280306PF

Item		Horizontal elbow		
Al	Cu	In (A)	Type	Type
64280300PF	-	630		
64280301PF	67280300PF	800		
64280302PF	67280301PF	1000		
64280304PF	67280303PF	1250		
64280306PF	67280305PF	1600		
64280307PF	67280306PF	2000		Standard
64390304PF	67390304PF	2500		
64390306PF	67390305PF	3200		
64390307PF	67390306PF	4000		
64390308PF	67390308PF	5000		
-	67390309PF	6300		
64280320PF	-	630		
64280321PF	67280320PF	800		
64280322PF	67280321PF	1000		
64280324PF	67280323PF	1250		
64280326PF	67280325PF	1600		
64280327PF	67280326PF	2000		Special lengths
64390324PF	67390324PF	2500		
64390326PF	67390325PF	3200		
64390327PF	67390326PF	4000		
64390328PF	67390328PF	5000		
-	67390329PF	6300		
64280310PF	-	630		
64280311PF	67280310PF	800		
64280312PF	67280311PF	1000		
64280314PF	67280313PF	1250		
64280316PF	67280315PF	1600		
64280317PF	67280316PF	2000		Standard
64390314PF	67390314PF	2500		
64390316PF	67390315PF	3200		
64390317PF	67390316PF	4000		
64390318PF	67390318PF	5000		
-	67390319PF	6300		
64280330PF	-	630		
64280331PF	67280330PF	800		
64280332PF	67280331PF	1000		
64280334PF	67280333PF	1250		
64280336PF	67280335PF	1600		
64280337PF	67280336PF	2000		Special lengths
64390334PF	67390334PF	2500		
64390336PF	67390335PF	3200		
64390337PF	67390336PF	4000		
64390338PF	67390338PF	5000		
-	67390339PF	6300		



Right Type 1

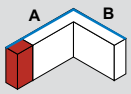
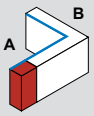


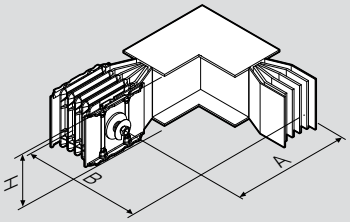
Left Type 2

Dimensions

Horizontal elbow

In order to define the type of horizontal elbow required, consider to place the element “edgewise” (conductors perpendicular to the ground). In this configuration “horizontal” elbows enable a path variation which is parallel to the ground.
When the neutral busbar conductor faces the outside of the elbow, there will be a Right horizontal elbow (type 1)
Contrariwise, with the neutral busbar conductor facing the inside of the elbow there will be a Left horizontal elbow (type 2)

Type 1	Type 2
	



The dimensions refer to the standard elements.
Single/double/triple bar (A+B): 300+300 mm

MIN AND MAX DIMENSIONS	
Single bar min/MAX	
A	250/1299*
B	250/1299*
Double bar min/MAX	
A	250/1299*
B	250/1299*
Triple bar min/MAX	
A	250/999*
B	250/999*

Dimension H changes with the rating; it is specified in the technical information

Non-standard elements “Special” (with measurements that are different from those show in the figure) are referred to the Min and Max dimensions specified in the table

* For all the non standard horizontal elbows (special), it is possible to have only one of the two sides in size exceeding 600 mm. For example, when ordering a horizontal elbow with size A=1000 mm, the B size will have to be ≤ 600 mm

Xtra Compact (XCP-S)

elbows

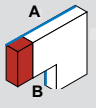
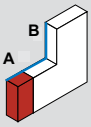
67280415PF

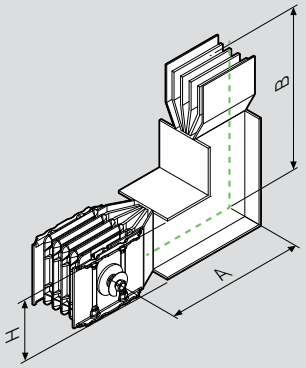
Item		Vertical elbow		
Al	Cu	In (A)	Type	Type
64280400PF	-	630	Right Type 2	Standard
64280401PF	67280400PF	800		
64280402PF	67280401PF	1000		
64280404PF	67280403PF	1250		
64280406PF	67280405PF	1600		
64280407PF	67280406PF	2000		
64390404PF	67390404PF	2500		
64390406PF	67390405PF	3200		
64390407PF	67390406PF	4000		
64390408PF	67390408PF	5000		
-	67390409PF	6300		
64280420PF	-	630		Special length
64280421PF	67280420PF	800		
64280422PF	67280421PF	1000		
64280424PF	67280423PF	1250		
64280426PF	67280425PF	1600		
64280427PF	67280426PF	2000		
64390424PF	67390424PF	2500		
64390426PF	67390425PF	3200		
64390427PF	67390426PF	4000		
64390428PF	67390428PF	5000		
-	67390429PF	6300		
64280410PF	-	630	Left Type 1	Standard
64280411PF	67280410PF	800		
64280412PF	67280411PF	1000		
64280414PF	67280413PF	1250		
64280416PF	67280415PF	1600		
64280417PF	67280416PF	2000		
64390414PF	67390414PF	2500		
64390416PF	67390415PF	3200		
64390417PF	67390416PF	4000		
64390418PF	67390418PF	5000		
-	67390419PF	6300		
64280430PF	-	630		Special length
64280431PF	67280430PF	800		
64280432PF	67280431PF	1000		
64280434PF	67280433PF	1250		
64280436PF	67280435PF	1600		
64280437PF	67280436PF	2000		
64390434PF	67390434PF	2500		
64390436PF	67390435PF	3200		
64390437PF	67390436PF	4000		
64390438PF	67390438PF	5000		
-	67390439PF	6300		

Dimensions

Vertical elbow

In order to define the type of vertical elbow, it is necessary to still place the element "edgewise" (conductors perpendicular to the ground), with the section with Monobloc facing the observer and the section without facing up.
In this configuration, vertical “elbows” enable an up or down facing variation. If the neutral is on the left side, there will be a left vertical elbow (Type 1).
If, on the other side, it is on the right side, there will be a right vertical elbow (Type 2)

Type 2	Type 1
	



MIN AND MAX DIMENSIONS	
Single bar min/MAX	
A	250/1299*
B	250/1299*
Double bar min/MAX	
A	340/1449*
B	340/1449*
Triple bar min/MAX	
A	485/1199*
B	485/1199*

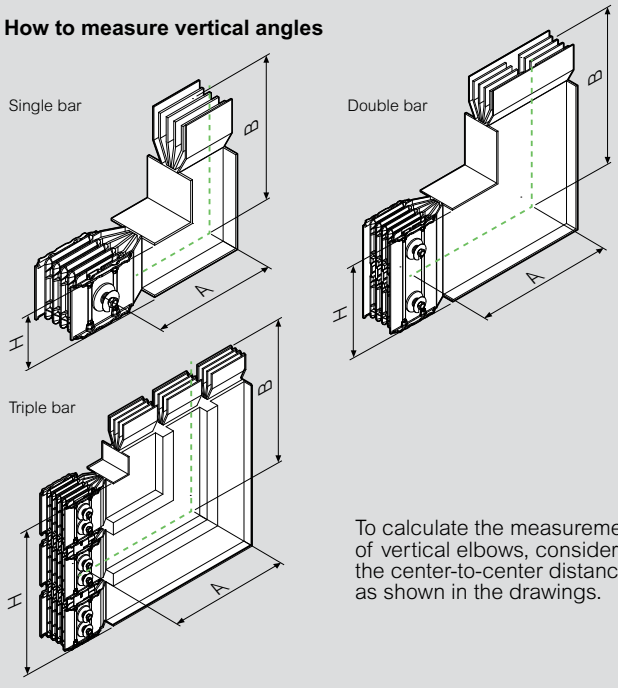
Dimension H changes with the rating; it is specified in the technical information

The dimensions are referred to the standard elements.
Single bar (A+B) : 300+300 mm
Double bar (A+B) : 450+450 mm
Triple bar (A+B) : 500+500 mm

Non-standard elements “Special” (with measurements that are different from those show in the figure) are referred to the Min and Max dimensions specified in the table

* For all the non standard vertical elbows (special), it is possible to have only one of the two sides in size exceeding 600 mm
For example, when ordering a vertical elbow with size A=1000 mm, the B size will have to be ≤ 600 mm

How to measure vertical angles



To calculate the measurements of vertical elbows, consider the center-to-center distance as shown in the drawings.

64280346PF

64280456PF

Item		Double horizontal elbow	
Al	Cu	In (A)	Type
64280340PF	-	630	
64280341PF	67280340PF	800	
64280342PF	67280341PF	1000	
64280344PF	67280343PF	1250	
64280346PF	67280345PF	1600	
64280347PF	67280346PF	2000	
64390344PF	67390344PF	2500	
64390346PF	67390345PF	3200	Right Type 1
64390347PF	67390346PF	4000	
64390348PF	67390348PF	5000	
-	67390349PF	6300	
64280350PF	-	630	
64280351PF	67280350PF	800	
64280352PF	67280351PF	1000	
64280354PF	67280353PF	1250	
64280356PF	67280355PF	1600	
64280357PF	67280356PF	2000	
64390354PF	67390354PF	2500	
64390356PF	67390355PF	3200	Left Type 2
64390357PF	67390356PF	4000	
64390358PF	67390358PF	5000	
-	67390359PF	6300	

		Double vertical elbow	
Al	Cu	In (A)	Type
64280440PF	-	630	
64280441PF	67280440PF	800	
64280442PF	67280441PF	1000	
64280444PF	67280443PF	1250	
64280446PF	67280445PF	1600	
64280447PF	67280446PF	2000	
64390444PF	67390444PF	2500	
64390446PF	67390445PF	3200	
64390447PF	67390446PF	4000	Right Type 2
64390448PF	67390448PF	5000	
-	67390449PF	6300	
64280450PF	-	630	
64280451PF	67280450PF	800	
64280452PF	67280451PF	1000	
64280454PF	67280453PF	1250	
64280456PF	67280455PF	1600	
64280457PF	67280456PF	2000	
64390454PF	67390454PF	2500	
64390456PF	67390455PF	3200	Left Type 1
64390457PF	67390456PF	4000	
64390458PF	67390458PF	5000	
-	67390459PF	6300	

Single bar:
630A-2000A (Al)
800A-2000A (Cu)

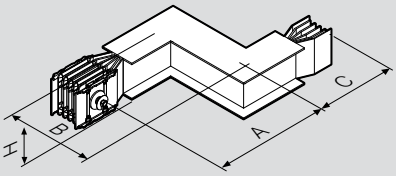
Double bar:
2500A-4000A (Al)
2500A-5000A (Cu)

Triple bar:
5000A (Al)
6300A (Cu)

Dimensions

Double horizontal elbow

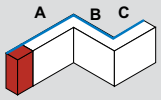
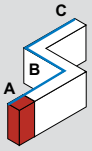
Double horizontal elbows are the union of two horizontal elbows; in order to define the type, it is enough to observe them starting from the Monobloc; if the first elbow met is left, we will have a double horizontal elbow left + right (Type 2). Contrariwise, if the first elbow met is right, we will have a double horizontal elbow right + left (Type 1)



The dimensions are referred to the standard elements.
Single/double/triple bar (A+B+C): 300+300+300 mm

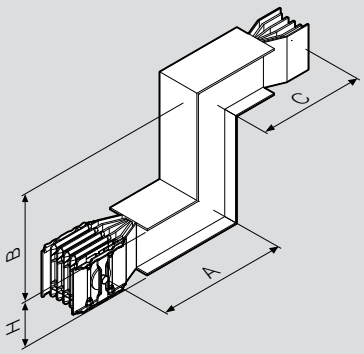
MIN AND MAX DIMENSIONS	
Single bar min/MAX	
A	250/1299*
B	50/599*
C	250/1299*
Double bar min/MAX	
A	250/1299*
B	50/599*
C	250/1299*
Triple bar min/MAX	
A	250/999*
B	50/599*
C	250/999*

Dimension H changes with the rating; it is specified in the technical information

Type 1	Type 2
	

Double vertical elbow

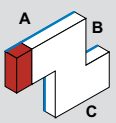
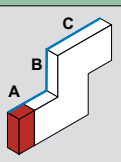
Double vertical elbows are the union of two vertical elbows; in order to define the type, it is enough to observe them starting from the Monobloc; if the first elbow met is left, we will have a double vertical elbow left + right (Type 1). Contrariwise, if the first elbow met is right, we will have a double vertical elbow right + left (Type 2)



MIN AND MAX DIMENSIONS	
Single bar min/MAX	
A	250/1299*
B	50/599*
C	250/1299*
Double bar min/MAX	
A	340/1449*
B	50/899*
C	340/1449*
Triple bar min/MAX	
A	485/1199*
B	50/999*
C	485/1199*

Dimension H changes with the rating; it is specified in the technical information

The dimensions are referred to the standard elements.
Single bar (A+B+C): 300+300+300 mm
Double bar (A+B+C): 450+450+450 mm
Triple bar (A+B+C): 500+500+500 mm

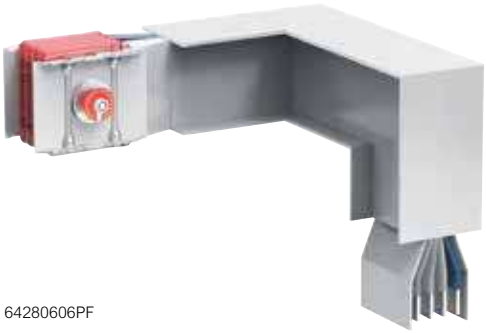
Type 2	Type 1
	

Non-standard elements “Special” (with measurements that are different from those show in the figure) are referred to the Min and Max dimensions specified in the table

⚠ * Warning: for safety reasons in production and also to help in the installation, if one dimension is pulled close to the maximum length (i.e. A=1100 mm) then the other two dimensions should be kept as close as possible to their standard lengths (i.e. B=300 mm, C=310 mm)

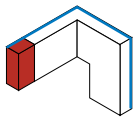
Xtra Compact (XCP-S)

elbows

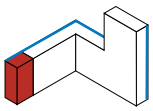


64280606PF

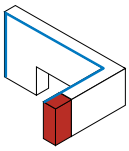
Item		Double elbow horizontal + vertical	
Al	Cu	In (A)	Type
64280600PF	-	630	
64280601PF	67280600PF	800	
64280602PF	67280601PF	1000	
64280604PF	67280603PF	1250	
64280606PF	67280605PF	1600	
64280607PF	67280606PF	2000	
64390604PF	67390604PF	2500	
64390606PF	67390605PF	3200	
64390607PF	67390606PF	4000	
64390608PF	67390608PF	5000	
-	67390609PF	6300	
64280610PF	-	630	
64280611PF	67280610PF	800	
64280612PF	67280611PF	1000	
64280614PF	67280613PF	1250	
64280616PF	67280615PF	1600	
64280617PF	67280616PF	2000	
64390614PF	67390614PF	2500	
64390616PF	67390615PF	3200	
64390617PF	67390616PF	4000	
64390618PF	67390618PF	5000	
-	67390619PF	6300	
64280620PF	-	630	
64280621PF	67280620PF	800	
64280622PF	67280621PF	1000	
64280624PF	67280623PF	1250	
64280626PF	67280625PF	1600	
64280627PF	67280626PF	2000	
64390624PF	67390624PF	2500	
64390626PF	67390625PF	3200	
64390627PF	67390626PF	4000	
64390628PF	67390628PF	5000	
-	67390629PF	6300	
64280630PF	-	630	
64280631PF	67280630PF	800	
64280632PF	67280631PF	1000	
64280634PF	67280633PF	1250	
64280636PF	67280635PF	1600	
64280637PF	67280636PF	2000	
64390634PF	67390634PF	2500	
64390636PF	67390635PF	3200	
64390637PF	67390636PF	4000	
64390638PF	67390638PF	5000	
-	67390639PF	6300	



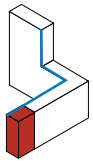
Type 1



Type 2



Type 3



Type 4

Single bar:
630A-2000A (Al)
800A-2000A (Cu)

Double bar:
2500A-4000A (Al)
2500A-5000A (Cu)

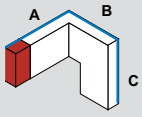
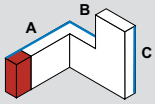
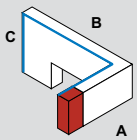
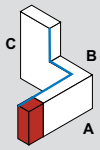
Triple bar:
5000A (Al)
6300A (Cu)

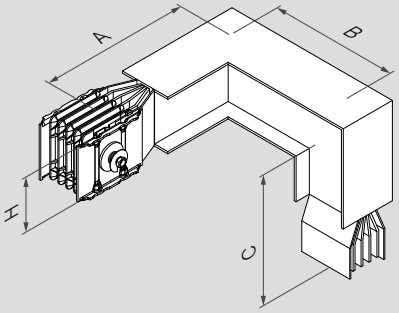
Dimensions

Double elbow horizontal + vertical

Double elbows horizontal + vertical are the union of a horizontal and a vertical elbow, placed in succession starting from the side with Monobloc.
Depending on the type of elbows, the double horizontal + vertical elbow may be of four different types:

- Double elbow Horizontal RH + Vertical RH (Type 1)
- Double elbow Horizontal RH + Vertical LH (Type 2)
- Double elbow Horizontal LH + Vertical RH (Type 3)
- Double elbow Horizontal LH + Vertical LH (Type 4)

Type 1	Type 2	Type 3	Type 4
			



MIN AND MAX DIMENSIONS OF SINGLE	
Single bar min/MAX	
A	250/1299*
B	150/599*
C	250/1299*
Double bar min/MAX	
A	250/1299*
B	235/899*
C	340/1449*
Triple bar min/MAX	
A	250/999*
B	380/799*
C	485/999*

The dimensions are referred to the standard elements
Single bar (A+B+C): 300+300+300 mm
Double bar (A+B+C): 300+450+450 mm
Triple bar (A+B+C): 300+500+500 mm

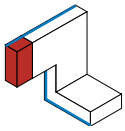
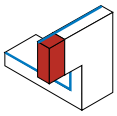
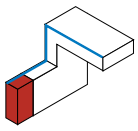
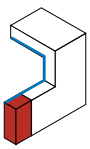
Dimension H changes with the rating; it is specified in the technical information

Non-standard elements “Special” (with measurements that are different from those show in the figure) are referred to the Min and Max dimensions specified in the table.

* Warning: for safety reasons in production and also to help in the installation, if one dimension is pulled close to the maximum length (i.e. A=1100 mm) then the other two dimensions should be kept as close as possible to their standard lengths (i.e. B=300 mm, C=310 mm).

Note:
RH - Right
LH - Left

64280506PF

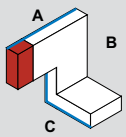
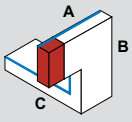
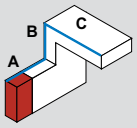
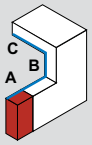
Item		Double elbow vertical + horizontal		
Al	Cu	In (A)	Type	
64280500PF	-	630	 Type 1	
64280501PF	67280500PF	800		
64280502PF	67280501PF	1000		
64280504PF	67280503PF	1250		
64280506PF	67280505PF	1600		
64280507PF	67280506PF	2000		
64390504PF	67390504PF	2500		
64390506PF	67390505PF	3200		
64390507PF	67390506PF	4000		
64390508PF	67390508PF	5000		
-	67390509PF	6300		
64280510PF	-	630	 Type 2	
64280511PF	67280510PF	800		
64280512PF	67280511PF	1000		
64280514PF	67280513PF	1250		
64280516PF	67280515PF	1600		
64280517PF	67280516PF	2000		
64390514PF	67390514PF	2500		
64390516PF	67390515PF	3200		
64390517PF	67390516PF	4000		
64390518PF	67390518PF	5000		
-	67390519PF	6300		
64280520PF	-	630	 Type 3	
64280521PF	67280520PF	800		
64280522PF	67280521PF	1000		
64280524PF	67280523PF	1250		
64280526PF	67280525PF	1600		
64280527PF	67280526PF	2000		
64390524PF	67390524PF	2500		
64390526PF	67390525PF	3200		
64390527PF	67390526PF	4000		
64390528PF	67390528PF	5000		
-	67390529PF	6300		
64280530PF	-	630	 Type 4	
64280531PF	67280530PF	800		
64280532PF	67280531PF	1000		
64280534PF	67280533PF	1250		
64280536PF	67280535PF	1600		
64280537PF	67280536PF	2000		
64390534PF	67390534PF	2500		
64390536PF	67390535PF	3200		
64390537PF	67390536PF	4000		
64390538PF	67390538PF	5000		
-	67390539PF	6300		

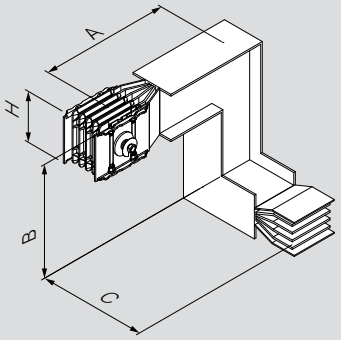
Dimensions

Double elbow vertical + horizontal

Double elbows vertical + horizontal are the union of a vertical and a horizontal elbow, placed in succession starting from the side with Monobloc

Depending on the type of elbows, the double vertical + horizontal elbow may be of four different types:
- Double elbow vertical RH + horizontal RH (Type 1)
- Double elbow vertical RH + horizontal LH (Type 2)
- Double elbow vertical LH + horizontal RH (Type 3)
- Double elbow vertical LH + horizontal LH (Type 4)

Type 1	Type 2	Type 3	Type 4
			



MIN AND MAX DIMENSIONS	
Single bar min/MAX	
A	250/1299*
B	150/599*
C	250/1299*
Double bar min/MAX	
A	340/1449*
B	325/899*
C	250/1299*
Triple bar min/MAX	
A	485/1199*
B	380/799*
C	250/999*

Dimension H changes with the rating; it is specified in the technical information

The dimensions are referred to the standard elements.
Single bar (A+B+C): 300+300+300 mm
Double bar (A+B+C): 450+450+300 mm
Triple bar (A+B+C): 500+500+300 mm

Non-standard elements “Special” (with measurements that are different from those show in the figure) are referred to the Min and Max dimensions specified in the table.

* Warning: for safety reasons in production and also to help in the installation, if one dimension is pulled close to the maximum length (i.e. A=1100 mm) then the other two dimensions should be kept as close as possible to their standard lengths (i.e. B=300 mm, C=310 mm)

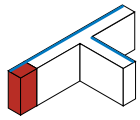
Note:
RH - Right
LH - Left

Xtra Compact (XCP-S)

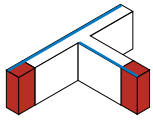
T elements

64280706PF

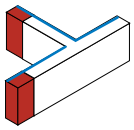
Item		Horizontal T element	
Al	Cu	In (A)	Type
64280700PF	-	630	
64280701PF	67280700PF	800	
64280702PF	67280701PF	1000	
64280704PF	67280703PF	1250	
64280706PF	67280705PF	1600	
64280707PF	67280706PF	2000	
64390704PF	67390704PF	2500	
64390706PF	67390705PF	3200	
64390707PF	67390706PF	4000	
64390708PF	67390708PF	5000	
-	67390709PF	6300	
64280710PF	-	630	
64280711PF	67280710PF	800	
64280712PF	67280711PF	1000	
64280714PF	67280713PF	1250	
64280716PF	67280715PF	1600	
64280717PF	67280716PF	2000	
64390714PF	67390714PF	2500	
64390716PF	67390715PF	3200	
64390717PF	67390716PF	4000	
64390718PF	67390718PF	5000	
-	67390719PF	6300	
64280720PF	-	630	
64280721PF	67280720PF	800	
64280722PF	67280721PF	1000	
64280724PF	67280723PF	1250	
64280726PF	67280725PF	1600	
64280727PF	67280726PF	2000	
64390724PF	67390724PF	2500	
64390726PF	67390725PF	3200	
64390727PF	67390726PF	4000	
64390728PF	67390728PF	5000	
-	67390729PF	6300	
64280730PF	-	630	
64280731PF	67280730PF	800	
64280732PF	67280731PF	1000	
64280734PF	67280733PF	1250	
64280736PF	67280735PF	1600	
64280737PF	67280736PF	2000	
64390734PF	67390734PF	2500	
64390736PF	67390735PF	3200	
64390737PF	67390736PF	4000	
64390738PF	67390738PF	5000	
-	67390739PF	6300	



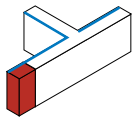
Type 1



Type 2



Type 3



Type 4

Single bar:
630A-2000A (Al)
800A-2000A (Cu)

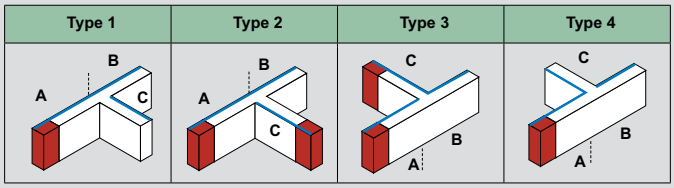
Double bar:
2500A-4000A (Al)
2500A-5000A (Cu)

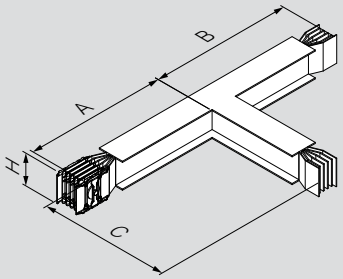
Triple bar:
5000A (Al)
6300A (Cu)

Dimensions

Horizontal T element

T-elements can be used to split the line in two branches, adding together the effect of two diverging elbows
There are four types of horizontal "T" elements, as shown below





The dimensions are referred to the standard elements.
Single/double/triple bar (A+B+C): 600+600+600 mm

MIN AND MAX DIMENSIONS	
Single bar min/MAX	
A	600/1449*
B	600/1449*
C	600/1449*
Double bar min/MAX	
A	600/1449*
B	600/1449*
C	600/1449*
Triple bar min/MAX	
A	600/1449*
B	600/1449*
C	600/1449*

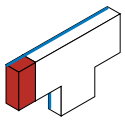
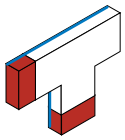
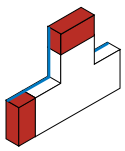
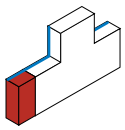
Dimension H changes with the rating; it is specified in the technical information

Non-standard elements "Special" (with measurements that are different from those show in the figure) are referred to the Min and Max dimensions specified in the table

* For all the non standard Horizontal T elements (special), it is possible to have only one of the three sides in size exceeding 600 mm.
For example, when ordering a T horizontal element with size A=650 mm, the B and C size will have to be ≤ 600 mm

Note:
Only in special cases, where is not possible to use the standard element, is possible to have only one of three arms with minimum dimension of 300mm.
For more informations please contact Legrand

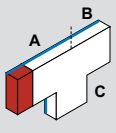
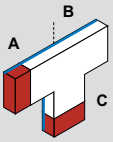
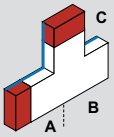
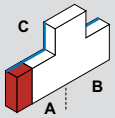
64280806PF

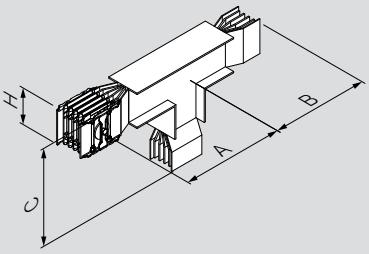
Item		Vertical t element	
Al	Cu	In (A)	Type
64280800PF	-	630	 Type 1
64280801PF	67280800PF	800	
64280802PF	67280801PF	1000	
64280804PF	67280803PF	1250	
64280806PF	67280805PF	1600	
64280807PF	67280806PF	2000	
64390804PF	67390804PF	2500	
64390806PF	67390805PF	3200	
64390807PF	67390806PF	4000	
64390808PF	67390808PF	5000	
-	67390809PF	6300	
64280810PF	-	630	 Type 2
64280811PF	67280810PF	800	
64280812PF	67280811PF	1000	
64280814PF	67280813PF	1250	
64280816PF	67280815PF	1600	
64280817PF	67280816PF	2000	
64390814PF	67390814PF	2500	
64390816PF	67390815PF	3200	
64390817PF	67390816PF	4000	
64390818PF	67390818PF	5000	
-	67390819PF	6300	
64280820PF	-	630	 Type 3
64280821PF	67280820PF	800	
64280822PF	67280821PF	1000	
64280824PF	67280823PF	1250	
64280826PF	67280825PF	1600	
64280827PF	67280826PF	2000	
64390824PF	67390824PF	2500	
64390826PF	67390825PF	3200	
64390827PF	67390826PF	4000	
64390828PF	67390828PF	5000	
-	67390829PF	6300	
64280830PF	-	630	 Type 4
64280831PF	67280830PF	800	
64280832PF	67280831PF	1000	
64280834PF	67280833PF	1250	
64280836PF	67280835PF	1600	
64280837PF	67280836PF	2000	
64390834PF	67390834PF	2500	
64390836PF	67390835PF	3200	
64390837PF	67390836PF	4000	
64390838PF	67390838PF	5000	
-	67390839PF	6300	

Dimensions

Vertical T element

T-elements can be used to split the line in two branches, adding together the effect of two diverging elbows
There are four types of verticals “T” elements, as shown below

Type 1	Type 2	Type 3	Type 4
			



MIN AND MAX DIMENSIONS	
Single bar min/MAX	
A	300/1299*
B	300/1299*
C	300/1299*
Double bar min/MAX	
A	450/1449*
B	450/1449*
C	450/1449*
Triple bar min/MAX	
A	485/1449*
B	485/1449*
C	485/1449*

Dimension H changes with the rating; it is specified in the technical information

The dimensions are referred to the standard elements
Single bar (A+B+C): 300+300+300 mm
Double bar (A+B+C): 600+600+600 mm
Triple bar (A+B+C): 600+600+600 mm

Non-standard elements “Special” (with measurements that are different from those show in the figure) are referred to the Min and Max dimensions specified in the table

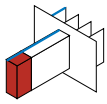
* For all the non standard Vertical T elements (special), it is possible to have only one of the three sides in size exceeding 600 mm.
For example, when ordering a T vertical element with size A=650 mm, the B and C size will have to be ≤600 mm

Xtra Compact (XCP-S)

connection interfaces with exit bars

64281016PF

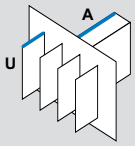
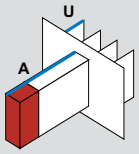
Connection interfaces with exit bars for panel boards

Item				
Al	Cu	In (A)	Type	Type
64281000PF	-	630		
64281001PF	67281000PF	800		
64281002PF	67281001PF	1000		
64281004PF	67281003PF	1250		
64281006PF	67281005PF	1600		
64281007PF	67281006PF	2000		Standard
64391004PF	67391004PF	2500		
64391006PF	67391005PF	3200		
64391007PF	67391006PF	4000		
64391008PF	67391008PF	5000		
-	67391009PF	6300		
64281020PF	-	630		
64281021PF	67281020PF	800		
64281022PF	67281021PF	1000	Right Type 2	
64281024PF	67281023PF	1250		
64281026PF	67281025PF	1600		
64281027PF	67281026PF	2000		Special
64391024PF	67391024PF	2500		
64391026PF	67391025PF	3200		
64391027PF	67391026PF	4000		
64391028PF	67391028PF	5000		
-	67391029PF	6300		
64281010PF	-	630		
64281011PF	67281010PF	800		
64281012PF	67281011PF	1000		
64281014PF	67281013PF	1250		
64281016PF	67281015PF	1600		
64281017PF	67281016PF	2000		Standard
64391014PF	67391014PF	2500		
64391016PF	67391015PF	3200		
64391017PF	67391016PF	4000		
64391018PF	67391018PF	5000		
-	67391019PF	6300		
64281030PF	-	630		
64281031PF	67281030PF	800		
64281032PF	67281031PF	1000	Left Type 1	
64281034PF	67281033PF	1250		
64281036PF	67281035PF	1600		
64281037PF	67281036PF	2000		Special
64391034PF	67391034PF	2500		
64391036PF	67391035PF	3200		
64391037PF	67391036PF	4000		
64391038PF	67391038PF	5000		
-	67391039PF	6300		

Dimensions

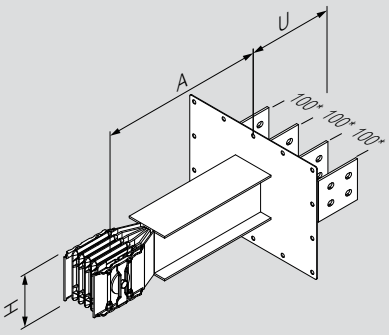
Connection interfaces with exit bars

Standard connection interfaces are used at the end of the lines to connect the busbar to boards or transformers. They are available in right (without Monobloc) and left (with Monobloc fitted) versions. The drawings below refer to the standard versions. Different combinations are available on request (e.g.: length, centre distance between bar conductors, drilling, etc.)

Standard connection interface RH (Type 2 without monoblock fitted)	Standard connection interface LH (Type 1 with monoblock fitted)
	

Note:
RH - Right
LH - Left

Standard connection interface



See on page 40-41 the drawings with all drilling details for dimensions of coverplate (1) and bars (2)

MIN AND MAX DIMENSIONS	
Single bar min/MAX	
U	150/400
A	200/1299
Double bar min/MAX	
U	150/400
A	200/1299
Triple bar min/MAX	
U	150/400
A	200/1299

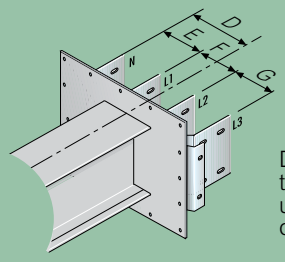
Dimension H changes with the rating; it is specified in the technical information

The dimensions are referred to the standard elements.
Single/double/triple bar (U+A): 200+300 mm

* 120 mm for 6300 A (Cu) and 5000 A (Al)

Non-standard elements “Special” (with measurements that are different from those show in the figure) are referred to the Min and Max dimensions specified in the table.

Special connection interface with not standard interaxes



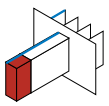
Dimensioning indications to be provided when using a non-standard centre distance

Xtra Compact (XCP-S)

connection interfaces with exit bars

6428T016PF

Connection interfaces with exit bars for transformers*

Item				
Al	Cu	In (A)	Type	Type
6428T000PF	-	630	 Right Type 2	CRT
6428T001PF	6728T000PF	800		
6428T002PF	6728T001PF	1000		
6428T004PF	6728T003PF	1250		
6428T006PF	6728T005PF	1600		
6428T007PF	6728T006PF	2000		
6439T004PF	6739T004PF	2500		
6439T006PF	6739T005PF	3200		
6439T007PF	6739T006PF	4000		
6439T008PF	6739T008PF	5000		
-	6739T009PF	6300		
6428T010PF	-	630	 Left Type 1	CRT
6428T011PF	6728T010PF	800		
6428T012PF	6728T011PF	1000		
6428T014PF	6728T013PF	1250		
6428T016PF	6728T015PF	1600		
6428T017PF	6728T016PF	2000		
6439T014PF	6739T014PF	2500		
6439T016PF	6739T015PF	3200		
6439T017PF	6739T016PF	4000		
6439T018PF	6739T018PF	5000		
-	6739T019PF	6300		

*** cast resin, air insulated or oil filled transformers**

Single bar:
630A-2000A (Al)
800A-2000A (Cu)

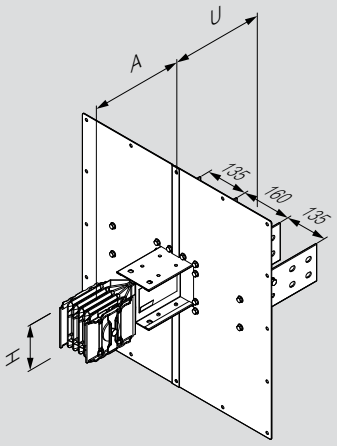
Double bar:
2500A-4000A (Al)
2500A-5000A (Cu)

Triple bar:
5000A (Al)
6300A (Cu)

Dimensions

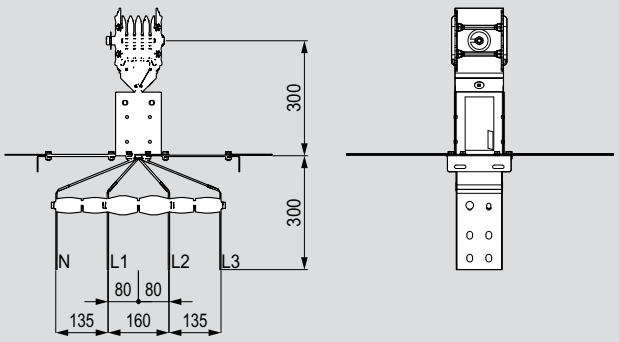
Connection interfaces with exit bars

Special connection interfaces are used at the end of the lines to connect the busbar to dry transformers. They are available in right (without Monobloc) and left (with Monobloc fitted) versions. The drawings below refer to the standard versions. Different combinations are available on request (e.g.: length, centre distance between bar conductors, drilling, etc.)

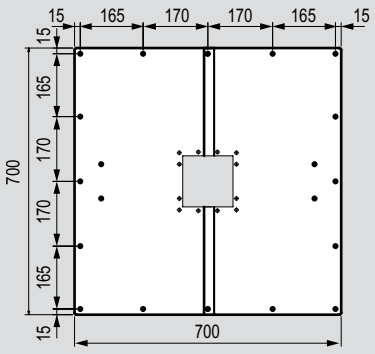


MIN AND MAX DIMENSIONS	
Single bar min/MAX	
U	300/400
A	200/1299
Double bar min/MAX	
U	300/400
A	200/1299
Triple bar min/MAX	
U	300/400
A	200/1299

Dimension H changes with the rating; it is specified in the technical information



Flange size details

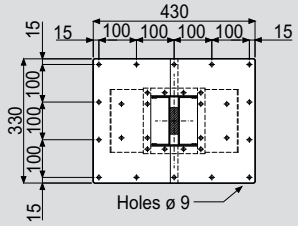


Xtra Compact (XCP-S)

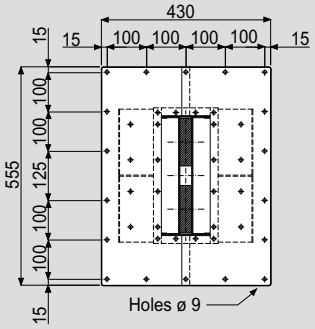
dimensions

Coverplate drilling details (1)

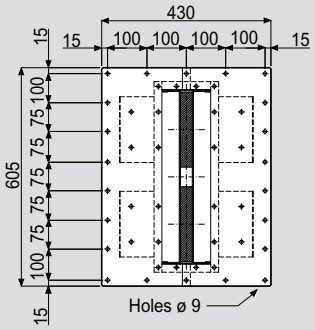
Al 630A–2000A
Cu 800A–2000A



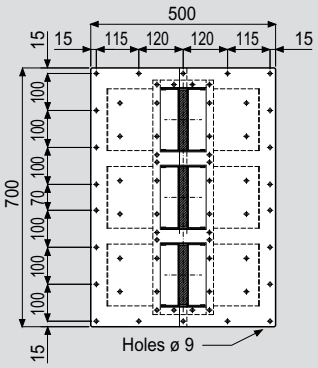
Al 2500A–3200A
Cu 2500A–4000A



Al 4000A
Cu 5000A

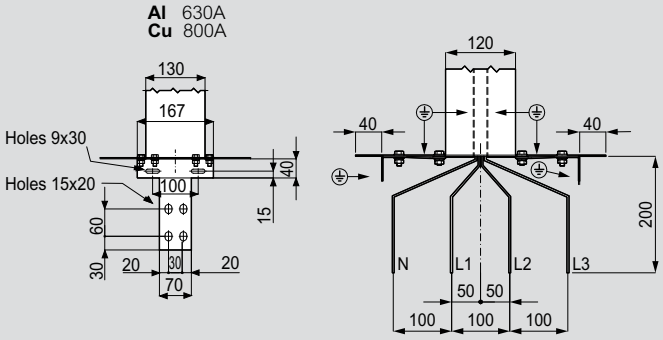


Al 5000A
Cu 6300A

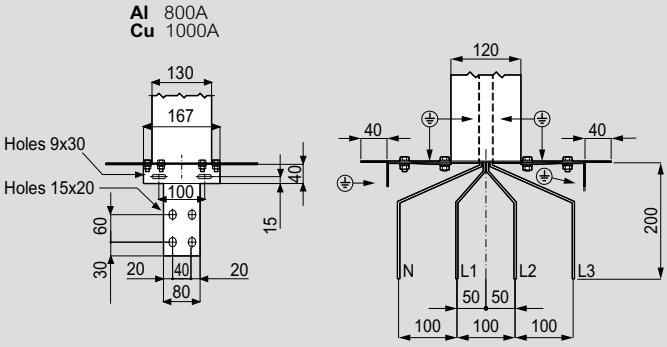


Bar drilling details (2) Side and front view

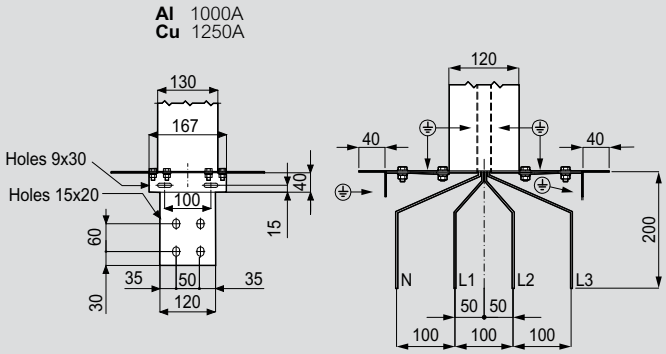
Al 630A
Cu 800A



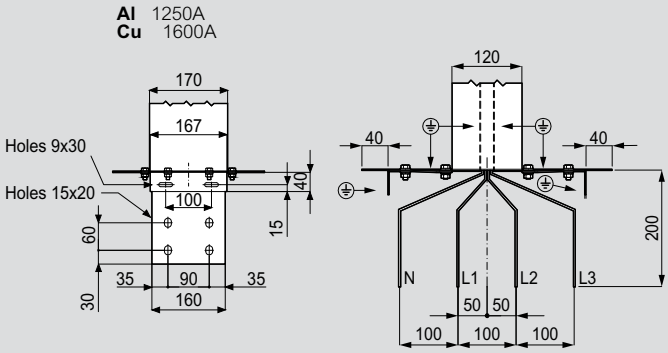
Al 800A
Cu 1000A



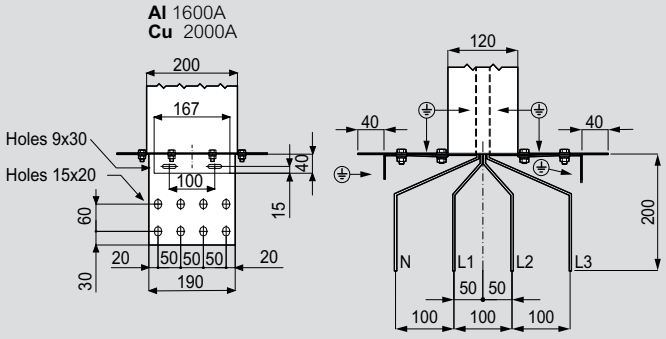
Al 1000A
Cu 1250A



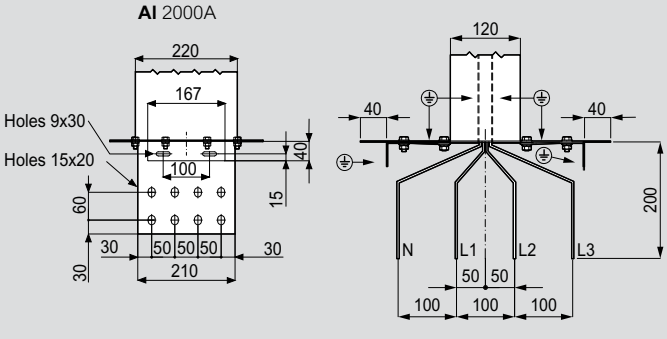
Al 1250A
Cu 1600A



Al 1600A
Cu 2000A

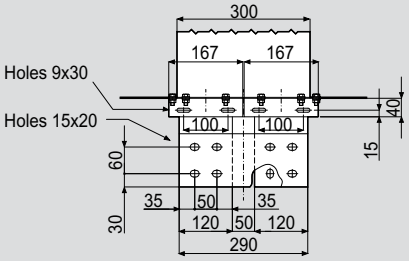


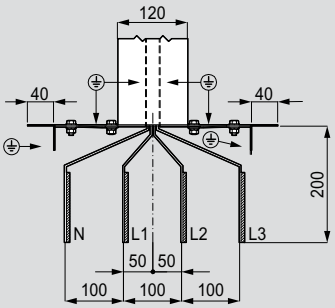
Al 2000A



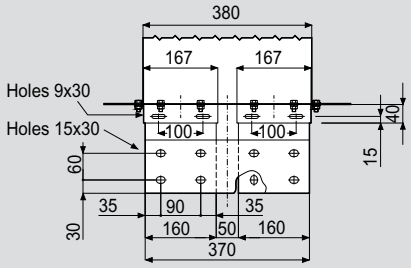
Bar drilling details (2) Side and front view

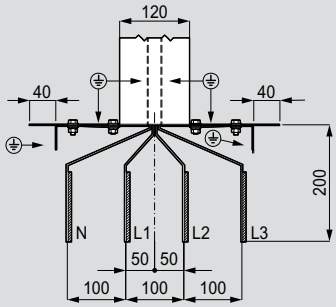
Cu 2500A



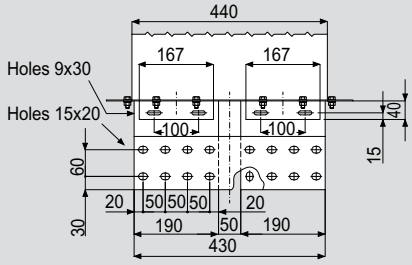


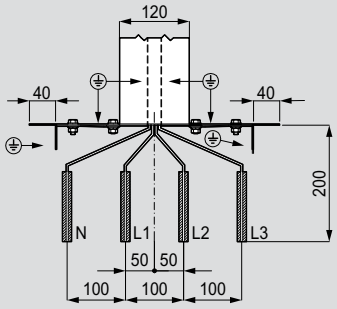
Al 2500A
Cu 3200A



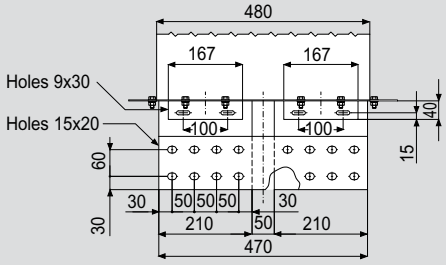


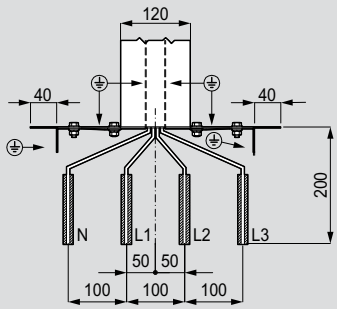
Al 3200A
Cu 4000A



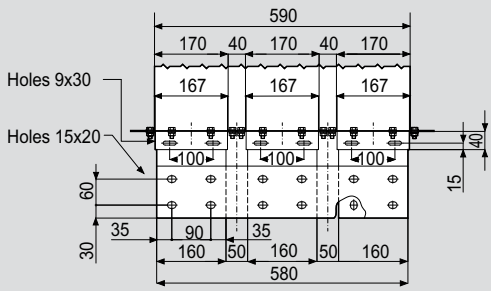


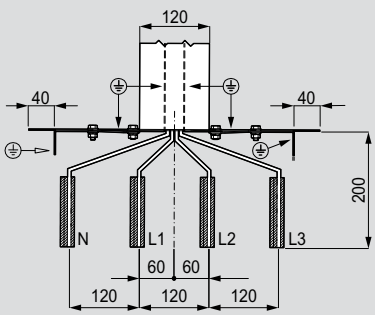
Al 4000A
Cu 5000A





Al 5000A
Cu 6300A





General features

XCP-S line is available in the standard range:
From **630A to 5000A with aluminum alloy** conductors and **from 800A to 6300A with copper conductors**
The compact dimensions of the XCP-S enhance **its resistance to short circuit stresses**; in addition, they can reduce the impedance of the circuit by controlling the voltage drops and allow for the installation of high power electrical systems, even in extremely confined spaces.
XCP-S is available with **a wide selection of tap-off boxes that range from 63A up to 1250A**, thus allowing you to locally protect and feed different types of loads by housing protective devices such as MCCBs and XCP-S is not only in **compliance with** the harmonised **Standards**
IEC EN 61439-6 but also answers specifically to many clients needs for more severe conditions of use
Thus **the rated current** of Legrand's busbar trunking systems is **always referred to the average ambient temperature of 35 °C**
The nominal range of all XCP-S is guaranteed both for horizontal installations (flat and edgewise) and for vertical installations without derating.
XCP-S busbar trunking systems are designed so that they can **be maintenance-free**, except for the periodic and compulsory inspections required by the Standard IEC 60364
The tightening torque inspection of the junction can be carried out by qualified personnel, even when the busbar is energised.

Structural features

The outer casing of the XCP-S line consists of four C-ribbed section bars, bordered and riveted (thickness 1.5mm), **with excellent mechanical, electric** and heat loss efficiency.
The sheet metal is made of galvanized steel, treated according to UNI EN10327 and **painted with RAL7035 resins** with a **high resistance to chemical agents**
The standard degree of protection is IP55, on request IP65 (only for transport of energy); with certain accessories, it can also be installed outdoors.
The busbar conductors have a rectangular cross section with rounded corners; there are two versions:

- **Electrolytic copper ETP 99.9 UNI EN 13601**
- **Aluminum alloy** treated over the entire surface with **5 galvanic processes** (copper plating + tin plating)

The insulation between bars is ensured by a **double sheath made with polyester film** (total thickness 2x0.23 mm) **class F (155°C)** thermal resistance. All plastic components have a **V1 self-extinguishing degree**; they are fire retardant and comply with the glow-wire test according to standards
The XCP-S line is **Halogen Free.** In order to facilitate storage operations especially to reduce the installation time, the straight elements, trunking **components** as well as all the components of the XCP-S line are **supplied with a monobloc pre-installed at the factory**
The junction contact is ensured by **tin plated aluminium for XCP-S Al and copper for XCP-S Cu for each phase**, insulated with red **class F thermosetting plastic material**.
The **monobloc** has **shear head bolts**: after tightening the nuts with a standard wrench, the outer head will break at the correct torque value, hence giving you the certainty that the connection has been made properly so as to guarantee safety and maximum performance over time
Finally, in order to completely verify the insulation level, every finished product undergoes an **insulation test** (phase-phase, phase-PE) at the factory with a test voltage of 3500 Vac for 1.5 seconds. The test is performed on the finished product, completely assembled.
IP55 and IP65 is intended for internal use only, for outdoor applications a canopy designed by us or RCP resin IP68 busbar is needed.

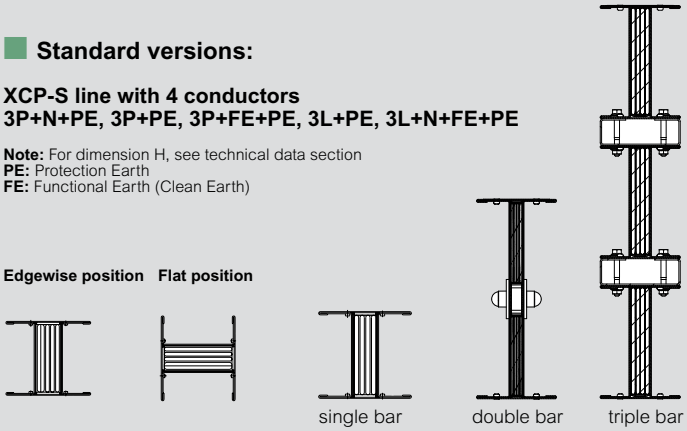
RATED CURRENT OF XCP-S BARS (A)											
Al	630	800	1000	1250	1600	2000	2500	3200	4000	5000	
	Single bar						Double bar			Triple bar	
Cu		800	1000	1250	1600	2000	2500	3200	4000	5000	6300
	Single bar						Double bar				Triple bar

Standard versions:

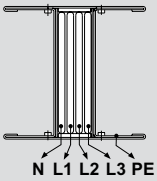
XCP-S line with 4 conductors
3P+N+PE, 3P+PE, 3P+FE+PE, 3L+PE, 3L+N+FE+PE

Note: For dimension H, see technical data section
PE: Protection Earth
FE: Functional Earth (Clean Earth)

Edgewise position **Flat position**



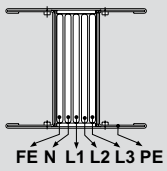
Phase sequence



XCP-S 5 line with 5 conductors
3P+N+FE+PE

Note: For dimension H, see technical data section
PE: Protection Earth
FE: Functional Earth (Clean Earth)

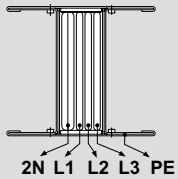
Phase sequence



XCP-S 2N 200% neutral line
3P+2N+PE

Note: For dimension H, see technical data section
PE: Protection Earth
2N : 200% neutral

Phase sequence



GENERAL CORRECTION FACTOR FOR AMBIENT TEMPERATURES (Kt)
XCP-S (AL - CU)

Daily avg Ambient temperature	-5°C	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C
Kt factor	1,24	1,21	1,18	1,15	1,12	1,09	1,06	1,03	1	0,97	0,93	0,90

Special versions on request

Xtra Compact (XCP-S)

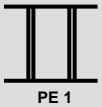
technical data

XCP-S Al (4 Conductors)

3P+N+PE		SINGLE BAR						DOUBLE BAR			TRIPLE BAR
Rated current	**In [A]**	**630**	**800**	**1000**	**1250**	**1600**	**2000**	**2500**	**3200**	**4000**	**5000**
Overall dimension of the busbars	L x H [mm]	120 x 130	120 x 130	120 x 130	120 x 170	120 x 200	120 x 220	120 x 380	120 x 440	120 x 480	120 x 590
Rated operational voltage	Ue [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated insulation voltage	Ui [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Frequency	f [Hz]	50	50	50	50	50	50	50	50	50	50
Rated short-time current (1 s)	I_{CW} [kA]$_{rms}$	25	25	36	42	42	50	65	80	100	120
Peak current	I_{pk} [kA]	53	53	76	88	88	105	143	176	220	264
Allowable specific energy for three-phase fault	I^2t [MA^{2}s]	312	312	1296	1764	1764	2500	4225	6400	10000	14400
Rated short-time current of the neutral bar (1 s)	I_{CW} [kA]$_{rms}$	25	25	36	42	42	50	65	80	100	120
Peak current of the neutral bar	I_{pk} [kA]	49	49	71	82	82	98	133	164	205	246
Rated short-time current of the protective circuit (1 s)	I_{CW} [kA]$_{rms}$	15	15	22	25	25	30	39	48	60	72
Peak current of the protective circuit	I_{pk} [kA]	30	30	46	53	53	63	82	101	132	158
Phase resistance at 20°C	R_{20} [mΩ/m]	0.140	0.092	0.077	0.057	0.041	0.029	0.029	0.021	0.014	0.011
Phase reactance (50hz)	X [mΩ/m]	0.023	0.017	0.017	0.016	0.015	0.014	0.011	0.007	0.006	0.005
Phase impedance	Z [mΩ/m]	0.142	0.094	0.079	0.060	0.044	0.032	0.031	0.022	0.016	0.012
Phase resistance at thermal conditions	R [mΩ/m]	0.185	0.122	0.104	0.080	0.058	0.040	0.041	0.030	0.021	0.015
Phase impedance at thermal conditions	Z [mΩ/m]	0.186	0.123	0.105	0.081	0.059	0.043	0.042	0.031	0.022	0.016
Neutral resistance	R_{20} [mΩ/m]	0.140	0.092	0.077	0.057	0.041	0.029	0.029	0.021	0.014	0.011
Resistance of the protective bar (PE 1)	R_{PE} [mΩ/m]	0.132	0.132	0.132	0.119	0.110	0.106	0.078	0.071	0.067	0.040
Resistance of the protective bar (PE 2)	R_{PE} [mΩ/m]	0.049	0.049	0.049	0.038	0.032	0.025	0.021	0.017	0.016	0.013
Resistance of the protective bar (PE 3)	R_{PE} [mΩ/m]	0.084	0.084	0.084	0.064	0.054	0.049	0.035	0.029	0.026	0.021
Reactance of the protective bar	X_{PE} [mΩ/m]	0.080	0.078	0.078	0.048	0.039	0.028	0.020	0.015	0.016	0.014
Resistance of the fault loop (PE 1)	R_o [mΩ/m]	0.272	0.224	0.208	0.176	0.152	0.135	0.107	0.092	0.082	0.051
Resistance of the fault loop (PE 2)	R_o [mΩ/m]	0.190	0.142	0.126	0.095	0.073	0.054	0.049	0.038	0.030	0.023
Resistance of the fault loop (PE 3)	R_o [mΩ/m]	0.224	0.176	0.161	0.121	0.096	0.078	0.064	0.050	0.040	0.032
Reactance of the fault loop (50hz)	X_o [mΩ/m]	0.103	0.095	0.095	0.064	0.054	0.042	0.031	0.022	0.022	0.019
Impedance of the fault loop (PE 1)	Z_o [mΩ/m]	0.291	0.243	0.229	0.188	0.161	0.142	0.111	0.094	0.085	0.054
Impedance of the fault loop (PE 2)	Z_o [mΩ/m]	0.216	0.171	0.158	0.115	0.091	0.069	0.058	0.044	0.037	0.030
Impedance of the fault loop (PE 3)	Z_o [mΩ/m]	0.247	0.200	0.187	0.137	0.110	0.089	0.071	0.054	0.046	0.037
Zero-sequence short-circuit average resistance phase - N	R_o [mΩ/m]	0.187	0.123	0.102	0.077	0.055	0.039	0.038	0.028	0.019	0.014
Zero-sequence short-circuit average reactance phase - N	X_o [mΩ/m]	0.031	0.023	0.023	0.021	0.020	0.019	0.015	0.009	0.008	0.007
Zero-sequence short-circuit average impedance phase - N	Z_o [mΩ/m]	0.189	0.125	0.105	0.080	0.059	0.043	0.041	0.029	0.021	0.016
Zero-sequence short-circuit average resistance phase - PE	R_o [mΩ/m]	0.178	0.162	0.157	0.138	0.124	0.116	0.088	0.078	0.072	0.044
Zero-sequence short-circuit average reactance phase - PE	X_o [mΩ/m]	0.031	0.023	0.023	0.021	0.020	0.019	0.015	0.009	0.008	0.007
Zero-sequence short-circuit average impedance phase - PE	Z_o [mΩ/m]	0.181	0.164	0.159	0.140	0.126	0.117	0.089	0.079	0.073	0.044
Voltage drop with distribuited load ΔV [V/(m*A)]10^{-6}	cosφ = 0,70	126.3	84.4	73.4	58.1	44.1	33.2	31.5	22.4	16.3	12.4
	cosφ = 0,75	133.3	88.9	77.1	60.8	45.9	34.3	32.8	23.3	17.0	12.9
	cosφ = 0,80	140.1	93.3	80.7	63.4	47.6	35.3	34.0	24.2	17.6	13.3
	cosφ = 0,85	146.6	97.5	84.1	65.9	49.2	36.1	35.1	25.1	18.1	13.6
	cosφ = 0,90	152.8	101.5	87.3	68.0	50.5	36.8	36.0	25.8	18.5	13.9
	cosφ = 0,95	158.4	104.9	90.0	69.8	51.4	37.0	36.5	26.4	18.8	14.0
	cosφ = 1,00	160.2	105.6	89.9	68.9	49.8	35.0	35.3	25.8	18.0	13.3
Weight (PE 1)	p [kg/m]	14.3	15.6	16.0	18.9	22.5	27.4	34.1	41.5	50.4	88.3
Weight (PE 2)	p [kg/m]	17.6	18.9	19.3	23.3	27.7	33.9	42.1	51.0	61.0	101.4
Weight (PE 3)	p [kg/m]	15.4	16.7	17.1	20.3	24.2	29.2	36.7	44.6	54.0	92.6
Fire load	[kWh/m]	4.5	5.5	5.5	6.0	8.5	10.5	16.0	19.0	21.0	21.0
Degree of protection	IP	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***
Insulation material thermal resistance class		B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*
Losses for the Joule effect at nominal current	P [W/m]	220	234	311	373	442	485	765	914	1000	1154
Ambient temperature min/ MAX (daily average)**	[°C]	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50

*Class F available under request
***IP 65 available under request
**From 35°C it will be necessary to derate the busbar and for ambient temperatures under -5°C contact the tecnical support.

The data on this page refer to the 50 Hz frequency. For 60 Hz, please contact Legrand.



PE 1
Standard version

PE 2
Extra earth - COPPER

PE 3
Extra earth - ALUMINUM
XCP Al 3L+N+50%PE
(available on request)

Xtra Compact (XCP-S)

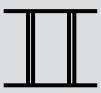
technical data

XCP-S Al (5 Conductors - clean earth)

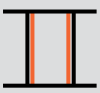
3P+N+PE+FE		SINGLE BAR						DOUBLE BAR			TRIPLE BAR
Rated current	**In [A]**	**630**	**800**	**1000**	**1250**	**1600**	**2000**	**2500**	**3200**	**4000**	**5000**
Overall dimension of the busbars	L x H [mm]	120 x 130	120 x 130	120 x 130	120 x 170	120 x 200	120 x 220	120 x 380	120 x 440	120 x 480	120 x 590
Rated operational voltage	Ue [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated insulation voltage	Ui [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Frequency	f [Hz]	50	50	50	50	50	50	50	50	50	50
Rated short-time current (1 s)	I_{CW} [kA]$_{rms}$	25	25	36	42	42	50	65	80	100	120
Peak current	I_{pk} [kA]	53	53	76	88	88	105	143	176	220	264
Allowable specific energy for three-phase fault	I^2t [MA^{2}s]	312	312	1296	1764	1764	2500	4225	6400	10000	14400
Rated short-time current of the neutral bar (1 s) and FE	I_{CW} [kA]$_{rms}$	25	25	36	42	42	50	65	80	100	120
Peak current of the neutral bar and FE	I_{pk} [kA]	49	49	71	82	82	98	133	164	205	246
Rated short-time current of the protective circuit (1 s)	I_{CW} [kA]$_{rms}$	15	15	22	25	25	30	39	48	60	72
Peak current of the protective circuit	I_{pk} [kA]	30	30	46	53	53	63	82	101	132	158
Phase resistance at 20°C	R_{20} [mΩ/m]	0.140	0.092	0.077	0.057	0.041	0.029	0.029	0.021	0.014	0.011
Phase reactance (50hz)	X [mΩ/m]	0.023	0.017	0.017	0.016	0.015	0.014	0.011	0.007	0.006	0.005
Phase impedance	Z [mΩ/m]	0.142	0.094	0.079	0.060	0.044	0.032	0.031	0.022	0.016	0.012
Phase resistance at thermal conditions	R [mΩ/m]	0.185	0.122	0.104	0.080	0.058	0.040	0.041	0.030	0.021	0.015
Phase impedance at thermal conditions	Z [mΩ/m]	0.186	0.123	0.105	0.081	0.059	0.043	0.042	0.031	0.022	0.016
Neutral resistance	R_{20} [mΩ/m]	0.140	0.092	0.077	0.057	0.041	0.029	0.029	0.021	0.014	0.011
Functional Earth resistance (FE)	R_{20} [mΩ/m]	0.140	0.092	0.077	0.057	0.041	0.029	0.029	0.021	0.014	0.011
Functional Earth reactance (FE)	X [mΩ/m]	0.023	0.017	0.017	0.016	0.015	0.014	0.011	0.007	0.006	0.005
Resistance of the protective bar (PE 1)	R_{PE} [mΩ/m]	0.132	0.132	0.132	0.119	0.110	0.106	0.078	0.071	0.067	0.040
Resistance of the protective bar (PE 2)	R_{PE} [mΩ/m]	0.049	0.049	0.049	0.038	0.032	0.025	0.021	0.017	0.016	0.013
Resistance of the protective bar (PE 3)	R_{PE} [mΩ/m]	0.084	0.084	0.084	0.064	0.054	0.049	0.035	0.029	0.026	0.021
Reactance of the protective bar	X_{PE} [mΩ/m]	0.080	0.078	0.078	0.048	0.039	0.028	0.020	0.015	0.016	0.014
Resistance of the fault loop (PE 1)	R_o [mΩ/m]	0.272	0.224	0.208	0.176	0.152	0.135	0.107	0.092	0.082	0.051
Resistance of the fault loop (PE 2)	R_o [mΩ/m]	0.190	0.142	0.126	0.095	0.073	0.054	0.049	0.038	0.030	0.023
Resistance of the fault loop (PE 3)	R_o [mΩ/m]	0.224	0.176	0.161	0.121	0.096	0.078	0.064	0.050	0.040	0.032
Reactance of the fault loop (50hz)	X_o [mΩ/m]	0.10	0.10	0.10	0.06	0.05	0.04	0.03	0.02	0.02	0.02
Impedance of the fault loop (PE 1)	Z_o [mΩ/m]	0.291	0.243	0.229	0.188	0.161	0.142	0.111	0.094	0.085	0.054
Impedance of the fault loop (PE 2)	Z_o [mΩ/m]	0.216	0.171	0.158	0.115	0.091	0.069	0.058	0.044	0.037	0.030
Impedance of the fault loop (PE 3)	Z_o [mΩ/m]	0.247	0.200	0.187	0.137	0.110	0.089	0.071	0.054	0.046	0.037
Zero-sequence short-circuit average resistance phase - N and FE	R_o [mΩ/m]	0,187	0,123	0,102	0,077	0,055	0,039	0,038	0,028	0,019	0,014
Zero-sequence short-circuit average reactance phase - N and FE	X_o [mΩ/m]	0,031	0,023	0,023	0,021	0,020	0,019	0,015	0,009	0,008	0,007
Zero-sequence short-circuit average impedance phase - N and FE	Z_o [mΩ/m]	0,189	0,125	0,105	0,080	0,059	0,043	0,041	0,029	0,021	0,016
Zero-sequence short-circuit average resistance phase - PE	R_o [mΩ/m]	0.178	0.162	0.157	0.138	0.124	0.116	0.088	0.078	0.072	0.044
Zero-sequence short-circuit average reactance phase - PE	X_o [mΩ/m]	0.088	0.084	0.084	0.053	0.044	0.033	0.024	0.017	0.018	0.016
Zero-sequence short-circuit average impedance phase - PE	Z_o [mΩ/m]	0.199	0.183	0.178	0.148	0.132	0.120	0.091	0.080	0.075	0.047
Voltage drop with distribuited load ΔV [V/(m*A)]10^{-6}	cosφ = 0,70	126.3	84.4	73.4	58.1	44.1	33.2	31.5	22.4	16.3	12.4
	cosφ = 0,75	133.3	88.9	77.1	60.8	45.9	34.3	32.8	23.3	17.0	12.9
	cosφ = 0,80	140.1	93.3	80.7	63.4	47.6	35.3	34.0	24.2	17.6	13.3
	cosφ = 0,85	146.6	97.5	84.1	65.9	49.2	36.1	35.1	25.1	18.1	13.6
	cosφ = 0,90	152.8	101.5	87.3	68.0	50.5	36.8	36.0	25.8	18.5	13.9
	cosφ = 0,95	158.4	104.9	90.0	69.8	51.4	37.0	36.5	26.4	18.8	14.0
	cosφ = 1,00	160.2	105.6	89.9	68.9	49.8	35.0	35.3	25.8	18.0	13.3
Weight (PE 1)	p [kg/m]	15.3	17.0	17.6	20.9	25.2	31.1	38.3	47.1	58.0	98.2
Weight (PE 2)	p [kg/m]	18.6	20.3	20.9	25.3	30.3	37.6	46.3	56.6	68.6	111.3
Weight (PE 3)	p [kg/m]	16.4	18.0	18.7	22.3	26.9	33.0	40.9	50.2	61.5	102.5
Fire load	[kWh/m]	5.6	6.9	6.9	7.5	10.6	13.1	20.0	23.8	26.3	27.3
Degree of protection	IP	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***
Insulation material thermal resistance class		B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*
Losses for the Joule effect at nominal current	P [W/m]	220	234	311	373	442	485	765	914	1000	1154
Ambient temperature min/ MAX (daily average)**	[°C]	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50

*Class F available under request
***IP 65 available under request
**From 35°C it will be necessary to derate the busbar and for ambient temperatures under -5°C contact the tecnical support.

The data on this page refer to the 50 Hz frequency. For 60 Hz, please contact Legrand.



PE 1
Standard version



PE 2
Extra earth - COPPER

PE 3
Extra earth - ALUMINUM
XCP Al 3L+N+50%PE
(available on request)

Xtra Compact (XCP-S)

technical data

XCP-S Al (5 Conductors - double neutral)

3P+2N+PE		SINGLE BAR						DOUBLE BAR			TRIPLE BAR
Rated current	**In [A]**	**630**	**800**	**1000**	**1250**	**1600**	**2000**	**2500**	**3200**	**4000**	**5000**
Overall dimension of the busbars	L x H [mm]	120 x 130	120 x 130	120 x 130	120 x 170	120 x 200	120 x 220	120 x 380	120 x 440	120 x 480	120 x 590
Rated operational voltage	Ue [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated insulation voltage	Ui [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Frequency	f [Hz]	50	50	50	50	50	50	50	50	50	50
Rated short-time current (1 s)	I_{CW} [kA]$_{rms}$	25	25	36	42	42	50	65	80	100	120
Peak current	I_{pk} [kA]	53	53	76	88	88	105	143	176	220	264
Allowable specific energy for three-phase fault	I^2t [MA^{2}s]	312	312	1296	1764	1764	2500	4225	6400	10000	14400
Rated short-time current of the neutral bar (1 s)	I_{CW} [kA]$_{rms}$	25	25	36	42	42	50	65	80	100	120
Peak current of the neutral bar	I_{pk} [kA]	49	49	71	82	82	98	133	164	205	246
Rated short-time current of the protective circuit (1 s)	I_{CW} [kA]$_{rms}$	15	15	22	25	25	30	39	48	60	72
Peak current of the protective circuit	I_{pk} [kA]	30	30	46	53	53	63	82	101	132	158
Phase resistance at 20°C	R_{20} [mΩ/m]	0.140	0.092	0.077	0.057	0.041	0.029	0.029	0.021	0.014	0.011
Phase reactance (50hz)	X [mΩ/m]	0.023	0.017	0.017	0.016	0.015	0.014	0.011	0.007	0.006	0.005
Phase impedance	Z [mΩ/m]	0.142	0.094	0.079	0.060	0.044	0.032	0.031	0.022	0.016	0.012
Phase resistance at thermal conditions	R [mΩ/m]	0.185	0.122	0.104	0.080	0.058	0.040	0.041	0.030	0.021	0.015
Phase impedance at thermal conditions	Z [mΩ/m]	0.186	0.123	0.105	0.081	0.059	0.043	0.042	0.031	0.022	0.016
Neutral resistance	R_{20} [mΩ/m]	0.070	0.046	0.038	0.029	0.021	0.014	0.014	0.010	0.007	0.005
Resistance of the protective bar (PE 1)	R_{PE} [mΩ/m]	0.132	0.132	0.132	0.119	0.110	0.106	0.078	0.071	0.067	0.040
Resistance of the protective bar (PE 2)	R_{PE} [mΩ/m]	0.049	0.049	0.049	0.038	0.032	0.025	0.021	0.017	0.016	0.013
Resistance of the protective bar (PE 3)	R_{PE} [mΩ/m]	0.084	0.084	0.084	0.064	0.054	0.049	0.035	0.029	0.026	0.021
Reactance of the protective bar	X_{PE} [mΩ/m]	0.080	0.078	0.078	0.048	0.039	0.028	0.020	0.015	0.016	0.014
Resistance of the fault loop (PE 1)	R_o [mΩ/m]	0.272	0.224	0.208	0.176	0.152	0.135	0.107	0.092	0.082	0.051
Resistance of the fault loop (PE 2)	R_o [mΩ/m]	0.190	0.142	0.126	0.095	0.073	0.054	0.049	0.038	0.030	0.023
Resistance of the fault loop (PE 3)	R_o [mΩ/m]	0.224	0.176	0.161	0.121	0.096	0.078	0.064	0.050	0.040	0.032
Reactance of the fault loop (50hz)	X_o [mΩ/m]	0.10	0.10	0.10	0.06	0.05	0.04	0.03	0.02	0.02	0.02
Impedance of the fault loop (PE 1)	Z_o [mΩ/m]	0.291	0.243	0.229	0.188	0.161	0.142	0.111	0.094	0.085	0.054
Impedance of the fault loop (PE 2)	Z_o [mΩ/m]	0.216	0.171	0.158	0.115	0.091	0.069	0.058	0.044	0.037	0.030
Impedance of the fault loop (PE 3)	Z_o [mΩ/m]	0.247	0.200	0.187	0.137	0.110	0.089	0.071	0.054	0.046	0.037
Zero-sequence short-circuit average resistance phase - N	R_o [mΩ/m]	0.117	0.077	0.064	0.048	0.034	0.024	0.024	0.017	0.012	0.009
Zero-sequence short-circuit average reactance phase - N	X_o [mΩ/m]	0.019	0.014	0.014	0.013	0.013	0.012	0.009	0.006	0.005	0.004
Zero-sequence short-circuit average impedance phase - N	Z_o [mΩ/m]	0.118	0.078	0.066	0.050	0.037	0.027	0.026	0.018	0.013	0.010
Zero-sequence short-circuit average resistance phase - PE	R_o [mΩ/m]	0.178	0.162	0.157	0.138	0.124	0.116	0.088	0.078	0.072	0.044
Zero-sequence short-circuit average reactance phase - PE	X_o [mΩ/m]	0.031	0.023	0.023	0.021	0.020	0.019	0.015	0.009	0.008	0.007
Zero-sequence short-circuit average impedance phase - PE	Z_o [mΩ/m]	0.181	0.164	0.159	0.140	0.126	0.117	0.089	0.079	0.073	0.044
Voltage drop with distribuited load ΔV [V/(m*A)]10^{-6}	cosφ = 0,70	126.3	84.4	73.4	58.1	44.1	33.2	31.5	22.4	16.3	12.4
	cosφ = 0,75	133.3	88.9	77.1	60.8	45.9	34.3	32.8	23.3	17.0	12.9
	cosφ = 0,80	140.1	93.3	80.7	63.4	47.6	35.3	34.0	24.2	17.6	13.3
	cosφ = 0,85	146.6	97.5	84.1	65.9	49.2	36.1	35.1	25.1	18.1	13.6
	cosφ = 0,90	152.8	101.5	87.3	68.0	50.5	36.8	36.0	25.8	18.5	13.9
	cosφ = 0,95	158.4	104.9	90.0	69.8	51.4	37.0	36.5	26.4	18.8	14.0
	cosφ = 1,00	160.2	105.6	89.9	68.9	49.8	35.0	35.3	25.8	18.0	13.3
Weight (PE 1)	p [kg/m]	15.3	17.0	17.6	20.9	25.2	31.1	38.3	47.1	58.0	98.2
Weight (PE 2)	p [kg/m]	18.6	20.3	20.9	25.3	30.3	37.6	46.3	56.6	68.6	111.3
Weight (PE 3)	p [kg/m]	16.4	18.0	18.7	22.3	26.9	33.0	40.9	50.2	61.5	102.5
Fire load	[kWh/m]	5.6	6.9	6.9	7.5	10.6	13.1	20.0	23.8	26.3	27.3
Degree of protection	IP	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***
Insulation material thermal resistance class		B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*
Losses for the Joule effect at nominal current	P [W/m]	220	234	311	373	442	485	765	914	1000	1154
Ambient temperature min/ MAX (daily average)**	[°C]	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50

*Class F available under request
**From 35°C it will be necessary to derate the busbar and for ambient temperatures under -5°C contact the tecnical support.

***IP 65 available under request

The data on this page refer to the 50 Hz frequency. For 60 Hz, please contact Legrand.

PE 1
Standard version

PE 2
Extra earth - COPPER

PE 3
Extra earth - ALUMINUM
XCP Al 3L+N+50%PE
(available on request)

Xtra Compact (XCP-S)

technical data

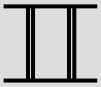
XCP-S Al (3 Conductors)

3P+PE		SINGLE BAR						DOUBLE BAR			TRIPLE BAR
Rated current	**In [A]**	**630**	**800**	**1000**	**1250**	**1600**	**2000**	**2500**	**3200**	**4000**	**5000**
Overall dimension of the busbars	L x H [mm]	120 x 130	120 x 130	120 x 130	120 x 170	120 x 200	120 x 220	120 x 380	120 x 440	120 x 480	120 x 590
Rated operational voltage	Ue [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated insulation voltage	Ui [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Frequency	f [Hz]	50	50	50	50	50	50	50	50	50	50
Rated short-time current (1 s)	I_{CW} [kA]$_{rms}$	25	25	36	42	42	50	65	80	100	120
Peak current	I_{pk} [kA]	53	53	76	88	88	105	143	176	220	264
Allowable specific energy for three-phase fault	I^2t [MA^{2}s]	312	312	1296	1764	1764	2500	4225	6400	10000	14400
Rated short-time current of the protective circuit (1 s)	I_{CW} [kA]$_{rms}$	15	15	22	25	25	30	39	48	60	72
Peak current of the protective circuit	I_{pk} [kA]	30	30	46	53	53	63	82	101	132	158
Phase resistance at 20°C	R_{20} [mΩ/m]	0.140	0.092	0.077	0.057	0.041	0.029	0.029	0.021	0.014	0.011
Phase reactance (50hz)	X [mΩ/m]	0.023	0.017	0.017	0.016	0.015	0.014	0.011	0.007	0.006	0.005
Phase impedance	Z [mΩ/m]	0.142	0.094	0.079	0.060	0.044	0.032	0.031	0.022	0.016	0.012
Phase resistance at thermal conditions	R [mΩ/m]	0.185	0.122	0.104	0.080	0.058	0.040	0.041	0.030	0.021	0.015
Phase impedance at thermal conditions	Z [mΩ/m]	0.186	0.123	0.105	0.081	0.059	0.043	0.042	0.031	0.022	0.016
Resistance of the protective bar (PE 1)	R_{PE} [mΩ/m]	0.132	0.132	0.132	0.119	0.110	0.106	0.078	0.071	0.067	0.040
Resistance of the protective bar (PE 2)	R_{PE} [mΩ/m]	0.049	0.049	0.049	0.038	0.032	0.025	0.021	0.017	0.016	0.013
Resistance of the protective bar (PE 3)	R_{PE} [mΩ/m]	0.084	0.084	0.084	0.064	0.054	0.049	0.035	0.029	0.026	0.021
Reactance of the protective bar	X_{PE} [mΩ/m]	0.080	0.078	0.078	0.048	0.039	0.028	0.020	0.015	0.016	0.014
Resistance of the fault loop (PE 1)	R_o [mΩ/m]	0.272	0.224	0.208	0.176	0.152	0.135	0.107	0.092	0.082	0.051
Resistance of the fault loop (PE 2)	R_o [mΩ/m]	0.190	0.142	0.126	0.095	0.073	0.054	0.049	0.038	0.030	0.023
Resistance of the fault loop (PE 3)	R_o [mΩ/m]	0.224	0.176	0.161	0.121	0.096	0.078	0.064	0.050	0.040	0.032
Reactance of the fault loop (50hz)	X_o [mΩ/m]	0.10	0.10	0.10	0.06	0.05	0.04	0.03	0.02	0.02	0.02
Impedance of the fault loop (PE 1)	Z_o [mΩ/m]	0.291	0.243	0.229	0.188	0.161	0.142	0.111	0.094	0.085	0.054
Impedance of the fault loop (PE 2)	Z_o [mΩ/m]	0.216	0.171	0.158	0.115	0.091	0.069	0.058	0.044	0.037	0.030
Impedance of the fault loop (PE 3)	Z_o [mΩ/m]	0.247	0.200	0.187	0.137	0.110	0.089	0.071	0.054	0.046	0.037
Zero-sequence short-circuit average resistance phase - PE	R_o [mΩ/m]	0.178	0.162	0.157	0.138	0.124	0.116	0.088	0.078	0.072	0.044
Zero-sequence short-circuit average reactance phase - PE	X_o [mΩ/m]	0.031	0.023	0.023	0.021	0.020	0.019	0.015	0.009	0.008	0.007
Zero-sequence short-circuit average impedance phase - PE	Z_o [mΩ/m]	0.181	0.164	0.159	0.140	0.126	0.117	0.089	0.079	0.073	0.044
Voltage drop with distribuited load ΔV [V/(m*A)]10^{-6}	cosφ = 0,70	126.3	84.4	73.4	58.1	44.1	33.2	31.5	22.4	16.3	12.4
	cosφ = 0,75	133.3	88.9	77.1	60.8	45.9	34.3	32.8	23.3	17.0	12.9
	cosφ = 0,80	140.1	93.3	80.7	63.4	47.6	35.3	34.0	24.2	17.6	13.3
	cosφ = 0,85	146.6	97.5	84.1	65.9	49.2	36.1	35.1	25.1	18.1	13.6
	cosφ = 0,90	152.8	101.5	87.3	68.0	50.5	36.8	36.0	25.8	18.5	13.9
	cosφ = 0,95	158.4	104.9	90.0	69.8	51.4	37.0	36.5	26.4	18.8	14.0
	cosφ = 1,00	160.2	105.6	89.9	68.9	49.8	35.0	35.3	25.8	18.0	13.3
Weight (PE 1)	p [kg/m]	13.3	14.2	14.5	16.9	19.8	23.6	29.9	35.9	42.9	78.4
Weight (PE 2)	p [kg/m]	16.6	17.5	17.8	21.3	25.0	30.1	37.9	45.4	53.4	91.5
Weight (PE 3)	p [kg/m]	14.3	15.3	15.5	18.3	21.5	25.5	32.5	39.0	46.4	82.7
Fire load	[kWh/m]	3.4	4.1	4.1	4.5	6.4	7.9	12.0	14.3	15.8	14.8
Degree of protection	IP	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***
Insulation material thermal resistance class		B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*
Losses for the Joule effect at nominal current	P [W/m]	220	234	311	373	442	485	765	914	1000	1154
Ambient temperature min/ MAX (daily average)**	[°C]	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50	-5/50

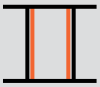
*Class F available under request
**From 35°C it will be necessary to derate the busbar and for ambient temperatures under -5°C contact the tecnical support.

***IP 65 available under request

The data on this page refer to the 50 Hz frequency. For 60 Hz, please contact Legrand.



PE 1
Standard version



PE 2
Extra earth - COPPER

PE 3
Extra earth - ALUMINUM
XCP Al 3L+N+50%PE
(available on request)

Xtra Compact (XCP-S)

technical data

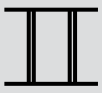
XCP-S CU (4 Conductors)

3P+N+PE		SINGLE BAR					DOUBLE BAR				TRIPLE BAR
Rated current	**In [A]**	**800**	**1000**	**1250**	**1600**	**2000**	**2500**	**3200**	**4000**	**5000**	**6300**
Overall dimension of the busbars	L x H [mm]	120 x 130	120 x 130	120 x 130	120 x 170	120 x 200	120 x 300	120 x 380	120 x 440	120 x 480	120 x 590
Rated operational voltage	Ue [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated insulation voltage	Ui [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Frequency	f [Hz]	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Rated short-time current (1 s)	I_{CW} [kA]$_{rms}$	25	36	42	42	50	65	80	100	120	150
Peak current	I_{pk} [kA]	53	76	88	88	105	143	176	220	264	330
Allowable specific energy for three-phase fault	I^2t [MA^{2}s]	625	1296	1764	1764	2500	4225	6400	10000	14400	22500
Rated short-time current of the neutral bar (1 s)	I_{CW} [kA]$_{rms}$	25	36	42	42	50	65	80	100	120	150
Peak current of the neutral bar	Ipk [kA]	49	71	82	82	98	133	164	205	246	307
Rated short-time current of the protective circuit (1 s)	I_{CW} [kA]$_{rms}$	15	22	25	25	30	39	48	60	72	90
Peak current of the protective circuit	I_{pk} [kA]	30	46	53	53	63	82	101	132	158	198
Phase resistance at 20°C	R_{20} [mΩ/m]	0.077	0.058	0.045	0.034	0.024	0.021	0.017	0.012	0.008	0.0062
Phase reactance (50hz)	X [mΩ/m]	0.023	0.017	0.017	0.015	0.014	0.011	0.007	0.006	0.006	0.0050
Phase impedance	Z [mΩ/m]	0.080	0.061	0.048	0.037	0.028	0.024	0.018	0.014	0.010	0.0079
Phase resistance at thermal conditions	R [mΩ/m]	0.100	0.081	0.061	0.045	0.034	0.029	0.024	0.017	0.011	0.0085
Phase impedance at thermal conditions	Z [mΩ/m]	0.103	0.082	0.063	0.048	0.036	0.031	0.025	0.018	0.012	0.0099
Neutral resistance	R_{20} [mΩ/m]	0.077	0.058	0.045	0.034	0.024	0.021	0.017	0.012	0.008	0.0062
Resistance of the protective bar (PE 1)	R_{PE} [mΩ/m]	0.132	0.132	0.132	0.119	0.110	0.090	0.078	0.071	0.067	0.0402
Resistance of the protective bar (PE 2)	R_{PE} [mΩ/m]	0.049	0.049	0.049	0.038	0.032	0.025	0.021	0.017	0.016	0.0125
Resistance of the protective bar (PE 3)	R_{PE} [mΩ/m]	0.084	0.084	0.084	0.064	0.054	0.042	0.035	0.029	0.026	0.0213
Reactance of the protective bar	X_{PE} [mΩ/m]	0.054	0.054	0.054	0.044	0.044	0.032	0.022	0.017	0.016	0.0140
Resistance of the fault loop (PE 1)	R_o [mΩ/m]	0.209	0.190	0.176	0.153	0.135	0.111	0.095	0.083	0.075	0.0464
Resistance of the fault loop (PE 2)	R_o [mΩ/m]	0.126	0.108	0.094	0.072	0.056	0.046	0.038	0.029	0.023	0.0187
Resistance of the fault loop (PE 3)	R_o [mΩ/m]	0.161	0.143	0.129	0.098	0.079	0.063	0.052	0.041	0.033	0.0275
Reactance of the fault loop (50hz)	X_o [mΩ/m]	0.08	0.07	0.07	0.06	0.06	0.04	0.03	0.02	0.02	0.02
Impedance of the fault loop (PE 1)	Z_o [mΩ/m]	0.222	0.203	0.190	0.164	0.147	0.119	0.099	0.087	0.078	0.0501
Impedance of the fault loop (PE 2)	Z_o [mΩ/m]	0.148	0.129	0.118	0.093	0.081	0.063	0.047	0.037	0.032	0.0267
Impedance of the fault loop (PE 3)	Z_o [mΩ/m]	0.179	0.159	0.147	0.114	0.098	0.076	0.059	0.047	0.040	0.0334
Zero-sequence short-circuit average resistance phase - N	R_o [mΩ/m]	0.103	0.078	0.060	0.045	0.033	0.028	0.023	0.016	0.010	0.0082
Zero-sequence short-circuit average reactance phase - N	X_o [mΩ/m]	0.031	0.023	0.023	0.020	0.019	0.015	0.009	0.008	0.008	0.0067
Zero-sequence short-circuit average impedance phase - N	Z_o [mΩ/m]	0.107	0.081	0.064	0.050	0.038	0.032	0.025	0.018	0.013	0.0106
Zero-sequence short-circuit average resistance phase - PE	R_o [mΩ/m]	0.157	0.151	0.147	0.130	0.118	0.097	0.084	0.075	0.070	0.0423
Zero-sequence short-circuit average reactance phase - PE	X_o [mΩ/m]	0.062	0.060	0.060	0.049	0.049	0.036	0.024	0.019	0.018	0.0157
Zero-sequence short-circuit average impedance phase - PE	Z_o [mΩ/m]	0.169	0.163	0.158	0.139	0.128	0.103	0.087	0.078	0.072	0.0451
Voltage drop with distribuited load ΔV [V/(m*A)]10^{-6}	cosφ = 0,70	75.1	59.5	47.2	36.7	29.0	24.5	19.2	14.1	10.3	8.3
	cosφ = 0,75	78.4	62.2	49.1	37.9	29.9	25.3	19.9	14.6	10.5	8.4
	cosφ = 0,80	81.5	64.8	50.8	39.1	30.6	25.9	20.6	15.0	10.7	8.5
	cosφ = 0,85	84.4	67.2	52.3	40.1	31.1	26.5	21.2	15.4	10.7	8.6
	cosφ = 0,90	86.9	69.3	53.6	40.9	31.5	26.9	21.7	15.6	10.7	8.5
	cosφ = 0,95	88.8	71.0	54.4	41.2	31.4	27.0	22.0	15.7	10.6	8.4
	cosφ = 1,00	86.9	69.9	52.4	39.1	29.1	25.3	21.2	14.8	9.4	7.4
Weight (PE 1)	p [kg/m]	21.2	23.8	26.9	33.5	42.5	51.0	63.0	80.9	114.9	165.1
Weight (PE 2)	p [kg/m]	24.5	27.1	30.2	37.8	47.6	57.7	71.0	90.4	125.4	178.2
Weight (PE 3)	p [kg/m]	22.3	24.9	28.0	34.9	44.2	53.2	65.6	84.0	118.4	169.3
Fire load	[kWh/m]	4.5	5.5	5.5	8.0	8.2	10.5	16.0	19.0	21.0	22.0
Degree of protection	IP	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***
Insulation material thermal resistance class		B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*
Losses for the Joule effect at nominal current	P [W/m]	193	242	284	347	403	547	752	823	816	1015
Ambient temperature min/ MAX (daily average)**	[°C]	-5/50**	-5/50**	-5/50**	-5/50**	-5/50**	-5/50**	-5/50**	-5/50**	-5/50**	-5/50**

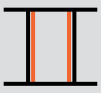
*Class F available under request
**From 35°C it will be necessary to derate the busbar and for ambient temperatures under -5°C contact the tecnical support.

***IP 65 available under request

The data on this page refer to the 50 Hz frequency. For 60 Hz, please contact Legrand.



PE 1
Standard version



PE 2
Extra earth - COPPER XCP Cu 3L+N+50%PE
(tinned copper conductors available on request)

PE 3
Extra earth - ALUMINUM

Xtra Compact (XCP-S)

technical data (continued)

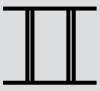
XCP-S CU (5 Conductors - clean earth)

3P+N+PE+FE		SINGLE BAR					DOUBLE BAR				TRIPLE BAR
Rated current	**In [A]**	**800**	**1000**	**1250**	**1600**	**2000**	**2500**	**3200**	**4000**	**5000**	**6300**
Overall dimension of the busbars	L x H [mm]	120 x 130	120 x 130	120 x 130	120 x 170	120 x 200	120 x 300	120 x 380	120 x 440	120 x 480	120 x 590
Rated operational voltage	Ue [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated insulation voltage	Ui [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Frequency	f [Hz]	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Rated short-time current (1 s)	I_{CW} [kA]$_{rms}$	25	36	42	42	50	65	80	100	120	150
Peak current	I_{pk} [kA]	53	76	88	88	105	143	176	220	264	330
Allowable specific energy for three-phase fault	I^2t [MA^{2}s]	625	1296	1764	1764	2500	4225	6400	10000	14400	22500
Rated short-time current of the neutral bar (1 s) and FE	I_{CW} [kA]$_{rms}$	25	36	42	42	50	65	80	100	120	150
Peak current of the neutral bar and FE	I_{pk} [kA]	49	71	82	82	98	133	164	205	246	307
Rated short-time current of the protective circuit (1 s)	I_{CW} [kA]$_{rms}$	15	22	25	25	30	39	48	60	72	90
Peak current of the protective circuit	I_{pk} [kA]	30	46	53	53	63	82	101	132	158	198
Phase resistance at 20°C	R_{20} [mΩ/m]	0.077	0.058	0.045	0.034	0.024	0.021	0.017	0.012	0.008	0.0062
Phase reactance (50hz)	X [mΩ/m]	0.023	0.017	0.017	0.015	0.014	0.011	0.007	0.006	0.006	0.0050
Phase impedance	Z [mΩ/m]	0.080	0.061	0.048	0.037	0.028	0.024	0.018	0.014	0.010	0.0079
Phase resistance at thermal conditions	R [mΩ/m]	0.100	0.081	0.061	0.045	0.034	0.029	0.024	0.017	0.011	0.0085
Phase impedance at thermal conditions	Z [mΩ/m]	0.103	0.082	0.063	0.048	0.036	0.031	0.025	0.018	0.012	0.0099
Neutral resistance	R_{20} [mΩ/m]	0.077	0.058	0.045	0.034	0.024	0.021	0.017	0.012	0.008	0.0062
Functional Earth resistance (FE)	R_{20} [mΩ/m]	0.077	0.058	0.045	0.034	0.024	0.021	0.017	0.012	0.008	0.0062
Functional Earth reactance (FE)	X [mΩ/m]	0.023	0.017	0.017	0.015	0.014	0.011	0.007	0.006	0.006	0.0050
Resistance of the protective bar (PE 1)	R_{PE} [mΩ/m]	0.133	0.133	0.133	0.120	0.111	0.090	0.079	0.072	0.068	0.0412
Resistance of the protective bar (PE 2)	R_{PE} [mΩ/m]	0.049	0.049	0.049	0.038	0.032	0.025	0.021	0.017	0.016	0.0125
Resistance of the protective bar (PE 3)	R_{PE} [mΩ/m]	0.084	0.084	0.084	0.064	0.054	0.042	0.035	0.029	0.026	0.0213
Reactance of the protective bar	X_{PE} [mΩ/m]	0.054	0.054	0.054	0.044	0.044	0.032	0.022	0.017	0.016	0.0140
Resistance of the fault loop (PE 1)	R_o [mΩ/m]	0.210	0.192	0.178	0.154	0.135	0.111	0.096	0.084	0.076	0.0473
Resistance of the fault loop (PE 2)	R_o [mΩ/m]	0.126	0.108	0.094	0.072	0.056	0.046	0.038	0.029	0.023	0.0187
Resistance of the fault loop (PE 3)	R_o [mΩ/m]	0.161	0.143	0.129	0.098	0.079	0.063	0.052	0.041	0.033	0.0275
Reactance of the fault loop (50hz)	X_o [mΩ/m]	0.077	0.071	0.071	0.059	0.058	0.043	0.029	0.023	0.022	0.0190
Impedance of the fault loop (PE 1)	Z_o [mΩ/m]	0.224	0.204	0.191	0.165	0.147	0.119	0.100	0.087	0.079	0.0510
Impedance of the fault loop (PE 2)	Z_o [mΩ/m]	0.148	0.129	0.118	0.093	0.081	0.063	0.047	0.037	0.032	0.0267
Impedance of the fault loop (PE 3)	Z_o [mΩ/m]	0.179	0.159	0.147	0.114	0.098	0.076	0.059	0.047	0.040	0.0334
Zero-sequence short-circuit average resistance phase - N and FE	R_o [mΩ/m]	0.103	0.078	0.060	0.045	0.033	0.028	0.023	0.016	0.010	0.0082
Zero-sequence short-circuit average reactance phase - N and FE	X_o [mΩ/m]	0.031	0.023	0.023	0.020	0.019	0.015	0.009	0.008	0.008	0.0067
Zero-sequence short-circuit average impedance phase - N and FE	Z_o [mΩ/m]	0.107	0.081	0.064	0.050	0.038	0.032	0.025	0.018	0.013	0.0106
Zero-sequence short-circuit average resistance phase - PE	R_o [mΩ/m]	0.159	0.153	0.148	0.131	0.119	0.097	0.084	0.076	0.071	0.0432
Zero-sequence short-circuit average reactance phase - PE	X_o [mΩ/m]	0.062	0.060	0.060	0.049	0.049	0.036	0.024	0.019	0.018	0.0157
Zero-sequence short-circuit average impedance phase - PE	Z_o [mΩ/m]	0.170	0.164	0.160	0.140	0.129	0.104	0.088	0.078	0.073	0.0460
Voltage drop with distribuited load ΔV [V/(m*A)]10^{-6}	cosφ = 0,70	75.1	59.5	47.2	36.7	29.0	24.5	19.2	14.1	10.3	8.3
	cosφ = 0,75	78.4	62.2	49.1	37.9	29.9	25.3	19.9	14.6	10.5	8.4
	cosφ = 0,80	81.5	64.8	50.8	39.1	30.6	25.9	20.6	15.0	10.7	8.5
	cosφ = 0,85	84.4	67.2	52.3	40.1	31.1	26.5	21.2	15.4	10.7	8.6
	cosφ = 0,90	86.9	69.3	53.6	40.9	31.5	26.9	21.7	15.6	10.7	8.5
	cosφ = 0,95	88.8	71.0	54.4	41.2	31.4	27.0	22.0	15.7	10.6	8.4
	cosφ = 1,00	86.9	69.9	52.4	39.1	29.1	25.3	21.2	14.8	9.4	7.4
Weight (PE 1)	p [kg/m]	23.7	27.1	31.0	38.9	49.9	59.9	74.1	96.0	138.1	193.1
Weight (PE 2)	p [kg/m]	27.1	30.4	34.4	43.3	55.1	66.5	82.1	105.5	148.6	206.2
Weight (PE 3)	p [kg/m]	24.8	28.1	32.1	40.3	51.6	62.0	76.7	99.1	141.6	197.4
Fire load	[kWh/m]	5.6	6.9	6.9	10.0	10.3	13.1	20.0	23.8	26.3	27.3
Degree of protection	IP	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***
Insulation material thermal resistance class		B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*
Losses for the Joule effect at nominal current	P [W/m]	193	242	284	347	403	547	752	823	816	1015
Ambient temperature min/ MAX (daily average)**	[°C]	-5/50**	-5/50**	-5/50**	-5/50**	-5/50**	-5/50**	-5/50**	-5/50**	-5/50**	-5/50**

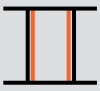
*Class F available under request
**From 35°C it will be necessary to derate the busbar and for ambient temperatures under -5°C contact the tecnical support.

***IP 65 available under request

The data on this page refer to the 50 Hz frequency. For 60 Hz, please contact Legrand.



PE 1
Standard version



PE 2
Extra earth - COPPER XCP Cu 3L+N+50%PE (tinned copper conductors available on request)

PE 3
Extra earth - ALUMINUM

Xtra Compact (XCP-S)

technical data

XCP-S CU (5 Conductors - double neutral)

3P+2N+PE		SINGLE BAR					DOUBLE BAR				TRIPLE BAR
Rated current	**In [A]**	**800**	**1000**	**1250**	**1600**	**2000**	**2500**	**3200**	**4000**	**5000**	**6300**
Overall dimension of the busbars	L x H [mm]	120 x 130	120 x 130	120 x 130	120 x 170	120 x 200	120 x 300	120 x 380	120 x 440	120 x 480	120 x 590
Rated operational voltage	Ue [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated insulation voltage	Ui [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Frequency	f [Hz]	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Rated short-time current (1 s)	I_{CW} [kA]$_{rms}$	25	36	42	42	50	65	80	100	120	150
Peak current	I_{pk} [kA]	53	76	88	88	105	143	176	220	264	330
Allowable specific energy for three-phase fault	I^2t [MA^{2}s]	625	1296	1764	1764	2500	4225	6400	10000	14400	22500
Rated short-time current of the neutral bar (1 s)	I_{CW} [kA]$_{rms}$	25	36	42	42	50	65	80	100	120	150
Peak current of the neutral bar	I_{pk} [kA]	49	71	82	82	98	133	164	205	246	307
Rated short-time current of the protective circuit (1 s)	I_{CW} [kA]$_{rms}$	15	22	25	25	30	39	48	60	72	90
Peak current of the protective circuit	I_{pk} [kA]	30	46	53	53	63	82	101	132	158	198
Phase resistance at 20°C	R_{20} [mΩ/m]	0.077	0.058	0.045	0.034	0.024	0.021	0.017	0.012	0.008	0.0062
Phase reactance (50hz)	X [mΩ/m]	0.023	0.017	0.017	0.015	0.014	0.011	0.007	0.006	0.006	0.0050
Phase impedance	Z [mΩ/m]	0.080	0.061	0.048	0.037	0.028	0.024	0.018	0.014	0.010	0.0079
Phase resistance at thermal conditions	R [mΩ/m]	0.100	0.081	0.061	0.045	0.034	0.029	0.024	0.017	0.011	0.0085
Phase impedance at thermal conditions	Z [mΩ/m]	0.103	0.082	0.063	0.048	0.036	0.031	0.025	0.018	0.012	0.0099
Neutral resistance	R_{20} [mΩ/m]	0.038	0.029	0.022	0.017	0.012	0.011	0.008	0.006	0.004	0.0031
Resistance of the protective bar (PE 1)	R_{PE} [mΩ/m]	0.133	0.133	0.133	0.120	0.111	0.090	0.079	0.072	0.068	0.0412
Resistance of the protective bar (PE 2)	R_{PE} [mΩ/m]	0.049	0.049	0.049	0.038	0.032	0.025	0.021	0.017	0.016	0.0125
Resistance of the protective bar (PE 3)	R_{PE} [mΩ/m]	0.084	0.084	0.084	0.064	0.054	0.042	0.035	0.029	0.026	0.0213
Reactance of the protective bar	X_{PE} [mΩ/m]	0.054	0.054	0.054	0.044	0.044	0.032	0.022	0.017	0.016	0.0140
Resistance of the fault loop (PE 1)	R_o [mΩ/m]	0.210	0.192	0.178	0.154	0.135	0.111	0.096	0.084	0.076	0.0473
Resistance of the fault loop (PE 2)	R_o [mΩ/m]	0.126	0.108	0.094	0.072	0.056	0.046	0.038	0.029	0.023	0.0187
Resistance of the fault loop (PE 3)	R_o [mΩ/m]	0.161	0.143	0.129	0.098	0.079	0.063	0.052	0.041	0.033	0.0275
Reactance of the fault loop (50hz)	X_o [mΩ/m]	0.077	0.071	0.071	0.059	0.058	0.043	0.029	0.023	0.022	0.0190
Impedance of the fault loop (PE 1)	Z_o [mΩ/m]	0.224	0.204	0.191	0.165	0.147	0.119	0.100	0.087	0.079	0.0510
Impedance of the fault loop (PE 2)	Z_o [mΩ/m]	0.148	0.129	0.118	0.093	0.081	0.063	0.047	0.037	0.032	0.0267
Impedance of the fault loop (PE 3)	Z_o [mΩ/m]	0.179	0.159	0.147	0.114	0.098	0.076	0.059	0.047	0.040	0.0334
Zero-sequence short-circuit average resistance phase - N	R_o [mΩ/m]	0.064	0.049	0.037	0.028	0.020	0.018	0.014	0.010	0.006	0.0051
Zero-sequence short-circuit average reactance phase - N	X_o [mΩ/m]	0.019	0.014	0.014	0.013	0.012	0.009	0.006	0.005	0.005	0.0042
Zero-sequence short-circuit average impedance phase - N	Z_o [mΩ/m]	0.067	0.051	0.040	0.031	0.024	0.020	0.015	0.011	0.008	0.0066
Zero-sequence short-circuit average resistance phase - PE	R_o [mΩ/m]	0.157	0.151	0.147	0.130	0.118	0.097	0.084	0.075	0.070	0.0423
Zero-sequence short-circuit average reactance phase - PE	X_o [mΩ/m]	0.062	0.060	0.060	0.049	0.049	0.036	0.024	0.019	0.018	0.0157
Zero-sequence short-circuit average impedance phase - PE	Z_o [mΩ/m]	0.169	0.163	0.158	0.139	0.128	0.103	0.087	0.078	0.072	0.0451
Voltage drop with distribuited load ΔV [V/(m*A)]10^{-6}	cosφ = 0,70	75.1	59.5	47.2	36.7	29.0	24.5	19.2	14.1	10.3	8.3
	cosφ = 0,75	78.4	62.2	49.1	37.9	29.9	25.3	19.9	14.6	10.5	8.4
	cosφ = 0,80	81.5	64.8	50.8	39.1	30.6	25.9	20.6	15.0	10.7	8.5
	cosφ = 0,85	84.4	67.2	52.3	40.1	31.1	26.5	21.2	15.4	10.7	8.6
	cosφ = 0,90	86.9	69.3	53.6	40.9	31.5	26.9	21.7	15.6	10.7	8.5
	cosφ = 0,95	88.8	71.0	54.4	41.2	31.4	27.0	22.0	15.7	10.6	8.4
	cosφ = 1,00	86.9	69.9	52.4	39.1	29.1	25.3	21.2	14.8	9.4	7.4
Weight (PE 1)	p [kg/m]	23.7	27.1	31.0	38.9	49.9	59.9	74.1	96.0	138.1	193.1
Weight (PE 2)	p [kg/m]	27.1	30.4	34.4	43.3	55.1	66.5	82.1	105.5	148.6	206.2
Weight (PE 3)	p [kg/m]	24.8	28.1	32.1	40.3	51.6	62.0	76.7	99.1	141.6	197.4
Fire load	[kWh/m]	5.6	6.9	6.9	10.0	10.3	13.1	20.0	23.8	26.3	27.3
Degree of protection	IP	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***
Insulation material thermal resistance class		B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*
Losses for the Joule effect at nominal current	P [W/m]	193	242	284	347	403	547	752	823	816	1015
Ambient temperature min/ MAX (daily average)**	[°C]	-5/50**	-5/50**	-5/50**	-5/50**	-5/50**	-5/50**	-5/50**	-5/50**	-5/50**	-5/50**

*Class F available under request
**From 35°C it will be necessary to derate the busbar and for ambient temperatures under -5°C contact the tecnical support.

***IP 65 available under request

The data on this page refer to the 50 Hz frequency. For 60 Hz, please contact Legrand.

PE 1
Standard version

PE 2
Extra earth - COPPER XCP Cu 3L+N+50%PE (tinned copper conductors available on request)

PE 3
Extra earth - ALUMINUM

Xtra Compact (XCP-S)

technical data

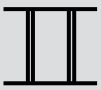
XCP-S CU (3 Conductors)

3P+PE		SINGLE BAR					DOUBLE BAR				TRIPLE BAR
Rated current	**In [A]**	**800**	**1000**	**1250**	**1600**	**2000**	**2500**	**3200**	**4000**	**5000**	**6300**
Overall dimension of the busbars	L x H [mm]	120 x 130	120 x 130	120 x 130	120 x 170	120 x 200	120 x 300	120 x 380	120 x 440	120 x 480	120 x 590
Rated operational voltage	Ue [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated insulation voltage	Ui [V]	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Frequency	f [Hz]	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Rated short-time current (1 s)	I_{CW} [kA]$_{rms}$	25	36	42	42	50	65	80	100	120	150
Peak current	I_{pk} [kA]	53	76	88	88	105	143	176	220	264	330
Allowable specific energy for three-phase fault	I^2t [MA^{2}s]	625	1296	1764	1764	2500	4225	6400	10000	14400	22500
Rated short-time current of the protective circuit (1 s)	I_{CW} [kA]$_{rms}$	15	22	25	25	30	39	48	60	72	90
Peak current of the protective circuit	I_{pk} [kA]	30	46	53	53	63	82	101	132	158	198
Phase resistance at 20°C	R_{20} [mΩ/m]	0.077	0.058	0.045	0.034	0.024	0.021	0.017	0.012	0.008	0.0062
Phase reactance (50hz)	X [mΩ/m]	0.023	0.017	0.017	0.015	0.014	0.011	0.007	0.006	0.006	0.0050
Phase impedance	Z [mΩ/m]	0.080	0.061	0.048	0.037	0.028	0.024	0.018	0.014	0.010	0.0079
Phase resistance at thermal conditions	R [mΩ/m]	0.100	0.081	0.061	0.045	0.034	0.029	0.024	0.017	0.011	0.0085
Phase impedance at thermal conditions	Z [mΩ/m]	0.103	0.082	0.063	0.048	0.036	0.031	0.025	0.018	0.012	0.0099
Resistance of the protective bar (PE 1)	R_{PE} [mΩ/m]	0.130	0.130	0.130	0.118	0.110	0.089	0.078	0.071	0.067	0.0396
Resistance of the protective bar (PE 2)	R_{PE} [mΩ/m]	0.049	0.049	0.049	0.038	0.032	0.025	0.021	0.017	0.016	0.0125
Resistance of the protective bar (PE 3)	R_{PE} [mΩ/m]	0.084	0.084	0.084	0.064	0.054	0.042	0.035	0.029	0.026	0.0213
Reactance of the protective bar	X_{PE} [mΩ/m]	0.054	0.054	0.054	0.044	0.044	0.032	0.022	0.017	0.016	0.0140
Resistance of the fault loop (PE 1)	R_o [mΩ/m]	0.206	0.188	0.174	0.152	0.134	0.110	0.095	0.083	0.075	0.0458
Resistance of the fault loop (PE 2)	R_o [mΩ/m]	0.126	0.108	0.094	0.072	0.056	0.046	0.038	0.029	0.023	0.0187
Resistance of the fault loop (PE 3)	R_o [mΩ/m]	0.161	0.143	0.129	0.098	0.079	0.063	0.052	0.041	0.033	0.0275
Reactance of the fault loop (50hz)	X_o [mΩ/m]	0.077	0.071	0.071	0.059	0.058	0.043	0.029	0.023	0.022	0.0190
Impedance of the fault loop (PE 1)	Z_o [mΩ/m]	0.220	0.201	0.188	0.163	0.146	0.118	0.099	0.086	0.078	0.0496
Impedance of the fault loop (PE 2)	Z_o [mΩ/m]	0.148	0.129	0.118	0.093	0.081	0.063	0.047	0.037	0.032	0.0267
Impedance of the fault loop (PE 3)	Z_o [mΩ/m]	0.179	0.159	0.147	0.114	0.098	0.076	0.059	0.047	0.040	0.0334
Zero-sequence short-circuit average resistance phase - PE	R_o [mΩ/m]	0.157	0.151	0.147	0.130	0.118	0.097	0.084	0.075	0.070	0.0423
Zero-sequence short-circuit average reactance phase - PE	X_o [mΩ/m]	0.062	0.060	0.060	0.049	0.049	0.036	0.024	0.019	0.018	0.0157
Zero-sequence short-circuit average impedance phase - PE	Z_o [mΩ/m]	0.169	0.163	0.158	0.139	0.128	0.103	0.087	0.078	0.072	0.0451
Voltage drop with distribuited load ΔV [V/(m*A)]10^{-6}	cosφ = 0,70	75.1	59.5	47.2	36.7	29.0	24.5	19.2	14.1	10.3	8.3
	cosφ = 0,75	78.4	62.2	49.1	37.9	29.9	25.3	19.9	14.6	10.5	8.4
	cosφ = 0,80	81.5	64.8	50.8	39.1	30.6	25.9	20.6	15.0	10.7	8.5
	cosφ = 0,85	84.4	67.2	52.3	40.1	31.1	26.5	21.2	15.4	10.7	8.6
	cosφ= 0,90	86.9	69.3	53.6	40.9	31.5	26.9	21.7	15.6	10.7	8.5
	cosφ = 0,95	88.8	71.0	54.4	41.2	31.4	27.0	22.0	15.7	10.6	8.4
	cosφ = 1,00	86.9	69.9	52.4	39.1	29.1	25.3	21.2	14.8	9.4	7.4
Weight (PE 1)	p [kg/m]	18.7	20.6	22.9	28.0	35.0	42.2	51.9	65.8	91.6	136.8
Weight (PE 2)	p [kg/m]	22.0	23.9	26.2	32.4	40.2	48.8	59.9	75.3	102.1	149.9
Weight (PE 3)	p [kg/m]	19.7	21.7	23.9	29.5	36.7	44.4	54.5	68.9	95.1	141.0
Fire load	[kWh/m]	3.4	4.1	4.1	6.0	6.2	7.9	12.0	14.3	15.8	16.8
Degree of protection	IP	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***	55/65***
Insulation material thermal resistance class		B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*	B/F*
Losses for the Joule effect at nominal current	P [W/m]	193	242	284	347	403	547	752	823	816	1015
Ambient temperature min/ MAX (daily average)**	[°C]	-5/50**	-5/50**	-5/50**	-5/50**	-5/50**	-5/50**	-5/50**	-5/50**	-5/50**	-5/50**

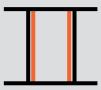
*Class F available under request
**From 35°C it will be necessary to derate the busbar and for ambient temperatures under -5°C contact the tecnical support.

***IP 65 available under request

The data on this page refer to the 50 Hz frequency. For 60 Hz, please contact Legrand.



PE 1
Standard version



PE 2
Extra earth - COPPER XCP Cu 3L+N+50%PE
(tinned copper conductors available on request)

PE 3
Extra earth - ALUMINUM

ACCESSORIES

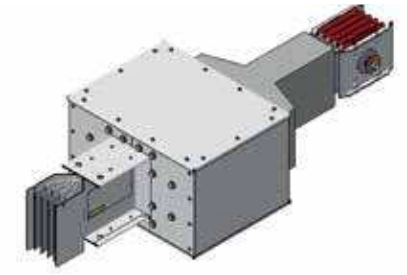
Suitable for both XCP-HP and XCP-S

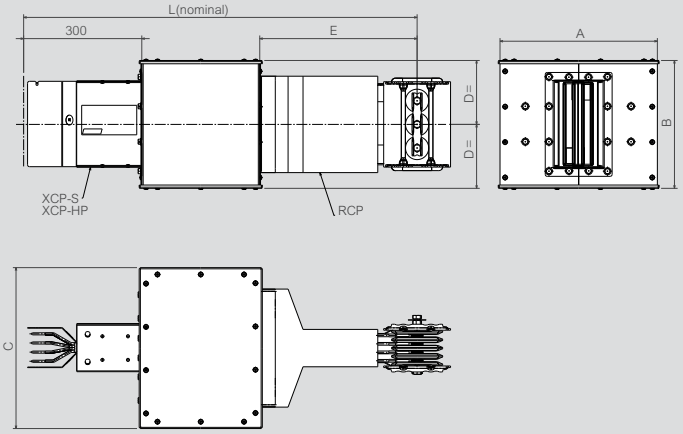
UNIVERSAL ACCESSORIES

A range of accessories common to both product lines, allows you to complete and customise the path of busbar, according to the design requirements.

Xtra Compact (XCP)

adapter element (IP68-IP65) and other elements of the range

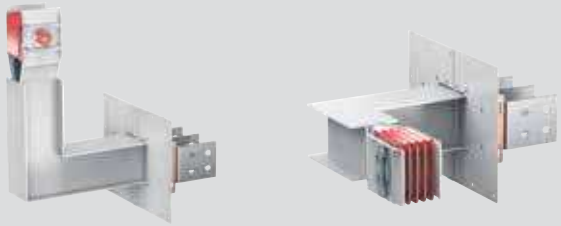




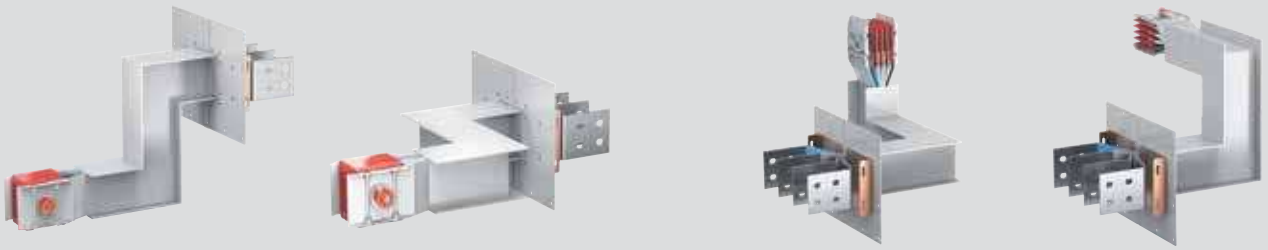
XCP-HP 3C - 4C - 5C							
In (A)		DIMENSIONS (mm)					
AL	CU	L	A	B	C	D	E
630–1000	800–1250	1000	400	210	310	105	400
1250		1000	400	210	310	125	400
1600		1000	400	280	310	140	400
	1600–2000	1000	400	250	310	125	400
2000		1000	400	325	310	162.5	400
	2500	1000	400	280	310	140	400
2500	3200	1000	400	460	310	230	400
3200	4000	1000	400	520	310	260	400
4000	5000	1000	400	560	310	280	400
5000	6300	1250	820	820	460	410	500

XCP-S 3C - 4C - 5C							
In (A)		DIMENSIONS (mm)					
AL	CU	L	A	B	C	D	E
630–1000	800–1250	1000	400	210	310	105	400
1250		1000	400	250	310	125	400
1600	1600–2000	1000	400	280	310	140	400
2000		1000	400	325	310	162.5	400
	2500	1000	400	380	310	190	400
2500	3200	1000	400	460	310	230	400
3200	4000	1000	400	520	310	260	400
4000	5000	1000	400	560	310	280	400
5000	6300	1250	820	670	460	335	500

XCP includes other elements that allow you to modify the path of the busbar according to the design requirements.



Connection interfaces with exit bars + elbow



Connection interfaces with exit bars + double elbow

Note: for more information about the accessories on this page, please contact Legrand

65202001

The brackets enable sturdy installation of the busbar to the system support structures.
The recommended installation distance between brackets is 1.5 metres
Legrand offers suitable bracket solutions certified for any type of installation, even in the most difficult environments:
• installations subjected to strong vibrations;
• installation in seismic environments

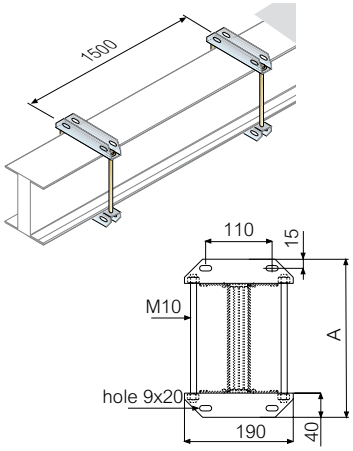
Suspension Brackets

Item					
XCP-HP		XCP-S			
Al	Cu	Al	Cu	In (A)	Type
65202001		**65202001**		630	
60202001	**65202001**	**60202001**	**65202001**	800	
65202001	**65202001**	**65202001**	**65202001**	1000	
65202001	**65202001**	**65202002**	**65202001**	1250	
65202003	**65202002**	**65202003**	**65202001**	1600	
65222004	**65202002**	**65222004**	**65202003**	2000	edgewise
65222002	**65202004**	**65222002**	**65222001**	2500	
65222003	**65222002**	**65222003**	**65222002**	3200	
65222004	**65222003**	**65222004**	**65222003**	4000	
65222007	**65222004**	**65222005**	**65222004**	5000	
	65222006		**65222005**	6300	
65202001		**65202001**		630	
65202001	**65202001**	**65202001**	**65202001**	800	
65202001	**65202001**	**65202001**	**65202001**	1000	
65202001	**65202001**	**65202013**	**65202001**	1250	
65202013	**65202013**	**65202013**	**65202001**	1600	
65202013	**60252013**	**65202013**	**60252013**	2000	flat wise
65202112	**60252013**	**65202112**	**65202112**	2500	
65202113	**65202112**	**65202113**	**65202112**	3200	
65202114	**65202113**	**65202114**	**65202113**	4000	
65202116	**65202114**	**65202115**	**65202114**	5000	
	65202116		**65202115**	6300	

Dimensions

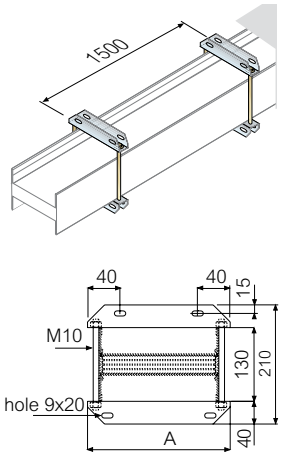
Suspension bracket

Edgewise installation



Range	A (mm)			
	XCP-HP		XCP-S	
	Al	Cu	Al	Cu
630	210	–	210	–
800	210	210	210	210
1000	210	210	210	210
1250	210	210	250	210
1600	280	250	280	250
2000	300	250	300	280
2500	460	300	460	380
3200	520	460	520	460
4000	560	520	560	520
5000	820	560	670	560
6300	–	760	–	670

Flat installation



Range	A (mm)			
	XCP-HP		XCP-S	
	Al	Cu	Al	Cu
630	190		190	
800	190	190	190	190
1000	190	190	190	190
1250	190	190	315	190
1600	315	315	315	315
2000	315	315	315	315
2500	430	315	430	430
3200	490	430	490	430
4000	530	490	530	490
5000	850	530	640	530
6300		850		640

Xtra Compact (XCP)

brackets

65213711

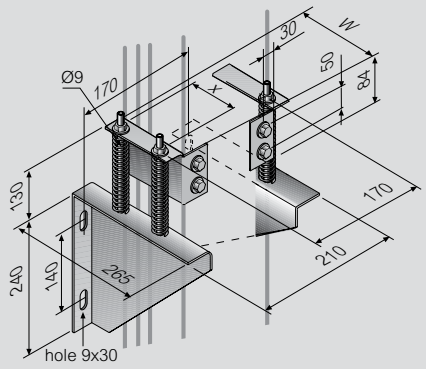
Brackets for vertical elements

Item					
XCP-HP		XCP-S		In (A)	Type
Al	Cu	Al	Cu		
65213711	**-**	**65213711**	**-**	630	With bracket and springs
65213711	**65213711**	**65213711**	**65213711**	800-1000	
65213711	**65213711**	**65213712**	**65213711**	1250	
65213713	**65213712**	**65213713**	**65213711**	1600	
65213714	**65213712**	**65213714**	**65213712**	2000	
65213742	**65213714**	**65213742**	**65213741**	2500	A
65213743	**65213742**	**65213743**	**65213742**	3200	
65213744	**65213743**	**65213744**	**65213743**	4000	
65213747	**65213744**	**65213745**	**65213744**	5000	
-	**65213746**	**-**	**65213745**	6300	
65213721	**-**	**65213721**	**-**	630	With bracket
65213721	**65213721**	**65213721**	**65213721**	800-1000	
65213721	**65213721**	**65213722**	**65213721**	1250	
65213723	**65213722**	**65213723**	**65213721**	1600	
65213724	**65213722**	**65213724**	**65213722**	2000	
65213752	**65213724**	**65213752**	**65213751**	2500	B
65213753	**65213752**	**65213753**	**65213752**	3200	
65213754	**65213753**	**65213754**	**65213753**	4000	
65213757	**65213754**	**65213755**	**65213754**	5000	
-	**65213756**	**-**	**65213755**	6300	
65213701	**-**	65213701	**-**	630	With springs
65213701	**65213701**	**65213701**	**65213701**	800-1000	
65213701	**65213701**	**65213702**	**65213701**	1250	
65213703	**65213702**	**65213703**	**65213701**	1600	
65213704	**65213702**	**65213704**	**65213702**	2000	
65213732	**65213704**	**65213732**	**65213731**	2500	C
65213733	**65213732**	**65213733**	**65213732**	3200	
65213734	**65213733**	**65213734**	**65213733**	4000	
65213737	**65213734**	**65213735**	**65213734**	5000	
-	**65213736**	**-**	**65213735**	6300	
65213761	**-**	**65213761**	**-**	630	Bracket only
65213761	**65213761**	**65213761**	**65213761**	800-1000	
65213761	**65213761**	**65213762**	**65213761**	1250	
65213763	**65213762**	**65213763**	**65213761**	1600	
65213764	**65213762**	**65213764**	**65213762**	2000	
65213772	**65213764**	**65213772**	**65213771**	2500	D
65213773	**65213772**	**65213773**	**65213772**	3200	
65213774	**65213773**	**65213774**	**65213773**	4000	
65213777	**65213774**	**65213775**	**65213774**	5000	
-	**65213776**	**-**	**65213775**	6300	
-	**-**	**-**	**-**	630-2000	Naval applications
65213782	**-**	**65213782**	**65213781**	2500	
65213783	**65213782**	**65213783**	**65213782**	3200	
65213784	**65213783**	**65213784**	**65213783**	4000	E
65213787	**65213784**	**65213785**	**65213784**	5000	
-	**65213786**	**-**	**65213785**	6300	
-	**-**	**-**	**-**	630-2000	* Anti-seismic bracket
65213792	**-**	**65213792**	**65213791**	2500	
65213793	**65213792**	**65213793**	**65213792**	3200	
65213794	**65213793**	**65213794**	**65213793**	4000	F
65213797	**65213794**	**65213795**	**65213794**	5000	
-	**65213796**	**-**	**65213795**	6300	

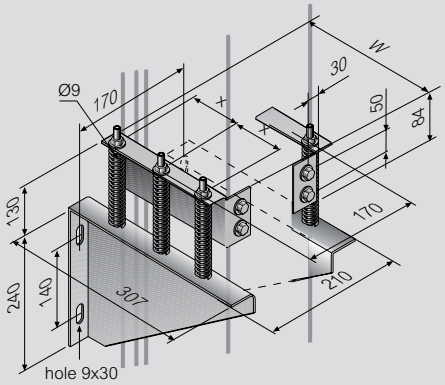
*For more technical details, please contact Legrand

Dimensions

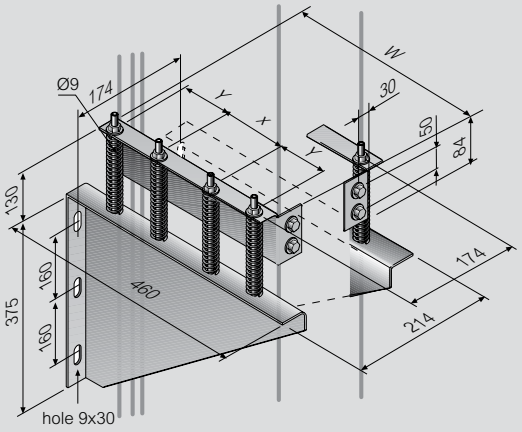
Type 1 (B120/B160)



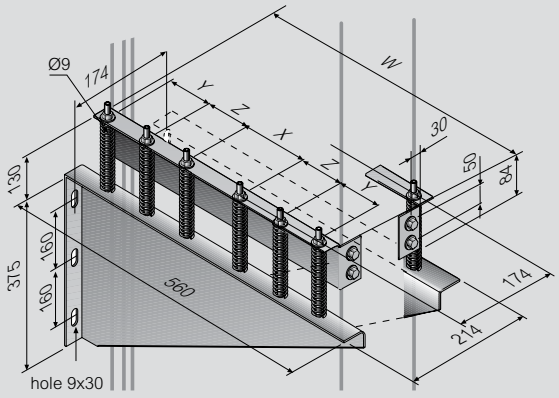
Type 2 (B190/B210)



Type 3 (2B120/2B160)



Type 4 (2B190/2B210/3B160)



X, Y, Z AND W DIMENSIONS OF THE BRACKETS												
		Type 1 B120 4 springs	Type 1 B160 4 springs	Type 2 B190 6 springs	Type 2 B210 6 springs	Type 3 2B120 8 springs	Type 3 2B160 8 springs	Type 4 2B190 12 springs	Type 4 2B210 12 springs	Type 4 3B160 12 springs	Type 4 3B190 12 springs	Type 4 3B210 12 springs
XCP-HP	Al	630-1250 A	-	1600 A	2000 A	-	2500 A	3200 A	4000 A	-	-	5000 A
	Cu	800-1250 A	1600-2000 A	-	2500 A	-	3200 A	4000 A	5000 A	-	6300 A	-
XCP-S	Al	630-1000 A	1250 A	1600 A	2000 A	-	2500 A	3200 A	4000 A	5000 A	-	-
	Cu	800-1250 A	1600 A	2000 A	-	2500 A	3200 A	4000 A	5000 A	6300 A	-	-
W [mm]		130	170	200	220	300	380	440	480	590	680	740
x [mm]		90	120	80	90	80	110	80	80	120	80	80
y [mm]		-	-	-	-	90	115	80	90	120	80	80
z [mm]		-	-	-	-	-	-	80	90	90	180	180

Fixing indication

brackets

Technical information

For vertical path **sections of less than 2 m** the use of standard suspension brackets is sufficient

1- Horizontal installation fixing

Fixing recommended: 1 bracket every 1.5 metres

2- Fixing for vertical installation (rising mains)

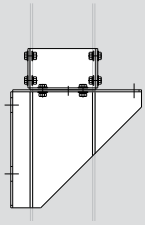
In case of rising mains, in addition to the standard brackets it will also be necessary to use other screw fixed brackets to prevent sliding of the busbar. Thanks to pre-loaded springs, these brackets absorb the forces pressing on the busbar and direct any expansion in a precise direction They therefore operate as a limitation, and support the traction and compression forces of the busbar trunking system

- **Section line between 2 and 4 m**
In the lowest point **Type B** vertical bracket if secured **to the wall**, or **Type D** if secured **to the floor** + one edgewise installation **standard bracket**

- **Section line of over 4 m**
In the lowest point **Type A** vertical bracket if secured **to the wall**, or **Type C** if secured **to the floor** + one edgewise installation **standard bracket** every metre and a half of the path + **one Type A or C** bracket based on the tables on the following page.

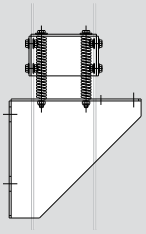
3- Fixing for installation in seismic environments in horizontal

Fit 1 bracket every metre and a half of the busbar
Every 2 anti-seismic brackets with bracket (Type B), use one standard bracket.
In anti-seismic applications, for triple bar versions always use "Type B" brackets only.



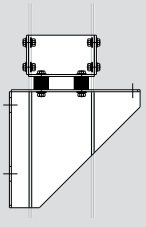
4- Fixing for installation in seismic environments in vertical (section lengths > 2 m)

Fit 1 bracket every metre and a half of the busbar
Every 2 anti-seismic brackets with bracket (Type B) use one bracket with bracket and spring (Type A)

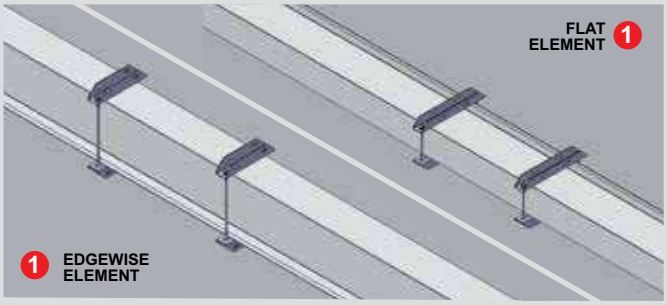


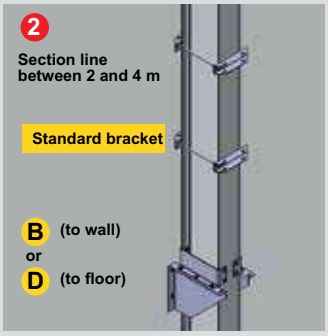
5- Fixing for naval installation

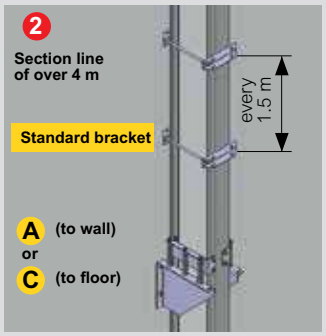
For naval installations always use a type E bracket every metre and a half of the busbar

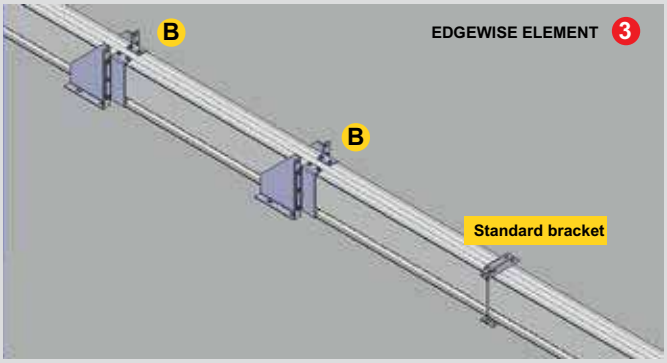


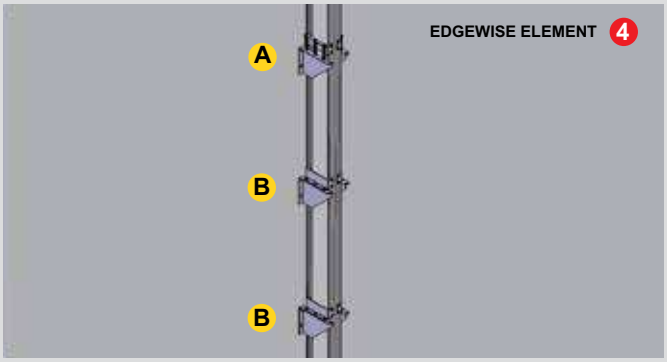
For more installation details, please refer to the installation instructions.

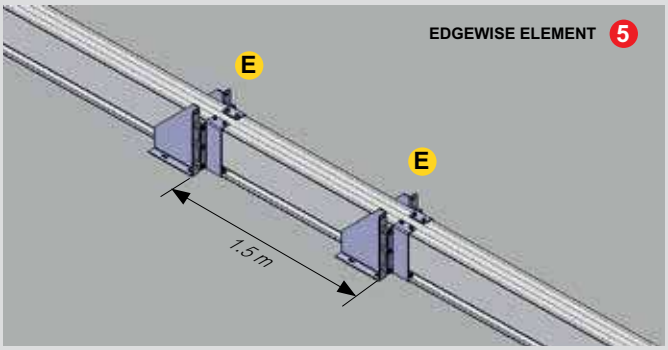












1) The RH rising main feed unit (without monobloc) is used at the departure of the riser mains lines, allows the busbar to be installed just 40 mm away from the wall.
In order to position the tap-off boxes correctly as shown in the figure, the neutral conductor of the riser main must be on the left side of the element

2) The tap-off boxes can be installed in the tap-off outlets (Plug-in type) and on the junction of elements (Bolt-on type)
The cables come out from bottom part of the tap-off boxes

3) Use elements with tap-off outlets where it is necessary to draw energy through plug-in boxes

4) Use EI120 fire barrier kit for each compartment floor, where specifically requested.
Note: the fire barrier is long 630 mm with aluminum conductors and 1000 mm with copper conductors.

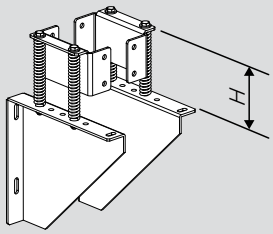
5) Position the IP55 end cover at the end of the riser mains.

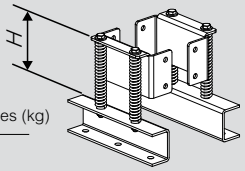
Maximum hanging distance with springs (Dmax):

	XCP-HP				XCP-S			
	Al		Cu		Al		Cu	
In (A)	D max	n° of springs	D max	n° of springs	D max	n° of springs	D max	n° of springs
630	10	4	-	-	11	4	-	-
800	10	4	9	4	10	4	9	4
1000	9	4	7	4	10	4	8	4
1250	9	4	7	4	9	4	7	4
1600	10	6	6	4	10	6	6	4
2000	9	6	4	4	9	6	6	6
2500	11	8	5	6	12	8	9	8
3200	11	12	6	8	11	12	7	8
4000	10	12	6	12	10	12	7	12
5000	6	12	5	12	7	12	5	12
6300	-	-	4	12	-	-	4	12

For 5C version, multiply Dmax by 0.9 for both product lines.
For 3C version, multiply Dmax by 1.1 for both product lines.

Spring preload calculation (H):





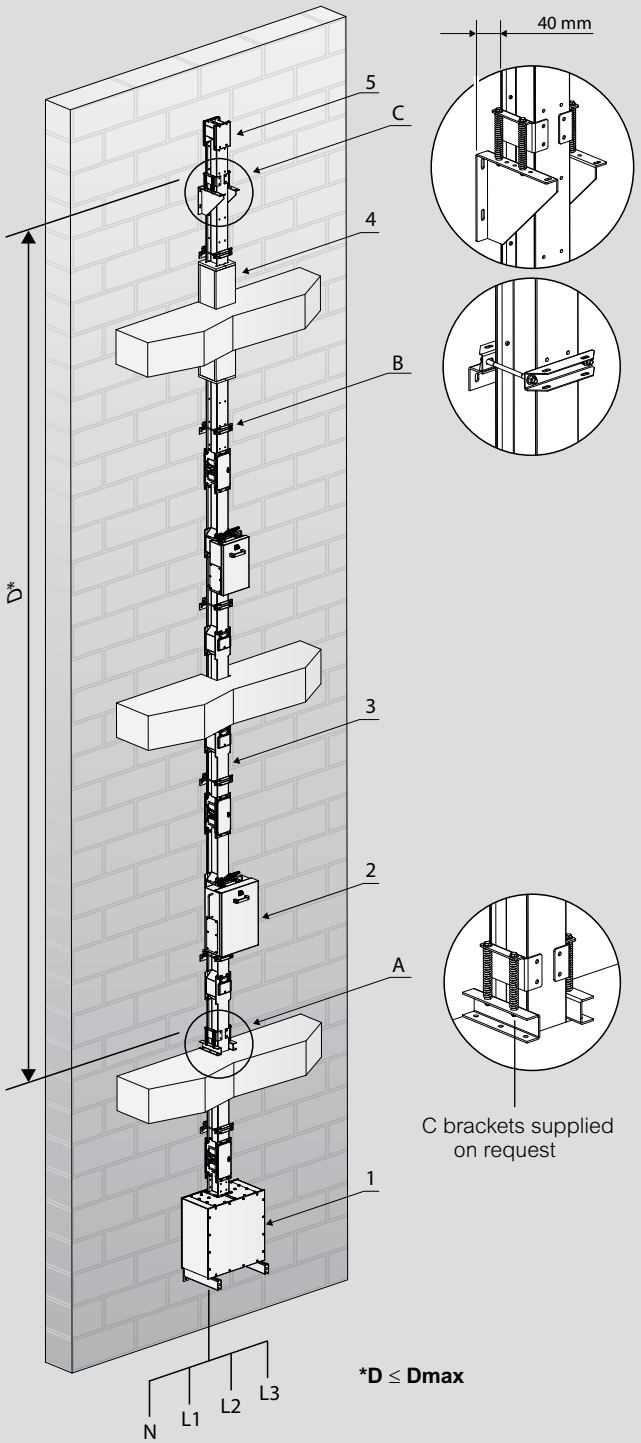
$$W = \frac{\text{Busway } \frac{(Kg)}{m} \times D\ (m) + \text{total weight of devices } (kg)}{\text{Number of springs}}$$

$$H = 130 - \frac{W}{3}$$

Preload calculation example H

Busway type: 5C - Al (Pe1)
In (A): 2000
Dmax (m): 7x0.9 = 6.3
D (m): 6
Busway (Kg/m): 29.6
Weight box 1 (Kg): 18
Weight box 2 (Kg): 12

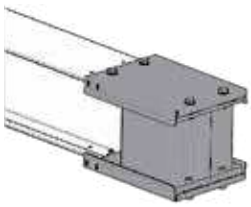
$$W = \frac{29.6 \times 6 + (18 + 12)}{6} = 34.6 \text{ kg} \qquad H = 130 - \frac{34.6}{3} = 118.5 \text{ mm}$$



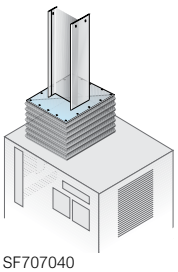
A) Floor hanger: use one or more of these suspension brackets, depending on the weight of the whole riser mains (including the boxes).
For risers that are shorter than 4 meters, fix to the base with type D brackets (see page 82), when longer, use type C suspension brackets (see page 82) respecting the maximum distances (Dmax) indicated in the tables.

B) Standard hanger: use this type of suspension bracket to hang the busbar every 1,5 metres of riser mains.

C) Wall hanger: use one or more of these suspension brackets, depending on the weight of the whole riser mains (including the boxes).
For risers that are shorter than 4 meters, fix to the base with type B brackets (see page 82), when longer, use a type A suspension bracket (see page 82) respecting the maximum distances (Dmax) indicated in the tables.



65283101PF



SF707040

Item				
XCP-HP		XCP-S		
Al	Cu	Al	Cu	In (A)
67283101PF	-	67283101PF	-	630
67283101PF	67283101PF	67283101PF	67283101PF	800
67283101PF	67283101PF	67283101PF	67283101PF	1000
67283101PF	67283101PF	67283102PF	67283101PF	1250
67283103PF	67283102PF	67283103PF	67283102PF	1600
67283104PF	67283102PF	67283104PF	67283103PF	2000
67393102PF	67283104PF	67393102PF	67393101PF	2500
67393103PF	67393102PF	67393103PF	67393102PF	3200
67393104PF	67393103PF	67393104PF	67393103PF	4000
67393107PF	67393104PF	67393105PF	67393104PF	5000
-	67393106PF		67393105PF	6300

End cover IP55

The end cover is the component that ensures an IP55 protection degree at the end of the line

Protective bellow

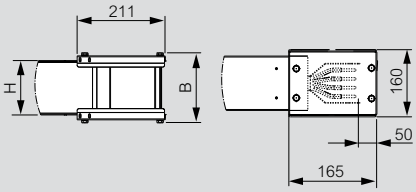
Recommended for protection of the interface connection on electric boards, dry-type transformers with enclosure and oil-type transformers
There are 3 different types of protective bellow, to be selected according to the type of busbars.

SF707040	Bellow 700X700 mm. H 400 mm
SF766040	Bellow 760X600 mm. H 400
SF927140	Bellow 920x710 mm. H 400

Note: for more details and for the choice of protective covers for outdoor applications, please contact Legrand

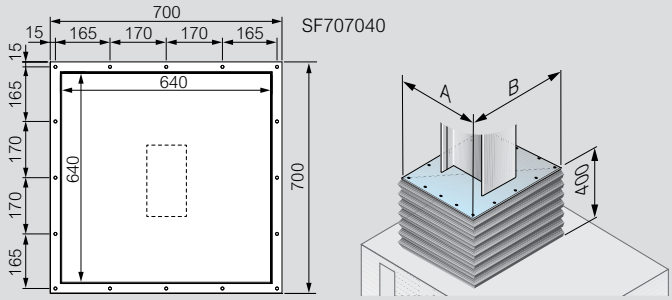
Dimensions

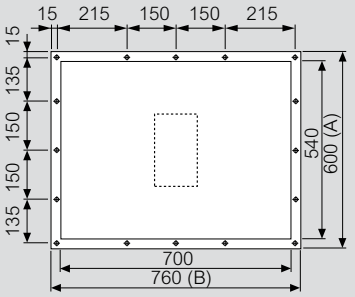
End cover IP55

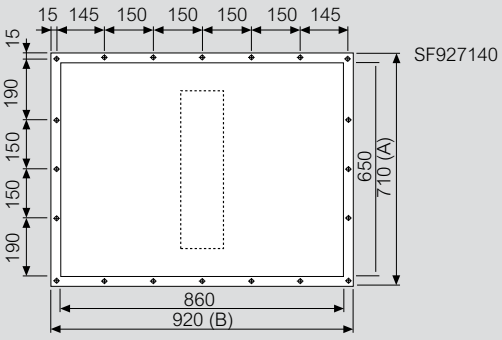


XCP-HP					XCP-S				
	Al		Cu			Al		Cu	
In (A)	H	B	H	B	In (A)	H	B	H	B
630	130	170	-	-	**630**	130	170	-	-
800	130	170	130	170	**800**	130	170	130	170
1000	130	170	130	170	**1000**	130	170	130	170
1250	130	170	130	170	**1250**	170	210	130	170
1600	200	240	170	210	**1600**	200	240	170	210
2000	220	260	170	210	**2000**	220	260	200	240
2500	380	420	220	260	**2500**	380	420	300	340
3200	440	480	380	420	**3200**	440	480	380	420
4000	480	520	440	480	**4000**	480	520	440	480
5000	740	780	480	520	**5000**	590	630	480	520
6300	-	-	680	720	**6300**	-	-	590	630

Protective bellow



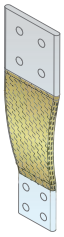




The bellows on this page refer to products with standard dimensions.
For bespoke solutions please contact the technical department.

Xtra Compact (XCP)

flexible braid connections



Flexible

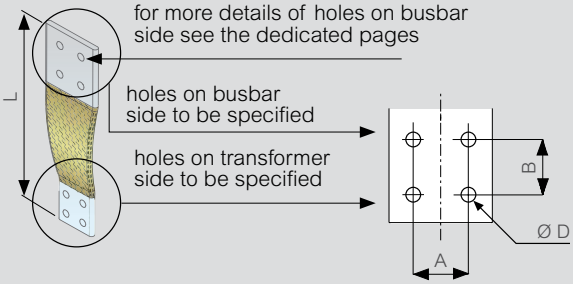
Flexible braid connections are used to connect the transformer to the connection interface of the busbar when mechanically uncoupling the two elements is required, to prevent the transmission of vibrations

Item		Flexible braid connections		
Al	**Cu**	In (A)	N° braid per phase	L (mm)
FC100010	**-**	630	1	300-450
FC100010	**FC100010**	800		
FC200010	**FC200010**	1000		
FC300010	**FC300010**	1250		
FC500010	**FC500010**	1600		
FC600010	**FC600010**	2000		
FC400010	**FC400010**	2500	2	
FC500010	**FC500010**	3200		
FC600010	**FC600010**	4000		
FC700010	**FC700010**	5000		
-	**FC600010**	6300	3	
FC100020	**-**	630	1	451-600
FC100020	**FC100020**	800		
FC200020	**FC200020**	1000		
FC300020	**FC300020**	1250		
FC500020	**FC500020**	1600		
FC600020	**FC600020**	2000		
FC400020	**FC400020**	2500	2	
FC500020	**FC500020**	3200		
FC600020	**FC600020**	4000		
FC700020	**FC700020**	5000		
-	**FC600020**	6300	3	
FC100030	**-**	630	1	601-750
FC100030	**FC100030**	800		
FC200030	**FC200030**	1000		
FC300030	**FC300030**	1250		
FC500030	**FC500030**	1600		
FC600030	**FC600030**	2000		
FC400030	**FC400030**	2500	2	
FC500030	**FC500030**	3200		
FC600030	**FC600030**	4000		
FC700030	**FC700030**	5000		
-	**FC600030**	6300	3	
FC100099	**-**	630	1	> 750
FC100099	**FC100099**	800		
FC200099	**FC200099**	1000		
FC300099	**FC300099**	1250		
FC500099	**FC500099**	1600		
FC600099	**FC600099**	2000		
FC400099	**FC400099**	2500	2	
FC500099	**FC500099**	3200		
FC600099	**FC600099**	4000		
FC700099	**FC700099**	5000		
-	**FC600099**	6300	3	

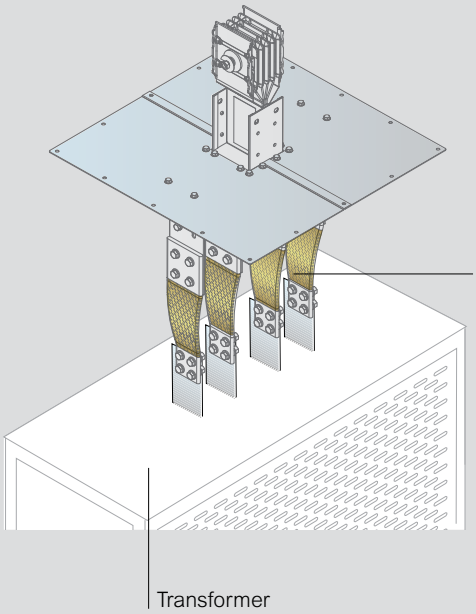
Note: for insulated flexible braid, please contact Legrand.

Dimensions

Flexible



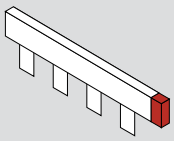
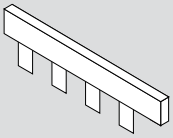
When ordering, specify:
holes on transformer side/busbar side (dimensions A, B, Ø D) and length L



For bespoke solutions with special drillings, please contact the technical department

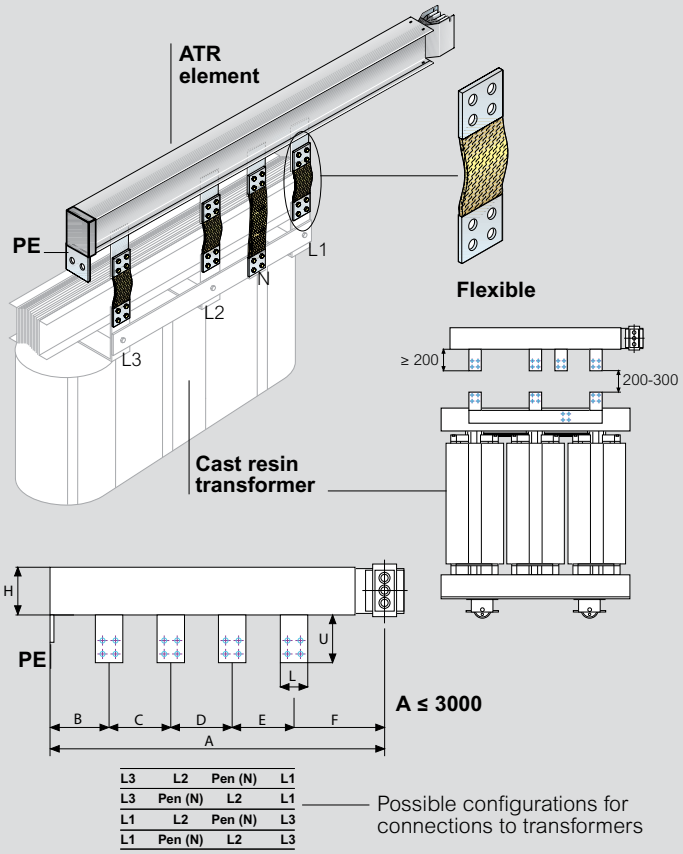
ATR elements

ATR are elements used for connection to electric boards or transformers, similar in everything to straight elements
These elements may be used for connection to both cast resin and oil transformers, and offer the advantage that the connection interfaces may be installed directly on the vertical section of the transformer terminals, minimising the time required for the connection of the busbar trunking system to the transformer. Each element is designed based on precise connection specifications supplied by the customer

SIMPLE ATR	
 Type 1	 Type 2

Note: for special dimensions, please contact Legrand.

Dimensions



Possible configurations for connections to transformers

ATR dimensions

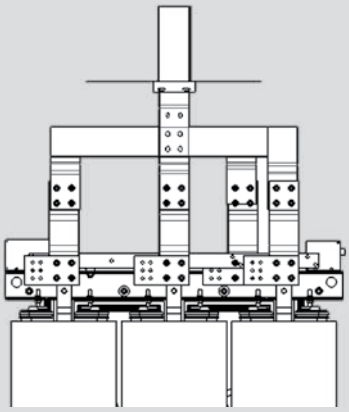
Although designed ad-hoc, ATR elements are still subjected to construction limits. Below are the summarizing tables indicating these values

MINIMUM INTERAXES (mm)								
FEEDER ELEMENT ATR DIMENSIONS [SINGLE BAR)								
BarSize	H	B	C	D	E	F	L	U
B70 - B75 - B80	130	200	165	165	165	335	90	200
B110	130	200	165	165	165	335	110	200
B120	130	200	165	165	165	335	120	200
B160	170	220	205	205	205	355	160	200
B190	200	245	255	255	255	380	190	200
B210	220	245	255	255	255	380	210	200

FEEDER ELEMENT ATR DIMENSIONS [DOUBLE BAR)								
BarSize	H	B	C	D	E	F	L	U
2B120	300	220	205	205	205	355	120	200
2B160	380	220	205	205	205	355	160	200
2B190	440	235	235	235	235	370	190	200
2B210	480	245	255	255	255	380	210	200

FEEDER ELEMENT ATR DIMENSIONS [TRIPLE BAR)								
BarSize	H	B	C	D	E	F	L	U
3B160	590	220	205	205	205	355	160	200
3B190	680	235	235	235	235	370	190	200
3B210	740	245	255	255	255	380	210	200

The system: the Legrand transformer advantage



Legrand
Cast Resin Transformers

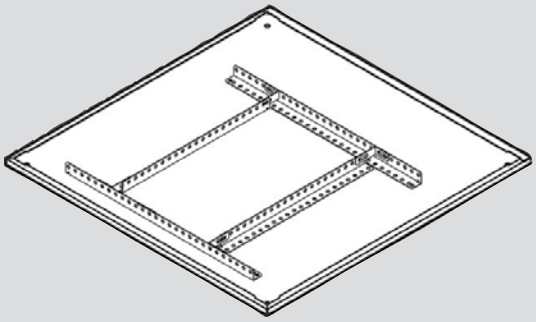
Certificate of conformity
for the connection between
transformer and busbar
mounted on CRT box

The Legrand group product synergy answers to the global installation need
The Legrand cast resin transformers have specifically designed connections for the Legrand busbars

The versions shown represent some of the standardized solutions

Please contact Legrand for more details on the dimensions

The system:the Legrand XL³ advantage



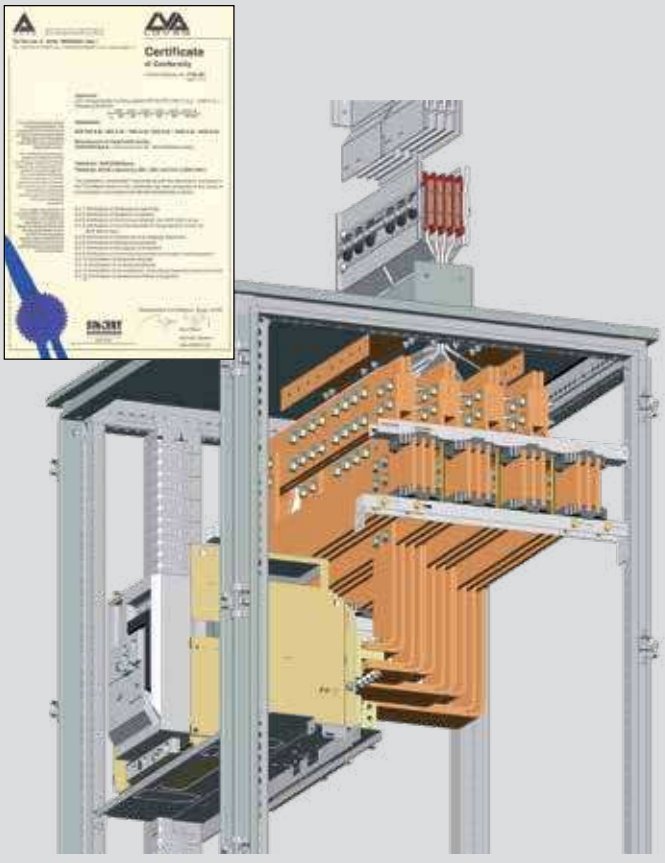
Installation kit for XL³ cabinets
Kit Cat.No 0 205 29 for reinforcing the roof of the XL³ cabinets for the installation of the Legrand interface to connect the busbar systems

The Extra Compact – XCP-S range can be easily and quickly combined with the Legrand XL³ 4000 cabinets
The reinforcement kit enables you to install any type of unit to the board onto the roof of the XL³ structure in a quick and easy way

Upon request, and with the specific measurements, custom made connections between the XCP-S interface and the DMX air-circuit breaker can be supplied for installation in the XL³ cabinets

The safety and the operational efficiency of the Legrand system are guaranteed by the system certification, which has been achieved after rigorous tests carried out in the most important international laboratories.

For more details about the XL³, please refer to the general Legrand catalogue



TAP-OFF BOXES

TAP-OFF BOXES FROM 160 TO 630 A

Available in metal sheet, characterised by a simple installation and fast connection thanks to the new layout of the hooks that offer safety and speed of assembly

The new range of universal tap-off boxes suitable for both XCP-HP and XCP-S

Xtra Compact (XCP)

METAL tap-off box Type 1 - 63 A to 160 A : plug-in type

50481721

IP55.
Equipped with a sectioning cover. Can be installed and removed when the busbar is energized.
To be applied on elements with any rating, with tap-off outlets.
These are the smallest metal tap-off boxes available and the rating is from 63 A to 160 A.

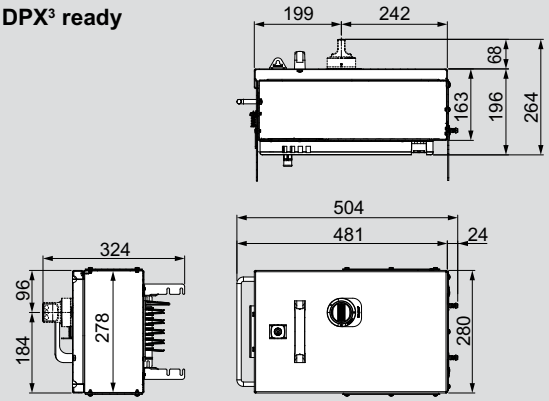
Item	Tap-off boxes DPX³ ready*	
	Prepared for Legrand MCCB (not provided) with hinged cover. Supplied "ready for" DPX³, with rotary handle already installed on the cover and rotary mechanism inside the box.	In (A)
50481761		63/125/160 A

Dimensions

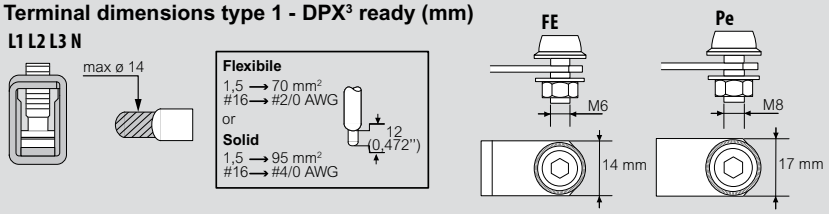
Type 1 (63 - 125 - 160 A)

Box dimensions (mm)

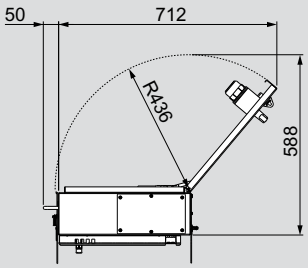
DPX³ ready



Terminal dimensions type 1 - DPX³ ready (mm)



Total dimensions with cover open



Xtra Compact (XCP)

METAL tap-off box Type 2 - 250 A: plug-in type

50481722

IP55.
Equipped with a sectioning cover. Can be installed and removed when the busbar is energized.
To be applied on elements with any rating, with tap-off outlets.
These are the medium size metal tap-off boxes available and the rating is 250 A.

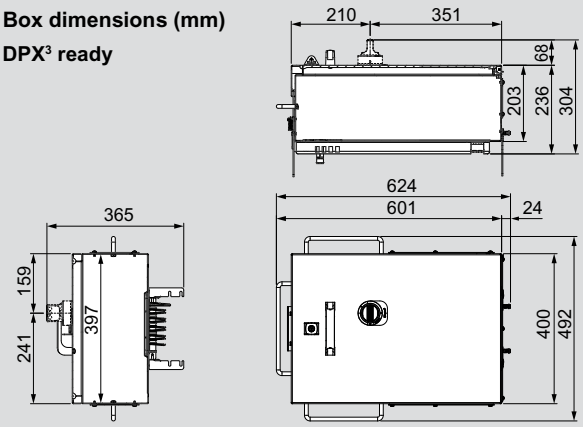
Item	Tap-off boxes DPX³ ready*
	Prepared for Legrand MCCB (not provided) with hinged cover.
	In (A)
50481762	250 A (DPX3 250 HP)

Dimensions

Type 2 (250A)

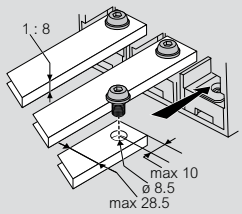
Box dimensions (mm)

DPX³ ready

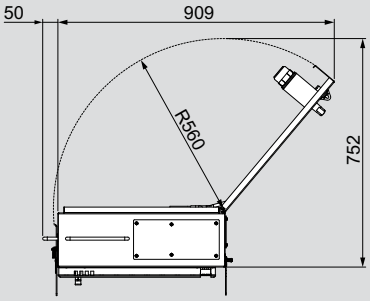


Terminal dimensions type 2 DPX³ ready (mm)

L1 L2 L3 N FE Pe



Total dimensions with cover open (mm)



* DPX³: MCCB (Moulded Case Circuit Breaker) not mounted and not supplied
Rotary handles for DPX³ already mounted

Xtra Compact (XCP)

METAL tap-off box Type 3 - 400 A to 630 A : plug-in type

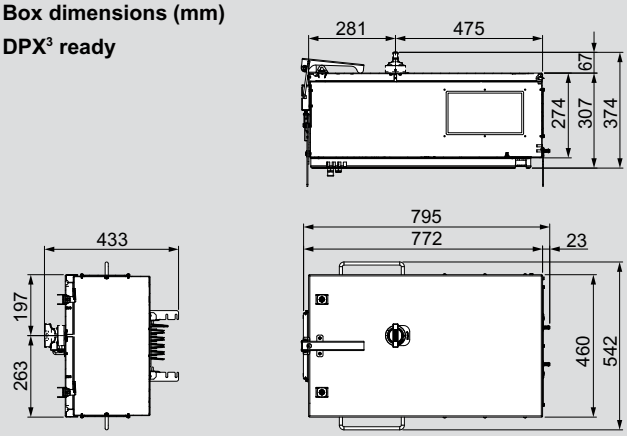
50481733

IP55.
Equipped with a sectioning cover. Can be installed and removed when the busbar is energized.
To be applied on elements with any rating, with tap-off outlets.
These are the largest size metal tap-off boxes available and the rating is 400 A or 630 A.

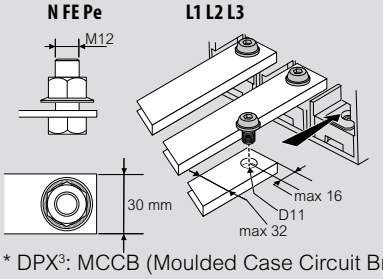
Item	Tap-off boxes DPX³ ready*
	Prepared for Legrand MCCB (not provided) with hinged cover.
	In (A)
50481763	400/630 A - DPX³ ready

Dimensions

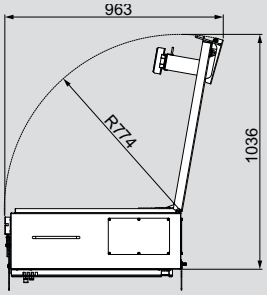
Type 3 (400 - 630 A)
Box dimensions (mm)
DPX³ ready



Terminal dimensions type 3 - DPX³ ready (mm)



Total dimensions with cover open (mm)



* DPX³: MCCB (Moulded Case Circuit Breaker) not mounted and not supplied

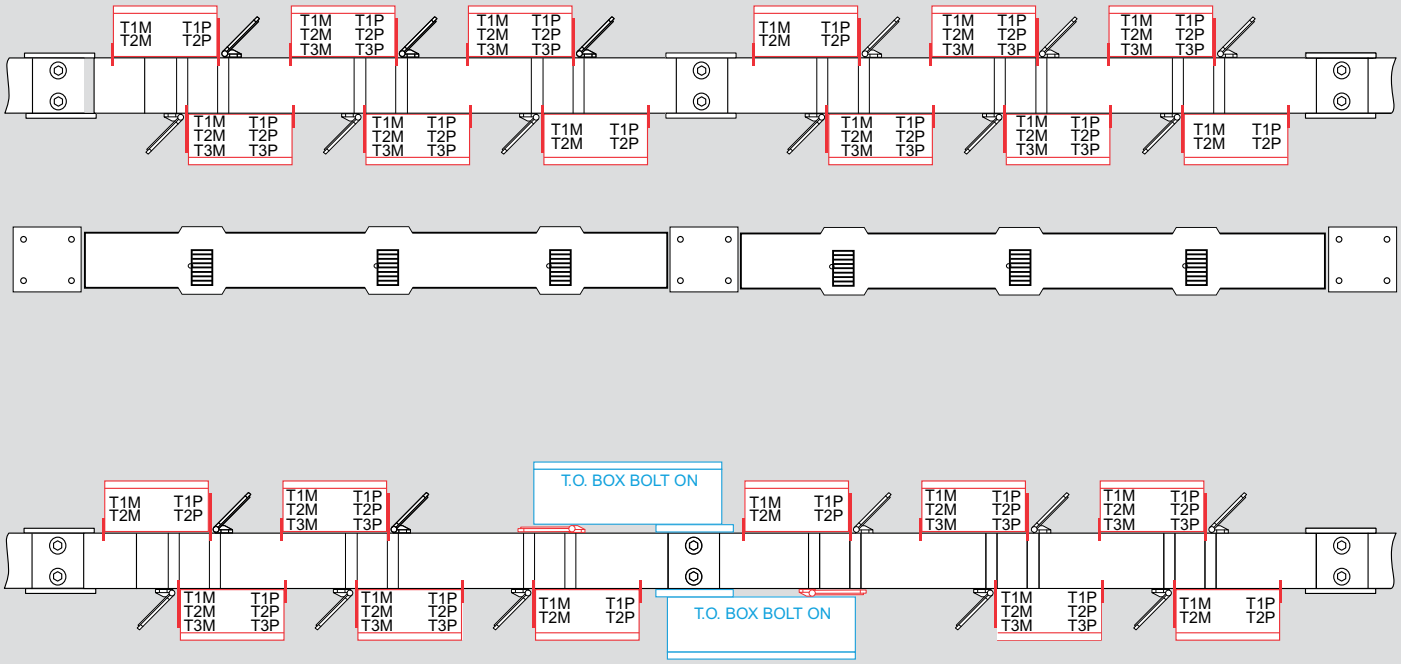
Tap-off box installation

example diagram

Technical information

Not all boxes can be installed in any position

The following figures show where the various Plug-in/Bolt-on boxes may be installed on elements with standard setup



T1/T2/T3: type of tap-off box
M: metal tap-off box
P: fiberglass plastic tap-off box

OPERATING INFORMATION

Suggestions for the design and installation of the busbar

Operational information and advice for the correct design and construction of the busbar trunking system

Xtra Compact (XCP)

suggestions for the project development

1. Rating

2500 A

2. Application:

Transport ☐

Distribution ☐ No. of outlets .....

3. Icc at the beginning of the line .....kA

4. Material:

Aluminium ☑

Copper ☐

5. Degree of protection:

IP55 (standard) ☑

IP65 (only for transport of Energy) ☐

6. Paint:

RAL7035 (standard) ☑

Different RAL

colour on request ..... ☐

7. Neutral section:

100% XCP (standard) ☑

200% XCP 2N ☐

8. Nominal ambient

temperature:

35°C (standard) ☑

Other on request..... ☐

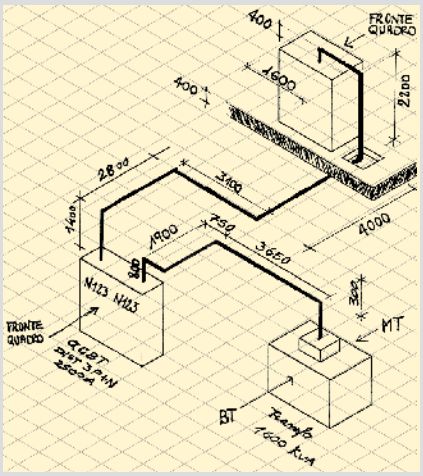
9. Attach Busbar layout*

Drawing ☑

Dwg file ☐

Revit file ☐

* Example of drawing to attach

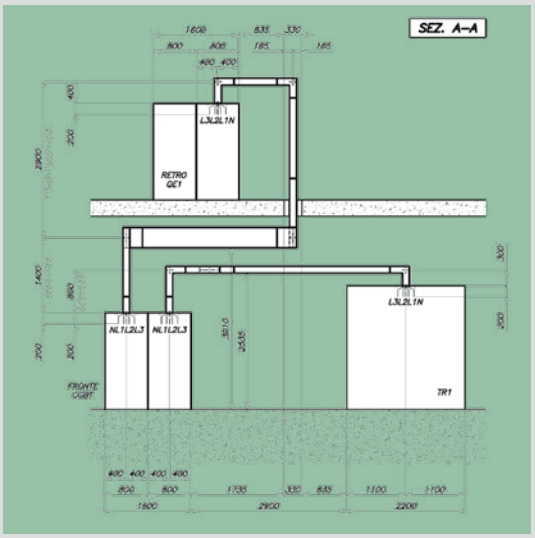


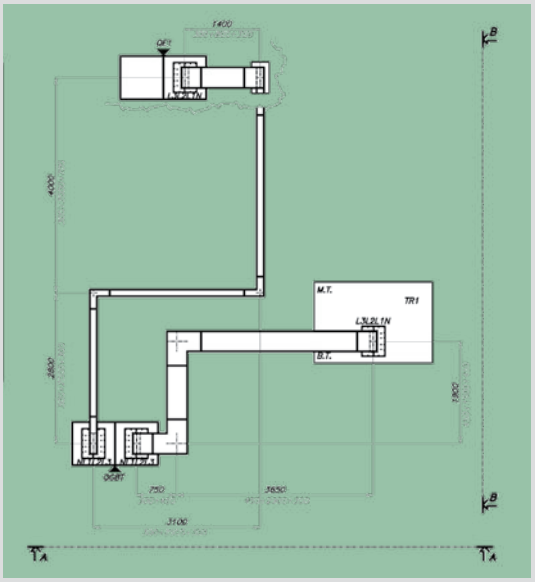
Example for quotation check list:

Checklist to be done during the project

1. Verify the measurements of the drawings, the correct position of the equipment (MV/LV transformer and LV electric board enclosures)
2. Check the availability of drawings required (transformer, electric board, etc.)
3. Check for the existence of unforeseen obstacles in the installation which could impede the run of the busbar (for example pipelines, ventilation and air-conditioning ducts)
4. Agree upon who is responsible for providing the connection from the busbar to the other devices (MV/LV transformer and LV electric boards)

Example of the detail of the project

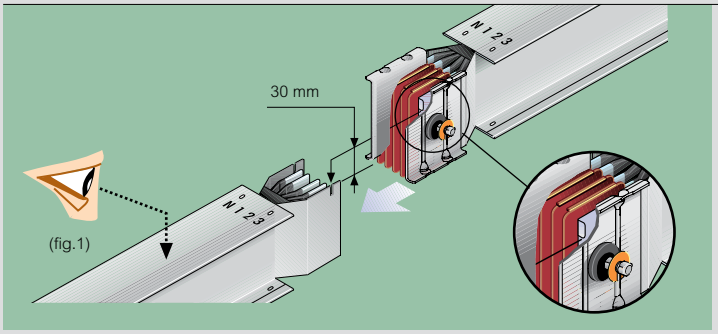




Legrand provides without charge, if required:

- The mechanical layout of the project
- Study of the connections between the busbar and the transformer or between electric board enclosures
- Suggestions for the type of fixing (floor, wall, ceiling…)
- Possibility of site measurement by qualified persons
- Telephone assistance during the entire installation stage by the Engineering Design Office

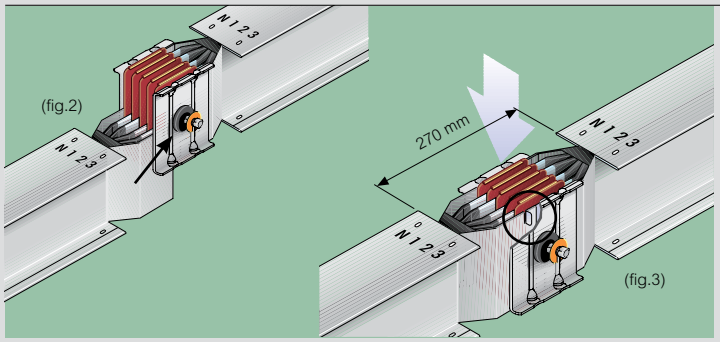
Installation sequence of the junction



The installation instructions are placed on every element near the junction

Make sure that the contacts are clean

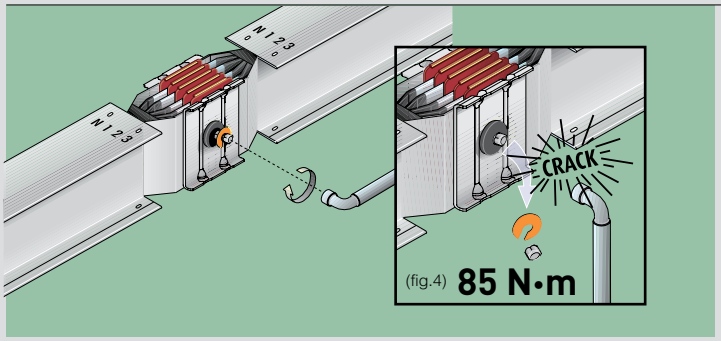
Join the two elements together (Fig.1)



Make sure that the earth plate of the straight element is inserted behind the front plate of the junction monobloc (Fig.2)

The positioning pin on the monobloc should be fitted into the corresponding slot on the earth plate

Verify the distance between elements, 270mm, before tightening the monobloc completely (Fig.3)

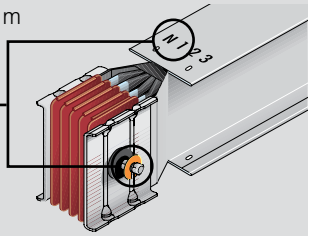


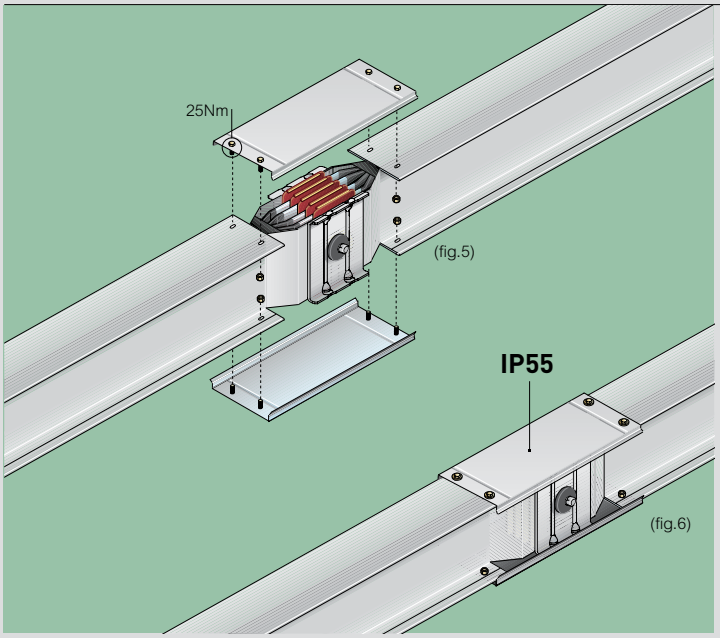
Tighten the bolt of the monobloc until the 1st head breaks off (Fig. 4).

The bolt that tightens the monobloc has a second head which is used when carrying out operations or inspections on the line

The nominal tightening torque is 85 N•m

In standard execution the self-shearing bolt is fitted on the opposite side of the Neutral.





Install the covers of the junction (fig. 5)

Connection completed correctly with Protection degree IP55 (fig.6)

Xtra Compact (XCP)

mechanical design precautions

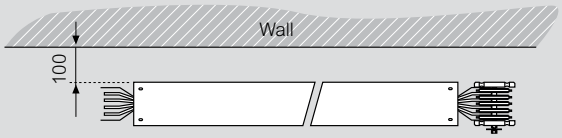
Below are some precautions that may be useful to avoid problems during the assembly, which we recommend should be taken into account during the design

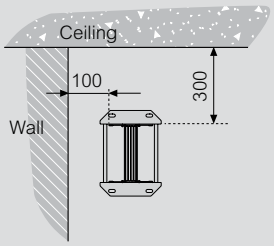
Minimum distances from the structure

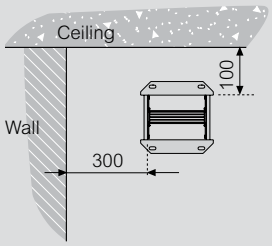
The minimum distance from the walls, to avoid problems during edgewise installation of the busbar, is 300 mm
The variables that must be taken into account for correct assembly are:
- position of the bolt for tightening the monobloc; the minimum required distance is 100 mm;
- sizes of the distribution element (box) selected for the collection of power (at least 300 mm);
- any brackets and their assembly;
- accessibility to the screws for the installation of the brackets and the closing of the junctions;
- any material required for the actual installation in order to compensate for wall imperfections

In case of rising mains installation, if the system does not require fire barriers, the bracket supporting the bracket can be directly secured to the wall. Otherwise, allow for a spacing support between the bracket and the wall, to ensure that the back of the busbar remains at a distance of 100 mm from the wall, therefore ensuring enough space for the positioning of the partitions

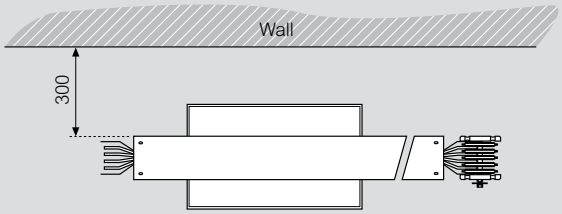
Minimum distance of the wall / ceiling elements

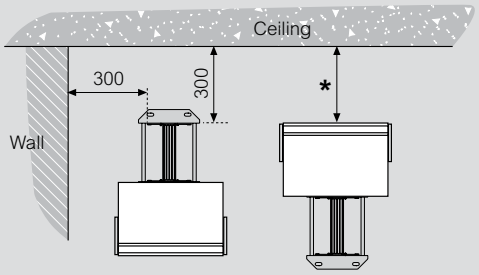




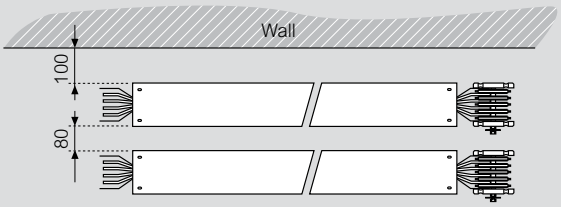


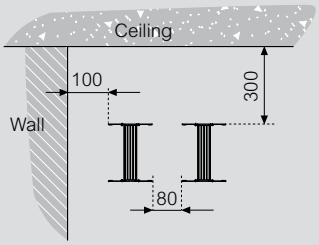
When there are tap-off units along the busbars, the minimum distances depend on the dimensions of the tap-offs selected



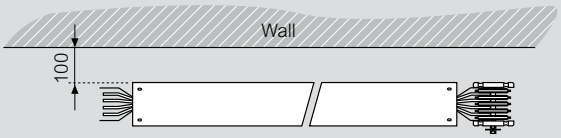


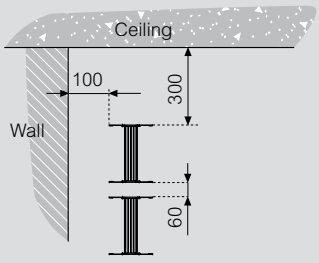
*** When there is a tap-off box installed above the busbar, check the overall dimension of the open cover of the tap-off unit used in the specific section**





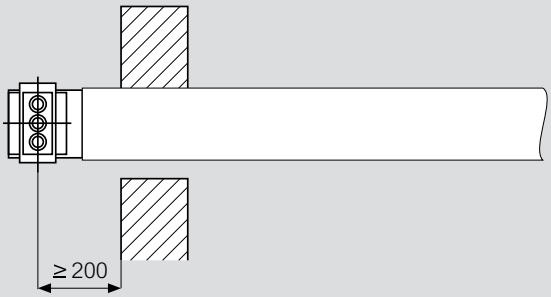
Minimum installation distance when there are several adjacent lines

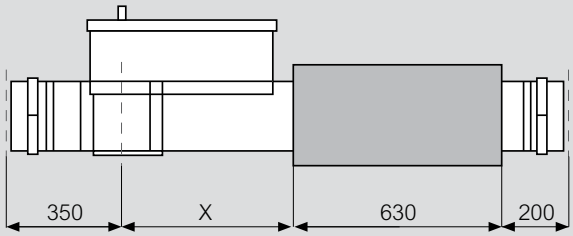




Minimum installation distance when there are several overlapped lines

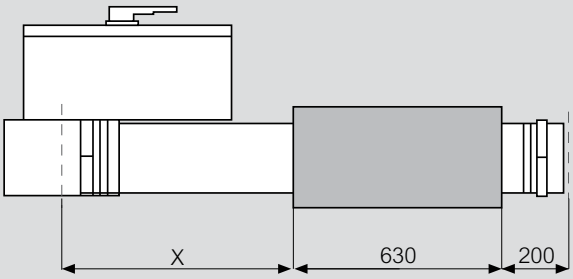
The minimum distance from the junction to the point the busbar crosses the wall or other structure must be at least 200 mm, to ensure the junction of the junctions
In case plug-in boxes and fire barriers are required on the same element, the minimum distance between the box and the partition must be taken into account, at the same time allowing for the necessary free space in the junction area and the minimum distance between the distribution outlet and the start of the element
By taking all these variables into account, it is possible to obtain the minimum size of the element in order be able to fit the partition and the plug-in box. The tables that follow summarise the minimum sizes





Refered to Aluminium

PLUG-IN TAP OF BOXES (X MINIMUM SIZE)		
Type	**Rating (A)**	**X (mm)**
1	63 – 160	520
2	250 – 630	720
3	125 – 400	620



Refered to Aluminium

PLUG-IN BOXES ON THE JUNCTION		
Type	**Rating (A)**	**X (mm)**
-	125 – 400	700
-	630	820
-	800 – 1250	1120

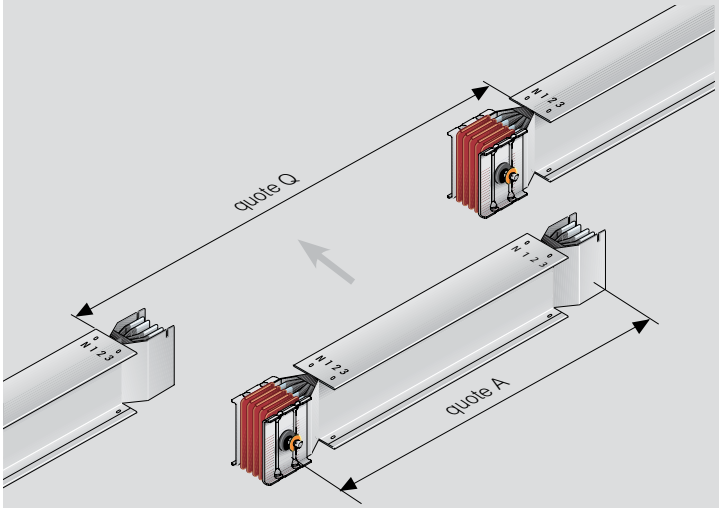
Connection to the board

As a rule, the manufacturer of the board is responsible for connecting the connection element and the distribution busbars inside the board
On request Legrand may develop and supply the connections, subject to all necessary details being available
All types of connections must be agreed and checked with the board manufacturer

Short circuit withstand

The short circuit withstand of the connection elements depends on the connection of the busbars inside the distribution board
The declaration of short circuit withstand for the system busbars may only be supplied by the board manufacturer. When using Legrand boards and Legrand busbar trunking systems it will be possible to obtain a short circuit certification

Measurement of straight elements

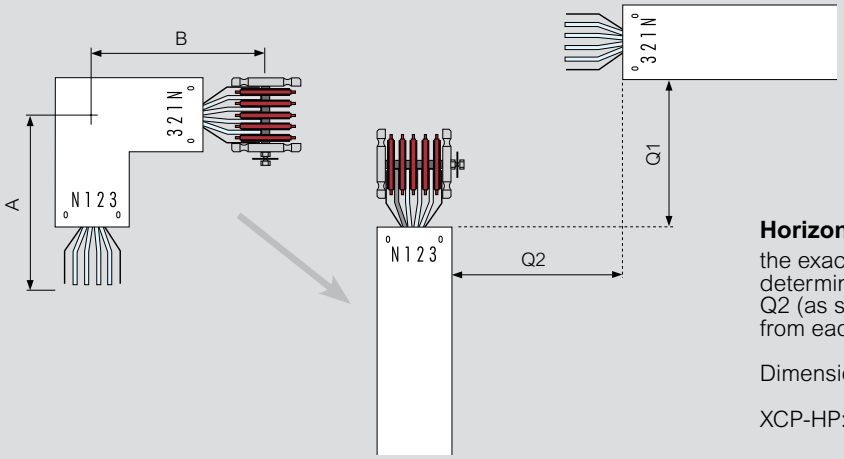


The exact length of the piece to be ordered can be determined by measuring the distance between the elements (as shown in the picture) and then subtracting 270 mm from the dimension that has been taken

A (Length of element) = Q - 270 mm

Example: Dimension measured Q = 2500 mm
Order a element (2500 - 270) = 2230 mm (quote A)

Measurement of the size for the ordering of a special path element



Horizontal elbow

the exact length of the piece to be ordered can be determined by measuring the dimensions Q1 and Q2 (as shown in the picture) and then by subtracting from each dimension the values indicated below.

Dimensions of the element to order:

XCP-HP: **A** = Q1 - 72.5 mm
B = Q2 - 72.5 mm

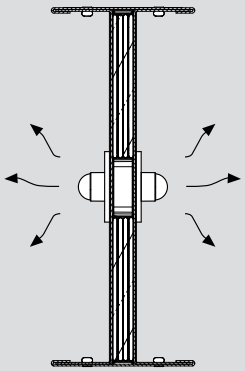
XCP-S: **A** = Q1 - 75 mm
B = Q2 - 75 mm

Superior moisture-free insulation technology

The busbars of the XCP series are insulated by wrapping PET film. To get superior quality and safety, conductor bars are wrapped with two sheets, and each of them is enough to ensure the complete dielectric level required. Therefore, the second sheet has the function to double insulate so to ensure the safety of the bar also in case of remote failure of the first sheet.
The PET films used to insulate the bars are non-hygroscopic and therefore their dielectric performance are independent by air humidity.

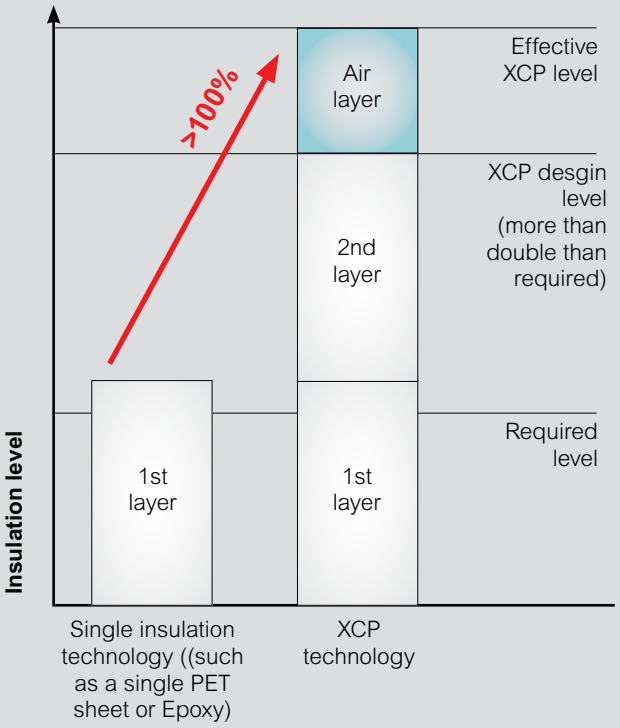
XCP construction follow a sandwich logic. In this way free air circulation is not possible inside the case. Thanks to this geometry, penetration of humidity and dust is prevented (IP55 or IP65 on request), whichever is the spatial orientation of busbar elements.
In any case, an energized bar has a temperature higher in comparison to the surrounding atmosphere, and this prevents any possibility of condensation of eventual moisture an event that can only happen on colder surfaces.
So, thanks to the double insulating layer technology together with the sandwich construction, XCP range is fully protected from any problem that can be occur from humidity.

Totally Enclosed Housing



The XCP busway has a modern fully enclosed housing design that doesn't need derating whatever is mounting position.
Due to the fact that there are no ventilation holes in the house, the possibility for dirt and moisture to enter into contact with bars is extremely low

PET*-based insulation technology is sometimes perceived as a degradation of its performance as a function of the level of atmospheric humidity.
This is a misperception, in fact PET itself is not hygroscopic and therefore preserves its performance whatever is the moisture entity.
What could be affected by its own dielectric performance is the thin layer of air that is inevitably present between the conductive bars and the PET film.
Although if not negligible, in XCP design these air layers provide the additional insulation level ,that is not considered as not fully controllable
Consequently, the total isolation level provided by the XCP range is even higher than that provided by the double PET sheet.



*PET = polyethylene terephthalate
the most useful insulation material for the electric and electronics industry, PET it's used for example in the windings of transformers, to insulate the rotor and stators of electric motors

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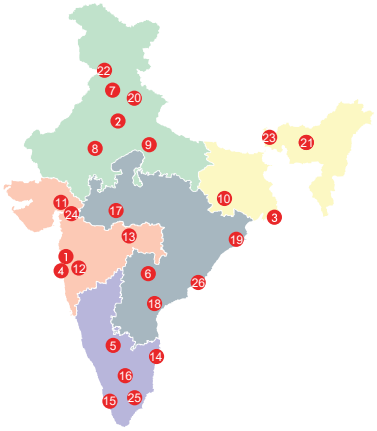

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XCP/1000/07/2022

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