



SANDWICH-TYPE BUSDUCTS

2023



GREEN
PRODUCT



BXE-M
FIRE-RESISTANT
VERSION



BX-R
IP68 RESIN-TYPE
VERSION



PPeF

POGLIANOBUSBAR

INDEX

BX-E BXE-M BX-R

GENERAL FEATURES

4	FIRE-RESISTANT VERSION
5	IP68, RESIN-TYPE VERSION
6	GENERAL FEATURES
8	BUSBAR TRUNKING SECTIONS SIZES
9	MEASUREMENT OF NON-STANDARD ELEMENTS AND ALIGNMENT
10	VERSIONS
11	HOUSING VERSIONS AND PAINTS
12	LAYOUT EXAMPLE
14	RISING MAINS
15	TERMINAL CONNECTIONS
16	JOINT INSTALLATION
17	BX-R JOINT INSTALLATION

BUSBAR TRUNKING SECTIONS

18	STRAIGHT FEEDER ELEMENTS
19	STRAIGHT PLUG-IN ELEMENTS - SINGLE-SIDE OUTLETS
20	STRAIGHT PLUG-IN ELEMENTS - DOUBLE-SIDE OUTLETS
22	FIRE BARRIER
23	EDGEWISE ELBOWS
24	FLATWISE ELBOWS
25	DOUBLE EDGEWISE ELBOWS
26	DOUBLE FLATWISE ELBOWS
27	COMBINED ELBOWS FLATWISE+EDGEWISE AND EDGEWISE+FLATWISE
28	EDGEWISE T
29	FLATWISE T
30	TRANSPOSITION ELEMENT
31	EXPANSION JOINT
32	TERMINAL ELEMENT
33	TERMINAL ELEMENT + EDGEWISE ELBOW
34	TERMINAL ELEMENT + FLATWISE ELBOW
35	TERMINAL ELEMENT CONFIGURATIONS
36	TERMINAL ELEMENT FLANGES
37	ATR TERMINAL ELEMENT

FEED-IN BOXES

38	END FEED-IN BOX
39	INTERMEDIATE FEED-IN BOX
40	JOINT FEED-IN BOX

TAP-OFF UNITS

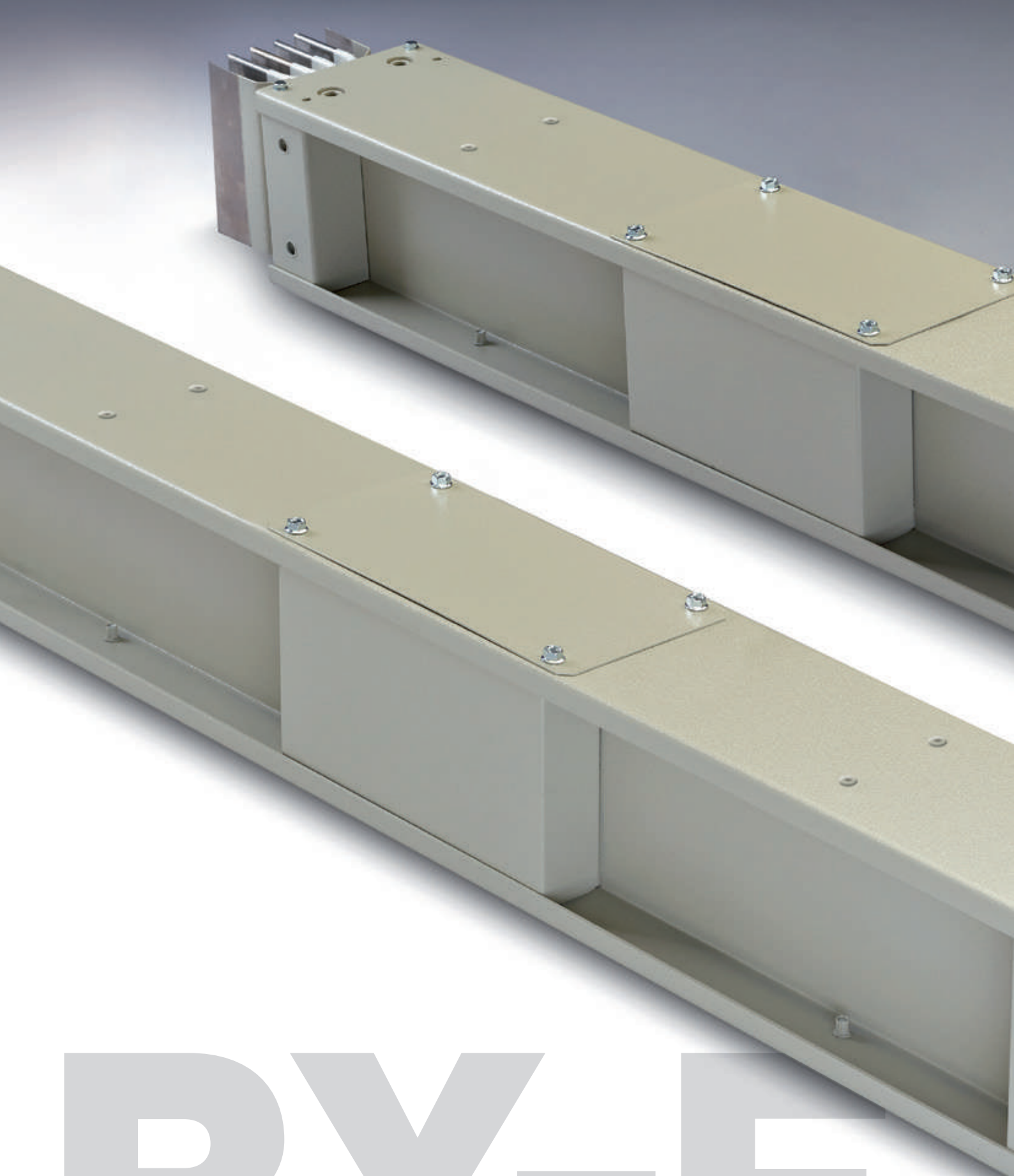
41	PLUG-IN TAP-OFF UNITS
43	SIDE-OPENING PLUG-IN TAP-OFF UNITS
44	JOINT TAP-OFF UNITS

ACCESSORIES

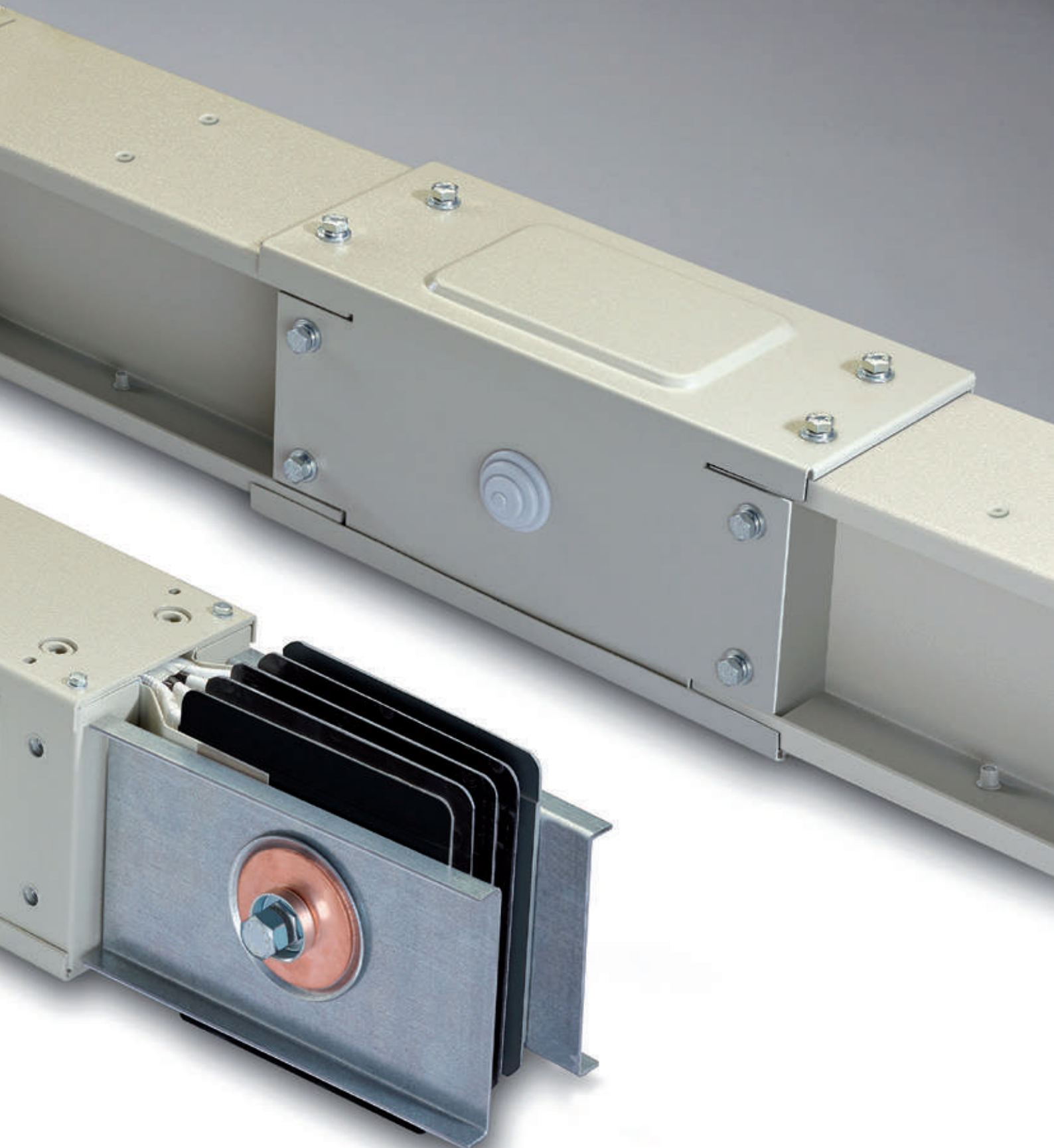
46	SPECIAL JOINT
46	SPARE JOINT
47	END COVER
48	HANGERS
49	UNIVERSAL HANGER

TECHNICAL DATA

50	A - COPPER	3P + N + PE (4P)
51	A - ALUMINIUM	3P + N + PE (4P)
52	F - COPPER	3P + N + PE2 + PE (5P)
53	F - ALUMINIUM	3P + N + PE2 + PE (5P)
54	LINE-TO-LINE VOLTAGE DROP	
55	DECLARATION OF CONFORMITY	
56	CERTIFICATES	



BX-E



FIRE-RESISTANT VERSION

BXE-M



BXE-M is the fire-resistant version of the BX-E. It replaces the old BX-F version.

BXE-M has been tested by IEC 60331-1 standard, with a thermal shock temperature kept within the 830 to 870 °C.

The test was performed for a duration of three hours instead of the two hours required on cables.

BXE-M granted electrical continuity for the duration of the test (3 hours), and was certified accordingly.

With the exception of the fire-resistance feature, BXE-M has the same technical specifications, dimensions etc. as standard BX-E.

To order BXE-M, replace the first digit of the reference number with the letter "M".

Example: straight feeder element, standard length 3 meters, 3P+N+PE, aluminium bars, 1600 A rating:

- Standard BX-E code = **234600Z3LPA**
- Fire-resistant BXE-M code = **M34600Z3LPA**

IP68 RESIN-TYPE VERSION

BX-R



BX-R is the IP68 version of BX-E.

The IP68 protection degree is achieved through resin-casting of the duct during the manufacturing process, which is then completed through resin-casting of the joints during final installation.

The system is IP68 only after correct and complete installation, and only after the resin poured on site into the joints is thoroughly solidified (in this regard, refer to our website and to the specific BX-R installation manual). In the event of outdoor installation, the use of a protective canopy manufactured by Pogliano is in any case mandatory, in order to improve the duct protection and lengthen its life.

The BX-R has been tested according to UNI EN 13501-2 standard obtaining the EI 60 class certification.

BX-R technical specifications and dimensions are the same as the ones of standard BX-E, with minor variations that do not affect performance. For further details contact Pogliano BusBar s.r.l.

For the fire-resistant version of BX-R, please contact Pogliano BusBar s.r.l.

The two-component resin used for the BX-R production has the following characteristics:

- Low shrinkage during hardening
- Excellent resistance to thermal cycles and water
- Excellent electrical properties
- Excellent heat dissipation
- Suitable for application up to 180 °C according to standard ASTM D-2307
- Self-extinguishing approved UL94V0 4mm
- Included in UL insulating system for 155°C: E317429, DV-155J tables IX and XI
- EN 45545-2 approved: HL2 for R22 and HL3 for R23

To order the BX-R version, change as follows the product codes shown on the next pages:

- First product code digit: 2 → 4
- Last 3 product code digits: LPA → R0A

Example of straight feeder section, 3 meters long, 3P+N+PE, aluminium, rating 1600 A:

- Standard BX-E code = **234600Z3LPA**
- BX-R code = **434600Z3R0A**

BX-E

GENERAL FEATURES

BX-E system meets customers' needs through a wide range of special shapes and sizes to allow maximum design flexibility, layout adaptability and ease of installation.

The subdivision of the runs into modular elements facilitates maintenance and future modifications, and it ensures safety by easing the installation of protective devices.

The sandwich-type design reduces overall dimensions and enhances resistance to mechanical stresses.

Straight elements come in 3-meter standard lengths, but all busbar trunking sections can be made to measure with a minimum length starting from 410 mm.

BX-E system is suitable for frequencies of 50 or 60 Hz and voltages up to 1000 V, with rated currents from 800 A to 6300 A.

The dielectric test, i.e. the insulation test, is performed at 3500 Vcc.

The product can be installed flatwise, edgewise or vertically as a rising main without any current derating. In case of edgewise installation the neutral conductor must be at the bottom.

The neutral conductor is indicated on both sides of the duct and can also be identified by the position of the screws on the joint covers: the neutral conductor position corresponds to the screw closest to the joint.

Bars are made of aluminium alloy, tin-plated and galvanically treated, or of 99.9% pure electrolytic copper, with a cross section that minimizes electrical resistance.

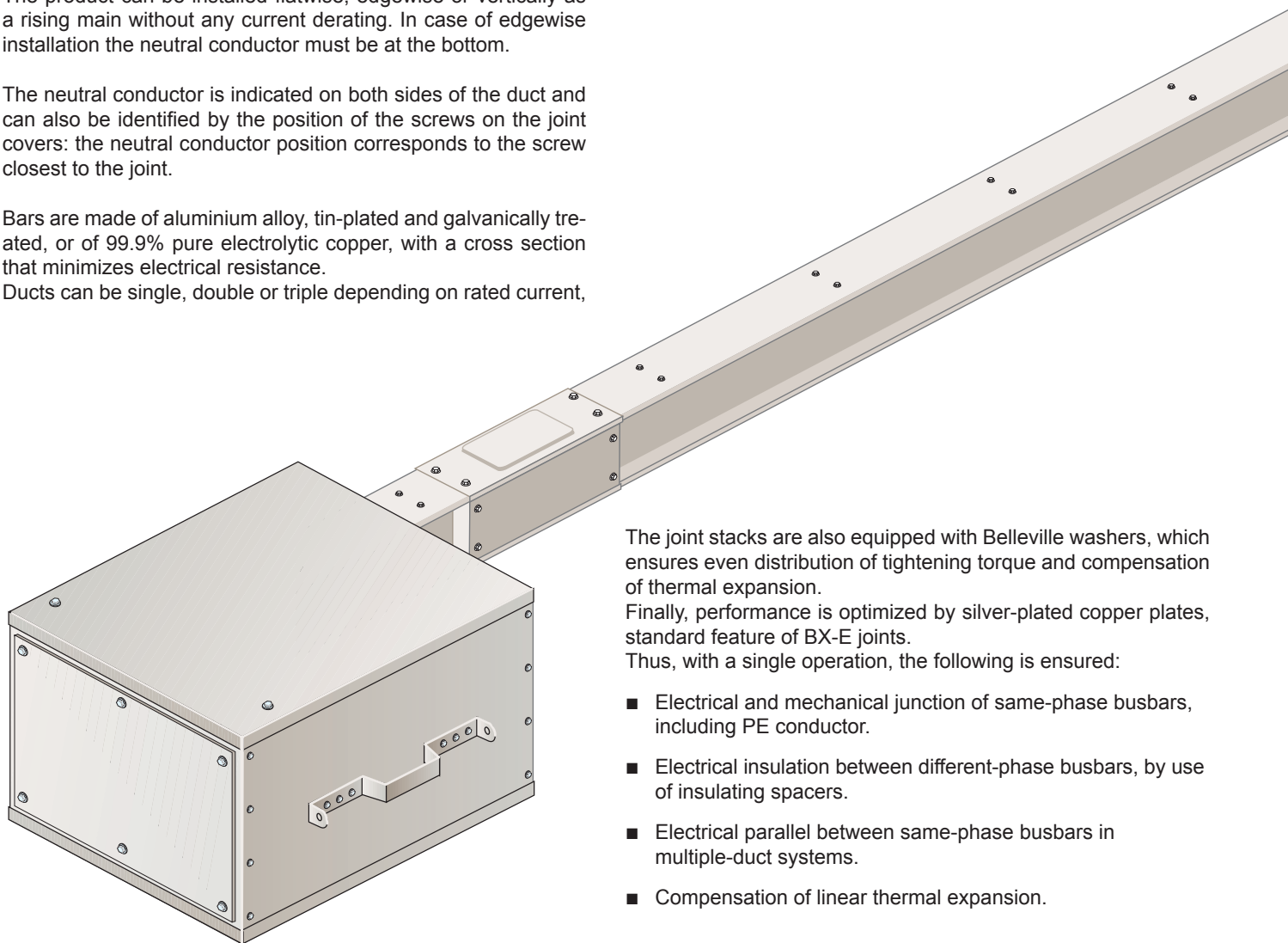
Ducts can be single, double or triple depending on rated current,

but always with a single housing to reduce overall dimensions and facilitate handling and installation. Electrical parallel is guaranteed at each joint, ensuring balanced currents.

Each bar is insulated by two layers of F-class polyester films, suitable for operating up to 155 °C. The busbars are then packed together (sandwich design).

BX-E is a low-impedance system. This makes for low voltage drops and reduced Joule losses and, consequently, efficient performance and lower operating costs (energy saving).

Joints are designed with a single-bolt clamping structure equipped, depending on rating, with 1, 2, 4 or 6 double-headed break-off bolts. Break-off occurs at the prescribed torque of 60 Nm. Random checking of tightening by means of a torque wrench is nevertheless advisable. This, carried out by experienced staff and with the appropriate safety equipment, can be done without turning off the power.



The joint stacks are also equipped with Belleville washers, which ensures even distribution of tightening torque and compensation of thermal expansion.

Finally, performance is optimized by silver-plated copper plates, standard feature of BX-E joints.

Thus, with a single operation, the following is ensured:

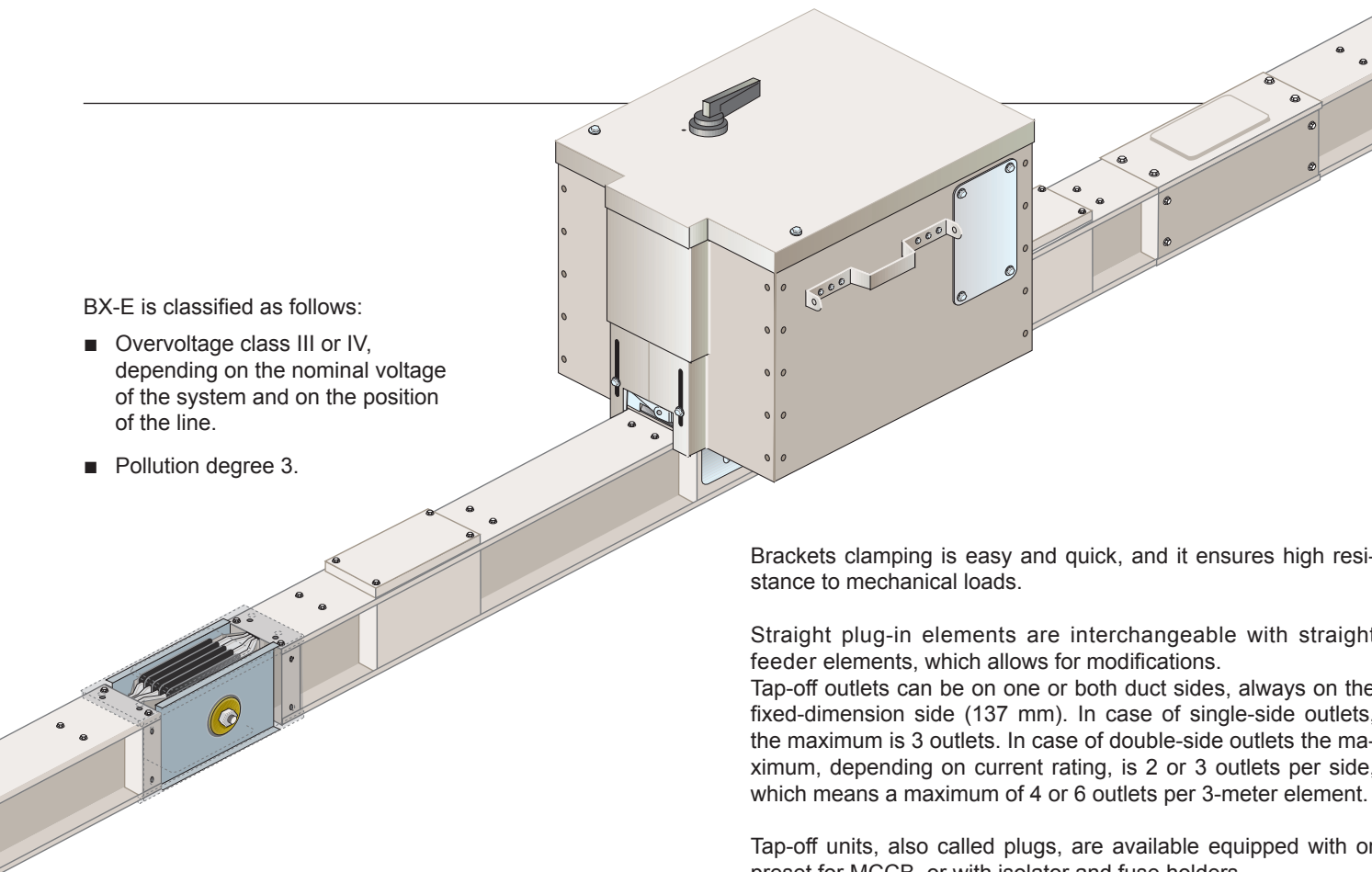
- Electrical and mechanical junction of same-phase busbars, including PE conductor.
- Electrical insulation between different-phase busbars, by use of insulating spacers.
- Electrical parallel between same-phase busbars in multiple-duct systems.
- Compensation of linear thermal expansion.

BX-E

GENERAL FEATURES

BX-E is classified as follows:

- Overvoltage class III or IV, depending on the nominal voltage of the system and on the position of the line.
- Pollution degree 3.



The standard of the housing is steel or aluminium sheets, thickness 1.5 mm, painted RAL 7032.

The steel housing version reduces electromagnetic emissions and ensures high mechanical strength, while the aluminium housing version reduces weight and increases the cross-section of the earth/PE conductor.

The housing may be painted RAL 7035 on request. For other RALs, consult our sales department.

The housing is the PE conductor. Additional PE conductors can be provided on request.

The maximum allowed ambient temperature is 40 °C, with an average of a maximum 35 °C over a period of 24 hours.

The minimum allowed ambient temperature is -5 °C for indoor installations and -25 °C for outdoor installations, in accordance with EN 61439 standard.

Heat is dissipated through the housing surface which, at the rated current and regardless of horizontal or vertical installation, has a maximum temperature rise of 55 °C with respect to ambient temperature.

BX-E and BXE-M standard protection degree is IP55. IP65 can be provided on request, with a price supplement.

The BX-R version has IP68 protection degree.

The standard reference for the IP protection degree is EN/IEC 60529.

The protection degree always and exclusively refers to the product completely and correctly installed.

In case of outdoor installation, it is mandatory to protect the duct by means of a specific canopy manufactured by Pogliano Busbar Srl (valid for the BX-R version as well).

Brackets clamping is easy and quick, and it ensures high resistance to mechanical loads.

Straight plug-in elements are interchangeable with straight feeder elements, which allows for modifications.

Tap-off outlets can be on one or both duct sides, always on the fixed-dimension side (137 mm). In case of single-side outlets, the maximum is 3 outlets. In case of double-side outlets the maximum, depending on current rating, is 2 or 3 outlets per side, which means a maximum of 4 or 6 outlets per 3-meter element.

Tap-off units, also called plugs, are available equipped with or preset for MCCB, or with isolator and fuse holders. All tap-off units are polarized to ensure correct positioning during installation.

The tap-off units mounted on the outlets and with ratings up to 630 A can be installed even without turning off the power, with the appropriate safety equipment and precautions. For ratings of 800 A and above, the power must be turned off.

It is also possible to mount tap-off units directly on the joints, with the power turned off. The tap-off units mounted on the joints require a special joint, to be purchased separately.

The product complies with national and international standards: CEI EN and IEC 61439-1 and 61439-6.

SUSTAINABILITY



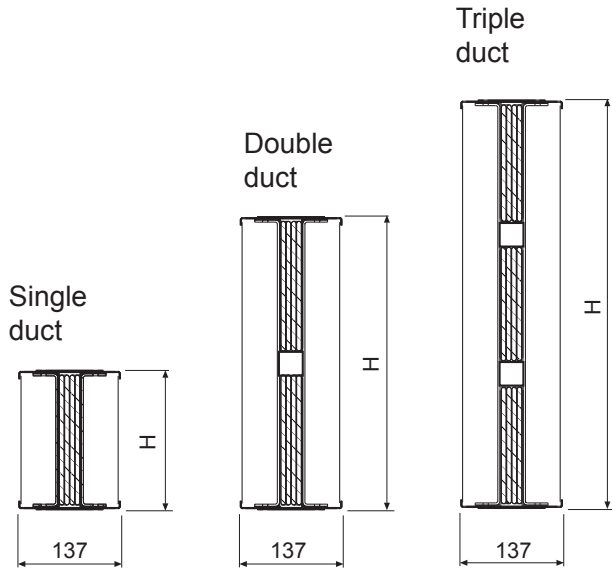
BX-E is a halogen-free system with high recyclability potential*.

Furthermore, a line of BX-E allows energy savings thanks to its low Joule losses.

Therefore, BX-E may be defined as a green product, which reflects the modern standards of sustainability.

* Taking as an example a 3-meter straight feeder element, 800 A rating, aluminium bars and steel housing: approximately 97% of its materials fall into the categories of recyclable materials.

BUSBAR TRUNKING SECTIONS SIZES



The standard ducts are:

- Single ducts, for ratings up to 2000 A aluminium and 2500 A copper (included).
- Double ducts, for ratings up to 4000 A aluminium and 5000 A copper (included).
- Triple ducts, for the 5000 A aluminium rating.

Special executions are available upon request.

The electrical parallel of multiple-duct trunking systems is always guaranteed by the joint.

One cross section side of the ducts has a fixed size of 137 mm, while the other side has the following dimensions:

Rating	ALUMINIUM			COPPER		
	Ducts	H	H for ATR terminal element	Ducts	H	H for ATR terminal element
800 A	1	85 mm	85 mm			
1000 A	1	95 mm	95 mm	1	85 mm	85 mm
1250 A	1	121 mm	121 mm	1	85 mm	85 mm
1600 A	1	160 mm	160 mm	1	121 mm	121 mm
2000 A	1	205 mm	205 mm	1	150 mm	150 mm
2500 A	2	286 mm	270 mm	1	185 mm	185 mm
3200 A	2	376 mm	360 mm	2	248 mm	232 mm
4000 A	2	416 mm	400 mm	2	306 mm	290 mm
5000 A	3	567 mm	535 mm	2	376 mm	360 mm
6300 A		not available			on request	

CAUTION

Some sections exceed the above indicated H dimensions. Examples:

- Joints.
- Outlets on straight plug-in elements: each outlet exceeds the H dimension by 28 mm.
- Some sections (i.e. transposition element, edgewise T, expansion joint, etc.) contain, in the central part, electrical connections that increase the overall dimensions.

BX-R

CAUTION

The BX-R version has an H dimension increased by 5 mm.
For more details please contact Pogliano Busbar S.r.l.

MEASUREMENT OF NON-STANDARD ELEMENTS

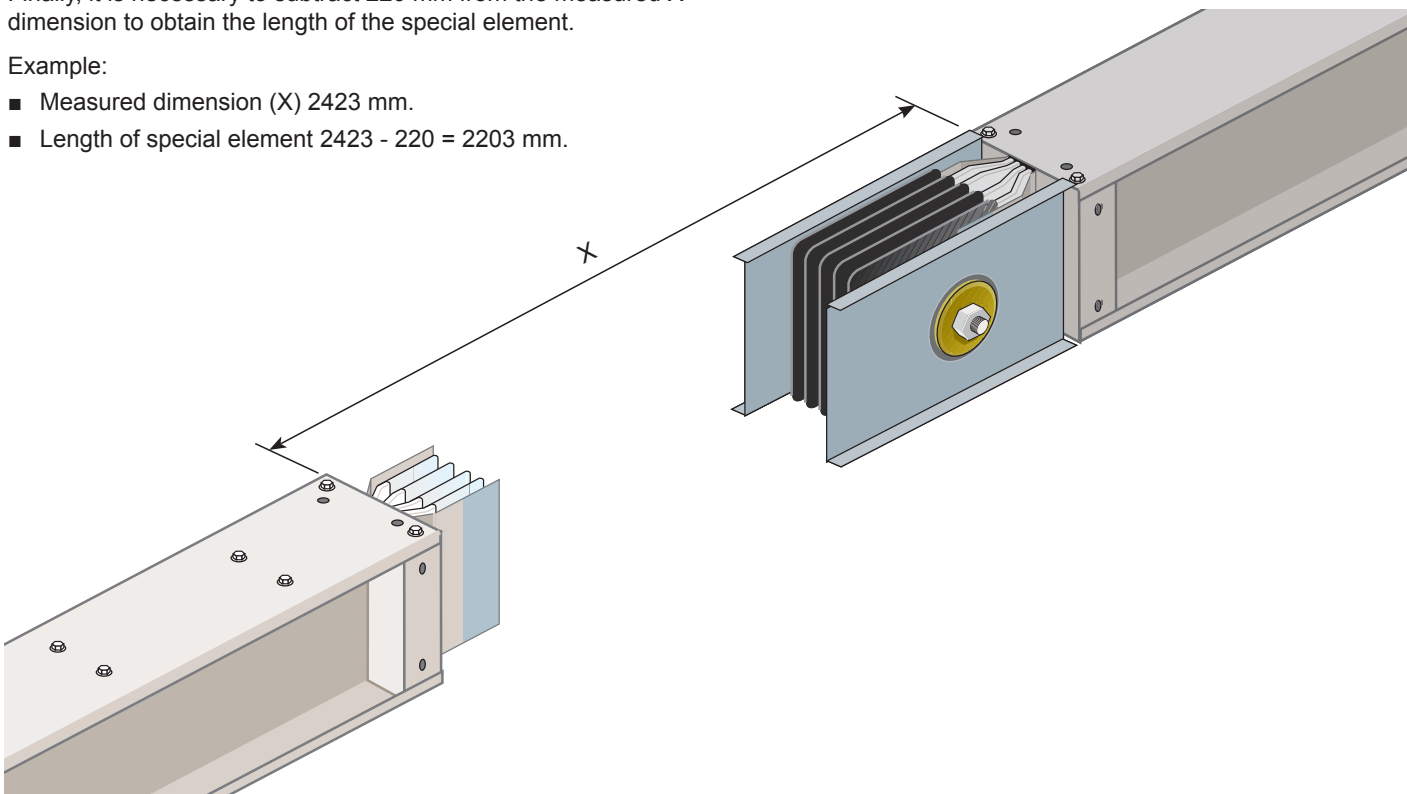
Special elements with length in the range of 410 - 3000 mm can be manufactured.

The length of a special element must be measured as shown in the image alongside.

Finally, it is necessary to subtract 220 mm from the measured X dimension to obtain the length of the special element.

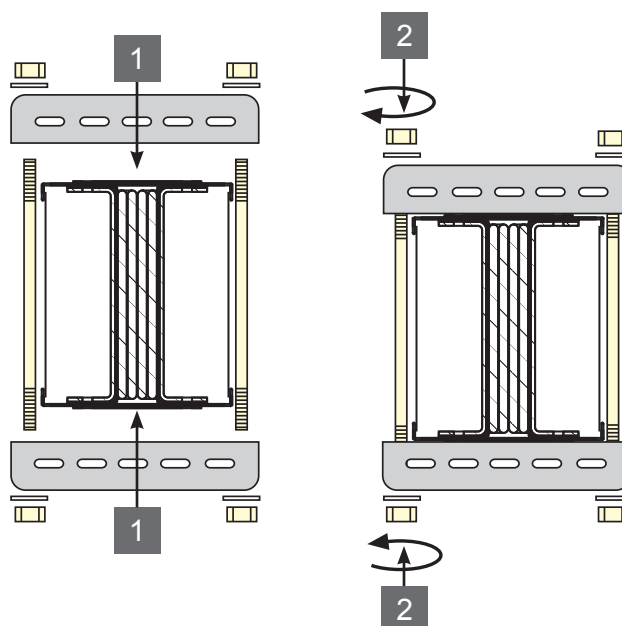
Example:

- Measured dimension (X) 2423 mm.
- Length of special element $2423 - 220 = 2203$ mm.



ALIGNMENT

The mounting system allows to adjust the position before you tighten the screws (12Nm).

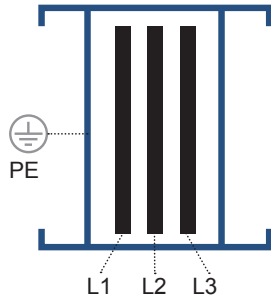


VERSIONS

for both copper and aluminium bars

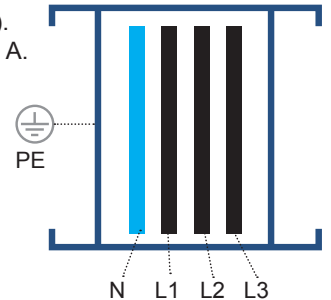
3P + PE (3P)

Reference numbers 3rd digit = 1/2/3 (single/double/triple duct).
Reference numbers last digit = A.



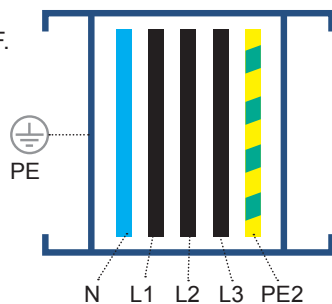
3P + N + PE (4P)

Reference numbers 3rd digit = 4/5/6 (single/double/triple duct).
Reference numbers last digit = A.
Neutral conductor cross section 100% of phase cross section.



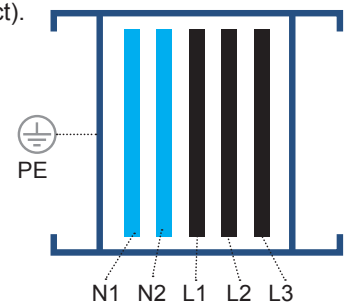
3P + N + PE2 + PE (5P)

Reference numbers 3rd digit = 4/5/6 (single/double/triple duct).
Reference numbers last digit = F.
Neutral and PE2 conductors cross section 100% of phase cross section.



3P + N1 + N2 + PE (5P)

Reference numbers 3rd digit = 4/5/6 (single/double/triple duct).
Reference numbers last digit = Q.
Neutral conductors cross section each 100% of phase cross section.

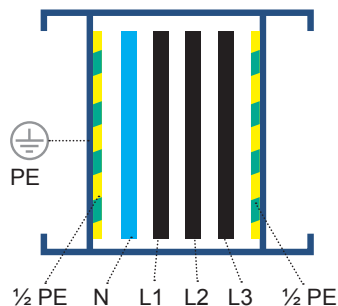


3P + N + PE + 1/2PE

Reference numbers 3rd digit =

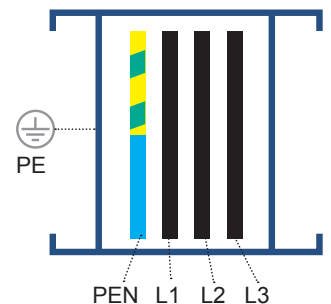
- 1/2/3 (single/double/triple duct).
- 4/5/6 (single/double/triple duct).

Reference numbers last digit = G.
Neutral conductor cross section 100% of phase cross section.
Cross section of each of the additional PE conductors is equal to 50% of the phase conductors section.



3P + PEN (4P)

On request



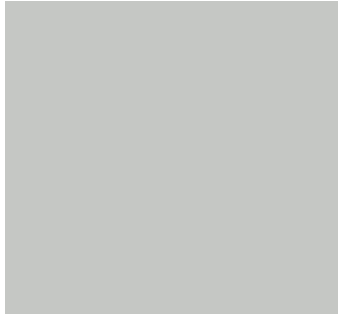
Note: for more versions please contact Pogliano Busbar S.r.l.

HOUSING PAINTS



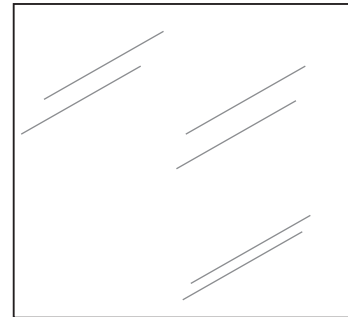
RAL 7032

Second-last reference
number letter = P



RAL 7035

Second-last reference
number letter = M



Special painting RAL

Second-last reference
number letter = V

Note : for more versions please contact Pogliano Busbar S.r.l.

HOUSING VERSIONS

Steel housing 15/10 mm thickness

Reference number last letter = A/F/G

Aluminium housing 15/10 mm thickness

Reference number second letter = A/B

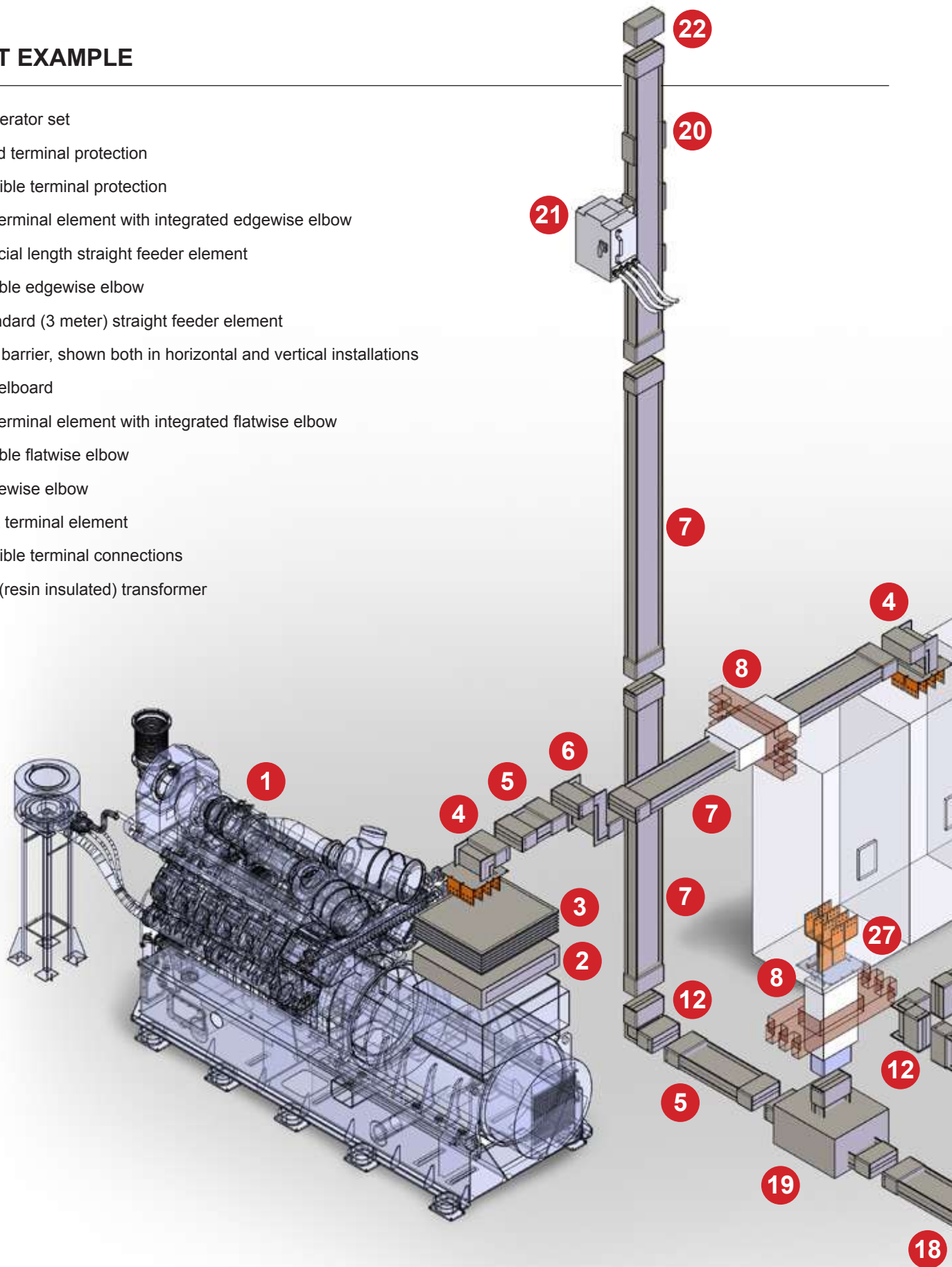
Note: for more versions please contact Pogliano Busbar S.r.l.

BX-E

GENERAL FEATURES

LAYOUT EXAMPLE

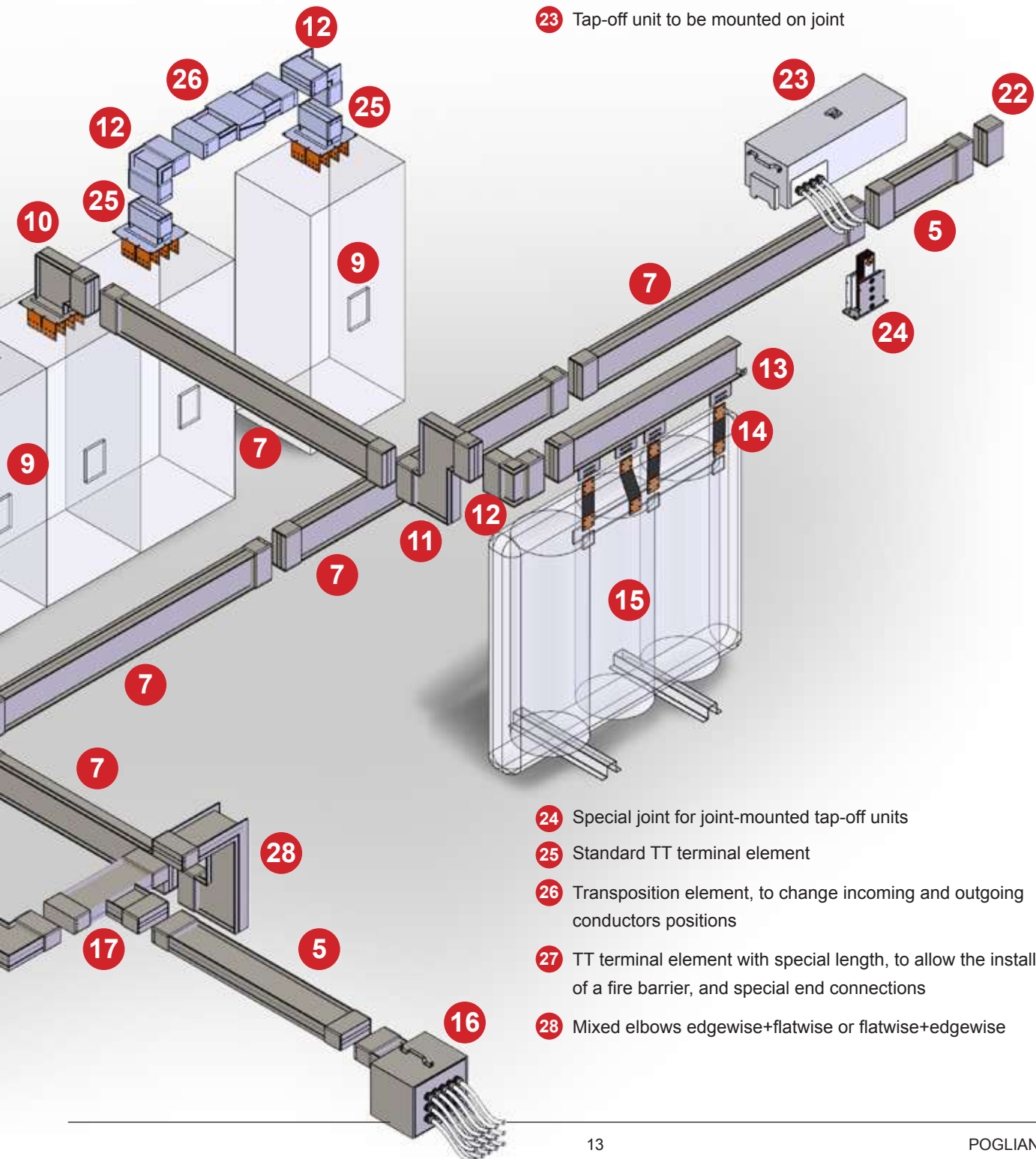
- 1 Generator set
- 2 Rigid terminal protection
- 3 Flexible terminal protection
- 4 TT terminal element with integrated edgewise elbow
- 5 Special length straight feeder element
- 6 Double edgewise elbow
- 7 Standard (3 meter) straight feeder element
- 8 Fire barrier, shown both in horizontal and vertical installations
- 9 Panelboard
- 10 TT terminal element with integrated flatwise elbow
- 11 Double flatwise elbow
- 12 Edgewise elbow
- 13 ATR terminal element
- 14 Flexible terminal connections
- 15 Dry (resin insulated) transformer



BX-E

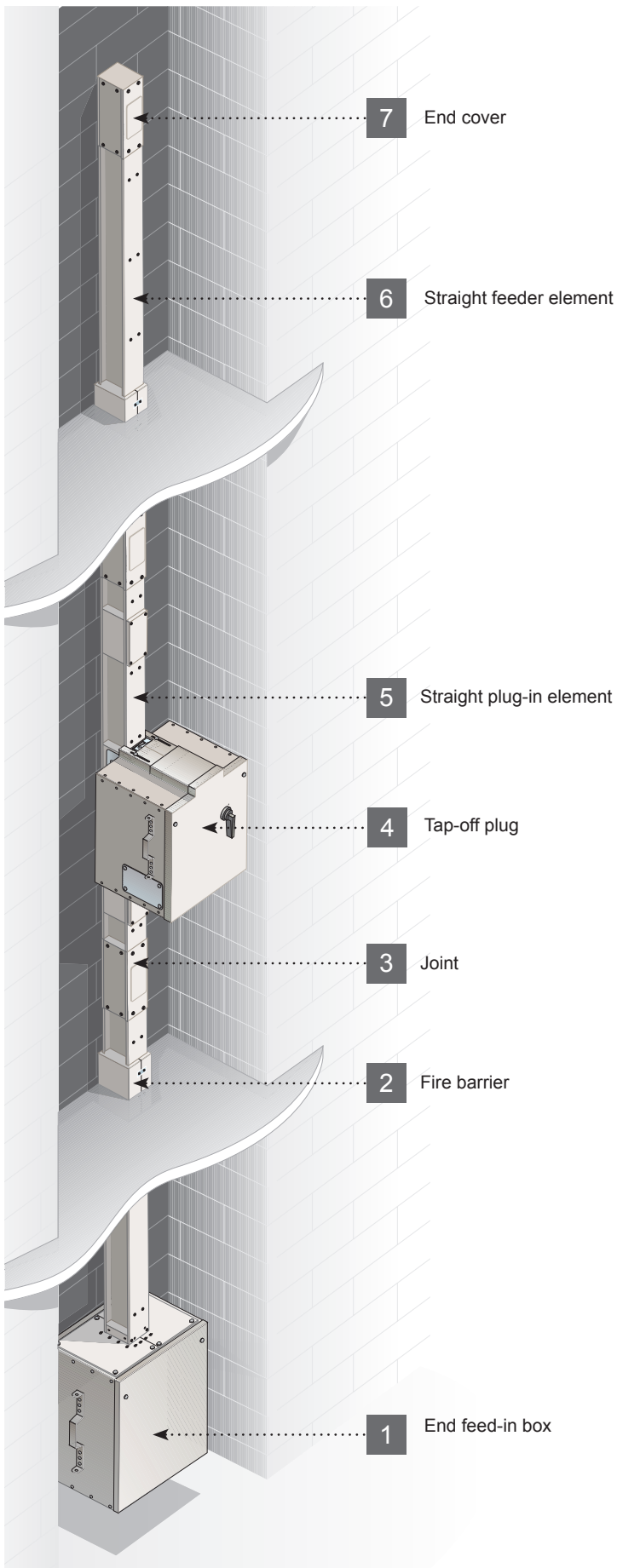
GENERAL FEATURES

- 16 End feed-in box
- 17 Flatwise T element
- 18 Flatwise elbow
- 19 Edgewise T element
- 20 Straight plug-in element with outlets on both sides
- 21 Tap-off plug-in unit
- 22 End cover
- 23 Tap-off unit to be mounted on joint

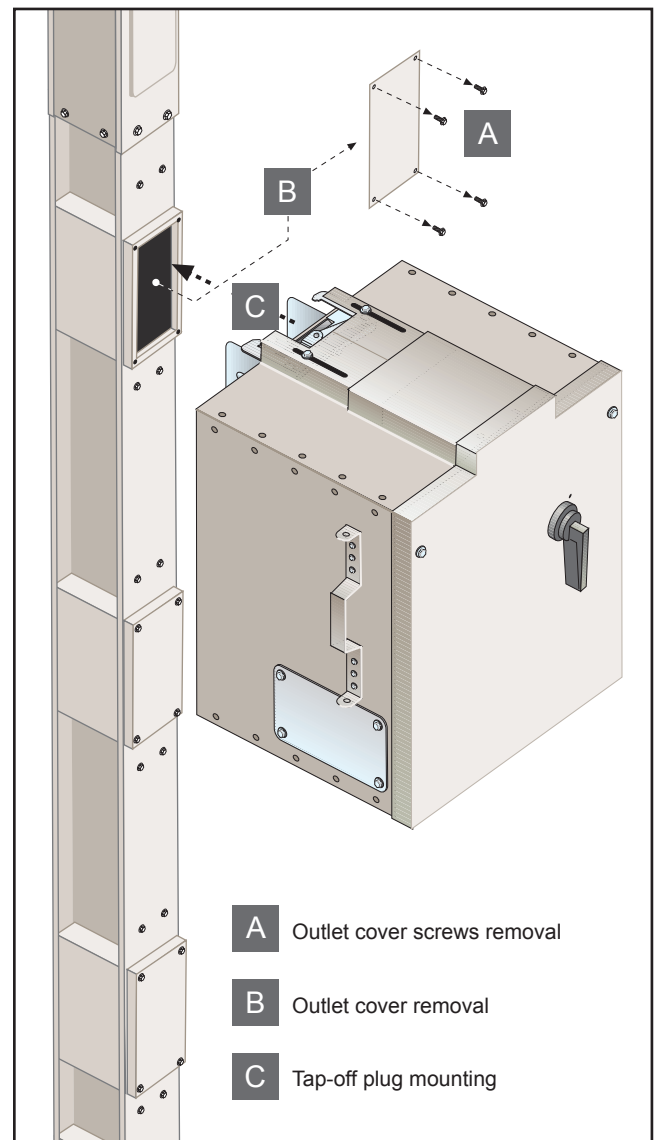


- 24 Special joint for joint-mounted tap-off units
- 25 Standard TT terminal element
- 26 Transposition element, to change incoming and outgoing conductors positions
- 27 TT terminal element with special length, to allow the installation of a fire barrier, and special end connections
- 28 Mixed elbows edgewise+flatwise or flatwise+edgewise

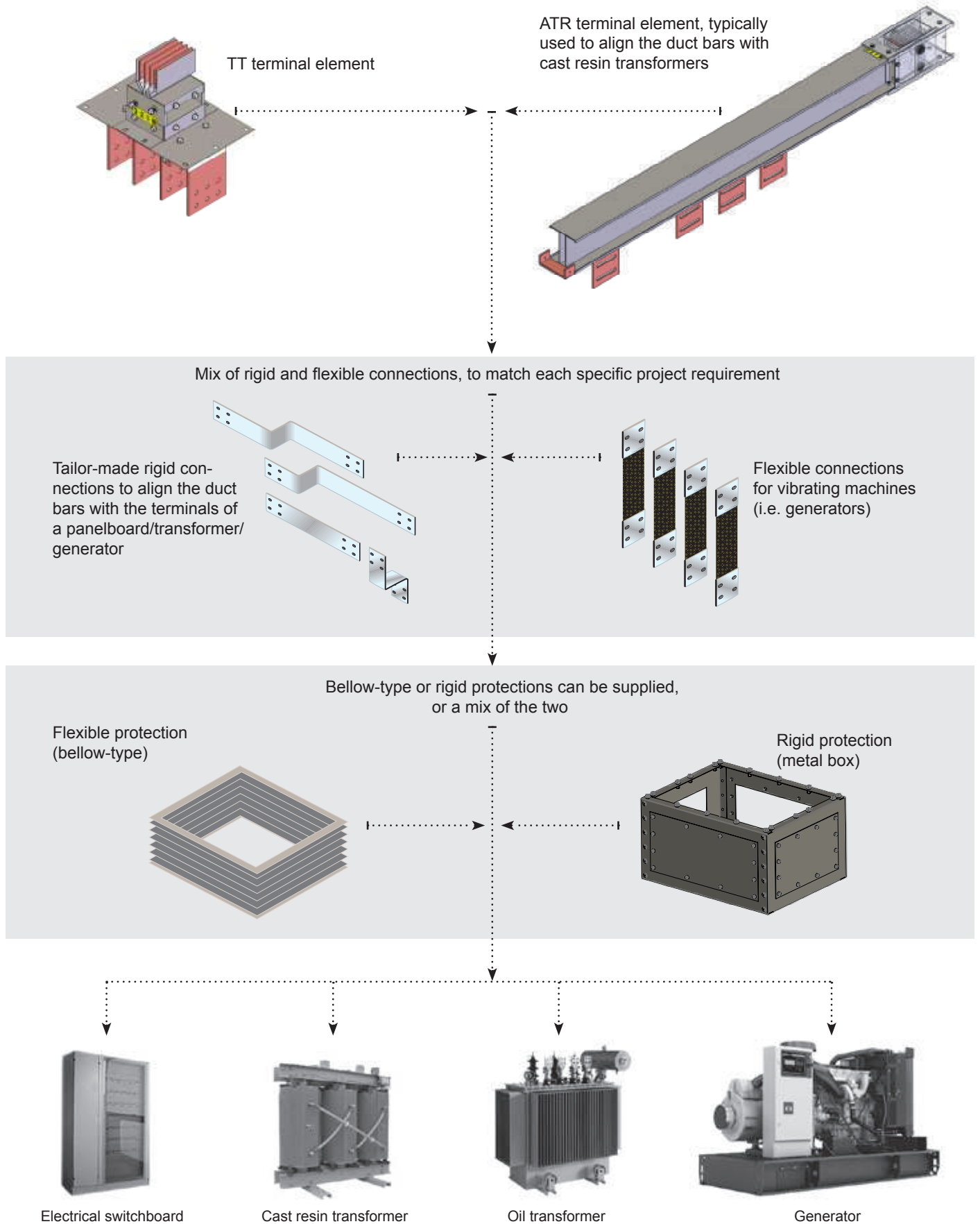
RISING MAINS



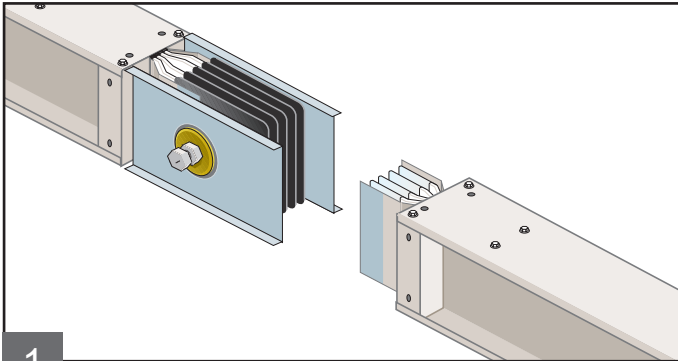
TAP-OFF UNIT



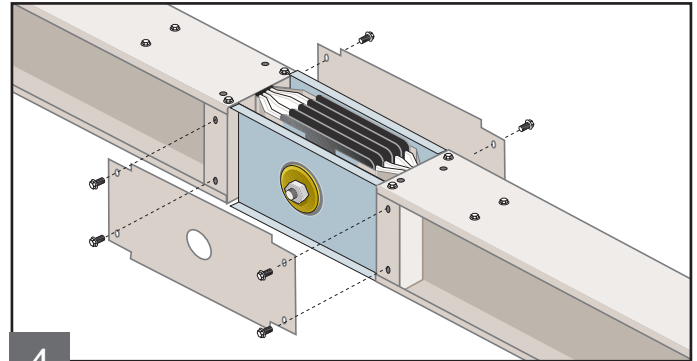
TERMINAL CONNECTIONS



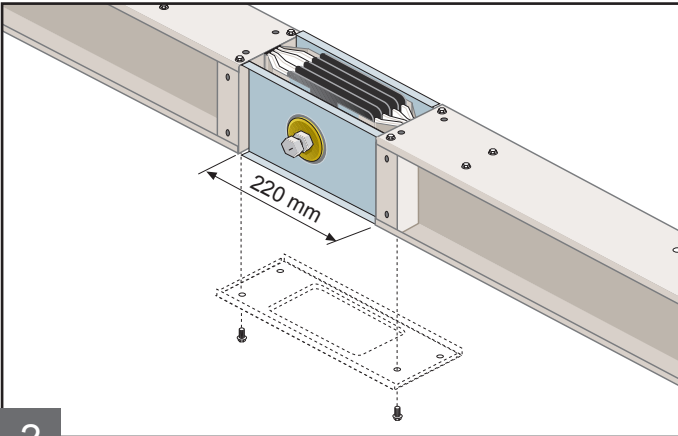
JOINT INSTALLATION



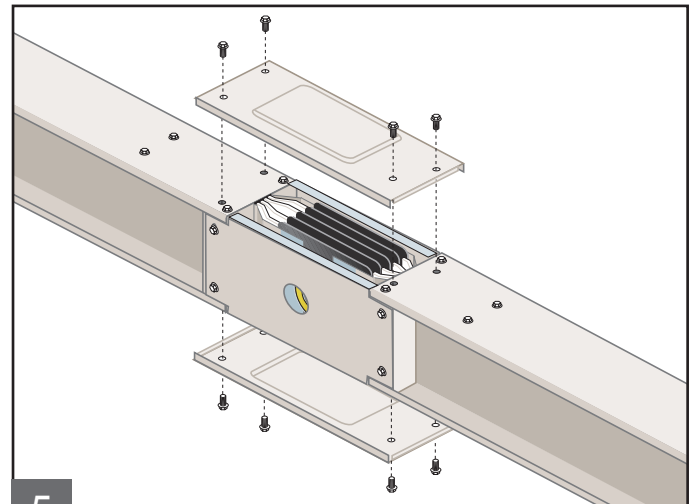
1 Before installation make sure the joint is clean and that it hasn't been damaged during transportation. Draw the element nearer, paying attention to the insertion of the bars into the joint stack.



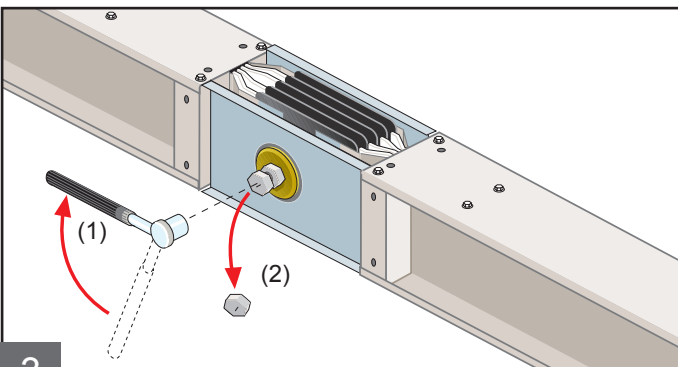
4 Proceed with the installation of the side flanges



2 Draw the two elements nearer until you reach the 220 mm position. Check that all conductors are in the right position and aligned.



5 Proceed with the assembly of the upper and lower flanges. Tighten all flange screws. The degree of protection of the duct (IP55/65) is guaranteed only after installation and with fully assembled product.

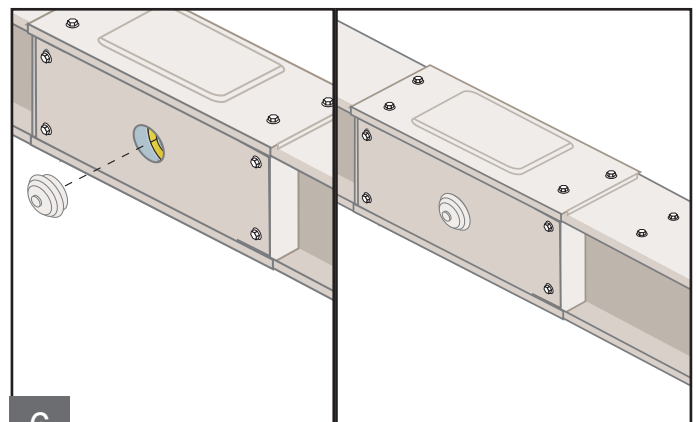


3 Torque until the double-head bolt breaks off (at 60 Nm). Random checking of tightening by means of a torque wrench is nevertheless advisable.

The check of the tightening torque, carried out by experienced staff and with the appropriate safety equipment, can be done without turning off the power.

CAUTION: if joints are not torqued at 60 Nm, over time the busbar may overheat and have a short circuit.

BX-R: before pouring the resin, carry out an insulation test on the joints



6 Fill the hole with the joint cap. Joint installation is complete.



Before powering, measure the insulation resistance (minimum values are given by the EN 61439 standard).

BX-R JOINT INSTALLATION

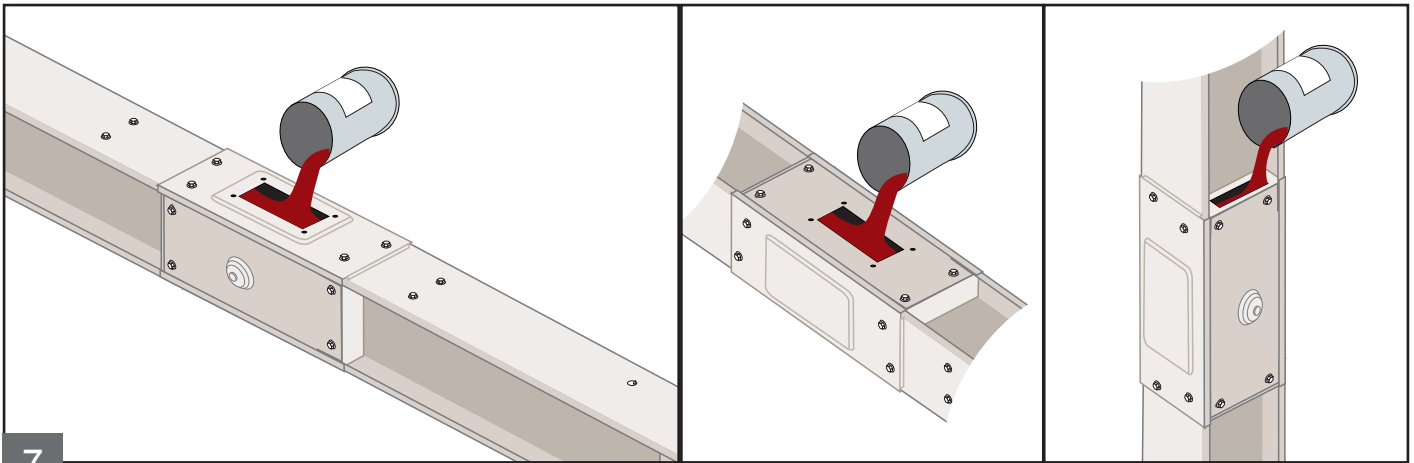
In addition to the steps indicated on the previous page, the BX-R joint installation requires some additional steps illustrated below.

NB: for detailed BX-R installation instructions please refer to our website and to the specific installation manual.

FLATWISE INSTALLATION

EDGEWISE INSTALLATION

RISING COLUMN

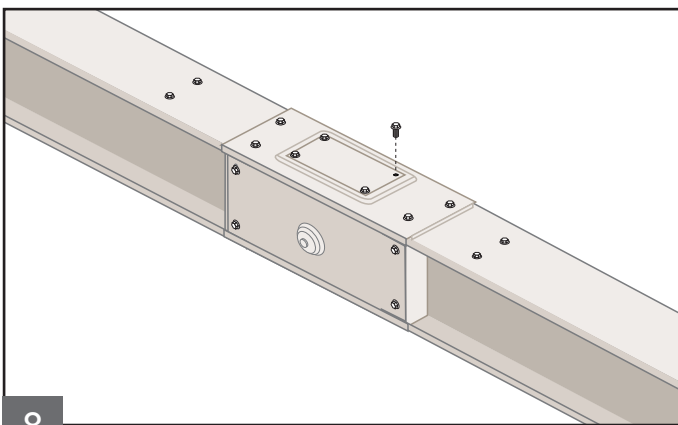


7

Fill the joint with the resin previously prepared as per our instructions, pouring it into the dedicated slot according to the type of installation.

CAUTION

Wait the resin to deposit and fill again the joint.
Repeat the procedure until the resin level inside the joint stabilizes.
The process correctly ends when the conductor bars are fully and stably covered by the resin.



8

When the filling procedure is complete, close the slot with the dedicated plate. Now the assembly is complete.

**NB: the shown installation is a schematic representation.
For correct installation, please refer to our website
and to the specific installation manual.**

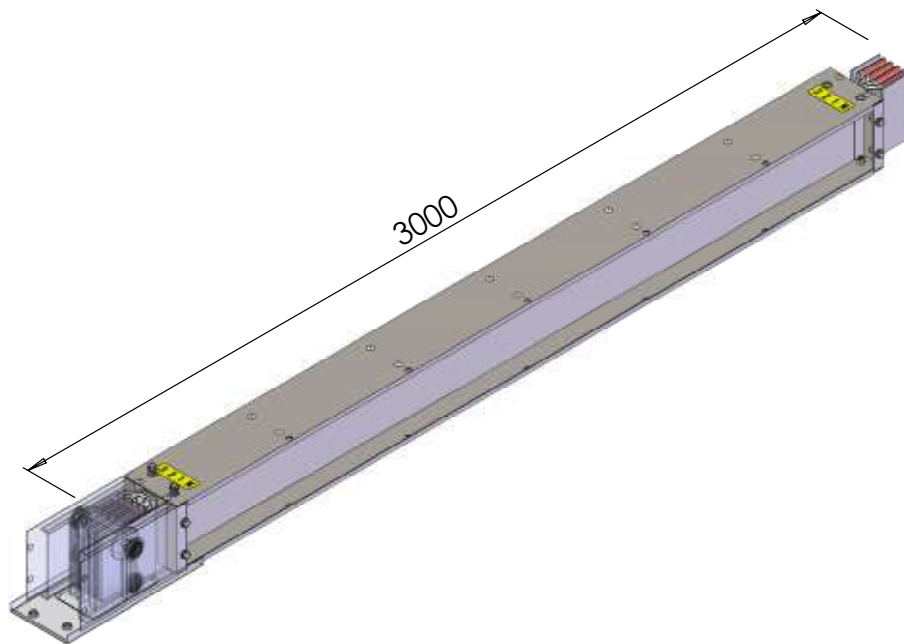
STRAIGHT FEEDER ELEMENTS

CAUTION

For technical data see pages 50-53

For cross-section dimensions see page 8

Note: dimensions referred to the joint are on its center line



Current rating	COPPER 4P + PE			ALUMINIUM 4P + PE		
	3 meters	2 meters	1 meter	3 meters	2 meters	1 meter
800A				234300Z3LPA	234380Z2LPA	234381Z1LPA
1000A	244300Z3LPA	244380Z2LPA	244381Z1LPA	234400Z3LPA	234480Z2LPA	234481Z1LPA
1250A	244400Z3LPA	244480Z2LPA	244481Z1LPA	234500Z3LPA	234580Z2LPA	234581Z1LPA
1600A	244500Z3LPA	244580Z2LPA	244581Z1LPA	234600Z3LPA	234680Z2LPA	234681Z1LPA
2000A	244600Z3LPA	244680Z2LPA	244681Z1LPA	234700Z3LPA	234780Z2LPA	234781Z1LPA
2500A	244700Z3LPA	244780Z2LPA	244781Z1LPA	235100Z3LPA	235180Z2LPA	235181Z1LPA
3200A	245100Z3LPA	245180Z2LPA	245181Z1LPA	235200Z3LPA	235280Z2LPA	235281Z1LPA
4000A	245200Z3LPA	245280Z2LPA	245281Z1LPA	235300Z3LPA	235380Z2LPA	235381Z1LPA
5000A	245300Z3LPA	245380Z2LPA	245381Z1LPA	236100Z3LPA	236180Z2LPA	236181Z1LPA
6300A	available on request					

NOTE : to address specific requests for quotations or orders, please refer to the following versions *

Reference number digit position	2 nd digit	3 rd digit	5 th , 6 th , 7 th and 8 th digits	9 th digit	10 th digit	11 th digit
Meaning	<p>3 = aluminium bars</p> <p>4 = copper bars</p> <p>A = copper bars and aluminium housing (thickness 1.5 mm)</p> <p>B = aluminium bars and housing (thickness 1.5 mm)</p>	<p>1/2/3 = 3 poles with single/double/triple duct (depending on current rating)</p> <p>4/5/6 = 4 or 5 poles with single/double/triple duct (depending on current rating)</p>	<p>81S4 410 - 750 mm length</p> <p>81S1 751 - 999 mm length</p> <p>81Z1 1 m length</p> <p>80S5 1001 - 1250 mm length</p> <p>80S9 1251 - 1500 mm length</p> <p>80S6 1501 - 1750 mm length</p> <p>80S2 1751 - 1999 mm length</p> <p>80Z2 2 m length</p> <p>00S7 2001 - 2250 mm length</p> <p>00S8 2251 - 2500 mm length</p> <p>00S3 2501 - 2999 mm length</p> <p>00Z3 3 m length (STANDARD)</p>	<p>L = IP55</p> <p>M = IP65</p>	<p>P = RAL 7032</p> <p>M = RAL 7035</p> <p>V = color upon request</p>	<p>A = 3 or 4 poles duct with steel housing (thickness 1.5 mm)</p> <p>F = 5 poles duct with steel housing (thickness 1.5 mm)</p> <p>G = N°2 additional aluminium earth/PE conductors (each with 50% phase section), steel housing (thickness 1.5 mm)</p>

* For more versions please contact Pogliano Busbar S.r.l.

STRAIGHT PLUG-IN ELEMENTS - single-side outlets

CAUTION

For technical data see pages 50-53
For cross-section dimensions see page 8

Note: dimensions referred to the joint are to be understood on center line of the same

BX-R

CAUTION

For plug-in elements to be installed in BX-R lines please contact Pogliano Busbar S.r.l.

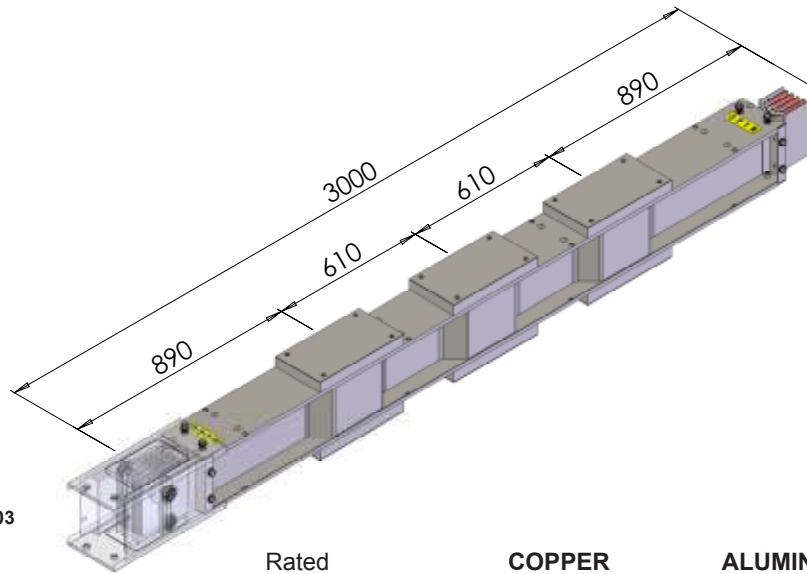


TABLE 424003

Straight plug-in elements have a standard length of 3 meters, but special lengths can be supplied on request (see table below).

The outlets are always positioned on the side with a fixed dimension (137 mm), regardless of current rating.

The standard 3 meters version has 3 outlets, while shorter length versions have number of outlets as shown below.

Rated current	outlets n°	COPPER 4P + PE	ALUMINIUM 4P + PE
800A	3		234309Z3LPA
1000A	3	244309Z3LPA	234409Z3LPA
1250A	3	244409Z3LPA	234509Z3LPA
1600A	3	244509Z3LPA	234699Z3LPA
2000A	3	244699Z3LPA	234799Z3LPA
2500A	3	244799Z3LPA	235199Z3LPA
3200A	3	245199Z3LPA	235299Z3LPA
4000A	3	245299Z3LPA	235399Z3LPA
5000A	3	245399Z3LPA	236199Z3LPA
6300A	3	on request	

NOTE : to address specific requests for quotations or orders, please refer to the following versions *

Reference number digit position	2 nd digit	3 rd digit	5 th and 6 th digits	7 th and 8 th digits	9 th digit	10 th digit	11 th digit
Meaning	<p>3 = aluminium bars</p> <p>4 = copper bars</p> <p>A = copper bars and aluminium housing (thickness 1.5 mm)</p> <p>B = aluminium bars and housing (thickness 1.5 mm)</p>	<p>1/2/3 3 poles with single/double/triple duct (depending on current rating)</p> <p>4/5/6 4 or 5 poles with single/double/triple duct (depending on current rating)</p>	<p>09 = ratings up to 1250 A aluminum and 1600 A copper</p> <p>99 = ratings from 1600 A aluminum and 2000 A copper</p>	<p>S1 = 1 m length (special execution)</p> <p>S5 = 1001 - 1250 mm length</p> <p>S9 = 1251 - 1500 mm length</p> <p>S6 = 1501 - 1750 mm length</p> <p>S2 = 1751 - 1999 mm length</p> <p>Z2 = 2 m length</p> <p>S7 = 2001 - 2250 mm length</p> <p>S8 = 2251 - 2500 mm length</p> <p>S3 = 2501 - 2999 mm length</p> <p>Z3 = 3 m length (STANDARD)</p> <p>NB : refer to the length-outlet table to check the number of outlets according to current rating and length</p>	<p>L = IP55</p> <p>M = IP65</p>	<p>P = RAL 7032</p> <p>M = RAL 7035</p> <p>V = color upon request</p>	<p>A = 3 or 4 poles duct with steel housing (thickness 1.5 mm)</p> <p>F = 5 poles duct with steel housing (thickness 1.5 mm)</p> <p>G = N°2 additional aluminium earth/PE conductors (each with 50% phase section), steel housing (thickness 1.5 mm)</p>

* For more versions please contact Pogliano Busbar S.r.l.

Relation between element length and outlets number		
Minimum length with 1 outlet [mm]	Minimum length with 2 outlets [mm]	Minimum length with 3 outlets [mm]
1000	1610	2220

STRAIGHT PLUG-IN ELEMENTS - double-side outlets

part 1/2

CAUTION

For technical data see pages 50-53
For cross-section dimensions see page 8

Note: dimensions referred to the joint are to be understood on center line of the same

Current ratings up to 1250 A aluminium and 1600 A copper:
maximum 2 outlets on each side (4 total outlets)

BX-R

CAUTION

For plug-in elements to be installed in BX-R lines
please contact Pogliano Busbar S.r.l.

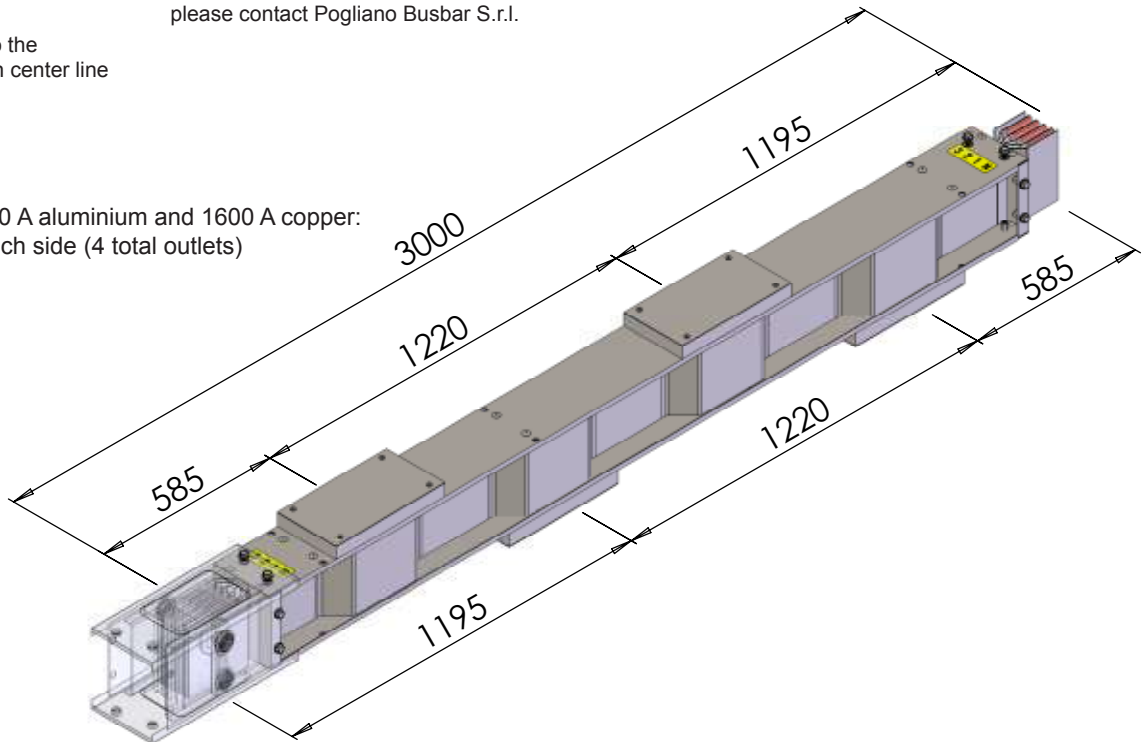


TABLE 424003

Current ratings from 1600 A aluminium and 2000 A copper:
maximum 3 outlets on each side (6 total outlets)

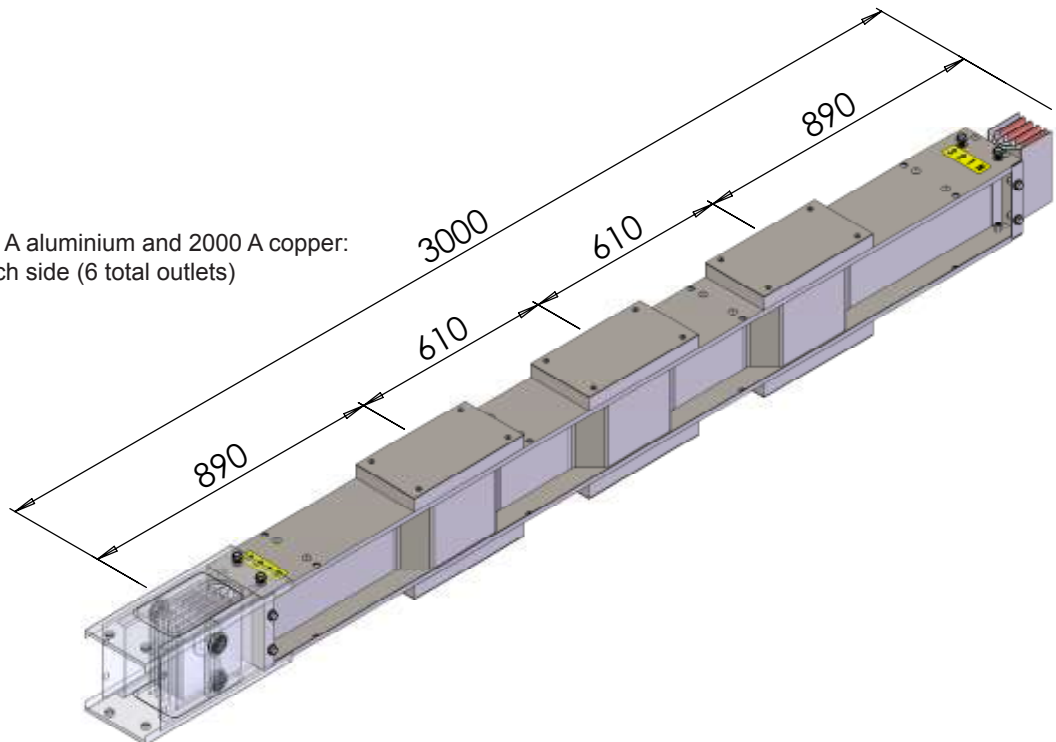


TABLE 424003

STRAIGHT PLUG-IN ELEMENTS - double-side outlets

part 2/2

Rated current	outlets n°	COPPER	ALUMINIUM
		4P + PE	4P + PE
800A	2 + 2		234399Z3LPA
1000A	2 + 2	244399Z3LPA	234499Z3LPA
1250A	2 + 2	244499Z3LPA	234599Z3LPA
1600A	2 + 2	244599Z3LPA	
1600A	3 + 3		234609Z3LPA
2000A	3 + 3	244609Z3LPA	234709Z3LPA
2500A	3 + 3	244709Z3LPA	235109Z3LPA
3200A	3 + 3	245109Z3LPA	235209Z3LPA
4000A	3 + 3	245209Z3LPA	235309Z3LPA
5000A	3 + 3	245309Z3LPA	236109Z3LPA
6300A	3 + 3	on request	

Straight plug-in elements have a standard length of 3 meters, but special lengths can be supplied on request (see table below).

The outlets are always positioned on the side with a fixed dimension (137 mm), regardless of current rating.

The standard 3 meters version has, depending on the current rating, 2+2 or 3+3 outlets (see table on the left). Sections shorter than 3 meters have an outlets number according to the table at the bottom of this page.

BX-R

CAUTION

For plug-in elements to be installed in BX-R lines please contact Pogliano Busbar S.r.l.

NOTE : to address specific requests for quotations or orders, please refer to the following versions *

Reference number digit position	2 nd digit	3 rd digit	5 th and 6 th digits	7 th and 8 th digits	9 th digit	10 th digit	11 th digit
Meaning	3 = aluminium bars 4 = copper bars A = copper bars and aluminium housing (thickness 1.5 mm) B = aluminium bars and housing (thickness 1.5 mm)	1/2/3 3 poles with single/double/triple duct (depending on current rating) 4/5/6 4 or 5 poles with single/double/triple duct (depending on current rating)	99 = ratings up to 1250 A aluminium and 1600 A copper 09 = ratings from 1600 A aluminium and 2000 A copper	S9 = 1250 - 1500 mm length S6 = 1501 - 1750 mm length S2 = 1751 - 1999 mm length Z2 = 2 m length S7 = 2001 - 2250 mm length S8 = 2251 - 2500 mm length S3 = 2501 - 2999 mm length Z3 = 3 m length (STANDARD)	L = IP55 M = IP65	P = RAL 7032 M = RAL 7035 V = color upon request	A = 3 or 4 poles duct with steel housing (thickness 1.5 mm) F = 5 poles duct with steel housing (thickness 1.5 mm) G = N°2 additional aluminium earth/PE conductors (each with 50% phase section), steel housing (thickness 1.5 mm)
				NB : refer to the length-outlet table to check the number of outlets according to current rating and length			

* For more versions please contact Pogliano Busbar S.r.l.

Relation between element length and outlets number

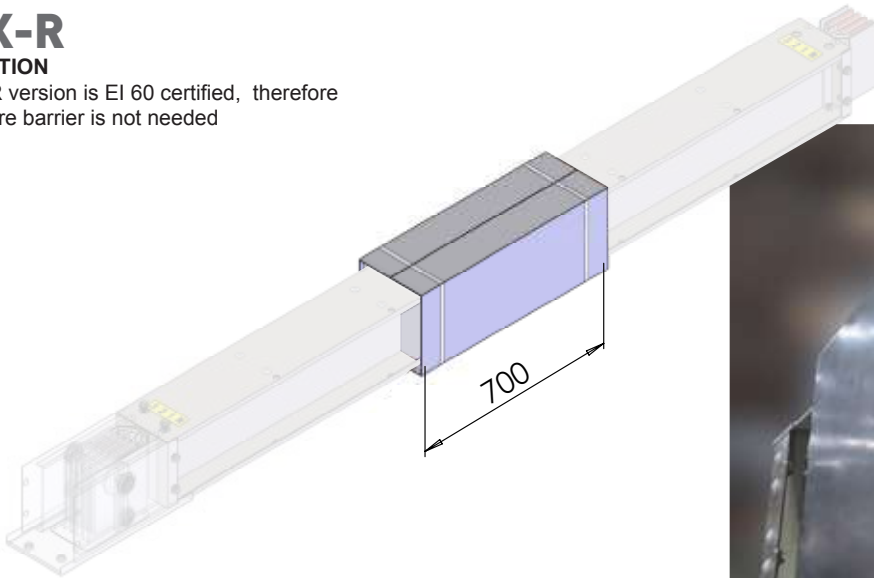
Version	Minimum length with 1 outlet per side [mm]	Minimum length with odd outlets (1 on one side, 2 on the opposite side) [mm]	Minimum length with 2 outlets [mm]	Minimum length with 3 outlets [mm]
Misaligned outlets: Copper ratings 1000 ÷ 1600 A Aluminium ratings 800 ÷ 1250 A	1330	2220	2550	-
Aligned outlets: Copper ratings 2000 ÷ 5000 A Aluminium ratings 1600 ÷ 5000 A	1280	-	1890	2500

FIRE BARRIERS

BX-R

CAUTION

BX-R version is EI 60 certified, therefore the fire barrier is not needed



Rated current	COPPER	ALUMINIUM
800A		234319Z0LPB
1000A	244319Z0LPB	234419Z0LPB
1250A	244419Z0LPB	234519Z0LPB
1600A	244519Z0LPB	234619Z0LPB
2000A	244619Z0LPB	234719Z0LPB
2500A	244719Z0LPB	235119Z0LPB
3200A	245119Z0LPB	235219Z0LPB
4000A	245219Z0LPB	235319Z0LPB
5000A	245319Z0LPB	236119Z0LPB
6300A	on request	

Fire barrier to prevent the chimney effect and the spreading of flames when crossing walls or slabs, to be purchased separately as an additional accessory for straight elements.

Certified only as 700 mm length. EI180 class according to UNI EN 13501-2:2016.

The barrier is made of calcium silicate panels with a hydrated mineral matrix.

The empty spaces between panels and conductive elements are filled with rockwool.

The gaps between panels and housing are filled with a special sealing paste.

To protect the barrier during transport and handling, a protective metal box is applied around the fire barrier. The protection must be removed on site before installation.

Installation requires a hole in the wall/slab larger in size than the barrier.

At the end of the installation, close the empty spaces surrounding the barrier with REI materials with equal or higher class than REI180.

Fire barriers are not protected from dust and liquids.

NOTE : to address specific requests for quotations or orders, please refer to the following versions *

Reference number digit position	2 nd digit	3 rd digit	11 th digit
Meaning	<p>3 = aluminium bars</p> <p>4 = copper bars</p> <p>A = copper bars and aluminium housing (thickness 1.5 mm)</p> <p>B = aluminium bars and housing (thickness 1.5 mm)</p>	<p>1/2/3 3 poles with single/double/triple duct (depending on current rating)</p> <p>4/5/6 4 or 5 poles with single/double/triple duct (depending on current rating)</p>	<p>B barrier for 3 poles ducts or, if the 3rd digit is equal to 4/5/6, for 4 poles ducts</p> <p>F barrier for 5 poles ducts</p>

* For more versions please contact Pogliano Busbar S.r.l.

EDGEWISE ELBOW

CAUTION

For technical data see pages 50-53

For cross-section dimensions see page 8

Note: dimensions referred to the joint are on its center line

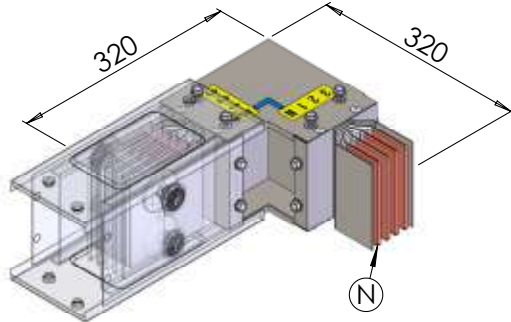


TABLE 424004

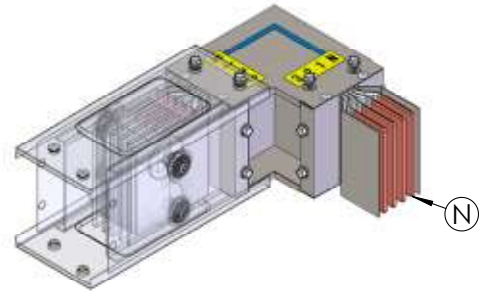


TABLE 424005

**COPPER
4P + PE**

**ALUMINIUM
4P + PE**

Current rating

800A		234301N1LPA
1000A	244301N1LPA	234401N1LPA
1250A	244401N1LPA	234501N1LPA
1600A	244501N1LPA	234601N1LPA
2000A	244601N1LPA	234701N1LPA
2500A	244701N1LPA	235101N1LPA
3200A	245101N1LPA	235201N1LPA
4000A	245201N1LPA	235301N1LPA
5000A	245301N1LPA	236101N1LPA
6300A	on request	

NOTE : to address specific requests for quotations or orders, please refer to the following versions *

Reference number digit position	2 nd digit	3 rd digit	7 th and 8 th digits	9 th digit	10 th digit	11 th digit	TABLE (to be specified in the notes)
Meaning	<p>3 = aluminium bars</p> <p>4 = copper bars</p> <p>A = copper bars and aluminium housing (thickness 1.5 mm)</p> <p>B = aluminium bars and housing (thickness 1.5 mm)</p>	<p>1/2/3 3 poles with single/double/triple duct (depending on current rating)</p> <p>4/5/6 4 or 5 poles with single/double/triple duct (depending on current rating)</p>	<p>N1 standard length</p> <p>S4 total length 640 - 750 mm</p> <p>S1 total length 751 - 1000 mm</p> <p>S5 total length 1001 - 1250 mm</p> <p>S9 total length 1251 - 1500 mm</p> <p>S6 total length 1501 - 1750 mm</p> <p>S2 total length 1751 - 2000 mm</p> <p>S7 total length 2001 - 2250 mm</p> <p>S8 total length 2251 - 2500 mm</p> <p>S3 total length 2501 - 3000 mm</p>	<p>L = IP55</p> <p>M = IP65</p>	<p>P = RAL 7032</p> <p>M = RAL 7035</p> <p>V = color upon request</p>	<p>A = 3 or 4 poles duct with steel housing (thickness 1.5 mm)</p> <p>F = 5 poles duct with steel housing (thickness 1.5 mm)</p> <p>G = N°2 additional aluminium earth/PE conductors (each with 50% phase section), steel housing (thickness 1.5 mm)</p>	<p>424004 inner-side neutral position (on the shorter side of the elbow)</p> <p>424005 outer-side neutral position (on the longer side of the elbow)</p>

* For more versions please contact Pogliano Busbar S.r.l.

FLATWISE ELBOW

CAUTION

For technical data see pages 50-53
For cross-section dimensions see page 8

Note: dimensions referred to the joint are on its center line

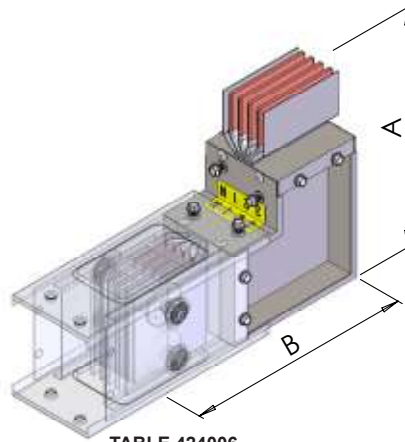


TABLE 424006

Current rating	COPPER 4P + PE	ALUMINIUM 4P + PE
800A		234302N1LPA
1000A	244302N1LPA	234402N1LPA
1250A	244402N1LPA	234502N1LPA
1600A	244502N1LPA	234602N1LPA
2000A	244602N1LPA	234702N1LPA
2500A	244702N1LPA	235102N2LPA
3200A	245102N1LPA	235202N2LPA
4000A	245202N2LPA	235302N2LPA
5000A	245302N2LPA	236102N2LPA
6300A	on request	

Dimensions	Cu	Al
Current rating	A=B	A=B
800A		270
1000A	270	280
1250A	270	310
1600A	310	350
2000A	340	390
2500A	370	520
3200A	480	610
4000A	540	650
5000A	610	800
6300A	on request	

NOTE : to address specific requests for quotations or orders, please refer to the following versions *

Reference number digit position	2 nd digit	3 rd digit	7 th and 8 th digits	9 th digit	10 th digit	11 th digit
Meaning	<p>3 = aluminium bars</p> <p>4 = copper bars</p> <p>A = copper bars and aluminium housing (thickness 1.5 mm)</p> <p>B = aluminium bars and housing (thickness 1.5 mm)</p>	<p>1/2/3 3 poles with single/double/triple duct (depending on current rating)</p> <p>4/5/6 4 or 5 poles with single/double/triple duct (depending on current rating)</p>	<p>N1/N2 = standard length (according to current rating, as per above table)</p> <p>S4 = total length (A+B) xxx - 750 mm Minimum length xxx : - 800 A aluminum and 1000/1250 A copper = 540 mm - 1000 A aluminum = 560 mm - 1250 A aluminum and 1600 A copper = 620 mm - 1600 A aluminum = 700 mm - 2000 A copper = 680 mm Minimum length for higher ratings = see below.</p> <p>S1 = total length (A+B) 750 - 1000 mm Minimum length 2000 A aluminum = 780 mm. Minimum length 2500 A copper = 740 mm. Minimum length 3200 A copper = 960 mm. Minimum length for higher ratings = see below.</p> <p>S5 = total length (A+B) 1001 - 1250 mm Minimum length 2500 A aluminum = 1040 mm. Minimum length 4000 A copper = 1080 mm. Minimum length 3200 A aluminum and 5000 A copper = 1220 mm. Minimum length for higher ratings = see below.</p> <p>S9 = total length (A+B) 1251 - 1500 mm Minimum length 4000 A aluminum = 1300 mm. Minimum length for higher ratings = see below.</p> <p>S6 = total length (A+B) 1501 - 1750 mm Minimum length 5000 A aluminum = 1600 mm.</p> <p>S2 = total length (A+B) 1751 - 2000 mm</p> <p>S7 = total length (A+B) 2001 - 2250 mm</p> <p>S8 = total length (A+B) 2251 - 2500 mm</p> <p>S3 = total length (A+B) 2501 - 3000 mm</p>	<p>L = IP55</p> <p>M = IP65</p>	<p>P = RAL 7032</p> <p>M = RAL 7035</p> <p>V = color upon request</p>	<p>A = 3 or 4 poles duct with steel housing (thickness 1.5 mm)</p> <p>F = 5 poles duct with steel housing (thickness 1.5 mm)</p> <p>G = N°2 additional aluminium earth/PE conductors (each with 50% phase section), steel housing (thickness 1.5 mm)</p>

* For more versions please contact Pogliano Busbar S.r.l.

DOUBLE EDGEWISE ELBOW

CAUTION

For technical data see pages 50-53

For cross-section dimensions see page 8

Note: dimensions referred to the joint are on its center line

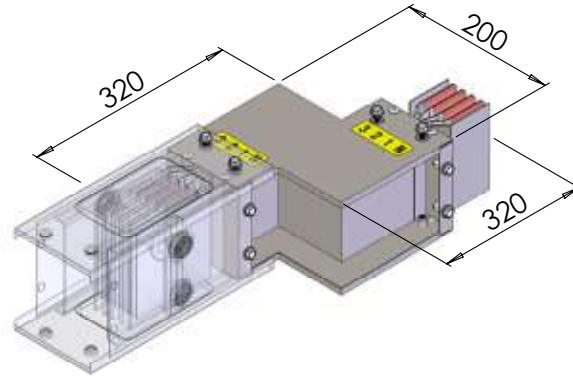


TABLE 424007

COPPER 4P + PE

ALUMINIUM 4P + PE

Current rating

800A		234321N1LPA
1000A	244321N1LPA	234421N1LPA
1250A	244421N1LPA	234521N1LPA
1600A	244521N1LPA	234621N1LPA
2000A	244621N1LPA	234721N1LPA
2500A	244721N1LPA	235121N1LPA
3200A	245121N1LPA	235221N1LPA
4000A	245221N1LPA	235321N1LPA
5000A	245321N1LPA	236121N2LPA
6300A	on request	

NOTE : to address specific requests for quotations or orders, please refer to the following versions *

Reference number digit position	2 nd digit	3 rd digit	7 th and 8 th digits	9 th digit	10 th digit	11 th digit
Meaning	<p>3 = aluminium bars</p> <p>4 = copper bars</p> <p>A = copper bars and aluminium housing (thickness 1.5 mm)</p> <p>B = aluminium bars and housing (thickness 1.5 mm)</p>	<p>1/2/3 3 poles with single/double/triple duct (depending on current rating)</p> <p>4/5/6 4 or 5 poles with single/double/triple duct (depending on current rating)</p>	<p>N1 = standard length</p> <p>S1 = total length 840 - 1000 mm</p> <p>S5 = total length 1001 - 1250 mm</p> <p>S9 = total length 1251 - 1500 mm</p> <p>S6 = total length 1501 - 1750 mm</p> <p>S2 = total length 1751 - 2000 mm</p> <p>S7 = total length 2001 - 2250 mm</p> <p>S8 = total length 2251 - 2500 mm</p> <p>S3 = total length 2501 - 3000 mm</p>	<p>L = IP55</p> <p>M = IP65</p>	<p>P = RAL 7032</p> <p>M = RAL 7035</p> <p>V = color upon request</p>	<p>A = 3 or 4 poles duct with steel housing (thickness 1.5 mm)</p> <p>F = 5 poles duct with steel housing (thickness 1.5 mm)</p> <p>G = N°2 additional aluminium earth/PE conductors (each with 50% phase section), steel housing (thickness 1.5 mm)</p>

* For more versions please contact Pogliano Busbar S.r.l.

DOUBLE FLATWISE ELBOW

CAUTION

For technical data see pages 50-53

For cross-section dimensions see page 8

Note: dimensions referred to the joint are on its center line

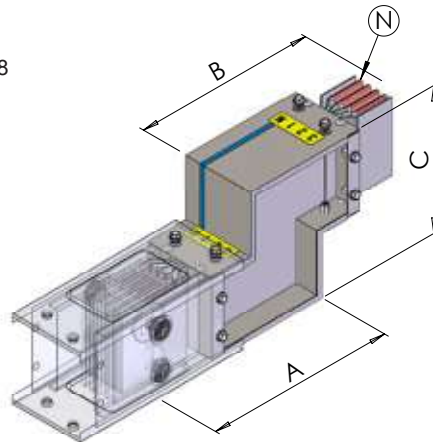


TABLE 424008

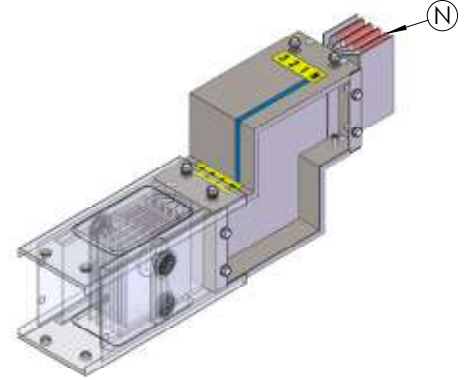


TABLE 424009

Current rating	COPPER 4P + PE	ALUMINIUM 4P + PE
800A		234322N1LPA
1000A	244322N1LPA	234422N1LPA
1250A	244422N1LPA	234522N1LPA
1600A	244522N1LPA	234622N1LPA
2000A	244622N1LPA	234722N2LPA
2500A	244722N2LPA	235122N2LPA
3200A	245122N2LPA	235222N2LPA
4000A	245222N2LPA	235322N2LPA
5000A	245322N2LPA	236122N3LPA
6300A	on request	

Dimensions Current rating	Cu			Al		
	A	B	C	A	B	C
800A				270	270	185
1000A	270	270	185	280	280	195
1250A	270	270	185	310	310	225
1600A	310	310	225	350	350	270
2000A	340	340	255	390	390	320
2500A	370	370	290	520	520	390
3200A	480	480	350	610	610	480
4000A	540	540	410	650	650	515
5000A	610	610	480	800	800	675
6300A	on request					

NOTE : to address specific requests for quotations or orders, please refer to the following versions *

Reference number digit position	2 nd digit	3 rd digit	7 th and 8 th digits	9 th digit	10 th digit	11 th digit	TABLE (to be specified in the notes)
Meaning	<p>3 = aluminium bars</p> <p>4 = copper bars</p> <p>A = copper bars and aluminium housing (thickness 1.5 mm)</p> <p>B = aluminium bars and housing (thickness 1.5 mm)</p>	<p>1/2/3 3 poles with single/double/triple duct (depending on current rating)</p> <p>4/5/6 4 or 5 poles with single/double/triple duct (depending on current rating)</p>	<p>N1/N2/N3 standard length (according to current rating, as per above table)</p> <p>S4 = total length (A+B+C) 725 - 750 mm</p> <p>S1 = total length (A+B+C) 751 - 1000 mm</p> <p>S5 = total length (A+B+C) 1001 - 1250 mm</p> <p>S9 = total length (A+B+C) 1251 - 1500 mm</p> <p>S6 = total length (A+B+C) 1501 - 1750 mm</p> <p>S2 = total length (A+B+C) 1751 - 2000 mm</p> <p>S7 = total length (A+B+C) 2001 - 2250 mm</p> <p>S8 = total length (A+B+C) 2251 - 2500 mm</p> <p>S3 = total length (A+B+C) 2501 - 3000 mm</p>	<p>L = IP55</p> <p>M = IP65</p>	<p>P = RAL 7032</p> <p>M = RAL 7035</p> <p>V = color upon request</p>	<p>A = 3 or 4 poles duct with steel housing (thickness 1.5 mm)</p> <p>F = 5 poles duct with steel housing (thickness 1.5 mm)</p> <p>G = N°2 additional aluminium earth/PE conductors (each with 50% phase section), steel housing (thickness 1.5 mm)</p>	<p>424008 neutral position as per above image</p> <p>424009 neutral position as per above image</p>

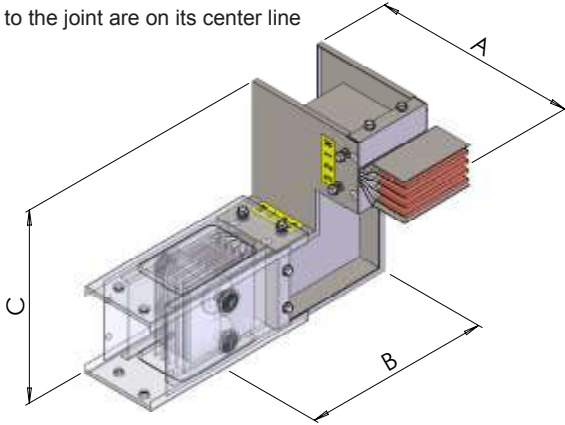
* For more versions please contact Pogliano Busbar S.r.l.

COMBINED ELBOWS FLATWISE+EDGEWISE and EDGEWISE+FLATWISE

CAUTION

For technical data see pages 50-53
For cross-section dimensions see page 8

Note: dimensions referred to the joint are on its center line



The tables shown in this page have the flatwise elbow first, then the edgewise elbow.

To obtain the reverse sequence (edgewise then flatwise) order the element as per beside tables and, during installation, move the joint to the opposite element end.

The dimensions A and B always refer to the joint center, therefore the position of the joint itself has no effect on the element product code.

TABLES FOR DEFINING DIRECTION AND NEUTRAL POSITION OF COMBINED ANGLES

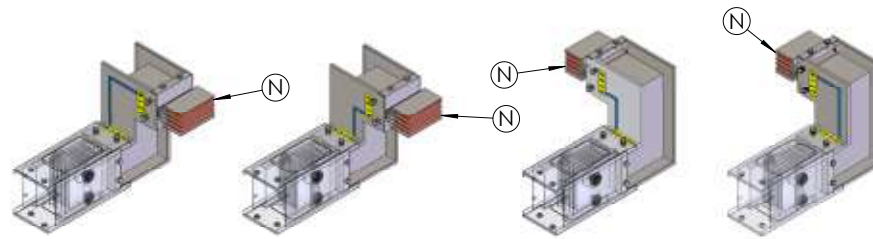


TABLE 424013

TABLE 424012

TABLE 424011

TABLE 424010

Current rating	COPPER	ALUMINIUM
	4P + PE	4P + PE
800A		234313N1LPA
1000A	244313N1LPA	234413N1LPA
1250A	244413N1LPA	234513N1LPA
1600A	244513N1LPA	234613N2LPA
2000A	244613N2LPA	234713N2LPA
2500A	244713N2LPA	235113N2LPA
3200A	245113N2LPA	235213N2LPA
4000A	245213N2LPA	235313N2LPA
5000A	245313N2LPA	236113N2LPA
6300A	on request	

Current rating	Cu			Al		
	A	B	C	A	B	C
800A				320	270	300
1000A	320	270	300	320	280	310
1250A	320	270	300	320	310	335
1600A	320	310	335	320	350	375
2000A	320	340	365	320	390	420
2500A	320	370	400	320	520	500
3200A	320	480	465	320	610	590
4000A	320	540	520	320	650	630
5000A	320	610	590	320	800	780
6300A	on request					

NOTE : to address specific requests for quotations or orders, please refer to the following versions *

Reference number digit position	2 nd digit	3 rd digit	7 th and 8 th digits	9 th digit	10 th digit	11 th digit	TABLE (to be specified in the notes)
Meaning	<p>3 aluminium bars</p> <p>4 copper bars</p> <p>A copper bars and aluminium housing (thickness 1.5 mm)</p> <p>B aluminium bars and housing (thickness 1.5 mm)</p>	<p>1/2/3 3 poles with single/double/triple duct (depending on current rating)</p> <p>4/5/6 4 or 5 poles with single/double/triple duct (depending on current rating)</p>	<p>N1/N2/N3 = standard length (according to current rating, as per above table)</p> <p>S1 = total length (A+B+C) xxx - 1000 mm Minimum length xxx : - 800 A aluminum and 1000/1250 A copper = 890 mm - 1000 A aluminum = 910 mm - 1250 A aluminum and 1600 A copper = 965 mm Minimum length for higher ratings = see below.</p> <p>S5 = total length (A+B+C) 1001 - 1250 mm Minimum length 1600 A aluminum = 1045 mm. Minimum length 2000 A aluminum = 1130 mm. Minimum length 2000 A copper = 1025 mm. Minimum length 2500 A copper = 1090 mm. Minimum length for higher ratings = see below.</p> <p>S9 = total length (A+B+C) 1251 - 1500 mm Minimum length 2500 A aluminum = 1340 mm. Minimum length 3200 A copper = 1265 mm. Minimum length 4000 A copper = 1380 mm. Minimum length for higher ratings = see below.</p> <p>S6 = total length (A+B+C) 1501 - 1750 mm Minimum length 3200 A aluminum = 1520 mm. Minimum length 4000 A aluminum = 1600 mm. Minimum length 5000 A copper = 1520 mm. Minimum length for higher ratings = see below.</p> <p>S2 = total length (A+B+C) 1751 - 2000 mm Minimum length 5000 A aluminum = 1900 mm.</p> <p>S7 = total length (A+B+C) 2001 - 2250 mm</p> <p>S8 = total length (A+B+C) 2251 - 2500 mm</p> <p>S3 = total length (A+B+C) 2501 - 3000 mm</p>	<p>L = IP55</p> <p>M = IP65</p>	<p>P = RAL 7032</p> <p>M = RAL 7035</p> <p>V = color upon request</p>	<p>A = 3 or 4 poles duct with steel housing (thickness 1.5 mm)</p> <p>F = 5 poles duct with steel housing (thickness 1.5 mm)</p> <p>G = N°2 additional aluminium earth/PE conductors (each with 50% phase section), steel housing (thickness 1.5 mm)</p>	<p>424010 neutral position as per above image</p> <p>424011 neutral position as per above image</p> <p>424012 neutral position as per above image</p> <p>424013 neutral position as per above image</p>

* For more versions please contact Pogliano Busbar S.r.l.

EDGEWISE T

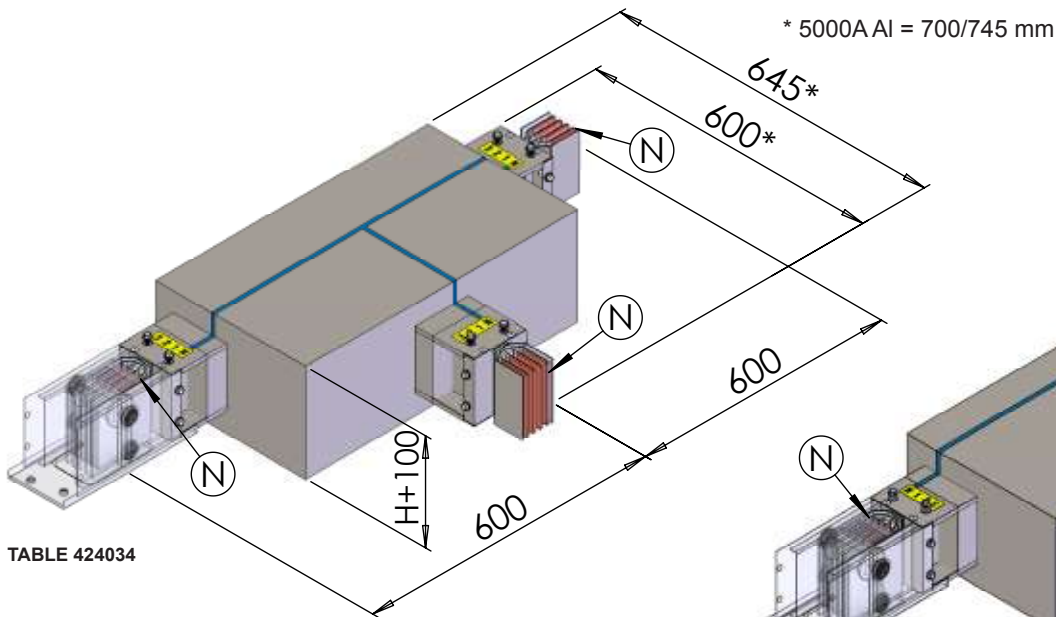


TABLE 424034

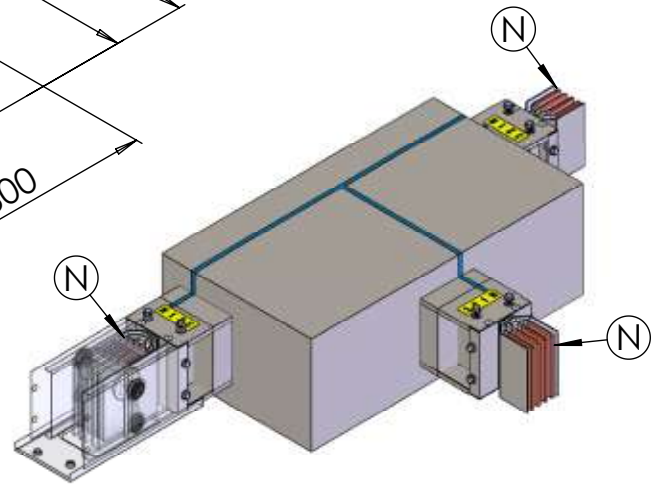


TABLE 424035

Current rating	COPPER 4P + PE	ALUMINIUM 4P + PE
800A		234307Z2LPA
1000A	244307Z2LPA	234407Z2LPA
1250A	244407Z2LPA	234507Z2LPA
1600A	244507Z2LPA	234607Z2LPA
2000A	244607Z2LPA	234707Z2LPA
2500A	244707Z2LPA	235107Z2LPA
3200A	245107Z2LPA	235207Z2LPA
4000A	245207Z2LPA	235307Z2LPA
5000A	245307Z2LPA	236107Z2LPA
6300A	on request	

CAUTION

For technical data see pages 50-53
For cross-section dimensions see page 8

Note: dimensions referred to the joint are on its center line



Note: different neutral positions compared to the above tables has to be agreed with our technical office

NOTE : to address specific requests for quotations or orders, please refer to the following versions *

Reference number digit position	2 nd digit	3 rd digit	7 th and 8 th digits	9 th digit	10 th digit	11 th digit	TABLE (to be specified in the notes)
Meaning	<p>3 = aluminium bars</p> <p>4 = copper bars</p> <p>A = copper bars and aluminium housing (thickness 1.5 mm)</p> <p>B = aluminium bars and housing (thickness 1.5 mm)</p>	<p>1/2/3 3 poles with single/double/triple duct (depending on current rating)</p> <p>4/5/6 4 or 5 poles with single/double/triple duct (depending on current rating)</p>	<p>Z2 standard length</p> <p>S2 total length 1845 - 2000 mm</p> <p>S7 total length 2001 - 2250 mm</p> <p>S8 total length 2251 - 2500 mm</p> <p>S3 total length 2501 - 3000 mm</p>	<p>L = IP55</p> <p>M = IP65</p>	<p>P = RAL 7032</p> <p>M = RAL 7035</p> <p>V = color upon request</p>	<p>A = 3 or 4 poles duct with steel housing (thickness 1.5 mm)</p> <p>F = 5 poles duct with steel housing (thickness 1.5 mm)</p> <p>G = N*2 additional aluminium earth/PE conductors (each with 50% phase section), steel housing (thickness 1.5 mm)</p>	<p>424034 neutral position as per above image</p> <p>424035 neutral position as per above image</p>

* For more versions please contact Pogliano Busbar S.r.l.

FLATWISE T

CAUTION

For technical data see pages 50-53
For cross-section dimensions see page 8



Note: different neutral positions compared to the above tables has to be agreed with our technical office

Note: dimensions referred to the joint are on its center line

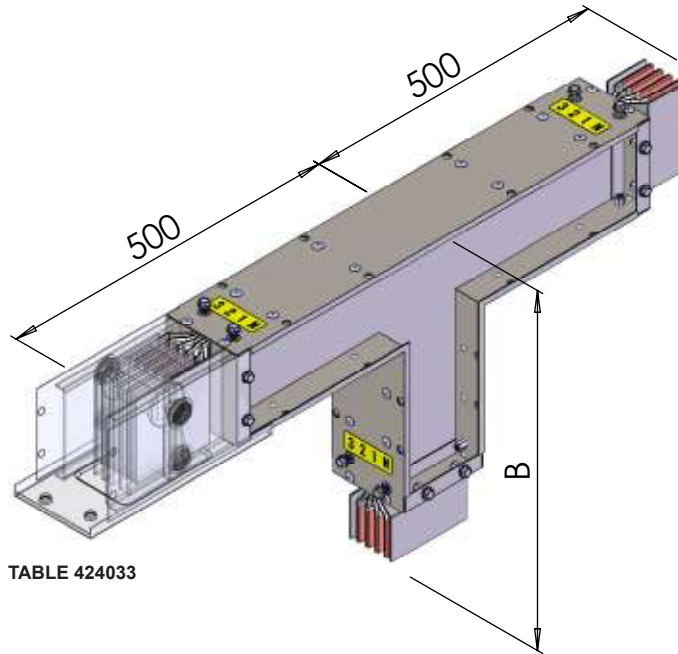


TABLE 424033

Current rating	COPPER 4P + PE	ALUMINIUM 4P + PE
800A		234306Z2LPA
1000A	244306Z2LPA	234406Z2LPA
1250A	244406Z2LPA	234506Z2LPA
1600A	244506Z2LPA	234606Z2LPA
2000A	244606Z2LPA	234706Z2LPA
2500A	244706Z2LPA	235106Z2LPA
3200A	245106Z2LPA	235206Z2LPA
4000A	245206Z2LPA	235306Z2LPA
5000A	245306Z2LPA	236106Z3LPA
6300A	on request	

Dimensions	Cu	Al
Current rating	B	B
800A		500
1000A	500	500
1250A	500	500
1600A	500	500
2000A	500	500
2500A	500	650
3200A	650	650
4000A	650	650
5000A	650	850
6300A	on request	

NOTE : to address specific requests for quotations or orders, please refer to the following versions *

Reference number digit position	2 nd digit	3 rd digit	7 th and 8 th digits	9 th digit	10 th digit	11 th digit
Meaning	<p>3 = aluminium bars</p> <p>4 = copper bars</p> <p>A = copper bars and aluminium housing (thickness 1.5 mm)</p> <p>B = aluminium bars and housing (thickness 1.5 mm)</p>	<p>1/2/3 3 poles with single/double/triple duct (depending on current rating)</p> <p>4/5/6 4 or 5 poles with single/double/triple duct (depending on current rating)</p>	<p>Z2 = standard length</p> <p>S6 = total length 1500 - 1750 mm For ratings from 2500 A aluminum and 3200 A copper, minimum length of 1650 mm</p> <p>S2 = total length 1751 - 2000 mm</p> <p>S7 = total length 2001 - 2250 mm</p> <p>S8 = total length 2251 - 2500 mm</p> <p>S3 = total length 2501 - 3000 mm</p>	<p>L = IP55</p> <p>M = IP65</p>	<p>P = RAL 7032</p> <p>M = RAL 7035</p> <p>V = color upon request</p>	<p>A = 3 or 4 poles duct with steel housing (thickness 1.5 mm)</p> <p>F = 5 poles duct with steel housing (thickness 1.5 mm)</p> <p>G = N°2 additional aluminium earth/PE conductors (each with 50% phase section), steel housing (thickness 1.5 mm)</p>

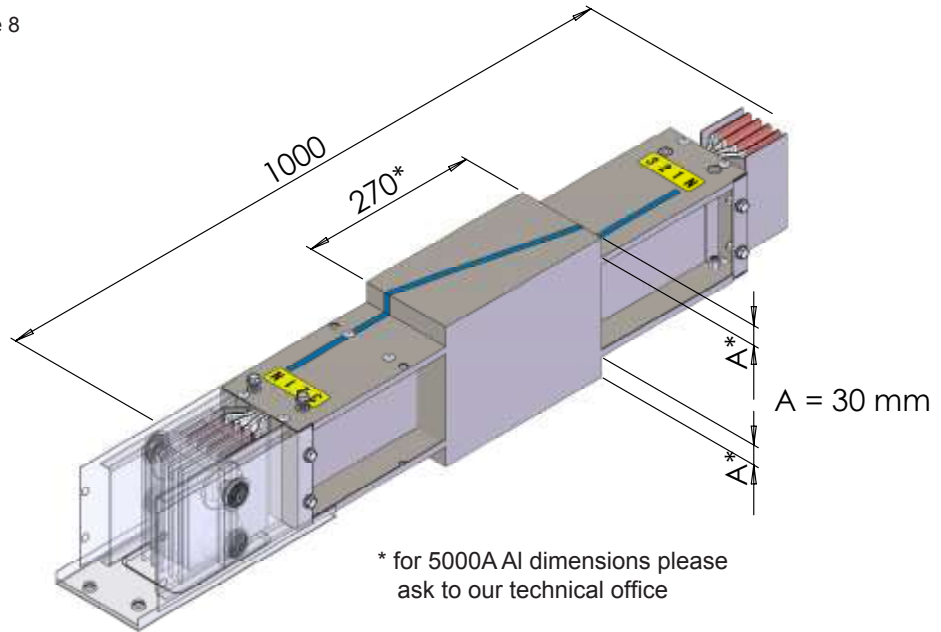
* For more versions please contact Pogliano Busbar S.r.l.

TRANSPOSITION ELEMENT

CAUTION

For technical data see pages 50-53
For cross-section dimensions see page 8

Note: dimensions referred to the joint are on its center line



Current rating	COPPER 4P + PE	ALUMINIUM 4P + PE
800A		234305Z1LPA
1000A	244305Z1LPA	234405Z1LPA
1250A	244405Z1LPA	234505Z1LPA
1600A	244505Z1LPA	234605Z1LPA
2000A	244605Z1LPA	234705Z1LPA
2500A	244705Z1LPA	235105Z1LPA
3200A	245105Z1LPA	235205Z1LPA
4000A	245205Z1LPA	235305Z1LPA
5000A	245305Z1LPA	236105Z1LPA
6300A	on request	



The transposition element is useful for connecting two line sections that require different conductors arrangement.
The input and output conductors arrangement is made according to specific customer's request (phase reversal only, all conductors reversed, etc.).

NOTE : to address specific requests for quotations or orders, please refer to the following versions *

Reference number digit position	2 nd digit	3 rd digit	9 th digit	10 th digit	11 th digit
Meaning	3 = aluminium bars 4 = copper bars A = copper bars and aluminium housing (thickness 1.5 mm) B = aluminium bars and housing (thickness 1.5 mm)	1/2/3 3 poles with single/double/triple duct (depending on current rating) 4/5/6 4 or 5 poles with single/double/triple duct (depending on current rating)	L = IP55 M = IP65	P = RAL 7032 M = RAL 7035 V = color upon request	A = 3 or 4 poles duct with steel housing (thickness 1.5 mm) F = 5 poles duct with steel housing (thickness 1.5 mm) G = N°2 additional aluminium earth/PE conductors (each with 50% phase section), steel housing (thickness 1.5 mm)

* For more versions please contact Pogliano Busbar S.r.l.

EXPANSION JOINT

CAUTION

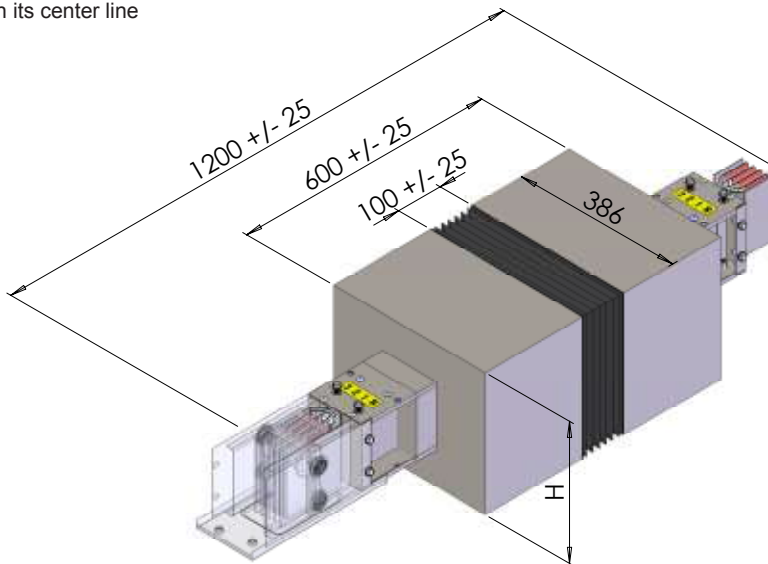
For technical data see pages 50-53
For cross-section dimensions see page 8

BX-R

CAUTION

For special version to be installed in BX-R lines
please contact Pogliano Busbar S.r.l.

Note: dimensions referred to the joint are on its center line



Dimensions	Cu	Al
Current rating	H [mm]	H [mm]
800A		314
1000A	314	314
1250A	314	314
1600A	314	314
2000A	314	314
2500A	314	525
3200A	525	525
4000A	525	525
5000A	525	676
6300A	on request	

Current rating	COPPER 4P + PE	ALUMINIUM 4P + PE
800A		234308Z2LPA
1000A	244308Z2LPA	234408Z2LPA
1250A	244408Z2LPA	234508Z2LPA
1600A	244508Z2LPA	234608Z2LPA
2000A	244608Z2LPA	234708Z2LPA
2500A	244708Z2LPA	235108Z2LPA
3200A	245108Z2LPA	235208Z2LPA
4000A	245208Z2LPA	235308Z2LPA
5000A	245308Z2LPA	236108Z2LPA
6300A	on request	



The expansion joint is used to compensate line expansions and movements, both linear and angular, greater than the typical ones (e.g. to match buildings expansion joints). It is made up of 2 TT terminal elements with flexible electrical and mechanical connections.

NOTE : to address specific requests for quotations or orders, please refer to the following versions *

Reference number digit position	2 nd digit	3 rd digit	9 th digit	10 th digit	11 th digit
Meaning	<p>3 = aluminium bars</p> <p>4 = copper bars</p> <p>A = copper bars and aluminium housing (thickness 1.5 mm)</p> <p>B = aluminium bars and housing (thickness 1.5 mm)</p>	<p>1/2/3 3 poles with single/double/triple duct (depending on current rating)</p> <p>4/5/6 4 or 5 poles with single/double/triple duct (depending on current rating)</p>	<p>L = IP55</p> <p>M = IP65</p>	<p>P = RAL 7032</p> <p>M = RAL 7035</p> <p>V = color upon request</p>	<p>A = 3 or 4 poles duct with steel housing (thickness 1.5 mm)</p> <p>F = 5 poles duct with steel housing (thickness 1.5 mm)</p> <p>G = N°2 additional aluminium earth/PE conductors (each with 50% phase section), steel housing (thickness 1.5 mm)</p>

* For more versions please contact Pogliano Busbar S.r.l.

TERMINAL ELEMENT

CAUTION

For technical data see pages 50-53

For cross-section dimensions see page 8



Note: different neutral positions compared to the above tables has to be agreed with our technical office

Note: dimensions referred to the joint are on its center line

WITH JOINT

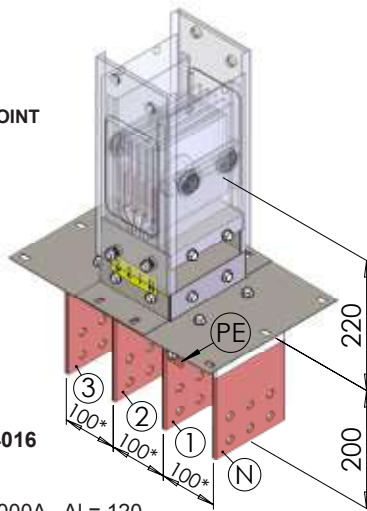


TABLE 424016

* 5000A - AI = 120

WITHOUT JOINT

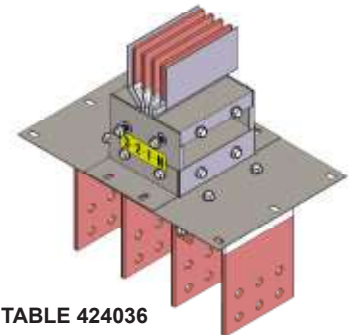


TABLE 424036

WITH JOINT

	COPPER 4P + PE	ALUMINIUM 4P + PE
Current rating		
800A		234303N1LPA
1000A	244303N1LPA	234403N1LPA
1250A	244403N1LPA	234503N1LPA
1600A	244503N1LPA	234603N1LPA
2000A	244603N1LPA	234703N1LPA
2500A	244703N1LPA	235103N1LPA
3200A	245103N1LPA	235203N1LPA
4000A	245203N1LPA	235303N1LPA
5000A	245303N1LPA	236103N1LPA
6300A	on request	

WITHOUT JOINT

	COPPER 4P + PE	ALUMINIUM 4P + PE
Current rating		
800A		234393N1LPA
1000A	244393N1LPA	234493N1LPA
1250A	244493N1LPA	234593N1LPA
1600A	244593N1LPA	234693N1LPA
2000A	244693N1LPA	234793N1LPA
2500A	244793N1LPA	235193N1LPA
3200A	245193N1LPA	235293N1LPA
4000A	245293N1LPA	235393N1LPA
5000A	245393N1LPA	236193N1LPA
6300A	on request	

NOTE : to address specific requests for quotations or orders, please refer to the following versions *

Reference number digit position	2 nd digit	3 rd digit	5 th and 6 th digits	7 th and 8 th digits	9 th digit	10 th digit	11 th digit	TABLE (to be specified in the notes)
Meaning	<p>3 = aluminium bars</p> <p>4 = copper bars</p> <p>A = copper bars and aluminium housing (thickness 1.5 mm)</p> <p>B = aluminium bars and housing (thickness 1.5 mm)</p>	<p>1/2/3 3 poles with single/double/triple duct (depending on current rating)</p> <p>4/5/6 4 or 5 poles with single/double/triple duct (depending on current rating)</p>	<p>03 with joint</p> <p>93 without joint</p>	<p>N1 = standard length (according to current rating, as per above table)</p> <p>S4 = total length 420 - 750 mm</p> <p>S1 = total length 751 - 1000 mm</p> <p>S5 = total length 1001 - 1250 mm</p> <p>S9 = total length 1251 - 1500 mm</p> <p>S6 = total length 1501 - 1750 mm</p> <p>S2 = total length 1751 - 2000 mm</p> <p>S7 = total length 2001 - 2250 mm</p> <p>S8 = total length 2251 - 2500 mm</p> <p>S3 = total length 2501 - 3000 mm</p>	<p>L = IP55</p> <p>M = IP65</p>	<p>P = RAL 7032</p> <p>M = RAL 7035</p> <p>V = color upon request</p>	<p>A 3 or 4 poles duct with steel housing (thickness 1.5 mm)</p> <p>F 5 poles duct with steel housing (thickness 1.5 mm)</p> <p>G N°2 additional aluminium earth/PE conductors (each with 50% phase section), steel housing (thickness 1.5 mm)</p>	<p>424016 with joint</p> <p>424036 without joint</p>

* For more versions please contact Pogliano Busbar S.r.l.

TERMINAL ELEMENT + EDGEWISE ELBOW

CAUTION

For technical data see pages 50-53
For cross-section dimensions see page 8

Note: dimensions referred to the joint are on its center line

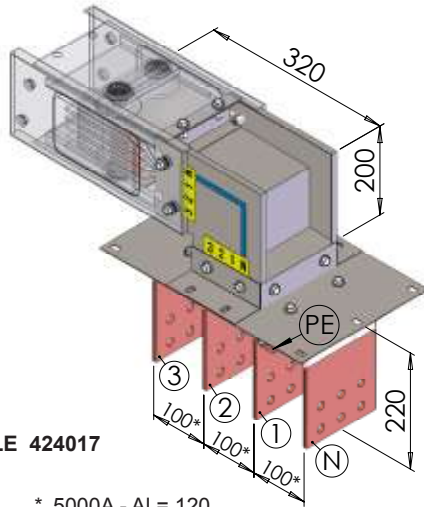


TABLE 424017

* 5000A - AI = 120

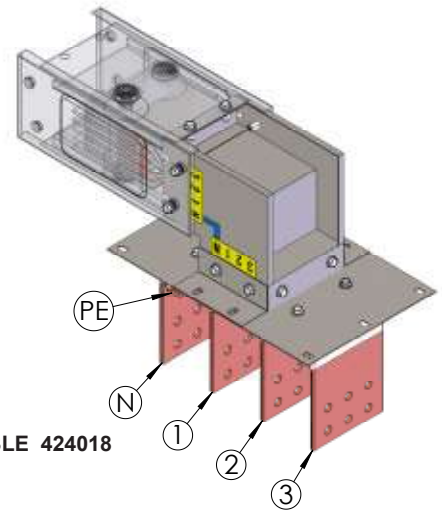


TABLE 424018

**COPPER
4P + PE**

**ALUMINIUM
4P + PE**

Current rating

800A		234311N1LPA
1000A	244311N1LPA	234411N1LPA
1250A	244411N1LPA	234511N1LPA
1600A	244511N1LPA	234611N1LPA
2000A	244611N1LPA	234711N1LPA
2500A	244711N1LPA	235111N1LPA
3200A	245111N1LPA	235211N1LPA
4000A	245211N1LPA	235311N1LPA
5000A	245311N1LPA	236111N1LPA
6300A	on request	

NOTE : to address specific requests for quotations or orders, please refer to the following versions *

Reference number digit position	2 nd digit	3 rd digit	7 th and 8 th digits	9 th digit	10 th digit	11 th digit	TABLE (to be specified in the notes)
Meaning	<p>3 = aluminium bars</p> <p>4 = copper bars</p> <p>A = copper bars and aluminium housing (thickness 1.5 mm)</p> <p>B = aluminium bars and housing (thickness 1.5 mm)</p>	<p>1/2/3 3 poles with single/double/triple duct (depending on current rating)</p> <p>4/5/6 4 or 5 poles with single/double/triple duct (depending on current rating)</p>	<p>N1 standard length</p> <p>S4 total length 720 - 750 mm</p> <p>S1 total length 751 - 1000 mm</p> <p>S5 total length 1001 - 1250 mm</p> <p>S9 total length 1251 - 1500 mm</p> <p>S6 total length 1501 - 1750 mm</p> <p>S2 total length 1751 - 2000 mm</p> <p>S7 total length 2001 - 2250 mm</p> <p>S8 total length 2251 - 2500 mm</p> <p>S3 total length 2501 - 3000 mm</p>	<p>L = IP55</p> <p>M = IP65</p>	<p>P = RAL 7032</p> <p>M = RAL 7035</p> <p>V = color upon request</p>	<p>A 3 or 4 poles duct with steel housing (thickness 1.5 mm)</p> <p>F 5 poles duct with steel housing (thickness 1.5 mm)</p> <p>G N°2 additional aluminium earth/PE conductors (each with 50% phase section), steel housing (thickness 1.5 mm)</p>	<p>424017 neutral position as per above image</p> <p>424018 neutral position as per above image</p>

* For more versions please contact Pogliano Busbar S.r.l.

TERMINAL ELEMENT + FLATWISE ELBOW

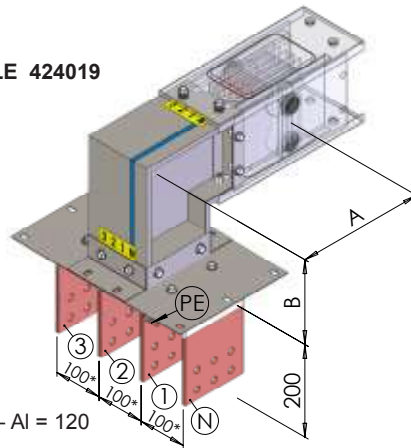
CAUTION

For technical data see pages 50-53

For cross-section dimensions see page 8

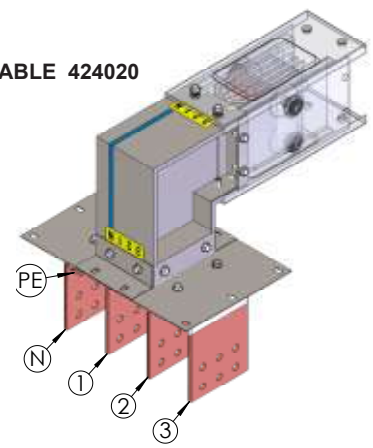
Note: dimensions referred to the joint are on its center line

TABLE 424019



* 5000A - AI = 120

TABLE 424020



Current rating	COPPER 4P + PE	ALUMINIUM 4P + PE
800A		234312N1LPA
1000A	244312N1LPA	234412N1LPA
1250A	244412N1LPA	234512N1LPA
1600A	244512N1LPA	234612N1LPA
2000A	244612N1LPA	234712N1LPA
2500A	244712N1LPA	235112N2LPA
3200A	245112N2LPA	235212N2LPA
4000A	245212N2LPA	235312N2LPA
5000A	245312N2LPA	236112N2LPA
6300A	on request	

Dimensions	Cu		Al	
Current rating	A	B	A	B
800A			270	185
1000A	270	185	280	195
1250A	270	185	310	221
1600A	310	221	350	260
2000A	340	250	390	305
2500A	370	285	520	386
3200A	480	348	610	476
4000A	540	406	650	516
5000A	610	476	800	667
6300A	on request			

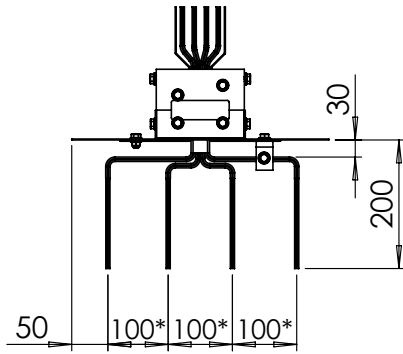
NOTE : to address specific requests for quotations or orders, please refer to the following versions *

Reference number digit position	2 nd digit	3 rd digit	7 th and 8 th digits	9 th digit	10 th digit	11 th digit	TABLE (to be specified in the notes)
Meaning	<p>3 = aluminium bars</p> <p>4 = copper bars</p> <p>A = copper bars and aluminium housing (thickness 1.5 mm)</p> <p>B = aluminium bars and housing (thickness 1.5 mm)</p>	<p>1/2/3 3 poles with single/double/triple duct (depending on current rating)</p> <p>4/5/6 4 or 5 poles with single/double/triple duct (depending on current rating)</p>	<p>N1/N2 = standard length (according to current rating, as per above table)</p> <p>S4 = total length (A+B+200) xxx - 750 mm Minimum length xxx : - 800 A aluminum and 1000/1250 A copper = 655 mm - 1000 A aluminum = 675 mm - 1250 A aluminum and 1600 A copper = 731 mm Minimum length for higher ratings = see below.</p> <p>S1 = total length (A+B+200) 750 - 1000 mm Minimum length 1600 A aluminum = 810 mm. Minimum length 2000 A aluminum = 895 mm. Minimum length 2000 A copper = 790 mm. Minimum length 2500 A copper = 855 mm. Minimum length for higher ratings = see below.</p> <p>S5 = total length (A+B+200) 1001 - 1250 mm Minimum length 2500 A aluminum = 1106 mm. Minimum length 3200 A copper = 1028 mm. Minimum length 4000 A copper = 1146 mm. Minimum length for higher ratings = see below.</p> <p>S9 = total length (A+B+200) 1251 - 1500 mm Minimum length 4000 A aluminum = 1366 mm. Minimum length 5000 A copper = 1286 mm. Minimum length for higher ratings = see below.</p> <p>S6 = total length (A+B+200) 1501 - 1750 mm Minimum length 5000 A aluminum = 1667 mm.</p> <p>S2 = total length (A+B+200) 1751 - 2000 mm</p> <p>S7 = total length (A+B+200) 2001 - 2250 mm</p> <p>S8 = total length (A+B+200) 2251 - 2500 mm</p> <p>S3 = total length (A+B+200) 2501 - 3000 mm</p>	<p>L = IP55</p> <p>M = IP65</p>	<p>P = RAL 7032</p> <p>M = RAL 7035</p> <p>V = color upon request</p>	<p>A = 3 or 4 poles duct with steel housing (thickness 1.5 mm)</p> <p>F = 5 poles duct with steel housing (thickness 1.5 mm)</p> <p>G = N°2 additional aluminium earth/PE conductors (each with 50% phase section), steel housing (thickness 1.5 mm)</p>	<p>424019 neutral position as per above image</p> <p>424020 neutral position as per above image</p>

* For more versions please contact Pogliano Busbar S.r.l.

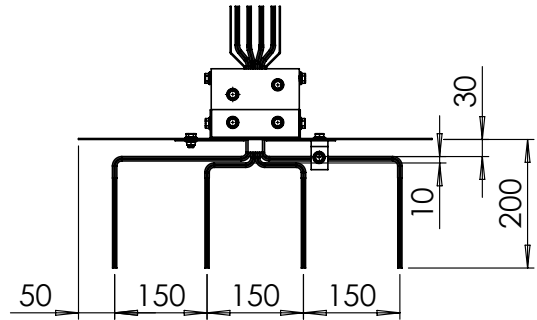
TERMINAL ELEMENT CONFIGURATIONS

STANDARD

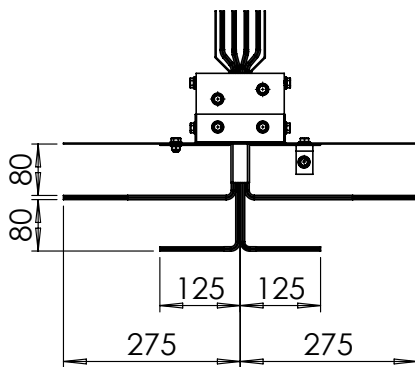


* 120 mm for 5000A AI

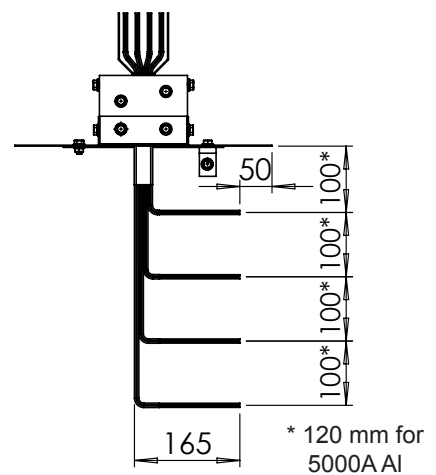
Type A



Type E

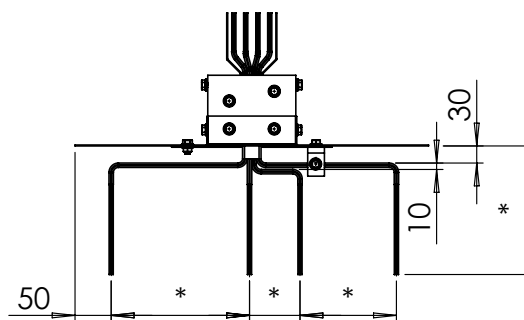


Type S



* 120 mm for 5000A AI

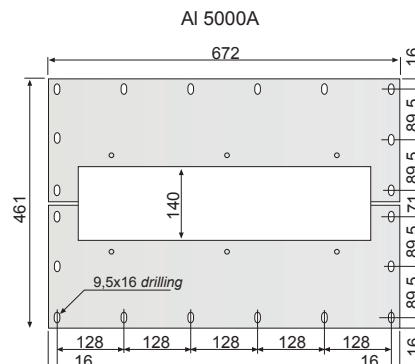
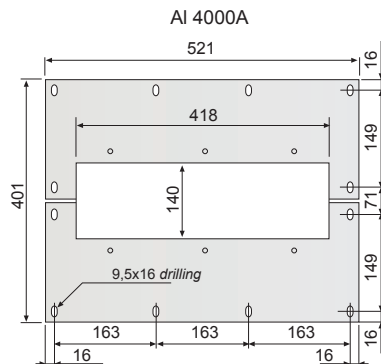
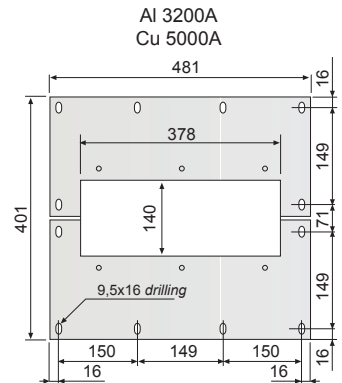
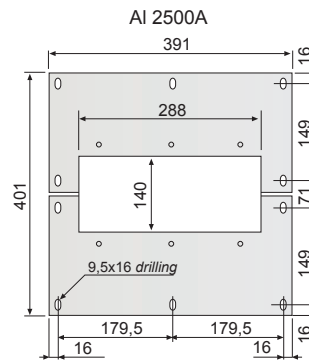
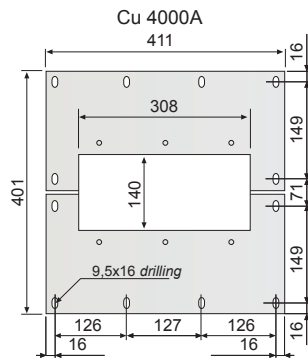
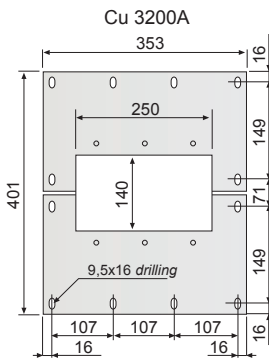
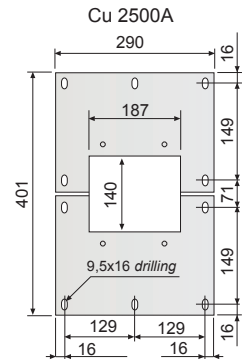
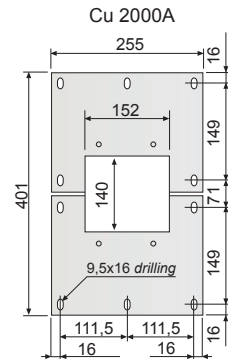
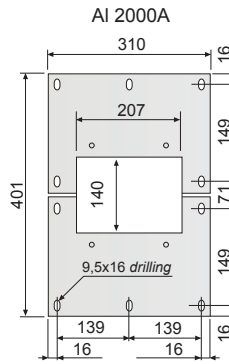
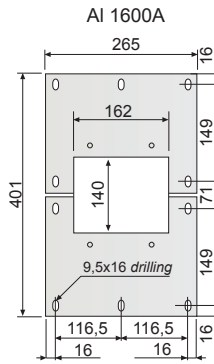
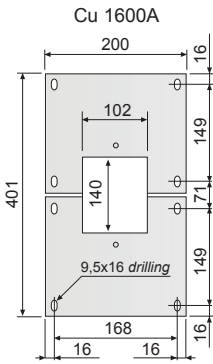
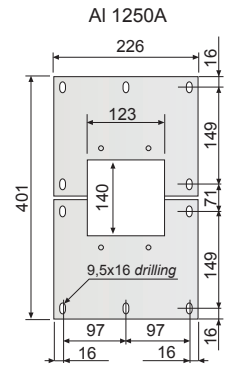
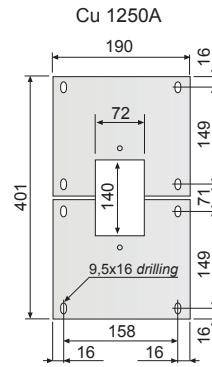
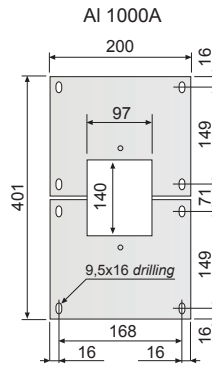
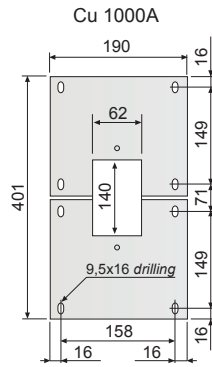
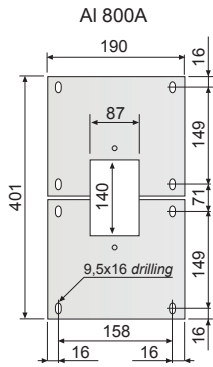
SPECIALS



* Special versions can be manufactured with dimensions and terminals arrangement according to customer's requests

NB: For different configurations please contact our technical office

TERMINAL ELEMENT FLANGES



ATR TERMINAL ELEMENT

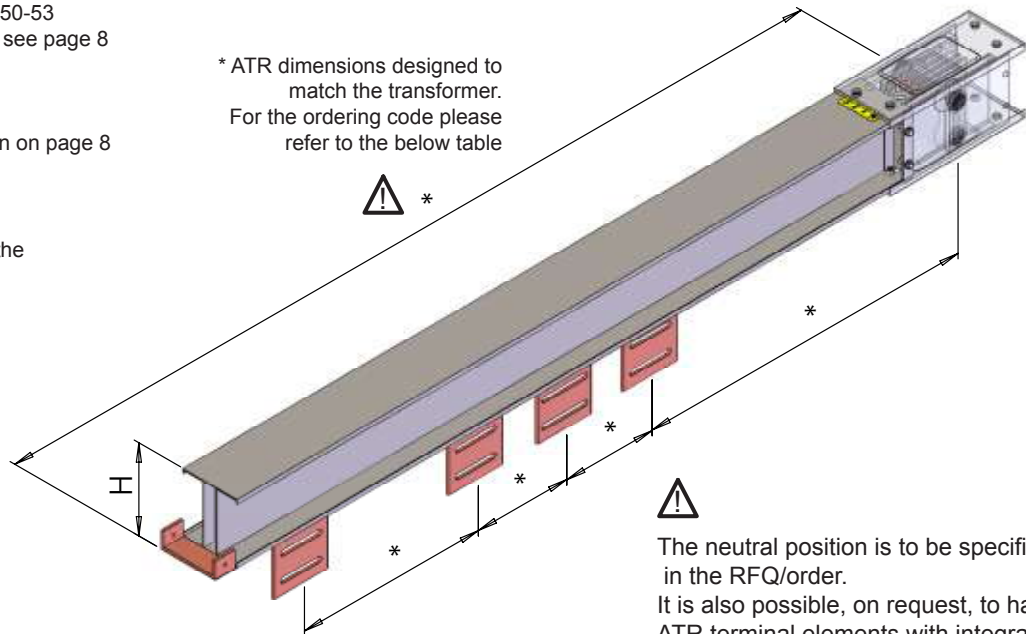
CAUTION

For technical data see pages 50-53
For cross-section dimensions see page 8

CAUTION

H dimension values are shown on page 8

Note: dimensions referred to the joint are on its center line



The neutral position is to be specified in the RFQ/order.
It is also possible, on request, to have ATR terminal elements with integrated flatwise or edgewise elbows, as well as flatwise T-shaped ATR terminal elements (incoming bars parallel to the outgoing bars, instead of perpendicular).

COPPER
4P + PE

ALUMINIUM
4P + PE

Current rating

800A		234383S2LPA
1000A	244383S2LPA	234483S2LPA
1250A	244483S2LPA	234583S2LPA
1600A	244583S2LPA	234683S2LPA
2000A	244683S2LPA	234783S2LPA
2500A	244783S2LPA	235183S2LPA
3200A	245183S2LPA	235283S2LPA
4000A	245283S2LPA	235383S2LPA
5000A	245383S2LPA	236183S2LPA
6300A	on request	

NOTE : to address specific requests for quotations or orders, please refer to the following versions *

Reference number digit position	2 nd digit	3 rd digit	7 th and 8 th digits	9 th digit	10 th digit	11 th digit
Meaning	<p>3 = aluminium bars</p> <p>4 = copper bars</p> <p>A = copper bars and aluminium housing (thickness 1.5 mm)</p> <p>B = aluminium bars and housing (thickness 1.5 mm)</p>	<p>1/2/3 3 poles with single/double/triple duct (depending on current rating)</p> <p>4/5/6 4 or 5 poles with single/double/triple duct (depending on current rating)</p>	<p>S9 = total length 1350 - 1500 mm</p> <p>S6 = total length 1501 - 1750 mm</p> <p>S2 = total length 1751 - 2000 mm</p> <p>S7 = total length 2001 - 2250 mm</p> <p>S8 = total length 2251 - 2500 mm</p> <p>S3 = total length 2501 - 3000 mm</p>	<p>L = IP55</p> <p>M = IP65</p>	<p>P = RAL 7032</p> <p>M = RAL 7035</p> <p>V = color upon request</p>	<p>A = 3 or 4 poles duct with steel housing (thickness 1.5 mm)</p> <p>F = 5 poles duct with steel housing (thickness 1.5 mm)</p> <p>G = N°2 additional aluminium earth/PE conductors (each with 50% phase section), steel housing (thickness 1.5 mm)</p>

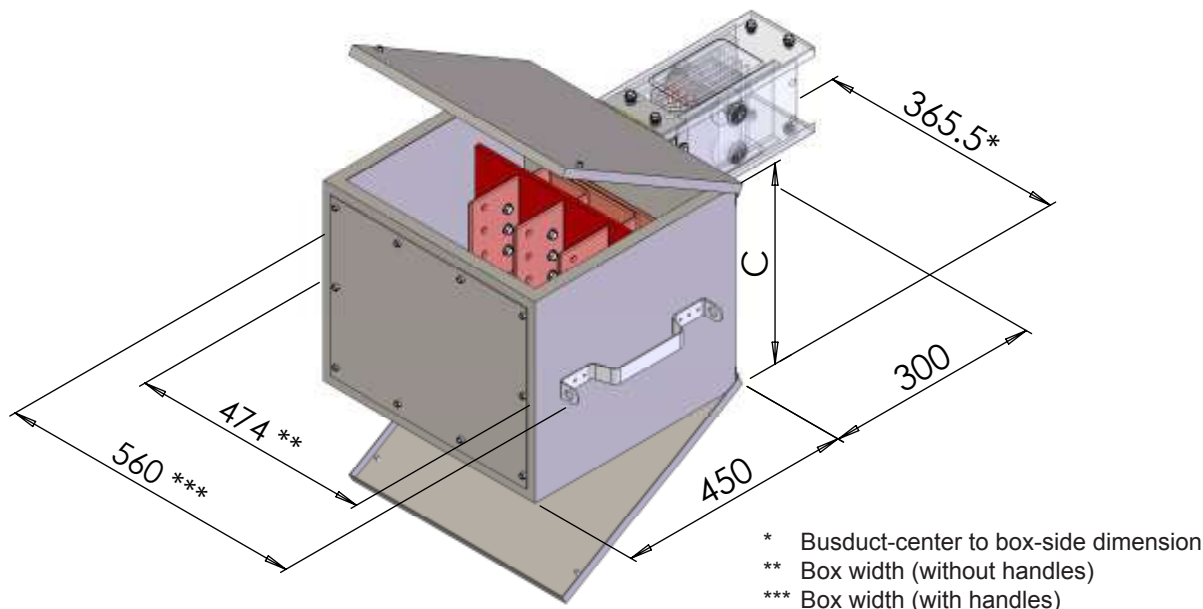
* For more versions please contact Pogliano Busbar S.r.l.

BX-E

FEED-IN BOXES

END FEED-IN BOX

Note: dimensions referred to the joint are on its center line



Current rating	COPPER 4P + PE	ALUMINIUM 4P + PE
	800A	
1000A	244351Z0LPA	234451Z0LPA
1250A	244451Z0LPA	234551Z0LPA
1600A	244551Z0LPA	234651Z0LPA
2000A	244651Z0LPA	234751Z0LPA
2500A	244751Z0LPA	235151Z0LPA
3200A	245151Z0LPA	235251Z0LPA
4000A	245251Z0LPA	235351Z0LPA
5000A	245351Z0LPA	236151Z0LPA
6300A	on request	

Current rating	C dimension [mm]	
	Cu	Al
800A		300
1000A	300	300
1250A	300	320
1600A	320	390
2000A	390	440
2500A	400	490
3200A	521	580
4000A	580	620
5000A	580	770
6300A	on request	

NOTE : to address specific requests for quotations or orders, please refer to the following versions *

Reference number digit position	2 nd digit	3 rd digit	9 th digit	10 th digit	11 th digit
Meaning	3 = aluminium bars 4 = copper bars A = copper bars and aluminium housing (thickness 1.5 mm) B = aluminium bars and housing (thickness 1.5 mm)	1/2/3 3 poles with single/double/triple duct (depending on current rating) 4/5/6 4 or 5 poles with single/double/triple duct (depending on current rating)	L = IP55 M = IP65	P = RAL 7032 M = RAL 7035 V = color upon request	A = 3 or 4 poles duct with steel housing (thickness 1.5 mm) F = 5 poles duct with steel housing (thickness 1.5 mm) G = N°2 additional aluminium earth/PE conductors (each with 50% phase section), steel housing (thickness 1.5 mm)

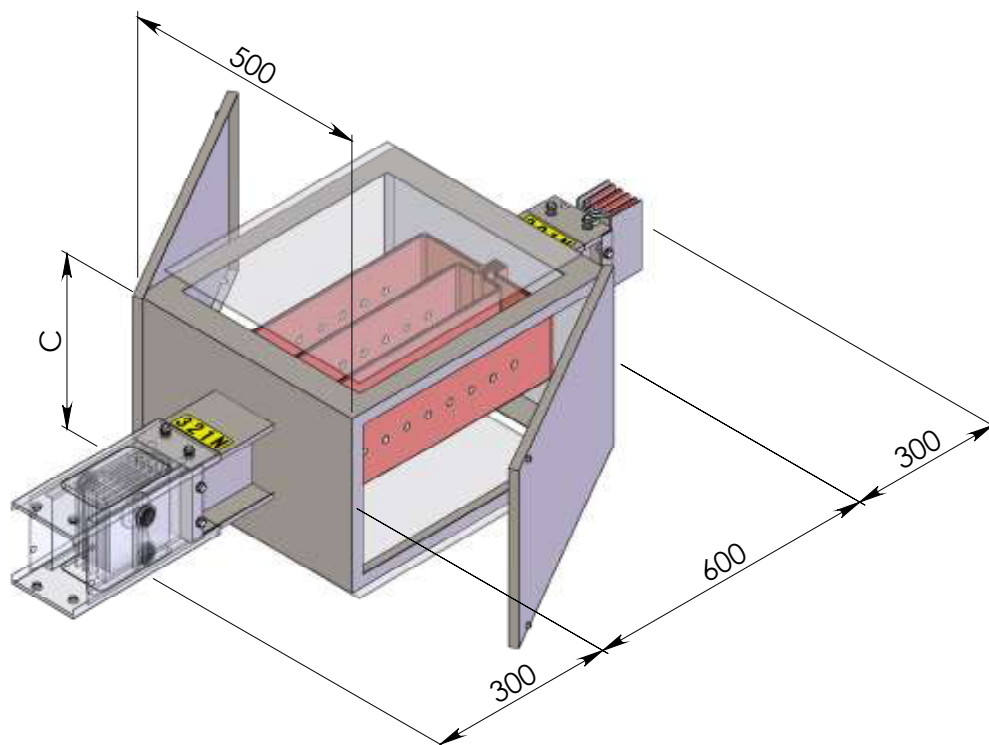
* For more versions please contact Pogliano Busbar S.r.l.

BX-E

FEED-IN BOXES

INTERMEDIATE FEED-IN BOX

Note: dimensions referred to the joint are on its center line



Current rating	C dimension [mm]	
	Cu	Al
800A		299
1000A	299	299
1250A	299	325
1600A	325	364
2000A	354	409
2500A	389	490
3200A	452	580
4000A	510	620
5000A	580	771
6300A	on request	

Current rating	COPPER 4P + PE	ALUMINIUM 4P + PE
800A		234353Z0LPA
1000A	244453Z0LPA	234453Z0LPA
1250A	244453Z0LPA	234553Z0LPA
1600A	244553Z0LPA	234653Z0LPA
2000A	244653Z0LPA	234753Z0LPA
2500A	244753Z0LPA	235153Z0LPA
3200A	245153Z0LPA	235253Z0LPA
4000A	245253Z0LPA	235353Z0LPA
5000A	245353Z0LPA	236153Z0LPA
6300A	on request	

In-line mounted feed-in box for the intermediate power supply of the line, equipped with connection plates with cable lugs.

The two line branches are powered simultaneously in order to reduce voltage drops. It is not possible to use intermediate feed-in boxes to supply the two branches independently.

CAUTION

Regardless of rating, the total current of the two branches MUST NOT exceed the nominal In rating of the feed-in box.

NOTE : to address specific requests for quotations or orders, please refer to the following versions *

Reference number digit position	2 nd digit	3 rd digit	9 th digit	10 th digit	11 th digit
Meaning	<p>3 = aluminium bars</p> <p>4 = copper bars</p> <p>A = copper bars and aluminium housing (thickness 1.5 mm)</p> <p>B = aluminium bars and housing (thickness 1.5 mm)</p>	<p>1/2/3 3 poles with single/double/triple duct (depending on current rating)</p> <p>4/5/6 4 or 5 poles with single/double/triple duct (depending on current rating)</p>	<p>L = IP55</p> <p>M = IP65</p>	<p>P = RAL 7032</p> <p>M = RAL 7035</p> <p>V = color upon request</p>	<p>A = 3 or 4 poles duct with steel housing (thickness 1.5 mm)</p> <p>F = 5 poles duct with steel housing (thickness 1.5 mm)</p> <p>G = N°2 additional aluminium earth/PE conductors (each with 50% phase section), steel housing (thickness 1.5 mm)</p>

* For more versions please contact Pogliano Busbar S.r.l.

BX-E

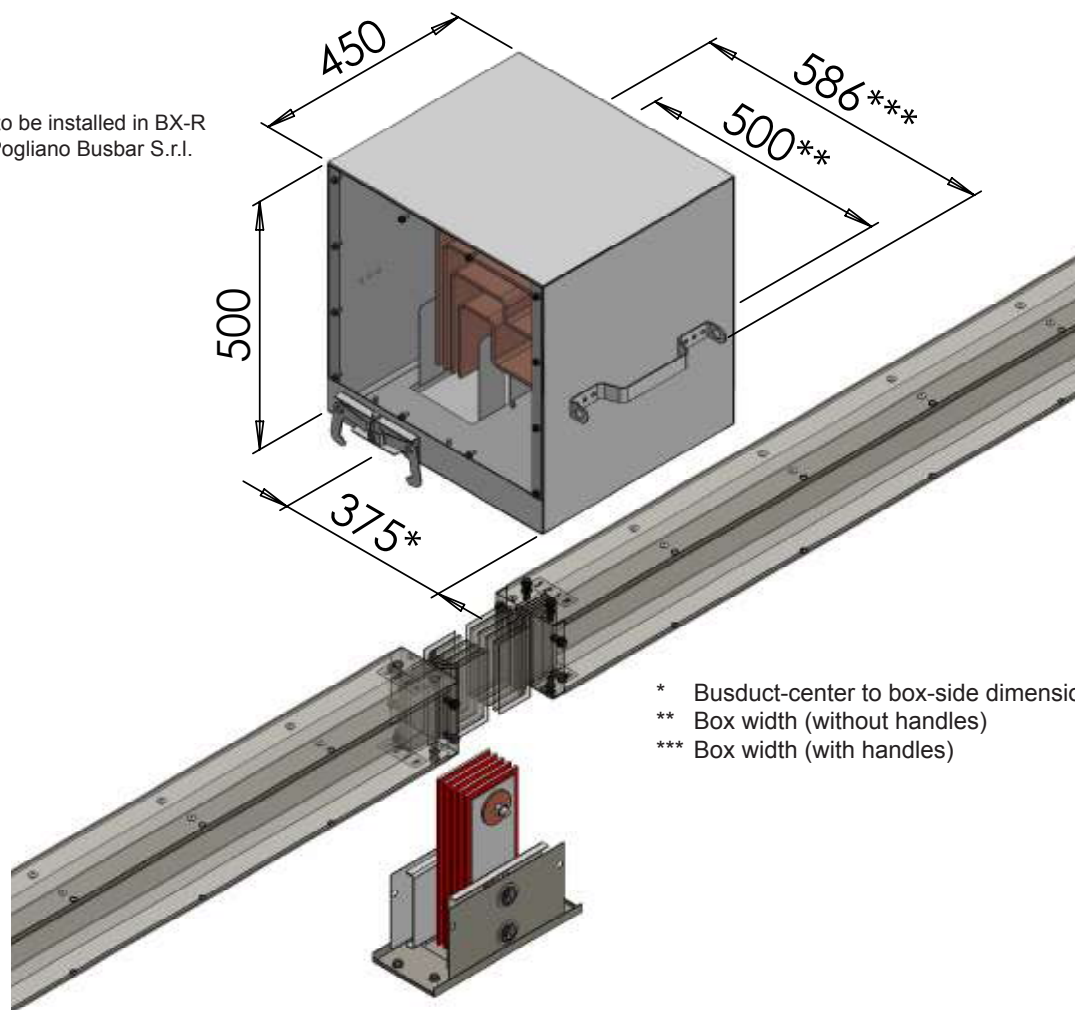
FEED-IN BOXES

JOINT-MOUNTED INTERMEDIATE FEED-IN BOX

BX-R

CAUTION

For plug-in elements to be installed in BX-R lines please contact Pogliano Busbar S.r.l.



- * Busduct-center to box-side dimension
- ** Box width (without handles)
- *** Box width (with handles)

Unique ordering code, suitable for current ratings up to 1250 A: 244453S0LPA

Feed-in box mounted on the joint for the intermediate power supply of the line, equipped with connection plates with cable lugs.

The two line branches are powered simultaneously in order to reduce voltage drops.

It is not possible to use joint-mounted intermediate feed-in boxes to supply the two branches independently.

CAUTION

The joint-mounted intermediate feed-in box is supplied jointless. For correct installation it is necessary to purchase the special joint shown at page 46, in the appropriate current rating.

CAUTION

Regardless of the current rating, the total current of the two branches MUST NOT exceed the nominal current rating of the feed-in box.

NOTE : to address specific requests for quotations or orders, please refer to the following versions *

Reference number digit position	2 nd digit	3 rd digit	9 th digit	10 th digit	11 th digit
Meaning	<p>3 = aluminium bars</p> <p>4 = copper bars</p> <p>A = copper bars and aluminium housing (thickness 1.5 mm)</p> <p>B = aluminium bars and housing (thickness 1.5 mm)</p>	<p>1/2/3 3 poles with single/double/triple duct (depending on current rating)</p> <p>4/5/6 4 or 5 poles with single/double/triple duct (depending on current rating)</p>	<p>L = IP55</p> <p>M = IP65</p>	<p>P = RAL 7032</p> <p>M = RAL 7035</p> <p>V = color upon request</p>	<p>A = 3 or 4 poles duct with steel housing (thickness 1.5 mm)</p> <p>F = 5 poles duct with steel housing (thickness 1.5 mm)</p> <p>G = N°2 additional aluminium earth/PE conductors (each with 50% phase section), steel housing (thickness 1.5 mm)</p>

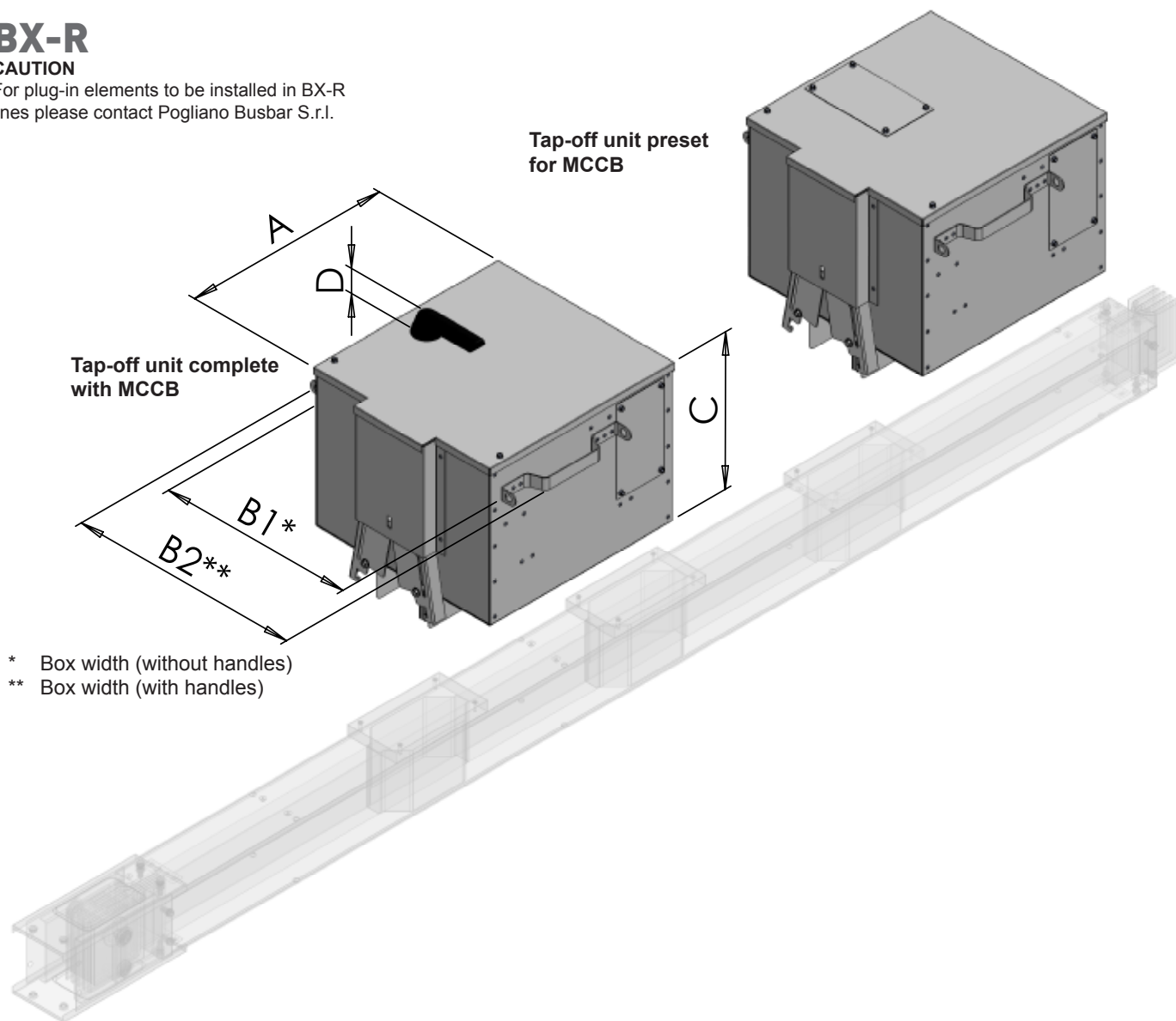
* For more versions please contact Pogliano Busbar S.r.l.

PLUG-IN TAP-OFF UNITS

BX-R

CAUTION

For plug-in elements to be installed in BX-R lines please contact Pogliano Busbar S.r.l.



* Box width (without handles)

** Box width (with handles)

Tap-off units with ratings up to 630 A and mounted on straight plug-in elements are of the plug-in type, which means that, using appropriate safety equipment, they can be installed without turning off the power of the run.

The tap-off units mounted on straight plug-in elements are:

- Equipped with mechanical safety interlock, which prevents insertion/extraction when the MCCB is closed.
- Polarized to prevent reversed insertion.

During insertion, the PE contact connects to the PE conductor of the plug-in element before phase contacts.

All sizes of tap-off units can be used on ducts of any rating.

The following page shows the main models of tap-off units suitable for mounting on straight plug-in elements.

Models with isolator and fuse holders are supplied without fuses.

Our standard plugs are either preset for or equipped with ABB MCCBs with the functions requested by the client. We can also supply units set for other makes, if the client so wishes.

Many variants are available. Some examples:

- Last digit of the reference number "W" for versions preset for ABB MCCBs, which are then chosen by the customer.
- Last digit of the reference number "Z" for empty units.
- Version with screwed cover, in cases where the available space does not allow a hinged-opening cover.

BX-E

TAP-OFF UNITS

PLUG-IN TAP-OFF UNITS

Plug-in tap-off unit preset for DIN module circuit breakers

Current rating	CODE	Poles		Dimensions					Cables cross section
				A (mm)	B1 (mm)	B2 (mm)	C (mm)	D (mm)	
125A	244452Z0LAA	3P+PE+N	-	460 / 480 *	306	-	122	-	1 x 95 mm ²

* Dimension without / with hooking mechanism

Plug-in tap-off unit with isolator/fuses – Interrupted neutral – Fuses excluded

Current rating	CODE	Poles	Fuses	Dimensions					Cables cross section
				A (mm)	B1 (mm)	B2 (mm)	C (mm)	D (mm)	
125A	244540Z0LAD	3P+PE+N int.	NH00	470 / 512 *	306	-	263	45	1 x 95 mm ²
250A	244541Z0LAD	3P+PE+N int.	NH1	510 / 576 *	400	480	300	45	1 x 240 mm ²
315A	244542Z0LAD	3P+PE+N int.	NH2	510 / 576 *	494	574	385	45	2 x 150 mm ²
400A	244543Z0LAA	3P+PE+N int.	NH3	510 / 576 *	494	574	385	45	2 x 150 mm ²
630A	244544Z0LAA	3P+PE+N int.	NH3	510 / 576 *	494	574	385	45	3 x 185 mm ²

* Dimension without / with hooking mechanism

Plug-in tap-off unit with MCCB – Interrupted neutral

Current rating	CODE	Poles		Dimensions					Cables cross section
				A (mm)	B1 (mm)	B2 (mm)	C (mm)	D (mm)	
250A	249541Z0LAA	3P+PE+N int.	manual	470 / 517 *	306	-	263	50	1 x 95 mm ²
400A	249543Z0LAA	3P+PE+N int.	manual	470 / 517 *	306	-	263	50	2 x 150 mm ²
630A	249547Z0LAA	3P+PE+N int.	manual	510 / 576 *	494	574	385	50	3 x 185 mm ²
250A	249541Z0LAD	3P+PE+N int.	motorized	510 / 557 *	494	574	385	34	1 x 95 mm ²
400A	249543Z0LAD	3P+PE+N int.	motorized	510 / 557 *	494	574	385	34	2 x 150 mm ²
630A	249547Z0LAD	3P+PE+N int.	motorized	510 / 576 *	494	574	385	34	3 x 185 mm ²

* Dimension without / with hooking mechanism

Plug-in tap-off unit with isolator/fuses – Direct neutral – Fuses excluded

Current rating	CODE	Poles	Fuses	Dimensions					Cables cross section
				A (mm)	B1 (mm)	B2 (mm)	C (mm)	D (mm)	
125A	244740Z0LAD	3P+PE+N dir.	NH00	470 / 517 *	306	-	263	45	1 x 95 mm ²
250A	244741Z0LAD	3P+PE+N dir.	NH1	510 / 576 *	400	480	300	45	1 x 240 mm ²
315A	244742Z0LAD	3P+PE+N dir.	NH2	510 / 576 *	400	480	300	45	2 x 150 mm ²
400A	244743Z0LAA	3P+PE+N dir.	NH3	510 / 576 *	494	574	385	45	2 x 150 mm ²
630A	244744Z0LAA	3P+PE+N dir.	NH3	510 / 576 *	494	574	385	45	3 x 185 mm ²

* Dimension without / with hooking mechanism

Plug-in tap-off unit with MCCB – Direct neutral

Current rating	CODE	Poles		Dimensions					Cables cross section
				A (mm)	B1 (mm)	B2 (mm)	C (mm)	D (mm)	
250A	249741Z0LAA	3P+PE+N dir.	manual	470 / 517 *	306	-	263	50	1 x 95 mm ²
400A	249743Z0LAA	3P+PE+N dir.	manual	470 / 517 *	306	-	263	50	2 x 150 mm ²
630A	249747Z0LAA	3P+PE+N dir.	manual	510 / 576 *	494	574	385	50	3 x 185 mm ²

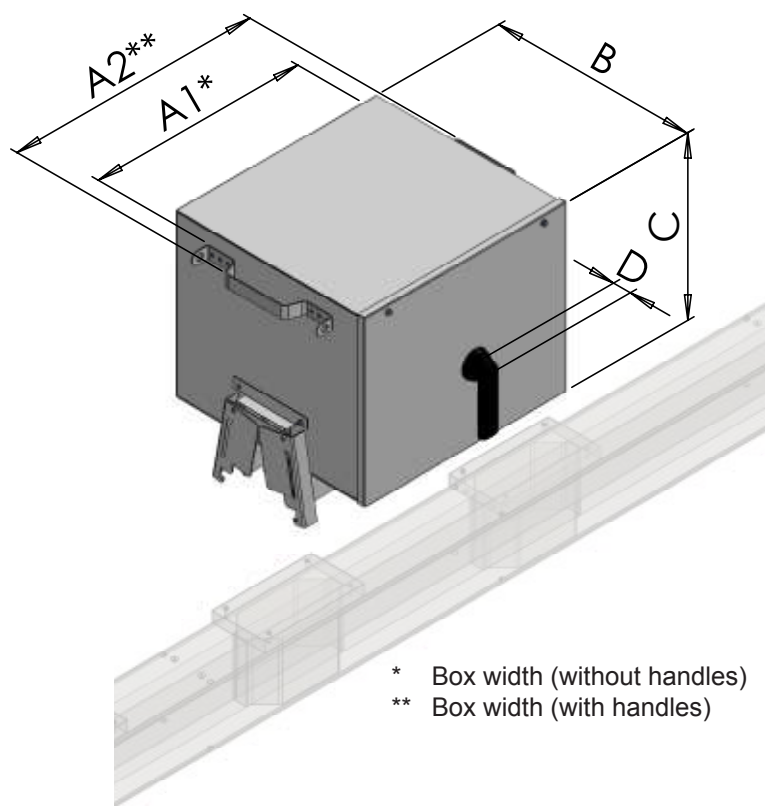
* Dimension without / with hooking mechanism

NB: For different configurations please contact our technical office

BX-E

TAP-OFF UNITS

SIDE-OPENING PLUG-IN TAP-OFF UNITS

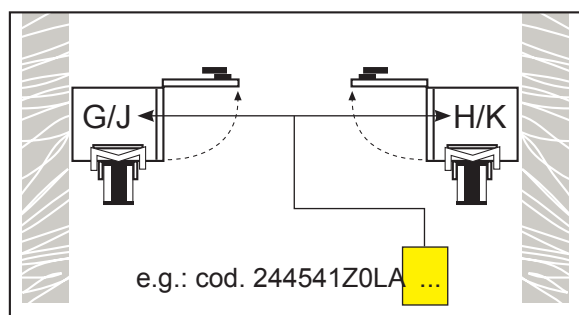


- * Box width (without handles)
- ** Box width (with handles)

BX-R

CAUTION

For plug-in elements to be installed in BX-R lines please contact Pogliano Busbar S.r.l.



Plug-in tap-off unit with isolator/fuses – Interrupted neutral – Fuses excluded

Current rating	CODE	Poles	Fuses	Dimensions					Cables cross section
				A (mm)	B1 (mm)	B2 (mm)	C (mm)	D (mm)	
125A	244540Z0LAG	3P+PE+N int.	NH00	520	550	350	300	46	1 x 95 mm ²
125A	244540Z0LAH	3P+PE+N int.	NH00	520	550	350	300	46	1 x 95 mm ²
250A	244541Z0LAG	3P+PE+N int.	NH1	520	600	488	400	46	1 x 240 mm ²
250A	244541Z0LAH	3P+PE+N int.	NH1	520	600	488	400	46	1 x 240 mm ²
400A	244543Z0LAJ	3P+PE+N int.	NH3	520	600	488	545	45	2 x 150 mm ²
400A	244543Z0LAK	3P+PE+N int.	NH3	520	600	488	545	45	2 x 150 mm ²
630A	244544Z0LAJ	3P+PE+N int.	NH3	520	600	488	545	45	3 x 185 mm ²
630A	244544Z0LAK	3P+PE+N int.	NH3	520	600	488	545	45	3 x 185 mm ²

Plug-in tap-off unit with MCCB – Interrupted neutral

Current rating	CODE	Poles	Dimensions					Cables cross section
			A (mm)	B1 (mm)	B2 (mm)	C (mm)	D (mm)	
250A	249541Z0LAJ	3P+PE+N int.	520	600	488	400	50	1 x 95 mm ²
250A	249541Z0LAK	3P+PE+N int.	520	600	488	400	50	1 x 95 mm ²
400A	249543Z0LAJ	3P+PE+N int.	520	600	488	400	50	2 x 150 mm ²
400A	249543Z0LAK	3P+PE+N int.	520	600	488	400	50	2 x 150 mm ²
630A	249547Z0LAJ	3P+PE+N int.	520	600	488	420	50	3 x 185 mm ²
630A	249547Z0LAK	3P+PE+N int.	520	600	488	420	50	3 x 185 mm ²

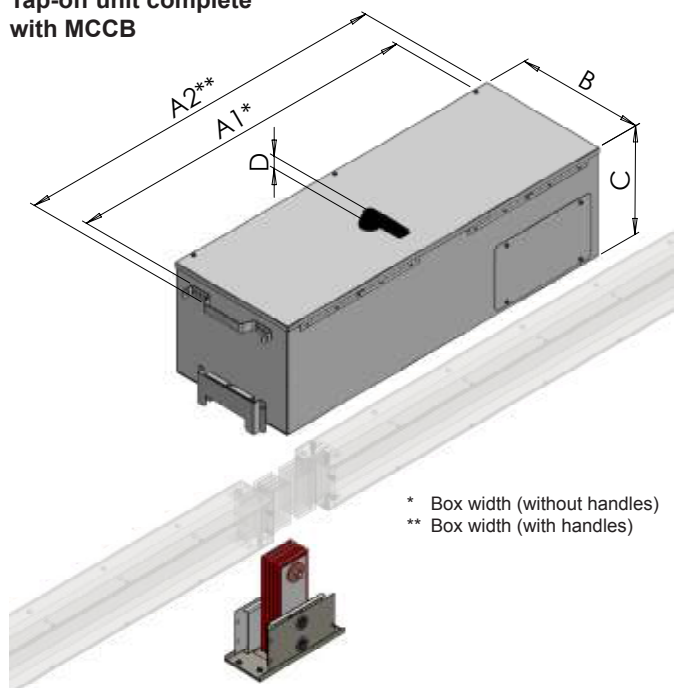
JOINT-MOUNTED TAP-OFF UNITS

BX-R

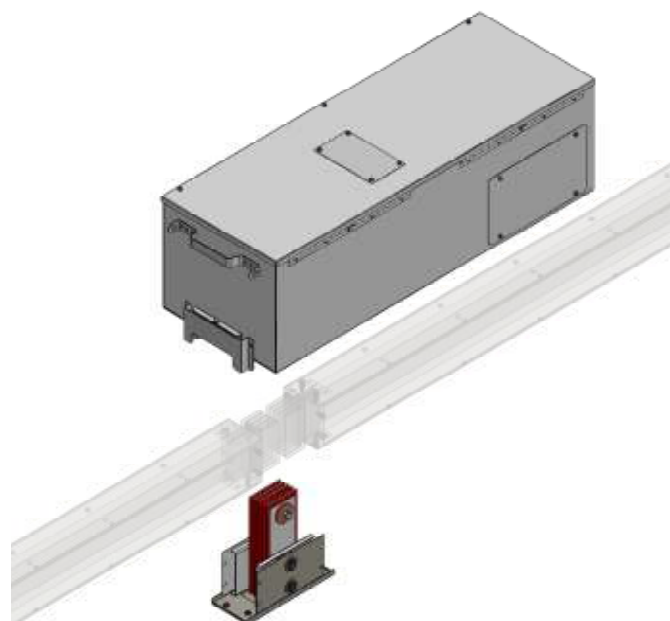
CAUTION

For plug-in elements to be installed in BX-R lines please contact Pogliano Busbar S.r.l.

Tap-off unit complete with MCCB



Tap-off unit preset for MCCB



* Box width (without handles)
** Box width (with handles)

Power must be turned off before inserting joint-mounted tap-off units.

Joint-mounted tap-off units are:

- Equipped with mechanical safety interlock, which prevents insertion/extraction when the MCCB is closed.
- Polarized to prevent reversed insertion.

All sizes of tap-off units can be used on ducts of any rating.

The following page shows the main models of tap-off units suitable for mounting on straight plug-in elements.

Models with isolator and fuse holders are supplied without fuses. Our standard plugs are either preset for or equipped with ABB MCCBs with the functions requested by the client. We can also supply units preset for other makes, if the client so wishes.

Many variants are available. Some examples:

- Last digit of the code "W" for versions set for ABB MCCBs, which are then chosen by the customer.
- Last digit of the code "Z" for empty units.
- Version with screwed cover, in cases where the available space does not allow a hinged-opening cover.

CAUTION

The joint-mounted tap-off units are supplied jointless. For correct installation it is necessary to purchase the special joint shown at page 46, in the appropriate current rating.

BX-E

TAP-OFF UNITS

JOINT-MOUNTED TAP-OFF UNITS

Tap-off unit with isolator/fuses – Interrupted neutral – Fuses excluded

Current rating	CODE	Poles	Fuses	Dimensions					Cables cross section
				A (mm)	B1 (mm)	B2 (mm)	C (mm)	D (mm)	
125A	234540Z0LAD	3P+PE+N int.	NH00	800	880	350	290	95	1 x 240 mm ²
250A	234541Z0LAD	3P+PE+N int.	NH1	800	880	500	290	132	1 x 240 mm ²
315A	234542Z0LAD	3P+PE+N int.	NH2	800	880	500	290	132	2 x 150 mm ²
400A	234543Z0LAA	3P+PE+N int.	NH3	800	880	550	290	45	2 x 150 mm ²
630A	234544Z0LAA	3P+PE+N int.	NH3	800	880	550	290	45	3 x 185 mm ²

Tap-off unit with MCCB – Interrupted neutral

Current rating	CODE	Poles		Dimensions					Cables cross section
				A (mm)	B1 (mm)	B2 (mm)	C (mm)	D (mm)	
250A	239541Z0LAA	3P+PE+N int.	manual	800	880	350	290	50	1 x 95 mm ²
400A	239543Z0LAA	3P+PE+N int.	manual	800	880	350	290	50	2 x 150 mm ²
630A	239547Z0LAA	3P+PE+N int.	manual	1266	1346	450	385	50	2 x 300 mm ²
800A	239548Z0LAA	3P+PE+N int.	manual	1266	1346	450	385	50	2 x 300 mm ²
1250A	239549Z0LAA	3P+PE+N int.	manual	1266	1346	450	385	50	3 x 240 mm ²
630A	239547Z0LAD	3P+PE+N int.	motorized	1266	1346	450	385	-	2 x 300 mm ²
800A	239548Z0LAD	3P+PE+N int.	motorized	1266	1346	450	385	-	2 x 300 mm ²
1250A	239549Z0LAD	3P+PE+N int.	motorized	1266	1346	450	385	-	3 x 240 mm ²

Tap-off unit with isolator/fuses – Direct neutral – Fuses excluded

Current rating	CODE	Poles	Fuses	Dimensions					Cables cross section
				A (mm)	B1 (mm)	B2 (mm)	C (mm)	D (mm)	
250A	234741Z0LAD	3P+PE+N dir.	NH1	800	880	500	290	132	1 x 240 mm ²
315A	234742Z0LAD	3P+PE+N dir.	NH2	800	880	500	290	132	2 x 150 mm ²
400A	234743Z0LAA	3P+PE+N dir.	NH3	800	880	550	290	45	2 x 150 mm ²
630A	234744Z0LAA	3P+PE+N dir.	NH3	800	880	550	290	45	2 x 150 mm ²

Tap-off unit with MCCB – Direct neutral

Current rating	CODE	Poles		Dimensions					Cables cross section
				A (mm)	B1 (mm)	B2 (mm)	C (mm)	D (mm)	
250A	239741Z0LAA	3P+PE+N dir.	manual	800	880	350	290	50	1 x 95 mm ²
400A	239743Z0LAA	3P+PE+N dir.	manual	800	880	350	290	50	2 x 150 mm ²
630A	239747Z0LAA	3P+PE+N dir.	manual	1266	1346	450	385	50	2 x 300 mm ²
800A	239748Z0LAA	3P+PE+N dir.	manual	1266	1346	450	385	63	3 x 240 mm ²
1250A	239749Z0LAA	3P+PE+N dir.	manual	1266	1346	450	385	63	3 x 240 mm ²

NB: For different configurations please contact our technical office

BX-E

ACCESSORIES

SPECIAL JOINT

In order to ensure a correct assembly, special joints must be ordered (separately) for the following units:

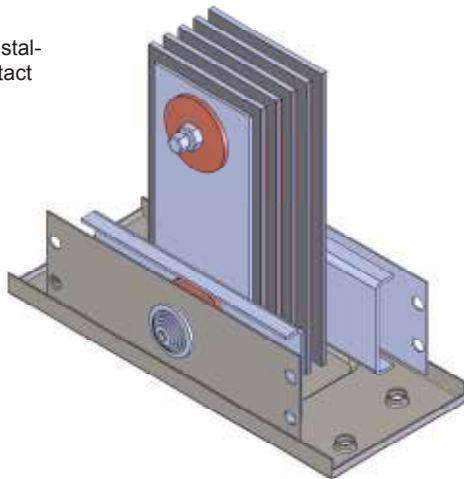
- Joint-mounted intermediate feed-in box.
- Joint-mounted tap-off plugs.

The special joint must be ordered based on the line rating.

BX-R

CAUTION

For plug-in elements to be installed in BX-R lines please contact Pogliano Busbar S.r.l.



Current rating	COPPER	ALUMINIUM
	4P + PE	4P + PE
800A		238028R0AAA
1000A	238028R0AAA	238029R0AAA
1250A	238028R0AAA	238030R0AAA
1600A	238030R0AAA	238031R0AAA
2000A	238039R0AAA	238033R0AAA
2500A	238032R0AAA	238034R0AAA
3200A	238040R0AAA	238036R0AAA
4000A	238035R0AAA	238037R0AAA
5000A	238036R0AAA	238041R0AAA
6300A	on request	

NOTE : to address specific requests for quotations or orders, please refer to the following versions *

11th (last) digit of the product code

E = 3 poles ducts joint

A = 4 poles ducts joint

F = 5 poles ducts joint

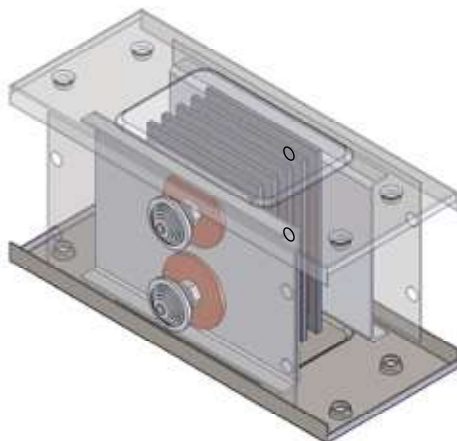
* For more versions please contact Pogliano Busbar S.r.l.

SPARE JOINT

Standard joints can be purchased as spare parts.

CAUTION

Standard joints are NOT suitable for joint-mounted feed-in box and tap-off plugs, which require the special joint shown above.



Current rating	COPPER	ALUMINIUM
	4P + PE	4P + PE
800A		238001R0AAA
1000A	238001R0AAA	238002R0AAA
1250A	238001R0AAA	238003R0AAA
1600A	238003R0AAA	238004R0AAA
2000A	238011R0AAA	238006R0AAA
2500A	238005R0AAA	238007R0AAA
3200A	238012R0AAA	238009R0AAA
4000A	238008R0AAA	238010R0AAA
5000A	238009R0AAA	238014R0AAA
6300A	on request	

NOTE : to address specific requests for quotations or orders, please refer to the following versions *

11th (last) digit of the product code

E = 3 poles ducts joint

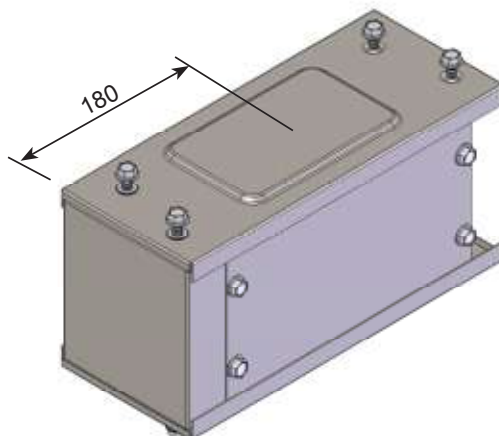
A = 4 poles ducts joint

F = 5 poles ducts joint

* For more versions please contact Pogliano Busbar S.r.l.

END COVER

Note: dimensions referred to the joint are on its center line



The end cover is necessary to protect the end of a line.

Current rating	COPPER 4P + PE	ALUMINIUM 4P + PE
800A		234310Z0LPA
1000A	244310Z0LPA	234410Z0LPA
1250A	234310Z0LPA	234510Z0LPA
1600A	234510Z0LPA	234610Z0LPA
2000A	244610Z0LPA	234710Z0LPA
2500A	244710Z0LPA	235110Z0LPA
3200A	245110Z0LPA	235210Z0LPA
4000A	245210Z0LPA	235310Z0LPA
5000A	235210Z0LPA	236110Z0LPA
6300A	on request	

NOTE : to address specific requests for quotations or orders, please refer to the following versions *

Reference number digit position	2 nd digit	9 th digit	10 th digit	11 th digit
Meaning	3 = aluminium bars 4 = copper bars A = copper bars and aluminium housing (thickness 1.5 mm) B = aluminium bars and housing (thickness 1.5 mm)	L = IP55 M = IP65	P = RAL 7032 M = RAL 7035 V = color upon request	A = 3 or 4 poles duct with steel housing (thickness 1.5 mm) F = 5 poles duct with steel housing (thickness 1.5 mm) G = N°2 additional aluminium earth/PE conductors (each with 50% phase section), steel housing (thickness 1.5 mm)

* For more versions please contact Pogliano Busbar S.r.l.

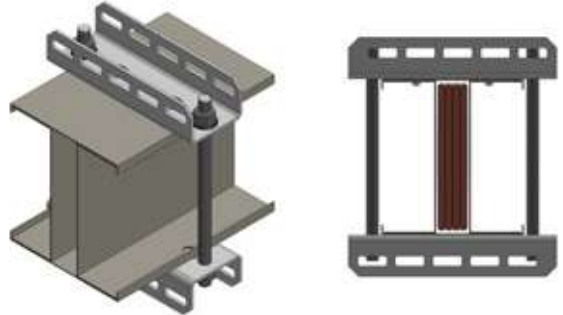
HANGERS

The duct can be installed both flatwise or edgewise (in the latter case the neutral conductor must be at the bottom), as well as in horizontal or vertical position.

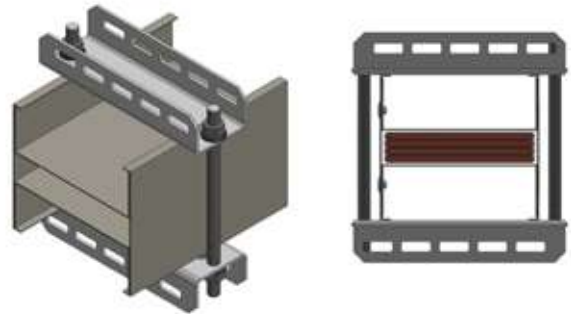
The distance between hangers must be:

- 3 m for single ducts with edgewise installation.
- 2 m for single ducts with flatwise installation and, regardless of the position, for double and triple ducts.

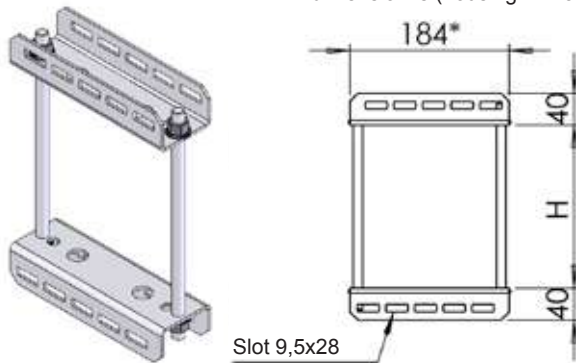
Flatwise installation



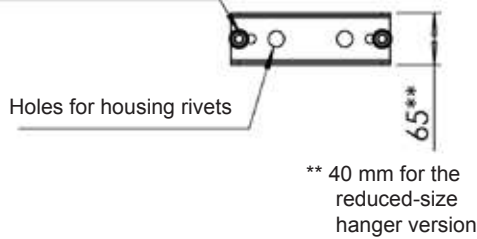
Edgewise installation



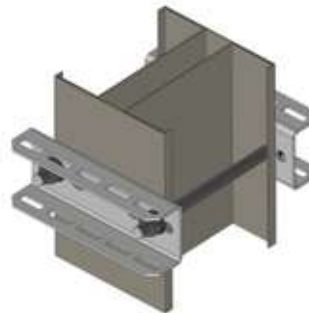
* For the flatwise hanger version this dimension is (housing H + 50 mm)



Holes for vertical installation (rising column), to pass bolts through the housing for support



Rising column with bolts through the housing holes



	COPPER 4P + PE	ALUMINIUM 4P + PE
Current rating		
800		234320Z0AAA
1000	244320Z0AAA	234420Z0AAA
1250	234320Z0AAA	234520Z0AAA
1600	234520Z0AAA	234620Z0AAA
2000	244620Z0AAA	234720Z0AAA
2500	244720Z0AAA	235120Z0AAA
3200	245120Z0AAA	235220Z0AAA
4000	245220Z0AAA	235320Z0AAA
5000	235220Z0AAA	236120Z0AAA
6300A	on request	

NOTE: to address specific requests for quotations or orders, please refer to the following versions *

11th (last) digit of the product code

A = standard, flatwise installation

P = edgewise installation

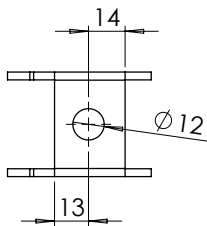
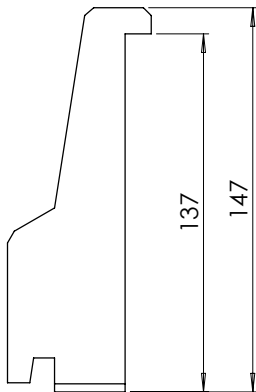
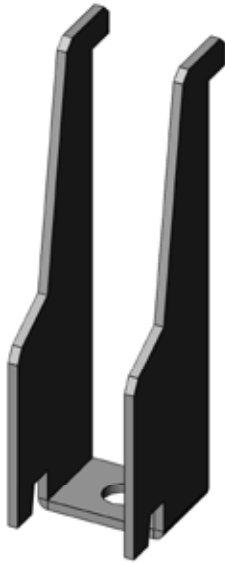
R = reduced-size version

* For more versions please contact Pogliano Busbar S.r.l.

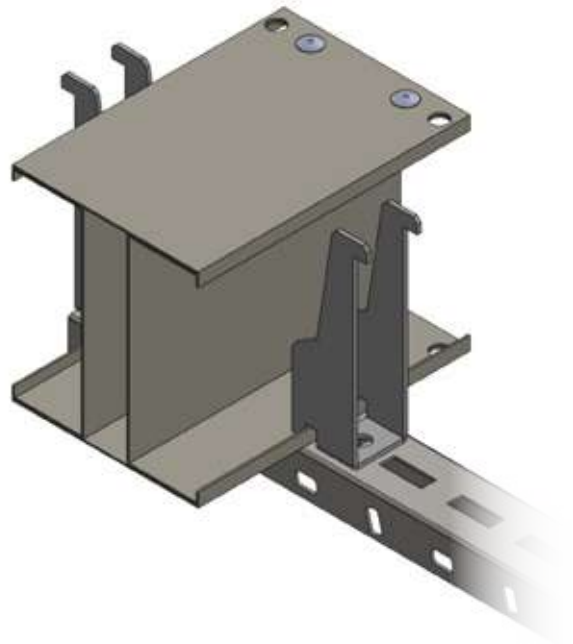
UNIVERSAL HANGER

Universal hanger suitable for both flatwise and edgewise installations.

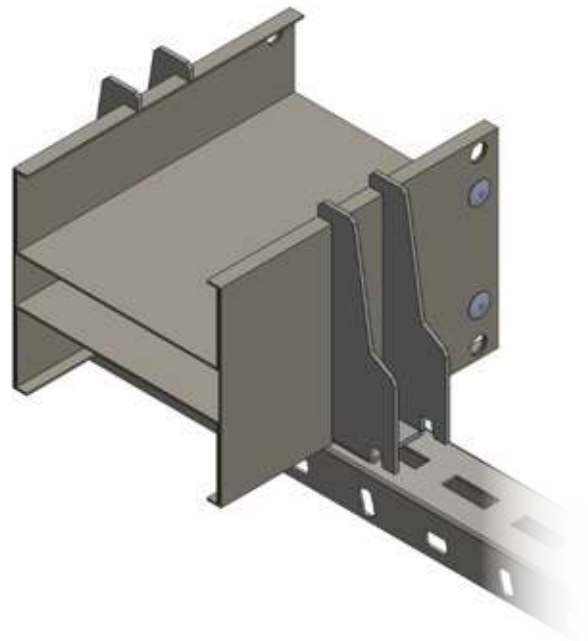
Unique ordering code valid for all current ratings, both copper and aluminium:
234320Z0AAH



Flatwise installation



Edgewise installation



BX-E

TECHNICAL DATA

COPPER 3P + N + PE (4P)

A REFERENCE NUMBER LAST DIGIT

Rated current (A)	1000	1250	1600	2000	2500	3200	4000	5000	6300	
Housing made of			Painted RAL 7032 15/10 mm thick zinc-plated housing							
Housing size (mm) (H)	137x85	137x85	137x121	137x150	137x185	137x248	137x306	137x376		
Protective conductor cross section (mm ² Fe)	960	960	1068	1155	1260	1449	1623	1833		
Protective conductor cross section (mm ² eq. Cu)	120	120	134	144	158	181	203	229		
Rated operating/insulation voltage (V)	1000	1000	1000	1000	1000	1000	1000	1000		
R20 Resistance (mΩ/m)	0,0457	0,0331	0,0223	0,0177	0,0142	0,0112	0,0089	0,0071		
Resistance at 50% of rated current (mΩ/m)	0,0474	0,0348	0,0237	0,0187	0,0151	0,0114	0,0093	0,0075		
Resistance at thermal balance (mΩ/m)	0,0523	0,0398	0,0277	0,0218	0,0177	0,0121	0,0108	0,0089		
Reactance (mΩ/m)	0,0190	0,0170	0,0150	0,0140	0,0100	0,0060	0,0060	0,0050		
Impedance at 20 degrees (mΩ/m)	0,0495	0,0372	0,0269	0,0226	0,0173	0,0127	0,0107	0,0087		
Impedance at 50% of rated current (mΩ/m)	0,0510	0,0387	0,0280	0,0234	0,0181	0,0129	0,0111	0,0090		AVAILABLE ON REQUEST
Impedance at thermal balance (mΩ/m)	0,0556	0,0433	0,0315	0,0259	0,0204	0,0135	0,0123	0,0102		
Resistance of protective conductor with steel housing (mΩ/m)	0,1406	0,1406	0,1217	0,1126	0,1032	0,0897	0,0801	0,0792		
Short-circuit rated current (short-time) (kA) 3P	50	60	80	85	100	100	100	120		
Short-circuit rated current (short-time) (kA) phase-N	30	36	48	51	60	60	60	72		
Short-circuit rated current (short-time) (kA) phase-PE	30	36	48	51	60	60	60	72		
Short-circuit rated current (peak) (kA) 3P	105	132	176	187	220	220	220	264		
Short-circuit rated current (peak) (kA) phase-N	66	79	106	112	116	132	132	158		
Short-circuit rated current (peak) (kA) phase-PE	66	79	106	112	116	132	132	158		
Specific energy (short-time) (A ² s)*10 ⁶ 1s - 3P	2500	3600	6400	7225	7744	10000	10000	14400		
Fault loop resistance (mΩ/m) - L-Pe	0,186	0,174	0,144	0,130	0,117	0,101	0,089	0,086		
Fault loop reactance (mΩ/m) - L-Pe	0,100	0,100	0,060	0,050	0,040	0,030	0,020	0,020		
Fault loop impedance (mΩ/m) - L-Pe	0,211	0,200	0,156	0,140	0,124	0,105	0,091	0,089		
Joule losses (W/m)	156,9	186,5	212,7	261,6	331,9	371,7	518,4	667,5		
Mass (kg/m)	26,3	28,7	37	41,7	51,7	68	83	102,7		
Protection Degree IP	IP 55	IP 55	IP 55	IP 55	IP 55	IP 55	IP 55	IP 55		

BX-R

CAUTION

BX-R version technical data slightly differ from those shown on this page.
For more details please contact Pogliano Busbar S.r.l.

BX-E

TECHNICAL DATA

ALUMINIUM 3P + N + PE (4P)

A REFERENCE NUMBER LAST DIGIT

Rated current (A)	800	1000	1250	1600	2000	2500	3200	4000	5000
Housing made of	Painted RAL 7032 15/10 mm thick zinc-plated housing								
Housing size (mm) (H)	137x85	137x95	137x121	137x160	137x205	137x286	137x376	137x416	137x567
Protective conductor cross section (mm ² Fe)	960	990	1068	1185	1320	1563	1833	1953	2406
Protective conductor cross section (mm ² eq. Cu)	120	124	134	148	165	195	225	244	301
Rated operating/insulation voltage (V)	1000	1000	1000	1000	1000	1000	1000	1000	1000
R20 Resistance (mΩ/m)	0,0661	0,0584	0,0447	0,0331	0,0254	0,0191	0,0142	0,0127	0,0103
Resistance at 50% of rated current (mΩ/m)	0,0671	0,0607	0,0461	0,0350	0,0272	0,0185	0,0153	0,0136	0,0111
Resistance at thermal balance (mΩ/m)	0,0700	0,0675	0,0503	0,0408	0,0324	0,0232	0,0185	0,0162	0,0133
Reactance (mΩ/m)	0,0170	0,0160	0,0150	0,0140	0,0100	0,0060	0,0050	0,0050	0,0050
Impedance at 20 degrees (mΩ/m)	0,0683	0,0605	0,0471	0,0359	0,0273	0,0200	0,0150	0,0137	0,0114
Impedance at 50% of rated current (mΩ/m)	0,0692	0,0627	0,0485	0,0377	0,0290	0,0194	0,0161	0,0145	0,0122
Impedance at thermal balance (mΩ/m)	0,0720	0,0694	0,0525	0,0431	0,0339	0,0239	0,0192	0,0169	0,0142
Resistance of protective conductor with steel housing (mΩ/m)	0,1406	0,1363	0,1264	0,1139	0,1023	0,0864	0,0736	0,0691	0,0561
Short-circuit rated current (short-time) (kA) 3P	40	50	65	80	80	100	100	115	120
Short-circuit rated current (short-time) (kA) phase-N	24	30	39	48	48	54	60	69	72
Short-circuit rated current (short-time) (kA) phase-PE	24	30	39	48	48	54	60	69	72
Short-circuit rated current (peak) (kA) 3P	84	105	143	176	176	220	220	253	264
Short-circuit rated current (peak) (kA) phase-N	50	63	86	106	106	119	132	152	162
Short-circuit rated current (peak) (kA) phase-PE	50	63	86	106	106	119	132	152	162
Specific energy (short-time) (A ² s)*10 ⁶ 1s - 3P	1600	2500	4225	6400	6400	10000	10000	13225	14400
Fault loop resistance (mΩ/m) - L-Pe	0,202	0,190	0,166	0,143	0,124	0,102	0,085	0,083	0,057
Fault loop reactance (mΩ/m) - L-Pe	0,100	0,100	0,060	0,050	0,040	0,030	0,020	0,020	0,020
Fault loop impedance (mΩ/m) - L-Pe	0,225	0,214	0,177	0,151	0,130	0,107	0,087	0,085	0,060
Joule losses (W/m)	134,4	202,5	235,6	313,3	388,6	434,5	568,0	777,2	997,5
Mass (kg/m)	14,7	16,1	19	24	29,3	36,7	45,7	52	65,7
Protection Degree IP	IP 55	IP 55	IP 55	IP 55	IP 55	IP 55	IP 55	IP 55	IP 55

BX-R

CAUTION

BX-R version technical data slightly differ from those shown on this page.
For more details please contact Pogliano Busbar S.r.l.

BX-E

TECHNICAL DATA

COPPER 3P + N + PE2 + PE (5P)

F REFERENCE NUMBER LAST DIGIT

Rated current (A)	1000	1250	1600	2000	2500	3200	4000	5000	6300	
Housing made of	Painted RAL 7032 15/10 mm thick zinc-plated housing									
Housing size (mm) (H)	137x85	137x85	137x121	137x150	137x185	137x248	137x306	137x376		
Protective conductor cross section (mm ² Fe)	960	960	1068	1155	1260	1449	1623	1833		
Protective conductor cross section (mm ² eq. Cu)	470	604	850	904	1273	1590	1987	2461		
Rated operating/insulation voltage (V)	1000	1000	1000	1000	1000	1000	1000	1000		
R20 Resistance (mΩ/m)	0,0457	0,0331	0,0223	0,0177	0,0142	0,0112	0,0089	0,0071		
Resistance at 50% of rated current (mΩ/m)	0,0474	0,0348	0,0237	0,0187	0,0151	0,0114	0,0093	0,0075		
Resistance at thermal balance (mΩ/m)	0,0523	0,0398	0,0277	0,0218	0,0177	0,0121	0,0108	0,0089		
Reactance (mΩ/m)	0,0190	0,0170	0,0150	0,0140	0,0100	0,0060	0,0060	0,0050		
Impedance at 20 degrees (mΩ/m)	0,0495	0,0372	0,0269	0,0226	0,0173	0,0127	0,0107	0,0087		
Impedance at 50% of rated current (mΩ/m)	0,0510	0,0387	0,0280	0,0234	0,0181	0,0129	0,0111	0,0090		AVAILABLE ON REQUEST
Impedance at thermal balance (mΩ/m)	0,0556	0,0433	0,0315	0,0259	0,0204	0,0135	0,0123	0,0102		
Resistance of protective conductor with steel housing (mΩ/m)	0,0340	0,0265	0,019	0,015	0,012	0,010	0,042	0,007		
Short-circuit rated current (short-time) (kA) 3P	50	60	80	85	100	100	100	120		
Short-circuit rated current (short-time) (kA) phase-N	30	36	48	51	60	60	60	72		
Short-circuit rated current (short-time) (kA) phase-PE	30	36	48	51	60	60	60	72		
Short-circuit rated current (peak) (kA) 3P	105	132	176	187	220	220	220	264		
Short-circuit rated current (peak) (kA) phase-N	66	79	106	112	116	132	132	158		
Short-circuit rated current (peak) (kA) phase-PE	66	79	106	112	116	132	132	158		
Specific energy (short-time) (A ² s)*10 ⁸ 1s - 3P	2500	3600	6400	7225	7744	10000	10000	14400		
Fault loop resistance (mΩ/m) - L-Pe	0,080	0,060	0,041	0,035	0,027	0,021	0,017	0,014		
Fault loop reactance (mΩ/m) - L-Pe	0,100	0,100	0,060	0,050	0,040	0,030	0,020	0,020		
Fault loop impedance (mΩ/m) - L-Pe	0,128	0,117	0,073	0,061	0,048	0,037	0,026	0,024		
Joule losses (W/m)	156,9	186,5	212,7	261,6	331,9	371,7	518,4	667,5		
Mass (kg/m)	29,4	33,3	44	50,5	62,7	81,9	105,1	127,3		
Protection Degree IP	IP 55	IP 55	IP 55	IP 55	IP 55	IP 55	IP 55	IP 55		

BX-R

CAUTION

BX-R version technical data slightly differ from those shown on this page.
For more details please contact Pogliano Busbar S.r.l.

ALUMINIUM 3P + N + PE2 + PE (5P)

F REFERENCE NUMBER LAST DIGIT

Rated current (A)	800	1000	1250	1600	2000	2500	3200	4000	5000
Housing made of	Painted RAL 7032 15/10 mm thick zinc-plated housing								
Housing size (mm) (H)	137x85	137x95	137x121	137x160	137x205	137x286	137x376	137x416	137x567
Protective conductor cross section (mm ² Fe)	960	990	1068	1185	1320	1563	1833	1953	2406
Protective conductor cross section (mm ² eq. Cu)	389	425	518	658	819	1052	1375	1519	2003
Rated operating/insulation voltage (V)	1000	1000	1000	1000	1000	1000	1000	1000	1000
R20 Resistance (mΩ/m)	0,0661	0,0584	0,0447	0,0331	0,0254	0,0191	0,0142	0,0127	0,0103
Resistance at 50% of rated current (mΩ/m)	0,0671	0,0607	0,0461	0,0350	0,0272	0,0201	0,0153	0,0136	0,0111
Resistance at thermal balance (mΩ/m)	0,0700	0,0675	0,0503	0,0408	0,0324	0,0232	0,0185	0,0162	0,0133
Reactance (mΩ/m)	0,0170	0,0160	0,0150	0,0140	0,0100	0,0060	0,0050	0,0050	0,0050
Impedance at 20 degrees (mΩ/m)	0,0683	0,0605	0,0471	0,0359	0,0273	0,0200	0,0150	0,0137	0,0114
Impedance at 50% of rated current (mΩ/m)	0,0692	0,0627	0,0485	0,0377	0,0290	0,0194	0,0161	0,0145	0,0122
Impedance at thermal balance (mΩ/m)	0,0720	0,0694	0,0525	0,0431	0,0339	0,0239	0,0192	0,0169	0,0142
Resistance of protective conductor with steel housing (mΩ/m)	0,045	0,041	0,033	0,026	0,02	0,016	0,012	0,011	0,009
Short-circuit rated current (short-time) (kA) 3P	40	50	65	80	80	100	100	115	120
Short-circuit rated current (short-time) (kA) phase-N	24	30	39	48	48	54	60	69	72
Short-circuit rated current (short-time) (kA) phase-PE	24	30	39	48	48	54	60	69	72
Short-circuit rated current (peak) (kA) 3P	84	105	143	176	176	220	220	253	264
Short-circuit rated current (peak) (kA) phase-N	53	66	86	106	106	119	132	152	162
Short-circuit rated current (peak) (kA) phase-PE	53	66	86	106	106	119	132	152	162
Specific energy (short-time) (A ² s)*10 ⁶ 1s - 3P	1600	2500	4225	6400	6400	10000	10000	13225	14400
Fault loop resistance (mΩ/m) - L-Pe	0,107	0,096	0,075	0,056	0,044	0,034	0,025	0,023	0,057
Fault loop reactance (mΩ/m) - L-Pe	0,100	0,100	0,060	0,050	0,040	0,030	0,020	0,020	0,020
Fault loop impedance (mΩ/m) - L-Pe	0,146	0,139	0,073	0,061	0,048	0,037	0,026	0,024	0,060
Joule losses (W/m)	134,4	202,5	235,6	313,3	388,6	434,5	568,0	777,2	997,5
Mass (kg/m)	16,1	17,7	21,1	26,8	33,0	41,6	52,3	59,4	75,6
Protection Degree IP	IP 55	IP 55	IP 55	IP 55	IP 55	IP 55	IP 55	IP 55	IP 55

BX-R

CAUTION

BX-R version technical data slightly differ from those shown on this page.
For more details please contact Pogliano Busbar S.r.l.

LINE-TO-LINE VOLTAGE DROP

Line-to-line voltage drop — concentrated load — V/m

$$\Delta V = \sqrt{3} \times I \times (R \cos \Phi + X \sin \Phi) \text{ V/m}$$

ALUMINIUM

Rated current Ampere	R_t mΩ/m	X mΩ/m	Voltage drop at 100% rated current and for various $\cos \phi$ [V/m]					
			$\cos \phi = 0,95$	$\cos \phi = 0,9$	$\cos \phi = 0,85$	$\cos \phi = 0,8$	$\cos \phi = 0,75$	$\cos \phi = 0,7$
800	0,0700	0,017	0,099	0,097	0,095	0,092	0,088	0,085
1000	0,0675	0,016	0,120	0,117	0,114	0,110	0,106	0,102
1250	0,0503	0,015	0,113	0,112	0,110	0,106	0,103	0,099
1600	0,0408	0,014	0,119	0,119	0,116	0,114	0,110	0,107
2000	0,0324	0,01	0,117	0,116	0,114	0,110	0,107	0,103
2500	0,0232	0,006	0,103	0,102	0,099	0,096	0,092	0,089
3200	0,0185	0,005	0,106	0,104	0,102	0,099	0,095	0,091
4000	0,0162	0,005	0,117	0,116	0,114	0,110	0,107	0,103
5000	0,0133	0,005	0,123	0,122	0,121	0,118	0,115	0,111

COPPER

Rated current Ampere	R_t mΩ/m	X mΩ/m	Voltage drop at 100% rated current and for various $\cos \phi$ [V/m]					
			$\cos \phi = 0,95$	$\cos \phi = 0,9$	$\cos \phi = 0,85$	$\cos \phi = 0,8$	$\cos \phi = 0,75$	$\cos \phi = 0,7$
1000	0,0523	0,019	0,096	0,096	0,094	0,092	0,090	0,087
1250	0,0398	0,017	0,093	0,093	0,093	0,091	0,089	0,087
1600	0,0277	0,015	0,086	0,087	0,087	0,086	0,085	0,083
2000	0,0218	0,014	0,087	0,089	0,090	0,089	0,089	0,087
2500	0,0177	0,010	0,086	0,088	0,088	0,087	0,086	0,084
3200	0,0121	0,006	0,074	0,075	0,074	0,074	0,072	0,071
4000	0,0108	0,006	0,084	0,085	0,085	0,085	0,084	0,082
5000	0,0089	0,005	0,087	0,088	0,088	0,088	0,086	0,085

To calculate the voltage drop of a line, multiply the above values by the ratio between actual load and rated current and by the length of the line, in meters.

For distributed loads divide the result by 2

e.g.: a 30 meters long BX-E 4000A line with an actual current of 3200A and $\cos \phi = 0.9$

$\Delta V = 3200/4000 \times 30 \text{m} \times 0,085 \text{ V/m} = 2.05 \text{ V}$ -- with concentrated load

$\Delta V = 2.05 \text{ V} / 2 = 1.025 \text{ V}$ -- with distributed load

POGLIANO BUSBAR

Herewith declares that the products:

BX-E, BXE-M and BX-R

Comply to the provisions of the following EU directive:

N° 2014/35/EU

Directive of European Parliament and of the Council on the harmonisation of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits

N° 2014/30/EU

Directive of European Parliament and of the Council on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (EMC)

N° 2011/65/EU

Directive of European Parliament and of the Council on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

The harmonized standards listed below have been applied:

CEI EN 61439-1

Low-voltage switchgear and controlgear assemblies
Part 1: General rules

CEI EN 61439-6

Low-voltage switchgear and controlgear assemblies
Part 6: Busbar trunking systems (busways)

CEI EN 60529

Degree of protection provided by enclosures (IP code)

BX-E CERTIFICATES



BX-E

SANDWICH-TYPE BUSDUCTS



GREEN
PRODUCT



BXE-M
FIRE-RESISTANT
VERSION



BX-R
IP68 RESIN-TYPE
VERSION

PPF
pef

POGLIANOBUSBAR

POGLIANO BUSBAR s.r.l.

10024 Moncalieri (TO)

Via F. Santi 25

Tel. 011 4016611

www.poglianobusbar.com

