

# Busways



  
**QCERT**  
ORGANISMO DE  
CERTIFICACIÓN

ACREDITADO ONAC  
CÓDIGO: 11-CPR-003  
ISO IEC 17065:2012

**RETIE**  
**IEC 61439-6:2012**

Certificado 2144

CONSTRUIDO POR **300**  
**IPR**  
INGENIERIA  
WWW.IPR.COM.CO  
CALI-COLOMBIA





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# BUSWAYS

## SAFE AND RELIABLE ENERGY TRANSPORTATION

MECANO is now part of the European multinational Gonvarri Industries, world leader in the transformation of steel and aluminum, with over 60 years of experience. Gonvarri Industries offers products and services that allow us to complement in a strategic manner, strengthening our position in the market and consolidating as a business with a greater capacity to serve the current and potential market.



MECANO is a brand that is committed to the design, manufacturing, and supply of energy and data systems in a secure and reliable manner. With over 35 years of experience, we provide properly certified products, complying with electrical regulations on a national and international level. We are dedicated to the functionality and security of the system.

MECANO offers an excellent BUSWAYS solution for electrical distribution systems with **low loads (250 Amp - 3200 Amp)**, backed by our characteristic technical support and quality.

## We offer:

- ✓ A system that has been tested and certified according to the IEC 61439-6 standard.
- ✓ Technical support throughout the entire project lifecycle, including the design, implementation, and fine-tuning stages.
- ✓ **After-sales service:** warranties and spare parts
- ✓ Due to our production processes, we can offer our clients customized products with excellent delivery times.
- ✓ Local production plant.



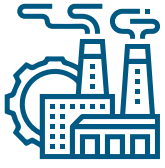
PCP  
Pereira, Risaralda - Colombia

## Backup and Experience

We're backed up by over

# 10 years of experience

Supplying Busways, covering different projects in different sectors, such as: industrial, institutional and infrastructure.



# Industrial



Celsa  
Guarne, Antioquia - Colombia



Ramo Plant  
Bogota, Cundinamarca Colombia



GRI Calvinho towers Argentina  
Argentina



# Institucional:



La Merced Clinic  
Barranquilla, Atlántico, Colombia



Valledupar High Complexity Clinic  
Valledupar, Cesar - Colombia



Bogotá Eye Clinic  
Bogotá, Cundinamarca - Colombia



# Infrastructure:



Oriente - Tunnel Medellín - Rionegro  
Medellín, Antioquia - Colombia



Hupermall Bolivia Cochabamba  
Cochabamba, Bolivia



Valledupar Stadium  
Valledupar, Cesar - Colombia



# BENEFITS

## BUSWAYS SYSTEMS



### Savings:

Busways represent a significant saving when comparing materials, installation costs, energetic efficiency, fixed assets and maintenance, among others.

- Savings in materials up to 30%.
- The modular system enables faster installation times, potentially achieving a 60% improvement in efficiency.
- The losses due to voltage drop are lower compared to cables.
- It is eligible for accounting depreciation as electrical equipment.
- The maintenance costs for Busways are lower.



### Energetic efficiency:

Busways, with their rectangular conductors, exhibit higher efficiency in energy transmission by reducing the effective or alternating current resistance.



### Environmental impact reduction:

Busways are manufactured using 100% reusable materials, making a significant contribution to environmental conservation.



### Safety:

Due to its compact design, it reduces the risk of fraud, preventing tampering by non-qualified personnel.

With high resistance to short circuits and robust fire protection, it safeguards users and facilities in case of overheating.

All our materials are fire-retardant and free from halogens and other contaminants. We also have monitoring capacity for hot spots using thermographic stickers.



### Customization:

It can be customized to the customer's taste or specific requirements. Its tailored design allows each route to be adapted to any need, adjusting to space requirements, construction aesthetics, and budget.



### Flexibility and adaptation:

Thanks to the personalized design of the Busway routes, they are extremely flexible and can be modified whenever necessary, allowing for improvements.

# ADVANTAGES

## BUSWAYS SYSTEMS



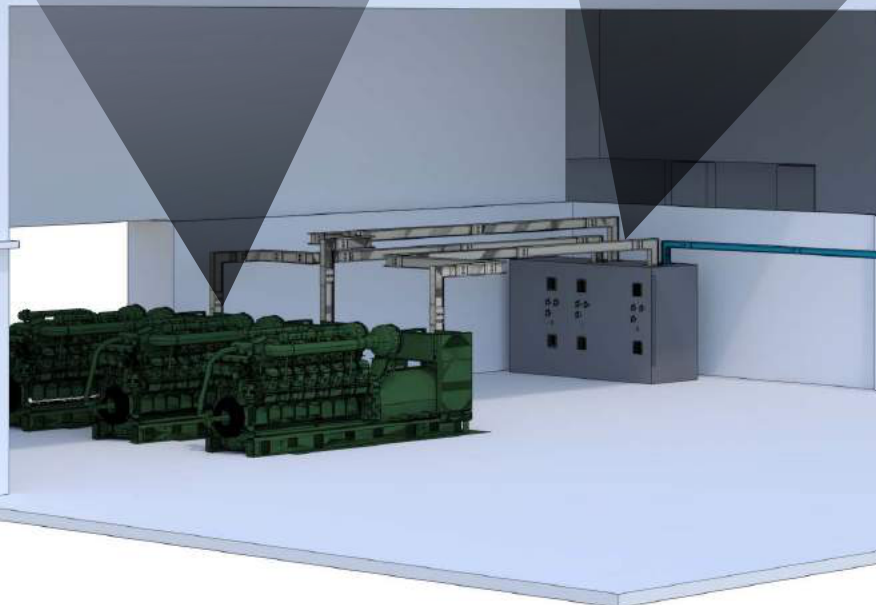
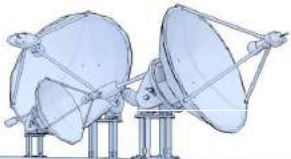
### Location:

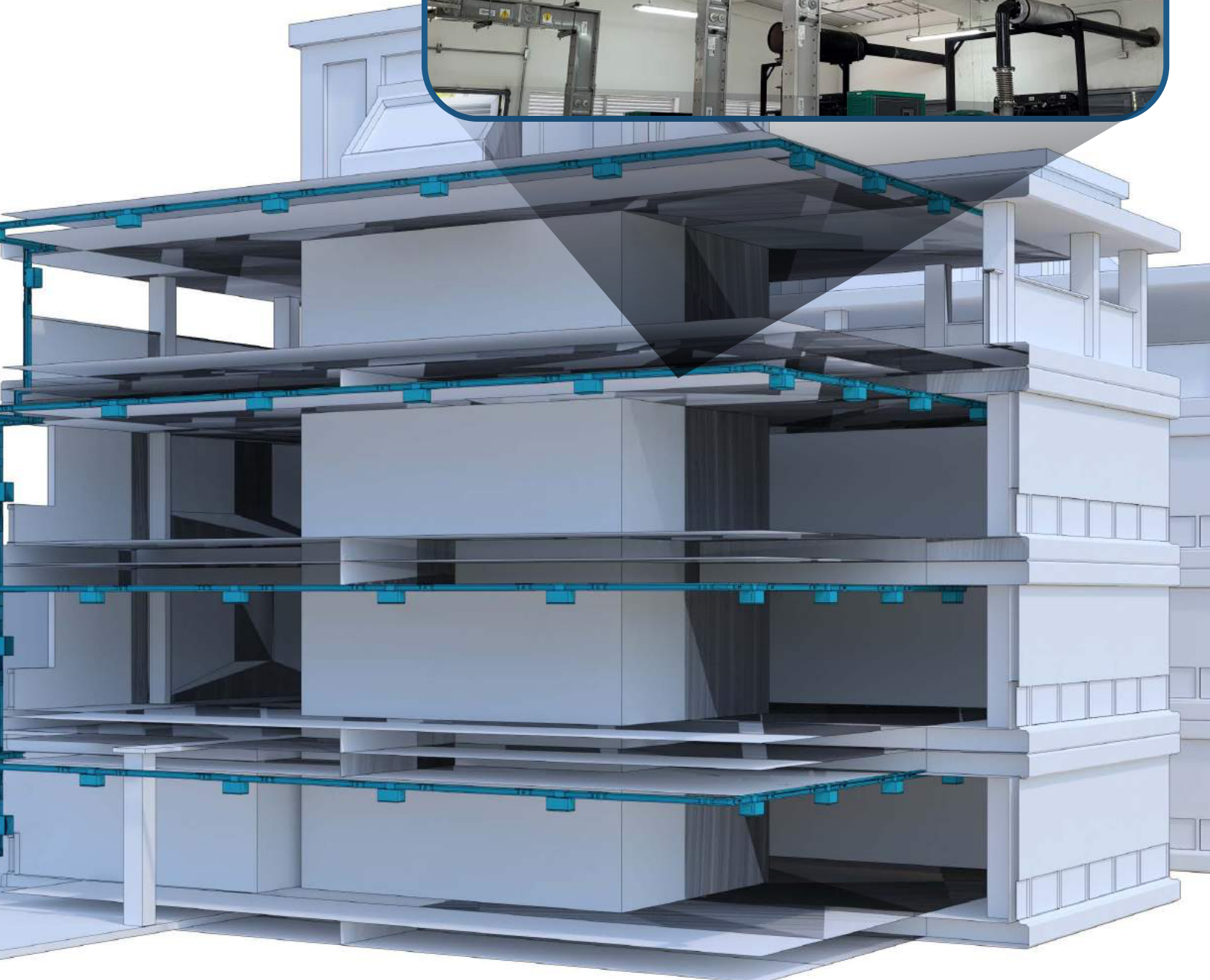
We have a commercial presence throughout the country, offering assessment and personalized content, which results in reduced delivery times. We also provide support and training for our clients.



### Aluminum conductors:

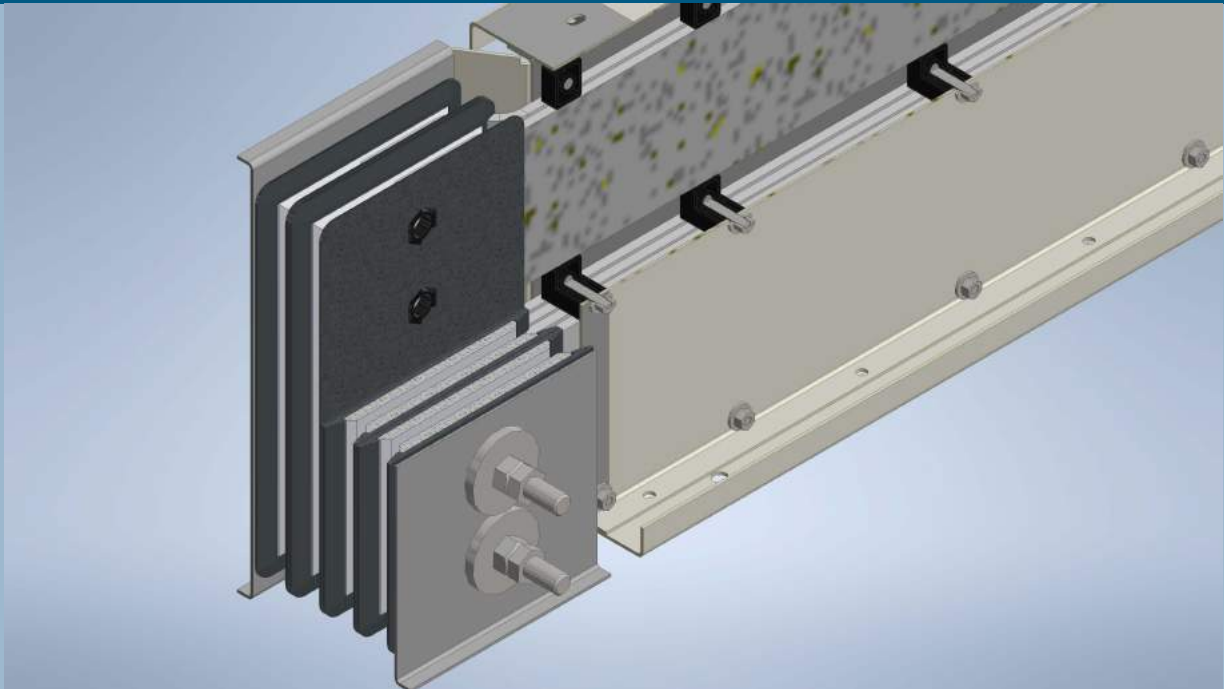
Lighter Busways that facilitate assembly, reducing the weight of the equipment and the mechanical load on installations.





# TECHNICAL CHARACTERISTICS

## BUSWAYS MECANO

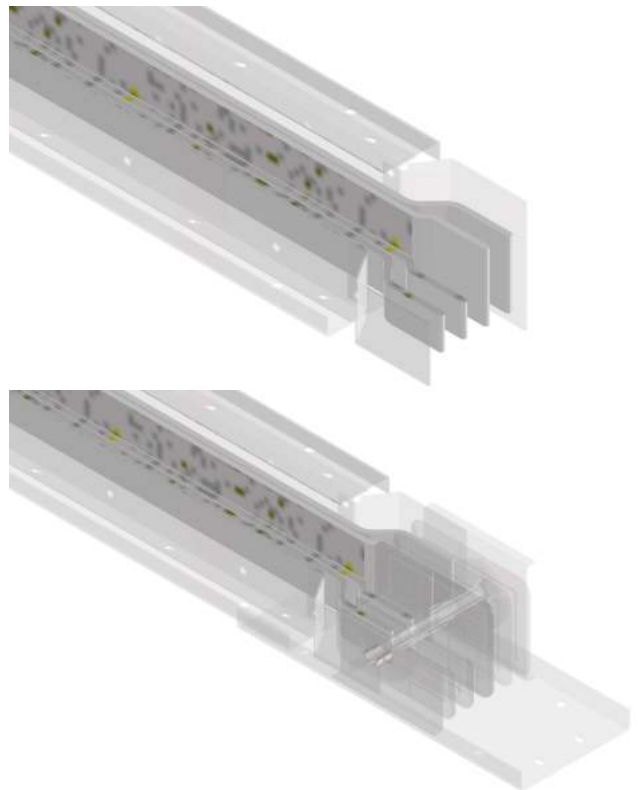


### Conductors

Manufactured from aluminum under the ANSI ASTM B317-79 standard, providing special specifications for current conduction applications, responding to high mechanical stresses in case of failure.

The conductive bars comply with the standards of the Aluminum Association and ANSI H35.2 in terms of dimensional tolerances, mechanical properties, and chemical composition. They also feature extensive current capacity and resistance to short-circuit currents.

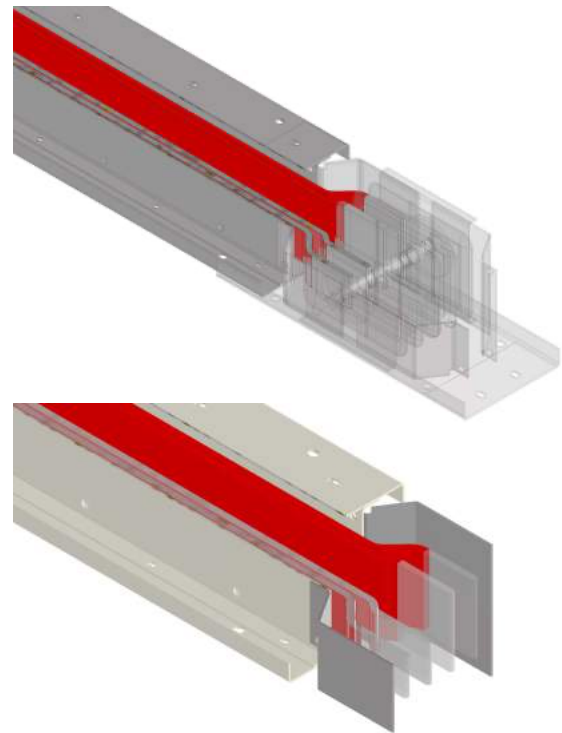
**Aluminum:** 6101 with an H11 process, involving hardening through heat treatment plus annealing, enhancing cold deformation capacity, preventing fractures during forming, with high electrical conductivity, and excellent mechanical properties.



## Insulation

The conductive Busways are covered along their entire length with layers of Class B, self-extinguishing polyester, exhibiting excellent resistance to both cold and heat within a range of  $-70^{\circ}\text{C}$  up to  $130^{\circ}\text{C}$ . This allows for continuous operation without flaws, even in excessive heat. The application of these layers creates a complete insulation barrier against external agents such as air, dust, or other contaminants, enabling our Busways to withstand voltages exceeding 7 KV.

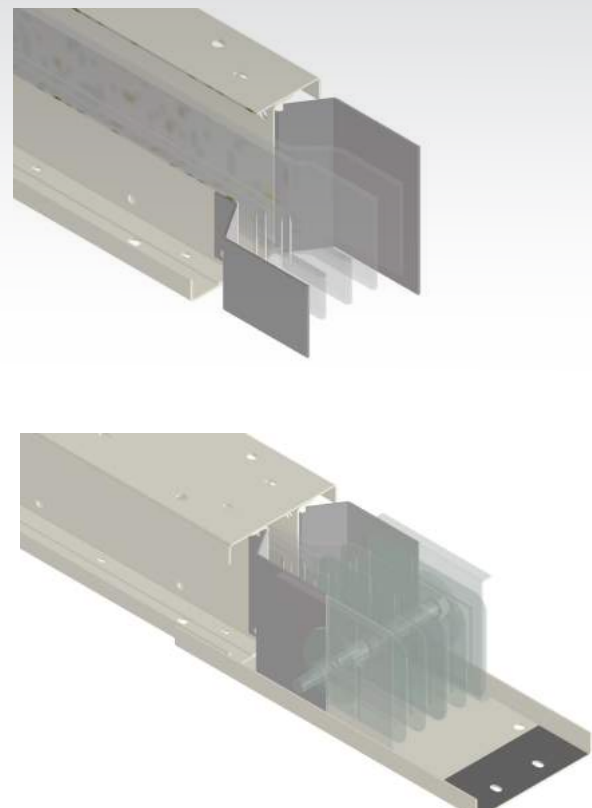
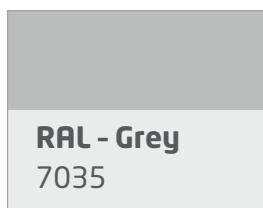
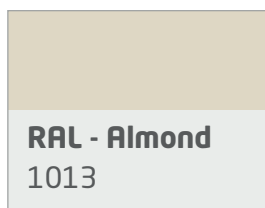
The fire-retardant elements have successfully passed the incandescent thread test according to regulations.



## Housing

Manufactured from galvanized steel under the standard ASTM A653, with a thickness ranging from 1.5 mm to 2.5 mm. Constructed in four sections assembled with nuts, it possesses excellent characteristics of mechanical resistance, electrical conductivity, and thermal dissipation. The finishes are available in different paints: RAL 1013 (Almond), RAL 7035 (light grey), with a polyester paint approximately 60 to 70 microns thick and high resistance to chemical agents.

**Observation:** It can also be offered with other finishes, painted with a color per client request, with no paint or in a pre-galvanized finish.





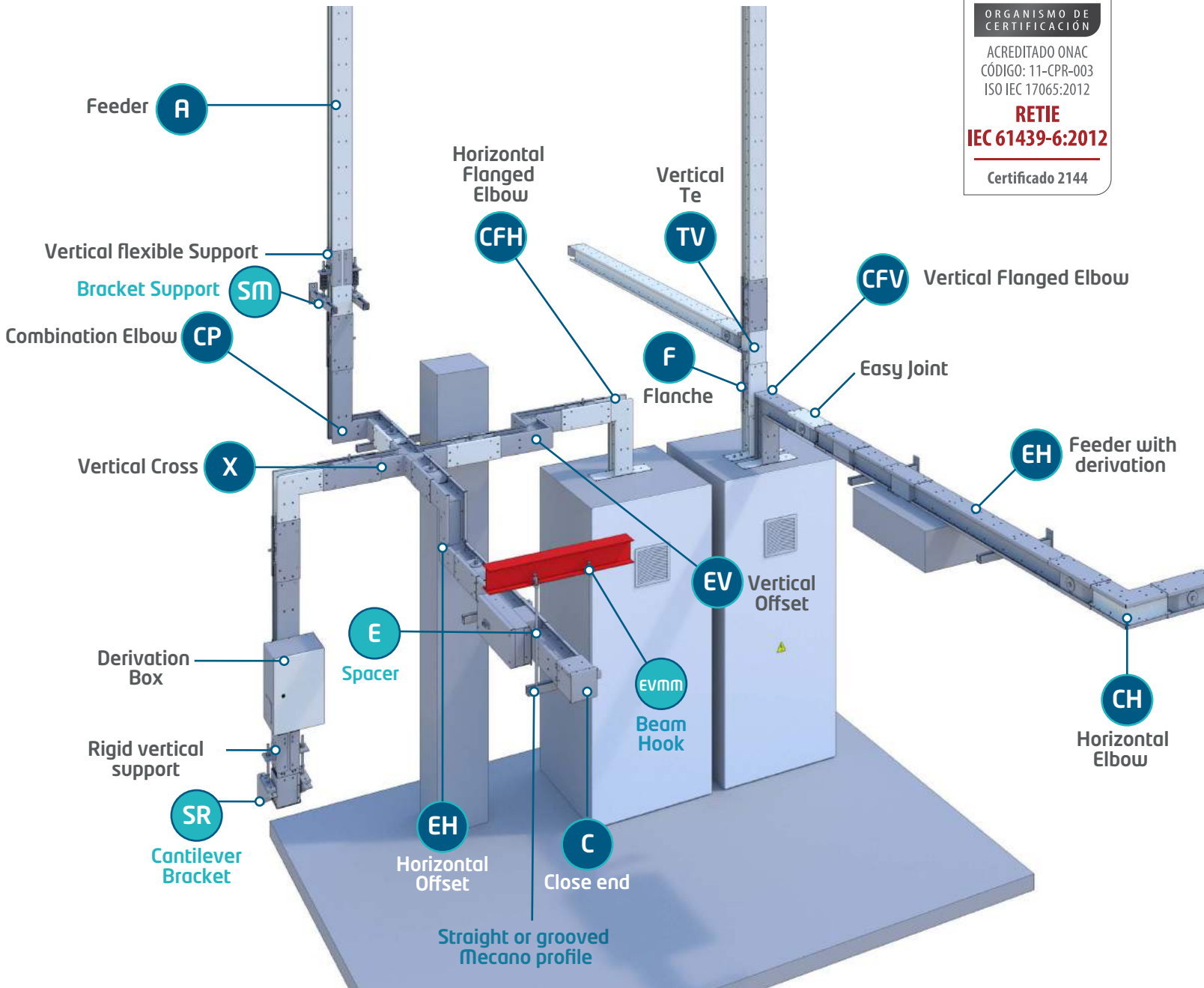
## Tests and Certifications:

Busways Mecano are manufactured and tested under the IEC 60439-2 e IEC 61439-1 standards. These test protocols were made in DEKRA - KEMA laboratories in Holland .

They are also certified under the standard IEC 61439-6 y el RETIE, by the certifying entity QCERT.

# COMPONENTS

## BUSWAYS SYSTEMS

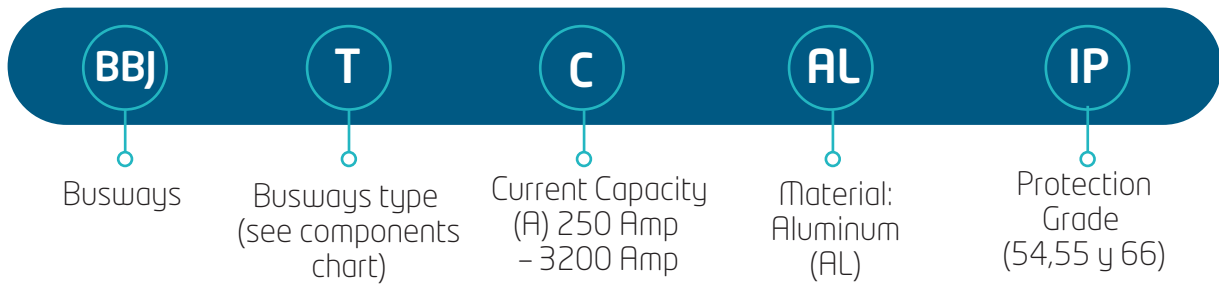


The system can be installed with the help of some of our complementary products from the structural system portfolio MECANO, such as:

- Bracker Support **SM**
- Cantilever Bracket **SR**
- Straight or grooved Mecano profile
- Beam Hook **EVmm**
- Spacer **E**



## Components Codes:



## Types - System components

Busways Prototype Reference	Busways components types (T)	Busways component types description
BBJA250AL54	A	FEEDER
BBJAD250AL54	AD	FEEDER WITH DERIVATION PLUG IN
BBJAT250AL54	AT	FEEDER WITH DERIVATION TAP OFF
BBJCH250AL54	CH	HORIZONTAL ELBOW
BBJCV250AL54	CV	VERTICAL ELBOW
BBJF250AL54	F	FLANGE
BBJEH250AL54	EH	HORIZONTAL OFFSET
BBJEV250AL54	EV	VERTICAL OFFSET
BBJTV250AL54	TV	VERTICAL TEE
BBJX250AL54	X	VERTICAL CROSS
BBJCP250AL54	CP	COMBINATION ELBOW
BBJCFH250AL54	CFH	HORIZONTAL ELBOW FLANGED
BBJCFV250AL54	CFV	VERTICAL ELBOW FLANGED
BBJC250AL54	C	END CLOSER
BBJCF250AL54	CF	CABLE ENTRY BOX
BBJD250AL54	JD	EXPANSION JOINTS

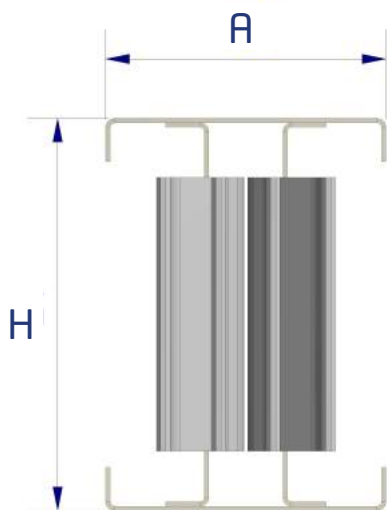


## Electrical Characteristics:

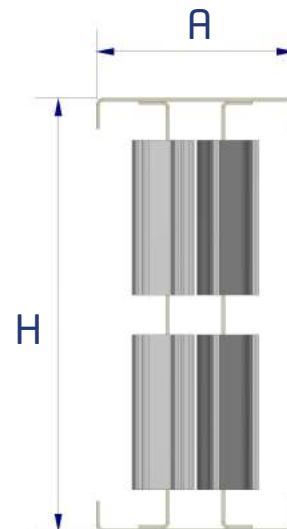
Busways prototype reference	Current capacity (Amp)	Short Circuit current (KA)	Installation Torque (Par N-m)	Installation Torque (Par Lb-ft)	Height H (mm)	Width A (mm)	Weight (kg/m)	Impedance Z mΩ/m	Resistance R mΩ/m	Reactance X mΩ/m
BBJ(T)250AL(IP)	250	10,0	10	7,4	79	130	8,3	0,321	0,315	0,061
BBJ(T)460AL(IP)	460	20,0	25	18,4	105	130	10,2	0,19	0,185	0,043
BBJ(T)630AL(IP)	630	25,0	60	44,3	106	130	13,7	0,133	0,126	0,045
BBJ(T)800AL(IP)	800	40,0	60	44,3	130	130	16,3	0,1	0,086	0,052
BBJ(T)1000AL(IP)	1000	50,0	60	44,3	157	130	18,9	0,066	0,061	0,037
BBJ(T)1250AL(IP)	1250	60,0	60	44,3	182	130	21,5	0,057	0,052	0,028
BBJ(T)1600AL(IP)	1600	60,0	60	44,3	208	130	27,4	0,051	0,038	0,034
BBJ(T)2000AL(IP)	2000	60,0	75	55,3	284	130	31,3	0,033	0,031	0,018
BBJ(T)2500AL(IP)	2500	90,0	75	55,3	335	130	37,5	0,028	0,026	0,014
BBJ(T)3200AL(IP)	3200	90,0	75	55,3	387	130	55,1	0,025	0,02	0,016

(T) : Busways components types - see page 15 for different types

## Busways transversal sections:



Transversal section 250 Amp - 1600 Amp  
H: 79,4 mm - 208,4 mm



Transversal section 2000 Amp - 3200 Amp  
H: 284,2 mm - 386,8 mm

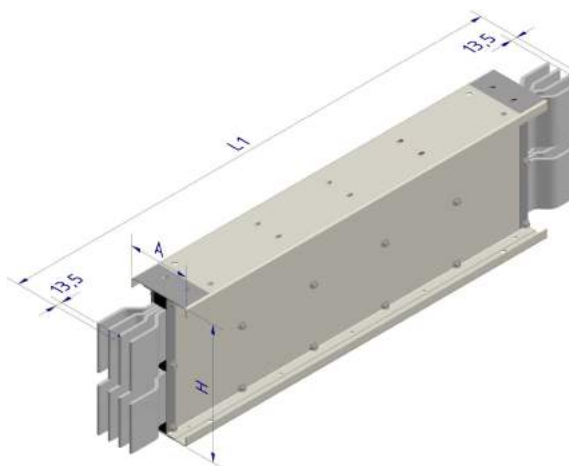
# Busways Components



## Feeder (A)

It is in charge of delivering current from point A to Point B, manufactured in a standard length of 3 m and in smaller lengths according to the needs of each project.

References	Width Section A (mm)	Height Section H (mm)	L1 Max (mm)	L1 min (mm)
BBJA250ALXX	130	80	3000	450
BBJA460ALXX	130	105	3000	450
BBJA630ALXX	130	105	3000	450
BBJA800ALXX	130	131	3000	450
BBJA1000ALXX	130	157	3000	450
BBJA1250ALXX	130	182	3000	450
BBJA1600ALXX	130	208	3000	450
BBJA2000ALXX	130	284	3000	450
BBJA2500ALXX	130	335	3000	450
BBJA3200ALXX	130	387	3000	450

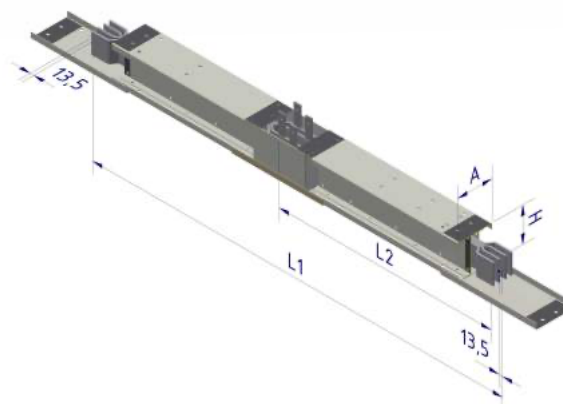


\*To obtain the reference, replace "XX" for the corresponding IP: 54 - 55 - 66

## Feeder with derivation plug -in type (AD)

Distributes at a specific point, manufactured in a standard length of 3 m (2980 mm between the centers of the joint nuts), and in smaller lengths according to the needs of each project. It features up to three derivation points accessible from both sides of the bar, providing maximum versatility in standard lengths.

References	Width Section A (mm)	Height Section H (mm)	L1 Max (mm)	L2 Min (mm)	L3 Min (mm)	L1 min (mm)	L1 max (mm)
BBJAD250ALXX	130	80	2827	422	937	1610	2980
BBJAD460ALXX	130	105	2827	422	937	1610	2980
BBJAD630ALXX	130	106	2827	422	937	1610	2980
BBJAD800ALXX	130	131	2827	422	937	1610	2980
BBJAD1000ALXX	130	157	2827	422	937	1610	2980
BBJAD1250ALXX	130	182	2827	422	937	1610	2980
BBJAD1600ALXX	130	208	2827	422	937	1610	2980
BBJAD2000ALXX	130	284	2827	422	937	1360	2980
BBJAD2500ALXX	130	335	2827	422	937	1360	2980
BBJAD3200ALXX	130	387	2827	422	937	1360	2980

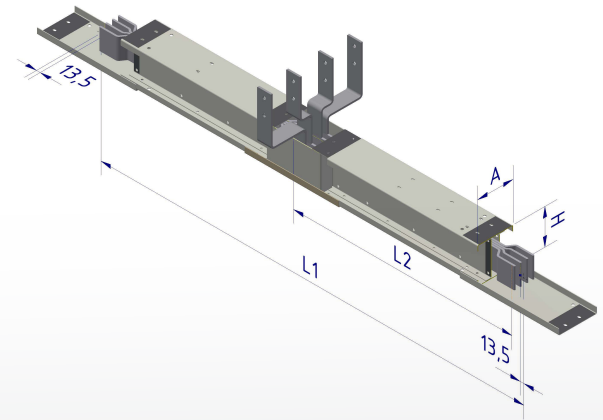


- \* To obtain the reference, replace "XX" for the corresponding IP: 54 - 55 - 66
- \* It is recommended to use bimetal dual connectors for the connection of power wires.
- \* L3 - Minimal separation between derivations.

## Feeder with derivation type top-off (AT)

Distributes current to a specific point

References	Width Section A (mm)	Height Section H (mm)	L1 Max (mm)	L2 Min (mm)	L3 Min (mm)	L1 min (mm)	L1 max (mm)
BBJAT250ALXX	130	80	2827	422	937	1610	2980
BBJAT460ALXX	130	105	2827	422	937	1610	2980
BBJAT630ALXX	130	106	2827	422	937	1610	2980
BBJAT800ALXX	130	131	2827	422	937	1610	2980
BBJAT1000ALXX	130	157	2827	422	937	1610	2980
BBJAT1250ALXX	130	182	2827	422	937	1610	2980
BBJAT1600ALXX	130	208	2827	422	937	1610	2980
BBJAT2000ALXX	130	284	2827	422	937	1360	2980
BBJAT2500ALXX	130	335	2827	422	937	1360	2980
BBJAT3200ALXX	130	387	2827	422	937	1360	2980

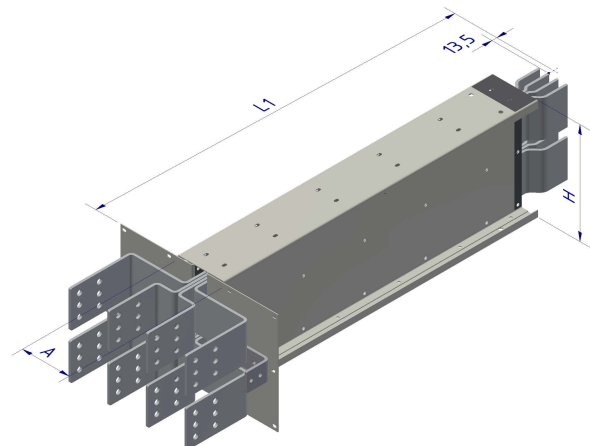


- \* It is recommended to use bimetal dual connectors for the connection of power wires.
- \* To obtain the reference, replace "XX" for the corresponding IP: 54 - 55 - 66
- \* L3 - Minimal separation between derivations.

## Flange for Connection (F)

Proper perforations and separations for a simple and fast connection of the wires or busbars to feed the system, on boards, transformer grooves, etc.

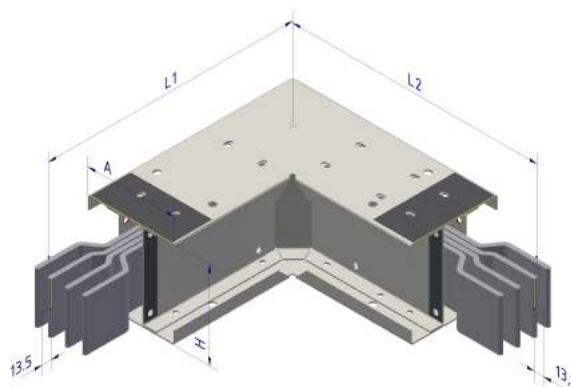
References	Width Section A (mm)	Height Section H (mm)	L1 Min (mm)	L1 Max (mm)
BBJF250ALXX	130	80	266	1000
BBJF460ALXX	130	105	266	1000
BBJF630ALXX	130	106	266	1000
BBJF800ALXX	130	131	266	1000
BBJF1000ALXX	130	157	266	1000
BBJF1250ALXX	130	182	266	1000
BBJF1600ALXX	130	208	266	1000
BBJF2000ALXX	130	284	266	1000
BBJF2500ALXX	130	335	266	1000
BBJF3200ALXX	130	387	266	1000



- \* It is recommended to use bimetal dual connectors for the connection of power wires.
- \* To obtain the reference, replace "XX" for the corresponding IP: 54 - 55 - 66

## 90° horizontal Elbow (CH)

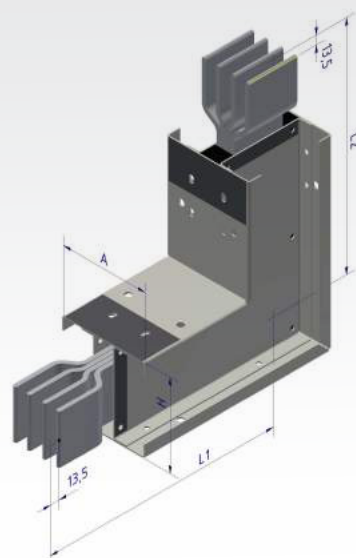
References	Width Section A (mm)	Height Section H (mm)	L min (mm) L1=L2	L max (mm) L1=L2
BBJCH250ALXX	130	80	271,5	1000
BBJCH460ALXX	130	105	271,5	1000
BBJCH630ALXX	130	106	271,5	1000
BBJCH800ALXX	130	131	271,5	1000
BBJCH1000ALXX	130	157	271,5	1000
BBJCH1250ALXX	130	182	271,5	1000
BBJCH1600ALXX	130	208	271,5	1000
BBJCH2000ALXX	130	284	271,5	1000
BBJCH2500ALXX	130	335	271,5	1000
BBJCH3200ALXX	130	387	271,5	1000



\* To obtain the reference, replace "XX" for the corresponding IP: 54 - 55 - 66

## 90° Vertical Elbow (CV)

References	Width Section A (mm)	Height Section H (mm)	L min (mm) L1=L2	L max (mm) L1=L2
BBJCV250ALXX	130	80	254,2	1000
BBJCV460ALXX	130	105	254,2	1000
BBJCV630ALXX	130	106	254,2	1000
BBJCV800ALXX	130	131	266,9	1000
BBJCV1000ALXX	130	157	279,6	1000
BBJCV1250ALXX	130	182	292,3	1000
BBJCV1600ALXX	130	208	305	1000
BBJCV2000ALXX	130	284	326,9	1000
BBJCV2500ALXX	130	335	352,3	1000
BBJCV3200ALXX	130	387	377,7	1000

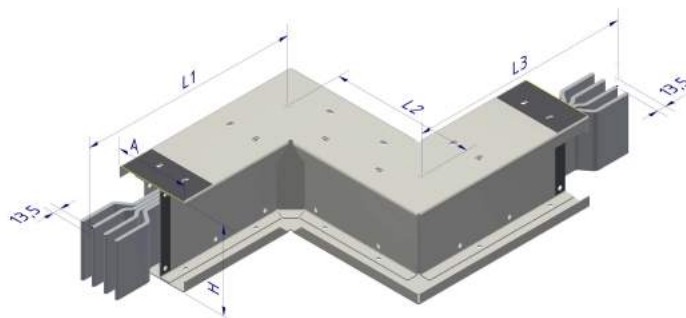


\*To obtain the reference, replace "XX" for the corresponding IP: 54 - 55 - 66

## Horizontal Offset (EH)

Used to dodge obstacles on a horizontal path.

References	Width Section A (mm)	Height Section H (mm)	L min (mm) L1xL2xL3	L max (mm) L1xL2xL3
BBJEH250ALXX	130	80	271,5x130x271,5	500X500X500
BBJEH460ALXX	130	105	271,5x130x271,5	500X500X500
BBJEH630ALXX	130	106	271,5x130x271,5	500X500X500
BBJEH800ALXX	130	131	271,5x130x271,5	500X500X500
BBJEH1000ALXX	130	157	271,5x130x271,5	500X500X500
BBJEH1250ALXX	130	182	271,5x130x271,5	500X500X500
BBJEH1600ALXX	130	208	271,5x130x271,5	500X500X500
BBJEH2000ALXX	130	284	271,5x130x271,5	500X500X500
BBJEH2500ALXX	130	335	271,5x130x271,5	500X500X500
BBJEH3200ALXX	130	387	271,5x130x271,5	600X600X600

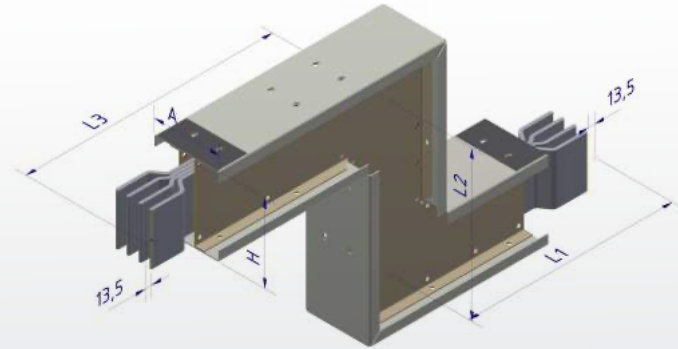


\*To obtain the reference, replace "XX" for the corresponding IP: 54 - 55 - 66

## Vertical Offset (EV)

Used to dodge obstacles on a vertical path.

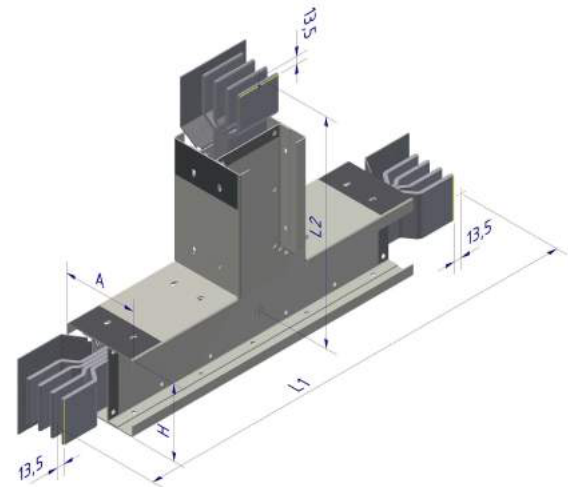
References	Width Section A (mm)	Height Section H (mm)	L min (mm) L1xL2xL3	L max (mm) L1xL2xL3
BBJEV250ALXX	130	80	240x157x240	500X500X500
BBJEV460ALXX	130	105	252x182x252	500X500X500
BBJEV600ALXX	130	106	252x182x252	500X500X500
BBJEV800ALXX	130	131	387x255x387	500X500X500
BBJEV1000ALXX	130	157	278x233x278	500X500X500
BBJEV1250ALXX	130	182	291x258x291	500X500X500
BBJEV1600ALXX	130	208	303x283x303	500X500X500
BBJEV2000ALXX	130	284	278x233x278	500X500X500
BBJEV2500ALXX	130	335	354x386x354	500X500X500
BBJEV3200ALXX	130	387	392x462x392	600X600X600



\*To obtain the reference, replace "XX" for the corresponding IP: 54 - 55 - 66

## Vertical Tee (TV)

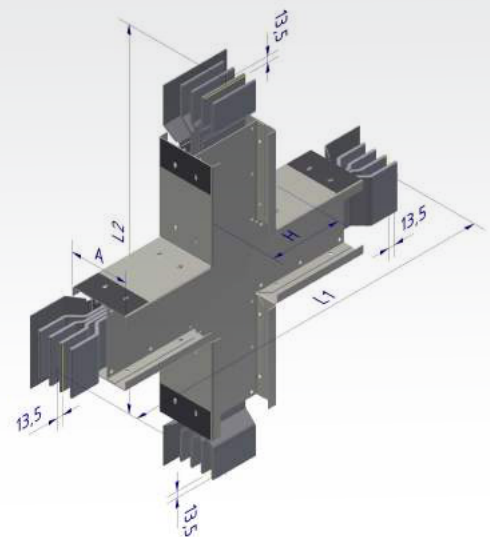
References	Width Section A (mm)	Height Section H (mm)	L Min (mm) L1=L2	L1 Max (mm) L1=L2
BBJTV250ALXX	130	80	254,2	1000
BBJTV460ALXX	130	105	254,2	1000
BBJTV630ALXX	130	106	254,2	1000
BBJTV800ALXX	130	131	266,9	1000
BBJTV1000ALXX	130	157	279,6	1000
BBJTV1250ALXX	130	182	292,3	1000
BBJTV1600ALXX	130	208	305	1000
BBJTV2000ALXX	130	284	326,9	1000
BBJTV2500ALXX	130	335	352,3	1000
BBJTV3200ALXX	130	387	377,7	1000



\* To obtain the reference, replace "XX" for the corresponding IP: 54 - 55 - 66

## Vertical Cross (X)

References	Width Section A (mm)	Height Section H (mm)	L Min (mm) L1=L2	L Max (mm) L1=L2
BBJX250ALXX	130	80	739	1000
BBJX460ALXX	130	105	765	1000
BBJX630ALXX	130	106	765	1000
BBJX800ALXX	130	131	790	1000
BBJX1000ALXX	130	157	816	1000
BBJX1250ALXX	130	182	841	1000
BBJX1600ALXX	130	208	866	1000
BBJX2000ALXX	180	284	816	1000
BBJX2500ALXX	180	335	969	1000
BBJX3200ALXX	180	387	1045	1000



\*To obtain the reference, replace "XX" for the corresponding IP: 54 - 55 - 66

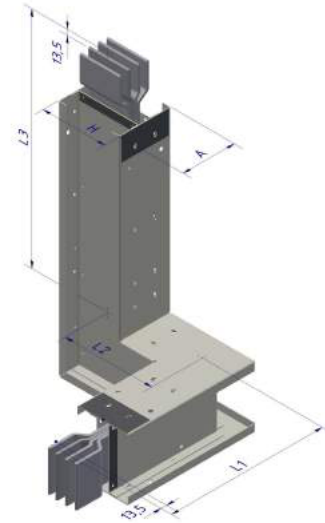
## Combination Elbow (CP)

Right Combination Elbow

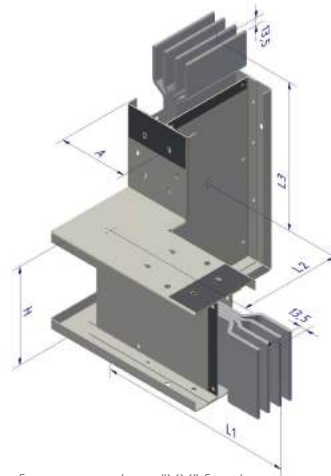
References	Width Section A (mm)	Height Section H (mm)	L1 Min (mm)	L2 Min (mm)	L3 Min (mm)
BBJCPD250ALXX	130	80	260	140	275
BBJCPD460ALXX	130	105	260	151	290
BBJCPD630ALXX	130	106	260	151	290
BBJCPD800ALXX	130	131	260	165	301
BBJCPD1000ALXX	130	157	260	177	313
BBJCPD1250ALXX	130	182	260	189	326
BBJCPD1600ALXX	130	208	260	202	340
BBJCPD2000ALXX	130	284	272	274	345
BBJCPD2500ALXX	130	335	272	300	370
BBJCPD3200ALXX	130	387	272	325	395

Left Combination Elbow

References	Width Section A (mm)	Height Section H (mm)	L1 Min (mm)	L2 Min (mm)	L3 Min (mm)
BBJCPI250ALXX	130	80	260	140	275
BBJCPI460ALXX	130	105	260	151	290
BBJCPI630ALXX	130	106	260	151	290
BBJCPI800ALXX	130	131	260	165	301
BBJCPI1000ALXX	130	157	260	177	313
BBJCPI1250ALXX	130	182	260	189	326
BBJCPI1600ALXX	130	208	260	202	340
BBJCPI2000ALXX	130	284	272	274	345
BBJCPI2500ALXX	130	335	272	300	370
BBJCPI3200ALXX	130	387	272	325	395



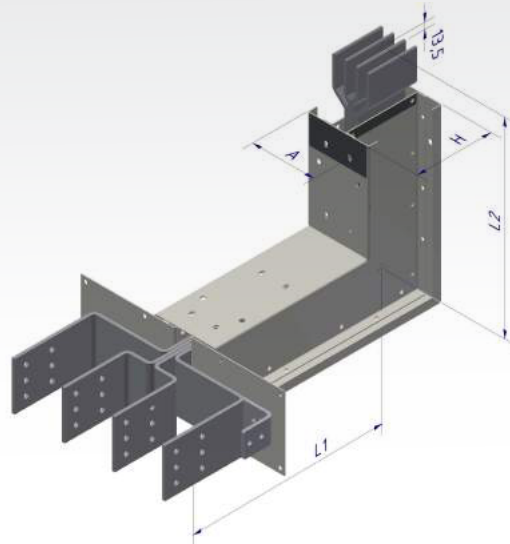
\*To obtain the reference, replace "XX" for the corresponding IP: 54 - 55 - 66



\*To obtain the reference, replace "XX" for the corresponding IP: 54 - 55 - 66

## Vertical Flanged Elbow (CFV)

References	Width Section A (mm)	Height Section H (mm)	L Min (mm) L1=L2	L Max (mm) L1=L2
BBJCFV250ALXX	130	80	254,2	1000
BBJCFV460ALXX	130	105	254,2	1000
BBJCFV630ALXX	130	106	254,2	1000
BBJCFV800ALXX	130	131	266,9	1000
BBJCFV1000ALXX	130	157	279,6	1000
BBJCFV1250ALXX	130	182	292,3	1000
BBJCFV1600ALXX	130	208	305	1000
BBJCFV2000ALXX	130	284	326,9	1000
BBJCFV2500ALXX	130	335	352,3	1000
BBJCFV3200ALXX	130	387	377,7	1000

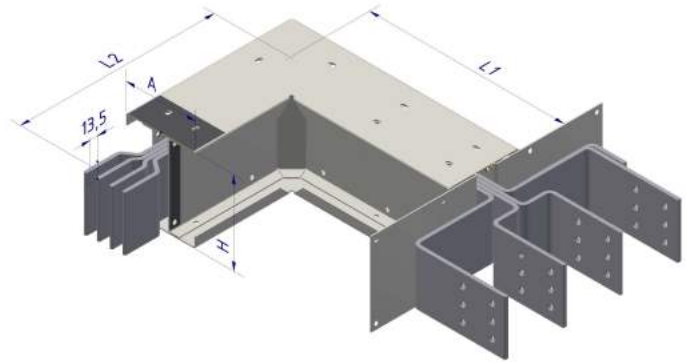


\*To obtain the reference, replace "XX" for the corresponding IP: 54 - 55 - 66



## Horizontal Flanged Elbow (CFH)

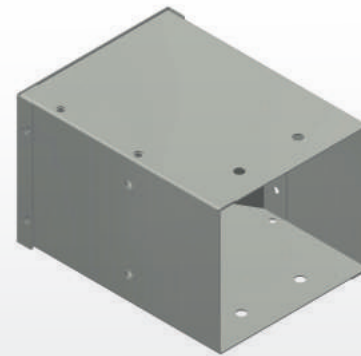
References	Width Section A (mm)	Height Section H (mm)	L Min (mm) L1=L2	L Max (mm) L1=L2
BBJCFH250ALXX	130	80	271,5	1000
BBJCFH460ALXX	130	105	271,5	1000
BBJCFH630ALXX	130	106	271,5	1000
BBJCFH800ALXX	130	131	271,5	1000
BBJCFH1000ALXX	130	157	271,5	1000
BBJCFH1250ALXX	130	182	271,5	1000
BBJCFH1600ALXX	130	208	271,5	1000
BBJCFH2000ALXX	130	284	271,5	1000
BBJCFH2500ALXX	130	335	271,5	1000
BBJCFH3200ALXX	130	387	271,5	1000



\*To obtain the reference, replace "XX" for the corresponding IP: 54 - 55 - 66

## End Closer (C)

References	Description	Capacity (Amp)
BBJC250ALXX	END CLOSER 250 Amp AL54/55/66	250
BBJC460ALXX	END CLOSER 460 Amp AL54/55/66	460
BBJC630ALXX	END CLOSER 630 Amp AL54/55/66	630
BBJC800ALXX	END CLOSER 800 Amp AL54/55/66	800
BBJC1000ALXX	END CLOSER 1000 Amp AL54/55/66	1000
BBJC1250ALXX	END CLOSER 1250 Amp AL54/55/66	1250
BBJC1600ALXX	END CLOSER 1600 Amp AL54/55/66	1600
BBJC2000ALXX	END CLOSER 2000 Amp AL54/55/66	2000
BBJC2500ALXX	END CLOSER 2500 Amp AL54/55/66	2500
BBJC3200ALXX	END CLOSER 3200 Amp AL54/55/66	3200



\*To obtain the reference, replace "XX" for the corresponding IP: 54 - 55 - 66

## Flanged box (CF)

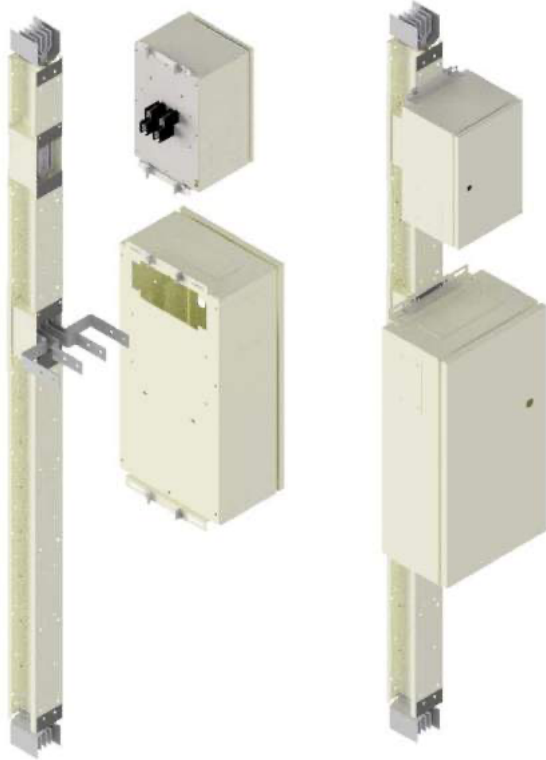
References	Description	Capacity (Amp)
BBJCF250ALXX	FLANGED BOX 250 AMP IP 54/55	250
BBJCF460ALXX	FLANGED BOX 460 AMP IP 54/55	460
BBJCF630ALXX	FLANGED BOX 630 AMP IP 54/55	630
BBJCF800ALXX	FLANGED BOX 800 AMP IP 54/55	800
BBJCF1000ALXX	FLANGED BOX 1000 AMP IP 54/55	1000
BBJCF1250ALXX	FLANGED BOX 1250 AMP IP 54/55	1250
BBJCF1600ALXX	FLANGED BOX 1600 AMP IP 54/55	1600
BBJCF2000ALXX	FLANGED BOX 2000 AMP IP 54/55	2000
BBJCF2500ALXX	FLANGED BOX 2500 AMP IP 54/55	2500
BBJCF3200ALXX	FLANGED BOX 3200 AMP IP 54/55	3200



\*To obtain the reference, replace "XX" for the corresponding IP: 54 - 55 - 66

## Derivation boxes (CD)

Pluggable and screwable boxes are manufactured from steel sheets with a thickness ranging from 1.5mm to 2mm. They have galvanized steel finishes under the ASTM A653 standard, with epoxy polyester paint finishes in RAL1013 (Almond) and RAL7045 (light grey), approximately 60 to 70 microns thick, and high resistance to chemical agents. The boxes have an IP54/55 protection grade and are designed to house automatic adjustable switches and rotating knobs. They cover a range from 16A up to 1250A, allowing great flexibility to protect different types of loads.



Box type	Derivation box References	Current Capacity (A)	Depth (mm)	Width (mm)	Height (mm)
Plug-In / Tap-Off	CD100	100	160	200	450
	CD250	250	230	300	450
Tap-Off	CD400	400	250	465	800
	CD600	600	250	465	800
	CD800	800	300	600	1200
	CD1000	1000	300	600	1200
	CD1250	1250	400	600	1200

### Observation:

Can also be offered in other finishes, painted with different colors upon the client's request, without paint or pregalvanized finish.

### Notes:

\*The dimensions of the boxes are approximate and depend on the brand of the switch.

\*CD100 AND CD250 boxes may be the Plug-in type.

## Earthquake-resistant vertical supports (SV)

For vertical routes, it is recommended to use a rigid vertical support at the beginning of the route and a vertical flexible support on each level. This ensures appropriate system behavior in case of thermal expansion and makes the system independent of the building's structure, complying with the earthquake-resistant NSR-10 standard.

Vertical Supports	Types	Vertical support Description
BBJSVR "XXX"	BBJSVR	RIGID VERTICAL SUPPORT
BBJSVF "XXX"	BBJSVF	FLEXIBLE VERTICAL SUPPORT

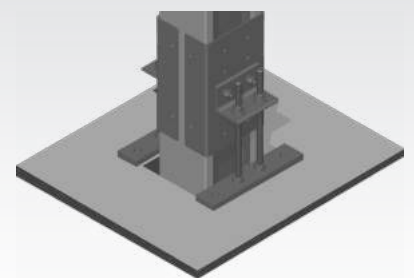
\*Replace "xxx" For amperage

### Vertical support use

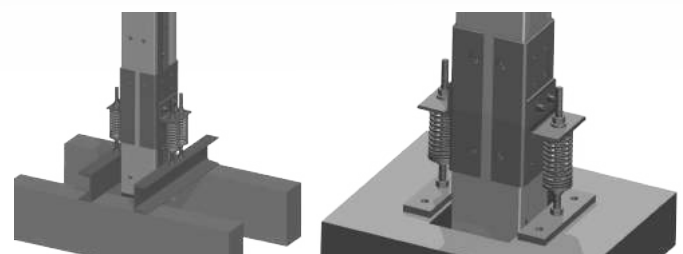
**Rigid vertical support:** Beginning of the route

**Flexible vertical support:** On the tiles of every floor of the route

**Purpose:** To make the system independent from the building structure.



BBJSVR(XXX) Rigid vertical support

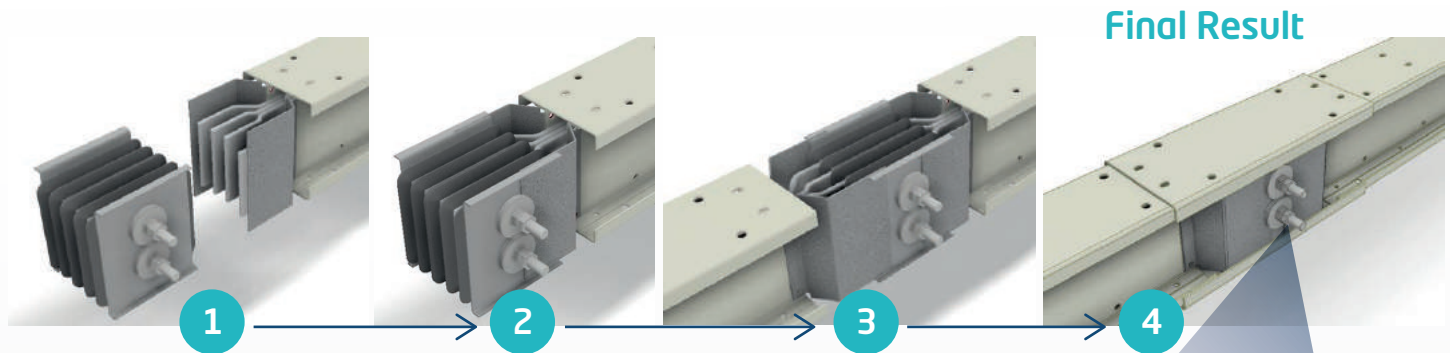


BBJSVF(XXX) Flexible vertical support



## Assembly process

The assembly process between pieces must be done as shown in the following sequence: In the joint between pieces, the correct torque must be applied according to the capacity (refer to the Electrical Characteristics chart on page 16). It is important to note that the nut should be turned, NOT the bolt. The covers must be installed after the torque adjustment.



### Fusing Nut

The nut snaps when the right torque is applied to guarantee a proper link between the components.

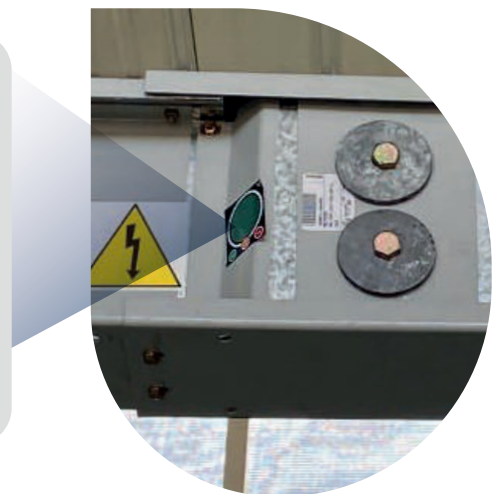
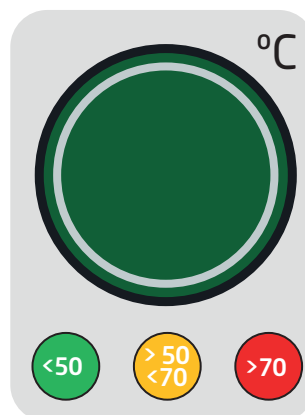
\*For more details check the installation and maintenance manual of Busways MECANO.



## Thermochromatic Sticker

Every joint has a thermographic sticker that indicates the temperature ranges of the busway and the presence of a possible hot spot.

Temperature	Color	Comments
<50°C	Green	Busways is Ok
> 50°C <70°C	Yellow	Work load superior to 70%
>70°C	Red	Hot spots must be verified





# Busways





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