

XAP-S Series Compact Busway

Rated Current 250A-4000A



* EATON
It all began in 1911...

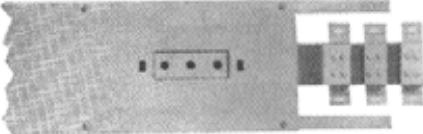


It was 1911 when a young entrepreneur named Joseph Eaton decided to invest in a new idea in transportation — the first gear-driven truck axle. And though we have grown considerably, both organically and by uniting some of the world's most respected names in our industry, we remain dedicated to the spirit of innovation and ideas that inspired him more than 100 years ago.

Product	1935	1940	1945	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995	2000	present
Power distribution bus															
Victory bus duct															
Standard plug-in															
Low impedance bus															
Life line Unibus															
High frequency bus															
Cutler-Hammer BV bus															
Current limiting bus															
Electric utility bus															
DC busway															
100 ampere busway															
Low impedance plug-in															
Cutler-Hammer Unibus															
H5000 feeder															
H5000 plug-in															
Cutler-Hammer CP2															
Pow-R-Way															
Pow-R-Way II															
Cutler-Hammer CP3															
Cutler-Hammer CP4															
Pow-R-Way III															



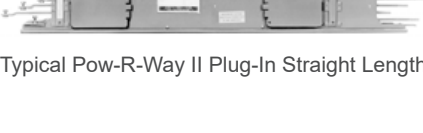
Standard Plug-In



High Frequency



Typical Pow-R-Way Plug-In Straight Length



Typical Pow-R-Way II Plug-In Straight Length



XAP Series busway



动力，因我们而不同。

✧ We make what matters work.

Today, the world runs on critical infrastructure and technology. Planes. Hospitals. Factories. Data centers. Vehicles. The electrical grid. These are things people depend on every day. And the companies behind them depend on us to help solve some of the toughest power management challenges on the planet. At Eaton, we're dedicated to improving people's lives and the environment with power management technologies that are more reliable, efficient, safe and sustainable.



Powering Business Worldwide

✧ XAP-S series Compact Busway

Adaptable busway systems for virtually any application, 250–4000A

We are a power management company made up of approximately 85,000 employees, doing business in more than 175 countries. Our energy-efficient products and services help our customers effectively manage electrical, hydraulic and mechanical power more reliably, efficiently, safely and sustainably. By giving people tools to use power more efficiently. Helping companies do business more sustainably. And by encouraging each and every employee at Eaton to think differently about our business, our communities and the positive impact we can have on the world.

Eaton's XAP series busway is the obvious choice when searching for a combination of technical performance and attractive design. Constant development of the range for over years has not only ensured economical and reliable solutions;

XAP busway has evolved into an unsurpassed range able to adapt to virtually any installation.

XAP busway is an integral part of the product offering from Eaton. Complementing Eaton's range of low voltage distribution equipment to a complete selection of fused switchgear, circuit breaker systems, motor control gear and OEM products.

XAP busway system is thoroughly tested and comply fully with IEC 61439-6 . The range extends from 250--4000 A. The straightforward and highly styled design makes XAP busway easy to both install and use truly the system with style!



EATON owns state of art manufacturing system in the industry, it brings "high, precision and top" features to the products.

01

German Trumpf laser cutting and Trupunch ensures $\pm 0.1\text{mm}$ accuracy for sheet-metal parts.



02

Canadian Accurpress, German Behringer, Italian Euromac and Ameppessta sheet-metal system enables parts to achieve International high quality lever.



03

Application of Panasonic automatic welding, laser welding and automatic riveting technology highly improves production efficiency.



EATON owns independant laboratory for research and development ,which always brings customers high quality product and electricity safety.

01

Temperature rise system allows max 6300A, which ensures product performance to reach design expectation.



02

Application of dust simulation tank and water spray platform give product superior IP protection degree performance at the research stage.



03

Perform strict quality control on IQC,IPQC and OQC to secure product "Zero defection" upon ex-factory.

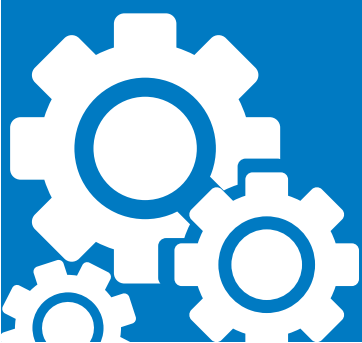




EATON always sticks to innovation research and development, pushes busway technology to safe, energy saving and intelligent direction.

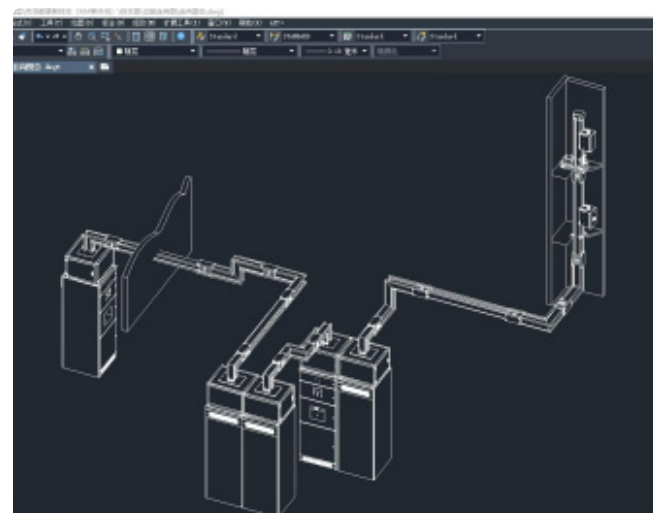


Manufacturing center sets up MES system and Intelligent factory data platform, closely butts with ERP, achieves the jump over from product manufacturing to "intelligent manufacturing".



01

Advanced 3D engineering software, integrated with product features, quickly optimise the busway layout, offers first-best arrangement to the project.



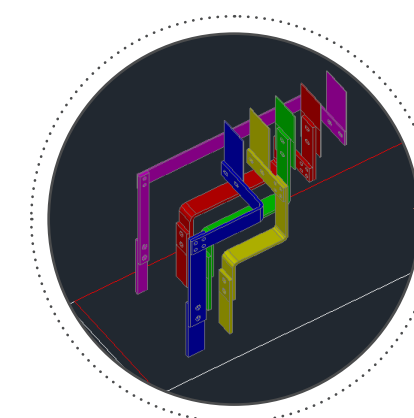
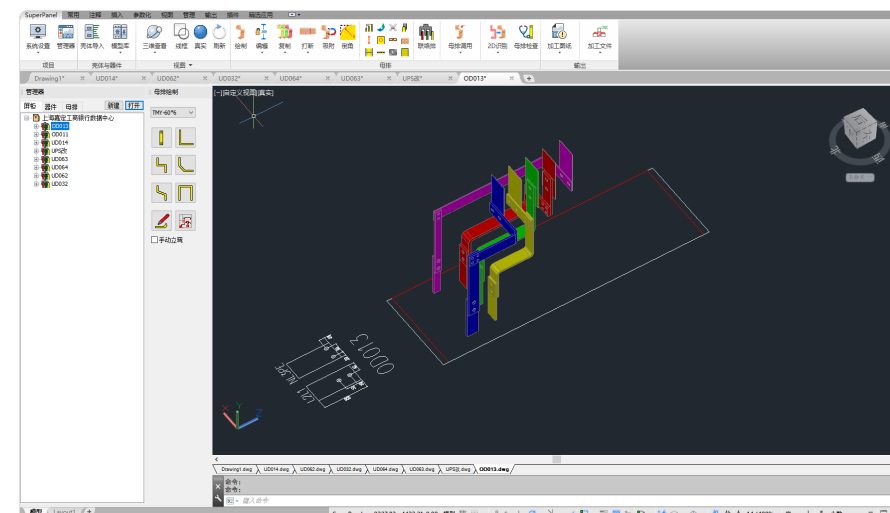
01

MES system precisely record all the process data and makes all the manufacturing data trackable.



02

Intelligent superpanel technology brings power to distribution system and provide customer with reliable power supply solution.



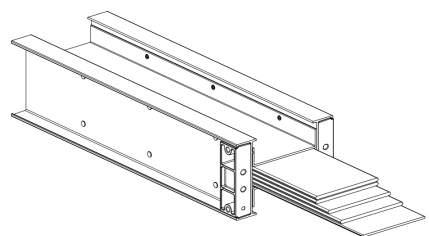
02

Intelligent factory data platform fully monitors the factory operation efficiency by statistic and analysis of all the data related with manufacturing, quality and safety.

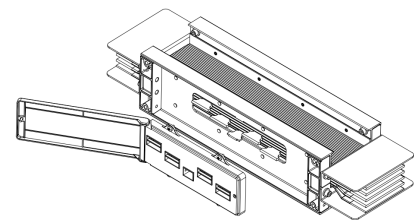


XAP-S series compact busway

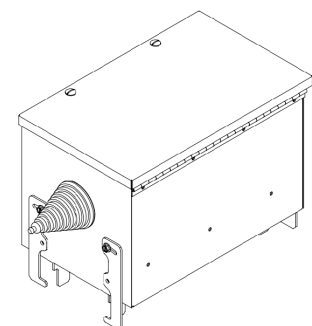
Product features



Housing is made of aluminum-alloy profile with high strength and light weight, painted with epoxy powder, it has superior performance on anti-corrosion and bending strength.



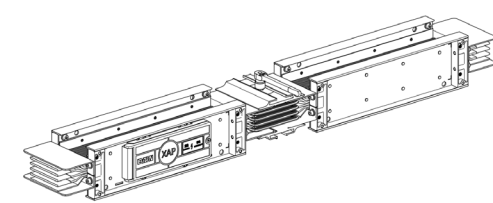
Sandwich plug in opening, low impedance, better heat dissipation.



Comapct structure for the plug in box, safe and reliable, protection degree is up to IP54.



XAP-S busway is available with Intelligent monitor system and operation platform, provide on-time data to customer, secures the electricity safety.

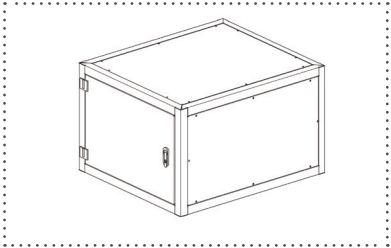


Bolt assembly joint, reliable connection, fast installation, minimize the total cost of site construction.

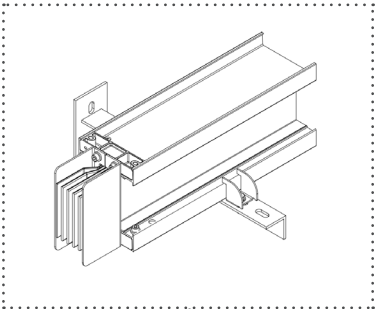
XAP-S series compact busway

Installation accessories

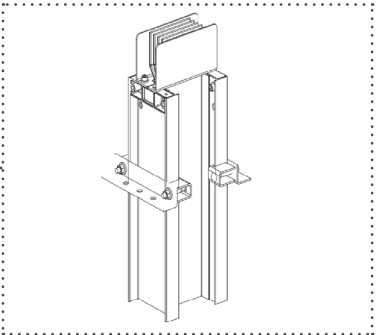
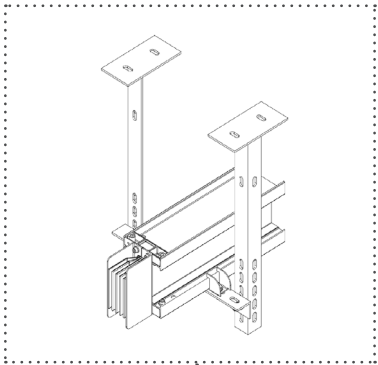
End tap box, to protect connection between busway and equipment, outline standard dimension:
L=1000mm , W=800~1000mm , H=500mm



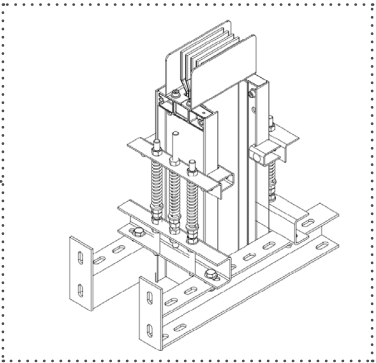
Bracket is applicable for the busway installation along the wall.



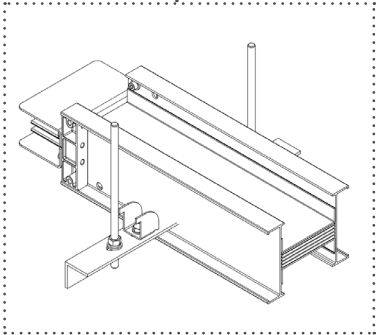
Angle steel hanger, applicable for 3200-4000A busway horizontal installation.



Middle fixation hanger, when the floor is 4 meters high, or equipped with plug in box, need to add fixation hanger to secure the busway installation in the vertical riser.



Spring hanger, for the application of busway penetration on the floor.



Harness cord suspension hanger, applicable for 400-2500A busway horizontal installation.

XAP-S series compact busway

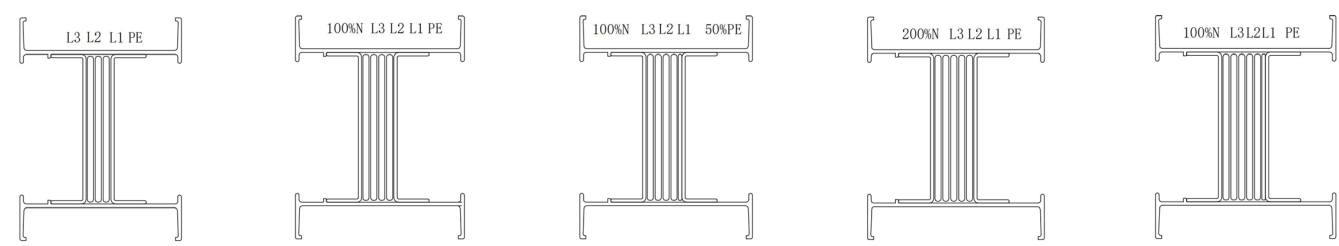
Technique data

Item	Unit	Current rating											
Rated current	A	250	400	630	800	1000	1250	1600	2000	2500	3200	4000	
Standard	IEC 61439-6 2012: LV switchgear and control gear assemblies – Part 6:Busbar trunking systems (busways)												
Thrid party certificate	CQC												
System	Applicable for 3P3W, 3P4W and 3P5W system												
Frequency	Hz	50/60											
Rated operation voltage Ue	v	≤ 690 V (including tap off unit) , ≤ 1000 V (without tap off unit)											
Rated insulation voltage Ui	v	≤ 1000V											
Rated impulse withstand voltage (Uimp)	kV	8											
Rated short time withstand current (Icw)	kA	10	20	30	30	50	50	65	80	80	100	120	
Rated peak short circuit curent (Ipk)	kA	21	42	63	63	105	105	143	176	176	220	264	
IP		IP54/IP65											
Pollution degree													
Ambient temperature	℃	-5 ~ 40 degree, average temperature does not exceed 35 degree within 24h											
Above sea leve	m	2000											
Fire propagation features	Yes												
Housing material	Aluminum-alloy												
Housing finishing	Electric static powder spray/ Aluminum oxidation												
Conductor material	Copper												
Conductor finishing	Tin / silver plating												
Conductor resistance													
Resistance (R20)	mΩ /m	0.25	0.144	0.105	0.082	0.064	0.048	0.036	0.027	0.022	0.017	0.014	
Reactance (X)	mΩ /m	0.037	0.030	0.022	0.018	0.012	0.013	0.009	0.008	0.006	0.005	0.008	
Impedance (Z)	mΩ /m	0.196	0.147	0.107	0.084	0.065	0.050	0.037	0.029	0.023	0.018	0.016	
Voltage drop													
Power factor 0.6	V/m	0.063	0.077	0.088	0.088	0.083	0.085	0.080	0.079	0.078	0.079	0.101	
Power factor 0.7	V/m	0.070	0.085	0.097	0.098	0.092	0.093	0.088	0.086	0.086	0.086	0.106	
Power factor 0.8	V/m	0.082	0.092	0.106	0.106	0.101	0.100	0.095	0.093	0.092	0.092	0.109	
Power factor 0.9	V/m	0.082	0.099	0.113	0.114	0.109	0.106	0.101	0.098	0.098	0.097	0.110	
Power factor 1.0	V/m	0.083	0.100	0.114	0.114	0.111	0.104	0.100	0.095	0.096	0.094	0.095	

XAP-S series compact busway

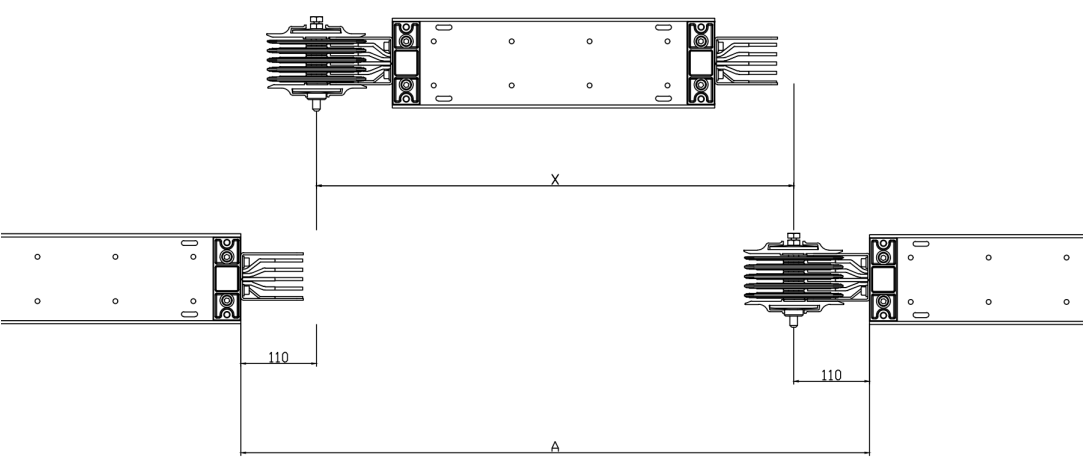
System selection

XAP - S busway is widely used in the 3P3W, 3P4W and 3P5W system.

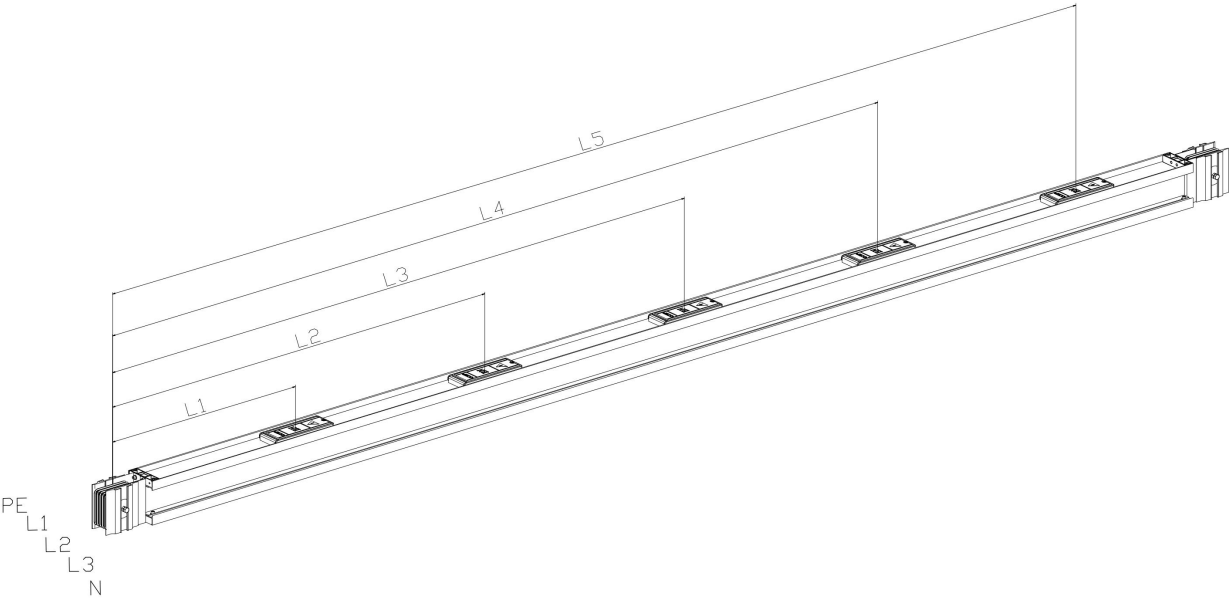


XAP-S busway length definition

Busway and functional unit length is calculated from the joint centerline, for the feeder, minimum length is 400mm, standard length is 3000mm.



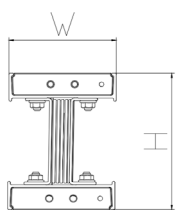
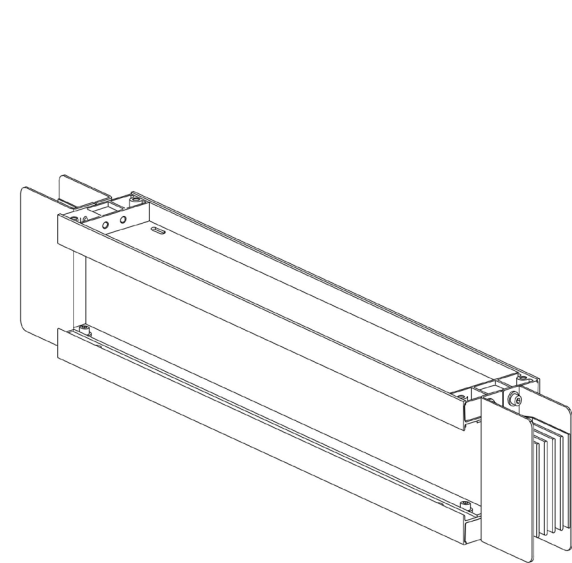
Plug in type busway, minimum length is 720mm, standard length is 3000mm, busway can be equipped with five plug in openings on each side, plug in opening dimension is marked as follows



XAP-S series compact busway

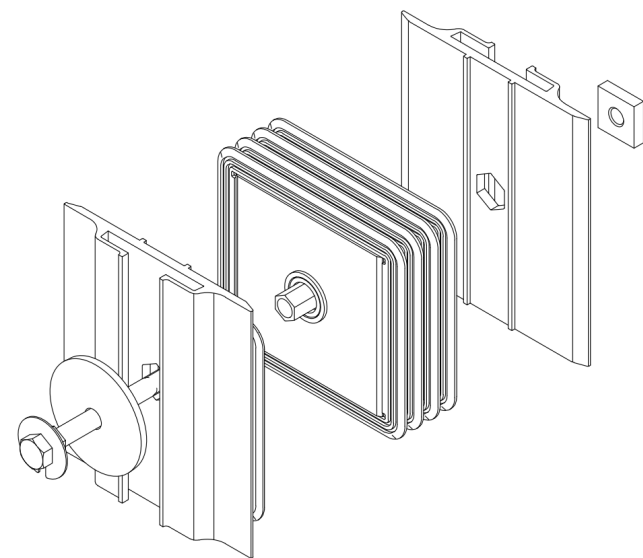
Physical data

Single deck busway



No.	Current class (A)	Dimension		Weight	
		Width W (mm)	Height H (mm)	4W (kg/m)	5w (kg/m)
1	250	116	88	8.4	8.9
2	400	116	98	9.4	10.2
3	630	116	113	11.4	12.5
4	800	116	128	13.4	14.8
5	1000	116	153	16.1	17.9
6	1250	116	183	20.1	22.5
7	1600	116	233	25.8	28.9
8	2000	116	293	33.3	37.4

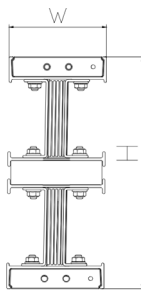
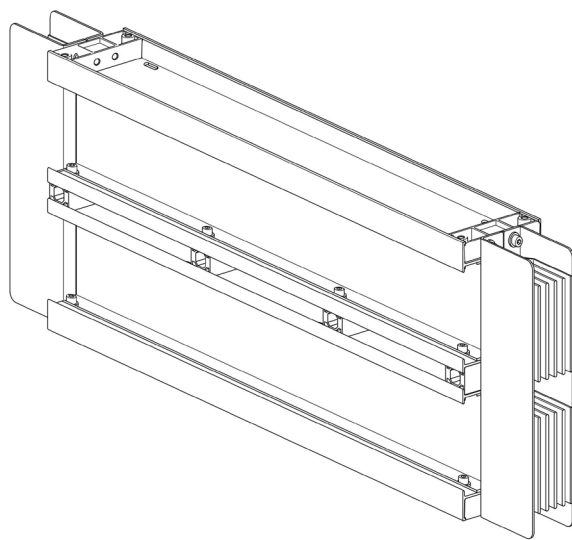
Joint



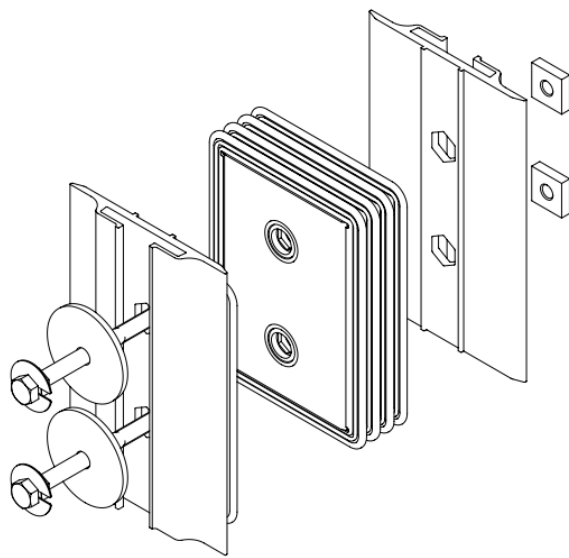
No.	Current rating(A)	Joint bolt qty
1	250	1
2	400	1
3	630	1
4	800	1
5	1000	1
6	1250	1
7	1600	1

Note: Joint double-headed bolt torque value is 68±7 Nm

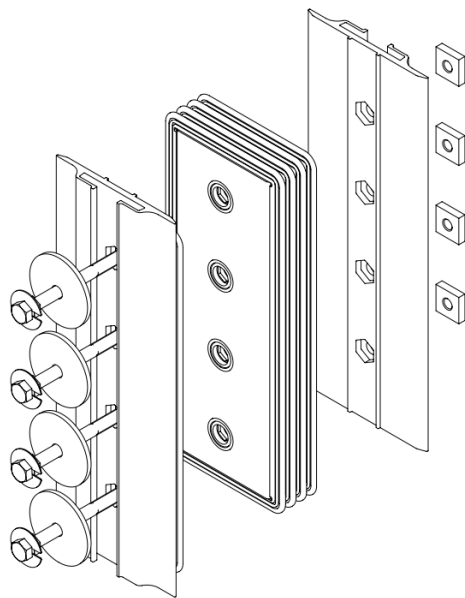
Double decks busway



No.	Current class (A)	Dimension		Weight	
		Width W (mm)	Height H (mm)	4W (kg/m)	5w (kg/m)
1	2500	116	393	45.3	50.4
2	3200	116	473	54.7	61.4
3	4000	116	573	64.1	72.3



No.	Current rating(A)	Joint bolt qty
7	2000	2
8	2500	2



No.	Current rating(A)	Joint bolt qty
9	3200	4
10	4000	4

XAP-S series compact busway

Fittings standard dimension

L horizontal elbow	No.	Current class	Dimension
	1	250	X=400mm Y=400mm
	2	400	X=400mm Y=400mm
	3	630	X=400mm Y=400mm
	4	800	X=400mm Y=400mm
	5	1000	X=400mm Y=400mm
	6	1250	X=400mm Y=400mm
	7	1600	X=400mm Y=400mm
	8	2000	X=400mm Y=400mm
	9	2500	X=400mm Y=400mm
	10	3200	X=400mm Y=400mm
	11	4000	X=400mm Y=400mm

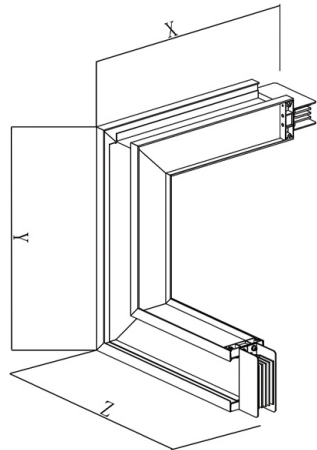
L vertical elbow	No.	Current class	Dimension
	1	250	X=400mm Y=400mm
	2	400	X=400mm Y=400mm
	3	630	X=400mm Y=400mm
	4	800	X=400mm Y=400mm
	5	1000	X=400mm Y=400mm
	6	1250	X=400mm Y=400mm
	7	1600	X=500mm Y=500mm
	8	2000	X=500mm Y=500mm
	9	2500	X=600mm Y=600mm
	10	3200	X=700mm Y=700mm
	11	4000	X=800mm Y=800mm

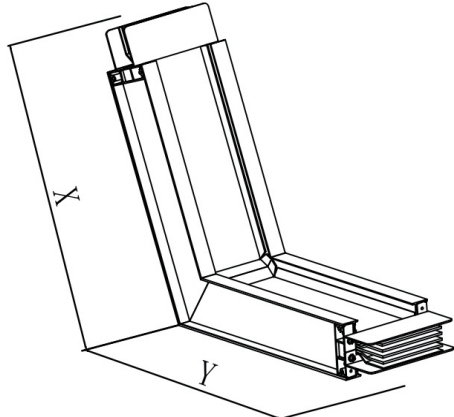
Z horizontal offset	No.	Current class	Dimension
	1	250	X=400mm Y=400mm Z=400mm
	2	400	X=400mm Y=400mm Z=400mm
	3	630	X=400mm Y=400mm Z=400mm
	4	800	X=400mm Y=400mm Z=400mm
	5	1000	X=400mm Y=400mm Z=400mm
	6	1250	X=400mm Y=400mm Z=400mm
	7	1600	X=400mm Y=400mm Z=400mm
	8	2000	X=400mm Y=400mm Z=400mm
	9	2500	X=400mm Y=400mm Z=400mm
	10	3200	X=400mm Y=400mm Z=400mm
	11	4000	X=400mm Y=400mm Z=400mm

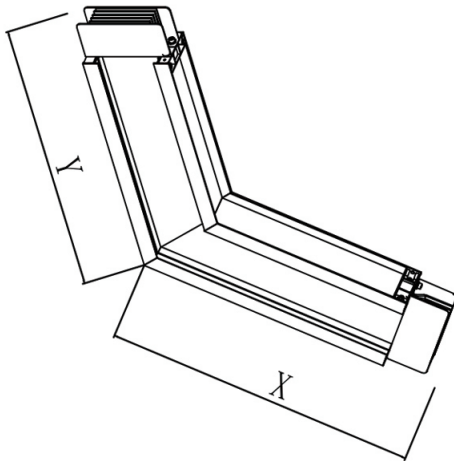
Z vertical offset	No.	Current class	Dimension
	1	250	X=400mm Y=200mm Z=400mm
	2	400A	X=400mm Y=200mm Z=400mm
	3	630A	X=400mm Y=200mm Z=400mm
	4	800A	X=400mm Y=200mm Z=400mm
	5	1000A	X=400mm Y=300mm Z=400mm
	6	1250A	X=400mm Y=300mm Z=400mm
	7	1600A	X=400mm Y=300mm Z=400mm
	8	2000A	X=500mm Y=400mm Z=500mm
	9	2500A	X=600mm Y=500mm Z=600mm
	10	3200A	X=700mm Y=500mm Z=700mm
	11	4000A	X=800mm Y=600mm Z=800mm

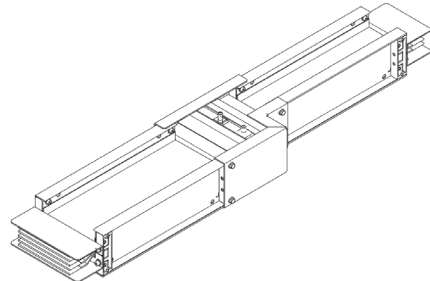
Tee horizontal offset	No.	Current class	Dimension
	1	250	X=400mm Y=400mm Z=400mm
	2	400A	X=400mm Y=400mm Z=400mm
	3	630A	X=400mm Y=400mm Z=400mm
	4	800A	X=400mm Y=400mm Z=400mm
	5	1000A	X=400mm Y=400mm Z=400mm
	6	1250A	X=400mm Y=500mm Z=500mm
	7	1600A	X=400mm Y=500mm Z=500mm
	8	2000A	X=400mm Y=700mm Z=700mm
	9	2500A	X=400mm Y=700mm Z=700mm
	10	3200A	X=400mm Y=700mm Z=700mm
	11	4000A	X=400mm Y=700mm Z=700mm

Tee vertical offset	No.	Current class	Dimension
	1	250	X=400mm Y=400mm Z=400mm
	2	400A	X=400mm Y=400mm Z=400mm
	3	630A	X=400mm Y=400mm Z=400mm
	4	800A	X=400mm Y=400mm Z=400mm
	5	1000A	X=400mm Y=400mm Z=400mm
	6	1250A	X=400mm Y=400mm Z=400mm
	7	1600A	X=500mm Y=500mm Z=500mm
	8	2000A	X=500mm Y=500mm Z=500mm
	9	2500A	X=600mm Y=600mm Z=600mm
	10	3200A	X=700mm Y=700mm Z=700mm
	11	4000A	X=800mm Y=800mm Z=800mm

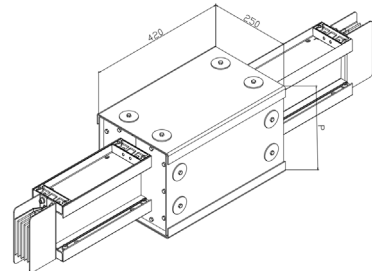
Combination elbow	No.	Current class	Dimension
	1	250A	X=400mm Y=400mm Z=400mm
	2	400A	X=400mm Y=400mm Z=400mm
	3	630A	X=400mm Y=400mm Z=400mm
	4	800A	X=400mm Y=400mm Z=400mm
	5	1000A	X=400mm Y=500mm Z=400mm
	6	1250A	X=400mm Y=500mm Z=400mm
	7	1600A	X=400mm Y=500mm Z=500mm
	8	2000A	X=400mm Y=500mm Z=500mm
	9	2500A	X=400mm Y=600mm Z=600mm
	10	3200A	X=400mm Y=700mm Z=700mm
	11	4000A	X=400mm Y=700mm Z=800mm

L special vertical elbow	No.	Current class	Dimension
	1	250A	X=400mm Y=400mm
	2	400A	X=400mm Y=400mm
	3	630A	X=400mm Y=400mm
	4	800A	X=400mm Y=400mm
	5	1000A	X=400mm Y=400mm
	6	1250A	X=400mm Y=400mm
	7	1600A	X=400mm Y=400mm
	8	2000A	X=400mm Y=400mm
	9	2500A	X=400mm Y=400mm
	10	3200A	X=400mm Y=400mm
	11	4000A	X=400mm Y=400mm

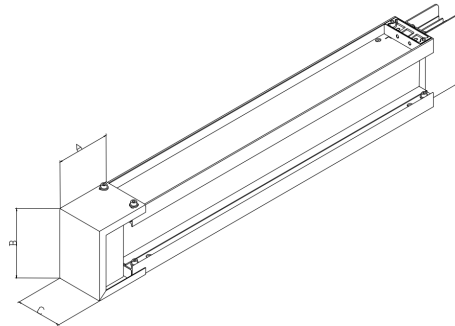
L special horizontal elbow	No.	Current class	Dimension
	1	250A	X=400mm Y=400mm
	2	400A	X=400mm Y=400mm
	3	630A	X=400mm Y=400mm
	4	800A	X=400mm Y=400mm
	5	1000A	X=400mm Y=400mm
	6	1250A	X=400mm Y=400mm
	7	1600A	X=500mm Y=500mm
	8	2000A	X=500mm Y=500mm
	9	2500A	X=600mm Y=600mm
	10	3200A	X=700mm Y=700mm
	11	4000A	X=800mm Y=800mm

Reducer	Rated current before reduction (A)	Rated current after reduction(A)										
		250	400	630	800	1000	1250	1600	2000	2500	3200	4000
	250A	-	-	-	-	-	-	-	-	-	-	-
	400A	R02	-	-	-	-	-	-	-	-	-	-
	630A	-	R04	-	-	-	-	-	-	-	-	-
	800	-	R04	R06	-	-	-	-	-	-	-	-
	1000	-	R04	R06	R08	-	-	-	-	-	-	-
	1250	-	-	R06	R08	R10	-	-	-	-	-	-
	1600	-	-	R06	R08	R10	R12	-	-	-	-	-
	2000	-	-	-	R08	R10	R12	R16	-	-	-	-
	2500	-	-	-	-	R10	R12	R16	R20	-	-	-
	3200		-	-	-	-	R12	R16	R20	R25	-	-
	4000		-	-	-	-	-	R16	R20	R25	R32	-

Note: Reducer is also available to be equipped with fuse or MCCB, contact the factory for details.

Expansion joint	Standard (A)	Height (P) mm
	250	188
	400	198
	630	213
	800	228
	1000	253
	1250	283
	1600	333
	2000	393
	2500	493
	3200	573
	4000	673

Note: Expansion joint has adjustment distance of ± 40 mm, when the linear distance is 60m, need to include one set of expansion joint.

End cover	Standard (A)	(A) mm	(B) mm	(C) mm
	250	128	101	120
	400	128	111	120
	630	128	126	120
	800	128	141	120
	1000	128	166	120
	1250	128	196	120
	1600	128	246	120
	2000	128	306	120
	2500	128	406	120
	3200	128	486	120
	4000	128	586	120

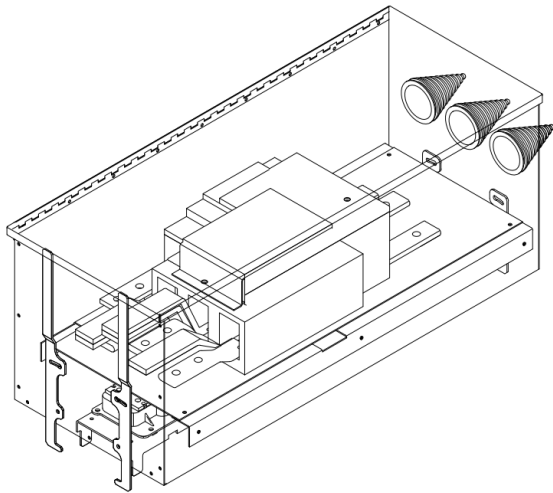
Note: End cover is the terminal part of the busway layout to protect the busway system.

Plug in box

Plug in box distributes electricity power from the busway to the load, and provides over load protection for the branch unit.

Product features

- Plug in box enclosure is made of cold-rolled steel with compact structure and high strength.
- Door panel comes with piano hinge with easy operation.
- Plug in box is equipped with fixiation hook,to prevent accidental pull out with load.
- Plug in box bottom is assembled with guide plate to guarantee correct phase during the installation.
- Both T type plug jaw and busway opening stab has silver plating on the surface, which reduces the contact resistance.



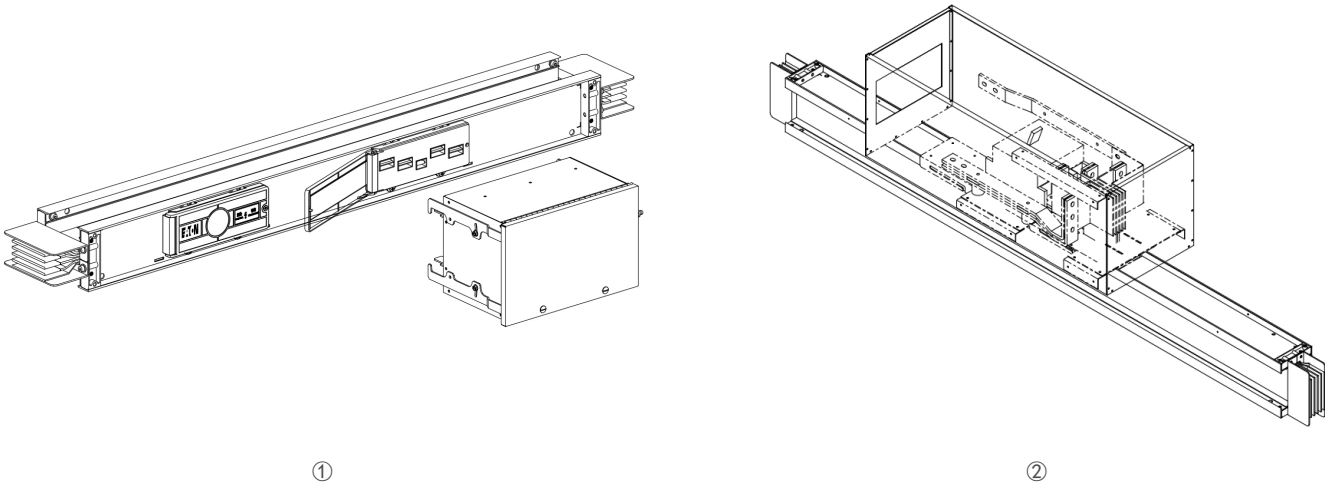
Product spec

- Plug in box includes six standard specification, they can be equipped with fuse , MCCB or any other protection component;
- MCCB can be 3 or 4 pole, with option of shunt trip,fire alarm, leakage protection and electrical operation,etc.

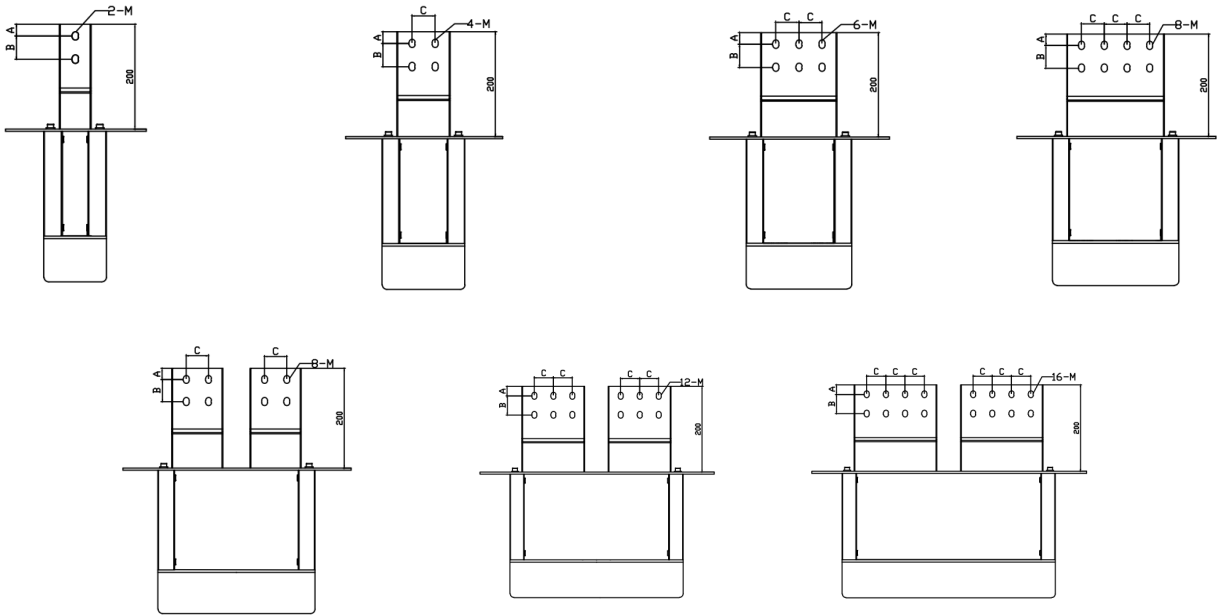
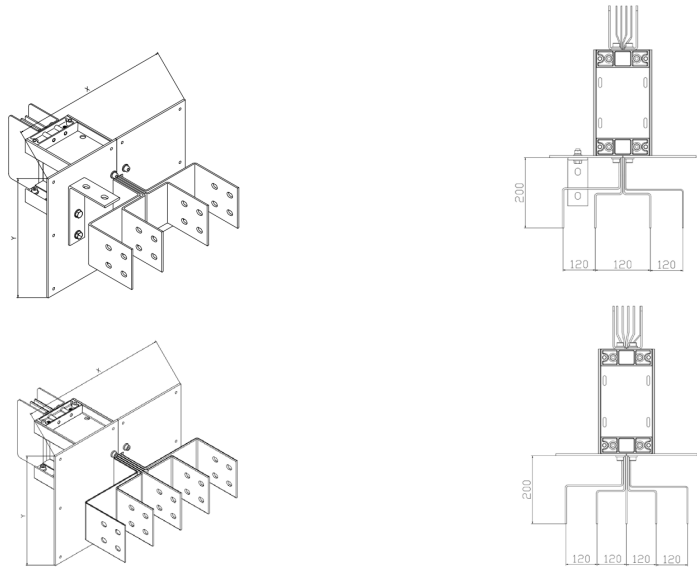
Plug in box outline standard dimension

Curent rating (A)	L (mm)	W(mm)	H(mm) w/o rotary handle	H(mm) with rotary handle	Box No.	Figure
100	360	230	230	270	1	
160	400	250	250	290	2	
250	500	270	270	310	3	
400	650	310	310	350	4	
630	850	340	340	380	5	
800	1200	420	420	460	6	

Note: Above dimension indicates standard, for special design, pls contact our engineer.



XAP-S series compact busway
Flanged end



电流等级 (A)	X (mm)	Y (mm)	A (mm)	B (mm)	C (mm)	M (mm)	图示
250	530	188	25	50	/	13 X 17	
400	530	188	25	50	/	13 X 17	
630	530	203	25	50	/	13 X 17	
800	530	218	25	50	/	13 X 17	
1000	530	238	25	50	/	13 X 17	
1250	530	268	25	50	/	13 X 17	
1600	530	308	25	50	50	13 X 17	
2000	530	358	25	50	50	13 X 17	
2500	530	452	25	50	50	13 X 17	
3200	530	532	25	50	50	13 X 17	
4000	530	612	25	50	50	13 X 17	

Note: All the data above indicates standard, for special design, contact our engineer.

XAP-S series compact busway

Product selection

Product series

XAP

Type

S

Rated current

Code	Cu
02	250
04	400
06	630
08	800
10	1000
12	1250
16	1600
20	2000
25	2500
32	3200
40	4000

System

30	L1+L2+L3+PE (GE)
51	L1+L2+L3+PEN (GE)
53	L1+L2+L3+N+PE (PE)

IP

54	IP54
65	IP65
66	IP66

Unit type

/	Straight length
LL/LR	L horizontal elbow
LV/LH	L vertical elbow
ZL/ZR	Z horizontal offset
ZV/ZH	Z vertical offset
TL/TR	Tee horizontal offset
TV/TH	T vertical offset
FE	Flanged end
EC	End cover
JP	Joint
EJ	Expansion joint

Unit length

opening qty

opening position

TOF	front
TOB	back
TOFB	both

XAP S ■ ■ ■ - ■ - ■ - ■ ■

XAP-S series plug-in box

Product selection

Product series

XAP

Type

S

No.

Box spec

X	Non - standard
1	1#standard
2	2#standard
3	3#standard
4	4#standard
5	5#standard
6	6#standard

Plug in box code

System

30	L1+L2+L3+PE (GE)
51	L1+L2+L3+PEN (GE)
53	L1+L2+L3+N+PE (PE)

NO.

IP

54	IP54
----	------

NO.

Protection type

CB	MCCB
FS	Fused switch
FU	Fuse
-	None

NO.

Rated current

63	63A
80	80A
100	100A
125	125A
160	160A
200	200A
250	250A
315	315A
400	400A
630	630A
800	800A

Pole No.

Plug in box code

3	3P
4	4P

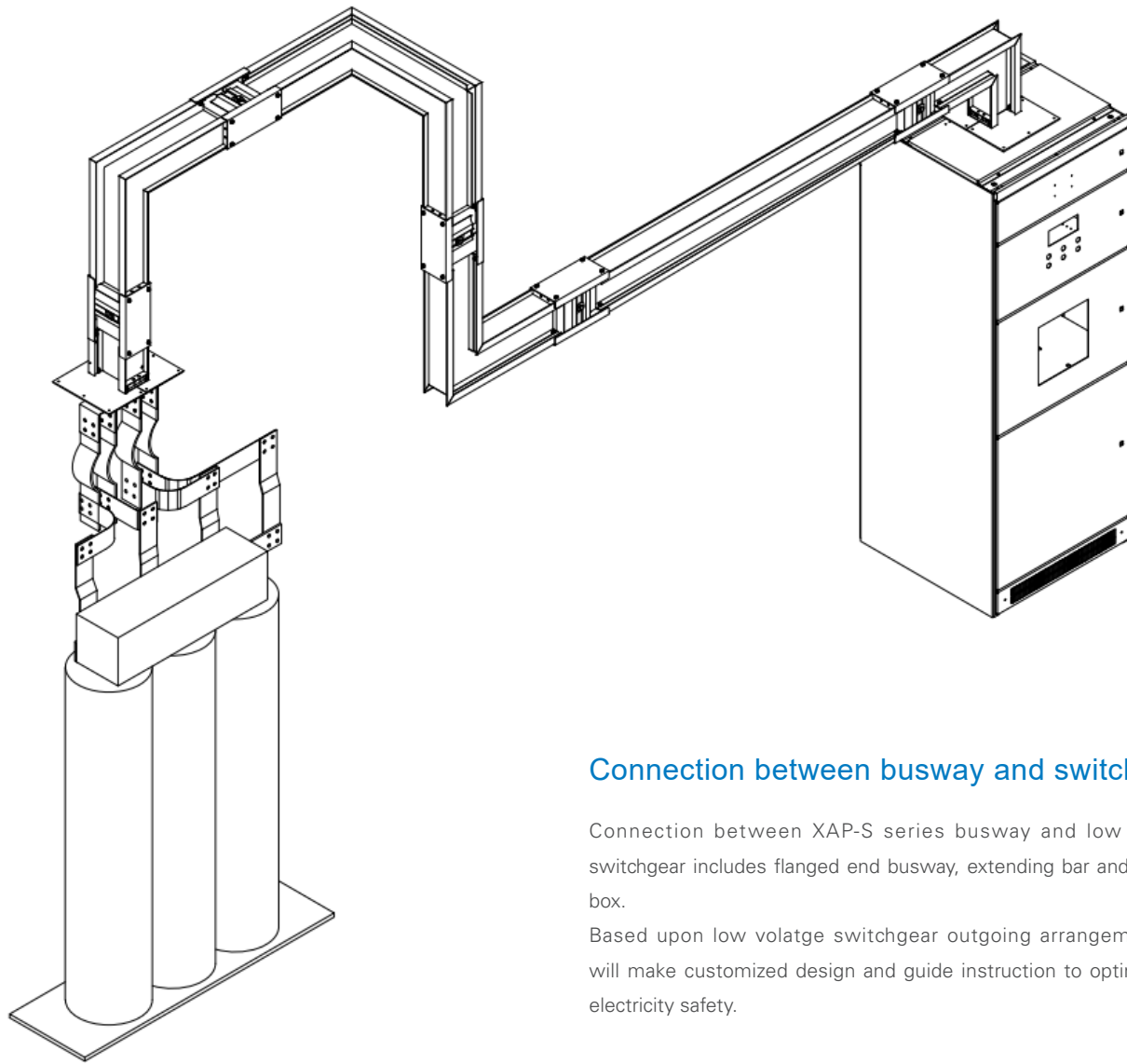
NO.

Operation type

-	w/o operation
R	c/w Rotary handle
S	c/w side handle
M	c/w Electrical operation

XAP S - ■ T ■ ■ / ■ ■ - ■ ■

XAP-S series sandwich busway Connection with equipment



Connection between busway and switchgear

Connection between XAP-S series busway and low voltage switchgear includes flanged end busway, extending bar and end tap box.

Based upon low voltage switchgear outgoing arrangement, we will make customized design and guide instruction to optimise the electricity safety.

Connection between busway and transformer

Connection between XAP-S series busway and transformer includes flanged end busway, extending bar ,flexible link and end tap box.

Flexible link is used to absorb vibration during transformer operation.

End tap box is used to protect the connection unit to secure the reliable safety.

NOTE:

We make what matters work.



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