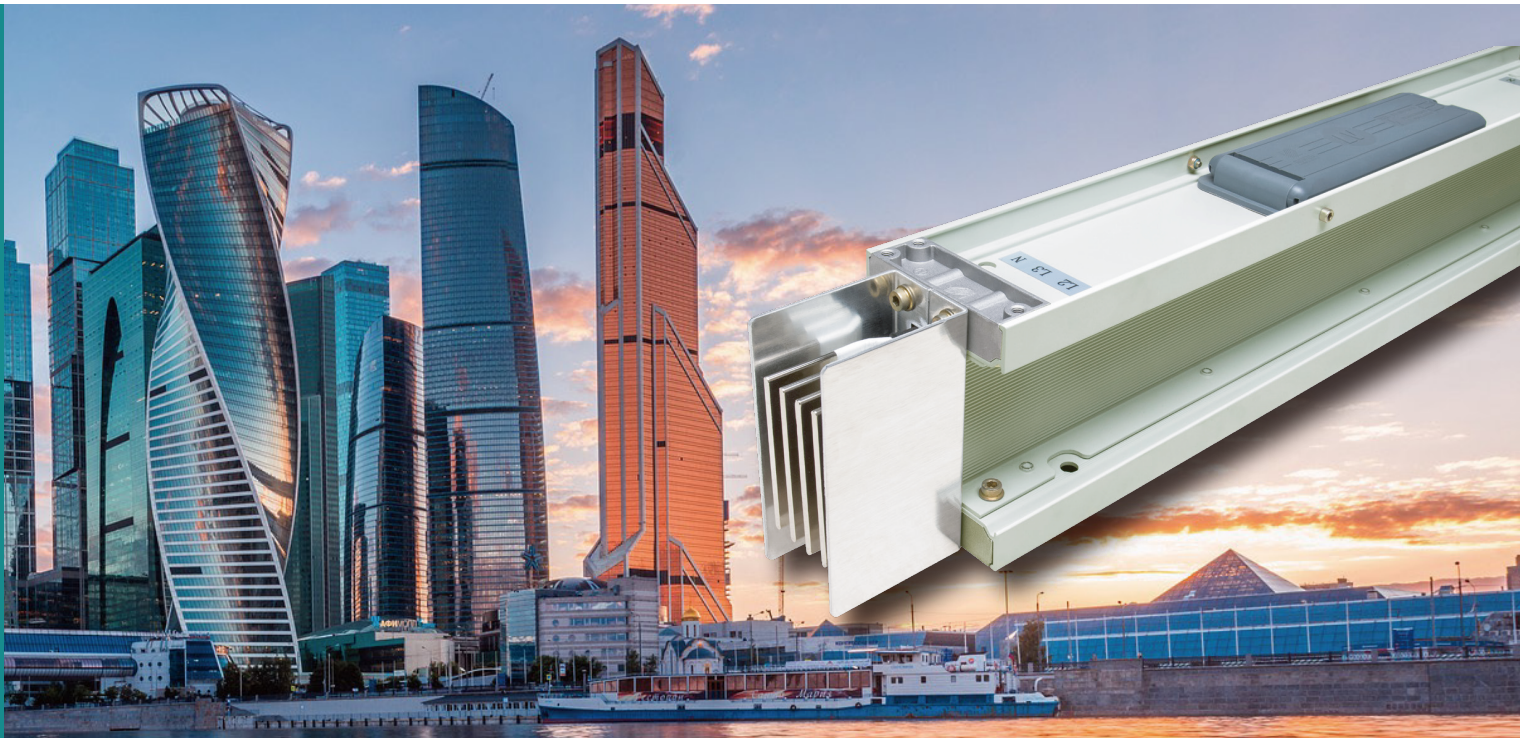


LV Series Busway System IEC61439-6



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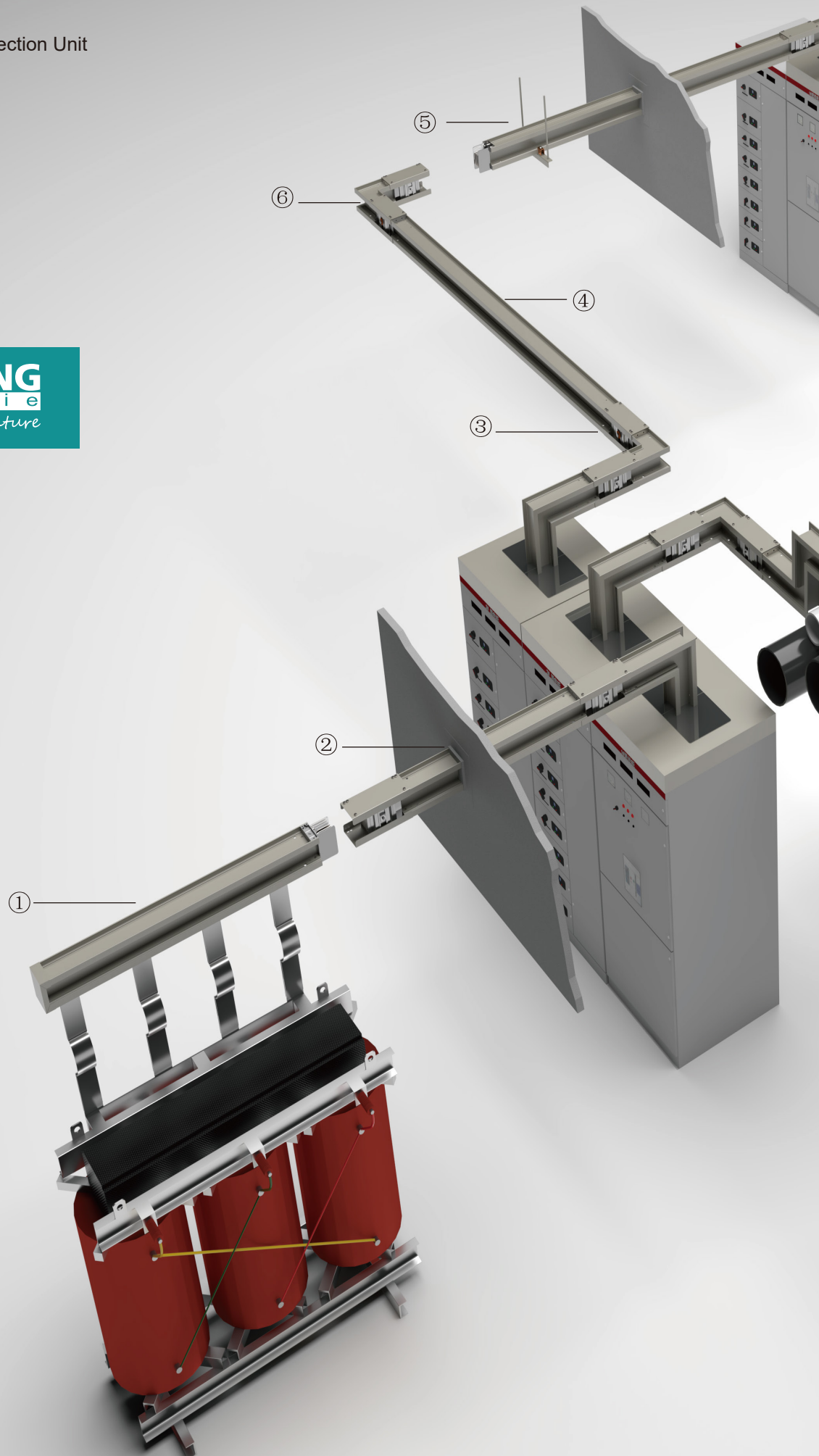
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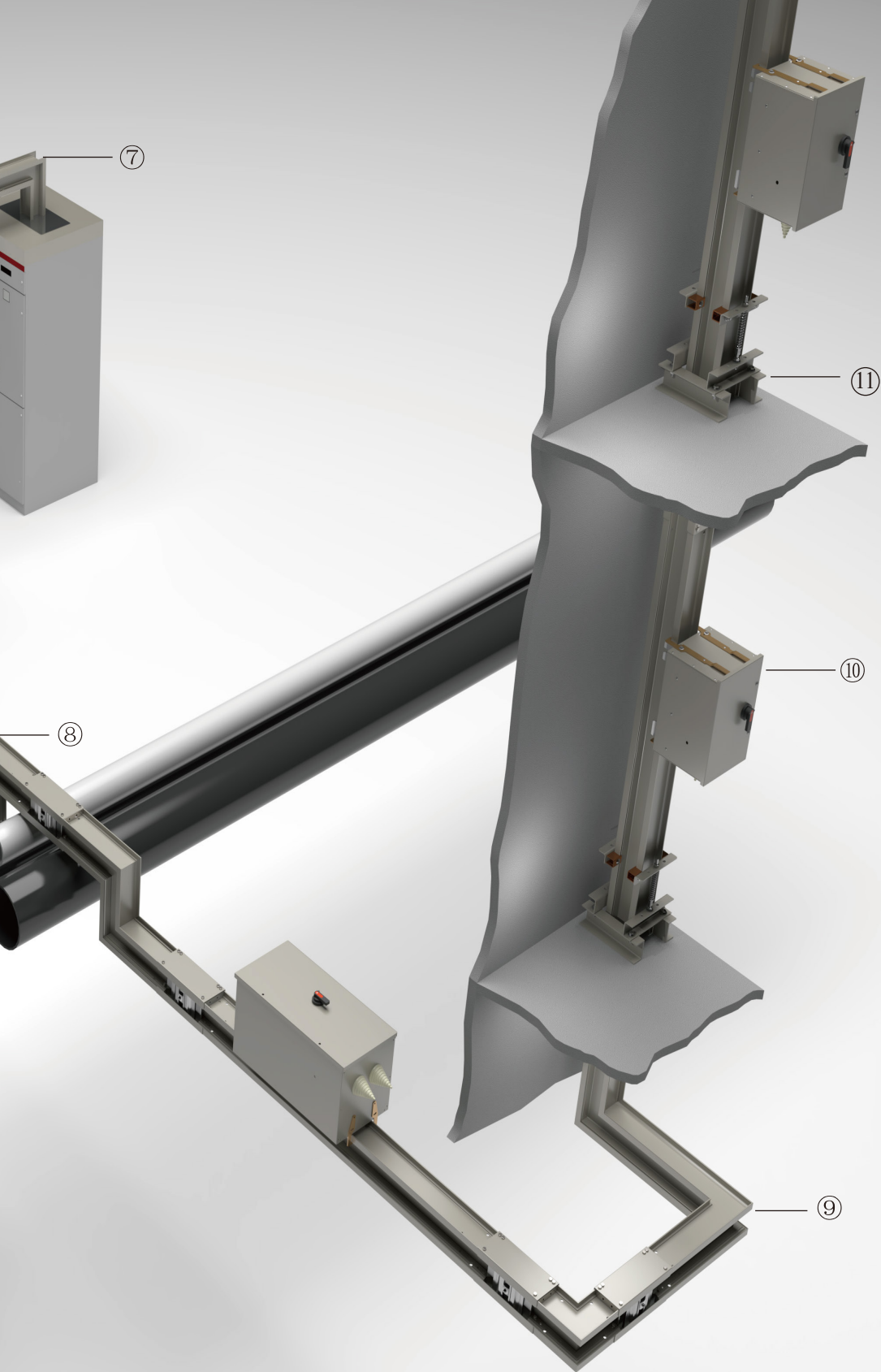
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- 7. Edgewise Elbow
- 8. Edgewise Offset
- 9. Nonstandard Elbow
- 10. Plug-in Box
- 11. Spring Hanger

System Overview



Leistung Energie LV series busway system is a reliable and efficient electrical distribution system with sandwich construction and superior performance. It is a safe and robust power distribution system with high electrical efficiency, low voltage drop, high mechanical strength.



The system offers a full line of busway to meet the world market: suitable for 3P3W, 3P4W, 3P5W, power supply and distribution, with rated current from 250A to 5000A (for aluminum conductor) & 400A to 6300A (for copper conductor), rated operation voltage up to 690V(rated insulation voltage up to 1000V), IP degree up to IP66 and the frequency 50~60Hz.



Constructed with two-piece of extruded aluminum housing, LV series busway breaks the barrier of weight as one of the lightest busway system in the business and offers you maximum flexibility. The full aluminum alloy housing, a low magnetic material, avoids hysteresis loss in distribution system.



Leistung Energie LV series busway provides longer life epoxy insulation as option to polyester insulation.

Leistung Energie LV series busway system is an ideal choice for various applications including commercial, industrial buildings, data centers, rail transit, etc.

From every aspect—performance, flexibility, quality and customer value, Leistung Energie LV series busway is a superior choice for your next installation.

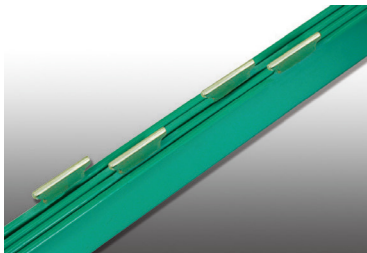
Product Features

—Superior design and performance



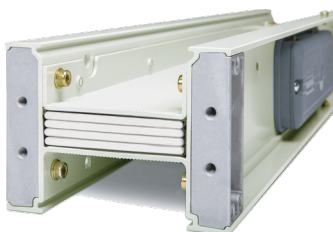
Unique structure design

The unique “serrated surface” design of extruded aluminum housing greatly improves the heat dissipation for the whole busway system. By the design of two-piece housing, Wetown LV series busway provides more reliable IP protection for the field application than traditional design, including IP54, IP65, IP66.



Novel conductor structure

True sandwich structure for the design and construction. Bus bars for plug in length are welded in place by state -of-the-art welding processes. Bus tabs, arranged compactly without bending and silver plated, to achieve the performance of superior heat dissipation, lower temperature rise and elimination of “chimney effect”.



"Sandwich" structure

The conductors are arranged densely in the housing, achieving the performance of superior heat dissipation, lower temperature rise and elimination of "chimney effect". Current-carrying capability is not affected by different installation sites or methods. This compact structure has a width of only 125mm, occupying smaller building space.



Superior & reliable insulation

Both polyester film insulation and epoxy insulation (Class B) are available with exceptional electrical performance and superior mechanical strength.

Environmental friendly materials are applied with certification by reputed international laboratory. The busway system is halogen-free with no toxicity emission in case of fire.



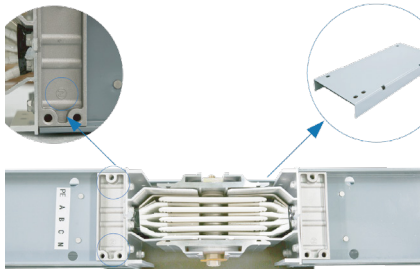
Compact design

The dimension of LV busway begins at 125mmx103mm for 250-400A ratings with very compact design. Tap-off box is also compressive and dimension begins at 360mmx250mmx255 mm for 100A, giving more space for other equipments.



Conductor sawing

High-speed sawing machine offers a high sawing accuracy, make smooth cut without issues like deformed, stretched, inconsistent flat end, as a result the temperature rise at the busway joint is decreased.



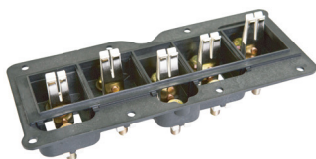
Unique error-proof device (Bridge Type Joint)

A unique error-proof device is designed to prevent potential damage on bus bar due to incorrect connection. With this unique device, the installers can not connect two sections of busway successfully with incorrect phase orientation. Bridge type joint, each joint allow $\pm 8\text{mm}$ liner adjustment.



Unique joint design

- Single bolt joint design is applied to shorten the time of connection by 50% than the traditional design.
- Double headed "break off" joint bolt is applied to tighten the busway with just a common 16mm socket wrench. Belleville spring washers are adopted to ensure pressure evenly applied across the joint.

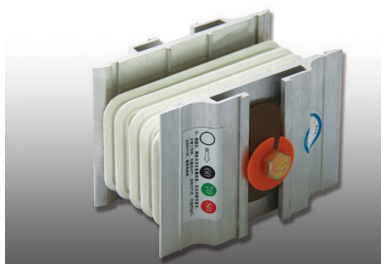


Plug outlet and busway plug

- Both outlet on busway and plug-in pins are fully silver-plated.
- The tap-off box has complete safety interlock mechanism to ensure electric safety.
- The plug outlet protection module is embedded with waterproof silicone rubber, up to IP54.
- Up to 10 plug outlets can be installed every 3 m of straight length busway.

Features

—Intelligent control System



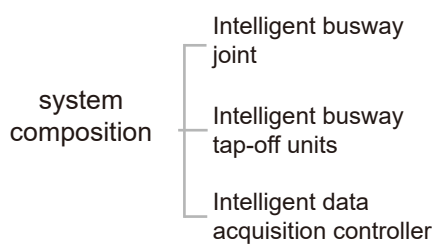
Temperature rise Indicator

- Joint insulator with a convex-concave groove edge provides an increased creepage distance.
- Color-coded-temperature indicator applied at busway joint is to give an early warning when high temperature occurs at the joint.



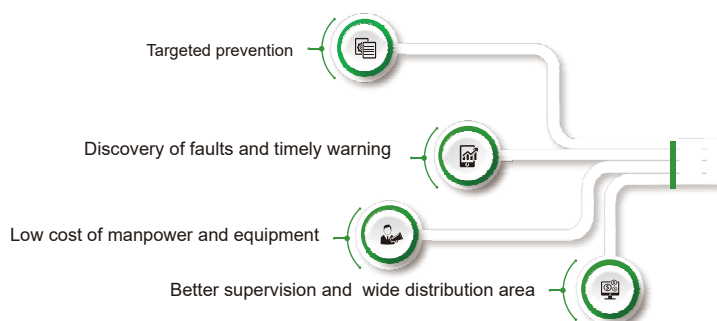
Smart temperature control

The temperature can be monitored via the plug-in box. An alarm will be sounded in the event of overheating according to the smart temperature control, thus providing a reliable and user-friendly system.



Measurement & Control System

This intelligent M&C system is composed of busway, intelligent busway joint, intelligent busway TOU and SCADA. It can exchange data with remote monitoring and early warning management platform to realize one or more functions such as remote adjustment, remote measurement, remote control, remote communication and so on.



Electrical Specification

Aluminum alloy housing of LV Series Busway provides an extremely low impedance ground path with small resistance for both copper and aluminum systems plug-in outlet grounding is supplied with tin-plated copper tabs bolted to the plug in box housing for superior continuity through standard bus plug ground stabs.

Grounding resistance of LV busway system (temperature=20℃):

Copper			Aluminum		
Current	Internal 50% ground bus resistance($\mu\Omega/m$)	Integral housing ground DC resistance($\mu\Omega/m$)	Current	Internal 50% ground bus resistance($\mu\Omega/m$)	Integral housing ground DC resistance($\mu\Omega/m$)
400A	197.4	22.88	250A	291.7	22.88
630A	148.1	22.88	400A	233.3	22.01
800A	107.7	21.60	630A	179.5	20.83
1000A	91.1	20.83	800A	147.7	19.84
1250A	66.6	19.19	1000A	112.2	18.29
1600A	47.4	17.16	1250A	83.9	16.48
2000A	37.3	15.60	1350A	83.9	16.48
2500A	28.3	13.76	1600A	61.7	14.44
3200A	24.9	9.14	2000A	56.1	9.59
4000A	18.6	8.12	2500A	42.0	8.60
5000A	14.2	7.13	3200A	30.9	7.50
			4000A	25.5	6.80

Grounding capacity of LV busway system:

Copper					Aluminum				
SN	Rating	Deck	Internal Ground (mm ²)	Housing Ground(mm ²)	SN	Rating	Deck	Internal Ground (mm ²)	Integral housing ground(mm ²)
1	400	1	90	1563	1	250	1	120	1563
2	630	1	120	1563	2	400	1	150	1623
3	800	1	150	1623	3	630	1	195	1713
4	1000	1	195	1713	4	800	1	240	1803
5	1250	1	270	1863	5	1000	1	315	1953
6	1600	1	360	2043	6	1250	1	420	2163
7	2000	1	480	2283	7	1350	1	420	2163
8	2500	1	630	2583	8	1600	1	570	2463
9	3200	2	720	3842	9	2000	2	630	3662
10	4000	2	960	4322	10	2500	2	840	4082
11	5000	2	1260	4922	11	3200	2	1140	4682
					12	4000	2	1380	5162

Short-circuit ratings

The ratings shown below are comply with IEC61439 for short circuit withstand test at 1 Second.

Rated short circuit withstand current

Copper	(RMS Symmetrical, KA)
Current	1 Sec.
400A	30
630A	30
800A	50
1000A	50
1250A	50
1600A	65
2000A	65
2500A	65
3200A	120
4000A	120
5000A	120

Rated short circuit withstand current

Aluminum	(RMS Symmetrical, KA)
Current	1 Sec.
250A	30
400A	30
630A	30
800A	30
1000A	50
1250A	50
1350A	50
1600A	65
2000A	80
2500A	80
3200A	120
4000A	120

Resistance, reactance, impedance and voltage drop

Copper conductor:Frequency-50Hz

Current	Resistance R_{20} (mΩ/m)	Resistance $R_{Full\ Load}$ (mΩ/m)	Reactance X (mΩ/m)	Voltage Drop per Meter at Full Load Condition (V/m)				
				Power factor cosφ				
				0.6	0.7	0.8	0.9	1
400	0.126	0.102	0.041	0.075	0.081	0.087	0.091	0.087
630	0.112	0.090	0.037	0.106	0.114	0.122	0.128	0.122
800	0.077	0.066	0.032	0.099	0.106	0.112	0.115	0.107
1000	0.071	0.055	0.026	0.110	0.118	0.125	0.130	0.123
1250	0.050	0.040	0.019	0.098	0.105	0.111	0.115	0.108
1600	0.034	0.029	0.015	0.090	0.096	0.100	0.103	0.094
2000	0.028	0.023	0.012	0.091	0.098	0.103	0.105	0.097
2500	0.022	0.017	0.011	0.095	0.101	0.105	0.106	0.095
3200	0.024	0.015	0.006	0.106	0.117	0.126	0.134	0.133
4000	0.015	0.011	0.003	0.079	0.088	0.096	0.103	0.104
5000	0.011	0.009	0.002	0.071	0.079	0.087	0.093	0.095

In the table above, the load distribution coefficient $k=1$. In specific project, the k value varies with the branch number of the BTS.

Aluminium conductor:Frequency-50Hz

Current	Resistance R_{20} (mΩ/m)	Resistance $R_{Full\ Load}$ (mΩ/m)	Reactance X (mΩ/m)	Voltage Drop per Meter at Full Load Condition (V/m)				
				Power factor cosφ				
				0.6	0.7	0.8	0.9	1
250	0.185	0.151	0.073	0.073	0.079	0.083	0.086	0.080
400	0.155	0.121	0.061	0.098	0.105	0.111	0.115	0.107
630	0.120	0.093	0.052	0.124	0.132	0.139	0.143	0.131
800	0.105	0.077	0.027	0.117	0.129	0.139	0.147	0.145
1000	0.072	0.058	0.046	0.139	0.144	0.148	0.147	0.125
1250	0.061	0.044	0.012	0.100	0.111	0.121	0.130	0.132
1350	0.055	0.040	0.013	0.101	0.112	0.121	0.129	0.129
1600	0.046	0.032	0.015	0.110	0.119	0.127	0.133	0.127
2000	0.041	0.029	0.019	0.138	0.146	0.153	0.157	0.142
2500	0.029	0.022	0.010	0.110	0.119	0.126	0.132	0.126
3200	0.023	0.016	0.007	0.108	0.117	0.125	0.132	0.127
4000	0.015	0.013	0.005	0.090	0.097	0.104	0.109	0.104

In the table above, the load distribution coefficient $k=1$. In specific project, the k value varies with the branch number of the BTS.

Resistance, reactance, impedance and voltage drop

Copper conductor: Frequency-60Hz

Current	Resistance R_{20} (mΩ/m)	Resistance $R_{Full Load}$ (mΩ/m)	Reactance X (mΩ/m)	Voltage Drop per Meter at Full Load Condition (V /m)				
				Power factor cosφ				
				0.6	0.7	0.8	0.9	1
400	0.126	0.102	0.049	0.080	0.085	0.090	0.093	0.087
630	0.112	0.090	0.045	0.112	0.120	0.127	0.131	0.122
800	0.077	0.066	0.039	0.107	0.113	0.117	0.119	0.107
1000	0.071	0.055	0.031	0.117	0.125	0.131	0.134	0.123
1250	0.050	0.040	0.023	0.105	0.111	0.116	0.119	0.108
1600	0.034	0.029	0.018	0.097	0.102	0.105	0.107	0.094
2000	0.028	0.023	0.014	0.098	0.104	0.108	0.109	0.097
2500	0.022	0.017	0.013	0.103	0.108	0.111	0.111	0.095
3200	0.024	0.015	0.007	0.112	0.122	0.130	0.137	0.133
4000	0.013	0.010	0.007	0.093	0.098	0.101	0.102	0.090
5000	0.010	0.008	0.004	0.080	0.085	0.090	0.093	0.087

In the table above, the load distribution coefficient $k=1$. In specific project, the k value varies with the branch number of the BTS.

Aluminium conductor: Frequency-60Hz

Current	Resistance R_{20} (mΩ/m)	Resistance $R_{Full Load}$ (mΩ/m)	Reactance X (mΩ/m)	Voltage Drop per Meter at Full Load Condition (V /m)				
				Power factor cosφ				
				0.6	0.7	0.8	0.9	1
250	0.185	0.151	0.088	0.079	0.083	0.087	0.089	0.080
400	0.155	0.121	0.073	0.105	0.111	0.116	0.119	0.107
630	0.120	0.093	0.063	0.133	0.140	0.146	0.148	0.131
800	0.105	0.077	0.033	0.123	0.134	0.143	0.151	0.145
1000	0.072	0.058	0.055	0.152	0.156	0.157	0.154	0.125
1250	0.061	0.044	0.014	0.104	0.115	0.124	0.133	0.132
1350	0.055	0.040	0.015	0.105	0.115	0.124	0.131	0.129
1600	0.046	0.032	0.018	0.117	0.125	0.132	0.137	0.127
2000	0.041	0.029	0.023	0.149	0.156	0.161	0.162	0.142
2500	0.029	0.022	0.012	0.117	0.125	0.132	0.136	0.126
3200	0.023	0.016	0.008	0.114	0.123	0.130	0.135	0.127
4000	0.015	0.013	0.006	0.096	0.103	0.108	0.112	0.104

In the table above, the load distribution coefficient $k=1$. In specific project, the k value varies with the branch number of the BTS.

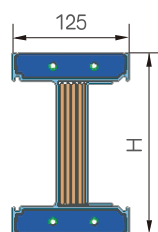
Physical data

Straight length

Feeder, the straight length without outlets, can be installed either horizontally or vertically.

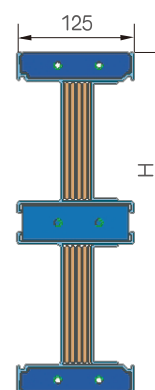
The standard length is either 3000mm or 4000mm.

The minimum length is 460mm.



Single-deck
LVC-04 ~ 25
LVA-02 ~ 16

01



Dual-deck
LVC-32 ~ 50
LVA-20 ~ 50

02

Copper conductor

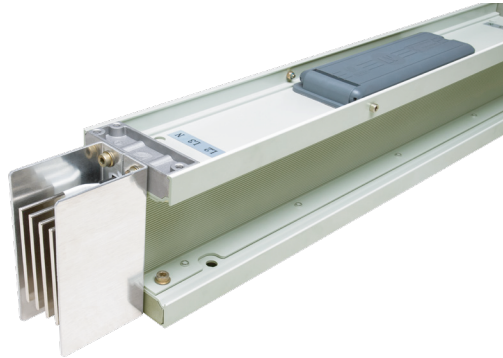
Current	Dimension		Weight per meter (kg/m)		Fig.
	Width (W)	Height (H)	4wire 100%N	5wire 100%N, 50%PE	
400	125	103	11.3	12.4	01
630	125	103	12.5	13.6	
800	125	118	15.4	17.1	
1000	125	128	18.1	19.9	
1250	125	153	22.8	25.4	
1600	125	188	30.7	34.3	
2000	125	223	38.2	42.8	02
2500	125	273	52.8	59.4	
3200	125	352	59.5	66.5	
4000	125	432	76.9	86.3	
5000	125	532	97.3	108.9	

Aluminium conductor

Current	Dimension		Weight per meter (kg/m)		Fig.
	Width (W)	Height (H)	4wire 100%N	5wire 100%N, 50%PE	
250	125	103	6.8	7.2	01
400	125	113	7.5	7.9	
630	125	128	8.8	9.3	
800	125	143	9.8	10.4	
1000	125	168	11.8	12.7	
1250	125	203	14.6	15.7	
1350	125	203	14.6	15.7	02
1600	125	253	18.3	19.8	
2000	125	322	22.6	24.3	
2500	125	392	28.7	31	
3200	125	492	36.2	39.4	
4000	125	572	44.7	48.9	

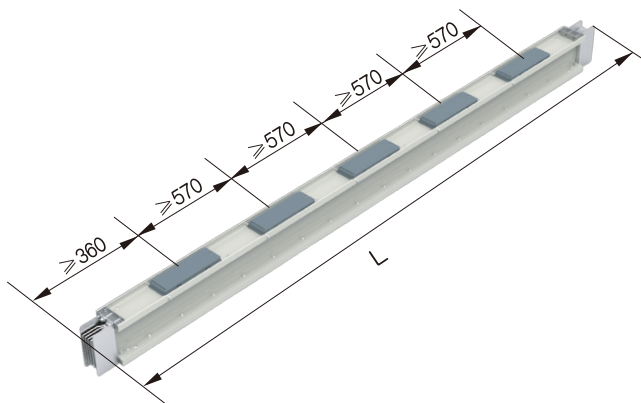
Fittings

Plug-in straight length



The plug-in busway has a flexible design with optional plug outlets on both sides. A maximum of 5 outlets can be fixed on each side of 3m standard length. The customer may reserve plug outlets for extension in the future when changes occur in terms of the equipment load or busway run. Both base plate and socket cover are set for each plug outlet. Base plate helps to prevent fingers from contacting live conductors (IP2X) by accident, on which the phase sequences of conductors are identified. Socket cover prevents the conductive contacting surface from being contaminated. A pad may be used to keep off dust or moisture.

Standard length is 3000mm or 4000mm. The minimum length is 720mm. The minimum length of L1 (distance from the center of plug outlet to standard end) is 360mm. The minimum length of L2 (distance between the centers of two adjacent plug outlets) is 570mm.



L1=0.36

L2=0.93

L3=1.50

L4=2.07

L5=2.64

Standard length:

LVC: L=1、2、3m

LVA: L=1、2、3m

Optional length:

LVC: L=0.72 ~ 4m

LVA: L=0.72 ~ 4m

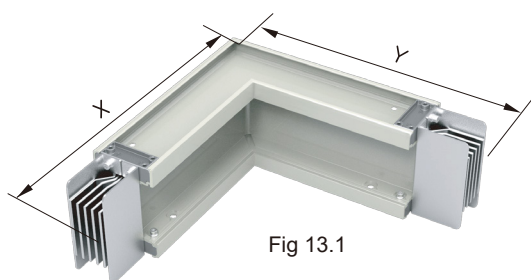


Fig 13.1



Fig 13.2

L flatwise elbow Fig 13.1

Rated current (A)	Copper busway size (mm)				Aluminium busway size (mm)			
	Minimum		Standard		Minimum		Standard	
	X	Y	X	Y	X	Y	X	Y
250	/	/	/	/	341	341	450	450
400	341	341	400	400	351	351	450	450
630	341	341	400	400	366	366	450	450
800	351	351	400	400	381	381	450	450
1000	366	366	400	400	406	406	450	450
1250	391	391	400	400	441	441	500	500
1350	/	/	/	/	441	441	500	500
1600	421	421	550	550	491	491	500	500
2000	461	461	550	550	560	560	850	850
2500	511	511	550	550	630	630	850	850
3200	590	590	800	800	730	730	850	850
4000	670	670	800	800	810	810	850	850
5000	770	770	800	800				

L edgewise elbow Fig 13.2

Rated current (A)	Copper busway size (mm)				Aluminium busway size (mm)			
	Minimum		Standard		Minimum		Standard	
	X	Y	X	Y	X	Y	X	Y
250	/	/	/	/	363	363	400	400
400	363	363	400	400	363	363	400	400
630	363	363	400	400	363	363	400	400
800	363	363	400	400	363	363	400	400
1000	363	363	400	400	363	363	400	400
1250	363	363	400	400	363	363	400	400
1350	/	/	/	/	363	363	400	400
1600	363	363	400	400	363	363	400	400
2000	363	363	400	400	363	363	400	400
2500	363	363	400	400	363	363	400	400
3200	363	363	400	400	363	363	400	400
4000	363	363	400	400	363	363	400	400
5000	363	363	400	400				

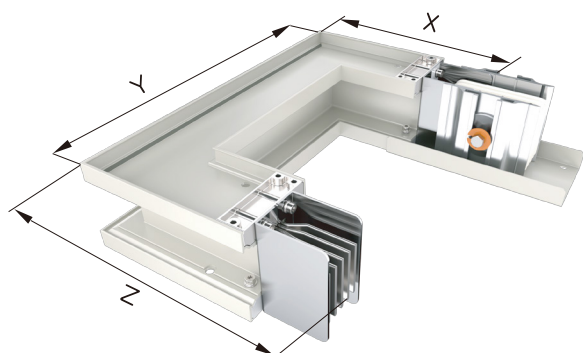


Fig 14.1

Flatwise U Fig 14.1

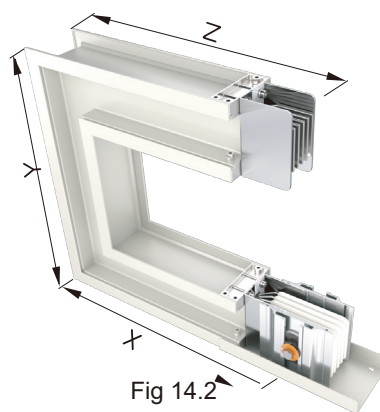


Fig 14.2

Edgewise U Fig 14.2

Rated current (A)	Copper busway size (mm)						Aluminium busway size (mm)					
	Minimum			Standard			Minimum			Standard		
	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z
250	/	/	/	/	/	/	341	326	341	450	500	450
400	341	326	341	400	450	400	351	346	351	450	500	450
630	341	326	341	400	450	400	366	376	366	450	500	450
800	351	346	351	400	450	400	381	406	381	450	500	450
1000	366	376	366	400	450	400	406	456	406	450	500	450
1250	391	426	391	400	450	400	441	526	441	500	650	500
1350	/	/	/	/	/	/	441	526	441	500	650	500
1600	421	486	421	550	700	550	491	626	491	500	650	500
2000	461	566	461	550	700	550	560	764	560	850	650	850
2500	511	666	511	550	700	550	630	904	630	850	1300	850
3200	590	824	590	800	1200	800	730	1104	730	850	1300	850
4000	670	984	670	800	1200	800	810	1264	810	850	1300	850
5000	770	1184	770	800	1200	800						

Edgewise U Fig 14.2

Rated current (A)	Copper busway size (mm)						Aluminium busway size (mm)					
	Minimum			Standard			Minimum			Standard		
	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z
250	/	/	/	/	/	/	363	370	363	400	400	400
400	363	370	363	400	400	400	363	370	363	400	400	400
630	363	370	363	400	400	400	363	370	363	400	400	400
800	363	370	363	400	400	400	363	370	363	400	400	400
1000	363	370	363	400	400	400	363	370	363	400	400	400
1250	363	370	363	400	400	400	363	370	363	400	400	400
1350	/	/	/	/	/	/	363	370	363	400	400	400
1600	363	370	363	400	400	400	363	370	363	400	400	400
2000	363	370	363	400	400	400	363	370	363	400	400	400
2500	363	370	363	400	400	400	363	370	363	400	400	400
3200	363	370	363	400	400	400	363	370	363	400	400	400
4000	363	370	363	400	400	400	363	370	363	400	400	400
5000	363	370	363	400	400	400						

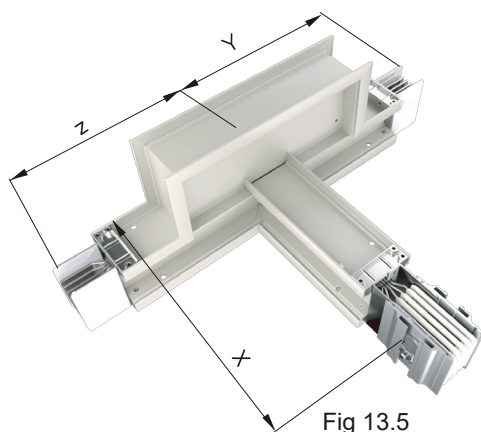


Fig 13.5

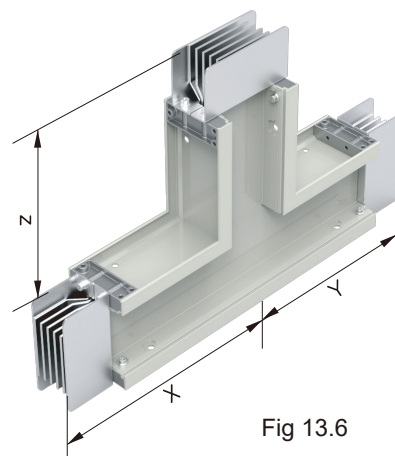


Fig 13.6

Flatwise Tee Fig 13.5

Rated current (A)	Copper busway size (mm)						Aluminium busway size (mm)					
	Minimum			Standard			Minimum			Standard		
	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z
250	/	/	/	/	/	/	341	290	290	450	350	350
400	341	290	290	400	350	350	351	295	295	450	350	350
630	341	290	290	400	350	350	366	302	302	450	350	350
800	351	295	295	400	350	350	381	310	310	450	350	350
1000	366	302	302	400	350	350	406	322	322	450	350	350
1250	391	315	315	400	350	350	441	340	340	500	400	400
1350	/	/	/	/	/	/	441	340	340	500	400	400
1600	421	330	330	550	400	400	491	365	365	500	400	400
2000	461	350	350	550	400	400	560	399	399	850	550	550
2500	511	375	375	550	400	400	630	434	434	850	550	550
3200	590	414	414	800	550	550	730	484	484	850	550	550
4000	670	454	454	800	550	550	810	524	524	850	550	550
5000	770	504	504	800	550	550						

Edgewise Tee Fig 13.6

Rated current (A)	Copper busway size (mm)						Aluminium busway size (mm)					
	Minimum			Standard			Minimum			Standard		
	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z
250	/	/	/	/	/	/	363	411	411	400	500	500
400	363	411	411	400	500	500	363	411	411	400	500	500
630	363	411	411	400	500	500	363	426	426	400	500	500
800	363	426	426	400	500	500	363	436	436	400	500	500
1000	363	436	436	400	500	500	363	461	461	400	500	500
1250	363	461	461	400	500	500	363	496	496	400	600	600
1350	/	/	/	/	/	/	363	496	496	400	600	600
1600	363	496	496	400	600	600	363	531	531	400	600	600
2000	363	531	531	400	600	600	363	581	581	400	600	600
2500	363	581	581	400	600	600	363	660	660	400	900	900
3200	363	660	660	400	900	900	363	740	740	400	900	900
4000	363	740	740	400	900	900	363	840	840	400	900	900
5000	363	840	840	400	900	900						

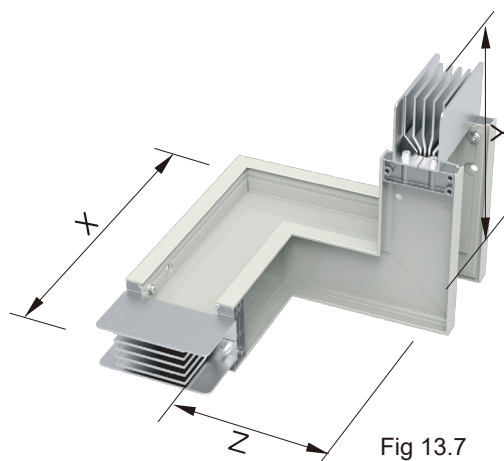


Fig 13.7

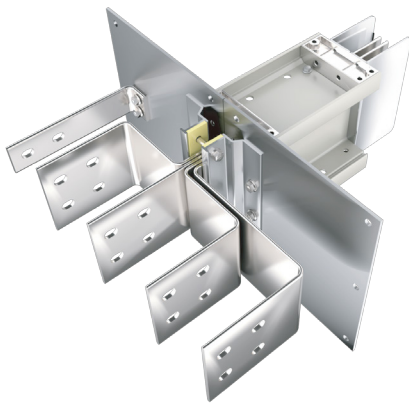
Combination Elbow Fig 13.7

Rated current (A)	Copper busway size (mm)						Aluminium busway size (mm)					
	Minimum			Standard			Minimum			Standard		
	X	Y	Z	X	Y	Z	X	Y	Z	X	Y	Z
250	/	/	/	/	/	/	341	348	363	450	450	400
400	341	348	363	400	400	400	351	358	363	450	450	400
630	341	348	363	400	400	400	366	373	363	450	450	400
800	351	358	363	400	400	400	381	388	363	450	450	400
1000	366	373	363	400	400	400	406	413	363	450	450	400
1250	391	398	363	400	400	400	441	448	363	500	500	400
1350	/	/	/	/	/	/	441	448	363	500	500	400
1600	421	428	363	550	550	400	491	498	363	500	500	400
2000	461	468	363	550	550	400	560	567	363	850	850	400
2500	511	518	363	550	550	400	630	637	363	850	850	400
3200	590	597	363	800	800	400	730	737	363	850	850	400
4000	670	677	363	800	800	400	810	817	363	850	850	400
5000	770	777	363	800	800	400						

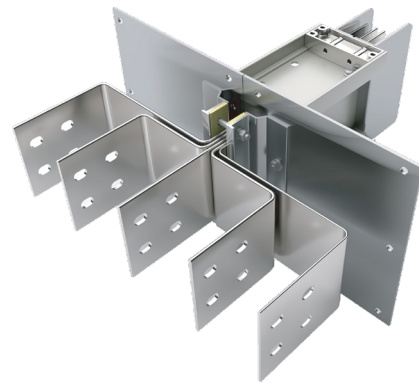
Flanged end

Standard length: $L=0.56\text{m}$

Nonstandard length: $L=0.56 \sim 2.00\text{m}$



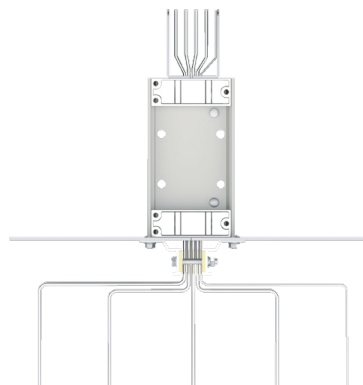
3P+100%N+50% integral housing as PE



3P+100%N+50% internal bar as PE



Top view



Section view



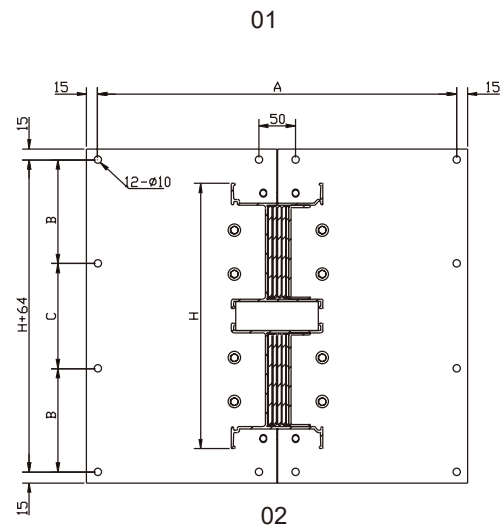
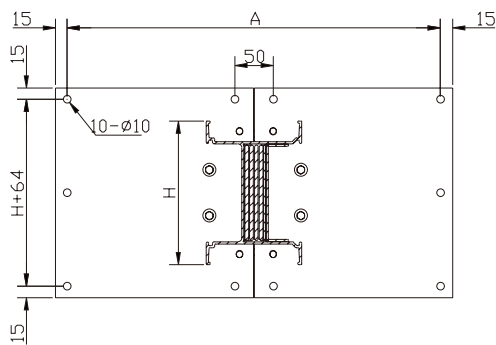
Section view

Flanged end and end tap box can be used in connection with any type of switchgear cabinets and transformers. Flanged end busbar spacing can be customized on specific application.

Note:

All the dimensions provided are for standard products. Please contact our engineers for customized dimensions.

Flanged end cut out and drilling pattern



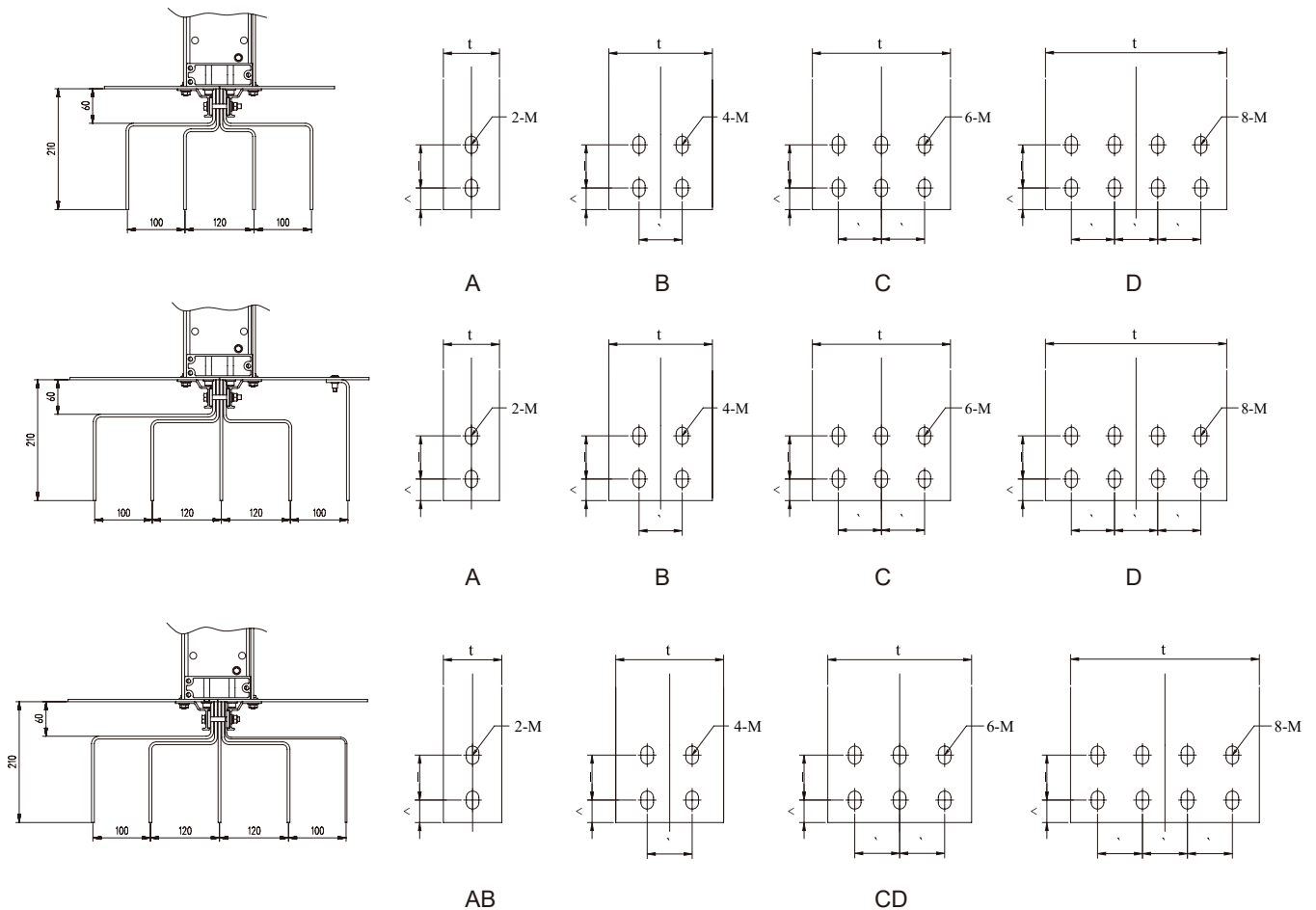
LVC

Rated Current (A)	3L+N+PE Size (mm)				3L+N Size (mm)			Fig
	H	A	B	C	A	B	C	
400	103	490			370			01
630	103	490			370			
800	118	490			370			
1000	128	490			370			
1250	153	490			370			
1350								
1600	188	490			370			
2000	223	490			370			02
2500	273	490			370			
3200	352	490	140	136	370	140	136	
4000	432	490	165	166	370	165	166	
5000	532	490	200	196	370	200	196	

LVA

Rated Current (A)	3L+N+PE Size (mm)				3L+N Size (mm)			Fig
	H	A	B	C	A	B	C	
250	103	490			370			01
400	113	490			370			
630	128	490			370			
800	143	490			370			
1000	168	490			370			
1250	203	490			370			
1350	203	490			370			
1600	253	490			370			02
2000	322	490	130	126	370	130	126	
2500	392	490	150	156	370	150	156	
3200	492	490	185	186	370	185	186	
4000	572	490	210	216	370	210	216	

Flanged end bar hole pattern



Copper conductor

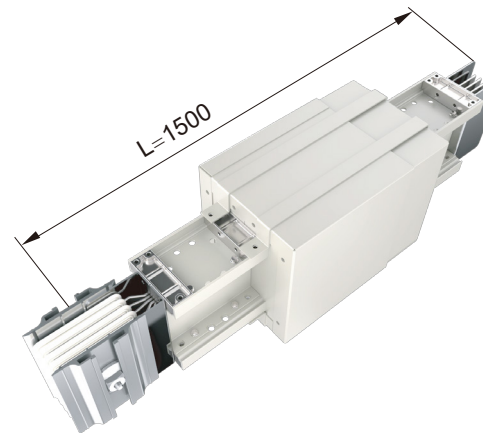
Aluminum conductor

Rated Current	A	B	C	M	Type
400	25	50		Φ12	A
630	25	50		Φ14×20	A
800	25	50		Φ14×20	A
1000	25	50		Φ14×20	A
1250	25	50	50	Φ14×20	B
1350					
1600	25	50	50	Φ14×20	B
2000	25	50	50	Φ14×20	C
2500	25	50	50	Φ14×20	D
3200	25	50	50	Φ14×20	B
4000	25	50	50	Φ14×20	C
5000	25	50	50	Φ14×20	D

Rated Current	A	B	C	M	Type
250	25	50		Φ14×20	A
400	25	50		Φ14×20	A
630	25	50		Φ14×20	A
800	25	50		Φ14×20	A
1000	25	50	50	Φ14×20	B
1250	25	50	50	Φ14×20	C
1350	25	50	50	Φ14×20	C
1600	25	50	50	Φ14×20	C
2000	25	50	50	Φ14×20	D
2500	25	50	50	Φ14×20	C
3200	25	50	50	Φ14×20	C
4000	25	50	50	Φ14×20	D

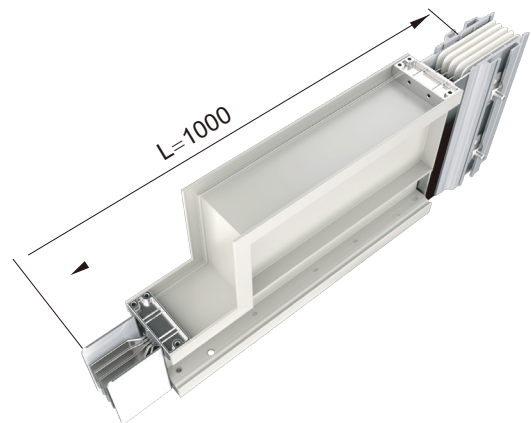
Expansion joint

Expansion length is the transition section compensating for thermal expansion, one is normally set for each 60m in linear distance.



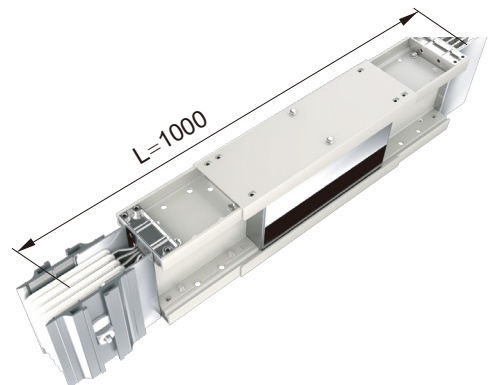
Reducer

This reducer section is used for reducing busbar size to the final load, it provides users with more economic power transmission and distribution method.



Transposition joint

Transposition section is the transition parts used for changing phase sequence of the busbar; its minimum size is 1500mm. The phase sequence of both sides can be customized by the customer.



Terminal cover

Protection for the busway terminal to avoid be damaged.



Tap-off units

LV tap-off units is adopted to apply electrical power directly to the load from the busway system. Fully considering customer's requirements, LV bus plug offers the options of circuit breaker or fuse.

Tap-off units with circuit breaker

- Circuit breaker protection can be available with a current range from 16A-1000A.
- Load protection in the box can be 3-Pole or 4-Pole circuit breakers, including accessories of breakers such as rotary handles, shunt release, thermal magnetic release and leakage-current protection module.

Tap-off units

- Tap-off units with fuses can be produced according to customer specifications.
- Unique fail-safe base pins

The plug-in boxes is equipped with a positioning device that prevents incorrect phase installations.

- Plug-in pins

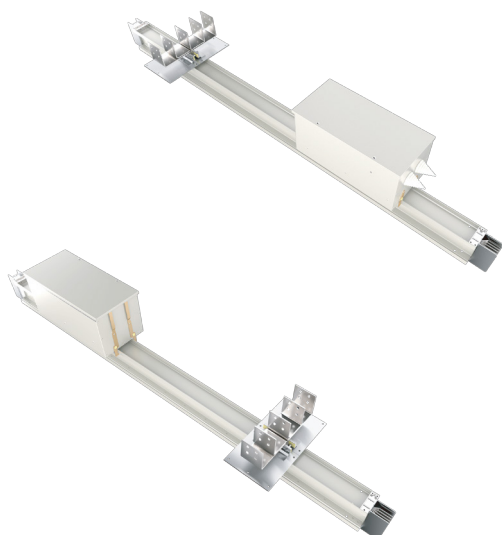
All pins are silver-plated to improve the electrical conductivity.



Plug-in box Dimensions (L×W×H)mm

- For tap-off box over 1000A, please contact the manufacturer.

Protection class up to IP54 with IEC 60529



Current ratings (A)	Plug-in box Dimensions			
	L(mm) Length	W(mm) Width	H(mm) Height	Minimum Height (mm)
100	360	250	255	250
160	400	250	255	250
250	520	270	275	270
400	650	310	315	310
630	800	340	345	340
800-1000	1200	420	355	350

Note:

Table 25-1 size is based on the size of common circuit breaker 3p/4p.

End tap box

Leistung Energie LV series busway system tap boxes are used where a run of busway is fed by cable. we offer standard size end tap box (1m×1m×1m) while we also supply with nonstandard box according to the on-site measurement.



Flanged end with end tap box connection

The flange plate can be manufactured according to the size of the end tap box, it can be connected directly with end tap box.



Installation

LV busway protection class can be up to IP66 according to different applications.

Notes:

IP40---"4" indicates that solid objects greater than 1mm in diameter will not penetrate the housing."0" denotes no protection.

IP42---"4" indicates that solid objects greater than 1mm in diameter will not penetrate the housing."2" denotes prevention of water

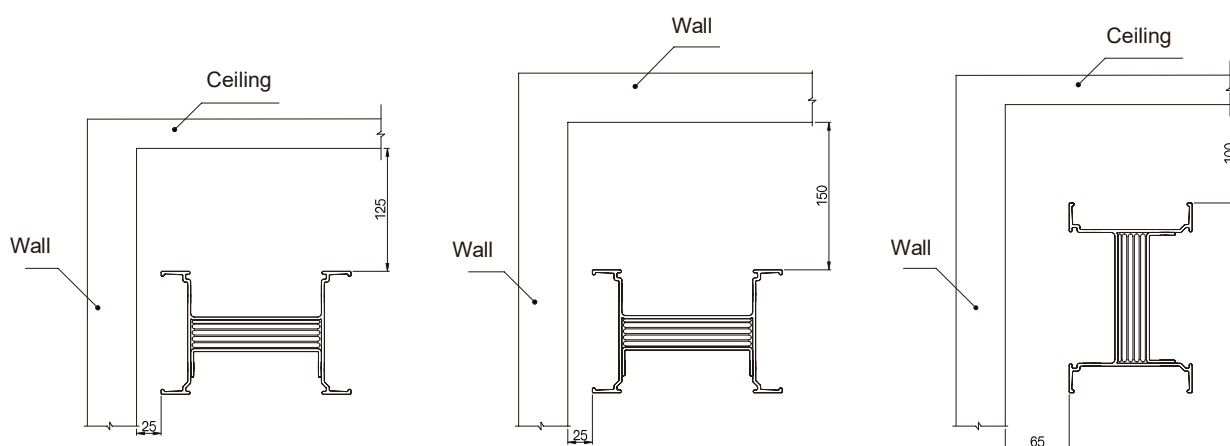
dripping inside by an angle of up to 15°.

IP54---"5" for dust, "4" indicates splashes of water.

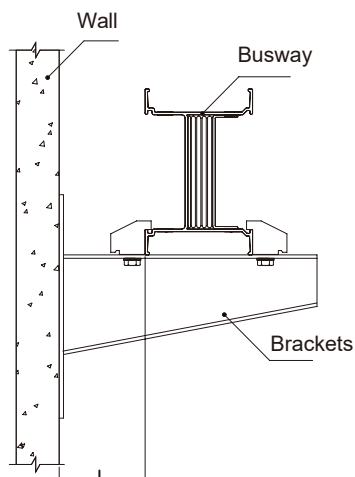
IP65---"6" for dust density, "5" indicates protection from water spray.

IP66---"6" for dust density, "6" for protection of stronger water spray

Minimum clearance required for installation

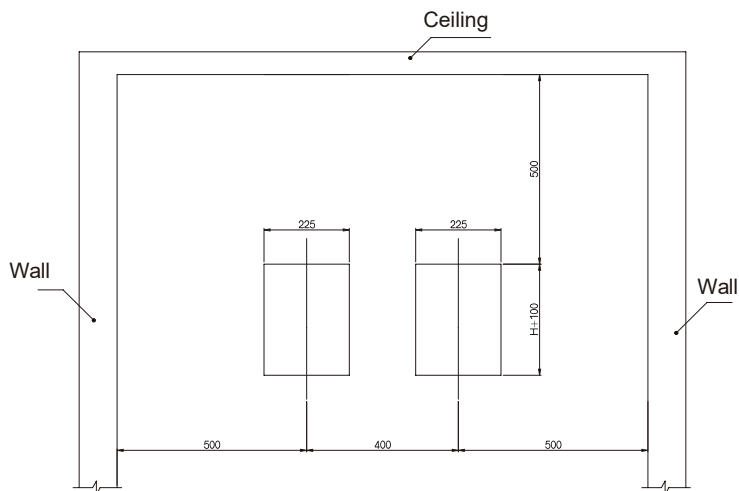


Minimum clearance required for plug-in box installation



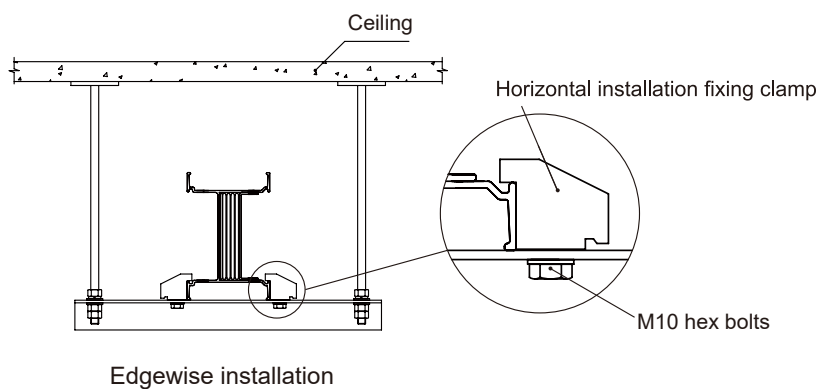
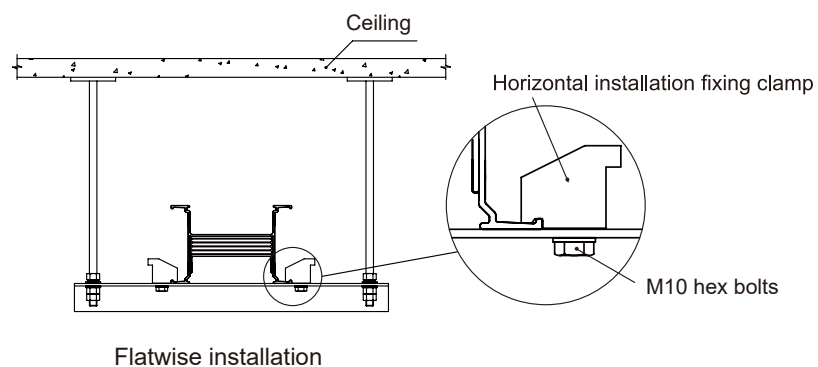
Current level for plug-in box	L(mm)
100	150
160	175
250	195
400	210
630	230
800	260
1000	300

Horizontal wall-through installation

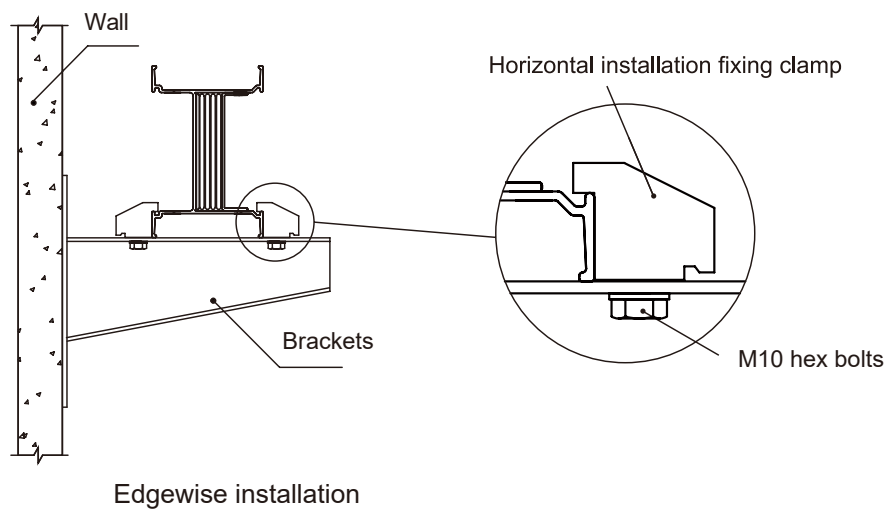
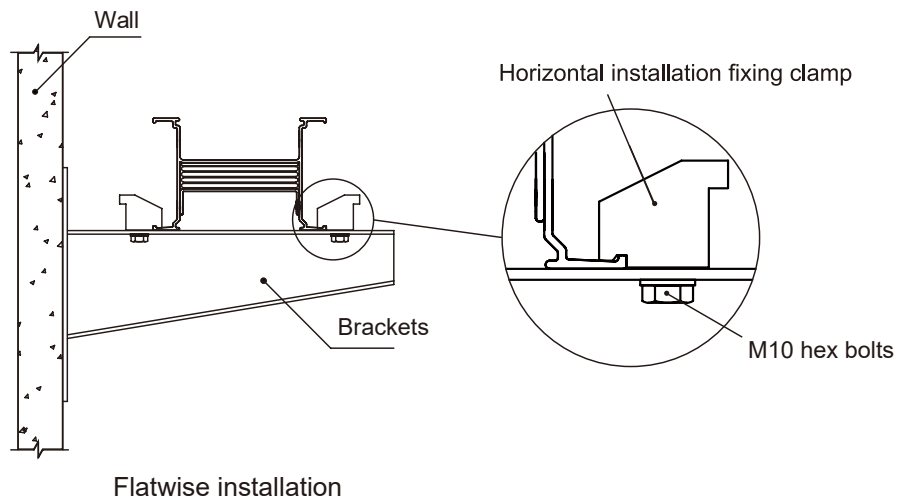


Horizontal installation-trapeze hangers overhead support

Holes should be first drilled in the floor so as to inlay steel expansion bolts (holes may also be drilled on site for flexible installation) or pre-bury steel U-channel for welding with hangers. The distance between two adjacent hangers shall not exceed 2m. Please specify any special requirements when placing your order.

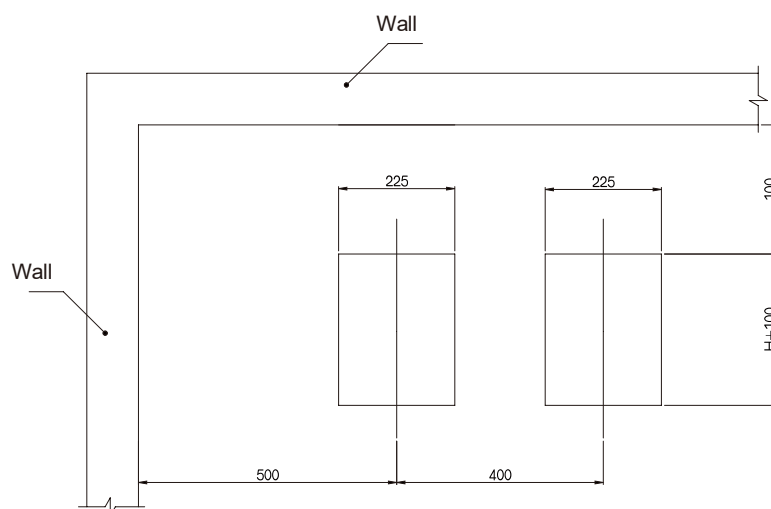


Horizontal installation-wall support

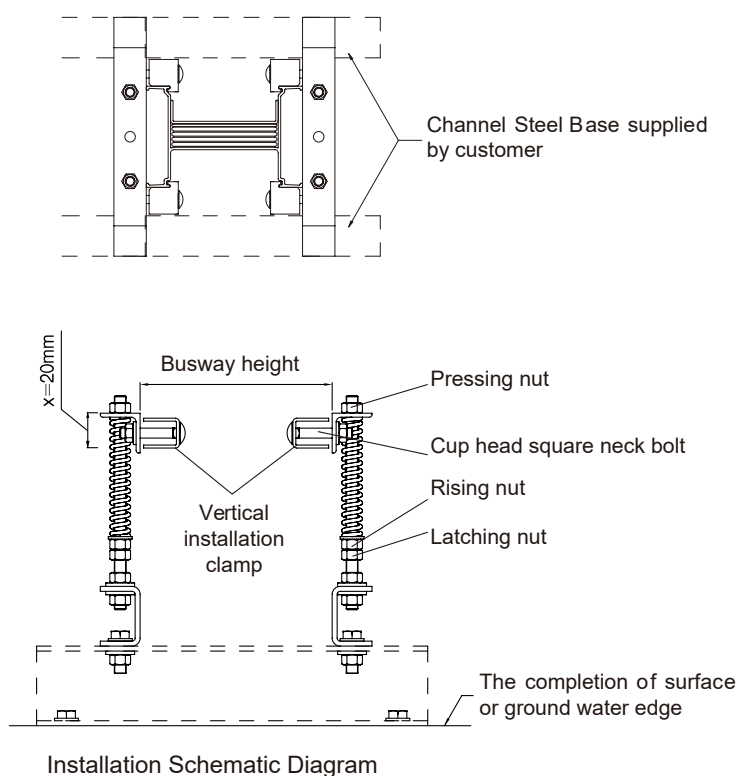
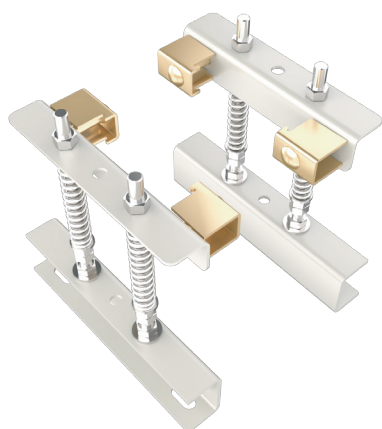


Vertical installation

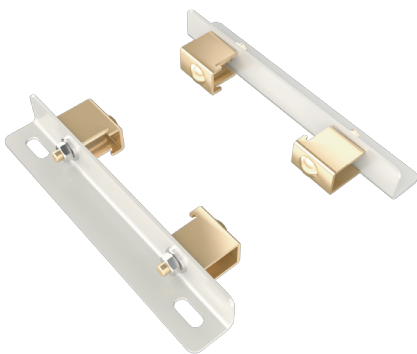
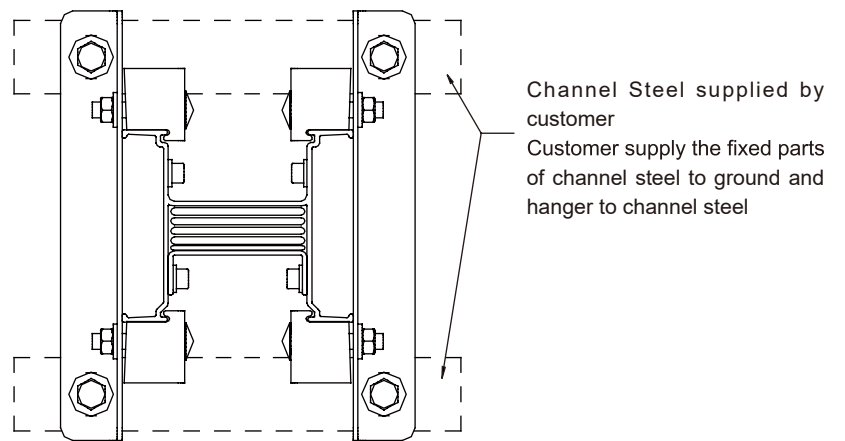
When installing a vertical bus run, please refer to the figure for the dimension of the access holes. Please ensure that the spacing between every two runs of busway exceeds 350mm, especially if there are two or more vertical runs of busway installed in the same riser. Please refer to the figure below:



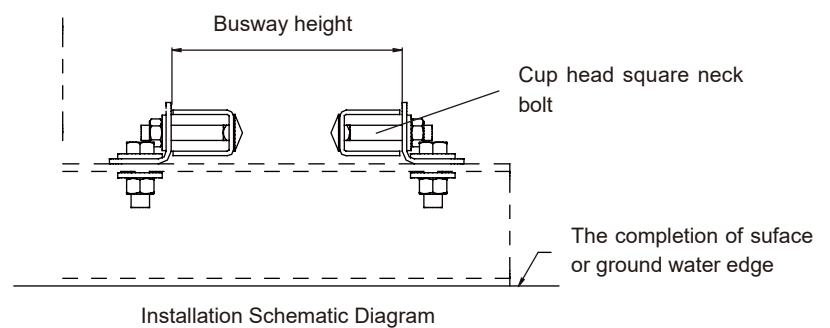
Installation for vertical spring hanger



Installation for vertical fixed hanger



Vertical Fixed Hanger



Ordering Information

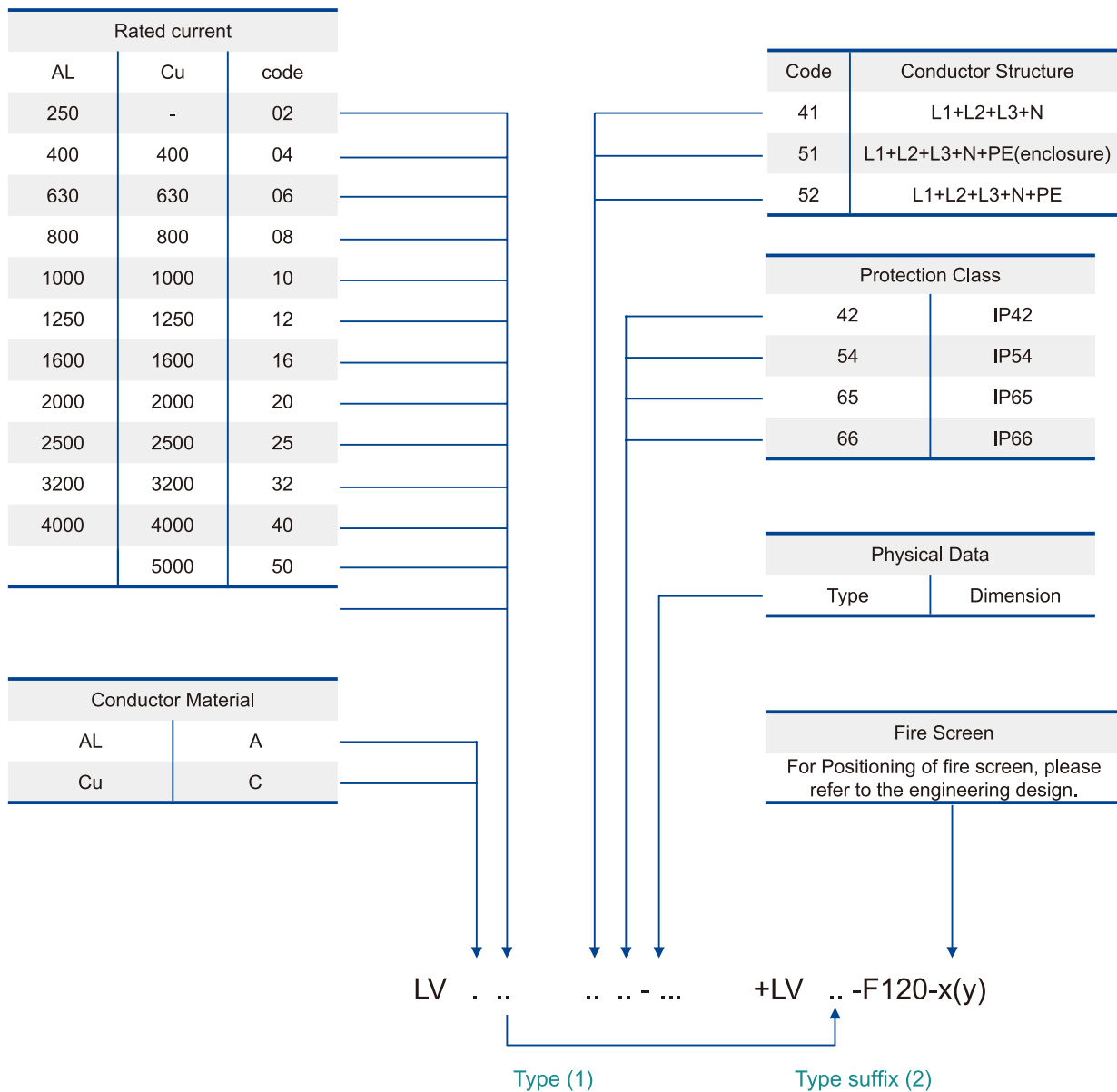
Leistung Energie LV purchase guide

Quotation Inquiry Form

- Model, rated current, rated voltage
- Plug-in busway or in feeder busway
- Characteristics of the power supply and protection degree
- Surface treatment and color and accessories
- Name, model, specifications, quantity of components and protection degree of the plug

Items	Details
Conductor Type	☐ copper conductor ☐ aluminium conductor
Rated Capacity	☐ 250A ☐ 400A ☐ 500A ☐ 630A ☐ 800A ☐ 1000A ☐ 1250A ☐ 1350A ☐ 1600A ☐ 2000A ☐ 2500A ☐ 3200A ☐ 3800A ☐ 4000A ☐ 4500A ☐ 5000A ☐ 6300A
Phase and Wire	☐ 3P4W L1, L2, L3, N100% ☐ 3P5W L1, L2, L3, N100%, housing as PE ☐ 3P5W L1, L2, L3, N100%PE50%
Phase Sequence	☐ option 1 ☐ option 2 ☐ option 3 ☐ option 4 ☐ option 5 ☐ option 6 ☐ option 7 ☐ option 8 ☐ others
Frequency	☐ 50Hz ☐ 60Hz
Voltage	☐ 400V ☐ 690V
Protection Class	☐ IP40 ☐ IP42 ☐ IP54 ☐ IP65 ☐ IP66 ☐ others
Colour	☐ light grey ☐ light yellow ☐ others
Product Type	☐ Plug-in straight length_____ M ☐ Feeder straight length_____ M
No. of Outlet	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ One side ☐ Both side
Attachment	☐ L edgewise elbow (N-phase inward)_____ piece ☐ L edgewise elbow (N-phase outward)_____ piece
	☐ L edgewise elbow (N-phase upside)_____ piece ☐ L edgewise elbow (N-phase underside)_____ piece
	☐ T edgewise elbow (N-phase inward)_____ piece ☐ T edgewise elbow (N-phase outward)_____ piece
	☐ T edgewise elbow (N-phase upside)_____ piece ☐ T edgewise elbow (N-phase underside) _____ piece
	☐ terminal_____ piece ☐ terminal busway _____ piece
	☐ transposition busway_____ piece ☐ expansion busway_____ piece ☐ phase conversion busway_____ piece
Plug-in box	☐ Isolating switch + fuze ☐ MCCB ☐ Rotary handle operation ☐ Rotating crank operation
	Rated current _____ pce _____ pce _____ pce _____ pce _____ pce _____ pce _____ pce _____ pce _____ pce _____ pce _____ pce _____ pce
	Short Circuit Current
Support	☐ horizontal_____ pce ☐ vertical_____ pce
Delivery date	
Transportation	
Destination Address	
Contact	
Special Requirements	

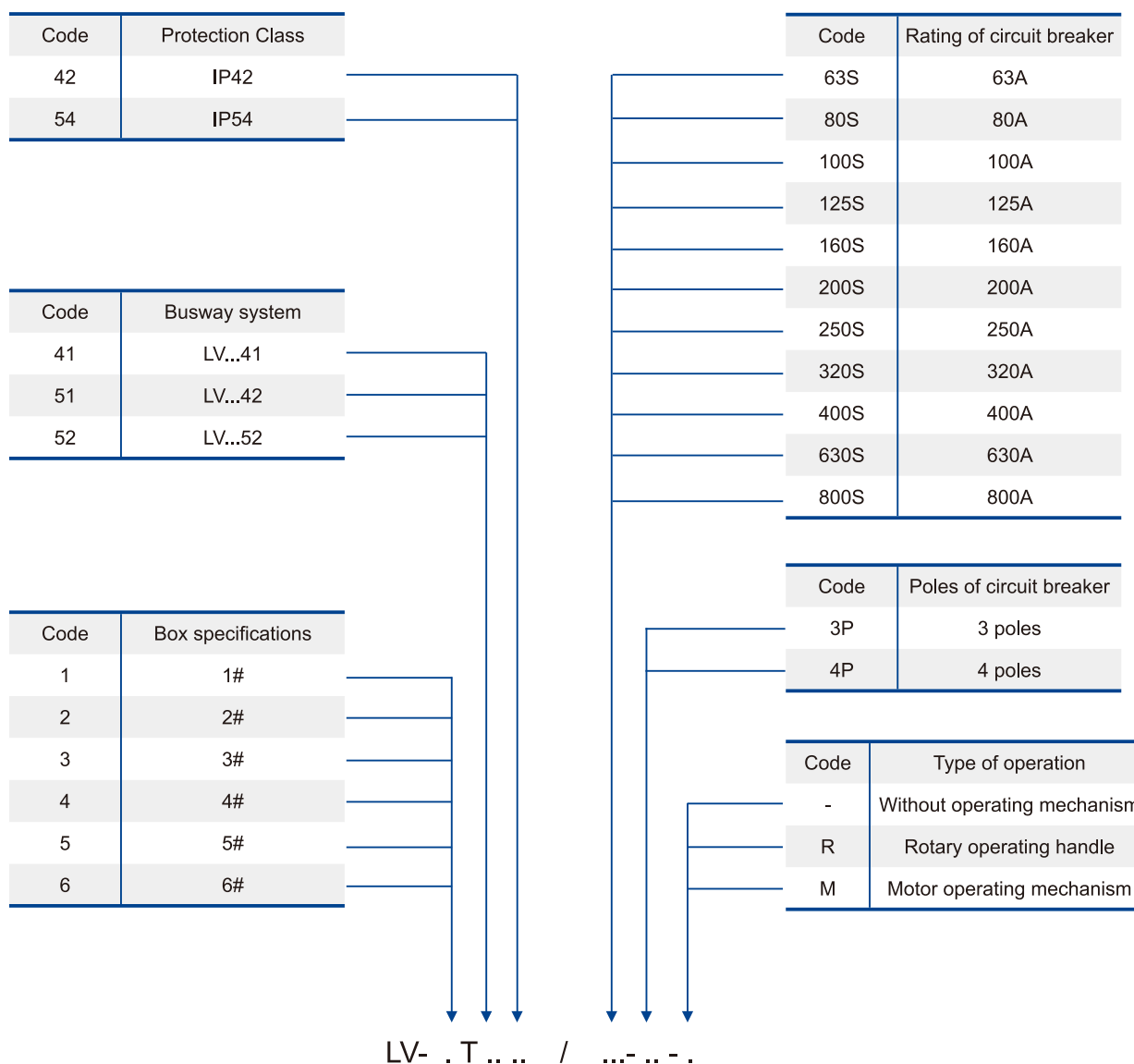
LV Busway System Numbering



For example; LVC045265-3 means:

Straight length with LV type busway, rated current of 400A, three phase five wire (with PE), IP65 and length of 3000mm.

Model: LV, current rating 400A, 5-wire system(with a separate PE), protection rating: IP65, length=3m



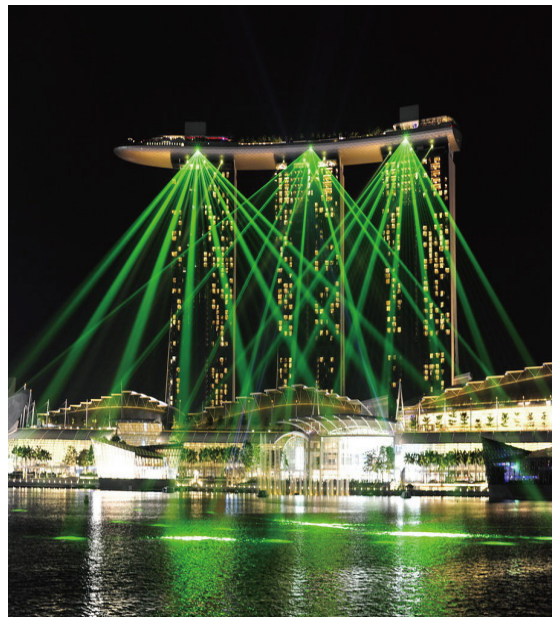
For example:

LV-3T5254/200S-3P-R means the plug-in box with specification of 3#, busway system of 52, protection rating of IP54, 3P breaker protection and rotary operating handle, rated current 200A.

Typical Job References



Casino Tower



Marina Bay Sands Hotel



National Stadium



Asian Games Stadium



Panzhuhua Steel(Group) Co. Ltd



Gezhouba Group Power Liability Co. Ltd.



Shenzhen Baohe Hospital



Wanda Plaza





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