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CATALOG

# WavePro LT Aluminium Busway



- Unparalleled safety and protection measures
- Wide range of designs meeting customer's stringent requirements
- Lower installation and maintenance costs

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**WavePro LT Busway System provides safe and reliable electrical distribution in commercial and industrial applications.**

**WavePro LT Busway System reduces installation cost while providing superior performance for electrical contractors and end users.**

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# Product Overview

WavePro LT low-voltage compact busway features rated currents from 250A-4000A, the ability of providing a neutral busbar with 100% and 200% capacity, and has two options available: 50% integrated housing ground and 50% internal ground, which can meet the requirements of various power distribution systems. The ingress protection grade is up to IP65, suitable for indoor application, the users can select according to the installation environment.

## WavePro LT reference standards & certificates

### Design Standards:

IEC 61439-1 2011 LV switchgear and control gear assemblies – Part 1: General rules  
IEC 61439-6 2012 LV switchgear and control gear assemblies – Part 6: Busbar trunking systems (busways)

### Product Certificates / Test Reports:

KEMA KEUR/DEKRA

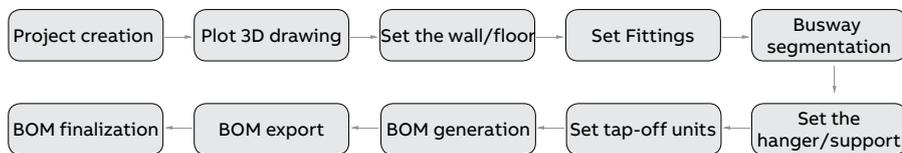


## Design software - BDM

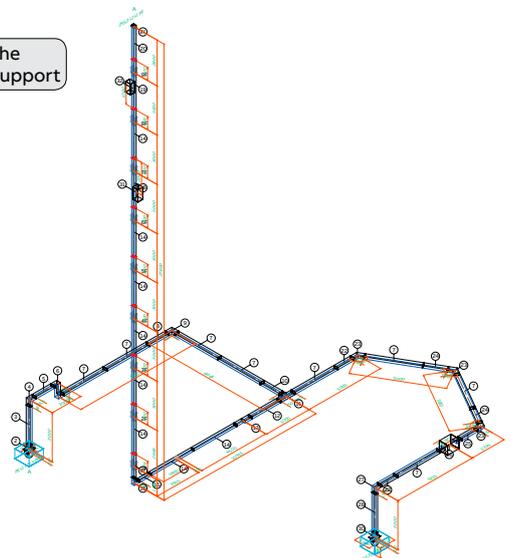
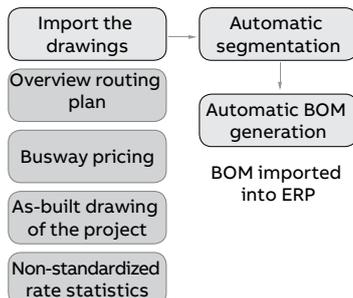
BDM is a software dedicated for busway routing design, segmentation and BOM generation.

BDM built in detailed busway product parameters and related design standard, seamless integration with ERP system.

### The busway design process is as follows:



### BDM software



## Production facility

WavePro LT busway factory has the first class equipment capacity and industry-leading CNC machining equipment such as bronze welding robots, automated assembly lines, GEMA automatic powder coating system, busbar profiles CNC machining centers made in Germany. Advanced technology delivers short lead times.



Strictly enforced and adopted the management system certifications such as ISO9001, ISO 14001 and OHSAS 18001



Welding robot, to ensure stable and reliable welding quality



Circular sawing machines made in Germany ensure the flat faying surface of the busbar. Advanced cutting and plating process brings the smoothness of conductor section



Busbar profiles CNC machining centers made in Germany

## Product Features



### Light-weight Aluminium alloy housing

- The housing is robust and reliable. The corrosion resistant, has been tested to withstand 1000 hours salt spray test
- The all-Aluminium housing provides 50% capacity of ground path
- With low magnetic material housing, WavePro LT busway system can effectively reduce the eddy current hysteresis loss



### Optimized structure design

- With the most concise structure design, WavePro LT busway has cut the unnecessary weight and improved reliability
- Compact "sandwich" design, which provides good heat dissipation performance without temperature bottleneck



### Advanced conductor processing technology

- Advanced cutting and plating process boosts the smoothness of conductor section.



### Reliable insulation

- The busbar is wholly wrapped with class B insulation polyester film, which meets the requirements of RoHS and UL94
- Every busway length and fitting must pass the 3750Vac "hi-pot" test before leaving the factory



### Ease of installation

- WavePro LT busway offers removable joint, which is easy for installation and maintenance
- Large sized Belleville washers ensure even pressure on contact area
- $\pm 4$ mm per joint adjustable clearance allows for the expansion and contraction of busbar
- Unique temperature indicator can remind maintenance in case of system fault



#### Double-headed torque limiting joint bolt

- No special torque wrench is required. Only a 16mm wrench is used to fasten the fixed captive torque bolt. When the red indication disc falls off this indicates joint is properly tightened
- The bolt is reusable after the top head is broken off by using a standard torque wrench on the second bolt head
- The standard torque is  $66\pm 5\text{N}\cdot\text{m}$



#### Safety Feature of the Bus Plug

- The rotary handle of plug on the top has clear ON/OFF indication
- The key lock mechanism is set for protecting the plug from maloperation and any unauthorized access
- Outlet covers prevent unintentional contact of the busbar
- Bus Plugs are automatically grounded on installation. Polarized engagement of the plug to the busway provides the installer with positive plug/phase alignment
- Bus plugs with rotary handle are provided with internal interlocking mechanisms to prevent their doors from being opened whilst energized, ensuring operational safety



#### IP Rating

- A variety of shell protection classes meet different application environment requirements. For different application environments, WavePro LT busway provides many different options: IP40, IP42, IP54 and IP65
- Suitable for indoor application

## Busway versus Cable

### Installation shortcut:

Busway is quick and easy to install. Customer can save considerable cost by using busway as it takes only half the time to install when compared to cable.

### Good heat dissipation:

Insulating layers of cables (core insulation and outer insulation) are insulating electrically as well as thermally, while busway use sandwich construction in whole length with totally enclosed housing. Heat disperses through conduction mode. Busway has superior heat dissipation performance compared to cable.

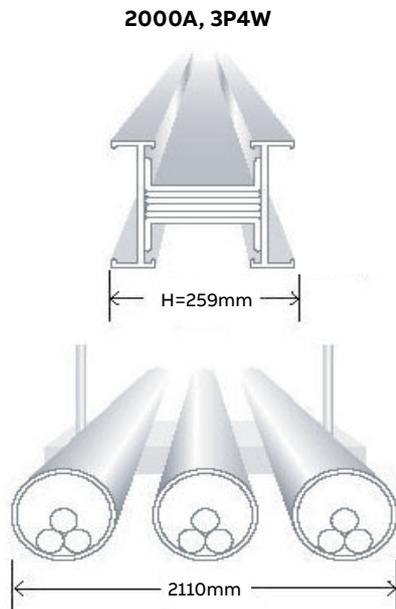


fig.6-1

### WavePro LT busway weight

Rated current (A)	Weight: (kg/m)	
	50% housing ground	50% internal ground
250	8.8	9.2
400	9.9	10.3
500	11.0	11.5
630	12.0	12.7
800	14.1	15.0
1000	15.8	16.8
1250	18.9	20.1
1350	20.5	22.0
1600	23.5	24.3
2000	26.9	29.0
2500	33.4	34.9
3150	48.0	51.9
3800	57.9	62.8
4000	62.3	67.6

table.6-1

### WavePro LT busway dimension

Rated current (A)	Size: mm	
	H	
250	89	
400	99	
500	109	
630	119	
800	139	
1000	154	
1250	184	
1350	199	
1600	219	
2000	259	
2500	309	
3150	461	
3800	551	
4000	591	

table.6-2

## Typical application of cable and busway

Below are the drawings to show the differences of typical application between cable and busway system. Cable system requires one separate cable for each power terminal. Busway system uses a main power supply busway and separates the current close to the power terminal. It saves installation space and makes whole system more safe.

Cable power supply system      Busway power supply system

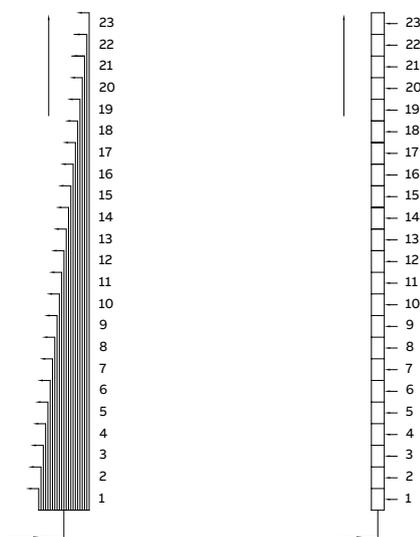


fig.7-1

### Performance and price comparison of busway and cable

Item	Description	Busway	Cable
1	From transformer to incoming cubicle	Max current of busway is up to 4000A, and can match transformers up to 2.5MVA. Busway is 100% load rated in its own housing with ground.	Higher currents require additional cables per phase, installed in separate housings and derating. Additional cable ground is required.
2	Power supply control of multistage buildings	Riser busways for distributed power to each floor enables reduced switchboard sizing.	Multiple circuits are required for each floor resulting larger riser space and multiple MCCB's in the main switchboard.
3	Life	20~30 years	15~20 years
4	Alteration loss rate	10~20%	70~80%
5	Occupying area	Reduced size	Large cable tray sizing
6	Mechanical strength	Strong mechanical strength, high protection degree, applicable for large span installation.	Cable tray must be added.
7	Feature and dimension	Customized color, small volume, sandwich configuration.	Large volume
8	Current branch	Offering multi plug outlets for plug to increase branch circuits without disconnecting power supply, easy installation.	Main power supply and cable must be disconnected.
9	Installation and maintenance	Easy installation and disassembly, positive to do electric check for branch circuit without disconnecting main power supply.	The main power supply has to be disconnected down when checking either of the branch circuit.

# Electrical Data

## Product Data

1. Busway conductor:	Aluminium bar
2. Material of enclosure:	Aluminium
3. Rated operational voltage (Ue):	690V for busway 415/690V for TOU
4. Rated insulation voltage (Ui):	1000V for busway 690V for TOU
5. Rated impulse voltage (Uimp):	8kV
6. Rated current (In):	Busway: 250A – 4000A, TOU: 100A – 630A
7. Rated frequency (f):	50/60Hz
8. Mounting altitude:	Not exceed 2000 m
9. Pollution degree:	3
10. IP code:	Feeder: IP40, IP42, IP54, IP65 Plug-in & TOU: IP40, IP42, IP54
11. Place of installation:	Indoor

table.8-1

## Grounding resistance of WavePro LT busway system (temperature=20°C)

### DC resistance (Internal 50% ground bus)

No.	Rated current (A)	Resistance (10 <sup>-6</sup> Ω/m)
4	250	342.7
5	400	259.8
6	500	210.7
7	630	178.1
8	800	138.0
9	1000	119.4
10	1250	95.2
11	1350	86.1
12	1600	73.4
13	2000	63.3
14	2500	50.4
15	3150	35.0
16	3800	28.6
17	4000	25.2

table.8-2

## Ambient Temperature's influence on application

Within the ambient temperature of 35°C, WavePro LT busway system can continuously operate at rated current.

If the busway needs to be continuously operated at higher ambient temperature, it should be derated.

The busway current-carrying capacity = rated current x de-rating factor. (As shown in below given tables)

Ambient temperature (°C)	Factor
35	1.00
40	0.95
45	0.90
50	0.85
55	0.80
60	0.74
65	0.67

table.8-3

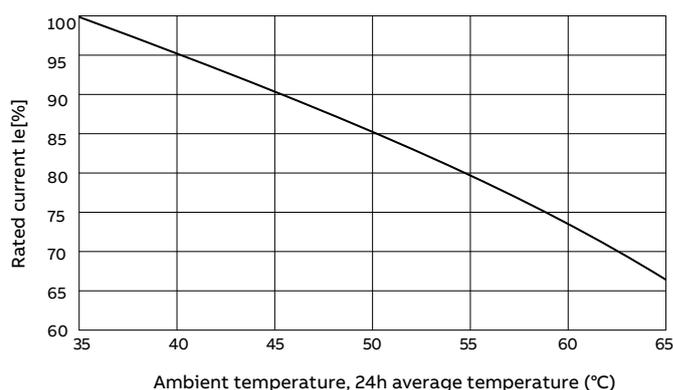


table.8-4

## Resistance, reactance, impedance and voltage drop

WavePro LT busway has low voltage-drop values. Minimum reactance (X) is due to very close bar spacings (sandwiched construction) and a non-magnetic housing. Values shown are identical for plug-in and feeder.

Rated current	Rated shorttime tolerant current (I <sub>sw</sub> )	Rated peak tolerant current (I <sub>pk</sub> )	20°C	Full load/Steady-state (50Hz)				Voltage Drop-Concentrated Load <sup>①</sup> Line-to-Line (V/m) @ 100% Rated Load				
			Resistance	Resistance	Reactance	Impedance	cosφ=0.6	cosφ=0.7	cosφ=0.8	cosφ=0.9	cosφ=1.0	
A	kA/s	kA	(10 <sup>-6</sup> Ω/m, Line-to-Neutral)									
100	10	17	171.3	187.9	35.3	191.2	0.024	0.027	0.030	0.032	0.033	
160	10	17	171.3	187.9	35.3	191.2	0.039	0.043	0.048	0.051	0.052	
200	10	17	171.3	187.9	35.3	191.2	0.049	0.054	0.059	0.064	0.065	
250	10	17	171.3	187.9	35.3	191.2	0.061	0.068	0.074	0.080	0.081	
400	30	63	129.9	148.7	29.5	151.6	0.078	0.087	0.095	0.102	0.103	
500	30	63	105.3	128.3	25.6	130.8	0.084	0.093	0.102	0.110	0.111	
630	30	63	89.0	108.8	22.8	111.1	0.091	0.101	0.110	0.118	0.119	
800	30	63	69.0	84.0	19.1	86.2	0.091	0.100	0.109	0.116	0.116	
1000	50	105	59.7	74.9	17.1	76.8	0.101	0.112	0.122	0.130	0.130	
1250	50	105	47.6	60.3	14.5	62.0	0.103	0.114	0.123	0.131	0.130	
1350	50	105	43.0	52.1	13.6	53.8	0.098	0.108	0.116	0.124	0.122	
1600	50	105	36.7	44.7	12.1	46.3	0.101	0.110	0.119	0.126	0.124	
2000	50	105	31.7	40.6	10.9	42.0	0.115	0.125	0.135	0.143	0.141	
2500	50	105	25.2	30.8	9.1	32.1	0.111	0.121	0.130	0.137	0.133	
3150	80	176	17.5	21.4	5.8	22.2	0.095	0.104	0.112	0.119	0.117	
3800	80	176	14.3	17.5	5.0	18.2	0.096	0.104	0.112	0.118	0.115	
4000	80	176	12.6	15.5	4.8	16.2	0.091	0.099	0.106	0.111	0.107	

table.9-1

Note:

① Concentrated Load: Voltage Drop =  $\sqrt{3} | (R\cos\Phi + X\sin\Phi) |$ Distributed Load: Voltage Drop =  $[\sqrt{3} | (R\cos\Phi + X\sin\Phi) | ] / 2$

# Physical Data

## Straight lengths

### Straight lengths: Plug-in and feeder

Feeder busway has the minimum length of 400mm, and the maximum length of 3000mm. Other lengths can customize as needed.

Plug-in busway has the minimum length of 1000mm, and the maximum length of 3000mm.

Plug-in busway has a flexible design with optional plug outlets on both sides. The minimum space between plugs is 600mm and up to 4 plug outlets may be fixed on each side of the 3-meter standard length. The customer may reserve plug outlets for extension in the future when changes occurs in terms of the equipment load or busway run.

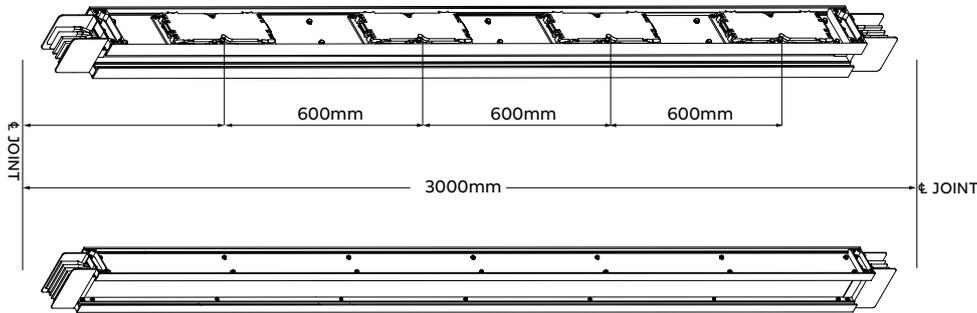


fig.10-1

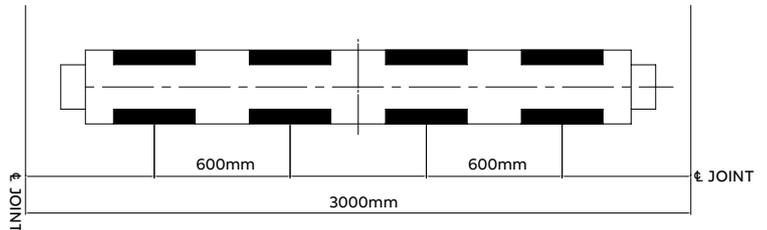


fig.10-2

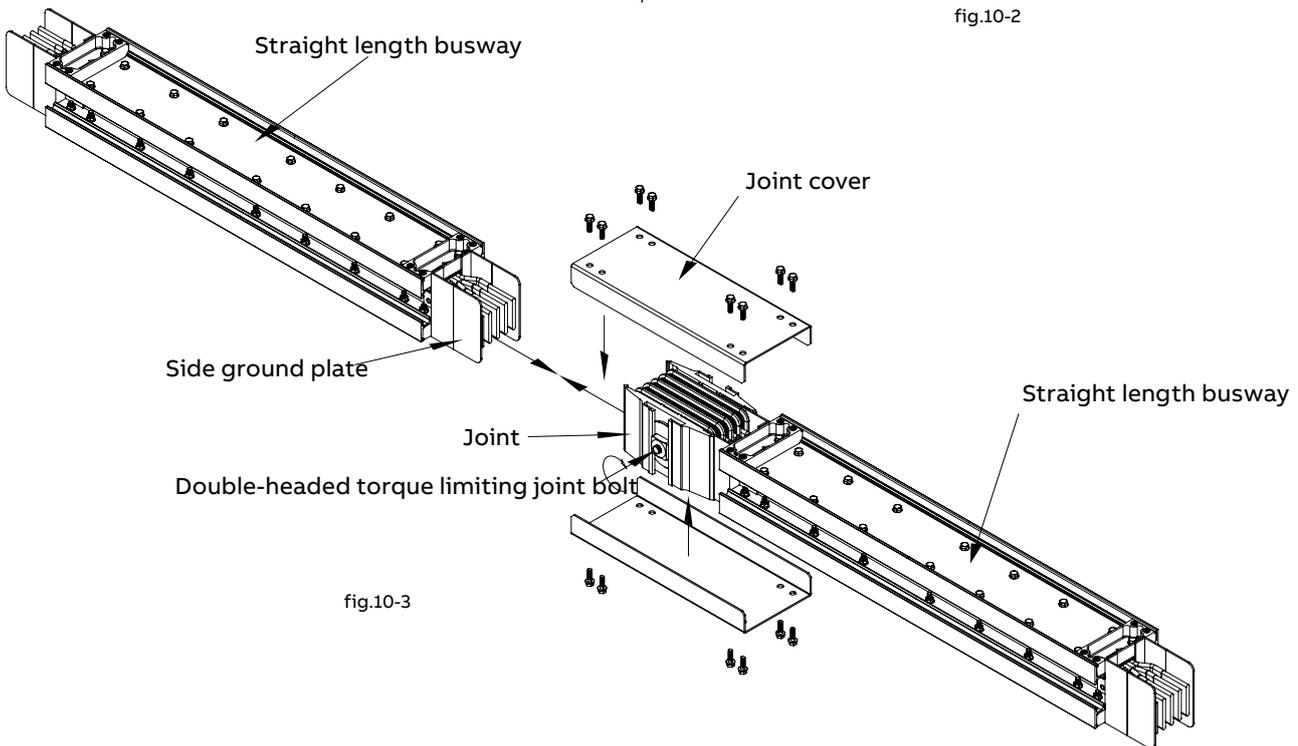


fig.10-3

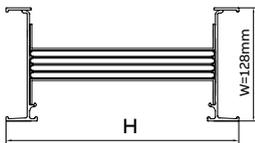


fig.13-1

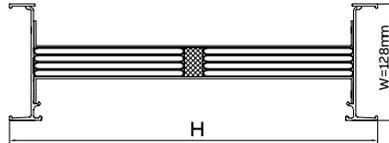


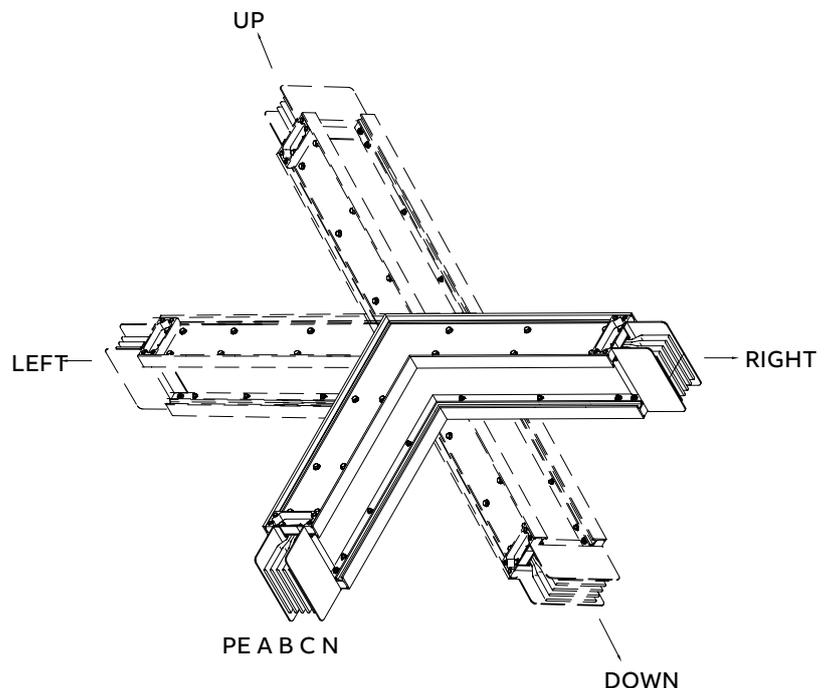
fig.13-2

Rated current (A)	H (mm)	Approximate Weight (kg/m)		fig.
		Housing ground	Internal ground	
250	89	8.8	9.2	13-1
400	99	9.9	10.3	
500	109	11	11.5	
630	119	12	12.7	
800	139	14.1	15	
1000	154	15.8	16.8	
1250	184	18.9	20.1	
1350	199	20.5	22	
1600	219	22.7	24.3	
2000	259	26.9	29	
2500	309	32.2	34.9	13-2
3150	461	48	51.9	
3800	551	57.9	62.8	
4000	591	62.3	67.6	

Note: Fig 13-1 and Fig 13-2 show arrangement with housing ground, dimensions are the same for internal ground bar arrangement

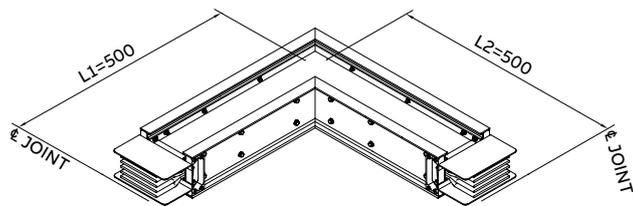
### Fittings

WavePro LT busway system has a complete family of fittings to meet virtually all layout requirements using the compact minimum sizes. Special turns such as flat angles greater than 90° and crosses are also available. Each piece of busway is labeled to maintain proper phasing. All housing width and depth dimensions are identical to straight lengths.

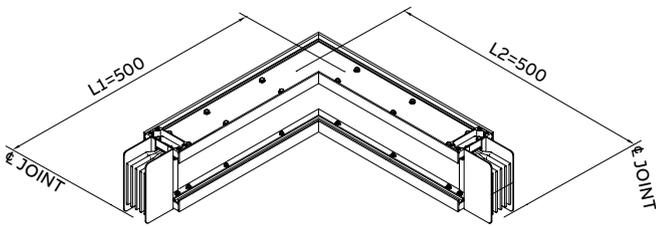


# Physical Data

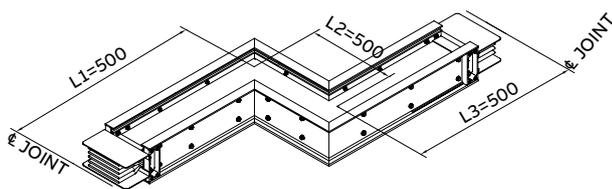
## Elbows



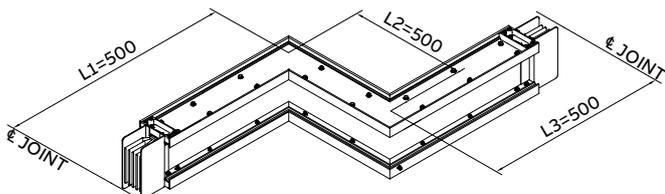
Flatwise elbow



Edgewise elbow



Flatwise offset



Edgewise offset

### Flatwise elbow

Size: mm

Rated current ( A )	Minimum	
	L1	L2
100	224	224
160	224	224
200	224	224
250	224	224
400	229	229
500	234	234
630	239	239
800	249	249
1000	257	257
1250	272	272
1350	279	279
1600	294	294
2000	309	309
2500	342	342
3150	410	410
3800	455	455
4000	475	475

### Edgewise elbow

For busway of all current levels, L1 and L2 standard dimensions are as shown in the figures, with minimum size: 245mm.

### Flatwise offset

Size: mm

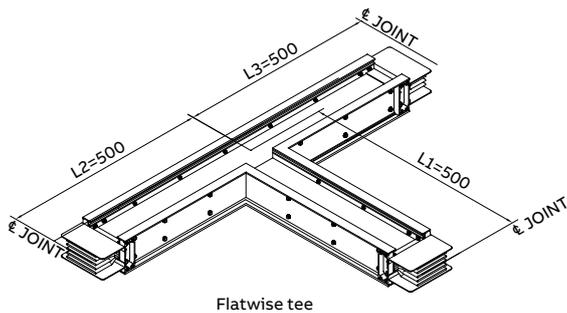
Rated current ( A )	Minimum		
	L1	L2	L3
250	224	150	224
400	229	150	229
500	234	150	234
630	239	150	239
800	249	150	249
1000	257	150	257
1250	272	150	272
1350	279	150	279
1600	294	150	294
2000	309	150	309
2500	342	150	342
3150	410	150	410
3800	455	150	455
4000	475	150	475

### Edgewise offset

For busway of all current levels, L1, L2 and L3 standard dimensions are as shown in the figures, with minimum size L1=245mm, L2=150mm, L3=245mm.

# Physical Data

## Tees



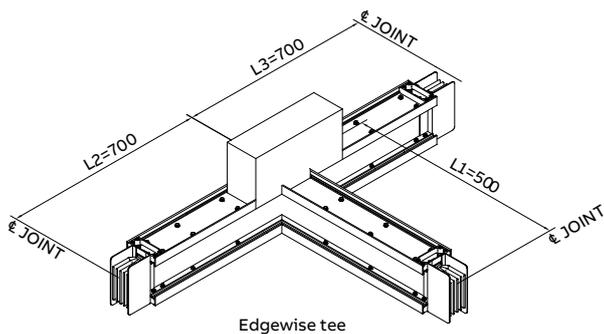
Flatwise tee

### Flatwise tee

Size: mm

Rated current ( A )	Minimum	
	L1	L2/L3
250	224	224
400	229	229
500	234	234
630	239	239
800	249	249
1000	257	257
1250	272	272
1350	279	279
1600	294	294
2000	309	309
2500	342	342
3150	410	410
3800	455	455
4000	475	475

For busway of all current levels, L1, L2 and L3 standard dimensions are as shown in the figure.



Edgewise tee

### Edgewise tee

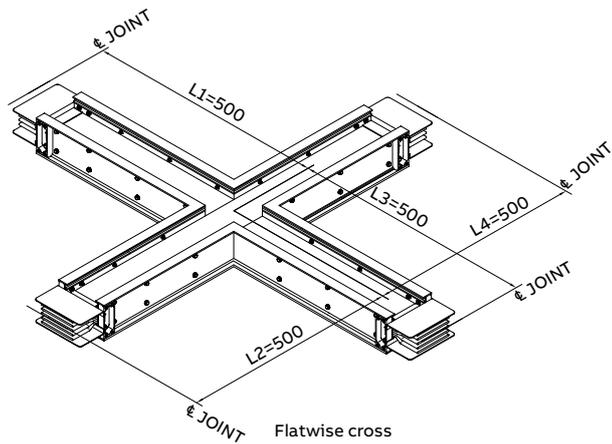
Size: mm

Rated current ( A )	Minimum	
	L1	L2/L3
250	300	340
400	300	350
500	300	360
630	300	370
800	300	390
1000	300	405
1250	300	435
1350	300	450
1600	300	480
2000	300	510
2500	300	560
3150	300	495
3800	300	540
4000	300	560

L1, L2 and L3 standard dimensions are as shown in the figure.

# Physical Data

## Cross

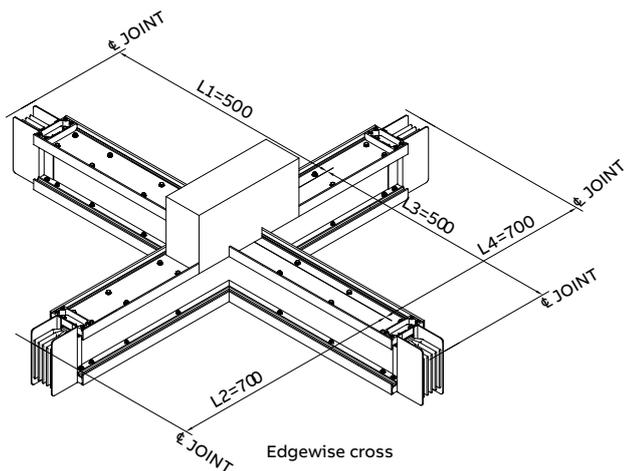


### Flatwise cross

Size: mm

Rated current ( A )	Minimum			
	L1	L2	L3	L4
250	224	224	224	224
400	229	229	229	229
500	234	234	234	234
630	239	239	239	239
800	249	249	249	249
1000	257	257	257	257
1250	272	272	272	272
1350	279	279	279	279
1600	294	294	294	294
2000	309	309	309	309
2500	342	342	342	342
3150	410	410	410	410
3800	455	455	455	455
4000	475	475	475	475

For busway of all current levels, standard dimensions are as shown in the



### Edgewise cross

Size: mm

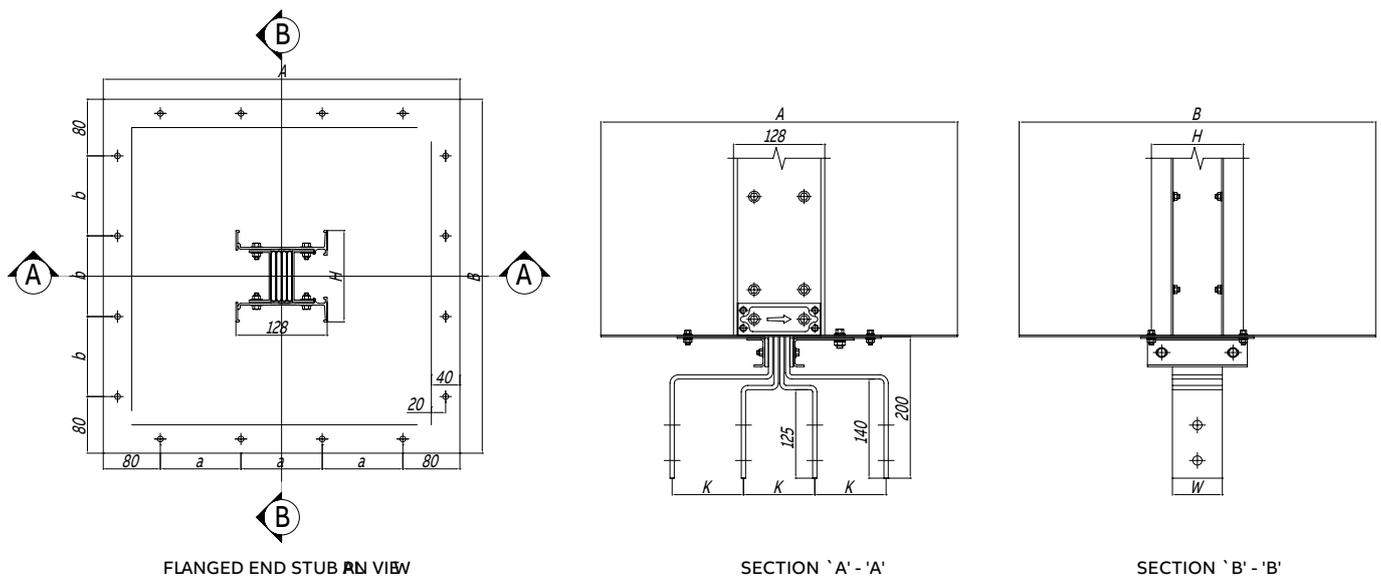
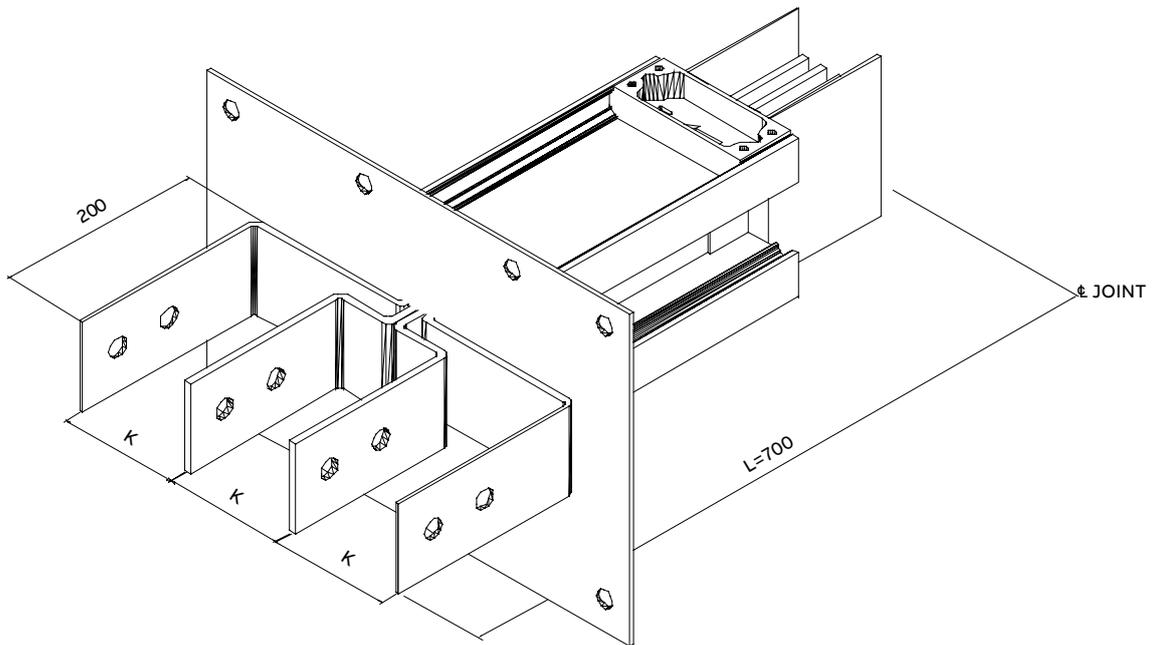
Rated current ( A )	Minimum			
	L1	L2	L3	L4
250	300	372	300	372
400	300	382	300	382
500	300	392	300	392
630	300	402	300	402
800	300	422	300	422
1000	300	437	300	437
1250	300	467	300	467
1350	300	482	300	482
1600	300	512	300	512
2000	300	542	300	542
2500	300	607	300	607
3150	300	527	300	527
3800	300	572	300	572
4000	300	592	300	592

For busway of all current levels, standard dimensions are as shown in the

# Physical Data

## Flanged End

Flanged end and end tap box can be used in connection with switchgear and transformer of any type and users can determine the spacing between the stubs of the bus bar based on the specific applications.



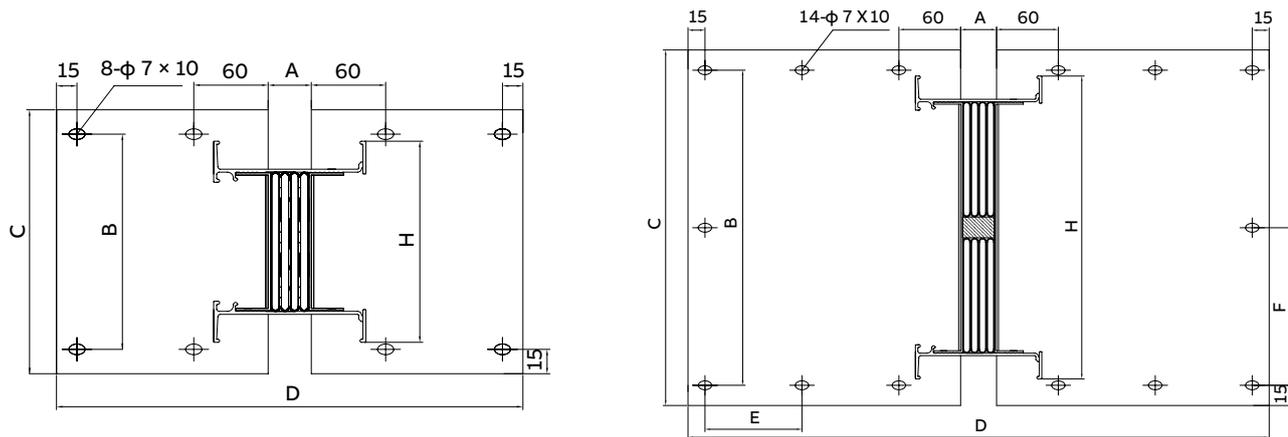
### Note:

1. As a standard flanged end, when the bus bar current is less than or equal to 1600A, K=100mm; when the bus bar current is more than 1600A, K=120mm. 2.All dimensions provided are for standard products. Please contact our engineers for customized products' dimensions.

# Physical Data

## Flanged End

### Flanged end



Size: mm

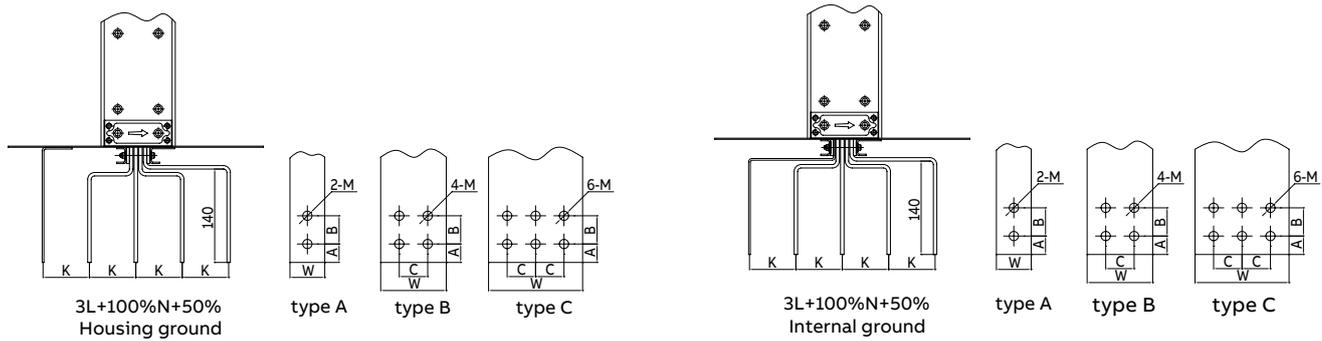
Rated current (A)	H	A		B	C	D	
		Housing ground	Internal ground			Housing ground	Internal ground
250	88	35	39	90	120	390	490
400	98	35	39	100	130	390	490
500	108	35	39	110	140	390	490
630	118	35	39	120	150	390	490
800	138	35	39	140	170	390	490
1000	153	35	39	155	185	390	490
1250	183	35	39	185	215	390	490
1350	198	35	39	200	230	390	490
1600	228	35	39	230	260	390	490
2000	258	35	39	260	290	450	570
2500	323	35	39	325	355	450	570
3150	460	35	39	462	492	450	570
3800	550	35	39	552	582	450	570
4000	590	35	39	592	622	450	570

table.16-1

Note:

- As shown in the figure, for the location of the hole of outboard, it shall be 15mm away from the outer edge; while for the location of the one of inboard, it shall be 60mm away from the inner edge. The rest distance wherein is given uniformly for mid holes according to situation.
- E and F indicate the distance between the centers of two adjacent holes, and the value shall be limited with the extension from 100mm to 250mm, E and F will be confirmed and sent to the customer when the end tap box dimension is confirmed.

## Flanged end details



Size: mm

Rated current (A)	A	B	C	K	2-M	Type
250	20	40	-	100	2- $\phi$ 11	A
400	20	40	-	100	2- $\phi$ 11	A
500	25	50	-	100	2- $\phi$ 14	A
630	25	50	-	100	2- $\phi$ 14	A
800	20	40	40	100	4- $\phi$ 14	B
1000	20	40	40	100	4- $\phi$ 14	B
1250	30	60	60	100	4- $\phi$ 18	B
1350	30	60	60	100	4- $\phi$ 18	B
1600	25	50	50	100	6- $\phi$ 18	C
2000	30	60	60	120	6- $\phi$ 18	C
2500	30	60	60	120	6- $\phi$ 18	C
3150	25	50	50	120	6- $\phi$ 18	C
3800	30	60	60	120	6- $\phi$ 18	C
4000	30	60	60	120	6- $\phi$ 18	C

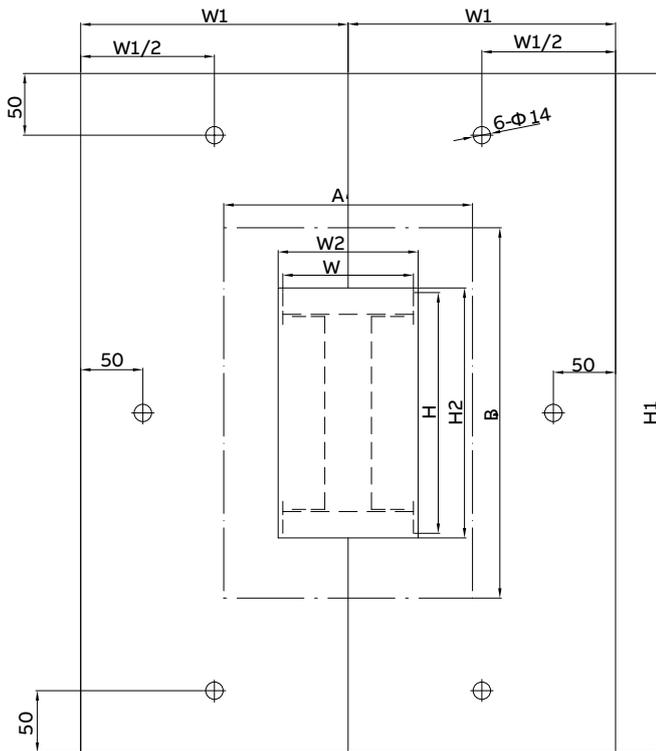
Note: For the current equal to or above 3150A, two bars shall be adopted for per phase, and the hole dimension shown in the tab shall be furnished in both bars.



# Physical Data

## Wall Flange

### Wall flange



#### Note:

1. W indicates the width of busway while H indicates the height;
2. A indicates the width of cutout while B indicates the height;
3. W1 indicates the external width of flange while H1 indicates the height;
4. W2 indicates the internal width of flange while H2 indicates the height;
5. The flange is dimidiated;
6. Flange is necessary in both sides of the cutout;
7. Flange is fixed against the wall with internal expansion bolt.

Size: mm

Rated current (A)	External dimension of busway W×H	Dimension of cutout A×B (≥)	External dimension of wall flange W1×H1 (≥)	Internal dimension of wall flange W2×H2 (≥)
	Al	Al	Al	Al
250	128×88	230×190	215×390	140×100
400	128×98	230×200	215×400	140×110
500	128×108	230×210	215×410	140×120
630	128×118	230×220	215×420	140×130
800	128×138	230×240	215×440	140×150
1000	128×153	230×255	215×455	140×165
1250	128×183	230×285	215×485	140×195
1350	128×198	230×300	215×500	140×210
1600	128×228	230×330	215×530	140×240
2000	128×258	230×360	215×560	140×270
2500	128×323	230×425	215×625	140×335
3150	128×460	230×562	215×762	140×472
3800	128×550	230×652	215×852	140×562
4000	128×590	230×692	215×892	140×602

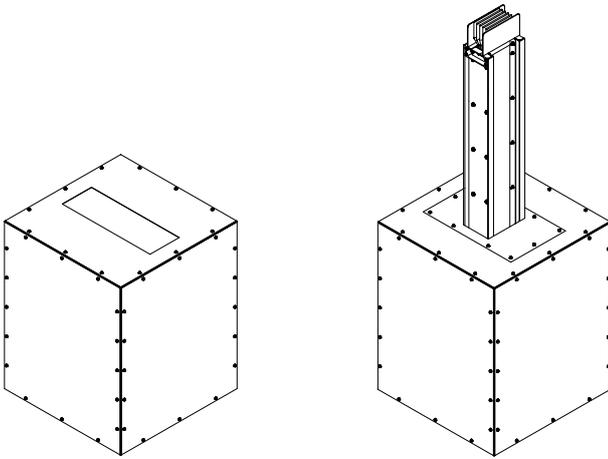
## Physical Data

### Other Fittings

#### End tap box

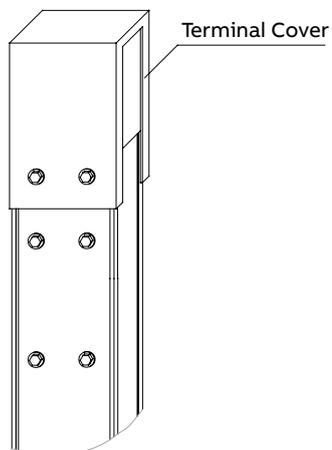
WavePro LT busway system tap boxes are used where a run of busway is fed by cable. We offer end tap box in standard size (1m×1m×1m), while we can also supply with nonstandard box according to site measurements.

All provided dimensions are for standard products. Please contact our engineers for customized product's dimensions.



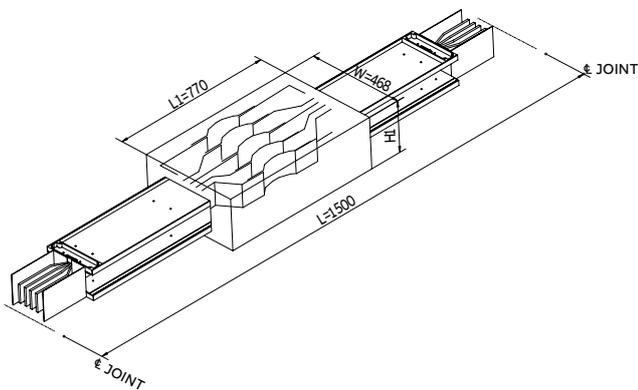
#### Terminal cover

Terminal cover is installed to terminate the busway to prevent ingress of external materials/particles and contact with live parts, thus enclosing the whole busway system.



### Expansion length

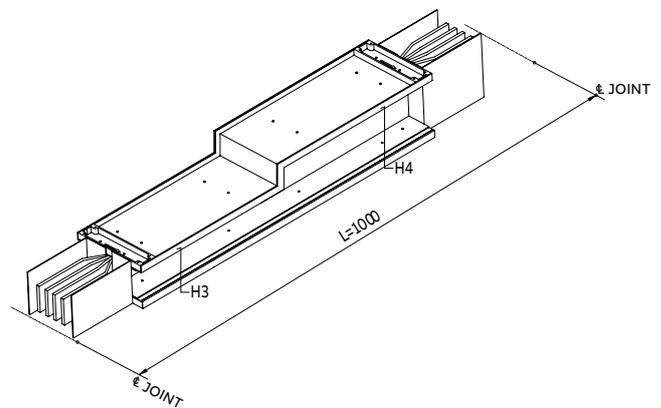
Expansion length is the transition section compensating thermal expansion, it is normally set at each 60m in linear distance.



Note:  $H1=H+67$  (H is bus height)

### Reducer

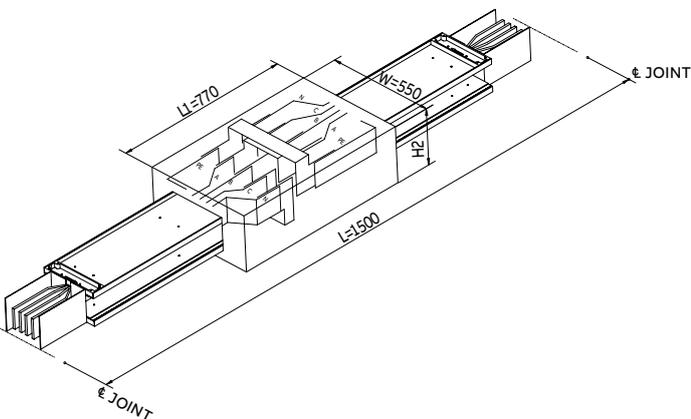
This transition section is used for reducing busbar size according to the final load, it provides users with more economic power transmission and distribution method.



Note: H3, H4 is the height of the busway.  
Please refer to table.11-1.

### Transposition section

Transposition section is the transition part used for changing phase sequence of the busbar. Its minimum size is 1500mm. The phase sequence of both sides needs to be provided by the customer.



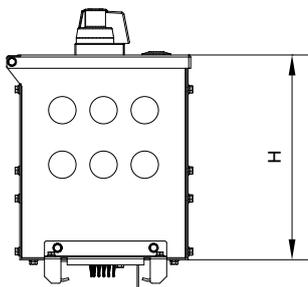
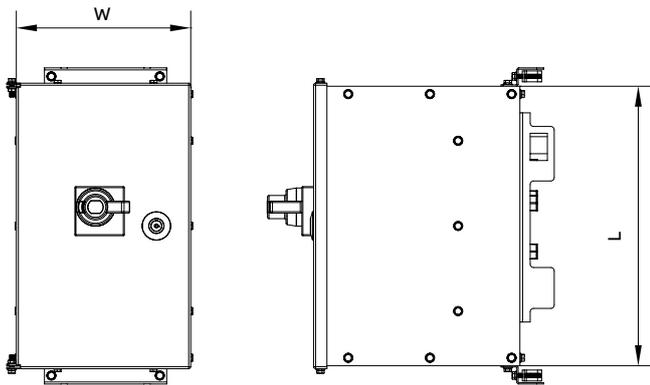
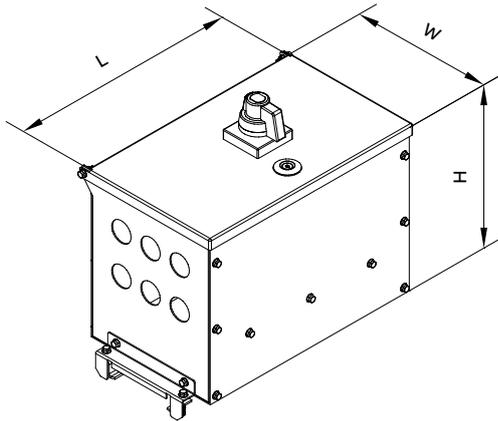
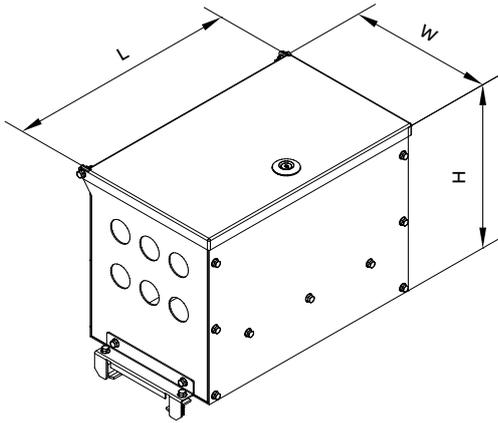
Note:  $H2=H+200\text{mm}$  (H is busbar height)

Note:

1. For H dimensions please refer to table.11-1.
2. All dimensions provided are for standard products. Please contact our engineers for customized product's dimensions.

# Physical Data

## Plugs



### Bus plug

WavePro LT bus plugs are used to Supply electrical power directly to the load from the busway system. The protection component in a bus plug can be either a circuit breaker or fuse.

3-Pole or 4-Pole ABB TMax circuit breakers may be installed in the plug for load protection including accessories of circuit breakers such as rotary handles, shunt release, thermal magnetic release and leakage-current protection module.

### Physical data of plug (L×W×H) mm

\*For any nonstandard dimension, please contact us.

Plug rating (A)	Plug size (L x W x H), mm		MCCB	
	Manual operation	Rotary handle	thermal-agnetic	electronic trip
16	450 x 240 x 260	450 x 240 x (260 + 70)	Tmax XT1	Tmax XT2
25			Tmax XT4	
32				
40				
50				
63				
80				
100				
125				
160				
200	550 x 260 x 280	550 x 260 x (280 + 70)	Tmax XT3	Tmax XT4
250			Tmax XT4	
400	650 x 300 x 300	650 x 300 x (300 + 70)	Tmax T5	Tmax T5

Note: Additional 70mm is considered for installing the rotary handle

# Busway Installation

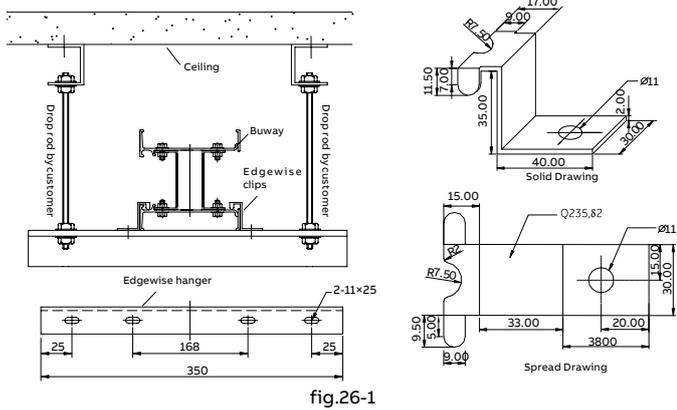


fig.26-1

### Edgewise hanger (Horizontal)

The edgewise hanger is used when the busway is edgewise installed. It is suitable for all ampere ratings.

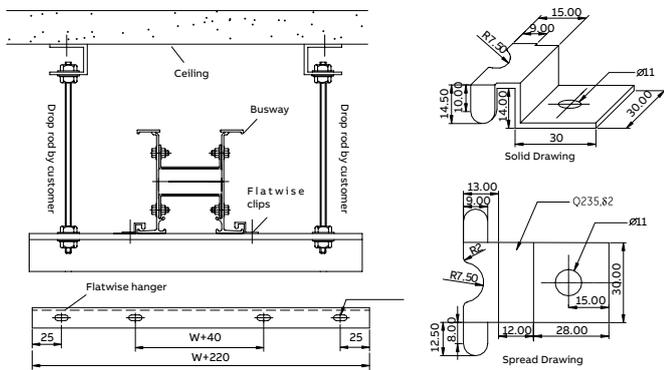


fig.26-2

### Flatwise hanger (Horizontal)

The flatwise hanger is used when the busway is flatwise installed. It is suitable for all ampere ratings. But dimension of the flatwise installation beam is based on the ampere rating. In the pic below W is the width of the busway.

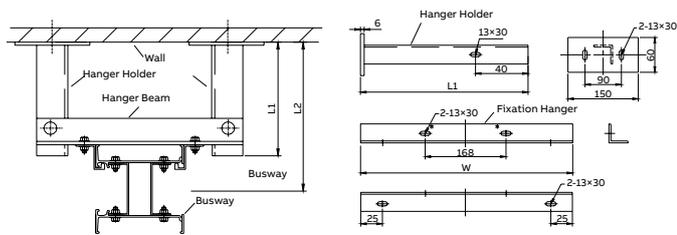


fig.26-3

### Fixed hanger (Vertical)

The fixed hanger is used when the busway is vertically installed. It is installed on the wall between the two floors. It keeps the busway from moving horizontally. It is suitable for all ampere ratings. Fixed hanger has two parts, a pair of "Hanger Holder" which are perpendicular to the wall and a "Hanger Beam" which is parallel with the wall.

Note:

1. L1 and L2 are customized based on different projects. Other dimensions are for standard products.
2. Fixation hangers are provided by the installation company as a Standard Practice. It is charged separately when supplied by the factory, according to the dimension provided.

# Busway Installation

## Spring hanger (Vertical)

Spring hanger is used in each floor to support vertically installed busway's weight.

Spring hanger is connected with the busway by bolt.

Spring hangers have different spring quantities for different ampere rating busways. Please refer to table.27-1.

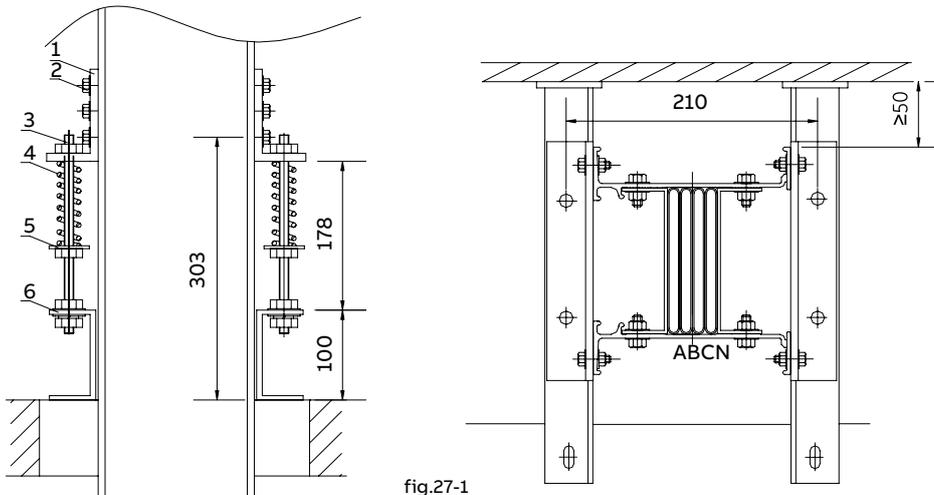


fig.27-1

- Accessories:
- 1. Spring supporter
  - 2. Hex head bolt
  - 3. Double-headed bolt
  - 4. Spring
  - 5. Cushion
  - 6. Channel steel base

Rated current (A)	Spring Qty
250-800	2
1000-2500	4
3150-4000	6

table.27-1

Note:

- 1. All dimensions are in mm.
- 2. All dimensions provided are for standard products. Please contact our engineers for customized products' dimensions.

**Minimum clearance required for heat dissipation**

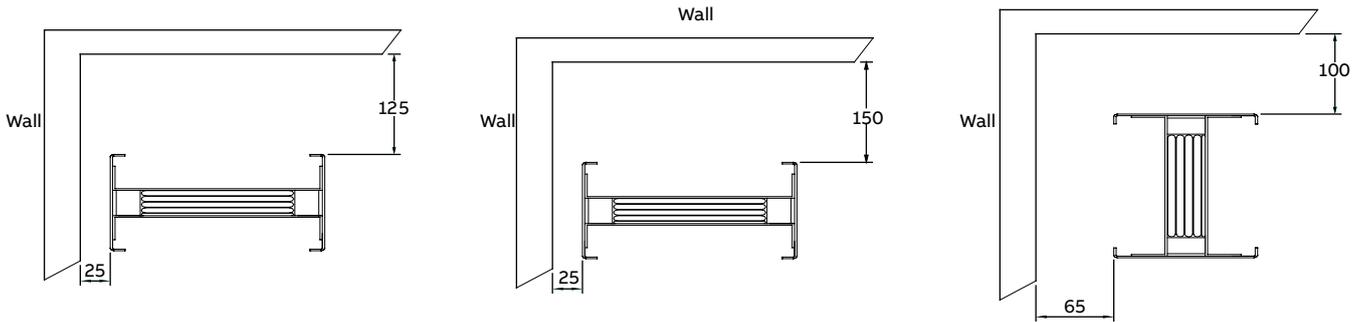
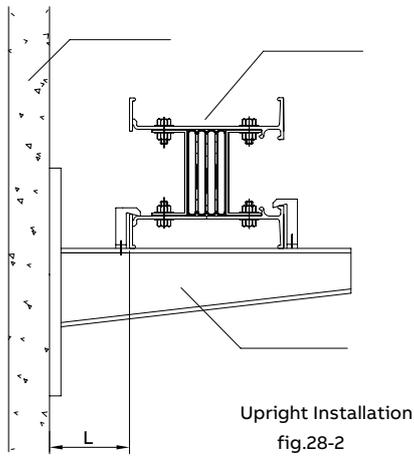


fig.28-1



**Minimum clearance required for Plug-in box installation**

**Installation of bus plug**

When the busway is horizontally or vertically installed near the wall, a minimum clearance is required for Plug-in box installation.

Pls refer to below table.28-1

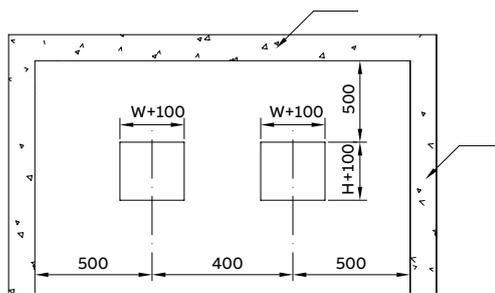


fig.28-3

**Horizontal installation**

**Horizontal through-the-wall installation**

For dimensions of through-the-wall installation, please refer to the left figure.

# Busway Installation

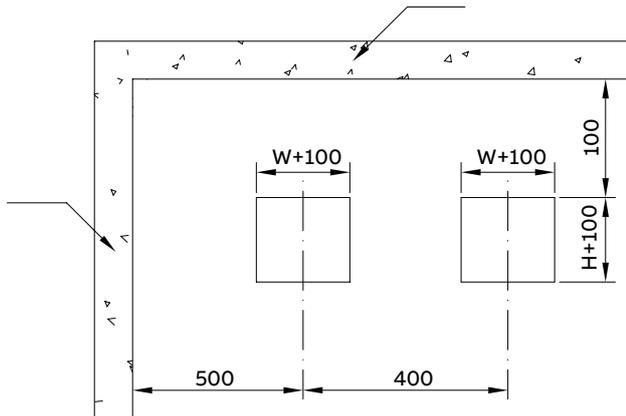


fig.29-1

## Vertical installation

For installing vertical bus run, please refer to the fig.29-1 for dimension of cut holes. It shall be ensured that the spacing between every two runs of busway exceeds 400mm if there are two or more than two vertical runs of busway installed in the same riser.

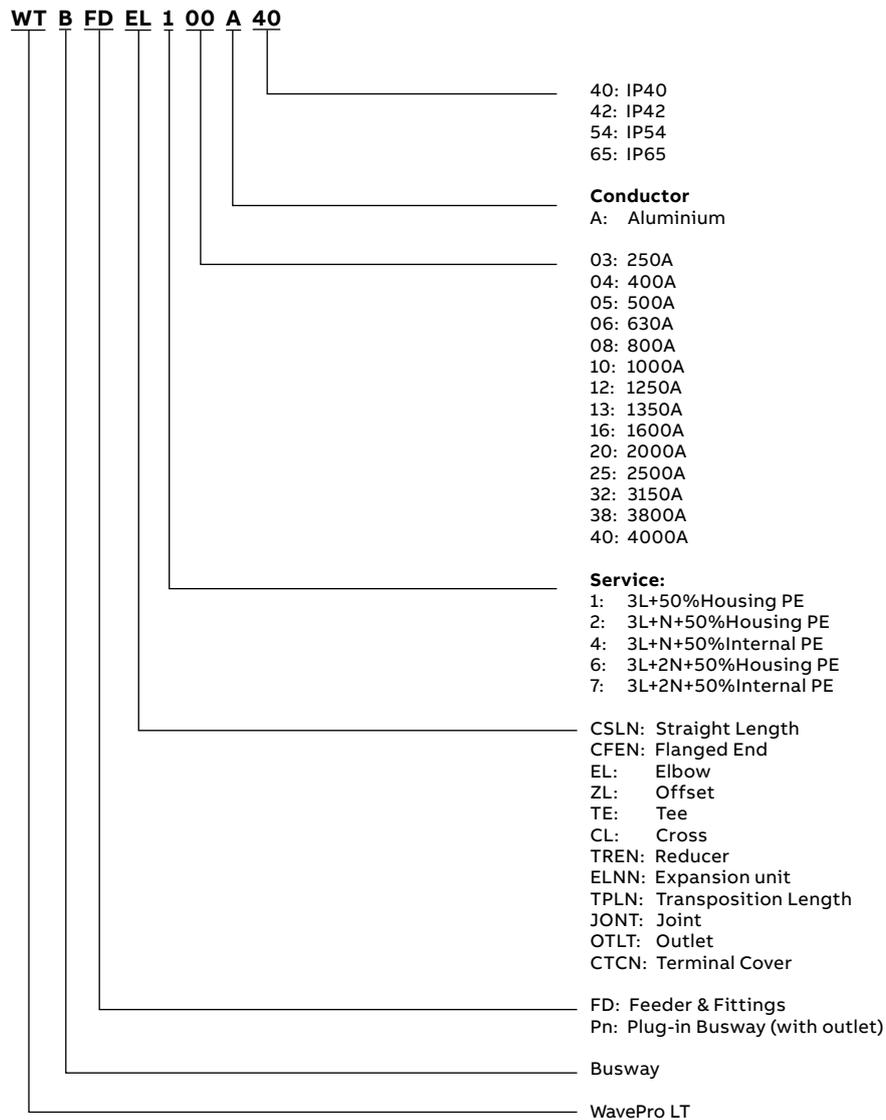
### Key points in Vertical installation

- In vertical installation, the distance between joint and ground should not be less than 0.56m, while distance between busway and wall backwards should be more than 0.1m
- Busway installed in riser should be reinforced in the center (generally when the space between floors exceed 4m or according to the user's special requirements)
- In vertical installation, spring bracket should be installed first and then busway, together with the spring bracket, can be fixed on the channel steel bed. Switch the spring to adjust the nut so that bracket spring can naturally bear the weight of busway
- The central distance between two neighbor vertical busways should be more than 0.4m. If have the special situation, please contact with project engineer



# Numbering System

## Lengths and fittings



<b>EL:</b>	<b>Elbow</b>	
	LEIN:	Edgewise (N inboard)
	LEON:	Edgewise (N outboard)
	LFNN:	Flatwise
<b>ZL:</b>	<b>Offset</b>	
	ZENN:	Edgewise
	ZFUN:	Flatwise (N phase Up)
	ZFDN:	Flatwise (N phase Down)
<b>TE:</b>	<b>Tee</b>	
	TEIN:	Edgewise Tee (N inboard)
	TEON:	Edgewise Tee (N outboard)
	TFNN:	Flatwise Tee
<b>CL:</b>	<b>Cross</b>	
	CFNN:	Flatwise Cross
	CENN:	Edgewise Cross

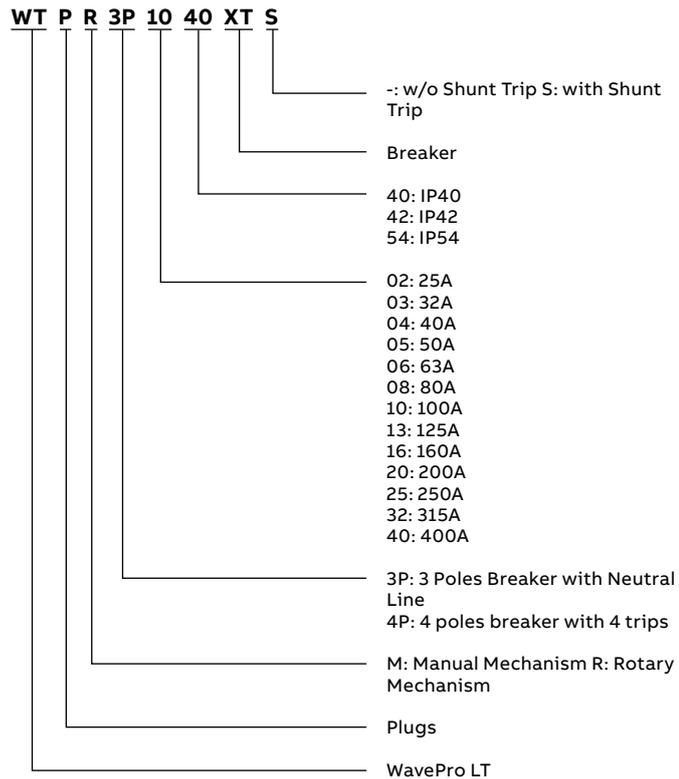
Samples:

1. IP54, 4000A Elbow, 3L+100%N+50% Housing PE, Aluminium Conductor: WTBFDEL340A54

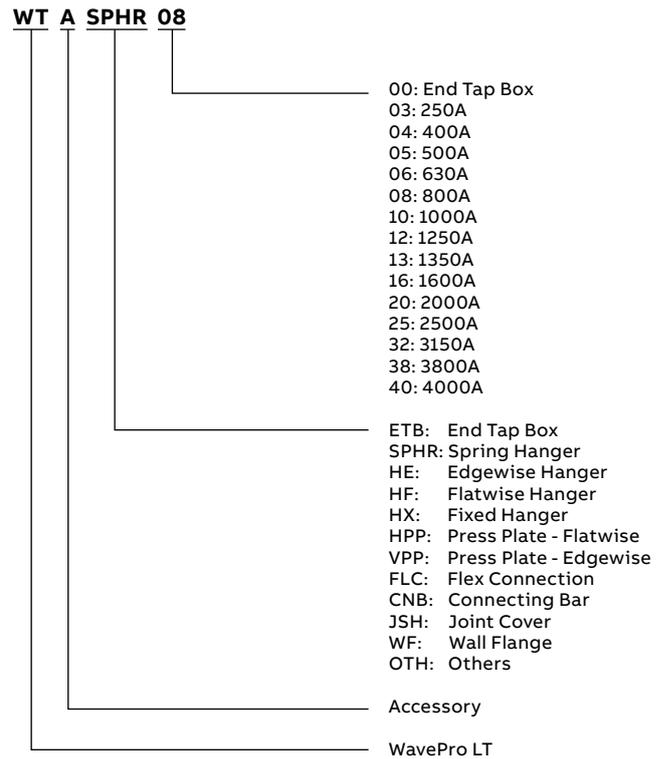
# Numbering System

## Busway plugs & Accessories

### Busway plugs



### Accessories



Information provided is subjected to change without notice. Please verify all details with Industrial Solutions.



—  
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