



Vertiv™ PowerBar HPB UL857



Overview

The busduct is housed in an aluminum casing which acts as a ground with ingress protection rating of IP55.

Features:

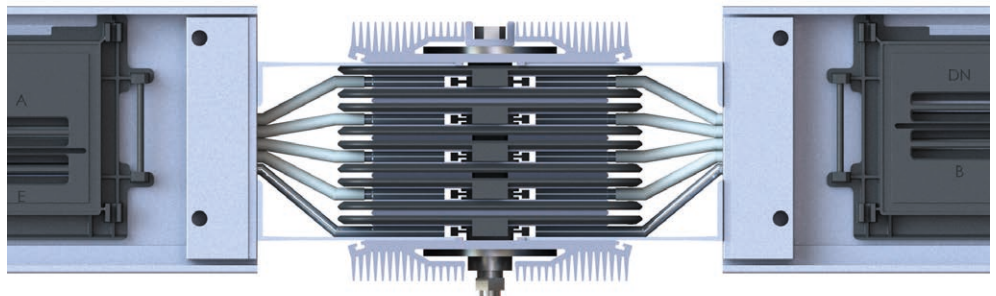
- Class B insulated epoxy coated conductor with tin plating.
- Sandwich style busduct with spliced joint pack.
- Maximum 6 busplug outlets with a busbar length of 12ft.
- All busplugs have mechanical/ electrical interlocks with a 'ground first, break last' safety feature.
- Stamped conductor tabs for busplug connections. All aluminum housing for reduced heat loss and better ground continuity.

All certificates available on request.

Vertiv™ PowerBar HPB is a 600 Volt totally encased, non-ventilated, low impedance busduct. Vertiv PowerBar is available from 1000-4000A in Aluminum and 600-5000A in Copper with multiple bar configurations to suit project requirements.

Standards

Vertiv PowerBar HPB is UL857 listed and manufactured in a certified management system environment where Quality ISO 9001 standards are applied to all aspects of the manufacturing and installation processes. We meet the requirements of NEMA, cULUS, IEEE & ANSI.

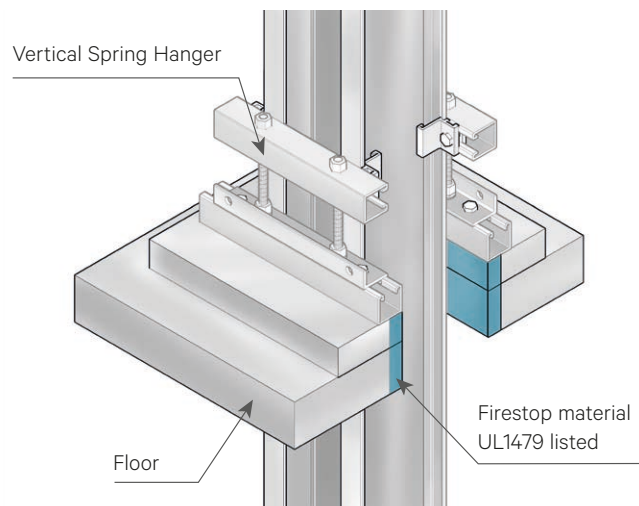


Seismic Compliance

Vertiv HPB is certified for Seismic withstand capability and has a qualification level - high (Zone-5) in accordance to IEEE standard 693.

Technical Features

- Constructed from high density, high conductivity copper or 55% aluminum.
- The conductors are insulated with a Class B epoxy insulation applied uniformly using an electrostatic coating process. The epoxy coating is non-hygroscopic and chemical resistant with outstanding heat transfer characteristics.
- The low impedance sandwich design:
 - Improves heat dissipation
 - Improves short circuit rating
 - Reduces voltage drop/ impedance
 - Removes potential pathways for flame, smoke and gas
- Constructed with an all-aluminum housing. Aluminum is much lighter than steel, making it more economical and easier to install. Aluminum is also less reactive than steel so it is more durable and easier to maintain.
- Offers fully isolated ground for systems where ground isolation is required.



UL Fire Stop System

Copper

Configuration	Phases	Neutral	Ground
3W	100%	0%	Case
4W	100%	100%	Case
3W+G	100%	0%	100%
4W+G	100%	100%	100%

Aluminium

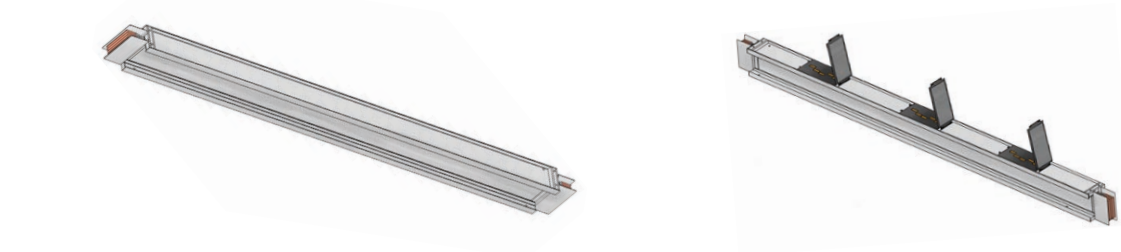
Configuration	Phases	Neutral	Ground
3W	100%	0%	Case
4W	100%	100%	Case
3W+G	100%	0%	100%
4W+G	100%	100%	100%

Note: Case refers to the aluminum casing being used as an integral ground. 100% ground bar can either be supplied as an isolated ground (ISO) or uninsulated internal ground (INT).

Straight Lengths

Straight Lengths

- Straight lengths can be supplied at any length between 2ft - 12ft.
- The busplug slot outlet and cover are made from a durable, high strength, insulation material.
- Busways are rated up to IP55.



Distribution lengths allow tap off units to be plugged into the busbar run

Copper

Busduct Rating (Amps)	Construction Type	Busduct Size			
		Width		Height	
		in	mm	in	mm
600*	Single	5.82	148	3.74	95
800*	Single	5.82	148	4.13	105
1000	Single	4.33	110	5.83	148
1200	Single	4.72	120	5.83	148
1350	Single	5.32	135	5.83	148
1600	Single	6.30	160	5.83	148
2000	Single	7.87	200	5.83	148
2500	Single	9.84	250	5.83	148
3000	Double	13.58	345	5.83	148
3200	Double	14.65	372	5.83	148
4000	Triple	19.69	500	5.83	148
5000	Triple	23.82	605	5.83	148

Aluminium

Busduct Rating (Amps)	Construction Type	Busduct Size			
		Width		Height	
		in	mm	in	mm
1000	Single	5.51	140	5.83	148
1200	Single	6.30	160	5.83	148
1350	Single	6.89	175	5.83	148
1600	Single	8.07	205	5.83	148
2000	Single	10.24	260	5.83	148
2500	Double	14.76	375	5.83	148
3000	Double	17.13	435	5.83	148
4000	Triple	23.82	605	5.83	148
4250*	Triple	26.02	661	5.83	148
5000*	Triple	32.52	826	5.83	148

Note: The maximum and minimum sizes recommended are not the limits of what can be produced but a guideline to help you choose the correct product. Dimensions are taken from the center of the joint.

*Not applicable for USA market.

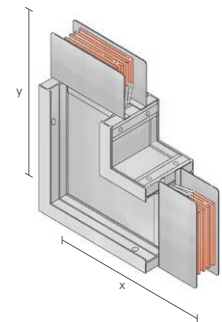
Elbows

Flatwise and Edgewise Elbows

Flatwise and edgewise elbows are used to make 90° changes in the direction of the busduct system. Vertiv can also manufacture specially angled elbows for both flatwise and edgewise products.

Copper Flatwise Elbow (Up or Down)

Ratings (Amps)	Minimum Leg Size		Standard Leg Size		Maximum Leg Size	
	X and Y		X and Y		X and Y	
	in	mm	in	mm	in	mm
600*	9.57	243	14	356	30	762
800*	9.76	248	14	356	30	762
1000	9.84	250	14	356	30	762
1200	10.04	255	14	356	30	762
1350	10.33	263	14	356	30	762
1600	10.83	275	14	356	30	762
2000	11.61	295	14	356	30	762
2500	12.60	320	14	356	30	762
3000	14.47	368	14	356	30	762
3200	15.00	381	20	508	30	762
4000	17.52	445	20	508	30	762
5000	19.59	498	20	508	30	762



Flatwise Elbows

Aluminium Flatwise Elbow (Up or Down)

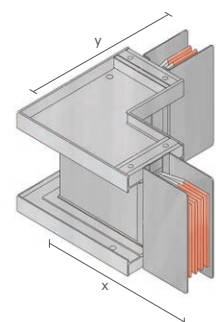
Ratings (Amps)	Minimum Leg Size		Standard Leg Size		Maximum Leg Size	
	X and Y		X and Y		X and Y	
	in	mm	in	mm	in	mm
1000	10.43	265	14	356	30	762
1200	10.83	275	14	356	30	762
1350	11.12	283	14	356	30	762
1600	11.71	298	14	356	30	762
2000	12.80	325	14	356	30	762
2500	15.06	383	20	508	30	762
3000	16.24	413	20	508	30	762
4000	19.59	498	20	508	30	762
4250*	20.71	526	26	660	30	762
5000*	23.98	609	26	660	30	762

Note: *Not applicable for USA market.

Copper and Aluminium Edgewise Elbow (Left or Right)

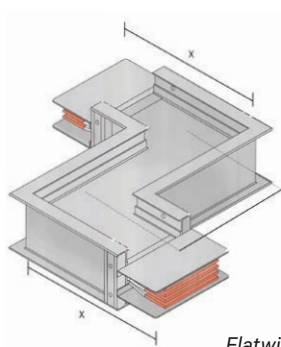
Ratings (Amps)	Minimum Leg Size		Standard Leg Size		Maximum Leg Size	
	X and Y		X and Y		X and Y	
	in	mm	in	mm	in	mm
600A - 5000A	11.26	286	14	356	24	610

(3200A and 5000A for CU only)

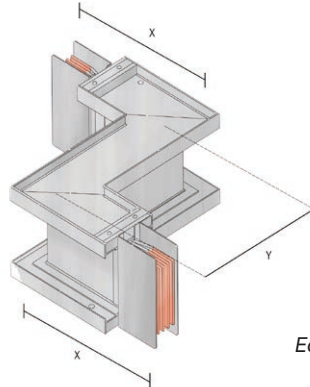


Edgewise Elbows

Offsets



Flatwise Offset



Edgewise Offset

Offset Sections

An offset is used to avoid any obstacles eg. pipes or to steel columns and to conform to the structure of the building.

Copper Flatwise Offset (Up or Down)

Ratings (Amps)	Minimum Leg Size				Maximum Leg Size			
	X		Y		X		Y	
	in	mm	in	mm	in	mm	in	mm
600*	9.57	243	2	51	26	660	19.13	486
800*	9.76	248	2	51	26	660	19.53	496
1000	9.84	250	2	51	26	660	19.69	500
1200	10.04	255	2	51	26	660	20.08	510
1350	10.33	263	2	51	26	660	20.67	525
1600	10.83	275	2	51	26	660	21.65	550
2000	11.61	295	2	51	26	660	23.23	590
2500	12.60	320	2	51	26	660	25.20	640
3000	14.47	368	2	51	26	660	28.94	735
3200	15.00	381	2	51	26	660	30.00	762
4000	17.52	445	2	51	26	660	35.04	890
5000	19.59	498	2	51	26	660	39.17	995

Aluminium Flatwise Offset (Up or Down)

Ratings (Amps)	Minimum Leg Size				Maximum Leg Size			
	X		Y		X		Y	
	in	mm	in	mm	in	mm	in	mm
1000	10.43	265	2	51	26	660	20.87	530
1200	10.83	275	2	51	26	660	21.65	550
1350	11.12	283	2	51	26	660	22.24	565
1600	11.71	298	2	51	26	660	23.43	595
2000	12.80	325	2	51	26	660	25.59	650
2500	15.06	383	2	51	26	660	30.12	765
3000	16.24	413	2	51	26	660	32.48	825
4000	19.59	498	2	51	26	660	39.17	995
4250*	20.71	526	2	51	26	660	41.42	1052
5000*	23.98	609	2	51	26	660	47.91	1217

Note: *Not applicable for USA market.

Edgewise Offset (Left or Right)

Ratings (Amps)	Minimum Leg Size				Maximum Leg Size			
	X		Y		X		Y	
	in	mm	in	mm	in	mm	in	mm
600A - 5000A	11.26	286	3	76	20	508	24	610

(3200A and 5000A for CU only)

Combinations

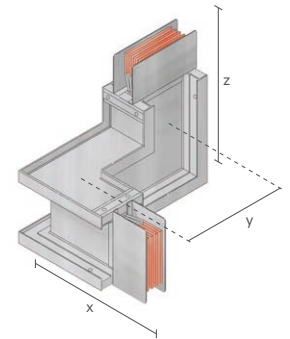
Combination Elbows

Combination elbows are used to conform to the building's structure and to change the direction of the busduct within a confined space.

Copper

Ratings (Amps)	Minimum Leg Size					
	X (Edgewise side)		Y		Z (Flatwise side)	
	in	mm	in	mm	in	mm
600*	12	305	7.17	182	9.57	243
800*	12	305	7.36	187	9.76	248
1000	11.26	286	7.56	192	9.84	250
1200	11.26	286	7.76	197	10.04	255
1350	11.26	286	8.05	205	10.33	263
1600	11.26	286	8.54	217	10.83	275
2000	11.26	286	9.33	237	11.61	295
2500	11.26	286	10.31	262	12.60	320
3000	11.26	286	12.19	310	14.47	368
3200	11.26	286	12.72	323	15.00	381
4000	11.26	286	15.24	387	17.52	445
5000	11.26	286	17.30	440	19.59	498

Ratings (Amps)	Maximum Leg Size					
	X (Edgewise side)		Y		Z (Flatwise side)	
	in	mm	in	mm	in	mm
600*	24	610	20.79	528	30	762
800*	24	610	20.98	533	30	762
1000	24	610	21.10	536	30	762
1200	24	610	21.30	541	30	762
1350	24	610	21.59	549	30	762
1600	24	610	22.09	561	30	762
2000	24	610	22.87	581	30	762
2500	24	610	23.86	606	30	762
3000	24	610	25.73	654	30	762
3200	24	610	26.26	667	30	762
4000	24	610	28.78	731	30	762
5000	24	610	30.85	784	30	762

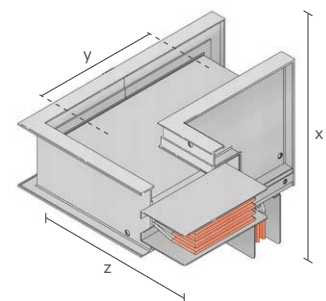


Edge Right Flatwise Up

Aluminium

Ratings (Amps)	Minimum Leg Size					
	X (Edgewise side)		Y		Z (Flatwise side)	
	in	mm	in	mm	in	mm
800	11.26	286	7.76	197	10.04	255
1000	11.26	286	8.15	207	10.43	265
1200	11.26	286	8.54	217	10.83	275
1350	11.26	286	8.84	225	11.12	283
1600	11.26	286	9.43	240	11.71	298
2000	11.26	286	10.51	267	12.80	325
2500	11.26	286	12.78	325	15.06	383
3000	11.26	286	13.96	355	16.24	413
4000	11.26	286	17.30	440	19.59	498
4250*	12	305	18.31	465	20.71	526
5000*	12	305	21.54	547	23.98	609

Ratings (Amps)	Maximum Leg Size					
	X (Edgewise side)		Y		Z (Flatwise side)	
	in	mm	in	mm	in	mm
800	24	610	21.30	541	30	762
1000	24	610	21.69	551	30	762
1200	24	610	22.09	561	30	762
1350	24	610	22.38	568.5	30	762
1600	24	610	22.97	583.5	30	762
2000	24	610	24.06	611	30	762
2500	24	610	26.32	668.5	30	762
3000	24	610	27.50	698.5	30	762
4000	24	610	30.85	783.5	30	762
4250*	24	610	31.93	811	30	762
5000*	24	610	35.16	893	30	762



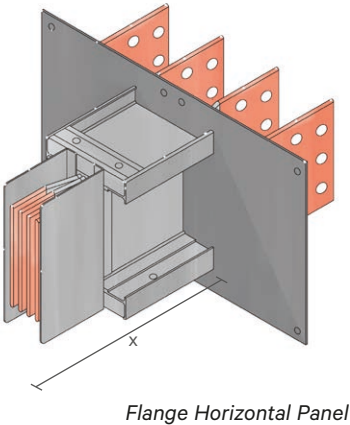
Flatwise Up Edgewise Right

Note: *Not applicable for USA market.

Flanges

Flange Connections

Flange connections provide a direct connection to low voltage switchgear, transformer enclosures and other electrical equipment.



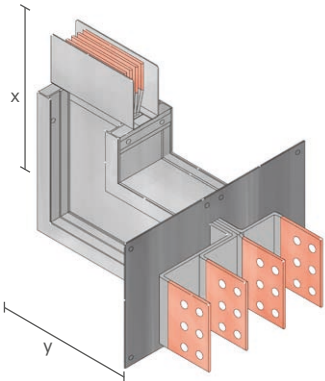
Flange Horizontal Panel

Copper and Aluminium Panel Flange

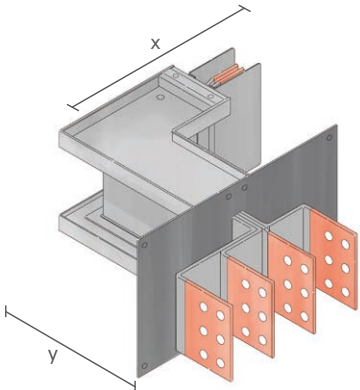
Ratings (Amps)	Minimum		Maximum	
	X		X	
	in	mm	in	mm
600A - 5000A	9"	229mm	33"	838mm

Combination Flange

A combination flange is used when the minimum leg lengths for either the standard elbow or the standard flange cannot be met.



Flange Flatwise Elbow



Flange Edgewise Elbow

Copper Flange/Elbows (Flatwise)

Ratings (Amps)	Minimum Leg Size				Maximum Leg Size			
	X		Y		X		Y	
	in	mm	in	mm	in	mm	in	mm
600*	9.57	243	5.94	151	30	762	20.55	522
800*	9.76	248	6.14	156	30	762	20.75	527
1000	9.84	250	3.31	84	30	762	19.69	500
1200	10.04	255	3.41	87	30	762	20.08	510
1350	10.33	263	3.55	90	30	762	20.67	525
1600	10.83	275	3.80	97	30	762	21.65	550
2000	11.61	295	4.19	107	30	762	23.23	590
2500	12.60	320	4.69	119	30	762	25.20	640
3000	14.47	368	5.62	143	30	762	28.94	735
3200	15.00	381	5.89	150	30	762	30.00	762
4000	17.52	445	7.15	182	30	762	35.04	890
5000	19.59	498	8.18	208	30	762	39.17	995

Aluminium Flange/Elbows (Flatwise)

Ratings (Amps)	Minimum Leg Size				Maximum Leg Size			
	X		Y		X		Y	
	in	mm	in	mm	in	mm	in	mm
1000	10.43	265	3.60	92	30	762	20.87	530
1200	10.83	275	3.80	97	30	762	21.65	550
1350	11.12	283	3.95	100	30	762	22.24	565
1600	11.71	298	4.24	108	30	762	23.43	595
2000	12.80	325	4.78	122	30	762	25.59	650
2500	15.06	383	5.92	150	30	762	30.12	765
3000	16.24	413	6.51	165	30	762	32.48	825
4000	19.59	498	8.18	208	30	762	39.17	995
4250*	20.71	526	17.09	434	30	762	31.69	805
5000*	23.98	609	20.31	516	30	762	34.96	888

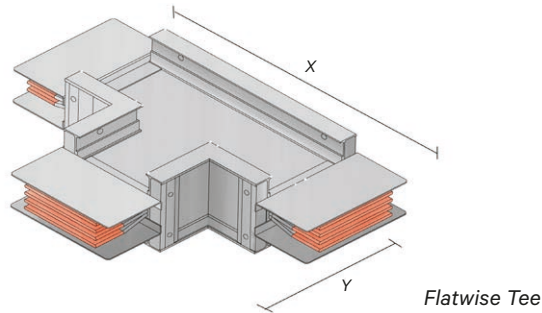
Note: *Not applicable for USA market.

Flange/Elbows (Edgewise)

Ratings (Amps)	Minimum Leg Size				Maximum Leg Size			
	X		Y		X		Y	
	in	mm	in	mm	in	mm	in	mm
600A - 5000A	11.26	286	4.88	124	24	610	22.52	527

(3200A and 5000A for CU only)

Specials



Flatwise Tee's

Flatwise tee's are used to split one busduct run into two runs going in different directions.

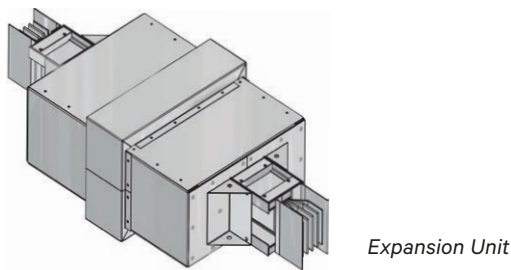
Copper

Ratings (Amps)	Minimum Leg Size				Standard Leg Size				Maximum Leg Size			
	X		Y		X		Y		X		Y	
	in		in		in		in		in		in	
*600A	19.13	486	9.57	243	28	711	14	356	60	1524	26	660
*800A	19.53	496	9.76	248	28	711	14	356	60	1524	26	660
1000	19.69	500	9.84	250	28	712	14	356	60	1524	26	660
1200	20.08	510	10.04	255	28	712	14	356	60	1524	26	660
1350	20.67	525	10.33	263	28	712	14	356	60	1524	26	660
1600	21.65	550	10.83	275	28	712	14	356	60	1524	26	660
2000	23.23	590	11.61	295	28	712	14	356	60	1524	26	660
2500	25.20	640	12.60	320	28	712	14	356	60	1524	26	660
3000	28.94	735	14.47	368	28	712	14	356	60	1524	26	660
3200	30.00	762	15.00	381	40	1016	20	508	60	1524	26	660
4000	35.04	890	17.52	445	40	1016	20	508	60	1524	26	660
5000	39.17	995	19.59	498	40	1016	20	508	60	1524	26	660

Aluminium

Ratings (Amps)	Minimum Leg Size				Standard Leg Size				Maximum Leg Size			
	X		Y		X		Y		X		Y	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
1000	20.87	530	10.43	265	28	711	14	356	60	1524	26	660
1200	21.65	550	10.83	275	28	711	14	356	60	1524	26	660
1350	22.24	565	11.12	283	28	711	14	356	60	1524	26	660
1600	23.43	595	11.71	298	28	711	14	356	60	1524	26	660
2000	25.59	650	12.80	325	28	711	14	356	60	1524	26	660
2500	30.12	765	15.06	383	40	1016	20	508	60	1524	26	660
3000	32.48	825	16.24	413	40	1016	20	508	60	1524	26	660
4000	39.17	995	23.62	600	40	1016	20	508	60	1524	30	762
*4250A	41.42	1052	20.71	526	52	1321	26	660	60	1524	30	762
*5000A	47.95	1218	23.98	609	52	1321	26	660	60	1524	30	762

Note: *Not applicable for USA market.



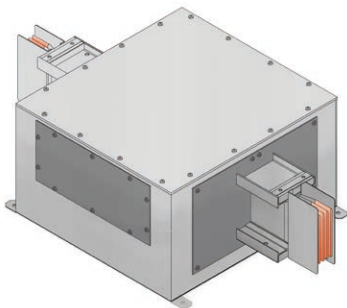
Expansion Units

Expansion units are used to accommodate the expansion and contraction of a busduct system. They allow for a 2" movement along the length of the busduct.

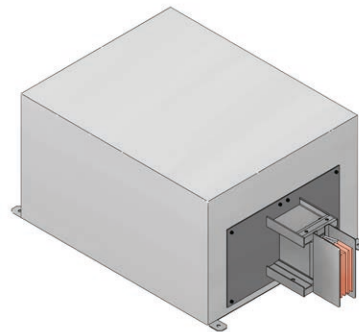
Feed Units & Caps

Cable Feed Units

- End feed units are used on the ends of busduct risers which are cable fed. Center feed units are used in the middle of busduct risers which are cable fed.
- The size of cable feed required depends on a number of factors:
 - rating of busduct
 - size of cable
 - number of cables
 - use of a protective device or isolator



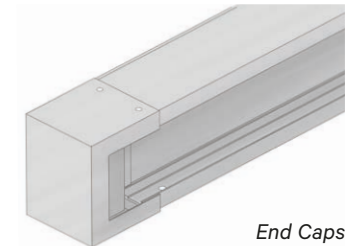
Center Feed Units



End Feed Units

End Caps

End caps are used to safely cap off the end of a busduct run. The end cap units are factory fitted but can be easily removed to allow for the extension of the system.



End Caps

Joint



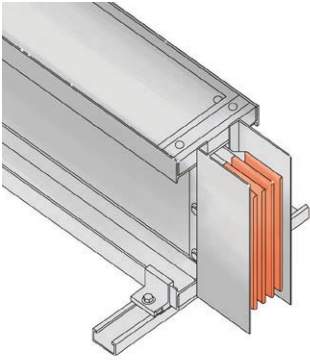
Joint pack

Joint Pack

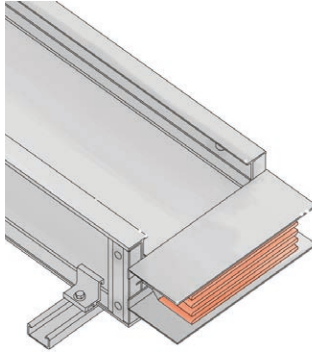
Vertiv™ PowerBar HPB joint pack is a compression joint design utilizing a specially designed conical washer to distribute the pressure evenly over the joint pack. The joint is supplied in specific sizes depending on the rating of busduct required.

Installation

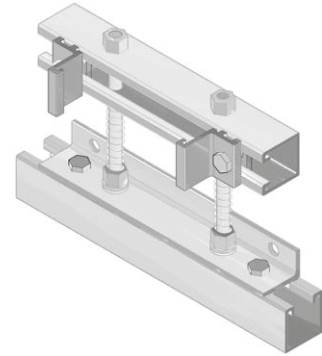
The modular design of Vertiv™ PowerBar HPB allows it to be installed in flatwise or edgewise orientations.



Edgewise Orientation



Flatwise Orientation



Spring Hanger

Spring hangers are used to support vertical busbar runs on each floor. They compensate for building movement.

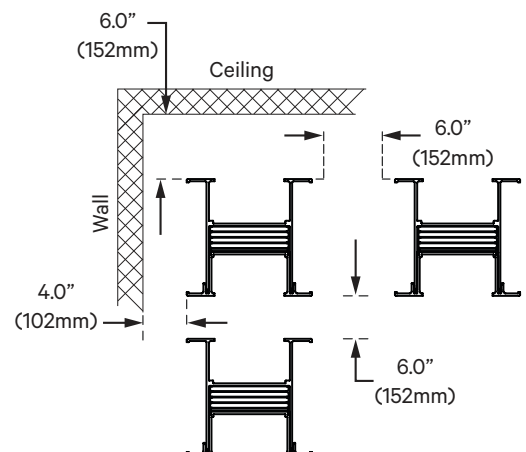
Special Pieces

Vertiv manufactures a variety of more specialized units and components to meet unique system requirements.

Quick Reference Guide

Critical Dimensions

- All joints must be accessible for maintenance. Joints should not be located inside a wall, ceiling or floor.
- Allow adequate space for busplug units to be installed easily and safely.
- Busway lengths are available from 2ft - 12ft.
- Distribution busway lengths are available from 2ft - 12ft.
- The minimum leg length varies depending on the busway.
- Clearances of installation must to as shown in the picture.

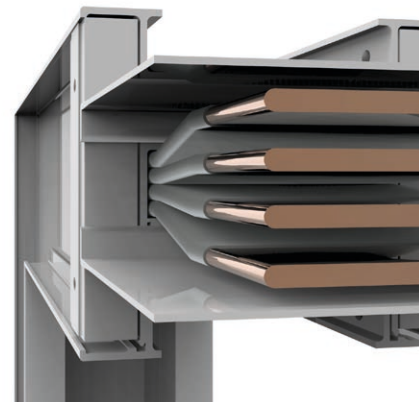


Operating Conditions

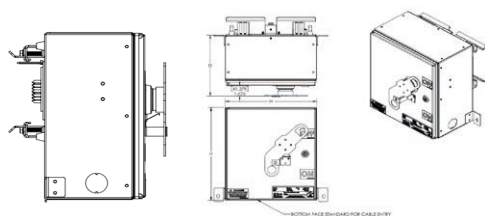
- Ambient Operating Conditions based on Nema and bu1-1-2005 general instructions.
- This product designed for indoor use and can be installed horizontally or vertically.

Critical Details

- Busduct drawings must include all relevant dimensions. Center-line dimensions are expected. Please highlight any dimensions that are not center-line.
- Walls and floors must be indicated and the relevant dimensions provided.
- The phasing and location of all switchboards must be provided.
- Full details are required for any transformer connections.
- Horizontal busduct must be installed with the neutral phase to the top. Please indicate the phase orientation for vertically installed busway.



Bus Plugs for Horizontal Busduct Applications



- Busplugs can be rated up to 200 kA at 600V.
- Maximum rating dependent upon circuit breaker rating.
- All bus plugs have mechanical interlock which does not allow the door to be opened while busplug is in the “on” position.
- Hook stick operational.

Fusible Bus plugs, 600V, J fuse, IP55

Amperage	Device Manufacturer	H		W		D	
		in	mm	in	mm	in	mm
30, 60, 100	ABB, Socomec	17.91	455	10.24	260	9.843	250
200	ABB, Socomec	20.2	513	17.91	455	9.921	252
400	ABB, Socomec	21.81	554	22.83	580	14.76	375
600*	ABB, Socomec	24.02	610	32.99	838	16.54	420

Circuit Breaker, IP55 up to 600V

Amperage	CB Manufacturer	H		W		D	
		in	mm	in	mm	in	mm
125	ABB, Schneider	19.69	500	10.71	272	11.81	300
250	ABB, Schneider	21.26	540	12.99	330	11.81	300
400	ABB, Schneider	22.17	690	18.5	470	11.81	300
600/800*	ABB, Schneider	18.5	470	35.87	911	11.81	300

*Busplug requires Qty (2) plug positions

Technical Data Copper

Note: *Not applicable for USA market.

Rated Current (A)	600*	800*	1000	1200	1350	1600
Rated Operational Voltage (V)	600	600	600	600	600	600
Rated Insulation Voltage (V)	600	600	600	600	600	600
Short Circuit						
6 Cycle RMS Symmetrical Short circuit rating (KA)	*50	*65	75	100	100	150
Phase Conductor Cross Sectional Area						
inches ²	0.33	0.42	0.47	0.56	0.70	0.93
millimeters ²	210	270	300	360	450	600
Neutral Conductor Cross Sectional Area						
inches ²	0.33	0.42	0.47	0.56	0.70	0.93
millimeters ²	210	270	300	360	450	600
Isolated 100% Ground Conductor Cross Sectional Area						
inches ²	0.33	0.42	0.47	0.56	0.70	0.93
millimeters ²	210	270	300	360	450	600
*50% Ground Cross Sectional Area						
inches ²	0.16	0.21	0.23	0.28	0.35	0.46
millimeters ²	105	135	150	180	225	300
Housing Ground Path Cross Sectional Area						
inches ²	3.64	3.71	2.82	2.92	3.06	3.30
millimeters ²	2349	2391	1820	1880	1970	2120

Rated Current (A)	2000	2500	3000	3200	4000	5000
Rated Operational Voltage (V)	600	600	600	600	600	600
Rated Insulation Voltage (V)	600	600	600	600	600	600
Short Circuit						
6 Cycle RMS Symmetrical Short circuit rating (KA)	150	150	200	200	200	200
Phase Conductor Cross Sectional Area						
inches ²	1.30	1.77	1.86	2.05	2.51	3.49
millimeters ²	840	1140	1200	1320	1620	2250
Neutral Conductor Cross Sectional Area						
inches ²	1.30	1.77	1.86	2.05	2.51	3.49
millimeters ²	840	1140	1200	1320	1620	2250
Isolated 100% Ground Conductor Cross Sectional Area						
inches ²	1.30	1.77	1.86	2.05	2.51	3.49
millimeters ²	840	1140	1200	1320	1620	2250
*50% Ground Cross Sectional Area						
inches ²	0.65	0.88	0.93	1.02	1.25	1.74
millimeters ²	420	570	600	660	810	1125
Housing Ground Path Cross Sectional Area						
inches ²	3.66	4.14	6.60	7.43	9.60	10.56
millimeters ²	2360	2660	4238	4797	6179	6809

Ampere Rating at 600Vac (max)	*600	*800	1000	1200	1350	1600	2000	2500	3000	3200	4000	5000
Busway Width x Ht. inches (mm)	3.74x5.83 (95x148)	4.13x5.83 (105x148)	4.33x5.83 (110x148)	4.72x5.83 (120x148)	5.32x5.83 (135x148)	6.30x5.83 (160x148)	7.87x5.83 (200x148)	9.84x5.83 (250x148)	13.58x5.83 (345x148)	14.65x5.83 (372x148)	19.69x5.83 (500x148)	23.82x5.83 (605x148)

Bar Width x 6mm Thick (#/phase)		45	50	60	75	100	140	190	100 (2)	115 (2)	90 (3)	125 (3)
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Resistance, Reactance & Impedance

Resistance (mΩ/100ft) at 68 °F (20 °C)	2.80	2.18	1.96	1.63	1.31	0.98	0.70	0.52	0.49	0.45	0.36	0.26
Resistance (mΩ/100ft) at 95 °F (35 °C) average ambient air temperature @ Full load	3.57	2.73	2.46	2.05	1.64	1.23	0.88	0.65	0.61	0.56	0.46	0.33
Reactance (mΩ/100ft) at 60Hz	0.67	0.61	0.56	0.50	0.41	0.29	0.27	0.18	0.15	0.14	0.13	0.08
Impedance (mΩ/100ft) @ 68 °F (20 °C) at 60 Hz	2.88	2.26	2.04	1.71	1.37	1.02	0.75	0.55	0.51	0.47	0.39	0.27
Impedance (mΩ/100ft) @ 95 °F (35 °C) average ambient air temperature @ Full load at 60 Hz	3.57	2.79	2.52	2.11	1.69	1.26	0.92	0.67	0.63	0.58	0.47	0.34

Voltage Drop at 35°C ambient air temperature Full Load 60 Hz

(V/100ft) at 35°C average ambient air temperature @ Full load

Power Factor = 0.7	3.05	3.25	3.67	3.71	3.36	2.96	2.79	2.50	2.77	2.73	2.84	2.45
Power Factor = 0.8	3.33	3.53	3.98	4.02	3.63	3.21	2.98	2.70	3.01	2.95	3.05	2.66
Power Factor = 0.9	3.58	3.77	4.25	4.28	3.86	3.42	3.14	2.85	3.20	3.13	3.22	2.83
Power Factor = 1.0	3.64	3.78	4.25	4.25	3.83	3.40	3.04	2.80	3.19	3.09	3.15	2.83

Approximate Weight

3ø, 3-Wire

lbs/ft		14	16	18	21	26	34	43	N/A	53	72	74
kg/m		9	11	12	14	17	23	29	N/A	35	48	50

3ø, 3-Wire with internal ground

lbs/ft		16	19	22	25	32	42	54	N/A	64	87	89
kg/m		10	13	15	17	21	28	36	N/A	43	58	60

3ø, 4-Wire

lbs/ft		16	19	22	25	32	42	54	N/A	64	87	89
kg/m		10	13	15	17	21	28	36	N/A	43	58	60

3ø, 4-Wire with internal ground

lbs/ft		18	22	25	30	37	50	65	N/A	76	102	104
kg/m		12	15	17	20	25	33	44	N/A	51	68	70

Technical Data Aluminium

Note: *Not applicable for USA market.

Rated Current (A)	800	1000	1200	1350	1600	2000
Rated Operational Voltage (V)	600	600	600	600	600	600
Rated Insulation Voltage (V)	600	600	600	600	600	600
Short Circuit						
6 Cycle RMS Symmetrical Short circuit rating (KA)	75	100	100	100	150	150
Phase Conductor Cross Sectional Area						
inches ²	0.59	0.74	0.93	1.07	1.35	1.86
millimeters ²	360	480	600	690	870	1200
Neutral Conductor Cross Sectional Area						
inches ²	0.59	0.74	0.93	1.07	1.35	1.86
millimeters ²	360	480	600	690	870	1200
Isolated 100% Ground Conductor Cross Sectional Area						
inches ²	0.59	0.74	0.93	1.07	1.35	1.86
millimeters ²	360	480	600	690	870	1200
*50% Ground Cross Sectional Area						
inches ²	0.28	0.37	0.47	0.53	0.67	0.93
millimeters ²	180	240	300	345	435	600
Housing Ground Path Cross Sectional Area						
inches ²	2.92	3.10	3.30	3.44	3.74	4.22
millimeters ²	1880	2000	2120	2210	2390	2720

Rated Current (A)	2500	3000	4000	4250*	5000*
Rated Operational Voltage (V)	600	600	600	600	600
Rated Insulation Voltage (V)	600	600	600	600	600
Short Circuit					
6 Cycle RMS Symmetrical Short circuit rating (KA)	200	200	200	200	200
Phase Conductor Cross Sectional Area					
inches ²	2.14	2.70	3.49	4.05	5.58
millimeters ²	1380	1740	2250	2610	3600
Neutral Conductor Cross Sectional Area					
inches ²	2.14	2.70	3.49	4.05	5.58
millimeters ²	1380	1740	2250	2610	3600
Isolated 100% Ground Conductor Cross Sectional Area					
inches ²	2.14	2.70	3.49	4.05	5.58
millimeters ²	1380	1740	2250	2610	3600
*50% Ground Cross Sectional Area					
inches ²	1.07	1.35	1.74	2.02	2.79
millimeters ²	690	870	1125	1305	1800
Housing Ground Path Cross Sectional Area					
inches ²	6.88	7.44	10.56	6.09	7.16
millimeters ²	4419	4779	6809	3928	4621

Ampere Rating at 600Vac (max)	800	1000	1200	1350	1600	2000	2500	3000	4000	*4250	*5000
Busway Width x Ht. inches (mm)	4.72x5.83 (120x148)	5.51x5.83 (140x148)	6.30x5.83 (160x148)	6.89x5.83 (175x148)	8.07x5.83 (205x148)	10.24x5.83 (260x148)	14.76x5.83 (375x148)	17.13x5.83 (435x148)	23.82x5.83 (605x148)	26.02x5.83 (661x148)	32.52x5.83 (826x148)
Bar Width x 6mm Thick (#/phase)	60	80	100	115	145	200	115 (2)	145 (2)	125 (3)		

Resistance, Reactance & Impedance

Resistance (mΩ/100ft) at 68 °F (20 °C)	2.517	1.888	1.510	1.313	1.042	0.755	0.657	0.521	0.403	0.347	0.252
Resistance (mΩ/100ft) at 95 °F (35 °C) average ambient air temperature @ Full load	3.194	2.364	1.891	1.644	1.304	0.946	0.822	0.652	0.504	0.435	0.315
Reactance (mΩ/100ft) at 60 Hz	0.52	0.43	0.308	0.278	0.265	0.201	0.16	0.134	0.094	0.086	0.071
Impedance (mΩ/100ft) @ 68 °F (20 °C) at 60 Hz	2.571	1.936	1.542	1.343	1.075	0.782	0.676	0.538	0.414	0.358	0.262
Impedance (mΩ/100ft) @ 95 °F (35 °C) average ambient air temperature @ Full load at 60 Hz	3.194	2.403	1.916	1.668	1.331	0.967	0.838	0.666	0.513	0.443	0.323

Voltage Drop at 35°C ambient air temperature Full Load 60 Hz

(V/100ft) at 35°C average ambient air temperature @ Full load

Power Factor = 0.7	3.572	3.398	3.209	3.156	3.054	2.790	2.987	2.869	2.911	2.692	2.350
Power Factor = 0.8	3.926	3.722	3.528	3.466	3.332	3.038	3.264	3.128	3.186	2.940	2.553
Power Factor = 0.9	4.245	4.009	3.816	3.744	3.573	3.251	3.506	3.353	3.428	3.156	2.725
Power Factor = 1.0	4.367	3.930	3.930	3.845	3.614	3.275	3.560	3.388	3.494	3.200	2.730

Approximate Weight

3ø, 3-Wire

lbs/ft	8	9	10	10	12	15	21	24	33		
kg/m	11	13	14	15	18	22	31	35	49		

3ø, 3-Wire with internal ground

lbs/ft	8	9	11	12	14	17	24	27	37		
kg/m	12	14	16	17	20	25	35	41	55		

3ø, 4-Wire

lbs/ft	8	9	11	12	14	17	24	27	37		
kg/m	12	14	16	17	20	25	35	41	55		

3ø, 4-Wire with internal ground

lbs/ft	9	10	12	13	15	19	26	31	42		
kg/m	13	16	18	20	23	29	39	46	62		

