Vertiv™ PowerBar Track

Open Track Busbar 250A to 1000A, 3PH, 600VAC

Benefits

- Innovative high amp open track busway
- High power capacity for demanding workloads
- Scalable and flexible power distribution for future growth
- Compact, space-saving design without compromising performance
- Energy efficiency that reduces operational costs
- Reliable performance that supports business continuity
- Modular design
- Open-face track allows for tap-off boxes to be placed anywhere along the busway
- Tap-off boxes have mechanical and electrical interlocks utilizing an earth-first, break-last safety feature
- Factory trained field service technicians for expert startup and testing.
- Preventive maintenance and warranty programs coordinated with the Vertiv PowerBar Track design and industry standards
- Hot-swappable tap-off boxes keep systems up and running even during changes
- Best Suited For: Data Center / Colocation /Hosting (White space)
- Pending Patents:
  - High Amperage Open track busway
  - Multi stack joint pack
  - Double joint block

With capacities ranging from 250 to 1000 amps and rated for 100% continuous current, this modular busway system offers a variety of output capacity and connection configurations to match IT rack equipment requirements. The rigid aluminum busway track chassis is IP2X certified and UL 857 compliant. The extendable segments of the open-face busway track are available in increments ranging from 2 to 13 feet. Hot-swappable tap-off boxes provide flush-mounting of NEMA or IEC standard receptacles for plug-and-play functionality. The tap-off boxes include mechanical and electrical interlocks with a ground-first, break-last feature that supports safe power requirement changes made on the fly without an electrician.

Standard features

- Modular design
- 100% continuous rated busway track
- Copper busway up to 600A and aluminum busway up to 1000A
- Up to 13' length as standard with longer lengths available
- Monitoring cable trough
- Up to 100 SCCR
- UL857 listed

Optional features

- Multiple output receptacles / connectors
- Revenue-grade monitoring
- Customized lengths available on request

Vertiv PowerBar Track

Customize to scale

Vertiv™ PowerBar Track systems deliver a dynamic power distribution solution tailored for AI-driven and high-performance computing environments. As AI workloads become increasingly complex, data centers require power distribution systems that can adapt to shifting power demands. The Vertiv PowerBar Track systems offer exactly that — scalable, reliable power distribution in a flexible architecture that optimizes space and energy efficiency.

Busway benefits

- **Scalable design** for quick change and future growth
- **Continuous power delivery** to active IT equipment loads
- **Minimized outside support** for branch adds and upgrades
- **Maximized cooling airflow** to IT equipment racks
- **Financial savings** in upfront cap-ex and site lifecycle costs
- **Available in** a variety of straight lengths.

Vertiv™ PowerBar Track system

Busway component range

Vertiv™ PowerBar Track available in a variety of straight lengths.
Tap-off boxes come in multiple configurations of receptacle quantity and type to meet changing requirements.

Flexibility

- Available in 250, 400, 600, 800, 1000A ratings (Additional information for 1200, 1600 and 2000A to be added)
- Increases space efficiency and improves airflow
- Easy to change tap-off boxes
- Integrates easily into new or existing data center layouts

Higher availability

- Hot-swappable tap-off boxes keep systems up and running even during changes
- Fully rated design
- UL certified to UL857 CSA22.22 Compliant

Lowest total cost of ownership

- Requires fewer and less expensive power cables
- 15-30% less installation time and cost compared to cables and conduit
- Plug and play tap-off boxes connected to rack PDUs can be installed by anyone — no electrician needed

Superior design and materials

- Busway track is solid copper (high density, high conductivity) or aluminum (55% conductivity) and tin plated for superior electrical performance and corrosion resistance
- Requires no cutting or special tools
- Enclosed aluminum housing guards against incidental contact and contamination to live parts
- Enclosed chassis will not twist or distort during tap-off box installation

Expert Service Support

- National service support with authorized field technicians
- Flexible warranty and maintenance options to align with the customers' service plan
- Service issue escalation to OEM technical support and engineering for quick and effective resolution

The Right Power configuration, right where you need it

With IT equipment demands constantly changing, data center providers need a power distribution system that can adapt at the same pace without interruption to existing critical loads and without the need for intrusive breaker and power cable changeouts.

Vertiv™ PowerBar Track gives data center managers flexibility, control, and peace of mind when changing and adapting to keep pace with hardware requirement demands.

Tap-off box Benefits

- Change power requirements quickly
- Plug and play to rack/rack PDU
- No interruption to existing critical loads
- No electrician required for installation
- Amps and receptacles sized to meet server needs
- Relocate and reuse tap-off box anywhere along the busway to maximize investment
- Fits anywhere along the busway
- Tap-off boxes are easily installed on energized busway and are fully interchangeable

Tap-off box features

- Tap off options up to 125A
- Up to 600VAC
- 10KAIC and 22KAIC breakers available - higher kA circuit breakers are available upon request
- Accommodates any UL listed receptacle
- Flush-Mounted receptacles or drop cords with connectors

Tap-off boxes

Technical specifications

	Copper			Aluminium		
Rated current (A)	**250**	**400**	**600**	**400**	**800**	**1000**
Rated operational voltage (V)	600	600	600	600	600	600
Rated insulation voltage (V)	1000	1000	1000	1000	1000	1000
Short circuit						
Short Circuit Current Rating (RMS sym. 3 cycle) @ 600Vac	22	22	22	22	35	50
Protected Short Circuit Current Rating (RMS sym. 3 cycle) @ 480Vac	50	100	65	100	65	--
Environmental						
Operating ambient temperature	32° to 104°F	32° to 104°F	32° to 104°F	32° to 104°F	32° to 104°F	32° to 104°F
Protection rating	IP2X, CE	IP2X, CE	IP2X, CE	IP2X, CE	IP2X, CE	IP2X, CE
Environmental standards	RoHS, REACH	RoHS, REACH	RoHS, REACH	RoHS, REACH	RoHS, REACH	RoHS, REACH
Phase conductor						
Cross sectional area (in^2)	0.189	0.326	0.395	0.344	1.249	1.745
Neutral conductor						
Cross sectional area (in^2)	0.189	0.326	0.395	0.344	1.249	1.745
Isolated ground conductor						
100% Earth cross sectional area (in^2)	0.189	0.326	0.395	0.344	1.249	1.745
Housing ground path						
Cross sectional area of 4 bar system (in^2)	2.730	2.730	3.444	1.572	1.885	2.048
Cross sectional area of 5 bar system (in^2)	3.139	3.139	3.942	1.785	2.097	2.262
Overall dimensions						
Height x width of 4 bar system (in)	6.89 x 1.73	6.89 x 1.73	7.09 x 2.05	6.81 x 1.97	7.874 x 3.189	7.874 x 4.094
Height x width of 5 bar system (in)	8.27 x 1.73	8.27 x 1.73	8.46 x 2.05	8.07 x 1.97	9.13 x 3.19	9.13 x 4.09
Weight						
Weight of 4 bar system (lb/ft)	4.3	6.4	8.8	5.38	11.43	15.26
Weight of 5 bar system (lb/ft)	5.3	8.0	10.9	6.72	14.11	18.62
Resistance (R)						
Resistance (mΩ/ft) @ 68°F (20°C)	0.0509	0.0293	0.0290	0.0561	0.0137	0.0121
Reactance (X)						
Reactance (mΩ/ft) at 60Hz	0.0418	0.0323	0.0347	0.0433	0.0207	0.0186
Impedance (Z)						
Impedance (mΩ/ft) @ 68°F (20°C) at 60 Hz	0.0655	0.0433	0.0451	0.0707	0.025	0.0222
Voltage drop at full load 60Hz						
Power factor = 0.7 (V/ft)	0.0308	0.0341	0.0439	0.0558	0.0375	0.0408
Power factor = 0.8 (V/ft)	0.0314	0.0341	0.0436	0.0573	0.0369	0.0397
Power factor = 0.9 (V/ft)	0.0311	0.0332	0.0421	0.0573	0.0344	0.0369
Power factor = 1.0 (V/ft)	0.0256	0.0259	0.0320	0.0494	0.0244	0.0253

*Additional information to be added for:
1000A and 1200A- Copper
1600A and 2000A- Aluminum