# **Powerbus Busway**

Scalable, efficient, and flexible power distribution with zero footprint and high tap-off circuit density **100 A, 225 A, and 400 A** 

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Schneider Blectric

### Make the most of your energy<sup>™</sup>

## Helping Facilities Be More Scalable, Flexible, and Energy-Efficient



Zero footprint, saving valuable floor space for revenueproducing IT racks or machinery



Scalable to meet future power demands



Easy to install, move, and reconfigure



Flexibility to select plug-in units to fit your needs



The Powerbus busway delivers flexible and efficient overhead power distribution and offers scalability by featuring the highest tap-off unit density on the market. This modular solution minimizes unintended downtime and improves safety while optimizing energy efficiency.



#### **Powerbus Busway Features and Benefits**

#### Scalable

- High plug-in unit density up to 20 ports every 10 feet
- Easy to move, add, or change units to meet power needs
- Up to three branch circuits per plug-in unit
- 100 A 400 A ratings use same plug-in units

#### Flexible

- Modular design and full catalog of tap-off units, drop cords with connectors, power feed units, fittings, and accessories to fit your power and application needs
- Install a plug-in unit or power feed unit with metering or without — wherever it's needed
- Tool-less plug-in unit installation
- Superior plug-in design makes installation fast and easy
- Hanger options let designers customize each application

Explore the Powerbus 3D Interactive Model! Scan this QR code with your smartphone to download the iTunes<sup>®</sup> 3D Interactive Model app.

#### Efficient

- Overhead design maximizes cooling air flow while increasing accessibility to components
- Zero footprint saves valuable floor space for revenue-producing machinery, work cells, or IT racks
- Energy-efficient copper bars reduce power distribution heat losses
- Plug-in units and power feed units offer optional PowerLogic<sup>™</sup> PM5350 series metering to monitor energy usage
  - > PowerLogic EGX300 integrated gateway/server offers remote access to real-time data with simple Ethernet connection

#### **Protective Design**

- UL®-listed 857 busway standard for safety
- Above-equipment installation makes identifying and tracing circuits easy
- Balanced plug-in unit design and optional handles give contractors and technicians more stability when climbing a ladder to install



### **Busway Power Distribution Features**



#### Power feed units

The feed unit connects incoming cable and conduit to power the busway straights. Metering option monitors power consumption for busway run, while barriered compartments provide access to metering devices without exposing workers to input power terminals.

#### **2** Busway straight sections

UL listed 4- and 10-foot busway straights feature high-density outlet ports every 11.4 inches in front and back. Spring-type bus joint connections ease installation and reduce maintenance. No special tools required for installation.

#### 8 Plug-in unit designs – metered or unmetered

Drop cord units are sized for any busway opening with no interference. Multi-circuit-capable tap-off units house Square D<sup>™</sup> circuit breakers, and up to three cord sets to reduce clutter. A "hook-swing" motion and quick quarter-turn hook fastener offer fast, easy, and tool-less installation.



#### **4** Drop cord connector sets

Pre-terminated cord-sets in 2- to 12-foot lengths hang down from the plug-in units for quick connection to equipment below and use standard UL, IEC<sup>®</sup>, or CSA<sup>®</sup> connectors.

### **5** Tool-less installation and jaw-like connections

Ease of installation comes from the jaw-like connection, supporting mounting bracket, and fastening hook that locks the plug-in unit in place with no tools required.

#### **6** Integrated metering

Optional PowerLogic metering and communications monitor more than 30 power conditions, including pre-configured alarm functions. Meter individual plug-in unit circuits or entire busway run.



#### System-mounting options

Variety of thread rod suspension hangers are available to match your installation needs. Other labor-saving options include I-beam mounting clamps and new NetShelter<sup>™</sup> IT rack-mounting brackets to

minimize space in data center applications.



# **Technical Specifications**

Busway Straights	4 ft. (1.2 m) 10 ft. (3 m)	
Electrical ratings: Maximum current and voltage	100 A @ 600 V 225 A @ 600 V 400 A @ 600 V	
Outlets per busway straight	4-ft. busway straight: 6 10-ft. busway straight: 20	
Plug-in openings: Spacing and ingress protection rating	1 outlet per 11.4 inches in front and back of busway straight Solid object ingress protection to IP2X standard	
Quantity of conductor bars	5 bars maximum (3L, N, 200% N or Isolated Gnd)	
Short-circuit rating	100 A: 14 kA @600 V 225 A: 22 kA @600 V 400 A: 35 kA @600 V	
Housing material and color	Electrical-grade aluminum in black or natural finish	
Housing ingress protection rating	IP40 for standard and side mount orientation	
Conductor bar material	Silver-plated copper	
Bus joint connection material	Silver-plated copper (maintenance-free, high-pressure spring-type)	
Weights	100 A: 3 bar 2.9 lb./ft. 4 bar 3.2 lb./ft. 5 bar 3.4 lb./ft.   225 A: 3 bar 4.5 lb./ft. 4 bar 5.1 lb./ft. 5 bar 5.8 lb./ft.   400 A: 3 bar 6.9 lb./ft. 4 bar 7.9 lb./ft. 5 bar 8.9 lb./ft.	
Suspended hanger spacing	5 ft maximum	
Mounting bracket spacing on NetShelter SX rack enclosures	5 ft maximum	
100 A Busway Straight H x W x D	4-ft. busway straight: 6.94 x 48 x 2.6 in. (176 x 1,219 x 66 mm) 10-ft. busway straight: 6.94 x 120 x 2.6 in. (176 x 3048 x 66 mm)	
225 A Busway Straight H x W x D	4-ft. busway straight: 6.94 x 48 x 3.47 in. (176 x 1,219 x 88 mm) 10-ft. busway straight: 6.94 x 120 x 3.47 in. (176 x 3048 x 88 mm)	
400 A Busway Straight, H x W x D	4-ft. busway straight: 6.94 x 48 x 3.47 in. (176 x 1,219 x 88 mm) 10-ft. busway straight: 6.94 x 120 x 3.47 in. (176 x 3,048 x 88 mm)	
Regulatory approvals, codes and standards	UL 857 & cUL® & ANCE, NEMA® BU1, NFPA 70E, CSA Z462	
Center Tap Boxes / Power Feed Units (F	PFU)	
Optional row-level metering and communications	PowerLogic PM5350-series power meter and EGX-300 integrated gateway-server*	
Incoming wire lug configuration	100 A: One #14-1/0 per bar + One ground #14-1/0 225 A: One #6-300 kcmil per bar + One ground #10-2/0 400 A: Two 600 kcmil per bar + Two ground #10-2/0	
Color	Black	
Housing ingress protection rating	NEMA Type 1 general purpose indoor	
H x W x D 100 A PFU with busway section	14.5 x 24 x 7.8 in. (368 x 610 x 198 mm)	
H x W x D 225 A PFU with busway section	14.5 x 38 x 9.7 in. (368 x 965 x 247 mm)	
H x W x D 400 A PFU with busway section	14.5 x 43 x 9.7 in. (368 x 1,092 x 247 mm)	
H x W x D 100 A PFU with metering and busway section	21 x 30 x 9.3 in. (533 x 762 x 236 mm)	
H x W x D 225 A PFU with metering and busway section	21 x 38 x 10.2 in (533 x 965 x 259 mm)	
H x W x D 400 A PFU with metering and busway section	21 x 43 x 10.2 in. (533 x 1,092 x 259 mm)	
Approximate Weights (Dependent on	gty of conductor bars)	
PFU without metering	100 A; 50 lb, (23 ka); 225 A; 65 lb, (29 ka); 400 A; 95 lb, (43 ka)	

Plug-In Unit / Tap-Off Unit			
Optional branch circuit level metering	PowerLogic PM5350-series power meter communicates to metered Power Feed Unit or to available EGX Plug-In Unit with integrated gateway server		
Maximum voltage	480 Y/277 V		
Standard interrupting ratings***	QOU circuit breakers	10 kA @ 120 V, 208 V, 240 V	
Optional interrupting ratings***	QOU-VH circuit breakers	22 kA @ 120 V, 208 V, 240 V	
Standard interrupting ratings***	EDB circuit breakers	25 kA @ 120 V 18 kA @ 240 V, 480 Y/277 V	
Optional interrupting ratings***	EGB circuit breakers	35 kA @ 120 V, 240 V, 480 Y/277 V	
Breakers	1-, 2-, or 3-pole QOU breakers — maximum of 6 poles 1-, 2-, or 3-pole EDB breakers — maximum of 3 poles		
Total Unit Amperage	100 A		
Drop Cord Connector	NEMA, IEC, CS		
Drop Cord Connector Amperage	15 A to 60 A		
Drop Cords	Qty 1 – 3, type SOOW in 2 – 12-foot lengths		
Weight	18 lb. (8 kg)**		
H x W x D	PBPQOU: 12 x 8.475 x 5.5 in. PBPEDB with or without metering: 14 x 8.475 x 5.7 in. PBPEGX plug in unit: 14 x 8.475 x 5.7 in.		
Color	Black		
Enclosure ingress protection rating	NEMA Type 1 general purpose indoor		

\* Refer to seperate technical documents for power-meter and server-gateway specifications.

\*\* Weight will vary depending on breaker and cord-connector set configuration.

\*\*\* The short-circuit rating of plug-in units are limited by the mounted busway rating and to 10 kA when provided with drop cord connectors or receptacles.



Schneider Electric<sup>11</sup> has carefully reviewed wording in product hazard messages to alert users to potential hazards, how to avoid those hazards, and the consequences of not following hazard messages. Workplace safety standards such as NFPA 70E and CSA Z462 are clear that the proper method to work on or near electrical equipment is in a de-nergized state.

However, it is recognized that the standards identify exceptions where powering down the equipment is infeasible or actually introduces additional hazards. While elimination of all risk is not possible, in those situations where it can be demonstrated that energized work is necessary, certain tasks, including the installation or removal of Powerbus circuit breaker plug-in units, may be performed on an energized Powerbus busway only after the user has demonstrated that the application meets the required exceptions in NFPA 70E, CSA Z462, or other standards as appropriate and employs the work practices and personal protective equipment prescribed in the standard.



For more information, ask your authorized Schneider Electric Distributor, visit www.schneider-electric.us/go/powerbus or call 888-778-2733.



### See the Powerbus video!

Scan this QR code with your smartphone, or click here to view on your desktop.

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