iBusway for Data Center

100 A, 225 A, 400 A

Reliable, efficient, adaptable power distribution with zero footprint

- Zero footprint saves valuable floor space for racks and IT hardware
- Scalable to meet future power demands
- Eliminates labor-intensive and unsightly cable installations
- Easy to install, move, and reconfigure
- Flexible configuration options with a large selection of tap-off units
- Metering options for greater energy efficiency
- Fast deployment with rack mount or hanging installation

Schneider Electric™

Features and benefits

The iBusway for Data Center solution is the key component for high-availability power distribution to IT racks. Based on the Powerbus™ plug-in bus bar system, this flexible solution requires no IT floor footprint and eliminates centralized cable distribution. Preassembled tap-off units can be installed wherever they're needed above the data center row, and PowerLogic™ energy metering provides rack- and row-level energy usage reports.

iBusway for Data Center is an aesthetic, modular solution that minimizes unintended downtime and maximizes flexibility, while optimizing your data center availability and energy efficiency.

Busway power distribution

Flexibility

- High density — up to 20 openings every 10 feet
- Toolless installation of tap-off units
- Easy access to circuits for cable tracing and management enables high-density adds, moves, and changes
- Flexible installation options with rack or ceiling mount kits

Energy effficiency

- PowerLogic metering simplifies monitoring of row- or rack-level energy usage
- Energy-efficient copper bus bars reduce heat losses and lower cooling demand

Accessibility

- Reduced overhead cabling simplifies identification and management of critical branch circuits
- Local and remote rack- and row-level energy usage monitoring via local display, TCP/IP, or Modbus
- Compatible with StruxureWare™ Data Center Expert or your building management system

Availability

- Factory-assembled and tested tap-off units include the breakers, cords, and connectors
- Eliminating cable clutter reduces risk of human error during moves, adds, and changes

Safety standards

- Entire iBusway for Data Center solution is UL 857 listed
- Totally enclosed busway straight housing
- Finger-safe (IP2X) openings

Busway power distribution features

1 Feed units

The feed units accept input power and distribute power through the busway straight. Metered feed units provide insight into row-level power consumption trends and monitor energy demand of the complete system. Metering and communication compartments allow access to the metering devices without exposing the user to input power cables.

2 Busway straight sections

UL listed busway straight sections have totally enclosed conductors and finger-safe (IP2X) plug-in openings. No special tools are required for installation; spring-joint connectors simplify installation and reduce maintenance requirements.

3 Scalable and flexible tap-off unit design

The tap-off unit houses standard circuit breakers and a pre-terminated, standard length cord set to reduce above-the-rack cable clutter.

4 Standard length drop cords

Drop cords in standard lengths hang down from the tap-off unit for quick and orderly connection to rack PDUs or IT equipment.

5 Rack mount system

Install the iBusway for Data Center solution over your NetShelter™ SX enclosures. The robust rack mount brackets can be used with 100 A, 225 A, and 400 A solutions, can be installed on the hot or cold aisle, and are compatible with EcoAisle™.

6 Integrated metering

PowerLogic metering is available for feed units and tap-off units. Track energy demand, research consumption patterns, measure power quality, and monitor more than 30 power conditions with pre-configured alarm functions.

7 Toolless tap-off unit installation

Easily carry the tap-off unit to the installation site using its rubber-coated handle. Securely mounting the tap-off unit on the busway straight is simple — a top mounting bracket doubles as a unit support brace and a bottom hook ensures the security of the connection. Metered tap-off units provide insight into rack-level power consumption trends. In addition to a wide variety of standard breaker and connector options, the tap-off units are highly customizable to meet site-specific requirements.

StruxureWare for Data Centers software suite

In the data center environment, the iBusway for Data Center solution is fully managed through StruxureWare for Data Centers, an integrated suite of data center infrastructure management (DCIM) applications. It enables businesses to prosper by managing their data centers across multiple domains, providing actionable intelligence for an ideal balance of high availability and peak efficiency throughout the entire data center life cycle. StruxureWare is a key element of Schneider Electric EcoStruxure™ — an integrated hardware and software system architecture for intelligent energy management.

Technical specifications

Busway straights	100 A	225 A	400 A
Maximum current and voltage	100 A @ up to 600 V	225 A @ up to 600 V	400 A @ up to 600 V
Outlets per busway straight	4 ft. busway straight: 6; 10 ft. busway straight: 20		
Plug-in openings: spacing and ingress protection rating	One outlet per 11.4 in. front and back of busway straight; solid object ingress protection to IP2X standard		
Configuration of conductor bars	Four-conductor bar (3L + N)		
Short-circuit rating	14 kA @ 600 V	22 kA @ 600 V	35 kA @ 600 V
Housing material and color	Electrical-grade aluminum in black		
Housing ingress protection rating	IP40 for standard orientation		
Conductor bar material	Silver-plated copper		
Bus joint connection material	Silver-plated copper (maintenance-free, high-pressure spring-type)		
Hanger or bracket spacing	5 ft. maximum		
Regulatory approvals, codes, and standards	UL 857, cUL, ANCE, NEMA® BU1, NFPA 70E®, CSA Z462		
Power feed units (PFUs)			
Optional metering and communications	PowerLogic PM5350 power meter and EGX300 integrated gateway-server*		
Incoming wire lug configuration	One #14-1/0 per bar + One ground #14-1/0	One #6-300 kcmil per bar + One ground #10-2/0	Two 600 kcmil per bar + Two ground #10-2/0
Color	Black		
Housing ingress protection rating	NEMA Type 1 general purpose indoor		

Tap-off units	
Optional metering and communications	Metered tap-off units with embedded PowerLogic PM5350 power meter* EGX300 tap-off unit* with integrated gateway-server
Max. voltage	480 V
Max. unit amperage	100 A***
Breakers	1-, 2-, or 3-pole QOU breakers – maximum of 6 poles 1-, 2-, or 3-pole EDB breakers – maximum of 3 poles
Breaker short-circuit rating**	QOU circuit breakers: 10 kA EDB circuit breakers: 18 kA
Drop cord connector	NEMA, IEC, CS
Drop cord connector amperage	15 A to 60 A
Drop cords	One-cord tap-off unit: 3 ft.; three-cord tap-off unit: 3, 5, and 7 ft.
Color	Black
Enclosure ingress protection rating	NEMA Type 1 general purpose indoor
*Refer to separate technical documents for power meter and server-gateway specifications.	
**The short-circuit rating of the tap-off units is limited by the short-circuit rating of the busway straights as well as the drop cords and connectors. 22 kA QOU-VH breakers and 35 kA EGB breakers are available; contact your sales representative for details.	
***Contact your Schneider Electric sales representative for tap-off units above 60 A.	

Schneider Electric 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-energized 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 tap-off 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.