

# Technical Specification

## iBusway for Data Center

### 100A/225A/400A Busway Straight Sections, Feed Units, and Tap Off Units

Technical Data, Facility Planning, Drawings, Options, Warranty

990-9623-001

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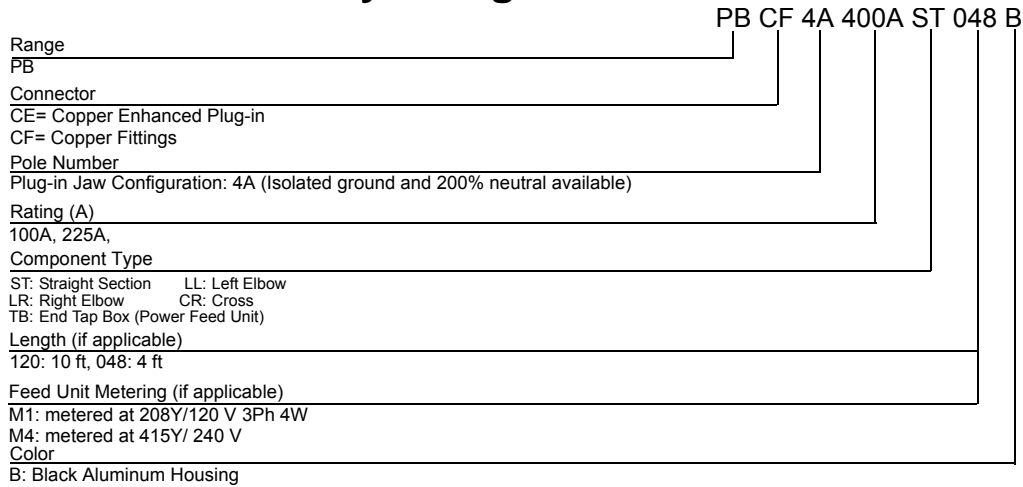
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# Technical Data / Model Listing

## SKU Structure: Busway Straight Sections and Feed Units



## PB Busway Straight Sections and Accessories

### 100A

PBCE4A100AST048B	Straight Distribution, 4ft, 100A
PBCE4A100AST120B	Straight Distribution, 10ft, 100A
PBCF4A100ALLB	Elbow Left, 100A
PBCF4A100ALRB	Elbow Right, 100A
PBCF4A100ACRB	Cross, 100A
PB100AEC	End Closure, 100A
PB100FH	Ceiling Mounting Kit, 100A

### 225A

PBCE4A225AST048B	Straight Distribution, 4ft, 225A, 600V Max
PBCE4A225AST120B	Straight Distribution, 10ft, 225A, 600V Max
PBCF4A225ALLB	Elbow Left, 225A, 600V Max
PBCF4A225ALRB	Elbow Right, 225A, 600V Max
PBCF4A225ACRB	Cross, 225A, 600V Max
PB225AEC	End Closure, 600V Max
PB225FH	Ceiling Mounting Kit, 225A

### 400A

PBCE4A400AST048B	Straight Distribution, 4ft, 400A
PBCE4A400AST120B	Straight Distribution, 10ft, 400A
PBCF4A400ALLB	Elbow Left, 400A
PBCF4A400ALRB	Elbow Right, 400A
PBCF4A400ACRB	Cross, 400A
PB400AEC	End Closure, 400A
PB400FH	Ceiling Mounting Kit, 400A

# PB Busway Feed Unit without Metering

## 600V Maximum

PBCF4A100ATBB	100A Feed Unit
PBCF4A225ATBB	225A Feed Unit
PBCF4A400ATBB	400A Feed Unit

### Notes:

- If your Busway solution is comprised of Feed Units without Metering and Metered Tap Off Units, you must use a Tap Off Unit with Ethernet Gateway to connect the Metered Tap Off Units to the Ethernet.
- Solutions which use the Feed Unit without Metering can use either 208V or 415V Tap Off Units. Do not mix 208V and 415V Tap Off Units on the same Busway run.

# PB Busway Feed Unit with Metering & Gateway

## 208V

PBCF4A225ATBM1B	225A Feed Unit
PBCF4A400ATBM1B	400A Feed Unit

### Notes:

- Solutions which use the 208V Feed Unit with Metering must use 208V Tap Off Units only. Do not mix 208V and 415V Tap Off Units on the same Busway run.
- The Metered Feed Unit contains an EGX Gateway Server which connects up to 32 metered devices to the Ethernet.
- If more than 31 Metered Tap Off Units are connected to the Metered Feed Unit, you must add a Tap Off Unit with Ethernet Gateway to the solution.

## 415V

PBCF4A225ATBM4B	225A Feed Unit
PBCF4A400ATBM4B	400A Feed Unit

### Note:

- The Metered Feed Unit contains an EGX Gateway Server which connects up to 32 metered devices to the Ethernet.
- If more than 31 Metered Tap Off Units are connected to the Metered Feed Unit, you must add a Tap Off Unit with Ethernet Gateway to the solution.
- Solutions which use the 415V Feed Unit must use 415V Tap Off Units only. Do not mix 208V and 415V Tap Off Units on the same Busway run.

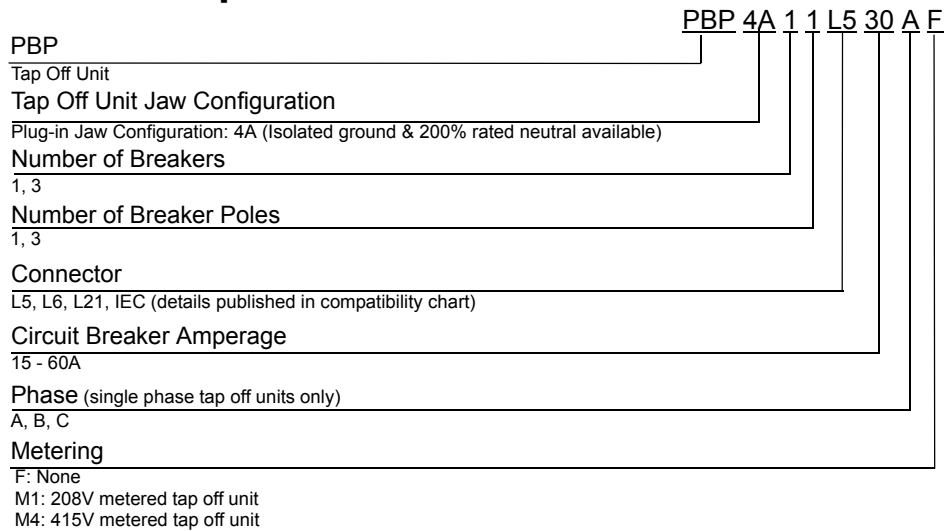
## 600V Maximum

PBCF4A100TBM1LB	100A Feed Unit, Top Entry, 600V Maximum
PBCF4A100TBM1UB	100A Feed Unit, Bottom Entry, 600V Maximum

### Notes:

- Solutions which use the 100A Feed Unit with Metering and Gateway can use either 208V or 415V Tap Off Units.
- The Feed Unit with Metering contains an EGX Gateway Server which connects up to 32 metered devices to the Ethernet.
- If more than 31 Tap Off Units with Metering are connected to the Feed Unit with Metering, you must add a Tap Off Unit with Ethernet Gateway.

# SKU Structure: Tap Off Units



## PB Busway Tap Off Unit without Metering

### 208V

PBP4A11L520AF	1 x 1 Pole 3 Wire, 20A, 120V, 1 Drop Cord, 3ft, Phase A, L5-20
PBP4A11L520BF	1 x 1 Pole 3 Wire, 20A, 120V, 1 Drop Cord, 3ft, Phase B, L5-20
PBP4A11L520CF	1 x 1 Pole 3 Wire, 20A, 120V, 1 Drop Cord, 3ft, Phase C, L5-20
PBP4A31L520F	3 x 1 Pole 3 Wire, 20A, 120V, 3 Drop Cord, 3ft, 5ft, 7ft, L5-20
PBP4A11L530AF	1 x 1 Pole 3 Wire, 30A, 120V, 1 Drop Cord, 3ft, Phase A, L5-30
PBP4A11L530BF	1 x 1 Pole 3 Wire, 30A, 120V, 1 Drop Cord, 3ft, Phase B, L5-30
PBP4A11L530CF	1 x 1 Pole 3 Wire, 30A, 120V, 1 Drop Cord, 3ft, Phase C, L5-30
PBP4A31L530F	3 x 1 Pole 3 Wire, 30A, 120V, 3 Drop Cord, 3ft, 5ft, 7ft, L5-30
PBP4A12L620ABF	1 x 2 Pole 3 Wire, 20A, 208V, 1 Drop Cord, 3ft, L1-L2, L6-20
PBP4A12L620BCF	1 x 2 Pole 3 Wire, 20A, 208V, 1 Drop Cord, 3ft, L2-L3, L6-20
PBP4A12L620CAF	1 x 2 Pole 3 Wire, 20A, 208V, 1 Drop Cord, 3ft, L3-L1, L6-20
PBP4A32L620F	3 x 2 Pole 3 Wire, 20A, 208V, 3 Drop Cord, 3ft, 5ft, 7ft, L6-20
PBP4A12L630ABF	1 x 2 Pole 3 Wire, 30A, 208V, 1 Drop Cord, 3ft, L1-L2, L6-30
PBP4A12L630BCF	1 x 2 Pole 3 Wire, 30A, 208V, 1 Drop Cord, 3ft, L2-L3, L6-30
PBP4A12L630CAF	1 x 2 Pole 3 Wire, 30A, 208V, 1 Drop Cord, 3ft, L3-L1, L6-30
PBP4A32L630F	3 x 2 Pole 3 Wire, 30A, 208V, 3 Drop Cord, 3ft, 5ft, 7ft, L6-30
PBP4A13L2120F	1 x 3 Pole 5 Wire, 20A, 208Y/120V, 1 Drop Cord, 3ft, L21-20
PBP4A13L2130F	1 x 3 Pole 5 Wire, 30A, 208Y/120V, 1 Drop Cord, 3ft, L21-30
PBP4A13CS50F	1 x 3 Pole 4 Wire, 50A, 208V, 1 Drop Cord, 3ft, CS8364C
PBP4A13IEC60F	1 x 3 Pole 4 Wire, 60A, 208V, 1 Drop Cord, 3ft, IEC309

**Note:** The 208V Tap Off Units Without Metering can only be used with 208V iBusway for Data Center solutions. Do not mix 208V and 415V Tap Off Units on the same Busway run.

## 415V

PBP4A11IEC20A	1 x 1 Pole 3 Wire, 20A, 240V, 1 Drop Cord, 3ft IEC 309, Phase A
PBP4A11IEC20B	1 x 1 Pole 3 Wire, 20A, 240V, 1 Drop Cord, 3ft IEC 309, Phase B
PBP4A11IEC20C	1 x 1 Pole 3 Wire, 20A, 240V, 1 Drop Cord, 3ft, IEC 309, Phase C
PBP4A31IEC20	3 x 1 Pole 3 Wire, 20A, 240V, 3 Drop Cord, 3ft, 5ft, 7ft, IEC 309
PBP4A11IEC30A	1 x 1 Pole 3 Wire, 30A, 240V, 1 Drop Cord, 3ft, IEC 309, Phase A
PBP4A11IEC30B	1 x 1 Pole 3 Wire, 30A, 240V, 1 Drop Cord, 3ft, IEC 309, Phase B
PBP4A11IEC30C	1 x 1 Pole 3 Wire, 30A, 240V, 1 Drop Cord, 3ft, IEC 309, Phase C
PBP4A31IEC30	3 x 1 Pole 3 Wire, 30A, 240V, 3 Drop Cord, 3ft, 5ft, 7ft, IEC 309
PBP4A13IEC20	1 x 3 Pole 5 Wire, 20A, 415Y/240V, 1 Drop Cord, 3ft, IEC 309
PBP4A13IEC30	1 x 3 Pole 5 Wire, 30A, 415Y/240V, 1 Drop Cord, 3ft, IEC 309
PBP4A13IEC60H	1 x 3 Pole 5 Wire, 60A, 415Y/240V, 1 Drop Cord, 3ft, IEC 309

**Note:** The 415V Tap Off Units Without Metering can only be used with 415V iBusway for Data Center solutions. Do not mix 208V and 415V Tap Off Units on the same Busway run.



## PB Busway Tap Off Unit with Metering

### 208V

PBP4A31L520M1	3 x 1 Pole 3 Wire, 20A, 120V, 3 Drop Cord, 3ft, 5ft, 7ft, L5-20
PBP4A31L530M1	3 x 1 Pole 3 Wire, 30A, 120V, 3 Drop Cord, 3ft, 5ft, 7ft, L5-30
PBP4A12L620ABM1	1 x 2 Pole 3 Wire, 20A, 208V, 1 Drop Cord, 3ft, L1-L2, L6-20
PBP4A12L620BCM1	1 x 2 Pole 3 Wire, 20A, 208V, 1 Drop Cord, 3ft, L2-L3, L6-20
PBP4A12L620CAM1	1 x 2 Pole 3 Wire, 20A, 208V, 1 Drop Cord, 3ft, L3-L1, L6-20
PBP4A12L630ABM1	1 x 2 Pole 3 Wire, 30A, 208V, 1 Drop Cord, 3ft, L1-L2, L6-30
PBP4A12L630BCM1	1 x 2 Pole 3 Wire, 30A, 208V, 1 Drop Cord, 3ft, L2-L3, L6-30
PBP4A12L630CAM1	1 x 2 Pole 3 Wire, 30A, 208V, 1 Drop Cord, 3ft, L3-L1, L6-30
PBP4A13L2120M1	1 x 3 Pole 5 Wire, 20A, 208Y/120V, 1 Drop Cord, 3ft, L21-20
PBP4A13L2130M1	1 x 3 Pole 5 Wire, 30A, 208Y/120V, 1 Drop Cord, 3ft, L21-30
PBP4A13CS50M1	1 x 3 Pole 4 Wire, 50A, 208V, 1 Drop Cord, 3ft, CS8364C
PBP4A13IEC60M1	1 x 3 Pole 4 Wire, 60A, 208V, 1 Drop Cord, 3ft, IEC309

**Note:** The 208V Tap Off Units With Metering can only be used with 208V iBusway for Data Center solutions. Do not mix 208V and 415V Tap Off Units on the same Busway run.

### 415V

PBP4A31IEC20M4	3 x 1 Pole 3 Wire, 20A, 240V, 3 Drop Cord, 3ft, 5ft, 7ft, IEC 309
PBP4A31IEC30M4	3 x 1 Pole 3 Wire, 30A, 240V, 3 Drop Cord, 3ft, 5ft, 7ft, IEC 309
PBP4A13IEC20M4	1 x 3 Pole 5 Wire, 20A, 415Y/240V, 1 Drop Cord, 3ft, IEC309
PBP4A13IEC30M4	1 x 3 Pole 5 Wire, 30A, 415Y/240V, 1 Drop Cord, 3ft, IEC309
PBP4A13IEC60M4	1 x 3 Pole 5 Wire, 60A, 415Y/240V, 1 Drop Cord, 3ft, IEC309

**Note:** The 415V Tap Off Units With Metering can only be used with 415V iBusway for Data Center solutions. Do not mix 208V and 415V Tap Off Units on the same Busway run.

## Tap Off Unit with Ethernet Gateway

PBPEGX4A100T PB Busway w/ EGX Integrated Gateway-Server

**Note:** The Tap Off Unit with Ethernet Gateway contains an EGX Gateway Server which connects up to 32 metered devices to the Ethernet. Use the Tap Off Unit with Ethernet Gateway if your iBusway for Data Center solution is comprised of a Metered Feed Unit and more than 31 Metered Tap Off Units, or if your iBusway for Data Center solution is comprised of a Feed Unit without Metering and one or more Metered Tap Off Units.

## PB Busway Rack Mounting Kits

PBRMKS	PB Busway Rack Mounting Bracket, Single Run
PBRMKD	PB Busway Rack Mounting Bracket, Double Run
PBRMSB	PB Busway Rack Mounting Sway Braces
PBRMDB	PB Busway Rack Mounting Drop-in Trough and Partition Brackets
PBRMSKT300	PB Busway Rack Mounting Skirt, 300mm wide
PBRMSKT600	PB Busway Rack Mounting Skirt, 600mm wide
PBRMSKT750	PB Busway Rack Mounting Skirt, 750mm wide
PBRMHW	PB Busway Rack Mount Extra Hardware

### Notes:

- The Busway Rack Mounting Kits are compatible with 100A, 225A, and 400A Busway solutions.
- See the *iBusway for Data Center Rack Mount Kit Decision Tree* to determine the correct number of rack mount kits to purchase if you are installing the iBusway for Data Center solution on top of a row of NetShelter SX cabinets. More information can be found at [www.apc.com](http://www.apc.com).

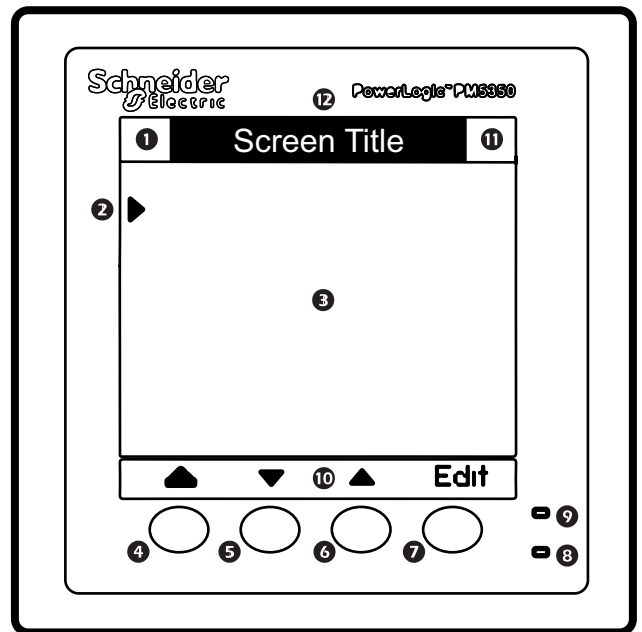
# Communication and Management

The iBusway for Data Center power distribution solution, which is based on the Powerbus™ plug-in bus bar system, provides row-level power monitoring through Metered Power Feed Units and rack-level power monitoring through Metered Tap Off units. The metered devices are equipped with a PowerLogic™ PM5350xB power meter, which monitors energy usage and features an LCD display for local access. The Metered Feed Units and EGX300 Gateway Tap Off Unit are equipped with a PowerLogic EGX300 Ethernet Gateway, which passes information between the Power Meter and StruxureWare™ Data Center Expert or a Web browser. With the EGX300 Ethernet Gateway and one or more PM5350xB Power Meters, the iBusway for Data Center solution is network manageable, Modbus™ TCP/IP and Ethernet-enabled for remote monitoring, and compatible with StruxureWare Data Center Expert and StruxureWare Power Monitoring Expert.

## PowerLogic Power Meter

### Display Interface

The power meter is equipped with a large, back-lit LCD display. It is designed to display up to six lines of information plus a row of menu options.



- ❶ Icon 1—MT (Meter Test Mode), Wrench Icon (Maintenance) or Heartbeat Icon
- ❷ Cursor
- ❸ Data Area
- ❹ Button 1
- ❺ Button 2
- ❻ Button 3
- ❼ Button 4
- ❽ Heartbeat/Comms LED (green); Flashes at a steady rate during normal operation and at a variable rate when communications is active.
- ❾ Energy/Alarm LED (orange); default setting: Off
- ❿ Menu Area
- ⓫ Icon 2 – Alarm Icon
- ⓬ Screen Title

Default PM5350 Password: 0000  
Default Demand Calculation Method: Fixed block with 15 minute Interval

## Measurements

Power Meter Characteristics: Meter accuracy:  $\pm 0.5\%$  per IEC Standard

Instantaneous rms Values	
Current	Per phase, neutral or ground, average of 3 phases
Voltage	Average of 3 phases, L-L and L-N
Frequency	45 to 70 Hz
Active power	Total and per phase (signed)
Reactive power	Total and per phase (signed)
Apparent power	Total and per phase
True Power Factor	Total and per phase 0.000 to 1 (signed, four quadrant)
Displacement Power Factor	Total and per phase 0.000 to 1 (signed, four quadrant)

Energy Values (Delivered, Received, Del+Rec, Del-Rec)	
Active energy	0 to $9.2 \times 10^{18}$ Wh
Reactive energy	0 to $9.2 \times 10^{18}$ VARh
Apparent energy	0 to $9.2 \times 10^{18}$ VAh

Demand Values	
Current	Average
Active, reactive, apparent power	Total

Maximum Demand Values	
Maximum Current	Average
Maximum Active Power	Total
Maximum Reactive Power	Total
Maximum Apparent Power	Total

Power-Quality Values	
Total Harmonic Distortion (THD and thd)	Current and voltage (L-L and L-N)
Total Demand Distortion (TDD)	

Reset
Maximum Demand Current and Power (Password Protected)
Energy Values (Password Protected)
Minimum and Maximum Values (Password Protected)
Active Load Timer
I/O Counters and Timers

Visualization Modes	
IEC and IEEE	All calculations are the same under both visualization modes.

Minimum and Maximum Values
Real Power per Phase Total
Apparent Power per Phase and Total
Reactive Power per Phase and Total
PF (power factor) True and Displacement, per Phase and Total
Current per phase and average
Voltage (L-L and L-N) per phase and average
THD and thd Current per Phase
THD and thd Voltage (L-L and L-N)

# Power Meter Alarm List

## 1-Second Alarms

The Power Meter has 29 standard, 1-second over/under alarms. All alarms are disabled by default.

### Alarm Number / Alarm Label

01 - Over Current - Phase	11 - Over kVA	21 - Over kVAR Dmd - Pred
02 - Under Current - Phase	12 - Lead PF - True	22 - Over kVA Dmd - Pres
03 - Over Current - Neutral	13 - Lag PF - True	23 - Over kVA Dmd - Last
04 - Over Current - Ground	14 - Lead PF - Disp	24 - Over kVA Dmd - Pred
05 - Over Voltage - L-L	15 - Lag PF - Disp	25 - Over Frequency
06 - Under Voltage - L-L	16 - Over kW Dmd - Pres	26 - Under Frequency
07 - Over Voltage - L-N	17 - Over kW Dmd - Last	27 - Over Voltage Unbal
08 - Under Voltage - L-N	18 - Over kW Dmd - Pred	28 - Over Voltage THD
09 - Over kW	19 - Over kVAR Dmd - Pres	29 - Phase Loss
10 - Over kVAR	20 - Over kVAR Dmd - Last	

## Status Alarms

- Meter has turned on after a control power loss
- Meter has been reset
- Meter's self-diagnostic feature has detected a problem
- Meter has detected a phase rotation different from expected

## EGX300 Gateway Server

- The EGX300 Gateway Server gathers information from the Power Meters in the daisy chain via Modbus.
- It has an Ethernet port which allows TCP/IP connection via StruxureWare Data Center Expert or a Web browser.
- The EGX300 Gateway Server can monitor up to 32 devices.
- The Metered Feed Units and the Tap Off Unit with Ethernet Gateway contain a EGX300 Gateway Server.

# Compliance

## Regulatory Approvals, Codes, and Standards

- UL 857
- cUL
- NEMA BU1

# Facility Planning

## Busway Straight

Electrical ratings: 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	1 outlet per 11.4 in., front and back of Busway straight; Solid object ingress protection to IP2X standard
Configuration of Conductor bars	Four conductor bars (3L + N)
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 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)
Hanger Spacing (suspended or rack-mount)	5 ft Max

## Busbar to Housing Ground Comparison

Busway Amperage	Cross-Sectional Area (in <sup>2</sup> )		Resistance @ 20°C (μΩ/ft)	
	Bus Bar	Housing	Bus Bar	Housing
100	0.0625	0.6848	129.05	22.44
225	0.171875	0.7544	46.93	20.37
400	0.28125	1.00103	28.68	15.35

## Power Feed Unit (PFUs)

Optional row-level metering and communications	PowerLogic PM5350xB PB power meter and EGX300 integrated gateway-server*
Incoming wire lug configuration	100A: One #14-1/0 per bar + One ground #14-1/0 225A: One #6-300 kcmil per bar + One ground #10-2/0 400A: Maximum of two 600 kcmil per bar + Two ground #10-2/0  <b>NOTE:</b> For more information, please see the User Manual ( <i>iBusway for Data Center Installation: Powerbus Plug-in Busway Straight Sections and Feed Units</i> , P/N: 45124-053-01D)
Feed Units Without Metering	Up to 600V
Feed Units With Metering	208V or 415V
Color	Black
Housing Ingress protection rating	NEMA Type 1 general purpose indoor
Tools required for Installation	To torque the lugs for the incoming line conductors, a 3/8 in. drive torque wrench capable of 500 lb-in and a 3/8 in. drive, 1/2 in. hex bit (Blackhawk™ UH-3812 or equivalent) is required.  Maximum Overall Length of hex bit: 1-7/64 in.



## Tap-Off Unit

Optional Rack-level Metering	Metered Tap Off Units with embedded PowerLogic PM5350xB power meter <sup>1</sup>
Communications	EGX300 Tap Off Unit <sup>1</sup> with integrated gateway-server
Maximum Rated Voltage, EDB Breaker	480V
Maximum Rated Voltage, QOU Breaker	208V
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 <sup>2</sup>	QOU circuit breakers: 10 kA
	EDB circuit breakers: 18 kA
Total Unit Amperage	60 A <sup>3</sup>
Drop Cord Connector	NEMA, IEC, CS
Drop Cord Connector Amperage	15 A to 60 A
Drop Cords <sup>4</sup>	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
<sup>1</sup> Refer to separate technical documents for power meter and server-gateway specifications.	
<sup>2</sup> 22kA QOU-VH breakers and 35kA EGB breakers are available; contact your sales representative for details	
<sup>3</sup> 100 A Tap Off Units available; contact your sales representative for details	
<sup>4</sup> Do not install the solution at a height that will cause the connector to hang vertically, as gravity could force the connectors apart.	

## Electrical Data Short Circuit Rating

Product	Short Circuit Current Rating KA, RMS Symmetrical		Impedance <sup>1</sup> Line-to-Neutral (milliohms/100ft)			DC Resistance of Aluminum Housing Ground (milliohms/100ft)
	UL 3-Cycle Test	Series-Connected with Fuse <sup>2</sup>	R	X60 Hz	X50 Hz	
225A	22kA	200kA	6.40	4.00	3.33	1.15
100A	14kA	200kA	15.34	7.59	6.32	1.25
400A	35kA	200kA	3.74	2.19	1.83	0.54

1. Busway impedance and housing ground resistance are at 176 °F (80 °C) operating temperature.  
2. Busway connected in series with a Class J or Class T fuse.

## Voltage Drop

- Voltage drop (input minus output) on Busway Straight is rated at **Standardized Testing conditions (STC); full rated current and operating temperature of 86 °F (30 °C)**.
- The three-phase, line-to-line voltage drop will not exceed 3.1V/100ft at **40% power factor concentrated load existing during motor start-up**.
- The line-to-line voltage drop will not exceed 4.0V/100ft at **load power factor producing maximum voltage drop in Busway Straight**.

## Voltage Drop Table

Product	Voltage Drop (60 Hz @ Rated Load) (Average Phase Line-to-Line Drop in Volts / 100 ft for Varying Power Factors)					
	100%	90%	80%	70%	60%	50%
100 A	2.657	2.964	2.914	2.799	2.646	2.467
225 A	2.494	2.923	2.929	2.858	2.742	2.596
400 A	2.590	2.992	2.984	2.898	2.770	2.610

### Notes:

1. Values shown are based on single concentrated load at the end of a Busway run. For distributed loading, divide the values shown by two (2).
2. For balanced 3-phase line-to-line voltage drop of 4-wire Busway, use values from the table above.
3. For balanced 3-phase line-to-line neutral voltage drop, multiply values by 0.577.
4. For single-phase voltage drop, multiply values by 1.15.
5. For other than rated current, multiply values by the ratio of: Actual Current divided by Rated Current
6. For total voltage drop, multiply values by the ratio of: Actual Length divided by 100 ft.
7. Voltage drop calculations for 50 Hz can be made by substituting the appropriate value from the Table: *Electrical Data Short Circuit Rating*. For other frequency values, contact Schneider Electric.

## QOU Breakers

### 208V Tap Off Unit without Metering (Schneider Electric QOU Breakers)

Device		Qty Circuit Breakers	Model
PBP4A11L520AF	1 x 1 Pole 3 Wire, 20A, 120V, 1 Drop Cord, 3ft, Phase A, L5-20	(1) 1P	QOU120
PBP4A11L520BF	1 x 1 Pole 3 Wire, 20A, 120V, 1 Drop Cord, 3ft, Phase B, L5-20	(1) 1P	QOU120
PBP4A11L520CF	1 x 1 Pole 3 Wire, 20A, 120V, 1 Drop Cord, 3ft, Phase C, L5-20	(1) 1P	QOU120
PBP4A31L520F	3 x 1 Pole 3 Wire, 20A, 120V, 3 Drop Cord, 3ft, 5ft, 7ft, L5-20	(3) 1P	QOU120
PBP4A11L530AF	1 x 1 Pole 3 Wire, 30A, 120V, 1 Drop Cord, 3ft, Phase A, L5-30	(1) 1P	QOU130
PBP4A11L530BF	1 x 1 Pole 3 Wire, 30A, 120V, 1 Drop Cord, 3ft, Phase B, L5-30	(1) 1P	QOU130
PBP4A11L530CF	1 x 1 Pole 3 Wire, 30A, 120V, 1 Drop Cord, 3ft, Phase C, L5-30	(1) 1P	QOU130
PBP4A31L530F	3 x 1 Pole 3 Wire, 30A, 120V, 3 Drop Cord, 3ft, 5ft, 7ft, L5-30	(3) 1P	QOU130
PBP4A12L620ABF	1 x 2 Pole 3 Wire, 20A, 208V, 1 Drop Cord, 3ft, L1-L2, L6-20	(1) 2P	QOU220
PBP4A12L620BCF	1 x 2 Pole 3 Wire, 20A, 208V, 1 Drop Cord, 3ft, L2-L3, L6-20	(1) 2P	QOU220
PBP4A12L620CAF	1 x 2 Pole 3 Wire, 20A, 208V, 1 Drop Cord, 3ft, L3-L1, L6-20	(1) 2P	QOU220
PBP4A32L620F	3 x 2 Pole 3 Wire, 20A, 208V, 3 Drop Cord, 3ft, 5ft, 7ft, L6-20	(3) 2P	QOU220
PBP4A12L630ABF	1 x 2 Pole 3 Wire, 30A, 208V, 1 Drop Cord, 3ft, L1-L2, L6-30	(1) 2P	QOU230
PBP4A12L630BCF	1 x 2 Pole 3 Wire, 30A, 208V, 1 Drop Cord, 3ft, L2-L3, L6-30	(1) 2P	QOU230
PBP4A12L630CAF	1 x 2 Pole 3 Wire, 30A, 208V, 1 Drop Cord, 3ft, L3-L1, L6-30	(1) 2P	QOU230
PBP4A32L630F	3 x 2 Pole 3 Wire, 30A, 208V, 3 Drop Cord, 3ft, 5ft, 7ft, L6-30	(3) 2P	QOU230
PBP4A13L2120F	1 x 3 Pole 5 Wire, 20A, 208Y/120V, 1 Drop Cord, 3ft, L21-20	(1) 3P	QOU320
PBP4A13L2130F	1 x 3 Pole 5 Wire, 30A, 208Y/120V, 1 Drop Cord, 3ft, L21-30	(1) 3P	QOU330
PBP4A13CS50F	1 x 3 Pole 4 Wire, 50A, 208V, 1 Drop Cord, 3ft, CS8364C	(1) 3P	QOU350
PBP4A13IEC60F	1 x 3 Pole 4 Wire, 60A, 208V, 1 Drop Cord, 3ft, IEC309	(1) 3P	QOU360

# EDB Breakers

## 415V Tap Off Unit without Metering (Schneider Electric EDB Breakers)

Device	Description	Qty Circuit Breakers	Model
PBP4A11IEC20A	1 x 1 Pole 3 Wire, 20A, 240V, 1 Drop Cord, 3ft IEC 309, Phase A	(1) 1P	EDB14020
PBP4A11IEC20B	1 x 1 Pole 3 Wire, 20A, 240V, 1 Drop Cord, 3ft IEC 309, Phase B	(1) 1P	EDB14020
PBP4A11IEC20C	1 x 1 Pole 3 Wire, 20A, 240V, 1 Drop Cord, 3ft, IEC 309, Phase C	(1) 1P	EDB14020
PBP4A31IEC20	3 x 1 Pole 3 Wire, 20A, 240V, 3 Drop Cord, 3ft, 5ft, 7ft, IEC 309	(3) 1P	EDB14020
PBP4A11IEC30A	1 x 1 Pole 3 Wire, 30A, 240V, 1 Drop Cord, 3ft, IEC 309, Phase A	(1) 1P	EDB14030
PBP4A11IEC30B	1 x 1 Pole 3 Wire, 30A, 240V, 1 Drop Cord, 3ft, IEC 309, Phase B	(1) 1P	EDB14030
PBP4A11IEC30C	1 x 1 Pole 3 Wire, 30A, 240V, 1 Drop Cord, 3ft, IEC 309, Phase C	(1) 1P	EDB14030
PBP4A31IEC30	3 x 1 Pole 3 Wire, 30A, 240V, 3 Drop Cord, 3ft, 5ft, 7ft, IEC 309	(3) 1P	EDB14030
PBP4A13IEC20	1 x 3 Pole 5 Wire, 20A, 415Y/240V, 1 Drop Cord, 3ft, IEC 309	(1) 3P	EDB34020
PBP4A13IEC30	1 x 3 Pole 5 Wire, 30A, 415Y/240V, 1 Drop Cord, 3ft, IEC 309	(1) 3P	EDB34030
PBP4A13IEC60H	1 x 3 Pole 5 Wire, 60A, 415Y/240V, 1 Drop Cord, 3ft, IEC 309	(1) 3P	EDB34060

## 208V Tap Off Unit with Metering (Schneider Electric EDB Breakers)

Device	Description	Qty Circuit Breaker	Model
PBP4A31L520M1	3 x 1 Pole 3 Wire, 20A, 120V, 3 Drop Cord, 3ft, 5ft, 7ft, L5-20	(3) 1P	EDB14020
PBP4A31L530M1	3 x 1 Pole 3 Wire, 30A, 120V, 3 Drop Cord, 3ft, 5ft, 7ft, L5-30	(3) 1P	EDB14030
PBP4A12L620ABM1	1 x 2 Pole 3 Wire, 20A, 208V, 1 Drop Cord, 3ft, L1-L2, L6-20	(1) 2P	EDB24020
PBP4A12L620BCM1	1 x 2 Pole 3 Wire, 20A, 208V, 1 Drop Cord, 3ft, L2-L3, L6-20	(1) 2P	EDB24020
PBP4A12L620CAM1	1 x 2 Pole 3 Wire, 20A, 208V, 1 Drop Cord, 3ft, L3-L1, L6-20	(1) 2P	EDB24020
PBP4A12L630ABM1	1 x 2 Pole 3 Wire, 30A, 208V, 1 Drop Cord, 3ft, L1-L2, L6-30	(1) 2P	EDB24030
PBP4A12L630BCM1	1 x 2 Pole 3 Wire, 30A, 208V, 1 Drop Cord, 3ft, L2-L3, L6-30	(1) 2P	EDB24030
PBP4A12L630CAM1	1 x 2 Pole 3 Wire, 30A, 208V, 1 Drop Cord, 3ft, L3-L1, L6-30	(1) 2P	EDB24030
PBP4A13L2120M1	1 x 3 Pole 5 Wire, 20A, 208Y/120V, 1 Drop Cord, 3ft, L21-20	(1) 3P	EDB34020
PBP4A13L2130M1	1 x 3 Pole 5 Wire, 30A, 208Y/120V, 1 Drop Cord, 3ft, L21-30	(1) 3P	EDB34030
PBP4A13CS50M1	1 x 3 Pole 4 Wire, 50A, 208V, 1 Drop Cord, 3ft, CS8364C	(1) 3P	EDB34050
PBP4A13IEC60M1	1 x 3 Pole 4 Wire, 60A, 208V, 1 Drop Cord, 3ft, IEC309	(1) 3P	EDB34060

## 415V Tap Off Unit with Metering (Schneider Electric EDB Breakers)

Device	Description	Qty Circuit Breakers	Model
PBP4A31IEC20M4	3 x 1 Pole 3 Wire, 20A, 240V, 3 Drop Cord, 3ft, 5ft, 7ft, IEC 309	(3) 1P	EDB14020
PBP4A31IEC30M4	3 x 1 Pole 3 Wire, 30A, 240V, 3 Drop Cord, 3ft, 5ft, 7ft, IEC 309	(3) 1P	EDB14030
PBP4A13IEC20M4	1 x 3 Pole 5 Wire, 20A, 415Y/240V, 1 Drop Cord, 3ft, IEC309	(1) 3P	EDB34020
PBP4A13IEC30M4	1 x 3 Pole 5 Wire, 30A, 415Y/240V, 1 Drop Cord, 3ft, IEC309	(1) 3P	EDB34030
PBP4A13IEC60M4	1 x 3 Pole 5 Wire, 60A, 415Y/240V, 1 Drop Cord, 3ft, IEC309	(1) 3P	EDB34060

## Dimensional Data

### Busway Straight Sections

	100A	225A	400A
Dimensions (H x W x D), 4-ft Busway straight	7.7 x 48 x 2.6 in. (176 x 1219 x 66 mm)	7.7 x 48 x 3.47 in. (176 x 1219 x 88 mm)	7.7 x 48 x 3.6 in. (176 x 1219 x 91 mm)
Dimensions (H x W x D), 10-ft Busway straight	7.7 x 120 x 2.6 in. (176 x 3048 x 66 mm)	7.7 x 120 x 3.47 in. (176 x 3048 x 88 mm)	7.7 x 120 x 3.6 in. (176 x 3048 x 91 mm)
Weight	3.2 lb/ft	5.1 lb/ft	7.9 lb/ft
<b>Note:</b> See submittal drawing package for details. Shipping weights and dimensions are order-specific; dimensions of crated shipment are not standardized.			

### Power Feed Units

	100A	225A	400A
Power Feed Unit Without Metering			
Dimensions (H x W x D)	14.5 x 24 x 7.8 in. (368 x 610 x 198 mm)	14.5 x 38 x 9.7 in. (368 x 965 x 247 mm)	14.5 x 43 x 9.7 in. (368 x 1092 x 247 mm)
Approximate Weight	50 lb (22.7 kg)	65 lb (29.5 kg)	95 lb (43.1 kg)
Power Feed Unit With Metering			
Dimensions (H x W x D)	21.71 x 36 x 9.83 in. (537.7 x 914.4 x 249.7 mm)	21 x 38 x 10.2 in. (533 x 965 x 259 mm)	21 x 43 x 10.2 in. (533 x 1092 x 259 mm)
Approximate Weight	56 lb (25.4 kg)	90 lb (40.8 kg)	120 lb (54.4 kg)
<b>Note:</b> See submittal drawing package for details. Shipping weights and dimensions are order-specific; dimensions of crated shipment are not standardized.			

### Tap Off Units

H x W x D, 208V Tap Off Units without Metering	12 x 8.475 x 5.5 in.
208V & 415/240V Metered Tap Off Units 415/240V Tap Off Units without Metering	14 x 8.475 x 5.7 in.
Ethernet Gateway Tap Off Unit	14 x 8.475 x 5.7 in.
Shipping Dimensions	13.5 x 13.5 x 31.5 in.
Minimum Weight	18 lb (8 kg)
Approximate Shipping Weight	33 lb (15 kg)
<b>Note:</b> Weight will vary depending on breaker, cord, and connector configuration. See submittal drawings for more information.	

## Rack Mount Kits

	Single Run Rack Mount Kit	Double Run Rack Mount Kit
Unpacked Dimensions (H x W x D)	24.6 x 14.1 x 34.0 in. (625.0 x 358.7 x 862.6 mm)	36.9 x 14.1 x 34.0 in. (936.1 x 358.7 x 862.6 mm)
Shipping Weight	17.6 lb (8.0 kg)	20.2 lb (9.2 kg)
Shipping Dimensions	38.3 x 2.6 x 28.7 in. (971.5 x 66.7 x 728.5 mm)	38.3 x 2.6 x 40.6 in. (971.5 x 66.7 x 1030.2 mm)
<b>Note:</b> See submittal drawings for more information.		

## Environmental Data

Operating Temperature	14°F to 104°F (-10°C to 40°C)
Storage Temperature	-22°F to 158°F (-30°C to 70°C)
Tap Off Unit Operating Temperature	32°F to 104°F (0°C to 40°C)
Operating Humidity	0 - 95% non-condensing relative humidity
Storage Humidity	
Operating Elevation	< 6,600 ft (< 2,000 m)

# Drawings

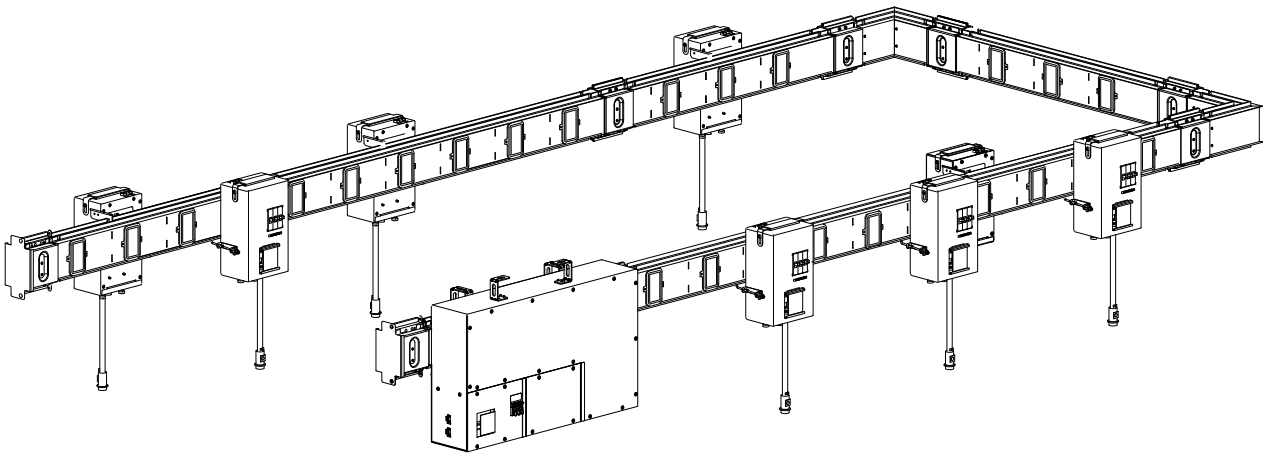
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**Note:** These drawings are for reference ONLY - subject to change without notice.

**Note:** A comprehensive set of drawings is available on the APC Web site:  
[www.apc.com](http://www.apc.com)

## Busway Power Distribution - Conceptual Component Blocks

**Note:** For reference only. Not drawn to scale.



# Options

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## NetShelter Cable Management Accessories

The following cable troughs can be installed on NetShelter™ SX racks to manage Tap Off Unit and Rack PDU cables.

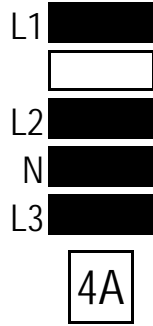
AR7209	NetShelter SX Trough and Partition Roof Bridge
AR8164AKIT	Cable Ladder 6" (15cm) Wide (Qty 1)
AR8164ABLK	Cable Ladder 6" (15cm) Wide w/Ladder Attachment Kit (AR8166ABLK)
AR8165AKIT	Cable Ladder 12" (30cm) Wide (Qty 1)
AR8165ABLK	Cable Ladder 12" (30cm) Wide w/Ladder Attachment Kit (AR8166ABLK)
AR8186	Cable Ladder Attachment Kit, Enclosures, Troughs, Zone Cabling 4U Patch Frame
AR8190BLK	Third Party Rack Trough and Partition Adapter
AR8450A	4 Post Open Frame Trough and Partition Adapter
AR8560	Cable Trough, Open Bottom, 600mm
AR8561	Cable Trough, 600mm
AR8567	Trough End Cap
AR8570	Cable Trough, Open Bottom, PDU 750mm
AR8571	Cable Trough, 750mm
AR8573	Perforated Cover, Cable Trough, 300mm
AR8574	Perforated Cover, Cable Trough, 600mm
AR8575	Perforated Cover, Cable Trough, 750mm
AR8579	Grommet, Edge Protection for NetShelter and Accessories, PVC, Length-4m
AR8580	Cable Trough, Open Bottom, 300mm
AR8585	Trough Adapter Kit for Nexus 7018 ducts



## Custom Options

Tap Off Units can be ordered in custom colors, as well as custom drop cord lengths, and with special connectors. Common customization configurations are listed below. More options are available. Contact your Schneider Electric sales representative to discuss your site's unique needs and order custom options.

For Busway configurations other than 4A, Busway customization is available from the Schneider Electric Partner Business Unit and can be added to Solutions opportunities that include UPS, Rack, or Cooling requirements.



Standard Option

## Busway Accessories

Additional outlet covers are available for your Busway Straight Section, as well as sway braces which provide additional stabilization.

<b>PBPIOCVR</b>	Plug-in Opening Cover
<b>PB100VSB</b>	100A Vertical Sway Brace
<b>PB225VSB</b>	225A Vertical Sway Brace
<b>PB400VSB</b>	400A Vertical Sway Brace

# Warranty

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## SCHNEIDER ELECTRIC IT CORPORATION LIMITED FACTORY WARRANTY

### One-Year Factory Warranty<sup>1</sup>

The limited warranty provided by Schneider Electric IT Corporation (SE IT) in this Statement of Limited Factory Warranty applies only to products you purchase for your commercial or industrial use in the ordinary course of your business.

### Terms of Warranty

SE IT warrants its products to be free from defects in materials and workmanship for a period of one year from the date of purchase. SE IT obligation under this warranty is limited to repairing or replacing, at its sole discretion, any such defective products. This warranty does not apply to equipment that has been damaged by accident, negligence or misapplication or has been altered or modified in any way. Repair or replacement of a defective product or part thereof does not extend the original warranty period. Any parts furnished under this warranty may be new or factory remanufactured.

### Non-transferable Warranty

This warranty applies only to the original purchaser who must have properly registered the product. Product may be registered at [warranty.apc.com](http://warranty.apc.com).

### Exclusions

SE IT shall not be liable under the warranty if its testing and examination disclose that the alleged defect in the product does not exist or was caused by end user or any third person misuse, negligence, improper installation or testing. Further SE IT shall not be liable under the warranty for unauthorized attempts to repair or modify wrong or inadequate electrical voltage or connection, inappropriate on-site operation conditions, corrosive atmosphere, repair, installation, start-up by non-SE IT designated personnel, a change in location or operating use, exposure to the elements, Acts of God, fire, theft, or installation contrary to SE IT recommendations or specifications or in any event if the SE IT serial number has been altered, defaced, or removed, or any other cause beyond the range of the intended use.

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**1 To determine which factory warranty applies to the SE IT product you purchased, please consult the factory warranties located on the S web site: [www.apc.com/products](http://www.apc.com/products)**

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### Warranty Claims

Customers with warranty claims issues may access the SE IT worldwide customer support network through the SE IT web site: [support.apc.com](http://support.apc.com). Select your country from the country selection pull-down menu. Open the Support tab at the top of the web page to obtain contact information for customer support in your region



# Worldwide Customer Support

Customer support for this or any other product is available at no charge in any of the following ways:

- Visit the Schneider Electric Web site to access documents in the Schneider Electric Knowledge Base and to submit customer support requests.
  - **www.schneider-electric.com** (Corporate Headquarters)  
Connect to localized Schneider Electric Web sites for specific countries, each of which provides customer support information.
  - **www.schneider-electric.com/support/**  
Global support searching Schneider Electric Knowledge Base and using e-support.
- Contact the Schneider Electric Customer Support Center by telephone or e-mail.
  - Local, country-specific centers: go to **www.schneider-electric.com > Support > Operations around the world** for contact information.

For information on how to obtain local customer support, contact the representative or other distributors from whom you purchased your product.