

Configurable power distribution

60 – 150 kVA

The easy-to-deploy PDU for data centers with custom requirements



Configured to order, factory-assembled power distribution for IT equipment in any size data center or high-density zone

- Factory-populated SquareD™ breaker panels tailored to your site requirements
- Available branch current monitoring
- Flexible installation with support for top and bottom feed entry
- Customized cord sets for reduced cable clutter
- Multiple isolation transformer rating choices (208/208 V, 480/208 V, 600/208 V)
- Minimized footprint with NetShelter™ enclosures
- Rack-based for agility and aesthetics
- Locally manageable with PowerView™ display interface
- Network manageable via Web interface and SNMP
- Compatible with StruxureWare™ software applications and suites
- Side access not required for maintenance
- 150 kVA InfraStruxure PDU supports Modbus

Features and benefits



Agility, availability, and speed of deployment are the benefits brought to your data center by APC InfraStruxure™ Power Distribution Units (PDUs). Our three-phase power distribution solutions are factory assembled and tested, enabling you to receive and install fully operational power distribution units quickly.

Each PDU is comprised of two 42-pole SquareD breaker panels, populated with breakers and connectors that match your site's specifications. This customized configuration also reduces cable clutter — your site's layout defines the length of the cord connector sets.

APC InfraStruxure PDUs use two important strategies to conserve energy: ultra-efficient hardware and feature-rich monitoring software. NEMA-rated TP-1 isolation transformers provide high efficiency, therefore reducing operating costs. Our 60 kVA InfraStruxure PDUs offer optional branch current monitoring while 150 kVA InfraStruxure PDUs offer optional branch current and power monitoring (BCPM), which measures energy usage in kilowatt hours (kWh). Monitor your power savings, configure system settings and alarm thresholds, and customize alarm notifications locally at the PowerView display interface or remotely using a Web browser, StruxureWare Data Center Expert, or your building management system.

The InfraStruxure PDUs also feature a convenient, portable rack form factor; overhead and underfloor power input; and overhead distribution. Maintenance procedures can be performed from the front or back of the PDU, eliminating the need for side service access.

With extensive configuration options, InfraStruxure PDUs deliver the flexibility and management that data centers require while answering the needs of today's businesses with quick installation and rapid startup time.

Configurable power distribution

Availability

- Factory-assembled and tested breaker and cord sets

Manageability

- Output metering included
- Optional branch current monitoring (power monitoring also available for 150 kVA InfraStruxure PDU)
- Embedded network management
- Remote access over HTTP, Telnet, and SNMP
- Local access via PowerView display interface
- Configurable alarm notifications
- StruxureWare Data Center Expert compatible

Options

- One-, two-, and three-phase breakers
- Cord and connector sets
- Branch current monitoring (60 kVA InfraStruxure PDU)
- Branch current and power monitoring (150 kVA InfraStruxure PDU)
- 10 U Rack Distribution Panel in NetShelter SX enclosure
- 72 kVA Modular Rack Distribution Panel, 144 kVA Remote Power Panel (150 kVA InfraStruxure PDU only)

Typical Applications

- Small/medium/large data centers
- High-density zones of data centers

Configurable PDU features

- 1 LCD PowerView display interface**

A central location for clear text-based alarms, status data, and system configuration options.
- 2 Factory-assembled and tested breakers with cord sets**

The InfraStruxure PDU arrives at your site pre-configured and ready to be rolled into place — the circuit breakers, cord sets, and optional branch current monitoring that match your site demand are installed and tested at the factory, reducing installation time.
- 3 Rack-based panel distribution**

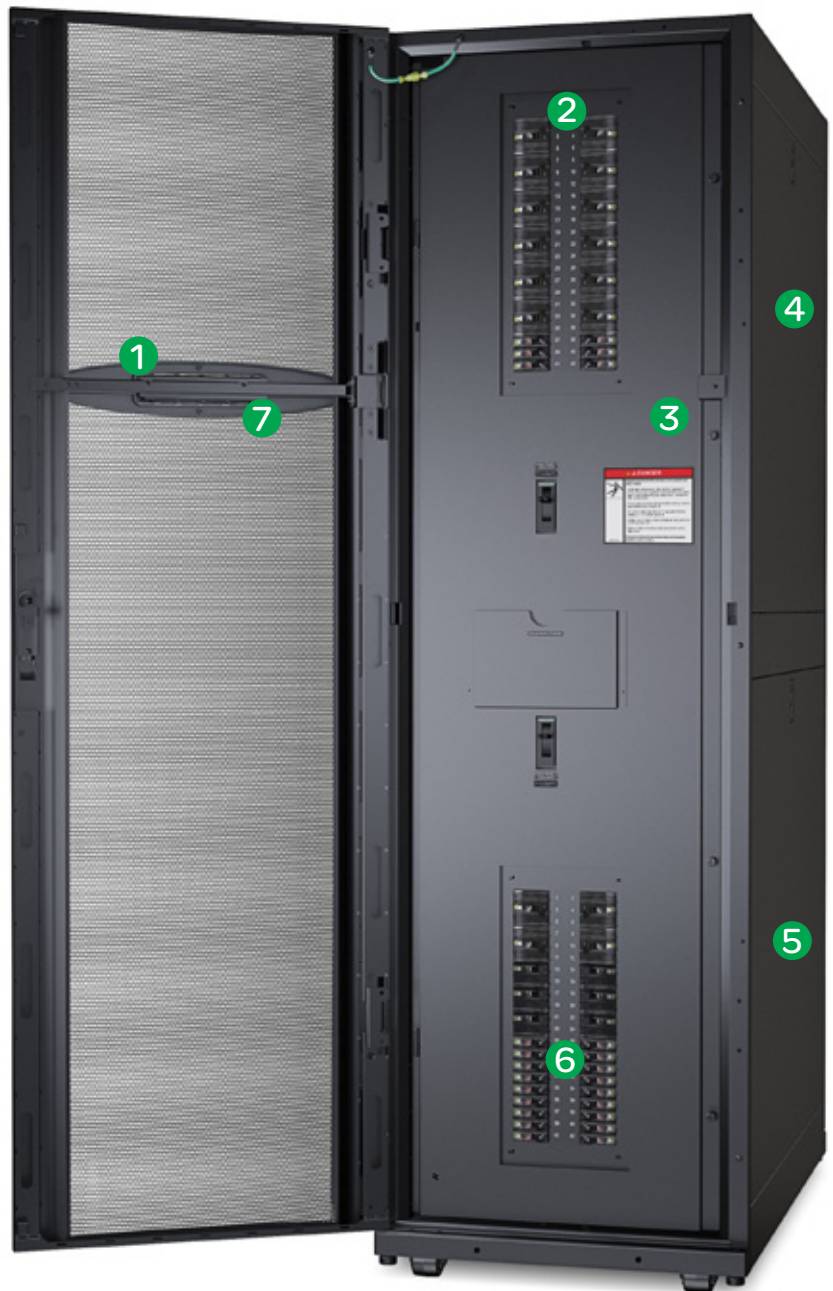
Aesthetic NetShelter enclosures roll into place and minimize the footprint of the panelboard distribution system.
- 4 Front or rear serviceable**

Designed for maximum flexibility, the InfraStruxure PDUs can be placed in an IT row — all maintenance and service can be completed using front or rear access.
- 5 Energy savings**

Efficient power usage is a feature of the isolation transformer deployed in the 60 kVA and 150 kVA InfraStruxure PDUs, reducing both your utility bill and the heat penalty to existing cooling systems.
- 6 Monitored current usage**

Optional branch current monitoring ensures you quickly see the amount of current flowing through each pole position, and helps you identify potential overload conditions before adding new servers.
- 7 Integrated monitoring solution**

While the PowerView display provides local information on the PDU, the Network Management Card relays vital information to the chosen monitoring platform. This simplifies the task of monitoring current usage and enabling remote control of the system through a Web interface and StruxureWare Data Center Expert. The new 150 kVA InfraStruxure PDU also includes Modbus support, allowing the PDU to communicate with your building management system.



Managing our Configurable PDU

Convenient access to PDU data:

View the status and monitor the PDU from any location in the world. Whether you're standing in front of the PDU or logging into its Web interface, the data that helps you make informed decisions is always just a click away.

- Specify unique breaker names to quickly identify the loads affected by alarm conditions
- Define normal power conditions and alarm thresholds
- Review the event log
- Customize the notifications you receive when output power conditions change

Measured electrical parameters:

- Voltage (phase to phase or phase to neutral)
- RMS current
- Active power (kW) and apparent power (kVA) measured both by phase and total of all three phases
- Power factor
- Energy usage (150 kVA InfraStruxure PDU with BCPM only)
- Frequency

Reported branch circuit breaker status:

- Position
- Breaker rating (Amps)
- Breaker status
- Breaker name
- RMS current
- User-specified thresholds and alarm settings



Branch Circuits : Panel 1(01..41)					
Pos	Rating	Status	Name	Current	Power
1		Normal		0.0 A	
3	50A	Normal	1 left top	0.0 A	0.0 kW
5		Normal		0.0 A	
7		Normal		0.0 A	
9	50A	Normal	1 left middle	0.0 A	0.0 kW
11		Normal		0.0 A	
13		Normal		0.0 A	
15	30A	Normal	1 left bottom	0.0 A	0.0 kW
17		Normal		0.0 A	
19					
21					
23					
25					
27					
29					
31		Normal		0.0 A	
33	20A	Normal	Unkacsn	0.0 A	0.0 kW
35		Normal		0.0 A	
37					
39					
41	20A	Normal	asdf	0.0 A	0.0 kW



Quickly see power usage with branch current and power monitoring.

150 kVA InfraStruxure PDU only

Optional branch current and power monitoring with split core current transformers provide enhanced visibility into the power usage of connected equipment:

- Enhance your energy management by measuring kWh
- Monitor even high density loads with 50 A and 100 A CTs

Options



Configurable power distribution

Expand the power distribution solution; the 10 U Rack Distribution Panel is installed in a NetShelter SX enclosure. Route power to the panel from a 60 A breaker installed in the 150 kVA InfraStruxure PDU panel.



Modular power distribution

Expand the power distribution solution by installing a 144 kVA Modular Remote Power Panel; housed in a footprint-conserving 300 mm enclosure, it provides up to 72 poles. Additionally, the 72 kVA Modular Rack Distribution Panel provides 18 poles of power and is a 5U panel installed in the rack (sold separately). Power is routed to the panel from the 150 kVA InfraStruxure PDU subfeed.

Current monitoring

In-depth current usage measurements allow you to develop detailed power management strategies.

Options:

- Branch current monitoring (60 kVA InfraStruxure PDUs)
- Branch current and power monitoring (150 kVA InfraStruxure PDUs)



Branch Current Monitoring (60 kVA InfraStruxure PDU)

Breakers

SquareD Bolt-on Breakers are shipped preinstalled and match your site specifications.

Options:

- 1-pole: 15 A, 20 A, 30 A
- 2-pole: 15 A, 20 A, 30 A
- 3-pole: 20 A, 30 A, 50 A, 60 A



Breaker

Connector sets

Connectors are shipped preinstalled.

Options:

- L21-20
- L21-30
- L15-30
- L14-20
- L14-30
- L5-15
- L5-20
- L5-30
- L6-15
- L6-20
- L6-30
- Hubbell CS8354C
- 60 A IEC 309



Connector Set

Cable troughs and partitions

Minimize cable clutter with cable troughs that can be installed directly onto the PDU roof.

Options:

- AR8560: 600 mm cable trough with open bottom
- AR8574: 600 mm perforated cable trough cover



600mm Cable Trough

Anchoring kits

Stabilize the rack to reduce the possibility of tipping during maintenance procedures.

Options:

- AR7701: NetShelter SX Bolt-Down Kit (not intended for seismic anchoring)
- SYOPT600: Seismic Kit for 600 mm Symmetra™ PX 100 and Symmetra PX 250/500 Frames (150 kVA InfraStruxure PDU only; required for OSHPD pre-approval)



Bolt Down Kit

StruxureWare for Data Centers software suite

APC™ by Schneider Electric™ UPS units and secure power systems are a core component of any architecture designed for highly critical applications, such as data centers, industry environments, infrastructure, and buildings.

Intelligent energy management of these systems is enabled by Schneider Electric EcoStruxure™ integrated hardware and software system architecture. StruxureWare™ software applications and suites are a key element of the EcoStruxure architecture. StruxureWare software helps maximize system reliability and optimize operational efficiency.

StruxureWare for Data Centers software collects and manages real-time information about assets, resource use, and operation status throughout the data center life cycle. This data center infrastructure management (DCIM) software fully integrates the PDU. With full system visibility, managers can monitor and apply this information in order to optimize data center performance to meet IT-, business-, and service-oriented goals.



A comprehensive portfolio of services

Schneider Electric Critical Power & Cooling Services (CPCS) provides the highest quality services and solutions by trained and trusted professionals. Our world-class services offer a smart way to build, operate, and maintain your critical applications, ensuring the right people, in the right place, at the right time.

Assembly and start-up service

Assembly and start-up service by a certified Field Service Engineer (FSE) ensures full factory warranty coverage. A Schneider Electric-certified installation ensures your equipment is properly and safely configured for optimal performance. This service features a standard eight-hour, five-day response time, with upgrades available for off-business hours.

On-site warranty extension service

In the event of a system issue, an FSE will arrive by the next business day (or faster with upgrades) to isolate, diagnose, and correct the problem in as little time as possible, minimizing downtime.

Advantage plans

Flexible service packages offer hassle-free system maintenance to improve uptime at a predictable cost. The Advantage Plus, Prime, Ultra, and Max are full-service packages that include technical support, preventive maintenance, quick on-site response, and remote monitoring. Response time upgrades are available.

Remote monitoring service (RMS)

RMS is an economical and easy-to-use, Web-based service that lets you quickly respond to environmental or system changes. Trained technicians provide secure 24-hour monitoring of your physical infrastructure to diagnose and resolve problems before they become critical.

Preventive maintenance

Preventive maintenance on-site examinations of your critical systems are designed to prevent problems and keep your system running at maximum efficiency.



Ease of serviceability

Future adjustments or replacements can be made quickly and easily with a PDU design tailored to meet your needs at every stage of the data center life cycle:

- Adjust the PDUs load capacity by adding or replacing breakers
- Perform all maintenance and services from the front or rear of the unit — no side access is required



Technical specifications

	PDRPPNX10 208 V 60 kVA PDU, Transformerless PDRPPNX10 208 V 60k VA PDU, Transformerless	PD60F6FK1 208:208 V 60 kVA PDUPD60F6FK1 208:208 V 60 kVA PDU	PD60G6FK1 480:208 V 60 kVA PDUPD60G6FK1 480:208 V 60 kVA PDU	PD60L6FK1 600:208 V 60 kVA PDUPD60L6FK1 600:208 V 60 kVA PDU	PDPB150G6F 480:208 V 150 kVA PDUPDPB150G6F 480:208 V 150 kVA PDU	PDRDPF10U-R
Input						
Grid system	3-phase, 4-wire plus ground	3-phase, 3-wire			3W + N + G	
Input mains	Single					
Nominal mains input voltage	208/120 V	480/277 V	600/346 V	480 V	208 V	
Mains input current	Nominal: 180 A	Nominal: 167 A	Nominal: 72 A	Nominal: 58 A	Nominal: 186 A	Maximum: 80 A
Nominal frequency	60 Hz					
Output						
Voltage	208 V					
Number of distribution panels	2 (225 A)					1
Number of breaker positions per panel	42					39 (3 positions dedicated to L21-20 connector in rear of RDP)
Full load rating	64.8 kW	60 kW		150 kVA	28.8 kVA	
Nominal output current	180 A	167 A		416 A	80 A	
Main input breaker						
Main input overcurrent protection	225 A	90 A	75 A	200 A	80 A	
Subfeed breaker						
Number of subfeeds supported	2			1	0	
Subfeed breaker amperage	150 A			400 A	—	
Distribution breaker						
Max size supported	up to 60 A					
Amperage rating	up to 60 A					10/20/30 A

Technical specifications (continued)

	PDRPPNX10 208 V 60 kVA PDU, Transformerless PDRPPNX10 208 V 60k VA PDU, Transformerless	PD60F6FK1 208:208 V 60 kVA PDUPD60F6FK1 208:208 V 60 kVA PDU	PD60G6FK1 480:208 V 60 kVA PDUPD60G6FK1 480:208 V 60 kVA PDU	PD60L6FK1 600:208 V 60 kVA PDUPD60L6FK1 600:208 V 60 kVA PDU	PDPB150G6F 480:208 V 150 kVA PDUPDPB150G6F 480:208 V 150 kVA PDU	PDRDPF10U-R
Physical						
Unpackaged dimensions (H x W x D)	81.5 x 23.5 x 35.4 in (2070 x 597 x 900 mm)				79 x 24 x 42.1 in (1996 x 600 x 1070 mm)	Installed in rack: 78 x 24 x 42 in. (1991 x 600 x 1070 mm)
Weight	204 kg (450 lb)	681.8 kg (1500 lb)	547.7 kg (1205 lb)	347 kg (765 lb)	771 kg (1700 lb)	190 kg (418 lb)
Shipping weight	351 kg (775 lb)	727.3 kg (1600 lb)	593.2 kg (1305 lb)	393.2 kg (865 lb)	816 kg (1800 lb)	212 kg (468 lb)
Color	Black					
Input power entry cable route	Top or bottom					
Output power exit cable route	Top or bottom				Top	Top
Environmental						
Operating temp	0 to 40°C (32 to 104°F)					
Storage temp	-40° to 70°C (-40° to 158°F)				-25 to 65°C (-13 to 149°F)	-15 to 45°C (5 to 113°F)
Operating humidity	0 to 95%, non-condensing					
Storage humidity	0 to 95%, non-condensing					
Operating elevation	3,048 m (10,000 ft)					
Storage elevation	10,000 m (3000 ft)				0-50,000 ft	10,000 m (3000 ft)
Operating environment	Protected from water and conductive contaminants					
Storage environment	Protected from water and conductive contaminants					
Full load heat loss at nominal mains	n/a	7168 BTU/hr	7412 BTU/hr	4894 BTU/hr	28736 BTU/hr	n/a
Compliance						
Approvals	UL 60950				UL 60950, OSHPD	UL 60950, cUL