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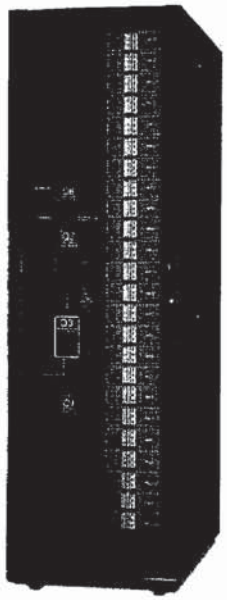
Symmetra® PX 100

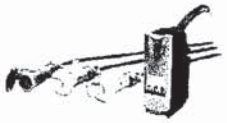
with Modular Power Distribution



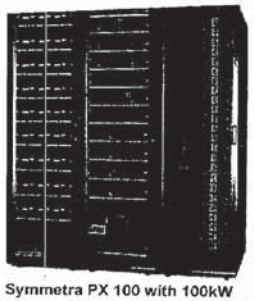
The APC Symmetra PX 100KW with Power Distribution enhances the scalability of the Symmetra PX 100 UPS by combining it with APC's uniquely designed 100kW Modular Power Distribution Unit with Maintenance Bypass. The 100kW Modular PDU enables you to safely expand your power distribution system without hot work or scheduled downtime, and with its integrated Maintenance Bypass Panel, you can perform routine maintenance on the UPS without removing power to the load.

At start-up, populate the Power Distribution Unit with only the power distribution modules you need. When power demand increases, expansion is as simple as snapping a power distribution module into place—no tools are required, and your new circuit can be fully operational in less than ten minutes. Standardized, factory-assembled modules mitigate the risk of human error during installation or routine maintenance procedures. Self-diagnostic capabilities of the Modular Power Distribution Unit such as branch current monitoring and breaker position monitoring enhance the manageability of the Symmetra PX 100kW and increase overall data center reliability.

In 20.7 square feet, the Symmetra PX 100kW with Modular Power Distribution delivers the high availability, extreme agility, and low TCO you have come to expect from the Symmetra PX family.



Power Distribution Module



Symmetra PX 100 with 100kW Modular Power Distribution Unit

The right-sized UPS for demanding business critical applications

APC by Schneider Electric

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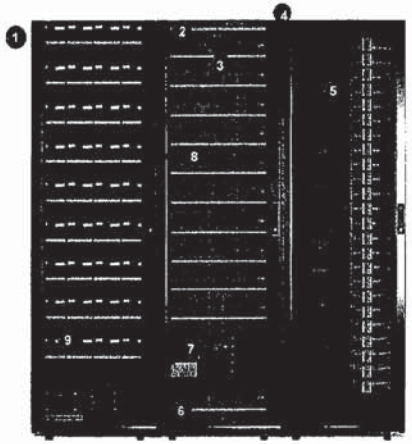
Symmetra® PX

Features & Benefits



1 High Density Footprint
With 100kW of power protection, runtime, and distribution supplied in the compact footprint of three standard APC NetShelter SX racks, your load is protected by a mere 20.7 square feet of UPS equipment, allowing you to reclaim floor space for your IT equipment.

2 Main Intelligence Module and Redundant Intelligence Module
Back-up for the hot-swappable Main Intelligence Module guarantees the maximum possible availability for your system.

3 10kW High Efficiency Power Module
High-efficiency power modules reduce power & cooling costs, saving you money, while delivering the optimal power protection your data center deserves

4 Dual Mains Input/Output
Allows for top or bottom feed connection to two separate power inputs for increased availability.

5 Modular Power Distribution Unit with Maintenance Bypass
Adapt the configurable, modular power distribution solution to meet changing demand—without a forced shutdown. The included maintenance bypass panel ensures that power is continuously provided to the load. View breaker positions and simplify power management with output metering and branch current/circuit monitoring.

6 Built-in Static Bypass Switch
The hot-swappable Static Bypass Switch transfers the load to utility power without interruption in case of heavy overload or faulty conditions, and ensures that even in 125% overload conditions, the data center remains operational.

7 Embedded Network Management Card
Provides UPS status and event notification to simplify UPS and PDU management. Two SmartSlot positions support Dry Contact, Environmental Monitoring, and Building Management System (Modbus/Jbus) Cards.

8 LCD Display Interface
Offers a clear text-based overview of alarms, status data, and system configuration options in a central location.

9 Hot-Swappable Long-Life Battery Module
Connected in parallel for increased availability, these hot-swappable battery modules feature advanced battery monitoring and temperature-compensated battery charging that extends battery life. The resulting 5-8yr expected life of the batteries reduces the system's lifetime costs (TCO), and hot swappability lowers the cost of replacement and Mean Time To Repair (MTTR). Up to four additional battery frames can be added for longer run times.

APC
by Schneider Electric

Symmetra® PX

The High Density, Efficient, Scalable, Modular UPS

Scalability & Modularity

> Scalable from 10kW to 100kW
> One-time installation service
> Modular components simplify future expansion as your load grows
> N+1 redundant up to 90kW
> Optional modular power distribution
> Hot swappable power, battery, and breaker modules
> All components conform to NetShelter SX form-factor
(78.7 x 23.6 x 42.1in HxWxD)
(1991 x 600 x 1070mm HxWxD)

High Density & Flexible Configuration

> Frees up valuable data center space with up to 100kW in 20.7square feet (battery and power distribution footprint included)
> Integrated power and runtime maximize solution density footprint
> Modular architecture simplifies installation by offering the flexibility in choosing an installation site that today's data centers require
- White space
- Top Feed, Bottom Feed
- Single Feed, Dual Feed
> 10kW to 100kW expansion with hot-scalable power modules

Additional APC Products Enhancing the System

Row Cooling

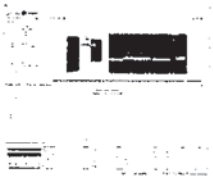
Energy efficient cooling from low to high density racks and zones

- Intelligent controls
- Close-coupled cooling
- Thermal containment options

InfraStruXure Central

A vendor-neutral, scalable monitoring system

- Open architecture
- Scalable to 4025 devices
- Capacity Planning and Asset Management



Advantage Plans

Comprehensive packages of services designed to provide hassle-free maintenance

- Next Business Day or faster onsite response
- Preventive Maintenance Visit
- Remote Monitoring Service

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Symmetra® PX 100

Accessories

Extended Runtime (XR) Frames

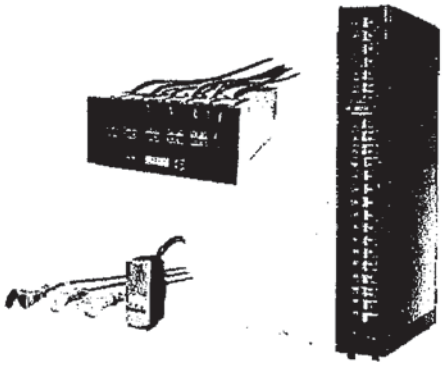
To increase the number of minutes your load can remain on battery, add optional Battery Extended Runtime frames. A maximum of 4 battery frames can be connected to the Symmetra PX 100.

Symmetra PX 100 Bottom Feed Frame

The 12in (300mm) Bottom Feed Frame, which supports raised-floor applications, enables bottom feed installation of utility power to the UPS.

Power Distribution

When demand rises and expansion becomes necessary, there is no need to schedule downtime to add a breaker. Power distribution modules plug into a touch-safe backplane that shields users from dangerous amperage. The power distribution system simplifies power management by including output metering, branch current/circuit monitoring, and auto-detection by the InfraStruXure suite of management options. Multiple power ratings and power cord lengths for low to high power guarantee compatibility and convenient installation.



Management Cards

Two SmartSlot positions can be used to expand the monitoring capabilities of the UPS with these APC management cards:

> Environmental Monitoring (shown): Identifies thermal problems before damage occurs

> Dry Contact/Environmental Cards: Monitor the conditions of the UPS and its environment using external devices such as sensors.

> Building Management System (Modbus/Jbus) Card: Enable a Building Management System to monitor the UPS.

The right-sized UPS for demanding business critical applications

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Symmetra® PX

Comprehensive service offering

> **Warranty**
- 1 Year Parts, Labor and Travel included
- Next Business Day Response Time
- 8 Hour and 4 Hour Response Upgrade available in many locations

> **Start-Up**
Start-up service with 5x8 scheduling is included at no charge with each Symmetra PX UPS to ensure optimal performance. Start-up service is required for full coverage under the Factory Warranty. Optionally, you can upgrade to 7x24 scheduling.

> **Preventive Maintenance Service**
An examination of your system designed to ensure optimal performance. 5x8 scheduling is standard, with an option to upgrade to 7x24 scheduling.

> **Assembly service**
APC authorized service personnel will be dispatched to your site to ensure proper assembly of the Symmetra PX.

> **On-Site Services**
4-hr, Next Day, or Next Business Day response-time options. A factory trained technician will arrive on site to diagnose or repair your system.

> **Project Management**
Complete your data center project on time and within budget.

Technical Characteristics: 100kW Modular PDU

Modular Power Distribution Unit	
Output	
Output Voltage	208/120V
Input	
Voltage	208V, 480V, (600V available shortly)
Load Capacity	100kVA
Input Mains	Dual
Frequency	40-70Hz
Maximum Input Current	400A
Physical	
Weight	900lb
Shipping Weight	1000lb
Height	1991mm (78.39in)
Width	600mm (23.62in)
Depth	1070mm (42.13in)
Regulatory Compliance	
UL489	

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Technical Characteristics

UPS Rating kVA/KW (PF = 1)	100kW
Mains Input (Normal Operation)	
Grid system	3 phases + Neutral + Ground
Voltage range (full load)	177—239 V
Frequency Range	40—70 Hz
PF	>0.99% @ >25% load
I thd (full load)	<5%
Nominal input current	302A @ 208V
Maximum input current (Nominal Vin, 10% charging batteries)	332A
Input current limit	360A
Maximum input short-circuit level	30kA
Protection	Backfeed contactor
Bypass Input (Bypass operation)	
Grid system	3 phases + Neutral + Ground
V nominal	208V
V range	+/-10%
Frequency (nominal)	50/60Hz
Frequency (range)	+/-0.1Hz, +/-3Hz, +/-10Hz (user selectable)
Nominal input current	278A @ 278V
Maximum overload input current	347A
Output	
Power rating	100kW
Grid system	3 phases + Neutral + Ground
V nominal	208V L-L
Nominal output current	278A@208V
Maximum battery operation time	Unlimited
Frequency regulation	50/60 Hz bypass synchronized, 50/60 Hz +/-0.1% free running
Sync. slew rate	Programmable to 0.25, 0.5, 1, 2, 4, 6Hz/sec
Overload (normal and battery operation)	150% for 30 seconds
V thd	<2% @ 100% Resistive load, <6.5% @ 100% SMPS load
Load PF	from 0.5 leading to 0.5 lagging without any derating
Mechanical	
Maximum dimensions (HxWxD)	79.1 x 23.6 x 42.1in (2011 x 600 x 1070mm)
Net Weight	716lb
Shipping Weight	789lb
UPS Maximum Capacity	
10kW power modules	10
Battery modules	9
Power distribution modules	24
Regulatory Compliance	
UL1778 second edition, FCC Part 15, CE	

Preliminary – Subject to change without notice

For more information about APC Symmetra PX and Modular PDU products, contact APC or your APC reseller. To contact APC, see www.apc.com/support.

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