

Life Is On

Schneider
Electric



Symmetra PX

Scalable from 10 kW to 500 kW. Parallel capable up to 2,000 kW.

High performance, right-sized, modular, scalable, three-phase power protection with high availability and efficiency for small, medium, and large data centers and mission-critical environments.

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Symmetra PX

Features and benefits

The Schneider Electric Symmetra™ PX UPS units are world-class, redundant, high-efficiency, ENERGY STAR® qualified power protection systems designed to provide high levels of availability. Seamlessly integrating into today's state-of-the-art data center designs, the Symmetra PX UPSs are true modular systems. The Symmetra PX UPSs are built from swappable modules — power, battery, intelligence, and bypass — all engineered into a design that is easily and efficiently serviceable. This architecture can scale power and runtime as demand grows or as higher levels of availability are required.

The Symmetra PX family serves as the core power train that drives Schneider Electric InfraStruxure™ systems for small, medium, and large data centers. Highly manageable, each Symmetra PX offer features self-diagnostic capabilities and standardized modules that mitigate the risk of human error, resulting in increased overall data center reliability. Optional N+1 module-level redundancy further enhances power protection and peace of mind without increasing the footprint of your power protection solution.

The Symmetra PX family delivers high availability, extreme agility, and low total cost of ownership in an aesthetic form factor. With industry-leading power density, the Symmetra PX UPSs have the ability to fit seamlessly onto the data center floor or into the back room. Other features include automated predictive diagnostics and advanced battery management, which lead to a highly predictable, efficient, and simplified UPS architecture.

Symmetra PX features

Availability

- Swappable power, battery, and intelligence modules
- Automatic internal bypass
- Self-diagnosing, field-replaceable modules
- Redundant intelligence module
- Swappable static bypass switch
- Configurable for N+0 or N+1 module-level redundancy
- Toolless module replacement
- Modules feature less than 10-minute average mean time to repair

Scalability

- Extended battery runtime available
- Scalable power modules
- Swappable battery modules
- Aesthetic NetShelter™ form factor

Total cost of ownership

- Unity power factor corrected (kW=kVA)
- Intelligent battery management
- Battery modules with integrated monitoring
- One-year warranty and start-up service included

Manageability

- Network management included
- Remote access to system data over HTTP, HTTPS, Telnet, SSH, and SNMP (v1&3)
- Secondary network management card supported
- Configurable alarm notifications
- StruxureWare™ Data Center Expert compatible
- SmartSlot™ dry contact/environmental or building management system cards supported

Symmetra PX 20

Modular power protection.
Configurable distribution. One enclosure.

Preserve valuable space in your small data center or data center closet with the Symmetra PX 20 kW. Its all-in-one design includes modular power protection, modular battery backup, and user-configurable power distribution, optimizing every square inch of its footprint to ensure that your power protection and distribution needs are met.

Features

- Adaptable 10 to 20 kW power capacity with the option of N+0 or N+1 redundancy up to 20 kW N+1
- Configurable power distribution: A highly customizable, factory-tested power distribution solution fitting the needs of any data center
- Dual-mains input, top or bottom feed
- PowerView™ display interface: An easy-to-read LCD screen allowing you to view UPS, battery, and power distribution status and configure settings
- Extended runtime battery frames: Up to four line-up-and-match battery frames can be added for increased runtime
- Maintenance bypass panel
- Optional seismic bracket kits available

Support and service

- **Included:**
 - One-year warranty
 - Start-up service
- **Optional:**
 - Preventive maintenance
 - On-site warranty extension
 - Advantage plans

Approvals

- UL 1778
- CSA
- FCC Part 15 Class A
- OSHPD
- IEC 61000-3-2
- IEC 61000-3-3
- ENERGY STAR



Scalable to 20 kW N+1

Symmetra PX 40

Compact footprint, robust protection

With Symmetra PX 40, you don't have to pay a footprint penalty for peace of mind. This modular UPS supports the installation of up to five 10 kW power modules, providing up to 40 kW N+1 redundancy from a single enclosure. Providing 40 kW of power and runtime protection in a single-rack footprint, Symmetra PX 40 is ideal for small or medium data centers.

Features

- Adaptable 10 to 40 kW power capacity with the option of N+0 or N+1 redundancy up to 40 kW N+1
- PowerView display interface: An easy-to-read LCD screen allowing you to view UPS, battery, and power distribution status and configure settings
- Extended runtime battery frames: Up to four line-up-and-match battery frames can be added for increased runtime
- Optional 40 kW configurable power distribution units: A highly customizable, factory-tested power distribution

Options

- Configurable 40 kVA InfraStruxure power distribution units with maintenance bypass panel
- Service bypass panel

Support and service

- **Included:**
 - One-year warranty
 - Start-up service
- **Optional:**
 - Preventive maintenance
 - On-site warranty extension
 - Advantage plans

Approvals

- ULc Listed
- EN 50091-1
- EN 50091-2
- FCC Part 15 Class A
- ISO 14001
- ISO 9001
- UL 1778
- UL 60950
- ENERGY STAR



Scalable to 40 kW N+1

Symmetra PX 100

The rightsized UPS for demanding business-critical applications

Providing redundancy and high levels of availability in a two-rack footprint, the modular, scalable Symmetra PX 100 provides up to 100 kW of power protection for 208 V deployments.

Features

- Scalable from 10 kW to 100 kW N+0 (10 kW to 90 kW N+1)
- Aesthetic NetShelter SX form factor
- Swappable battery modules
- Dual input, top or bottom* feed
- PowerView display interface
- Optional 100 kVA Modular Power Distribution Unit (PDU): Providing quick expansion of the power distribution system with factory-assembled power distribution modules
- Extended runtime battery frames: Up to four battery frames can be added for increased runtime

Options

- 300 mm bottom feed side car
- 100 kW Modular PDU with maintenance bypass panel and fully rated subfeed breaker (available without transformer, or with a 600:208 V, 480:208 V, or 208:208 V transformer)
- Seismic kits
- 300 mm maintenance bypass panel

Support and service

- **Included:**
 - One-year warranty
 - Start-up service
- **Optional:**
 - Preventive maintenance
 - On-site warranty extension
 - Advantage plans

Approvals

- UL 1778 second edition
- FCC Part 15 Class A
- CE
- EN/IEC 62040-3
- OSHPD
- ENERGY STAR



Scalable to 100 kW

* 300 mm bottom feed side car required for some bottom feed configurations

Symmetra 250/500 kW



Scalable from 100 to 500 kW.
Parallel capable up to 2 MW.

Modular, scalable, high-efficiency power protection for data centers worldwide

The Schneider Electric Symmetra PX 250/500 kW is a world-class, high-efficiency power protection system designed to cost effectively provide high levels of availability while simplifying rightsizing of your data center. The Symmetra PX 250/500 kW systems can scale in increments of 25 kW up to 500 kW, and four systems can be paralleled to deliver up to 2 MW of power protection (1.5 MW with N+1 system-level redundancy).

Features

- Supports up to four UPSs in parallel with custom switchgear
- Parallelable for capacity (2 MW) or system-level redundancy (1.5 MW N+1)
- High efficiency in normal operating mode (96% at 50% load, 95% at 25% load), and up to 99% efficiency in good power conditions with ECO Mode
- N+0 or N+1 module-level and system-level redundancy
- Swappable battery modules with integrated monitoring
- Energy monitoring displays the kWh output of each UPS
- Dual mains, top or bottom feed
- 10-inch LCD touch screen providing local access to UPS status and configuration menus
- Remote display application
- Systemwide firmware updates via the USB port on back of display
- Support for remote battery installation (battery sidecar required)

Support and service

- **Included:**
 - One-year warranty
 - Start-up service
- **Optional:**
 - Assembly
 - Preventive maintenance
 - On-site warranty extension
 - Advantage plans

Approvals

- CE
- FCC part 15
- EN/IEC 62040-1-1
- UL 60950-1
- CSA C22.2 No. 107.3-05
- ENERGY STAR
- EN/IEC 62040-2 (class A)
- EN/IEC 62040-3
- OSHPD
- UL 1778
- UL/ULc listed

Symmetra PX 250/500 options

Extended runtime frames

Install a maximum of eight battery frames to increase runtime. Modular, swappable batteries can be replaced in under 10 minutes.



Battery breaker enclosure

Install the battery breaker enclosure, then use third-party battery cabinets to supply runtime to the load.



Modular power distribution

Modular power distribution mitigates the need to predict the future requirements and configurations of your data center. Factory-assembled power distribution modules quickly plug in to a 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 StruxureWare for Data Centers suite of management options. Power distribution modules with a wide range of breaker ratings and cord lengths simplify installation.



Third-party battery cabinet

Front-access battery systems provide high energy storage density while eliminating the need to reach over energized cables or battery terminals to install, maintain, or replace batteries.



Battery sidecar

Install the batteries remotely, then connect the batteries by cables to the UPS.



Bottom feed frame

For some configurations greater than 250 kW, use the bottom feed frame to support dual bottom-feed utility input.



Symmetra PX 250/500 kits



Battery breaker enclosure fuse kits (500 A and 1000 A)



Air filters



Optional terminal blocks



Parallel cables



Third-party switchgear kit



Seismic kits

Technical specifications

Symmetra PX 20 kW	
Input	
Grid system	3P + N + G
Voltage range	177 – 240 V
Frequency	50/60 Hz +/- 3 Hz (auto sensing)
Frequency range	40 – 70 Hz
Power factor (PF)	0.99 at full load
THDi (full load)	< 6%
Nominal input current	61.3 A @ 208 V
Maximum input current	70.9 A (nominal vin, 10% charging batteries)
Input current limit	89.4 A
Output	
Power rating	20 kW
Grid system	3P + N + G
Voltage (nominal)	208 V
Nominal output current	55.5 A @ 208 V
Maximum output current (in bypass @ 125% overload)	69.4 A @ 208 V
Frequency	Output frequency: 57 – 63 Hz, configurable for +/-0.1 Hz and +/-10 Hz
Synchronized slew rate	1 Hz/s
Overload (normal and battery operation)	150% for 30 seconds
V thd	< 2% 100% resistive load < 6% computer load as defined by EN 50091-3/IEC 62040-3
Load PF	0.5 to 1.0
Bypass input (bypass operation)	
V nominal	208 V
Frequency (nominal)	60 Hz
Frequency (range)	40 – 70 Hz
Nominal input current	55.5 A
Efficiency	
AC-AC at nominal mains	up to 95%
Mechanical	
Dimensions (H x W x D)	81.5 x 23.5 x 35.6 in. (2,068 x 597 x 905 mm)
Weight	UPS, no modules: 301 kg (665 lb.) UPS fully populated: 818 kg (1,803 lb.)
Environmental	
Storage temperature, UPS, and batteries	-15 to 40 °C (5 to 104 °F)
Operating temperature*	0 to 40 °C (32 to 104 °F)
Regulatory compliance	
CSA, FCC Part 15 Class A, IEC 61000-3-2, IEC 61000-3-3, UL 1778, OSHPD	

*For optimum battery life, the operating temperature range is 18 – 27 °C (64 – 80 °F).

Technical specifications

Symmetra PX 40 kW	
Input	
Grid system	3P + N + G
Voltage range	166 – 240 V
Frequency	50/60 Hz
Frequency range	40 – 70 Hz
Power factor (PF)	> 0.96 @ 50% load > 0.99 at 100% load
THDi (full load)	< 6%
Nominal input current	123 A @ 208 V
Maximum input current	154 A (continuous, at min. mains voltage)
Maximum short circuit withstand	30 kA
Output	
Power rating	40 kW
Grid system	3P + N + G
Voltage (nominal)	208 V
Nominal output current	111 A @ 208 V
Maximum output current (in bypass @ 125% overload)	139 A @ 208 V
Frequency	Output frequency: 57 – 63 Hz, synchronized to input
Slew rate	Programmable to 0.25, 0.5, 1, 2, 4, and 6 Hz/s
Overload (normal and battery operation)	150% for 30 seconds
V thd	100% linear load: < 2% THD max. 100% nonlinear load: < 5% THD max.
Load PF	From 0.9 leading to 0.8 lagging without any derating
Bypass input (bypass operation)	
V nominal	208 V
Voltage (range)	+/-15% of nominal
Frequency (nominal)	60 Hz
Frequency (range)	40 – 70 Hz
Nominal input current	111 A
Efficiency	
AC-AC at nominal mains	Up to 95%
Mechanical	
Dimensions (H x W x D)	2,080 x 600 x 915 mm (82 x 24 x 36 in.)
Weight	UPS, no modules: 275 kg (600 lb.) UPS fully populated: 775 kg (1,708 lb.)
Environmental	
Storage temperature, UPS, and batteries	-15 to 40 °C (5 to 104 °F)
Operating temperature*	0 to 40 °C (32 to 104 °F)
Regulatory compliance	
ULc Listed, EN 50091-1, EN 50091-2, EN 50091-3, FCC Part 15 Class A, ISO 14001, ISO 9001, UL 1778, UL 60950, ENERGY STAR	

*For optimum battery life, the operating temperature range is 18 – 27 °C (64 – 80 °F).

Technical specifications

Symmetra PX 100 kW	
Input	
Grid system	3P + N + G
Voltage range (full load)	177 – 239 V
Frequency	50/60 Hz
Frequency range	40 – 70 Hz
Power factor (PF)	> 0.99% @ > 25% load
THDi (full load)	< 5%
Nominal input current	296 A @ 208 V
Maximum input current	327 A (nominal vin, 10% charging batteries)
Input current limit	360 A
Maximum input short-circuit level	30 kA
Output	
Power rating	100 kW
Grid system	3P + N + G
Voltage (nominal)	208 V
Nominal output current	278 A @ 208 V
Frequency	Frequency regulation: 50/60 Hz bypass synchronized, 50/60 Hz +/-0.1% free running
Synchronized slew rate	Programmable to 0.25, 0.5, 1, 2, 4, 6 Hz/s
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
Bypass	
V nominal	208 V
Voltage (range)	+/-10%
Frequency (nominal)	50/60 Hz
Frequency (range)	+/-0.1 Hz, +/-3 Hz, +/-10 Hz (user selectable)
Nominal input current	278 A @ 208 V
Maximum overload input current (125% continuous)	347 A
Efficiency	
AC-AC at nominal mains	up to 95%
Mechanical	
Dimensions (H x W x D)	2,011 x 1,200 x 1,070 mm (79.2 x 47.2 x 42.1 in.)
Maximum weight	4,224 lb (1,920 kg)
Environmental	
Storage temperature, UPS, and batteries	-15 to 40 °C (5 to 104 °F)
Operating temperature*	0 to 40 °C (32 to 104 °F)
Regulatory compliance	
UL 1778 fourth edition, FCC Part 15, EN/IEC 62040-3, CE, OSHPD, ENERGY STAR	

*For optimum battery life, the operating temperature range is 18 – 27 °C (64 – 80 °F).

Technical specifications

	Symmetra PX 250	Symmetra PX 500
Input		
Grid system	Single feed: 3P + N + G, 3P + G; Dual feed: 3P + G	
Grid parallel system	Single feed: 3P + N + G; Dual feed: 3P + G	
Voltage range	+/- 15% for full performance; 408 – 552 V @ 480 V	
Frequency	50/60 Hz	
Frequency range	40 – 70 Hz with 10 Hz/s slew rate	
Power factor (PF)	> 0.995 at load = 100% > 0.99 at load > 50% > 0.97 at load > 25%	
THDi (full load)	< 5%	
Nominal input current	315 A @ 480 V	630 A @ 480 V
Maximum input current	346 A @ 480 V (nominal vin, 10% charging batteries)	693 A @ 480 V (nominal vin, 10% charging batteries)
Input current limit	372 A @ 480 V	745 A @ 480 V
Maximum input short-circuit level	65 kA (50 kA with standard MBwD)	
Output		
Power rating	250 kW	500 kW
Grid system	3P + N + G, 3P + G	
Voltage (nominal)	380 V/400 V/415 V/480 V L-L	
Nominal output current	301 A @ 480 V	601 A @ 480 V
Frequency	Output frequency: 55 – 65 Hz, configurable for +/- 0.1, 1, 2, 4, 6, 8% Frequency regulation: 50/60 Hz bypass synchronized, 50/60 Hz +/-0.1% free running	
Synchronized slew rate	Programmable to 0.25, 0.5, 1, 2, 4, 6 Hz/s	
Overload (normal and battery operation)	150% for 60 seconds, 125% for 10 min, 125% continuous	
V thd	< 2% from 0 to 100% linear load, < 3% full nonlinear load according to IEC/EN 62040-3	
Load PF	From 0.5 leading to 0.5 lagging without any derating	
Bypass		
V nominal	380 V/400 V/415 V/480 V L-L	
Voltage (range)	+/-10% (from selected voltage)	
Frequency (nominal)	50/60 Hz	
Frequency (range)	+/-0.5%, +/-1%, +/-2%, +/-4%, +/-6%, and +/-8% (user selectable)	
Nominal input current	301 A @ 480 V	601 A @ 480 V
Efficiency		
AC-AC at nominal mains	> 96% at 50 – 100% load	
DC-AC at nominal battery voltage	> 95% at 25 – 49% load	
Mechanical		
Dimensions (H x W x D)	Minimum (stand-alone UPS, no batteries): 1,991 x 1,600 x 1,070 mm (78.7 x 63 x 42.1 in.) Maximum (UPS with MBwD and 6 min. battery runtime): 1,991 x 3,100 x 1,070 mm (78.7 x 121.9 x 42.1 in.)	Minimum (stand-alone UPS, no batteries): 1,991 x 1,600 x 1,070 mm (78.7 x 63 x 42.1 in.) Maximum (UPS with MBwD and 6 min. battery runtime): 1,991 x 5,200 x 1,070 mm (78.7 x 204.7 x 42.1 in.)
Weight	Minimum (stand-alone UPS, no batteries): 1,057 kg (2,330 lb.) Maximum (UPS with MBwD and 6 min. battery runtime): 4,509 kg (9,940 lb.)	Minimum (stand-alone UPS, no batteries): 1,722 kg (3,797 lb.) Maximum (UPS with MBwD and 6 min. battery runtime): 8,336 kg (18,377 lb.)

Symmetra PX 250		Symmetra PX 500
Environmental		
Storage temperature, UPS only	-30 to 70 °C (-22 to 158 °F)	
Storage temperature, UPS, and batteries	-15 to 40 °C (5 to 104 °F) Battery self-discharge: approximately 6 – 8 months @ 25 °C; 1 – 2 months @ 45 °C	
Operating temperature*	0 to 40 °C (32 to 104 °F)	
Full load loss at nominal mains (BTU)	42,759 BTU/hr	85,517 BTU/hr
Regulatory compliance		
UL Listed, ULc Listed, CE, EN/IEC 62040-2 (class A), FCC part 15, EN/IEC 62040-3, EN/IEC 62040-1-1, UL 1778, UL 60950-1, CSA C22.2 No. 107.3-05, OSHPD, ENERGY STAR		

*For optimum battery life, the operating temperature range is 18 – 27 °C (64 – 80 °F).

StruxureWare for Data Centers software suite

In the data center environment, our Symmetra PX UPSs are fully managed through StruxureWare for Data Centers, an integrated suite of Data Center Infrastructure Management 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.

A comprehensive portfolio of services

Schneider Electric Critical Power & Cooling Services provides the expertise, services, and support you need for your building, industry, power, or data center infrastructure. Our world-class life cycle services offer a smart way to install and maintain your critical applications, ensuring your systems are always running at peak performance.

