

Symmetra Power Array technology gives you:

Redundancy

- Modules run in parallel
- N+1 redundancy easily achieved
- Glass-house reliability for mid-sized systems

Scalability

- Flexibility to grow as future needs change
- Load, run-time, and redundancy allow custom configuration
- Intelligent Extended Battery Frames provide unlimited run-time

Serviceability

- Lower cost of ownership by simplifying maintenance
- Self-diagnosing
- Predictive failure analysis and pro-active notification
- Modular, hot-swappable components
- Manual and Automatic By-pass

Manageability

- Customized Power Array management strategy with accessories
- Built-in Web/SNMP Management
- Environmental and Security management

APC backs this up with:

- Two-year standard warranty, world-wide
(Note: Battery Modules carry a 1-year warranty in India).
- Certifications: CSA; FCC A; UL1778; C-tick; CE; EN50091-2; VDE
- ISO 9001 and ISO 14001 certified facilities

Global Service Programs

- Quick Start Plan
- Start-Up Service
- On-site Support Service
- Power Plan Extended Warranty
- Remote Monitoring
- Network Integration Service

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New!

Symmetra Rack-mount Power Array

The new Symmetra RM provides the redundancy, scalability, serviceability, and manageability of a Symmetra in a rack-optimized form factor. The 2-6kVA N+1 models conveniently fit in only 8U or rack space, while the 8-12kVA N+1 (or 16kVA N only) units fit in just 15U of rack space. [Page 12](#)

New Color—Black

Symmetra Power Array Master Frame and 12-Bay Battery Cabinets are now also available via special order in black, allowing the unit to easily blend in with the existing IT environment. [Page 20](#)

Two-Year Warranty

Beginning this year, all Symmetra PowerArray products carry a full two-year warranty, worldwide. *(Note: Battery modules carry a 1-year warranty in India.)*

Web, SNMP, and Telnet Management Card

All Symmetra PowerArray products now ship with the Web, SNMP, and Telnet Management Card, standard. The Web, SNMP, and Telnet Management Card provides full remote monitoring, control and configuration of the unit via open standards protocol. [Page 6](#)

PowerChute Network Shutdown

All Symmetra PowerArray models ship with PowerChute Network Shutdown included. This provides reliable, graceful, unattended shutdown of multiple computer systems over the network. [Page 6](#)

MasterFrame (8-16 kVA)

Rack-mount (2-6 kVA)



Power Array Overview

Symmetra Power Array designed for the changing IT environment

Symmetra has achieved widespread acceptance by companies in the service provider, financial, retail, and government sectors. It is being used to provide higher power availability to entire small data centers, specific high availability applications in larger data centers, and mid-size application servers. Its redundancy and serviceability are perfect for branch locations for financial and retail companies. IT managers utilizing the total solution that Symmetra Power Array provides them, have the peace of mind that their power protection solution was designed with their mission critical needs in mind.

Symmetra Power Array was designed to fit all these customer expectations. It is the world's first redundant, scalable, user-serviceable, and manageable power protection solution. APC's vast array of software and accessories make Symmetra a total High Availability solution. Its time-tested, reliable, proven, power sharing technology makes it a must-have for any IT user utilizing other High Availability solutions. Symmetra Power Array's' scalability and user-serviceability give it a total cost of ownership significantly less than legacy UPS solutions.

Implementing a Symmetra Power Array solution means an immediate decrease in the risk of systems downtime and tremendous cost-savings based on increased uptime.



MiniFrame (4-8 kVA)

SYMMETRA POWER ARRAY VS. LEGACY UPS		
Event	Legacy UPS	Symmetra Power Array
Battery fails or needs replacement	System is unprotected - system will crash at next power outage and must be brought down to service UPS. Availability compromised.	System remains up and protected. User notified proactively, service within minutes while load remains up and protected.
Electronics fail	Computer system crashes or will crash at next power outage. System is unprotected and must be brought down for service. Availability compromised.	Load remains up and protected. Only one level of redundancy is lost. User notified proactively; service within minutes while load remains up and protected.
Load capacity reached	User must buy new UPS.	User adds an extra Power Module for 15-25% of the cost of new UPS.
Overload	UPS goes to bypass - system will crash at next power outage. Availability compromised.	Load remains up and protected, only redundancy is lost. (Up to 105% of max capacity).
Humidity too high	No alert. Computer equipment can be damaged. Availability compromised.	Alert sent via network, SNMP, or web-based command, action can be taken to reduce risk to protected systems. (with Environmental Monitoring Card.)
Temperature too high	No alert. Computer equipment can be damaged. Availability compromised.	Alert sent via network, SNMP, or web-based command, action can be taken to reduce risk to protected systems. (with Environmental Monitoring Card.)
Server locked up	Nothing. User must manually reboot system. Availability compromised.	With MasterSwitch™ accessory, user can remotely reboot individual loads.
Follow-on Power Failures	Nothing. Unit's batteries may not be charged enough to provide any runtime. Availability Compromised.	With the microprocessor-controlled battery charger, batteries recharge in less time, making your system available more quickly. Unit can also be configured to delay power-on until the batteries are adequately recharged.

Redundancy

N + 1 Redundancy ensures maximum uptime and continuous availability.

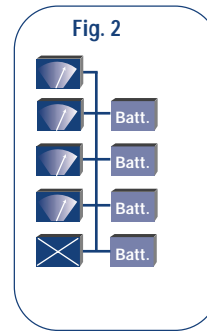
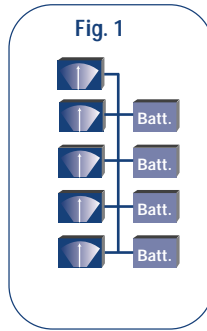
Symmetra Power Array achieves N+1 redundancy and higher through proven power sharing technology. Power sharing means that all of the power modules in a Power Array run in parallel and share the load evenly. N+1 redundancy means running one extra module than will support your full load. In this way, all of the modules support one another.

For example, if your computer load is 15kVA, you achieve N+1 with five 4kVA Power Modules. If a module fails or is removed, the other modules instantaneously begin supporting the full load. It does not matter which module fails because all of the modules are always running and supporting your load.

N+1 redundancy is used today in disk arrays, in processor power supplies, and in processors themselves. Symmetra allows IT managers using these products to apply the same N+1 redundancy strategy to their power protection. As critical applications and databases are moved to smaller machines, the Symmetra Power Array brings glass house reliability to the mid-sized power protection range.

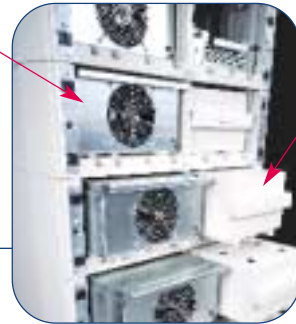
What is N+1 Redundancy ?

Just as a RAID distributes data across multiple drives, Symmetra's unique power sharing technology allows multiple Power Modules to share the Power Array's connected load. (Figure 1)



If any module fails or is removed, the other modules take over the load. (Figure 2)

Individual Power Modules are easily installed or removed to manage redundancy.



Battery Modules can be quickly shifted to other Power Arrays or Battery Frames to manage runtime.

Scalability

Protect your investment: scalable kVA, runtime, and redundancy ensure that Symmetra will meet your power needs now and in the future.

IS Managers want to be able to "pay as they grow" to meet the computing demands of the future. Changes in datacenter power requirements can make cost-effective power protection planning difficult. The Symmetra Power Array provides the flexibility to adapt and grow UPS power and runtime without complete reinvestment.

The Symmetra Power Array is comprised of load-sharing modules so you can easily build and reconfigure your array. If you add computing power to your data center, you can add Power Modules, (in increments of 4kVA, or 2kVA for rack-mount models,) to expand your power capacity. If you need more battery run time, you can add Battery Modules. And if you re-deploy systems to different locations, you can move modules from one Power Array to another. All changes can be made while your systems are running and protected. Additional Battery Frames can be added to tower models for unlimited runtime.

Scalable Runtime

Additional Battery Modules increase runtime. Modules are added or moved while systems are running and protected.

Scalable Power

The Symmetra Power Array integrates load-sharing modules for easy custom configuration. Additional 4kVA modules, or 2kVA for rack-mount models, expand power capacity.

Scalable Redundancy

Additional power modules increase redundancy up to N+4, depending on configuration.

Intelligent Extended Battery Frames

Additional Extended Battery Frames can be daisy-chained for extended runtime. Models include: the 4-Bay Battery Cabinet, which can hold up to four Battery Modules; the 12-Bay Battery Cabinet, which can hold up to twelve Battery Modules; and the 4-Bay Rack-mount Cabinet, which can hold up to 4 RM Battery Modules.



Symmetra Power Array "One Minute Maintenance™" lowers your cost of ownership.

Service Made Easy

Symmetra Power Array's "One Minute Maintenance™" lowers your cost of ownership. Service contracts can double the cost of ownership because few of these highly specialized technicians are available around the world.

Symmetra's serviceability makes maintenance easy. Its components are modular, hot swappable and user-replaceable. Service costs are decreased since the unit can be self-serviced. All this adds up to "One Minute Maintenance™", the ability to quickly swap out modules without disrupting up time. Service can be performed by your current computer room service provider, by an in-house technician, or by choosing any of APC's convenient service plans. You can choose as much or as little support as you feel is necessary to meet your needs.

Additionally, Symmetra is self-diagnosing and automatically gives early-warning problem notification. All batteries feature Intelligent Battery Management, providing predictive failure analysis through periodic self-testing and proactive notification. Symmetra Power Array Frames and Extended Battery Frames can pinpoint the location of failed modules, allowing the user to quickly hot-swap individual modules without bringing down the load.

Symmetra's redundancy keeps the system up, running and protected during the entire service process.



World-wide Systems

Symmetra systems are available in models for every location, worldwide. Input voltage requirements are:

● **208 or 240 VAC**

North America; South America

● **220 or 230 or 240 VAC and
400 VAC (3-phase)**

Europe; Middle East; Africa;
Asia; Australia; South America

○ **200 VAC**

Japan



Manageability

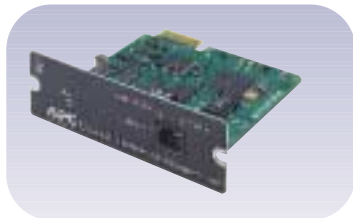
Build a customized UPS management strategy with hot-swappable Symmetra accessories.

Symmetra will do more than protect your investment; it will protect your career. Optional accessories and power management software provide the ability to manage your network from anywhere in your datacenter or anywhere in the world, and can be hot-swapped, as needed.



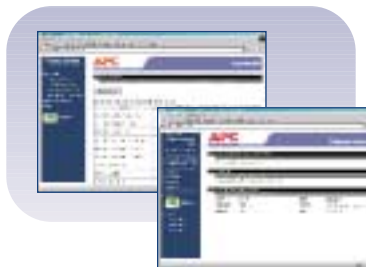
PowerView (included)

Symmetra's remote display puts all power and UPS information at a system administrator's fingertips in a menu-based format available in several languages. With monitoring and control parameters such as input voltage, level of redundancy, temperature and humidity, the display helps manage Symmetra. Four LED indicators report the operational status of the Symmetra indicating whether the unit is operating on-line, on-battery, on-bypass or experiencing an internal fault condition. The Isolated Extension Cable (AP9825) can be used with Tower models to manage the Symmetra at a monitoring station up to 300 feet (100 meters) away.



Built-in Web, SNMP, and Telnet manageability (included)

APC's Web/SNMP Management Card, which ships with Symmetra products, provides full remote monitoring, control, and configuration of the unit via open standards protocols including HTTP, SNMP, and Telnet. In the event of an extended power outage, it can command a virtually unlimited number of systems running PowerChute Network Shutdown to gracefully shut down, while all communications occur over the network.



PowerChute® Network Shutdown (included)

PowerChute Network Shutdown provides reliable, graceful, unattended shutdown of multiple computer systems over a network, upon low battery warning. It communicates across the network via the included Web/SNMP Management Card and can be quickly and easily configured via a Web browser. The included CD contains support for Microsoft Windows NT, Windows 2000, Novell NetWare, IBM AIX, Sun Solaris, HP-UX, and Linux. Other operating systems are available for download at APC's website.



MasterSwitch™ Power Management (Part# AP9211 or AP9212)

APC MasterSwitch™ provides complete Web, SNMP, and Telnet management and control of your network's power. The MasterSwitch™ network manageable power distribution unit (PDU) gives the network administrator complete remote control over the power to connected equipment. From anywhere on the network, administrators can use a network management station (NMS) or Web browser to power, shut off or reboot equipment. MasterSwitch™ cuts service costs and eases your power management burden.



Share-UPS™ 8-port Interface Expander (Part# AP9207)

Share-UPS can be used as an alternative to network shutdown through the use of dedicated cables. It provides safe, automatic shutdown of up to 8 servers (even mixed OS) or daisy-chained to shutdown up to 36 servers, while connected to one Symmetra Power Array via a serial connection.



SmartSlot™ Accessories provide custom management.

Symmetra comes equipped with four SmartSlots, the unique accessory bays that allow you to slide various accessory cards into place without needing external communication or power supply connections. These four SmartSlots (two on Symmetra RM) give you the scalability to expand network power management capabilities and build a custom power management strategy to serve any computing environment.

Out-of-Band Management Card (Part# AP9608)

The Out-of-band Management Card works with an external modem to provide out-of-band UPS management for Symmetra, allowing you to reboot a distant locked-up device through an out-of-band modem link. You can also determine UPS status, diagnose power problems and configure UPS settings even when LAN communications are not available. The Out-of-Band Management Card can even page you whenever UPS power alerts occur.

Environmental Monitoring Card (Part# AP9612TH)

Symmetra supports the Environmental Monitoring Card, which works with the Web/SNMP Management Card to provide environmental information such as ambient temperature and humidity, and to provide four user-definable contact closures for external alerts.

Relay I/O Card (Part# AP9610)

Allows you to control and monitor power through a simple dry-contact interface, a communication format favored by manufacturers of PBXs, telecom devices and alarm management systems.

5-Port 10Base-T Hub™ (Part# AP9615)

Expand or create a Local Area Network (LAN) by installing it into the Symmetra Power Array without using valuable rack space. The 5-Port 10Base-T Hub can be used with external hubs to create additional ports by allowing them to daisy-chain together.



APC's line of award-winning SmartSlot accessories slide right into the back of Symmetra, and integrate with PowerChute products or PowerNet SNMP management software to communicate necessary information and commands.

Other Symmetra Power Array Features

On-line Double Conversion Topology.

Wide Input Voltage Window.

For seamless integration with generators and less time on-battery, this conserves batteries for blackout periods.

High Overload Capability.

Allows the unit to run in on-line mode even while the load draws high inrush currents (150% for 30 seconds; 125% for 10 minutes.) All loads receive continuous power protection in the event of a short in the branch circuit.

Frequency Conversion.

220; 230; or 240 VAC (output)
Tower models are capable of frequency conversion.

Manual and Automatic Bypass.

Manual and Automatic bypass provide another power path for N-only systems.

Power factor correction.

Eliminates power line harmonics and neutral overloads that can cause building wiring to overheat.

Remote Power-Off Device.

Ties into your primary Emergency Power Off switch (EPO) to integrate your UPS into enterprise safety plans, and to shut down loads in an emergency.

Integrated, Failsafe Connectors.

Built into the individual modules, these connectors use sensors to verify complete integration of modules within the intelligent frame.

Symmetra™ Tower

Modular, Scalable, Redundant 4–16 kVA N+1 Power Array.

Symmetra 4-16 kVA meets the challenges faced by today's Information Technology industry. The need for 7x24 availability is driving organizations to consolidate their servers into centralized datacenters and move to larger enterprise level servers. Their business and customers are demanding high availability solutions with high levels of productivity while maintaining lower overall costs of ownership. This centralization allows IT staff to spend less time managing the individual servers and more time responding to their users' needs. By providing a centralized power protection solution, Symmetra 4-16 kVA, meets the challenges of today's IT industry.

Like all Power Array solutions, Symmetra 4-16 kVA provides Redundancy, Scalability, Serviceability and Manageability. Since Symmetra is modular, it is easily configurable, and expandable so you can "pay-as-you-grow".

Flexibility

Symmetra 4-16 kVA is available in two frame sizes. The MiniFrame can be ordered as a 4-kVA system expandable to 8 kVA, and as an 8-kVA system. The MasterFrame can be ordered as an 8-kVA system expandable to 16 kVA, a 12-kVA system expandable to a 16-kVA system or as a 16-kVA system.

Redundancy

All Symmetra 4-16 kVA models can have additional redundancy added by ordering additional Power Modules (SYPM).

MasterFrame (8-16 kVA)



MiniFrame (4-8 kVA)



12-Bay Battery Cabinet

4-Bay Battery Cabinet

High Availability requires additional run time

High availability solutions require more runtime options than their traditional counterparts. Previously, it was enough to simply close out of applications and save critical data. Today's economy requires seamless transitions between power disturbances and the customer, and therefore, a high availability runtime solution. This high availability solution must also consist of modular, scalable, user-serviceable, and manageable components, which keep the overall cost of ownership down. Symmetra 4-16kVA systems have two separate options for higher runtimes: the 4-Slot Battery Cabinet and the 12-Slot Battery Cabinet. (Specifications and part numbers can be found on pages 17 and 18) These Battery Cabinets can be partially or completely filled with hot swappable battery modules, based on the runtime requirements and the load. A 5 foot (1.5 m) pre-installed connector makes the Battery Cabinets a plug and play solution.

An optional Extender Cable (Part # SYOPT5 or SYOPT5I) allows customers to place the Battery Cabinets up to 15 feet (4.5 m) away from the Symmetra itself. The Battery Cabinets can be connected directly to the Symmetra 4-16 kVA or daisy chained to provide nearly unlimited runtime. Additionally, the Battery Cabinets are intelligent, providing crucial information back to the Symmetra, proactively, regarding: runtime; potential battery problems; and the exact location of failed battery modules.

Symmetra™ Tower Product Specifications

Regional availability: North America; South America

	Symmetra Mini-Frame 120; 208 or 240 VAC (Output)		Symmetra Master Frame 120; 208 or 240 VAC (Output)		
System Part No. (Hardware) (Installed PDU & Hardware)	SY4KEX SY4KEX-PD	SY8K SY8K-PD	SY8KEX SY8KEX-PD	SY12KEX SY12KEX-PD	SY16K SY16K-PD
Output					
Capacity	4kVA/2.8kW	8kVA/5.6kW	8kVA/5.6kW	12kVA/8.4kW	16kVA/11.2kW
Output Voltage	120; 208; 240				
Max Configurable Power with additional Power Modules	8kVA/5.6kW		16kVA/11.2kW		
Output Connections (Hardware)	(1) hardwire				
(-PD units)	(1) hardwire plus (2) 5-15R (1) L6-30R (1) L14-30R		(1) hardwire plus (4) 5-15R (3) L6-30R (3) L14-30R		
Efficiency at full load	87%				
By pass	Internal Bypass (Automatic&Manual)				
Output voltage Distortion	typically <5% at full load (linear or non-linear)				
Output frequency (synched to mains)	57-63 Hz				
Output frequency (not synched)	60 Hz				
Crest Factor	up to 5:1				
Input					
Nominal input Voltage	208; 240 (user configurable)				
Input Frequency	50/60 Hz +/- 5 Hz (auto-sensing)				
Input Connection	Hardwire (3-wire)				
Input Voltage range	155-276 V at 100% load				
Input Power Factor at full load	0.98				
Battery Type	Maintenance-free, sealed lead-acid battery with suspended electrolyte; leakproof.				
Typical recharge time	<3 hours				
Replacement Battery Module	(1) SYBATT	(2) SYBATT	(2) SYBATT	(3) SYBATT	(4) SYBATT
Interface port	DB-9; RS-232; Smart-Slot Card (4)				
Management Software included	PowerChute Network Shutdown; Web/SNMP Management Card built into unit				
Control panel	Multi-function LCD status & control console in multiple languages				
Audible Alarm	Alarm when on battery; distinctive low battery alarm; configurable delays				
Emergency Power Off (EPO)	Yes				
Dimensions HxWxD (in/cm)(all)	31x24x27in /78.7x61x68.6cm		52x24x27in/132.1x61x68.6cm		
Weight net (lbs/kg) (hardware)	407lb/184.8kg	502lb/227.9kg	731lbs/331.9kg	826lbs/375kg	921lb/418.1kg
Weight shipping (hardware)	491lb/222.9kg	600/272.4kg	833lbs/378.2kg	942lbs/427.7kg	1051lb/477.2kg
Weight net (lbs/kg) (-PD)	425lb/193kg	520lb/236kg	759lb/345kg	864lb/388kg	949lb/431kg
Weight shipping (-PD)	512lb/233kg	621lb/282kg	858lb/390kg	967lb/440kg	1076lb/489kg
Operating Temperature	0-40 C/ 32-104 F				
Operating Relative humidity	0-95%				
Operating Elevation	0-10000 feet/ 0-3000m				
Storage Temperature	-15 to 45C/ 5 to 113F				
Storage Relative Humidity	0-95%				
Storage Elevation	0-50,000 feet/0-15,000m				
Audible noise at 3 feet (1 m)	62dBA				
On-line thermal dissipation (BTU/hr)	1427	2855	2855	4282	5710
Approvals	CSA; FCC A; UL 1778				
Warranty	2 years, repair or replace				
"T" level for Service Option pricing	T6	T6	T7	T7	T7

Symmetra™ Tower Product Specifications

Regional availability: Europe; Middle East; Africa; Asia; Australia; South America

	Symmetra Mini-Frame 220; 230; 240 VAC (Output)		Symmetra Master Frame 220; 230; 240 VAC (Output)		
System Part No. Single phase in/out (1:1)	SY4KEXI	SY8KI	SY8KEXI	SY12KEXI	SY16KI
3-phase in/single phase out (3:1)	n/a	n/a	SY8KEX3I	SY12KEX3I	SY16K3I
Output					
Capacity	4kVA/2.8kW	8kVA/5.6kW	8kVA/5.6kW	12kVA/8.4kW	16kVA/11.2kW
Output Voltage	220; 230; 240				
Max Configurable Power with additional Power Modules	8kVA/5.6kW		16kVA/11.2kW		
Output Connections	(1) hardwire plus (8) IEC 320 C13				
Efficiency at full load	91%				
By pass	Internal Bypass (Automatic&Manual)				
Output voltage Distortion	typically <5% at full load (linear or non-linear)				
Output frequency (synched to mains)	47-63 Hz				
Output frequency (not synched)	60; 50 Hz				
Crest Factor	up to 5:1				
Input					
Nominal input Voltage (1:1)	220; 230; 240				
Nominal input Voltage (3:1)	n/a	n/a	380; 400; 415V (3-phase)		
Input Frequency	50/60Hz +/-5 Hz (auto-sensing)				
Input Connection	Hardwire (3-wire)		Hardwire (3-wire) (5-wire for 3:1 unit)		
Input Voltage range (1:1)	155-276 V at 100% load				
Input Voltage range (3:1)	n/a	n/a	290-480V		
Input Power Factor at full load	0.98		0.98 (.95 for the 3:1)		
Battery Type	Maintenance-free, sealed lead-acidbattery with suspended electrolyte; leakproof.				
Typical recharge time	<3 hours				
Replacement Battery Module	(1) SYBATT	(2) SYBATT	(2) SYBATT	(3) SYBATT	(4) SYBATT
Interface port	DB-9; RS-232; Smart-Slot Card (4)				
Management Software included	PowerChute Network Shutdown:Web/SNMP Management Card built into unit				
Control panel	Multi-function LCD status & control console in multiple languages				
Audible Alarm	Alarm when on battery; distinctive low battery alarm; configurable delays				
Emergency Power Off (EPO)	Yes				
Dimensions HxWxD (in/cm) 1:1	33x24x27in /84x61x69cm		47.2x24x27in/120x61x69cm		
Weight net (lbs/kg) 1:1	273lb/124kg	367lb/167kg	431lbs/196kg	526lbs/239kg	620lb/282kg
Weight shipping 1:1	363lb/166.5kg	477/217kg	543lbs/247kg	654.5lbs/297.5kg	765.6lb/348kg
Dimensions HxWxD (in/cm) 3:1	n/a	n/a	45x24x27in/120x61x77cm		
Weight net (lbs/kg) 3:1	n/a	n/a	439lbs/199.5kg	533.5lbs/242.5kg	628lb/285.5kg
Weight shipping 3:1	n/a	n/a	557lbs/253kg	667.7lbs/303.5kg	779lb/354kg
Operating Temperature	0-40 C/ 32-104 F				
Operating Relative humidity	0-95%				
Operating Elevation	0-10000 feet/ 0-3000m				
Storage Temperature	-15 to 45C/ 5 to 113F				
Storage Relative Humidity	0-95%				
Storage Elevation	0-50,000 feet/0-15,000m				
Audible noise at 3 feet (1 m)	62dBA				
On-line thermal dissipation (BTU/hr)	945	1890	1890	2834	3779
Approvals	C-tick; CE: EN 50091-2; VDE				
Warranty	2 year; repair or replace (1 year for Battery Modules in India)				
"T" level for Service Option pricing	T8	T8	T9	T9	T9

Symmetra™ Tower Product Specifications

Regional availability: Japan

	Symmetra Mini-Frame 100; 200 VAC (Output)		Symmetra Master Frame 100; 200 VAC (Output)		
System Part No.	SY4KEXJ	SY8KJ	SY8KEXJ	SY12KEXJ	SY16KJ
Output					
Capacity	4kVA/2.8kW	8kVA/5.6kW	8kVA/5.6kW	12kVA/8.4kW	16kVA/11.2kW
Output Voltage	100; 200				
Max Configurable Power with additional Power Modules	8kVA/5.6kW		16kVA/11.2kW		
Output Connections	(1) hardwire				
Efficiency at full load	87%				
By pass	Internal Bypass (Automatic&Manual)				
Output voltage Distortion	typically <5% at full load (linear or non-linear)				
Output frequency (synched to mains)	57-63, 47-53 Hz				
Output frequency (not synched)	60; 50 Hz				
Crest Factor	up to 5:1				
Input					
Nominal input Voltage	200				
Input Frequency	50/60Hz +/- 5 Hz (auto-sensing)				
Input Connection	Hardwire (3-wire)				
Input Voltage range	155-276 V at 100% load				
Input Power Factor at full load	0.98				
Batteries					
Battery Type	Maintenance-free, sealed lead-acidbattery with suspended electrolyte; leakproof.				
Typical recharge time	<3 hours				
Replacement Battery Module	(1) SYBATTJ	(2) SYBATTJ	(2) SYBATTJ	(3) SYBATTJ	(4) SYBATTJ
Interface port	DB-9; RS-232; Smart-Slot Card (4)				
Management Software included	PowerChute Network Shutdown; Web/SNMP Management Card built into unit				
Control panel	Multi-function LCD status & control console in multiple languages				
Audible Alarm	Alarm when on battery; distinctive low battery alarm; configurable delays				
Emergency Power Off (EPO)	Yes				
Dimensions HxWxD (in/cm)	31x24x27in /78.7x61x68.6cm		52x24x27in/132.1x61x68.6cm		
Weight net (lbs/kg)	407lb/184.8kg	502lb/227.9kg	731lbs/331.9kg	826lbs/375kg	921lb/418.1kg
Weight shipping	491lb/222.9kg	600/272.4kg	833lbs/378.2kg	942lbs/427.7kg	1051lb/477.2kg
Operating Temperature	0-40 C/ 32-104 F				
Operating Relative humidity	0-95%				
Operating Elevation	0-10000 feet/ 0-3000m				
Storage Temperature	-15 to 45C/ 5 to 113F				
Storage Relative Humidity	0-95%				
Storage Elevation	0-50,000 feet/0-15,000m				
Audible noise at 3 feet (1 m)	62dBA				
On-line thermal dissipation (BTU/hr)	1427	2855	2855	4282	5710
Approvals	VCCI; CSA; FCC A; UL 1778				
Warranty	2 years; repair or replace				
"T" level for Service Option pricing	T8	T8	T9	T9	T9

Symmetra Rack-mount 2-12 kVA

Bringing Symmetra's proven reliability, availability and ease of use to the rack.

APC is bringing all of the time-tested advantages of Symmetra to the rack. With more servers, storage products, networking and telecom equipment becoming rack-based, the need is increasing for innovative rack-mounted power solutions. Symmetra RM meets this need with innovative rack-optimized solutions that range from 2 kVA to 12 kVA, with N+1 redundancy in just 8U or 15U of rack space. A 16kVA N solution is also available in just 15U of rack space.

Symmetra RM is an ideal solution for small to medium size datacenters, branch office locations, mission-critical networking equipment or any other customer requiring a rack based product within this power range. The 2-6 kVA N+1 units provide a 8U rack optimized solution for a typical single rack scenario. On the other hand, the 8-12 kVA N+1 (or 16kVA N only) units provide a 15U rack optimized solution for either multiple racks of equipment or single racks with high density enterprise level equipment. In addition to the advantages of hot-swap-ability and redundancy, rack users can also benefit from Symmetra's self diagnosing, scalable components and integrated Web/SNMP management features.

With APC Symmetra RM, you'll get all the benefits of Symmetra plus:

Rackmountability :

Saves premium datacenter floor and U space, while providing a secure environment.

Flexible built-in runtime options :

The Symmetra RM 2-6 kVA N+1 units allow Battery Modules to be placed in vacant Power Module bays to increase runtime without using more rack space.

Flexible Extended Runtime options:

All Symmetra RM units (2-12 kVA, N+1) are compatible with both rackmount and tower extended run options. The Symmetra RM Extended Run solution allows customers to grow runtime in increments of 4 Battery Modules in 4U of rack space. This solution affords the same level of intelligence that all Symmetra extended runtime solutions provide. Various extender cables are available to customize the solution. See page 20.

Plug and Play Capability :

All Symmetra RM units come standard with field replaceable PDU's. A variety of backplate PDU (listed on Page 19) and external PDU options (both from APC or third party vendors) allow direct plug-in of a wide variety of loads.

Form Factor Flexibility :

The Symmetra RM 2-6 kVA units and Symmetra RM Extended Run solutions are designed to blend with your IT environment. By using the Optional Floormount Kit (part # SYOPT1) and/or the Castor Kit (part # SYOPT2), the unit can be converted to a freestanding, movable unit, allowing flexibility as your needs change.



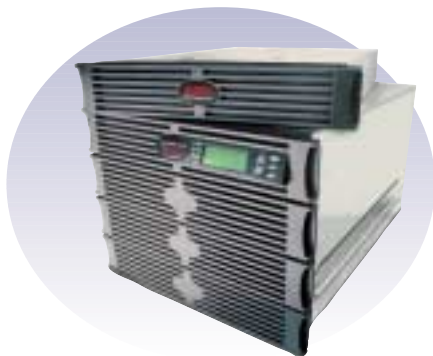
*Symmetra RM 8-12kVA
N+1 (or 16kVA N only)*



*Symmetra RM
2-6kVA N+1*



*Symmetra RM 4U
Rackmount Battery
Cabinet*



Symmetra RM 5kVA Step-down Transformer (Part #SYTF2)

The Step-down Transformer converts 208 VAC output into 120 VAC output for powering computer loads in North and South America. It also acts as a Rackmount PDU solution by providing 12 NEMA 5-15/5-20 receptacles. One SYTF2 can be placed in each rack with 120V equipment, being protected by Symmetra RM units. The Step-down Transformer (SYTF2) is color-matched to the new Symmetra Rack-mount. The Step-down Transformer can be purchased as a bundle with the Symmetra RM by ordering -P1 or -P2 part numbers. It can also be purchased separately by ordering SYTF2.

Symmetra RM 2-6kVA, with optional Step-Down Transformer on top

Symmetra™ Rack-mount Product Specifications

Regional availability: North America; South America

Regional availability: Middle East;
Asia; Africa; Australia; South America

Symmetra Rack-mount	208 VAC (Output)			120; 208 VAC (Output)			220; 230; 240 VAC (Output)		
System Part No.	SYH2K6RMT	SYH4K6RMT	SYH6K6RMT	SYH2K6RMT-P1	SYH4K6RMT-P1	SYH6K6RMT-P1	SYH2K6RMI	SYH4K6RMI	SYH6K6RMI
Output									
Capacity	2kVA/1.4kW	4kVA/2.8kW	6kVA/4.2kW	2kVA/1.4kW	4kVA/2.8kW	6kVA/4.2kW	2kVA/1.4kW	4kVA/2.8kW	6kVA/4.2kW
Output Voltage	208 (240 configurable)			120; 208			220; 230; 240		
Max Configurable Power with additional Power Modules	6kVA/4.2kW			6kVA/4.2kW (max 5kVA of 120VAC)			6kVA/4.2kW		
Output Connections	(2) NEMA L6-20R, (1) NEMA L6-30R			(2) NEMA L6-20R, (12) NEMA 5-20R*			(8) IEC 320 C13; (2) IEC 320 C19		
Efficiency at full load	89%			85%			89%		
By pass	Internal Bypass (Automatic & Manual)								
Output voltage Distortion	typically <5% at full load (linear or non-linear)								
Output frequency (synched to mains)	57-63 Hz						47-53 Hz		
Output frequency (not synched)	60 Hz						50 Hz		
Crest Factor	up to 5:1								
Input									
Nominal input Voltage	208 or 240			208			220; 230 ; 240		
Input Frequency	50/60 Hz +/- 5 Hz (auto-sensing)								
Input Connection	NEMA L6-30P						Hardwire (3-wire)		
Input Voltage range	155-276 V at 100% load								
Input Power Factor at full load	0.98								
Battery Type	Maintenance-free, sealed lead-acid battery with suspended electrolyte; leakproof.								
Typical recharge time	4 hours								
Replacement Battery Module	(1) SYBT2	(2) SYBT2	(3) SYBT2	(1) SYBT2	(2) SYBT2	(3) SYBT2	(1) SYBT2	(2) SYBT2	(3) SYBT2
Interface port	DB-9; RS-232; Smart-Slot Card (2)								
Management Software included	PowerChute Network Shutdown; Web/SNMP Management Card ships standard with each unit								
Control panel	Multi-function LCD status & control console in multiple languages								
Audible Alarm	Alarm when on-battery; distinctive low battery alarm; configurable delays								
Emergency Power Off (EPO)	Yes								
Dimensions HxWxD** (in/cm)	8U/14x19x27.25in /35.6x48.3x69.2cm			10U/17.5x19x27.25in/44.5x48.3x69.2cm			8U/14x19x27.25in/35.6x48.3x69.2cm		
Weight net (lbs/kg)	164lb/74.5kg	229lb/104.1kg	294lbs/133.6kg	259lb/118kg	324lb/155kg	389lb/177kg	164lb/74.5kg	229lb/104.1kg	294lbs/133.6kg
Weight shipping	185lb/84.1kg	256lb/116.4kg	327lb/148kg	295lb/134kg	366lb/166kg	437lb/199kg	185lb/84.1kg	256lb/116.4kg	327lb/148kg
Operating Temperature	0-40 C/ 32-104 F								
Operating Relative humidity	0-95%								
Operating Elevation	0-10000 feet/ 0-3000m								
Storage Temperature	-15 to 45C/ 5 to 113F								
Storage Relative Humidity	0-95%								
Storage Elevation	0-50,000 feet/0-15,000m								
Audible noise at 3 feet (1 m)	60dBA								
On-line thermal dissipation (BTU/hr)	590	1181	1771	843	1686	2529	590	1181	2529
Approvals	CSA; FCC A; UL 1778						C-tick; EN 50091-2; VDE		
Warranty	2 years, repair or replace (1 year for battery modules in India)								
T level for Service Option pricing	T6	T6	T6	T6	T6	T6	T8	T8	T8

*Also referred to as 5-20RA (Canada) or T-Slot, and can be used as both 5-15R or 5-20R.

**Depth is measured from the front rail to the rear of the unit.

Symmetra™ Rack-mount Product Specifications

Regional availability: North America; South America

Regional availability: Middle East; Asia; Africa; Australia; South America

Symmetra Rack-mount	208 VAC (Output)		120: 208 VAC (Output)			220: 230: 240 VAC (Output)	
System Part No.	SYP8K12RMT	SYP12K12RMT	SYP8K12RMT-P1	SYP12K12RMT-P1	SYP12K12RMT-P2	SYP8K12RMI	SYP12K12RMI
Output							
Capacity	8kVA/5.6kW	12kVA/8.4kW	8kVA/5.6kW	12kVA/8.4kW	12kVA/8.4kW	8kVA/5.6kW	12kVA/8.4kW
Voltage Input	208 or 240		208			220,230,240V	
Family	Symmetra RM						
Output Voltage	208 (240 configurable)			220,230,240V			
Max Configurable Power with additional Power Modules	12kVA/8.4kW (N+1), 16kVA/11.2 kW (N only)						
Output Connections	(6) NEMA L6-20R, (3) NEMA L6-30R, Hardwiring		(6) NEMA L6-20R, (2) NEMA L6-30R, 12 NEMA 5-20R*, Hardwiring		(6) NEMA L6-20R, (1) NEMA L6-30R, 24 NEMA 5-20R*, Hardwiring	(24) IEC 320 C13; (6) IEC 320 C19	
Efficiency at full load	91%		87%			91%	
By pass	Internal Bypass (Automatic & Manual)						
Output voltage Distortion	typically <5% at full load (linear or non-linear)						
Output frequency (synched to mains)	57-63Hz				47-53%		
Output frequency (not synched)	60Hz				50 Hz		
Crest Factor	up to 5:1						
Input							
Nominal input Voltage	208 or 240		208			220,230,240V	
Input Frequency	50/60 Hz +/- 5Hz. (auto sensing)						
Input Connection	Hardwire (3-wire)						
Input Voltage range	155-276V						
Input Power Factor at full load	0.98						
Battery Type	Maintenance - free, sealed lead acid battery with suspended electrolyte, leakproof						
Typical recharge time	3 hrs.						
Replacement Battery Cartridge	(2) SYBT3	(3) SYBT3	(2) SYBT3	(3) SYBT3	(3) SYBT3	(2) SYBT3	(3) SYBT3
Interface port	DB-9; RS-232; Smart-Slot Card (2)						
Management Software included	PowerChute Network Shutdown, Web/SNMP Management Card ships standard						
Control panel	Multi-function LCD status & control console in Multiple Languages						
Audible Alarm	Alarm when on-battery; distinctive low battery alarm; configurable delays						
Emergency Power Off (EPO)	Yes						
Dimensions HxWxD** (in/cm)	15U/26.25x19x27.2" 66.7x48.3x69.1cm		17U/29.75x19x27.2" 75.75x48.3x69.1cm		19U/ 33.25x19x27.2" 84.46x48.3x69.1cm	15U/26.25x19x27.2" 66.7x48.3x69.1cm	
Weight net (lbs)	358	452	453	547	642	358	452
Weight shipping	398	492	503	597	692	398	492
Operating Temperature	0-40 C/32 - 104 F						
Operating Relative humidity	0-95%						
Operating Elevation	0-10000 feet/0-3000m						
Storage Temperature	-15 to 45C/5 to 113F						
Storage Relative Humidity	0-95%						
Storage Elevation	0-50,000 ft/0-15,000m						
Audible noise at 3 feet (1 m)	62dBA						
On-line thermal dissipation (BTU/hr)	1889	2834	2855	4282	4282	1889	2834
Approvals	CSA; FCC A; UL 1778					C-tick; EN 50091-2;VDE	
Warranty	2 years, repair or replace(1 year for battery modules in India)						
"T" level for Service Option pricing	T7	T7	T7	T7	T7	T9	T9

*Also referred to as 5-20RA (Canada) or T-Slot, and can be used as both 5-15R or 5-20R.

**Depth is measured from the front rail to the rear of the unit.

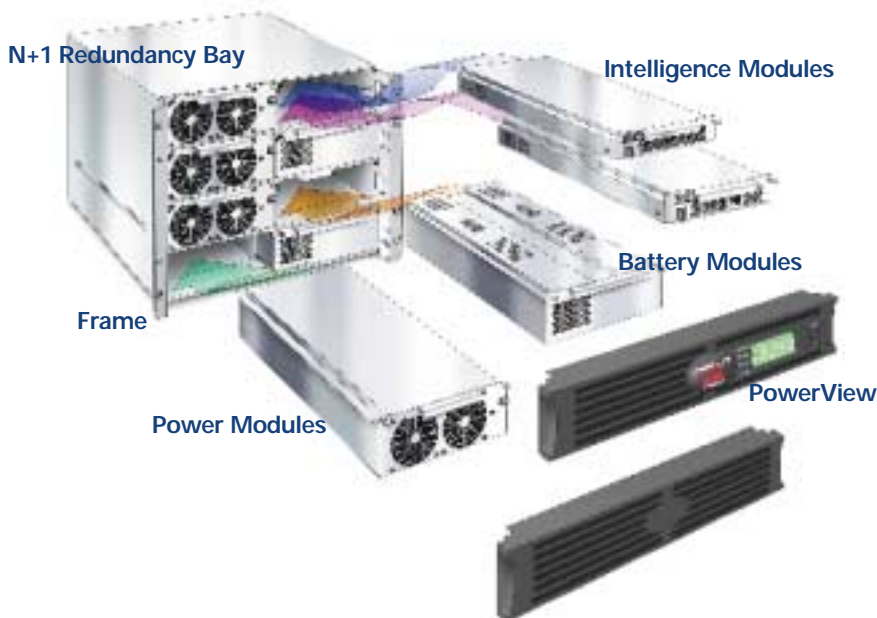
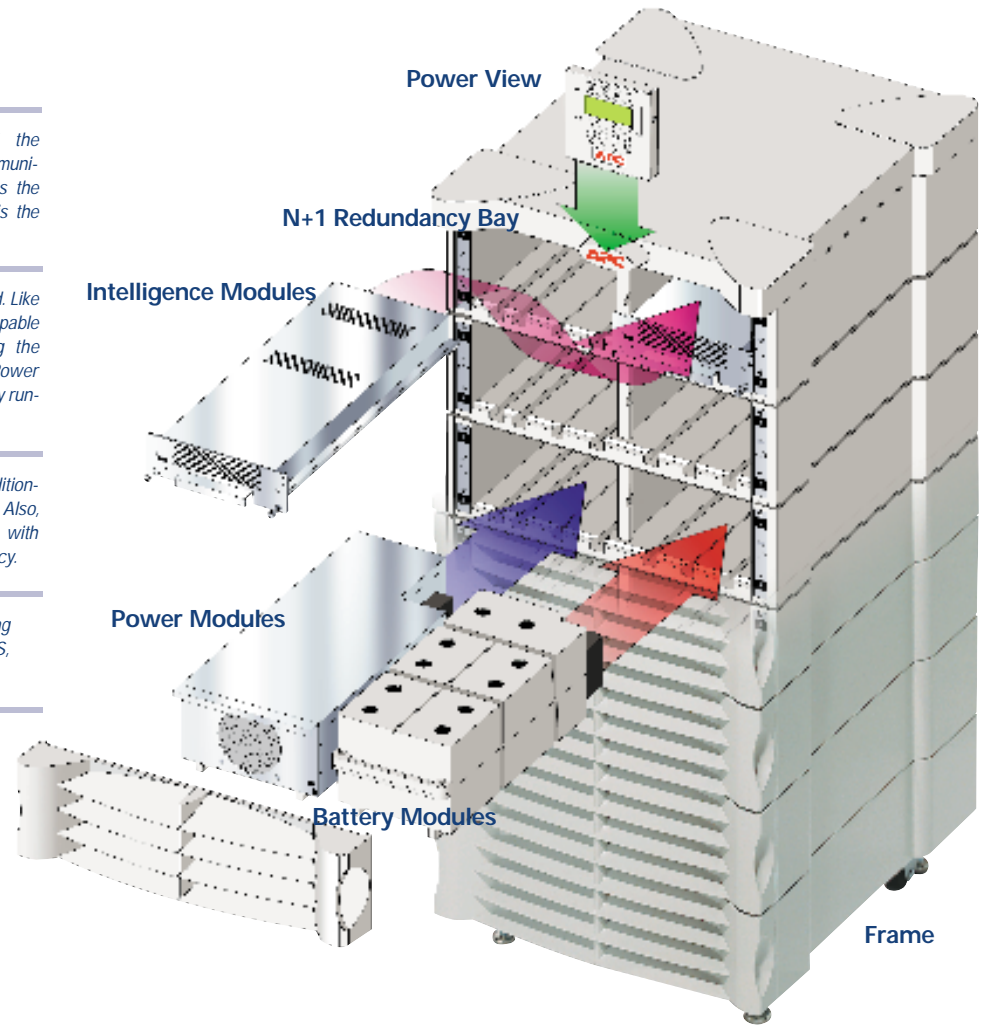
Symmetra Tower

Intelligence Modules are the brain of the Symmetra™. The Main Intelligence Module communicates with the outside world and synchronizes the modules. The Redundant Intelligence Module is the back-up brain and ensures fault-tolerance.

Battery Modules provide the runtime you need. Like Power Modules, Battery Modules are hot-swappable and user-replaceable. By physically isolating the Battery Modules from the heat-producing Power Modules, the Power Array maximizes both battery runtime and life.

N+1 Redundancy Bay provides space for additional Power Modules to create a truly N+1 unit. Also, empty Power Module bays may be populated with Power Modules to provide up to N+4 of redundancy.

Power Modules (PM's): 2 or 4kVA UPS "building blocks" contain the electronics of a 2 or 4kVA UPS, including the inverter, rectifier, and charger.



Symmetra Rack-mount

The **Frame** holds the Power Array™ modules. It has no active components and a minimum of mechanical components, most of which (fans, for example) are user-replaceable.

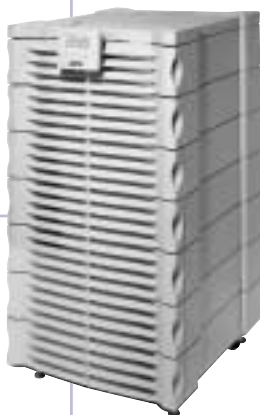
The **Power View** is a multi-lingual display console that puts monitoring and control at your fingertips. The PowerView attaches to the nose of Symmetra or can be extended up to 15 feet to a monitoring station or administrator's desk.

Symmetra Configuration Guide

Step 1 Gather the information you need to configure the system:

- Input voltage required 208/240VAC 230VAC 400VAC (3-phase) 200VAC
- Output voltage required (Single phase) 120/208/240VAC 208/240VAC 230VAC 100/200VAC
- Output connections Hardwire only Outlets only Hardwire and outlets
- Current power requirement kVA or kW
- Future power requirement kVA or kW
- Form Factor Tower (follow below) Rack-mount (follow below)

Step 2 Use this chart to determine the part number for the Tower Symmetra you need based on Step 1:



TOWER						
Input VAC	208/240		220/230/240	400(3-phase)	200	
Output (Single phase)	120/208/240	120/208/240	220/230/240	220/230/240	100/200	
Input/Output Freq.	60 Hz	60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	
Output connector	Hardwired	Hardwired +Outlets*	Hardwired	Hardwired	Hardwired	
KVA/kW	Scalable to					
4 /2.8 → 8/5.6	SY4KEX	SY4KEX-PD	SY4KEXI	n/a	SY4KEXJ	
8/5.6	SY8K	SY8K-PD	SY8KI	n/a	SY8KJ	
8/5.6 → 16/11.2	SY8KEX	SY8KEX-PD	SY8KEXI	SY8KEX3I	SY8KEXJ	
12/8.4 → 16/11.2	SY12KEX	SY12KEX-PD	SY12KEXI	SY12KEX3I	SY12KEXJ	
16/11.2	SY16K	SY16K-PD	SY16KI	SY16K3I	SY16KJ	
For more info see page	9	9	10	10	11	

*Includes PDU shown on p. 17, plus ability to hardwire output.

Step 2 Use this chart to determine the part number for the Rack-mount Symmetra you need based on Step 1:



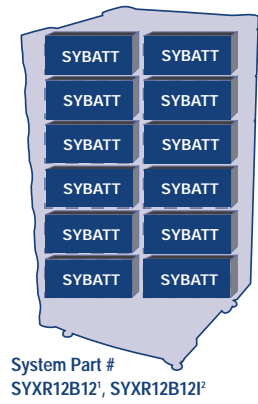
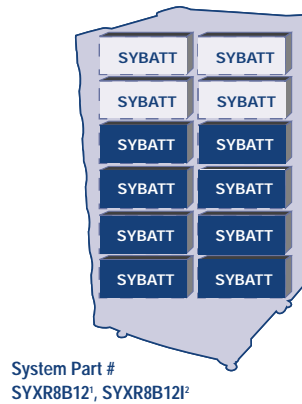
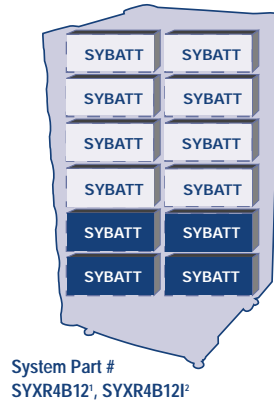
Input VAC	208/240		220/230/240	For more info see page:
Output (Single phase)	208/240	120/208/240	220/230/240	
Input/Output Freq.	60 Hz	60 Hz	50/60 Hz	
2 /1.4 6/4.2	SYH2K6RMT	SYH2K6RMT-P1	SYH2K6RMI	13
4/2/8 → 6/4.2	SYH4K6RMT	SYH4K6RMT-P1	SYH4K6RMI	13
6/4.2 →	SYH6K6RMT	SYH6K6RMT-P1	SYH6K6RMI	13
8/5.6 12/8.4	SYP8K12RMT	SYP8K12RMT-P1	SYP8K12RMI	15
12/8.4 →	SYP12K12RMT	SYP12K12RMT-P1 SYP12K12RMT-P2	SYP12K12RMI	15

*Includes 208/120V Step-down Transformer shown on p. 12.

Note: Symmetra RM can also be used as a floor model by ordering the Optional Floormount Kit (Part # SYOPT1)

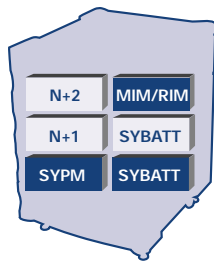
12-Bay Intelligent External Battery Cabinets

- ¹-For use with systems on page 9
- ²-For use with systems on page 10
- ³-For use with systems on page 11

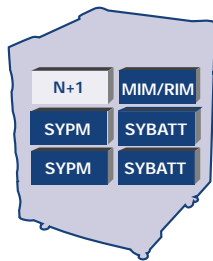


Step 3 Choose redundancy for the Symmetra Tower.

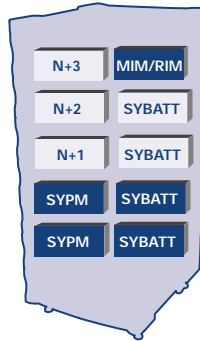
- To choose an N+1 system add one (1) SYPM or one (1) SYPM4KU.
- Higher levels of redundancy are available—see unit pictures for details.



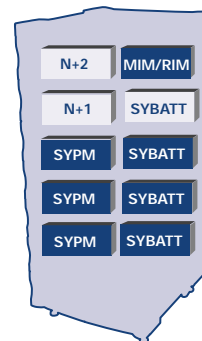
4kVA Scalable to 8kVA
(2.8kW to 5.6 kW)
System Part #
SY4KEX, SY4KEX-PD,
SY4KEXI, SY4KEXJ



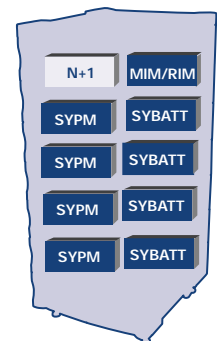
8kVA (5.6 kW)
System Part #
SY8K, SY8K-PD,
SY8KI, SY8KJ



8kVA Scalable to 16kVA
(5.6 kW to 11.2 kW)
System Part #
SY8KEX, SY8KEX-PD, SY8KEXI
SY8KEX3I, SY8KEXJ



12kVA Scalable to 16kVA
(8.4 kW to 11.2 kW)
System Part #
SY12KEX, SY12KEX-PD,
SY12KEXI, SY12KEX3I,
SY12KEXJ



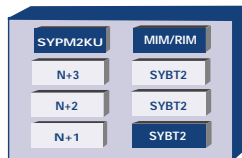
16kVA (11.2 kW)
System Part #
SY16K, SY16K-PD, SY16KI,
SY16K3I, SY16KJ

Step 3 Choose redundancy for the Symmetra Rack-mount.

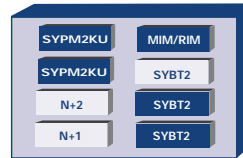
- To choose an N+1 system add one (1) SYPM2KU or 1 SYPM4KU.
- Higher levels of redundancy are available—see unit pictures for details.



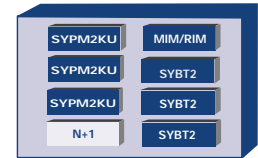
2kVA Scalable to 6kVA
1.4 kW to 4.2 kW
System Part #
SYH2K6RMT,
SYH2K6RMT-P1,
SYH2K6RMI



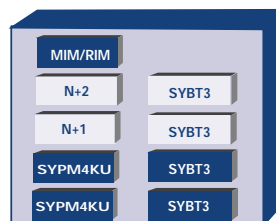
4kVA Scalable to 6kVA
2.8 kW to 4.2 kW System
Part #
SYH4K6RMT,
SYH4K6RMT-P1,
SYH4K6RMI



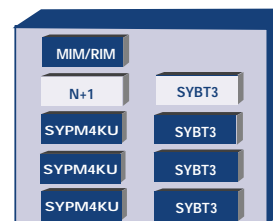
6kVA, 4.2 kW
System Part #
SYH6K6RMT,
SYH6K6RMT-P1,
SYH6K6RMI



8kVA Scalable to 12kVA (N+1)
or 16kVA (N)
System Part #
SYP8K12RMT, SYP8K12RMT-P1,
SYP8K12RMI



12kVA Scalable to (N+1)
or 16kVA (N)
System Part #
SYP12K12RMT, SYP12K12RMT-P1,
SYP12K12RMT-P2, SYP12K12RMI

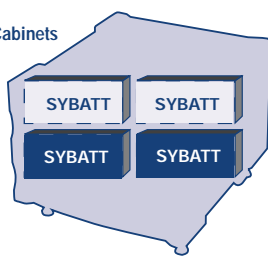


4-Bay Cabinet Specifications:
Dimensions: 19.3x24x27" (49x61x69cm)
Weights: (fully configured) Net: 324lb/147.3kg Shipping: 384lb/174.5kg
12-Bay Cabinet Specifications:
Dimensions: 47x24x27" (126x61x69cm)
Weights: (fully configured) Net: 944lb/429.5kg Shipping: 1055lb/479.5kg

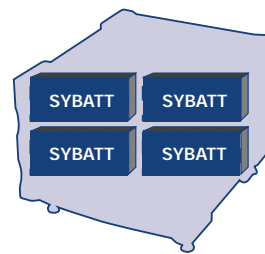
- ¹-For use with systems on page 9
- ²-For use with systems on page 10
- ³-For use with systems on page 11

Optional Step for Tower Units - add additional runtime with Intelligent External Battery Cabinets

4-Bay Intelligent External Battery Cabinets



System Part #
SYXR2B4¹, SYXR2B4I², SYXR2B4J³



System Part #
SYXR4B4¹, SYXR4B4I², SYXR4B4J³

Step 4 Determine runtime requirement for Symmetra Tower.

Number of Battery Modules and Intelligent Extended Battery Cabinets required for extended runtimes							
Unit	Load (kVA/kW)	Standard Configuration	Plus (1). SYXR2B4	Plus (1) SYXR4B4	Plus (1) SYXR4B12	Plus (1) SYXR8B12	Plus (1) SYXR12B12
4kVA	2/1.4	15 m	70 m	2.1 hr	2.1 hr	4.3 hr	7 hr
Scalable to 8kVA	4/2.8	6 m	27 m	53 m	53 m	1.9 hr	2.9 hr
8kVA	2/1.4	40 m	1.6 hr	2.7 hr	2.7 hr	4.8 hr	6.4 hr
	4/2.8	15 m	40 m	1.1 hr	1.1 hr	2.1 hr	3.1 hr
	6/4.2	9 m	23 m	40 m	40 m	1.3 hr	1.9 hr
	8/5.6	6 m	15 m	27 m	27 m	53 m	1.4 hr
8kVA Scalable to 16kVA	4/2.8	15 m	40 m	1.1 hr	1.1 hr	2.1 hr	3.1 hr
	6/4.2	9 m	23 m	40 m	40 m	1.3 hr	1.9 hr
	8/5.6	6 m	15 m	27 m	27 m	53 m	1.4 hr
12kVA Scalable to 16kVA	4/2.8	27 m	53 m	1.4 hr	1.4 hr	2.3 hr	3.4 hr
	6/4.2	15 m	31 m	49 m	49 m	1.5 hr	2.1 hr
	8/5.6	10m	21 m	33 m	33 m	1 hr	1.5 hr
	10/7	7m	15 m	25 m	25 m	46 m	1.1 hr
16kVA	12/8.4	6m	12 m	19 m	19 m	35 m	53 m
	8/5.6	15m	27 m	40 m	40 m	1.1 hr	1.7 hr
	10/7	11m	20 m	29 m	29 m	51 m	1.3 hr
	12/8.4	9m	15 m	23 m	23 m	40 m	1 hr
	14/9.8	7m	12 m	18 m	18 m	32 m	48 m
	16/11.2	6m	10 m	15 m	15 m	27 m	39 m

Proceed to Step 5 (next page.)

Step 4 Determine runtime requirement for Symmetra Rack-mount.

Unit	Load (kVA/kW)	Standard Configuration	Plus (1) SYBT2*	Plus (2) SYBT2*	Plus (3) SYBT2*	plus (4) SYBT2*	plus (5) SYBT2*	plus (1) SYRMXR 2B4	Plus (1) SYRMXR 4B4
2kVA Scalable to 6kVA	2/1.4	10 m	26 m	47 m	1.1 hr	1.5 hr	1.9 hr	2.6 hr	3.6 hr
4kVA Scalable to 6kVA	2/1.4	26 m	47 m	1.1 hr	1.5 hr	n/a	n/a	2.2 hr	3 hr
	4/2.8	10 m	18 m	28 m	39 m	n/a	n/a	1 hr	1.4 hr
6kVA	2/1.4	47 m	1.1 hr	n/a	n/a	n/a	n/a	1.9 hr	2.6 hr
	4/2.8	18 m	28 m	n/a	n/a	n/a	n/a	50 m	1.2 hr
	6/4.2	11 m	16 m	n/a	n/a	n/a	n/a	29 m	44 m

**Note: SYBT2 Battery modules can be used in any open bay for maximum runtimes*

Unit	Load (kVA/kW)	Standard Configuration	Plus (1) SYBT3	Plus (1) SYXR2B4	Plus (1) SYXR4B4	plus (1) SYXR8B12	plus (1) SYXR12B12	plus (2) SYXR12B12
8kVA Scalable to 12kVA (N+1) or 16kVA (N)	4/2.8	15 m	27 m	53 m	1.4 hr	2.3 hr	3.4 hr	7.6 hr
	6/4.2	9 m	15 m	31 m	49 m	1.4 hr	2.1 hr	4.3 hr
	8/5.6	6 m	10 m	21 m	33 m	1 hr	1.5 hr	3.1 hr
12kVA Scalable to 12kVA (N+1) or 16 KVA (N)	4/2.8	27 m	n/a	53 m	1.4 hr	2.3 hr	3.4 hr	7.6 hr
	8/5.6	10 m	n/a	21 m	33 m	1 hr	1.5 hr	3.1 hr
	12/8.4	6 m	n/a	12 m	19 m	35 m	53 m	1.9 hr

Proceed to Step 5 (next page.)

Step 5 **Manageability - What additional accessories are required?** See pages 6 and 7.

- Tower models come standard with 4 SmartSlots.
- Rack-mount models come standard with 2 SmartSlots.

Note: All units ship with one SmartSlot Accessory included: the Web/SNMP Management Card (AP9606).

Step 6 **Service - What service options are required?** See page 21.

Services can be performed by in-house technicians, third-party vendors, or purchased from APC.

Step 7 **Order power distribution options for your Tower model for North and South America.**

Symmetra Tower ships standard with hardwired input and output connections. Symmetra Tower (120; 208 or 240 VAC output) units may also be ordered with factory-installed power distribution panels. These panels feature outlets for direct connection to loads. A hardwire connection is also included.

SY4KEX-PD and **SY8K-PD** include:
(2) 5-15R, (1) L6-30R, (1) L14-30R



Back panel : SY4KEX-PD and SY8K-PD

SY8KEX-PD, **SY12KEX-PD**, and **SY16K-PD** include: (4) 5-15R, (3) L6-30R, (3) L14-30R



Back panel : SY8KEX-PD, SY12KEX-PD and SY16K-PD

APC or third-party cord-connected power distribution units (CCPDUs) can also be added for further output receptacle connections. Visit www.apc.com/products/accessories/wiring-ccpdu.cfm for further details on APC CCPU's.

Step 7 **Order power distribution options for your rack-mount model.**

208 or 240 VAC output: Symmetra RM models can also be ordered with a Step-Down Transformer to provide 120VAC output.

SYH2K6RMT-P1, SYH4K6RMT-P1, SYH6K6RMT-P1, SYP8K12RMT-P1, AND SYP12K12RMT-P1 include (12) NEMA 5-20R*;
SYP12K12RMT-P2 includes (24) NEMA 5-20R* (in addition to the base unit configuration).

Symmetra RM 2-6 kVA (208 or 240V) models can be equipped with one (1) of the following PDU options (ordered as a separate item) instead of the standard PDU option:

1. SYPD5: consists of (8) IEC 320 C13 and (2) IEC 320 C19 outlets with jumper cables.
 2. SYPD7: includes (3) L6-20R (available 01/2001)
- Symmetra RM 8-12kVA units can be equipped with one to three (1 -3) of the above PDU options (ordered as separate items) instead of the standard PDU options.

All Symmetra RM 2-6kVA models can be equipped with the following PDU option:

SYPD6: consists of an output hardwire kit.

The Symmetra RM 8-12kVA models come standard with an Output Hardwiring Kit.

*Also referred to as 5-20RA(Canada) or T-Slot, and can be used as both 5-15R or 5-20R.

Symmetra Accessories and Option Kits



Symmetra 4-16 kVA Power Array

Black Symmetra

New! Symmetra Power Array Master Frame and 12-Bay Battery Cabinet are now also available in black via special order, allowing the unit to easily blend in with the existing IT environment. All specifications remain the same.

Note: Black units are only available via the APC Website in limited quantities. Please go to www.symmetra.com.

Ordering information:	Voltage (in)	System Part No.
8kVA Scalable to 16 kVA, N+1	208 or 240	SY8KEXBX120
	208 or 240 (with outlets on output)	SY8KEX-PDBX120
	220/230/240	SY8KEXIBX120
12kVA Scalable to 16 kVA, N+1	208 or 240	SY12KEXBX120
	208 or 240 (with outlets on output)	SY12KEX-PDBX120
	220/230/240	SY12KEXIBX120
16 kVA Scalable to 16 kVA, N+1	208 or 240	SY16KEXBX120
	208 or 240 (with outlets on output)	SY16K-PDBX120
	220/230/240	SY16KIBX120
12-Bay Battery Cabinet*	208 or 240	SYXR12-BMBX120
	220/230/240	SYXR12I-BMBX120

*Battery modules not included, order standard item SYBATT.

Symmetra 4-16 kVA Earthquake Kits

Available in Japan only.

Ordering information:	Part No.
Earthquake protection kit for Mini Frame (4-8 kVA)	SYJ-EQPMINIF
Earthquake protection kit for Master Frame (8-16 kVA)	SYJ-EQPMSTRF
Earthquake protection kit for 4-Bay Battery Cabinet	SYJ-EQPXR4

Symmetra 3:1 Bypass Load Balancing Transformer:

For use with the 3-phase in/single phase out units. (220/230/240V Output) Order Part No.: SY-BPXFMR.

15-foot Extender Cable Kit for Symmetra Battery Frames:

SYXR4-BM and SYXR12-BM compatible (208/240V compatible) SYOPT5

SYXR4I-BM and SYXR12I-BM compatible (220/230/240V compatible) SYOPT5I

Symmetra Extended Life Batteries:

This accessory provides an extended life battery (10 years design life, maintenance free) that can be used in place of the Standard Battery Modules (SYBATT). The extended life batteries should be used only in applications where the customer needs greater than 30 minutes of runtime. Order Part No.: SYBATT-EL.

Symmetra Rack-mount 2-12 kVA Power Array



Symmetra RM and Symmetra RM 4U Extended Run Cabinet featured with optional Floor Conversion Kit and Caster Kit.

Voltage (in)
208 or 240

Voltage (in)
220/230/240

Extended Run Options

Ordering information:	Part No.
RM Extended Run Cabinet, can hold up to 4 STBT2 Battery Modules	SYRMXR4
RM Extended Run Cabinet, with (2) SYBT2 Battery Modules	SYRMXR2B4
RM Extended Run Cabinet, with (4) SYBT2 Battery Modules	SYRMXR4B4
15ft. Extender Cable for Symmetra RM to SYXR4-BM or SYXR12-BM	SYOPT3
4ft. Extender Cable for Symmetra RM to SYRMXR4	SYOPT4
RM Extended Run Cabinet, can hold up to 4 (SYBT2) Battery Modules	SYRMXR4I
RM Extended Run Cabinet with (2) SYBT2 Battery Modules	SYRMXR2B4I
RM Extended Run Cabinet with (4) SYBT2 Battery Modules	SYRMXR4B4I
15 ft. Extender Cable for Symmetra RM to SYXR4I-BM or SYXR12I-BM	SYOPT3I
4 ft. Extender Cable for Symmetra RM to SYRMXR4I	SYOPT4I

Symmetra Floor Conversion Kits:

Convert the Symmetra RM to a floor-mount model, easily.

Ordering information:	Part No.
Floormount kit for SY-RM 2-6kVA models or the SY-RM Extended Run Cabinet	SYOPT1
Caster kit for SY-RM 2-6kVA models or SY-RM Extended Run Cabinet	SYOPT2
2-Post Rack Mounting Kit mounts the SY-RM 2-6kVA models to a 2-Post Rack System	SYOPT6

APC Global Services Programs

Installation Services

Recommended

Start-up Service (Part No. WISTL-*)

APC's Start Up Service provides customers with APC Authorized Personnel to ensure proper start up of your Power Array system. APC will energize and check functionality of the system in all modes to ensure compliance with stated technical specifications. In all cases, the systems must be electrically installed prior to the start-up. APC will guarantee that the system is operating according to APC standards. APC's Start-up can be performed outside business hours by also ordering **Off-Hours Scheduling (Part No. WUPA- *)**.

Network Integration Service (Part No. WITG)

APC's Network Integration Service eases the integration between APC products and customer systems. Under this service, APC performs on-site installation and integration of APC software and accessories. This service is limited to currently manufactured APC products. APC is responsible for the product preparation, installation, integration, and verification of equipment.

Optional

Quick-start Plan (Part No. WQSPX1-* or WQSPX3-*)

The Quick Start Plan is for customers demanding support of high availability solutions with limited internal resources. This service plan bundles the APC Start-Up Service with next business day on-site repair. Quick Start will get your APC Power Array up and running as well as provide you with an extension on the installed products standard warranty by 1 or 3 years, with all years protected by next business day on-site repair service. All parts, batteries (internal only), labor and travel expenses are included in this offering.

Maintenance Services

Recommended

Extended Warranty (Part No. WXTDX1-* or WXTDX3-*)

The Extended Warranty Service extends the standard warranty of your APC Power Array by 1 or 3 years for a total coverage period of 3 to 5 years. The warranty also provides for Next Business Day delivery at no charge should your unit fail. APC will pay for shipment of the Power Array System to and from the customer's site under this program. The Extended Warranty can be purchased anytime while the Power Array is still within its original warranty period.

Remote Monitoring Service (Part No. WRMS)

APC's Remote Monitoring Service allows systems managers to rest easy under the watchful eye of APC. APC offers an out-sourced remote monitoring solution to deliver valuable UPS and site information to network and facility managers. Each installation combines the "Legendary Reliability" of APC power protection systems with the expertise of APC power professionals.

24x7 Telephone Technical Support (Part No. WUPB)

Provides 24x7 telephone technical support outside of standard regular business hour coverage (9am - 5pm, Monday - Friday).

Optional

On-site Support Service (Part No. WSVNDX1-* or WSVNDX3-*)

The On-Site Support Service extends the standard warranty of your Power Array System by 1 or 3 years for a total coverage period of 3 to 5 years. The On-site Support Service also provides for Next Business Day on-site repair service should your unit fail. The On-Site Support Service can be purchased anytime while the Power Array is still in its original warranty period.



* Each service program is priced based on the Symmetra Power Array model to be protected. The unit's "T level" will determine the price of the individual service offering. Please refer to model specifications table to determine your Power Arrays "T level". The "T level" is also used to complete the part number when ordering.

"T level" Recap:

- T5: SYXR4-BM, SYXR2B4, SYXR4B4, SYXR12-BM, SYXR4B12, SYXR8B12, SYXR12B12, SYRMXR4, SYRMXR2B4, SYRMXR4B4
- T6: SY4KEX, SY4KEX-PD, SY8K, SY8K-PD, SYH2K6RMT, SYH2K6RMT-P1, SYH4K6RMT, SYH4K6RMT-P1, SYH6K6RMT, SYH6K6RMT-P1
- T7: SY8KEX, SY8KEX-PD, SY12KEX, SY12KEX-PD, SY16KEX, SY16KEX-PD, SYP8K12RMT, SYP8K12RMT-P1, SYP12K12RMT, SYP12K12RMT-P1, SYP12K12RMT-P2, SYXR4I-BM, SYXR12I-BM, SYXR12I-BMBX120, SYRMXR4I
- T8: SY4KEXI, SY4KEXJ, SY8KI, SY8KJ, SYH2K6RMI, SYH4K6RMI, SYH6K6RMI, SYXR2B4I, SYXR4B4I, SYXR4B12I, SYXR8B12I, SYRMXR2B4I, SYRMXR4B4I
- T9: SY8KEXI, SY8KEXIBX120, SY8KEX3I, SY8KEXJ, SY12KEXI, SY12KEXIBX120, SY12KEX3I, SY12KEXJ, SY16KI, SY16KIBX120, SY16K3I, SY16KJ, SYP8K12RMI, SYP12K12RMI, SYXR12B12I

Please note: Not all service offerings are available in all locations; please contact your local APC representative for program availability and pricing.

APC Delivers for Arthur Andersen

As a result of continuous growth, Arthur Andersen's attempts to match existing UPS systems with multiple computers added complexity to systems operations. To deal with the issue, Arthur Andersen decided to bring in a nationwide power quality consultant with expertise with multiple UPS manufacturers and was called upon to recommend a high quality solution. After an extensive review, the firm recommended that Arthur Andersen invest in three 16 kVA APC Symmetra Power Arrays. By consolidating all protection into larger facility-sized systems, Arthur Andersen still maintained the flexibility and control they needed with actually less total UPS capacity than with a fragmented approach. The APC Symmetra systems offered a solution which provided parallel redundancy, room for future growth, and the four hour runtime required by Arthur Andersen.

"Our network consists of over 30 Compaq servers and a backbone of Cisco routers and hubs," said Bill Cope, Network Analyst "Our servers (protected by Symmetra) are essential to our tax, audit and business consulting practices. When the tax practice is without computers, \$35,000 per hour in revenue and production is lost. And that number does not even include the other groups within Arthur Andersen that need computers to serve their clients. Our servers are crucial to the success of our business. We are a 24-hour-a-day, seven-day-a-week operation. We need APC Symmetra to help us keep our platform stable." Regarding payback, Cope asserts "if we experience an outage of three hours or more, then the (Symmetra) equipment will pay for itself in one event."



"The Houston office of Arthur Andersen has now established an internal best practice for UPS systems with the implementation of APC's Symmetra,"
Steve Blanding, Director of Technology,
Arthur Andersen, Houston, Texas

APC Symmetra Awards



Internet Telephony

Communications Solutions

Secure Computing Magazine (Europe)

Comdex (Japan)

Ø1 Reseaux (France)

Information Management (UK)

Secure Computing Magazine (UK)

Information Week

Byte Magazine

VAR Business

Product of the Year (2000)

Product of the Year (2000)

Best Buy (1999)

Best of Comdex (1999)

Editor's Choice (1999)

Best New Information Security Product (1999)

Best Buy-Editor's Choice (1998)

What's Hot (1997)

5-Star Rating (Outstanding) 1997

Editor's Choice (1997)

APC's quality system is certified by ISO 9002 standards



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