

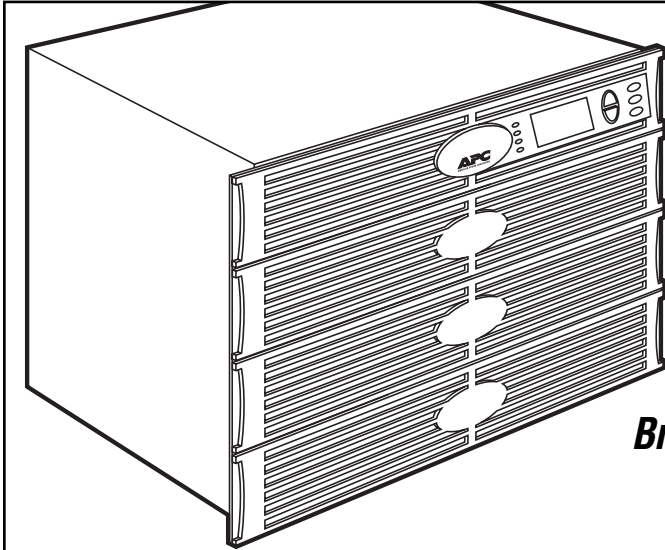


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BLACK BOX[®]

NETWORK SERVICES

SYMMETRA RM



*Bringing all the time-tested advantages
of Symmetra to your rack.*

Key Features

- ▶ **The first rackmount enterprise-level power protector with redundancy!**
- ▶ **Flexible range of capacity and runtimes.**
- ▶ **Integrated Web/SNMP management features.**
- ▶ **Easy-to-manage, menu-based diagnostics.**
- ▶ **Occupies 8 or 10U of rack space.**
- ▶ **Built-in automatic and manual bypass feature.**
- ▶ **NEMA L6-30 plug makes installation easy in 208-VAC environments.**

With more servers, storage products, and other mission-critical networking equipment becoming rack-based, there's a growing need for innovative rack-mounted power protectors. The Symmetra RM provides 2-, 4-, or 6-kVA power increments that provide N+1 redundancy in just 8 or 10U of rack space.

Like the Symmetra, the Symmetra RM lets multiple power modules share the power array's connected load. All modules run in parallel and share the load evenly. If a module fails or is removed, there's nothing to worry about: The Symmetra has one more module than is necessary for full-load operation. So you're still functioning at full power.

This load-sharing is what's known as N+1 redundancy. It ensures maximum uptime and continuous availability. The

Symmetra RM is the first rackmount enterprise-level power protector to offer redundancy.

And you won't experience any downtime when you upgrade your Symmetra RM: hot-swappable components keep your network up and running.

To set up your Symmetra system, choose the Symmetra model that you need based on your current VA load and future expansion needs. All Symmetra RM units are available with 208-VAC output. Three units also feature a stepdown transformer that converts 208-VAC output into 120-VAC output. This conversion enables you to power the data center or rack enclosure from a single high-powered circuit while providing UPS-protected 120 VAC to each piece of equipment. Add an additional power module for N+1 redundancy. Choose

additional battery modules for longer run times if needed; these hot-swappable modules fit into *any* vacant slot in the Symmetra RM.

To expand your power capacity, add more power modules in increments of 2 kVA, up to a maximum of 6 kVA per Symmetra RM unit.

If there's an extended power outage, included PowerChute Network Shutdown software helps you save data and shut down multiple servers over the network. In addition, units with up to 6 kVA are optimized for eight minutes, allowing you to perform orderly shutdowns.

And with Symmetra's menu-based remote display, power and UPS information is always available at the touch of a button. You can monitor parameters such

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Specifications

Output

Capacity:

SYH2K6RMT: 2 kVA/1.4 kW;
 SYH4K6RMT: 4 kVA/2.8 kW;
 SYH6K6RMT: 6 kVA/4.2 kW;
 SYH2K6RMT-P1: 2 kVA/1.4 kW;
 SYH4K6RMT-P1: 4 kVA/2.8 kW;
 SYH6K6RMT-P1: 6 kVA/4.2 kW

Voltage: SYH2K6RMT, SYH4K6RMT, SYH6K6RMT: 208 VAC (240-VAC configurable); SYH2K6RMT-P1, SYH4K6RMT-P1, SYH6K6RMT-P1: 208 VAC↔120 VAC (240-VAC configurable)

Max. Configurable Power with Additional Power Modules:

SYH2K6RMT, SYH4K6RMT, SYH6K6RMT: 6 kVA/4.2 kW;
 SYH2K6RMT-P1, SYH4K6RMT-P1, SYH6K6RMT-P1: 6 kVA/4.2 kW (max. 5 kVA of 120 VAC)

Connections (Always check with local electrical requirement and regulations): SYH2K6RMT, SYH4K6RMT, SYH6K6RMT: (2) NEMA L6-20R, (1) NEMA L6-30R; SYH2K6RMT-P1, SYH4K6RMT-P1, SYH6K6RMT-P1: (2) NEMA L6-20R, (12) NEMA 5-15R

Efficiency at Full Load:

SYH2K6RMT, SYH4K6RMT, SYH6K6RMT: 91%; SYH2K6RMT-P1, SYH4K6RMT-P1, SYH6K6RMT-P1: 86%

Bypass: Internal bypass (automatic and manual)

Voltage Distortion: <5% at full load

Frequency (Sync): 57–63 Hz

Frequency (Not Sync): 60 Hz

Crest Factor: Up to 5:1

Input

Nominal Voltage: 208 or 240 VAC

Frequency: 50/60 Hz ±5 Hz (autosensing); SYH2K6RMT-P1: 60 Hz ±3 Hz

Connection (Always check with local electrical requirements and regulations): (1) NEMA L6-30P

Voltage Range: 155–276 V

Power Factor: 0.98

Cord Length: 6 feet (1.8 m)

Batteries

Battery Type: Maintenance-free, sealed lead-acid battery with suspended electrolyte; leakproof

Typical Recharge Time (Recharge time to 90 after full discharge): 4 hours

Replacement Battery Module: SYH2K6RMT, SYH2K6RMT-P1: (1) SYBT2; SYH4K6RMT, SYH4K6RMT-P1: (2) SYBT2; SYH6K6RMT, SYH6K6RMT-P1: (3) SYBT2

Communications/Management

Interface Port: (1) DB9 RS-232, (1) RJ-45 10BASE-T Ethernet for Web, (2) SmartSlot™

Control Panel: Multi-function LCD status and control console

Management Software: PowerChute® Network Shutdown, Web/SNMP Management Card included with each unit

Audible Alarm: Distinctive low-battery alarm

Emergency Power Off (EPO): Yes

Conformance

Approvals: FCC, CSA, UL® 1778

Warranty: 2 years

Environmental

Operating Temperature: 32 to 104°F (0 to 40°C)

Operating Relative Humidity: Up to 95%

Operating Elevation: Up to 10,000 feet (3048 m)

Storage Temperature: 5 to 113°F (-15 to +45°C)

Storage Relative Humidity: Up to 95%

Storage Elevation: Up to 50,000 feet (15,240 m)

Audible Noise at 3 ft. (0.9 m): 60 dBA

On-Line Thermal Dissipation: SYH2K6RMT: 430 BTU/hr.; SYH4K6RMT: 860 BTU/hr.; SYH6K6RMT: 1290 BTU/hr.; SYH2K6RMT-P1: 590 BTU/hr.; SYH4K6RMT-P1: 1542 BTU/hr.; SYH6K6RMT-P1: 2143 BTU/hr.

Physical

Size: SYH2K6RMT, SYH4K6RMT, SYH6K6RMT: 14"H (8U) x 19"W x 28.75"D (35.6 x 48.3 x 73 cm); SYH2K6RMT-P1, SYH4K6RMT-P1, SYH6K6RMT-P1: 17.5"H (10U) x 19"W x 28.75"D (44.5 x 48.3 x 73 cm)

Weight: SYH2K6RMT: 164 lb. (74.4 kg); SYH4K6RMT: 229 lb. (103.9 kg); SYH6K6RMT: 294 lb. (133.4 kg); SYH2K6RMT-P1: 259 lb. (117.5 kg); SYH4K6RMT-P1: 324 lb. (147 kg); SYH6K6RMT-P1: 389 lb. (176.5 kg)

Shipping Weight: SYH2K6RMT: 185 lb. (83.9 kg); SYH4K6RMT: 256 lb. (116.1 kg); SYH6K6RMT: 327 lb. (148.3 kg); SYH2K6RMT-P1: 295 lb. (133.8 kg); SYH4K6RMT-P1: 366 lb. (166 kg); SYH6K6RMT-P1: 437 lb. (198.2 kg)

What the package includes

- (1) Symmetra RM
- Rackmounting brackets
- Rackmounting support rails
- CD with software
- Users' manual

Ordering Information

ITEM	CODE
Symmetra RM	
208-VAC Output	
2 kVA (Expandable to 6 kVA)	SYH2K6RMT
4 kVA (Expandable to 6 kVA)	SYH4K6RMT
6 kVA	SYH6K6RMT
208-VAC Output with 120-Volt Transformer	
2 kVA (Expandable to 6 kVA)	SYH2K6RMT-P1
4 kVA (Expandable to 6 kVA)	SYH4K6RMT-P1
6 kVA	SYH6K6RMT-P1
<i>Add optional Power Modules for N+1 redundancy...</i>	
2-kVA Power Module	SYPM2KU
<i>Choose single Battery Modules for longer run times (if needed)...</i>	
Battery Module	SYBT2

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as input voltage, temperature, level of redundancy, and humidity.

The power-factor correction feature also eliminates power-line harmonics and neutral overloads that can cause building wiring to overheat. Symmetra RM also

performs self-diagnosis. In the event of an internal failure, the unit sends you an alert via network, SNMP, or Web-based commands. Because of Symmetra RM's redundancy, the system remains up, running, and protected during repairs.

