

Scalable from 400 kW to 1600 kW Parallel capable up to 6.4 MW



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# Features and benefits

#### Think big, think scalable — The world's largest modular UPS

Symmetra™ MW redefines high-power UPS technology as a modular, fault-tolerant UPS in the 400 – 1600 kW range. As the only UPS capable of scaling up to 1.6 MW in a single module and paralleling UPS units to provide up to 6.4 MW of power, Symmetra MW is ideal for large data centers or complete buildings. Symmetra MW is also ideally suited for healthcare and other critical facility protection requirements with rigorous and changing electrical demands. Setting a new standard for low cost of ownership, Symmetra MW delivers best-in-class efficiency and a reduction in rating of electrical infrastructure — wires, transformers, and even generators.

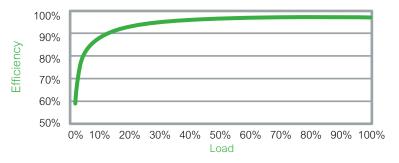
The Symmetra MW's modularity increases availability through internal N+1 configurability and multimodule paralleling features. The fault-tolerant design and predictive failure notification provide further reliability. Slide-in/out power modules, manageable external batteries, and self-diagnosing features greatly reduce mean time to repair. Symmetra MW provides a customizable system in a standardized design for any large, on-demand, and network-critical physical infrastructure.

### Ultrahigh efficiency for medium to large data centers, buildings, and facilities

At the national average rate of \$0.10/watt, a 1600 kW Symmetra MW can save \$46,800/year compared to a 1600 kW UPS with 94% efficiency.\*

Using power at 97% efficiency in full protection mode reduces the power cost per watt delivered to critical equipment by preventing electrical losses. Ultrahigh efficiency means less heat rejection, lower cooling costs, and reduced overall total cost of ownership:

- 97% efficient at > 85% load (850 kW load on 1 MW)
- 96% efficient at > 50% load (500 kW load on 1 MW)
- 94% efficient at > 25% load (250 kW load on 1 MW)



Curve fit to measured efficiency data. All measurements taken in normal operating mode at typical environmental conditions with nominal electrical input and balanced resistive load (PF = 1.0) output.

#### Accessories

#### **UPSync**

Synchronize multiple independent modules or parallel systems automatically when supplying downstream static transfer switches.

#### Mega-Tie

Mega-Tie can be used in 2N UPS configurations to seamlessly transfer the load from one output bus to another, allowing for maintenance on the isolated system without the need to transfer to bypass.

#### Standard battery cabinets

- Valve-regulated lead acid batteries improve energy density and reduce footprint
- · Flexible ordering options
- Epoxy powder coated to match the Symmetra MW UPS
- Welded steel enclosure meets

  IBC seismic rating



#### **EPO**

Provides a single point of emergency equipment shutdown for up to eight APC™ by Schneider Electric InfraStruxure™ devices and one third-party device.



#### **Kits**

Air filter



TCP/IP modbus gateway



Relay I/O board



Seismic kit



Highly efficient, modular, fault-tolerant power protection for large facilities, data centers, and mission-critical applications

- Ultrahigh efficiency (97%) in full protection mode
- Up to 97% efficient in 2N configurations with Efficiency Booster Mode (EBM)
- Integrated parallel up to 1 MW
- Low total cost of ownership
- Fault-tolerant, robust platform design
- Parallel capable for capacity or redundancy
- Scalable power protection pay as you grow
- Inherent redundancy through modular design
- Universal battery support
- Unity input power factor corrected
- Protects a broad range of load types
- Network manageable

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### **Features**

#### Ultrahigh efficiency in full protection mode

With over 97% efficiency at full load, 96% efficiency at 50% load, and over 94% efficiency at 25% load, Symmetra MW delivers significant electrical cost savings without putting the load at risk.

#### Unity input power factor corrected

Lowers infrastructure and generator costs.

#### Modular design

Available power can be scaled to optimize loading or to allow expansion as needed — buy for the future and populate the UPS for the current load.

- Modular design allows N+1 redundancy in the single-module unit
- Paralleling capability allows N+1 redundancy at the system level

#### 200 kW power modules

Modular, scalable power makes it easy to pay as you grow; standardized modules simplify repair and replacement strategy — one service engineer can easily add or replace modules using the provided service crane.

#### Fault tolerant design

Built-in redundancies prevent individual component failures from affecting the load; standardized power modules deliver robust performance, easy maintenance, and rapid repairs without jeopardizing the critical load.



#### Robust platform

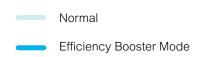
- Online topology constantly provides conditioned power
- · High overload capability
- High fault-clearing capability

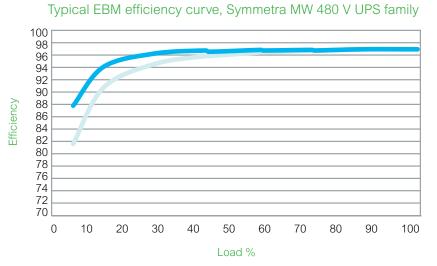
#### 10-inch LCD touch screen

Provides a complete system overview with audible and visible alarms; graphs and text descriptions display system status, power flow, and metering information.

### Efficiency Booster Mode

EBM improves system efficiency at low load levels by placing some of the power modules into hot standby mode. When the load increases, the UPS automatically engages the standby modules to supply power to the increased load. For UPSs with 25% load, EBM improves efficiency by 2%, making it ideal for 2N configurations.





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## Technical specifications

480 V Symmetra MW										
(kW/kVA)	400	600	800	1000	800	1000	1200	1400	1600	
Input										
	Integrated parallel				Centralized parallel					
Nominal input voltage		480 V								
Grid system	4-wire (3P + GND)									
Voltage range	+/-15%									
Frequency	60 Hz									
Frequency range	+/-8%									
Power factor (PF)	1									
THDi (full load)	<5% at full load									
Nominal input current	496	744	992	1240	992	1240	1488	1736	1984	
Maximum input current	546	818	1091	1364	1091	1364	1637	1910	2182	
Output										
	Integrated	Integrated bypass				External bypass				
Power rating	400 kVA	600 kVA	800 kVA	1000 kVA	800 kVA	1000 kVA	1200 kVA	1400 kVA	1600 kVA	
Voltage (nominal)		480 V								
Nominal output current	481	722	962	1203	962	1203	1444	1684	1925	
Frequency	60 Hz									
Overload (normal and battery operation)	200% for 60 seconds (normal operation) 125% for 10 minutes (normal operation) On battery: 150% for 30 seconds (battery operation)									
V thd	3% max at linear load									
Efficiency										
AC-AC at nominal mains	97% at 100% load; 96% at 50% load; 94% at 25% load									
Environmental										
Storage temperature	-50 – 40 °C (-58 – 104 °F)									
Operating temperature*	0 – 40 °C (32 – 104 °F)									
Operating relative humidity	0 – 95% noncondensing									
Operating altitude	0 – 1000 m (0 – 3280 ft) at full load									
Regulatory compliance										
Approvals	UL 1778, ISO9001, ISO14001									
EMC/EMI/RFI	EN50091-2, IEC 62040-3									

<sup>\*</sup>For optimum battery life, the operating temperature range is 18 to 27  $^{\circ}\text{C}$  (64 to 80  $^{\circ}\text{F}).$ 

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