

# Symmetra® LX

High-performance redundant power protection with scalable power and runtime for IT and telecommunications equipment



Engineered to deliver the highest level of business continuity possible, the Symmetra® LX uses a modular, redundant architecture that can scale power and runtime as demand increases or when higher levels of availability are required. Advancements in this next generation design greatly decrease footprint or U-space needed in an equipment rack, increase speed and ease of deployment and reduce repair time. With built-in network manageability and a comprehensive portfolio available from 4-16 kVA N+1, the on-line Symmetra LX is the choice to protect high-performance IT and telecommunications equipment in computer rooms and small data centers.

**APC**<sup>®</sup>  
Legendary Reliability<sup>®</sup>

# Symmetra® LX Features and Benefits

## AVAILABILITY

**Modular design** Provides fast serviceability and reduced maintenance requirements via self-diagnosing, hot-swappable, and field-replaceable modules.

**Configurable for N+1 internal redundancy** Provides high availability through redundancy by allowing configuration with one more Power Module than is necessary to support the connected load.

**Redundant intelligence modules** Provide higher availability to the UPS connected loads by giving redundant communication paths to critical UPS functions.

**Hot-swappable batteries, power modules, and intelligence modules** Ensure clean, uninterrupted power to protected equipment during Intelligence Module replacement.

**Power modules connected in parallel** Enhance availability by allowing immediate, seamless recovery from isolated module failures.

**Battery modules connected in parallel** Deliver higher availability through redundant batteries.

**Automatic internal bypass** Supplies utility power to the connected loads in the event of a UPS overload condition or fault.

## ADAPTABILITY

**Scalable power capacity** Reduces UPS oversizing costs today by allowing quick upgrades later.

**Scalable runtime** Allows quick addition of more runtime when needed.

**Plug-and-Play external batteries** Ensure clean, uninterrupted power to the loads when adding extra runtime to the UPS.

**Rack/Tower convertible** Protects the initial investment in the UPS when migrating from tower to rack-mount environment.

**Field-replaceable power distribution panel** Ensures compatibility with equipment that has different plug types.

**Programmable frequency** Ensures compatibility with different input frequencies.



## MANAGEABILITY

**InfraStruXure Manager Compatible** Enables centralized management via APC's InfraStruXure Manager.



**Network manageable** Provides remote management of the UPS over the network.

**LCD display** Manage the UPS locally through a text-based display that allows quick diagnosis via stored alarm conditions and events.

**Manageable external batteries** Reduces preventative maintenance service needs by monitoring the health and status of the external batteries and their expected runtime.

**Intelligent battery management** Provides higher availability through intelligent precision-charging that maximizes battery performance, life, and reliability.

**SmartSlot** Customize UPS capabilities with management cards.

### Frame Electronics Module

Field-replaceable frame electronics including Automatic & Manual Bypass Switch

### PowerView LCD Display

Local user interface, easy to read and navigate through menus and functions

### Intelligence Modules

Redundant Intelligence Modules, hot-swappable for easy risk-free maintenance

### Robust Frame

Provides 'slots' for modules to connect to communication and DC back planes. Rack-mount and tower models are field-convertible.

### Power Module

Provides flexibility to scale power, adds N+1 capability and is hot-swappable for easy, risk-free maintenance. Provides split voltage in 208V modules.

### Battery Module

Scalable for more runtime, hot-swappable for easy, risk-free replacement, N+1 redundant

### Single Detachable Front Panel

Quick access to modules for easy maintenance



### Load on LED

When green, UPS is providing power to the load

### On Battery

When yellow, UPS is on battery

### Bypass LED

When yellow, power to the load is being supplied through bypass

### Fault LED

When red, a faulty condition exists

ESC Key  
Help Key  
Enter Key

### Navigation Keys

To scroll through menu items and access information

### 4 Line Alpha Numeric Display

Clear display of alarms, status data, instructional help and configuration items

## SERVICEABILITY

**Predictive failure notification** Provides early-warning fault analysis, ensuring proactive component replacement.

**Automatic self-test** Ensures early detection of potential problems through periodic testing of UPS components.

**Audible alarms** Provides notification of changing utility power and UPS conditions.

**Shippable with modules installed** Enables pre-installation UPS staging, testing and faster installation.

**User-replaceable intelligence modules** Enable simple upgrades and replacements of the intelligence modules.

**User-replaceable power modules** Enable simple upgrades and replacements of the power modules.

**User-replaceable batteries** Enable simple upgrades and replacement of the Batteries.

**Disconnected battery notification** Warns when a battery is not available to provide backup power.

**Removable input/output wiring tray** Allows quick and easy installation and maintenance of the UPS.

## PROTECTION

**Power conditioning** Protects connected loads from surges, spikes, lightning, and other power disturbances.

**Frequency and voltage regulation** Preserves battery life and maximizes runtime by correcting poor frequency and voltage conditions without discharging the battery.

**Input power factor correction** Minimizes installation costs by enabling the use of smaller generators and cabling.

**Generator compatible** Ensures clean, uninterrupted power to the loads in the event of an extended power outage.

**Cold-start capable** Provides temporary battery power when the utility power is out.

**Resettable circuit breakers** Enable quick recovery from UPS overload events.

**Safety-agency approved** Ensures product testing and approval to work safely with the connected loads and within the environment.

## OPTIONS

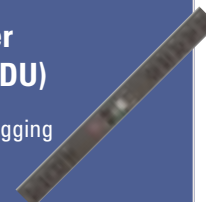
### External Battery Enclosures

Scalable, hot-installable design for long runtime needs in a small footprint; rack and tower models available



### Metered Rack Power Distribution Units (PDU)

Different versions allow plugging of any loads into Symmetra LX Rack-mount units



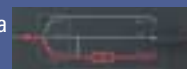
### NetShelter® Racks and Enclosures

Allow mounting of Symmetra LX rack models in enterprise wiring closets and computer rooms



### Service Bypass Panels

Compatible with Symmetra LX rack or tower, in wall-mount and rack-mount form factor

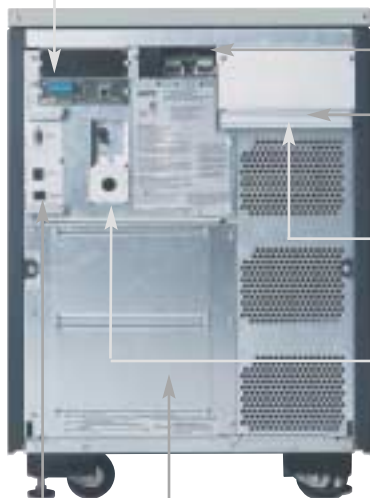


### APC InfraStruXure™ Manager

Monitor, configure and access APC power infrastructure from a single console



**UPS Network Management Card with Environmental Monitoring**  
Provides remote user interface, Manage via Web Browser, SNMP, and Telnet. Includes PowerChute® Network Shutdown software.



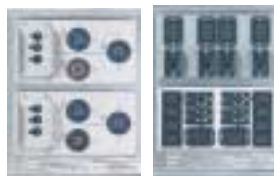
**Removable Input/Output Wiring Tray**  
Allows easy hard-wiring at install and fast maintenance

**1:1 & 3:1 option in single product (230V only)**  
Same product can be wired for either 3 or 1-phase input. (Rack/Tower 9 and 19 slot frames)

**Emergency Power off (EPO) contacts**  
Enable the remote shutdown of the UPS and connected equipment in the event of a fire or emergency

**Field-replaceable Power Distribution Panels**  
Enables quick in-field modification of output receptacles. Tower modules ship without receptacles; rack-mount models ship with receptacles appropriate for different voltage needs

**Extended Run Connector**  
Allows hot-install of Symmetra LX Extended Run Frames for quick, easy response to changing runtime needs



**Extended Run Communication Card**  
Allows Intelligence Modules to monitor the health of external batteries

### X-Certified for use with APC InfraStruXure™



Symmetra® LX units are X-certified, meaning they are tested and certified for use with InfraStruXure™ architecture. InfraStruXure is on-demand architecture for network-critical physical infrastructure, and

the industry's only integrated data center architecture robust enough to maintain highly available and manageable networks. InfraStruXure is the industry's only integrated architecture robust enough to effectively maintain highly available and manageable networks.

InfraStruXure  
DATA CENTERS ON DEMAND

Technical Specifications	8/12/16KVA 208V TOWER	4/8KVA 208V TOWER	8/12/16KVA 208V RM	4/8KVA 208V RM	8/12/16KVA 230V TOWER	4/8 KVA 230V TOWER	8/12/16KVA 230V RM	4/8KVA 230V RM
<b>OUTPUT</b>								
Capacity	3.2kW/4kVA per module				2.8kW/4kVA per Module			
Output Voltages	120/208				230			
Available Output voltage	120/240				220,240			
Efficiency at Full Load	90%							
Bypass	Internal Bypass (Automatic and Manual)							
Full Load Output Voltage Distortion	Less than 5% at full Load							
Output Frequency Sync to Mains	47-63 Hz							
Output Freq Not Sync	60Hz +/- 0.1% for 60Hz nominal				50Hz +/- 0.1% for 50Hz nominal			
Load Crest factor	up to 5:1							
Output Connections	Hardwire 4 Wire (2PH + N + G)	(4) L14-30R & (8) L5-20R & hardwire 4 wire (2ph +n +g)	(2) L14-30R & (4) L5-20R & hardwire 4 wire (2ph +n +g)	Hardwire 3-wire, (1PH+N+G)	8) IEC 320 C13 (10) IEC320 C19 & hardwire 3-wire (1ph + n + g)	(8) IEC 320 C13 (6) IEC320 C19 & hardwire 3-wire (1ph + n + g)		
<b>INPUT</b>								
Input Voltage	208,240				230 or 400 (3PH)			
Input Connection	Hardwire 4 Wire (2PH + N + G)				Hardwire (3-wire, 1PH+N+G) or (5-wire, 3PH + N+G)			
Input Frequency	45 – 65 Hz							
Input Voltage Range at Full Load with Batteries Charging	166-276				155-276/290-480			
Input Power Factor	max. .98 @ full load				max. .98 @ full load			
<b>BATTERY</b>								
Type	Maintenance-free sealed Lead-Acid battery with suspended electrolyte : leakproof							
Typical Recharge time	3 Hours <sup>1</sup>							
Estimated Runtime Half Load	17 Mins. (Extended Run Tower: 8KVA – 106, 12KVA – 67, 16KVA – 48)				20 Mins. (Extended Run Tower: 8KVA – 123, 12KVA – 77, 16KVA – 55)			
Estimated Runtime Full Load	6 Mins. (Extended Run Tower: 8KVA – 49, 12KVA – 30, 16KVA – 21)				7.5 Mins. (Extended Run Tower: 8KVA – 57, 12KVA – 35, 16KVA – 25)			
Extended Runtimes	All standard models accept up to seven (7) external battery enclosures [extended run tower models accept up to six (6)]. Refer to www.apc.com for specific runtime information.							
<b>COMMUNICATION</b>								
Control Panel	Multi-function LCD status and control console							
Audible Alarms	Alarm when on battery : distinctive low battery alarm : configurable delays and thresholds							
Included Software	PowerChute Network Shutdown; Web/SMNP Management Card installed							
Interface Port	DB-9 RS-232; RJ-45 10/100 Base T (Network Management Card); 2 SmartSlots							
EPO	Standard							
<b>PHYSICAL</b>								
# of Power Modules	8KVA-2; 12KVA-3	4KVA-1	8KVA-2; 12KVA-3	4KVA-1	8KVA-2; 12KVA-3	4KVA-1	8KVA-2; 12KVA-3	4KVA-1
Shipped with Unit	16kVA-4	8KVA -2	16kVA-4	8KVA -2	16kVA-4	8KVA -2	16kVA-4	8KVA -2
# of Empty Power Modules Slots	8KVA-3; 12KVA-2; 16kVA-1	4KVA-2	8KVA-3; 12KVA-2	4KVA-2	8KVA-3; 12KVA-2	4KVA-2	8KVA-3; 12KVA-2	4KVA-2
Net weight (lbs)**	677 <sup>4</sup>	444	631	392	308 <sup>4</sup> kg	202kg	287kg	178kg
Shipping Weight (lbs)**	743 <sup>4</sup>	505	265	215	338 <sup>4</sup> kg	230kg	749kg	477kg
Dimensions H x W x D	36.9 x 19 x 28.6 in <sup>5</sup>	26 x 19 x 28.6 in	33 x 18.6 x 27.1 in	22.5 x 18.6 x 27.1 in	93.73 x 48.26 x 72.64 cm <sup>6</sup>	66.04 x 48.26 x 72.64 cm	83.51 x 47.24 x 68.83 cm	57.15 x 47.24 x 68.83 cm
Shipping H x W x D	46.5 x 23.6 x 39.25 in <sup>7</sup>	36 x 23.6 x 39.25 in	41.5 x 23.6 x 39.25 in	31 x 23.6 x 39.25 in	118.11 x 59.94 x 99.7cm <sup>8</sup>	91.44 x 59.94 x 99.7 cm	105.41 x 59.94 x 99.7 cm	78.74 x 59.94 x 99.7 cm
U height	19U <sup>9</sup>	13	19	13	19U <sup>9</sup>	13U	19U	13U
<b>ENVIRONMENT</b>								
Audible	62 dB							
Thermal Output BTU/HR Normal Mode	4995	3,485	4,995	3,485	4995	2762	3707	2762
Operating Temp C and F	0 to 40°C							
Operating Relative humidity	0 to 95% non-condensing							
Operating Elevation	0 to 10000 feet							
Storage Temp	-15 to 45°C							
Storage Relative Humidity	0 to 95% non-condensing							
Storage Elevation	0 to 15000 feet							
<b>CONFORMANCE</b>								
Regulatory	UL 1778; CSA107.1,FCC Class A				VDE, CE, EN50091-2, C-tick, GOST			
Warranty	2 years							

<sup>1</sup> 75 hours for Extended Run Tower Unit

<sup>2</sup> (9) SYBT5 for Extended Run Tower Unit

<sup>3</sup> 1108Lbs [504kg] for Extended Run Tower Units

<sup>4</sup> 1178Lbs [536kg] for Extended Run Tower Units

<sup>5</sup> 59.7 x 19 x 28.6 in for Extended Run Tower Unit

<sup>6</sup> 151.64 x 48.26 x 72.64 for Extended Run Tower Units

<sup>7</sup> 74 x 23.6 x 39.25 in for Extended Run Tower Unit

<sup>8</sup> 187.96 x 59.94 x 99.7 cm for Extended Run Tower Unit

<sup>9</sup> 32 U for Extended Run Tower Unit

**APC Corporate**  
**APC North America**  
 132 Fairgrounds Road  
 West Kingston - RI 02892  
 Visit: www.apc.com  
 E-mail: apcinfo@apcc.com  
 Call: (+1) 401-789-0204  
 Fax: (+1) 401-789-3710

**APC Europe**  
**APC Ireland**  
 Ballybrit Business Park  
 Galway - Ireland  
 Call: +353 91 702000  
 Fax: +353 91 756909

**APC Asia Pacific**  
**APC Australia**  
 Level 13, The Denison  
 65 Berry Street  
 North Sydney - NSW 2060  
 Call: +61 2 8923 9373  
 Fax: +61 418 441 338

**Austria**  
 Tel: (+43) 081 00011 98  
**Balkans**  
 Tel: (+36) 1 487 6220  
**Benelux**  
 Tel: 0900 202 1177  
**Central Africa**  
 Tel: (+353) 91 702 287  
**Czech & Slovak Rep.**  
 Tel: (+420) 2 4144 2404  
**Denmark**  
 Tel: (+45) 70 27 01 58  
**East Africa**  
 Tel: (+353) 91 702 287

**Finland**  
 Tel: (+358) 2 2444 745  
**France**  
 Tel: 0805 110 053  
**Germany**  
 Tel: 0800 101 0067  
**Greece**  
 Tel: (+30) 210 80 99 695  
**Hungary & South-Eastern Europe**  
 Tel: (+36) 1 487 6220  
**Italy**  
 Tel: 800 905 821

**Middle East**  
 Tel: (+971) 4 3433 404  
**Moscow**  
 Tel: (+7) 095 929 9095  
**North Africa**  
 Tel: (+33) 1 41 90 5239  
**Norway**  
 Tel: (+47) 6675 8646  
**Novosibirsk**  
 Tel: (+7) 3832 320005  
**Poland**  
 Tel: (+48) 22 666 0011  
**Portugal**  
 Tel: (+351) 21 850 41 00

**South Africa**  
 Tel: (+27) 11 465 5414  
 Service: 0861 272 877  
**Spain**  
 Tel: 800 099 340  
**Sweden**  
 Tel: (+46) 8 564 826 00  
 (+46) 0200 89 52 83  
**Switzerland**  
 Tel: 0800 111 469  
**Turkey**  
 Tel: (+90) 216 362 0000  
 Service: 0800 261 21 35

**UK**  
 Tel: 087 0845 8520  
**Ukraine**  
 Tel: (+380) 44 295 5292  
**West Africa**  
 Tel: (+33) 1 41 90 5201

APC's manufacturing system is certified to ISO9001 & ISO14001 standards.



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