

# XTREME POWER CONVERSION M90

Modular Online UPS // 208/120VAC Three-Phase

For more information, visit [www.xpcc.com/m90](http://www.xpcc.com/m90)



## Mission Critical Availability while reducing costs with Scalable, Modular M90 for 20kVA, 40kVA, 60kVA applications

The M90 is a scalable modular online double conversion UPS that protects critical data and equipment from power problems while supplying clean and reliable network grade power.

M90 can be configured with a fully redundant power module and battery modules. Should one module fail, the remaining modules smoothly take over the load. Because the power modules are independent, they can be hot swapped without risk to the critical load.

As power requirements change, M90 modularity makes it easy to add modules and increase capacity.

### PRODUCT SNAPSHOT

- › Three capacities: 20kVA/18kW, 40kVA/36kW, 60kVA/54kW
- › Modular for capacity or redundancy
- › Hot swappable power modules
- › Up to 98% ECO mode or 94% online efficiency
- › Remote control and monitoring options
- › 2 year electronics, 2 year battery warranty (USA and Canada)

### FEATURES

**Scalable**—when power and runtime requirements change M90 modularity makes it easy to add modules and increase capacity

**Highest availability**—system can be configured with redundant power and battery modules

**Reduce energy cost**—best-in-class energy efficiency provides lowest energy consumption and heat output

**Dual or single utility input**—provides maximum installation flexibility

**Maintenance bypass**—manually transfer critical loads from UPS power to utility power, enabling M90 maintenance

**Large LCD display**—5.7" display provides graphic display including status and alarms

# MODEL SELECTION GUIDE

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MODEL NUMBER		M90-20	M90-40	M90-60
CAPACITY	Power rating	20kVA/18kW	40kVA/36kW	60kVA/54kW
	Enclosure capacity: power modules	Up to 60kVA (3 x 20kVA)		
	Enclosure capacity: battery modules	4, 8, or 12 internal battery modules		
INPUT	Voltage / frequency nominal	208/120V, 50/60Hz auto sensing		
	Voltage / frequency range	121–253VAC* (L-L), 40–70Hz		
OUTPUT	Voltage	208/120V		
	Frequency	50/60Hz ± 0.5Hz		
	THD (full load)	< 2%		
	Efficiency	Up to 98% ECO mode, 94% online mode		
	Overload capacity	105%-110% for 60min; 110%-125% for 10min; 126%-150% for 1min; >150% for 200ms		
BATTERY SYSTEM	Nominal voltage	± 120V		
	Temperature compensation	Yes with optional sensor		
	Maximum charging current	8A (adjustable)	16A (adjustable)	24A (adjustable)
DIMENSIONS & WEIGHT	Enclosure	20.3"W x 39.4"D x 54"H / 484 lbs		
	Power module	19.0"W x 28.0"D x 5.1"H / 74 lbs		
	Battery module	4.1"W x 28.3"D x 6.0"H / 68 lbs		
ENVIRONMENT	Temperature	0–40°C (32–104°F)**		
	Altitude	5,200 ft above sea level**		
	Audible noise	< 65dBA at 1m		
APPROVALS	UL-1778 (TUV), cUL, FCC A, RoHS, Energy Star Certified			
WARRANTY	2 years (USA and Canada)			
COMMUNICATIONS INTERFACE	RS-232, EPO, intelligent slot for optional cards (Web/SNMP, Relay, Modbus)			
INCLUDED IN BOX	User manual, RS-232 cable, Ramp for unloading UPS enclosure			
AVAILABLE OPTIONS	External maintenance bypass, 480V input transformer, output distribution, battery temperature sensor			

\*Depending on load level \*\*Battery life is reduced above 30°C, UPS capacity derates above 30°C and 5,200 ft above sea level

## BATTERY RUNTIMES

System Load (kVA)	5kVA	10kVA	15kVA	20kVA	25kVA	30kVA	35kVA	40kVA	45kVA	50kVA	55kVA	60kVA
4 battery modules	40	18	10	7	–	–	–	–	–	–	–	–
8 battery modules	84	40	25	18	13	10	8	7	–	–	–	–
12 battery modules	126	63	40	29	22	18	15	12	10	9	8	7

Runtimes are shown in minutes and will vary based on battery age and site conditions.

### LCD Display

5.7" display provides graphic display including status and alarms

### 20kVA/18kW Power Module

includes PFC rectifier, battery charger, inverter and control circuits

**Battery Module**  
removable battery pack trays



M90 front view (panel removed)

### Maintenance Bypass

full wrap around maintenance bypass with static switch interface

### STS & Control

includes control, power and communication circuits, static transfer switch and fuses

### Cable Entry

cable entry for M90 is on rear, side or bottom

### Cabinet Skirt

optional cabinet skirt covers wheels and leveling feet



M90 rear view

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