



Scalable, Modular, Flexible for Continuous Power Availability

Xtreme Power M90S UPS is a scalable, modular, flexible solution that combines continuous power availability and the highest efficiency for mission critical applications.

M90S provides unity power factor output (kVA = kW) providing maximum usable power and avoids any need to oversize the UPS. Maintenance bypass and output distribution within the UPS frame eliminate the need for external component connections, reducing installation costs.

Capacity, redundancy, battery runtime, and output receptacles can all be customized to meet your specific needs. Hot swappable power and battery modules provide rapid maintenance and repair.

For a 2 slot or 4 slot enclosure reference at
www.republicpowersystems.com/m90s2s or
www.republicpowersystems.com/m90s4s

PRODUCT SNAPSHOT

- › Four capacities: 6kVA/6kW, 12kVA/12kW, 18kVA/18kW, 24kVA/24kW
- › Modular for capacity or redundancy
- › Unity output power factor (kVA=kW)
- › Hot swappable power and battery modules
- › Up to 98% ECO mode or 93% online efficiency
- › 3 years electronics, 3 years battery warranty (USA and Canada)

FEATURES

Scalable—when power or runtime requirements change, modules can be added to increase capacity

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

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

Optional receptacle panels—fully configurable output receptacle panels

Power module LCD—each power module includes LCD display, providing module detailed information and redundancy

Maintenance bypass—manually transfer critical loads from UPS power to utility power, enabling M90S maintenance

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

MODEL SELECTION GUIDE

MODEL NUMBER		M90S-6S6K	M90S-6S12K	M90S-6S18K	M90S-6S24K
CAPACITY	Power Rating	6kVA/6kW	12kVA/12kW	18kVA/18kW	24kVA/24kW
INPUT	Voltage/Frequency Nominal	120/208V or 120/240V // 50/60Hz auto-sensing (2PH+N+G)			
	Voltage/Frequency Range	152-269VAC* (L-L) / 40-70Hz			
OUTPUT	Voltage & Frequency	120/208V or 120/240V & 50/60Hz \pm 0.1Hz; (2PH+N)			
	Efficiency / THD (full load)	Up to 98% ECO mode, 93% online mode / \leq 2% (Linear Load); \leq 3% (None-linear Load)			
	Overload Capacity	100% - 110% for 30 min; 110% - 130% for 5min; 130% - 150% for 10s; > 150% for 200ms			
BATTERY SYSTEM	Nominal Voltage	+/-96V			
	Max charging (adjustable)	4A	8A	12A	16A
MODULE DIMENSION & WEIGHT	Power Module	16.3"W x 24"D x 5.2"H / 38 lbs			
	Battery Module	16.3"W x 24"D x 5.2"H / 107 lbs			
SYSTEM ENCLOSURE	Dimensions & Weight	17.4"W x 33.7"D x 45.5"H (UPS & BC7) // UPS=180lbs / BC7=162lbs			
	Maximum Capacity	24kVA			
	Enclosure Capacity	6 slots including 4 universal slots + 2 battery only slots			
	Optional Battery Enclosure	7 slots for additional battery modules			
	Output Connections	Terminal blocks and/or up to 4 receptacle panels			
ENVIRONMENT	Temperature	0-40°C (32-104°F)**			
	Altitude	5,200 ft above sea level**			
	Audible noise	< 58dBA at 1m			
APPROVALS		UL-1778 (TUV), cUL, FCC A, RoHS			
WARRANTY		3 year electronics, 3 year battery (USA and Canada)			
COMMUNICATIONS INTERFACE		RS-232, USB, dry contacts, EPO, (2) intelligent slots for optional cards (Web/SNMP, Relay, Modbus)			
INCLUDED IN BOX		User manual, USB cable, RS-232, ViewPower software, anchor brackets			
AVAILABLE OPTIONS		L14-30P line cord (6kVA), receptacle panels (4 max), extended battery cabinet, 5 year extended warranty			

*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

Battery Modules	6S UPS					6S UPS + 1 BC7						6S UPS + 2 BC7			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
6kW	9	22	35	50	66	82	99	113	124*	133*	148*	163*	179*	194*	209*
12kW	2.5	9	15	22	28	35	43	50	58	66	74	82	90	99	106
18kW	-	5	9	13	17	22	26	31	35	40	45	50	55	61	66
24kW	-	2.5	6	9	12	15	19	22	25	28	32	35	39	43	46

Runtimes are shown in minutes and will vary based on battery age and site conditions. Maximum 8 battery modules per UPS power module.

*Additional power module required for battery recharge.

Receptacle Panels	
A	(8) 5-20R
B	(2) C19 + (4) 5-20R
C	L6-30R + (2) C19
D	L14-30R + (2) C19
E	(2) L6-20R + (4) 5-20R
F	L6-20R + L6-30R + (4) 5-20R
G	L6-30R + (2) L6-20R
H	(3) L6-30R

Maximum of 4 receptacle panels per enclosure

LCD Display

5.7" display provides graphic display including status and alarms

Maintenance Bypass

full wrap around maintenance bypass (located behind hinged LCD display)

6kVA/6kW Power Module

includes PFC rectifier, battery charger, inverter and control circuits

Battery Module

includes 16 pieces of 12V 580W batteries

AC Terminal Blocks & breakers

Receptacle Panels install up to 4

DC Terminal Blocks



M90S-6S front view

M90S-BC7 front view



M90S-6S rear view