

# XTREME POWER CONVERSION M90S Custom

Rack Mount Modular Online UPS // 240/120VAC or 208/120VAC Single-Phase

For more information, visit  
[www.xpcc.com/m90s-custom](http://www.xpcc.com/m90s-custom)



## Scalable, Modular, Flexible UPS for Split-Phase Applications up to 60kVA

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

M90S Custom provides reliable 240/120V or 208/120V (2Ph+N+G) split phase power up to 60kW. Applications include Containerized Data Centers, Edge Computing and Cell Tower applications which do not have access to three phase utility or generator power.

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

For standard 6 to 24kVA solutions, reference at [www.xpcc.com/m90s-2s](http://www.xpcc.com/m90s-2s)  
[www.xpcc.com/m90s-4s](http://www.xpcc.com/m90s-4s)  
[www.xpcc.com/m90s-6s](http://www.xpcc.com/m90s-6s)

### PRODUCT SNAPSHOT

- › Capacities: 24kVA, 30kVA, 36kVA, 42kVA, 48kVA, 54kVA, 60kVA
- › Modular for capacity or N+1 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

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

**Maintenance bypass**—manually transfer critical loads from UPS power to utility power, enabling M90S maintenance without interrupting the critical load

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

# MODEL SELECTION GUIDE

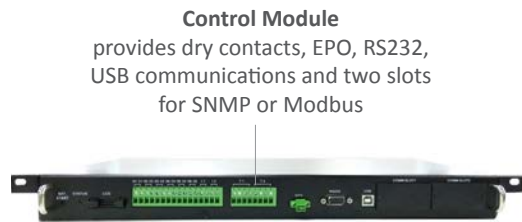
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MODEL NUMBER		M90S-24K	M90S-30K	M90S-36K	M90S-42K	M90S-48K	M90S-54K	M90S-60K
CAPACITY	Power Rating	24kVA/24kW	30kVA/30kW	36kVA/36kW	42kVA/42kW	48kVA/48kW	54kVA/54kW	60kVA/60kW
INPUT	Voltage/Frequency Nominal	120/208V or 120/240V // 50/60Hz auto-sensing (2PH+N+G)						
	Voltage/Frequency Range	152-269VAC (L-L) / 40-70Hz						
OUTPUT	Voltage & Frequency	120/208V or 120/240V & 50/60Hz ± 0.1Hz; (2PH+N)						
	Efficiency / THD (full load)	Up to 98% ECO mode, 93% online mode / ≤2% (Linear load); ≤3% (Non linear load)						
	Overload Capacity	100% - 110% for 30 min; 110% - 130% for 5min; 130% - 150% for 10s; > 150% for 200ms						
BATTERY SYSTEM	Nominal / Charge Voltage	+/-96V // +/- 109V						
	Max charging (adjustable)	16A	20A	24A	28A	32A	36A	40A
DIMENSIONS & WEIGHT	Power Module	16.3"W x 24"D x 5.2"H (3U) / 38 lbs						
	Battery Module	16.3"W x 24"D x 5.2"H (3U) / 107 lbs						
	Maintenance Bypass	17"W x 24"D x 5.25"H (3U) / 50 lbs						
	Control Module	16.3"W x 14"D x 1.7"H (1U) / 3 lbs						
MAINTENANCE BYPASS	Amp Rating	130A or 255A rating						
SYSTEM DIMENSIONS	UPS	12U	15U	18U	21U	24U	27U	30U
	Battery	3U per Battery Module						
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)						
AVAILABLE OPTIONS		Maintenance Bypass, Custom Output Distribution, Start-up, and Extended warranty						

## BATTERY RUNTIMES

Battery Modules	M90S Custom																															
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32		
24kVA	6	9	13	16	19	23	26	30	33	37	41	45	49	53	57	61	65	69	73	77	82	86	90	95	99	103	107	110	114	117		
30kVA	N/A	7	9	12	15	17	20	23	26	28	31	34	37	40	43	46	49	53	56	59	62	66	69	72	76	79	82	86	89	93		
36kVA	N/A	5	7	9	12	14	16	18	21	23	25	27	30	32	35	37	40	42	45	47	50	53	55	58	61	63	66	69	72	74		
42kVA	N/A	N/A	6	8	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	44	46	48	50	53	55	57	59	62		
48kVA	N/A	N/A	N/A	6	8	9	11	13	14	16	18	19	21	23	25	26	28	30	32	33	35	37	39	41	43	45	47	49	51	53		
54kVA	N/A	N/A	N/A	5	6	8	9	11	12	14	15	17	18	20	21	23	24	26	27	29	31	32	34	36	37	39	41	42	44	46		
60kVA	N/A	N/A	N/A	N/A	5	7	8	9	11	12	13	15	16	17	19	20	21	23	24	26	27	28	30	31	33	34	36	37	39	40		

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



M90S Control Module

**Control Module**  
provides dry contacts, EPO, RS232, USB communications and two slots for SNMP or Modbus

**1U Control Module (rear facing)**

**6kVA/6kW Power Module**  
includes PFC rectifier, battery charger, inverter and control circuits

**Battery Module**  
includes 16 pieces of 12V 580W batteries



M90S-42k 42kVA/42kW with 8 minute battery in 42U rack

**Maintenance Bypass**  
manually transfer critical loads from UPS power to utility power, enabling M90S maintenance without interrupting the critical load

**LCD Display**  
each power module includes LCD display, providing module detailed information and redundancy

**X-TREME**  
Power Conversion®

Protect your business.

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