

# XTREME POWER CONVERSION M90LU

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

For more information, visit [www.xpcc.com/m90lu](http://www.xpcc.com/m90lu)



## Mission critical availability requiring long battery runtimes

The M90LU is a scalable modular online double conversion UPS designed for critical loads requiring very long battery run-times.

M90LU can be configured with a fully redundant power modules. Should one module fail, the remaining modules smoothly take over the load. The power modules are independent and can be hot swapped without risk to the critical load.

For M90 with internal batteries reference [www.xpcc.com/m90](http://www.xpcc.com/m90)

### PRODUCT SNAPSHOT

- › Capacities: 15kVA/15kW, 20kVA/20kW, 30kVA/30kW, 40kVA/40kW, 45kVA/45kW, 60kVA /60kW
- › Hot swappable power modules
- › Up to 94% online mode or 98% ECO mode
- › UL-1778, cUL, FCC A, RoHS, TAA Compliant (select models)
- › 2 years UPS warranty (USA and Canada)

### FEATURES

**Unity output power factor**—M90LU systems provide more real capacity for high density loads

**Scalable**—when power requirements change M91L modularity makes it easy to add modules and increase capacity

**Highest availability**—system can be configured with redundant power 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 M90LU maintenance

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

**XTREME**  
Power Conversion®

Protect your business.

# MODEL SELECTION GUIDE

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MODEL NUMBER		M90LU-15	M90LU-30	M90LU-45	M90LU-20	M90LU-40	M90LU-60
CAPACITY	Power Rating	15kVA/15kW	30kVA/30kW	45kVA/45kW	20kVA/20kW	40kVA/40kW	60kVA/60kW
	Enclosure capacity: power modules	Up to 45kVA (3 x 15kVA)			Up to 60kVA (3 x 20kVA)		
INPUT	Voltage/frequency nominal	208Y/120V three-phase, 50/60Hz auto-sensing					
	Voltage/frequency range	121-253VAC* (L-L), 40-70Hz					
OUTPUT	Voltage / Frequency	208Y/120V three-phase, 50/60Hz ± 0.5Hz					
	THD (full load)	< 2%					
	Efficiency	Up to 94% online mode or 98% ECO mode					
	Overload capacity	105%-110% for 60min; 110%-125% for 10min; 126%-150% for 1min; >150% for 200ms					
DIMENSIONS & WEIGHT	Enclosure	20.3"W x 39.4"D x 30"H / 227 lbs					
	Power module	19.0"W x 28.0"D x 5.1"H / 74 lbs					
M90-BC BATTERY SYSTEM	Charge current (max)	8A	16A	24A	8A	16A	24A
	Dimensions & weight	23.6"W x 43.3"D x 79.1"H / 735 lbs + 85 lbs per module					
	Hot Swappable battery modules	Up to 8 strings with individual breakers (4 per string)					
ENVIRONMENT	Temperature	0-40°C (32-104°F)**					
	Altitude	5,200 ft above sea level**					
	Audible Noise	< 65dBA at 1m					
APPROVALS	UL-1778, cUL, FCC A, RoHS, TAA (select models)						
WARRANTY (UPS)	2 years UPS (USA and Canada)						
COMMUNICATIONS INTERFACE	RS-232, EPO, intelligent slot for optional cards (Web/SNMP, Modbus), optional relay card						
INCLUDED IN BOX	User manual, RS-232 cable, ramp for unloading UPS enclosure						
AVAILABLE OPTIONS	External maintenance bypass, 480V input transformer, output distribution, external battery pack, 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

## M90-BC BATTERY RUNTIMES

System Load (kW)	5	10	15	20	25	30	35	40	45	50	55	60
4 battery modules	40	16	10	5	-	-	-	-	-	-	-	-
8 battery modules	97	40	24	16	13	10	7	5	-	-	-	-
12 battery modules	154	67	40	28	21	16	14	12	10	8	7	5
16 battery modules	216	97	58	40	30	24	20	16	15	13	11	10
20 battery modules	283	126	77	53	40	32	26	22	19	16	15	13
24 battery modules	346	154	97	67	50	40	33	28	24	21	18	16
28 battery modules	410	185	118	82	61	49	40	34	29	25	22	20
32 battery modules	475	216	134	97	73	58	47	40	32	30	27	24

Runtimes are shown in minutes and will vary based on battery age and site conditions. For longer runtimes please contact [sales@xpcc.com](mailto:sales@xpcc.com)

**Maintenance Bypass**  
full wrap around maintenance bypass with static switch interface

**Cable Entry**  
cable entry for M90LU is on rear, side or bottom



M90LU rear view

**Up to 8 Battery Strings**  
Strings each protected with 100A breaker

**Battery Module**  
hot swappable module



M90LU (door removed)

M90-BC

**UPS Power Module**  
20kVA/20kW or 15kVA/15kW

**X-TREME**  
Power Conversion®

Protect your business.

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