

# XTREME POWER CONVERSION R90 20kVA/18kW

Online Rack UPS // 415/240VAC, 400/230VAC, 380/220VAC

For more information, visit [www.xpcc.com/r90](http://www.xpcc.com/r90)



## Reduce power consumption and increase end to end efficiency with this powerful three-phase rack UPS

Designed for high density critical loads, the R90 is a three-phase 20kVA/18kW UPS that delivers power protection in a small form factor to maximize rack space. Single module R90 can be configured for online or ECO mode operation.

### PRODUCT SNAPSHOT

- › High output power factor of 0.9
- › Parallel for capacity or redundancy
- › Voltage can be configured in 415/240V, 400/230V, or 380/220V
- › 50Hz or 60Hz operation
- › Online double conversion or ECO mode operation
- › 3 years (US), 2 years (EMEA) electronics warranty

### FEATURES

**Compact 3U UPS module**—the UPS module occupies just 3U of rack space

**Multiple communications capability**—RS232/RS485 and Web/SNMP

**Parallel operation**—up to ten R90 units can be paralleled for N+1 redundancy or capacity up to 200kVA/180kW

**High power density**—20kVA/18kW of protection and backup power in just 6U of rack space

**Scalable battery packs**—up to eight EBP32 battery packs can be paralleled for longer runtimes

**ECO mode**—98% efficiency in single module systems

**Advanced LCD display**—power metering for individual phases and system summary

**Multiple input/output voltages**—for configuration flexibility

**Smart charger**—programmable boost/float or both

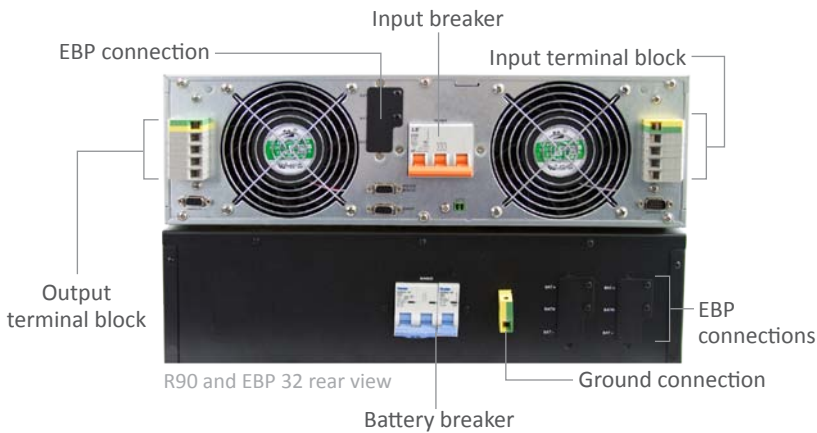
**XTREME**  
Power Conversion®

XTREME VALUE, XTREME PERFORMANCE, XTREME RELIABILITY

# MODEL SELECTION GUIDE

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MODEL NUMBER		R90-20kVA
INPUT	Phase	Three-phase, four wires and ground
	Input voltage	380/220VAC, 400/230VAC, 415/240VAC (208VAC to 478VAC range)
	Power factor	≥ 0.99
	Capacity	20kVA/18kW
	Input frequency	40Hz–70Hz
	Current harmonic	≤ 3% (100% non-linear load)
	Bypass transfer time	0ms
OUTPUT	Rated voltage	380/220VAC, 400/230VAC, 415/240VAC (selectable)
	Power factor	0.9 (0.7 leading–0.7 lagging load PF accepted)
	Overload protection	<110% for 60min; <125% for 10 min; <150% for 1 min; >150% immediate
	Voltage regulation	<2%
	Crest factor	3:1
EFFICIENCY		Online mode ≥ 92%; ECO mode ≥ 98%
BATTERY	Common battery voltage	± 192V, ± 204V, ± 216V, ± 228V, ± 240VDC
	EBP32 battery voltage	± 192VDC, (32) 12V 7.2AH
	Charge current	1A to 6A programmable
PHYSICAL	UPS dimensions (W x D x H)	443 x 580 x 131 mm (17.4 x 22.8 x 5.2 in)
	UPS weight	31kg (68.4lbs)
	EBP32 dimensions	438 x 698 x 133 mm (17.25 x 27.5 x 5.25 in)
	EBP32 weight	93kg (205lbs)
	LCD display	Input/output voltage, frequency; battery voltage, current; individual & summary for kVA/kW, alarm codes, internal temperature, input current, and only load kW
ENVIRONMENT	Operating temperature	32–104°F (0–40°C)
	Altitude	11,500ft above sea level
	Humidity	0–95% non-condensing
	Storage temperature	25–55°C non-condensing
APPROVALS		CE, EN/IEC 62040-2, EN/IEC 62040-1-1
WARRANTY		3 years electronics (US), 2 years electronics (EMEA)
COMMUNICATIONS INTERFACE		RS232, RS485, parallel port, external Web/SNMP (optional)
AVAILABLE OPTIONS		Input/output cord kits, Web/SNMP card, maintenance bypass, output distribution
INCLUDED IN BOX		Shelf kit, configuration, and local monitoring software



## BATTERY RUNTIMES for R90-20kVA

QTY of R90-EBP32	5kVA/4.5kW	10kVA/9kW	15kVA/13.5kW	20kVA/18kW
(1) R90-EBP32	18	6	2.5	<1
(2) R90-EBP32	47	18	11	6
(3) R90-EBP32	78	33	18	12
(4) R90-EBP32	110	47	30	18
(5) R90-EBP32	165	63	39	27
(6) R90-EBP32	205	80	50	33
(7) R90-EBP32	250	95	60	40
(8) R90-EBP32	290	110	70	46

Battery runtimes are shown in minutes and will vary based on battery age and site conditions. Two or more EBP32 battery packs are recommended for loads over 15kVA/13.5kW.



XTREME VALUE, XTREME PERFORMANCE, XTREME RELIABILITY

Xtreme Power Conversion designs, produces and delivers power quality and data center solutions while providing the best cost-to-performance ratio in the industry.

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