

XTREME POWER CONVERSION Ai90

Three-phase Online UPS // 480/277V, 480V 3-Wire, 400/230V

For more information, visit www.xpcc.com/Ai90



High Density Rack Integrated Power Protection

Ensure continuous operation of modern power intensive digital infrastructure with the Ai90 modular rack UPS platform. Delivering up to 70 kW within 13U of rack space, Ai90 achieves over 5 kW per U, enabling high power density in a rack-integrated UPS system.

The platform integrates power protection, battery energy storage, maintenance bypass, and output distribution within a unified rack architecture. This supports resilient deployment across high density compute, edge infrastructure, industrial systems, healthcare technology, and research environments where space efficiency and serviceability are critical.

For higher capacity 480V UPS, reference the X90-2s <https://xpcc.com/products/x90-2s/>

PRODUCT SNAPSHOT

- › Capacity: 50 kW, 60 kW, or 70 kW
- › Voltage: 480/277 V, 480 V (3-wire), 400/230 V
- › Form Factor: 13U rack-integrated UPS platform
- › Battery System: Modular internal batteries with hot-swappable modules
- › Runtime: Scalable with external battery cabinets
- › System Integration: Integrated maintenance bypass with output distribution
- › Efficiency: Up to 96.5% (online), 99% (ECO mode)
- › Warranty: 2-year system (USA & Canada)

FEATURES

High Power Density – Up to 70kW of protection, bypass, and backup power in a compact 13U rack space.

Touch LCD Display – Intuitive interface providing system status, measurements, and alarm visibility

High-Rate VRLA Battery – Designed for reliable high-power discharge performance

Battery System – Dual battery strings protected by a dedicated breaker for safe operation and serviceability

Unity Output Power Factor – Delivers full rated kW capacity for high-density load applications

Integrated Output Distribution – Built-in output breakers eliminate the need for external distribution panels

Integrated Maintenance Bypass – Enables manual load transfer to utility for simplified service operations

MODEL SELECTION GUIDE

For more information, visit www.xpcc.com/Ai90

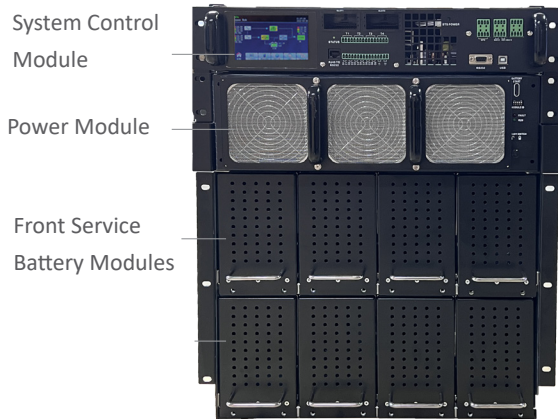
MODEL NUMBER		Ai90-50K4804W2	Ai90-70K4804W2	Ai90-50K4803W2	Ai90-70K4803W2	Ai90-50K4004W2	Ai90-60K4004W2
CAPACITY	Power rating	50kW	70kW	50kW	70kW	50kW	60kW
INPUT	Voltage	480/277V	480/277V	480V (3W)	480V (3W)	400/230V	400/230V
	Voltage Range (100% Load)	+15% / -20%					
	Nominal Frequency	50/60Hz					
OUTPUT	Voltage	480/277V	480/277V	480V (3W)	480V (3W)	400/230V	400/230V
	Frequency	50/60Hz					
	Overload	≤110% (1 hr), 111–125% (10 min), 126–150% (1 min), >150% (200 ms)					
	Efficiency AC-AC	Up to 96.5% online mode or up to 99% ECO mode					
OUTPUT DISTRIBUTION MODULES*	Module A	(4) 63A, 3-pole miniature circuit breakers					
	Module B	(2) 100A, 3-pole circuit breakers					
	Module C	(2) 125A, 3-pole circuit breakers					
SYSTEM PHYSICAL	Dimensions (W x D x H)	17.2 × 36.2 × 22.75 in / 438 × 920 × 578 mm (13U)					
	Module Weights	Power Module: 104 lb (47 kg); Control Module: 31 lb (14 kg); Battery Module: 73 lb (33 kg)					
	System Configuration	Two-section rack system (5U UPS + 8U battery), busbar connected					
BATTERY SYSTEM	Battery Type	High-rate VRLA battery modules					
	Internal Configuration	(8) modules, dual parallel strings with common breaker					
	Extended Battery	Ai90-EBC4 4U rack battery cabinet with integrated breaker; (4) battery modules					
	Charging Current	6 A default; up to 18 A maximum					
ENVIRONMENT	Operating temperature	0–40°C (32–104°F)					
	Altitude	2000 m (6500 ft)					
APPROVALS		UL, CE, RoHS, TAA Compliant					
WARRANTY		2-year warranty					

*One available per system. Outputs can be configured for hardwired connection or factory-installed pigtails for rack PDU integration. Connector options include NEMA and IEC 60309. Contact factory for details.

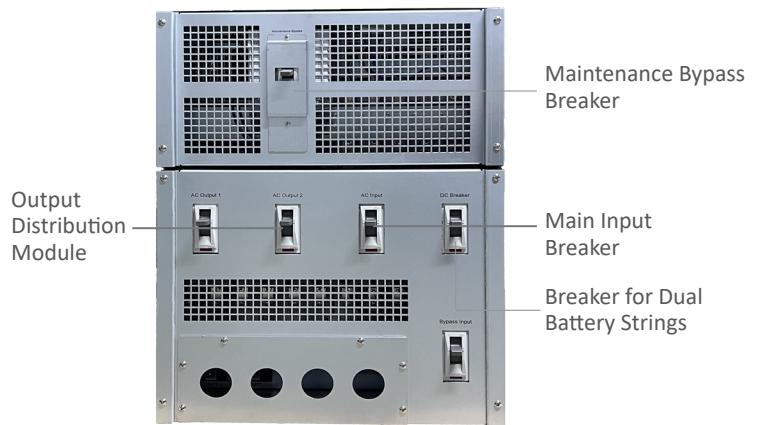
BATTERY RUNTIMES

Load (KW)	Internal (2 Strings)	Ai90-EBC4 External Battery Cabinets						
		+1	+2	+3	+4	+5	+6	+7
30	9	15	21	27	34	41	48	56
40	6	10	15	19	24	29	34	39
50	3.7	7	11	15	18	22	26	30
60	2.5	6	9	12	15	18	21	24
70	1.7	4	7	10	12	15	17	20

Runtimes are approximate and will vary based on battery age and site conditions



Front View: Ai90 UPS & Battery



Rear View: Ai90 UPS & Battery

X-TREME
Power Conversion®

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