

Catalog UPS RADIANT

2026



www.aecups.com

UPS Online | Series RADIANT

Three-phase 208V



Power capacity: 15-90 kVA

The **AEC RADIANT series UPS (15–90 kVA)** is a **modular** three-phase solution designed for maximum flexibility, efficiency and resilience. Built on a **scalable N+X architecture**, the system takes **hot-swappable 15 kW power modules in a compact 90 kVA frame** — ideal for growing power demands without system downtime.

Its modularity ensures redundancy and fault tolerance, reducing the risk of critical failures and simplifying maintenance. With high-efficiency online double conversion and **unity power factor (PF = 1)**, the RADIANT series delivers clean, reliable power while minimizing energy losses.

Description

The AEC RADIANT series UPS (15–90 kVA) is a **modular** three-phase system built for maximum flexibility and resilience on 208 V systems. Its **three-level IGBT inverter** delivers up to **94% AC-AC efficiency**, while a **unity output power factor (PF = 1)** turns every kVA into usable kilowatts.

A **powerful 40 A charger** recharges the battery string in under six hours, and flexible battery configurations let runtime be tailored to each site.

The scalable **N+X modular architecture** takes hot-swappable 15 kVA power modules in a compact 90 kVA frame and supports **N+1 and N+N redundancy**, so the system keeps running through a fault or a maintenance event. **Versatile input/output compatibility (3:1 or 3:3)** makes the RADIANT UPS adaptable to 120 V and 208 V environments. The 19U frame integrates the maintenance manual bypass and an openable display door, and a **7" programmable touchscreen** gives technicians full access to parameters, configuration and diagnostics. Communications are RS-232, USB, SNMP and dry contacts, with optional parallel kits for up to eight units.

Modular technology N+X;

Unity output power factor PF=1 **kVA=kW;**

Three level IGBT Technology;

Powerful standard charger 40 A settable;

7" touchscreen color display;

Input-Output 1:1 3:1 3:3 in 208/120V;

Ultra-high efficiency up to **94%;**

Hot-swappable power module 15 kVA;

Multiple communications RS-232+EPO+USB Standard;

Parallel up to 8 units.

Features



Modular N+X



High-Rate VRLA



7" Touchscreen



208V 3-Phase



3-Level IGBT



Unity PF kVA=kW



94% Efficiency



3-Year Warranty



24/7 Support

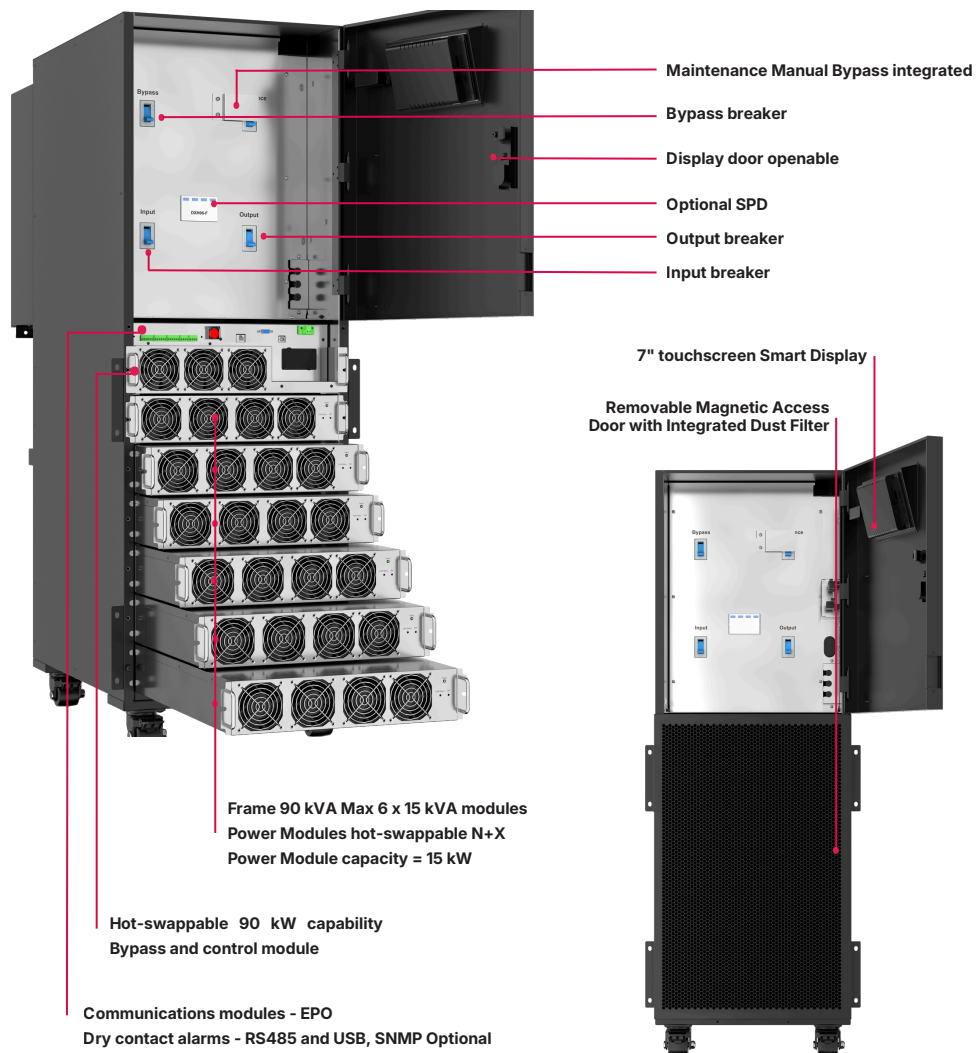
Scan the QR code to find out more information on RADIANT UPS!



Modular UPS technology, N+X

Modular UPS technology revolutionizes power protection by combining **scalability, flexibility and serviceability** in a single solution. Unlike a traditional monolithic system, a modular UPS is built from independent power modules that can be added, removed or replaced without shutting down the system. You install the capacity today's load needs and add modules as demand grows, and a failed module is isolated and swapped live, so maintenance no longer means downtime.

Details



RADIANT 15-90 kVA

Smart Display

Clear display — a 7" color touchscreen provides an easy and intuitive way to control the UPS.

Secure access — three access levels (user, technician, manufacturer) protect the system settings.

Full configuration — input, output, battery, communication, language and operating modes can all be adjusted directly from the screen.

Live monitoring — real-time data such as voltage, load, frequency and battery status, cell by cell, at a glance.

Event history — the UPS logs up to 10,000 events, downloadable through the built-in USB port.

Generator ready — advanced settings ensure stable operation and communication with diesel generators.

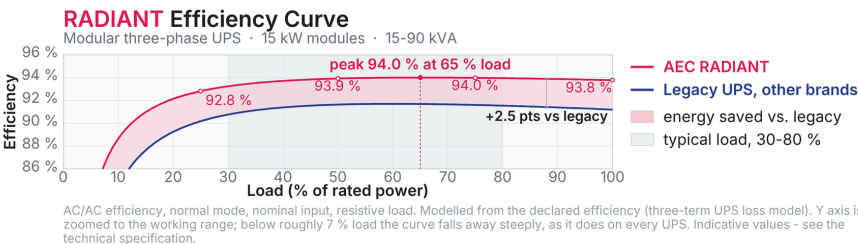
Custom alarms — dry-contact alarms are set and managed right from the touchscreen.

Self-cleaning — automatic fan cycles remove dust and keep the internal parts clean.

Waveform display — the system periodically records inverter, rectifier and control waveforms for diagnostics.



7" touchscreen



Three level IGBT technology

A 3-level IGBT inverter introduces an intermediate voltage state (0 V), giving three discrete levels: +Vdc, 0 V, and -Vdc. This small enhancement dramatically improves performance:

Cleaner waveform — the staircase-shaped output follows the sine wave more closely, reducing THD and interference.

Lower harmonic distortion (THD) — the 3-level IGBT reduces THD compared with the rough waveform of a 2-level inverter, improving power quality and reducing harmonic pollution.

Lower electromagnetic interference — smaller voltage steps mean less high-frequency noise radiated and conducted to nearby equipment.

Lower switching stress — smaller voltage transitions mean that each IGBT experiences less stress and lower switching losses, which allows the use of faster, lower-voltage devices.

Higher efficiency — with reduced losses, less heat dissipation and better waveform quality, efficiency rises to 94%, especially in the new, demanding critical power applications.

Standards and certifications



Scan the QR code to download the User Manual RADIANT 15-90 kVA!



RADIANT 15-90 kVA

Three-phase 208V

MODELS	RAD90-1X15 ... RAD90-6X15
Input	
Voltage (VAC)	200/208/220 VAC(L-L)
Frequency (Hz)	40-70 Hz
Input range (VAC)	166-261 VAC(L-L)@full load, 125-166 VAC(L-L) power derate from 100% to 75%
Power factor	≥0.99
THDi	≤3%
Phase	3W+N+G
Output	
Power Module (kW)	15 kVA (RAD-PWR-15)
Frame capacity (kW)	90 kVA (Max 6 Modules x 15 kVA)
Power factor	1
Voltage (VAC)	200/208/220 VAC(L-L)
Frequency (Hz)	50/60±0.1
THD	≤1% THD, linear load; ≤5% THD, non-linear load
Waveform	Pure sine wave
AC/AC Efficiency	94%
Overload	110% 1 hour · 125% 10 min · 150% 1 min · >150% 200ms
Battery	
Voltage (VDC)	±120 VDC (20 batteries) or ±132 VDC (22 batteries) settable by display
Standard battery set	±120 VDC
Max. current Charger (A)	40A settable
Other specifications	
Recharging time	< 6 Hours
Communications	Standard: RS-232, EPO contact and USB port · Optional: SNMP, Modbus, dry contact
Noise (dB)	<65 dB
Temperature (°F - °C)	32°F - 104°F · 0°C - 40°C
Humidity	<95%
Dimensions (W x D x H) in	19 x 27.5 x 33 in (19U) wheels not included
Dimensions (W x D x H) cm	48.2 x 70 x 83.8 cm (19U) wheels not included
Frame Weight (lb - kg)	207 lb - 94 kg (RAD90-FRAME)
Power module (lb - kg)	37 lb - 16.8 kg (RAD-PWR-15)
Certifications	
Standards	CE (IEC EN 62040-1; EMC IEC EN 62040-2; IEC EN 62040-3); UL 1778
Price-list codes and net weights: RAD90-1X15 15 kVA 244.5 lb · RAD90-2X15 30 kVA 282 lb · RAD90-3X15 45 kVA 319.5 lb · RAD90-4X15 60 kVA 357 lb · RAD90-5X15 75 kVA 394.5 lb · RAD90-6X15 90 kVA 432 lb; frame RAD90-FRAME (6 slots, 4 breakers); power module RAD-PWR-15.	

All information is for reference only, subject to change by AEC at any time, and does not constitute contractual obligations.



AEC USA

4872 SW 72 Ave, Miami,
FL 33155 USA
+1 (786) 553-2100

AEC Italy

Via Nerviano, 55 20045
Lainate (MI), Italy
+39 (02) 9415-8991

CONTACTS

www.aecups.com
sales@aecups.com