

Catalog UPS LUMINA

2026



www.aecups.com

UPS Online | Series LUMINA

Single-phase 120V



Power capacity: 1-3 kVA

LUMINA single-phase UPS are AEC's **online double-conversion** UPS series with **lithium LiFePO4 batteries**, in a 19" rack format with power ratings **from 1 kVA up to 3 kVA**. The LUMINA series adopts the most innovative 3-level IGBT technology, ensuring **efficiency up to 92%** and an **output power factor of 0.9**.

The UPS comes in these models:

1 kVA, 1.5 kVA, 2 kVA, 2.2 kVA and 3 kVA.

LUMINA UPS have a single-phase 110/120 V input and output configuration with auto-sensing 50/60 Hz frequency.

Typical applications are 19" racks in server rooms, network closets and telecom sites, where a slim 2U unit with long runtime, fast recharge and a 12-15 year battery is required.

Description

The AEC **LUMINA UPS (1 to 3 kVA)** is a sleek **2U rack-mount** unit that delivers exceptional backup performance thanks to state-of-the-art **LiFePO4 battery technology**. In this compact chassis every model sustains a **full-load runtime of 11 minutes**, while the 2.2 kVA variant extends that to 23 minutes at rated capacity, or an **impressive 46 minutes at 1 kW**, setting a new benchmark for high-density lithium-powered UPS.

The advanced battery chemistry not only gives much longer runtimes but also supports deep cycles and fast recharge: the battery is **fully recharged in about two hours**.

Standard communications are RS-232, USB and EPO; SNMP and dry-contact modules can be added for complete remote monitoring and control (the -NC versions include the SNMP card).

Ideal for IT closets, data centers and edge deployments, the LUMINA UPS combines longer runtime, rapid recovery and compact efficiency.

Rack 19" Online double conversion **3 Level IGBT Technology**;

Output power factor = 0.9;

Rotating Colored LCD Display via touch buttons;

Lithium LiFePO4 internal Batteries;

10X Runtime Lithium vs VRLA;

12-15 Years battery lifespan based on 3000 cycles;

Ultra-high efficiency up to **92%**;

Extreme working temperature range up to 140°F;

Multiple communications RS-232+EPO+USB Standard;

Lumina 2.2 kVA runtime 46 Minutes on 1 kW load;

Features



110/120 V



LFP Lithium



10x Runtime



12-15 Year Life



Up to 140°F



0.9 Power Factor



92% Efficiency



5-Year Warranty



Supercharge in 2h

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



Longest runtime with Lithium

UPS LUMINA backup runtime chart		
Load level	50%	100%
Lumina 1 kVA	27 Minutes	11 Minutes
Lumina 1.5/2 kVA	27 Minutes	11 Minutes
Lumina 2.2 kVA	46 Minutes	23 Minutes
Lumina 3 kVA	27 Minutes	11 Minutes

Details

LUMINA 1 kVA



- USB Port
- Output: 8 x NEMA 5-15R
- Input: 1 x C14 inlet
- EPO Emergency Power Off
- Communication slot for SNMP or Dry Contact

LUMINA 1.5 - 2 kVA - 2.2 kVA



- USB Port
- Output: 6 x NEMA 5-20R
- Input: 1 x C19 inlet + 5 ft cord
- EPO Emergency Power Off
- Communication slot for SNMP or Dry Contact

LUMINA 3 kVA



- USB Port
- Output: 4 x NEMA 5-20R + 1 x NEMA L5-30R
- Input: NEMA L5-30P plug, 5 ft cord
- EPO Emergency Power Off
- Communication slot for SNMP or Dry Contact

Lithium LiFePO4 technology

LiFePO4 (lithium iron phosphate) batteries offer unmatched safety and longevity. They resist thermal runaway, operate reliably across a wide temperature range, and last 3,000 to 5,000 cycles (12 to 15 years) with minimal loss of capacity. Non-toxic and cobalt-free, they deliver efficient, stable power, ideal for mission-critical UPS systems.

LiFePO4 batteries are lighter, longer-lasting, faster-charging and safer than VRLA, with higher energy density and lower maintenance:

10x longer runtime — lithium (LiFePO4) offers up to ten times the runtime of VRLA in the same physical size.

10x the discharge cycles — with over 3,000 discharge cycles, lithium batteries offer ten times the capability of VRLA.

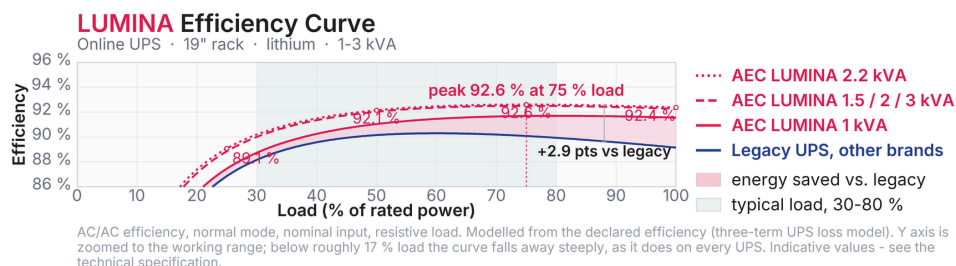
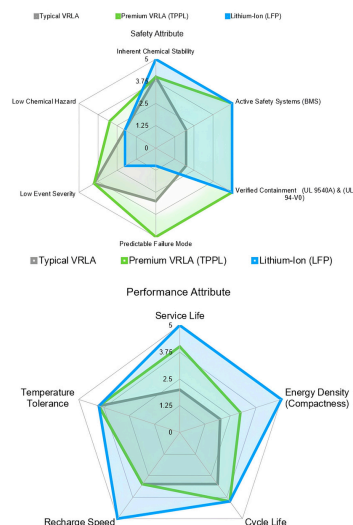
12-15 year lifespan — a UPS with lithium batteries lasts 12 to 15 years, compared with the typical 3 to 5 years of VRLA.

140°F working tolerance — it performs reliably across extreme temperatures, unlike VRLA, which needs a strictly controlled environment.

60% lighter — thanks to the higher energy density and lighter chemistry, a lithium UPS is much lighter, more portable and easier to handle.

Fully recharged in 2 hours — much faster than the 8 to 10 hours or more needed by VRLA.

Safer and more reliable — LiFePO4 is highly resistant to thermal runaway: even when overheated, short-circuited or physically damaged it will not explode or catch fire. LFP is far safer than other lithium chemistries.



Standards and certifications



Scan the QR code to download the User Manual LUMINA 1-3 kVA!



LUMINA 1-3 kVA

Single-phase 120V

MODELS	LUM1000RT-2U-LI	LUM1500RT-2U-LI	LUM2000RT-2U-LI	LUM2200RT-2U-LI	LUM3000RT-2U-LI
Input					
Voltage (VAC)	60-148 VAC				
Frequency (Hz)	40-70 Hz				
Input range (VAC)	100% load @ >90 VAC · 70% load @ >70 VAC · 40% load @ >50 VAC				
Power factor	≥0.99				
THDi	≤3%				
Inlet / cord	C14 inlet	C19 inlet	C19 inlet	C19 inlet	NEMA L5-30P cord
Output					
Power capacity (W)	900	1350	1800	1980	2700
Power factor	0.9				
Voltage (VAC)	100/110/115/120 VAC				
Frequency (Hz)	50/60 ±0.1				
THD	≤1% THD linear load · ≤5% THD non-linear load				
Waveform	Pure sine wave				
Overload	102-110%: 10 min · 111-130%: 1 min · 131-150%: 30 s				
Receptacles	8 x NEMA 5-15R	6 x NEMA 5-20R	6 x NEMA 5-20R	6 x NEMA 5-20R	4 x NEMA 5-20R + 1 x NEMA L5-30R
AC/AC Efficiency	91.70%	92.50%	92.50%	92.60%	92.50%
Battery LFP Lithium					
Voltage (VDC)	24 VDC	48 VDC	48 VDC	72 VDC	72 VDC
Standard internal battery LFP	10.6 Ah	10.6 Ah	10.6 Ah	13.6 Ah	10.6 Ah
Max. Charger (A)	Max 4 A				
Lifespan	12 - 15 years				
Other specifications					
Recharging time	0-100% within 2 hours				
Communications	Standard: RS-232, EPO contact and USB port · Optional: SNMP, Modbus, dry contact				
Noise (dB)	≤55 dB				
Temperature °F-°C	-4°F to 140°F (-20°C to 60°C)				
Humidity	<95%				
Dimensions (W x D x H) in	17.2 x 16.8 x 3.4 (2U)	17.2 x 22.6 x 3.4 (2U)	17.2 x 22.6 x 3.4 (2U)	17.2 x 24.4 x 3.4 (2U)	17.2 x 22.6 x 3.4 (2U)
Dimensions (W x D x H) cm	43.7 x 42.7 x 8.6 (2U)	43.7 x 57.4 x 8.6 (2U)	43.7 x 57.4 x 8.6 (2U)	43.7 x 62.0 x 8.6 (2U)	43.7 x 57.4 x 8.6 (2U)
Weight (lb - kg)	21.8 lb - 9.9 kg	32.4 lb - 14.7 kg	32.4 lb - 14.7 kg	44.5 lb - 20.2 kg	38.6 lb - 17.5 kg
Certifications					
Standards	UL 1778, ETL, CSA, UN38.3				
Price-list codes: LUM1000RT-2U-LI, LUM1500RT-2U-LI, LUM2000RT-2U-LI, LUM2200RT-2U-LI, LUM3000RT-2U-LI (rails included) · with SNMP card: LUM1000RT-2U-LI-NC, LUM1500RT-2U-LI-NC, LUM2000RT-2U-LI-NC, LUM2200RT-2U-LI-NC, LUM3000RT-2U-LI-NC.					

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



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