



PRODUCT CATALOG

- 3-PHASE IN / 1-PHASE OUT
- TRANSFORMERLESS DESIGN
- RACK / TOWER



ONLINE UPS · THREE-PHASE IN / SINGLE-PHASE OUT

ELS-31 SERIES

10 – 20 kVA ONLINE UPS

High-efficiency double-conversion UPS with three-phase input and single-phase output

10 – 20 kVA

Power range

0.9

Output power factor

> 97%

ECO-mode efficiency

GENERAL FEATURES

The ELSiPOWER ELS-31 series are 10–20 kVA true sine-wave double-conversion UPS units fed from a three-phase supply and delivering single-phase output. A transformerless high-efficiency design, DSP control and a wide input voltage range fully isolate the load from mains outages and fluctuations. With a chassis usable as rack or tower and smart battery management, it is ideal for server rooms, medical equipment and industrial control systems.

10 – 20 kVA
Power range

0.9
Output power factor

> 97%
ECO-mode efficiency

277 – 485 V
Input voltage range

KEY FEATURES

- True sine-wave double-conversion technology
- Input power factor correction (PFC)
- Output power factor = 0.9
- Input / output voltage selectable from the LCD
- Short-circuit and overload protection
- Smart battery management for long battery life
- DSP (digital signal processor) technology
- Wide input voltage range (277–485 V, three-phase)
- Transformerless high-efficiency design
- ECO mode for economical operation
- Cold start and energy saving
- Chassis convertible for rack or tower use

APPLICATIONS



Buildings



Server systems



Medical facilities



Industrial plants



Transportation systems



Emergency systems



CONTACT

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TECHNICAL SPECIFICATIONS

MODEL	ELS-3110	ELS-3120
GENERAL		
Power (kVA / kW)	10 kVA / 9 kW	20 kVA / 18 kW
INPUT		
Phase configuration	3P + N + PE	
Nominal voltage	380 / 400 / 415 VAC	
Voltage range	Min. 277 V at half load · min. 312 V at full load · max. 485 V	
Frequency	45–65 Hz	
Power factor	0.95	
OUTPUT		
Phase configuration / voltage	1P + N + PE · 220 / 230 / 240 VAC	
Power factor	0.9	
Nominal current (220 V)	45.5 A	91 A
Waveform	Pure sine wave	
Voltage harmonics (THD)	< 3% linear load; < 5% non-linear load	
Crest factor / frequency	3:1 · 50 / 60 Hz (adjustable)	
Overload	100%–120%: 10 min; 120%–150%: 1 min; > 150%: transfer to bypass	
Outlets	External socket box: 2 × Schuko, 4 × IEC C13 (optional)	
Efficiency (normal / ECO)	> 93% / > 97%	
BATTERY		
Type / internal battery	Maintenance-free sealed · 20 × 12 V 7 Ah / 9 Ah	
Recharge time	4–6 hours to 90%	
Cold start	Available	
DC voltage	240 VDC (20 × 12 V batteries)	192 VDC (16 pcs) / 240 VDC (20 pcs)
DISPLAY & PROTECTION		
LED + LCD display	Mains mode, battery mode, ECO mode, bypass, low battery, bad / disconnected battery, overload, UPS fault, interruption during transfer	
LCD parameters	Input voltage and frequency, output voltage, frequency and current, load percentage, battery voltage, internal temperature	
Internal diagnostics	Front-panel settings and software checks during operation, 24-hour routine checks	
Audible & visual alarms	Mains failure, low battery, bypass transfer, system fault conditions	
Protections	Bypass transfer on overload calculated by fuse thermal simulation; current-limited operation during short circuit; temperature, voltage and current protection during battery discharge	
COMMUNICATION & ENVIRONMENT		
Communication ports	RS232 standard; optional RS485, internal SNMP, dry-contact cards; monitoring software standard	
Operating temperature	0 – 40 °C (20–25 °C recommended for battery life)	
Humidity / noise	0–95% (non-condensing) · < 50 dBA (1 m)	
Protection class / standards	IP20 · EN 62040-1(safety), EN 62040-2(EMC), EN 62040-3(performance), EN 60950-1	
PHYSICAL		
Rack dimensions (W×D×H)	440×680×176 mm (4U, UPS) / 440×680×270 mm (6U, with internal batteries)	Shipped as UPS + external battery cabinet
Rack net weight	85 kg (with internal 9 Ah batteries)	With external battery cabinet (please consult)
Tower model	290 × 650 × 750 mm · 60 kg	

* Product models, images and technical specifications are subject to change without prior notice.