

TECHNICAL SPECIFICATION

1000 VA ONLINE UPS – SINGLE PHASE

Minimum requirements and indicative options available on the Georgian market

1. Required Equipment

The equipment shall be a 1000 VA true online, double-conversion UPS designed for continuous protection of sensitive electronic and electrical equipment. The UPS shall provide zero-transfer-time power continuity, pure sine-wave output and automatic bypass.

2. Minimum Technical Specification

Parameter	Minimum / Preferred Requirement
UPS topology	True Online Double Conversion (VFI)
Rated apparent power	1000 VA minimum
Rated active power	900 W minimum; 1000 W preferred
Phase	Single phase, 1P+N
Nominal input voltage	230 VAC
Input voltage range	Minimum 176–280 VAC without load derating preferred; wider range acceptable
Input frequency	50 Hz; 40–70 Hz operating range preferred
Output voltage	230 VAC
Output frequency	50 Hz; 60 Hz selectable where applicable
Output waveform	Pure sine wave
Output voltage regulation	±1% maximum
Output frequency regulation	±0.1 Hz in battery mode preferred
Output power factor	≥0.90 minimum
Output THD	≤3% preferred
Transfer time	0 ms / no-break transfer
Static bypass	Automatic internal bypass required
Manual bypass	Preferred
Battery	Maintenance-free VRLA/AGM lead-acid, or approved equivalent
Battery autonomy	Minimum 5 minutes at 100% rated load; 10 minutes preferred
Battery recharge	Automatic; ≤4 hours to approximately 90% preferred
Cold start	Required
Overload protection	Required
Short-circuit protection	Required
Overtemperature protection	Required
Display	LCD status display preferred
Communication	USB required; RS-232 and SNMP slot/network option preferred
EPO	Preferred
Installation	Tower/floor-standing; rackmount acceptable where specified
Operating temperature	0–40 °C minimum
Relative humidity	0–95%, non-condensing
Noise	≤50 dBA at 1 m preferred
Efficiency	≥90% in online mode; ≥95% preferred
Standards	IEC/EN 62040-1, IEC/EN 62040-2, IEC/EN 62040-3
Warranty	Minimum 12 months

3. Important Procurement Requirement

The supplier shall clearly state both VA and W ratings. A unit marked 1000 VA but rated only 800 W is acceptable only if the project load does not exceed 800 W. For a full 1000 VA / 1000 W requirement, the supplier must offer a UPS with output power factor of 1.0.

For tender comparison, battery autonomy shall be quoted at 100% load and 50% load. The supplier shall provide the manufacturer's runtime curve or runtime table.

4. Recommended Procurement Choices

- Best value with internal batteries: 2E OD1000 1000 VA / 900 W.
- Best rackmount option: FSP Champ CH-1101RS 1000 VA / 900 W.
- Best mid-range option: Delta Amplon N Gen3 NX-1K 1000 VA / 900 W.
- Best-known brand option: APC Easy UPS SRV1KI, noting that its rated active power is 800 W rather than 900–1000 W.
- For long autonomy: select a 900 W online model with external battery support, such as FNP PX1KL-24VDC, and specify the required battery capacity separately.

5. Supplier Quotation Request

Supplier shall provide: manufacturer and exact model; VA/W rating; online efficiency; input/output voltage and frequency range; battery type and quantity; autonomy at 25%, 50%, 75% and 100% load; recharge time; dimensions and weight; outlet type and quantity; communication interfaces; bypass configuration; applicable standards; warranty; country of origin; delivery time; and final price including VAT and delivery to the project location.