

SPECIFICATIONS

Extra Smart Series (Tower / Rack convertible) 8KVA ~ 12KVA

General Features:

- Smart backup time estimation (EBT system)
- Adjustable voltage sensitivity, voltage-transfer points, & charging voltage.
- Generator compatible
- Automatic restart of load after UPS shutdown
- Smart AVR function (Two buck / boost modes)
- Cold-start capable & Audible alarm
- EPO available
- Hot-swappable batteries
- Network manageable (Internal SNMP slot ready)
- Full function of LCD display
- Smart battery management
- Intelligent double stages of charging control



Output

	230V Models
Power Levels crated at nominal inputs	8KVA / 5600W, 10KVA / 7000W, 12KVA / 8400W
Output Voltage	200V/220V/230V/240V Selectable
Voltage Waveform	Sine wave
Crest Factor	3 : 1
Output Frequency (Synchronized to Mains)	Auto Select for 50/60Hz 47Hz ~ 55Hz for 50Hz nominal; 56Hz ~ 65Hz for 60Hz nominal
Regulation (Nominal)	±5% typical of nominal voltage (optional at ±8% AVR for wide I/P up to ±35%)
Regulation (Batt. mode)	±3% of selected output voltage (adjustable with the remote set-up software)
Transfer time	Blackout 3ms typical; Brownout 1ms; Battery mode to Normal mode : 1ms typical
Over current protection	Over load alarm level 100% ~ 120%, Over load shutdown level 120% ~ 190% (Adjustable with the remote set-up software)

Input

	230V Models
Nominal Voltage	200V/220V/230V/240V Selectable
Input Frequency	47Hz ~ 65Hz, 50/60Hz auto-sensing
Efficiency	97% (Normal mode)

Noise Filtering	Full time EMI/RFI filtering
Over current protection	8KVA : By re-settable over current protector 20A x 2pcs 10KVA / 12KVA : By MCB
Voltage Range	-20% ~ +24% for selected nominal voltage. -29% ~ +33% adjustable with the remote set-up software
AVR Range (2 Bucks, 2 Boosts)	Enhanced Buck: +15% of selected nominal voltage Buck mode: +5% of selected nominal voltage Boost mode: -5% of selected nominal voltage Enhanced Boost: -12.5% of selected nominal voltage
Surge Protection	8KVA : 660 Joules 10KVA / 12KVA : 1320 Joules

Battery

Battery type	Maintenance-free sealed, valve-regulated, Lead-Acid 8KVA / 10KVA : 12V, 7Ah, 12KVA : 12V, 9Ah
Voltage	8KVA : 120Vdc 10KVA / 12KVA : 60Vdc
Typical backup time at half-load	8KVA : 13minutes 10KVA : 11minutes 12KVA : 10minutes
Typical backup time at full load	8KVA : 5.5minutes 10KVA : 4minutes 12KVA : 4minutes
Charging method	Smart pulse charging with two charging modes : Quick charging when battery is not fully charged, trickle charging when battery is 90% fully charged.
Charging time	Less than 4 hours to 90% at normal line and normal temperature.
Charging current (Average)	8KVA : 4A 10KVA / 12KVA : 7A
Average charging voltage for each battery	Quick charging mode : 14V maximum. Trickle charging mode : 13.2V ~13.9V adjustable with the remote set-up software.
Protection	Over current protection & Over charging voltage protection (SCR control) Thermal protection (CPU control) : When temperature inside UPS is over 45°C , charger will stop charging for 2.5 minutes followed by an 1.5 minutes charging. The cycle will be repeated until the temperature is lower than 44°C .

Monitoring	Smart monitoring & warning for failed battery or open-circuit battery. Auto-detection each time when power on or every 6 days.
------------	---

☐ Communications & Management

Standard Interface port	UPSilon2000 compatible, RS232, USB, & SNMP slot; optional for RJ45.
Optional Interface port	DB9
Control panel	LCD
Audible alarm	Alarm on battery : Low battery & Battery over voltage Alarm on abnormal operation : Over load, Short-circuit, & Over heat
EBT (Estimation of Backup Time) system	Supported for LCD display

☐ Environmental and Safety

Operating Temp.	Up to 1500 meters : 0°C to 40°C (32°F to 104°F)
Transit/storage Temp.	-15°C to 55°C (5°F to 131°F)
Relative Humidity	5 - 95% non condensing
Operating Altitude	0 ~ 3000 meters
Audible noise	≤ 45 dBA (at 1M from surface of unit)
Safety Markings	CE
EMC	Class A, EN62040-2
Quality control system	ISO 9001

☐ Physical

Dimensions: (D×H×W)	All 3 models, 8K, 10K, & 12K, can fit in 7u or 12u case, depending on request. 7u : 66 x 40 x 44 (cm) / 76 x 61 x 49 (cm)		
Unit / Shipping	12u : 66 x 62 x 44 (cm) / 76 x 83 x 49 (cm)		
Weight:		7u (with 20 batteries)	12u (with 40 batteries)
Net / Gross (kg)	8KVA :	115kg / 125kg	186kg / 197kg
	10KVA :	118kg / 128kg	189kg / 200kg
	12KVA :	118kg / 128kg	189kg / 200kg
Packing	Export carton for each unit, 1 - 4 units per pallet		