

## Smart Sine Long-run Series (Tower) 1100VA~3000VA Specifications

(The spec of 5000E will be provided upon your request)

### Output

	115V Models	230V Models
Power Levels crated at nominal inputs	1100VA, 660W / 2200VA, 1350W 3000VA, 1800W	
Output Voltage	100V/110V/115V/120V Selectable	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 (Battery mode)	±3% of selected output voltage (adjustable with the remote set-up software)	
Transfer time	Blackout 3ms; 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 by using the remote set-up software)	

### Input

	115V Models	230V Models
Nominal Voltage	100V/110V/115V/120V Selectable	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	1100VA:by AC fuse 2200VA ~ 3000VA: by re-settable over current protector	1100VA ~ 2200VA:by AC fuse 3000VA: by re-settable over current protector
Voltage Range	-20% ~ +24% for selected nominal voltage. -29% ~ +33% adjustable by using 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	1100VA: 216 Joules 2200VA ~ 3000VA: 324 Joules	1100VA: 220 Joules 2200VA: 440 Joules 3000VA: 660 Joules

## ☐ Battery

Battery type	Lead-Acid 25Ah ~ 250Ah
Voltage	1100VA:24Vdc (48Vdc optional) 2200VA:48Vdc / 3000VA : 72Vdc
Typical backup time	No Limit
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 current	11A at normal line and normal temperature (Average)
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	UPSilon2000 compatible. 1100VA ~ 3000VA: RS232 + USB
Optional Interface	RJ45 (Surge protection), DB9, SNMP (external type)
Control panel	LCD or LED Selectable
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	Support for LCD display
Green mode function (Auto-shutdown during blackout)	1% to 14% of full load (adjustable by using the remote set-up software) The default setting is OFF.
Cooling fan control	Auto on / off, controlled by temperature & operation mode

## ☐ Environmental and Safety

Operating Temperature	Up to 1500 meters: 0°C to 40°C (32°F to 104°F)
Transit/storage Temperature	-15°C to 55°C (5°F to 131°F)
Relative Humidity	5 - 95% non condensing
Operating Altitude	0 ~ 3000 meters
Audible noise at 1M from surface of unit	≤ 50 dBA
Safety Markings	BSMI   CE
EMC	Class B, EN50091-2, FCC part15, IEC1000-2-2
Isolation	3KVac for 1 minute between battery and AC side
Quality control system	ISO 9001

## ☐ Physical

Dimensions: (D×H×W) Unit / Shipping	1100VA ~ 3000VA : 45 x 20 x 18 (cm) / 54 x 33 x 30 (cm)
Weight: Net / Gross (kg)	1100VA : 15 / 16 (kg) 2200VA : 19 / 20 (kg) 3000VA : 23 / 24 (kg)
Packing	Export carton for each unit, 16 - 30 units per pallet