

## 6kVA ~ 20kVA Online Transformerless UPS



### Rear Panel

1. RS232
2. EPO
3. Parallel port (optional)
4. USB (optional)
5. Temperature detection (optional)
6. SNMP (optional)
7. Reserved: for customer function such as manual bypass, battery breaker, socket ect.
8. Fans
9. Bypass breaker
10. Input breaker
11. GND
12. Terminals and terminal cover



### Features

- Advanced DSP (Digital signal processors) technology
- Variable speed fan
- Effective software and hardware protection function, robust self-diagnostic function, and abundant event log for check
- Advanced digital parallel technology
- Wide input voltage range, 50 / 60 Hz frequency auto sensing
- Linear derating in low voltage input reducing battery discharging times, extending the service life of battery
- Dual-input design, supporting independent bypass
- Output power factor improved from 0.9 to 1, load capacity increased by 13%
- Flexible battery configuration (settable 16 - 20 pcs batteries)
- Charging voltage and current configured by demands
- Ability to switch on the UPS with batteries
- Settable delayed start time when mains power is restored, reducing the impact on power grid or generator
- Two modes of frequency conversion: 50 Hz input / 60 Hz output or 60 Hz input / 50 Hz output

- LCD+LED display, multi-functional keys operation, friendly human-machine interface
- Powerful background software for parameters configuration
- Compact internal layout, miniaturized the complete unit for small footprint
- Advanced multi-platform communications: RS232, USB, RS485, SNMP and dry contacts communication interfaces
- Intelligent battery management, automatic floating / equalizing charge control, charger dormancy control, increasing battery life by 50%
- Active power factor correction (APFC), input power factor up to 0.99
- High efficiency 95% (up to 98% in ECO mode)
- Equipped with self-aging function

#### Available Options

- RS232 and smart card slot included
- Optional parallel function, battery temperature compensation, SNMP card, USB, RS485 card, dry contacts, EMD, and SMS alarms



## Specifications

MODEL	6kVA	10kVA	15kVA	20kVA
Capacity	6 kVA / 6000 W	10 kVA / 10000 W	15 kVA / 15000 W	20 kVA / 20000 W
<b>INPUT</b>				
Input wiring	Single-phase three-wire (1 $\Phi$ + N + PE)			
Rated voltage	208 V / 220 V / 230 V / 240 Vac			
Voltage range	110 – 176 Vac (linear derating between 50% and 100% load); 176 – 288 Vac (no derating)			
Rated frequency	50 / 60 Hz (auto-sensing)			
Frequency range	40 ~ 70 Hz			
Power factor	$\geq$ 0.99			
Bypass voltage range	– 40% ~ +15% (settable)			
Total harmonic distortion (THDI)	$\leq$ 5%			
<b>OUTPUT</b>				
Output wiring	Single-phase three-wire (1 $\Phi$ + N + PE)			
Rated voltage	208 V (PF=0.9) / 220 V / 230 V / 240 Vac			
Voltage regulation	$\pm$ 1%			
Frequency	Synchronized to bypass in mains mode; 50 / 60 Hz $\pm$ 0.1% Hz in battery mode			
Waveform	Sinusoidal			
Power factor	1			
Total harmonic distortion (THDV)	$\leq$ 1% (linear load); $\leq$ 4% (non-linear load)		$\leq$ 1% (linear load); $\leq$ 3% (non-linear load)	
Crest factor	3:1			
Overload capability	102% – 110% for 10 min, 110% – 125% for 1 min, 125% – 150% for 30 s			
<b>BATTERIES</b>				
DC voltage	192 Vdc (192 / 240 Vdc settable)			
Number of battery	16 pcs (16 – 20 settable)			
Inbuilt battery (standard model)	12 / 7 Ah x 16	12 / 9 Ah x 16	/	/
Charging current	Standard model: 1 A; Long time model: 5 A (default), 1 – 5 A settable; 12 A (6–10 kVA optional); 10 A (15–20 kVA optional)			
Recharge time	Standard model: 90% capacity restored in 8 hours; Long time model: depend on the capacity of battery			
<b>SYSTEM</b>				
Efficiency	$\geq$ 94% at 100% load, max. 95% at 60% load; $\geq$ 98% in ECO mode			
Switching time	0 ms			
Protections	Short-circuit, overload, overtemperature, battery low voltage, overvoltage, undervoltage and fan failure			
Max. number of parallel connections	4			
Communications	RS232 (standard), USB / RS485 / dry contacts / SNMP / battery temperature compensation (optional)			
Display	LCD + LED			
<b>OTHERS</b>				
Operating temperature	0°C – 40°C			
Storage temperature	–25°C – 55°C (without battery)			
Humidity	0 – 95% (non-condensing)			
Altitude	$\leq$ 1000 m, derating 1% for each additional 100 m			
IPrating	IP 20			
Noise level at 1 m	$\leq$ 55 dB		$\leq$ 58 dB	
Dimensions (W x D x H)(mm)	191 x 465 x 711(S) 191 x 465 x 350(H)	191 x 495 x 711(S) 191 x 495 x 350(H)	191 x 495 x 515 (H)	
Packaged dimensions (W x D x H)(mm)	654 x 310 x 941(S) 586 x 318 x 475(H)	685 x 310 x 941(S) 617 x 318 x 475(H)	593 x 285 x 618 (H)	
Net weight (kg)	53(S) 14.5 (H)	62(S) 16.5 (H)	26.5(H)	
Gross weight (kg)	61(S) 16(H)	70(S) 18(H)	28 (H)	

• S means standard model; H means long time model.  
• All specifications are subject to change without notice.