

AVOSERIES 5-10KVA



Features

- Advanced DSP and 3-level technology
- Output power factor 0.9 / 1.0
- Active power factor correction (APFC), input power factor up to 0.99
- High efficiency 94% (up to 98% in ECO mode)
- Advanced digital parallel technology
- Wide input voltage range (110 ~ 288 Vac) and frequency range (40 ~ 70 Hz)
- 50 / 60 Hz frequency auto sensing
- Two modes of frequency conversion: 50 Hz input / 60 Hz output or 60 Hz input / 50 Hz output
- Dual-input design, supporting independent bypass
- Flexible battery configuration (settable 16 - 20 pcs batteries)
- Digitally controlled charger
- High charging current available (Max. 12 A)
- Charging voltage and current configured by demands
- Linear derating in low voltage input reducing battery discharging times, extending the service life of battery
- Intelligent battery management, automatic floating / equalizing charge control, charger dormancy control, increasing battery life by 50%

- 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
- Fan speed varies intelligently with temperature, reducing noise and extending its service life
- Equipped with self-aging function
- Compact internal layout, miniaturized the complete unit for small footprint
- LCD+LED display, multi-functional keys operation, friendly human-machine interface
- Powerful background software for parameters configuration
- Advanced multi-platform communications: RS232, USB, RS485, SNMP and dry contacts communication interfaces
- Effective software and hardware protection function, robust self-diagnostic function, and abundant event log for check

Available Options

- In-built isolation transformer either at input or output
- RS232 and smart card slot included
- Optional parallel function, battery temperature compensation, SNMP card, USB, RS485 card, dry contacts, EMD, and SMS alarms

Rear Panel

1. RS232
2. EPO
3. Parallel Port (optional)
4. USB (optional)
5. Temperature Detection (optional)
6. Intelligent Slot
7. Reserved: for manual bypass or battery breaker or outlets ect.
8. Fans
9. Bypass Breaker
10. Input Breaker
11. GND
12. Terminals and Cover



6/10 kVA (H)

6/10 kVA (S)

Specifications

MODEL	AVO1005	AVO1006	AVO1010
Capacity	5KVA/5000W	6 kVA / 6000 W	10 kVA / 10000 W
INPUT			
Input wiring	Single-phase three-wire (1Φ + N + PE)		
Power Supply Compatibility	Single-phase three-wire (1Φ + N + PE) Grid Power/ Genset Power		
Rated voltage	208 / 220 / 230 / 240 Vac		
Input Voltage Range	130 ~ 280 Vac (45% Load)		
Rated frequency	50 / 60 Hz (auto-sensing)		
Frequency range	40 ~ 70 Hz		
Power factor	≥ 0.99		
Bypass voltage range	- 40% ~ +15% (settable)		
Automatic Bypass switch	UPS capable of automatic change with automatic Bypass Switch		
Total harmonic distortion (THDi)	≤ 5%		
OUTPUT			
Output wiring	Single-phase three-wire (1Φ + N + PE)		
Rated voltage	208 (PF=0.9) / 220 / 230 / 240 Vac		
Voltage regulation	± 1%		
Frequency	Synchronized to bypass in mains mode; 50 / 60 Hz ± 0.1% Hz in battery mode		
Frequency Slew Rate	< 1Hz/sec		
Waveform	Pure Sinusoidal		
Power factor	0.8 0.9 1		
Total harmonic distortion (THDv)	≤ 1% (linear load); ≤ 4% (non-linear load)		
Crest factor	03:01		
Overload	< 105% for Continuous , 105% ~ 110% for >10 min, 110% ~ 125% for 2 min,126% ~ 150% for 30 s		
Output Short Circuit Protection	Electronic Protection		
Transient Response	Transient Response: Dynamic Regulation for 10% to 90% step linear load : ±10% Transient Recovery to steady state condition after 10% to 90% step linear load : <80ms		
BATTERIES			
DC voltage	192 Vdc (144 ~ 240 Vdc settable)		

Charging current	Standard model: 1 A; The charger capable to deliver charging current equivilanet to 10% of Battery Ah rating offered. Float Cum Boost Voltage Solid state SMPS charger	
	Long time model: 5 A (default),1 ~ 5 A settable; 12 A (optional; PF 0.9)	
SYSTEM		
Efficiency	≥ 94% at 100% load, max. 95% at 60% load, ≥ 98% in ECO mode	
Transfer time	0 ms (From Mains Mode to Battery Mode & from Battery Mode to Mains Mode)	
Protections	Short-circuit, overload, over temperature, battery low voltage, overvoltage, under voltage and fan failure	
Max. number of parallel connections	4	
Communications	RS232 (standard), USB / RS485 / dry contacts / SNMP / battery temperature compensation (optional)	
Display	LCD + LED	
Indications	Green & Red (For output & Fault)	
Settable data through LCD	Inverter Voltage, Inverter Frequency, Frequency converter, ECO Mode, Overload alarm, Buzzer, Charging current, Battery Capacity, Battery String & Parallel ID	
Audible Alarms	Overload warning & shutdown, High Temp, Low Battery ,High Temp warning & shutdown	
OTHERS		
Operating temperature	0°C ~ 40°C	
Storage temperature	-25°C ~ 55°C (without battery)	
Relative humidity	0 ~ 95% (non-condensing)	
Altitude	≤ 1000 m, derating 1% for each additional 100 m	
Type of Cooling	Forced Air Cooling	
IP rating	IP 20	
Noise level at 1 m	≤ 50 dB	≤ 50 dB
Form Factor	Tower Mountable	
Air Filters	Optional internal anticorrosion air filters for dust filtration.	
Dimensions (W × D × H) (mm)	191 × 465 × 711 (S), 191 × 465 × 350 (H)	191 × 495 × 711 (S), 191 × 495 × 350 (H)
Packaged dimensions (W × D × H) (mm)	310 × 654 × 941 (S), 318 × 595 × 475 (H)	310 × 685 × 941 (S), 318 × 617 × 475 (H)
Net weight (kg)	53 (S), 14.5 (H)	62 (S), 16.5 (H)
Gross weight (kg)	61 (S), 16 (H)	70 (S), 18 (H)

*All specification are subjected to change without notice.