

Alpha Pro

6KVA ~ 10KVA
PF 0.9 (1 : 1)



Applications

IT and Network equipment
ATM / Bank terminal system
Small financial trading center
SCADA monitoring system
Electricity & railway signaling system
Precision instruments, Automation system

Highlights

- ✓ Compact and reliable
- ✓ High power factor 0.9
- ✓ High availability
- ✓ Flexible battery configuration
- ✓ Doubling the battery charging speed
- ✓ N+X redundancy parallel
- ✓ Multiple communication ports
- ✓ Powerful background software

Alpha Pro Series UPS is on-line double-conversion UPS with high power density (Input PF ≥ 0.99) and an enhanced output power factor of 0.9. It offers high levels of reliability and protection for IT systems, telecommunications equipment and mission critical systems, ensuring maximum power reliability. In addition to some standard features, like cold start, wide input range, ECO mode, Alpha Pro is also featured with many advanced features, such as auto fan speed control, ABM, configurable switching time, frequency conversion mode, parallelable, powerful battery charger and background software etc.

Features

High reliability

- Advanced DSP digital control technology is applied to rectifier and inverter.
- Fan speed varies intelligently with temperature, reducing noise and increasing its service life.
- Rear ventilation design, fan operating in slow speed, UPS being able to work for a long time in harsh environment.
- Effective software and hardware protection function, powerful self-diagnostic function.
- Advanced digital parallel redundant configuration for power system not only greatly improve system reliability, reduce MTTR, but also allows users to multiply capacity and uptime for future expansion by adding additional UPS systems.

High availability

- Wide input voltage range, self-adaptive 50Hz / 60 Hz grid system, suitable for various grid environments.
- Linear derating in low voltage input, reducing battery discharging times, extending the service life of battery.
- Output power factor improved from 0.8 to 0.9, load-carrying capacity increased by 13%.
- Flexible and optimized battery number design (14 ~ 20pcs optional) for more economical battery usage and costs with different DC voltage (168 / 180 / 192 / 204 / 216 / 228 / 240 Vdc optional), and two UPS models (Standard model or Extensible model) for options.
- Doubling the battery charging speed, 90% capacity restored in 4 hours for standard model UPS.
- Cold start: Ability to switch on the UPS with batteries in the absence of mains power.
- UPS power supply mode has no transfer time to ensure uninterruptible power.
- Configurable switching time from battery mode to mains mode when mains power is restored, reducing the impact on power grid or generator.
- Frequency conversion mode: 50Hz input / 60Hz output or 60Hz input / 50Hz output.

High usability

- LCD+LED display, multi-functional keys operation, friendly human-machine interface.
- Powerful background software for parameters configuration and online updating.
- Compact internal layout, miniaturized the complete unit for small footprint .

High intelligence

- Advanced multi-platform communications: standard RS232, optional USB, RS485, SNMP and dry contacts communication interfaces are used for monitoring UPS running status. Among them, SNMP is for remote network monitoring and management, by which can configure regular battery self test.
- Intelligent battery management, automatic floating / equalizing charge control, charger dormancy control, improving the reliability of charger and extending battery service life by 50%.

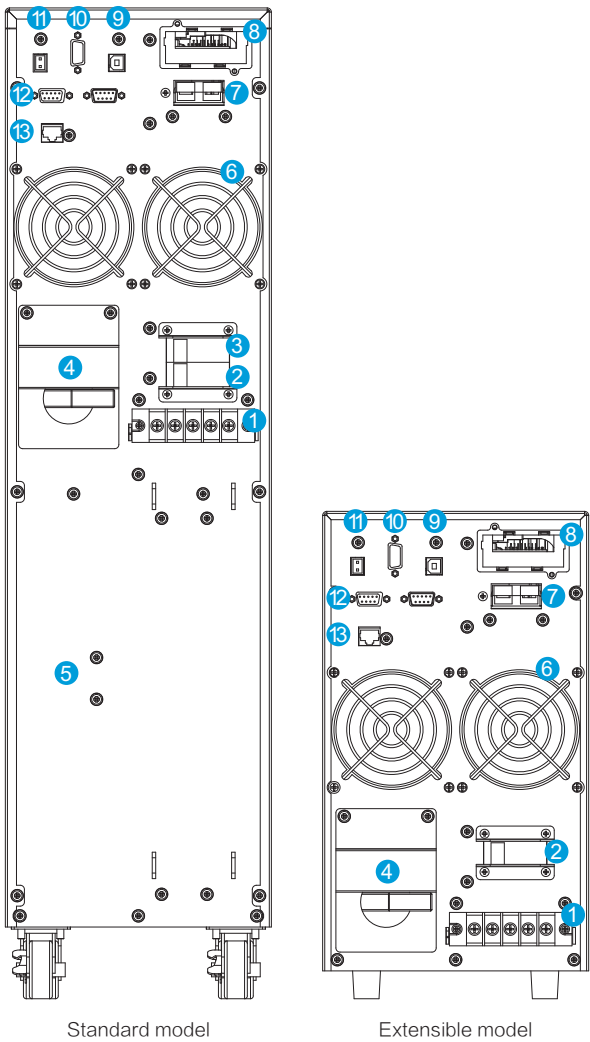
Energy conservation and environment protection

- Active power factor correction (APFC), input power factor up to 0.99.
- Work efficiency up to 98% in ECO mode.
- Auto power ON/OFF according to the load capacity set by users.

Available Options

Communication Ports
USB / RS485 / SNMP / AS400 / SMS alarms
Software
UPSmart / iStars
Others
Maintenance bypass
Parallel card
Battery temperature compensation
EMD environmental sensors

Details



- 1. Input and output terminal
- 2. Input breaker
- 3. Inbuilt battery breaker
- 4. Maintenance bypass (optional)
- 5. Inbuilt battery
- 6. Fan
- 7. External battery connector
- 8. Intelligent slot (SNMP / AS400 / RS485 optional)
- 9. USB (optional)
- 10. RS232
- 11. EPO
- 12. Parallel card (optional)
- 13. Battery temperature compensation (optional)

Technical specifications

MODEL	APO 6000	APO 10000
Capacity	6 KVA / 5400 W	10 KVA / 9000 W
INPUT		
Rated voltage	208 / 220 / 230 / 240 Vac	
Voltage range	110 ~ 160 Vac (linear derating between 50% and 100% load); 160 ~ 280 Vac (no derating); 280 ~ 300 Vac (derating 50%)	
Rated frequency	50 / 60 Hz (auto-sense)	
Frequency range	40 ~ 70 Hz	
Power factor	≥ 0.99	
Total harmonic distortion (THDI)	≤ 5%	
Bypass voltage range	- 40% ~ + 15% (settable)	
OUTPUT		
Voltage	208 / 220 / 230 / 240 Vac (settable)	
Voltage regulation	± 1%	
Frequency	45 ~ 55 Hz or 55 ~ 65 Hz (synchronized range); 50 / 60 Hz ±0.1 Hz (battery mode)	
Waveform	Sinusoidal	
Crest factor	3:1	
Total harmonic distortion (THDV)	≤ 2% (linear load); ≤ 5% (non-linear load)	
Transfer time	Mains mode to battery mode: 0 ms; Inverter mode to bypass mode: 0 ms	
Inverter overload capability	102% ~ 125%: Transfer to bypass in 10 min; 125% ~ 150%: Transfer to bypass in 1 min; > 150%: Transfer to bypass in 0.5 s	
Bypass overload capability	102% ~ 125%: Shut down in 20 min; 125% ~ 150%: Shut down in 2 min; > 150%: Shut down in 1 s	
BATTERIES		
DC voltage	192 Vdc (168 / 180 / 192 / 204 / 216 / 228 / 240 Vdc optional)	
Inbuilt battery of standard model	12V / 7 Ah × 16	12V / 9 Ah × 16
Recharge time	Standard model: 90% capacity restored in 4 hours; Extensible model: depend on the capacity of battery	
SYSTEM		
EFFICIENCY	≥93%, ECO mode 98%	
Display	LCD + LED	
Protections	Overload, surge, Short circuit, battery low voltage, battery overcharge, over-temperature	
Alarms	Battery mode, low battery voltage, fans fault etc.	
Maximum Parallel numbers	6	
EMI	IEC/EN 62040-2	
EMS	IEC 61000-4-2 (ESD); IEC 61000-4-3 (RS); IEC 61000-4-4 (EFT); IEC 61000-4-5 (Surge)	
COMMUNICATIONS		
RS232 (standard) USB / RS485 / dry contacts (optional)	Supports Windows® 98 / 2000 / 2003 / XP / Vista / 2008 / 7 / 8 / 10	
SNMP (optional)	Power management from SNMP manager and web browser	
OTHERS		
Humidity	20 ~ 90% RH @ 0 ~ 40°C (non-condensing)	
Noise level	≤ 55 dB (1m)	
Dimensions (W × D × H) (mm)	191 × 462 × 710 (St); 191 × 462 × 350 (Ex)	
Packaged dimensions (W × D × H) (mm)	308 × 640 × 896 (St); 267 × 573 × 436 (Ex)	
Net weight (kg)	58.7 (St); 15.6 (Ex)	67.2 (St); 16.1 (Ex)
Gross weight (kg)	64.8 (St); 17.9 (Ex)	73.3 (St); 18.4 (Ex)

* Derate capacity to 70% in frequency conversion mode and to 90% when the output voltage is adjusted to 208Vac.
* St means standard model, Ex means extensible model.
* All specifications subject to change without notice.

