

Alpha Pro

1KVA ~ 3KVA
PF 0.9 (1 : 1)



Applications

SOHO, PC, POS machines
IT and Network equipment
Telecommunication facilities
ATM / Bank terminal system
Small financial transaction / Clearing center
Precision instruments, Automation system

Highlights

- ✓ High power factor
- ✓ Stronger carrying capacity
- ✓ Powerful battery charger
- ✓ Frequency conversion
- ✓ ECO mode
- ✓ Low noise level
- ✓ Multiple communication ports
- ✓ Built-in isolation transformer (Optional)

Alpha Pro Series UPS is on-line double-conversion UPS with advanced full-time DSP control technology and input power factor correction, it is featured with output power factor 0.9 which enable to delivering more stable and clean power without interruption for critical equipment. Besides sufficient runtime as backup power, Alpha Pro extensible model with powerful battery charger can be fitted with external battery packs for longer runtime requirements. In addition to some standard features, like cold start, wide input range, Alpha Pro is also featured with many advanced features, such as auto fan speed control, ABM, ECO mode, frequency conversion mode etc.

Features

True On-line double conversion technology

Alpha Pro series is on-line double conversion UPS which provides ideal electrical output performance with continuous and uninterruptible high quality power in switching from AC to DC or DC to AC.

DSP-Digital signal processor technology

Alpha Pro uses advanced USA native CPU chip with ability of faster and more accurate processing of signal data, keep UPS running in a high efficiency and low energy wasting condition. Providing you with rapid failure response and useful failure code for mechanical maintenance, raise MTBF, decrease MTTR.

High power factor

Alpha Pro input power factor closes to 1 with power factor correction, and output power factor 0.9 enables UPS to deliver more power and increase the load capacity by 13% compared with traditional products.

Wide input voltage range & auto sensing frequency

Alpha Pro has excellent voltage regulation ability with an ultra-wide input voltage range from 110 - 300 Vac, and auto-sensing 50 Hz / 60 Hz frequency to meet all kinds of grid environment.

Cold start capability

In the absence of any AC input, the cold start function allows users to start the UPS with the batteries, and without any damage to them or the circuits.

Multiple operating modes

Different operating modes (Line mode, Bypass mode, Stdby mode, Battery mode, ECO mode, CUCF/Frequency conversion mode and Fault mode) can be programmed according to user requirements.

Auto Power-on and Shut-down function

Under low or no-load conditions, the UPS will automatically shut down and switch to bypass mode, when the load is enabled again, the UPS will be automatically turned on and switch back to the mains power mode. This energy saving feature is great suitable for situations like office loads various from day and night.

Excellent performance and reliability

Complete hardware and software protection

Alpha Pro is equipped with over voltage, overload, surge, short circuit, over temperature protection, IGBT pulse by pulse current limiting protection, greatly ensure the stability and reliability of the system.

Power-on self test

The UPS performs advanced self-diagnostics to ensure the functionality of the UPS system and batteries, and to anticipate events before they occur.

Low noise level

Load-based fan speed control makes UPS produce low noise.

Advanced Battery Management (ABM)

Battery test function and deep discharge protection

The system has automatic / manual battery test function and deep discharge protection to optimize battery life. At the end of battery discharge, the system will pre-alarm to remind users.

Advanced charging technology

- Automatic charging in OFF mode
- By monitoring and control the battery periodically self-test, automatically equalizing charge and floating charge control, effectively extending the battery life
- By powerful battery charger with rapid and stable charging technology, 90% capacity can be restored in 3 hours for standard model UPS, and higher charging current is available for extensible model

Flexible and optimized battery number design

More economical battery usage and costs with different DC voltage (24 V / 36 V / 48 V / 72 V / 96V) and two UPS models (Standard model or Extensible model) for options

Multiple functions settable via LCD panel

Output voltage, output frequency, Bypass mode, ECO mode, battery low voltage and Frequency Converter enable/disable are settable via LCD panel.

Extensible functions and options

EPO function (Optional)

Alpha Pro is equipped with an Emergency Power Off function, providing users with a way of immediately shutting down all output power from the UPS in the case of emergencies such as fire, flood, and overheating equipment.

Optional built-in isolation transformer (Optional)

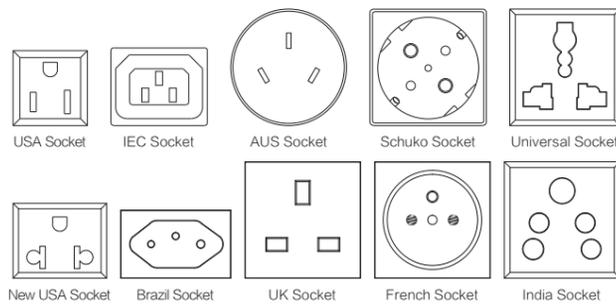
Built-in power purifying isolation transformer protects the load from even the most-damaging power disturbances.

Advanced multi-platform communications

Standard RS232 communication port and RJ45 protection

Optional USB / RS485 / dry contacts card / SNMP / SMS / communication port

Available Sockets



Available Options

Communication Ports

USB / RS485 / AS400 / SNMP / SMS

Software

UPSmart / iStars

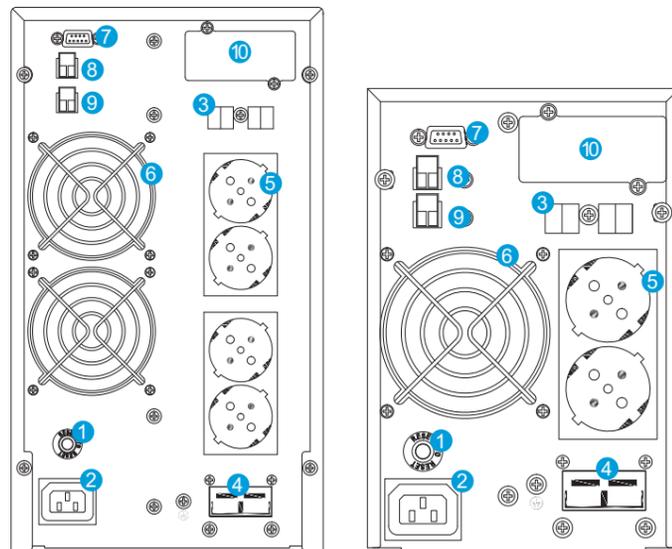
Others

Built-in isolation transformer

Emergency Power Off (EPO)

Additional 6A charger (2/3K extensible model)

Details



1. Overcurrent Protection
2. AC Input
3. Modem/Tel/Fax
4. DC Input
5. Outlet
6. Fan
7. RS232
8. USB (optional)
9. EPO (optional)
10. SNMP/AS400 (optional)

2 ~ 3 KVA

1 KVA

Technical specifications

MODEL	APO 1000	APO 2000	APO 3000	
Capacity	1 KVA / 900 W	2 KVA / 1800 W	3 KVA / 2700 W	
INPUT				
Rated voltage	208 / 220 / 230 / 240 Vac			
Voltage range	110 ~ 176 Vac (linear derating between 50% and 100% load); 176 ~ 280 Vac (no derating); 280 ~ 300 Vac (derating 50%)			
Frequency	40 ~ 70 Hz (auto-sense)			
Power factor	≥ 0.99			
Bypass voltage range	-25% ~ +15% (settable)			
OUTPUT				
Voltage	208 / 220 / 230 / 240 Vac (settable)			
Voltage regulation	± 1%			
Frequency	Mains mode: synchronized with utility; 45 ~ 55 Hz or 55 ~ 65 Hz (synchronized range) Battery mode: 50 / 60 ±0.1 Hz;			
Waveform	Sinusoidal			
Crest factor	3:1			
Harmonic distortion	≤ 2% with linear load; ≤ 5% with non-linear load			
Transfer time	Mains mode to battery mode: 0 ms Inverter mode to bypass mode: 4 ms (typical)			
Overload capability	105% ~ 125%: transfer to bypass in 1 min; 125% ~ 150%: transfer to bypass in 30 s; > 150%: transfer to bypass in 300 ms			
EFFICIENCY				
Mains mode	≥ 90%	≥ 91%	≥ 92%	
Battery mode	≥ 85%	≥ 86%	≥ 87%	
ECO mode	≥ 95%	≥ 96%	≥ 97%	
BATTERIES				
Inbuilt battery / DC voltage	Standard model	12 V / 9 Ah × 2 (24 V) 12 V / 7 Ah × 3 (36 V)	12 V / 9 Ah × 4 (48 V) 12 V / 7 Ah × 6 (72 V)	12 V / 9 Ah × 6 (72 V) 12 V / 7 Ah × 8 (96 V)
	Extensible model	36 V	72 V	96 V
Charging current (max.)	Standard model: 1 A; Extensible model: 6 A			
Recharge time	Standard model: 90% capacity restored in 3 hours; Extensible model: depend on the capacity of battery			
COMMUNICATIONS				
RS232 (standard) / USB (optional)	Supports Windows® 98 / 2000 / 2003 / XP / Vista / 2008 / Windows® 7 / 8 / 10			
SNMP (optional)	Power management from SNMP manager and web browser			
OTHERS				
Protections	Overload, surge, Short circuit, battery low voltage, battery overcharge, over-temperature			
Operating temperature	0 ~ 40°C			
Relative Humidity	0 ~ 90% (non-condensing)			
Noise level	≤ 50 dB (1m)			
Dimensions (W × D × H) (mm)	Standard model	144 × 336 × 214 (24V) 144 × 414 × 214 (36V)	191 × 418 × 335	191 × 418 × 335 (72V) 191 × 464 × 335 (96V)
	Extensible model	144 × 336 × 214		191 × 418 × 335
Packaged dimensions (W × D × H)	Standard model	232 × 417 × 318 (24V) 232 × 492 × 318 (36V)	318 × 533 × 471	318 × 533 × 471 (72V) 318 × 573 × 471 (96V)
	Extensible model	232 × 417 × 318		318 × 533 × 471
Net weight / Gross weight (Kg)	Standard model	9.5 / 10.5 (24V) 13 / 14.2 (36V)	18 / 19.5 (48V) 25.7 / 27.4 (72V)	27.2 / 29 (72V) 32 / 34 (96V)
	Extensible model	6 / 7	10.5 / 12	11 / 12.5

* Capacity be derated to 70% in CUCF mode and to 90% when the output voltage is adjusted to 208Vac
* All specifications subject to change without notice