

# Alpha Pro RT

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



## Features

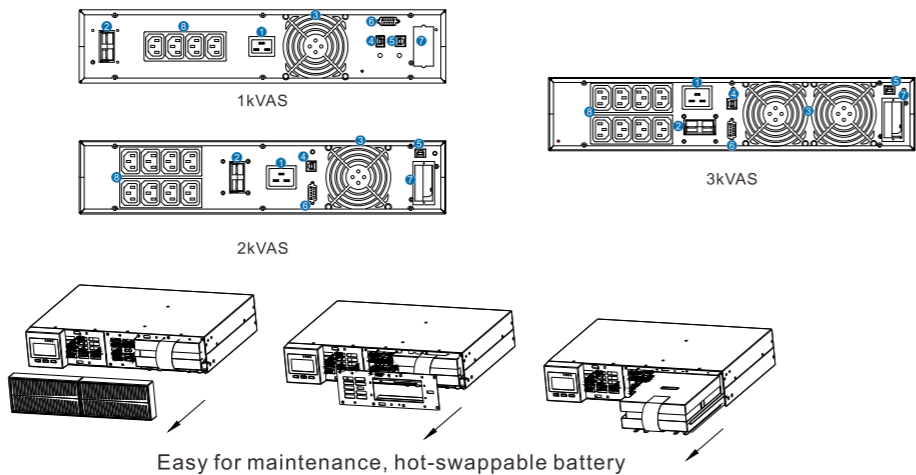
- High frequency on-line double conversion technology
- DSP (Digital signal processing) control technology
- Active power factor correction (APFC), input power factor up to 0.99
- Output power factor 0.9/0.1
- Wide input voltage range (110 V ~ 300 Vac) and frequency range (40 ~ 70 Hz)
- Auto sensing frequency
- 50 / 60 Hz frequency conversion
- Cold start
- Rear ventilation design and variable speed fan
- Effective software and hardware protection
- Quick and stable charging, 90% capacity restored in 3h (standard model UPS)
- Linear derating in low voltage input reducing battery discharging times
- Settable delayed start when power is restored
- Hot-swappable battery
- Advanced battery management (ABM)
- Multiple functions settable via LCD: output voltage, EOD, auto-start, bypass mode
- Multi-platform communications: RS232 (standard), USB / RS485 / SNMP / dry contacts (optional)

### Available Options

- Optional USB, RS485 card, AS400 dry contacts, SNMP card, SMS alarms, EPO function, MBS (External maintenance bypass switch)

## Details

1. AC input socket
2. Battery connector (Optional)
3. Fan
4. USB (Optional)
5. EPO (Optional)
6. RS232
7. Intelligent slot (Optional)
8. Output sockets



Easy for maintenance, hot-swappable battery

## Technical specifications

MODEL	APO 1000RT					APO 2000RT					APO 3000RT		
Capacity	1 kVA / 1 kW					2 kVA / 2 kW					3 kVA / 3 kW		
INPUT													
Rated voltage	208 V / 220 V / 230 V / 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	-25% ~ +15% (settable)												
Total harmonic distortion (THDi)	≤ 6%												
OUTPUT													
Voltage	208 V / 220 V / 230 V / 240 Vac (settable via LCD)												
Voltage regulation	± 1%												
Frequency	45 ~ 55 Hz or 55 ~ 65 Hz (synchronized range); 50 / 60 Hz ± 0.1 Hz (battery mode)												
Waveform	Sinusoidal												
Power factor	0.9/0.1												
Total harmonic distortion (THDv)	≤ 2% (linear load); ≤ 5% (non-linear load)												
Crest factor	3:1												
Overload	105% ~ 125% for 1 min, 125% ~ 150% for 30 s, > 150% for 300 ms												
BATTERIES													
DC voltage	24V (S)	24V (H)	36V (S)	36V (H)	48V (S)	48V (H)	72V (S)	72V (H)	72V (S)	72V (H)	96V (S)	96V (H)	
Inbuilt battery	2x9Ah	/	3x7Ah	/	4x9Ah	/	6x7Ah	/	6x9Ah	/	8x7Ah	/	
Charging current (max.)	Standard model: 1A, Long time model: 6A												
Recharge time	Standard model: 90% capacity restored in 3 hours; Long time model: depend on the capacity of battery												
SYSTEM													
Efficiency	≥ 90% (Mains mode)				≥ 91% (Mains mode)				≥ 92% (Mains mode)				
	≥ 85% (Battery mode)				≥ 86% (Battery mode)				≥ 87% (Battery mode)				
	≥ 95% (ECO mode)				≥ 96% (ECO mode)				≥ 97% (ECO mode)				
Transfer time	Mains mode to battery mode: 0 ms, Inverter mode to bypass mode: 4 ms (typical)												
Protections	Short-circuit, overload, overtemperature, battery discharge protection and fan testing protection												
Communications	RS232 (standard), USB / RS485 / dry contacts / SNMP (optional)												
Display	LCD + LED												
Standards	EN 62040-1, EN 62040-2, EN 61000-3-2, EN 61000-3-3, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11, IEC 61000-2-2, IEC 62040-2, IEC 62040-1												
OTHERS													
Operating temperature	0°C ~ 40°C												
Storage temperature	-25°C ~ 55°C (without batteries)												
Relative humidity	0 ~ 95% (non-condensing)												
Altitude	≤ 1000 m, derating 1% for each additional 100 m												
IP rating	IP 20												
Noise level at 1m	≤ 50 dB												
Dimensions (W×D×H) (mm)	440 ×338 ×88	440 ×468 ×88	440 ×430 ×88	440 ×468 ×88	440 ×430 ×88	440 ×468 ×88	440 ×560 ×88	440 ×468 ×88	440 ×560 ×88	440×468×88(UPS) 440x468x88(BAT)		440 ×468 ×88	
Packaged dimensions (W×D×H) (mm)	545 ×428 ×194	545 ×592 ×198	545 ×560 ×201	545 ×592 ×201	545 ×560 ×201	545 ×782 ×201	545 ×690 ×201	545 ×592 ×201	545 ×690 ×201	545 ×592 ×198	592x545 x198 (UPS) 597x545 x198 (BAT)	545 ×592 ×201	
Net weight(kg)	10.6	7.6	15.5	7.6	18.7	9.7	25.6	9.7	26.8	10	9.45(UPS) 27.2(BAT)	10.1	
Gross weight(kg)	11.3	11	18.6	11.1	21.8	14	25.8	13.2	29.7	13.5	12.97(UPS) 30.2(BAT)	13.6	

- Derate capacity to 70% in CUCF mode and to 90% when the output voltage is adjusted to 208 Vac.
- S means standard model, H means long time model.
- All specifications are subject to change without notice.
- Custom-made specifications are acceptable.