

# On-Line UPS

## Sapphire RT Series



1000VA - 1500VA



### Features:

- Rack/Tower Convertible Design
- LCD Display may be rotated by simply pushing front button
- True Online Double Conversion
- Output Power Factor 0.9
- Comprehensive display allows easy monitoring and access of UPS status
- Smart SNMP works with either USB or RS-232
- Hot-swappable battery
- Efficiency up to 90%
- Estimated remaining time displayed on LCD
- Supports Economic (ECO) Operation Mode
- Matching Battery Banks Available
- Cold Start
- Power shedding function may turn off noncritical load in battery backup mode
- Emergency Power Off (EPO)
- Frequency Converter Mode is selectable

# On-Line UPS

## UPS SPECIFICATIONS:

Model	Sapphire RT Series	Sapphire RT 1	Sapphire RT 1.5	Sapphire RT 2
<b>Capacity</b>	VA/W	1000VA/900W	1500VA/1350W	2000VA/1800W
<b>Input</b>	Voltage Range	160-290VAC @ full load		
		140-290VAC @ 70% < load ≤ 80%		
		120-290VAC @ 60% < load ≤ 70%		
		110-290VAC @ load ≤ 60%		
	Frequency Range	Auto-Sensing		
	Phase	Single phase with ground		
	Current THDI	<7% (100% nonlinear load)		
	Power Factor	>0.98		
	Generator Input	Support		
	Breaker	7A	10A	16A
Input Socket	IEC320 C13-10A	IEC320 C13-10A	IEC320 C20-16A	
AC power cord	IEC320 C14-10A	IEC320 C14-10A	IEC320 C19-16A	
<b>Output</b>	Voltage	200/208/220/230/240VAC		
	Power Factor	0.9		
	Voltage Regulation	±2%		
	Frequency (Line Mode)	46-54Hz @ 50Hz		
	Frequency (Battery Mode)	50/60Hz ± 0.02Hz		
	Current Crest Ratio	3:1		
	Harmonic Distortion	≤ 3% THD (Linear Load)		
		≤ 5% THD (Non-Linear Load)		
	Output Waveform	Pure Sinewave		
	Outlet	(IEC C13-10A)*6	(IEC C13-10A)*6	(IEC C13-10A)*6
Overload Capacity	Line Mode	30S @ 100%-150% ; 300ms @ >150%		
	Battery Mode	30S @ 100%-150% ; 300ms @ >150%		
<b>Efficiency</b>	AC Mode	Full load ≥ 90%		
	Battery Mode	Full load ≥ 85%		
	ECO Mode	Full load ≥ 94%		
<b>Battery</b>	Number of Batteries Per Set	2	3	4
	Battery Type	12V/9Ah		
	Backup Time	Estimated remaining time displayed on the LCD		
	Recharge Time (to 90%)	5 Hours		
	Charging Current (Max)	1.2A	1.2A	1.2A
	Rated Battery Voltage	24VDC	36VDC	48VDC
	Protect	Over-voltage(14.7v) / Low-voltage(10v)		
	Battery Socket	Anderson like PowerPole Modular Connectors		
* Product specifications are subject to change without further notice				

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Model	Sapphire RT Series	Sapphire RT 1	Sapphire RT 1.5	Sapphire RT 2
Transfer Time	Mains ↔ Battery	0ms		
	Mains ↔ Bypass	<4ms		
Optional Features	Economic Mode (ECO Mode)	Support		
	EPO function	EPO connector on backplate and EPO keys on the front		
	Frequency Converter Mode	Support, set by LCD, can be 50Hz or 60Hz fixed frequency out		
Indicator	LCD Version (with LED)	Load/Battery/Input/Output/Operating Mode Information		
Audible Alarm	Battery Mode	Sounding every 4 seconds		
	Low Battery	Sounding every second		
	Overload	Sounding twice every second		
	Fault	Continuously sounding		
Physical	Dimension (WxDxH) mm	440 x 430 x 86.5		440 x 572 x 86.5
	Net Weight (kg)	15.1	18.1	22.2
Environment	Safety	CE		
	Operating Environment	0-40°C		
	Relative Humidity	0-90% (non-condensing)		
	Altitude	<1500m when >1500m, derating		
	Noise Level	<50dB@ 1 Meter		
Interface	Smart RS-232/USB (Preferential)	External Modbus card supported by RS232, Software supports Windows Family, Linus, FreeBSD		
	Intelligent Slot	SNMP (independent to RS232)		
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