

# On-Line UPS Sapphire RT Series





#### 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
- 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 Se	eries	Sapphire RT 1	Sapphire RT 1.5	Sapphire RT 2	
Capacity	VA/W		1000VA/900W	1500VA/1350W	2000VA/1800W	
Input	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	
Output	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	Line Mode	30S @ 100%-150% ;300ms @ >150%			
	Capacity Battery Mode		30S @ 100%-150% ;300ms @ >150%			
Efficiency	AC Mode		Full load>=90%			
	Battery Mode		Full load>=85%			
	ECO Mode		Full load>=94%			
Battery	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			
		* Prod	uct specifications are subject to cha	ange 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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