

# On-Line UPS

## Topaz Series



1-3KVA



### Features:

- True double-conversion design with high adaptability to harsh mains conditions
- Compact slim design
- Output power factor 0.9
- DSP design enables precise and reliable control
- High efficiency results in energy saving
- Programmable LCD display
- Recharge to 90% battery capacity within 4 hours
- USB HID enables communication without software
- Wide input range 100-300VAC

# On-Line UPS

## SPECIFICATIONS:

Model		Topaz 1	Topaz 2	Topaz 3
<b>Input</b>	Acceptable Input Voltage	100VAC~300VAC		
	Phase	Single phase with ground		
	Input Voltage Range to take 40% load	100VAC~300VAC		
	Input Voltage Range to take 100%	176VAC~300VAC		
	Inrush Current Limit	8*Irms		
	Input Power Factor	≥0.99		
	Input Frequency Range	45~55Hz / 54~66Hz		
	Input Protection	Breaker		
Generator Set	2.2 x UPS Rating Power			
<b>Output</b>	Power (VA) max	1000	2000	3000
	Power (W) max	900	1800	2700
	Power Factor	0.9		
	Waveform	Pure sine wave		
	Nominal Voltage	220VAC/230VAC/240VAC		
	Voltage Variation	± 1 %		
	Voltage Distortion	< 2% THD@linear load <6% THD @non-linear load		
<b>Output Frequency</b>	Synchronization Range	45~55Hz / 54~66Hz		
	Slew Rate	1 Hz/s		
	Battery Mode	(50/60±0.05) Hz		
<b>Transfer Time</b>	Invert Mode --> Battery Mode	0ms		
	Battery Mode --> Invert Mode	0ms		
	Invert Mode --> Bypass Mode	4ms		
<b>Full Load Efficiency</b>	Line mode with battery full charged	>89%	>91%	>91%
	ECO Mode	>97.5%	>98%	>98%
<b>Overload Capability</b>	Line Mode	100%~105%: Constant 105%~130%: 60s 130%~150%: 10s >150%: 300ms		
	Battery Mode	100%~105%: Constant 105%~130%: 10s 130%~150%: 1s >150%: 300ms Load>105% and Vbat<10.5V: 300ms		
	Bypass Mode	<130% continue working 130%≤load<180% 60s ≥180% 300ms		
<b>Battery</b>	Battery Rating/Type	12V/9AH x 2	12V/9AH x 4	12V/9AH x 6
	DC Voltage	24VDC	48VDC	72VDC
	Battery-Low Voltage	11.2V/pc @ 0~30% Load 11.0V/pc @ 30~70% Load 10.5V/pc @ >70% Load		
	Battery Shutdown Voltage	10.7V/pc @ 0~30% Load 10.2V/pc @ 30~70% Load 9.5V/pc @ > 70% Load		
	Leakge Current	< 150uA		
<p>Note: UPS cannot support half wave type load</p> <p>*Product specifications are subject to change without further notice</p>				

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Model		Topaz 1	Topaz 2	Topaz 3
<b>Charger</b>	Charger Current	1.5A		
	Floating Voltage Phase	13.65V/pc		
	Charging Time	4 hours to 90%		
<b>Features</b>	ECO Mode	Yes		
	Battery Capacity Calculation	Yes		
	Fan Speed Control	Yes		
	Frequency Converter Mode (CVCF)	Yes, 60% load		
<b>Indicator &amp; Alarm</b>	Battery Mode	Beeps every four seconds		
	Battery Low	Sounding every second		
	Overload	Sounding twice every second		
	Fault	Continuous beeping		
<b>Interface</b>	RS232	Yes		
	USB	Yes		
	EPO Function	Yes		
	Comm Slot	Yes (SNMP/AS400 Optional)		
	Dry Contact	Optional		
	Outlet socket	4 x IEC C13	4 x IEC C13	4 x IEC C13+1 x IEC C19
<b>Mechanical</b>	Dimensions (WxHxD) mm	144 x 228 x 356	190 x 327 x 399	190 x 327 x 399
	Weight (kg)	9.2	17.4	22.7
<b>Environmental</b>	Operating Temperature Range	0-40°C		
	Relative Humidity	0 ~ 95% (non-condensing)		
	Audible Noise (full load)	≤49dB	≤44dB	≤49dB
	Audible Noise (60% load)	≤39dB	≤36dB	≤41dB
<b>Regulations</b>	ESD	IEC 61000-4-2 Level 3		
	RS	IEC 61000-4-3 Level 3		
	EFT	IEC 61000-4-4 Level 4		
	Surge	IEC 61000-4-5 Level 4		
	Conduction	IEC 62040-2 Category C2		
	Radiation	IEC 62040-2 Category C2		
	Safety	CE		
	Transportation	Drop:ISTA 2A, Vibration: internal standard		
<b>Accessories</b>	Protection	IP20 (static)		
	User manual	Yes		
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