

# Crystal Series

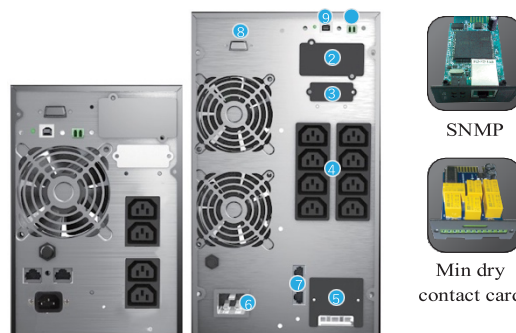
CL1000~CL3000  
1000VA~3000VA, 1:1 phase PF. 0.9



Control Panel

## Features

- Online Double Conversion UPS
- High power density.
- Output power factor up to 0.9.
- Three stage charging mode extends battery life, optimizes recharging time.
- Selectable high efficiency mode of operation.
- Cold start.
- Standard communication options: RS232 communication port, USB communication port, and relay output contacts or SNMP card.
- Power shedding function may turn off uncritical load in battery backup to make longer backup time for critical load.
- Extended runtime with up to four extended battery modules (EBPs) per UPS.
- Emergency shutdown control through the remote emergency power-off (EPO).
- Versatile LCD human-computer interface.



SNMP

Min dry contact card



External Battery Cabinet (Optional)

- 1- EPO port
- 2- Intelligent slot for SNMP card, dry contact card etc.
- 3- External battery cabinet connector
- 4- Output slots including two segments
- 5- Output terminals
- 6- Input Slot
- 7- RJ45 Surg Suppress
- 8- RS232 port
- 9- USB port

Technical Specifications:

MODEL		CL1000	CL2000	CL3000
Capacity (VA/Watts)		1000 / 900	2000 / 1800	3000 / 2700
Phase		Single phase with ground		
<b>INPUT</b>				
Nominal voltage		200/208/220/230/240Vac or 100/110/115/120/127Vac		
Input voltage range		110~300Vac or 55~150Vac @ 60% load, 160~300Vac or 80~145Vac @ 100% load		
Frequency range		45~55Hz/55~65Hz (Auto-detect)		
Power factor		≥0.99 @Nominal voltage (100% load)		
<b>OUTPUT</b>				
Output voltage		200/208/220/230/240Vac or 100/110/115/120/127Vac		
Power factor		0.9		
Voltage regulation		±1%		
Frequency range (Synchronized range)		45~55Hz / 56~64Hz		
Frequency range (Battery mode)		50Hz / 60Hz ±0.1Hz		
Current crest ratio		3:1		
Harmonic distortion		≤3% THD (Linear load) ≤6% THD (Non-linear load)		
Transfer time	AC to DC	Zero		
	Inverter to bypass	4ms (Typical)		
Waveform		Pure sinewave		
<b>EFFICIENCY</b>				
AC mode		88%	89%	90%
Battery mode		83%	85%	86%
<b>BATTERY</b>				
Standard model	Battery type	12V/9AH		
	Numbers	2/3	4/6/8	6/8
	Backup time	Estimated remaining time displayed on the LCD		
	Typical recharging time	4 hours recover to 90% capacity		
	Charging current(max.)	1.0A		
	Charging voltage	27.4/41.1Vdc ±1%	54.7Vdc /82.1Vdc /109.4Vdc±1%	82.1Vdc /109.4Vdc ±1%
Long run model (Only HV model)	Battery numbers	Depending on the capacity of external batteries		
	Charging current(max.)	6A/12A(Double board)		
	Charging voltage	27.4/41.1Vdc ±1%	54.7Vdc/82.1Vdc/109.4Vdc±1%	82.1Vdc/109.4Vdc ±1%
<b>INDICATORS</b>				
LCD		Load level, Battery level, AC mode, Battery mode, Bypass mode, and Fault indicators		
<b>ALARM</b>				
Battery mode		Beeping every 4 seconds		
Battery low		Beeping every second		
Overload		Beeping twice every second		
Fault		Continuously beeping		
<b>PHYSICAL</b>				
Standard model	Dimension, D×W×H(mm)	400×144×215	470×191×336	
	Net weight(kgs)	10/13	21/25/30	25/30
Long run model (Only HV model)	Dimension, D×W×H(mm)	400×144×215	470×191×336	
	Net weight(kgs)	5.6	11.0	11.5
<b>ENVIRONMENT</b>				
Humidity		20-90% RH @ 0-40°C (Non-condensing)		
Noise level		<50dB @ 1 Meter		
<b>MANAGEMENT</b>				
Smart RS232/USB		Supports Windows® 2000/2003/XP/Vista/2008 Windows® 7/8 Linux, FreeBSD and MAC		
Optional SNMP		Power management from SNMP manager and web browser		

Specifications are subject to change without prior notice.

