

# Sinus LCD Series

Uninterruptible Power Systems

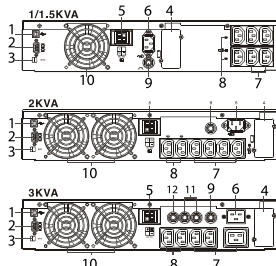
On-Line "Double Conversion" Technology

1 phase in-1 phase out, 1kVA to 3kVA (Tower & Rack Convertible)



- On-line 'double conversion' technology
- Real Digital Signal Processor (DSP) Controller
- Power factor correction
- User friendly LCD display
- Programmable Receptacles
- Wide input voltage range and frequency
- Smart communication port and SNMP management capability
- Hot Swappable Battery
- Emergency shutdown control through EPO
- Overload & short circuit protection
- Powerful Built-in Charger
- Extended back up time with battery cabinet
- Cold start (DC power on)
- Genius battery management (GBM)
- RS232, USB and SNMP can be activated simultaneously
- Compact size, light weight & low noise

## Rear Panel Views



Authorized distributor:

- 1.USB Port
2. RS232 Port
- 3.Emergency Power Off (EPO) Dry Contact Signal
- 4.Communication Card Options Slot
- 5.External Battery Connector
- 6.AC power connection socket
- 7.AC Outlets
- 8.Two programmable outlets
- 9.Utility Input circuit breaker
- 10.Cooling Fans
- 11.Output circuit breaker for two outlets
- 12.Output circuit breaker for two programmable outlets

## Accessories

### Communication

- Internal SNMP Slot Card
- External SNMP Adapter  
SNMP Adapter Net Agent Mini DP522  
SNMP Adapter CS121BL
- USB Board
- Dry Contact Board

### Battery Cabinets

- BC 2000-sinus, RMBC 2000-sinus
- BC 3000-sinus, RMBC 3000-sinus

### Other

- 200W Additional charger card for 1,2&3kva
- 500W Additional charger card for 2&3kva
- Rail Kit
- External Manual Bypass Switch  
MTBS-SS123
- External Battery Connection Cable

\*Communication Port and Software are standard.

## Package Content

- User Manual
- RS232 Communication Cable
- RJ11 Phone Cable
- Power Cable for 1000VA and 3000VA
- Fixed power cable for 2000VA on the ups
- 1 piece IEC Cable for 1000VA
- 2 pieces IEC Cable for 2000VA & 3000VA
- UPSMAN Software
- Accessories for Rack Tower Applications

# Sinus LCD Specifications

MODEL	SS LCD 210	SS LCD 220	SS LCD 230
<b>INPUT</b>			
Power(kVA)	1	2	3
Voltage	160 VAC - 288 VAC		
Frequency	50/60 Hz $\pm 5\%$ (Auto Sensing)		
Power Factor	$>0,99$		
<b>OUTPUT</b>			
Power Factor	0,8		
Voltage	220VAC / 230 / 240VAC		
Voltage Regulation	$\pm 1\%$		
Frequency	50/60 Hz (Auto Detection)		
Frequency Regulation	$\pm 0,1\%$		
Harmonic Distortion	$<3\%$		
Crest Factor	3:1		
Overload Capacity	100%-120% for 30 Seconds, 120%-150% For 10 Seconds		
Whole Efficiency	$>85\%$		$>88\%$
Inverter Efficiency	$>90\%$		
Transfer Time	0ms		
<b>BATTERY</b>			
Battery Type	Maintenance - Free Lead Acid Batteries		
DC Voltage	36V	72V	
Internal Battery	3pcs 12V 7Ah	6pcs 12V 7Ah	6pcs 12V 9Ah
Back Up Time	Full Load	7 min.	5 min.
	Half Load	20 min.	15 min.
Recharge Time	3 Hours (to 90% Of Full Capacity)		
<b>DISPLAY</b>			
LCD Panel	Input / Output Voltage And Frequency Values, Load %, Battery Voltage, Internal Temperature		
LED Indicators	Utility Or By Pass, Battery Low, Battery Abnormal, Overload, Site Wiring Fault, Service Mode, Ups Off, Ups Abnormal Indicators		
<b>ALARMS</b>			
	Line Failure, Battery Low, Over Load, Failure Events		
<b>PROTECTIONS</b>			
	Short Circuit, Over Temperature, Overload, High Voltage, Battery Low, EPO		
<b>COMMUNICATION</b>			
Interface ( Communication Ports )	RS232 and USB		
Slots	Relay Contact Board, SNMP / WEB Card		
<b>ENVIRONMENT</b>			
Temparature	0°C - 40°C		
Humidity	0% - 90%		
Noise Level (1m Distance)	$<50\text{dBA}$ (At 1 Meter)		
Protection Class	IP 20		
<b>PHYSICAL</b>			
Outlets	6pcs IEC	6pcs IEC	4pcs IEC
Dimensions (mm) WxDxH	440x88x405	440x88x650	440x88x650
Net Weight (kg)	16	29,5	30
<b>STANDARDS</b>			
Standards	EN 62040-1-1 (Safety), EN 62040-2(EMC)		



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