

## Sinus Premium & Premium LCD Series

On-Line "Double Conversion" Technology 1 phase in-1 phase out 1kVA to 3kVA

- ➤ Online double conversion technology
- ► Input power factor correction PFC (>0,99)
- ► High output power factor ( PF : 0.9 )
- ➤ Pure sinewave output less than 3% THD
- ➤ Wide input voltage / Frequency range
- Smart RS-232 communication port
- ► Internal SNMP Slot Card Option
- ➤ Management software compatible
- ► Overload & short circuit protection
- Cold start (DC power on)
- ➤ Smart battery management
- ➤ Compact size, light weight & low noise



## Sinus Premium & Premium LCD Series Technical Specifications

MODEL	SPS 210 SPS LCD 210	SPS 220 SPS LCD 220	SPS 230 SPS LCD 230
Power (kVA) NPUT	1	2	3
Voltage Range	160VAC ~ 300VAC (@ 0% to 78% Load) 185VAC ~ 260VAC (@ 78% to 89% Load) 210VAC ~ 240VAC (@ 89% to 100% Load)		
requency	45Hz - 65Hz		
Power Factor		≥0.99 (@full linear load)	
DUTPUT			
Output Power Factor		0,9	
/oltage		220V / 230V / 240VAC	
/oltage Regulation	<±1% (till low battery warning signal)		
requency (Synchronized range)	3Hz or IHz (selectable)		
requency (Battery Mode)	50 / 60Hz±0.1%		
Harmonic Distortion	<3% (@full linear load), <6% (@full non-linear load)		
rest Factor	3:1		
Output Waveform	Sinusoidal		
Overload Capacity	100%-105%: Continous		
	106%-120% for 30 seconds 121%-150% for 10 seconds		
	>150% : Transfer to Bypass		
ine Mode efficiency	±>86%	±>87%	±>88%
Battery Mode efficiency	±>85%	±>86%	±>87%
ransfer Time (AC to DC)	27 03/0	Oms	
Outlets	3pcs IEC C13 & 1pc Schuko	3pcs IEC C13 & 2pcs Schuko	6pcs IEC C13 & 2pcs Schuko
ATTERY	Spes ize els o ipe seriano	Spesilee els o apes serialio	opes lee cls o apes seriallo
ype		Maintenance-free lead acid batteries	
Recharge Time		5 hours (to 80% of full capacity)	
/oltage	24VDC	48VDC	72VDC
nternal Battery	2pcs 12V 7Ah	4 pcs 12V 7Ah	6 pcs 12V 9Ah
Cold Start	250312477111	YFS	0 pc3 12 v 7/ 11
DISPLAY		123	
.ED Display	Normal Mode, Battery Mode, Bypass Mode, Self-Test, Weak-Bad Batery, Site Wiring Fault, Fault, Overlaod, Load/Battery Level		
.CD Display (Optional)		put/Output/Bypass Frequency, Load%, Ba	
ALARMS		F	
1L/181010			
AL/AIKIVIS	Batt	ery Mode. Battery Low. Overload. Failure F	vents
	Bati	ery Mode, Battery Low, Overload, Failure E	vents
PROTECTION			
PROTECTION Short Circuit		utput Breaker / Electronic Circuit, Battery N	
PROTECTION Short Circuit Battery		utput Breaker / Electronic Circuit, Battery N Battery Discharge Management	
PROTECTION Short Circuit Battery EPO	Bypass Mode: Fuse, Normal Mode: Ou	utput Breaker / Electronic Circuit, Battery N Battery Discharge Management UPS shuts down immidiately	Mode: Output Breaker / Electronic Circ
PROTECTION Short Circuit Battery PO Over Temperature	Bypass Mode: Fuse, Normal Mode: Ou	utput Breaker / Electronic Circuit, Battery N Battery Discharge Management	Mode: Output Breaker / Electronic Circ
PROTECTION Short Circuit Battery EPO Diver Temperature COMMUNICATION	Bypass Mode: Fuse, Normal Mode: Ou	utput Breaker / Electronic Circuit, Battery N Battery Discharge Management UPS shuts down immidiately Fers to Bypass Mode, Battery Mode: UPS s	Mode: Output Breaker / Electronic Circ
PROTECTION Short Circuit Battery EPO Over Temperature COMMUNICATION Interface (Communication Ports)	Bypass Mode: Fuse, Normal Mode: Ou	utput Breaker / Electronic Circuit, Battery N Battery Discharge Management UPS shuts down immidiately	Mode: Output Breaker / Electronic Circ
PROTECTION Short Circuit Sattery EPO Over Temperature COMMUNICATION Interface (Communication Ports) Monitoring and Management Software	Bypass Mode: Fuse, Normal Mode: Ou	utput Breaker / Electronic Circuit, Battery N Battery Discharge Management UPS shuts down immidiately Fers to Bypass Mode, Battery Mode: UPS s RS-232 Standard, Optional USB Standard	Mode: Output Breaker / Electronic Circ
PROTECTION Short Circuit Sattery EPO Over Temperature COMMUNICATION Interface (Communication Ports) Monitoring and Management Software Options	Bypass Mode: Fuse, Normal Mode: Ou	utput Breaker / Electronic Circuit, Battery N Battery Discharge Management UPS shuts down immidiately Fers to Bypass Mode, Battery Mode: UPS s RS-232 Standard, Optional USB	Mode: Output Breaker / Electronic Circ
PROTECTION Short Circuit Sattery PO Over Temperature COMMUNICATION Interface (Communication Ports) Monitoring and Management Software Options ENVIRONMENT	Bypass Mode: Fuse, Normal Mode: Ou	utput Breaker / Electronic Circuit, Battery N Battery Discharge Management UPS shuts down immidiately Fers to Bypass Mode, Battery Mode: UPS s RS-232 Standard, Optional USB Standard	Mode: Output Breaker / Electronic Circ
PROTECTION Short Circuit Sattery PO Over Temperature COMMUNICATION Interface (Communication Ports) Monitoring and Management Software Options ENVIRONMENT Emparature	Bypass Mode: Fuse, Normal Mode: Ou	utput Breaker / Electronic Circuit, Battery N Battery Discharge Management UPS shuts down immidiately Fers to Bypass Mode, Battery Mode: UPS s RS-232 Standard, Optional USB Standard Dry Contact Board, USB Board, SNMP Ca	Mode: Output Breaker / Electronic Circ
PROTECTION Short Circuit Battery SPO Diver Temperature COMMUNICATION Interface (Communication Ports) Monitoring and Management Software Diptions ENVIRONMENT Emparature Humidity	Bypass Mode: Fuse, Normal Mode: Ou	Litput Breaker / Electronic Circuit, Battery N Battery Discharge Management UPS shuts down immidiately Fers to Bypass Mode, Battery Mode: UPS s RS-232 Standard, Optional USB Standard Dry Contact Board, USB Board, SNMP Ca	Mode: Output Breaker / Electronic Circ
PROTECTION Short Circuit Sattery EPO Over Temperature COMMUNICATION Interface (Communication Ports) Monitoring and Management Software Options ENVIRONMENT Temparature Humidity Noise Level (Im Distance) Protection Class	Bypass Mode: Fuse, Normal Mode: Ou	utput Breaker / Electronic Circuit, Battery N Battery Discharge Management UPS shuts down immidiately Fers to Bypass Mode, Battery Mode: UPS s RS-232 Standard, Optional USB Standard Dry Contact Board, USB Board, SNMP Ca 0°C - 40°C	Mode: Output Breaker / Electronic Circ
PROTECTION Short Circuit Sattery EPO Over Temperature COMMUNICATION Interface (Communication Ports) Monitoring and Management Software Options ENVIRONMENT Gemparature Humidity Noise Level (Im Distance)	Bypass Mode: Fuse, Normal Mode: Ou	utput Breaker / Electronic Circuit, Battery N Battery Discharge Management UPS shuts down immidiately Fers to Bypass Mode, Battery Mode: UPS s RS-232 Standard, Optional USB Standard Dry Contact Board, USB Board, SNMP Ca  0°C - 40°C 0% - 90% (without condensation) <50dBA	Mode: Output Breaker / Electronic Circ
PROTECTION Short Circuit Sattery EPO Dover Temperature COMMUNICATION Interface (Communication Ports) Monitoring and Management Software Dotions ENVIRONMENT Temparature Humidity Noise Level (Im Distance) Protection Class PHYSICAL SPECIFICATIONS	Bypass Mode: Fuse, Normal Mode: Ou	utput Breaker / Electronic Circuit, Battery N Battery Discharge Management UPS shuts down immidiately Fers to Bypass Mode, Battery Mode: UPS s RS-232 Standard, Optional USB Standard Dry Contact Board, USB Board, SNMP Ca  0°C - 40°C 0% - 90% (without condensation) <50dBA	Mode: Output Breaker / Electronic Circ
PROTECTION Short Circuit Shattery PO Diver Temperature COMMUNICATION Interface (Communication Ports) Moritoring and Management Software Diptions ENVIRONMENT Temparature Humidity Noise Level (Im Distance) Protection Class PHYSICAL SPECIFICATIONS Net Weight (kg)	Bypass Mode: Fuse, Normal Mode: Ou  Normal Mode: Transl	utput Breaker / Electronic Circuit, Battery N Battery Discharge Management UPS shuts down immidiately fers to Bypass Mode, Battery Mode: UPS s RS-232 Standard, Optional USB Standard Dry Contact Board, USB Board, SNMP Ca  O°C - 40°C O% - 90% (without condensation) <50dBA IP20	Mode: Output Breaker / Electronic Circonhuts down immidiately
PROTECTION Short Circuit Battery EPO Diver Temperature COMMUNICATION Interface (Communication Ports) Monitoring and Management Software Diptions ENVIRONMENT Temparature Humidity Noise Level (Im Distance) Protection Class PHYSICAL SPECIFICATIONS Net Weight (kg) Dimensions (mm) WXDXH	Bypass Mode: Fuse, Normal Mode: Ou Normal Mode: Transl	utput Breaker / Electronic Circuit, Battery N Battery Discharge Management UPS shuts down immidiately Fers to Bypass Mode, Battery Mode: UPS s RS-232 Standard, Optional USB Standard Dry Contact Board, USB Board, SNMP Ca  O°C - 40°C O% - 90% (without condensation) <50dBA IP20	Mode: Output Breaker / Electronic Circ
PROTECTION Short Circuit Sattery EPO Over Temperature COMMUNICATION Interface (Communication Ports) Moritary More Temperature COMMUNICATION Interface (Communication Ports) More Temperature Humidity More Level (Im Distance) Protection Class PHYSICAL SPECIFICATIONS Net Weight (kg)	Bypass Mode: Fuse, Normal Mode: Ou  Normal Mode: Transl	utput Breaker / Electronic Circuit, Battery N Battery Discharge Management UPS shuts down immidiately Fers to Bypass Mode, Battery Mode: UPS s RS-232 Standard, Optional USB Standard Dry Contact Board, USB Board, SNMP Ca  0°C - 40°C 0% - 90% (without condensation) <50dBA IP20  22 152x438x322	Mode: Output Breaker / Electronic Circ huts down immidiately rd 27 190x438x322
PROTECTION  Short Circuit Battery EPO Diver Temperature COMMUNICATION Interface (Communication Ports) Monitoring and Management Software Divions ENVIRONMENT Emparature Humidity Noise Level (Im Distance) Protection Class PHEYSICAL SPECIFICATIONS Net Weight (kg) Dimensions (mm) WXDXH STANDARDS	Bypass Mode: Fuse, Normal Mode: Ou  Normal Mode: Transl	utput Breaker / Electronic Circuit, Battery N Battery Discharge Management UPS shuts down immidiately fers to Bypass Mode, Battery Mode: UPS s RS-232 Standard, Optional USB Standard Dry Contact Board, USB Board, SNMP Ca  O°C - 40°C O% - 90% (without condensation) <50dBA IP20	Mode: Output Breaker / Electronic Circu huts down immidiately rd 27 190x438x322