

MPOWER UPS



SINUS LCD SERIES

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10 years of uninterruptible power

SINUS LCD SERIES

On-line "Double Conversion" Technology. 1 PHASE IN - 1 PHASE OUT. 1kVA to 3kVA
True online technology continuously supplies your critical device with stable, regulated, transient-free pure sine wave AC Power.

- High efficiency PWM sine-wave topology with transformerless technology
- Handles high in-rush current loads without the need to upgrade the power rating
- Plug-and-Play design to allow easy installation
- All units supplied with input cables and output sockets.
- Built-in sealed battery
- Extended run time available with external battery pack
- Automatic overload protection
- Automatic switch to stand-by, with audible and visual alarms, in the event of short circuit output.
- Rack/tower convertible allowing easy installation where there are space constraints
- Wide input voltage tolerance 120V to 288V
- DC-start function ensures start-up even during power outages
- Enhanced battery management system extends battery life span
- Active power factor correction constantly maintains Input Power Factor at >0.99 for improved energy efficiency
- Selectable Output Voltages 200/208/220/230/240V



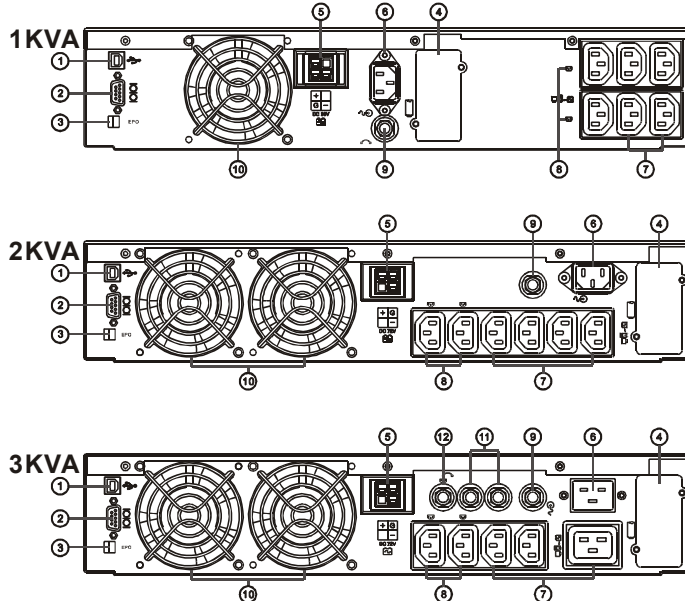
General

Designed and built to protect your electronic equipment from power fluctuations, this UPS is your insurance for a reliable, clean and stable supply.

The multi-functional LCD/LED panel displays various readings including voltage, load status and inner cabinet temperature. Fully programmable from the display,

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230V



Rear Panel

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

Communication

The UPS is equipped with EPO dry contact input, and true RS232 & USB Communication port as standard. The serial ports provide communication with bundled UPS monitoring software for remote monitoring of UPS status via PC.

There are 4 other optional interface cards available to meet various communication needs:

- DCE (dry contact relay card)
- R2E (second RS232 card)
- USE (USB card)
- SNMP/WEB card.

Specification

| MODEL | SS LCD 210 | SS LCD 220 | SS LCD 230 |
|------------------------------------|--|----------------|----------------|
| Power(kVA) | 1 | 2 | 3 |
| INPUT | | | |
| Voltage | 160VAC - 288VAC | | |
| Frequency | 50/60 Hz \pm 5% (Auto Sensing) | | |
| Power Factor | $>$ 99% | | |
| OUTPUT | | | |
| Power Factor | 0.8 | | |
| Voltage | 220 / 230 / 240VAC | | |
| Voltage Regulation | \pm %1 | | |
| Frequency | 50/60 Hz | | |
| Frequency Regulation | \pm 0,1% | | |
| Harmonic Distortion | $<$ 3% | | |
| Crest Factor | 3:1 | | |
| Output Waveform | Sinusoidal | | |
| Overload Capacity | 100%-120% for 30 seconds | | |
| | 120%-150% for 10seconds | | |
| Whole efficiency | $>$ 85% | | $>$ 88% |
| Transfer Time | 0ms | | |
| Outlets | 6pcs IEC C13 | | 4pcs IEC C13 |
| INTERNAL BATTERY | | | |
| Type | Maintenance-free lead acid batteries | | |
| Recharge Time | 3 hours (to 90% of full capacity) | | |
| Voltage | 36VDC | 72VDC | |
| Internal Battery | 3pcs 12V 7Ah | 6pcs 12V 7Ah | 6pcs 12V 9Ah |
| Built in max. Charge Current | 1.8A | 2.1A | 2.7A |
| Back Up Time | Full Load | 5 min | |
| | Half Load | 12 min | |
| Cold Start | YES | | |
| DISPLAY | | | |
| LED Display | Utility or Bypass, Battery Low, Battery Abnormal, Overload, Site Wiring Fault, Service Mode, UPS Off, UPS Abnormal | | |
| LCD Display | Input /Output Voltage and Frequency Values, Load %, Battery Voltage, Internal Temperature | | |
| ALARMS | | | |
| | Line Failure, Battery Low, Over Load, Failure Events | | |
| PROTECTION | | | |
| | Short Circuit, Over Temperature, Overload, High Voltage, Battery Low, EPO | | |
| COMMUNICATION | | | |
| Interface | RS232 and USB | | |
| Monitoring and Management Software | Standard | | |
| ENVIRONMENT | | | |
| Temperature | 0°C - 40°C | | |
| Humidity | 0% - 90% (without condensation) | | |
| Noise Level (1m Distance) | $<$ 50dBA | | |
| Protection Class | IP 20 | | |
| PHYSICAL SPECIFICATIONS | | | |
| Net Weight (kg) | 16 | 29.5 | 30 |
| Dimensions(mm) WxHxD | 440 x 88 x 405 | 440 x 88 x 650 | 440 x 88 x 650 |
| STANDARDS | | | |
| Standards | EN 62040-1-1 (Safety), EN 62040-2 (EMC) | | |
| ACCESSORIES | | | |
| Optional | Internal & External SNMP, Dry Contact Board, External Manual Bypass, Rail Kit, External Battery Connection Cable | | |

