UNINTERRUPTIBLE POWER SUPPLY

The versatility of convertible rack/tower UPS SR LCD series, on-line double conversion with DSP technology, Digital Signal Processor, is the perfect solution for powering sensitive "mission critical" users that require reliability and performance from a static UPS. Input power factor correction and high reliability provide a higher level of Power Quality for all sensitive electronic devices and safety devices such as electromedical devices.

PRINCIPLES OF WORKING

The backup series is composed by: Rectifier, Inverter, Static Switch, manual by-pass and Battery.
The Rectifier-Inverter line normally feeds the users, and the Battery is kept charged by the Rectifier.

If a black out occurs, the Battery supplies power energy to users always through the Inverter. When the blackout is over, the Rectifier provides for Battery charge.

If a short circuit or an overload occurs to the users, the Static By-pass switches the load over the emergency line. When the fault is over, the Inverter feeds users.

FEATURES

- ✓ ONLINE double conversion technology
- ✓ Output power factor PF 0.9
- ✓ Versatility rack/tower with rotating LCD
- ✓ Sinusoidal voltage, filtered & stabilized
- ✓ Power factor correction
- ✓ Wide tolerance on the input voltage without battery intervention
- ✓ Zero intervention time
- ✓ Cold start, UPS start from battery or from mains
- ✓ Additional battery modules
- ✓ Automatic and manual battery test
- ✓ LCD display for measurements and system parameters
- ✓ Full discharge battery protection
- ✓ Remote start / stop function
- ✓ EPO, RS232 & USB standard
- ✓ 50 or 60Hz converter function

Main accessory feature
- ✓ dry contacts, RS485 and SNMP interfaces
- ✓ CEI 0-16 version
- ✓ External manual by-pass
- ✓ External isolation transformer

CONTROL PANEL

The front panel provides all the major parameters and the operating status of the UPS, which includes complete diagnostics and a simple user interface.

INTERFACES

Each UPS of the SR LCD series is equipped in standard configuration with an RS232 and USB communication port, which allow connection with the software, supplied free of charge on request, for remote monitoring of the UPS status via PC.

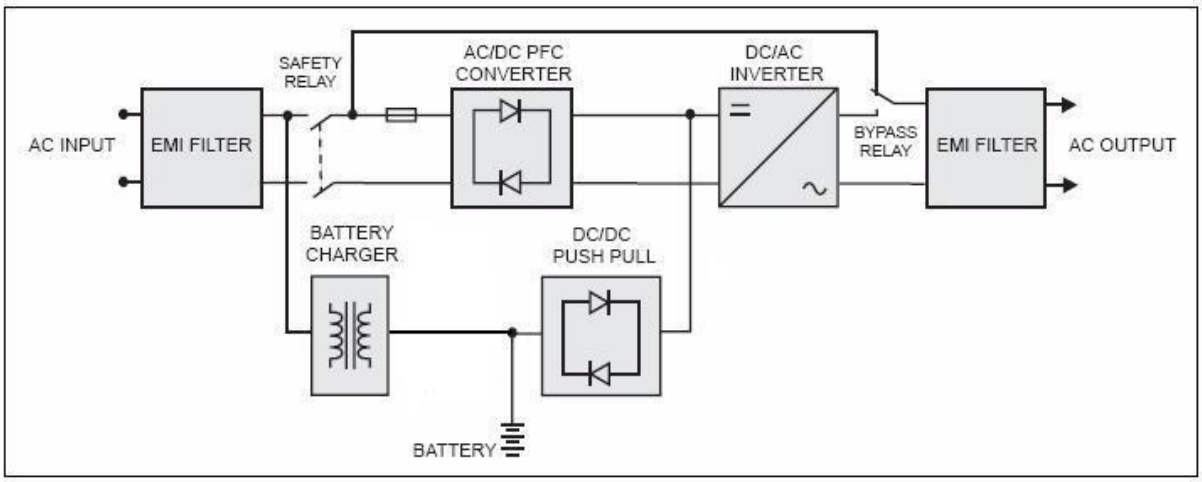
Several optional interface cards are available for various communication requirements. All optional communication ports can be activated and used simultaneously for monitoring the status of the UPS; UPS control can take place via only one communication interface at a time (the one with the highest priority).

Emergency Power Off, the EPO terminal, located on the back of the UPS, uses a NO contact which, if closed, starts the shutdown sequence. Through a dedicated tool it is possible to configure it NC or it can be set up for remote start and shutdown.

REAR PANEL

Slot for optional interface.
EPO
USB port
RS232 port
Connector for external battery
AC outlet sockets
Input switch
Input cable socket
Output switches for two lines (optional).

BLOCK DIAGRAM



SINGLE PHASE ONLINE LCD UPS

Rev. 4 SRLCD 1– 3kVA

MODEL	SR1000LCD	SR2000LCD	SR3000LCD
Rated power VA/W	1000VA/900W	2000VA/1800W	3000VA/2700W

INPUT	
Nominal Voltage	230Vac (110~300Vac*) 1PH+N
Frequency window	45-65Hz with automatic selection
Power factor	≥ 0.99 at full linear load
Distortion (THiD)	< 6%

OUPUT	
Voltage	220/230/240V ± 1% 2w, selectable
Frequency	50Hz or 60Hz ± ±1Hz or ±3Hz (selectable)
Waveform	Sinusoidal
Distortion (THD)	<3% @100% linear load; <7% @100% at non-linear load
Transfer time	0 msec.
Crest factor	3:1
Overload	106-120%: transfer to bypass within 30 seconds. 121-150%: transfer to bypass within 10 seconds. > 150 %: transfer to immediate bypass

BATTERY			
Type	Sealed maintenance free lead acid		
Recharge time	4h @ 90%		
Battery voltage	36Vdc	72Vdc	72Vdc
Std charging current	1.8 A	2.1 A	2.7 A

PROTECTIONS	
Short circuit output	Automatic load disconnection
overheating	Bypass line switching
Noise suppression	Compliant with EN62040-2
Spike suppression	Compliant with EN61000-4-5

MISCELLANEOUS			
Protections	Overload, high temperature, short circuit, complete battery discharge		
Efficiency	Up to 92% in online mode / up to 97% in eco mode		
LCD measures	Input voltage, output voltage, input frequency output frequency, applied load level, battery charge level, estimated residual autonomy		
UPS self-diagnosis	manual and automatic		
Audible alarms	Mains failure, low battery, transfer to bypass, fault alarm		
Relative humidity	20%~95% without condensing		
Output terminals	3 x IEC-320-C13 (10A)	6 x IEC-320-C13 (10A)	6 x IEC-320-C13 (10A) 1 x IEC-320-C19 (16A)
Optional external battery	Plug-in & Play		
Dimensions (mm)	440x405x88	440x432x176	440x432x176
Weight (kgs)	12	22	25

STANDARDS	
Safety	IEC EN 62040-1
EMC	IEC EN 62040-2
Marks	CE

* range according to the applied load 110/140/160-300Vac 0-25%/ 25-50% / 50-100%.