











## **Advanced Active Power PFC Online UPS**

### **Features**

- Power Factor Corrector
- Digital Signal Processor
- Isolation Transformer
- Static Bypass

### **Technology**

- DSP technology
- IGBT Based Rectifier and Inverter

### **Interface**

- SNMP compatible
- User-friendly LCD display True RMS reading
- Fault condition Status display Event logging

#### **Power Factor Corrections**

- Reduces the running cost in terms of electricity bill
- Prevent the overrating of electrical wire
- Reduce reflected harmonies back to the source
- Savings in sizing of utility transformer & generator

### **Topology**

- Bifilar PWM switching
- IGBT Based MPWM with instantaneous Sinewave Control

### **Ideal Power-conditioner**

- Constant Frequency source
- Premium Quality Galvanically isolated
- Power Factor Corrector

# **Uninterrupted Premium Quality Power using Power-Conditioning topology**

The factors contributing to the pre-mature failure of electrical gadgets and eventually the system failure is not limited only to voltage fluctuations but also the poor quality of power. Hence, importance should not only be given for power availability but also for quality power availability.

## SH 933 is a complete Power-conditioner & Power Factor Corrector

Optimizes the product life & process uptime by 35%-40%.

- High Grade Premium quality power, Constant voltage and Frequency,
- Galvanic isolation at the output.
- Operating ambient temperature 0-45 degrees.
- Overload handling capability of 150% for 1 minute.
- · High surge handling capability.





## Regenerative Energy and Handling Capability.

All the 3PH-3PH Online UPS of RAPSTECH are capable of handling regenerative energy and SH 933 is no exception. SH 933 senses the regenerative back feed voltage (AC voltage) and clamps the same using resistive load bank.

The re-generative braking energy is produced in the following conditions.

Quickly decelerating a high inertia (mechanical arm, flywheel), controlling the speed of a load moving downwards (Milling, cutting, declining conveyor), sudden drop in load torque (Drilling operation, industrial saw), repetitive acceleration and retardation to stop etc.

The conventional Online UPS cannot absorb this energy and the DC bus voltage starts increasing and leads to failure of DC capacitor and switching device.

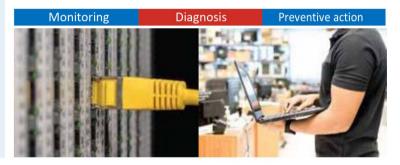
## **Remote UPS Monitoring Software Interface**

Monitor the UPS mains input voltage, output voltage, battery voltage, load percentage etc from a remote location.

SNMP feature facilitates the user to Carry-Out Preventive Action Remotely without physically reaching the UPS. Pre-tripalarm pops on the monitoring screen prompting the user/system admin/maintenance engineer to initiate preventive action. Without the SNMP feature, the pre-trip alarms are often unnoticed as the UPS is located away from the users and can cause ungraceful shutdown of machines/servers/process.

SMS STATUS from the registered mobile number and get instant SMS about the mains input voltage, output voltage, battery voltage, load current etc. Also receive SMS alert for pre-trip like battery low, overload and over temperature.

## **SNMP-Simple Network Monitoring Protocol**







## **Technical Specifications: SH 933**

Model		9	SH 93	3 10-1	l5kVA	SH	933	20-40	kVA	SH	933 50-20	OkVA	
Phase			3 Phase Input / 3 Phase Output										
INPUT													
Input Voltage			415VAC, (3Ø + N + PE)										
Input Voltage Range			330VAC - 470VAC										
Input Frequency		45-55Hz											
Input Power Factor			100% load: > 0.95										
OUTPUT													
Nominal Voltage			Three Phase 400VAC, Five Wire (3Ø + N + PE)										
Regulation			( ± ) 1%										
Rated Power Factor			0.8										
Frequency			50 Hz ± 0.1Hz Unsync Mode										
Waveform			True Sinewave										
Total Harmonic			Linear Load: < 2% , Non Linear Load: < 5%										
Distortion		Linear Load. \ 270 , Nort Linear Load. \ 370											
Over Load Capacity			100%: Continuous, 110%: 10 Minutes, 150%: 1 Minute										
Crest Factor		3:1											
Isolation		True Online with complete galvanic isolation.											
BATTERY													
DC BUS			240 Vdc				360 Vdc				360 Vdc		
Charging Current			10A				15A			20A			
Number of Batteries			20 no's			30 no's			30 no's				
SYSTEM													
Protection		Advanced Electronic Protection for device safety backed up,											
			with MCB's/ MCCBs & fast acting fuses										
Communications			SNMP, GSM Based SMS Alert, RMP (Optional)										
Bypass			Static & Manual Bypass (Provided)										
LED Indications		Mains on • UPS on • Battery Low • Overload											
(Single LED with multi function)		•	Input Voltage • Output Voltage • Load current • Output Frequency • Battery Voltage										
Physical	10 kVA		20 kVA	30 kVA	40 kVA	50 kVA	60 kVA	80 kVA	100 kVA	120 kVA	150 kVA	200 kVA	
Dimensions (W X D X H) (mm)	780 x 400 x 800	86	65 x 480 x 9	30	870 x 500 x 1125		1000 x	600 x1200		600 x 1150 x 1200	760 x 1520 x 1310	760 x 1470 x 1470	
Net Weight (kg)	170 kg	175 kg	75 kg   195 kg   220 kg   280 kg   335 kg   370 kg   405 kg   405 kg   87		870 Kg								

<sup>\*</sup> All specifications subject to change without notice

