

93M Series Modular Online UPS 25-600kVA (380V/400V/415V)

The 93M series modular UPS provides the most compact footprint of less than 2m² with maximum capacity of 900kVA. With best reliability and high performance, it has been leading the domestic market for years.

93M series is considered to be the best power protection solution for large data centers, as well as for sensitive electronics.



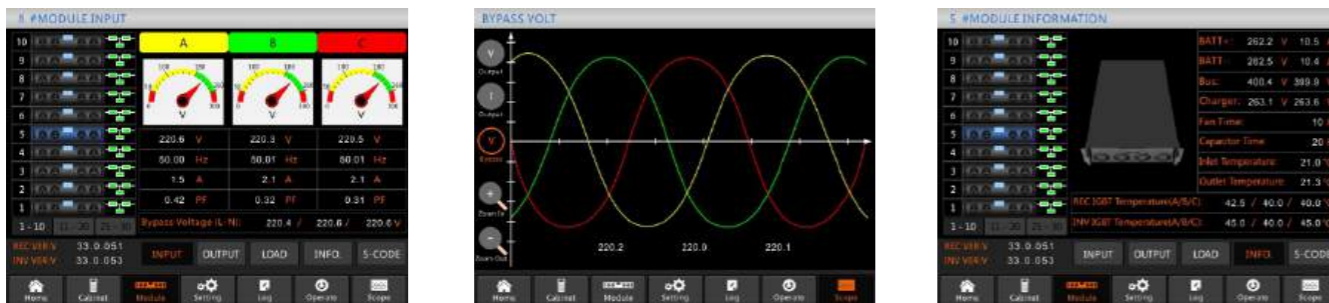
Independent LCD for Each Power Module

Each power module has an independent LCD, gives users' direct overview of status data and alarms in real time.



Friendly Interface

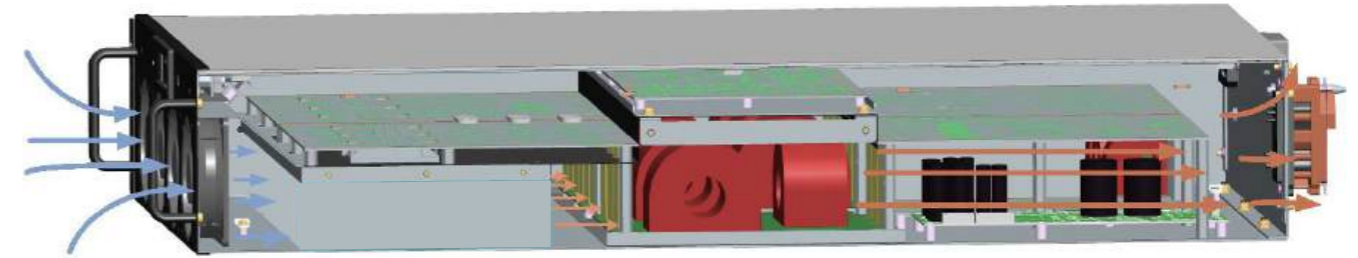
Provide graphical and text based information of alarms, status data, instructions that users can have more friendly and safer operation.



Isolated Air Flow

The dedicated and redundant hot-swappable power modules take the most unique structure design. In this design, the PCB boards and heat-sinkers are in two completely different layers, which allows the UPS run in dusty environments, significantly improving its stability and environmental adaptability.

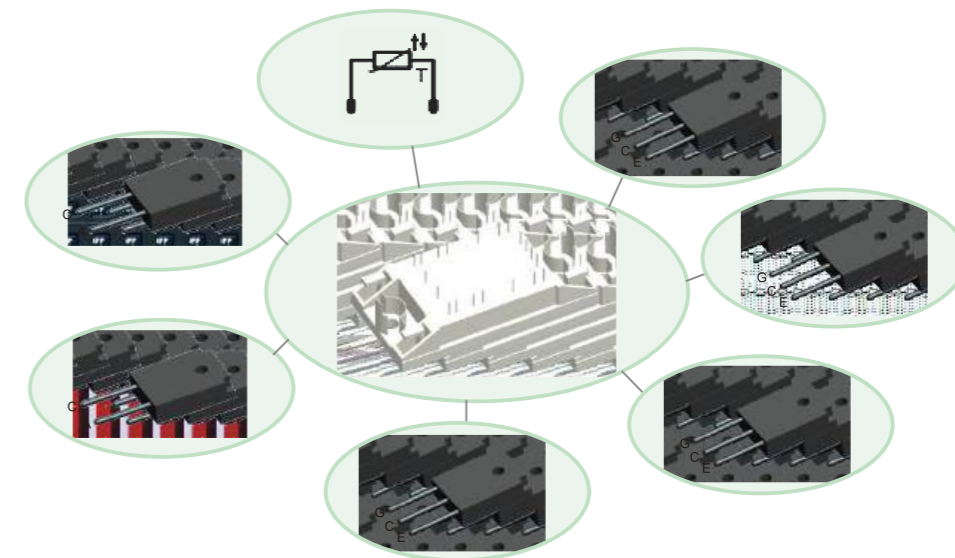
- Cooling air flows in the lower layer, keeping the upper PCB free of dust
- One air flow channel ensures fans redundancy, even one fan fails, power module can run normally



Unique Design for High Reliability

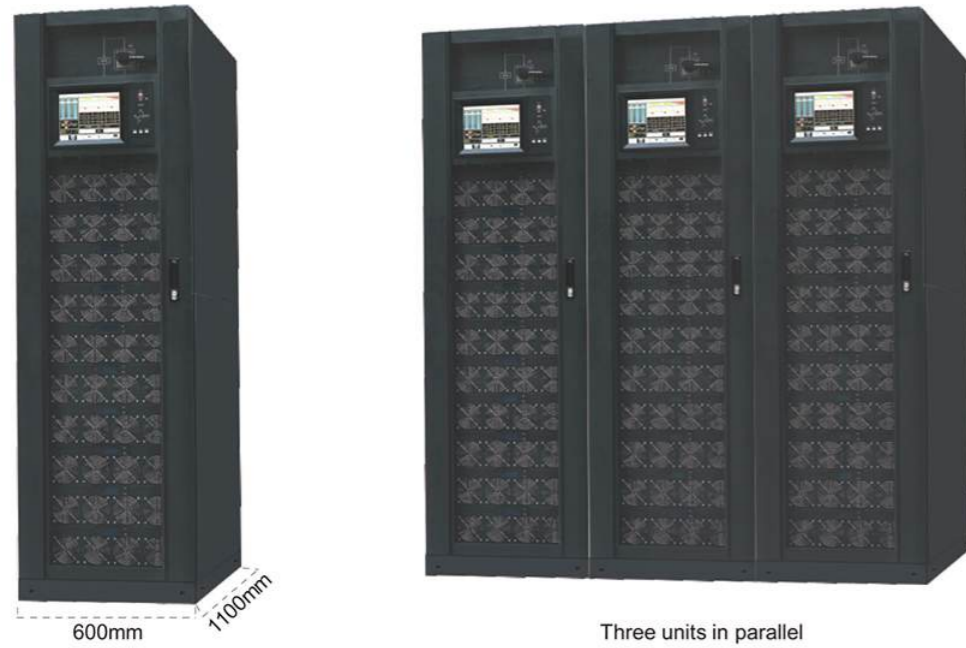
Instead of discrete IGBT and SCR components, 93M series UPS uses modular IGBT and SCR in Rectifier and Inverter, bringing in extremely high reliability.

- All components in one module, less fault points, higher reliability
- All components integrated as one modular design, smaller disparity
- Less space needed, UPS with compact design and higher power design
- Integrated inner thermal sensors display IGBT inner temperature directly



High Density ,Modular, Scalable

- High power density, footprint for 300kVA is 0.66m², power density 409kW/m², saving valuable data center space
- Scalable from 30kVA to 900kVA, max 30 power modules in parallel



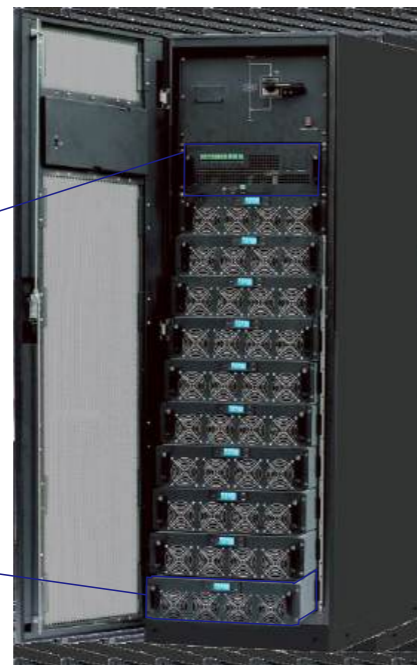
- Inherently N+X redundant
- Hot swappable power module and bypass & monitoring module
- Additional charging module, extra charging current 50A* for long time back up application



Bypass & Monitoring module



Power module



Comprehensive Monitoring Management

In each power module, information of critical components is monitored and displayed in real time, giving customers a view of inner status of the system and providing reminder information for maintenance.

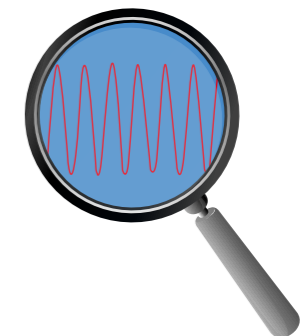
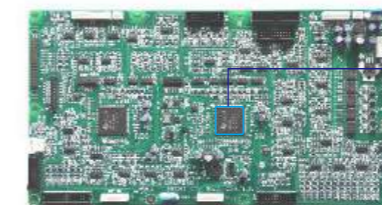
- Maintenance reminder, running time of capacitors and fans displayed and recorded
- Comprehensive temperature monitoring for thermal abnormal detection
- Intelligent battery charger for long battery life



Critical Waveform Recording

UPS can record and save the data of the main parameters automatically when faults happen for further analysis.

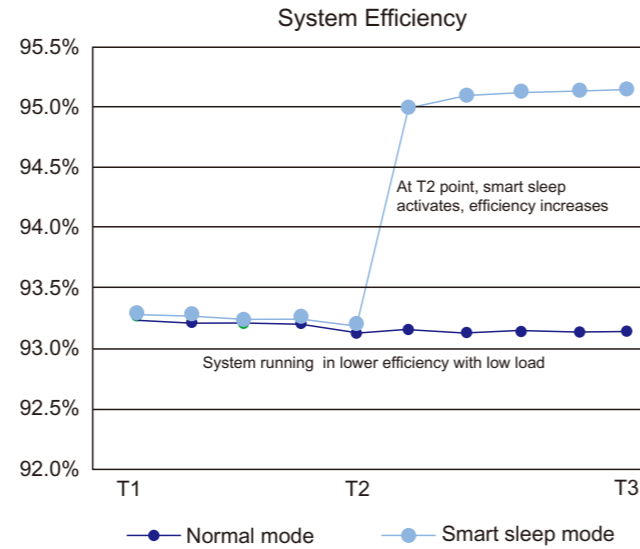
- Can record data information and present as waveform for further analysis
- Can easily spot the causes of the failures, avoid future similar faults



Smart Sleep

Smart Sleep function can intelligently make some power modules go to sleep when load is relatively low, improving the efficiency of the remaining power modules and saving customers on power and cooling costs.

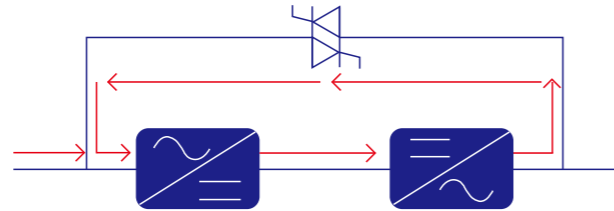
- Improving efficiency ,reducing power and cooling costs
- Easy setting with just two steps. Customers can select sleep mode and rotation period
- Power modules working in rotation, prolong the life time



Self-aging

Self-aging is an advanced function applied in all three phase UPS, Self-aging function can test UPS under different load situation without real load, saving more than 90% of energy.

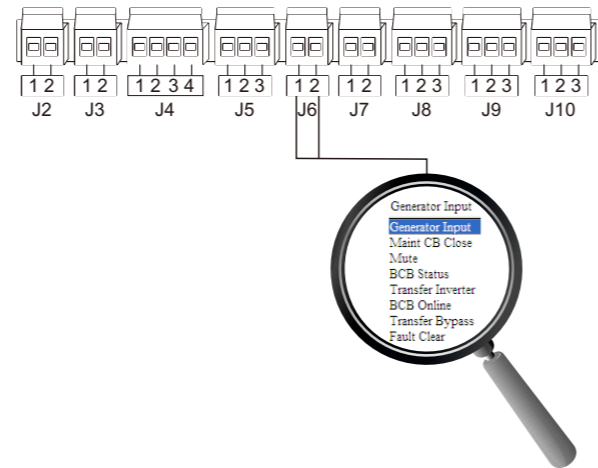
- Simulate different load conditions without connecting to any real load, saving 90% of energy
- On site setting supported, easy for factory testing



Programmable Dry Contacts

Programmable dry contacts are available in all 9xM series UPS. Customers can easily expand or modify the definition of each port.

- Abundant options with three inputs and four outputs, all programmable
- Easy setting, just pull the drop-down menu and set
- Compatible with all the 9xM UPS



Specification

MODEL	93M600/30X	93M300/30X	93M180/30X	93M500/25X	93M250/25X	93M150/25X		
System Capacity	600kVA	300kVA	180kVA	500VA	250kVA	150kVA		
Power Module Capacity	30kVA/27kW			25kVA/25kW				
Input	Dual Input	Optional						
	Phase	3 Phase+Neutral+Ground, 380V/400V/415V(line-line)						
	Input Voltage Range	304~478Vac (line-line),full load; 228V~304Vac (line-line),load decreases linearly according to the min phase voltage						
	Rate Frequency	50/60Hz						
	Input Frequency Range	40Hz ~ 70Hz						
	Input PF	>0.99						
Bypass	Input THDi	<3% (100% Linear load)						
	Rate Voltage	380/400/415VAC (line-line)						
	Rate Frequency	50/60Hz						
	Input Voltage Range	Settable, -40% ~ +25%						
	Bypass Frequency Range	Settable, ±1Hz, ±3Hz, ±5Hz						
	Bypass Overload	110% long term operation; 125% for 5 mins ;150% for 1 min; 400% for 1s						
Output	Rate Voltage	380/400/415VAC (line-line)						
	Voltage Regulation	1% for balance load; 1.5% for unbalance load						
	Rate Frequency	50/60Hz						
	Frequency Precision	0.1%						
	Output PF	0.9				1		
	Output THDu	<1% , Linear load; <5.5%, Non-linear load						
	Crest Factor	3:1						
	Inverter Overload	110% for 1 hour; 125% for 10 mins ;150% for 1 min; >150% for 200 ms						
	Battery	Voltage	±240VDC					
		Battery Number	40pcs (Settable: even number from 32 to 44)					
Voltage Precision		±1%						
Charge Power		up to 20% * Output active power						
Battery Cold Start	Standard							
System	Efficiency	AC Mode	95.5%					
		ECO Mode	99.0%					
		Battery Mode	95.0%					
	Display	10.4" color touch screen LCD + LED + keyboard						
	IP Class	IP 20						
	Interface	RS232,RS485, Programmable Dry Contact, USB						
	Option	SNMP Card, Parallel kit, SPD, LBS,Dust filter, Expansion dry contact card						
	Temperature	Operation: 0 ~ 40 °C Storage: -40 ~ 70 °C						
	Relative Humidity	0 ~ 95% Non-condensing						
	Altitude	<1000m. Within 1000m to 2000m, power derate 1% for every 100m rise						
	Noise (1 meter)	72dB@100%load	65dB@100%load	72dB@100%load	65dB@100%load			
		65dB@45%load	62dB@45%load	65dB@45%load	62dB@45%load			
	Applicable Standards	Safety: IEC/EN 62040-1-1 EMC: IEC/EN 62040-2 Performance: IEC/EN 62040-3						
	Physical	Weight (kg)	Cabinet	660	220	165	660	220
Power module			34			33		
Dimension W*D*H(mm)	Cabinet	2000*1050*2000	600*1100*2000	600*1100*1600	2000*1050*2000	600*1100*2000	600*1100*1600	
	Power module	460*790*134						