# **RM Series Modular Online UPS** 25-600kVA (380V/400V/415V)

The RM series modular UPS provides the most compact footprint of less than 2m<sup>2</sup> with maximum capacity of 900kVA.With best reliability and high performance, it has been leading the domestic market for years.

RM 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.



#### Unique Design for High Reliability

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





• Cooling air flows in the lower layer, keeping the upper PCB

• One air flow channel ensures fans redundancy, even one fan fails, power module can run normally



• 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 0.66m<sup>2</sup>, power density 409kW/m<sup>2</sup>, saving valuable data center space
- Scalable from 30kVA to 900kVA, max 30 power modules in parallel





Three units in parallel

Inherently N+X redundant

- Hot swappable power module and bypass & monitoring module
- •Additional charging module, extra charging current 50A×N for long time back up application



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





5 #MODULE INFORMATION												
10	184 - AAI	1		BATT+:	262.2 🔰	10.5	A					
9	AA-AA			BATT-:	262.5 🔰	10.4	A					
8	144 AAI			Bus:	400.4 🔰	399.9	۷					
7	144 - 441			Charger:	263.1 🔰	263.6	V					
6	44 AA			Fan Time: 10 H								
5	00 001			Capacitor Time: 20 H								
4	100 00 E	10000		Inlet Temp	erature:	21.0	°C					
3				Outlet Ten	nperature:	21.3	°Ċ					
2		REC IGBT Temperature	(A/B/C	): 42.5	40.0	/ 40.0	°C					
1 -	10 11 - 20 21 - 30	INV IGBT Temperature	(A/B/C	): 45.0	40.0	/ 45.0	°C					
REC	VER:V 33.0.051 VER:V 33.0.053	INPUT OUTPU	r L	.OAD	INFO.	S-COI	DE					
Н	me Cabinet	Module Setting	Lo	, ig O	Operate	Scope						





#### 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 RM and HT33 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 RM and HT33



[ee][ee][ee][ee][ee][ee][ee][ee]

J5

J2 J3

J4



# Specification

MODEL			RM600/30X	RM300/30X	RM180/30X	RM500/25X	RM250/25X	RM150/25X		
System Capacity			600kVA	300kVA	180kVA	500kVA	250kVA	150kVA		
Power M	odule Capacity	/	30kVA/30kW 25kVA/25kW							
	Dual Input			Optional						
	Phase		3 Phase+Neutral+Ground, 380V/400V/415V(line-line)							
Innut	Input Voltage	Range	304~478Vac (line-line),full load; 228V~304Vac (line-line),load decreases linearly according to the min phase voltage							
input	Rate Frequency		50/60Hz							
	Input Frequency Range		40Hz ~ 70Hz							
	Input PF		>0.99							
	Input THDi		<3% ( 100% Linear load )							
	Rate Voltage		380/400/415Vac (line-line)							
	Rate Frequency		50/60Hz							
Bypass	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							
	Rate Voltage		380/400/415Vac (line-line)							
	Voltage Reg	ulation	1% for balance load; 1.5% for unbalance load							
	Rate Freque	ency	50/60Hz							
Output	Frequency F	Precision	0.1%							
Output	Output PF		1							
	Output THDu		<1% , Linear load; <5.5%, Non-linear load							
	Crest Factor		3:1							
	Inverter Ove	110% for 1 hour; 125% for 10 mins ;150% for 1 min; >150% for 200 ms								
	Voltage		$\pm 240$ Vdc							
	Battery Number		40pcs (Settable: even number from 32 to 44)							
Battery	Voltage Pre	cision	±1%							
	Charge Pow	/er	up to 20% * Output active power							
	Battery Cold Start		Standard							
		AC Mode	95.0%							
	Efficiency	ECO Mode	99.0%							
		Battery Mode	95.0%							
	Display		10.4" color touch screen LCD + LED + keyboard							
	IP Class		IP 20							
System	Interface		RS232,RS485, Programmable Dry Contact, USB							
oyotom	Option		SNMP Card, Parallel kit, SPD, LBS, Dust filter, Expansion dry contact card							
	Temperature		Operation: 0 ~ 40 °C Storge: -40 ~ 70 °C							
	Relative Humidity		0~95% Non-condensing							
	Altitude		<1000m. Within 1000m to 2000m, 1% power derating for every 100m rise							
	Noise (1 meter)		72dB@100%load 65dB@45%load	65dB@1 62dB@4	00%load 45%load	72dB@100%load 65dB@45%load	65dB@1 62dB@4	00%load ŧ5%load		
	Applicable Standards		Safety: IEC/	EN 62040-1	EMC: IEC/EN	62040-2 Perf	ormance: IEC/	EN 62040-3		
	Weight (kg)	Cabinet	660	242	178	660	242	178		
Physical	weight (kg)	Power module		32.3			32.3			
, erser	Dimension	Cabinet	2000*1050*2000	600*1100*2000	600*1100*1600	2000*1050*2000	600*1100*2000	600*1100*1600		
	W*D*H(mm)	Power module	460*790*134							

