ADDING LIFE TO YOUR POWER ®

MPS PLUS RSPP SERIES: 16KW – 1560KW

THREE PHASE ONLINE MODULAR / SCALABLE UPS

Data Center | Telecom | Industry | Network | Security | Labs | Medical | Metro

MPS PLUS RSPP SERIES

MPS –RSPP Modular series is a world-class, redundant, scalable, high-efficiency power protection systems designed cost effectively provide high levels of availability. RSPP Modular series is a true modular and Hot swappable system designed and developed with the most advanced technology to have the best in class performance and reliability.

The single cabinet power rating covers from 16KW to 300KW with three level latest IGBT and full control technologies. RSPP series provides the most compact footprint of less than $2m^2$ with maximum capacity of 1560KW. The design is with Hot swappable power modules, system level static bypass module and built in manual bypass switch with special attention to avoid single point of failures in the system. Each module has it's own controller.

RSPP series is considered to be the best power protection solution for large data centers, as well as for sensitive electronics with 96.5% AC-AC efficiency in online double conversion mode.

FEATURES

- Up to 20 power modules in parallel mode
- True Online, double conversion, PWM –IGBT 3 technology.
- Fully digitized microprocessor control design
- Input power factor > 0.99
- Touch screen LCD display
- Modular and Hot swappable (N +X)
- Selectable battery quantity
- Independent charger for each module
- Wide input voltage and frequency window
- Zero transfer time
- Automatic battery charging in OFF mode
- Lighting & Surge protection
- Short circuit & overload protection
- Battery extension facility (Optional)
- IGBT based charger for smart battery management & improved input power factor
- EMI /RFI noise filter
- Cold start
- EPO function (Optional)
- Input reverse polarity alarm function
- RS232 interface standard, dry contacts, USB, RS485 and SNMP as option

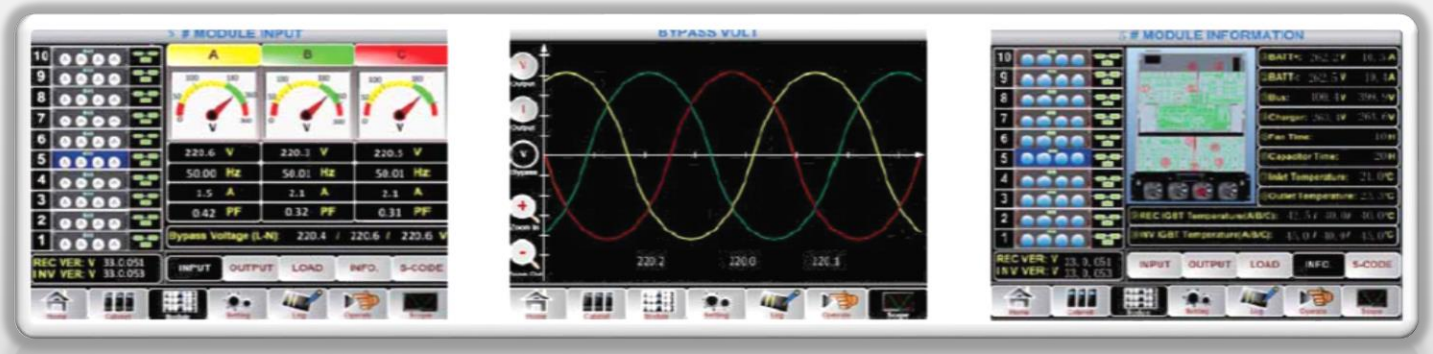
HIGHLIGHTS OF RSPP SERIES

Independent LCD for each module

Each Power module has an independent LCD, gives user direct overview of status data and alarm in real time

Friendly interface

System comes with graphical and text based information of alarms, status data, instructions that user can have more friendly and safe operation.

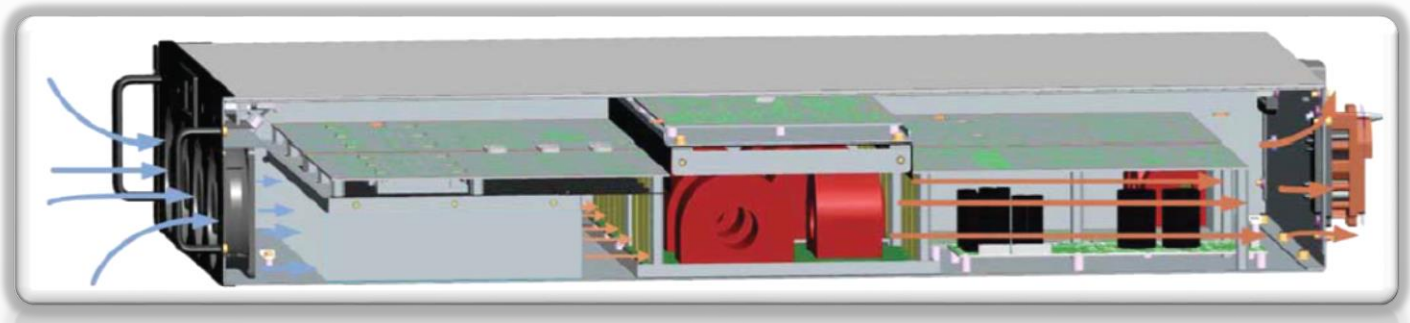


HIGHLIGHTS OF RSPP SERIES

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 two completely different layers, which allows the UPS run in dusty environments, significantly improving its stability and environmental adaptability.

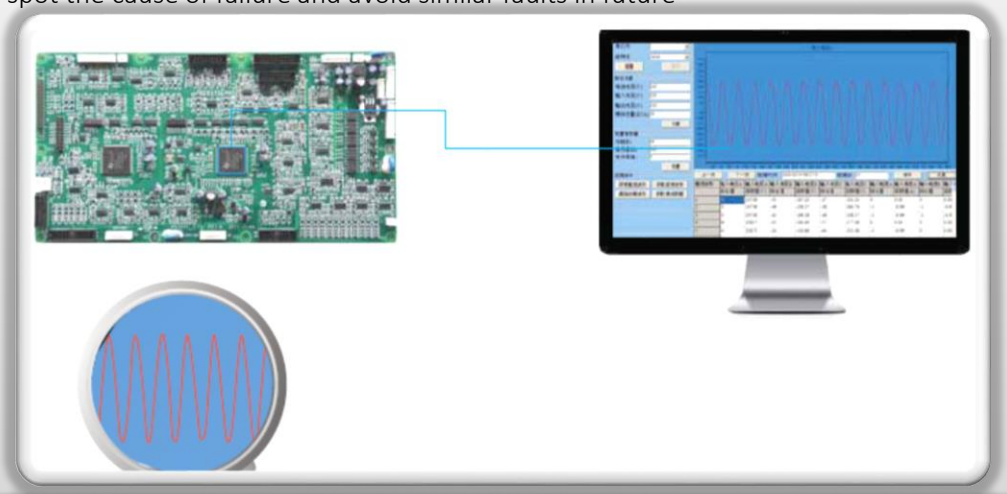
- Cooling air flow in the lower layer, keeping the upper PCB free of dust
- One air flow channel ensures fans redundancy, even one fan fails, power module can run normally



Critical waveform Recording

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

- Can record data information and present as waveform for further analysis
- Can easily spot the cause of failure and avoid similar faults in future

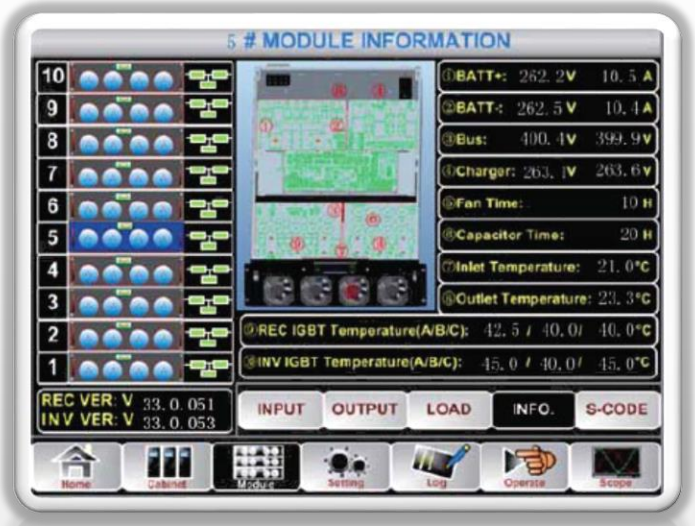


HIGHLIGHTS OF RSPP SERIES

Comprehensive Monitoring System

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.

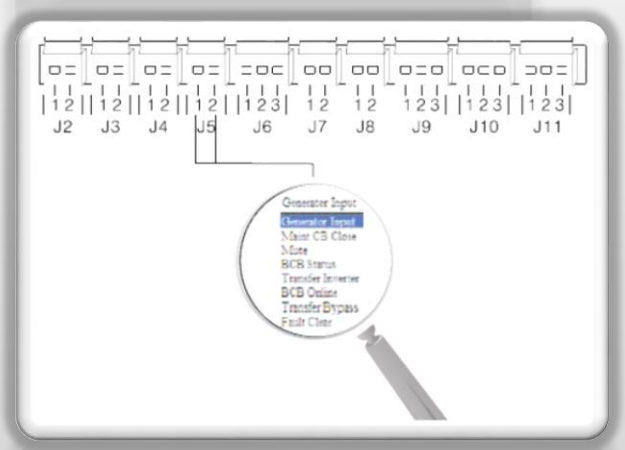
- Maintenance reminder, running time of capacitors and fans displayed and recorded.
- Comprehensive temperature monitoring for thermal abnormal detection
- Intelligent battery charger for long battery life



Programmable dry contacts

Programmable dry contacts are available in all RSPP 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 RSPP series

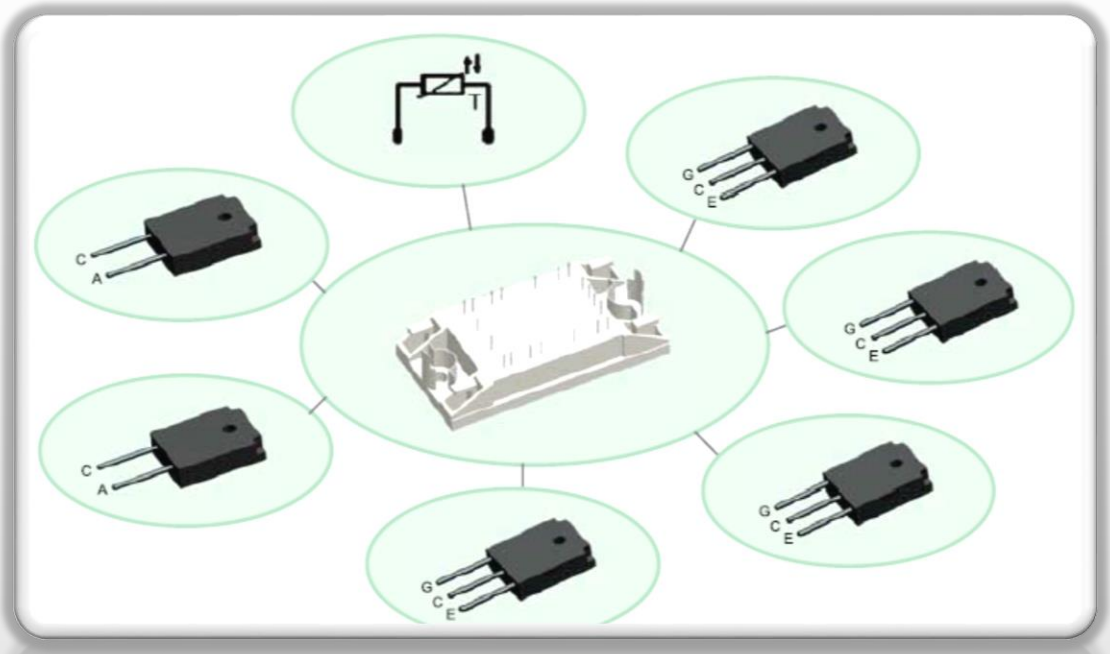


HIGHLIGHTS OF RSPP SERIES

Unique design for high reliability

Instead of discrete IGBT and SCR components, PS 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



QUALITY STANDARD AND ENVIRONMENTAL SUSTAINABILITY

RSPP Series is designed and manufactured in accordance with the following standards.

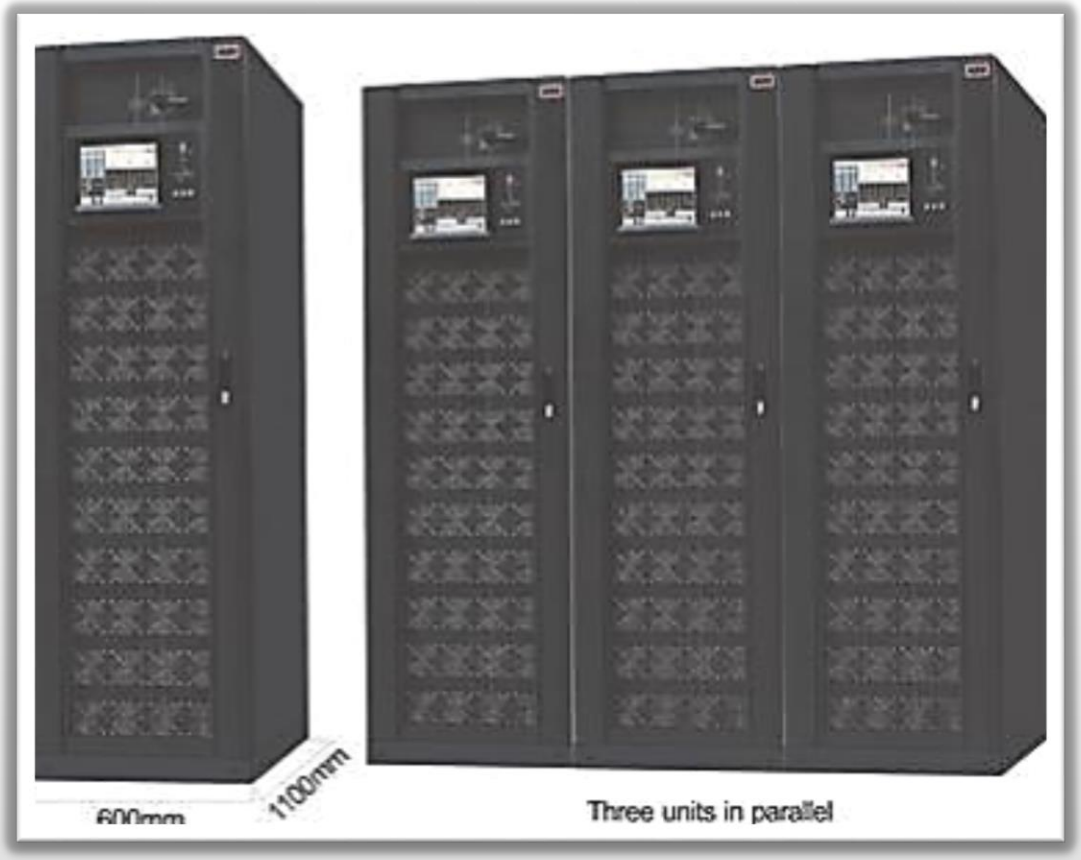
- IEC/EN 62040-1-1 (General & Safety Requirements)
- IEC/EN 62040-2, IEC/EN 62040-3, (EMC Requirement)

HIGHLIGHTS OF RSPP SERIES

High Density Modular scalable design

RSPP series is available in flexible configurations of 16KW, 20KW,25KW, 30KW and 40KW modules for vertical scalability up to 6 or 10 modules per frame as required based on client load.

- High power density, footprint for 300KW is 0.66m , power density 409kW/m , saving valuable data center space.
- Scalable from 16KW to 900KW, max 30 power modules in parallel



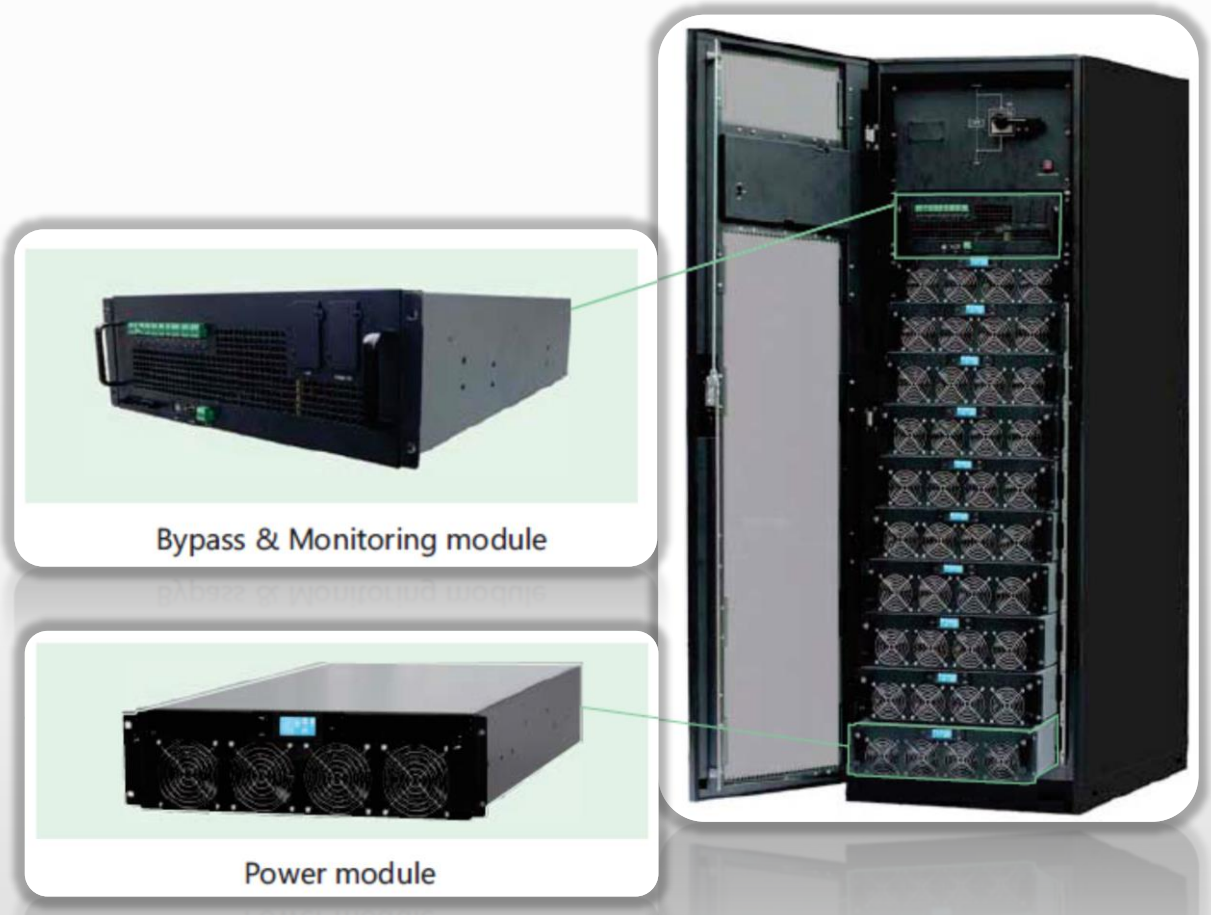
RSPP series can be switched directly on battery without mains. This feature gives flexibility to run the UPS to support the testing of critical loads during installations without having mains power.

It is also possible to perform load test at different loads without any additional load bank requirement at site.

HIGHLIGHTS OF RSPP SERIES

High Density Modular scalable design

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



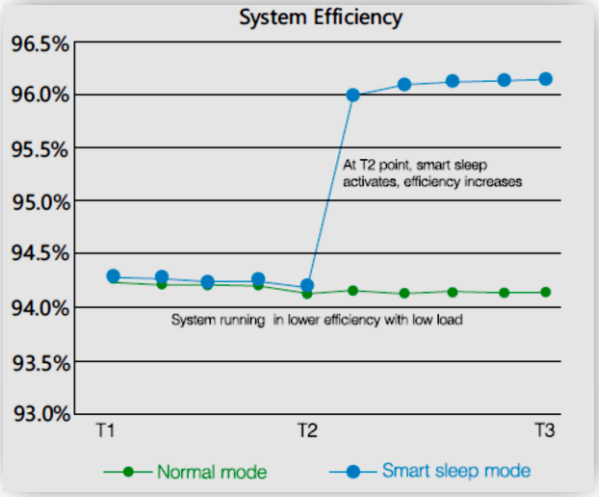
GREEN POWER +POWER SAVING MODULES

HIGHLIGHTS OF RSPP SERIES

Smart Sleep mode

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.

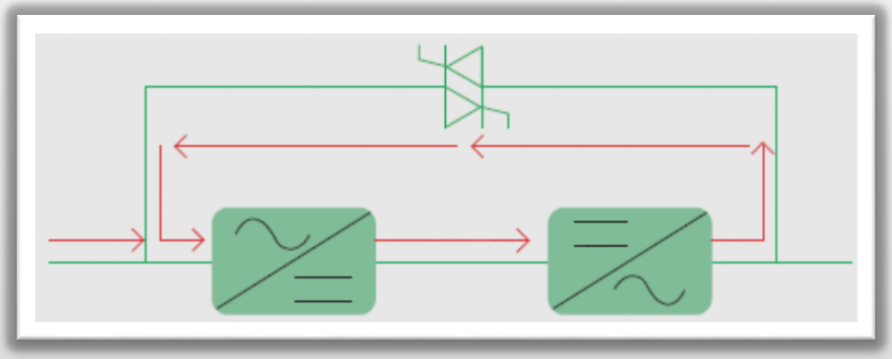
- Improving efficiency, reducing power and cooling cost
- Easy setting with just two steps. Customers can select sleep mode and rotation period
- Power modules working in rotation, prolong the life time



Self ageing

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



Model	MPS RSPP-33-48	MPS RSPP-33-60	MPS RSPP-33-90	MPS RSPP-33-120	MPS RSPP-33-150	MPS RSPP-33-200	MPS RSPP-33-250	MPS RSPP-33-300
Capacity (KVA/KW)	48/48	60/60	90/90	120/120	150/150	200/200	250/250	300/300
UPS Cabinet	48	60	90	120	150	200	250	300
Power Module (KW)	16/20/25/30/40							
INPUT								
Nominal Voltage	380 /400 /415VAC (3Ph +N+PE, 4 wire)							
Opearting Voltage Range	208-478V AC @ 50% load : 305-478V AC @ 100% load,							
Operating Frequency Range	50 /60Hz +/- 10%							
Power Factor	> 0.99							
Harmonic Distortion (THDi)	< 3% (100% non linear load)							
OUTPUT								
Output Volatge / Power factor	380 /400 /415V /VAC +/- 1% , unity pf							
Voltage stability	Steady state : +/-1% Transient state : +/- 5%							
Output Frequency	50/60 Hz synchronized ±1 % With mains absent ±0.1 Hz							
Harmonic Distortion (THDv)	< 2% (Linear load), < 5% (Non Linear load)							
Crest Factor	3:1							
Efficiency	Up to 96.5%							
BYPASS								
Rated Voltage	380/400/415VAC							
Rated Frequency	50/60Hz (auto sensing)							
Voltage Protection Range	Max: +25% (+10%,+15%,+20% adjustable) Min: -45% (-20%,-30% adjustable)							
Frequency Protection Range	+/- 10% (+/-2.5%,+/-5%,+/-10%,+/-20% adjustable)							
Generator acess	Supports							
BATTERY								
DC Voltage	+/-192V (32 Blocks) / +/-204V (34 Blocks) / +/-216V (36 Blocks) / +/-228V (38 Blocks) / +/-240V (40 Blocks)							
Charging current								
UPS cabinet	20A (max)	30A (max)			50A (max)	60A (max)	100A (max)	
Power Module	16/20/25KW : 6A (max) : 30/40KW : 10A (max)							
SYSTEM FEATURES								
Transfer Time	Utility to battery : 0 msec : Utility to bypass : 0 msec							
Audiable Alarm	Battery mode, Low battery, Overload and Fault							
Overload Capability	110% 60min, 125% 10min, 150% 1min, > 150% <200msecs							
ENVIRONMENTAL								
Temperature	Operating : 0-45°C. Storage: -25°C~55°C							
Humidity/Altitude	0-95% RH Non-condensing / 0-1500M							
Noise	< 65dBA -73dBA @ 1mtrs							
PHYSICAL								
Dimension DxWxH (mm)								
UPS cabinet	840 x 600 x 1000	840 x 600 x 1400			850 x 600 x 1600	1100 x 600 x 2000	1100 x 600 x 2000	
Power Module	443 x 580 x 131 (3U)							
Weight (Kgs)								
UPS cabinet	120	158			251	290	307	
Power Module	16/20/25KW : 32 : 30KW : 33.5, 40KW :36							
STANDARDS								
Quality	ISO 9000, ISO 14001, OHSAS 18001,ISO 27001, BIS, RoHS							
Safety	IEC/EN62040-1							
EMC/Performance	IEC/EN62040-2,IEC/EN62040-3, complying to CE							
COMMUNICATION INTERFACE								
Standard	RS 232							
Optional	SNMP/ModBus/Dry contact / USB / RS 485							
Monitoring Software	Net agent utility v5.8 / View Power / UP Silon 2000 /Muser 4000							

*Specifications are subject to change without prior notice.

Model	MPS-RSPP-33-320	MPS RSPP-33-400	MPS RSPP-33-520	MPS RSPP-33-800	MPS RSPP-33-1280	MPS RSPP-33-1560
Capacity (KVA/KW)	320/320	400/400	520/520	800/800	1280/1280	1560/1560
UPS Cabinet	320	400	520	800	1280	1560
Power Module (KW)	16/20/25/30/40					
INPUT						
Nominal Voltage	380 /400 /415VAC (3Ph +N+PE, 4 wire)					
Opearting Voltage Range	208-478V AC @ 50% load : 305-478V AC @ 100% load,					
Operating Frequency Range	50 /60Hz +/- 10%					
Power Factor	> 0.99					
Harmonic Distortion (THDi)	< 3% (100% non linear load)					
OUTPUT						
Output Volatge / Power factor	380 /400 /415V /VAC +/- 1% , unity pf					
Voltage stability	Steady state : +/-1% Transient state : +/- 5%					
Output Frequency	50/60 Hz synchronized ±1 % With mains absent ±0.1 Hz					
Harmonic Distortion (THDv)	< 2% (Linear load), < 5% (Non Linear load)					
Crest Factor	3:1					
Efficiency	Up to 96.5%					
BYPASS						
Rated Voltage	380/400/415VAC					
Rated Frequency	50/60Hz (auto sensing)					
Voltage Protection Range	Max: +25% (+10%,+15%,+20% adjustable) Min: -45% (-20%,-30% adjustable)					
Frequency Protection Range	+/- 10% (+/-2.5%,+/-5%,+/-10%,+/-20% adjustable)					
Generator acess	Support					
BATTERY						
DC Voltage	+/-192V (32 Blocks) / +/-204V (34 Blocks) / +/-216V (36 Blocks) / +/-228V (38 Blocks) / +/-240V (40 Blocks)					
Charging current						
UPS cabinet	80A (max)	100A (max)	130A (max)	200A (max)	320A (max)	390A (max)
Power Module	16/20/25KW : 6A (max) : 30/40KW : 10A (max)					
SYSTEM FEATURES						
Transfer Time	Utility to battery : 0 msec : Utility to bypass : 0 msec					
Audiable Alarm	Battery mode, Low battery, Overload and Fault					
Overload Capability	110% 60min, 125% 10min, 150% 1min, > 150% <200msecs					
ENVIRONMENTAL						
Temperature	Operating : 0-45°C. Storage: -25°C~55°C					
Humidity/Altitude	0-95% RH Non-condensing / 0-1500M					
Noise	< 65dBA -73dBA @ 1mtrs					
PHYSICAL						
Dimension DxWxH (mm)						
UPS cabinet	850 x 600 x 2000	850 x 1200 x2000		850 x 2000 x 2000	850 x3400 x 2000	850 x 4800 x 2000
Power Module	443 x 580 x 131 (3U)					
Weight (Kgs)						
UPS cabinet	320	540		980	1400	2800
Power Module	16/20/25KW : 32 : 30KW : 33.5, 40KW :36					
STANDARDS						
Quality	ISO 9000, ISO 14001, OHSAS 18001,ISO 27001, BIS, RoHS					
Safety	IEC/EN62040-1					
EMC/Performance	IEC/EN62040-2,IEC/EN62040-3, complying to CE					
COMMUNICATION INTERFACE						
Standard	RS 232					
Optional	SNMP/ModBus/Dry contact / USB / RS 485					
Monitoring Software	Net agent utility v5.8 / View Power / UP Silon 2000 /Muser 4000					

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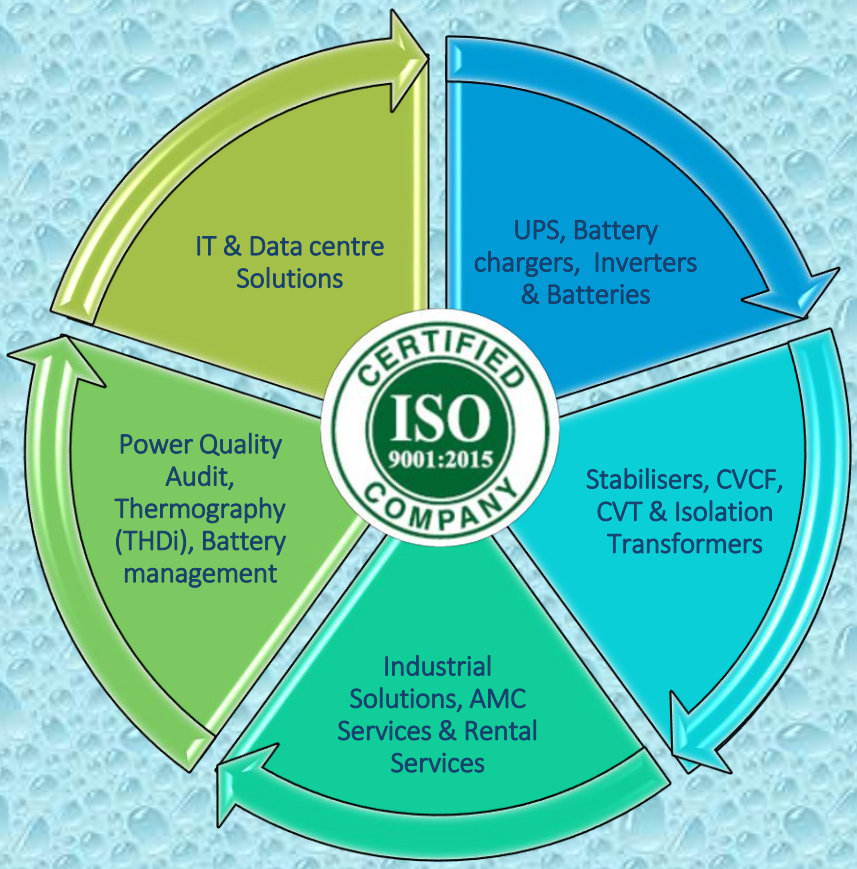

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