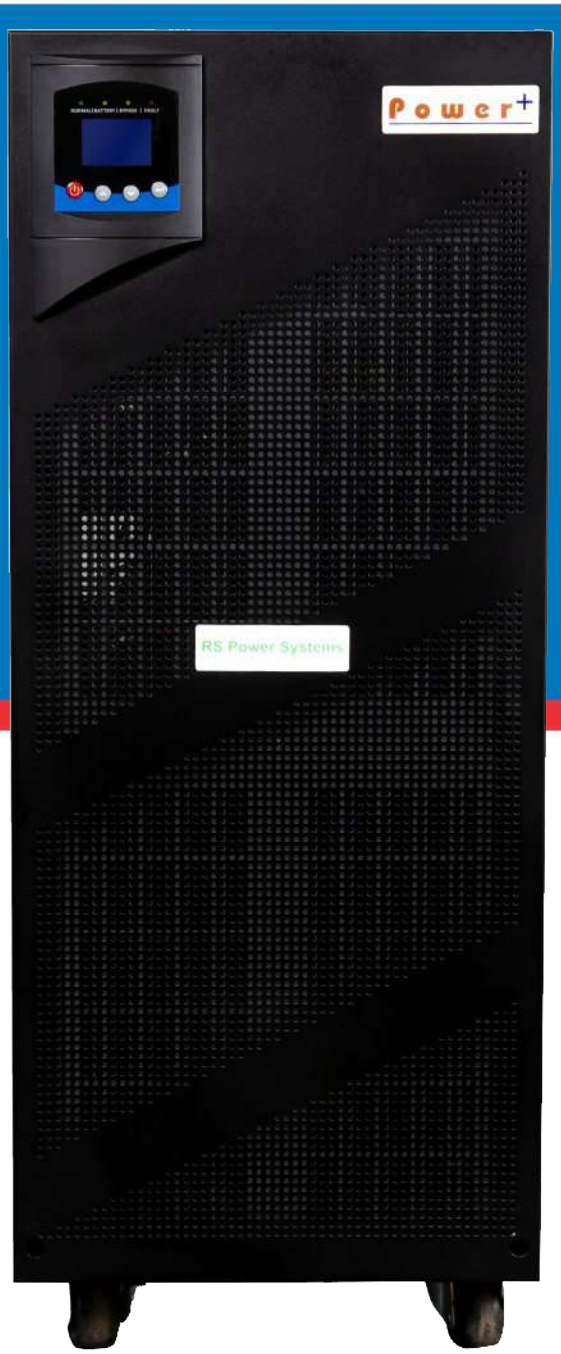
Power Solutions

Ensuring Seamless Growth

10 - 30 KVA
(PP 313 Series)



On-Line UPS

On-Line UPS deliver pure sine wave power and the highest level of power protection available to sensitive servers and network equipment. Double-conversion technology continually converts incoming AC power into filtered DC power, and then re-synthesizes it back into AC power with a pure sine wave. Constant on-line operation completely isolates sensitive equipment from every power problem on the AC line, plus reliable battery backup keeps network running even in the case of a blackout.

POWER PACKED FEATURES:

- IGBT based high frequency PWM Inverter
- Wide input voltage range
- Protection from spike, surges, RFI, EMI
- Constant voltage and frequency
- EPROM/Micro controller design
- Reliable double conversation technology
- Float cum boost charger
- Soft start facility
- Clean computer grade power to critical load
- Generator compatible
- High crest factor
- Less harmonic distortion
- Static bypass switch

On-Line UPS

RELIABLE DOUBLE CONVERSATION TECHNOLOGY:

The double conversion technology is proven, efficient, reliable and provides clean computer grade power to critical load. The load is completely protected against spikes, surges, brownouts and power failures.

HIGH FREQUENCY PWM INVERTER USING IGBT:

High frequency PWM technology using IGBT provides high efficiency, low noise and faster transient response.

APPLICATION & USERS:

- Local Area Network (LAN)
- Data Centers/Offices
- Work Stations
- Telecommunication Systems
- Medical Equipment
- Air Traffic Control Systems
- Satellite Systems
- Industrial Equipment & Automation
- General Laboratory Equipment
- Studio, Printing and Media Equipment

PP 313 Series (10-30 KVA)

TECHNICAL SPECIFICATION

1. Rating	10 KVA	10 KVA	15 KVA	15 KVA	20 KVA	20 KVA	25 KVA	25 KVA	30 KVA	30 KVA
Configuration	(3-1)	(3-3)	(3-1)	(3-3)	(3-1)	(3-3)	(3-1)	(3-3)	(3-1)	(3-3)
DC Bus Voltage	240 V	240 V	240 V	240 V	240 V	240 V	240 V	240 V	240 V	240 V
2. General	(i) UPSs should be free from workmanship defects, sharp edges, nicks, scratches, burs etc. All fasteners fixed properly. The equipment shall be complete with all parts and all parts shall be functional. (ii) UPS enclosure's degree of protection shall be IP21 (iii) Provision of manual By- pass facility for maintenance of UPS (iv) UPS shall supply output power and charging current at the same time. (v) DC disconnect Switch with Protection (vi) Static Transfer switch (External/Internal)- Automatic Bidirectional and take care of 100% uninterrupted load transfer. Transfer Time: <4m sec. (vii) UPS shall have cold start facility (viii) Provision of Phase Sequence Corrector for Phase reversal protection.									
3. Technology	True Online Double conversion VFI-SS-111 technology, with advanced PWM using IGBT technology, DSP Controlled, High Frequency PWM using IGBT technology, UPS with SPD/TVSS module.									
INPUT										
4. Rated Voltage	380/400/415 VAC± 15% for 3 Phase +N + Earth (or any Voltage range as per requirement)									
5. Frequency Range	40-70 Hz ± 0.1%									
6. Power Factor	≥0.90									
7. THDi	≤5% on full load									
8. Rectifier delay start	0-60 Sec									
OUTPUT										
9. Inverter Design	IGBT based PWM with Digital control									
10. Voltage Range	• 220/230/240 VAC ±1% for Single phase +N + Earth • 380/400/415 VAC ± 1% for Three Phase +N									
11. Voltage Regulation	• ±1% for balanced load • ±2% for 100% unbalanced load									
12. Frequency	50-60 Hz ± 0.1% in Inverter mode									
13. Power Factor	≥0.90									
14. Total Harmonic Distortion	Linear Load <3% , Non-Linear Load <5%									
15. Overload Capacity	110% overload Limit for Minimum 10 minutes									
16. Crest Factor	3:1									
17. Efficiency	Inverter Efficiency : 92% Overall Efficiency : 90% at full load									
18. Waveform	Pure Sine Wave									
19. Isolation Transformer	Inbuilt/External Isolation transformer (Optional)									
20. Response recovery Time	40ms (max.)									
21. Bypass	• Provision of Automatic and Manual bypass control • Manual Maintenance bypass									
22. Dual Input	• Separate mains & Bypass									
23. Battery recharge time	8 to 10 Hours (after complete discharge to 90% charge) and charge rating: Battery recharge time to 90% charge after 100% DoD									
BYPASS										
24. Rated Voltage	380/400/415 VAC									
25. Bypass Voltage Range	Upper limit: +10%, +15%, +20% can be set. Lower limit: -10%, -20%, -30%, -40% can be set.									
26. Transfer time to Bypass	>5 ms									
ENVIRONMENT										
27. Operating Temperature	0 – 40°C									
28. Humidity	95% Non – condensing									
29. Storage Temperature	-20°C to 55°C									
30. Noise	<60 dB (1meter)									

31. Protection	IP20/IP21
32. Altitude	≤1000 m
GENERAL	
33. Display & Control	LED/LCD
34. Protection	• Output Overload Protection • Short circuit protection at output of UPS • Output AC Over and under voltage at battery terminals. • Input Over/Under voltage protection. • Soft Start • Battery low/over charge protection. • Inbuilt/external Surge Suppressor (Input & Output) • Battery Overcharge & deep discharge cut-off • DC Fuse Protection • Over temperature • Phase Reversal Protection • DC Fuse Protection
35. Meters	Provision of Digital Meter for monitoring the following parameters: • Input/output AC voltage • Input/output AC current • Input/output AC frequency • Input Power/Output Power • Input Power factor/Output Power factor • Battery Voltage and current
36. Alarms and Indications	• Indicator for Mains presence • Indicator for Battery charging and discharging, • Indicator for Output Over Load with Audible Alarm • Indicator for Low Battery Voltage with Audible Alarm • Alarm for Low Battery • AC Fail • Inverter Fail
37. Application	• IT Equipment, Service, Lab Equipment, Sensitive loads,
38. Cold Start capability	• Provided
39. Battery Bank	• Type: External/Inbuilt SMF VRLA Batteries • Make: Exide/ Amararaja or as per JISC:8702 standard • Battery Circuit Breaker-Provided
40. Battery Rack	• Power-Coated MS Rack
41. LED/LCD	Display Input/ Output voltage, Frequency, Power, Power Factor, Battery voltage, Current, battery Status, Load Percentage, UPS status, Fault Indicators, History record, Set parameters. (LCD touch screen)
42. Communication	Suitable Interface (RS232/RS485) Port and software enable to user to supervise while working on platform such as XP/Windows/Linux/VISTA etc. SNMP communication offers so that critical parameters of UPS can be monitored from remote position.
CERTIFICATIONS	
43. Certification	ISO 9001, ISO 14001, ISO 27001, OHSAS, RoHS, CE Compliant
44. Safety Standard	IEC/EN- 62040-1, IEC/EN- 62040-2 & IEC/EN62040-3:2011
45. System Configuration	Load Sharing Configuration/Standalone Configuration with external switch/Hot Standby

*In the interest of continuous product improvement, all specifications are subject to change without notice.