



RD9000^{DSP-H}

300-500kVA

3-Level Technology

IGBT Rectifier

DSP Control



TOWER



UPS ONLINE



SERVICE /
TECH. SUPPORT



ECO FRIENDLY



POWER FACTOR



RD9000 DS Power H Online UPS uses the latest DSP technology to be programmed to suit a wide variety of electrical environments without impeding its performance. With the 3-Level topology, efficiency, reliability and functionality have been raised to levels unattainable with legacy analog technology. This technology not only creates a significant increase in MTBF, but the DSP's ability to accurately process signals at very high speed allows all UPS subsystems to be controlled with greatly increased precision.

GENERAL SPECIFICATIONS

- Transformerless UPS topology
- 3 DSP controlled modular structure
- Separate main control board advantage for rectifier and inverter
- 3-Level technology and fully digital structure
- Less electronic components and SMD technology
- Low input current total harmonic distortion (THDi)
- High input power factor
- High efficiency up to 95%
- Selectable input/output voltage/frequency range
- Static and maintenance by-pass switch
- High charge current capacity
- Eco Mode operation (optional)
- Split by-pass input (dual input)
- Advanced TFT front panel
- Optional 0.8 and 1.0 output power factor (PF)
- Cold start function
- Compliant with IEC EN62040 directive
- Conforms to CE, TSE and GOST standards
- ISO9001, ISO14001 compliant production
- Advanced control at the input
- 3 level battery protection
- Output current limitation
- Output DC leakage protection
- External REPO input
- 512 events memory (46.000 alarm)
- Clock and calendar (battery supported)
- Automatic battery test, remaining battery time indicator
- 2 RS232 serial ports and 4 programmable dry contact outputs
- Optional 12 dry contact outputs
- Optional SNMP, MODBUS and Remote Monitoring Panel
- Viewing device operating parameters
- Advanced remote control features
- User and central service password-protected security
- 2 years warranty

TECHNICAL SPECIFICATIONS

MODEL	DS3300H	DS3400H	DS3500H
Power (kVA)	300	400	500
INPUT			
Voltage	380/400 VAC 3P + N + G \pm 20% (at 100% load) / - 40% (at 70% load)		
Frequency	50Hz / 60Hz, \pm 10%		
Power factor	\geq 0.99 (at 100% load)		
THDI (*)	\leq 3%		
By-pass voltage	380/400 VAC 3 Phase + N, \pm 10%		
Voltage distortion	\leq 10%		
Protection	Fuses, Voltage & Frequency tolerance, Input power limit, Phase sequency indicator		
OUTPUT			
Power (kW)	270	360	450
Power factor (**)	0.9		
Voltage	380/400 VAC 3F + N, \pm %1		
Frequency	50Hz / 60Hz		
Frequency tolerance	Line synchronized: \pm 2% (adjustable) / Free running: \pm 0.1%		
Efficiency	up to 95%		
Crest factor	3:1		
Overload protection	100% - 125% load: 10 min, 125% - 150% load: 1 min, - > 150% load: by pass		
Other protections	Advanced short circuit, Voltage tolerance, DC balance, Regenerative load, Current limiting		
Voltage THD	\leq 2% (at 100% linear load)		
BATTERIES			
Type	VRLA AGM / GEL / NiCd		
Number of batteries	2x30 (\pm 30): 60 pieces		
Charge voltage	2x405 VDC		
End of discharge voltage	2x300 VDC		
Battery cabinet	External		
Battery ambient temperature	25°C		
Protections	3 level alarms, Battery fuses, Charging current limit, Temperature compensation (optional)		
Automatic testing	Standard every 72 hours (adjustable)		
GENERAL			
Standards	EN62040-1, EN62040-2, EN62040-3		
User interface	TFT panel, 5 vector buttons, Buzzer		
Indicators	P-N voltage, P-P voltage, Current, Power, Crest Factor, Frequency, PF, Service Time		
Advanced	Self diagnostics, 3 maintenance time indicators, Calibration over RS232, operating hour meter		
Communication	2xRS232 serial ports, 4 standard and 8 optional DRY contact alarm relays		
Inputs	EPO input, Interactive battery panel input, Genset input		
Genset kit	Standard (programmable)		
Software	Standard T-Mon UPS Management Software (3 clients + 1 server management)		
Alarm logging	Standard: with time & date 512 events		
Protections	Power module over-temperature, Overcurrent, Temperature high alarm		
Temperature range	0°C - 40°C		
Protection degree	IP20		
Relative humidity	90% max. (non-condensing)		
Altitude	< 1000m above sea level		
Acoustic noise	< 68dBA		
Weight (kg)	635	680	890
Dimensions (mm) HxWxD	1900x1250x775		
OPTIONS			
Different input / output voltage	Please ask		
Transformer	Galvanic isolation transformer at the input & output		
Software	T-Mon Admin Multi UPS monitoring 10-50-100-200 clients, T-Mon Server 50-100-200 clients		
Adaptors	SNMP, RS485, Remote monitoring panel, MODBUS (RS485 or TCP/IP), TCP/IP, GSM/GPRS Modem, Comport multiplexer		
Parallel operation	Up to 8 units		
(*) Depending on power and input/output conditions / (**) Please ask for PF 0.8 and 1.0			