

# DS POWER H

300-500kVA

**3-Level Technology**

**IGBT Rectifier**

**DSP Control**



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
<b>INPUT</b>			
Voltage		380/400 VAC 3P + N + G ± 20% (at 100% load) / - 40% (at 70% load)	
Frequency		50Hz / 60Hz, ± 10%	
Power factor		≥ 0.99 (at 100% load)	
THDI (*)		≤ 3%	
By-pass voltage		380/400 VAC 3 Phase + N, ± 10%	
Voltage distortion		≤ 10%	
Protection		Fuses, Voltage & Frequency tolerance, Input power limit, Phase sequence indicator	
<b>OUTPUT</b>			
Power (kW)	270	360	450
Power factor (**)		0.9	
Voltage		380/400 VAC 3F + N, ± %1	
Frequency		50Hz / 60Hz	
Frequency tolerance		Line synchronized: ± 2% (adjustable) / Free running: ± 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		≤ 2% (linear load), ≤ 5% (non-linear load)	
<b>BATTERIES</b>			
Type		VRLA AGM / GEL / NiCd	
Number of batteries		2x30 (±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)	
<b>GENERAL</b>			
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	1975x880x848		2000x1243x874
<b>OPTIONS</b>			
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			
(***) The waiting times for excessive loads vary depending on the ambient temperature.			

