



400 - 600 kW

DS POWER SERIES

UNINTERRUPTIBLE POWER SUPPLIES

3 phase in / 3 phase out

IGBT RECTIFIER DSP CONTROL

The new DS Power range UPS uses the latest DSP technology to be programmed to suit a wide variety of electrical environments without impeding its performance. With the DS Power range, efficiency, reliability and functionality are enhanced to levels unattainable with the old analogue technology. This technology does not only create significant increase in MTBF, but the capability of DSP to accurately manipulate signals at very high speed permits all the UPS subsystems to be controlled with greatly increased precision.

GENERAL SPECIFICATIONS

- Transformerless UPS topology
- Low input current total harmonic distortion (THD)
- High input power factor
- High efficiency up to 94.5%
- Cold start function
- Static and maintenance by-pass switch
- Output short circuit and overload protection
- External REPO switch input
- 512 events memory (512 events 45000 alarms)
- Clock and calendar (battery supported)
- Automatic battery test, remaining battery time indicator
- Temperature compensated charge system (optional)
- 2 RS232 serial ports and 12 dry contact outputs
- 3 DSP controlled modular structure
- Optional SNMP and MODBUS adaptors
- Optional graphical panel
- Optional usb flash memory
- Full digital structure
- Small footprint
- Ecomode operation (optional)
- Fewer electronic components
- Output current limiting
- Advanced diagnostics for the input
- Selectable input/output voltage/frequency/range
- Split by-pass input (second input)
- Output DC leakage protection
- Separate DSP for inverter control
- Separate DSP for the PFC
- 3 level battery protection
- High charge current capacity
- Charge/discharge current indicator
- Advanced remote control features
- Manufactured according to EC Directive; EN62040
- 5 years spare parts support
- 2 years warranty





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TECHNICAL SPECIFICATIONS

MODEL	DS3400	DS3500	DS3600
Power (kVA=kW)	400	500	600
INPUT			
Voltage	380/400 VAC 3P + N + G ± 20% (415 VAC +15%, - 25% optional)		
Frequency	50Hz / 60Hz , ± 5%		
Power factor (at 100% load)	≥ 0.99		
(THDI) (*)	≤ 3%		
By-pass voltage	380/400 VAC 3P + N , 4 Wires, ± 10%		
Voltage distortion	≤ 10%		
Protection	Fuses, Voltage & Frequency tolerance, Input power limit,Phase sequency indicator		
OUTPUT			
Power (kW)	400	500	600
Power factor	1		
Voltage	380/400 VAC 3 Phase + N , ± 1% (415 optional)		
Frequency	50Hz / 60Hz		
Frequency tolerance	Line synchronized: ± 2% / Free running: ± 0,1%		
Efficiency	up to 94.5%		
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	< 3% (at 100% linear load)		
BATTERIES			
Type	VRLA AGM / GEL / NiCd		
Nominal voltage	± 360 VDC (2x30 batteries)		
Float / End of discharge voltage	± 405 VDC / ± 300 VDC		
Battery cabinet	External		
Battery ambient temp.	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, Over current, 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	< 72 dBA		
Weight without batteries (kg)	780	1452	
Dimensions (mm) HxWxD	2040x1250x840	1940x1610x1050	
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), USB Alarm Logger, TCP/IP ,GSM/GPRS Modem, Comport multiplexer		
Parallel operation	Up to 8 units		

(*) Depending on power and input/output conditions