



10 - 30 kVA

DS200 SERIES

UNINTERRUPTIBLE POWER SUPPLIES



3 phase in / 1 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 93%
- 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
- Manufactured according to EC Directive; EN62040
- 10 years spare parts support
- 2 years warranty





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TECHNICAL SPECIFICATIONS



MODEL	DS210	DS215	DS220	DS230
Power (kVA)	10	15	20	30
INPUT				
Voltage	380/400 VAC 3P + N + G ± 20% (415 VAC +15%, - 25% optional)			
Frequency	50Hz / 60Hz , ± 5%			
Power factor (at 100% load)	> 0.98			
(THDI) (*)	< 10-12%			
By-pass voltage	220/230 VAC 1 Phase + N, ± 10%			
Voltage distortion	≤ 10%			
Protection	Fuses, Voltage & Frequency tolerance, Input power limit, Phase sequency indicator			
OUTPUT				
Power (kW)	9	13,5	18	27
Power factor	0,9			
Voltage	220/230 VAC 3P + N , ± 1% (240 VAC optional)			
Frequency	50Hz / 60Hz (adjustable)			
Frequency tolerance	Line synchronized: ± 2% / Free running: ± 0,1%			
Efficiency	up to 93%			
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			
Battery number	2x30 (±30): 60			
Float charging voltage	2 x 405 VDC			
End of discharge voltage	2 x 300 VDC			
Battery cabinet	Internal			
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			
User interface	4 lines LCD panel, Mimic leds, 5 vector buttons, Buzzer, Optional TFT panel			
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	< 57dBA		< 62 dBA	
Weight without batteries (kg)	87		91	100
Dimensions (mm) HxWxD	1040x400x815			
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			

(*) Depending on power and input/output conditions