



10 - 160 kVA

## 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%
- Cold start function
- Static and maintenance by-pass switch
- Output short circuit and overload protection
- External REPO switch input
- 192 events memory (192 events 4500 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



**Tescom®**





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# TECHNICAL SPECIFICATIONS



MODEL	DS310	DS315	DS320	DS330	DS340	DS360	DS380	DS3100	DS3120	DS3160	
Power (kVA)	10	15	20	30	40	60	80	100	120	160	
<b>INPUT</b>											
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 3 Phase + N , 4 Wires, ± 10%										
Voltage distortion	≤ 10%										
Protection	Fuses, Voltage & Frequency tolerance, Input power limit, Phase sequency indicator										
<b>OUTPUT</b>											
Power (kW)	9	13,5	18	27	36	54	72	90	108	144	
Power factor	0,9										
Voltage	380/400 VAC 3P + N , ± 1% (415 VAC optional)										
Frequency	50Hz / 60Hz										
Frequency tolerance	Line synchronized: ± 2% / Free running: ± 0,1%										
Efficiency	up to 94%										
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)										
<b>BATTERIES</b>											
Type	VRLA AGM / GEL / NiCd										
Nominal voltage	± 360 VDC										
Float / End of discharge voltage	± 405 VDC / ± 300 VDC										
Battery cabinet	Internal							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	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			< 64 dBA		< 68 dBA			
Weight without batteries (kg)	87	87	91	100	173	197	209	220	232	265	
Dimensions (mm) HxWxD	1040x400x815					1440x515x855					
<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), USB Alarm Logger, TCP/IP, GSM/GPRS Modem, Comport multiplexer										
Parallel operation	up to 8										

(\*) Depending on power and input/output conditions