

DS POWER U1

15-250kVA

3-Level Technology

IGBT Rectifier

DSP Control



DS Power U1 On-Line UPS is designed for 110VAC - 60Hz systems. It 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. This technology does not only create significant increase in MTBF, but the DSP's ability to accurately process signals at very to accurately manipulate signals at very high speed allows all the UPS subsystems to be controlled with greatly increased precision.

GENERAL SPECIFICATIONS

- Transformerless UPS technology
- Modular control structure by 3 DSP
- Separate main control boards 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
- True double conversion
- Static and maintenance by-pass switch
- High charging current capacity
- ECO mode operation (optional)
- Split bypass input (dual inputs)
- Advance TFT front panel
- Manufactured according to IEC Directive; EN62040
- Conformity for CE, TSE and GOST standards
- ISO9001, ISO14001 compliant production
- Advance control at the input side
- Temperature compensated charge system (optional)
- Output current limitation
- Output DC leakage protection
- 3 level battery protection
- Output short circuit and overload protection
- External REPO switch input
- 512 events memory (512 events 46000 alarms)
- Clock and calendar (battery supported)
- Automatic battery test, remaining battery time indicator
- 2 RS232 serial ports and 4 dry contact outputs
- Optional 12 dry contact output
- Optional SNMP, MODBUS and Remote Monitoring Panel
- Monitoring device operating parameters and advanced diagnostics
- Advance remote control features
- User and central service passwords protected security
- 2 years warranty

TECHNICAL SPECIFICATIONS

MODEL	DS315H-U1	DS320H-U1	DS330H-U1	DS340H-U1	DX3050-U1	DX3060-U1	DX3080-U1	DX3100-U1	DS3150H-U1	DS3200H - U1	DS3250H - U1	
Power (kVA)	15	20	30	40	50	60	80	100	150	200	250	
INPUT												
Nominal voltage (factory adjusted)*	Phase-Phase 190/200/208/220 VAC 3P + N, (Phase-Neutral 110/115/120/127 VAC)											
Voltage range	Phase-Phase 155 - 260 VAC 3P + N, (Phase-Neutral 90 - 150 VAC)											
Frequency	60Hz ± 5Hz											
Power factor	> 0,99											
THDI (*)	≤ 3%											
Protection	Fuses, voltage tolerance, frequency tolerance, input power limit											
By-pass voltage range	Adjusted Output Voltage ± 10%											
By-pass protection	Short circuit, voltage tolerance, frequency tolerance, VAT transfer											
OUTPUT												
Power (kW)	15	20	30	40	50	60	80	100	150	200	250	
Power factor	1.0											
Voltage (factory adjusted)	Phase-Phase 190/200/208/220 VAC 3P + N, (Phase-Neutral 110/115/120/127 VAC)											
Voltage tolerance	± 1%											
Frequency	60Hz											
Frequency tolerance	Line synchronized: ± 2% / Free running: ± 0,1%											
Efficiency	up to 93%			up to 95%				up to 94%				
Crest factor	3:1											
Overload protection	100-125% for 5min, 125-150% for 1min, >150% load: by-pass											
Other protections	Advanced short circuit, voltage tolerance, DC balance, regenerative load, current limiting											
THD	< 2% (at 100% linear load)											
BATTERIES												
Type	VRLA AGM / GEL / NiCd											
Nominal voltage (**)	± 216 VDC (2x18 pcs 12V)											
Float / End of discharge voltage (depends on batt pcs.)	± 243 VDC / ± 180VDC (for 2x18 pcs.)											
Battery housing	Internal (please ask for availability)/External					External						
Batt. ambient temp.	25 °C											
Protections	3 level alarm, battery fuses, charging current limit, temperature compensation (optional)											
Automatic testing	Standard every 72 hours (adjustable)											
GENERAL												
Standards	EMC(2004/108/EC) / LVD(2006/95/EC) - EN62040-1, EN62040-2, EN60950											
User interface	TFT panel, Mimic leds, 5 vector buttons, Buzzer, Touch-panel (opt.)											
Indicators	P-N voltage, P-P voltage, Current, Power, Crest factor, Frequency, PF, Service time											
Advanced	Self diagnostics, 4 maintenance time indicators, Calibration over RS232											
Communication	2 x RS232 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 192 events, (optional 512 events)											
Protections	Power module over-temperature, Over current, Temperature high alarm											
Temp. range	0 °C - 40 °C											
Protection degree	IP20											
Humidity	90% max (non-condensed)											
Altitude	1000m (Above 1000m, derating 1% for each additional 100m)											
Acoustic noise	< 57dBA	< 62 dBA				< 65 dBA			< 68 dBA			
Net weight (kg) (***)	100	173	197	209	210	220	262	270	635	680	890	
Dimensions (mm) HxWxD	1040x400x815	1440x515x855			1440x475x890				1900x1250x775			
OPTIONS												
Different input/output voltage	Please ask											
Transformer	External galvanic isolation transformer at input or output (please ask for built-in transformer)											
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												
(**) It can be offered with different number of batteries depending on the output voltage. Please ask.												
(***) Weight may vary with options (e.g. internal transformer)												