

# HYBRID UPS

## 100-600KVA ONLINE

Tescom Hybrid ups sense the availability of solar power, grid power and the battery power for supping the connected loads using the most economical and ecological combination of these energy sources. A TGc series solar converter is connected to the DC bus of the Hybrid UPS and solar group is set as the primary energy source. It automatically starts a Diesel generator in case of solar energy, grid and battery group unavailability and an intelligent controller provides real time monitoring to your smartphone.

*1 phase in / 1 phase out*



### GENERAL SPECIFICATIONS

- Simultaneous operation from solar energy, mains and battery
- Return on investment thanks to solar energy
- Maximum energy production with MPPT Algorithm
- Energy storage with battery bank
- Intelligent control system
- New intelligent hybrid technology
- Parallel operation up to 8 units
- Self diagnosis
- Advanced automatic battery testing every 72 hours
- Monitor via smartphone
- 4 line LCD panel
- Advanced short circuit and overload protection
- External battery cabinet

# HYBRID UPS

ONLINE UPS *1 phase in / 1 phase out* 100-600 kVA



MODEL	DS3100HYB	DS3120HYB	DS3160HYB	DS3200HYB	DS3250HYB	DS3300HYB	DS3400HYB	DS3500HYB	DS3600HYB	
POWER (Input/output)	100KVA/90KW	120KVA/108KW	160KVA/144KW	200KVA/180KW	250KVA/225KW	300KVA/270KW	400KVA/400KW	500KVA/500KW	600KVA/600KW	
<b>INPUT</b>										
Voltage	380/400 VAC 3 Phase + N + G $\pm$ 20% (415 VAC (+15%, -25% optional))									
Frequency	50Hz / 60Hz selectable, $\pm$ 5%									
Power factor (at 100% load)	$\geq$ 0.99									
THDI	$\leq$ 3% Depending on input line conditions and power									
By-pass voltage	380/400 VAC 3 Phase + N, 4 Wires $\pm$ 10%									
Voltage distortion	$>$ 10%									
Protection	Fuses, Voltage & Frequency tolerance, Input power limit, Phase sequency indicator									
<b>OUTPUT</b>										
Power factor	0.9						1.0			
Voltage	380/400 VAC 3 Phase + N , $\pm$ 1% (415 VAC optional)									
Frequency	50Hz / 60Hz selectable									
Frquency tolerance	Line synchronized: $\pm$ 2% / Free running: $\pm$ 0.1% (adjustable)									
Efficiency (at 100% load)	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									
THD	$<$ 3% (at 100% linear load)									
<b>BATTERIES</b>										
Type	VRLA AGM / GEL / NiCd									
Nominal voltage	$\pm$ 360 VDC									
Float/End of discharge voltage	$\pm$ 405 VDC / $\pm$ 300 VDC									
Battery ambient temp.	25°C									
Protections	3 level alarms, Battery fuses, Charging current limit, Temperature compensation (optional)									
<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 Optional: SNMP, RS485, Remote monitoring panel, MODBUS (RS485 or TCP/IP) USB Alarm Logger, TCP/IP ,GSM/GPRS Modem, Comport multiplexer									
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) Optional: T-Mon Admin Multi UPS monitoring 10-50-100-200 clients, T-Mon Server 50-100-200 clients									
Alarm logging	Standard: with time & date 512 event									
Protections	Power module over-temperature, Over current, Temperature high alarm									
Temperature range	0°C - 40°C									
Protection degree	IP20									
Relative humiditiy	90% max. (non-condensing)									
Altitude	$<$ 1000m above sea level									
Noise level	$<$ 57dBA			$<$ 62 dBA				$<$ 64 dBA		
Weight without converter (kg)	220	232	265	470	525	635	780	1452		
Dimensions (mm) HxWxD	1040x400x815			1900x880x775		1900x1250x775	2040x1250x840	1940x1610x1050		
Transformer	Optional galvanic isolation transformer at the input & output									