

DS POWER HIGH SERIES

Uninterruptible Power Supplies

IGBT RECTIFIER

- Galvanic separation
- High overload capacity
- Graphical LCD display



General Specifications

- Thanks to the on-line, double conversion technology achieved entirely with IGBT and DSP, the Tescom DS|PowerHigh series ensures maximum protection and power quality for any type of data processing or industrial load, particularly for “mission critical” applications, and classified as VFI SS 11.
- (Voltage and Frequency Independent) in accordance with IEC EN 62040-3.
- This series has been designed using a new configuration that includes an IGBT sinewave input rectifier rather than the more conventional thyristors.
- The DS|PowerHigh version offers the benefits summarised in the Zero Impact Source formula, thanks to the IGBT rectifier, solves all integration problems in systems where the power supply has a limited installed power, where the UPS is also powered by a generator, or where there are compatibility problems with loads that generate harmonic currents,; as a matter of fact, DS|PowerHigh Series has zero impact on the power source, either network or generator:
 - Less than 3% input current distortion
 - Input power factor 0.99
 - Power walk-in function that ensures a progressive start-up of the rectifier
 - Start-up delay function, to restart the rectifiers when mains power is restored if there are several UPSs in the system.

In addition, DS|PowerHigh plays a filter and power factor correction role in the power network upstream of the UPS, since it eliminates harmonic components and the reactive power, generated by the powered utilities.

Flexible

The configuration with the output transformer, a feature of both the DS|PowerHigh Series and conventional series, is characterised by the galvanic isolation of the load and the battery for greater versatility in system configurations. As a matter of fact it allows for two network inputs (main and emergency) separate, and coming from two different power sources; this is particularly suited to parallel systems in order to ensure the selectivity between the two sources, thus improving the reliability of the entire installation.

Main features

- High output
- Compact size: only 1.5 m² a for 400kVA UPS
- Light weight
- Double load protection, both electronic and galvanic, for the battery.

The entire DS|PowerHigh Series is suited for use in the broadest spectrum of applications; thanks to the flexibility of configuration, accessories and options available, it is suited for powering capacitive loads such as blade servers, etc. Power supply reliability and availability for critical applications are guaranteed by the parallel distributed or centralised parallel up to 8 units, per redundant (N + 1) or power parallel and by all the different configurations.

Technical Specifications

MODEL	DSH 100	DSH 120	DSH 160	DSH 200	DSH 250	DSH 300	DSH 400	DSH 500	DSH 600
Power (kVA)	100	120	160	200	250	300	400	500	600
INPUT									
Nominal voltage	380/400/415 VAC 3P + N + E								
Frequency	45 - 65 Hz								
Power factor	> 0.99								
Harmonic current distortion	< 3%THDI								
Soft start	0 ÷ 100% in 30" (selectable)								
Frequency tolerance	± 2% (selectable from ± 1% to ± 5% from front panel)								
Standard equipment provided standard	Back Feed protection; separable bypass line								
BATTERIES									
Type	open lead acid and VRLA AGM / GEL: NiCd.								
Ripple current	Zero								
Charge voltage compensation	-0.5 Vx°C								
OUTPUT									
Nominal power (kVA)	100	120	160	200	250	300	400	500	600
Active power (kVA)	90	108	144	180	225	270	360	450	540
Number of phases	3 + N								
Nominal voltage	380/400/415 VAC 3P + N								
Static stability	± 1%								
Dynamic stability	± 5% in 10 ms								
Voltage distortion	< 1% with linear load / < 3% with non-linear load								
Crest factor (Ipeak/Irms)	03:01								
Frequency stability on battery	0.05%								
Frequency	50 or 60 Hz (selectable)								
Overload	110% for 60'; 125% for 10'; 150% for 1'								
INFO FOR INSTALLATION									
Weight (kg)	656	700	800	910	1000	1400	1700	2100	2700
Dimensions (mm) HxWxD	1900x800x850		1900x1000x850			1900x1500x1000		1900x2100x1000	
Remote signals	voltage-free contacts (configurable)								
Remote controls	ESD and bypass (configurable)								
Communication	Double RS232 + remote contacts + 2 slots for communications interface								
Ambient temperature	0°C / +40°C								
Relative humidity	< 95% non-condensing								
Colour	Dark grey RAL 7016								
Noise level	63 - 68 dBA					70 - 72 dBA		70 dBA	72 dBA
Protection level	IP20 (other upon request)								
Smart active output	up to 98,5%								
Regulations	Safety: EN 62040-1-1 (directive 2004/108/EC)								
Classification according to IEC 62040-3	(Voltage Frequency Independent) VFI - SS - 111								

Reliable Power