



LOCAL AREA NETWORKS (LAN)



SERVERS



DATA CENTRES



TELECOMMUNICATIONS DEVICES



E-BUSINESS (Servers Farms, ISP/ASP/POP)



INDUSTRIAL PROCESSES



INDUSTRIAL PLCS



ELECTRO-MEDICAL DEVICES



EMERGENCY DEVICES (Lights/Alarms)

DS | Power High Series

IGBT RECTIFIER

Galvanic separation

High overload capacity

Graphical LCD display



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.



Zero impact source

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.

Flexibility

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.

Options

- Input isolation transformer
- Synchronisation device
- Hot connection device
- Interface for generator
- Closed Loop parallel kit option (Closed loop: to be ordered with the UPS)





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Technical specifications

MODELS	DS 3400	DS 3500	DS 3600
POWER (kVA)	400	500	600
INPUT			
Nominal voltage	380 - 400 - 415 VAC Three phase		
Frequency	45 - 65 Hz		
Power factor	> 0.99		
Harmonic distortion	< 3% THDi		
Frequency tolerance	+/-2% (selectable from +/-1% to +/-5% from front panel)		
OUTPUT			
Nominal power (kVA)	400	500	600
Active power (kW)	360	450	540
Number of phase	3 + N		
Nominal voltage	380 - 400 - 415 VAC Three phase + N		
Static stability	+/- 1%		
Dynamic stability	+/- 5% in 10 ms		
Voltage distortion	< 1% with linear load / < 3% with non-linear load		
Crest factor	3:1		
Frequency stability on battery	0.05%		
Frequency	50Hz or 60Hz (selectable)		
Inverter from battery efficiency	94%		
Overload	110% for 60' ; 125% for 10' ; 150% for 1'		
BATTERIES			
Type	Sealed Lead Acid, VRLA AGM, GEL, NiCd		
Number of batteries	40 x 12V (480VDC)		
Ripple current	Zero		
Charge voltage compensation	- 0.5V x °C		
GENERAL			
Weight (kg)	1700	2100	2700
Dimensions (HWD) (mm)	1900x1500x1000	1900x2100x1000	
Remote signals	voltage free contacts (configurable)		
Remote controls	ESD and bypass (configurable)		
Communication	Double RS232 + remote contacts + 2 slots for comm.interface		
Ambient temperature	0°C / +40°C		
Relative humidity	< 95% non-condensing		
Colour	RAL7024		
Noise level (from 1m)	70-72 dBA	70 dBA	72 dBA
Protection level	IP20 (higher optional on request)		
Regulations	Safety:EN62040-1-1 ; EMC:EN62040-2		
Classification acc. to IEC62040-3	(voltage frequency independent) VFI-SS-111		