



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)

# Master HP

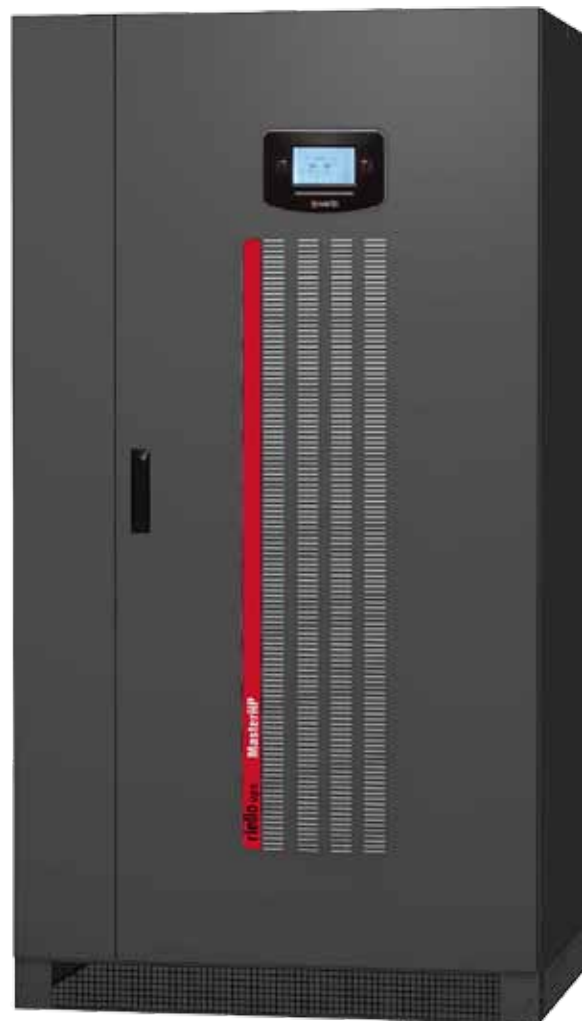
## 100-600 kVA

Three-phase/Three-phase



## Highlights

- IGBT-based rectifier technology
- Galvanic Separation
- High overload capacity
- LCD Display



The MASTER MPS range has been enhanced with the HP series available from 100 to 600kVA

MASTER HP Series provides maximum protection and power quality for data centres and industrial loads. The UPS has an IGBT-based rectifier, DSP (Digital Signal Processors) technology and provides true On-line, double conversion power

protection, (VFI SS 11 - Voltage and Frequency Independent in accordance with IEC EN 62040-3).

The HP series provides exceptional operating efficiency (over more conventional thyristor rectifier-based systems), a compact footprint and easy maintenance access - all ideal for today's critical operating environments.

### Zero impact source

As an evolution of the MASTER series, the HP features the added advantages offered by an IGBT-based rectifier assembly. This further reduces the impact of the UPS on the local supply and simplifies installation where there is limited power capacity in the form of available electrical supply rating or generator size.

The MASTER HP is classed as a 'Zero Impact Source' and provides:

- Low input current distortion – less than 2.5%
- High input power factor 0.99
- Power walk-in function that ensures progressive rectifier start up
- Delayed start up phased with the return of mains power supply, when several UPS are connected in the system.

MASTER HP also performs the role of a high performance filter, protecting its upstream power supply sources from any harmonics and reactive power generated by the loads powered.

### Battery care system: maximum battery care

MASTER HP uses the Battery Care System, also available on the MASTER MPS models, which optimises battery performance in order to extend the battery life for as long as possible.

### Flexibility

The configuration with the output transformer, a feature of both the MASTER HP 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

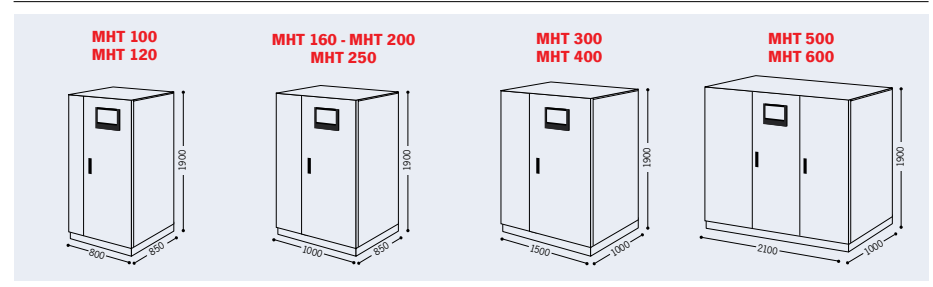
- High output power
- Compact size: only 0.85 m<sup>2</sup> a for 250kVA UPS
- Reduced weight
- Double load protection, both electronic and galvanic, for the battery.

The MASTER HP range is suitable for use in the widest selection of application. Thanks to the flexible configurations, accessories and optionals available, it is suitable for powering capacitive loads, such as blade servers. Reliability and availability of the power supply for critical applications is guaranteed by the distributed or centralised parallel of up to 8 units for (N+1) backup or power parallel, and by all the various configurations available in the MASTER MPS range.

### Options

- Input isolation transformer
- Synchronisation device (see UGS Master MPS)
- Hot connection device (see PSJ Master MPS)
- Generator interface
- Closed Loop parallel kit option (Closed loop: to be ordered with the UPS)
- Battery cabinets for runtimes and rack stands

dimensions (mm)



MODELS	MHT 100	MHT 120	MHT 160	MHT 200	MHT 250	MHT 300	MHT 400	MHT 500	MHT 600
<b>POWER</b>	<b>100</b>	<b>120</b>	<b>160</b>	<b>200</b>	<b>250</b>	<b>300</b>	<b>400</b>	<b>500</b>	<b>600</b>
<b>INPUT</b>									
Nominal voltage	380 - 400 - 415 Vac Three-phase								
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								
<b>BATTERIES</b>									
Type	open lead acid and VRLA AGM / GEL; NiCd.								
Ripple current	Zero								
Charge voltage compensation	-0.5 Vx°C								
<b>OUTPUT</b>									
Nominal power (kVA)	100	120	160	200	250	300	400	500	600
Active power (kW)	90	108	144	180	225	270	360	450	540
Number of phases	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 (I <sub>peak</sub> /I <sub>rms</sub> )	3:1								
Frequency stability on battery	0.05%								
Frequency	50 or 60 Hz (selectable)								
Overload	110% for 60'; 125% for 10'; 150% for 1'								
<b>INFO FOR INSTALLATION</b>									
Weight (kg)	656	700	800	910	1000	1400	1700	2100	2700
Dimensions (hwd) (mm)	1900 x 800 x 850		1900 x 1000 x 850			1900 x 1500 x 1000		1900 x 2100 x 1000	
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 (1 m)	63 ÷ 68 dBA					70 ÷ 72 dBA		70 dBA	72 dBA
Protection level	IP20 (others upon request)								
Smart Active Output	up to 98,5%								
Regulations	Safety: EN 62040-1-1 (directive 2006/95/EC); EMC: EN 62040-2 (directive 2004/108/EC)								
Classification according to IEC 62040-3	(Voltage Frequency Independent) VFI - SS - 111								