







E-MEDICAL





DATACENTRE



## Master HP & Master HE

























**SmartGrid** 



3:3 Master HP 100-600 kVA Master HE 100-800 kVA

## **HIGHLIGHTS**

- High efficiency (up to 95.5% in ON LINE mode)
- kW=KVA (HE Models)
- Rectifier IGBT based technology
- Galvanic isolation
- High overload capacity
- LCD display

The Master HP series from 100 to 600 kVA and Master HE series from 100 to 800 kVA are the Riello UPS solution for installations requiring high energy efficiency and maximum power availability. Master HP/ HE Series provides maximum protection and power quality for data centres and industrial loads. The UPS has an IGBT-based rectifier, DSP (Digital Signal Processor) technology and provides true-line, double conversion power protection, (VFI SS 11 - Voltage and Frequency Independent in accordance with IEC EN 62040-3).

## **MASTER HE - HIGH EFFICIENCY**

Master HE series is available from 100 to 800 kVA. The UPS features a new ON LINE double-conversion technology utilising IGBT and DSP (Digital Signal Processor) control to provide maximum protection, power quality and green energy for any type of application including data centres, disaster recover sites, telecoms rooms, industrial processes and security applications.

High efficiency stands for higher active power available if compared with legacy UPS thanks to output unitary power factor (up to +25% if compared unity with same UPS at p.f. 0.8). Nominal power is granted with no downgrading independently from operating temperature in the range 10-40 °C. Furthermore, control circuits and specifically designed firmware grant outstanding ON LINE double conversion efficiency up to 95.5%, comparable with the best transformer-free UPS available on the

MODELS	MHT 100	MHT 120	MHT 160	MHT 200	MHT 250	MHT 300	<b>MHT 400</b>	MHT 500	MHT 600	
INPUT				,					,	
Rated voltage [V]	380 / 400 / 415 three-phase									
Voltage tolerance [V]	400 ±20% @ full load¹									
Frequency [Hz]	45 - 65									
Power factor	>0.99									
Harmonic current	<3%									
distortion [THDi]										
Soft start	0 - 100% in 120 sec. (selectable)									
Frequency tolerance	±2% (selectable from ±1% to ±5% from front panel)									
Standard equipment provided	Back Feed protection; separable bypass line									
BYPASS										
Rated voltage [V]	380 / 400 / 415 three-phase + N									
Rated Frequency [Hz]	50 or 60 (selectable)									
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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									
Rated voltage [V]	380 / 400 / 415 three-phase + N (selectable)									
Static stability	±1%									
Dynamic stability	±5% in 10 msec.									
Voltage distortion	<1% with linear load / <3% with non-linear load									
Crest factor [lpeack/lrms]	3:1									
Frequency stability on battery	0.05%									
Frequency [Hz]	50 or 60 (selectable)									
Overload	110% for 60 min.; 125% for 10 min.; 150% for 1 min.									
BATTERIES										
Туре	VRLA AGM / GEL; NiCd; Supercaps; Li-ion; Flywheels									
Ripple current	Zero									
Recharge voltage compensation	-0.11% x V x °C									
OVERALL SPECIFICATIONS										
Weight [kg]	700	750	835	970	1060	1500	1720	2440	2831	
Dimensions (WxDxH) [mm]	800x85	50x1900	10	000x850x19	00	1500x10	00x1900	2100x10	00x1900	
Remote signals	dry contacts (configurable)									
Remote controls	ESD and bypass (configurable)									
Communications	Double RS232 + dry contacts + 2 slots for communications interface									
Ambient temperature for the UPS	0 °C - +40 °C									
Recommended temperature for battery life	+20 °C - +25 °C									
Range of relative humidity	5-95% non-condensing									
Colour	Dark grey RAL 7016									
Noise level at 1 m [dBA]	63 - 68 70 - 72									
IP rating	IP20 (others on request)									
Double conversion efficiency	up to 94.5%									
Standards	European directives: L V 2014/35/EU low voltage Directive EMC 2014/30/EU electromagnetic compatibility Directive Standards: Safety IEC EN 62040-1; EMC IEC EN 62040-2; RoHS compliant Classification in accordance with IEC 62040-3 (Voltage frequency Indioendent) VFI - SS - 111									
Classification in accordance with IEC 62040-3	(Voltage Frequency Independent) VFI - SS - 111									
Altitude	6000 max altitude									
Moving the UPS		Pallet jack								

 $<sup>^{\</sup>scriptscriptstyle 1}$  For wider tolerance conditions apply.

