



Illustrative photo



The incredible levels of quality, reliability and energy savings offered by the Master HP range of UPS have been extended to include a 480 Vac - 60 Hz version, certified as UL, with power ratings from 65 to 250 kVA.

IT department managers, facility managers and CTO s are under increasing pressure to achieve zero downtime and to size data centre or industrial installations to be flexible in the face of continuous changes and expansion. As the search for the most reliable

and efficient power supply system becomes ever-increasingly critical, Riello UPS has been continuously investing in power solutions to meet the demands of a range of our clients; a commitment that resulted in the Master HP UL range.

More than just an innovative and technologically-advanced UPS, it is a leap into the future of three-phase technology.

Thanks to its double conversion on-line technology based entirely on IGBT and digital signal processors (DSP), the Master HP UL range ensures maximum power supply protection and quality for any type of load, IT or industrial, in particular for mission critical applications, with VFI SS 111 classification (Voltage and Frequency Independent) in accordance with IEC EN 62040-3. This range was designed using a new configuration that includes an IGB T sinusoidal input rectifier instead of the conventional thyristor system. Differently from other UPS Technologies available on the market, double conversion technology with galvanic isolated output guarantees a quality power supply that is completely protected from all electrical anomalies at the input. Even in the event of serious power supply problems, the output power remains stable.

### Zero impact source

Master HP UL features the added advantages of the Zero Impact Source formula offered by an IGB T-based rectifier assembly. This eliminates problems connected with installation in networks with limited power capacity, where

the UPS is supplied by a generator set or in any case anywhere there are compatibility problems with loads that generate current harmonics. Master HP UL has zero impact on the power supply source, whether it is a mains grid or generator set:

- input current distortion < 3%
- input power factor 0.99
- power walk-in function that ensures progressive rectifier start up
- start-up delay function, to restart the rectifiers when mains power is restored if there are several UPS in the system.

Master HP UL also performs the role of a filter and power factor corrector, protecting the upstream power supply from any harmonics and reactive power generated by the consumers.

### Battery Care System: maximum battery care

Master HP UL uses the Battery Care System, which optimises battery performance in order to extend the battery life for as long as possible.

### Flexibility

The output isolation transformer ensures the galvanic isolation of the load towards the battery and improved versatility in system configuration: it allows for two truly separate network inputs (main and emergency), coming from two different power sources; this is particularly suited to parallel systems in order to ensure selectivity between the two sources, thus improving the reliability of the entire installation.



# UPS Master HP UL



## Technical specification

Models MHT UL	65	80	100	125	160	200	250
<b>Input</b>	<b>65</b>	<b>80</b>	<b>100</b>	<b>125</b>	<b>160</b>	<b>200</b>	<b>250</b>
Nominal voltage	480 V <sub>AC</sub> 3 ph (3+N)						
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	Back Feed protection, separable bypass line						
<b>Battery</b>	<b>65</b>	<b>80</b>	<b>100</b>	<b>125</b>	<b>160</b>	<b>200</b>	<b>250</b>
Type	VRLA AGM/GEL; NiCd; Li-ion; Supercaps; Flywheel						
Ripple current	Zero						
Recharge voltage compensation	-0,5 V/°C						
<b>Output</b>	<b>65</b>	<b>80</b>	<b>100</b>	<b>125</b>	<b>160</b>	<b>200</b>	<b>250</b>
Nominal power	65 kVA	80 kVA	100 kVA	125 kVA	160 kVA	200 kVA	250 kVA
Active power	58,5 kW	72 kW	90 kW	112,5 kW	144 kW	180 kW	225 kW
Number of phases	3						
Nominal voltage	480 V <sub>AC</sub> (3+N)						
Static stability	± 1%						
Dynamic stability	from ± 5% to ± 1% in 20ms						
Voltage distortion	<1% with linear load / <3% with non-linear load						
Crest factor	3:1 I <sub>peak</sub> /I <sub>rms</sub>						
Frequency stability on battery	0,05%						
Frequency	60Hz						
Overload	110% for 60'; 125% for 10'; 150% for 1'						
<b>Other features</b>	<b>65</b>	<b>80</b>	<b>100</b>	<b>125</b>	<b>160</b>	<b>200</b>	<b>250</b>
Weight (lbs [kg])	1213 [550]		1433 [650]	1544 [700]	2326 [1055]*	2546 [1155]*	2767 [1255]*
Weight without manual bypass (lbs [kg])		--			1984 [900]	2205 [1000]	2425 [1100]
Dimensions (w x d x h) (inches [mm])	31,5x33,5x75 [800x850x1900]				55x33,5x75 [1400x850x1900]*		
Dimensions without manual bypass (w x d x h) (inches [mm])	--				39x33,5x75 [1000x850x1900]*		
Communications and remote control	2x RS232; dry contacts; 2x slot for communications interface ESD and bypass						
Operating temperature	0°C / +40°C						
Relative humidity	< 95% non-condensing						
Colour	Dark grey RAL 7016						
Noise level at 1 m	65dBA			68dBA			
IP rating	IP20 (option IP31/IP42)						
Smart Active efficiency	Up to 98,5%						

\* with top cable entry

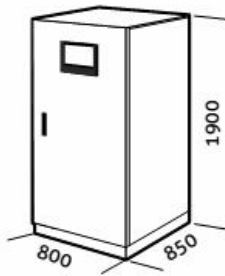
## Technical specification

### Option and standards

Standards	MHT UL 65 / MHT UL 80 / MHT UL 100 MHT UL 125 - UL Standard 1778: 2 <sup>nd</sup> edition; MHT UP 160 / MHT UL 200 / MHT UL 250 - UL standard 1778: 4 <sup>th</sup> edition; National Electrical Code (NFPA-70); NEMA PE-1; CUL-CSA C22.2; ASME; ASA-C-39.1-1984; FCC section 15 subsection J class A; NEC; OSHA; IEEE 587; ANSI C 62.41-1980; ISO 9000 Classification in accordance with IEC62040-3: VFI-SS-111
Software	PowerShield <sup>3</sup> , PowerNetGuard
Accessories	NETMAN 101 PLUS, NETMAN 102 PLUS, NETMAN 202 PLUS, MULTICOM 301, MULTICOM 302, MULTICOM 351, MULTICOM 352, MULTICOM 401, MULTI I/O, Interface kit AS400, MULTIPANEL, RTG 100, 56k Modem, GSM Modem
Product accessories	Isolation transformer (input/ bypass input) Synchronisation device (UGS) / Hot connection device (PSJ) Generator interface / Parallel configuration kit Battery cabinets empty or for extended runtimes Top Cable Entry cabinets / IP rating IP31/IP42

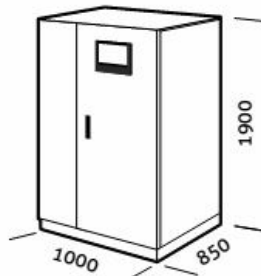
### Dimensions

**MHT UL 65 - MHT UL 80  
MHT UL 100 - MHT UL 125**



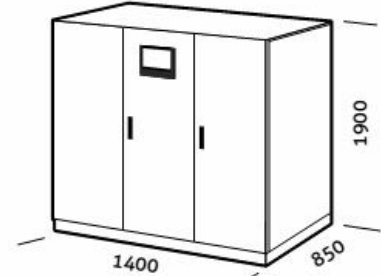
including manual bypass

**MHT UL 160 - MHT UL 200  
MHT UL 250**



excluding manual bypass

**MHT UL 160 - MHT UL 200  
MHT UL 250**



including manual bypass  
Top Cable Entry cabinets



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