constant powerservices











TRANSPORT

EMERGENCY

Master









100-600 kVA









Flvwheel compatible



Service 1st start

HIGHLIGHTS

- IGBT-based rectifier technology
- Compact and reliable
- Galvanic isolation
- High overload capacity
- LCD graphic display

The Master HP series from 100 to 600 kVA is the Riello UPS solution for installations requiring high energy efficiency and maximum power availability. 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).

Maximised cost savings

The Master HP has the ability to monitor the mains input quality and to select the best operating mode based on the interference present (Smart Active mode) or circular redundancy (Parallel Energy Saving mode, which allows the UPS to regulate available capacity based on the immediate demands of the load, automatically switching to standby in the event of excess capacity), the Master HP also offers high levels of efficiency for partial loads, resulting in reduced operating costs.



Power continuity

For years, Riello UPS has developed and supplied solutions for dealing with the different requirements and problems that inevitably arise in critical applications. Riello UPS offers flexible, high-availability solutions that are able to adapt to different system structures and critical levels. Riello UPS creates UPS systems that can tolerate a number of component or subsystem failures, while continuing to operate normally, providing power without interruption. This is achieved by careful design, installing redundant elements, eliminating common failure points, scheduling maintenance activities and controlling and supervising the system operating parameters and environment. The TEC service team is ready to provide guidance and advice on projects.

Main features

- High efficiency (up to 98.5%)
- Compact size: e.g.: only 0.85 m² for the Master HP 250 kVA
- · Reduced weight
- Double load protection, both electronic and galvanic, towards the battery.

 The entire Master HP range is suitable for use in a wide range of applications.

 Thanks to the flexibility of configuration, available options and accessories, it is suitable for supplying any type of load, e.g. capacitive loads such as blade servers etc.

 Power supply reliability and availability are ensured for critical applications by distributed or centralised parallel configurations of up to 8 units, for redundant (N+1) or power parallel configurations and all the different configurations offered by the Master MPS range.

Zero impact source

Master HP has a zero impact on connected power sources - grid networks or generators:

- ≤ 3% input current distortion
- Input power factor 0.99
- power walk-in function to ensure a progressive rectifier start-up
- start-up delay function to restart the rectifier when the mains power supply is restored.

Battery care system

Master HP series UPS include a range of features designed to prolong battery life and reduce their usage.

Output isolation transformer

- Better load protection from DC/Battery problems
- The UPS can be supplied from 2 independent lines
- Fault on DC bus will not affect the bypass availability



- High Short circuit current
- Higher immunity to harmonics or energy backfeed generated by the load.

Advanced supervision

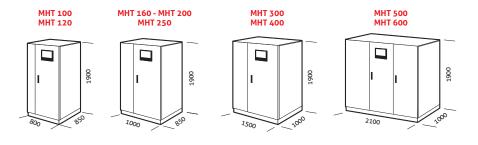
Master HP series UPS have a front panel mounted graphic display providing UPS information, measurements, status updates and alarms in different languages, with wave form displays including voltage/current and providing a kWh reading that can be used to measure IT loads and calculate a datacentre PUE (Power Usage Effectiveness) ratio.

Smart Grid Ready

Being Smart Grid Ready, Master HP allows for the implementation of power accumulation solutions, and at the same time ensures extremely high levels of efficiency. It is also able to independently select the most efficient operating method based on the status of the grid. Master HP UPS are also able to electronically interface with the energy manager using the smart grid communication network.



DIMENSIONS



OPTIONS

SOFTWARE PowerShield³ PowerNetGuard

ACCESSORIES NETMAN 204 MULTICOM 302 MULTICOM 352 MULTI I/O MULTIPANEL

PRODUCT ACCESSORIES

Isolation transformer

Synchronisation device (UGS): see Master MPS on page 88

Hot connection device (PSJ): see Master MPS on page 88

Digital I/O and Generator interface

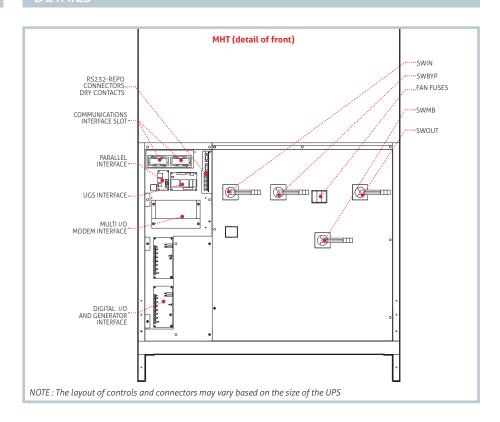
Parallel configuration kit (Closed Loop)

Battery cabinets empty or for extended runtimes

Top Cable Entry cabinets

IP rating IP31/IP42

DETAILS



BATTERY BOX

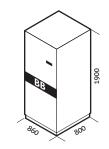
MODELS

BB 1900 480-V6 / BB 1900 480-V7 BB 1900 480-V8 / BB 1900 480-V9

UPS MODELS

MHT 100-600

Dimensions (mm)



CARINETS WITH TOP ACCESS FOR CARLES

MODELS	TCE MHT 100-250	TCE MHT 300-600			
UPS MODELS	MHT 100-250	MHT 300-600			
Dimensions (mm)	1900	1900			

THREE-PHASE ISOLATION TRANSFORMERS

MODELS	TBX 100 T - TBX 160 T	TBX 200 T - TBX 250 T	TBX 300 T - TBX 600 T		
UPS MODELS	MPT 100-160 / MHT 100-160	MPT 200 / MHT 200-250	MHT 300-600		
Dimensions (mm)	0061	800	2200 1000		

MODELS	MHT 100	MHT 120	MHT 160	MHT 200	MHT 250	MHT 300	MHT 400	MHT 500	MHT 600
INPUT							I		
Nominal voltage	380 - 400 - 415 Vac three-phase								
Voltage tolerance				400 V	± 20% @ fu	ll load			
Frequency					45 - 65 Hz				
Power factor					> 0.99				
Harmonic current distortion					<3% THDi				
Soft start				0 - 100%	6 in 120" (se	lectable)			
Frequency tolerance	± 2% (selectable from ± 1% to ± 5% from front panel)								
Standard equipment provided	-		Ва	ck Feed prote	ection; separa	able bypass l	ine		
BYPASS									
Nominal voltage				380 - 400 -	415 Vac thre	e-phase + N			
Nominal frequency				50 or	60 Hz (selec	table)			
OUTPUT									
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									
Static stability	± 1%								
Dynamic stability	± 5% in 10 ms								
Voltage distortion			< 1%	with linear lo	oad / < 3% w	ith non-line	ar load		
Crest factor				3	:1 lpeack/lrm	ıs			
Frequency stability on battery	0.05%								
Frequency				50 or	60 Hz (selec	table)			
Overload		-	110% for 60	minutes; 12	5% for 10 mi	nutes; 150%	6 for 1 minut	е	
BATTERIES									
Туре			VRLA A	AGM / GEL; Ni	Cd; Supercap	s; Li-ion; Fly	wheels		
Ripple current					Zero				
Recharge voltage compensation	-0.5 Vx°C								
INFO FOR INSTALLATION									
Weight (kg)	656	700	800	910	1000	1400	1700	2100	2400
Dimensions (WxDxH) (mm)	800 x 850 x 1900 1000 x 850 x 1900 1500 x 1000 x 1900 2100 x 1000 x 1900								
Remote signals	dry contacts (configurable)								
Remote controls	ESD and bypass (configurable)								
Communications	Double RS232 + dry contacts + 2 slots for communications interface								
Operating temperature	0 °C / +40 °C								
Relative humidity	<90% non-condensing								
Colour	Dark grey RAL 7016								
Noise level at 1 m	63 - 68 dBA 70 - 72 dBA								
IP rating	IP20 (others on request)								
Smart Active efficiency	up to 98.5%								
Standards	Safety: EN 62040-1-1 (Directive 2006/95/EC); EMC: EN 62040-2 (Directive 2004/108/EC)								
Classification in accordance with IEC 62040-3	(Voltage Frequency Independent) VFI - SS - 111								
Moving the UPS	Pallet Jack								



