

## SENTRY MPS-HP 100-250kVA

### Uninterruptible Power Supply

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The new HP version available in 100 to 250kVA models has been added to the Sentry MPS series.

Thanks to the double conversion on-line technology achieved entirely with IGBT and DSP (Digital Signal Processor) control, the Sentry MPS-HP series guarantees maximum protection as well as high quality power for any type of IT and industrial load. It is especially suited for mission critical applications and is classed VFI SS 111 (Voltage and Frequency Independent) in compliance with IEC EN 62040-3 standards. This series has been designed using a new configuration that includes an IGBT rectifier with sinusoidal input current in place of the traditional thyristor rectifier.

#### ZERO IMPACT SOURCE

In addition to the advantages of the traditional Sentry MPS series, the HP version offers the benefits summed up in the Zero Impact Source solution which, thanks the IGBT rectifier, simplifies installation in sites where there is limited power capacity, where the UPS is powered by a generator or wherever there are potential compatibility problems with loads that generate current harmonic distortion. In fact Sentry MPS-HP has zero impact on the power source, whether this be mains power supply or a standby generator. - Low input current distortion - less than 3% - 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. Sentry MPS-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

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

#### FLEXIBILITY

The configuration with output transformer featured on both the Sentry MPS-HP series and the traditional models, offers galvanic isolation of the load from the battery as well as greater versatility in system configurations. In fact it is possible to split input power between two separate power supply sources (mains and emergency), an option that is particularly suited to parallel configurations in order to ensure selectivity between the two sources and thus further improve resilience and availability of the entire system.

#### MAIN CHARACTERISTICS

- Efficiency up to 94 %; -



Compact footprint: only 0.85 m<sup>2</sup> for the 250kVA UPS model; - Limited weight; - Double electronic and galvanic protection of the load from the battery. The entire Sentry MPS-HP range is suitable for a wide range of applications thanks to the flexibility of the configurations, accessories and options and choice of performance levels: compatible with capacitive loads, such as blade servers, without any reduction in active power, ranging from 0.9 lead to 0.8 lag and up to 0.8 capacitive power with a low derating equal to 15% of the active power (kW). Efficient and reliable power supply for mission critical applications is guaranteed by operating in

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redundancy and power parallel  
mode with up to 8 units (N+1),  
and by the Dual Bus System and  
Dynamic Dual Bus system configurations.

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INPUT	MPS-HP 100	MPS-HP 120	MPS-HP 160	MPS-HP 200
Voltage	300 - 400 - 415 Vac threephase			
Input frequency	45÷65 Hz			
Accepted frequency	±2% (selectable from ±1% to ±5% from the front panel)			
Current distorsion	<3% THDi			
Power factor	>0,99			
Input phases	3			
Soft start (Power Walk In)	0÷100% in 30' configurable			
BATTERIES	MPS-HP 100	MPS-HP 120	MPS-HP 160	MPS-HP 200
Type	Lead, open vase acid and VRLA, AGM/GEL; NiCd			
AC ripple voltage	zero			
Temperature compensation	-0,5 Vx °C			
OUTPUT	MPS-HP 100	MPS-HP 120	MPS-HP 160	MPS-HP 200
Rated power	100000 VA	120000 VA	160000 VA	200000 VA
Active power	80	96	128	160
Phases number	3 + N			
Waveform	Sinusoidal			
Rated voltage	380 - 400 - 415V threephase + N			
Voltage distortion with distorting load	<=1%			
Voltage distortion with linear load	<=3%			
Frequency	50 or 60 Hz configurable			
Dynamic stability	±5% in 10 msec.			
Static stability	±1%			
Crest factor (Ipeak/Irms)	3:1			
Output phases	3			
Overload	110% for 60'; 125% for 10'; 150% for 1'			
SYSTEM	MPS-HP 100	MPS-HP 120	MPS-HP 160	MPS-HP 200
AC/AC efficiency	Up to 94%			
Noise	63÷68 dBA at 1 m			
Operating temperature	0 °C ÷ +40 °C			
Relative humidity	<95% without condensing			
Protection degree	IP20 (others on request)			
Protections	Back feed protection; separable bypass line			
Communication	No. 2 RS232 + remote contacts + 2 communication interface slots			
Remote signals	Voltage-free contacts (configurable)			
Remote controls	E.P.O. and bypass			
Colour	Light grey RAL 7035			
Standards	Safety: EN 62040-1-1 and Directive 2006/95/EC; EMC: EN 62040-2 and Directive 2004/108/EC			
Technology	On-line double conversion			
Weight (kg)	656 Kg	700 Kg	800 Kg	910 Kg
Dimensions (WxDxH) mm	800x850x1900 mm		1000x850x1900 mm	
Classification as per IEC 6240-3	VFI - SS - 111 (Voltage Frequency Independent)			

## SENTRY MPS-HP 100-250kVA

DATA	MPS-HP 100	MPS-HP 120	MPS-HP 160	MPS-HP 200
Back up time at full load (min)			0 Min.	
Installation			Tower	
Configuration			Parallel Unit	
OPTIONS	MPS-HP 100	MPS-HP 120	MPS-HP 160	MPS-HP 200
Battery cabinets for longer runtimes			Yes	
Empty battery cabinets for longer runtimes			Yes	
Parallel kit			Yes	
Isolation transformer module (WxDxH)			Yes	
LCD-based remote control panel			Yes	
LED-based remote control panel			Yes	
Communication software 'professional' version			Yes	
OPTIONS	MPS-HP 100	MPS-HP 120	MPS-HP 160	MPS-HP 200

## SENTRY MPS-HP 100-250kVA

INPUT		MPS-HP 250
Voltage		300 - 400 - 415 Vac threephase
Input frequency		45÷65 Hz
Accepted frequency		±2% (selectable from ±1% to ±5% from the front panel)
Current distorsion		<3% THDi
Power factor		>0,99
Input phases		3
Soft start (Power Walk In)		0÷100% in 30' configurable
BATTERIES		MPS-HP 250
Type		Lead, open vase acid and VRLA, AGM/GEL; NiCd
AC ripple voltage		zero
Temperature compensation		-0,5 Vx °C
OUTPUT		MPS-HP 250
Rated power		250000 VA
Active power		200
Phases number		3 + N
Waveform		Sinusoidal
Rated voltage		380 - 400 - 415V threephase + N
Voltage distortion with distorting load		<=1%
Voltage distortion with linear load		<=3%
Frequency		50 or 60 Hz configurable
Dynamic stability		±5% in 10 msec.
Static stability		±1%
Crest factor (Ipeak/Irms)		3:1
Output phases		3
Overload		110% for 60'; 125% for 10'; 150% for 1'
SYSTEM		MPS-HP 250
AC/AC efficiency		Up to 94%
Noise		63÷68 dBA at 1 m
Operating temperature		0 °C ÷ +40 °C
Relative humidity		<95% without condensing
Protection degree		IP20 (others on request)
Protections		Back feed protection; separable bypass line
Communication		No. 2 RS232 + remote contacts + 2 communication interface slots
Remote signals		Voltage-free contacts (configurable)
Remote controls		E.P.O. and bypass
Colour		Light grey RAL 7035
Standards		Safety: EN 62040-1-1 and Directive 2006/95/EC; EMC: EN 62040-2 and Directive 2004/108/EC
Technology		On-line double conversion
Weight (kg)		1000 Kg
Dimensions (WxDxH) mm		1000x850x1900 mm
Classification as per IEC 6240-3		VFI - SS - 111 (Voltage Frequency Independent)

## SENTRY MPS-HP 100-250kVA

DATA		MPS-HP 250
Back up time at full load (min)		0 Min.
Installation		Tower
Configuration		Parallel Unit
OPTIONS		MPS-HP 250
Battery cabinets for longer runtimes		Yes
Empty battery cabinets for longer runtimes		Yes
Parallel kit		Yes
Isolation transformer module (WxDxH)		Yes
LCD-based remote control panel		Yes
LED-based remote control panel		Yes
Communication software 'professional' version		Yes
OPTIONS		MPS-HP 250