



UPS SP2 THREE-SINGLE PHASE

- True On-line Double Conversion Typology
- Advanced DSP Control Technology
- Tower or Rack / Tower Convertible
- 0.9 Output Power Factor
- Wide Input Voltage Range
- Active Harmonic Current Control
- LCD/LED display
- Patent Backup Runtime Estimation
- Multiple Operation Mode
- Remote Emergency Power Off (REPO)
- Remote On Off control (ROO)
- Optional Programmable Outlets
- Easy Firmware Flash Upgrade



The **SP2** on-line VFI-SS double conversion UPS with static By-Pass, ensure constant load and total elimination of electrical noise as it does not provide any direct network-user connection. Fully managed by microprocessors, the **SP2** UPS power the users with a perfect sinusoidal waveform without any interruption.

Thanks to the **USB, RS232, SNMP** interfaces and to the management/control software, supplied with the UPS, it is possible to manage and control the power supply via the main operating systems.





The **SP2** UPS Tower or Rack/Tower version, guarantee the highest quality standards.

Characterized by refined and functional design, low noise level, lightness and small size, this UPS is the perfect choice for safety in offices and in every environment where users are at risk.

UPS of the series **SP2-MS2** are available with three-phase input voltage and single-phase output voltage, in a range of power from **10kVA to 20kVA**, with standard or extended autonomy.



TECHNICAL SPECIFICATIONS

MODEL		MS2 10000	MS2 15000	MS2 20000	MS2 10000-RT	MS2 15000-RT	MS2 20000-RT
POWER	VA	10000VA	15000VA	20000VA	10000VA	15000VA	20000VA
	W	9000W	13500W	18000W	9000W	13500W	18000W
INPUT	Phase	Three phase, R, S, T+ Neutral + Ground					
	Voltage	277-485Vac					
	Frequency Range	45-65Hz			45-70Hz		
	Input Power Factor	Up to 0.95 at Linear Load					
OUTPUT	Phase	Single-phase					
	Output Voltage	230Vac					
	Voltage Window	200/208/220/230/240Vac Selectable (208/120Vac Optional)				220/230/240Vac Selectable	
	Frequency (Battery Mode)	±1Hz or ±3Hz (Selectable)					
	Current Crest Ratio	3:1 acceptable					
	Voltage Adjustment	±0%, ±1%, ±2%, ±3%					
	Voltage Regulation	±2%					
	Rated Power Factor	0.9 Lagging ⁽¹⁾			0.9 Lagging		
	Frequency Stability	±0.2% (Free Running)					
	Output Waveform	Sine Wave, THD<3% (no load to full load)					
BATTERY	Frequency Regulation	±1Hz or ±3Hz (Selectable)					
	Battery Type (Sealed Lead Acid Maintenance Free)	12V/9Ah	N.A.	N.A.	12V/9Ah		
	Battery Number	20 pcs			20 pcs (without Battery in RT power module type)		
	Rated Battery Voltage	240Vdc					
	Recharge Time (to 90%)	4-6 hours			6 hours		
PHYSICAL	Dimensions (W x D x H mm)	290 x 645 x 748		440 x 680 x 132		440x 720 x 220	
	Weight (Kg)	96kg	60kg	60kg	28kg	36kg	36kg
	Input/Output Connection	Hard-wired					
	External Battery Connection	Plug-in & Play					
	Leakage Current	<3mA at Full Load					
INTERFACE	Type	RS232 (standard)	RS232 (standard) EPO	RS232 (standard) EPO	RS232 (standard)	RS232 (standard) EPO	RS232 (standard) EPO
	Communication Slots	2nd RS232, USB, RS485, Relay Contact, SNMP/WEB Card					
	Compatible Platforms	Microsoft Windows series, Linux, Mac, etc.					
ENVIRONMENTAL	Operating Temperature	0-40° C (32-104° F)					
	H	20%-90%RH (without condensation)					
	Noise Level	<50dBA		<60dBA		<60dBA	
STANDARDS & CERTIFICATIONS	Markings	CE  	CE	CE  	CE		
	EMC	IEC/EN62040-2	IEC/EN62040-2	IEC/EN62040-2	IEC/EN62040-2		
	Security	IEC/EN62040-1-1 (Tower)			IEC/EN62040-1 (RT)		