

MSN

SINGLE PHASE 1kVA-3kVA

**SINGLE PHASE
UNINTERRUPTIBLE POWER SUPPLIES
PURE SINE WAVE
ON LINE, DOUBLE CONVERSION
TECHNICAL SPECIFICATION**



1:3kVA

UNINTERRUPTIBLE POWER SUPPLIES

on line double conversion single phase

MSN range

On-line double conversion with Digital Signal Processor (DSP) digital control technology.

Among the main features that make this series of high efficiency there are:

- High input and output PF
- Wide Input Tolerance Range (Energy Savings)
- Eco Mode (Economic operation mode)
- Flexibility and possibility of parallel
- Power Backup Protection and Surge Protection
- Monitoring and Self-diagnosis at every turn-on
- Cold Start (Cold Start)
- By-pass output
- Possibility of autonomous expansion with additional battery boxes
- USB port
- Contact EPO
- Included software
- Intelligent SNMP Network Card Slot



The MSN series is produced with an LCD display from which you can view the operating parameters (more than 50 entries), and where you can set the base configurations.

The UPS MSN, thanks to its compact size, meets the demand for power in small spaces and is suitable for any type of installation. It is a system with double conversion technology online and is available from 1 kVA to 10 kVA with single phase voltages. It is equipped with integrated maintenance bypass (6Kva and 10Kva), with the ability to increase the autonomy available with additional battery packs. It is available in the standard version without transformer and on request it is possible to add it to an external cabinet.

MSN is the ideal product to protect critical loads that require continuous, high-quality power supply with zero-battery transfer times and provide a fault-tolerant electrical protection network.

The 0.9 power factor combined with Digital Signal Processor (DSP) technology delivers high output power and efficiency to all protected loads.

Total power protection - High dynamics of voltage fluctuation without battery power withdrawal.

Monitoring of operation.

Cold start function.

Low / Exhausted Battery Check.

Multiple Level Alarm Stages

All models come with a USB connector for communication and computer dialogue with USB signals (UPS status, batteries, automatic ignition, automatic rescue, etc.).

Internet connection and protection.

Technical data and images may be subject to a change without notice

UNINTERRUPTIBLE POWER SUPPLIES

on line double conversion single phase

MSN01-02-03

MODEL			MSN01	MSN02	MSN03
RATED CAPACITY			1000VA / 900W	2000VA / 1800W	3000VA / 2700W
INPUT	Input		Single phase and earthing		
	Voltage range		115±5VAC-295±5VAC		
	Frequency range		45Hz-55Hz@50HZ/55Hz-65Hz@60HZ		
	Power factor		≥0.98		
	ECO range		Setting output voltage±20VAC		
	Bypass range		186VAC-252VAC		
	THDi		≤7%(100% non linear load)		
	Connection		1x IEC		1x Terminal L/N + T
OUTPUT	Output style		Single phase and earthing		
	Rated voltage		208/220/230/240VAC		
	Power factor		0.9		
	Voltage accuracy		±2%		
	Output Frequency	Line mode	1. When input frequency is in the range, the output frequency is the same as that of input. When input frequency is out of the range, the output frequency is (50/60±0.2)Hz when turn to battery mode		
		Battery mode	(50/60±0.2)Hz		
	Crest factor		3:1		
	Transfer time		Mains ←→ Battery = 0ms		
	Overload capacity	Battery mode	108%±5%<load≤150%±5% > 30s cut off output and warn, 150%±5%<load<200%±5% > 300ms cut off output and warn		
		Line mode	108%±5%<load≤150%±5% > 30s transfer to bypass and warn 150%±5%<load<200%±5% > 300ms transfer to bypass and warn		
	Efficiency	Line mode	Full load ≥88%		
		Battery mode	Full load ≥85%		
		ECO	Full load ≥94%		
	Output voltage distortion		≤3% (100% linear load)		
			≤5% (100% non linear load)		
	Connection		2x IEC 1x Schuko	6x IEC 1x Schuko - 1x Terminal L/N + T	
BATTERY	Input battery voltage		24VDC	48VDC	72VDC
	Internal battery capacity		2	4	6
	Internal battery type		12V/7AH sealed lead acid maintenance free battery (only refers to standard UPS)		
	Backup time		Full load ≥4min (only refers to standard UPS), as for long backup UPS, the backup time is determined by the capacity of battery.		
	Charging current (A)		1		

Technical data and images may be subject to a change without notice

- Our products are manufactured according to the following EMC international grade standard and has passed the CE authentication:

MSN01 – 02 – 03
IEC/EN 62040-1
IEC/EN 62040-2
IEC/EN 62040-3
IEC/EN 60950-1
EN50171

- Work Environment

MODEL	MSN01 – 02 – 03
Temperature	0°C ~ 40°C
Relative humidity	0 ~ 95% non condensing
Altitude	< 1500m If > 1500m, a derating is required
Storage temperature	-25°C ~ 55°C
Noise level	< 50dB @ 1m.

- Mechanical Specification

MODEL	DIMENSIONS WxDxH (mm)	GROSS / NET WEIGHT (Kg)
MSN01	144x368x215	10,5 / 9,7
MSN02	191x469x339	21,6 / 20
MSN03		26,2 / 24,6

- Items supplied with the product

MODEL	MSN01	MSN02	MSN03
Instruction manual	QR CODE		
Software (CD-ROM)	Available for download		
RS232 cable	1		
USB cable	1		
Input cable (IEC)	1	1	NO
Output cable (IEC)	2	3	3

Technical data and images may be subject to a change without notice