

1-Ph, 230V, 50/60Hz, 12KW/48VDC Combined Inverter/Charger with Pure Sine Wave Output and LCD Display

Product Highlights

- 48V DC or 230V AC input; 230V, 50 Hz output (hardwired)
- 12KWcontinuous output, 36000-watt peak output
- Microprocessor controlled Smart UPS & Solar operational mode
- 4-Step Progressive Charging & 7-Battery Type Selector
- Fully compatible for Solar/Wind solutions for Hybrid configuration
- Pure sine wave output with LCD display
- High Efficiency Using Line-Interactive Circuit
 Topology (Full Bridge Topology)
- Quiet, high efficiency operation, high surge capacity and low idle current







Product Description

Provide Pure Sine Wave power for all your alternative energy needs with the MAGNIZON APS-12K48SW-LCD. This inverter/charger supplies 12000 watts of continuous 230V /50Hz AC power. Reliable large transformer design and frequency control powers very much compatible to all varieties of loads: resistive loads such as refrigerators, motors, pumps compressors and laser printers as well as electronic loads like TV's, Computers, power tool and battery chargers. Smart micro controller based 3-stage charging system properly charge and maintain battery bank. The charge rate is selectable so you can use a variety of battery sizes and types to fit your back up time requirements.

Applications

- Well designed for hybrid applications where solar/wind energy systems connected along with grid or generator sets without using any relay and control mechanism.
- Versatile inverter/charger with pure sine wave system with seamless transfer switching serves as an automotive inverter for RVs, trucks, standalone alternative power source with high end back up times with various battery technologies (VRLA, GEL, Deep cycle, Ni-Cd and many more)
- Off-grid and On-grid applications/small workshop applications.
- Telecom/ Banks/Small power plant applications.
- Remote closets and small computer room applications.

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Product Features

Provides Safe and Reliable Power Protect for the following Equipment

- Equipment is Office and Public
- Home Appliances
- IT Network Equipment
- Manufacture Control System
- Solar Energy System
- Oil field and Fieldwork

On Inverter

- High overload ability
- Low battery voltage trip selectable, extracting max power from various batteries with different protections
- Low quiescent current, selectable sensing cycle to reduce power consumption

On Battery Charger

- 3-step intelligent battery charging
- 8 preset battery type selector plus de-sulphation for totally flat batteries
- Powerful charge rate up to 100Amp ,selectable charging current
- PFC(Power Factor Correction) for charger, less power consumption than conventional units

On Transfer

- Delay before transfer, extra protections for loads under generator mode
- Input AC voltage range selectable, for different kinds of loads
- 8 ms typical transfer time, guarantees power continuity
- 30A/40A through current ability
- Output voltage regulation optional

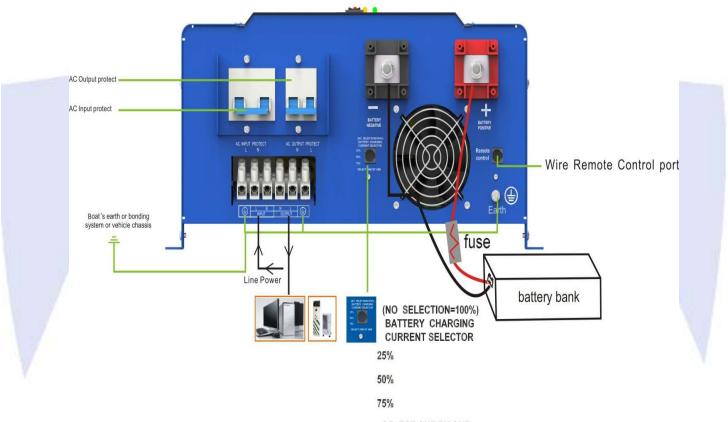
On Remote Control & Other Features

- Ability to switch the unit on/off
- Ability to select/deselect power saver mode
- 17 alarms/warnings, informative for easier operation and trouble-shooting
- LCD status display available
- RS232 communication port optional

^{**}Built in input and output breakers.



Product Overview

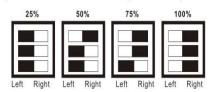


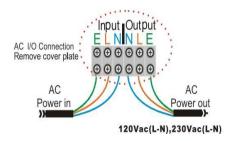
SELECT ONE BY ONE

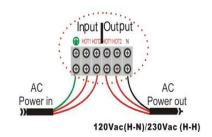
Battery charging current:battery charging current selector on100%(100% is the maximum Battery current) as below

For the Battery Charging Current Selector Switch you can choose 25%, 50%, 75% or 100% of the maximum battery charger current as follow

(the Selector Switch is factory set in 25%):







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Product Specification

Model No	APS-12K48SW-LCD
Nominal Power	12000Watts
	Input Specification
Input Phase & Wave Form	Single Phase & Sine wave (Utility or Generator)
Nominal Voltage	220/230/240V AC
Input AC voltage Window	154-273C AC
Line Low Transfer	154V +/- 4%
Low Voltage Re engage	164V +/- 4%
High Voltage Trip	273V +/- 4%
High Voltage Re engage	263V +/- 4%
Max Input AC Voltage	270V
Nominal Input Frequency	50Hz or 60Hz (Auto detect)
Low frequency trip	40Hz
High frequency trip	80Hz
Output Connection type	Hardwire via built in junction box with cover plate
In	overter Output Specification
Output Wave form & Phase	Pure Sine wave & Single Phase (Bypass mode sync to Input)
Power Factor	1
Nominal Output Voltage RMS	220/230/240V AC (L-N) (same as input on Bypass mode)
Output Voltage regulation	+/-10% RMS (bypass mode sync to input)
Output frequency	50Hz +/-0.3Hz or 60Hz+/-0.3Hz
Nominal Efficiency	>88%
Output Connection type	Hardwire via built in junction box with cover plate
Surge rating/crest factor	3 times of rating
Output continuous power in Watts	12000
Output continuous power in VA	12000
Short circuit protection	Yes, fault after 10sec
	DC Input Specification
Nominal Input Voltage Dc	48V DC
Minimum start voltage Dc	40V DC
Low battery Alarm	44V DC
Low battery trip	40V DC
High Voltage alarm	64V DC

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Over Charge Voltage	62.8V DC	
Max Charging Current	100A DC	
DC Connection type	DC INPUT: Set of 2 DC bolt-down terminals. AC INPUT: Hardwire via built in junction box with cover plate	
Transfer Efficiency		
Transfer Time	6-10mSec	
Line Mode	>95%	
Battery Model	>85%	
Power Save	Available when the load is less than 75W	
	Indicators/Alarms	
4-LED Status Display	Charge, Line, Inverter & fault	
LCD Display	Input Voltage, Output Voltage, Frequency, Battery voltage, Load, Temperature, Charge current & Fault	
Switch Selector	Saving Mode is On/Off when push the switch forward/backwards, keeping it horizontal is turning the inverter Off	
Audible Alarm	Sounding when the heat sink's temperature is over 105deg C and shutdown after 30 seconds	
Protections	Low Battery, Over charging, Over temp & over load	
Communications	RJ11/RS232 (optional)	
	Environmental Details	
Operating Temp	0-40deg C	
Humidity	0-95% RH (non-condensing)	
Audible Noise	<60dB	
	Physical Details	
Size (in mm)	584x450x202	
Weight	68Kgs	
Warranty	2 Year limited warranty Extendable up to 4 years	
Safety	EMC/CE/ROHS/ISO9001	
Disturbance at Maine Torminale	Certification/Conformity	
Disturbance at Mains Terminals	EN61000-6-3:2007+ A1: 2011+ AC:2012	
Radiated Disturbance	EN61000-6-3:2007+ A1: 2011+ AC:2012	
Harmonic Current Emission	EN61000-3-12: 2011	
Voltage fluctuations & flickering	EN61000-3-11: 2000	
Electrostatic Discharge (ESD)	IEC 6100-4-2:2008	
Radio-frequency & continues radiated disturbances	IEC 6100-4-3:2006 + A1:2007 + A2:2010	

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EFT/B Immunity	IEC 6100-4-4:2012
Surge immunity	IEC 6100-4-5:2014
Conducted RF immunity	IEC 6100-4-6:2013
Power frequency magnetic field	IEC 6100-4-8:2009
Voltage DIP, >95% reduction	IEC 6100-4-11:2004
Voltage DIP, >30% reduction	IEC 6100-4-11:2004
Voltage Interruption	IEC 6100-4-11:2004

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