

#### Model # APS6048SW-LCD

# 1-Ph, 230V, 50/60Hz, 6000W/48VDC Combined Inverter/Charger with Pure Sine Wave Output and LCD Display

#### **Key Features**

- 48V DC or 230V AC input; 230V, 50 Hz output (hardwired)
- 6000 watts continuous output, 12000 watts 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 large LCD display
- High Efficiency Using Line-Interactive Circuit Topology (Full Bridge Topology)
- Quiet, high efficiency operation, high surge capacity and low idle current
- CE Safety







#### **Product Description**

Provide Pure Sine Wave power for all your alternative energy needs with the Magnizon APS-6048SW-LCD. This inverter/charger supplies 6000 watts of continuous 230V /50Hz AC power. Reliable large pure copper based transformer design and frequency controlled power, 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.
- Telecom and ATM applications.
- Remote closets and small computer room applications.
- Petrochemical application
- Critical applications where ever higher reliability is needed
- Medical & lifesaving equipment's
- SMB requirements



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## **Specification**

| Model No                              | APS-6048SW-LCD                       |  |
|---------------------------------------|--------------------------------------|--|
| Nominal Power                         | 6000Watts                            |  |
| Input Wave Form                       | Sine wave (Utility or Generator)     |  |
| Nominal Voltage                       | 230V AC                              |  |
| Low Voltage Trip                      | 154V +/- 4%                          |  |
| Low Voltage Re engage                 | 164V +/- 4%                          |  |
| High Voltage Trip                     | 253V +/- 4%                          |  |
| High Voltage Re engage                | 243V +/- 4%                          |  |
| Max Input AC Voltage                  | 270V                                 |  |
| Nominal Input Frequency               | 50Hz or 60Hz (Auto detect)           |  |
| Low frequency trip                    | 47Hz for 50Hz, 57Hz for 60Hz         |  |
| High frequency trip                   | 55Hz for 50Hz, 65Hz for 60Hz         |  |
| Output Wave form(bypass mode)         | Same as Input                        |  |
| Overload protection                   | Circuit breaker                      |  |
| Short circuit protection              | Circuit breaker                      |  |
| Efficiency on line transfer mode      | 95%                                  |  |
| Line transfer time                    | 10 mSec Typical                      |  |
| Bypass without Battery connected      | Yes                                  |  |
| Max bypass current                    | 45Amp                                |  |
|                                       | Inverter Specification / Output      |  |
| Output Wave form                      | Pure Si <mark>ne wave</mark>         |  |
| Output continuous power in Watts      | 6000                                 |  |
| Output continuous power in VA         | 6000                                 |  |
| Power Factor                          | 1                                    |  |
| Nominal Output Voltage RMS            | 230V AC (L-N)                        |  |
| Output Voltage regulation             | +/-10% rms                           |  |
| Output frequency                      | 50Hz +/-0.3Hz or 60Hz+/-0.3Hz        |  |
| Nominal Efficiency                    | >88%                                 |  |
| Surge rating                          | 18000                                |  |
| Short circuit protection              | Yes, fault after 10sec               |  |
|                                       | Inverter Specification / Input       |  |
| Nominal Input Voltage Dc              | 48V                                  |  |
| Minimum start voltage Dc              | 40V                                  |  |
| Low battery Alarm                     | 42V                                  |  |
| Low battery trip                      | 40V                                  |  |
| High Voltage alarm                    | 64V                                  |  |
| Power Saver                           | Below 25Watts when enabled           |  |
| Power Saver                           | Same switched On/Off remote          |  |
| Input connection type                 | Terminal block with secure enclosure |  |
|                                       | Charger Mode Specification           |  |
| AC input Voltage Range                | 164-253V AC                          |  |
| Output Voltage (DC)                   | Depends on battery type              |  |
| Battery Charge current                | 50Amp                                |  |
| Battery initial Voltage for start up  | 0-62.8V DC                           |  |
| Battery illitial voltage for Start up | 0-02.0 V DC                          |  |

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| Charger curves (4 stage constant current) battery type 4 Step digital controlled progressive charge |  |                             |  |
|---|--|-----------------------------|--|
| Battery Type  | Boost Voltage (Per battery)                        | Float Voltage (Per Battery) |  |
| Gel USA   | 14.00  | 13.70                       |  |
| AGM.1   | 14.10  | 13.40                       |  |
| AGM.2   | 14.60  | 13.70                       |  |
| Sealed Lead acid  | 14.40  | 13.60                       |  |
| Gel Euro  | 14.40  | 13.80                       |  |
| Open Lead acid  | 14.80  | 13.30                       |  |
| Calcium   | 15.10  | 13.60                       |  |
| De-sulphation   | 15.5 for 4hrs (per battery)                        |                             |  |
| Remote control/RS232/USB  | Yes. Optional                                      |                             |  |
| Size (in mm)  | 218x117x600  |                             |  |
| Weight  | 44kgs  |                             |  |
| Warranty  | 2 Year limited warranty Extendable up to 4 years   |                             |  |
| Safety  |  | ROHS/ISO9001                |  |
|   | Certification/Conformity                           |                             |  |
| Disturbance at Mains Terminals  | EN61000-6-3:2007+ A1: 2011+ AC:2012                |                             |  |
| Radiated Disturbance  | EN61000-6-3:2007+ A1: 201 <mark>1+ A</mark> C:2012 |                             |  |
| Harmonic Current Emission   | EN61000-3-12: 2 <mark>011</mark>                   |                             |  |
| 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              |                             |  |
| 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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