

Solar Inverter

High Frequency Solar Inverter



High Frequency Range - 400 VA/12V

When energy supply from electric utility is not possible, economic or desirable, PV systems can be installed economically as stand-alone high frequency systems.

Working Principle

In a stand-alone high frequency PV system, the energy storage in the batteries and the operation of numerous consumers is realized using direct current. This gives you an opportunity to define and have the desired backup depending upon your requirement by using batteries.

Features

- High Total Efficiency & Reliability
- Pure sine wave output
- Low Total Harmonic Distortion (THD) < 3%*
- Micro-controller based design
- Noiseless operation
- High Surge Capability

Display/Indications

- Easy-to-read system status
- Low battery
- Overload
- Short-circuit
- Inverter ON

Protections

- Overload Protection
- Short circuit protection

- Battery pole reversal protection
- Battery deep discharge protection
- High temperature
- Over/under input voltage protection

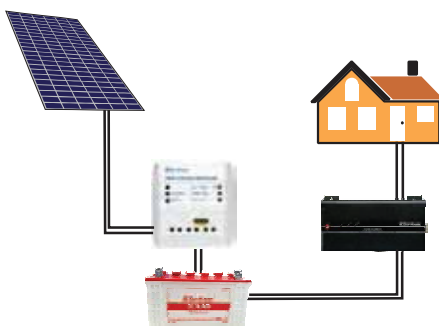
Convenience

- Life cycle service & support – Rapid support anywhere through Su-Kam's extensive service network.
- Lightweight and compact design
- Wall mounting option available

Applications

- Solar high frequency inverters can be used in areas where there no supply of grid electricity.
- Standalone Solar Systems
- Hybrid Solar Solutions

INSTALLATION DIAGRAM



LOAD CHART

| | A | B | C |
|------------|---|---|---|
| TV 14" | 1 | - | 1 |
| FAN | 1 | 2 | - |
| Tube light | 1 | - | 2 |
| CFL | 2 | 2 | 4 |
| Computer | - | 1 | - |

Indicative values only, actual calculation depends on manufacturer's specification

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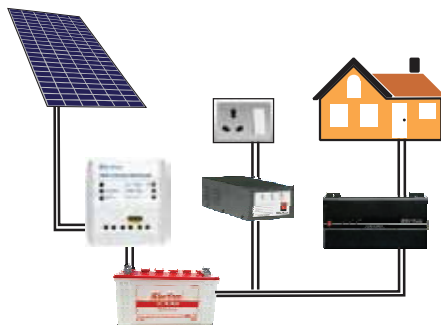
TECHNICAL SPECIFICATIONS

| | |
|--|---|
| Model | 400VA/12V |
| Rated Power | 400VA |
| Nominal Input Voltage | 12VDC |
| Input Voltage Range (DC) | 10.5-15.5VDC |
| Battery Low Alarm | 10.7VDC |
| Battery Low Shutdown | 10.5VDC |
| OUTPUT | |
| Efficiency | 82% |
| Output Voltage | 220VAC, 50Hz |
| Voltage Regulation | ±10% RMS |
| Frequency Regulation | 50Hz ± 0.1Hz |
| Output Waveform | Sine Wave |
| THD | <5% (On Linear Loads) |
| Overload | Above 100% |
| Protection | Overload, short circuit, Reverse polarity through DC fuse, Over/Under input voltage, Over temperature |
| GENERAL | |
| Operating Temperature Range | 0°C to + 40°C |
| Storage Temperature Range | 0°C to +55°C |
| Thermal Management / Cooling | Controlled Forced air cooling |
| Relative Humidity | 0-95% Non-Condensing |
| INDICATIONS | |
| Low Battery, Overload / Short Circuit, Inverter ON | |

Specifications are subject to change without prior notice.

Recommended Balance of Solar System

| Solar Charge Controller | | Battery | | Solar Panel | |
|-------------------------|-----------|---------|---------|-------------|---------|
| Minimum | Maximum | Minimum | Maximum | Minimum | Maximum |
| 5Amp/12V | 20Amp/12V | 100Ah | 135Ah | 100W | 400W |



Solar Conversion Kit

In remote areas where people use the standalone solar systems have normally an issue of less charging during the winter or foggy season when they need the power most. Su-kam offers another high efficiency battery charger that gives the customer an option of charging there batteries through one more AC sources i.e; grid or generators. This systems enables a customer to charge their batteries and use the available power during the night as well.

Su-Kam's SMPS based, multistage, pure DC battery chargers are microprocessor controlled for fast and accurate charging of all deep-cycle batteries This is also compatible with any solar systems. A wide AC input voltage range enables proper delivery of a full three-stage charge, even when charging from less than perfect quality grid power or generator power.

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