

## **PNI-200501700VA002**

### **700VA Pure Sine Wave Inverter**

#### **General Description:**

PNI-200501700VA002 series of inverters are innovative product in the power inverter world. This inverter accepts wide range of the input DC voltage from the battery, and provides 230VAC, **50Hz clean sine wave** output. This inverter offers relatively **low harmonic distortion** in the output voltage and **excellent load regulation**. The **inverter efficiency** remains greater than **90%** over the full output power range and full DC input voltage range.

This **power efficient** and **lightweight** inverter has **inbuilt battery charger**, which charges the fully discharged battery (24V, 150AH) within 5 hours this charger puts nearly 80% energy in the battery within 3 hours. Not only this, the battery charger uses four stage-charging techniques, which **maximize the charging efficiency and battery operational life**. The battery charger takes AC input power from your home power socket at  $\approx 0.99$  power factor, which again *saves the AC input power* during charging. *The high efficiency of the inverter allows the power availability for longer duration (large back-up time >5.0 hours (approx.) under fully charged battery and full output load conditions. Backup time will be increased in case of lower output load connected to the inverter).*

#### **Features:**

1. Sine Pulse Width Modulation (SPWM) inverter control technology.
2. Output Voltage waveform is clean 50Hz Sine Wave.
3. Low output voltage harmonic distortion.
4. Accurate Output power limiting (by cycle by cycle output load current limit)
5. Accepts wide range of the input DC voltage.
6. Uses very fast, low loss Power MOSFET & smaller magnetic parts, hence provides comparatively higher power conversion efficiency.
7. Overall inverter weight is less than 1kg, hence offers high power density.
8. Includes very fast and efficient Battery Charger.
9. Battery charger saves a lot of power during the battery charging.
10. Battery charger charges your inverter's fully discharged battery in 5.5Hours.
11. Battery charger accepts universal input voltage range, which still allows your fully discharged battery to be charged in same time, even if your home AC input voltage is 85V.
12. Automatic "ON" or "OFF" as per the availability of the AC input power.
13. Under battery voltage protection.
14. Excellent load and line regulation.

## Technical Specifications of PNI- 200501700VA002

Input Power Source	: Lead Acid Batteries (75AH-180AH two 12V battery)
Input Voltage Range	: 18VDC to 28VDC
Input Over current Protection	: Yes
Output Power	: 700VA (Max)
Output Voltage	: 230VAC, -2%, Sine Wave 50Hz
Output Voltage THD	: <5%
Over load protection	: Yes (output current is limited to 3.5A)
Inverter overall efficiency	: $\cong$ 90%
Control technology	: Sine Pulse Width Modulation
Inverter Control frequency	: 50kHz.
Input voltage to battery charger	: 85VAC to 260VAC (48Hz to 62Hz)
Battery charging time	: $\leq$ 5.5H for 24V, 150AH Lead Acid Battery
Battery charger Input voltage	: 85VAC to 265VAC @ 48Hz to 62Hz
Charger Input power factor	: 0.99
Total Inverter Weight	: 1.0kg. (Approx.) (Without batteries)
Operating ambient temperature	: 0°C- 60°C

*IMPORTANT NOTE*

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