**PSI300 SERIES**

**DC / AC Sine Wave Inverters: 300 VA**

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**General Specifications**

- **Input Voltage**
  - 24VDC, 36VDC, 48VDC, 110V & 125VDC.
  - Other input voltage options on request
- **Input Range**
  - ±15% of input, other options on request
- **Input Protection**
  - Inrush current limiting
  - Internal safety fuse, Reverse Polarity Protection
- **Isolation**
  - For input > 60vdc: Input – Output: 2250vdc
  - For input <60vdc: Input – Output: 1500vdc
  - Other options on request
- **EMI**
  - EN55022 Class A conducted
- **Immunity**
  - EN 61000-4
- **Output Voltage**
  - 115VAC / 230VAC options
  - Isolated / Floating output
  - Neutral can be connected to earth terminal if required.
- **Output Waveform**
  - Sinusoidal
- **Harmonic Distortion**
  - Less than 5% at 100% load.
- **Output Freq.**
  - 50Hz, 60Hz, 400Hz options
- **Load Crest Factor**
  - Maximum 3% at 90% load
- **Output Power**
  - 300VA
- **Regulation**
  - Load: ±2% from 10% to 100% load step.
  - Line: ±1.0% over input range
- **Output Noise**
  - High Frequency ripple is better than 500mVrms (20MHz BW)
- **Protection**
  - Current limiting with short circuit protection
  - Self re-setting thermostat for thermal protection
- **Output Over Voltage Protection**
  - Output voltage is limited by internal supply voltage
- **Efficiency**
  - Input voltage / model dependent typically 80% at 100% load
- **Operating Temp**
  - -40°C to +70°C cold plate temperature
- **Cooling**
  - Convection / Conduction cooled
- **Shock & Vibration**
  - Designed to meet IEC61373 Cat 1 A & B
- **Humidity**
  - 5-95% non-condensing
- **MTBF**
  - >150,000 hrs at 45°C
- **LED Indicator**
  - Optional
- **Connector**
  - Terminal block, other options on request
- **Dimensions**
  - 155 x 72 x 269mm (P600)
- **Weight**
  - 3.4kg

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**Features**

- Complete encapsulated package
- 300VA output power
- Sinusoidal output waveform
- Convection / Conduction cooled – No Fans
- Frequency options 50Hz / 60Hz / 400Hz
- Wide range of input options: 24 ~ 125VDC
- Optional output fail alarm on some models
- Low profile 72mm
- Rugged design for harsh environments
- Full electronic protection
- Non standard input voltage options

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**Description**

The **PSI300** is a rugged, fully **encapsulated** product with a thermally conductive MIL-grade silicon rubber compound, to ensure immunity to shock, vibration and humidity.

It uses field proven, microprocessor controlled high frequency PWM technology to generate 300VA output power with pure sign wave output voltage.

It is a mature design with a track record in numerous applications. The DC/DC input stage boosts the input voltage to a higher DC voltage, which feeds the DC/AC inverter to generate the required AC output.

The use of high frequency conversion enables a compact construction, low weight and high efficiency. The unit has full electronic protection. The input and output are filtered for low noise.

Cooling is via baseplate to a heatsinking surface and by natural convection.

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**Options**

- Remote enable / disable
- Alarm output
- And we can customise the design to suit a range of special customer requirements.

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**Model No Example:**

**PSI300-4E-FT** (48VDC / 230VAC 50Hz)

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Title: POTTING COMPOUND
OUTLINE DRAWING

Case Material: Aluminum 5052-H32
The unit is potted with thermally conductive potting compound.

Termination and Product Id. Labels
Curtis 38000 Series Barrier Type of Terminal
With 3/8" Spacing and 6-32 UNC Screws

Dimensions are in millimeters.
[Inches] Tolerances on
Decimals: XXX ± 0.2mm
XX ± 0.3mm
Angles: ± 2°
Fractions: ± 0.4mm
Unless otherwise stated.

Model No: P600

Title:

Dimensions:

- [2.2] 56
- [10.6] 269
- [6.1] 154.9
- [5.6] 142.2
- [1.3] 33
- [4.0] 101.6
- [4.0] 101.6
- [6.4] 162
- [1.6] 42
- [0.38] 9.5

Mounting Holes: 6 pcs.

0.25