

300VA Compact, Encapsulated, Industrial Quality DC-AC Sine Wave Inverter PSI 300-P600 Series

- Sinusoidal output voltage
- Full encapsulation
- Conduction cooling
- Compact construction
- Full electronic protection
- Wide temperature range
- Rugged, field-proven design



This fully encapsulated, industrial quality DC-AC inverter uses field-proven, PSI300 microprocessor controlled high frequency PWM technology to generate the required output power with pure sine wave output voltage. New semiconductor technology and unique design topology simplifies the circuitry and enables a compact construction. The unit is entirely potted with a thermally conductive MIL-grade silicon rubber compound which provides protection from moisture and other contaminants, as well as immunity to shock and vibration. Cooling is by conduction via a base plate to a heatsinking surface. The unit was designed for continuous operation at 70°C with installation on appropriate size of heatsinking surface. Full electronic protection, low component count, large design headroom and the exclusive use of components with established reliability contribute to a high MTBF. The unit is manufactured at our plant under strict quality control. It is suitable for transportation, mining, oilrigs, military and other harsh environments.

SPECIFICATIONS

Input Voltage

24V, 48V, 110V, 125Vdc ±15% are standard
Consult factory for other inputs

Input Protection

Inrush current limiting
Varistor
Reverse polarity protection
Internal safety fuse
Lower voltage than the specified minimum input will not damage the unit

Isolation

1500Vdc input to chassis
3000Vdc input to output
2250Vdc output to chassis
Floating output

Standards

Designed to meet
C22.2 No. 107.1 - 01,
UL 458 and EN 60950-1

EMI

EN 55032 Class A
with margins

Output Voltage

115Vac/2.6A continuous,
60Hz or 400Hz; or
230Vac/1.3A continuous 50Hz
Isolated floating output
Consult factory for other output requirements

Output Wave Form

Sinusoidal

Total Harmonic Distortion

Less than 5% at full load

Line/Load Regulation

± 2% from no load to full load

Load Crest Factor

2 at 90% load

Output Noise

High frequency ripple is better than 500mVrms (20MHz BW)

Output Overload Protection

Current limiting with short circuit protection
Thermal shutdown with automatic reset in case of insufficient cooling

Output Overvoltage Protection

Output voltage is limited by internal DC bus voltage

Efficiency

Input voltage dependent
Typically 80% at full load

Operating Temperature Range

-40 to +70°C cold-plate temperature for full specification

Temperature Drift

0.03% per °C over operating temperature range

Cooling

Conduction cooling via base plate to customer chassis or heat-sink

Environmental Protection

Full encapsulation with thermally conductive silicon potting compound with UL94V-0 flammability rating.
Meets environmental criteria as requested in MIL-810 C, D

Shock/Vibration

IEC 61373 Cat 1 A&B

Humidity

5 - 95% non-condensing

MTBF

150,000 hours at 45°C
Demonstrated MTBF is significantly higher

Indicators

None

Control Input

None
Remote shutdown or enable as an option

Alarm Output

None
Output fail alarm (Form C) as option

Package/Dimensions (W x H x D)

P600: 155 x 72 x 273.3 mm
(6.1" x 2.8" x 10.8") including terminal block and flanges
Mounting holes are clear

Weight

3.4 kg (7.5 lb)

Connections

12-pole barrier type terminal block with 3/8" spacing

RoHS Compliance

Compliant

Warranty

Two years subject to application within good engineering practice.

Terminal block Pin-out

AC OUTPUT					DC INPUT						
NOT USED	L1	L2	NOT USED	GND	NOT USED	NOT USED	NOT USED	-	-	+	+
1	2	3	4	5	6	7	8	9	10	11	12

ABSOPULSE power supplies are designed and built to customer requirements. The specifications on this data sheet are generic guidelines only and are subject to change

OEM of industrial and railway quality DC-DC converters, AC-DC power supplies and battery chargers, DC-AC sine-wave inverters, phase and frequency converters, DC-output UPS systems and complete power systems in 19" and 23" racks since 1982. Custom or standard. ABSOPULSE is a BABT-approved Facility.



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