

50VA Rugged, Industrial Quality DC/AC Sine Wave Inverter CSI 50-F1T Series



- Sinusoidal output voltage
- Rugged, field-proven design
- Compact, light weight
- Conduction/convection cooling
- Full electronic protection

This rugged DC/AC inverter uses field proven, microprocessor controlled high frequency PWM technology to generate 50VA low voltage pure sine wave output. The design is based on mature technology with a track record in numerous applications. The use of high frequency conversion enables compact construction, low weight and high efficiency. The input and output are filtered for low noise. Cooling is mainly by convection and also via baseplate to a heat-sinking surface. Full electronic protection, generous design headrooms and the exclusive use of components with established reliability also contribute to high MTBF. The unit is manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage

12V, 24V, 36V, 48V or 125Vdc
± 15% are standard
Min. startup at 12V: 10.5-16V
Other inputs are available on request.

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

According to input voltage
Min. 700Vdc input to chassis
Min. 1000Vdc input to output
700Vdc output to chassis
Floating output

Standards

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

EMI

EN 55022 Class A with margins conducted and radiated

Output Voltage

110Vac/0.45Arms continuous at 60Hz or 400Hz; or
230Vac/0.21Arms continuous at 50Hz
Output is floating, either terminal can be grounded
Other outputs are available on request.

Output Wave Form

Sinusoidal

Total Harmonic Distortion

Less than 6% at full load

Line/Load Regulation

± 3% from no load to full load

Load Crest Factor

2 at 90% load

Output Noise

High frequency ripple is better than 200mVrms (20MHz BW)

Output Overload Protection

Current limiting with short circuit protection

Output Overvoltage Protection

30V by internal supply voltage limiting

Efficiency

Input voltage dependent
Typically 80% at full load

Operating Temperature Range

0° C to +50° C for full specification
Extended temperature ranges available

Temperature Drift

0.05% per °C over operating temperature range

Cooling

Natural convection and conduction via baseplate

Environmental Protection

Basic ruggedizing
Full ruggedizing and conformal coating as option

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

Alarm Output

None
Optional output fail alarm (Form C)

Package/Dimensions (W x H x D)

F1: 114 x 51 x 201 mm
(4.5" x 2" x 7.9")
Includes terminal block and flanges
Mounting holes are clear

Weight

Approx. 0.8kg (1.8 lb)

Connections

Input/output: 9-pole barrier type terminal block, 3/8" spacing

RoHS Compliance

Fully 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	NOT USED	NOT USED	GND	+	-
1	2	3	4	5	6	7	8	9

Please note that ABSOPULSE power supplies are designed and built to customer specifications. The specifications on this data sheet are generic and will vary depending on input/output configuration and other customer requirements. Generic specifications are subject to change.

Designer and manufacturer of quality ac-dc power supplies and battery chargers, converters, inverters, dc-output UPS systems, complete rack mount systems and DC-input fluorescent lamp inverters since 1982. Custom or standard. Absopulse is a BAPT-approved Facility.