

50VA Industrial Quality Sine Wave Inverter for CCTV Cameras

CSI 50-24Vac-F1 Output



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

This rugged, industrial quality DC/AC inverter was specifically designed and optimized for powering CCTV systems. It utilizes field proven, microprocessor controlled high frequency PWM technology to convert the DC input to a 24Vac pure sine wave output. This contributes to reduced cost without compromising quality and performance. The input and output are filtered for low noise. The use of high frequency conversion enables a compact construction, low weight and high efficiency. Cooling is via baseplate to a heat-sinking surface and by natural convection. Most heat generating components are installed on aluminum heatsink blocks which are thermally connected to the base plate. This also ensures exceptional mechanical ruggedness. Conformal coating provides protection against humidity and airborne contaminants. Full electronic protection, low component count, large design headroom, and the exclusive use of components with established reliability contribute to a high MTBF. It is manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage

12V, 24V, 36V, 48V or 125Vdc
 $\pm 15\%$ 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
 Class B available as an option

Output Voltage

24Vac/2Arms/ 50Hz
 50VA continuous
 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

$\pm 3\%$ 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

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 and complete rack mount systems in 19" or 23" racks since 1982. Custom or standard. Absopulse is a BABT-approved Facility.



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