

50VA Rugged, Industrial Quality 24Vdc/24Vac Sine Wave Inverter for CCTV Systems

CSI 50-24/24-FT Series



- Sinusoidal output voltage
- Rugged, field-proven design
- Compact, light weight
- Conduction/convection 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. The low input and output voltages allow for a purpose made design with significantly simplified circuitry versus higher voltage models. This contributes to reduced cost without compromising quality and performance. The input and output are filtered for low noise. The input meets the requirements for EN55022 Class B for conducted noise and radiated emissions. Cooling is via baseplate to a heat-sinking surface and by natural convection. 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

24Vdc \pm 15%
12V, 36V, 48V or 125Vdc and other inputs 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

700Vdc input to chassis
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 B
conducted and radiated

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

Maximum \pm 2% from no load to full load

Load Crest Factor

Maximum 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

Conduction to customer heat-sink or chassis and natural convection

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

130,000 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 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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