

# 1000VA, Low Profile, Fan Cooled Sine Wave Inverter

## Industrial Quality CSI 1KF-FT Series



- Rugged construction
- Built-in fan cooling
- Sinusoidal output voltage
- Filtered input
- Full electronic protection
- Field-proven design topology

CSI 1KF-FT Series rugged, compact DC/AC Inverter uses field proven topology to generate 1000VA output power. It is a mature design with a track record in hundreds of 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. Suitable for a wide range of applications, the series features full electronic protection and low output noise. The built-in fans provide sufficient airflow for operation without de-rating up to 50°C ambient temperature. This chassis-mount design is optimized for low component count and high efficiency. The use of components with established reliability results in a high demonstrated MTBF. The CSI 1KF-FT is manufactured at our plant under strict quality control. Versions that meet EN 50155 railway specifications and customized versions are also available.

### SPECIFICATIONS

#### Input Voltage

24V, 36V, 48V, 125V, 250VDC  
+/-15% are standard  
Consult factory for other inputs,  
and ranges

#### Input Protection

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

#### Isolation

500Vdc input to chassis for input  
voltages up to 48Vdc;  
1700Vdc input to chassis for input  
voltage 125Vdc  
2250Vdc input to chassis for input  
voltage 250Vdc  
2250Vdc input to output  
Output neutral is connected to the  
chassis, internally  
Floating output as option

#### Standards

Designed to meet  
C22.2 No. 107.1 - 01,  
UL 458 and EN60950

#### EMI

EN 55022 Class A  
as a minimum

#### Output Voltage

115Vac/8.7A /60Hz or 400Hz ;  
or 230Vac/4.35A /50Hz  
Output neutral is connected to the  
chassis internally.  
Isolated floating output optional  
Consult factory for other output  
requirements

#### Output Wave Form

Sinusoidal

#### Total Harmonic Distortion

Less than 5% at full load

#### Line Regulation

± 0.5% max.

#### Load Regulation

Maximum ± 6% from no load  
to full load. A ± 2% load  
regulation option is available.

#### Load Crest Factor

Maximum 3.0 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  
recovery in case of insufficient  
cooling

#### Output Overvoltage Protection

140/280V by internal supply  
voltage limiting

#### Efficiency

Depends on input and output  
voltage combination.  
Typically 76% at full load

#### Operating Temperature Range

0° C to +50° C for full specification  
without derating.  
Extended temperature ranges  
available

#### Temperature Drift

0.05% per °C over operating  
temperature range

#### Cooling

Built-in fans

#### Environmental Protection

Basic ruggedizing

#### Humidity

5 - 95% non-condensing

#### MTBF

Min. 140,000 hours at 45°C  
(fans excluded)  
Demonstrated MTBF is  
significantly higher

#### Indicators

None

#### Control Input

None  
Remote shutdown as option

#### Alarm Output

Output fail alarm (Form C)

#### Package/Dimensions (W x H x L)

F30: 424 x 56 x 381mm  
(16.7" x 2.2" x 15") including  
terminal blocks and flanges.  
Mounting holes are clear.

#### Weight

6.5 Kg (14.3 lbs)

#### Connections

Input: Compression-type terminals  
Output: 115Vac - standard AC receptacle  
230Vac - IEC receptacle

#### RoHS Compliance

Fully compliant

#### Warranty

Two years subject to application  
within good engineering practice

**Enhancements to these general specifications can be accommodated upon request. 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.*



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