

750Vdc, Rugged, Industrial Quality Inverter with Sine Wave Output Voltage CSI750-F6W Series

- Sinusoidal output voltage
- Rugged, industrial quality
- Field-proven design topology •
- Cooling by high quality built in fans
- Full electronic protection

This rugged, industrial quality DC-AC sine wave inverter uses microprocessor controlled high frequency PWM technology to generate the required output power. The DC-DC input stage converts the input voltage to a DC bus voltage, which feeds DC-AC output stage to generate the required AC output. The input and output are filtered for low noise. The use of high frequency conversion enables a compact construction, low weight and high efficiency. The built-in fans provide sufficient airflow for operation without de-rating to the specified temperature. The fans draw air into the unit. 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

48V. 125V. 250Vdc \pm 15% are standard Consult factory for other input voltages and ranges

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 4300Vdc input to output 2250Vdc output to chassis Isolated floating output

Standards

Designed to meet C22.2 No. 107.1 - 01, UL 458 and EN60950-1

EMI

EN55022 Class A with margins

Terminal Block Pin-out

Output Voltage 115Vac/6Arms continuous at 60Hz or 400Hz; or 230Vac/3Arms continuous at 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 \pm 6% from no load to full load

Load Crest Factor 2 at 90% load

Output Noise High frequency ripple is less than 500mVrms (20MHz BW)

Output Overload Protection Current limiting with short circuit protection Thermal shutdown with automatic recovery in case of insufficient

Output Overvoltage Protection By internal supply voltage limiting

Efficiency Typically 85% at full load depending on input/output configuration

Operating Temperature 0 °C to +50°C for full specification

Extended temperature ranges available on request

Temperature Drift 0.05% per C over operating temperature range

Cooling High quality built in fans draw air into the unit.

Environmental Protection Basic ruggedizing Conformal coating

Shock/Vibration IEC 61373 Cat 1 A&B

Humidity 5 - 95% non-condensing

MTBF

125.000 hours at 45 °C Fans not included Demonstrated MTBF is significantly higher

Indicators None

Control Input None

Alarm Output None Output Fail Alarm (Form C) as option

Package/Dimensions (WxHxL) F6W: 254 x 65 x 359mm (10" x 2.6" x 13.75") Mounting holes are clear

Weight Approx. 4kg (9 lbs)

Connections

Input: 6-pole terminal block, 3/8" spacing Output: 12-pole terminal block, 3/8" spacing

RoHS Compliance Compliant

Warrantv

Two years subject to application within good engineering practice

115VAC OUTPUT GND $\stackrel{\text{L2}}{\sim}$ INOT NOT $\stackrel{\text{NOT}}{\cup}$ USED USED NOT NOT NOT NOT NOT NOT ╧ USED USEL

cooling

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