

100VA Rugged, Industrial Quality DC-AC Sine Wave Inverter with High Input Voltage

CSI 100-F2 Series



- Sinusoidal output voltage
- Up to 300Vdc input voltage
- Rugged, industrial quality
- Field-proven design topology
- Cooling by conduction/convection
- Full electronic protection

This rugged, industrial quality DC-AC sine wave inverter uses microprocessor controlled CFC 100 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. 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

24Vdc (21-30Vdc)
48Vdc (42-60Vdc)
110Vdc (95-130V)
125Vdc (105-145V)
250Vdc (210-280V)
300Vdc (250-350V)
Consult factory for other inputs

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

Compliant to input and output voltages according to the corresponding standards
Typically:
2250Vdc input to chassis
3000Vdc input to output
1500dc 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

Output Voltage

115Vac/0.8Arms continuous at
60Hz or 400Hz; or
230Vac/0.4Arms 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

± 3% from no load to full load

Load Crest Factor

2 at 90% load

Output Noise

High frequency ripple is better than 500mVrms (20MHz BW)

Output Overload Protection

Current limiting with short circuit protection

Output Overvoltage Protection

Output voltage is limited by internal supply voltage

Efficiency

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
Conformal coating

Shock/Vibration

IEC 61373 Cat 1 A&B

Humidity

5 - 95% non-condensing

MTBF

120,000 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)

F2: 114 x 58 x 256 mm
(4.5" x 2.3" x 10.1")
Includes terminal block and flanges
Mounting holes are clear

Weight

Approx. 1.2 kg; 2.6 lb

Connections

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

The specifications on this data sheet are generic and are subject to change. Enhancements to these specifications can be provided upon request.

OEM of professional quality AC/DC power supplies and battery chargers, DC/DC converters, DC-AC sine-wave inverters, phase and frequency converters, DC-output UPS systems and complete power systems in 19" and 23" racks since 1982. Custom or standard. ABSOPULSE is a BABT-approved Facility



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