

100VA Rugged, Industrial Quality DC/AC Sine Wave Inverter

Accepts Input Voltages 24V, 36V, 48Vdc

CSI 100-3W-F1 Series



- Sinusoidal output voltage
- Wide input range covering 24V, 36V and 48Vdc
- Rugged, field-proven design
- Filtered input and output
- Conduction/convection cooling
- Full electronic protection

This rugged DC-AC inverter utilizes our field proven, microprocessor controlled CSI 111 high frequency PWM technology to generate the required output power with pure sine wave output voltage. It is based on a mature design topology with a track record in numerous applications. The wide operating range (20-60Vdc) allows operation from 24V, 36V and 48Vdc input sources. Operator error is minimized. This also simplifies stock keeping - just one model covers three input ranges. The DC-DC input stage boosts the input voltage to an internal bus voltage, which feeds the DC-AC inverter to generate the required AC output. The use of high frequency conversion enables a compact construction, low weight and high efficiency. The input and output are filtered for low noise. Cooling is by conduction via baseplate. Additional cooling is achieved by natural convection through the cooling slots. All 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 against airborne contaminants. Full electronic protection, generous design headroom 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

<p>Input Voltage 24V, 36V and 48Vdc nominal 20-60Vdc operating range Consult factory for other inputs</p>	<p>Output Voltage 115Vac/0.8Arms/60Hz or 400Hz; 230Vac/0.4Arms/50Hz 100VA continuous Isolated floating output Consult factory for other output requirements</p>	<p>Efficiency Input voltage dependent Typically 80% at full load</p>	<p>Indicators Green output ON LED visible through cooling slots</p>
<p>Input Protection Inrush current limiting Varistor Reverse polarity protection Internal safety fuse Lower voltage than the specified minimum input will not damage the unit</p>	<p>Output Wave Form Sinusoidal</p>	<p>Operating Temperature Range 0°C to +50°C for full specification Extended temperature ranges available</p>	<p>Control Input None</p>
<p>Isolation Compliant to input and output voltages according to the corresponding standards Floating output</p>	<p>Total Harmonic Distortion Less than 5% at full load</p>	<p>Temperature Drift 0.05% per °C over operating temperature range</p>	<p>Alarm Output None Optional output fail alarm (Form C)</p>
<p>Standards Designed to meet C22.2 No. 107.1 - 01, UL 458 and EN 60950-1</p>	<p>Line/Load Regulation ±3% from no load to full load</p>	<p>Cooling Conduction and natural convection The unit must be installed on heatsinking surface such as chassis or cabinet wall for full power</p>	<p>Package/Dimensions (W x H x D) F1: 113 x 51 x 198 mm 4.45" x 2" x 7.8" Includes flanges, excludes terminals Mounting holes are clear</p>
<p>EMI EN55032 Class A with margins</p>	<p>Load Crest Factor 2 at 90% load</p>	<p>Environmental Protection Basic ruggedizing Conformal coating</p>	<p>Weight Approx. 0.8kg (1.8 lb)</p>
	<p>Output Noise High frequency ripple is better than 500mVrms (20MHz BW)</p>	<p>Shock/Vibration IEC 61373 Cat 1 A&B</p>	<p>Connections 9-pole barrier type terminal block, 3/8" spacing</p>
	<p>Output Overload Protection Current limiting with short circuit protection</p>	<p>Humidity 5 - 95% non-condensing</p>	<p>RoHS Compliance Compliant</p>
	<p>Output Overvoltage Protection Output voltage is limited by internal supply voltage</p>	<p>MTBF 120,000 hours at 45°C Demonstrated MTBF is significantly higher</p>	<p>Warranty Two years subject to application within good engineering practice.</p>

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

ABSOPULSE power supplies are designed and built to customer requirements. The specifications on this data sheet are generic guidelines only and are subject to change.

OEM of industrial and railway quality DC-DC converters, AC-DC power supplies and battery chargers, 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.



ABSOPULSE ELECTRONICS LTD

110 Walgreen Road, Ottawa, Ontario. K0A 1L0. CANADA
Tel: +1-613-836-3511 | Fax: +1-613-836-7488

<https://absopulse.com/contact> | <https://www.absopulse.com>