

2KVA, Rugged, Portable Inverter with Sine Wave Output for Field Applications

CSI 2K-2A-PEL



- Rugged, portable construction
- Sinusoidal output voltage
- Filtered input/output
- Cooling by internal fans
- Full electronic protection
- Field-proven design topology

This rugged, modular DC/AC inverter uses field proven microprocessor controlled high frequency PWM technology to generate 2KVA output power with pure sine wave output voltage. This system is built with internal power modules. 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. The built-in fans provide sufficient airflow for operation without de-rating to the specified temperature. The unit is conformal coated, heavily ruggedized and housed in a splash-proof Kinetics #822 case with a sturdy handle for easy carrying. The high frequency conversion enables a compact construction, low weight and high efficiency. The system has full electronic protection. The input and output are filtered for low noise. The use of components with established reliability results in high MTBF. The unit is manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage

24Vdc nominal
21 - 30Vdc range
Input current 114 Arms max.
48V, 125V and other inputs are also available

Input Protection

Inrush current limiting
Varistor
Internal safety fuse
Lower voltage than the specified minimum input will not damage the unit

Isolation

Input to chassis: 1500Vdc
Output neutral is connected to the chassis internally

Standards

Designed to meet
C22.2 No. 107.1 – 01,
UL 458 and EN 60950-1

EMI

EN55022 Class A with margins

Output Voltage

110Vac/18Arms continuous, 60Hz
Output neutral is internally connected to chassis
230Vac output is also available

Output Wave Form

Sinusoidal

Total Harmonic Distortion

Less than 5% at full load

Line Regulation

Maximum 0.5%

Load Regulation

Maximum $\pm 6\%$ from no load to full load

Load Crest Factor

Maximum 2.5 at 90% load

Output Noise

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

Output Overload Protection

Current limiting with short circuit protection
At 2400VA, unit enters cycling (hiccup) mode.
Thermal shutdown with automatic recovery in case of insufficient cooling

Output Overvoltage Protection

140Vac by internal supply voltage limiting

Efficiency

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

Built-in fans draw air into the unit

Environmental Protection

Ruggedizing
Conformal coating

Shock/Vibration

IEC 61373 Cat 1 A&B

Humidity

5 – 95% non-condensing

MTBF

110,000 hours at 45°C (fans excluded)

Indicators

None on standard version
Available on custom versions

Control Input

None on standard version
Available on custom versions

Alarm Output

None on standard version
Available on custom versions

Package / Dimensions (L x W x D)

Inverter system housed in portable, splash proof Kinetics #822 case measuring:
60.45 x 51.05 x 24.64 cm
23.80" x 20.10" x 9.70"

Note: The cover must be kept open during operation

Weight

15 kg (33 lbs) approx.

Connections

Input: Anderson connector SB175
Output: Two Nema 15 sockets

RoHS Compliance

Not required, but accepted

Warranty

Two years subject to application within good engineering practice
Contamination related failures not covered.

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 BABT-approved Facility.



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