

## 100VA Portable 115V/60Hz/400Hz or 230V/50Hz Sinewave Inverter with built-in Battery and Charger CSI 100-24V24AH-AA-PEL



- Rugged portable construction
- Convection cooled - no fan
- Full electronic protection
- Field-proven design topology

The CSI 100-24V24AH-AA-PEL is a compact, portable inverter with built-in battery bank and charger is designed for operation in heavy-duty field-environments. The output is a pure sine-wave voltage of 115Vac/0.85A/60Hz/400Hz or 230Vac/0.43A/50Hz. The built-in battery charger operates from all typical AC voltages worldwide, and provides 27.6V float voltage at 2A current. The charger can be kept on standby mode indefinitely and the battery is therefore continuously maintained. The battery bank, which contains two 12V/24Ah batteries, has a built-in safety fuse and provides a minimum of 3 hours backup power at full 100VA output. Also, 24Vdc power can be drawn directly from the battery at 6A maximum, for other 24Vdc input equipment. The batteries take approximately 15 hours to reach full charge for a depleted battery. This inverter system is heavily ruggedized and conformal coated, and is housed in a splash proof Pelican top loader case with a sturdy handle for easy portability in the field. It is convection cooled and operates over a 0°C to +50°C temperature range without de-rating. Extended temperature ranges are available. The cover must be kept open during operation and charging. Full electronic protection minimizes the possibility of failure due to abnormal operating conditions, including application errors. Generous design headroom and the use of designed-in components with established reliability result in a high MTBF.

### GENERIC SPECIFICATIONS

#### Charger Input Voltage

95-264Vac universal  
47-63Hz  
Input Current: 1Arms max.

#### Charger Input Protection

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

#### Battery Dimensions (W x H x L)

Two PE 12V24A or equivalent for 24V  
333 x 175 x 127mm total  
(13.1" x 6.9" x 5" total)  
Placed on the bottom of the Pelican case

#### Low Battery Disconnect

Not available on this unit

#### Isolation (Charger Input)

2250VDC input to chassis  
4300VDC input to output  
8mm spacing  
500VDC output and battery to chassis

#### Standards

Meets requirements for UL 60950 and related standards

#### EMI

EN55022 Class A with margins

#### Switching Frequency

47kHz ± 2kHz (Charger)

#### Charging Voltage/ Current

27.6V±0.2V/2A

#### Recharge Time

Approx. 15 hours for empty battery.  
The built-in charger provides float charging and can be kept on standby mode infinitely.

#### AC Output Voltage/Current

115Vac/0.85A /60Hz or 400Hz;  
or 230Vac/0.43A/50Hz  
100VA max. (continuous)  
The output is floating, either terminal can be grounded

#### Battery Voltage/Current

The fused battery terminals are accessible 24Vdc/6A max

#### Wave Form (AC output)

Sinusoidal  
Total Harmonic Distortion less than 5% at full load  
Back-up time:  
3 hours at 100VA load  
7 hours at 50VA load

#### Line/Load Regulation (AC output)

Maximum +/- 2% from no load to full load

#### Load Crest Factor

Maximum 2.5 at 90% load

#### Output Noise (AC output)

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

#### Output Overload Protection

Current limiting with short circuit protection. At 120VA the output goes into cycling protection mode.

#### Output Overvoltage Protection

140V by internal supply voltage limiting

#### Efficiency

Typically 78% at full load

#### Operating Temperature

0°C to +50°C without derating.  
Extended temperature range available

#### Battery Temp. Compensation

Not available on this model

#### Temperature Drift

0.05% per °C over operating temperature range

#### Cooling

By natural convection

#### Environmental Protection

Heavy ruggedizing  
Conformal coating

#### Shock/Vibration

IEC 61373 Cat 1 A&B

#### Humidity

5 - 95% non-condensing

#### MTBF

150,000h at 45°C  
Battery excluded  
Demonstrated MTBF is significantly higher

#### Indicators

Charger ON LED visible through cooling slots

#### Control input

None

#### Alarm Outputs

None on this model

#### Dimensions (W x H x D)

Pelican Top Loader Case #1430  
430 x 341 x 244 mm  
(17" x 13.5" x 9.7")

#### Weight

Approx 22 kg (48 lbs.) including battery

#### Connections

Line Cord for AC input,  
Standard AC outlet for 115Vac  
Battery terminals for 24V output are available by using alligator clamps

#### RoHS Compliance

Fully compliant

#### Warranty

Two years subject to application within good engineering practice.

**Enhancements to these general specifications and customizing can be accommodated upon request. Specifications are subject to change.**

Designer and manufacturer of quality converters, inverters, UPS systems, complete rack mount systems and DC-input fluorescent lamp inverters since 1982.

*Custom or standard. Absopulse is a BABT-approved Facility*



#### ABOPULSE ELECTRONICS LTD

110 Walgreen Road, Ottawa, Ontario. K0A 1L0. CANADA.

Tel: (613) 836-3511 | Fax: (613) 836-7488

E-mail: [absopulse@absopulse.com](mailto:absopulse@absopulse.com) | <http://www.absopulse.com>

For more information, please see:

[http://www.absopulse.com/Absopulse\\_AC\\_DC\\_powersupplies\\_batterychargers.php](http://www.absopulse.com/Absopulse_AC_DC_powersupplies_batterychargers.php)

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Made in Canada