

## 30VA, IP66-Rated, Rugged, Industrial Quality DC-AC Sine Wave Inverter CSI 30-D1 Series (IP66)



- Sinusoidal output voltage
- Packaged in a watertight IP66 enclosure
- Internal module ruggedized and conformal coated
- Rugged, field-proven design
- Filtered input/output
- Full electronic protection

This rugged DC-AC inverter utilizes field proven, microprocessor controlled high frequency PWM technology to generate up to 30VA low voltage pure sine wave output. The units are packaged in waterproof, rugged, die cast aluminum IP66 enclosures. The input and output are via sealed cable glands, circular connectors or custom connections. The internal boards are ruggedized and conformal coated for increased immunity to high levels of shock and vibration. Cooling is by internal conduction to the walls of the IP66 enclosure and by baseplate to an external chassis or cabinet wall, and additional convection via the outside surface. This enables operation within a wide temperature range for full specification. If installed on a heat-sinking surface, cooling is further enhanced and the converters achieve higher output power. The DC/DC input stage boosts the input voltage to a higher DC bus voltage, which feeds the DC/AC inverter to generate the required AC output. The input and output are filtered for low noise. 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. Customized versions are available. Typical applications include CCTV cameras for transportation, mining, marine, oil rig, military and other severe environments.

### SPECIFICATIONS

#### Input Voltage

12V, 24V, 36V, 48V or 125Vdc  
± 15% are standard  
Min. startup at 12V: 10.5-16V  
Other inputs are available on request.

#### 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

According to input voltage  
Min. 700Vdc input to chassis  
Min. 1000Vdc input to output  
700Vdc output to chassis  
Floating output

#### Standards

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

#### EMI

EN 55032 Class A with margins

#### Terminal Block Pin-Out (Internal)

(The terminal block is accessible via cable glands)

#### Output Voltage

115Vac/0.26Arms continuous at  
60Hz or 400Hz; or  
230Vac/0.13Arms continuous at  
50Hz  
Output is floating, either terminal can be grounded  
Other outputs are available on request.

#### Output Wave Form

Sinusoidal

#### Total Harmonic Distortion

Less than 6% 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 200mVrms (20MHz BW)

#### Output Overload Protection

Current limiting with short circuit protection

#### Output Overvoltage Protection

30V by internal supply voltage limiting

#### Efficiency

Input voltage dependent  
Typically 80% at full load

#### Operating Temperature Range

-25 °C to 55 °C for full specification  
Extended temperature ranges available on request

#### Temperature Drift

0.03% per °C over operating temperature range

#### Cooling

Conduction to customer heat-sink or chassis and by additional natural convection via the surface of the IP66 enclosure

#### Environmental Protection

IP66 enclosure  
Internal module: Ruggedized and conformal coated  
Potting of the internal module is also available

#### Shock/Vibration

IEC 61373 Cat 1 A&B

#### Humidity

5-100% condensing

#### MTBF

140,000 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)

Overall dimensions including mounting flanges/baseplate:  
D1: 120 x 84 x 267 mm  
4.7" x 3.3" x 10.5"

#### Weight

Approx. 2.4 kg; 5.3 lb

#### Connections

Internal barrier-type terminal block accessible via sealed cable glands.  
Optional connectors instead of cable glands

#### RoHS Compliance

Compliant

#### Warranty

Two years subject to application within good engineering practice.

INPUT			OUTPUT					
-	+	GND	NOT USED	NOT USED	NOT USED	L <sub>2</sub>	L <sub>1</sub>	NOT USED
9	8	7	6	5	4	3	2	1

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>