

# CSI24-150-24

DC/AC Inverter 24VDC to 24VAC 150W



## Product Description:

This rugged, high quality power converter utilizes field-proven technology to generate the required output power. It is a mature design with a track record in numerous applications. All heat generating components are installed on aluminum heatsink blocks which are thermally connected to the base plate. This also provides exceptional mechanical ruggedness. Additional cooling is achieved by natural convection through the cooling slots. Conformal coating provides protection against humidity and airborne contaminants. Full electronic protection, low component count, large design headrooms and the exclusive use of components with established reliability contribute to a high MTBF. The unit meets the requirements of EN50155 for electronic equipment used on rolling stock. It is manufactured under strict quality control.

**Special Features:** Conformal coating, Ruggedizing.

## SPECIFICATIONS

### Input Voltage

24Vdc nominal  
17-34Vdc operating range  
Input current:

### Input Protection

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

### Isolation

1000Vdc input to chassis/output  
700Vdc output to chassis  
Output is floating, either terminal can be grounded

### Standards

Designed to meet UL458, EN60950-1 and EN 50155

### Immunity

Meets criteria as requested in EN50155 and EN50121-3-2 according to the following standards:

EN61000-4-2 (ESD)  
EN61000-4-3 (RF Immunity)  
EN61000-4-4 (Fast Transients)  
EN 50155 (Surge)  
EN 61000-4-6 (Conduction Immunity)  
EN50155 (Voltage Variations)

### EMI

EN50121-3-2

### Output Voltage

24Vac, 6Arms, 50Hz  
150VA continuous  
Output is floating, either terminal can be grounded

### Wave Form

Sinusoidal

### Total Harmonic Distortion

Less than 5% at full load

### Line / Load Regulation

± 5% 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

30V by internal supply voltage limiting

### Efficiency

80% at full load

### Operating Temperature Range

-25°C to +55°C for full specifications

### Temperature Drift

0.05% per °C over operating temperature range

### Cooling

By natural air convection and conduction via baseplate

### Environmental Protection

Basic ruggedizing  
Conformal coating

### Shock / Vibration

IEC 61373 Cat 1 A&B

### Humidity

5 – 95% non-condensing

### MTBF

140,000 hours at 45°C

### Indicators

Green OUTPUT ON LED visible through the cooling slots

### Control Input

None

### Alarm Output

None

### Package / Dimensions (W x H x L)

F3: 132 x 62 x 290mm

Mounting holes are clear

### Weight

1.2kg (2.6 lbs)

### Connections

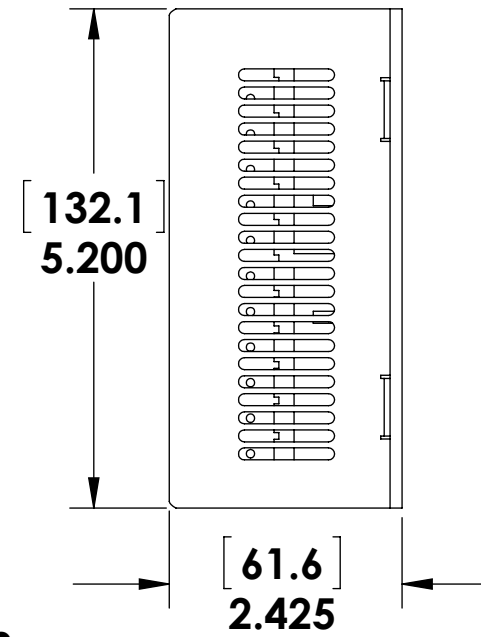
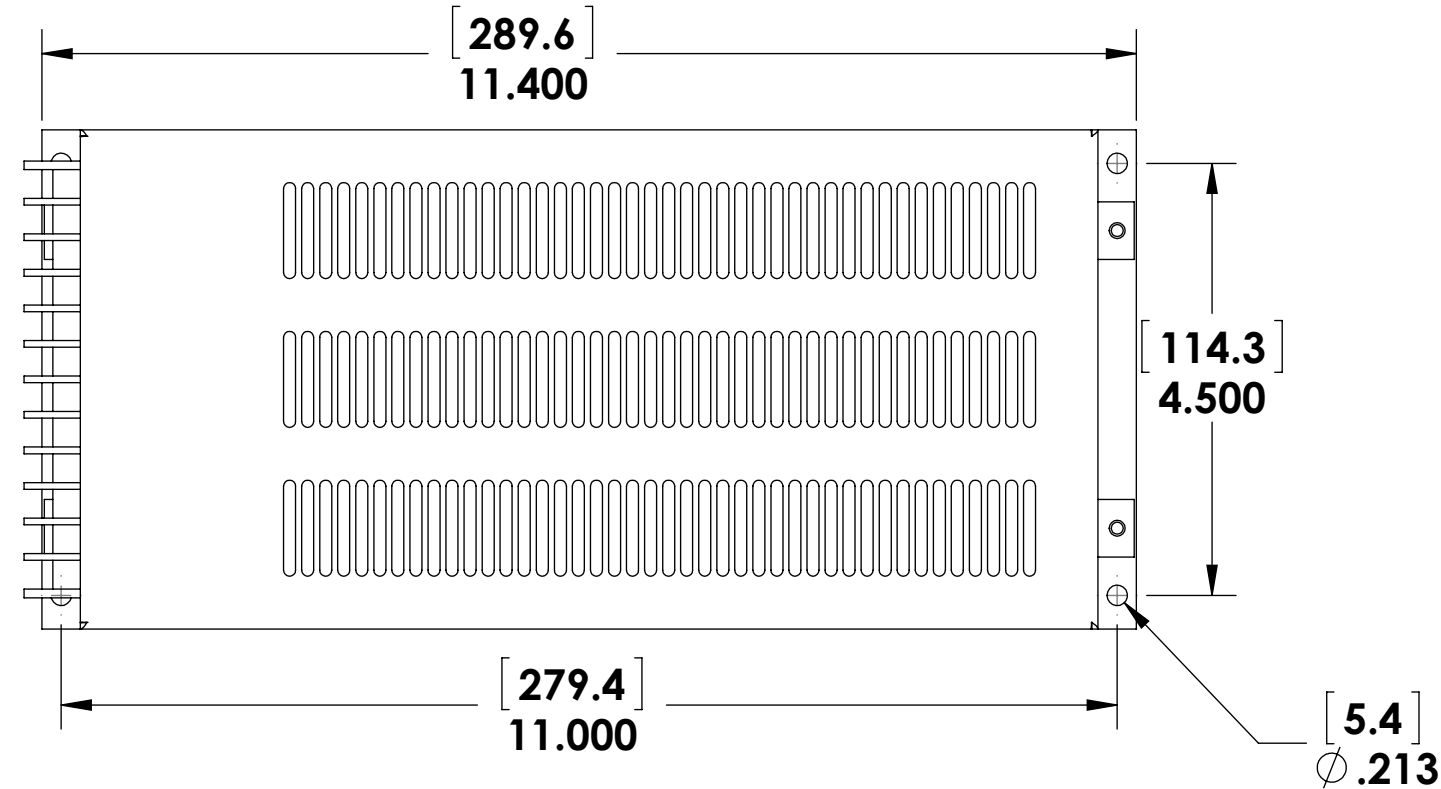
9-pole barrier-type terminal block, 3/8" spacing. Snap-on TB cover included

### RoHS Compliance

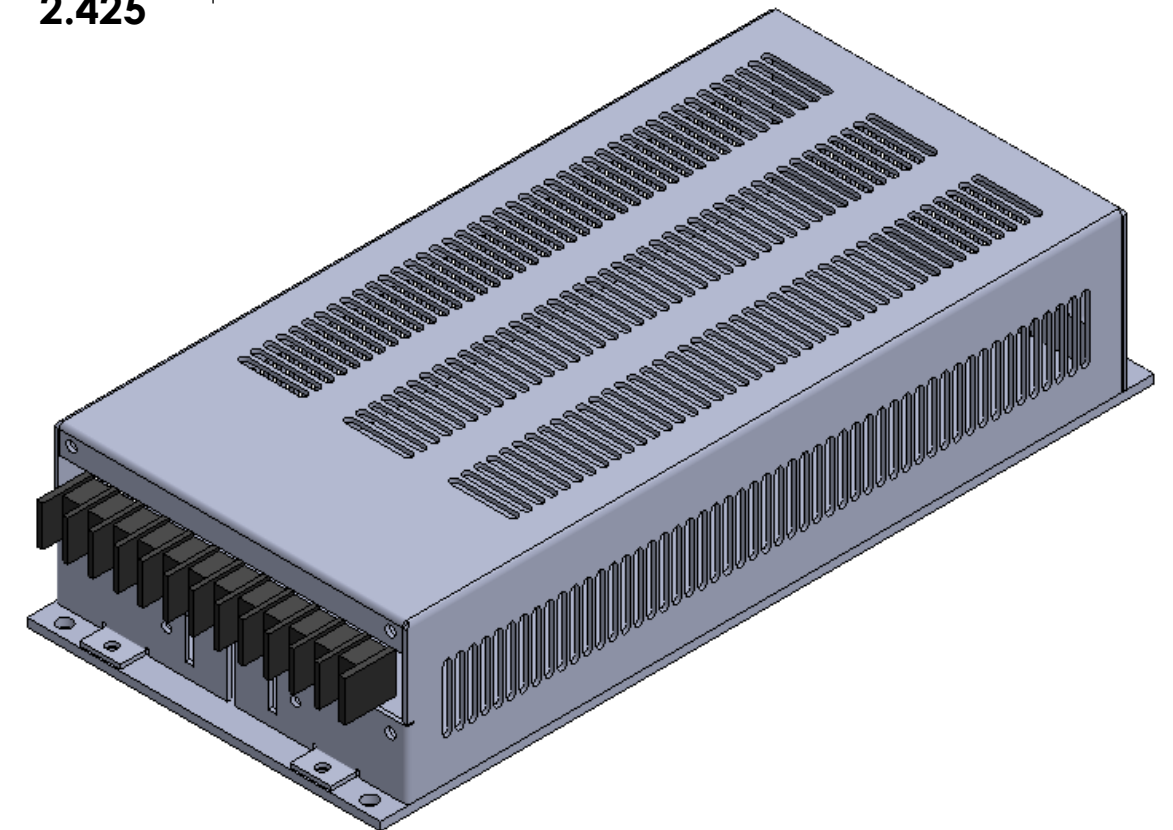
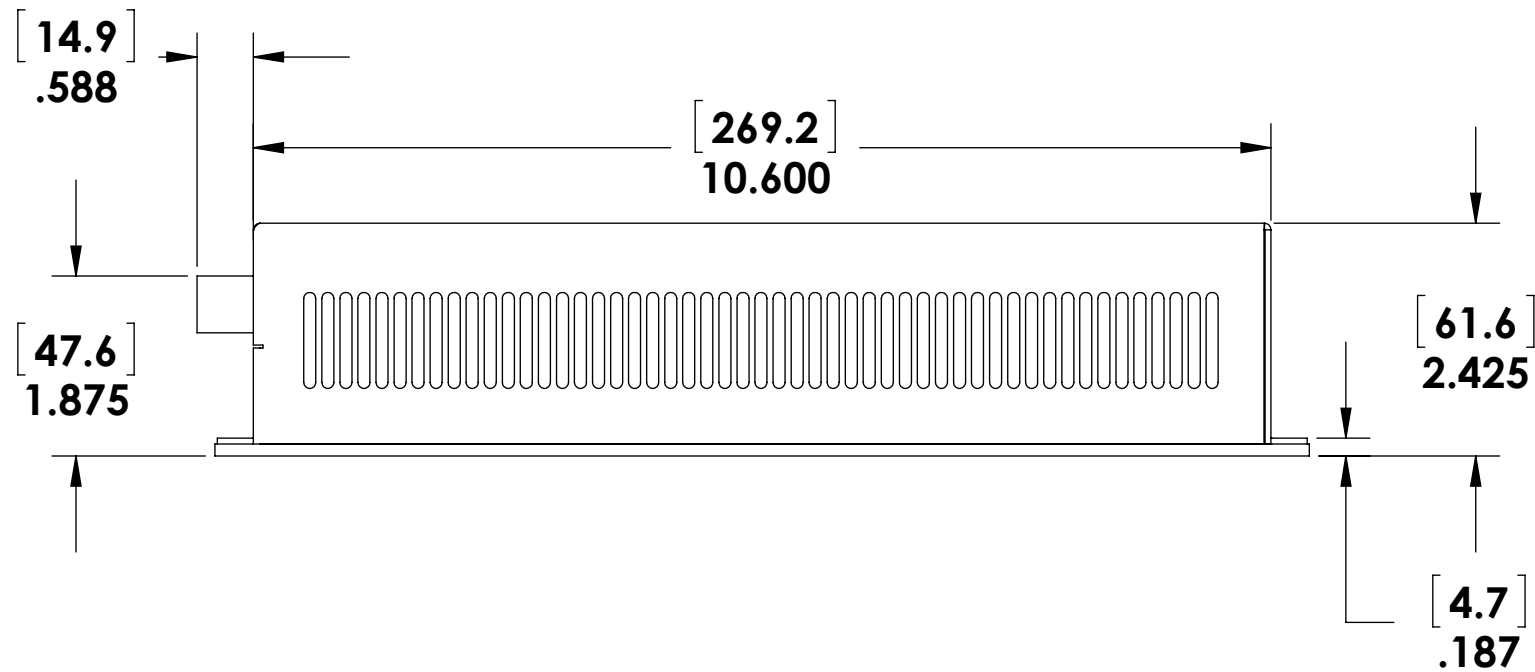
Not required, but accepted

### Terminal Block Pin-out

VAC OUTPUT						VDC INPUT		
NOT USED	L1	L2	NOT USED	NOT USED	NOT USED	GND	+	-
1	2	3	4	5	6	7	8	9



BASEPLATE: 999247  
 FOLDED COVER: 999347



REV	DESCRIPTION:	DATE	MUST BE RoHS COMPLIANT	DIMENSIONS ARE IN INCHES
A	NEW ISSUE	14/03/13		TOLERANCES ON
				DECIMALS: XXX ± 0.008"
				XX ± 0.012"
			EDGES & HOLES DEBURRED	ANGLES: ± 2°
			SURFACES FREE OF SCRATCHES	FRACTIONS: ± 1/64"
				UNLESS OTHERWISE STATED

Title: OUTLINE DRAWING				
Part of: F3 PACKAGE			Date:	
Drawn by:	Checked by:	Approved by:	Revision: 1	Drawing No: