

Source Control Document.

Model: HVI 50R-750/24F2T-HSA-T3500

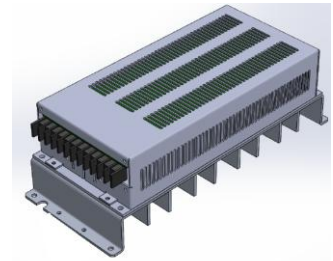
COSD: XXXX

**Summary description: 50W Railway Quality, DC/DC Converter
750Vdc to 24Vdc/2A**

Customer Name: Inkom/Sweden

Picture does not show
the exact version

Customer Part Number: Same as above



Product description:

This rugged, railway quality DC/DC converter uses field-proven technology to generate the required output power. It is a mature design with a track record in numerous applications. Cooling is via baseplate to a heatsinking surface and by natural convection. Ruggedizing and conformal coating provide added immunity to shock, vibration and humidity. Low component count, large design headrooms, and the use of components with established reliability result in a high MTBF. The unit meets the requirements of EN 50155 for electronic equipment used on railway rolling stock. It is manufactured at our plant under strict quality control.

Special Features: Conformal coating. Heatsink assembly

SPECIFICATIONS

Input Voltage

750Vdc nominal
525-975Vdc operating range
Input Current: 0.12A max

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

3000Vdc input to chassis
3000Vdc input to output
5600Vdc type test
1500Vdc output to chassis

Standards

Designed to meet EN60950-1 and EN50155

Immunity

Meets criteria of EN 50155 and
EN 50121-3-2, including:
EN 61000-4-2 (ESD)
EN 61000-4-3 (RF Immunity)
EN 61000-4-4 (Fast Transients)
EN 50155 (Surge)
EN 61000-4-6 (Conducted Immunity)
EN 50155 (Voltage Variations)

EMI

EN50121-3-2

Switching Frequency

47kHz \pm 5kHz

Terminal Block Pin-Out

24VDC OUTPUT				525-975VDC INPUT				
NOT USED	+	-	$\frac{\ominus}{\oplus}$		+		-	
1	2	3	4	5	6	7	8	9

Output Voltage/Current

24Vdc \pm 0.3V/2A continuous
Output is floating, either terminal can
be grounded

Redundancy Diode

None

Line/Load Regulation

\pm 1% combined from zero load to full
load

Dynamic Response

Max 5% voltage deviation for 10% to
50% load step, with better than 1msec
recovery time

Output Ripple/Noise

Better than 70mVrms or 300mVpp
(@ 20MHz BW)

Output Overload Protection

Rectangular current limiting with
short-circuit protection
Current Limit: 2.3A \pm 0.2A

Output Overvoltage Protection

OVP setting: 28V \pm 2V
Transzorb clamp

Efficiency

80% at full load

Operating Temperature Range

-25°C to +55°C for full specification
with proper airflow

Temperature Drift

0.03% per °C over operating
temperature range

Cooling

Natural convection and conduction

Environmental Protection

Ruggedizing
Conformal coating

Shock / Vibration

IEC 61373 Cat 1 A&B

Humidity

5 – 95% non-condensing

MTBF

110,000 hours @ 45°C

Indicators

Green OUTPUT ON LED visible through
the cooling slots

Control Input

None

Alarm Output

Not installed

Package/ Dimensions (WxHxL)

F2: 114 x 58 x 256mm
(4.5" x 2.3" x 10.1")
Mounted on HSA-F2 assembly

Weight

1.2kg (2.6 lb)

Connections


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

RoHS Compliance

Compliant

Warranty

Two years subject to application
within good engineering practice

Originated by TS/kv	Date Sept 27, 2019
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Approved by TS	

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