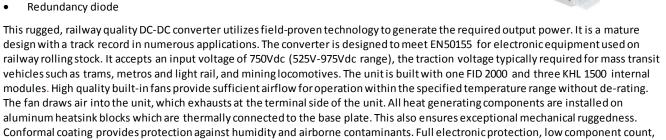
750Vdc Input, 3kW Rugged DC-DC Converter for Railway & other Heavy-duty Applications **HVI 3KR-3U4 Series**

- Field-proven rugged design
- For train and mobile applications
- Cooling by high quality built-in fans
- Full electronic protection
- Wide input range (EN50155)



SPECIFICATIONS

large design headroom and the exclusive use of components with established reliability contribute to a high MTBF. It is manufactured at

Input Voltage

750Vdc nominal 525V-975Vdc operating range Other inputs on request

Input Protection

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

Isolation

3000Vdc input to chassis 4300Vdc input to output 5600Vdc type test 1500Vdc output to chassis

Standards

Designed to meet EN61010-1 and EN50155

Immunity

Meets criteria of EN50155 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 Imm.)

FMI

EN50121-3-2

EN 50155

Switching Frequency

55kHz ±5kHz

Output Voltage/Current

24V, 36V, 48V or 110Vdc Output is floating; either terminal can be grounded Other outputs on request

our plant under strict quality control. Industrial quality versions of this design are also available.

Redundancy Diode

Installed internally for separation of the internal modules

Line/Load Regulation

±1.5% 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 0.2% rms or 1% pp (@ 20MHz BW)

Output Overload Protection

Rectangular current limiting with short-circuit protection Thermal shutdown in case of insufficient airflow (self-resetting)

Output Overvoltage Protection

Second regulator loop, completely stable and independent of main regulator loop

Efficiency

Typically better than 84% at full load

Operating Temperature Range

-25°C to 55°C for full specification without derating Extended temperature ranges available

Temperature Drift

0.03% per °C over operating temperature range

Cooling

Forced air by two high quality built-in fans. Fans drawair 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 @45°C (fans excluded) Demonstrated MTBF is significantly higher.

Indicators

Green "Output ON" LED on each internal power module, visible through the cooling slots

Control Input

None on standard version Available as option

Alarm Outputs

Module fail alarm. Form C contact

Package/Dimensions (H x W x D)

3U4: 132 x 244 x 407 mm 5.2" x 9.6" x 16" including connectors, excluding flanges 19" rack mounted version also available

Weight

8kg (18 lbs.) approximately

Connections

Input: HV terminal block assembly Output: Terminal block or threaded studs according to output current

RoHS Compliance

Compliant

Warranty

Two years subject to application within good engineering practice

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 professional quality AC/DC power supplies and battery chargers, DC/DC converters, 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.



(Voltage Variations)

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