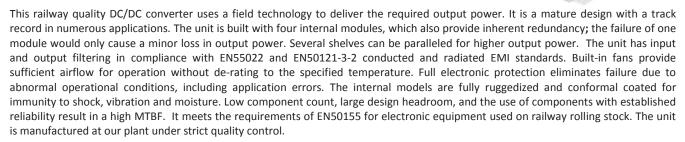
3000W, Rugged DC/DC Converter for Railway and other Heavy-duty Applications BAP 3KR-3U4

- Field-proven rugged design
- For train and mobile applications
- Fan cooling
- Full electronic protection
- · Redundant, modular



SPECIFICATIONS

Input Voltage

110Vdc (66 - 154V) Other inputs upon request

Input Protection

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

Input Isolation

Depends on the required input/output combination. At a minimum: 1500VDC input to chassis 3000VDC input to output 1500VDC output to chassis

Standards

Designed to meet EN60950 and EN50155

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

Switching Frequency 55kHz ±3kHz

Output Voltage

28V ± 0.2V/107A Consult factory for other outputs

Redundancy diodes

Installed on each internal module for separation and redundancy

Line/Load Regulation

±1.5% combined from zero load to full load including redundancy diode

Dynamic Response

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

Output Ripple/Noise

Better than 1% of output voltage peak to peak or 0.2% RMS of the output voltage (20MHz BW)

Overload Protection

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

Output Overvoltage Protection

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

Efficiency

Typically 90% depending on input/Output configuration

Operating Temperature

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

Temperature Drift

0.03% per $^{\circ}\text{C}$ over operating temperature range

Cooling

Forced air by high-quality built-in fans

Environmental Protection

Ruggedizing Conformal coating

Shock/Vibration

IEC61371 Cat 1 A&B

Humidity

5 - 95% non-condensing

MTBF

150,000 hours @ 45 °C per internal module. Demonstrated MTBF is significantly higher.

Indicators

None Available as option

Control Input

None Available as option

Alarm Outputs

Form C contacts for module fail alarm available on request

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

