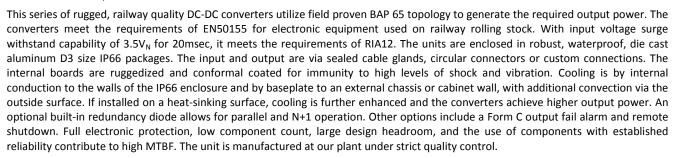
250W, IP66-Rated, Rugged Railway Quality DC-DC Converter with built in RIA12 Protection BAR 250R-D3 Series (IP66)

- Packaged in waterproof IP66 enclosure
- RIA12 withstand capacity
- EN50155 input ranges
- For train and mobile applications
- Internal boards ruggedized and conformal coated
- Rugged, field-proven design
- Full electronic protection
- N+1 redundancy available



SPECIFICATIONS

Input Voltage

24Vdc (14.4 - 34V) derated to 200W

36Vdc (22 – 51V)

48Vdc (29 - 67V)

72Vdc (43 – 101V) 96Vdc (58 – 135V)

110Vdc (66 - 154V)

RIA12 surges (3.5Vn for 20msec).

Other input voltages upon request

Input Protection

Inrush current limiting

Varistor

Reverse polarity protection

Internal safety fuse

Withstand 3.5 x V_N surges

Low input voltages of less than the specified minimum will not damage

the unit

Isolation

1500VDC input to chassis 3000VDC input to output

1500VDC input to output

1500VDC output to chassis

Standards

Designed to meet EN60950-1

and related standards

Immunity

Meets EN50155, EN50121-3-2 and

RIA12 according to:

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)
Built-in surge protection: 3.5V_N 20ms

(meets RIA 12)

ЕМІ

EN50121-3-2

Output Voltage

12Vdc, 24Vdc, 48Vdc or 110Vdc 250W continuous output power Output is floating; either

terminal can be grounded
Other outputs on request

Redundancy Diode

None

Installed on request

Line/Load Regulation

±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

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

Output Overload Protection

Rectangular current limiting with short circuit protection

Output Overvoltage Protection

Double regulator loop completely stable and independent of main

Efficiency

Input/output voltage dependent. Typically 85% 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 $\,^{\circ}$ 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

Shock/Vibration

IEC 61373 Cat 1 A&B

Humidity

5-100% condensing

MTRE

150,000 at 45°C Demonstrated MTBF is significantly higher

Indicators None

Control Input

None

Optional

Alarm Output

Not installed Optional output Fail Alarm

Package/Dimensions (W x H x D)

D3 enclosure: 160 x 90 x 360 mm 6.3" x 3.5" x 14.2" Overall dimensions including mounting flanges/baseplate: 160 x 94 x 406 mm 6.3" x 3.7" x 16"

Weight

Approx. 4.6 kg (10 lb)

Connections

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

RoHS Compliance Compliant

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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 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



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