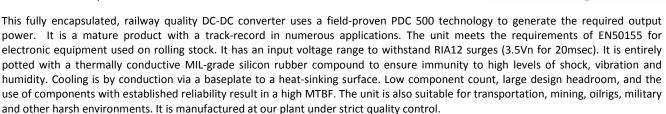
400W, Encapsulated DC-DC Converter with RIA12 Input Range for Railway and other Heavy Duty Applications RWR 400-P500 Series

- RIA12 withstand capacity
- EN50155 input ranges
- · For train and mobile applications
- Full encapsulation
- Wide temperature range
- Rugged, field-proven design
- Full electronic protection



SPECIFICATIONS

Input Voltages

24Vdc (14.4 – 34V) 36Vdc (22 – 51V)

48Vdc (29 - 67V)

72Vdc (43 – 101V)

96Vdc (58 – 135V) 110Vdc (66 - 154V)

3.5V_N for min 20msec

Consult factory for other voltages and ranges

Input Protection

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

Isolation

1500Vdc input to chassis 3000Vdc input to output 1500Vdc output to chassis

Standards

Designed to meet EN60950-1, EN50155, EN45545, RIA12

Immunity

Meets criteria of EN50155 and EN50121-3-2 according to the following standards: EN 61000-4-2 (ESD) EN61000-4-3 (RF Immunity) EN61000-4-4 (Fast Transients) EN50155 (Surge) EN61000-4-6 (Conducted Imm.) EN50155 (Voltage Variations) Built-in protection against the 3.5Vn, 20ms surge according to RIA 12.

EMI

EN50121-3-2

Switching Frequency

55kHz ±3kHz

Output Voltages

24V, 36V, 48V or 110Vdc Output is floating, either terminal can be grounded. Consult factory for other outputs

Redundancy Diode

None installed Available as option

Line/Load Regulation

±1% combined from zero load to full load on each output

Dynamic Response

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

Output Ripple/Noise

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

Output Overload Protection

Rectangular current limiting with short-circuit protection
Thermal shutdown with automatic recovery in case of insufficient cooling

Output Overvoltage Protection

Second regulator loop completely stable and independent of main regulator loop

Efficiency

80 to 90% depending on input/output configuration

Operating Temperature Range

-40 to +70°C cold-plate temperature for full specification

Temperature Drift

0.03% per °C over operating temperature range

Cooling

Conduction cooling via base plate to customer heat-sink or chassis

Environmental Protection

Full encapsulation with thermally conductive silicon potting compound with UL94V-0 flammability rating

Shock/Vibration

IEC 61373 Cat 1 A&B

Humidity

5 – 95% non-condensing Contact factory for higher rating

MTBF

150,000 hours @ 45 °C Demonstrated MTBF is significantly higher

Indicators

None.

Control Input

None

Alarm Output

None

Package/Dimensions (W x H x L)

P500: 138 x 69 x 257 mm (5.4" x 2.7" x 10") includes terminal block and flanges Mounting holes are clear

Weight

2.6 kg (5.7 lb)

Connections

10-pole barrier type terminal block with 3/8" spacing

RoHS Compliance

Compliant

Warranty

Two years subject to application within good engineering practice.

Terminal Block Pin-out

OUTPUT				Spares for Options			GND	INPUT		
+	+	-	-	NOT USED	NOT USED	NOT USED	÷		-	+
1	2	3	4	5	6	7	8		9	10

Enhancements to these general specifications and customizing can be accommodated upon request. Specifications are subject to change.

Designer and manufacturer of quality ac-dc power supplies and battery chargers, converters, inverters, dc-output UPS systems, complete rack mount systems and DC-input fluorescent lamp inverters since 1982. Custom or standard. ABSOPULSE is a BABT-approved Facility.



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