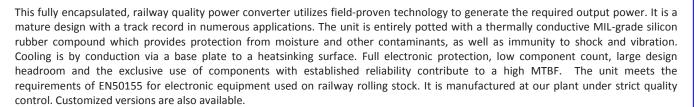
30W, Encapsulated DC/DC Converter for Railway, Mobile and Industrial Applications RWY 30-P30 Series

- Rugged, field-proven design
- Full encapsulation
- Wide temperature range
- Full electronic protection
- EN 50155 input ranges



SPECIFICATIONS

Standard Input Voltages

24Vdc (14.4 – 34V)

36Vdc (22 – 51V)

48Vdc (29 - 67V)

72Vdc (43 – 101V) 96Vdc (58 – 135V)

110Vdc (66 - 154V)

Other inputs upon request

Input Protection

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

Isolation

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

Standards

Designed to meet EN60950-1 and EN50155

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)

EMI

EN50121-3-2

Switching Frequency

 $100kHz \pm 5kHz$

Output Voltage

Any voltage in the 5V to 110V range Output is floating, either terminal can be grounded Other outputs upon request

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

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

Output Overload Protection

Rectangular current limiting with hiccup type short-circuit protection

Output Overvoltage Protection

Transzorb installed across the output

Efficiency

80 to 90% at full load depending on input/output configuration

Operating Temperature Range

 $-40 \text{ to } +70^{\circ}\text{C} \text{ cold-plate}$ temperature for full specification

Temperature Drift

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

Cooling

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

Environmental Protection

Full encapsulation with thermally conductive silicon potting compound with UL94V-0 flammability rating Meets environmental criteria as requested in MIL-810 C, D

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

Optional 'ON' LED adapter available

Control Input

None

Alarm Output

None

Package/Dimensions (W x H x L)

P30: 56 x 56 x 147mm (2.2" x 2.2" x 5.8") Includes terminal block and flanges. The case has clear alodyne finish according to MIL-C-5541E Class 3 Mounting holes are clear

Weight

0.5 kg (1.1 lb)

Connections

5-pole barrier-type terminal block with 3/8" spacing Cover can be provided upon request

RoHS Compliance

Compliant

Warranty

Two years subject to application within good engineering practice.

Terminal Block Pin-out

OUTPUT		GND	INPUT	
+	1	ήŀ	+	•
1	2	3	4	5

