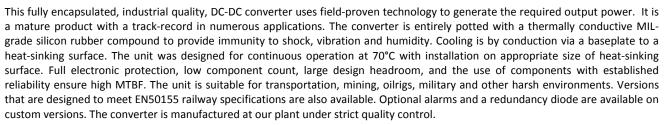
400W, Rugged, Encapsulated DC-DC Converter for Heavy Duty Applications PDC 400-P400 Series

- Rugged, field-proven design
- Fully encapsulation
- Conduction cooling
- Full electronic protection
- Wide temperature range
- Wide input ranges



SPECIFICATIONS

Input Voltage

24Vdc (21V – 30V) 48Vdc (42 – 60V) 72Vdc (42-110V) 125Vdc (95 – 140V) Consult factory for other voltages and ranges, including for railway

Input Protection

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

Isolation

1500Vdc input to chassis 2250Vdc input to output, 500VDC output to chassis as a minimum

Standards

Designed to meet EN 60950-1 and corresponding UL and CSA standards.

EMI

EN 55032 Class A with margins

Switching Frequency 55kHz ±3kHz

Output Voltages

12Vdc/33A, 24Vdc/16A, 48Vdc/8A or 125Vdc/3.2A Output is floating, either terminal can be grounded Consult factory for other voltages

Redundancy Diode

None

Available on request

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

Better than 0.2%Vrms or 1%Vpp of the output voltage (20MHz BW)

Output Overload Protection

Continuous current limiting with short circuit protection Current limit typically set for 110% of nominal output current Thermal shutdown with automatic reset in case of insufficient cooling

Output Overvoltage Protection

Double regulator loop
Typically set at 120% of nominal
output voltage

Efficiency

Min. 80% at full load

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 chassis or heat-sink (cold plate)

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

MTBF

145,000 hours at 45 °C Demonstrated MTBF is significantly higher.

Indicators

None

Control Input

None

Alarm Output

None

Available on custom versions

Dimensions

P400: 131 x 61 x 232 mm (5.2" x 2.4" x 9.2") excluding terminal block and flanges Mounting holes are clear

Weight

2.2 kg (4.8 lbs)

Connections

9-pole barrier type terminal block, 3/8" spacing

RoHS Compliance

Compliant

Warranty

Two years subject to application within good engineering practice

Terminal block Pin-out

DC OUTPUT						DC INPUT		
+	+	_	ı	NOT USED	NOT USED	GND	-	+
1	2	3	4	5	6	7	8	9

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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