

POWER CONVERSION PRODUCTS	Airborne Series
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Part No.: VTA96010-00

1000W AC-DC Power Supply

FEATURES

- ❑ 28 VDC Output, Single Channel
- ❑ MIL-STD-704A, (115Vac, 3Ø, 400Hz Input Power)
- ❑ High Input/Output Isolation
- ❑ High Efficiency
- ❑ Continuous Short Circuit Protection
- ❑ Conduction Cooled
- ❑ Thermal Protection

This Power Supply designed for high power, airborne applications, features a low profile package of 14.00” L x 6.50” W x 2.53” H or 4.34Watt/in³. It has excellent load regulation, input filtering, and low output ripple as well as current limiting/thermal shutdown.

Input Specifications:

Steady State Voltage	108 to 118 Vac, 3Ø
Surge Voltage	88 VAC and 160 VAC for 0.1 sec
Steady State Frequency.....	380 to 420 Hz
Inrush Current.....	6 A peak maximum per phase
Isolation (input/output to chassis).....	> 10 mega-ohm @ 500 Vdc
Power Factor.....	> 0.91 (max power @ 400 Hz)

Output Specifications:

<u>Nominal Voltage</u>	<u>Nominal Current</u>	<u>DC Regulation</u>	<u>Ripple & Noise</u>	<u>Maximum Power</u>
+28 VDC	36 A	± .28 V	< 200 mVp-p	1000W

Output Specifications:

Over-voltage Protection Between 120 and 130% of nominal output

Over-current Protection.....	Constant current limiting @ 130% F.L.
Efficiency (full load).....	> 85%
Remote ON/OFF.....	TTL Low/Open collector
Load Regulation.....	±1% from 0% to 100% and
.....	100% to 0% Load variations
Output Over/Under Shoot	<3% at rated voltage

Physical Specifications:

Weight.....	< 7.4 lbs or 3.34 kg
Case.....	Alluminum alloys
Finish.....	Allodyne chemical film
Mounting	10 x 0.188” holes on base-plate
Connectors.....	Input: (J1) DCM21WA4P
	Output: (J2) DCM8W8P

Environmental Specifications:

Shock (MIL-STD-810C).....	Half sine wave, 20G, 11 ms. (3 axis)
Vibration (MIL-STD-810E).....	10.5Grms, 3hr (3 axis)
Baseplate Temperature, Operating	-40°C to +80°C
Conduction Cooling.....	Max 265 Watts into Baseplate
Thermal Protection.....	Shutdown @ +85°C at base-plate
Altitude, Operating	Up to 50,000 ft. MSL
Humidity (MIL-STD-810E).....	0-95% RH, non-condensing
EMI (MIL-STD-461C, part 2).....	CE03, CS01, CS02, CS06, RE02, RS02,
.....	RS03.
Input Transients (MIL-STD-704E).....	Figures 4 and 5, Table 1.

Predicted Reliability (MIL-HDBK-217F).....>50,000 Hours @ 50°C.

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