

**POWER CONVERSION PRODUCTS**

**Airborne Series**

**Part No.: VTA03010-00**

**184W Dual Hard Disk Drive Power Supply**

**FEATURES**

- ❑ 28VDC Input Power
- ❑ High Input/Output Isolation
- ❑ BIT Status Interface EIA-422B
- ❑ Low Output Ripple
- ❑ Natural Convection Cooled
- ❑ Continuous Short Circuit Protection
- ❑ Thermal Protection

This Power Supply designed for low power, airborne applications, features a low profile package of 7.28" W x 7.4" H x 2.1" D or 1.62Watt/in<sup>3</sup>. It has excellent load regulation, input filtering, and low output ripple as well as current limiting/thermal shutdown protections.

**Input Specifications:**

Steady State Voltage ..... +23 to +32VDC  
 Inrush Current ..... < 23A  
 Isolation (input to chassis)..... > 1MΩ @ 100V  
 Data Storage Devices Status Interface ..... Drive 1: Temp Fault\*; Fail\*; RMS Interlock T/C  
 ..... Drive 2: Temp Fault\*; Fail\*; RMS Interlock T/C

**Output Specifications:**

<u>Nominal Voltage</u>	<u>Maximum Current</u>	<u>DC Load Regulation</u>	<u>Ripple &amp; Noise</u>	<u>Maximum Power</u>
+5.0VDC	5.0A	± 2.5%	>50mVp-p	25W
+12VDC	6.25A	± 2.5%	>50mVp-p	75W
+28VDC	3.0A	± 2.5%	>250mVp-p	84W

Over-voltage Protection..... Any channel > 12% to 17% of nominal level  
 Short Circuit Protection ..... +5V @ 6.5A; +12V @ 10.8A; +28V @ 23.3A  
 Efficiency (full load)..... > 75%

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**Physical Specifications:**

Weight ..... < 3.25 lbs  
Case ..... Alluminum alloys  
Finish ..... MIL-C-5541, Class 3. Chem. Conversion  
..... Coating.  
Connectors ..... Input: (J1) D38999/24WB5PA  
..... Output: (W1) 25-Way D-type socket  
..... Output: (W2) 25-Way D-type socket

**Environmental Specifications:**

Shock ..... MIL-STD-810E, Method 516.4, Procedure I,  
Vibration ..... MIL-STD-810, Method 514.4, Category 4,  
..... Procedure I: Figure 514.4-7: F1=68Hz;  
..... L1=0.3g<sup>2</sup>/Hz, reduced by 4dB.  
..... MIL-STD-810E, Method 514.4 Minimum  
..... Integrity Test  
Temperature, Operating..... -25°C to +65°C @ baseplate  
Temperature, Storage ..... MIL-STD-810E, Method 501.3 and 502.3,  
..... Procedure I.  
Humidity ..... MIL-STD-810E, Method 507.3, Procedure III.  
Over-temperature Protection..... Detect @ >81°C at baseplate; Shutdown @  
..... >88°C at baseplate  
Electromagnetic Compatibility ..... MIL-STD-461E  
Predicted Reliability (MIL-HDBK-217F) ..... > 100,000 hours @ 30°C A<sub>1C</sub>

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