

| | |
|----------------------------------|------------------------|
| POWER CONVERSION PRODUCTS | Airborne Series |
|----------------------------------|------------------------|

Part No.: VTA97011-00

800W, AC/DC Multi-Channel Power Supply

FEATURES

- ❑ Up to 800 Watts Output Power
- ❑ MIL-STD-704D, 115VAC, 3Ø, 400Hz
- ❑ 5 Channels @ < 3mV Ripple
- ❑ High Input/Output Isolation
- ❑ Continuous Short Circuit Protection
- ❑ Thermal Protection @ 80°C

This AC/DC Power Supply used in aircraft high power applications features a low profile package of 16.20” L x 12.50” W x 3.0” H or 1.32Watt/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 0.2 sec |
| Frequency | 400 ± 20 Hz |
| Inrush Current..... | 6 A peak maximum per phase |
| Isolation (input/output to chassis)..... | >10 Megohm @ 500Vdc |
| Power Factor..... | > 95% @ Full Load |

Output Specifications:

| <u>Nominal Voltage</u> | <u>Nominal Current</u> | <u>DC Load Regulation</u> | <u>Ripple & Noise</u> | <u>Nominal Power</u> |
|------------------------|------------------------|---------------------------|---------------------------|----------------------|
| +5.0(VX) VDC | 30.0 A | ±5% | < 50 mVp-p | 150W |
| +12.0 VDC | 1.0 A | ±5% | < 50 mVp-p | 12W |
| -12.0 VDC | 4.0 A | ±5% | < 50 mVp-p | 48W |
| -2.0 VDC | 54.0 A | ±5% | < 50 mVp-p | 108W |
| - 4.5 VDC | 47.0 A | ±5% | < 50 mVp-p | 211W |
| +15(VX) VDC | 1.3 A | ±5% | < 50 mVp-p | 20W |
| +48 VDC | 1.0 A | ±5% | < 100 mVp-p | 48W |
| +20 VDC | 1.1 A | ±5% | < 3 mVp-p | 22W |
| +5.0 VDC | 4.0 A | ±5% | < 3 mVp-p | 20W |
| - 5.2 VDC | 3.0 A | ±5% | < 3 mVp-p | 16W |
| +15(VX) VDC | 3.2 A | ±5% | < 3 mVp-p | 48W |
| -15(VZ) VDC | 3.2 A | ±5% | < 3 mVp-p | 48W |

Output Specifications:

| | |
|----------------------------------|--|
| Efficiency..... | > 80% @ Full Load. |
| Over-voltage Protection | Any channel between 15% and 25% of nominal voltage. Reset by re-cycling AC Power. |
| Short Circuit Protection | Current limiting between 105% and 125% on all channels. |
| Inhibit Lines..... | TTL compatible. Logic “0” shuts down all channels (except +15VX channel). |
| Remote Sensing | Available on all channels |
| Thermal Protection..... | PSU shuts down @ Baseplate Temperature of 80°C. Automatic restart at safe temperature with 10°C differential to prevent power supply “motorboating”. |
| BITE Status (IEEE 1014-87) | Provides SYSFAIL, BITE, ACFAIL and SYSRESET status signals. (TTL compatible). |

Physical Specifications:

| | |
|---------------------|----------------------------------|
| Weight..... | <17.5 lbs or 7.9 kgs |
| Case..... | Alluminum alloys |
| Finish | Allodyne chemical film |
| Cooling Method..... | Conduction cooling |
| Connections | JA: I/P Power, DBMC5H5PJK87 |
| | JB: O/P Digital, DCM37STA197 |
| | JC: O/P Analog, DDM24W7SA197 |
| | Post, Terminal Block |
| Mounting | 6x 1/4” – 20 UNC-2B Blind Insert |

Environmental Specifications:

| | |
|---------------------------------|---|
| Temperature, Operating | -40°C to +70°C |
| Temperature, Non-Operating..... | -55°C to +85°C |
| Humidity | 5% to 95%, non-condensing. |
| Altitude, Operating..... | Sea Level to 40,000 ft. |
| Shock | MIL-STD-810D, Method 516.3, Procedure I, Functional shock, 40g’s. |

*Viab*le

Power Conversion Technologies Inc.

VTA97011-00

Environmental Specifications:

Vibration MIL-STD-810D, Method 514.3, Procedure I,
Category 6, 20 g's.

EMC/EMI Compatibility (MIL-STD-461/462) CE101, Conducted Emissions, Power Leads
CE102, Conducted Emissions, Power Leads
CS101, Conducted Susceptibility, Power Leads
RE102, Radiated Emissions, Electrical Field

Predicted Reliability (MIL-HDBK-217F) >20,000 hours A_{UC}

*Viab*le Power Conversion Technologies Inc.

2044 St. Regis Boul.
Dorval, Quebec, Canada, H9P 1H6

Tel: (514) 684-4141

Fax: (514) 684-1276

Web: www.viablepower.com