

POWER CONVERSION PRODUCTS	Airborne Series
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Part No.: VTA96012-00

790W AC/DC Power Supply

FEATURES

- ❑ High Peak Current Capability
- ❑ MIL-STD-704A, (115Vac, 3Ø, 400Hz Input Power)
- ❑ Supervision Circuits
- ❑ High Input/Output Isolation
- ❑ High Efficiency
- ❑ Continuous Short Circuit Protection
- ❑ Input Overvoltage Protection
- ❑ Conduction Cooled
- ❑ Thermal Protection

This Power Supply designed for high power, airborne applications, features a low profile package of 16.0” L x 6.4” W x 2.3” H or 3.35Watt/in³. It has excellent load regulation, input filtering, and low output ripple as well as current limiting/thermal shutdown.

Input Specifications:

Steady State Voltage	100 to 125 Vac, 3Ø
Surge Voltage	88 VAC and 160 VAC for 0.1s
Steady State Frequency.....	380 to 420 Hz
Inrush Current.....	20 A peak max per line, 20 ms max.
Isolation (input/output to chassis).....	> 10 Megohm @ 500 Vdc
Power Factor.....	> 0.98

Output Specifications:

<u>Nominal Voltage</u>	<u>Nominal Current</u>	<u>Maximum Current</u>	<u>DC Load Regulation</u>	<u>Ripple & Noise</u>	<u>Maximum Power</u>
+15 VDC	0.5 A	1.0 A	± 1%	< 150 mVp-p	15W
- 15 VDC	0.5 A	1.0 A	± 1%	< 150 mVp-p	15W
+28 VDC	0.5 A	1.78 A	± 1%	< 420 mVp-p	50W
+36 VDC	4.0 A	16.7 A*	± 1%	< 540 mVp-p	600W
+56 VDC	0.5 A	1.78 A	± 1%	< 840 mVp-p	100W
±5.0 VDC	0.5 A	1.0 A	± 1%	< 50 mVp-p	10W

* Peak load every 4 seconds with a maximum duration of 50 ms for each occurrence.

Output Specifications:

Over-voltage Protection	±15V @ 33% of nominal output +28V @ 25% nominal output +36V @ 36% nominal output +56V @ 25% nominal output ± 5V @ 50% of nominal output
Current Limiting	±15V @ 5A respectively +28V @ 4.5A +36V @ 22A +56V @ 2.25A ± 5V @ 10A respectively
Efficiency (full load)	> 83%
Load Regulation.....	±5% from 0% to 100% and 100% to 0% Load variations
Thermal Protection.....	At baseplate temperature of 80 ± 2°C
Over-Temperature Indication	Open-collector TTL-compatible.

Physical Specifications:

Weight.....	< 3.6 kg / 7.9 lbs
Case.....	Alluminum alloys
Finish.....	Allodyne chemical film
Mounting	Eight Ø.28” mounting holes on baseplate
Connectors.....	Input: (J1) MS27468T15B5P Output: (J2) MS27468T17B99S

Environmental Specifications:

Shock (MIL-STD-810).....	Method 516.4, Procedure IV
Vibration (MIL-STD-810)	Method 514.4, Cat 3 & Cat 8
Temperature, Operating	-40°C to +70°C @ baseplate
Temperature, Storage.....	-50°C to +71°C @ baseplate
Cooling Method.....	Conduction cooling via 16.0” x 6.35” mounting surface.

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VTA96012-00

Environmental Specifications:

Thermal Protection..... Shutdown @ +85°C at base-plate
Humidity (MIL-STD-810) Method 507.3, Procedure III.
EMI (MIL-STD-461C, part 2)..... CE101, CS101, RE101, RS101.

Predicted Reliability (MIL-HDBK-217F).....>25,000 Hours @ 50°C.

Viable 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