

<b>POWER CONVERSION PRODUCTS</b>	<b>Airborne Series</b>
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**Part No.: VTA96005-01**

**900 Watts, Multi-output Power Supply**

**FEATURES**

- ❑ Up to 900 Watts Output Power
- ❑ MIL-STD-704E, 115Vac ±10%, 3 Phase, 400Hz
- ❑ High Input/Output Isolation
- ❑ Low Output Ripple
- ❑ Continuous Short Circuit Protection
- ❑ Thermal Protection
- ❑ High Resistance to Salt Fog
- ❑ Waterproof per B53G100, Part 2, Section 3, Grade A Sprayproof and Grade B Drip Proof

This AC/DC Power Supply used in aircraft high power applications features a low profile package of 8.6” L x 8.0” W x 6.2” H or 2.10Watt/in<sup>3</sup>. 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 Vrms
Surge Voltage .....	80 Vrms and 180 Vrms for 10 ms
Frequency .....	400 ± 20 Hz
Input Power at Full Load.....	1100W maximum
Inrush Current.....	10 A peak maximum per phase
Isolation (input to chassis).....	Hi-Pot tested @ 1KV.

**Output Specifications:**

<u>Nominal Voltage</u>	<u>Nominal Current</u>	<u>Line/Load Regulation</u>	<u>Ripple &amp; Noise</u>	<u>Maximum Power</u>
+28.28 VDC <sup>1</sup>	17.7 A	±3%	< 200 mVp-p	500W
+28.28 VDC <sup>2</sup>	8.84 A	±2%	< 200 mVp-p	250W
+15.15 VDC	3.0 A	±1%	< 75 mVp-p	46W
- 15.15 VDC	1.3 A	±1%	< 75 mVp-p	20W
+ 5.05 VDC	6.0 A	±1%	< 75 mVp-p	30W
- 5.25 VDC	2.0 A	±1%	< 75 mVp-p	11W
+20.20 VDC	1.25 A	±1%	< 75 mVp-p	26W
- 20.20 VDC	0.75 A	±1%	< 75 mVp-p	15W

**Output Specifications:**

Remote Sensing (150 mV line drops).....	Externally available on +5V output.
Line/Load Transient Recovery .....	<1 ms after 50% load or low/high line change.
Hold-Up Time.....	>50 msec @ 100% of nominal load.
Over-voltage Protection .....	Any channel between 15% and 25% of nominal voltage. Reset by re-cycling AC Power.
Short Circuit Protection .....	Any channel > 35% of nominal current. Automatic recovery upon removal of overload.
Current Limiting .....	Available on all outputs.
Load Transient Overshoot.....	< ±10% +.5V of nominal output.
Voltage Output Setting.....	Set to nominal output @ +1%, -0%.
DC Output Return Isolation .....	All output DC returns isolated from each other and from the input DC returns.
Thermal Protection.....	PSU shuts down @ Heatsink Temperature of 75°C. Reset by re-cycling AC Power.

**Physical Specifications:**

Weight.....	<12 lbs or 5.5 kgs
Case.....	Alluminum alloys
Finish.....	Allodyne chemical film
Cooling.....	Convection cooling
Connections .....	J1: I/P Power, MS27508E14B5P
.....	J2: O/P 28 VDC <sup>1</sup> , MS27508E16B6S
.....	J3: DC Outputs, MS27508E16B26S
Mounting .....	6x 1/4" – 20 UNC-2B Blind Insert

**Environmental Specifications:**

Temperature, Operating .....	Sea Level: -40°C to +85°C
	40,000 feet: -40°C to 0°C

**Environmental Specifications:**

Temperature, Non-Operating .....	High Temp: +85°C Low Temp: -55°C
Acceleration.....	MIL-STD-810, Method 513.4, Procedure I and Procedure II. Acceleration up: +6.5g Acceleration down: -1.0g.
Shock.....	MIL-STD-810, Method 516.4, Procedures I / IV / VI.
Vibration.....	MIL-STD-810, Method 514.4, Cat 7B, Procedure I.
Altitude, Operating .....	Sea Level to 40,000 ft
Altitude, Non-Operating .....	Sea Level to 50,000 ft
Humidity.....	Designed to withstand to 100% condensing. Meet MIL-STD-810, Method 507.3, Procedure I.
EMC/EMI Compatibility (MIL-STD-461) .....	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 <sub>UC</sub>

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