

POWER CONVERSION PRODUCTS	 Shipboard Series
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Part No.: VTA00020-00

400W AC/DC Multi-Output Power Supply

FEATURES

- ❑ Up to 400 Watts Output Power
- ❑ DOD-STD-1399, Section 300A compliant (115Vac, Type I Power)
- ❑ High Input/Output Isolation
- ❑ Low Output Ripple
- ❑ Continuous Short Circuit Protection
- ❑ Thermal Protection
- ❑ Interface Signals

This Power Supply, used in low power RF radar transmitter applications, features a low profile package of 16.0” L x 6.1” W x 3.75” H or 1.1Watt/in³. It has excellent load regulation, input filtering, and low output ripple as well as current limiting/thermal shutdown.

Input Specifications:

Steady State Voltage	107 to 123 VAC
Surge Voltage	92 and 138 VAC for 0.1s
Frequency	58.2 to 61.8 Hz
Inrush Current.....	12 A peak maximum
Isolation (input to output).....	> 1 mega-ohm
Harmonic Distortion (.180 to 15 KHz)	< 7%
Power Factor (full load)	0.9

Output Specifications:

<u>Nominal Voltage</u>	<u>Nominal Current</u>	<u>DC Regulation</u>	<u>Ripple & Noise</u>	<u>Maximum Power</u>
+5 VDC	3.80 A	±2%	.10 Vp-p	25W
+28 VDC	1.20 A	±2%	.28 Vp-p	50W
-60 VDC	0.26 A	±2%	.50 Vp-p	45W
-12 VDC	0.48 A	±2%	.12 Vp-p	25W
+15 VDC	13.0 A	±2%	.15 Vp-p	250W
+15 VDC*	13.0 A	±2%	.15 Vp-p	250W
+24 VDC	0.8 A	±2%	2.0 Vp-p	35W

*This channel operates occasionally at 4% minimum to 8% maximum pulsed duty cycle.

Output Specifications:

Over-voltage Protection	Any channel > 35% nominal V
Over-current Protection.....	Linear current limiting
Efficiency (at full load)	> 65%

Interface Signals:

Output Sequence	All channels, except +15 V channels are sequenced to energize
Remote Enable Signals	Enable 1, Enable 2, Battleshort
Thermal Protection.....	Baseplate temp > 75°C (all channel disable, except +24 V)
Built in Test	4 x TTL low/open collector
Battleshort Terminals	Enable/Disable Thermal Protection

Physical Specifications:

Weight	< 15 lbs or 7 kgs
Case.....	Alluminum alloys
Finish.....	Allodyne chemical film
Mounting Position.....	Any orientation
Connections	As required

Environmental Specifications:

Shock.....	Half-sine, 11ms, 30g. (MIL-PRF-28800F)
Vibration.....	4-50Hz, .024" to .003" (MIL-STD-167-1)
Air Temperature.....	Operating: 0°C to +60°C Storage: -10°C to +60°C
Altitude.....	15,000 ft @ 25°C or less
Humidity.....	Operating: 20% to 80% non-condensing Storage: 20% to 80% non-condensing
Reliability Prediction (MIL-HDBK-217F)	18,000 hours (Naval Sheltered)

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