



Rugged Power Supplies COTS/MIL and Custom Designs

Supporting VME, cPCI, & Embedded Applications

Overview:

North Atlantic Industries power supply division designs & manufactures a full line of rugged, compact power supplies and DC/DC converters for embedded military and commercial aerospace applications. We offer a line of standard and custom solutions to meet the unique needs of our customers.

Standard Features Include:

- High Power Density, Low Profile Packaging
- Component De-Rating per NAVMAT/NAVSO P-3641A
- Built-In EMI Filtering per MIL-STD-461
- Input Transient Protection per MIL-STD-704
- Environmental Specifications per MIL-STD-810
- Conduction Cooled Designs
- Operating Temperature Ranges:
 - -55°C to +85°C (AC/DC)
 - -55°C to +100°C (DC/DC)
- Multiple Input & Output Configurations
- Remote Error Sense

Additional Features Include:

- Hold-Up Time
- Standby Voltage
- Current Share
- Thermal Shutdown
- Output Sequencing
- Power Factor Correction
- Over Current Protection
- Over Voltage Protection
- Load Transient Recovery
- Load Transient Under / Over Shoot
- Constant Current Limit

Available Signaling:

- ANSI / VITA Signaling (AC Fail & System Reset)
- Output Good
- On / Off Control

Inputs Supported:

- 28V DC
- 270V DC
- Multiple AC Input Configurations

Outputs Supported:

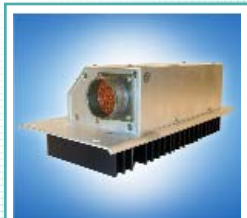
- Single
- Dual
- Triple
- Quad
- Models with up to 9 outputs available



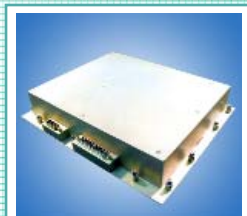
64PS1 - 1 Output
DC/DC
28V In
600 Watt



55PQ1 - 4 Outputs
DC/DC
VME Power Supply
200 Watt



58P71 - 7 Outputs
AC/DC
VME Power Supply
250 Watt



56ST1 - 9 Outputs
AC/DC
VME Power Supply
600 Watt

North Atlantic Industries' talented engineering staff can provide custom designs by modifying our current product line. This results in improved time-to-market and reduced costs. For custom or semi-custom power supplies, fill out our on-line Custom Configuration form.

See our website for detailed specifications
www.naii.com

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Typical Power Supply Characteristics

Input Characteristics:

Input	28 Vdc, 270 Vdc or multiple AC input configurations
EMI/RFI	Designed to meet the requirements of MIL-STD-461
Input Transient Protection	Per MIL-STD-704 and MIL-STD-1399 or MIL-STD-1275

DC Output Characteristics:

Output Power	Up to 1500 Watts
Output Voltage	3.3 Through 28VDC (For additional voltages contact factory.)
Efficiency	75% Typical
Line Regulation	Within 0.1% for low to high line changes at constant load
Load Regulation	0.1% for 0 to 100% of rated load at nominal input line
Short-Circuit Protection	Continuous short circuit protection with automatic recovery
Current Limiting	120% +/- 10% typical
Over-Voltage Protection	Automatic electronic shutdown if voltage exceeds 125% +/- 1%
Remote Error Sensing	Compensates for up to 0.5-volt drop on +5v output leads
Remote Turn On/Off	TTL logic 1 inhibits (turns off) the output; a floating input acts as a logic 0 (output on)
Insulation Resistance	50 Megohm at 50 VDC

Physical / Environmental Specifications:

Typical Temperature Range	Operating: -55 °C to +85 °C AC/DC at 100% load (Temperature measured at baseplate: conduction via baseplate only); -55 °C to 100 °C DC/DC
Temperature Coefficient	0.01% per °C
Shock	30 G's each axis, per MIL-STD-810, Method 516.2, Procedure 1, Hammer Shock Per MIL-S-901
Acceleration	6 G's per MIL-STD-810, Method 513.2, Procedure 11 and 14 G's per procedure 1
Vibration	Per MIL-STD-810, Method 514.2, Procedure 1A
Humidity	95% at 71°C per MIL-STD-810, Method 507.1 (non-condensing)
Salt & Fog	Per MIL-STD-810, Method 509.1
Sand / Dust / Fungus	Per MIL-STD-810