

ATLAS MARINE SYSTEMS

HeliPOWER™ 28 GROUND POWER UNIT

Atlas Marine Systems is the world leader in the design of marine electrical power systems which includes electrical distribution systems and switchboards, load management and power management systems. The Atlas ShorPOWER® product line provides the widest selection of onboard frequency converters used to facilitate worldwide "ship to shore" interface regardless of marina power available. Additionally Atlas' onboard products provide transient suppression and power conditioning for the more sensitive loads often used aboard yachts. In recent years Atlas has added to its onboard product offering the ability to provide both 28VDC and 400Hz power units designed to operate helicopters typically used in conjunction with certain yachts having heliports. The HeliPOWER 28 as defined herein is used to support 28VDC helicopters.

The HeliPOWER 28 unit provides up to 600 amps continuous current and 2,000 amps of engine starting current with a 28VDC output voltage rating. Although there are other 28VDC products available at these specified current levels, they are all of a 1940's transformer-rectifier design technology, unlike the state-of-the-art IGBT driven, high frequency, PWM technology used in Atlas' one-of-a-kind HeliPOWER 28. In addition, other 28VDC units are not designed for the more extreme environmental demands that exist on marine luxury yachts.

The HeliPOWER 28 salient design features uniquely offered "in combination" for yachting applications that are not available in other 28VDC GPUs are as follows:



Fixed Mount

- Longest output 28VDC distribution distance - up to 100 feet (approx. 30 meters) to meet shipboard needs
- Ultra lightweight, less than half of all other 28VDC GPUs
- ≤ 5% input current distortion IAW Shipboard Specifications
- Multi Language (Romanization) Front Panel (Specify)
- Certified through CE Mark, UL and CSA Listings
- Self-diagnostic capabilities for minimizing downtime
- Fully compliant to aircraft interface standards such as, ISO 6858 and MIL-STD-704 at the output plughead

OTHER FEATURES:

- IP55
- Certified to UL 1012
- Advanced Integrated Display (AID™) Console
- 8000 Event Log / Diagnostics
- TCP/IP/Ethernet Interface (Modbus)
- 15% Power Regulation
- Internal Communication Ports - USB, RJ45 (Ethernet), RS485 (Modbus), & RS232
- External Port - USB
- Emergency Power "OFF" Switch
- Voltage and Current Monitoring
- Elapsed Time Meter Access
- Front Panel Voltage Adjust
- Front Panel Summary Fault Indicators
- Input High Voltage Transient Protection
- Output Current Limit Adjust from 150 to full rated current
- Output Safety Disconnect
- Forklift Tubes - 4 Inch

OPTIONS:

- DC Output Power Cable with Plug (Available in lengths up to 100 feet)
- Lockable Front Door
- Custom Paint & Decals (Standard Color - White)
- CSA Certified
- CE Mark Certified
- 400Hz output combination units
- 9 or 12 Inch Top Cable Storage Rack

MECHANICAL SPECIFICATIONS:

Size:	See Figure 1
Weight:	310lbs. (141kg.)
Enclosure:	NEMA 3SX Corrosion Resistant
Cooling:	Forced Convection

SPECIFICATIONS / STANDARDS:

ISO 1540	Characteristics of aircraft electrical system
ISO 6858	Aircraft ground support electrical supplies
MIL-STD-704F	Aircraft electric power characteristics



Optional Wall Mount

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GENERAL SPECIFICATIONS

INPUT:

Input Current Distortion	≤ 5%, typically 3% (At Max Load)
Voltage Auto Ranging	208 to 480V, +10%, -15%, 3Ø, 3 or 4 wire plus ground
Frequency	50 - 60 Hz ± 10%
Phase Rotation	Any
Protection	Over/undervoltage, loss of phase, overcurrent, short circuit. Voltage transient protection IAW IEEE C62.41.1, Location Cat. B/C
Inrush Current	No greater than 100% of full load current

ENVIRONMENTAL:

Acoustical Noise	65 dBA maximum at 5 feet (1.5m)
Temperature Range	-40°C to +55°C
EMI/RFI	Compatible with aircraft systems
Relative Humidity	10 - 95%, Non-Condensing
Ingress of Water	Type 3SX, IP55

OUTPUT:

Full Rated Load	600 amps continuous
Engine Start Capacity (10% duty cycle)	Up to 2000 amps for 30 seconds
Overload (10% duty cycle)	1000 amps for 1 minute
Voltage	28 VDC, 2 wire, grounded negative
Voltage Regulation	
• 100% continuous rated load and ±10% input voltage	± 0.5%
• No load to rated load with nominal input voltage	± 0.5%
• Overload with nominal input voltage	See start mode curves
Voltage Adjust	28 VDC ± 10%
Power Regulation Adj.	0 to 15%
Current Limit Adjust	150A to full rated current
Protection	Overload, short circuit, over voltage and safety disconnect

FIGURE 1

