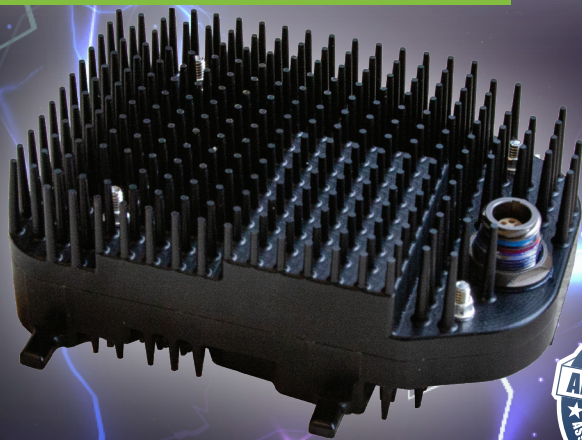


Generator Control Unit



280-WATT GCU (GENERATOR CONTROL UNIT) FOR PERMANENT MAGNET ALTERNATORS

CONSISTENT DC POWER FOR SMALL UAV PLATFORMS

TRANSFORM FLUCTUATING ALTERNATOR OUTPUT INTO STABLE, MISSION-CRITICAL ENERGY.

Mission success depends on the steady flow of power to sensitive onboard electronics. The Northwest UAV GCU manages the erratic voltage and frequency produced by permanent magnet alternators, delivering a stable 280-Watt DC output. This modular system supports 6V, 12V, 21V, and 28V configurations, providing the flexibility needed for diverse airframes. Because real-world hardware often requires fine-tuning, every output is trimmable by $\pm 10\%$ to ensure precise voltage delivery. Integrating this off-the-shelf (COTS) unit eliminates the need for expensive custom power solutions while providing a scalable foundation for any small UAV project.

01. Transforms erratic ALT input into stable power
02. Can be trimmed by $\pm 10\%$ in any power and voltage combination
03. Modular and scalable to fit your requirements

SYSTEM FEATURES

- Lightweight 240 grams
- Small footprint for its power at: 2.92 in/74mm (W) x 4.23 in / 107mm (L) x 1.50 in/38mm (H)
- EMI shielded
- EMC compatible
- Designed to meet IPC 67
- Shock and vibration resistant
- Operating temperatures -40°F to 122°F (-40°C to 55°C)
- MIL grade connectors

ELECTRICAL SPECIFICATIONS

- Combined power 280-Watts*
- 21V or 28V at 10 Amp maximum
- 12V at 10 Amp maximum
- 6V at 3 Amp maximum
- Voltage droop is 1V no-load to full-load
- CAN bus reporting of output voltages and currents, total power, and board temp
- CAN bus compliant to ISO 11898-1
- 3-Phase input voltage of 150V - 400V

*Cooling air may be required based upon integration and application.

MILITARY PROVEN PROPULSION SOLUTIONS!



11160 SW Durham Lane | McMinnville, OR 97128
Office: 503.434.6845 | Fax: 503.217.6080 | www.nwuav.com



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