



AMERICAN POWER SYSTEMS, INC.

Modular Energy Management Solution

APS-500 Alternator Regulator + 3,000-Watt Bidirectional Converter



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APS-500
Alternator Regulator



APS Series, 3000-Watt
DC/DC Bidirectional Converter

WHY MODULAR?

Many modern vehicles mix traditional (12V/24V) and high-energy (48V/56) systems. The challenge is integration: 12V-24V, 12V-48V, 24V-48V, and so on. Our modular energy management solution, comprised of the APS-500 alternator regulator and our 3,000-Watt DC/DC Bidirectional Converter, provides seamless, plug-and-play energy management capabilities for a diverse array of applications, including aerospace, commercial trucks and vans, defense, marine, micro/mild hybrid systems, recreation, off-grid and remote applications. Purchase the alternator regulator, converter or both.

FEATURES & BENEFITS

- Ideal battery-charging and care through innovative, dynamic use of current and voltage
- Unique approach to charging based upon battery voltage and temperature, current in/out and alternator temperature
- Highly configurable for use with virtually any commercially available battery type, through control area network (CAN) communication (SAE J1939 and others)
- For use with various vehicle systems at 12, 24 and 48 volts—up to 60 volts
- 100% customizable with no hardware changes
- Programmable field output control
- Automotive 12/48V battery system
- Low side (12V) input range: 6-18V; high side (48V) input range: 24-58V
- Overcurrent, overvoltage & overtemperature protection. All protections are latching.
- Disconnection switch on low and high sides; reverse polarity protection on low side
- Constant voltage and constant current mode; average current mode control
- Custom charging profile for battery pack
- Current and internal temperature monitoring
- High power density; efficiency up to 97%
- Low profile; constant switching frequency
- CAN 2.0b interface including remote on/off
- Designed to meet MIL-STD-810G for functional shock and vibration; RoHS compliant; liquid-cooled variant has IP67-rated enclosure