



SOLAR STIK®

Category: Power Management

# 24VDC Hybrid Power Router (HyPR) 6000

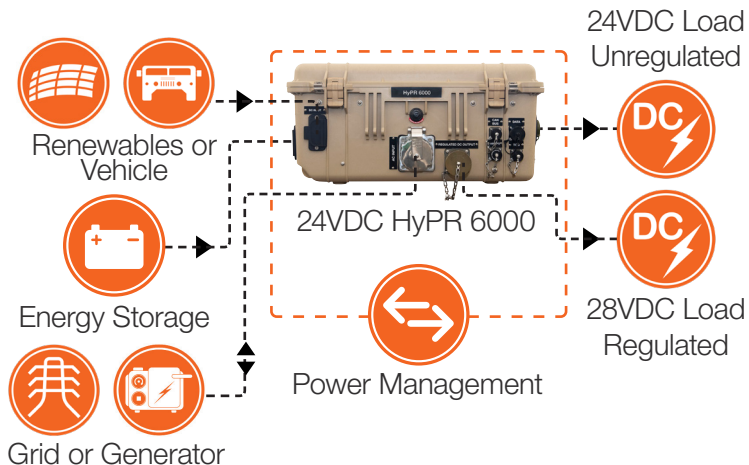
Item # 20-0104024

## Versatile Power Manager

The 24VDC Hybrid Power Router (HyPR) 6000 is the ideal power management module for weapons systems and platforms requiring a 28 VDC regulated output. The HyPR 6000 can accept up to 6000 watts of universal AC input then converts it to DC to charge batteries and supply power to unregulated 24 VDC loads and regulated 28 VDC loads. It can support up to 2300 watts of unregulated DC and up to 2300 watts of regulated 28 VDC loads at the same time. The HyPR 6000 provides for a single point of power management, control, and distribution with its multiple connection options. The HyPR 6000 is design to hybridize TQG and AMMPS generators. The HyPR 6000 also has the capability for remote monitoring of system and battery bank statuses.

## How a HyPR 6000 works

As the primary power management module in a hybrid power system, the HyPR 6000 scours available power from any AC and/or DC power sources to charge connected batteries or energy storage modules. The HyPR 6000 can simultaneously take up to 3000 watts of universal AC input to charge batteries and has a voltage regulator to convert an additional 3000 watts of universal AC input into a 28 VDC regulated output. The HyPR 6000 also has a buck/boost converter for providing up to 2300 watts of regulated 28 VDC output from the 24 VDC battery bank when AC source is not available.



## Features

- Accepts up to 6000 W of universal AC input from local grid, shore power or tactical and commercial generators
- Provides interface for accepting DC power to charge batteries from renewables or tactical vehicles; can also be used for connecting inverter for AC output
- Provides up to 2300 W of unregulated DC output and up to 2300 W of 28 VDC regulated output simultaneously
- Provides unregulated DC output compliant with MIL-STD-1275E through a NATO receptacle
- Capability to auto-start/stop TQG and AMMPS generators
- Optimized for integration with LiFePO<sub>4</sub> batteries but can be reprogrammed for optimum operation with other battery chemistries





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General	
Nominal Operating Voltage	24VDC
Battery Voltage Range	18 to 30 VDC
Battery Bank Low Voltage Cut-off	24.4 VDC
Output Voltage	<ul style="list-style-type: none"> <li>Regulated: 27.5 to 28.5 VDC</li> <li>Unregulated: Battery bank voltage</li> </ul>
Output Power Rating	<ul style="list-style-type: none"> <li>Regulated: 2300 W continuous</li> <li>Unregulated: 2300 W continuous</li> </ul>
Internal Cooling	Thermostatically controlled force convection
User Interface	LCD with navigation keys
Data	Modbus/RS-485
Case	Pelican Protector 1610
Certifications	<ul style="list-style-type: none"> <li>Compliant with MIL-STD-1275E</li> <li>Design to MIL-STD-810H</li> </ul>
Warranty	1-year materials and workmanship

AC Charger Specifications (@77 °F/25 °C)	
Input Voltage	95 – 264 VAC
Input Frequency	47 – 63 HZ
Output Voltage	<ul style="list-style-type: none"> <li>Regulated: 28 VDC +/- 0.5 VDC</li> <li>Unregulated: 18 – 30 VDC</li> </ul>
Output Current	<ul style="list-style-type: none"> <li>Voltage Regulator: 80A</li> <li>Charger: 100A</li> </ul>
Charging Stages	CC/CV*
Charging Efficiency	87%

\* Configured for lithium iron phosphate

Safety	
Breaker(s)	<ul style="list-style-type: none"> <li>AC Input: 50A, 2 Pole</li> <li>DC Input: 100A, 1 Pole</li> <li>Regulated DC Output: 100A, 1 Pole</li> <li>Unregulated DC Output: 100A, 1 Pole</li> <li>Battery Bank: (2) 100A, 1 Pole</li> </ul>
Undervoltage Protection	Programmable low voltage cutoff
Reverse Polarity	Polarized connectors

Connections	
Universal AC Input	(1) HBL503SS
28 VDC Regulated Output	(1) U10-580902-323
Input(s)/Output(s)	<ul style="list-style-type: none"> <li>Unregulated DC: (1) NATO receptacle, (1) Deltran 224-0061-BK</li> <li>Battery Bank: (2) Deltran 224-0061-BK</li> </ul>
Data	<ul style="list-style-type: none"> <li>AMMPS Interface: (1) MS3452W14S-2S</li> <li>TQG Interface: (1) MS3122F12-10P</li> <li>Remote Monitoring: (1) RJ45</li> <li>CAN Bus: (1) PT02SE12-10SW</li> </ul>

Environmental	
Operating Temperature	-25 °F to +120 °F (-32 °C to +49 °C)
Storage Temperature	-28 °F to +160 °F (-33 °C to +71 °C)

Weights and Dimensions (L x W x H)	
Weight	77 lb (35 kg)
Dimensions	29 x 20 x 12 in (74 x 51 x 30 cm)



## Recommended Components and Accessories



**24VDC Power Hub 3500**  
Item # 13-0000057



**24VDC Li ESM 2000**  
Item # 21-0202317

