



SOLAR STIK®

Category: Power Management

24VDC Hybrid Power Router (HyPR) 3000

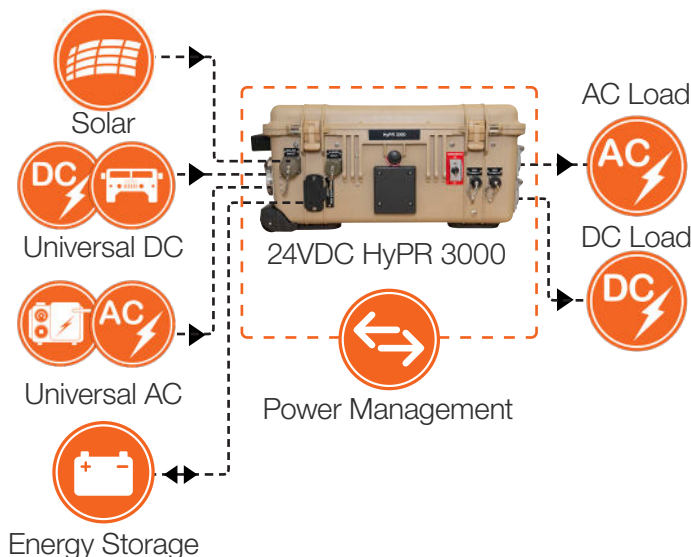
Item # 20-0102008

Versatile Power Manager

The 24VDC Hybrid Power Router (HyPR) 3000 provides a single point of power management, control and distribution to a battery-based electrical circuit. It's universal AC charger can accept any grid or generator power to charge batteries and then converts stored energy to provide 2000 W continuous of pure sine wave 120 VAC output. The HyPR 3000 also has the capability to provide nominal 28 VDC compliant with MIL-STD-1275E and includes a dual USB charging port. Connected batteries can also be charged by input power from photovoltaic panels and other DC sources in the 9 to 36 VDC range. The HyPR 3000 is designed to provide power in extreme environmental conditions where power is inconsistent or non-existent. The HyPR 3000 can also be used in conjunction with connected batteries as an uninterruptible power supply (UPS).

How the HyPR Works

The HyPR is the primary power management component in a small hybrid power system. It processes all input and output power from it's attachment to a battery bank. The HyPR scavenges power from available AC, DC, or renewable sources to charge a battery bank. It then pulls and processes power from this bank to provide clean AC and DC power simultaneously. The HyPR can be tailored to work with additional loads and provides users a streamlined control box for small power requirements.



Features

- Selected by multiple tactical units as their primary expeditionary power management module
- Multiple power scavenging capabilities
- Up to 3000 W of universal AC power processing to charge connected batteries
- Up to 400 W of solar input and up to 2400 W from other DC power sources to charge connected batteries
- Up to 2000 W continuous of 120 VAC output power via four convenience receptacles
- NATO port for charging batteries with a tactical vehicle and for outputting nominal 28 VDC
- Plug and play operation with user friendly interface
- Open architecture and scalable
- Auto start/stop operation with 3kW TQG and Novatio man-portable generators in single or parallel operation
- Designed to MIL-STD-810H and MIL-STD-1275E

Compatible auto-start generators

- Novatio 1kW
- Novatio 2kW
- Honda 1kW
- Honda 2kW
- MEP-831A TQG 3kW
- MEP-802A TQG 5kW





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General

Nominal Operating Voltage	24 VDC
Battery Low Voltage Cut-Off	User programmable; factory default to 24.4 VDC
Internal Cooling	Forced convection
User Interface	IPN ProRemote
Case	Pelican 1610
Certifications	<ul style="list-style-type: none"> Compliant with MIL-STD-1275E Design to MIL-STD-810H
Warranty	1-year materials and workmanship

Solar Charge Controller (@ 77 °F / 25 °C)

Maximum PV Input Voltage	57 VDC
Maximum PV Input Current	12 A
Maximum PV Input Power	400 W
Efficiency	97%
Charge Control Method	Maximum Power Point Tracking (MPPT)

DC Output

Voltage	28 VDC nominal
Power Rating	2400 W

AC Output Specifications (@77 °F/25 °C)

Frequency	60 Hz
Voltage	120 VAC +/- 2%
Current	16.7 A
Power Rating	2000 W continuous
Surge capacity	4000 W for 3 seconds
Inverter Efficiency	87%
Transfer Time	None

AC Charger Specifications (@77 °F/25 °C)

AC Input Frequency	47-63 Hz
AC Input Voltage	85-264 VAC
DC Output Voltage	25-29 VDC
Charging Stages	Factory default to CC/CV*
Continuous Output Current	~100 ADC
Charging Efficiency	87%

*Configured for lithium iron phosphate

Safety

Breaker(s)	<ul style="list-style-type: none"> (1) 100 A: DC Input/Output (1) 30 A: AC Input (3) 20 A: AC Output, DC Input, Solar Input
Fuse(s)	3 A for USB port

Connections

Inputs	<ul style="list-style-type: none"> (1) 120-230 VAC, 30 A (NEMA L5-30P) (1) Inter-Connect (Deltran 224-0061-BK) (1) Solar (CANNON CB2-22-2SC) (1) 9-36 VDC (CB2-18-10PC)
Outputs	<ul style="list-style-type: none"> (4) 120 VAC, 20 A (NEMA 5-15/20R) (2) 5 VDC USB, 1.5 A (charging port only, interior)
Input(s)/Output(s)	<ul style="list-style-type: none"> (1) NATO (1) 24VDC Inter-Connect (Deltran 224-0061-BK) (2) Gen Comm

Environmental

Operating Temperature**	-4 °F to 140 °F (-20 °C to 60 °C)
Storage Temperature***	-40 °F to 140 °F (-40 °C to 60 °C)
Ingress Protection	Designed to IP65

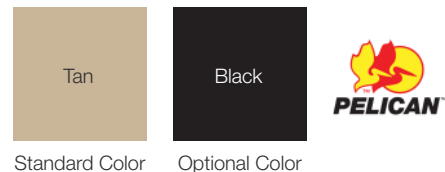
** Operating outside of STP and this range < > will accelerate the battery aging process and increase likelihood of premature failure

***Prolonged exposure to high temperatures in storage will reduce battery life

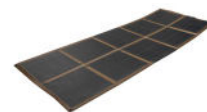
Weights and Dimensions (L x W x H)

Weight	75 lb (34 kg)
Dimensions	25.25 x 20.01 x 12.00 in (64.14 x 50.82 x 30.5 cm)

Case Color Options



Recommended Components and Accessories



120W Foldable Panel
Item # 11-1000076



24VDC Li ESM 1300
Item # 21-0202316

