Category: Power Management

24VDC PRO-Verter S 3000-120 EBA2

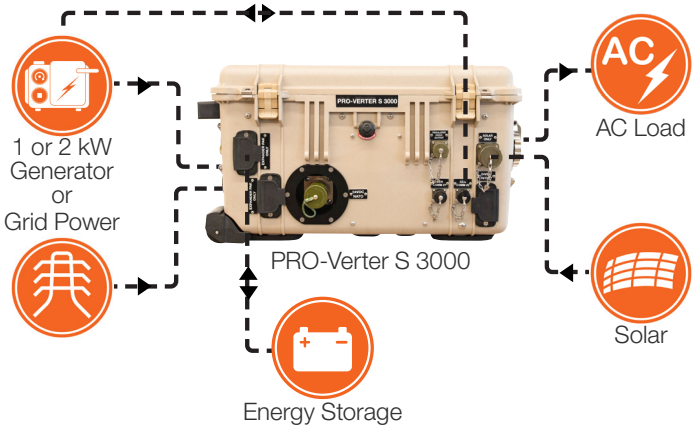
Item # 20-0104029

Power with an Extra Boost

A Portable Remote Operation Inverter/Charger (PRO-Verter) provides a single point of power management, control, and distribution to a battery-based electrical circuit. The PRO-Verter S 3000 has an internal solar charge controller capable of accepting up to 880 watts of DC input power from photovoltaic panels. The inverter function can provide 2200 watts of continuous, pure sine wave AC power. The PRO-Verter S 3000 is designed to operate with a 1 or 2 kW fuel-driven generator in a hybrid power system and can automatically start or stop the generator based on the battery bank's state of charge. To further increase system performance, the PRO-Verter S 3000 can operate with two 1 or 2 kW generators in parallel.

How a PRO-Verter Works

A PRO-Verter is the primary power management component in a hybrid power system. It handles load prioritization, manages generator functions, records system status, charges the battery bank, and powers AC loads using energy stored in the batteries. Additionally, the PRO-Verter S 3000 is capable of accepting DC input power from photovoltaic panels. When any PRO-Verter is used with a generator, it increases system performance by maximizing generator output and minimizing generator runtime.



Features

- High-efficiency circuits for inverting and charging
  - 2200 W continuous power output
- Automatic power source prioritization
  - Solar > Grid > Generator
- Solar input up to 880 W
- Compatible with 1.0–2.0 kW generators
  - Auto Generator Start/Stop
- Programmable LCD user interface with built-in remote monitoring capability
- Open architecture

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SS20220628

800.793.4364
tech@solarstik.com
www.solarstik.com

SOLAR STIK®

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General

Nominal Operating Voltage	24 VDC
Input Battery Voltage Range	18.1 to 34 VDC
Internal Cooling	Forced convection
User Interface	4-line LED display and buttons
Case	1620 Pelican
Warranty	1-year materials and workmanship

Inverter Specifications @ 77 °F (25 °C)

Nominal AC Output Voltage	120 VAC ± 5%
Output Frequency and Accuracy	60 Hz ± 0.1 Hz
Continuous Output Power	2200 VA (2090 W at 0.95 power factor)
Input Voltage	18.1 to 34 VDC
Load Support	No
Efficiency	93% peak
Transfer Time	< 1 ms inverter to grid/generator and up to 16 ms for grid/generator to inverter
Waveform	Pure sine wave

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

AC Input Frequency	60 Hz/50 Hz (40 to 70 Hz selectable)
AC Input Voltage	120 VAC (60 to 140 VAC ± 5% selectable)
Charging Stages	Bulk, absorb, float
Continuous Output Current	50 ADC
Charging Efficiency	86%

Charge Controller Specifications @ 77 °F (25 °C)

Maximum PV Input Voltage	100 V
Maximum PV Input Current	35 A
Maximum PV Input Power	880 W
Efficiency	98% peak
Charging Stages	Bulk, absorb, and float

Regulated DC Output

Efficiency	95% (@ 24 VDC input/28 VDC output)
Output Power Rating	220 W
Max Output Ripple	0.040 VRMS
Input Voltage Range	20.0 to 30.0 V

Safety

Breaker(s)	• (1) 20 A grid input • (1) 30 A generator input • (2) 20 AAC output • (1) 5 A USB charger • (1) 35 A solar input • (1) 10 A regulated 28 VDC output • (1) 1 A fan reset
Fuse(s)	• 75 A external input • 1 A AGS
Overtemperature Protection	Automatic derating of inverter, charger, and solar charge controller

Connections

Input(s)	• (2) 24 VDC battery only Inter-Connect port* • (1) 20 AAC grid • (1) 30 AAC generator • (1) 35 A solar-only port
Output(s)	• (2) 20 AAC output (NEMA 5-20R) • (1) 10 A 28 VDC regulated
Input/Output(s)	• (1) 24 VDC In/out Inter-Connect port* • (1) 24 VDC NATO port • (2) Generator communications port (MS3122F12-10P) • (1) AGS tech port (Faceplate)

*Deltran 224-0061-BK

Environmental

Operating Temperature	-4 °F to 140 °F (-20 °C to 60 °C)
Storage Temperature	-40 °F to 158 °F (-40 °C to 70 °C)
Operating Humidity	0 to 95% RH noncondensing
Standards	• Designed for MIL-STD-810G Drop Test • Designed for MIL-STD-810G Loose Cargo Test
Intrusion	Designed for IP56

Weights and Dimensions (L x W x H)

Weight	104 lb (47.2 kg)
Dimensions	27 x 21 x 15 in (68.58 x 53.34 x 38.1 cm)

MADE IN UNITED STATES OF U.S. AND IMPORTED PARTS

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