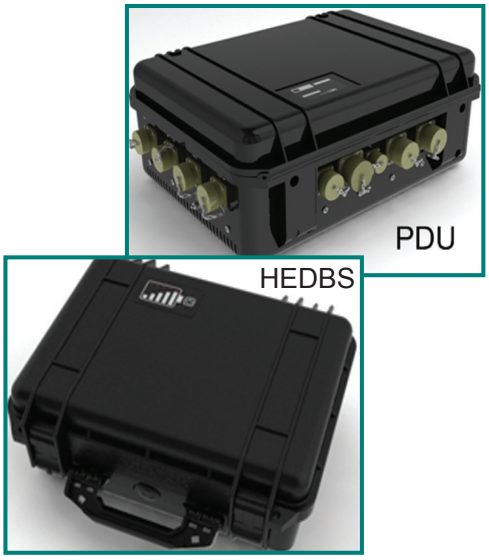
ELECTRONICS

PRODUCT SPECIFICATION

GROUND RENEWABLE EXPEDITIONARY ENERGY NETWORK (GREEN)

The GREEN system is a rugged, man-portable system for energy collection, storage and management. This highly adaptable system is comprised of a Power Distribution Unit (PDU) and four High Energy Density Battery Systems (HEDBS). The GREEN system provides regulated 28 VDC power reliably, on demand, in variety of environments.

Up to four renewable energy sources (e.g. solar panel array) connect to the PDU. These energy sources provide system power during peak energy collection hours and simultaneously charge the HEDBS. When renewable sources are unable to generate power the PDU seamlessly changes its input to the HEDBS. The zero emission GREEN system selects its power sources and optimizes them based on user defined priorities. In environmental conditions that precluded renewable energy generation, the GREEN system accepts input from both AC and DC generator sources. The result: MIL-1275 compliant 28 nominal VDC, 300 W total continuous power, (1000 W Maximum) that is clean, silent, and reliable.



GENERAL SPECIFICATIONS

Part Number:
0754A01 (PDU)
0754A02 (HEDBS)

System Components:
- (1) Power Distribution Unit
- (4) High Energy Density Battery Systems
- (1) Cable Storage Transport Case 4

Weight:
PDU - 45 Lbs.
HEDBS - 34 Lbs. (x4)

Features:
- Peak power tracking technology optimizes power input from Renewable Sources
- System is designed to keep generator run times at a minimum through the use of renewable energy and high energy density LiFePO4 battery packs
- System automatically activates generator input when connected batteries reach low charge levels
- System works with multiple battery chemistries, including Lead-Acid
- User friendly. PDU manages power requirements with little to no human interface.

Electrical:
Inputs:
- (4) Solar Sources @ 500 W, 36-70 VDC each
- (1) AC Source @ 10 Amp., 120 VAC, 47-63 Hz
- (1) DC Source @ 50 Amp., 20-36 VDC

Outputs:
- (2) - MIL-1275 compliant 28 nominal VDC, 300 W total continuous power, 1000 W Maximum
- Generation I/O Command:
  - 5 VDC signal @ 1 Amp.
  - 1 Amp. capable switch closure

Enclosure:
- IP67 Compliant
- Crushproof
- PDU - Hardigg Storm Case Dimensions: 21.2” x 16” x 10.6”
- HEDBS - Pelican Case Dimensions: 16” x 13” x 6.87”

Environmental:
Designed and tested in accordance with requirements of the following specifications:
- Shock: MIL-STD-810F Method 516.5
- Vibration: MIL-STD-810F Method 514.5
- Moisture Resistance: MIL-STD-810F Method 506.4
- Operating Temperature –20°C to +55°C
- Storage Temperature –50°C to +71°C