



SOLAR STIK®

Category: Energy Storage

Li Expander Pak 1300

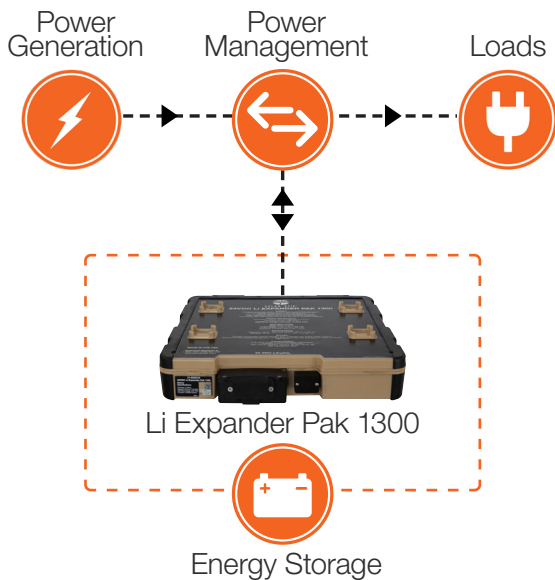
24VDC Item # 21-0202316

Stackable Storage

The Li Expander Pak 1300 is a 1.3 kWh energy storage module (ESM) built to provide power in extreme conditions. The rotomolded ESM delivers the highest energy density of any battery in its class while maintaining a one-person lift for convenient transport. The lightweight, stackable ESM can be added or subtracted quickly and easily (hot-swappable) to meet changing application requirements in real time.

How an Expander Pak Works

ESMs like the Li Expander Pak 1300 are the heart of a Solar Stik Hybrid Power System (HPS). In an HPS, power generated from various sources supports the load or is stored in ESMs and distributed to the load as needed, resulting in significant savings in generator fuel and maintenance. Stack additional Li Expander Pak 1300s to increase energy storage capacity, further reduce required support, and extend operational reach.



Features

- 1.3 kWh of storage
 - High energy density (89 Wh/kg)
 - Capable of 2000+ cycles over 5 years of operation at 1 cycle per day
- Maximum capacity, simple form factor, minimum weight
- One-person lift; optional carry strap available
- Integrated vertical stacking up to 10 units high
- Ruggedized case construction
- Tested to MIL-STD-810H with Government acceptance
- Plug & Play with polarized, twist-lock connection
- Power management components can be built in similar enclosure for integration into the Power stack





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General

Battery Chemistry	Lithium Iron Phosphate (LiFePO ₄)
Nominal Voltage	25.6 VDC
Voltage Range	20 – 28.8 VDC
Capacity*	1.38 kWh (54 Ah)
Energy Density*	89 Wh/kg
Max Discharge Rate	<ul style="list-style-type: none"> 25.0 A continuous 50.0 A (up to 15 Minutes) pulse
Max Charge Rate	25.0 A
Recommended Charging Rate	10.0A @ 28.8 VDC
Cycle Life*	> 2000 (80% depth of discharge)
Self-Discharge Rate*	< 5% per month, recharge every 6 months
Exterior Housing	Hard plastic, over-molded shock absorbing corners
Transportation	<ul style="list-style-type: none"> Class 9 HAZMAT UN3480, Lithium Ion Battery Forbidden from transport on passenger aircraft
Certifications	<ul style="list-style-type: none"> UN 38.3 Designed to MIL-STD-810H Compatible with MIL-STD-1275E
Warranty	1-year materials and workmanship

*@ 77 °F (25 °C)

Safety

Battery and User	Multiple battery internal SW & HW protection
Overvoltage Protection	3.75 V per cell
Undervoltage Protection	2.50 V per cell
Transient Current Protection	500A for < 2ms
Short Circuit Protection	Yes
Overcharge Protection	Up to 40 V
Deep Discharge Protection	Yes
Reverse Polarity	Polarized Connectors

Connections

Input(s)/Output(s) | 24 VDC Inter-Connect**

**Deltran 224-0061-BK

Environmental

Operating Temperature***

- 26 °F to 149 °F (-32 °C to 65 °C, discharging)
- 4 °F to 122 °F (-20 °C to 50 °C, charging)

Storage Temperature****

- 4 °F to 122 °F (-20 °C to 50 °C)

*** Operating outside of range will accelerate the battery aging process

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

Weights and Dimensions (L x W x H)

Weight | 34 lb (15.42 kg)

Dimensions | 17.55 x 17.25 x 4.06 in
(44.58 x 43.82 x 10.31 cm)



Recommended Compatible Components and Accessories



24VDC 5 Foot Inter-Connect Linear Cable
Item # 13-1000267



24VDC Li Battery Maintainer 120/230
Item # 14-1001000



24VDC Inter-Connect Strip 7
Item # 13-1000160

