



SOLAR STIK®

Category: Energy Storage

24VDC Li Expander Pak 2400

Item # 21-0202303

Fit to Ship

The 24VDC Li Expander Pak 2400 is an energy storage module that provides the greatest energy storage capacity possible while meeting shipping weight regulations for land, sea, and air cargo. The lithium iron phosphate (LiFePO₄) Expander Pak stores 2.4 kWh of energy, has an internal battery management system (BMS), and is ideal for applications needing maximum power in a minimal footprint.

How an Expander Pak Works

Energy storage modules like the Expander Pak, or batteries, are the heart of a hybrid power system. Power from a generation source is funneled through a power management device to the Expander Pak to store the energy. This stored energy is distributed by a power manager to power the load as needed. Daisy-chain additional Expander Paks to increase energy storage capacity.



Features

- 2.4 kWh of storage
 - Capable of over 3000 cycles
 - Advanced internal BMS
- LiFePO₄ chemistry
 - 100% discharged = inert
 - Transportable by land, sea, and air cargo
- Ruggedized for extreme conditions
- Open architecture
- Stacks vertically with all Pelican 16XX cases
- MIL-STD-810G tested; GVT Safety Confirmation for worldwide deployment

Why Solar Stik?

Modular, Scalable Architecture
Field-proven, Rugged Designs
Experienced Team
24/7 Tech Support



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General

Battery	(1) 24 VDC Lithium iron phosphate (LiFePO ₄)
Operating Voltage	24.0–28.8 VDC
Capacity	100 Ah
Energy Storage	2.4 KWh
Energy Density	48 Wh/kg
Max Charge Rate	50 A continuous
Max Discharge Rate	50 A continuous
Self-discharge Rate	<5% per month
Cycle Life*	≥ 3000 cycles to 80% State of Health
Shelf Life*	<ul style="list-style-type: none">• 5.6 years to 80% State of Health• 7.0 years to 75% State of Health
User Interface	Ready/Fault push-to-check LED indicator
Transport Case	Pelican 1620
Transportation	<ul style="list-style-type: none">• UN3841 Class 9 Lithium-ion batteries contained in equipment• Air transport by cargo aircraft only
Warranty	1-year materials and workmanship

*@ 77 °F / 25 °C

Safety

Breaker(s)	50 A Inter-connect circuit protection
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Battery Management System Protection

Overvoltage Limit	29.2 V
Undervoltage Limit	21.6 V
Overdischarge Current Limit	120 A
Overtemperature Limit	160 °F (71 °C)



Connections

DC	(1) 24 VDC lithium Inter-Connect port (Deltran 224-0061-BK)
Battery Data	(1) RJ-45 (for optional MKM BMS Reader)

Environmental

Operating Temperature	-13 to +149 °F (-25 to +65 °C)
Charging Temperature	+41 to +113 °F (+5 to +45 °C)
Storage Temperature	-22 to +158 °F (-30 to +70 °C)
Humidity	0 to 95% RH noncondensing
Certifications	<ul style="list-style-type: none">• MIL-STD-810G tested• Internal battery has passed UNDOT 38.3 testing and is certified to ship globally

Weights and Dimensions (L x W x H)

Weight	110 lb (49.9 kg)
Dimensions	24.76 x 13.90 x 19.57 in (62.9 x 35.3 x 49.7 cm)

Case Color Options

Tan	<ul style="list-style-type: none">BlackSilverOrangeYellowOD Green
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Standard Color Optional Colors



Recommended Components and Accessories



24VDC Li Power Pak 2400
Item # 21-0202306



24VDC 5 Foot Inter-Connect Cable
Item # 13-0000032



24VDC Li Battery Maintainer 120/230
Item # 14-10010000



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

