



SOLAR STIK®

Category: Energy Storage

24VDC Li ESM 500 Plus

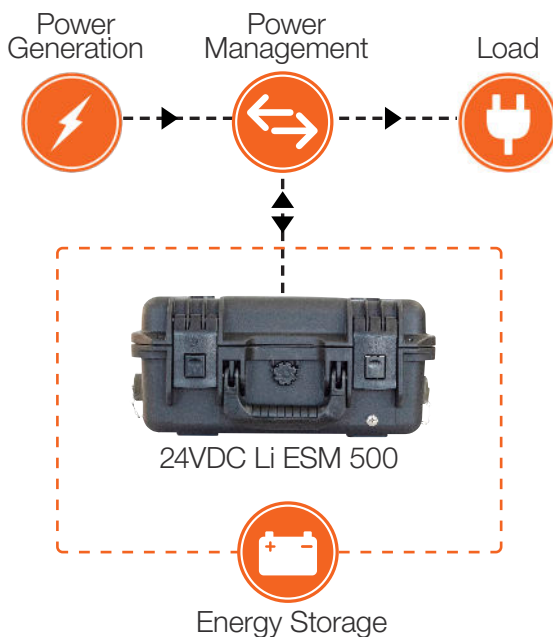
Item # 21-0202319

Smart Storage

The 24VDC Li ESM 500 Plus is a 672 Wh Lithium energy storage module (ESM) built to provide reliable and portable hybrid power in any and all conditions. The ESM's compact weather-proof design permits for effortless one-person lift and transportation along with optimizable storage capabilities. The ESM 500 is designed for simple, user-friendly operation, to effectively meet constantly changing application requirements in real time.

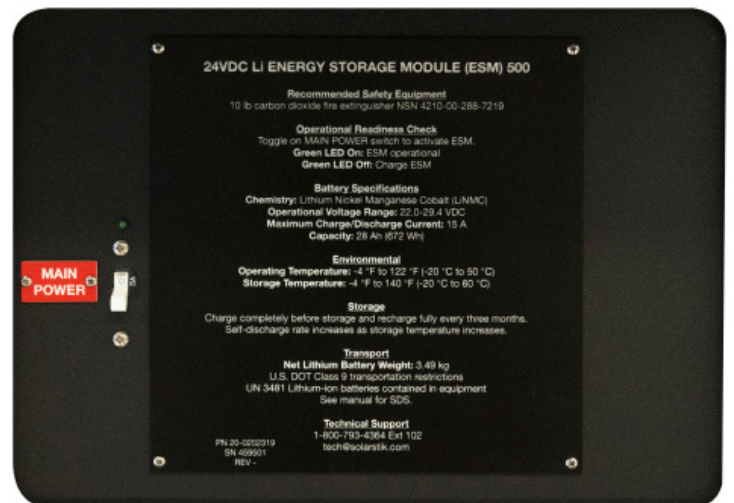
How an ESM Works

ESMs exist as the heart of a Solar Stik hybrid power system (HPS). In a hybrid power system, power generated from various sources is stored in the ESM and distributed to the load as needed. This process instantly adds to the system's architecture thus increasing the system's efficiency and relieving unnecessary strain on the generator. The attachment of more ESMs to a system can increase energy storage capacity, further reduce required support, and extend operational endurance.



Features

- Maximum capacity, simple form factor, minimum weight
 - One-person lift
 - High energy density (93 Wh/kg)
- Plug and play polarized, twist lock connection
- Fast charging under varying conditions
- Built-in self-balancing
- Self-shutdown in unsafe conditions
- Impact resistant case with molded in stacking ribs
- Scalable and hot-swappable



24VDC Li ESM 500 Faceplate





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General

Battery Chemistry	Lithium Nickel Manganese Cobalt Oxide (Li NMC)
Battery Voltage Range	19 – 29.4 VDC
Nominal Operating Voltage	24.0 VDC
Capacity	672 Wh (28 Ah)
Energy Density	93.2 Wh/kg
Max Charge Rate	15 A continuous
Max Discharge Rate	30 A continuous
Cycle Life*	> 1000 (80% Depth of Discharge)
Case / Exterior Housing	Pelican iM2100
Certifications:	<ul style="list-style-type: none"> • UN 38.3 • Designed to MIL-STD-810H
Warranty	1-year materials and workmanship

*@ 77 °F (25 °C)

Safety

Breaker(s)	15 A Main breaker
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Battery Management System Protection

Overvoltage Limit	4.25 V per cell
Undervoltage Limit	2.75 V per cell
Overdischarge Current Limit	50 A 1 S 80 A, 160 ms (battery only)
Overtemperature Limit	<ul style="list-style-type: none"> • Charge: High 55 °C/Low -5 °C • Discharge: High 65 °C/Low -20 °C

Connections

Input(s)/Output(s)	(2) 3-pin bayonet connector
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Environmental

Operating Temperature***	-26 °F to +131 °F (-32 °C to +55 °C)
Storage Temperature****	-4 °F to +122 °F (-20 °C to +50 °C)

*** Operating out of STP will affect the cycle life and battery performance

Weights and Dimensions (L x W x H)

Weight	15.9 lb (7.21 kg)
Dimensions	14.2 x 11.4 x 6.5 in (36.1 x 29 x 16.5 cm)



Recommended Components and Accessories



24VDC 2.5 Foot 3-pin Inter-Connect Cable
Item # 13-1000320



24VDC HyPR 1000
Item # 20-0302215

