



SOLAR STIK®

Category: Energy Storage

24VDC Li ESM 500

Item # 21-0202320

Smart Storage

The 24VDC ESM 500 is a 672 Wh 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.

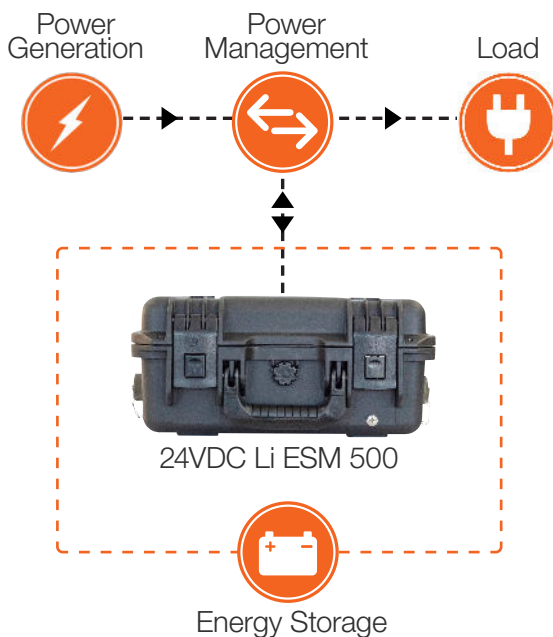
How an ESM Works

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





SOLAR STIK®

Category: Energy Storage

24VDC Li ESM 500

Item # 21-0202320

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 iM2050 |
| 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 |
|------------|-------------------|

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 |
|--------------------|-----------------------------|

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

