



SOLAR STIK®

Category: Energy Storage

24VDC Li ESM 2100

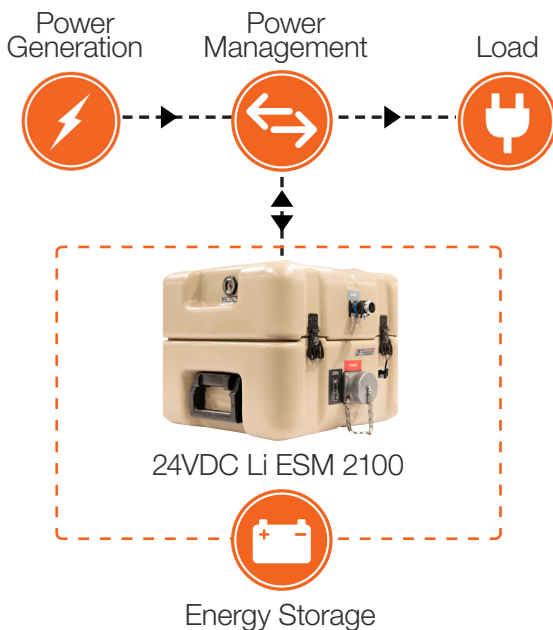
Item # 21-0202321

Smart Storage

The Li Energy Storage Module (ESM) 2100 is ideally suited for hybridized power or silent watch applications requiring reliable high discharge, continuous or pulse power, fast re-charge, and high levels of safety. The battery's lithium iron phosphate cathode material and Superphosphate (SLFP) technology provide enhanced safety and stable internal resistance yielding extraordinarily high cycle-life and resiliency to adverse operating conditions. A highly intelligent Battery Management System (BMS) protects the cells from unsafe operating conditions and provides precise data about the battery's cells, both historical and current. Selected as the ESM for the Mobile Electric Hybrid Power Sources (MEHPS).

How an ESM Works

ESMs are the heart of a Solar Stik Hybrid Power System (HPS). Power generated in an HPS from all sources is stored in the ESMs and distributed to the load as needed, significantly extending generator fueling and maintenance intervals. Stack additional Li ESMs to increase energy storage capacity, further reduce required support, and extend operational endurance.



Features

- Uses a 6T-Lithium Ion battery compliant with MIL-PRF-32565C as the primary energy storage building block
- Maximum capacity, simple form factor, minimum weight
- Communication of battery state of charge, temperature, and other key parameters via J1939 CAN Bus
- Networkable battery monitoring (J1939 CAN bus)
- Fast charging under varying conditions
- 5-stage State of Charge Indicator
- Built-in self-balancing
- Built-in test at start-up and during operation
- Cell heating allows full battery capability over operating temperature
- Self-shutdown in unsafe conditions
- Battery has internal protection for overcharge, over-discharge, overload and short-circuit
- Impact resistant case with molded-in stacking ribs
- Scalable and hot-swappable; after 12 ESM 2100 can be connected in parallel
- Plug & Play with polarized, twist-lock connection

Case Color Options

Standard Color	Tan
	Optional Colors
	Black
	Silver
	Orange
	Yellow
	OD Green





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General

Battery Chemistry	(1) Saft X6TE LiFePO ₄ Type 1-A75
Battery Voltage Range	20-30.4 VDC
Nominal Operating Voltage	26.4 VDC
Capacity	2.1 kWh (82 Ah)
Energy Density	72.4 Wh/kg
Max Charge Rate	120 A continuous
Max Discharge Rate	400 A continuous
Cycle Life*	>2000 cycles to 80% State of Health
Shelf Life*	>10 years
User Interface	5-stage ePaper display with push button reset
Remote Monitoring	Yes
Case	Pelican AL1212-0605 with enhanced PRV
Warranty	1-year materials and workmanship

*@ 77 °F/25 °C

Safety

Battery and User	Multiple battery internal SW & HW protection
Reverse Polarity	Polarized connector
Case Pressure Relief Valve	3 PSI
Certifications	<ul style="list-style-type: none"> • UN 38.3 • RoHS • MIL-PRF-32565C compliant • Designed to MIL-STD-810H • Designed to MIL-STD-1472H • Compatible with MIL-STD-1275E

Connections

Input(s)/Output(s)	(1) Power Port (AIB2-32-5SC-072) (1) Data Port (D38999/20ZC35SN)
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Environmental

Operating Temperature	-50.8 °F to 159.8 °F (-46 °C to 71 °C)
Storage Temperature	-65.2 °F to 190.4 °F (-54 °C to 88 °C)
Ingress Protection	Designed to IP67

Weights and Dimensions (L x W x H)

Weight	64.0 lb (29.0 kg)
Dimensions	15 x 15 x 12 in (38.1 x 38.1 x 30.48 cm)

Recommended Compatible Components and Accessories



24VDC 2-Pin Inter-Connect Cable

Item # 13-1000294



24VDC Inter-Connect Strip 7

Item # 13-1000160

