S-24V20-U1

U1LiFePRO™ Series | Technical Data Sheet

Certified to global safety standards

Fast charging within 2 hours with leading charger OEMs

Long shelf life performance with shutdown mode

Scalable to increase runtime

Automotive grade cells from top tier manufacturers

- **Patented virtual BMS** Single battery platform with advanced modular network
- **UL2054** Shock & Vibration + Thermal Propagation Mitigation
- **Universal Communication Protocol** (CANopen/RS485)
- **State-of-the-art module balancing technology**
- **Soft start control** (System pre-charge)
- **Supports regenerative braking**

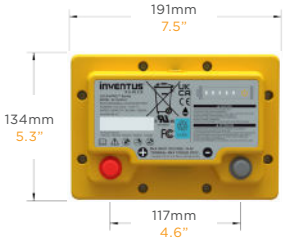
Electrical Specifications

Cell Chemistry	LiFePO4
Pack Voltage (Nom/Max)	25.6V / 28.0V
Pack Energy	502Wh (20Ah)
Specific Energy	88Wh/kg*
Continuous Power	0.77kW / 30A
Recommended Charge CCCV	10A / 28.0V
Peak Power (<10secs)	1.54kW (60A)
Cycle Life (Based on cell data @ 25°C)	3,000 @ 80% DoD
Scalability	Up to 48V and 120Ah

Operational Specifications

Charge Temp	0°C to 55°C
Discharge Temp	-20°C to 60°C
Storage Temp	-20°C to 60°C
Humidity (Operating)	5% to 95%
Humidity (Storage)	<70%

Mechanical Specifications



BCI Size	U1
Terminal Type (ISO)	M6
Terminal Torque (Nm)	3.4 ± 0.5 Nm
Weight	5.7kg (12.6lbs)
Installation Orientation	Horizontal / Vertical
Ingress Protection Rating	IP56
Case Flammability Rating	Flame Retardant UL94 V-0

Certifications

- UL1642 (Cell)
- UL2054 (Pack)
- IEC62133 (Cell/Pack)
- FCC Class B
- CE
- UN38.3

*Usable capacity will depend on charge voltage, the depth of discharge, age, and other environmental conditions.

Market Applications

Professional Cleaning | Medical Carts | E-Mobility | Material Handling | Robotics

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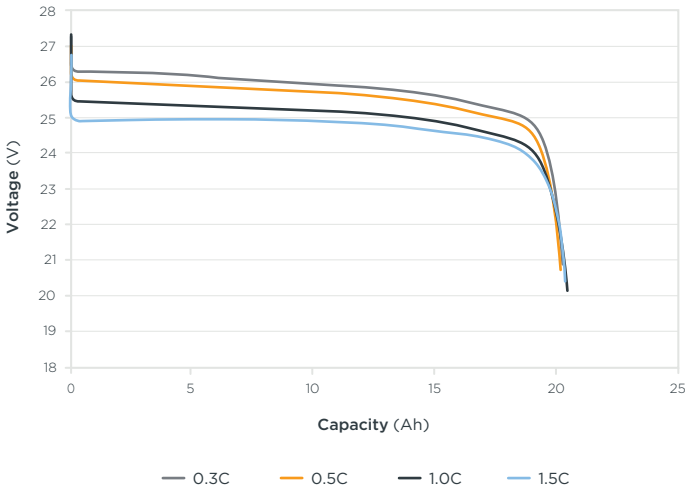
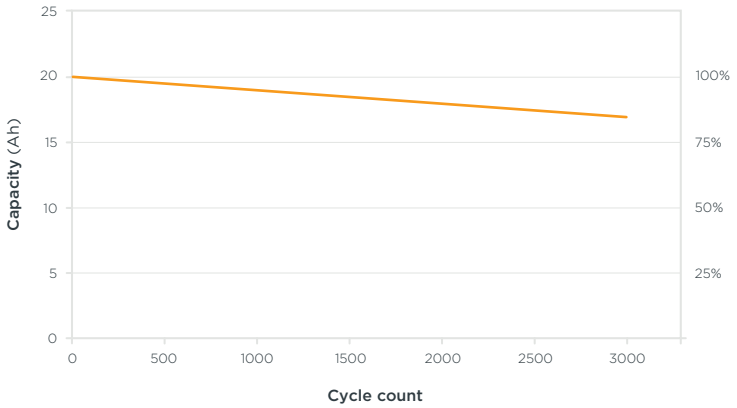
Capacity vs. Discharge Rate

Test condition: Ambient Temperature



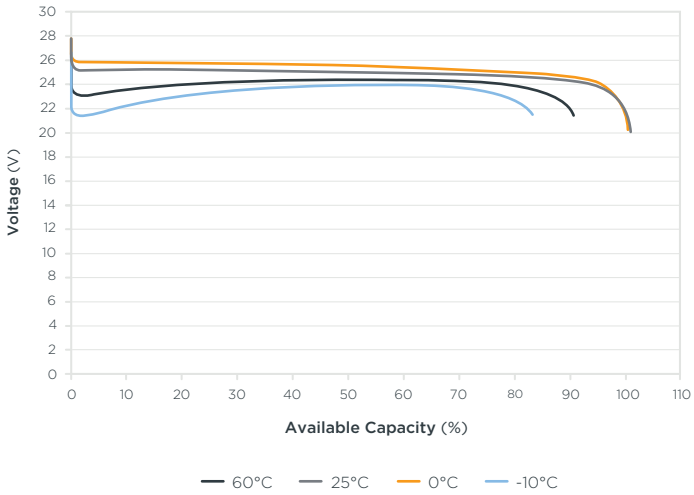
Cycle Life

Based on cell data: charge 0.5C, discharge 1C at 25°C & 80% DoD



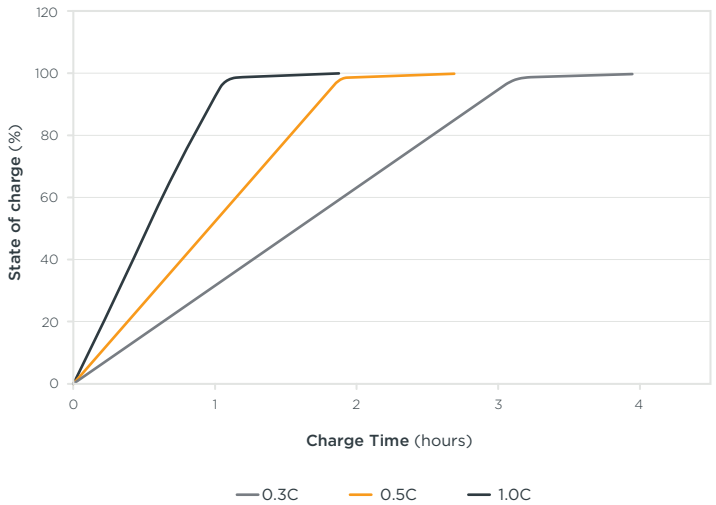
Voltage and Capacity vs. Temperature

Discharge current: 1.0C



Charging Performance

Test condition: Ambient Temperature



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Request more Information

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