S-24V20-U1

U1LiFePRO™ Series | Technical Data Sheet

Automotive grade cells
from top tier manufacturers

Fast charging
within 2 hours

Long shelf life performance
with shutdown mode

Scalable to increase runtime

- **Plug & play lead acid replacement** (terminals always on)
- **Surge protection** for regenerative braking
- **Patented virtual BMS** with Advanced Module Balancing Technology
- **UL2054** Shock & Vibration + Thermal Propagation Mitigation
- **Compatible with many off-the-shelf chargers**

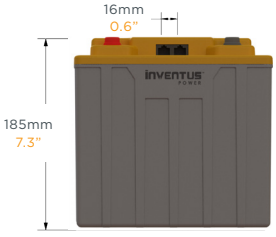
Electrical Specifications

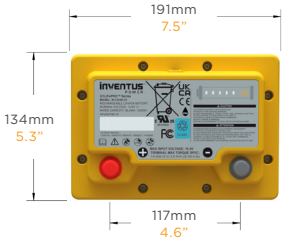
Cell Chemistry	LiFePO4
Pack Voltage (Nom/Max)	25.6V / 28.0V
Pack Energy	502Wh (20Ah)
Specific Energy	88Wh/kg
Continuous Power	0.77kW / 30A
Recommended Charge CCCV	10A / 28.0V
Peak Power (<10secs)	1.54kW (60A)
Cycle Life (@ 25°C)	3,000 @ 80% DoD
Scalability	Up to 2 packs in series Up to 6 packs in parallel

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

Market Applications

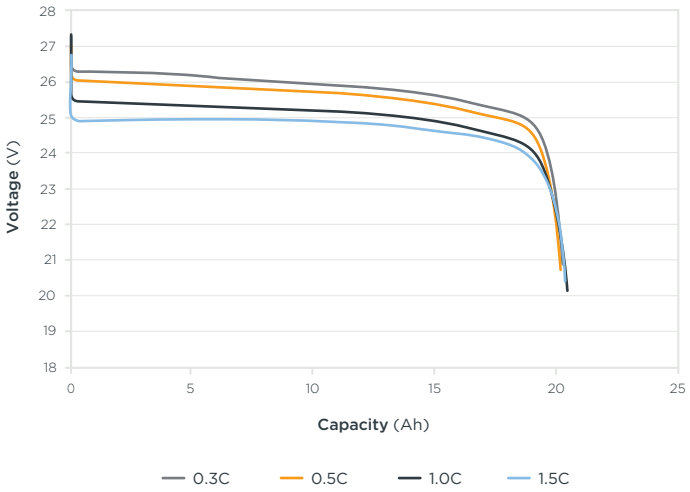
Professional Cleaning
Medical Carts
E-Mobility
Material Handling
Robotics
Renewables & Energy Storage

S-24V20-U1

U1LiFePRO™ Series | Technical Data Sheet

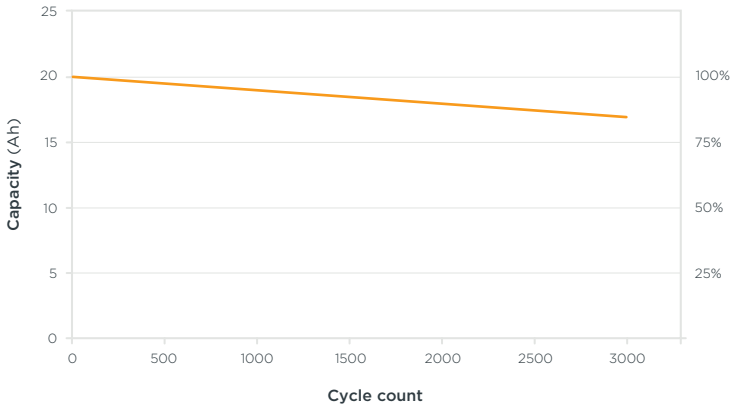
Capacity vs. Discharge Rate

Test condition: Ambient Temperature



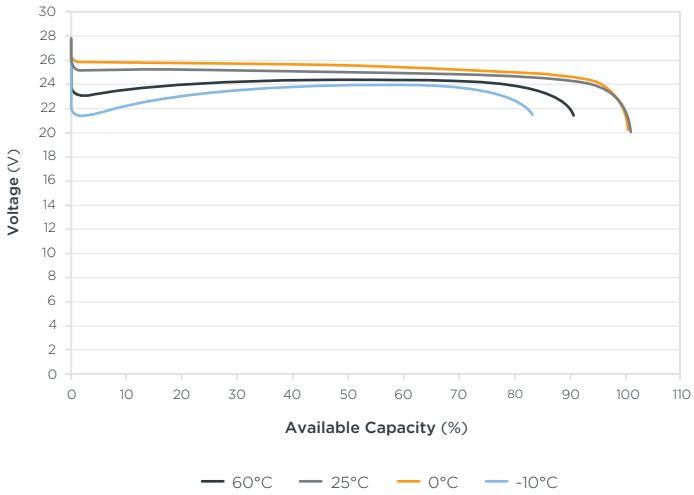
Cycle Life @ 80% DoD

Charge 0.5C, discharge 1C at 25°C



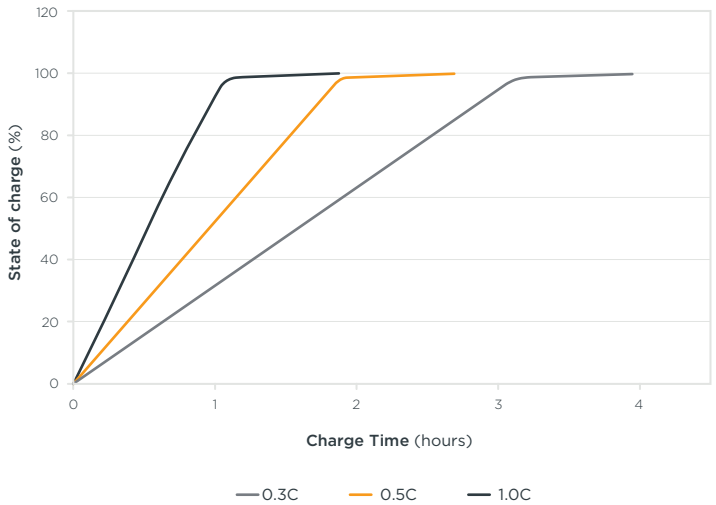
Voltage and Capacity vs. Temperature

Discharge current: 1.0C



Charging Performance

Test condition: Ambient Temperature



Inventus Power reserves the right to make adjustments to this document at any time, without notice or obligation.
All data in this publication is for reference use only. Models may vary from shown.

Request more Information

inventuspower.com | info@inventuspower.com | +1 877.423.4242