

# S-12V40-U1

U1LiFePRO™ Series | Technical Data Sheet

**inventus**<sup>TM</sup>  
POWER



**Automotive grade cells**  
from top tier manufacturers



**Fast charging**  
within 2 hours



**Long shelf life performance**  
with shutdown mode



- **Plug & play lead acid replacement**  
(terminals always on)
- **UL2054 Shock & Vibration + Thermal Propagation Mitigation**
- **Compatible with many off-the-shelf chargers**

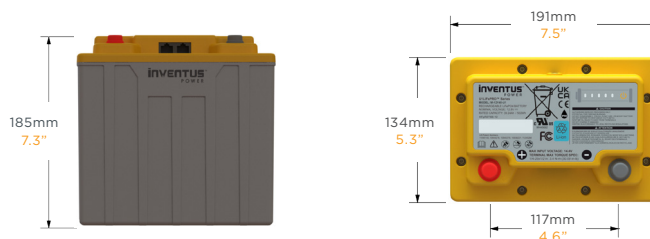
## Electrical Specifications

Cell Chemistry	LiFePO4
Pack Voltage (Nom/Max)	12.8V / 14.4V
Pack Energy	502Wh (39Ah)
Specific Energy	88Wh/kg
Continuous Power	0.51kW / 40A
Recommended Charge CCCV	20A / 14.4V
Peak Power (<10sec)	1.02kW (80A)
Cycle Life (@ 25°C)	3,000 @ 80% DoD
Scalability	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



Emergency  
Lighting



Robotics



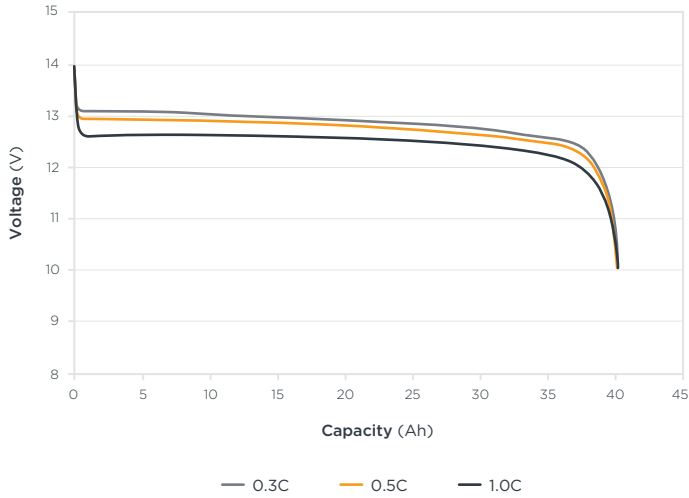
Renewables &  
Energy Storage

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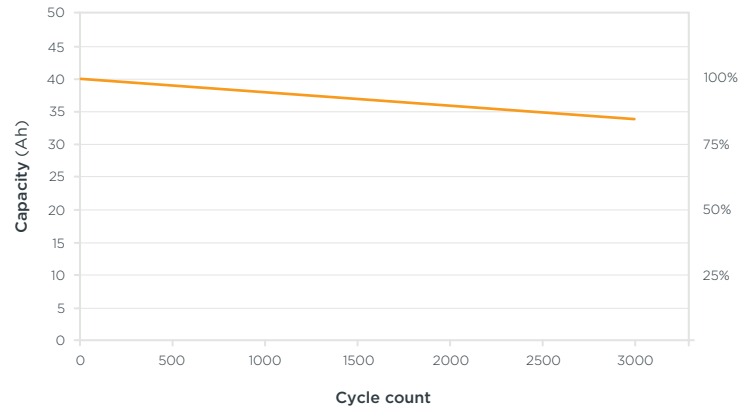
## Capacity vs. Discharge Rate

Test condition: Ambient Temperature



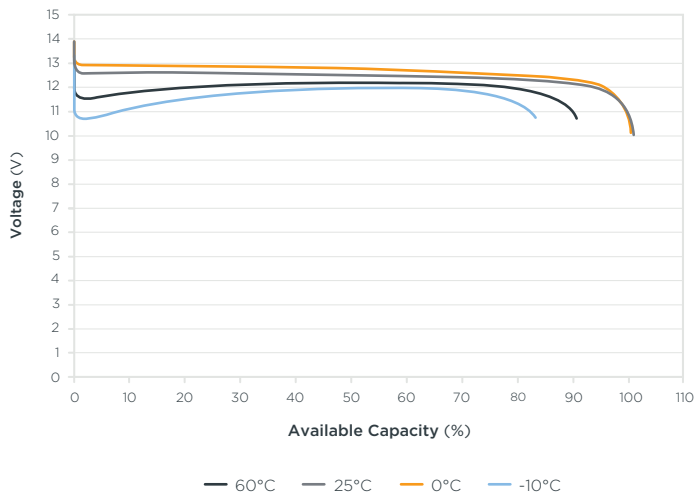
## Cycle Life @ 80% DoD

Charge 0.5C, discharge 1C at 25°C



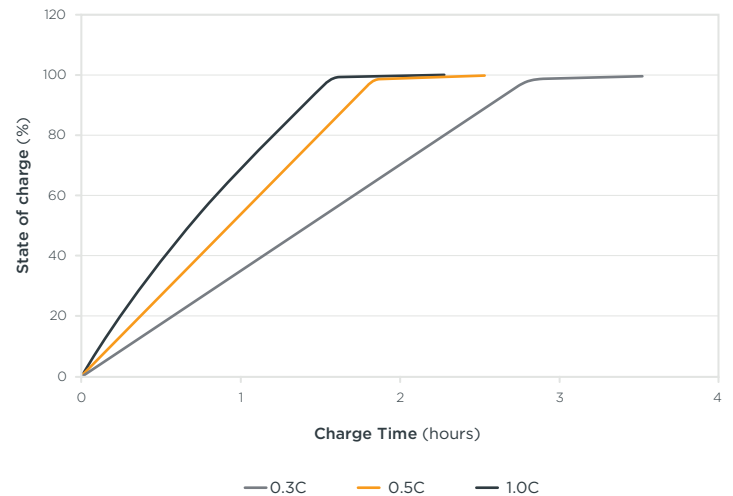
## Voltage and Capacity vs. Temperature

Discharge current: 1.0C



## Charging Performance

Test condition: Ambient Temperature



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Request  
more Information

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