

# M-24V20-U1

U1LiFePRO™ Series | Data Sheet

**inVENTUS**  
POWER



**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 (<10sec)	1.54kW (60A)
Cycle Life (Based on cell data @ 25°C)	3,000 @ 80% DoD
Scalability	Up to 200Ah

## 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

## 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%

## Certifications

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

## Market Applications



Professional Cleaning



Medical Carts



E-Mobility



Material Handling

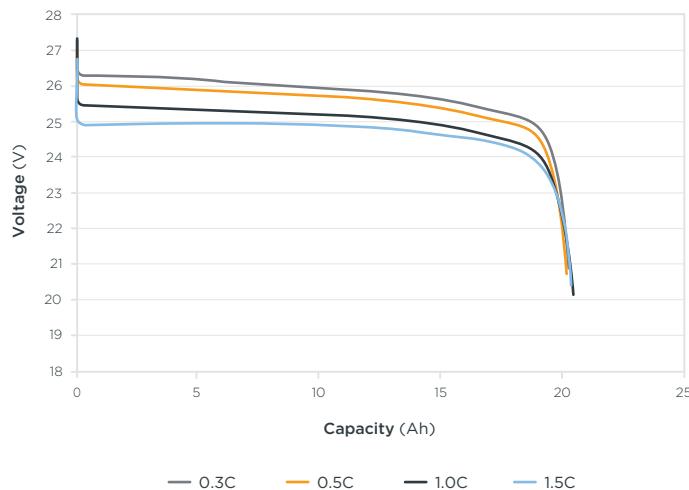


Robotics

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

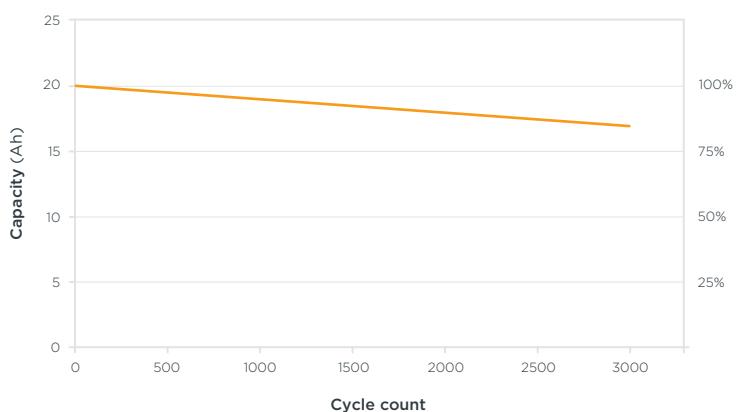
### Capacity vs. Discharge Rate

Test condition: Ambient Temperature



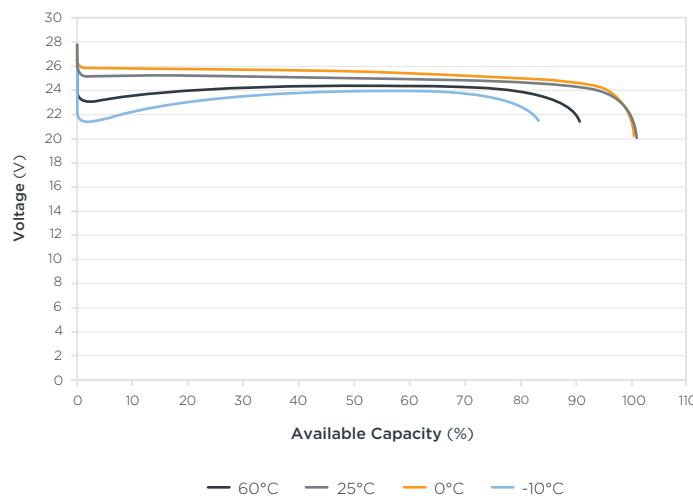
### Cycle Life

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



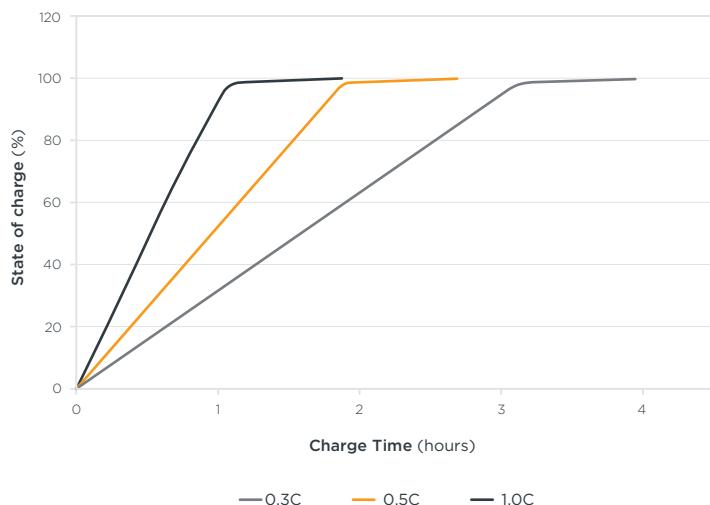
### Voltage and Capacity vs. Temperature

Discharge current: 1.0C



### Charging Performance

Test condition: Ambient Temperature



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Request  
more Information

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