M-24V20-U1

U1LiFePRO Series | Data Sheet

INVENTUS POWER

Key Benefits

- Fast charging within 3hrs to increase productivity
- Long shelf life performance with shutdown mode
- System fault mitigation protection
- CANopen / RS485 communication
- Compatible with many off-the-shelf industrial chargers

Designed & Engineered in the **USA**

Electrical Specifications	
Pack Voltage (Nom/Max)	25.6V / 28V
Pack Energy	512Wh (20Ah)
Specific Energy	79Wh/kg
Continuous Power	0.77kW / 30A
Recommended Charge CCCV	10A / 28V
Peak Power (<30secs)	1.54kW (60A)
Cycle Life (@ 25°C)	2,000 @ 80% DoD
Scalability	Up to 2 packs in series Up to 10 packs in parallel

Mechanical Specifications	
BCI Size	U1
Model	M-24V20-U1
Cell Chemistry	LiFePO4
Terminal Type (ISO)	M6
Dimensions (LxWxH)	191mm x 134mm x 185mm (7.52" x 5.28" x 7.28")
Weight	6.5kg (14.3lbs)
Installation Orientation	Horizontal / Vertical
Ingress Protection Rating	IP56
Case Flammability Rating	Flame Retardant UL94 V-0

Market Applications

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

Operational Specifications	
Charge Temp	0°C to 45°C
Discharge Temp	-20°C to 60°C
Storage Temp	-20°C to 60°C
Humidity (Operating)	5% to 95%
Humidity (Storage)	<70%

NOTE: Please contact info@inventuspower.com to obtain the U1LiFePRO User Guide for proper installation and handling.

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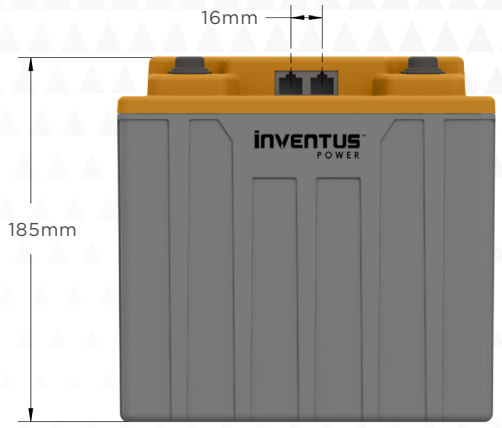
Battery System Intelligence

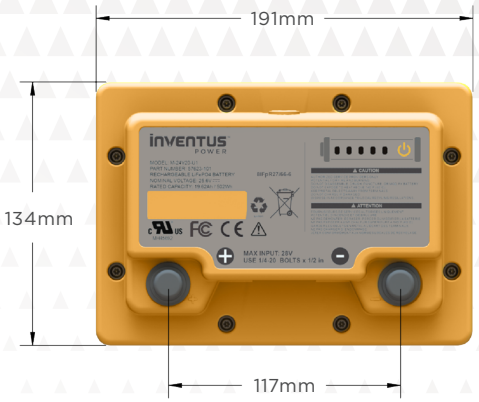
- Reverse polarity & short circuit protection
- BMS certified to functional safety standard UL/IEC 60730-1
- Advanced cell & pack module balancing
- Easy system integration (automated master/slave detection)
- Battery LED state of charge indicator
- Configurable communication speed from 125kbps up to 1Mbps

Certifications

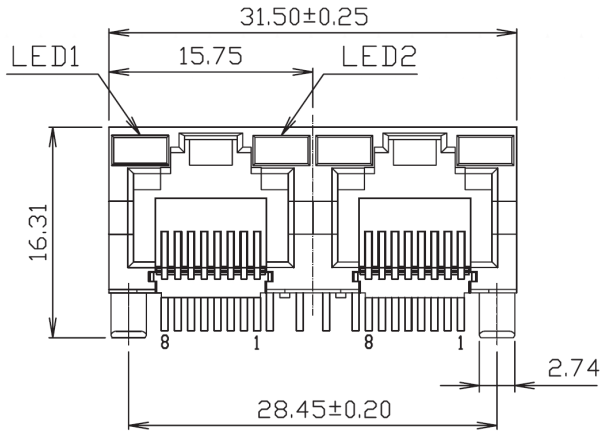
- UL1642 (Cell)
- UL2054 (Pack)
- IEC62133 (Cell/Pack)
- FCC Class C
- CE
- UN38.3

Li-ion





RIA CONNECTOR P/N: AJT35I8821-030



Connector Pin Definition

Pin #	Symbol	Description
1	A-RS485	RS485 Data A; leave floating when using CAN
2	B-RS485	RS485 Data B; leave floating when using CAN
3	Pack_S_ID	Pack series config ID; leave floating for parallel config
4	VINTLK (-001) VINTLK (-201)	For parallel config, connect VGND to VINTLK For series config, apply 3.3V-16V between VINTLK & VGND for battery charging
5	VWAKE (-001) VWAKE (-201)	For parallel config, connect VGND to VINTLK For series config, apply 3.3V-16V between VINTLK & VGND for battery charging
6	VGND	Ground Reference
7	VCANH_BATT	CAN High (Battery)
8	VCANL_BATT	CAN Low (Battery)