

M-24V90-TRX

PROTRXion™ Series | Technical Data Sheet

inVENTUS
POWER



Certified to global functional safety standards



Extreme cold performance
Operates down to -35°C with integrated heater



Fast charging
within 2 hours with leading charger OEMs



Automotive grade cells
from top tier manufacturers



Long shelf life
24 months from shipment



- **Patented virtual BMS**
Single battery platform with advanced modular network
- **UL2271** Certified off-road safety for low speed electric vehicles
- **Universal Communication Protocol (CANopen)**
- **State-of-the-art module balancing technology**
- **Soft start control**
(System pre-charge)
- **Supports regenerative braking**

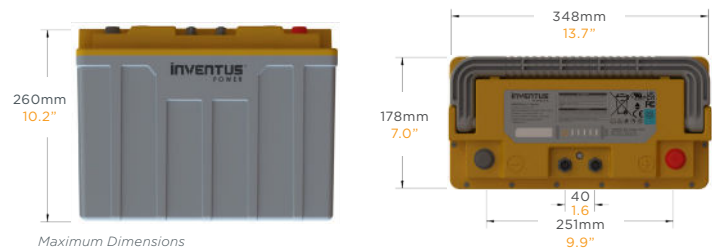
Electrical Specifications

Cell Chemistry	LiFePO4
Pack Voltage (Nom/Max)	25.6V / 28.0V
Pack Energy	2.3kWh (90Ah)**
Specific Energy	113Wh/kg
Continuous Power	3.8kW (150A)
Recommended Charge CCCV	45A / 28.0V
Peak Power (<10sec)	5.12kW (200A)
Cycle Life (Based on cell data @ 25°C)	3,000 @ 80% DoD
Scalability	Up to 540Ah

Operational Specifications

Charge Temp	0°C to 55°C -35°C to 55°C (w/ heater)
Discharge Temp	-20°C to 55°C -35°C to 55°C (w/ heater)
Storage Temp	-20°C to 60°C
Humidity (Operating)	5% to 95%
Humidity (Storage)	<70%

Mechanical Specifications



Terminal Type (ISO)	M8 (Neg), M10 (Pos)
Terminal Torque (Nm)	17 ± 1 (Neg), 22 ± 1 (Pos)
Weight (Nom)	20.4kg (45.0lbs)
Installation Orientation	Horizontal / Vertical
Ingress Protection Rating	IP67*
Case Flammability Rating	Flame Retardant UL94 V-0

Certifications

- UL1642 (Cell)
- UL2271 (Pack)
- IEC62133 (Cell/Pack)
- IEC62619
- FCC Class B
- CE
- UN38.3
- IEC60730 Class B

*IP65 if communication ports left unmated.

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

Market Applications



Professional Cleaning



Aerial Work Platform



Material Handling



Robotics

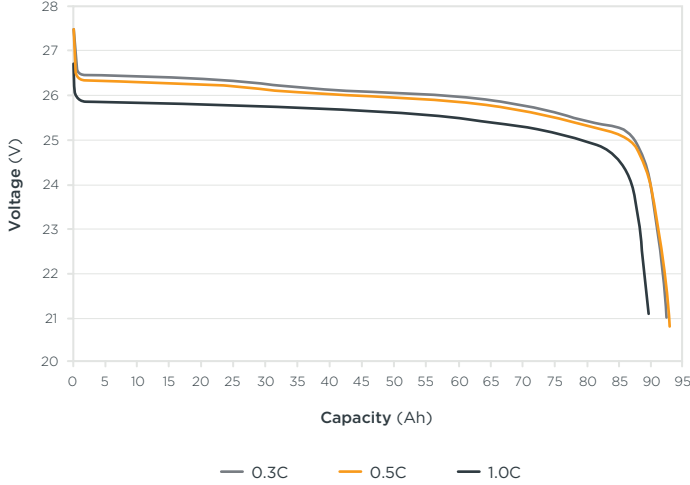
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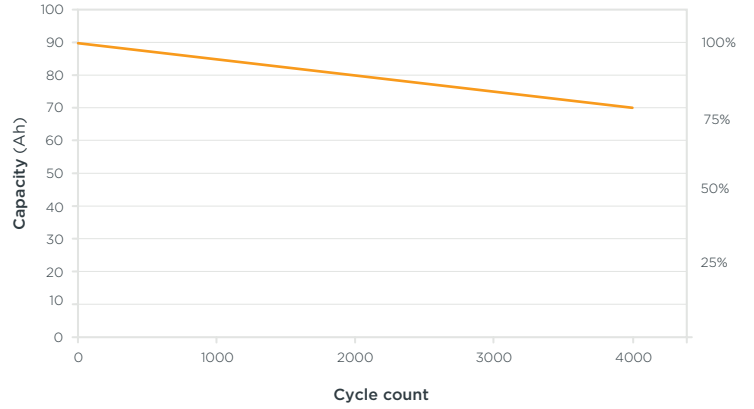
Capacity vs. Discharge Rate

Test condition: Ambient Temperature



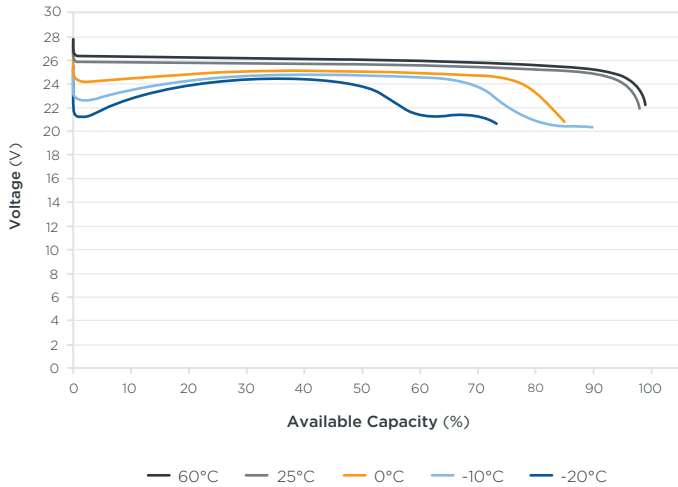
Cycle Life

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



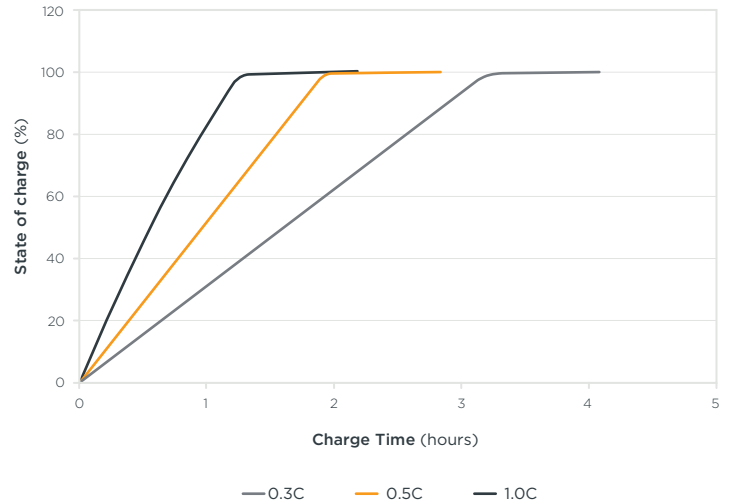
Voltage and Capacity vs. Temperature

Discharge current: 1.0C



Charging Performance

Test condition: Ambient Temperature



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