

M-48V60-TRX-HD

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
- **UL2580 Shock & Vibration + Thermal Propagation Mitigation**
- **Universal Communication Protocol (CANopen)**
- **State-of-the-art module balancing technology**
- **Soft start control**
(System pre-charge)
- **Compatible with many off-the-shelf chargers**

Electrical Specifications

Cell Chemistry	Nickel Cobalt Manganese
Pack Voltage (Nom/Max)	51.7V / 57.4V
Pack Energy	3.2kWh (62Ah)
Specific Energy	168Wh/kg**
Continuous Power	6.2kW (120A)
Recommended Charge CCCV	17A / 57.4V
Peak Power (<10sec)	20.7kW (400A)
Cycle Life (Based on cell data @ 25°C)	2,000 @ 80% DoD
Scalability	Up to 600Ah

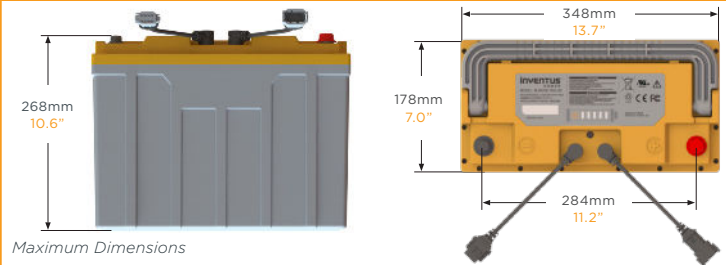
Operational Specifications

Charge Temp	0°C to 45°C -35°C to 45°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%

*IP65 if communication cables left unmated

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

Mechanical Specifications



Maximum Dimensions

Terminal Type (ISO)	M8 (Pos & Neg)
Terminal Torque (Nm)	17 ± 1 (Pos & Neg)
Weight	19.1kg (42.1lbs)
Installation Orientation	Horizontal / Vertical
Ingress Protection Rating	IP67*
Case Flammability Rating	Flame Retardant UL94 V-0

Certifications

- UL2580 (Cell)
- UL2271 (Pack)
- IEC62619
- FCC Class B
- CE
- UN38.3
- IEC60730 Class B
- ECE R100
- ECE R10

Market Applications



Light Electric Vehicle



Aerial Work Platform



Robotics



Material Handling

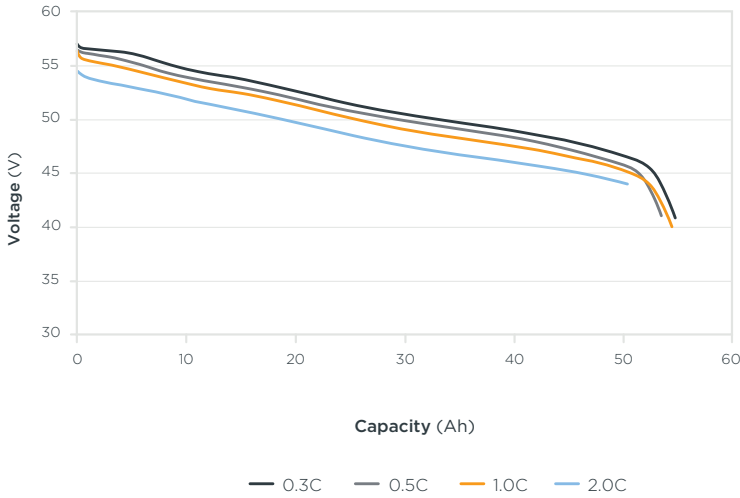
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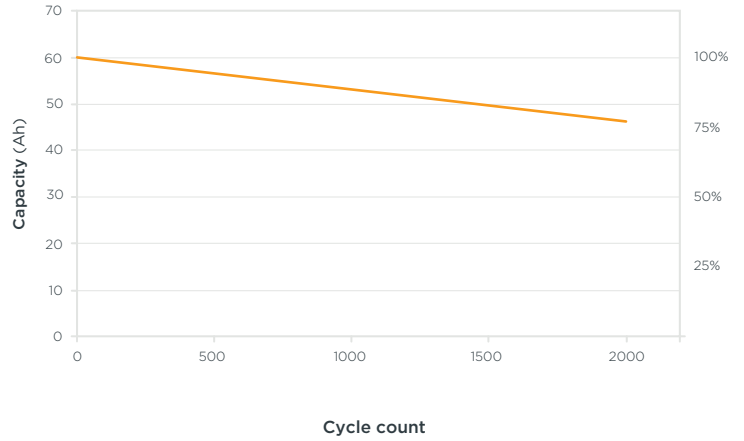
Capacity vs. Discharge Rate

Test condition: Ambient Temperature



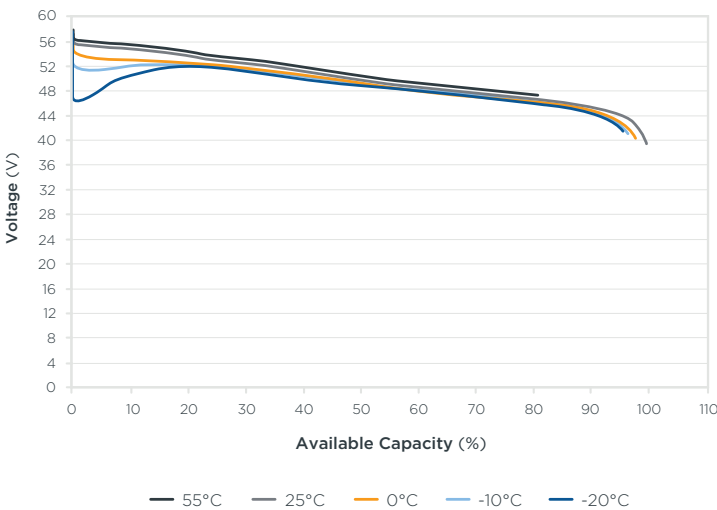
Cycle Life

Based on cell data: charge 0.3C, discharge 1C at 25°C & 80% DoD



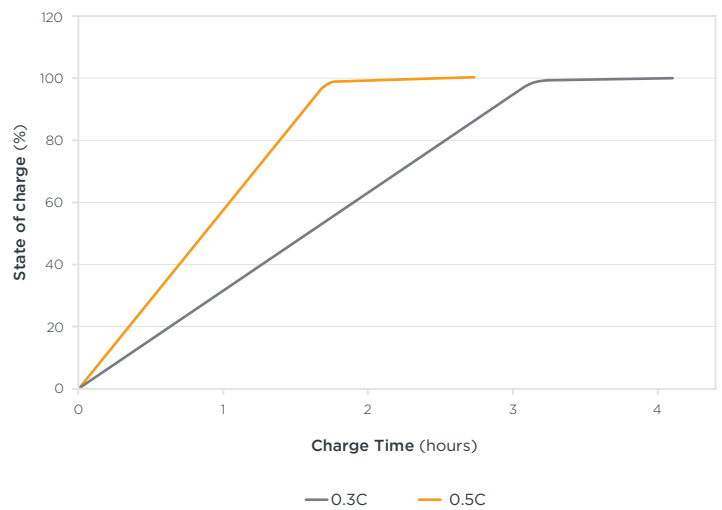
Voltage and Capacity vs. Temperature

Discharge current: 1.0C



Charging Performance

Test condition: Ambient Temperature



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Request
more Information

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