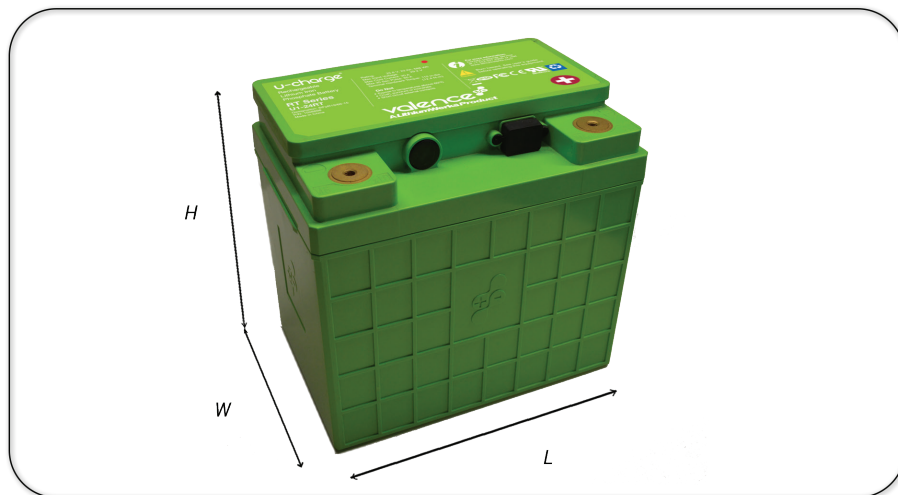


U1-24RT

Part Number 1008898

U-Charge Group U1 Lithium Iron Phosphate Battery

The U-Charge® RT is a 24 Volt lithium iron phosphate battery module based on the standard U1 size. The U1-24RT offers built-in automatic protection safeguarding from over-discharge, over-charge, over-temperature, and over-current. Additionally, an optional Battery Discharge Indicator (BDI) or Diagnostic Kit indicates the state of charge via an RJ45 connector. The U1-24RT can be put in systems up to 48V.



Electrical Specifications

Voltage (nominal)	25.6 V
Capacity @ C/5, 25 °C (typical)	23 Ah
Energy	588 Wh
Discharge Cont. /Peak (30 sec)	30 / 60 A
Discharge Cutoff Voltage	20 V
Recommended Charge Voltage	29.2 V
Charge Float Voltage Range	27.6 V-29.2 V
Recommended Charge CCCV	≤ 10 A to 29.2 V

Discharge Temperature	-10 °C to 50 °C
Charge Temperature	0 °C to 45 °C
Specific Energy	91 Wh/kg
Energy Density	124 Wh/L

Mechanical Specifications

Height	183 mm	7.20"
Width	131 mm	5.16"
Length	197 mm	7.76"
Weight	6.4 kg	14.1 lbs
Cell Configuration	8IFpR19-66-15	

Terminal Hardware	M6 x 1.0	
Terminal Torque	12.4 Nm	110 in lbs
Plastic Case	Flame Retardant	
IP Rating	IP56	
BCI Group	U1R	

Features

- Intrinsic safety profile of lithium iron phosphate battery chemistry
- Built-in protection from over-charge, over-discharge, and short circuit conditions
- Communicates battery status and accurate state of charge to inverter-charger or BDI via RJ45 connector
- Maintenance-free design
- Recharges completely in as little as 2 hours
- >4000 cycles at 80% DOD
- Series connection up to two (2) batteries (48 V)

Benefits of Lithium (LiFePO₄)

Efficient & Fast Charging

High charge efficiency of >90%. Increases productivity, reduces energy costs and eliminates the need for investments in battery change out systems.

High, Uniform Discharge Voltage

Delivers stable voltage during discharge. Increases equipment performance and reduces motor heat.

Longer Life

Provides > 10 times the life of lead acid batteries.

Robust Safety

Multiple levels of protection prevent operation outside of current, voltage, and temperature limits.

- No thermal runaway
- No corrosive acid leaks
- No explosive gassing

Space and Weight Efficiency

Systems provide >3 times the energy per weight of lead acid.

Environmentally Safe

Does not contain toxic metals such as cobalt, lead, cadmium, nor any corrosive acids or alkalis.

Contact Us

www.lithiumwerks.com/contact

North American Office: +1 (512) 527-2900
European Office: +44 (0)28 9084 5400

Accessories



The U-Charge® Battery Discharge Indicator (U-BDI) displays a 10-segment state of charge, as well as fault conditions. The BDI must be used when U1-24RT battery modules are connected in series or parallel for system balancing.

U-BDI part number: 1004467



The Diagnostic Kit allows connection of a PC or laptop to the battery to monitor individual cell voltages and temperatures. It also enables a sleep function for long-term storage. It includes an RS485 to USB converter for data transfer.

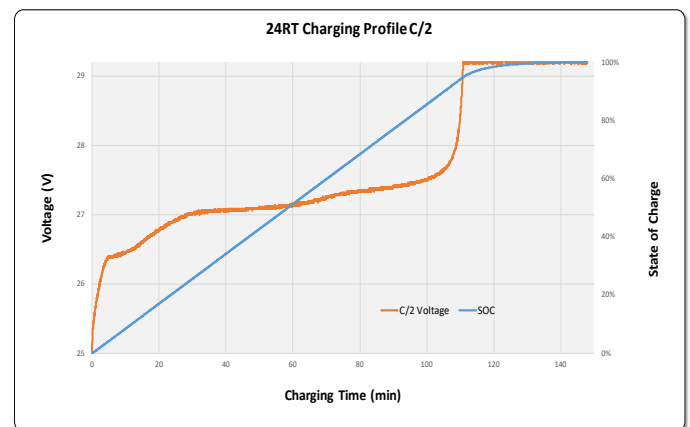
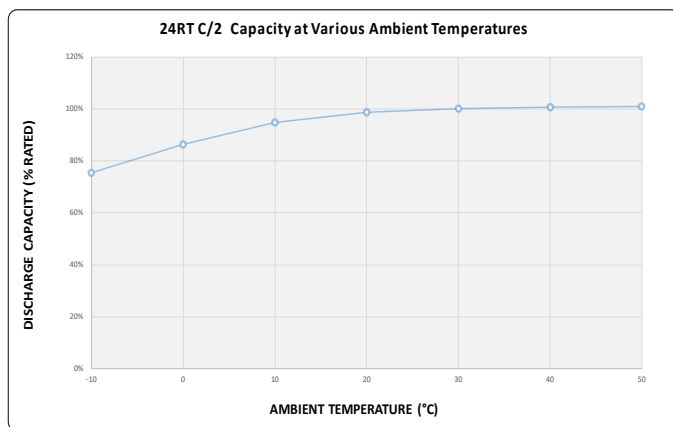
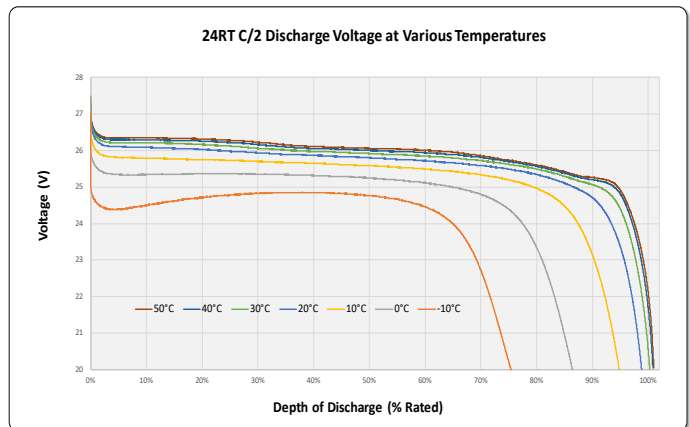
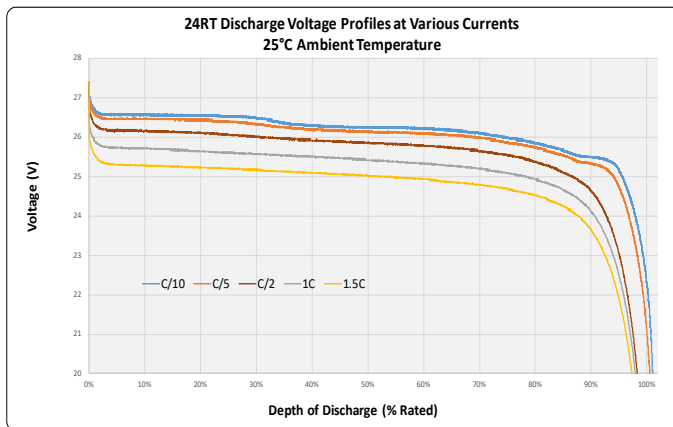
Diagnostic Kit part number: 1006216



The X cable is needed for either the U-BDI or the Diagnostic Kit. It must be used as a communication cable between U1-24RTs and U-BDI.

X Cable part number: 1007050

Performance



Certifications

- UL 2054
- UL 1642 (cells)
- IEC 62133
- FCC Class B, CE
- UN 38.3

Shipping Classifications
UN 3480
Class 9



www.lithiumwerks.com