

X5 Hot-Swappable Battery

Technical Datasheet

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Technical Specifications	
Model No.	URB-X5
Chemistry	Lithium Iron Phosphate (LiFePO4)
IEC Designation	4IFpR19/66-12
Average Voltage	12.8V
Nominal Capacity ¹	21.6Ah
Voltage Range	14.4V to 10.0V
Max. Continuous Discharge	20A
Max. Pulse Discharge	84A (<21ms)
Energy	276.5Wh
Energy Density	112Wh/l 81Wh/Kg
Weight	3.4Kg ± 50g
Cycle Life ²	>2,000 Cycles
Operating Temperature	0°C to +45°C (charge), -10°C to +50°C (discharge) ³
Storage Temperature	-20°C to +50°C
Internal Resistance	<50mΩ
Self-Discharge @ 23°C	<5%/month
Exterior/Housing	Silver anodised aluminum housing with traffic white aluminum handle and endcaps
Terminals/Connector	Sub-flush gold-plated contacts for power and communications
Size	Width: 120.5mm (4.74in) Depth: 75.5mm (2.97in) Height (Shoulder): 272.0mm (10.71in) Height (Handle): 317.0mm (12.4in)
Communications	System Management Bus Specification Rev 1.1 compliant Smart Battery Data Specification Rev 1.1 compliant
State of Charge Indicator	10 segment blue LED with push button activation
Protection	Over Charge: >3.75V / cell Over Discharge: <2.50V / cell Over Current: >22A (charge), >22A (discharge) Over Temperature: >+53°C (charge), >+60°C (discharge) Short Circuit: Included Cell Imbalance: Included
Charging	Constant Current, Constant Voltage (CC-CV) <20A, 14.4V (14.6V max)
Safety	Material Safety Datasheet - 1923B_SDS Refer also to Safety Guide UBM-5112
Certifications	UN 38.3 (Transportation), IEC 62133-2:2017 (Safety), UL 62133-2:2020 (Safety)
Transportation	Class 9 International and within U.S. ⁴ Excepted when shipped by motorcar or rail within U.S.
Harmonized Tariff Schedule	8507.60.0000
Compatibility	Ultralife UCA-X5 Docking Cradle
Notes	1. Based on 0.2C discharge to 10.0V at +20°C 2. Based on CC-CV 10A 14.4V charge and 10A discharge to 10.0V 3. Ambient temperature must be limited to +40°C if continual discharge at 20A is required 4. Transportation regulations and classifications are available on the Ultralife website

Features & Benefits

- Robust and lightweight full aluminum case & handle construction
- Rechargeable Lithium Iron Phosphate chemistry for optimal endurance and safety
- Intuitive bi-directional docking simplifies use
- Ultralife Smart-Circuit technology for accurate fuel gauging
- Blue LED gas gauge indicator for quick capacity check
- Certified to the latest transportation and safety standards

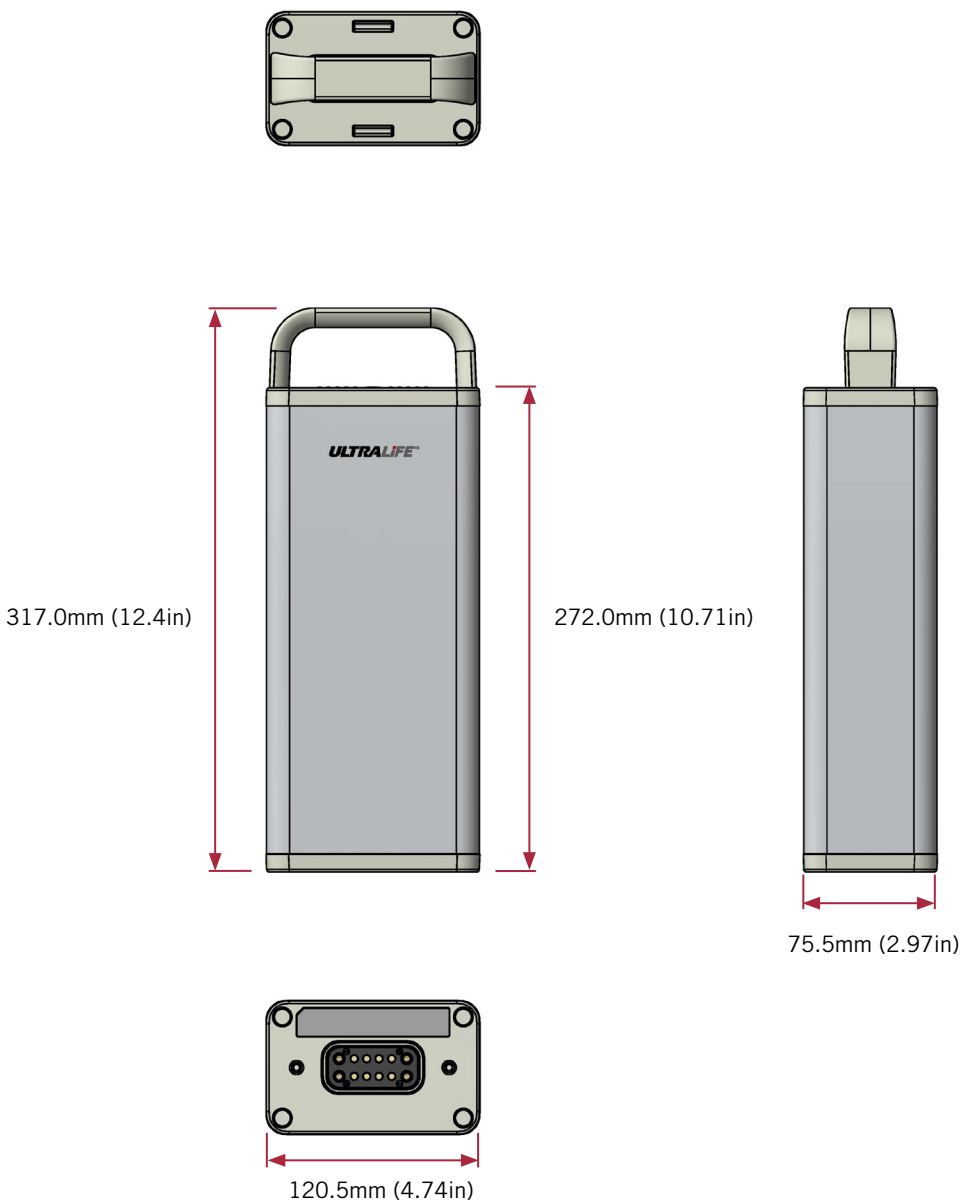
Applications

- Medical carts
- Warehouse terminals
- Robotics

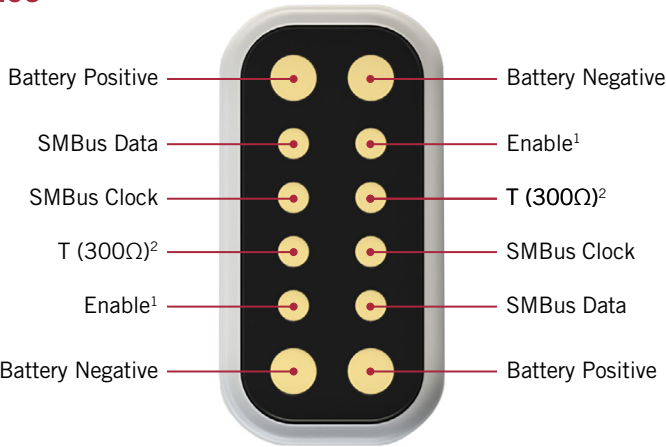
Accessories

- UCA-X5 Docking Cradle
- UCH-X5 Smart Charger

Dimensions

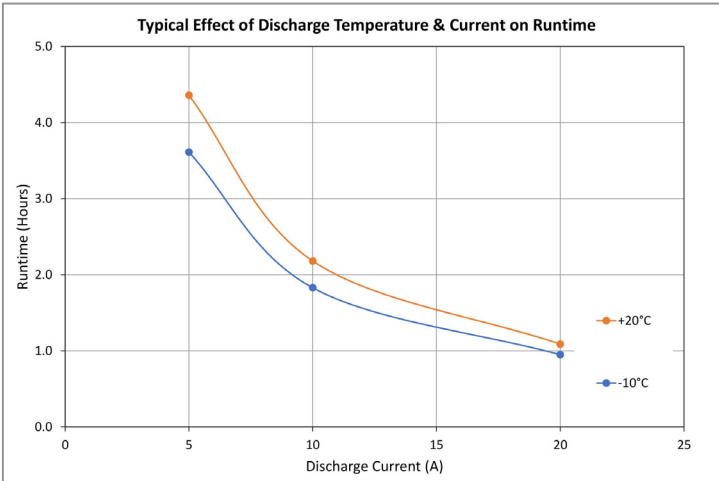
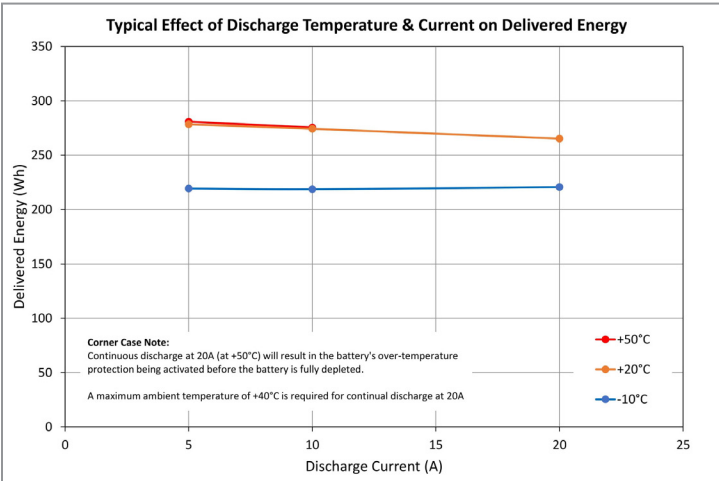
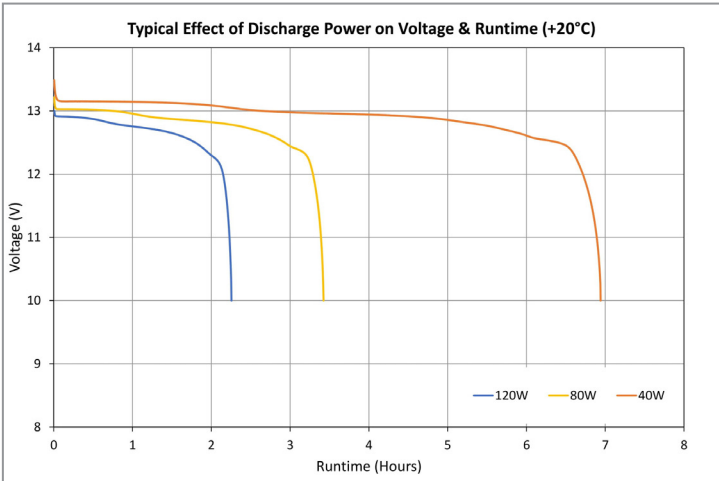
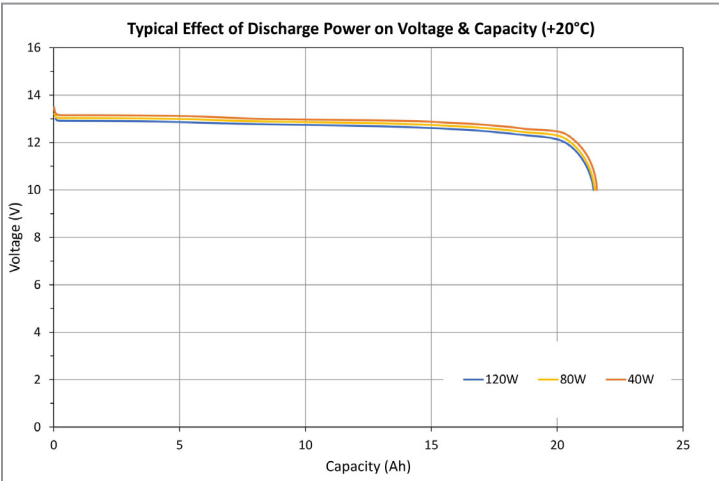
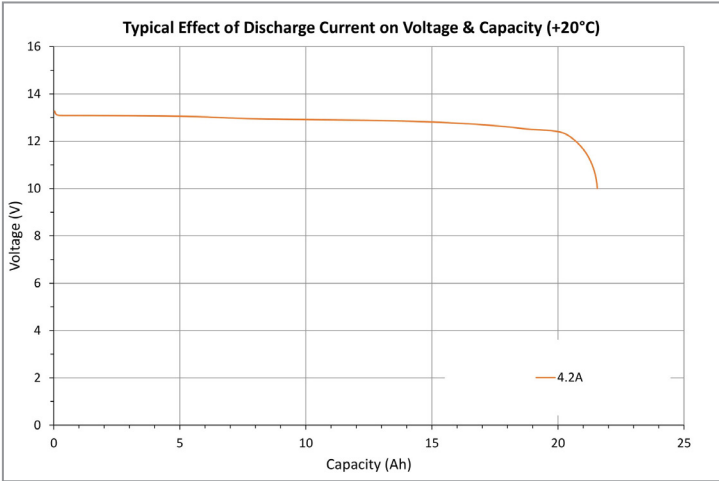
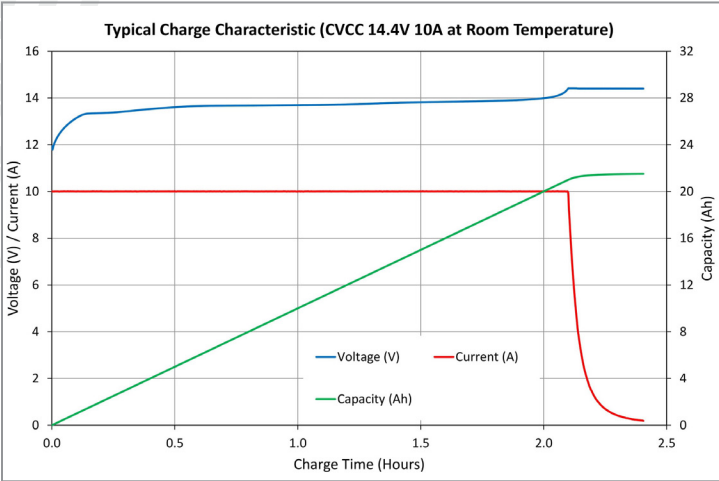


Electrical Interface



- Notes**
- 1. This pin must be connected to Battery Negative to enable the battery output
 - 2. A 300Ω fixed resistor is connected between this pin and Battery Negative and provides the 'Safety Signal' described in the Smart Battery Data Specification

Performance Graphs



Performance Graphs (continued)

