

URS0010: Battery Management Power System

Technical Datasheet



Product Overview

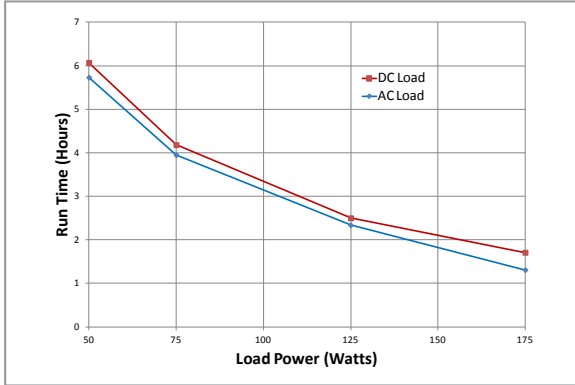
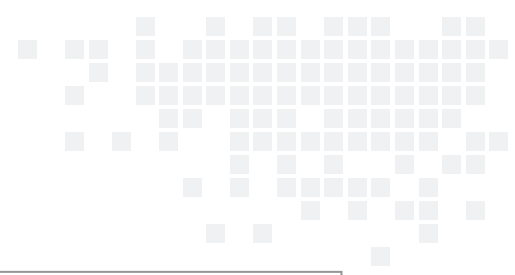
Voice of customer design process is the cornerstone of all great products. The genesis of the URB0012 battery and URS0010 power system (battery, intelligent power supply and battery holster) is based on feedback from Scott Clark Medical, a leading medical cart manufacturer who provided the initial design and product concept to Ultralife. Through joint collaboration over 18 months, collectively we developed and implemented an efficient lithium iron phosphate (LiFePO4) battery design and intelligent power supply system that includes many features to increase work-flow and user-friendliness.

Features & Benefits

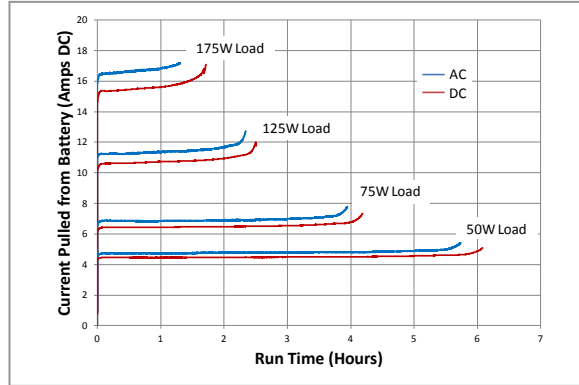
- Hot-swap functionality: no interruption of power with removal of battery while other power source is present
- Works with one or two URB0012 batteries
- Can charge one URB0012 battery in approximately 2.5 hours
- Delivers full power to cart while simultaneously charging the batteries when AC input is present
- Communications with batteries using SMBus protocol gives many advantages, including:
 - Cycle count and State-of-Health monitoring
 - Priority charging and discharging based on SOC, cycle count, etc.
 - Accurate SOC reporting of each battery
- Meets demanding requirements of medical carts
- Rapid charge capability
- Lightweight, easy to install
- Safety is built-in
- Supports electric lifts, popular SFF computers with large displays and other items

| Technical Specifications | |
|------------------------------|--|
| Part No. | URS0010-xx (see note) See "Contents Matrix" for kit configurations |
| AC Input | 100-240VAC, 50-60Hz, Max 450W (see note) |
| DC Output | 11-14.8VDC @ 17A, 18A for 5s |
| AC Output | 175W |
| AC/DC Output Combined | 175W |
| Charge Rate | 10A |
| Battery Type | 12V LiFePO4 batteries |
| User Interface | Optional SOC and alert indicators (see accessories) |
| Connectors | AC Input: IEC 320-C14 2x Battery Power: 4 position Mini-Fit Sr. 2x Battery Communication (SMBus): RJ45 SOC: RJ14 6P4C Alert Indicator: RJ9 4P4C Other: USB Type B - Non-operational (contact Ultralife for more information) |
| Size | 14.06 x 8.5 x 3.5in |
| Weight | 10.5lbs |
| Color | Hospital white and grey |
| Exterior / Housing | Anodized aluminum, plastic or aluminum end caps |
| Charging Temperature | 0°C to 40°C (32°F to 104°F) |
| Storage Temperature | -50°C to 65°C (-58°F to 149°F) |
| Operating Altitude | 27,000 ft. (8,229.6m) |
| Storage Altitude | 55,000 ft. (16,764m) |
| Humidity | 95% relative |
| Certifications | UL60601-1 |
| Optional Accessories | URB0012 Mating Connector Power Cable, specify size in inches SOC Module with Mating Connector Alert Indicator Module with Mating Connector |
| Note | AC Line Cords Sold Separately: -01 North America 120V / 60Hz -02 EU 230V / 50Hz UK Ireland Hong Kong Malaysia Singapore Australia / New Zealand -03 China 220V / 50Hz -04 Japan 100V / 50Hz -05 Japan 100V / 60Hz -06 Saudi Arabia 230V / 60Hz |

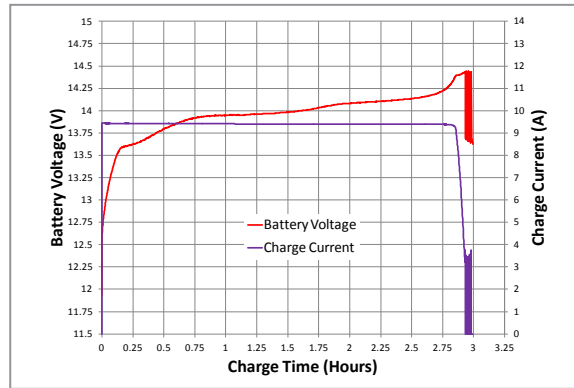
Performance Graphs



Powered Load Using (1) URB0012 Battery
Run Time vs. Load (AC & DC)

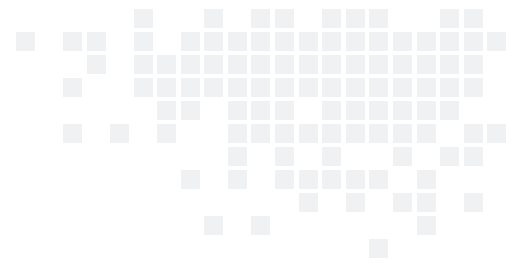


Powered Load Using (1) URB0012 Battery
Current Pulled from Battery vs. Load (AC & DC)



Charging (1) URB0012 Battery
@ Ambient Conditions

Preconfigured Kit Part Numbers & Contents Matrix



| Kit Number | AC Voltage (v) | AC Frequency (hz) | # of Battery Holders | Battery Holder Cable Length 1 (in) | Battery Holder Cable Length 2 (in) | # of Batteries | SOCI | AC Mains Connection |
|-------------------------------|----------------|-------------------|----------------------|------------------------------------|------------------------------------|----------------|------|---------------------|
| UKT0047-001-120/60-1700-1-US | 120 | 60 | 1 | 17 | 00 | 1 | Yes | NEMA 5-15 |
| UKT0047-001-120/60-1700-0-US | 120 | 60 | 1 | 17 | 00 | 1 | No | |
| UKT0047-001-120/60-1717-1-US | 120 | 60 | 2 | 17 | 17 | 2 | Yes | |
| UKT0047-001-120/60-1717-0-US | 120 | 60 | 2 | 17 | 17 | 2 | No | |
| UKT0047-001-230/50-1700-1-EU | 230 | 50 | 1 | 17 | 00 | 1 | Yes | EU1-16 |
| UKT0047-001-230/50-1700-0-EU | 230 | 50 | 1 | 17 | 00 | 1 | No | |
| UKT0047-001-230/50-1717-1-EU | 230 | 50 | 2 | 17 | 17 | 2 | Yes | |
| UKT0047-001-230/50-1717-0-EU | 230 | 50 | 2 | 17 | 17 | 2 | No | |
| UKT0047-001-230/50-1700-1-UK | 230 | 50 | 1 | 17 | 00 | 1 | Yes | BS1363A TYPE G |
| UKT0047-001-230/50-1700-0-UK | 230 | 50 | 1 | 17 | 00 | 1 | No | |
| UKT0047-001-230/50-1717-1-UK | 230 | 50 | 2 | 17 | 17 | 2 | Yes | |
| UKT0047-001-230/50-1717-0-UK | 230 | 50 | 2 | 17 | 17 | 2 | No | |
| UKT0047-001-230/50-1700-1-AU | 230 | 50 | 1 | 17 | 00 | 1 | Yes | AU1-10 |
| UKT0047-001-230/50-1700-0-AU | 230 | 50 | 1 | 17 | 00 | 1 | No | |
| UKT0047-001-230/50-1717-1-AU | 230 | 50 | 2 | 17 | 17 | 2 | Yes | |
| UKT0047-001-230/50-1717-0-AU | 230 | 50 | 2 | 17 | 17 | 2 | No | |
| UKT0047-001-100/50-1700-1-JP | 100 | 50 | 1 | 17 | 00 | 1 | Yes | JA1-15 |
| UKT0047-001-100/50-1700-0-JP | 100 | 50 | 1 | 17 | 00 | 1 | No | |
| UKT0047-001-100/50-1717-1-JP | 100 | 50 | 2 | 17 | 17 | 2 | Yes | |
| UKT0047-001-100/50-1717-0-JP | 100 | 50 | 2 | 17 | 17 | 2 | No | |
| UKT0047-001-100/60-1700-1-JP | 100 | 60 | 1 | 17 | 00 | 1 | Yes | JA1-15 |
| UKT0047-001-100/60-1700-0-JP | 100 | 60 | 1 | 17 | 00 | 1 | No | |
| UKT0047-001-100/60-1717-1-JP | 100 | 60 | 2 | 17 | 17 | 2 | Yes | |
| UKT0047-001-100/60-1717-0-JP | 100 | 60 | 2 | 17 | 17 | 2 | No | |
| UKT0047-001-220/50-1700-1-CN | 220 | 50 | 1 | 17 | 00 | 1 | Yes | CH1-10 |
| UKT0047-001-220/50-1700-0-CN | 220 | 50 | 1 | 17 | 00 | 1 | No | |
| UKT0047-001-220/50-1717-1-CN | 220 | 50 | 2 | 17 | 17 | 2 | Yes | |
| UKT0047-001-220/50-1717-0-CN | 220 | 50 | 2 | 17 | 17 | 2 | No | |
| UKT0047-001-230/60-1700-1-SA1 | 230 | 60 | 1 | 17 | 00 | 1 | Yes | BS1363A TYPE G |
| UKT0047-001-230/60-1700-0-SA1 | 230 | 60 | 1 | 17 | 00 | 1 | No | |
| UKT0047-001-230/60-1717-1-SA1 | 230 | 60 | 2 | 17 | 17 | 2 | Yes | |
| UKT0047-001-230/60-1717-0-SA1 | 230 | 60 | 2 | 17 | 17 | 2 | No | |
| UKT0047-001-230/60-1700-1-SA2 | 230 | 60 | 1 | 17 | 00 | 1 | Yes | EU1-16 |
| UKT0047-001-230/60-1700-0-SA2 | 230 | 60 | 1 | 17 | 00 | 1 | No | |
| UKT0047-001-230/60-1717-1-SA2 | 230 | 60 | 2 | 17 | 17 | 2 | Yes | |
| UKT0047-001-230/60-1717-0-SA2 | 230 | 60 | 2 | 17 | 17 | 2 | No | |