

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.

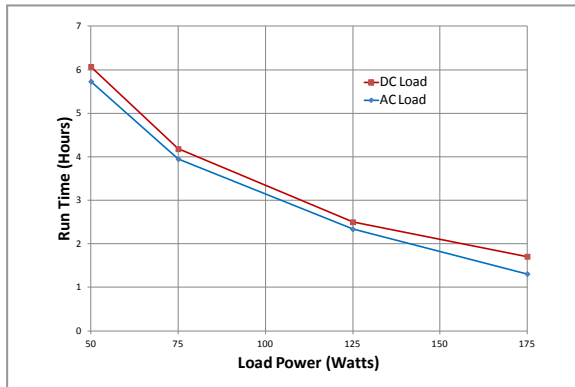
Features & Benefits

- 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

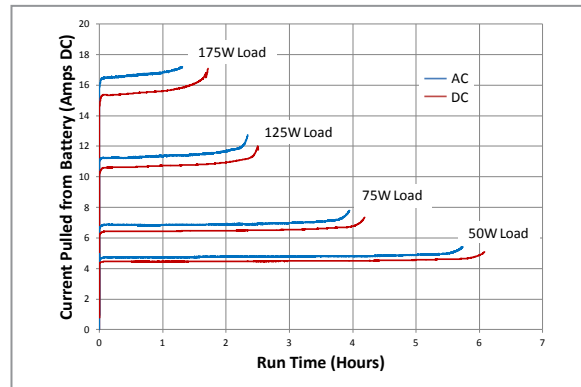
Technical Specifications

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 -02 EU UK Ireland Hong Kong Malaysia Singapore Australia / New Zealand -03 China -04 Japan -05 Japan -06 Saudi Arabia	120V / 60Hz 230V / 50Hz 220V / 50Hz 100V / 50Hz 100V / 60Hz 230V / 60Hz

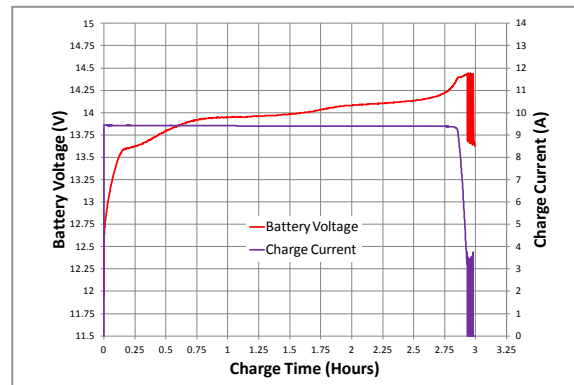
Performance Graphs



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	