

## RRC-SMB-UBC-M

Medical standard battery charger  
for smart batteries

P/N: 110115



### Features:

- 60W single bay fast charger
- For the standard battery form factors RRC20xx or smart batteries with a similar footprint
- Optimized charging process for RRC batteries:
  - Longer cycle life
  - Faster charging
- Simple operation – Plug and Play
- Automatic recognition and calibration of smart battery learned capacity
- External medical power supply for worldwide use
- Country specific AC input cables available

### Applications:

Standard charging station for mobile devices used in medical market

## Specification

Input		
Voltage range	19.00 – 26.00VDC	
Current	3.40A max.	
Power	65.00W	
Protection	Over current (fuse protected), under voltage	
Output		
Voltage range	0 - 17.40VDC	
Current range	0 - 4.80A	
Voltage tolerance	±1% max.	
Current tolerance	±10% max. @1.00A, ±3% max. @4.00A	
Charge power	60.00W max.	
Protection	Short circuit, over temperature shutdown, input-/output over current	
Environmental		
	Operation:	Storage:
Ambient Temperature	0°C to 40°C	-20°C to 80°C
Pressure and Altitude	1060hPa to 540hPa -382m to 5000m	1060hPa to 540hPa -382m to 5000m
Humidity (non-condensing)	20 to 80% r.H.	10 to 90% r.H.
General		
Efficiency	~95% at 100% load	
Indicator	Multi-color LED (green, red, orange)	
Battery types	Standard battery form factors RRC20xx or smart batteries with a similar footprint	
Green procurement	RoHS 2011/65/EU + 2015/863/EU REACH 1907/2006 WEEE 2012/19/EU Chinese RoHS	
Cooling	convection cooled	
LED Indications		
One time Red/Orange/Green	Self-test: Charger is ready for use.	
Red/Green blinking	Battery recognition and initialization.	
Orange blinking	The battery is currently being calibrated.	
Orange light	The inserted battery is of the correct type and is currently being charged.	
Green light	The battery is charged and can be removed for use.	
Red blinking	The battery is too hot or too cold to be charged without damage. If the battery is too cold it will be charged as soon as it has warmed up sufficiently. If the battery is too hot it should be removed to cool down.	
Red light	The battery is damaged or it is a conventional battery which cannot be recharged.	
Charger Mechanical Details		
Housing dimensions (LxWxH)	151 x 90 x 43mm	
Weight	198g (excluding power supply)	
Safety & EMC	In combination with included external AC/DC power supply	
Regulatory approvals	Europe	EN62368-1 (CE)
	International	IEC62368-1 (CB)
Electromagnetic Emissions	Europe	EN55011, EN55032, level B
	USA	FCC15 class B
Electromagnetic Immunity	ESD immunity	EN/IEC61000-4-2
	Electromagnetic field immunity	EN/IEC61000-4-3
	EFT / Burst	EN/IEC61000-4-4
	Surge	EN/IEC61000-4-5
	Conducted Immunity	EN/IEC61000-4-6
	Magnetic Fields	EN/IEC61000-4-8
	Voltage dips, short instrumentations & voltage variations	EN/IEC61000-4-11
	Immunity characteristics	EN55024

## Specification external medical AC/DC power supply

Input		
Voltage range	100.00 to 240.00VAC, 50 to 60 Hz	
Current	1.60A max.	
Stand by power	< 0.21W @ no load	
Output		
Voltage range	19.00VDC ± 5%; Ripple < 190mVpk-pk	
Power	65.17W max.	
Current range	3.43A	
Protection	Short circuit, over-voltage, over-current	
General		
Efficiency	California's Energy Efficiency Level VI	
Ripple & Noise	190mV (p-p)	
Power Supply Mechanical Details		
Standard output connector	DC barrel jack, 5.5 x 2.5 x 11mm	
Housing dimensions (LxWxH)	119 x 60 x 36mm, without cables and connectors	
Weight	310g, without input cable	
Cable length	1500mm ±30mm	
Regulatory Approvals		
Safety	ITE Medical	CE, PSE cULus, T-mark, EN / IEC60601-1
EMI	Europe USA & Canada United Kingdom Morocco	CE FCC 15 class B UKCA CMIM

## Recommended Accessories

Type	Product	P/N	Application
2-pol AC-Cable	US-Version	201497	Country specific power cable for medical battery chargers and medical power supplies from RRC.
	EU-Version	201496	



### Germany/Headquarters

RRC power solutions GmbH  
Technologiepark 1  
66424 Homburg / Saar

Tel.: +49 6841 98090  
Fax: +49 6841 9809280  
Email: sales@rrc-ps.de  
Web: www.rrc-ps.com

### USA

RRC power solutions Inc.  
18340 Yorba Linda Blvd.,  
# 107-437  
Yorba Linda, CA 92886

Tel.: +1 714 777 3604  
Fax: +1 714 777 3658  
Email: usa@rrc-ps.com  
Web: www.rrc-ps.com

### Hong Kong

RRC power solutions Ltd.  
S-V,6/F, Valiant Industrial  
Centre 2-12 Au Pui Wan Street  
Fo Tan, N.T., Hong Kong

Tel.: +852 2376 0106  
Fax: +852 2375 0107  
Email: hkrrc@rrc-ps.cn  
Web: www.rrc-ps.cn

### China

RRC power solutions Ltd.  
Room 1306, C Building,  
Tianan International building,  
Renmin South Road, Luohu  
District, Shenzhen 518021

Tel.: +86 755 8374 1908  
Fax: +86 755 8374 1861  
Email: hkrrc@rrc-ps.cn  
Web: www.rrc-ps.cn