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 International	EN62368-1 (CE) IEC62368-1 (CB)
Electromagnetic Emissions	Europe USA	EN55011, EN55032, level B FCC15 class B
Electromagnetic Immunity	ESD immunity Electromagnetic field immunity EFT / Burst Surge Conducted Immunity Magnetic Fields Voltage dips, short instrumentations & voltage variations Immunity characteristics	EN/IEC61000-4-2 EN/IEC61000-4-3 EN/IEC61000-4-4 EN/IEC61000-4-5 EN/IEC61000-4-6 EN/IEC61000-4-8 EN/IEC61000-4-11 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 Kingsom Morocco	CE FCC 15 class B UKCA CMIM

Recommended Accessories

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

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