

RRC-SMB-MBC-M

Medical standard battery charger
for smart batteries

P/N: 110104



Features:

- 50W single bay charger
- For the standard battery form factors RRC204x, RRC205x and RRC203x or smart batteries with a similar footprint
- Optimized charging process for RRC batteries:
 - Longer cycle life
 - Faster charging
- Simple operation – Plug and Play
- 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	2.80A max.	
Power	50.00W	
Output		
Voltage range	0 - 17.40VDC	
Current range	0 - 4.80A	
Voltage tolerance ⁽¹⁾	±1% max.	
Current tolerance ⁽¹⁾	±10% max. @1.00A, ±3% max. @4.00A	
Charge power	50.00W max.	
Protection	Short circuit, over temperature shutdown, input-/output over current	
Environmental		
Cooling	convection cooled	
Temperature	Operating: 0°C to 40°C	Non-operating: -10°C to 70°C
Pressure & Altitude	Operating: 1060hPa to 795hPa -382m to 2000m	Non-operating: 1060hPa to 572hPa -382m to 4570m
Humidity	5% to 95% r.H., non-condensing	
General		
Efficiency ⁽²⁾	~95% at 100% load	
Indicator	Multi-color LED (green, red, orange)	
Battery types	Standard battery form factors RRC204x, RRC205x and RRC203x or smart batteries with a similar footprint	
Green procurement	RoHS 2011/65/EU WEEE 2012/19/EU Chinese RoHS	
LED Indications		
One time Red/Orange/Green	Self-test: Charger is ready for use.	
Red/Green blinking	Battery recognition and initialization.	
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)	120 x 64 x 43mm	
Weight	110g (excluding power supply)	
Safety & EMC		
Regulatory approvals	Europe	CE
	International	CB
Electromagnetic Emissions	Europe	EN55011, EN55022, 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 power supply AC/DC

Input		
Voltage range	100.00 – 240.00VAC	
Current	1.60A max.	
Stand by power	No load < 0.21W @ 230.00VAC	
Output		
Voltage range	19.00VDC	
Power	65.00W max.	
Current range	3.43A	
Protection	Over voltage, over current, short circuit	
Environmental		
Temperature	Operating: 0°C to 40°C	Non-operating -20°C to 80°C
General		
Efficiency	California's Energy Efficiency Level VI, EsP (Stage 2), GEMS, NRCam, CEC, EPA	
Ripple & Noise	190mV (p-p)	
Power Supply Mechanical Details		
Standard output connector	DC barrel jack, 5.5 x 2.5mm	
Housing dimensions (LxWxH)	119 x 60 x 36mm	
Weight	310g	
Regulatory Approvals		
Safety	ITE Medical	CE, PSE cULus, T-mark, EN / IEC60601-1
EMI	Europe USA / Canada	CE FCC 15 class B

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.

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