



**Medical Standard Battery Charger  
RRC-SMB-MBC-M for Smart Batteries**

**Features:**

- 50W single bay charger
- For the standard battery pack form factors 204x and 205x or smart batteries with a similar footprint
- Optimized charging process for RRC batteries
  - Longer cycle life
  - Faster charging
- Simple operation – Plug and Play
- External power supply for worldwide use
- Country specific AC input cables available



**Applications:**

Standard charging station for mobile devices used in medical, industrial and consumer markets

**Specification RRC-SMB-MBC**

Input		Output	
Voltage	19 - 26VDC	Voltage range	0 - 17.4VDC
Current	2800mA max.	Current range	0 – 4.8A
Power	50W	Voltage tolerance	±1% max.
		Current tolerance	±10% max. @1A, ±3% max. @4A
		Protection	Short circuit Over temperature shutdown Input-/output over current

Environmental		General	
Cooling	convection cooled	Efficiency	~95% at 100% load
Temperature	Operating: 0°C to 40°C Non-operating -10°C to 70°C	Indicator	Multi-color LED (green, red, orange)
Pressure & Altitude	Operating: 1060hPa to 795hPa -382m to 2000m Non-operating: 1060hPa to 572hPa -382m to 4570m	Battery types	Standard battery form factors 2040, 2040-2, 2054, 2057 or smart batteries with a similar footprint
Humidity	5% to 95% r.H., non-condensing	Green procurement	RoHS 2011/65/EU WEEE 2012/19/EU Chinese RoHS

LED Indications	
One time Red/Orange/Green	Selftest: 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		
	In combination with included external AC/DC power supply	
Regulatory approvals	Europe	CE
Electromagnetic Emissions	Europe	EN55011, EN55032, level B
Electromagnetic Immunity	USA	FCC15 class B
	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 power supply AC/DC**

Input		Output	
Voltage range	100 - 240VAC	Voltage	19VDC ±5%
Current	1.6A max.	Power	65W max.
Stand by power	No load < 0.21W @ 230 VAC	Current range	0 - 3.43A
		Protection	Over voltage, over current Short circuit

Environmental		General	
Temperature	Operating: 0°C to 40°C Non-operating -20°C to 80°C	Efficiency	DoE VI, ErP (Stage 2), GEMS, NRCAN, CEC, EPA
		Ripple & Noise	190mV (p-p)

Power Supply Mechanical Details	
Standard output connector	DC barrel jack (Ø5.5 x Ø2.5 x 11mm)
Housing dimensions (LxWxH)	119 x 60 x 36mm
Weight	310g

Safety & EMC		
Safety	ITE Medical	CB, PSE cULus, T-mark, EN/IEC60601-1
EMC	Europe USA / Canada	CE FCC15 class B



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