

## RRC-SMB-FPC

Standard battery charger  
for smart batteries

P/N: 110083



### Features:

- 40W single bay charger
- For the standard battery form factors RRC21xx 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

Input	
Voltage range	18.00 – 26.00VDC
Current	2.50A max.
Power	40.00W
Protection	Over current (fuse protected), under voltage

Output	
Voltage range	0 - 17.40VDC
Current range	0 - 4.00A
Voltage tolerance	±1% max.
Current tolerance	±10% max. @1.00A, ±3% max. @4.00A
Charge power	40.00W max.
Protection	Short circuit, over temperature shutdown, input-/output over current

Environmental		
	Operation:	Storage:
Ambient Temperature	0°C to 40°C	-30°C to 80°C
Pressure and Altitude	1060hPa to 795hPa -382m to 2000m	1060hPa to 533hPa -382m to 5000m
Humidity (non-condensing)	8% to 90% r.H.	5% to 95% r.H.

General	
Efficiency	~95% at 100% load
Indicator	Multi-color LED (green, red, orange)
Battery types	Standard battery form factors RRC21xx 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 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)	88.5 x 38.5 x 19.9mm
Weight	36g (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 AC/DC power supply

Input		
Voltage range	100.00 – 240.00VAC ±10%, 50-60Hz	
Current	1.70A max.	
Stand by power	< 0.21W @ no load	
Output		
Voltage range	19.00VDC ± 5%; Ripple < 300mV <sub>pk-pk</sub>	
Power	65.00W max.	
Current range	3.42A max.	
Protection	Short circuit, over voltage, over current, over temperature	
General		
Efficiency	California's Energy Efficiency Level VI	
Ripple & Noise	300mV (p-p)	
Power Supply Mechanical Details		
Standard output connector	DC barrel jack, 5.5 x 2.5 x 11mm	
Housing dimensions (LxWxH)	95 x 50 x 25.4mm	
Weight	270g	
Cable length	1600mm ±50mm	
Regulatory Approvals		
Approvals	Europe	CE
	International	CB
	USA & Canada	cULus
	Australia & New Zealand	RCM
	Russia (Customs Union)	EAC
	Korea	KC
	China	CCC
	Japan	PSE
	India	BIS
	Taiwan	BSMI
	Mexico	NOM
	Argentina	IRAM
	South Africa	SABS
	Singapore	Safety Mark
	United Kingdom	UKCA
	Morocco	CMIM

## Recommended Accessories

Type	Product	P/N	Application
3-pol AC-Cable 	US-Version	210950	Country specific power cable for standard battery chargers from RRC and PS65.
	EU-Version	210951	
	UK-Version	211133	
	AU-Version	211134	
Car Adapter DC/DC 	RRC-SMB-CAR	110041	90W car adapter with USB charging port. Power supplying in cars and trucks for standard battery chargers and power management modules from RRC or mobile devices.

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