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

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Characteristics

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 International	EN62368-1 (CE) IEC62368-1 (CB)
Electromagnetic Emissions	Europe USA	EN55032 FCC15 class B
Electromagnetic Immunity	ESD immunity Electromagnetic field immunity EFT / Burst Surge Conducted Immunity Voltage dips, short instrumentations & voltage variations Harmonic current emissions Voltage changes, voltage fluctuations and flicker Immunity characteristics	EN/IEC61000-4-2 EN/IEC61000-4-3 EN/IEC61000-4-4 EN/IEC61000-4-5 EN/IEC61000-4-6 EN/IEC61000-4-11 EN 61000-3-2 EN 61000-3-3 EN55035

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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$_{pk-pk}$
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
	Singapore	Safety Mark
	United Kingdom	UKCA
	Morocco	CMIM

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Recommended Accessories

Type	Product	P/N	Application
3-pol AC-Cable 	US-Version EU-Version UK-Version AU-Version CN-Version	210950 210951 211133 211134 211959	Country-specific power cable for standard battery chargers from RRC and PS65.
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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