

RRC-SMB-1BC

Standard battery charger
for smart batteries

P/N: 110345



Features:

- For the standard battery form factors RRC203x, RRC204x and RRC205x 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	19.00 – 24.00VDC	
Current	2.37A max.	
Power	45.00W	
Output		
Voltage range	0 - 17.40VDC	
Current range	0 - 4.70A	
Voltage tolerance	±1% max.	
Current tolerance	±10% max. @1.00A, ±3% max. @4.00A	
Charge power	45.00W 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 533hPa -382m to 5000m	1060hPa to 533hPa -382m to 5000m
Humidity (non-condensing)	5% to 90% r.H.	5% to 95% r.H.
General		
Efficiency	~95% at 100% load	
Indicator	Multi-color LED	
Battery types	Standard battery form factors RRC203x, RRC204x and RRC205x 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		
White blinking (1-2 seconds)	Charger is plugged in	
LED off	Charger is ready for use, and no battery is installed	
Red blinking	Charger has an error	
White blinking	Battery is plugged in and recognized	
White breathing (slow blinking)	Battery is charging. SoC below 100%	
Green continuously illuminated	Battery is fully charged	
Yellow blinking	Reversible errors	
Red continuously illuminated	The battery has a severe defect, or it is a non-smart battery	
Charger Mechanical Details		
Housing dimensions (LxWxH)	120x64x43 (mm)	
Weight	~110g (without 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	EN55032, EN55035, level B
	USA	FCC15 class B
	Canada	ICES-003, 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 interruptions & voltage variations	EN/IEC61000-4-11
	Immunity characteristics	EN55035

Specification external AC/DC power supply (PS45)

P/N: 212721

Input

Voltage range	100.00 – 240.00VAC $\pm 10\%$, 50-60Hz
Stand by power	< 0.075W @ no load

Output

Voltage range	19.00VDC $\pm 5\%$
Power	45.00W max.
Current range	2.37A max.
Protection	Short circuit, over voltage, over current, over temperature

General

Efficiency	California's Energy Efficiency Level VI
Ripple & Noise	380mV (p-p)

Power Supply Mechanical Details

Standard output connector	DC barrel jack, 5.5 x 2.5 x 10mm
Housing dimensions (LxWxH)	95 x 40 x 26.5mm
Weight	~155g
Cable length	1600mm ± 50 mm

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
	Thailand	TISI
	Argentina	IRAM
	Singapore	Safety Mark
	United Kingdom	UKCA
	Morocco	CMIM
	Mexico	NOM
	South Africa	SABS
	Israel	SII

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 PS45.
		EU-Version	210951	
		UK-Version	211133	
		AU-Version	211134	
		CN-Version	211959	
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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