RRC-SMB-HBC

Standard battery charger
for smart batteries

P/N: 110311

Picture only for reference

Features

- 100W single-bay charger
- For the standard battery form factors RRC35xx 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

Characteristics

Input	
Voltage range	19.00 – 24.00VDC
Current	5.3A max.
Power	100.00W max.

Output	
Voltage range	0 – 29.40VDC
Current range	0 – 4.20A
Voltage tolerance	±1% max.
Current tolerance	±10% max. @1.00A ±3% max. @4.00A
Charge power	90.00W 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
Battery types	Standard battery form factors RRC35xx 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 has been recognized, is ready for use and no battery is installed
Yellow light	Charger has an error
White blinking	Battery is plugged in and recognized
White pulsating (slow blinking)	Battery is charging. SoC below 80%.
White continuously illuminated	Battery is charged from 80% SoC
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)	125 x 67 x 53mm
Weight	170g (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 Canada	EN55011, EN55032, level B FCC15 class B ICES-003, class B
Electromagnetic Immunity	ESD immunity Electromagnetic field immunity EFT / Burst Surge Conducted Immunity Magnetic Fields Voltage dips, short instrumentations & voltage variations Immunity characteristics	EN/IEC61000-4-2 EN/IEC61000-4-3 EN/IEC61000-4-4 EN/IEC61000-4-5 EN/IEC61000-4-6 EN/IEC61000-4-8 EN/IEC61000-4-11 EN55035

Specification external AC/DC power supply

Input	
Voltage range	100.00 – 240.00VAC ±10%, 50-60Hz
Current	1.90A max.
Stand by power	0.15W @ no load

Output	
Voltage range	20.00VDC ± 5%; Ripple < 380mV$_{pk-pk}$
Power	100.00W max.
Current range	5A 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 11mm
Housing dimensions (LxWxH)	127 x 51 x 30mm
Weight	400g max.
Cable length	1500mm +/-50

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
	Singapore	Safety Mark
	South Africa	SABS
	Morocco	CMIM
	United Kingdom	UKCA
	Israel	SII

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, PS65 and PS100.

Germany/HQ
RRC power solutions GmbH

Technologiepark 1
66424 Homburg / Saar

+49 6841 98090
sales@rrc-ps.com

USA
RRC power solutions Inc.

18340 Yorba Linda Blvd.,
107-437
Yorba Linda, CA 92886

+1 714 777 3604
usa@rrc-ps.com

Hong Kong
RRC power solutions Ltd.

S-V,6/F, Valiant Industrial
Centre 2-12
Au Pui Wan Street
Fo Tan, N.T., Hong Kong

+852 2376 0106
hkrrc@rrc-ps.cn

China
RRC power solutions
Ltd.

Room 1306, C Building,
Tianan International
Building, Renmin South
Road, Luohu District,
Shenzhen 518021

+86 755 8374 1908
hkrrc@rrc-ps.cn

Vietnam
RRC Power Solutions
Company Ltd.

Block C, Lot CN4
Dinh Vu – Cat Hai
Economic Zone,
Dong Hai 2 Ward
Hai An District 180000
Hai Phong City

vietnam@rrc-ps.com