

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

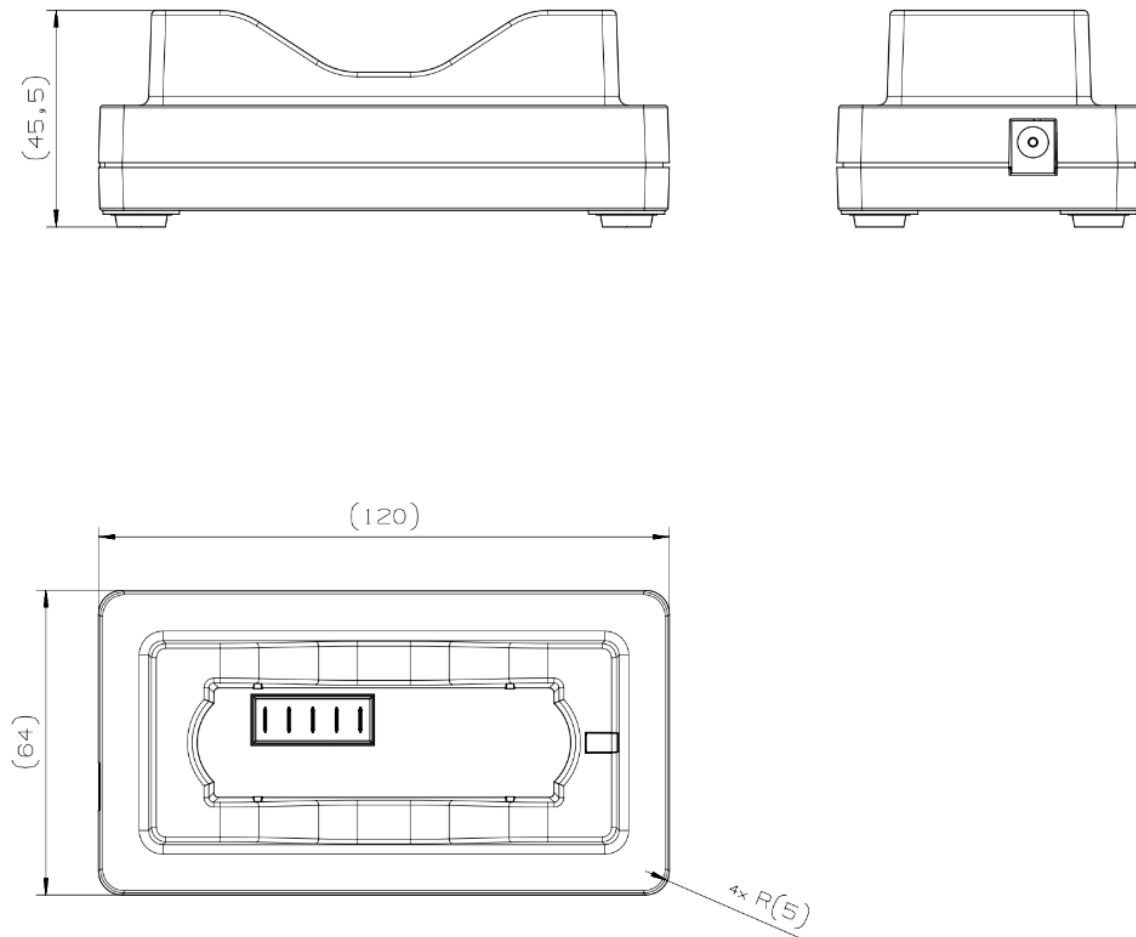
Applications:

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	-20°C to 85°C
Pressure and Altitude	1060hPa to 533hPa -382m to 5000m	1060hPa to 533hPa -382m to 5000m
Humidity (non-condensing)	8% to 90% r.H.	5% to 90% 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	
Cooling	convection cooled	
IP rating	IP40	
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	~135g (without power supply)	
Compliance		
	In combination with included external AC/DC power supply	
Regulatory approvals	Europe International	EN62368-1 (CE) IEC62368-1 (CB)
Material Compliance	Europe	RoHS 2011/65/EU + 2015/863/EU REACH 1907/2006 WEEE 2012/19/EU POP TSCA, PROP65, PFAS China RoHS
Electromagnetic Emissions	USA China Europe United Kingdom USA Canada Korea International	EN 55032, Class B BS EN 55032, Class B FCC15 class B ICES-003, class B KCC CISPR 32, class B
Electromagnetic Immunity	ESD immunity Electromagnetic field immunity EFT / Burst Surge Conducted Immunity Magnetic Fields Voltage dips, short interruptions & 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 EN 55035, BS EN 55035, CISPR 35

Drawing



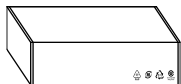
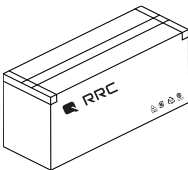
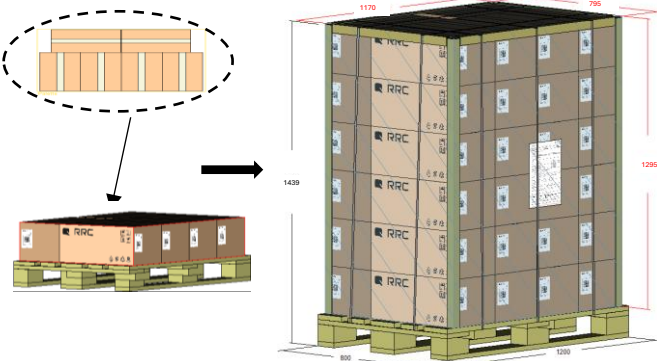
All dimensions in mm.

Specification external AC/DC power supply (PS45)

P/N: 212721

Input		
Voltage	100.00 – 240.00VAC ±10%, 50-60Hz	
Current	0.63A max.	
Standby power	< 0.075W @ no load	
Output		
Voltage	19.00VDC ± 5%	
Power	45.00W max.	
Current	2.37A max.	
Protection	Short circuit, over-voltage, over-current, over-temperature	
Environmental		
Ambient temperature	Operation: 0°C to 40°C	Storage: -20°C to 85°C
Pressure & Altitude	1060hPa to 533hPa -382m to 5000m	1060hPa to 533hPa -382m to 15000m
Humidity (non-condensing)	8% to 90% r.H.	5% to 90% r.H.
Mechanical Details		
Housing dimensions (LxWxH)	95 x 40 x 26,5mm	
Output cable length	1600mm ±50mm	
Weight	155g ± 10%	
AC input socket	IEC 320 C6 Type	
Standard output connector	DC barrel jack, 5.5 x 2.5 x 10mm	
General		
Efficiency	California's Energy Efficiency Level VI	
Cooling	Convection cooled	
MTBF	100,000h at 25°C ambient	
Ripple & Noise	380mV (p-p)	
IP rating	IP40	
Enclosure material	UL94-V0 PC	
Compliance		
Regulatory approvals	Europe (EU + UK) International USA & Canada Australia & New Zealand Russia & Eurasian Customs Union Korea China Japan India Taiwan Thailand Mexico Singapore Argentina South Africa Morocco Israel Malaysia	(BS) EN62368-1 (CE) IEC62368-1 (CB) FCC, cULus RCM EAC, EAEU KC CCC PSE BIS BSMI TISI NOM Safety Mark IRAM SABS CMIM SII ST
Material Compliance	Europe USA China	RoHS 2011/65/EU + 2015/863/EU REACH 1907/2006 WEEE 2012/19/EU POP TSCA, PROP65, PFAS Chinese RoHS
Energy Efficiency		DOE

Packaging

	Single-Box	Outer-Box	Pallet	
			Euro-Pallet 	
			One Layer	Max Layer
Dimension	275x95x60mm	495x290x215mm	Net: 1170x795x215mm Gross: 1200x800x359mm	Net: 1170x795x1295mm Gross: 1200x800x1439mm
Quantity	1x RRC-SMB-1BC + 1 x PS45	16 x Single Box	4 x 1 + 2 Outer-Box	6 Layers (576 x Single Boxes)
Weight	380 g	6.6 kg	Net ⁽¹⁾ : ~ 39.6 kg Gross ⁽²⁾ : ~ 59.6 kg	Net ⁽¹⁾ : ~ 237.6 kg Gross ⁽²⁾ : ~ 257.6 kg

⁽¹⁾Net: without pallet

⁽²⁾Gross: with pallet

Recommended Accessories

Type	Product	P/N	Application	
3-pol AC-Cable		US-Version	210950	Country specific power cable for 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.

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.

Flat F43, 7/F, Wah Lok Industrial Centre (Phase 2),
31-35 Shan Mei Street, Fo Tan, N.T, Hong Kong

+852 2376 0106
hkrrc@rrc-ps.cn

China

RRC power solutions (Shenzhen) Ltd.

Room 1603, A Building, Tianan International building, Renmin South Road, Luohu District, Shenzhen 518021

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

Vietnam

RRC POWER SOLUTIONS COMPANY LIMITED

Block C, Lot CN4, Nam Dinh Vu Non-Tariff and Industrial Park (Zone 1), Dinh Vu - Cat Hai Economic Zone, Dong Hai 2 Ward, Hai An District, 180000 Hai Phong City

vietnam@rrc-ps.com