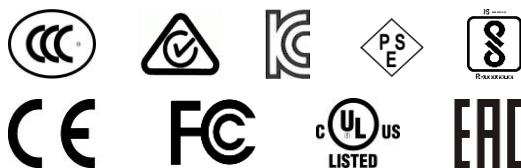


Technical Data Sheet

RRC-SMB-UBC – RRC SMBUS Universal Battery Charger



65 Watt SMBUS Desktop Universal Battery Charger for Smart Batteries

Features:

- Single bay fast charger
- For the standard battery form factors RRC2020, 2024, 2040, 2040-2, 2054, 2057 or smart batteries with a similar footprint (e.g. 202x range, 204x range, 205x range, DR36, etc.)
- Optimized charging process for RRC batteries:
 - Longer cycle life
 - Faster charging
- Simple operation – Plug and Play
- Automatic recognition and calibration of smart battery learned capacity
- 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 RRC-SMB-UBC

Input

Voltage range	19 - 26VDC
Current	3400mA max.
Power	65W

Output

Voltage range	0 - 17.4VDC
Current range	0 – 4.8A
Voltage tolerance ⁽¹⁾	±1% max.
Current tolerance ⁽¹⁾	±10% max. @1A, ±3% max. @4A
Protection	Short circuit Over temperature shutdown Input-/output over current

Environmental

Cooling	convection cooled
Temperature	Operating: 0°C to 40°C Non-operating -10°C to 70°C
Pressure & Altitude	Operating: 1060hPa to 795hPa -382m to 2000m Non-operating: 1060hPa to 572hPa -382m to 4570m
Humidity	5% to 95% r.H., non-condensing

General

Efficiency ⁽²⁾	~95% at 100% load
Indicator	Multi-color LED (green, red, orange)
Battery types	Standard battery form factors RRC2020, 2024, 2040, 2040-2, 2054, 2057 or smart batteries with a similar footprint (e.g. 202x range, 204x range, 205x range, DR36, etc.)
Green procurement	RoHS 2011/65/EU WEEE 2012/19/EU Chinese RoHS

LED Indications

One time Red/Orange/Green	Selftest: Charger is ready for use.
Red/Green blinking	Battery recognition and initialization.
Orange blinking	The battery is currently being calibrated.
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)	151 x 90 x 43mm
Weight	198g (excluding power supply)

Notes:

1. Total regulation tolerance includes initial set accuracy, line and load regulation
2. Power losses of input and output cables are not considered here.

Technical Data Sheet

RRC-SMB-UBC – RRC SMBUS Universal Battery Charger



Safety & EMC		
	In combination with specified external AC/DC power supply	
Regulatory approvals	Europe	CE
Electromagnetic Emissions	Europe	EN55011, EN55022, 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		Output	
Voltage range	100 - 240VAC	Voltage range	19VDC
Current	1.7A max.	Power	65W max.
Stand by power	No load < 0.5W @ 230 VAC	Current range	3.4A
		Protection	Over voltage, over current, Short circuit
Environmental		General	
Temperature	Operating: 0°C to 40°C Non-operating -10°C to 70°C	Efficiency	California's Energy Efficiency Level VI
		Ripple & Noise	300mV (p-p)

Power Supply Mechanical Details	
Standard output connector	DC barrel jack
Housing dimensions (LxWxH)	95 x 51 x 25.4mm
Weight	270g

Safety & EMC & Approvals		
Approvals	Europe International USA/Canada Australia Russia (Customs Union) Korea China Japan India	CE CB cULus RCM EAC KC CCC PSE BIS

Germany/Headquarters	USA	Hong Kong	China
RRC power solutions GmbH Technologiepark 1 D-66424 Homburg / Saar	RRC power solutions Inc. 18340 Yorba Linda Blvd., Suite 107-437 Yorba Linda, CA 92886-4104	RRC power solutions Ltd. S-V,6/F, Valiant Industrial Centre 2-12 Au Pui Wan Street Fo Tan, N.T., Hong Kong	RRC power solutions Ltd. Room 520, Yuanlin Building, Aiguo Road No. 3066, Luohu District, Shenzhen 518021
Tel.: +49 6841 98090 Fax: +49 6841 9809280 Email: sales@rrc-ps.de Web: www.rrc-ps.de	Tel.: +1 714 777 3604 Fax: +1 714 777 3658 Email: usa@rrc-ps.com Web: www.rrc-ps.com	Tel.: +852 2376 0106 Fax: +852 2375 0107 Email: hkrrc@rrc-ps.cn Web: www.rrc-ps.com	Tel.: +86 755 8374 1908 Fax: +86 755 8374 1861 Email: hkrrc@rrc-ps.cn Web: www.rrc-ps.com

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