

Technical Data Sheet

RRC-SMB-UBC-M

RRC Medical SMBUS Universal Battery Charger



65 Watt Medical 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, 2054-2, 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

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

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

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, 2054-2, 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.

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.

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Charger Mechanical Details

Housing dimensions (LxWxH)	151 x 90 x 43mm
Weight	198g (excluding power supply)

Safety & EMC

In combination with specified external AC/DC power supply

Regulatory approvals	Europe	CE
Electromagnetic Emissions	Europe	EN55011, EN55032, 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 medical power supply

Input

Voltage range	100 - 240VAC
Current	1.6A max.
Stand by power	No load < 0.21W @ 230 VAC

Output

Voltage	19VDC $\pm$ 5%
Power	65W max.
Current range	0 - 3.43A
Protection	Over voltage, over current, Short circuit

Environmental

Temperature	Operating: 0°C to 40°C
	Non-operating -20°C to 80°C

General

Efficiency	DoE VI, ErP (Stage 2), GEMS, NRCAN, CEC, EPA
Ripple & Noise	190mV (p-p)

Power Supply Mechanical Details

Standard output connector	DC barrel jack ($\varnothing$ 5.5 x $\varnothing$ 2.5 x 9.5mm)
Housing dimensions (LxWxH)	119 x 60 x 36mm
Weight	310g

Safety & EMC

Safety	ITE Medical	CB, PSE cULus, T-mark, EN/IEC60601-1
EMI	Europe USA / Canada	CE FCC15 class B

Germany/Headquarters

RRC power solutions GmbH
Technologiepark 1
D-66424 Homburg / Saar

Tel.: +49 6841 98090
Fax: +49 6841 9809280
Email: sales@rrc-ps.de
Web: www.rrc-ps.de

USA

RRC power solutions Inc.
18340 Yorba Linda Blvd.,
Suite 107-437
Yorba Linda, CA 92886-4104

Tel.: +1 714 777 3604
Fax: +1 714 777 3658
Email: usa@rrc-ps.com
Web: www.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

Tel.: +852 2376 0106
Fax: +852 2375 0107
Email: hkrrc@rrc-ps.cn
Web: www.rrc-ps.com

China

RRC power solutions Ltd.
Room 520, Yuanlin Building,
Aiguo Road No. 3066,
Luohu District,
Shenzhen 518021

Tel.: +86 755 8374 1908
Fax: +86 755 8374 1861
Email: hkrrc@rrc-ps.cn
Web: www.rrc-ps.com

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Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru

moschip.ru_4

moschip.ru_6

moschip.ru_9