



50 Watt SMBUS Desktop Mini Battery Charger for Smart Batteries

Features:

- Single bay charger
- For the standard battery form factors 2040, 2040-2, 2054, 2057 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 RRC-SMB-MBC

Input	
Voltage	19 - 26VDC
Current	2800mA max.
Power	50W

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 2040, 2040-2, 2054, 2057 or smart batteries with a similar footprint
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 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)	120 x 64 x 43mm
Weight	110g (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-MBC – RRC SMBUS Mini 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	
Voltage range	100 - 240VAC
Current	1.7A max.
Stand by power	No load < 0.5W @ 230 VAC

Output	
Voltage range	19VDC
Power	65W max.
Current range	3.4A
Protection	Over voltage, over current Short circuit

Environmental	
Temperature	Operating: 0°C to 40°C
	Non-operating -10°C to 70°C

General	
Efficiency	California's Energy Efficiency Level VI
Ripple & Noise	240mV (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	CE
	International	CB
	USA/Canada	cULus
	Australia	RCM
	Russia (Customs Union)	EAC
	Korea	KC
	China	CCC
	Japan	PSE
	India	BIS

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