RRC2054

Standard Battery Pack Li-Ion

14.40V / ≥3.40Ah / ≥48.96Wh

Datasheet

The RRC2054 is in use in more than 50 different industries in a variety of applications, such as oxygen concentrators, spectroscopy devices, measuring tools, and many more.

In total, we count more than 4000 design-ins for our standard batteries, which is why the safety and reliability of our products is unmatched.

Characteristics & Benefits of the RRC2xxx series standard Li-Ion battery packs:

- Smart batteries with numerous features according to the SMBus specification
- Integrated LED State of Charge (SoC) indicator
- State-of-the-art lithium-ion cells with the market's highest energy density
- High discharge performance
- JEITA charging profile optimization
- Numerous and redundant safety features
- Battery Life Management: increased protection in case of cell aging
- Increased ESD protection up to 8.00kV
- Up to 80% of initial capacity after 800 cycles

PRODUCT DATA SHEET **RRC2054**



Worldwide Approvals



No NRE



Fast Time-to-Market



Highest Safety



Highest Quality



Highest Performance



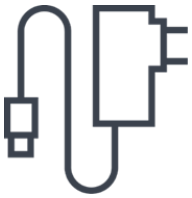
Worldwide Availability



No Obsolescence



Independent of Quantity



Extensive Accessories



Dual Sourcing Strategy



Design-In Support

Characteristics

General	
Delivery status battery capacity	<30%
Compliance information	IEC 62133 / CE / UL2054 / CAN ICES-003(B) / NMB-003(B) / FCC / UKCA / PSE / KC / BSMI / GOST-R / CMIM / CCC / RCM / BIS / TISI / UN 38.3 / RoHS / REACH
Operating temperature	0°C to 45°C (charge) -20°C to 60°C (discharge)
Storage temperature	-20°C to 50°C max. -20°C to 25°C recommended
Communication interface	SMBus
P/N	1005680 Each battery has an individual serial number (S/N), which is located on the hardpack label for tracking & traceability.

Electrical Parameters	
Nominal voltage	14.40V
Nominal capacity	≥3.40Ah
Initial impedance	<180mΩ @ 1kHz at 25°C
Max. charge current	≥2.00A
Max. charge voltage	16.80V
Max. discharge current	5.00A

Battery Dimensions	
Length	85.10mm +0.25/-0.25
Width	77.40mm +0.25/-0.25
Thickness	22.40mm +0.60/-0.40
Weight	230g
Contacts	+, D, C, T, -
Ingress protection	IP40

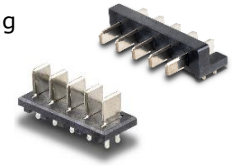
Safety Features	
CUV (Cell Under Voltage)	Protection against deep discharge
COV (Cell Over Voltage)	Protection against over charge
OTC (Over Temperature in Charge)	Protection against overheating while charging
OTD (Over Temperature in Discharge)	Protection against overheating during discharging
OCC (Over Current in Charge)	Protection against overcurrent while charging
OCD (Over Current in Discharge)	Protection against overcurrent during discharging
OL (Overload in Discharge)	Protection against overload during discharging
SCC (Short Circuit in Charge)	Protection against short circuits while charging
SCD (Short Circuit in Discharge)	Protection against short circuits during discharging

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Recommended Accessories

Type	Product	P/N	Application
Standard Battery Charger 	RRC-SMB-UBC RRC-SMB-UBC-M	100485 110105	60.00W standard battery charger for optimized charging process. With external power supply for worldwide use.
Standard Battery Charger 	RRC-SMB-MBC RRC-SMB-MBC-M	110017 110104	50.00W standard battery charger for optimized charging process. With external power supply for worldwide use.
Standard Battery Charger 	RRC-SMB-DBC	110111	Dual bay standard battery charger for optimized charging process. With external power supply for worldwide use.
Power Management Module 	RRC-PMM20	110269	Power management module for smart battery charging with automatic power source selection. Fits to all RRC20xx standard smart batteries.
Power Supply AC/DC 	PS65	210919	External power supply (worldwide use) for embedded battery charger RRC-PMM20 or for mobile devices. Included in RRC-SMB-UBC/MBC.
3-pol AC-Cable 	US-Version EU-Version UK-Version AU-Version CN-Version	210950 210951 211133 211134 211959	Country-specific power cable for PS65.
Car Adapter DC/DC	RRC-SMB-CAR	110041	90.00W car adapter with USB charging port. Power suppling in cars and trucks for RRC-SMB-UBC, RRC-SMB-MBC, RRC-PMM20 or mobile devices.

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Type	Product	P/N	Application
Design-In Tool 	SMBus-Reader	100127	Simple read out of SMBus batteries data. No external power supply required. 5way blade connector and RS232 interface.
Battery Connector 	SMBus-Battery-Cable	400665	Extension cable for battery applications. Suitable for RRC204x and RRC205x batteries.
Battery Mating Connector 	RRC-MC20-90-10 RRC-MC20-180-10	210519 210518	Mating connector for standard smart batteries from RRC. Suitable for RRC20xx batteries. Available for 90° or 180° PCB mounting.

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Our special competence is the development of power solutions according to the concrete requirements of our customers. We offer both standardized as well as customized solutions for customer's applications, while guaranteeing the highest level of safety and reliability to all our products. As an international company with German roots, we have a worldwide market operation - where we provide our proven German engineering skills combined with our technical expertise and flexibility, which are necessary to meet the challenges of the growing global market.

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