RRC2040

Standard Battery Pack Li-Ion
10.80V / 3.35Ah / 36.20Wh

Datasheet



The RRC2040 is in use in more than 50 different industries in a variety of applications, such as X-ray detectors, electrotherapy devices, medical headlamps, 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 **RRC2040**



Worldwide Approvals



No NRE



Fast Time-to-Market



Highest Safety



Highest Quality



Highest Performance



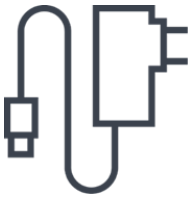
Worldwide Availability



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	100498 Each battery has an individual serial number (S/N), which is located on the hardpack label for tracking & traceability.

Electrical Parameters	
Nominal voltage	10.80V
Nominal capacity	3.35Ah
Initial impedance	<350mΩ @ 1kHz at 25°C
Max. charge current	2.35A
Max. charge voltage	12.60V
Max. discharge current	4.00A

Battery Dimensions	
Length	84.87mm +0.25/-0.25
Width	58.79mm +0.25/-0.25
Thickness	21.89mm +0.50/-0.25
Weight	170g
Contacts	+, C, D, T, -
Ingress protection	IP40

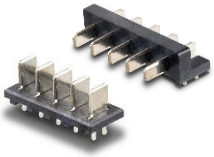
Safety Features	
CUV (Cell Under Voltage)	Protection against deep discharge
COV (Cell Over Voltage)	Protection against over charge
OTC (Over Temperature in Charge)	Protection against overheating while charging
OTD (Over Temperature in Discharge)	Protection against overheating during discharging
OCC (Over 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 world-wide 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 world-wide 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	100269	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.
AC Power 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	100122	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.

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.,
Suite 107-437, Yorba
Linda, CA 92886

+1 714 777 3604
usa@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

+852 2376 0106
hkrrc@rrc-ps.cn

China
RRC power solutions Ltd.

Room 1306, C Building,
Tianan International
Building
Renmin South Road
Luohu District
Shenzhen 518021

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

Vietnam
RRC Power Solutions
Company Ltd.

Block C, Lot CN4
Dinh Vu - Cat Hai Economic
Zone, Dong Hai 2 Ward
Hai An District, 180000
Hai Phong City

vietnam@rrc-ps.com