# RRC2020

## Standard Battery Pack Li-Ion

**10.80V / 9.22Ah / 99.60Wh**

## Datasheet



The RRC2020 is in use in more than 50 different industries in a variety of applications, such as respirators, ultrasound devices, rugged computers, 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** **RRC2020**



Worldwide Approvals




No NRE



Fast Time-to-Market



Highest Safety



Highest Quality



Highest Performance



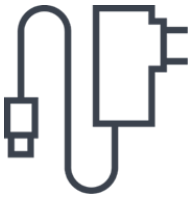
Worldwide Availability




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)<br>-20°C to 60°C (discharge) |
| Storage temperature | -20°C to 50°C max.<br>-20°C to 25°C recommended |
| Communication interface | SMBus |
| P/N | 100496<br>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 | 9.22Ah |
| Initial impedance | Max. 180mΩ @ 1kHz at 25°C |
| Max. charge current | 6.20A |
| Max. charge voltage | 12.55V |
| Max. discharge current | 10.00A |

| Battery Dimensions | |
|---|---|
| Length | 149.00mm +0.70/-0.70 |
| Width | 89.00mm +0.25/-0.25 |
| Thickness | 19.70mm +0.40/-0.25 |
| Weight | 505g |
| 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 |



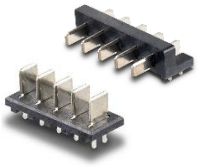
Talk to our engineers +61 2 9519 1200 · info@mibattery.com.au · mibattery.com.au

## Recommended Accessories

| Type | Product | P/N | Application |
|---|---|---|---|
| Standard Battery Charger  | RRC-SMB-UBC<br>RRC-SMB-UBC-M | 100485<br>110105 | 60.00W 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<br>EU-Version<br>UK-Version<br>AU-Version<br>CN-Version | 210950<br>210951<br>211133<br>211134<br>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. |



Talk to our engineers +61 2 9519 1200 · info@mibattery.com.au · mibattery.com.au

| 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 Mating Connector  | RRC-MC20-90-10<br>RRC-MC20-180-10 | 210519<br>210518 | Mating connector for standard smart batteries from RRC. Suitable for RRC20xx batteries. Available for 90° or 180° PCB mounting. |



Talk to our engineers +61 2 9519 1200 · info@mibattery.com.au · mibattery.com.au

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