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# RRC2040

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

Datasheet



 **RRC**  
SETTING STANDARDS  
IN POWER SOLUTIONS



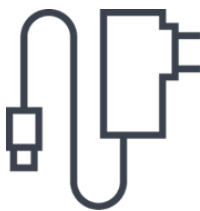
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The RRC2040 is in use in more than 50 different industries in a variety of applications, such as X-ray detectors, electrotherapy devices, medical headlamps, and many more.

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

**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**






<b>General</b>	
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.

<b>Electrical Parameters</b>	
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

<b>Battery Dimensions</b>	
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



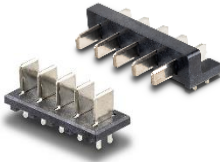
<b>Safety Features</b>	
CUV (Cell Under Voltage)	Protection against deep discharge
COV (Cell Over Voltage)	Protection against over charge
OTC (Over Temperature in Charge)	Protection against overheating while charging
OTD (Over Temperature in Discharge)	Protection against overheating during discharging
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

**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 supplying in cars and trucks for RRC-SMB-UBC, RRC-SMB-MBC, RRC-PMM20 or mobile devices

# PRODUCT DATA SHEET

RRC2040

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.





SETTING STANDARDS  
IN POWER SOLUTIONS

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

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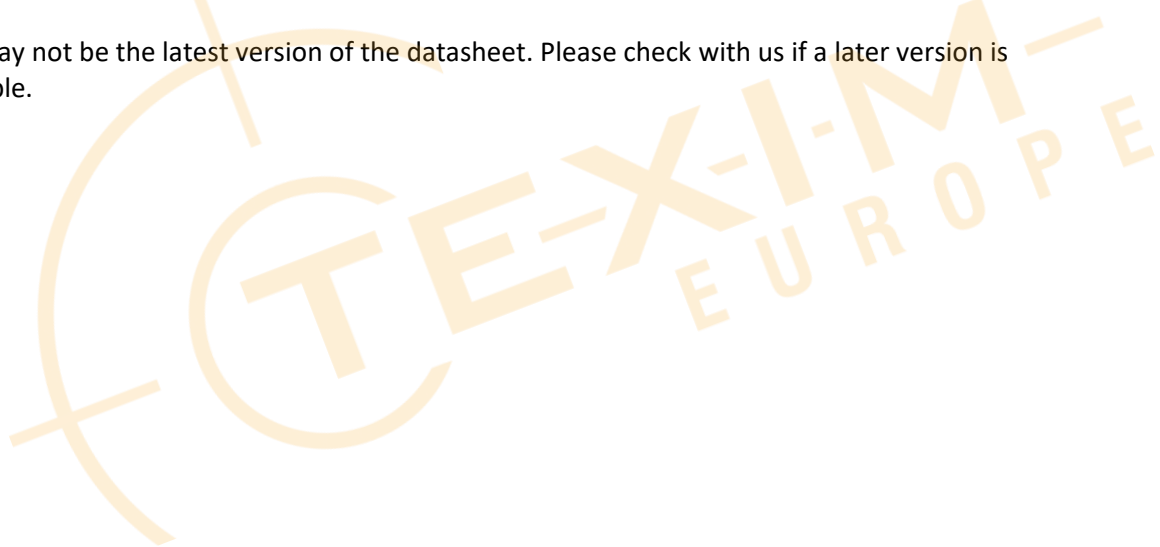
It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application.

Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time.

All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts.

Please contact us if you have any questions about the contents of the datasheet.

This may not be the latest version of the datasheet. Please check with us if a later version is available.







## Headquarters & Warehouse

Elektrostraat 17  
 NL-7483 PG Haaksbergen  
 The Netherlands

T: +31 (0)53 573 33 33  
 E: info@texim-europe.com  
 Homepage: www.texim-europe.com



### The Netherlands

Elektrostraat 17  
 NL-7483 PG Haaksbergen

T: +31 (0)53 573 33 33  
 E: nl@texim-europe.com



### Belgium

Zuiderlaan 14, box 10  
 B-1731 Zellik

T: +32 (0)2 462 01 00  
 E: belgium@texim-europe.com



### UK & Ireland

St Mary's House, Church Lane  
 Carlton Le Moorland  
 Lincoln LN5 9HS

T: +44 (0)1522 789 555  
 E: uk@texim-europe.com



### Germany - North

Bahnhofstrasse 92  
 D-25451 Quickborn

T: +49 (0)4106 627 07-0  
 E: germany@texim-europe.com



### Germany - South

Martin-Kollar-Strasse 9  
 D-81829 München

T: +49 (0)89 436 086-0  
 E: muenchen@texim-europe.com



### Austria

Warwitzstrasse 9  
 A-5020 Salzburg

T: +43 (0)662 216 026  
 E: austria@texim-europe.com



### Nordic

Stockholmsgade 45  
 2100 Copenhagen

T: +45 88 20 26 30  
 E: nordic@texim-europe.com



### Italy

Via Matteotti 43  
 IT-20864 Agrate Brianza (MB)

T: +39 (0)39 9713293  
 E: italy@texim-europe.com