



Admin office: PAP-J-146, BHOSARI Telco Road, BHOSARI MIDC, Pune, Maharashtra - 411026

Contact: +91 8551855050, +91 8551845050

Website / Email: <http://www.robust.in>, info@robust.in

Scope - This product specification defines the specification & cautions of the rechargeable lithium ion battery to be supplied to the Customer by Robust.in

Product Classification - Rechargeable lithium Ion Battery

Model - 4P7S 24V 10.4Ah Lithium-ion Ebike Battery



Product Specification

No	Item	General Parameter	Remark
1	Rated Capacity	10.4Ah	
2	Nominal Voltage	24V	Mean Operation Voltage
3	Discharge cut off Voltage	19.25V	
4	Charge Cut-off Voltage	29.4V	
5	Internal Impedance	≤150mΩ	
6	Standard charge	2080mA	0.2C
7	Standard discharge	2080mA	0.2C
8	Fast charge	1C	
9	Fast discharge	3C	
10	Maximum Charge Current	1C	
11	Maximum Discharge Current	3C	
12	Operation Temperature Range	Charge- 0~45°C Discharge-10~60°C	< 75% R.H. Bare Cell
13	Weight	Approx. : 2.9kg	
14	Cell Dimension	High-65.5mm (Max) Diameter-18.4mm (Max)	Initial Dimension

Protection Board (BMS) Specification

BMS	Protection Board	7S15A
Current	Balance current for Single cell	/
	Low current consumption	≤50uA
	Max continues charge current	15A
	Max continues discharge current	15A
Over charge protection	Over charge detection Voltage	4.25 ± 0.025V
	Over charge detection delay time	0.5~1.55
	Over charge release Voltage	4.15 ± 0.05V
Over Discharge protection	Over discharge detection voltage	2.70 ± 0.062V
	Over discharge detection delay time	50~150mS
	Over discharge release Voltage	3.0 ± 0.10V
Over current protection	Over current detection voltage	0.20 ± 0.015V
	Over current detection current	100 ± 10A
	Detection delay time	5~15ms
Short circuit protection	Detection delay time	200~500uS
	Detection condition	Exterior Short Circuit
	Release condition	Cut Short Circuit
Interior resistance	Main loop electrify resistance	≤40mΩ
Operating temperature	Operating Temperature range	-40~+ 85°C
Storage Temperature	Storage temperature Range	-40~+ 125°C

Cautions in Use

To ensure proper use of the battery please read the manual carefully before using it.

Handling

- Do not expose or dispose the battery in fire.
- Do not put the battery in a charger or equipment with wrong terminals connected.
- Avoid shorting the batteries.
- Avoid excessive physical shock or vibration.
- Do not disassemble or deform the battery.
- Do not immerse in water.
- Do not use the battery mixed with other different make, type, or model batteries.
- Keep out of the reach of children.

Charge and discharge

- Battery must be charged with appropriate charger only.
- Never use a modified or damaged charger.
- Do not leave battery in charger over 24 hours.

Storage

- Store the battery in a cool, dry and well-ventilated area.

Disposal

- Regulations vary for different countries. Dispose of in accordance with local regulations.

Battery Operation Instruction

Charging

- Charging battery must be with BMS
- Charging current : Cannot surpass the biggest charging current which in this specified Datasheet
- Charging voltage : Does not have to surpass the highest amount which in this specification book Stipulated to decide the voltage
- Charge temperature the battery must carry on the charge in the ambient temperature scope which Specification book stipulated.
- Uses the constant electric current and the constant voltage way charge, the prohibition reverse charges. If the battery positive electrode and the cathode meet instead, can damage the battery

Discharging current

- The discharging current does not have to surpass this specification book stipulation the biggest Discharging current, the oversized electric current electric discharge can cause the battery capacity play to reduce and to cause the battery heat.

Electric discharge temperature

- The battery discharge must carry on in the ambient temperature scope as specified range in datasheet.

Over-discharge

- After the short time excessively discharges charges immediately cannot affect the use, but the long time excessively discharges can cause the battery the performance, battery function losing. The battery long-term has not used, has the possibility to be able to be at because of its automatic flashover characteristic certain excessively discharges the condition, for prevented excessively discharges the occurrence, the battery should maintain the certain electric quantity.

Storing the Batteries

- The battery should store in the product specification temperature range. If has surpasses above for six months the long time storage, suggested you should carry on additional charge to the battery.

Period of Warrant

- The period of warranty is 6 months from the date of shipment. Guarantees to give a replacement in case of cells with defects proven due to manufacturing process instead of the customer's abuse and misuse.

The Chemical Reaction

- Because batteries utilize a chemical reaction, battery performance will deteriorate over time even if stored for a long period of time without being used. In addition, if the various usage conditions such as charge, discharge, ambient temperature, etc. are not maintained within the specified ranges the life expectancy of the battery may be shortened or the device in which the battery is used may be damaged by electrolyte leakage. If the batteries cannot maintain a charge for long periods of time, even when they are charged correctly, this may indicate it is time to change the battery.