



Instruction Manual PERKONS Li-Ion Battery

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1. Introduction

This guide provides detailed instructions for the safe and efficient usage of the PERKONS 6S2P 8000; PERKONS 6S2P 10000; PERKONS 6S3P 12000; PERKONS 6S3P 15000; PERKONS 6S4P 16000; PERKONS 6S4P 20000; PERKONS 8S2P 8000; PERKONS 8S2P 10000; PERKONS 8S3P 12000; PERKONS 8S3P 15000, PERKONS 12S4P 16000; PERKONS 12S4P 20000; PERKONS 12S4P F 16000; PERKONS 12S4P F 20000 Li-Ion battery. It is crucial to read and understand these guidelines prior to using the battery.

2. Safety Precautions

General Safety:

- Avoid short-circuiting the battery.
- Keep the battery away from fire and high temperatures.
- Do not submerge the battery in water or other liquids.
- Use the battery only with compatible devices.

Handling:

- Do not puncture or crush the battery.
- Handle the battery carefully to avoid physical damage.
- Avoid dropping the battery.

Charging:

- Use only the charger designed for Li-Ion batteries.
- Do not leave the battery unattended while charging.
- Charge the battery in a well-ventilated area.

Discharging:

- Do not discharge the battery below the recommended voltage (2.5V per cell).

3. Battery Specifications

Model	Nominal [V]	Capacity [mAh]	Capacity [Wh]	Max Continuous Discharge Current [A]	Dimensions (LxHxW) [mm]	Weight [g]
6S2P 8000	22,2	8000	177,60	80	132x75x45	850
6S2P 10000	21,6	10000	216,00	70	132x75x45	870
6S3P 12000	22,2	12000	266,40	120	132x75x70	1248
6S3P 15000	21,6	15000	324,00	105	132x75x70	1325
6S4P 16000	22,2	16000	355,20	160	132x75x95	1720
6S4P 20000	21,6	20000	432,00	140	132x75x95	1750
8S2P 8000	29,6	8000	236,80	80	175x75x45	1100
8S2P 10000	28,8	10000	288,00	70	175x75x45	1160
8S3P 12000	29,6	12000	355,20	120	175x75x70	1650
8S3P 15000	28,8	15000	432,00	105	175x75x70	1750
12S4P 16000	44,4	16000	710,40	160	265x75x95	3460
12S4P 20000	43,2	20000	864,00	140	265x75x95	3520
12S4PF 16000	44,4	16000	710,40	160	132x155x95	3460
12S4PF 20000	43,2	20000	864,00	140	132x155x95	3520

*- Values provided in table above apply only by using appropriate connector solutions. Client is responsible for safe and appropriate applications of battery packs and selection of suitable solutions for their intended application.

4. Charging Instructions

Preparation:

- Ensure the charger is compatible with Li-Ion batteries and set to the correct voltage (4.2V per cell).
- Inspect the battery and charger for any damage.

Charging Process:

- Connect the battery to the charger using the XT60H-F or XT90H-F connector and XH2.54 balancing connector.
- Set the charger to a charging current of **5A or less**. Select the battery type **Li-Ion**. Set the maximum voltage to **4.2V** or for example **4.1-4.15V** (the exact value depends on the capabilities of your charger).
- Monitor the battery during charging, wait for the charging and balancing of the battery to complete.
- After charging and balancing are complete, if in the previous charging step with **Li-Ion** present is below 4.2V, **change the battery type** on the charger to **Li-Po**. Charge the battery up to **4.2V**
- Monitor the battery during charging, wait for the charging and balancing of the battery to complete.
- Do not charge the battery above 4.2V per cell!
- Disconnect the battery once fully charged.

WARNING!

This manual is intended for charging PERKONS batteries and must be strictly followed to ensure safety and maximum battery performance.

Preparing for usage:

- After the final charge, **install the battery**.
- Begin your usage.
- **Recommended to begin your usage within 30 minutes.**

Safety Tips:

- Never leave the battery unattended while charging.
- Charge in a fire-safe area away from flammable materials.

5. Discharging Instructions**Preparation:**

- Ensure the device using the battery is compatible with the battery's voltage and current ratings.

Discharging Process:

- Connect the battery to your device using the appropriate connectors.
- Monitor the battery voltage during use.
- Avoid discharging below 2.5V per cell to prevent damage.

Safety Tips:

- Stop using the battery if it becomes excessively hot.
- Do not discharge the battery in extreme temperatures (below 0°C or above 60°C).

6. Installation Guidelines**Mounting:**

- Secure the battery firmly in your device using appropriate mounts and straps.
- Ensure proper ventilation around the battery to prevent overheating.

Connections:

- Connect the XT60H power connector to your device.
- Ensure the balance connector is properly connected to a compatible balance port if required.

7. Maintenance and Storage**Maintenance:**

- Regularly check the battery for any signs of damage or wear.
- Clean the connectors to ensure a good electrical connection.

Storage:

- Store the battery at a voltage of around 3.7V per cell.
- Keep the battery in a cool, dry place away from direct sunlight.
- Store the battery at temperatures between 10°C and 25°C.

8. Troubleshooting

Battery Not Charging:

- Check the charger and ensure it is working properly.
- Inspect the battery and connectors for damage.

Battery Not Holding Charge:

- The battery may be at the end of its life cycle; consider replacing it.
- Ensure the battery is properly balanced.

Overheating:

- Stop using the battery immediately.
- Allow the battery to cool down and inspect for damage.

9. Warranty and Support

Warranty:

- The battery is covered by a manufacturer's warranty for defects in materials and workmanship for a specified period.

Support:

- For support, contact the manufacturer
Limited Liability Company "RRC"
Company registration number No. 40203313568
VAT ID No. LV40203313568
Contacts: +371 20020375
info@rrcltd.com