

Instruction Manual PERKONS Li-Ion Battery

Table of Contents

1. Introduction
2. Safety Precautions
3. Battery Specifications
4. Charging Instructions
5. Discharging Instructions
6. Installation Guidelines
7. Maintenance and Storage
8. Troubleshooting
9. Warranty and Support

1. Introduction

This guide provides detailed instructions for the safe and efficient usage of the PERKONS 4S2P 10000; PERKONS 4S3P 15000; PERKONS 4S4P 20000; PERKONS 4S6P 30000; PERKONS 4S8P 40000; PERKONS 6S2P 10000; PERKONS 6S3P 15000; PERKONS 6S4P 20000; PERKONS 6S6P 30000; PERKONS 6S8P 40000; PERKONS 8S2P 10000; PERKONS 8S3P 15000; PERKONS 8S4P 20000; PERKONS 8S6P 30000; PERKONS 8S8P 40000; PERKONS 12S4P 20000; PERKONS 12S6P 30000; PERKONS 12S8P 40000; PERKONS 12S10P 50000; PERKONS 12S12P 60000; PERKONS 14S4P 20000; PERKONS 14S6P 30000; PERKONS 14S8P 40000; PERKONS 14S10P 50000; PERKONS 14S12P 60000; PERKONS 16S4P 20000; PERKONS 16S6P 30000; PERKONS 16S8P 40000; PERKONS 16S10P 50000; PERKONS 16S12P 60000; 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.
- Use the battery only in dry conditions.
- Store the battery only in specified conditions (0°C - 23°C) (Less than 65% air moisture)

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).



PERKONS

3. Battery Specifications

Model	Nominal [V]	Capacity [mAh]	Capacity [Wh]	Max Continuous Discharge Current [A]	Dimensions (LxHxW) [mm]	Weight [g]
4S2P 10000	14.4	10000	144	120	90X75X45	592
4S3P 15000	14.4	15000	216	180	90X75X68	888
4S4P 20000	14.4	20000	288	240	90X75X90	1184
4S6P 30000	14.4	30000	432	360	90X75X135	1776
4S8P 40000	14.4	40000	576	480	90X75X180	2368
6S2P 10000	21.6	10000	216	120	135X75X45	888
6S3P 15000	21.6	15000	324	180	135X75X68	1332
6S4P 20000	21.6	20000	432	240	135X75X90	1776
6S6P 30000	21.6	30000	648	360	135X75X135	2664
6S8P 40000	21.6	40000	864	480	135X75X180	3552
8S2P 10000	28.8	10000	288	120	180X75X45	1184
8S3P 15000	28.8	15000	432	180	180X75X68	1776
8S4P 20000	28.8	20000	576	280	180X75X90	2368
8S6P 30000	28.8	30000	864	360	180X75X135	3552
8S8P 40000	28.8	40000	1152	480	180X75X180	4736
12S4P 20000	43.2	20000	864	240	270X75X90	3552
12S6P 30000	43.2	30000	1296	360	270X75X135	5328
12S8P 40000	43.2	40000	1728	480	270X75X180	7104
12S10P 5000	43.2	50000	2160	600	270X75X225	8880
12S12P 6000	43.2	60000	2592	720	270X75X270	10656
14S4P 20000	50.4	20000	1008	240	315X75X90	4144
14S6P 30000	50.4	30000	1512	360	315X75X135	6216
14S8P 40000	50.4	40000	2016	480	315X75X180	8288
14S10P 5000	50.4	50000	2520	600	315X75X225	10360
14S12P 6000	50.4	60000	3024	720	315X75X270	12432
16S4P 20000	57.6	20000	1152	240	360X75X90	4736
16S6P 30000	57.6	30000	1728	360	360X75X135	7104
16S8P 40000	57.6	40000	2304	480	360X75X180	9472
16S10P 5000	57.6	50000	2880	600	360X75X225	11840
16S12P 6000	57.6	60000	3456	720	360X75X270	14208

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.



PERKONS

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

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).



PERKONS

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 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 "PerkonsEnergy"
Company registration number No. 40203313568
VAT ID No. LV40203313568
Contacts: +371 20020375
info@Perkonsenergy.com