

# Quick Start Guide

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CONCENPOWER Global Service, [www.concenpower.com](http://www.concenpower.com),

**Shandong King Polaris New Energy Stock CO., LTD.**

## **1. Information on this document**

### **1.1 Validity**

This document is valid for the CONCENPOWER High Voltage Energy Storage System Product (Models: 2.5 CON-HVS, 5 CON-HVS, 10 CON-HVS)

### **1.2 Target group**

The instructions in this document may only be performed by qualified persons who must have the following skills:

- Knowledge of how batteries work and are operated
- Knowledge of how an inverter works and is operated
- Knowledge of, and adherence to the locally applicable connection requirements, standards, and directives
- Knowledge of, and adherence to this document and the associated system documentation, including all safety instructions
- Training in dealing with the hazards associated with the installation and operation of electrical equipment and batteries
- Training in the installation and commissioning of electrical equipment

Failure to do so will make any manufacturer's warranty, guarantee or liability null, and void unless you can prove that the damage was not due to non-compliance.

### **1.3 Content and structure of this document**

This document contains safety information and instructions on installing, connecting, and commissioning. Please finish reading this document before taking any actions on the battery system.

The latest version of this document and the manual for installation, commissioning, and operation are to be found in PDF format at our websites.

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This document only contains brief information and may deviate from the real system.

## **2. Safety**

### **2.1 Intended use.**

The battery system is for residential and works, with a photovoltaic system. It is a high capacity LFP battery storage system, with a management system on itself.

The system must only be used as stationary equipment.

The system is suitable for indoor and outdoor use.

The system must only be operated in connection with a compatible inverter approved by CONCENPOWER.

The system is not suitable for supplying life-sustaining medical devices. Please ensure that no personal injury would lead due to the power outage of the system.

Alterations to the CONCENPOWER system, e.g., changes or modifications are not allowed unless the written permission of CONCENPOWER is achieved.

The enclosed document is an integral part of this system. Keep the documentation in a convenient, dry place for future reference and observe all instructions contained therein.

The type of label should always be attached to the system.

### **2.2 Important safety instructions**

The system has been designed and tested under international safety requirements. However, to prevent personal injury and property damage and ensure long-term operation of the system, please do read this section carefully and always observe all safety information.

#### **2.2.1 Battery pack leakage**

If the battery packs leak electrolytes, contact with the leaking liquid or gas should be avoided. The electrolyte is corrosive, and the contact may cause skin

irritation and chemical burns. If one is exposed to the leaked substance, do these actions:

**Inhalation:** Evacuate the contaminated area and seek medical help immediately.

**Eye contact:** Rinse eyes with flowing water for 15 minutes and seek medical help immediately.

**Skin contact:** Wash the affected area thoroughly with soap and water and seek medical help immediately.

**Ingestion:** Induce vomiting and seek medical help immediately.

### **2.2.2 Firefighting measures**

The battery packs may catch fire when it is put into the fire. In case of a fire, please make sure that an ABC or carbon dioxide extinguisher is nearby. Water cannot be used to extinguish the fire.

Full protective clothing and self-contained breathing apparatus are required for the firefighters to extinguish the fire.

### **2.2.3 Battery pack handling and storage guide**

- The battery packs and its components should be protected from damage when transporting and handling.
- The weight of the system may cause injury risk. Please take the weight of the system into account while the system is transported and lifted carefully.
- Do not impact, pull, drag, or step on the battery packs.
- Do not insert unrelated objects into any part of the battery packs.
- Do not throw the battery pack into a fire.
- Do not soak the battery packs in water or seawater.
- Do not expose to strong oxidizers.
- Do not short circuit the battery packs.
- The battery packs cannot be stored directly under the sun.
- The battery packs cannot be stored in a high humidity environment.

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- Use the battery packs only as directed.
- Do not use the battery packs if it is defective, or appears cracked, broken or otherwise damaged, or fails to operate.
- Do not attempt to open, disassemble, repair, tamper with, or modify the battery packs. The battery packs are not user-serviceable.
- Do not use cleaning solvents to clean the battery packs.
- The battery pack should be stored in an environment with a temperature range between - 10°C~+50°C, and charged regularly according to the table below with no more than 0.5 C (A C-rate is a measure of the rate at which a battery is discharged relative to its maximum capacity.) to the SOC of 30% after a long time of storage.

Storage environment temperature	Relative humidity of the storage environment	Storage time	SOC
Below -10°C	/	Not allowed	/
-10~25°C	5%~70%	≤ 12 months	25%≤SOC≤60%
25~35°C	5%~70%	≤ 6 months	25%≤SOC≤60%
35~50°C	5%~70%	≤ 3 months	25%≤SOC≤60%
Above 50°C	/	Not allowed	/

### 2.2.1 Warning of electric shock

It is a danger to life due to electric shock when live components or DC cables are touched.

The DC cables connected to the system may be live. Touching live DC cables results in death or serious injury due to electric shock.

- Disconnect the battery from a voltage source and make sure it cannot be reconnected before working on the device.
- Do not touch non-insulated parts or cables.
- Do not remove the terminal block with the connected DC conductors from the slot under load.

- Wear suitable personal protective equipment for all work on the system.

### **2.2.2 Notice of operating damage**

If the battery system doesn't start at all, please contact CONCENPOWER authorized service partner within 48 hours. Otherwise, the battery could be permanently damaged.

When the system is installed, it needs to be able to charge and discharge to avoid a deep discharge condition. After the installation, this needs to be checked once a month. If the battery system is not working normally, please get in contact with your local service partner.

During the storage of the battery system, please mind the maximum storage time.

### **2.2.3 Surge protection**










Overvoltage (e. g. in the event of a flash of lightning) can be further conducted into the building and to other connected devices in the same network via the network cables or other data cables if there is no surge protection.




Ensure that the system is integrated into the existing surge protection.

### **2.2.4 Safety information of the inverter manufacture**

Please read and observe all safety information of the inverter manufacturer.

## **3. Symbols on the battery system**

Symbol	Explanation
	<p>Observe the documents Observe all documents supplied with the system</p>
	<p>Grounding conductor This symbol indicates the position for connecting a grounding conductor</p>
	<p>Disposal Do not dispose of the system together with household waste.</p>
	<p>CE marking The system complies with the requirements of the applicable EU directives.</p>
	<p>Place it straight up, without inclination or upside down.</p>
	<p>Handle with care</p>
	<p>Keep it dry</p>
	<p>Keep the battery packs away from open flame or ignition sources.</p>
	<p>Beware of electrical voltage.</p>

	<p>Beware of a danger zone</p> <p>This symbol indicates that the system must be additionally grounded if additional grounding or equipotential bonding is required at the installation site.</p>
	<p>Keep the battery packs away from children.</p>
	<p>Do not short circuit.</p>

#### 4. EU declaration of conformity

The battery system described in this document complies with the applicable European directives. The certificate is available in the download area of our websites.