

Sigen EV AC Charger

Important Notice

Version: 01

Release date: 2023-12-22



Copyright Notice

Copyright© 2023 Sigenergy Technology Co., Ltd. All Rights Reserved.

Description in this document may contain predictive statements regarding financial and operating results, product portfolio, new technology, configurations and features of product. Several factors could cause difference between actual results and those expressed or implied in the predictive statements. Therefore, description in this document is provided for reference purpose only and constitutes neither an offer nor an acceptance. Sigenergy Technology Co., Ltd. may change the information at any time without notice.

 **SIGENERGY** and other Sigenergy trademarks are owned by Sigenergy Technology Co., Ltd.

All trademarks and registered trademarks in this document belong to their owners.



Website

LinkedIn

YouTube

www.sigenergy.com

Contents

Revision History	4
Overview	5
Chapter 1 General Requirements.....	6
Chapter 2 Personnel Requirements	8
Chapter 3 Handling and Transportation Requirements.....	9
Chapter 4 Storage Requirements.....	10
Chapter 5 Operating Requirements.....	11
5.1 Routine Requirements.....	11
5.2 Equipment Installation	13
5.3 Cable Connection.....	14
5.4 Equipment Maintenance and Replacement.....	15

Revision History

Version	Date	Description
01	2023.12.22	First official release.

Overview

Introduction

This document describes the precautions for installing, operating, and maintaining of the Sigen EV AC Charger.




Target readers

This document is intended for:

- Trained and qualified installation personnel
- Technical support engineer

Sign Definition

The following signs may be used in the document to indicate security precautions or key information. Before installation and operation, familiarize yourself with signs and their definitions.

Signs	Definition
 Danger	Danger. Failure to comply may result in death or serious personal injury.
 Warning	Warning. Failure to comply may result in minor injury or property damage.
 Caution	Caution. Failure to comply may result in equipment damage and property loss.
Tips	Important or key information, and supplementary operation tips.

Chapter 1 General Requirements

Before installing, operating, and maintaining the equipment, familiarize yourself with this document.

The "Danger ", "Warning", and "Caution" items described in this manual are only supplementary to all precautions.

The Company shall not be liable for equipment damage or property loss caused by the following reasons:

- The installation environment does not meet international, national, or regional standards.
- Failure to comply with local laws, regulations, and regulations when transporting, installing, operating, or maintaining the equipment.
- The installation area does not meet the requirements of the equipment.
- Cables and tools used do not meet international, national, or regional standards.
- Damage caused by storage conditions that do not meet equipment requirements.
- Failure to follow the instructions and precautions in this document.
- Failure to follow the warning labels on equipment or tools.
- Negligent, improper operation or intentional damage.
- Damage caused by the customer or the third party company changing the use of our company's equipment.
- The equipment is damaged because the customer or a third-party company fails to use the accessories supplied with the packing box or purchase and install accessories of the same specification.
- Equipment damage caused by improper operations such as disassembling, replacing, or modifying the software code without authorization.
- Equipment damage caused by force majeure (such as war, earthquake, fire, storm, lightning, flood, debris flow, etc.).
- Damage caused by the failure of the natural environment or external power

parameters to meet the standard requirements of the equipment during actual operation (for example, the actual operating temperature of the equipment is too high or too low).

- The equipment was stolen.
- The equipment is damaged after the warranty period.

Chapter 2 Personnel Requirements

The personnel responsible for installation and maintenance of the equipment must receive strict training and get relevant certificates, be familiar with local laws, regulations, and related standards, understand the structure and working principles of the system, understand various safety precautions, master the correct operation methods, and possess the operation qualifications required by the local country.

Chapter 3 Handling and Transportation Requirements

- Wear personal protective equipment, such as protective gloves and safety shoes, when moving equipment.
- Select a proper transport mode based on the weight of the equipment.
- When using a forklift, place the fork knife in the middle of the equipment, and bind the fork knife according to the actual situation. When moving, a special person should take care of it. No movement under the fork knife.
- Place the equipment according to the stacking requirements on the package. Stacking requires strapping and fastening.
- It is advisable to use protected means of transport. The equipment is prohibited from being subjected to rain, water immersion, etc.

Chapter 4 Storage Requirements

- The storage location must comply with local laws and regulations.
- Do not unpack the storage equipment.
- Do not expose the equipment to direct sunlight or to wet, dewy, dirty, rainy, flammable, explosive or corrosive environments.
- The storage location should be well protected against insects and rodents.
- When storing the equipment, place it according to the storage requirements on the package.
- During storage, periodically record the temperature and humidity of the storage environment.
 - Storage temperature: -40°C to 70°C , and 20°C to 30°C is recommended.
 - Relative humidity: 5% RH to 95% RH, and 40% RH to 50% RH is recommended.
- Please follow the "first-in, first-out" principle when shipping the equipment.

Chapter 5 Operating Requirements

5.1 Routine Requirements

Danger

High voltage, danger:

- Live operation of the equipment (including but not limited to installation, wiring, replacement, etc.) is prohibited.
- Do not extend sharp objects or fingers into the equipment.
- Do not operate the equipment in bad weather (including but not limited to thunder, rain, snow, typhoon, etc.).
- Do not clean or soak the equipment with water, alcohol, or oil to avoid power leakage.
- Do not hit, drag, or step on the equipment.
- Check the equipment for damage before operating it. Do not perform this operation if there is any abnormality (for example, deformed appearance or strange smell)
- When operating the equipment, wear protective equipment such as insulation gloves, shoes, and safety helmets. Conductive ornaments such as metal bracelets, rings and necklaces are prohibited.
- Use insulation tools when installing and connecting cables.
- Devices that need to be grounded are permanently connected to the protection ground. When connecting cables, connect the ground cable first. Before replacement of any equipment, remove the ground cable at last.
- Before touching the terminal, measure the voltage of the contact point to ensure that there is no danger of electric shock.
- Do not drop any foreign objects into the equipment when operating it.
- Please make sure that the equipment cable is properly connected before connecting the pre-MCB.
- Do not contact terminals on the equipment directly or by using other conductors after connecting the pre-MCB.

 **Caution**

- Do not connect cables or adapters that are not required for installing this equipment.
- Do not use the equipment for any purposes other than vehicle charging.
- Do not use a private generator as the power source for the equipment.
- Do not forcibly bend parts on the equipment.
- The I²t value of the EV charging connector (Case C) for the Model 3 charger should not exceed 80,000 A²s in the case of a short circuit.
- The I²t value of the EV socket outlet (Case B) for the Model 3 charger should not exceed 75,000 A²s in the case of a short circuit.

5.2 Equipment Installation

Warning

When handling the equipment, be prepared to support the load in order to avoid slips and injuries.

Drilling Safety

- Do not drill holes on the equipment.
- Wear safety goggles and protective gloves when drilling holes.
- Do not place the equipment near the drilling position to prevent debris from falling into the equipment.
- After drilling holes, clean them in time.

5.3 Cable Connection

Danger

- Before connecting cables, ensure that the equipment is not damaged.
 - Before connecting or removing cables, ensure that the front and rear switches of the equipment and its own switches are disconnected.
-
- Do not intertwine or cross cables. You are advised to bundle cables by category.
 - Do not use cables whose insulation layer is damaged, and do not have sharp edges or burrs in the holes where cables pass through.
 - Keep cables away from heat sources to prevent cable aging in a high temperature environment.
 - The lower the ambient temperature is, the more brittle the plastic cable skin will be. To prevent skin cracking during installation, install the cable at a temperature higher than 0°C and handle the cable with caution. If cables are stored in an environment below 0°C for a long time, move them to an environment above 0°C for at least 24 hours before using them.
 - Always use a cable with sufficient length instead of using an extension cable.

5.4 Equipment Maintenance and Replacement

Cut off the power supply to the equipment before maintenance or replacement. Power up and put the equipment back into operation only after trouble is eliminated or replacement is complete.