

LiFePO4 Battery ESS Use Manual

IYP-286KWH-100KH3M-HP1

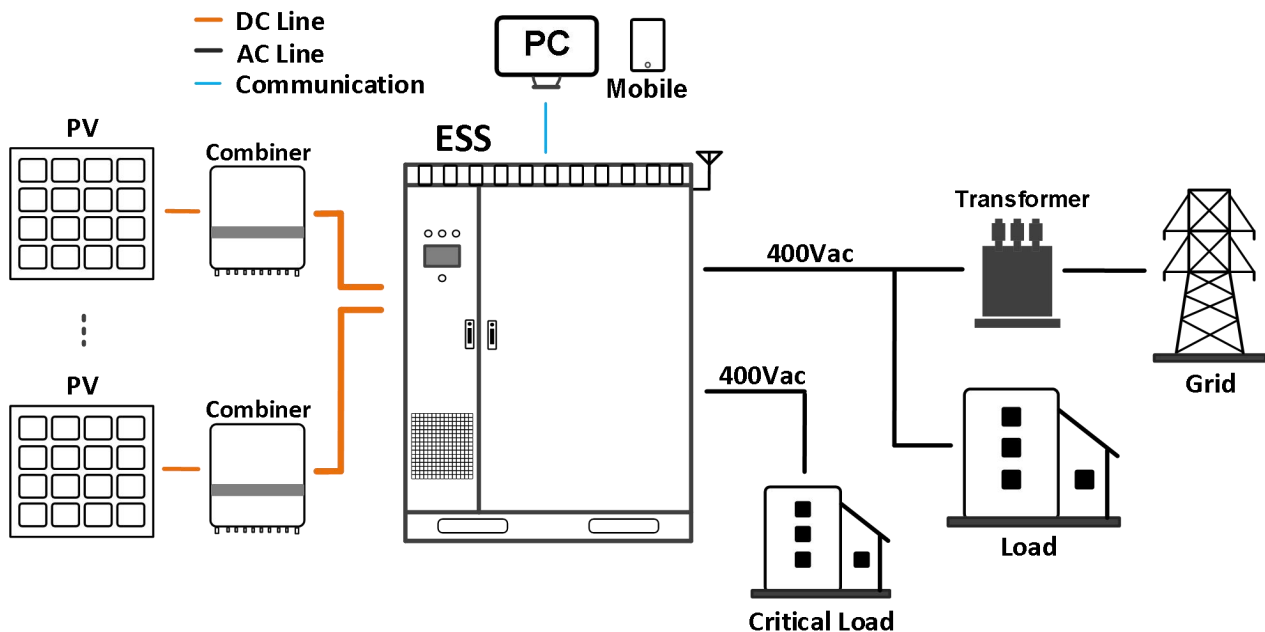


1. Introduction

1.1 System Introduction

IYP-215KWH-100KH3M-HP1 is LiFePO4 battery energy storage system (ESS). It includes LiFePO4 Battery with BMS, PCS, EMS, Fire-Protection System, Air-Conditioner etc. And the battery energy is 215KWh, the PCS power is about 100KWh. The system is composed by three ESS containers and one AC combiner container.

1.2 Application diagram



1.3 Safety Introduction



This sign indicates a hazardous situation which, if not avoided, could result in death or serious injury.



The All-In-One ESS must not be touched or put into service until 10 minutes after it has been switched off or disconnected to prevent an electric shock or injury.



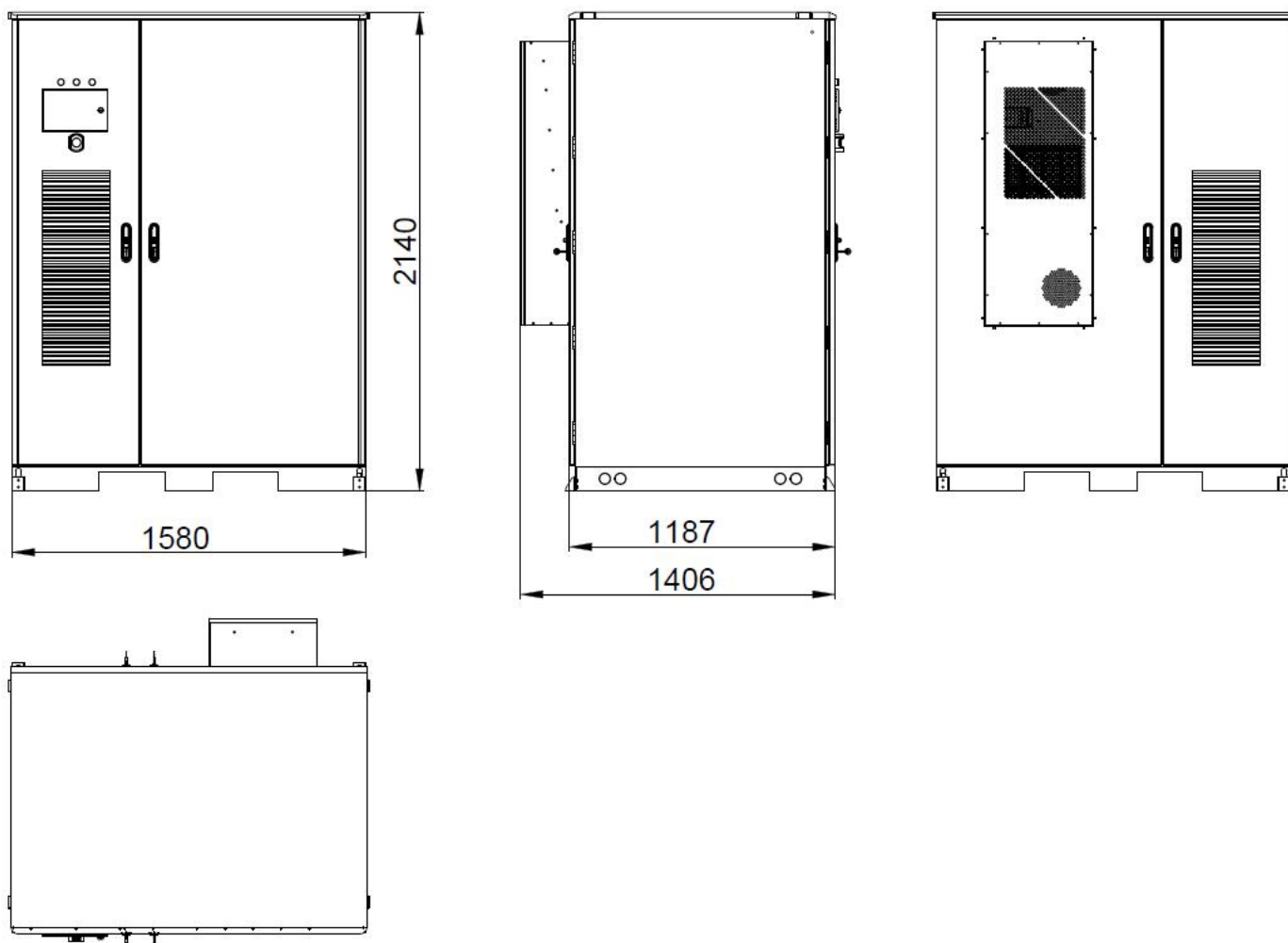
This sign shows danger of hot surface.

CAUTION:

Risk of injury through lifting or dropping the system. The system is heavy. There is risk of injury if system is lifted incorrectly or dropped during transport. Lifting and transporting the system must be carried out by crane.

1.4 Dimension(Cabinet)

1.4.1 ESS Cabinet



Size: 1580mm*1406mm*2140mm

2. Installation

2.1 Product Overview

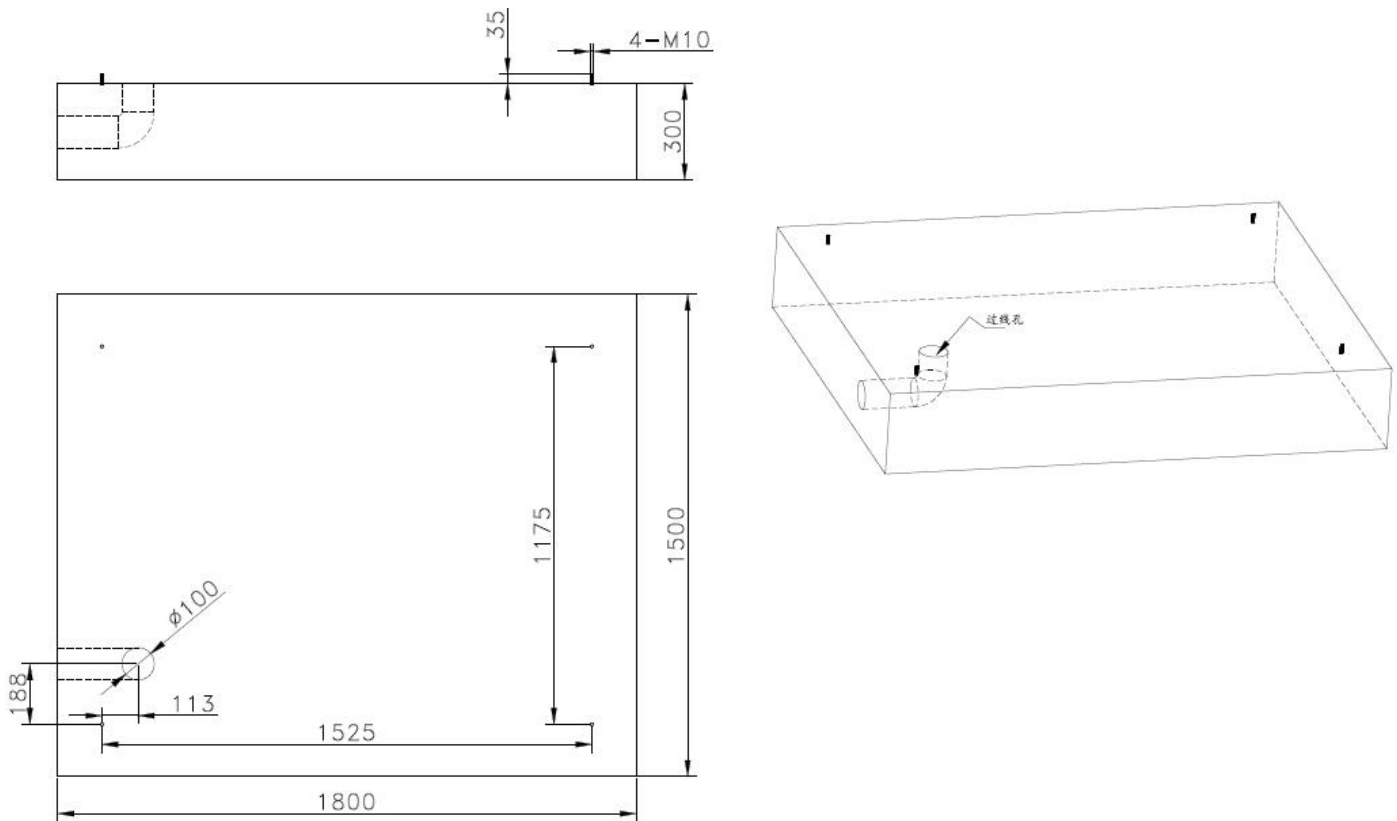


No.	Name	REMARK
1	LCD	ESS information display
2	EPO	Emergency Power Off (Emergency Stop)
3	POWER	24V POWER
4	RUN	ESS work normally
5	FAULT	Fault
6	Slaver battery	15 pcs
7	Master battery	
8	Controller power switch	
9	EMS	Energy Management System
10	MPPT	PV MPPT controller
11	PCS	Power Conversion System
12	STS	On-grid and Off-grid switch
13	PDU	Power distributor Unit
14	A/C	Air-Conditioner

2.2 Fixed Type

It is fixed on the cement pier by stainless steel screws. And the size of cement pier is as follows.

Be sure to bury the PVC pipe or metal tube and wire in advance.

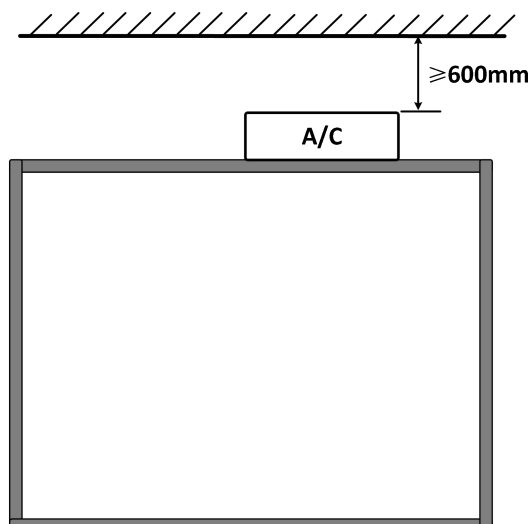


Caution: cement pier height is 150~300mm

2.3 Installation Cautions

CAUTION:

1. The system must be installed by M10*20 stainless steel screws.
2. Keep the Air-Conditioner more than 600mm clear of obstacles.
3. The earth must be connected by 10mm² copper wire tightly.



2.4 System Operation

2.4.1 First Start

When turning on the system, it is very important to follow the steps below to prevent damage the system.

WARNING: Please check the installation and parallel connection again before turning on the system.

Step1: Turn on the battery.

Press the key (SW) of master battery and turn on the DC battery breaker



Step2: Turn on Controller Power Breaker



Step4: Turn on Breaker of PV, GRID, LOAD.

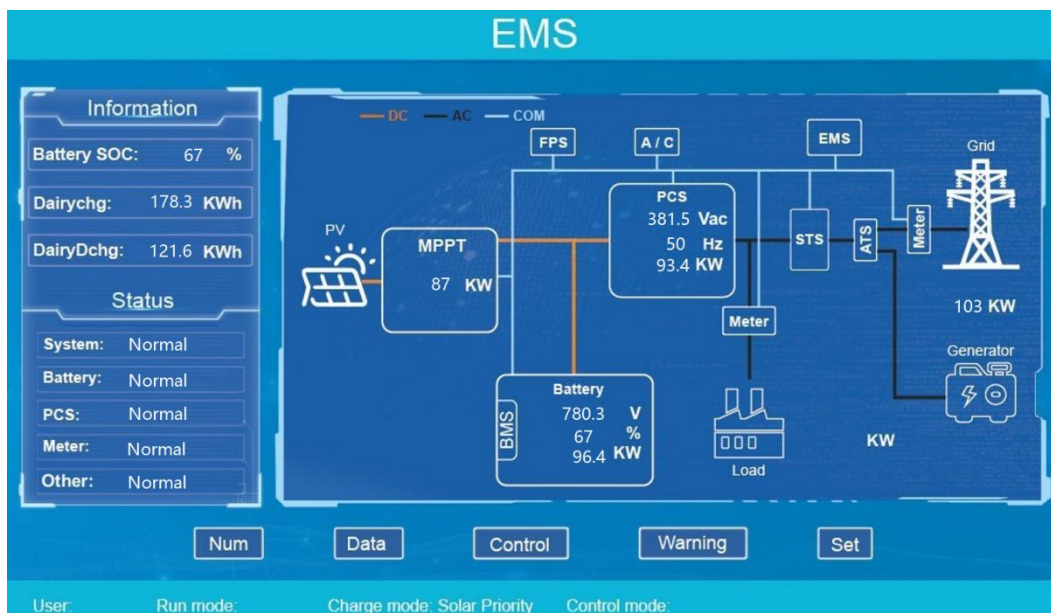


NOTE:

High voltage dangerous!

2.5 LCD Operating Introduction

EMS



3. Warning

High voltage is danger

It is prohibited to operate high voltage with bare hands

Keep away from water and fire sources

Disassembly of internal modules is prohibited

Ambient temperature must be lower than 45 degrees

Read the operating instructions before use

When the battery is low, be sure to recharge the system in time

Ensure the container balance when lifting and installing

In case of abnormality, please contact us immediately

4. Specification

LiFePO4 Battery ESS

Items	Model	IYP-286KWH-100KH3M-HP1
System	Battery rated energy	286KWh
	PCS rated power	100KW
	Communication	RS485/WiFi
Battery	Battery type	LiFePO4 Battery
	Rated energy	286KWh
	Nominal voltage	512V
	Rated capacity	560Ah
	Standard charge current	200A
	Max. charge current	220A
	Max. discharge current	200A
	Slaver modules	15pcs
	Master module	1pcs
	BMS	Yes
	Communication	CAN
PCS (one cabinet)	Max power	100KW
	DC voltage range	650~900Vdc

	Rated AC voltage	400Vac/230Vac (L1/L2/L3/N)
	Rated AC frequency	50Hz/60Hz
	Max AC current	145A
General Parameters	IP grade	IP54
	Work temperature	-15~45℃
	Humidity	5%~90%
	Altitude	<2000m
	Cooling method	Battery: Air-Conditioner the other: Fan cooling
	Size	1580mm*1406mm*2140mm
	Weight	2700kg(about)