Introduction to CHS2

Revolutionize Energy Storage Solutions

CONTENTS

01 CHS2 & Solutions

1.1-CHS2 Series Introduction

CH2-IP66
CH2-29.9~63K-T4/T5/T6

Currently available models for sale: CH2-50K-T6

CB2-IP55
CB2-57.3~100.3-HV5

Currently available models for sale: CB2-100.3-HV5

CHS2-29.9~63K-T4/T5/T6-X

CHS2-50K-T6-X
X indicates the Battery Rated Capacity

CB2-IP20
High voltage control box：CBC2-HV5

Battery pack：CBU2-14.33-HV5
(Each battery pack is 14.33 kWh)

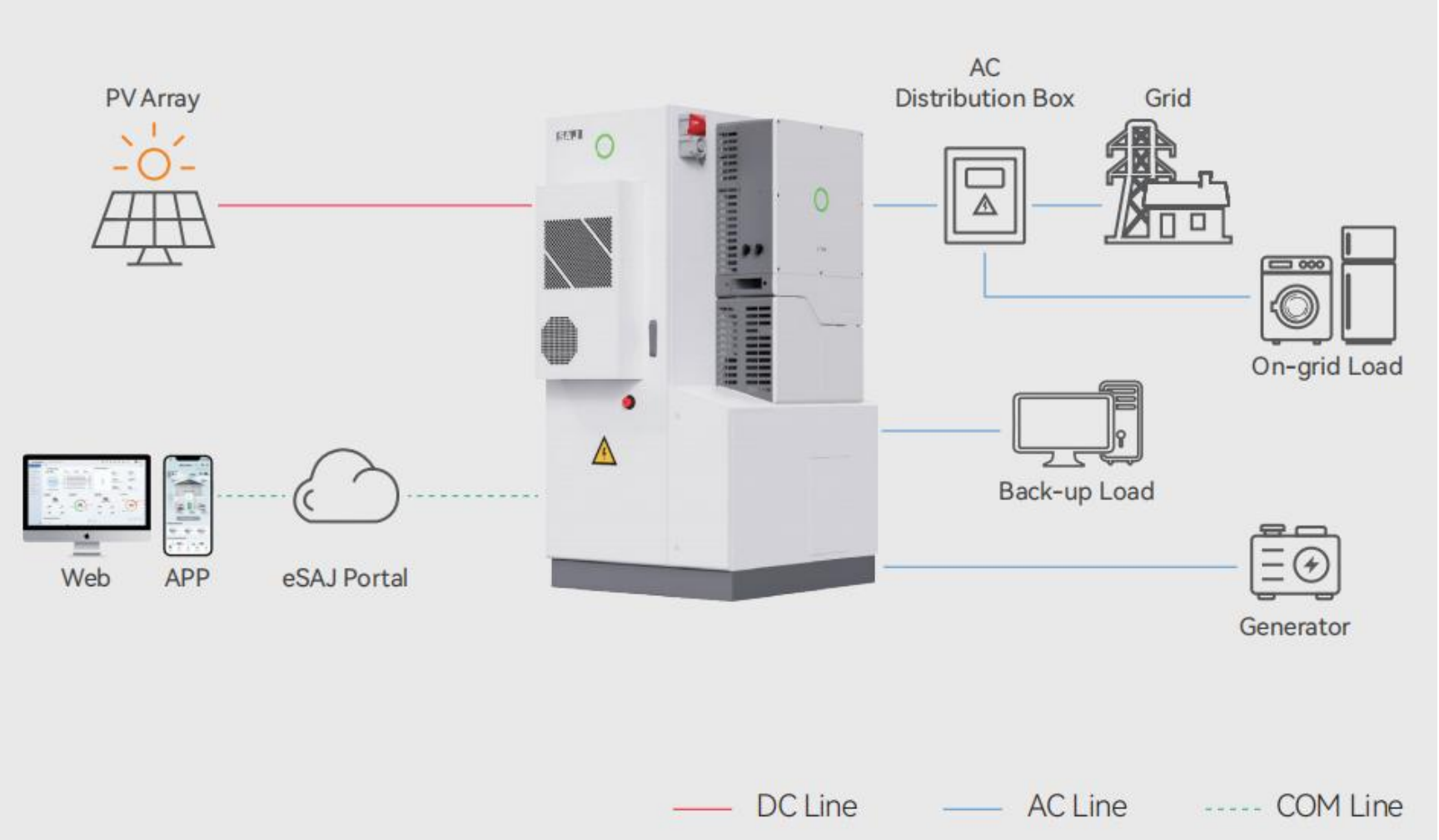
Battery bracket：CBT2-100.3-HV5
(Up to 7 battery packs, 100.3 kWh)

CB2-IP20
High voltage control box：CBC2-HV5

Battery pack：CBU2-14.33-HV5
(Each battery pack is 14.33 kWh)

Battery bracket：CBT2-186.2-HV5
(Up to 13 battery packs, 186.2 kWh)

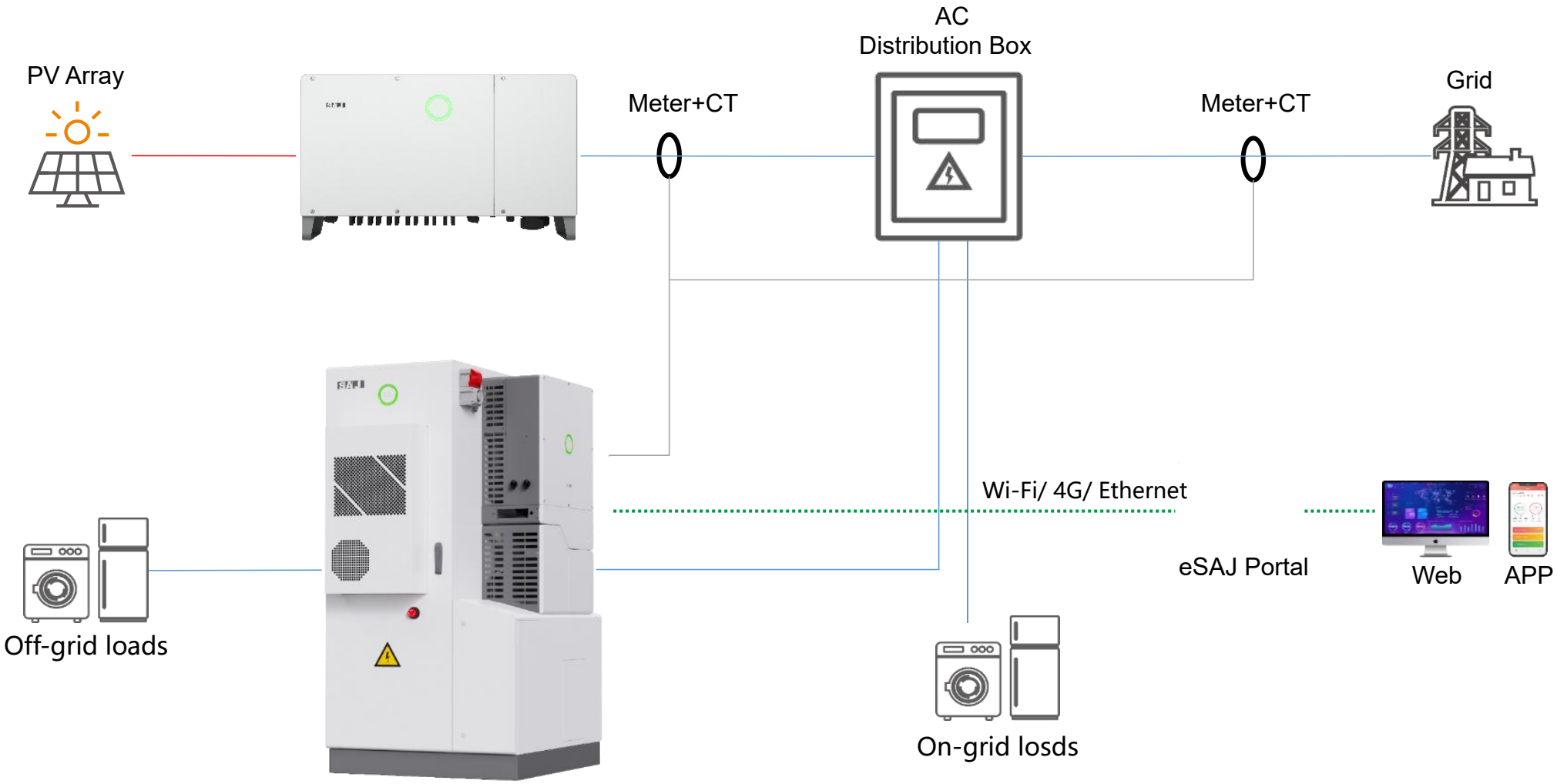
1.2-CHS2 Solutions



Main application scenarios:

1. Unstable grid areas
2. High electricity prices/Large peak-to-valley price difference areas
3. Off-grid scenarios
4. Subsidized policy/VPP Subsidized markets

1.3-CHS2 Solutions:AC Couple

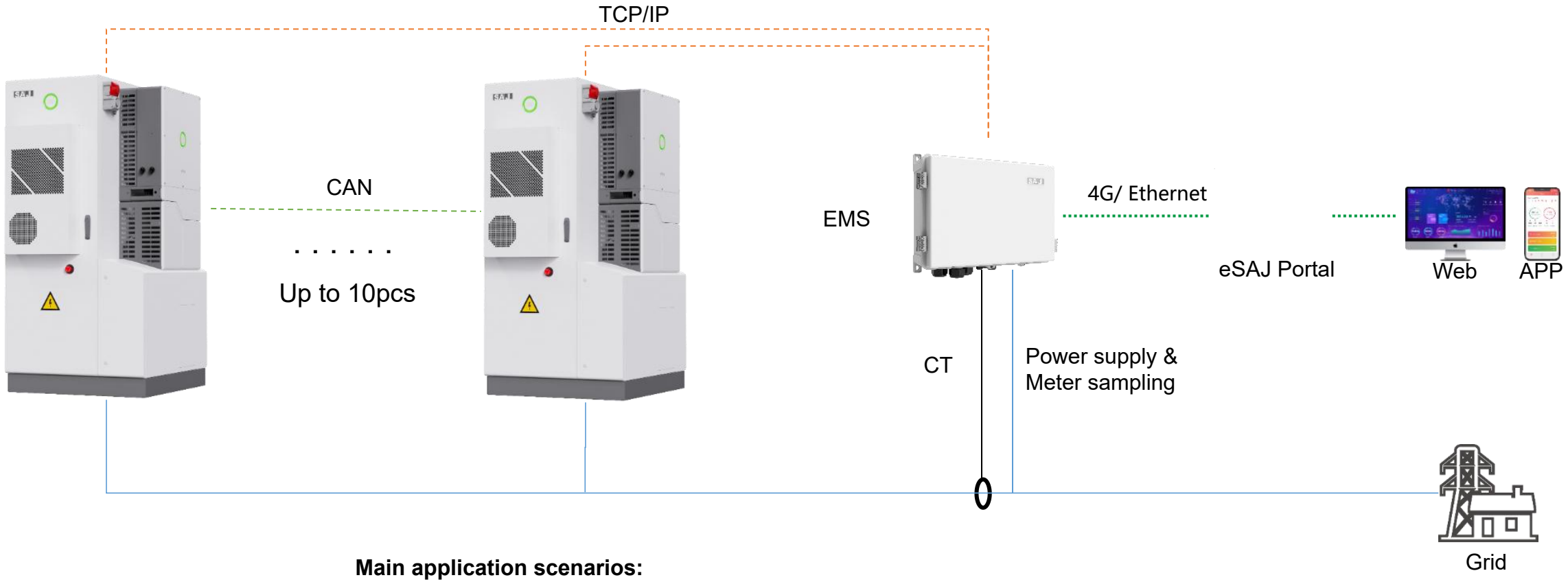


Main application scenarios:

1.Energy storage renovation

2.Due to the site installation conditions are limited (such as DC cable is too long), PV and Energy storage need to be separate scenarios.

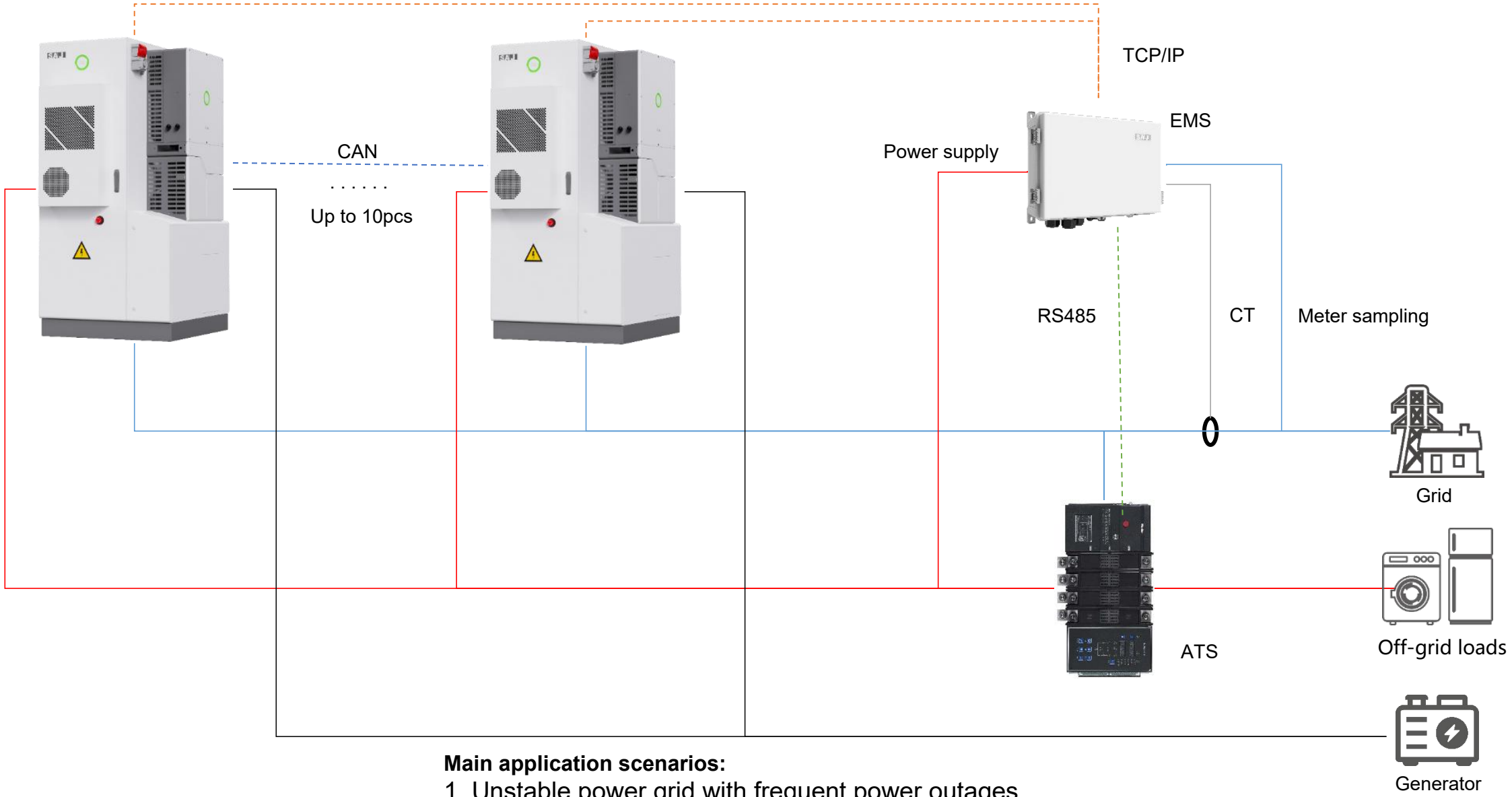
1.4-CHS2 Solutions:On-Grid parallel



Main application scenarios:

1. Scenarios where the power grid is relatively stable
2.Users have high load power, such as factories, farms, commercial complexes, etc

1.5-CHS2 Solutions:Off-Grid parallel

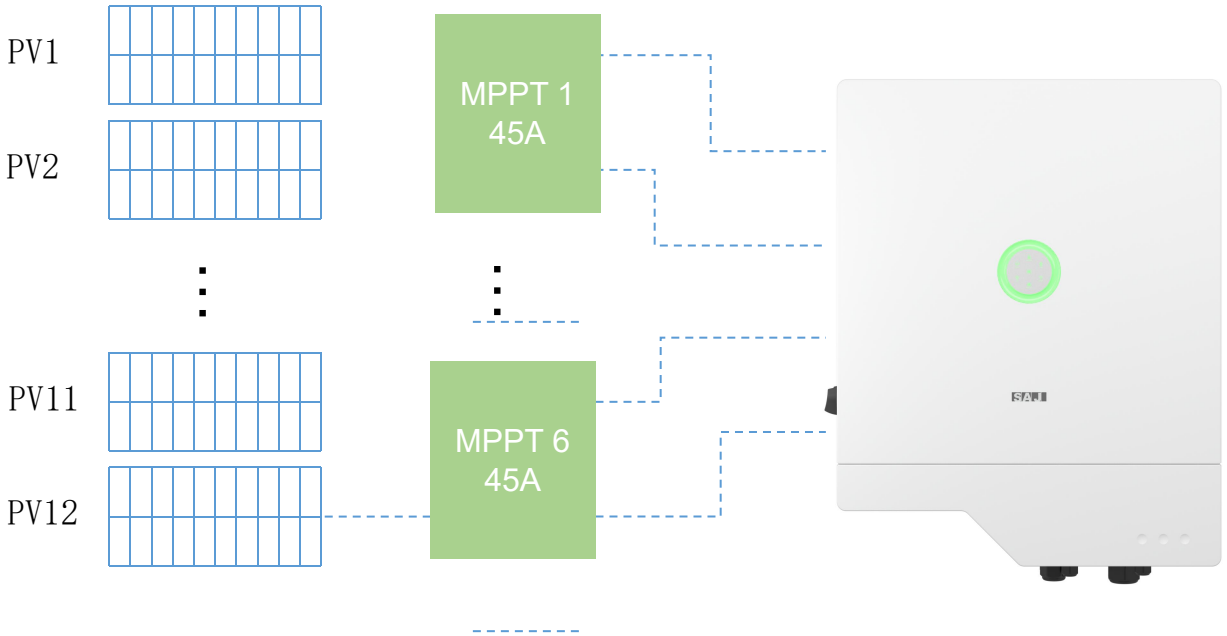


Main application scenarios:

1. Unstable power grid with frequent power outages
2. No grid scenario (islands, micro-grids)

02 Selling points and Competitor analysis

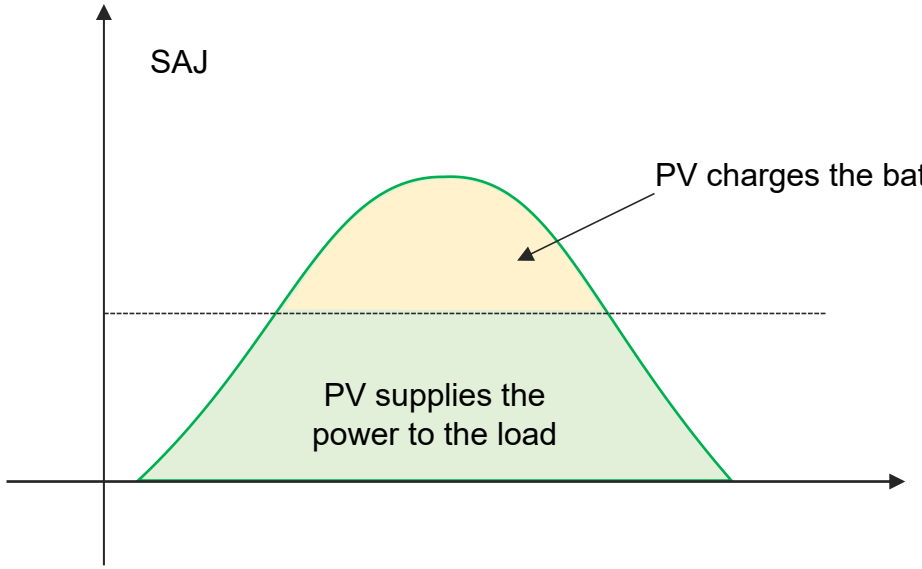
2.1-CH2-PV Input

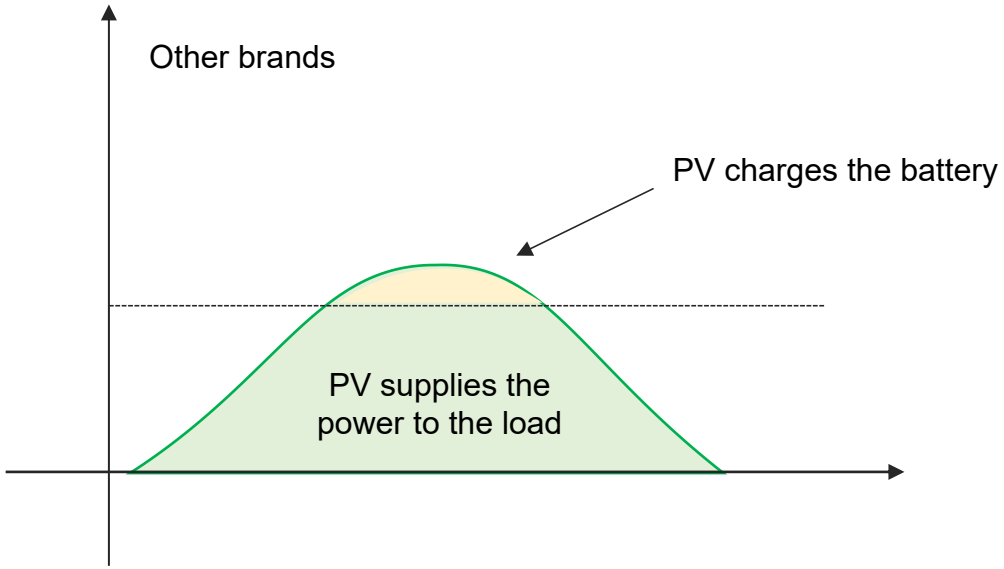


- **Max 22.5A input current，match high power (210) PV panel.**
- **Up to 6MPPTs, 200% PV oversizing.**When the PV power is supplied to the inverter for full power operation, the battery is also charged. Maximize energy utilization.

Brand	Deye	Solis	KSTAR	SOLINTEG	AISWEI	ATESS	SAJ
MPPT Quantity	4	4	3	4	6	3	**6**
Maximum string current [A]	18A	20A	18A	15A	18A	20A	**22.5A**

2.2-CH2-200% PV oversizing





The Photovoltaic Storage System can store excess energy into the battery through the PV oversizing, providing power to the load in case of power outage or insufficient sunlight.

Slightly high of the initial investment in PV panels.

The optimal investment ratio depends on factors such as the project's geographical location, design details, and electricity costs.

Much More Energy Yield * in 10 years

ROI(Return on investment) Significantly improved

Maximize energy self consumption.

25% cost per kWh reduced

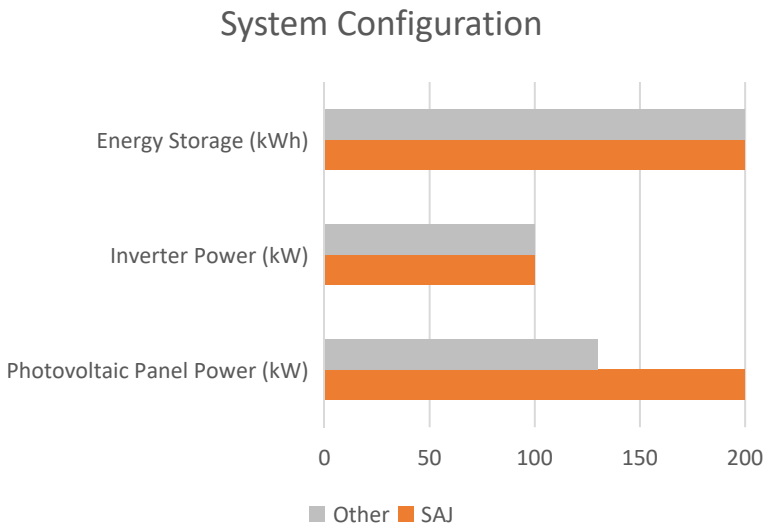
*Simulated calculation parameters:

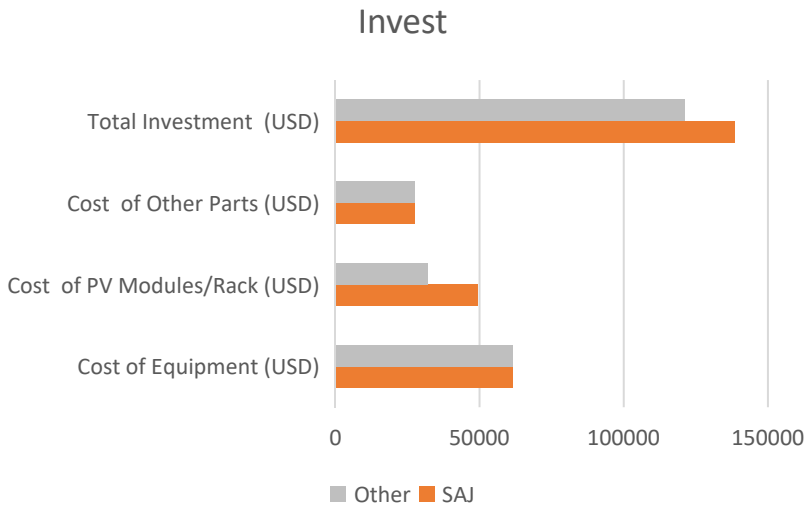
1. location is in Johannesburg,SA
2. Panel cost: 0.15$/W
3. This calculation does not include efficiency attenuation, and the results are for reference only

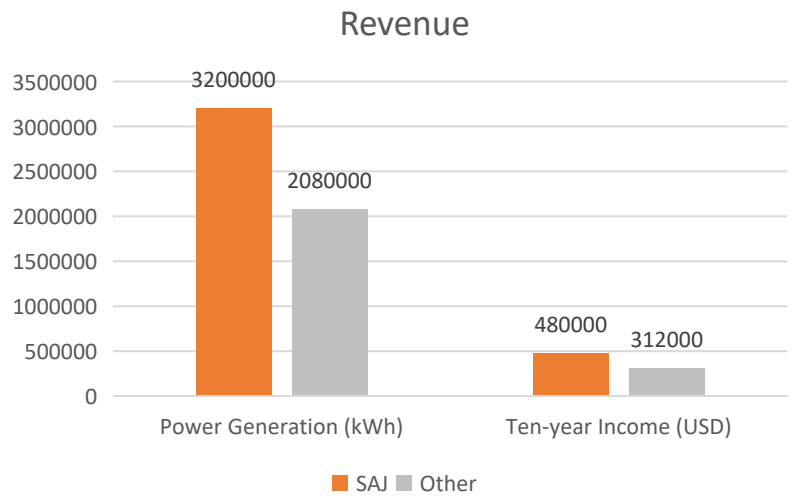
2.3-CH2-25% LCOE reduce and 32% higher revenue

The initial investment of the SAJ solution is **14.25%** more than that of the other solution.

The power generation in ten years can increase by **54%**, and LCOE（Levelized Cost of Energy） can be reduced by **25%** in ten years.







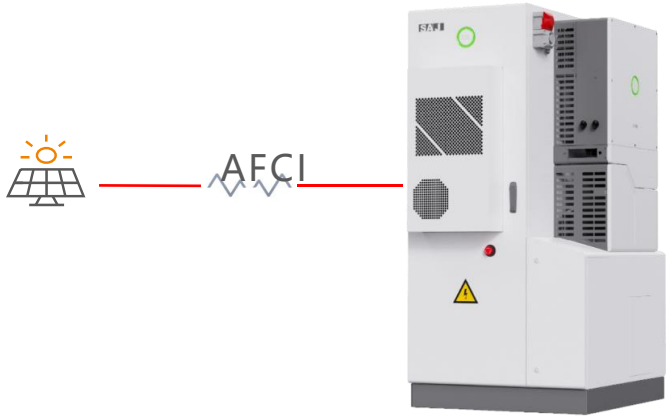
2.4-CH2-AFCI Standard configuration

More than 50% of fire accidents in photovoltaic power plants are caused by DC Arc.

The continuous Arc will generate high temperatures of 3000-10000 ℃;DC Arcs do not have zero crossing points, and once they occur, they will continue to burn and are difficult to extinguish, which can easily cause fire accidents.

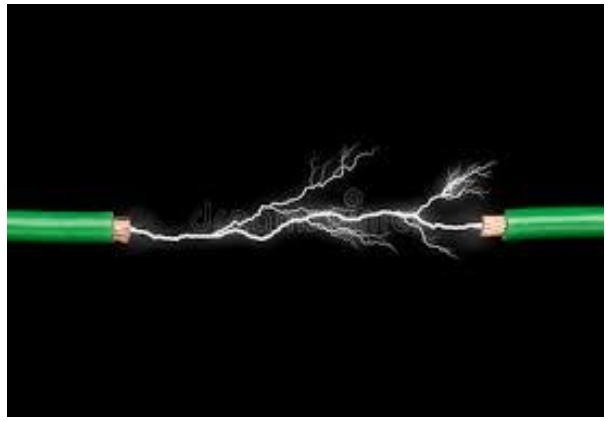
2.5-CH2-AFCI Standard configuration

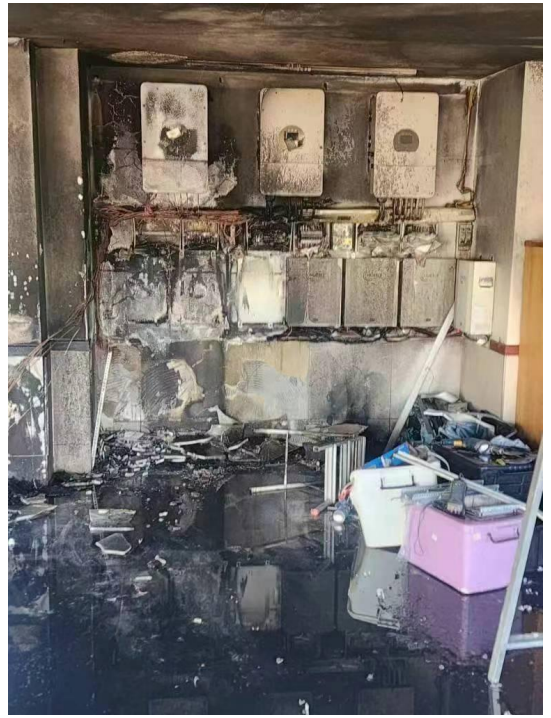
The SAJ inverter comes standard with AFCI, making safety a basic configuration.



- An Standard configuration AFCI module adopts a high-precision current sensor to collect the string current.
- The frequency spectrum of the sampled current is analyzed through the dc arcing detection algorithm to accurately detect the arcing position, quickly turn off the inverter, and send an alarm.
- Minimize the damage of the power plant caused by dc arcing and improve its safety.
- Complies with UL 1699B-2018 standard and IEC63027 (Draft).

Other brands, such as Deye's AFCI, are optional function that require additional costs. The safety has not guaranteed.





Protection	
Integrated	Anti-islanding Protection, PV String Input Reverse Polarity Protection, Insulation Resistor Detection, Residual Current Monitoring Unit, Output Over Current Protection, Output Shorted Protection, Surge Protection, Arc Fault Circuit Interruption (AFCI optional)

2.6-CH2-AC side Selling points

AC Overload capacity

AC Overload capacity is an important indicator of the inverter's output capability, with obvious advantages in off-grid scenarios.

Brand	Deye	Solis	KSTAR	SOLINTEG	AISWEI	ATESS	SAJ
Power	50kW	50kW	50kW	50kW	50kW	50kW	**50kW**
Continuous overload capacity	**1.1**	**1.1**	1.1	1.1	1.1	1.0	**1.1**
Short time overload capacity	**1.5**	**1.5**	/	1.2	/	1.2	**1.5**

AC Surge Protection

III General nominal discharge current 6KA,II General nominal discharge current10kA.

Three levels of Surge Protection：the inverter is at risk of short-circuiting when struck by a surge, usually without a feedback signal.

Two levels of Surge Protection：the inverter is open-circuit when struck by a surge and has a feedback signal.

Brand	Deye	Solis	KSTAR	SOLINTEG	AISWEI	ATESS	SAJ
交流侧防雷	III	**II**	III	/	/	**II**	**II**

SAJ's inverter has a stronger surge protection capability.

2.7-CH2-MAX 150A battery charging and discharging current

High capacity battery demand - Residential/Community scenarios

Note：This solution will be launched in Q2 2024

Industrial and commercial scenarios

Brand	Deye	Solis	KSTAR	SOLINTEG	AISWEI	ATESS	SAJ
Battery charging and discharging current	100A	140A	110A	100A	100A	100A	**150**
Battery system	100Ah	/	100Ah	280Ah	/	/	**280Ah**

String energy storage

*Flexible expansion: Users can choose to equip two clusters of batteries in the initial stage, and later add another cluster of batteries.

2.8-CB2-30% more cycles with 280Ah battery cells

280Ah High-performance batteries for long lifespan

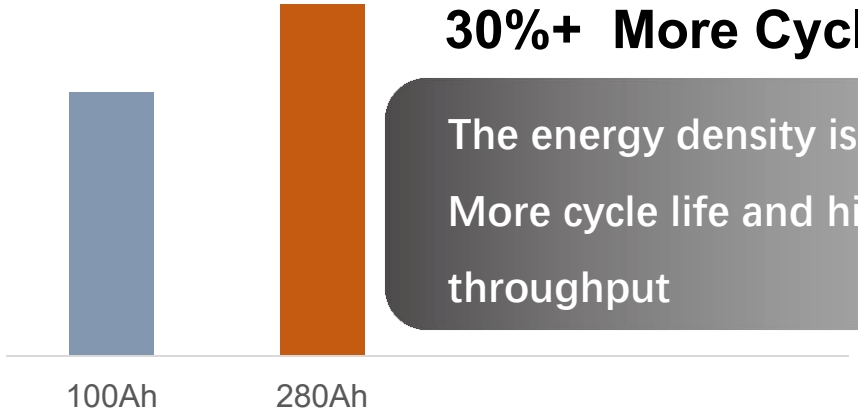
Other solution

- 6000+ times cycle life

SAJ solution

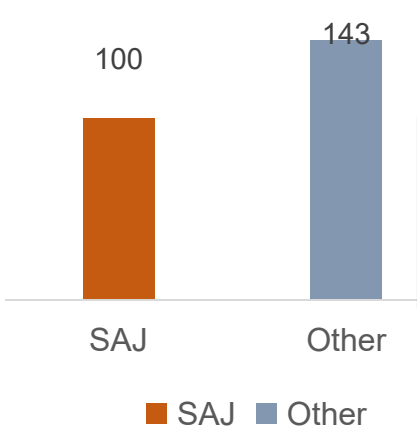
- 8000+ times cycle life

	Max. Charging/ Discharging Current	Charging/ Discharging C-ratel
SAJ	150A	0.5C
Other	100A	0.35C



30%+ More Cycles

The energy density is higher
More cycle life and higher power throughput



30% Less battery configuration

For 50kW AC output, The initial investment of the SAJ solution is lower than that of other solution

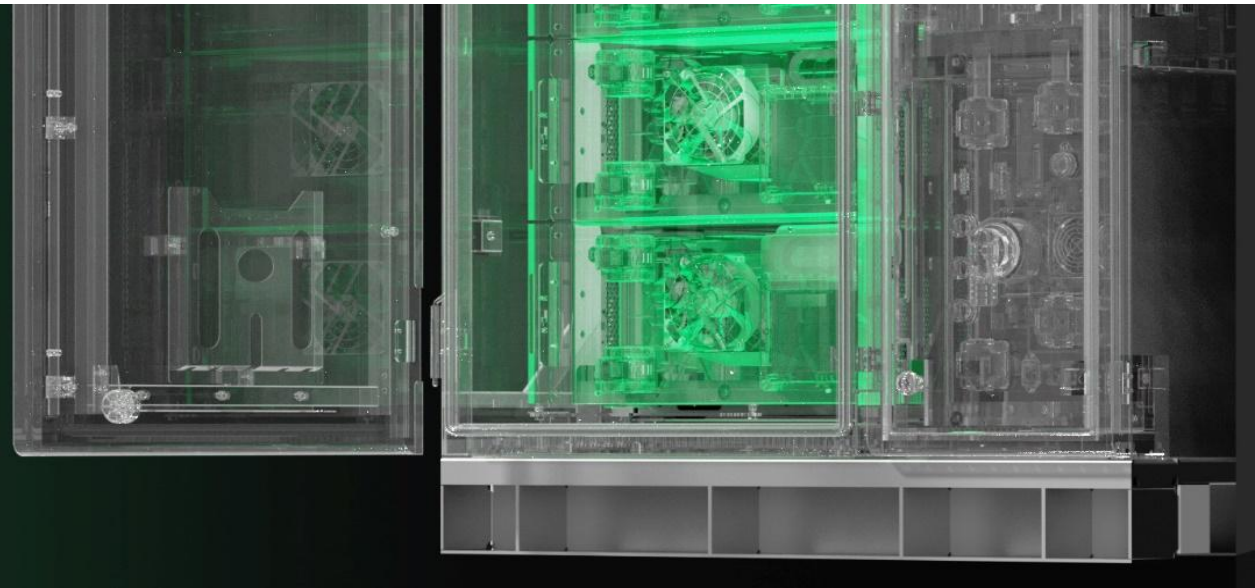
2.9-CB2-Battery System Selling points

High-performance

- 280Ah High-performance batteries for long lifespan.
- Supports 4PCS CB2 in parallel and connect 1PCS CH2, flexible capacity expansion.
- Stable operation at -30 ℃

Safe and reliable

- Adopted LiFePO4 280Ah high-capacity battery cells, safe and efficient.
- Cell-level temperature detection for precise monitoring of cell status.
- Integrated sensors for temperature and humidity, smoke, CO gas, flooding, etc.
- Integrated aerosol fire extinguishing and audible and visual alarms.
- Anti theft alarm.



2.10-CB2-Battery System Selling points

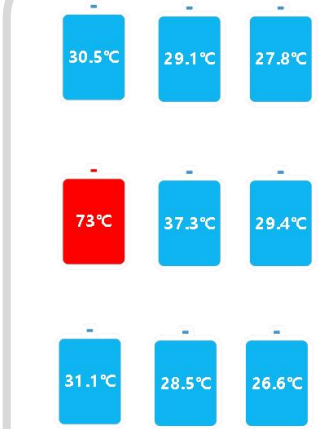
6 levels of active/passive fire protection to ensure the safety of customer's property.

1

Core-level voltage sampling

2

Core-level temperature sampling



3

High Precision Sensors

CO Sensor

Smoke Sensor

Temperature and humidity sensors

Flood sensors

4

Explosion-proof valve

5

Fire-fighting

Audible and visual alarms

Aerosol

6

Electrical safety

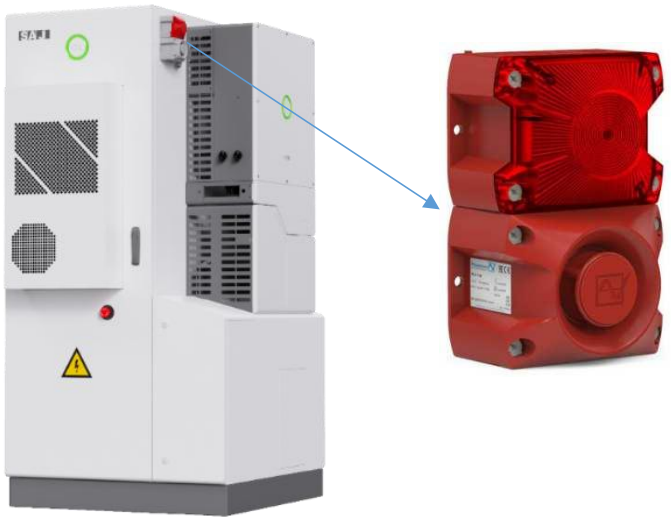
Positive and negative dual redundant contactors

Release switch

2.11-CB2-Alarms

Fire Grade Audible and Visual Alarms

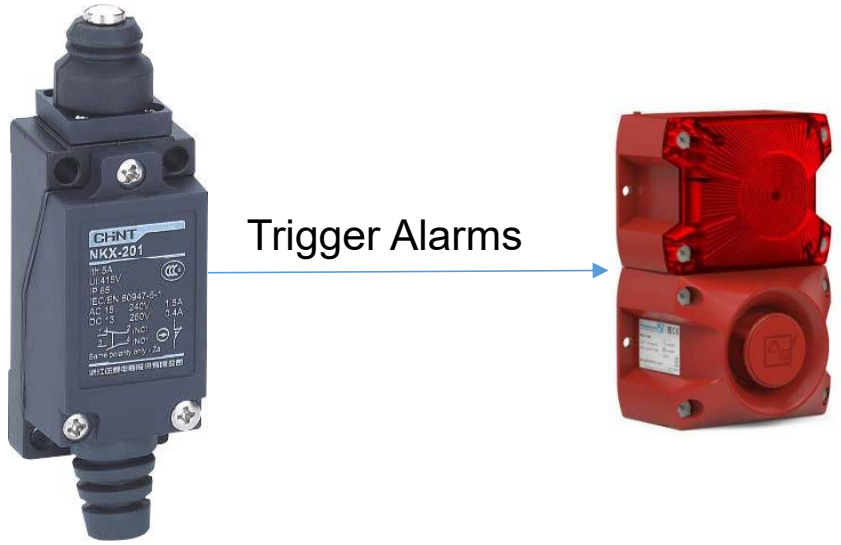
Battery cabinets with integrated audible and visual alarms, the first alarm in the event of an emergency, to reduce personnel and property damage.



Note:
Most of the competing products such as Deye and KSTAR do not have this function.
The emergencies occur, there is no timely alarm, may cause property damage, personal safety has not guaranteed!

Anti-theft alarm

Matching the travel switch, you can set the system to sound an alarm when the operating cabinet door is opened, and this function can be used for anti-theft alarm.



Note:
Off-grid scenarios require an optional UPS for this function.

2.12-CHS2-Save 60% of installation time

Installation

Pre-wiring to all components, minimize installation labor costs.

Requirement Space

Compact structural design, flexible installation, and maximum utilization of on-site space.

System

Battery system DC coupling reduces conversion losses and improves efficiency.

Stable & Reliable

- UPS function , with the switching time less than 10ms.
- 110% AC long-term overload operation.
- 280Ah High-performance batteries for long lifespan.
- Diesel generator connection , uninterrupted energy supply

Efcient & Green

- Up to 6MPPTs, 200% PV oversizing.
- Parallel connection up to 10PCS, easy for expansion.
- Green energy, reducing fossil fuel consumption
- Max 22.5A input current, match high power (210) PV panel.

Convenient Installation

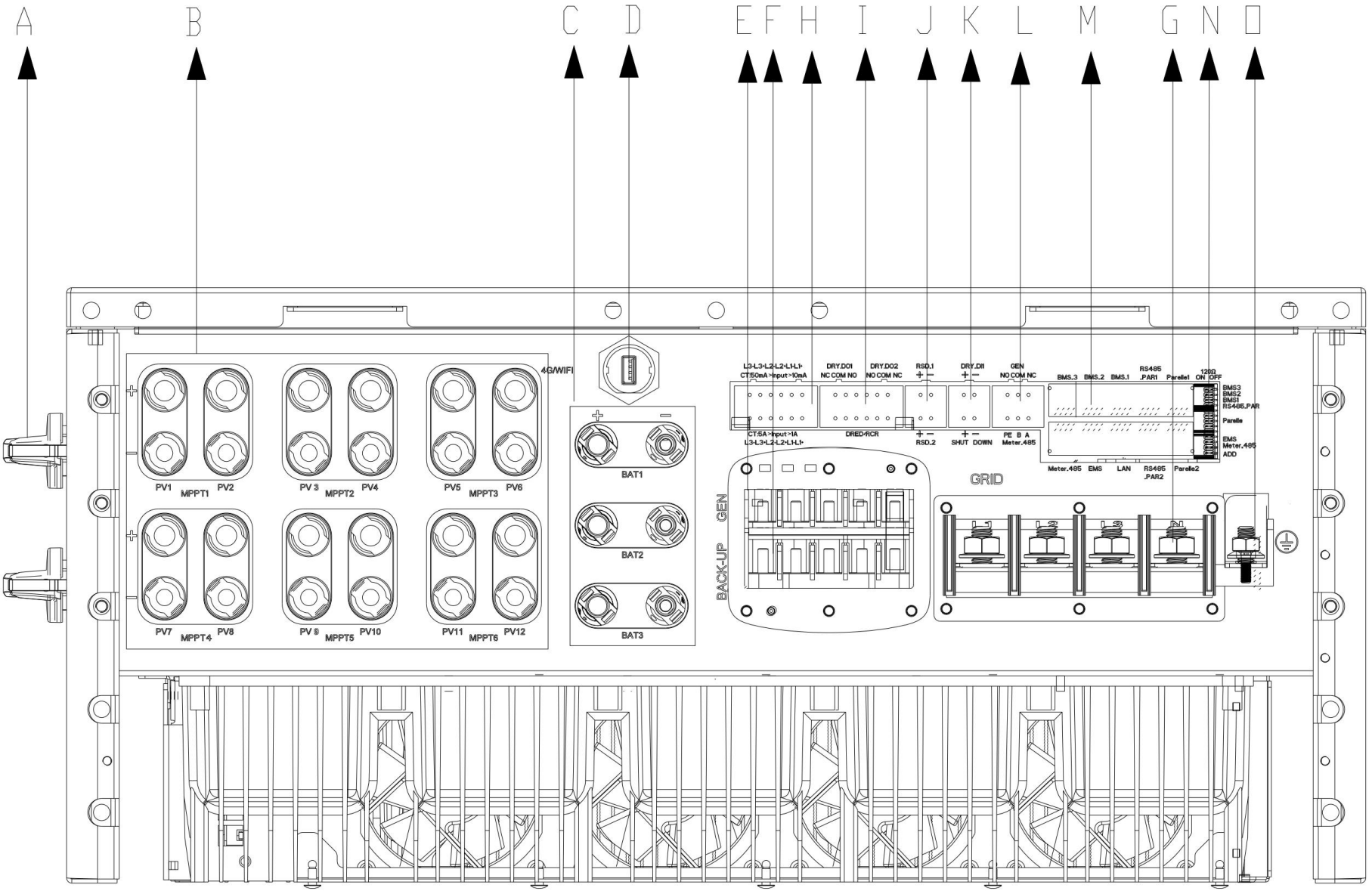
- ALL-IN-ONE design, simplifies installation steps.
- Reserved quick connect interface for easy installation.
- Factory preset APP data, one click to complete settings.
- IP55(Battery), IP66(Inverter), Easy maitenance.

Multiple security protection

- AFCI Support.
- Adopted LiFePO4 280Ah high-capacity battery cells, safe and efficient.
- 6 levels of active/passive fire protection to ensure the safety of customer's property.
- Cloud BMS Detection and Alarm.
- Professional management platform to protect the owner's information security.

3-1 External Interface -CHS2

3.1-External Interface-CH2



Code	Name
A	DC Switch
B	PV Input
C	Battery Port
D	4G/ Wi-Fi
E	Generator
F	Backup
G	Grid
H	CT
I	DO/DRED/RCR
J	RSD
K	DRY/EMERGENCY SHUT DOWN
L	Generator Start-Stop /Meter
M	BMS/ LAN/ EMS/ METER/ PARELLE
N	120 Ω resistor dial switch
O	Ground Connection

3.2-External Interface-CH2-PV Side Connection

Conductor cross-sectional area of cables（mm²）		Conductor material
Scope	Recommended value	Outdoor multi-core copper wire cable, complying with 1000Vdc
4.0~6.0	4.0	

3.3-External Interface-CH2-Battery Side Connection

Conductor cross-sectional area of cables（mm²）		Conductor material
Range	Recommend	Copper
-	10.0	

Note: The CHS2 system has already been connected to the wire before leaving the factory.

3.4-External Interface-CH2-AC Side Connection

1、Recommended specifications of GRID cables

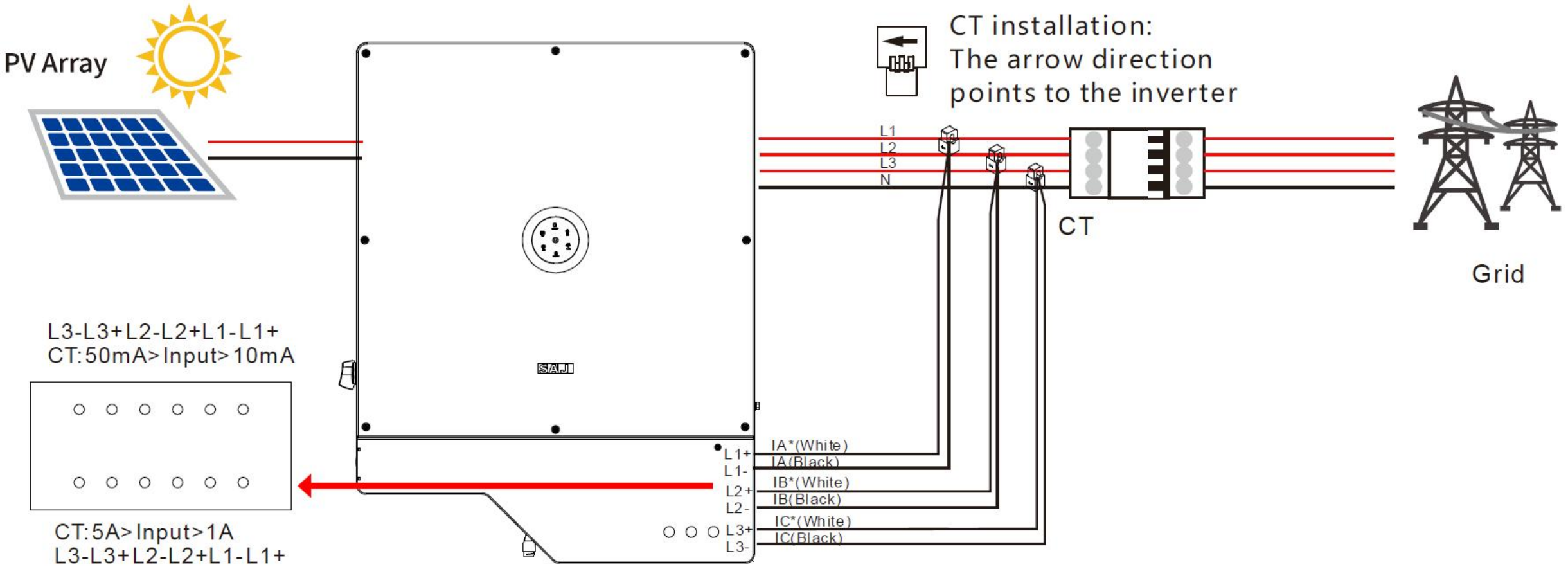
Cable cross-sectional area（mm²）		Conductor material
Range	Recommend	Copper
25~35(Tested max 75)	25	
Grounding cable cross-sectional area (mm²): 16		

2、Recommended specifications of GEN and Back-up cables

Cable cross-sectional area（mm²）		Conductor material
Range	Recommend	Copper
16~25	16	
Grounding cable cross-sectional area (mm²): 16		

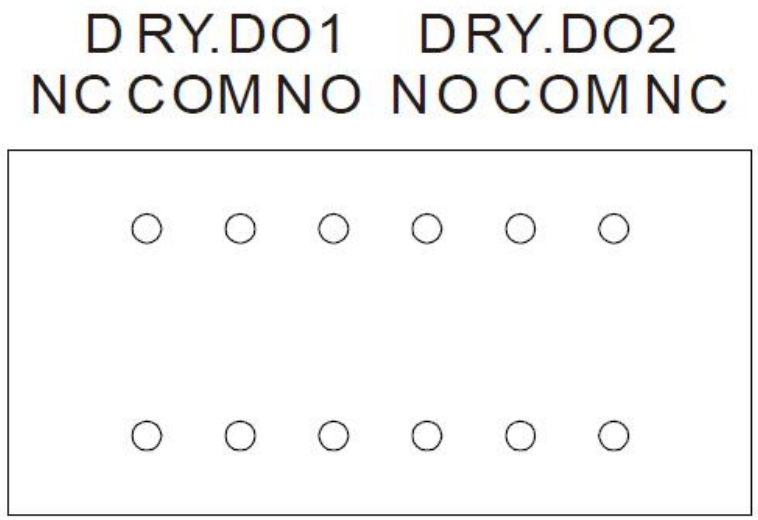
3.5-External Interface-CH2-Grid Current Sampling

External Interface-CH2-Grid Current Sampling

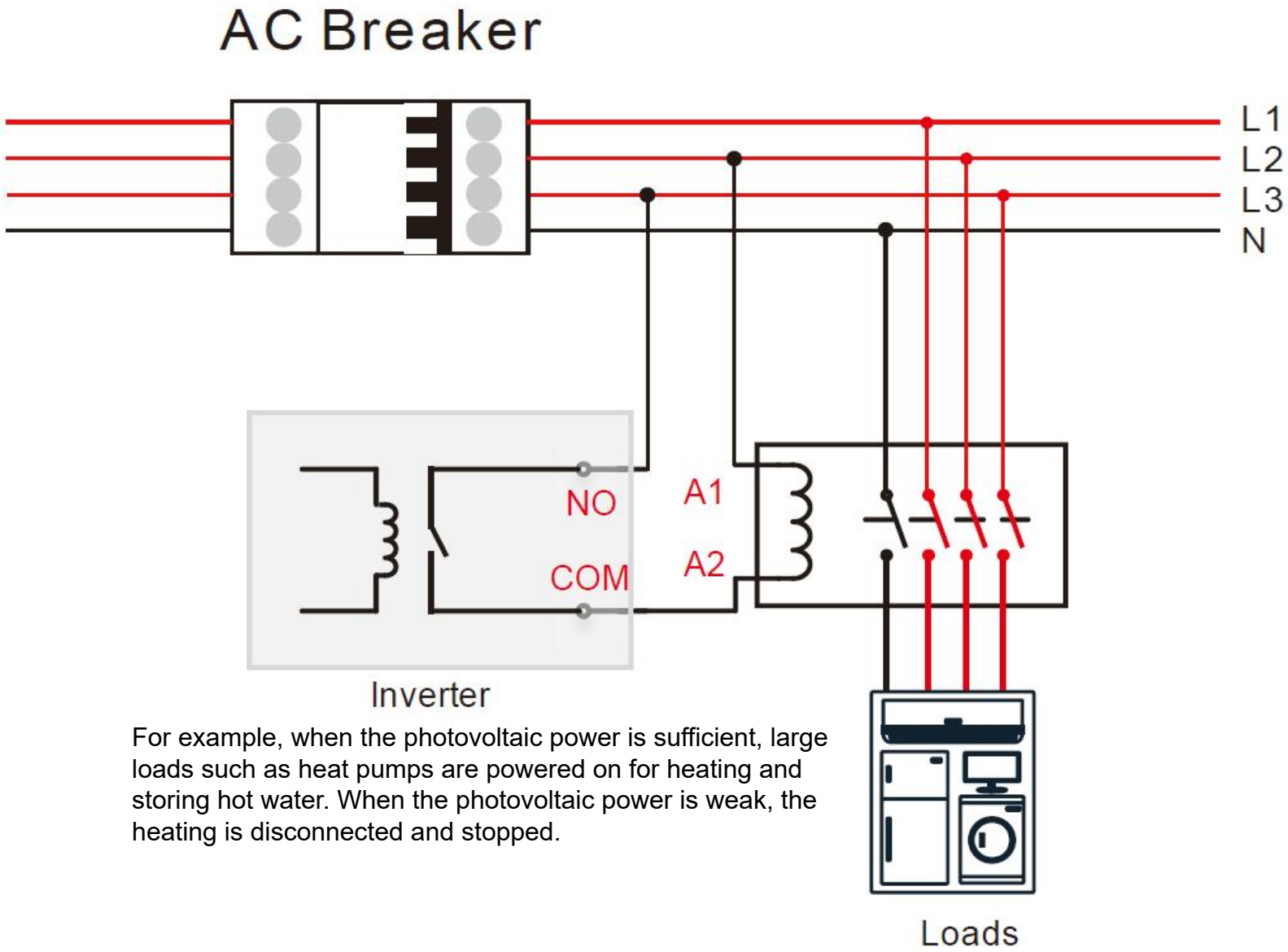


Note: CHS2 comes with current sampling function, waiting for the function to be completed.
Currently use the smart meter & CT solution first.

3.6-External Interface-CH2-Dry Contact Connection

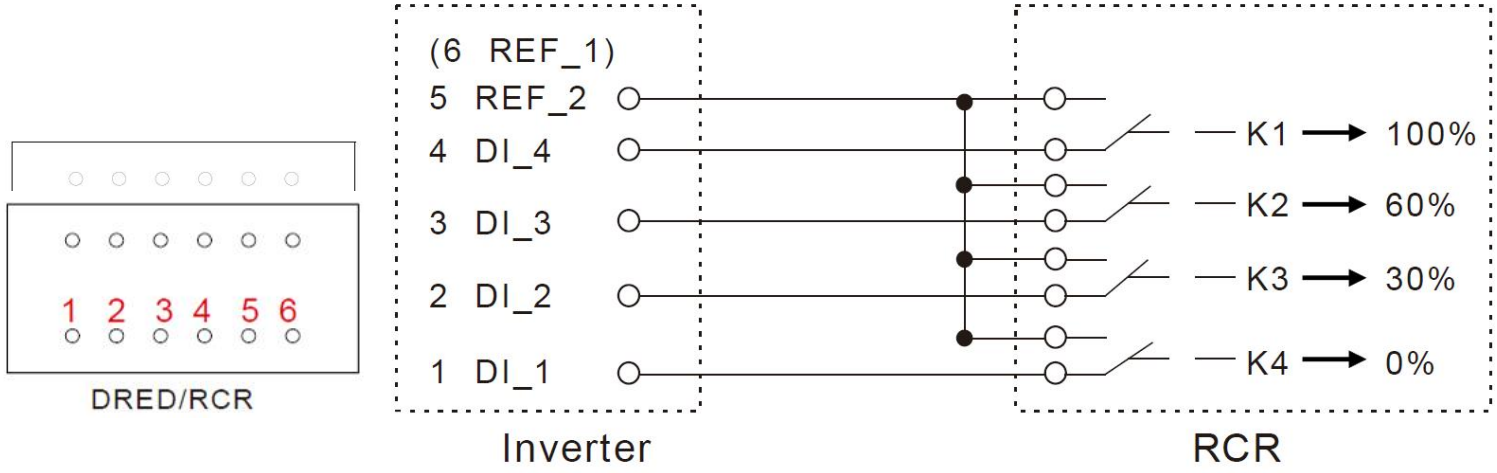


Note: Reserved output dry contact
NO is the normally open contact;
NC is the normally closed contact.
DO1&DO2 Energy scheduling.



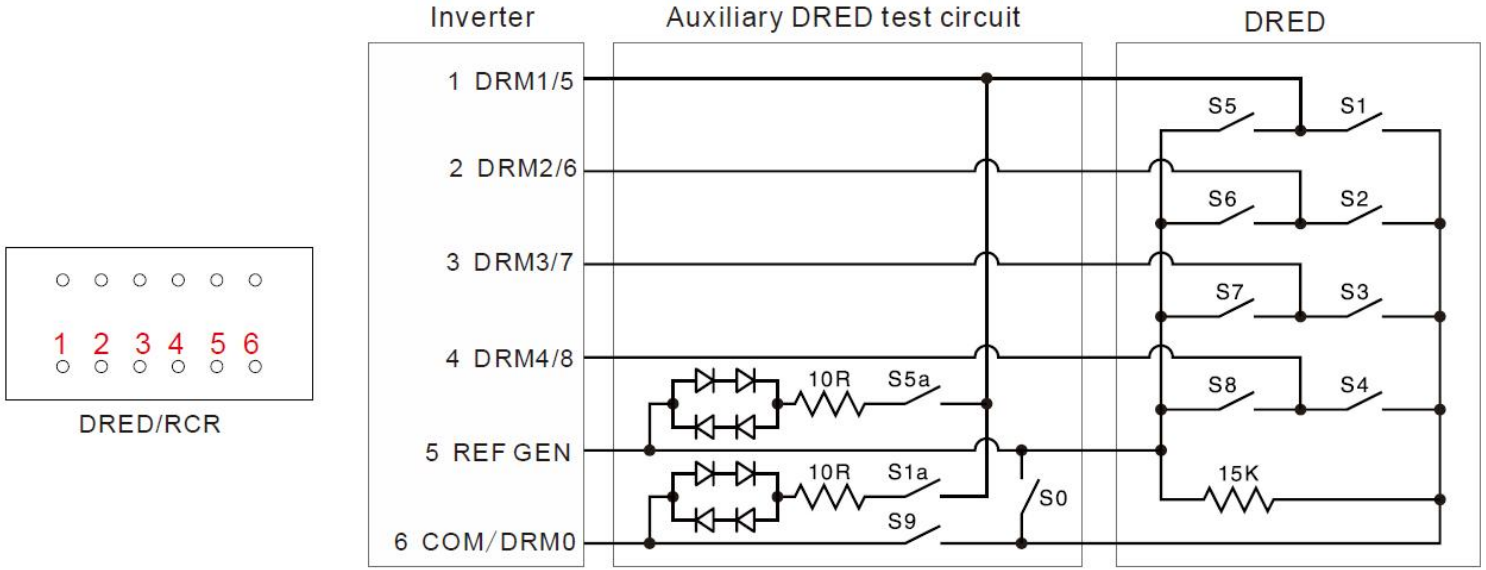
For example, when the photovoltaic power is sufficient, large loads such as heat pumps are powered on for heating and storing hot water. When the photovoltaic power is weak, the heating is disconnected and stopped.

3.7-External Interface-CH2-RCR/DRM Port



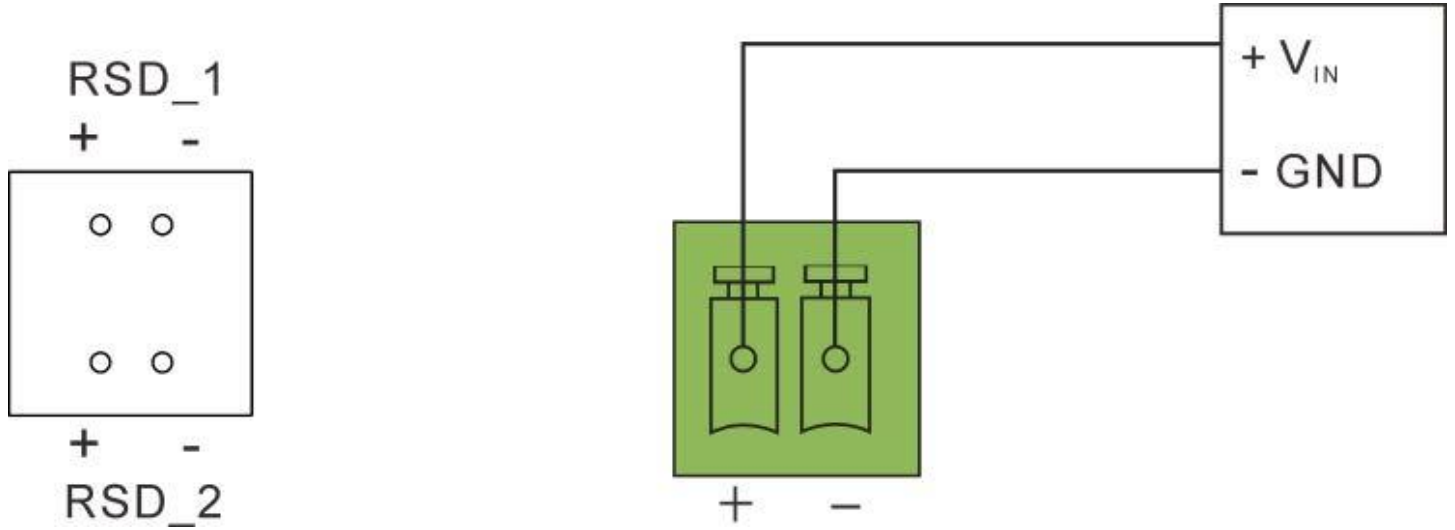
RCR controlling port provides the RCR signal to meet the needs of grid scheduling in Germany and other regions.

The RCR and DRM interfaces are the same, wired according to the diagram, and after wiring, it needs to be set in the APP.



DRED controlling port provides a DRED signal to meet the Australia DERD certification requirements and other regions.

3.8-External Interface-CH2-12V Power Output(RSD)

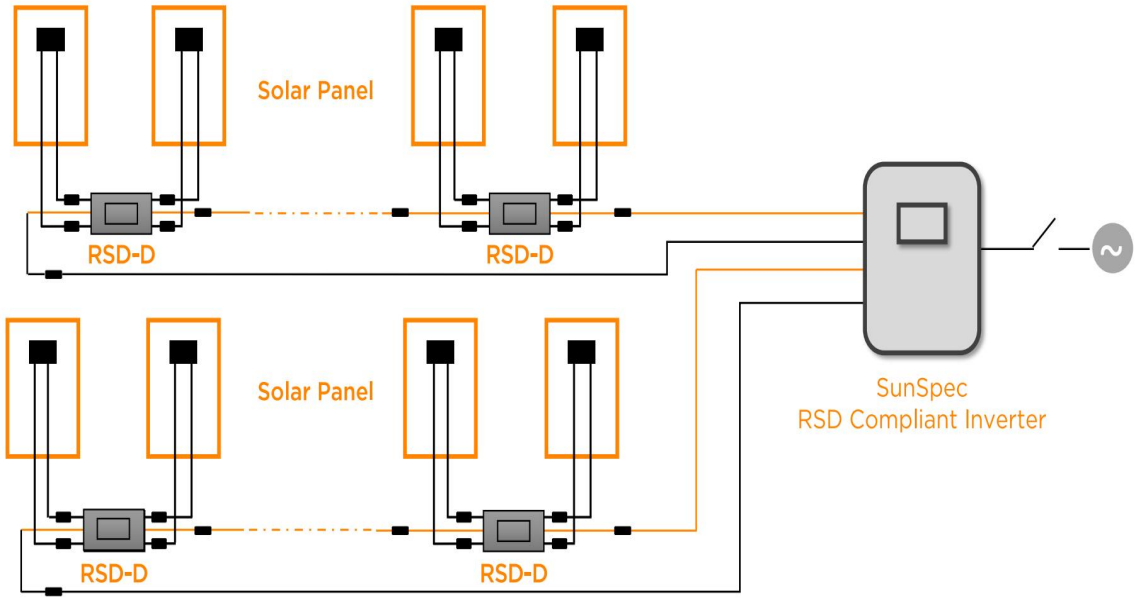


Note:

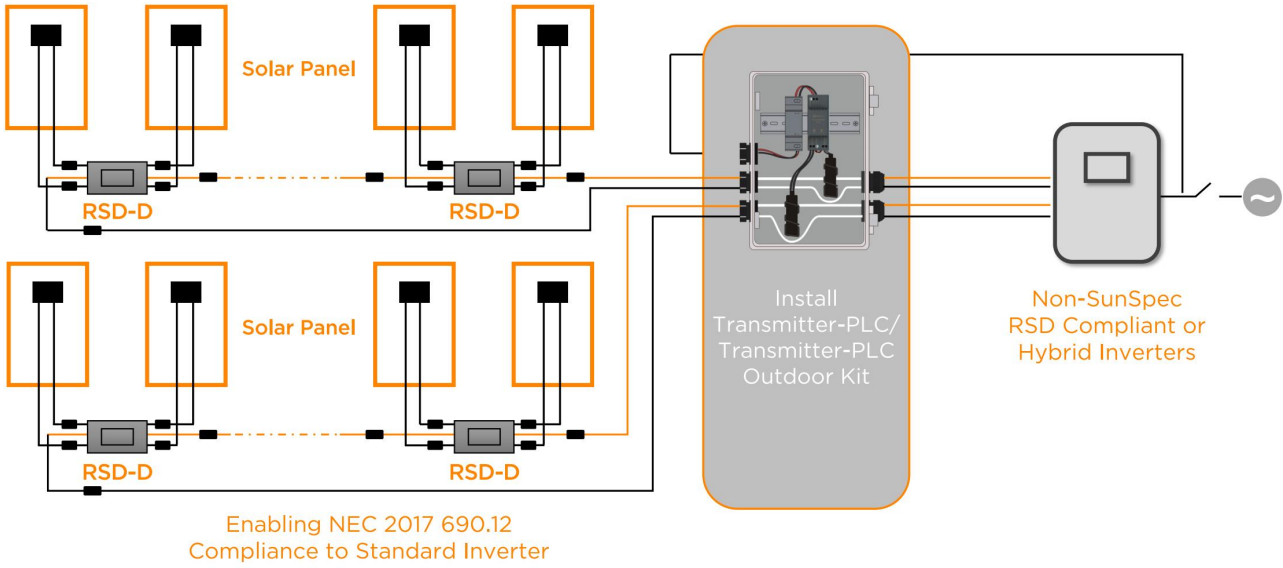
1、RSD_1, RSD_1 supplies power to the external photovoltaic fast shutdown module, and controls the power on and off by controlling the power of the module.

2、Reserve two 12V/1A interfaces.

3.9-External Interface-CH2-12V Power Output(RSD)

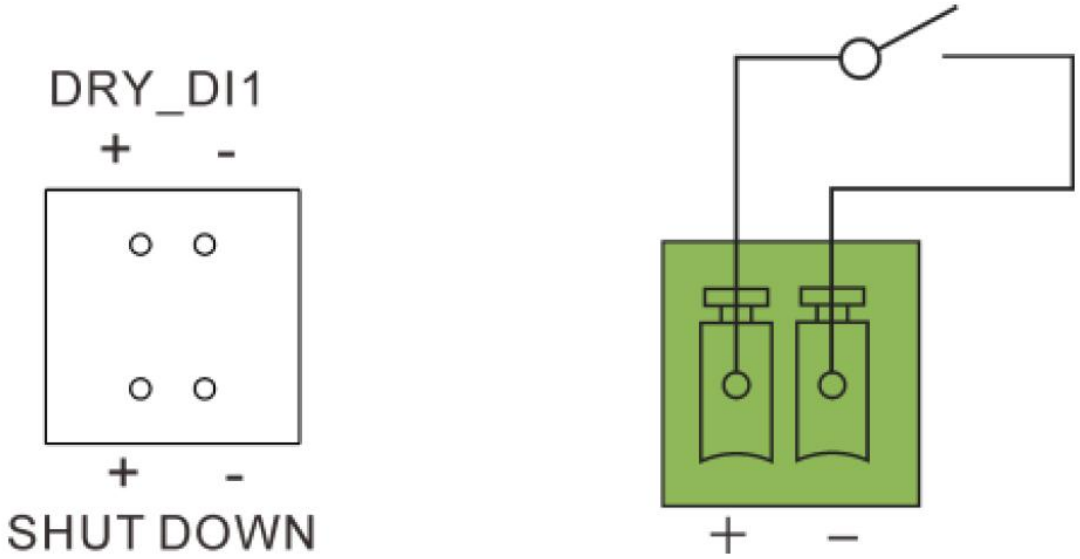


Note:
In SunSpec RSD Compliant Inverters system, only RSD Devices(RSD-S-PLC& RSD-D) are needed for the modules to realize mod-ule-level rapid shutdown function.



Note:
In Non SunSpec RSD Compliant & Hybrid Inverters system,a Transmitter device (Transmitter-PLC / Transmitter-PLC Outdoor Kit) needs to be installed together with RSD Devices (RSD-S-PLC& RSD-D) to realize module-level rapid shutdown function.

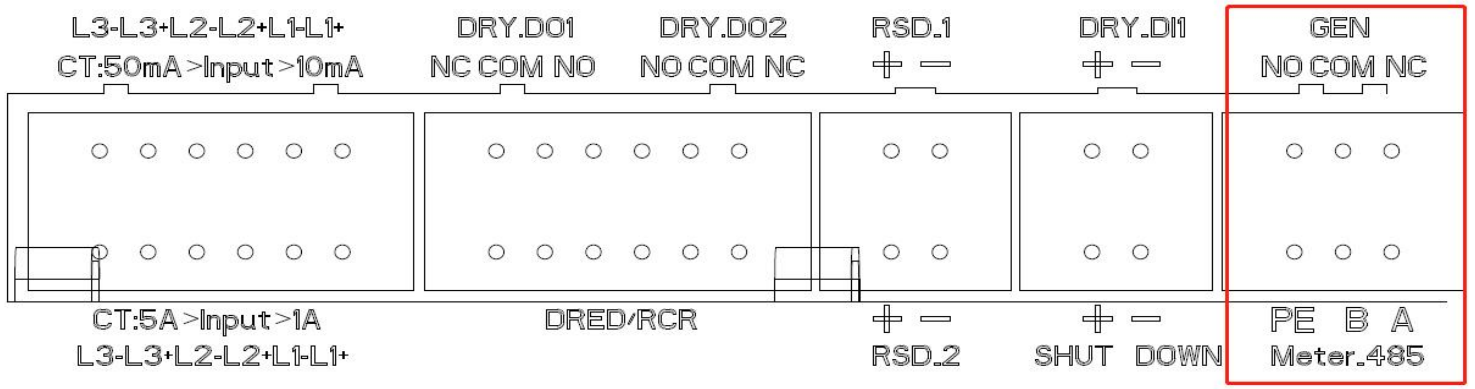
3.10-External Interface-CH2-Emergency Stop Dry Contact



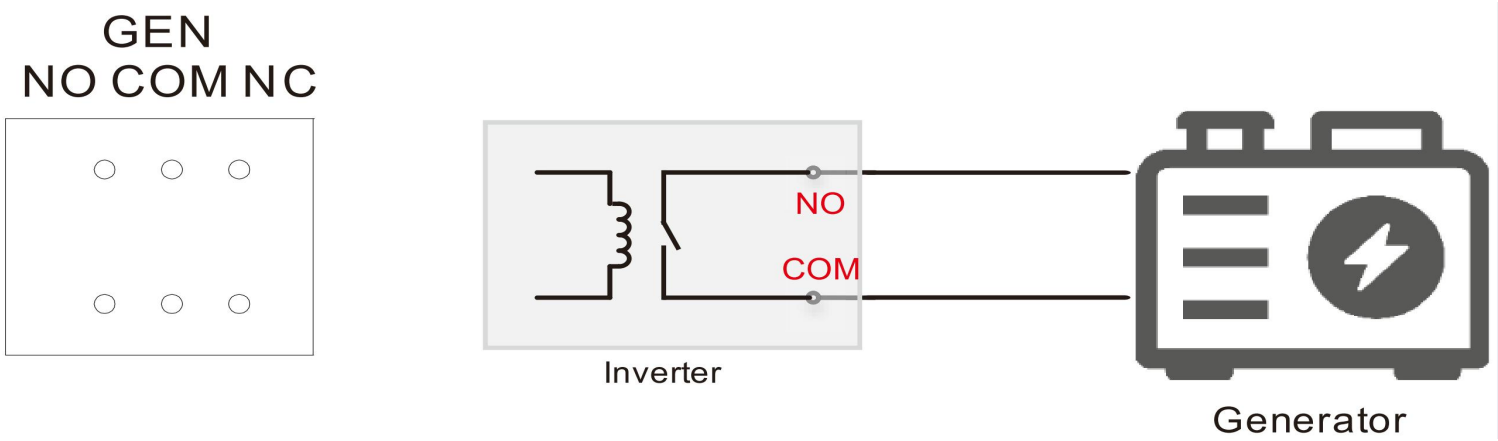
When + contact and - contact are shorted by external controlled switch, the inverter will stop immediately.

DRY_DI1: Reserved input dry contact.

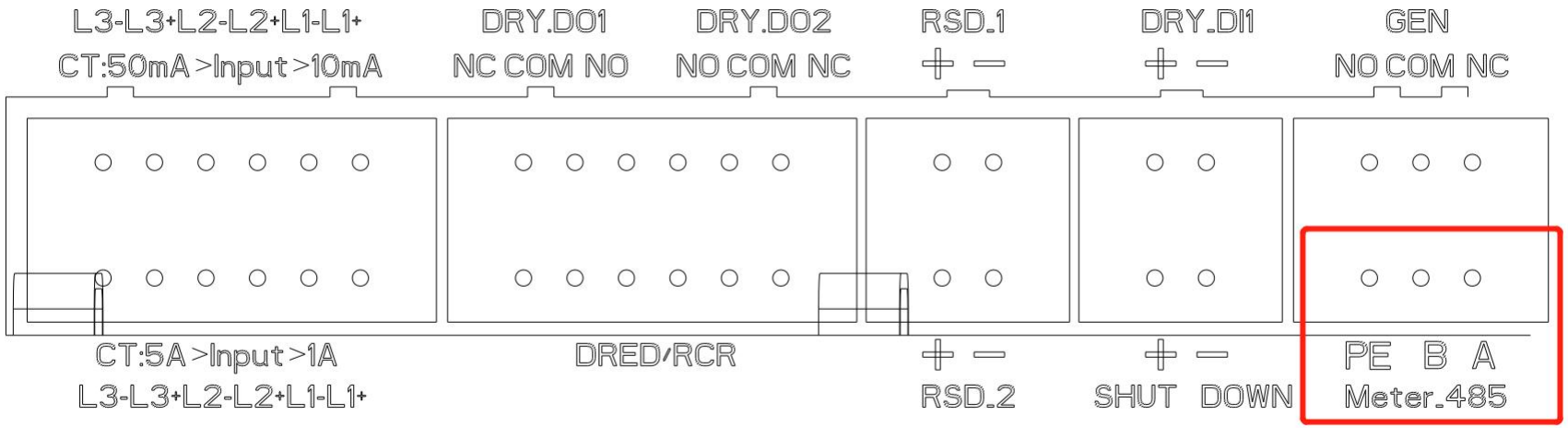
3.11-External Interface-CH2-Generator control signal



Generator start/stop interface to control the generator start and shutdown.



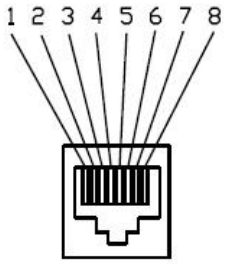
3.12-External Interface-CH2-Meter signal



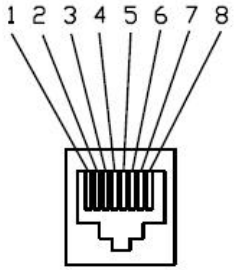
This meter interface is in parallel with the meter interface of the network port, and the field wiring can be selected according to the actual situation.

3.13-External Interface-CH2-EMS/RS485_PAR/METER/BMS/Parelle/LAN

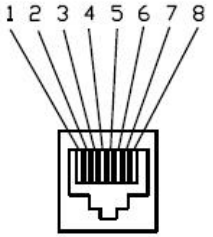
EMS	
1	NC
2	NC
3	NC
4	NC
5	NC
6	NC
7	RS485-A
8	RS485-B



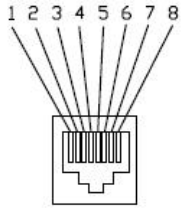
RS485_PAR1/RS485_PAR2	
1	NC
2	NC
3	NC
4	NC
5	NC
6	NC
7	RS485-A
8	RS485-B



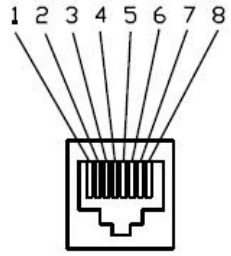
METER	
1	RS485-B
2	RS485-A
3	NC
4	RS485-B
5	RS485-A
6	NC
7	RS485-A
8	RS485-B



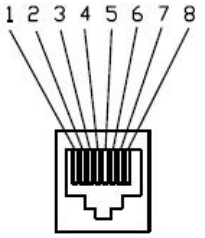
BMS_1/ BMS_2/ BMS_3	
1	Shut down—BMS
2	GND_S
3	NC
4	CANH
5	CANL
6	NC
7	NC
8	NC



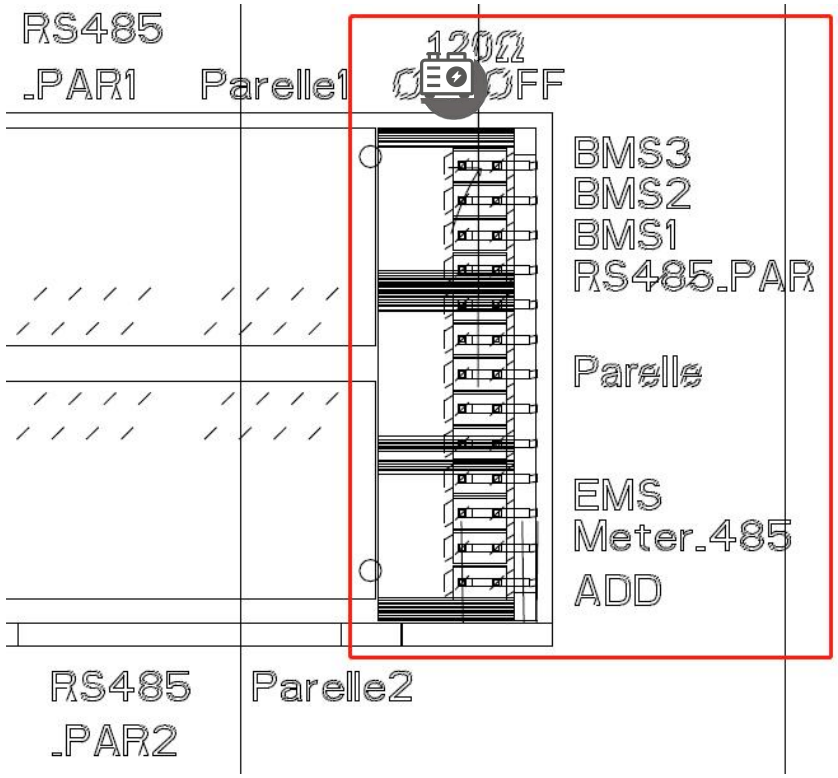
Parelle1/ Parelle2	
1	SYN B
2	SYN A
3	SYN B
4	SYN A
5	SYN B
6	SYN A
7	CANL
8	CANH



LAN	
1	TX_D1+
2	TX_D1-
3	RX_D2+
4	BI_D3+
5	BI_D3-
6	RX_D2-
7	BI_D4+
8	BI_D4-



3.14-External Interface-CH2-DIP switch



1. Matching resistors on one circuit only requires opening the first and last devices；

2、If one of the first or last devices on the circuit does not have a matching resistor (or does not support it), it cannot be turned on.

3-2 External & Internal Interface -CB2

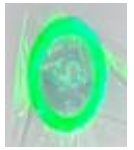
3.15-External Interface-CB2-IP55

Sound and light alarms for firefighting

Emergency stop button

Temperature control system: Air conditioning

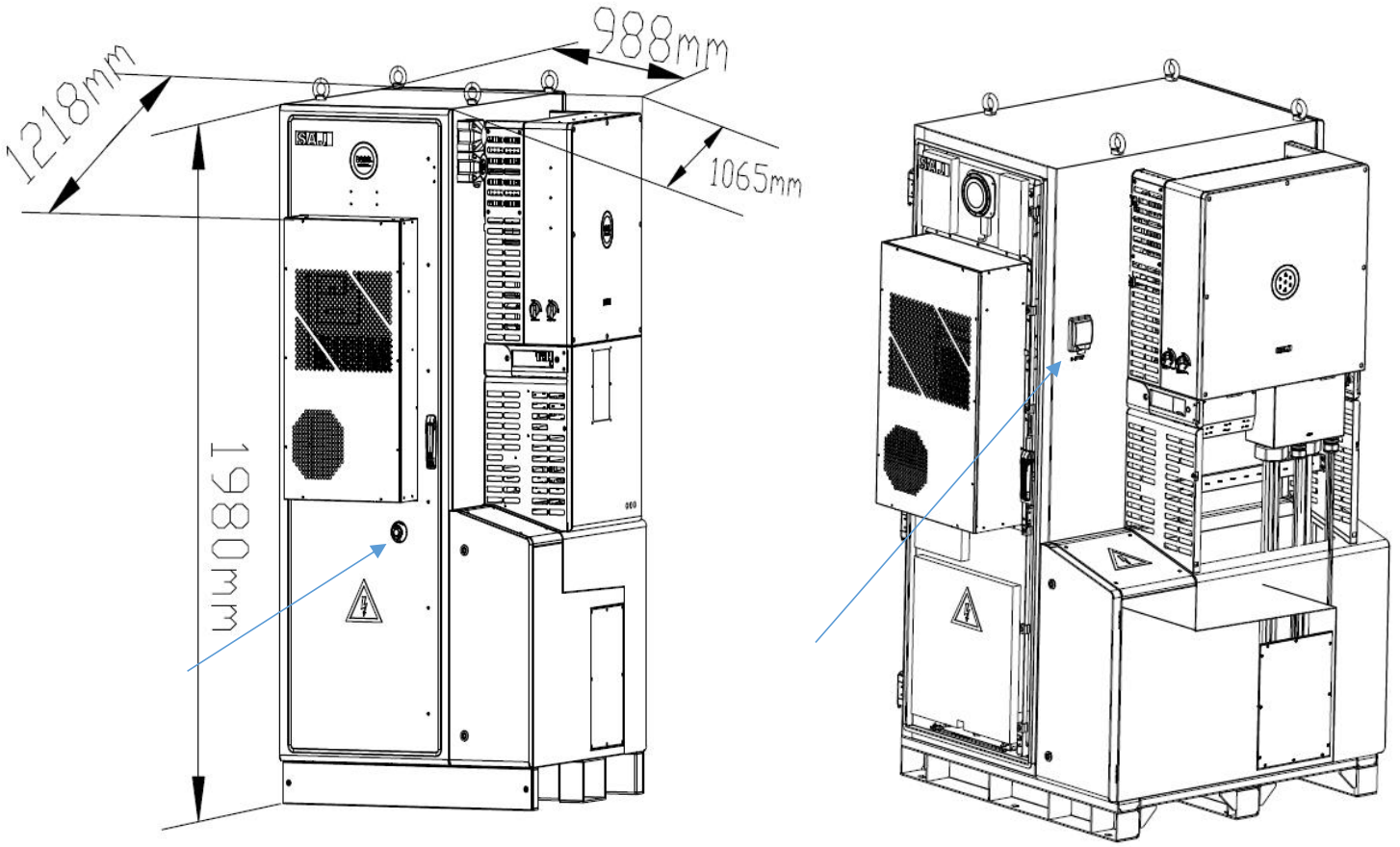
Air conditioning condensate drainage pipe



Human-computer interface
Display the status and capacity of the battery

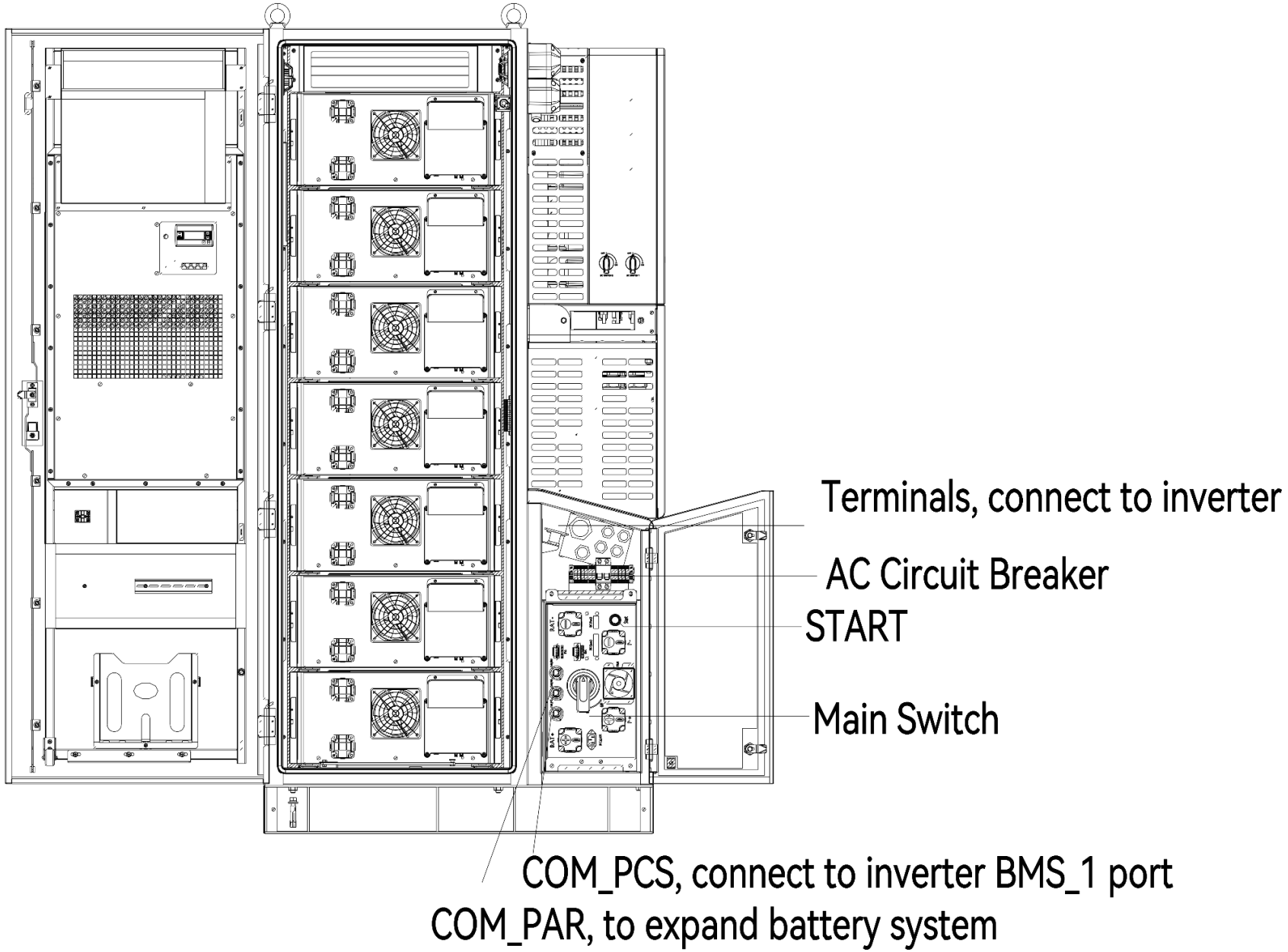
Battery high-voltage control box

3.16-External Interface-CB2（IP55）-Emergency stop button

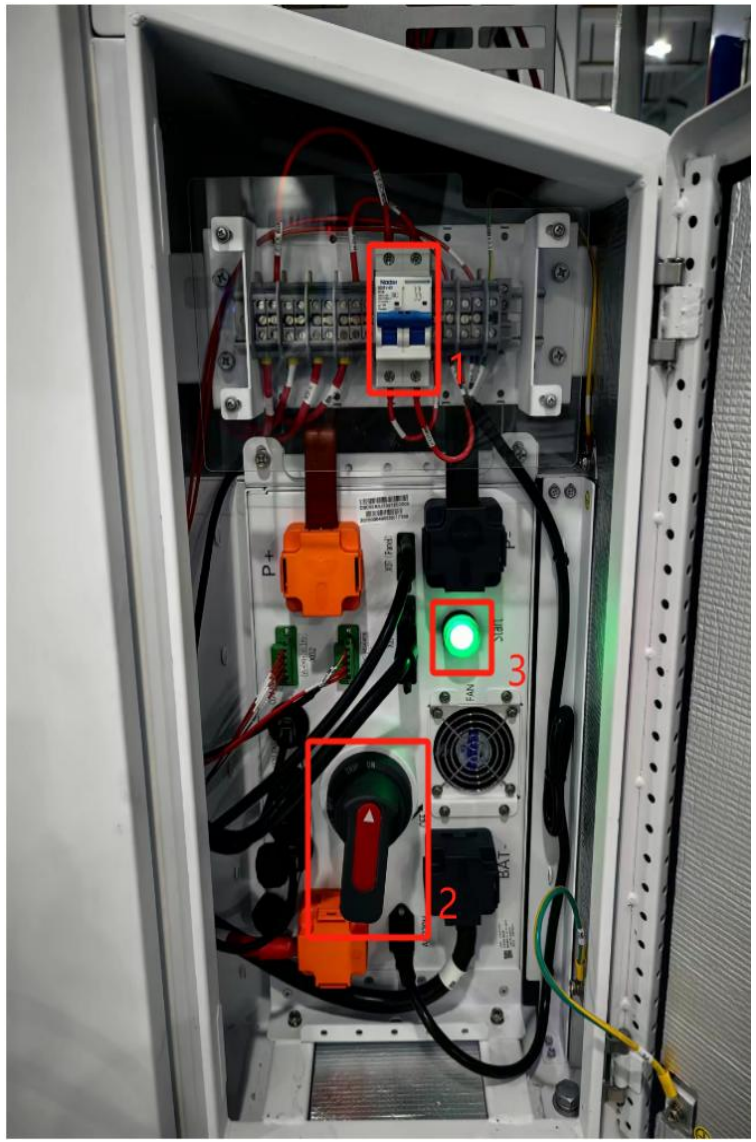


Emergency stop button: Both the inverter and battery will shut down.

3.17-External Interface-CB2(IP55)-High voltage control box



3.18-External Interface-CB2(IP55)-High voltage control box



High voltage control box：
1： AC input control switch
（Power the air conditioner/AC-DC power supply）
2： DC circuit breaker
(manual opening/resetting of main circuit power supply)；
3： Start/power-off contact button switch
（Automatic reset， With green indicator light, start (light on) and stop (light off),Press the button for 4-5 seconds to take effect.）

Startup steps：
1. Connect the system and enable the 1(AC input control switch).
2.Rotate the 2(DC circuit breaker) to ON.
3.Press the 3(contact button switch), press the button for 2-3 seconds to start.
4.BMS automatically powers on and detects program operation.
5.The system will start running after detecting no faults.

Shutdown steps：
1. Press the 3(contact button switch) until the switch light goes out.
2.Rotate the 2(DC circuit breaker) to OFF.
3.Turn off the 1(AC input control switch).
4.After completing the above steps, the entire machine will stop running.

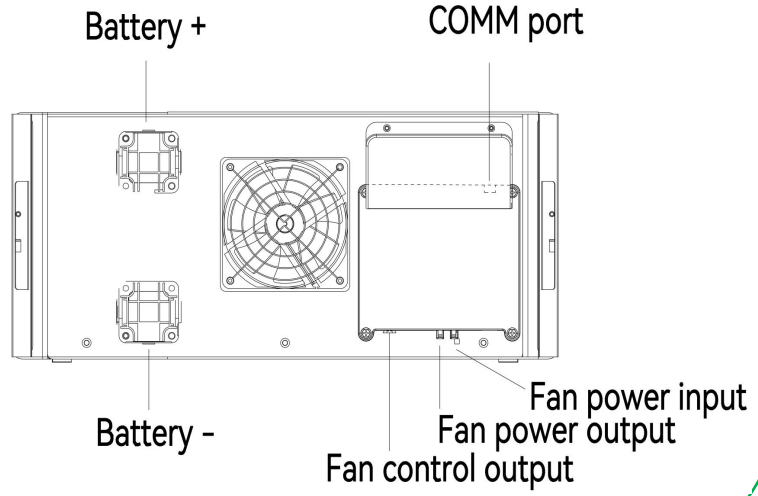
3.19-Internal Interface-CB2-IP55

Smoke detector

Air conditioning cold air outlet

Aerosol, erupted at temperatures above 170 ℃, extinguishing fires and preventing combustion

Battery pack



3.20-Internal Interface-CB2-IP55

Travel switch

Communication adapter board

Temperature and humidity sensor

Water immersion sensor

Water immersion sensor

04 IOT Platform

Dashboard

- Clear power plant status display, comprehensive monitoring of key information
- Customizable global dashboard for accurate monitoring of power plant operations and performance

Plant Plan

Plant Overview

Plan Completion

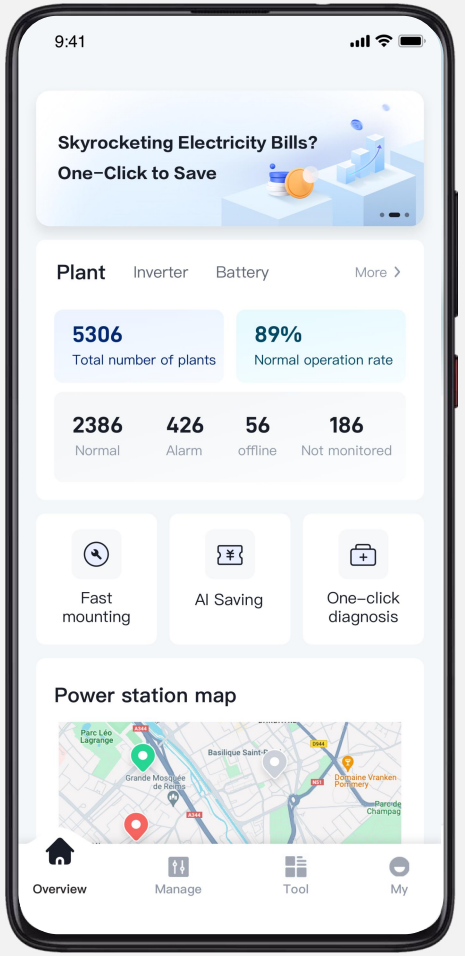
Real-time Power

Production and Revenue

Social Contribution

.....

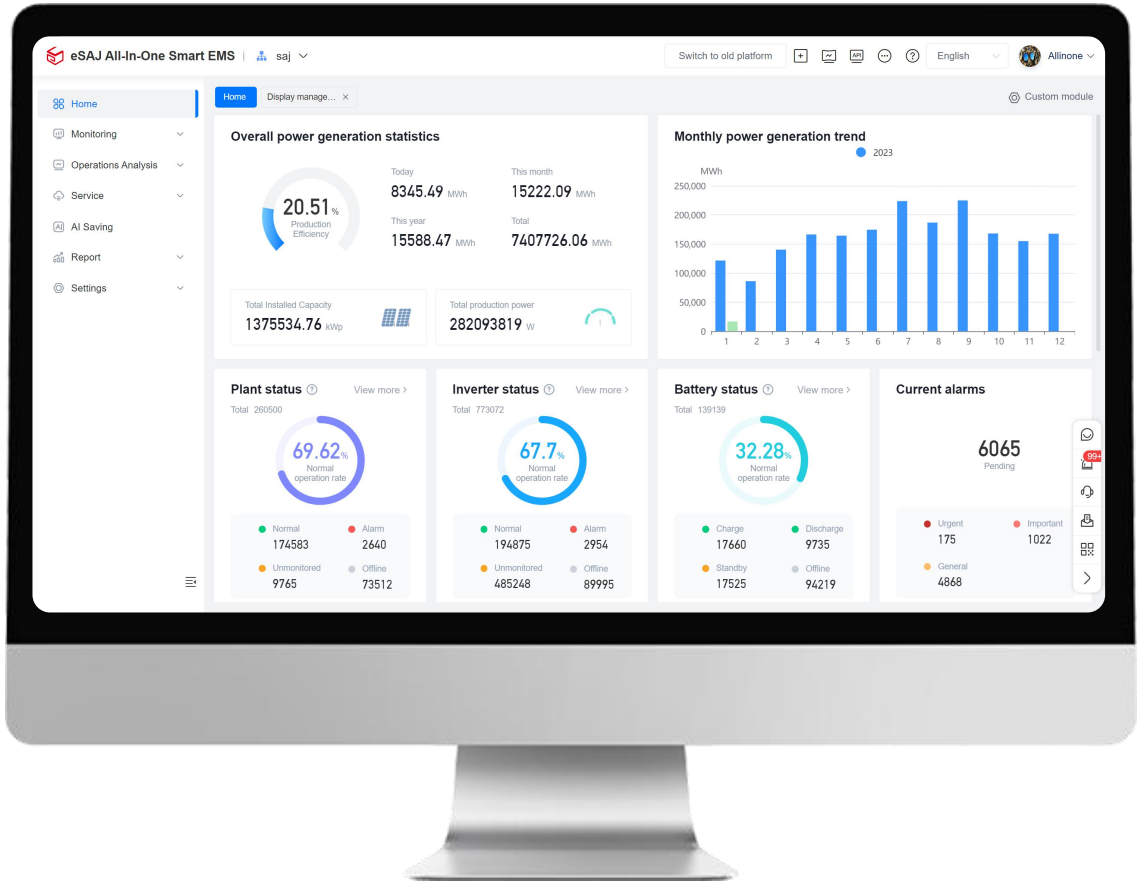
WEB

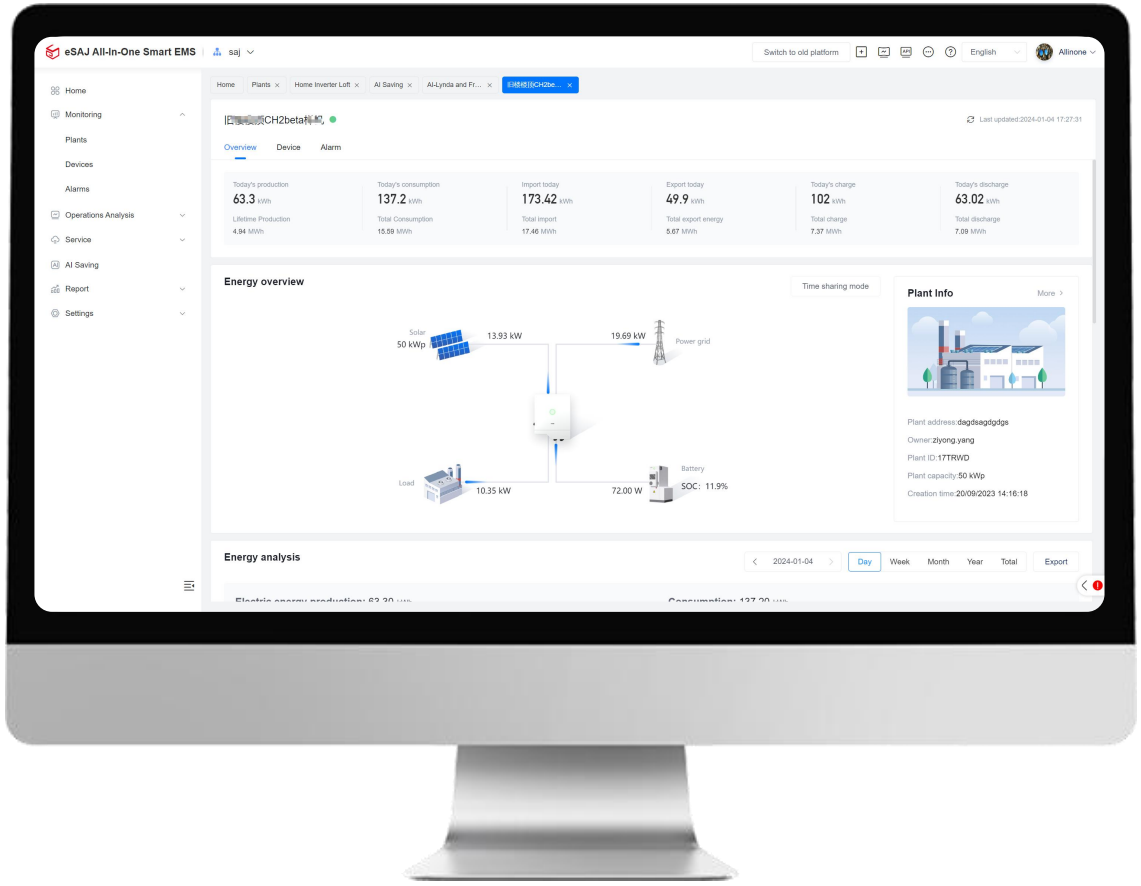


APP

RealTime Monitoring-WEB

Plants | Devices | Alarms | Environment | Consumption | Other Data

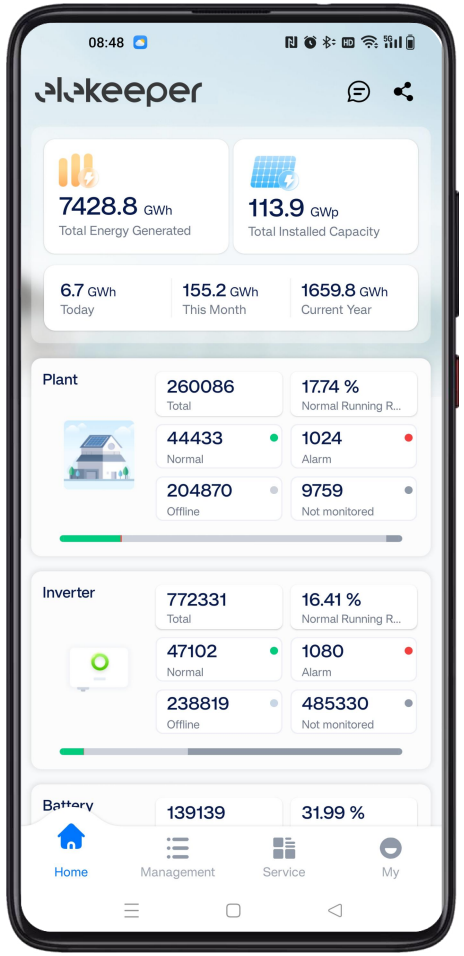




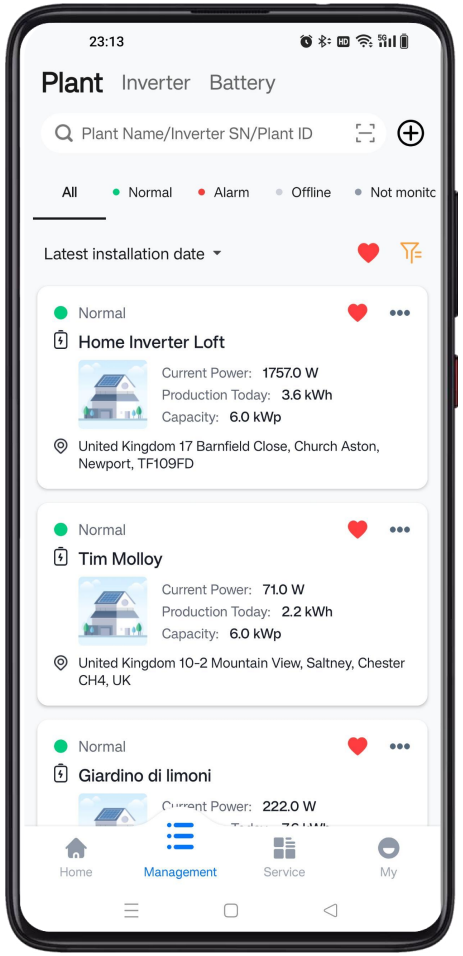
RealTime Monitoring-APP

All-round Management of Multiple Plants - Plants, Inverters, Batteries

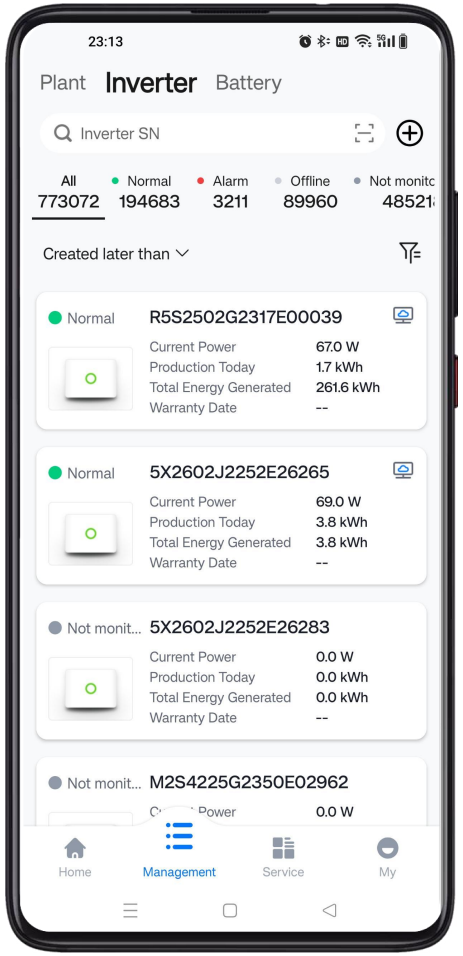
Plants | **Devices** | **Alarms** | **Environment** | **Consumption** | **Other Data**



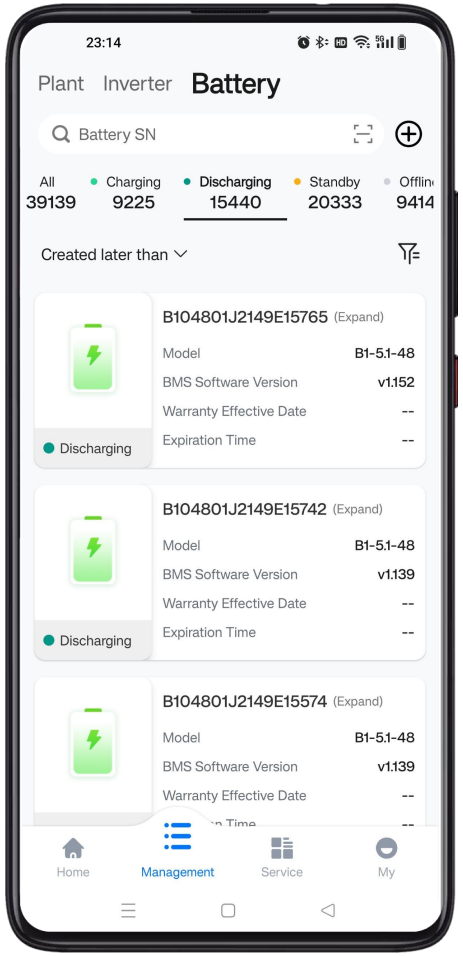
Overview



Plant Management



Inverter management

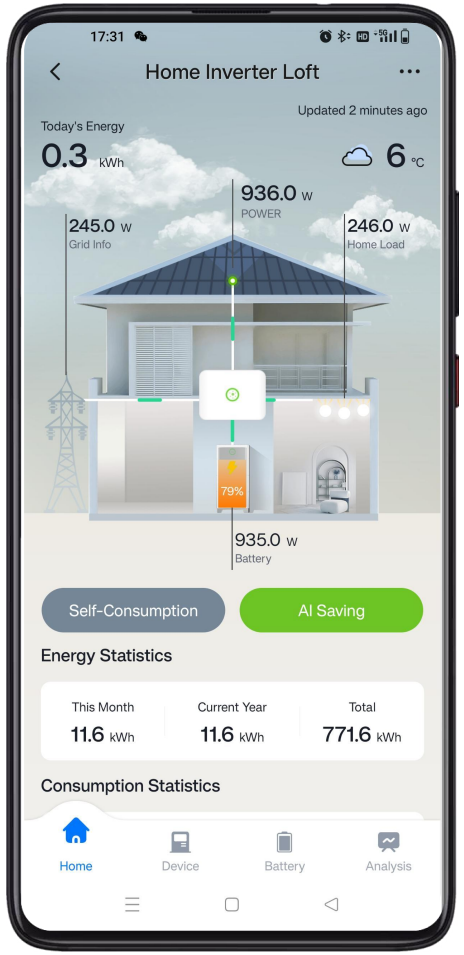


Battery management

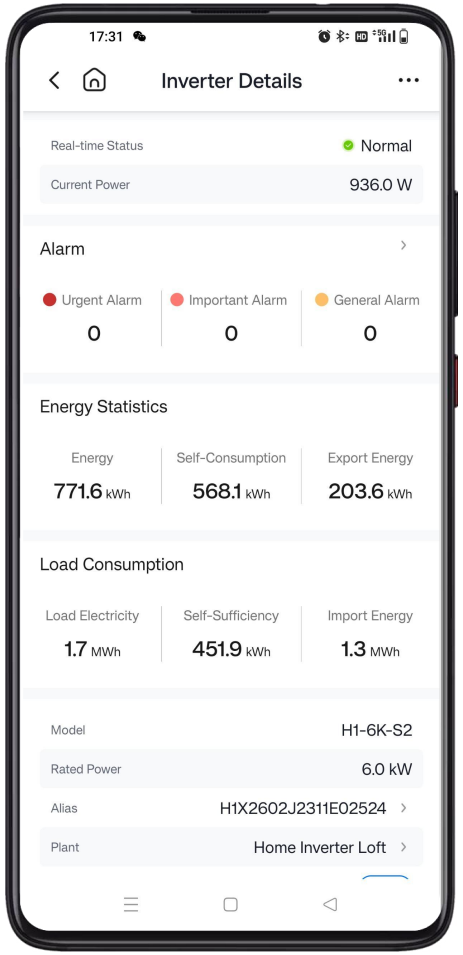
RealTime Monitoring-APP

All-round Management of Multiple Plants - Plants, Inverters, Batteries

Plants | **Devices** | **Alarms** | **Environment** | **Consumption** | **Other Data**

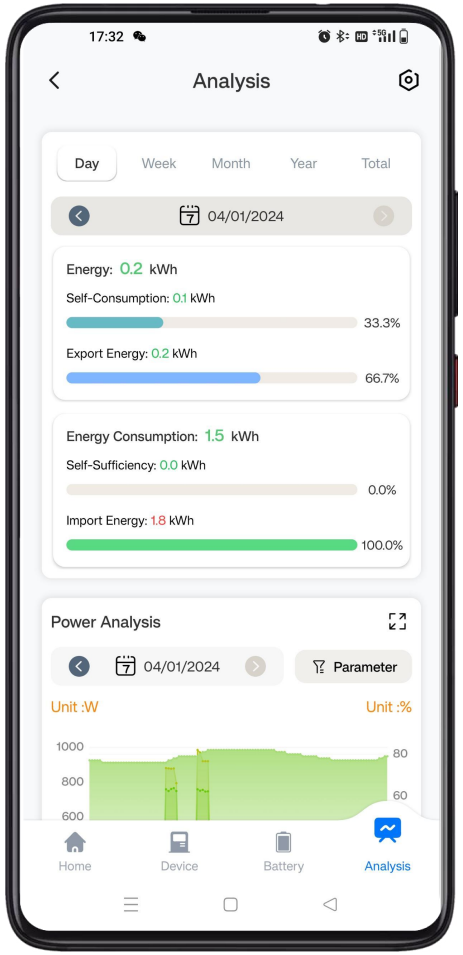


Home



Device

Battery



Analysis

Energy Efficiency Management

Energy Statistics | YoY Analysis | Contrast Analysis | Power Monitoring

Home

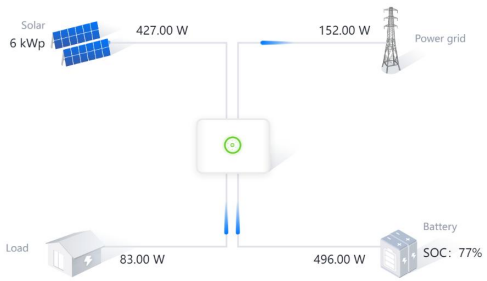
Last updated:2024-01-04 08:44:21

Overview | Device | Alarm

Today's production	Today's consumption	Import today	Export today	Today's charge	Today's discharge
0 kWh	1.4 kWh	1.64 kWh	0.16 kWh	0.72 kWh	0.59 kWh
Lifetime Production 771.36 kWh	Total Consumption 1.72 MWh	Total import 1.26 MWh	Total export energy 203.56 kWh	Total charge 552.42 kWh	Total discharge 436.54 kWh

Energy overview

Self-consumption mode



Plant Info

More

Plant address: 17 Barnfield G[illegible]e, Church Aston, Newport, [illegible]FD

Owner:[illegible]

Plant ID:39[illegible]

Plant capacity:6 kWp

Creation time:24/10/2023 23:39:15

Energy analysis

2024-01-03 | Day | Week | Month | Year | Total | Export

Electric energy production: 4.00 kWh

61.90% | 38.10%

2.47 kWh | 1.50 kWh

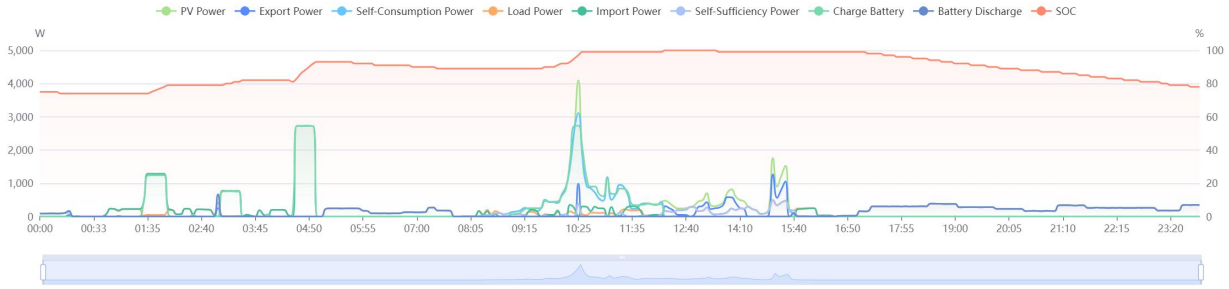
Self-Consumption | Export | Self-Sufficiency | Import

Consumption: 4.00 kWh

12.60% | 87.40%

0.50 kWh | 3.50 kWh

Self-Sufficiency rate12.60% (0.50kWh)



Energy analysis

2023-12-29 T 2024-01-04 | Day | Week | Month | Year | Total | Export

Electric energy production: 22.00 kWh

57.10% | 42.90%

12.58 kWh | 9.40 kWh

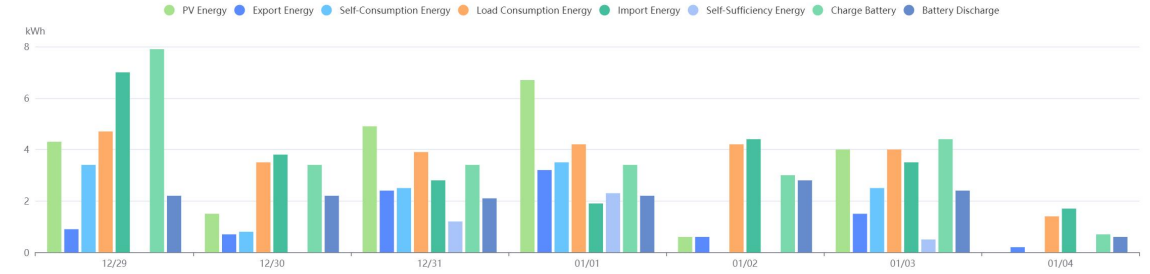
Self-Consumption | Export | Self-Sufficiency | Import

Consumption: 25.90 kWh

3.2 | 96.80%

0.84 kWh | 25.00 kWh

Self-Sufficiency rate3.20% (0.84kWh)



Energy analysis

2023-12 | Day | Week | Month | Year | Total | Export

Electric energy production: 210.00 kWh

81.10% | 18.90%

170.23 kWh | 39.80 kWh

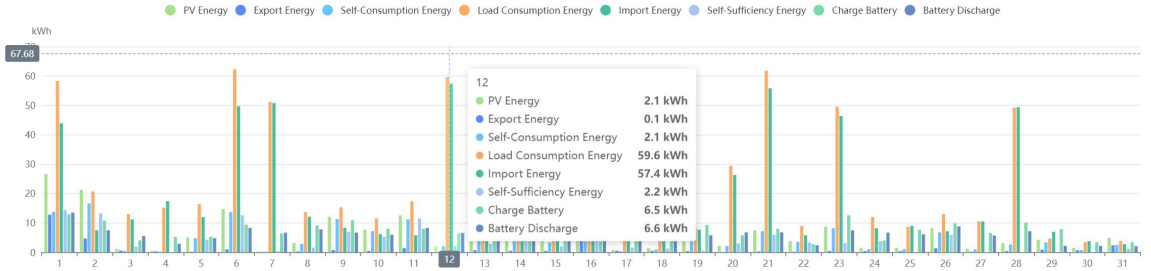
Self-Consumption | Export | Self-Sufficiency | Import

Consumption: 771.50 kWh

17.00% | 83.00%

130.85 kWh | 640.60 kWh

Self-Sufficiency rate17.00% (130.85kWh)



Plant weather

04/01/2024 08:53:40

Cloudy

6℃

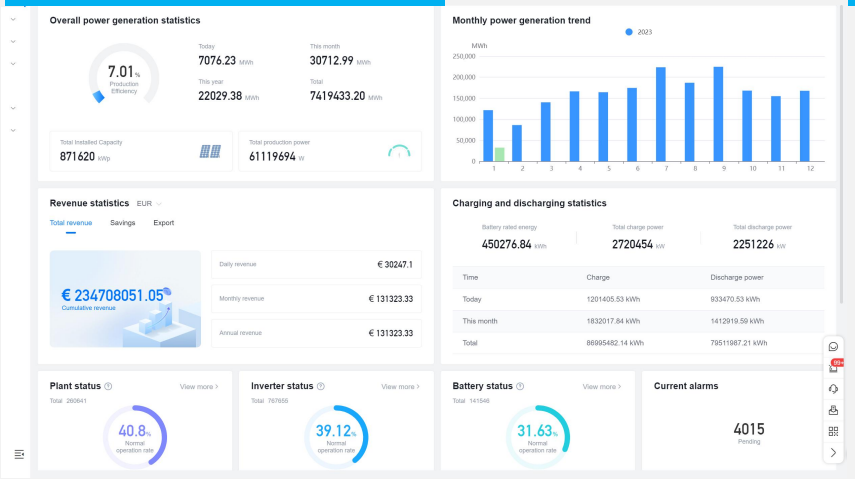
Today	Tomorrow	Saturday	Sunday	Monday
04/01	05/01	06/01	07/01	08/01
6℃	4℃	4℃	0℃	0℃

Social contribution

	CO2 Emission reduction t	Trees planted m³	Standard coal saved t
This Year	0.01	0.02	0
Total	0.77	1.37	0.31

Energy Revenues and Cost Management

Cost Overview



PV Revenues

日期	光伏发电量	光伏收益	自发自用电量	自发自用收益	卖电量	卖电收益
2023-07-31	12.03 kWh	¥3.01	12.03 kWh	¥15.01	6.03 kWh	¥6.01
2023-07-30	2.03 kWh	¥3.01	2.03 kWh	¥23.01	2.03 kWh	¥4.01

Energy Storage Revenues

日期	合计 充电费用	合计 放电收益	合计 削峰填谷收益	尖 充电量	尖 充电费用	尖 放电量	尖 放电收益	峰 充电量	峰 充电费用	峰 放电量	峰 放电收益
2023-07-31	¥346.01	¥236.01	¥136.01	12.03 kWh	¥31.01	10.03 kWh	¥31.01	22.03 kWh	¥36.61	10.03 kWh	¥31.01
2023-07-30	¥445.01	¥345.01	¥145.01	2.03 kWh	¥35.01	12.03 kWh	¥35.01	24.45 kWh	¥35.91	12.03 kWh	¥35.01
2023-07-29	¥346.01	¥236.01	¥136.01	12.03 kWh	¥31.01	10.03 kWh	¥31.01	22.03 kWh	¥36.61	10.03 kWh	¥31.01

Daily Cost

日期	合计 充电费用	合计 放电收益	合计 削峰填谷收益	尖 买电量	尖 买电费用	峰 买电量	峰 买电费用	平 买电量	平 买电费用	谷 买电量	谷 买电费用
2023-07-31	312.03 kWh	¥236.01	¥236.01	10.03 kWh	¥31.01	22.03 kWh	¥31.01	22.03 kWh	¥36.61	10.03 kWh	¥31.01
2023-07-30	112.03 kWh	¥345.01	¥345.01	12.03 kWh	¥35.01	24.45 kWh	¥35.01	24.45 kWh	¥35.91	12.03 kWh	¥35.01
2023-07-29	312.03 kWh	¥236.01	¥236.01	10.03 kWh	¥31.01	22.03 kWh	¥31.01	22.03 kWh	¥36.61	10.03 kWh	¥31.01
2023-07-28	112.03 kWh	¥345.01	¥345.01	12.03 kWh	¥35.01	24.45 kWh	¥35.01	24.45 kWh	¥35.91	12.03 kWh	¥35.01

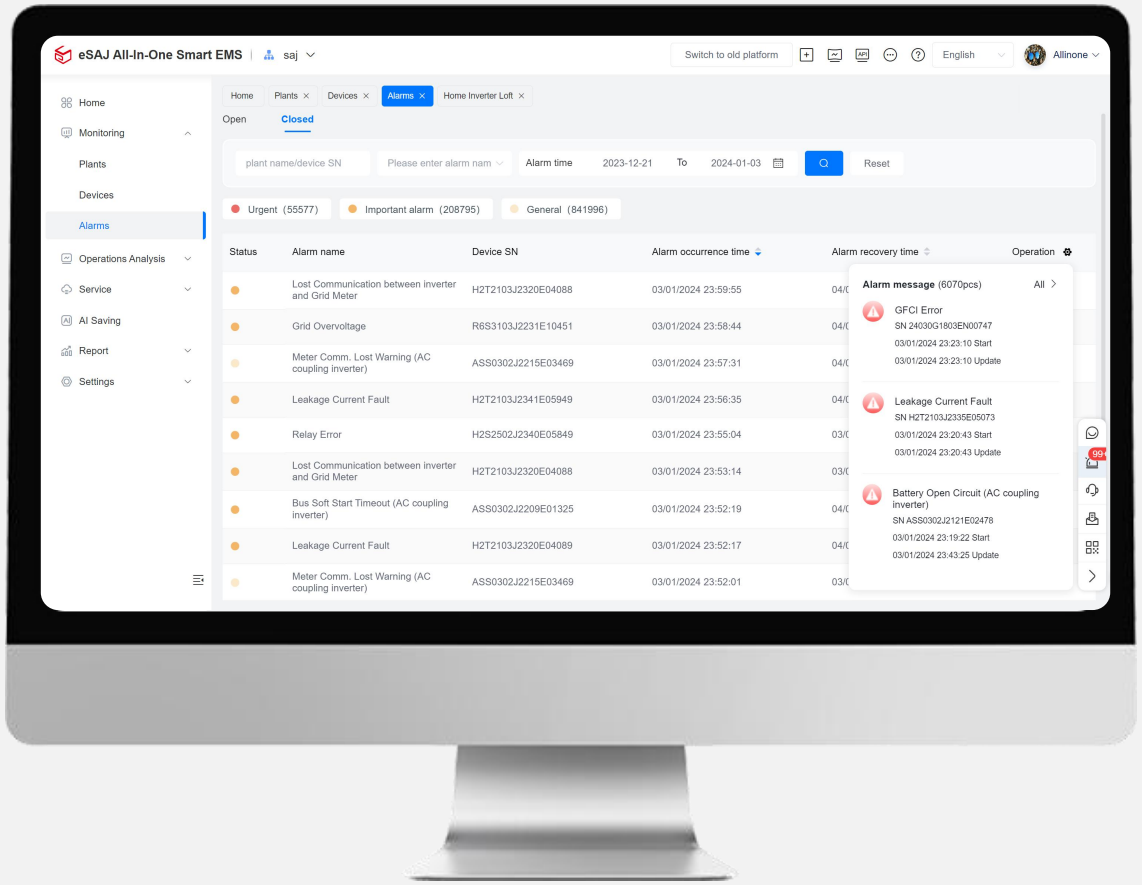
Monthly Cost

时间点	合计 买电量	合计 买电费用	尖 买电量	尖 买电费用	峰 买电量	峰 买电费用	平 买电量	平 买电费用	谷 买电量	谷 买电费用
24:00	312.03 kWh	¥236.01	12.03 kWh	¥31.01	10.03 kWh	¥31.01	22.03 kWh	¥36.61	10.03 kWh	¥31.01
23:00	112.03 kWh	¥345.01	2.03 kWh	¥35.01	12.03 kWh	¥35.01	24.45 kWh	¥35.91	12.03 kWh	¥35.01
22:00	312.03 kWh	¥236.01	12.03 kWh	¥31.01	10.03 kWh	¥31.01	22.03 kWh	¥36.61	10.03 kWh	¥31.01
21:00	112.03 kWh	¥345.01	2.03 kWh	¥35.01	12.03 kWh	¥35.01	24.45 kWh	¥35.91	12.03 kWh	¥35.01

Annual Cost

月份	合计 充电费用	合计 放电收益	合计 削峰填谷收益	尖 充电量	尖 充电费用	尖 放电量	尖 放电收益	峰 充电量	峰 充电费用	峰 放电量	峰 放电收益
2023-12	312.03 kWh	¥236.01	¥236.01	10.03 kWh	¥31.01	22.03 kWh	¥31.01	15.03 kWh	¥26.61	10.03 kWh	¥31.01
2023-11	112.03 kWh	¥345.01	¥345.01	12.03 kWh	¥35.01	24.45 kWh	¥35.01	16.03 kWh	¥31.91	12.03 kWh	¥35.01
2023-10	312.03 kWh	¥236.01	¥236.01	10.03 kWh	¥31.01	22.03 kWh	¥31.01	15.03 kWh	¥26.61	10.03 kWh	¥31.01
2023-09	112.03 kWh	¥345.01	¥345.01	12.03 kWh	¥35.01	24.45 kWh	¥35.01	16.03 kWh	¥31.91	12.03 kWh	¥35.01

Alarm Management



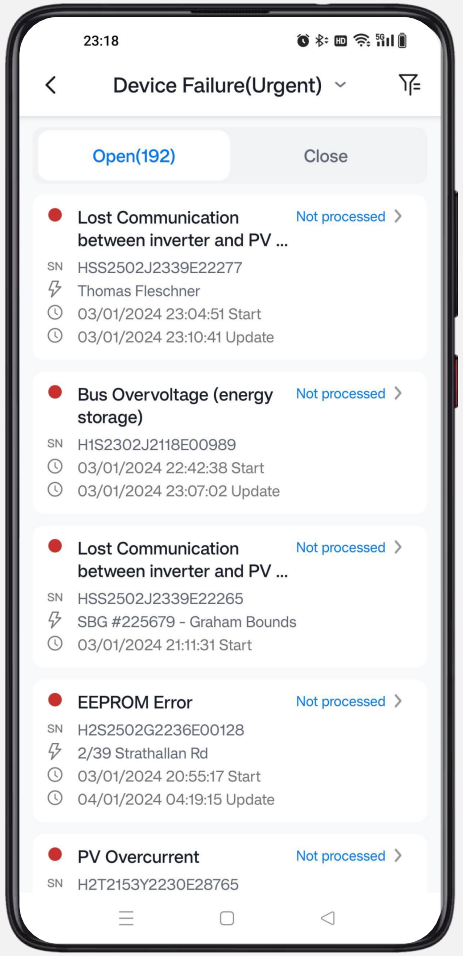
Alarm Statistics

Alarm Queries

Alarm Definitions

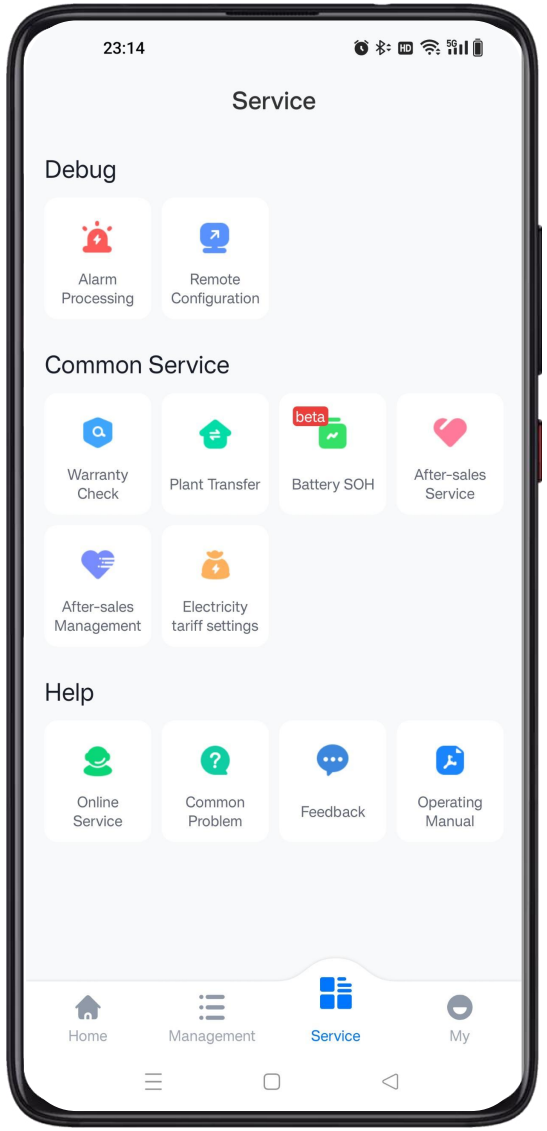
Alarm Categories

WEB



APP

Smart O&M



Common Tools - Ready To Use

Alarm Handling	Alarm messages are pushed through various channels to escort the safety of the plant.
Remote Configuration	Bluetooth, Wi-Fi, and cloud connection can be configured in three ways, quickly solve problems.
Warranty	Support device warranty, parts warranty, battery performance warranty query.
Plant Transfer	Quickly transfer power plants to owners in batches and manage power plants efficiently.
Battery SOH	Batch analysis of battery SOH, rapid positioning of backward batteries.
After-Sale	Inverter, battery and other after-sales service, quickly deal with problems.
Owner management	Quickly manage owners, add accounts and add plants.
FAQ	View common problems such as inverters and batteries to improve processing efficiency.

Policy Control

Temp/RH liaisons

Business Traffic liaisons

Door Access Control

Infrared Control

Surveillance Control

Time Based Control

Power Based Control

Platform AIscheduling models

Multi-strategy launch

Information interaction

EMS BOX

- Data Acquisition
- Data forwarding
- Policy Execution
- .....

Multi-command issuance

Information interaction

Load

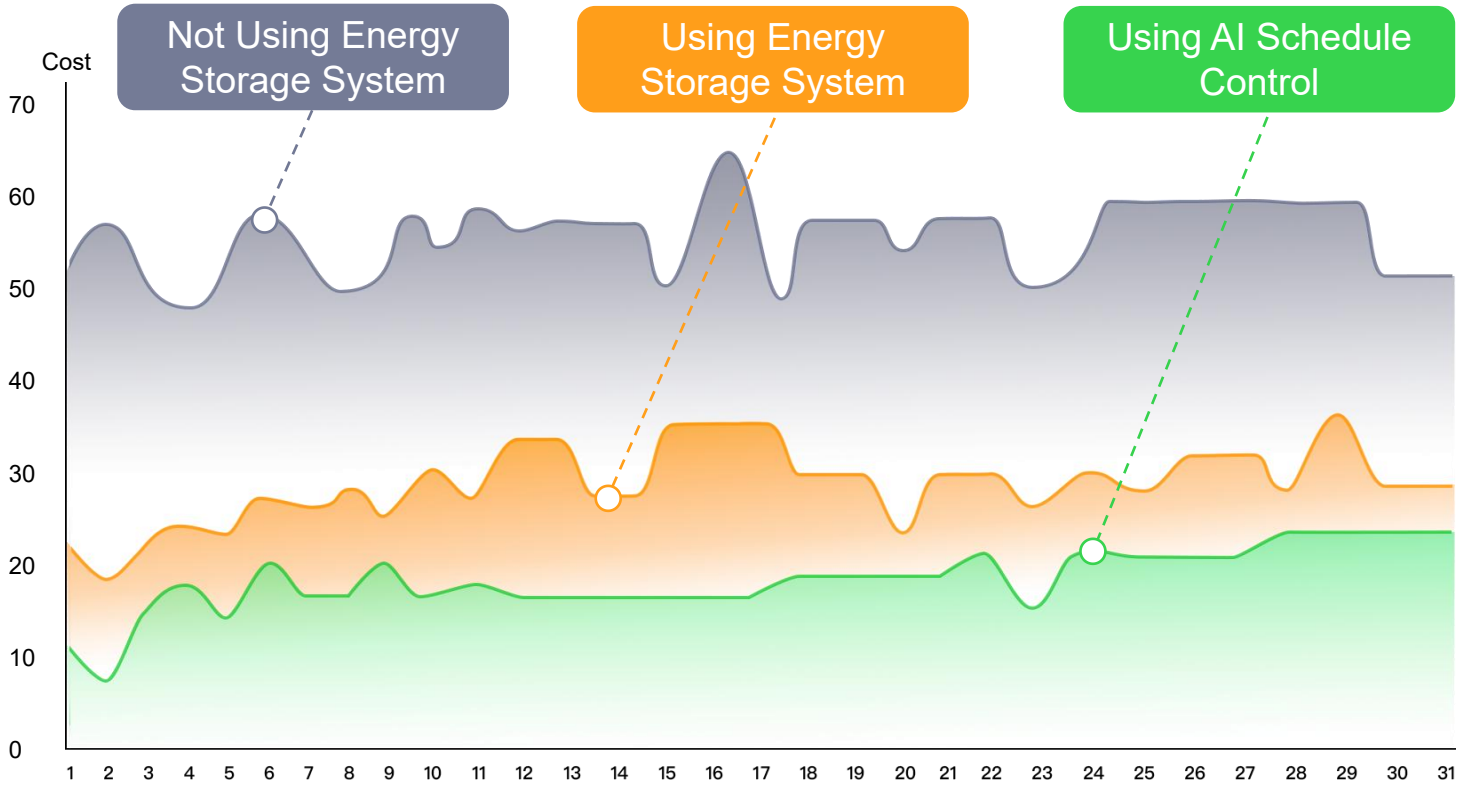
Storage

Inverter

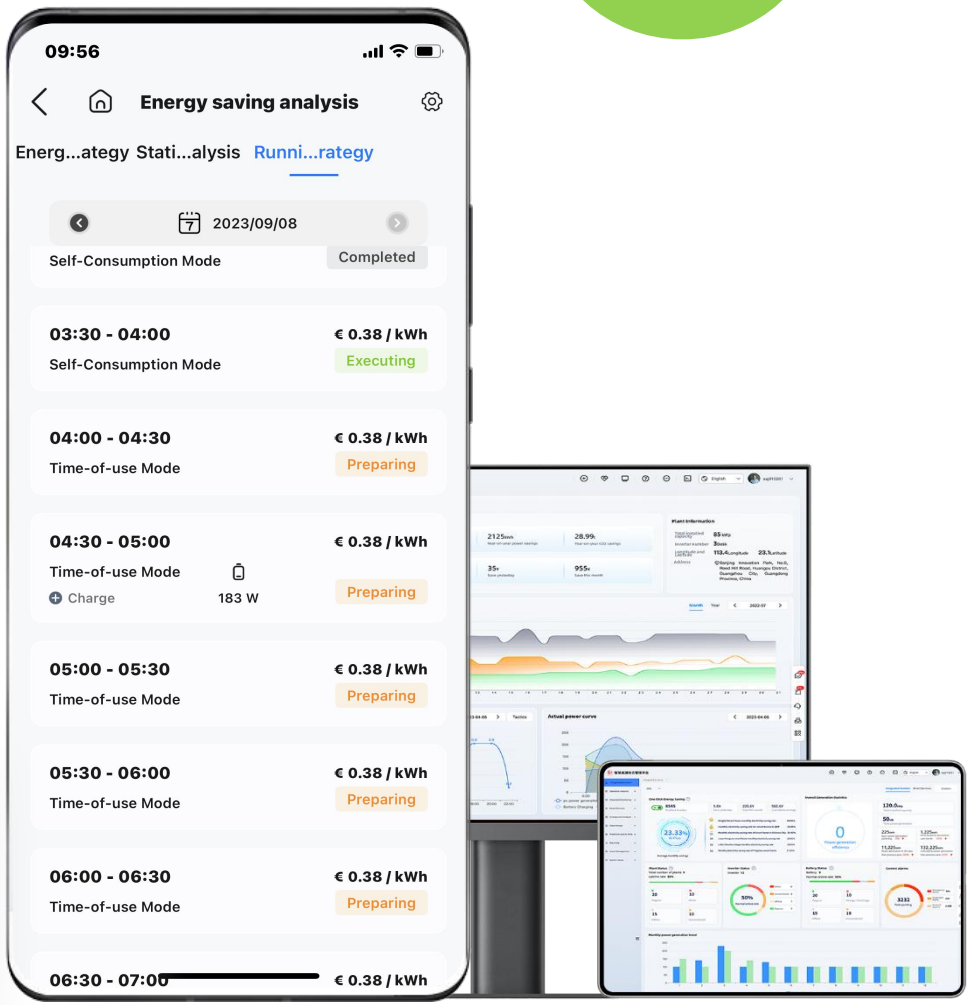
All-in-one optical storage

.....

Policy Control--AI Saving Overview



Extra Saving 20+ %



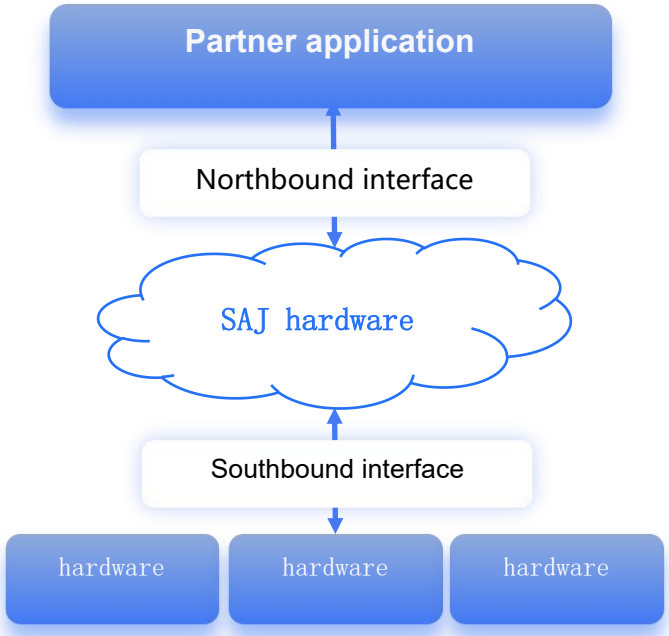
Three core algorithms

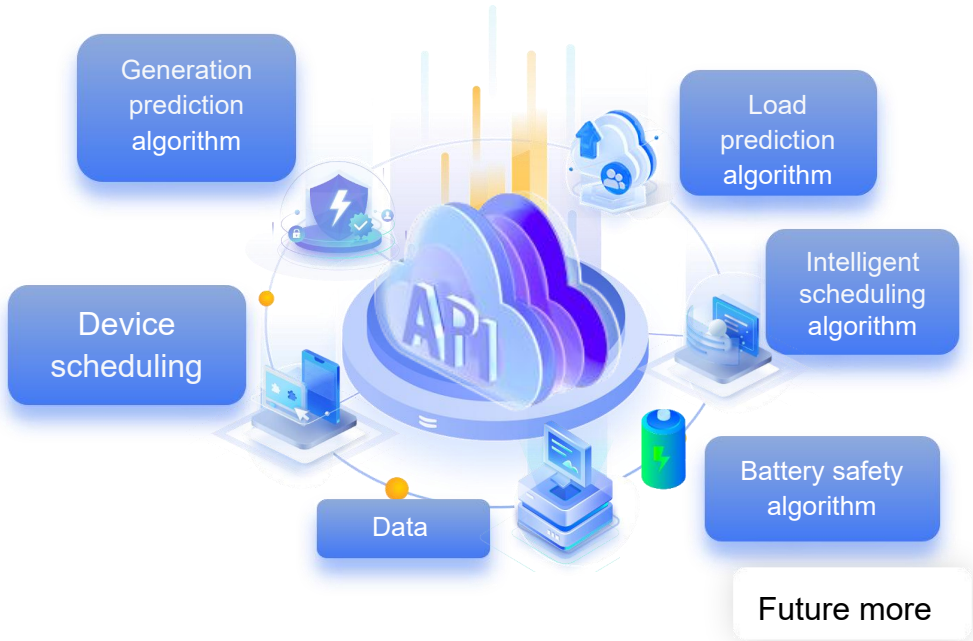
- Generation Forecast
- Consumption Forecast
- Intelligent Scheduling

eSAJ's Continuous Innovation

Open Platform

API





Third-party energy operators:

It provides access and control interfaces for energy devices. Energy operators, developers can obtain the ability to interact with energy devices to achieve energy operation scenarios.

Brand partner:

Provide the interface of eSAJ Home smart energy management system and other business systems, partners as developers can obtain the ability to interact with the business system, and realize their own more business.

Participate the Energy Trading and VPP Project, Earning Profit for both Sides

Open Platform

VPP： Aggregate residential PV batteries for participation

Energy Aggregators

CheckWatt · catch power · lunar energy · evergen · FLOWER · agl

Hardware solution

Local gateway of VPP

- High stability
- Quick response

SAJ

eSolar AIO3

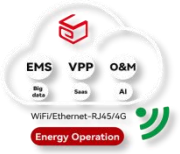
eManager

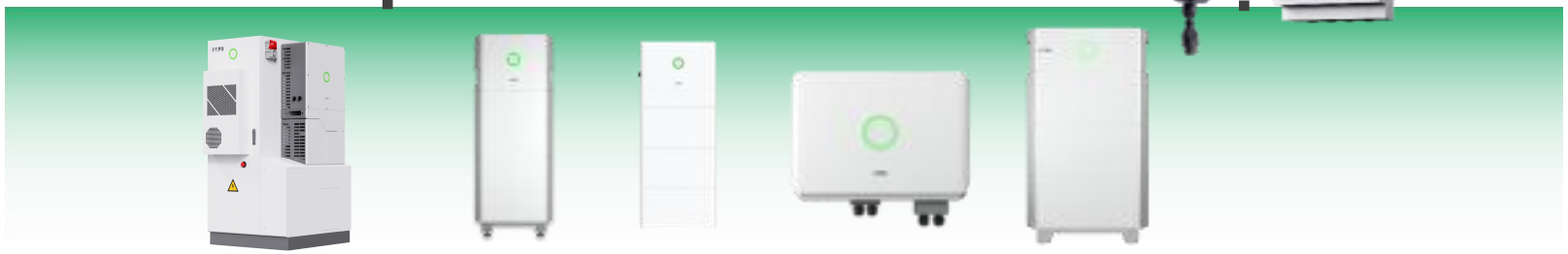
Cloud to cloud solution

API

- Strong compatibility
- rapid iteration
- Lower costs

SAJ Open Platform





12 Successful VPP Case

Open Platform

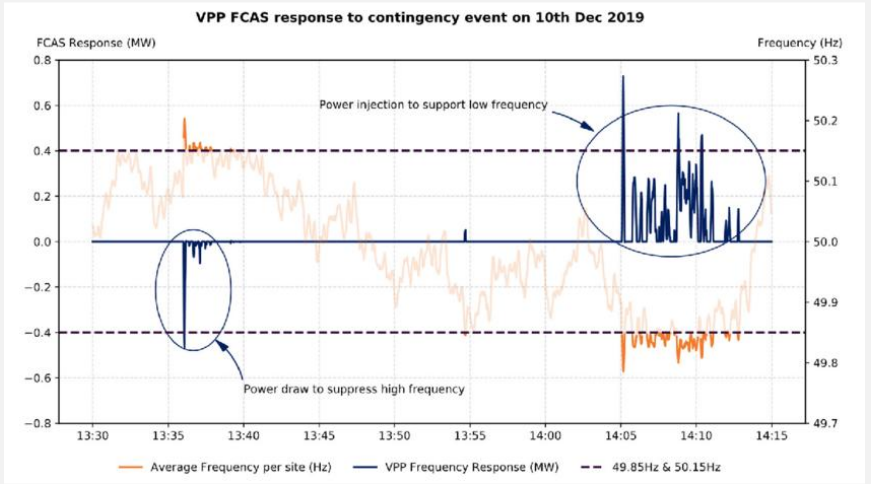
	Approved	On Going
EPC/Installer	zonneplan, SOLARPROFIT	GREENHEISS EFFICIENCY SYSTEMS
Aggregators	CheckWatt, everger, catch power, FLOWER	lunar energy, agl
Grid Operators		SA Power Networks, VATTENFALL, edp

01 Countries&Areas

Germany, Sweden, Finland, Norway, Spain, Portugal, Australia

02 Peak load shifting

03 Frequency regulation



THANK YOU

Revolutionize Energy Storage Solutions

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