

iSitePower-M Technical Disclosure Slide



Security Level:



01

Solution Training

Product Introduction

Application Scenario

Feature Description

02

Service Training

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iSitePower-M Specifications



Power module

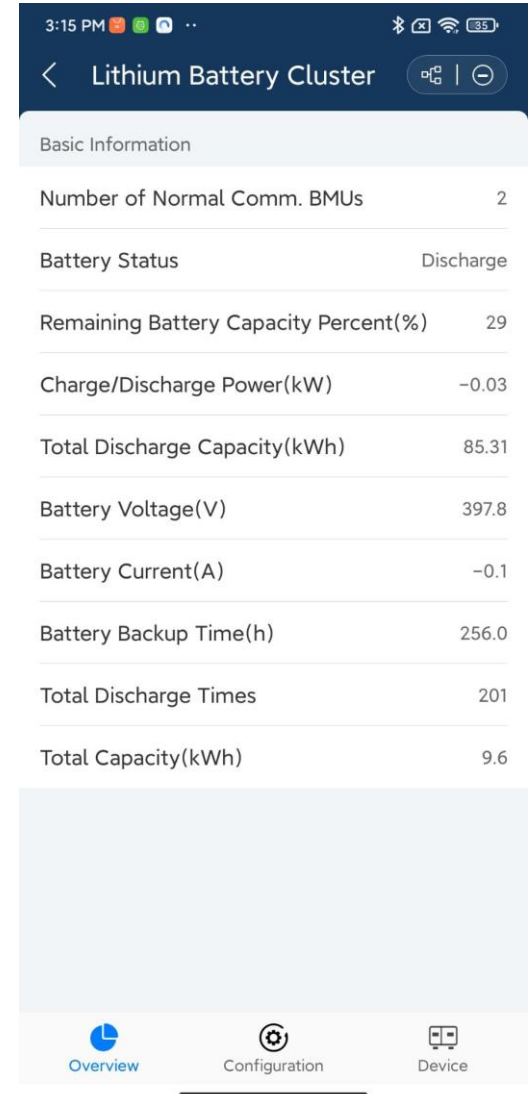
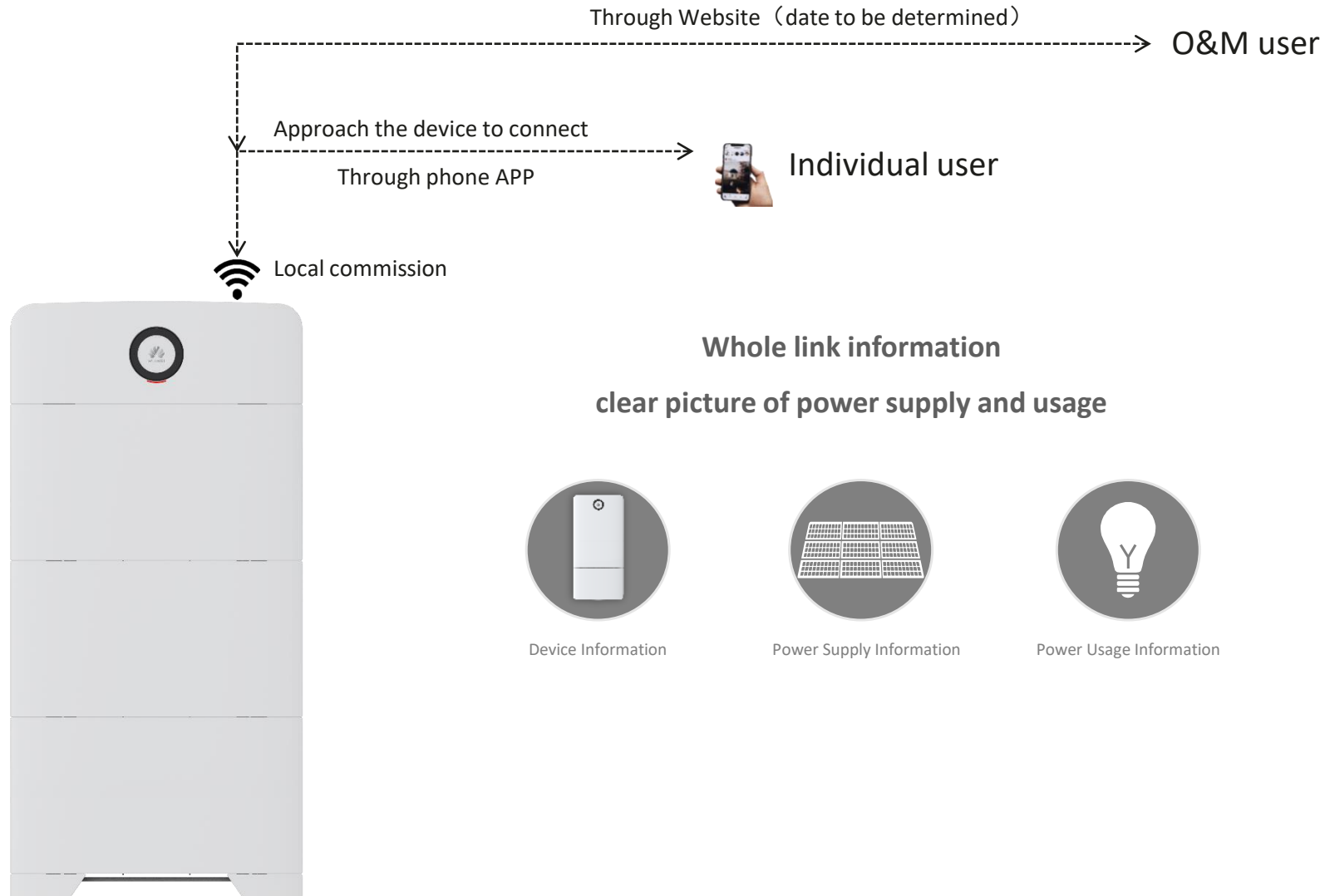
Battery module

Battery module

Battery module

Basic Specifications	Dimensions	690 mm x 1480 mm x 165 mm
	Weight	Power module: 16 kg; battery module: 50 kg
	Installation mode	Ground-mounted and wall-mounted
	IP rating	IP65
AC Input	Input voltage	Single-phase: 90–300 V AC
	Input current	Max: 30 A
	Frequency	50 Hz/60 Hz (Adaptive)
	Surge protection level	Complies with EN/IEC 61643-11 TYPE II
PV Input	Startup voltage	100 V
	Rated operating voltage (with highest efficiency)	340 V
	PV input voltage range	90–435 V DC
	Maximum input current of PV terminals	2 x 15 A
	PV power generation capacity	5 kW
	Number of connected PV strings	2 strings
	MPPT circuit	1
	Surge protection level	Complies with EN/IEC 61643-11 TYPE II
AC Output (off-grid)	Output voltage	Single-phase 200–230 V AC
	Maximum output current	25.8 A
	Output power	5 kW
	Power factor	0.8
	THD harmonics	≤3% @ rated output
	Surge protection level	3 kVA/5 kVA, 8/20 μs
	Output voltage	350–435 V DC
Battery Specifications	Rated capacity	5 kWh per battery module
	Dischargeable capacity	5 kWh (100% DOD) per battery module
	Maximum parallel capacity	6 battery modules, 30 kWh in total
	Battery module output power	2.5 kW per battery module, can be expanded by paralleling
	Service life	6000 cycles @ 25°C, 85% DOD

Networking Scenario



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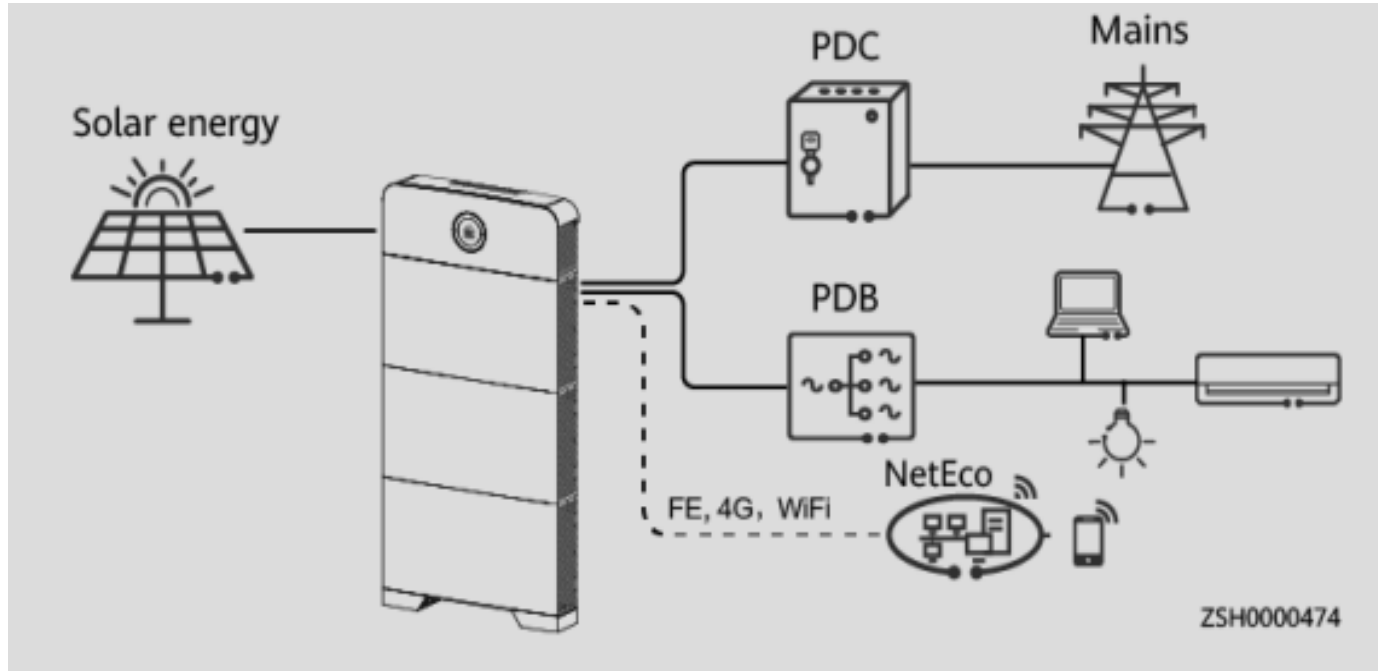
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Solar-grid hybrid scenario network diagram



PV > battery > grid

PV > loads consumption

PV supply power to loads
When battery not fully charged, PV will charging battery at same time.

PV < loads consumption

When battery fully charged, PV and battery supply power to load side together.
When SOC of battery reach preset value, the grid will cut in and supply power with PV together.

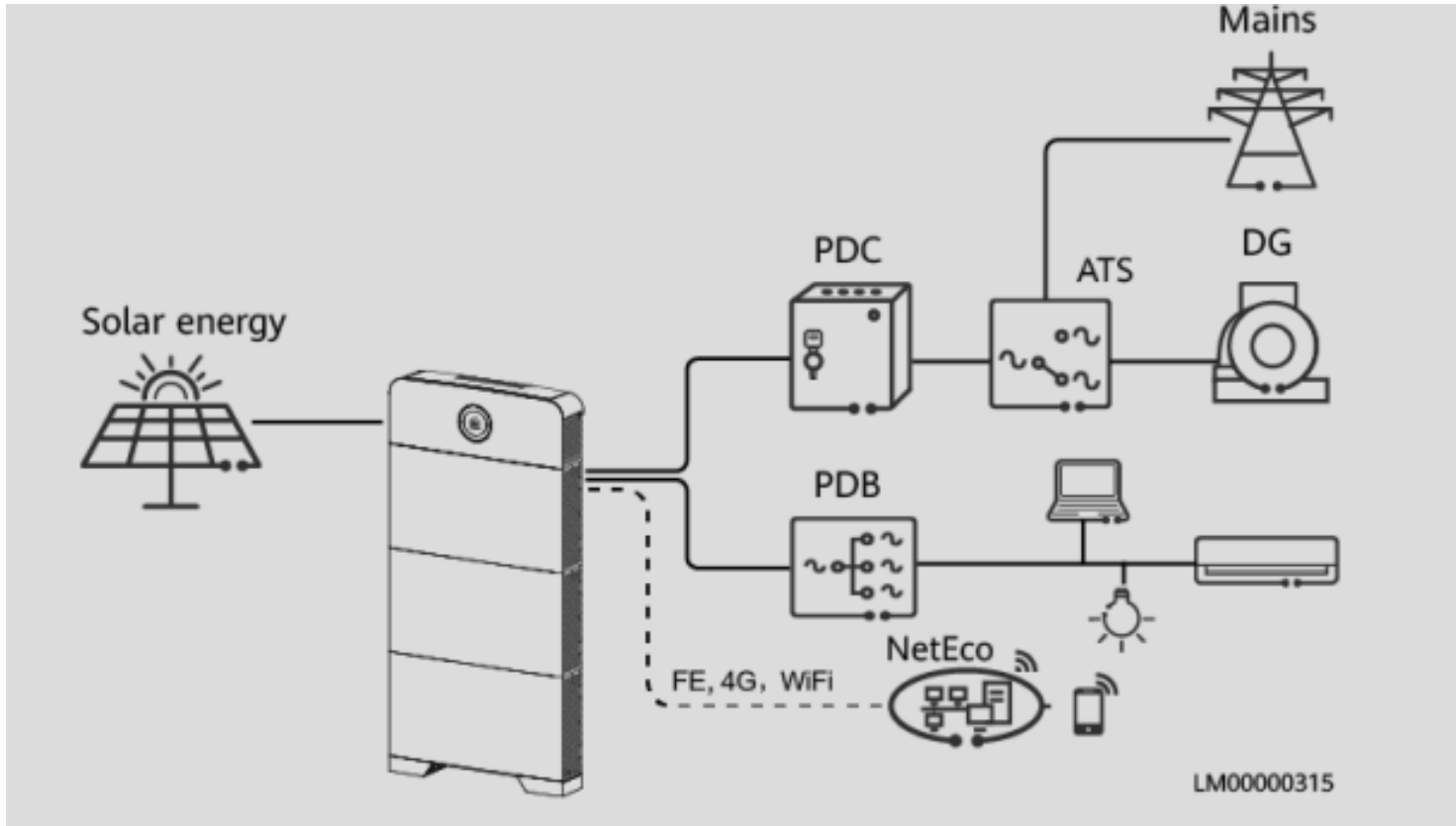
When there haven't solar energy, battery will supply power.

When SOC of battery reach preset value, grid will supply power and charging battery at the same time.

Item	Key Specification	Quantity
power module	PV generation capacity: 5 kW	1
Battery module	5 kWh energy storage, 2.5 kW output per battery module	3
Ground-mounting bracket	iSitePower-M ground-mounting bracket	1

Configuration: 5 kWp PV Input, 5 kW AC Output, and 15 kWh Backup Capacity

Solar-grid-genset hybrid scenario network diagram



PV > loads consumption

PV supply power to loads
When battery not fully charged, PV will charging battery at same time.

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When battery fully charged, PV and battery supply power to load side together.
When SOC of battery reach preset value, the grid will cut in and supply power with PV together.

When there haven't solar energy, battery will supply power.

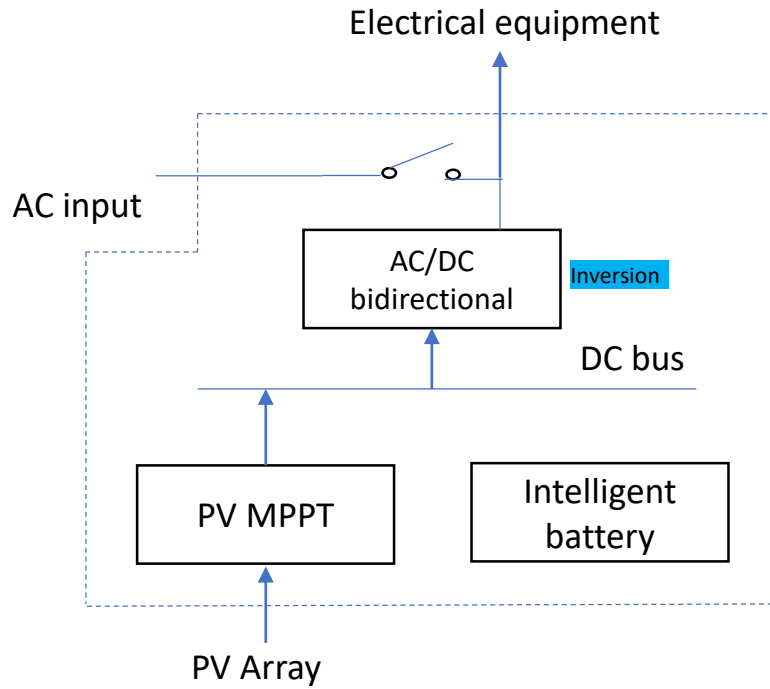
When SOC of battery reach preset value, grid will supply power and charging battery at the same time.

If there haven't PV or grid, and SOC of battery reach preset value, the DG will start work.
When grid available or battery fully recharged, DG will shutdown.

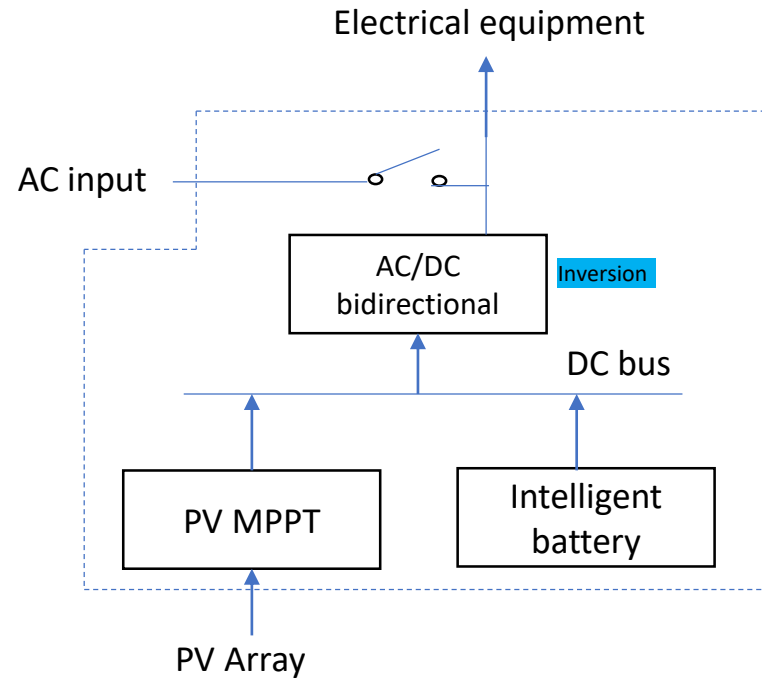
solar power > battery > grid > DG

Configuration: 5 kWp PV Input, 5 kW AC Output, and 15 kWh Backup Capacity

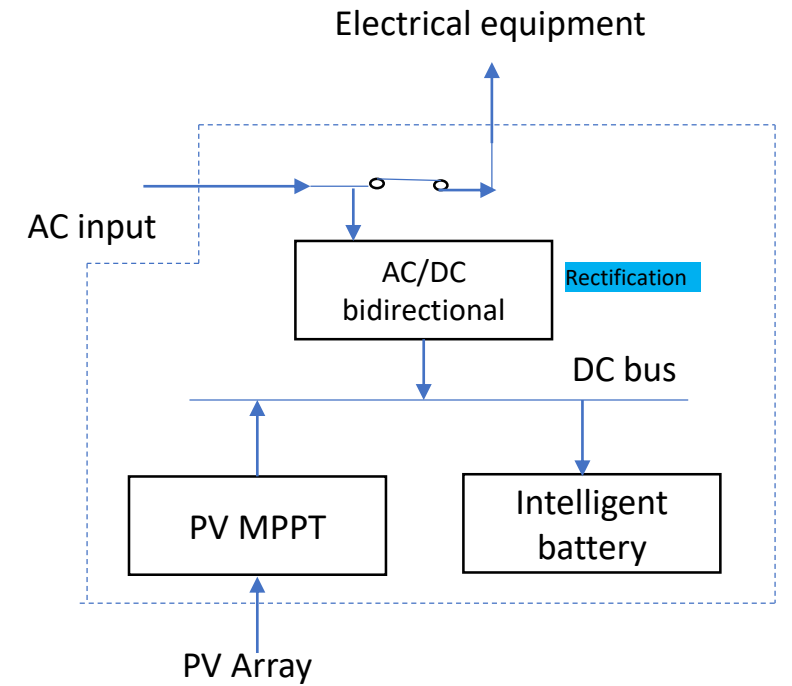
iSitePower-M: Working Logic



PV power > Electrical equipment consumption



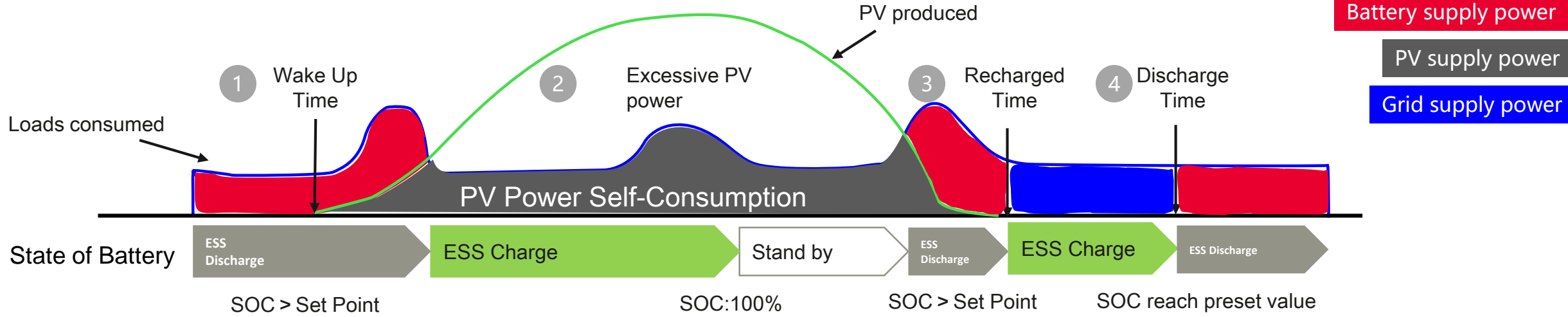
PV power < Electrical equipment consumption
The battery level is greater than the preset value.



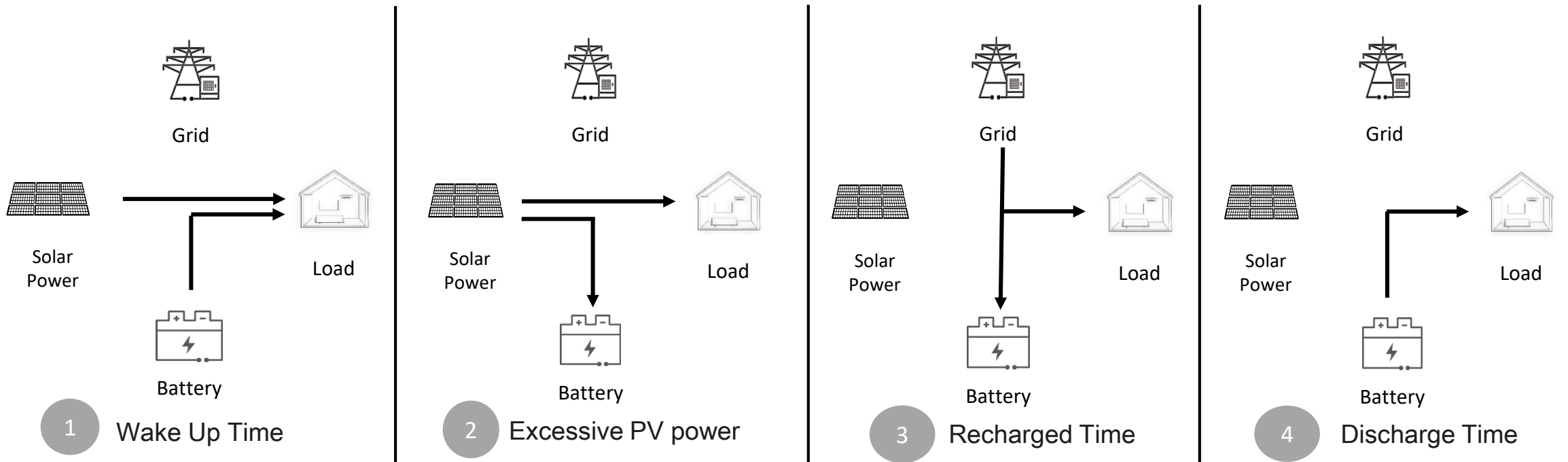
PV power < Electrical equipment consumption
The battery level is less than the preset value.

The working logic is as follows: PV > battery > grid. Batteries are charged when the SOC drops to a preset value.

iSitePower-M: State of Battery



Load Energy Comes Follow : PV > Battery > Grid



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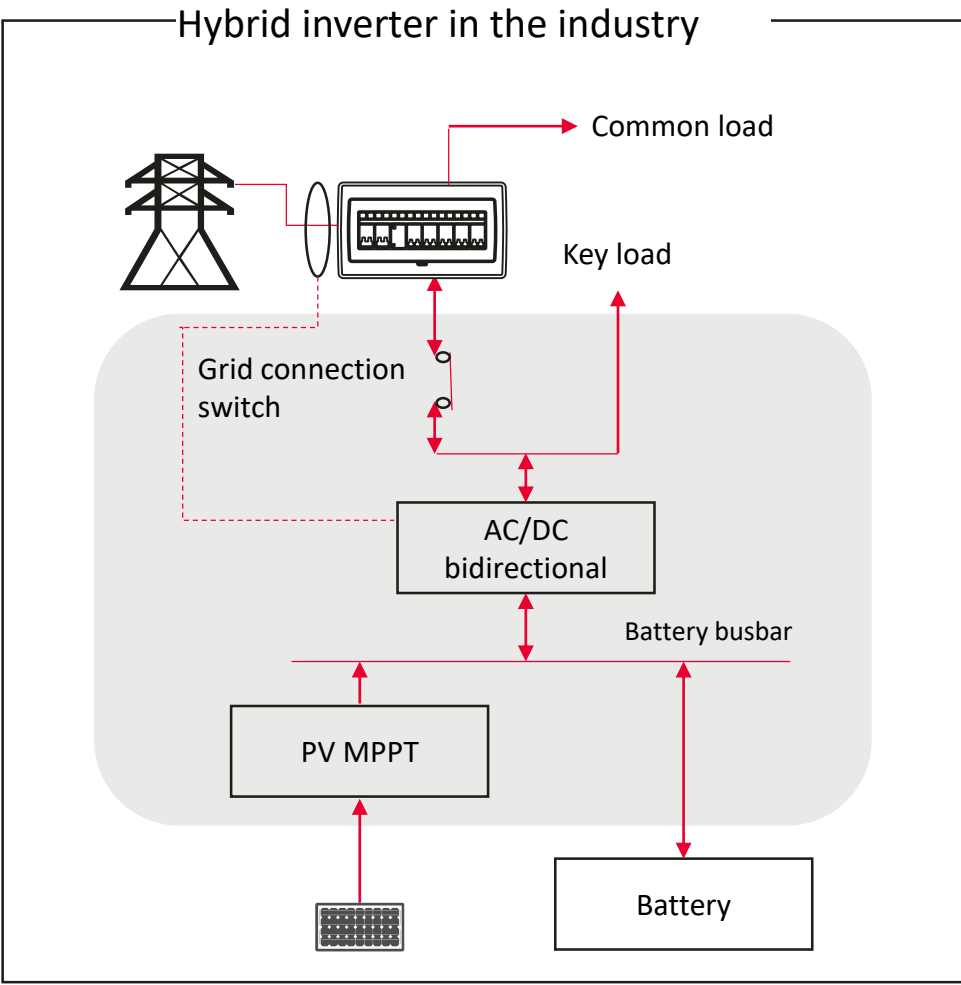
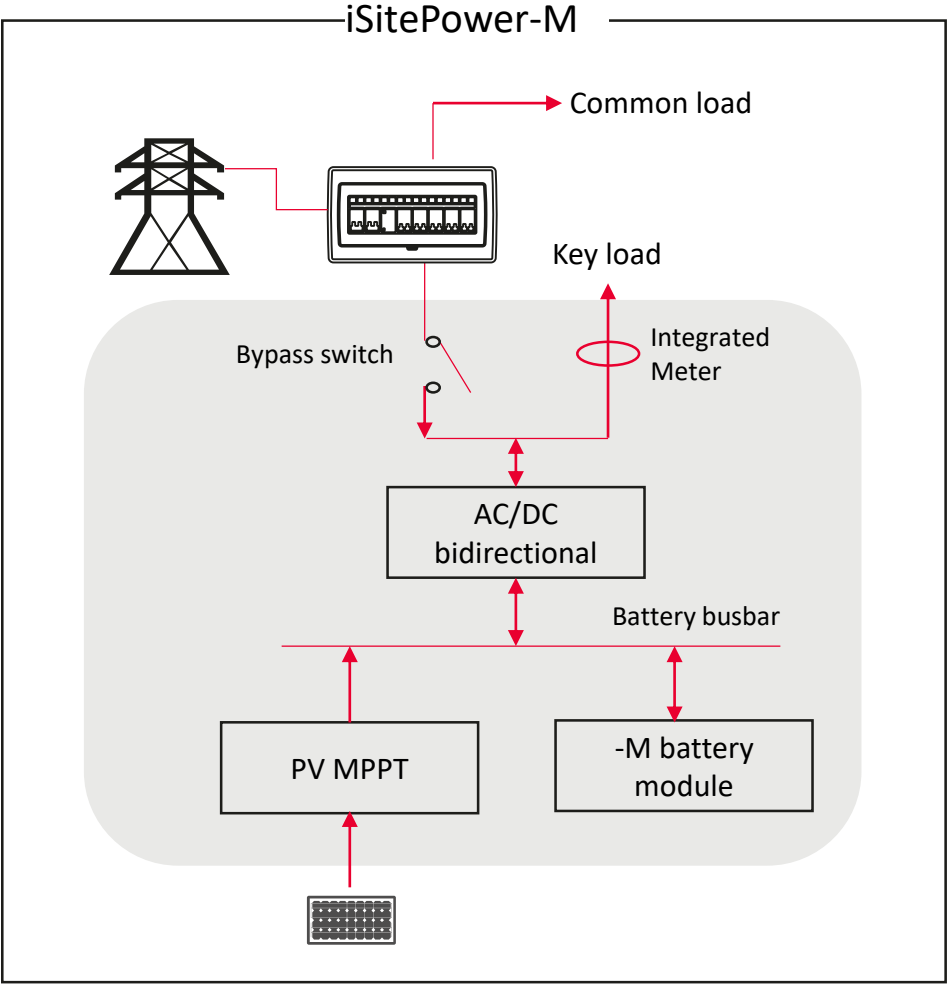
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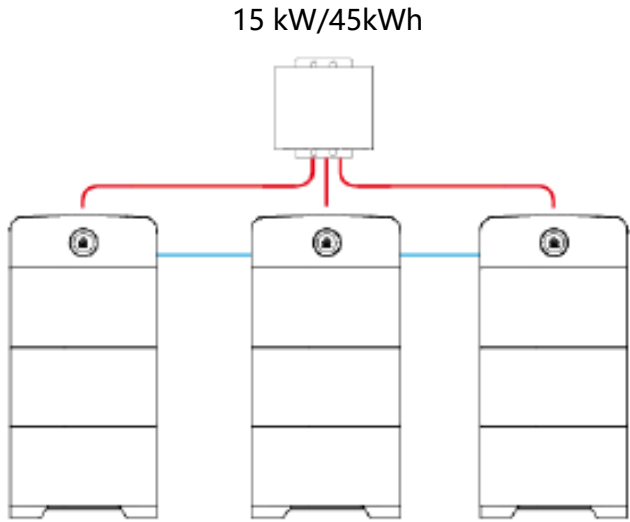
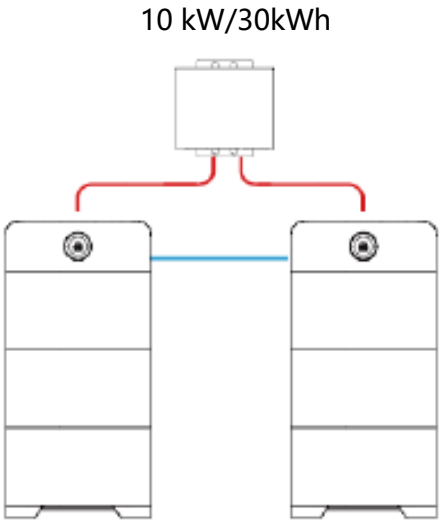
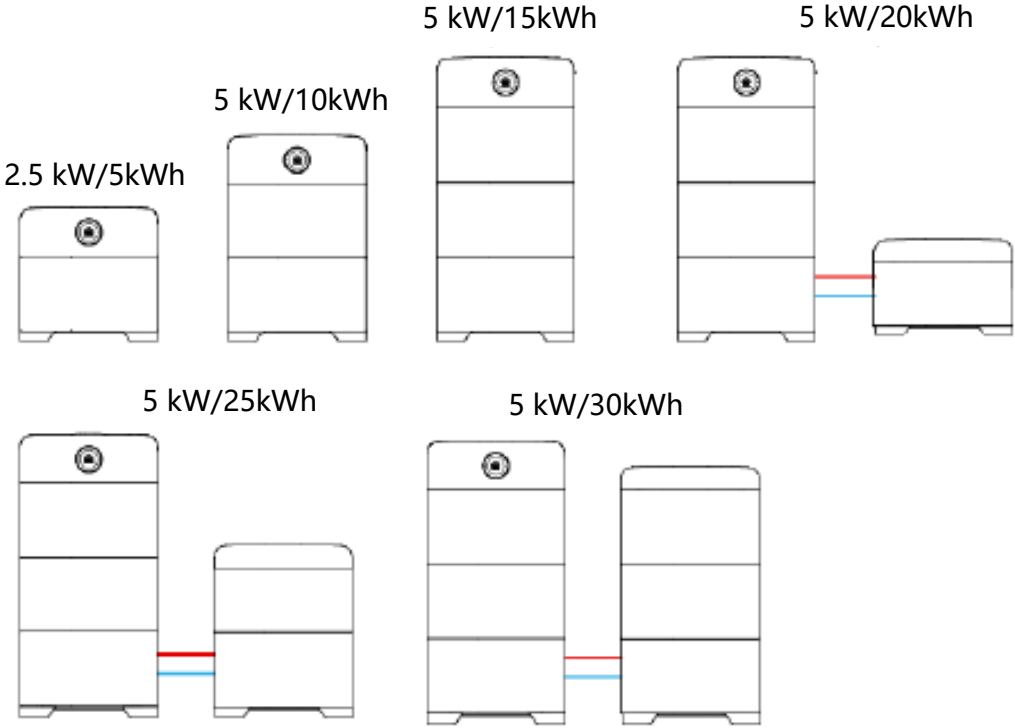
Solution Architecture Comparison – All in one



In the off-grid state, the output capability of each architecture depends on the smaller value between the battery discharge power and the inverter output power.



Parallel System Configuration



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