



VISION ESS



UN38.3

1 Product Description

Vision Residential ESS

Vision residential ESS uses integrated technology, enables you obtain power from PV panels, utility grid, diesel generators. The power of the hybrid inverter rated from 3kW-12kW and battery capacity could be expanded from 5.12kWh-46.08kWh, it can meet your family daily electricity consumption , absolutely a better choice for household UPS.

Power

3—12kW

Phase

Single/Three phase

Battery

5.12—46.08kWh



Hybrid Inverter

EMS Control Panel

Battery Cabinets

Modular Units

SOC Breathing Light

Input & output Ports

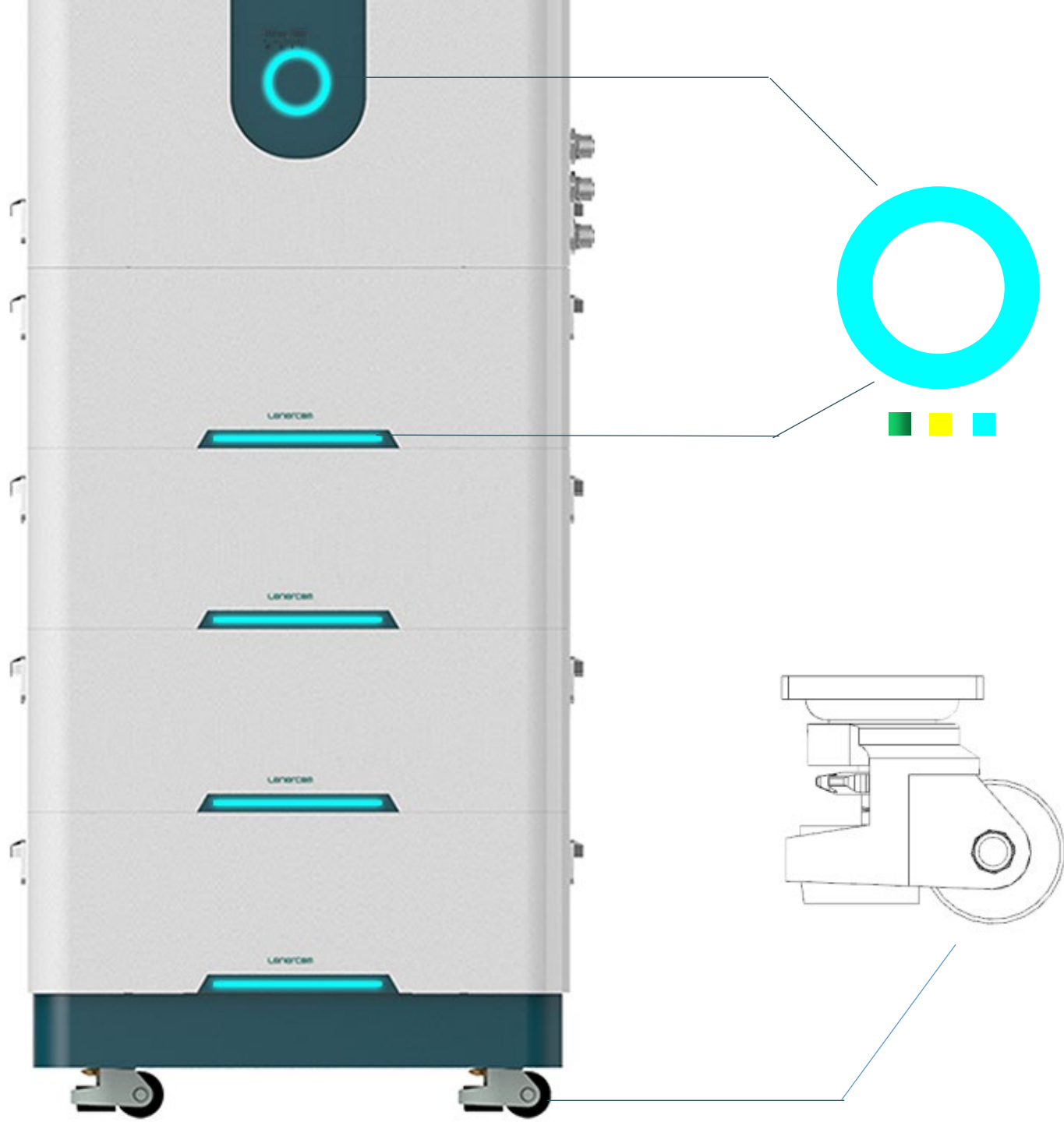
Base





Multi-source energy input & intelligent switches

Vision residential ESS is equipped with the newest LFP technology batteries of high compatibility, and adopt multi-source power input like PV, utility grid, diesel generators. Intelligently shift the power generation & power storage modes according to different application scenarios.



SOC Breathing Light

- SOC power display: blue, green, yellow 3 colors indicate different battery usage status.
- Fault alarm(Red): through the breathing light, you can find the fault condition in time.

Universal Wheel

- Easy to move, convenient to place to anywhere in the house.
- Safe and reliable: single universal wheel can bear the weight of 150KG.

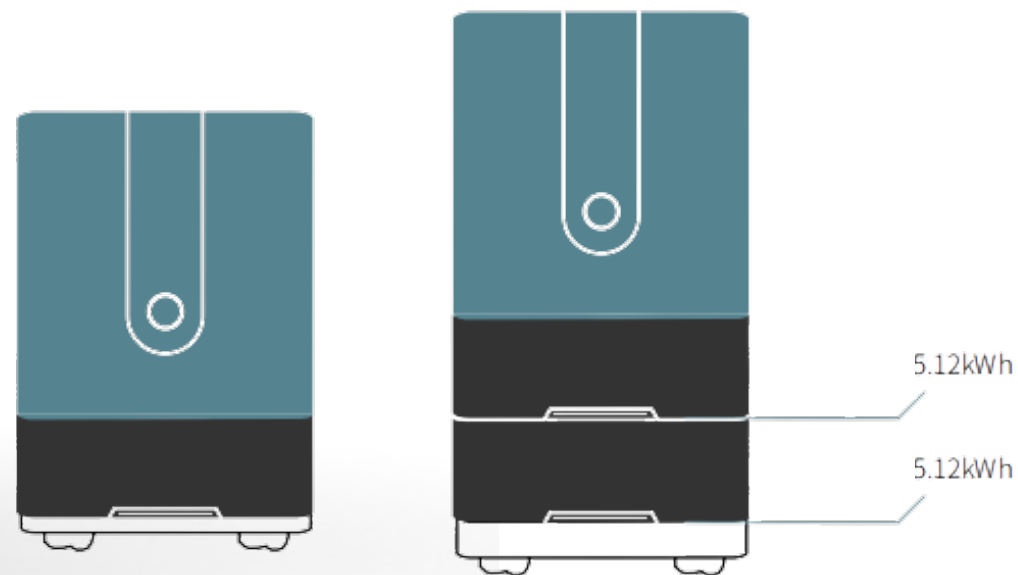


Flexible Expansion of Capacity

Modular design, easily capacity expandable based on your requirement.

Convenient maintenance.

5.12kWh battery cabinet, which can be expanded up to 9 modules. *



*Please consult Lenercom engineers to obtain the best configuration before purchase.

A Level Battery

- LiFePO4 Battery
- 100%DOD
- 10000 Cycles Life Time *
- 10 years warranty for battery

Battery Management System

- More accurate data: Simultaneously monitoring the performance status of each 16 cells.
- Safer battery cells: Built-in 6 sets of high-precision temperature probes.
- Multi-protections: Overcharge, overvoltage, overcurrent, over-discharge, overtemperature, overload protection.
- Better consistency: Intelligent equalization circuit protection.
- Longer life time: Customized charging strategy for residential ESS, each battery module is independently optimally managed.

* Experimental environment, 0.2C charge-discharge rate at 25°C





Extremely Simplified Wiring

Only 3 kinds of different colored cables (ground wire, battery connection cable, communication wire), saving assembly wiring time.

Foolproof Socket Design

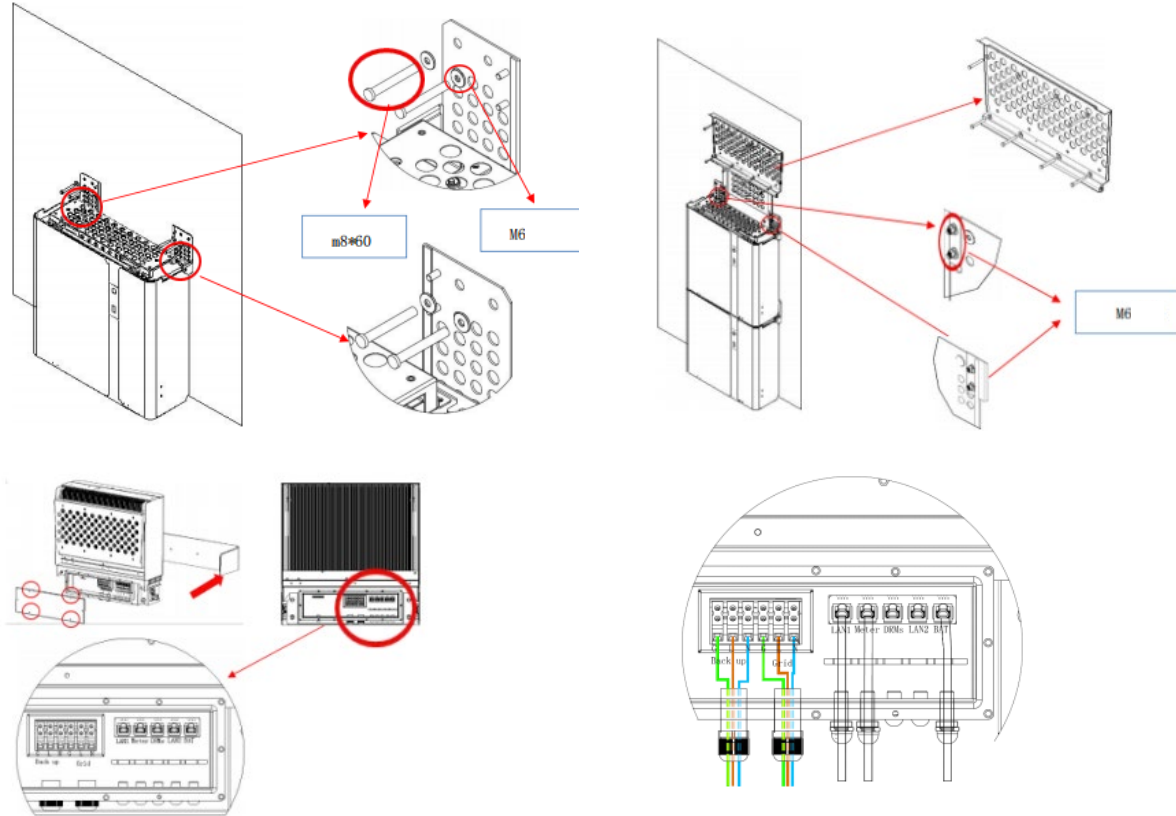
Designed with foolproof sockets to prevent short circuit and danger caused by wrong connecting the +/- poles of the sockets.

IP67 Port Insulation

Socket with IP67 insulation fully protects the safety of installer and users.

Qucik & Easy Installation

Others: >60mins

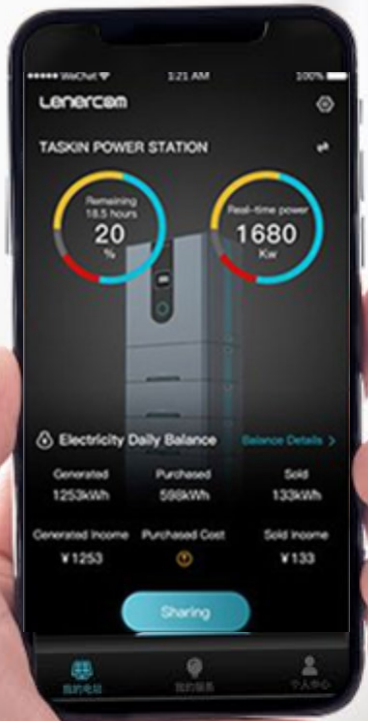
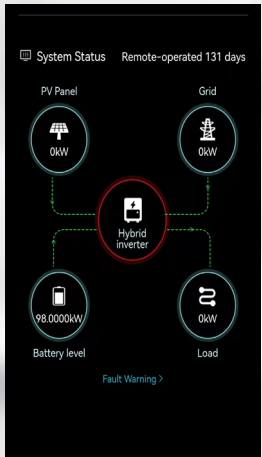
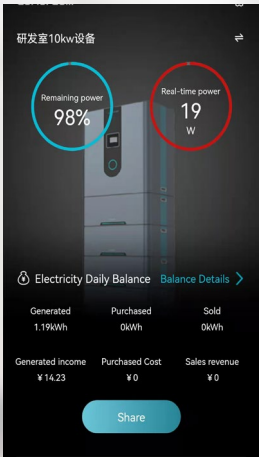


Residential ESS: ≈5mins



Remote Control

Interconnected with the supporting APP and EMS software to visually display the operating status of the equipment in the form of visual charts, so as to realize the remote control and fault repair of the whole series of Vision ESS products.



- Remote Fault Diagnosis
- Remote Control on Mobile Phone
- Power generation and sales show in real-time.
- Operating status show in anytime and anywhere.

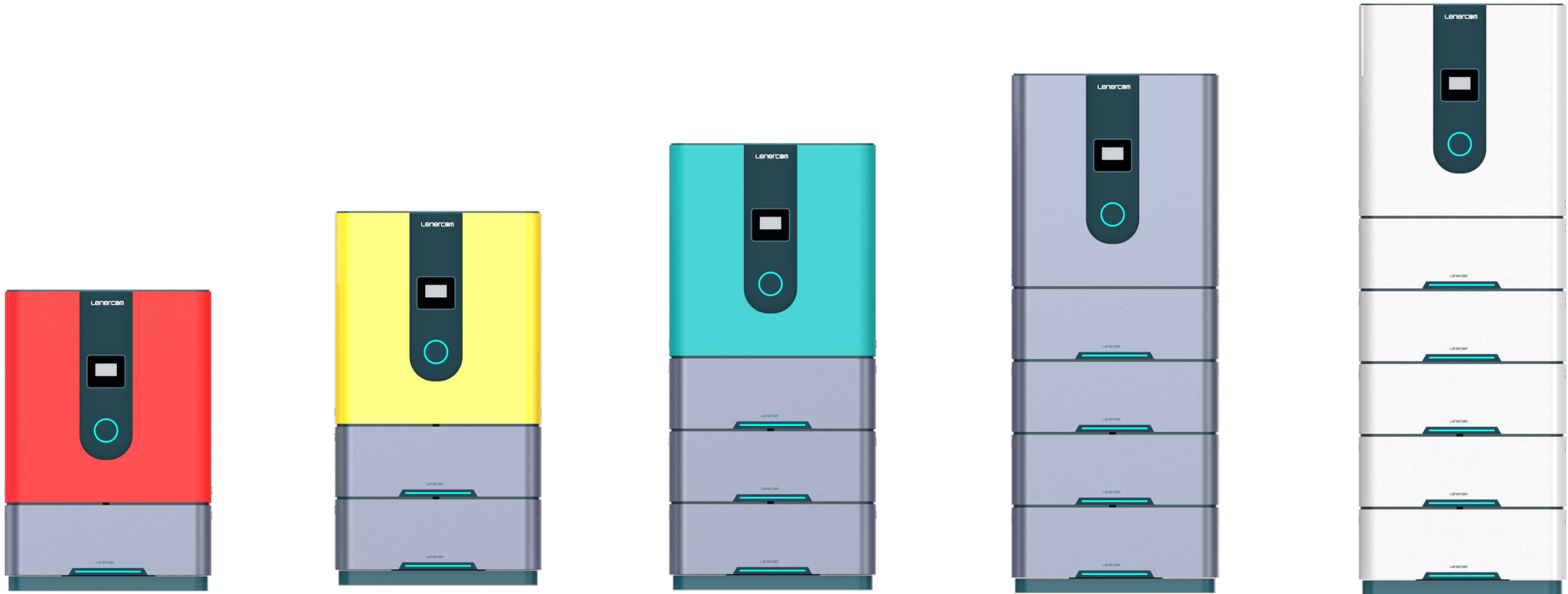
EMS:Energy Management System

The fault data is automatically connected to the Vision EMS cloud, which is much convenient for distributors and after-sales engineers to solve the problems online at the first time.



Support for More Colors

Customized color supported, Vision Residential ESS
factory color is pure white and grey



Mechanical Specifications*

Inverter Dimensions	600mm/420mm/600mm
Battery Dimensions	600mm/420mm/200mm
Base Dimensions	600mm/420mm/130mm
Mounting Options	Stacking

* The dimension of the product shall be subject to the real object, with a tolerance of $\pm 3\%$.

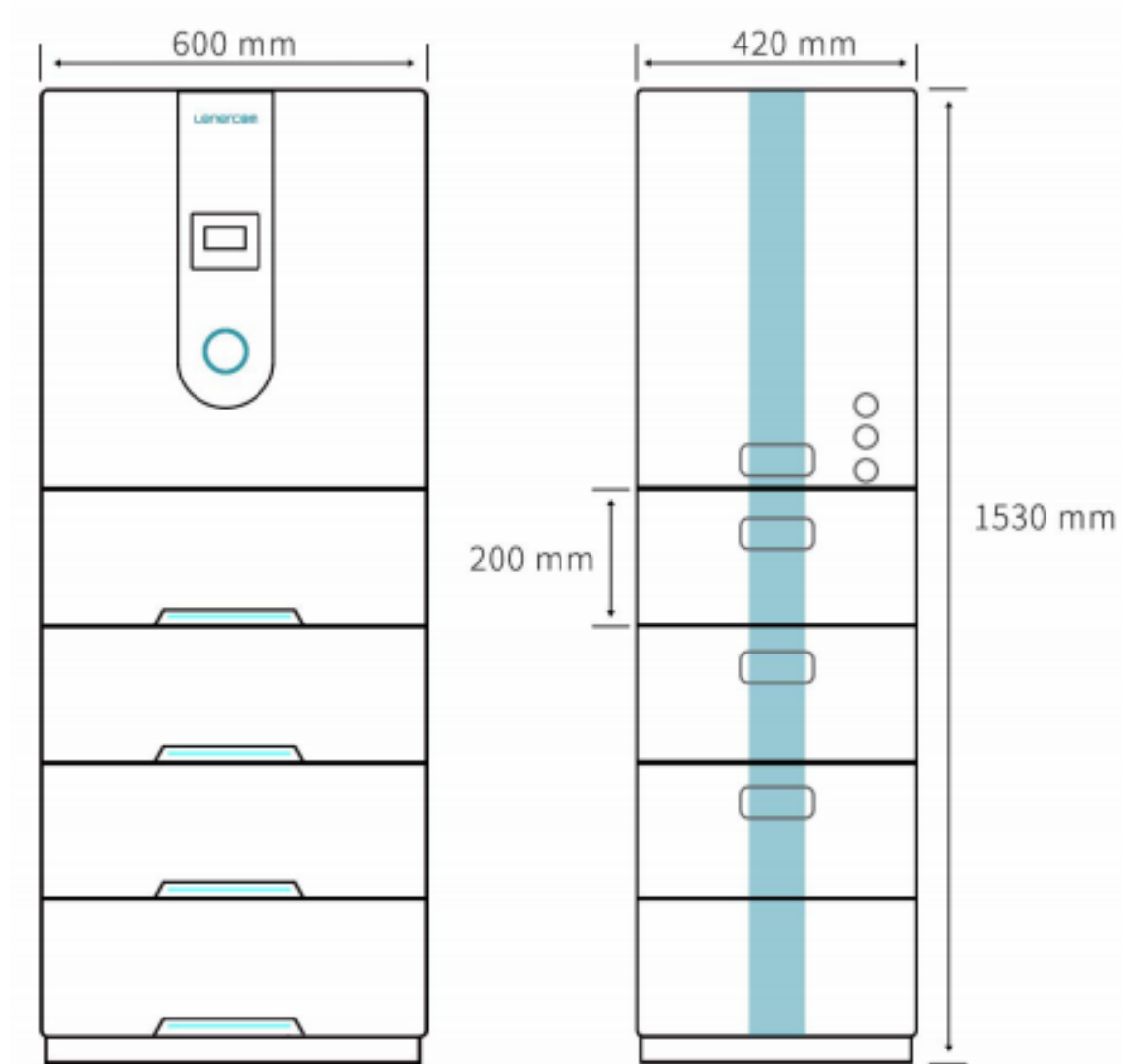
Enviromental Specifications

Operating Temperature*	-15°C~55°C
Recommend Temperature	25°C
Altitude	2000M
Humidity	5~95%Without Condensation
Ingress Rating	IP54
Ventilation/Noise	/

* When the temperature is below 0°C or above 40°C, the performance will be limited.

Compatible Parameter

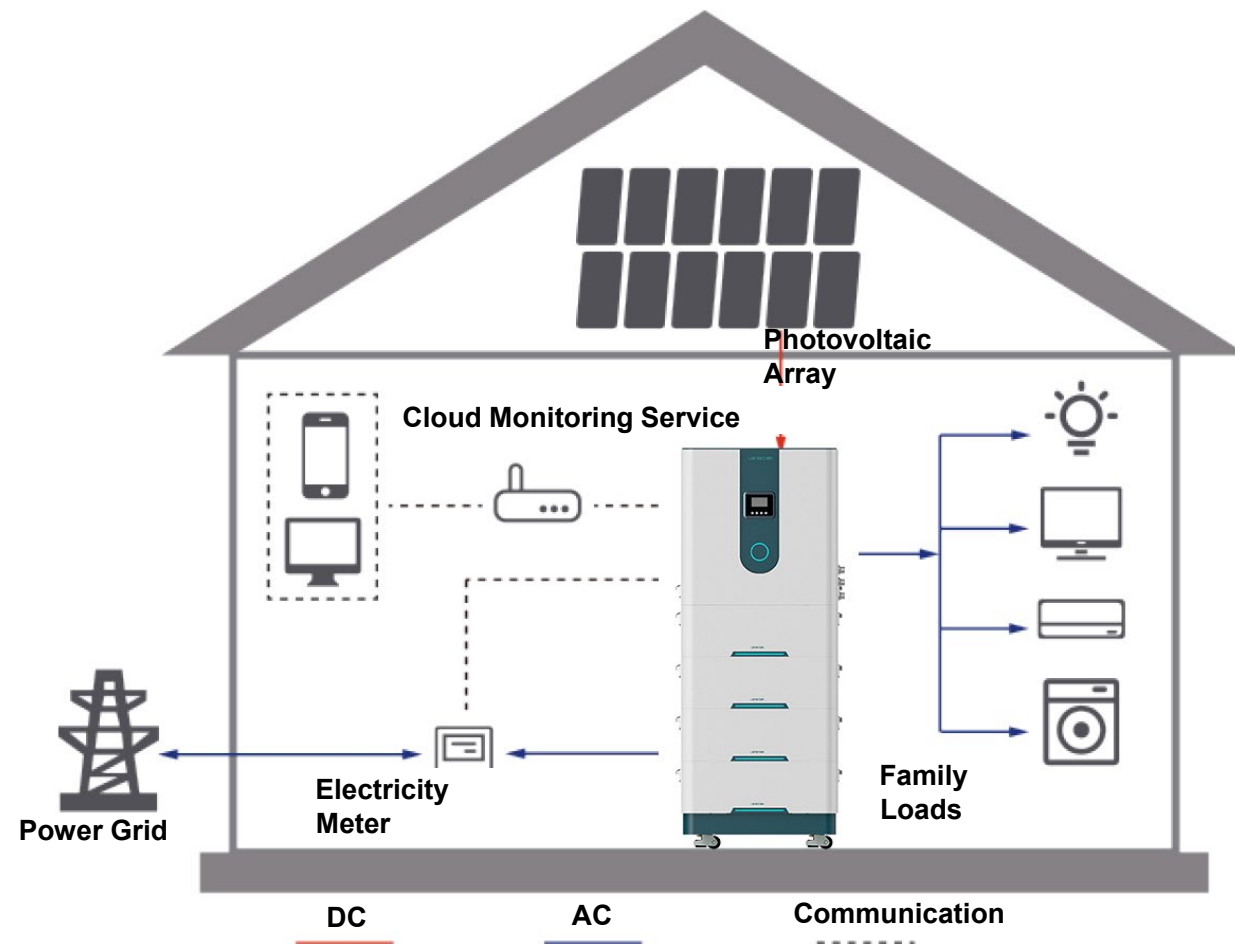
Certifications	CE/TUV
	IEC 62109-1&-2,
Safety Regulations	IEC 62477,
	EN 61000, UN38.3
Grid Regulations	/



*The dimension of the above picture corresponds to the product model: LC-E2-520.



Working Principles of Vision ESS



1

Grid-tied ESS

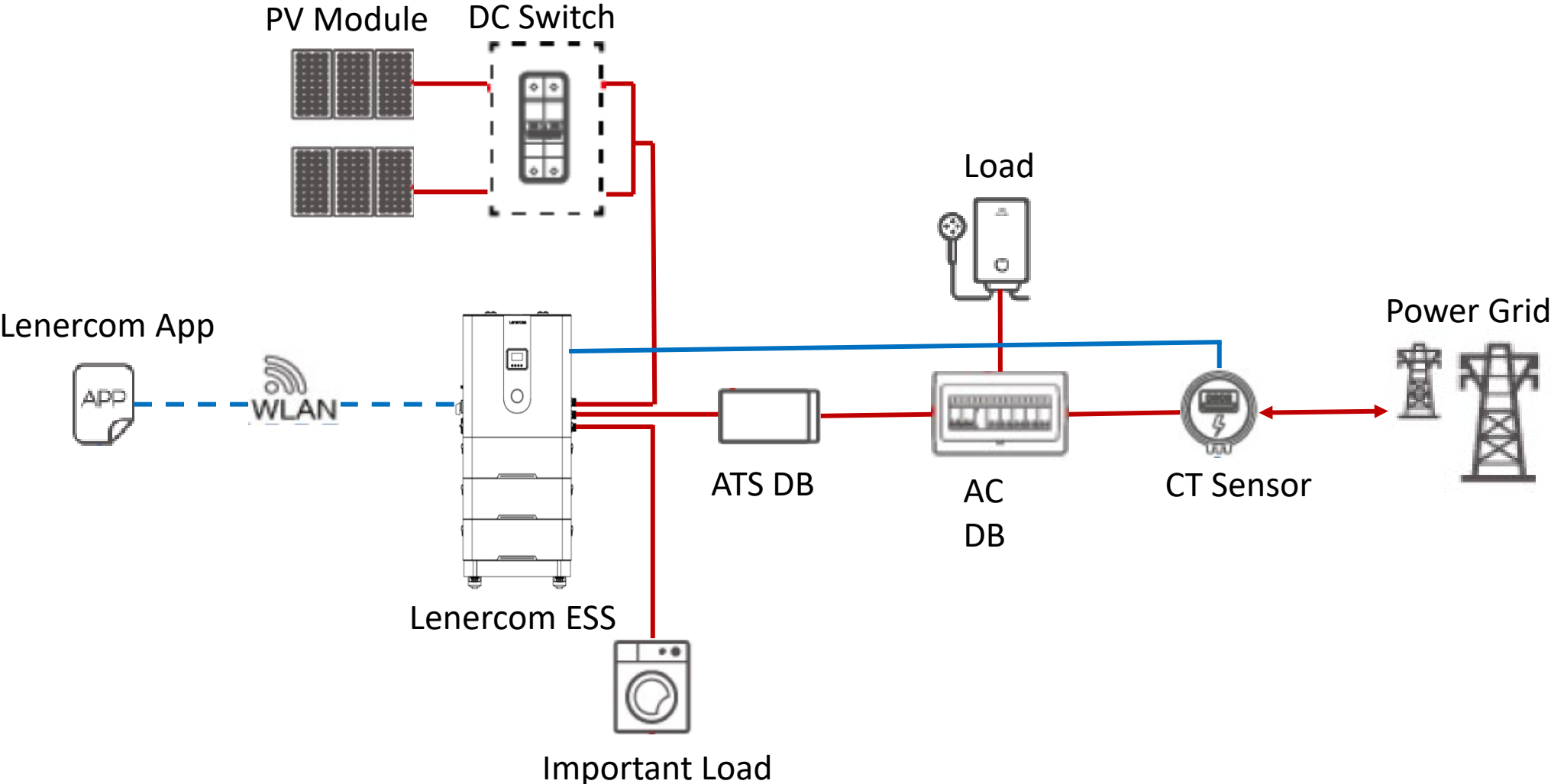
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Grid-tied and Off-grid ESS

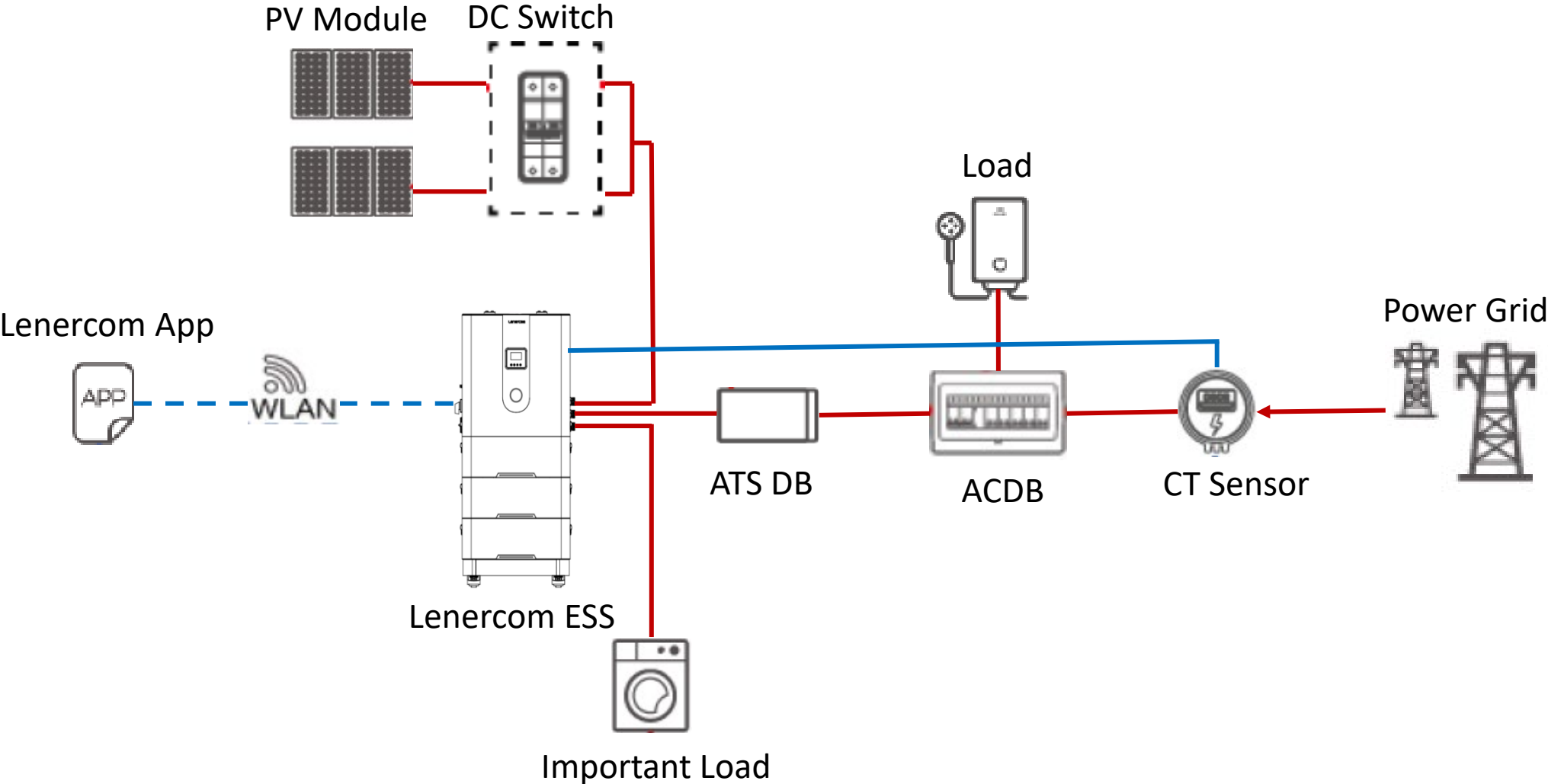
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Pure Off-grid ESS

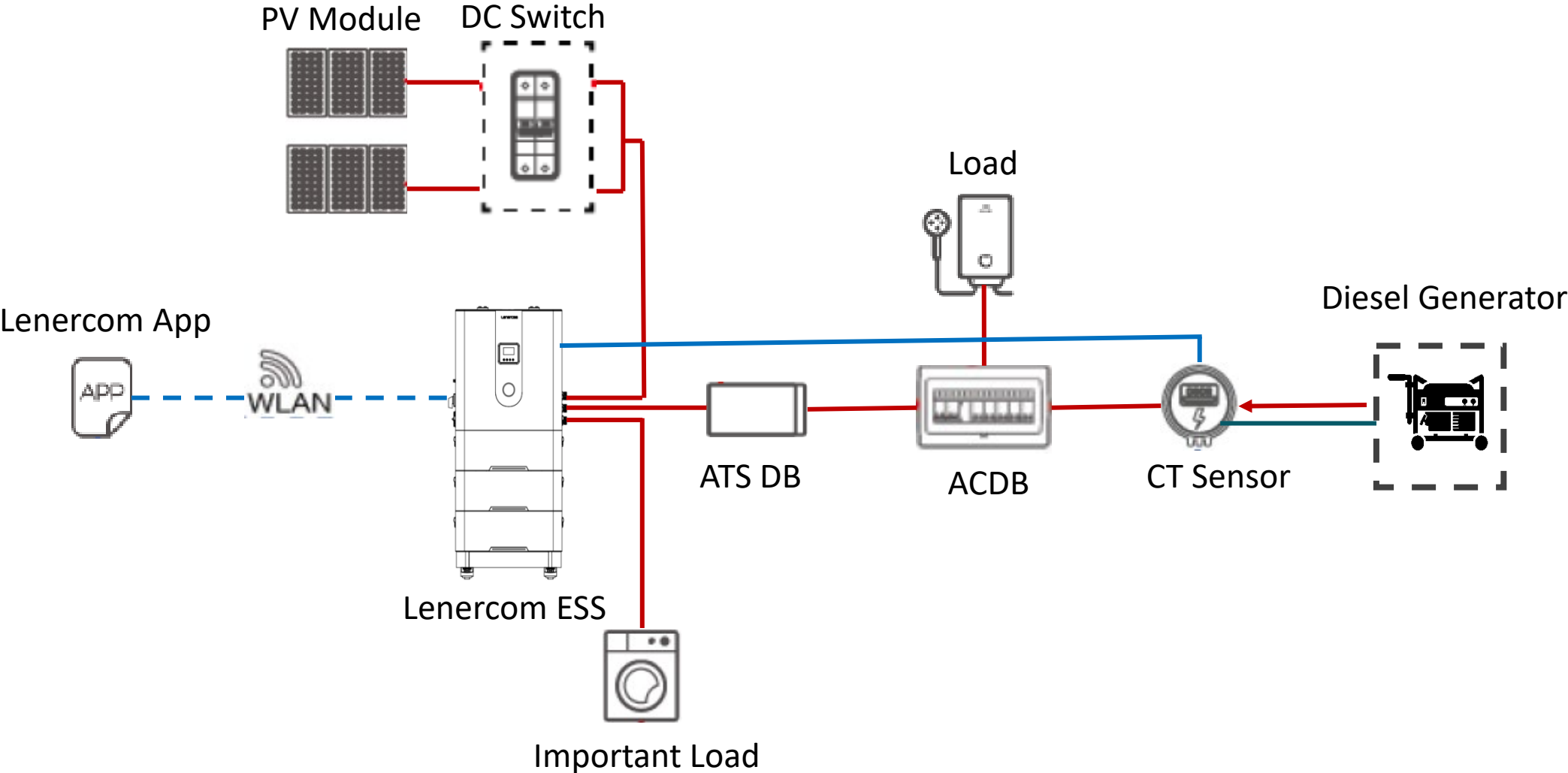
Networking Diagram of Grid-tied ESS



Networking Diagram of Grid-tied and Off-grid ESS



Networking Diagram of Pure Off-grid ESS





Commercial ESS

30/60 kW

Output power

60/120 kWh

Battery capacity

172 Ah

Cell rated capacity

± 0.99

Power factor

Lithium battery

Battery type

<2%

AC Voltage

$380 \pm 2\%$ V

Off-grid AC Output Voltage

Intelligent operation

The whole process does
not need manual intervention

Flexible configuration

Free combination of power and energy

Dynamic expansion of capacity

Free choice of AC or DC side parallel machine

Intelligent management of air conditioning

More energy-saving operation

Fast switching between on-grid and off-grid

Switching time is less than 10ms

