

Hoymiles HiBattery 4020 Series

MAX POWER. MAX SAFETY

Plug-in Home Battery





About Hoymiles

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A dark blue rectangular box with a background image of solar panels and wind turbines. A vertical green bar is on the left side.

2012

Hoymiles was founded

A dark blue rectangular box with a background image of a city skyline at dusk. A vertical green bar is on the left side.

PV Inverters, Energy Storage
Products & Integrated System
Solutions

Core Business

A dark blue rectangular box with a background image of solar panels on a roof. A vertical green bar is on the left side.

DIY, Residential Systems, C&I
Facilities, & Utility-Scale Solar
Plants

Product Application Scenarios

A dark blue rectangular box with a background image of solar panels in a field. A vertical green bar is on the left side.

190+

Global Business Presence

A dark blue rectangular box with a background image of solar panels and wind turbines. A vertical green bar is on the left side.

Tier1

BNEF Tier 1 Energy
Storage Manufacturer

A dark blue rectangular box with a background image of solar panels on a roof. A vertical green bar is on the left side.

5Million +

Global Cumulative PV Product Shipments

Global Presence

Our global service network delivers fast, efficient, and high-quality solutions to customers around the world.

4 Regional Business HQs

Hangzhou, China
Frankfurt, Germany
Dallas, USA
Bangkok, Thailand

5 Regional Storage Centers

Hangzhou, China
Eindhoven, Netherlands
Los Angeles, USA
Monterrey, Mexico
Maceió, Brazil

4 Manufacturing Bases

Hangzhou
• Microinverter, micro-storage, RSD
• Household PCS
Lishui
• Energy storage system
Haining
• String inverter
• C&I energy storage PCS, grid-side PCS
Mexico
• Microinverter

A global network of local technical support and service teams

China
North America: United States
Latin America: Brazil, Colombia, Mexico
Asia Pacific: Australia, Malaysia, Thailand, India
Europe: Belgium, Germany, France, Finland, Netherlands, Luxembourg, Portugal, Spain, Italy, United Kingdom

Planned expansion in 2025
Latin America: Chile
Asia-Pacific: Pakistan, Philippines, Vietnam
Europe & Middle East Africa: UAE, South Africa, Sweden, Hungary



Product Overview

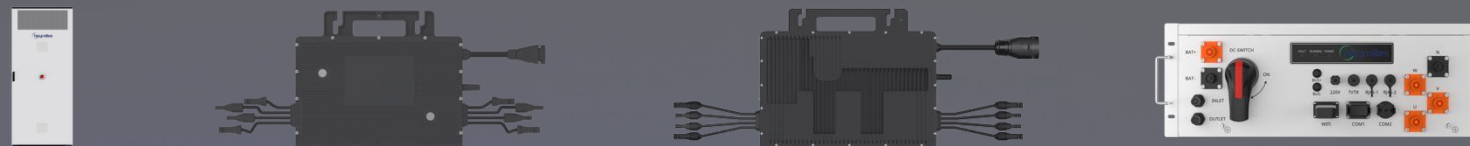
Diverse portfolio, driving energy innovation

A comprehensive and diverse product matrix has been developed across the fields of energy conversion, storage, transmission, and management.

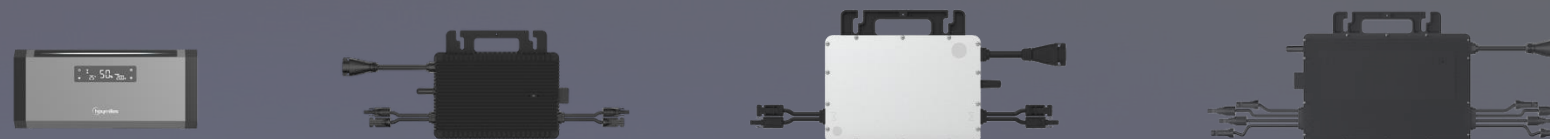
Utility-Scale Power Plant



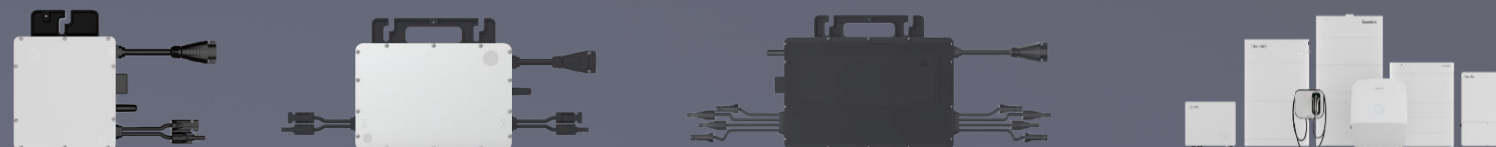
C&I



Plug-in/DIY



Residential PV





Market Trends

Market Trends

In Germany, the annual installed growth of photovoltaics exceeds 84%, while that of supporting energy storage surges by over 97%, showing rapid scale expansion across the industry.

■ Plug-in PV

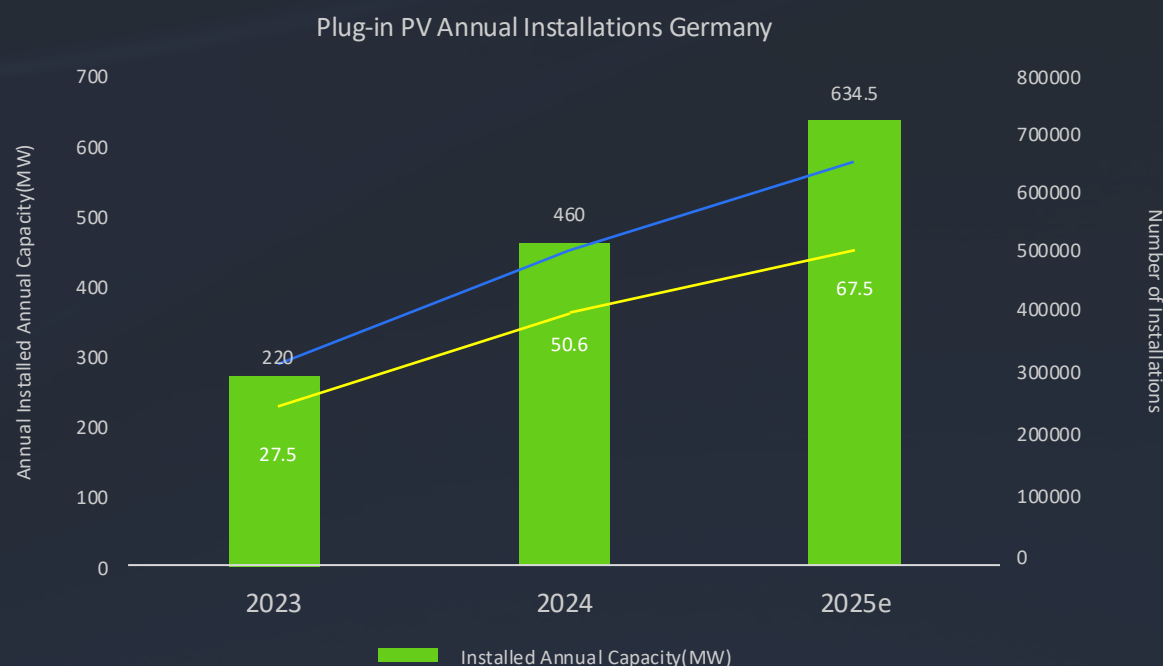


Figure 1: Plug-in PV Annual Installations Germany Source: EUPD Research 2025

An additional 675,000 units with a capacity of 635 MW are expected to be added in 2025, accounting for 8.2% of the total residential solar capacity.

■ Plug-in Storage

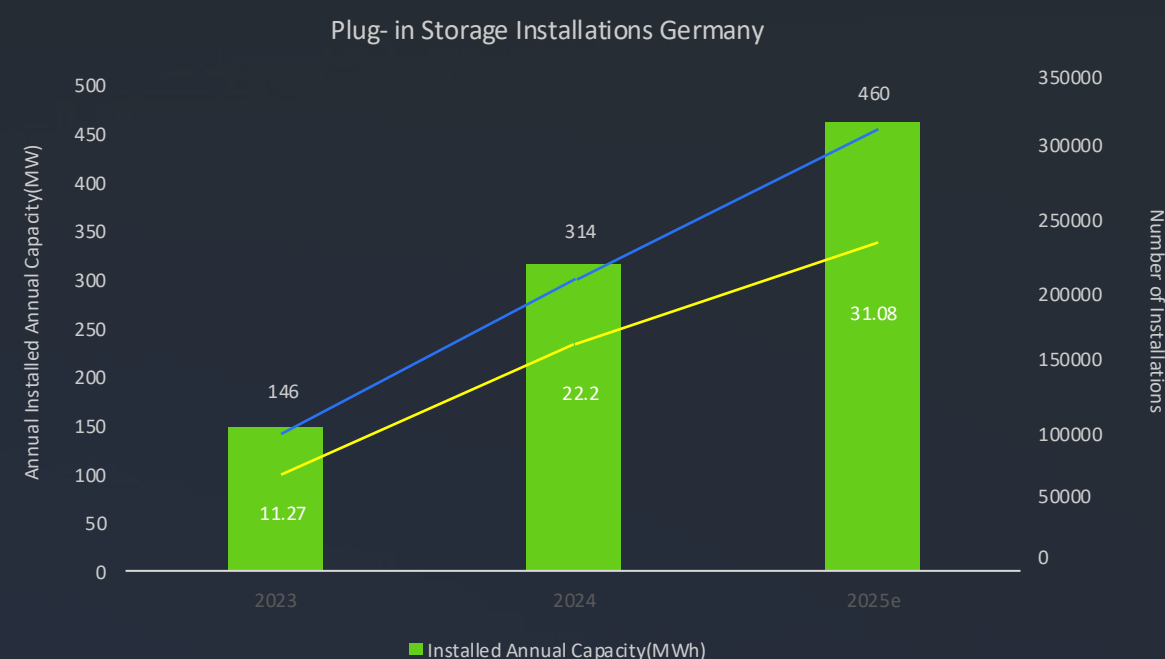


Figure 2: Plug-in Storage Installations Germany Source: EUPD Research 2025

The installation of energy storage systems ($\leq 5\text{kWh}$) is expected to maintain steady growth in 2025.

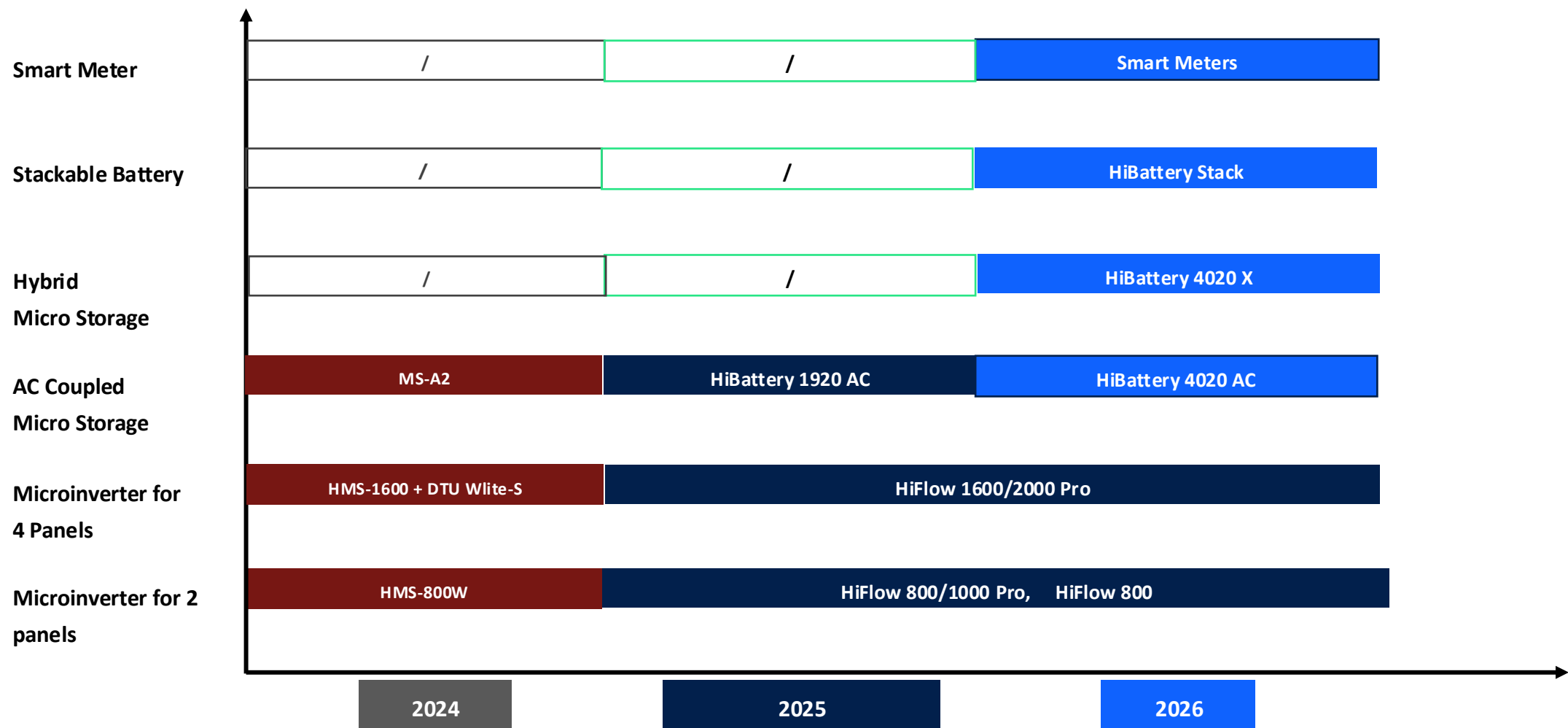
Market Trends

an addition of **8 million** new plug-in PV systems.

PV-storage pairing ratio: **30%+**

2030

Hoymiles DIY Product Line



Hoymiles HiBattery 4020 Series

MAX POWER. MAX SAFETY

Plug-in Home Battery



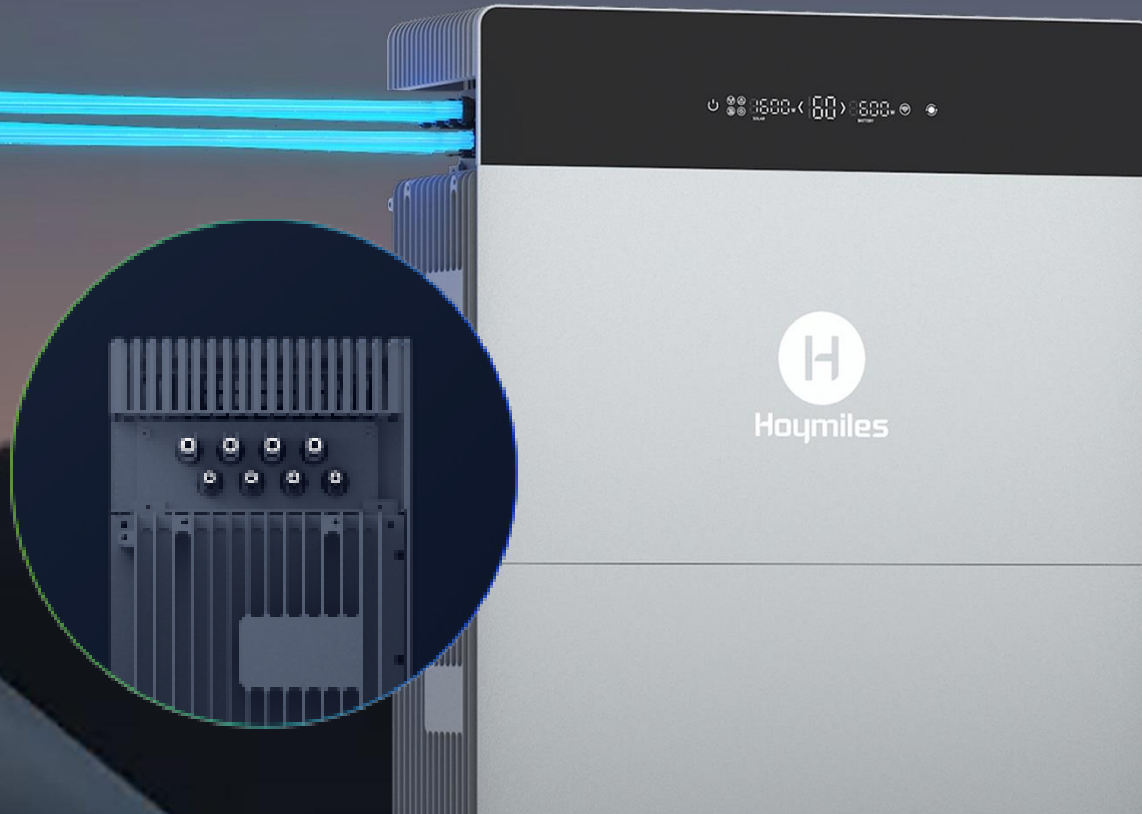


Max Power, Max Safety.

Max power for max savings.

4000W Max Input, 4 MPPTs

Max Power from Any Layout



Big Expandable Capacity

Starting from 4.02kWh, Up to 16.08kWh



Output:
800W (plug-in)
2500W (professional)



96.5%
Bidirectional Conversion
Efficiency

Max Power, Max Safety.

Safety, Engineered Beyond Industry Standards

Cell-Level Safety



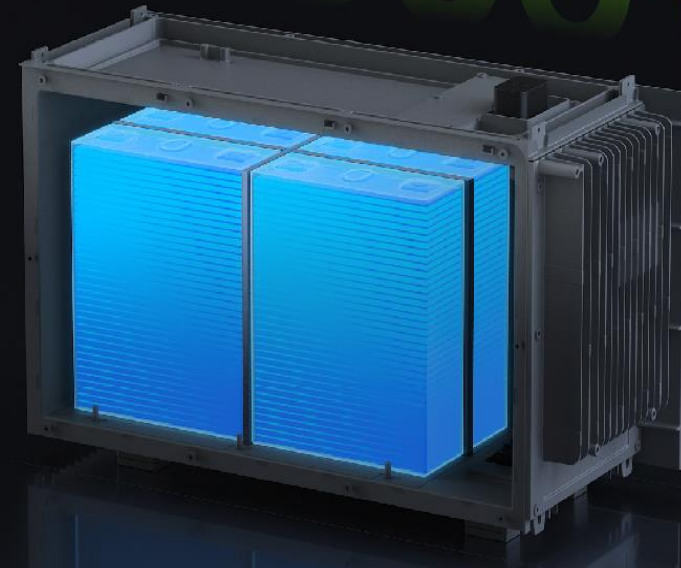
LFP Prismatic Cell

Proven thermal stability and long cycle life for a safer, more durable energy foundation.

314Ah High-Capacity

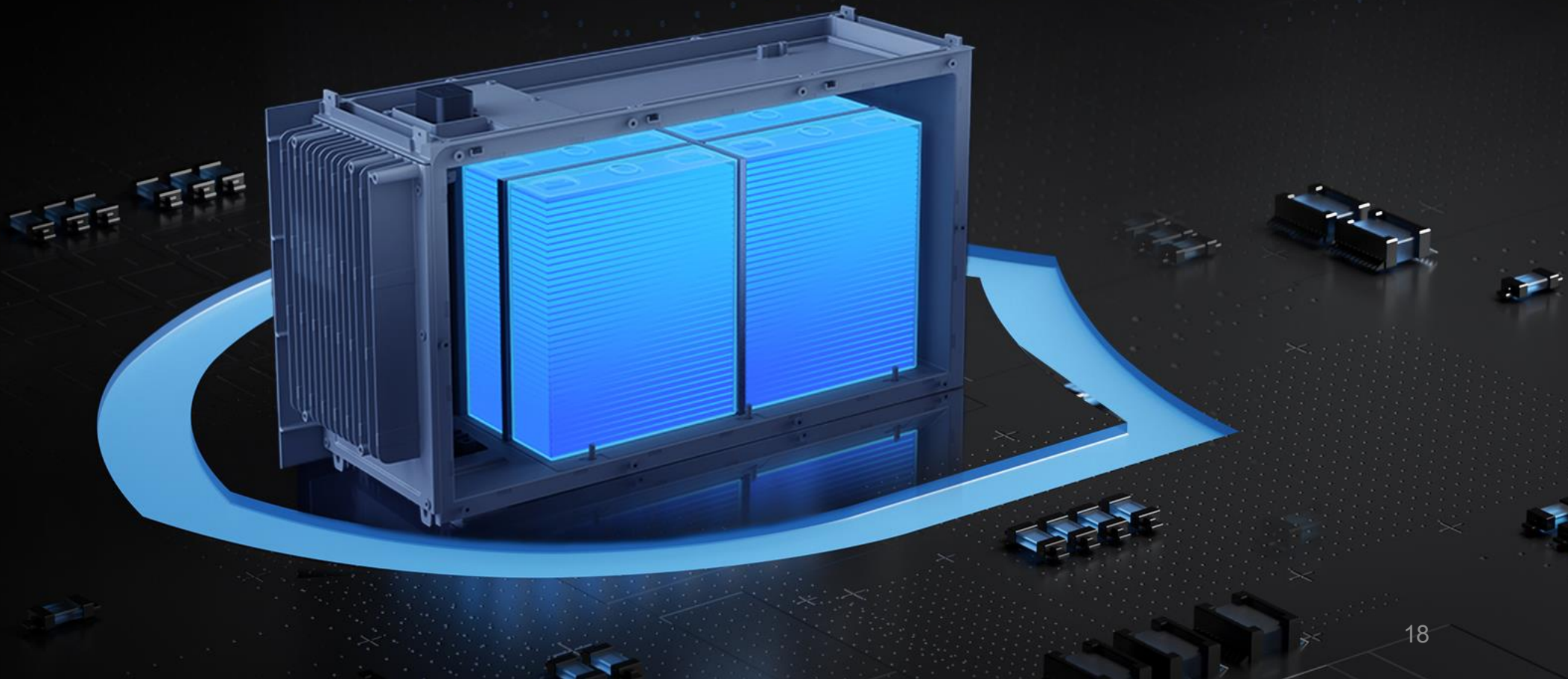
Higher capacity with fewer connections for improved efficiency and lower system complexity.

CYCLES
8,000+



Intelligent BMS Protection

48 layers of BMS protection to prevent thermal runaway and fire risks



Intelligent BMS Protection

-20 to 55°C

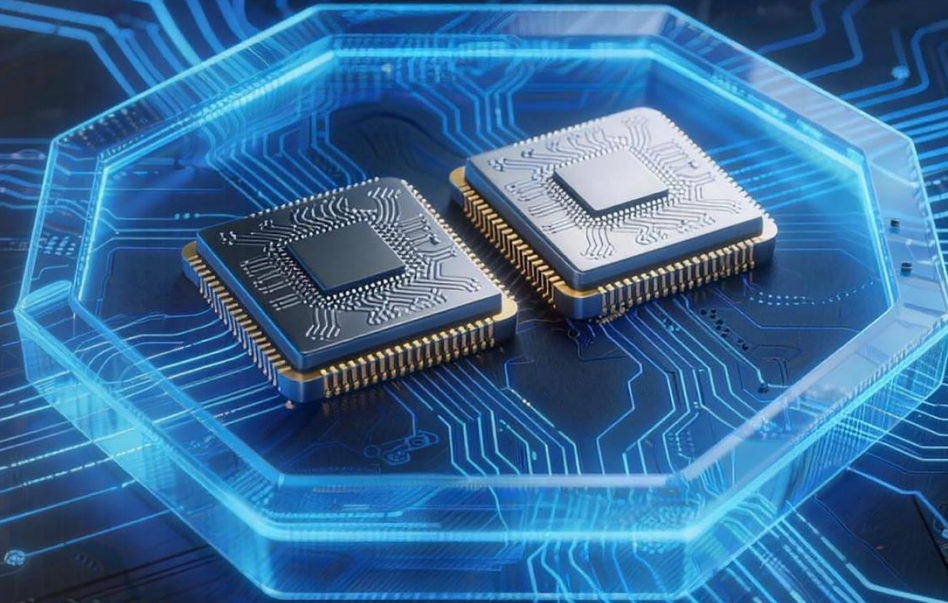
Intelligent Self-Heating



Smart battery heating for
reliable low-temperature
operation

Intelligent BMS Protection

Dual-MCU Architecture feature independent overcharge/over-discharge protection



Fire Safety System

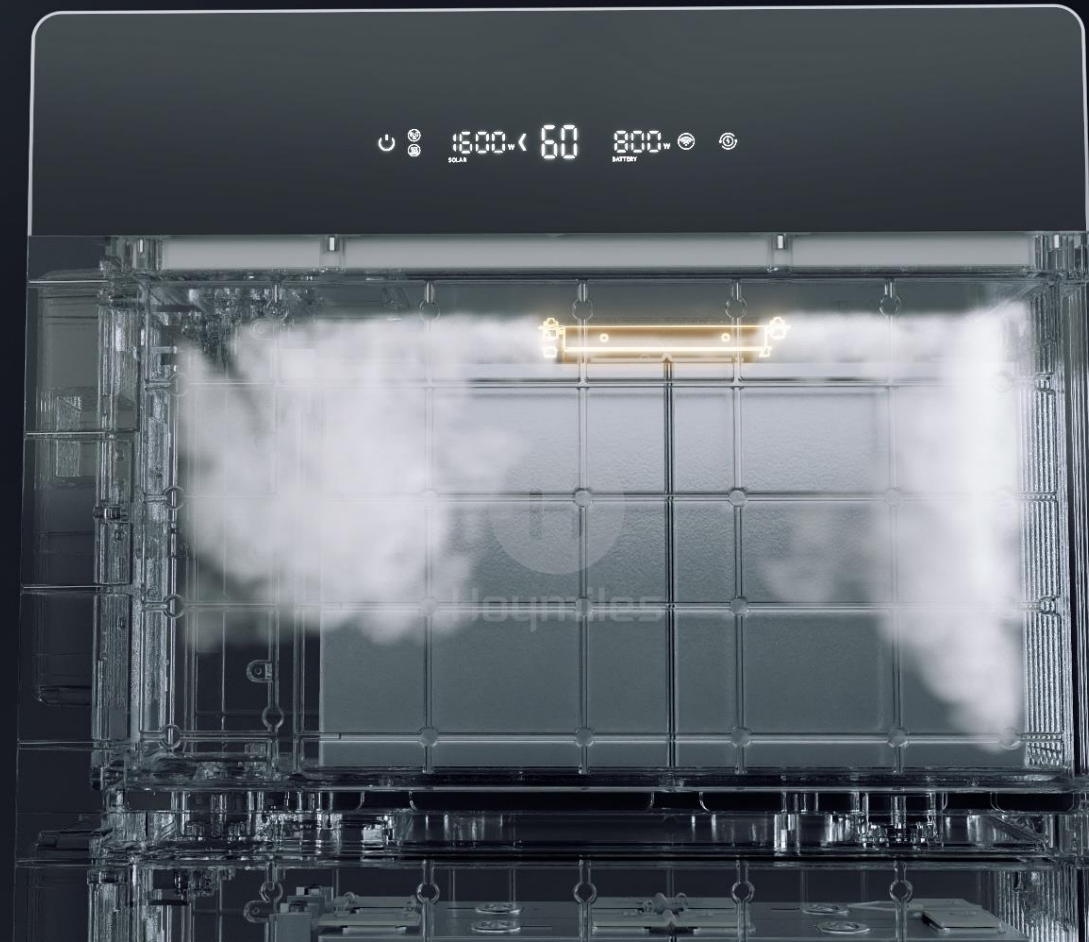
PV Input Overheat Protection – Monitors DC terminal heat in real time — cuts off input automatically before overheating becomes a fire risk.



Fire Safety System

Internal Fire Extinguisher

Automatically releases fire-extinguishing aerosol the moment a fire is detected — stopping it at the source before it can spread



Fire Safety System

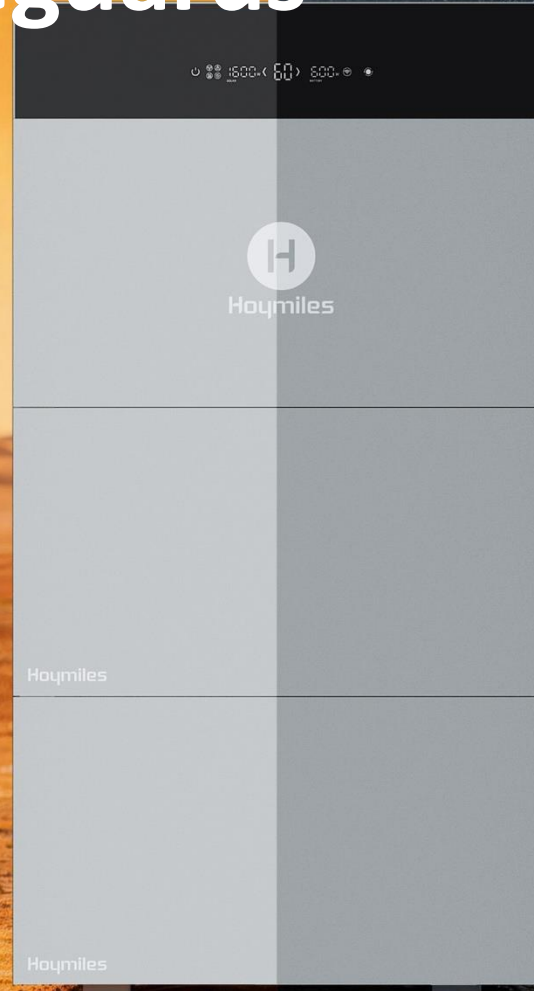
Pressure Relief Valve: Automatically balance pressure to prevent dangerous buildup



System-Level Safeguards

IP66

Waterproof & Dustproof

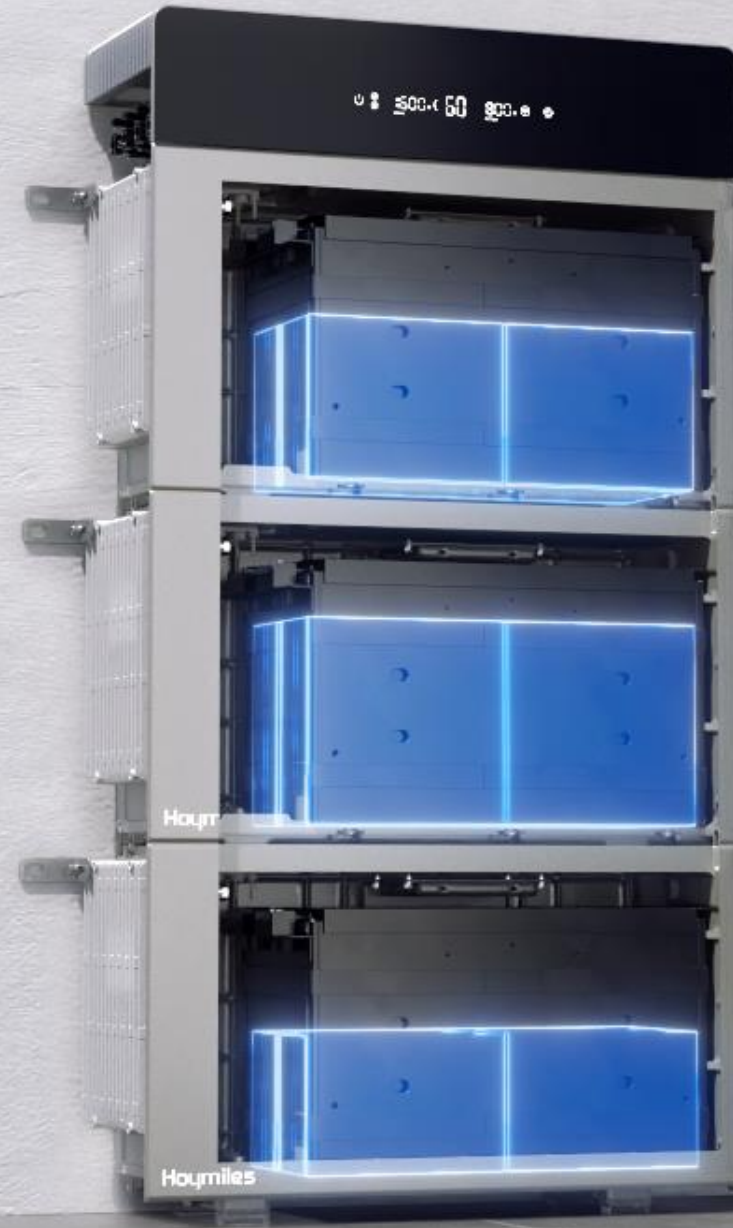


With premium cells and robust protection, HiBattery 4020 ensures reliable, safe operation in any climate—designed to power you for years to come

System-Level Safeguards

Pack-level DC/DC balancing

Each battery comes with an independent bidirectional DC/DC module. When a faulty battery is replaced or a new one is added, the system automatically balances the SOC, cutting pre-charging time and lowering expansion costs.





Power for Every Situation

Designed to optimize daily savings, protect your home during outages,
and enable complete energy independence

Flexible Energy Modes

Self-consumption

PV power is prioritized to supply the load, and excess power is stored in the battery.

AI Mode

Based on dynamic rates, weather information and household electricity usage situation, the AI model deployed on S-Miles Cloud will provide you with a suitable energy plan



Hoymiles AI-EMS: Smarter AI Greater Savings



Emergency Power Supply

Automatic switch-over keeps running whenever the grid goes down

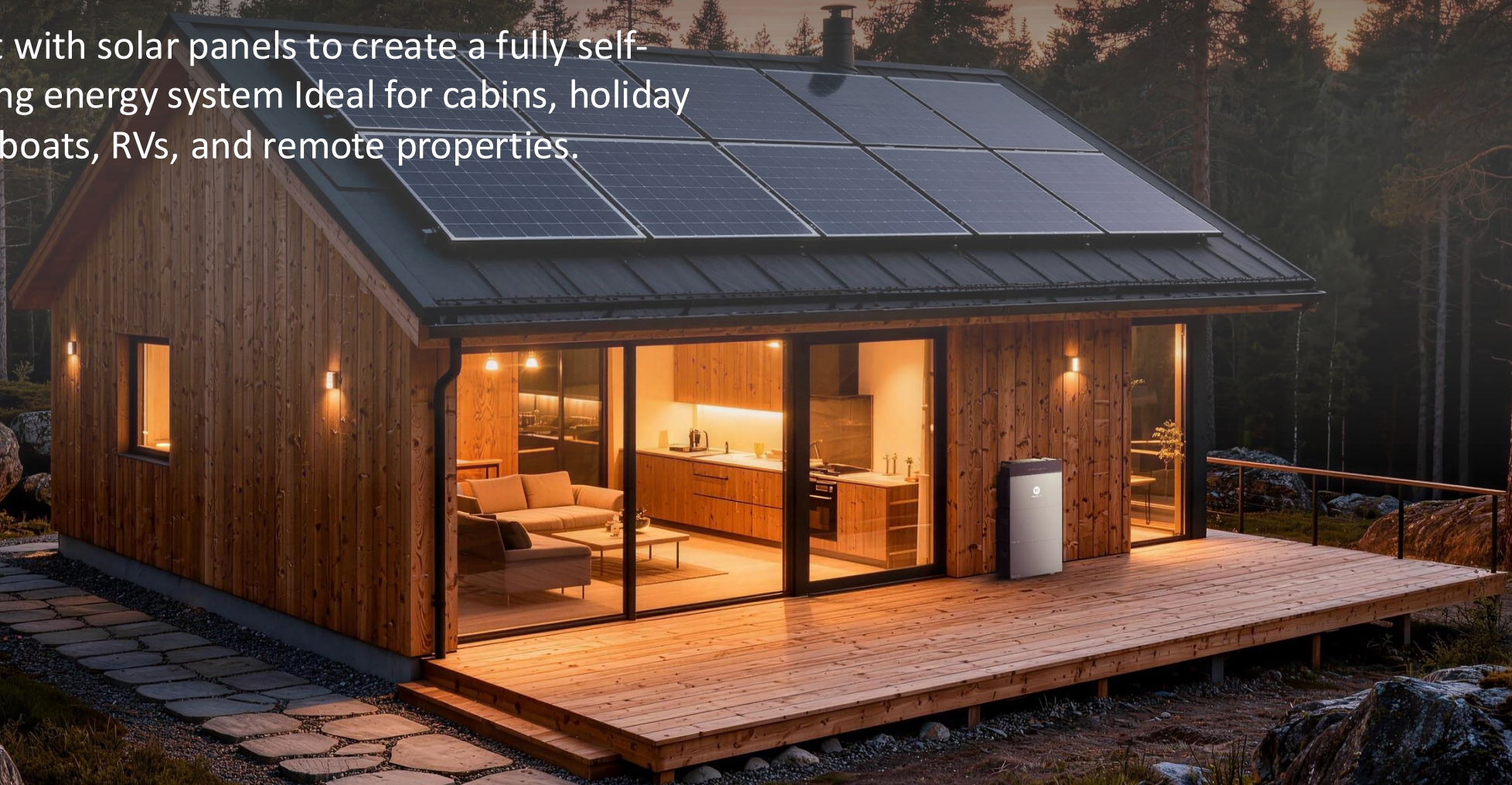


< 20ms auto-switching
2500w for your essential loads



Off-Grid Living

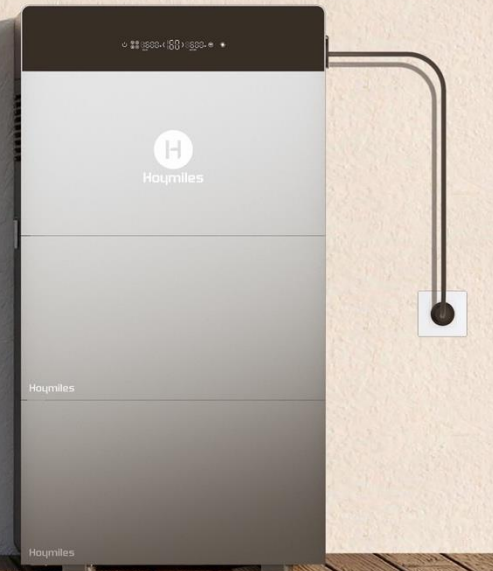
Connect with solar panels to create a fully self-sustaining energy system Ideal for cabins, holiday homes, boats, RVs, and remote properties.



Built for
Total Compatibility

Compatible With Smart Meters

Works with Hoymiles smart meters and third-party meters like Shelly, Ecotacker, and Linky via local LAN for faster response and precise zero export control



Inverter Compatibility



Open MQTT

unlocks endless smart automation possibilities—integrate with Home Assistant and more. After setup, disable the cloud for complete local control and total privacy



MQTT



Key Specs & Selling list

HiBattery 4020 X

PV	
Maximum input power	4*1000W
Maximum input voltage	60V
Maximum input current	32A
MPPT number	4

General	
Dimensions	520*199*384mm
Weight	42kg
Wireless type	BLE/WiFi(2.4GHz)
Protection degree	IP66
Warranty	10 years

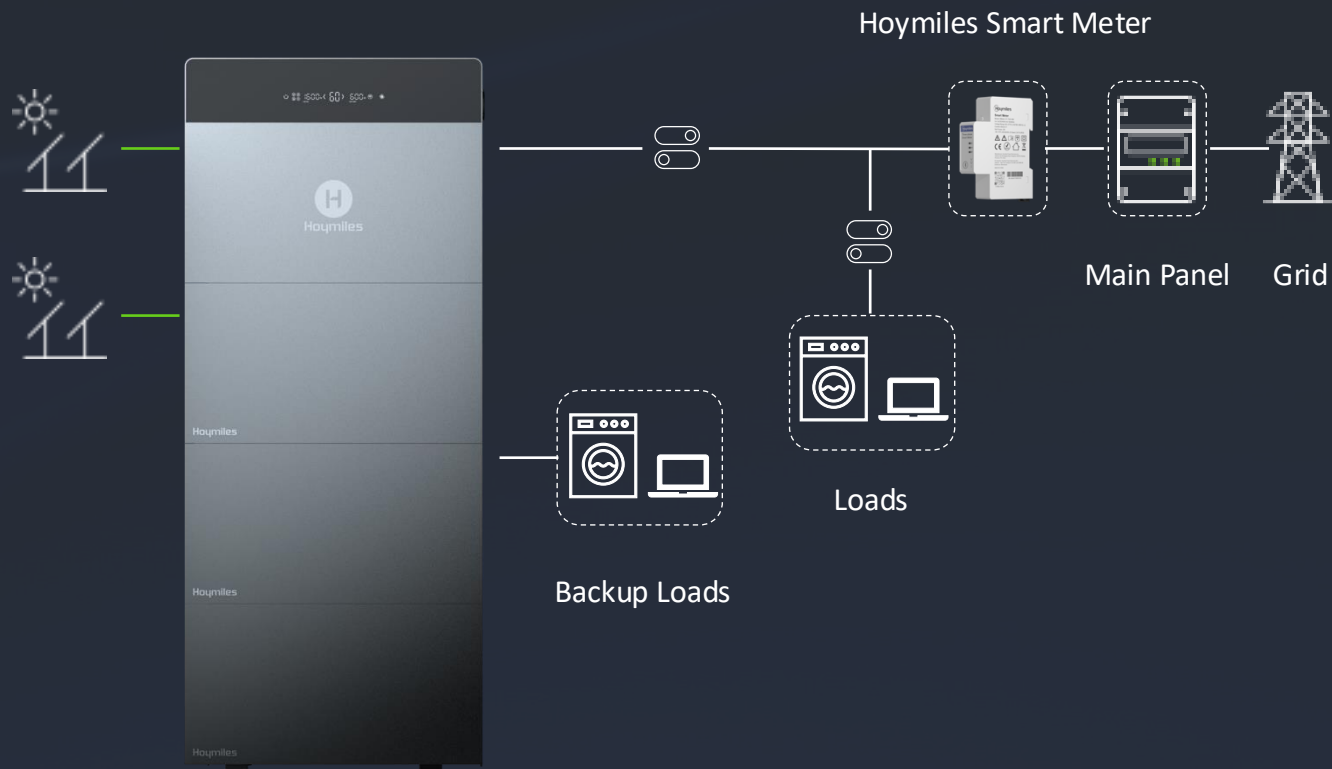


AC On-grid port	
Rated output power	800W
Maximum output power	2500W
Maximum input power	2500W

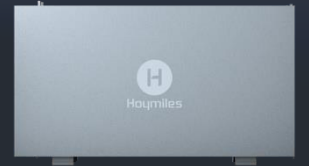
AC Off-grid port	
Maximum input power	2500W
Rated output power	2500W

Battery	
Capacity	4020Wh
Cell type	LiFePO4
Life cycles	≥8000
Charging temperature	-20 to 55°C (Built-in Heating Foil)
Maximum apparent power(charge/discharge)	2000W
Rated Voltage	12.8V
Maximun expansion capacity	16.08kWh

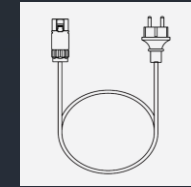
HiBattery 4020 X



HiBattery 4020 X



HiBattery 4020 Stack



HiBattery Plug&Play
Cable(5m)



Hoy miles P1 Meter

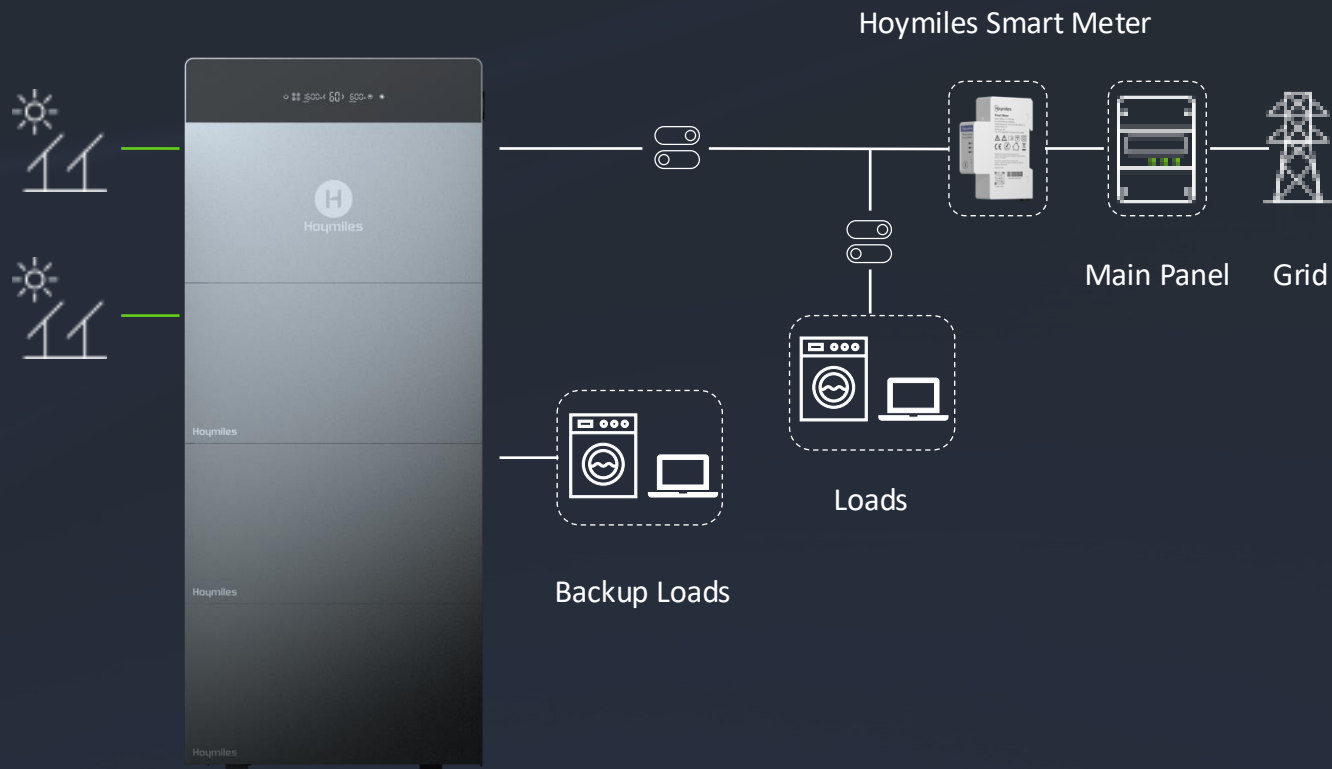


Hoy miles Smart Meter(single
phase)



Hoy miles Smart Meter(three
phase)

HiBattery 4020 X



HiBattery 4020 X

HiBattery 4020 Stack

Optional Accessories

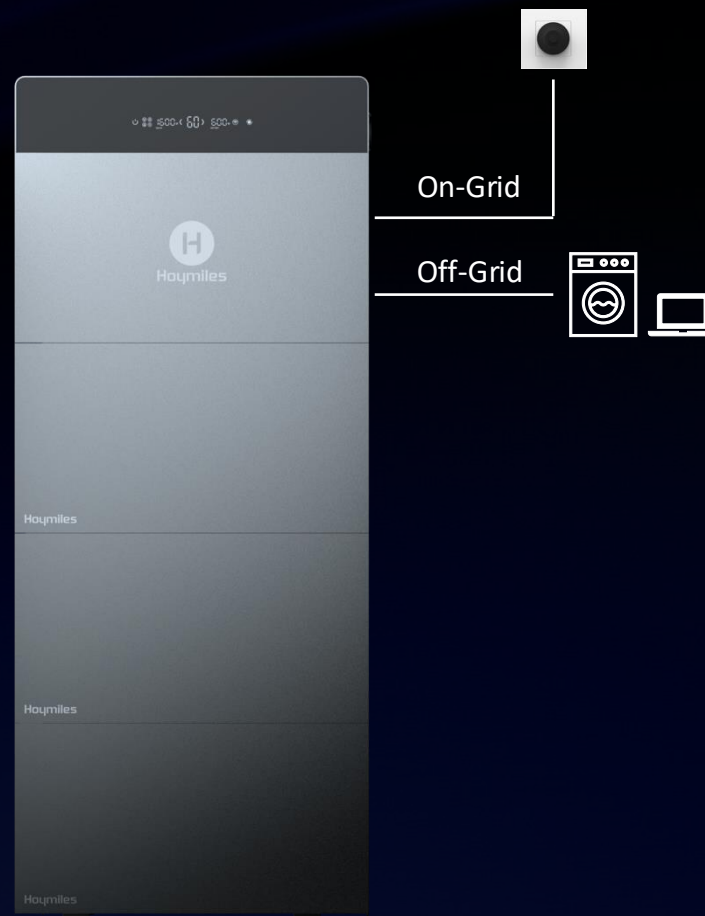
1. Grid-connection cable(5m Extended)
2. Solar parallel Y-cable
3. Solar panel extension cable
3. Cooling accessories kit(Upper cover + smart fan)

Smart Meters:

1. Hoymiles Smart Meter(three phase)
2. Hoymiles Smart Meter(single phase)
3. Hoymiles P1 Meter

HiBattery 4020 AC

Battery	
Capacity	4020Wh
Cell type	LiFePO4
Life cycles	≥8000
Charging temperature	-20 to 55°C (Built-in Heating Foil)
Maximum apparent power(charge/discharge)	2000W
Rated Voltage	12.8V
Maximun expansion capacity	16.08kWh

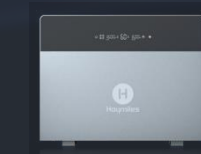
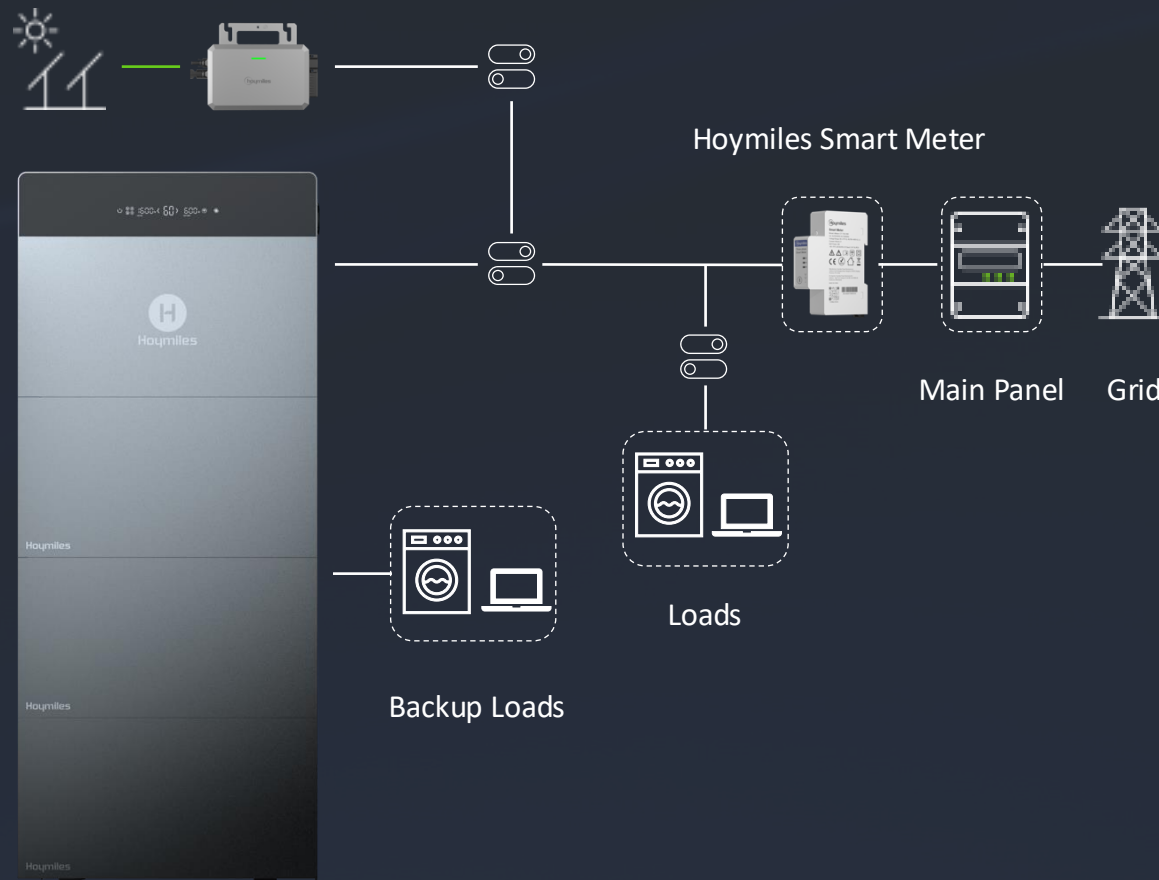


AC On-grid port	
Rated output power	800W
Maximum output power	2500W
Maximum input power	2500W

AC Off-grid port	
Maximum input power	2500W
Rated output power	2500W

General	
Dimensions	520*199*384mm
Weight	42kg
Wireless type	BLE/WiFi(2.4GHz)
Protection degree	IP66
Warranty	10 years

HiBattery 4020 AC



HiBattery 4020 X



HiBattery 4020 Stack

Optional Accessories

1. Grid-connection cable(5m Extended)
2. Solar parallel Y-cable
3. Solar panel extension cable
3. Cooling accessories kit(Upper cover + smart fan)

Smart Meters:

1. Hoymiles Smart Meter(three phase)
2. Hoymiles Smart Meter(single phase)
3. Hoymiles P1 Meter

Step 1 Make the AC cable.

- A. Cut off the plug of the MS plug-and-play cable.
- B. Strip off the outer jacket with a cable cutter.
- C. Use a wire stripper to strip the insulation to expose the conductors.

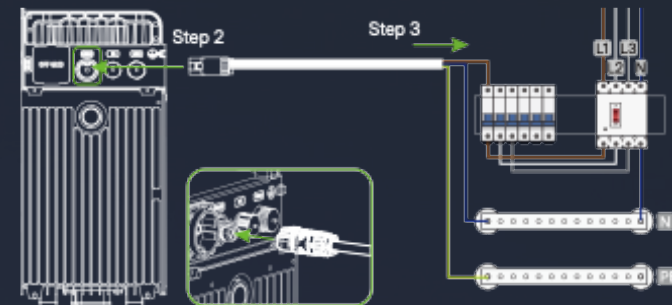


Step 2

Remove the port cover, and insert the connector end of the MS plug-and-play cable into the on-grid port of the HiBattery X. Listen for a click to ensure proper engagement.

Step 3

Connect the other stripped end of the cable to the distribution box.



Partner with
Hoymiles

After-Sales Services

96%+

Satisfaction Rate

48 hours

Issue resolution time
(Overseas)

Customer-centric, full lifecycle,
professional and efficient.

Call Center

On-Site
Services

Repair
Center

Maintenance
management

Project
Management

Professional
Training

Advanced Logistic

Local Warehouse

Strategically based in the Netherlands, our local warehouse keeps goods pre-positioned for immediate dispatch, minimizing delivery lead time

Full Europe Coverage

Backed by our robust logistics network, we offer seamless shipping to destinations across Europe

7-Days Delivery

Fast and Reliable shipping, with all orders arriving within 7 days across Europe



Thank you.