



# SolarFlow 2400 AC + AB3000X

2025/03



我们的愿景是致力于成为清洁能源技术与服务平台，为家庭用户提供可持续的电力供应。

We envision being a clean EnergyTech platform that sustains communities and families.

# Content

**01/ Product Appearance**

**02/ Product Positioning**

**03/ Product KSP**

**04/ KSP Summary**

**05/ Product Strategy**

**06/ Product Spec**

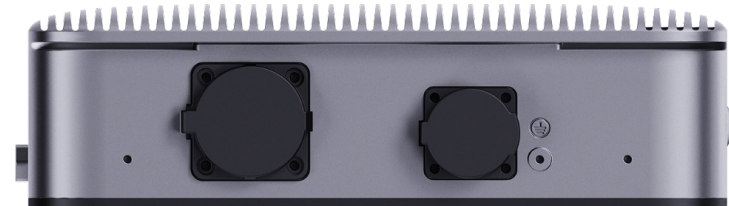
**07/ Smart accessories**

01



# Product Appearance

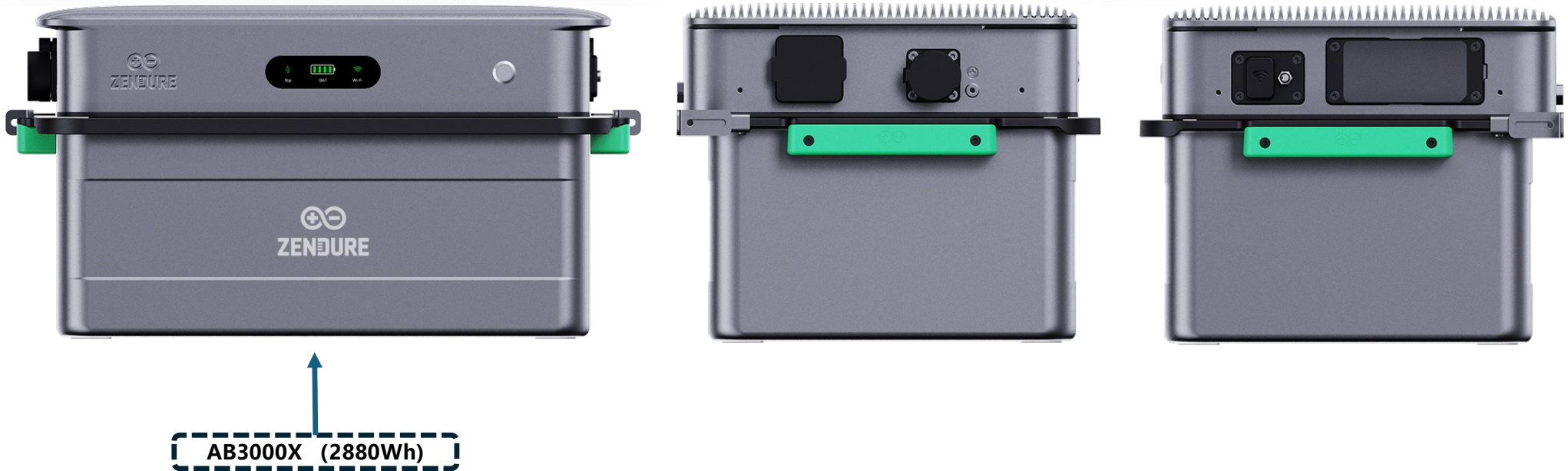
## Product Appearance - SolarFlow 2400 AC



**Available countries with on-grid certification:** Germany, France, Switzerland, Netherlands, Belgium, ...More will be coming soon.  
**Certification completion date:** April 2025  
**Launch time:** April 2025



## Product Appearance - SolarFlow 2400 AC + AB3000X



02



# Product Positioning

# Product Positioning

## Product Positioning

### SolarFlow 2400 AC + AB3000X

**France:** The first **AC-coupled, plug-and-play energy storage solution**—revolutionizing home energy management with AI-powered intelligence.

**Germany/Belgium/Switzerland:** The first **AC-coupled, easy-installation home storage solution**, enhanced by cutting-edge AI energy management for seamless efficiency.

**Netherlands:** The first **AC-coupled, easy-installation home battery**, powered by advanced AI energy management for smarter, sustainable living.

## Strategy

By delivering **high power**, **large capacity**, and **effortless installation**, we eliminate barriers for individual users and simplify requirements for distribution channels. Coupled with a **cost-effective** bundle pricing strategy, we are positioned to dominate the European home energy storage battery market.

## User Profile

### Primary Users:

Target Audience:

**Homeowners with existing rooftop solar systems, yet to integrate energy storage.**

Key concerns:

- Cost-effectiveness
- Energy monitoring sensitivity
- AI-driven energy scheduling
- High power and capacity

### Primary Users:

Target Audience:

**Homeowners aiming to reduce electricity costs through Time-of-Use (TOU) plans.**

Key concerns:

- Cost-effectiveness
- Energy utilization efficiency
- AI-powered electricity pricing optimization
- High power and capacity

03



# Product KSP

## Product KSP- The Most Cost-Effective Plug-and-Play Energy Storage Solution

### Function

**Plug-and-Play / Easy Installation AC Coupling Solution**

**Bidirectional 2400W AC Power + 17.28kWh Capacity**

**High AC round-trip efficiency of up to 93%.**

### Benefit

#### For Individuals:

- **Reduce installation costs** with a plug-and-play solution.
- **No circuit modifications required**, ensuring hassle-free setup.
- **Compatible with all rooftop inverters**, offering seamless integration.
- **Simplified application steps**, saving time and effort.

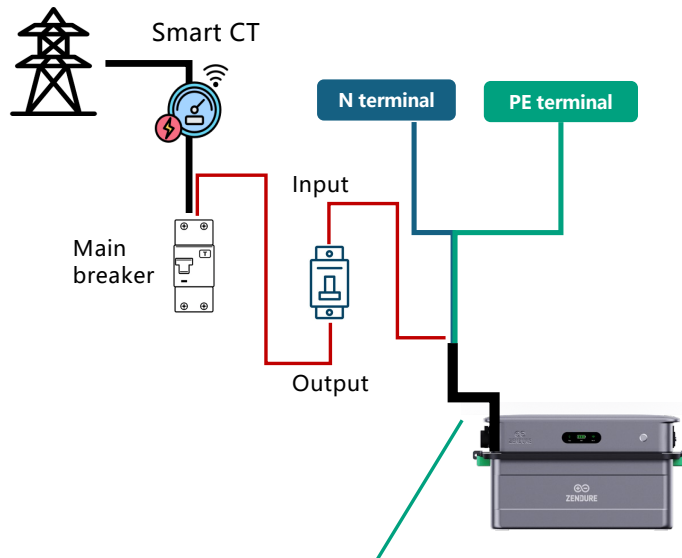
#### For Installers:

- **Boost installation efficiency** with an easy-to-deploy system.
- **Enhance labor productivity**, allowing more installations in less time.
- **Reduce qualification requirements**, lowering barriers for installers.
- **Minimize qualification maintenance costs**, ensuring long-term savings.

Meet your greater energy storage and discharge demands with our high-performance 2400W bidirectional AC power system.

By reducing energy waste, we help you achieve smarter, more sustainable energy management while lowering costs. Ensuring every watt is used effectively.

# Product KSP- Easy Installation AC Coupling Energy Storage Solution



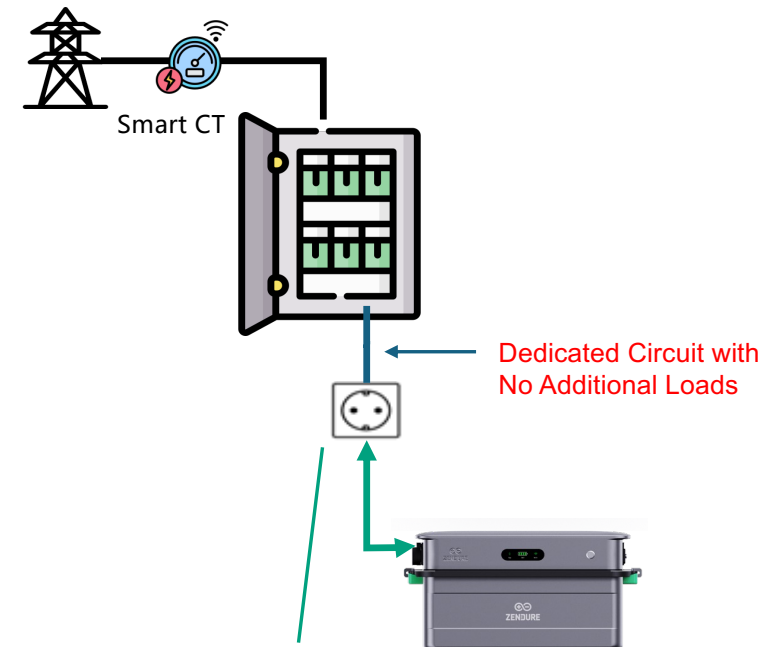
## Professional Installation Requirements:

For safe and optimal performance, professional electrician assistance is required for the installation of the SolarFlow 2400 AC.

Key steps include:

- Live Wire: Connect to the input terminal of a dedicated breaker.
- Neutral Wire: Connect to the distribution neutral terminal.
- Ground Wire: Connect to the PE terminal.

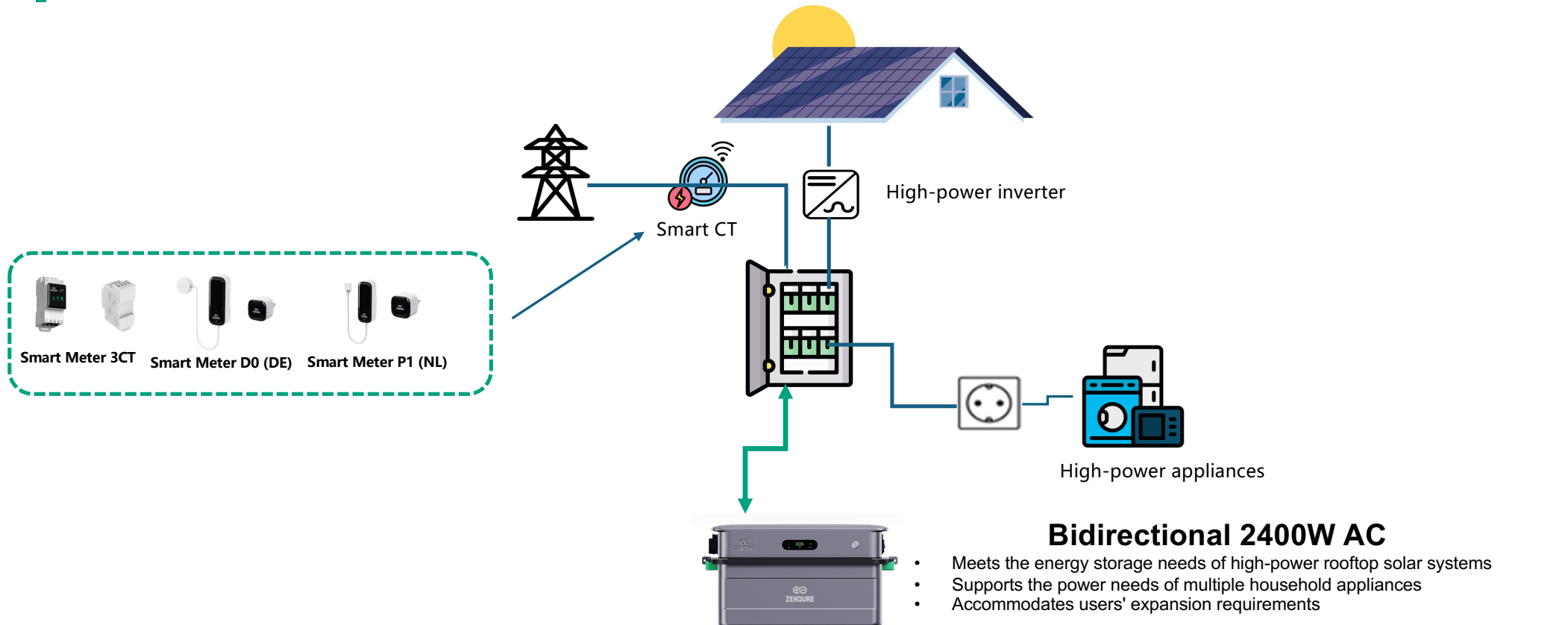
Ensure all connections are secure and compliant with local electrical codes for a seamless and safe setup.



## Dedicated Circuit Plug-and-Play (Professional Electrician Required)

The SolarFlow 2400 AC offers plug-and-play convenience on a dedicated circuit, ensuring optimal performance and safety. While installation is straightforward, **professional electrician assistance is required** to ensure compliance with safety standards and seamless integration.

## Product KSP- 2400W Bidirectional AC power



## Product KSP- Expandable up to 17.28kWh with 6 batteries

Built with scalability in mind, our solution easily adapts to future expansion needs, ensuring long-term value and flexibility.

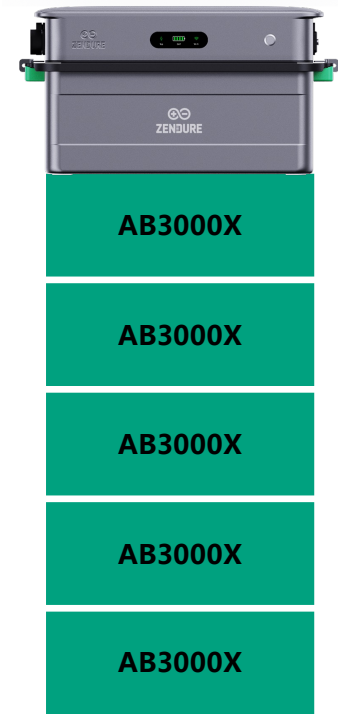


**2.88kWh**



**5.76kWh**

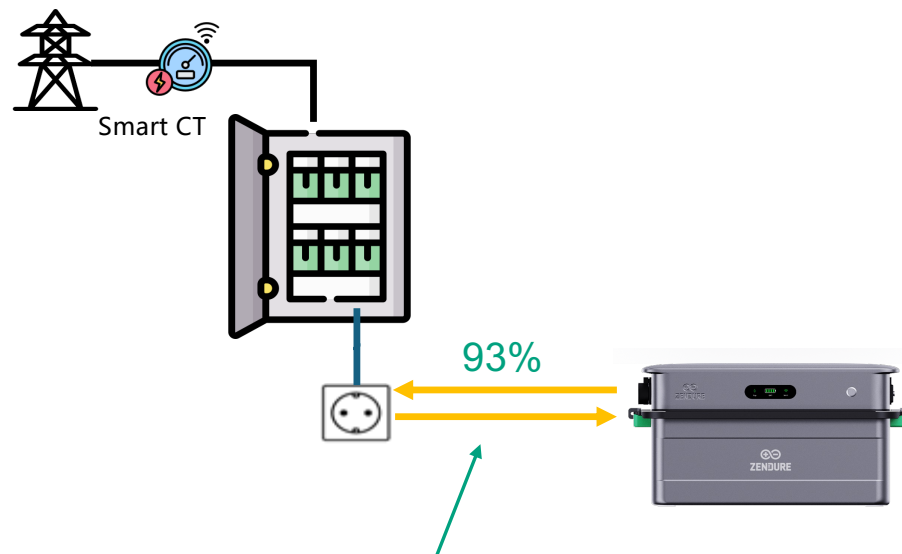
...



**17.28kWh**



## Product KSP - High AC Round-trip Efficiency of up to 93%

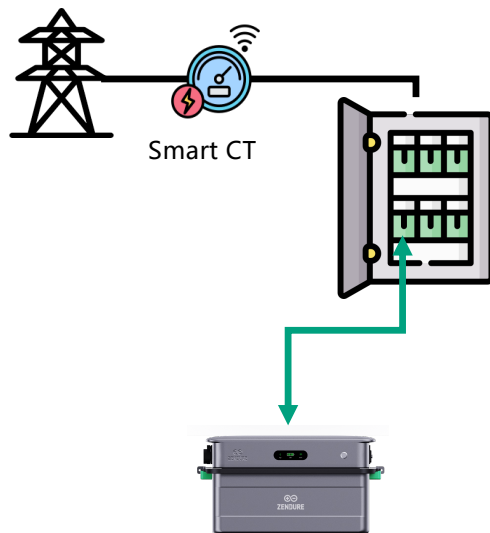


### Third-Generation Semiconductor Technology (Silicon Carbide)

Harnessing the power of silicon carbide (SiC), our system achieves **an impressive AC round-trip efficiency of 93%**. This advanced technology ensures higher energy conversion, reduced losses, and superior performance for your energy storage needs.

## Product KSP - Flexible, Easy-installation Home Storage Solution

### Single-phase household storage solution



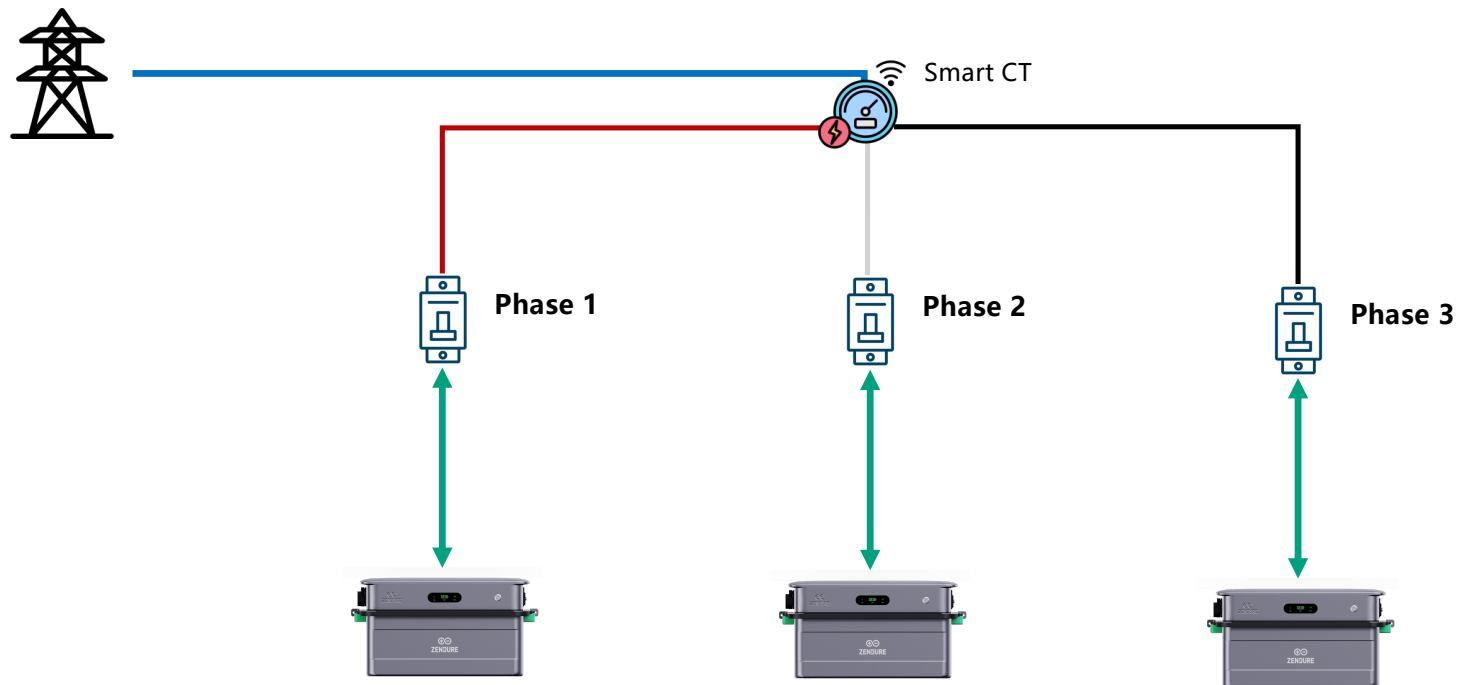
Experience the ultimate convenience with our flexible and easy-to-install home storage solution. Designed to adapt to your unique energy needs, it ensures seamless integration, effortless setup, and reliable performance—all in one innovative package.

#### Single-Phase, Single-Unit Solution

- Discharge Power: Up to 2400W Max
- Charge Power: Up to 2400W Max
- Capacity Range: 2.88kWh to 17.28kWh

## Product KSP - Flexible, Easy-Installation Home Storage Solution

### Three-phase household storage solution



#### Three-Phase Solution with Three Units

- Discharge Power: Up to 7200W Max
- Recharge Power: Up to 7200W Max
- Capacity Range: 8.64kWh to 51.84kWh

## Product KSP - Intelligent Whole House Energy Management System (HEMS) - ZENKI

### HEMS Function

#### AI Energy Management (ZENKI)

Power generation forecasts + discharge prediction + real-time electricity pricing data = ZENKI AI energy scheduling

#### Comprehensive European Electricity Pricing Platform

Access to real-time dynamic pricing data from mainstream markets and leading electricity providers across Europe.

#### Multiple Smart Meter Options

**Zendure:** Smart Meter 3CT, Smart Meter D0/TIC/P1  
**Shelly:** Pro 3EM, 3EM  
**Everhome:** Ecotracker

#### Fast, Precise, and Stable Energy Regulation

- **Rapid Response Time:** **Less than 3 seconds** for seamless adjustments.
- **High Precision:** **1W-level accuracy** for loads above **50W**, ensuring optimal energy management.
- **Local Communication:** **Reliable, on-site connectivity** for uninterrupted performance.

### Benefit

**Powered by advanced machine learning**, our system intelligently recommends **customized energy usage plans** tailored to your unique needs. By analyzing **power generation data, energy consumption patterns, weather conditions, and electricity prices**, it ensures **optimal efficiency** and **maximum savings**—all without the hassle.

Our system is designed to adapt to users across most European regions, offering intelligent charge/discharge scheduling based on real-time electricity pricing. This ensures maximum savings and optimal energy utilization tailored to your needs.

**Boost Economic Efficiency by 6-10%**

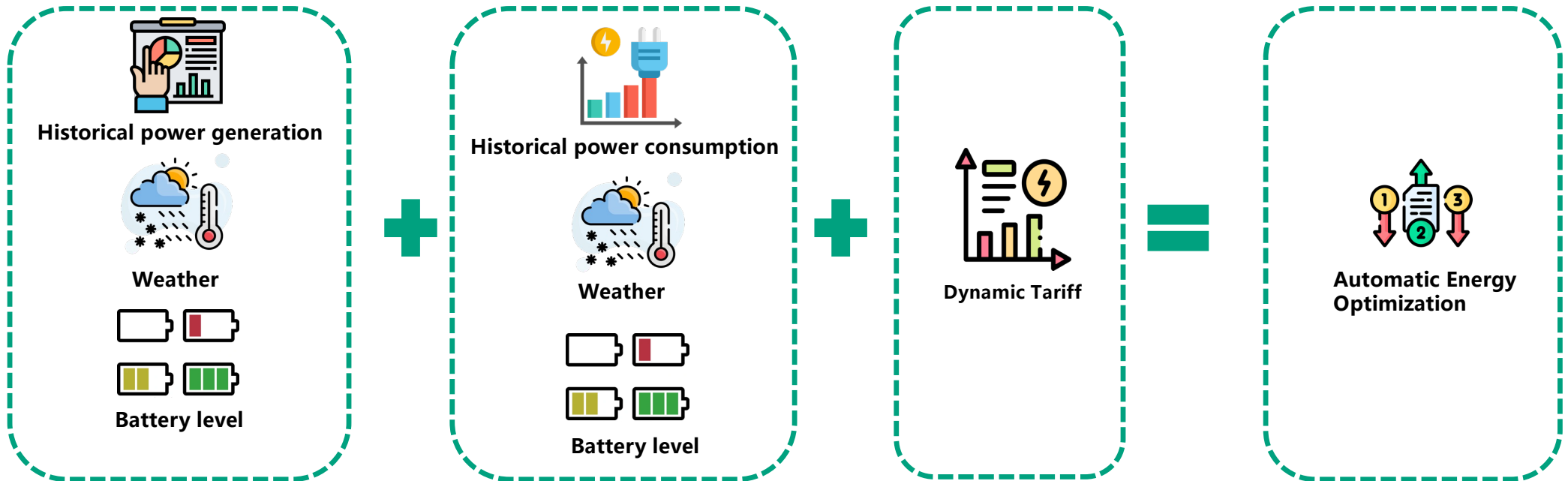
## Product KSP - Intelligent Whole House Energy Management System (HEMS): ZENKI

### Power Generation Prediction

### Energy Consumption Prediction

### Real-time dynamic pricing data

### Intelligent AI Energy Plan Recommendation



Experience smarter energy management and greater savings with our cutting-edge solution.

### For Users with Dynamic Electricity Pricing

Our AI-powered energy management system delivers significant benefits:

- Predicts future energy generation and consumption with precision.
- Intelligently schedules energy usage to optimize efficiency.
- **Reduces electricity costs by 6%-10%** on average, with potential **savings of up to 30%** compared to non-AI systems.

## Product KSP - Intelligent Whole House Energy Management System (HEMS): ZENKI

### AI Energy Management (ZENKI)

#### Charging Management Strategy

Our system operates with smart, cost-effective logic:

**Negative Pricing Phase:** Maximize grid electricity intake to **charge the battery at no cost.**

**Weather & Pricing Optimization:** Charge during low-price periods (e.g., poor weather or low demand) and discharge during high-price periods for maximum savings.

**Excess Solar Utilization:** When solar generation exceeds load demand, direct surplus energy to charge the battery, ensuring no energy goes to waste.

This intelligent approach ensures optimal energy utilization and significant cost savings.

#### Discharge Management Strategy

Our system operates with intelligent, adaptive logic:

**Dynamic Power Adjustment:** Adjusts discharge power in real-time to best match load demand, ensuring optimal energy usage.

**High-Price Avoidance:** Minimizes electricity purchases from the grid during high-price periods, maximizing cost savings.

**Regulatory Compliance:** Reduces or avoids feed-in to the grid to meet legal requirements, ensuring seamless and compliant operation.

This approach guarantees efficient energy management, increased savings, and regulatory adherence.

#### Battery Capacity Management Strategy

Our system employs smart, predictive logic to optimize battery performance:

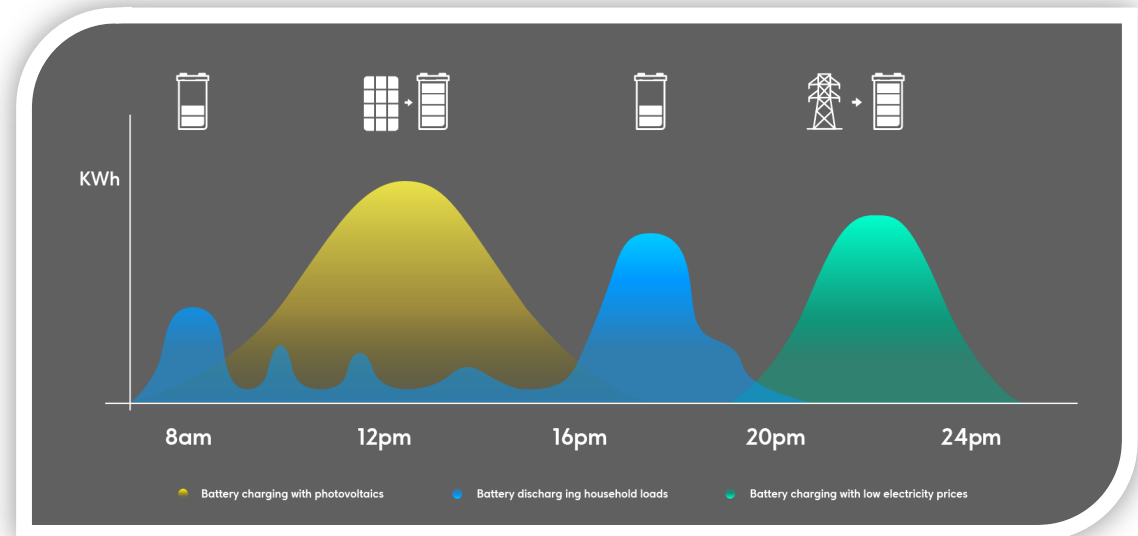
**Daily Battery Optimization:** Uses weather forecasts, energy generation predictions, consumption patterns, and electricity pricing data to automatically adjust daily battery capacity.

**Cost Efficiency:** Enhances cost-saving potential by ensuring the battery is charged and discharged at the most economical times.

**Battery Health Preservation:** Maintains optimal battery health by avoiding overcharging or deep discharging, extending its lifespan.

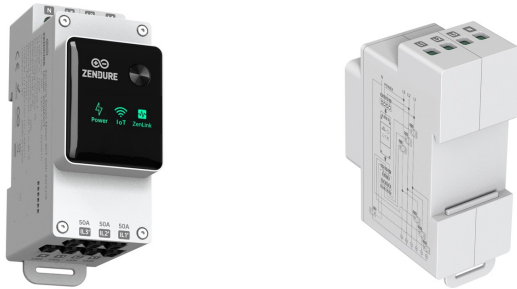
This approach delivers maximum savings, reliable performance, and long-term battery durability.

## Product KSP - Integration with 700+ European Electricity Providers



Our system seamlessly connects to **over 700 electricity suppliers** across Europe, providing real-time pricing data and dynamic energy management tailored to your local market. This ensures maximum savings and optimal energy utilization wherever you are.

## Product KSP - Enhanced Support with Smart Hardware



**Smart Meter 3CT**



**Smart Meter D0 (DE)**



**Smart Meter TIC (FR)**



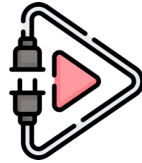
**Smart Meter P1 (NL)**



## Product KSP - Enhanced Support with Smart Hardware



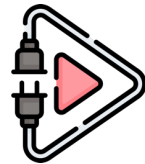
**Plug and Play**



Smart Electricity Meter



**Plug and Play**



Digital Electricity Meter



No installation fees

## Product KSP - Fast Response, High Accuracy, and Stable Energy Adjustment Solution

### Functional

**From 0 to 2400W in 3 seconds**

**1W-level accuracy for loads  
above 50W**

**Local communication**

### Benefit

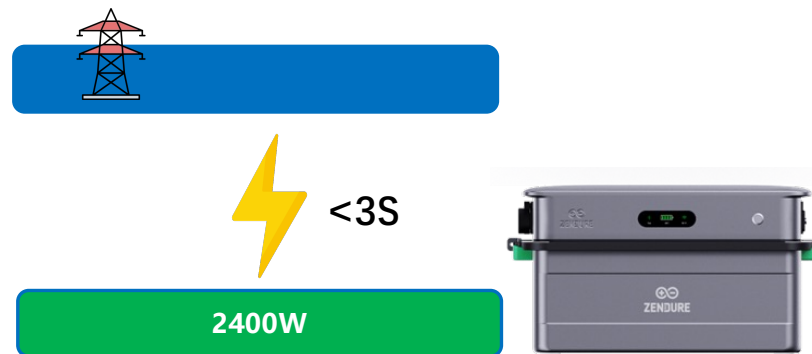
It can quickly adjust power to match household load demands, reducing grid electricity involvement, thereby improving energy utilization efficiency.

It can precisely adjust power to match household load demands, reducing grid electricity involvement, thereby improving energy utilization efficiency.

Off-grid capable, highly stable, and fast response (<3S).

## Product KSP - Fast Response, High Accuracy, and Stable Energy Adjustment Solution

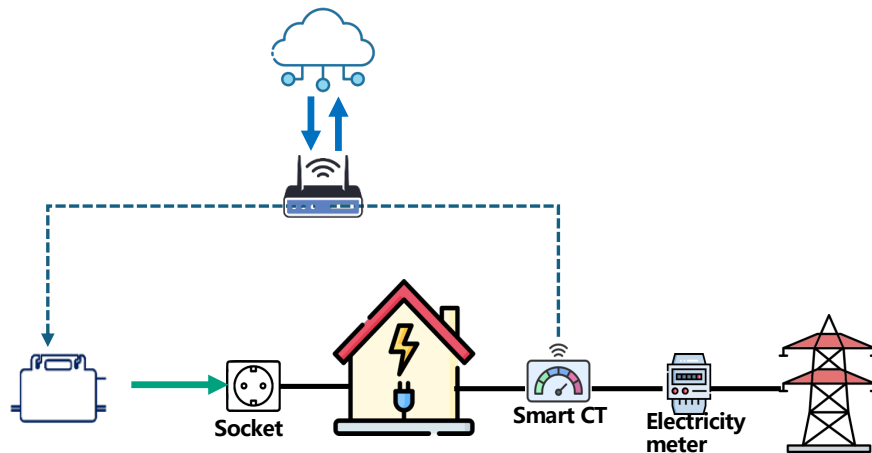
**From 0 to 2400W in 3 seconds fast reaction**



### **Minimize Grid Electricity Dependency During Power Regulation**

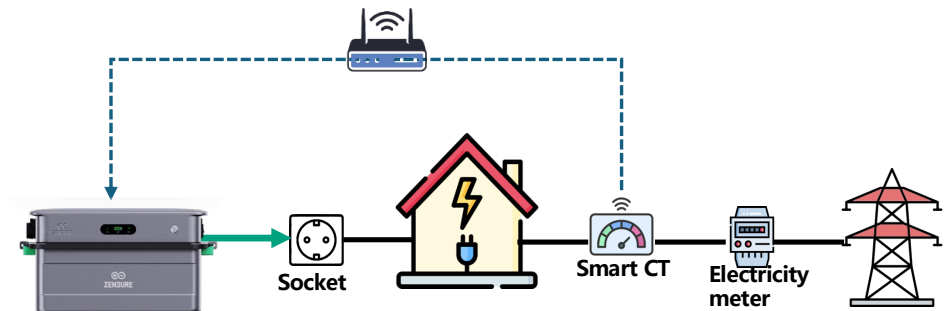
Our solution significantly reduces reliance on grid electricity by optimizing photovoltaic energy utilization. This ensures greater self-sufficiency, lower energy costs, and a more sustainable energy footprint.

## Product KSP - Local communication



1. Need a stable network
2. Slow response

VS

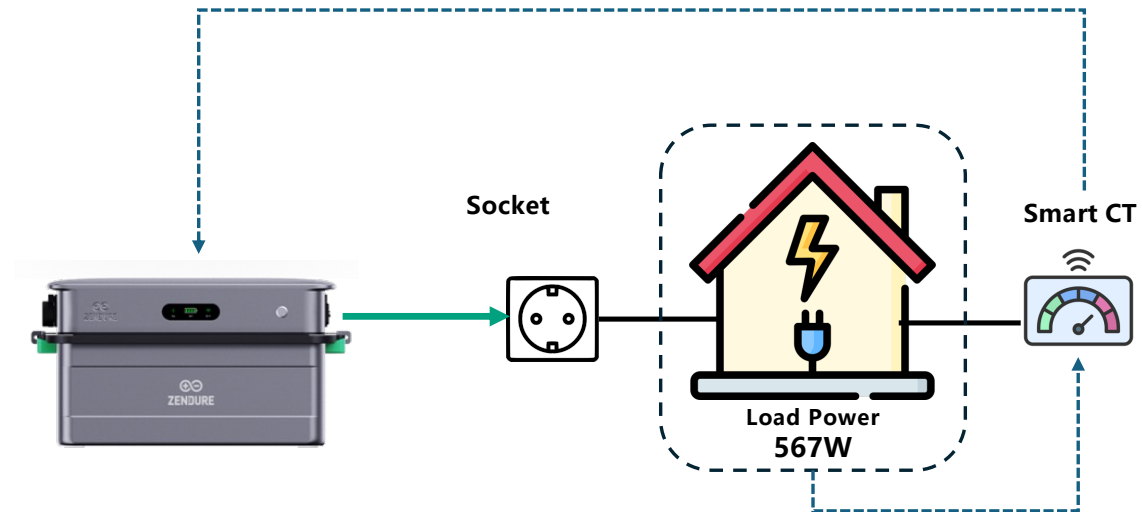


1. Stable, no need for cloud connection
2. Fast response

**Stable Communication:** Enjoy uninterrupted smart control with reliable connectivity, ensuring your energy management system operates seamlessly without disruptions caused by network issues.

**Fast Response Time:** The SolarFlow 2400 AC delivers quick and efficient power adjustments, meeting household electricity demands promptly and maximizing energy utilization efficiency.

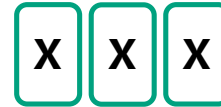
## Product KSP - 1W-level accuracy for loads above 50W



Output Power



Load Power

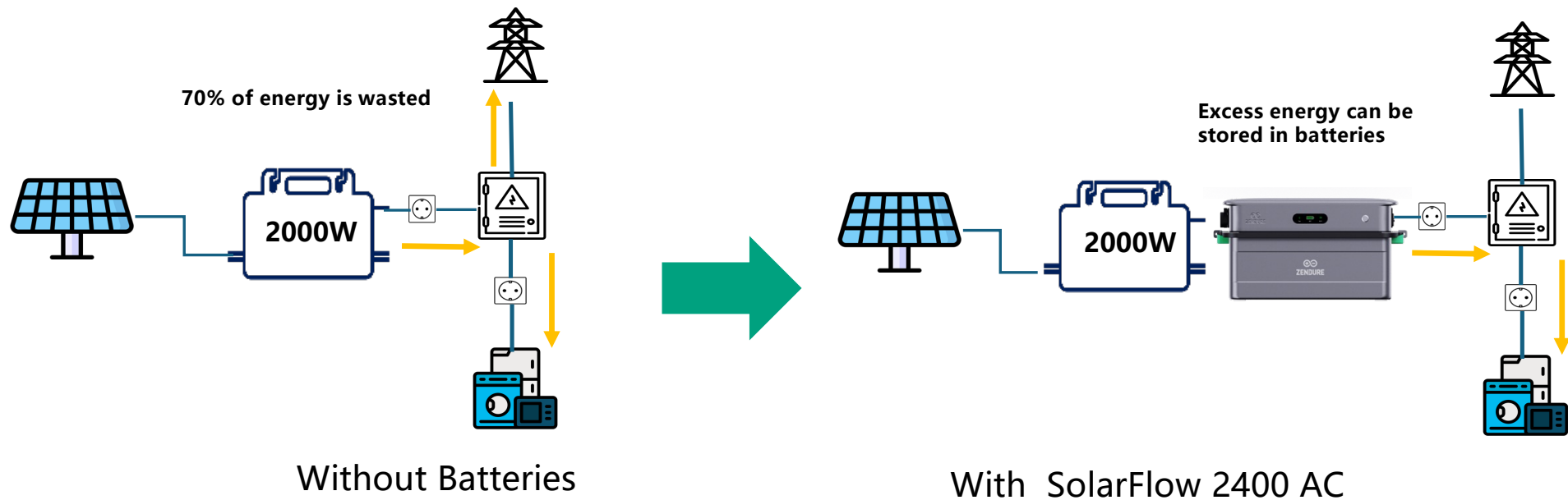


1W Level Accuracy

### 1W-Level Accuracy for Enhanced Green Energy Utilization

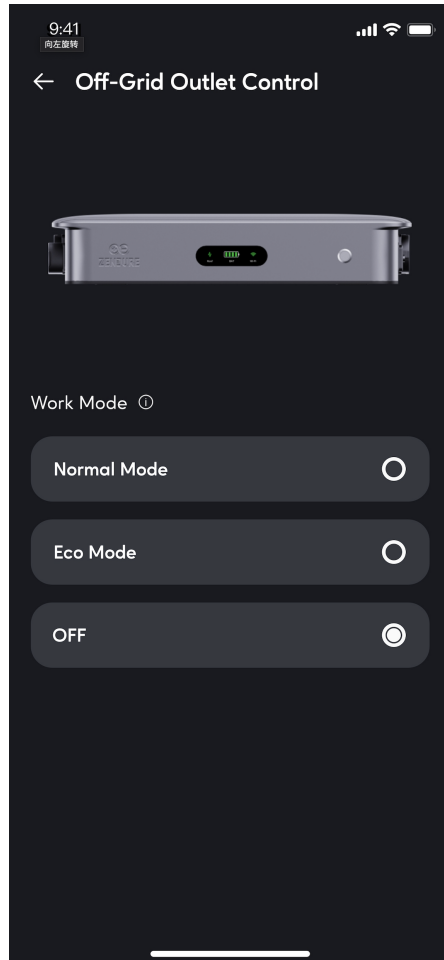
Our system's 1W-level precision ensures optimal energy management, maximizing the use of green energy sources and significantly reducing waste.

## Product KSP - The First Plug-and-Play AC-Coupled Battery with 2000W Microinverter



Introducing the pioneering plug-and-play battery solution that seamlessly integrates with **2000W microinverter for AC-coupled energy storage**. Designed for effortless installation and immediate use, it redefines convenience and efficiency in home energy systems.

## Product KSP – The First Plug-and-Play Battery with 2400W Off-Grid Power Supply

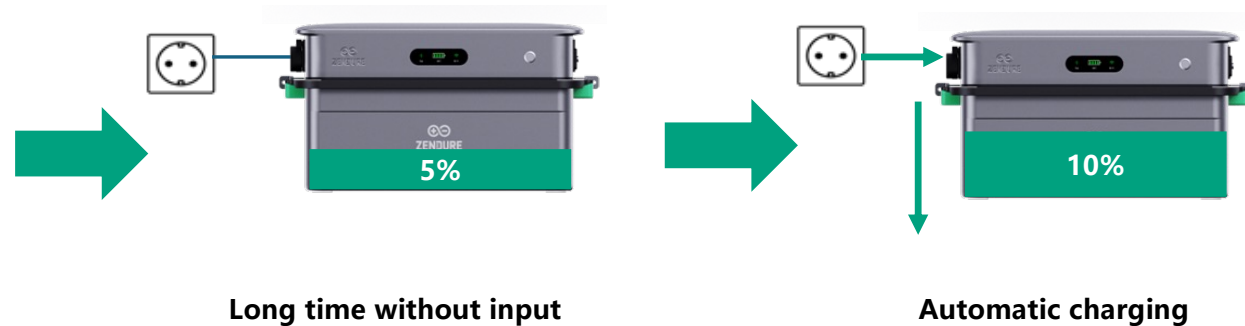
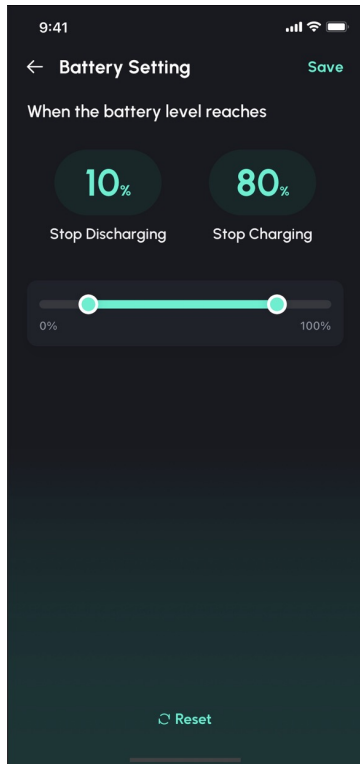


Our groundbreaking plug-and-play battery offers **2400W off-grid capability with two operation modes** to suit your needs:

- **Normal Mode:** AC output remains active indefinitely, ideal for powering essential appliances like refrigerators during outages.
- **Eco Mode:** Automatically shuts down after 2 hours of no load detection, perfect for daily use with household devices to save energy.

Designed for **flexibility**, **efficiency**, and **reliability**, it ensures uninterrupted power tailored to your lifestyle.

## Product KSP - Winter Battery Smart Maintenance



Ensure your battery stays in optimal condition during winter with our intelligent maintenance system:

- **Customizable Discharge Limit:** Users can set a minimum discharge threshold to protect battery health.
- **Automatic Grid Charging:** In prolonged low-light conditions with low battery levels, the system automatically draws power from the grid when the battery reaches 5%, charging it back to the user-defined discharge limit.

This feature guarantees **battery longevity**, **reliable performance**, and **peace of mind** during challenging weather conditions.



04

# KSP Summary

## Product KSP Summary

### The Most Cost-Effective Plug-and-Play Energy Storage Solution

- 1. Plug-and-Play / Easy Installation AC Coupling:** Saves installation costs and is compatible with all inverters, ensuring seamless integration.
- 2. 2400W Bidirectional AC + Scalable up to 17.28kWh:** Enhances charge/discharge efficiency and meets scalable energy needs for growing demands.
- 3. 3<sup>rd</sup> Generation SiC Technology:** Delivers **93% AC round-trip efficiency**, maximizing energy utilization and cost savings.

### AI Energy Management System(ZENKI)

#### 1. HEMS: ZENKI Intelligent Energy Management

Boosts average savings by **6-10%** through:

- Smart learning of energy consumption data.
- Intelligent energy planning.
- Compatibility with a wide range of smart meters: Smart Meter 3CT, Smart Meter D0/TIC/P1.

#### 2. Integration with **700+ European Electricity Providers**

- Provides dynamic pricing data from mainstream markets and leading suppliers.
- Delivers smart Time-of-Use (TOU) energy plans for optimal cost efficiency.

#### 3. Fast, Precise, and Stable Energy Regulation

- **Response time < 3 seconds** for seamless adjustments.
- **1W-level precision for loads above 50W**, ensuring optimal energy usage.
- Local communication for reliable, uninterrupted performance.

### Expanded Application Scenarios

#### 1. The First Plug-and-Play AC-Coupled Battery with 2000W Microinverter

- Seamlessly integrates with 2000W microinverters for effortless installation and immediate use, redefining convenience in energy storage.

#### 2. The First Plug-and-Play Battery with 2400W Off-Grid Power Supply

- Offers customizable off-grid operation modes (Normal Mode and Eco Mode) to ensure uninterrupted power for diverse household needs.

#### 3. Winter Battery Smart Maintenance

- Protects battery health with customizable discharge limits and automatic grid charging during prolonged low-light conditions, ensuring reliable performance in winter.

### Advanced Energy Efficiency Features

#### 1. 48V Battery System

- Reduces energy loss by 25% compared to 16V battery systems, delivering greater efficiency and longer-lasting performance.

\*HEMS means Home Energy Management System.

ZENDURE SPECIFICATION | CONFIDENTIAL

## Solution Recommendations and Cost-effectiveness

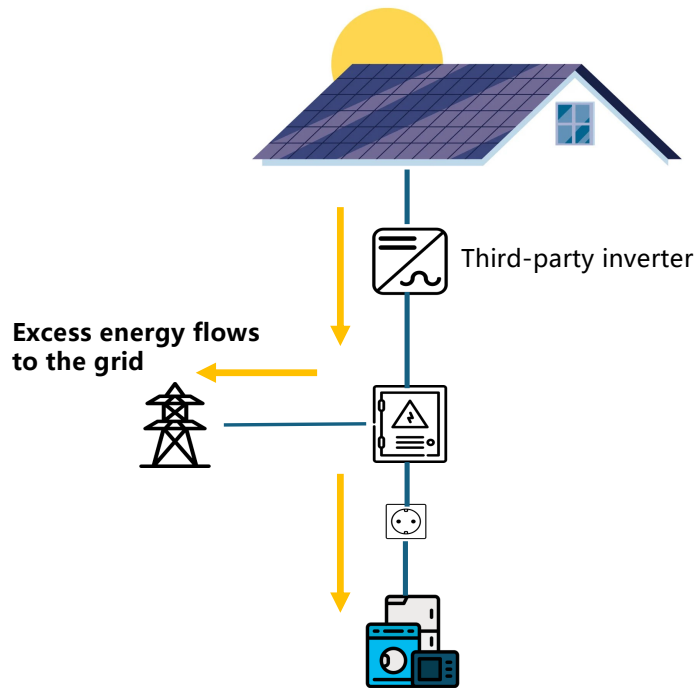
PV Power	2000-4000W	4000-6000W	6000-8000W
Annual electricity consumption	2000-4000kWh	4000-6000kWh	6000-8000kWh
Recommended combination	SolarFlow 2400 AC+AB3000X*2	(SolarFlow 2400 AC+AB3000X*2)*2	(SolarFlow 2400 AC+AB3000X*2)*3
Phase	One-phase	One-phase	Three-phase
Capacity	5.76kWh	11.52kWh	17.28kWh
Maximum AC Input	2400W	4800W	7200W
Maximum AC Output <sup>1</sup>	2400W	4800W	7200W
Recommended AC Output	800W	800W	800W
Energy Saved (daily) <sup>2</sup>	≈5.2kWh	≈10.4kWh	≈15.6kWh
1. If the user wishes to discharge at a total power of more than 800W, please have a professional electrician install it on a separate circuit. 2. Minimum daily energy savings.			

05

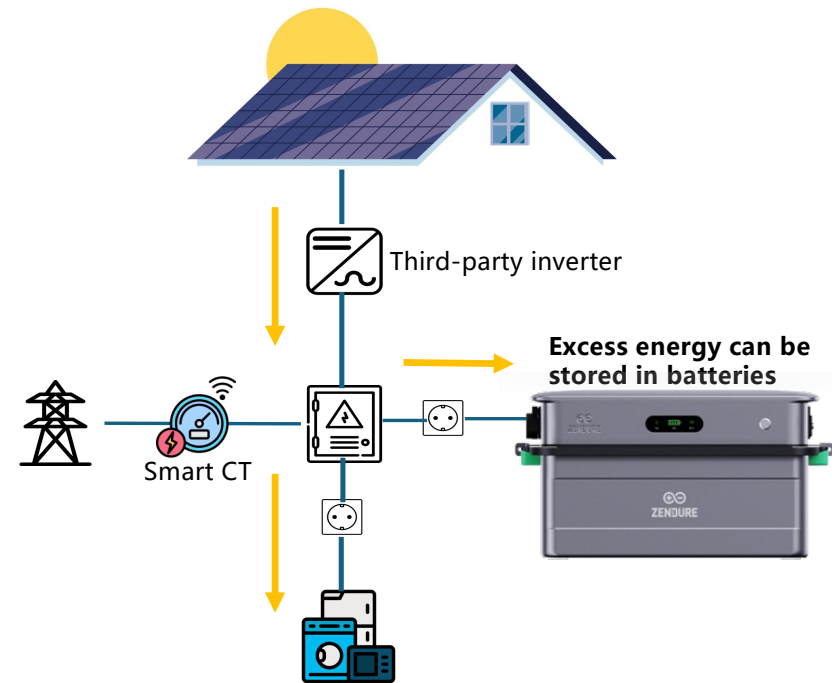
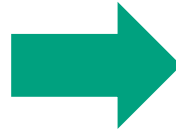
# Product Strategy

## Product Marketing Strategy: Primary User Scenarios

Target audience: Homeowners with existing rooftop solar systems, yet to integrate energy storage.



Without Household Batteries



With SolarFlow 2400 AC+AB3000X

## Product Marketing Strategy: Primary User Scenarios

### Recommended combination

Bundle	SolarFlow 2400 AC + AB3000X
Benefit	Better economic benefits and a more intelligent, one-stop energy management solution for solar storage.
Selling Point	<ol style="list-style-type: none"> <li>1. The highest <b>cost-performance</b> plug-in battery storage solution on the market.</li> <li>2. <b>Smarter electricity usage scenarios.</b></li> </ol>

Enhanced

Accessory	DE	FR	NL
	Zendure Smart 3CT	Smart reader	Smart reader
Benefit	Smart Energy Management Solution		
Selling Point	Intelligent Power Regulation Brings Improved Energy Utilization Efficiency: Fast Response, High Stability, and High Accuracy.		

Enhanced

Accessory	AB3000X
Benefit	Increase Energy Storage
Selling Point	<ol style="list-style-type: none"> <li>1. Plug-and-play, easy to expand.</li> <li>2. Smart BMS management to prevent discharge imbalance caused by the "Bucket effect."</li> </ol>

06



# Product Spec

## Product Spec



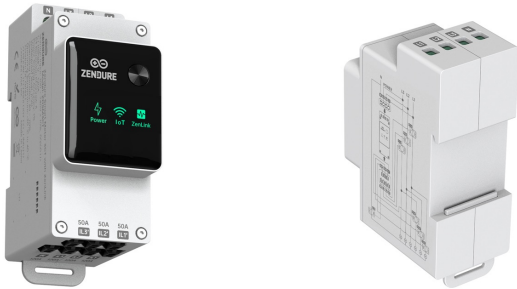
<b>Name</b>	<b>SolarFlow 2400 AC</b>
<b>Model</b>	<b>ZDSF2400AC</b>
<b>On-Grid Terminal</b>	
Nominal Input/Output Voltage	230V a.c.
Nominal Input/Output Frequency	50Hz
Max. Input/Output Power	2400W
<b>Off-Grid Terminal</b>	
Nominal Output Voltage	230V a.c.
Nominal Output Frequency	50Hz
Max. Output Power	2400W
<b>Battery Charge/Discharge</b>	
Max. Battery Charge/Discharge	2400W
<b>General Information</b>	
Power Factor	0.8(lagging)-0.8(leading)
Protective Class	I
Operating Temperature	-20°C~60°C
Enclosure	IP65 (The device does not maintain IP65 waterproof protection when the off-grid socket is in use (plugged in) or when the waterproof cover is not properly sealed.)
Wireless Type	Bluetooth, Wi-Fi



07

# Smart accessories

## Smart accessories -3 Phase Smart CT/Smart Reader



**Smart Meter 3CT**



**Smart Meter D0 (DE)**



**Smart Meter TIC (FR)**



**Smart Meter P1 (NL)**