



SolarFlow **Mix** Series

SolarFlow 3000 Mix AC+

Marketing Deck
2026

SolarFlow **Mix** Series

Built for every scenario.

Mix is the real MAX.

SolarFlow Mix Series



SolarFlow 4000 Mix Pro



SolarFlow 4000 Mix AC+



SolarFlow 3000 Mix AC+



SolarFlow 4000 Mix Pro



SolarFlow 4000 Mix AC+



SolarFlow 3000 Mix AC+

Max. MPPT Input Power	8000W (2*4000W)	N/A	N/A
Max. Total PV Input (DC PV + AC Coupling)	13000W (DC+AC-Coupling)	5000W (AC-Coupling)	3000W (AC-Coupling)
On-grid Terminal Nominal AC Output Power	800W (Default) / 4000W (Premium*) / 5000W (with AC-Coupled Inverter*)	800W (Default) / 4000W (Premium*) / 5000W (with AC-Coupled Inverter*)	800W (Default) / 3000W (Premium*)
On-grid Terminal Max. AC Input Power	4000W	4000W	3000W
PV-IN AC Terminal Max. AC Input Power	5000W	5000W	N/A
Off-grid Terminal Max. AC Output Power	3680W (7200W@200ms)	3680W (7200W@200ms)	3680W (7200W@200ms)
Off-grid Terminal Max. AC Input Power	3680W	3680W	3680W
Max. Battery Charge/ Discharge Power (DC)	10000W (8000 MPPT DC Max + 4000W AC Max)	4000W	4000W
Capacity	8kWh	8kWh	8kWh
Max. Expandable Capacity	50kWh (8kWh + 6*7kWh)	50kWh (8kWh + 6*7kWh)	8kWh (not expandable)

**Enabling this function must comply with local regulations and must be performed by professional technicians.*

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1. Background: Policy Opportunities — Triple tailwinds are driving demand for new energy storage products



Policy Tailwinds

From “grid storage” to “physical storage”

External changes

- Germany: tax reductions + simplified market access + revenue lock-in (FIT/feed-in tariff subsidies continue to decline, driving storage adoption: self-consumption rises from 30% to 90%+)

- Netherlands: net metering is shifting to net billing, making storage more valuable for securing returns

- France: rising electricity prices + dynamic tariff arbitrage

(power suppliers are gradually offering floating-rate electricity plans)

- Resulting demand
- Better fit for retrofitting existing systems
- Larger capacity and higher power
- Shorter payback period



Power Market Tailwinds

Dynamic tariffs, free-electricity windows, and negative pricing

External changes

- More and more electricity markets in Europe are seeing windows of free power, low-cost power, negative pricing, and dynamic tariffs.
- Energy storage is no longer just about saving a little on electricity bills — it is about actively matching price fluctuations for smarter energy use.

Resulting demand

- Capacity needs to be close to daily basic household consumption
- Charging needs to be fast enough
- Output needs to be high enough



Tax Tailwinds

VAT reductions and subsidy release

External changes

- Tax reductions, subsidies, and local incentives lower users' upfront investment.
- Energy storage is shifting from an “optional add-on” to a more cost-effective household energy configuration.

Resulting demand

- Larger capacity within budget
- Less need for future battery add-ons and complex expansion
- Faster payback and lower cost per unit of capacity

Larger capacity + higher power

Covers daily household electricity use and peak-time loads, reducing reliance on expensive electricity

Easier installation + reusable and relocatable

Suitable for tenants, lightly renovated homes, and secondary installation scenarios

2–3 hour fast replenishment + efficient charge/discharge

Makes better use of low-price electricity windows for arbitrage and peak shaving

More usage + faster payback

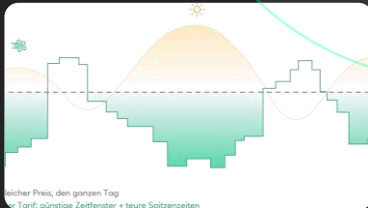
Delivers more use cycles and higher long-term returns with lower investment

1. Background: Market Opportunity — One product addresses three needs and expands the user base



Rooftop PV + storage

✗ Heavy installation, high threshold



Tariff arbitrage

✗ Capacity and power are limited



Portable power station

✗ Limited durability, low PV input

Is there one product that can meet all these needs?

- ✓ Solves the storage needs of existing rooftop PV systems
- ✓ Captures the value of low / zero / negative electricity prices
- ✓ Offers flexible deployment like a portable power station

2. Positioning

SolarFlow 3000 Mix AC+

- The ideal storage add-on for the existing rooftop PV market
- An arbitrage expert in the era of dynamic tariffs
- A high-durability mobile energy storage station



3. Appearance: SolarFlow 3000 Mix AC+



4A. The ideal storage add-on for the existing rooftop PV market

Scenario

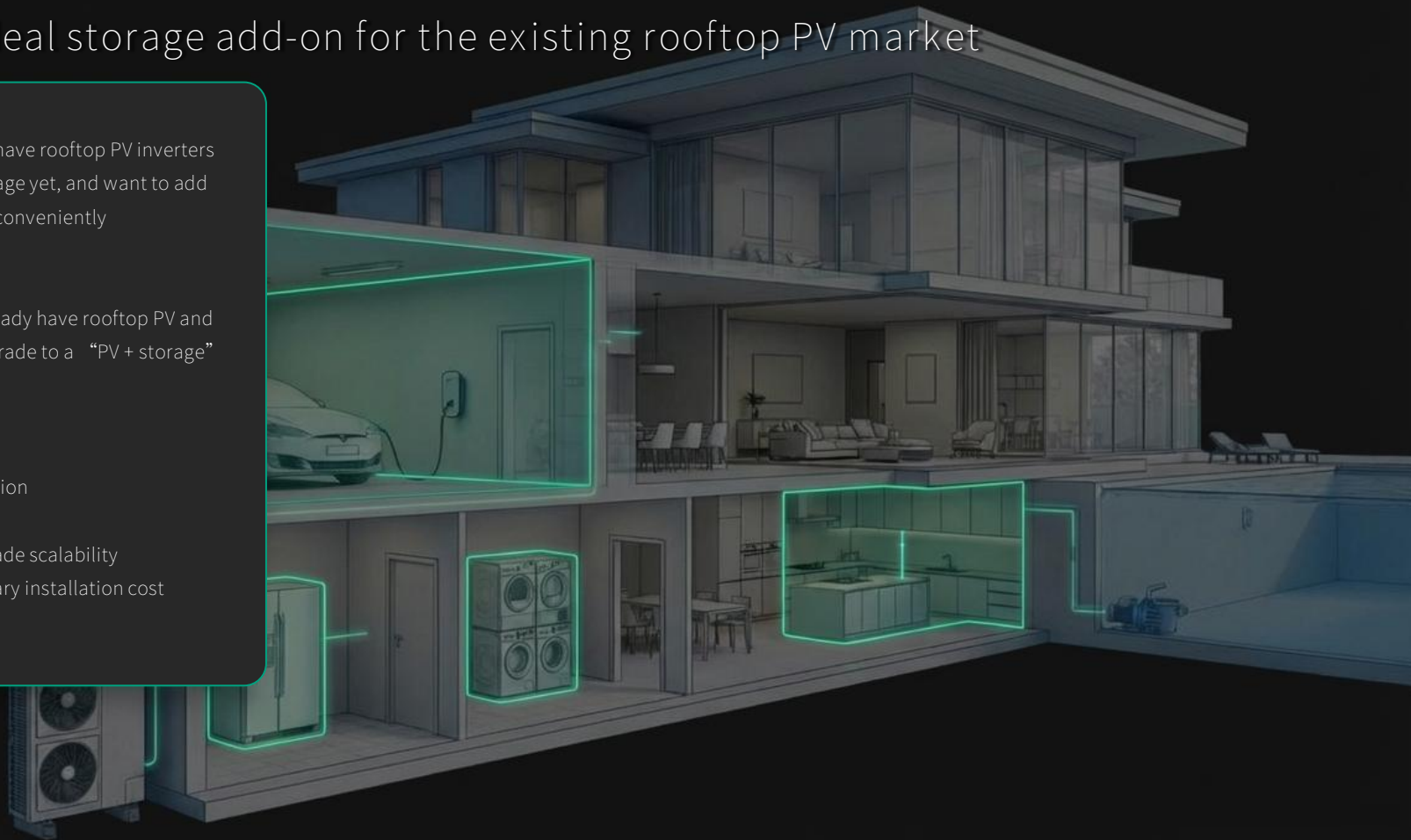
Homes that already have rooftop PV inverters installed but no storage yet, and want to add storage quickly and conveniently

User

Households that already have rooftop PV and are preparing to upgrade to a “PV + storage” system

Key Advantages

- Easier installation
- Lower cost
- Stronger upgrade scalability
- Lower secondary installation cost



4B. An arbitrage expert in the era of dynamic tariffs

Scenario

In countries with free electricity, low prices, or negative pricing, users can arbitrage by “charging at low prices and discharging at high prices,” while also covering high household loads at night

User

Households that already use or plan to use dynamic tariffs / time-of-use tariffs

Key Advantages

- Larger usable single-unit capacity
- Faster replenishment
- More reliable communication and safety
- ZENKI™ intelligent arbitrage



4C. A high-durability mobile energy storage station

Scenario

Off-grid applications such as outdoor work, emergency backup, RV travel, or areas with unstable power supply

User

Users who need a large-capacity mobile power source for outdoor work, RV travel, or regions with unstable electricity

Key Advantages

- Large capacity for long-duration power supply
- High power for tools and equipment
- Quiet and emission-free, replacing fuel generators
- Mobile design for more flexible deployment



4. SolarFlow 3000 Mix AC+ — KSP Overview

Use Case	Core Positioning	Core KSPs	Focused KSPs	General SPs
Rooftop PV + Storage	The ideal storage add-on for the existing rooftop PV market	3 kW bi-directional AC power on-grid 8 kWh large capacity, expandable to 50 kWh 10,000 cycle life 90% round-trip efficiency - Wired communication via LAN and RS485	- Lightweight Upgrade for Existing Rooftop PV Systems 100% compatible with rooftop PV inverters - Supports PowerHub expansion	- ZenGuard battery safety protection system - More complete safety and communication - HEMS 2.0 intelligent management - ZENK™ intelligent arbitrage - Ecosystem integration with heat pumps and EV chargers - Supports MQTT; compatible with smart home platforms such as Home Assistant and Homey - Compatible with smart devices from Shelly, EverHome, Homewizard, and more
Tariff Arbitrage	An arbitrage expert in the era of dynamic tariffs		- Supports 840+ European energy suppliers - Supports ZenWave dynamic tariff service	
Portable Energy Storage	A high-durability mobile energy station		- IP65 - Wide temperature range: -20~55°C 25 dB quiet operation - Metal enclosure 3.68 kW off-grid output / 7.2 kW peak - Full charge in 2 hours 10 ms UPS - Built-in wheels / optional trolley	

KSP1 — 3 kW bi-directional AC power

In the era of dynamic pricing, the value of storage is not only “storing electricity” but also “timing charge and discharge.” SolarFlow 3000 Mix AC+ supports 3000W bi-directional AC power, enabling fast charging during low-price periods and stable supply during peak pricing—without changing user consumption habits, while optimizing electricity costs.

3 kW* bi-directional AC power for broader peak-load household coverage

Scenario

- High-power appliances such as refrigerators, washing machines, and ovens running simultaneously during high-price periods
- Households already using dynamic tariffs / time-of-use tariffs with more electricity use concentrated at night
- Users seeking to cover high-load single circuits as much as possible and achieve “charge low, use high”

Benefits

- Covers about 95% of peak household load power demand
- Reduces reliance on grid electricity during peak-price periods
- Makes better use of free electricity, low-price windows, and time-of-use tariff opportunities to improve arbitrage efficiency



KSP2 — 8kWh large single-unit capacity



Single unit provides 8.038 kWh capacity without requiring expansion batteries.

⚠ Note: SF3000 Mix AC+ does not support battery expansion.

Scenarios

- Households with excess PV generation during the day and desire to minimize grid purchases at night.
- Users who prefer not to stack multiple battery modules.

Benefits

- One-step solution, eliminating range anxiety.
- Covers nearly a full day or night of basic electricity demand.
- Simpler than multi-battery systems

Reference:

Based on average German household electricity consumption (2021):

2893 kWh/year $\approx$ 7.9 kWh/day

8 kWh fits well within daily usage range

Specification	2015	2016	2017	2018	2019	2020	2021	2021 to 2020 change in %	2021 to 2020 change in %
Electricity per household for electrical appliances ¹	2,673	2,645	2,638	2,625	2,631	2,703	2,893	7.0	8.2
One-person household	1,686	1,659	1,659	1,590	1,593	1,623	1,750	7.8	3.8
Two-person household	2,716	2,674	2,674	2,675	2,661	2,731	2,943	7.8	8.4
Three- and more-person household	4,259	4,192	4,204	4,296	4,309	4,394	4,746	8.0	13.6

1: Electricity for heating, hot water (for hygiene tasks), lighting and electrical appliances.

2: Electricity for all purposes except for room heating and lighting. Household equipment includes household appliances (e.g. washing machines and refrigerators), consumer electronics (e.g. televisions and laptops) and water heating devices.

Updated: September 2023

$$2893 \div 365 = 7.93 \text{ kWh/Day}$$

As at 27 September 2023

KSP3 — High-efficiency, durable battery cells: 10,000 cycles, 15-year lifespan

10,000 Cycles
15-Year Lifespan



SolarFlow 3000 Mix AC+
Extremely Durable

SF3000 Mix AC+ uses a long-lifespan battery cell solution **capable of 10,000 cycles** (battery **SOH = 70%**). Based on **two full charge/discharge cycles per day**, the system lifespan can reach about **15 years**, making it more suitable for high-frequency use and more favorable for long-term payback.

Benefits

- Lower cost per use / lower LCOS over the full lifecycle
- Greater peace of mind for frequent use
- Better suited for long-term home storage and frequent outdoor deployment

SOH (State of Health) = battery state of health

It reflects how much capacity the battery retains after years of use. For example, SOH = 70% means that after reaching the rated 10,000 cycles, the battery can still retain about 70% of its initial capacity and remain usable, although its storage capacity is lower than when new.

LCOS (Levelized Cost of Storage) = levelized cost of storage over the full lifecycle

It indicates the average cost of delivering 1 kWh over the entire lifecycle of the storage system. The lower the LCOS, the more durable and cost-effective the system is over time.

KSP4 — 90% high round-trip efficiency (RTE), retaining more energy



PV-side charging efficiency 95%* PV-side discharging efficiency 95% $\approx 90.25\%$.

Tested in laboratory conditions; final interpretation belongs to the laboratory.

Conventional balcony storage systems suffer noticeable losses in long-term charge/discharge use, while SF3000 Mix AC+ uses a high-efficiency durable cell solution with **90%+ round-trip efficiency (RTE)**. This means more of the solar energy stored during the day is retained and actually usable at night.

For households with high-frequency daily cycling and a self-consumption-oriented model, higher charging and discharging efficiency not only reduces losses, but also directly improves real storage returns.

Scenario

- Daily cycling: charge during the day, discharge at night
- Self-consumption-oriented households
- Users on dynamic tariffs / time-of-use tariffs

Benefits

- More usable electricity in practice
- Lower storage losses
- Higher value from self-consumption
- Greater gains in dynamic tariff / time-of-use pricing scenarios

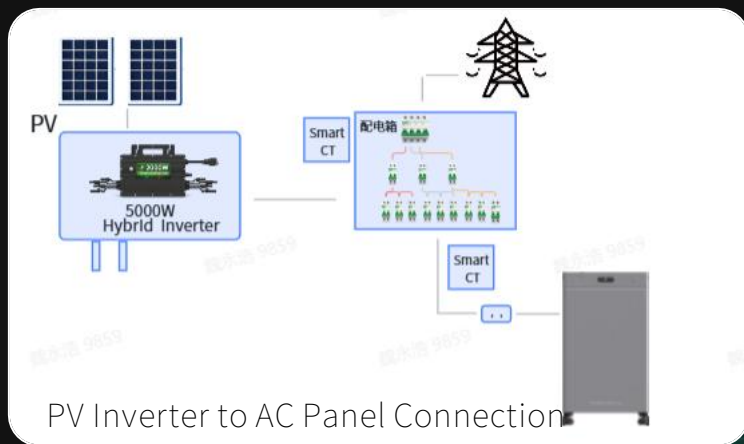
RTE (Round-Trip Efficiency) refers to the ratio of energy output during discharge to energy input during charging, usually expressed as a percentage.

Function: Measures the energy efficiency of the battery system during energy conversion and storage.

Formula: $RTE = (\text{Discharge Energy} / \text{Charge Energy}) \times 100\%$

Example: If a battery pack is charged with 100 kWh and discharges 90 kWh, its RTE is 90%. The remaining 10% is lost during charge/discharge in the form of heat and other losses.

KSP5 — Lightweight Upgrade for Existing Rooftop PV



The SolarFlow 3000 Mix AC+ leverages the industry-standard AC-coupling path. It integrates seamlessly with existing rooftop inverters without DC rewiring, providing a lightweight and non-invasive storage upgrade.

Scenarios:

- Legacy PV Systems: Adding storage to existing solar setups.
- Dynamic Tariffs: Households optimizing Time-of-Use (TOU) pricing.
- Easy Upgrades: Users seeking low-barrier, "plug-and-play" storage.

Key Benefits:

- Seamless integration with 100% of existing PV systems.
- No complex overhaul; zero-fuss installation.
- The most cost-effective path to solar storage.
- Built for smart charging and maximizing ROI.

KSP5 — 100% Compatibility with Rooftop PV Inverters



Scenario

Users who already have or are planning to install rooftop PV systems
Adding complementary storage batteries to their system

Key Benefits

Fully compatible with all inverter types: PV Inverters, Microinverters, Hybrid Inverters

Examples: Huawei, SMA, Fronius, Enphase, SolarEdge, Sungrow

KSP6 — Wired communication: LAN / RS485

Supports both LAN networking and RS485 communication.

The LAN port can connect directly to a home router via Ethernet cable for improved networking stability.

The RS485 communication port* can connect to Zendure Smart CT (3CT-S / 1CT-S) through an RJ45 cable, enabling lower-latency and more stable power sensing and control.

Compared with solutions relying only on Wi-Fi, wired communication is better suited to household environments with complex signals, many devices, or long installation distances, ensuring more stable operation and more responsive control.



**The RS485 communication port uses an RJ45 connector form, but it is not an Ethernet port and must not be connected to routers, switches, or PoE devices.*

Scenario

- Installation locations far from the router, where Wi-Fi is weak or unstable
- Complex household electrical environments requiring long-term stable connectivity
- Users needing connection to Zendure Smart CT (3CT-S / 1CT-S) for faster and more accurate monitoring and control
- Installer scenarios demanding stronger system response speed and communication stability

Benefits

- More stable networking without dependence on wireless signal quality
- More accurate power monitoring and control
- More reliable system coordination
- Better suited for complex home environments and long-term stable operation

KSP7 — Strong energy system scalability



SF3000 Mix AC+ is not just a standalone storage device. It can also serve as the starting point of a home energy system. Through PowerHub*, it can connect to multiple devices or expand into a more complete home energy solution. At the same time, PowerHub also enables whole-home off-grid backup.

Scenario

- Households that want to start with a single unit and upgrade later
- Users planning to connect more energy devices in the future
- Users who want to move from entry-level use to systematic home energy management

Benefits

- Meets current needs first, with gradual upgrade potential
- Reduces the pressure of the initial purchase decision
- Avoids the high threshold of having to invest in a complete system from day one

**For a detailed explanation of PowerHub, please refer to the PowerHub Marketing Deck.*



Essent, Frank Energie, Pure Energie, Tibber, Budget Energie, NextEnergy, Engie...

KSP8 — Supports ZenWave™ Dynamic Tariff electricity retail service

What is ZenWave™?

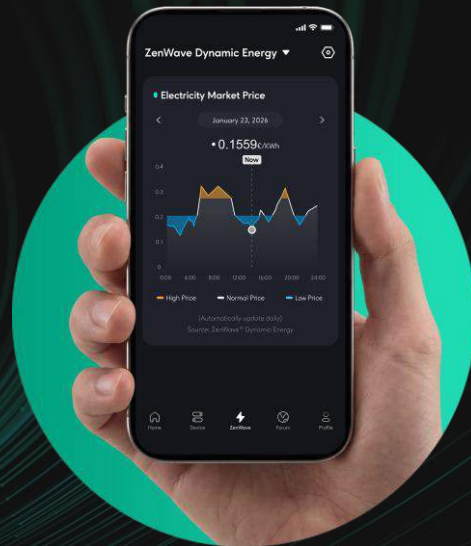
ZenWave™ is Zendure's electricity retail business project launched at the end of 2025. It is a dynamic electricity pricing service currently available **only in Germany**. The project combines price fluctuations in the German electricity trading market (EPEX SPOT) with user electricity consumption behavior to make better use of peak-valley price differences and reduce household electricity costs more efficiently.

ZenWave™ makes electricity use **more affordable and greener**
When combined with ZENKI™, it also becomes **easier and smarter**

① **Lower cost** — directly reduces household electricity costs
ZenWave™ uses a dynamic billing model closer to wholesale electricity market prices, helping users avoid the long-term premium commonly built into fixed tariffs

② **More eco-friendly** — reduce carbon footprint while saving money
ZenWave™ provides 100% certified green electricity, allowing users to save on power bills while supporting the energy transition

③ **More hassle-free** — turn low-price periods into real savings automatically
When combined with ZENKI™ intelligent scheduling mode, electricity optimization upgrades from something users must manage manually to something the system completes automatically



High-durability mobile energy storage station — KSP summary*



SF3000 Mix AC+ is not only mobile, but also designed for outdoor adaptability and long-term durability, making it more suitable as a repeatedly deployable mobile energy device

Scenario

- Outdoor work, construction sites, RVs, camping
- Emergency power supply, off-grid cabins, semi-outdoor standby use
- Homes, garages, mobile shops, and other mobile power supply scenarios

Benefits & KSP

- Off-grid output 3680 W (peak 7200 W @ 200 ms)
- Stronger environmental adaptability: IP65 dustproof and waterproof; wide temperature tolerance from -20~55°C; metal enclosure
- Longer service life: 10,000-cycle long lifespan, lower per-use cost, ideal for high-frequency deployment
- Better user experience: full charge in 2 hours; 25 dB quiet operation; 10 ms UPS; built-in wheels with optional trolley for easier indoor/outdoor movement

**For detailed explanation of portable power station (PPS) scenarios, please refer to the SolarFlow Mix Series as PPS Marketing Deck.*

General SP1 — ZenGuard battery safety protection system



The ZenGuard battery safety protection system builds a multi-layered safety architecture covering monitoring, prevention, and active protection through a dual-BMS architecture, intelligent battery self-maintenance, and an aerosol fire suppression system.

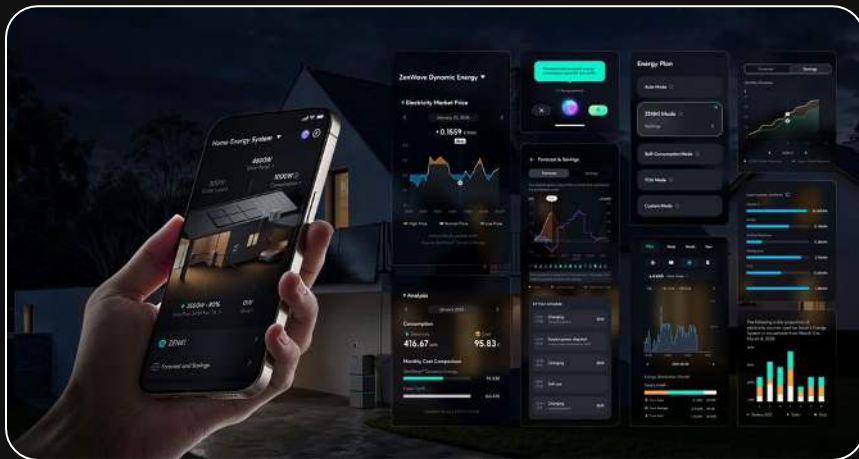
Scenario

- Large-capacity daily home energy storage
- Long-term, high-frequency charge/discharge use
- Households with higher requirements for battery safety and long-term reliability

Benefits

- More stable battery operating condition
- Reduced safety concerns during long-term use
- Stronger active protection in abnormal situations
- Better suited for long-term continuous use in household environments

General SP2 — HEMS 2.0



HEMS = Home Energy Management System

HEMS is the “energy brain” of the home, connecting solar generation, storage, grid consumption, and household loads through software and hardware. It continuously collects data such as generation, consumption, electricity prices, and battery status, and automatically dispatches energy according to preset strategies, making household energy use more efficient and worry-free.

HEMS 2.0 intelligently manages solar, storage, and household load scheduling

- Each user ID can configure independent HEMS systems for **multiple homes**
- Each HEMS system can manage up to **6 sets of devices**

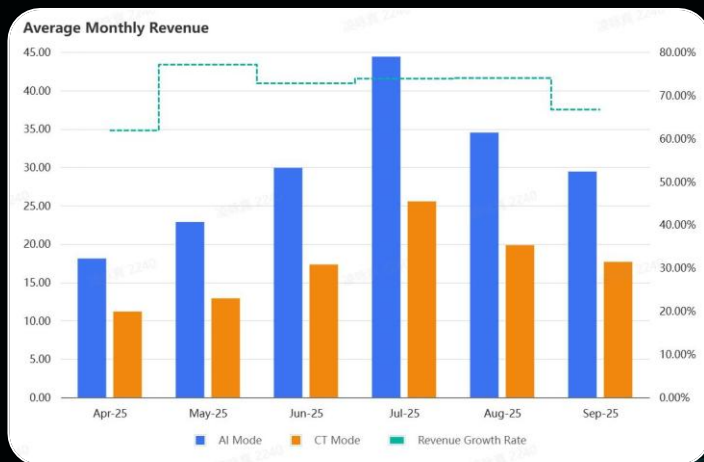
Scenario

- Households that already have PV + storage and relatively high electrical load
- Families with multiple properties, holiday homes / rental properties, or separate management of parents’ home and primary residence

Benefits

Makes household energy management smarter by automatically coordinating how much to generate, store, use, and when to use it, reducing manual operation and frequent mode switching

General SP3 — ZENKI™ Mode



ZENKI™ Mode can automatically optimize charging and discharging strategies according to real-time grid prices, weather, user electricity plans, and solar generation conditions.

Scenario

Users with solar generation who are on dynamic tariffs / time-of-use tariffs

Benefits

Under dynamic pricing conditions, ZENKI™ Mode optimizes charging and discharging strategies by reserving storage capacity before low-price periods arrive, ensuring more stable and sustained profit from electricity price fluctuations. Compared with CT mode, it can improve economic benefit by up to **73%**!

6. Competitive Comparison



Product	SF3000 Mix AC+	Brand M Venus E*2	Brand E Solarbank 2 E1600 AC + 4 * BP1600
Capacity	8038Wh	10240Wh	8000Wh
On-grid Bi-directional AC Power	3000W	2500W	800W
Off-grid AC Output Power	3680W	2500W	1200W
Round-trip Efficiency (RTE)	90%+	85%	85%
Cycle Life	10000	6000	6000
Price (€)	1699	1998	2445
Cost per kWh (€/kWh)	212	195	305
Cost per Use	0.17 €	0.33 €	0.40 €

7. ROI

Recommended for households
with annual electricity
consumption of 3000 kWh

1 × SF3000 Mix AC+ + 3 kWp Solar Panels + ZenWave Dynamic Tariff

Electricity Bill Reduction

88%

Max. Annual Savings

€1056

Payback Period

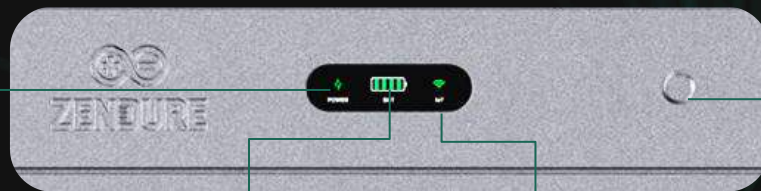
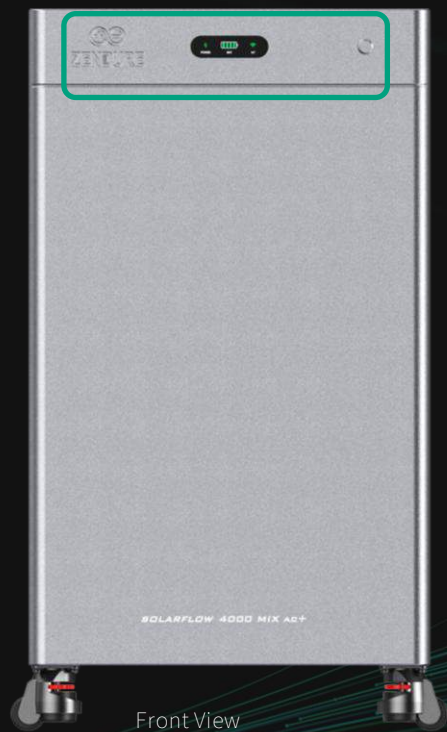
2.60 years

Calculation Logic:

Assumptions: 3 kWp PV + single unit, total cost €2749 (1699 + 175 × 6), annual household demand 3000 kWh, average German household electricity price €0.40/kWh, ZenWave: €4.99/month base fee (first year free) + €0.0159/kWh service fee + exchange price + other taxes and fees.

1. Original annual electricity bill: $3,000 \times €0.40 = €1,200/\text{year}$.
2. PV contribution — annual generation from 5 kWp is about $3 \times 800 = 2,400 \text{ kWh}/\text{year}$. If all 2,400 kWh is effectively used by the household, annual electricity cost reduction can reach $2,400 \times €0.40 = €960/\text{year}$.
3. Dynamic tariff arbitrage contribution — remaining electricity to purchase: $3,000 - 2,400 = 600 \text{ kWh}/\text{year}$. If purchased during low-price periods at €0.20/kWh, plus ZenWave's €0.0159/kWh service fee, and factoring in 90% RTE, the effective discharge cost becomes about $(0.20 + 0.0159) \div 0.90 = €0.2399/\text{kWh}$. Compared with a fixed tariff of €0.40/kWh, the saving per kWh is about €0.1601/kWh. If all remaining 1,000 kWh is shifted from low-price charging to high-price use, annual arbitrage savings are approximately $600 \times €0.1601 = €96/\text{year}$.
4. Maximum annual savings: $€960 + €96 = €1,056/\text{year}$.
5. Compared with the original annual bill of €1,200, electricity bill reduction is about $€1,056 \div €1,200 = 88\%$.
6. Payback period: $€2,749 \div €1,056 \approx 2.60 \text{ years}$.

8. How To Use



Power Indicator

- Shows charging status

Battery Level Indicator

- Shows remaining battery level

IoT Indicator

- Shows network connection status

Power Button

- Press and hold to power on/off
- Short press to wake up
- Double press to enable off-grid mode

8. How To Use



Left View

Ventilation Opening

- Ensures airflow across the heat sink, does not extend into the interior, and does not affect the IP rating



8. How To Use



Right View

Explosion-proof Pressure Relief Valve

- Reduces internal pressure when the aerosol fire suppression medium expands

LAN Port

- Connect to the home router via an RJ45 Ethernet cable to reduce latency and improve stability

AC Grid-tied Port

- Connects to the home grid



AC-side Interface Panel

Ground Screw Hole

- Grounds the chassis

RJ45 Communication Port

- RS485 protocol / CAN / synchronization signal

AC Off-grid Port

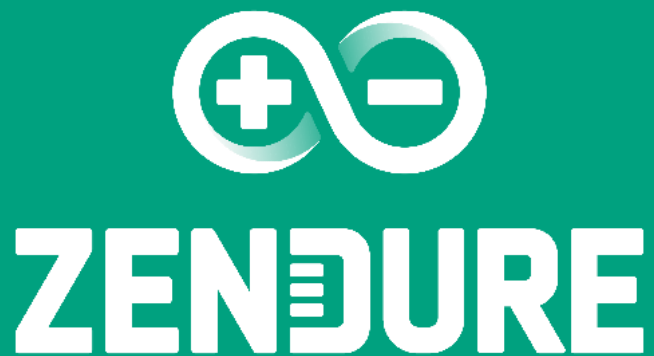
- A universal Schuko socket for connecting electrical appliances

9. Key Specs



		SolarFlow 3000 Mix AC+
Battery	Capacity / kWh	8.038
	Cycle Life	10000
On-grid	Output	800W (Default) / 3000W (Premium*)
	Input	3000W
Off-grid	Rated Output Power	3680W
	Peak Output Power	7200W (@200ms)
	Number of Off-grid Ports	1
Other	Dimensions (L × W × H)	461*234*825mm
	Weight / kg	~80
	Noise Level	25 dB (@1 m)
	UPS Function	10ms
	Operating Temperature	-20-55°C
	Protection Rating	IP65
	Warranty (years)	10
	Service Life (years)	15
	Communication	Wi-Fi, Bluetooth, App, LAN, RS485

**Enabling this function must comply with local regulations and must be performed by professional technicians.*



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