

# MARSTEK VENUS E Gen 3.0

Plug-in AC Battery Energy Storage System



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Industrieweg 32  
4301 RS, Zierikzee  
06-10921115

# Plug & Play

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**2.5kW**

Input

**800W / 2.5kW**

Output

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**5.12kWh**

Capacity



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# Backup Essential Loads

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Max.

**2.5kW** Output

Switchover in **15ms**



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# Compatible with Any PV System

Upgrade existing PV system with storage system



Main Panel

Solar Panel



PV Inverter



Micro Inverter

Solar Panel



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## AI Optimization Mode

# Maximize Lower Bill

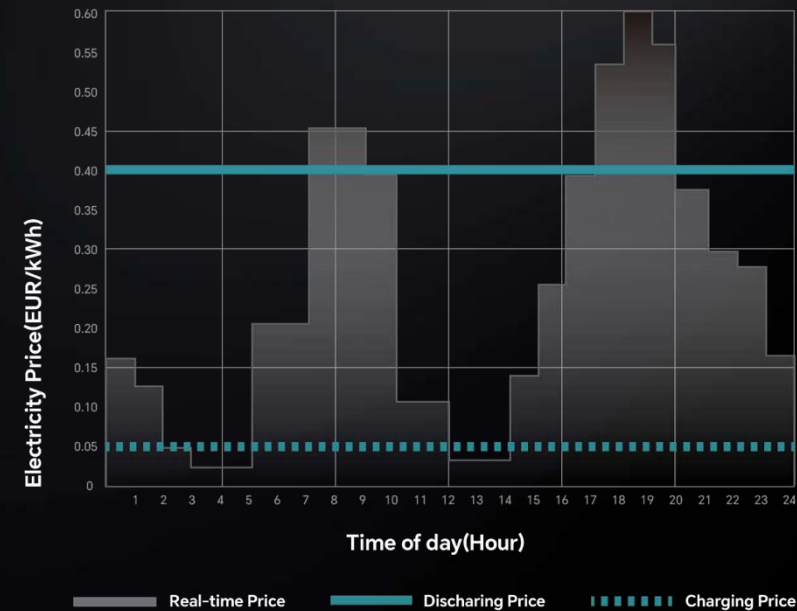
For residential users, Marstek Venus utilizes AI models to perform comprehensive big-data analysis of the entire home energy system status, real-time electricity pricing, and load patterns, then calculate the dynamic charging / discharging strategy for the maximize saving.



## Manual Mode

# Profit From TOU

For enterprise users, manually configure charging / discharging periods and power based on time-of-use pricing(TOU) agreed with grid operators , enables the maximum profit.



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# Anti Feed-in

100%

Self-Consumption



Main Panel



CT002



Smart Meter

( MARSTEK / Shelly / HomeWizard / everHome )

On Grid



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# Supports Multiple VENUS-E Grid Connection

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**2.5kW x N**

Max. Input / Output

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**5.12kWh x N**

Capacity



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# Single-phase Backup ESS

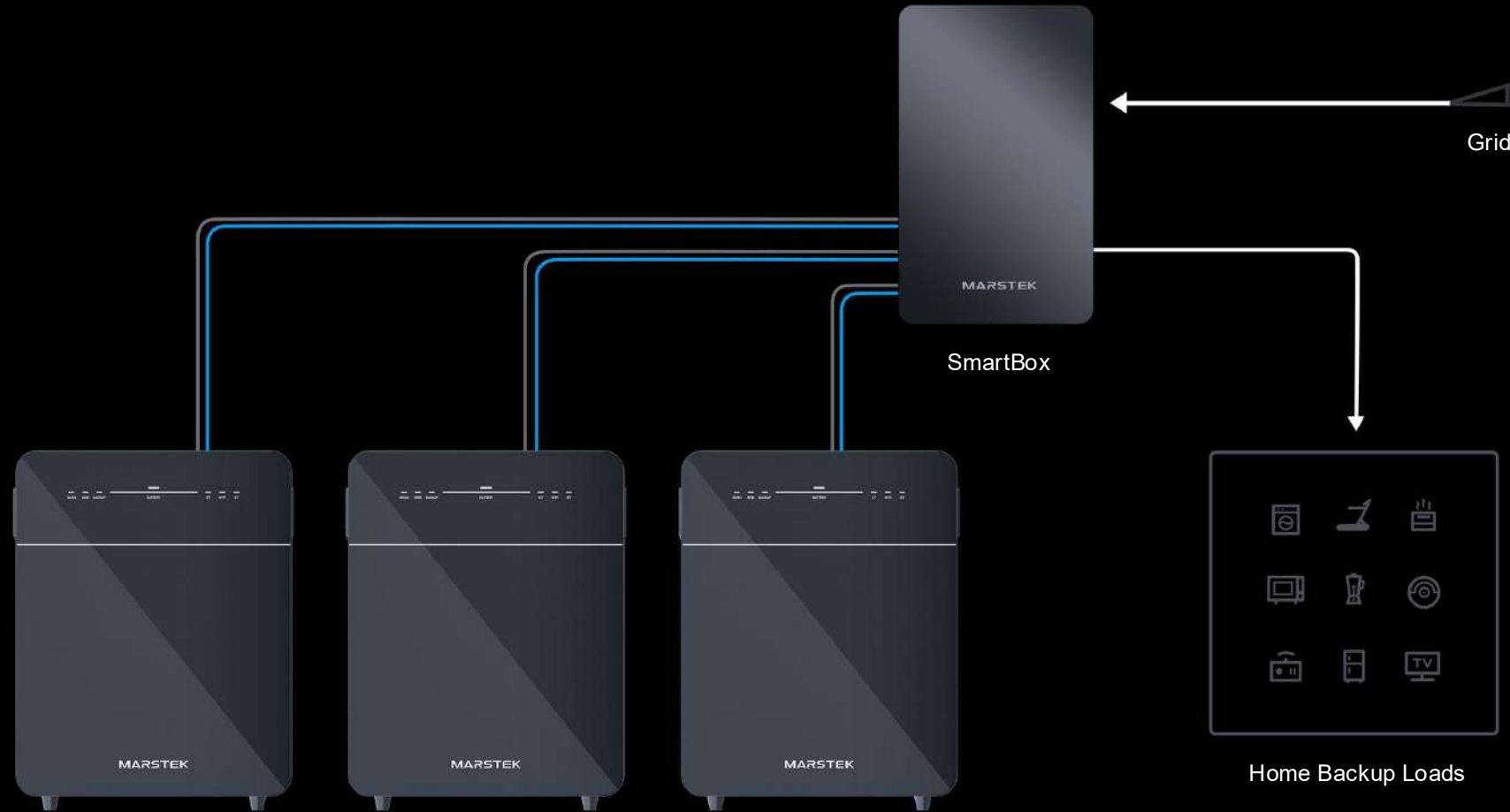
## Max. Output

$$2.5\text{kW} \times 3 = 7.5\text{kW}$$

## Max. Capacity

$$5.12\text{kWh} \times 3 = 15.36\text{kWh}$$

On-grid Line  
Backup Line



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# Three-phase Backup ESS

Up to 3 units in parallel for every single-phase grid

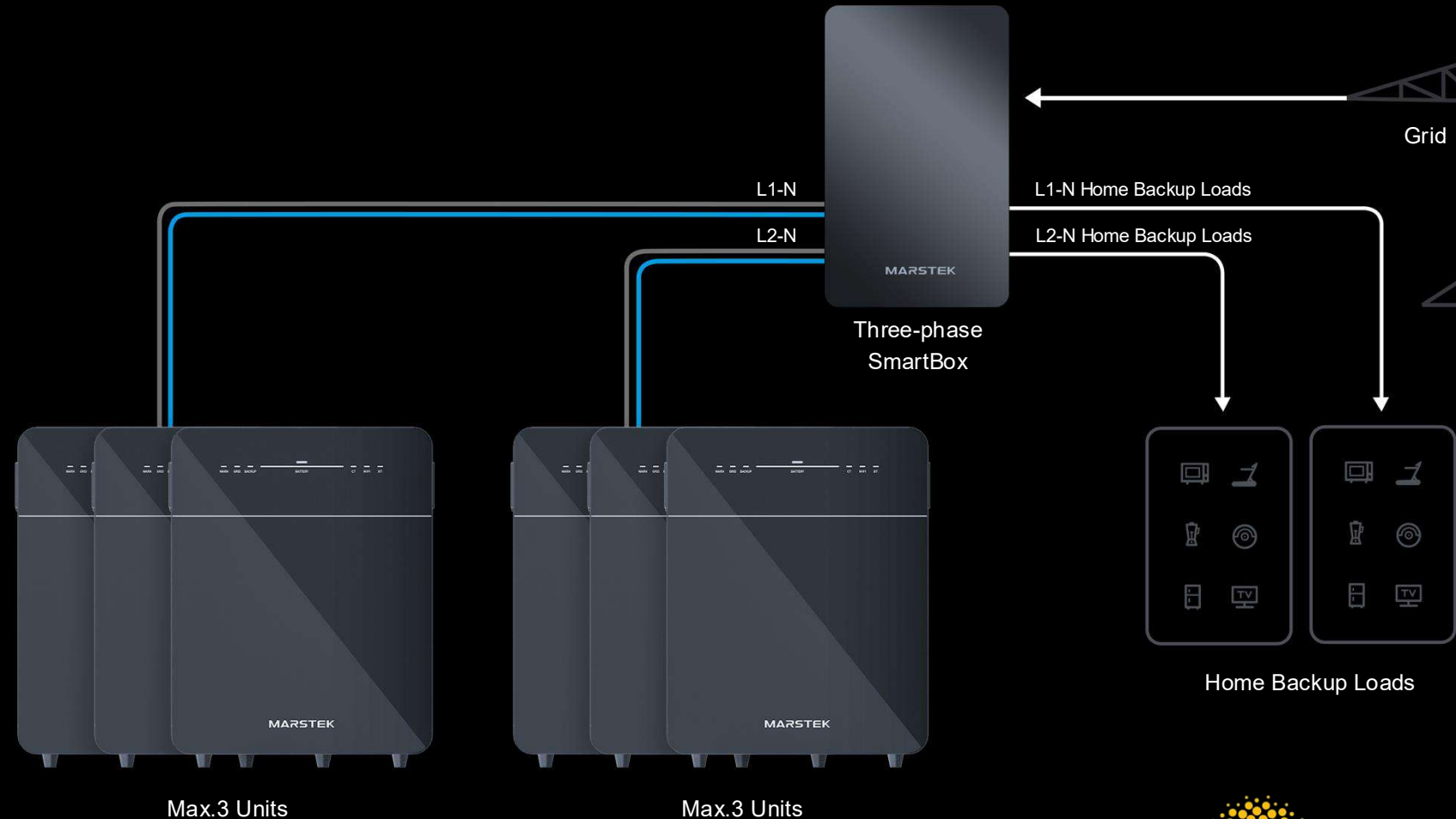
## Max. Output

$$2.5\text{kW} \times 9 = 22.5\text{kW}$$

## Max. Capacity

$$5.12\text{kWh} \times 9 = 46.08\text{kWh}$$

On-grid Line  
Backup Line



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# Reliable and Long-lasting Battery

LFP Storage Battery

**6000+**

Life Cycles

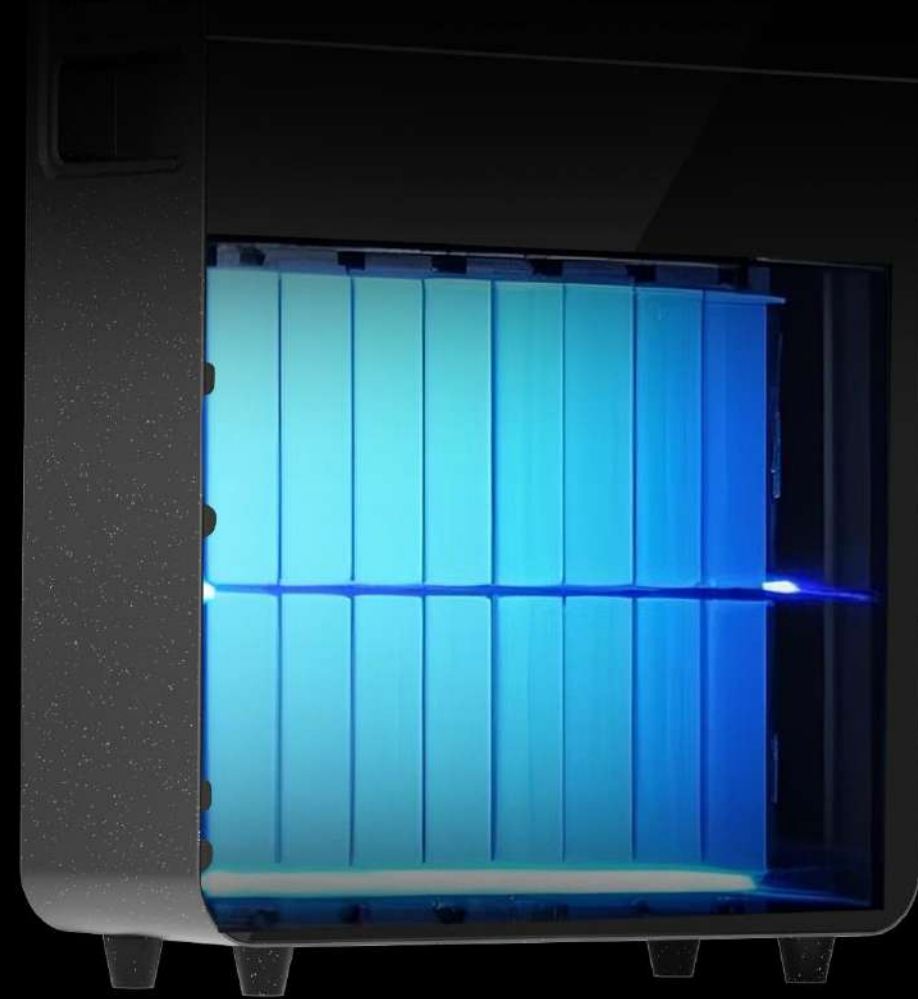
**15**

Years Lifespan

## Intelligent BMS

**6**

Protection

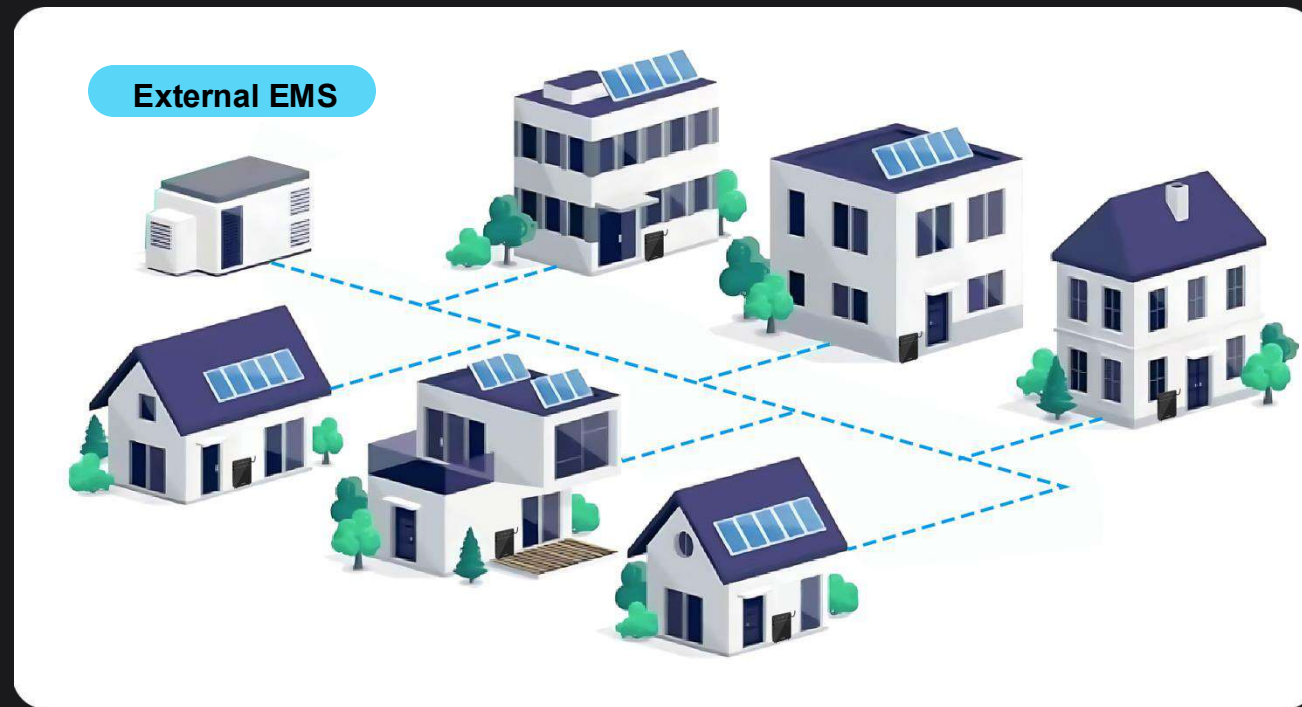


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# Seamless Integration with External EMS

Open API / Modbus Protocol

Integrated with LAN / RS485 / Wi-Fi / Bluetooth



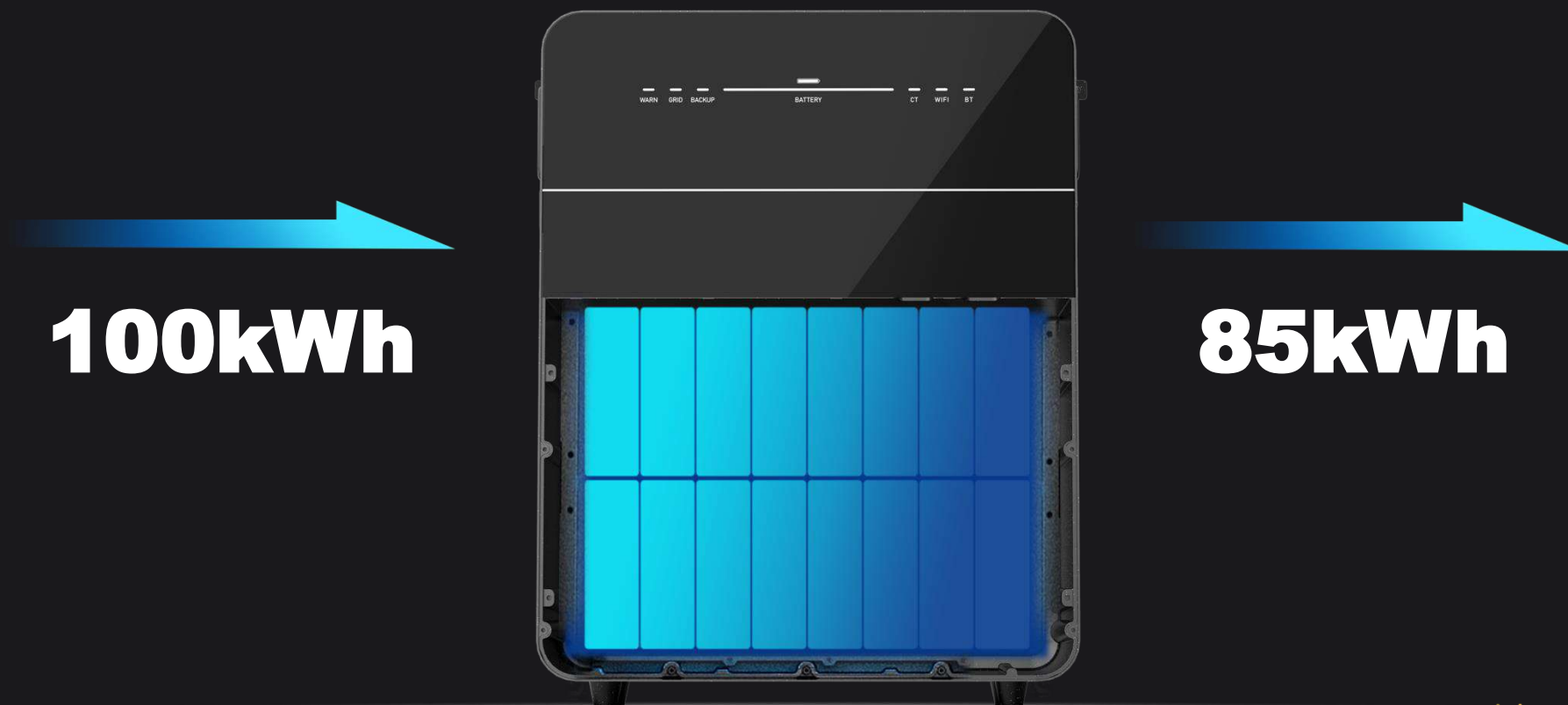
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# 85% Round-Trip Efficiency Where Less Energy Waste = More Profit

DoD > 90% | Battery-AC Efficiency > 93.5%



Note: The data provided above is for reference only. Please refer to the actual figures for accuracy.



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# VENUS E Gen 3.0 — Key Upgrades over Gen 2.0

## Integrated PCB Design

50% Less Wiring  
PCS Efficiency > 98%



## Upgraded 100Ah Prismatic Cell

Higher Strength, Greater Safety  
Better Heat Dissipation



## Thermally Conductive Potting

Enhanced Thermal Management  
Superior Shock & Moisture Protection



## Unibody Aluminum Die-Cast Housing

Higher Strength  
Greater Durability



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# Smaller. Lighter. More Efficient.

The Best AC Battery, Now Even Better



## VENUS E Gen 3.0

- ⚡ 1. Integrated PCB: 50% less wiring, +5% round-trip efficiency
- ⚡ 2. Brand New Design
- ⚡ 3. 38.5% Smaller, 7.4% Lighter
- ⚡ 4. Premium Aluminum Die-Cast Housing
- ⚡ 5. Dual RJ45: RS485 & Ethernet
- ⚡ 6. High Performance, High Density New Battery Cells
- ⚡ 7. Thermally Conductive Potting



## VENUS E Gen 2.0

- 1. Multiple PCB Boards with Complex Wiring, Higher Energy Loss
- 2. Traditional Right-Angle Design
- 3. Larger & Heavier Form Factor
- 4. Steel Housing
- 5. Single 5-pin RS485 Port



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