

MARSTEK VENUS D

4kW 4 MPPT Balcony ESS with 2.5kW AC-Coupling



10
Years

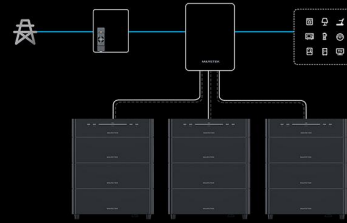
Warranty

-20°C to 60°C

Reliable Power from

Whole-Home
Backup

With MARSTEK Smart Box

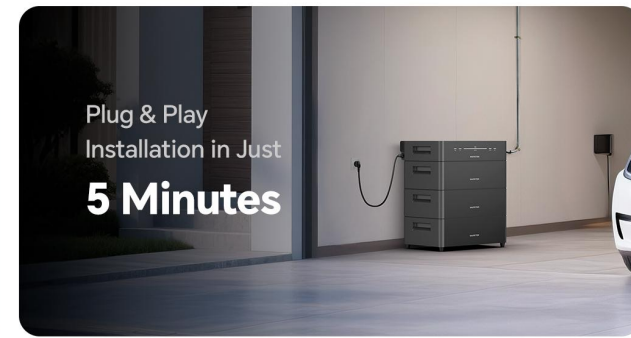


2.5kW
Backup

Peak at 3.0kW



Plug & Play
Installation in Just
5 Minutes



IP65

Waterproof & Dustproof



Compatible with Any
Existing Solar System

Seamlessly Integrate
with Your Existing Solar Setup



Up to 2.5kW Battery Charging

AI Optimized

TOU Management
for Cost Savings



MARSTEK VENUS D
4kW 4MPPT Balcony ESS with 2.5kW AC-Coupling

2.5kW Hybrid Inverter | 4 MPPT 4kW PV Input | 2.56kWh~15.36kWh



EPS Switchover in 15ms

2.5kW

Bidirectional Power



Modular Design | Flexible Expansion

Up to 6 Units
15.36kWh



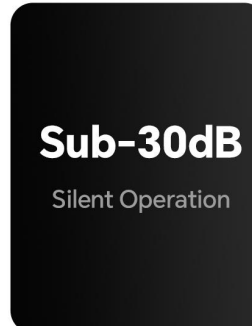
Anti Feed-in

With Smart Meter



Sub-30dB

Silent Operation



6000+ Cycles

Long-Lasting LFP Cells



Powerful Balcony Solar Storage System

Plug-and-Play | Max. 4kW PV Input | 8 Solar Panels | 4 MPPT





AC-Coupled Energy Storage System

Plug-and-Play

2.5kW Bidirectional On-Grid Power

Max. 2.5kW Backup

Plug & Play

Installation in Just

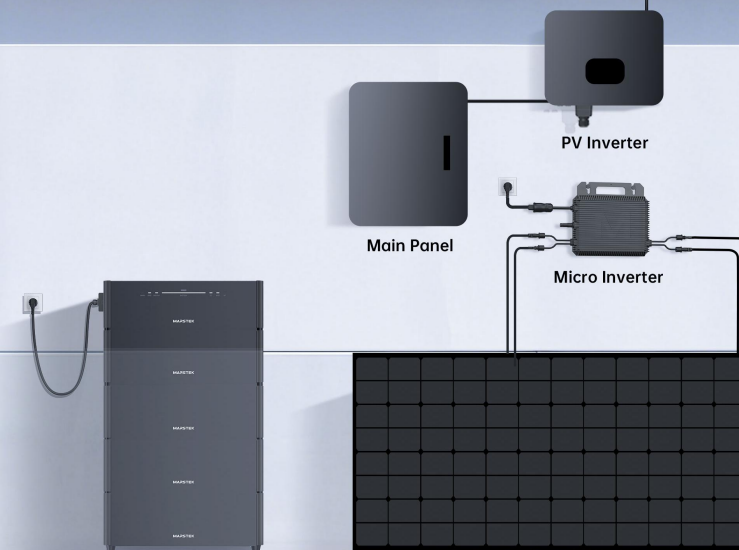
5 Minutes



Compatible with Any Existing Solar System

Seamless Integration

No rewiring, no upgrades, just more solar utilization.



Modular Design

2.56kWh

Per Battery

15.36kWh

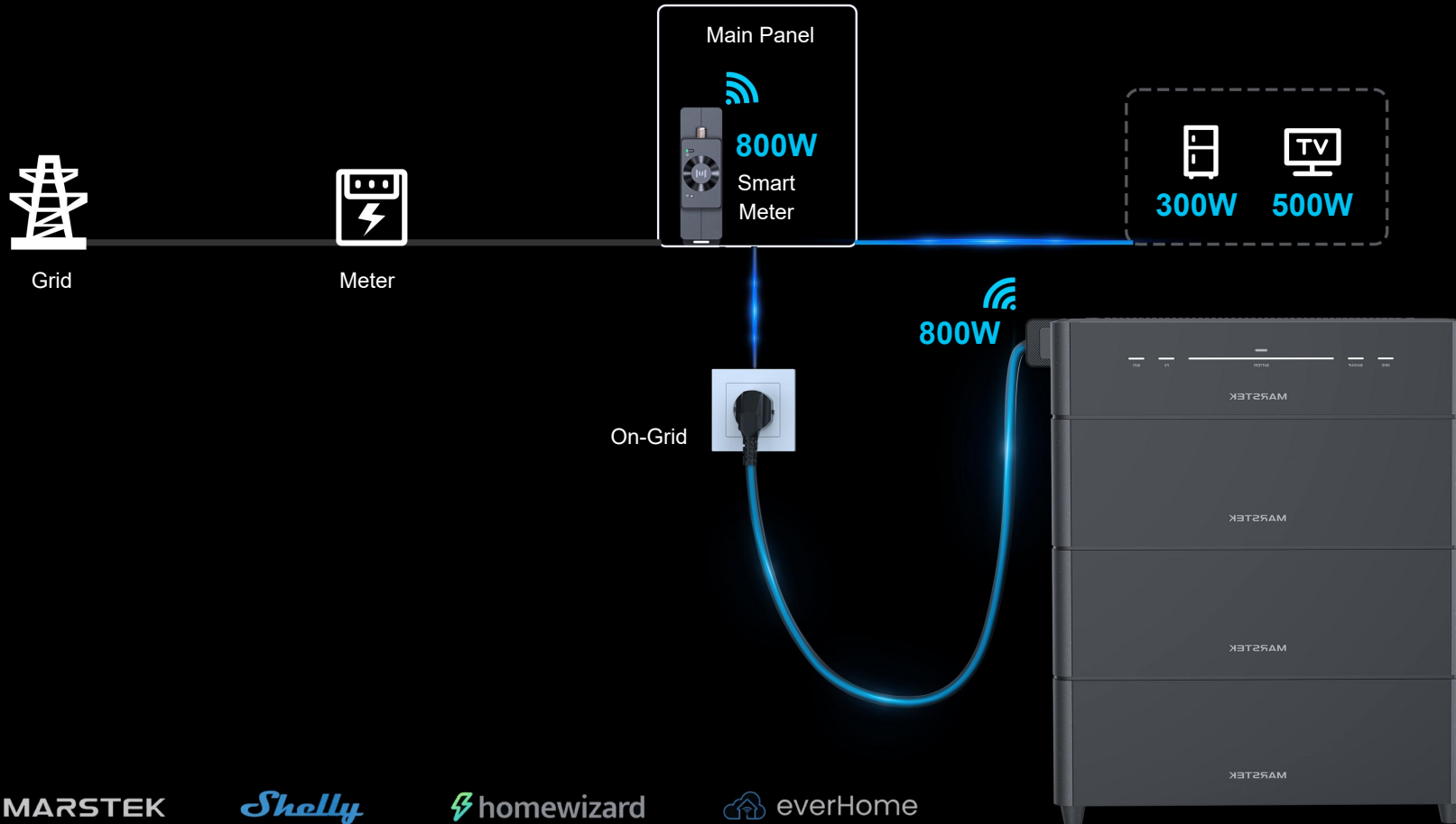
Flexible Expansion up to 6 Units



1.005M

Anti Feed-in with Smart Meter

Compatible with **MARSTEK** / **Shelly** / **Homewizard** / **Everhome** Smart Meter



100%
Self-Consumption

MARSTEK

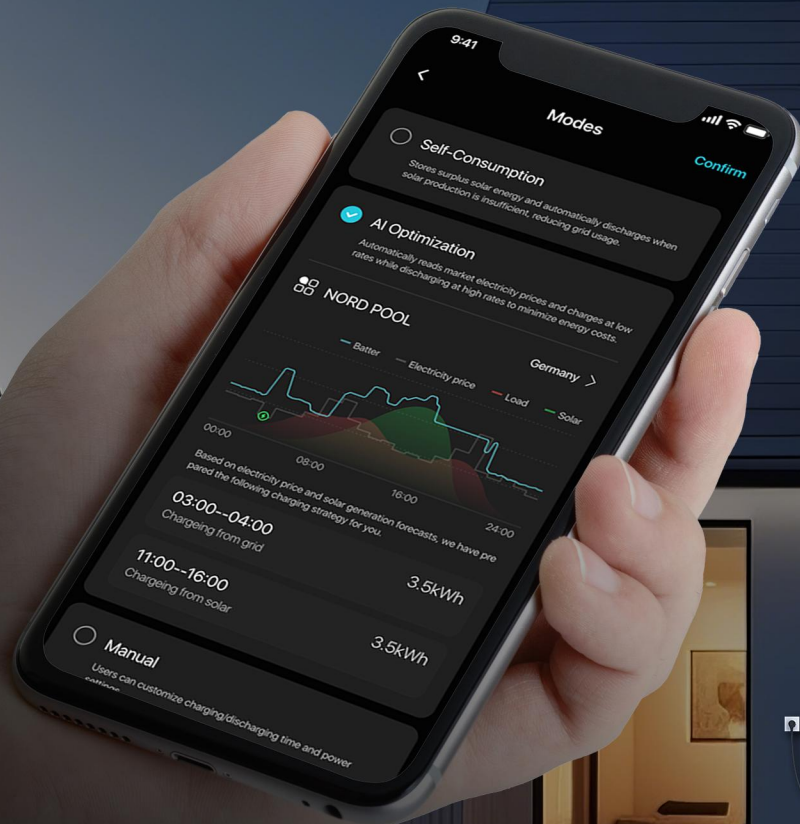
Shelly

 **homewizard**

 **everHome**

AI Optimization

TOU Management for Cost Savings
Command with MARSTEK App



A modern A-frame cabin with a steep, dark metal roof and light-colored wood siding. The cabin is illuminated from within, showing a cozy interior with a sofa and large windows. A solar panel array is mounted on the roof, and a battery storage unit is visible on the deck. The cabin is set in a wooded area with mountains in the background.

Plug-in Off-Grid Micro-Grid

For example, Summer House, Yacht...

Sub-30dB

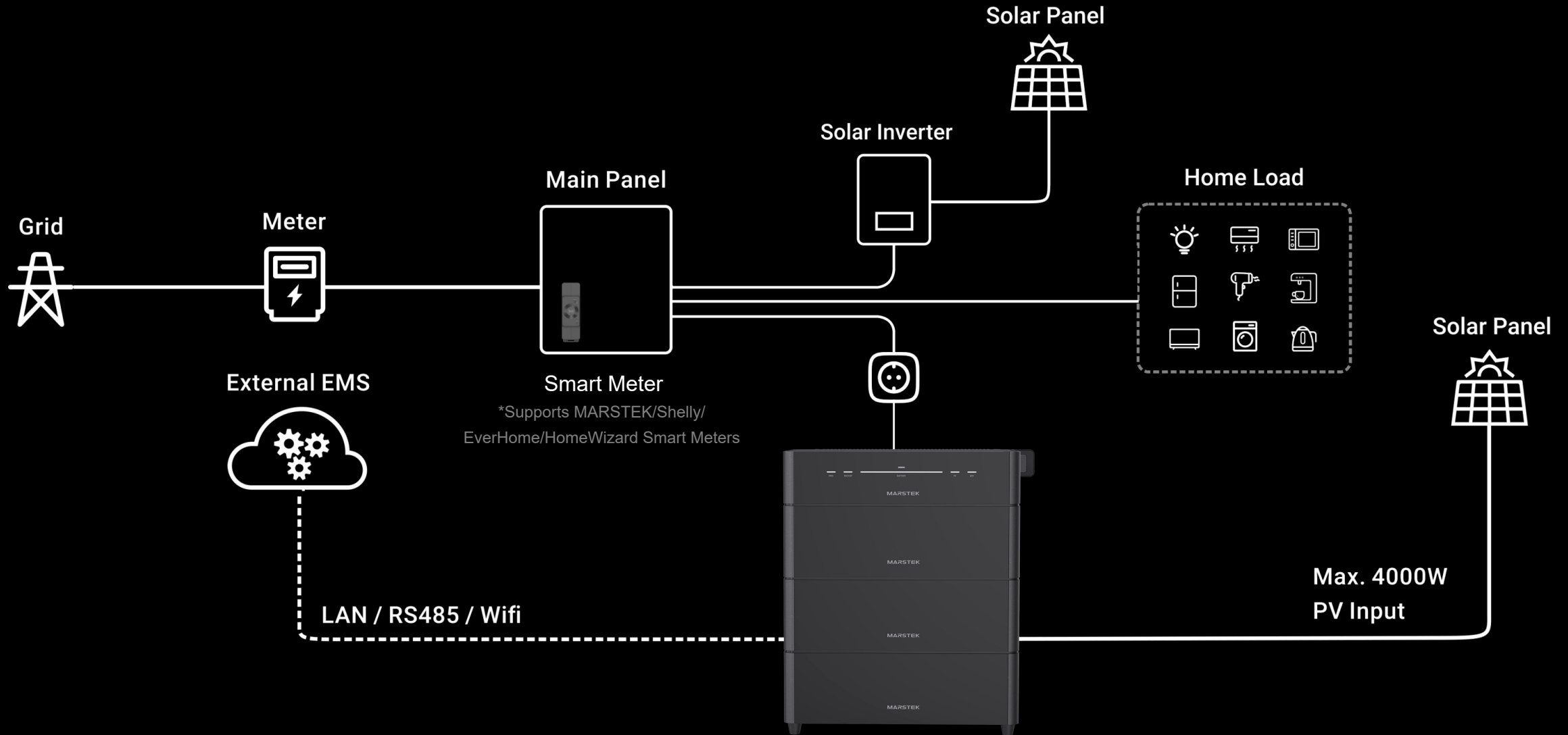
Silent Operation

IP65

Waterproof & Dustproof



Installation & Wiring Layout for MARSTEK VENUS D



VENUS D + EBM

4kW 4MPPT Balcony ESS
with 2.5kW AC-Coupling



Specification Type	Host Specifications
	Venus-D+EBM
Main Unit Parameters	
Battery Storage Unit (Stack)	MST-E2.5ST-D
Number of Storage Units	0~6 pcs
Total Storage Capacity	2.56~15.36 kWh
PV Input	
Maximum Input Power	4 kW
MPPT Operating Voltage Range	25~55 V
Maximum Input Current (Single Channel)	32 A
Number of MPPTs	4
MPPT Efficiency	99.80%
Backup (Off-Grid)	
Rated Output Power	2.5 kVA
Peak Output Power	3 kVA (10 s)
Rated Output Voltage	230 V
THDu (Linear Load)	<3%
AC Input / Output	
Rated Output Power	0.8 kVA / 2.5kVA
Working Phase	L/N/PE
Rated Grid Voltage / Frequency	230 V / 50 Hz
Rated Grid Output Current	3.48 A / 10.87 A
Power Factor	>0.99 (default), 0.8 lagging...0.8 leading (adjustable)
THDi (Total Harmonic Distortion of Current)	<3%
Efficiency	
Battery Side – AC Side Maximum Efficiency	>94.5%
Basic Parameters	
Ambient Temperature Range	-20°C ~ +60°C (Storage: -30°C ~ +85°C)
Relative Humidity	≤95%
IP Rating	IP65
Dimensions	480 × 320 × 105 mm
Weight	17 kg
Cooling Method	Natural Cooling
Maximum Operating Altitude	2000 m
General	
Grid Connector Type	BC05
PV Connector Type	MC4
Off-Grid Socket Type	European Socket
Display	LED
Communication Interfaces	Bluetooth, Wi-Fi, RS-485, Ethernet



VENUS D + EBM

**4kW 4MPPT Balcony ESS
with 2.5kW AC-Coupling**



Model	MST-E2.5ST-D
Battery Storage Parameters	
Rated Voltage	51.2 V (16S)
Capacity	2.56 kWh
Cycle Life	>6000 (25°C)
Battery Cell Type	LiFePO ₄
Depth of Discharge (DoD)	90%
Basic Parameters	
Ambient Temperature Range	-20°C ~ +60°C (Storage: -30°C ~ +85°C)
Relative Humidity	≤95%
IP Rating	IP65
Cooling Method	Natural Cooling
Maximum Operating Altitude	2000 m
Dimensions	480 × 320 × 150 mm
Weight	24.6 kg

THANKS!

Contact Us

Mail: info@marstekenergy.com

Web: marstekenergy.com



Facebook



Youtube