

# MARSTEK VENUS D

4kW 4 MPPT Balcony ESS with 2.2kW AC-Coupling



ZUNNIG

Industrieweg 32  
4301 RS, Zierikzee  
06-10921115

# Powerful Balcony Solar Storage System

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



ZUNNIG.NL



# AC-Coupled Energy Storage System

---

**Plug-and-Play**

**2.2kW Bidirectional On-Grid Power**

**Max. 2.2kW Backup**

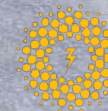


ZUNNIG.NL

# Plug & Play

Installation in Just

**5 Minutes**



ZUNNIG.NL

## Seamless integration



ZUNNIG.NL

# Modular Design

**2.56kWh**

Per Battery

**15.36kWh**

Flexible Expansion up to 6 Units



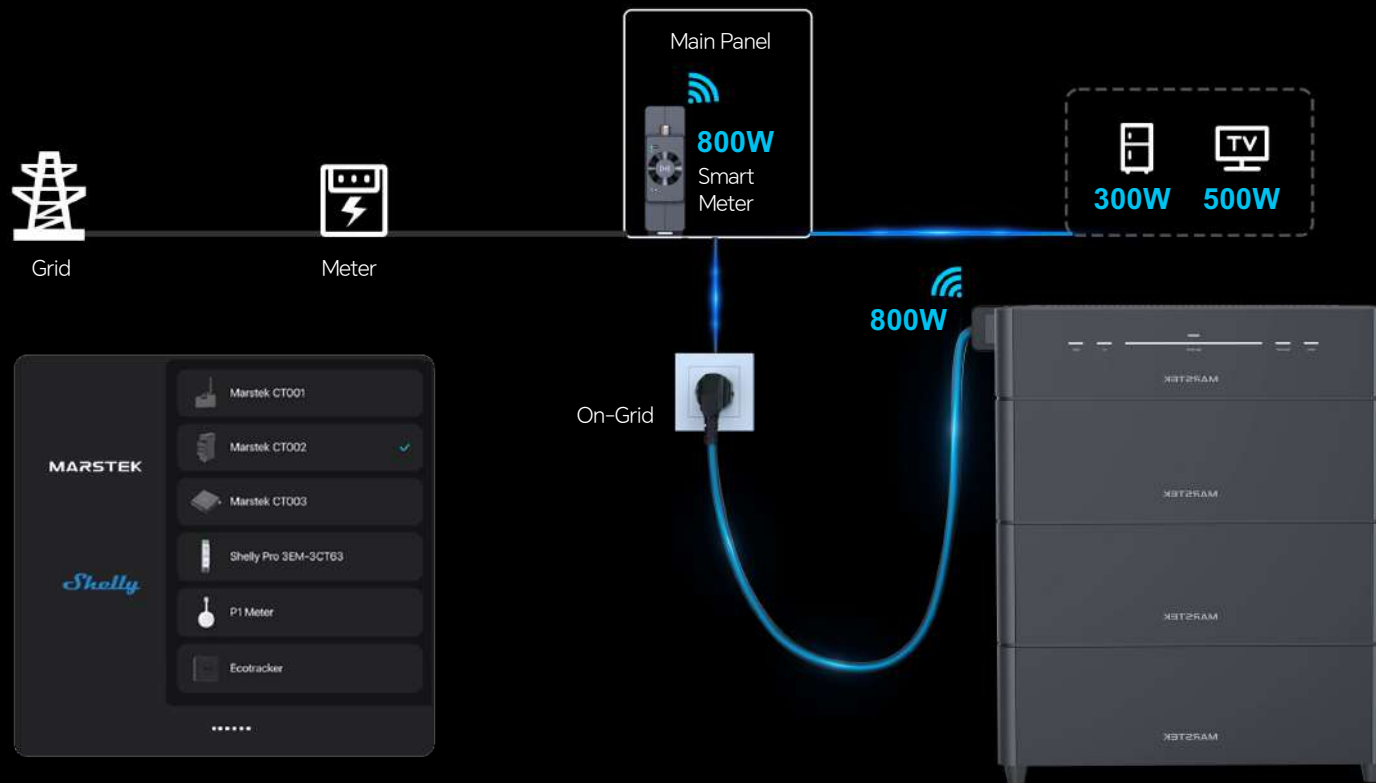
**1.005M**



ZUNNIG.NL

# Anti Feed-In with Smart Meter

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



**100%**  
Self-consumption



ZUNNIG.NL

# AI Optimization

TOU Management for Cost Savings  
Command with MARSTEK App



ZUNNIG.NL

A modern A-frame cabin with a steep, dark metal roof and large glass windows. The interior is warmly lit, showing a living area with a sofa and coffee table. A small battery storage unit is visible on the wooden deck outside. The cabin is set in a wooded area with mountains in the background.

# Plug-In Off-Grid Microgrid

---

For example, Summer House, Yacht...



ZUNNIG.NL

# Sub-30dB

Silence Operation

# IP65

Waterproof & Dustproof



ZUNNIG.NL



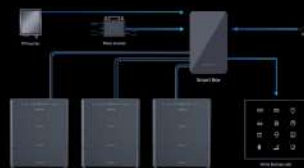
Warranty

**-20°C to 60°C**

Reliable Power from

**Whole-Home Backup**

With MARSTEK SmartBox



**2.2kW Backup**

Peak at 2.5kW

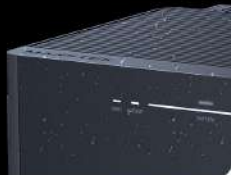


Plug & Play  
Installation in Just  
**5 Minutes**



**IP65**

Waterproof & Dustproof



**Plug & Play**

Seamlessly Integrate  
with Your Existing Solar Setup



**MARSTEK VENUS D**

4kW Solar Power | 4 MPPT | 2.2kW Bidirectional Power



**EPS Switchover in 15ms**

**2.2kW**

Bidirectional Power



**Up to 2.5kW Battery Charging**

**AI Optimized**

TOU Management  
for Cost Savings



**Anti Feed-In**

With Smart Meter

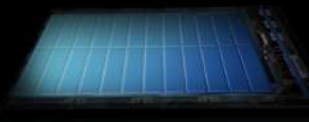


**Sub-30dB**

Silent Operation

**6000+ Cycles**

Long-Lasting LFP Cells



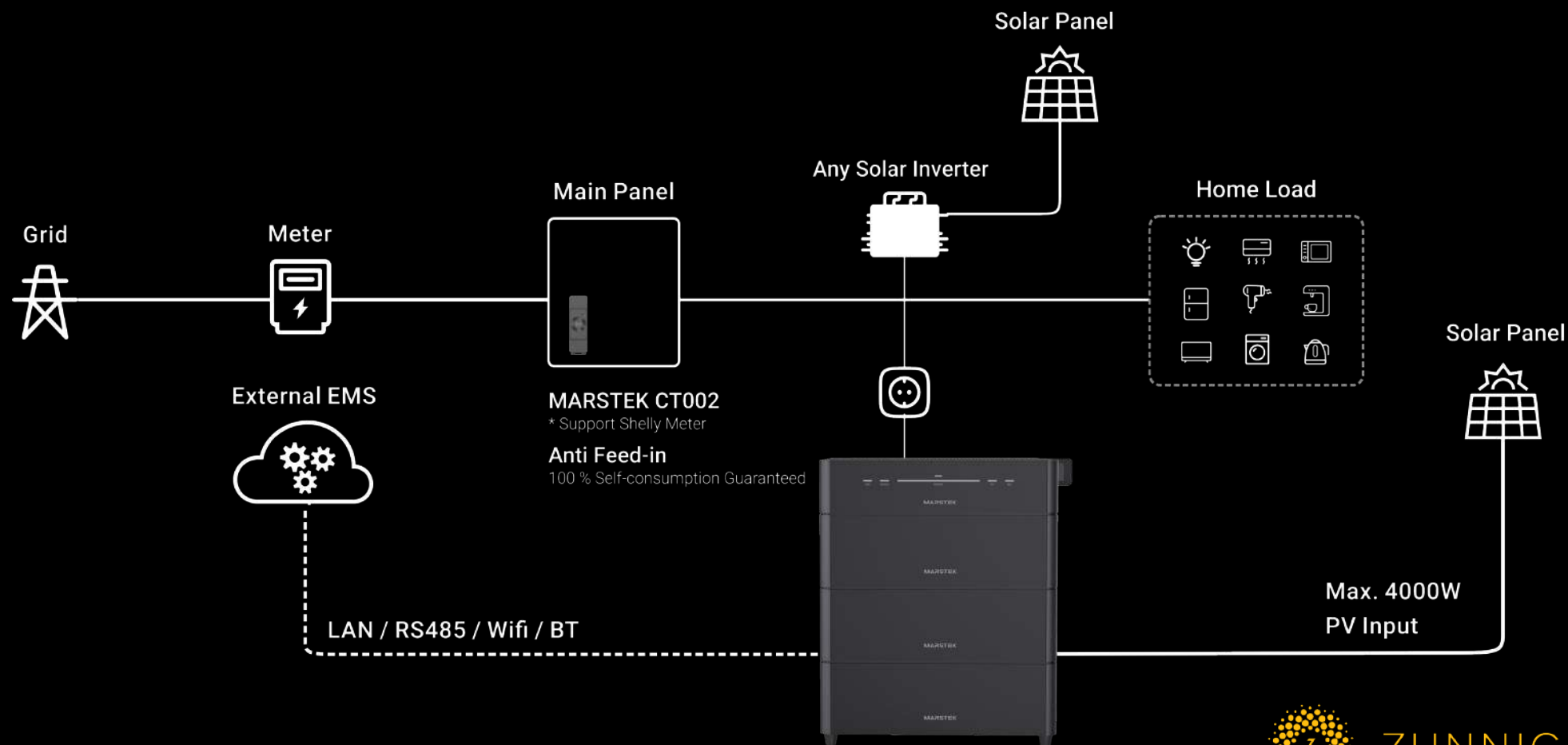
Modular Design, Flexible Expansion

**Up to 6 Units**  
**15.36kWh**



**ZUNNIG.NL**

# Installation & Wiring Layout for MARSTEK VENUS D



ZUNNIG.NL

**MARSTEK**  
Power Anywhere & Anytime

## VENUS D + EBM

4kW 4MPPT Balcony ESS  
with 2.2kW AC-Coupling



| Specification Type                            | Host Specifications                  |                                        |
|-----------------------------------------------|--------------------------------------|----------------------------------------|
|                                               | Venus-D+EBM                          |                                        |
|                                               | /                                    |                                        |
| Energy storage unit (stack)                   |                                      |                                        |
| Adaptive energy storage unit                  | EBM                                  |                                        |
| Number of energy storage unit                 | 6PCS (max)                           |                                        |
| Total capacity of the product                 | 2.56~15.36kWh                        |                                        |
| DC: PV input                                  |                                      |                                        |
| Maximum input power                           | 4000W                                |                                        |
| MPPT operating voltage range                  | 25~55V                               |                                        |
| Maximum input circuit current(single channel) | 32A                                  |                                        |
| MPPT track number                             | 4                                    |                                        |
| MPPT efficiency                               | 99.80%                               |                                        |
| AC: Off-grid output                           |                                      |                                        |
| Rated output power                            | 2200VA                               |                                        |
| Peak output power                             | 2500VA, 60s                          |                                        |
| Rated output voltage                          | 230V                                 |                                        |
| THDu(Linear load)                             | <3%                                  |                                        |
| AC: Grid-connected output                     |                                      |                                        |
| Rated output power                            | 800VA/2200VA                         |                                        |
| Working phase                                 | L/N/PE                               |                                        |
| Rated grid voltage                            | 230V                                 |                                        |
| Rated grid frequency                          | 50Hz                                 |                                        |
| Rated grid output current                     | 3.48A/9.57A                          |                                        |
| Power Factor                                  | > 0.99(default)                      | 0.8lagging .....0.8leading(adjustable) |
| THDi                                          | <3%                                  |                                        |
| Efficiency                                    |                                      |                                        |
| Battery side - AC side maximum efficiency     | >94.5%                               |                                        |
| Basic parameters                              |                                      |                                        |
| Ambient temperature range                     | -20 ~ + 60℃（Storage-30 ~ + 85℃）      |                                        |
| Relative humidity                             | 0-95%                                |                                        |
| IP level                                      | IP65                                 |                                        |
| Cooling method                                | Natural cooling                      |                                        |
| Maximum altitude                              | 2000m                                |                                        |
| other                                         |                                      |                                        |
| Grid connection                               | BC01                                 |                                        |
| Photovoltaic connection                       | MC4                                  |                                        |
| Off-grid port                                 | European socket                      |                                        |
| Display                                       | LED                                  |                                        |
| Communication                                 | Bluetooth,WIFI,RS-485(RJ45)&EtherNet |                                        |

**MARSTEK**  
Power Anywhere & Anytime

## VENUS D + EBM

4kW 4MPPT Balcony ESS  
with 2.2kW AC-Coupling



| Specification Type        | Battery Specification           |
|---------------------------|---------------------------------|
|                           | EBM                             |
| Battery parameter         |                                 |
| Battery energy            | 2.56kWh                         |
| life cycle                | >6000(25℃)                      |
| Battery Type              | LiFePO4                         |
| Battery capacity          | 50Ah                            |
| Basic parameters          |                                 |
| Ambient temperature range | -20 ~ + 60℃（Storage-30 ~ + 85℃） |
| Relative humidity         | ≤95%                            |
| IP level                  | IP65                            |
| Cooling method            | Natural cooling                 |
| Maximum altitude          | 2000m                           |

MARSTEK



ZUNNIG.NL

Industrieweg 32

4301 RS, Zierikzee

06-10921115