

# MARSTEK

Power Anywhere & Anytime

MARSTEK VENUS D (AC-Version)

## 2.5kW AC-Coupled Stackable Plug-in ESS

2.5 kW Bidirectional On-Grid Power | 2.5 kW Backup Power (Peak at 3.0 kW)  
EPS Switchover in 15 ms

Plug & Play | 100% Compatible with Existing Solar Systems  
Modular Design | 2.56 kWh per Unit  
Expandable to 15.36 kWh | Up to 6 Battery Packs

AI-Optimized TOU Management for Cost Savings  
Anti Feed-in with MARSTEK, Shelly, everHome, Homewizard, and other Smart Meters

>6000 Cycles LFP Cells | 10 Years Warranty  
IP65 Waterproof & Dustproof | Operating Temp: -20°C to 60°C

### Marstek Energy Co., Limited

Add: BLDG#A, Changfang Industrial Park, No.2 Guihua 5th Road, Pingshan District, Shenzhen, Guangdong, China

Tel: 86-755-28398778

Email: [market@marstekenergy.com](mailto:market@marstekenergy.com)

Web: [www.marstekenergy.com](http://www.marstekenergy.com)



## SPECIFICATIONS



Model	MARSTEK VENUS-D (AC-Version)
<b>Main Unit Parameters</b>	
Battery Storage Unit (Stack)	MST-E2.5ST-D
Number of Storage Units	1~6 pcs
Total Storage Capacity	2.56kWh ~ 15.36kWh
<b>AC Input</b>	
Rated Input Power	2.5kVA
Working Phase	L/N/PE
Rated Grid Voltage / Frequency	230V / 50Hz
Rated Grid Output Current	10.87A
<b>AC Output</b>	
Rated Output Power	0.8kVA / 2.5kVA
Working Phase	L/N/PE
Rated Grid Voltage / Frequency	230V (207V~253V) / 50Hz
Rated Grid Output Current	3.48A / 10.87A
Power Factor	>0.99 (default)
THDi (Total Harmonic Distortion of Current)	<3%
<b>Backup (Off-Grid)</b>	
Rated Output Power	2.5kVA
Peak Output Power	3.0kVA (60s)
Rated Output Voltage	230V
THDu (Linear Load)	<3%
<b>Efficiency</b>	
Battery Side – AC Side Maximum Efficiency	>94.5%
<b>Basic Parameters</b>	
Ambient Temperature Range	-20°C ~ +60°C (Storage: -30°C ~ +85°C)
Relative Humidity	≤95%
IP Rating	IP65
Dimensions	480 × 320 × 105 mm
Weight	17.5kg
Cooling Method	Natural Cooling
Maximum Operating Altitude	2000m
<b>General</b>	
Grid Connector Type	BC01
Off-Grid Socket Type	European Socket
Display	LED
Communication Interfaces	Bluetooth, Wi-Fi, RS-485, Ethernet



Model	MST-E2.5ST-D
<b>Battery Storage Parameters</b>	
Rated Voltage	51.2V (16S)
Capacity	2.56kWh
Cycle Life	>6000(25°C)
Battery Cell Type	LiFePO <sub>4</sub>
Depth of Discharge (DoD)	90%
<b>Basic Parameters</b>	
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	26 kg