



MARSTEK VENUS D

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



Maximize Solar Yield

4 MPPT with Up to 4kW Solar Input



Home's Intelligent Core

2.5kW Bidirectional Inverter to Deliver Robust Performance



Reliable Power Support

2.5kW Backup Power, Peak at 3.0kW



Scalable to Your Needs

Start with 2.56kWh, Max Up to 15.36kWh Capacity



MARSTEK AI

AI-Driven Energy Optimization



Quick Installation

Plug & Play in 5 Minutes

Marstek Energy Co., Limited

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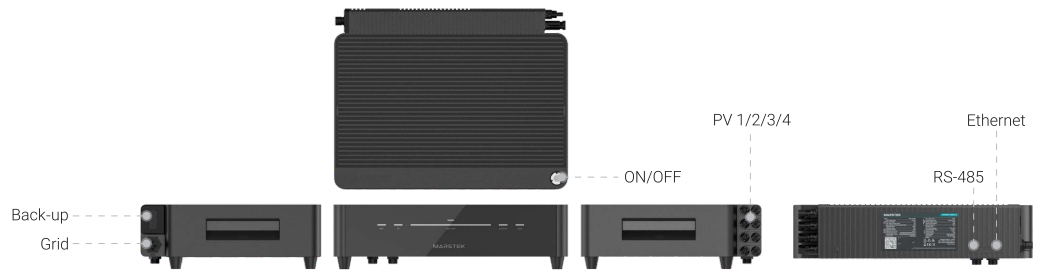
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SPECIFICATIONS



Model	MARSTEK VENUS D
Main Unit Parameters	
Battery Storage Unit (Stack)	MST-E2.5ST-D
Number of Storage Units	0-6 pcs
Total Storage Capacity	2.56-15.36kWh
PV Input	
Maximum Input Power	4kW
MPPT Operating Voltage Range	25-55V
Maximum Input Current (Single Channel)	32A
Number of MPPTs	4
MPPT Efficiency	99.80%
Backup (Off-Grid)	
Rated Output Power	2.5kVA
Peak Output Power	3kVA (10s)
Rated Output Voltage	230V
THDu (Linear Load)	<3%
AC Input / Output	
Rated Input Power	2.5kVA
Rated Output Power	0.8kVA / 2.5kVA
Working Phase	L/N/PE
Rated Grid Voltage / Frequency	230V / 50Hz
Rated Grid Output Current	3.48A / 10.87A
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	17kg
Cooling Method	Natural Cooling
Maximum Operating Altitude	2000m
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



Model	MST-E2.5ST-D
Battery Storage Parameters	
Rated Voltage	51.2V (16S)
Capacity	2.56kWh
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	2000m
Dimensions	480 × 320 × 150 mm
Weight	24.6kg