

MARSTEK

Power Anywhere & Anytime



MARSTEK VENUS A

All-in-One 2.4kW 4 MPPT Balcony ESS with 1.5kW AC-Coupling



Maximize Solar Yield

4 MPPT with Up to 2.4kW
Solar Input



Home's Intelligent Core

1.5kW Bidirectional Inverter to
Deliver Robust Performance



Reliable Power Support

1.5kW Backup Power



Scalable to Your Needs

Start with 2.12kWh, Max Up to
12.72kWh Capacity



MARSTEK AI

AI-Driven Energy Optimization



Quick Installation

Plug & Play in 5 Minutes

Marstek Energy Co., Limited

Add: Bldg. 5B & 6, Phase 2, New Energy Vehicle Industrial Park, Jinque Rd., Pingshan, Shenzhen, Guangdong, China

Tel: 86-755-28398778

Email: market@marstekenergy.com

Web: www.marstekenergy.com



SPECIFICATIONS



Model	MARSTEK VENUS A
Host Battery Parameters	
Rated Voltage	41.6V (13S)
Capacity	2.12kWh
Cycle Life	>6000 (25°C)
Battery Cell Type	LiFePO ₄
Depth of Discharge (DoD)	90%
PV Input	
Maximum Input Power	2.4kW
MPPT Operating Voltage Range	16V ~ 60V
Maximum Input Current (Single Channel)	20A
Number of MPPTs	4
MPPT Efficiency	99.80%
Backup (Off-Grid)	
Rated Output Power	1.2kVA
Peak Output Power	1.44kVA (60s)
Rated Output Voltage	230V / 50Hz
THDu (Linear Load)	<3%
AC Input / Output	
Rated Input Power	1.5kVA
Rated Output Power	0.8kVA / 1.5kVA
Working Phase	L/N/PE
Rated Grid Voltage / Frequency	230V / 50Hz
Rated Grid Output Current	3.48A / 6.53A
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%
Protection	
Protection Class	I
Overvoltage Withstand Level	DC II / AC III
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
PV Connector Type	MC4
Off-Grid Socket Type	Type G / BS 1363 (UK Socket)
Display	LED
Communication Interfaces	Bluetooth, Wi-Fi, Ethernet
Dimensions	450 × 340 × 220 mm
Weight	26kg



Model	MST-E2.0ST
Additional Battery Parameters	
Rated Voltage	41.6V (13S)
Capacity	2.12 kWh
Cycle Life	>6000 (25°C)
Battery Cell Type	LiFePO ₄
Depth of Discharge (DoD)	90%
Number of Storage Units	0~5 pcs
Total Storage Capacity	2.12kWh ~ 12.72kWh
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	450 × 340 × 168 mm
Weight	19kg