MARSTEK
Power Anywhere & Anytime



MARSTEK VENUS E Pro

All-in-One Plug-in Battery with 2.4kW Solar Input and 1.5kW AC Coupling

Smarter Energy Management with AI
MARSTEK Intelligence Automatically Optimizes Energy Use with Solar Forecasting, Load Prediction, and Dynamic Tariffs

Connect Your EV to a Smarter Energy System
Optimize Battery Charging, EV Charging, and Home Energy in One Platform for Smarter Energy Use

Reliable Power Anytime
1.5kW Bidirectional Power
1.5kW Backup Power
<10ms EPS Switching

More Solar Harvest
4 Independent MPPTs
2.4kW Solar Input
99.8% Efficiency

Marstek APP
Monitor and Control Your Energy Anywhere

Built to Last
10,000+ Cycles
10-Year Warranty
15-Year Lifespan

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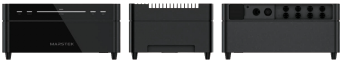
SPECIFICATIONS



Model	MARSTEK VENUS E Pro
Host Battery Parameters	
Rated Voltage	41.6 V (13S)
Capacity	2.08 kWh
Cycle Life	>10000 (25°C)
Battery Cell Type	$LiFePO_4$
Depth of Discharge (DoD)	90%
PV Input	
Maximum Input Power	2.4 kW
MPPT Operating Voltage Range	16~60 V
Maximum Input Current (Single Channel)	20 A
Number of MPPTs	4
MPPT Efficiency	99.80%
Backup (Off-Grid)	
Rated Output Power	1.5 kVA
Peak Output Power	1.5 kVA
Rated Output Voltage	230 V / 50 Hz
THDu (Linear Load)	<3%
AC Input / Output	
Rated Input Power	1.5kVA
Rated Output Power	0.8 kVA / 1.5 kVA
Working Phase	L/N/PE
Rated Grid Voltage / Frequency	230 V / 50 Hz
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	2000 m
PV Connector Type	MC4
Off-Grid Socket Type	European Socket
Display	LED
Communication Interfaces	Bluetooth, Wi-Fi, Ethernet
Dimensions	450 × 340 × 220 mm
Weight	25.5 kg



Model	MST-E2.05T
Additional Battery Parameters	
Rated Voltage	41.6 V (13S)
Capacity	2.08 kWh
Cycle Life	>10000 (25°C)
Battery Cell Type	$LiFePO_4$
Depth of Discharge (DoD)	90%
Number of Storage Units	0~5 pcs
Total Storage Capacity	2.08 kWh ~ 12.48 kWh
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	450 × 340 × 168 mm
Weight	18.5 kg