

MARSTEK VENUS E

Plug-in AC Battery ESS

800W / 2.5kW On-Grid Power
2.5kW Backup Power

Plug & Play | 100% Compatible with Existing Solar Systems
Anti Feed-in | 100% Self-Consumption with MARSTEK, Shelly, everHome,
Homewizard, and other Smart Meters
AI-Optimized TOU Management for Cost Savings
Integration with External EMS (Open API / Modbus Protocol)

Whole-Home Backup via MARSTEK SmartBox
Single-Phase: up to 7.5kW / 15.36kWh
Three-Phase: up to 22.5kW / 46.08kWh

Communication Interfaces: Ethernet, RS-485, Wi-Fi, Bluetooth
>6000 Cycles LFP Cells | 10 Years Warranty



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SPECIFICATIONS



Model	MARSTEK VENUS-E
Battery Parameters	
Rated Voltage	51.2V (16S)
Capacity	5.12kWh
Cycle Life	>6000 (25°C)
Battery Cell Type	LiFePO ₄
Depth of Discharge (DoD)	90%
AC Input / Output	
Rated Input Power	2.5kVA
Rated Output Power	800VA / 2.5kVA
Working Phase	L / N / PE
Rated Grid Voltage / Frequency	230V / 50Hz
Grid Voltage Range	187V ~ 253V
Rated Grid Output Current	10.9A
Power Factor	>0.99 (default), 0.8 lagging...0.8 leading (adjustable)
THDi (Total Harmonic Distortion of Current)	<3%
Backup (Off-Grid)	
Rated Output Power	2.5kVA
Peak Output Power	3.5kVA (10s)
Rated Output Voltage	230V / 50Hz
Rated Output Current	10.9A
THDu (Linear Load)	<3%
Efficiency	
Battery Side – AC Side Maximum Efficiency	>93.5%
Protection	
Protection Class	I
Overvoltage Withstand Level	DC II /AC III
General	
Isolation Type	Isolated
Ambient Temperature Range	–20 °C ~ +55 °C (Storage: –30 °C ~ +85 °C)
Relative Humidity	0 ~ 95%
IP Rating	IP65
Cooling Method	Natural Cooling
Maximum Operating Altitude	2000m
Dimensions	480 × 153 × 624 mm
Weight	60 ± 0.5 kg
Additional Data	
AC Grid Connection	3-wire Plug (Euro 16A)
Off-Grid Socket Type	3-hole Socket (Euro Socket)
Display	LED
Communication Interfaces	Wi-Fi, Bluetooth, Ethernet, RS-485
Grid Connection Standards	NF-EN 50549-1, VDE 4105 / VDE 0124, G98, CEI 0-21, PETREE, PN-EN 50549-1/-2, TOR R25, UNE217001/217002, NTS631, AS 4777.2
Regulatory & EMC Standards	IEC62040, IEC62477, IEC/EN 61000-6-1/-2/-3/-4, IEC/EN 61000-3-2/-3, EN 300 328, EN 301 489 -1/-17, EN 50665, CB 62619