MARSTEK
Power Anywhere & Anytime



MARSTEK VENUS E 3.0

800W/2.5kW 5.12kWh Plug-in AC-Coupled ESS

Power Your Needs
Max. 800W / 2.5kW On-Grid Output

Seamless Power Support
2.5kW Bypass Backup for Essential Loads

The Best AC Battery
Smaller, Lighter, More Efficient

Long-Lasting Energy Supply
5.12kWh of Usable Capacity

SmartBox Backup Solution
Three-Phase Setup up to 7.5kW Power and 15.36kWh

MARSTEK AI
AI-Driven Energy Optimization

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 E 3.0
Battery Parameters	
Rated Voltage	51.2V (16S)
Capacity	5.12 kWh
Cycle Life	>10,000 (25°C)
Battery Cell Type	LiFePO4
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	2000 m
Dimensions	480 × 153 × 624 mm
Weight	60 ± 0.5kg
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	IEC 62040, IEC 62477, 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