



MARSTEK MARS I PLUS

6-in-1 550V V-Boost 6kW Single-Phase Residential ESS



Intelligent Control Center
6-in-1 Integration for Centralized
Home Energy Management



Strong Power Support
6kW Power to Deliver Robust
Performance for the Home



Flexible & Futureproof
5.12~30.72kWh Capacity,
Expandable to 24kW Output



MARSTEK AI
AI-Driven Energy Optimization



Economy & Eco-Friendly
Smart Saving and Protecting
the Planet



Safe & Durable
10 Year Warranty, IP65 Rated,
Built to Last

Marstek Energy Co., Limited

Add: BLDG#A, Changfang Industrial Park, No.2 Guihua 5th Road, Pingshan District, Shenzhen, Guangdong, China

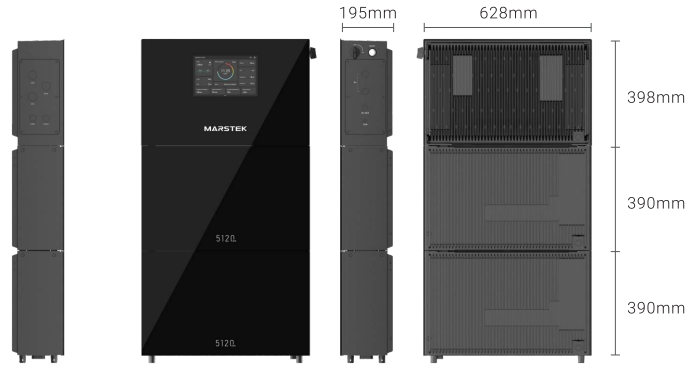
Tel: 86-755-28398778

Email: market@marstekenergy.com

Web: www.marstekenergy.com



SPECIFICATIONS



Model	MST-MARS I PLUS-3.6KSP		MST-MARS I PLUS-4.6KSP		MST-MARS I PLUS-5KSP		MST-MARS I PLUS-6KSP	
PV Input								
Max. PV Power	7.2kW		9.2kW		10kW		12kW	
Max. DC Input Voltage	550V							
Nominal DC Input Voltage	360V							
Start-up Voltage	150V							
MPPT Voltage Range	125V~500V							
Number of MPP Trackers	2							
Number of PV Strings Per MPPT	1							
Max. Input Current Per MPPT	16A							
Max. Short-circuit Current Per MPPT	20.8A							
AC Output and Input (On-grid)								
Nominal Output Power	3.6kW		4.6kW		5kW		6kW	
Max. Output Apparent Power	4kVA		5.1kVA		5.5kVA		6.6kVA	
Nominal Output Current	15.7A		20A		21.7A		26.1A	
Max. Output Current	18A		23A		25A		30A	
Nominal Output Voltage	230V							
Nominal Grid Frequency	50Hz / 60Hz							
Power Factor	0.8 leading ~ 0.8 lagging							
Total Current Harmonic Distortion	THDi < 3%							
Max. Input Apparent Power	5.9kVA		7.5kVA		7.5kVA		7.5kVA	
Max. Input Current	25.7A		32.6A		32.6A		32.6A	
Efficiency								
Max. Efficiency	97.60%		97.60%		97.60%		97.60%	
European Efficiency	97.10%		97.10%		97.10%		97.10%	
MPPT Efficiency	99.60%		99.60%		99.60%		99.60%	
Battery Conversion Efficiency	97.00%		97.00%		97.00%		97.00%	
Generator								
Max. Input Apparent Power	5.4kVA		6.9kVA		7.5kVA		7.5kVA	
Nominal Input Voltage	230Vac							
Frequency	50Hz / 60Hz							
Max. Input Current	23.5A		30A		32.6A		32.6A	
AC Output (Backup)								
Nominal Output Power	3.6kW		4.6kW		5kW		6kW	
Peak Output Current (1s)	150%~200%							
Nominal Output Voltage	230V							
Power Factor	50Hz / 60Hz							
Total Voltage Harmonic Distortion	THDv < 3%							
Disruption Time of Backup Switch	<10ms							
Battery Connection								
Battery Module Models	MST-MARS I PLUS-5.0KBAT							
Number of Modules Per Inverter	1~6PCS							
Nominal Voltage of Battery Module	400V							
voltage Range of Battery Module	350V~550V							
Protection								
Safety Protection Feature	Insulation Monitoring, Residual Current Monitoring, Anti-islanding Protection, DC Reverse Polarity Protection, AC OV/OC/SC Protection, Type II DC /AC Surge Protection							
General Data								
Dimensions (W/H/D)	628*195*398mm							
Weight	35kg							
Storage Temperature Range	-40°C~70°C							
Operating Temperature Range	-25°C~60°C							
Relative Humidity Range	0~100%							
Max. Operating Altitude	4000m, derating from 2000m							
Cooling	Natural cooling							
Standby Power Consumption	<35W							
System Ingress Protection Rating	IP65							
Noise Level	<30dB							
Display	10.1" LCD, App							
Communication	RS-485 for Meter, RS-485 for Heat Pump, Parallel CAN * 2, DC BUS CAN, RS-485 for EMS, Wi-Fi/Bluetooth/Ethernet, Battery Access CAN (Internal)							
General IO	DI*4, DO*2, CT*3, +5V power, +12V power, DRAM							
Standard Compliance								
Safety Standard	IEC/EN62109-1							
EMC Standard	IEC/EN61000-6-1~4 Class B							
On-grid Standard	EN 50549-1:2019, VDE 4105:2018, VDE 0126-1-1, EN 50438, Italy CEI 0-21							