

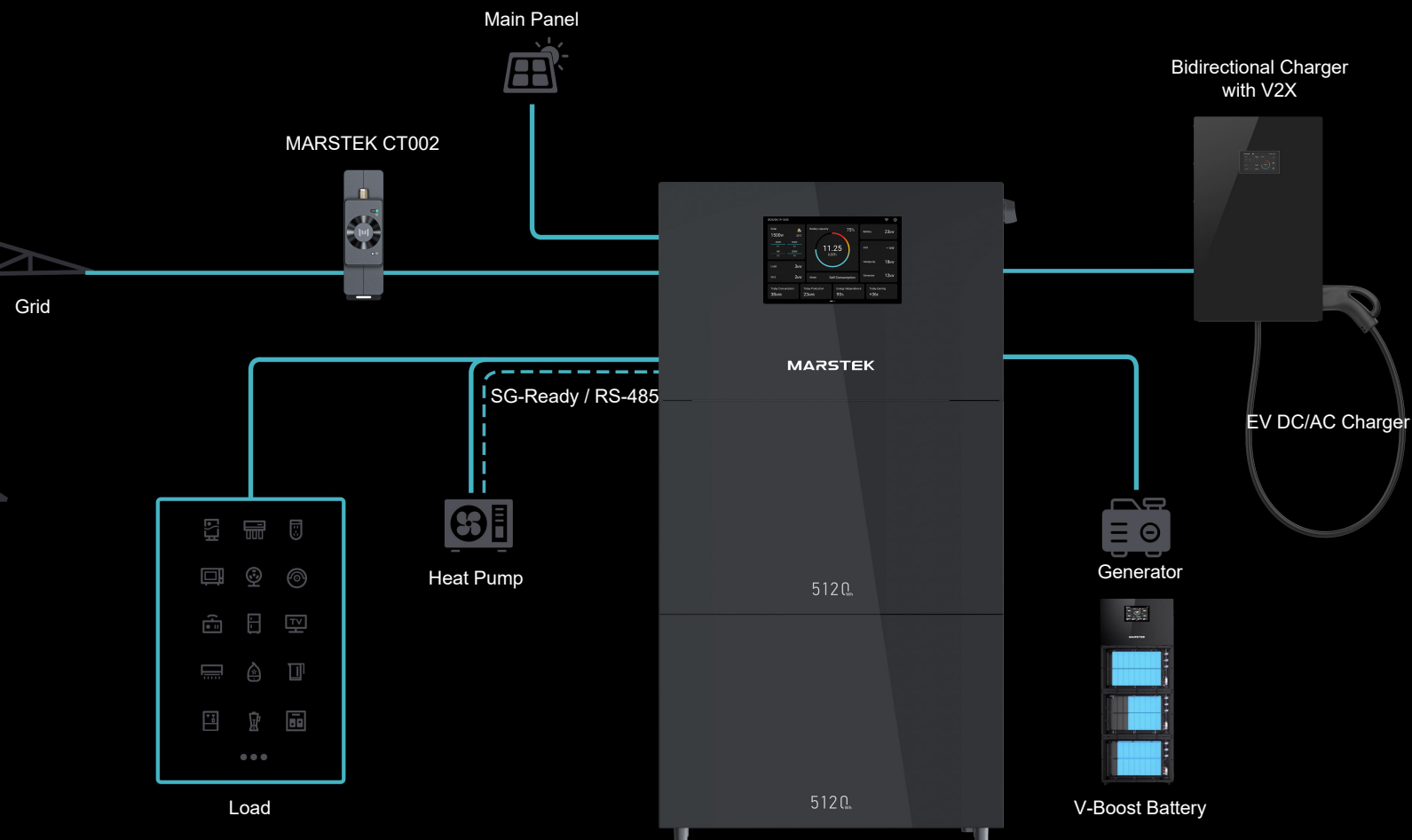
MARSTEK MARS I PLUS

7-in-1 1000V V-Boost Three-Phase Residential ESS

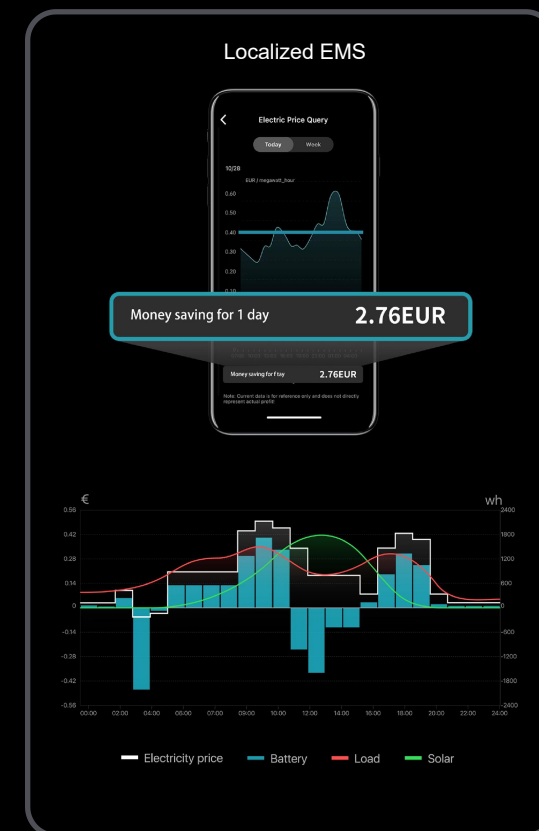
6-in-1 550V V-Boost Single-Phase Residential ESS

7-in-1 Total Energy Solution

12kW Hybrid Inverter | 24kW MPPT | 1000V V-Boost Battery | 25kW DC/11kW AC EV Charger | 12kW V2X | Heat Pump Management | Localized EMS

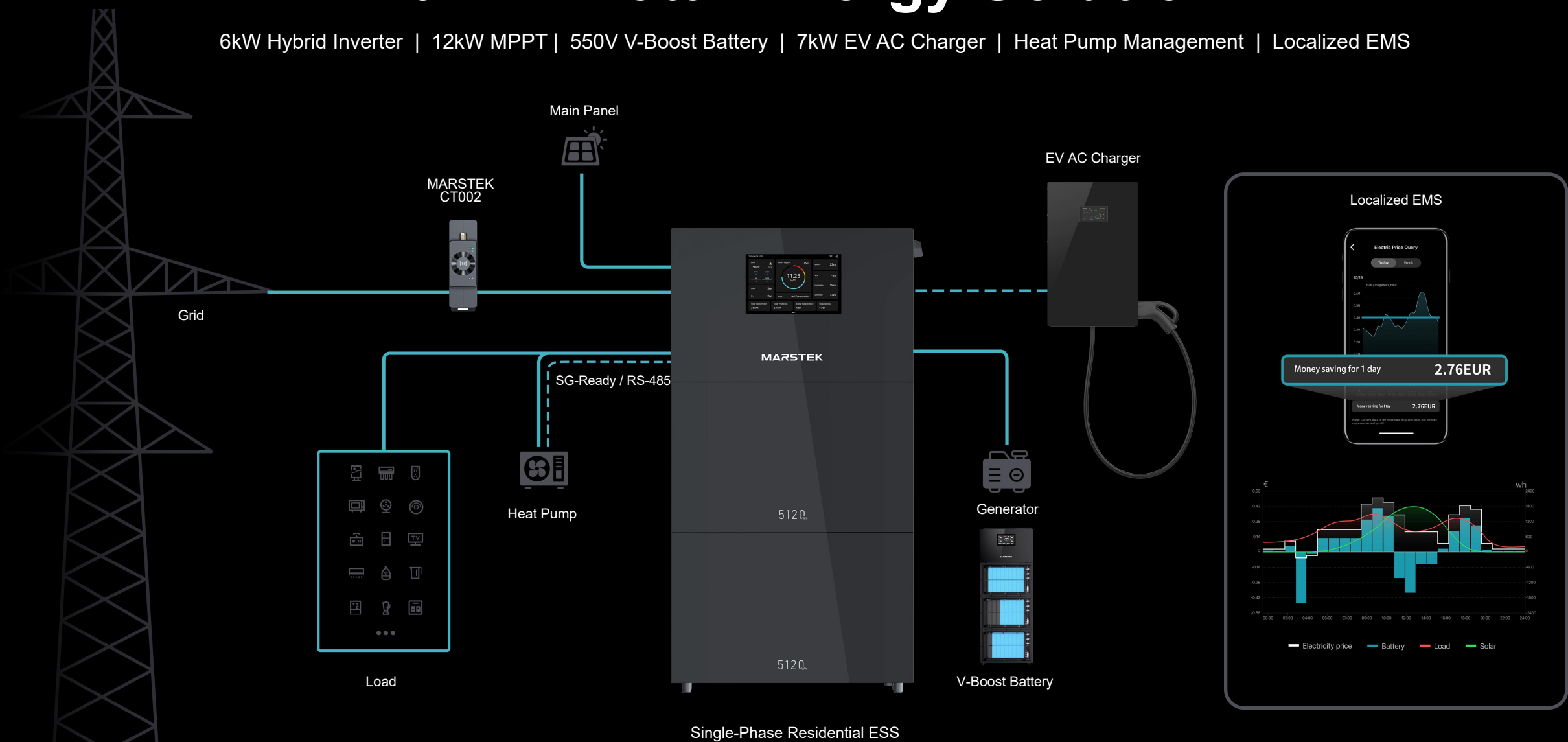


Three-Phase Residential ESS



6-in-1 Total Energy Solution

6kW Hybrid Inverter | 12kW MPPT | 550V V-Boost Battery | 7kW EV AC Charger | Heat Pump Management | Localized EMS



Efficient Energy Integration

MARSTEK MARS I PLUS Three Phase

12kW Three-Phase Inverter

24kW PV Input | 4 MPPT

25kW DC/11kW AC EV Charging Power (EV DC/AC Charger Required)

12kW V2X Power (EV DC/AC Charger Required)

MARSTEK MARS I PLUS Single Phase

6kW Single-Phase Inverter

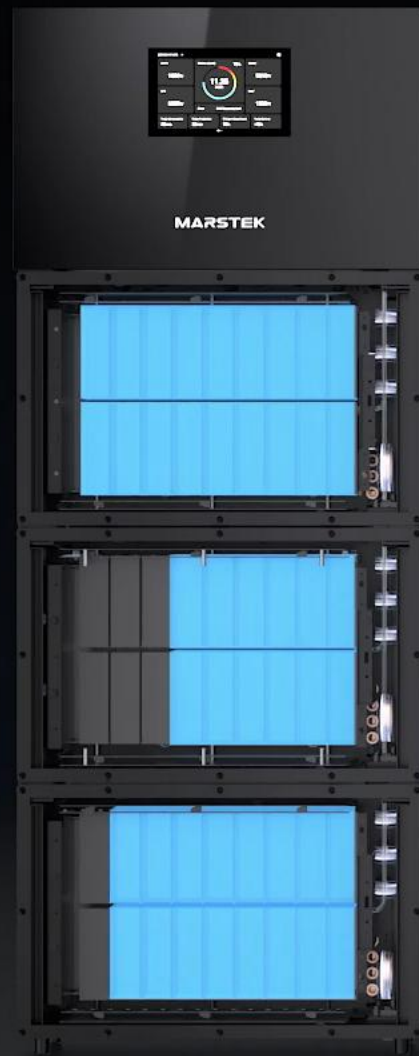
12kW PV Input | 2 MPPT

7kW EV AC Charger (EV AC Charger Required)



V-Boost Battery

Eliminates Battery Imbalance



MARSTEK MARS I PLUS



Traditional Residential Battery

Modular Design

5.12kWh

Per Battery Pack

30.72kWh

Flexible Expansion up to 6 Battery Packs



Parallel Scalability

Single Phase

12kW ~ 48kW MPPT

6kW ~ 24kW On-Grid Power

10.24kWh ~ 122.88kWh Capacity

Three Phase

24kW ~ 96kW MPPT

12kW ~ 48kW On-Grid Power

15.36kWh ~ 122.88kWh Capacity



10.1"

HD Touchscreen

with Localized EMS





SG-Ready Heat Pump Integration

Anti Feed-in with Smart Meter



AI Optimization

TOU Management for Cost Savings

Command with Marstek App



LFP

Battery

6000+

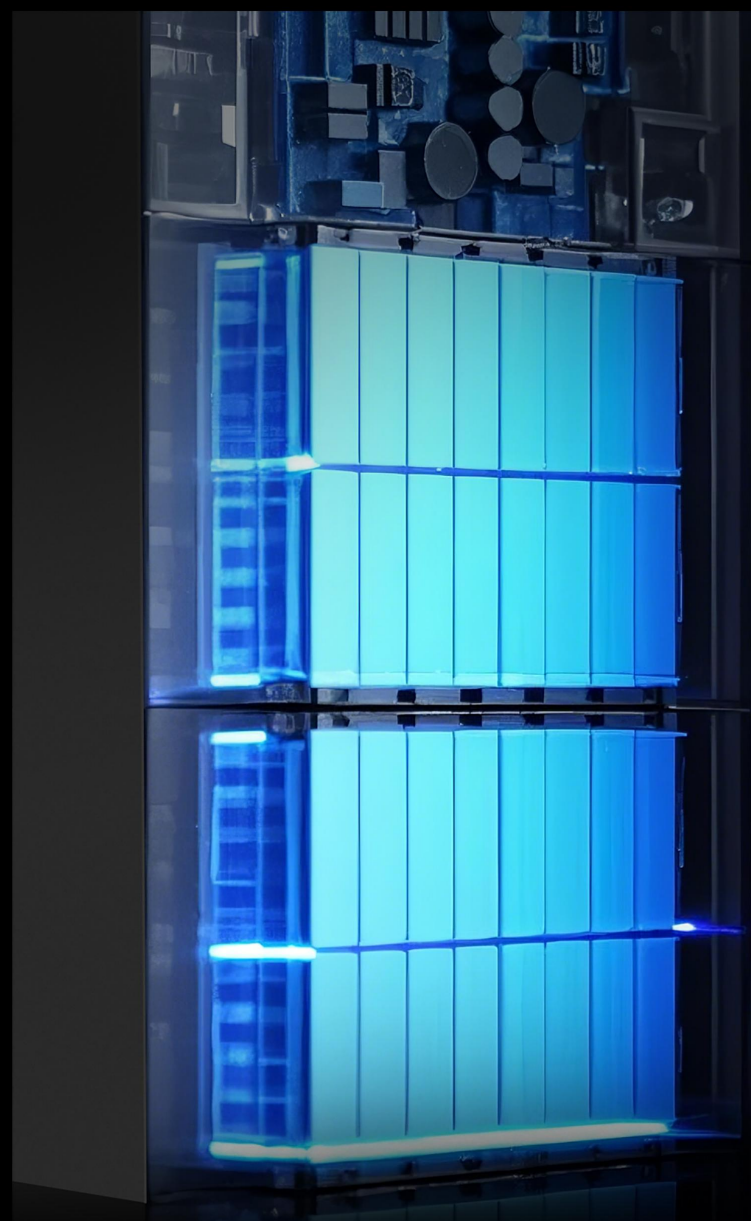
Life Cycles

10

Years Warranty

15

Years Lifespan



10.1"
HD Touchscreen

With Localized EMS



Max. 24kW
4 MPPT



Up to 12kW
Three-Phase Inverter

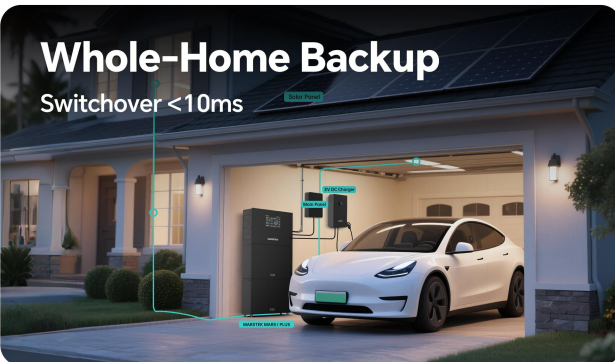
SG Ready
Heat Pump Integration



Integration of Fuel Generator
for Emergency Charging

Whole-Home Backup

Switchover <10ms



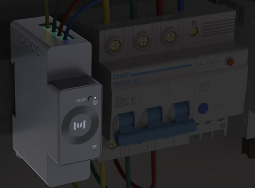
AI Optimized

TOU Management for Cost Savings
Command with MARSTEK App



Anti Feed-in

With Smart Meter



MARSTEK MARS I PLUS

7-in-1 1000V V-Boost Three-Phase Residential ESS

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



V-Boost Battery

Eliminates Battery Imbalance



25kW EV Charging Power 12kW V2X Power

EV DC Charger Required

Compatible with EV AC Charger



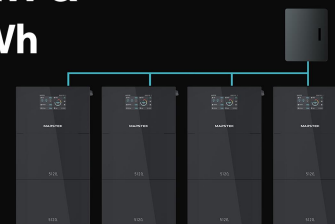
Modular Battery | Flexible Expansion

Up to 6 Battery Packs &
30.72kWh



Parallel Scalable Power and Capacity

Up to 48kW &
122.88kWh



Open API for Third-Party EMS Integration

LFP

Battery

10

Years Warranty

6000+

Life Cycles

15

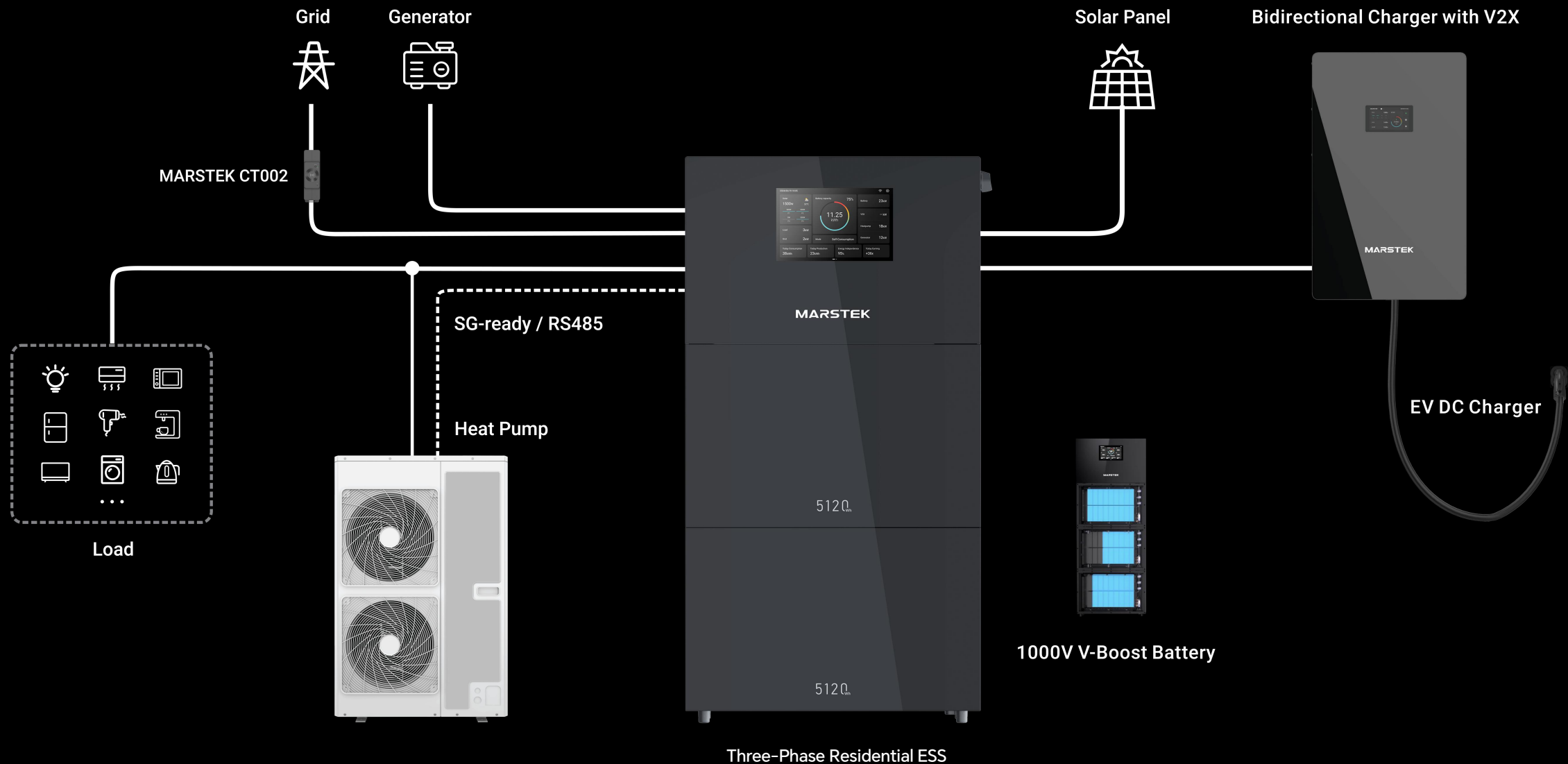
Years Lifespan

-25°C to 60°C

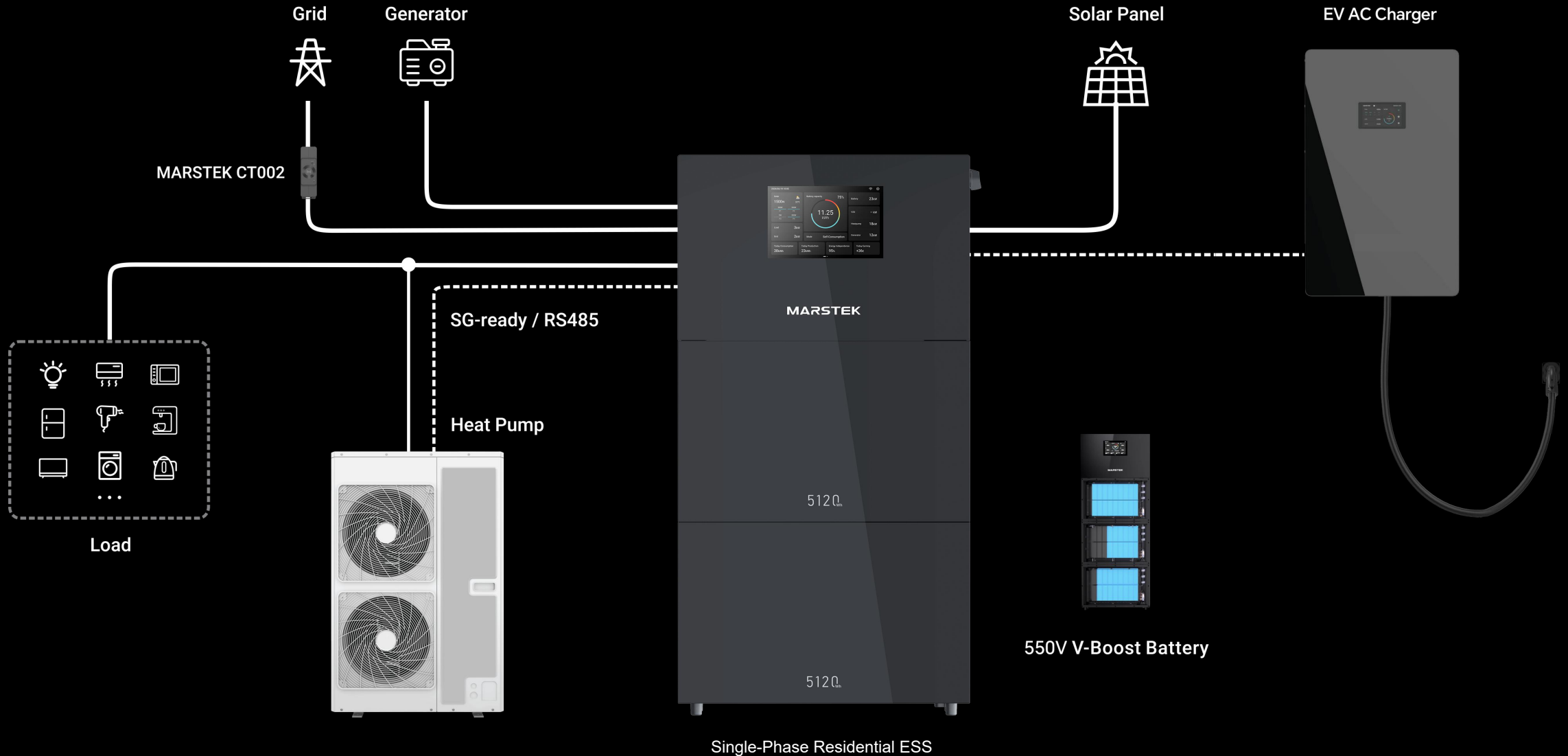
IP65 Waterproof

Sub-30dB

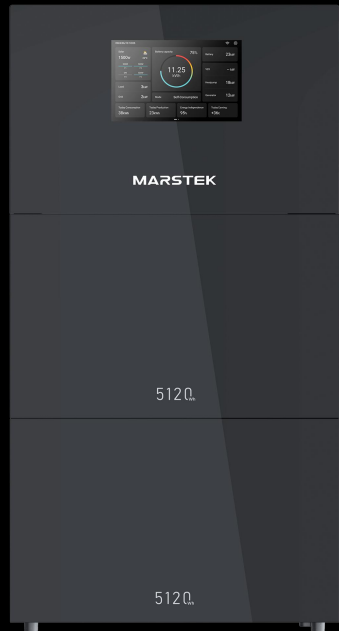
Installation & Wiring Layout for MARSTEK MARS I PLUS



Installation & Wiring Layout for MARSTEK MARS I PLUS

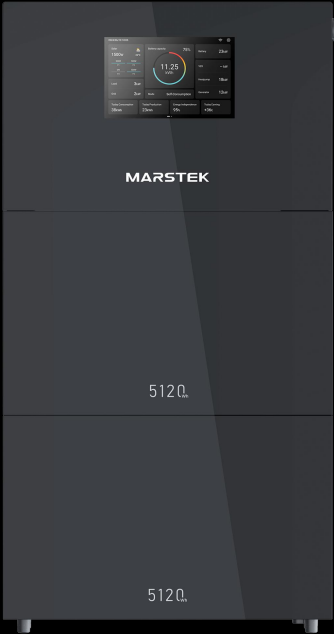


MARS I PLUS-12KTP



Model		MST-MARS I PLUS-12KTP
PV Input		
Max. PV Power		24kW
Max. DC Input Voltage		1000V
Nominal DC Input Voltage		650V
Start-up Voltage		200V
MPPT Voltage Range		200V~850V
Number of MPP. Trackers		4
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		12kW
Nominal Output Current		17.4A
Nominal Output Voltage		380V/400V
Nominal Grid Frequency		50Hz/60Hz
Power Factor		0.8 leading~ 0.8 lagging
Total Current Harmonic Distortion		THDi<3%
Max. Input Apparent Power		18kW
Max. Input Current		26.1A
Efficiency		
Max. Efficiency		98.20%
European Efficiency		97.80%
MPPT Efficiency		99.50%
Battery Conversion Efficiency		97.80%
Generator		
Max. Input Apparent Power		18kVA
Nominal Input Voltage		3L/N/PE; 380V/400V
Frequency		50Hz/60Hz
Max. Input Current		27.3A
AC Output (Backup)		
Nominal Output Power		12kW
Max. Output Apparent Power		12.6kVA
Max. AC Output Current		18.3A
Peak Output Current (1s)		150%~200%
Nominal Output Voltage		380V/400V
Power Factor		50Hz/60HZ
Total Voltage Harmonic Distortion		THDv<2%
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		800V
Voltage Range of Battery Module		650V~950V
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*498mm
Weight		55kg
Storage Temperature Range		-40°C~70°C
OperatingTemperature Range		-25°C~60°C
Relative Humidity Range		0~100%
Max. Operating Altitude		4000m, Derating from 2000m
Cooling		Natural Cooling
Standby Power Consumption		<25W
System Ingress Protection Rating		IP65
Noise Level		<30dB
Display		10.1"LCD, App
Communication		RS485 for Meter, RS485 for Heat Pump, Parallel CAN * 2, DC BUS CAN (For V2G), RS485 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

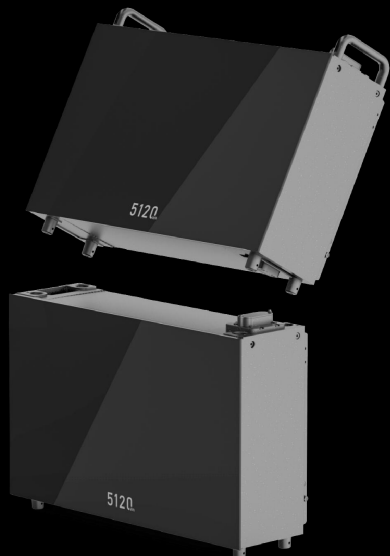
MARS I PLUS-6KSP



Model		MST-MARS I PLUS-6KSP
PV Input		
Max. PV Power		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		6kW
Max. Output Apparent Power		6.6kVA
Nominal Output Current		26.1A
Max. Output Current		30A
Nominal Output Voltage		230V
Nominal Grid Frequency		50Hz/60Hz
Power Factor		0.8 leading~0.8lagging
Total Current Harmonic Distortion		THDi<3%
Max. Input Apparent Power		7.5kVA
Max. Input Current		32.6A
Efficiency		
Max. Efficiency		97.60%
European Efficiency		97.10%
MPPT Efficiency		99.60%
Battery Conversion Efficiency		97.00%
Generator		
Max. Input Apparent Power		7.5kVA
Nominal Input Voltage		230V
Frequency		50Hz/60Hz
Max. Input Current		32.6A
Ac Output (Backup)		
Nominal Output Power		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		RS485 for Meter, RS485 for Heat Pump, Parallel CAN * 2, DC BUS CAN, RS485 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, VDE4105:2018, VDE0126-1-1, EN50438, Italy CE10-21

MARS I PLUS-5.0KBAT

5kWh



Marstek Battery		5.0kWh	Units
Performance Specification			
Battery Type	LiFePO4		
Cell Capacity	50		Ah
Number of Battery Strings	32		
Total Energy Capacity	5.12		kWh
Usable Energy Capacity	5		kWh
Battery Modules Voltage Range (Three Phase)	650~950		V
Nonimal Current of Battery Module (Three Phase)	7.7		A
Max. Charge Power	5		kW
Max. Discharge Power	5		kW
Protection			
Safety Protection Feature	Cell and pack OT/UT/OV/UV/OC/SC protection, Type II DC surge protection.		
General Data			
Dimensions (W/H/D)	628*390*194		mm
Weight	63		kg
Relative Humidity Range	0~100%		
Cooling	Natural Cooling		
Standby Power Consumption	10		W
System Ingress Protection Rating	IP65		
Noise Level	30		dB
Communication	Battery Parallel CAN,		
	Inverter Access CAN		
Standard Compliance			
Safety Standard	IEC/EN60730-1, IEC/EN62619, IEC/EN63056		
	UL1973, UL9540, UL9540A, UL1998		
EMC Standard	IEC/EN61000-6-1~4 Class B		
	FCC Pat 15 Class B		
Transportation	UN38.3		

THANKS!

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