



SOLAR ENERGY SOLUTIONS



OUR MISSION



EV Energy Solutions has recently broadened its scope, embracing a bigger mission and a stronger commitment to support the transition to a sustainable future.

At EV Energy Solutions, our mission is to drive the transition to a sustainable future by providing innovative electric vehicle energy solutions. We are committed to empowering communities and businesses with clean, efficient energy technologies that promote environmental stewardship and enhance mobility.



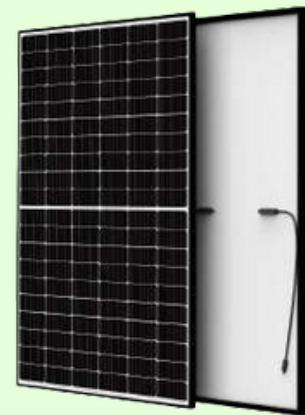


Vision:

Our vision is to be one of the global contributors in sustainable energy innovation, transforming the way the world powers electric mobility. We envision a future where clean energy is accessible to all, fostering a seamless integration of electric vehicles into everyday life. By championing renewable energy and advanced technologies, we aim to create vibrant, eco-friendly communities that thrive in harmony with the environment.



SOLAR PV KIT



PV Modules

Monocrystalline, Polycrystalline and N-Type(top- corn) White or Black panels
Half cut / Square mono / 12BB / MWT
IEC, TUV, CE, ISO and etc



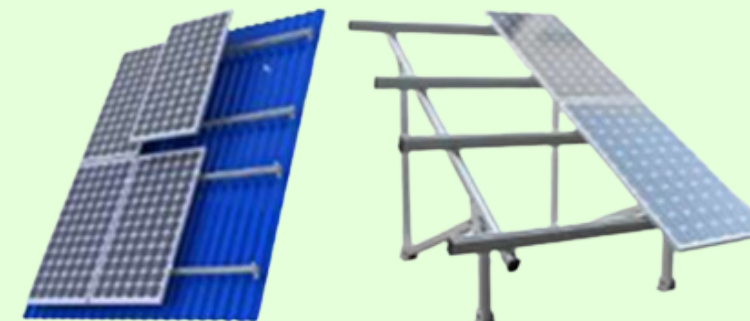
BOS Components

AC / DC disconnects, wiring harnesses, MC4 connectors, wire, safety label packs, MC4 connector tools
Grounding hardware, PV tools



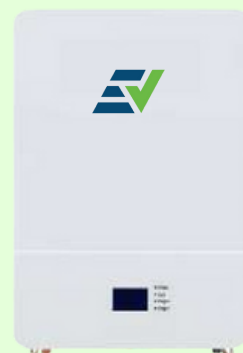
Inverters

Monitoring options for better performance collection and project oversight. Dual MPPT technology provides numerous layout On-Grid, Off-Grid, Hybrid



Mounting System

Pitched roof, flat roof, pole mount, ground mount A variety of different roof connectors and zero penetration ballast steel. Aluminum or galvanized steel



Batteries

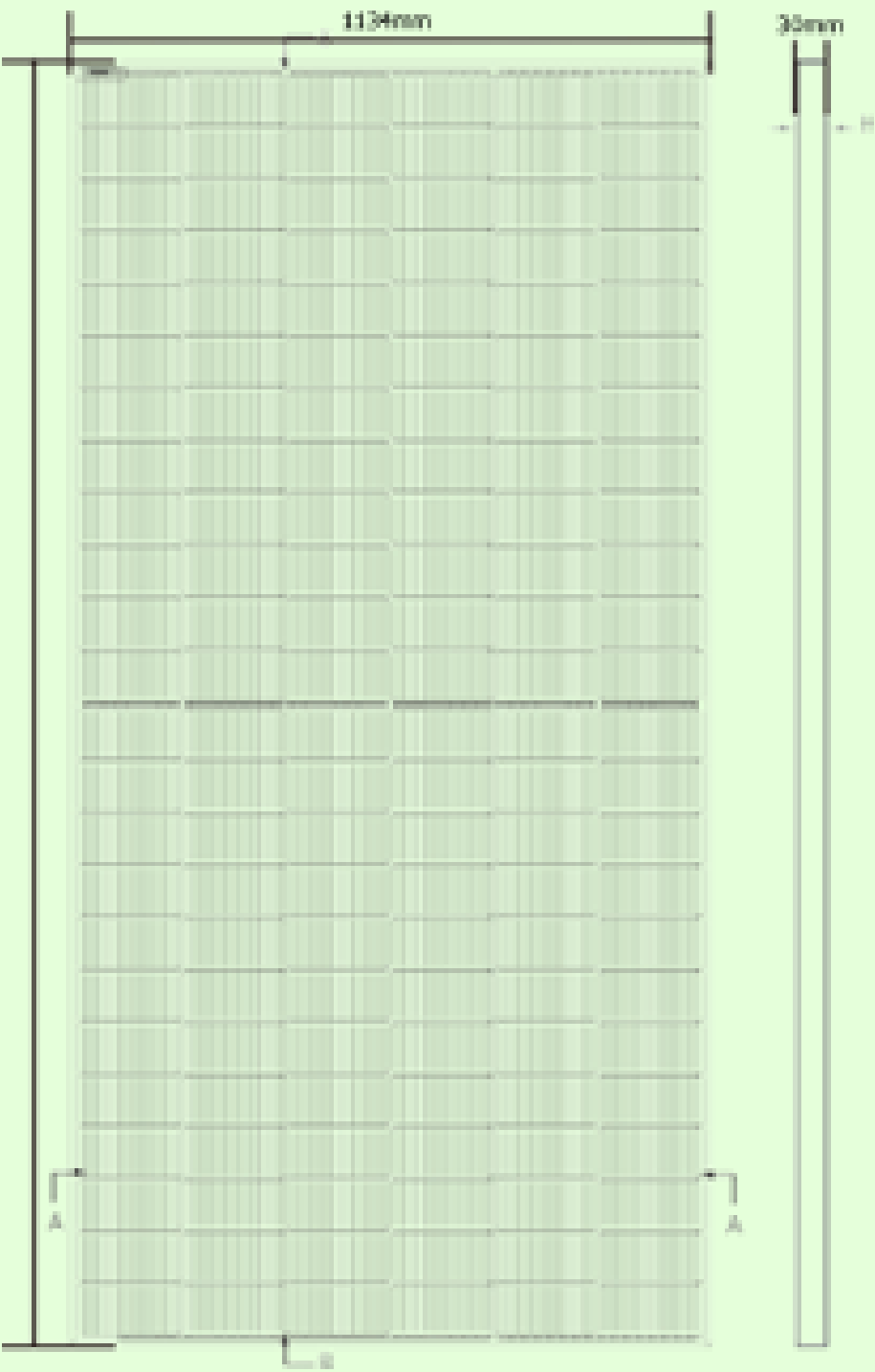
2V, 12V AGM and GEL and OPzV Battery;
12V, 48V Lithium Battery
Modular design allows for future energy storage add-ons



Monitoring System

Free online monitoring via phone App or desktop WI-FI or GPRS technology data logging functionality, download and view generation statistics offline.

TECHNICAL
SPECIFICATIONS



144HC SERIES

ELECTRICAL DATA (STC)

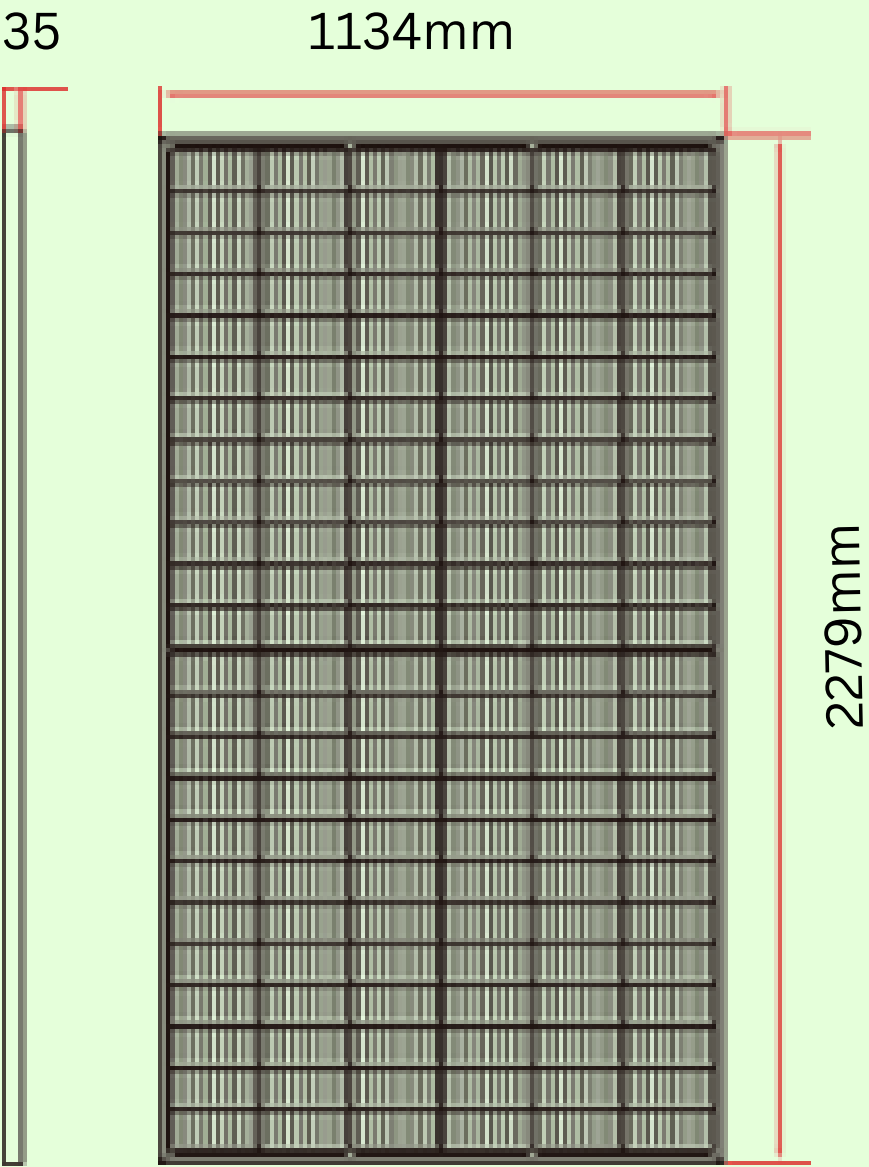
Peak Power Watts-PMAX(Wp)*	540	545	550	555	560	565	570	580
Power Output Tolerance-PMAX(W)	0~+5							
Maximum Power Voltage-VMPP(V)	41.64	41.80	41.96	42.12	42.28	42.44	42.59	42.89
Maximum Power Current-IMPP(A)	12.97	13.04	13.11	13.18	13.25	13.32	13.39	13.53
Open Circuit Voltage-Voc(V)	49.60	49.75	49.90	50.05	50.20	50.35	50.50	50.80
Short Circuit Current-Isc(A)	13.86	13.93	14.00	14.07	14.14	14.21	14.28	14.42
Module Efficiency (%)	20.9	21.1	21.3	21.5	21.7	21.9	22.1	22.4

STC:: Irradiance 1000W/m2 , cell temperature 20*C, Air Mass AM1.5

*Measuring tolerance: ±3%.

TECHNICAL
SPECIFICATIONS

144HC SERIES

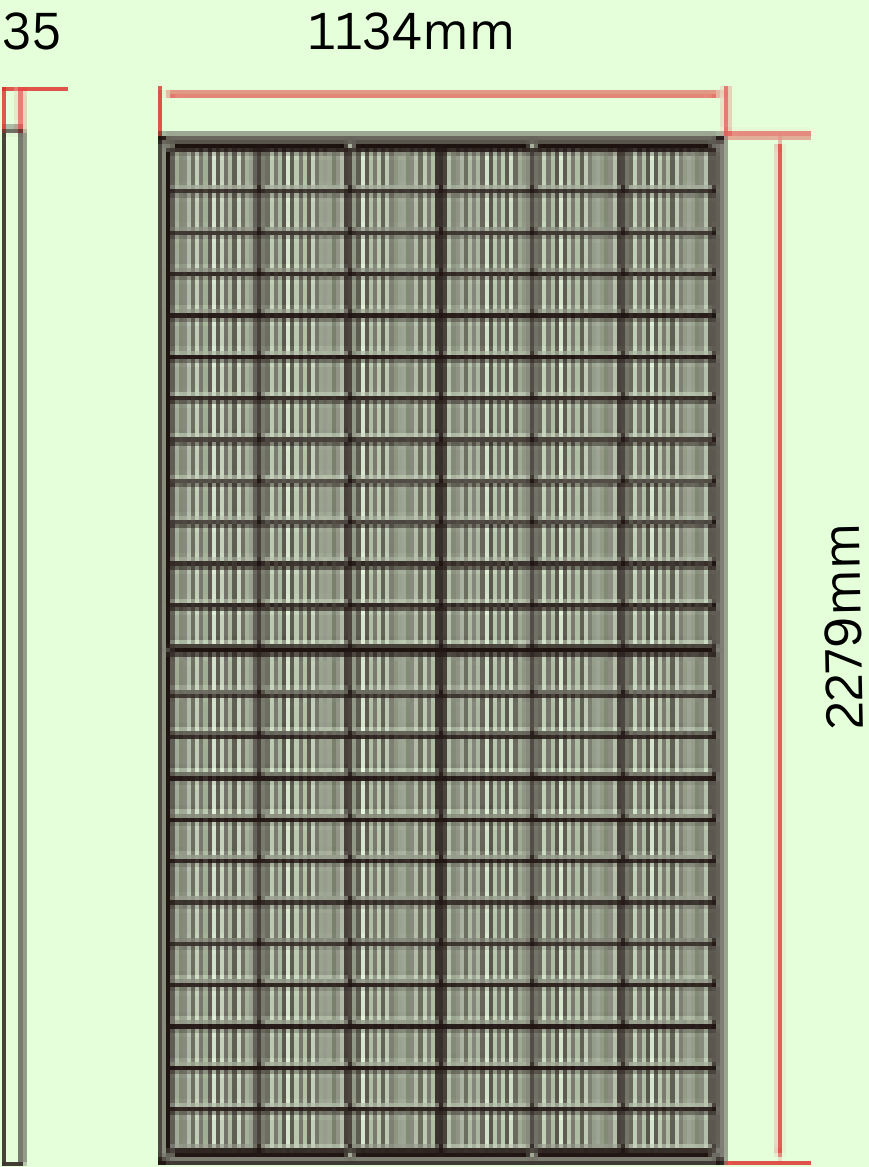


ELECTRICAL PARAMETERS AT NMOT

Maximum Power-PMAX(Wp)	408	412	416	420	424	428	432	440
Maximum Power Voltage-VMPP(V)	38.99	39.21	39.44	39.67	39.90	40.13	40.34	40.78
Maximum Power Current-IMPP(A)	10.47	10.51	10.55	10.59	10.63	10.67	10.72	10.80
Open Circuit Voltage-Voc(V)	46.43	46.55	46.68	46.81	46.93	47.06	47.19	47.45
Short Circuit Current-Isc(A)	11.09	11.13	11.17	11.21	11.25	11.29	11.33	11.41

NMOT: Irradiance 800W/m2, Ambient temperature 20°C, Wind Speed 1 m/s

TECHNICAL SPECIFICATIONS



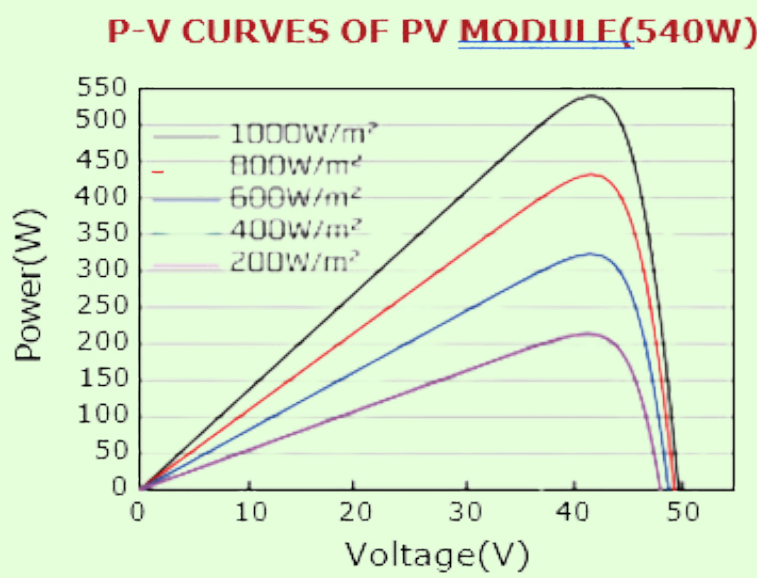
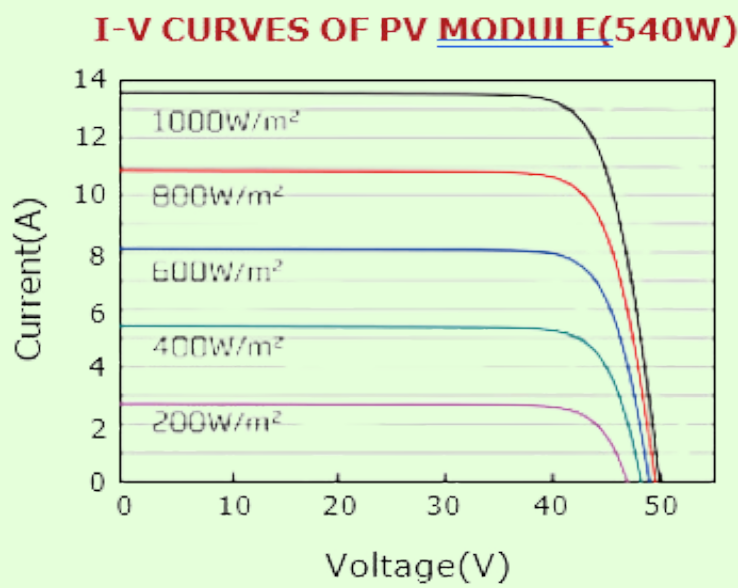
MECHANICAL DATA

144HC SERIES

Solar Cells	Monocrystalline, 182 mm
Cell Orientation	144 cells (6x24)
Module Dimensions	2279±2 mm*1134±2 mm*35±1 mm
Weight	27.5 kg
Glass	High Transparency solar glass 3.2 mm
Backsheet	White
Frame	Silver, Anodized Aluminium Alloy
J-Box	IP68 rated, 3 diodes
Cables	Portrait: N 300mm/P 300mm Landscape: N 1400mm/P 1400mm (Opt)
Wind/Snow Load	2400Pa / 5400Pa*
Connector	MC4 Compatible

TECHNICAL SPECIFICATIONS

144HC SERIES



TEMPERATURE RATINGS

NMOT (Nominal Module Operating Temperature)	45±2°C
Temperature Coefficient of Pmax	-0.350%/°C
Temperature Coefficient of VOC	-0.275%/°C
Temperature Coefficient of ISC	0.045%/°C

MAXIMUM RATINGS

Operational Temperature	-40~+85°C
Maximum System Voltage	1500V DC
Max Series Fuse Rating	25A

WARRANTY

12 year Product Warranty
25 year Linear Power Warranty

PACKAGING CONFIGURATION

Modules per pallet: 31 pieces
Modules per 40HQ container: 620pieces

TECHNICAL SPECIFICATIONS





Flexible Capacity
Maximum 14*4.8kwh / Maximum 14*5.12kwh



Wide Compatibility
Matching with leading



High Safety
LFP & smart



Ultimate Use Experience
-20 °C to +55°C Operating Temperature Operating Temperature
Super Quiet Operation
Long cycle life and superior performance



Easy Installation
Wall-mounted
Plug&Play, no additional wiring



APP Monitoring
Real-time monitoring
& Remote upgrade

ENERGY STORAGE LITHIUM BATTERY

Module	48V 100AH	48V 200AH	51.2V 100AH	51.2V 200AH
Battery Cell	EVE 3.2V 100AH,Prismatic, LiFePo4			
Nominal capacity	100Ah	200Ah	100Ah	200Ah
Total energy	4.8KWh	9.6KWh	5.12KWh	10.24KWh
Nominal voltage	48Vdc	48Vdc	51.2Vdc	51.2Vdc
Cell composes method	15S1P	15S2P	16S1P	16S2P
End of discharge voltage	42V	42V	44.8V	44.8V
Charging voltage	52.5~54.75V	52.5~54.75V	56~58.4V	56~58.4V
Max. charging current	100A dc	100A dc	100A dc	100A dc
Max. discharging current	100A dc	200A dc	100A dc	200A dc
Max. power	4800W	9600W	5120W	10240W
Peak Power Discharge Current	100A(15s)	200A(15s)	100A(15s)	200A(15s)

TECHNICAL SPECIFICATIONS

SOLAR STORAGE INVERTER



HSI 5500P can be paralleled

Solar storage inverter

Efficiency

- Advanced MPPT with up to 99.9% efficiency
- Multiple charge and discharge modes are available

Safety

- 360 degrees of security from hardware to software
- Multiple safety approvals available

All in one

- Support for many types of batteries
- Supports Li-ion battery BMS communication

Reliable

- Outputs high-quality pure sine wave AC power
- Reliable output for long periods at rated power

User-Friendly

- Industrial design with a modern aesthetic look
- Easy to install and simple to use

Intelligent

- Exclusive Li-ion battery BMS dual activation
- Support for remote monitoring of operating

Application scenario



House



Farm



Telecom



Countryside



Island



Pasture

MODEL	HSI 5500P	CAN BE SET
INVERTER		
Rated Output Power	5,500W	
Max.Peak Power	11,000VA	
Rated Output Voltage	230Vac (single phase/three phase-paralleled)	✓
Load Capacity of Motors	4HP	
Rated AC Frequency	50Hz/60Hz	✓
Waveform	Pure Sine Wave	
Switch Time	10ms (typical)	
Parallel Capacity	1-6	
BATTERY		
Battery Type	Lead-acid / Li-ion / User defined	✓
Rated Battery Voltage	48V	
Voltage Range	40~60Vdc	✓
Max.MPPT Charging Current	100A	✓
Max.Mains/Generator Charging Current	60A	✓
Max.Hybrid Charging Current	100A	✓
PV INPUT		
Num. of MPPT Trackers	1	
Max.PV Array Power	6,000W	
Max.Input Current	22A	
Max.Voltage of Open Circuit	500Vdc	
MPPT Voltage Range	120-450Vdc	
UTILITY/ GENERATOR INPUT		
Input Voltage Range	UPS mode: 170~280Vac; APL mode: 90~280Vac	✓
Frequency Range	50/60Hz	
Bypass Overload Current	40A	
EFFICIENCY		
MPPT Tracking Efficiency	99.9%	
Max. Battery Inverter Efficiency	92%	
GENERAL		
Dimensions	426*322*124mm (1.40*1.06*0.41ft)	
Weight	10.5kg (23.15lb)	
Protection Degree	IP20, Indor Only	
Operating Temperature Range	-10°C~55°C	
Noise	≤60dB	
Cooling Method	Internal Fan	
Warranty	1.5 Years	
COMMUNICATION		
Embedded Interfaces	RS485 / USB / Dry contact	✓
External Modules (Optional)	Wi-Fi / GPRS	✓
CERTIFICATION		
Safety	CE(IEC 62109-1)/ CETL(UL 1741 C22.2 NO.107.1) /FCC/SAA	
EMC	EN61000	
RoHS	Yes	

TECHNICAL SPECIFICATIONS

SOLAR STORAGE INVERTER



SPI Series

Solar storage inverter

Efficiency

- Advanced MPPT technology with up to 99.9% efficiency
- Up to 22+22A PV input current

Reliable

- Outputs high quality pure sine wave AC power
- Up to 6 units in parallel connection

Safety

- 360 degrees of security from hardware to software
- Multiple safety approvals

User-Friendly

- Industrial design with a modern aesthetic look
- Easy to install and simple to use

All in one

- Up to 200A charging current
- Support Li-ion battery BMS communication

Intelligent

- Exclusive Li-ion battery BMS dual activation
- Time-slot function to save cost with peak-valley

Application scenario



House



Farm



Telecom



Countryside



Island



Pasture

MODEL	SPI-10K-SP	UNITS SET
INVERTER OUTPUT		
Rated Output Power	10,000W	
Max.Peak Power	15,000W	
Rated Output Voltage	230Vac (single-phase)	✓
Load Capacity of Motors	6HP	
Rated AC Frequency	50/60Hz	✓
Waveform	Pure Sine Wave	
Switch Time	10ms (typical)	
Parallel capacity	1~6 units (single-phase / three-phase)	
BATTERY		
Battery Type	Li-ion / Lead-Acid / User Defined	✓
Rated Battery Voltage	48Vdc	
Voltage Range	40~60Vdc	✓
Max.MPPT Charging Current	200A	✓
Max.Mains/Generator Charging Current	120A	✓
Max.Hybrid Charging Current	200A	✓
PV INPUT		
Num. of MPP Trackers	2	
Max.PV array power	5,500W + 5,500W	
Max.input current	22A + 22A	
Max.Voltage of Open Circuit	500Vdc + 500Vdc	
MPPT Voltage Range	125~425Vdc + 125~425Vdc	
MAINS / GENERATOR INPUT		
Input Voltage Range	90~275Vac	✓
Frequency Range	50/60Hz	
Bypass Overload Current	63A	
EFFICIENCY		
MPPT Tracking Efficiency	99.9%	
Max. Battery Inverter Efficiency	92%	
GENERAL		
Dimensions	620*445*130mm	
Weight	27kg	
Protection Degree	IP20, Indoor Only	
Operating Temperature Range	-10~55℃, >45℃ derated	
Noise	<60dB	
Cooling Method	Internal Fan	
Warranty	18 Months	
COMMUNICATION		
Embedded Interfaces	RS485 / CAN / USB / Dry contact	✓
External Modules (Optional)	Wi-Fi / GPRS	✓
CERTIFICATION		
Safety	IEC62109-1, IEC62109-2	
EMC	EN61000-6-1, EN61000-6-3, FCC 15 class B	
RoHS	Yes	

BENEFITS OF GREEN ENERGY



Environmental Impact:

- Reduction in greenhouse gas emissions
- Preservation of natural resources



Economic Advantages:

- Job creation in the renewable energy sector
- Long-term cost savings for consumers and businesses



Health Benefits:

- Improved air quality
- Reduction in health issues related to fossil fuel pollution



THANK YOU

Thank you for your interest in EV
Energy Solutions and our
commitment to sustainable
energy.

