



Product Catalog



Energy Storage System

Solar Panel | Inverter | Li-ion Battery | Total Solution

About Us



Moli Power is a leading enterprise specializing in lithium batteries and related systems since 2016.

The company focuses on power of small scale mobility and energy storage solutions, integrating R&D, production, sales, and overseas business operations. With a professional technical team, advanced automation equipment, and a robust management system, Moli Power has achieved various quality certifications, e.g. ISO9001 and ISO14001 and etc.

The company has gained significant influence in the two-wheeler battery swapping and residential energy storage market, with successful projects in China, Singapore, Thailand, Sri Lanka, Maldives, Mali, Nigeria, Guinea and Cameroon.

Adhering to the motto "Powering better life," Moli Power is committed to innovation, customer satisfaction, and promoting green energy solutions for sustainable travel and low-carbon lifestyles.

As a one-stop solution provider, the company aims to expand its presence in the global high-speed electric motorcycle industry chain through continuous technological advancement and competitive participation.

10+

Years of Experiences

20+

Industry Awards

100+

Business Partner

100k+

Product Installed

Powering Better Life

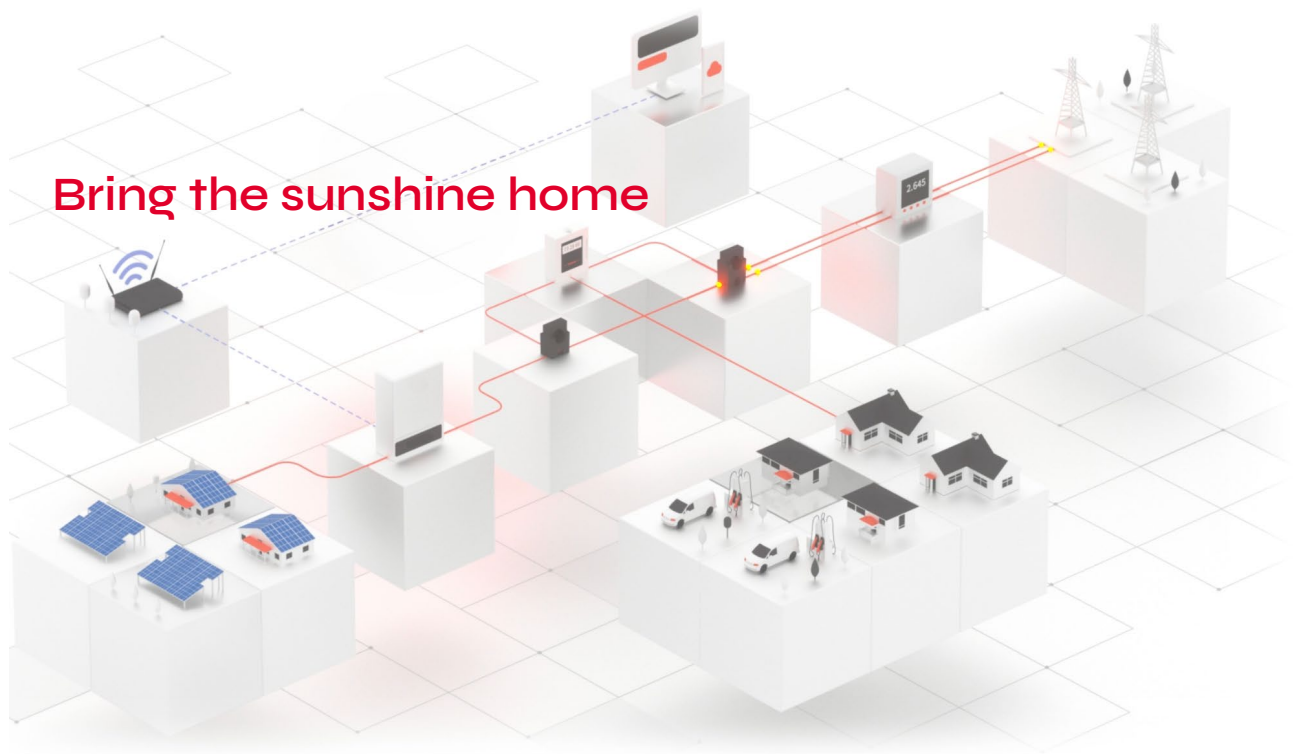


Singapore | China | Thailand | Maldives | Sri Lanka | Mali | Nigeria | Guinea | Cameroon



Our Global Sites

Independent Energy



Solar Panel



Inverter



Li-ion Battery



Energy Management

Moli Power provides a solution to generate clean electricity for your own solar-powered home and facilities.

When it comes to residential solutions featuring superior safety and easy installation, Moli Power is the ideal choice for homeowners to go solar.

Enjoy your unparalleled experience of green energy, optimal solar energy usage, reduced electricity bills and much more.

Catalog

O1

Solar Panel

O2

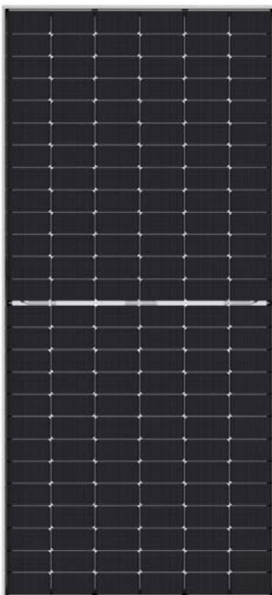
Li-ion Battery

O3

Inverter

O4

All-in-one System



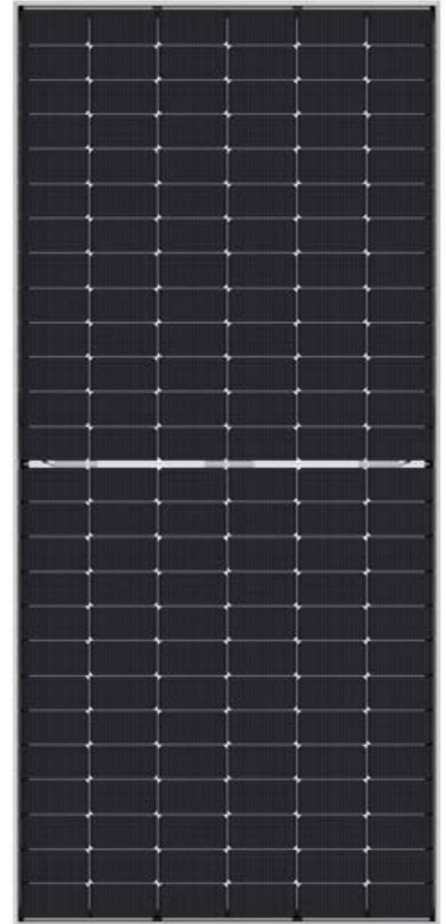
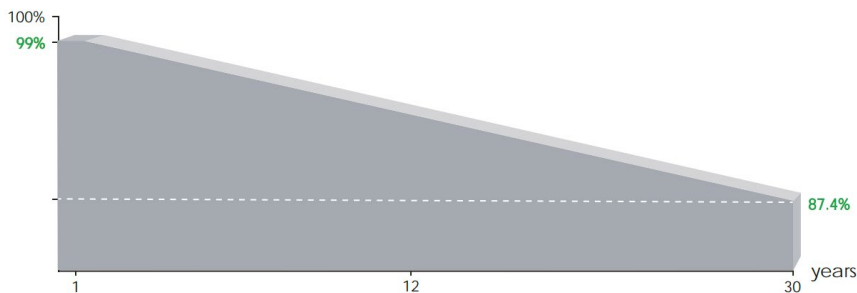
Solar Panel

N-type 590-610W Bifacial Module with Dual Glass

- IEC61215(2016), IEC61730(2016)
- ISO9001:2015: Quality Management System
- ISO14001:2015: Environment Management System
- ISO45001:2018
- Occupational health and safety management systems

LINEAR PERFORMANCE WARRANTY

0.40% Annual Degradation Over 30 years



SMBB Technology

Better light trapping and current collection to improve module power output and reliability.



PID Resistance

Excellent Anti-PID performance guarantee via optimized mass-production process and materials control.



Higher Power Output

Module power increases 5-25% generally, bringing significantly lower LCOE and higher IRR.



Hot 2.0 Technology

The N-type module with Hot 2.0 technology has better reliability and lower LID/LETID.

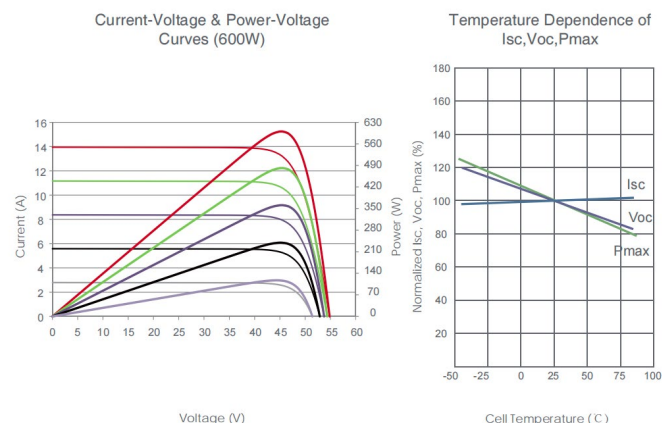
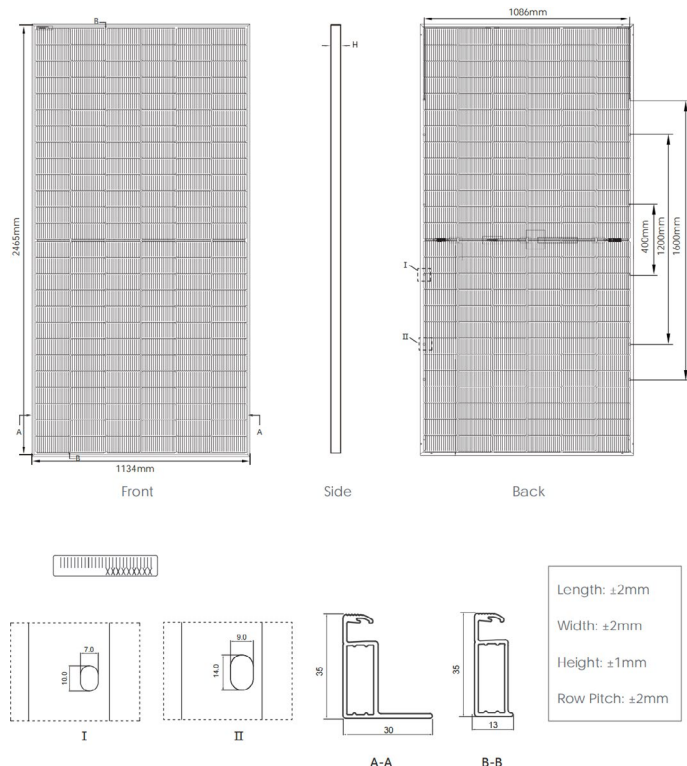


Enhanced Mechanical Load

Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).



POSITIVE QUALITY™
Continuous Quality Assurance



Mechanical Characteristics

Cell Type	N type Mono-crystalline
No. of cells	156 (2×78)
Dimensions	2465×1134×35mm (97.05×44.65×1.38 inch)
Weight	34.6kg (76.38 lbs)
Front Glass	2.0mm, Anti-Reflection Coating
Back Glass	2.0mm, Heat Strengthened Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68 Rated
Output Cables	TUV 1×4.0mm ² (+): 400mm, (-): 200mm or Customized Length

SPECIFICATIONS

Module Type	JKM590N-78HL4-BDV		JKM595N-78HL4-BDV		JKM600N-78HL4-BDV		JKM605N-78HL4-BDV		JKM610N-78HL4-BDV	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	590Wp	444Wp	595Wp	447Wp	600Wp	451Wp	605Wp	455Wp	610Wp	459Wp
Maximum Power Voltage (Vmp)	44.91V	41.89V	45.08V	42.00V	45.25V	42.12V	45.42V	42.23V	45.60V	42.35V
Maximum Power Current (Imp)	13.14A	10.59A	13.20A	10.65A	13.26A	10.71A	13.32A	10.77A	13.38A	10.83A
Open-circuit Voltage (Voc)	54.76V	52.02V	54.90V	52.15V	55.03V	52.27V	55.17V	52.41V	55.31V	52.54V
Short-circuit Current (Isc)	13.71A	11.07A	13.79A	11.13A	13.87A	11.20A	13.95A	11.26A	14.03A	11.33A
Module Efficiency STC (%)	21.11%		21.29%		21.46%		21.64%		21.82%	
Operating Temperature(°C)	-40°C~+85°C									
Maximum system voltage	1500VDC (IEC)									
Maximum series fuse rating	30A									
Power tolerance	0~+3%									
Temperature coefficients of Pmax	-0.30%/°C									
Temperature coefficients of Voc	-0.25%/°C									
Temperature coefficients of Isc	0.046%/°C									
Nominal operating cell temperature (NOCT)	45±2°C									
Refer. Bifacial Factor	80±5%									

BIFACIAL OUTPUT-REAR SIDE POWER GAIN

5%	Maximum Power (Pmax)	620Wp	625Wp	630Wp	635Wp	641Wp
	Module Efficiency STC (%)	22.16%	22.35%	22.54%	22.73%	22.91%
15%	Maximum Power (Pmax)	679Wp	684Wp	690Wp	696Wp	702Wp
	Module Efficiency STC (%)	24.27%	24.48%	24.68%	24.89%	25.10%
25%	Maximum Power (Pmax)	738Wp	744Wp	750Wp	756Wp	763Wp
	Module Efficiency STC (%)	26.38%	26.61%	26.83%	27.05%	27.28%

*STC: Irradiance 1000W/m²

Cell Temperature 25°C

AM=1.5

NOCT: Irradiance 800W/m²

Ambient Temperature 20°C

AM=1.5

Wind Speed 1m/s

Solar Juice Series

12V 200Ah/300Ah Deep Cycle Li-ion Battery



Key Parameters		
Items	12-300	12-210
Cell Model	NP71173207-300 (LFP)	NP54173207-210 (LFP)
Nominal Capacity (Ah)	300	210
	14.6V @ 0.2C to 10V	
Min. Capacity (Ah)	280	205
	14.6V @ 0.2C to 10V	
Charge Voltage (V)	14.6	
Standard Charging Current (A)	150	105
Max. Continuous Charging Current (A)	200	
Discharge Voltage (V)	10	
Standard Discharge Current (A)	150	105
Max. Continuous Discharging Current (A)	200	200
Operating Temp. (°C)	0 ~ 55	
	-20 ~ 60	
	≥ 6000	
Cycle Life	Charging / Discharging @ 0.2C 70% Capacity	
Impedance (mohm)	< 50	
Weight (kg)	~25	~20
Protection Level	IP 67	
Connection Mode	up to 4 in series connection	
Dimension (L*D*H, mm)	386*206*272	

Ready for Multi-purpose Power Supply



Solar Juice Series

Off-grid Inverter



Key Parameters		24V 3.5 kW	48V 5.5 kW
Model	G3000		G5000
Battery			
Type	Li-ion/Lead-acid		
Voltage (V)	24	48	
Inverter Output			
Nominal Power (W)	3500	5500	
Nominal Apparent Power (VA)	3500	5500	
Parallel Capacity	No	9 units max.	
AC Voltage Regulation (Battery Mode)	230 Vac±5%@50/60 Hz		
Surge Power (VA)	6000	10000	
Efficiency (Peak)	93%		
Waveform	Pure Sinewave		
Transfer Time	10 ms (for personal computers), 15 ms (for home appliances)		
Solar Charge			
Max. PV Array Power (W)	4000	6000	
MPPT Range @ Operating Voltage	120 Vdc ~ 430 Vdc		
Number of Independent MPPT	1		
Number of Strings per MPPT	1		
Max. Input Current per MPPT (A)	16	18	
Max. PV Array Open Circuit Voltage (V)	500 Vdc		
Max. Solar Charge Current (A)	120	80	
AC Charger			
Max. AC Charge Current (A)	120	80	
AC Input Voltage (V)	230 Vac		
Voltage Range (V)	170-280 Vac (Personal Computers), 90-280 Vac (Home Appliances)		
Frequency Range (Hz)	50/60		
General			
User Interface	APP+LCD Display+LED		
Communication	USB, Optional: Wi-Fi, 4G,GPRS, RS485/CAN, Dry Contact		
Ingress Protection Rating	IP 54		
Dimension (W*H*D, mm)	300*450*110.5		
Weight (kg)	7.5		
Relative Humidity (%)	20 ~ 95		
Max. Operating Altitude (m)	2000, Derating > 1000		
Operating Temp (°C)	0~50		
Storage Temp (°C)	-15 ~ 60		
Protection			
PV Over Voltage	yes		
PV Over Current	yes		
Battery Over Voltage	yes		
Battery Over Current	yes		
AC Surge	Type III		
Output Over Current	yes		
Output Over Voltage	yes		

Off-grid Inverter



Key Parameters

Model	HMKPLUS1500-12	VR2KS
Input		
Voltage (Vac)	230	230
Selectable Voltage Range (Vac)	170-280 (For Personal Computers)	85-305
	90-280 (For Home Appliances)	85-305
Frequency Range (Hz)	50/60 (Auto Sensing)	
Output		
AC Voltage Regulation (Battery Mode)	230 Vac ±5%	
Power (VA)	1500 (surge 3000)	2000 (surge 4000)
Efficiency (Peak) PV to INV.	97%	99%
Efficiency (Peak) Battery to INV.	94%	
Transfer Time	10 ms (Personal Computers), 20 ms (Home Appliances)	
Waveform	Pure Sinewave	
Battery & AC Charger		
Battery Voltage (Vdc)	12	12
Floating Charge Voltage (Vdc)	13.5	13.5
Over Charge Protection (Vdc)	16	16
Max. Charge Current (A)	80	166
Solar Charger		
Max. PV Array Power (W)	2000	2400
MPPT Range @ Operating Voltage (Vdc)	60 ~ 430	60-430
Max. PV Array Open Circuit Voltage (Vdc)	450	450
Max. Charging Current (A)	80	100
Max. Efficiency	98%	99%
General		
Dimension (D*W*H, mm)	128*300*363	218*331*366
Weight (kg)	6.9	3.8
Communication Interface	USB/RS232	RS485/CAN
Operating Environment		
Humidity (%)	5 ~ 95, Relative Humidity (Non-condensing)	
Operating Temp. (°C)	0 ~ 55	
Storage Temp. (°C)	-15 ~ 60	

Solar Juice Series

Off-grid Inverter

To be Announced



Key Parameters			24V 3.6kW	48V 6kW
Model	G3600		G6000	
Battery				
Type	Li-ion/Lead-acid			
Voltage (V)	24		48	
PV Input				
Maximum Power (W)	4320		7440	
Maximum Voltage (V)			430 V	
Nominal Voltage (V)	120/240		240/400	
MPPT Voltage Range (V)			30 ~ 387	
Start-Up Voltage (V)			25	
Maximum Current (A)			2*18	
Maximum Short-Circuit Current (A)			2*20	
MPPT Tracking Number			1	
MPPT Tracking Efficiency			99.9	
AC Input				
Nominal Voltage (V)			1-phase / L+N+PE, 230	
Voltage Range (V)			85-305	
Nominal Frequency (Hz)			50 ~ 60 (Adaptive select)	
Frequecn Range (Hz)			40 ~ 70	
Power Factor			0.99	
Diesel Generator Input				
Nominal Voltage (V)			1-phase / L+N+PE, 230	
Voltage Range (V)			83 ~ 305	
Nominal Frequency (Hz)			50-60 Hz (Adaptive select)	
Frequecn Range (Hz)			40 ~ 70	
AC Output				
Nominal Voltage (V)	1-phase / L+N+PE, 208/220/230 (Nominal)/240±5% (Setting on LCD), 50 Hz±0.1%			
Nominal Current (A)	15.7		27	
Nominal Power (W)	3600		6000	
120% Overload	Operation for > 60 Seconds			
150% Overload	Operation for > 10 Seconds			
200% Overload	Operation for > 5 Seconds			
300% Overload	Operation for > 1 Second			
Output Waveform	Pure Sinusoidal			
THDv	< 3%			
Bypass Voltage (V)	Following AC Input			
Bypass Power (W)	3600		6000	
General Parameters				
Circuit Topology	High-Frequency Transformer Isolation			
Time from Bypass to Inverter (ms)	< 10			
Time from Inverter to Bypass (ms)	< 20			
MPPT Tracking Efficiency	99.90%			
Maximum Discharging Efficiency (%)	93.5		94.5	
Maximum Charging Efficiency	92.5		93.5	
Standby Power Consumption (W)	< 40		< 50	
Units Paralleling Number	9 Units			
Electric Protection	OCP, Short-Circuit, OVP, UVP, Lighting, Battery OC etc.			
Display	LEDs / LCD /APP			
Communication	Modbus RTU			
Net Weight (kg)	4.5		7.5	
Dimensions (W×H×D, mm)	300W × 450H × 110.5D			
Operating Temperature	-20°C ~ 55°C (> 40°C, Power direating)			
Storage Temperature	-40°C~ 65°C			
Related Humidity	20% - 95% Without condensation			
Altitude	Derating @ > 3000 m			
Dust and Water Protection	IP20 / IP54 Optional			
Cooling	Intellegent speeding fan			
Noise Emission	< 60 dB(A)			
Certificate	CE Mark			
Interface				
Start-Up Switch	Button Switch for Battery Input (Automative Start-Up Once Nominal PV or AC Input)			
Communication Module	RS485/CAN, WiFi/GRPS Optional			
Monitoring System	Optional			
Units Paralleling Cable	RS485/CAN, Optional			

Off-grid Inverter

To be Announced



Key Parameters		12V 3kW
Model		VC 3000
AC Input		
Line Type		1-phase / L+N+PE
Nominal Voltage (V)		120 / 230
Voltage Range (V)		120 ~ 240 / 90 ~ 264
Nominal Frequency (Hz)		50-60 (Adaptive select)
Frequencny Range (Hz)		40 ~ 70
Power Factor		0.99
AC Output		
Nominal Voltage (V)		1-phase / L+N, 110 / 230 ±5%
Nominal Frequency (Hz)		50 Hz±0.1%
Nominal Current (A)		13.1
Nominal Power (W)		3,600
Output Wave		Pure Sinewave
THDv		< 3%
Bypass Voltage (V)		Following Line
Bypass Power (W)		3000
Battery		
Battery Cells		Lead-acid/Li-ion
Battery Voltage (V)		12 (10-15)
Max. Charging Current (A)		100
Charging Power (W)		1400
General Parameter		
Maximum Efficiency		92%
Time between Bypass with Inverter		
Electric Protection		OCP, short-circuit, OVP, UVP, lighting, battery OC etc.
Protection Class		Class II Double-insulated
Display		LCD / LEDs
Communication		Modbus RTU, Modbus TCP/UDP
Weight		
Dimension (W×H×D)		
Operating Temperature		-15°C - 55°C (> 40°C Power direating)
Storage Temperature		-40°C - 65°C
Relative Humidity		20% - 95% Without condensation
Altitude		>3000 m Derating/refer to IEC62040
Dust and water protection		IP20
Cooling		Fan Cooling
Noise Emission		< 60 dB(A)
Interface		
Start-up Switch		Button Switch
Communication Module		WiFi, Bluetooth, RS485 Optional
Monitoring System		Optional

Solar Vigour Series

All-in-one Hybrid ESS



Key Parameters		30kW/60kWh	40kW/80kWh
Model	MP-SV-30-60		MP-SV-40-80
Battery			
Model	NP54173207-205		NP71173207-280
System Configuration	1P90S		
Rated Battery Pack Energy (kWh)	11.8	16.1	
Number of Battery Packs	5	5	
Rated System Energy (kWh)	59	80.5	
Rated System Voltage (V)	288		
Voltage Range (V)	252 ~ 324		
Discharge (C-rate)	0.5		
Cycle Life	8000		
PV Parameter			
Recommended Max. PV Array Power (kW)	60	80	
Max. Operating PV Input Current Per String (A)	8*20		
MPPT Voltage Range (V)	DC 150 ~ 950		
Full Power MPPT Voltage Range (V)	DC 375 ~ 850	DC 500 ~ 850	
Start-up Voltage (V)	DC 200		
Number of MPPT	4		
Strings per MPPT	2		
Number of PV Input	8		
AC Parameter			
Rated Output Power (kW)	30	40	
Overload Capability	110% Long Term		
Rated Voltage (V)	AC 380/400		
Rated Current (A)	43	58	
AC Input	3W+N+PE		
Grid Voltage Range (V)	AC 380/400		
Grid Frequency (Hz)	50/60		
THDi	< 3%		
Power Factor	0.8 Leading to 0.8 Lagging		
DC Component	≤ 0.5%		
Switching Time (ms)	< 100		
General			
IP Level	IP 53 (System)		
Interface	RS485/CAN		
Protocol	Modbus-RTU, CAN		
Temp. Control	Battery (Passive Cooling)		
	PCS (Air Cooling)		
Fire Extinguisher System	Aerosol		
Working Temp. (°C)	-20 ~ 55		
Working Humidity (%)	0 ~ 95 (Non-condense)		
Working Height Level (m)	≤ 2000		
Weight (kg)	720	846	
Dimension (W*D*H)	830*840*1750		

High Performance Inverter

SiC Inside
Efficiency in Hand



- 4 MPPT / 8 PV Input with efficiency 99.9%
- Support Black Start, On/Off-grid Mode, Generator Input
- Real-time Energy Management System Monitoring
- SiC Topography, Extreme Efficiency.
- IP 66 Protect Level



Real-time Monitoring
Anywhere, Anytime

Safe & Reliable High Performance Battery



- Ultra Safe LFP Li-ion Battery
- Deep Cycle up to 8,000
- Long Life-span up to 20 years
- High Accuracy BMS
- Modular Design for Easy Maintenance
- 3 Level Protecting Mechanisms
- Ready for All Weather Conditions
- Complete Fire Extinguishing System
- Environmental Friendly
- Certificates to Meet up Various Regulations

Compatible with



Mixed-use Supported

- On/Off-grid
- Energy Storage
- Solar+Energy Storage
- EV+Solar+Energy Storage

All-round-safety Protection

Uninterrupted Energy Supply

Various Scenarios



Powering Better Life



molipower.com

Case Study





Villa in China

Solar
39 kW

Battery (Solar Vigour)
60 kW/120 kWh

Support daily use of the family
in the Villa.

Case Study



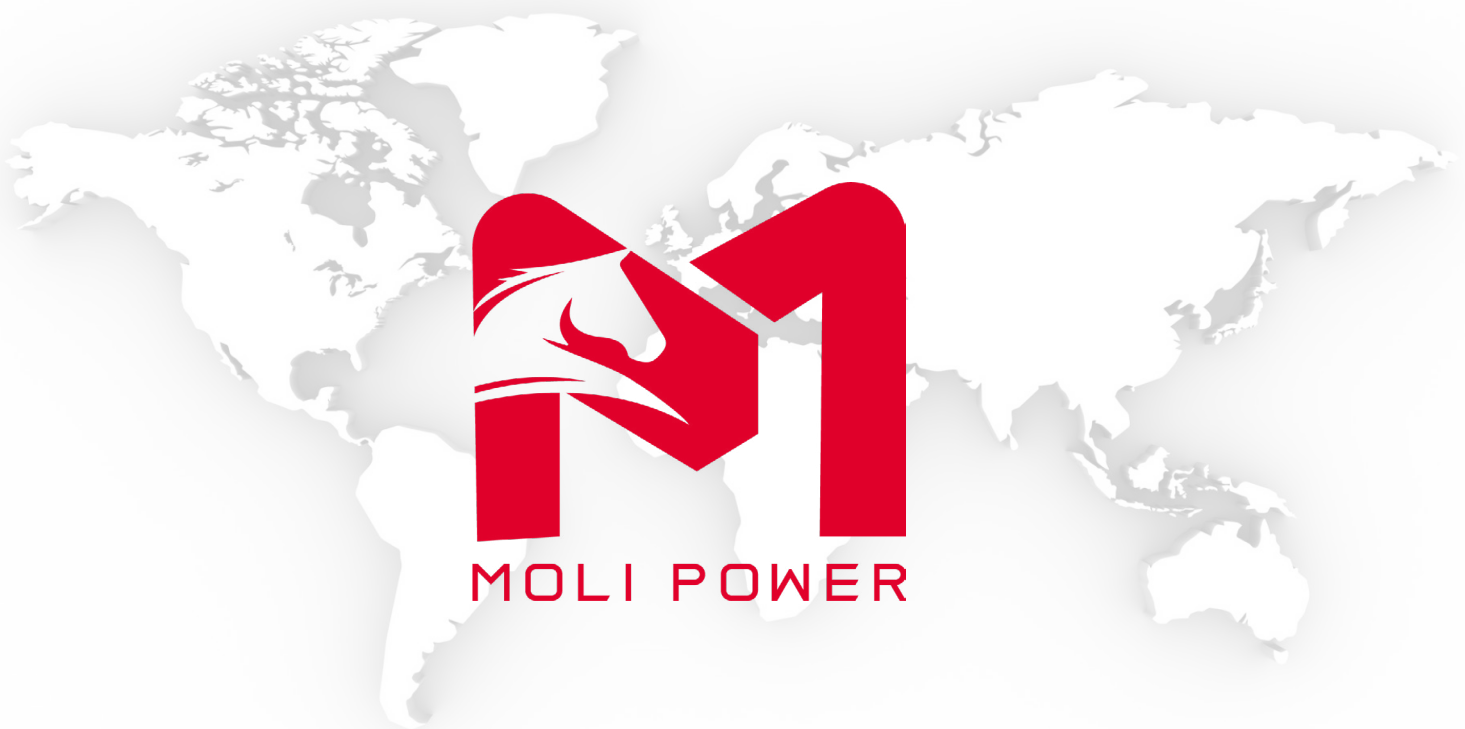


Residential ESS Africa



Powering Better Life

Powering Better Life



Singapore

Add: 2 JOO CHIAT ROAD, #05-1131, JOO CHIAT COMPLEX, SINGAPORE 420002
Contact: +65 80205389

China

Add: 45 Chang Tian Road, Chang Xian Industrial Park, Heng Li, Dong Guan, Guang Dong, China
Contact: +86 76982685268

Thailand

Add: 99/44-45 Moo 8 Tha Kham Sub-District, Bang Pakong District, Chachoengsao Province 24130
Contact: +66 0930306031

Maldives

Add: FSM Building, Kurangi Goalhi, Malé, Maldives
Contact: +96 09938369

Sri Lanka

Add: 55, N. J. V. Cooray Mawatha, Rajagiriya
Contact: +94 766012345

Mali

Add: Bougouba, face à SOTELCO, Bamako, Mali
Contact: +223 78822222

Nigeria

Add: 8, MAJEKODUNMI STREET, LAGOS, LAGOS STATE, NIGERIA
Contact: +234 7077669694

Guinea

Add: Cité Chinoise, G8H9+J3R, Rte du Niger, Conakry, Guinea
Contact: +224 612271818 +224 611020238

Cameroon (To be announced)

Add: Ancien palais présidentiel, BP 12 798, Yaoundé
Contact +237 686777000