



GREEN FOR FUTURE SMART FOR VALUE

HENAN HONRAY NEW ENERGY TECHNOLOGY CO.,LTD.



HENAN HONRAY NEW ENERGY TECHNOLOGY CO.,LTD.

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COMPANY PROFILE

HENAN HONRAY NEW ENERGY TECHNOLOGY CO.,LTD. (here mentioned as "Honray" afterwards) was founded in 2024, as a subsidiary enterprise of Zhengtao Group-the company with 12 years of PV export expertise and stands as a leading specialist in off-grid solar solutions.

Honray owns a complete team for R&D, production and sales, offering solar panels, LiFePO₄ batteries, inverters, charge controllers and mounting brackets for residential energy storage, RV, yacht and outdoor camping applications.

The core products are certified with ISO9001, ISO14001, CE, IEC, EMC, TÜV, RoHS and UL.

Honray operates overseas warehouses in the US, Australia, Europe and the UK for fast shipment and full after-sales service, with our products sold in over 50 countries and regions.

Honray is committed to providing global customers with accessible, free-of-limit green energy solutions.

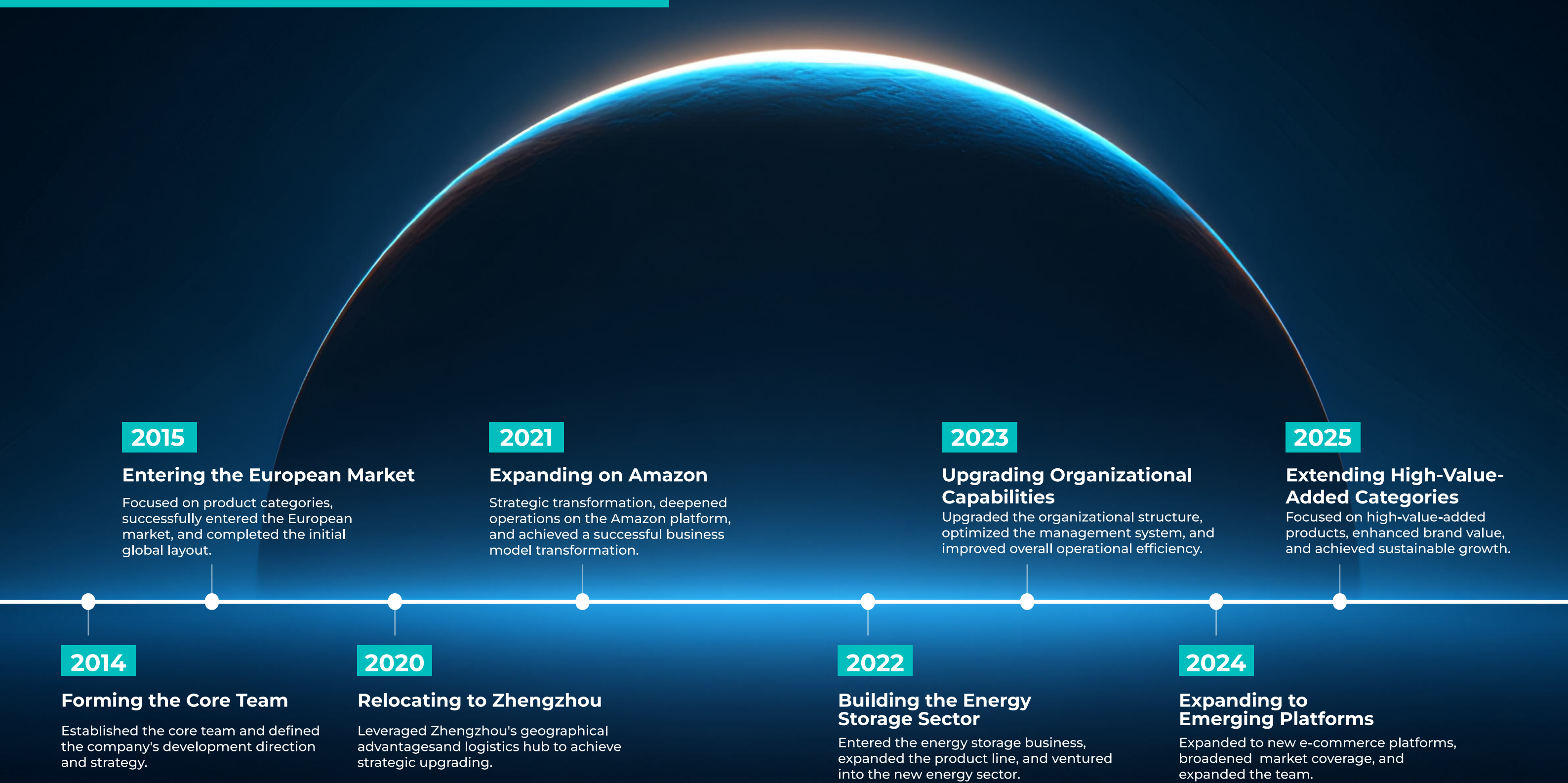




Headquarter Warehouse

● Headquarters ● Branch ● Product coverage area

DEVELOPMENT HISTORY

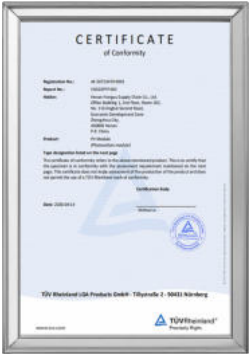




BUSINESS QUALIFICATIONS

Authoritative Certification, Quality Guaranteed

WORKSHOP



CORE ADVANTAGES

Full Platform & Global Reach



N-Type TOPCon: Industry-Leading Tech

All panels use N-type TOPCon tech (25.8%+ efficiency, 90% bifacial), with no light-induced degradation—outperforming in heat/low light.



Full Product Lineup

Our lineup includes foldable panels, flexiblepanels,glasspanels,invertrs, energy storage systems,and controllers, catering to all scenarios including portable,engineering,off-grid,and on-grid applications.

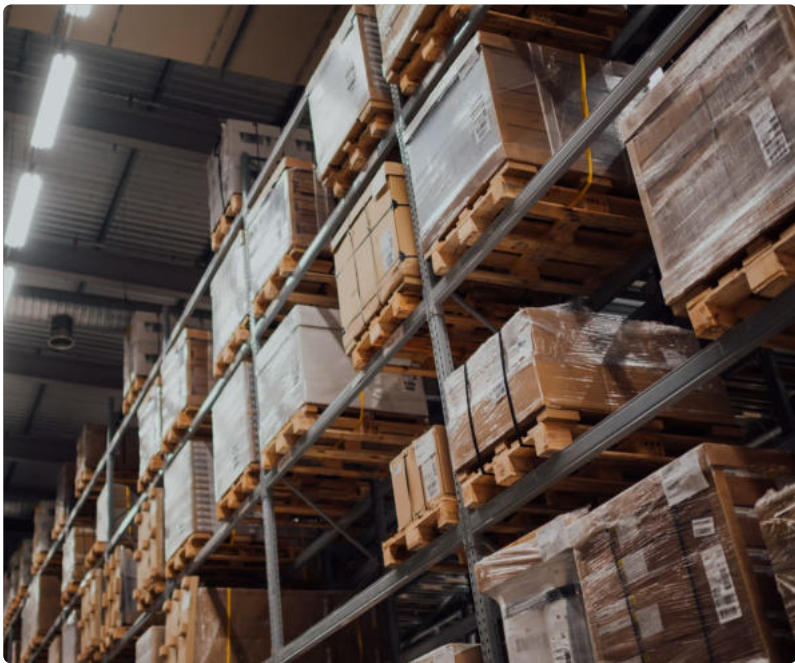
TECH-POWERED SOLAR SOLUTIONS

We combine in-house R&D and manufacturing to deliver efficient, green, smart energy solutions for every use case.



Customized Solutions for Business

We build full custom power systems (modules to storage) — size, power, and plans all made to order.



Efficient Cross-Border E-Commerce Fulfillment

With a mature cross-border system, we manage the entire process from order to production, logistics, and customs clearance, supporting customized delivery to help global customers launch quickly.

Green Future, Smart Value — Efficient, Clean, Sustainable Energy for All!

ALL-SCENARIO GREEN ENERGY STORAGE SOLUTIONS



Residential PV + Storage Systems
Peak shaving & emergency backup



Backup Power for Telecom & Data Centers
Lithium-ion retrofit solutions



C&I Storage Cabinets



Solar-Storage-Charging Integration



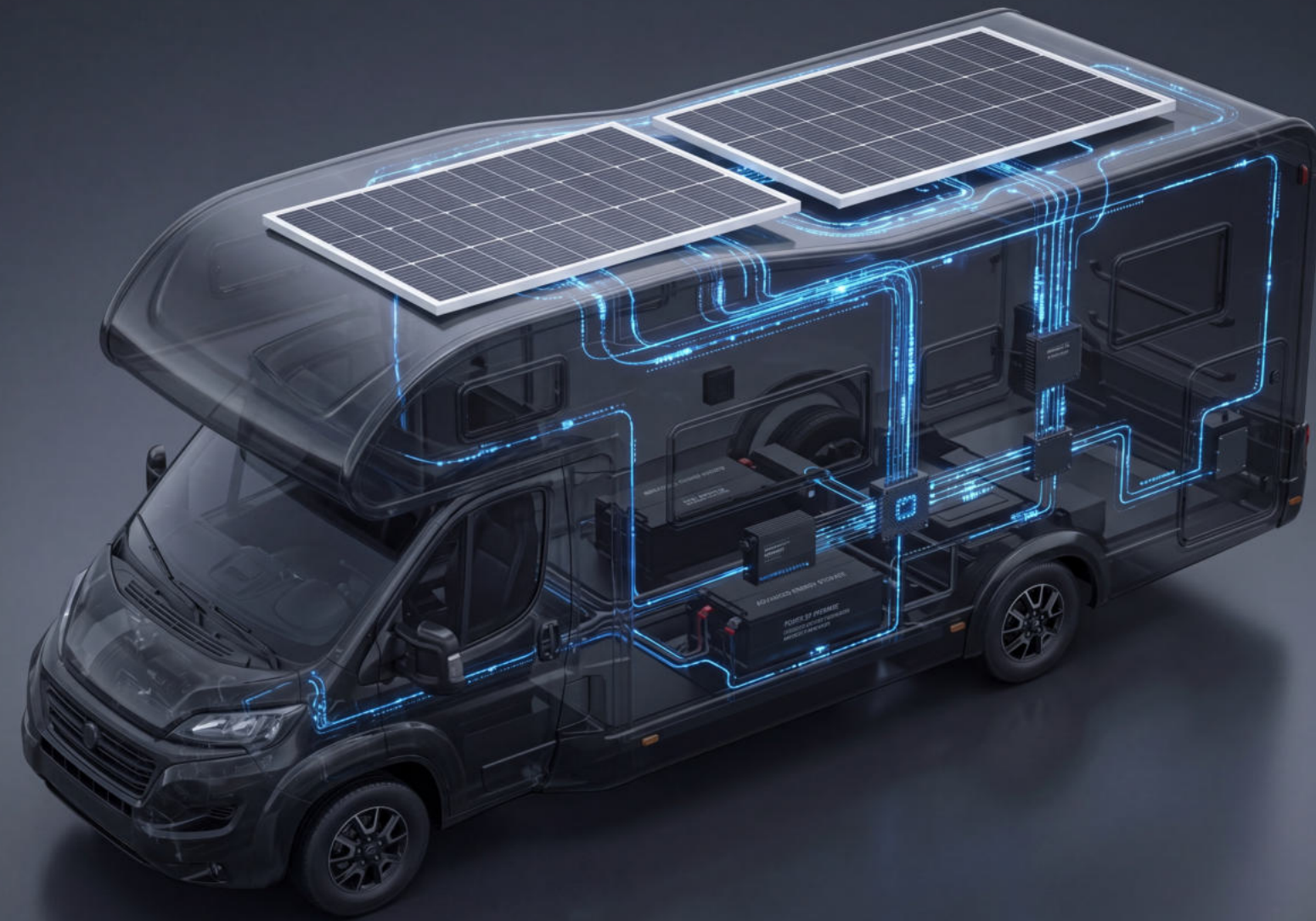
Portable Power Stations



Marine Propulsion & Storage Batteries
Clean, quiet electrification for river & ocean vessels

Solar Panel

High conversion rate of 25.6% to enhance power generation



One-Stop Solution for Home Solar + Energy Storage



IP68 Waterproof
IP68-rated for total waterproofing and dustproofing, even in heavy rain.



Built for Extremes
Engineered to endure heavy snow, strong winds, and deliver reliable energy in the toughest conditions.



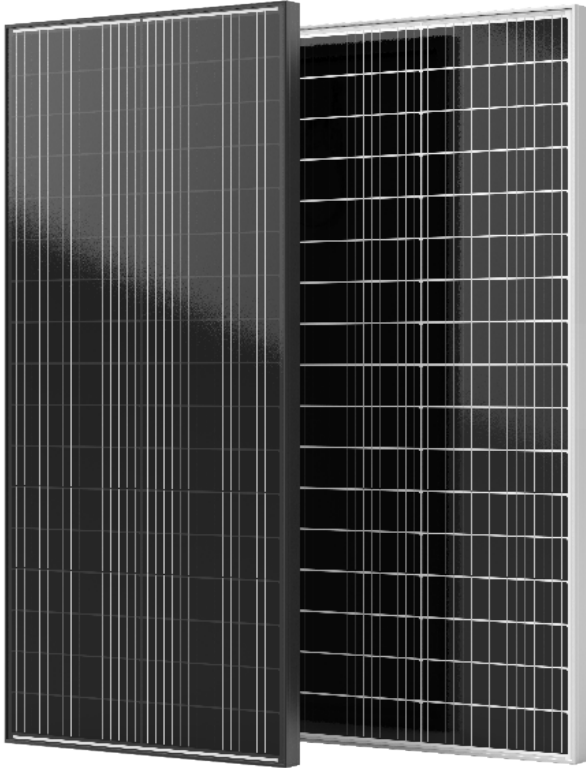
Super Durability
Withstands heavy snow and high winds to deliver reliable power in the harshest conditions.



N-type TopCon MK01-55-75

Half-cut monocrystalline cell PV module

-  Lower internal resistance & less power loss
-  Strong anti-hotspot performance
-  Better partial shading tolerance
-  Higher energy yield under high temperature



34 half-cell

PV module

0~+5W

Positive Power Tolerance

22.2%

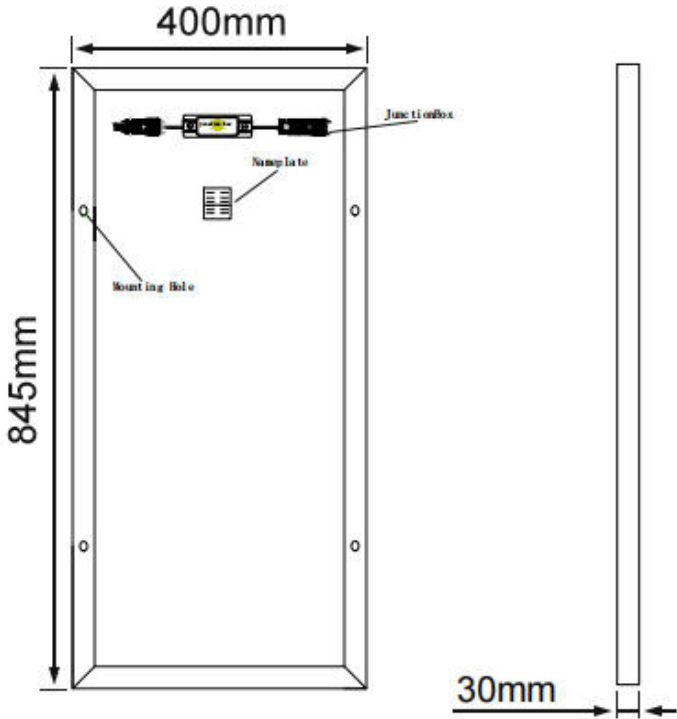
maximum efficiency

55W-75W

Output Power Range

Quality System Certifications
ISO9001: 2023/ ISO Quality Management System
ISO14001: 2024/ Environmental Management System
ISO45001: 2024/ Occupational Health and Safety Management System Certification

Product Quality Certifications
IEC61215+IEC61730+CQC/CGC
IECTS63163+IP68+CE
IECTS62994



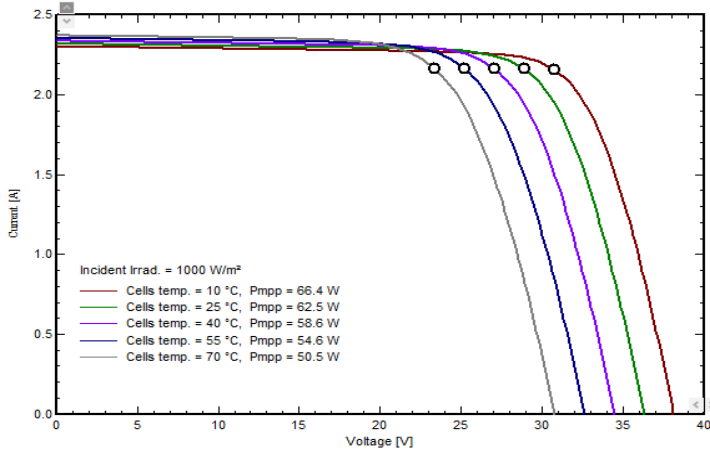
Note: Different regions have different certification requirements. Therefore, your ordered or used product will not have all the certifications listed in this specification sheet at the same time. If you want to know which specific certifications apply to your region, please contact our official sales team.

STC: Irradiance 1000W/m2, cell temperature 25°C, wind speed 1m/s, AM1.5G

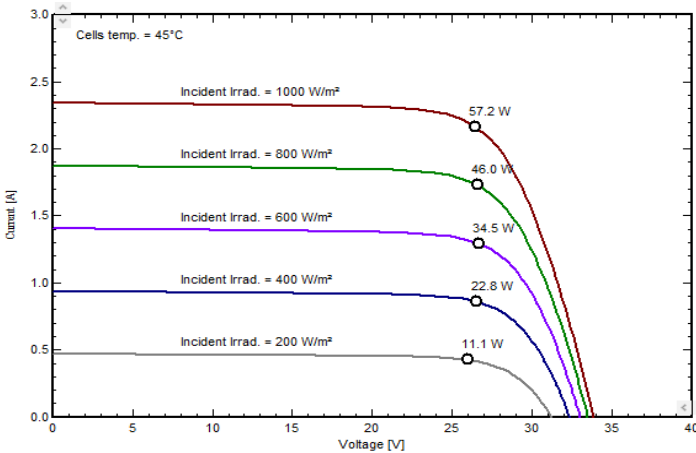
TYPE	MK01-55	MK01-60	MK01-65	MK01-70	MK01-75
Rated Maximum Power(Pmax) [W]	55W	60W	65W	70W	75W
Open Circuit Voltage(Voc) [V]	21.93V	22.1V	22.27V	22.44V	22.61V
Short Circuit Current(Isc) [A]	3.31A	3.36A	3.41A	3.46A	3.51A
MaximumPower Voltage(Vmp) [V]	19.38V	19.72V	19.76V	19.8V	19.84V
MaximumPower Current(Imp) [A]	2.8A	3.05A	3.29A	3.54A	3.79A
Pwoer Tolerance	+5% ~-5%				
Maximum System Voltage	1000V				
Operating Temperature	-40°C~±85°C				
Safety Class	Class II				

SPECIFICATIONS

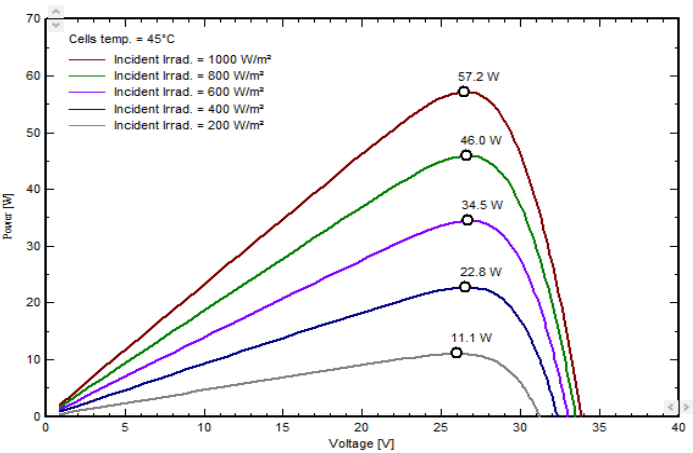
Cell	Half-cut mono cell
Weight	3.6Kg
Solar Panel Size	845*400*30 mm ±2 mm
No. of cells	34 (2*17)
Junction Box	IP68, 1 diodes
Connector	MC4
Cable Length	900 mm
Package size	905*460*60 mm
Packed weight	4.0 Kg



Curves under different temperature conditions



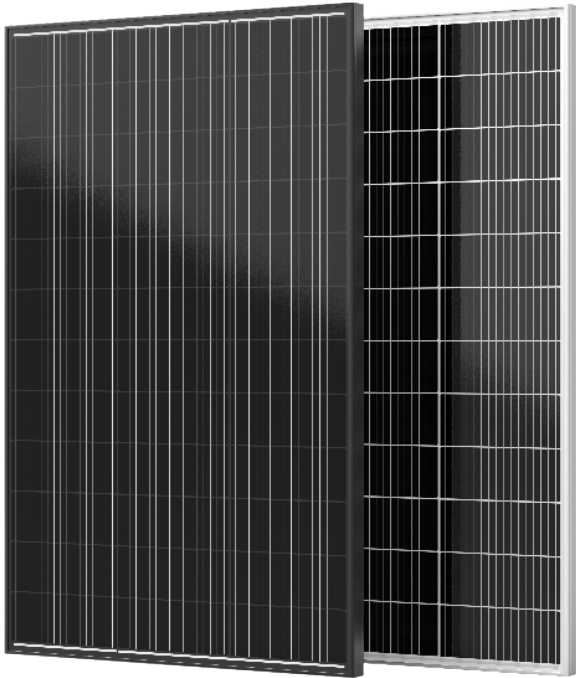
Curves under different irradiation intensities



Power under different irradiation conditions

N-type TopCon MK02-95-115
Half-cut monocrystalline cell PV module

- Lower internal resistance & less power loss
- Strong anti-hotspot performance
- Better partial shading tolerance
- Higher energy yield under high temperature



36 half-cell PV module | 0~+5W Positive Power Tolerance | 22.0% maximum efficiency | 95W-115W Output Power Range

Quality System Certifications

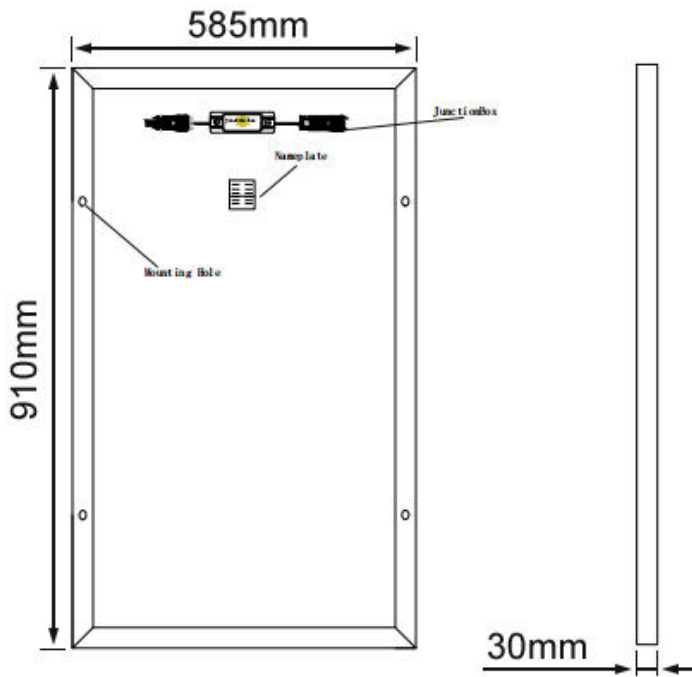
ISO9001: 2023/ ISO Quality Management System
ISO14001: 2024/ Environmental Management System
ISO45001: 2024/ Occupational Health and Safety Management System Certification

Product Quality Certifications

IEC61215+IEC61730+CQC/CGC
IECTS63163+IP68+CE
IECTS62994



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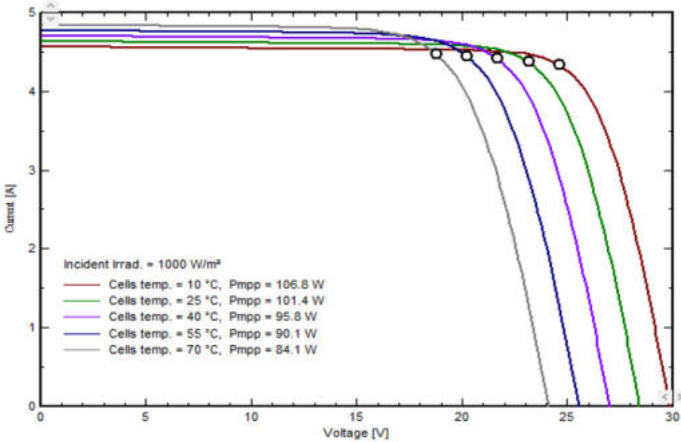


STC: Irradiance 1000W/m2, cell temperature 25°C, wind speed 1m/s, AM1.5G

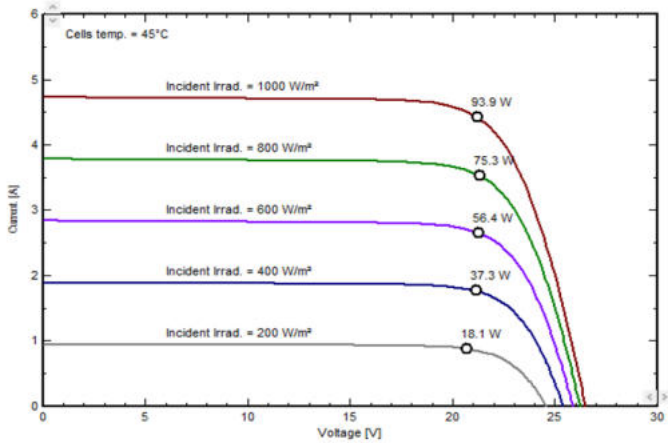
TYPE	MK02-95	MK02-100	MK02-105	MK02-110	MK02-115
Rated Maximum Power(Pmax) [W]	95W	100W	105W	110W	115W
Open Circuit Voltage(Voc) [V]	22.93V	23.1V	23.27V	23.44V	23.61V
Short Circuit Current(Isc) [A]	6.00A	6.05A	6.10A	6.15A	6.20A
MaximumPower Voltage(Vmp) [V]	20.84V	20.88V	20.92V	20.96V	21.00V
MaximumPower Current(Imp) [A]	4.56A	4.79A	5.05A	5.25A	5.48A
Pwoer Tolerance	+5% ~-5%				
Maximum System Voltage	1000V				
Operating Temperature	-40°C~±85°C				
Safety Class	Class II				

SPECIFICATIONS

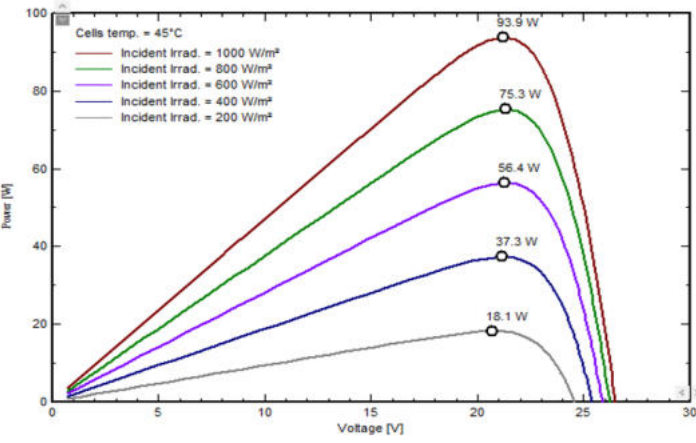
Cell	Half-cut mono cell
Weight	5.4 Kg
Solar Panel Size	910*585*30 mm ±2 mm
No. of cells	36 (3*12)
Junction Box	IP68, 1 diodes
Connector	MC4
Cable Length	900 mm
Package size	970*640*60 mm
Packed weight	6.0 Kg



Curves under different temperature conditions



Curves under different irradiation intensities



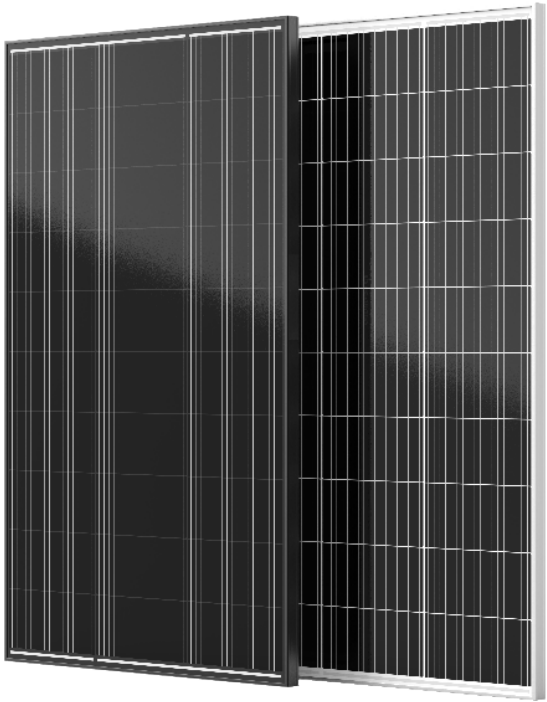
Power under different irradiation conditions



N-type TopCon MK14-140-160

Half-cut monocrystalline cell PV module

-  Lower internal resistance & less power loss
-  Strong anti-hotspot performance
-  Better partial shading tolerance
-  Higher energy yield under high temperature



30 half-cell

PV module

0~+5W

Positive Power Tolerance

22.0%

maximum efficiency

140W-160W

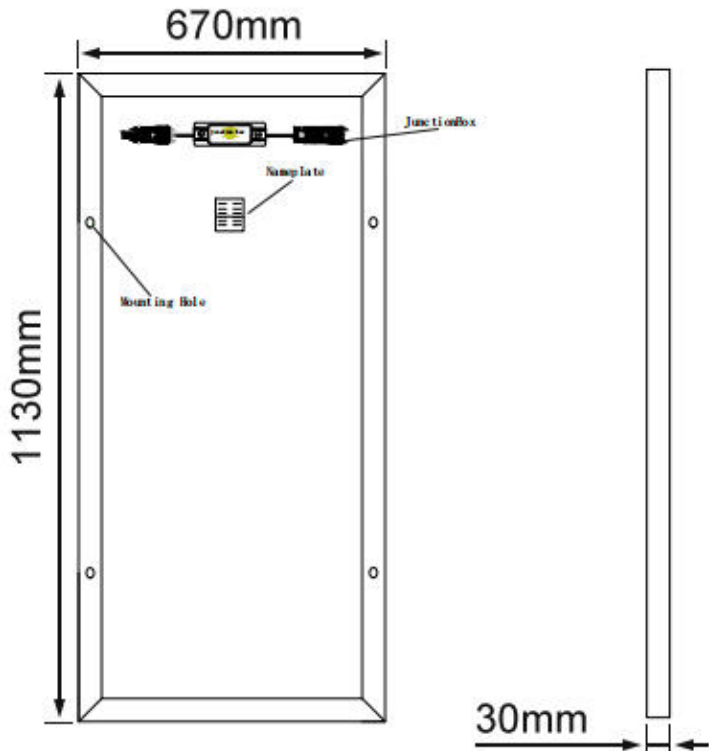
Output Power Range

Quality System Certifications
ISO9001: 2023/ ISO Quality Management System
ISO14001: 2024/ Environmental Management System
ISO45001: 2024/ Occupational Health and Safety Management System Certification

Product Quality Certifications
IEC61215+IEC61730+CQC/CGC
IECTS63163+IP68+CE
IECTS62994



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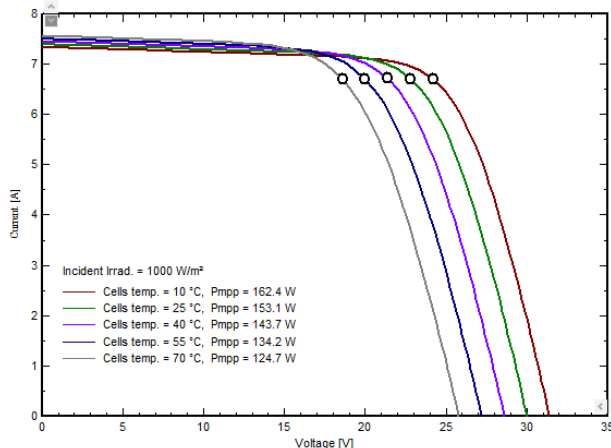


STC: Irradiance 1000W/m2, cell temperature 25°C, wind speed 1m/s, AM1.5G

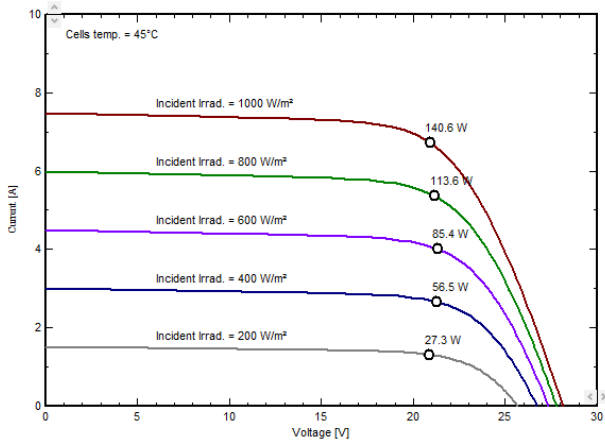
TYPE	MK14-140	MK14-145	MK14-150	MK14-155	MK14-160
Rated Maximum Power(Pmax) [W]	140W	145W	150W	155W	160W
Open Circuit Voltage(Voc) [V]	21.11V	21.28V	21.45V	21.62V	21.79V
Short Circuit Current(Isc) [A]	8.98A	9.03A	9.08A	9.13A	9.18A
MaximumPower Voltage(Vmp) [V]	17.26V	17.30V	17.34V	17.38V	17.42V
MaximumPower Current(Imp) [A]	8.12A	8.39A	8.66A	8.92A	9.19A
Pwoer Tolerance	+5% ~-5%				
Maximum System Voltage	1000V				
Operating Temperature	-40°C~±85°C				
Safety Class	Class II				

SPECIFICATIONS

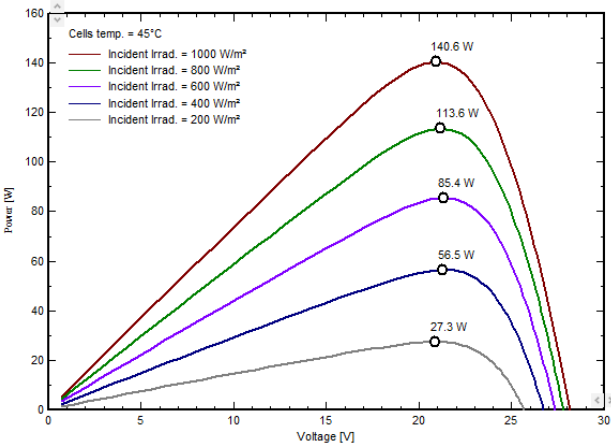
Cell	Half-cut mono cell
Weight	7.6 Kg
Solar Panel Size	1130*670*30 mm ±2 mm
Cable Cross Section Size	4 mm²
No. of cells	30 (3*10)
Junction BoX	IP68, 1 diodes
Connector	MC4
Cable Length	900 mm
Package size	1190*730*60 mm
Packed weight	8.4 Kg



Curves under different temperature conditions



Curves under different irradiation intensities



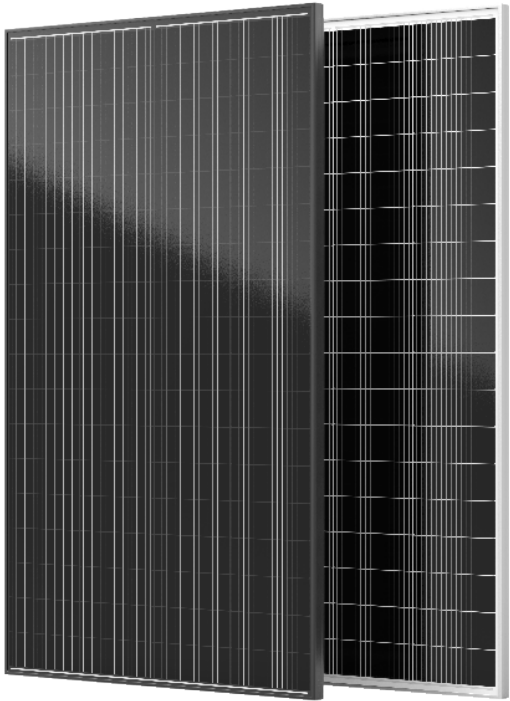
Power under different irradiation conditions



N-type TopCon MK30-200-225

Half-cut monocrystalline cell PV module

-  Lower internal resistance & less power loss
-  Strong anti-hotspot performance
-  Better partial shading tolerance
-  Higher energy yield under high temperature



72 half-cell
PV module

0~+5W
Positive Power
Tolerance

22.0%
maximum
efficiency

200W-225W
Output
Power Range

Quality System Certifications

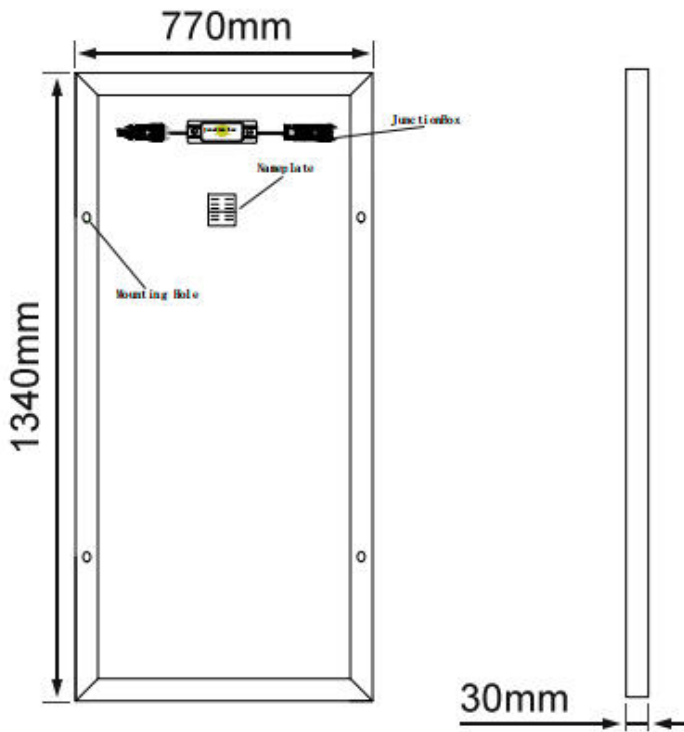
ISO9001: 2023/ ISO Quality Management System
ISO14001: 2024/ Environmental Management System
ISO45001: 2024/ Occupational Health and Safety Management System Certification

Product Quality Certifications

IEC61215+IEC61730+CQC/CGC
IECTS63163+IP68+CE
IECTS62994



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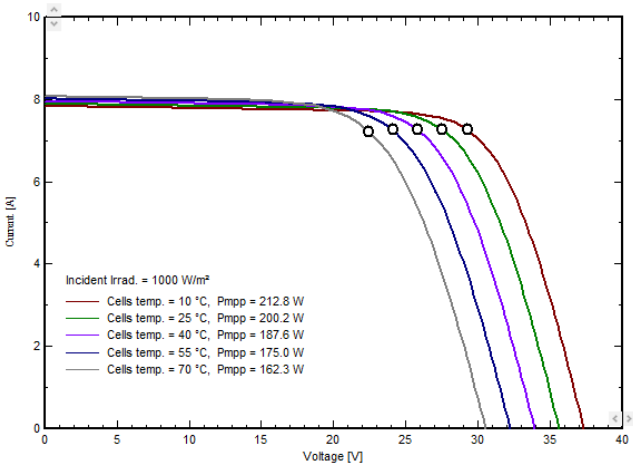


STC: Irradiance 1000W/m2, cell temperature 25°C, wind speed 1m/s, AM1.5G

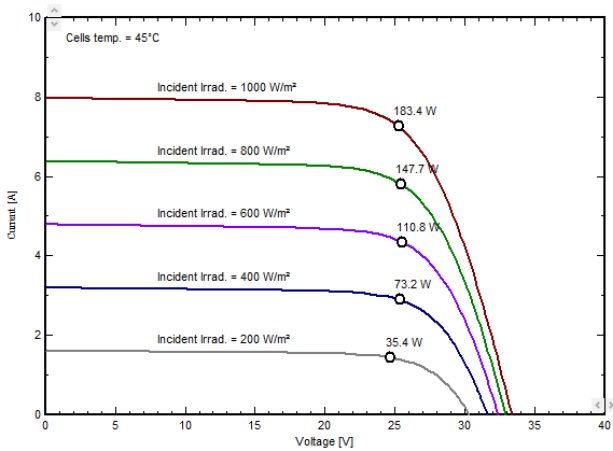
TYPE	MK30-200	MK30-205	MK30-210	MK30-215	MK30-220	MK30-225
Rated Maximum Power(Pmax) [W]	200W	205W	210W	215W	220W	225W
Open Circuit Voltage(Voc) [V]	23.06V	23.23V	23.40V	23.57V	23.74V	23.91V
Short Circuit Current(Isc) [A]	10.32A	10.47A	10.62A	10.79A	10.96A	11.13A
MaximumPower Voltage(Vmp) [V]	20.84V	20.88V	20.92V	20.96V	21.00V	21.04V
MaximumPower Current(Imp) [A]	9.60A	9.82A	10.04A	10.26A	10.48A	10.70A
Pwoer Tolerance	+5% ~-5%					
Maximum System Voltage	1000V					
Operating Temperature	-40°C~±85°C					
Safety Class	Class II					

SPECIFICATIONS

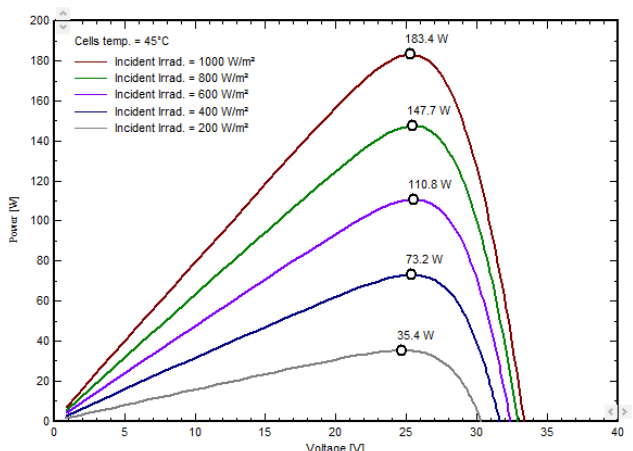
Cell	Half-cut mono cell
Weight	10.2 Kg
Solar Panel Size	1340*770*30 mm ±2 mm
Cable Cross Section Size	4mm ²
No. of cells	72 (4*18)
Junction BoX	IP68, 1 diodes
Connector	MC4
Cable Length	900 mm
Package size	1400*830*60 mm
Packed weight	11.4 Kg



Curves under different temperature conditions



Curves under different irradiation intensities



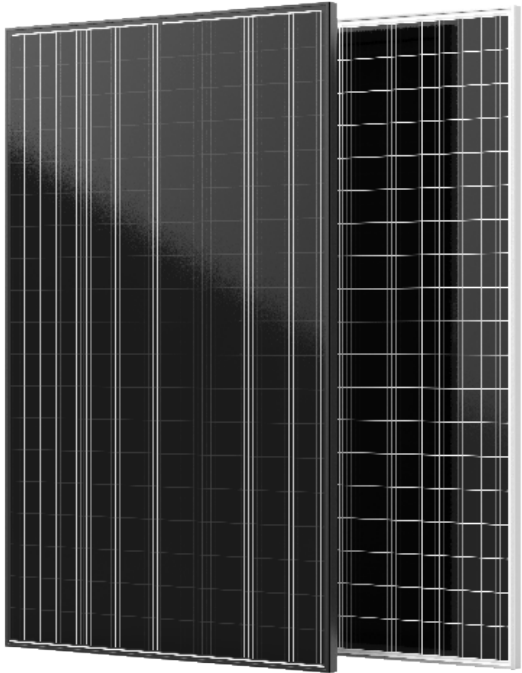
Power under different irradiation conditions



N-type TopCon MK04-245-270

Half-cut monocrystalline cell PV module

-  Lower internal resistance & less power loss
-  Strong anti-hotspot performance
-  Better partial shading tolerance
-  Higher energy yield under high temperature



76 half-cell
PV module

0~+5W
Positive Power
Tolerance

22.0%
maximum
efficiency

245W-270W
Output
Power Range

Quality System Certifications

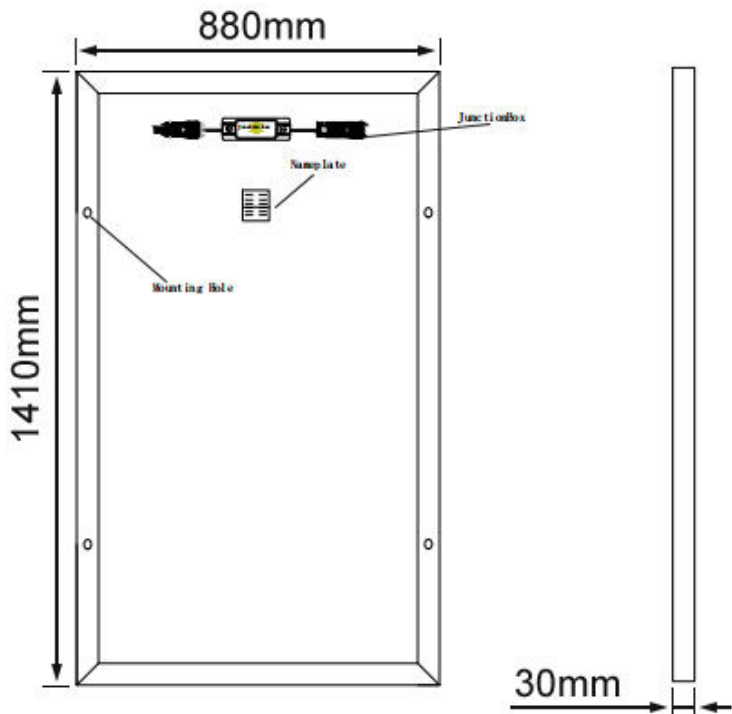
ISO9001: 2023/ ISO Quality Management System
ISO14001: 2024/ Environmental Management System
ISO45001: 2024/ Occupational Health and Safety Management System Certification

Product Quality Certifications

IEC61215+IEC61730+CQC/CGC
IECTS63163+IP68+CE
IECTS62994



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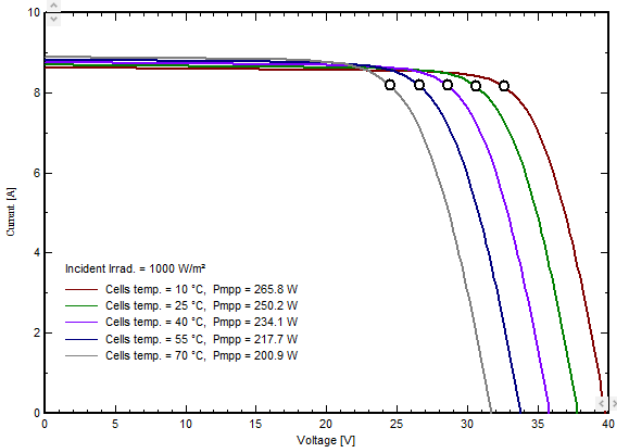


STC: Irradiance 1000W/m2, cell temperature 25°C, wind speed 1m/s, AM1.5G

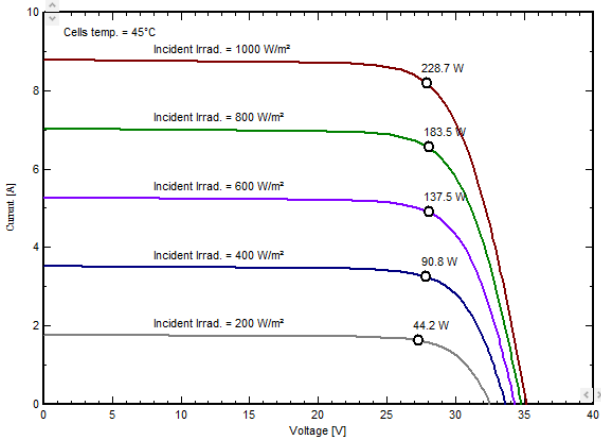
TYPE	MK04-245	MK04-250	MK04-255	MK04-260	MK04-265	MK04-270
Rated Maximum Power(Pmax) [W]	245W	250W	255W	260W	265W	270W
Open Circuit Voltage(Voc) [V]	23.39V	23.56V	23.73V	23.90V	24.07V	24.24V
Short Circuit Current(Isc) [A]	12.06A	12.11A	12.16A	12.21A	12.26A	12.31A
MaximumPower Voltage(Vmp) [V]	22.00V	22.04V	22.08V	22.12V	22.16V	22.20V
MaximumPower Current(Imp) [A]	11.14A	11.35A	11.55A	11.76A	11.96A	12.17A
Pwoer Tolerance	+5% ~-5%					
Maximum System Voltage	1000V					
Operating Temperature	-40°C~±85°C					
Safety Class	Class II					

SPECIFICATIONS

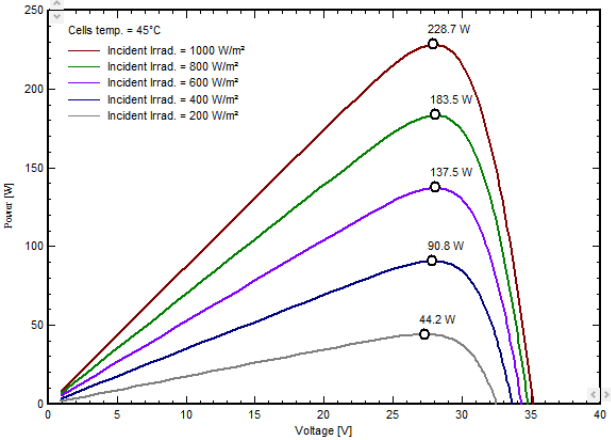
Cell	Half-cut mono cell
Weight	12. 3Kg
Solar Panel Size	1410*880*30mm*2 mm
Cable Cross Section Size	4 mm ²
No. of cells	76 (4*19)
Junction BoX	IP68, 1 diodes
Connector	MC4
Cable Length	900 mm
Package size	1470*940*60 mm
Packed weight	13.6 Kg



Curves under different temperature conditions



Curves under different irradiation intensities



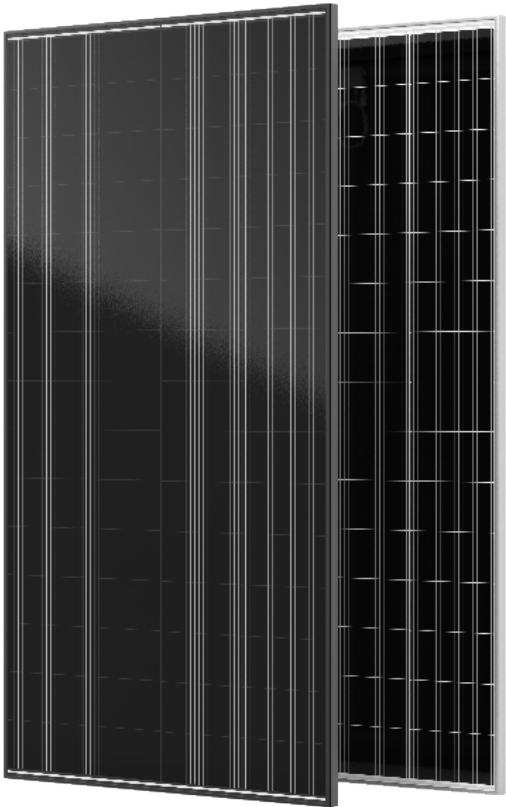
Power under different irradiation conditions



N-type TopCon MK05-290-330

Half-cut monocrystalline cell PV module

-  Lower internal resistance & less power loss
-  Strong anti-hotspot performance
-  Better partial shading tolerance
-  Higher energy yield under high temperature



60 half-cell
PV module

0~+5W
Positive Power
Tolerance

22.7%
maximum
efficiency

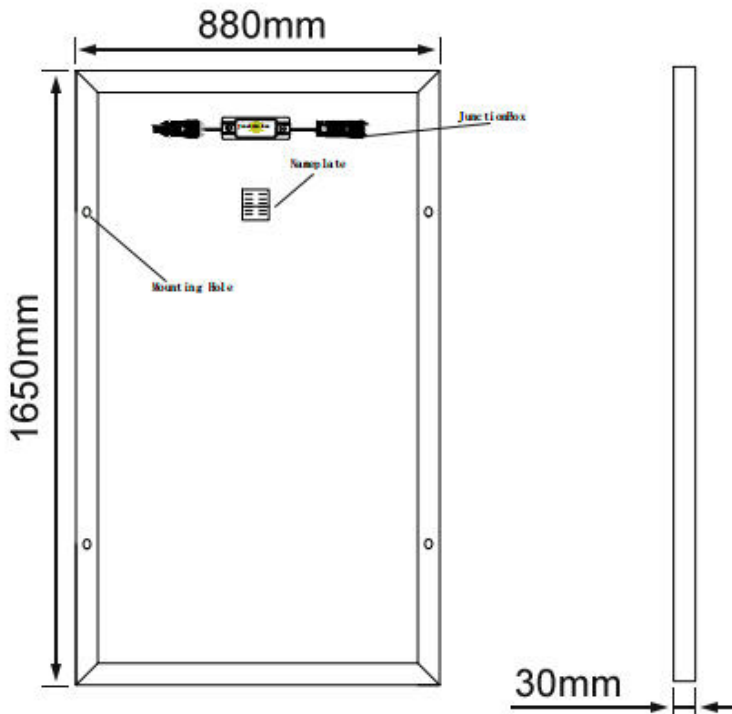
290W-330W
Output
Power Range

Quality System Certifications

ISO9001: 2023/ ISO Quality Management System
ISO14001: 2024/ Environmental Management System
ISO45001: 2024/ Occupational Health and Safety Management System Certification

Product Quality Certifications

IEC61215+IEC61730+CQC/CGC
IECTS63163+IP68+CE
IECTS62994



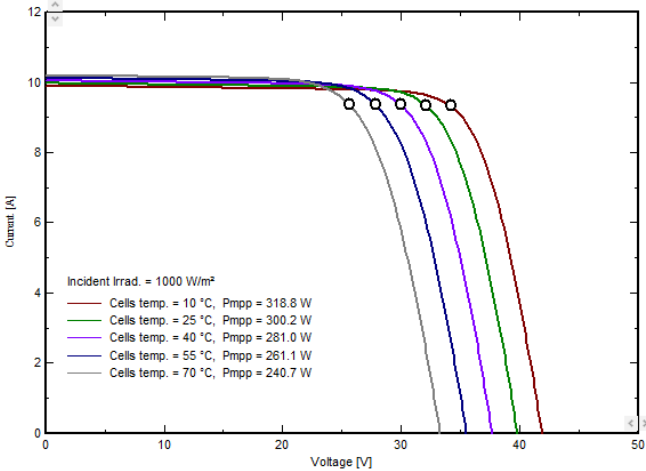
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STC: Irradiance 1000W/m2, cell temperature 25°C, wind speed 1m/s, AM1.5G

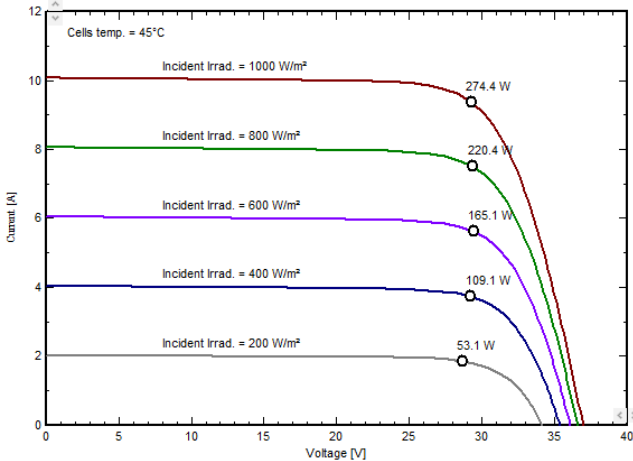
TYPE	MK05-290	MK05-295	MK05-300	MK05-305	MK05-310	MK05-315	MK05-320	MK05-325	MK05-330
Rated Maximum Power(Pmax) [W]	290W	295W	300W	305W	310W	315W	320W	325W	330W
Open Circuit Voltage(Voc) [V]	19.16V	19.33V	19.5V	19.67V	19.84V	20.01V	20.18V	20.35V	20.52V
Short Circuit Current(Isc) [A]	18.07A	18.12A	18.17A	18.22A	18.27A	18.32A	18.37A	18.42A	18.47A
MaximumPower Voltage(Vmp) [V]	17.32V	17.37V	17.40V	17.44V	17.48V	17.53V	17.56V	17.62V	17.64V
MaximumPower Current(Imp) [A]	16.75A	16.99A	17.25A	17.49A	17.74A	17.97A	18.23A	18.45A	18.71A
Pwoer Tolerance	+5% ~-5%								
Maximum System Voltage	1000V								
Operating Temperature	-40°C~±85°C								
Safety Class	Class II								

SPECIFICATIONS

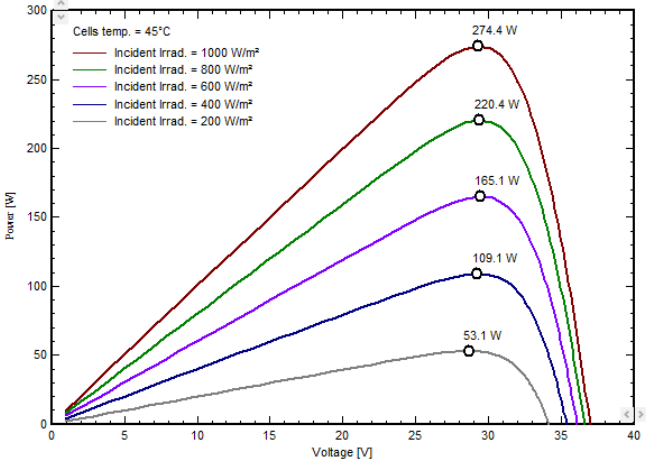
Cell	Half-cut mono cell
Weight	14.3 Kg
Solar Panel Size	1650*880*30 mm ±2 mm
Cable Cross Section Size	4 mm ²
No. of cells	60 (4*15)
Junction BoX	IP68, 1 diodes
Connector	MC4
Cable Length	900 mm
Package size	1710*940*60 mm
Packed weight	15.9 Kg



Curves under different temperature conditions



Curves under different irradiation intensities



Power under different irradiation conditions



NEW ENERGY HOME SOLUTIONS

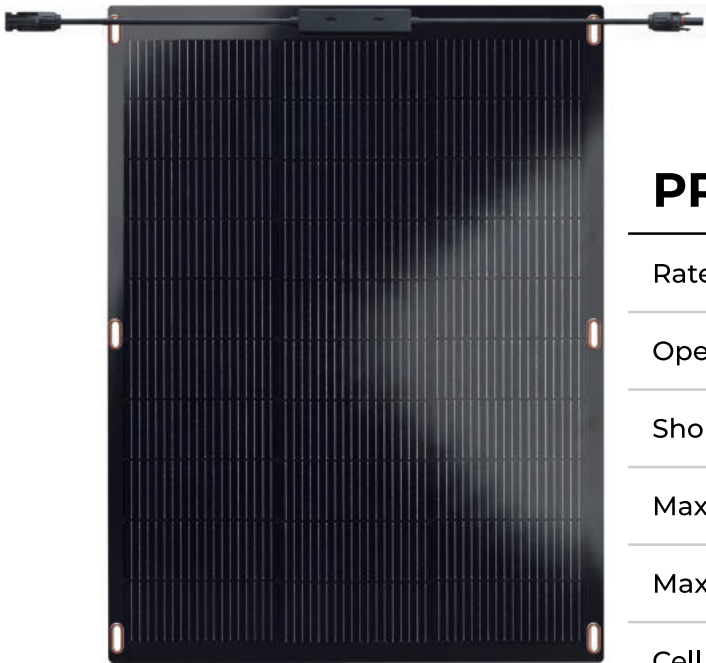




Flexible Solar Panel



100W Flexible Solar Panel



PRODUCT INFO

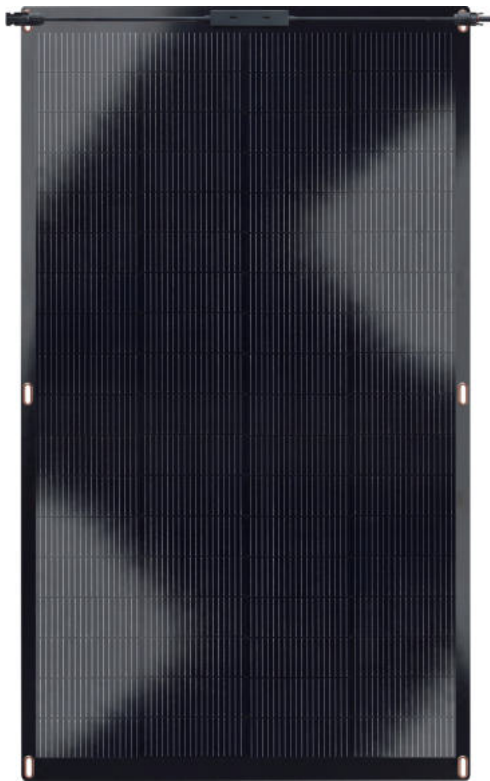
Rated Maximum Power (Pmax)[W]	100 W ±5%
Open Circuit Voltage(Voc) [V]	21.6 V
Short Circuit Current(Isc) [A]	6 A
MaximumPower Voltage(Vmp) [V]	18 V
MaximumPower Current(Imp) [A]	5.55 A
Cell Efficiency:	23%

Main Lamination Materials:	ETFE + EVA + Polymer Film
Manufacturing Process:	Monocrystalline integrated lamination, 2-fold parallel design
Operating Temperature	-40°C~±85°C
Pwoer Tolerance:	0 ± 5W
Junction Box:	IP68, 1 diodes
Adapters available:	MC4

Quantity Per Carton:	4 pcs
Net Weight Per Unit:	2.5kg
Total Carton Gross Weight:	11kg (4 units)

Solar Panel Size	860x685 mm
Carton Outer Size:	880*705*20mm(1 units)
Carton Outer Size:	920*740*105mm(4 units)

200W Flexible Solar Panel



PRODUCT INFO

Rated Maximum Power (Pmax)[W]	200 W ±5%
Open Circuit Voltage(Voc) [V]	25.2 V
Short Circuit Current(Isc) [A]	10.28 A
MaximumPower Voltage(Vmp) [V]	21 V
MaximumPower Current(Imp) [A]	9.52 A
Cell Efficiency:	24.5%

Main Lamination Materials:	ETFE + EVA + Polymer Film
Manufacturing Process:	Monocrystalline integrated lamination, 2-fold parallel design
Operating Temperature	-40°C~±85°C
Pwoer Tolerance:	0 ± 5W
Junction Box:	IP68, 1 diodes
Adapters available:	MC4

Quantity Per Carton:	2 pcs
Total Carton Gross Weight:	4.3kg (1 units)
Total Carton Gross Weight:	9.6kg (2 units)

Solar Panel Size	1350*780 mm
Carton Outer Size:	1370*800*20 mm (1 units)
Carton Outer Size:	1400*830*65 mm (4 units)

Foldable Solar Panel



100W Foldable Solar Panel

(Unfolded Dimensions)



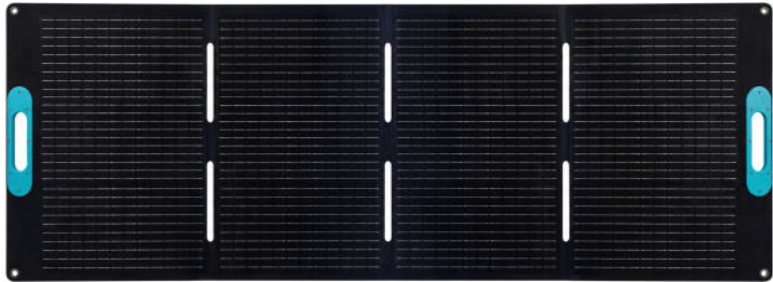
Rated Power:	100W
Maximum Power Voltage (Vmp):	4.71A
Maximum Power Current (Imp):	21.24V
Open-Circuit Voltage (Voc):	24.48V
Short-Circuit Current (Isc):	5.38A
Cell Efficiency:	23%

Main Lamination Materials:	ETFE + EVA + Fiberglass Board
Manufacturing Process:	Monocrystalline integrated lamination, 2-fold parallel design
Output Cable:	1.5m cable with MC4 connector
Packaging Material:	Inner & outer cartons made of K737K or V646V corrugated board
Accessories:	1m 1-to-4 splitter cable
Adapters available:	MC4 to XT60 / ANDERSON / DC5521 / DC7909

Quantity Per Carton:	4 pcs	Folded Dimensions:	600x563x35mm
Net Weight Per Unit:	3.8kg	Unfolded Dimensions:	1126x600x25mm
Gross Weight Per Unit:	4.6kg	Inner Box Size:	590x60x640mm
Total Carton Net Weight:	15.2kg (4 units)	Carton Outer Size:	610x260x670mm
Total Carton Gross Weight:	20kg (4 units)		

200W Foldable Solar Panel

(Unfolded Dimensions)



Rated Power:	200W
Maximum Power Voltage (Vmp):	21.24V
Maximum Power Current (Imp):	9.42A
Open-Circuit Voltage (Voc):	24.48V
Short-Circuit Current (Isc):	10.48A
Cell Efficiency:	23%

Main Lamination Materials:	ETFE + EVA + Fiberglass Board
Manufacturing Process:	Monocrystalline integrated lamination, 4-fold parallel design
Output Cable:	1.5m cable with MC4 connector
Packaging Material:	Inner & outer cartons made of K737K or V646V corrugated board
Accessories:	1m 1-to-4 splitter cable
Adapters available:	MC4 to XT60 / ANDERSON / DC5521 / DC7909

Quantity Per Carton:	2 pcs	Folded Dimensions:	573x600x45mm
Net Weight Per Unit:	6.5kg	Unfolded Dimensions:	2148x600x25mm
Gross Weight Per Unit:	8.0kg	Inner Box Size:	600x80x630mm
Total Carton Net Weight:	13.0kg (2 units)	Carton Outer Size:	625x185x660mm
Total Carton Gross Weight:	17kg (2 units)		



LiFePO4 Battery

Product Image				
Product Model	12V100Ah MINI	12V100Ah	12V200Ah	12V300Ah
Product dimensions	228x138x208mm	330X174X215mm	522x240x218mm	522x240x218mm
Product weight	11 kg ±1kg	12 kg ±1kg	20 kg ±0.3kg	26kg ±1kg
Nominal voltage	12.8 V	12.8 V	12.8 V	12.8 V
Nominal capacity	1280 Wh	1280 Wh	2560 Wh	3584 Wh
Operating voltage range	10.8~14.6 V	10.8~14.6 V	10.8~14.6 V	10.8~14.6 V
Maximum charging voltage	14.4 V ±0.20 V	14.4 V ±0.20 V	14.4 V ±0.20 V	14.4 V ±0.20 V
Discharge termination voltage	10V ±0.20V	10V ±0.20V	10V ±0.20V	10V ±0.20V
Maximum charging current	50A	50A	100A	100A
Maximum discharge current	100A	100A	200A	200A
Peak current	200A	200A	300A	300A
Working environment	temperature: -10°C+60°C, humidity: <95% non-condensing, atmospheric pressure: 86k Pa~106k PA			
Housing material	ABS			
Maximum Series & Parallel	4P4S	4P4S	4P4S	4P4S
Cell Grade: A-Grade		Optional: LED Screen, Bluetooth, OEM		
BMS build in	Cycle times: ≥6000		IP Grade: IP65	

Product Image				
Product Model	24V100Ah	48V100Ah	12V10Ah	12V100Ah Slim LiFePO4 Battery
Product dimensions	382x193x250mm	520x268x222mm	153x80x96mm	480x280x70mm
Product weight	19 kg ±1kg	35 kg ±1kg	1.5 kg ±0.3kg	18 kg ±1kg
Nominal voltage	25.6 V	48 V	12.8 V	12.8 V
Nominal capacity	2560Wh	4800Wh	128Wh	1280Wh
Operating voltage range	21.6~29.2 V	43.2~54.75 V	10~14.6 V	10~14.6 V
Maximum charging voltage	29.0 V ±0.20 V	54.75 V ±0.20 V	14.4 V ±0.20 V	14.4 V ±0.20 V
Discharge termination voltage	20V ±0.20V	37.5V ±0.20V	10V ±0.20V	10V ±0.20V
Maximum charging current	50A	50A	5A	50A
Maximum discharge current	100A	100A	10A	100A
Peak current	200A	200A	20A	200A
Working environment	temperature: -10°C+60°C, humidity: <95% non-condensing, atmospheric pressure: 86k Pa~106k PA			
Housing material	ABS			Metal Sheet
Maximum Series & Parallel	4P2S	4P	4P4S	4P4S
Cell Grade: A-Grade		Optional: LED Screen, Bluetooth, OEM		
BMS build in	Cycle times: ≥6000		IP Grade: IP65	

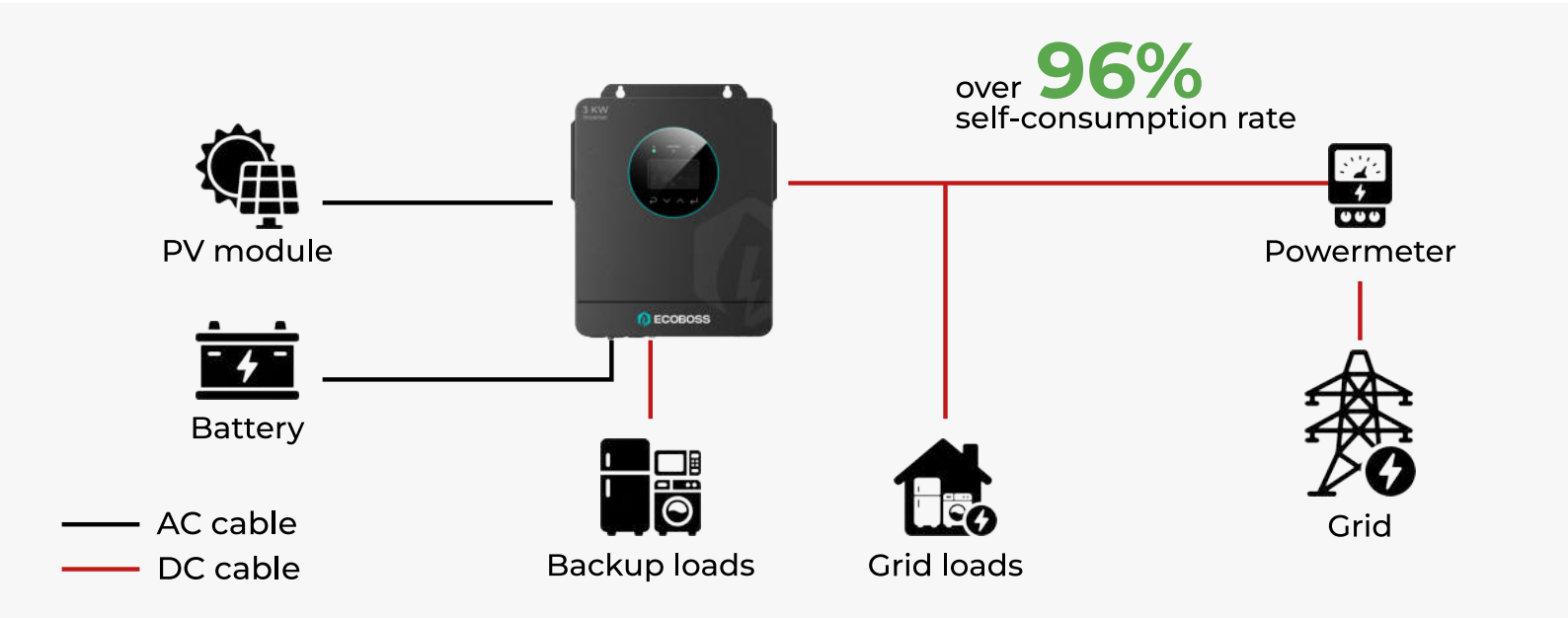
51.2V 100Ah(5.12KWh)



Compatible Inverter Brands:

- Sol-Ark
- Growatt
- SUN & SYNK
- SMA
- EPEVER
- MPP Solar
- Voltronic Power
- solis inverters
- victron energy
- Deye
- Growatt
- SUN & SYNK
- LU X POWER TEK
- OutBack POWER
- SUNGROW
- solar edge
- SMA
- MPP Solar
- GOODWE
- Sol-Ark
- SOFAR SOLAR
- MUST
- EPEVER
- KSTAR

Battery BMS supports simultaneous communication and docking with multiple inverter brands



PILE INDEX

Nominal voltage	51.2 V	Standard charge current	Sustained current: 50 A; Cut-off current: 0.01 CA
Nominal capacity	5.12 KWh	Maximum charge current	100 A
Minimum capacity	5.12 KWh	Standard discharge current	50 A
Combination	16S 1P	Max continuous discharge current	100 A
Charging Voltage	58.4 V	The factory voltage	50.4 V-52 V
Voltage at end of Discharge	44.8 V		

OVERALL OVERCHARGE PROTECTION

Overall overcharge alarm voltage	57.6 V	Can be set
Overall overcharge protection voltage	58.4 mV	Can be set
Overall overcharge protection delay	1.0 S	Can be set

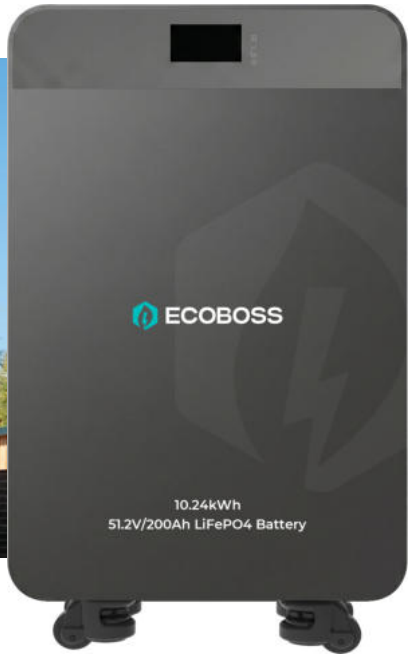
CHARGE OVER CURRENT PROTECTION

Charge over current alarm current	100 A	Can be set
Charge over current protection current	110 A	Can be set
Charging over current protection delay	400 ms	Can be set
Charging over current recovery condition	The lock will be automatically unlocked 1 minute later. If the lock is unlocked for 10 consecutive times, the lock will not be automatically unlocked.	

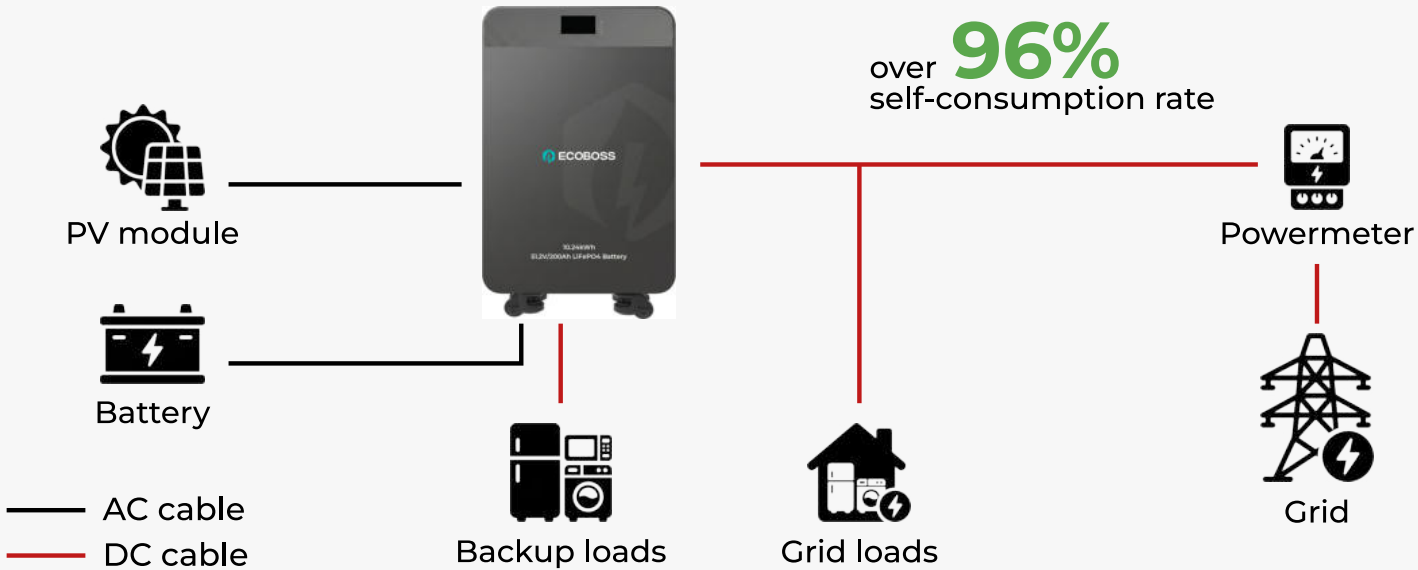
General Electric & Structural Parameters

Monitoring and control communications	Can RS232、RS485 Port: Serial port communication
Work environment	Temperature: -20°C~+ 60°C; Humidity: ≤95%; At an altitude of: ≤4000 m
Product Dimensions (W×D×H)	482x133x521 MM
Net Weight	42 ±0.5 KG
Installation	Wall mounted、Outdoor hanging wall type
Differential pressure between battery charging and discharging end	≥95%
Differential pressure between battery charging and discharging end	≤200 mV

51.2V 200Ah(10.24KWh)



Battery BMS supports simultaneous communication and docking with multiple inverter brands



PILE INDEX

Nominal voltage	51.2V	Standard charge current	Sustained current: 100A; Cut-off current: 0.01CA
Nominal capacity	200Ah		
Minimum capacity	200Ah	Maximum charge current	100A
Combination	1P 16S	Standard discharge current	100A
Charging Voltage	58.4V	Max continuous discharge current	200A
Voltage at end of Discharge	44.8V	The factory voltage	50.4V-52V

OVERALL OVERCHARGE PROTECTION

Overall overcharge alarm voltage	57.6 V	Can be set
Overall overcharge protection voltage	58.4 mV	Can be set
Overall overcharge protection delay	1.0 S	Can be set

CHARGE OVER CURRENT PROTECTION

Charge over current alarm current	200 A	Can be set
Charge over current protection current	210 A	Can be set
Charging over current protection delay	3000 ms	Can be set

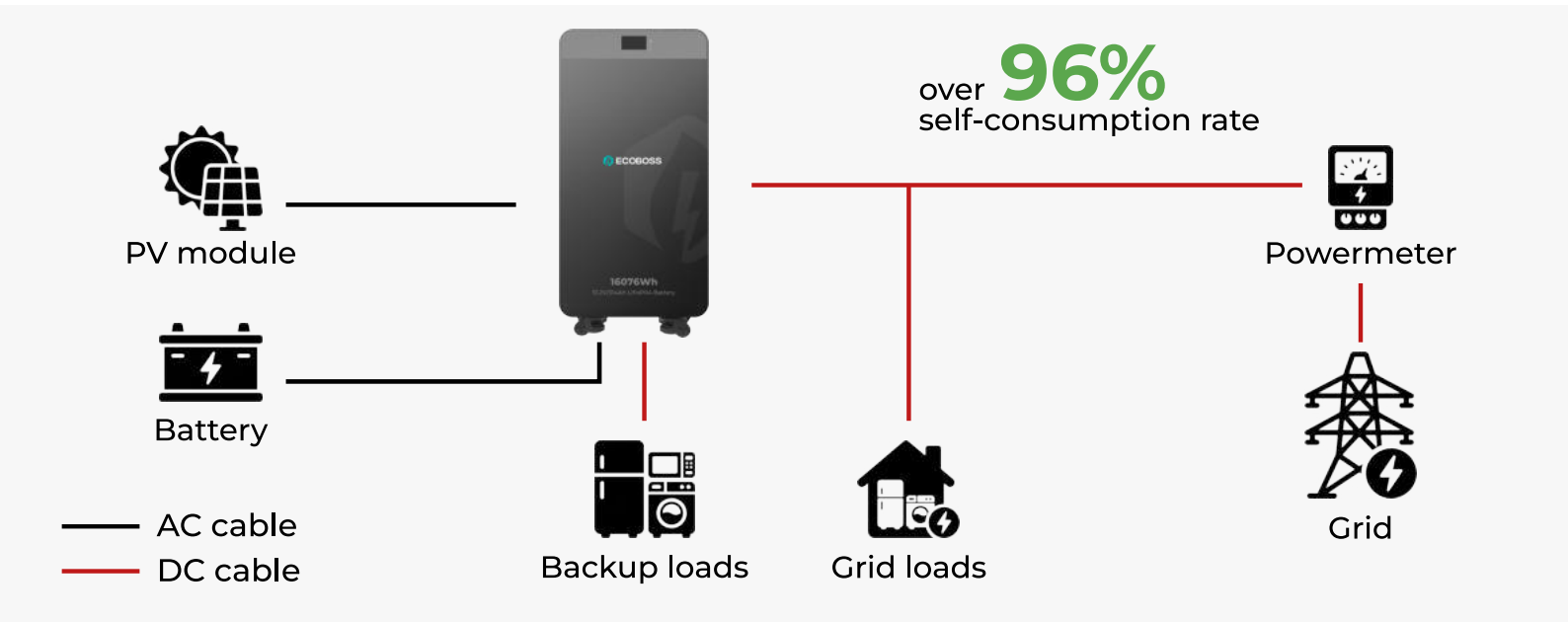
Charging over current recovery condition

The system automatically attempts recovery three times within 10 minutes; after locking, it can be unlocked by manually charging and discharging the battery.

General Electric & Structural Parameters

Monitoring and control communications	Can RS232、RS485 Port; Serial port communication
Work environment	Temperature: -20°C~+ 60°C; Humidity: ≤95%; At an altitude of: ≤4000m
Product Dimensions (W×D×H)	515x198x850 MM
Net Weight	95 ±0.5 KG
Installation	Caster type vertical
Differential pressure between battery charging and discharging end	≥95%
Differential pressure between battery charging and discharging end	≤200mV

51.2V 314Ah(16.07KWh)



PILE INDEX

Nominal voltage	51.2V	Standard charge current	Sustained current: 200A; Cut-off current: 0.01CA
Nominal capacity	314Ah		
Minimum capacity	310Ah	Maximum charge current	157A
Combination	1P 16S	Standard discharge current	157A
Charging Voltage	58.4V	Max continuous discharge current	200A
Voltage at end of Discharge	44.8V	The factory voltage	50.4V-52V

OVERALL OVERCHARGE PROTECTION

Overall overcharge alarm voltage	57.6 V	Can be set
Overall overcharge protection voltage	58.4 mV	Can be set
Overall overcharge protection delay	1.0 S	Can be set

CHARGE OVER CURRENT PROTECTION

Charge over current alarm current	200 A	Can be set
Charge over current protection current	210 A	Can be set
Charging over current protection delay	3000 ms	Can be set

Charging over current recovery condition	The system automatically attempts recovery three times within 10 minutes; after locking, it can be unlocked by manually charging and discharging the battery.
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General Electric & Structural Parameters

Monitoring and control communications	Can RS232、RS485 Port: Serial port communication
Work environment	Temperature: -20°C~+ 60°C; Humidity: ≤95%; At an altitude of: ≤4000m
Product Dimensions (W×D×H)	450x251x897 MM
Net Weight	130 ±0.5 KG
Installation	Caster type vertical
Differential pressure between battery charging and discharging end	≥95%
Differential pressure between battery charging and discharging end	≤200mV

Inverter & Controller





ED3024 EMH

APPLICATION



DISPLAY & INTERFACE

LCD	Can display operating mode/ load/input/output
RS232	Baud Rate 2400
Expansion Slot Communication interface	Lithium Battery BMS Communication Card, WIFI /Pitch2.54 mm
Parallel Function	Not Support Parallel

BATTERY

Rated Voltage	24 Vdc
Constant Charging (Configurable)	28.2 Vdc
Charging Voltage (Configurable)	27 Vdc

AC INPUT VOLTAGE

AC Input	220 VAC (standard) / 110 VAC (custom)
Input Voltage Range	90-280 VAC ±3V (Normal Mode) 170-280 VAC ±3V (UPS Mode)
Input Frequency	50/60 Hz ±5%
Rated Power	3000 W

CHARGER

PV Charging Mode	MPPT
Max PV Input Power	3000 W
MPPT Input Voltage Range	30~500 Vdc
Optimal Vmp Range	300~400 Vdc
Max PV Input Voltage	500 Vdc
Max PV Input Current	13 A
Max PV Charging Current	100 A
Max AC Charging Current	60 A
Max Charging Current	100 A

OUTPUT SPECIFICATIONS

Solar Inverter Output Power	3000 W
Output Voltage	220/230/ 240 VAC ±5%
Output Frequency	50/60 Hz ±0.1%
Output Wave	Pure Sine Wave
Transfer Tim	≤10 ms (UPS mode) / ≤20 ms (INV mode)
Peak Power	6000VA
Overload Ability	Battery Mode : 11s @105%-150% Load 2s @150%~200% Load 400ms @>200% Load

AMBIENT TEMPERATURE

Operating Temperature	-10°C~50°C
Operating Environment Humidity	-10°C~60°C
Storage Temperature	20%~90% Non Condensing
Noise	≤ 50dB



GD6248 SMHB

APPLICATION



BATTERY

Rated Voltage	48 Vdc
Constant Charging (Configurable)	56.4 Vdc
Charging Voltage (Configurable)	54 Vdc

DISPLAY & INTERFACES

LCD	Can display operating mode/load/input/output
RS232	5PIN/Pitch 2.54 mm Baud Rate 2400
Expansion Slot Communication interface	Lithium Battery BMS Communication Card, WIFI 2×5PIN/Pitch2.54 mm
Parallel Support	Support Parallel

PHYSICAL PARAMETERS

SIZE(L*W*H)	495*312*125 mm
Standards & Certifications	EN-IEC 60335-1, EN-IEC 60335-2-29, IEC 62109-1

AC INPUT VOLTAGE

Input Formation	L+N+PE
AC Input	220/230/240 VAC
Input Voltage Range	90–280 VAC ±3V (Normal mode) /170–280 VAC ±3V (UPS mode)
Frequency	50/60 Hz (Adaptive)

GRID-CONNECTED OPERATION

Output Voltage	220/230/240 VAC
Grid Voltage Range	195-253 VA
Grid Frequency Range	49-51 ±1Hz /59-61 ±1Hz
Rated Output Current	26.9 A
Power Factor Range	>0.99
Peak Efficiency (DC/AC)	98%

CHARGER

PV Charging Mode	MPPT
Max PV Input Power	8500 W
MPPT Input Voltage Range	60-500 Vdc
Optimal Vmp Range	360-430 Vdc
Max PV Input Voltage	500 Vdc
Max PV Input Current	27 A
Max PV Charging Current	120 A
Max AC Charging Current	100 A
Max Charging Current	120 A

OUTPUT SPECIFICATIONS

Rated Power	6200 W
Output Voltage	220/230/ 240 VAC±5%
Output Frequency	50/60H z±0.1%
Output Wave	Pure Sine Wave
Peak Power	12400 VA
Transfer Time (Adjustable)	10ms for Computer Equipment 20ms for Household Equipment
Overload Ability	Battery Mode: 21s @105%-150% Load 11s @150%~200% Load 400ms @>200% Load

AMBIENT TEMPERATURE

Operating Temperature	-10°C~50°C
Storage Temperature	-15°C~60°C
Operating Environment Humidity	20%~95% Non Condensing
Noise	≤ 50dB
Ork Altitude	No more than 1000m, if 1000m<, Rate power will lower, MAX 4000m, Refer to IEC62040



GD11048 SMHB

APPLICATION



BATTERY

Rated Voltage	48 Vdc
Constant Charging(Configurable)	56.4 Vdc
Charging Voltage(Configurable)	54 Vdc

DISPLAY & INTERFACES

LCD	Shows operating mode, load status, input/output parameters
RS232	5PIN/Pitch2.54 mm Baud Rate 2400
Expansion Slot Communication interface	Lithium Battery BMS Communication Card, WIFI 2×5PIN/Pitch2.54 mm
Parallel Support	Support Parallel

PHYSICAL PARAMETERS

SIZE(L*W*H)	570*471*148 mm
Standards & Certifications	EN-IEC 60335-1, EN-IEC 60335-2-29, IEC 62109-1

AC INPUT VOLTAGE

Input Formation	L+N+PE
AC Input	220/230/240 VAC
Input Voltage Range	90-280 VAC ±3V (Normal Mode) 170-280 VAC ±3V (UPS Mode)
Frequency	50/60 Hz (Adaptive)

GRID-CONNECTED OPERATION

Output Voltage	220/230/240 VAC
Grid Voltage Range	195-253 VA
Grid Frequency Range	49-51 ±1Hz /59-61 ±1Hz
Rated Output Current	47.8 A
Power Factor Range	>0.99
Peak Efficiency (DC/AC)	98%

CHARGER

PV Charging Mode	MPPT*2
Max PV Input Power	2x7500 W
MPPT Input Voltage Range	90-500 Vdc
Optimal Vmp Range	360-430 Vdc
Max PV Input Voltage	500 Vdc
Max PV Input Current	27 A/27 A
Max PV Charging Current	150 A
Max AC Charging Current	150 A
Max Charging Current	150 A

OUTPUT SPECIFICATIONS

Rated Power	11000 W
Output Voltage	220/230/ 240 VAC ±5%
Output Frequency	50/60 Hz ±0.1%
Output Wave	Pure Sine Wave
Peak Power	22000 W
Transfer Time (Adjustable)	10ms for Computer Equipment, 20ms for Household Equipment
Overload Ability	Battery Mode: 21s @105%-150% Load 11s @150%~200% Load 400ms @>200% Load

AMBIENT TEMPERATURE

Operating Temperature	-10°C~50°C
Storage Temperature	-15°C~60°C
Operating Environment Humidity	20%~95% Non Condensing
Noise	≤ 50dB
Ork Altitude	No more than 1000 m, if 1000 m<, Rate power will lower, MAX 4000 m, Refer to IEC62040

MPPT ML Series

Solar Charge Controller
40A-100A



PRODUCT INFO

Model	ML60415
Cooling Method	Air Cooling
Display	High-Definition LCD with Backlight
Dimensions	219*260*110 mm
Weight	2.8KG
Recommended Wire Gauge	6AWG/16mm²
Protection Features	Over/Under Voltage, Reverse Polarity, Over-Temperature, Over-Load Protection

Use Cases



SPECIFICATIONS

System Voltage		12/24/36/48V Auto-Recognition	Rated Current		60A
Charging Mode		MPPT (Maximum Power Point Tracking)	Compatible Batteries		Lead-Acid / Lithium / Water-Based Batteries
Charging Method		3-Stage: Bulk, Absorption, Float	Max PV Open Circuit Voltage (VOC)		DC150V
Start-Up Time		≤10s	Dynamic Response Time		≤500us
No-Load Power Consumption		≤4W	Tracking Efficiency		≥99.5%
Max Conversion Efficiency		≥98%	Rated Load Current		40A
Controller Operating Voltage		10~64V			
Rated Charging Power	12V	800W	Max PV Operating Voltage Range	12V	20~150V
	24V	1600W		24V	36~150V
	36V	2400W		36V	48~150V
	48V	3200W		48V	64~150V
Load Voltage		Same as Battery Voltage			

OPERATING CONDITIONS

Temperature Compensation	-3mV/°C/2V	Operating Temperature	-20°C~+50°C
Noise Level	≤50dB	Humidity	0~90%RH
Altitude	0~3000M	Storage Temperature	-40°C~+70°C
Load Control Modes	Always On / Timer / Light Control		
Low Voltage Disconnect	10.5v*N(N stands for batteries number) Parameters can be adjustable		



