

JHPVTECH
晶弘能源

Pump Energy Storage System

Providing high quality energy storage



JHPVTECH

BRAND HISTORY

Company Vision

1. Local Market
2. Local EPC
3. Top Solar Technology
4. Experience Team

4S+ Service

1. 4S: Sales, Service, Sparepart, Solution.
2. Local Team Service.
3. Installation Technical Guide.
4. In stock

2015

Ningbo Jinghong Energy Technology Co., Ltd. was established, Cell printing and production

2017

The Cell production capacity was 400MW, and the two-year export sales exceeded from \$3 million to \$10 million

2022

Established Cutting silicon wafers company and module production base 1.5GW

2023

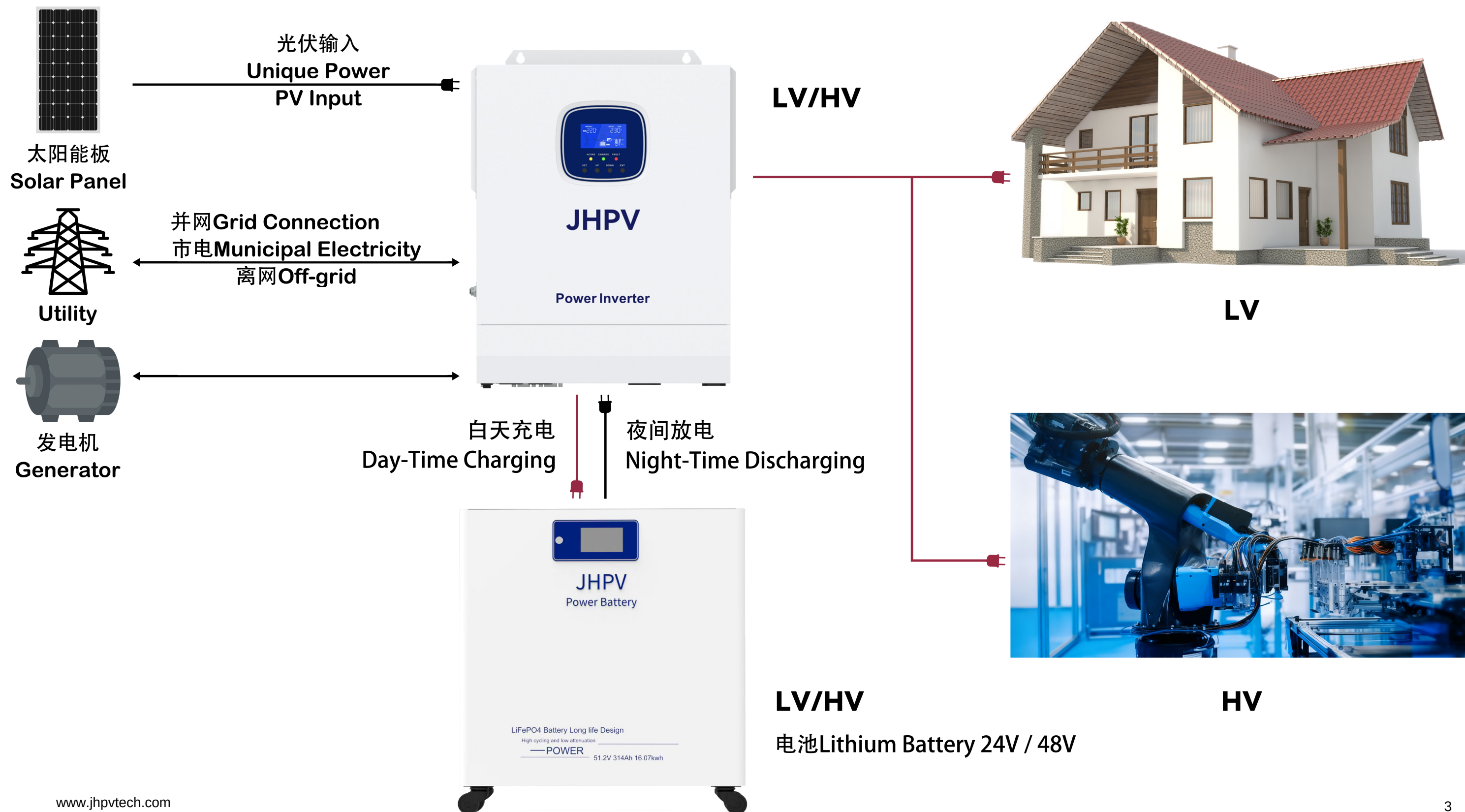
It established a European branch and a Singapore branch, engaged in Cell and silicon wafer sales

2024

We have developed the markets of the Netherlands, Germany, Iraq and Egypt

PHOTOVOLTAIC SYSTEM SOLUTIONS

Solar Cell System Off Grid Type

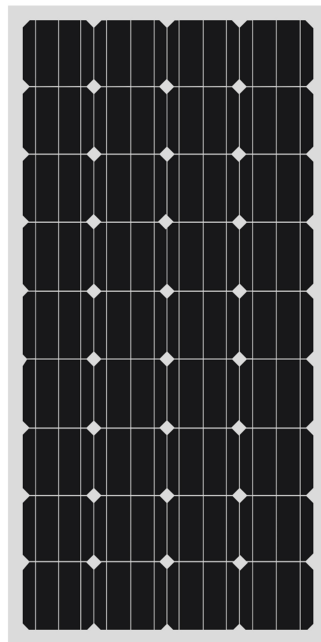


PHOTOVOLTAIC SYSTEM SOLUTIONS

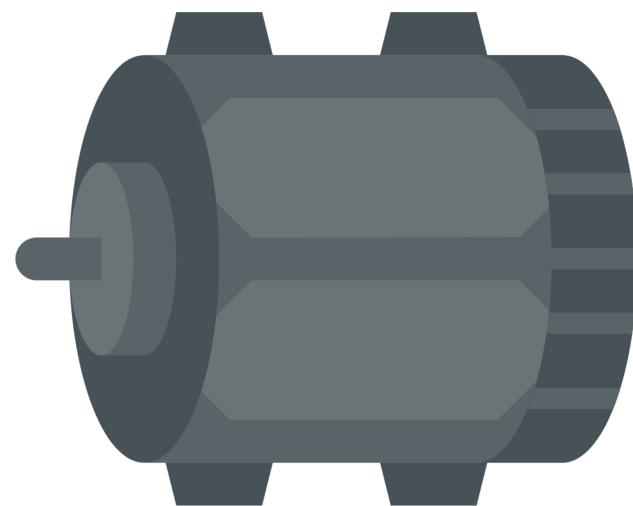


NO Need Battery

太阳能板
Solar Panels



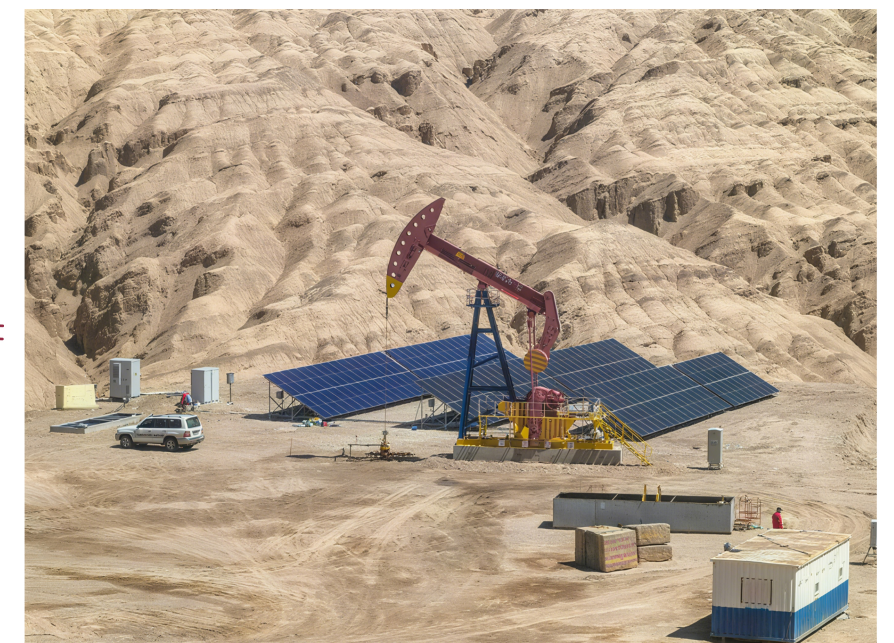
光伏输入
Unique Power
PV Input



发电机
Generator



Solar Water Pump



Solar Oil Pump



HYBRID INVERTER >>>

JHPV-5.5P-Ultra

LV

Performance characteristics

Efficiency

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

Reliable

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

Safety

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

User-Friendly

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

All in one

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

Intelligent

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

Technical parameters

MODEL	JHPV-5.5P-Ultra	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	

Technical parameters

MODEL	JHPV-5.5P-Ultra	CAN BE SET
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	

JH2 5-12kW Low Voltage Hybrid Inverter

JHPVTECH's Low Voltage solution of hybrid inverter, allow to be compatible with both LFP and Lead-Acid Batter, supporting storing energy from diesel generator, provide a most cost effective solution for those entry-level market. H2 covers 5 -12kW, 2MPPTs, single phase grid.



- Max 20A input current to better match high power panel
- 200% DC oversizing
- Built-in meter zero export limiter
- Max. 4 pcs parallel for on-grid and off-grid operation
- Heat-resistant (> 50°Cwith derating)
- Support generator / smart load access

LV

JH2-5K-LS2 | JH2-6K-LS2 | JH2-7.6K-LS2
JH2-8K-LS2 | JH2-10K-LS2 | JH2-12K-LS2

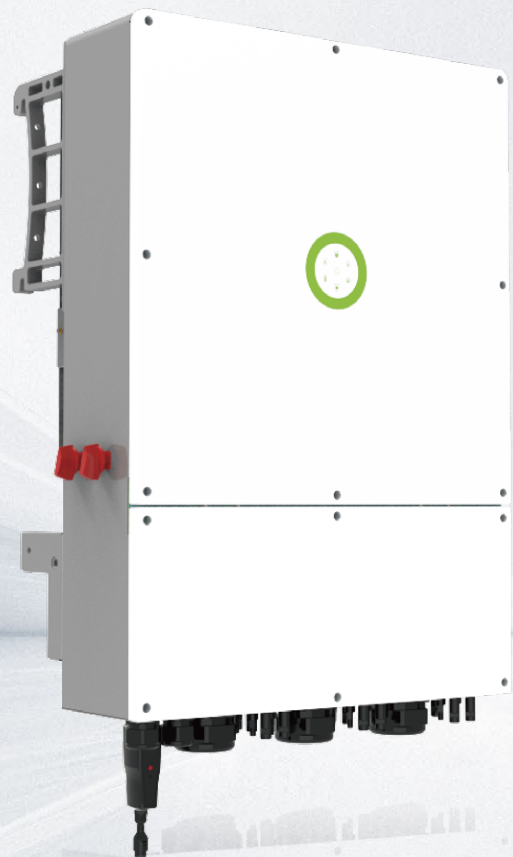
Technical parameters

MODEL	JH2-5K-LS2	JH2-6K-LS2	JH2-7.6K-LS2	JH2-8K-LS2	JH2-10K-LS2	JH2-12K-LS2
DC Input						
Max. PV Array Power [Wp]@STC	10000	12000	15200	16000	20000	24000
Max. DC Voltage [V]	500					
MPPT Voltage Range [V]	90 ~ 480					
Rated DC Voltage [V]	360					
Star Voltage [V]	80					
Max. DC Input Current [A]	20/20		40/40			
Max. DC Shor Circuit Current [A]	25/25		50/50			
No. of MPPT	2					
Batter Parameters						
Batter Type	Lead-acid or LiFePO4					
Batter Voltage Range [V]	40 ~ 60					
Max. Charging/Discharging Current [A]	100	120	190	190	240	
AC Output [On-grid]						
Rated AC Power [W]	5000	6000	7600	8000	10000	12000
Max. Apparent Power [VA]	5500	6600	8360	8800	10000	12000
Rated Output Current [A]@230Vac	21.8	26	33	34.8	43.5	52.2
Max. Output Current [A]	25	30	38	40	45.5	54.6
Rated AC Voltage/Range [V]	L+N+PE, 220,230,240/180 ~ 280					
Rated Output Frequency/Range [Hz]	50,60/45 ~ 55,55 ~ 65					
Power Factor [cos φ]	0.8 leading ~ 0.8 lagging					
Total Harmonic Distortion [THDi]	<3%					
AC Input [On-grid]						
Rated AC Voltage/Range [V]	L+N+PE, 220,230,240/180 ~ 280					
Rated Input Frequency [Hz]	50,60					
Max. Input Current [A]@230Vac	50	60		80	91	100
AC Output [Back-up]						
Max.Output Power [VA]	5000	6000		8000	10000	12000
Max. Output Current [A]	25	30		40	45.5	54.6
Peak Output Apparent Power [VA]	6000,60s	7200,60s		9600,60s	12000,60s	13200,60s
Rated AC Voltage/Range [V]	L+N+PE, 220,230,240/180 ~ 280					
Rated Output Frequency/Range [Hz]	50,60/45 ~ 55,55 ~ 65					
Output THDv (@ Linear Load)	<3%					
Efciency						
Max. Efciency	97.6%					
Euro Efciency	97.0%					
Protection						
Batter Input Reverse Polarity Protection	Integrated					
Over load Protection	Integrated					
AC Shor Circuit Current Protection	Integrated					
DC Surge Protection	Integrated					
AC Surge Protection	Integrated					
Anti-islanding Protection	Integrated					
AFCI Protection	Optional					
RSD Protection	Optional					
Interace						
PV Connection	Terminal Block					
AC Connection	Terminal Block					
Batter Connection	Terminal Block					
Display	LED+APP					
Communication	Wi-Fi/Ethernet/4G(Optional)					
General Parameters						
Topology	Non-isolated					
Operating Temperature Range	-40°C to +60°C (50°C to 60°C with derating)					
Cooling Method	Intelligent Fan cooling					
Ambient Humidity	0-100% Non-condensing					
Altitude	4000m (>3000m Power Derating)					
Noise [dBA]	<50					
Ingress Protection	IP65					
Dimensions [H*W*D] [mm]	590*380*241					
Weight [kg]	29					
Warranty [Year]	5/10					
Standard	EN 62109-1/2, EN 61000-6-1/2/3/4,IEC 62116, IEC 61727,IEC62183,PEA&MEA, NBR 16149, NBR 16150,PORTARIA N° 140,515, NRS097					

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JH Series Hybrid Solar Inverter

JH series three-phase high-voltage hybrid inverter, supports multi-unit parallel operation suitable for small and medium-sized industrial and commercial application scenarios. This series includes multiple power levels of 29.9/50kW, capable of achieving UPS-level grid and off-grid switching, supports generator access, supports a maximum input current of 22.5A. The AC side supports 1.1 times continuous AC overload, standard configuration includes AFCI protection, and type II surge protection for AC and DC ensures power consumption safety.



- **Better Performance**
 - String current 22.5A, matching high power (210) PV panel
 - 6 MPPT, support 200% oversizing
 - Adopting C&I 280Ah cell, good performance and higher energy density
- **Ultimate Safety**
 - AFCI as standard to prevent fire
 - AC and DC type II SPD
 - IP66 protection level
- **Remarkable adaptability**
 - Parallel connection up to 10PCS, easy for expansion
 - Accessing to DG(diesel generator), no need for additional equipment
 - Supports UPS-level on- and off-grid switching

HV

Technical parameters		
MODEL	JH-S-30K150A	JH-S-50K150A
DC Input		
Max. PV Array Power [Wp]@STC	59800	100000
Max. DC Voltage [V]	1000	
MPPT Voltage Range [V]	180 ~ 850	
Rated DC Voltage [V]	600	
Start Voltage [V]	200	
Max.DC Input Current [A]	4*45	6*45
Max.DC Short Circuit Current [A]	4*55	6*55
Number of Strings per MPPT	2	2
Battery Parameters		
Battery Type	LiFePO4	
Battery Voltage Range[V]	180 ~ 800	
Max.Charging/Discharging Current [A]	150	
AC Output [On-grid]		
Rated AC Power [W]	29900	50000
Max.Apparent Power[VA]	29900	55000
Rated Output Current[A]@230V	43.3	72.5
Max. Output Current [A]@230V	43.3	79.8
Rated AC Voltage/Range [V]	3+N+PE/ 3+PE, 380/ 400	
Rated Output Frequency/Range [Hz]	50,60/45 ~ 55,55 ~ 65	
Power Factor [cos φ]	0i - 1 - 0c	
Total Harmonic Distortion [THDi]	<3%	
AC input [On-grid]		
Rated AC Voltage [V]	3+N+PE,380/400	
Rated Output Frequency [Hz]	50,60	
Max. Input Current [A]	200	
AC Output [Back-up]		
Max.Output Power [VA]	29900	55000
Peak Output Apparent Power [VA]	29900	75000,5s
Rated AC Voltage [V]	3+N+PE,380/400	
Rated Output Frequency/Range [Hz]	50,60/45 ~ 55,55 ~ 65	
Output THDv (@ Liner Load)	<3%	
AC Input [Generator]		
Max. Input Power [W]	138000	
Max. Input Current [A]@230V	200	
Rated Input Voltage [V]	3+N+PE, 380/400	
Rated Input Frequency/Range [Hz]	50,60/45 ~ 55,55 ~ 65	
Efficiency		
Max. Efficiency	≥98.0%	
Euro Efficiency	97.3%	
Max. Battery to AC Efficiency	96.0%	
Protection		
PV Reverse Polarity Protection	Integrated	
Anti-islanding Protection	Integrated	
AC Overcurrent Protection	Integrated	
AC Short Circuit Protection	Integrated	
AC Overvoltage Protection	Integrated	
DC switch	Integrated	
DC Surge Protection	II	
AC Surge Protection	II	
AFCI	Integrated	
RSD	Optional	
General Parameters		
Communication	Wi-Fi/Ethernet/CAN/RS485	
Topology	Transformerless	
Operating Temperature Range	-30°C to +60°C (45°C to 60°C with derating)	
Cooling Method	Smart Fan Cooling	
Ambient Humidity	0-100% Non-condensing	
Altitude	3000	
Ingress Protection	IP66	
Dimensions [H*W*D] [mm]	630*630*290	
Weight [kg]	76	
Warranty [Year]	5/10	
Standard	VDE4105, IEC61727/62116, VDE0126, AS4777.2, CEI 0 21, EN50549-1, G99, G100, C10-11, UNE217002, NRS097 NBR16149/NBR16150, IEC62109-1/-2, NBT32004-2018, EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4	

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- | Integrated PV/MPPT module/transformer/STS and maintenance bypass.
- | Support 100% unbalance.
- | Support parallel connection of multiple machines.
- | Easy expansion, support PV flexible configuration.
- | Support DG load rate control to improve fuel economy
- | Support flexible configuration of control strategies.

HV

Technical parameters

Model	JHPV- M-150K	JHPV- M-250K	JHPV- M-500K
AC(on-grid)			
Max. output power (kW)	165	275	550
Rated output power (kW)	150	250	500
Rated voltage(V)	400		
Voltage range (V)	320~460		
Rated current (A)	216	361	722
Rated frequency (Hz)	50/60		
Frequency range (Hz)	45~55/55~65		
THDi	<3%		
Power factor	1leading-1lagging(settable)		
Grid type	3W+N+PE		
AC(off-grid)			
Max. output power (kW)	165	275	550
Rated power (kW)	150	250	500
Rated voltage (V)	400		
Rated current (A)	216	361	722
THDu	≤1% linear; or≤5% nonlinear		
Rated frequency (Hz)	50/60		
Overload capacity	110% long-term, 120% 1min		
PV input			
Max. PV input voltage (V)	1,000		
Max. PV power (kW)	120/180/240	300/360	600/660/720
MPPT module quantity	02/3/4	5/6	10/11/12
MPPT voltage range (V)	250~850		
Battery			
Battery voltage range (V)	420~850	420~850	500~850
Max. charging power (kW)	120/180/240	300/360	600/660/720
General data			
Dimension W*D*H (mm)	1,200*800*2,050	(600*720*2,050)*1+1, 200*800*2,050	(600*720*2,050)*2+1, 600*1,050*2,050
Weight (kg)	1,250/1,280/1,310	1,980/2,010	3,265/3,295/3,325
Operation temperature (°C)	-30 ~ 55		
Relative humidity	0 ~95% non-condensing		
Ingress protection	IP20		
Noise emission (dB)	<70		
Operating altitude (m)	<5,000(>3,000 Derating)		
Cooling	Air Cooling		
Display and communication			
Display	LCD touch-screen		
BMS communication	RS485, CAN		
EMS communication			

Certificates

EN 62109-1/-2, EN 62477-1, EN 61000-6-2/-6-4, IEC61727, IEC62116, IEC61683
NRS 097-2-1:2017, ASGC, AS/NZS 4417.1, CEI 0-21, CEI 0-16, G99 EN 50549-1, VDE 4105

Low voltage series lithium battery modules

JHB-L2 series rack type lithium iron phosphate battery

Product introduction >>

- Wall-hanging installation, save space
- Multiple in parallel, easy for expand, Automatic addressing, no need to dial a code
- Standard configuration with LCD display, real time knowing battery status, Screen direct selection of inverter communication
- Environmentally friendly non-polluting materials, free of heavy metals, green and environmentally friendly
- Standard cycle life is more than 6000 times
- Remote viewing error, online software upgrade



LV

Technical parameters

Model	JHB51.2-100W	JHB51.2-200W	JHB51.2-314HL	JHB51.2-628L
Nominal volt(V)	51.2			
Cell specification (Ah)	100	100	314	314
Nominal capacity (Ah)	100	200	314	628
Nominal energy capacity (kWh)	5.12	10.24	16.1	32.15
Working volt range (V)	44.8~58.4			
Recommended charging volt (V)	55.2			
Recommended discharging cut-off volt (V)	48			
Standard charging / discharging current (A)	0.5C	100	100	
Maximum continuous charging/discharging current (A)	1C (Customizable)	150	200	
Proper temperature (°C)	-30~60 (Recommended10~35)			
Allowable humidity range (%RH)	<85			
Storage temperature (°C)	-20~65 (Recommended10~35)			
Charging temperature (°C)	0~50			
Discharging temperature (°C)	-10~60			
Protection level	IP20			
Cooling method	Natural air cooling/ Intelligent fan			
Life cycles	8000+ times at 80% DOD			
Maximum size (D*W*H) mm	400*190*600	529*220*668	666*220*644	890*350*1060
Weight (kg)	45	87	118	268

Note: The above data is for reference only and is subject to change without prior notice. Customized requirements such as Bluetooth and 1C charging and discharging need to be communicated with engineers.

JH33

SOLAR PUMP CONTROLLER



JH33-4T5R5-E | JH33-4T7R5-E
JH33-4T011-E | JH33-4T015-E
JH33-4T022-E | JH33-4T030-E
JH33-4T037-E



Up to 99.8% MPPT efficiency



AM PMSM single phase,
Multi types of pumps



Automatic start and stop



Multi pump protection



Automatic hybrid compensation



Zero programming

Model	JH33-4T5R5-E	JH33-4T7R5-E	JH33-4T011-E	JH33-4T015-E	JH33-4T022-E	JH33-4T030-E	JH33-4T037-E
DC Input							
Max. Input Voltage [V]	900						
Start Voltage [V]	350						
Min. Input Voltage [V]	220						
MPPT Voltage Range [V]	450~850						
Recommended Input Working Voltage [V]	560						
Recommended PV Array Power [kW]	6.6~8.8	9~12	13.2~17.6	18~24	26.4~35.2	36~48	44~59.2
AC Input							
Input Voltage [V]	380(±15%)						
Input Frequency [Hz]	50/60						
AC Output							
Output Power [kW]	5.5	7.5	11	15	22	30	37
Rated Current [A]	13	17	25	32	45	60	75
Output Voltage [V]	3PH 0-380						
Output Frequency [Hz]	0-50/60						
Control Performance							
Control Mode	V/F, SVC						
Overload Capability	150% of rated current: 60 seconds; 180% of rated current: 1 seconds						
Protection							
Undervoltage Protection	Integrated						
Overvoltage Protection	Integrated						
Overload Protection	Integrated						
Short-circuit Protection	Integrated						
Overheat Protection	Integrated						
Lack of Water Protection	Integrated						
Surge Protection	Integrated						
General Data							
Ingress Protection Degree	IP20						
Cooling Mode	Air cooling						
Communication Interface	RS485 communication interface						
Ambient Operating Temperature	-20℃~60℃ (>45℃, rated power will be derated for 1% by every additional 1℃)						
Operation Altitude	Ecommend <3000m (the rated power will be decreased for 1% by every additional 100m when the altitude is ≥ 2000m)						
Physical Dimension [H*W*D] [mm]	247*130*167		360*182*197		360*219*197	442*256*228	
Weight [kg]	2.6	2.7	7.05	7.15	10.45	13.5	13.8
Standard Warranty [Month]	18						
Certification Standards	CE						

Note: Total power of PV arrays can be 1.2~1.6 times of power of water pump as per irradiation conditions in different countries and areas.

JH33

SOLAR PUMP CONTROLLER



JH33-4T055-E | JH33-4T075-E
 JH33-4T110-E | JH33-4T132-E
 JH33-4T160-E | JH33-4T185-E
 JH33-4T200-E



Up to 99.8% MPPT efficiency



AM PMSM single phase,
Multi types of pumps



Automatic start and stop



Multi pump protection



Automatic hybrid compensation



Zero programming

Model	JH33-4T055-E	JH33-4T075-E	JH33-4T110-E	JH33-4T132-E	JH33-4T160-E	JH33-4T185-E	JH33-4T200-E
DC Input							
Max. Input Voltage [V]	900						
Start Voltage [V]	350						
Min. Input Voltage [V]	220						
MPPT Voltage Range [V]	450~850						
Recommended Input Working Voltage [V]	560						
Recommended PV Array Power [kW]	66~88	90~120	132~176	158~211	192~256	222~296	240~320
AC Input							
Input Voltage [V]	380(±15%)						
Input Frequency [Hz]	50/60						
AC Output							
Output Power [kW]	55	75	110	132	160	185	200
Rated Current [A]	112	150	210	253	304	340	377
Output Voltage [V]	3PH 0-380						
Output Frequency [Hz]	0-50/60						
Control Performance							
Control Mode	V/F, SVC						
Overload Capability	150% of rated current: 60 seconds; 180% of rated current: 1 seconds						
Protection							
Undervoltage Protection	Integrated						
Overvoltage Protection	Integrated						
Overload Protection	Integrated						
Short-circuit Protection	Integrated						
Overheat Protection	Integrated						
Lack of Water Protection	Integrated						
Surge Protection	Integrated						
General Data							
Ingress Protection Degree	IP20						
Cooling Mode	Air cooling						
Communication Interface	RS485 communication interface						
Ambient Operating Temperature	-20℃~60℃ (>45℃, rated power will be derated for 1% by every additional 1℃)						
Operation Altitude	Ecommend <3000m (the rated power will be decreased for 1% by every additional 100m when the altitude is ≥ 2000m)						
Physical Dimension [H*W*D] [mm]	543*310*280	580*358*328		1199*502*355		1570*600*408	
Weight [kg]	22.7	38.93	40.07	87.68	88.42	88.9	179.8
Standard Warranty [Month]	18						
Certification Standards	CE						

Note: Total power of PV arrays can be 1.2~1.6 times of power of water pump as per irradiation conditions in different countries and areas.

BATTERY OUTDOOR CABINET

Product introduction >>

The battery outdoor cabinet is safe, reliable, intelligent, efficient and flexible to deploy. Through modular design and advanced management technology, it provides users with cost-effective energy storage solutions. From cell-level safety control to system-level intelligent scheduling, it fully meets the energy storage needs of different scenarios, and helps green energy transformation and intelligent upgrade of power systems. It adapts to a variety of hybrid inverter brands, fully adapts to support single-branch and two-branch inverters.

Performance characteristics >>

| Strong environmental adaptability

It has the characteristics of waterproof, dustproof, sun-proof, and corrosion-resistant. It can operate stably for a long time in high temperature, humid, dusty and other outdoor environments, protecting the battery from external erosion.

| Safety protection design

Fireproof materials or heat-insulating structures are usually used to reduce the risk of fire caused by battery overheating or short circuit; some products are equipped with anti-theft locks or intelligent monitoring systems to improve safety.

| Modularity and scalability

Supports flexible combination of multiple battery packs to meet different capacity requirements; reserved interfaces are convenient for later upgrades or connection to other devices (such as solar panels, inverters, etc.).

| Saving space and flexible deployment



Technical parameters

Model	JHHV-P4	JHHV-P5	JHHV-P6	JHHV-P7	JHHV-P8	JHHV-P9
Cell Parameters						
Cell type	Lithium Iron Phosphate Cell					
Cell specification	3.2V314Ah					
PACK Parameters						
Combination method	16S1P					
Rated voltage (V)	51.2					
Operating voltage (V)	48~56.8					
Rated electric energy (kWh)	16					
Standard charge /discharge power	0.5P					
System Composition						
System composition	4pack	5pack	6pack	7pack	8pack	9pack
Rated voltage (V)	204.8	256	307.2	358.4	409.6	460.8
Operating voltage (V)	192~227.2	240~284	288~340.8	336~397.6	384~454.4	432~511.2
Rated electric energy (kWh)	64.3	80.4	96.5	112.5	128.6	144.7
Maximum charge /discharge Rate	0.5P					
Protection&General parameter						
Dimension (D*W*H)mm	1300*750*1650	1300*750*1905	1300*750*2160	1300*1163*1395	1300*1163*1650	
Weight(t)	0.9	1.0	1.1	1.5	1.7	1.8
DC overcurrent protection	Yes					
DC short circuit protection	Yes					
DC overvoltage protection	Yes					
Over temperature protection	Yes					
Fire protection	Aerosol/Perfluorohexanone (Optional)					
Incoming line method	Side connection					
Environmental temperature(°C)	-20~50 (De-rating power from 45)					
Charging temperature(°C)	0~50					
Discharging temperature(°C)	-10~60					
Environmental humidity(%RH)	<95%RH, Non-condensing					
Working altitude(m)	8000Reduce capacity for use above 2000 meters)					
Protection level	IP54Key Device IP65)					
Cooling method	Industrial air conditioning					

BATTERY OUTDOOR CABINET

Product introduction >>

The battery outdoor cabinet is safe, reliable, intelligent, efficient and flexible to deploy. Through modular design and advanced management technology, it provides users with cost-effective energy storage solutions. From cell-level safety control to system-level intelligent scheduling, it fully meets the energy storage needs of different scenarios, and helps green energy transformation and intelligent upgrade of power systems. It adapts to a variety of hybrid inverter brands, fully adapts to support single-branch and two-branch inverters.

Performance characteristics >>

| Strong environmental adaptability

It has the characteristics of waterproof, dustproof, sun-proof, and corrosion-resistant. It can operate stably for a long time in high temperature, humid, dusty and other outdoor environments, protecting the battery from external erosion.

| Safety protection design

Fireproof materials or heat-insulating structures are usually used to reduce the risk of fire caused by battery overheating or short circuit; some products are equipped with anti-theft locks or intelligent monitoring systems to improve safety.

| Modularity and scalability

Supports flexible combination of multiple battery packs to meet different capacity requirements; reserved interfaces are convenient for later upgrades or connection to other devices (such as solar panels, inverters, etc.).

| Saving space and flexible deployment

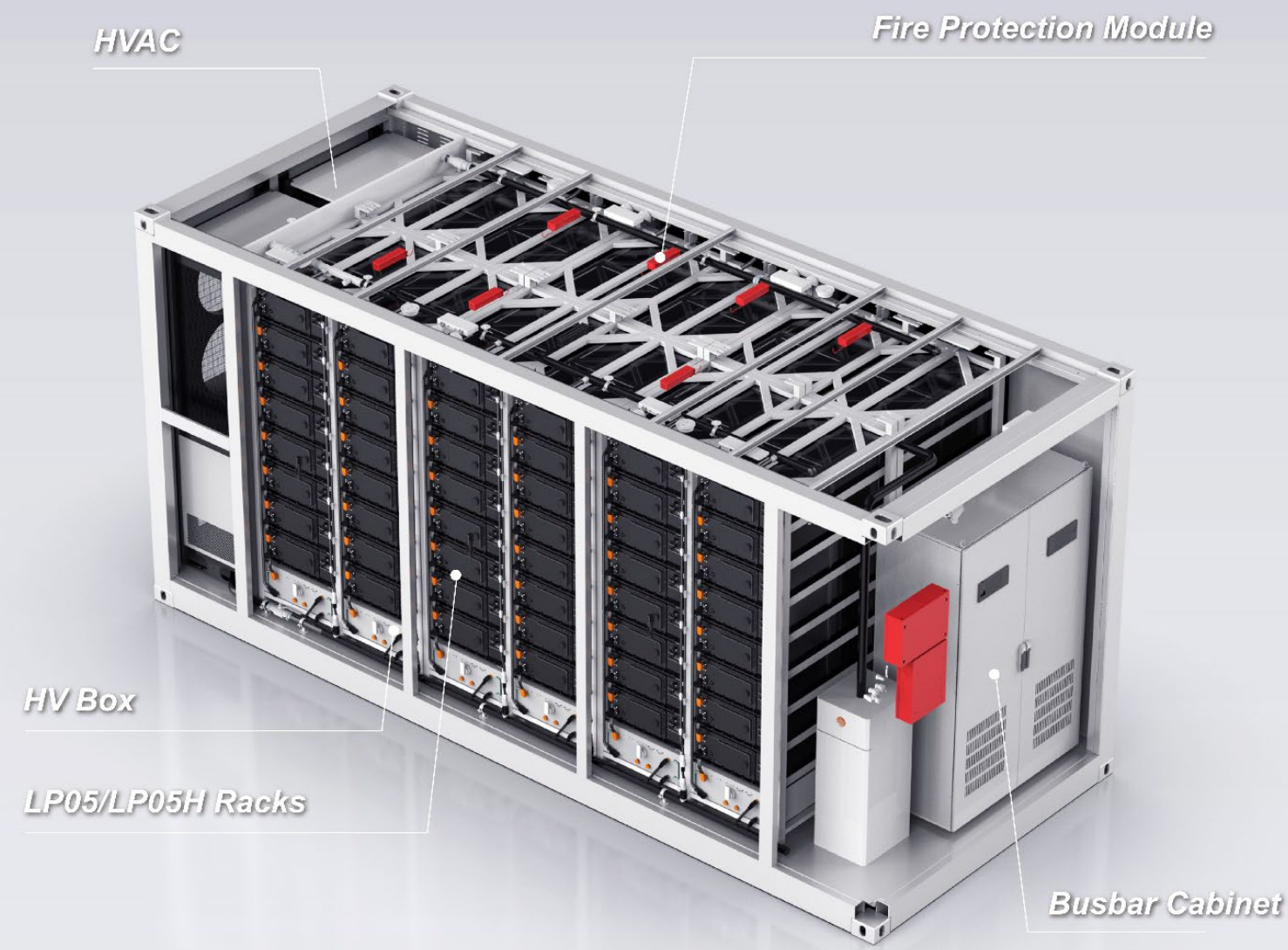


Technical parameters

Model	JHHV-P10	JHHV-P11	JHHV-P12	JHHV-P13	JHHV-P14	JHHV-P15
Cell Parameters						
Cell type	Lithium Iron Phosphate Cell					
Cell specification	3.2V314Ah					
PACK Parameters						
Combination method	16S1P					
Rated voltage(V)	51.2					
Operating voltage(V)	48~56.8					
Rated electric energy(kWh)	16					
Standard charge/discharge power	0.5P					
System Composition						
System composition	10pack	11pack	12pack	13pack	14pack	15pack
Rated voltage(V)	512	563.2	614.4	665.6	716.8	768
Operating voltage(V)	480~568	528~624.8	576~681.6	624~738.4	672~795.2	720~852
Ratedelectric energy(kWh)	160.8	176.8	192.9	209.0	225.1	241
Maximum charge/discharge Rate	0.5P					
Protection & General parameter						
Dimension (D*W*H)mm	1300*1163*1905		1300*1163*2160		1300*1163*2415	
Weight(t)	2.0	2.1	2.3	2.4	2.5	2.6
DC overcurrent protection	Yes					
DC shortcircuit protection	Yes					
DC overvoltage protection	Yes					
Over temperature protection	Yes					
Fireprotection	Aerosol/Perfluorohexanone (Optional)					
Incoming line method	Side connection					
Environmental temperature(°C)	-20~50(De-rating power from 45)					
Charging temperature(°C)	0~50					
Discharging temperature(°C)	-10~60					
Environmental humidity(%RH)	<95%RH, Non-condensing					
Working altitude(m)	8000Reduce capacity for use above 2000 meters)					
Protectionlevel	IP54KeyDeviceIP65)					
Cooling method	Industrial air conditioning					

Note: The actual product shall prevail. Parameters are subject to modification without prior notice.

BESS Container (DC side)



Cell Pack **System**



System Parameters		
model	JH-3.72MWH	JH-5MWH
Cell Type	Lithium Iron Phosphate	Lithium Iron Phosphate
Magnification	≤0.5P	≤0.5P
Combination	10 clusters	12 clusters
Rated energy	3727.36kWh	5015.96kWh
Nominal voltage	1331.2V	1331.2V
Operating voltage range	1040V~1518.4V	1040V~1518.4V
Dimensions (length x width x height)	6058×2800×2996mm	6058*2438*2896mm
Weight	≤36t	50t
Operating temperature range	Charging: 0~50°C, Discharging: -20~50°C	Charging: 0~50°C, Discharging: -20~50°C
Operation and maintenance method	Walk-in maintenance	Non-walk-in maintenance
Maximum operating altitude	≤4000m	≤4000m
Temperature control method	Liquid Cooling	Liquid Cooling
Fire protection system	Heptafluoropropane / perfluorohexanone +water fire fighting	Heptafluoropropane / perfluorohexanone +water fire fighting
Communication interface	Ethernet, RS485, CAN	Ethernet, RS485, CAN
Communication Protocol	IEC104, IEC61850, Modbus RTUA, ModbusTCP	IEC104, IEC61850, Modbus RTUA ModbusTCP
Protection level	IP54	IP54
standard	GB/T 36276, GB/T 34131	GB/T 36276, GB/T 34131

JH-M10DS144C 575~595W

N-22.84% Efficiency

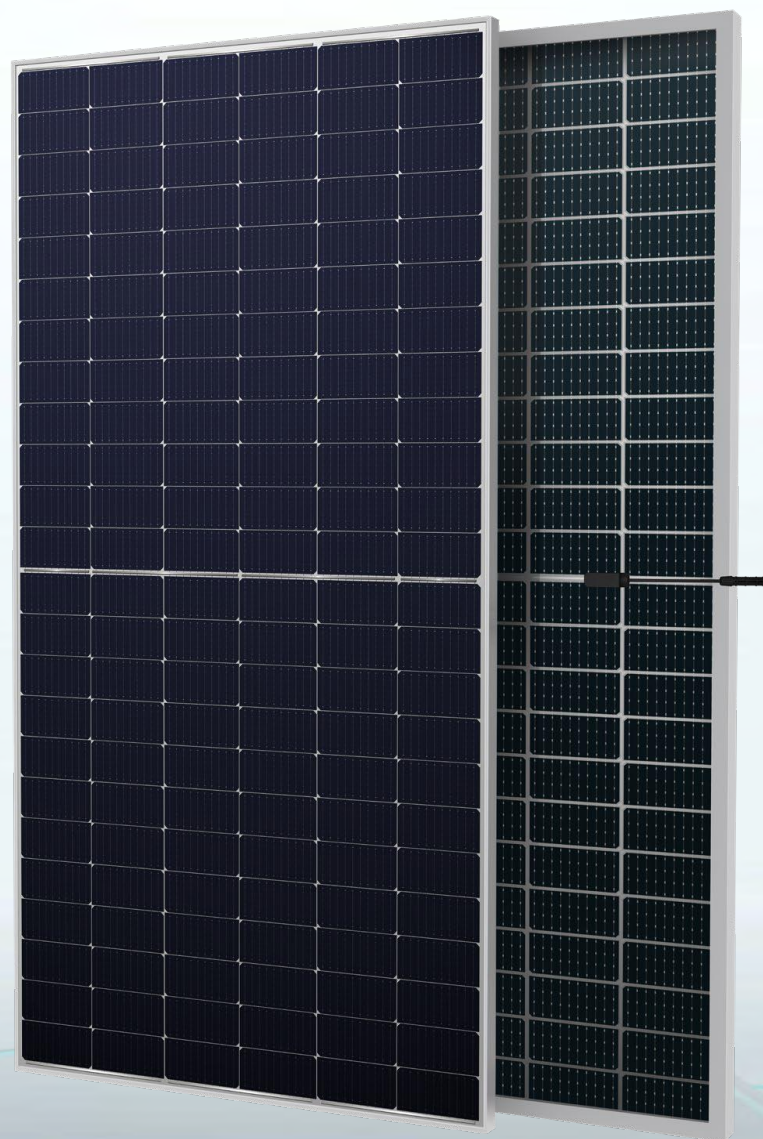
575~595W (182x182 mm Half-Cut Cell) 144 pcs

N-TYPE Bifacial Silver Frame



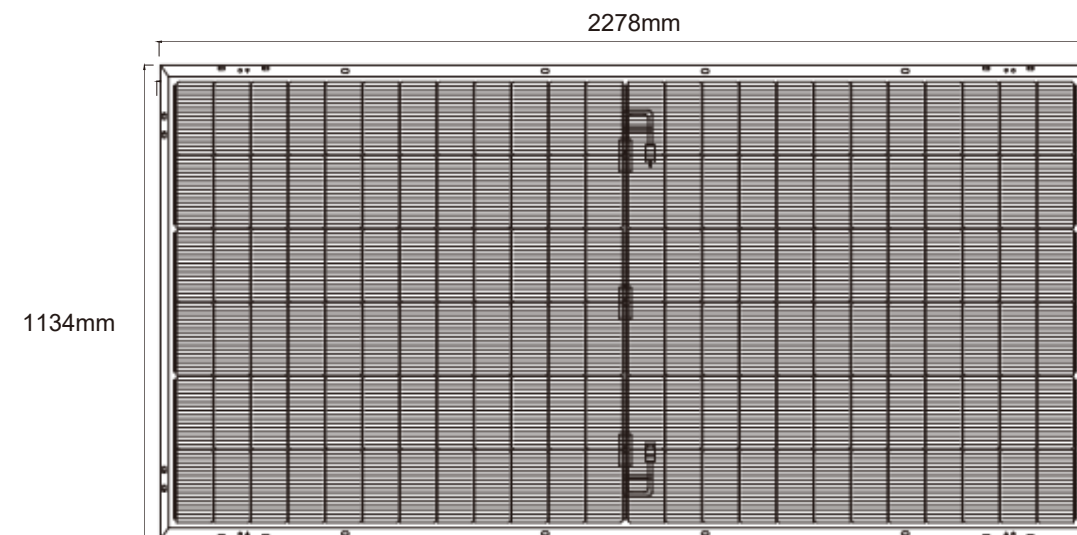
Dimension: 2278 mm x 1134mm x 30 mm

Weight: 31.7 kg



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Product Appearance



Electrical parameters at Standard Test Conditions (STC*) & Nominal Operating Cell Temperature (NOCT*)

Module Type	575W / 436W	580W / 440W	585W / 444W	590W / 448W	595W / 452W
Test Environment	STC / NOCT	STC / NOCT	STC / NOCT	STC / NOCT	STC / NOCT
Power output tolerances Pmax(W)	(0,+5)	(0,+5)	(0,+5)	(0,+5)	(0,+5)
Module efficiency(%)	22.26	22.45	22.65	22.84	23.03
Voltage at Pmax Vmpp(V)	43.73 / 40.75	43.88 / 40.93	44.02 / 41.11	44.16 / 41.29	44.30 / 41.47
Current at Pmax Imp(A)	13.15 / 10.70	13.22 / 10.75	13.29 / 10.80	13.36 / 10.85	13.43 / 10.90
Open-circuit voltage Vco(V)	50.75 / 49.59	52.95 / 49.77	53.15 / 49.96	53.35 / 50.15	53.55 / 50.34
Short-circuit current Isc(A)	13.89 / 11.33	13.95 / 11.38	14.01 / 11.43	14.07 / 11.48	14.13 / 11.55

*STC: 1000 W·m⁻² irradiance, 25°C cell temperature, AM 1.5 spectrum according to EN 60904-
*NOCT: open-circuit module operation temperature at 800 W·m⁻² irradiance, 20°C ambient temperature, 1 m·s⁻¹ wind speed.

GENERAL CHARACTERISTICS

Dimensions (L / W / H)	2278 mm / 1134mm / 30 mm
Weight	31.7kg

PACKAGING SPECIFICATIONS

Number of modules per pallet	36
Number of pallets per 40' container	20
Pieces per Container	720

THERMAL CHARACTERISTICS

Nominal operating cell temperature	NOCT	°C	45 ± 2
Temperature coefficient of Pmax	γ	% / °C	-0.29
Temperature coefficient of Voc	β	% / °C	-0.25
Temperature coefficient of Isc	α	% / °C	0.045

*NOCT: open-circuit module operation temperature at 800 W·m⁻² irradiance, 20°C ambient temperature, 1 m·s⁻¹ wind speed.

OPERATING CONDITIONS

Max. system voltage	1500 VDC
Max. series fuse rating*	30 A
Operating temperature range	- 40°C to 85°C
Max. static load, front (e.g., snow)	5400 Pa
Max. static load, back (e.g., wind)	2400 Pa
Max. hailstone impact (diameter/velocity)	25 mm / 23 m·s ⁻¹

*DO NOT CONNECT FUSE IN COMBINER BOX WITH TWO OR MORE STRINGS IN PARALLEL CONNECTION.

CONSTRUCTION MATERIALS

Cell (material / quantity)	monocrystalline silicon / 6 x 24
Glass (material / thickness)	low-iron tempered glass / 2+2 mm
Frame (material)	anodized aluminum alloy
Junction box (type / protection degree)	3 bypass diodes / ≥ IP68
Cable (length / cross-sectional area)	± 300 mm or customized length / 4 mm ²

JH-M10DS132C6 620~640W

N-23.5% Efficiency

620~640W (182x210 mm Half-Cut Cell) 132 pcs

N-TYPE Bifacial Silver Frame



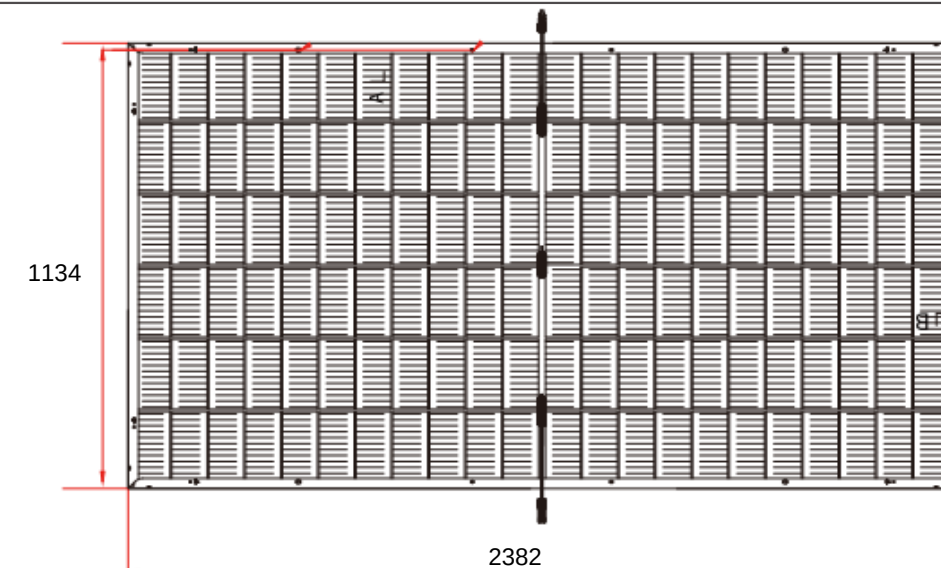
Dimension: 2382 mm x 1134mm x 30 mm

Weight: 33.1 kg



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Product Appearance



Electrical parameters at Standard Test Conditions (STC*) & Nominal Operating Cell Temperature (NOCT*)

Module Type	620W / 474 W	625W / 478W	630W / 482W	635W / 486W	640W / 490W
Test Environment	STC / NOCT	STC / NOCT	STC / NOCT	STC / NOCT	STC / NOCT
Power output tolerances Pmax(W)	(0,+5)	(0,+5)	(0,+5)	(0,+5)	(0,+5)
Module efficiency(%)	23.0	23.1	23.3	23.4	23.5
Voltage at Pmax Vmpp(V)	41.40 / 38.80	41.70 / 39.10	42.00 / 39.40	42.30 / 39.70	42.60 / 40.00
Current at Pmax Imp(A)	14.99 / 12.20	15.00 / 12.21	15.01 / 12.22	15.02 / 12.23	15.03 / 12.24
Open-circuit voltage Vco(V)	49.60 / 47.10	49.90 / 47.30	50.20 / 47.70	50.50 / 48.10	50.80 / 48.50
Short-circuit current Isc(A)	15.91 / 12.82	15.92 / 12.83	15.93 / 12.84	15.94 / 12.85	15.95 / 12.86

*STC: 1000 W·m-2 irradiance, 25°C cell temperature, AM 1.5 spectrum according to EN 60904-
*NOCT: open-circuit module operation temperature at 800 W·m-2 irradiance, 20°C ambient temperature, 1 m·s-1 wind speed.

GENERAL CHARACTERISTICS

Dimensions (L / W / H)	2382 mm / 1134mm / 30 mm
Weight	33.1 kg

PACKAGING SPECIFICATIONS

Number of modules per pallet	36
Number of pallets per 40' container	20
Pieces per Container	720

THERMAL CHARACTERISTICS

Nominal operating cell temperature	NOCT	°C	45 ± 2
Temperature coefficient of Pmax	γ	% / °C	-0.29
Temperature coefficient of Voc	β	% / °C	-0.25
Temperature coefficient of Isc	α	% / °C	0.045

*NOCT: open-circuit module operation temperature at 800 W·m-2 irradiance, 20°C ambient temperature, 1 m·s-1 wind speed.

OPERATING CONDITIONS

Max. system voltage	1500 VDC
Max. series fuse rating*	30 A
Operating temperature range	- 40°C to 85°C
Max. static load, front (e.g., snow)	5400 Pa
Max. static load, back (e.g., wind)	2400 Pa
Max. hailstone impact (diameter/velocity)	25 mm / 23 m·s-1

*DO NOT CONNECT FUSE IN COMBINER BOX WITH TWO OR MORE STRINGS IN PARALLEL CONNECTION.

CONSTRUCTION MATERIALS

Cell (material / quantity)	monocrystalline silicon / 6 x 22
Glass (material / thickness)	low-iron tempered glass / 2+2 mm
Frame (material)	anodized aluminum alloy
Junction box (type / protection degree)	3 bypass diodes / ≥ IP68
Cable (length / cross-sectional area)	± 300 mm or customized length / 4 mm ²

JH-BM10DS144C4 635-645W

N-23.9% Efficiency

BC

635~645W (182x191 mm Half-Cut Cell) 144 pcs

BC Bifacial Silver Frame

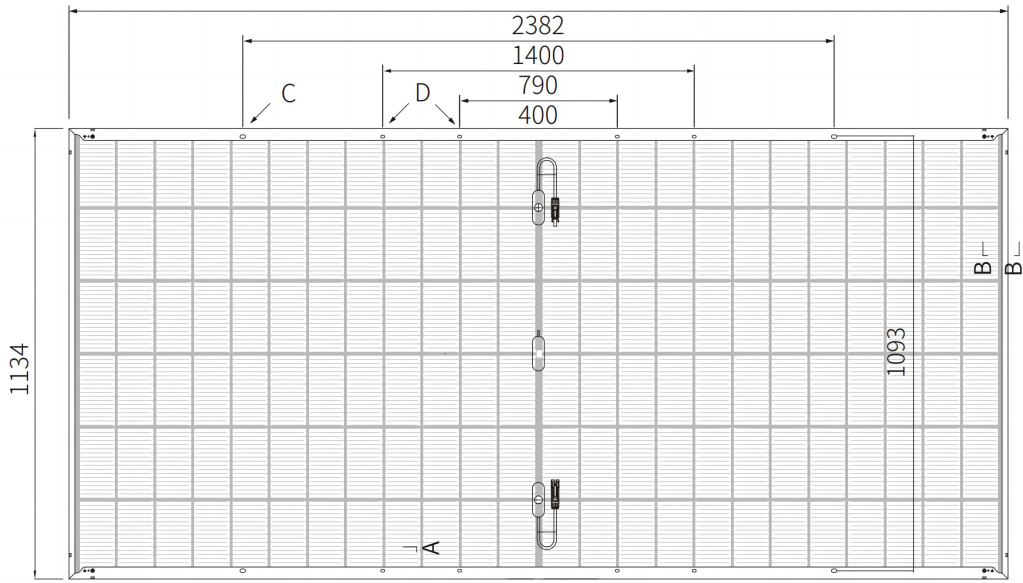


Dimension: 2382 mm x 1134mm x 30 mm

Weight: 33.5 kg



Product Appearance



Electrical parameters at Standard Test Conditions (STC*) & Nominal Operating Cell Temperature (NOCT*)

Module Type	635W / 483.4W	640W / 487.2W	645W / 491.0W
Test Environment	STC / NOCT	STC / NOCT	STC / NOCT
Power output tolerances Pmax(W)	(0,+5)	(0,+5)	(0,+5)
Module efficiency(%)	23.5	23.7	23.9
Voltage at Pmax Vmpp(V)	44.57 / 42.36	44.67 / 42.45	44.77 / 42.55
Current at Pmax Impp(A)	14.25 / 11.42	14.33 / 14.49	14.41 / 11.55
Open-circuit voltage Vco(V)	53.92 / 51.24	54.02 / 51.34	54.12 / 51.43
Short-circuit current Isc(A)	14.89 / 11.96	14.98 / 12.03	15.06 / 12.10

*STC: 1000 W·m-2 irradiance, 25°C cell temperature, AM 1.5 spectrum according to EN 60904-
*NOCT: open-circuit module operation temperature at 800 W·m-2 irradiance, 20°C ambient temperature, 1 m·s-1 wind speed.

GENERAL CHARACTERISTICS

Dimensions (L / W / H)	2382 mm / 1134mm / 30 mm
Weight	33.5 kg

PACKAGING SPECIFICATIONS

Number of modules per pallet	37
Number of pallets per 40' container	20
Pieces per Container	740

THERMAL CHARACTERISTICS

Nominal operating cell temperature	NOCT	°C	45 ± 2
Temperature coefcient of Pmax	γ	% / °C	-0.26
Temperature coefcient of Voc	β	% / °C	-0.2
Temperature coefcient of Isc	α	% / °C	0.05

*NOCT: open-circuit module operation temperature at 800 W·m-2 irradiance, 20°C ambient temperature, 1 m·s-1 wind speed.

OPERATING CONDITIONS

Max. system voltage	1500 VDC
Max. series fuse rating*	30 A
Operating temperature range	- 40°C to 85°C
Max. static load, front (e.g., snow)	5400 Pa
Max. static load, back (e.g., wind)	2400 Pa
Max. hailstone impact (diameter/velocity)	25 mm / 23 m·s-1

*DO NOT CONNECT FUSE IN COMBINER BOX WITH TWO OR MORE STRINGS IN PARALLEL CONNECTION.

CONSTRUCTION MATERIALS

Cell (material / quantity)	monocrystalline silicon / 6 x 24
Glass (material / thickness)	low-iron tempered glass / 2+2 mm
Frame (material)	anodized aluminum alloy
Junction box (type / protection degree)	3 bypass diodes / ≥ IP68
Cable (length / cross-sectional area)	± 300 mm or customized length / 4 mm ²

JH-HM10DS132C6 620~650W

N-24.1% Efficiency

HJT

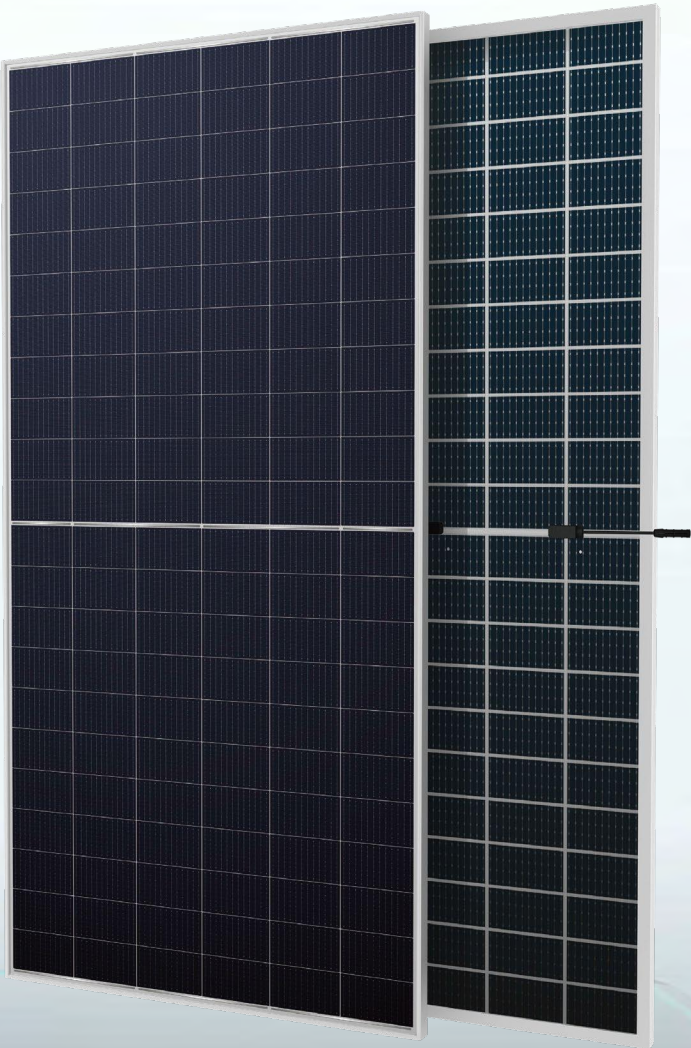
620~650W (182x210 mm Half-Cut Cell) 132 pcs

HJT-TYPE Bifacial Silver Frame

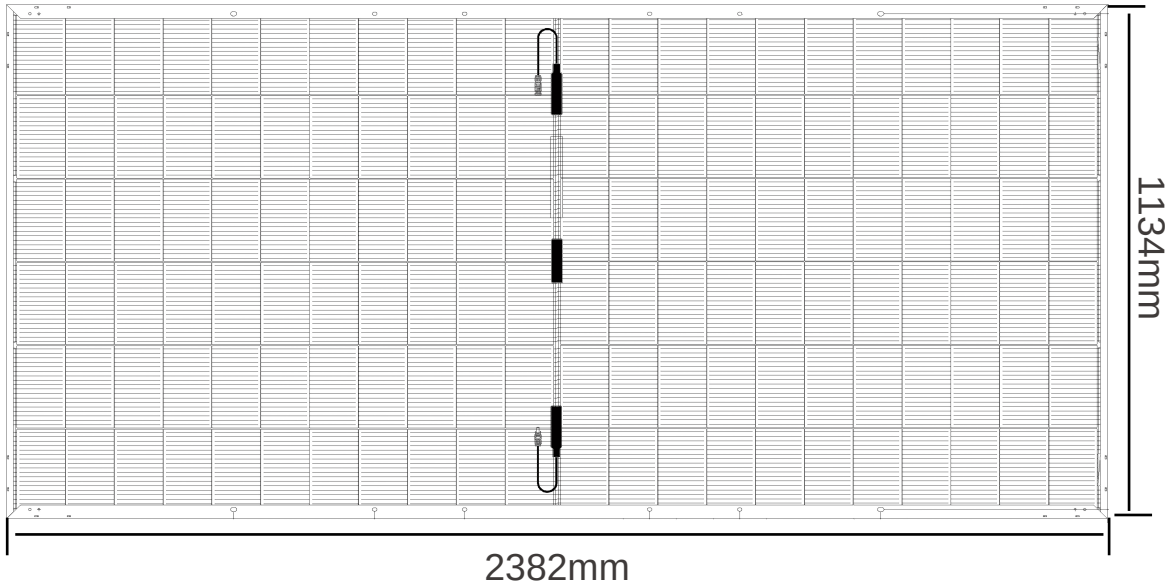


Dimension: 2382 mm x 1134mm x 30 mm

Weight: 32.3 kg



Product Appearance



Electrical parameters at Standard Test Conditions (STC*) & Nominal Operating Cell Temperature (NOCT*)

Module Type	620W / 481W	625W / 478W	630W / 481W	635W / 484W	640W / 488W	645W / 492W	650W / 496W
Test Environment	STC / NOCT	STC / NOCT	STC / NOCT	STC / NOCT	STC / NOCT	STC / NOCT	STC / NOCT
Power output tolerances Pmax(W)	(0,+5)	(0,+5)	(0,+5)	(0,+5)	(0,+5)	(0,+5)	(0,+5)
Module efficiency(%)	22.90	23.10	23.30	23.50	23.70	23.90	24.10
Voltage at Pmax Vmpp(V)	40.84 / 39.18	40.93 / 39.26	41.02 / 39.34	41.32 / 39.42	41.41 / 39.52	41.50 / 39.63	41.59 / 39.73
Current at Pmax Imp(A)	15.18 / 12.09	15.26 / 12.16	15.36 / 12.23	15.39 / 12.30	15.47 / 12.36	15.55 / 12.43	15.63 / 12.49
Open-circuit voltage Vco(V)	49.16 / 46.91	49.25 / 47.00	49.48 / 47.09	49.43 / 47.18	49.52 / 47.26	49.61 / 47.35	49.70 / 47.44
Short-circuit current Isc(A)	15.96 / 12.767	16.06 / 12.84	16.20 / 12.92	16.26 / 13.00	16.36 / 13.08	16.46 / 13.16	16.56 / 13.23

*STC: 1000 W·m-2 irradiance, 25°C cell temperature, AM 1.5 spectrum according to EN 60904-
*NOCT: open-circuit module operation temperature at 800 W·m-2 irradiance, 20°C ambient temperature, 1 m·s-1 wind speed.

GENERAL CHARACTERISTICS

Dimensions (L / W / H)	2382 mm / 1134mm / 30 mm
Weight	32.3 kg

PACKAGING SPECIFICATIONS

Number of modules per pallet	36
Number of pallets per 40' container	20
Pieces per Container	720

THERMAL CHARACTERISTICS

Nominal operating cell temperature	NOCT	°C	43 ± 2
Temperature coefcient of Pmax	γ	% / °C	-0.22
Temperature coefcient of Voc	β	% / °C	-0.24
Temperature coefcient of Isc	α	% / °C	0.04

*NOCT: open-circuit module operation temperature at 800 W·m-2 irradiance, 20°C ambient temperature, 1 m·s-1 wind speed.

OPERATING CONDITIONS

Max. system voltage	1500 VDC
Max. series fuse rating*	30 A
Operating temperature range	- 40°C to 85°C
Max. static load, front (e.g., snow)	5400 Pa
Max. static load, back (e.g., wind)	2400 Pa
Max. hailstone impact (diameter/velocity)	25 mm / 23 m·s-1

*DO NOT CONNECT FUSE IN COMBINER BOX WITH TWO OR MORE STRINGS IN PARALLEL CONNECTION.

CONSTRUCTION MATERIALS

Cell (material / quantity)	monocrystalline silicon / 6 x 22
Glass (material / thickness)	low-iron tempered glass / 2+2 mm
Frame (material)	anodized aluminum alloy
Junction box (type / protection degree)	3 bypass diodes / ≥ IP68
Cable (length / cross-sectional area)	± 300 mm or customized length / 4 mm ²

JH-G12DS132C 700~720W

N-23.18% Efficiency

N

700~720W (210x210 mm Half-Cut Cell) 132 pcs

N-TYPE Bifacial Sliver Frame

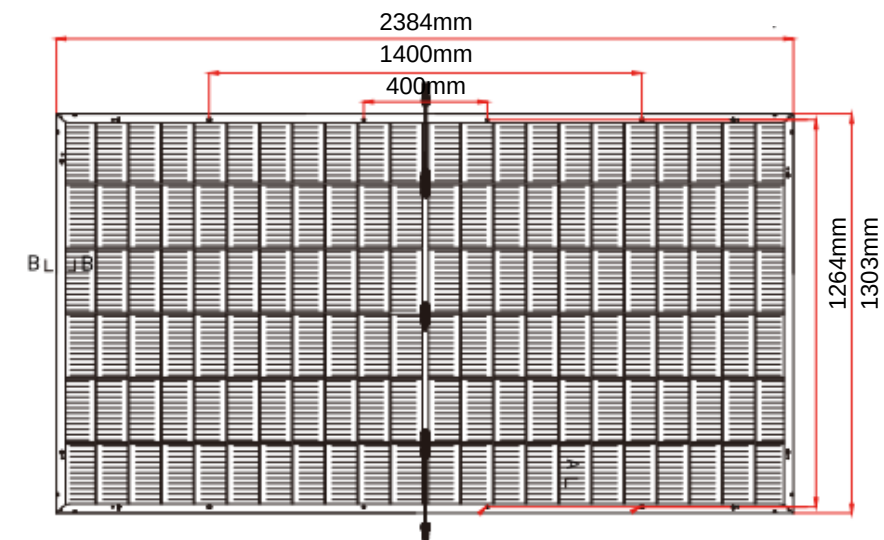


Dimension: 2384 mm x 1303mm x 33 mm

Weight: 38.7 kg



Product Appearance



Electrical parameters at Standard Test Conditions (STC*) & Nominal Operating Cell Temperature (NOCT*)

Module Type	700W / 534W	705W / 540W	710W / 543W	715W / 547W	720W / 551W
Test Environment	STC / NOCT	STC / NOCT	STC / NOCT	STC / NOCT	STC / NOCT
Power output tolerances Pmax(W)	(0,+5)	(0,+5)	(0,+5)	(0,+5)	(0,+5)
Module efficiency(%)	22.53	22.70	22.86	23.02	23.18
Voltage at Pmax Vmpp(V)	40.50 / 38.00	40.70 / 38.30	40.90 / 38.50	41.10 / 38.70	41.30 / 38.80
Current at Pmax Impp(A)	17.29 / 14.05	17.33 / 14.08	17.36 / 14.12	17.40 / 14.14	17.44 / 14.19
Open-circuit voltage Vco(V)	48.60 / 46.10	48.80 / 46.30	49.00 / 46.50	49.20 / 46.70	49.40 / 46.90
Short-circuit current Isc(A)	18.32 / 14.76	18.36 / 14.80	18.40 / 14.83	18.44 / 14.86	18.49 / 14.90

*STC: 1000 W·m⁻² irradiance, 25°C cell temperature, AM 1.5 spectrum according to EN 60904-

*NOCT: open-circuit module operation temperature at 800 W·m⁻² irradiance, 20°C ambient temperature, 1 m·s⁻¹ wind speed.

GENERAL CHARACTERISTICS

Dimensions (L / W / H)	2384 mm / 1303mm / 33 mm
Weight	38.7 kg

PACKAGING SPECIFICATIONS

Number of modules per pallet	33
Number of pallets per 40' container	18
Pieces per Container	594

THERMAL CHARACTERISTICS

Nominal operating cell temperature	NOCT	°C	45 ± 2
Temperature coefficient of Pmax	γ	% / °C	-0.30
Temperature coefficient of Voc	β	% / °C	-0.24
Temperature coefficient of Isc	α	% / °C	0.045

*NOCT: open-circuit module operation temperature at 800 W·m⁻² irradiance, 20°C ambient temperature, 1 m·s⁻¹ wind speed.

OPERATING CONDITIONS

Max. system voltage	1500 VDC
Max. series fuse rating*	35 A
Operating temperature range	- 40°C to 85°C
Max. static load, front (e.g., snow)	5400 Pa
Max. static load, back (e.g., wind)	2400 Pa
Max. hailstone impact (diameter/velocity)	25 mm / 23 m·s ⁻¹

*DO NOT CONNECT FUSE IN COMBINER BOX WITH TWO OR MORE STRINGS IN PARALLEL CONNECTION.

CONSTRUCTION MATERIALS

Cell (material / quantity)	monocrystalline silicon / 6 x 22
Glass (material / thickness)	low-iron tempered glass / 2+2 mm
Frame (material)	anodized aluminum alloy
Junction box (type / protection degree)	3 bypass diodes / ≥ IP68
Cable (length / cross-sectional area)	± 300 mm or customized length / 4 mm ²

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