

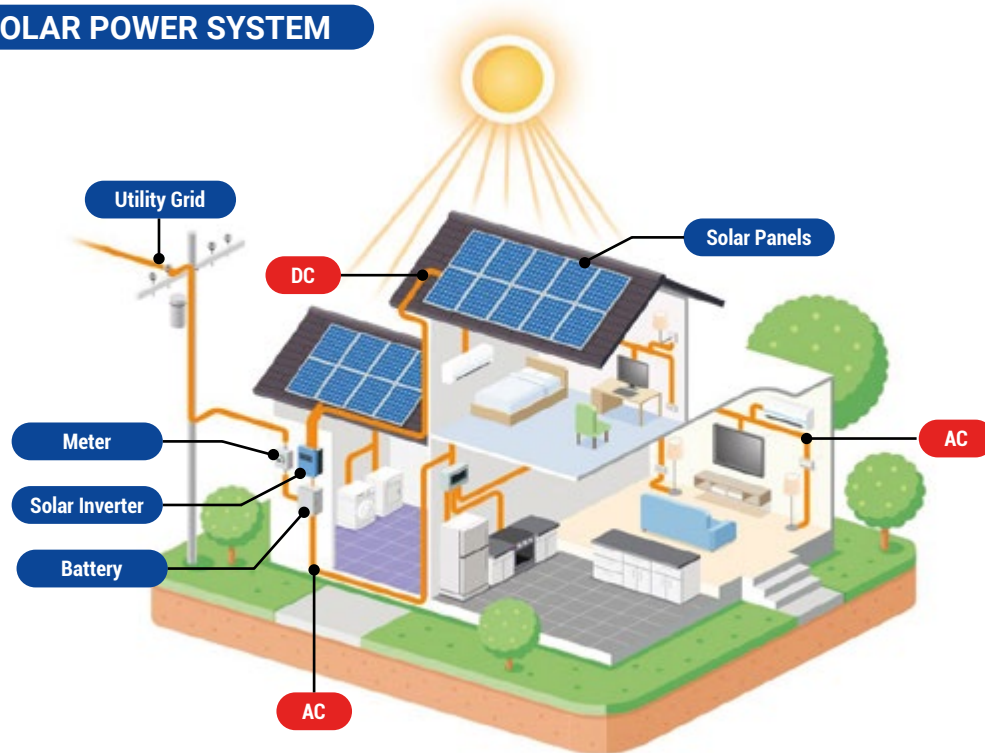
OPTONICA SOLAR



2025



SOLAR POWER SYSTEM



What components make up a solar panel system?

Solar panel installations are very straightforward systems. There are only four main components to any solar panel system, and no moving parts, making them very efficient to install and maintain. The four components of a solar panel system are:

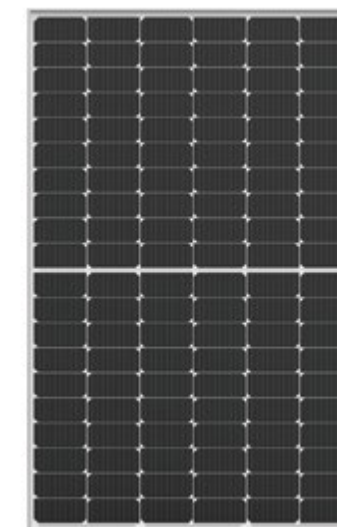
Solar photovoltaic panels—to convert solar energy into electricity

Battery- to store DC electricity

Inverters—to convert DC electricity into AC electricity

Racking and mounting systems—to affix your solar panels to your roof (or to the ground, depending upon your installation type)

Performance monitoring systems—to track and monitor the output and health of your solar panels and inverters



How does solar power work?

Solar power works by converting energy from the sun into power. There are two forms of energy generated from the sun for our use – electricity and heat.

Both are generated through the use of solar panels, which range in size from residential rooftops to 'solar farms' stretching over acres of rural land.

Is solar power a clean energy source?

Yes, solar power is a renewable and infinite energy source that creates no harmful greenhouse gas emissions – as long as the sun continues to shine, energy will be released.

The carbon footprint of solar panels is already quite small, as they last for 25 years plus with no loss in efficiency. And the materials used in the panels are increasingly recycled, so the carbon footprint will continue to shrink.

When was solar power discovered?

Solar energy was used by humans as early as the 7th century B.C., when humans used sunlight to light fires by reflecting the sun's rays onto shiny objects. Later, in 3rd century B.C., the Greeks and Romans harnessed solar power with mirrors to light torches for religious ceremonies.

In 1839 and at the age of just 19, French physicist Edmond Becquerel discovered the photovoltaic (PV) effect while experimenting with a cell made of metal electrodes in a conducting solution. He noted that the cell produced more electricity when it was exposed to light – it was a photovoltaic cell.

In 1954 PV technology was born when Daryl Chapin, Calvin Fuller and Gerald Pearson developed the silicon PV cell at Bell Labs in 1954 – the first solar cell capable of absorbing and converting enough of the sun's energy into power to run everyday electrical equipment.

Today satellites, spacecraft orbiting Earth, are powered by solar energy.

How exactly is electricity from solar energy produced?

Solar panels are usually made from silicon installed in a metal panel frame with a glass casing. When photons, or particles of light, hit the thin layer of silicon on the top of a solar panel, they knock electrons off the silicon atoms.

This PV charge creates an electric current (specifically, direct current or DC), which is captured by the wiring in solar panels. This DC electricity is then converted to alternating current (AC) by an inverter. AC is the type of electrical current used when you plug appliances into normal wall sockets.

PORTABLE POWER STATION PURE SINE WAVE AC OUTPUT



400W

Cell Capacity: 400W/320Wh
DC Input: 12V-24V/0-10A (120W Max)
AC Output: 230Vac 400W
DC Output: 12V/0-10A
Cigar Socket Output: 13.3V/10A
USB-A Output: 5V/2.4A
USB-C Output: 20V/3A max
LED Flashlight: 3W

SKU: 9418

600W

Cell Capacity: 600W/512Wh
DC Input: 12V-24V/0-10A (120W Max)
AC Output: 230Vac 600W
DC Output: 12V/0-10A
Cigar Socket Output: 13.3V/10A
USB-A Output: 5V/2.4A
USB-C Output: 20V/5A max
LED Flashlight: 3W

SKU: 9419

1000W

Cell Capacity: 1000W/1036.8Wh
DC Input: 12V-24V/0-10A (200W Max)
AC Output: 230Vac 1000W
DC Output: 12V/0-10A
Cigar Socket Output: 13.3V/10A
USB-A Output: 5V/2.4A
USB-C Output: 20V/5A max
LED Flashlight: 3W

SKU: 9420

2000W

Cell Capacity: 2000W/2096Wh
DC Input: 12V-65V/0-10A (650W Max)
AC Output: 230Vac 2000W
DC Output: 12V-65V/0-10A
Cigar Socket Output: 13V/10A
USB-A Output: 5V/2.4A
USB-C Output: 20V/5A max
LED Flashlight: 3W
Wireless Charge: (20W Max)

SKU: 9421



Bags for Portable Starion

For 400W - SKU: 9429
For 600W - SKU: 9428
For 1000W - SKU: 9422
For 2000W - SKU: 9423



IDEAL FOR OUTDOOR & RECREATION



MONOCRYSTALLINE PORTABLE SOLAR PANEL 120Wp

Convert Efficiency: up to 21%
ETFE high Light Transmittance Film
Output: 1. MC4 18V/6.6A Max
2. USB-A QC 3.0 24W Max
3. Type-C: PD45W Max
Material: PET Monocrystalline solar panel
Intelligent charging chip
SKU: 9400



MONOCRYSTALLINE PORTABLE SOLAR PANEL 200Wp

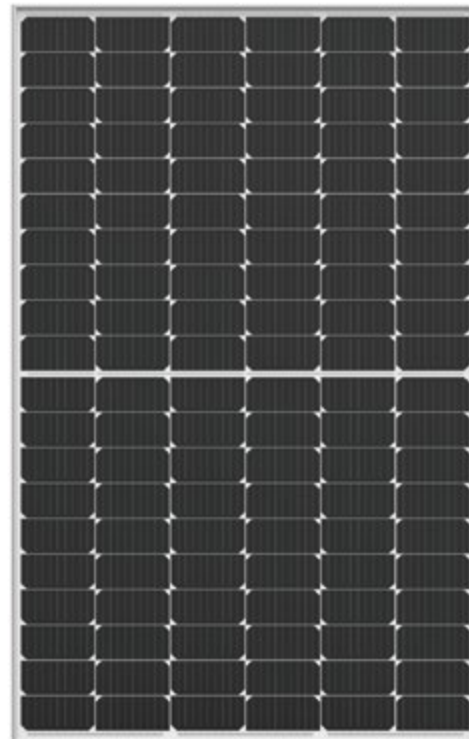
Convert Efficiency: up to 21%
ETFE high Light Transmittance Film
Output: 1. MC4 18V/11.1A Max
2. USB-A QC 3.0 24W Max
3. Type-C: PD45W Max
Material: PET Monocrystalline solar panel
Intelligent charging chip
SKU: 9401



MONOCRYSTALLINE PORTABLE SOLAR PANEL 400Wp

Convert Efficiency: up to 21%
ETFE high Light Transmittance Film
Output: MC4 36V/6.6A Max
Material: PET Monocrystalline solar panel
Intelligent charging chip
SKU: 9402

OPTONICA PV SOLAR PANELS

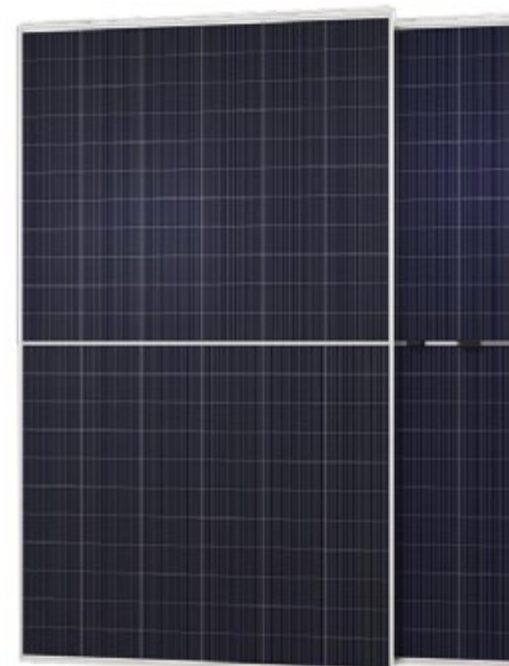


MONOCRYSTALLINE SOLAR PV MODULE **410Wp**

PV Model	FV410-A1	SKU:9404
Rated Maximum Power (Pmax)		410W
Power Sorting		0~+5W
Voltage at Pmax (Vmp)		31.40V
Current at Pmx (IMP)		13.06A
Open-Circuit Current (Voc)		37.30V
Short-Circuit Current (Isc)		13.93A
Maximum System Voltage		1500V
Maximum Series Fuse Rating		25A
Operating Temperature		-40~85° C
Dimensions (mm)		1722x1134x30mm
Pmax /Voc / Isc Tolerance		± 3%

Tested at STC:1000W/m ; AM1.5; Cell temperature 25C°

OPTONICA PV SOLAR PANELS



Bifacial Solar Panel N-Type Topcon HJT **695-730Wp**

PV Model	FV730-A1	SKU:9409
Rated Maximum Power (Pmax)		730W
Power Sorting		0~+5W
Voltage at Pmax (Vmp)		44.05V
Current at Pmx (IMP)		16.62A
Open-Circuit Current (Voc)		49.54V
Short-Circuit Current (Isc)		17.79A
Maximum System Voltage		1500V
Maximum Series Fuse Rating		35A
Operating Temperature		-40~85° C
Dimensions (mm)		2384*1303*33mm
Pmax /Voc / Isc Tolerance		± 3%

Tested at STC:1000W/m ; AM1.5; Cell temperature 25C°



Micro Inverter

SUN600G3-EU-230

1. Input: 2*MC4 / PV 2*210-400W
2. Output: 230Vac 600W
3. MPPT 25-55V 2*13A
4. Unit: 212*230*40mm 3.15kg
5. IP67

SKU: 9431

SKU: 9424



MC4 Convert to 45A Anderson

SKU: 9425



MC4 Convert to DC5525

SKU: 9426



50A Anderson + DC5525

SKU: 9427



MC4 Y Branch Connector 1 Point

PV SOLAR PANELS



MONOCRYSTALLINE SOLAR PV MODULE **410Wp**

PV Model	FV410-A1	SKU:9406
Rated Maximum Power (Pmax)	410W	
Power Sorting	0~+5W	
Voltage at Pmax (Vmp)	34.89V	
Current at Pmx (IMP)	11.76A	
Open-Circuit Current (Voc)	41.90V	
Short-Circuit Current (Isc)	12.47A	
Maximum System Voltage	1500V	
Maximum Series Fuse Rating	20A	
Operating Temperature	-40~85° C	
Dimensions (mm)	1754x1096x30mm	
Pmax /Voc / Isc Tolerance	± 3%	

Tested at STC:1000W/m ; AM1.5; Cell temperature 25C°



SKU: 9433



PV CABLE 1.5M 4MM2 WITH MC4

SKU: 9458



AC CABLE 5M LENGTH H07RN

PV SOLAR PANELS



MONOCRYSTALLINE SOLAR PV MODULE **450Wp**

PV Model	FV450-A1	SKU:9407
Rated Maximum Power (Pmax)	450W	
Power Sorting	0~+5W	
Voltage at Pmax (Vmp)	41.30V	
Current at Pmx (IMP)	10.90A	
Open-Circuit Current (Voc)	49.70V	
Short-Circuit Current (Isc)	11.50A	
Maximum System Voltage	1500V	
Maximum Series Fuse Rating	20A	
Operating Temperature	-40~85° C	
Dimensions (mm)	2108x1048x35mm	
Pmax /Voc / Isc Tolerance	± 3%	

Tested at STC:1000W/m ; AM1.5; Cell temperature 25C°



SKU: 9455 ; 9456



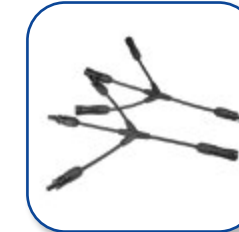
Solar PV Connector MC4 1 to 1 PV004
Solar PV Connector MC4 1 to 1 PV005

SKU: 9434



BC01 End Cap for Male Connector

SKU: 9457



Solar PV Connector Y branch - 3pin

SKU: 9458



Solar PV Connector Y branch - 4pin

NEW ARRIVAL

Solar Power Optimizers

More power starts on the roof with Power Optimizers. By mitigating shading, preventing clipping, and decreasing mismatch loss, power optimizers help get more energy from each panel while allowing panel level monitoring for more control and flexibility.



Solar Optimizer 600W IP68

Maximum input voltage: 60V
Maximum input current (IMP): 16A
Maximum power: 600W



SKU: 9464



Deye Solar Optimizer 700W IP68

Maximum input voltage: 80V
Maximum input current (IMP): 15A
Maximum power: 700W



SKU: 9498

NEW



Tigo Solar Optimizer 700W IP68

Maximum input voltage: 80V
Input voltage range: 16 – 80V
Maximum input current (IMP): 15A
Maximum power: 700W



SKU: 9499

NEW



DEYE Optimizer Concentrator SUN-XL20-B

Input voltage range: 12V–15V
Maximum input current (IMP): 20A
System (V):1000/1500V



SKU: 9497

NEW

PV SOLAR PANELS



MONOCRYSTALLINE SOLAR PV MODULE

550Wp

PV Model	FV550-A1	SKU:9405
Rated Maximum Power (Pmax)	550W	
Power Sorting	0~+5W	
Voltage at Pmax (Vmp)	42.20V	
Current at Pmx (IMP)	13.04A	
Open-Circuit Current (Voc)	49.80V	
Short-Circuit Current (Isc)	13.94A	
Maximum System Voltage	1500V	
Maximum Series Fuse Rating	25A	
Operating Temperature	-40~85° C	
Dimensions (mm)	2279x1134x35mm	
Pmax /Voc / Isc Tolerance	± 3%	



Tested at STC:1000W/m ; AM1.5; Cell temperature 25C°

SKU: 9451,9453



4 mm² ; 6 mm²

SKU: 9452,9454



4 mm² ; 6 mm²

SKU: 9459

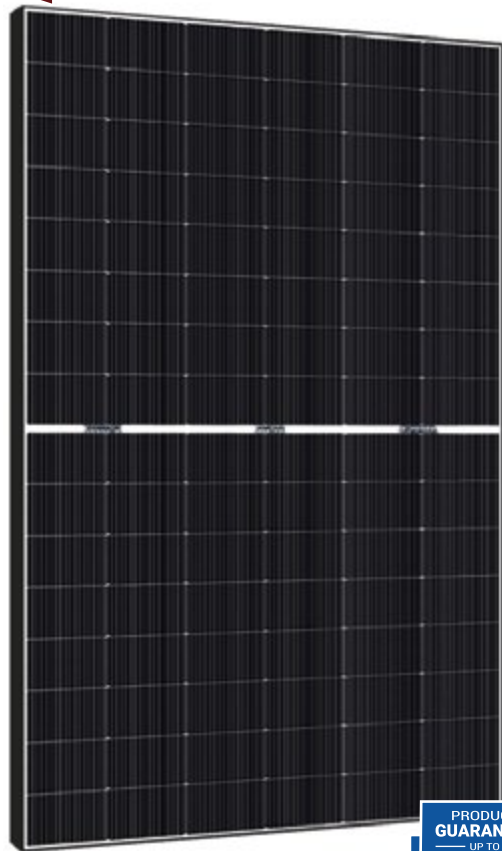


4 mm²

NEW ARRIVAL



NEW



Bifacial Solar Panel N-Type Topcon 450Wp

- *Double Glass
- *Black Frame
- *Bifacial Transparent

	SPDG450-N96R12	SKU:9416
Rated Maximum Power (Pmax)		450W
Power Sorting		0~+5W
Voltage at Pmax (Vmp)		29.93V
Current at Pmx (IMP)		15.04A
Open-Circuit Current (Voc)		35.8V
Short-Circuit Current (Isc)		15.9A
Maximum System Voltage		1500V
Maximum Series Fuse Rating		30A
Operating Temperature		-40~85° C
Dimensions (mm)		1762x1134x30mm
Pmax Coefficients(W/°C)		-0.30%
Voc Coefficients(W/°C)		-0.25%
Isc Coefficients(W/°C)		+0.045%
Module Efficiency (%)		22.52

Tested at STC:1000W/m ; AM1.5; Cell temperature 25C°



NEW ARRIVAL



NEW



Bifacial Solar Panel N-Type Topcon HJT 620Wp

PV Model	ODA620-33V-MHDRz	SKU:9408
Rated Maximum Power (Pmax)		620W
Power Sorting		0~+5W
Voltage at Pmax (Vmp)		40.74V
Current at Pmx (IMP)		15.22A
Open-Circuit Current (Voc)		49.08V
Short-Circuit Current (Isc)		16.08A
Maximum System Voltage		1500V
Maximum Series Fuse Rating		35A
Operating Temperature		-40~85° C
Dimensions (mm)		1894x1096x30mm
Pmax Coefficients(W/°C)		-0.290%
Voc Coefficients(W/°C)		-0.290%
Isc Coefficients(W/°C)		+0.045%
Module Efficiency (%)		23.0

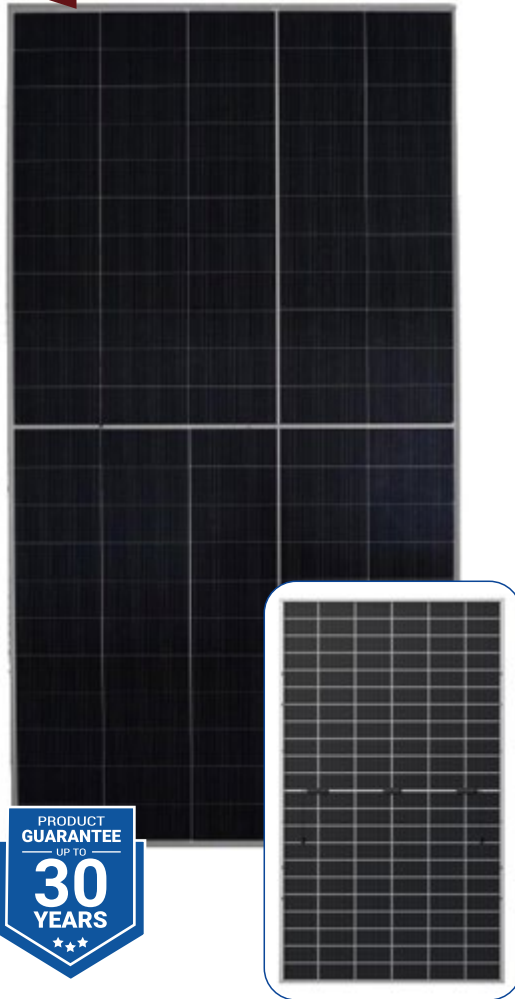
Tested at STC:1000W/m ; AM1.5; Cell temperature 25C°



NEW ARRIVAL

PV SOLAR PANELS

NEW



**Hyper-ion Bifacial Solar Panel
N-Type Topcon HDJ HJT**
RSM110-8-570-590BHDG
570-590Wp

PV Model	SKU:9414
Rated Maximum Power (Pmax)	590W
Power Sorting	0~+5W
Voltage at Pmax (Vmp)	34.92V
Current at Pmx (IMP)	16.92A
Open-Circuit Current (Voc)	41.64V
Short-Circuit Current (Isc)	17.98A
Maximum System Voltage	1500V
Maximum Series Fuse Rating	35A
Operating Temperature	-40~85° C
Dimensions (mm)	2384x1096x30mm
Pmax Coefficients(W/°C)	-0.24%
Voc Coefficients(W/°C)	-0.22%
Isc Coefficients(W/°C)	+0.047%
Module Efficiency (%)	22.6

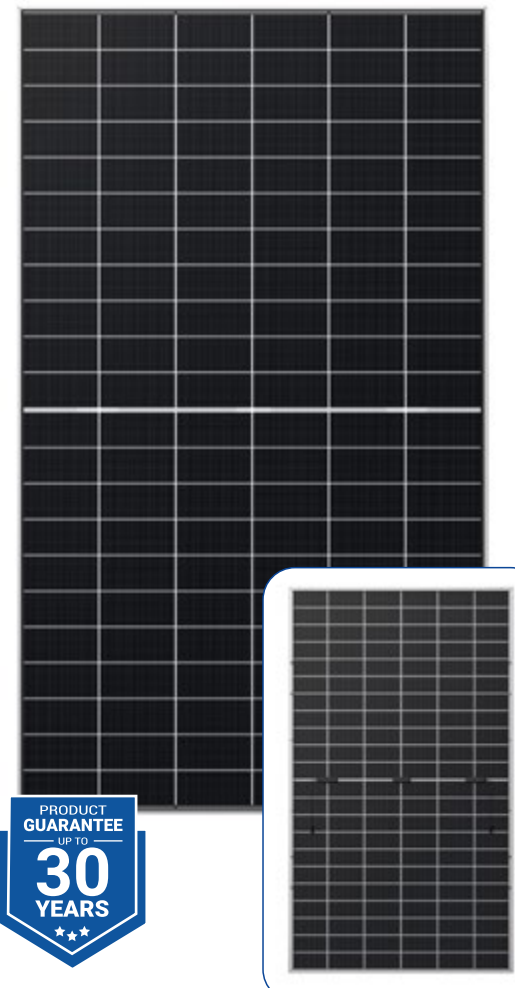
Tested at STC:1000W/m ; AM1.5; Cell temperature 25C°

With 10% rear side power gain

NEW ARRIVAL

PV SOLAR PANELS

NEW



**Hyper-ion Bifacial Solar Panel
N-Type Topcon HDJ HJT**
RSM132-8-690-715BHDG
700Wp

PV Model	SKU:9415
Rated Maximum Power (Pmax)	700W
Power Sorting	0~+5W
Voltage at Pmax (Vmp)	41.86V
Current at Pmx (IMP)	16.77A
Open-Circuit Current (Voc)	49.83V
Short-Circuit Current (Isc)	17.82A
Maximum System Voltage	1500V
Maximum Series Fuse Rating	35A
Operating Temperature	-40~85° C
Dimensions (mm)	2384x1096x30mm
Pmax Coefficients(W/°C)	-0.24%
Voc Coefficients(W/°C)	-0.22%
Isc Coefficients(W/°C)	+0.047%
Module Efficiency (%)	22.5

Tested at STC:1000W/m ; AM1.5; Cell temperature 25C°

PV SOLAR PANELS



**MONO HALF-CUT MODULE
BLACK FRAME** **405Wp**

UL-405-108HV **MBB 182mm Cell**

PV Model	SKU:9411
Rated Maximum Power (Pmax)	405W
Power Sorting	0~+5W
Voltage at Pmax (Vmp)	31.3V
Current at Pmx (IMP)	12.94A
Open-Circuit Current (Voc)	37.3V
Short-Circuit Current (Isc)	13.69A
Module Efficiency STC	20.74
Maximum System Voltage	1500V
Maximum Series Fuse Rating	25A
Operating Temperature	-40~85° C
Dimensions (mm)	2279/1134/35mm
Pmax /Voc / Isc Tolerance	± 3%

Tested at STC:1000W/m ; AM1.5; Cell temperature 25C°



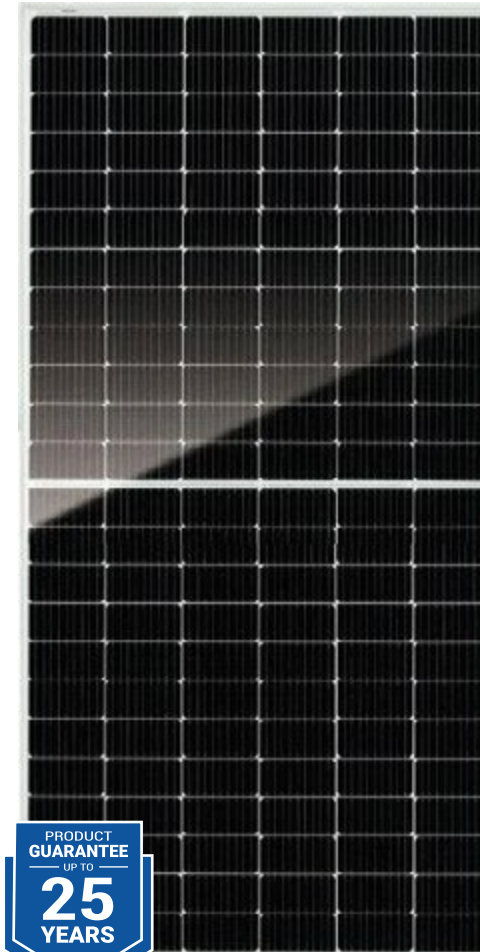
Lower LCOE
Lower shading and resistive loss
Lower temperature coefficient



Anti-PID(potential induced degradation)
Passed anti-PID test under 85% damp heat,
85% relative humidity for 96 hours



PV SOLAR PANELS



**MONO HALF-CUT MODULE
SILVER FRAME** **455Wp**

UL-455M-144HV **MBB 166mm Cell**

PV Model	SKU:9410
Rated Maximum Power (Pmax)	455W
Power Sorting	0~+5W
Voltage at Pmax (Vmp)	41.1V
Current at Pmx (IMP)	11.07A
Open-Circuit Current (Voc)	49.9V
Short-Circuit Current (Isc)	11.64A
Module Efficiency STC	20.93
Maximum System Voltage	1500V
Maximum Series Fuse Rating	20A
Operating Temperature	-40~85° C
Dimensions (mm)	2094x1038x35mm
Pmax /Voc / Isc Tolerance	± 3%

Tested at STC:1000W/m ; AM1.5; Cell temperature 25C°



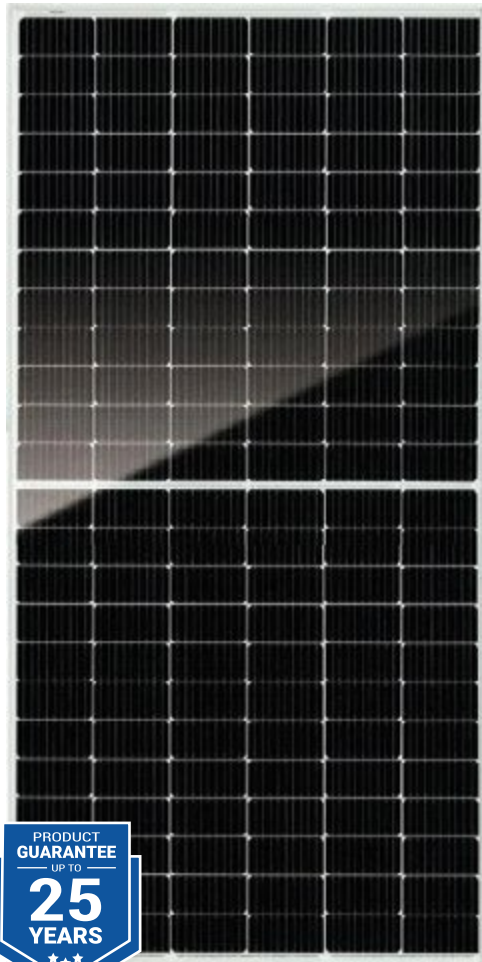
Lower LCOE
Lower shading and resistive loss
Lower temperature coefficient



Anti-PID(potential induced degradation)
Passed anti-PID test under 85% damp heat,
85% relative humidity for 96 hours



PV SOLAR PANELS



BIFACIAL MONO PERC MODULE

UL-550M-144HV

MBB 182mm Cell

550Wp

PV Model	SKU:9412
Rated Maximum Power (Pmax)	550W
Power Sorting	0~+5W
Voltage at Pmax (Vmp)	41.9V
Current at Pmx (IMP)	13.13A
Open-Circuit Current (Voc)	50V
Short-Circuit Current (Isc)	13.75A
Module Efficiency STC	21.28
Maximum System Voltage	1500V
Maximum Series Fuse Rating	30A
Operating Temperature	-40~85° C
Dimensions (mm)	2279/1134/35mm
Pmax /Voc / Isc Tolerance	± 3%

Tested at STC:1000W/m ; AM1.5; Cell temperature 25C°



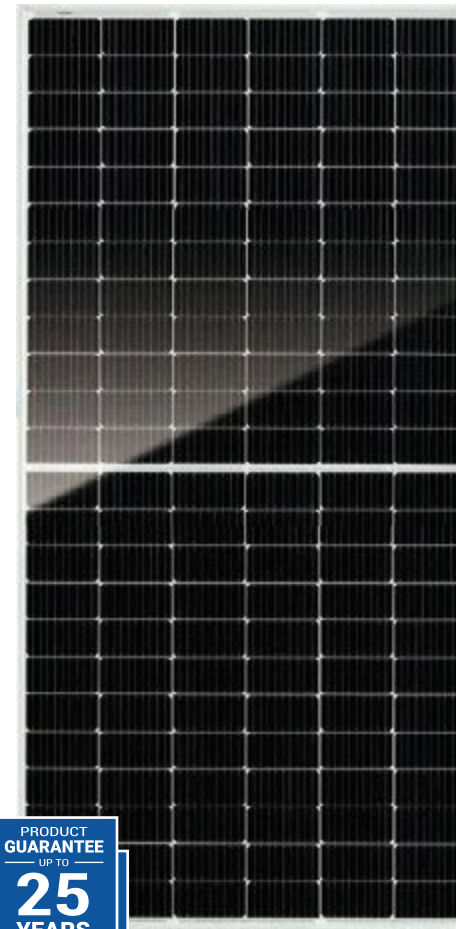
Lower LCOE
Lower shading and resistive loss
Lower temperature coefficient



Anti-PID (potential induced degradation)
Passed anti-PID test under 85% damp heat, 85% relative humidity for 96 hours



PV SOLAR PANELS



DOUBLE-GLASS BIFACIAL MODULE

UL-570M-144DG

N-TYPE 570Wp TOPCON

MBB 182mm Cell

PV Model	SKU:9413
Rated Maximum Power (Pmax)	570W
Power Sorting	0~+5W
Voltage at Pmax (Vmp)	42.2/
Current at Pmx (IMP)	13.51
Open-Circuit Current (Voc)	50.7
Short-Circuit Current (Isc)	14.23
Module Efficiency STC	22.07%
Maximum System Voltage	1500V
Maximum Series Fuse Rating	30A
Operating Temperature	-40~85° C
Dimensions (mm)	2278/1134/35mm
Pmax /Voc / Isc Tolerance	± 3%

Tested at STC:1000W/m ; AM1.5; Cell temperature 25C°



Lower LCOE
Lower shading and resistive loss
Lower temperature coefficient



Anti-PID (potential induced degradation)
Passed anti-PID test under 85% damp heat, 85% relative humidity for 96 hours



Double Headed Electric Photovoltaic Brush 5.5M Glass Fiber Handle AC220 or 110V AC

Applicable Voltage	110-240V	Material	Alu/Carbon fiber
Utilization Voltage	24V	Wall thickness	1-1.2mm
Power	52.8W*2	Diameter	43mm
Speed	128rpm	Length	5.5m
Torsion	1.2 N.m	Brush Size	280mm

SKU: 9656



Accessories

- Battery*1
- Adapter*1
- Water pipe and accessories*1
- Backpack*1
- Push button switch spring wire*1
- Telescopic rod*1
- Brush head assembly*1 set (including 1 pcs brush discs)

SKU: 9657 - DC24 Supply(Battery)



Solar Panel Cleaning Robot - Watering



SINGLE SOLAR PANEL CLEANING ROBOT 2384mm 150W 24V10Ah

SKU: 9658

PV Module Range	2384mm Single PV Panel
Traveling Speed	15-20 m/min
Generator Power	150W
Water Used Per Hour	330L/H
Solar Panel(W)	27W
Batery Capacity(Ah)	24V/10Ah
Cleaning Mode	Dry/Watering Cleaning
Other Functions	Speed Adjust/Direction Adjust

DOUBLE SOLAR PANEL CLEANING ROBOT 2384mm 200W 24V20Ah

SKU: 9659

PV Module Range	2384mm Double PV Panel
Traveling Speed	15-20 m/min
Generator Power	200W
Water Used Per Hour	330L/H
Solar Panel(W)	27W
Batery Capacity(Ah)	24V/10Ah
Cleaning Mode	Dry/Watering Cleaning
Other Functions	Speed Adjust/Direction Adjust



ONE-PHASE HYBRID INVERTERS
LOW VOLTAGE



SUN-3.6K-SG03LP1-EU SUN-5K-SG03LP1-EU SUN-6K-SG05LP1-EU SUN-6K-SG03LP1-EU SUN-8K-SG01LP1-EU
3.6kW 5kW 6kW 6kW 8kW

Model	SKU:9446	SKU:9437	SKU:9440	SKU:9438	SKU:9447
Battery Type	Lead-Acid or Li-Ion				
Battery Voltage Range (V)	40~60				
Max. Charging Current (A)	90	120	135	135	190
Max. Discharging Current (A)	90	120	135	135	190
Charging Strategy for Li-Ion Battery	Self-adaption to BMS				
Max. DC Input Power (W)	4680	7800	7800	7800	10400
Rated PV Input Voltage (V)	500	(125-500)			
Start-up Voltage (V)	125				
MPPT Voltage Range (V)	150-425				
Full Load DC Voltage Range (V)	370		300-425		200-425
PV Input Current (A)	13+13		26+26		
Max. PV I _{SC} (A)	17+17		44+44		
No.of MPP Trackers	2		2		
No.of Strings per MPP Tracker	1		2+2		
Rated AC Output and UPS Power (W)	3600	5000	6000	6000	8000
Max. AC Output Power (W)	3960	5500	6600	6600	8800
AC Output Rated Current (A)	16.4/15.7	22.7/21.7	27.3/26.1	27.3/26.1	33.3/38.5
Max. AC Current (A)	18/17.2	225/23.9	30/28.7	30/28.7	36.7/42.3
Max. Continuous AC Passthrough (A)	35	35	40	40	50
Peak Power (off grid)	2 time of rated power, 10S				
Power Factor	0.8 leading to 0.8 lagging				
Output Frequency and Voltage	220/230 0.85Un-1.1Un				
Grid Type	L+N+PE				
Total Harmonic Distortion (THD)	<3% (of nominal power)				
DC current injection	<05% In				



THREE-PHASE HYBRID INVERTERS
LOW VOLTAGE



SUN-6K-SG04LP3-EU SUN-8K-SG04LP3-EU SUN-10K-SG04LP3-EU SUN-12K-SG04LP3-EU
6kW 8kW 10kW 12kW

Model	SKU:9445	SKU:9436	SKU:9435	SKU:9441
Battery Type	Lead-acid or Li-Ion			
Battery Voltage Range (V)	40~60			
Max. Charging Current (A)	150	190	210	240
Max. Discharging Current (A)	150	190	210	240
External Temperature Sensor	Yes			
Charging Curve	3 Stages / Equalization			
Charging Strategy for Li-Ion Battery	Self-adaption to BMS			
Max. DC Input Power (W)	7800	10400	13000	15600
Rated PV Input Voltage (V)	550 (160~800)			
Start-up Voltage (V)	160			
MPPT Voltage Range (V)	200-650			
Full Load DC Voltage Range (V)	350-650			
PV Input Current (A)	13+13		26+13	
Max. PV I _{SC} (A)	17+17		34+17	
No.of MPP Trackers	2			
No.of Strings per MPP Tracker	1		2+1	
Rated AC Output and UPS Power (W)	6000	8000	10000	12000
Max. AC Output Power (W)	6600	8800	11000	13200
AC Output Rated Current (A)	9.1/8.7	12.1/11.6	15.2/14.5	18.2/17.4
Max. AC Current (A)	10/9.6	18.2/17.4	22.7/21.7	20/19.1
Max. Continuous AC Passthrough (A)	45			
Peak Power (off grid)	2 time of rated power, 10 S			
Power Factor	0.8 leading to 0.8 lagging			
Output Frequency and Voltage	50/60Hz; 3L/N/PE 220/380, 230/400Vac			
Grid Type	Three Phase			
Total Harmonic Distortion (THD)	<3% (of nominal power)			
DC current injection	<0.5% In			



THREE-PHASE HYBRID INVERTERS
HIGH VOLTAGE

NEW



10kW 15kW
SUN-10K-SG01HP3-EU-AM2 SUN-15K-SG01HP3-EU-AM2

Model	SKU:9448	SKU:9449
Battery Input Data		
Battery Type	Lithium-ion	
Battery Voltage Range (V)	160~700	
Max. Charging Current (A)	37	
Max. Discharging Current (A)	37	
Number of Battery Input	1	
Charging Strategy for Li-Ion Battery	Self-adaption to BMS	
PV String Input Data		
Max. DC Input Power (W)	13000	19500
Max. DC Input Voltage (V)	1000	
Start-up Voltage (V)	180	
MPPT Range (V)	150-850	
Full Load DC Voltage Range (V)	360-850	420-850
Rated DC Input Voltage (V)	600	
PV Input Current (A)	20+20	26+20
Max. PV I _{sc} (A)	30+30	39+30
No.of MPP Trackers	2	
No.of Strings per MPP Tracker	1+1	2+1
AC Output Data		
Rated AC Output Active Power (W)	10000	15000
Max AC Output Active Power (W)	11000	16500
AC Output Rated Current (A)	15.2/14.5	22.8/21.8
Max. AC Output Current (A)	16.7/16	25/24
Max. Three-phase Unbalanced Output Current (A)	22	30
Max. Continuous AC Passthrough (A)	40	80
Peak Power (Off Grid)	1.5 time of rated power, 10 S	
Generator Input/Smart Load /AC Couple Current (A)	15.2/40/15.2	22.8/80/22.8
Power Factor Adjustment Range	0.8 leading to 0.8 lagging	
Output Frequency and Voltage	50/60Hz; 3L/N/PE 220/380, 230/400Vac	
Grid Type	Three Phase	
Total Harmonics Current Distortion (THDI)	<3% (of nominal power)	
DC Current Injection	<0.5% I _n	



THREE-PHASE HYBRID INVERTERS
HIGH VOLTAGE



20kW 30kW 50kW
SUN-20K-SG01HP3-EU-AM2 SUN-30K-SG01HP3-EU-BM3 SUN-50K-SG01HP3-EU-BM4

Model	SKU: 9442	SKU: 9443	SKU: 9444
Battery Input Data			
Battery Type	Lithium-ion		
Battery Voltage Range (V)	160~700	160-800	
Max. Charging Current (A)	37	50+50	
Max. Discharging Current (A)	37	50+50	
Number of Battery Input	1	2	
Charging Strategy for Li-Ion Battery	Self-adaption to BMS		
PV String Input Data			
Max. DC Input Power (W)	26000	39000	65000
Max. DC Input Voltage (V)	1000		
Start-up Voltage (V)	180		
MPPT Range (V)	150-850		
Full Load DC Voltage Range (V)	500-850	360-850	450-850
Rated DC Input Voltage (V)	600		
PV Input Current (A)	26+26	36+36+36	36+36+36+36
Max. PV I _{sc} (A)	39+39	55+55+55	55+55+55+55
No.of MPP Trackers	2	3	4
No.of Strings per MPP Tracker	2+2	2+2+2	2+2+2+2
AC Output Data			
Rated AC Output Active Power (W)	20000	30000	50000
Max AC Output Active Power (W)	22000	33000	55000
AC Output Rated Current (A)	30.4/29	45.5/43.5	75.8/72.5
Max. AC Output Current (A)	33.4/31.9	50/47.8	83.4/79.7
Max. Three-phase Unbalanced Output Current (A)	35	60	83.3
Max. Continuous AC Passthrough (A)	80	200	
Peak Power (Off Grid)	1.5 time of rated power, 10 S		
Generator Input/Smart Load /AC Couple Current (A)	30.4/80/30.4	45.5 / 200 / 45.5	75.8 / 200 / 75.8
Power Factor Adjustment Range	0.8 leading to 0.8 lagging		
Output Frequency and Voltage	50/60Hz; 3L/N/PE 220/380, 230/400Vac		
Grid Type	Three Phase		
Total Harmonics Current Distortion (THDI)	<3% (of nominal power)		
DC Current Injection	<0.5% I _n		

SUNGROW Three Phase On-Grid Solar Inverter

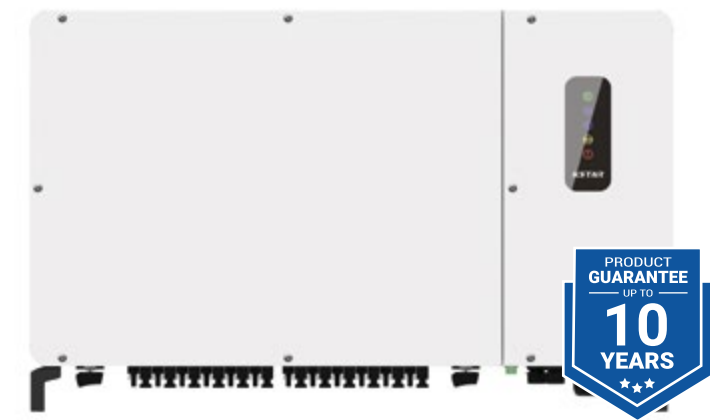


250kW

Type designation	9496 / SG250HX
Input (DC)	
Max. PV input voltage	1500 V
Min. PV input voltage / Star tup input v oltage	600 V / 600 V
Nominal PV input voltage	1160 V
MPP voltage range	600 V – 1500 V
MPP voltage range for nominal power	860 V – 1300 V
No. of independent MPP inputs	12
Max. number of input connect or per MPPT	2
Max. PV input current	26 A * 12 50 A * 12
Output (AC)	
AC output power	250 kVA @ 30 °C / 225 kVA @40 / 200 kVA @ 50 °C
Max. AC output cur rent	180.5 A
Nominal AC voltage	3 / PE, 800 V
AC voltage range	680 – 880V
Nominal grid f requency / Grid frequency range	50 Hz / 45 – 55 Hz, 60 Hz / 55 – 65 Hz
THD	< 3 % (at nominal po wer)
DC current injection	< 0.5 % In
Power factor at nominal power / Adjustable po wer factor	> 0.99 / 0.8 leading – 0.8 lagging
Feed-in phases / connection phases	3 / 3
Efficiency	
Max. efficiency	99.0 %
European efficiency	98.8 %
General Data	
Dimensions (W*H*D)	1051 * 660 * 363 m m
Weight	99kg
Isolation method	Transformerless
Grid Support	Q at night function, LVRT, HVRT, active & reactive power control and power ramp rate control

KSTAR

Three Phase On-Grid Solar Inverter



Model	SKU:9491	SKU:9492	SKU:9493	SKU:9494
Input(DC)	10KW	30KW	40KW	120KW
Max. DC Voltage	1100V	1100V	1100V	1100V
Nominal Voltage	620V	600V	600V	620V
Start Voltage	180V	180V	180V	250V
MPPT Voltage Range	140V~1000V	200V~1000V	200V~1000V	200V~1000V
Number of MPPT Tracker	2	3	2	10
Strings Per MPPT Tracker	1	2	1	2
Max. Input Current Per MPPT	15A	30A	30A	30A
Max. Short-circuit Current Per MPPT	20A	50A	50A	50A
Output(AC)				
Nominal AC Output Power	10000W	30000W	40000W	120kW
Maximum AC Output Power	11000Va	33000Va	44000Va	121kVa
Nominal AC Voltage	400V 3L+N	400V 3L+N	400V 3L+N	480V 3W+PE
AC Grid Frequency Range	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Maximum Output Current	16.0A	47.7A	63.6A	174.6A
Power Factor(φ)	0.8leading-0.8lagging	0.8leading-0.8lagging	0.8leading-0.8lagging	0.8leading-0.8lagging
THDi	<3%	<3%	<3%	<3%
Efficiency				
Max. Efficiency	98.6%	98.7%	98.7%	98.7%
General Specifications				
Dimensions W x H x D	380x483x161mm	380x483x227mm	380x483x227mm	1055x700x336mm
Operating Temperature Range	-25°C~+60°C	-25°C~+60°C	-25°C~+60°C	-25°C~+60°C
Cooling Type	Natural cooling	Fan cooling	Fan cooling	Fan cooling
IP Class	IP66	IP66	IP66	IP66

Three Phase On-Grid Solar Inverter



MODEL	SKU:9480	SKU:9481	SKU:9482
Input(DC)	Max 9.6KW	Max 12.8KW	Max 16KW
Max. DC Voltage	1100V	1100V	1100V
Nominal Voltage	600V	600V	600V
Start Voltage	160V	160V	160V
MPPT Voltage Range	250~850V	180V~1000V	180V~1000V
Number of MPPT Tracker	2	2	2
Strings Per MPPT Tracker	1	1	1
Max. Input Current Per MPPT	14A/14A	14A/14A	14A/14A
Max. Short-circuit Current Per MPPT	18A/18A	18A/18A	18A/18A
Output(AC)			
Nominal AC Output Power	6kW	8kW	10kW
Maximum AC Output Power	6.6kVA	8.8kVA	11kVA
Nominal AC Voltage	400Vac 3L/N/PE	400Vac 3L/N/PE	400Vac 3L/N/PE
AC Grid Frequency Range	50/60Hz	50/60Hz	50/60Hz
Maximum Output Current	12.8A	12.8A	15.9A
Power Factor(Φ)	0.8leading-0.8lagging	0.8leading-0.8lagging	0.8leading-0.8lagging
THDi	<3%	<3%	<3%
Efficiency			
Max. Efficiency	98.4%	98.7%	98.7%
General Specifications			
Dimensions W x H x D	481x395x195mm	481x395x195mm	481x395x195mm
Operating Temperature Range	-30°C~+60°C	-30°C~+60°C	-25°C~+60°C
Cooling Type	Natural cooling	Natural cooling	Natural cooling
IP Class	IP66	IP66	IP66

Three Phase On-Grid Solar Inverter



MODEL	SKU:9483	SKU:9484	SKU:9485
Input(DC)	Max 48KW	Max 80KW	Max 150kW
Max. DC Voltage	1100V	1100V	1100V
Nominal Voltage	600V	600V	620V
Start Voltage	250V	250V	250V
MPPT Voltage Range	200V~1000V	200V~1000V	180V~1000V
Number of MPPT Tracker	3	4	9
Strings Per MPPT Tracker	2	3/2/3/2	2
Max. Input Current Per MPPT	26A	39A/26A/39A/26A	26A
Max. Short-circuit Current Per MPPT	32A	48A/32A/48A/32A	40A
Output(AC)			
Nominal AC Output Power	30kW	50kW	100kW
Maximum AC Output Power	33kVA	55kVA	110kVa
Nominal AC Voltage	400Vac 3L/N/PE	230Vac/400Vac	400Vac 3L/N/PE
AC Grid Frequency Range	50/60Hz	50/60Hz	50/60Hz
Maximum Output Current	48.3A	79.7A	158.8A
Power Factor(Φ)	0.8leading-0.8lagging	0.8leading-0.8lagging	0.8leading-0.8lagging
THDi	<3%	<3%	<3%
Efficiency			
Max. Efficiency	98.6%	98.7%	98.7%
General Specifications			
Dimensions W x H x D	600x430x230mm	650x450x260mm	1050x660x330mm
Operating Temperature Range	-25°C~+60°C	-25°C~+60°C	-25°C~+60°C
Cooling Type	Smart Cooling	Smart Cooling	Smart Cooling
IP Class	IP66	IP66	IP66

ONE-PHASE HYBRID INVERTERS

XG8KTL



MODEL	SKU:9486
Input(DC)	Max 12KW
Max. DC Voltage	600V
Start Voltage	80V
MPPT Voltage Range	50~550V
Number of MPPT Tracker	2
Strings Per MPPT Tracker	1/1
Max. Input Current Per MPPT	20A
Max. Short-circuit Current Per MPPT	26A
Output(AC)	
Nominal AC Output Power	8kW
Maximum AC Output Power	8.8kVA
Nominal AC Voltage	220Vac/230Vac/240Vac
AC Grid Frequency Range	50/60Hz
Max. Efficiency	98.1%
General Specifications	
Dimensions W x H x D	380x380x160mm
Operating Temperature Range	-30°C~+60°C
Cooling Type	Natural cooling
IP Class	IP66

NEW ARRIVAL

All-in-One Energy Storage System ONE-PHASE
-5 kW Inverter
-5.32 kWh Storage Battery

NEW

RW-F5.3-1H3



Model:	SKU:9430
Rated AC Input/Output Active Power	5000/5000
Max AC Input/Output Apparent Power (VA)	5500
AC Output Rated Current (A)	22.8/21.8
Max. AC Current (A)	25/24
Rated Input/Output Voltage	220/230V 50Hz
Max. PV Access Power (W)	10000
Max. PV Input Power (W)	8000
Max. PV Input Voltage (Vdc)	500
Start Up PV Voltage (Vdc)	125
MPPT Voltage Range (Vdc)	150~425
Full Load MPPT Voltage Range(Vdc)	300~425
Rated PV Input Voltage	370
Max.Operating PV Input Current(A)	18+18
Max.PV Input Short-circuit Current (A)	27+27
Battery Chemistry	LiFePo4
Battery Nominal Voltage(V)	51.2
Battery Energy Configuration (kWh)	5.32
Max.Charging/Discharging Current(A)	100
Battery Operating Voltage(V)	44.8-57.6

NEW ARRIVAL



**LiFePO4 Low Voltage Lithium Battery
5.12kWh 51.2V 100Ah Rack Mounting**

SE-G5.1 PRO-B

NEW



Model	9474
Battery Chemistry	LiFePO4
Built-in Circuit Breaker	125A 2P, 60Vdc
Capacity (Ah)	100Ah
Scalability	Max. 64 pcs pack (327kWh)
Nominal Voltage (V)	51.2V
Operating Voltage(V)	43.2-57.6V
Nominal Energy (kWh)	5.12kW
Usable Energy (kWh)	4.6kW
Charge/Discharge Current (A)	100A
Dimension	440*133*540
IP Rating of Enclosure	IP20



**LiFePO4 Battery 51.2V/51.2kWh
100Ah Rack Mounting**

NEW



SKU: 9468

SKU: 9469



Rack Box for 9470



Cable Kit for 9470

Model	9470
Cell Type	LFP
Nominal Energy	5.12kWh
Nominal Capacity	100Ah
Nominal Voltage	51.2V
Operating Voltage Range	42.0-57.6V
Nominal Charge Voltage	57.6V
Charge Current/Max. Continuous	100A
Discharge Cut-off Voltage	42V
Discharge Current/Max. Continuous	100A
Recommended Depth of Discharge	80% DOD
Operating Temp. Range/Charge	0~60
Dimension(W*H*D)	440*130*400mm
IP Rating	IP20
Cooling Mode	Natural Cooling



NEW ARRIVAL



**Standard 19inch Rack for 12pcs Batteries /
1pcs Controller**

SKU: 9475

Dimensions: 589x590x2240mm



High Voltage Battery cluster control box

SKU: 9476

Operating Voltage	120~750Vdc
Nominal Charge/Discharge Current	100A
Max. Charge/Discharge Current	125A
DC Input Rating	12±2%V/4.15A
Operating Temperature Range	-20~65°C
Ingress Protection	IP20
Dimension (W/D/H)	440*570*150mm
Weight Approximate	15.5kg



**High Voltage
5.12 kWh Battery module**

SKU: 9477

Battery Type	LiFePO4(LFP)
Nominal Voltage	51.2Vdc
Rated Capacity	100Ah
Rated Energy	5.12kWh
Nominal Charge/Discharge Current	100A
Peak. Discharge Current	125A
Charge Temperature	0~55°C
Discharge Temperature	-20~55°C
Storage Temperature	0°C~35°C
Ingress Protection	IP20
Dimension (W/D/H)	440*570*133mm
Weight Approximate	44kg





RECHARGEABLE LITHIUM BATTERY SYSTEM

BATTERY LiFePo4



10.94kWh



10.24kWh



5.12kWh

Model	SKU:9471	SKU:9472	SKU:9473
Nominal Capacity	228Ah	200Ah	100Ah
Nominal Energy	10.94kWh	10.24kWh	5.12kWh
Nominal Voltage	48Vdc	51.2Vdc	51.2Vdc
Discharge Current	150A	150A	100A
Cell	BYD	EVE	EVE
Ingress Protection	IP65	IP65	IP65
Weight	90kg	90kg	42.2kg



SKU: 9465 - Cables Red/Black for Battery
9471-9473 - Length 1500mm



RECHARGEABLE LITHIUM BATTERY SYSTEM

BATTERY LiFePo4

6.14kWh



Model	SKU:9439
Nominal Capacity	120Ah
Nominal Energy	6.14kWh
Nominal Voltage	51.2Vdc
Operating Voltage Range	43.2~57.6Vdc
Nominal Charge/Discharge Current	60A
Ingress Protection	IP65
Operating Temperature(Charge)	0~+55 C°
Operating Temperature(Discharge)	-20~+55 C°
Storage Temperature	-20~+35 C°
DimensionS	475x720x145mm
Weight Approximate	58 Kg

MULTI-FUNCTION ELECTRICAL ENERGY METERS



Single-phase Multi-Function electrical energy meter

230V/100A/RS485/MID Certification
SKU: 9461

Three-phase Multi-Function electrical energy meter

3x230V/100A/RS485/MID certification
SKU: 9462



CT Three-phase Multi-Function electrical energy meter

3x230V/1A or 5A/RS485/MID certification
SKU: 9463

STD670V Smart Meters Kits for INVT 3-Phase Inverters
 (Including wires and CT SDT024TS)

SKU: 9460



Technical Feature	Parameters
Wiring	2P3L, 3P3L, 3P4L
Voltage	2x110V/220V, 3x57.7/100V, 3x127/220V, 3x230V/400V, 3x240/415V, 3x400/690V 3x100V, 3x230V, 3x400V, 3x690V
	Rated 0.9 ~ 1.1Un; Max 0.7 ~ 1.2Un
Current	3x5A(Ext. CT), 3x16A, 3x32A, 3x63A, 3x100A
	Consumption ≤4VA / line
Frequency	50 / 60Hz
Accuracy	U,I,P 0.2%, kWh 0.5%, kVarh 1.0%
Thermal drift	<200ppm
Energy Impulse	kWh impulse (open-collector)
	VCC<48V, Iz<50mA
	Constant: 10imp/kWh
Isolation	2kVAC/min (input / output / power supply)
	input / housing and output / housing >50MΩ
Installation	Standard 35mm DIN rail

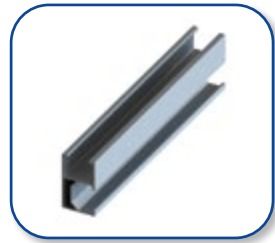
CT Clamp for SMART METER
SKU: 9466



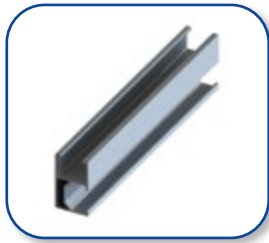
CT Clamp for Inverter
 INVT 1PHASE with **SKU 9486**
SKU: 9467



SKU: 9601 Rail 27*45mm 2.2m



SKU: 9602 Rail 27*45mm 1.2m



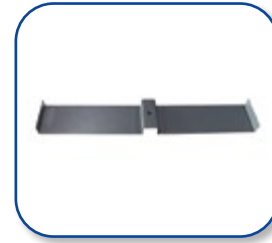
SKU: 9603 End Clamp for 35mm Panel



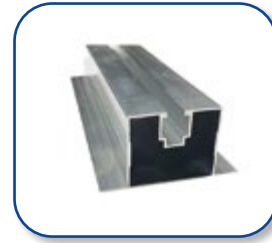
SKU: 9604 Middle Clamp



SKU: 9617 Ballasted Strip



SKU: 9618 Mini Rail - 300mm



SKU: 9619 Rail - 2400mm



SKU: 9620 Rail+Rubber Pad 70x22x380mm



SKU: 9605 Rooftop Hook



SKU: 9606 TT Nut



SKU: 9607 Screw ST6.3*80mm



SKU: 9608 Wood Screw M6.3*80mm



SKU: 9621 End Clamps M8x25mm for 30mm Panel



SKU: 9622 Middle Clamps Wide 20mm



SKU: 9623 End Clamp for 30mm Panel



SKU: 9624 Middle Clamp for 30mm Panel



SKU: 9609 L-Foot with M8*25mm



SKU: 9610 Rail Joiner 200mm



SKU: 9611 Hanger Bolt with L-Foot



SKU: 9612 Adjustable front Leg



SKU: 9625 INNER HEXAGONAL BOLT 40mm



SKU: 9626 INNER HEXAGONAL BOLT 25mm



SKU: 9627 M8 Hexagonal Nut



SKU: 9628 M8 Square Nut



SKU: 9613 Adjustable rear Leg 10-15° 200mm



SKU: 9614 Adjustable rear Leg 15-30° 320mm



SKU: 9615 Grounding Plate



SKU: 9616 Adjustable Tilt Mount Bracket



SKU: 9629 Expansion Bolt 60mm



SKU: 9630 Ball Nut



SKU: 9631 Self Tapping Screw





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