

COMPANY  
PROFILE  
AND  
PRODUCT  
CATALOGUE

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2021







## About us

Omnis Power was founded in 2010 and has since grown to become one of the most innovative and dependable global manufacturers of solar products. Omnis Power, with an annual capacity of 3 GW+, offers sustainability and brings the future to both commercial and residential applications worldwide with top-of-the-line solar products, solutions, and services. Omnis Power has multiple Asian manufacturing facilities and dedicated global sales teams in United States, Europe, China, and Australia.

In today's globalized economy, being an American-qualified PV company means operating in a way that reflects our values and mission to provide our partners with the innovation and quality they deserve. We recognize that the design, manufacture, and sale of our PV panels and kits can impact society and change lives. To that end, we make every effort to be open and transparent about our business practices. Omnis Power is committed to upholding the standards and responsibility that made us one of the best.



**3G+**

In House PV Panel Capacity



**40+**

Countries in Presence



**10000+**

successful PV installtion

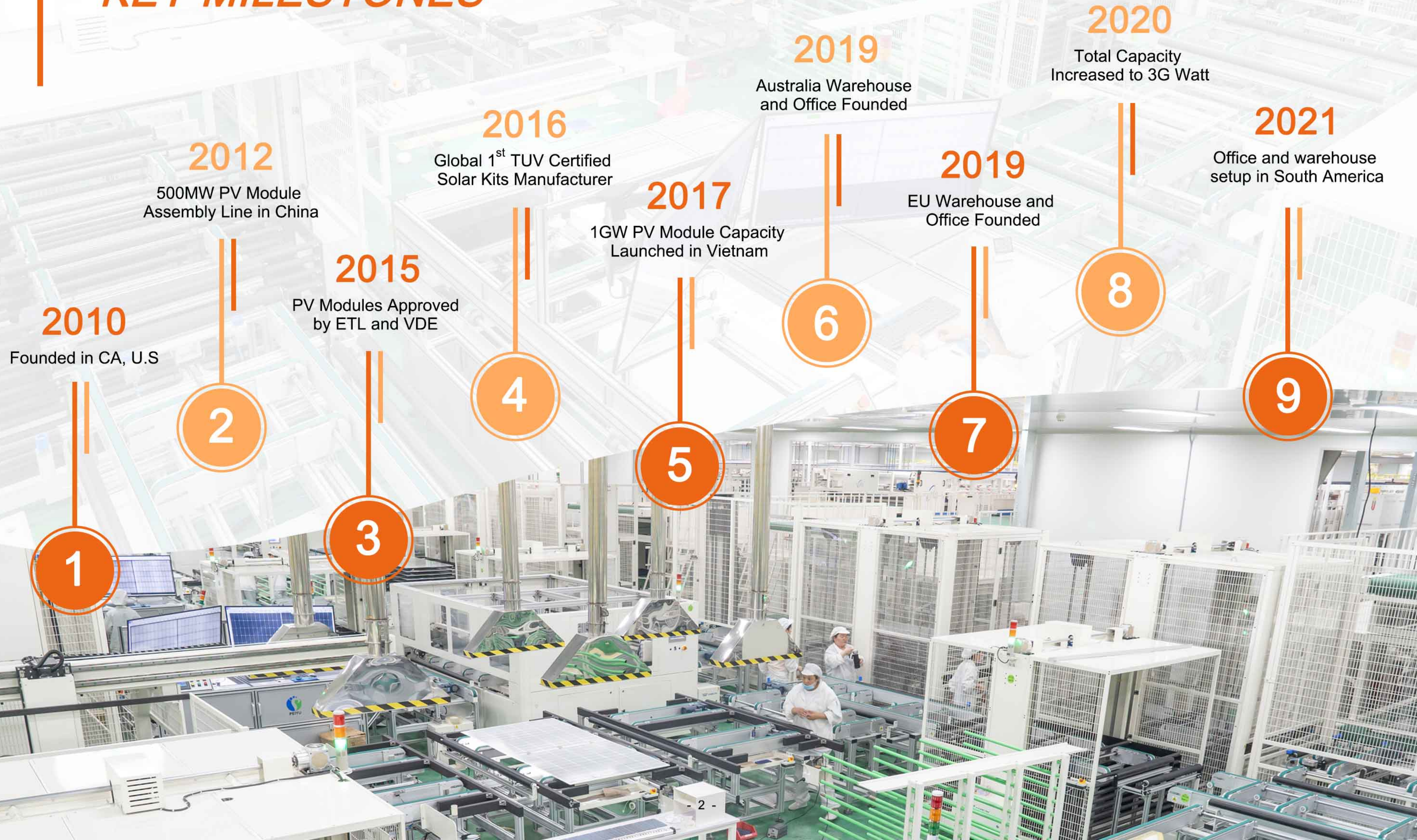


**10+**

Years PV Experiences



# KEY MILESTONES





# KEY TECHNOLOGIES

## Bifacial PERC

A typical PERC structure employs Al-BSF. Bifacial PERC is different from the typical PERC, with BSF replaced by Al grid, which can receive scattered solar radiation and thus achieve a bi-faciality of over 80%.

Omnispower modules adopt bifacial PERC as the core technology, in which Omnispower has the most sophisticated R&D and industrialization capabilities. With the integration of dual-glass, multi-busbar and half-cut cell technologies, Omnispower can achieve higher energy generation performance.



High power generation



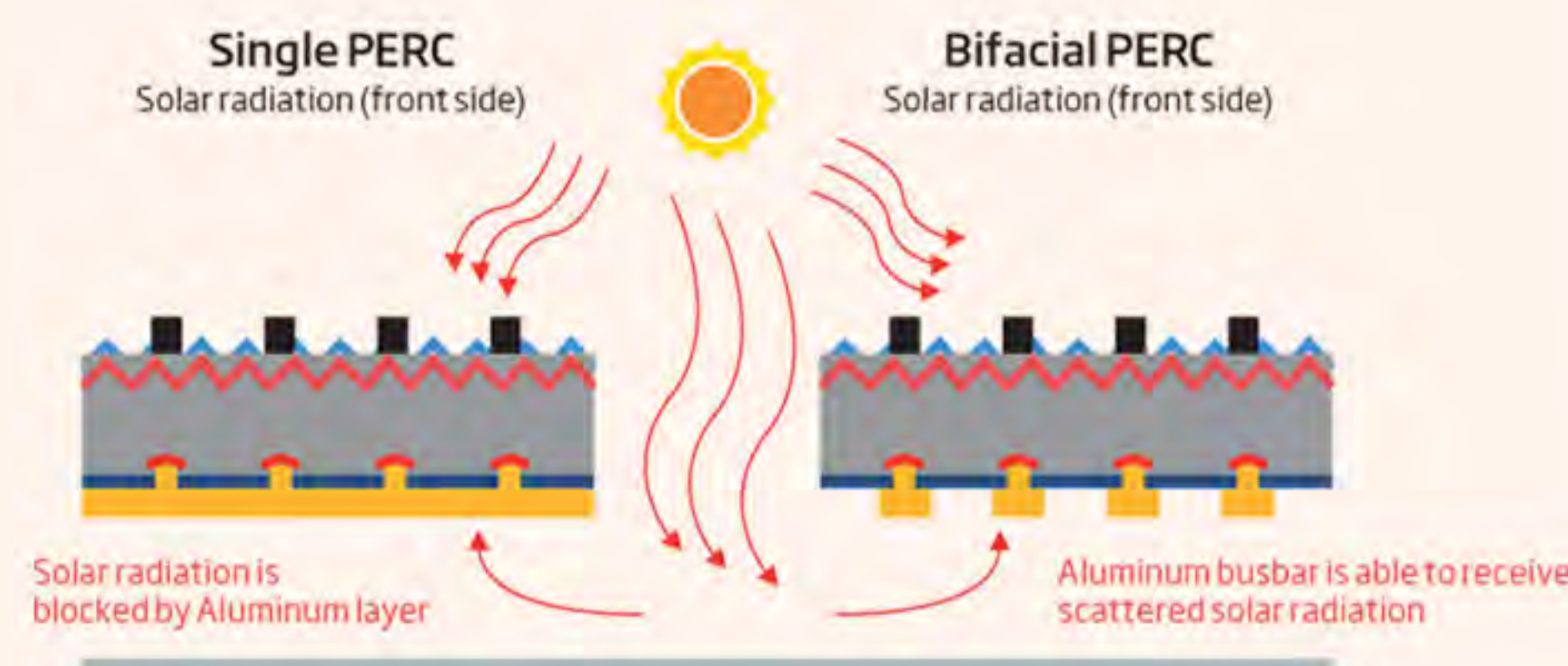
High reliability



Low LCOE



Wide application

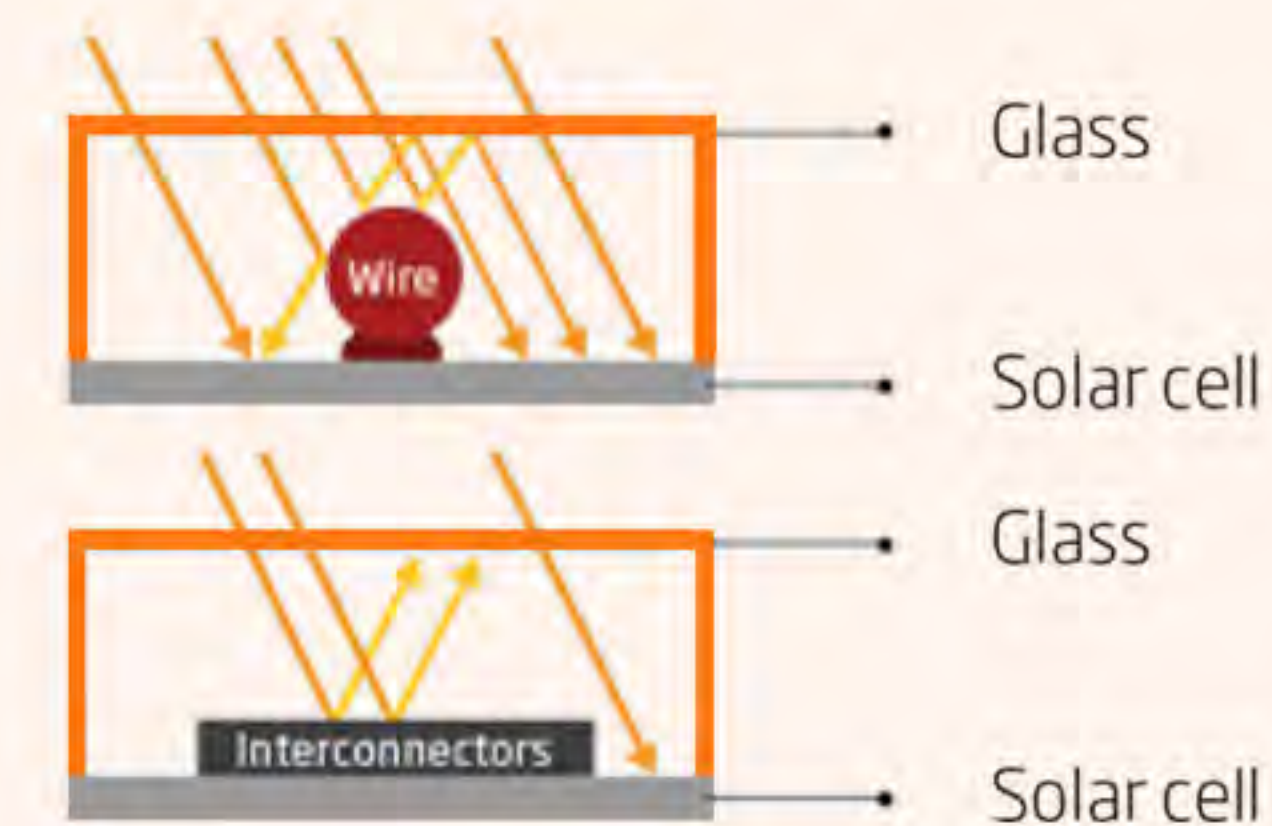


## Multi-Busbar

Compared to the conventional five busbar soldering process, the multi-busbar (MBB) technology can increase output power of PV modules by 2% with finer and narrower busbars. As the pioneer of MBB technology, Omnispower has always been taking the lead in R&D and mass production of MBB in the industry.

As early as 2015, Omnispower started its research on MBB and joined hands with other players to develop the first-generation round welding strip and first-generation MBB cell series welding equipment in China. Moreover, Omnispower was also among the first to solve technical difficulties in the process.

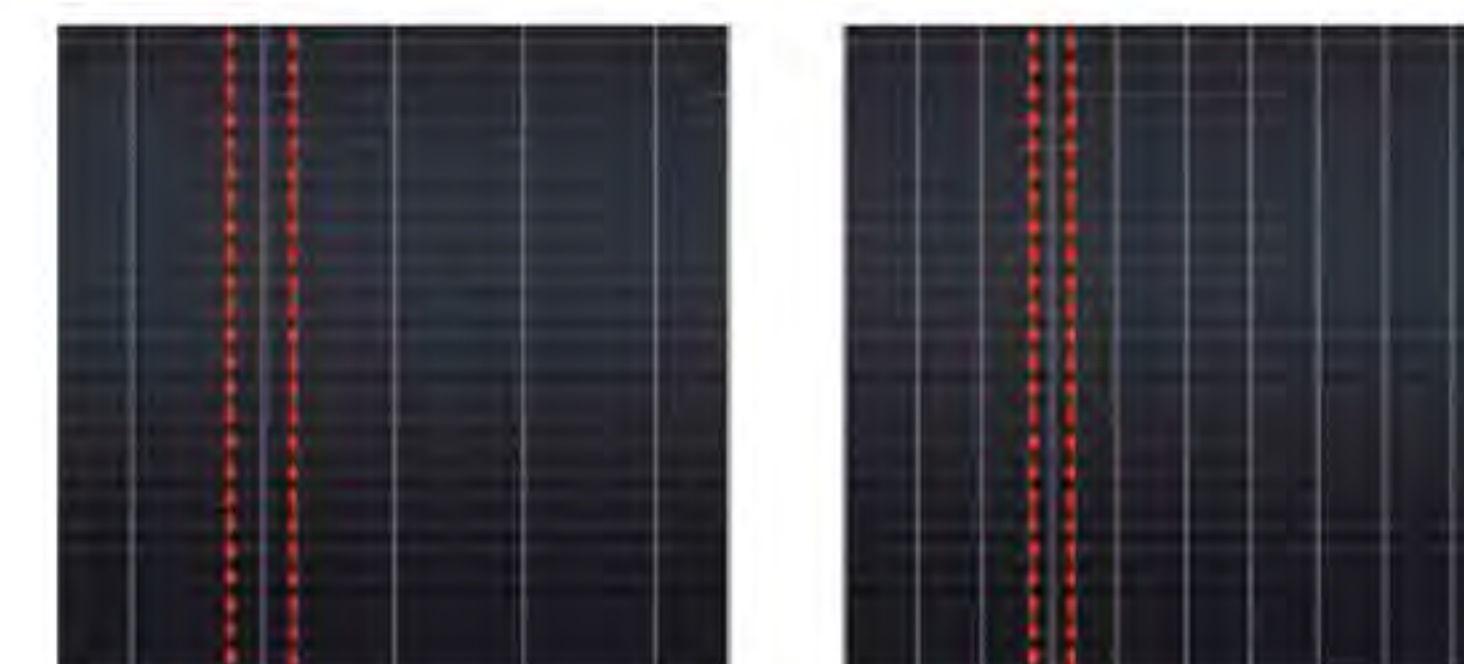
### Increased light absorption



### Rare chance of power loss due to micro-cracking



### Reduced resistance losses with over 50% shortened current conduction distance



5BB

MBB



Shortened current conduction distance



Up to 15% reduced series resistance



# KEY TECHNOLOGIES

## Half-Cut

In this technology, the full cell is cut into two parts, which results in a reduction of electrical ribbon resistance and finally improves the overall module efficiency by more than 2%. Also, half-cut design allows the module to work at low operating temperatures, which can improve energy generation per watt.

Omnispower has integrated half-cut technology into its new generation module product series, which significantly improves the actual power generation, especially when combined with other outstanding technologies like multi-busbar and bifacial cell design.

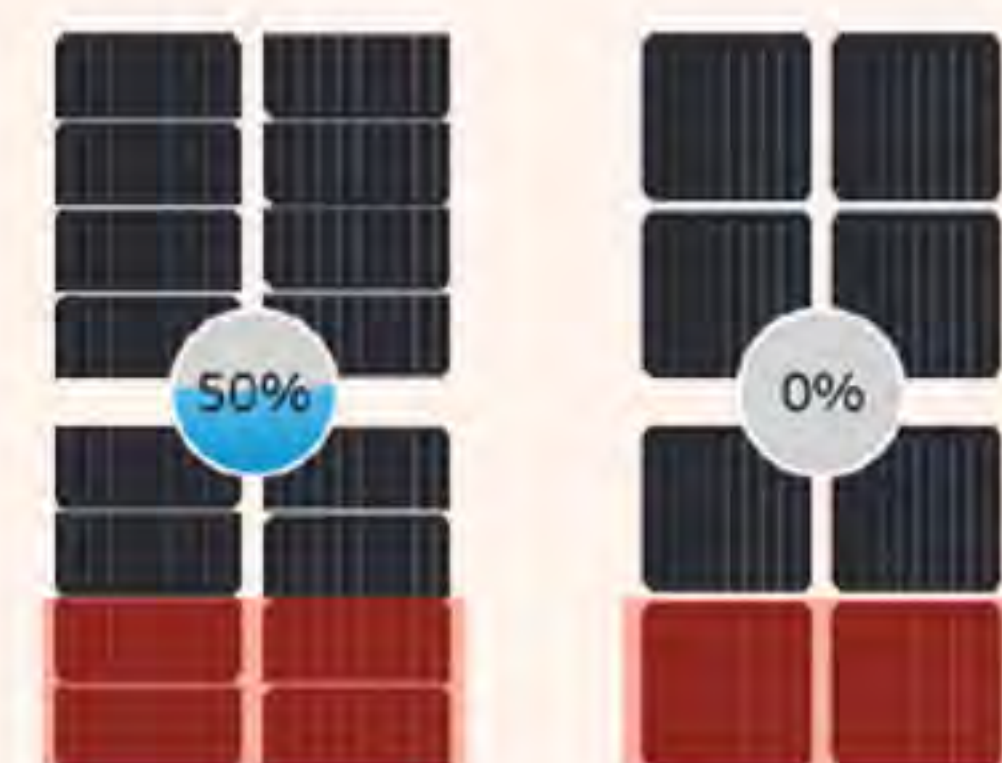
Better power generation with reduced internal resistance losses



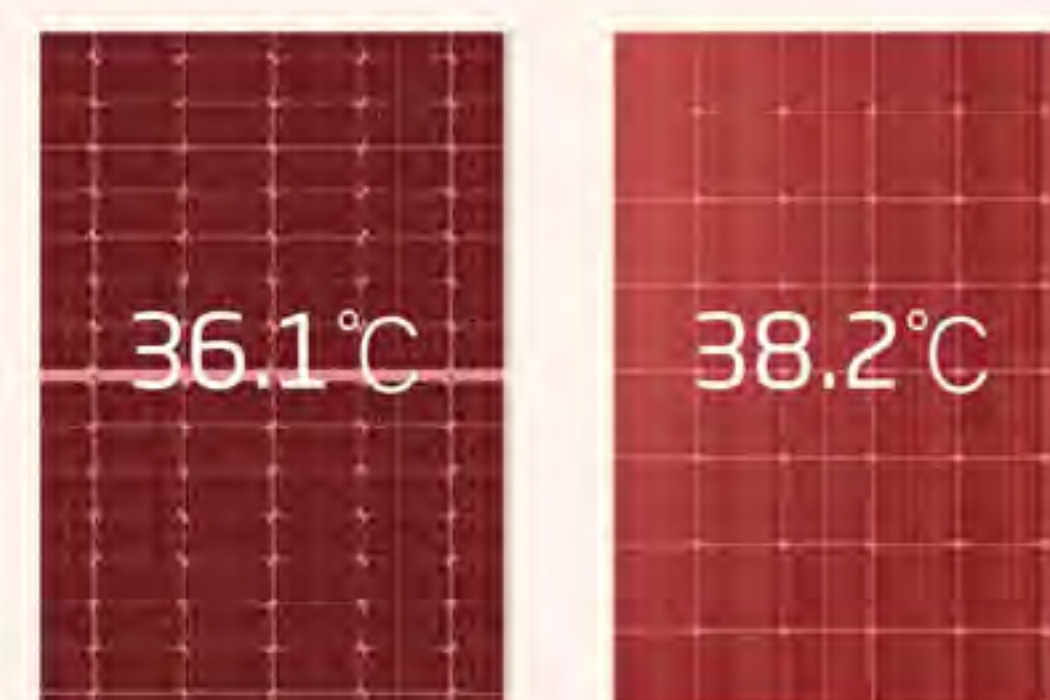
High reliability with strong resistance against hotspots



High power output with better shading tolerance



Lower operating temperature



## N Type TOPCON

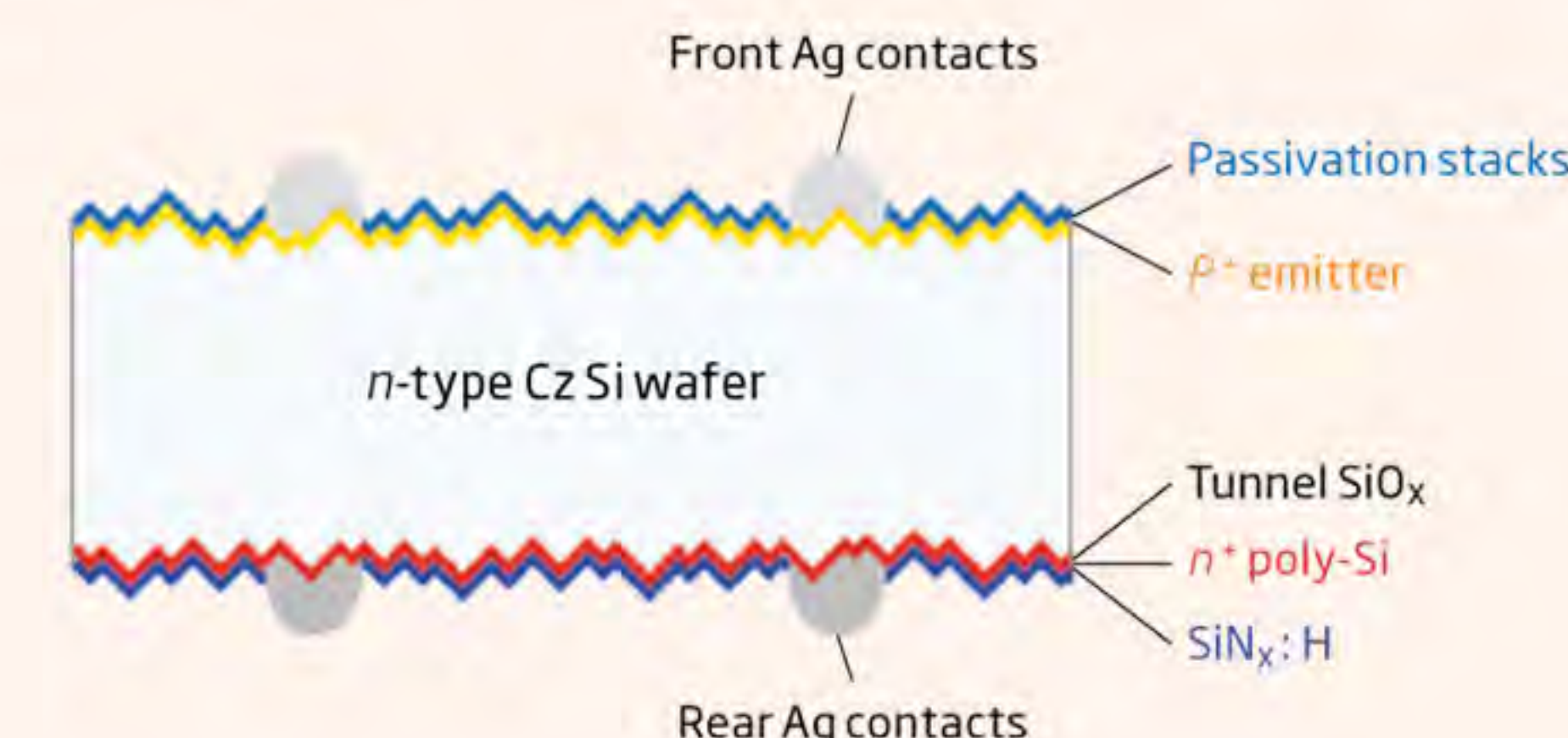
In 2015, the State Key Laboratory of Photovoltaic Science and Technology (SKL PVST) of Omnispower began the research on a large-area bifacial TOPCon cell that is aimed for industrial mass production, naming it i-TOP-Con cell.

The i-TOPCon cell has a front boron emitter and a rear full-area passivating contact. In 2021, Omnispower achieved a front side median efficiency over 25% on i-TOPCon cells. Empowered with i-TOPCon technology, Omnispower N type modules achieve an industry-leading output power of up to 670W.

24.58% world-record lab cell efficiency  
for monocrystalline n-type (c-Si) i-TOPCon solar cell  
23.22% world-record lab cell efficiency  
for cast-monocrystalline n-type (c-Si) i-TOPCon solar cell



Unique i-TOPCon cell design



Less than 1%  
LID degradation



Low temperature  
coefficient



Lower micro-crack risk  
without internal stress  
from the symmetrical  
N-Bifacial cell scheme



# PRODUCT- SOLAR MODULES

## A TIER-1 SOLAR MODULE MANUFACTURER

### FULL RANGE OF SOLAR MODULES TO MEET VARIOUS NEEDS WORLDWIDELY

Omnis Power redefines a variety of products by integrating large silicon wafers with bifacial-cell, multi-bus -bar, high-density encapsulation and other related technologies. With years of R&D investment, Omnis Power innovates and continues to deliver highly competitive products and value to the customers.

A WORLD-LEADING SOLAR MODULE MANUFACTURER, OMNISPOWER SPECIALIZES IN RESEARCH, DEVELOPMENT, PRODUCTION, AND SALES OF SOLAR PV PRODUCTS.

## Mono Facial

**CORTEX™**

### Cortex P1 Series Mono Facial



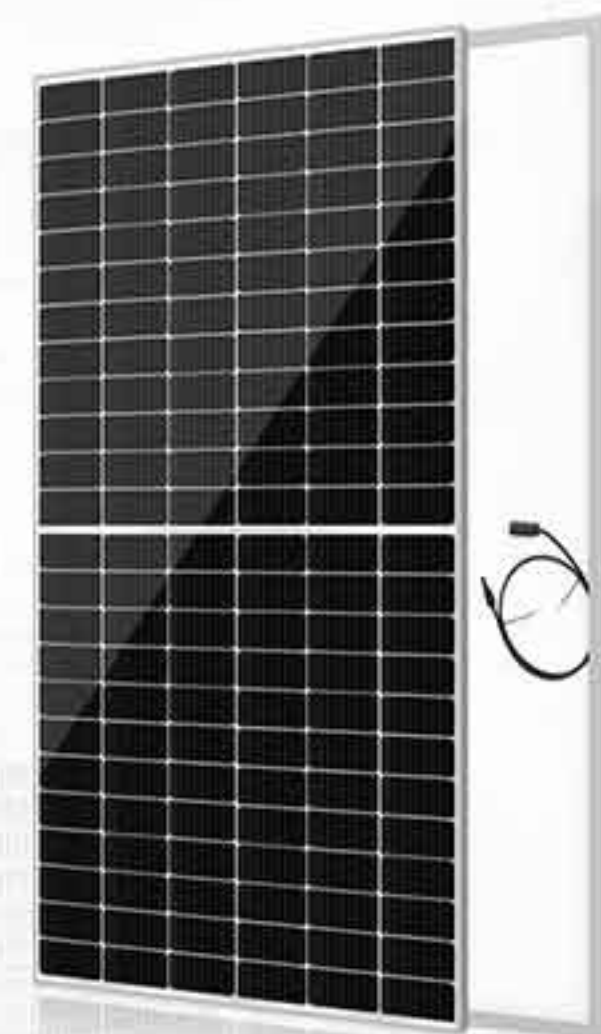
Cell Size: 158.75mm  
Power Range: 330W-350W  
Size: 1690x1002x30mm  
Weight: 19kgs

### Cortex P2 Series Mono Facial



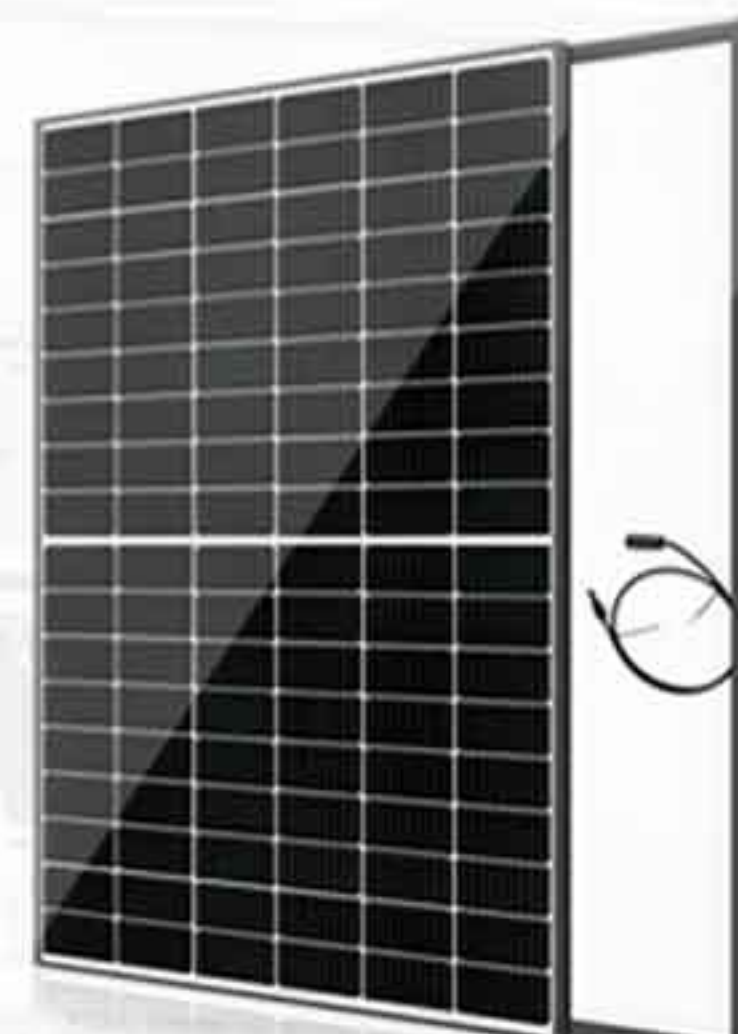
Cell Size: 166mm  
Power Range: 370W-385W  
Size: 1763x1040x30mm  
Weight: 20kgs

### Cortex P2 Series Mono Facial



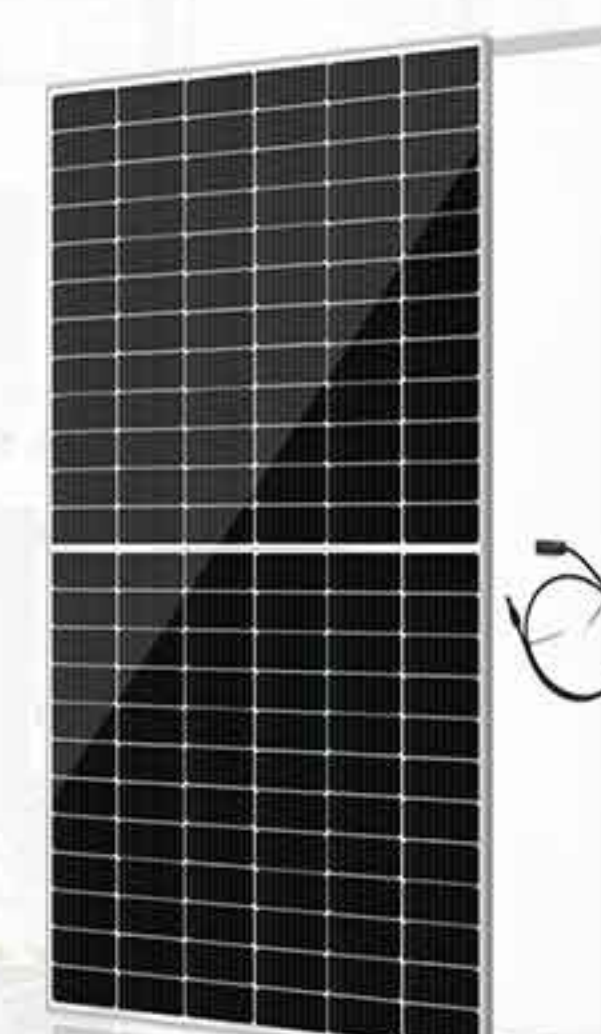
Cell Size: 166mm  
Power Range: 445W-460W  
Size: 2094x1038x35mm  
Weight: 23.3kgs

### Cortex P3 Series Mono Facial



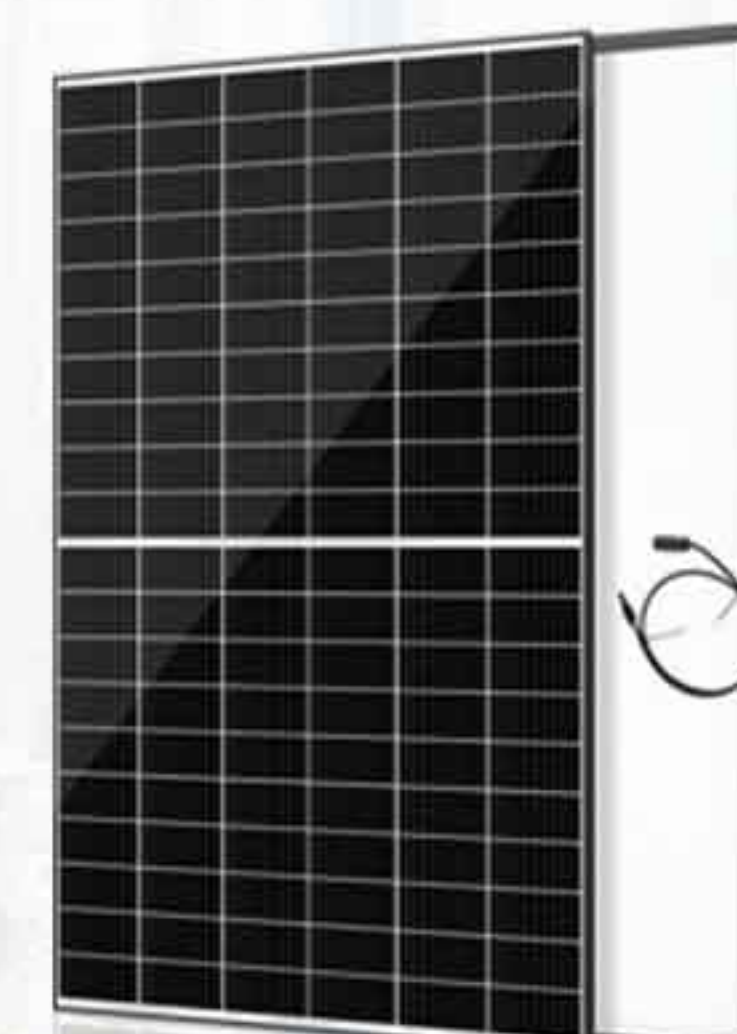
Cell Size: 182mm  
Power Range: 390W-415W  
Size: 1724x1134x30mm  
Weight: 20.7kgs

### Cortex P3 Series Mono Facial



Cell Size: 182mm  
Power Range: 540W-560W  
Size: 2274x1133x35mm  
Weight: 28kgs

### Cortex P4 Series Mono Facial



Cell Size: 210mm  
Power Range: 390W-405W  
Size: 1724x1134x30mm  
Weight: 20.7kgs

### Cortex P4 Series Mono Facial

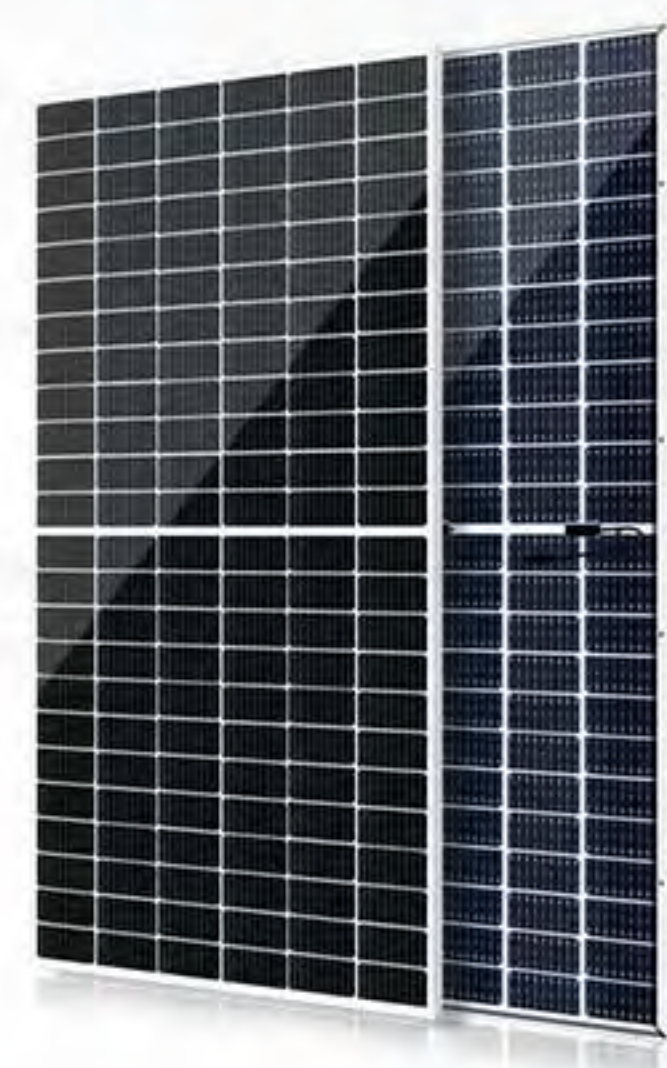


Cell Size: 210mm  
Power Range: 595W-605W  
Size: 2172x1303x35mm  
Weight: 35.3 kgs



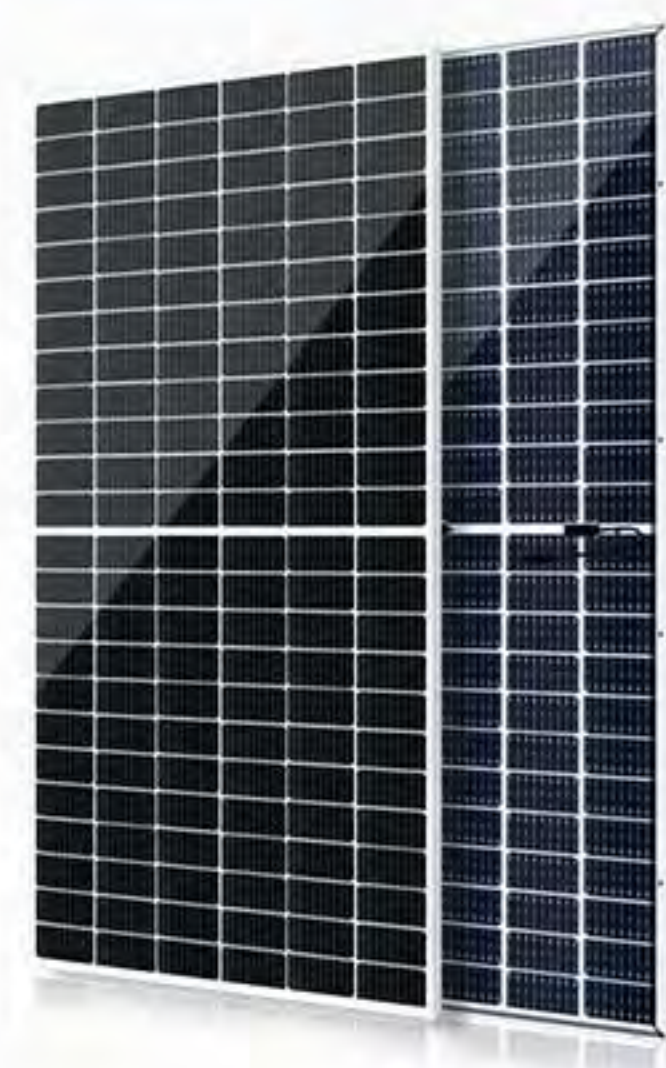
## Mono Bifacial

**Cortex P2 Series  
Mono Bifacial**



Cell Size: 166mm  
Power Range: 445W-460W  
Size: 2094x1039x30mm  
Weight: 28.1kgs

**Cortex P3 Series  
Mono Bifacial**



Cell Size: 182mm  
Power Range: 530W-560W  
Size: 2274x1133x30mm  
Weight: 31.8kgs

**Cortex P4 Series  
Mono Bifacial**



Cell Size: 210mm  
Power Range: 590W-605W  
Size: 2172x1303x35mm  
Weight: 35.3kgs

## N-TOPCON

**Cortex N-TOPCON Series  
Mono Bifacial**



Cell Size: 182mm  
Power Range: 460W-480W  
Size: 1903x1134x30mm  
Weight: 24.2kgs

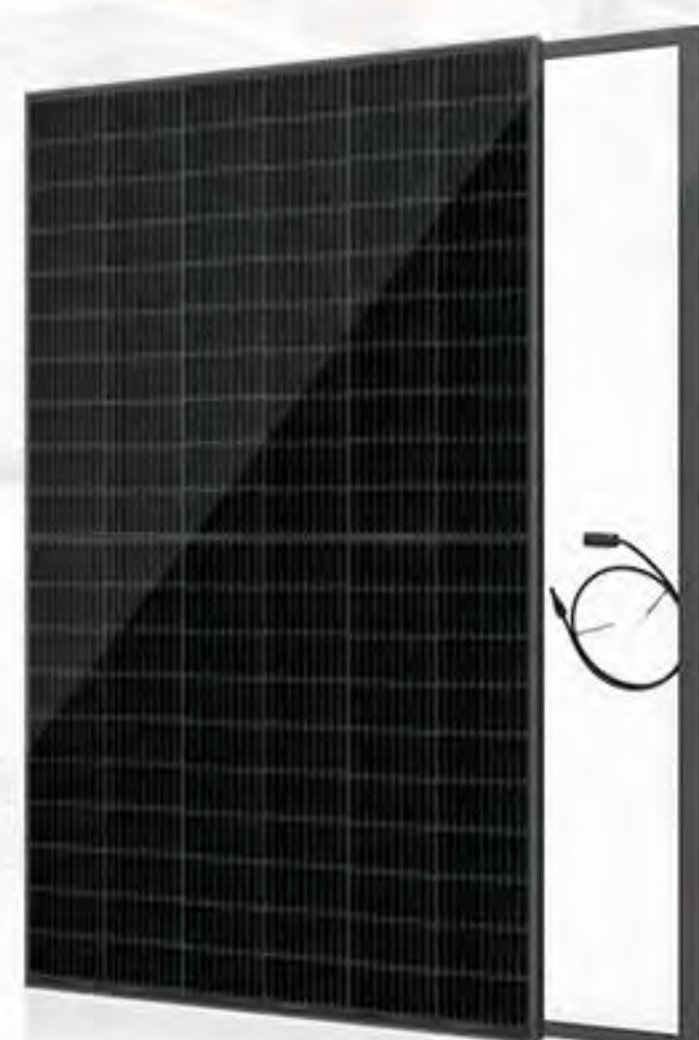
**Cortex N-TOPCON Series  
Mono Bifacial**



Cell Size: 182mm  
Power Range: 555W-575W  
Size: 2278x1134x35mm  
Weight: 28kgs

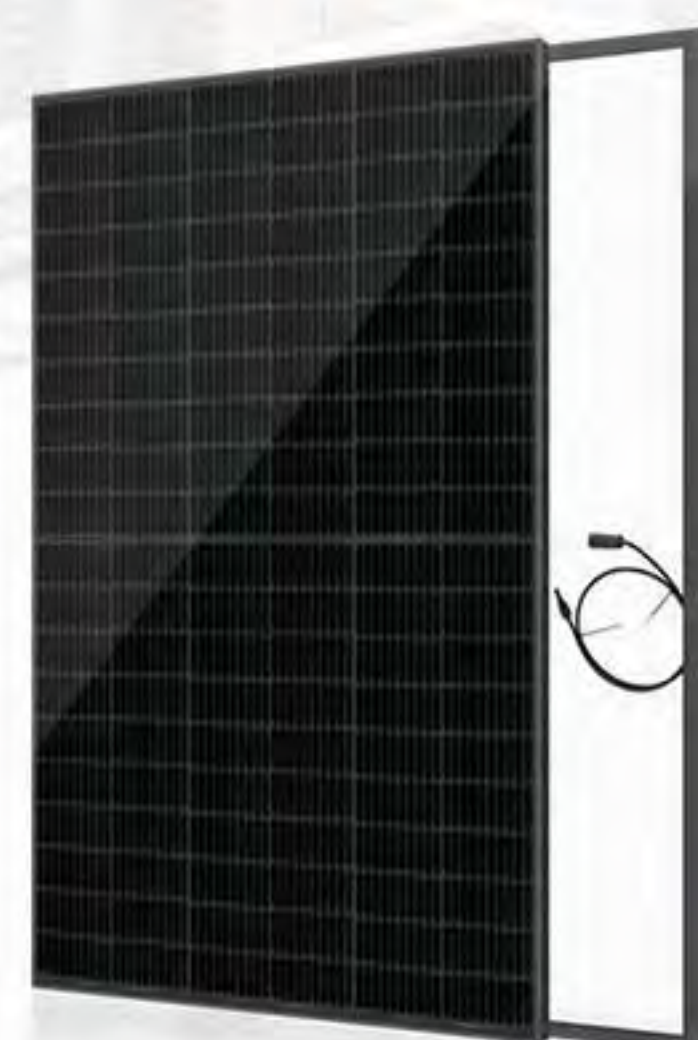
## Ultra Black

**Cortex P1 Series  
Ultra Black**



Cell Size: 158.75mm  
Power Range: 330W-345W  
Size: 1690x1002x30mm  
Weight: 19kgs

**Cortex P2 Series  
Ultra Black**



Cell Size: 166mm  
Power Range: 365W-380W  
Size: 1763x1040x30mm  
Weight: 20kgs

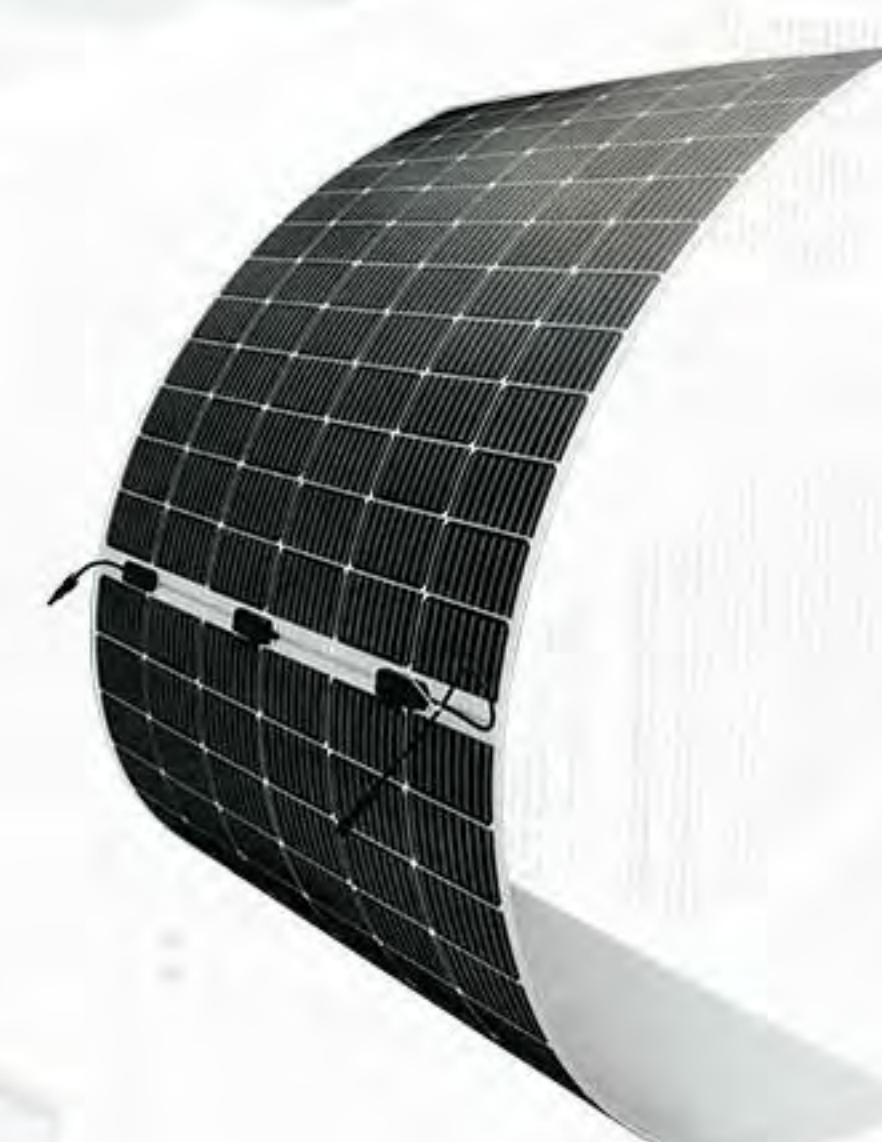
**Cortex P4 Series  
Ultra Black**



Cell Size: 210mm  
Power Range: 390W-405W  
Size: 1724x1134x30mm  
Weight: 20.7kgs

## Flexible

**Cortex Flexible Series**



Cell Size: 166mm  
Power Range: 430-460w  
Size: 2120x1050x2mm  
weight: 7.3 Kg

## SHINGLED

**Cortex SHINGLED Series**



Cell Size: 158mm  
Power Range: 385-400w  
Size: 1646x1140x30mm  
weight: 19Kg



# PRODUCT- SOLAR KITS



## ON-GRID RESIDENTIAL

3kW / 4kW / 5kW / 6kW / 7kW / 8kW



### Product Description

Omnis Power Solar's Residential Solar PV Kits are the most cost effective and easy PV solution available for home use. They are ideally suited for any household that is looking to reduce energy costs using an efficient and clean energy system.



#### Switch on and off

Our grid-tied systems allow homeowners to get power from either their solar electric system or the utility grid, switching seamlessly between the grid-tied PV system and the grid.



#### Sell back your power

When your grid-tied system is producing more power than your home is consuming, the excess power can often be sold back to the utility in a practice known as net metering.



#### Use the grid at night

When your system is not producing sufficient power or during non-daylight hours your home can draw power from the utility grid.

### What's in the Box

- Solar modules
- Solar on-grid inverter
- Custom roof mounting system
- PV wiring harnesses
- DC and AC disconnects
- Wire management kit
- Safety label kit
- Single and three-line electrical and mechanical schematics
- Microinverter (available for Mini 500W)



## ON-GRID COMMERCIAL

10kW / 15kW / 20kW / 30kW / 60kW / 100kW



### Product Description

Omnis Power Solar's Commercial Solar PV Kits are ideally suited for any business that is looking to reduce rising energy costs and hedge against future energy inflation. Our pre-engineered kits are suitable for most installation sites including commercial roof tops and ground mounting locations.



#### Help the environment

Business owners reduce electricity costs whilst simultaneously promote their brand commitment to the environment and enhance their social corporate responsibility.



#### Increase your value

Depreciate financial contributions and sell any excess electricity generated by the system back to the grid. Increase the ROI and enjoy added marketing benefits from a highly visible landmark.

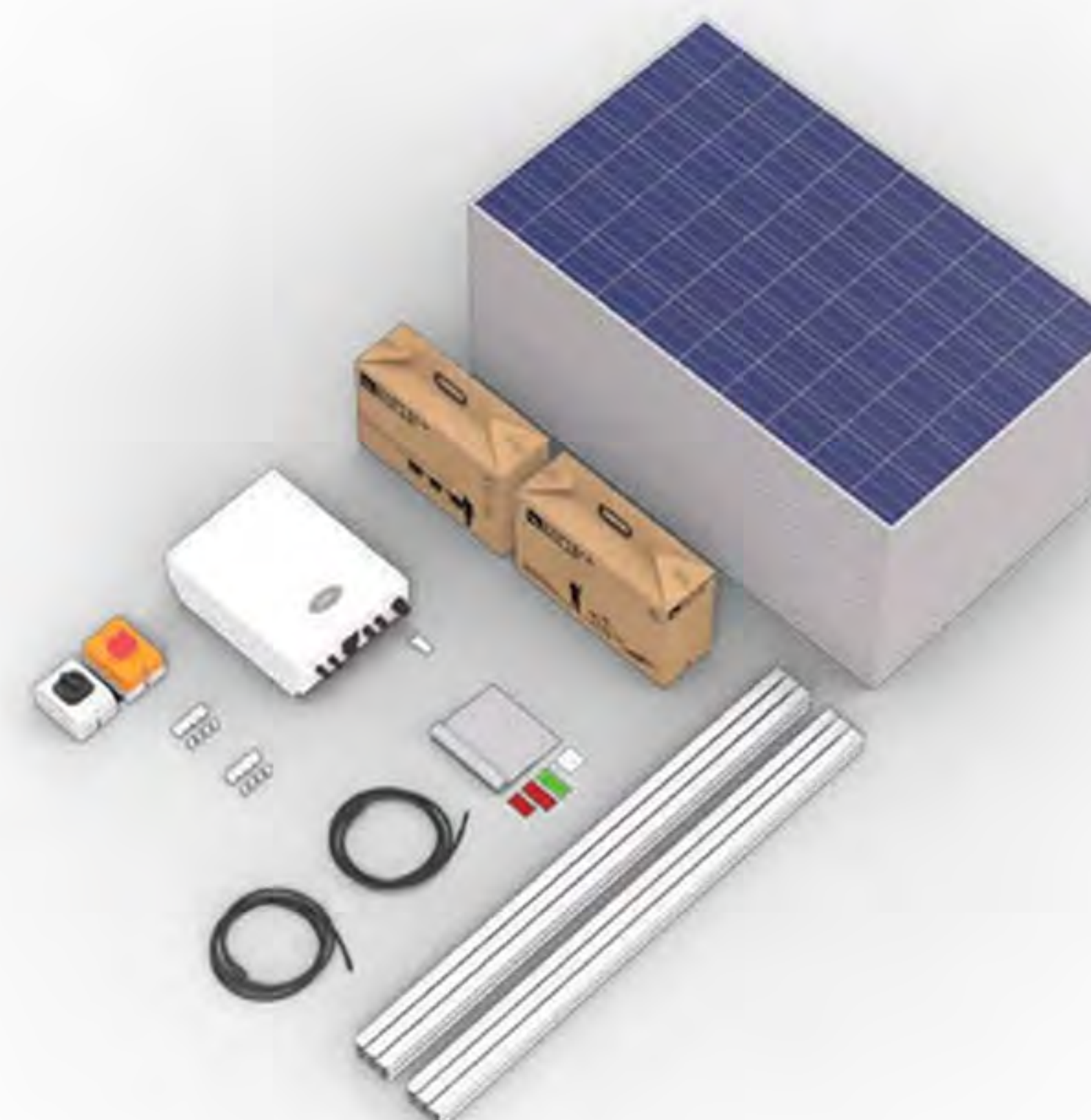


#### Great adaptability

Let our systems fit in your needs. We offer flexible design to serve space restricted areas. They come in a variety of inverter voltage ranges which can be adapted to site-specific electrical requirements.

### What's in the Box

- Solar modules
- Solar on-grid inverter (3 phase)
- Custom roof mounting system
- PV wiring harnesses
- DC and AC disconnects
- Wire management kit
- Safety label kit
- Single and three-line electrical and mechanical schematics





# PRODUCT- SOLAR KITS



## HYBRID

3kW / 4kW / 5kW / 6kW / 8kW / 10kW

### Product Description

Hybrid solar kits are unique in their ability to operate in either on-grid or off-grid conditions. These systems include advanced BMS technology that enables users to modify the charge/discharge rate & schedules of the battery storage unit as well as to manage power consumption and PV generation usage.



#### Adaptable and friendly

Operational in both on-grid and off-grid mode, Aurora kits are a valuable investment for those seeking an adaptable and user-friendly combination for solar and storage resources.



#### The best investment

With the decreasing cost of solar PV and Li-Ion batteries, and the increasing local incentives, solar hybrid systems have become an attractive investment opportunity for home and business owners.



#### Schedule your system

These systems have the ability to generate and store power at periods when electricity prices are at their highest and deliver it to the load on a scheduled time frame.

### What's in the Box

- Solar modules
- Hybrid inverter/charger
- Custom roof mounting system
- Battery bank
- Battery storage unit
- PV, battery bank, & grounding wiring harnesses
- DC and AC disconnects
- Wire management kit
- Grounding hardware
- Safety label kit



## OFF-GRID

1.5kW / 2kW / 3kW / 4kW / 5kW

### Product Description

Off Grid Solar Kits are designed for easy installation and low maintenance. Off Grid solar systems are noiseless, produce zero emissions, and offer grid independence, unlike standard On-Grid PV Systems which will not provide electricity to your house during a power outage due to safety regulations.



#### Full Independence

Off-Grid systems are independent of the standard utility grid, and can typically deliver the equivalent expectations of the traditional grid.



#### Increase your value

Increase the value of your home and business by giving them total grid independence and stop relying on the grid with this added value.



#### Light up your world

Bring power to areas with limited or no access to electricity, whether it's a remote cabin, your business, or your residence, we have a solution that can fit any installation requirements.

### What's in the Box

- Solar modules
- Off-grid inverter/charger
- Custom roof mounting system
- Battery bank
- Battery storage unit
- PV, battery bank & grounding wiring harnesses
- DC and AC disconnects
- Wire management kit
- Grounding hardware
- Safety label kit
- Single and three-line electrical and mechanical schematics



# Home Storage Battery (Stackable Version)



## KEY FEATURES

- LiFePO4 battery, Safe, Longer life span
- Modular design. Easy to Stack, Quick installation
- Lager energy capacity
- Natural cooling with optional heat/fan configuration
- Wide temperature range of -20~50°C

Model	PCBS-48100	PCBS-48150	PCBS-48200
Battery Type	48V/100AH , Lithium-LiPO4	48V/150AH , Lithium-LiPO4	48V/200AH , Lithium-LiPO4
Nominal Energy(KWh)	4.8	5.8	9.6
Usable Energy(KWh)	4.32	5.3	8.64
Max Output Power(KW)	4.8	4.8	4.8
Peak Output Power(KW)	9.6,3S	9.6,3s	9.6, 3s
Round-Trip Efficiency	≥97.3%		
Nominal Voltage(V)	48		
Nominal Charge/Discharge Current(A)	100/100	150/150	100/100
Operating Voltage Range(V)	42-54		
Dimension (W*H*D)	442*140*550	442*178*550	442*200*550
Net Weight(Kg)	42	63	75
Gross Weight(Kg)	44	65	77
Enclosure Protection Rating	IP 21		
Warranty	5 Years		
Cycles Life	> 4,000		
Ambient Temperature Range°C	-10-50		
Depth of Discharge	90%		
Certification&Safety Standard	UL1973/ IEC62619/UN38.3		
Scalability	Max 8 Pcs in Parallel		







# QUALITY CONTROL






From incoming material testing to online production, OBA test and delivery status, Omnispower's in-house developed ERP system interconnects all data in one database to achieve complete traceability. The system implements a unique bar code for each module component. Information such as raw material suppliers, production workers, quality testing results, and production details are all accessible online through our ERP system. This data is kept on our server for client's access, and allows us to track and take responsibility for product full cycle monitoring and production process optimization.

**Real-Time  
Monitored  
And  
Recorded**

## • Improved Company Competitiveness

-  Continuously improve line efficiency and process management
-  Improve capacity utilization and yield rate
-  Reduce production costs
-  Guarantee customer trust by utilizing transparent and traceable production processes

## • Added Value For Customer

-  Customers can access real-time production data including BOM detail, EL report, power data, etc.
-  A unique bar code enables you to track all the information related to your order.
-  Visual access to real-time workshop floor monitor recordings via our ERP system.





# QUALITY CONTROL




## Quality Management System

Omnispower has received certifications for Quality Management System (ISO 9001: 2015), Environment Management System (ISO 14001: 2015) and Occupational Health and Safety Management System (ISO45001: 2018) from both DNV and GZCC. Beyond ISO9001, Omnispower also applied for the national “GB T19580 2012 Criteria for Performance Excellence”. This regulates not only product quality, but also production waste, environmental burden, management foresight, etc., which are the necessary requirements for an “excellent” company.

### • Supply Chain Control

-  Stringent Supplier Management
-  Spot Check Every Feedstock Batch
-  Supplier Quality Engineering
-  Automatic Material Filtration and Sorting
-  Proper Storage at Fixed Temperature and Humidity
-  Incoming-material Quality Assurance

### • Production Control

-  300+ Quality Check Points
-  3 \* EL Tests
-  In-process Quality Control

### • After Production Inspection

-  Open Box Audit (OBA) Test





# GLOBAL PROJECT REFERENCES



**7MW**

Project Type: G-Mounted  
Location: USA / Florida  
Commission Date: 2017-12  
Product: OP375M60-P1



**3.3MW**

Project Type: G-Mounted  
Location: USA / NY  
Commission Date: 2017-11  
Product: OP345M60-P1



**2MW**

Project Type: G-Mounted  
Location: Netherlands / Goor  
Commission Date: 2020-6  
Product: OP320M60-P1



**2.6MW**

Project Type: G-Mounted  
Location: Japan / Himeji  
Commission Date: 2012-4  
Product: OP270M60-P1



**830kW**

Project Type: Commercial  
Rooftop  
Location: Singapore  
Commission Date: 2017-10  
Product: OP330M60-P1



**1.7MW**

Project Type: Commercial  
Rooftop  
Location: USA / Austin  
Commission Date: 2021-1  
Product: OP350M60-P1



# GLOBAL PROJECT REFERENCES

## 32kW

Project Type: Residential Rooftop  
Location: Philippines / Manila  
Commission Date: 2017-1  
Product: OP415M60-P2



## 226.1kW

Project Type: Commercial Rooftop  
Location: Mexico / San Luis Potosi  
Commission Date: 2019-8  
Product: OP380M60-P1



## 5.9kW

Project Type: Residential Rooftop  
Location: Belgium /  
Sint-Lievens-Houtem  
Commission Date: 2017-6  
Product: OP320M60-P1



## 901kW

Project Type: Commercial Rooftop  
Location: Thailand /  
Chachoengsao  
Commission Date: 2018-1  
Product: OP375M60-P1



## 288.3kW

Project Type: Commercial Rooftop  
Location: South Africa / Cape Town  
Commission Date: 2018-3  
Product: OP330M60-P1



## 6.6kW

Project Type: Residential Rooftop  
Location: Australia / Queensland  
Commission Date: 2013-5  
Product: OP285M60-P1



## 204kW

Project Type: Floating Project  
Location: Singapore  
Commission Date: 2016-10  
Product: OP325M60-P1



# GLOBAL PROJECT REFERENCES



6.6kW

Project Type: Residential Rooftop  
Location: Australia / Salzburg  
Commission Date: 2017-7  
Product: OP415M72-P1



6.6kW

Project Type: Residential Rooftop  
Location: Australia  
Commission Date: 2019-7  
Product: OP415M72-P1



6.6kW

Project Type: Residential Rooftop  
Location: Australia  
Commission Date: 2018-7  
Product: OP330M60-P1



6.6kW

Project Type: Residential Rooftop  
Location: Australia  
Commission Date: 2019-12  
Product: OP415M72-P1



## PREMIUM PARTNERS





## Mission And Vision

Omnis Power and its subsidiary companies are here to provide the highest quality products to our distributors, expert installers, and end-users globally. We aim to give our customers the best value while complying with the highest standards of corporate ethics and responsibility. Omnis Power's philosophy is to conduct business transparently to provide superior customer service. Our goal is to build successful, long-term relationships with our distributors based on trust and dependability.

As an American company, we place a premium on preserving our reputation by ensuring that the quality of our products and services is consistent and meets the highest standards. We are unique in that we implement policies of innovation and continuous improvement, which result in continuous improvements in production, quality controls, marketing, information technology systems, employee engagement, and every other aspect of our business. Our brands' stellar reputation has been built on their emphasis on quality.

- Sales Office
- Manufacturing Plant



### Manufacturing Plant(China)

No.252 Jinwu Road,Changzhou,  
Jiangsu Province, China

### Manufacturing Plant (Vietnam)

Lot CN07-1,Binh Xueyen Industry Park,  
Ba Hien Ward ,Binh Xuyen District,  
Vinh Phuc Province,Vietnam

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