

lighttime

广东光刻时代科技有限公司

Guangdong Lighttime Technology CO., LTD



2024 | NEW PRODUCT

PRODUCT CATALOGUE

Our main business includes solar panels, solar systems, photovoltaic inverters, solar battery, etc.

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SOLAR PANEL/SOLAR SYSTEM/
SOLAR BATTERY/SOLAR INVERTER

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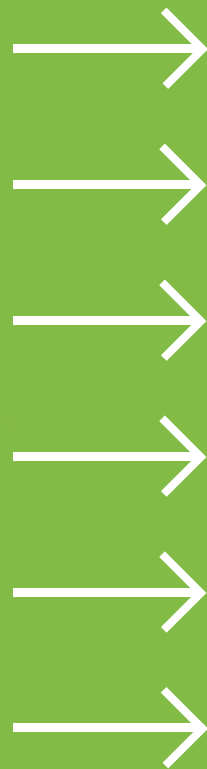
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COMPANY INTRODUCTION

Guangdong Lightime Technology CO., LTD
We are a photovoltaic energy provider integrating R&D, design, production and construction.

We offer solar systems solution, and solar products including solar panel, solar inverter, solar charging controller, energy storage battery, which can meet your multifarious demands



OUR CULTURE



- ★ **SLOGAN:**
NH solar system, BUILDING A SUSTAINABLE FUTURE

- ★ **VISION:**
Contribute to carbon neutrality and jointly build the Chinese dream

- ★ **MISSION:**
Strive to promote the harmonious coexistence of man and nature

- ★ **VALUES:**
Integrity, Innovation, Harmony and Win-win

Customer-centric Quality-based
Control risks by management
Seek development by Innovation



OUR ADVANTAGES



Best Team

We have a strong R&D and sales team to serve you with the most professional level



24h Online Service

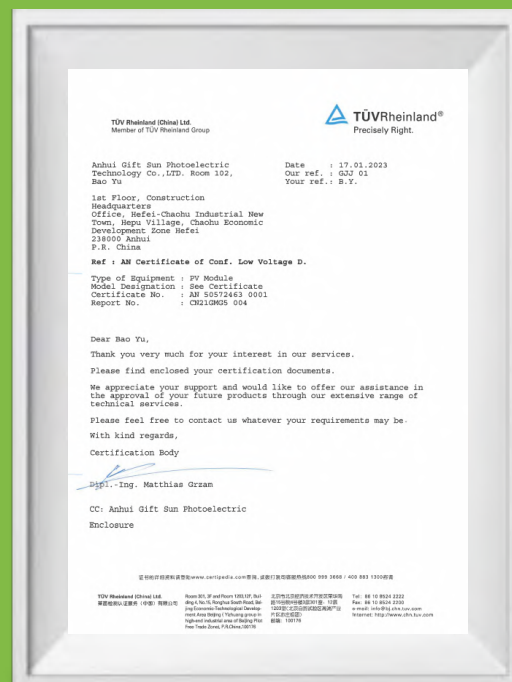
Our mission is to provide best service to our customers and concentrate on building a long time partnership

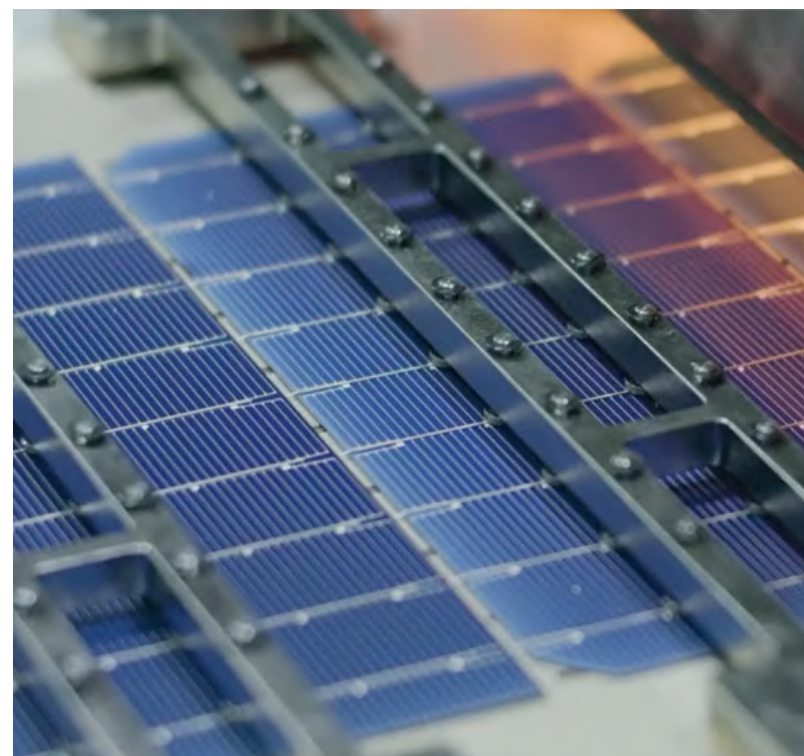


Full Certifications

Our products are certified by TUV(Germany),CE

CERTIFICATIONS >>>





Guangdong Lightime Technology CO., LTD, located in Zhuhai City, Guangdong Province, We are a joint-stock high-tech private technology enterprises, Mainly engaged in R&D, production and marketing of solar equipment.

We offer solar systems solution, and solar products including solar panel, solar inverter, solar charging controller, energy storage battery, which can meet your multifarious demands

We adhere to the management principles of "quality first, customer first and credit-based" since the establishment of the company and always do our best to satisfy potential needs of our customers. Our company is sincerely willing to cooperate with enterprises from all over the world in order to realize a win-win situation since the trend of economic globalization has developed with an irresistible force.



HALF CELL SOLAR PANEL



INCREASE POWER OUTPUT

0~+5W power guarantee



ENHANCED POWER OUTPUT

Temperature coefficient of maximum power: -0.35%/°C



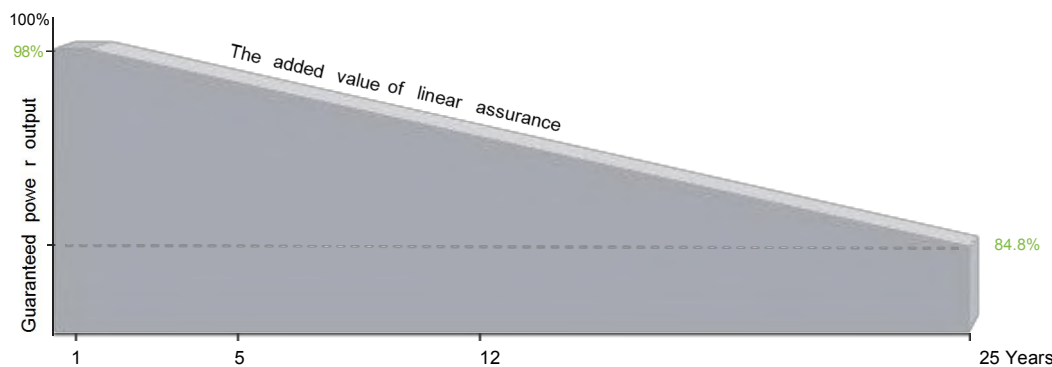
REDUCE OCCLUSION LOSS

Very little chance of hot spots, ensuring safe power generation of modules



STRONGER MECHANICAL LOAD

2400pa reverse load, 5400pa front mechanical load



15 Years Product Warranty

25 Years Power Warranty

The first year ≤ 3%, 2 - 25 years ≤ 0.55%/year



166MM 120CELLS

Max power: 380W

Module size: 1755x1038x35mm

Weight: 20kg

Module efficiency: 20.86%



166MM 144CELLS

Max power: 465W

Module size: 2094x1038x35mm

Weight: 24kg

Module efficiency: 20.90%

TEST BASIS

IEC 61215-1:2016 IEC 61215-1-1:2016

IEC 61215-2:2016 IEC 61730-1:2016

IEC 61730-2:2016

EN 61215-1:2016 EN 61215-1-1:2016

EN 61215-2:2016

EN IEC 61730-1:2018

EN IEC 61730-2:2018



182MM 108CELLS

Max power: 420W
 Module size: 1722x1134x35mm
 Weight: 21kg
 Module efficiency: 21.50%



182MM 132CELLS

Max power: 515W
 Module size: 2094x1134x35mm
 Weight: 26.5kg
 Module efficiency: 21.27%



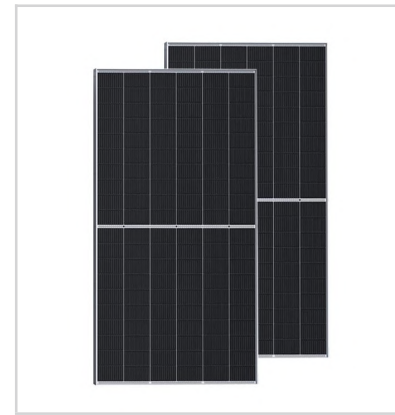
182MM 144CELLS

Max power: 560W
 Module size: 2279x1134x35mm
 Weight: 27kg
 Module efficiency: 21.70%



210MM 110CELLS

Max power: 560W
 Module size: 2384x1096x35mm
 Weight: 31kg
 Module efficiency: 21.43%



210MM 120CELLS

Max power: 615W
 Module size: 2172x1303x35mm
 Weight: 33kg
 Module efficiency: 21.55%

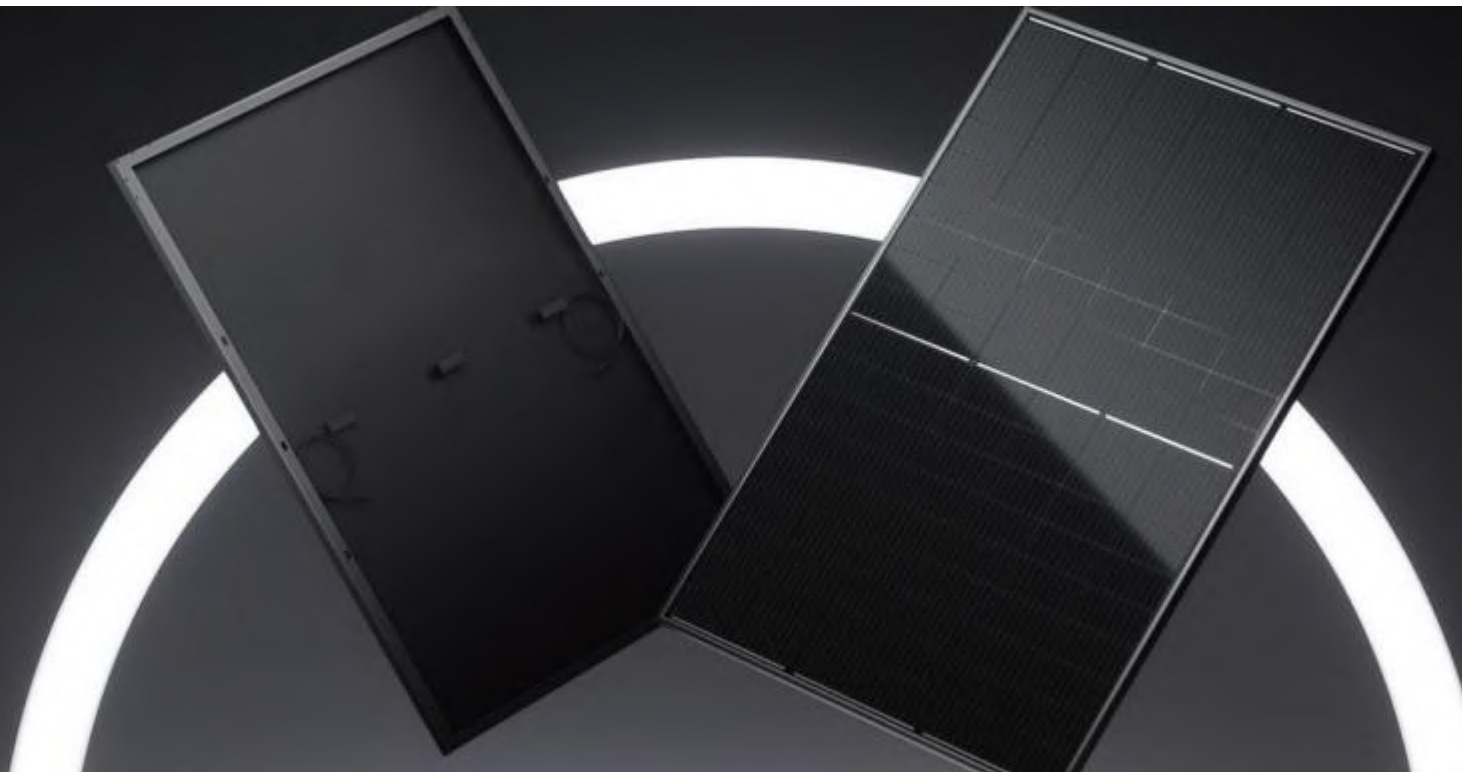


210MM 132CELLS

Max power: 670W
 Module size: 2384x1303x35mm
 Weight: 35kg
 Module efficiency: 21.60%



FULL BLACK SOLAR PANEL



210MM 80CELLS

Max power: 410W

Module size: 1775x1098x30mm

Weight: 21kg

Module efficiency: 21.03%



182MM 108CELLS

Max power: 420W

Module size: 1722x1134x35mm

Weight: 21kg

Module efficiency: 21.25%



182MM 120CELLS

Max power: 455W

Module size: 1909x1134x35mm

Weight: 24kg

Module efficiency: 21.32%



166MM 144CELLS

Max power: 465W

Module size: 2094x1038x35mm

Weight: 24.5kg

Module efficiency: 21.16%

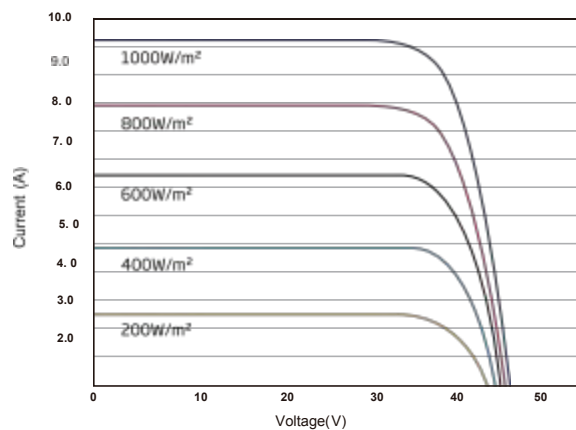
410W 210MM 80CELLS FULL BLACK SOLAR PANEL



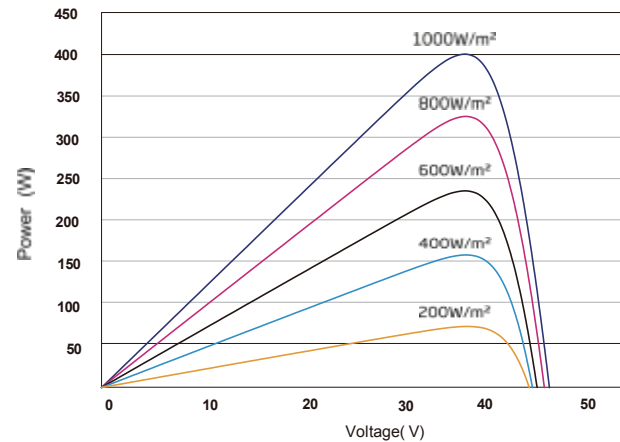
- ★ **12 BUSBAR SOLAR CELL**
12 busbar solar cell adopts new technology to improve the efficiency of modules, offers a better aesthetic appearance, making it perfect for rooftop installation
- ★ **HIGH EFFICIENCY**
Higher module conversion efficiency (up to 20.52%) benefit from half cell structure (low resistance characteristic)
- ★ **PID RESISTANCE**
Excellent Anti-PID performance guarantee limited power degradation for mass production.
- ★ **LOW-LIGHT PERFORMANCE**
Advanced glass and cell surface textured design ensure excellent performance in low-light environment.



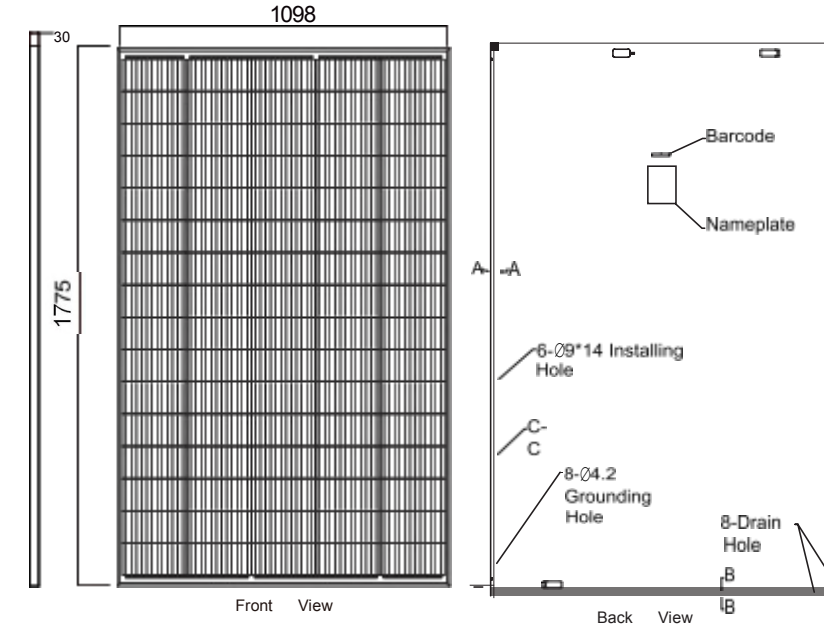
I-V CURVES OF PV MODULE(400W)



P-V CURVES OF PV MODULE(400W)



DIMENSIONS OF PV MODULE(MM)



MECHANICAL CHARACTERISTICS

Cell Type	Mono 210x105mm
Weight(kg)	21kg
Glass Thickness	3.2mm
Dimensions (L*W*H)(mm)	1775x1098x28mm
Cable Cross Section Size (mm²)	4mm²
No. of Cells and Connections	80(6x15)
Junction Box	IP67
Connector	MC4 Compatible

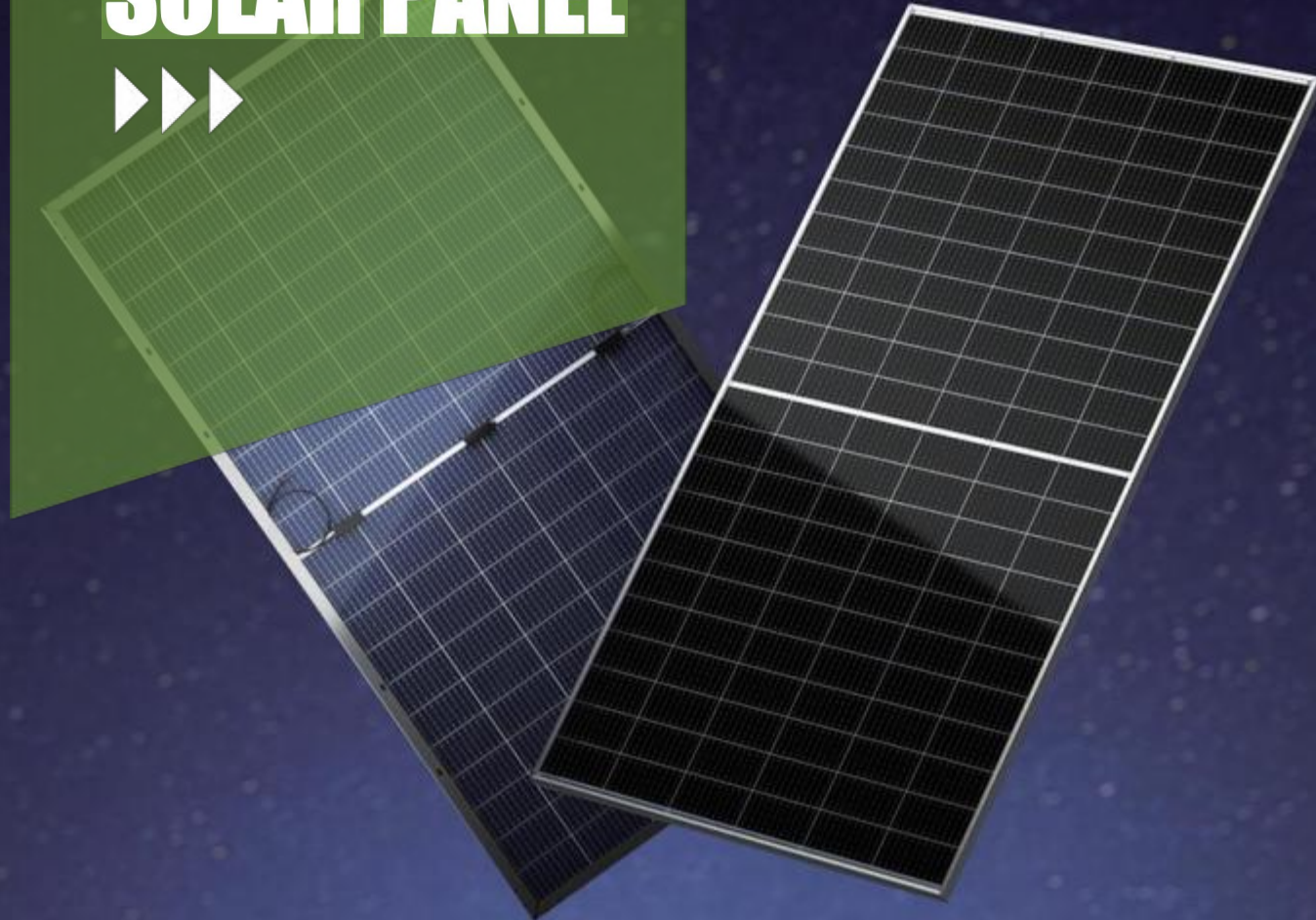
PACKAGING CONFIGURATION

Modules Per Pallet	39PCS
Modules Per 40HQ	1014PCS

SPECIFICATIONS

Module	GS40M-400-410	
	STC	STC
Maximum Power Pmax (W)	400	410
Maximum Power Voltage (Vmp/V)	43.30	44.00
Maximum Power Current (Imp/A)	9.24	9.32
Open Circuit Voltage (Voc/V)	52.40	53.24
Short Circuit Current (Isc/A)	9.79	9.88
Module Efficiency (%)	20.52	21.03
Temperature Coefficient of Isc (α_{Isc})	+0.048%/°C	
Temperature Coefficient of Voc (β_{Voc})	-0.29%/°C	
Temperature Coefficient of Pmax (γ_{Pmp})	-0.35%/°C	
STC	Irradiance 1000W/m², Cell Temperature 25°C, Air Mass 1.5	

BIFACIAL SOLAR PANEL



182MM 144CELLS

Max power: 560W

Module size: 2279x1134x35mm

Weight: 32.2kg

Module efficiency: 21.30%



210MM 120CELLS

Max power: 615W

Module size: 2172x1303x35mm

Weight: 35kg

Module efficiency: 21.40%



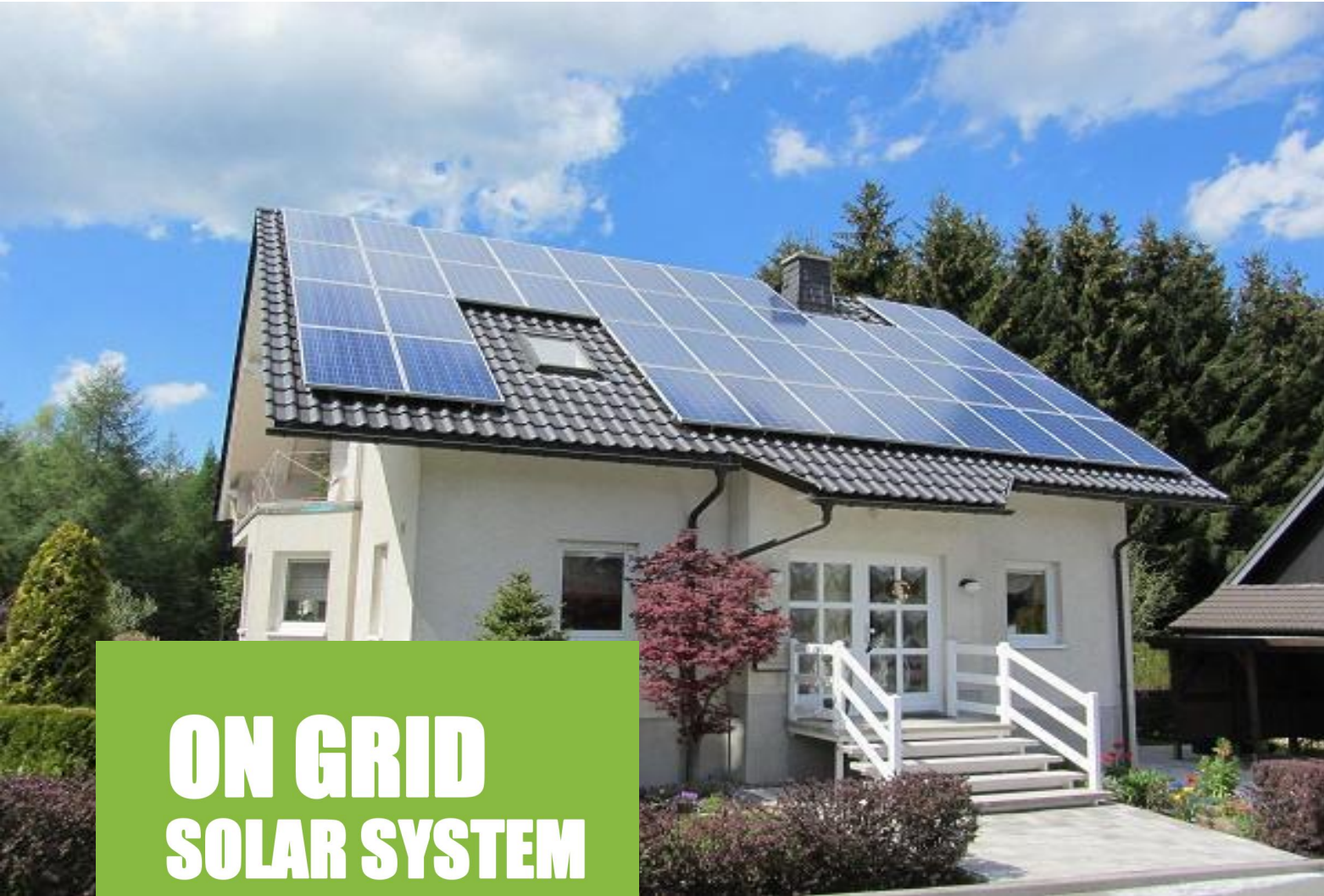
210MM 132CELLS

Max power: 670W

Module size: 2384x1303x35mm

Weight: 38.5kg

Module efficiency: 21.57%



ON GRID SOLAR SYSTEM

On-grid solar systems are by far the most common and widely used by homes and businesses.

These systems do not need batteries and use common solar inverters and are connected to the public electricity grid. Any excess solar power that you generate is exported to the electricity grid and you usually get paid a feed-in-tariff (FIT) or credits for the energy you export.



Solar Panel
Mono/poly/half cell/flexible/full black solar panel



Solar Inverter
On grid inverter



PV Cable
Has excellent acid resistance and heat resistance



MC4 Connector
Contact material is copper and tin plated



2.5KW-6KW



3KW-15KW



7KW-15KW



15KW-50KW



50KW-80KW



4KW-10KW



OFF GRID >>> SOLAR SYSTEM

Off-grid solar systems operate from the stored energy in a battery bank. Solar panels are used to keep the battery bank charged. Your off-grid solar system has to be sized properly to meet your daily power needs and replace the stored energy pulled from the battery bank.

The high cost of batteries and inverters means off-grid systems are much more expensive than on-grid systems and so are usually only needed in more remote areas that are far from the electricity grid. However battery costs are reducing rapidly, so there is now a growing market for off-grid solar battery systems in both cities and towns.



5KW-30KW



10KW-30KW



1KW-10KW



1KW-5KW



HYBRID SOLAR SYSTEM >>>

Hybrid Solar Energy Kits combine the innovation of both on-grid(grid-tied) and off-grid technologies and are offered as on grid(grid-tie) solar with battery bank storage. Hybrid Solar Energy Kits generate electricity, not only can be used, also can be stored for night use .What is more, extra energy can be sold back to utility company. This is perfect for home owners. Although for the majority of businesses which operate during the daylight hours, a common hybrid solar system is still the most economical choice.

Our Hybrid Solar systems can seamlessly adjust to fluctuations in energy from both the utility and the solar array maximizing the energy storage and consumption. Users can decide when and how many energy is be stored and sold back to the utility company.



8KW



3KW-6KW



3KW-6KW

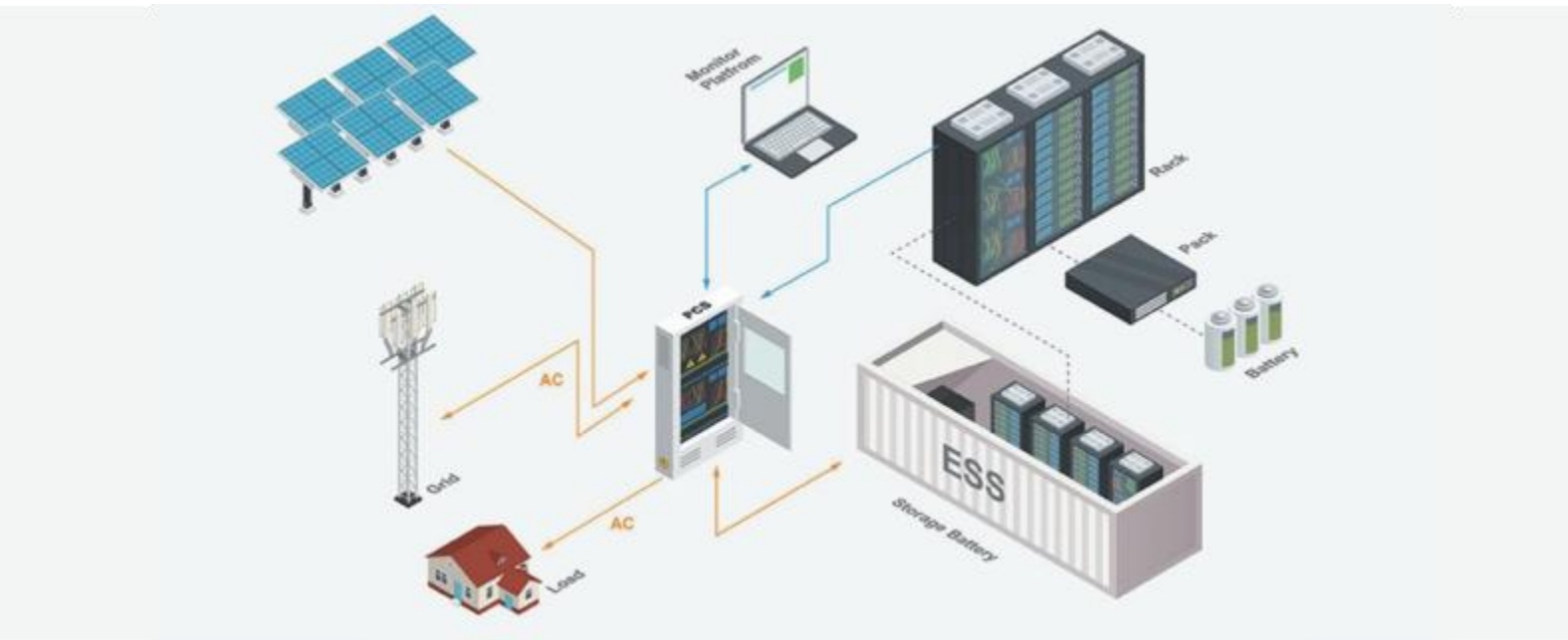


8KW-12KW

ENERGY STORAGE SYSTEM >>>



Giftsun battery energy storage system (BESS) containers are based on a modular design. They can be configured to match the required power and capacity requirements of client's application. Our containerised energy storage system (BESS) is the perfect solution for large-scale energy storage projects. The energy storage containers can be used in the integration of various storage technologies and for different purposes



30-150KW
ENERGY STORAGE SYSTEM



300KW-1MW
CONTAINER ENERGY STORAGE SYSTEM



FOLDABLE SOLAR SYSTEM

Giftsun foldable solar system adopts the latest technology. It can be hung on the wall, adjusted at any angle, and equipped with a micro inverter. It does not take up space and is easy to use. When not in use, the bracket can be folded up for easy storage



All-in-one
The system integrates with solar panel, inverter, cables and mounting bracket, all components ready



Easy Installation
No requirement for professional installation team, quick assembly in 10 minutes



Guaranteed Quality
10 years quality warranty, 25 years extra linear power output warranty on solar panel

SYSTEM COMPOSITION



410W FULL BLACK SOLAR PANEL

Max power: 410W
Module size: 1775x1098x28mm
Weight: 21kg
Module efficiency: 21.03%

WVC-1200 MICROINVERTER

This micro inverter can be connected through mobile phone APP to observe the working condition and historical data of the machine in real time

Output power: 1200W
Size(L*W*H): 370x330x41.6mm
Weight: 3kg
Temperature Range: -40°C~+65°C

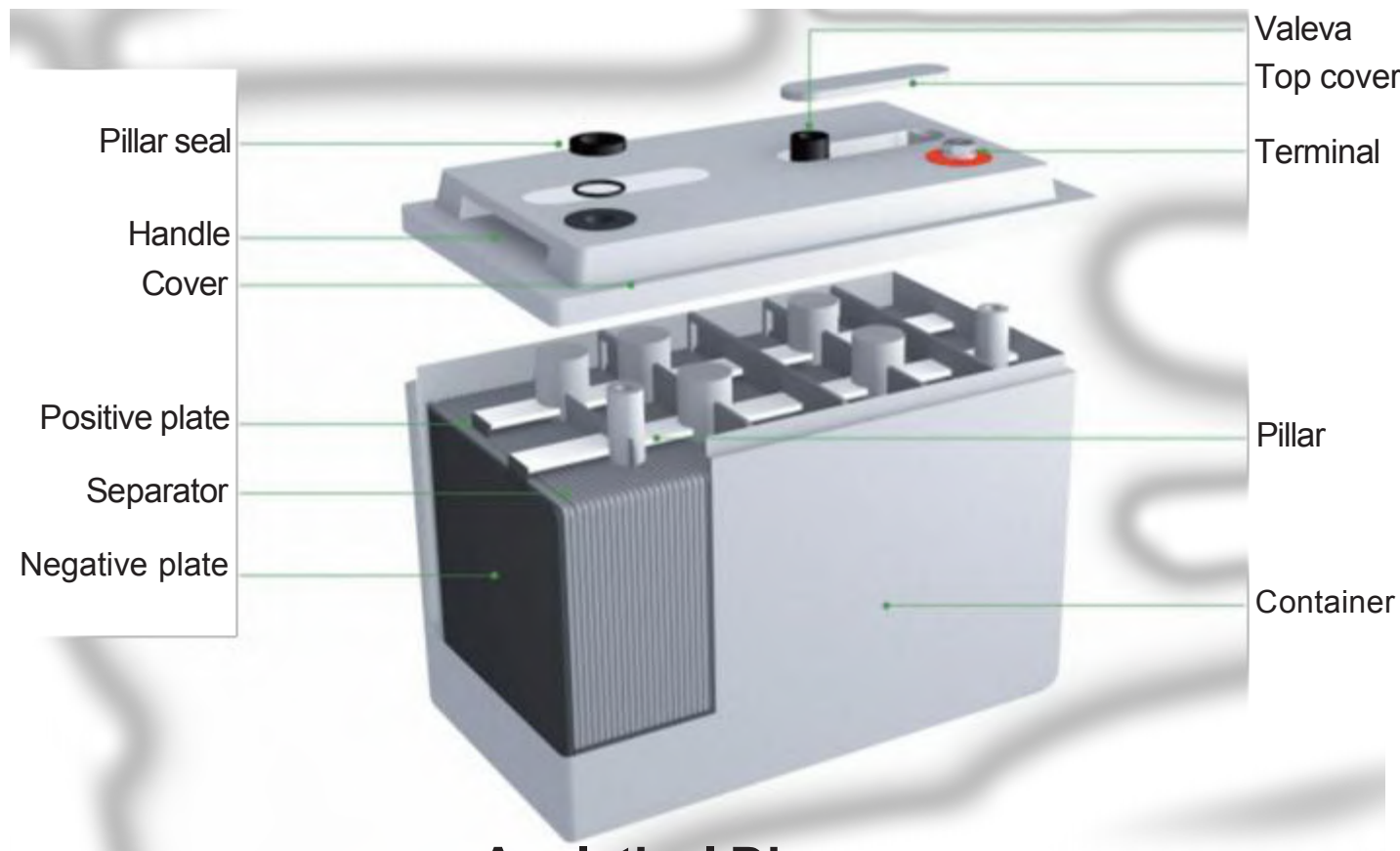


- CO-2 induced environment analysis
- Actual DC input voltage, current and power
- Inverter temperature
- Optional limitation of power output

- Daily and total energy generation in kWh
- Actual AC output voltage, current and power
- Historical (daily, weekly, monthly) power curve
- Online switch for the inverter start stop

GEL LEAD >>> ACID BATTERY

Gel lead-acid battery is an improvement of ordinary lead-acid battery with liquid electrolyte. The colloid electrolyte is used to replace sulphuric acid electrolyte. Compared with ordinary battery, the gel electrolyte has better safety, storage capacity, discharge performance and service life



Analytical Diagram



Nominal Capacity

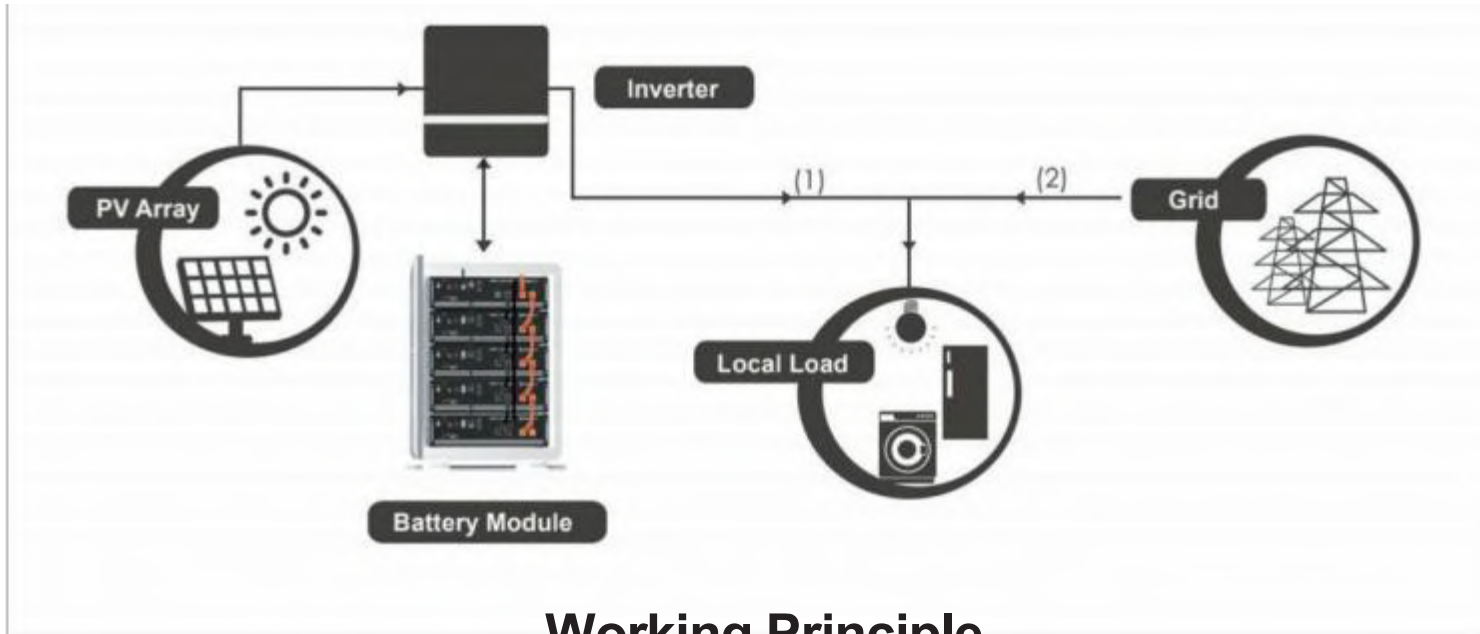
- 12V100AH
- 12V200AH
- 12V150AH
- 12V250AH

Battery Features

- ☆ Deep cycle long lifespan
- ☆ High discharge performance
- ☆ Easy installation and maintenance-free
- ☆ The designed life for the battery could be eight years up for float use
- ☆ Contemporary advanced technology research and development of new high-performance battery

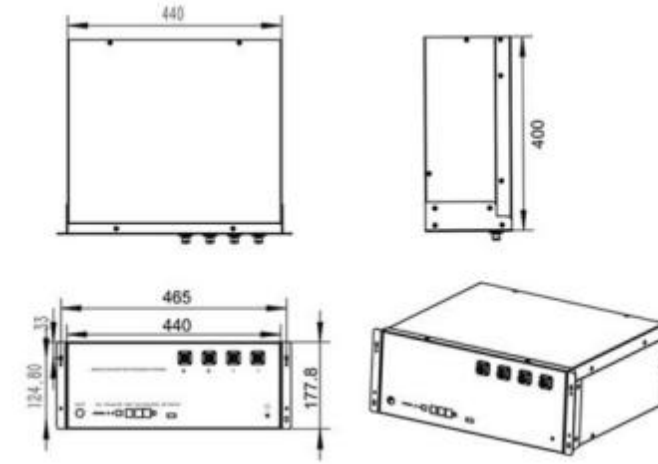
RACK MOUNTED LITHIUM BATTERY

Lithium-ion battery is a kind of battery which is made of lithium metal or lithium alloy as positive/negative material and uses non-aqueous electrolyte solution.



Working Principle

Battery Size



- Safety, environment friendly, pollution-free
- Fast charging and low self-discharge
- Built-in battery protection

- Long life 3000-5000 cycles
- 70% lighter than lead lithium
- 100% depth of discharge





WALL-MOUNTED LITHIUM BATTERY

Wall-mounted lithium battery has the characteristics of high voltage, high capacity, long life, environmental protection and pollution-free. It uses high-purity raw materials, small self discharge electrode, special design and highly reliable sealing technology to ensure battery sealing, safe and reliable use. It also has excellent over discharge recovery ability and longer service life



OT48100

Nominal Voltage: 48V/51.2V

Nominal Capacity: 100AH/200AH

Dimension: 610*450*200mm/950*580*250mm

Charge/Discharge Current: 50A/100A



LFPWALL-5000

Nominal Voltage: 51.2V

Nominal Capacity: 50AH/100AH/200AH

Dimension: 537*365*196mm/542*468*197mm

Charge/Discharge Current: 35A/70A/100A



SP5000U/SP7000U/SP10000U

Nominal Voltage: 48V/51.2V

Nominal Capacity: 100AH/150AH/200AH

Dimension: 680*485*180mm

Charge/Discharge Current: 100A/150A

