

CWORTH ENERGY®

Walk with the sun Live with the light

CWORTH ENERGY®

Expert Manufacturer Of One-Stop Off-Grid Solar System Solutions



SOLAR BATTERY MODULE STREET LIGHT



🌐 WEB: <https://cworth.en.alibaba.com> & www.cworth-energy.com

📍 ADD: 206, building 2, Yufeng Plaza, Baiyun District, Guangzhou





About Us

» Our Story

Guangdong Cworth Energy Technology Co., Ltd. is a professional manufacturer that specializes in providing one-stop off-grid solar system solutions for over 10 years in China.

» Our Qualifications

We strictly implement 6S quality management, the company's products have passed CE, MSDS, UN 38.3 and other related certificates. Cworth Energy will be your wise choice for solar system solutions supplier.

» Our Service

Cworth Energy main service markets include more than 50 countries and districts, such as Africa, the Middle East, and Southeast Asia. We have established overseas offices and service centers in Nigeria, Cameroon, Chad, Ghana, and Lebanon. At Cworth Energy, we offer a wide range of hot-selling products that include Solar Panels, Lithium Batteries, Gel Batteries, Hybrid Inverters, All-In-One Solar Street Lights, Portable Solar Power Systems, Off-Grid Solar Systems, and more.

» Our Mission Vision

Continuous innovation to meet customers' new energy power needs. To be a global company that continues to create value. Walk with the sun, Live with the light! Looking into the future, we will continue to devote ourselves to low-carbon, energy-saving and environmentally friendly life with high-end photovoltaic technology, and provide the best solar products for thousands of families.

CATALOGUE

01 // **SOLAR PANEL**
320W / 350W / 400W / 420W
460W / 500W / 550W / 600W

02 // **MPPT CONTROLLER**
CE-M12048

03 // **INVERTER**
CE-GP3.6KL1 / CE-GP6KL1 / CE-GP11KL1

04 // **LiFePO4 BATTERY**
LBD Series / LBF Series / LBT Series
LBC Series

05 // **GEL BATTERY SERIES**
G12V100AH / G12V200AH

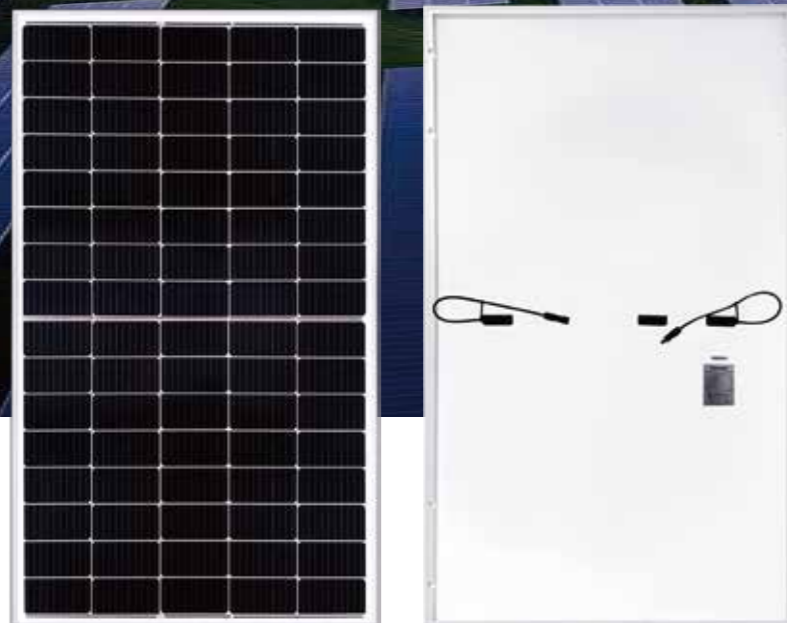
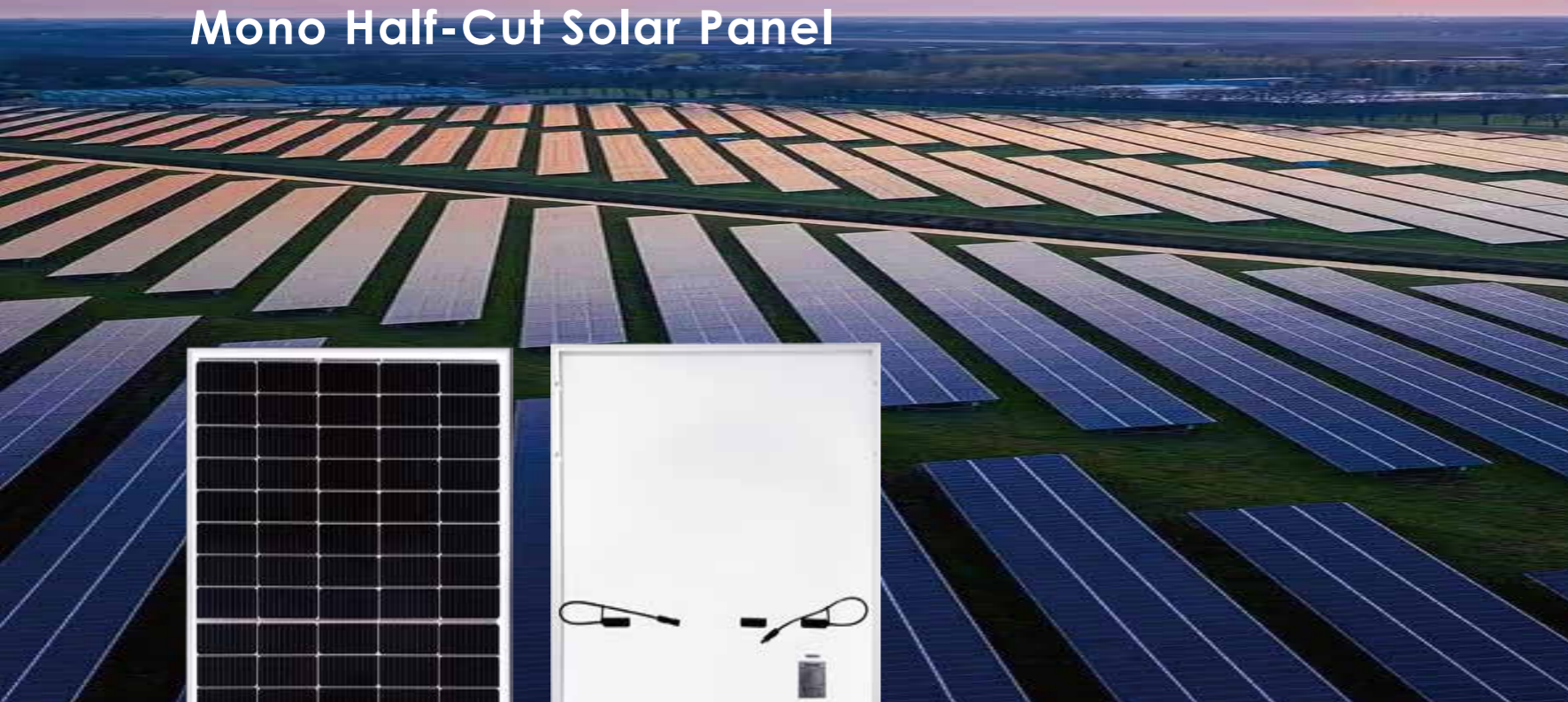
06 // **STREET LIGHT**
P2-60W / P2-80W / C1-60W / C1-100W
C2-C60W / C2-C80W / C2-S60W / C2-S80W

07 // **OFF-GRID SYSTEM**
3.6KW~12KW

Solar Panel

CE-M320W/350W

Mono Half-Cut Solar Panel



SOLAR PANEL



Multi Busbar Technology
Better light trapping and current collection to improve module power output and reliability.



PID Resistance
Excellent Anti-PID performance guarantee via optimized mass-production process and materials control.



Durability Against Extreme Environmental Conditions
High salt mist and ammonia resistance.



Reduced Hot Spot Loss
Optimized electrical design and lower operating current for reduced hot spot loss and better temperature coefficient.

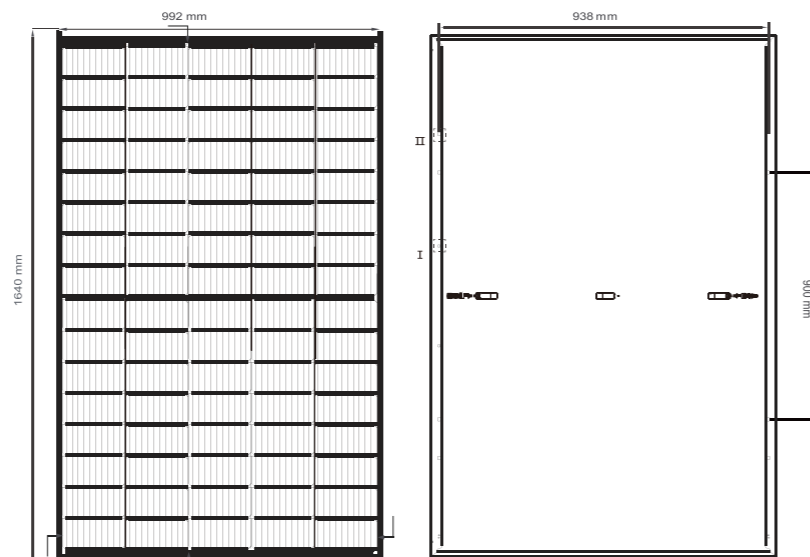


Enhanced Mechanical Load
Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).



DESCRIPTION

MONO half-cut single-glass modules, assembled with multi-busbar PERC technology and half-cut structure, have the advantage of higher power output, reduce the impact of shading on energy, and enhance mechanical bearing capacity. The half cell module cuts the solar cell in half, which improves the performance and durability of the module; Half cell modules have higher output ratings and are more reliable than traditional panels.



Specifications

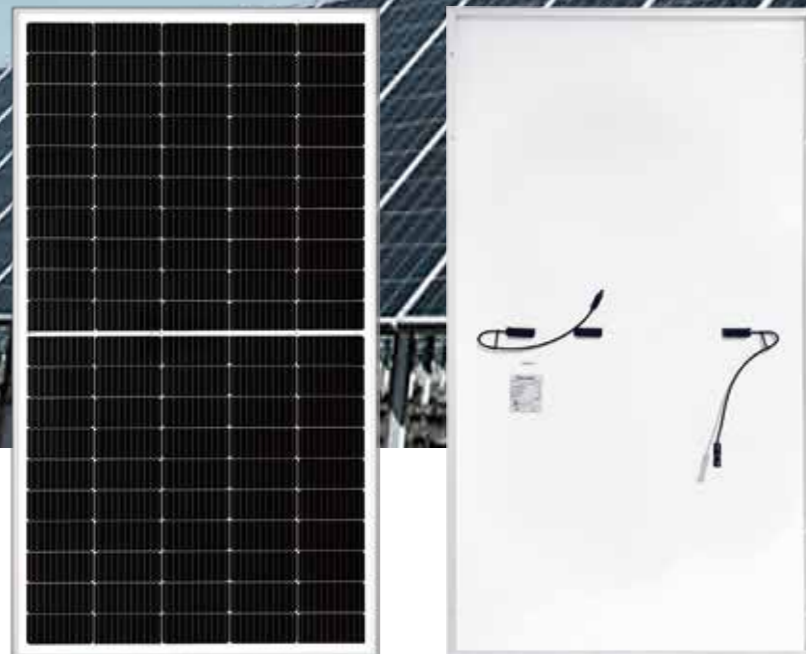
Module Type	CE-M320W	CE-M350W
Maximum Power(Pmax)	320W (0~±5W)	350W (0~±5W)
Maximum Power Voltage(Vmp)	28.5V	29V
Maximum Power Current (Imp)	11.2A	12A
Open-circuit Voltage(Voc)	34.2V	34.8V
Short-circuit Current (Isc)	11.9A	12.7A
Module Efficiency STC (%)	19.67%	21.51%
Operating Temperature(°C)	-40°C~+85°C	
Maximum System Voltage	1500V	
Maximum Series Fuse Rating	30A	
Power Tolerance	0~+3%	
Temperature Coefficients of Pmax	-0.35%/°C	
Product Dimension	1640x992x30mm	
Weight	16.2kg	

STC: Irradiance 1000W/m², Cell Temperature 25°C, AM=1.5


Solar Panel


CE-M400W/420W


Mono Half-Cut Solar Panel





SOLAR PANEL

- 
Multi Busbar Technology
 Better light trapping and current collection to improve module power output and reliability.

- 
PID Resistance
 Excellent Anti-PID performance guarantee via optimized mass-production process and materials control.

- 
Durability Against Extreme Environmental Conditions
 High salt mist and ammonia resistance.

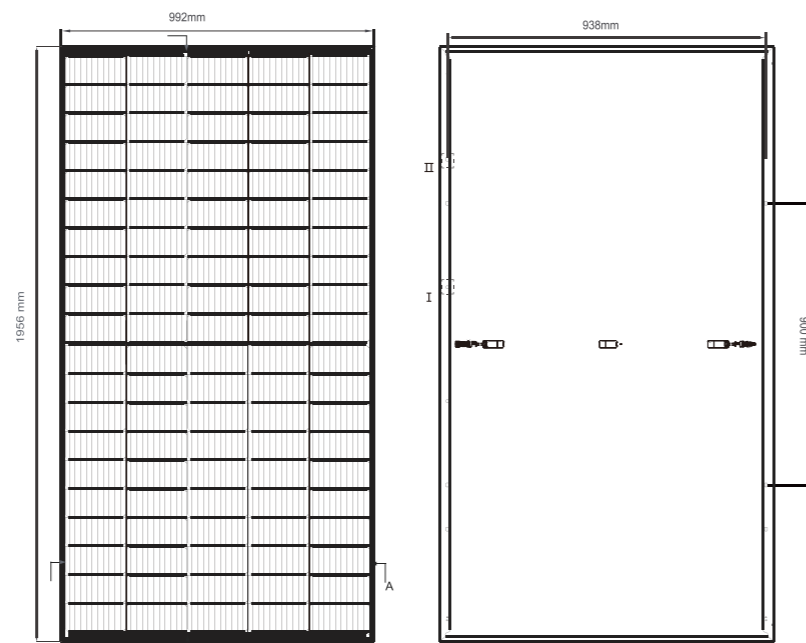
- 
Reduced Hot Spot Loss
 Optimized electrical design and lower operating current for reduced hot spot loss and better temperature coefficient.

- 
Enhanced Mechanical Load
 Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal) .



DESCRIPTION

MONO half-cut single-glass modules, assembled with multi-busbar PERC technology and half-cut structure, have the advantage of higher power output, reduce the impact of shading on energy, and enhance mechanical bearing capacity. The half cell module cuts the solar cell in half, which improves the performance and durability of the module; Half cell modules have higher output ratings and are more reliable than traditional panels.



Specifications

Module Type	CE-M400W	CE-M420W
Maximum Power(Pmax)	400W (0~±5W)	420W (0~±5W)
Maximum Power Voltage(Vmp)	31V	31.4V
Maximum Power Current (Imp)	12.9A	13.2A
Open-circuit Voltage(Voc)	34.1V	34.8V
Short-circuit Current (Isc)	13.5A	13.6A
Module Efficiency STC (%)	20.61%	21.64%
Operating Temperature(°C)	-40°C~+85°C	
Maximum System Voltage	1000/1500VDC(IEC)	
Maximum Series Fuse Rating	30A	
Power Tolerance	0~+3%	
Temperature Coefficients of Pmax	-0.35%/°C	
Product Dimension	1956×992×30mm	
Weight	19kg~20kg	

STC: Irradiance 1000W/m², Cell Temperature 25°C, AM=1.5

Solar Panel

CE-M460W/500W

Mono Half-Cut Solar Panel

SOLAR PANEL



Multi Busbar Technology
Better light trapping and current collection to improve module power output and reliability.



PID Resistance
Excellent Anti-PID performance guarantee via optimized mass-production process and materials control.



Durability Against Extreme Environmental Conditions
High salt mist and ammonia resistance.



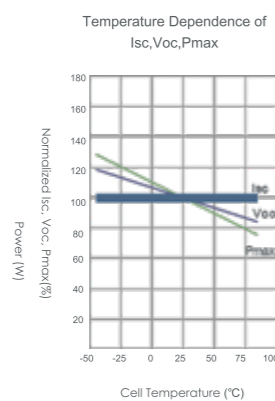
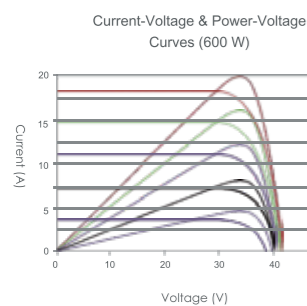
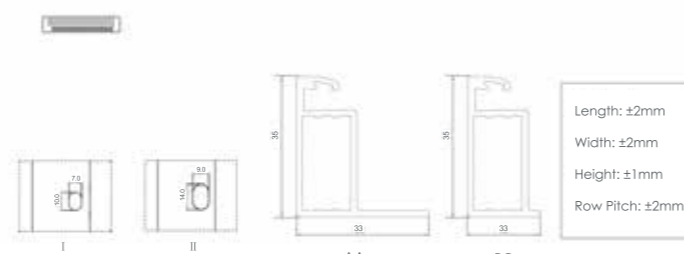
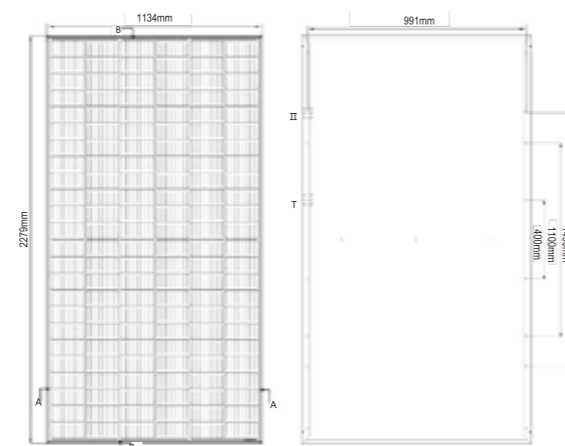
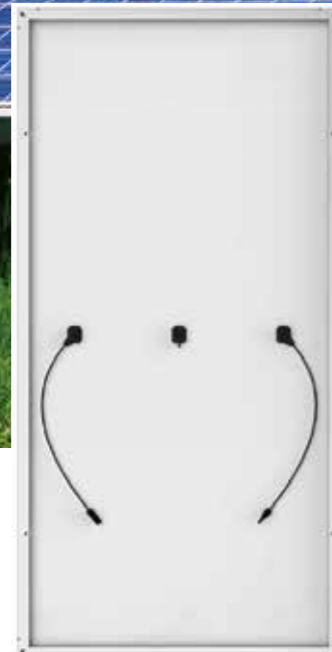
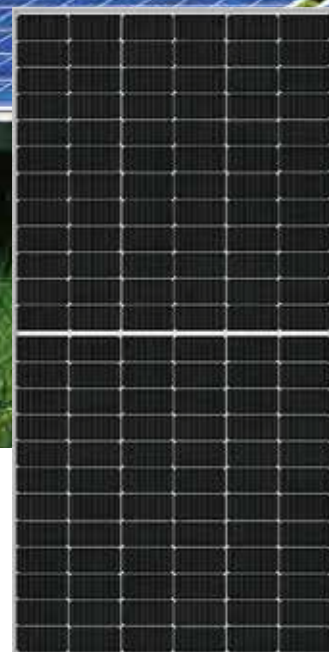
Reduced Hot Spot Loss
Optimized electrical design and lower operating current for reduced hot spot loss and better temperature coefficient.



Enhanced Mechanical Load
Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).



POSITIVE QUALITY
Continuous Quality Assurance



Specifications

Module Type	CE-M460W	CE-M500W
Maximum Power(Pmax)	460W(0~±5W)	500W(0~±5W)
Maximum Power Voltage(Vmp)	41.8V	41.8V
Maximum Power Current (Imp)	11.01A	11.96A
Open-circuit Voltage(Voc)	50.9V	50.9V
Short-circuit Current (Isc)	11.77A	12.67A
Module Efficiency STC (%)	21.12%	22.95%
Operating Temperature(°C)	-40°C~+85°C	
Maximum System Voltage	1000/1500VDC(IEC)	
Maximum Series Fuse Rating	30A	
Power Tolerance	0~+3%	
Temperature Coefficients of Pmax	-0.35%/°C	
Nominal Operating Cell Temperature (NOCT)	45±2°C	
Product Dimension	1890x1134x35mm / 2095x1040x35mm	
Weight	20-21kg / 23kg	

*STC: Irradiance 1000W/m² Cell Temperature 25°C AM=1.5

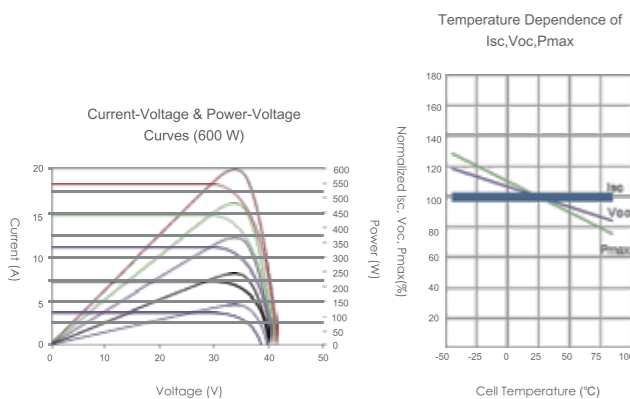
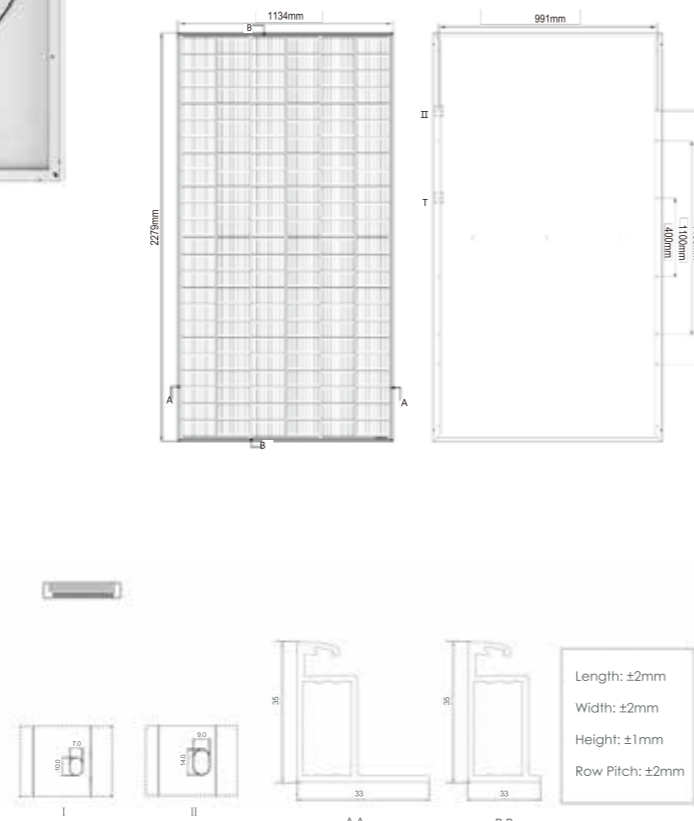
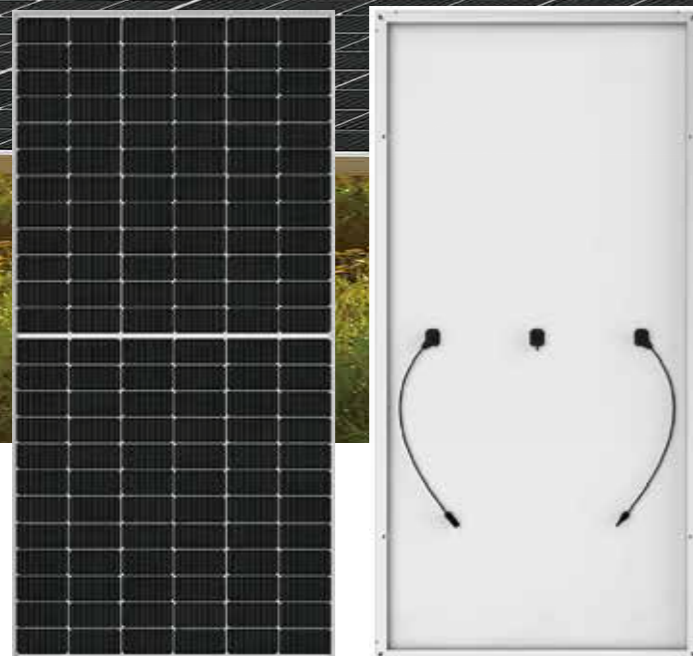
Solar Panel

CE-M550W/600W

Mono Half-Cut Solar Panel

SOLAR PANEL

- Multi Busbar Technology**
 Better light trapping and current collection to improve module power output and reliability.
- PID Resistance**
 Excellent Anti-PID performance guarantee via optimized mass-production process and materials control.
- Durability Against Extreme Environmental Conditions**
 High salt mist and ammonia resistance.
- Reduced Hot Spot Loss**
 Optimized electrical design and lower operating current for reduced hot spot loss and better temperature coefficient.
- Enhanced Mechanical Load**
 Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).



Specifications

Module Type	CE-M550W	CE-M600W
Maximum Power(Pmax)	550W(0~±5W)	600W(0~±5W)
Maximum Power Voltage(Vmp)	41.95V	44.66V
Maximum Power Current (Imp)	13.12A	13.44A
Open-circuit Voltage(Voc)	49.8V	52.81V
Short-circuit Current (Isc)	13.98A	14.46A
Module Efficiency STC (%)	21.28%	23.22%
Operating Temperature(°C)	-40°C~+85°C	
Maximum System Voltage	1000/1500VDC(IEC)	
Maximum Series Fuse Rating	30A	
Power Tolerance	0~+3%	
Temperature Coefficients of Pmax	-0.35%/°C	
Nominal Operating Cell Temperature (NOCT)	45±2°C	
Product Dimension	2279x1134x35mm	
Weight	27.5kg	

*STC: Irradiance 1000W/m² Cell Temperature 25°C AM=1.5

MPPT SERIES

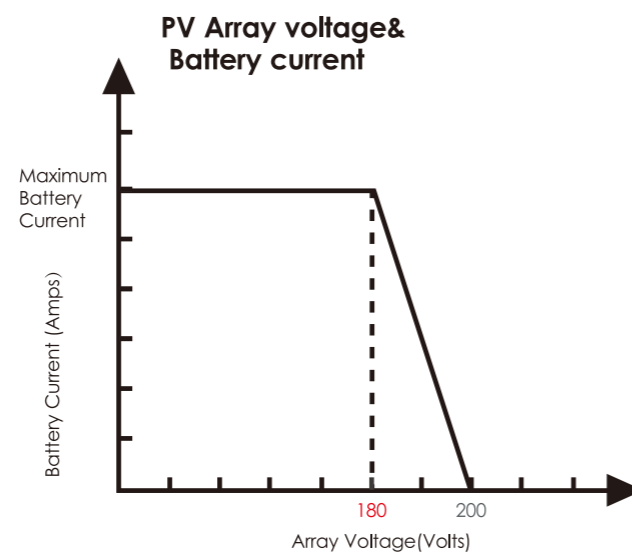
MPPT Solar Charge Controller



CE-M12048(120A)

DESCRIPTION

This solar charge controller is an advanced solar charger with maximum power point tracking. The MPPT battery charging process has been optimized for long battery life and improved system Performance. Self-diagnostics and electronic error protections prevent damage when installation errors or system faults occur.



Suitable for a wide range of battery types

Multiple battery types are supported (Use-Defined/AGM/FLD/LIB) .



Multi-stage charging optimizes battery performance

Multiple charging control modes are adopted(MPPT , Fast-charging , Equalized charging, Floating charging, Balanced charging ,Constant voltage charging).



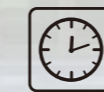
High Efficiency

Low energy consumption,Maximum efficiency >99%.



Maximum power point tracking technology

Intelligent maximum power point tracking technology increases 20%~35% efficiency .



Heavy Current

Maximum charging current 120A (Current adjustable) .

Specifications

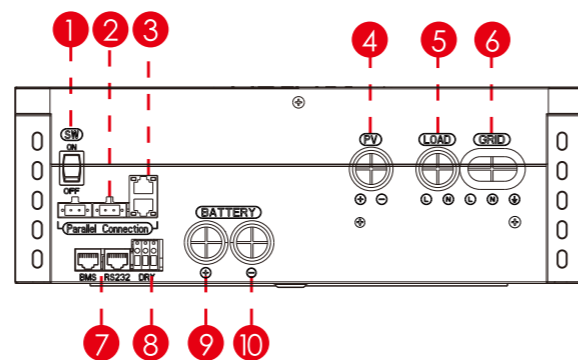
Model	CE-M12048
Maximum Battery Current	120A
Battery Type	Use-Defined/AGM/FLD/LIB
System Voltage	12V/24V/48V DC (Auto detection)
PV Start-up Voltage	15V
Maximum Solar Input Voltage	200V
PV Array MPPT Voltage Range	15V-180VDC/30-180VDC/60V-180VDC
Maximum Solar Input Power	12V-1700W / 24V-3400W / 48V-6800W
Charging Algorithm	3-Step
Charging Stages	Fast-charging, Uniform charging, Floating charging
Operation Temperature Range	-25°C-60°C
Humidity	0%-90%
Maximum Efficiency	>99%
Ingress Protection	IP31
Net Weight	6.0kg
Gross Weight	6.5kg
Product Dimension	330x190x110mm
Package Dimension	360x220x140mm

INVERTER SERIES

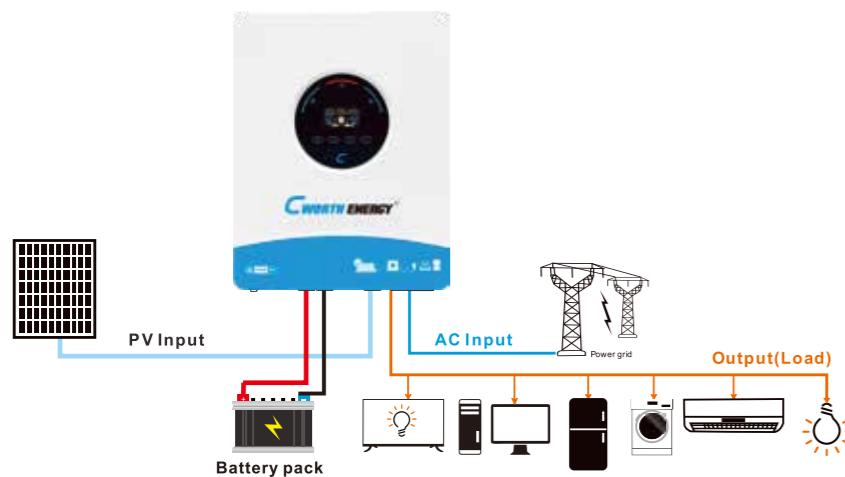
3.6KVA/6KVA/11KVA



CE-GP3.6KL1 / CE-GP6KL1 / CE-GP11KL1



1. Switch
2. Reserved port
3. Parallel connection-CAN port
4. PV input connection port
5. AC output port
6. AC input port
7. Communication connection port
8. Dry contact port
9. Battery+ connection port
10. Battery- connection port



- Pure sine wave inverter
- Built-in MPPT solar charge controller
- Configurable input voltage range for home appliances and personal
- Configurable battery charging current based on applications via LCD setting
- Configurable AC/Solar Charger priority via LCD setting.
- Compatible to mains voltage or generator power.
- Auto restart while AC is recovering.
- Overload /Over temperature/ short circuit protection.
- Inverter running without battery.
- Lithium battery activation function.
- Cold start function.
- Parallel connection quantity up to 12units for 6KVA model (Battery must be connected).
- Intelligent fan control greatly reduces fan noise.

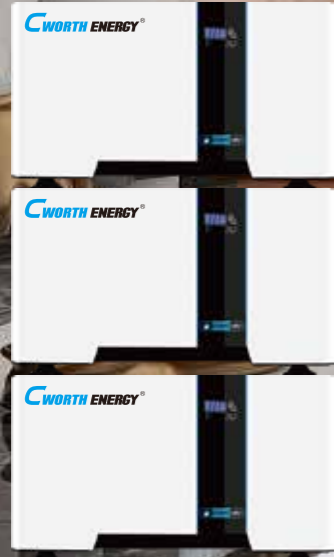
Specifications

Inverter Model	CE-GP3.6KL1	CE-GP6KL1	CE-GP11KL1
Rated Output Power(W)	3600W	6000W	11000W
Nominal DC Input Voltage	24V	48V	48V
Rated Grid Voltage	220/230/240Vac		
AC Input Normal Voltage	90-280V		
Output Frequency	50/60Hz		
Peak Efficiency	98%		
Max Charging/Discharge Current(BAT)	120A/135A	120A/130A	210A/240A
Max. PV Array Open Circuit Voltage	500Vdc		
MPPT Operating Voltage Range	85V~450V(@75V start up)		
Max. Input Current Per MPPT (PV)	15A	27A	27/13(MAX:40A)
Max Output Current(AC)	15A	50A	70A
Safety Certification	CE		
Operating Temperature Range	-10°C~55 °C		
Storage Temperature	-15°C~60 °C		
Humidity	5% to 95% Relative Humidity (Non-condensing)		
Net Weight	9.2kg	12.4kg	25kg
Gross Weight	11.4kg	14.6kg	27.2kg
Product Dimension	444.7x346.6x120mm	444.7x346.6x120mm	630x535x125mm
Package Dimension	560x465x240mm	560x465x240mm	745x650x240mm

LiFePO4 BATTERY

LBD SERIES

Lithium Battery Pack



LiFePO4 BATTERY



Safe And Long Life Cycle

The cell belongs to lithium iron phosphate power cell which can be recycled about 6000 times.



Intelligent BMS

Intelligent battery protection system make the battery more stable and safer.



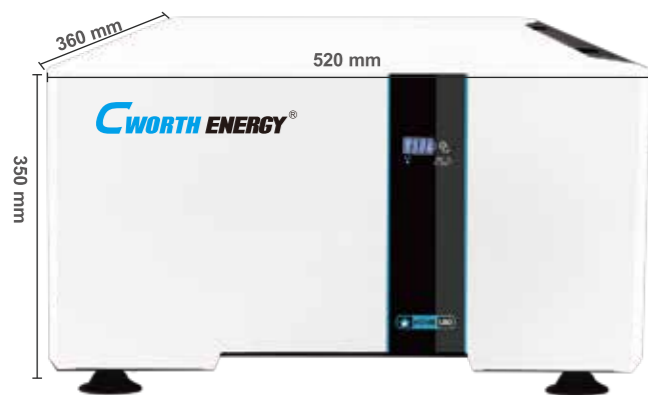
Hidden Connection Design

Child and pet friendly with no exposed wires or hot vents for all cables and terminals are hidden inside by a cover.



Comprehensive compatibility

It is better suited for off-grid inverters and on / off hybrid inverters



CE-LBD-24200C(5KWH) / CE-LBD-48150C(7.5KWH)



LED Screen



Cover



Switch



Terminal

Specifications

Model	CE-LBD-24200C	CE-LBD-48150C
Capacity	5KWH	7.5KWH
Voltage	24V	48V
Normal Voltage	25.6V	51.2V
Normal Voltage Range	24-28.8V	48-57.6V
Charge Cut-off Voltage	28.8V	57.6V
Discharge Cut-off Voltage	24V	48V
Max. Charge & Discharge Current	150A	150A
Recommend Charge & Discharge Current	≤100A	≤100A
Normal Output Power	2560W	5120W
Max. Output Power	3840W	7680W
Parallel Connection Amount	1-6	1-6
Ingress Protection	IP21	IP21
Cycle Times	6000@80% DOD, 25°C, 0.5C	6000@80% DOD, 25°C, 0.5C
Working Temperature	-10°C~60°C	-10°C~60°C
Net Weight	61.8kg	65.3kg
Gross Weight	63.8kg	83kg
Product Dimension	520x360x350mm	580x450x420mm
Package Dimension	596x406x400mm	732x500x590mm


LiFePO4 BATTERY


LBF SERIES


Lithium Battery Pack




LiFePO4 BATTERY

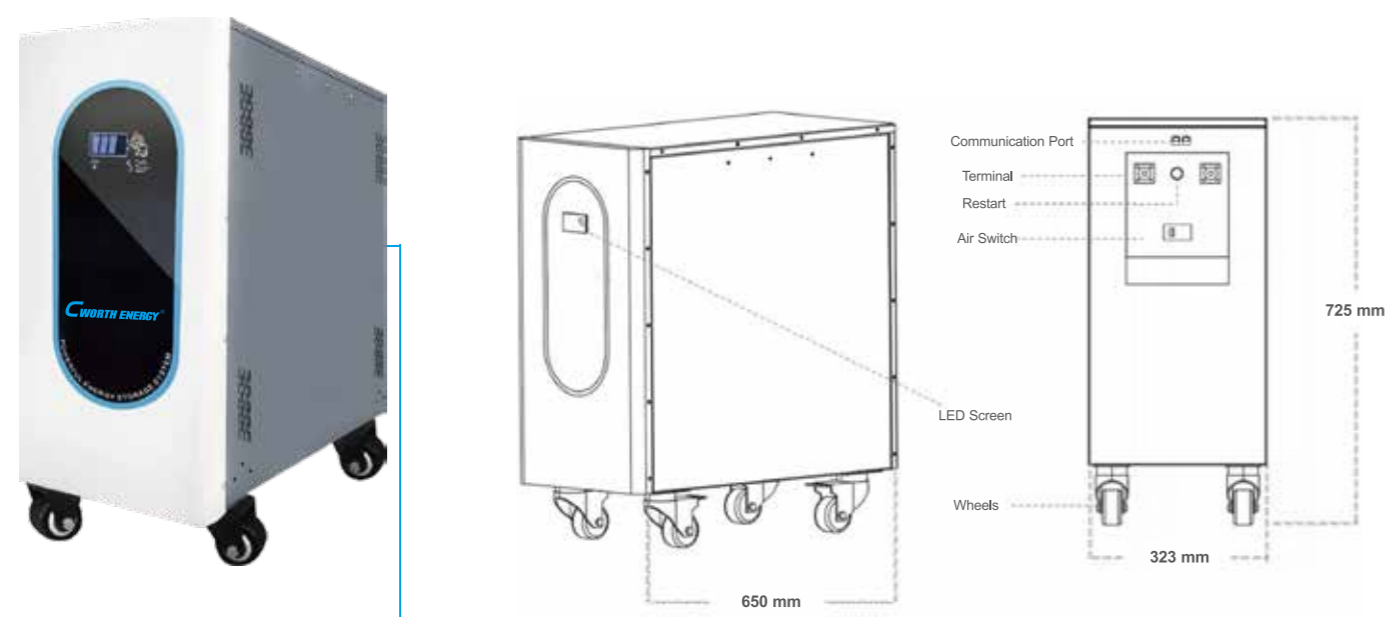
- 
Safe And Long Life Cycle
 The cell belongs to lithium iron phosphate power cell which can be recycled about 6000 times.

- 
High Energy
 The whole series can store energy from 3.8KWH to 15KWH.

- 
Professional Application Design
 Special improvement for solar off-grid power generation system.

- 
Easy Installation
 Installation can be floor or wall mounting, make sure the batteries are neatly placed and keep appropriate distance from the floor or wall.

CE-LBF-48300C(15KWH)



Specifications

Model	CE-LBF-48250C	CE-LBF-48300C
Capacity	12.5KWH	15KWH
Voltage	48V	
Normal Voltage	51.2V	
Normal Voltage Range	48-57.6V	
Charge Cut-off Voltage	57.6V	
Discharge Cut-off Voltage	48V	
Max. Charge & Discharge Current	200A	200A
Recommend Charge & Discharge Current	≤100A	≤100A
Normal Output Power	5120W	5120W
Max. Output Power	10240W	10240W
Parallel Connection Amount	1-6	
Ingress Protection	IP21	
Cycle Times	6000@80% DOD, 25°C, 0.5C	
Working Temperature	-10~60 °C	
Net Weight	104.9kg	126.5kg
Gross Weight	123.6kg	145.2kg
Product Dimension	650x323x725mm	650x323x725mm
Package Dimension	690x360x860mm	690x360x860mm

LBF SERIES Lithium Battery Pack

Safe And Long Life Cycle
The cell belongs to lithium iron phosphate power cell which can be recycled about 6000 times.

High Energy
The whole series can store energy from 3.8KWH to 15KWH.

Professional Application Design
Special improvement for solar off-grid power generation system.

Easy Installation
Installation can be floor or wall mounting, make sure the batteries are neatly placed and keep appropriate distance from the floor or wall.



CE-LBF-48150C(7.5KWH) / CE-LBF-48200C(10KWH)



LED Screen



Bracket



Switch



Terminal



Communication Port



Restart

Specifications

Model	CE-LBF-48150C	CE-LBF-48200C
Capacity	7.5KWH	10KWH
Voltage	48V	
Normal Voltage	51.2V	
Normal Voltage Range	48-57.6V	
Charge Cut-off Voltage	57.6V	
Discharge Cut-off Voltage	48V	
Max. Charge & Discharge Current	150A	200A
Recommend Charge & Discharge Current	≤100A	≤100A
Normal Output Power	5120W	5120W
Max. Output Power	7680W	10240W
Parallel Connection Amount	1-6	
Ingress Protection	IP21	
Cycle Times	6000@80% DOD, 25°C, 0.5C	
Working Temperature	-10~60 °C	
Net Weight	66kg	80kg
Gross Weight	84.2kg	98.2kg
Product Dimension	800x580x245mm	800x580x245mm
Package Dimension	850x630x400mm	850x630x400mm

LBF SERIES Lithium Battery Pack

Safe And Long Life Cycle
The cell belongs to lithium iron phosphate power cell which can be recycled about 6000 times.

High Energy
The whole series can store energy from 3.8KWH to 15KWH.

Professional Application Design
Special improvement for solar off-grid power generation system.

Easy Installation
Installation can be floor or wall mounting, make sure the batteries are neatly placed and keep appropriate distance from the floor or wall.



CE-LBF-24200C(5KWH)



LED Screen



Bracket



Switch



Terminal

Specifications

Model	CE-LBF-24200C
Capacity	5KWH
Voltage	24V
Normal Voltage	25.6V
Normal Voltage Range	24-28.8V
Charge Cut-off Voltage	28.8V
Discharge Cut-off Voltage	24V
Max. Charge & Discharge Current	150A
Recommend Charge & Discharge Current	≤100A
Normal Output Power	2560W
Max. Output Power	3840W
Parallel Connection Amount	1-6
Ingress Protection	IP21
Cycle Times	6000@80% DOD, 25°C, 0.5C
Working Temperature	-10~60 °C
Net Weight	65.7kg
Gross Weight	68.35kg
Product Dimension	635x245x590mm
Package Dimension	745x265x625mm

LiFePO4 BATTERY



CE -LBT -48100C(5KWH)



LBT SERIES Lithium Battery Pack



CE -LBT -24100C(2.5KWH)



CE -LBT -12100(1.28KWH)



LED Screen



Switch



Terminal



Communication Port



Handle



Restart

Specifications

Model	CE-LBT-48100C	CE-LBT-24100C	CE-LBT-12100
Capacity	5KWH	2.5KWH	1.28KWH
Voltage	48V	24V	12V
Normal Voltage	51.2V	25.6V	12.8V
Normal Voltage Range	48~57.6V	24~28.8V	12~14.4V
Charge Cut-off Voltage	57.6V	28.8V	14.4V
Discharge Cut-off Voltage	48V	24V	12V
Max. Charge & Discharge Current	100A	100A	100A
Recommend Charge & Discharge Current	≤60A	≤60A	≤60A
Normal Output Power	3072W	1536W	768W
Max. Output Power	5120W	2560W	1280W
Communication Port	RS485, CAN	/	/
Parallel Connection Amount	1-6	1-6	1-6
Ingress Protection	IP21	IP21	IP21
Cycle Times	6000@80% DOD, 25°C, 0.5C	6000@80% DOD, 25°C, 0.5C	6000@80% DOD, 25°C, 0.5C
Working Temperature	-10°C~60°C	-10°C~60°C	-10°C~60°C
Net Weight	44.5kg	31kg	17.5kg
Gross Weight	46kg	32kg	18kg
Product Dimension	455x438x182mm	480x320x195mm	320x280x195mm
Package Dimension	515x465x228mm	510x385x225mm	385x312x232mm

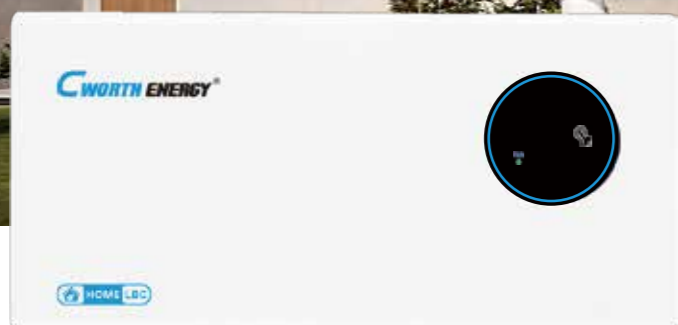


- Safe And Long Life Cycle**
 The cell belongs to lithium iron phosphate power cell which can be recycled about 6000 times.
- Intelligent BMS**
 Intelligent battery protection system make the battery more stable and safer.
- Modular Design**
 The quality of industrial design is more reliable and more standardized, and it's suitable for industrial and civil use.
- Comprehensive compatibility**
 It is better suited for off-grid inverters and on / off hybrid inverters

LiFePO4 BATTERY

LBC SERIES

Lithium Battery Pack



CE-LBC-48200C (10KWH)



CE-LBC-48400C (20KWH)



Safe And Long Life Cycle

The cell belongs to lithium iron phosphate power cell which can be recycled about 6000 times.



Comprehensive compatibility

It is better suited for off-grid inverters and on / off hybrid inverters.



Professional Application Design

Special improvement for solar off-grid power generation system.



Easy Installation

Installation can be floor or wall mounting, make sure the batteries are neatly placed and keep appropriate distance from the floor or wall.

DESCRIPTION

The LBC series batteries are specially designed for energy storage applications for home photovoltaic power generation users.

This series of batteries has flexible usage scenarios, supports wall mounting and has movable wheels. Large-capacity batteries can effectively reduce the cost of energy storage systems.

The BMS system monitors the battery safety performance in real time, effectively extending the service life of batteries.



LED Screen



Switch



Terminal



Communication Port



Wheels

Specifications

Model	CE-LBC-48200C	CE-LBC-48400C
Capacity	10KWH	20KWH
Normal Voltage	51.2V	
Normal Voltage Range	48~57.6V	
Charge Cut-off Voltage	57.6V	
Discharge Cut-off Voltage	48V	
Max. Charge & Discharge Current	200A	
Recommend Charge & Discharge Current	≤100A	
Normal Output Power	5120W	
Max. Output Power	10240W	
Parallel Connection Amount	1-6	
Ingress Protection	IP21	
Cycle Times	6000@80% DOD, 25°C, 0.5C	
Working Temperature	-10°C~60°C	
Net Weight	75kg	128kg
Gross Weight	85kg	150kg
Product Dimension	800x400x200mm	920x550x380mm
Package Dimension	850x450x350mm	1020x570x400mm

GEL BATTERY GEL SERIES G12V100AH/G12V200AH



Safe And Long Life Cycle

The silica gel electrolyte lead-acid batteries can be deep discharge, thus greatly extending the cycle life of the battery.



Solve Electrolyte Stratification, Sulfuric Acid Evenly Distributed

The sulfuric acid electrolyte exists in the colloid, it is solid, not easy to tilt, not easy to precipitate, and the battery can be placed vertically or horizontally.



Comprehensive Design of Floating Charging

The battery float current is small (about 1/3 AGM battery), the floating charge lower energy consumption, less warming, reduce battery thermal runaway risk.



Low Self-discharge Rate of The Battery

It can hinder the water diffusion during cathode reduction, inhibit the spontaneous reduction reaction of PbO₂, which is beneficial to long-term storage.



Environmentally Friendly and Economical

No acid mist gas precipitation, electrolyte overflow, no combustion, no explosion, no pollution during use.



More Stable Performance Under Extremely Temperature

The gel battery can be used normally within the range of temperature difference from -40°C to 65°C, which effectively solves the problem of difficult starting in cold and high temperature areas.



G12V200AH

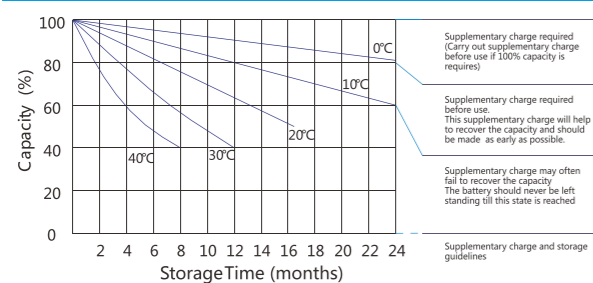


G12V100AH

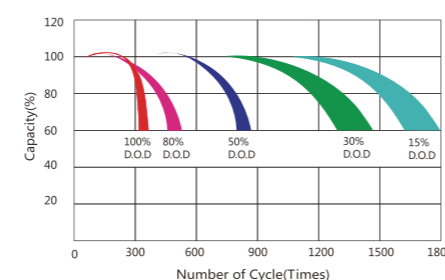
Specifications

Model	G-12V 100AH	G-12V 200AH
Cells Per Unit	6	
Voltage Per Unit	12	
Capacity	100Ah@10hr-rate to 1.80V per cell @25°C	200Ah@10hr-rate to 1.80V per cell @25°C
Max. Discharge Current	1000A(5 sec)	2000A(5 sec)
Internal Resistance	Approx. 5.0 mΩ	Approx. 4.0 mΩ
Recommended Maximum Charging Current Limit	30A	60A
Operating Temperature Range	Discharge:-20°C-60°C Charge:0°C-50°C Storage:-20°C-60°C	
Normal Operating Temperature Range	25°C ± 5°C	
Float Charging Voltage	13.6 to 13.8V DC/unit Average at 25°C	
Equalization and Cycle Service	14.4 to 14.6V DC/unit Average at 25°C	
Self Discharge	GEL batteries can be stored for more than 6 months at 25°C. Self-discharge ratio less than 3% per month at 25°C. Please charge batteries before using.	
Weight	27.8kg	56.0kg
Size	330x171x218mm	522x219x240mm

Storage characteristic



Life characteristics of cyclic use



STREET LIGHT

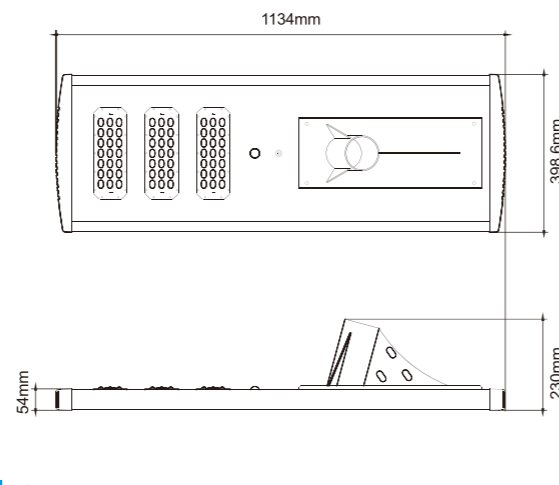
P2 SERIES

P2-60W

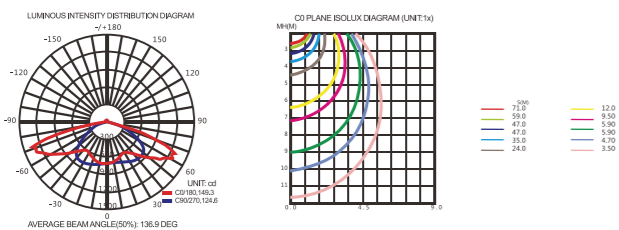


Product Description

1. Integrated design and source, high capacity LiFePO4 lithium battery, high energy, and long life, light weights, green and environmental protection, do not produce any harmful substances.
2. Philips LED chip with high light efficiency which can reach 180LM/W, and whole lamp light efficiency can reach 160LM/W at least
3. All series use high efficiency controller which can increase 15%-30% charge efficiency
4. Design with high efficiency solar cell (>22%)
5. Convenient installation and maintenance, no need of cable installation or special light pole, functional components modular design, installation and maintenance, convenient and quick replacement



Light distribution curve



Specifications

Model	P2-60W	Note
Solar Module	65W (Mono)	
High Capacity Lithium Battery	Built-in 340WH	Power battery
Luminous Flux(All Light Pattern)	8100lm	
Working Mode	Normal mode(default): 4H100% 4H50% 4H25%	OEM according to the quantity
Solar Panel Charge Time	8H strong sunlight	
Working Time	All Light Pattern	≥ 12 hours
	Raining Days Backup	7 days
Color Temperature	3000-7000K	Optional
Induction Angle	130° 20m	
Light Pole Diameter	76mm	
Storage Temperature	0-55°C	
Operating Humidity	≤90 RH%	
Working Temperature	Charge Temperature	-20°C - 55°C
	Discharge Temperature	-20°C - 65°C
Waterproof Level	IP65	
Dimensions	1134x398.6x54mm	
Package Dimensions	1143x411x142mm	2PCS/CTN
Recommend Installation Height	4-5m	

STREET LIGHT

P2 SERIES

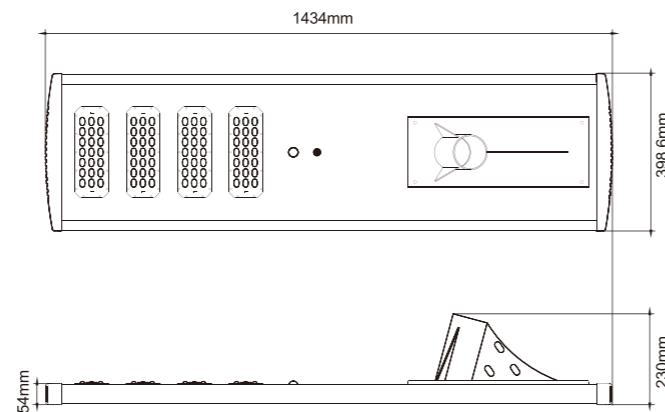
P2-80W



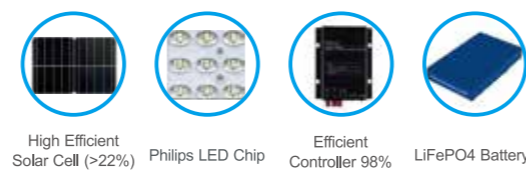
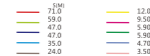
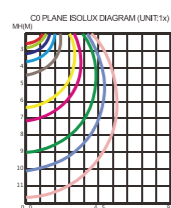
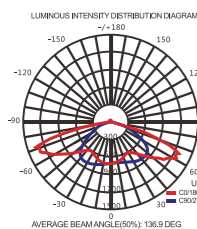
CWORTH ENERGY

Product Description

1. Integrated design and source, high capacity LiFePO4 lithium battery, high energy, and long life, light weights, green and environmental protection, do not produce any harmful substances.
2. Philips LED chip with high light efficiency which can reach 180LM/W, and whole lamp light efficiency can reach 160LM/W at least
3. All series use high efficiency controller which can increase 15%-30% charge efficiency
4. Design with high efficiency solar cell (>22%)
5. Convenient installation and maintenance, no need of cable installation or special light pole, functional components modular design, installation and maintenance, convenient and quick replacement



Light distribution curve



Specifications

Model	P2-80W	Note
Solar Module	85W (Mono)	
High Capacity Lithium Battery	Built-in 420WH	Power battery
Luminous Flux(All Light Pattern)	11000lm	
Working Mode	Normal mode(default): 4H100% 4H50% 4H25%	OEM according to the quantity
Solar Panel Charge Time	8H strong sunlight	
Working Time	All Light Pattern	≥ 12 hours
	Raining Days Backup	7 days
Color Temperature	3000-7000K	Optional
Induction Angle	130° 20m	
Light Pole Diameter	76mm	
Storage Temperature	0-55°C	
Operating Humidity	≤90 RH%	
Working Temperature	Charge Temperature	-20°C - 55°C
	Discharge Temperature	-20°C - 65°C
Waterproof Level	IP65	
Dimensions	1434x398.6x54mm	
Package Dimensions	1440 x411x142mm	2PCS/CTN
Recommend Installation Height	4-7m	

STREET LIGHT

C1 SERIES

C1-60W/ C1-100W



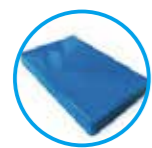
Product Description

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C1-60W

C1-100W



LiFePO4 Battery



Philips LED Chip



Efficient Intelligent Controller



High Efficient Solar Cell (>22%)

Specifications

Model	C1-60W	C1-100W
Solar Panel(MONO)	111W	145W
High Capacity Lithium Battery (Built-in)	608WH	920WH
Luminous Flux (All light Pattern)	11200lm	16800lm
Recommend Installation Height	5-7m	6-9m
Solar Panel Charge Time (with strong sunlight)	8 hours by bright sunlight	8 hours by bright sunlight
Rainy Days Support	3-5 days with full charging	3-5 days with full charging
Working Time (Per day)	≥12 hours	≥12 hours
Color Temperature	6500K	6500K
Light Pole Diameter	114mm	114mm
Storage Temperature	0-55°C	0-55°C
Operating Humidity	≤90%RH	≤90%RH
Waterproof Level	IP65	IP65
Product Size	1330x489x69mm	1600x489x69mm
Product Package Dimensions	1347x500x157mm	1617x500x157mm

STREET LIGHT

C2 SERIES

C2-C60W/ C2-C80W



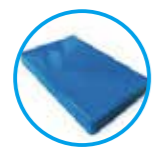
Product Description

1. Integrated design and source, high capacity LiFePO4 lithium battery, high energy, and long life, light weights, green and environmental protection, do not produce any harmful substances.
2. Philips LED chip with high light efficiency which can reach 180LM/W, and whole lamp light efficiency can reach 160LM/W at least
3. All series use high efficiency controller which can increase 15%-30% charge efficiency
4. Design with high efficiency solar cell (>22%)
5. Convenient installation and maintenance, no need of cable installation or special light pole, functional components modular design, installation and maintenance, convenient and quick replacement



C2-C60W

C2-C80W



LiFePO4 Battery



Philips LED Chip



Efficient Intelligent Controller



High Efficient Solar Cell (>22%)

Specifications

Model	C2-C60W	C2-C80W
Solar Panel(MONO)	65W	85W
High Capacity Lithium Battery (Built-in)	340WH	420WH
Luminous Flux (All light Pattern)	8400lm	11200lm
Recommend Installation Height	4-5m	4-7m
Solar Panel Charge Time (with strong sunlight)	8 hours by bright sunlight	8 hours by bright sunlight
Rainy Days Support	>5 days with full charging	>5 days with full charging
Working Time (Per day)	≥12 hours	≥12 hours
Color Temperature	6500K	6500K
Light Pole Diameter	84mm	84mm
Storage Temperature	0-55°C	0-55°C
Operating Humidity	≤90%RH	≤90%RH
Waterproof Level	IP65	IP65
Product Size	1160x394x65mm	1490x394x65mm
Product Package Dimensions	1175x410x175mm, 2PCS	1505x410x175mm, 2PCS

STREET LIGHT

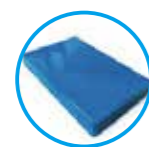
C2 SERIES

C2-S60W/ C2-S80W



C2-S60W

C2-S80W



LiFePO4 Battery



Philips LED Chip



Efficient Intelligent Controller



High Efficient Solar Cell (>22%)

Product Description

1. Integrated design and source, high capacity LiFePO4 lithium battery, high energy, and long life, light weights, green and environmental protection, do not produce any harmful substances.
2. Philips LED chip with high light efficiency which can reach 180LM/W, and whole lamp light efficiency can reach 160LM/W at least
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4. Design with high efficiency solar cell (>22%)
5. Convenient installation and maintenance, no need of cable installation or special light pole, functional components modular design, installation and maintenance, convenient and quick replacement

Specifications

Model	C2-S60W	C2-S80W
Solar Panel(MONO)	65W	85W
High Capacity Lithium Battery (Built-in)	340WH	420WH
Luminous Flux (All light Pattern)	8400lm	11200lm
Recommend Installation Height	4-5m	4-7m
Solar Panel Charge Time (with strong sunlight)	8 hours by bright sunlight	8 hours by bright sunlight
Rainy Days Support	>5 days with full charging	>5 days with full charging
Working Time (Per day)	≥12 hours	≥12 hours
Color Temperature	6500K	6500K
Light Pole Diameter	84mm	84mm
Storage Temperature	0-55°C	0-55°C
Operating Humidity	≤90%RH	≤90%RH
Waterproof Level	IP65	IP65
Product Size	1160x394x65mm	1490x394x65mm
Product Package Dimensions	1175x410x175mm, 2PCS	1505x410x175mm, 2PCS

Solar Energy System

3.6KW~12KW



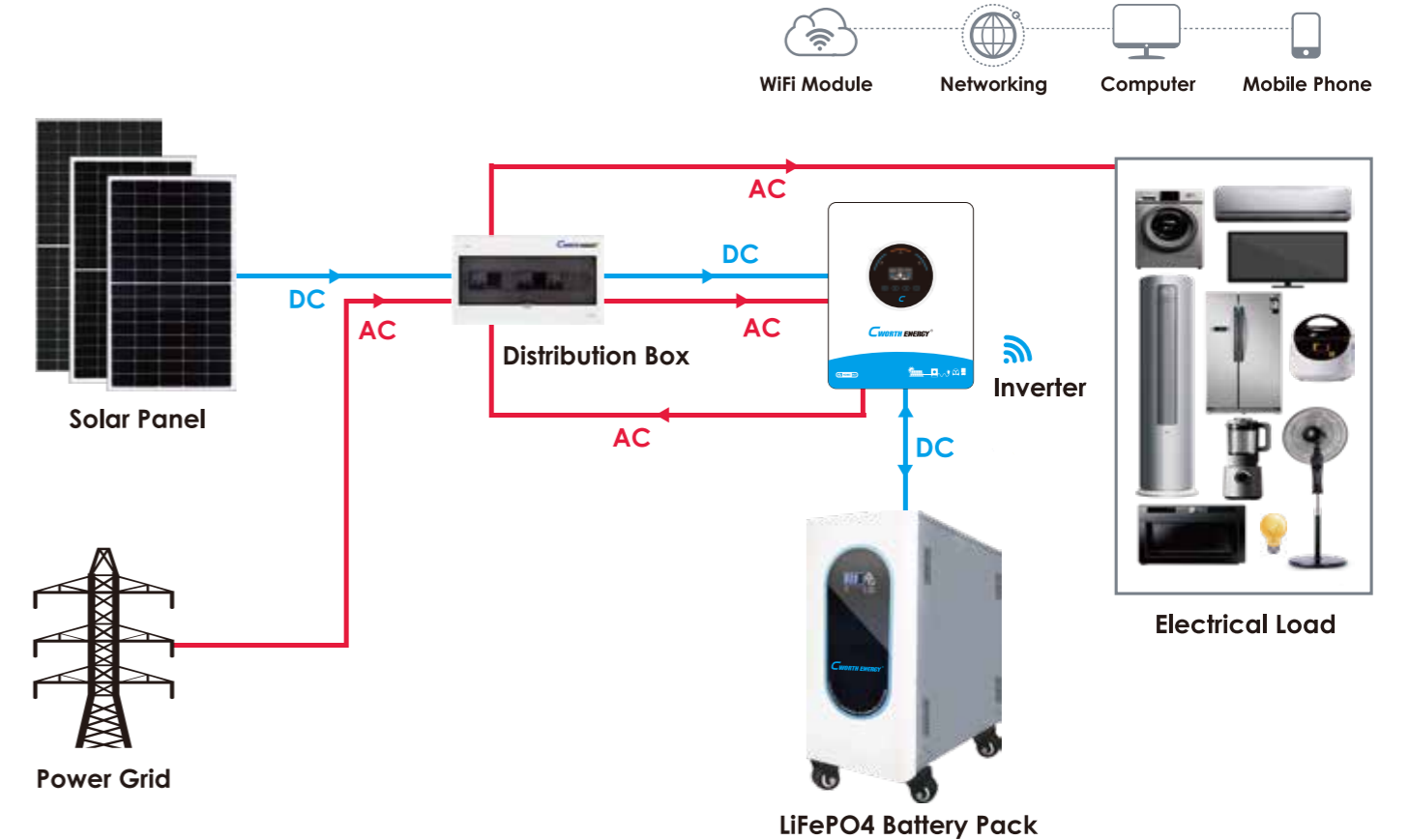
Advantages:

- High quality
- Professional solutions
- Prevent electricity outages
- Reduce your energy bills
- Easy installation
- Keeping the environment clean and green

Off-Grid Solar Energy System

AC Alternating Current —

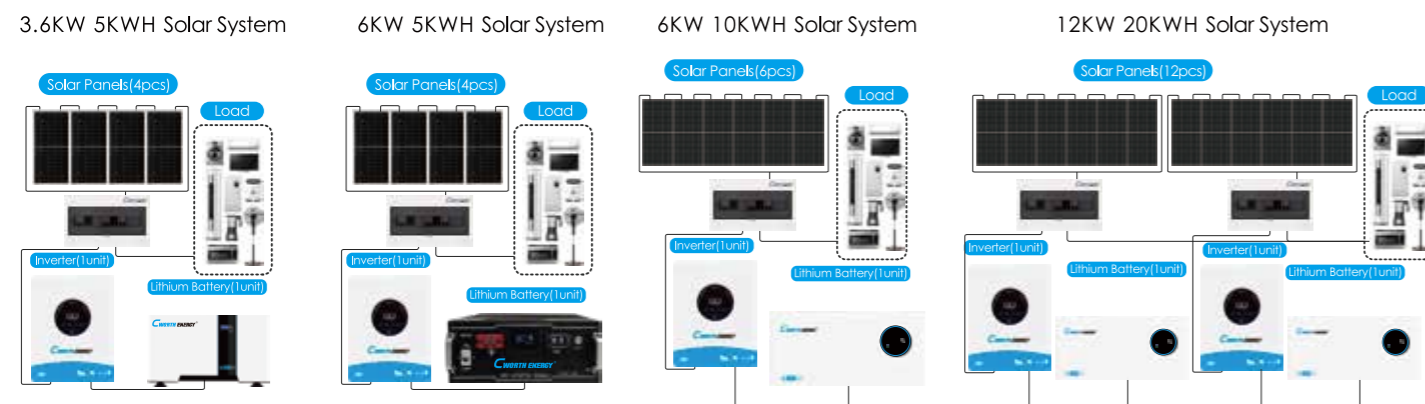
DC Direct Current —



Solar Energy System:

Solar energy system is a renewable environmental protection system with a wide range of applications, such as residential, industrial, agricultural, animal husbandry, etc. It is mainly used to supply power for various household appliances and office equipment, and efficiently solve energy problems like power shortages, people's daily electricity consumption, work electricity consumption.

Off-Grid System Configuration:



Specifications

Model	3.6KW	6KW	6KW	12KW
Solar Panel	4 Pieces * 420W 31.4V	4 Pieces * 420W 31.4V	6 Pieces * 500W 41.8V	12 Pieces * 500W 41.8V
Inverter	3.6KW DC 24V AC 230V 50Hz/60Hz MPPT 120A * 1 unit	6KW DC 48V AC 230V 50Hz/60Hz MPPT 120A * 1 unit	6KW DC 48V AC 230V 50Hz/60Hz MPPT 120A * 1 unit	6KW DC 48V AC 230V 50Hz/60Hz MPPT 120A * 2 units
Lithium Battery	CE-LBD-24200C 5KWH * 1 unit	CE-LBT-48100C 5KWH * 1 unit	CE-LBC-48200C 10KWH * 1 unit	CE-LBC-48200C 10KWH * 2 units
E-BOX	1 pc	1 pc	1 pc	2 pcs
PV Frame	1 * set	1 * set	1 * set	1 * set
PV Cable	red 4mm ² * 20m black 4mm ² * 20m	red 4mm ² * 20m black 4mm ² * 20m	red 4mm ² * 20m black 4mm ² * 20m	red 4mm ² * 40m black 4mm ² * 40m

PORTABLE SOLAR POWER SYSTEM

25.6V 1.5KWH

Advantages:

- Portable design
- Built in MPPT controller
- Support for mains and solar panel charging
- Integrating lithium batteries, inverters, and distribution boxes
- LCD screen, with LED lights



Distribution Box

E-BOX



- Prevent damage to MPPT controller and inverter caused by lightning strikes.
- Prevent the inverter damage due to excessive input voltage fluctuation of the power grid.
- Prevent inverter output short circuit or excessive load from causing damage to the inverter and controlling the customer's usage overload.

Specifications

Model	CE-PLB1200
Battery	25.6V 1.5KWH
Inverter Power (Default)	1200W 230VAC 50Hz
LED	3W
DC5521	12V 10A
USB 1	18W*2 5V/9V/12V
USB 2	12W*2 5V
Type-C1	PD100W 5V/9V/12V/15V/20V
Type-C2	PD45W 5V/9V/12V/15V/20V
Max PV Input (MPPT)	500W 60V 12A
AC Input Voltage Range	185-275V
Utility+PV Charge Power	1050W
Expand Capacity	Cworth Energy 24V battery
Working Temperature	-10°C~45 °C
Net Weight	18kg
Gross Weight	19kg
Product Dimension	385x230x280mm
Package Dimension	425x270x340mm

Specifications

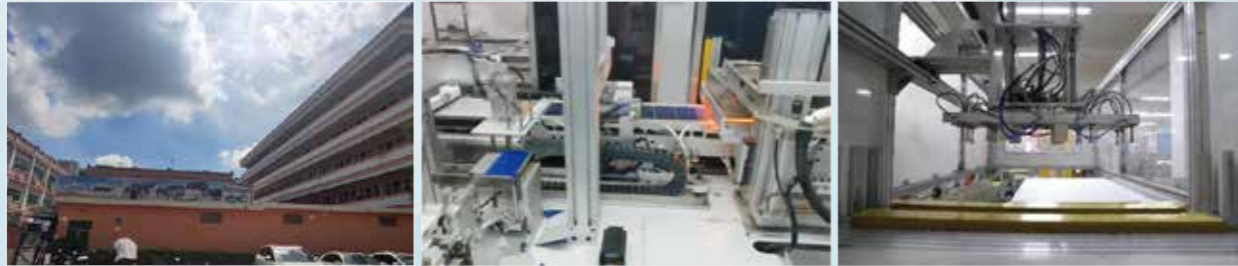
Model	E-BOX
AC Working Voltage Rated	AC 220V
AC Operation Voltage Range	AC 80V~300V
AC Rated Current	63A
AC Electric Current (>U) Setting Range	1~63A
Display Reset/Start Delay	1s~600s
Voltage Measurement Accuracy	1%
AC rated Frequency	50/60Hz
Levels of Protection	IP30
Working Temperature	-15°C~60°C
DC input Voltage and Current	<500V/63A
Net Weight	2.82kg
Gross Weight	3.13kg
Product Dimension	360x210x100mm

FACTORY & PRODUCTION LINE

PROJECT CASE

Solar Panel / Lithium Battery Series Installation

Our Factory/Solar Panel Production Line



Solar Panel Production Line



Lithium Battery Production Line



All-In-One Street Light Production Line

