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Company Profile



60+ Patents



16 Years of Solar Power and Lithium Battery R&D

15 R&D Experts 60+Product Patents

Our Factories Produce More Than 11,210kWh of Battery Energy Per Month

Xiamen Eco-Sources Technology Co. Ltd. was established in 2007. It is a leading international manufacturer and supplier of lithium batteries and solar energy.

It integrates product R&D, intelligent manufacturing and promotional marketing.

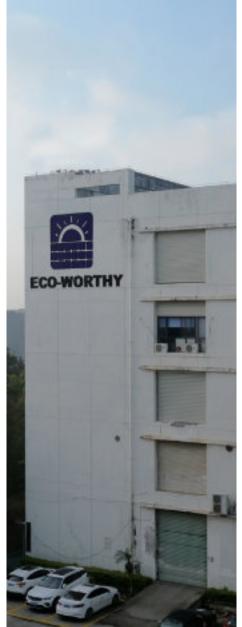
Our Eco-Worthy brand is one of the earliest lithium battery brands in the world. Our solar energy products include lithium batteries, solar panels, inverters and solar vents.

As a Chinese lithium battery manufacturer, we constantly utilise market resources and optimise the supply chain to provide first-class products that are both high quality and competitively priced.

We're proud to offer our customers a variety of choices, whether through OEM, ODM or distribution partnerships, to meet their diverse needs.

If you have special requests for a customised product, let us know.





Manufacturing process >>>





Battery Cell Testing





Pole Cutting





BMS Testing









Laser welding







Tin Solder





Shrink Wrapping







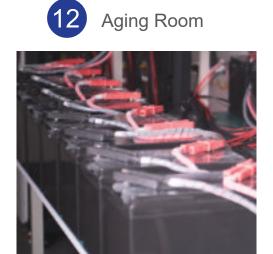
Equalizer Test







Assembly Line





10 Pre Packed **Products**



Product Application

Go with independent power



Easy Solar for RV

Complete Kits

We supply complete solar kits that include solar panels, charge controller, batteries, inverter and wiring.

Customized

We offer customised products and kits for those who want to design their own solar solutions.

Enjoy cold drinks while sailing



Easy Solar for Marine

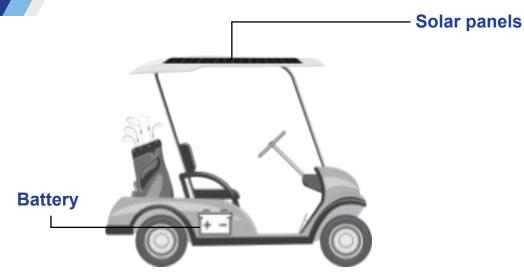
High-Efficiency Panel

Eco-Worthy mono solar panels offer up to 21% power conversion efficiency, giving you more power from your boat battery.

Deep-Cycle LiFePO4 Lithium Battery

Unlike lead-acid batteries, lithium batteries allow you to use 100% of their capacity in every cycle, so your equipment will last longer.

Golf cart



Easy Solar for Golf Cart

Environment Benefits

Solar power is clean. There is no carbon dioxide released into the atmosphere when batteries are plugged in to charge. Nor does it use fossil fuels like gas-powered golf carts.

Financial Benefits

Adding solar panels to your golf cart is a brilliant idea that allows you to charge it with free solar energy. Each charge can provide a long running time while reducing the usual maintenance costs.

Electric forklift



Battery for Electric Forklift

Easier to Use

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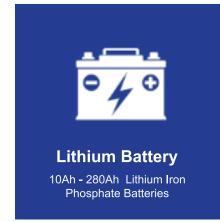
A lithium battery is light and... 50-60% lighter than its lead-acid equivalent, so you can take it anywhere. For example, a 100ah lead-acid battery weighs 29kg, whereas a 100ah lithium battery weighs 10.5kg.

Longer Life

Figures vary from study to study, but lithium batteries generally last for many times the number of cycles of lead-acid batteries, resulting in a longer effective life for lithium products.



ECO-WORTHYPRODUCT CATALOG







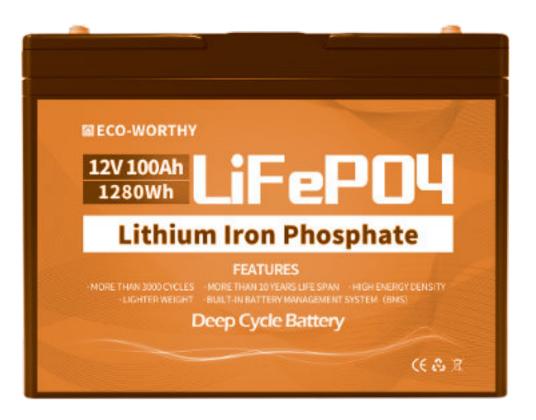






LITHIUM BATTERY SPECIFICATIONS

LiFePO4 / Lithium Iron Phosphate Battery



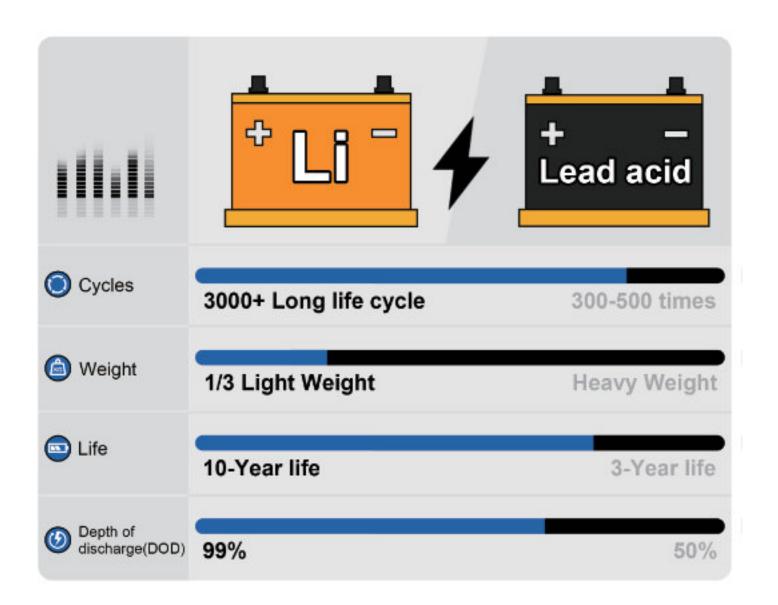
[Long Life Cycle] - The lithium battery can be recharged more than 3000 times, which is more than 8 times compared to lead-acid batteries.

[BMS Protection] - The lithium iron phosphate battery has an excellent BMS (Battery Management System), which can prevent its over-voltage, under-voltage, over-current, high temperature and short-circuit protection.

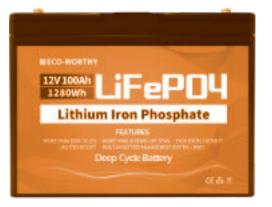
[Smaller and Lighter] - Lithium batteries are smaller in size and generally lighter in weight than lead-acid batteries. It is an ideal choice for powering outdoor campsites and for easy indoor installation.



The Perfect Replacement for Lead-Acid Batteries



Lithium Battery



Features





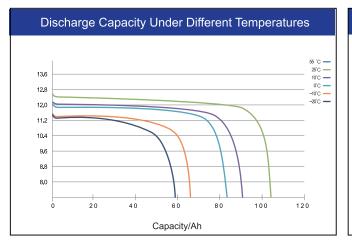


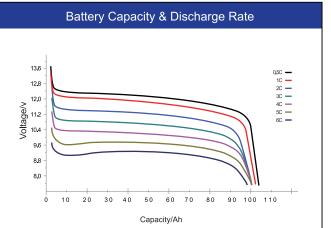
BMS protection

3000+ deep cycles

10-year warranty

Battery	12V 50AH	12V 100AH	12V 150AH	12V 200AH	24V 100AH	48V 50AH
Voltage (V)	12.8	12.8	12.8	12.8	25.6	51.2
Current (A)	50	100	100	150	100	60
Capacity (Ah)	50	100	150	200	100	50
Energy (Wh)	640	1280	1920	2560	2560	2560
Weight (kg)	6.07	11	14.1	19	18.76	18.21
Size (mm)	232*135*181	260*168*214	330*175*215	365*194*252	365*194*252	365*194*252





oltage/v

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Bluetooth Lithium LiFePO4 Battery



Features







BMS protection

6000 Deep cycle

Bluetooth & APP

Capacity	260Ah	100Ah
Energy (Wh)	3328	1280
Rated Voltage (V)	12.8	12.8
Voltage Range (V)	10~14.6	10~14.6
Maximum Continuous Charging Current (A)	150	100
Maximum Continuous Discharging Current (A)	250	100
Charging Voltage (V)	14.6	14.6
Dimensions (mm)	533*241*224	260*168*214
Weight (kg)	29	11
Charging Temperature (°C)	0~55	0~55
Discharging Temperature (°C)	-20~55	-20~55
Advanced Function	Bluetooth	Bluetooth
	low-temperature protection	low-temperature protection

12V Series



Battery	Continuous Current(A)	Rated Voltage(V)	Capacity (Ah)	Energy (Wh)	BMS Protections	Weight (lbs/kg)	Size (mm)	Terminal Type	Case Material
12V 10Ah	10	12.8	10	128	overcharge/ over- discharge/ over- temperature	1.1	152*65*96	F2	ABS
12V 20Ah	25	12.8	20	256	overcharge/ over- discharge/ over- temperature	2.6	182*77*170	M5	ABS
12V 30Ah	25	12.8	30	384	overcharge/ over- discharge/ over- temperature	3.55	182*77*170	M5	ABS
12V 50Ah	50	12.8	50	640	overcharge/ over- discharge/ over- temperature	5.74	232*135*181	M6	ABS
12V 100Ah	100	12.8	100	1280	overcharge/ over- discharge/ over- temperature/ low- temperature	11	260*168*214	M8	ABS
12V 150Ah	120	12.8	150	1920	overcharge/ over-discharge/ over-temperature	13.4	330*175*215	M8	ABS
12V 200Ah	150	12.8	200	2560	overcharge/ over- discharge/ over- temperature/ low- temperature	18	365*194*252	M8	ABS
12V 260Ah	250	12.8	260	3328	overcharge/ over-discharge/ over-temperature	29	533*241*224	M8	ABS
12V 280Ah	250	12.8	280	3584	overcharge/ over-discharge/ over-temperature	29	533*241*224	M8	ABS

24V Series

Battery	Continuous Current(A)		Capacity (Ah)	Energy (Wh)	BMS Protections	Weight (lbs/kg)	Size (inch/mm)	Terminal Type	Case Material
24V 50Ah	50	25.6	50	1280	overcharge/ over-discharge/ over-temperature	11	260*168*214	M8	ABS
24V 100Ah	100	25.6	100	2560	overcharge/ over-discharge/ over-temperature	18.76	365*194*252	M8	ABS

48V Series

Battery	Continuous Current(A)		Capacity (Ah)	Energy (Wh)	BMS Protections	Weight (kg)	Size (mm)	Terminal Type	Case Material
48V 50Ah	50	51.2	50	2560	overcharge/ over-discharge/ over-temperature	17.21	365*194*252	M8	ABS

Outdoor Series

E		Continuous Current(A)	Rated Voltage(V)	Capacity (Ah)	Energy (Wh)	BMS Protections	Weight (kg)	Size (mm)	Terminal Type	Case Material
12	2V 20Ah	25	12.8	20	256	overcharge/ over-discharge/ over-temperature	2.2	221*113*117	M5	ABS+PC





12V MONOCRYSTALLINE SOLAR PANEL

High Efficiency Module



[Versatile] - Basic generator component for 12V/24V battery charging for on-grid, off-grid and hybrid power systems for home, garden, RV, marine and agriculture.

[Durable] - Can withstand high wind (2400Pa) and snow load (5400Pa), the surface is made of 3.2mm low-iron glass, the monocrystalline modules are framed by 35mm wide aluminium alloy, which is 2~5mm wider than other brands.

[Feature] - Each solar panel comes with a pair of 890mm cables. By-pass diodes are pre-installed in a waterproof IP-65 rated junction box to minimise power loss caused by shading and ensure excellent performance in low-light environments.

[Easy to install] - Plug and play connectors on the cables for quick installation and pre-drilled holes on the back of the panel for quick roof or bracket mounting.

Solar Panel



Features







21% Efficiency

IP65 waterproof

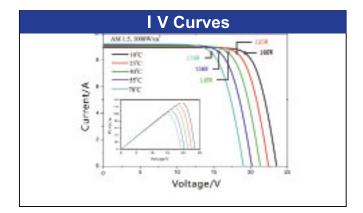
25 year 80% output warranty

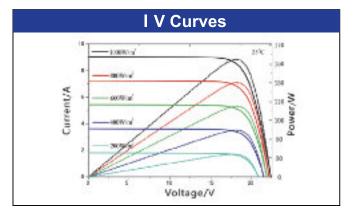
Brackets (Optional)





Rated Power	100W	195W
Solar Cell	Monocrystalline	Monocrystalline
Maximum/Peak Voltage (V)	18V	20.2V
Open Circuit Voltage (V)	21.60V	24.5V
Short Circuit Current (A)	6.11A	10.14A
Maximum Current (A) Output	5.55A	9.65A
Tolerance (%)	±3	±3
Coefficient of Isc (°C)	(010+/-0.01)%/°C	(010+/-0.01)%/°C
Coefficient of Voc (°C)	-(0.38+/-0.01)%/°C	-(0.38+/-0.01)%/°C
Temperature Range (°C)	-40~+85	-40~+85
Frame	Aluminium alloy frame	Aluminium alloy frame
Weight (kg)	5.20	9.74
Size (mm)	1010*460*35	1480*668*35







Flexible Solar Panel

Features







21% Efficiency

IP65 waterproof

30° flexibility

Rated Power 130W Solar Cell Monocrystalline Maximum/Peak Voltage (V) 21.10V 24.50V Open Circuit Voltage (V) Short Circuit Current (A) 6.50A Maximum Current (A) 6.16A Output Tolerance (%) ±3 Temperature Coefficient of Isc (°C) (010+/-0.01)%/°C Temperature Coefficient of Voc (°C) -(0.38+/-0.01)%/°C -40°C - +85°C Temperature Range (°C) 900 Length of Extension Cable (mm) Size of Extension Cable 4mm² / MC4 Connector 2.0kg Weight (kg) Size (mm) 960*690*2.5

Other sizes on request.

Start Battery Panel



Feature







21% efficiency

IP65 waterproof

Rated Power	25W
Solar Cell	Monocrystalline
Maximum/Peak Voltage (V)	18
Open Circuit Voltage (V)	22.41
Short circuit current (A)	1.54
Maximum current (A)	1.4
Output Tolerance (%)	±3
Temperature Coefficient of Isc (°C)	(010+/-0.01)%/°C
Temperature Coefficient of Voc (°C)	-(0.38+/-0.01)%/°C
Temperature Range (°C)	-40~ +85
Frame	Aluminium alloy frame
Length of Extension Cable (mm)	1000
Size of Extension Cable (mm²)	0.75
Size (mm)	420*320*17

Other sizes on request.



Solar Trickle Charger



Features



Battery maintenance



IP65 waterproof



Cigar lighte adapter

Rated Power	5W	10W
Solar Cell	Monocrystalline	Monocrystalline
Maximum/Peak Voltage (V)	18.7	18.7
Open Circuit Voltage (V)	22.41	22.41
Maximum Current (A)	0.28	0.575
Over-charged Protection Voltage (V)	14.5	14.5
Over-charged Recovery Voltage (V)	13.0	13.0
Length of Extension Cable (cm)	150	150
Length of Alligator Clips Cable (cm)	50	50
Length of Cigarette Lighter Plug Cable (cm)	50	50
Weight (g)	185	320
Size (mm)	200*200*12	280*260*12

Other sizes on request.

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Portable Solar Panel



Features



Foldable



Power station compatibility



25 year 80% output warranty

Rated Power Solar Cell	120W	100W
Maximum/Peak Voltage (V)	18	18
Open Circuit Voltage (V)	21.6	21.6
Short Circuit Current (A)	7.1	5.9
Maximum Current (A)	6.67	5.6
Solar Panel Extension Cable	3 meters,5.5*2.1mm	3 meters,5.5*2.1mm
Output Tolerance (%)	±3	±3
Temperature Coefficient of Isc	(010+/-0.01)%/°C	(010+/-0.01)%/℃
Temperature Coefficient of Voc	-(0.38+/-0.01)%/°C	-(0.38+/-0.01)%/°C
Temperature Range (C)	−40 ∼ +85	−40 ∼ +85
Weight (kg)	4.1	4.1
Folded Size (mm)	546*371*63	546*371*63
Unfolded Size (mm)	1578*7546*5	1578*546*5

Other sizes on request.





1100W/2000W

Off-Grid Inverter



[Pure Sine Wave Inverter] - Superior to the modified sine wave inverters, protect the device life and are without electromagnetic pollution.

[LCD Display & Smart Fan] - Easily check the remaining battery voltage, maximise your power duration; smart cooling fan to save energy and protect the inverter.

[Designed for Off Grid] - Can be used for cars, RVs, trailers, camping, homes, boats, cabins, farms, etc.

Inverter



Features







Pure sine wave

nart cooling |

Rated Power	1100W	2000W
Output Continuous Watts (W)	1100W+18W USB	2000W+18W USB
Rated Input DC (V.A)	12V Battery, 100A	12V Battery, 200A
Input Voltage Range	10.5 to 16V DC+/-0.3V	10.5 to 16V DC+/-0.3V
Rated Frequency (Hz)	60Hz±1	60Hz±1
Rated Output AC (V.A)	115V+/-10%, 9.5A	115V+/-10%, 9.5A
Rated Output USB (V.A)	2*USB	2*USB
NO Load Current	<1A DC	<1.2A DC
Optimum Efficiency	85% min.	85% min.
Fuse (A)	30A*4	40A*6
Fuse Type	Internal Blade	Internal Blade
Output Wave Form	Pure Sine Wave	Pure Sine Wave
Touch Temperature	65°C Max.	65°C Max.
Operating Temperature	-20 to 40°C	-20 to 40°C
Operating/Storage Humidity RH	5 to 95%	5 to 95%
Cooling System	Thermo Fan	Thermo Fan
THD	<4.5%	<4.5%
Dimensions L*W*H (mm)	342*249*104	427*249*104
Assembled Weight (kg)	3.65	4.94

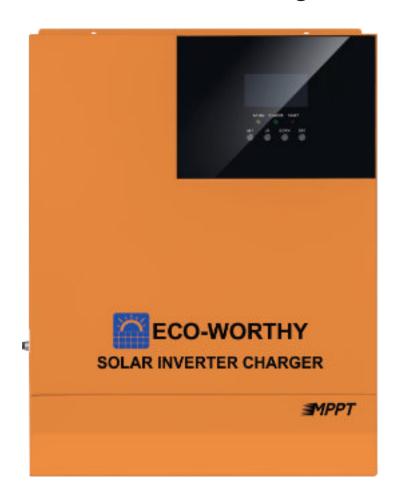
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1500W-5000W

Solar Inverter Charger

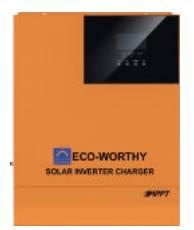


[Hybrid Inverter] - The combination of pure sine wave inverter and MPPT controller provides stable output for your appliances, reduces wiring in your solar power, more than 95% efficiency, maximises energy usage, and protects your battery from short circuit, over voltage and under voltage, overload and reverse polarity.

[Battery Charging] - Compatible with most batteries including lead acid, AGM, NCM, flooded and lithium. Charges the 48V battery bank with bulk and floating states (hybrid inverter can only work when 48V battery bank is connected).

[UPS Function] - Four charging modes to maintain the backup capacity of your battery and three output modes to automatically switch between mains and battery; to power your appliances from both battery and mains without interruption.

Solar Inverter Charger







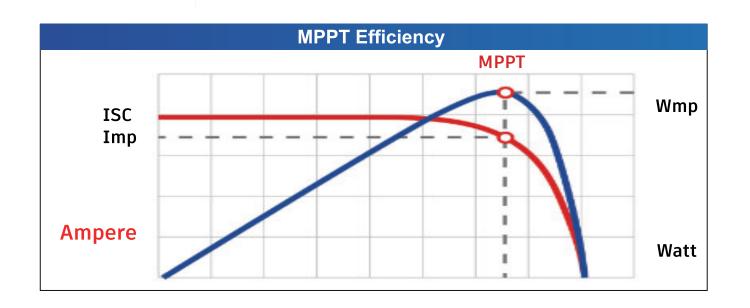




All-in-one design

High efficiency

Model	3000W 24V-120V	5000W 24V-120V		
Output Waveform	Pure sine wave	Pure sine wave		
Solar Input Voltage Range (Vdc)	170~280	120~500		
Maximum PV Array Wattage (W)	1400	5000		
Maximum Solar Charge Current (A)	60	80		
AC Input Voltage Range (Vac)	110/120	110/120		
Battery Charge Type	MPPT	MPPT		
AC Output Voltage (Vac)	120	120		
AC Output Frequency (Hz)	60	60		
Size (mm)	378*280*103	426*322*126		
Weight(kg)	6.8	10.9		







SOLAR POWERD

Solar Powered Fan





[Well-Made Material] - The material of this solar powered attic fan is stainless steel, which ensures the longevity of the fan and prevents any rust from forming.

[Wide Application] - It is the perfect solar powered exhaust fan for sheds, roof, attic, RV, boats, cabin, etc.

[Easy Installation] - The solar attic fan has pre-drilled mounting holes, self-tapping screws for easy installation. It is a ready-to-use play solar fan, just take it out of the box, no need for extra wiring.

5W Round Solar Vent











Automatic operation

Easy installation

Effective ventilation





Model	5W Round Solar Vent						
0.1	Maximum power (P)	5W					
Solar	Maximum voltage (Vpm)	5					
panel	Maximum current (Ipm)	1					
Pottoni	Size (inches)	φ 9.65					
Battery motor	Battery capacity (Ah)	2.8					
IIIOtoi	Motor type	Commutator motor					
	Motor power	5V 0.5 W					
Blade	Motor life	Over 1000 hours					
Biado	Blade material	Polypropylene					
	Blade size (inches) Case	6					
	Material	ABS + PC					
Fan	Features	Exhaust only, DC port power supply					
	Diameter * Height (in/cm)	φ12.01*5.91/φ30.5*15					
Function	Charging method	Solar panel/DC					



5W Square Solar Vent

Features







Solar energ

gy Easy install

Effective ventilation





Model	5W Square Solar Vent						
	Irradiance and cell temperature	1000w /m² am1.525 °c					
Solar	Maximum power (P)	5W					
panel	Maximum voltage (Vpm)	5					
	Maximum current (Ipm)	1					
	Size (inches)	13.39 * 13.39					
Battery	Battery capacity (Ah)	6					
motor	Motor type	Commutator motor					
	Motor power	5V 0.5 W					
	Motor life	Over 1000 hours					
Blade	Blade material	Polypropylene					
	Blade size (inches)	7					
	Case material	ABS + PC					
Fan	Features	Exhaust, DC port power supply					
	Length * Width * Height (in/cm)	16.34*16.34*6.89/41.5 * 41.5 * 17.5					
Function	Charging method	Solar panel/DC					

10W Square Solar Vent











Solar energy

Easy installation

Effective ventilation





Model	10W Square Solar Vent							
Oalan	Irradiance and cell temperature	1000 w /m² am1.5 25 ° C						
Solar	Maximum power (P)	10W						
panel	Maximum voltage (Vpm)	18						
	Maximum current (lpm)	1						
	Size (inches)	13.39 * 13.39						
Battery	Battery capacity (Ah)	12						
motor	Motor type	Commutator motor						
	Motor power	10W 12V						
	Motor life	Over 1000 hours						
Blade	Blade material	Polypropylene						
	Blade size (inches)	9						
	Case material	ABS + PC						
Fan	Features _{Exha}	ust, DC port power, lighting						
	Length * Width * Height (in/cm)	16.34*16.34*6.89/41.5 * 41.5 * 17.5						
Function	Charging method	Solar panel/DC						



Solar Vent (without Battery)



Features







Solar energy

Easy installation Effective ventilation

Solar Panels	5W
Air Flow Capacity (m³/min)	5.7
Weight (kg)	1.71
Working Volume (db)	55
Color	Black
Material	Alloy Steel
Package Dimensions (mm)	286*262*97

Solar Vent SV-B (with Battery)











Automatic operation Easy installation

Effective ventilation

Solar Panels	2W	5W	
Weight (g)	970	970	
Working Volume (db)	55	55	
Air Flow Capacity	0,328 m³	0,640 m³	
Package Dimensions (mm)	274*274*101.5	305*305*115	

RV Solar System Reference

Illustration	Туре	Appliances	Power Consumption (Daily)	Suitable Solar Panel Kit	Solar Panel Amount	Suitable Battery Bank	Battery Amount
	Class A Motorhome	TVs, LED bulbs, refrigerator, air conditioner, induction cooker, coffeemaker, water heater	10-15 kwh	2-4kw system	20*100w solar panels or 10*200w solar panels	8-12kwh	8*12v 100ah batteries or 4*12v 200ah batteries
	Class B Motorhome	Refrigerator, lighting, fan, notebook, kett l e	2.5-3 kwh	200-400w system	2*100w solar panels or 2*200w solar panels	1-2kwh	1*12v 150ah battery or 2*12v 100ah batteries
	Class C Motorhome	Refrigerator, microwave, coffeemaker, water heater, TV, lighting, fan, notebook, air conditioner	8-10 kwh	600-1200w system	6*100w solar panels or 6*200w solar panels	4-6kwh	4*12v 100ah batteries or 2*12v 150ah batteries
	5th wheel Trailer	Refrigerator, microwave, induction cooker coffeemaker, water heater, TV, lighting, fan, notebook, air conditioner	8-12 kwh	800-2000w system	8*100w solar panels or 8*200w solar panels	8-12kwh	8*12v 100ah batteries or 4*12v 200ah batteries
~ 1.	Travel Trailer	Refrigerator, microwave, coffeemaker, water heater, TV, lighting, fan, notebook, air conditioner	3-5 kwh	200-900w system	2*100w solar panels or 4*200w solar panels	3-5kwh	4*12v 100ah batteries or 2*12v 150ah batteries
	Pop-up Trailer	Refrigerator, lighting, fan, notebook, kettle	1-2 kwh	100-300w system	1*100w solar panels or 2*100w solar panels	1-2kwh	2*12v 100ah batteries or 1*12v 150ah battery
- The	Truck Camper	Refrigerator, lighting, fan, water heater, kettle	2-3 kwh	400-600w system	4*100w solar panels or 2*200w solar panels	2-3kwh	2*12v 100ah batteries or 1*12v 200ah battery

Boat Solar System Reference

Illustration	Туре	Appliances	Power Consumption (Daily)	Suitable Solar Panel Kit	Solar Panel Amount	Suitable Battery Bank	Battery Amount
11-	Kayak	Trolling motor, fish finder	300-600 wh	100w system	1*100w solar panel	300-600wh	1*12v 50ah battery
<u> </u>	Cabin Cruiser	Refrigerator, radar, notebook, auto cruise system, lighting, radio	1.2-1.8 kwh	200-400w system	4*100w solar panels or 2*200w solar panels	1.2-2kwh	1*12v 100ah battery or 1*12v 150ah battery
Δ	Sailboat	Refrigerator, radar, notebook, lighting, radio	1.2-1.8 kwh	200-400w system	4*100w solar panels or 2*200w solar panels	1.2-2kwh	1*12v 100ah battery or 1*12v 150ah battery
	Yacht	Refrigerator, lighting, radio, TV, microwave, water heater	4-8 kwh	800-1200w system	8*100w solar panels or 6*200w solar panels	4-8kwh	2*12v 200ah batteries or 4*12v 150ah batteries

Golf Cart System Reference

Ill ustration	Size	Roof Size	Suitable Kit	Panel Size (Single)	Daily Power Generation
	2 Seat	137*122cm	100W kit (1*100W solar panel)	98*53cm	400Wh (4 hours full sunshine)
	4 Seat	203*122cm	200W kit (2*100W solar panel)	98*53cm	800Wh (4 hours full sunshine)
- 15/5 B	6 Seat	294*122cm	400W kit (2*195W solar panel)	178*66.8cm	1600Wh (hours full sunshine)





SOLAR POWER & BATTERY EXPERTS

Discover tailor-made solutions for your portfolio!

Are you looking for a unique solution that perfectly fits your product portfolio? Then you've come to the right place! We are experts in developing customised solutions that will enhance your products and give you a clear competitive advantage.

Whether you are active in van-life, carts, industry or boats, or whether your interests lie more in trekking, sports, tiny houses... we may already have the right products designed to meet your needs.

Let us work together to turn your ideas into a unique selling proposition for your products.

Our team is ready to make your vision a reality. Contact us now!











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