

Solar Powered Roof Ventilation Fan



SUNNY INTERNATIONAL POWER LTD

Solar Powered Roof Ventilation Fan

A self-contained axial flow solar roof ventilator, taking advantage of natural solar power, making active ventilation efficiently and quietly by top grade brushless motor.
As an energy-saving green ventilation solution to provide you with a healthy & comfortable environment!

Wiring free and with no dependence on AC grid, SIPL solar roof fan comes to freshen air on attic roof space for residential, commercial & industrial premises at no energy cost. It would pump out stale air and heat build-up at attics to improve attic ventilation and roof air circulation, reduce moisture & harmful mildews, extend roofing lifespan, reduce the load on air-conditioner and HVAC system in summer, help balance indoor temperature and prevent ice-dam in winter...



Free Solar
Panel Power



BLDC Motor
Quiet Operation



Strong Fan Case
Durable In Use



Utility Model
Patent Design



Easy Installation
Maintenance Free



Battery Backup
for Running 24h



No Electric Cost
Save your Money



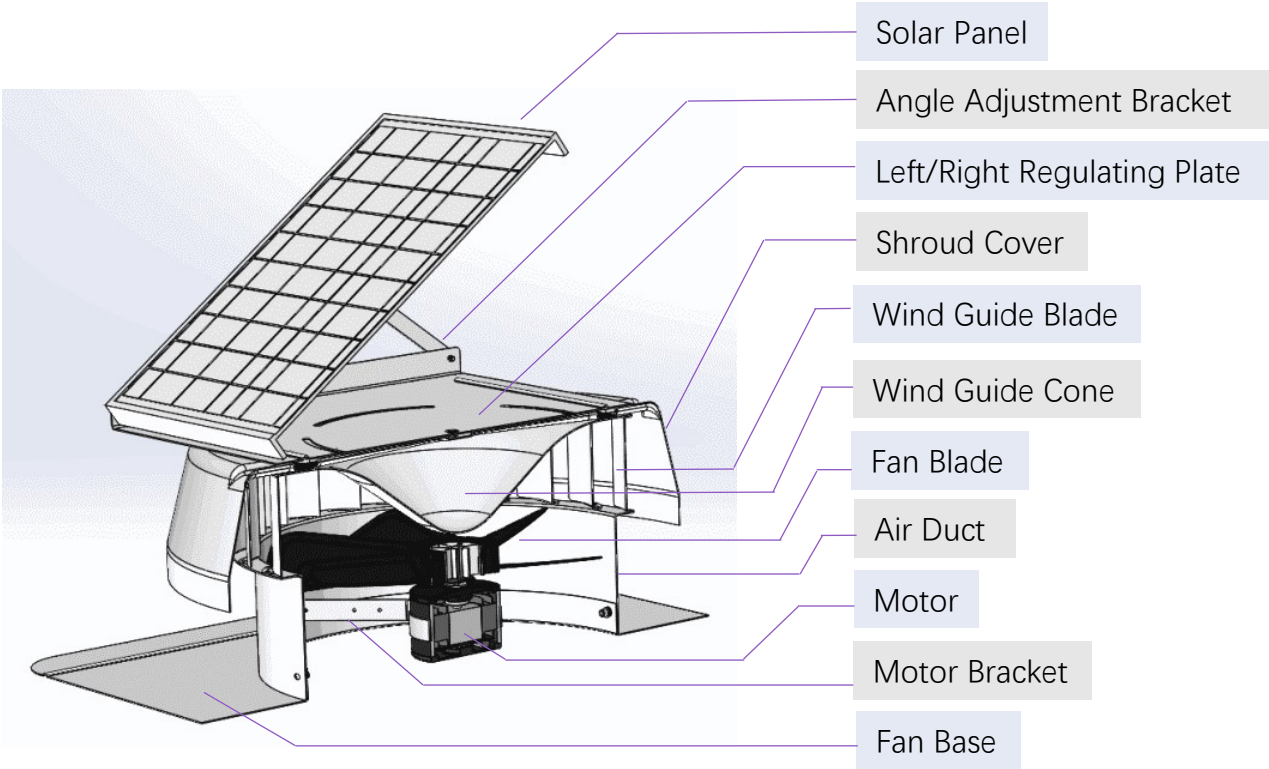
Quality Assurance
5 Years Warranty



Specifications

| | |
|--|--|
| Power | 25W~60W solar panel powered |
| Solar Panel | 182 Monocrystalline solar panel, fixed / adjustable / detachable |
| Fan Blades | 12" / 14" Composited nylon-fiberglass fan blades, 7 pcs |
| Motor | Brushless DC Motor, IP68 |
| Top Shroud Cover | Square / Round |
| Fan Host Size | 530x530x255mm/ 600x600x255mm (basing on solar panel lay flat) |
| Fan Housing | Galvanization steel with anti-rust, anti-UV powder coating |
| Color | Black /White /Brown /Green |
| Installation | Roof mounting, Asphalt shingle roof / S-tile roof / Metal roof... |
| Coverage Area | Fully cover an attic space of up to 2000 sq. ft |
| Optional Roof Fan Accessories (Details in P10~P11) | <ul style="list-style-type: none">• Backup Power Options<ul style="list-style-type: none">> AC/DC adapter> Solar battery• Switch Options<ul style="list-style-type: none">> Wireless remote controller> Adjustable thermostat> Snap-action thermostat• Fan Guard Options<ul style="list-style-type: none">> Aluminum meshed fan guard> Metal circle fan guard• More Fan Base Option<ul style="list-style-type: none">> 600x600mm flexible aluminum fan base |
| Packing/loading | 1 set/ carton; 650x650x340mm, 0.148CBM; 216pcs/20'GP, 516pcs/40'HQ |

Structure Profile



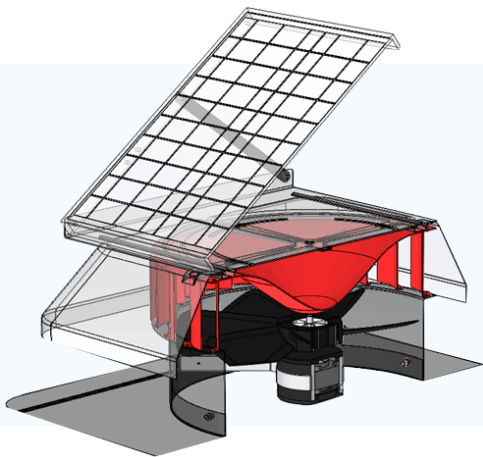
Bill Of Material

| Item | Part Name | FAN |
|------|-----------------------------|-------------------------------------|
| | | Part Description |
| 1 | Solar panel | 25~60W, 21.6~24V |
| 2 | Angle adjustment bracket | Material: Galvanization steel, δ2.0 |
| 3 | Left/Right regulating plate | Material: Galvanization steel, δ1.0 |
| 4 | Shroud cover | Material: Galvanization steel, δ1.0 |
| 5 | Wind guide cone | Material: Galvanization steel, δ1.0 |
| 6 | Wind guide blade | Material: Galvanization steel, δ1.0 |
| 7 | Air duct | Material: Galvanization steel, δ1.0 |
| 8 | Fan blade | Material: Nylon-fiberglass |
| 9 | Motor | IP68 Brushless DC Motor |
| 10 | Motor bracket | Material: Galvanization steel, δ2.0 |
| 11 | Fan base | Material: Galvanization steel, δ1.2 |

Part Descriptions

Compact Design in Strong Case

Fully assembled solar roof fan comes with adjustable solar panel on top and strong galvanized steel unibody fan casing, finished with anti-UV, anti-rusting powder coating, compact design all in one unit.

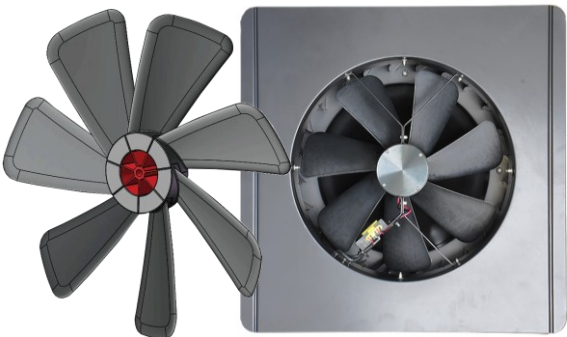


Patented Air Draft Design

Equipped with patent design — wind guide cone including 24pcs turbine wind guide blades for higher efficiency while preventing the rains or wind from flowing backward.

Upgrade Fan Blades

Upgraded 7 pcs composited fan blades made of nylon-fiberglass, assembled in aluminum shaft sleeve, anti-UV, durable with good stability, to provide excellent airflow and yet quiet.

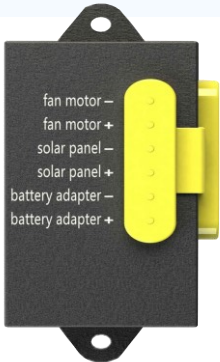


Top Grade BLDC Motor

Unique brushless DC motor in high quality, water resistance reaching IP68, no carbon brush, no mechanical commutation, no operational dissipation for higher efficiency and longer lifespan.

Smart Controller for 24hrs Running

Under smart control, SIPL solar roof fan can automatically switch to backup power supply to run nonstop in sunless periods effectively. And when the sun reappears, solar panel for direct-powering will be as the master again and backup power will exit automatically, to reserve storage battery or save electricity.

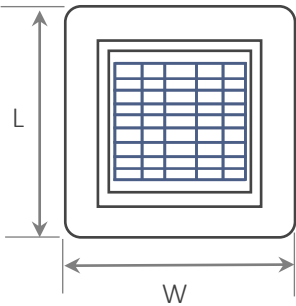


Fan Motor Parameter

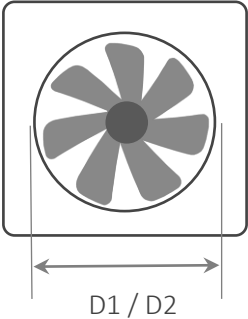
| #86mm Brushless DC Motor | |
|--------------------------|--|
| Voltage | 8~24V |
| Power | ≤ 60W |
| Size | diameter 86mm |
| Motor Speed | 140~1300 RPM |
| IP Rate | IP68 (waterproof) |
| Sound | Quiet (< 45dB) |
| Designed Lifetime | > 10 years |
| Material | Pure copper, Aluminum alloy motor shell, high quality ball bearing |



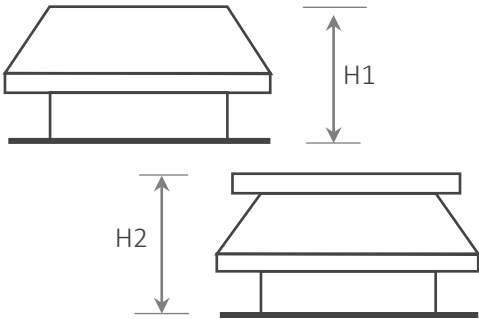
Dimension



Top View



Bottom View



Front View

Dimension Table

| Item | Host Size (MM) | | | Air Duct (MM) | | Gross Weight (KG) | |
|------------------------|----------------|-------|---------|--------------------|----------|-------------------|----------|
| | Length | Width | Height | 12'' Fan | 14'' Fan | 12'' Fan | 14'' Fan |
| Solar panel fixed | 530 | 530 | H1: 225 | D1: 315 D2: 368 | | 13 | 13.5~14 |
| Solar panel adjustable | 600 | 600 | H2: 255 | | | 16~17 | 17~19 |

Model Series

Budget Series

- 25W 12"
- 25W 14"

Solar Ventilator with embedded solar panel



High-performance Series

- 40W 14"
- 50W 14"
- 60W 14"

Solar Ventilator with adjustable solar panel



Detached Series

- 40W 14"
- 50W 14"
- 60W 14"

Solar Ventilator with separated solar panel



* Occasionally, sunlight in where the ventilator be mounted may be blocked by chimney shadows or other surrounding objects, to have optimal function of solar vents, a detachable solar panel is better to mount more flexibly to avoid being blocked from sunlight!

Model Selections

| Models# Square / Round cover | Fan Blades (air duct size) | Solar Panel | Solar Panel Size | Motor Speed | Air Flow |
|---|--------------------------------|-------------|------------------------------|----------------|---------------------|
| Solar Roof Ventilator with Fixed Solar Panel | | | | | |
| SN2013004/ SN2013009 | 12'' (dia. 315mm) | 25W/21.6V | 354X354X4.5mm / fixed | 1122RPM | 1340CMH /788CFM |
| SN2013005/ SN2013010 | 14'' (dia. 368mm) | 25W/21.6V | 354x354x4.5mm / fixed | 935RPM | 1626CMH /956CFM |
| Solar Roof Ventilator with Adjustable Solar Panel | | | | | |
| SN2014006/ SN2014008 | 14'' (dia. 368mm) | 40W/24V | 415x495x25mm / adjustable | 1172RPM | 2052CMH /1207CFM |
| SN2016029/ SN2016010 | 14'' (dia. 368mm) | 50W/24V | 495x495x25mm / adjustable | 1218RPM | 2207CMH /1298CFM |
| SN2018027/ SN2018026 | 14'' (dia. 368mm) | 60W/24V | 495X575X25mm / adjustable | 1264RPM | 2284CMH /1344CFM |
| Solar Roof Ventilator with Separated Solar Panel | | | | | |
| SN2014002-60/ SN2014004-60 | 14'' (dia. 368mm) | 60W/24V | 495X575X25mm / adjustable | 1264RPM | 2284CMH /1344CFM |

Color Selection:

Black, White, Green, Orange



The number of solar roof ventilator need to install varies based on the attic / roof size, existing venting (soffit, ridge, gable), reasons for ventilating, and local sunshine condition. As a general recommendation, 1 unit is suitable per 70m² ~ 100m² of roof space. And for the best ventilating results, please contact SIPL team and we can help you with a solution per your needs.

Application

SIPL solar roof fans can be widely applied in Residential House, Industrial Factory, Workshop, Garage, Basement, Commercial Building, Warehouse, Greenhouse, Modern Dome Tent House, Livestock Feeding Shed, Prefab House ...

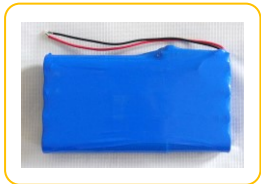




Solar Charged Battery

The battery collects & stores energy at day time to support the solar fan work continuously after sunset.

Battery: lithium iron phosphate battery,
Inbuilt & charged by solar panel
Operating temperature: -20~60° °C
Capacity: 9.6Ah
Cycle life: 2000 times



| | |
|-------------------|--|
| Model | SN2015024 |
| Solar Panel | 50W 21V monocrystalline solar module |
| | 495x500x67mm |
| Battery Capacity | 16V * 9.6Ah; full charged in 4.8h under strong sun |
| Battery Discharge | fully charged battery can support fan run for 21~22h in sunless time |
| Connection | with 3m cable to connect the solar battery system with fan |



AC/DC Adapter

When connected with an AC/DC power adapter, the solar fan can plug to the grid to keep running nonstop by mains supply for sunless periods.

AC Input: 100-240V
DC Output: 18V /20.5V 1.5A
Standard: UL, CE, UK, AU...

Fan Accessories



Wireless Remote Controller

A wireless remote switch to have solar fan run/ stop most flexibly at any time, includes On/Off & 2hrs/4hrs Time Off functions; the fan will resume running automatically after 12 hours from the remote setting time; One-to-many control is workable within 15m.



Snap-action Thermostat

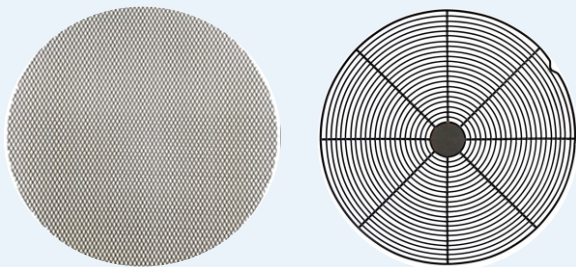
Attaching a thermostat to have the solar fan start / stop rotating mechanically at preset temperature.

[25°C thermostat] On: 25°C +/-3°C; Off: 18°C +/-3°C
[28°C thermostat] On: 28°C +/-3°C; Off: 21°C +/-3°C



Adjustable Thermostat with Bypass Switch

An adjustable thermostat (0°C~50°C / 50°F~122°F) and a bypass switch are combined to make solar fan run/ stop more flexibly at any time; the switch button can bypass thermostat to always have the fan ON; include 2m cable to connect with fan.



Protective Fan Guard

Attaching an aluminum meshed fan guard or circular metal fan guard to prevent fan blades getting damaged or animals going inside the house.



Aluminum Fan Base

Different from the standard galvanized steel fan base, the 600x600mm aluminum fan base is softer and flexible for better mounting on metal or tile roof with curve.

Warranty

| Product Part | Designed lifespan | Warranty |
|--------------------|-------------------|----------|
| Metal Casing | > 20 Years | 15 Years |
| Solar Panel | > 25 Years | 15 Years |
| Brushless DC Motor | > 10 Years | 5 Years |
| Lithium Battery | > 8 Years | 2 Years |
| AC/DC Adapter | > 8 Years | 2 Years |

**The hereby lifespan & warranty terms are based on the product be used in regular residential housings, but not in those too humid or extreme condition places with acid and alkali corrosive gas / liquids.*

Contact us

Thanks for your kind attention on our solar products.
Please feel free to contact us for any further inquiry.



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Enjoy the sunlight, and stay cool with SIPL solar fans!



We believe solar innovation will make a better place to live, for both us and future generations...