# Solar Powered Roof Ventilation Fan



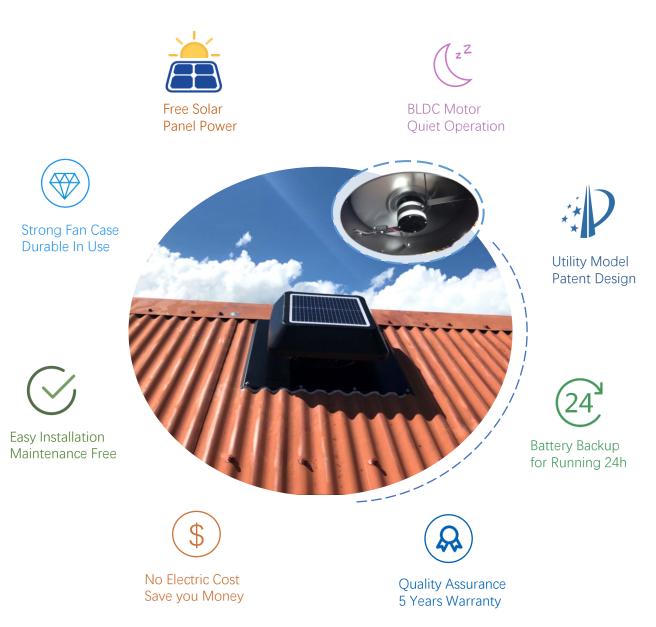


## Product Description

## Solar 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...

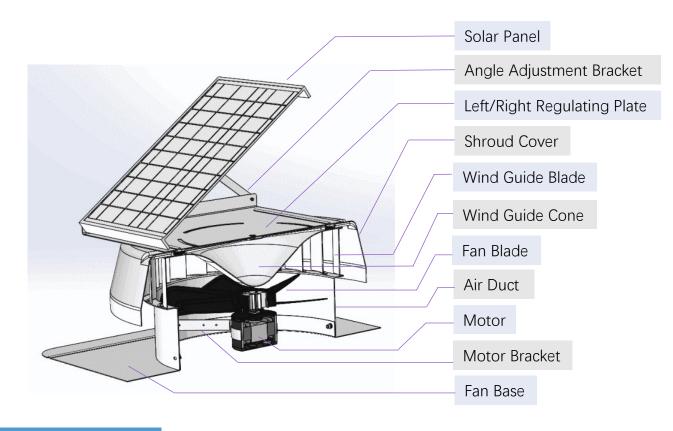




## Specifications

| 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<br>Roof Fan<br>Accessory<br>(P10~P11) | <ul> <li>Backup Power Options <ul> <li>AC/DC adapter</li> <li>Solar battery</li> </ul> </li> <li>Switch Options <ul> <li>Wireless remote controller/ App control</li> <li>Adjustable thermostat</li> <li>Snap-action thermostat</li> </ul> </li> <li>Fan Guard Options <ul> <li>Aluminum meshed fan guard</li> <li>Metal circle fan guard</li> </ul> </li> <li>More Fan Base Options <ul> <li>600x600mm aluminum base</li> <li>1000x1000mm flexible base</li> <li>600x600mm+260x900mm aluminum-lead base</li> </ul> </li> </ul> |
| Packing/loading                                | 1 set/ carton; 650x650x340mm, 0.148CBM;<br>216pcs/20'GP, 516pcs/40'HQ   |

## Structure Profile



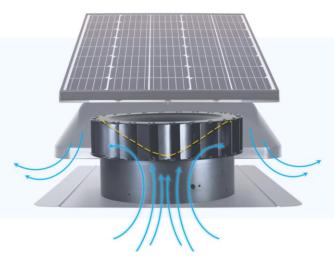
## Bill Of Material

| Item Part Name |                             | FAN   |  |  |
|----------------|-----------------------------|---|--|--|
| item           | Part Name                   | Part Description                            |  |  |
| 1              | Solar panel                 | 25~60W, 21.6~24V                            |  |  |
| 2              | Angle adjustment bracket    | Material: Galvanization steel, $\delta 2.0$ |  |  |
| 3              | Left/Right regulating plate | Material: Galvanization steel, $\delta 1.0$ |  |  |
| 4              | Shroud cover                | Material: Galvanization steel, $\delta 1.0$ |  |  |
| 5              | Wind guide cone             | Material: Galvanization steel, δ1.0         |  |  |
| 6              | Wind guide blade            | Material: Galvanization steel, $\delta 1.0$ |  |  |
| 7              | Air duct                    | Material: Galvanization steel, $\delta 1.0$ |  |  |
| 8              | Fan blade                   | Material: Nylon-fiberglass                  |  |  |
| 9              | Motor                       | IP68 Brushless DC Motor                     |  |  |
| 10             | Motor bracket               | Material: Galvanization steel, $\delta 2.0$ |  |  |
| 11             | Fan base                    | Material: Galvanization steel, $\delta 1.2$ |  |  |

### 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.



#### **Upgrade Fan Blades**

Optimized 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 running.





#### 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.



#### 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 to run nonstop in sunless periods effectively. And when the sun reappears, solar panel for directpowering will be as the master again and backup power will exit automatically, to reserve storage battery or save electricity.

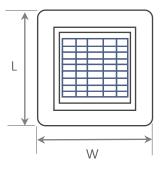


## Fan Motor Parameter

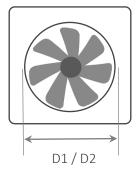
| Voltage              | 8~24V  |
|----------------------|--|
| Power                | ≤ 60W  |
| Size                 | diameter 86mm  |
| Motor Speed          | 140~1300 RPM   |
| IP Rate              | IP68 (waterproof)  |
| Sound                | Quiet (< 45dB)   |
| Designed<br>Lifetime | > 10 years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



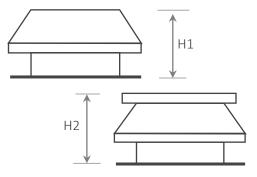
## Dimension



Top View



**Bottom View** 



Front View

#### **Dimension Table**

| ltem                      | Host Size (MM) |       | Air Duct (MM) |         | Gross Weight (KG) |          |          |
|---------------------------|----------------|-------|---------------|---------|-------------------|----------|----------|
|                           | Length         | Width | Height        | 12" Fan | 14" Fan           | 12'' Fan | 14'' Fan |
| Solar panel<br>fixed      | 530            | 530   | H1: 225       | D1: 315 | D2: 368           | 13       | 13.5~14  |
| Solar panel<br>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#<br>Square /<br>Round cover               | Fan Blades<br>( air duct size) | Solar Panel     | Solar Panel Size             | Motor<br>Speed | Air Flow            |
|--|--------------------------------|-----------------|------------------------------|----------------|---------------------|
| Solar Roof Ve                                    | ntilator with Fixe             | d Solar Panel   |                              |                |                     |
| SN2013004/<br>SN2013009                          | 12" (dia. 315mm)               | 25W/21.6V       | 354X354X4.5mm<br>/ fixed     | 1122RPM        | 1340CMH<br>/788CFM  |
| SN2013005/<br>SN2013010                          | 14" (dia. 368mm)               | 25W/21.6V       | 354x354x4.5mm<br>/ fixed     | 935RPM         | 1626CMH<br>/956CFM  |
| Solar Roof Ve                                    | ntilator with Adju             | ustable Solar I | Panel                        |                |                     |
| SN2014006/<br>SN2014008                          | 14" (dia. 368mm)               | 40W/24V         | 415x495x25mm<br>/ adjustable | 1172RPM        | 2052CMH<br>/1207CFM |
| SN2016029/<br>SN2016010                          | 14'' (dia. 368mm)              | 50W/24V         | 495x495x25mm<br>/ adjustable | 1218RPM        | 2207CMH<br>/1298CFM |
| SN2018027/<br>SN2018026                          | 14'' (dia. 368mm)              | 60W/24V         | 495X575X25mm<br>/ adjustable | 1264RPM        | 2284CMH<br>/1344CFM |
| Solar Roof Ventilator with Separated Solar Panel |                                |                 |                              |                |                     |
| SN2014002-60/<br>SN2014004-60                    | 14" (dia. 368mm)               | 60W/24V         | 495X575X25mm<br>/ adjustable | 1264RPM        | 2284CMH<br>/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  $70m^2 \sim 100m^2$  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, Garage, Basement, Industrial Factory, Warehouse, Commercial Building, Greenhouse, Modern Dome Tent House, Livestock Feeding Shed, Prefab House, Water Tank …













## Fan Accessories



#### 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                                 |
| SUIAI PAITEI      | 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

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...



#### Smart Remote Control

A smart remote controller to have solar fan run/ stop flexibly at any time. It allows you to adjust any settings for fan operation on temperature, humidity, speed and time. With display screen to check fan status, current temp and humidity around the fan. App remote control is also available.



#### Snap-Action Thermostat

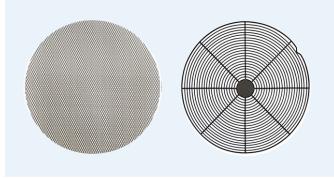
Attaching a thermostat to have the solar fan start / stop rotating mechanically at preset temperature.

[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 (  $0^{\circ}C \sim 50^{\circ}C / 50^{\circ}F \sim 122^{\circ}F$  ) 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, 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...