

# Solar Powered Roof Ventilation Fan



SUNNY INTERNATIONAL POWER LTD

## Product Description

# 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



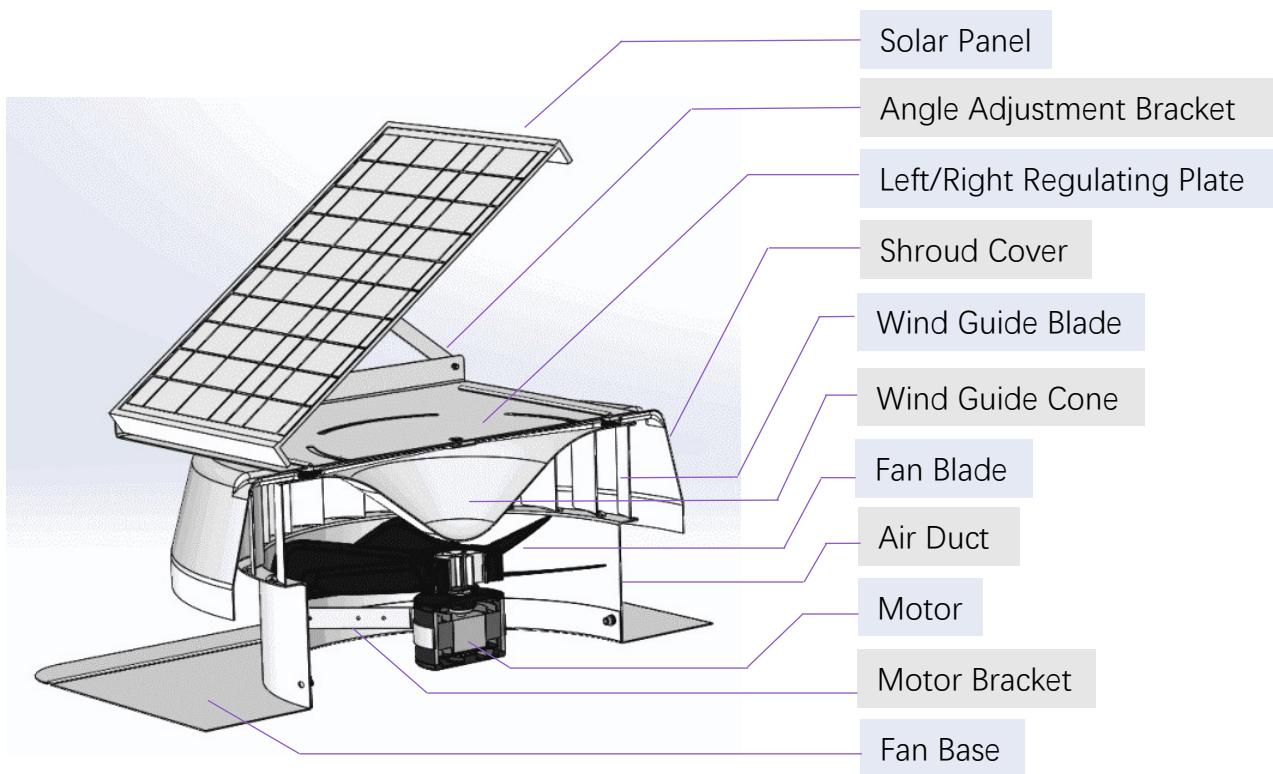
Quality Assurance  
5 Years Warranty



## 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"><li>• Backup Power Options<ul style="list-style-type: none"><li>&gt; AC/DC adapter</li><li>&gt; Solar battery</li></ul></li><li>• Switch Options<ul style="list-style-type: none"><li>&gt; Wireless remote controller</li><li>&gt; Adjustable thermostat</li><li>&gt; Snap-action thermostat</li></ul></li><li>• Fan Guard Options<ul style="list-style-type: none"><li>&gt; Aluminum meshed fan guard</li><li>&gt; Metal circle fan guard</li></ul></li><li>• More Fan Base Option<ul style="list-style-type: none"><li>&gt; 600x600mm flexible aluminum fan base</li></ul></li></ul>
Packing/loading	1 set/ carton; 650x650x340mm, 0.148CBM; 216pcs/20'GP, 516pcs/40'HQ

# Structure Profile



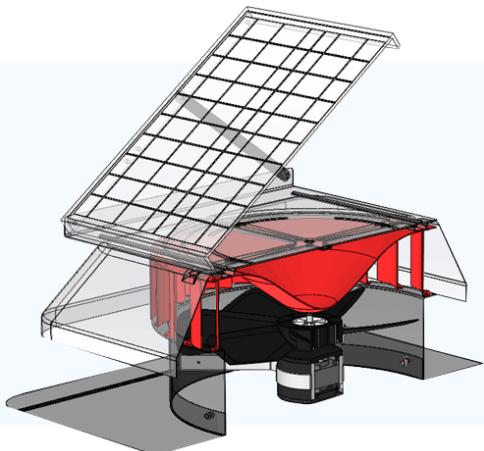
# Bill Of Material

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.



## 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.

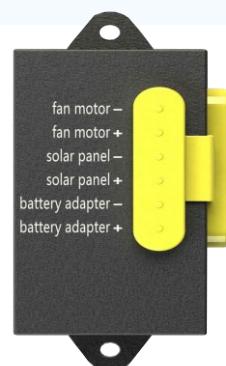


## Top Grade BLDC Motor

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.



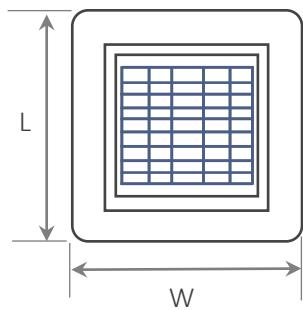
# Fan Motor Parameter

## #86mm Brushless DC Motor

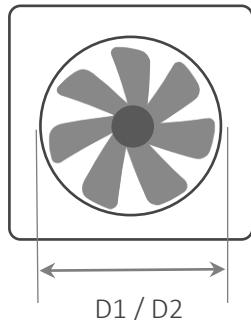
Voltage	8~24V
Power	≤ 60W
Size	diameter 86mm
Motor Speed	140~1300 RPM
IP Rate	IP68 (waterproof)
Sound	Quiet (< 45dB)
Designed Lifetime	> 10 years
Material	Pure copper, Aluminum alloy motor shell, high quality ball bearing



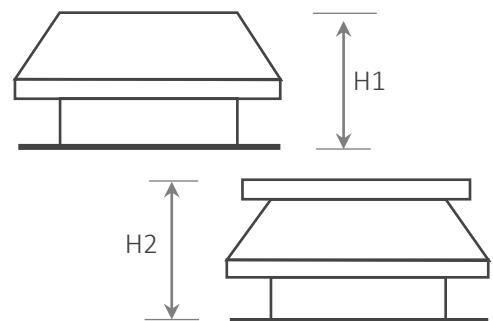
## Dimension



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
<b>Solar Roof Ventilator with Fixed Solar Panel</b>					
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
<b>Solar Roof Ventilator with Adjustable Solar Panel</b>					
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
<b>Solar Roof Ventilator with Separated Solar Panel</b>					
SN2014002-60/ SN2014004-60	14" (dia. 368mm)	60W/24V	495X575X25mm / adjustable	1264RPM	2284CMH /1344CFM

## Color Selection:

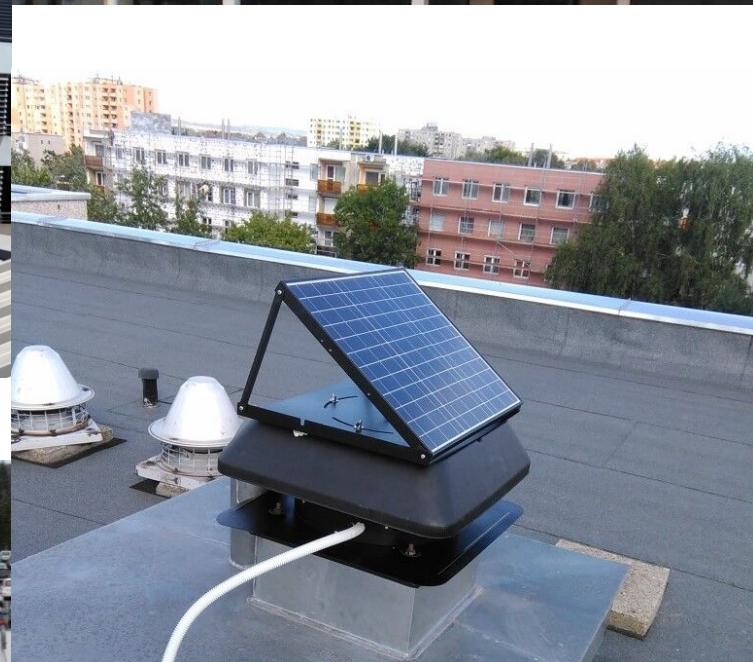
Black, White, Green, Orange



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 70m<sup>2</sup> ~ 100m<sup>2</sup> 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 ...



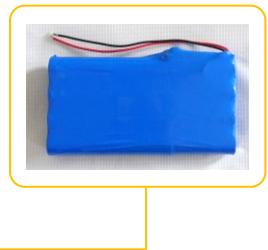
# Fan Accessories



## 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 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

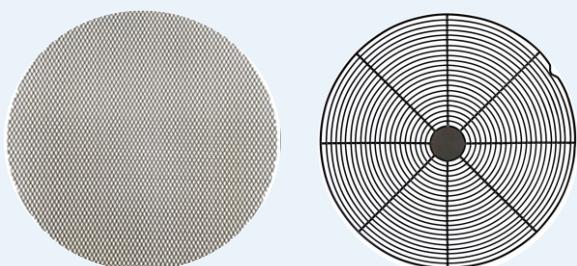
Attaching a thermostat to have the solar fan start / stop rotating mechanically at preset temperature.

[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…