

# Solar Powered Roof Ventilation Fan



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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 for 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 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



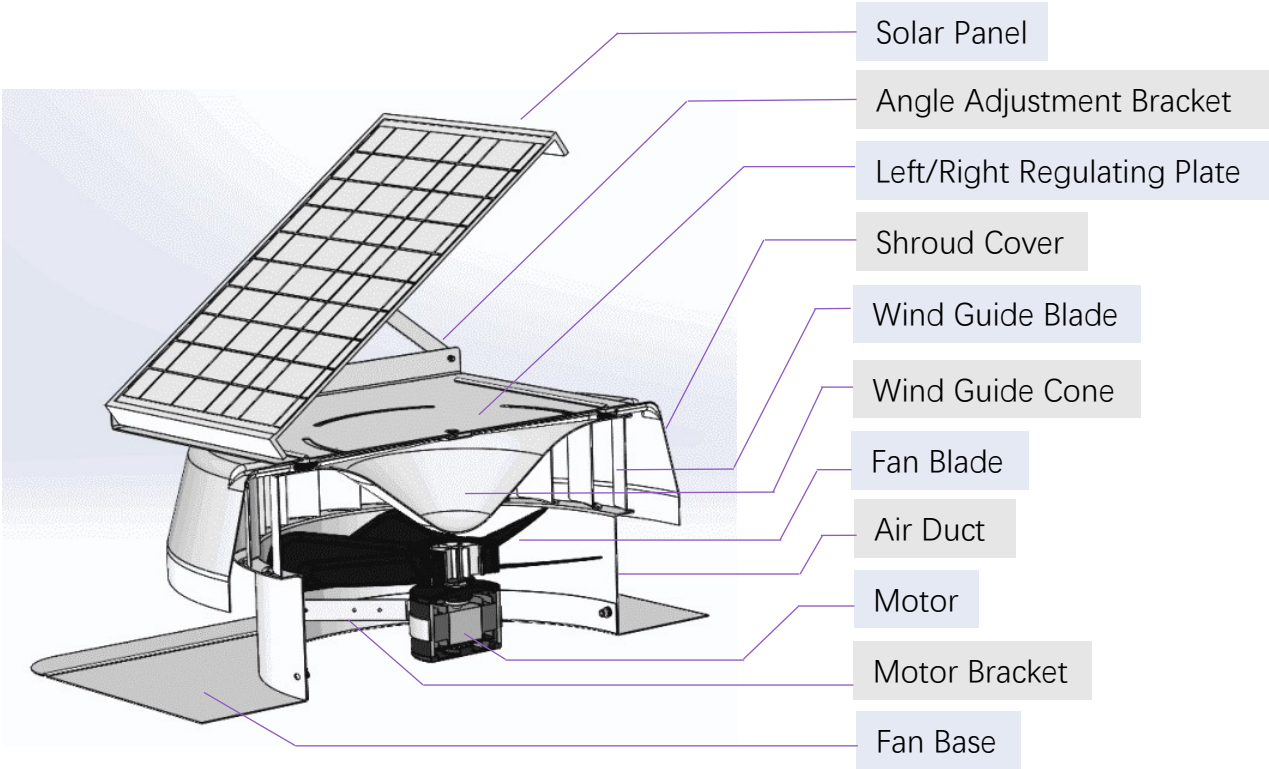
Quality Assurance  
5 Years Warranty



## Specifications

Power	18W~50W solar panel powered
Solar Panel	Polycrystalline 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, basing on solar panel lay flat
Fan Housing	Galvanized 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 power 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 with bypass switch</li><li>&gt; Snap-action thermostat</li><li>&gt; Manual switch with power cord</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; Enlarged 600x600mm 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	15~50W, 18~22.5V
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

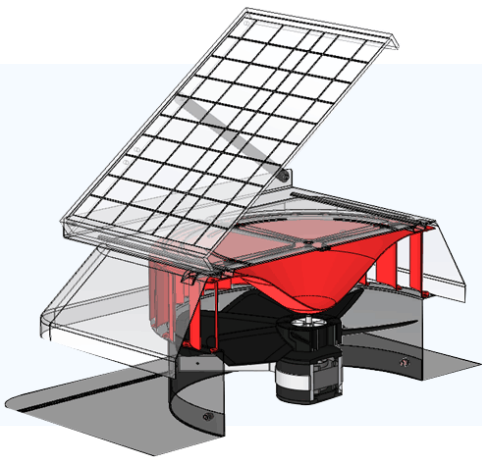
## Compact Design in Strong Case

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



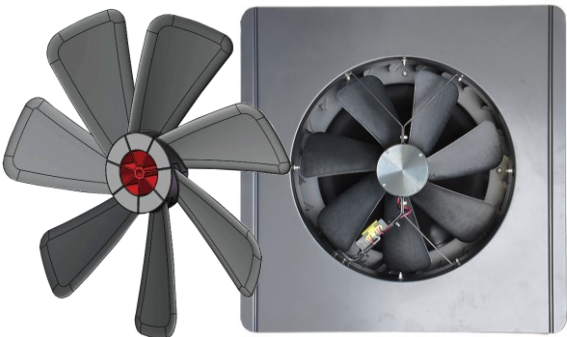
## Patented Air Draft Design

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



## Upgraded 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.

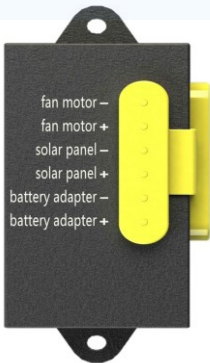


## Top Grade Motor

Unique brushless DC motor in high quality, water resistance reaching IP68, no carbon brush, no mechanical commutation, no operation dissipation to ensure better performance 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 arise, backup power will exit automatically as well to reserve storage battery or save electricity.



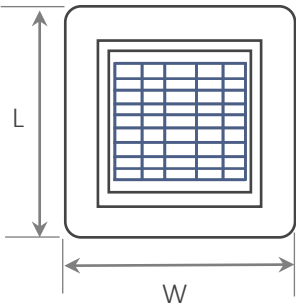
# Fan Motor Parameter

## #86mm brushless dc motor

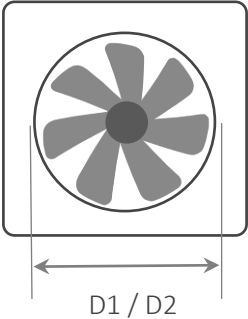
Voltage	8~24V
Power	≤ 50W
Size	diameter 86mm
Motor Speed	78~1123 RPM
IP Rate	IP68 ( waterproof )
Sound	Quiet ( < 45dB)
Designed Lifetime	10 years
Material	Pure copper, Aluminum alloy motor shell, high quality ball bearing



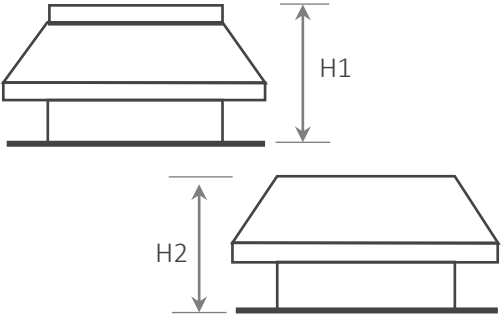
## Dimension



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 adjustable	L: 530	W: 530	H1: 255	D1: 315	D2: 368	15.5~16.5	15.7~18.5
Solar panel fixed			H2: 225			13.9~14	14.1~14.2

# Model Series

## Budget Series

- 18W 12"
- 18W 14"

Solar Ventilator with embedded solar panel



## Flexible Series

- 20W 12"
- 20W 14"

Solar Ventilator with adjustable solar panel



## High-performance Series

- 30W 14"
- 40W 14"
- 50W 14"

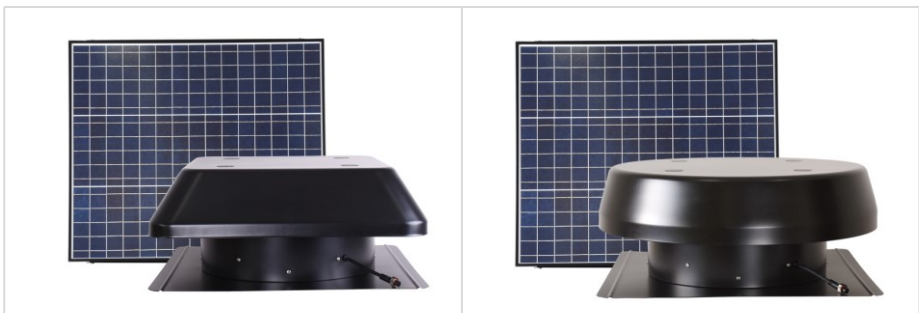
Solar Ventilator with adjustable solar panel



## Detached Series

- 30W 14"
- 40W 14"
- 50W 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 fan cover	Fan Blades ( air duct size)	Solar Panel	Solar Panel Size	Motor Speed
Solar Roof Ventilator with Fixed Solar Panel				
SN2013004/ SN2013009	12'' (dia. 315mm)	18W 18V	354X354X4.5mm / fixed	1046RPM
SN2013005/ SN2013010	14'' (dia. 368mm)	18W 18V	354x354x4.5mm / fixed	802RPM
Solar Roof Ventilator with Adjustable Solar Panel				
SN2013001 / SN2013006	12'' (dia. 315mm)	20W 18V	410x365x25mm / adjustable	1088RPM
SN2014006/ SN2014008	14'' (dia. 368mm)	30W 19.5V	415x495x25mm / adjustable	955RPM
SN2016029/ SN2016010	14'' (dia. 368mm)	40W 21V	495x495x25mm / adjustable	1041RPM
SN2018026/ SN2018027	14'' (dia. 368mm)	50W 22.5V	495X580X25mm / adjustable	1070RPM
Solar Roof Ventilator with Separated Solar Panel				
SN2014002-50/ SN2014004-50	14'' (dia. 368mm)	50W 22.5V	495X580X25mm / adjustable	1070RPM

## Color Selection:

Black, White, Green, Orange





# Application

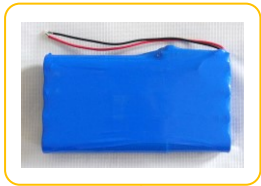




Solar Battery System

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



Please choose the suitable model according to local situation!

Models	SN2015005	SN2015024
Solar Panel	30W 16V	40W 16V
	415x500x25mm	495x500x25mm
Battery Capacity	9.6Ah; full charged in 5.2h under strong sun	9.6Ah; full charged in 3.9h under strong sun
Applicability	Local effective sunshine at least 4.5 hours	Local effective sunshine just around 3 hours
Battery Discharge	500 mA average fully charged battery can support fan run for 19.2h in sunless time	
Connection	with 3m cable to connect the solar battery system with fan	



AC/DC Power Adapter

When connected with an AC/DC 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 /21V 1.5A  
Standard: UL, CE...



# Fan Accessories



## 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 +/-5°C  
[28°C thermostat] On: 28°C +/-3°C; Off: 21°C +/-5°C



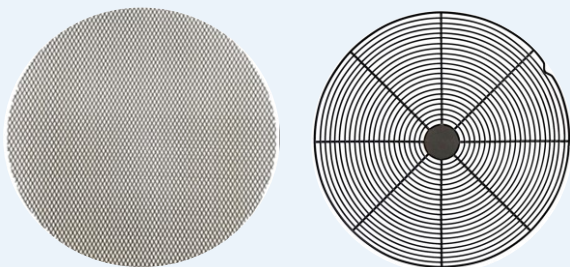
## Manual Switch with Power Cord

A manual switch with 2m cable is added to have the solar fan on / off as per your need.



## 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.



## Flexible Fan Base

Different from the 530x530mm standard galvanized steel fan base, the enlarged aluminum fan base in 600x600mm is more flexible, to better mount on metal or tile roof.

# 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 Power Adapter	5 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.*