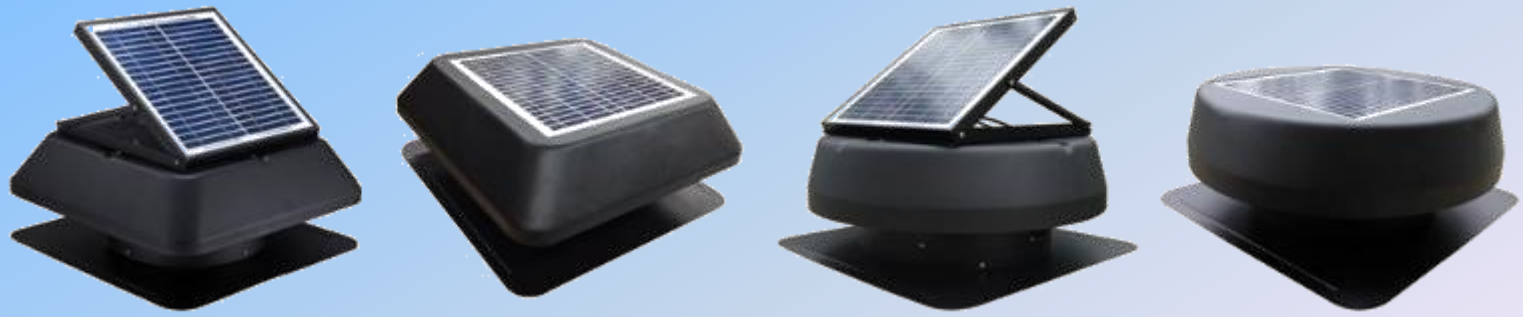
Solar Powered Roof Exhaust Fan

Enjoy the gracious solar energy to let your roof space breath freely at any time!

- Strengthen air circulation
- Extend roofing lifespan
- Remove heat, moisture & dust
- Deduct harmful mildews
- Prevent ice-dam
- Reduce the heat load on air-conditioning ducting to help you save money

Once Pay, Benefit Long. Installed Easy, Operating Clean & Free...



The fan starts rotating instantly when the sun shines!

Function Descriptions:

- **Improving air circulation**

Taking advantage of the free & clean solar energy, this roof exhaust fan will pump out the interior heat & moisture to balance your house temperature, so as to provide a refreshing ventilation and more environmental-friendly surrounding, and to **lower down your general power consumption cost**.

- **Extending roofing lifespan**

Being exposed long to the strong sun, your roofing underlayment may go weak and even lose efficiency under the very high temperature. This roof ventilator can help reduce such heat to prolong their lifespan and to help you save certain maintenance or replacement fee.

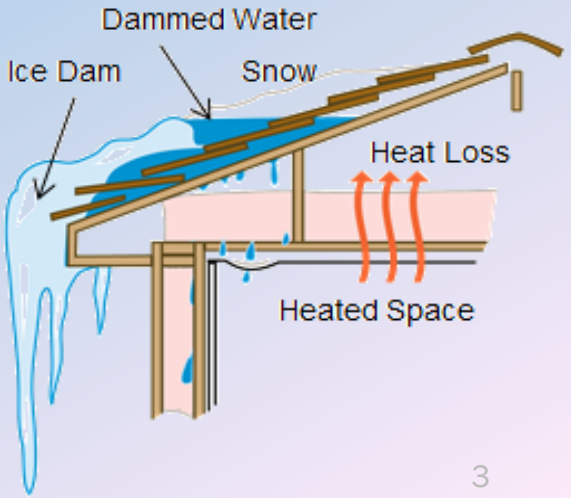
Function Descriptions:

Reducing moisture & harmful mildews

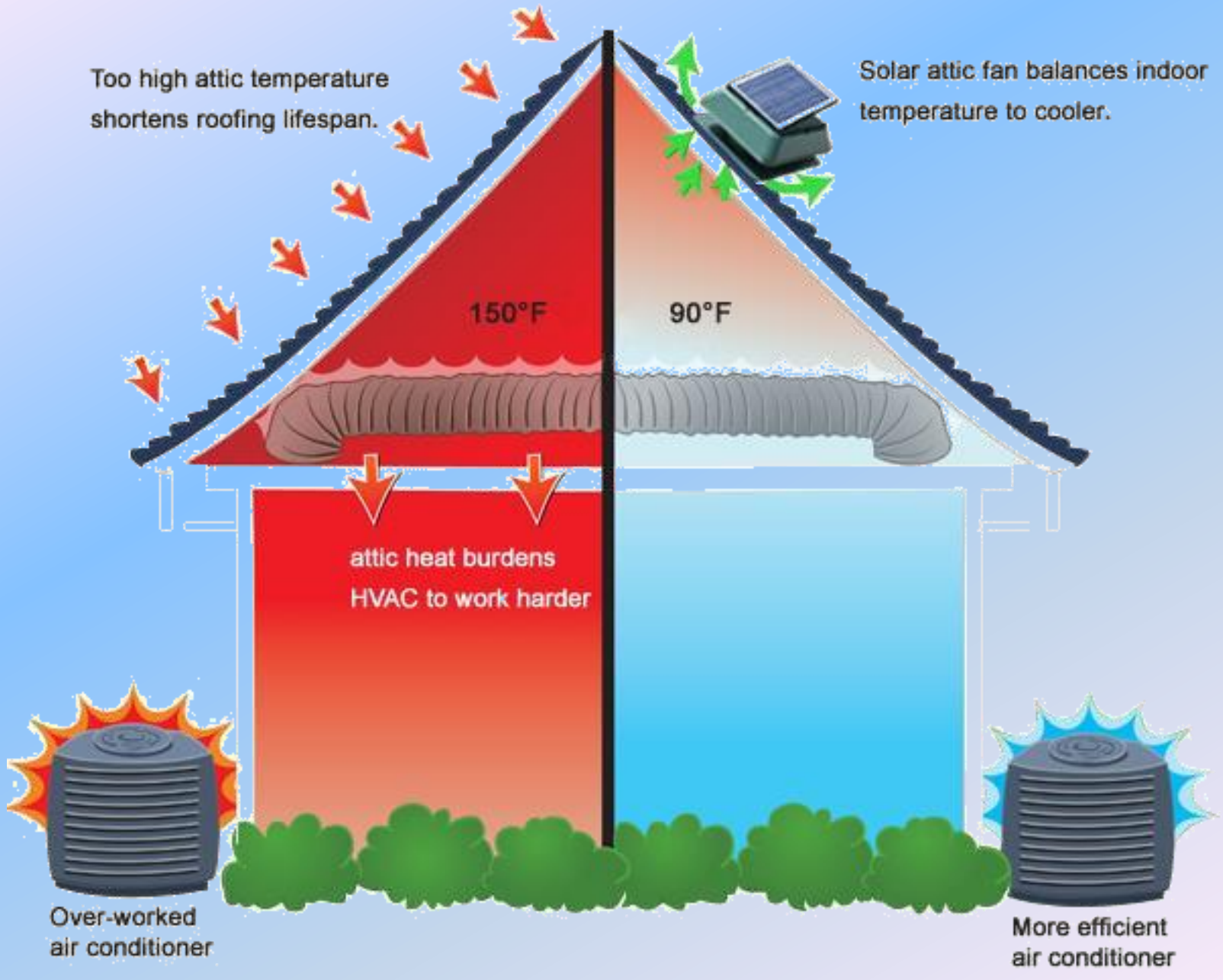
When collided with chilly attic-roof in winter, the interior warm & humid air will condense into water droplets, such saturated humidity might cause dangerous electrical short circuit or create mildews to harm your plasterboards. An adequate & more active indoor ventilation provided by this exhaust fan can help remove these moisture contents & harmful elements for you.

Preventing ice-dam

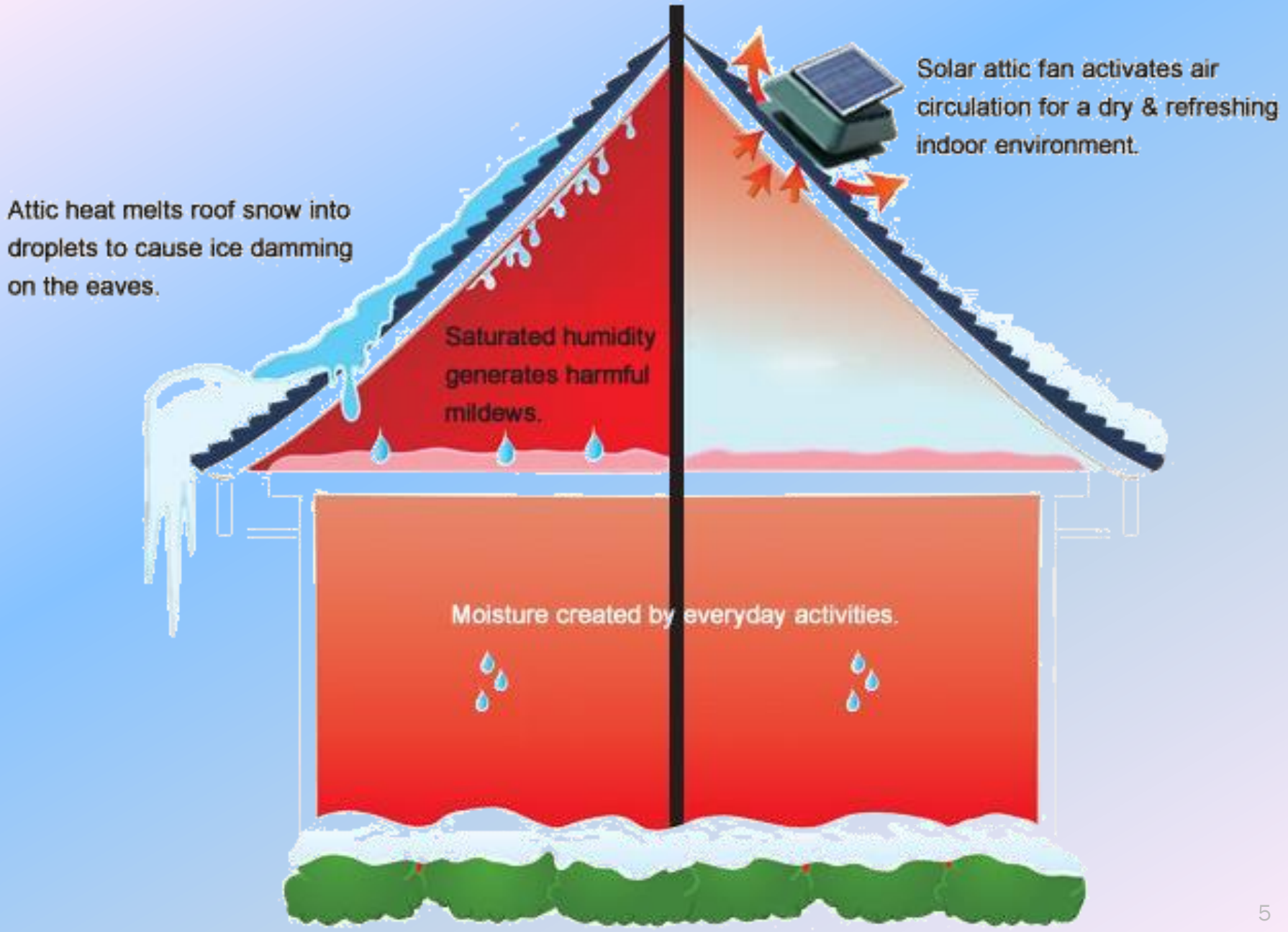
In snowy winter, interior warm air could melt those snows at roof to generate droplets falling down to the eaves. These droplets will then refreeze into ice damming on your roof and arousing dangers, this solar ventilator can help preventing such unsafe factors through keeping the indoor environment dry.



In Summer Seasons:



In Winter Seasons:



Application Areas:

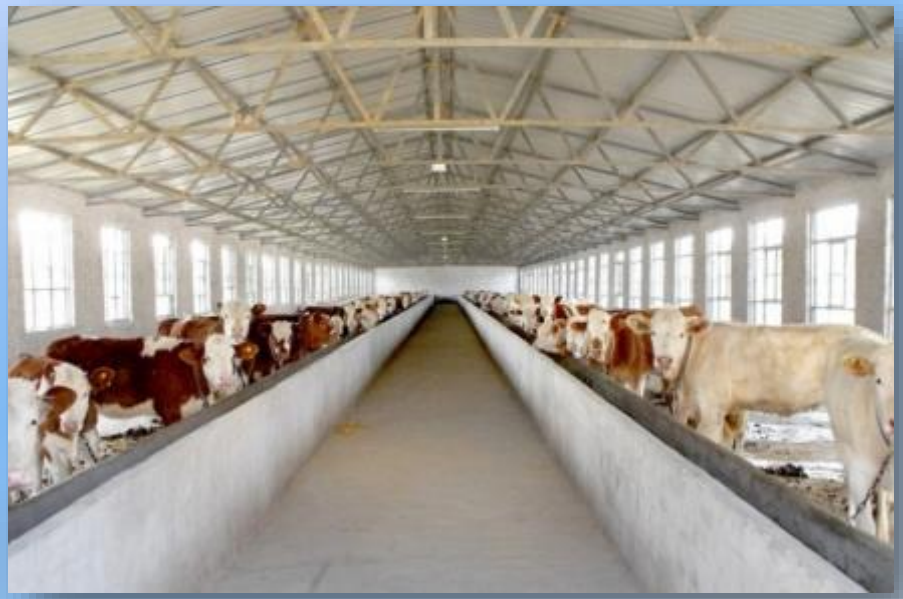
Residential House

Industrial Workshop

Agricultural Green House

Application Areas:

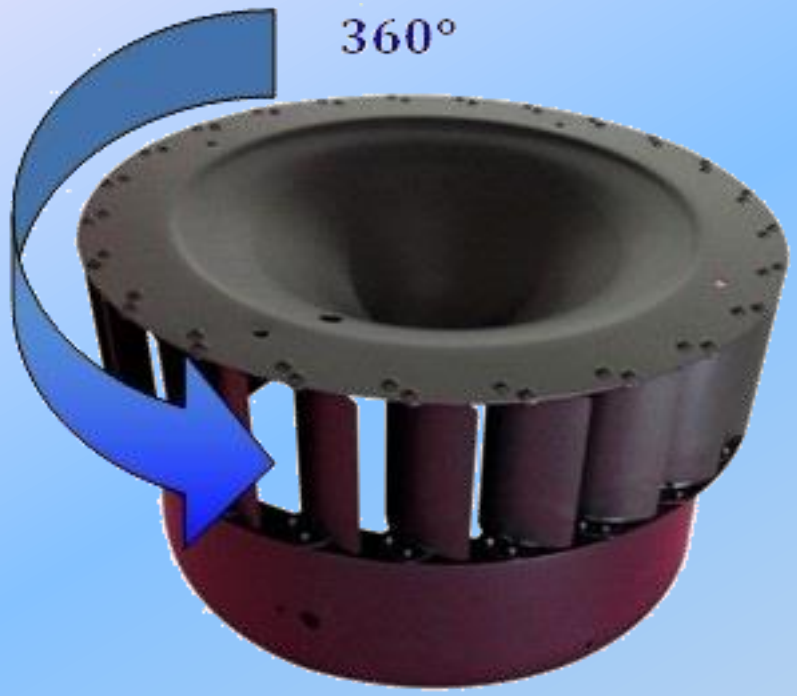
Garage / Basement



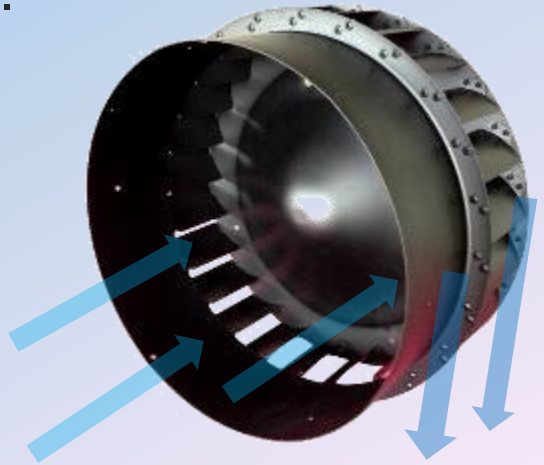
Livestock Feeding Shed

Animal Breeding House

Patented Air Draft Design, for a Higher Efficiency!



- Our patent-designed wind guide cone with 24pcs turbine wind guide blades structure is adopted in this ventilator. Following a 360-degree swirl ventilation mode and being free from outside airstream interferes, it can work efficiently in sunny days to exhaust out the indoor heat & smell and not let any exterior air going in, so as to keep the living & working environment always clean & fresh.



- In raining windy days, this air draft design can also efficiently prevent the rains or winds from flowing backward.

Product Selections:

Adjustable solar panel (SQUARE shroud cover)

You can rotate the regulating plate and adjust the fan's supporting brackets to setup the direction & angle of solar panel!

4 colors:

Models	SN2013001	SN2013002	SN2013003
Solar Panel	12 watt	15 watt	20 watt
	365x365x25mm	365x365x25mm	365x410x25mm
Fan Blade	12 inch	14 inch	14 inch
Air Flow	884 CMH (520 CFM)	1020 CMH (600 CFM)	1190 CMH (700 CFM)
Motor Speed	1650 RPM	1450 RPM	1550 RPM
Host Size	530x530x250mm	530x530x250mm	530x530x250mm

* The above host size is basing on solar panel lays flat.
* Solar Panel can be enlarged into 25 watt & 30 watt for stronger air flow!

Product Selections:

Adjustable solar panel (ROUND shroud cover)

Models	SN2013006	SN2013007	SN2013008
Solar Panel	12 watt	15 watt	20 watt
	365x365x25mm	365x365x25mm	365x410x25mm
Fan Blade	12 inch	14 inch	14 inch
Air Flow	884 CMH (520 CFM)	1020 CMH (600 CFM)	1190 CMH (700 CFM)
Motor Speed	1650 RPM	1450 RPM	1550 RPM
Host Size	530x530x250mm	530x530x250mm	530x530x250mm

* The above host size is basing on solar panel lays flat.
* Solar Panel can be enlarged into 25 watt & 30 watt for stronger air flow!

4 optional colors:

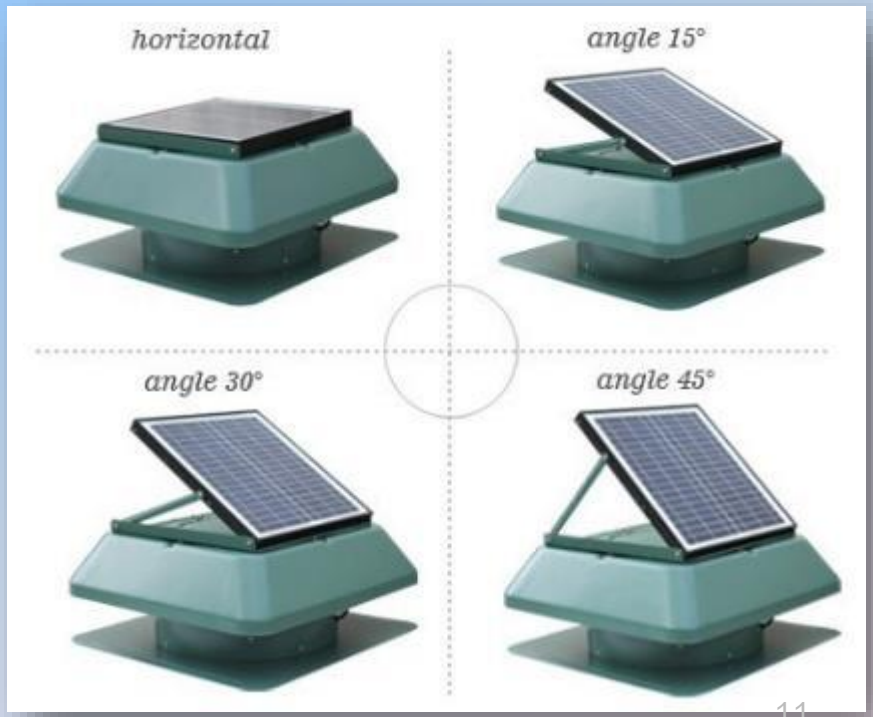
What is adjustable solar panel?

- **Horizontally 180° Regulation**

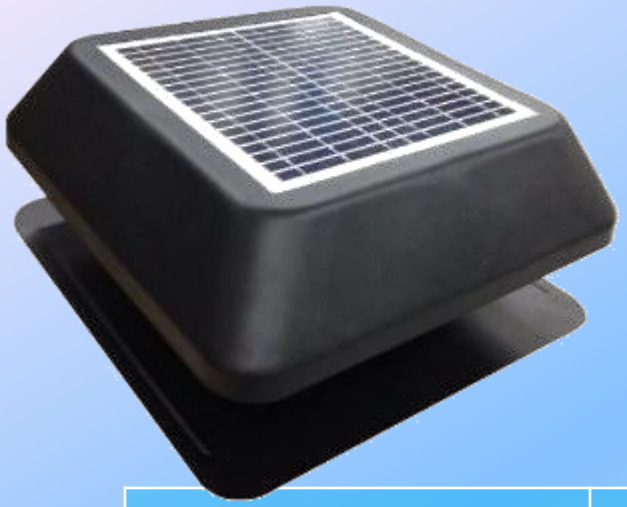
  This roof exhaust fan carries a horizontal adjustment platform design for the solar panel to rotate left or right and face towards the sun, this rotation can be as big as to 180°.

- **Vertically 4° Positioning**

  To capture most direct sunlight for the device to work most efficiently, its solar panel can be adjusted vertically at 4 angles, that is 0°, 15°, 30° & 45°.



Product Selections:



Fixed solar panel (SQUARE shroud cover)

You can spend less money to have the same quality of product!

4 colors:

Models	SN2013004	SN2013005
Solar Panel	12 watt	15 watt
	354x354x4.5mm	354x354x4.5mm
Fan Blade	12 inch	14 inch
Air Flow	884 CMH (520 CFM)	1020 CMH (600 CFM)
Motor Speed	1650 RPM	1450 RPM
Host Size	530x530x220mm	530x530x220mm

* Solar Panel can be enlarged maximum into 18 watt for stronger air flow!

Product Selections:

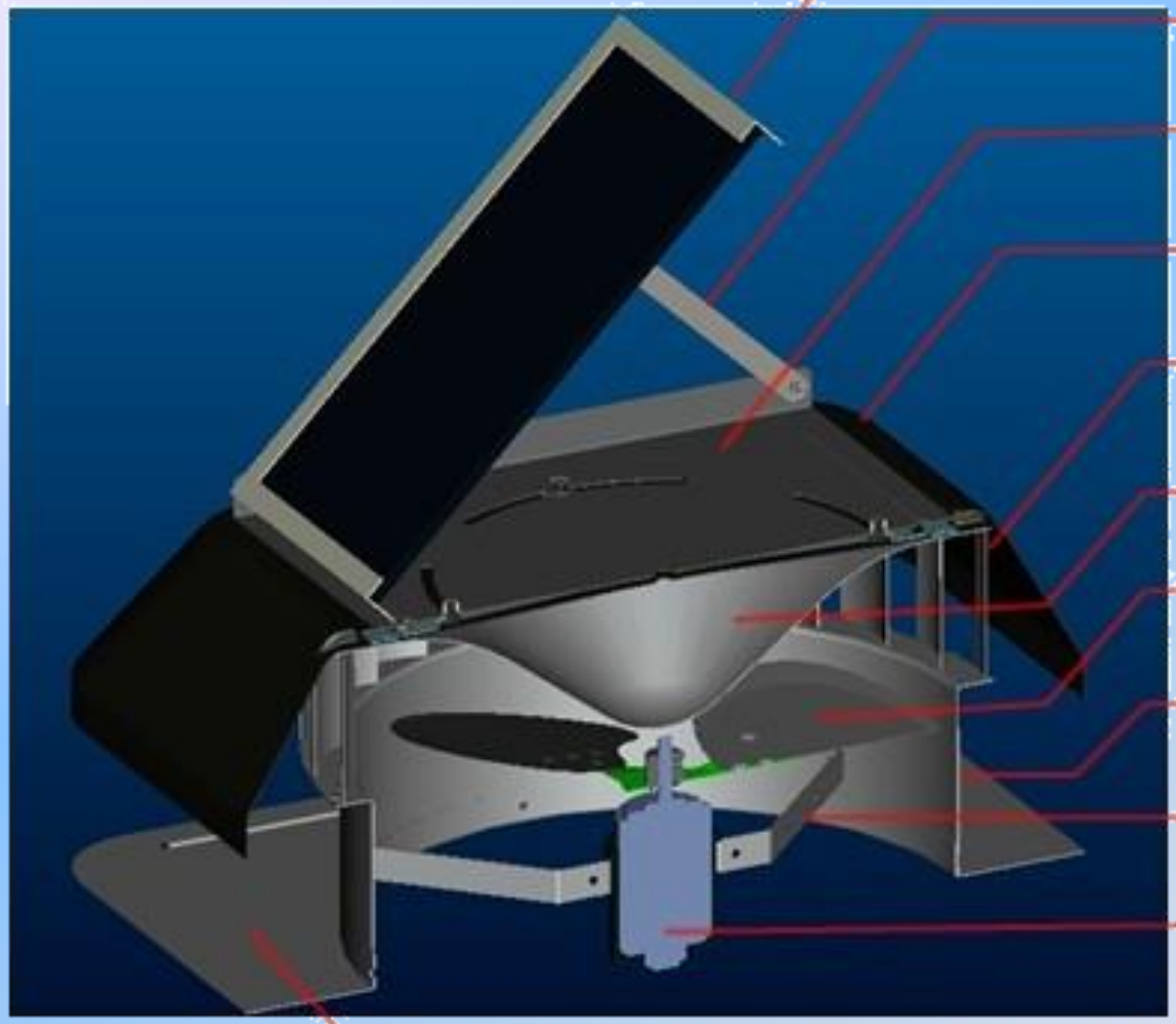
Fixed solar panel (ROUND shroud cover)

Models	SN2013009	SN2013010
Solar Panel	12 watt	15 watt
	354x354x4.5mm	354x354x4.5mm
Fan Blade	12 inch	14 inch
Air Flow	884 CMH (520 CFM)	1020 CMH (600 CFM)
Motor Speed	1650 RPM	1450 RPM
Host Size	530x530x220mm	530x530x220mm

* Solar Panel can be enlarged maximum into 18 watt.

4 optional colors:

Part Descriptions:



- Solar Panel
- Angle Adjustment Bracket
- Left/Right Regulating Plate
- Shroud Cover
- Wind Guide Blade
- Wind Guide Cone
- Fan Blade
- Air Duct
- Motor Bracket
- Motor
- Bottom Board

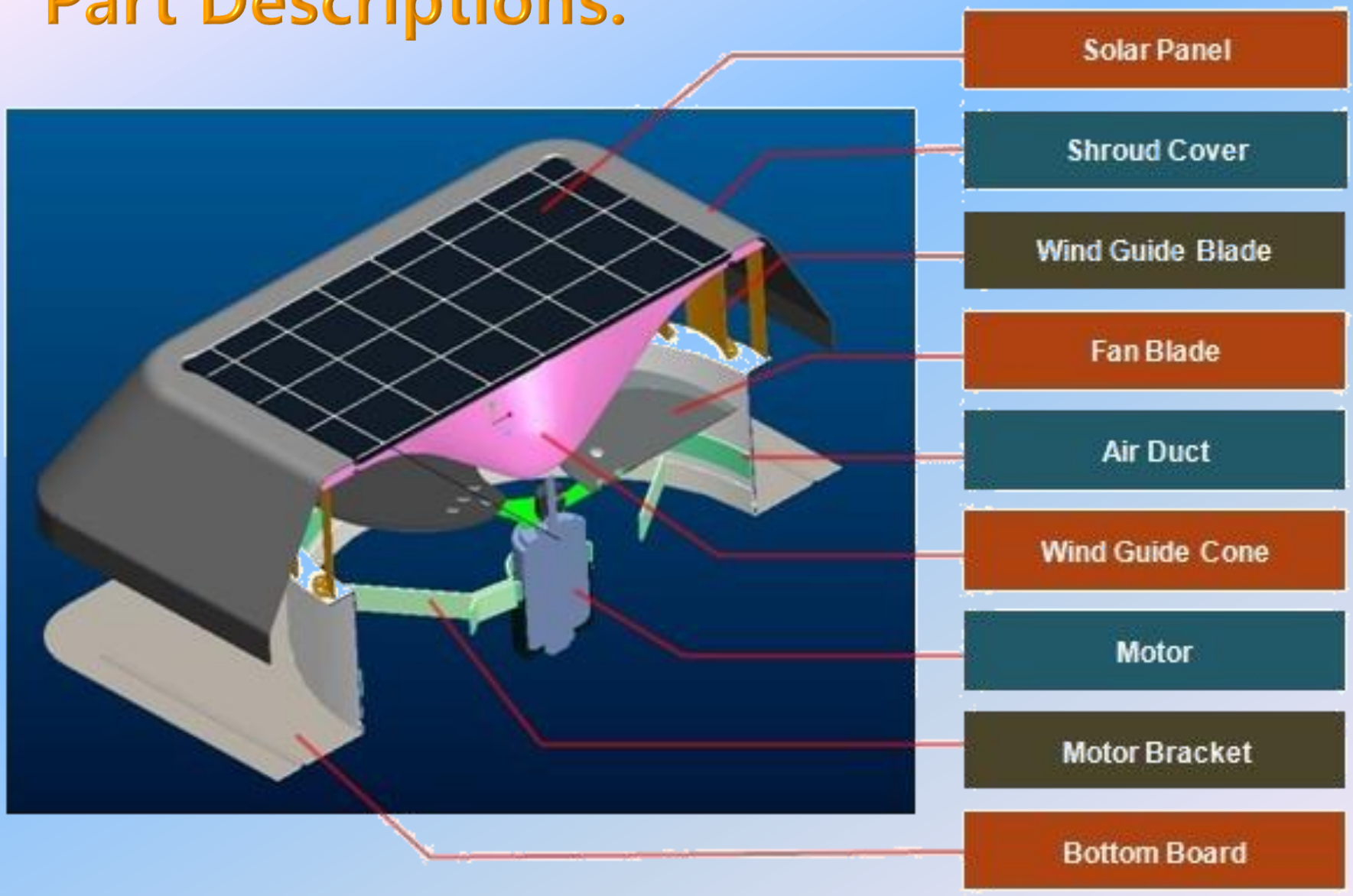
(for the solar panel adjustable models)

Bill Of Material (for the solar panel adjustable models)

Item	Part Name	12” FAN	14” FAN
		Part Description	Part Description
1	Solar panel	12W，17.4V，0.689A	15W，17.4V，0.862A 20W, 17.4V, 1.149A
2	Angle adjustment bracket	Material: Galvanization steel，δ2.0	Material: Galvanization steel，δ2.0
3	Left/Right regulating plate	Material: Galvanization steel ， δ1.0	Material: Galvanization steel ， δ1.0
4	Shroud cover	Material: Galvanization steel ， δ1.0	Material: Galvanization steel ， δ1.0
5	Wind guide cone	Material: Galvanization steel ， δ1.0	Material: Galvanization steel ， δ1.0
6	Wind guide blade	Material: Galvanization steel ， δ1.0	Material: Galvanization steel ， δ1.0
7	Air duct	Material: Galvanization steel ， δ1.0	Material: Galvanization steel ， δ1.0
8	Fan blade	Material: Aluminum	Material: Aluminum
9	Motor	Brush / Brushless DC Motor	Brush / Brushless DC Motor
10	Motor bracket	Material: Galvanization steel ， δ2.0	Material: Galvanization steel ， δ2.0
11	Bottom board	Material: Galvanization steel ， δ1.2	Material: Galvanization steel ， δ1.2

** Fan motor is optional for brush dc or brushless dc type!*

Part Descriptions:



(for the solar panel fixed models)

Bill Of Material (for the solar panel fixed models)

Item	Part Name	12” FAN	14” FAN
		Part Description	Part Description
1	Solar panel	12W，17.4V，0.689A	15W，17.4V，0.862A
2	Shroud cover	Material: Galvanization steel， δ1.0	Material: Galvanization steel， δ1.0
3	Wind guide cone	Material: Galvanization steel， δ1.0	Material: Galvanization steel， δ1.0
4	Wind guide blade	Material: Galvanization steel， δ1.0	Material: Galvanization steel， δ1.0
5	Air duct	Material: Galvanization steel， δ1.0	Material: Galvanization steel， δ1.0
6	Fan blade	Material: Aluminum	Material: Aluminum
7	Motor	Brush / Brushless DC Motor	Brush / Brushless DC Motor
8	Motor bracket	Material: Galvanization steel， δ2.0	Material: Galvanization steel， δ2.0
9	Bottom board	Material: Galvanization steel， δ1.2	Material: Galvanization steel， δ1.2

** Fan motor is optional for brush dc or brushless dc type!*

Customization Service

We offer tailor-make service, you can:

- Request larger power solar panel for **stronger venting flow**
- Order **your own color** for the product metal case
- Add a **solar battery system** to have the fan go on working still under solar DC energy after sunset
- Attach **thermostat** to have the fan work/stop at preset temperature
- Put a **fan guard** to prevent the fan blades being damaged by flying objects
- Use **cable cord switch** to have the fan start rotating or stay static flexibly
- Connect **dual power AC/DC adapter kit** to have the fan continue working under AC backups in sunless night / day periods
- … …

Customization Service

– larger power solar panel for stronger venting flow

Detachable solar panel (ventilator in SQUARE shroud cover)

Solar panel power can be enlarged into 30 watt to have stronger air flow of product...
Since the solar panel is detachable, it can be mounted more flexibly to avoid being blocked from sunlight!

Models	SN2014001	SN2014002
Solar Panel	30 watt	30 watt
	415x495x25mm	415x495x25mm
Fan Blade	12 inch	14 inch
Air Flow	1411CMH (830 CFM)	1462 CMH (860 CFM)
Ventilator Size	530x530x220mm	530x530x220mm
Connection	with 3m cable to connect ventilator & solar panel	

Customization Service

– larger power solar panel for stronger venting flow

Detachable solar panel (ventilator in ROUND shroud cover)

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 design can be better, as its solar module can be mounted more flexibly to avoid being blocked from sunlight!

Models	SN2014003	SN2014004
Solar Panel	30 watt	30 watt
	415x495x25mm	415x495x25mm
Fan Blade	12 inch	14 inch
Air Flow	1411CMH (830 CFM)	1462 CMH (860 CFM)
Ventilator Size	530x530x220mm	530x530x220mm
Connection	with 3m cable to connect ventilator & solar panel	

Customization Service

– larger power solar panel for stronger venting flow

Attached Flexible solar panel (ventilator in SQUARE shroud cover)

Solar panel power is enlarged from 12W/15W/20W into 25 watt or 30 watt to have stronger air flow of product...
Since all-in-one unit means only one time installation, it can save some installation charges while still give strong air flow!

Models	SN2014005	SN2014006
Solar Panel	25 watt	30 watt
	415x495x25mm	415x495x25mm
Fan Blade	14 inch	14 inch
Air Flow	1343 CMH (790 CFM)	1462 CMH (860 CFM)
Ventilator Size	530x530x250mm	530x530x250mm

Customization Service

– larger power solar panel for stronger venting flow

Attached Flexible solar panel (ventilator in ROUND shroud cover)

Like the above solar fan models, no matter what wattage being its solar module, we provide both Square shape shroud cover & Round shape shroud cover options for your selection, and the bigger size PV module attached on this fan design is just also very nice!

Models	SN2014007	SN2014008
Solar Panel	25 watt	30 watt
	415x495x25mm	415x495x25mm
Fan Blade	14 inch	14 inch
Air Flow	1343 CMH (790 CFM)	1462 CMH (860 CFM)
Ventilator Size	530x530x250mm	530x530x250mm

Customization Service

– solar ventilator goes on working after sunset under battery system DC backups

A separated 20 watt, 30 watt or 40 watt solar panel system whose back side is embedded with a compact lithium storage battery kit will connect to the fan host. The battery in there collects & stores energy at day time to support the fan work continuously after sunset.

The capacity of battery is 9.6Ah, it can back up the fan to run nonstop both day & night.

The fan unit and the solar battery system are packed independently in different boxes. To realize this go-on-working function during cloudy periods or at night times in your side, you're required to plug up their connectors during installation.

Solar Battery System Selections:

Please choose the suitable model according to local situation!

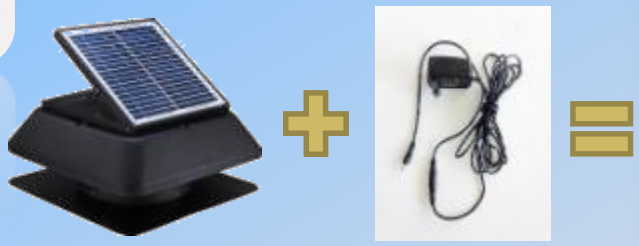
Models	SN2013011	SN2015005	SN2015024
Solar Panel	20W 16V	30W 16V	40W 16V
	365x410x25mm	415x495x25mm	550x495x25mm
Battery Capacity	9.6 Ah	9.6 Ah	9.6 Ah
	can be charged full after 7.68 strong sun hours	can be charged full after 5.12 strong sun hours	can be charged full after 3.84 strong sun hours
Applicability	Local effective sunshine more than 6 hours	Local effective sunshine at least 4.5 hours	Local effective sunshine just around 3 hours
Battery Discharge	500 mA average	500 mA average	500 mA average
	fully charged battery can support fan to run 19.2 sunless hours	fully charged battery can support fan to run 19.2 sunless hours	fully charged battery can support fan to run 19.2 sunless hours
Connection	with 3m cable to connect this solar battery system with fan		

Customization Service

– solar ventilator goes on working after sunset under city grid AC power backups

The function of this AC/DC power adapter kit is same as that 20 (or 30 or 40) watt solar battery system, saying to backup the solar fan continuing its ventilation performance after sunset & in other sunless day periods.

The difference between such 2 solutions mainly lies in their power consumption way:
purely natural solar DC / dual power solar panel DC & city-grid AC…

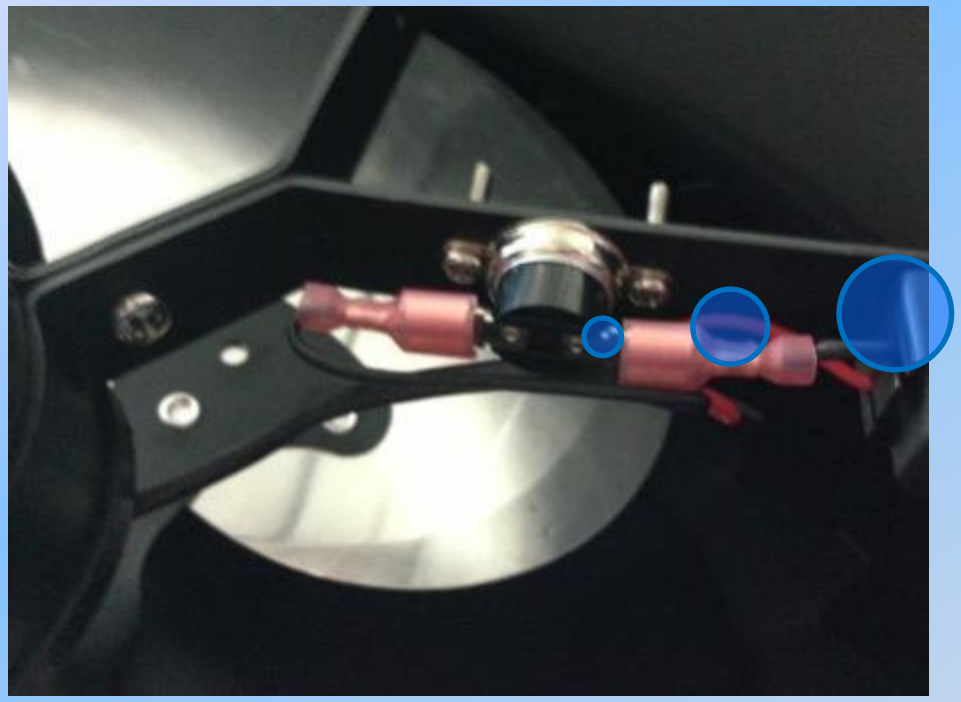


Of course, your expenditures on them will be different:

* Solar fan + Solar battery system:
  one time bigger payment, forever free operation cost;
* Solar fan + Dual power AC/DC adapter kit:
  smaller product purchasing cost, continuously regular small amount electricity bills.

Customization Service

– snap action thermostat to have the fan work/stop at preset temperature



Thermostat!

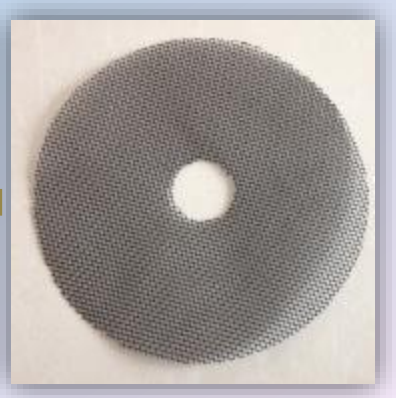
We can attach a thermostat and pre set its operation temperature per your request for the fan motor to start / stop rotating at that desired temperature.

Normally customers will choose our 25ºC / 28ºC thermostat.

Its performance characteristic is:
On: 25ºC +/- 3ºC; Off: 18ºC +/- 5ºC. or On: 28ºC +/- 3ºC; Off: 21ºC +/- 5ºC.

Customization Service

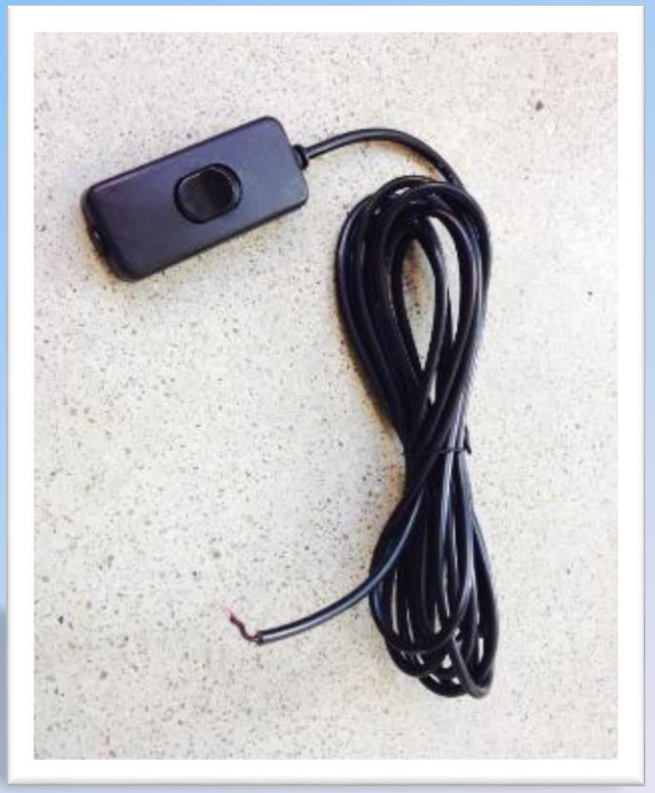
– metal fan guard to prevent fan blades getting damaged / animals going inside the house



Fan guard is fixed directly onto motor mounting brackets, inside the ventilator's air ducting.

Customization Service

– cable cord switch to control on/off of the solar fan



Optionally to do CE / UL standards

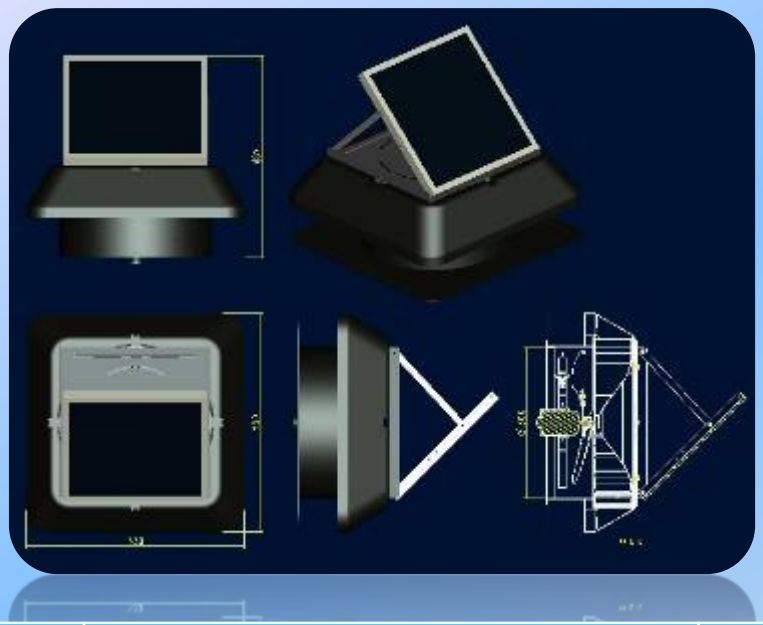
If solar fan carries accessory of SOLAR BATTERY SYSTEM or DUAL POWER AC/DC ADAPTER KIT, this power cord switch is added basically to control the ventilator's on / off during sunless periods, as it's not very necessary to stop the product from working in day hours. However, we can make it to control on/off of the fan flexibly at any time!

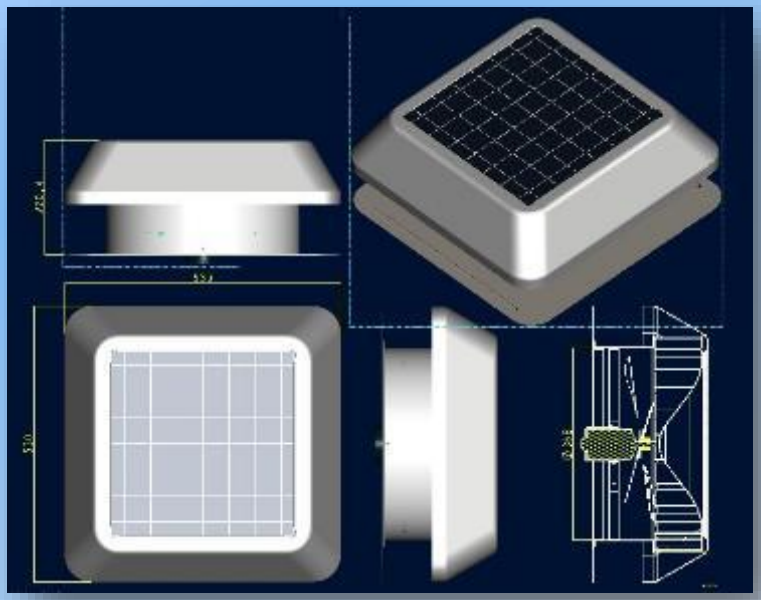
Product Service Life & Warranty

- Metal Casing: service life 20 Years, warranty 15 Years
- Solar Panel: service life 25 Years, warranty 15 Years
- Battery: service life 5 Years, warranty 2 Years
- Brush DC Motor: service life 20000 Hours, warranty 2 Years
- Brushless DC Motor: service life 6-7 Years, warranty 5 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.

Product Size & Weight:



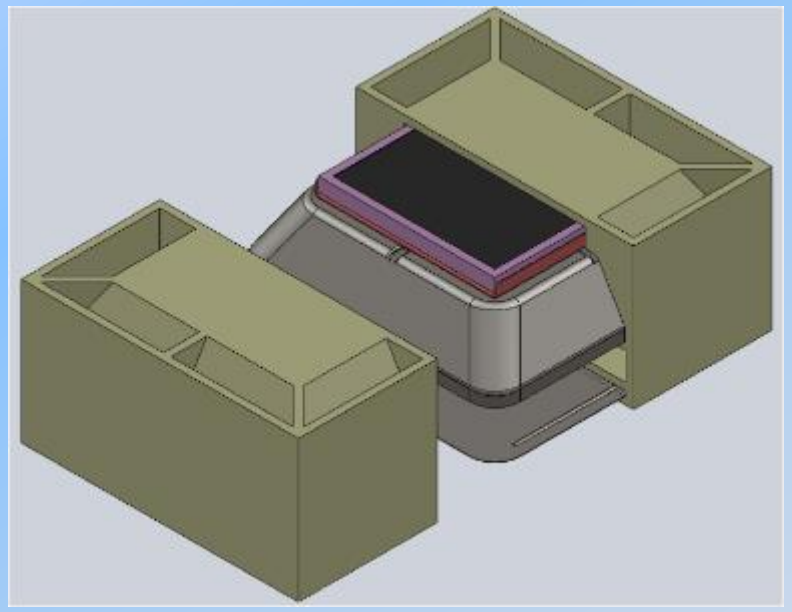


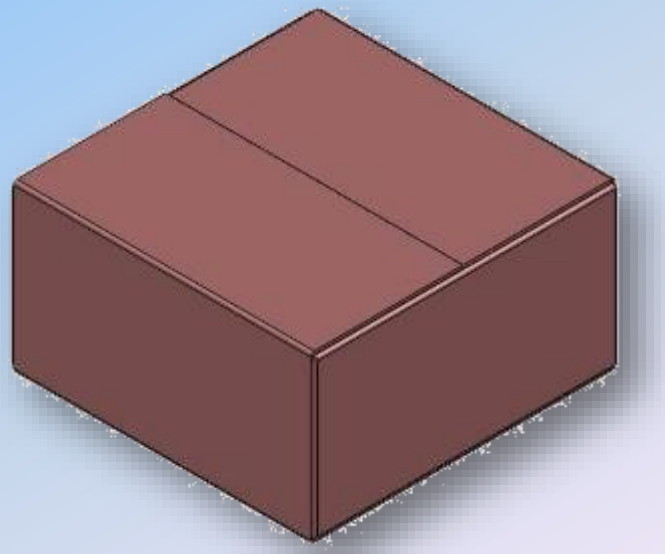
Item	Host Size			Air Duct		Gross Weight	
	Length	Width	Height	12” Fan	14” Fan	12” Fan	14” Fan
solar panel adjustable	530 mm	530 mm	250 mm	315 mm	368 mm	15.5-16.5 kg	15.7-17.2 kg
solar panel fixed	530 mm	530 mm	220 mm	315 mm	368 mm	13.9-14 kg	14.1-14.2 kg

* The above dimension is basing on solar panel lays horizontally.

Packing & Container Loading:

Packing (1PC/Carton)			Package Volume	Loading Quantity	
Length	Width	Height		20’ GP	40’ HQ
650 mm	650 mm	330 mm	0.14 cbm	216 pcs	516 pcs



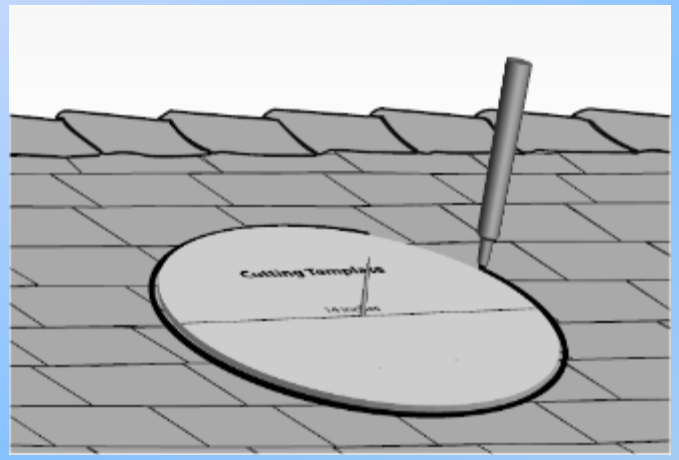


The optional 20W, 30W or 40W solar battery system is packed in an extra carton, volume in 0.022cbm, 0.028cbm & 0.029cbm correspondingly.

Installation and Mounting Guide

Step 1. Draw and Cut A Circle as the Venting Hole

Choose a place due south or southwest to the sun as mounting position for your solar fan, where the sun should not be shaded or blocked, so that your fan can capture direct and enjoy extended period of sunlight throughout the day.



Tips: *The chosen position is 18 – 24 inches away from top of the roof peak and as close to the mid-point of house as possible.*

Then trace along the cutting template for a circle and cut out a complete hole at 12” or 14” diameter as the venting hole for product.

Step 2. Position Your Solar Fan upon the Hole

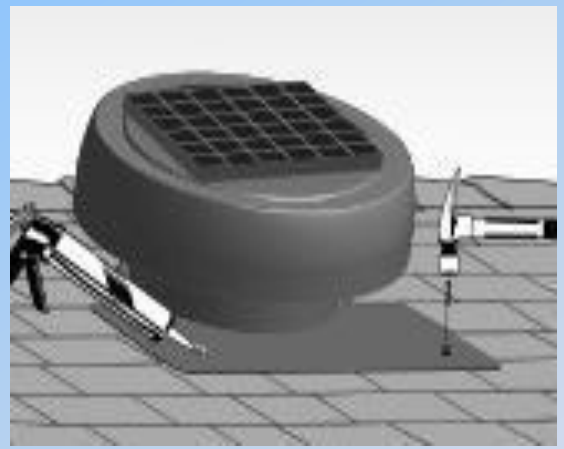
* Don’t bring the product up on roof until you finish cutting the mounting hole.

* Always secure your fan on roof to avoid injury or having the fan slide off the roof and get damaged.

Installation and Mounting Guide

Step 3. Secure the Solar Fan

Drive through visible pre-drilled holes on bottom board with screws or nails to secure your solar fan to the roof. Then apply waterproof roofing sealant to the screw heads to prevent water percolation.



Notes:

* Any shingles that remain loose should be fixed with nails & waterproof roofing sealant as well.

* If your ventilator is to mount on industrial metal roof, please apply waterproof sealant on 2 sides of bottom board and attach with additional metal bars, then spray waterproof sealant onto the metal bars to prevent leaking.

Installation and Mounting Guide

Step 4. Adjust Direction & Angle for the Solar Panel Adjustable Models

Install the provided screws and brackets left from package to the unit. Then setup the solar panel direction and angle by rotating the regulating plate and adjustment brackets. The optimal adjustment is to have your solar panel 90° to the midday path of the sun.

CAUTIONS:

- This solar fan will start working automatically whenever the sun shines on the solar panel, so it's always wise to exercise caution when approaching the fan.
- Use appropriate attire or equipment, like safety glass, glove, hard hat etc. during operation to avoid accidents.
- Installation work and electrical wiring must be done by qualified persons and in accordance with all applicable building codes and standards, including fire requirements.

* To prevent back drafting of any fuel burning equipment in the attic, sufficient air is needed for proper combustion and exhausting of gases through the flue of fuel burning equipment… …

Thanks for being interested in our solar roof exhaust fans!

Please feel free to contact us for any further information:

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or Sinoltech@hotmail.com

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