

Ventilation, heating, dehumidification or humidification. Solar collector with LCD thermostat, provides you with a healthy and warm home and automatically processes indoor air. Simple operation, thoughtful air management expert!

When it's a sunny day, the collector will keep heating the room in the morning & afternoon. At noon, it will automatically heat fresh air outdoor to ventilate/dehumidify all room, supply you fresh air all day. This function is only applicable for OS22/32/42. Ventilation can be extended at noon in spring / autumn.

Even in rainy or cloudy weather, the collector will provide fresh air to you by automatically switching to electricity, and the power consumption is less than 10kWh per year. When the outdoor temperature reaches its highest level at noon in spring / autumn / winter, or when the weather is cool in the summer evenings, it will ventilate the room to improve the indoor temperature; keep you warm in winter and cool in summer. The collector can also dehumidify or humidify the room according to the difference of moisture content between indoor and outdoor to maintain a relative humidity of 40-70%. The dry air outside will automatically drive away the humid air indoor. Similarly, the humid outdoor air will automatically humidify the room.

Heating

The built-in solar powered fan makes air transport which results in a contribution to heat the building and thus a saving on heating bills. Regular ventilation without power consumption. On a sunny day, the temperature of the injected air is approximately 5-40°C higher than the outdoor or indoor air inlet temperature. In addition, the outdoor temperature at noon rose by several degrees Celsius.

Ventilation

The fresh air of solar air heater squeezes the turbid air out of the room, keeping the air fresh and oxygen-rich.

Depending on the models, approx. 5 to 140m³/h dry, warm air is blew into the room. Humid air is drove out of the room through a built-in valve or the cracks and crevices of the building.

Ventilation is a key factor to the state of every building. Stagnant indoor air increases the risk of fungi, rot and other unwanted consequences.

Preserve the value of your vacation home while getting fresh air – for free and all year round!



Fresh air of Solar air heater squeezes the turbid air out of the room, keeping the air fresh and oxygen-rich.

Ventilation design standard: minimum fresh air volume per capita: 30m3/h.

FRESH OXYGEN

Increase oxygen, reduce CO₂, and care for health, do not feel oppressed.

CO2 concentration(%) — Room closed

Solar air heater

0.20

0.15

0.10

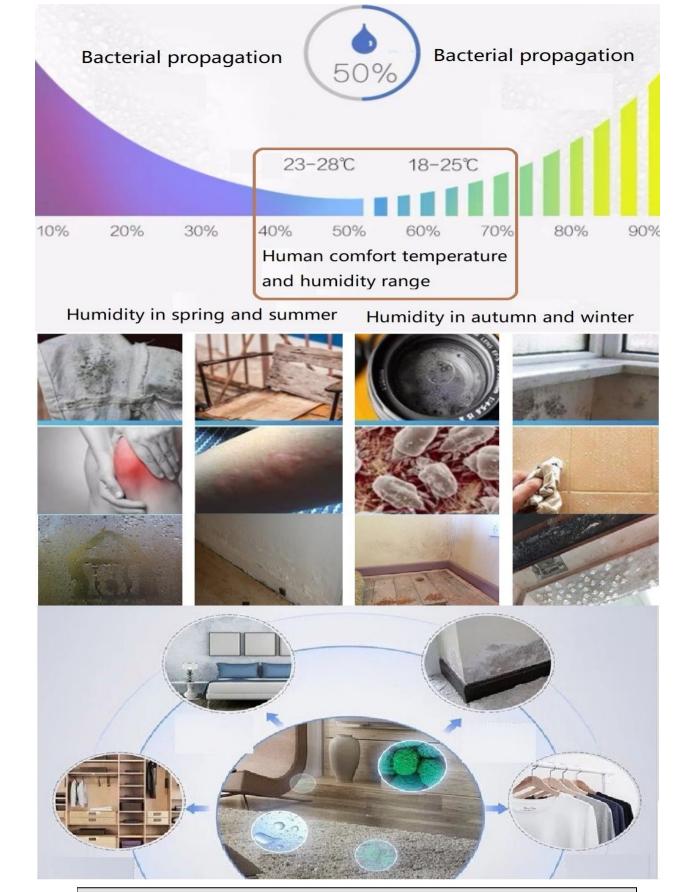
0.05

0 1 2 3 4 5 Time(h)

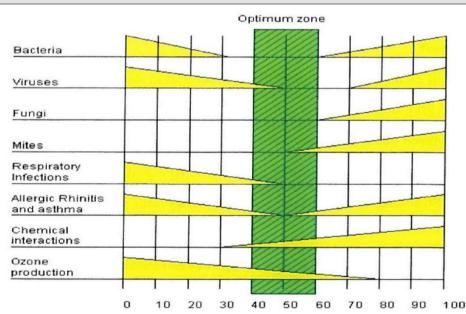
CO2 concentration rise comparison chart

An adult is tested in a 15m2 closed room for 6 hours

Dehumidification or humidification



Optimum level (for comfort as well as building quality) is a relative humidity (RF) of 40-70 %.



Source: ASHRAE Journal (The American Society of Heating, Refrigerating and Air-Conditioning Engineers)

The OASES solar air heater in the basement can fully solve the moisture in the basement and extend the service life of the indoor structure and appliances. Basement problem: damp basement. One of the earliest signs of wetness in the basement was a stale smell. Humidity can quickly damage items stored in the basement, such as textiles, cardboard boxes or furniture. In addition, lack of regular ventilation can cause mold and harmful fungi. To make the room suitable again, it must be regularly heated, mechanically dehumidified and ventilated. Electric dehumidifiers will frost below 15 °C, so the dehumidification effect will be worse. In addition, the dehumidifier requires refrigeration and consumes a large amount of power. This often results in high operating costs.





The dry climate indoor can easily cause virus and bacteria to multiply and spread. In addition, the dry air takes away water from the body, making them feel dry, feverish, depressed, coughing, hoarse, and sore throat.

A healthy and fresh indoor climate

Improve the indoor environment, reduce the irritation caused by allergy and asthma, especially for newborns. Improvement on the dwelling atmosphere----bring in oxygen and reduce carbon dioxide; discharge unpleasant odors which might cause allergies and discomfort; control the temperature and moisture of the room, prevent the emergence and spread of bacteria. When dry and warm air keeps flowing in the room, the damp, rot or mold would be long-term reduced.



WHO (World Health Organization) lists indoor air pollution as one of the top 10 threats to human health. When indoor ventilation conditions are poor, gas pollutants will accumulate indoors, and the concentration will increase, causing serious indoor air pollution.



Heating + ventilation = dehumidification

Hot air absorbs moisture from the room and discharges it.

● **Get your money back in 2-3years**Total Annual Heating Delivered (9 months) kWh/㎡ is about 700 kWh/㎡.

• Free cost

Ventilating and heating with no costs! Decrease your heating bills significantly!

No running costs.

Environment friendliness

Reduce the amount of air pollution and greenhouse gases that result from the use of fossil fuels for heating.

Safety

use of fossil fuels for heating.

Low voltage, no fire, no household electricity, no smoke or dust.









Product Information



OS10/OS20/OS30/OS40:

Heating outdoor fresh air: available in spring, autumn and winter.



OS22/OS32/OS42: 2-in-1 function

fresh air outdoor.

Heating outdoor fresh air: suitable for all models.

Heating indoor air circularly mold: can keep heating the room air and increasing the room temperature, and can keep away from any wet or cold or smog air. This mode is the best way to heat the room. Applicable to OS22/32/42.

mode is the best way to heat the room. Applicable to OS22/32/42.

When the outdoor temperature is too low, just open the air inlet indoor to keep heating the indoor air. Just close the air inlet indoor to introduce and heat the

OASES solar air collectors always provide you with a warm and healthy home

Product detail for aluminum alloy heater



				OS22+F7					
Model	OS10	OS10H	OS20	OS22	OS30	OS32	OS40	OS42	
Appro room area	15m²	20 m²	40	40m²		60m²		90m²	
Maximum air volume	42m³/h	88m³ / h	88m³ / h	98m³ / h	105m³/ h	113m³/h	128m³/h	135m³/h	
Time for air change	Approximate 2 hours								
Heating efficiency	69%	77%	73%	77%	70%	74%	69%	72%	
Sun intensity performance (w/h/set)	265W	300W	520W	550W	800W	840W	1310W	1380W	
Total Annual heat supply kWh/m²	690	770	730	770	700	740	690	720	
Estimated energy supplement year	250kWh	280kWh	525kW h	550kWh	777kWh	820kWh	1359kWh	1418kWh	
Temperature rise approx.	8º C	5º C	15º C	16º C	25º C	26º C	30º C	32º C	
Dehumidification capacity (high humidity)			0.3L/hour		0.5L/hour		0.8L/hour		
Noise level	39db	45db	45db		48db		50db		
Product size (cm)	71x52x6.2	52x71x6.2	101x72x6.2 121x92x6.2		92x6.2	197x100x6.2			
Carton size(cm)	90x57x9	57x90x9	124x78x9 129x98x9		204x106x9				
Roof mounting kit	Not applicable			120x17 x12cm 8.2kg		112x28x16cm 12kg			
Product area	0.37 m ²	0.37 m ²	0.37 m ² 0.72 m ²		1.11 m²		1.97 m²		
Solar photovoltaic panel power	8watt	12watt	12watt 18watt		watt	28 watt			
Fan 2 ball	12V 3.6W SUNON 12V, 3.4 watt 120*120*25mm SUNON 12V, 5.4 value 120*120*25mm 120*120*25mm							•	
Net weight	9kg	9kg	17kg		25kg		37kg		
Gross Weight	10kg	10kg	18kg	19kg	28kg	29kg	39kg	40kg	
Special heating absorption board	Special anodic aluminum oxide, texture nano heat insulation coating, high absorption, low reflection.						on,		
Frame	Exclusively for open air, anti-UV texture coating aluminum alloy								
T. Control of the Con	i .							1	

Coating

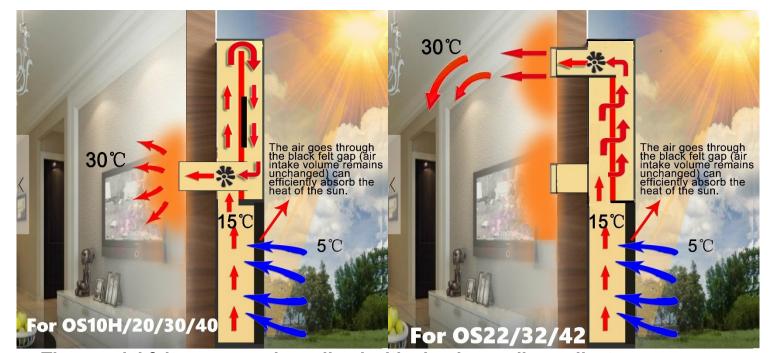
Low iron patterned solar tempered glass, up to 92% transmittance

White diffuser Flange for indoor wall; Tubes for wall lead-in, gaskets, screws etc.

The price includes a mechanical thermostat and all necessary mounting accessories. Extra cost will be charged if customer needs LCD thermostat and automatic air outlet.

Reducing the air volume can increase the air temperature into the room. Increasing the air volume can increase the heating efficiency, the overall heat of the room.

When used in basement and other high humidity environment. It is recommended to buy <u>a larger model</u>, which have stronger capacity for dehumidification, deodorization, removal of formaldehyde and hydrazine.



The special felt cover can be spliced with aluminum alloy collector (OS10H/20/22/30/32/40/42) and installed on a flat roof or wall. The air through the black felt gap (air intake volume remains unchanged) can efficiently absorb the heat of the sun, thereby increasing the temperature of the outdoor fresh air entering the room. As long as the felt cover is spliced, the temperature of the fresh air entering the room can be increased: F7----about 10°C; F11----about 15°C; F20----about 20°C.

After a long period of outdoor dust and rain test, the air intake volume is reduced by up to 3%. It can effectively filter Dust and become clean after rain washing, no maintenance is

Felt cover	F7	F11/F11H(horizontal)
(Can't be used alone)	for OS10H/20/22	for OS30/32
Appro temperature rise	15° C	25° C
Max performance(w/h)	520W	800W
Estimated energy supplement kwh/unit/year	525kwh	770kwh
Product area	0.7 m²	1.1 m²
Product size(cm)	101x72x6	121x92x6/92x121x6 (F11H)
Carton size(cm)	101×10×10	118×12×12
Net weight	2KG	3KG
Gross Weight	1.5KG	2.5KG

Introduction and images for regulators or switches

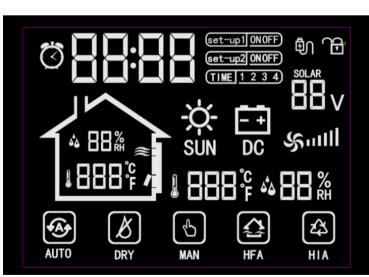


Mechanical thermostat:

The standard configuration can only work in the sun, and cannot be connected to electricity. Ventilator will stop working when the room temperature reaches the set value (eg. 25 °C).

New LCD thermostat: Ventilation and dehumidification or humidification are available even on cloudy or summer nights. Smart curved touch screen: the perfect combination of art and technology!









Ventilation, heating, dehumidification or humidification. Solar collector with LCD thermostat, provides you with a healthy climate and automatically

processes indoor air. Simple operation, thoughtful air management expert! There are five modes: automatic, humidity control, manual, heating and ventilation, continuous heating of indoor air. Can detect indoor and outdoor temperature and humidity, moisture content in the air. Automatically switch between solar and electrical energy. Ventilate regularly to purify the air every day. As long as the collector does not work, the air vents automatically close, completely isolating the outdoor cold air.

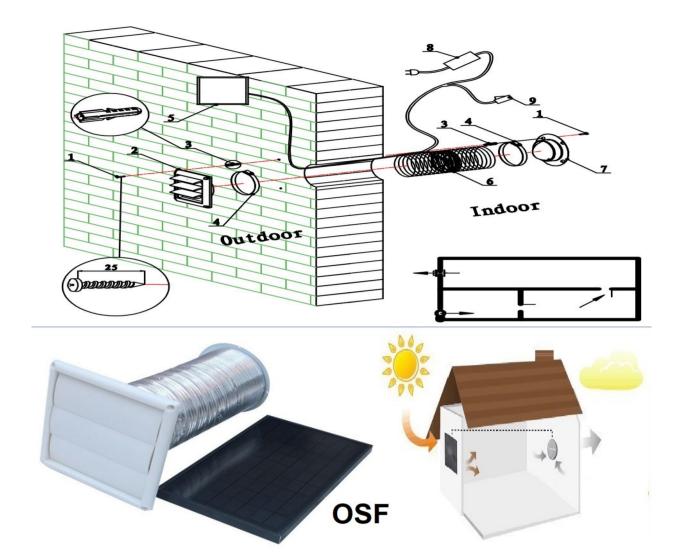
completely isolating		iu aii.				
Heati	ng in the sun	in the spr	ing/ fall/ wint	er		
LCD Thermostat	When presetting t	emperature is	higher than indooi	temperature.		
Automatic mode	Sunshine-12am	12:00 am 3	3pmno Sunshine			
Only for OS22/32/42	Keep heating	Heating outdoor fresh air Keep hea				
	indoor air	` .	d autumn can	indoor air		
5 0000/00/40	circularly		entilation time)	circularly		
	For OS20/30/40 Just heating outdoor fresh air in the sun In the process of heating indoor air, if the following conditions occur, the device					
automatically turn to he	•	_	conditions occ	ur, the device will		
1. Outdoor air (moisture d			d indoor relative h	umidity ≥75%		
2. Outdoor air is wetter th			lative humidity ≤30	<u> </u>		
3. When it is detected that						
Humidity control	Sunshine-11am	11am no su				
mode						
Only for OS22/32/42	Keep heating indoor air circularly	Heating outdoor fresh air (Spring and autumn can increase ventilation time)				
For OS20/30/40	•	loor fresh air in the sun				
In the process of heat				ur the device will		
automatically turn to he	at the outdoor fre	sh air.				
Outdoor air (moisture than indoor						
2. Outdoor air is wetter the	nan indoor	and Indoor re	lative humidity ≤40	0% (30%-45%) ;		
3. When it is detected that						
In the process of vent	lation, if the follo	owing condition	ons occur, the f	an stops working.		
Outdoor air (moisture cor	tent) is wetter than	indoor air	and indoor rela	ative humidity ≥70%		
Manual mode	Can set a time pe	riod to heat fre	sh air or air indoo	r		
Heating fresh air mode						
Heating indoor	Keep heating indo	oor air circularly	/			
air mode						
	El	lectricity				
LCD Thermostat		an only introd rature and hum	uce fresh outdoo nidity.	r air to regulate		
Automatic mode	In the Spring/	/Fall/Winter	In the Summer			
Automatic ventilation	When outdoor ten	•	mperature is lower			
Ventilation 1-3h from 13pm, keep the room	Outdoor 5-15°C	door 5-15°C Outdoor 15-2		Outdoor 23-28℃ (adjustable)		
fresh.	(adjustable) Ventilate for 1h	2 h	ours	3 hours		
Outdoor air (moisture cor						
`				ve humidity ≤35%		
Outdoor air (moisture content) is wetter than indoor Will ventilate to regulate moist			and indoor relative humidity ≤35%			
In the process of ventila				tops working		
Outdoor air (moisture cor						
,		<u> </u>				
`	Outdoor air (moisture content) is wetter than indoor and indoor relative humidity ≥85% Humidity control mode: Indoor relative humidity adjustment range: 30% -45%; 60% -75					
Outdoor air (moisture content) is dryer than indoor and indoor relative humidity ≥70						
Outdoor air (moisture content) is wetter than indoor and indoor relative humidity ≤40% Will ventilate to regulate moisture content indoor						
Manual mode	Can set 2 time periods freely to ventilation.					
Heating fresh air mode	In the Spring/	raii/vvinter	In the Summer			
Automatic ventilation	When outdoor te higher than	•	When outdoor temperature is lowe than indoor.			
Ventilation 1-3h from 13pm, keep the room	Outdoor 5-15°C (adjustable)	Outdoor 15-2	3℃(adjustable)	Outdoor 23-28℃ (adjustable)		
fresh.	Ventilate for 1h	21	nours	3 hours		
Note: To obtain reasonab the sun, such as excessiv		=	room or sometim	es prevent heating i		

Solar exhaust fan

A Ventilation Kit can be used as an exhauster for the humid air. An exhauster is necessary in the basement or other big buildings, which can't breathe or need extra ventilation. The exhauster will be working at the same time as the solar air

collector. Louver outlet with automatic close function, will keep the room heat from losing when fan turns off. Either electricity or solar energy is ok.

Max air volume: 160m³/h.



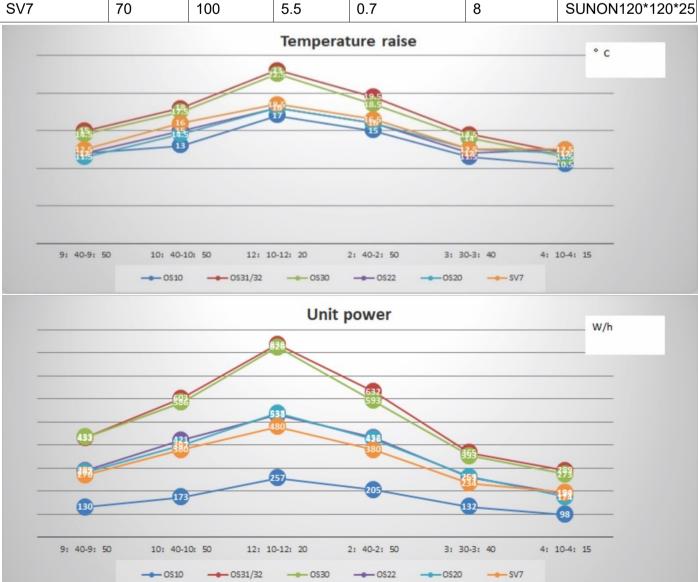
Including:

- 1 pc, Air outlet and Air inlet
- 1 pc, Diameter 125mm Telescopic duct
- 1 pc, 11W solar panel
- 1 pc, SUNON 125mm DC fan, Work time: 40000h

Technical reference



Solar Panel	Width (cm)	Height(cm)	Thickness (cm)	Effective area	Weight (kg)	Fan (mm)
OS10	52	71	6.2	0.37	6	ADDA 92*92*25
OS32	92	121	6.2	1.11	25	SUNON120*120*25
OS30	92	121	6.2	1.11	25	SUNON120*120*25
OS22	72	100	6.2	0.72	16	SUNON120*120*25
OS20	72	100	6.2	0.72	16	SUNON120*120*25
SV7	70	100	5.5	0.7	8	SUNON120*120*25





Test video for OS10 VS OS32 VS OS30 VS OS22 VS OS20 VS SV7, made in 2018: https://youtu.be/E1ru1enuEnQ

thermal

Passed strict international certification, products are trustworthy. The Solar Keymark, the main quality label for solar

DIN Geprüft

Solar Keymark

NO.: 011-7S2867 L

www.solarkeymark.org

The Solar Keymark is a voluntary third-party certification mark for solar thermal products, demonstrating to end-users that a product conforms to the relevant European standards and fulfills additional requirements. The Solar Keymark was developed by the European Solar Thermal Industry Federation (ESTIF) and CEN (European Committee for Standardisation) in close co-operation with leading European test labs and with the support of the European Commission. It is widely spread across the European market and beyond. Note: The difference between the Solar Keymark and

the CE-mark The Solar Keymark is a quality label and the CE-mark just attests that the product fulfills minimum legal requirements according to specific European directives.



TÜV Report No.: 50152939-001/50152941-001

The TUV Rheinland Group is a leading provider of technical services worldwide. Founded in 1872 and headquartered in Cologne, the Group employs 19,700 people. It generates annual revenues of EUR1.92 billion.

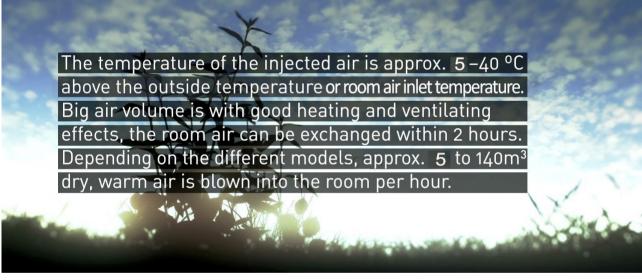
Thermal performance testing for solar air collector; Pressure drop test; Time constant test; Visual inspection; Internal

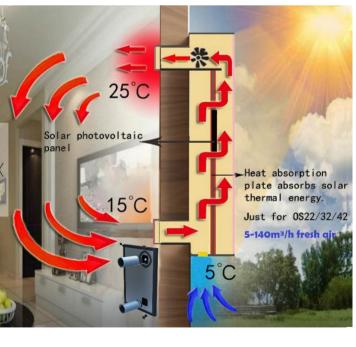
pressure test; Rupture or collapse test; Stagnation temperature; Exposure test; External thermal shock; Internal thermal shock; Rain penetration; Freeze resistance; Mechanical load; Impact resistance test using steel ball; Final inspection. All above listed tests of the standard EN12975-1:2006+A1:2010 and ISO 9806:2017 were passed successfully in accordance with the criteria.



The TUV NORD GROUP brings together the brands TUV NORD, DMT, ALTER TECHNOLOGY and TUViT. Typical testing and TUV services are expanded by offers in the fields of IT, Aerospace and natural resources. More than 10,000 employees work together as an active and vibrant team, equipped with a broad horizon of knowledge and the desire to provide peak performance in their disciplines. The TUV NORD GROUP offers its services in more than 70 countries.

Advantage





• Heating indoor air mode, can keep heating the room air, and keeps away from any wet or cold or smog air. When people at home or when in the winter morning, just open the room air inlet; when people out or at noon, close the room air inlet and introduce fresh air to ventilate and dehumidify.

For other models or other brands, the air speed will decrease when air pressure goes up, therefore, the efficiency of heating absorption will decrease. In case you open the window or some other gap to let air go out, but meanwhile, the heat will also be lost. So internal circulation mode is the most suitable for heating room air in the winter or cloudy day.

Special heating absorption board:

Corrugated special anodic aluminum oxide, texture nano heat insulation coating, high absorption, low reflection. Solar absorbance of selective absorbing coating:

0.92; Hemisphere emittance of selective absorbing coating: 0.12.

- Solar photovoltaic panels are produced with well-known brand cell in high quality, high photoelectric conversion efficiency, low conversion efficiency attenuation rate, with life expectancy for 20 years. Collectors can be used to dry crops such as vegetables, fruits and grains. The service life of photovoltaic panels will not be affected even under high temperature and strong light in tropical and subtropical regions.
- Instead of hydraulic fan, double ball fan is adopted, with longer lifespan, low temperature resistant. SUNON from Taiwan is the most well-known fan brand in the world.
- Under sunlight, the air inside the OS collector flows along both sides of the heat absorbing plate and can absorb the heat well from the absorbing plate. Tested in 900W / m² sunlight, when the air volume is the same, the temperature of the OS collector is 4 °C higher than the collector
 - Air outlet: it can be opened and closed manually or automatically, with 5mm thermal insulation cotton inside, good insulation effect. Automatically turns off when the fan is not running.
- Sealing strips are with high-quality silicone rubber: anti-UV, climate-resistance, better appearance.
- Frame: exclusively for open air, anti-UV texture coating, anti-UV outdoor screws.
- Low iron solar tempered glass is with big intensity, high elasticity, the transmission is excellent. Lower diffuse reflection can prevent heat loss.







Fresh air inlet of solar air heater standard PET film: stops cold air, moisture, condensation of air humidity, and back draft(When the collector is not working).



OASES Warranty conditions

SUNON fan life expectance: 70000 hours; 40000 hours warranty. Thermostat, air outlet can be replaced free of charge within 2 years. The lifespan for solar pv panel is 20 years, guaranteed for 10 years. While glass and aluminum materials are with long lifespan.

aluminum materials are with long lifespan. Easy installation, maintenance and operation

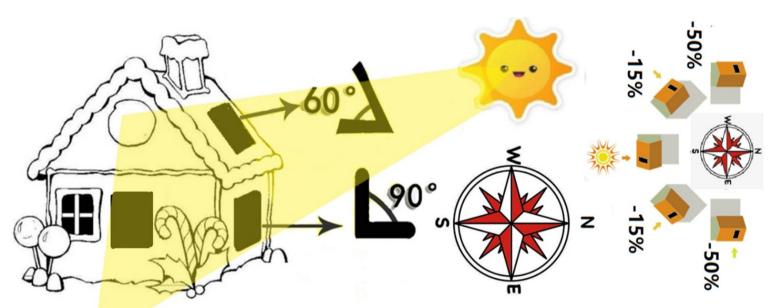
OS32, OS40/42 can be installed in 2 different directions.





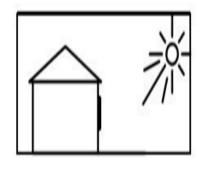
OS32+F11 H (Felt cover for horizontal installation)

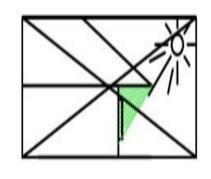
Note that by setting up two panels, e.g. one facing east-southeast and one south-southwest, you can take full advantage of the available sunshine throughout the day.



The solar air heater cannot raise the temperature of supply air or ventilate in these situations: If it's overcast, the sun isn't shining or is shining weakly, during the night, early in the morning or late at night and when the panel is covered by snow or ice or during rain.







Can be installed on the wall or roof without the help of electrician/ construction worker. Small area, light weight. Installing your solar panel is so easy that you can do it yourselves. Product includes thermostat and all the necessary accessories for installation, such as screws, fixing clips, air ducts, air outlets, manuals, etc. Please distinguish wooden house and brick wall, so the correct electric drill is adopted. You can substitute the spare parts except solar pv panels all by yourself within 30 minutes, with easy tools like scissors, tape, screwdriver, etc.

Wooden house tools:



Heating indoor air mode: when people at home or in winter morning, just open the room air inlet; when people out, close the room air inlet and lead in fresh air to ventilate and dehumidify. If you want to increase the heating efficiency, please increase the wind speed, the heat loss will be reduced. Please turn down the air outlet, if you need air going to the room with higher temperature; Or feel too noisy. For rooms without good ventilation in winter, we need to turn down the air outlet, so the air pressure will not increase rapidly, then the heated air can be blown into the room easily.

Tips

 Glass panel is with 20 years life span, which is much longer than polycarbonate panels, which are only 10 years, and after sunlight irradiation, it becomes yellow and solar transmittance goes extremely lower.



- The felt gap used in the collector is easy to corrupt and fade after being exposed to open air for long term. If there is a lot of dust in the air, easy to be blocked. Felt gap is large, PM2.5 also cannot be filtered.
- The backside is installed on the wall without interval. Wall with good insulation prevent heat waste. There are several bugs and bias in Delta test. The samples are put against a



ladder, without insulation of wall, so the testing temperature is lower than Oscar's actual performance. But some other brands bring in air at the backside, so the airflow can be bigger if there is no wall at the backside, and testing temperature would not decrease.

Company introduction

Oscar Science & Technology Co., Ltd. is a professional manufacturer of solar air collector/ heater, solar ventilator etc.

We have got ISO9001 2015 certificate from German TUV NORD CERT since 2018,

No.:44 100 1888 0001;

European Solar Keymark certification (ISO9806),

No.:011-7S2867 L; TÜV Rheinland test Report No.:

50152941-001 &50152939-001.

A developing and testing lab is well established to test air volume, temperature difference of different

models in different conditions, also insulation, UV-resistance, climate-resistance, water-proof to various materials such as coating and silicone.

We have innovatively adopted high-tech material like low iron ultra-pure glass and special texture nano insulation coating etc, and are dedicated to sustainable development and innovations, to ensure good quality and high performance. Oscar solar air heaters are sold to many countries like UK, Denmark, Germany, Czech, Australia, New Zealand, Canada, America etc. In the past years, with continuous improvement and innovation, and focus on R&D, quality control, the Oscar solar air heater has won a good reputation due to its high performance and competitive price.

Users'comment

"After using OS22 air heater, we have cut our family heating bill by as much as 40%" ---- Timur Mukhtarov, Russia

"The performance is unexpected. I actually didn't expect that much heating effect with such low price! When I put my hand at the air outlet, I can feel the heat and airflow pretty much! Thanks to Oases!" ----Alan Maruttí, Italy

"We have saved 430 gallons last year with Oscar solar heater, which cut 35% of our heating bills. It's really great!" ---- Tracey Ahlborn, USA







www.solarkeymark.org

TÜV Report No.: 50152939-001/50152941-001

OASES solar air collectors always provide you with a warm and healthy home!

Avoid humidity Avoid stale smell Avoid mould and fungus Contact us

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