solaroenergy.com • 888.355.5786

Product Catalog 2024





SOICTOR SOUND STORES NERGY

It's not different, it's better by design.

22955 McAuliffe Dr. • Suite A • Robertsdale, AL 36567

index

 \bigcirc

BRIEF INTRODUCTION About Solaro Energy, Inc. 5 **Company Vision** 6 SPECIFICATION SHEETS **ATTIC Ventilation Systems EMBEDDED** 25 Watt SA-25WB-HPE 8 SA-25WB-LPE 9 **GABLE** 27 Watt SA-27WR-GAE 10 **REMOTES 27 Watt** SA-27WR-HPE 11 12 SA-27WR-LPE TILTS 27 Watt SA-27WT-HPE 13 14 SA-27WT-LPE **GABLE** 37 Watt 15 SA-37WR-GAE **REMOTES** 37 Watt SA-37WR-HPE 16 17 SA-37WR-LPE TILTS 37 Watt SA-37WT-HPE 18 SA-37WT-LPE 19 **REMOTES** 40 Watt SA-40WR-HPE 20 21 SA-40WR-LPE





HOW MANY FANS DO I NEED?	22
CRAWLSPACE Ventilation System	24
SA-37W-CS	
BASEMENT Ventilation System	
SA-30W-BVS1	26
SA-30W-BVS2	27
GARAGE Ventilation System	
SA-30W-GVK	29
DELIVERY TRUCK Ventilation System	
SA-TFE-WH	31
INSULATED PAINT w/ Nano Shield Technology	
SP-PNT-W	33
SOLARO DAY Indoor Lighting	
SD-2500-CC-KIT30W	35
SD-2500-CC-FIX	36
SOLARO DAY Street Light	
SA-40W-SLE	38
ACCESSORIES	
DAY/NIGHT SWITCH KIT	
SD-DNK24V-30W	40
THERMOSTAT	41
CURBMOUNT for Embedded Series	42
	10
E-SLP-27W	43
E-SLP-37W	44
E-SLP-40W	45



FEATURES & BENEFITS

Solaro Aire Embedded Attic Fan	47
Solaro Aire Remote Attic Fan	48
Solaro Aire BVS2 Basement Unit	49
Solaro Aire Crawlspace Unit	50
Solaro Day Daylight Simulation System	51
MANUFACTURER'S STATEMENT & WARRANTY	
Solaro Aire Warranty	53
Solaro Day Warranty	54
Manufacturer's Certification Statement	55

MARKETING MATERIAL

Solaro Aire Attic Embedded Fan Brochure	57
Solaro Aire Attic Remote & Tilt Fan Brochure	58
Solaro Aire Gable Fan Brochure	59
Solaro Aire Crawlspace Ventilation Brochure	60
Solaro Aire Basement Ventilation Brochure	61
Solaro Aire Garage Ventilation Brochure	62
Solaro Aire Delivery Truck Ventilation Brochure	63
Solaro Shield Insulated Paint	64
Solaro Day Daylight Simulation System Brochure	65
Solaro Day Street Light Brochure	66
Solaro Display Stand & Graphics	67



RESEARCH

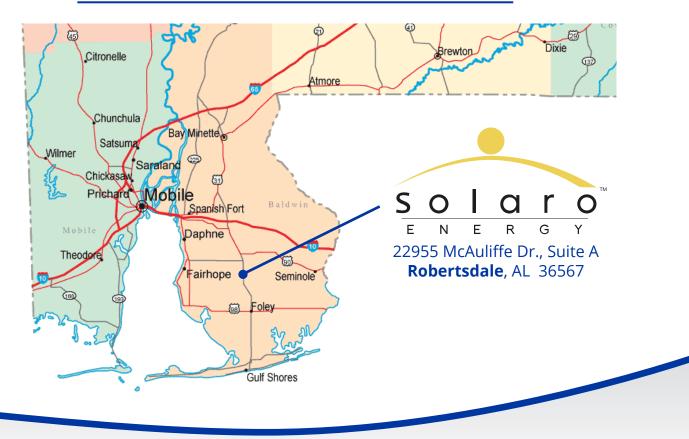
Performance Assessment Research	69
Ventilation Impact on Cooling	70
Photovoltalic Attic Ventilators	71
Attic Air Graphs	72
Measured Space Cooling	73
Conclusions & References	74



Sun Chart for the U.S. Yearly Heat Average for the U.S.	75 76
IMAGES & DIAGRAMS	
Air Flow	78
Installed Solaro Aire	79
Installed Solaro Day	80
Shipping Information	81
Home of Solaro Energy, Inc.	82
Installed Product Pictures	83

 \bigcirc

Southern Alabama Map & Home of Solaro Energy, Inc.



IV.

INTRODUCTION



Dennis Grubb CEO & Founder Solaro Energy

At **Solaro Energy**, we are committed to helping the planet stay green. We are focused on preserving the environment with green products promoting off-grid independence. We have over 15 years experience in harnessing solar power, and over 25 years experience manufacturing energy efficient products.

Solaro Energy Inc. guarantees better air performance because of the Maximum Power Point Tracking feature. Which maintains the highest possible air flow under all solar conditions by utilizing all the power available from the solar panel, setting the highest fan speed.

Designed by experts in the art of air flow technology, with years of aerodynamic engineering experience. Your **Solaro Aire**[™] solar powered attic fan will out preform all other products on the market today. Not only in terms of air movement performance, but also curb appeal and durability.

During the hot summer months, your attic can reach temperatures of up to 160° F, making your home warm and uncomfortable. The **Solaro Aire**[™] **extracts the heat from your attic**, keeping the temperature down in your home and lowering your AC bill. A great replacement for the old noisy turbine vents.

The **Solaro Aire**[™] is the world's most advanced, fully integrated, high efficiency solar powered attic fan. **Keep in mind, the attic fan will not make the attic cooler than the outside ambient temperature.**



INTRODUCTION

COMPANY MISSION STATEMENT

At **Solaro Energy**, **Inc.** we are driven to become the industry standard and worldwide source of solar powered solutions for residential, commercial, manufacturing and municipal structures. We are committed to helping the planet stay green. We will only produce high-quality, durable products. Which provide long lasting, reliable and maintenance-free performance. Giving measurable economic return to our customers.

COMPANY VISION

Solaro Energy, Inc. innovates, designs and engineers the highest quality, America Made solar powered solutions for residential and commercial structures. We provide durable product solutions that help users achieve more independence, contribute to the conservation of our natural resources and achieve meaningful economic savings.

COMPANY OVERVIEW

- In-House Research and Development, Manufacturing and Distribution.
- Focused on preserving the environment with Green Products and Renewable Energy.
- Provide American engineered and American made line of products that are built to last a lifetime.





Solar Powered Attic Ventilation System

Specification Sheet Model # SA-25WB-HPE



AMERICAN MADE

Ideal for applications where additional clearance is needed between the bottom of the fan and the roof. Perfect for snowy areas, flat or "S" tile roofs where less clearance could cause airflow problems. This provides an additional 2" of height from the roof deck. Only product certified through Dade County and approved for high winds. (160 mph)

Technical Information

Weight

Fan Weight: 19 lbs / 8.61 kg

Fan Packaged: 27 lbs. / 12.24 kg

Performance Air Flow Rate: 900 to 1200 CFM Depending on solar exposure Ventilation: Up to 1250 sq.ft. Attic must support intake air for best performance

> Solaro <u>Max Ai</u>re Motor

Brushless Electronic Motor with Maximum

was developed by Solaro Energy - Our

engineers leveraged lessons learned

from our original brushless electronic

motor that we used for over 12 years.

30% better efficiency and air moving

hours average motor run time!

Specifically designed for the

12" - 5 blade aluminum fan,

blade to improve airflow

ventilation system

Operates whisper quiet

throughout the day

Solaro Aire solar powered

aerodynamically optimized

Fan Blade

This new motor technology offers about

performance, with an amazing 100,000

Yield Technology. This new motor technology

Electrical

Solar Panel: 25 watt, 17 to 22 DC, 1.25 amp, 36 mono-crystalline cell, solar cells with black back sheet

Motor: Solaro Max Aire Brushless DC Motor,10-22VDC

Material

Housing System: Spun Formed, Aircraft Grade Aluminum Fan Blade: 12" Aluminum, Factory Balanced Mesh Screen: Stainless Steel, 1/4" Mesh, Rodent Control Wiring: 18 Gauge Copper Conductors with PVC Insulation

Housing & Flashing System

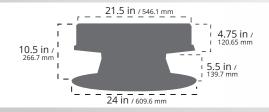
Aircraft grade, spun-formed aluminum for the utmost quality protection Inner housing system is aerodynamically designed to produce the highest possible radial air exhaust

possible radial air exhaust Powder coated outer shell

Solar Panel

25 watt, 1.25 amp proprietary, high purity, mono-crystalline cell solar panel Weather proof in the most severe conditions High transparent, low iron tempered glass Built for maximum performance and safety

Dimensions & Weight







the Solaro Aire 1/4" mesh screen keeps animals and rodents out while allowing maximum air exhaust Stainless Steel

Constructed specifically for



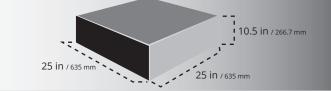
Components

Motor & Fan Mount

Mesh Screen

The Max Aire motor is mounted under the aluminum air deflector. Keeping it out of the air stream





Important Note: The Solaro Aire Attic Fan Ventilation System is 100% fire proof and all electrical components are hidden under the air diverting cowling creating an extremely safe and efficient ventilation system Limited Lifetime Warranty - See warranty details for additional information.

25w HIGH PROFILE



Specification Sheet Model # SA-25WB-LPE

Provides the same performance as the high profile base, when additional clearance is not necessary. Tucks in closer to the roof to be less conspicuous and more resistant to high winds. Only product certified through Dade County and approved for high winds. (160 mph)

Technical Information

Weight

Fan Weight: 19 lbs / 8.61 kg

Fan Packaged: 27 lbs. / 12.24 kg

Performance Air Flow Rate: 900 to 1200 CFM Depending on solar exposure Ventilation: Up to 1250 sq.ft. Attic must support intake air for best performance

Fan Blade

Electrical

AMERICAN MADE TS DESIGNED AND MANUFA

> Solar Panel: 25 watt, 17 to 22 DC, 1.25 amp, 36 mono-crystalline cell, solar cells with black back sheet

Motor: Solaro Max Aire Brushless DC Motor, 10-22VDC

Material

Housing System: Spun Formed, Aircraft Grade Aluminum Fan Blade: 12" Aluminum, Factory Balanced Mesh Screen: Stainless Steel, 1/4" Mesh, Rodent Control

Wiring: 18 Gauge Copper Conductors with PVC Insulation

∧ctiveAire

Solar Panel

cell solar panel

Housing & Flashing System

Aircraft grade, spun-formed aluminum for the utmost quality protection Inner housing system is aerodynamically designed to produce the highest possible radial air exhaust Powder coated outer shell

25 watt, 1.25 amp proprietary,

Weather proof in the most

High transparent, low iron

severe conditions

tempered glass

high purity, mono-crystalline

Built for maximum performance and safety

Dimensions & Weight







Yield Technology. This new motor technology was developed by Solaro Energy - Our engineers leveraged lessons learned from our original brushless electronic motor that we used for over 12 years. This new motor technology offers about 30% better efficiency and air moving performance, with an amazing 100,000 hours average motor run time!

Specifically designed for the Solaro Aire solar powered

12" - 5 blade aluminum fan,

aerodynamically optimized

blade to improve airflow

ventilation system

Operates whisper quiet

throughout the day



Mesh Screen Constructed specifically for

Stainless Steel

the Solaro Aire 1/4" mesh screen keeps animals and rodents out while allowing maximum air exhaust



Components

Motor & Fan Mount

The Max Aire motor is mounted under the aluminum air deflector. Keeping it out of the air stream



12.5 in / 317.5 mm 21.75 in / 552.45 mm 4.625 in / 9 in / 228.6 mm 7.75 in / 196.85 mm 3.25 in / 82.55 mm 25 in / 635 mm 25 in / 635 mm 23.75 in / 603.25 mm

Important Note: The Solaro Aire Attic Fan Ventilation System is 100% fire proof and all electrical components are hidden under the air diverting cowling creating an extremely safe and efficient ventilation system Limited Lifetime Warranty - See warranty details for additional information.

25w LOW PROFILE

Specification Sheet Model # SA-27WR-GAE





Can be mounted inside the attic over an existing gable vent or roof penetration to supercharge the vents already there. Remains hidden and out of the weather, except for the roof mounted solar panel.

No large holes to cut in your roof.

Technical Information

Weight Performance Electrical Material Housing System: Spun Formed, Air Flow Rate: Solar Panel: 27 watt, 17 to 22 DC, Fan Weight: 5 lbs / 2.26 kg 900 to 1200 CFM 1.25 amp, 36 mono-crystalline Aircraft Grade Aluminum Fan Blade: 12" Aluminum, Factory Balanced Depending on solar exposure cell, solar cells with black back Mesh Screen: Stainless Steel, 1/4" Fan Packaged: 18 lbs. / 8.16 kg Ventilation: Up to 1250 sq.ft. sheet Mesh, Rodent Control Attic must support intake air Motor: Solaro Max Aire Wiring: 18 Gauge Copper Conductors for best performance Brushless DC Motor, 10-22VDC with PVC Insulation Components **ActiveAire** olaro Max Aire Motor **Solar Panel Brackets** Housing & Flashing System Aircraft grade, spun-formed Brushless Electronic Motor with Maximum **Extruded Aluminum** Yield Technology. This new motor technology was developed by Solaro Energy - Our aluminum for the utmost Mill finished quality protection Dimensions depth 0.60' engineers leveraged lessons learned Inner housing system is from our original brushless electronic 2"x2" motor that we used for over 12 years. aerodynamically designed Supports solar panel This new motor technology offers about to produce the highest 30% better efficiency and air moving performance, with an amazing 100,000 hours average motor run time! possible radial air exhaust Powder coated outer shell Solar Panel **Interconnect** Cable Fan Blades Specifically designed for the 27 watt, 1.25 amp proprietary, Wire: 25' - 2 Conductor Solaro Aire solar powered high purity, mono-crystalline 18 Gauge stranded copper ventilation system cell solar panel U.V. Rated Weather proof in the most 12" - 5 blade aluminum fan, Power transfer cable severe conditions aerodynamically optimized High transparent, low iron blade to improve airflow tempered glass Operates whisper quiet Built for maximum performance and safety throughout the day **Dimensions & Weight** 12.5 in / 317.5 mm _1<u>4.3_in_/ 364_mm_</u>___ 11 in / 279.4 mm 6 in / 1 150 mm

Important Note: The Solaro Aire Attic Fan Ventilation System is 100% fire proof and all electrical components are hidden under the air diverting cowling creating an extremely safe and efficient ventilation system Limited Lifetime Warranty - See warranty details for additional information.

25 in / 635 mm



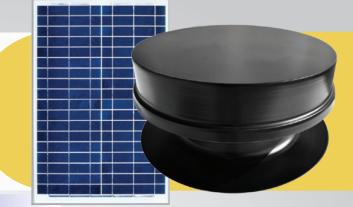
25 in / 635 mm

Specification Sheet Model # SA-27WR-HPE





The Remote Solar Panel models are perfect for installing the attic fan and solar panel separately, due to limited light access in a desired fan location. Includes 25 ft. of Interconnect Cable. **Only product certified through Dade County and** approved for high winds. (160 mph)



Technical Information

Weight

Fan Weight: 19 lbs / 8.61 kg

Fan Packaged: 28 lbs. / 12.7 kg

Performance Air Flow Rate: 900 to 1200 CFM Depending on solar exposure Ventilation: Up to 1250 sq.ft. Attic must support intake air for best performance

Solaro

Max Aire Motor

Brushless Electronic Motor with Maximum

engineers leveraged lessons learned

from our original brushless electronic

motor that we used for over 12 years.

This new motor technology offers about

30% better efficiency and air moving performance, with an amazing 100,000

hours average motor run time!

Specifically designed for the

12" - 5 blade aluminum fan,

Solaro Aire solar powered ventilation system

aerodynamically optimized

blade to improve airflow

Operates whisper quiet

throughout the day

Fan Blade

Yield Technology. This new motor technology was developed by Solaro Energy - Our

Electrical

Solar Panel: 27 watt, 17 to 22 DC, 1.25 amp, 36 mono-crystalline cell, solar cells with black back sheet

Motor: Solaro Max Aire Brushless DC Motor, 10-22VDC

Material

Housing System: Spun Formed, Aircraft Grade Aluminum Fan Blade: 12" Aluminum, Factory Balanced Mesh Screen: Stainless Steel, 1/4" Mesh, Rodent Control

Wiring: 18 Gauge Copper Conductors with PVC Insulation

Components

ActiveAire

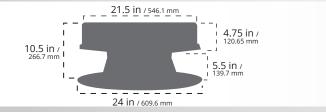
Housing & Flashing System

Aircraft grade, spun-formed aluminum for the utmost quality protection Inner housing system is aerodynamically designed to produce the highest possible radial air exhaust Powder coated outer shell

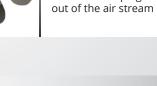
Solar Panel

27 watt, 1.25 amp proprietary, high purity, mono-crystalline cell solar panel Weather proof in the most severe conditions High transparent, low iron tempered glass Built for maximum performance and safety

Dimensions & Weight







Mesh Screen

Stainless Steel

the Solaro Aire

Constructed specifically for

1/4" mesh screen keeps

out while allowing

animals and rodents

maximum air exhaust



The Max Aire motor is mounted under the aluminum air deflector. Keeping it

10.5 in / 266.7 mm 25 in / 635 mm 25 in / 635 mm Important Note: The Solaro Aire Attic Fan Ventilation System is 100% fire proof and all electrical components are hidden under the air diverting cowling creating an extremely safe and efficient ventilation system

Limited Lifetime Warranty - See warranty details for additional information.

27w HIGH PROFILE REMOTE

SOI aro ENERGY



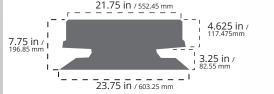


due to limited light access in a desired fan location. Includes 25 ft. of Interconnect Cable. Tucks in closer to the roof to be less conspicuous and more resistant to high winds. Only product certified through Dade County and approved for high winds. (160 mph)

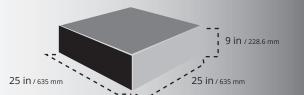
The Remote Solar Panel models are perfect for installing the attic fan and solar panel separately,

Technical Information

Weight Performance Electrical Material Housing System: Spun Formed, Air Flow Rate: Solar Panel: 27 watt, 17 to 22 DC, Fan Weight: 19 lbs / 8.61 kg 900 to 1200 CFM 1.25 amp, 36 mono-crystalline Aircraft Grade Aluminum Fan Blade: 12" Aluminum, Factory Balanced Depending on solar exposure cell, solar cells with black back Mesh Screen: Stainless Steel, 1/4" Fan Packaged: 28 lbs. / 12.7 kg sheet Ventilation: Up to 1250 sq.ft. Mesh, Rodent Control Attic must support intake air Motor: Solaro Max Aire Wiring: 18 Gauge Copper Conductors Brushless DC Motor, 10-22VDC for best performance with PVC Insulation Components <u>Active Aire</u> <u>Sola</u>ro Max Aire Motor Mesh Screen Housing & Flashing System Aircraft grade, spun-formed Brushless Electronic Motor with Maximum Constructed specifically for Yield Technology. This new motor technology aluminum for the utmost the Solaro Aire was developed by Solaro Energy - Our quality protection 1/4" mesh screen keeps engineers leveraged lessons learned Inner housing system is from our original brushless electronic animals and rodents aerodynamically designed motor that we used for over 12 years. out while allowing to produce the highest This new motor technology offers about maximum air exhaust 30% better efficiency and air moving possible radial air exhaust Stainless Steel performance, with an amazing 100,000 Powder coated outer shell hours average motor run time! Solar Panel Fan Blade Motor & Fan Mount Specifically designed for the 27 watt, 1.25 amp proprietary, Solaro Aire solar powered high purity, mono-crystalline The Max Aire motor is ventilation system cell solar panel mounted under the Weather proof in the most aluminum air 12" - 5 blade aluminum fan, severe conditions deflector. Keeping it aerodynamically optimized High transparent, low iron blade to improve airflow out of the air stream tempered glass Operates whisper quiet Built for maximum performance and safety throughout the day **Dimensions & Weight** 12.5 in / 317.5 mm







Important Note: The Solaro Aire Attic Fan Ventilation System is 100% fire proof and all electrical components are hidden under the air diverting cowling creating an extremely safe and efficient ventilation system Limited Lifetime Warranty - See warranty details for additional information.

27w LOW PROFILE REMOTE

Specification Sheet Model # SA-27WT-HPE





Perfect for any installation requiring movement of the solar panel. Can be tilted and raised to 35 degrees or set flat against the solar fan. The Tilt Fan can also be rotated 360 degrees. As the seasons change, so does the angle of the sun. This solar panel can be changed year round to provide maximum performance.

Technical Information

Weight

Fan Weight: 24 lbs / 10.88 kg

Fan Packaged: 29 lbs. / 13.15 kg

Performance Air Flow Rate: 900 to 1200 CFM Depending on solar exposure Ventilation: Up to 1250 sq.ft. Attic must support intake air for best performance

Electrical

Solaro Max Aire Motor

Brushless Electronic Motor with Maximum

engineers leveraged lessons learned from our original brushless electronic

motor that we used for over 12 years.

30% better efficiency and air moving

hours average motor run time!

Specifically designed for the Solaro Aire solar powered

12" - 5 blade aluminum fan.

blade to improve airflow

aerodynamically optimized

ventilation system

Operates whisper quiet

throughout the day

Fan Blade

This new motor technology offers about

performance, with an amazing 100,000

Yield Technology. This new motor technology was developed by Solaro Energy - Our

Solar Panel: 27 watt, 17 to 22 DC, 1.25 amp, 36 mono-crystalline cell, solar cells with black back sheet

Motor: Solaro Max Aire Brushless DC Motor,10-22VDC

Material

Housing System: Spun Formed, Aircraft Grade Aluminum Fan Blade: 12" Aluminum, Factory Balanced Mesh Screen: Stainless Steel, 1/4" Mesh, Rodent Control

Wiring: 18 Gauge Copper Conductors with PVC Insulation

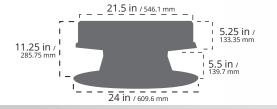
Housing & Flashing System

Aircraft grade, spun-formed aluminum for the utmost quality protection Inner housing system is aerodynamically designed to produce the highest possible radial air exhaust

Powder coated outer shell
Solar Panel

27 watt, 1.25 amp proprietary, high purity, mono-crystalline cell solar panel Weather proof in the most severe conditions High transparent, low iron tempered glass Built for maximum performance and safety

Dimensions & Weight







the Solaro Aire 1/4" mesh screen keeps animals and rodents out while allowing maximum air exhaust Stainless Steel

Constructed specifically for

Mesh Screen



Components

Motor & Fan Mount

The Max Aire motor is mounted under the aluminum air deflector. Keeping it out of the air stream



25 in / 635 mm

Important Note: The Solaro Aire Attic Fan Ventilation System is 100% fire proof and all electrical components are hidden under the air diverting cowling creating an extremely safe and efficient ventilation system *Limited Lifetime Warranty* - See warranty details for additional information.

27w HIGH PROFILE TILT

Specification Sheet Model # SA-27WT-LPE

S Ο N



Provides the same performance as the high profile base, when additional clearance is not necessary. Tucks in closer to the roof to be less conspicuous and more resistant to high winds. Perfect for any installation requiring movement of the solar panel. Can be tilted and raised to 35 degrees or set flat against the solar fan. The Tilt Fan can also be rotated 360 degrees. As the seasons change, so does the angle of the sun. This solar panel can be changed year round to provide maximum performance.

Technical Information

Weight

Fan Weight: 24 lbs / 10.88 kg Fan Packaged: 29 lbs. / 13.15 kg

Performance Air Flow Rate: 900 to 1200 CFM Depending on solar exposure

Ventilation: Up to 1250 sq.ft. Attic must support intake air for best performance

Electrical Solar Panel: 27 watt, 17 to 22 DC, 1.25 amp, 36 mono-crystalline cell, solar cells with black back sheet

Motor: Solaro Max Aire Brushless DC Motor, 10-22VDC

Material

Housing System: Spun Formed, Aircraft Grade Aluminum Fan Blade: 12" Aluminum, Factory Balanced Mesh Screen: Stainless Steel, 1/4" Mesh, Rodent Control

Wiring: 18 Gauge Copper Conductors with PVC Insulation

<u>ActiveAire</u>

Housing & Flashing System

Aircraft grade, spun-formed aluminum for the utmost quality protection Inner housing system is aerodynamically designed to produce the highest possible radial air exhaust Powder coated outer shell

Solar Panel

8.5 in / 1

27 watt, 1.25 amp proprietary, high purity, mono-crystalline cell solar panel Weather proof in the most severe conditions High transparent, low iron tempered glass Built for maximum performance and safety

Dimensions & Weight

21.75 in / 552.45 mm

23.75 in / 603.25 mm



5.25 in /

3.25 in / 82.55 mm

Max Aire Motor Brushless Electronic Motor with Maximum Yield Technology. This new motor technology was developed by Solaro Energy - Our

olaro

engineers leveraged lessons learned from our original brushless electronic motor that we used for over 12 years. This new motor technology offers about 30% better efficiency and air moving performance, with an amazing 100,000 hours average motor run time!

Specifically designed for the Solaro Aire solar powered ventilation system

12" - 5 blade aluminum fan. aerodynamically optimized blade to improve airflow Operates whisper quiet throughout the day



the Solaro Aire 1/4" mesh screen keeps animals and rodents out while allowing

Mesh Screen

maximum air exhaust Stainless Steel



Components

Motor & Fan Mount

The Max Aire motor is mounted under the aluminum air deflector. Keeping it out of the air stream





Important Note: The Solaro Aire Attic Fan Ventilation System is 100% fire proof and all electrical components are hidden under the air diverting cowling creating an extremely safe and efficient ventilation system Limited Lifetime Warranty - See warranty details for additional information.

27w LOW PROFILE TILT

Specification Sheet Model # SA-37WR-GAE





Can be mounted inside the attic over an existing gable vent or roof penetration to supercharge the vents already there. Remains hidden and out of the weather, except for the roof mounted solar panel.

No large holes to cut in your roof.

Technical Information

Weight Material Performance Electrical Housing System: Spun Formed, Air Flow Rate: Solar Panel: 37 watt, 17 to 22 DC, Fan Weight: 5 lbs / 2.26 kg Aircraft Grade Aluminum 900 to 1200 CFM 1.5 amp, 36 mono-crystalline Fan Blade: 12" Aluminum, Factory Balanced Depending on solar exposure cell, solar cells with black back Fan Packaged: 18 lbs. / 8.16 kg Mesh Screen: Stainless Steel, 1/4" Ventilation: Up to 1600 sq.ft. sheet Mesh, Rodent Control Attic must support intake air Motor: Solaro Max Aire Wiring: 18 Gauge Copper Conductors for best performance Brushless DC Motor, 10-22VDC with PVC Insulation Components **∆ctiveAire** olaro Max Aire Motor Housing & Flashing System **Solar Panel Brackets** Aircraft grade, spun-formed Brushless Electronic Motor with Maximum **Extruded Aluminum** Yield Technology. This new motor technology aluminum for the utmost Mill finished was developed by Solaro Energy - Our quality protection Dimensions depth 0.60' engineers leveraged lessons learned Inner housing system is from our original brushless electronic 2"x2" aerodynamically designed motor that we used for over 12 years. Supports solar panel This new motor technology offers about to produce the highest 30% better efficiency and air moving possible radial air exhaust performance, with an amazing 100,000 Powder coated outer shell hours average motor run time! Solar Panel Fan Blades Interconnect Cable Specifically designed for the 37 watt, 1.5 amp proprietary, Wire: 25' - 2 Conductor Solaro Aire solar powered high purity, mono-crystalline 18 Gauge stranded copper ventilation system cell solar panel U.V. Rated Weather proof in the most 12" - 5 blade aluminum fan, Power transfer cable severe conditions aerodynamically optimized High transparent, low iron blade to improve airflow tempered glass Operates whisper quiet Built for maximum performance and safety throughout the day **Dimensions & Weight**



Important Note: The Solaro Aire Attic Fan Ventilation System is 100% fire proof and all electrical components are hidden under the air diverting cowling creating an extremely safe and efficient ventilation system *Limited Lifetime Warranty* - See warranty details for additional information.

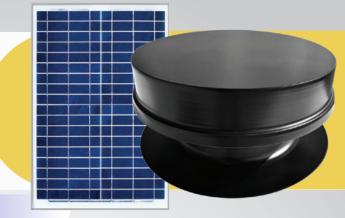
37w GABLE

SOI A r O E N E R G Y



Specification Sheet Model # SA-37WR-HPE

Allows solar panel location to be independent from the fan, so each can be placed in the ideal location on the roof. Can also be used with larger solar panels for improved performance, to offset poor lighting environments. Only product certified through Dade County and approved for high winds. (160 mph)



Mesh Screen

Stainless Steel

the Solaro Aire

Constructed specifically for

1/4" mesh screen keeps

out while allowing

Motor & Fan Mount

The Max Aire motor is

mounted under the

deflector. Keeping it

out of the air stream

aluminum air

animals and rodents

maximum air exhaust

Technical Information

Weight

Fan Weight: 19 lbs / 8.61 kg

Fan Packaged: 28 lbs. / 12.7 kg

Performance Air Flow Rate: 900 to 1200 CFM Depending on solar exposure Ventilation: Up to 1250 sq.ft. Attic must support intake air for best performance

Solaro

Max Aire Motor

Yield Technology. This new motor technology

Brushless Electronic Motor with Maximum

was developed by Solaro Energy - Our

engineers leveraged lessons learned

from our original brushless electronic

motor that we used for over 12 years.

30% better efficiency and air moving

hours average motor run time!

Specifically designed for the

12" - 5 blade aluminum fan,

ventilation system

Operates whisper quiet

throughout the day

Solaro Aire solar powered

aerodynamically optimized

blade to improve airflow

Fan Blade

performance, with an amazing 100,000

This new motor technology offers about

Electrical

Solar Panel: 37 watt, 17 to 22 DC, 1.5 amp, 36 mono-crystalline cell, solar cells with black back sheet Motor: Solaro Max Aire

Brushless DC Motor,10-22VDC

Material

Housing System: Spun Formed, Aircraft Grade Aluminum Fan Blade: 12" Aluminum, Factory Balanced Mesh Screen: Stainless Steel, 1/4" Mesh, Rodent Control Wiring: 18 Gauge Copper Conductors

Components

with PVC Insulation

Housing & Flashing System

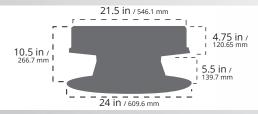
Aircraft grade, spun-formed aluminum for the utmost quality protection Inner housing system is aerodynamically designed to produce the highest possible radial air exhaust Powder coated outer shell

Solar Panel

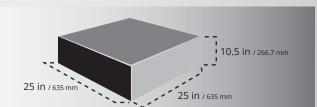
37 watt, 1.5 amp proprietary, high purity, mono-crystalline cell solar panel
Weather proof in the most severe conditions
High transparent, low iron tempered glass

Built for maximum performance and safety

Dimensions & Weight







Important Note: The Solaro Aire Attic Fan Ventilation System is 100% fire proof and all electrical components are hidden under the air diverting cowling creating an extremely safe and efficient ventilation system *Limited Lifetime Warranty* - See warranty details for additional information.

37w HIGH PROFILE REMOTE

Specification Sheet Model # SA-37WR-LPE





Allows solar panel location to be independent from the fan, so each can be placed in the ideal location on the roof. Can also be used with larger solar panels for improved performance, to offset poor lighting environments. Only product certified through Dade County and approved for high winds. (160 mph)



Mesh Screen

Stainless Steel

aluminum air

the Solaro Aire

Constructed specifically for

1/4" mesh screen keeps

out while allowing

Motor & Fan Mount

The Max Aire motor is mounted under the

deflector. Keeping it

out of the air stream

animals and rodents

maximum air exhaust

Technical Information

Weight

Fan Weight: 19 lbs / 8.61 kg

Fan Packaged: 28 lbs. / 12.7 kg

Performance Air Flow Rate: 900 to 1200 CFM Depending on solar exposure Ventilation: Up to 1250 sq.ft. Attic must support intake air for best performance

> Solaro Max Aire Motor

Brushless Electronic Motor with Maximum

engineers leveraged lessons learned

from our original brushless electronic

motor that we used for over 12 years.

This new motor technology offers about

30% better efficiency and air moving performance, with an amazing 100,000

hours average motor run time!

Specifically designed for the

12" - 5 blade aluminum fan,

ventilation system

Operates whisper quiet

throughout the day

Solaro Aire solar powered

aerodynamically optimized

blade to improve airflow

Fan Blade

Yield Technology. This new motor technology was developed by Solaro Energy - Our

Electrical Solar Panel: 37 watt, 17 to 22 DC,

1.5 amp, 36 mono-crystalline cell, solar cells with black back sheet Motor: Solaro Max Aire

Brushless DC Motor,10-22VDC

Material

Housing System: Spun Formed, Aircraft Grade Aluminum Fan Blade: 12" Aluminum, Factory Balanced Mesh Screen: Stainless Steel, 1/4" Mesh, Rodent Control

Wiring: 18 Gauge Copper Conductors with PVC Insulation

Components

Housing & Flashing System

Aircraft grade, spun-formed aluminum for the utmost quality protection Inner housing system is aerodynamically designed to produce the highest possible radial air exhaust Powder coated outer shell

Solar Panel 37 watt, 1.5 amp proprietary, high purity, mono-crystalline cell solar panel Weather proof in the most severe conditions High transparent, low iron tempered glass

Built for maximum performance and safety

Dimensions & Weight



Important Note: The Solaro Aire Attic Fan Ventilation System is 100% fire proof and all electrical components are hidden under the air diverting cowling creating an extremely safe and efficient ventilation system *Limited Lifetime Warranty* - See warranty details for additional information.

37w LOW PROFILE REMOTE

Specification Sheet Model # SA-37WT-HPE





Perfect for any installation requiring movement of the solar panel. Can be tilted and raised to 35 degrees or set flat against the solar fan. The Tilt Fan can also be rotated 360 degrees. As the seasons change, so does the angle of the sun. This solar panel can be changed year round to provide maximum performance.

Technical Information

Weight

Fan Weight: 24 lbs / 10.88 kg Fan Packaged: 29 lbs. / 13.15 kg Performance Air Flow Rate: 900 to 1200 CFM Depending on solar exposure Ventilation: Up to 1250 sq.ft. Attic must support intake air for best performance

> olaro Max Aire Motor

Brushless Electronic Motor with Maximum

was developed by Solaro Energy - Our

engineers leveraged lessons learned

from our original brushless electronic

motor that we used for over 12 years.

30% better efficiency and air moving

hours average motor run time!

Specifically designed for the

12" - 5 blade aluminum fan,

blade to improve airflow

Operates whisper quiet

throughout the day

ventilation system

Solaro Aire solar powered

aerodynamically optimized

Fan Blade

This new motor technology offers about

performance, with an amazing 100,000

Yield Technology. This new motor technology

Electrical Solar Panel: 37 watt, 17 to 22 DC, 1.5 amp, 36 mono-crystalline

cell, solar cells with black back sheet Motor: Solaro Max Aire Brushless DC Motor, 10-22VDC

Material

Housing System: Spun Formed, Aircraft Grade Aluminum Fan Blade: 12" Aluminum, Factory Balanced Mesh Screen: Stainless Steel, 1/4" Mesh, Rodent Control Wiring: 18 Gauge Copper Conductors

Components

with PVC Insulation

<u>ActiveAire</u>

Housing & Flashing System

Aircraft grade, spun-formed aluminum for the utmost quality protection Inner housing system is aerodynamically designed to produce the highest possible radial air exhaust Powder coated outer shell

Solar Panel

37 watt, 1.5 amp proprietary, high purity, mono-crystalline cell solar panel Weather proof in the most severe conditions High transparent, low iron tempered glass

Built for maximum performance and safety

Dimensions & Weight







Motor & Fan Mount The Max Aire motor is

Constructed specifically for

1/4" mesh screen keeps

out while allowing

animals and rodents

maximum air exhaust

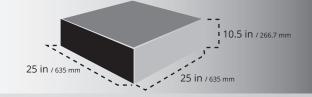
Mesh Screen

Stainless Steel

the Solaro Aire



mounted under the aluminum air deflector. Keeping it out of the air stream



Important Note: The Solaro Aire Attic Fan Ventilation System is 100% fire proof and all electrical components are hidden under the air diverting cowling creating an extremely safe and efficient ventilation system Limited Lifetime Warranty - See warranty details for additional information.

37w HIGH PROFILE TILT

Specification Sheet Model # SA-37WT-LPE

S a Ο R F N



Provides the same performance as the high profile base, when additional clearance is not necessary. Tucks in closer to the roof to be less conspicuous and more resistant to high winds. Perfect for any installation requiring movement of the solar panel. Can be tilted and raised to 35 degrees or set flat against the solar fan. The Tilt Fan can also be rotated 360 degrees. As the seasons change, so does the angle of the sun. This solar panel can be changed year round to provide maximum performance.

Technical Information

Weight

Fan Weight: 24 lbs / 10.88 kg

Fan Packaged: 29 lbs. / 13.15 kg

Performance Air Flow Rate: 900 to 1200 CFM Depending on solar exposure Ventilation: Up to 1250 sq.ft. Attic must support intake air for best performance

> Solaro Max Aire Motor

Brushless Electronic Motor with Maximum

engineers leveraged lessons learned

from our original brushless electronic

motor that we used for over 12 years.

This new motor technology offers about

30% better efficiency and air moving performance, with an amazing 100,000

hours average motor run time!

Specifically designed for the

12" - 5 blade aluminum fan,

blade to improve airflow

ventilation system

Operates whisper quiet

throughout the day

Solaro Aire solar powered

aerodynamically optimized

Fan Blade

Yield Technology. This new motor technology was developed by Solaro Energy - Our

Electrical Solar Panel: 37 watt, 17 to 22 DC,

1.5 amp, 36 mono-crystalline cell, solar cells with black back sheet Motor: Solaro Max Aire

Brushless DC Motor, 10-22VDC

Material

Housing System: Spun Formed, Aircraft Grade Aluminum Fan Blade: 12" Aluminum, Factory Balanced Mesh Screen: Stainless Steel, 1/4" Mesh, Rodent Control

Components

Wiring: 18 Gauge Copper Conductors with PVC Insulation

∆ctiveAire

Housing & Flashing System

Aircraft grade, spun-formed aluminum for the utmost quality protection Inner housing system is

aerodynamically designed to produce the highest possible radial air exhaust Powder coated outer shell

Solar Panel

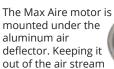
37 watt, 1.5 amp proprietary, high purity, mono-crystalline cell solar panel Weather proof in the most severe conditions High transparent, low iron tempered glass

Built for maximum performance and safety

Dimensions & Weight







Mesh Screen

Stainless Steel

the Solaro Aire

Constructed specifically for

1/4" mesh screen keeps

out while allowing

animals and rodents

maximum air exhaust



9 in / 228.6 mm 25 in / 635 mm 25 in / 635 mm

Important Note: The Solaro Aire Attic Fan Ventilation System is 100% fire proof and all electrical components are hidden under the air diverting cowling creating an extremely safe and efficient ventilation system Limited Lifetime Warranty - See warranty details for additional information.

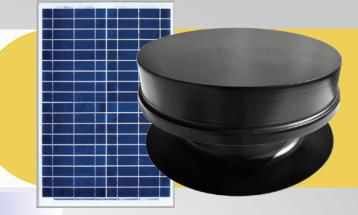
37w LOW PROFILE TILT

Specification Sheet Model # SA-40WR-HPE





Allows solar panel location to be independent from the fan, so each can be placed in the ideal location on the roof. Can also be used with larger solar panels for improved performance, to offset poor lighting environments. Only product certified through Dade County and approved for high winds. (160 mph)



Technical Information

Weight

Fan Weight: 11.3 lbs / 5.1 kg

Fan Packaged: 32 lbs. / 14.5 kg

Performance Air Flow Rate: 900 to 1500 CFM Depending on solar exposure Ventilation: Up to 1250 sq.ft. Attic must support intake air for best performance

Electrical Solar Panel: 40 watt, 17 to 22 DC, 1.75 amp, 36 mono-crystalline

cell, solar cells with black back sheet Motor: Solaro Max Aire Brushless DC Motor,10-22VDC

Material

Housing System: Spun Formed, Aircraft Grade Aluminum Fan Blade: 12" Aluminum, Factory Balanced Mesh Screen: Stainless Steel, 1/4" Mesh, Rodent Control Wiring: 18 Gauge Copper Conductors with PVC Insulation

Components

ActiveAire

Solar Panel

cell solar panel

tempered glass

Housing & Flashing System

Aircraft grade, spun-formed aluminum for the utmost quality protection Inner housing system is aerodynamically designed to produce the highest possible radial air exhaust Powder coated outer shell

40 watt, 1.75 amp proprietary,

Weather proof in the most

High transparent, low iron

severe conditions

high purity, mono-crystalline



Fan Blade

Specifically designed for the Solaro Aire solar powered ventilation system 12" - 5 blade aluminum fan, aerodynamically optimized blade to improve airflow

Solaro

Max Aire Motor

Brushless Electronic Motor with Maximum

was developed by Solaro Energy - Our

Yield Technology. This new motor technology

Operates whisper quiet throughout the day

engineers leveraged lessons learned from our original brushless electronic motor that we used for over 12 years. This new motor technology offers about 30% better efficiency and air moving performance, with an amazing 100,000 hours average motor run time!

The Max Aire motor is mounted under the aluminum air deflector. Keeping it out of the air stream

Mesh Screen

Stainless Steel

the Solaro Aire

Constructed specifically for

1/4" mesh screen keeps

out while allowing

Motor & Fan Mount

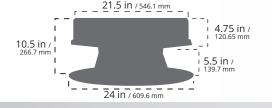
animals and rodents

maximum air exhaust

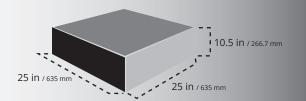


Dimensions & Weight

Built for maximum performance and safety







Important Note: The Solaro Aire Attic Fan Ventilation System is 100% fire proof and all electrical components are hidden under the air diverting cowling creating an extremely safe and efficient ventilation system Limited Lifetime Warranty - See warranty details for additional information.

40w HIGH PROFILE REMOTE

Specification Sheet Model # SA-40WR-LPE





Allows solar panel location to be independent from the fan, so each can be placed in the ideal location on the roof. Can also be used with larger solar panels for improved performance, to offset poor lighting environments. Only product certified through Dade County and approved for high winds. (160 mph)



Technical Information

Weight

Fan Weight: 11.3 lbs / 5.1 kg

Fan Packaged: 32 lbs. / 14.5 kg

Performance Air Flow Rate: 900 to 1500 CFM Depending on solar exposure Ventilation: Up to 1250 sq.ft. Attic must support intake air for best performance

Electrical

Solar Panel: 40 watt, 17 to 22 DC, 1.75 amp, 36 mono-crystalline cell, solar cells with black back sheet

Motor: Solaro Max Aire Brushless DC Motor, 10-22VDC

Material

Housing System: Spun Formed, Aircraft Grade Aluminum Fan Blade: 12" Aluminum, Factory Balanced Mesh Screen: Stainless Steel, 1/4" Mesh, Rodent Control Wiring: 18 Gauge Copper Conductors

with PVC Insulation

∧ctiveAire

Housing & Flashing System

Aircraft grade, spun-formed aluminum for the utmost quality protection Inner housing system is aerodynamically designed to produce the highest

possible radial air exhaust

40 watt, 1.75 amp proprietary,

Weather proof in the most

High transparent, low iron

severe conditions

high purity, mono-crystalline

Built for maximum performance and safety

Dimensions & Weight

Powder coated outer shell

Solar Panel

cell solar panel

tempered glass

Fan Blade

Specifically designed for the Solaro Aire solar powered ventilation system 12" - 5 blade aluminum fan.

hours average motor run time!

30% better efficiency and air moving

Solaro Max Aire Motor

aerodynamically optimized blade to improve airflow Operates whisper quiet throughout the day



Mesh Screen Constructed specifically for

the Solaro Aire 1/4" mesh screen keeps animals and rodents out while allowing maximum air exhaust Stainless Steel



Components

Motor & Fan Mount

The Max Aire motor is mounted under the aluminum air deflector. Keeping it out of the air stream



12.5 in / 317.5 mn 21.75 in / 552.45 mm 4.625 in / 9 in / 228.6 mm 7.75 in / 196.85 mm 3.25 in / 82.55 mm 25 in / 635 mm 25 in / 635 mm _____ _ _ _ _ _ _ I 23.75 in / 603.25 mm

Important Note: The Solaro Aire Attic Fan Ventilation System is 100% fire proof and all electrical components are hidden under the air diverting cowling creating an extremely safe and efficient ventilation system Limited Lifetime Warranty - See warranty details for additional information.

40w LOW PROFILE REMOTE



How Many Fans Needed Roof Pitch Chart

ROOF PITCH - HIGH ROOF PITCH 9/12 TO 12/12

800 ft. 2 Fans

1200 ft. 2 Fans

1600 ft. 3 Fans

2000 ft. 4 Fans

2400 ft. 5 Fans



ROOF PITCH - MEDIUM

ROOF PITCH 5/12 TO 8/12

- 800 ft. 1 Fan 1200 ft. 2 Fans 1600 ft. 2 Fans
- 2000 ft. 3 Fans
- 2400 ft. 4 Fans



ROOF PITCH - LOW

ROOF PITCH UP TO 4/12

800	ft.	1	Fan	

1200 ft. 1 Fan

1600 ft. 2 Fans

2000 ft. 2 Fans

2400 ft. 3 Fans

How Many Fans Do I Need?

22



Solar Powered Crawl Space Ventilation System

Specification Sheet Model # SA-37W-CS



The crawl space ventilation system is great for ventilating up to 1,000 sq. ft. this system ventilates moisture that would other wise cause mold build up and rot your floor from the bottom up. Ideal for crawl spaces located under mobile homes or other residential areas that have a crawl space under the home.

Technical Information

Weight

Fan Weight: 19 lbs / 8.61 kg

Fan Packaged: 27 lbs. / 12.24 kg

Performance Air Flow Rate: 900 to 1200 CFM Depending on solar exposure Ventilation: Up to 1250 sq.ft.

> Solaro Max Aire Motor

engineers leveraged lessons learned

from our original brushless electronic

motor that we used for over 12 years.

30% better efficiency and air moving

hours average motor run time!

Specifically designed for the

12" - 5 blade aluminum fan,

ventilation system

Operates whisper quiet

throughout the day

Solaro Aire solar powered

aerodynamically optimized

blade to improve airflow

Fan Blade

performance, with an amazing 100,000

Electrical

AMERICAN MADE TS DESIGNED AND MANUFA

> Solar Panel: 37 watt, 17 to 22 DC, 1.25 amp, 36 mono-crystalline cell, solar cells with black back sheet

Motor: Solaro Max Aire Brushless DC Motor,10-22VDC

Material

Housing System: Spun Formed, Aircraft Grade Aluminum Fan Blade: 12" Aluminum, Factory Balanced Mesh Screen: Stainless Steel, 1/4" Mesh, Rodent Control

Wiring: 18 Gauge Copper Conductors with PVC Insulation

∆ctiveAire

Housing & Flashing System

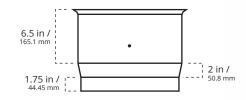
Aircraft grade, spun-formed aluminum for the utmost quality protection Inner housing system is aerodynamically designed to produce the highest possible radial air exhaust Powder coated outer shell

Solar Panel

- 37 watt, 1.25 amp proprietary, high purity, mono-crystalline cell solar panel Weather proof in the most
- severe conditions
- High transparent, low iron

tempered glass Built for maximum performance and safety

Dimensions & Weight



	13.75 in / 349.25 cm
F	(
	•
L	
Ę	11.75 in / 298.45 cm



The "Y" shape twin head air distribution and reduction system separates the air flow which comes from 12" pipe into 2 - 8" pipes



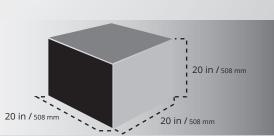
Components

Air Exhaust Port

Divider

Output vent is the point where the air flow can exit. The size of the bottom rectangular output vent is 7"x4" and the diameter of the inlet is 6"





Important Note: The Solaro Crawlspace Ventilation System is 100% fire proof and all electrical components are hidden under the air diverting cowling creating an extremely safe and efficient ventilation system Limited Lifetime Warranty - See warranty details for additional information.

CRAWL SPACE VENTILATION



Solar Powered Basement Ventilation System

Specification Sheet Model # SA-37W-BVS1







The Solaro Basement Ventilation System helps keep your home safe for family, friends and pets by reducing moisture and harmful gas build-up (such as radon). And keeping fresh air circulating for a clean, energized feeling. Interface with our 37 or 40 watt solar panel.

Technical Information

Weight

Fan Weight: 41 lbs / 18.5 kg

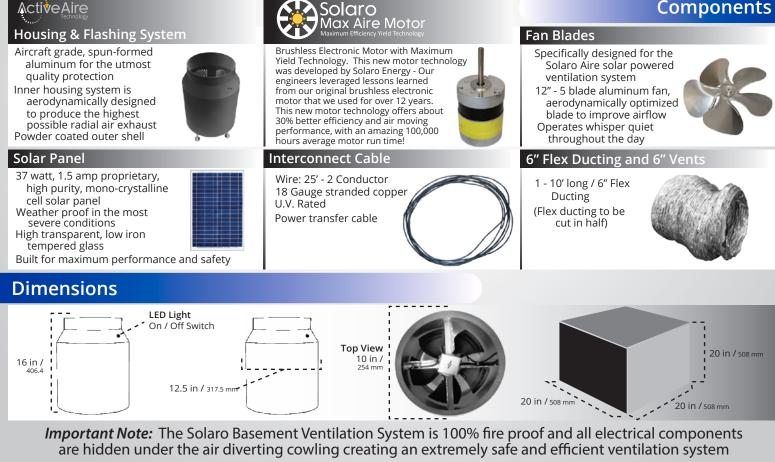
Performance Air Flow Rate: 37 watt 900 to 1200 CFM 40 watt 900 to 1500 CFM Ventilation: 37 watt Up to 1600 sq.ft 40 watt Up to 2000 sq.ft

Electrical

Solar Panel: 37 watt, 17 to 22 DC, 36 mono-crystalline cell, solar cells with black back sheet 37 watt 1.5 amp 40 watt 1.75 amp Motor: Solaro Max Aire Brushless DC Motor, 10-22VDC

Material

Housing System: Spun Formed, Aircraft Grade Aluminum Fan Blade: 12" Aluminum, Factory Balanced Mesh Screen: Stainless Steel, 1/4" Mesh, Rodent Control Wiring: 18 Gauge Copper Conductors with PVC Insulation



Limited Lifetime Warranty - See warranty details for additional information.

BASEMENT VENTILATION

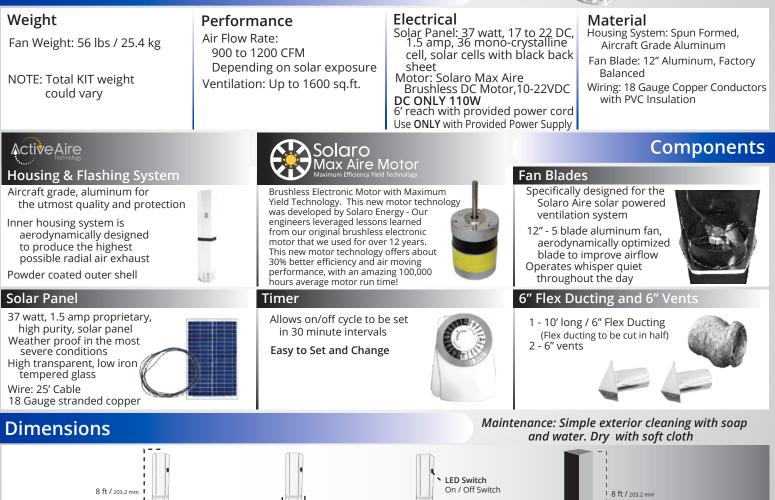
Specification Sheet Model # SA-37W-BVS2





The Solaro Basement Ventilation System helps keep your home safe for family, friends and pets by reducing moisture and harmful gas build-up (such as radon). And keeping fresh air circulating for a clean, energized feeling. The Solaro BVS2 comes with a DC power supply to plug right into your home, but a 37W - solar powered kit is also available. All units also include a timer that can be used on DC (house) power and manually set to run your unit at maximum energy efficiency to maintain a safe and healthy radon level or to periodically kick on to the air for freshness.

Technical Information



Important Note: The Solaro Basement Ventilation System is 100% fire proof and all electrical components are hidden under the air diverting cowling creating an extremely safe and efficient ventilation system *Limited Lifetime Warranty* - See warranty details for additional information.

20 in / 508 mm

20 in / 508 mm

19 in / 482.6 mm

BASEMENT VENTILATION



Soloro Aire Solar Powered Garage System

Specification Sheet Model # SA-30W-GVK

S O I O I O T O E N E R G Y



This product is designed to completely ventilate a 1 to 2 car garage, to remove heat, moisture and odors. The system is completely powered from a 30 watt, Solaro high energy, high performance, low iron, tempered glass, silicon based solar panel. The Day/Night Kit is supplied with a multifunction wall mount switch recessed wiring box, 30 watt DC power supply and various wiring and connectors.



Technical Information

Weight

Fan Weight: 19 lbs / 8.61 kg

Fan Packaged: 40 lbs. / 18.1 kg

Performance Air Flow Rate: 900 to 1200 CFM Depending on solar exposure Ventilation: Up to 1250 sq.ft.

> Solaro Max Aire Motor

engineers leveraged lessons learned

from our original brushless electronic

motor that we used for over 12 years

This new motor technology offers about

30% better efficiency and air moving performance, with an amazing 100,000

hours average motor run time!

Specifically designed for the

12" - 5 blade aluminum fan,

blade to improve airflow

ventilation system

Operates whisper quiet

throughout the day

Solaro Aire solar powered

aerodynamically optimized

Fan Blade

Brushless Electronic Motor with Maximum

Yield Technology. This new motor technology was developed by Solaro Energy - Our

Electrical

Solar Panel: 30 watt, 17 to 22 DC, 1.25 amp, 36 mono-crystalline cell, solar cells with black back sheet Motor: Solaro Max Aire

Brushless DC Motor,19-24VDC

Material

Flex Ducting & Ceiling Grill

10 ft. Long,

12" x 12"

10" Flex

Ducting

Aluminum

Ceiling Grill

Day/Night Switch Kit

Decora Multi-Functional

Switch and Cover Plate

AC Adapter

19 - 24 VDC

supply

120 volt outlet to

low voltage power

Housing System: Spun Formed, Aircraft Grade Aluminum Fan Blade: 12" Aluminum, Factory Balanced Mesh Screen: Stainless Steel, 1/4" Mesh, Rodent Control Wiring: 18 Gauge Copper Conductors with PVC Insulation

Components

Housing & Flashing System

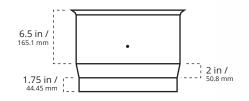
Aircraft grade, spun-formed aluminum for the utmost quality protection Inner housing system is aerodynamically designed to produce the highest possible radial air exhaust Powder coated outer shell

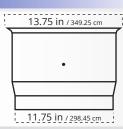
Solar Panel

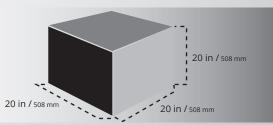
- 37 watt, 1.25 amp proprietary, high purity, mono-crystalline cell solar panel Weather proof in the most severe conditions High transparent, low iron
- tempered glass

Built for maximum performance and safety

Dimensions & Weight







Important Note: The Solaro Garage Ventilation System is 100% fire proof and all electrical components are hidden under the air diverting cowling creating an extremely safe and efficient ventilation system *Limited Lifetime Warranty* - See warranty details for additional information.

GARAGE VENTILATION



Solor Powered Delivery Truck Ventilation

Specification Sheet Model # SA-TFE-WH

F R Ν F Solaro Energy wants to present to you our newest ventilation system for multiple types truck trailers. This advanced system, extracts the air like no other fan, creating a more efficient air flow. This is a 25-watt unit fan that moves up to 900 cfm. This product has constant air flow throughout your trailer also known as air exchange or active air. Our fan is completely powered by the sun. By pulling outside air source in through existing windows and vents.



Technical Information

Weight

S

Fan Weight: 19 lbs / 8.61 kg

Fan Packaged: 27 lbs. / 12.24 kg

Performance Air Flow Rate: 900 to 1200 CFM Depending on solar exposure Ventilation: Up to 1250 sq.ft. Attic must support intake air for best performance

AMERICAN MADE

Electrical

Solar Panel: 25 watt, 17 to 22 DC, 1.25 amp, 36 mono-crystalline cell, solar cells with black back sheet

Motor: Solaro Max Aire Brushless DC Motor, 10-22VDC

Material

Housing System: Spun Formed, Aircraft Grade Aluminum Fan Blade: 12" Aluminum, Factory Balanced Mesh Screen: Stainless Steel, 1/4" Mesh, Rodent Control

Wiring: 18 Gauge Copper Conductors with PVC Insulation

Components

∧ctiveAire

Solar Panel

cell solar panel

Housing & Flashing System

Aircraft grade, spun-formed aluminum for the utmost quality protection Inner housing system is aerodynamically designed to produce the highest possible radial air exhaust Powder coated outer shell

25 watt, 1.25 amp proprietary,

Weather proof in the most

High transparent, low iron

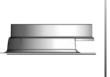
severe conditions

tempered glass

high purity, mono-crystalline

Built for maximum performance and safety

Dimensions & Weight



This new motor technology offers about 30% better efficiency and air moving performance, with an amazing 100,000 hours average motor run time!

Fan Blade

Specifically designed for the Solaro Aire solar powered ventilation system

olaro Max Aire Motor

Brushless Electronic Motor with Maximum Yield Technology. This new motor technology

was developed by Solaro Energy - Our

engineers leveraged lessons learned from our original brushless electronic

motor that we used for over 12 years.

12" - 5 blade aluminum fan, aerodynamically optimized blade to improve airflow Operates whisper quiet throughout the day



The Max Aire motor is mounted under the aluminum air deflector. Keeping it out of the air stream

Wind Shield

This aerodynamic

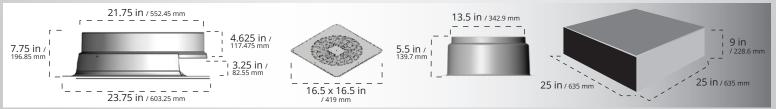
creates a smooth

airflow with less

wind resistance

wind reflector





Important Note: The Solaro Aire Attic Fan Ventilation System is 100% fire proof and all electrical components are hidden under the air diverting cowling creating an extremely safe and efficient ventilation system Limited Lifetime Warranty - See warranty details for additional information.

DELIVERY TRUCK VENTILATION

31



Insulated Paint with Nano Shield Technology



Specification Sheet

SOIC R O

Solaro Shield Insulated Paint with 3M Nano Shield Technology

Solaro Energy has designed a line of **insulated paint**, with 3M Nano Shield Technology. This is a sunlight reflecting paint that can be applied to a truck rooftop. This concept has new support from the U.S. Green Building Council (USGBC) which has issued a pilot credit for the insulation of trucks. As well as, of cool exterior walls in new homes, schools, and commercial buildings to mitigate urban heat islands.



Insulation paint, also known as **infrared reflecting paint**, is an innovative and energy-efficient solution designed to enhance the thermal performance of buildings and surfaces. This advanced coating incorporates ceramic micro-spheres, which are tiny hollow spheres made from ceramic materials. The **ceramic micro-spheres** possess excellent heat-insulating properties, effectively acting as thermal barriers that minimize heat transfer. When applied to walls, roofs, or other structures, insulation paint helps regulate indoor temperatures by reflecting a significant portion of infrared radiation from the sun, thus reducing heat absorption. As a result, buildings stay cooler during hot summers and retain warmth in colder months, leading to improved energy efficiency and reduced reliance on heating and cooling systems. The technology of **insulation paint** with infrared reflecting capabilities and ceramic micro-spheres represents a promising step towards sustainable construction and climate-conscious design.

Insulated Paint Data

Description of Insulated Paint

- \cdot Thermal Insulation, Mold Resistant, UV and Moisture Resistant for Delivery Trucks and Horse Trailers
 - ·Sustainable Coating which Reduces Energy Costs & Carbon Emissions
 - •Can be Used Over Both Metal and Non-Metal Substrates
- Indoor and Outdoor Use
- ·Can be Painted Over

Insulated Paint Features & Benefits

Green Product

Environmentally Friendly Non-Toxic, Low VOC Water Based Breathable, won't act as a vapor barrier Non-Flammable Easy Cleanup

Thermal Insulation

Control Heat Loss Reduces Energy Costs UV Resistant Can Be Painted Over, provides protection to underlying building surfaces from weathering and damage due to the elements

Resistant to Moisture

Mold & Mildew Resistant tested to ASTM D5590 and ASTM G21 for mold resistance Reduces Chance of Food Contamination Vapor Permeable (breathes)

Coverage

One Gallon Rate (3.79 liters): Yields approx. 12 mils/ 300 microns wet film thickness (3 coat) over 150 sq.ft. Wet Coat Thickness: 4 wet mils per coat Dry Coat Thickness of 1 Coat: .75 mil Touch Dry Time: 1-2 Hours Hard Dry Time: 72 Hours Cure Time: 30 Days, depending on environment

Easy to Apply & Durable

Outstanding Durability & Weathering Easy to Apply by Brush, Roller, or Paint Sprayer Cost Effective, with long-term savings and short payback







Solar Powered Daylighting System Y

Specification Sheet Model # sp-2500-сс-кітзоw





Solaro Day[™] daylight system which uses one single source of solar power and multiple points of daylight simulators to light up your entire home, office, retail outlet, school, government building or factory. Follows the brightness of the sun like a traditional skylight without all the inconveniences of one. Plants love the Solaro Day!

Technical Information

Contents

Recessed Fixture 30 watt solar panel, 1.74 amp 25ft (7.5m) interconnect cable Solar panel mounting kit

Performance

Lumen: 2200 Lumen (equivalent to 2 - 100 watt Incandescent light bulbs) Light temp: 4500 - 5000 Kelvin Power consumption: 30 watts per light fixture

Construction Materials

Housing System: Spun Formed, Aircraft Grade Aluminum Solar Panel: 30 watt, 17 to 22 DC, 1.5 amp, 36 mono-crystalline cell, solar cells with black back sheet Stainless Steel & Nylon Screws Powder Coated Outer Shell

Electrical

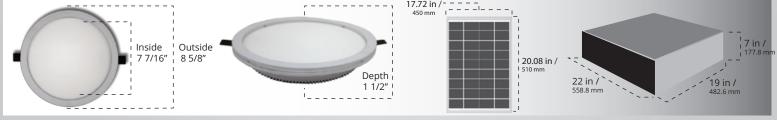
Electronics: Proprietary current control driver & light engine

Features

Power Options: 18 - 24V DC

Input Current: 1.8 amps

Durable & Compatible Light Quality Easy to Install 78 OPTO Semi-conductors Spring Clips for a strong yet Will never rust or get brittle provide balanced light Fastener free hold like steel or plastic High diffusion plastic lens Weather proof solar panel removes all hot spots Self contained, Runs No harmful UV gets in directly off solar panel without additional Wider spectrum than AC wiring Incandescents & Florescent light Driver Day / Night Kit Compatible Solar Panel Hi-tech American Made daylight 30 watt, 1.5 amp proprietary, Compatible with Day / Night simulator driver high purity, mono-crystalline Kit for night time use 0-24 Volts input power cell solar panel 30W minimum / 120 max. Weather proof in the most solar panel severe conditions . Simulates the sun and High transparent, low iron 11 works like a skylight tempered glass Gets light to dim with passing clouds See Day/Knight Kit Spec. Sheet for details Built for maximum performance and safety **Dimensions & Weight** Weight: Light Fixture Packed: 16 lbs. / 7.2 kg 17.72 in /-



Limited Lifetime Warranty - See warranty details for additional information.

SOLARO DAY

Specification Sheet Model # SD-2500-CC-FIX

S O I O r O[™]



Solaro Day[™] daylight system which uses one single source of solar power and multiple points of daylight simulators to light up your entire home, office, retail outlet, school, government building or factory. Follows the brightness of the sun like a traditional skylight without all the inconveniences of one. Plants love the Solaro Day!

Technical Information

Contents

Recessed Fixture Decora Multi-Functional Switch and Cover Plate (white)



Performance

Lumen: 2200 Lumen (equivalent to 2 - 100 watt Incandescent light bulbs) Light temp: 4500 - 5000 Kelvin Power consumption: 30 watts per light fixture

Construction Materials

Housing System: Spun Formed, Aircraft Grade Aluminum

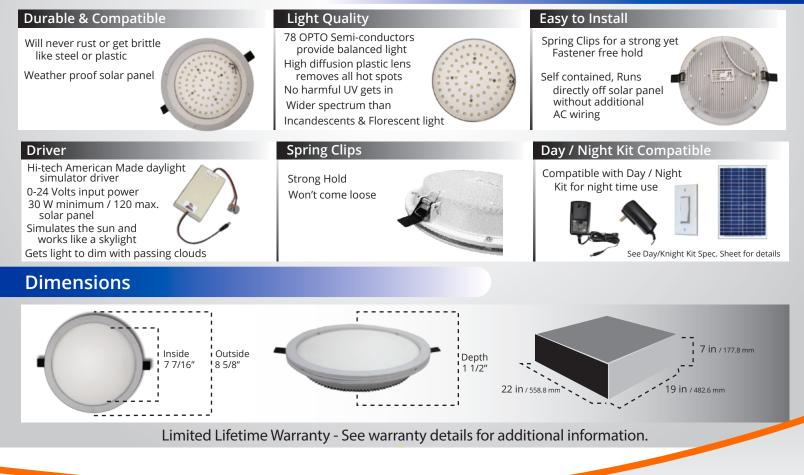
Stainless Steel & Nylon Screws Powder Coated Outer Shell

Electrical

Electronics: Proprietary current control driver & light engine

Power Options: 18 - 24V DC Input Current: 1.8 amps

Features



SOLARO DAY



Solar Powered Street Light

Specification Sheet Model # SD-70W-SL

SOI A FO



The Solaro Street Light integrates the green-energy solar panel, LED lamp and the lithium battery into a single product. This product is meant to be placed in your garden, residential area, courtyard, road, main area, parking area, parking area or provide light on roads where it is necessary. The battery provides the necessary energy for lighting. And the solar panel to charges the battery.

Technical Information

Specs. Packaged Weight: 42 lbs / 18.16 kg

Warranty: 1 Year

Mounting Height: 5 - 6m

Performance Lumen: 4100 - 4300 lumens 2700-7000K LED: 42 pcs, Bridgelux 45ml Solar Charging Time: 6-7 Hours in Bright Sunlight Lighting Time: 12 hrs per Night 3 Rainy Days Backup

Electrical

Solar Panel: 70 watt Lithium Battery: 26AH, 12V

Working Temp: $-30^{\circ}C \sim 60^{\circ}C$

Material

Aluminum Alloy & PC Lens Size: 47' (1200 mm) x 12' (330 mm) x 5.5' (140 mm)

Waterproof: IP65

Components

Durable **Light Quality** Solar Panel Brackets 42 OPTO semi-conductors All air craft grade anodized Supports Solar Panel aluminum provide balanced light High diffusion plastic lens **Extruded Aluminum** Will never rust or get brittle like removes all hot spots Mill Finished steel or plastic No Harmful UV gets in Dimentions: 2'x2' Weather proof solar panel Wider spectrum Depth: 0.06" incandescent & flourscent lights Solar Panel Efficient **Control Remotely** Proprietary, high purity, 70 watt, proprietary, high purity, mono-crystalline Can be turned solar panel with high solar cells on and off by transparent low-iron Weather proof in most severe **FREE ENERGY** an app on your tempered glass conditions cellphone High transparent, low iron Powered by the sun tempered glass Built for maximum Free Energy performance and safety Installment Images

SOLARO DAY STREET LIGHT







Specification Sheet Model # SD-DNK24V-30W

Day/Night Switch Kit

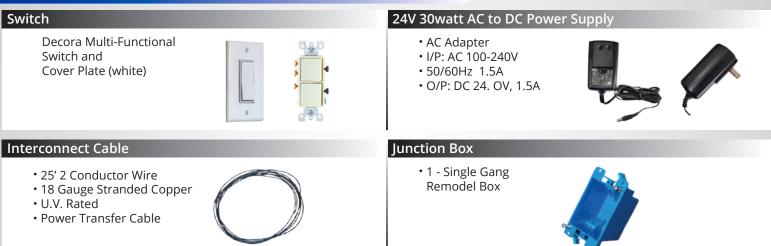
The Solaro Energy Day/Night Kit is designed to operate the Solaro Day daylight simulators and the Solaro Aire ventilation systems, completely on solar power during the day and uses converted AC grid power at night, or in inclement weather. Using the Decora switch, it allows the user the ability to completely turn off the fixture or unit between solar power and converted grid power via DC power supply. This allows the grid to act like a battery.



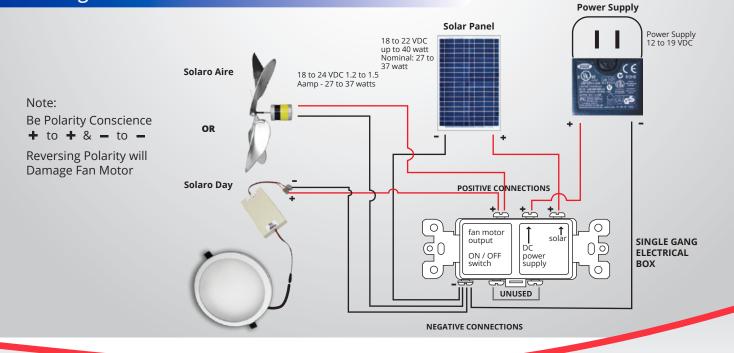
What's Included

S

F



Wire Diagram



DAY/NIGHT SWITCH KIT



Specification Sheet Model # Thermostat

The thermostat allows temperature control of the Solaro Aire solar attic fan. A temperature sensor activates or deactivates the fan at 85° F threshold. This sensor can hang freely 2 ft below the attic fan attached to a roof beam to get a more accurate reading.

Components

Wire

85^o F threshold switch mounted to 4 ft of 18 gauge 2 conductor fully jacketed wire and covered with shrink wrap.



Heyco 1/2" Strain Relief

Strain Relief







AMERICAN MADE

Automatic Thermostat

Factory installed built-in thermostat allows the fan to operate only when the temperature is above 85°F. This is a great add on if you don't want the solar attic fan on during certain times of the day. This thermostat will also add YEARS of high performance to your attic fan. Can be included during manufacturing of the fan or a do-it-yourself kit is available including hardware and instruction.

THERMOSTAT





Provides the same performance as the high profile base, when additional clearance is not necessary. Tucks in closer to the roof to be less conspicuous and more resistant to high winds. **Only product certified through Dade County and** approved for high winds. (160 mph)

Technical Information

Weight

Fan Weight: 19 lbs / 8.61 kg

Fan Packaged: 27 lbs. / 12.24 kg

Performance Air Flow Rate:

900 to 1200 CFM Depending on solar exposure Ventilation: Up to 1250 sq.ft. Attic must support intake air for best performance

Electrical

Solar Panel: 25 watt, 17 to 22 DC, 1.25 amp, 36 mono-crystalline cell, solar cells with black back sheet

Motor: Solaro Max Aire Brushless DC Motor, 10-22VDC

Material

Housing System: Spun Formed, Aircraft Grade Aluminum Fan Blade: 12" Aluminum, Factory Balanced Mesh Screen: Stainless Steel, 1/4"

Mesh, Rodent Control Wiring: 18 Gauge Copper Conductors with PVC Insulation

Components

∧ctiveAire

Solar Panel

cell solar panel

tempered glass

7.75 in

Housing & Flashing System

Aircraft grade, spun-formed

aluminum for the utmost quality protection Inner housing system is aerodynamically designed to produce the highest possible radial air exhaust Powder coated outer shell

25 watt, 1.25 amp proprietary,

Weather proof in the most

High transparent, low iron

severe conditions

high purity, mono-crystalline



3.25 in / 82.55 mm

1.75 in / 44.45 mm



was developed by Solaro Energy - Our engineers leveraged lessons learned from our original brushless electronic motor that we used for over 12 years. This new motor technology offers about 30% better efficiency and air moving performance, with an amazing 100,000

olaro Max Aire Motor



Motor & Fan Mount

Constructed specifically for

1/4" mesh screen keeps

animals and rodents

maximum air exhaust

out while allowing

Mesh Screen

Stainless Steel

the Solaro Aire

The Max Aire motor is mounted under the aluminum air deflector. Keeping it out of the air stream



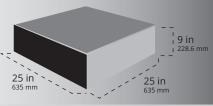


20.125 in / 511.175 mm Outside of Curb Mount

Built for maximum performance and safety

NOTE: Outside of Curb should be built slightly SMALLER than Inside of Curb Mount for proper fit. (approx. 19.75 in or smaller)





Important Note: The Solaro Aire Attic Fan Ventilation System is 100% fire proof and all electrical components are hidden under the air diverting cowling creating an extremely safe and efficient ventilation system Limited Lifetime Warranty - See warranty details for additional information.

CURBMOUNT for Embedded Series

Fan Blade Specifically designed for the Solaro Aire solar powered

hours average motor run time!

ventilation system 12" - 5 blade aluminum fan, aerodynamically optimized blade to improve airflow Operates whisper quiet

throughout the day

Specification Sheet Model # E-SLP-27W





27 Watt high efficiency mono-crystalline PV module. Normal 18V DC for standard output. Outstanding low-light performance. Heavy Duty anodized frames. High transparency, low-iron tempered glass. Rugged design to withstand high wind pressure, hail and snow. Aesthetic appearance

Technical Information

Electrical	Characteristics
------------	------------------------

Maximum Power (Pmax)	27W
Tolerance of Pmax	<u>+</u> 5%
Open Circuit Voltage (Voc)	22.3V
Maximum Power Voltage (Vmp)	18.0V
Short Circuit Current (lsc)	1.21A
Maximum Power Current (mp)	1.11A
Series Fuse Rating	2A
Maximum System (DC) Voltage	60V

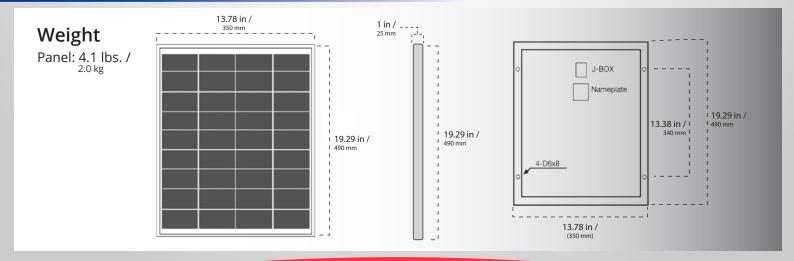
				100	
100	1.1.1	1			
	1.14		100		
	-			10 1	
					1
				1	
				1	
	5.00				
				1.1.2	
			100		
	and the second			1	
	1				
	-				

Temperature Coefficients

Temperature Coefficients	-40°C -85°C
NOCT	48 ± 3°C
Temperature Coefficients lsc	+0.084% / °C
Temperature Coefficients Voc	-0.39% / [°] C

Due to technological advances in solar panels, we reserve the right to modify system performance as efficiency improves.

Dimensions & Weight



Specification Sheet Model # E-SLP-37W





37 Watt high efficiency mono-crystalline PV module. Normal 18V DC for standard output. Outstanding low-light performance. Heavy Duty anodized frames. High transparency, low-iron tempered glass. Rugged design to withstand high wind pressure, hail and snow. Aesthetic appearance



Technical Information

Electrical	Characteristics
------------	------------------------

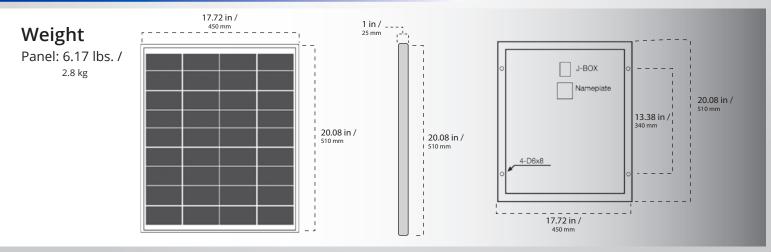
Maximum Power (Pmax)	37W
Tolerance of Pmax	<u>+</u> 10%
Open Circuit Voltage (Voc)	22.3V
Maximum Power Voltage (Vmp)	18.0V
Short Circuit Current (lsc)	1.82A
Maximum Power Current (mp)	1.67A
Series Fuse Rating	2A
Maximum System (DC) Voltage	60V

Temperature Coefficients

Temperature Coefficients	-40°C -85°C
NOCT	48 ± 3°C
Temperature Coefficients lsc	+0.084% / °C
Temperature Coefficients Voc	-0.39% / °C

Due to technological advances in solar panels, we reserve the right to modify system performance as efficiency improves.

Dimensions & Weight





Specification Sheet Model # E-SLP-40W

solaro



40 Watt high efficiency mono-crystalline PV module. Normal 18V DC for standard output. **Outstanding low-light performance. Heavy Duty** anodized frames. High transparency, low-iron tempered glass. Rugged design to withstand high wind pressure, hail and snow. Aesthetic appearance

		A BARRIER	Barris I.				
		er Tavalla		1			
1	100						
						1	
			-				
	A Constant				-		
1.10							

Technical Information

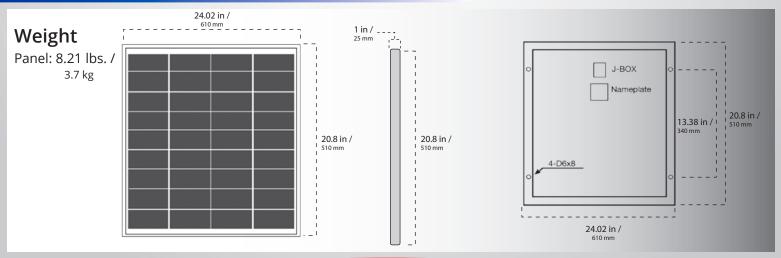
Electrical	Characteristics
------------	-----------------

Maximum Power (Pmax)	40W
Tolerance of Pmax	<u>+</u> 10%
Open Circuit Voltage (Voc)	22.3V
Maximum Power Voltage (Vmp)	18.0V
Short Circuit Current (lsc)	2.42A
Maximum Power Current (mp)	2.22A
Series Fuse Rating	4A
Maximum System (DC) Voltage	600V

Temperature Coefficients	-40°C -85°C
NOCT	48 <u>+</u> 3°C
Temperature Coefficients lsc	+0.084% / °C
Temperature Coefficients Voc	-0.39% / [°] C

Due to technological advances in solar panels, we reserve the right to modify system performance as efficiency improves.

Dimensions & Weight





Features & & Benefits

Solar Powered Attic Ventilation System

Features & Benefits

MAX AIRE[™] MOTOR

- Brushless Electronic Motor with Maximum Yield Technology. This new motor technology was developed by Solaro Energy. Our engineers leveraged lessons learned from our original brushless electronic motor that we used for over 12 years. This new motor technology offers about 30% better efficiency and air moving performance, with an amazing 100,000 hours average motor run time! That's about 25 years of system operation time!
- Solaro Max Aire[™] Motor specs: 0 to 19 VDC power input Minimum of 10 watts to a maximum 50 watts current input.



FAN HOUSING

- Encases the Max Aire[™] Motor and all electrical components to eliminate moisture and corrosion.
 Seamless construct (no potential leaks)
- •Aircraft grade spun aluminum
- Powder-coated finish for durability and curb appeal
- Will not rust or corrode
- •100% Fire Proof- Entire System

--- SOLAR PANEL

- •Unique proprietary design
- •Embedded into the unit for
- maximum beauty and performance • Low iron - High transmission
- tempered glass
- High efficiency mono-crystalline solar cells
- •Completely stand alone, no wiring required
- •Works right out of the box

-- FAN BLADE

- •12" 5 Blade aluminum fan, aerodynamically optimized blade to improve airflow.
- Specifically designed for the Solaro Aire[™] solar powered ventilation system
- Highest airflow efficiency
- Will not bend or create vibrations
- Operates whisper quite throughout the day



The Solaro Aire[™] is the only attic fan in the industry to feature Active Aire[™] Technology. Specifically designed to guide air through the fan without any obstructions, preventing objects from getting trapped inside the housing causing the motor to overload. This advanced system of uniquely engineered curves extracts the air out of your attic like no other fan, creating a more efficient airflow. With Active Aire[™] Technology, you can expect the highest airflow out of any attic fan on the market today.

As the sun begins to rise, your Solaro Aire[™] kicks into gear. Working along side the fan blade and motor, Active Aire[™] Technology creates a smooth, aerodynamic exit path through the fan's housing. By utilizing these calculated curves, your attic fan can run all day at it's full potential. Extracting the maximum amount of air from your attic.

Solaro Aire Solar Powered Attic Ventilation System

REMOTE Features & Benefits

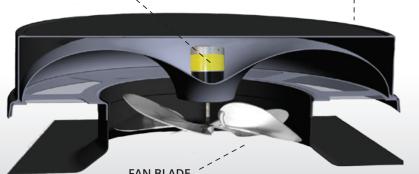
MAX AIRE[™] MOTOR

- Brushless Electronic Motor with Maximum Yield Technology. This new motor technology was developed by Solaro Energy. Our engineers leveraged lessons learned from our original brushless electronic motor that we used for over 12 years. This new motor technology offers about 30% better efficiency and air moving performance, with an amazing 100,000 hours average motor run time! That's about 25 years of system operation time!
- Solaro Max Aire Motor specs: 0 to 19 VDC power input minimum of 10 watts to a maximum 50 watts current input.



FAN HOUSING

- Encases the Max Aire[™] Motor and all electrical
- components to eliminate moisture and corrosion. Seamless construct (no potential leaks)
- Aircraft grade spun aluminum
- Powder-coated finish for durability and curb appeal • Will not rust or corrode
- •100% Fire Proof- Entire System



SOLAR PANEL

- •27watt, 37watt & 40 watt
- Mono-crystalline cell • High transparent, low iron tempered glass
- •Weather proof in most severe conditions

FAN BLADE

- 12" 5 Blade aluminum fan, aerodynamically optimized blade to improve airflow.
- Specifically designed for the Solaro Aire[™] solar powered ventilation system
- Highest airflow efficiency
- Will not bend or create vibrations
- Operates whisper quite throughout the day



The Solaro Aire is the only attic fan in the industry to feature Active Aire Technology. Specifically designed to guide air through the fan without any obstructions, preventing objects from getting trapped inside the housing causing the motor to overload. This advanced system of uniquely engineered curves extracts the air out of your attic like no other fan, creating a more efficient airflow. With Active Aire Technology, you can expect the highest airflow out of any attic fan on the market today.

As the sun begins to rise, your Solaro Aire kicks into gear. Working along side the fan blade and motor, Active Aire Technology creates a smooth, aerodynamic exit path through the fan's housing. By utilizing these calculated curves, your attic fan can run all day at it's full potential. Extracting the maximum amount of air from your attic.

Solar O Aire

SA-37W-BVS2 Features & Benefits

All year round, your home needs to be ventilated. This includes all areas of the home as well as the basement. With the Solaro Basement System, you can circulate the air from the living space to the basement that will lead the air to the outside. This helps prevent stale air that can cause bad odor. The basement system operates at 550 CFM. Other problems from stagnant air can cause mildew build up, mold, or bugs that seek out damp and warm areas. With this system ventilating up to approximately 116.1 sq.m. it can make your home healthier and smelling cleaner. This unit not only clears the air it also helps with naturally occurring radon gas.



- 12" 5 Blade aluminum fan, aerodynamically optimized blade to improve airflow.
 Spacifically designed for the Solare Aire™ solar
- Specifically designed for the Solaro Aire[™] solar powered ventilation system
 Highest airflow officiancy
- Highest airflow efficiency
 Will not bond or croate with
- Will not bend or create vibrations • Operates whisper quite throughout the day



MAXIMUM EFFICIENCY: Our advanced solar powered Basement Systems are not only easy to install and maintain, but are highly developed and extremely efficient. Making them the most effective basement system on the market! Day/Night KIT is also available. The basement system can keep you and your home healthy by circulating the air nonstop. This functionality provides insurance that it can prevent stale air and molds forming in the basement. Also, the Solaro Basement Ventilation System is a powerful remover of harmful Radon gas.

Solar o Aire Solar Powered Crawlspace System

SA-37W-CS Features & Benefits

Throughout the year, the crawl space of your home or office building can collect moisture, heat, and radon gas. The Solaro Aire[™] Crawl Space Ventilation System can help prevent all of those naturally occurring elements from destroying your home. The crawl space ventilation system is great for ventilating up to 1,000 sq. ft., this system ventilates moisture that would other wise cause mold build up and rot your floor from the bottom up. Ideal for crawl spaces located under mobile homes or other residential areas that have a crawl space under the home.

FAN HOUSING

- Encases the Max Aire[™] Motor and all electrical components to eliminate moisture and corrosion.
- •Seamless construct (no potential leaks)
- •Aircraft grade spun aluminum
- Powder-coated finish for durability and curb appeal
- •Will not rust or corrode
- •100% Fire Proof- Entire System



AIR EXHAUST PORT

• Output vent is the point where the air flow can exit The size of the bottom rectangular output vent is 7"x4", and the diameter of the inlet is 6"

"Y" SPLITTER

• The "Y" shape twin head air distribution and reduction system separates the air flow which comes from 12" pipe into 2 - 8" pipes

SOLAR PANEL

• 27, 37 or 40 Watt high efficiency mono-crystalline PV module. Normal 18V DC for standard output. Outstanding low-light performance. Heavy Duty anodized frames. High transparency, low-iron tempered glass. Rugged design to withstand high wind pressure, hail and snow. Aesthetic appearance.

Solaro Max Aire Motor

MAX AIRE[™] MOTOR

- Brushless Electronic Motor with Maximum Yield Technology. This new motor technology offers about 30% better efficiency and air moving performance, with an amazing 100,000 hours average motor run time! That's about 25 years of system operation time!
- Solaro Max Aire[™] Motor specs: 0 to 19 VDC power input, Minimum of 10 watts to a maximum 50 watts current input.

FAN BLADE

- 12" 5 Blade aluminum fan, aerodynamically optimized blade to improve airflow.
- Specifically designed for the Solaro Aire[™] solar powered ventilation system
- Highest airflow efficiency
- Will not bend or create vibrations
- Operates whisper quite throughout the day





The Solaro Aire[™] is the only ventilation system in the industry to feature ActiveAire[™] Technology. Specifically designed to guide air through the ventilation system, preventing it from getting trapped inside the housing and causing the motor to overload. This advanced system of uniquely engineered created for more efficient airflow. With ActiveAire[™] Technology, you can expect the highest airflow of any ventilation system on the market today!

Solar Powered Daylighting System Y

SD-2500-CC-KIT30W Features & Benefits



SOLARO DAY[™] RECESSED FIXTURE

• The Solaro Day[™] Recessed Fixture is installed so that very little is shown, ideal for Eco-friendly environments. This system uses one single source of solar power and multiple points of daylight simulators to light up your entire home, office, retail outlet, school, government building or factory. Can be centrally wired with more than one Solaro Day[™] fixture powered by solar panels from 30 watt minimum to 250 watt maximum.



SOLARO DAY[™] DRIVER

 Hi-tech American made daylight simulator driver. With 0 to 24 Volts DC input power, 30 W minimum, 240 W maximum solar panel power output to driver simulates the action of the sun. In the morning the Solaro Day starts off dim and gets brighter as the sun gets higher in the sky. As the sunset in Solaro Day daylight simulator will get dimmer and dimmer until the light gradually goes out, simulating the action of the sun, just like a roof mounted skylight. During the day, if a cloud casts a shadow on your roof the Solaro day will dim. As the sun returns the Solaro Day will get brighter, so you know if it's getting cloudy outside.



SOLAR PANEL

• 30 watt high efficiency mono-crystalline PV module. Normal 18V DC for standard output. Outstanding low-light performance. Heavy Duty anodized frames. High transparency, low-iron tempered glass. Rugged design to withstand high wind pressure, hail and snow. Aesthetic appearance. (2 fixtures can be put on a 60 watt solar panel, on up, divisible by 30)

Behind the **The Solaro Day**[™] acrylic diffuser are individual Opto Semiconductors designed with the highest quality and latest technology. Light emitting diodes (LEDs), only a few millimeters in length, convert electrical energy directly into light.

From the Solaro mono-crystalline solar panels, the sun's energy is converted into safe, low-voltage, high performing, simulated daylight.

The diffuser is made of modified acrylic and masterfully hides the Opto Semiconductors to give a smooth appearance. Provides simulated natural healthy sunlight that make bright, happy spaces with the same full spectrum light as sunlight.



Solaro Day[™] daylight system which uses one single source of solar power and multiple points of daylight simulators to light up your entire home, office, retail outlet, school, government building or factory. Follows the brightness of the sun like a traditional skylight without all the inconveniences of one.



Warranty & Manufacturer's Certification Statement

On the date of your purchase of the Solaro Attic Ventilation System, Please complete and **return** the bottom section on this **Limited** Warranty certificate. Keep the top portion for your records.

888-355-5786



Solaro Aire Solar Powered Attic Ventilation System

LIMITED LIFETIME WARRANTY

The Solaro Aire[™] has a limited lifetime warranty

Each Solaro Aire[™] System is carefully built to exact specifications and packaged with great care. We expect your purchase to be one that will last you a lifetime and we will make every effort to ensure your satisfaction. The Solaro Aire[™] System cannot be altered in any way by the end user. The warranty is extended to the original purchaser, whose name appears on the warranty certificate and is in effect at the location shown on the warranty certificate. This warranty applies to residential or commercial installations and is non-transferable.

The word "defect(s)" as used in this warranty, is defined as imperfections that impair the functionality of the Solaro Aire[™] System(s). Implied warranty of merchantability and fitness for a particular purpose are limited to the terms of this warranty. Solaro Energy, Inc. provides a Limited Lifetime Warranty on all parts and mechanisms on all of its Solaro Aire™ System(s) and to be free of defects in material and workmanship.

This Limited Lifetime Warranty does not cover damages caused by misuse, abuse, scratching, corrosive atmosphere contaminants, lightning, earthquakes, windstorms, tornadoes, flooding, fire, modification, vandalism, negligence, or other causes beyond our control. This includes any other acts of God.

In no event shall Solaro Energy, Inc. be liable for direct or indirect loss, consequential damage, or any other claims except as provided for in this warranty. Defective components will be replaced free of charge for up to 10 years from the date of installation. After 10 years of service, the solar panel and electronic brushless motor replacement may be subject to shipping and handling charges. The warranty will not cover the cost of labor, applicable taxes, shipping, or other consequential expenses related to the removal, return, or re-installation. See local dealer/distributor for applicable charges.



Please contact Solaro Energy if you www.solaroenergy.com have any questions or if you would like to purchase additional accessories.

REGISTRATION CARD (please print clearly) **Notice:** The warranty will be invalid after 90 days of purchase. Please send warranty promptly. Place where unit was purchased: _____ ___ Date Installed: ____ _____ Street Address: ____ Customer Name: _____ _____ State: _____ ZIP Code: ______ Phone: _____ City: Email: ______ Are you satisfied with the performance of the Solaro Aire System? Yes 🔄 No Please complete this Registration Card and Mail to: Product Model #: ____ Solaro Energy Please include any comments to help us further improve our products: lf you prefer to 22955 McAuliffe Dr. register on-line, Please visit: Suite A Robertsdale, AL 36567

SOLARO AIRE WARRANTY

On the date of your purchase of the Solaro Day Daylighting System, Please complete and return the bottom section on this Limited Warranty certificate. Keep the top portion for your records.

888-355-5786



Solaro Solar Powered Daylighting Syster

LIMITED LIFETIME WARRANTY

The Solaro Day[™] has a limited lifetime warranty

Each Solaro Day[™] System is carefully built to exact specifications and packaged with great care. We expect your purchase to be one that will last you a lifetime and we will make every effort to ensure your satisfaction. The Solaro Day[™] System cannot be altered in any way by the end user. The warranty is extended to the original purchaser, whose name appears on the warranty certificate and is in effect at the location shown on the warranty certificate. This warranty applies to residential or commercial installations and is non-transferable.

The word "defect(s)" as used in this warranty, is defined as imperfections that impair the functionality of the Solaro Day[™] System(s). Implied warranty of merchantability and fitness for a particular purpose are limited to the terms of this warranty. Solaro Energy, Inc. provides a Limited Lifetime Warranty on all parts and mechanisms on all of its Solaro Day[™] System(s) and to be free of defects in material and workmanship.

This Limited Lifetime Warranty does not cover damages caused by misuse, abuse, scratching, corrosive atmosphere contaminants, lightning, earthquakes, windstorms, tornadoes, flooding, fire, modification, vandalism, negligence, or other causes beyond our control. This includes any other acts of God.

In no event shall Solaro Energy, Inc. be liable for direct or indirect loss, consequential damage, or any other claims except as provided for in this warranty. Defective components will be replaced free of charge for up to 10 years from the date of installation. After 5 years of service, the light engine/electronic driver replacement may be subject to shipping and handling charges. The warranty will not cover the cost of labor, applicable taxes, shipping, or other consequential expenses related to the removal, return, or re-installation. See local dealer/ distributor for applicable charges.



www.solaroenergy.com Please contact Solaro Energy if you have any questions or if you would like to purchase additional accessories.

Place where unit was purchased:	Date Installed:		
Customer Name: Street	Street Address:		
City: State: ZIP Code:	Phone:		
Email: Are you satisfied with	the performance of the Solaro Day System? Yes 🗌 No [
Product Model #: Please include any comments to help us further improve our products:	Please complete this Registration Card and Mail to: Solaro Energy 22955 McAuliffe Dr. Suite A Robertsdale, AL 36567		

SOLARO DAY WARRANTY



Solaro Energy, Inc.

22955 McAuliffe Dr., Suite A Robertsdale, AL 36567 1-888-355-5786 www.SolaroEnergy.com

MANUFACTURER'S CERTIFICATION STATEMENT

For Solaro Day™ Lighting Systems and Solaro Aire™ Attic Fans Purchased and Placed in Service Between 01/01/22 and 12/31/22

Residential Homeowners Only - Solaro Energy Company is a manufacturer of solar powered lighting systems and solar powered attic ventilation systems that use photovoltaic's, through proprietary designs in our line of Solaro Day[™] day day-lighting systems and Solaro Aire[™] attic fans.

Hereby, Solaro Energy Company certificates that the listed products below qualify for federal tax credits for energy efficiency building products as prescribed in the American and Reinvestment Act of 2009.

Solar	Daylighting System Y [™]	S	Co Aire™
Lighting system installed with solar panel		Solar p	owered attic fan
• Solaro Day™ 1000 lumen • Solaro Day™ 1800 lumen	• Solaro Day™ 2200 lumen • Solaro Day™ 8000 lumen	 Solaro Aire[™] Embedded Solaro Pa Solaro Aire[™] Remote Panel 	nel • Solaro Aire™ Gable Fan • Solaro Aire™ Tilt Panel
	x advisor. Taxpayers claiming a tax credit s ility to receive tax credits. This document is		questions. Solaro Energy Co. is not vice. More comprehensive information will be
product and should consult with a profes		d questions. The information contained h	d proper use, handling and installation of the erein is believed to be accurate as of the time
This Statement of Certification was p	prepared 01-01-2022 in accordance to t	the qualifications for tax credits as th	e law states on this date
examined this certification state Dennis A. Grubb President and CEO Solaro Energy Company	SOIGIO hav	ge and belief that facts are true, c ase contact Solaro Energy, Inc. if you e any questions or if you would like to chase additional accessories.	orrect and complete. www.solaroenergy.com Or call us toll free at: 1-888-355-5786
HOMEOWNER'S CERT	IFICATION: (fill out and retain for ye	our tax records)	
Homeowner's Name:		SSN:	
Address:		Product(s) Installed:	
Material Cost: <u></u>		Installation Cost: <u></u>	

CERTIFICATION



Marketing Material



Your Solaro Aire" Attic Fan can be installed on any style of roof.

laro Aire High Profile

al for applications en the bot of. Perfect for snowy area

Solaro Aire" Low Profile Provides the same performance as high p bases when additional clearance is not ne Tucks in closer to the roof to be less cons

Solaro Aire" Remote

ows the solar panel location to be independent fron e fan's so each can be placed in the ideal part of the of. Can also be used with larger solar panels for proved performance or to offset poor light



Solaro Aire~ Gable Can be mounted inside the attic over an existing gable vent or roof penetration to supercharge the vents afready there. Remains hidden and out of the weather, safe for the remote mounted solar panel. No large holes to cut in your roof.



27 watt or 37 watt solar panel, perfect for any installation that requires directing the panel towards the sun for better performance. 360° rotation and 35° tilt make it perfect for less than

Optional Accessories

Solaro Aire~ Thermostat Factory installed built-in thermostat allows the fan to operate only when the temperature is above 85%.

Solaro Aire" AC Connection Kit Plug-in transformer and toggle switch kit offers opportunity to operate your solar fan during evening hours on AC power.

888-355-5786



how does it

ORK

During the hot summer months, your attic can reach

temperatures of 160°F and above. The Solaro Aire"

Attic Ventilation Fan works by expelling this hot air and returning your attic's space closer to the outside

ambient temperature. The Solaro Aire" operates completely off solar energy, pulling the outside air in

through existing static and soffit vents. By pulling

well-ventilated attic will help reduce your energy

costs and reduce the temperature in your home. In the colder winter months, warm moist air rises from inside your home and collides with the cold

underside of the roof. The Solaro Aire" provides circulation that prevents the moist air from

and drier. By installing a Solaro Aire" you will not

us toll free at 1-888-355-5786

excessive heat and moisture.

from this external air source, the attic fan will extract the hot, humid air up through the fan and create a constant exchange of air in your attic. A

W

The Benefits of the Solaro Aire







ActiveAire

The Solaro Aire[™] is the only attic fan in the industry to feature ActiveAire[™] Technology. Specifically designed to guide air through the fan without any obstructions, and preventing it from getting trapped inside the housing causing the motor to overload. This advanced system of uniquely engineered curves extracts the air out of your attic like no other fan, creating a more efficient airflow. With ActiveAire[™] Technology, you can expect the highes airflow of any attic fan on the market today!

57

EMBEDDED ATTIC FAN BROCHURE

features & benifts SOLARO AIRE SOLAR PANEL

Unique proprietary design
 Low Iron-High transmission tempered glass
 Completely stand alone, no wiring required
 (Embedded & Tilt models)

FAN HOUSING

Seamless construction (no potential leaks)
 Aircraft grade Spun Aluminium
owder-coated finish for durability & curb appeal
 Resistant to rust and corrosion

FAN BLADE

12" - 5 blades (fire resistant)
 Specifically designed for this system
 Operates whisper quiet



Brushless Electronic Motor with Maximum Yield Brushless Electronic Motor with Maximum Yield Technology. This new motor technology was developed by Solare Energy - Our engineers leveraged lessons learned from our original orushless electronic motor that we used for ove 12 years. This new motor technology offers about 30% better efficiency and air moving performance, with an amazing 100,000 hours average motor run time!

You won't need to won weather, a special Con val components within the Solaro Aire⁺⁺. The attic run g is fireproof with **NO plastic parts**, unlike the compe



REMOTE & TILT BROCHURE





eal for applications where needed between the bott of. Perfect for snowy area ss clearance could cause a Solaro Aire" Low Profile

ovides the same performance as high p ses when additional clearance is not nei cks in closer to the roof to be less consp d more resistant to high winds.

Solaro Aire" Remote

Allows the solar panel location to be independen from the fan's so each can be placed in the ideal of the roof. Can also be used with larger solar pa for improved performance or to offset poor light environments.



Can be mounted inside the attic over an existing gable vent or roof penetration to supercharge the vents already there. Remains hidden and out of the weather, safe for the remote mounted solar panel. No large holes to cut in your roof.



Solaro Aire- Tilt

Optional Accessories:

Solaro Aire* Thermostat Factory installed built-in thermostat allows the fan to operate only when the temperature is above 85°F.

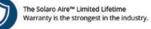


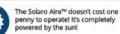


E(#



All of the Solaro Aire™ attic fans qualify for a 30% Federal Tax Credit on materials and installation through the American Recovery and Reinvestment Act of 2009.











www.SolaroEnergy.com

Solaro Energy 22955 McAuliffe Dr., Suite A

how does it

During the hot summer months, your attic can reach temperatures of 160°F and above. The Solaro Aire' Attic

solar energy, pulling the outside air in through existing

energy costs and reduce the temperature in your home

will be protecting your roof, framing and attic from excessive heat and moisture.

For more information, please call us toll free at 1-888-355-5786

static and soffit vents. By pulling from this external air source, the attic fan will extract the hot, humid air through the fan and create a constant exchange of air in your attic. A well-ventilated attic will help reduce your

Ventilation Fan works by expelling this hot air and returning your attic's space closer to the outside and temperature. The Solaro Aire" operates completely off

K

WOR

The Solaro Gable Attic Fan

energy costs. It is powere



Gable

solar

It's not just different, it's better by design.

The world's most advanced, fully

integrated, high efficiency Solar Powered

Attic Ventilation System

Solaro Aire

When you use The Solaro Aire[™] Attic Ventilation

System the results are a cooler and drier attic, prolonged roof life and an overall more comfortable

living environment inside your home.

0



Gable Solaro Aire

Can be mounted inside the attic over an existing gable vent or roof penetration to supercharge the vents already there. Remains hidden and out of the weather, save for the remote mounted solar panel. No large holes to cut in your roof.

CAN MADE

features & benifts

SOLARO AIRE

SOLAR PANEL

Unique proprietary design
 Low Iron-High transmission tempered glass
 Connects to the Gable using a 25' 2 conductor 18 gauge stranded copper cable

FAN HOUSING

Seamless construction (no potential leaks)
 Aircraft grade Spun Aluminium
 Powder-coated finish for durability & curb appeal
 Resistant to rust and corrosion

FAN BLADE

12" - 5 blades (fire resistant)
 Specifically designed for this system
 Operates whisper quiet



Brushless Electronic Motor with Maximum Yield Brushless Electronic Motor with Maximum Yield Technology, This new motor technology was developed by Solaro Energy - Our engineers leveraged lessons learned from our original brushless electronic motor that we used for over 12 years. This new motor technology offers about 30% better efficiency and air moving performance, with an amazing 100,000 hours average motor run time!

You won't need to worry about rust or corrosion issues in diverse weather, a special Corrosion Resistant Aluminum Alloy is used for all structural components within the Solaro Ale[®]. The attic fan housing is fireproof with **NO** plastic **parts**, unlike the competition, which can detenorate quickly in beat.







Air Exhaust Port:

Divider:

shape twin head air distribution system separates the air flo rom 12° pipe into two 8° nine



Fan Housing:

is heavy duty and unique design. The moto-em inside that makes it whisper quiet. The its of five 12" length blades that were y designed for the ventilation system.



Solar Panel: The crawl space ventilation system can be connected to a 27 watt, 37 watt, or 40 watt. Contact your dealer or installer to get a recommended size of panel.

Accessories:

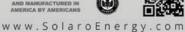
Material: X

material: The crawl space ventilation system will include a 25tf (7.6m) of cable to run from the ventilation system to the solar panel along with humdity controller, forcar switch, aluminum tape, solar panel mounting brackets, dual thread her screws, rubber grommet, self tapping screws, remodel box, zip ties and supernion straps.





The Benefits of the



Solaro Energy 22955 McAuliffe Dr., Suite A Robertsdale, AL 36567



Throughout the year, the crawl space of your home or office building can collect moisture, heat, and radon gas. The Solaro Aire™ Crawl Space Ventilation radon gas. The solaro Aire[®] Crawl Space Ventilation System can help prevent all of those naturally occurring elements from destroying your home. The system works by extracting these elements through a ducting system using our brushless motor. Our system operates completely off solar energy, taking the excessive heat, moisture, and ventilating them outside. This helps keep you and your home healthy all vear round! all year round!

The fan motor support ring is connected to a divider which then connects to two smaller ducts, that leads to exhaust vents outside. This system is meant to run in winter and summer. The crawl space ventilation provides circulation that prevents the moist air from condensing on the structures, keeping certain molds from growing. During the hot summer months, your crawl space can reach high temperatures that would accelerate mold growth. This system circulates the hot air out through the ducting.

CAN MADE

For more information, please call us toll free at 1-888-355-5786



"The world's most advanced, high efficiency Solar Powered Crawl Space Ventilation System

1 - 8 8 8 - 3 5 5 - 5 7 8 6

ctiveAire

It's not just different, it's better by design.

Solaro Aire





Brushless Electronic Motor with Maximum Yield Technology. This new motor technology was developed by Solaro Energy - Our engineers leveraged lessons learned from our original brushless electronic motor that we used for over about 30% better efficiency and air moving performance, with an amazing 100,000 hours average motor run time! That's about 25 years of system operation time!

features & benifts SOLARO AIRE

SOLAR PANEL

Unique proprietary design
 Unique proprietary design
 Low Iron-High transmission tempered glass
 Completely self sufficient
 OPTIONAL-27 watt, 37 watt and

40 watt power source FAN HOUSING Seamless construction (no potential air leaks)
 Aircraft grade Spun Aluminium · Resistant to rust and corrosion

FAN BLADE

12" aluminium fan - 5 blades (fire resistant) Blade shaped for more efficient air flow Will not bend or create vibrations Computer balanced fan blades for dramatically

longer motor Solaro Max Aire Motor Maxhrum Efficiency Yield Technology

d to worry about rust or corrosion issu n, a special Corrosion Reistant Aluminum Allay is used for nal components within the Solaro Aire[™]. The crawl space tion system housing is fireproof with NO plastic parts, he competition, which can deteriorate quickly in twotther, a special Con

ActiveAire

designed to guide air through the ventilation system, preventing it from getting trapped inside the housing and causing the motor to overload. This advanced system of uniquely engineered created for more efficient airflow. With ActiveAire™ Technology, you can expect the highest airflow of any ventilation system on the market tod

60 CRAWLSPACE VENT. BROCHURE



The Basement system was designed to be installed in commercial or residential basements. This system will clean and circulate clean air.

Solaro Aire- Basement System

Solaro Aire" High Profile I for appl

aro Aire* Gable

Solaro Aire[•] Tilt



Solaro Aire**- Remote**



1 - 8 8 8 - 3 5 5 - 5 7 8 6



All year round, your home needs to be ventilated. This includes all areas of the home as well as the basement. With the Solaro Basement System, you can circulate the air from the living space to the basement that will lead the air to the outside. This helps prevent stale air that can cause bad odor. The basement system operates at 550 CFM. Other problems from stagnant air can cause mildew build up, mold, or bugs that seek out damp and warm areas. With this system ventilating up to approximately 116.1 sq.m. it can make your home healthier and smelling cleaner.

With the Solaro Basement System in your home, it can help prevent these problems. Not only can it help your home have clean air, it can save on your electric bill. This system is completely solar powered. This system comes with the unit itself, solar panel (27 watt, 37 watt, or 40 watt) and also a 25ft cable. This system is also capable of using a Day/Night KIT. This allows the unit to run from AC power to DC power.

For more information, please call us toll free at 1-888-355-5786

SO r О N E R G Y It's not just different, 's better by design. Solar

> Phone: (888) 355-5786 www.solaroenergy.com

features & benifts SOLARO AIRE

DAY/NIGHT KIT

The Day/Night KIT allows the basement system to switch from DC power to AC power. This a solar powered system, however the unit naturally turns off when the sun goes down. But with the Day/Night KIT you can switch to AC power. This allows the unit to run night and day.

LOW MAINTENANCE

The Solaro Aire are easy to install and operate and guaranteed to operate for years. There is very minimal maintenance, however if you feel that the solar panel needs to be cleaned please do so. Also, if you feel that the vents are dirty, clear any lints that may be in the way of air flow.

CLEANS THE AIR

This unit was designed to clean the air. Since this unit will be placed in the basement, the unit will draw air from the living space and direct it towards the basement. The unit will then ventilate the air through ducts that lead outside. This unit not only clears the air it also helps with naturally occurring radon gas.



Brushless Electronic Motor with Maximum Yield Technology. This new motor technology was developed by Solaro Energy - Our engineers leveraged lessons learned from our original brushless electronic motor that we used for over 12 years. This new motor technology offers about 30% better efficiency and air moving performance, with an amazing 100,000 hours average motor run time That's about 25 years of system operation time!

You won't need to worry about rust or corrosion issues in diverse weather, a special Corrosion Resistant Aluminum Alloy is used for all structural components within the Solaro Aire[®]. **NO plastic parts**, unlike the competition, which can detenorate quickly in heat or cold,

Solaro Aire

2 2

CAN MADE

MAXIMUM EFFICIENCY: Our advanced solar powered Basement Systems are not only easy to install and maintain, but are highly developed and extremely efficient. Making them the most effective basement system on the markett Day/Night KIT is also available. The basement system can keep you and your home healthy by circulating the air nonstop. This functionality provides insurance that it can prevent stale air and molds forming in the basement.

BASEMENT VENT. BROCHURE



Housing durable external shell encases the inner sing system. The inner housing system is odynamically designed to produce the highest sible radial air exhaust.



The vent connector will con to the main housing unit. ect the flex ducting

Motor / Blades ate at a running pace.

Flexible Ducting

Exhaust Cover ed to keep out foreign objects. And to picuously cover the exhaust ventilation

Solar Panel

Material:

× m the ventilation system to the solar exible ducting that will be 12 ft long. Along n tape, solar panel mounting brackets, x screws, self tapping screws and zip ties.



Act of 2009.

Ξŧ



www.solaroenergy.com

The Benefits of the Solaro Aire

All of Solaro Energy fans qualify for a 26% Federal Tax Credit on

materials and installation through the American Recovery and Reinvestment

Solaro Energy 22955 McAuliffe Dr., Suite A Robertsdale, AL 36567



"The world's most advanced, high efficiency Solar Powered Garage Ventilation System"



Solaro Aire

Phone: (888) 355-5786 www.solaroenergy.com



Throughout the year, the garage of your home or office building can collect moisture and heat buildup. The Garage Ventilation System can help prevent all of those elements from destroying your home. The ventilation system works by expelling these elements out through a ducting system using our brushless motor. Our ventilation system operates completely off solar energy, taking the excessive heat and moisture and ventilating it outside. This helps keep you and your home healthy throughout the years.

The fan motor is supported by a single unit. The air is then ventilated out through a 10" duct which is then directed to a exhaust port that leads outside. This is meant to run in winter and summer. The garage ventilation provides circulation that prevents the moist air from condensing on the structures, keeping certain molds from building up.

For more information, please call us toll free at 1-888-355-5786







∧ctiveA

This uniquely engineered system creates a supremely efficient airflow. Specifically designed to guide air through the ventilation system. It prevents the air from getting trapped inside the housing and causing the motor to overload. With the Active Aire Technology of our garage ventilation system, you can expect the highest airflow of any garage fan on the market today.

GARAGE VENT. BROCHURE

features & benifts SOLARO AIRE SOLAR PANEL

Unique proprietary design
 Low-iron tempered glass

FAN HOUSING

Seamless construction (no potential air leaks)
 Powder coat finish
 Resistant to rust and corrosion

FAN BLADE

12" aluminium blades - 5 blades (fire resistant) Blade shaped for maximum efficient air flow Will not bend or create vibrations Computer balanced fan blades for dramatically longer motor life



Brushless Electronic Motor with Maximum Yield Technology. This new motor technology was developed by Solaro Energy - Our engineers leveraged lessons learned from our original brushless electronic motor that we used for over 12 years. This new motor tack we used to over about 30% better efficiency and air moving performance, with an amazing 100,000 hours average motor run time! That's about 25 years of system operation time!

You won't need to worry a nther, a special powder coat is used for all structural ponents. The garage ventilation system housing is fin th NO plastic parts

62





Solaro Aire- High Profile deal for applications where additional clearance (2") s needed between the bottom of the fan and the one perfect for snowy areas or "S" tile roofs where of. Perfect for snowy areas or is clearance could cause airflo

Solaro Aire* Low Profile Provides the same performance as high profile bases when additional clearance is not needed. Tucks in closer to the roof to be less complicuor and more resistant to high winds.



Solaro Aire" Remote Nows the solar panel location to be independent from he fan's so each can be placed in the ideal part of the oof. Can also be used with larger solar panels for mproved performance or to offset poor light determined to the solar panels of the solar panels of the provide the solar panels of s



Solaro Aire" Gable Can be mounted inside the attic over an existing gable vent or roof penetration to supercharge the vents already there. Remains hidden and out of the weather, safe for the remote mounted solar panel. ather, safe for the remote mou large holes to cut in your roof.



Solaro Aire" Tilt 27 watt or 37 watt solar panel, perfect for any installation that requires directing the panel towards the sun for better performance. 360° rotation and 35° tilt make it perfect for less than deal fan loc



Solaro Aire~ Thermostat Factory installed built-in thermostat allows the fan to operate only when the temperature is above 85%.



Solaro Aire* AC Connection Kit -sug in transformer and toggle switch kit offers opportunity to operate your solar fan during evening hours on AC power.





The Benefits of the SolaroAire

E#

All of the Solaro Aire[™] fans qualify for a 30% Federal Tax Credit on materials and installation through the American Recovery and Reinvestment Act of 2009.

The Solaro Aire™ Limited Lifetime

The Solaro Aire™ doesn't cost one penny to operate! It's completely red by the sun!

Built to be dependable. Weather resistant powder coated finish on all exposed fan parts provide

a handsome and durable finish.

Warranty is the strongest in the industry.

Solaro Energy wants to present to you our newest ventilation system for multiple types of truck trailers. This advanced system, extracts the air like no other fan, creating a more efficient air flow. This is a 25-watt unit fan that moves up to 900cfm. This product has constant air flow throughout

your trailer also known as air exchange or active air. Our fan is completely powered by the sun. By pulling outside air source in through existing windows and vents.

Wouldn't it be nice to be able to go on long trips from state to state while keeping your Inventory at a comfortable and safe temperature? All of this is done through solar energy, so even when the vehicle is parked and the engine is off, the Solaro Aire Truck Trailer Ventilation System is on! This ventilation fan removes heat, odor, and provides continual air flow. Keeping your valuable inventory cool at all times!

For more information, please call us toll free at 1-888-355-5786



The world's most advanced, fully integrated, high efficiency Solar Powered Ventilation System

When you use The Solaro Aire[™] Ventilation System the results are a cooler and drier space, prolonged roof life and an overall more comfortable living environment inside your trailer.





www.solaroenergy.com



....

DELIVERY TRUCK VENT. BROCHURE

00



SOLARO

solaro

0.00

OF'

Insulation paint, also known as infrared reflecting paint, is an innovative and energy-efficient solution designed to enhance the thermal performance of buildings and surfaces. This advanced coating incorporates ceramic micro-spheres, which are tiny hollow spheres made from ceramic materials. The ceramic micro-sphere possess excellent heat-insulating properties, effectively acting as thermal barriers that minimize heat transfer. When applied to walls, roofs, or other structures, insulation paint helps regulate indoor temperatures by reflecting a significant portion of infrared radiation from the sun, thus reducing heat absorption. As a result, buildings stay portion of infrared radiation from the sun, thus reducing heat absorption. As a result, buildings stay cooler during hot summers and retain warmth in colde months, leading to improved energy efficiency and reduced reliance on heating and cooling systems. The technology of insulation paint with infrared reflecting capabilities and ceramic micro-spheres represents a promising step towards sustainable construction and climate conscious design.



INSULATED PAINT

insulated paint NANO SHIELD TECHNOLOGY

us toll free at 1-888-355-5786

Solaro Shield Insulated Paint with 3M Nano Shield Technology for Delivery Truck Rooftops

10.

solaro

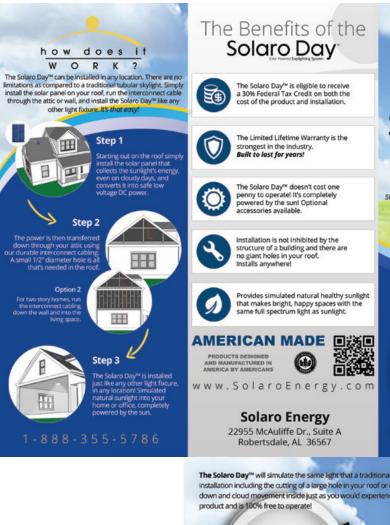
000



Solaro Energy has designed a line of insulated paint, with 3M Nano Shield Technology. This is a sunlight reflecting paint that can be applied to a truck rooftop. This concept has new support from the U.S. Green Building Council (USGBC) which has issued a pilot credit for the insulation of trucks found to a feed extension support. of trucks. As well as, of cool exterior walls in new homes, schools, and commercial buildings to mitigate urban heat islands.

solaro

- (9)



solaro NE R G It's not just different, it's better by design. Solaro Day The World's First Solar Powered Natural Light Fixture Start enjoying the benefits of solar powered, fin natural sunlight in your home, office, or ret

The Solaro Day^{es} will simulate the same light that a traditional or tubular skylight creates. It does this without the costly installation including the cutting of a large hole in your roof or ceiling. You will be able to experience the sun up, sun down and cloud movement inside just as you would experience with a skylight. The Solaro Day " is truly a green

Solaro Day[™] Recessed Fixture

The Solaro Day[™] Recessed Fixture is installed so that very little is shown, ideal for Eco-friendly environments. This system uses one single source of solar power and multiple points of daylight simulators to light up your entire home, office, retail outlet, school, government building or factory. Can be centrally wired with more than one Solaro Day™ fixture powered by solar panels from 30 watt minimum to 250 watt maximum.

Solaro Day™ Driver

Hi-tech American made daylight simulator driver. With 0 to 24 Volts DC input power, 30 W minimum, 240 W maximum solar panel power output to driver simulates the action of the sun. In the morning the Solaro Day starts off dim and gets brighter as the sun gets higher in the sky. As the sun sets in Solaro Day daylight simulator will get dimmer and dimmer until the light gradually goes out, simulating the action of the sun, just like a roof mounted skylight. During the day, if a cloud casts a shadow on your roof the Solaro Day will dim. As the sun returns the Solaro Day will get brighter, so you know if it's getting cloudy outside

Helping the Earth Stay Green.

At Solaro Energy we are committed to helping the planet stay green. We are focused on preserving the environment with green products and promoting off-grid independence. We have over 15 years experience in harnessing solar power and over 25 years experience in manufacturing energy efficient products

what's inside

S O L A R O D A Y Behind the **The Solaro Day**^m acrylic diffuser are individual Opto Semiconductors designed with the highest quality and latest etchnology, Light emitting diodes (LEOs), only a few millimeters in length, convert electrical energy directly into light.

From the Solaro multi-crystalline solar panels, the sun's energy is converted into safe, low-voltage, high performing, simulated

The diffuser is made of modified acrylic and masterfully hide the Opto Semiconductors to give a smooth appearance Provides simulated natural healthy sunlight that make b happy spaces with the same full spectrum light as sunlight



SOLARO DAY BROCHURE





The Solaro Street Light is meant to be installed outside. This could be on the city streets, in parks, gardens, residential or commercial areas. This light is completely solar powered. It is recommend that the light fixture be charged for at least 6-8 hours before use. After the light is completely charged, it can light up an area of roughly 45 ft. Of course there are different models and different levels of lumens, It depends on what your needs are.

Extremely Bright: Our street lights use the brightest LEDs available allowing for brightness as high as 12,000 Lumens.

Cement Base: We recommend the use of a 2' to 3' diameter cement base, standing 2' to 3' tall.

14' - 18' Pole: We recommend the use of a 3" to 5" diameter pole standing 14' to 18' high.

Fast Charge Times: Our highly efficient batteries fully charge in as little as six hours.

For more information, please call us toll free at **1-888-355-5786**







MOTION SENSOR

At night, the street light is always on. However this does have a motion sensor. When someone walks by, the light gets brighter.

BATTERY BACKUP

A powerful battery is charged during the day so that the Solaro Street Lights can illuminate roads and sidewalks all night long.

LOW MAINTENANCE

Solar Street Lights are both easy to install and operate and guaranteed to operate for a long time.

DAYLIGHT SENSORS

The Solar Street Light is equipped with Daylight sensors that turn the Ultra-Bright LEDs on when it gets dark.

You won't need to worry about rust or corrosion issues in diverse weather, a special Corrosion Resistant Aluminum Alloy is used for all structural components within the Salara Day". NO plastic parts.



Solaro Street Light

MAXIMUM EFFICIENCY: Our advanced solar powered street lights are not only easy to install and maintain, their highly developed systems are also extremely efficient. Making them the most effective street light on the market! Two forms of light control are available. The Solaro Solar Street Lights can be set on a timer, or can use built in day/night sensors. This functionality provides insurance that our lights will keep your roads, stadiums and parks bright throughout the night!

AMERICAN MADE

STREET LIGHT BROCHURE



DISPLAY STAND & GRAPHICS

67







Reference Publication: Danny S. Parker, John R. Sherwin, "Performance Assessment of Photovoltaic Attic Ventilator Fans", Presented at: <u>The</u> <u>Symposium on Improving Building Systems in Hot and Humid Climates</u>, May 15-17, 2000, San Antonio, TX

Disclaimer: The views and opinions expressed in this article are solely those of the authors and are not intended to represent the views and opinions of the Florida Solar Energy Center.

Performance Assessment of Photovoltaic Attic Ventilator Fans

Danny S. Parker, John R. Sherwin Florida Solar Energy Center (FSEC)

FSEC-GP-171-00

Abstract

Controlling summer attic heat gain is important to reducing air conditioning energy use in homes in hot-humid climates. Both heat transfer through ceilings and to attic duct systems can make up a large part of peak cooling demand. Attic ventilation has long been identified as a method to abate such heat gains. We present test results from using the photovoltaic (PV) attic ventilator fans in a test home to assess impact on attic and cooling energy performance.

Background

Improving attic thermal performance is of fundamental to controlling residential cooling loads in hot climates. Accumulating research data have shown that the influence of attics on space cooling demand is not only due to the change in ceiling heat flux when cooling, but very often due to the conditions within the attic itself and their influence on heat gain to duct systems and on air infiltration into the building. The importance of ceiling heat flux has long been recognized with insulation a very effective method of controlling excessive gain. However, when ducts are present in the attic, the magnitude of heat gain to the thermal distribution system under peak conditions can be often much greater than the ceiling heat flux in well-insulated attics (Parker et al., 1993; Hageman and Modera, 1996). ⁽¹⁾ This influence may be exacerbated by location of the air handler within the attic space - a common practice in much of the southern U.S. The air handler is both poorly insulated with the greatest temperature difference (the evaporator) of any location of the cooling system. It also has the greatest negative pressures so that some leakage into the unit is inevitable. Evidence for this influence is contained in a monitoring study of sub-metered air conditioning energy in 48 Central Florida homes conducted by Cummings (1991) which found that homes with the air handlers located in the attic used 30% more space cooling energy than those with the air handlers located in garages or elsewhere.

Another emerging phenomenon from buildings research in cooling dominated climates shows that duct system supply air leakage can lead to negative pressures within the house interior when the air handler is operating. This, in turn, can result in hot air from the attic being drawn down to the conditioned space through interior wall headers, recessed cans or other bypasses from the attic to the interior. This phenomenon is commonly encountered in slab on grade homes in the Sunbelt states in the U.S. where the dominant leakage plane to the exterior is through the ceiling.

The Florida Solar Energy Center (FSEC) has performed numerous experiments in test buildings over the last decade on the potential of a variety of methods to reduce attic air temperatures in Florida residences. This includes radiant barrier systems (Fairey et al., 1988), white reflective roofs (Parker et al., 1995), enhanced attic ventilation and roof tiles (Beal and Chandra, 1995). Attic air temperatures vary considerably depending on roofing type, color and ventilation.

Performance Assessment

Potential Ventilation Impact on Cooling

Forced attic ventilation is a commonly encouraged technique to reduce residential heat gains from the ceiling. However, even those who are in favor of increased attic ventilation have often warned that the energy consumption associated with the attic fan motor is likely greater than any realized energy savings from its use

olfert and Hinrichs, 1974). Also, an early detailed study showed that while forced attic ventilation did reduce cooling energy use, the reduction was quite small and outweighed by the energy consumption of the fan itself (Dutt and Harrje, 1979). Another study in two instrumented side-by-side homes in Texas came to similar conclusions (Burch and Treado, 1979). Forced ventilation was found to reduce ceiling heat gain by 1.1 Btu/hr/ft² (328 W) over soffit venting and gains to the attic duct system by 94 W.⁽²⁾ At a normal air conditioning COP of 2.5, the overall reduction in cooling energy use could be expected to be approximately 170 W against the measured consumption of 284 W by the ventilation fan. Measured reduction to the maximum cooling load was only 6% for R-11 ceiling insulation. Thus, the powered ventilation does not typically result in a net energy savings for powered vent fans unless the attic is uninsulated. Under this scenario, other means of controlling attic heat gain are preferable and more cost effective than forced ventilation. Other analysis, tends to verify this conclusion. Detailed simulations suggest that the heat transfer in an attic to a residential building interior in mid-summer is dominated by radiative gains from the hot roof decking directly to the insulation surface (Parker et al., 1991; Wilkes, 1991). This mode of heat transfer is more effectively limited by 1) increased attic insulation, 2) a truss-mounted radiant barrier or 3) a white reflective roof surface that limits solar gain to the attic structure.

Although attic ventilation has been shown to reduce attic air temperatures and cooling loads the only examination of powered attic ventilators has shown the electricity consumption of the ventilator fans to be greater than the savings in air conditioning energy (Burch et al., 1979). In recent years, however, photovoltaic ventilator fans have become available which have no parasitic consumption of line electricity. These tend to be expensive, but are easier to install since no wiring is required.

Site Description

The test site is a three bedroom single family home located in Cocoa, Florida with approximately 1,045 square feet of conditioned floor space. The household consists of four members with the home occupied most of the day. The home is cooled by a 2.5 ton split system central air conditioner with electric strip heat. The air handler is located in a conditioned utility room. The interior temperature is maintained at a fairly constant 73°F throughout the summer.

The design is a simple rectangular floor plan with the long axis facing east and west (Figure 1). The ceiling of the home has approximately R-19 blown fiberglass insulation. Walls are of frame construction with R-11 insulation. The floor is over an open crawlspace with no insulation. Single pane windows with aluminum frames comprise approximately 12% of the conditioned floor area.



Figure 1. Photo of test site from the east.

The A-frame roof has a 3/12 pitch with asphalt shingles over plywood decking. The dark brown asphalt shingles with an approximate solar absorptance of 92%. A flex duct system is also present in the attic space which distributes the cooled air and is likely influenced by attic thermal conditions. The home had only perforated soffits prior to the retrofit; there were no ridge vents in place.

Instrumentation

A multi-channel data logger recorded various parameters in the home which affect energy use. Type-T

Ventilation Impact on Cooling

thermocouples record the ambient, interior air temperature and attic air temperatures in the home. A pulse initiating power transducer recorded the air conditioner power consumption. A number of other parameters are also recorded at the site including the attic air temperature, the interior temperature and relative humidity. A meteorological station mounted off and above the north edge of the roof records shielded ambient air temperature, humidity, horizontal solar irradiance and wind speed. All data are recorded very 15 minutes and sent back nightly to the host mainframe computer.

Photovoltaic Attic Ventilators

Two PV attic ventilators were installed on the house's asphalt shingle roof on August 6th, 1997.⁽³⁾ Both were installed near the peak of the A-frame roof with one on the east face and another on the west face as shown in Figure 2. The fans are designed to provided between 600 and 800 cfm of attic ventilation at peak solar irradiance (1000 W/m²) depending on the free soffit ventilation area. The ventilators consist of a 19.5" x 16" mounting with a 10 Watt thin-film PV module. A five bladed radial fan and a direct coupled DC motor provides attic air exhaust. The units were purchased for \$300 each; installation would typically add another \$100 - \$150 per unit.



Figure 2. Photo of PV ventilators.

The home already had a radiant barrier (foil stapled to the roof trusses) with soffit ventilation, but no ridge or other venting. Even with the radiant barrier, however, attic air temperatures of up to 136°F had been measured during the summer leading up to the retrofit.

Analysis

To analyze the impact of the attic ventilators, we looked for several weeks of similar weather in the period before and after the retrofit. Figure 3 shows the measured thermal performance during two matching weather periods. The pre-retrofit period was from July 1st - August 5th; the post period was from August 7th - September 15th. The periods were chosen for their match on average ambient air temperature and solar insolation conditions.

⁷¹ Photovoltalic Attic Ventilators

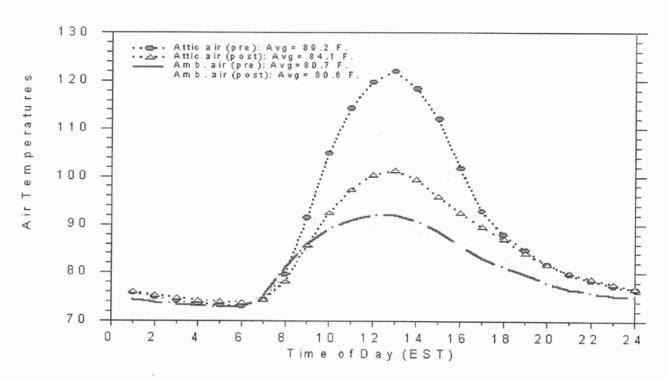


Figure 3. Measured average attic air and ambient air temperatures over the test period before and after retrofit.

The first plot shows a comparison of the ambient air temperatures (blue) before and after the change. The Upper two lines show the difference in the measure attic air temperature before and after the added ventilation. The daily peak attic air temperature is dropped by an average of 22°F. The monitored attic air temperature over the length of the summer clearly shows the impact of the added attic ventilation as shown in Figure 4.

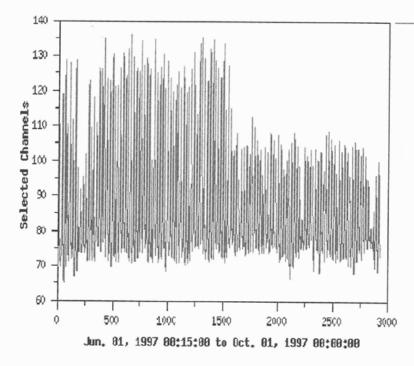


Figure 4. Monitored attic air temperatures over the summer test period.

ATTIC AIR GRAPHS

Air conditioner energy use was also measured over the two periods. The AC consumption was reduced by an average of 6.0% (2.8 kWh/day) by the addition of the ventilators, with the largest difference around mid-day. Afternoon savings were not in evidence although differences were noted in evening hours are likely due to the impact of a greater amount of passive ventilation by having the two free outlet areas new the ridge vent area. The measured space cooling reduction load profile is shown in Figure 5.

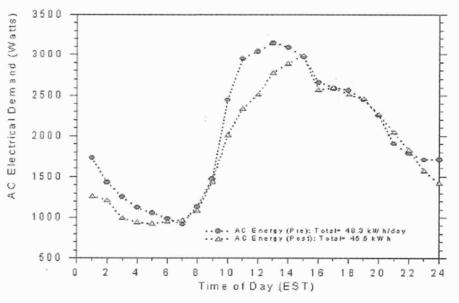


Figure 5. Measured space cooling demand over the summer test period.

Space cooling electricity use was sub-metered at the home for the entire year prior to the retrofit, totaling some 7,730 kWh (not including air handler and electric resistance consumption for space heating). Based on the matching period analysis, estimation of annual space cooling savings are on the order of 460 kWh. These savings have a value of approximately \$37 at current Florida energy prices. Given that the costs for the two units was approximately \$600, or about \$850 installed, the payback of the ventilators is not very favorable at over twenty years. It is important to note that this level of savings comes from a home with a radiant barrier system - savings may be larger for cases without a radiant barriers, in homes with less ceiling insulation or those with the air handler unit located in the attic. On the other hand, the monitored test home used more AC energy than the average Central Florida household and this would tend to overstate savings. ⁽⁴⁾ One impact had nothing to do with energy: the homeowner noted that interior comfort seemed improved after the retrofit even with no adjustment to the thermostat. This may be due to a change in the interior mean radiant temperature.

Other Influences

Recently, the issue of attic ventilation has become a contentious issue, in part due to the lack of scientific basis for the 1:300 free ventilation rate (Rose, 1995), and measured and simulated influences of ventilation on humidity of attic materials in hot humid climates (Burch et al., 1996; TenoWold and Rose, 1999). The major problem is that passively ventilated attic bring in large amounts of moisture laden air into the attics during evening hours when relative humidity is often high. One intrinsic advantage of the PV ventilation scheme is that the attic is well ventilated only during daytime hours only when considerable insolation is present. Coincidently, these also tend to be periods when the ambient relative humidity is low.

We have already described how PV ventilator fans have no parasitic electricity consumption beyond what is generated by the unit. Most attic ventilators often draw 250 - 300 Watts of electric power when in operation (they are typically triggered on when the attic air temperature reaches 105°F or more). This level of electrical the (approximately 10% of the peak air conditioner power draw) is greater than the savings in space cooling energy (Burch et al., 1979). One other advantage of the PV ventilators over AC powered units is noise. Although not quantified within our study, we did note that PV vent fans were almost silent in operation compared with the very noticeable fan noise generated by conventional units.

MEASURED SPACE COOLING

Conclusions

A case study of photovoltaic attic ventilator fans was conducted on an occupied single family home in Central Florida. Two fans were installed at mid-summer in an instrumented home where attic air temperature, meteorological conditions and space cooling electric power were measured. The home already had an attic radiant barrier, but still experienced attic air temperatures in excess of 130°F.

Comparing periods with similar weather conditions, the test revealed that the PV vent fans have the potential to reduce measured peak summer attic air temperatures by over 20°F. However, the impact over the cooling season is fairly modest with well insulated attics. Measured space cooling reduction was approximately 6% - worth about 460 kWh annually at the test home.

References

Beal, D. and Chandra, S., 1995. "The Measured Per-formance of Tile Roof Systems and Attic Ventilation Strategies in Hot and Humid Climates," <u>Thermal Performance of the Exterior Envelopes of Buildings VI</u>, ASHRAE/DOE/BTECC, p. 753, December, 1995.

Burch, D.M. and Treado, S.J., 1979. "Ventilating Residences and their Attics for Energy Conservation-- An Experimental Study," in <u>Summer Attic and Whole House Ventilation</u>, National Bureau of Standards Special Publication 548, Washington D.C.

Dutt, G.S. and Harrje, D.T., 1979. "Forced Ventilation for Cooling Attics in Summer," in <u>Summer Attic and Whole</u> <u>House Ventilation</u>, National Bureau of Standards Special Publication 548, Washington D.C.

Gu, L., Cummings, J.C., Swami, M.V., Fairey, P.W. and Awwad, S., 1996. <u>Comparison of Duct System Computer</u> <u>Models That Could Provide Input to the Thermal Distribution System Standard Method of Test (SPC-152P</u>), FSEC-CR-929-96, ASHRAE Project 852-RP, Florida Solar Energy Center, Cocoa, FL.

Hageman, R. and Modera, M.P., 1996. "Energy Savings and HVAC Capacity Implications of a Low-Emissivity Interior Surface for Roof Sheathing," <u>Proceedings of the 1996 ACEEE Summer Study on Energy Efficiency in</u> Buildings, Vol. 1, p. 117, American Council for an Energy Efficient Economy, Washington D.C.

Jump, D.A., Walker, I.S. and Modera, M.P., 1996. "Measurements of Efficiency and Duct Retrofit Effectiveness in Residential Forced Air Distribution Systems," <u>Proceedings of the ACEEE 1996 Summer Study on Energy Efficiency</u> <u>in Buildings</u>, Vol. 1, p. 147, American Council for an Energy Efficient Economy, Washington D.C.

Parker, D.S., Fairey, P.F., Gu, L., 1991. "A Stratified Air Model for Simulation of Attic Thermal Performance," <u>Insulation Materials: Testing and Applications</u>, ASTM STP 1116, American Society of Testing and Materials, Philadelphia, PA.

Parker, D.S., Fairey, P.W. and Gu, L., 1991. "A Stratified Air Model for Simulation of Attic Thermal Performance," <u>Insulation Materials: Testing and Applications, ASTM 1116</u>, American Society of Testing and Materials, Philadelphia, PA.

Parker, D.S., Fairey, P.W. and Gu, L., 1993. "Simula-tion of the Effects of Duct Leakage and Heat Transfer on Residential Space Cooling Energy Use," <u>Energy and Buildings 20</u>, p. 97-113, Elsevier Sequoia, Netherlands.

Parker, D.S. and Barkaszi, Jr., S.F., 1997. "Roof Solar Reflectance and Cooling Energy Use: Field Research Results from Florida," <u>Energy and Buildings 14</u>, forthcoming, Elsevier Sequoia, Netherlands.

Rose, W.B., "The History of Attic Ventilation Regulation and Research," <u>Thermal Performance of the Exterior</u> <u>Envelopes of Buildings VI</u>, ASHRAE/DOE/BTECC, p. 125, December, 1995.

Schaeffer, J. 1994. Alternative Energy Sourcebook, 8th Ed., Real Goods Trading Co., Ukiah, CA.

TenoWolde, A. and Rose, W.B., "Issues Related to Venting of Attics and Cathedral Ceilings," <u>ASHRAE</u> <u>Transactions</u>, CH-99-11-4, p. 851-857, Summer, 1999, <u>American Society of Heating, Refrigerating and Air</u> Conditioning Engineers, Atlanta, GA.

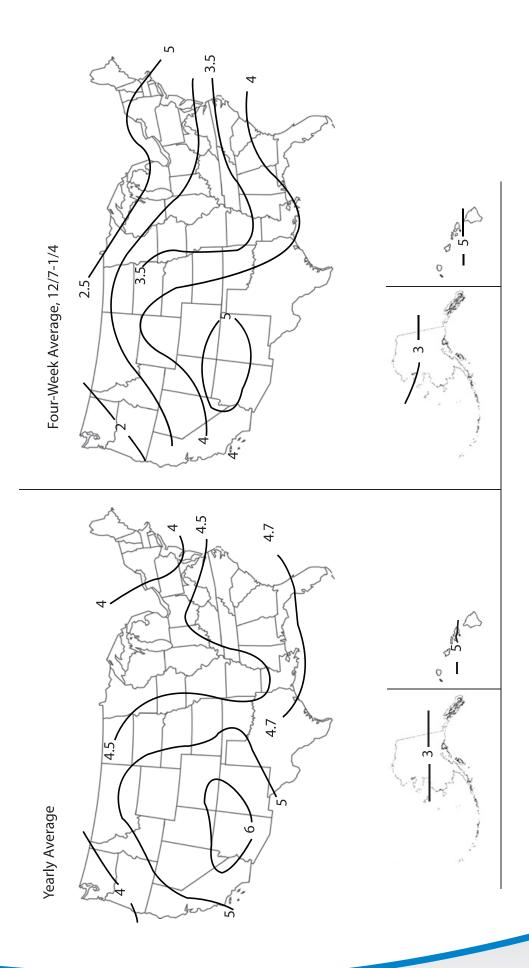
Wilkes, K.E., 1991. <u>Thermal Model of Attic Systems with Radiant Barriers</u>, ORNL/CON-262, Oak Ridge National Laboratories, Oak Ridge, TN.

CONCLUSION & REFERENCES

Sun Hours/Day-Chart

State	City	High	Low	Avg	State	City	High	Low	Avg
AK	Fairbanks	5.87	2.12	3.99	MO	Columbia	5.50	3.97	4.73
AK	Matanuska	5.24	1.74	3.55	MO	St. Louis	4.87	3.24	4.38
AL	Montgomery	4.69	3.37	4.23	MS	Meridian	4.86	3.64	4.43
AR	Bethel	6.69	2.37	3.81	MT	Glasgow	5.97	4.09	5.15
AR	Little Rock	5.29	3.88	4.69	MT	Great Falls	5.70	3.66	4.93
AZ	Tuscon	7.42	6.01	6.57	MT	Summit	5.17	2.36	3.99
AZ	Page	7.30	5.65	6.36	NM	Albuquerque	7.16	6.21	6.77
AZ	Pheonix	7.13	5.78	6.58	NB	Lincoln	5.40	4.38	4.79
CA	Santa Maria	6.52	5.42	5.94	NB	N. Omaha	5.28	4.26	4.90
CA	Riverside	6.35	5.35	5.87	NC	Cape Hatteras	5.81	4.69	5.31
CA	Davis	6.09	3.31	5.10	NC	Greensboro	5.05	4.00	4.71
CA	Fresno	6.19	3.42	5.38	ND	Bismark	5.48	3.97	5.01
CA	Los Angeles	6.14	5.03	5.62	NJ	Sea Brook	4.76	3.20	4.21
CA	Soda Springs	6.47	4.40	5.60	NV	Las Vegas	7.13	5.84	6.41
CA	La Jolla	5.24	4.29	4.77	NV	Ely	6.48	5.49	5.98
CA	Inyokem	8.70	6.87	7.66	NY	Binghampton	3.93	1.62	3.16
CO	Grandby	7.47	5.15	5.69	NY	Ithica	4.57	2.29	3.79
CO	Grand Lake	5.86	3.56	5.08	NY	Schenetady	3.92	2.53	3.55
CO	Grand Junction	6.34	5.23	5.85	NY	Rochester	4.22	1.58	3.31
CO	Boulder	5.72	4.44	4.87	NY	New York City	4.97	3.03	4.08
DC	Washington	4.69	3.37	4.23	OH	Columbus	5.26	2.66	4.15
FL	Apalachicola	5.98	4.92	5.49	OH	Cleveland	4.79	2.69	3.94
FL	Belie Is.	5.31	4.58	4.99	OK	Stillwater	5.52	4.22	4.99
FL	Miami	6.26	5.05	5.62	OK	Oklahoma City	6.26	4.98	5.59
FL	Gainsville	5.81	4.71	5.27	OR	Astoria	4.76	1.99	3.72
FL	Tampa	6.16	5.26	5.67	OR	Corvallis	5.71	1.90	4.03
GA	Atlanta	5.16	4.09	4.74	OR	Medford	5.84	2.02	4.51
GA	Griffin	5.41	4.26	4 99	PA	Pittsburg	4.19	1.45	3.28
HI	Honolulu	6.71	5.59	6.02	PA	State College	4.44	2.79	3.91
IA	Ames	4.80	3.73	4.40	RI	Newport	4.69	3.58	4.23
ID.	Boise	5.83	3.33	4.92	SC	Charleston	5.72	4.23	5.06
ID	Twin Falls	5.42	3.42	4.70	SD	Rapid City	5.91	4.56	5.23
IL	Chicago	4.08	1.47	3.14	TN	Nashville	5.20	3.14	4.45
IN	Indianapolis	5.02	2.55	4.21	TN	Oak Ridge	5.06	3.22	4.37
KN	Manhattan	5.08	3.62	4.57	TX	San Antonio	5.88	4.65	5.30
KN	Dodge City	4.14	5.28	5.79	TX	Brownsville	5.49	4.42	4.92
KY	Lexington	5.97	3.60	4.94	TX	El Paso	7.42	5.87	6.72
LA	Lake Charles	5.73	4.29	4.93	ТХ	Midland	6.33	5.23	5.83
LA	New Orleans	5.71	3.63	4.92	ТХ	Fort Worth	6.00	4.80	5.43
LA	Shreveport	4.99	3.87	4.63	UT	Salt Lake City	6.09	3.78	5.26
MA	E. Wareham	4.48	3.06	3.99	UT	Flaming Gorge	6.63	5.48	5.83
MA	Boston	4.27	2.99	3.84	VA	Richmond	4.50	3.37	4.13
MA	Blue Hill	4.38	3.33	4.05	WA	Seattle	4.83	1.60	3.57
MA	Natick	4.62	3.09	4.10	WA	Richland	6.13	2.01	4.44
MA	Lynn	4.60	2.33	3.79	WA	Pullman	6.07	2.90	4.73
MD	Silver Hill	4.71	3.84	4.47	WA	Spokane	5.53	1.16	4.48
ME	Caribou	5.62	2.57	4.19	WA	Prosser	6.21	3.06	5.03
ME	Portland	5.23	3.56	4.51	WI	Madison	4.85	3.28	4.29
MI	Sault Ste. Marie	4.83	2.33	4.20	WV	Charleston	4.12	2.47	3.65
MI	E. Lansing	4.71	2.70	4.00	WY	Lander	6.81	5.50	6.06
MN	St. Cloud	5.43	3.53	4.53					

SUN CHART

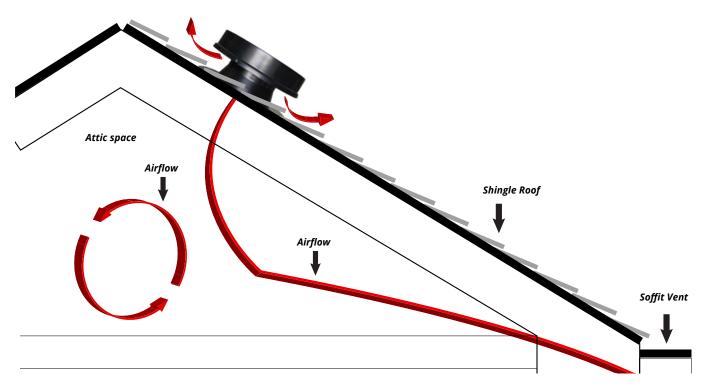


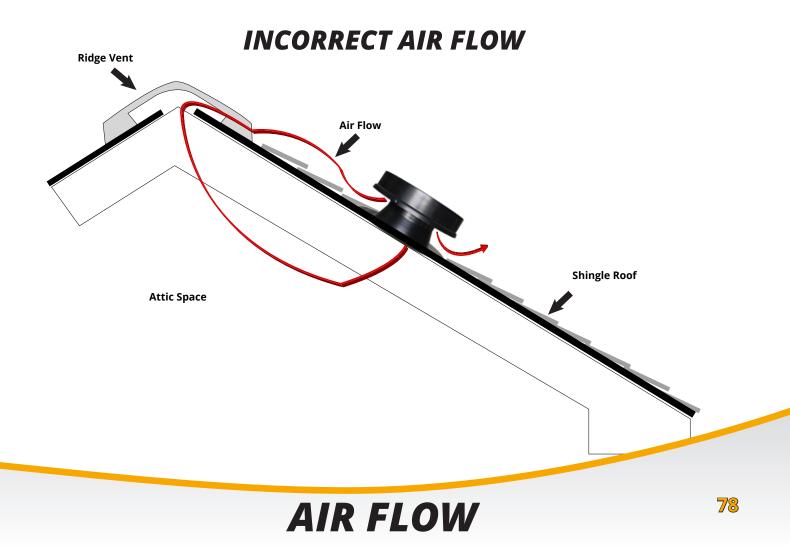
YEARLY HEAT AVERAGE



Diagrams & Images

CORRECT AIR FLOW











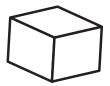


INSTALLED SOLARO AIRE

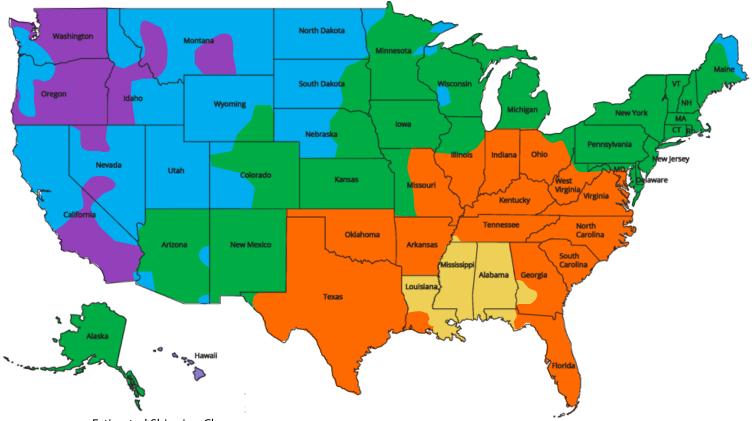




INSTALLED SOLARO DAY



Shipping **Information** These are the *estimated* shipping transit days and charges from our manufacturing facility in Alabama.



Estimated Shipping Charges

Transit days	Attic Fan	Light Fixture	Light Kit	Crawlspace
1 Day	\$45	\$30	\$35	\$60
2 Days	\$50	\$30	\$40	\$70
3 Days	\$60	\$30	\$50	\$75
4 Days	\$65	\$35	\$55	\$80
5 Days	\$70	\$35	\$60	\$85

Shipping charges are subject to change







Future Home of Solaro Energy



HOME OF SOLARO ENERGY, INC.⁸²

Solaro Aire ™ Installments



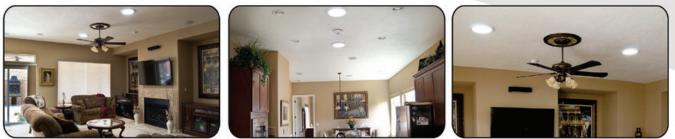
Solaro Aire ™ Installments



Solaro Aire™ Crawl space systemInstallments



Solaro Day™ Installments



Solaro Day ™ Street Lights Installments



PICTURES OF PRODUCT



Helping the Earth Stay Green

At Solaro Energy, we are committed to helping the planet stay green. We are focused on preserving the environment with green products and promoting off-grid independence. We have over 15 years experience in harnessing solar power, and over 25 years experience in manufacturing energy-efficient products.

888.355.5786 solaroenergy.com • 251.284.5165 22955 McAuliffe Dr. • Suite A • Robertsdale, AL 36567