



Introduction of Outdoor Projector Enclosures

Shenzhen Shirui Display Equipment Co., Ltd.

Solutions for protecting your valuable projector equipment in any weather conditions.



Company profile

Shenzhen Shirui Display Equipment Co., Ltd. was established in 2012. It is a company specializing in the production of outdoor projectors, three-proof intelligent constant-temperature cabinets, constant-temperature and constant-humidity cabinets, network cabinets, commercial display products, and sheet metal processing. Our products are widely applied in various fields, suitable for Government and Public Announcements, large-scale conferences, shopping malls, squares, Outdoor Advertising, Sports and Stadiums, Cultural and Festival Events, Tourism and Attractions, etc.

We have a professional R&D team and advanced production equipment, dedicated to providing customers with high-quality, high-performance outdoor projector housing products and solutions, which have been unanimously recognized in this industry.



Product Introduction



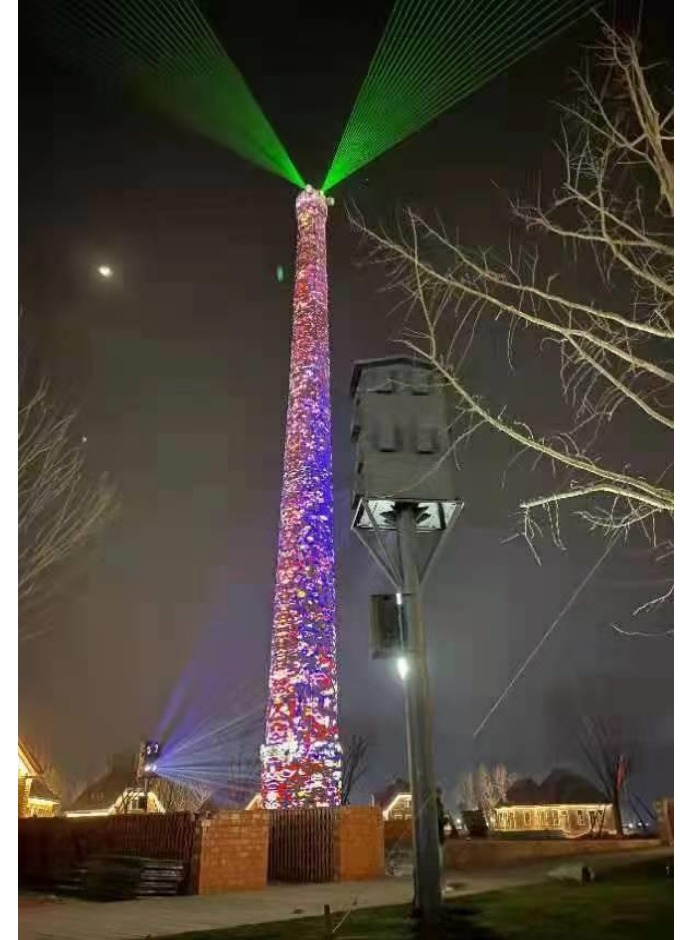
Our outdoor projector Enclosures are made of high-quality panels, coated with rust-proof and corrosion-resistant treatment on the surface. They have multi-functions such as waterproof, dustproof, moisture-proof, corrosion-resistant, constant temperature and humidity control, cooling, dehumidification, and heating. The products can be applied in outdoor cultural tourism, city night tours, advertising, exhibitions, and other fields, protecting projectors for safe operation in harsh outdoor environments and extending the projector's service life.

Our outdoor projector housing products have passed IP65, IP66, POHS, and EMC tests, demonstrating stable performance and excellent quality. We also offer personalized customization services, tailoring outdoor projector housing products and solutions according to customer needs and requirements.

Key Features

- **Weatherproof Protection:** Our outdoor projector enclosure is designed with a robust weatherproof construction, providing complete protection from rain, snow, dust, and extreme temperatures. With an IP65 rating, it ensures your projector stays safe in challenging outdoor environments.
- **Temperature Control:** The integrated temperature control system ensures optimal operating conditions for your projector. It prevents overheating in hot weather and maintains consistent performance even in cold conditions, extending the lifespan of your equipment.
- **Customization Options:** We offer custom and OEM solutions, allowing you to tailor the enclosure to your specific projector model and preferences. You can choose from a range of sizes and finishes to meet your unique needs.
- **Versatile Compatibility:** Whether you have a home theater setup, outdoor events, or commercial applications, our projector enclosure is compatible with a wide range of projectors, making it a versatile choice for various settings.
- **High reliability:** Crafted from high-quality materials, the enclosure offers long-lasting durability, ensuring your projector investment remains secure and functional over time.

Rely on its robust design, customizable options, and dependable weatherproofing to keep your projector safe and your outdoor entertainment memorable.



Product Type



Fan-cooled



Fan-cooled &
air-conditioned



Internal recycle
air-conditioned

Fan-cooled Type

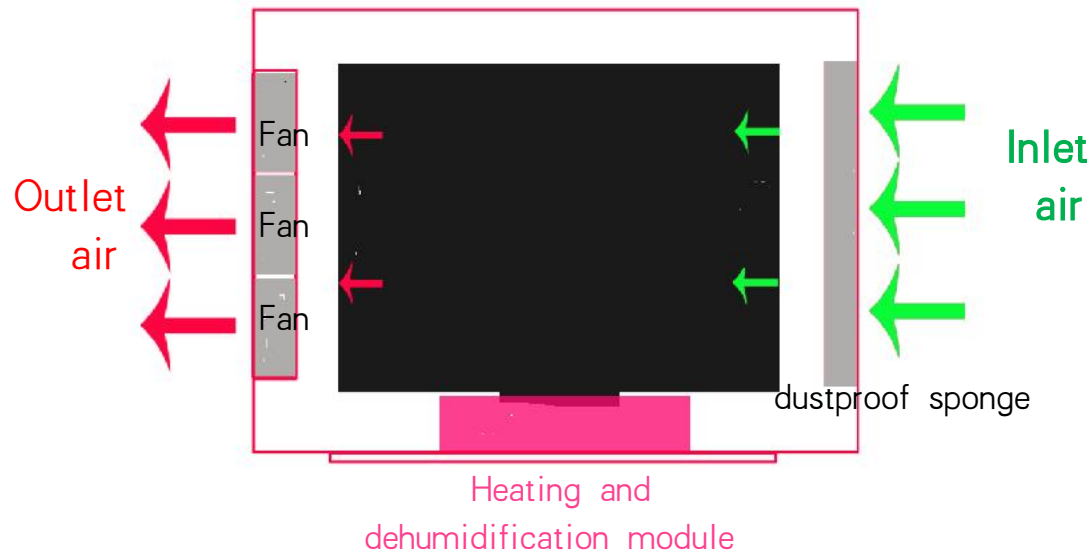
1. The cabinet body is made of high quality galvanized plate, with thickness 1.2/1.5/2.0/3.0 .You can choose stainless steel, aluminum alloy or other materials.
2. The surface layer is electrostatically sprayed and cured by high-temperature baking, with long service life and no peeling or cracking.
3. The projection window uses ultra-white optical glass with a transmittance of more than 95%.
4. It is equipped with an intelligent control system, including temperature sensors, humidity sensors, and heating dehumidification modules.
5. When the temperature is lower than 5 degrees and the humidity is higher than 90%, heating starts. When the temperature is higher than 10 degrees and the humidity is lower than 65%, heating stops.
6. When the temperature is higher than 25 degrees, the fan starts working; when the temperature is lower than 25 degrees, the fan stops , and the rotational speed changes with the temperature.
7. Protection level is IP65. The temperature and humidity are displayed in visual digital form.
8. The appearance shape can be specially customized
9. The Angle can be adjusted in multiple directions, up and down, left and right



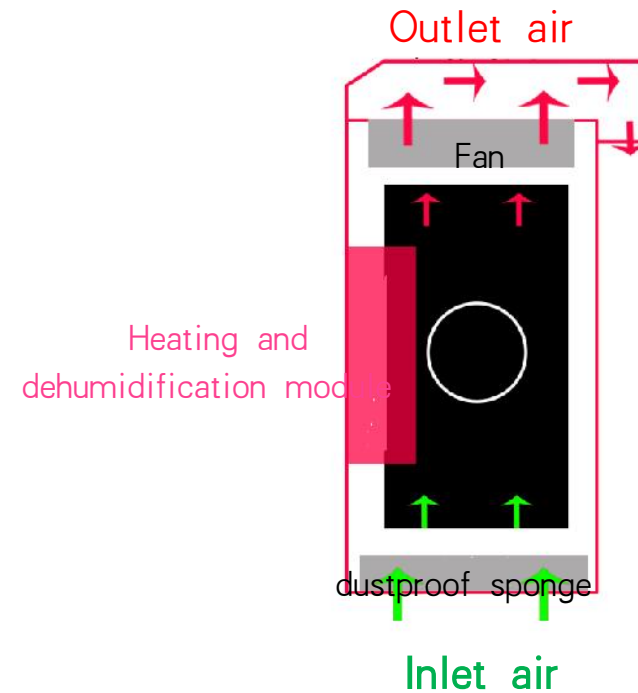
Fan-cooled Type

Note:

1. The fan startup temperature, heating startup temperature, and air conditioner startup temperature can all be set manually according to the actual situation.
2. The air inlet and outlet of the housing are designed based on the air flow requirements of the projector.
3. It can be made as a pull-out type for the projector.
4. It can be controlled via RS232/485 interface.



Parallel installed Diagram



Vertically installed Diagram

Fan-cooled and air-conditioned Type

1. The cabinet body is made of high quality galvanized plate, with thickness 1.2/1.5/2.0/3.0 .You can choose stainless steel, aluminum alloy or other materials.
2. The surface layer is electrostatically sprayed and cured by high-temperature baking, with long service life and no peeling or cracking.
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6. When the temperature is higher than 25 degrees, the fan starts working; when the temperature is lower than 25 degrees, the fan stops , and the rotational speed changes with the temperature.
7. When the temperature is above 25 degrees, the air conditioner starts to work; when it is below 25 degrees , the air conditioner stops the cooling operation.
8. Protection level is IP65. The temperature and humidity are displayed in visual digital form.



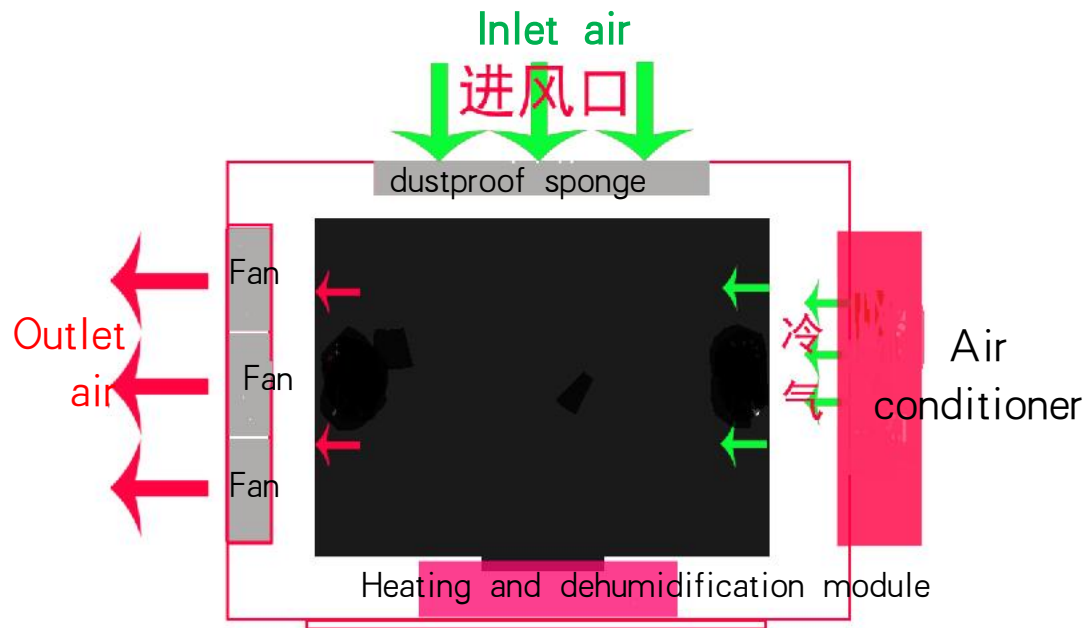
9. The appearance shape can be specially customized

10. The Angle can be adjusted in multiple directions, up and down, left and right

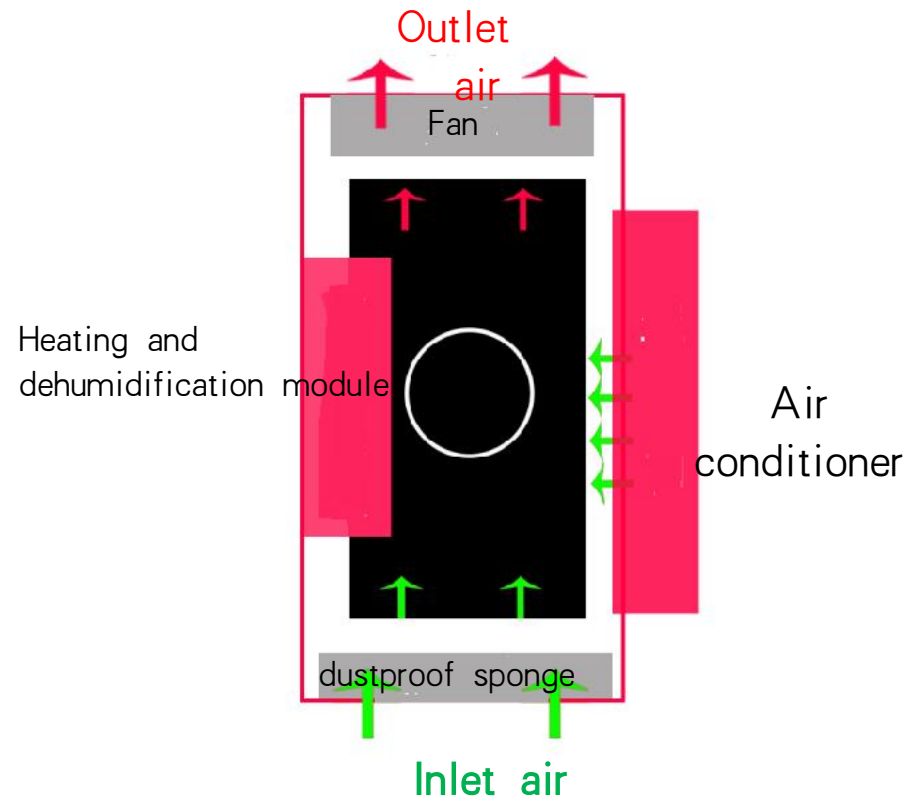
Note: 1. The fan startup temperature, heating startup temperature, and air conditioner startup temperature can all be set manually according to the actual situation.

2. The air inlet and outlet of the housing are designed based on the air flow requirements of the e projector.

4. It can be controlled via RS232/485 interface.



Parallel installed Diagram



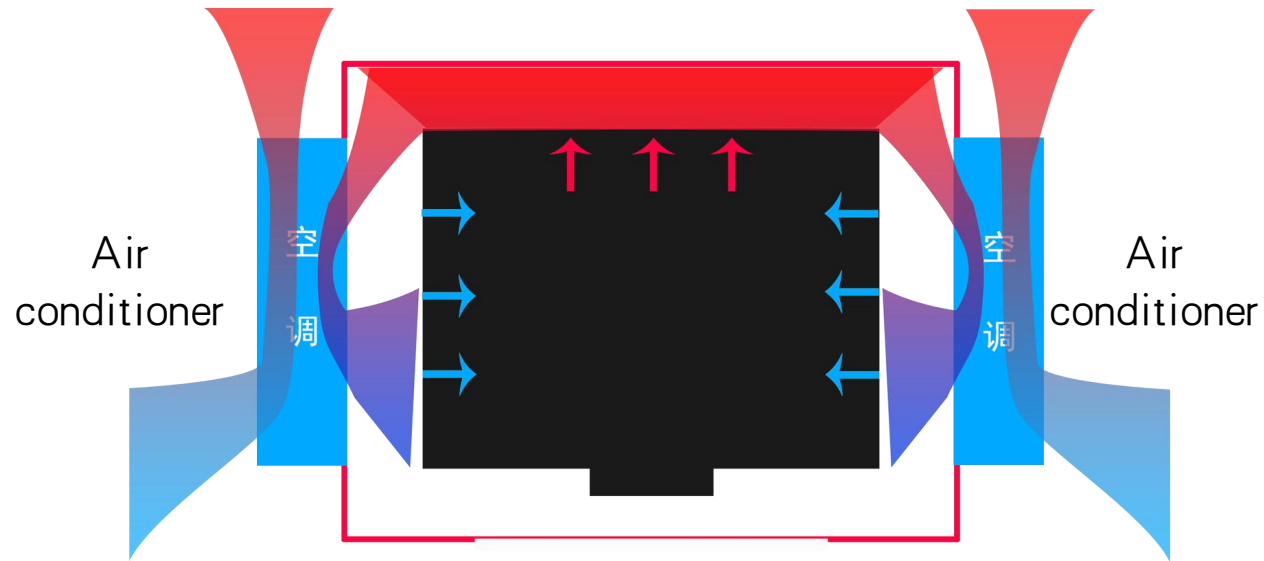
Vertically installed Diagram

Internal recycle air-conditioned Type

1. The Cabint body is made of high quality galvanized plate, with thickness 1.2/1.5/2.0/3.0 .You can choose stainless steel, aluminum alloy or other materials.
2. The surface layer is electrostatically sprayed and cured by high-temperature baking, with long service life and no peeling or cracking.
3. The projection window uses ultra-white optical glass with a transmittance of more than 95%
4. It is equipped with an intelligent control system, including temperature sensors, humidity sensors, and heating dehumidification modules.
5. When the temperature is lower than 5 degrees and the humidity is higher than 90%, heating starts. When the temperature is higher than 10 degrees and the humidity is lower than 65%, heating stops.
6. When the temperature is above 25 degrees, the air conditioner starts to work; when it is below 25 degrees , the air conditioner stops the cooling operation.
7. Protection level is IP65. The temperature and humidity are displayed in visual digital form.
8. The appearance shape can be specially customized
9. The Angle can be adjusted in multiple directions, up and down, left and right



- Note:
1. Heating dehumidification start temperature and air conditioner start temperature can be set manually according to the actual situation.
 2. The box body has no inlet and outlet air holes and is completely sealed. It is suitable for use in subway, seaside, and areas with strong sand and wind.
 3. It can be made as a pull-out type for the projector.
 4. It can be controlled via RS232/485



Main modules of the product

1. Detecting System



Temperature sensor probe



Smoke sensor probe



Humidity sensor probe



Water Ingress sensor probe

2. Housing

Projector window glass



The projector window is made of optical ultra-clear glass with a light transmittance of over 95%, which ensures high transmittance in the visible spectrum and reduces the light loss of the projector.



Projector base

The base of the projector is inside the projector housing. It is equipped with a jack screw. The angle can be adjusted by 30 degrees up and down, and by 15 degrees left and right. It can be customized according to customer requirements. An additional external adjustment can be installed to increase the angle adjustment range. (The external adjustment has an impact on the level of the air conditioner, and the placement of the air conditioner needs to be designed separately.)

3.constant temperature and humidity system



industrial air conditioning

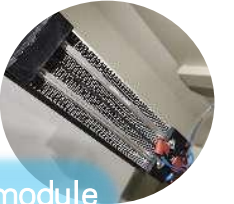
The temperature sensing probe detects that the temperature inside the box is higher than the preset value, it starts to work.



Silent cooling Fan

1、1. When using dual systems, the fan cooling takes precedence. When the fan fails to lower the temperature inside the box, the temperature sensor probe sends instructions to the control board, and the air conditioner start work.
2. When using Fan—cooling, when the temperature sensor probe detects that the temperature is higher than the set value (30°C) by 2°C , the fan starts to work. When it is lower than (30°C) by 2°C , it stops working. The higher the temperature inside the box, the fan runs faster.

Heating module



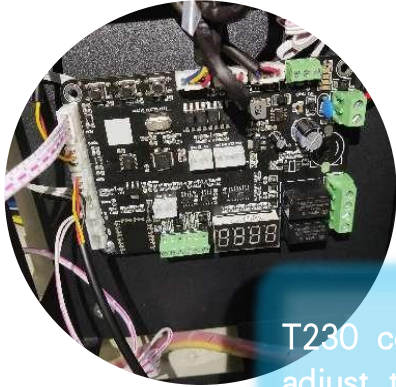
Single heating module with 400W power. Heating module assembly. Temperature $\leq 5^{\circ}\text{C}$, humidity $\geq 85\%$. Heating starts, temperature rises to 10°C , humidity $\leq 75\%$. Heating stops. The inside of the box remains dry. The projection window does not fog up or have condensation droplets.

Dust—proof air intake port



The efficiency air filter screen F6. It has the functions of good air permeability, dust prevention and mosquito repellent. The waterproof and dustproof level of reaches IP65.

4. Intelligent control system and power supply



T230 control board

T230 control board can intelligently control and adjust the temperature of the projector enclosure based on the preset parameters and the built-in algorithm, enabling the projector to operate within the optimal temperature range.

Functional Features:

- Built-in intelligent algorithm for intelligent control and regulation of projector enclosure temperature
- Support for hardware watchdog to ensure normal system operation
- Power supply protection against reverse connection
- Control the cooling, fan blowing, heating and dehumidification system.



power supply

- The power supply of the intelligent measurement and control motherboard is stabilized by the switch power supply of MGE METTLER.
- There are 16A or 10A multi-functional sockets reserved.
- The power supply for the projector is equipped with an AC contactor. In case of any fault, the power supply will immediately trip to protect the projector.
- The external power supply is two-phase electricity (the 1 square-meter line in accordance with the national standard can bear approximately 1400W power).