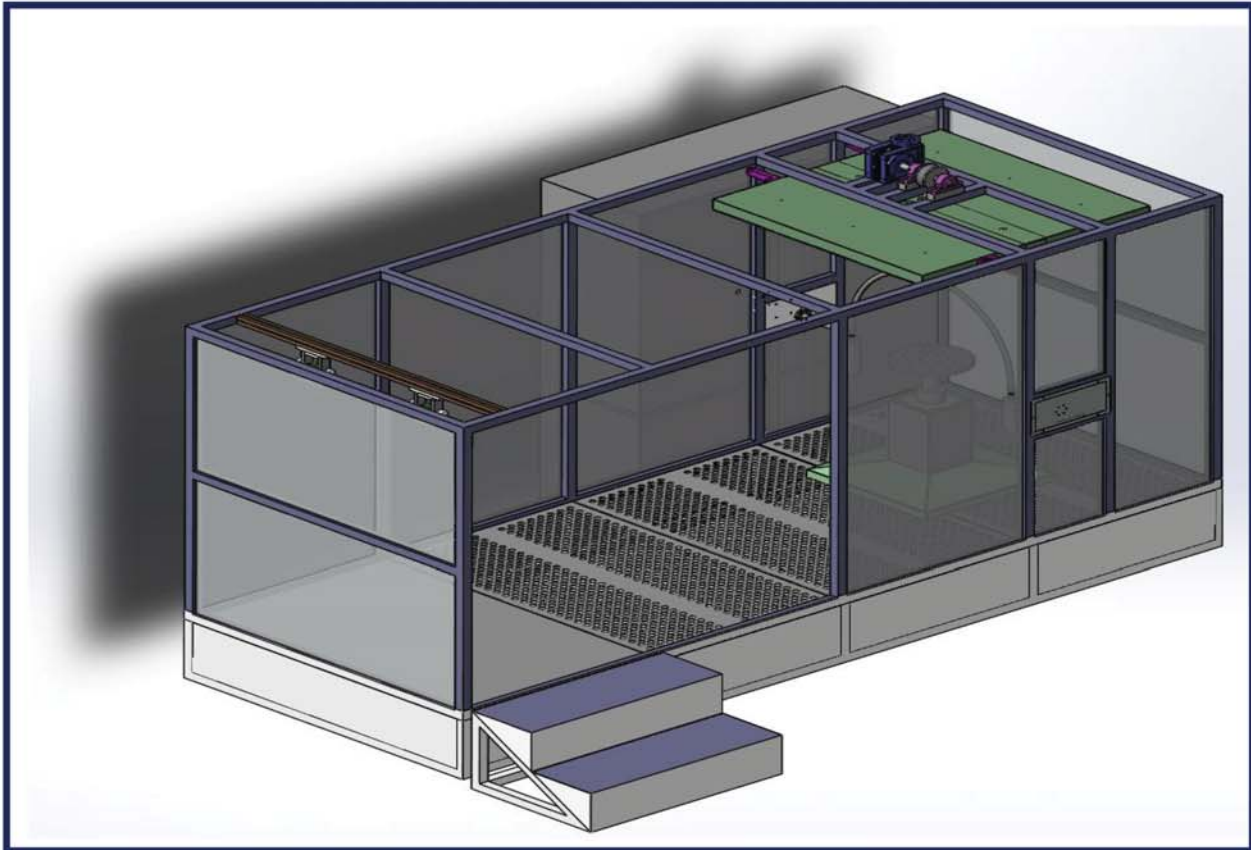


IPX1.2.3.4.5.6 Rain Test Chamber

Technical proposal



Name : Rain Test Chamber (IPX1,2,3,4,5,6)

Model : SM-IPX123456-1000

Product features:

1. Product application: The product is suitable for external lighting and signal devices and automotive lamp shell protection test

2. Technical specifications :

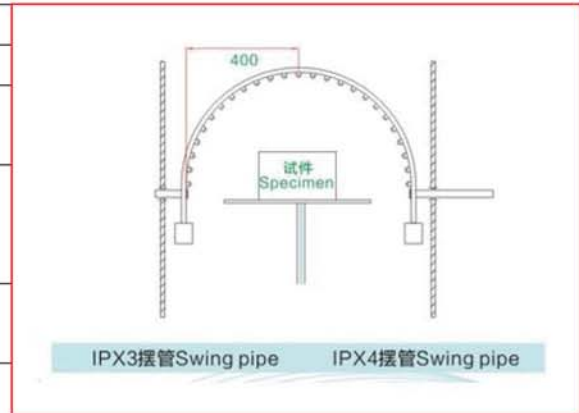
Name	Water spray / IP waterproof grade test device
Model	SM-IPX123456-1000
Test function	IPX1、IPX2、IPX3、IPX4、IPX5、IPX6 water spray test
The test standards complied	IEC 60068-2-18 Test R and guidance:Water IEC60529:2001 Shell protection grade GB4208-2008 Shell protection grade GB2423 TEST R: Water test methods and guidelines GJB150.8A-2009 Rain test program III
Test limit	a. Testing and storage of flammable, explosive, volatile substances; b. Test and storage of corrosive substances; c. Test or storage of biological specimens; d. Test and storage of high electromagnetic emission source sample.

A. IPX1、IPX2 Rain Test

<p>IPX1 Method name : Vertical drop test Test device: Drop test device Sample placement: The specimen placed in the rotating sample table with 1r/min according to the normal position, the distance between the top of the sample is not greater than 200mm Test conditions: Drop volume is 10.5mm/min Duration time: 10 min</p> <p>IPX2 Inclined 15 degree drop test Test device: Drop test device Sample placement: One surface of the specimen is a 15 degree angle with vertical line, the distance between the top of the sample is not greater than 200mm. After the surface is tested, changed another side. Four times a total. Test conditions: Drop volume is 30.5mm/min Duration time: 4 *2.5min</p>	
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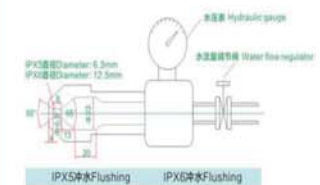
B. IPX3、IPX4 Rain test

Test chamber size	1000×3000×1500mm (D×W×H)
Test table area	Ø400mm
Pipe hole size	Hole quality : 25 pls
Water spray aperture	Ø 0.4mm
Distance between water jet holes	50mm; (can be adjusted according to customers requirement)
Radius of water spraying ring	400mm
Inner diameter of water spray pipe	Ø16mm
Swing angle	45° ~360° can be set
Swing speed regulation	0~20 times can be set
Water pressure	About 80Kpa
Water supply	Adjusted according to IPX3、IPX4
Test speed of test table	1 ~10r/min.



C. IPX5、IPX6 Water Spray Test

Shower nozzle specification	IPX5 Nozzle inner diameter: 6.3mm IPX6 Nozzle inner diameter: 12.5mm (shower nozzle for each)
water discharge	IPX5: 12.5 ± 0.625L/min(6.3mm nozzle) IPX6: 100 ± 5L/min(12.5mm Shower nozzle)
Water pressure	100Kpa (adjustable) depends on the water flow
Flush distance	250cm~300cm(Distance from flushing head to samples)
Test time	Free setting
Samples test table	Sharing with IPX5/IPX6 sample test table
Control method	Using digital display table control, automatic control according to the test requirements
Test method	Desktop flush



D. Control System

Control mode	Adopting the digital display table control, and set the parameters automatically according to the test requirement.
Operation mode	IPX3、IPX4、IPX5、IPX6 Independent control, manual operation
Control functions	IPX3、IPX4 Rain test, IPX5/IPX6 Flush test

E. IP test device structure:

IP test device is composed of a water spraying device, a water supply device, a sample test bench and a control cabinet.

1. Water system

Water system consist of water tank, water pump, internal circulation pipe system, etc., IPX3, IPX4,

<p>1.1, Water tank:</p> <p>1.1.1, IPX3、 IPX4 、 IPX5、 IPX6 share a water tank;</p> <p>1.1.2, Water tank uses SUS304 stainless steel, which was installed on the side of test devices. the capacity of tank could meet test water;</p> <p>1.1.3, Automatic water supply device for water tank. When the water level of the water tank is lower than the safe water level, the water tank can be automatically supplied by the external water supply.;</p> <p>1.1.4, Water shortage alarm function for water tank. When the water level in the water tank is lower than the water inlet of the circulating water pump, pump stops working and alarm;;</p> <p>1.1.5, Water gauge for tank. Water gauge is arranged in the front surface of the box, you can always watch the water tank;</p> <p>1.1.6, An overflow port and a drain port are provided. and a manual valve is arranged at the end of the overflow pipe and the drain pipe.;</p> <p>1.1.7, The water tank can be disassembled and cleaned, and the corresponding joint or hose connection is arranged in the water pipe connection;</p> <p>1.1.8, The water filter is arranged on the external water supply side of the water tank, and the impurities in the filter water can be observed directly.</p>
<p>1.2, Water pump:</p> <p style="padding-left: 20px;">Water pump uses high pressure stainless steel pump, ensure water pressure and flow of the test cycle, the pump is installed in the side of the IP test device, and both ends of the inlet and outlet to set up the joint, easy to replace and repair.</p>
<p>1.3, Internal circulation pipe system:</p> <p>1.3.1, The internal circulation pipe system is equipped with a water quality filter, a glass flow meter, a pressure gauge, a drain valve, and a filter, the pressure gauge can be directly observed;</p> <p>1.3.2, The filter, pressure gauge and glass flow meter are set up loose joint and easy to be changed;</p> <p>1.3.3, Water flow is controlled by the glass flow , automatic control the water flow and ensure the safe operation of the pump;</p> <p>1.3.4, SUS304 stainless steel material is used in the internal circulating pipe and connecting parts, which ensure the required water quality.</p>
<p>3, Control cabinet:</p> <p>3.1, Control cabinet uses 304 stainless steel plate ;</p> <p>3.2, Control cabinet with waterproof protection in order to avoid leakage accident.</p>
<p>F. Safety protection device :</p>
<p>1, Equipped with an abnormal sound and light alarm device ;</p>
<p>2, Water safety protection device;</p>
<p>3, Power supply phase shortage, power supply abnormal alarm, leakage, short circuit, open circuit protection device;</p>
<p>4, The total power switch has the leakage protection function;</p>
<p>5, Motor overheating, overload alarm device, water shortage, low water level alarm device;</p>
<p>6, Pressure regulating device for the front end of the air supply system of the test device.</p>
<p>G. Work conditions:</p>
<p>1. Water supply: Drinking Water</p>
<p>2. Water supply pipe: \varnothing 20mm Water flow: \geq1T/h</p>
<p>3. Drain pipe: \varnothing 25mm</p>

4. Power supply: AC380V ± 10%/50Hz/2.5KW, Three phase five wire
5. Place: Cement floor, drainage trench (detailed requirements see design plan), Load 1T/m ²
6. Wall: brick structure
H. Other requirements:
1. Equipment documents : The following information is delivered to the owner at the time of delivery. <ul style="list-style-type: none"> 1.1, User manual (included operation and repair) 1.2, Electrical wiring diagram
2. Equipment identification requirements: Text label on the device
3. Training: when the equipment is received in the factory of party B, the party A people may accept Maintenance & Operation training