IPX1-6 R400 Rain Test Chamber for Precise Water Exposure Conditions Simulation

Our Product Introduction

Basic Information

- Place of Origin: Guangdong , China
- Brand Name: YueXin
- Certification: ISO 20653:2013, DIN 40050-9:1993, IEC60529:2013 VW 80000:2017 LV124 K-10
- Model Number: YX-IPX16BS-R400
- Minimum Order Quantity: 1 pcs
- Price: usd+20000-50000+pcs
- Packaging Details: wooden box package
- Delivery Time: 30-45 days
- Payment Terms: T/T
- Supply Ability: 100+pcs+30

Product Specification

- Test Function: IPX1 IPX2 IPX3 IPX4 IPX5 IPX6
- Rotating Speed: 1-5 Rounds Per Minute
- Turntable Tilt: 0°or 15°(horizontal Direction)
- Controller: 7-inch Touch Screen + PLC
- Working Environment: Drip , Rain, Splash Water, Water Spray, Powerful Water Spray
- Window Material: Tempered Glass
- Turn Table Load Bearing: 40KG
- Alternative Name: Environment Simulation Device , IP Grade Testing Machine
- Highlight: **ipx1 waterproof test equipment**, **ipx2 waterproof test equipment**, **ipx2 ipx1-6 rain test chamber**

Product Description

IPX1-6 R400 Rain Test Chamber for Precise Water Exposure Conditions Simulation

Generl specifications:

Dimension	Outer : Approx W 1350×D 3700×H 1920 (mm); Inner : W 900×D 900×H 1050 (mm)
Material	External : steel plate; Internal : 304 stainless steel
Power supply	380V/50HZ
Power	2.5kW

Product description:

The IPX1-6 Water Resistance Testing Chamber is engineered to mimic a spectrum of waterproofing standards, commencing with the IPX1 slight drizzle assessment and culminating in the rigorous IPX6 high-pressure water jet challenge. By subjecting samples to precisely calibrated water exposure scenarios, from delicate trickles to intense sprays, it validates product resilience. Consequently, it's pivotal for certifying the IP classifications of electronics, automotive parts, and outdoor equipment, guaranteeing their dependability under extreme conditions.

A protective cover is installed at the bottom of the drip tank to prevent the head from being hurt by the nozzle during operation.
The equipment uses a high-quality servo motor to drive the swing tube, so that the swing angle is more precise and the noise is low.
The flow rate is manually adjusted with a glass flow meter[5].
Use a pressure gauge to display the test water pressure.
The sample power socket (220V, 10A) is mounted on the right wall of the inner box, which is convenient for the user to do the live test of the sample; and after the sample is powered on, the turntable rotation will be automatically adjusted to forward and reverse rotation to prevent winding [6].
There is a waterproof lighting inside, which is convenient for users to observe the test situation.
Controller: 7-inch touch screen + PLC, using Yuexin self-developed software, which can be switched to multiple languages[7].
Test time setting: 0-999min[8].
Universal casters are mounted on the bottom, which has good load-bearing and easy to move and fix the equipment.

Standard parameters for IPX1/2:

Item	Parameter
Drip area	600×600mm
Diameter of nozzles	0.4mm
Distance between nozzles	20mm
Water flow(IPX1)[9]	0.36-0.54 L/min
Water flow(IPX2)	1.08-1.26L/min
Drip distance[10]	200mm

Standard parameters for IPX3/4:

Item	Parameter
Radius of swivel tube[11]	R400
Diameter of swivel tube	800mm
Internal diameter of swivel tube	15mm
Internal diameter of nozzle	0.4mm
Number of nozzles of swivel tube	See remark[12]
Distance between nozzles	50mm
Speed of rotation of the swivel tube	60 degree/s
Swing pipe angle	IPX3 : 120º; IPX4/IPX4K : 350º
Water volume flow	IPX3(L/min) : 1.1 ; IPX4(L/min) : 1.8
Flow error range	±5%

Standard parameters for IPX5/6:

Item	Parameter
Diameter of nozzles	IPX5 : 6.3mm; IPX6 : 12.5mm
Water flow	IPX5 : 12.5±0.625 L/min; IPX6 : 100.0±5 .0L/min
Spray direction	Spray from back to front
Nozzle angle	Fixed, manually adjustable
Spray distance[13]	2.7m

Remark:

1 The pictures in this document are for customer reference only, and there may be color differences between the actual model and the pictures.
2 This document only lists some test standards, which does not mean that other test requirements and standards cannot be conducted. Welcome

to communicate and discuss with us.
3 One test only at the same time. The next project can be only carried out after the current test is completed. In addition, we can provide multi-functional customized test solutions according to user requirements.
4 Standard load-bearing upper limit of turntable is 50kg,but also can be customized per requirements.Turntables of φ200mm are provided for replacement.
5 This model is adjusted by a flowmeter, and the upper surface of the float is aligned with the scale to read the data; if you need to export the test data, you can choose a flow sensor. When reading the flowmeter, the second digit after the decimal point is the estimated reading data, not accurate data; if the user is concerned about the accuracy of the data, a flow sensor can be selected through negotiation.
6 Please inform in advance if the voltage(220V) does not match the actual needs so that we can provide customized solutions for you.
7 At present, only Chinese and English interfaces are supported; if other languages are introduced, the software can be updated remotely.
8 It is recommended to set the test time according to the test standard. The water temperature will rise due to long time test which has an impact on the test results.
9 The data is calculated based on the dripping area, IPX1:0.6×0.6×(0.001-0.0015)=0.00036-0.00054m³/min(that is 0.36-0.54L/min).
10 200mm is the distance from the nozzle to the sample specified in the standard, and the user needs to adjust the height of the turntable to meet the distance requirement.
11 Multiple specifications of pendulum tubes can be provided, please confirm clearly before placing an order; if other specifications are added after purchase, the equipment needs to be returned to the factory to replace hardware and programs.
12 The specifications of swing pipe for IPX3/4 rain test, as shown in the figure below:

Table 9 – Total water flow rate q_V under IPX3 and IPX4 test conditions – Mean flow rate per hole q_{Vl} = 0,07 l/min

Tube radius R mm	Degree IPX3		Degree IPX4	
	Number of open holes N[1)]	Total water flow q_V l/min	Number of open holes N[1)]	Total water flow q_V l/min
200	8	0,56	12	0,84
400	16	1,1	25	1,8
600	25	1,8	37	2,6
800	33	2,3	50	3,5
1 000	41	2,9	62	4,3
1 200	50	3,5	75	5,3
1 400	58	4,1	87	6,1
1 600	67	4,7	100	7,0

1) Depending on the actual arrangement of the hole centres at the specified distance, the number of open holes N may be increased by 1.

13 This distance is the range from the nozzle to the center of the turntable. If the user wants to extend the spraying distance, he needs to explain in advance.
14 The user needs to prepare an air compressor in advance (recommended gas storage capacity > 40L). If you need us to buy it on your behalf, you need to explain in advance.
15 The photos may not match the actual ones, and are for user reference only.

The product images:

spray container

Tags: IPX1-6 Waterproof Grade Test Machine , Waterproof Test Equipment ,Device Protection Testing Equipment

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