

## R400 IPX3 IPX4 IPX5 IPX6 Rain Test Machine Top Spray for Automotive Electronics

Our Product Introduction

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### 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-IPX36BSDE-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 Rate: IPX3 IPX4 IPX5 IPX6
- Turn Table Load Bearing: 30KG
- Working Scenario: Rain、 Splash Water、 Water Spray、 Powerful Water Spray
- Rotating Speed: 1-5 Rounds Per Minute
- Diameter Of Bottom Turntable: 600mm
- Diameter Of Detachable Turntable: 400mm
- Controller: 7-inch Touch Screen + PLC
- Product Name: IPX3-6 Waterproof Test Equipment
- Highlight: **Top Spray Rain Test Machine, Automotive Electronics Rain Test Machine**

## Product Description

### R400 IPX3 IPX4 IPX5 IPX6 Rain Test Machine Top Spray for Automotive Electronics

#### General specifications:

Dimension	Outer :L1350*W1100*H1750/ L500*W400*H2400; Inner :W 900×D 900×H 900 (mm)
Material	External : steel plate; Internal : 304 stainless steel
Power supply	380V/50HZ
Power	2.5kw

#### Use scene:

The IPX3-6 water spray test chamber is engineered to evaluate the waterproof qualities of electronic devices and their components. It boasts a range of applications in sectors such as household appliances, communication devices, and automotive electronics. Its main focus is to test the water resistance of products exposed to water spray at particular angles and pressures, ensuring their dependability and safety in moist environments.

#### Product structure:

Boasting a unique top-spray configuration, the IPX3-6 spray test chamber precisely mimics the scenario of rain evenly falling from above. By offering extensive and consistent spray coverage, it satisfies the rigorous waterproof testing demands in a wide array of complex settings, thereby guaranteeing that the product under test can stand up to rain exposure in real-world conditions.

For IPX5/6 testing, here are two spray modes: up and down sweeping water spray and fixed water spray<sup>5</sup>.

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<sup>6</sup>.

Controller: 7-inch touch screen + PLC, using Yuexin self-developed software, which can be switched to multiple languages<sup>7</sup>.

Test time setting: 0-999min<sup>8</sup>.

Protection measures: short circuit protection, water shortage alert.

#### Standard features for IPX3/4:

Item	Parameter
Radius of swivel tube <sup>9</sup>	R400
Diameter of swivel tube	800mm
Internal diameter of swivel tube	15mm
Internal diameter of nozzle	IPX3/4 : 0.4mm
Number of nozzles of swivel tube	See remark <sup>10</sup>
Distance between nozzles	50mm
Speed of rotation of the swivel tube	60 degree/s
Swing pipe angle	IPX3 : 120°; IPX4 : 350°
Water volume flow	IPX3(L/min) : 1.1 ; IPX4(L/min) : 1.8 ;
Flow error range	±5%

#### Standard features 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 distance	2.7m
Spray direction	Spray from back to front
Spray height	700mm
Nozzle swing speed	0-20 cycle/min

#### 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 If the sample height exceeds 150mm, it is recommended to choose the swing spray method.

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 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.

10 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  $q_{v1} = 0,07 \text{ l/min}$

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

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

11 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.

12 Since the IPX5 water spray is in a parabolic shape, the water spray range will be lower than this height, and the measured maximum water spray height is close to 550mm.

13 The photos may not match the actual ones, and are for user reference only.

**Detail picture:**



inner box

**Tags:** Waterproof Testing device , IP Grade Climatic Chamber , IPX3-6 Environmental Machine

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