

Lab Companion



Waterproof Test Chamber

SDX-512

Custom Solution



Brief Introduction

This product is suitable for assessing whether the shells and seals of electrical products can guarantee the good performance of equipment and components under rainy environment. The product adopts scientific design, which makes the equipment can realistically simulate various environments such as dripping, drenching, splashing and spraying.

Thanks to the use of comprehensive control system and frequency conversion technology, the rainfall test specimen rack rotation angle, the swing angle of the water spray pendulum and the amount of water spray swing frequency can be automatically adjusted.

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Technical Parameter :

Size and material of the inner chamber	
Inner chamber size	800×800×800mm (W*D*H)
External chamber size	1200×3600×1720mm (W*D*H) , the spray bucket is retractable
Inner chamber material	SUS304, stainless steel
External chamber material	SUS304, stainless steel
Parameter of IPX12	
Drip tank size	600×600mm (W*D)
Distance between drop tank and sample	200 mm
Drip hole diameter	φ0.4 mm
Spray aperture spacing	20 mm
Rainfall	IPX1:1+0.5mm/Min;IPX2:3+0.5mm/Min
Tilt Angle of IPX2	Equipped with a 15° tilt device
Duration of test	10min or more time (configurable)
Air pressure cleaning	After the test is completed, the drip tank water is automatically drained, and then the air is injected for 3 minutes, and the time can be set. The customer shall provide more than 5kg air source

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Parameter of IPX12	
Blowhole diameter	0.4 mm
Spray aperture spacing	50 mm
Pendulum radius	300mm
Blowhole flow	<ol style="list-style-type: none">1. With the vertical direction $\pm 60^\circ$ range of water, the maximum distance is 200mm;2. The Angle is $\pm 180^\circ$ from the vertical direction;3. Each hole (0.07 $\pm 5\%$) L/min multiplied by the number of holes
Nozzle Angle	120° (IPX3) 、 180° (IPX4)
Angle of oscillation	$\pm 60^\circ$ (IPX3) 、 $\pm 180^\circ$ 接近 (IPX4)
Nozzle swing speed	IPX3 15 次/min; IPX4 5 次/min
Duration of test	10min or more time (configurable)
Rain pressure	50~150kPa
Parameter of IPX56	
Number of spray heads	Two; One IPX5 nozzle and one IPX6 nozzle
Inner diameter of the nozzle	$\phi 6.3$ mm (IPX5 等级); $\phi 12.5$ mm (IPX6 等级)
Spray flow	12.5 \pm 0.625(L/min) (IPX5 grade); 100 \pm 5(L/min) (IPX6 grade)
Spray distance	2.5 m (distance between nozzle and center of turntable)
Pipe diameter	Four points, one inch of soft pressure pipe each

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	Water spray test time at least 3min or more time (can be set)
Spray test time	At least 3 minutes or more (configurable)
Water spray pressure	30 ~ 100kPa (adjusted by flow rate)
Turntable system	
Turntable diameter	400 mm
Turntable bearing	20 kg
Rotary speed	1 ~ 3 R/min (adjustable)
The turntable is positive and reversed	Turntable with positive, reverse function; Each test hole diameter is 50mm
Equipment service conditions	
Environmental condition	Temperature 15°C ~ 35°C; Relative humidity 25%RH ~ 75%RH; Atmospheric pressure 86kPa ~106kPa
Inlet pipe and drain pipe diameter	4 Separate pipes. After planning the device placement, connect the water inlet pipe and drain pipe in advance.
Power source	380V(3 ϕ 5 wire, a separate 32A air switch, the air switch should have wiring terminals, Power cord to more than 4 square; 50Hz; Approx. 5.5KW (equipment power).

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Structure chart:

1. The whole machine



2. The inner chamber

