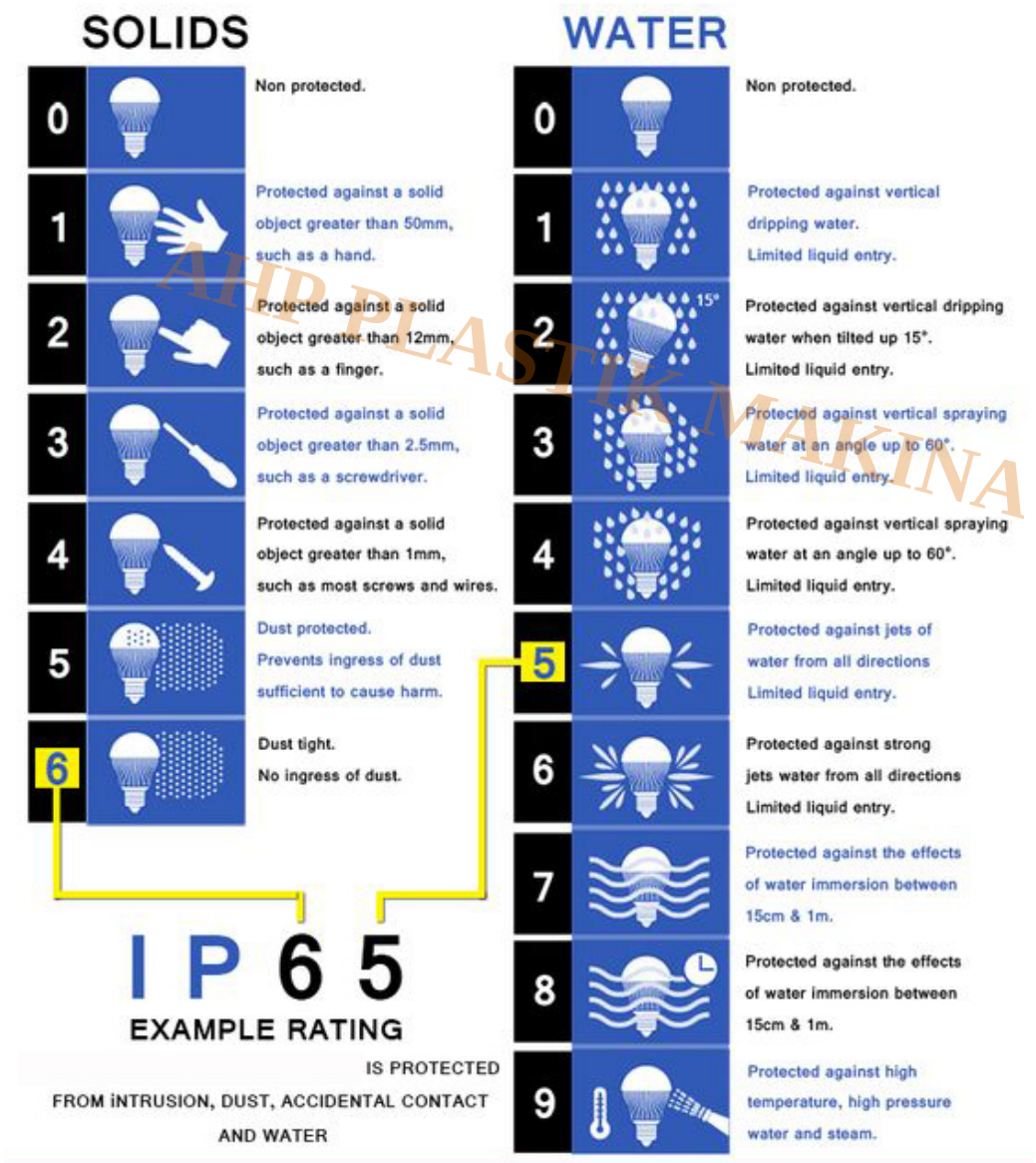
IEC 60529 Degrees of Protection Provided by Enclosures (IP Code) â€“ IPX5 IPX6 Testing Equipment

Description



AHP PLASTIK MAKINA

Table 8 – Test means and main test conditions for the tests for protection against water

Second characteristic numeral	Test means	Water flow rate	Duration of test	Test conditions, see
0	No test required	–	–	–
1	Drip box Figure 3 Enclosure on turntable	$1^{+0,5}_{0}$ mm/min	10 min	14.2.1
2	Drip box Figure 3 Enclosure in 4 fixed positions of 15° tilt	$3^{+0,5}_{0}$ mm/min	2,5 min for each position of tilt	14.2.2
3	Oscillating tube Figure 4 Spray ± 60° from vertical, distance max. 200 mm or Spray nozzle Figure 5 Spray ± 60° from vertical	0,07 l/min ± 5 % per hole, multiplied by number of holes 10 l/min ± 5 %	10 min 1 min/m² at least 5 min	14.2.3 a) 14.2.3 b)
4	As for numeral 3 Spray ± 180° from vertical	As for numeral 3		14.2.4
5	Water jet hose nozzle Figure 6 Nozzle 6,3 mm diameter, distance 2,5 m to 3 m	12,5 l/min ± 5 %	1 min/m² at least 3 min	14.2.5
6	Water jet hose nozzle Figure 6 Nozzle 12,5 mm diameter, distance 2,5 m to 3 m	100 l/min ± 5 %	1 min/m² at least 3 min	14.2.6
7	Immersion tank Water-level on enclosure: 0,15 m above top 1 m above bottom	–	30 min	14.2.7
8	Immersion tank Water-level: by agreement	–	by agreement	14.2.8
9	Fan jet nozzle Figure 7 Test of small enclosure on turntable Figure 12 Turntable speed (5 ± 1) r/min Spray at 0°, 30°, 60°, 90° Or Test of large enclosures as per intended use Spray from all practical directions Distance (175 ± 25) mm	(15 ± 1) l/min	30 s per position 1 min/m2 at least 3 min	14.2.9 a) 14.2.9 b)

AHP PLASTIK MAKINA

14.2 Test conditions

During the tests for IPXl to IPX6 the water temperature should not differ by more than 5 K from the temperature of the specimen under test. If the water temperature is more than 5 K below the temperature of the specimen a pressure balance shall be provided for the enclosure.
Adequate safety precautions should be taken when testing the equipment in the energized condition.

Direct Sales by Manufacturer

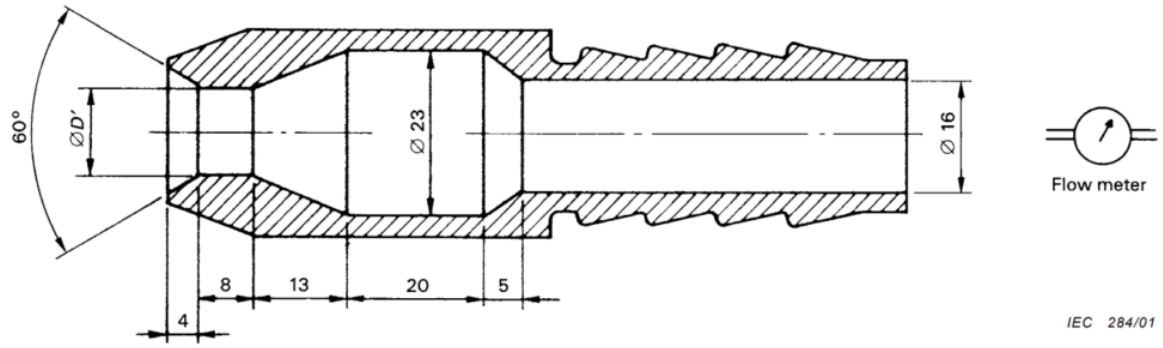
14.2.5 Test for second characteristic numeral 5 with the 6,3 mm nozzle

The test is made by spraying the enclosure from all practicable directions with a stream of water from a standard test nozzle as shown in figure 6.
The conditions to be observed are as follows:
â€“ internal diameter of the nozzle: 6,3 mm;
â€“ delivery rate: 12,5 l/min Â± 5 %;
â€“ water pressure: to be adjusted to achieve the specified delivery rate;
â€“ core of the substantial stream: circle of approximately 40 mm diameter at 2,5 m distance from nozzle;
â€“ test duration per square metre of enclosure surface area likely to be sprayed: 1 min;
â€“ minimum test duration: 3 min;
â€“ distance from nozzle to enclosure surface: between 2,5 m and 3 m.

14.2.6 Test for second characteristic numeral 6 with the 12,5 mm nozzle

The test is made by spraying the enclosure from all practicable directions with a stream of water from a standard test nozzle as shown in figure 6.
The conditions to be observed are as follows:
â€“ internal diameter of the nozzle: 12,5 mm;
â€“ delivery rate: 100 l/min Â± 5 %;
â€“ water pressure: to be adjusted to achieve the specified delivery rate;
â€“ core of the substantial stream: circle of approximately 120 mm diameter at 2,5 m distance from nozzle;
â€“ test duration per square metre of enclosure surface area likely to be sprayed: 1 min;
â€“ minimum test duration: 3 min;
â€“ distance from nozzle to enclosure surface: between 2,5 m and 3 m.

AHP PLASTIK MAKINA



Dimensions in millimetres

D′ = 6,3 for the test of 14.2.5 (second characteristic numeral 5)
D′ = 12,5 for the test of 14.2.6 (second characteristic numeral 6)

Figure 6 – Test device to verify protection against water jets (hose nozzle)

Direct Sales by Manufacturer



IPX5 IPX6 Rain Jet Test Chamber

- IP Rate: IPX5 IPX6;
- Water Flow Rate:12.5L/min Â±5%;100L/min Â±5%;
- Water Re-circulation System;
- Diameter of Turntable (mm): 400
- Turntable loads: 20kgs Max
- Turntable Rotation Speed: 0~7r/min (Adjustable)
- Internal Diameter of IPX5 Nozzle: 6.3mm
- Internal Diameter of IPX6 Nozzle: 12.5mm
- Chamber soize: 600*600*600mm
- External cabin steel Plate with protective coating
- Internal chamber SS304
- Door with observing window
- Water purifier: mainly purification from water source to water tank
- Rotation of table: forward, reverse
- Regulate the pressure according to prescribed water flow
- Water jet distance: 2.5m (nozzle away from the center of the turntable

AHP PLASTIK MAKINA

Category

1. Equipment for Standards
2. Standards