Tightness tests for IP66
- MC2 Splitting d14mm, d24mm, d34mm, d44mm, 54mm and 64mm

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Assignment Tightness tests for IP66.

Sample details MC2 Splitting d14mm, d24mm, d34mm, d44mm, 54mm and 64mm.

Methods IEC 60529:1989+AMD1:1999+AMD2:2013.

Summary of performed tests and results

Test	Test dates	Conclusion
IP6X	9.2.2023	Pass
IP6X	9.3.2023	Pass
IP6X	3.4.2023	Pass
IPX6	14.2.2023	Pass
IPX6	10.3.2023	Pass
IPX6	4.4.2023	Pass

Espoo, 12.4.2023

Raoul Kempe
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1 General

The test place was Eurofins Electric & Electronics Finland Oy and the tests were carried out 9. – 14.2, 9 – 10.3. and 3. – 4.4.2023. The EUTs consisted of the MC2 Splitting d14mm, d24mm, d34mm, d44mm, 54mm and 64mm mounted on an accessory box:

2 Dust test for IP6X

2.1 Test procedure

For the dust test the EUT was placed in the dust chamber provided with talcum powder circulation. The underpressure pipe was connected on the side of the accessory box. The test parameters were following:

54 – 64 mm

- Underpressure 2 kPa
- Flow rate of the air 0,2 l/min
- Test duration 8 hours
- Ambient conditions: (+20 ± 2) ºC / (40 ± 5) % RH
- Test date 9.2.2023

34 – 44 mm

- Underpressure 2 kPa
- Flow rate of the air 0,2 l/min
- Test duration 8 hours
- Ambient conditions: (+20 ± 2) ºC / (40 ± 5) % RH
- Test date 9.3.2023

14 – 24 mm

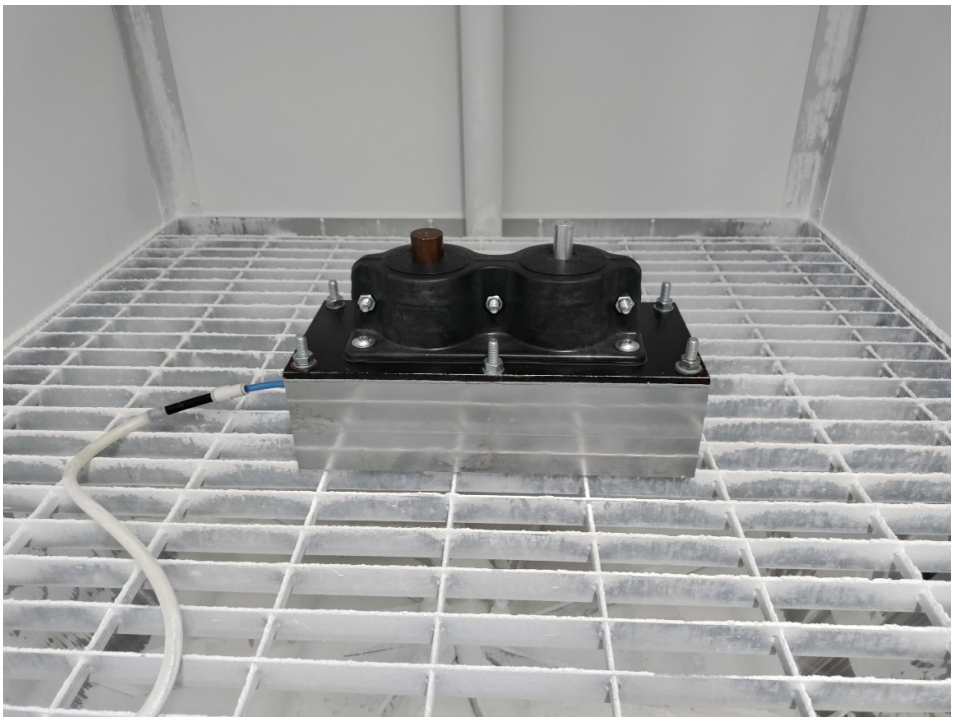
- Underpressure 2 kPa
- Flow rate of the air 0,2 l/min
- Test duration 8 hours
- Ambient conditions: (+21 ± 2) ºC / (38 ± 5) % RH
- Test date 3.4.2023

The test equipment:

- Dust test chamber Weiss ST1000 U, IDN TL18658, calibrated 28.4.2020, valid 36 months
- Testo 175H1 Temperature / Humidity meter, IDN TL19676, calibrated 1.11.2022, valid 12 months

Photograph 1. EUT in the test chamber.

Photograph 2. EUT in the test chamber.



Photograph 3. EUT in the test chamber.

2.2 Test results

In the visual examination after the test no deposit of dust was detected inside the accessory box.

Based on the test results the protection against dust complies with the requirements stated for the protection class IP6X.

3 Water test for IPX6

3.1 Test procedure

The test was carried out by spraying the EUT with a water jet hose nozzle (Ø 12,5 mm, described in figure 6 in IEC 60529). The test parameters were following:

- Test duration 3 minutes
- The flow rate of the water 100 l/min
- Water temperature +21 °C
- Distance from the nozzle to the specimen 3 m
- Ambient conditions: (+20 ± 2) ºC / (56 ± 5) % RH
- Test dates 14.2., 10.3. and 4.4.2023

The test equipment:

- Würth 3m tape measure, ID M785228, calibrated 30.5.2022, valid 24 months
- HiTrax timer, IDN TL03958, calibrated 14.9.2021, valid 36 months
- Flow meter Bopp&Reuher TypM4/6300, IDN TL04122, calibrated 16.10.2020, valid 36 months
- Testo 175H1 Temperature / Humidity meter, IDN TL19675, calibrated 1.11.2022, valid 12 months

3.2 Test results

In the visual examination after the test no water was noticed inside the accessory box with d34mm, d44mm, 54mm and 64mm. A few water drops were noticed with 14mm and 24mm. The amount and location were not harmful.

Based on the test results the protection against powerful water jets complies with the requirements stated for protection class IPX6.