



Slovenski institut za
kakovost in meroslovje

Slovenian Institute of
Quality and Metrology

Poročilo o preskusu / Test Report

Št. / No.
T212-0138/07

Datum / Date
2007-06-20

Proizvod / Product

Enclosure for Electric Energy Meter
Model: B3

Naročnik preskusa / Applicant

MIKROELEKTRONIKA a.d.
Blagoja Parovića bb-Novaković, Banja Luka, BiH

Proizvajalec / Manufacturer

MIKROELEKTRONIKA a.d.
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Blagovna znamka / Trade Mark

/

Standardi - predpisi / Standards - regulations

IEC 60529 (2001-02)

Listov / Pages

4

Vrsta preskusa / Purpose of test

Test IP54

Št. merjencev / No. of Items tested

1

Mapa predmeta št. / Subject File No.

C20070708

Kraj preskusa / Place of test

SIQ, Ljubljana
Tržaška 2

Opomba / Remark

/

Zaključek / Conclusion

The equipment "Enclosure for Electric Energy Meter model B3" was tested in accordance with the requirements of the above cited standard as stated in this report. Test conditions are stated in clause 3 of this Test report. The test findings are stated in clause 4 of this report.

The equipment under the test sustained the test conditions for IP54 degree of protection.

Results of the test only refer to the samples, which were subjected to testing. Test was concluded 20.06.2007.

Odgovoren za preskušanje / Responsible for the test

Mirko Čok



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1. TEST EQUIPMENT

- Dust chamber (SIQ),
- Test device for verification of protection against spraying water (SIQ)

2. EQUIPMENT UNDER TEST (EUT)

Enclosure for Electric Energy Meter model B3 was subjected to testing to IP54 degree of protection. The first characteristic numeral indicates the degree of protection against solid foreign objects (degree 5-dust protected. The protection is satisfactory if talcum powder has not accumulated in a quantity or location such that, as with any other kind of dust, it could interfere with the correct operation of the equipment or impair safety.).

The second characteristic numeral indicates the degree of protection provided by enclosures with respect to harmful effects on the equipment due to the ingress of water (degree 4-protected against splashing water. Water splashed against the enclosure from any direction shall have no harmful effects).

3. TEST CONDITIONS

3.1 Dust tests-IP5X (IEC 60529, tables 2 and 7, sub-cl. 13.4; 13.5):

- Test chamber (as specified by the standard),
- Dust, used for the test: talcum powder,
- Environmental temperature 24°C,
- Duration of the exposure: 8 hours (underpressure not applicable)



Figure 1: EUT before the dust test



Figure 2: EUT after the dust test

3.2 Tests for protection against ingress of water-IPX4 (IEC 60529, tables 3 and 8, sub-cl. 14.2.4):

- Test device: tube radius 600mm,
- The number of nozzles: 37
- Total water flow: 2.6 l/min
- Spray angle: 340° , (170° on either side of vertical of specimen)
- Duration of the exposure: 10 minutes, (turned an horizontal angle of 90° after 5 minutes)



Figure 3



Figure 4

4. CONCLUSIONS

After the exposure was concluded, the visual examination of the sample was performed. Results were obtained as follows:

We found no traces of water inside the enclosure. There was a small deposition of dust inside the enclosure but in such quantity that could not impair safety (Figures 5 and 6).

Result: Following the acceptance conditions, the equipment under test sustained the test conditions for IP54 degree of protection.



Figure 5



Figure 6