

TESTLA

Elektrik Laboratuvarları Tic. Ltd. Şti.

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AB-0386-T

2006.05.04/00

30.06.2020

TEST REPORT

GMS PANO ELEKTRİK SAN. ve TİC. A.S.

Client Name/Address Beylikdüzü O.S.B. Bakır ve Pirinç San. Sit. Leylak Cad. 1.Pafta 156. Ada

1. Parsel No: 4 Beylikdüzü / İSTANBUL

Name and Identity of Test

Item

DT250 IP65 Test Panel

Order No. 2006.05 Sample Acceptance Date 16.06.2020

Num. Of Pages of The

Report

9 + 1 pages of annexes

10 pages in total

Test Date(s)

24.06.2020-25.06.2020

IEC 62208: 16.04.2014

Test Standard(s)
Rating(s)

IP65

Clause: 9.8

Detail(s) is/are given at the page 3.

Test Result(s) POSITIVE / Details, are given on the following pages which are part of this report.

Remarks

TESTLA Elektrik Laboratuvarları accredited by TÜRKAK under registration number AB-0386-T for TS EN ISO/TS EN 17025:2017 as test laboratory.

Turkish Accreditation Agency (TURKAK) is a signatory to the European co-operation for Accreditation (EA) Multilateral Agreement (MLA) and to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA) for the recognition of test reports.

The test and/or measurement results, the uncertainties (if applicable) with confidence probability and test methods are given on the following pages which are part of this report.

Seal

Date

Person in Charge of Test

Approval Date

ABORATULARE

30.06.2020

Mehmet ŞUMNU

Caner EREN Laboratuvar Müdürü

Laboratory Manager

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| Accreditation No | AB-0386-T | |
|------------------|---------------|--|
| Report No | 2006.05.04/00 | |
| Report Date | 30.06.2020 | |

| TABLE OF CONTENTS | | | |
|-------------------|---|----------------|--|
| Section Number | Section Name | Page Number | |
| 1. | Participants of Tests | 3 | |
| 2. | Performed Test | 3 | |
| 3. | General Ambient Conditions | 3 | |
| 4. | Rated Values of Test Item | 3 | |
| 5. | 5. Test Results | | |
| 5.1. | Degree of protection (IP65) | 5 | |
| 6. | Photograph of The Test Sample | 7 | |
| 7. | Test Assembly and Test Item Photographs | 9 | |
| 8. | List of Annexes | 9 | |





| Accreditation No | AB-0386-T | |
|------------------|---------------|--|
| Report No | 2006.05.04/00 | |
| Report Date | 30.06.2020 | |

1. Participants of Tests

| Sequence No. | Name, Last Name | Position | Company |
|-----------------|-----------------|-----------------------------------|---------|
| 1. | Caner Eren | Head of Laboratory | |
| 2. | Mehmet Şumnu | Laboratory Chief / Test Personnel | TESTLA |
| 3. | Mehmet Kalyoncu | Test Personnel | TESTLA |
| 4. | Selçuk Aygün | Technical Reporting Supervisor | |

2. Performed Tests

| Sequence No. | Test name | IEC 62208 Clause | Result |
|-----------------|-----------------------------|---------------------|--------|
| 1. | Degree of protection (IP65) | 9.8 | P |

The test details are given in the following pages (Chapter 5).

3. General Ambient Conditions

| Ambient temperature (°C) | Ambient Humidity (RH%) | Atmospheric pressure (mbar) |
|--------------------------|---------------------------|-----------------------------|
| 26,7-28,3 | 50-51 | 999-1001 |

Laboratory Indoor ambient conditions are climatically controlled and registered. Special ambient conditions are specified separately in relevant test.

4. Rated Values of Test Item

| Brand | GMS PANO |
|----------------------|----------|
| Туре | DT250 |
| Degree of protection | IP65 |





| Accreditation No | AB-0386-T | |
|------------------|---------------|--|
| Report No | 2006.05.04/00 | |
| Report Date | 30.06.2020 | |

5. Test Result

Explanations on the presentation and reporting of results.

In line with customer requests,

Tests according to IEC 62208 standards were shown as follows in the table in the column of the test standard, as "IEC 62208"

| | IEC 62208 | | |
|---|-----------|--|--------|
| Clause Required-Requirement Measured-Observed | | | Result |
| | | | _ |

In this table,

1. Column: Clause

The clause number of the standard specified in the top line. (The clauses of the test standard cited to the other standards are specified under the Requirement-Necessity section-column)

2. Column: Required -Requirement

Structural requirements-conditions-guidelines for the described tests to determine the suitability of the sample described in the relevant standard clause and the property defined in the relevant standard clause of this sample.

3. Column: Measured-Observed

The results of measurements and observations (if any, are made in the NOTES section of this section and / or in the last-bottom section of the relevant test page, if the customer requests, technical or other reasons are omitted)

4. Column: Result

Display of decisions in Possible Tests Results:

Non-applicable for the sample
 Sample meets the requirements
 Sample does not meet the requirements
 Given information and topics
 NA (Not Apply)
 (Pass) (if any) *
 (Fail) (if any) *
 Out of Assessment

It is signed as above.

(*) Situations in which the "passed" / "failed" evaluation can not be made with regard to the tests made:

- This report applies only to samples for which tests have been carried out.
- Tests marked in this test report (#) are not within the scope of accreditation obtained from TÜRKAK.
- Since the test sample was provided by the customer, the contribution resulting from sampling was not included in the measurement uncertainty. The test sample was tested as received.
- Once a declaration of conformity (appropriate or non-compliant) is given regarding the test results, defined rule is used if a rule is defined in the legislation, standard, specification, and if not, our laboratory uses the wrong acceptance (consumer rule) rule. When the uncertainty of measurement affects the upper limit, the uncertainty of measurement (k= 2 within the 95% confidence interval) is added to the test result and subtracted when the lower limit affects the conformity assessment.



Required-Requirement

the manometer shown in figure 2.

inside the enclosure at the end of the test.

the duration of the test is 2 h.

period of 8 h has elapsed.

If an extraction rate of 40 to 60 volumes per hour is obtained

continued until 80 volumes have been drawn through, or a

The protection is satisfactory if no deposit of dust is observable

IEC 60529 Clause 13.6.2- Acceptance conditions for first characteristic numeral 6

If, with a maximum depression of 2 kPa (20 mbar), the extraction rate is less than 40 volumes per hour, the test is

Clause

TESTLA Elektrik Laboratuvarları Tic. Ltd. Şti. Test Report

 Accreditation No
 AB-0386-T

 Report No
 2006.05.04/00

 Report Date
 30.06.2020

Result

Measured-Observed

Duration of test= 120 min

No dust ingress

IEC 62208

| 9.8 | Degree of protection (IP code) | | |
|---------|--|--|--|
| 9.8.1.2 | Degree of protection against the ingress of solid foreign ob | jects | |
| | For IP 6X enclosures, 13.6 of IEC 60529:1989 apply. No talcum inside the enclosure at the end of the test. | powder shall be observable | |
| | IEC 60529 Clause 11- General requirements for tests | | |
| | IEC 60529 Clause 11.1- Atmospheric conditions for water of | r dust tests | |
| | Unless otherwise specified in the relevant product standard, Temperature range: 15 °C to 35 °C Relative humidity: 25% to 75% Air pressure: 860 mbar to 1060 mbar | Temperature= 26,7 °C Relative humidity= 51 RH% Air pressure= 1001 mbar | |
| | IEC 60529 Clause 13.4- Dust test for first characteristic num | neral 6 | |
| | Category 1 enclosures | | |
| | The enclosure under test is supported inside the test chamber and the pressure inside the enclosure is maintained below the surrounding atmospheric pressure by a vacuum pump. The suction connection shall be made to a hole specially provided for this test. If not otherwise specified in the relevant product standard; this hole shall be in the vicinity of the vulnerable parts. | | |
| | The object of the test is to draw into the enclosure, by means of depression, a volume of air 80 times the volume of the sample enclosure tested without exceeding the extraction rate of 60 volumes per hour. | Enclosure Volume= 0,05625 m³ Vacuumed volume= 4,5 V | |
| | In no event shall the depression exceed 2 kPa (20 mbar) on | | |

Notes:



NA

P



 Accreditation No
 AB-0386-T

 Report No
 2006.05.04/00

 Report Date
 30.06.2020

IEC 62208

| Clause | Required-Requirement | Measured-Observed | Result | |
|--------|----------------------|--------------------|---------|--|
| Olause | required requirement | Micasarca Observed | ixesuit | |

| 9.8.2 | Degree of protection against ingress of water as indicated by second characteristic numeral | | |
|-------|--|---|---|
| | Subclauses 14.1 and 14.2 of IEC 60529:1989 apply. IEC 60529 Clause 14- Tests for protection against water indicated by the second characteristic | | - |
| | | | |
| | numeral | | |
| | IEC 60529 Clause 14.2- Test conditions | | |
| | During the tests for IPXI to IPX6 the water temperature should not differ by more than 5 K from the temperature of the specimen under test. | Water temperature= 24,6 °C Specimen temperature= 28,7 °C Difference= 4,1 K | - |
| | For the purpose of the tests, the surface area of the enclosure is calculated with a tolerance of 10 %. | Surface area= 0,84 m ² | - |
| | IEC 60529 Clause 14.2.5- Test for second characteristic nur | meral 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: - internal diameter of the nozzle: 6,3 mm; - delivery rate: 12,5 l/min ± 5 %; - test duration per square metre of enclosure surface area likely to be sprayed: 1 min; - minimum test duration: 3 min; - distance from nozzle to enclosure surface: between 2,5 m and 3 m. | Delivery rate= 12,5 l/min Surface area= 0,84 m² Test duration= 3 min Distance from nozzle to enclosure= 2,5-3 m | 1 |
| 9.8.2 | After the test, water shall not have ingressed into the protected space. | Yes | Р |
| | Ingress of water is verified by the use of dry absorbent paper positioned to occupy the base area of each protected space. | | I |
| | For doors or covers intended to accommodate equipment, a strip of paper, bent to form a 90° angle profile, is attached to the base of the declared protected space for that surface. | | 1 |
| | The paper should project from the surface equal to the depth of the protected space or a maximum of 30 mm. | | |
| | Where the enclosure has any uncovered aperture, a section of absorbent paper, equal to or greater than the size of the aperture, is positioned on the surface of the protected space in its immediate vicinity. | | |
| | Immediately after the test, all indicator papers shall still be dry. | Yes | P |

Notes:



| Accreditation No | AB-0386-T |
|------------------|---------------|
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| Report Date | 30.06.2020 |

6. Photograph of The Test Sample

Front view



Inside view



Left Side View



Right Side View





| Accreditation No | AB-0386-T |
|------------------|---------------|
| Report No | 2006.05.04/00 |
| Report Date | 30.06.2020 |

Lock Mechanism





Hinge



Insulation gasket







| Accreditation No | AB-0386-T |
|------------------|---------------|
| Report No | 2006.05.04/00 |
| Report Date | 30.06.2020 |

7. Test Assembly and Test Item Photographs













8. List of Annexes

- 1 page technical document.

END OF REPORT

