

TESTLA

Elektrik Laboratuvarları Tic. Ltd. Şti.

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AB-0386-T

2009.33.02/00

09.03.2021

TEST REPORT

IP ENCLOSURES PTY, LTD.

Client Name/Address 19-27 Fred Chaplin Circuit, Bells Creek, QLD, 4551, Australia

P: 1300 876 722 ABN: 94 168 980 854

Name and Identity of Test

Item

RECESSED DOOR FIELD CABINET

Order No. 2009.33 Sample Acceptance Date 05.03.2021

Num. Of Pages of The

Report

8 + 1 pages of annexes

9 pages in total

Test Date(s)

09.03.2021

IEC 60529: 04.03.1997

Test Standard(s)

Clause: 13, 14.2.6

Rating(s)

IP66

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

THOTAL LABORATORE

09.03.2021

-11

2021.03.

16:01:04 +03'00'

Mehmet \$UMNU

Caner EREN
Laboratory Manager

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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 60529 Clause	Result
1.	Dust test for first characteristic numeral 6	13.4	P
2.	Test for second characteristic numeral 6 with the 12,5 mm nozzle	14.2.6	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)
21,1	43	1004

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	Elte
Description	RECESSED DOOR FIELD CABINET
Manufacturer	Elte Pano Elektrik Mak. Met. Müh. San.Ve Tic. Ltd. Şti. İstanbul Deri Organize Sanayi Bölgesi Güderi Caddesi (7A Yolu) P1 Özel Parsel No:16 Tuzla / İSTANBUL /TURKEY
Туре	Empty Enclosure
Dimension	1975mmX750mmX620mm
Degree of protection (IP)	IP66





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5. Test Result

Explanations on the presentation and reporting of results.

In line with customer requests,

Tests according to IEC 60529 standards were shown as follows in the table in the column of the test standard, as "IEC 60529"

IEC 60529			
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

Clause

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Result

Measured-Observed

IEC 60529

11	General requirements for tests		
11.1	11.1 Atmospheric conditions for water or dust tests		
	Unless otherwise specified in the relevant product standard, Temperature range: 15 °C-35 °C Relative humidity: %25-%75 Air pressure: 860 mbar-1060 mbar	Temperature= 20,1 °C Relative humidity= 45 RH% Air pressure= 1002 mbar	
13.4	Dust test for first characteristic numeral 6		
	Declared IP= IP6X Category 1		
	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.	Vacuuming connections= Yes	
	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= 0,85 m³ Vacuumed volume= 67,8 V	
	in no event shall the depression exceed 2 kPa (20 mbar) on the manometer shown in figure 2.	Pressure of manometer= 4 mbar	
	If an extraction rate of 40 to 60 volumes per hour is obtained the duration of the test is 2 h.	Test duration= 120 min	N
	If, with a maximum depression of 2 kPa (20 mbar), the extraction rate is less than 40 volumes per hour, the test is continued until 80 volumes have been drawn through, or a period of 8 h has elapsed.	Test duration= 16 h	
13.6.2	Acceptance conditions for first characteristic numeral 6		
	The protection is satisfactory if no deposit of dust is observable inside the enclosure at the end of the test.	No dust ingress for IP6X	P

14mmX7,5mm (23,4g/m) polyurethane gasket is used for the doors.





Required-Requirement

14mmX7,5mm (23,4g/m) polyurethane gasket is used for the doors.

Clause

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Result

Measured-Observed

IEC 60529

14	Tests for protection against water indicated by the second characteristic numeral Test conditions			
14.2				
	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. If the water temperature is more than 5 K below	Water temperature= 17,3 °C Equipment temperature= 20,5 °C Difference (K)= 3,2 K		
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: - internal diameter of the nozzle: 12,5 mm - delivery rate: 100 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= 100 l/min Enclosure surface area = 5,451 m ² Test duration= 6 min Distance from nozzle to enclosure surface= 2,5-3 m		
14.3	Acceptance conditions (Water)			
	After testing in accordance with the appropriate requirements of 14 .2.1 to 14.2.8 the enclosure shall be inspected for ingress of water. it is the responsibility of the relevant technical committee to specify the amount of water which may be allowed to enter the enclosure and the details of a dielectric strength test, if any. in general, if any water has entered, it shall not: - be sufficient to interfere with the correct operation of the equipmer.t or impair safety; - deposit on insulation parts where it could lead .to tracking along the creepage distances; - reach live parts or windings not designed to operate when wet; - accumulate near the cable end or enter the cable if any. If the enclosure is provided with drain-holes, it should be proved by inspection that any water which enters does not accumulate and that it drains away without doing. any harm to the equipment.	No water ingress for IPX6	P	

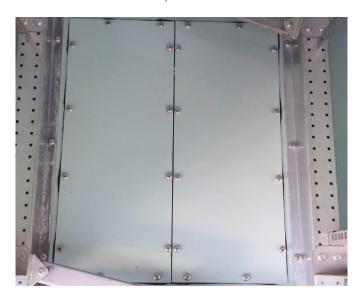




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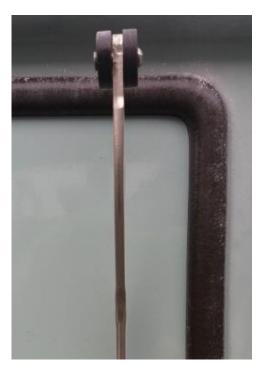
6. Photograph of the Test Sample

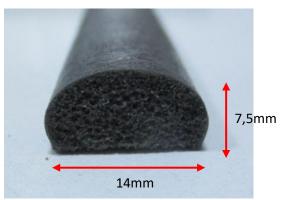
Locks, And Joints





14mmX7,5mm polyurethane gasket (23,4g/m)





Hinges and fixing screws





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7. Test Assembly and Test Item Photographs







8. List of Annexes

- 1 pages technical document.

