www.testla.com.tr

TESTLA
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Test
TS EN ISO/IEC 17025
AB-0386-T

AB-0386-T
1905.10.02/00
01.08.2019

TEST REPORT

Client Name/Address	**IP ENCLOSURES PTY. LTD.** ACN:168 921 319 ABN : 17 168 921 8 Conara Rd, Kunda Park QLD 4556 Australia		
Name and Identity of Test Item	300 x 200 x 120 mm IP68 Terminal Box		
Order No.	**1905.10**	**Sample Acceptance Date**	**30.07.2019**
Num. Of Pages of The Report	7 + 1 page of annex 8 pages in total	**Test Date(s)**	**31.07.2019**
Test Standard(s)	**IEC 60529:** 04.03.1997 Degrees of protection provided by enclosures (IP code) (For electrical equipments)		
Test Result(s)	**POSITIVE / Details are given on the following pages which are part of this report.**		

Remarks

The test results relate only to the items tested.

Tests marked (#) in this test report are not included in the TÜRKAK accreditation schedule for this laboratory.

TESTLA Elektrik Laboratuvarları accredited by TÜRKAK under registration number AB-0386-T for IEC ISO/IEC 17025:2012 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	Report Date	Person in Charge of Test	Laboratory Manager
TESTLA ELEKTRİK LABORATUVARLARI TESTLAB 2010	**01.08.2019**	**Mehmet KALYONCU**	**Caner EREN**

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1. Participants of Tests

Sequence No.	Name, Last Name	Position	Company
1.	Caner Eren	Head of Laboratory	TESTLA
2.	Mehmet Şumnu	Laboratory Chief / Test Personnel	
3.	Mehmet Kalyoncu	Test Personnel	
4.	Selçuk Aygün	Prepared By	

2. Performed Test

Sequence No.	Test name	IEC 60529 Clause	Result
1.	Dust test for first characteristic numeral 6	13.4	P
2.	Test tor second characteristic numeral 8: continuous immersion subject to agreement	14.2.8	P

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

3. General Ambient Conditions

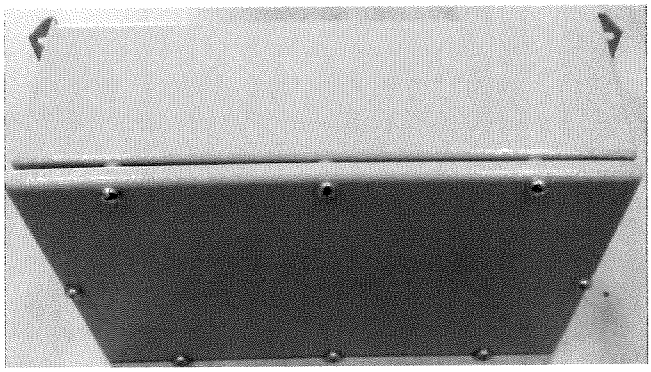
Ambient temperature (°C)	Ambient Humidity (RH%)	Atmospheric pressure (mbar)
27,6	61	1008

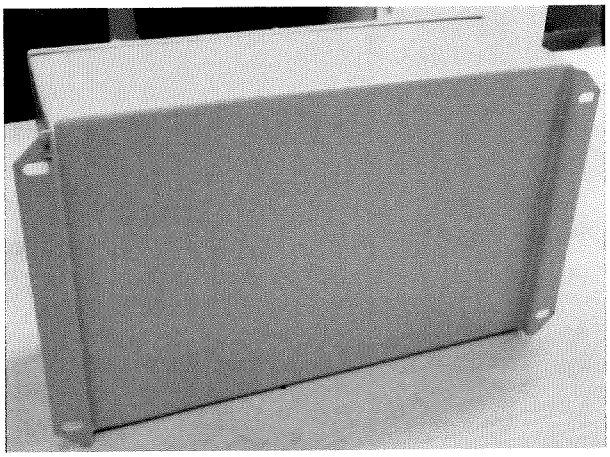
Laboratory Indoor ambient conditions are climatically controlled and registered. Special ambient conditions are specified separately in relevant test.

4. Rated Values of Test Item

Manufacturer	ELTE
Type	300 x 200 x 120 mm IP68 Terminal Box
Degree of protection (IP)	IP68

Photograph of the test sample





TESTLA ELEKTRİK LABORATUVARLARI TESLAB - 2010 -

5. Test Results

Explanations on the presentation and reporting of results.

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.

In line with customer requests,
Tests according to IEC 60529 standard was 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	:	**NA**	(Not Apply)
— Sample meets the requirements	:	**P**	(Pass) (if any) *
— Sample does not meet the requirements	:	**F**	(Fail) (if any) *
— Given information and topics	:	--	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:
- Deviations, additions and removals from standards (to affect to the results positively) related with customer request or other situations.
- The possibility that the numerical results obtained from the sample in the tests are positive / negative when the measurement uncertainties of the relevant test-device participate in the calculation (In such cases the measurement uncertainty values of the relevant tests are specified in the report)
- Absence of declaration values (necessary for evaluation of the suitability of the results) of the samples in relation to the experiments performed.
- By the nature of the Test being undertaken there is no limit or criterion for assessing compliance (the relevant test-product standard or the customer's pre-determined) of the results obtained to be positive or negative.

IEC 60529

Clause	Required-Requirement	Measured-Observed	Result
11	**General requirements for tests**		
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= 27,6 °C Relative humidity= 61 RH% Air pressure= 1008 mbar	--
13.4	**Dust test for first characteristic numeral 6**		
	Declared IP= IP68 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= 0,0057 m^3 Vacuumed volume= 0,456 V	--
	in no event shall the depression exceed 2 kPa (20 mbar) on the manometer shown in figure 2.	Pressure of manometer= >20 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	--
	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.	--	NA
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.	P

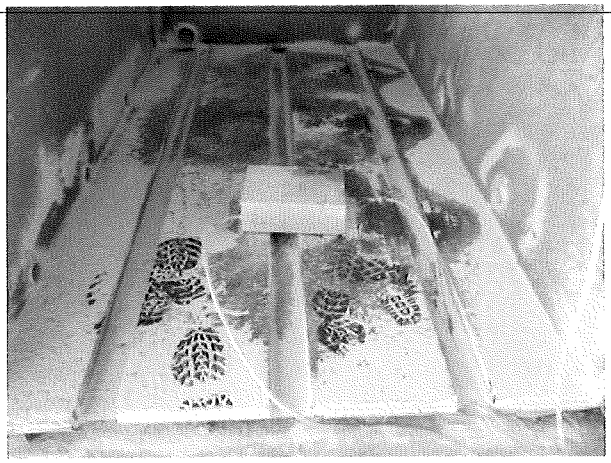
Notes:
Sample, against dust meets the requirements specified in Clause 13.6.2 of IEC 60529 for Protection Degree IP6X, which is indicated by the first characteristic numeral.

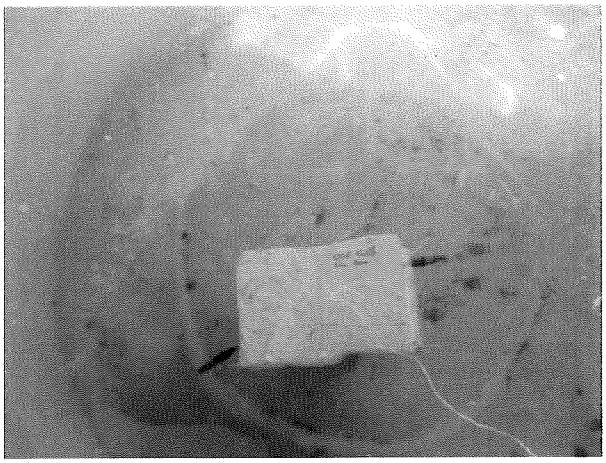
IEC 60529

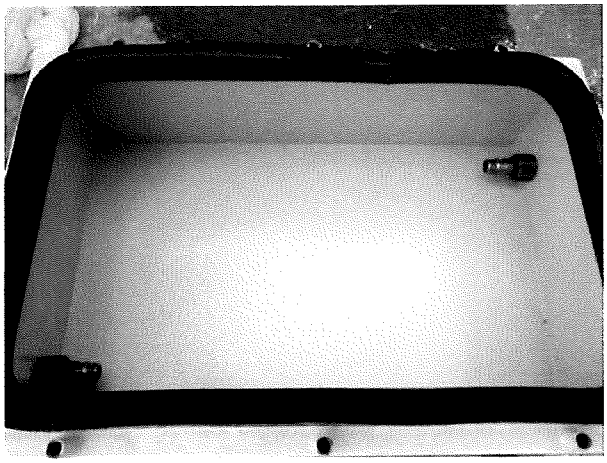
Clause	Required-Requirement	Measured-Observed	Result
14	**Tests for protection against water indicated by the second characteristic numeral**		
14.2.8	**Test tor second characteristic numeral 8: continuous immersion subject to agreement**		
	Unless there is a relevant product standard, the test conditions are subject to agreement between manufacturer and user, but they shall be· more severe than those prescribed in 14.2. 7 and they shall take account of the condition that the enclosure-will be continuously immersed in actual use.	Immersion distance= 1000 mm Test duration= 60 min Equipment temperature= 27,4 °C Water temperature= 23,6 °C Difference= 3,8 K	--
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.	P

Notes:
Sample, against water meets the requirements specified in Clause 14.3 of IEC 60529 for Protection Degree IPX8, which is indicated by the second characteristic numeral.

6. Test Assembly and Test Item Photographs





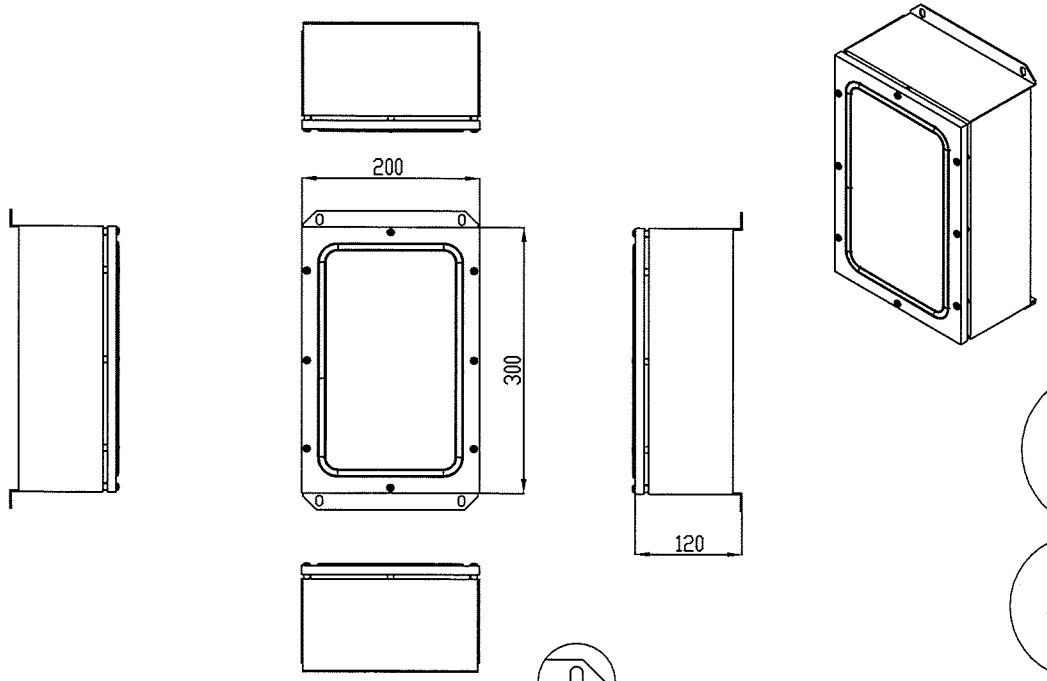


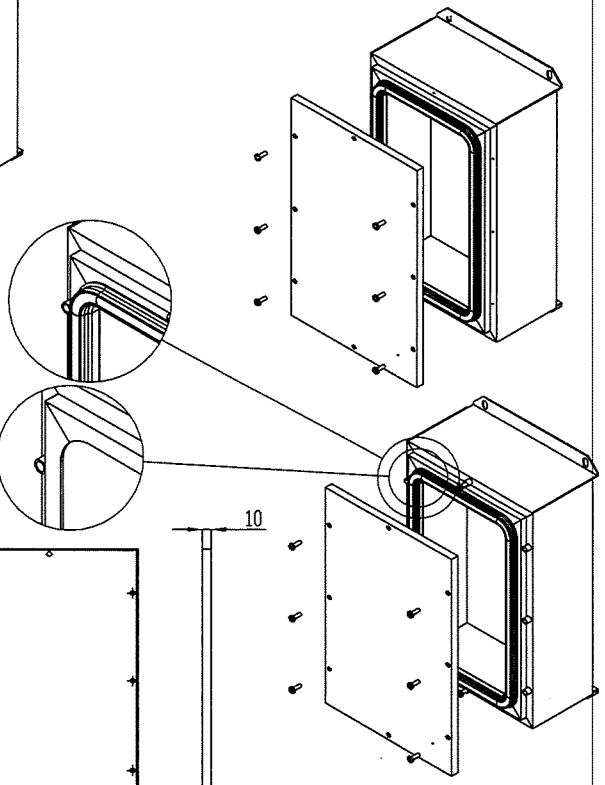
7. List of Annexes

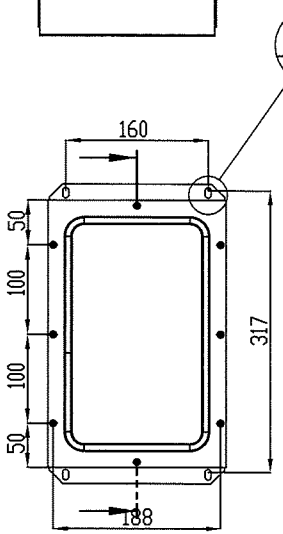
- 1 page technical document.

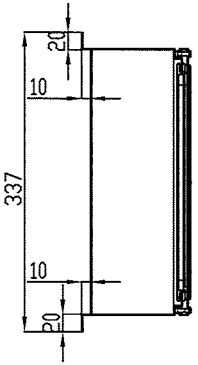
END OF REPORT

RV. N.	AÇIKLAMA/DESCRIPTION		









SECTION H-H
ÖLÇEK 1 : 5

TESTLA ELEKTRİK LABORATUVARLARI
TESTEC
2010
TESLAB
KONTROL EDİLMİŞTİR

Enclosures	Dimensions In mm SCALE: 1:10		CLIENT	" 300 H 200 W 120 D "	
TOLERANCE/ TOLERANS (+,-)0,5 MM		MATERIAL 316 Stainless Steel PAINT CODE	TITLE 300x200x120 mm IP68 Terminal Box		
	NAME	SIGNATURE	DATE	DWG NO IP-TB302012	Pag. 44
DESIGNER			29.05.2019		
CHECKED				THICKNESS 1.5 MM	SHEET 1 OF