


# IP TEST REPORT

Project No.: L4-70127

Equipment Under Test: low-voltage switchgear and control gear (Empty Enclosure)

Model/Type : W.M  
IP : 54 (Gasket was used in the EUT for sealing)  
Dimension (H-W-D) : SEE ANNEX  
Year : 2022  
Trade Mark : 

Manufacturer: Adli Sanat Ideh Co.

Address: No. 16, Derakhti St, Dadman Blvd, Shahrak Gharb, Tehran-Iran

Applicant: Adli Sanat Ideh Co.

Address: No. 16, Derakhti St, Dadman Blvd, Shahrak Gharb, Tehran-Iran

Tested According to: IEC 60529 2013/COR1:2019 and IEC 62208 2011

Date of Sample Reception: 07-Mar-2022

Date of tests: 12-Mar-2022

Date of Issue: 13-Mar-2022

Total number of pages: 12

Prepared and tested by: Technical Expert

H. Montazeri

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Approved by:

Engineering Deputy of Test and Inspection

Prof. B. Vahidi / Prof. S. H. Fathi

Chief Executive Officer

S.M. Mirsadri

The statement of conformity decision is made based on EPIL Procedure No.,  
CBP-708-01 and ISO/IEC Guide 98-4.


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## 1. GENERAL INFORMATION

### 1.1 Product Information

Equipment Under Test : low-voltage switchgear and control gear (Empty Enclosure)  
S/N : 14000201  
Normative Document : IEC 60529 2013/COR1:2019 and IEC 62208 2011

### 1.2 Client Information

Applicant : Adli Sanat Ideh Co  
Telephone : +98 (21) 22378928

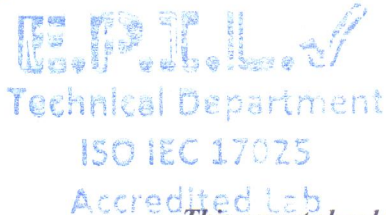
### 1.3 Tests Performed

Marking PASSED  
IP5X, Test for Protection Against Dust PASSED  
IP5X, Test for Protection Against Access to Hazardous Parts PASSED  
IPX4, Test for Protection Against Water PASSED

### 1.4 Results of Tests

See Page 4 – 8

**Note : ( Gasket was used in the EUT for sealing )**



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## 2. PERFORMANCE and RESULTS of TESTS

### 2.1. Marking:

ADLI SANAT IDEH CO.
Serial No : 1400201
Model : W.M
IP of Panel : IP54
Product Year : 1400

#### 2.1.1 Test data

Location : E.P.I.L.  
Date : 12-Mar-2022  
Engineer of EPIL : H. Montazeri  
Normative document : IEC 60529 COR1:2019

#### 2.1.2 Procedure of test

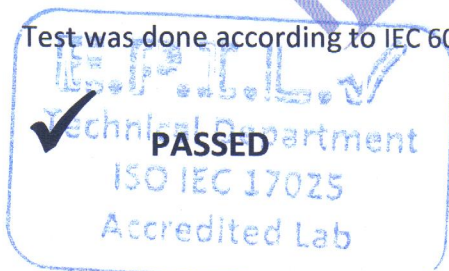
Compliance with The requirements of sub clause 10, IEC 60529 2013/COR1:2019 for marking shall be specified in the relevant product standard.

#### 2.1.3 Acceptance conditions of test

Compliance with the requirements of sub clause 10 of IEC 60529 2013/COR1:2019 has be checked by inspection.

#### 2.1.4 Result of test

Test was done according to IEC 60529 2013/COR1:2019, and it passed the test.



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## 2.2 IP5X, Test for Protection Against Dust

### 2.2.1 Test data

Location	: E.P.I.L.
Date	: 12-Mar-2022
Engineer of EPIL	: H. Montazeri,
Normative document	: IEC 60529 2013/COR1:2019 and IEC 62208 2011

### 2.2.2 Ambient conditions

Ambient Temperature	: 22°C
Relative Humidity	: 58 %
Atmospheric Pressure	: 86.5 kPa

### 2.2.3 Instrument used for the test

Dust Chamber

### 2.2.4 Procedure of test

The enclosure under test is placed in its normal operating position in dust chamber and the powder circulation pump worked. Talcum powder shall be used. The talcum powder used shall be able to pass through a square-meshed sieve the nominal wire diameter of which is 50  $\mu\text{m}$  and the nominal width of a gap between wires 75  $\mu\text{m}$ . The amount of talcum powder to be used is 2 kg per cubic meter of the test chamber volume. It shall not have been used for more than 20 tests.

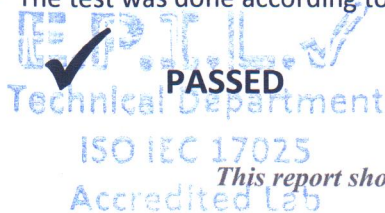
The duration of the test was 8 h (according to IEC 60529).

### 2.2.5 Acceptance conditions of test

Ingress of talcum powder is verified by using a watch glass installed at the center of the base of the protected space of the enclosure in order to pick up the talcum powder entering the protected space during the test. After the test, talcum powder shall not form deposits of more than 1  $\text{g}/\text{m}^2$ . In practice the weight of the watch glass is measured before and at the end of the test and the difference between both measures is representative of the amount of the talcum powder which has entered the protected space.

### 2.2.6 Result of test

The test was done according to IEC 60529 and it passed the test.



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## 2.3 IP5X, Test for Protection Against Access to Hazardous Parts

### 2.3.1 Test data

Location	: E.P.I.L.
Date	: 12-Mar-2022
Engineer of EPIL	: H. Montazeri
Normative document	: IEC 60529 2013/COR1:2019 and IEC 62208 2011

### 2.3.2 Ambient conditions

Ambient Temperature	: 22°C
Relative Humidity	: 58 %
Atmospheric Pressure	: 86.5 kPa

### 2.3.3 Instrument used for the test

Standard wire 1 – 1.05 mm diameter (table VI - IEC60529).

### 2.3.4 Procedure of test

The standard probe is pushed against any openings of the enclosure with the force  $1\pm 10\%N$ .

### 2.3.5 Acceptance conditions of test

Clause 12.3 of IEC 60529. The access probe shall not touch the surface of the protected space.

### 2.3.6 Result of test

Test was done according to IEC 60529 and it passed the test.



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## 2.4 IPX4, Test for Protection Against Water

### 2.4.1 Test data

Location : E.P.I.L.  
Date : 13-Mar-2022  
Engineer of EPIL : H. Montazeri  
Normative document : IEC 60529 2013/COR1:2019 and IEC 62208 2011

### 2.4.2 Ambient conditions

Ambient Temperature : 22°C  
Relative Humidity : 58%  
Atmospheric Pressure : 86.5 kPa

### 2.4.3 Instrument used for the test

Spray nozzle of water

### 2.4.4 Procedure of test

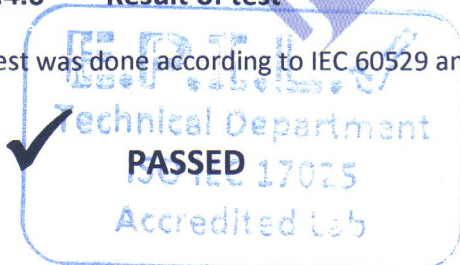
The enclosure under test is placed in its normal operating position under the spraying with spray nozzle (According to IEC 60529).  
The duration of the test was 1 min/m<sup>2</sup> at least 5 min (water flow rate: 10 L/min ±5%, according to IEC 60529).

### 2.4.5 Acceptance conditions of test

After testing the EUT shall be inspected for ingress of water according to conditions that are specified in IEC 60529.

### 2.4.6 Result of test

Test was done according to IEC 60529 and it passed the test.

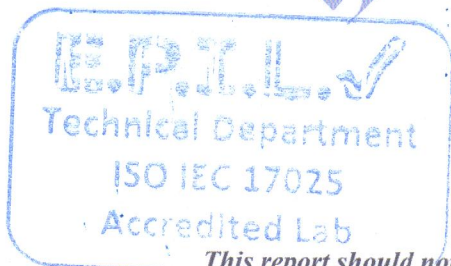


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**3. FIGURES:**



**Figure 1: EUT**

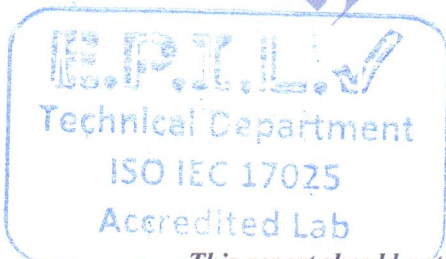


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Figure 2: EUT after IP5X



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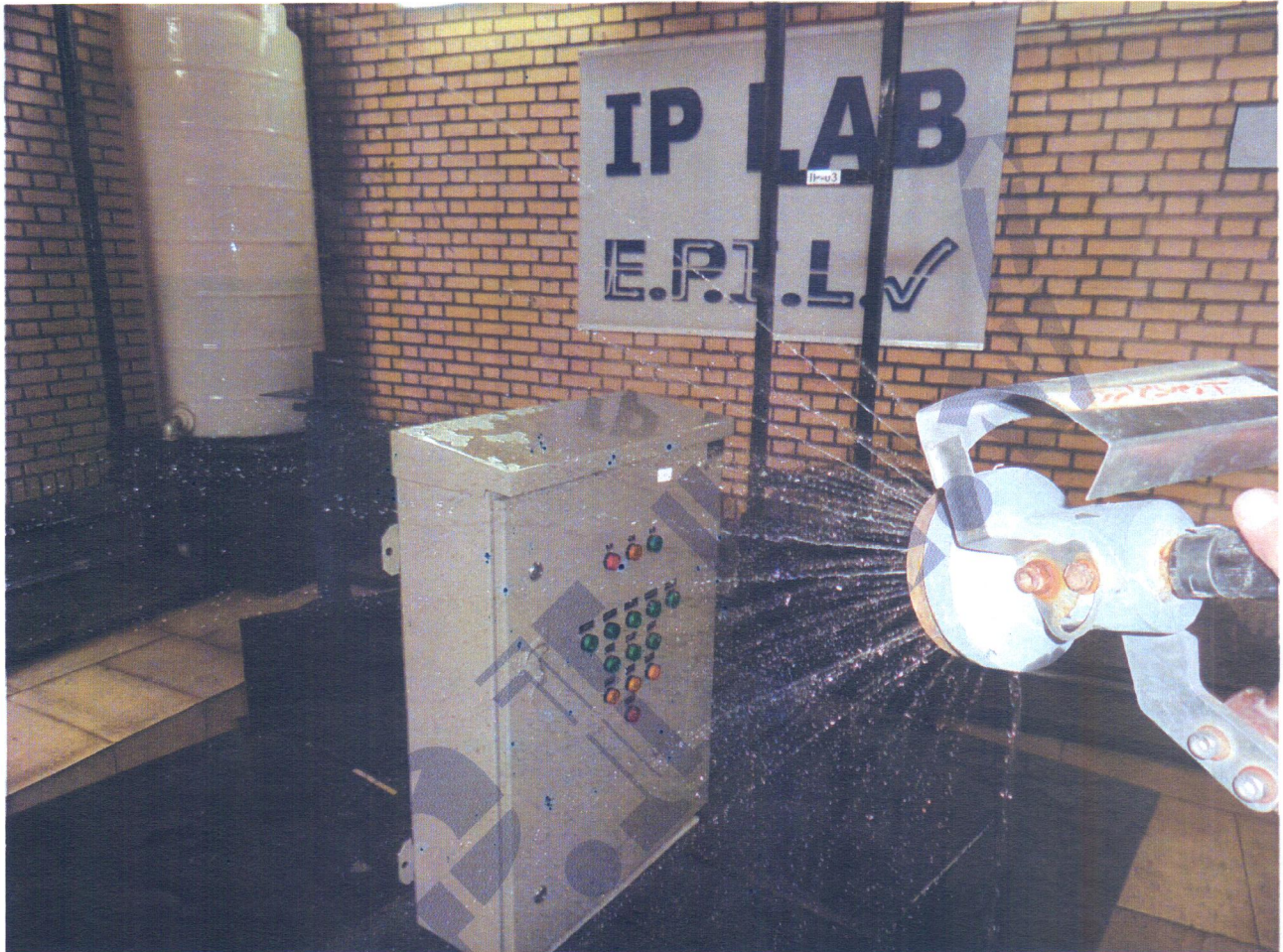
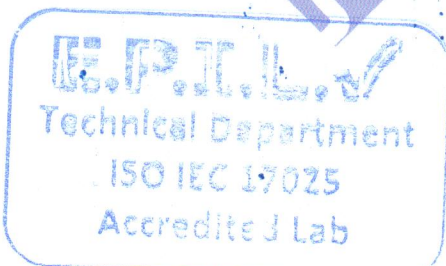


Figure 3: EUT under IPX4



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**Figure 4: EUT after IPX4**

**Note:** (Gasket was used in the EUT for sealing)

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4. ANNEX:

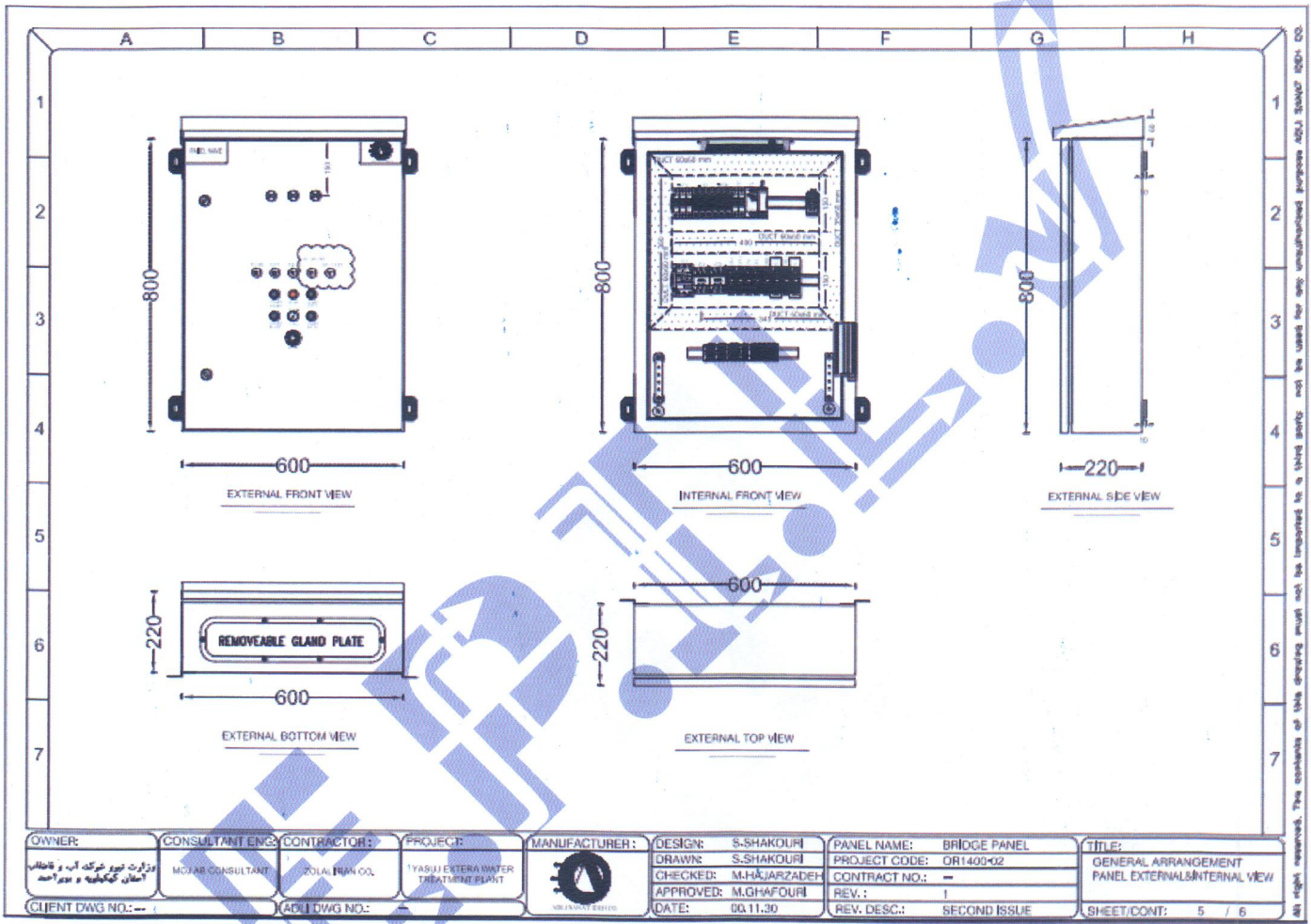
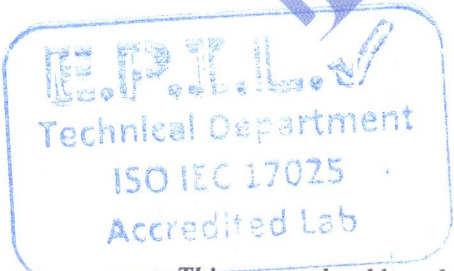


Figure 5: Dimension



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