

Test report :L4-40101

Page 1 of 21

LQF-510-02

IP TEST REPORT

Project No.: L4-40101

Equipment Under Test: LV PANEL (EMPTY ENCLOSURE)

Model/Type	: CAFU
S/N	: AVJ22CAFOU001
IP	: 55
Dimension	: SEE ANNEX
Year	: 2019



Manufactured by: MECHANET.CO

Applicant: AVIJE MODERN COMMUNICATIONS DEVELOPMENT ENGINEERING.CO

Trade Mark:



Tested According to: IEC 60529 2013 AND IEC 62208 2011

Reception Date of Sample: 16-Feb-2019 **Testing Date:** 13-Apr-2019

Issue Date: 28-Apr-2019

Test Result: PASSED

No. of pages: 21

Prepared and Tested by:

Verified by: Technical Manager

Test Engineer
H. Montazeri

S. M. Mirfallah

Approved by:

Chief Executive Officer

Engineering Deputy of Test and
Inspection

S. M. Mirsadri

Prof. B. Vahidi

E.P.I.L.

Technical Department

ISO IEC 17025

Accredited Lab

This report should not be reproduced in extracts without written approval by EPIL.

Test results pertain to the tested sample only.

Not Valid Without Lab Stamp.

CONTENTS

	Page
1 GENERAL INFORMATION.....	3
1.1 Product Information.....	3
1.2 Client Information.....	3
1.3 Test Performed.....	3
1.4 Results of Tests.....	3
2 PERFORMANCE and RESULTS of TESTS.....	4
2.1 Marking.....	4
2.2 IP5X, Test for Protection Against Dust.....	5
2.3 IP5X, Test for Protection Against Access to Hazardous Parts...	6
2.4 IPX5, Test for Protection Against Water	7
3 FIGURES	9
4 ANNEX	13



*This report should not be reproduced in extracts without written approval by EPIL.
Test results pertain to the tested sample only.
Not Valid Without Lab Stamp.*

Test report :L4-40101

Page 3 of 21

LQF-510-02

1. GENERAL INFORMATION

1.1 Product Information

Equipment Under Test	: LV PANEL (EMPTY ENCLOSURE)
S/N	: AVJ22CAFOU001
Normative Document	: IEC 60529 2013 AND IEC 62208 2011

1.2 Client Information

Applicant	: AVIJE MODERN COMMUNICATIONS DEVELOPMENT ENGINEERING.CO
Telephone	: (+9821) 88699417
PROJECT	: CCTV Camera EPC Project in Bandar Abbas Desalination Plant

1.3 Tests Performed

Marking	PASSED
IP5X, Test for Protection Against Dust	PASSED
IP5X, Test for Protection Against Access to Hazardous Parts	PASSED
IPX5, Test for Protection Against Water	PASSED

1.4 Results of Tests

See Page 4 – 8



*This report should not be reproduced in extracts without written approval by EPIL.
Test results pertain to the tested sample only.
Not Valid Without Lab Stamp.*



Test report :L4-40101

Page 4 of 21

LQF-510-02

2. PERFORMANCE and RESULTS of TESTS

2.1. Marking:

OWNER: Tana Energy Management Co.	
PROJECT: CCTV Camera EPC Project in Bandar Abbas Desalination Plant	
EPC CONTRACTOR: Avije Modern Communications Development Engineering Co.	
TYPE : Cafu S/N : AVJ22CAFOUT001 Dimension : 1066.49mm * 607.00 mm * 502.75 mm Manufacture Date : 2019	

2.1.1 Test data

Location : E.P.I.L.
Date : 13-Apr-2019
Engineer of EPIL : H. Montazeri
Normative Document : IEC 60529 Ed2.2 – 2013

2.1.2 Procedure of test

Compliance with The requirements of sub clause 10, IEC 60529 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 had checked by inspection.

2.1.4 Result of test

Test was done according to IEC 60529, sub clause 10 and it passed the test.



PASSED


Technical Department

This report should not be reproduced in extracts without written approval by EPIL.

Test results pertain to the tested sample only.

Not Valid Without Lab Stamp.

Test report :L4-40101

Page 5 of 21

LQF-510-02

2.2 IP5X, Test for Protection Against Dust

2.2.1 Test data

Location : E.P.I.L.
Date : 13-Apr-2019
Engineer of EPIL : H. Montazeri
Normative Document : IEC 60529 2013 AND IEC 62208 2011

2.2.2 Ambient conditions

Ambient Temperature : 20°C
Relative Humidity : 46%
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 μm and the nominal width of a gap between wires 75 μm . 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 (according to IEC 60529). The duration of the test was 8 h (according to IEC 60529).

2.2.5 Acceptance conditions of test

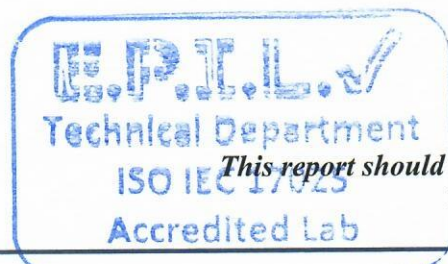
Ingress of talcum powder is verified by using a watch glass installed at the center of the base of the protected space of the enclosure in order to pick up the talcum powder entering the protected space during the test. After the test, talcum powder shall not form deposits of more than 1 g/m². In practice 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.



PASSED



*This report should not be reproduced in extracts without written approval by EPIL.
Test results pertain to the tested sample only.
Not Valid Without Lab Stamp.*

Test report :L4-40101

Page 6 of 21

LQF-510-02

2.3 IP5X, Test for Protection Against Access to Hazardous Parts

2.3.1 Test data

Location	: E.P.I.L.
Date	: 13-Apr-2019
Engineer of EPIL	: H. Montazeri
Normative Document	: IEC 60529 2013 AND IEC 62208 2011

2.3.2 Ambient conditions

Ambient Temperature	: 20°C
Relative Humidity	: 46%
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.



PASSED

Test report :L4-40101

Page 7 of 21

LQF-510-02

2.4 IPX5, Test for Protection Against Water

2.4.1 Test data

Location	: E.P.I.L.
Date	: 13-Apr-2019
Engineer of EPIL	: H. Montazeri
Normative Document	: IEC 60529 2013 AND IEC 62208 2011

2.4.2 Ambient conditions

Ambient Temperature	: 20°C
Relative Humidity	: 48 %
Atmospheric Pressure	: 86.5 kPa

2.4.3 Instrument used for the test

Water Jet

2.4.4 Procedure of test

The test is made by spraying the enclosure from all practicable direction with a stream of water from a standard test nozzle .

The conditions to be observed are as follows:

Internal diameter of the nozzle: 6.3 mm.

Delivery rate: 12.5 l/min \pm 5% .

Water pressure: to be adjusted to achieve the specified delivery rate.

Core of the substantial stream: circle of approximately 40 mm diameter at 2.5 m distance from nozzle.

Test duration per square meter of enclosure surface area likely to be 1 min.

Minimum test duration: 3 min.

Distance from nozzle to enclosure surface: between 2.5 m and 3 m (according to IEC 60529).



Technical Department
ISO IEC 17025
Accredited

*This report should not be reproduced in extracts without written approval by EPIL.
Test results pertain to the tested sample only.
Not Valid Without Lab Stamp.*

Test report :L4-40101

Page 8 of 21

LQF-510-02

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.



PASSED


Technical Department
ISO IEC 17025
Accredited Lab

*This report should not be reproduced in extracts without written approval by EPIL.
Test results pertain to the tested sample only.
Not Valid Without Lab Stamp.*

Test report :L4-40101

Page 9 of 21

LQF-510-02

3. FIGURES:

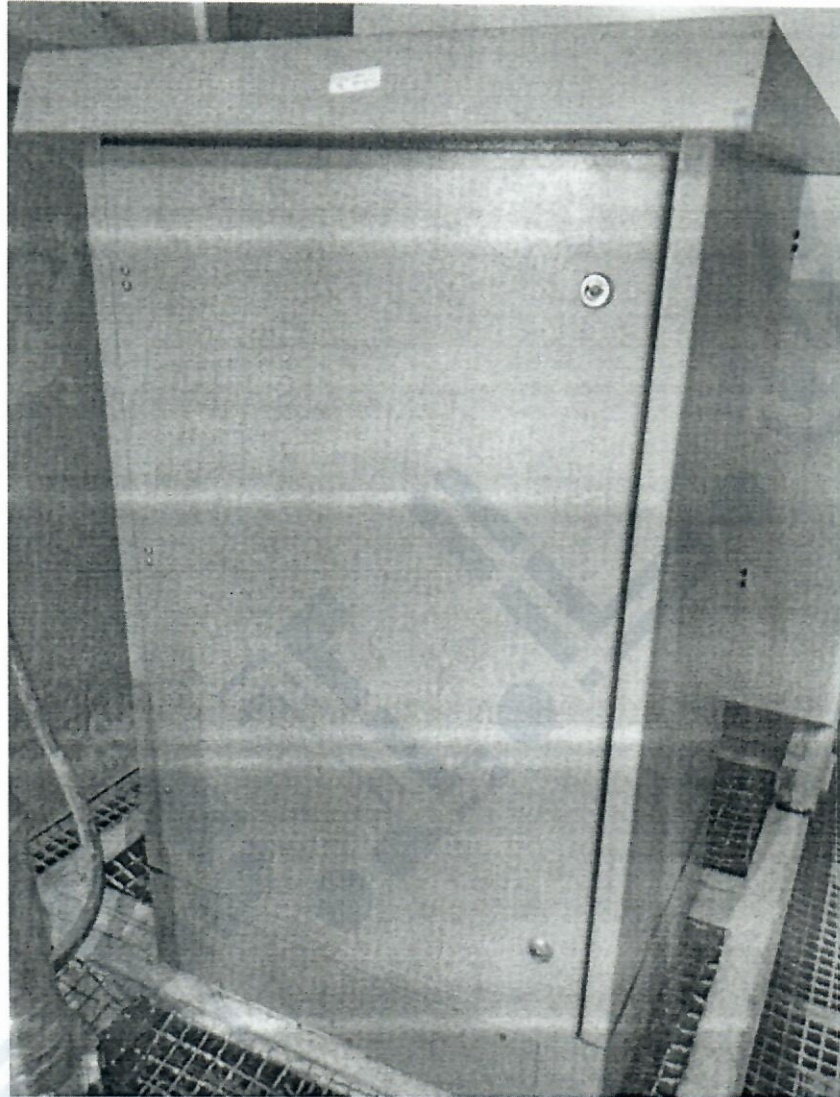


Figure 1: EUT under test



*This report should not be reproduced in extracts without written approval by EPIL.
Test results pertain to the tested sample only.
Not Valid Without Lab Stamp.*



Figure 2: EUT after IP5X



*This report should not be reproduced in extracts without written approval by EPIL.
Test results pertain to the tested sample only.
Not Valid Without Lab Stamp.*

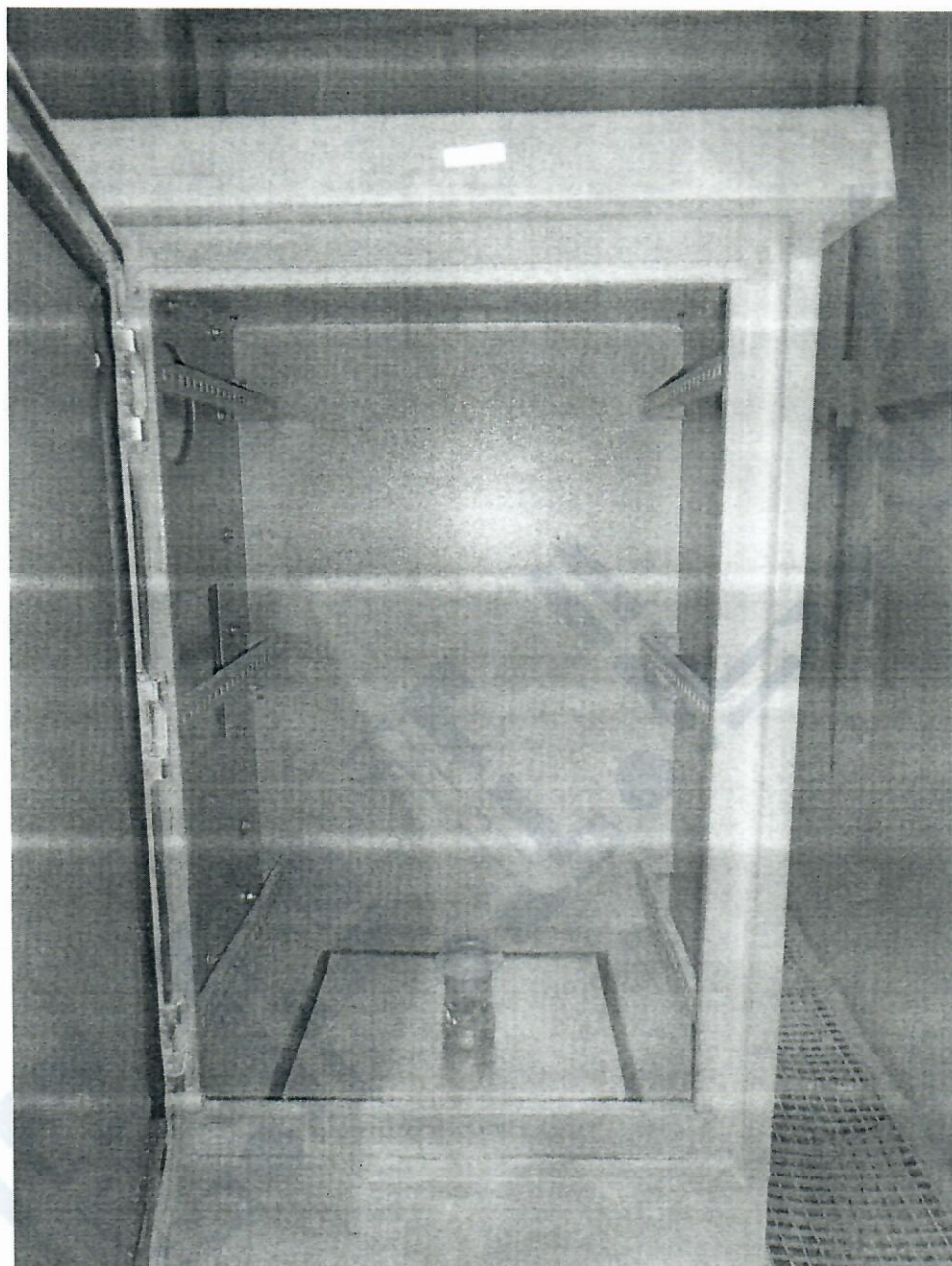


Figure 3: EUT after IP5X

EPIL ✓

Technical Department

ISO IEC 17025

Accredited

This report should not be reproduced in extracts without written approval by EPIL.

Test results pertain to the tested sample only.

Not Valid Without Lab Stamp.

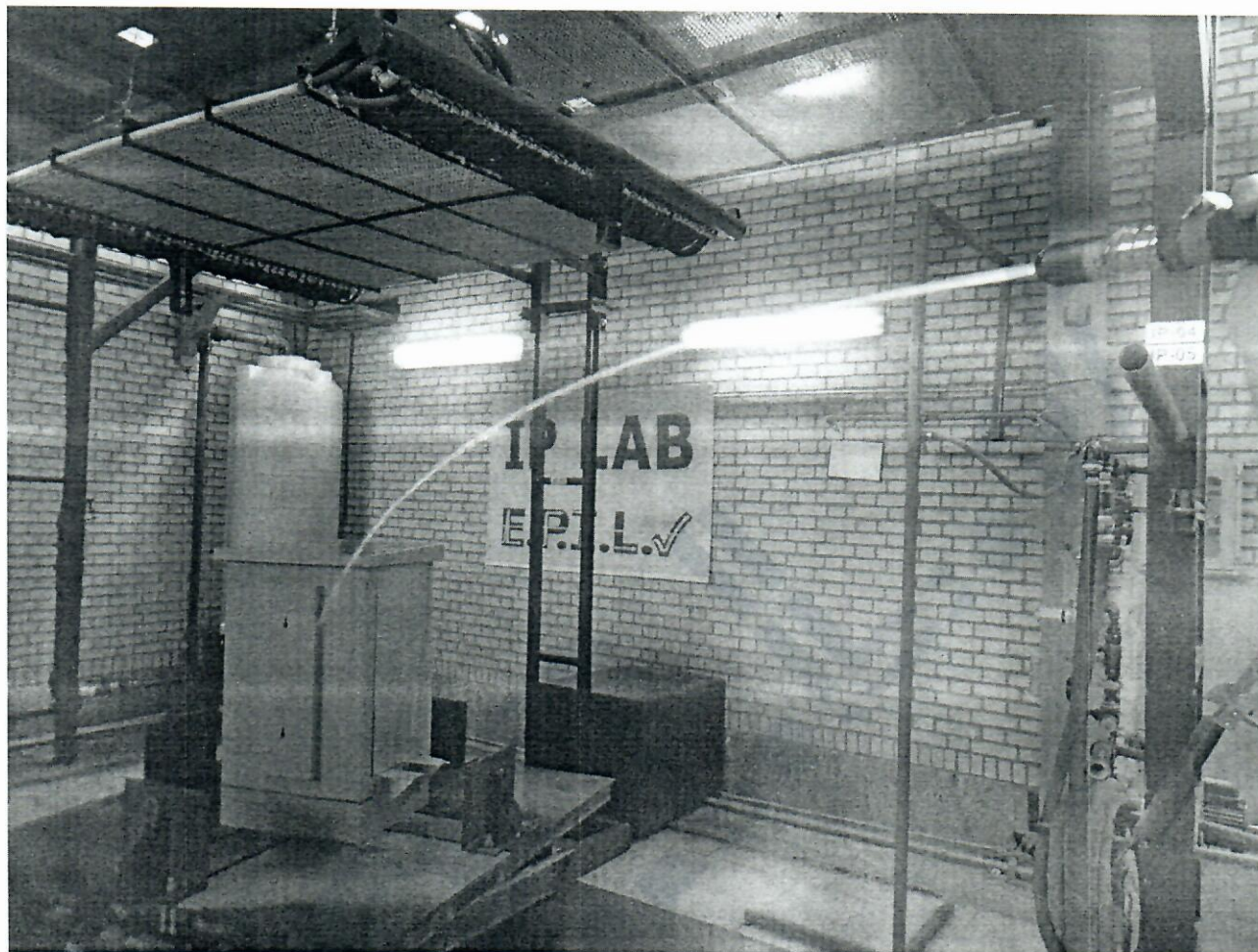
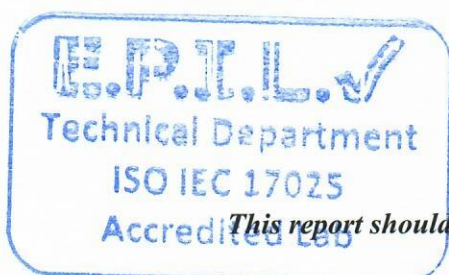


Figure 4: EUT under IPX5



This report should not be reproduced in extracts without written approval by EPIL.

Test results pertain to the tested sample only.

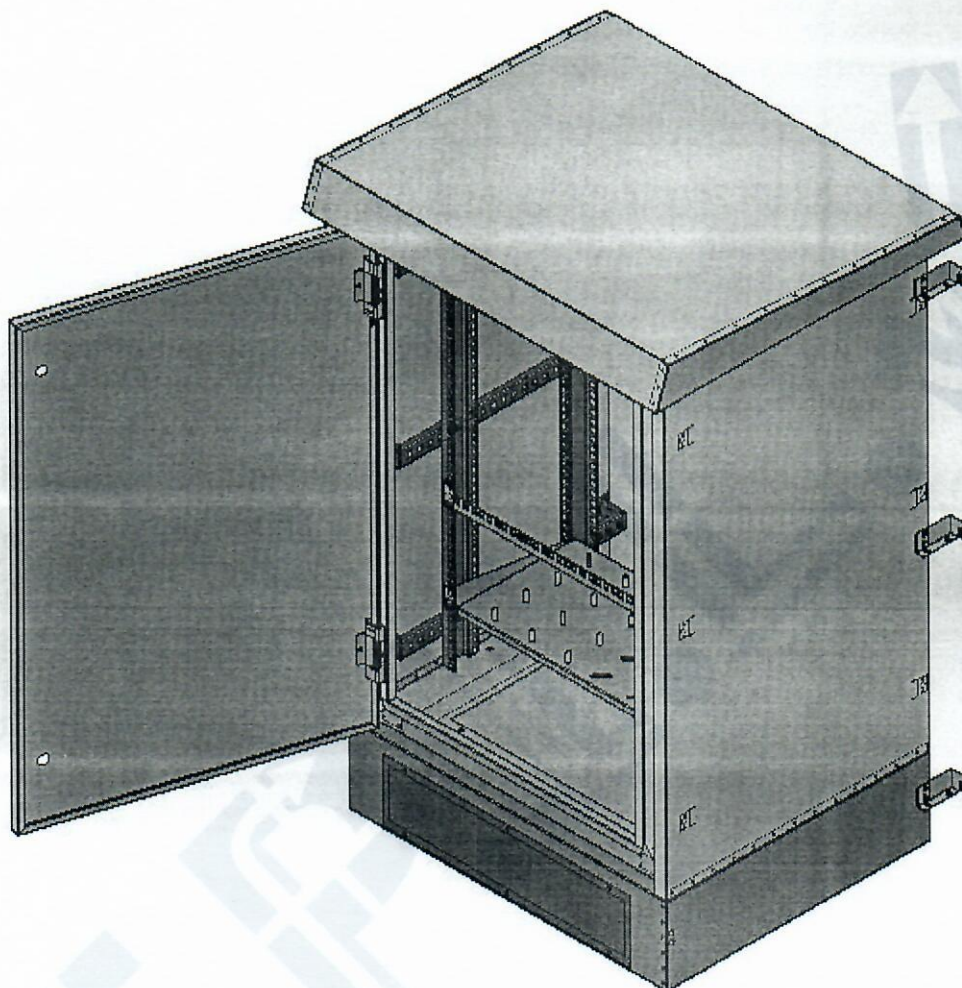
Not Valid Without Lab Stamp.

Test report :L4-40101

Page 13 of 21

LQF-510-02

4. ANNEX



Dimensions : 1066.49 mm × 607.00 mm × 502.75 mm

GENERAL VIEW

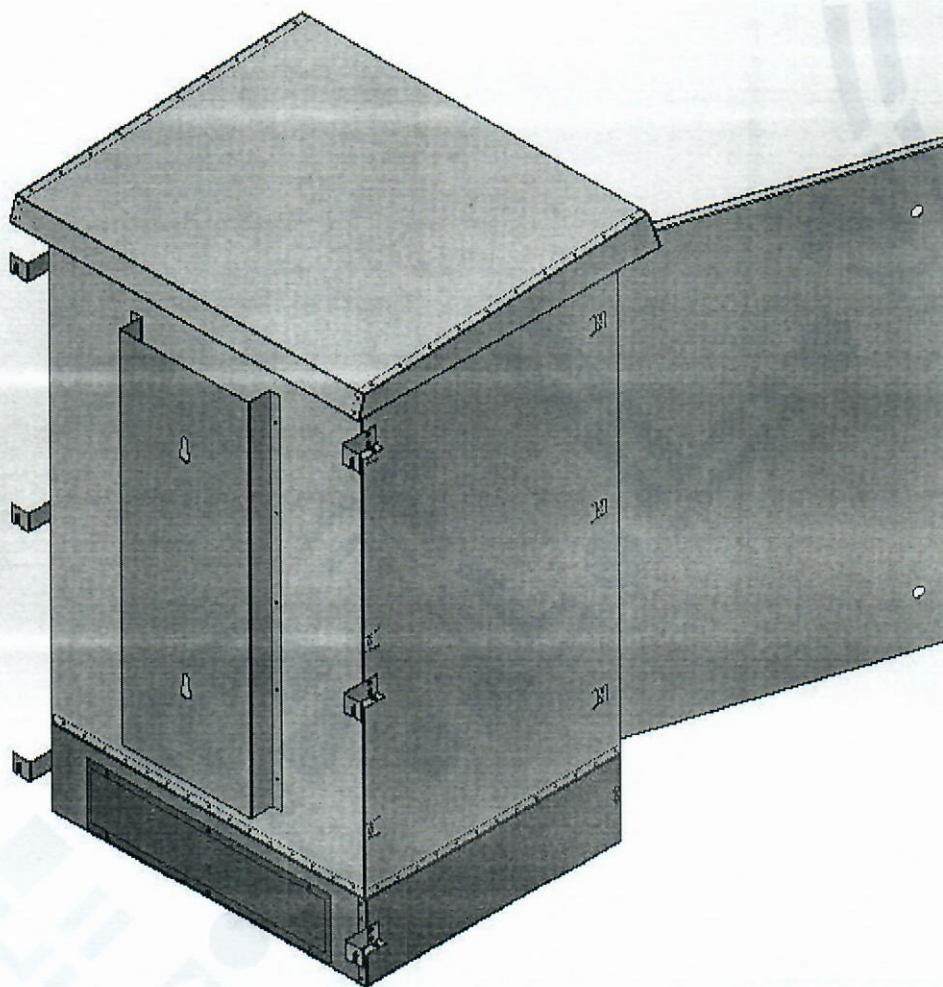


*This report should not be reproduced in extracts without written approval by EPIL.
Test results pertain to the tested sample only.
Not Valid Without Lab Stamp.*

Test report :L4-40101

Page 14 of 21

LQF-510-02



GENERAL VIEW

E.P.I.L. ✓

Technical Department

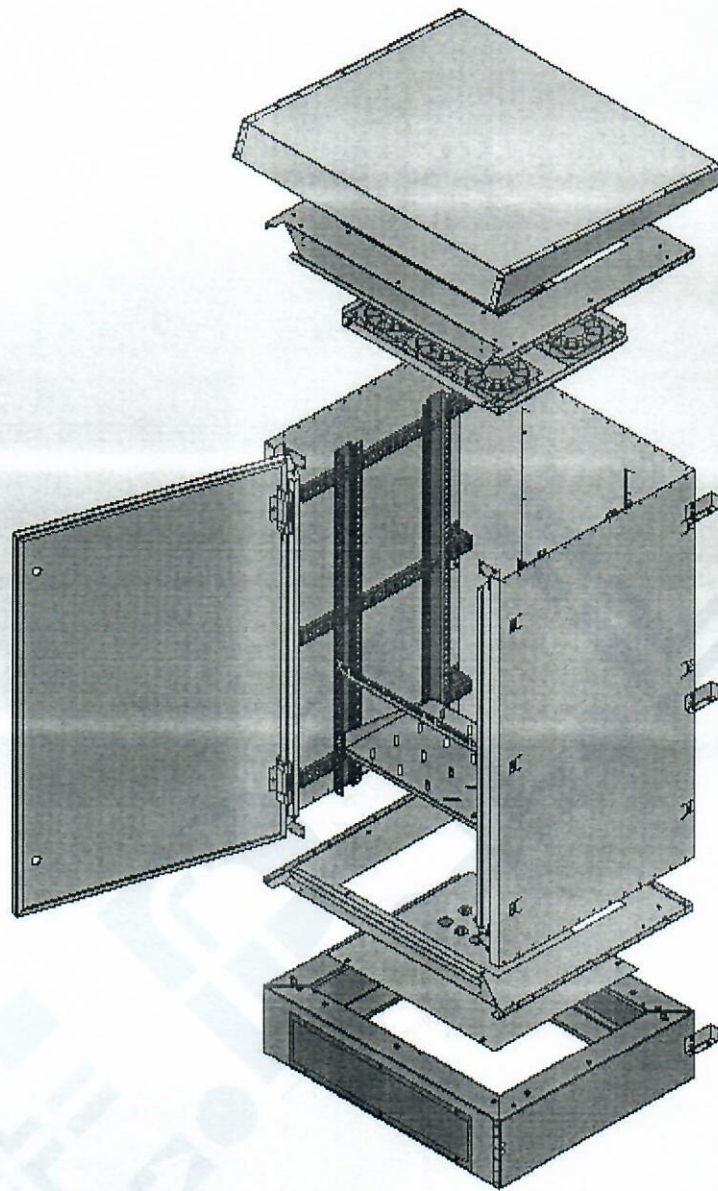
ISO IEC 17025

Accredited Lab

This report should not be reproduced in extracts without written approval by EPIL.

Test results pertain to the tested sample only.

Not Valid Without Lab Stamp.



GENERAL VIEW

EPIL ✓
Technical Department
ISO IEC 17025
Accredited Lab

*This report should not be reproduced in extracts without written approval by EPIL.
Test results pertain to the tested sample only.
Not Valid Without Lab Stamp.*

Test report :L4-40101

Page 16 of 21

LQF-510-02

GENERAL VIEW

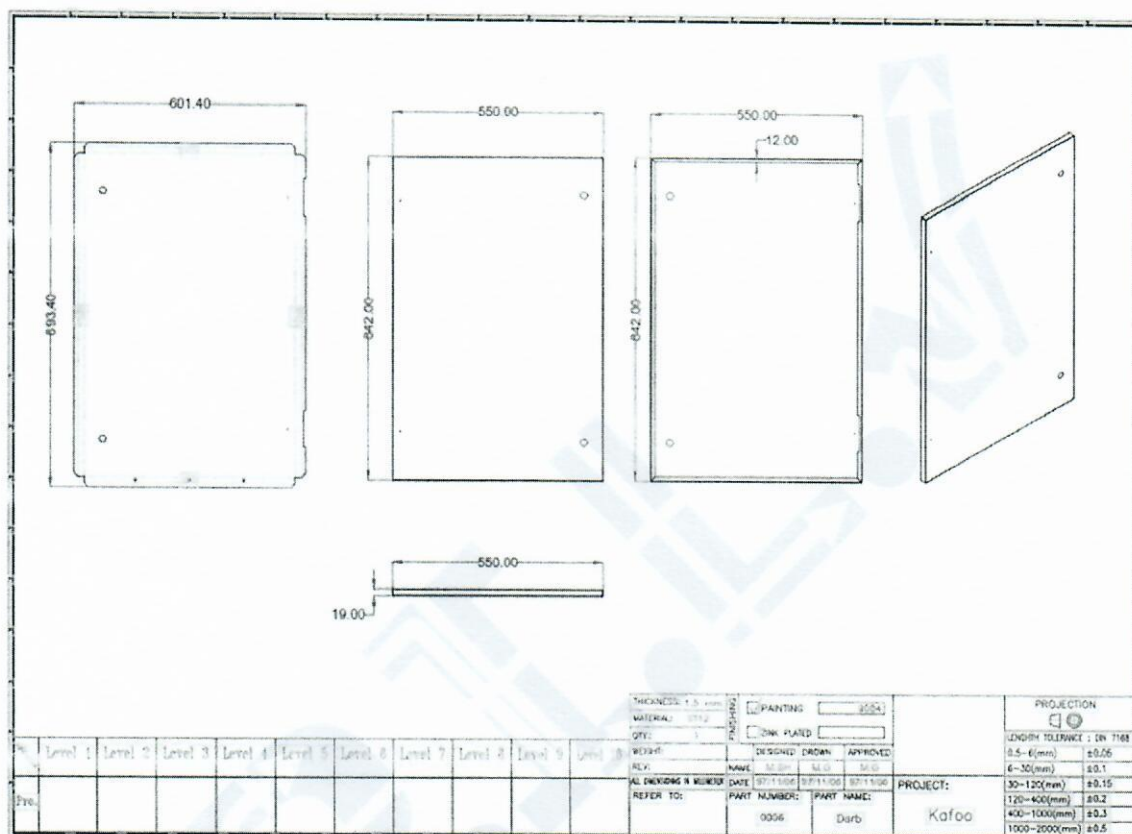


Figure 5: DIMENSIONS

EPIL
Technical Department
ISO IEC 17025
Accredited Lab

*This report should not be reproduced in extracts without written approval by EPIL.
Test results pertain to the tested sample only.
Not Valid Without Lab Stamp.*

Test report :L4-40101

Page 17 of 21

LQF-510-02

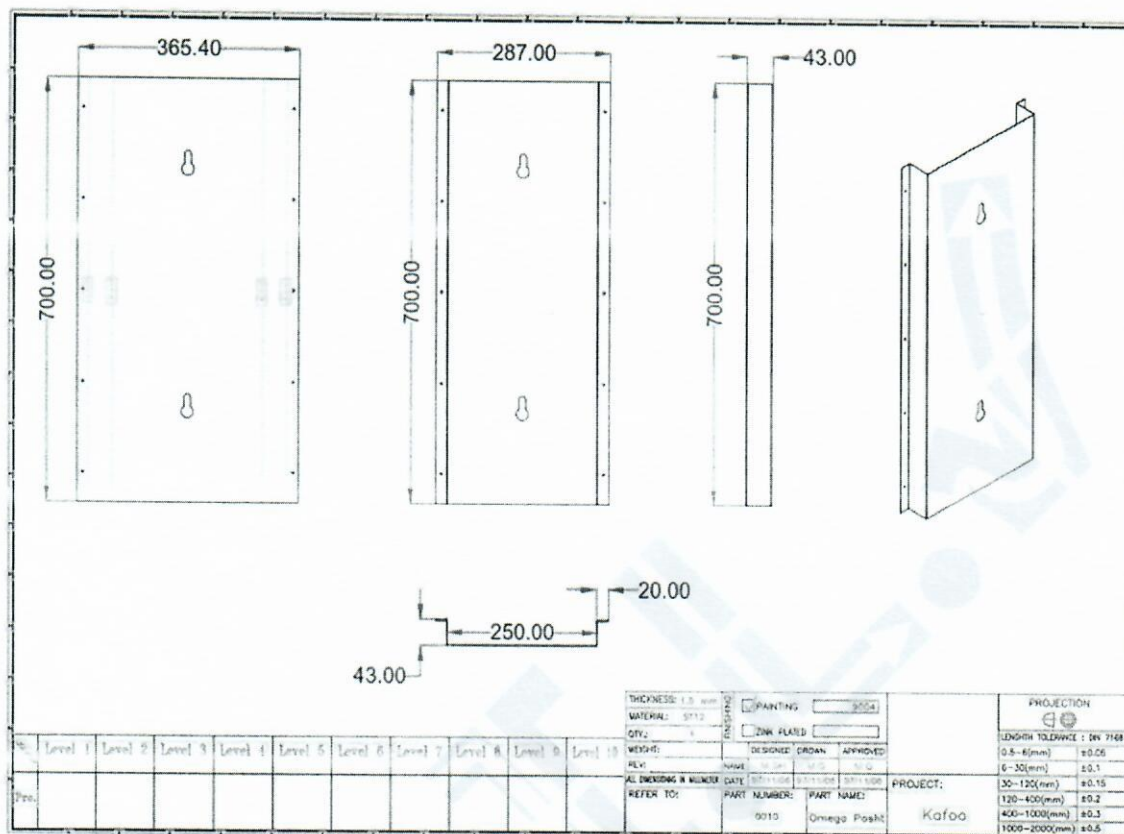


Figure 6: DIMENSIONS



*This report should not be reproduced in extracts without written approval by EPIL.
Test results pertain to the tested sample only.
Not Valid Without Lab Stamp.*

Test report :L4-40101

Page 18 of 21

LQF-510-02

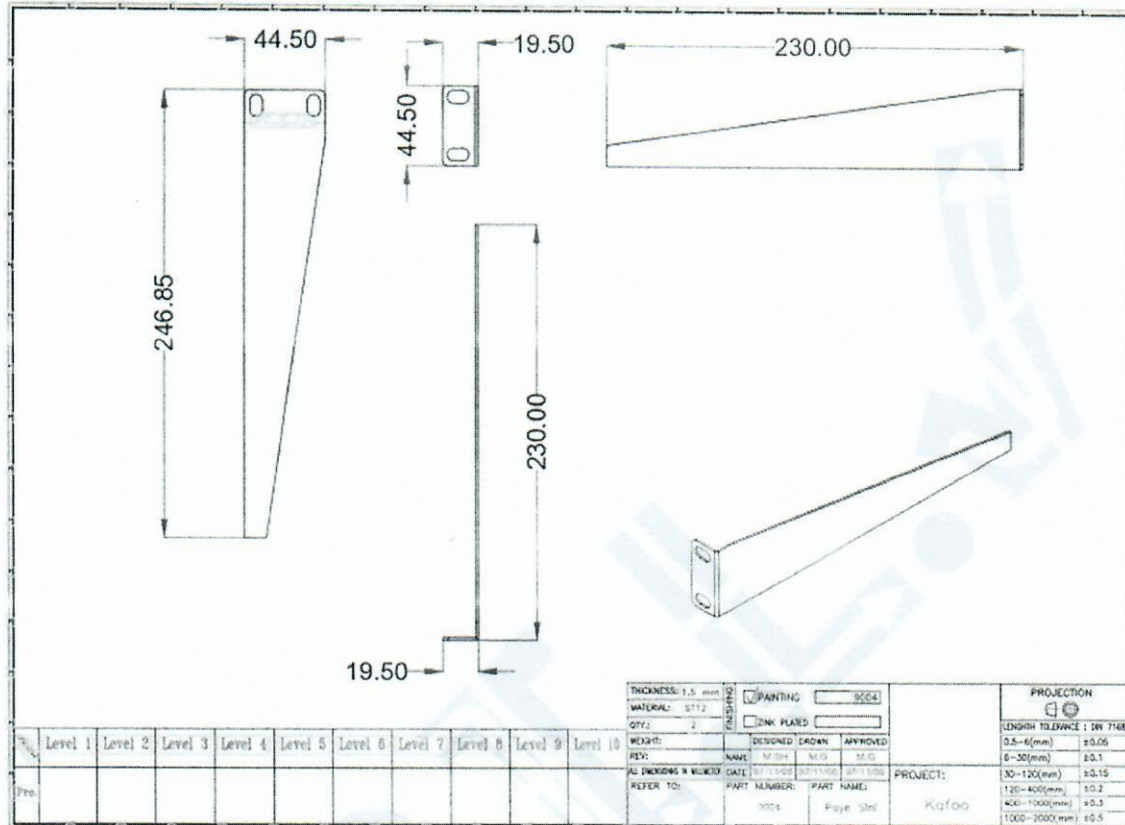


Figure 7: DIMENSIONS

E.P.I.L.
Technical Department
ISO IEC 17025
Accredited

*This report should not be reproduced in extracts without written approval by EPIL.
Test results pertain to the tested sample only.
Not Valid Without Lab Stamp.*

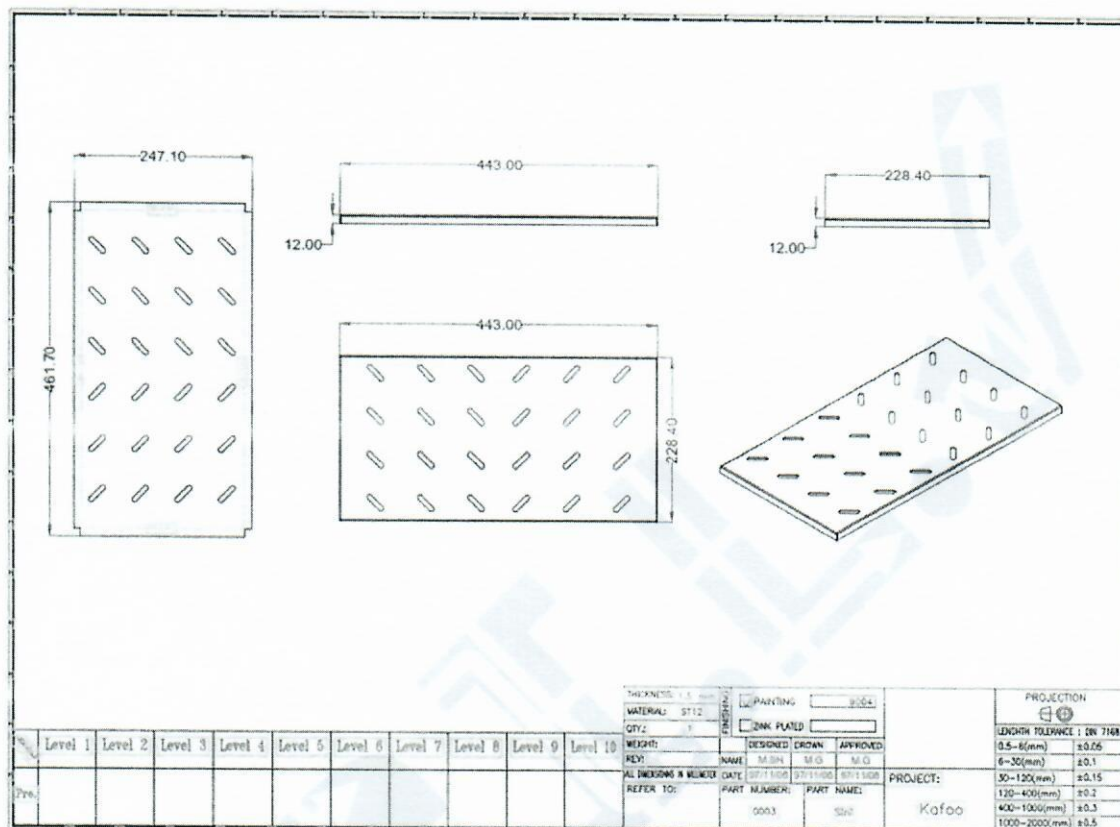
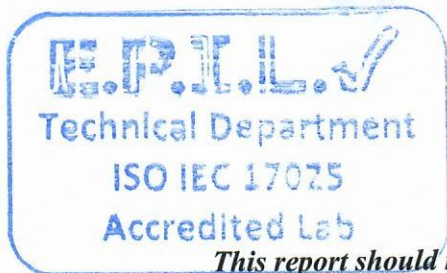


Figure 8: DIMENSIONS



*This report should not be reproduced in extracts without written approval by EPIL.
Test results pertain to the tested sample only.
Not Valid Without Lab Stamp.*

Test report :L4-40101

Page 20 of 21

LQF-510-02

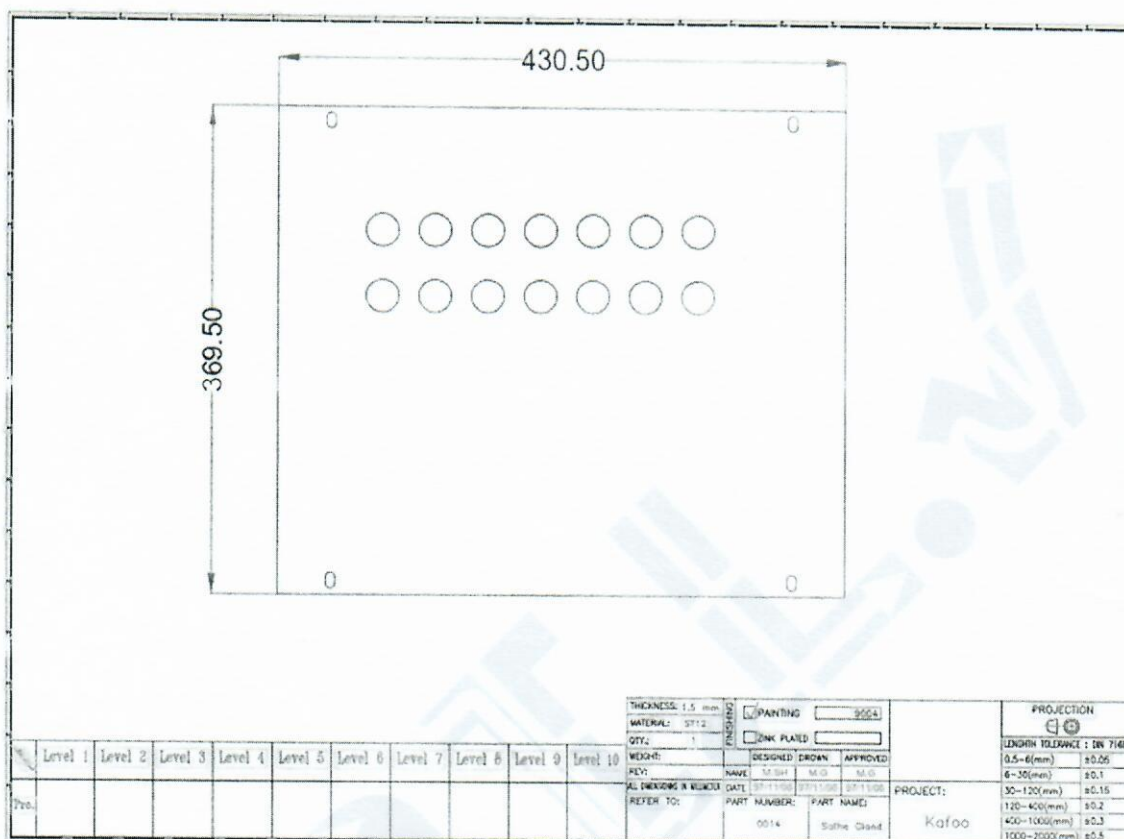


Figure 9: DIMENSIONS



*This report should not be reproduced in extracts without written approval by EPIL.
Test results pertain to the tested sample only.
Not Valid Without Lab Stamp.*

Test report :L4-40101

Page 21 of 21

LQF-510-02

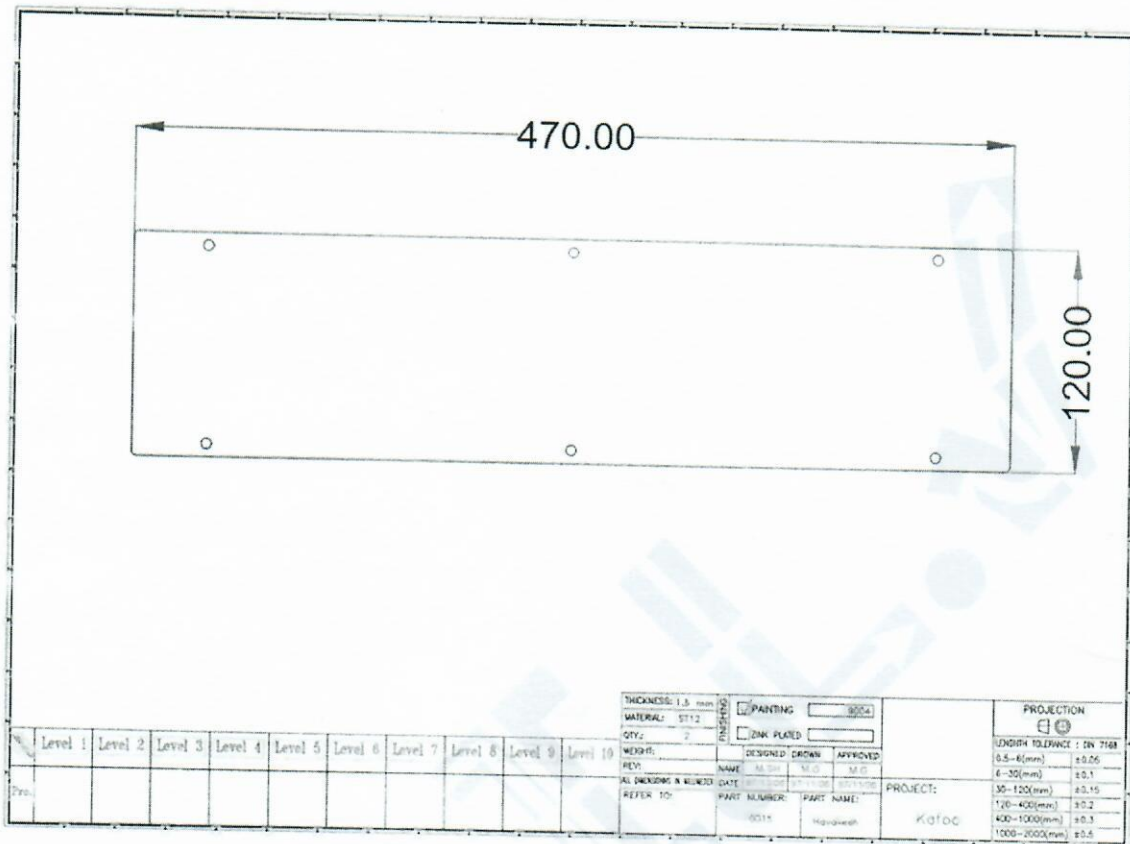


Figure 10: DIMENSIONS



*This report should not be reproduced in extracts without written approval by EPIL.
Test results pertain to the tested sample only.
Not Valid Without Lab Stamp.*