



R024-PNN-13-100150-1/A

CLIMATICAL TEST REPORT

According to the standard :
EN 60529

Equipment under test :
1 RADOSTAT

Company :
AYKOW

DISTRIBUTION : M. JEAN

(Company : AYKOW)

Number of pages : 46
(Included 2 appendices)

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EQUIPMENT UNDER TEST: 1 RADOSTAT

Serial number (S/N): R1316

Part number (P/N): /

Software version: /

MANUFACTURER: AYKOW

CUSTOMER'S NAME AND ADDRESS:

Company: AYKOW

Address: 7 rue Alfred Kastler
14000 CAEN

Contact : M. JEAN

Person present during the tests: /

TEST DATES: From April, the 10th to the 11th 2013

TEST LOCATION: EMITECH Laboratory at Versailles Satory (France)

TESTER: V. DEBOICHET

GUARDIAN TEST: C. FAUCHEUR

SUMMARY

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1. INTRODUCTION

The report provides the results of climatical tests which have been done on a RADOSTAT, presented by AYKOW Company.

2. REFERENCE DOCUMENT

EN 60529.

3. EQUIPMENT UNDER TEST DESCRIPTION *(See photographs in pages 10 to 45)*

The tests have been realized on the following equipment:

- 1 RADOSTAT P/N: /
 S/N: R1316



4. TESTS PROGRAM

IP5X and IPX1.

5. SYNTHESIS OF RESULTS

5.1 Chronology

<i>Date/Hour</i>	<i>Test designation</i>	<i>Comments</i>
<i>04/10/2013</i>	<i>IP5X</i>	<i>Steel wire test Beginning of dust test</i>
<i>04/11/2013</i>	<i>IP5X IPX1</i>	<i>End of Dust test Dripping test</i>

5.2 Functional control verification

The equipment is connected to an electrical outlet and the DEL must switch on few second and switch off.

6. DEGREES OF PROTECTION TEST (code IP51)

First characteristic numeral: 5

To determine the degree of protection provided by the enclosure against:

- part 1: the access to the dangerous parts,
- part 2: protection against solids objects.

• **Test procedure**

- **Parts 1 and 2:** The calibre of accessibility is applied against all windows of enclosure with the specified level except for the 5 and 6 numerals, where for the part 2, the test is realized in a test chamber where the dust is maintained in suspension.

<u>1st characteristic numeral (or additional letter(1))</u>	<u>Part 1: Protected against the access to the dangerous parts</u>	<u>Part 2: Protected against the solids objects</u>
5 (or letter D)	Steel wire Ø 1 mm-length = 100 mm	Dust-protected

Force of apply

<u>1st characteristic numeral (or additional letter(1))</u>	<u>Part 1:</u>	<u>Part 2:</u>
5 (or letter D)	1 N ± 10 %	<input type="checkbox"/> Enclosure under category 2 : test without depressure inside the enclosure - Test duration: 8 hours

Note: (1) The additional letter concerns the protection against the access to the dangerous parts. It is used for designate a superior protection about of the 1st characteristic numeral.

- *Acceptance requirements*

Part 1: *Numerals 1 to 6 (or additional letter):* The protection is satisfying if an adequate clearance is maintained between the calibre of accessibility and the dangerous parts.

Part 2: *Numeral 5:* Ingress of dust is not totally prevented but dust does not enter in sufficient quantity to interfere with satisfactory operation of the equipment.

- *Test apparatus*

Meter Nr EMITECH	Category	Mark	Type	Last verification	Next verification
4699	Dust enclosure	INELEC	Dust enclosure	07/12/2012	09/12/2014
0704	Tool for EN60529	Emitech	EN60529	/	/

- *Tests results*

Visual controls: Dust on the back of the box but no dust in the equipment and no dust on electrical part. : Conform.

Functional controls: the DEL switch on few second and switch off when the RADOSTAT is connected to an electrical outlet: Satisfying.

Steel wire test is satisfying: the calibre does not enter in the equipment.

Second characteristic numeral:1

- ***Purpose of test***

The second characteristic numeral indicates the degree of protection provided by the enclosure with respect to harmful ingress of water.

- ***Test procedure***

The test is made by means of the equipment describe below.

<u>2nd characteristic numeral</u>	<u>Test apparatus</u>	<u>Rate of discharge</u>	<u>Duration of test</u>
1	Dripping equipment	1 mm/min	10 min

- ***Acceptance requirements***

In general, if any water has entered inside the enclosure, it shall not:

- be sufficient to interfere with satisfactory operation of the equipment,
- reach live parts or windings not designed to operate when wet,
- accumulate near the cable end or enter the cable.

- ***Test apparatus***

Meter Nr EMITECH	Category	Mark	Type
7612	Dripping box	EMITECH	EUROCAE ED-14F Section 10 Catégorie W

- ***Tests results***

Visual controls: No increase of water inside the case or on the electric part: Conform.
 Functional controls: the DEL switch on few second and switch off when the RADOSTAT is connected to an electrical outlet: Satisfying

7. CONCLUSION

The conclusion of the degrees of protection tests is under AYKOW Company responsibility.

The tests were performed in accordance with reference document (Cf. paragraph 2).

□□□ End of report, 2 appendices to follow □□□

APPENDICES

APPENDIX 1

Photographies of IP5X (before, during and after the test)
(23 pages)



Before test



Before test



Before test



Before test



Before test



Before test



Before test



Before test



Before test



Before test



Before test



Before test



Before test



Before test



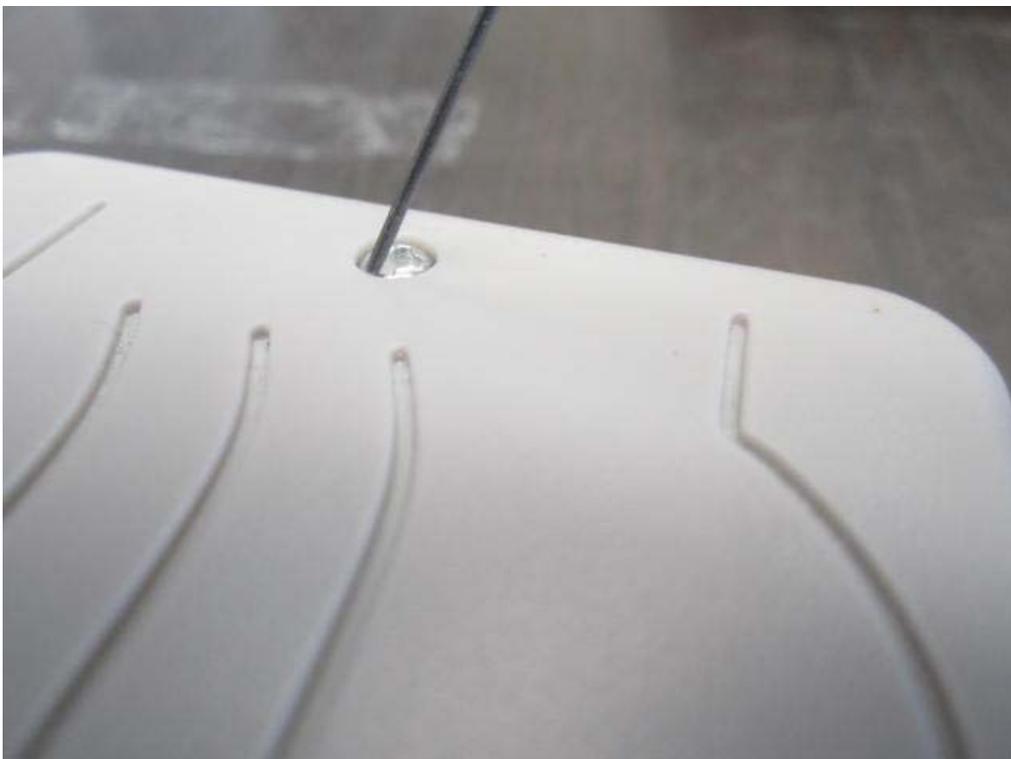
Before test



Before test



Before test



During test



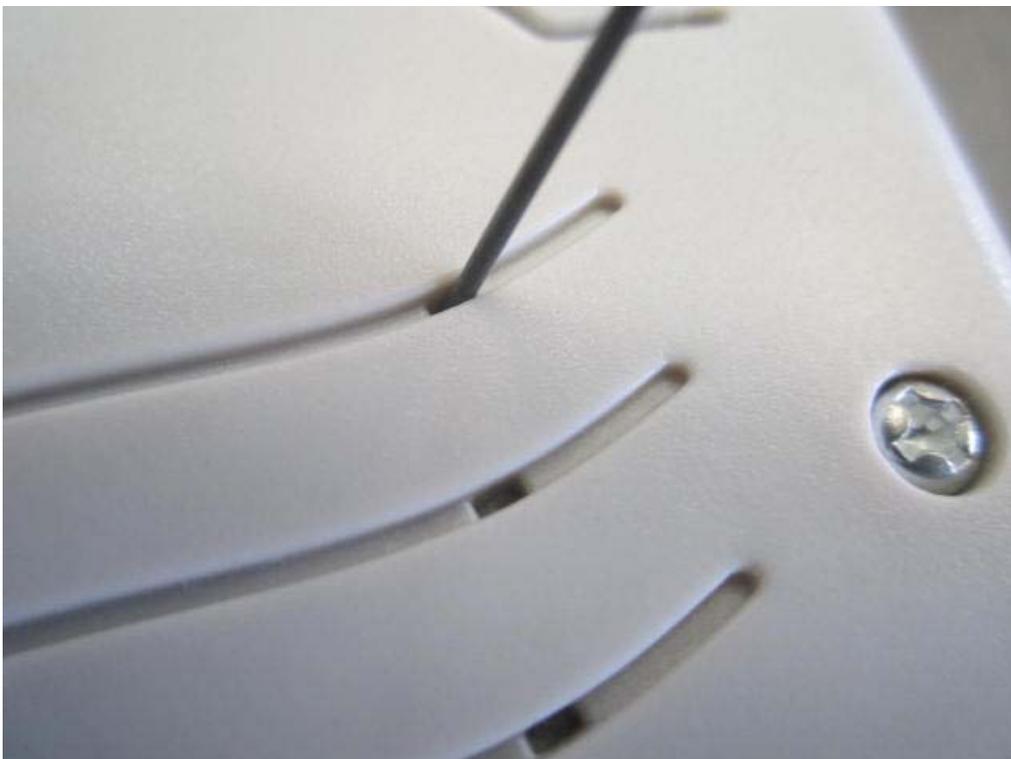
During test



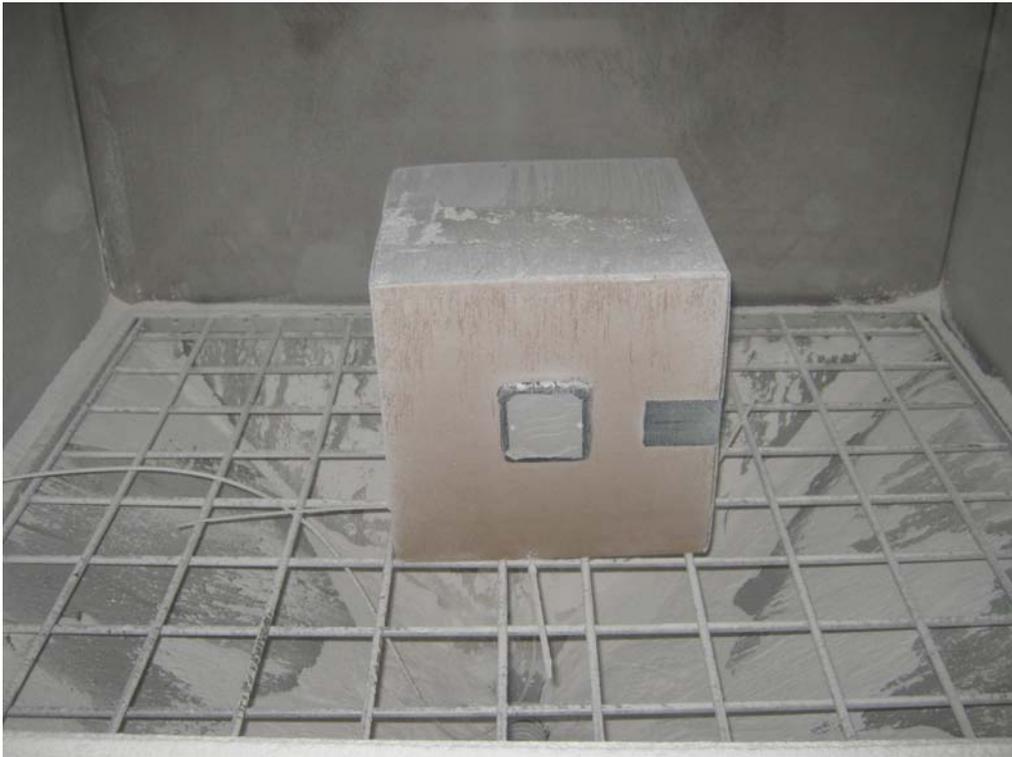
During test



During test



During test



After test



After test



After test



After test



After test



After test



After test



After test



After test



After test



After test



After test



After test



After test



After test



After test



After test



After test



After test



After test



After test

APPENDIX 2

Photographies of IP5X (before, during and after the test)
(12 pages)



Before test



Before test



Before test



Before test



Before test



During test



During test



During test



During test



During test



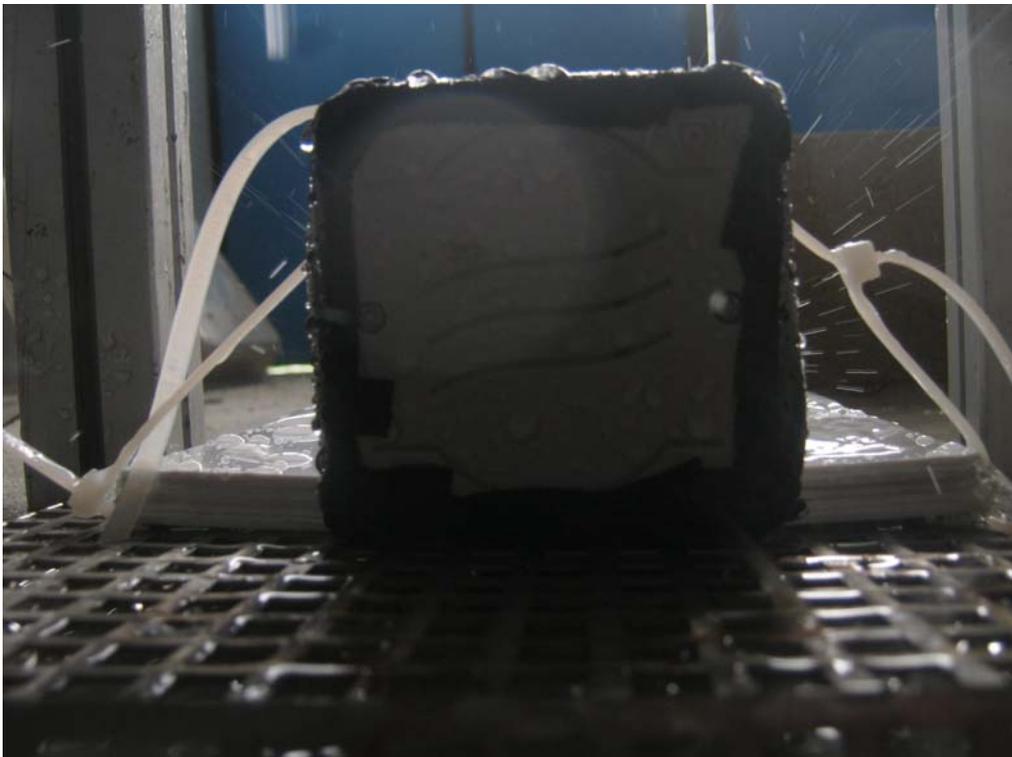
During test



During test



During test



During test



During test



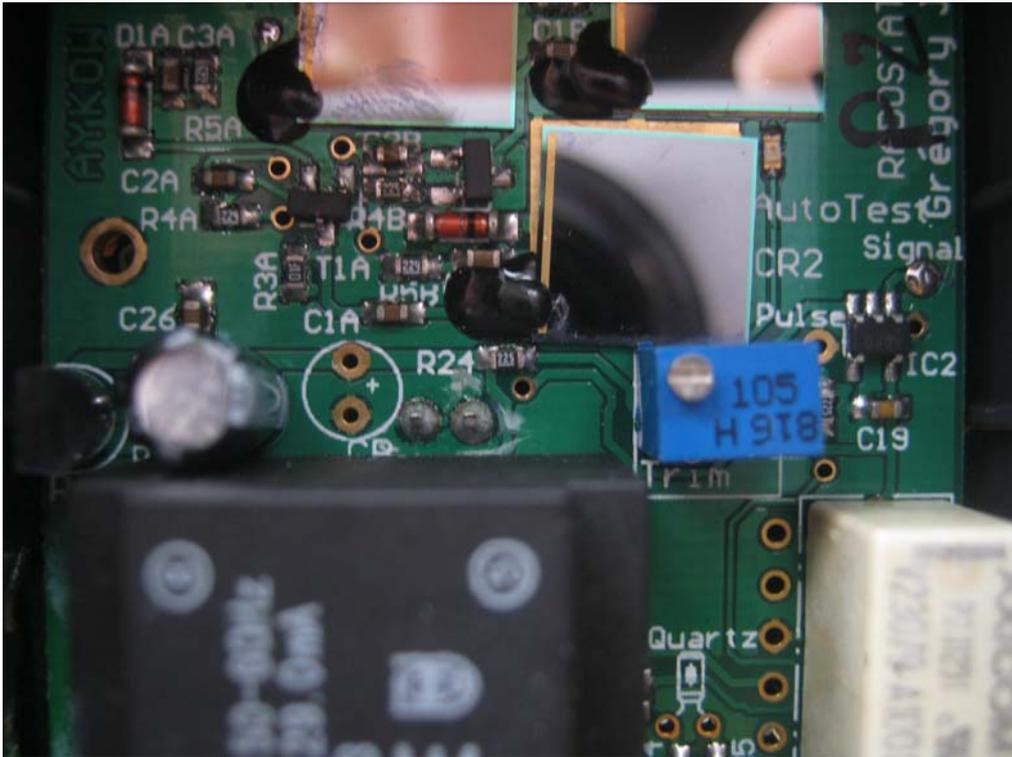
After test



After test



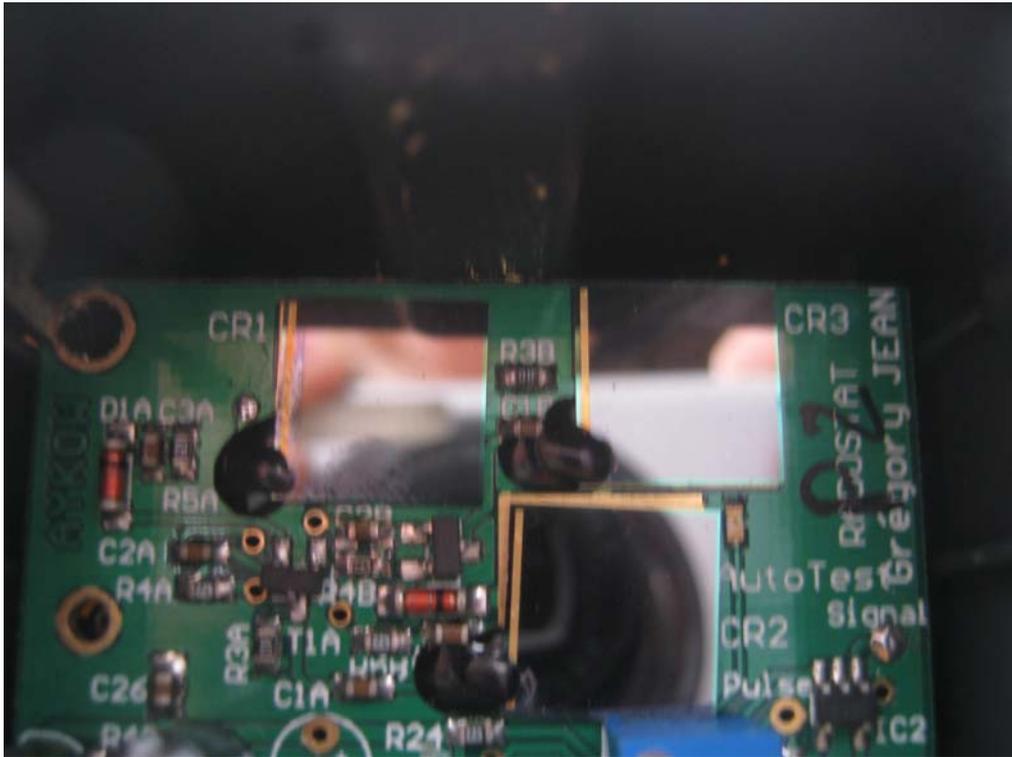
After test



After test



After test



After test



After test



After test