

LABORATORY OF CABLE TESTING AND ENVIRONMENTAL TESTS

TEST REPORT No

7325-ZLK/2022

ZESPÓŁ LABORATORIÓW  
BADAWCZYCH

Świadczy usługi  
w zakresie badań:

- kompatybilności elektromagnetycznej (EMC)
- środowiskowych
- elektrycznych
- mechanicznych
- trudności materiałowych
- funkcjonalności
- iskrobezpieczeństwa
- stopnia ochrony IP
- UN DOT 38.3

- ♦ aparatury rozdzielczej
- ♦ stacji transformatorowych
- ♦ akumulatorów
- ♦ kabli i przewodów
- ♦ urządzeń gazometrycznych
- ♦ podzespółów stosowanych w kolejnictwie, branży automotive i siłach zbrojnych RP
- ♦ pozostałych urządzeń elektrycznych i elektronicznych

**IPX7 test of object:**  
**Lamp SP-102S**

**Customer:** Solutions4GA Sp. z o.o.  
Ul. Sylwestra Kaliskiego 57  
01-476 Warszawa

**Order:** of day 20.12.2022

Test report prepared by:

Robert Ulfig

Test report reviewed by:

Katarzyna Wanot


Test report authorized by:

Robert Ulfig

Technical Manager

Katowice, 23.12.2022


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## 1. Equipment under test (EUT):

Table 1. EUT data

No.	Name	Serial number	Date of delivery	Producer	Laboratory code
1	Lamp SP-102S	003	20.12.2022	Solutions4GA Sp. z o.o.	7325



Photo. 1. General view of EUT

## 2. Test plan

Table 2. Scope of tests

No.	Tested feature / Test method	Remarks	A <sup>1)</sup>
1.	Degree of protection provided by enclosure, test – IPX7 test (protection against short-term immersion in water) according to PN-EN 60529:2003+A2:2014-07+AC:2017-12 clause 14.2.7.		A

<sup>1)</sup> „A” means the accredited testing; „-” means the non-accredited testing. “A\*” means that accreditation applies only to the exposure. The tests of resistance/endurance of EUT against exposure (according to description and evaluation criteria given in the Test Plan) are not accredited.

Test listed in table 2 was performed in Research Network Łukasiewicz – Institute of Innovative Technologies EMAG in Katowice at 31 Leopolda Street.

*All results of tests and measurements presented in this test report refer only to items tested.  
This test report should not be reproduced except in full, without written approval of Laboratory Manager*

## 2.1. Evaluation criteria

According to PN-EN 60529:2003+A2:2014-07+AC:2017-12 p. 14.3.

## 3. Description and results of tests

### 3.1. Protection against short-term immersion in water: IPX7 test.

#### 3.1.1. Test procedure

Test was performed in accordance with recommendations of standard PN-EN 60529:2003+A2:2014-07+AC:2017-12, clause 14.2.7 – IPX7. Test parameters:

- Temperature of object: 14°C,
- Temperature of water: 9°C,
- Test duration: 30 min,

Test sample during test placed under the surface of the water is shown in phot. 2.



Photo. 2. EUT during test

### 3.1.2. Test equipment

- |   |            |
|---|------------|
| – Water tank  | ZL/1168/P, |
| – Multisensor LB-717TWP   | ZL/1514/A, |
| – Set for measuring ambient temperature and relative air humidity<br>LB-701H/LB-706 | ZL/0454/A, |
| – Thermometer TM-917  | ZL/1153/A, |
| – Electronic stopwatch JS-6618  | ZL/1102/A, |
| – Ruler   | ZL/0223/A. |

### 3.1.3. Test results

After the test no water was found inside the housing. Tested enclosure after test is shown below.

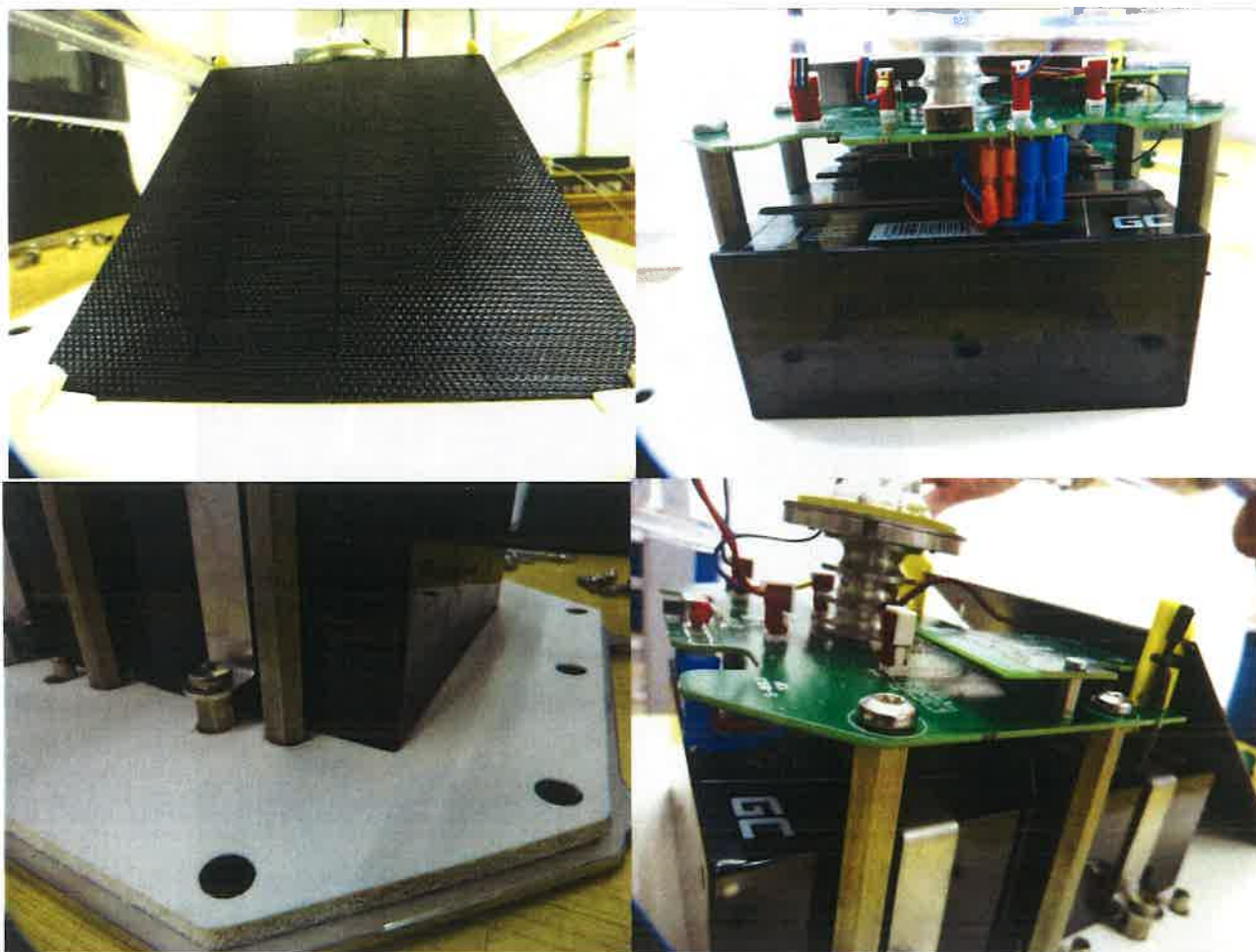



Photo. 3. Inspection of EUT after test

## 4. Opinions and interpretations

The EUT has met evaluation criteria. Tested enclosure has a degree of protection IPX7.

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**5. Tested by:**

Robert Ulfig on day: 22.12.2022.

**6. Distribution list of test reports:**

Copy No.	Recipients
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2	Sieć Badawcza Łukasiewicz – Instytut Technik Innowacyjnych EMAG Laboratorium Badań Kabli i Badań Środowiskowych

**T H E E N D O F T E S T R E P O R T**