

**한국전기안전공사
안전인증센터**

KESCO Safety Test Center
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**시험 성적서
TEST REPORT**

성적서 번호: STC-B15-074-02
(Report No.)
페이지(Page of) : (1) / (총 6)



1. 신청자

Customer

기관명 : 파워제넥스(주)
Name

주소 : 인천시 남동구 은봉로 99 (논현동, 44B9L 파워제넥스)
Address

의뢰일자 : 2015.02.09.
Date of Receipt

2. 시험성적서 용도 : 참고시험
Use of Test Report

3. 시험대상 품목 : Valve Position Monitor
Product

모델명 : LSB-3
Model

제조번호: 해당없음
Serial No.

4. 시험 기간 : 2015.02.11. ~ 2015.02.23.
Test Period

5. 시험 방법/항목 : IEC 60529 Ed. 2.2: 2013 / IP66
Test Method/Item

6. 시험 환경
Test Environment

온도 : (19 ± 1) °C
Temperature

상대 습도 : (44 ± 3) %
Relative Humidity

7. 시험 결과 : 적합
Test Result

확 인
Conformation

작성자
Tested by

성명 김 보 램 (서명)
Name B. R. Kim Signature

승인자
Approved by

성명 우 시 윤 (서명)
Name S. Y. Woo Signature

직책: 기술책임자
Position

위 성적서는 고객이 제공한 시료에 대한 시험 결과이며, 전체 제품에 대한 품질을 보증하지는 않습니다.
This document certifies that the above mentioned products have been tested for the sample provided by the customer and it does not guarantee the quality of other products

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The original document produced by KESCO Safety Test Center is valid and the copy of this document is invalid

2015. 02. 25.

한국전기안전공사 안전인증센터장

The head of Korea Electrical Safety Corporation Safety Test Center



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Test Report

IEC 60529 Ed. 2.2: 2013



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Page No.: 2 / 6 Product: Valve Position Monitor
Model: LSB-3

1. 시험 환경 (Test Environment)

- 온도 (Temperature): $(19 \pm 1) ^\circ\text{C}$, 상대습도 (Relative Humidity): $(44 \pm 3) \%$
- 시험장소 (Location): Dust Chamber, IP 주수 시험장 (IP Water Test Lab.)

2. 시험에 사용된 장비 명세 (List of Used Equipment)

장비번호 Equipment	사용장비명 Description	제조회사 Manufacturer	형식 Model	제조번호 Serial No.	교정유효일자 Calibration Valid Until
A-26-04	HYGROMETER	SATO	HIGHEST2	74208	2015.05.08.
A-75-04	Pressure Gage	HISCO	0.1 MPa	Y2086737	2015.05.13.
A-74-01	Dust Chamber	KOBOLD	-	EN837-3	2015.08.19.
A-74-01	Dust Chamber	ELSTER	BK6	8983	2015.08.28.
B-01-03	Stop Watch	Time Art	PC-90	14101582-2	2015.10.15.
B-03-03	Tape Measure	HIBO	-	L11041901	2015.05.21.

3. 시험일자 (Test Date)

Date of receipt of test item.....:	2015.02.09.
Test Period.....:	2015.02.11. ~ 2015.02.23.

4. 시험 조건 (Test Condition): IP66

5. 시험 결과 (Test Results): Pass

1) Dust Test

Test results for dust protection (first characteristic numeral 6)
Description of test:
1. Degree of protection. No ingress of dust
2. Category for enclosure; <input checked="" type="checkbox"/> Category 1 <input type="checkbox"/> Category 2 <input type="checkbox"/> Category 1 and Category 2
3. Testing method: - 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 between wires was 75 μm - The amount of talcum powder was 2 kg per cubic meter of the chamber volume. - The amount of talcum powder to be used is 2 kg per cubic metre of the test chamber volume. Category 1

Test Report

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- If an extraction rate of 40 to 60 volumes per hour is obtained the duration of the test is 2 h
- 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.

4. Test condition

The enclosure shall be deemed category 1 whether reductions in pressure below the atmospheric pressure are present or not.

5. Acceptance conditions

The protection is satisfactory if no deposit of dust is observable inside the enclosure at the end of the test.

6. Test result: Pass

2) Water Test

Test results for water protection (second characteristic numeral 6)

Description of test

1. Degree of protection.

Water from projected by a nozzle against the enclosure from any direction shall have no harmful effect

2. Testing method:

- The test was made by spraying the enclosure from all practicable directions with a stream of water from a standard test nozzle.
- Nozzle internal diameter: 12.5 mm.
- Delivery rate: 100 L/min \pm 5 %.
- Water pressure: to be adjusted to achieve the specified delivery rate.
- Test duration per square metre of enclosure surface area likely to be sprayed: 1 min
- Minimum test duration: 3 min
- Distance from the nozzle to the enclosure surface: between 2.5 m and 3 m

3. Acceptance conditions:

Dielectric strength test: N/A

It shall not;

- be sufficient to interfere with the correct operation of the equipment 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.

4. Test result: Pass

Photo Documentation

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Product: Valve Position Monitor

Model: LSB-3



[Specimen]

1. Test Condition

- 1) Dust test for first characteristic numeral 6
 - Depression: 2 kPa
 - Duration of time: 8 h
- 2) Water test for second characteristic numeral 6
 - Internal diameter of the nozzle: 12.5 mm
 - Delivery rate: 100 L/min
 - Duration of time: 3 min

2. Applicant & Model

- 파워제넥스(주) / LSB-3

Photo Documentation

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3. Test Figure

1) Dust Test



[Before Test]



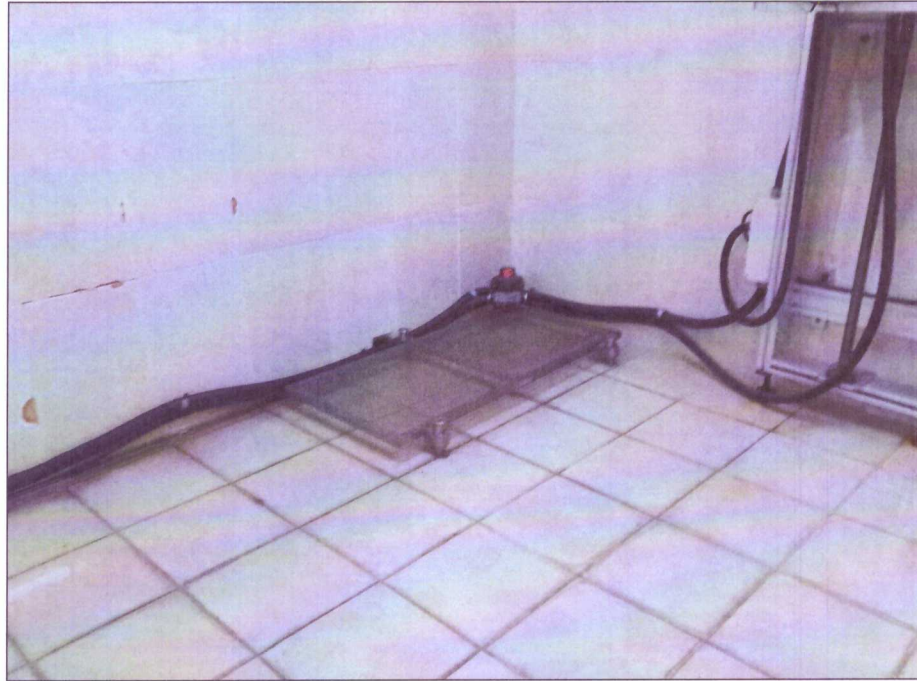
[After Test]

Photo Documentation

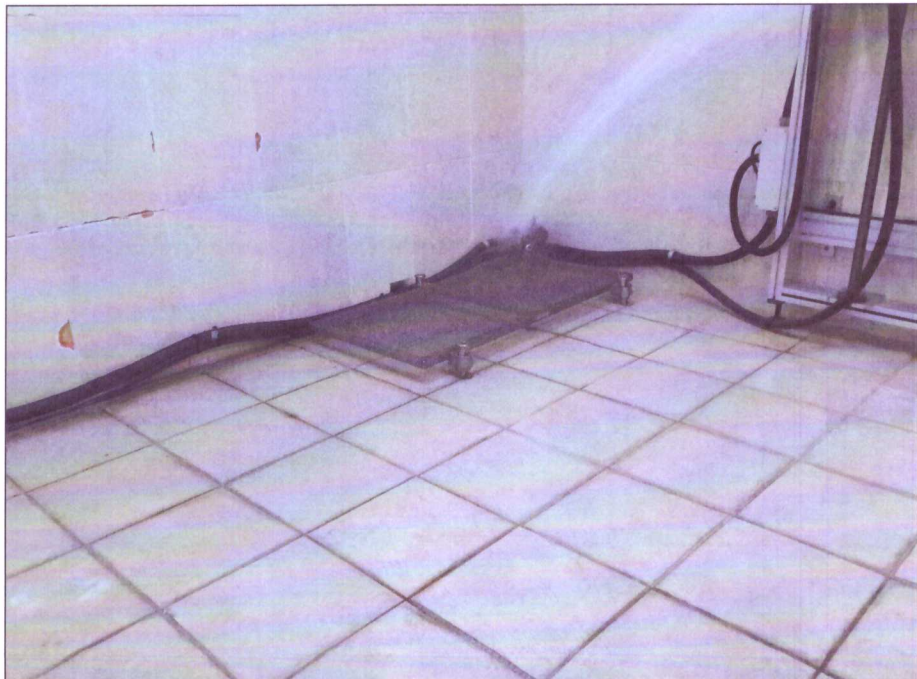
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2) Water Test



[Before Test]



[During Test]