

**한국전기안전공사**  
**안전인증센터**

 KESCO Safety Test Center  
 Tel : 82-31-240-4500 Fax : 82-31-240-4590

**시험 성적서**  
**TEST REPORT**

 성적서 번호: STC-B17-208-03  
 (Report No.)  
 페이지(Page of) : ( 1 )/(총 7 )
**1. 신청자**

Customer

☐ 기관명 : (주)코스텍  
 Name

☐ 주소 : 경기도 광명시 하안로228 광명시범공단 4동 7층 4호 (하안동)  
 Address
**2. 시험성적서 용도 : 참고시험**

Use of Test Report

**3. 시험대상 품목 : CAMERA HOUSING**

Product

☐ 모델명 : SHB-3600  
 Model

☐ 제조 번호: 해당없음  
 Serial No.
**4. 시험 기간 : 2017.11.01. ~ 2017.11.09.**

Test Period

**5. 시험 방법/항목 : IEC 60529 Ed. 2.2: 2013 / IP66**

Test Method/Item

**6. 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 김 용 진 (서명)

Name Y. J. Kim Signature

직책: 기술책임자

Position

☐ 이 시험결과는 의뢰자가 제시한 시료 및 시료명에만 한정됩니다.

The results shown in this test report refer only to the sample tested unless otherwise stated.

☐ 안전인증센터에서 발급한 성적서는 원본만 유효하며, 복사본은 인정하지 않습니다.

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

2017. 11. 10.

한국전기안전공사 안전인증센터장

The head of Korea Electrical Safety Corporation Safety Test Center

☐ 16270 경기도 수원시 장안구 정조로 933번길 21(영화동)

21, Jeongjo-Ro, 933beon-Gil, Jangan-Gu, Suwon-City, Gyeonggi-Do, 16270, Korea

## Test Report

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Customer: (주)코스텍

Product: CAMERA HOUSING

Model: SHB-3600

## 1. 시험 환경 (Test Environment)

- 온도 (Temperature):  $(19 \pm 1) ^\circ\text{C}$ , 상대습도 (Relative Humidity):  $(45 \pm 3) \%$
- 시험장소 (Location): Dust Chamber, IP 주수 시험장 (IP Water Test Lab.)

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

| 장비번호<br>Equipment | 사용장비명<br>Description | 제조회사<br>Manufacturer | 형식<br>Model | 제조번호<br>Serial No. | 교정유효일자<br>Calibration<br>Valid Until |
|-------------------|----------------------|----------------------|-------------|--------------------|--------------------------------------|
| A-26-01           | Hygro/Thermograph    | SATO                 | NSII-Q      | 1500717            | 2018.09.27.                          |
| A-74-01           | Dust Chamber         | KOBOLD               | -           | EN837-3            | 2018.08.09.                          |
| A-74-01           | Dust Chamber         | ELSTER               | BK6         | 8983               | 2018.08.28.                          |
| A-75-04           | Pressure Gage        | ED&D                 | SNZ-01      | W0350118           | 2018.05.24.                          |
| B-01-02           | Stop Watch           | Time Art             | PC-90       | 14101582-1         | 2018.09.26.                          |
| B-03-03           | Tape Measure         | HIBO                 | 10 M        | L11041901          | 2018.05.19.                          |

## 3. 시험일자 (Test Date)

|                                    |                           |
|------------------------------------|---------------------------|
| Date of receipt of test item.....: | 2017.10.25.               |
| Test Period.....:                  | 2017.11.01. ~ 2017.11.09. |

## 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;

☒ Category 1☐ Category 2☐ 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  $50 \mu\text{m}$  and the nominal width between wires was  $75 \mu\text{m}$
- 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

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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

☒ No ingress of water

☐ If any water has entered, 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

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## 6. 모델명 정의에 따른 참고사항 (Reference to difference of applicable model names)

- 본 시험은 SHB-3600 로 진행 하였음. 아래 모델명은 제조사에서 제시한 적용모델명으로 적용 모델 간에는 시험에 사용한 제품과 동일한 외형을 사용하며 내부사양에 따라 모델 명이 달라짐. 위 사항은 제조사에서 보증함.

모델명 : SHK-170, SHK-180

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Product: CAMERA HOUSING

Model: SHB-3600



[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**

- (주)코스텍 / SHB-3600

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## 3. Test Figure

### 1) Dust Test



[Before the Test]



[After the Test]

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## 2) Water Test



[Before the Test]



[During the Test]