

Report No. : H23034E-4  
9th May, 2003

# TEST REPORT

ON  
Pilot Lamp

- Note : 1. This report is valid for the apparatus.  
2. Only the original report is guaranteed.

KOREA INSTITUTE OF MACHINERY AND MATERIALS  
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원본 승인서 출력... ..

# KOREA INSTITUTE OF MACHINERY & MATERIALS(KIMM)

An independent, government  
designated, nonprofit  
institute for ship safety

## TEST CERTIFICATE

OF

### ELECTRICAL APPARATUS FOR EXPLOSIVE GAS ATMOSPHERES

(Issued under Authority vested by the Government of Republic of Korea)

Cert. No. : EX23IP909 Date : 9th May, 2003

Description of apparatus : Pilot Lamp

Model(Type) : KPL25W Series, KPL30W Series

Manufacturer(name) : KUN HUNG ELECTRIC CO., LTD.

(address) : #113-4, Changan-dong, Dongdaemoon-ku, Seoul, Korea

Drawing No. : PL-25-015

Manufacturer's serial No. : not applicablle

THIS IS TO CERTIFY that the above mentioned apparatus has been tested and inspected by KIMM in accordance with the standard of IEC 60529 and has been found to comply with the requirements of the standard.

Type of protection : IP65

Test report No. : KIMM No. H23034E-4

Marking : KIMM No. EX23IP909, IP65



*B. S. Choi*

Beom - Shik Choi

Engineer, Explosion Proof Department,  
Industrial Safety Research Center

*Chun-Ha Lee*

Chun-Ha Lee, Ph. D.

Director, Explosion Proof Department,  
Industrial Safety Research Center

# TEST REPORT

Date : 9th May, 2003

1. Name of test : Dust & Water Protection Test
2. Applicant (name) : KUN HUNG ELECTRIC CO., LTD.  
(address) #113-4, Changan-dong, Dongdaemoon-ku, Seoul, Korea
3. Manufacturer : ditto
4. Test specimen
  - 1) Name : Pilot Lamp
  - 2) Model(Type) : KPL25W Series, KPL30W Series
  - 3) Type of protection : IP65
  - 4) Construction : Refer to Appendix 4.
5. Applied Standard : IEC 60529
6. Test Period : 1st May, 2003 ~ 9th May, 2003
7. Test Result : Test specimen satisfied the performance criteria in IEC-Pub. 60529  
(Refer to test results of Appendix 1.)

This is to certify that the above mentioned test have been properly carried out.

Tested by :

Approved by :

B. S. Choi

Beom-Shik, Choi  
Engineer, Explosion Proof Department,  
Industrial Safety Research Center

Chun-Ha Lee

Chun-Ha Lee, Ph. D.  
Director, Explosion Proof Department  
Industrial Safety Research Center

(This report consists of 5 pages)

## TEST RESULTS

Test Item	Tested	Results	Remarks
I. Degree of protection			
1. First characteristic numeral	○	Satisfactory	Refer to Appendix 2.
2. Second characteristic numeral	○	Satisfactory	Refer to Appendix 3.
II. Marking	○	Satisfactory	IP65

Test results for dust protection (first characteristic numeral 6)

Description of test

1. Degree of protection :

No ingress of dust.

2. Testing method :

The test was made using equipment incorporating with the principles in which talcum powder was maintained in suspension in a suitable closed test chamber. The talcum powder used should pass a square-meshed sieve whose nominal wire diameter was  $50\mu\text{m}$  and the nominal width between wires was  $75\mu\text{m}$  .

The amount of talcum powder was 2kg per cubic meter of the chamber volume.

The equipment under test was supported in its normal operating position inside the test chamber, but is not connected to a vacuum pump. Any drain-hole normally open shall be left open for the duration of test. The test shall be continued for a period of 8h.

3. Test results : No ingress of dust

**Test results for water protection (second characteristic numeral 5)**

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.

The conditions were as follows.

- nozzle internal diameter : 6.3mm;
- delivery rate : 12.5 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 : 1min;
- minimum test duration : 3 min;
- distance from the nozzle to the machine surface : approximately 3m.

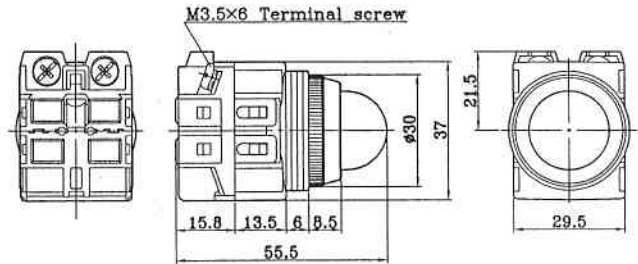
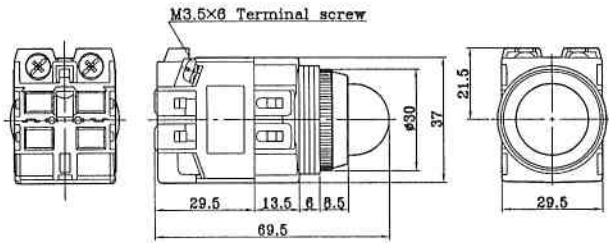
3. Test results : No Harmful immersion was found

# 표시 등

## KPL25W

트랜스포머 내장형

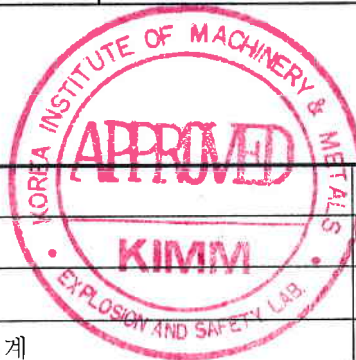
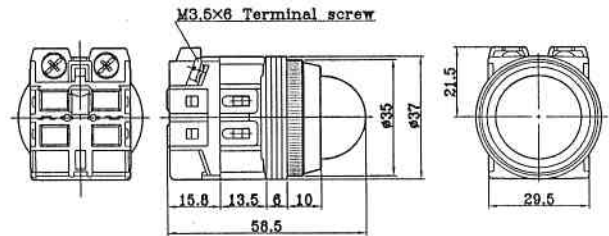
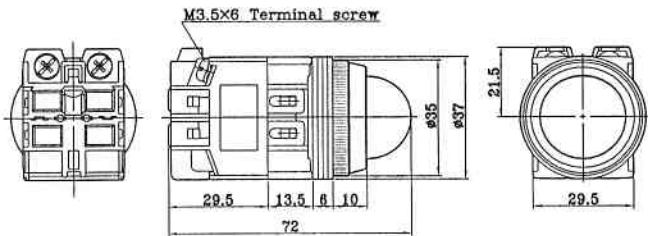
전전압식



## KPL30W

트랜스포머 내장형

전전압식



0	2002 10.25	최초 설계	홍재민 2002.10.25		
Rev.	DATE	DESCRIPTION	PREPARED	REVIEWED	APPROVED

TITLE: 외형치수도      DWG No.: PL-25-015      MODEL: KPL Series

**Koino** KUN HUNG ELECTRIC CO., LTD.      Qty. : -      Scale: 45/100