

# TEST REPORT

	<b>CTK Co., Ltd.</b> (Ho-dong) 113, Yejik-ro, Cheoin-gu, Yongin-shi Gyeonggi-do KOREA, REPUBLIC OF Tel: +82-31-339-9970 Fax: +82-31-624-9501	REPORT No.: CTK-2021-02218-1 Page (1) / (8) pages	
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## 1. Applicant

- Name..... : Hanwha Techwin Co., Ltd.
- Address..... : Hanwha Techwin R&D center, 6 Pangyo-ro 319Beon-gil,  
Bundang-gu, Seongnam-si, Gyeonggi-do, 13488 KOREA
- Date of Receipt..... : 2021-05-04

## 2. Manufacturer

- Name..... : Hanwha Techwin Co., Ltd

## 3. Use of Report ..... : Quality control

## 4. Test sample / Model..... : NETWORK CAMERA / TNO-7180R



## 5. Date(s) of test ..... : 2021-05-07 to 2021-05-25

## 6. Test Standard (Method) used.... : Requested Test Specification by applicant : NEMA TS 2-2013 [2.2.7.2 Test B : Transient Tests (Power Service) - 13. C.]

## 7. Testing Environment..... : Temperature: (25.0 ± 10.0) °C, Humidity: (50 ± 25) %R.H., Air Pressure: (99.0 ± 2) kPa

## 8. Results ..... : Refer to each test items


The results shown in this test report refer only to the sample(s) tested unless otherwise stated.  
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Approval	Tested by: Min-Gi Mun  (Signature)	Technical Manager: Sang Wook Woo  (Signature)
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2022-11-07

**CTK Co., Ltd.**



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Test place

<b>Institution name</b>	CTK Co., Ltd.
<b>Address</b>	113, Yejik-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, Republic of Korea

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**1. NEMA TS 2-2013****[2.2.7.2 Test B : Transient Tests(Power Service) - 13. C.]****1.1. Test equipment**

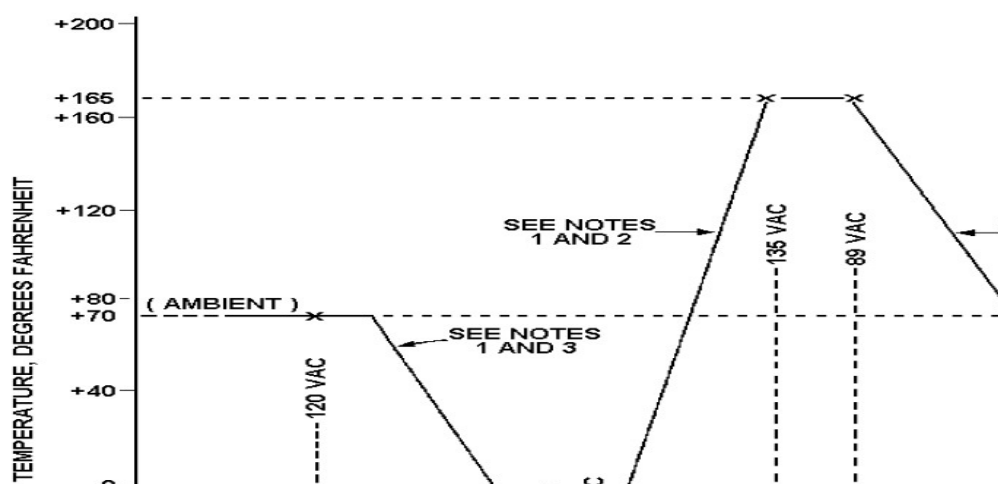
Test equipment	Model	manufacturer	Serial
Temperature & Humidity Chamber	ARS-0390-AE	ESPEC	4120200113

**1.2. Test condition**

Basic condition	Test condition
Sample state	Operating state
Application step	Step E – Step F
Applied voltage	Step E – Step F(135 Vac ~ 89 Vac)
Temperature / Humidity	74 °C = 165 °F
Test Time(h)	15 h

## – Test methods

- The sample is placed in the chamber.
- NEMA TS 2–2013 [2.2.7.2 Test B: Transient Tests(Power Service)–13. C.] Apply power in step of application.
- Perform the temperature/humidity test according to NEMA TS 2–2013 [2.2.7.2 Test B: Transient Tests (Power Service)–13. C.].



[NEMA TS 2–2013[2.2.7.2 Test B : Transient Tests(Power Service) 13. C.] Test profile]

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### 1.3. Check Item

- Check the operation before/during/after the test

### 1.4. Test Result

- Pass

### Model description

Basic Model .....	TNO-7180R
Series model .....	TNO-7180RLP
Model differences .....	The model TNO-7180RLP is identical to TNO-7180R except model designation.



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## 2. APPENDIX

### 2.1. Product Photographs

< Photo 1 > Product External view



< Photo 2 > Product External view



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< Photo 3 > Product label







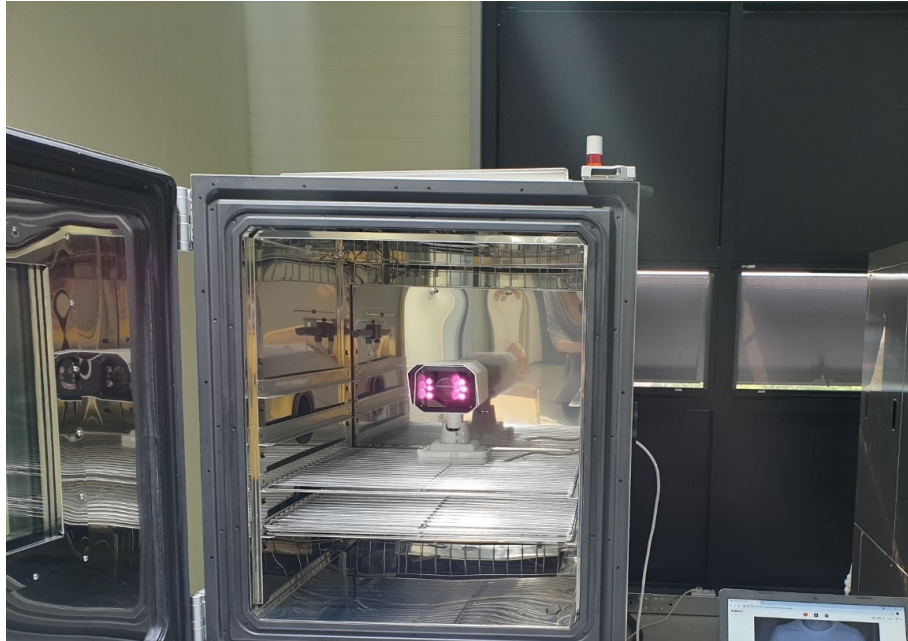
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## 2.2. Test Setup Photos and Configuration

< Photo 4 >





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### 2.3. Data

