

# **Letter of Attestation**

**Document:** 80037348 Master Contract: 259814

Project: 80037348 Date Issued: March 30, 2020

Issued to: Hangzhou Hikvision Digital Technology Co., Ltd.

No.555 Qianmo Road Binjiang District

Hangzhou, Zhejiang,310052

China

Attention: Zhao Zhiwei

CSA Group hereby confirms that it has completed an evaluation of: Network Camera, Models iDS-2CD7A26G0-IZHSY, iDS-2CD7A26G0-IZHSYUHK, iDS-2CD7A26G0/P-IZHSY, iDS-2CD7A26G0/P-IZHSYUHK, iDS-2CD7A26G0-IZHSYR, iDS-2CD7A26G0-IZHSYRUHK, iDS-2CD7A46G0-IZHSY, iDS-2CD7A46G0-IZHSYUHK, iDS-2CD7A46G0/P-IZHSY, iDS-2CD7A46G0/P-IZHSYUHK, iDS-2CD7A46G0-IZHSYR, iDS-2CD7A46G0-IZHSYRUHK, iDS-2CD7A46G0/S-IZHSY, iDS-2CD7A46G0/S-IZHSYUHK, iDS-2CD7A86G0-IZHSY, iDS-2CD7A86G0-IZHSYUHK, iDS-2CD7A86G0-IZHSYR, iDS-2CD7A86G0-IZHSYRUHK, iDS-2CD7A86G0/S-IZHSY, iDS-2CD7A86G0/S-IZHSYUHK, iDS-2CD7AC5G0-IZHSY, iDS-2CD7AC5G0-IZHSYUHK, iDS-2CD7AC5G0-IZHSYR and iDS-2CD7AC5G0-IZHSYRUHK.

> CSA Group hereby attests that the products identified above and described in test report 259814-80087348 dated March 30, 2020 complies with the following standards/tests, to the extent applicable:

NEMA 250-2018 Enclosures for Electrical Equipment (1000 Volts Maximum)

Issued by: Juster Wang Juster Islang

CSA Group

THIS LETTER OF ATTESTATION DOES NOT AUTHORIZE THE USE OF THE CSA MARK ON THE SUBJECT PRODUCTS.

QUOTATIONS FROM THE TEST REPORT OR THE USE OF THE NAME CSA GROUP OR ITS REGISTERED TRADEMARK, IN ANY WAY, IS NOT PERMITTED WITHOUT PRIOR WRITTEN CONSENT OF CSA GROUP TESTING & CERTIFICATION INC.



# Descriptive Report and Test Results

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Edition 1: March 30, 2020; CSA Project: 259814-80037348, Shanghai Issued by Jusfer Wang, Approved by Tracy Geng;				
Testing Laboratory:	CSA INTERNATIONAL			
	CCIC-CSA International Certification Co., Ltd. Shanghai Branch			
Address:	1st Floor, Building 4, Qilai Industrial City, 889 Yishan Road, Shanghai, 200233 China			
Testing location/procedure:	CBTL RMT SM	T WMTC MTMP		
Test By	Ren Shengjia	Ren Shengjia		
Issued By	Jusfer Wang	Justex Johns		
Approved By	Tracy Geng	Trojuj		
Testing Location Address.:	Jiangsu Electronic Information Product Quality Supervision & Inspection Institute, No.100 Jinshui Road, WuXi, Jiangsu, P.R.China			

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Date of issue:	March 5, 2020- March 17, 2020		
Applicant:	Hangzhou Hikvision Digital Technology Co., Ltd.		
Address:	No.555 Qianmo Road, Binjiang District, Hangzhou 310052, China		
Standard	NEMA 250-2018 Enclosures for Electrical Equipment (1000 Volts Maximum).		
Test report Originator:	CSA.		
Test procedure:	WMTC		
Non-standard test method:	N/A		
Type of test object:	Network Camera		
Trademark:	HIKVISION		
Model/type reference:	iDS-2CD7A26G0-IZHSY, iDS-2CD7A26G0-IZHSYUHK, iDS-2CD7A26G0/P-IZHSY, iDS-2CD7A26G0/P-IZHSYUHK, iDS-2CD7A26G0-IZHSYR, iDS-2CD7A26G0-IZHSYRUHK, iDS-2CD7A46G0-IZHSY, iDS-2CD7A46G0-IZHSYUHK, iDS-2CD7A46G0/P-IZHSY, iDS-2CD7A46G0/P-IZHSYUHK, iDS-2CD7A46G0-IZHSYR, iDS-2CD7A46G0-IZHSYRUHK, iDS-2CD7A46G0/S-IZHSY, iDS-2CD7A46G0/S-IZHSYUHK, iDS-2CD7A86G0-IZHSY, iDS-2CD7A86G0-IZHSYUHK, iDS-2CD7A86G0-IZHSYR, iDS-2CD7A86G0-IZHSYRUHK, iDS-2CD7A86G0-IZHSYR, iDS-2CD7A86G0/S-IZHSYUHK, iDS-2CD7A86G0/S-IZHSY, iDS-2CD7A86G0/S-IZHSYUHK iDS-2CD7AC5G0-IZHSY, iDS-2CD7AC5G0-IZHSYUHK, iDS-2CD7AC5G0-IZHSYRUHK, iDS-2CD7AC5G0-IZHSYRUHK, iDS-2CD7AC5G0-IZHSYRUHK.		
Manufacturer:	Same as applicant		
Address:	Same as applicant		
Rating:	12 Vdc, 1.33 A, 18 W; POE(802.3bt, 42.5-57Vdc), 0.43-0.31 A		

#### Summary of testing:

From the result of our tests on the submitted samples, we conclude that comply with the requirements of the standard.

All the tests were conducted on Model iDS-2CD7AC5G0-IZHSY, and only most unfavorable data was recorded.

All the models have identical construction except the model name and software.

#### HISTORY

Item No.	Enclosure Material	Address of Manufacturer	Sample quantity	Remarks
iDS-2CD7AC5G0- IZHSY	I AIW II	No.555 Qianmo Road, Binjiang District, Hangzhou 310052, China		Non-ventilated and no opening

#### TEST SUMMARY

Item	Test Specification	Result
1. Test for Protection against Ingress of Water (Hosedown)	Quantity:  Test Condition:  The test method is described in NEMA 250-2018.  According to the Section 5.7.1, the enclosure and its external mechanisms shall be subjected to a stream of water from a hose that has a 25 mm inside diameter nozzle that delivers at least 240 L per minute.  The nozzle shall be held from 3.0 to 3.5 m from the enclosure, and the spray of water shall be directed at all points of potential water entry such as seams, joints, external operating mechanisms, and such. A seam is the junction of, or the joint between, two pieces. When two covers or doors are adjacent, their common edges shall be considered a single seam. The nozzle shall be moved along each test point one time at a uniform nominal rate of 6 mm/sec.  For small enclosures, or parts of enclosures certifiers may wish to consider a 5-minute minimum hose-down exposure.  Test Criterion:  According to the Section 5.7.2, the enclosure shall be considered to have met the requirements if at the conclusion of the test water has not entered the enclosure.	PASS
2.External Icing Test	Quantity:  Test Condition:  The test method is described in NEMA 250-2018.  According to the Section 5.6.1, the enclosure shall be mounted in a room which can be cooled to -7°C. A metal test bar that is 25.4 mm in diameter by 600 mm long shall be mounted in a horizontal position in a location where it will receive the same general water spray as the enclosure under test.  Provisions shall be made for spraying the entire enclosure from above with water at an angle of approximately 45 degrees from vertical. The water shall be between 0°C and 3°C.  The room temperature shall be lowered to 2°C. The spray of water shall be started and continued for at least one hour, maintaining the room temperature between 1°C and 3°C. At the end of this time, the room temperature shall be lowered to between -7°C and -3°C while continuing the water spray. (The rate of change in the room temperature is not critical and shall be whatever is obtainable within the given range, with the cooling means employed.) The water spray shall be controlled so as to cause ice to build up on the bar at a rate of approximately 6.35 mm/hour and shall be	PASS

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continued until 20 mm of ice has formed on the top surface of the bar. The spray shall then be discontinued, but the room temperature shall be maintained between -7°C and -3°C for 3 hours to assure that all parts of the enclosure and ice coatings have been equalized to a constant temperature.

#### Test Criterion:

According to the Section 5.6.2, Types 4X enclosure shall be considered to have met the requirements if at the conclusion of the test the enclosures are found to be undamaged after the ice has melted.

## Quantity:

#### **Test Condition:**

The test method is described in NEMA 250-2018.

According the Section 5.8, 5.9 and 5.10, the sample shall be subjected to the test describe below, the test apparatus shall consist of a fog chamber, a salt-solution reservoir, a supply of compressed air, atomizing nozzles, support for the enclosure, provision for heating the chamber, and means of control. It shall not permit drops of solution that accumulate on the ceiling or cover of the chamber to fall on the enclosure being tested, shall not permit drops of solution that fall from the enclosure to be returned to the solution reservoir for re-spraying, and shall be constructed of materials that will not affect the corrosiveness of the fog.

The salt solution shall be prepared by dissolving 5 parts by weight of salt in 95 parts by weight of either distilled water or water containing not more than 200 parts per million of total solids. The salt shall be sodium chloride that is substantially free of nickel and copper, and that contains, when dry, not more than 0.1 percent of sodium iodide and not more than 0.3 percent of total impurities.

3.Outdoor Corrosion Protection Test The compressed air supply to the nozzle(s) for atomizing the salt solution shall be free of oil and dirt and shall be maintained between 69 and 172 kPa (10 and 25 psi).

The temperature of the salt spray chamber shall be maintained between 33°C and 36°C (92°F and 97°F). The nozzle(s) shall be directed or baffled so that none of the spray can impinge directly on the enclosure being tested. The chamber shall be closed, and the spray operated continuously except for the short daily interruption necessary to inspect, rearrange, or remove the test specimens, to check and replenish the solution in the reservoir, and to make necessary recordings.

The test shall be conducted continuously for 200 hours. At the end of the test, the specimens shall be removed from the chamber and washed in clean running water not warmer than 38°C (100°F) to remove salt deposits from their surface, and then dried immediately. Corrosion products, other than rust, shall be permitted to be removed by light brushing if required, to observe the condition of the underlying stratum.

#### **Test Criterion:**

According to the Section 5.10.1, an enclosure shall be considered to have met the requirements of this test if upon completion it does not show pitting, cracking.

PASS

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# TEST EQUIPMENT

Name	Mode/Type	Serial No.	Cal.
Temperature and Humidity test chamber	TOFH- 19200HXS	TF171004	2019.03.31-2020.03.30
Salt corrosion chamber	BCX4000	26812	2019.10.16-2020.10.15
Water jet equipment	RPS	20110212	2020.02.15-2021.02.14

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### TEST PHOTOS



Fig.1 sample1# (during waterproof test)

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Fig.2 sample1# (during external icing test)

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Fig.3 sample1# (after external icing test)

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Fig.4 sample1# (during outdoor corrosion test)

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Fig.5 sample1# (After outdoor corrosion test)

---End of Report---