TEST REPORT

CTK Co., Ltd.
(Ho-dong), 113, Yejik-ro, Cheoin-gu, Yongin-si,
Gyeonggi-do, 449-100, Korea
Tel: +82-31-339-9970
Fax: +82-31-624-9501

REPORT No.: CTK-2025-00003

1.	**Applicant**	
	◦ Name :	Hanwha Vision Co., Ltd
	◦ Address :	6 Pangyo-ro 319Beon-gil, Bundang-gu, Seongnam-si, Gyeonggi-do, 13488 KOREA
	◦ Date of Receipt :	Nov. 17, 2021
2.	**Manufacturer**	
	◦ Name :	HANWHA VISION VIETNAM COMPANY LIMITED
	◦ Address :	Lot O-2, Que Vo Industrial Zone extended area, Nam Son ward, Bac Ninh city, Bac Ninh province, Vietnam
3.	**Use of Report :**	Quality control
4.	**Test sample / Model :**	NETWORK CAMERA / QNV-7082R
5.	**Date(s) of test :**	Nov. 24, 2021~ Dec. 01, 2021
6.	**Test Standard (Method) used :**	NEMA 250-2014 Enclosures for Electrical Equipment (1000 Volts Maximum)
7.	**Testing Environment :**	Temperature: (25 ±10) ℃, Humidity: (50 ±25) % R.H. Pressure: (96 ±10) kPa
8.	**Test Results :**	Refer to the test results
9.	**Location of Test :**	☒ Permanent Testing Lab ☐ On Site Testing (5 Dongbu-ro 221beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Republic of Korea)

The results shown in this test report refer only to the sample(s) tested unless otherwise stated.
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Affirmation	Tested by	Technical Manager
	HyungUk Jeon (Signature)	HoHyun Lee (Signature)

Remark. This report is not related to KOLAS accreditation and relevant regulation.

Jan 02, 2025

CTK Co., Ltd.

Table of Contents

1. Testing laboratory

1.1 Testing laboratory information

Lab. Name	CTK Co., Ltd.
Address	113, Yejik-ro, Cheoin-gu, Yongin-si, Gyeonggi-do Republic of Korea
Tel.	031-339-9970
Fax.	031-624-9501
E-Mail	all.yongin@element,com
Website	www.elementkorea.kr

1.2 Testing laboratory accreditation status

Country	Classification	Accreditation Number	Logo
International	KOLAS	TESTING NO. KT119	

2. Product description and equipment information

2.1 Product description

Product Name	Model Name	Quantity	Comment
NETWORK CAMERA	QNV-7082R	1 EA	-

2.2 Manufacturer information

Test item description .....:	NETWORK CAMERA
Trade Mark .....:	Hanwha Vision
Manufacturer .....:	Lot O-2, Que Vo Industrial Zone extended area, Nam Son commune, Bac Ninh city, Bac Ninh province, Vietnam
Model/Type reference .....:	QNV-7082R
Ratings .....:	Electrical QNV-7082R DC 12 V ⎓ 0.8 A, PoE 48 V ⎓ 0.24 A QNV-6082R DC 12 V ⎓ 0.55 A, PoE 48 V ⎓ 0.16 A Dimension: Ø8.5*4 by 106.76 mm, Ø90.1 by 282.91 mm, Ø18 by 56.52 mm Ø25*2 by 157 mm, Ø 140 by 439.6 mm

List of Attachments (including a total number of pages in each attachment):
Attachment 1: 15-17 pages (Construction Diagram including installation method)
Attachment 2: 18-24 pages (Parts List)
Attachment 3: 25-27 pages (photographs)

Summary of testing:

Tests performed (name of test and test clause): **Clause 5.7(Hose Down Test)**	**Testing location:** CTK Co., Ltd. 5 Dongbu-ro 221beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Republic of Korea

Copy of marking plate: The artwork above may be only a draft.

2.3 Equipment information

Testing equipment	Model Name	Manufacturer	Manufacturing Number	Calibration Date
25.4mm Nozzle	S3-IP18	CTK	S3-IP18	-
Stop Watch	NONE	CASIO		2021-03-19
Steel Measuring Tape	KMC-74N	KOMELON	190727	2021-06-23
Water flow meter	Z-6504	Nuri tech	04	2021-07-08
Digital Vernier Calipers	150 mm	150 mm	A17179462	2020-09-19

2.4 Pre-test product images

2.5 Testing equipment images

25.4mm Nozzle

Stop Watch

Steel Measuring Tape

Water flow meter

Digital Vernier Calipers

3. Test Information

3.1 Test item particulars and Possible test case verdicts

Test item particulars ..... :	Network Camera
Classification of installation and use ..... :	Outdoor (Watertight/Corrosion Resistant)
Possible test case verdicts:	
- test case does not apply to the test object.... :	N/A
- test object does meet the requirement ..... :	P (Pass)
- test object does not meet the requirement.... :	F (Fail)
- test case does not evaluate to the test object:	N/E

3.2 General remarks and factory information

General remarks:

"(See Enclosure #)" refers to additional information appended to the report.

"(See appended table)" refers to a table appended to the report.

Throughout this report a ☐ comma / ☒ point is used as the decimal separator.

Clause numbers between brackets refer to clauses in NEMA 250-2014

Name and address of factory (ies):

1. HANWHA VISION VIETNAM COMPANY LIMITED

Lot O-2, Que Vo Industrial Zone extended area, Nam Son ward, Bac Ninh city, Bac Ninh province, Vietnam

2. D-TECH CO., LTD.

173-25, Saneop-ro, Gwonseon-gu, Suwon-si, Gyeonggi-do, Korea (Suwon Industrial Complex)

Basic Model	QNV-7082R
Series Model	QNV-6082R
Model differences	The model differences are only for function not related to the quality of enclosure integrity

3.3 Type 4X Test information

Type 4X Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against access to hazardous parts; to provide a degree of protection of the equipment inside the enclosure against ingress of solid foreign objects (falling dirt and windblown dust); to provide a degree of protection with respect to harmful effects on the equipment due to the ingress of water (rain, sleet, snow, splashing water, and hose directed water); that provides an increased level of protection against corrosion; and that will be undamaged by the external formation of ice on the enclosure.

Table 2-1
Comparison of Specific Applications of Enclosures for Indoor Nonhazardous (Unclassified) Locations

Provides a Degree of Protection against the Following Conditions	Type of Enclosure									
	1	2	4	4X	5	6	6P	12	12K	13
Access to hazardous parts	X	X	X	X	X	X	X	X	X	X
Ingress of solid foreign objects (falling dirt)	X	X	X	X	X	X	X	X	X	X
Ingress of water (dripping and light splashing)	...	X	X	X	X	X	X	X	X	X
Ingress of solid foreign objects (circulating dust, lint, fibers, and flyings **)	...	...	X	X	...	X	X	X	X	X
Ingress of solid foreign objects (settling airborne dust, lint, fibers, and flyings **)	...	...	X	X	X	X	X	X	X	X
Ingress of water (hosedown and splashing water)	...	...	X	X	...	X	X	...	...	...
Oil and coolant seepage	...	...	...	..	...	...	...	X	X	X
Oil or coolant spraying and splashing	...	...	...	...	...	...	...	...	...	X
Corrosive agents	...	...	...	X	...	...	X	...	...	...
Ingress of water (occasional temporary submersion)	...	...	...	...	...	X	X	...	...	...
Ingress of water (occasional prolonged submersion)	...	...	...	...	...	...	X	...	...	...

** These fibers and flyings are not considered Class III type ignitable fibers or combustible flyings. For Class III type ignitable fibers or flyings see the *National Electrical Code*®, Article 500.5(D).

Table 2-2
Comparison of Specific Applications of Enclosures for Indoor & Outdoor Nonhazardous (Unclassified) Locations

Provides a Degree of Protection Against the Following Conditions	Type of Enclosure									
	3	3X	3R	3RX	3S	3SX	4	4X	6	6P
Access to hazardous parts	X	X	X	X	X	X	X	X	X	X
Ingress of solid foreign objects (falling dirt)	X	X	X	X	X	X	X	X	X	X
Ingress of water (dripping and light splashing)	X	X	X	X	X	X	X	X	X	X
Ingress of water (rain, snow, and sleet **)	X	X	X	X	X	X	X	X	X	X
Sleet ***	...	...	...	...	X	X	...	...	...	...
Ingress of solid foreign objects (windblown dust, lint, fibers, and flyings****)	X	X	...	...	X	X	X	X	X	X
Ingress of water (hosedown and splashing water)	...	...	...	...	...	...	X	X	X	X
Corrosive agents	...	X	...	X	...	X	...	X	...	X
Ingress of water (occasional temporary submersion)	...	...	...	...	...	...	...	...	X	X
Ingress of water (occasional prolonged submersion)	...	...	...	...	...	...	...	...	...	X

** External operating mechanisms are not required to be operable when the enclosure is ice covered.
*** External operating mechanisms are operable when the enclosure is ice covered. See subsection 5.6.
**** These fibers and flyings are not considered Class III type ignitable fibers or combustible flyings. For Class III type ignitable fibers or flyings see the *National Electrical Code*®, Article 500.5(D).

Table 5-1A
Degrees of Protection Against Access to Hazardous Parts

Enclosure Type	Test Conditions	Degree of Protection		Corresponding IP First Characteristic Numeral
		Brief Description	Definition	
4X	5.7	Protected against access to hazardous parts with a wire	An access probe of 1.0 mm shall not penetrate	6

Table 5-1B
Degrees of Protection Against Solid Foreign Objects

Enclosure Type	Test Conditions	Degree of Protection		Corresponding IP First Characteristic Numeral
		Brief Description	Definition	
4X	Non-vented 5.7 Vented 5.5.1 Dust Blast Method	Windblown dust protected	No ingress of dust	6

Table 5-1C
Degrees of Protection against Water

Enclosure Type	Test Conditions	Degree of Protection		Corresponding IP Second Characteristic Numeral
		Brief Description	Definition	
4X	5.7	Protected against hose directed water	Water projected against the enclosure in any direction shall not enter	6 No Ingress Allowed*

Table 5-1D
Additional Protection

Enclosure Type	Test Conditions	Additional Protection		Corresponding IP Second Characteristic Numeral
		Brief Description	Definition	
4X	5.6 5.9 5.10	Special corrosion protection and undamaged by the external formation of ice	Enclosure provides increased corrosion protection and is not damaged by ice that forms on the outside	None

3.4 NEMA 250-2014 Test list

NEMA 250-2014			
Clause	**Requirement + Test**	**Result – Remark**	**Verdict**
3	**CONSTRUCTION**		
3.1	General		P
3.2	Units of Measurement		P
3.3	Materials-General	Enclosures are made of metal or polymeric materials	P
3.4	Materials-Polymeric	More than 650 mm^2 (1 in^2) in area Polymeric Materials used is declared as Min. V-2 Used to UL certified material. (See the attachment 2)	N/E
3.5	Corrosion Protection	Stainless steel and/or aluminium are declared as the materials used (See the attachment 2)	N/E
3.6	Openings	No openings in Product	N/A
3.7	Mounting	Mounting means are external to the equipment cavity (See the attachment 1)	P
3.8	Conduit Connection	No conduit connection (See the attachment 1)	N/A
3.9	Hubs and Fittings	No Hubs and Fittings	N/A
3.10	Knockouts	No Knockouts	N/A
3.11	External Operating Mechanisms	No External Operating Mechanisms	N/A
3.12	Access to Interior	Needs tool to open unit	P
3.13	Closing Hardware	No closing Hardware	N/A

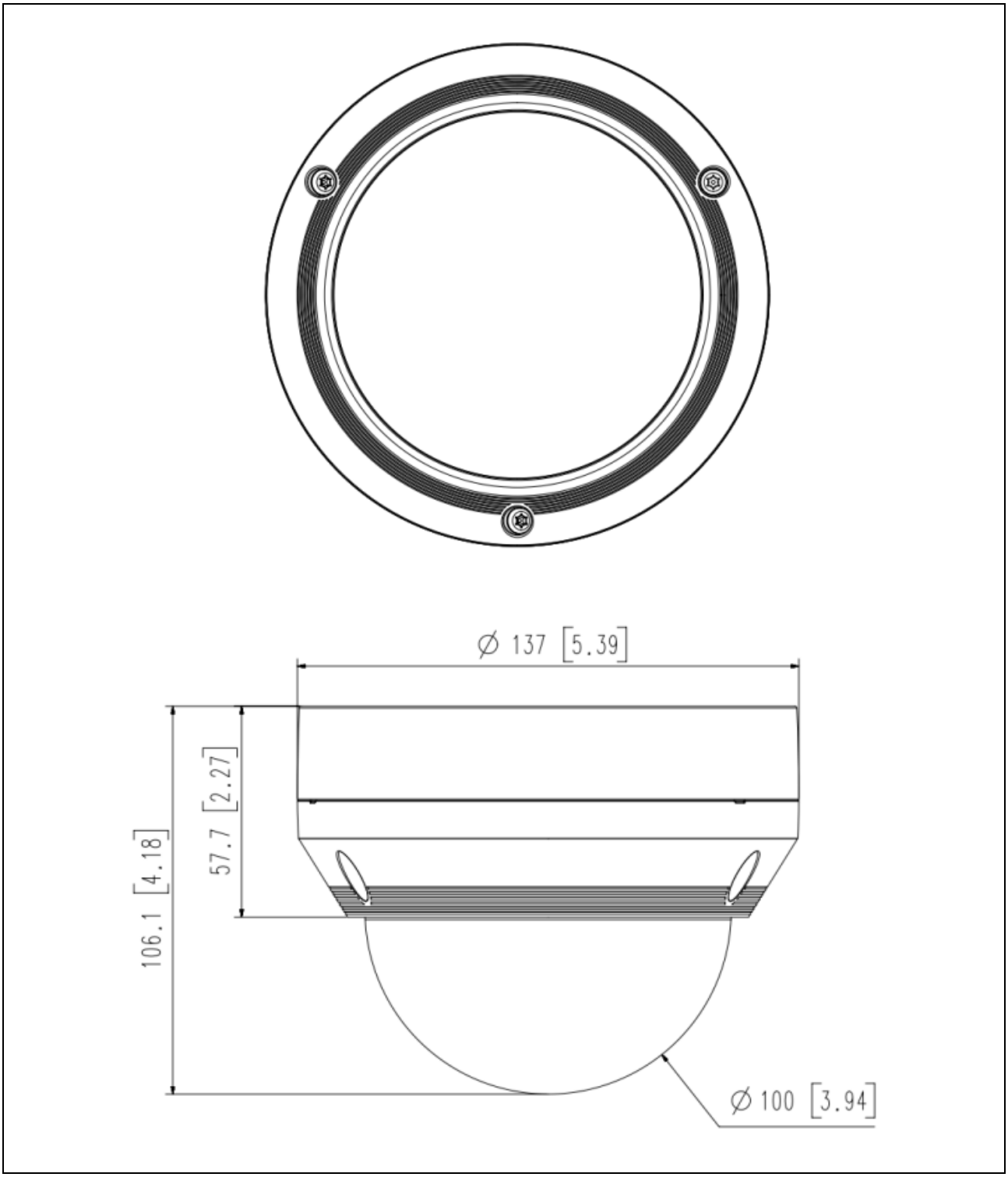
NEMA 250-2014			
Clause	**Requirement + Test**	**Result – Remark**	**Verdict**
3.14	Gaskets	Gaskets made of a silicone Sponge Rubber (no Elastomeric or Thermoplastic used) (See clause 5.14 and the attachment 2)	P
3.15	Observation Windows	No Observation Window	N/A

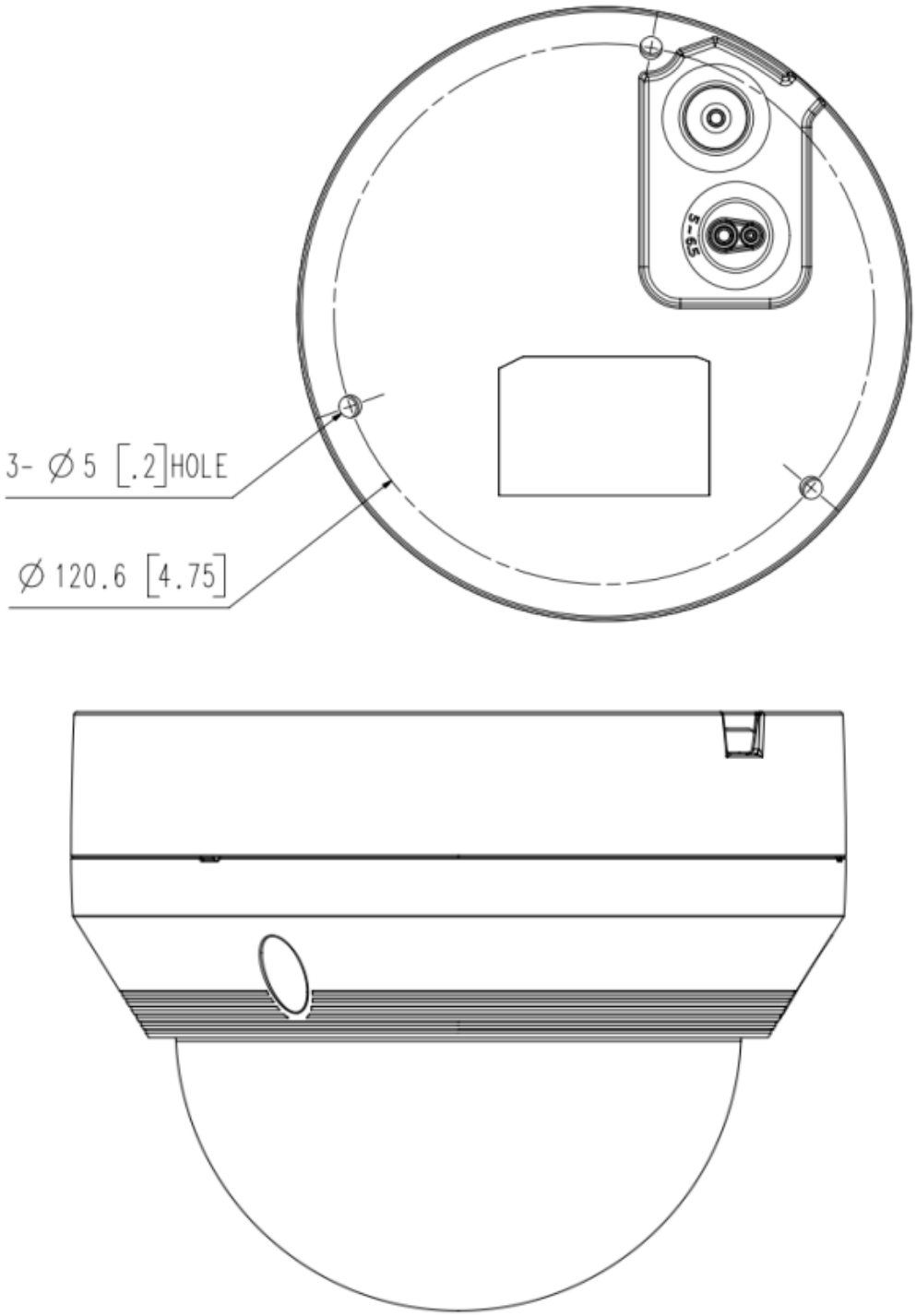
4	**MARKING**		
4.1	Type Designations	“Type 4X” Marking is declared to be on the product before on the market	P
4.2	Supplemental Markings	Supplemental Marking (watertight/ corrosion resistant) is declared to be used when it is on the market. The required marking shall be added on the product)	P
4.3	Location of Markings	See the Attachment 3	P
4.4	Enclosure Orientation	No Particular Mounting Orientation	N/A
4.5	Conduit Hubs and Closure Plates	No Conduit Hubs and Closure Plates	N/A
4.6	Equipment Openings	No Openings on Unit	N/A
4.7	Drainage Openings	No Drain Openings	N/A

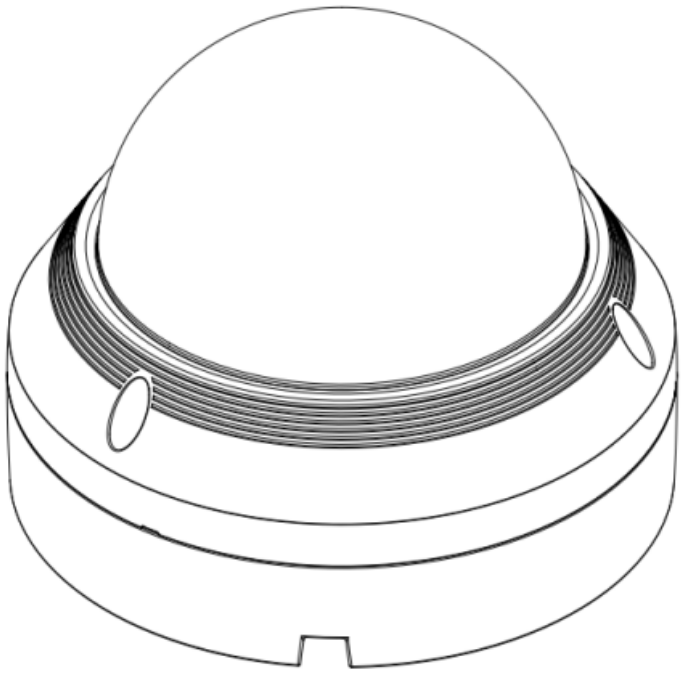
5	**DESIGN TESTS**		
5.1	General	See Table 5-1A to 5-1D and 5.1.5 in the General product information	P
5.2	Tests For Protection Against Access to Hazardous Parts	Rated 4X	N/A
5.3	Tests for Protection Against Ingress of Water (Dripping and Light Splashing)	Rated 4X	N/A

NEMA 250-2014			
Clause	**Requirement + Test**	**Result – Remark**	**Verdict**
5.4	Tests for Protection Against Ingress of Water (Rain)	Rated 4X	N/A
5.5	Tests for Protection Against Ingress of Solid Foreign Objects (Setting Airborne Dust, Lint, Fibers, And Flings)	Non-vented (See clause 5.7)	N/A
5.6	External Icing Test	No external cavities to trap water when mounted in the normal position.	N/A
5.7	Tests for Protection Against Ingress of Water (Hosedown)	No entry of water See the test information	P
5.8	Indoor Corrosion Protection (Rust-Resistance Test (24-Hour Salt Spray Test))	See clause 3.5	N/E
5.9	Outdoor Corrosion Protection	See clause 3.5	N/E
5.10	Corrosion Protection-Type 3X, 3RX, 3SX, 4X Or 6P Enclosures	See clause 3.5	N/E
5.11	Test for Protection Against Ingress of Water (Temporary Submersion)	Rated 4X	N/A
5.12	Test for Protection Against Ingress of Water (Prolonged Submersion)	Rated 4X	N/A
5.13	Oil Exclusion Test	Rated 4X	N/A
5.14	GASKET MATERIAL TESTS	The product itself(including gaskets) was conditioned at 70 ℃ for 168 hrs according to 5.14.3(Alternate Evaluation) before performing relevant required tests.	P
5.15	Test for Sharpness of Edges	No sharp edges	P

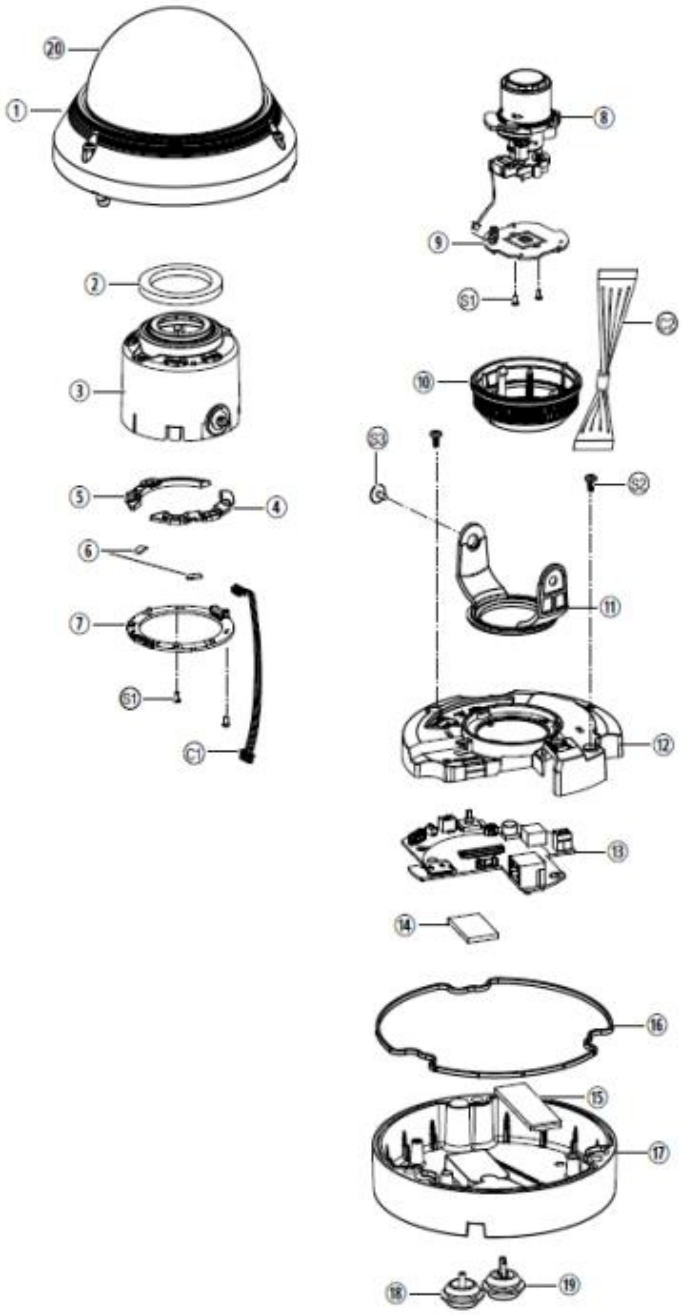
3.5 Attachment 1 – Construction Diagram and installation method




3- ∅5 [.2]HOLE
∅120.6 [4.75]



3.6 Attachment 2 – Parts List



부품위치	부품번호	품명	규격	수량	공급여부	비고
1	AM07-004492P	ASSY,CASE TOP-QNV-6082R	HANWHA	1	SA	
	AM07-004492O	ASSY,CASE TOP-QNV-6082R	WISENET	1	SA	
2	FC29-008363A	HOOD-IR;QNV-7080R,PORON	SPONGE(PSR),T4	1	SA	
3	FC29-012402A	HOLDER-TILT-IR_QNV-6082R		1	SA	
4	EP07-001168B	SINK,HEAT-R	ALDC12,BLK	1	SA	
5	EP07-001168A	SINK,HEAT-L	ALDC12,BLK	1	SA	
6	FC28-002363A	PAD-THERMAL	W8_D4_T1	2	SA	
7	AM06-006825A	ASSY,PCB-IR LED,QNV-7080R_NEW		1	SA	
8	EP14-001097	LENS SET-YT3013DB.IR-JZ	4MP+H43+IR0109;M	1	SA	
9	AM06-010001A	ASSY,PCB-QNO/V-7082R_SENSOR		1	SA	
10	FC29-010074A	HOLDER-LENS-MODULE_LNV6070R		1	SA	
11	FC39-003197A	FRAME-PAN PC	V0,BLK	1	SA	
12	FC39-005674B	FRAME-MAIN_QNV-6082R;PC		1	SA	
13	AM06-010004A	ASSY,PCB-QNV-7082R_NETWORK		1	SA	
14	FC28-000556A	PAD-THERMAL	W30,D45,T2	1	SA	
15	PM02-003026A	DESIPAK-6G		1	SA	
16	HP07-001468A	GASKET-BOTTOM_QNV6072R	SILICON	1	SA	
17	FC29-011849B	CASE-BOTTOM-QNV6082R	ADC12	1	SA	
18	MC06-001082A	BUSHING-CABLE FLEXIBLE	SILICON,GRAY	1	SA	
19	MC06-001042A	BUSHING-CABLE SET	SILICON	1	SA	
20	FC15-006227A	COVER-OPTICAL-3.9INCH	FRAN	1	SA	
C1	EP02-004146A	HARNESS-WNL_4M_2M_IR_LED_CABLE	6P,6P	1	SA	
C2	EP16-003217A	FPCB-QNV-7082R	2L,E	1	SA	
S1	Z6003019801A	SCREW-TAPTYPE	BH,+,B,M2,L4	4	SA	
S2	Z6001049601A	SCREW-MACHINE	BH,+,M3,L6	2	SA	
S3	Z6003012501A	4748_TAPTITE_SCREW	M3,L6	1	SA	

Component - Plastics
File Number: E115797

LOTTE CHEMICAL CORPORATION
56 GOSAN-RO
UIWANG-SI, GYEONGGI-DO 16073 Republic of Korea

INFINO: HN-1068(+)(f1)

Polycarbonate (PC), pellets

(+) - May be replaced by one, two, or three numbers and/or letter(s)
(f1) - Suitable for outdoor use with respect to exposure to Ultraviolet Light, Water Exposure and Immersion in accordance with UL 746C.

Flammability	Value	Test Method
Flame Rating		UL 94 IEC 60695-11-10, -20
1.5 mm, ALL	V-0	
3.0 mm, ALL	V-0	
Glow Wire Flammability Index		IEC 60695-2-12
1.5 mm	960 °C	
3.0 mm	960 °C	
Glow Wire Ignition Temperature		IEC 60695-2-13
1.5 mm	825 °C	
3.0 mm	825 °C	
Electrical	**Value**	**Test Method**
Hot-wire Ignition (HWI) (1.5 mm)	PLC 3	UL 746
High Amp Arc Ignition (HAI) (1.5 mm)	PLC 3	UL 746
Comparative Tracking Index (CTI)	PLC 3	UL 746
Dielectric Strength	32 kV/mm	ASTM D149 IEC 60243-1
Volume Resistivity	1.0E+17 ohms·cm	ASTM D257 IEC 60093
Thermal	**Value**	**Test Method**
RTI Elec		UL 746
1.5 mm	130 °C	
3.0 mm	130 °C	
RTI Imp		UL 746
1.5 mm	130 °C	
3.0 mm	130 °C	
RTI Str		UL 746
1.5 mm	130 °C	
3.0 mm	130 °C	
Ball Pressure Test (130°C, 3.00 mm)	Pass	IEC 60695-10-2
Physical	**Value**	**Test Method**
Outdoor Suitability	f1	UL 746C

Component - Plastics
File Number: E115797

LOTTE CHEMICAL CORPORATION
56 GOSAN-RO
UIWANG-SI, GYEONGGI-DO 16073 Republic of Korea

INFINO: NH-1035(+)

Polycarbonate (PC), pellets

(+) - May be replaced by one, two, or three numbers and/or letter(s)

Flammability	Value	Test Method
Flame Rating		UL 94 IEC 60695-11-10, -20
1.5 mm, ALL	V-0	
2.0 to 2.7 mm, ALL	V-0, 5VB	
Electrical	**Value**	**Test Method**
Hot-wire Ignition (HWI) (1.5 mm)	PLC 2	UL 746
High Amp Arc Ignition (HAI) (1.5 mm)	PLC 2	UL 746
Comparative Tracking Index (CTI)	PLC 2	UL 746
Thermal	**Value**	**Test Method**
RTI Elec		UL 746
1.5 mm	80.0 °C	
2.0 to 2.7 mm	80.0 °C	
RTI Imp		UL 746
1.5 mm	80.0 °C	
2.0 to 2.7 mm	80.0 °C	
RTI Str		UL 746
1.5 mm	80.0 °C	
2.0 to 2.7 mm	80.0 °C	

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Report Date: 1998-08-24
Last Revised: 2018-07-05

ANSI/UL 94 small-scale test data does not pertain to building materials, furnishings and related contents. ANSI/UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in the components and parts of end-product devices and appliances, where the acceptability of the combination is determined by UL.

Component - Plastics
File Number: E41179

MITSUBISHI ENGINEERING-PLASTICS CORP
ENVIRONMENT & QUALITY ASSURANCE DEPT
SHIODOME SUMITOMO-BLDG 25TH FL
1-9-2 HIGASHI-SHINBASHI
MINATO-KU, TOKYO 105-0021 Japan

S-2000V+(f1), S-2001V+(f1), S-2003V+(f1)

Polycarbonate (PC), pellets, unreinforced

(f1) - Suitable for outdoor use with respect to exposure to Ultraviolet Light, Water Exposure and Immersion in accordance with UL 746C.

+ - Suffix optional, exceptions: The following cannot be used as optional suffixes: "NF" for grade NXG5050, "N" for grade NXG5030, "N" for grade MB2112+, "S1" for grade F20-54, "V" for grades S-2000+(f1), S-2001+(f1), S-2003+(f1), the last letter "L" for grade CFH2520+, "W" for ELV2010 included in Grade ELV20(a5)+.

Flammability	Value	Test Method
Flame Rating		UL 94 IEC 60695-11-10, -20
0.38 mm, ALL	V-2	
1.5 mm, ALL	V-2	
3.0 mm, ALL	V-2	
Electrical	**Value**	**Test Method**
Hot-wire Ignition (HWI)		UL 746A
1.5 mm	PLC 3	
3.0 mm	PLC 3	
High Amp Arc Ignition (HAI)		UL 746A
1.5 mm	PLC 0	
3.0 mm	PLC 0	
Comparative Tracking Index (CTI)	PLC 2	UL 746A
Dielectric Strength	20 kV/mm	ASTM D149
High Voltage Arc Tracking Rate (HVTR)	PLC 0	UL 746A
Volume Resistivity	1.0E+7 ohms-cm	ASTM D257 IEC 60093
Arc Resistance	PLC 5	ASTM D495
Thermal	**Value**	**Test Method**
RTI Elec		UL 746B
0.38 mm	80.0 °C	
1.5 mm	125 °C	
3.0 mm	125 °C	
RTI Imp		UL 746B
0.38 mm	80.0 °C	
1.5 mm	115 °C	
3.0 mm	115 °C	
RTI Str		UL 746B
0.38 mm	80.0 °C	
1.5 mm	125 °C	
3.0 mm	125 °C	
Physical	**Value**	**Test Method**
Dimensional Change	0.0 %	ASTM D1042 ISO 2796
Outdoor Suitability	f1	UL 746C

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Report Date: 10/1/1992
Last Revised: 6/7/2021 1:56:30 AM

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View additional material information including performance and processing data

Component - Plastics

E245303

Guide Information

KOMOTECH CO LTD

992-2 Gumsan-Ri, Waegwan-Eup, Chilgok-Gun Kyoungsangbuk-Do KR

KGP-1(a)

Silicone (SI), furnished as sheets

Color	Min. Thk (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str
NC	0.2	V-0	-	-	150	150	150
	3.0	V-0	-	-	150	150	150

Comparative Tracking Index (CTI): -
Inclined Plane Tracking (IPT) kV: -
Dielectric Strength (kV/mm): -
Volume Resistivity (10^x ohm-cm): -
High-Voltage Arc Tracking Rate (HVTR): -
Surface Resistivity (10^X ohms/square): -
Dimensional Stability (%): -
High Volt, Low Current Arc Resis (D495): -

(a) - Two-Component, Addition-Cure, Vinyl, Platinum Catalyzed

ANSI/UL 94 small-scale test data does not pertain to building materials, furnishings and related contents. ANSI/UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in the components and parts of end-product devices and appliances, where the acceptability of the combination is determined by UL.

Report Date: 2010-12-17
Last Revised: 2018-01-30

c UL us

IEC and ISO Test Methods

Test Name	Test Method	Units	Thk (mm)	Value
Flammability	IEC 60695-11-10	Class (color)	0.2	V-0 (NC)
			3.0	V-0 (NC)
Glow-Wire Flammability (GWFI)	IEC 60695-2-12	°C	-	-
Glow-Wire Ignition (GWIT)	IEC 60695-2-13	°C	-	-
IEC Comparative Tracking Index	IEC 60112	Volts (Max)	-	-
IEC Ball Pressure	IEC 60695-10-2	°C	-	-
ISO Heat Deflection (1.80 MPa)	ISO 75-2	°C	-	-
ISO Tensile Strength	ISO 527-2	MPa	-	-
ISO Flexural Strength	ISO 178	MPa	-	-
ISO Tensile Impact	ISO 8256	kJ/m^2	-	-
ISO Izod Impact	ISO 180	kJ/m^2	-	-
ISO Charpy Impact	ISO 179-1	kJ/m^2	-	-

4. Hose Down Test (Clause 5.7)

4.1 Test date and environmental conditions

4.1.1 Test date: Nov. 24, 2021~ Dec. 01, 2021

4.1.2 Measured Environmental Conditions

Item	Temperature (℃)	Humidity (% R.H.)	Pressure (kPa)
Measurement	25.7	44.5	90.1

4.2 Test Conditions and methods

4.2.1 Description of Test

The enclosure and its external mechanisms were subjected to a stream of water from a hose that has a 25.4 mm (1 in) inside diameter nozzle and delivers at least 240 L (65 gal) per minute. The nozzle was held from 3.0 to 3.5 m (10 to 12 feet) from the enclosure, and the spray of water was directed at all points of potential water entry such as seams, joints, external operating mechanisms, and such. The nozzle was moved along each test point one time at a uniform rate of 6 mm/sec (1/4 in/sec).

4.2.2 Sample Dimension

Ø 100 mm by 314 mm, Ø 137 mm by 430.18 mm, Ø 10 mm by 31.4 mm
Test Duration = 129 secs

4.2.3 Acceptance conditions

The enclosure shall be considered to have met the requirements if at the conclusion of the test no water has entered the enclosure

4.3 Attachment 3 – Photographs

4.3.1 Hose down test

5. Test result

5.1 Test result table

Sample No (Model)	Water Flow	Presence of water inside	Result
QNV-7082R	240 LPM	**No**	Pass

※ Refer to the product photos after the completion of testing in section 5.2.

5.2 Post-test product images

- End -