

TEST REPORT

**CTK Co., Ltd.**

5 Dongbu-ro 221beon-gil, Cheoin-gu, Yongin-si,
Gyeonggi-do, Republic of Korea
Tel: +82-31-339-9970
Fax: +82-31-624-9501

REPORT No.:

CTK-2025-02269

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1. Applicant

- Name : Hanwha Vision Co., Ltd
◦ Address : 6 Pangyo-ro 319Beon-gil, Bundang-gu, Seongnam-si,
Gyeonggi-do, 13488 KOREA
◦ Date of Receipt : Jan. 20, 2025

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 / XNO-A9084R

5. Date(s) of test :

Feb. 18, 2025~ Feb. 25, 2025

6. Test Standard (Method) used :

NEMA 250-2014

Enclosures for Electrical Equipment (1000 Volts Maximum)

7. Testing Environment :

Temperature: (25 ±10) °C, 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	 (Signature)	Technical Manager	 (Signature)
	HyungUk Jeon		HoHyun Lee	

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

Sep 21, 2025

CTK Co., Ltd.

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1. Testing laboratory

1.1 Testing laboratory information

Lab. Name	CTK Co., Ltd.
Address	5 Dongbu-ro 221beon-gil, 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	XNO-A9084R	1 EA	—



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2.2 Manufacturer information

Test item description : NETWORK CAMERA

Trade Mark :



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

Model/Type reference : XNO-A9084R

Ratings :
Electrical
XNO-A9084R PoE 48 V ≡ 11.2 W , PoE 48 V ≡ 0.23 A
XNO-A8084R PoE 48 V ≡ 9.4 W , PoE 48 V ≡ 0.2 A
XNO-A6084R PoE 48 V ≡ 10.2 W , PoE 48 V ≡ 0.21 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: 16-18 pages (Construction Diagram including installation method)

Attachment 2: 19-21 pages (Parts List)

Attachment 3: 23-25 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.

제품명칭: NETWORK CAEMRA

모델명: XNO-A9084R

정격전압: PoE (48V ≡) 11.2W

M/C: XNO-A9084R/KDO Fac. ID: D

DATE S/N: Serial No.

MAC ADDRESS: XX-XX-XX-XX-XX-XX

인증번호: R-R-HWVS-XNOA9084R

상호: 한화비전(주)

제조자/제조국가:한화비전(주)/한국

IP66 / IP67



NETWORK CAMERA,XNO-A9084R

PoE(48V ≡) 0.23A

M/C: XNO-A9084R/KEX Fac.ID:D

DATE S/N: Serial No.

MAC ADDRESS: XX-XX-XX-XX-XX-XX

CAN ICES-3(A)/NMB-3(A)

HANWHA VISION CO.,LTD.

MADE IN KOREA



Rainproof/ Étanche
IP66 and IP67



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제품명칭: NETWORK CAMERA
모델명: XNO-A8084R
정격전압: PoE (48V $\overline{\text{---}}$) 9.4W

M/C: XNO-A8084R/KDO Fac. ID: D

DATE S/N: Serial No.
MAC ADDRESS: XX-XX-XX-XX-XX-XX
인증번호: R-R-HWVS-XNOA8084R
상호: 한화비전(주)
제조사/제조국가:한화비전(주)/한국

IP66 / IP67



NETWORK CAMERA,XNO-A8084R

PoE(48V $\overline{\text{---}}$) 0.2A
M/C: XNO-A8084R/KEX Fac.ID:D
DATE S/N: Serial No.
MAC ADDRESS: XX-XX-XX-XX-XX-XX
CAN ICES-3(A)/NMB-3(A)
HANWHA VISION CO.,LTD.
MADE IN KOREA

Rainproof/ Étanche
IP66 and IP67



제품명칭: NETWORK CAEMRA
모델명: XNO-A6084R
정격전압: PoE (48V $\overline{\text{---}}$) 10.2W

M/C: XNO-A6084R/KDO Fac. ID: D

2025.09 S/N: Serial No.
MAC ADDRESS: XX-XX-XX-XX-XX-XX
인증번호: R-R-HWVS-XNOA6084R
상호: 한화비전(주)
제조사/제조국가:한화비전(주)/한국

IP66 / IP67



NETWORK CAMERA,XNO-A6084R

PoE (48V $\overline{\text{---}}$) 0.21A
M/C: XNO-A6084R/KEX Fac.ID:D
2025.09 S/N: Serial No.
MAC ADDRESS: XX-XX-XX-XX-XX-XX
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HANWHA VISION CO.,LTD.
MADE IN KOREA

Rainproof/ Étanche
IP66 and IP67



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2.3 Equipment information

Testing equipment	Model Name	Manufacturer	Manufacturing Number	Effective Calibration Date
25.4mm Nozzle	S3-IP18	CTK	S3-IP18	-
Temperature & Humidity Chamber	TH-GA-408	JEIO TECH	X110169	Aug.23,2025
Area flow meter	FT220-VM	NURITECH	01	Feb.28,2025
Stop Watch	NONE	Casio	612Q01R-1	Jan.15,2027
Digital Vernier Calipers	100 mm	MITUTOYO	A17179462	-



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2.4 Pre-test product images



Top



Bottom



Front



Rear



Left side



Right side



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2.5 Testing equipment images



25.4mm Nozzle



Temperature & Humidity Chamber



Area flow meter



Stop Watch



Stop Watch



Digital Vernier Calipers

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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

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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	XNO-A9084R
Series Model	XNO-A8084R, XNO-A6084R
Model differences	The model differences are only for function not related to the quality of enclosure integrity

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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).

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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	<u>Non-vented</u> 5.7	Windblown dust protected	No ingress of dust	6
	<u>Vented</u> 5.5.1 Dust Blast Method			

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

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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

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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

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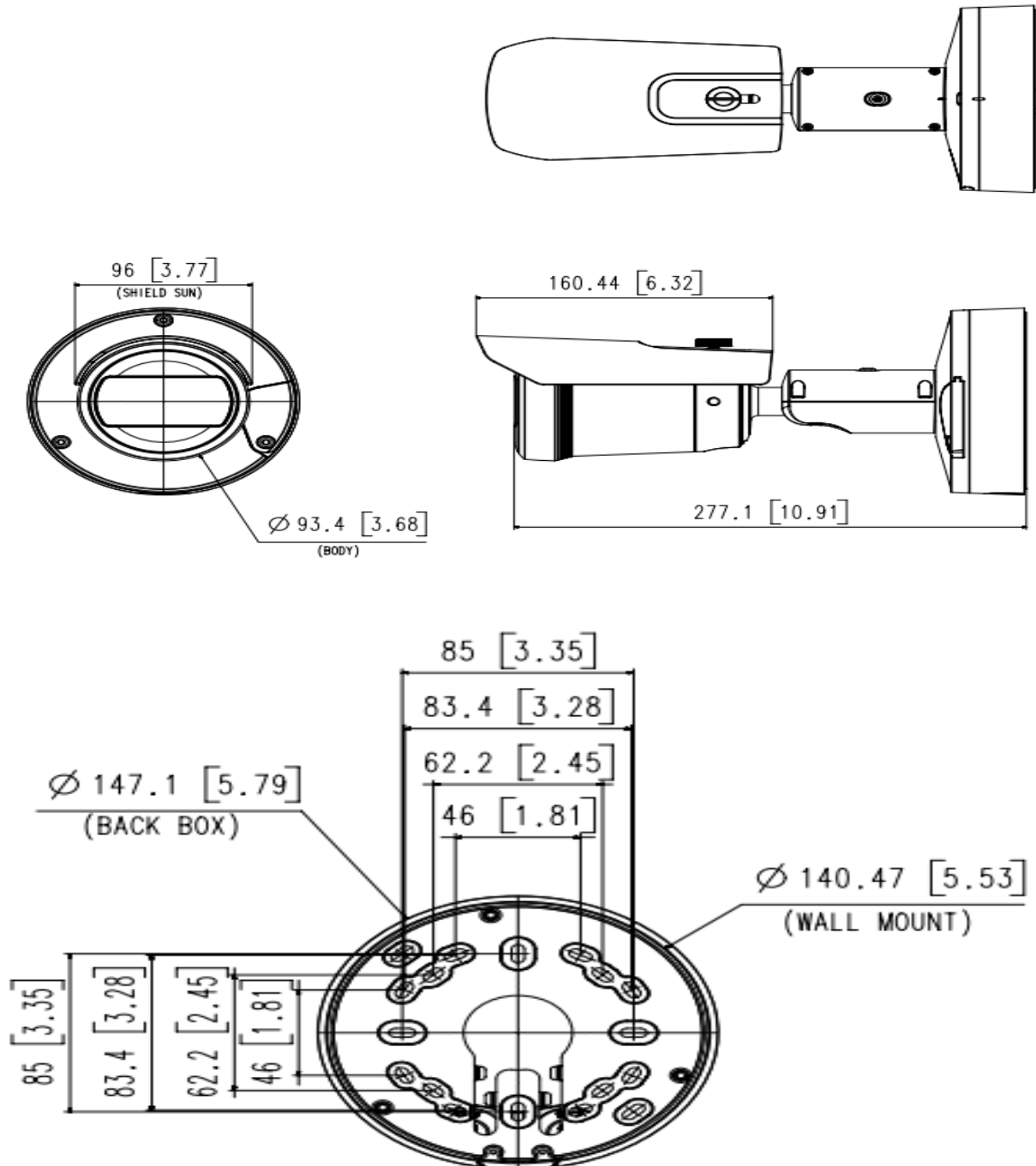
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NEMA 250-2014

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 °C 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

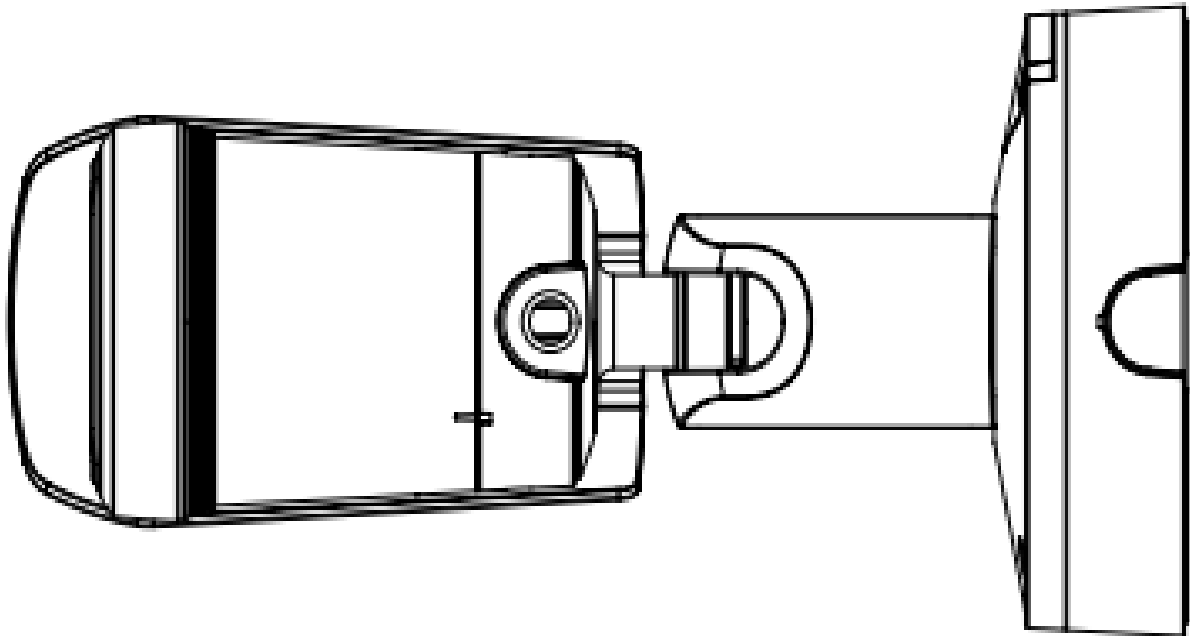
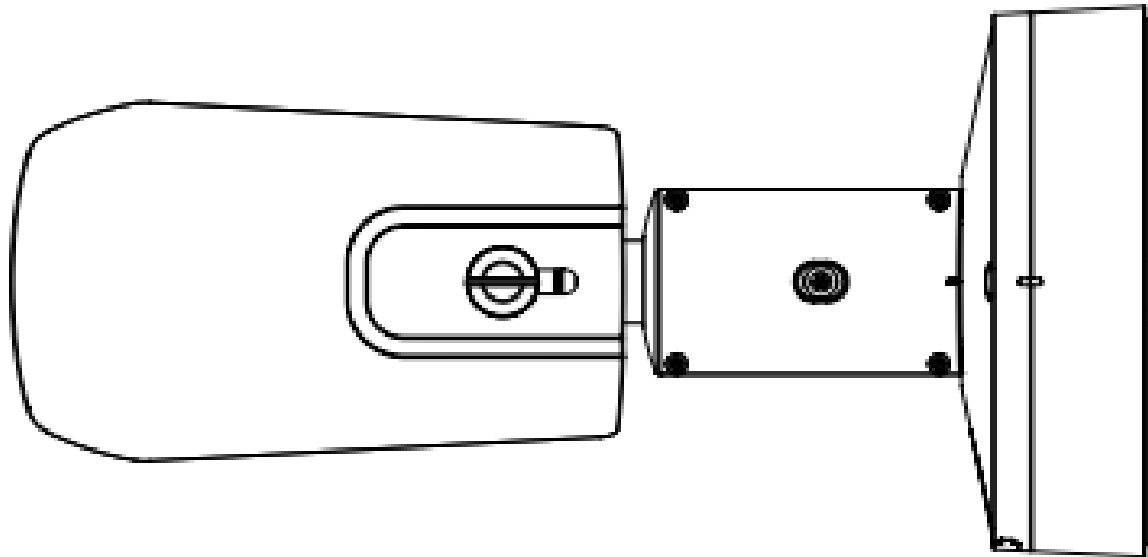
3.5 Attachment 1 – Construction Diagram and installation method



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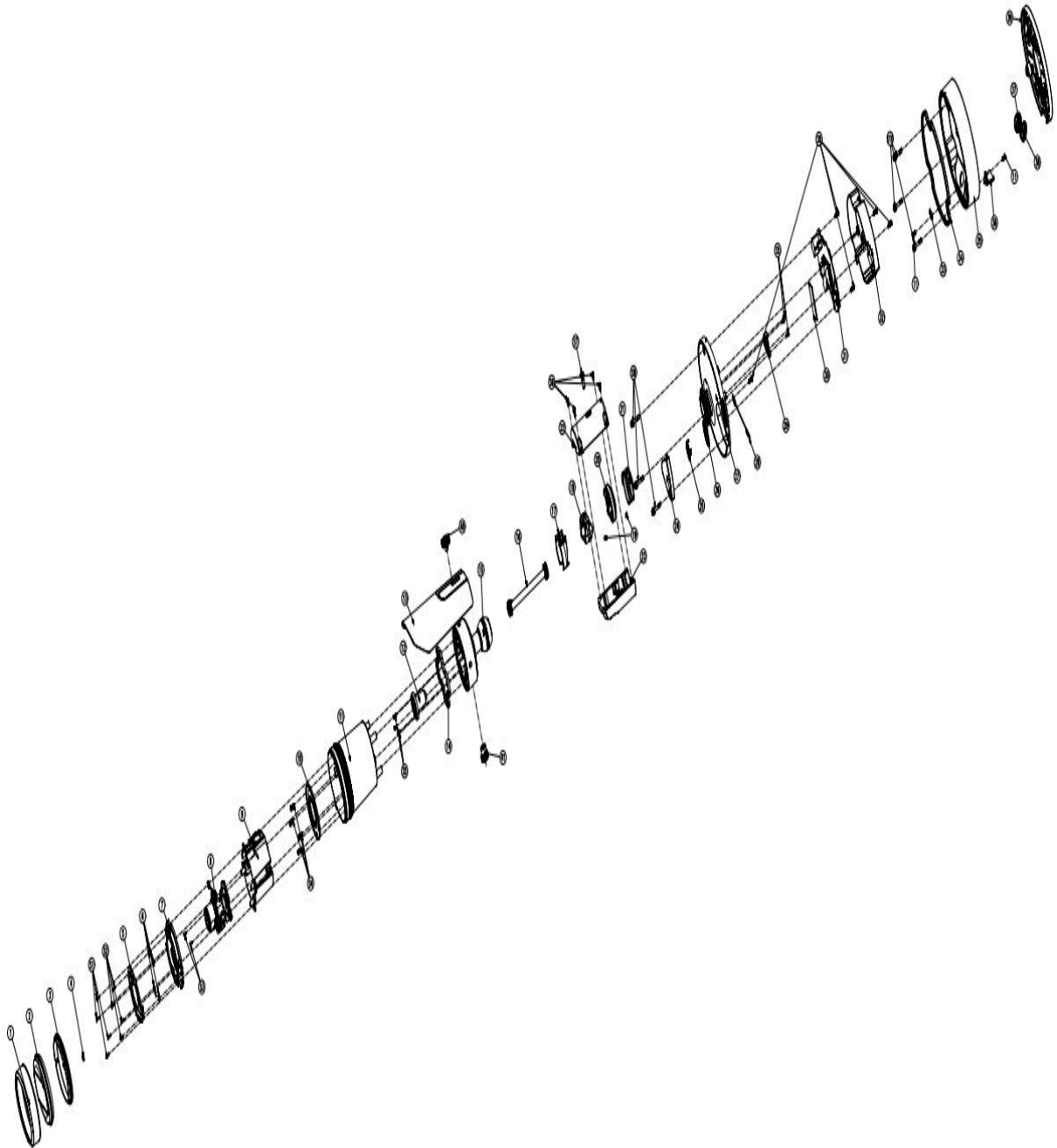




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3.6 Attachment 2 – Parts List

XNO-A9084R			
No.	CODE	NAME	Qty
1	FC15-008242A	COVER FRONT	1
2	AM07-015338B	ASSY FRONT-WINDOW	1
3	HP07-001717A	GASKET WINDOW	1
4	HP07-001640A	GASKET-CDS SENSOR	1
5	AM06-009957A	ASSY,PCB-IR LED (6ea)	1
6	FC28-002128A	PAD-THERMAL,12X8	4
7	EP07-001621A	SINK,HEAT	1
8	AM07-017604A	ASSY-LENS-XNO-A9084R	1
9	FC29-017767A	LENS HOLDER	1
10	FC09-017613A	BRACKET BODY	1
11	FC29-014050B	CASE BODY	1
12	FC15-008257A	COVER BUSHING	1
13	AM07-015812B	ASSY,SHIELD-SUN_HANWHA_XNO-C9083R	1
14	HP07-001637A	GASKET-REAR	1
15	FC04-010011B	BALL BRACKET	1
16	HP13-001217B	TUBE,ETC-CABLE BRACKET_XNO-C9083R;RU	1
17	FC28-003367E	LOCKER FRONT	1
18	FC29-014038C	PUSHER BRACKET	1
19	FC29-014053A	STOPPER PIN	2
20	FC28-003369B	LOCKER REAR	1
21	FC38-001279A	SPRING,COM-BRACKET	1
22	FC29-014039A	CASE-TOP BRACKET	1
23	FC29-014048A	CASE BOTTOM BRACKET	1
24	FC15-011422A	COVER-INTERFACE	1
25	FC15-011423A	COVER-MAIN PCB_XNO-A9084R;PC,-	1
26	HP07-001639A	GASKET DOOR	1

27	FC29-017769A	CASE TOP BACKBOX	1
28	RM01-005941A	WIRE,METALIC-SAFETY;SUS304	1
29	FC15-008240A	COVER BUSHING	1
30	FC28-004202A	THERMAL PAD	1
31	AM06-011687A	ASSY,PCB-XNO-A9084R NETWORK	1
32	FC15-011422A	COVER-INTERFACE_XNO-A9084R;PC,-	1
33	FC09-006670A	BRACKET WIRE;SUS304,1.2	1
34	HP07-001638A	GASKET-BACKBOX	1
35	FC29-014049A	CASE BOTTOM BACK BOX	1
36	FC15-008241A	COVER-CONDUIT	1
37	MC06-001203A	BUSHING-CABLE-FLEXIBLE;SILICON,TUBE T0.5	1
38	MC06-001201A	BUSHING-DUMMY_16MM;RB	1
39	FC09-012507A	BRACKET WALL MOUNT	1
40	FC28-003805A	KNOB-SCREW-SEMS-SUS	1
41	HP06-001351	VENT-GORE-PMF100586-WHT;MEMBRANE,SCREW I	1
S1	Z6003019601A	SCREW-TAPTYPE,M2,L6	4
S2	Z9761208007	TAPPING SCREW(M2,L8)	4
S3	Z6003019601A	SCREW-TAPTITE:PH,+,M2,L6,BLK,B-TYPE	2
S4	Z9642308001	MACHINE SCREW M3,L8	4
S5	Z9642206007	MACHINE SCREW(M2XL6)	6
S6	FC18-001418A	SCREW-TORX10_M3_L8 SUS	4
S7	FC18-006234A	SCREW-TORX-MACHINE	1
S8	FC18-006121A	SCREW MACHINE L20	3
S9	Z9642308001	MACHINE SCREW(M3XL8)	5
S10	FC18-006121A	SCREW-MACHINE;TORX20	3
S11	Z942306007	MACHINE SCREW(M3XL6)	2
CABLE 1	EP02-004928A	HARNESS-XNO-C9083R;WIRE,12P,425MM	1
CABLE 2	EP02-005560A	CABLE-XNO-A(9/8)084R;1:1,MCX,BL,50P-50P,	1

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XNO-A8084R			
No.	CODE	NAME	Qty
1	FC15-008242A	COVER FRONT	1
2	AM07-015338B	ASSY FRONT-WINDOW	1
3	HP07-001717A	GASKET WINDOW	1
4	HP07-001640A	GASKET-CDS SENSOR	1
5	AM06-009957A	ASSY,PCB-IR LED (6ea)	1
6	FC28-002128A	PAD-THERMAL,12X8	4
7	EP07-001621A	SINK,HEAT	1
8	AM07-017623A	ASSY,LENS-XNO-A8084R	1
9	FC29-017768A	LENS HOLDER	1
10	FC09-017613A	BRACKET BODY	1
11	FC29-014050B	CASE BODY	1
W	FC15-008257A	COVER BUSHING	1
13	AM07-015812B	ASSY,SHIELD-SUN_HANWHA_XNO-C9083R	1
14	HP07-001637A	GASKET-REAR	1
15	FC04-010011B	BALL BRACKET	1
16	HP13-001217B	TUBE,ETC-CABLE BRACKET_XNO-C9083R;RU	1
17	FC28-003367E	LOCKER FRONT	1
18	FC29-014038C	PUSHER BRACKET	1
19	FC29-014053A	STOPPER PIN	2
20	FC28-003369B	LOCKER REAR	1
21	FC38-001279A	SPRING,COM-BRACKET	1
22	FC29-014039A	CASE-TOP BRACKET	1
23	FC29-014048A	CASE BOTTOM BRACKET	1
24	FC15-011422A	COVER-INTERFACE	1
25	FC15-011423A	COVER-MAIN PCB_XNO-A9084R;PC,-	1
26	HP07-001639A	GASKET DOOR	1

27	FC29-017769A	CASE TOP BACKBOX	1
28	RM01-005941A	WIRE,METALIC-SAFETY;SUS304	1
29	FC15-008240A	COVER BUSHING	1
30	FC28-004202A	THERMAL PAD	1
31	AM06-011687A	ASSY,PCB-XNO-A9084R NETWORK	1
32	FC15-011422A	COVER-INTERFACE_XNO-A9084R;PC,-	1
33	FC09-006670A	BRACKET WIRE;SUS304,1.2	1
34	HP07-001638A	GASKET-BACKBOX	1
35	FC29-014049A	CASE BOTTOM BACK BOX	1
36	FC15-008241A	COVER-CONDUIT	1
37	MC06-001203A	BUSHING-CABLE-FLEXIBLE;SILICON,TUBE T0.5	1
38	MC06-001201A	BUSHING-DUMMY_16MM;RB	1
39	FC09-012507A	BRACKET WALL MOUNT	1
40	FC28-003805A	KNOB-SCREW-SEMS-SUS	1
41	HP06-001351	VENT-GORE-PMF100586-WHT;MEMBRANE,SCREW I	1
S1	Z6003019601A	SCREW-TAPTYPE,M2,L6	4
S2	Z9761208007	TAPPING SCREW(M2,L8)	4
S3	Z6003019601A	SCREW-TAPTITE:PH,+,M2,L6,BLK,B-TYPE	2
S4	Z9642308001	MACHINE SCREW M3,L8	4
S5	Z9642206007	MACHINE SCREW(M2XL6)	6
S6	FC18-001418A	SCREW-TORX10_M3_L8 SUS	4
S7	FC18-006234A	SCREW-TORX-MACHINE	1
S8	FC18-006121A	SCREW MACHINE L20	3
S9	Z9642308001	MACHINE SCREW(M3XL8)	5
S10	FC18-006121A	SCREW-MACHINE;TORX20	3
S11	Z942306007	MACHINE SCREW(M3XL6)	2
CABLE 1	EP02-004928A	HARNESS-XNO-C9083R;WIRE,12P,425MM	1
CABLE 2	EP02-005560A	CABLE-XNO-A(9/8)084R;1:1,MCX,BL,50P-50P,	1



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Component - Plastics			Yellow Card™	
UL			HN-1068(+)(f1)	
LOTTE CHEMICAL CORPORATION			File Number: E115797	
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
1.5 mm, ALL			V-0	IEC 60695-11-10, -20
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 746A
High Amp Arc Ignition (HAI) (1.5 mm)			PLC 3	UL 746A
Comparative Tracking Index (CTI)			PLC 3	UL 746A
Dielectric Strength			32 kV/mm	ASTM D149
Volume Resistivity			1.0E+17 ohms-cm	ASTM D257
				IEC 60093
Thermal			Value	Test Method
RTI Elec				UL 746B
1.5 mm			130 °C	
3.0 mm			130 °C	
RTI Imp				UL 746B
1.5 mm			130 °C	
3.0 mm			130 °C	
RTI Str				UL 746B
1.5 mm			130 °C	
3.0 mm			130 °C	
Ball Pressure Test (130°C)			Pass	IEC 60695-10-2
Physical			Value	Test Method
Outdoor Suitability			f1	UL 746C

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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.

Form Number: E115797-103587012

Report Date: 5/24/1998

Last Revised: 10/5/2023 12:24:21 AM

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4. Hose Down Test (Clause 5.7)

4.1 Test date and environmental conditions

4.1.1 Test date: Feb. 18, 2025~ Feb. 25, 2025

4.1.2 Measured Environmental Conditions

Item	Temperature (°C)	Humidity (% R.H.)	Pressure (kPa)
Measurement	16.5	40.2	98.1

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

Ø93.4 mm by 293.276 mm, Ø140.47 by 441.07 mm, Ø8*3 by 75.36 mm
Ø25*2 by 157 mm, 36 mm, 58 mm, 47 mm, Ø5*3 by 47.1 mm, Ø15.6 by 48.98 mm
Test Duration = 200.63 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



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4.3 Attachment 3 – Photographs

4.3.1 Hose down test



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5. Test result

5.1 Test result table

Sample No (Model)	Water Flow	Presence of water inside	Result
XNO-A9084R	240 LPM	No	Nomal

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

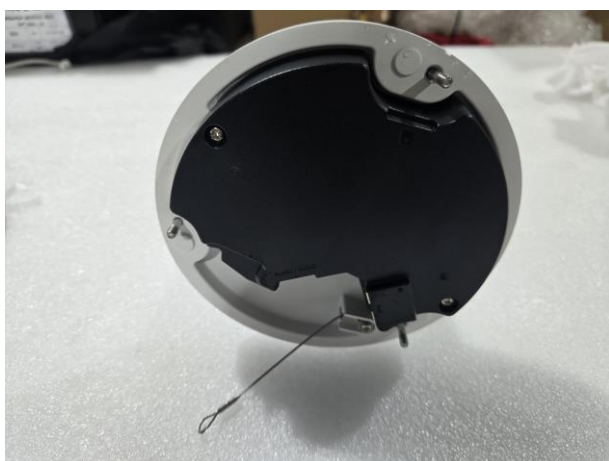


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5.2 Post-test product images



- End -