

Technical Report No.: 68140260369901

Date: 2026-07-10

Client: Name: AOK Industrial Company Limited
Address: 1/F of 1#Building, East Block of 3/F of Building 1, And 2/F of Building 4, ST George's Science and Technology Industrial Park, Northside of Xinyu Road, Xiangshan Community, Xinqiao Street Baoan District, 518000 Shenzhen, Guangdong, PEOPLE'S REPUBLIC OF CHINA

Manufacturer: Name: Same as client
Address: Same as client

Factory: Name: Same as client
Address: Same as client

Test object: Product: Luminaires for road and street lighting (LED Street Light)

Model: AOK-ZWiLH(S)-NV-A5-BB-XXYY-BN-P;
AOK-ZWiLH(M)-NV-A5-BB-XXYY-BN-P;
AOK-ZWiLH(L)-NV-A5-BB-XXYY-BN-P;
AOK-ZWiLH(XL)-NV-A5-BB-XXYY-BN-P;
AOK-ZWiLH(XXL)-NV-A5-BB-XXYY-BN-P;
AOK-ZWiLH(S)-NV-L2-BB-XXYY-BN-P;
AOK-ZWiLH(M)-NV-L2-BB-XXYY-BN-P;
AOK-ZWiLH(L)-NV-L2-BB-XXYY-BN-P;
AOK-ZWiLH(XL)-NV-L2-BB-XXYY-BN-P;
AOK-ZWiLH(XXL)-NV-L2-BB-XXYY-BN-P;
AOK-ZWiLH(S)-NV-L3-BB-XXYY-BN-P;
AOK-ZWiLH(M)-NV-L3-BB-XXYY-BN-P;
AOK-ZWiLH(L)-NV-L3-BB-XXYY-BN-P;
(‘Z’ stands for Rated Power, can be 10-300, in steps of 1W, e.g. 10=10W, 300=300W;
‘BB’ stands for whether with NEMA socket & short-circuit cap and Zhaga socket & sealing cap, can be 00, PH and SN, 00=without NEMA socket & short-circuit cap and Zhaga socket & sealing cap, PH=with NEMA socket & short-circuit cap, SN=with Zhaga socket & sealing cap;
‘XX’ stands for CCT of LED, can be 27, 30, 35, 40, 50, 57 and 65, 27=2700K, 30=3000K, 35=3500K, 40=4000K, 50=5000K, 57=5700K, 65=6500K;
‘YY’ stands for CRI (color rendering index), can be 70, 80 and 90, 70=Ra: 70, 80=Ra: 80, 90=Ra: 90)

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Trade mark:



Test specification: IP66 test according to cl. 11.2.3 and 11.2.9 of IEC 60598-1:2024 and EN IEC 60598-1:2024+A11:2024

Purpose of examination:

- Testing and evaluation according to the test specification

Test result: The test results show that the presented products are in compliance with the above listed test specifications.

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1. Description of the test object

1.1 Picture(s)

See 'Appendix 2 Photo document' for details

1.2 Function

Manufacturer's specification for intended use:
Fixed for outdoor use only.

1.3 Consideration of the foreseeable use

- ☐ Not applicable
- ☒ Covered through the applied standard
- ☐ Covered by the following comment*
- ☐ Covered by attached risk analysis

*

1.4 Technical Data

Luminaires for road and street lighting (LED Street Light)

Rated Input : 220-240VAC; 50/60Hz
Rated Power : See 'Appendix 1 Model list' for details
Degree of Protection : IP66

2. Order

2.1 Date of Purchase Order, Customer's Reference

2026-03-30

2.2 Test Sample(s)

- Reception date(s): 2026-03-30
- Location(s) of reception: TÜV SÜD Certification and Testing (China) Co., Ltd.
Shenzhen Branch
Building 6, 12 & 13, Zhiheng Wisdomland Business
Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong 518052, China
- Condition of test sample(s): Good

2.3 Testing

- Testing date(s): 2026-03-30 to 2026-07-10

- Location(s) of testing: TÜV SÜD Certification and Testing (China) Co., Ltd.
Shenzhen Branch
Building 6, 12 & 13, Zhiheng Wisdomland Business
Park, Guankou Erlu, Nantou, Nanshan District,
Shenzhen, Guangdong 518052, China

2.4 Points of Non-Compliance or Exceptions of the Test Procedure

- None

3. Test Results

- Decision rule according to IEC Guide 115:2023, clause 4.3.3 Simple acceptance was applied.

3.1 Positive Test Results

IP6X test (clause 11.2.3 of IEC/EN IEC 60598-1)

Test condition:

- The luminaire is suspended outside the dust chamber and operated at rated supply voltage until operating temperature is achieved.
- The luminaire, whilst still operating, is placed with the minimum disturbance in the dust chamber.
- The door of the dust chamber is closed.
- The fan/blower causing the talcum powder to be in suspension is switched on.
- After 1 min, the luminaire is switched off and allowed to cool for 3 h whilst the talcum powder remains in suspension.

Test apparatus:

- Dust chamber similar to that shown in Figure 40 of IEC 60598-1.
- The chamber shall contain 2 kg of powder for every cubic metre of its volume. The talcum powder used shall be able to pass through a square-meshed sieve whose nominwire diameter is 50µm and whose nominal free distance between wires is 75µm.
- The talcum powder shall not have been used for more than 20 tests.
- Talcum powder is maintained in suspension by an air current.

Test Result: Pass.

After test, the luminaires can withstand the electric strength test and there was no deposit of talcum powder inside enclosures of luminaires.

IPX6 test (clause 11.2.9 of IEC/EN IEC 60598-1)

Test condition:

- The luminaires are mounted in normal use and placed in the most unfavourable position, the water for the test is at a temperature of 15°C ±10°C.

- b) The luminaire complete with lamp is switched on and brought to stable operating temperature at rated voltage.
- c) The luminaire is switched off and immediately subjected to a water jet for 3min from all directions by means of a hose having a nozzle with the shape and dimensions shown in Figure 42 of IEC/EN IEC 60598-1, the nozzle is held 3m away from the sample.
- d) The water pressure at the nozzle is adjusted to achieve a water flow rate of 100l/min $\pm$ 5% (approximately 100kN/m²).

Test Result: Pass.

After test, the luminaire can withstand the electric strength test and there is no water entry into the luminaire.

3.2 Points of Non-Compliance according to the test specification

- None

4. Test History

- None

5. Remarks

All models have similar construction.

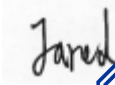
Models AOK-300WiLH(XXL)-NV-A5-PH-6570-BN-P (Construction: with NEMA socket & short-circuit cap) and AOK-300WiLH(XXL)-NV-A5-SN-6570-BN-P (Construction: with Zhaga socket & sealing cap) were chosen as representative models to perform this test.

6. Summary

The test specifications are met.

TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch TÜV SÜD Group

Tested by:


Jared Jiang, Project Handler

Approved by:


Sunny Yan, Designated Reviewer



Appendix 1 Model list:

Model No.	'Z' can be 10 to 300 which stands for Rated Power 10W to 300W, in steps of 1W	Rated Power (W)	LED driver			LED type	Size (mm)	Weight (kg)	Max. projected area (m ²)
AOK-ZWiLH(S)-NV-A5-BB-XXYY-BN-P	Z=10 to 30	10-30	EUM-030S050DG	SS-40NH-V300BB	SS-40PA-H80F	TYF 5050	545*200*97	3,0	0,091
	Z=31 to 40	31-40	EUM-050S090DG	SS-40NH-V300BB	SS-40PA-H80F				
	Z=41 to 50	41-50	EUM-050S090DG	SS-60NH-V300BB or SS-100NH-V300BHB	SS-60PA-H120F				
	Z=51 to 60	51-60	EUM-075S053DG	SS-60NH-V300BB or SS-100NH-V300BHB	SS-60PA-H120F				
	Z=61 to 70	61-70	EUM-075S053DG	SS-70NH-V300BB or SS-100NH-V300BHB	SS-80PA-H160F				
	Z=71 to 80	71-80	EUM-100S053DG	SS-80NH-V300BHB or SS-100NH-V300BHB	SS-80PA-H160F				
	Z=81 to 100	81-100	EUM-100S053DG	SS-100NH-V300BHB	SS-120PA-H240F				
AOK-ZWiLH(M)-NV-A5-BB-XXYY-BN-P	Z=101 to 120	101-120	EUM-150S070DG	SS-150NH-V300BHB	SS-120PA-H240F		559*220*97	3,4	0,1
	Z=121 to 150	121-150	EUM-150S070DG	SS-150NH-V300BHB	SS-165PA-H330F		609*235*97	4,0	0,12
AOK-ZWiLH(L)-NV-A5-BB-XXYY-BN-P	Z=121 to 150	121-150	EUM-150S070DG	SS-150NH-V300BHB	SS-165PA-H330F				
	Z=151 to 160	151-160	EUM-200S070DG	SS-200NH-V300BHB	SS-165PA-H330F		609*280*100	5,4	0,143
AOK-ZWiLH(XL)-NV-A5-BB-XXYY-BN-P	Z=161 to 200	161-200	EUM-200S070DG	SS-200NH-V300BHB	SS-220PA-314F				
	Z=161 to 200	161-200	EUM-200S070DG	SS-200NH-V300BHB	SS-220PA-314F		730*300*100	7,1	0,19
AOK-ZWiLH(XXL)-NV-A5-BB-XXYY-BN-P	Z=201 to 240	201-240	EUM-240S070DG	SS-240NH-V300BHB	SS-120PA-H240F (2pcs)				
	Z=201 to 240	201-240	EUM-240S070DG	SS-240NH-V300BHB	SS-120PA-H240F (2pcs)				
AOK-ZWiLH(S)-NV-L2-BB-XXYY-BN-P	Z=241 to 300	241-300	EUM-320S105DG	SS-320NH-V300BHB	SS-165PA-H330F (2pcs)	Lumileds 2835	545*200*97	3,0	0,091
	Z=10 to 30	10-30	EUM-030S050DG	SS-40NH-V300BB	SS-40PA-H80F				
	Z=31 to 40	31-40	EUM-050S090DG	SS-40NH-V300BB	SS-40PA-H80F				
	Z=41 to 50	41-50	EUM-050S090DG	SS-60NH-V300BB or SS-100NH-V300BHB	SS-60PA-H120F				
	Z=51 to 60	51-60	EUM-075S053DG	SS-60NH-V300BB or SS-100NH-V300BHB	SS-60PA-H120F				
	Z=61 to 70	61-70	EUM-075S053DG	SS-70NH-V300BB or SS-100NH-V300BHB	SS-80PA-H160F				

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	Z=71 to 80	71-80	EUM-100S053DG	SS-80NH-V300BHB or SS-100NH-V300BHB	SS-80PA-H160F							
	Z=81 to 100	81-100	EUM-100S053DG	SS-100NH-V300BHB	SS-120PA-H240F							
AOK-ZWiLH(M)-NV-L2-BB-XXYY-BN-P	Z=101 to 120	101-120	EUM-150S070DG	SS-150NH-V300BHB	SS-120PA-H240F					559*220* 97	3,4	0,1
	Z=121 to 150	121-150	EUM-150S070DG	SS-150NH-V300BHB	SS-165PA-H330F							
AOK-ZWiLH(L)-NV-L2-BB-XXYY-BN-P	Z=121 to 150	121-150	EUM-150S070DG	SS-150NH-V300BHB	SS-165PA-H330F					609*235* 97	4,0	0,12
	Z=151 to 160	151-160	EUM-200S070DG	SS-200NH-V300BHB	SS-165PA-H330F							
	Z=161 to 200	161-200	EUM-200S070DG	SS-200NH-V300BHB	SS-220PA-314F							
AOK-ZWiLH(XL)-NV-L2-BB-XXYY-BN-P	Z=161 to 200	161-200	EUM-200S070DG	SS-200NH-V300BHB	SS-220PA-314F					609*280* 100	5,4	0,143
	Z=201 to 240	201-240	EUM-240S070DG	SS-240NH-V300BHB	SS-120PA-H240F (2pcs)							
AOK-ZWiLH(XXL)-NV-L2-BB-XXYY-BN-P	Z=201 to 240	201-240	EUM-240S070DG	SS-240NH-V300BHB	SS-120PA-H240F (2pcs)	730*300* 100	7,1	0,19				
	Z=241 to 300	241-300	EUM-320S105DG	SS-320NH-V300BHB	SS-165PA-H330F (2pcs)							
AOK-ZWiLH(S)-NV-L3-BB-XXYY-BN-P	Z=10 to 30	10-30	EUM-030S050DG	SS-40NH-V300BB	SS-40PA-H80F	LUXEON 3030 2D	545*200* 97	3,0	0,091			
	Z=31 to 40	31-40	EUM-050S090DG	SS-40NH-V300BB	SS-40PA-H80F							
	Z=41 to 50	41-50	EUM-050S090DG	SS-60NH-V300BB or SS-100NH-V300BHB	SS-60PA-H120F							
	Z=51 to 60	51-60	EUM-075S053DG	SS-60NH-V300BB or SS-100NH-V300BHB	SS-60PA-H120F							
	Z=61 to 70	61-70	EUM-075S053DG	SS-70NH-V300BB or SS-100NH-V300BHB	SS-80PA-H160F							
	Z=71 to 80	71-80	EUM-100S053DG	SS-80NH-V300BHB or SS-100NH-V300BHB	SS-80PA-H160F							
	Z=81 to 100	81-100	EUM-100S053DG	SS-100NH-V300BHB	SS-120PA-H240F							
AOK-ZWiLH(M)-NV-L3-BB-XXYY-BN-P	Z=101 to 120	101-120	EUM-150S070DG	SS-150NH-V300BHB	SS-120PA-H240F					559*220* 97	3,4	0,1
	Z=121 to 150	121-150	EUM-150S070DG	SS-150NH-V300BHB	SS-165PA-H330F							
AOK-ZWiLH(L)-NV-L3-BB-XXYY-BN-P	Z=121 to 150	121-150	EUM-150S070DG	SS-150NH-V300BHB	SS-165PA-H330F	609*235* 97	4,0	0,12				

Remark 1: 'Z' stands for Rated Power, can be 10-300, in steps of 1W, e.g. 10=10W, 300=300W;

'BB' stands for whether with NEMA socket & short-circuit cap and Zhaga socket & sealing cap, can be 00, PH and SN, 00=without NEMA socket & short-circuit cap and Zhaga socket & sealing cap, PH=with NEMA socket & short-circuit cap, SN=with Zhaga socket & sealing cap;
'XX' stands for CCT of LED, can be 27, 30, 35, 40, 50, 57 and 65, 27=2700K, 30=3000K, 35=3500K, 40=4000K, 50=5000K, 57=5700K, 65=6500K;

'YY' stands for CRI (color rendering index), can be 70, 80 and 90, 70=Ra: 70, 80=Ra: 80, 90=Ra: 90.

Remark 2: LED types TYF 5050, Lumileds 2835 and LUXEON 3030 2D stand for different LED type; TYF 5050=TS1-H50FL-1001BC, Lumileds 2835= L128-AABBRC3500DDD, LUXEON 3030 2D=L130-AABB003000C2D

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Appendix 2 Photo document

Details of: Front view for AOK-300WiLH(XXL)-NV-A5-00-6570-BN-P (Representative model)

Remark:

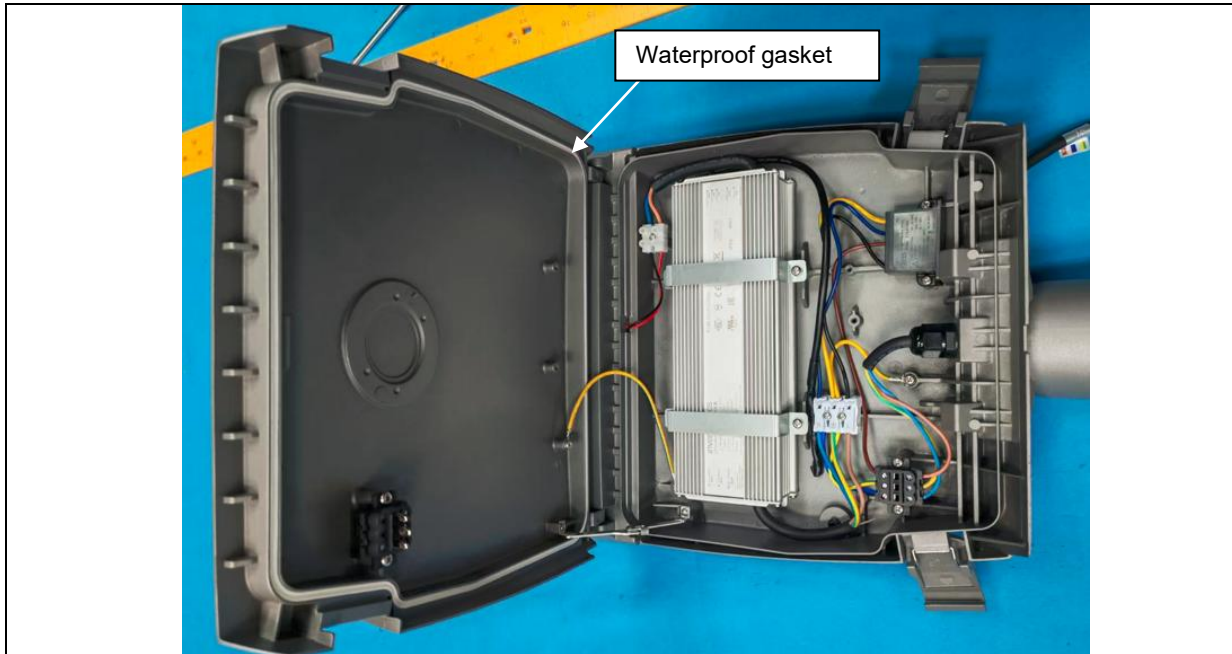


Details of: Back view for AOK-300WiLH(XXL)-NV-A5-00-6570-BN-P (Representative model)

Remark:



Details of: Internal view for AOK-300WiLH(XXL)-NV-A5-00-6570-BN-P (Representative model)
 Remark:



Details of: Internal view for AOK-300WiLH(XXL)-NV-A5-00-6570-BN-P (Representative model)
 Remark:



Details of: Internal view for AOK-300WiLH(XXL)-NV-A5-00-6570-BN-P (Representative model)
 Remark:



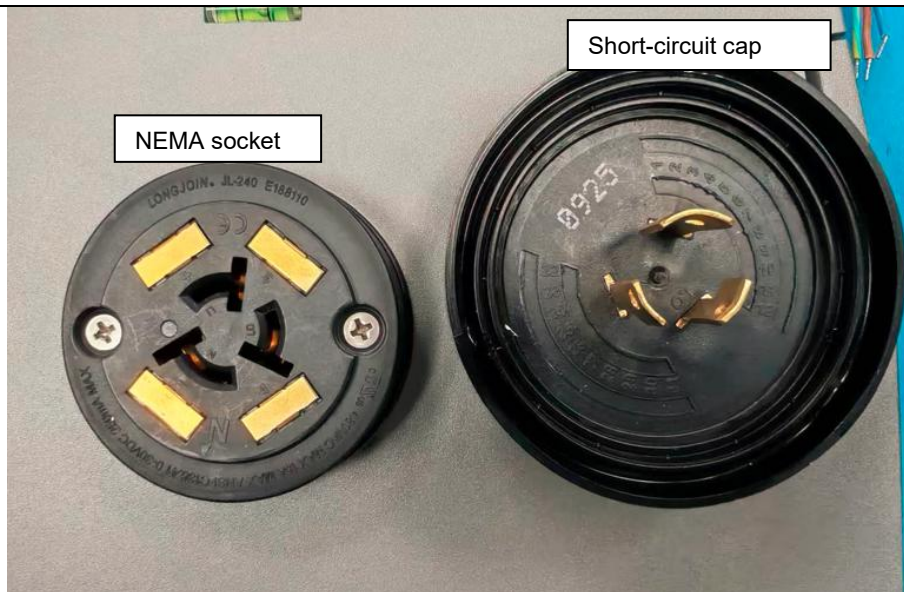
Details of: Front view for AOK-300WiLH(XXL)-NV-A5-PH-6570-BN-P (Representative model)
 Remark:



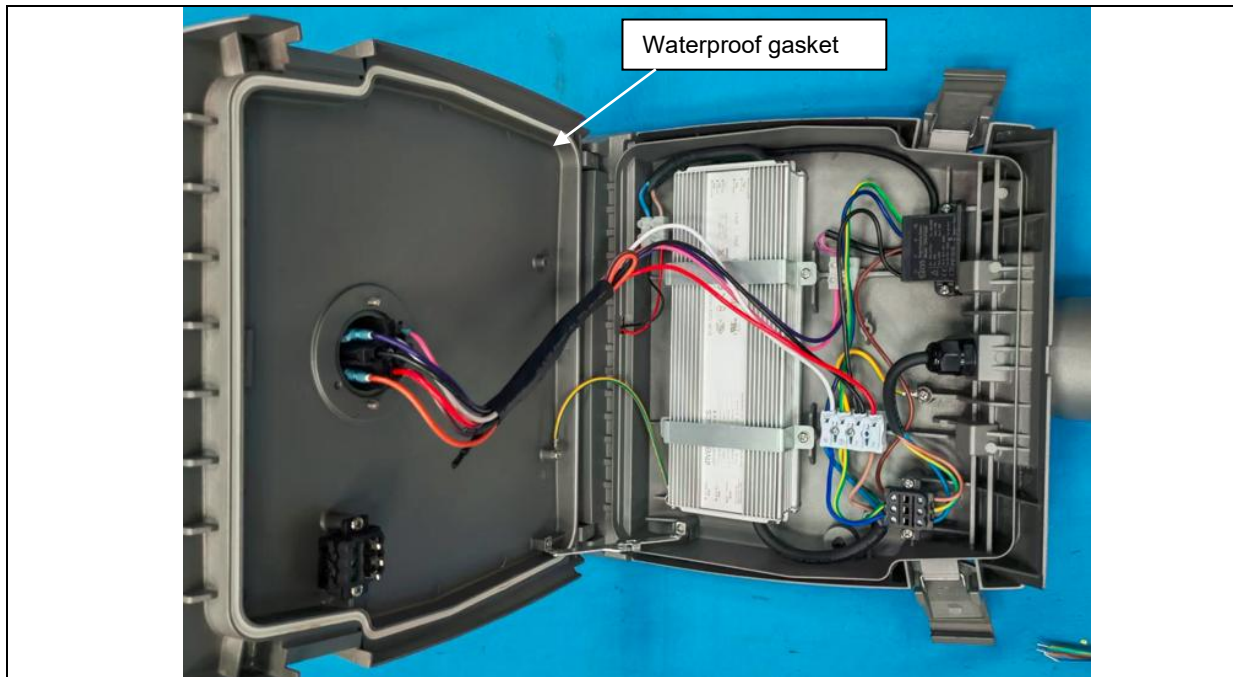
Details of: Back view for AOK-300WiLH(XXL)-NV-A5-PH-6570-BN-P (Representative model)
 Remark:



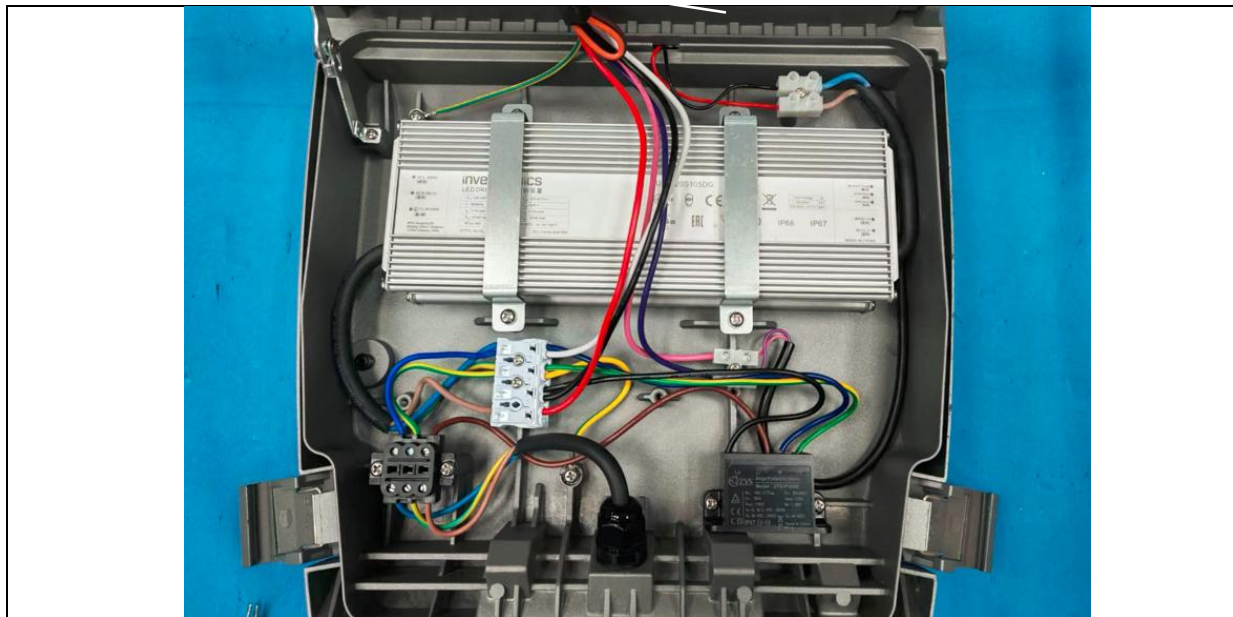
Details of: Internal view of NEMA socket after removing short-circuit cap for AOK-300WiLH(XXL)-NV-A5-PH-6570-BN-P (Representative model)
 Remark:



Details of: Internal view for AOK-300WiLH(XXL)-NV-A5-PH-6570-BN-P (Representative model)
 Remark:



Details of: Internal view for AOK-300WiLH(XXL)-NV-A5-PH-6570-BN-P (Representative model)
 Remark:



Details of: Internal view for AOK-300WiLH(XXL)-NV-A5-PH-6570-BN-P (Representative model)
Remark:



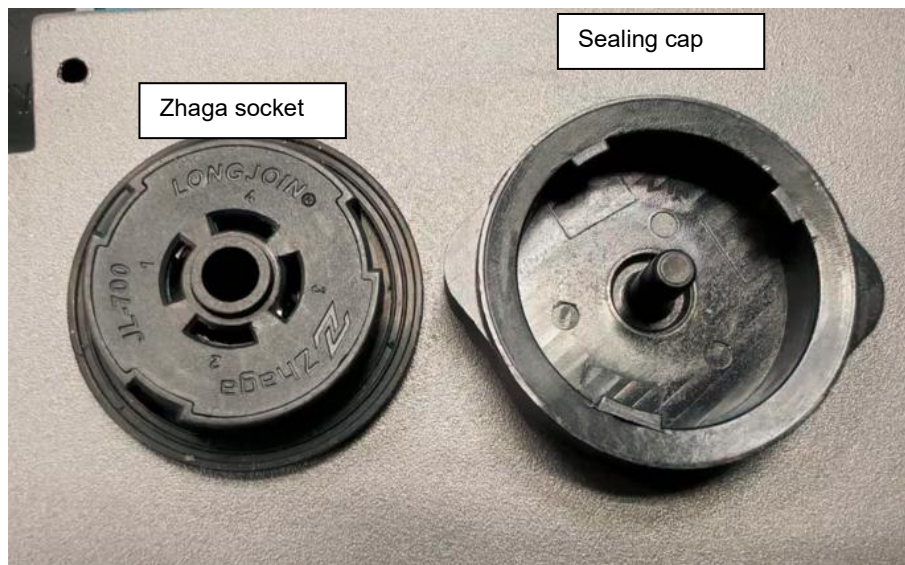
Details of: Front view for AOK-300WiLH(XXL)-NV-A5-SN-6570-BN-P (Representative model)
Remark:



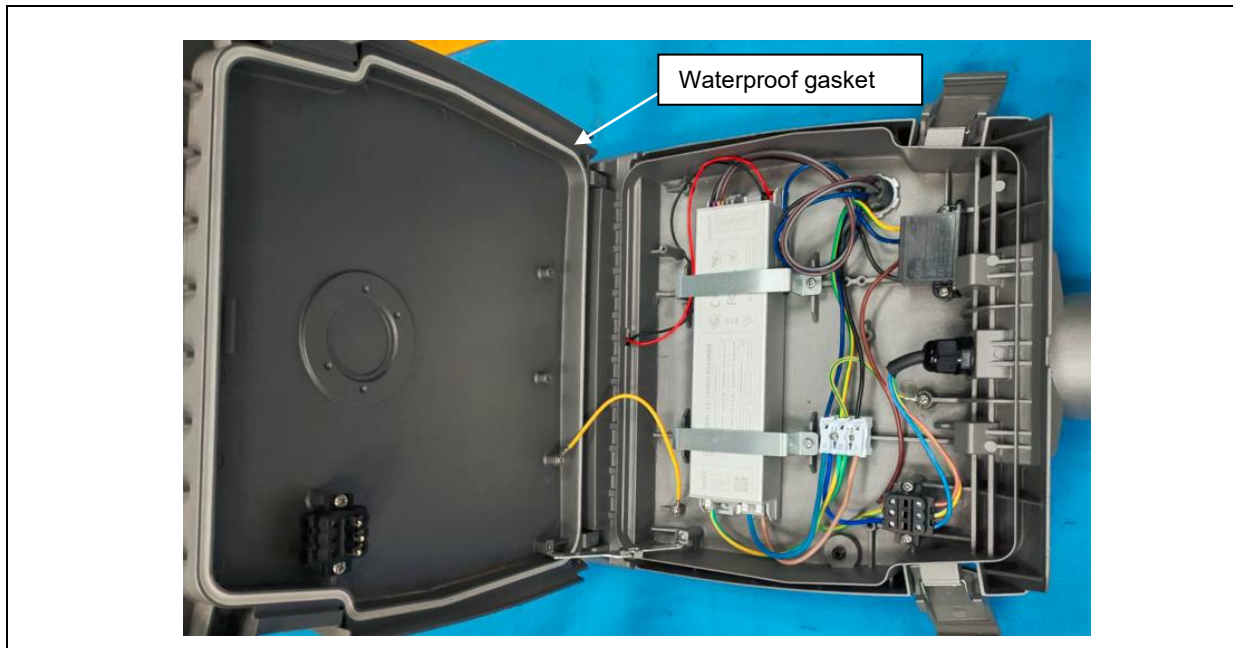
Details of: Back view for AOK-300WiLH(XXL)-NV-A5-SN-6570-BN-P (Representative model)
 Remark:



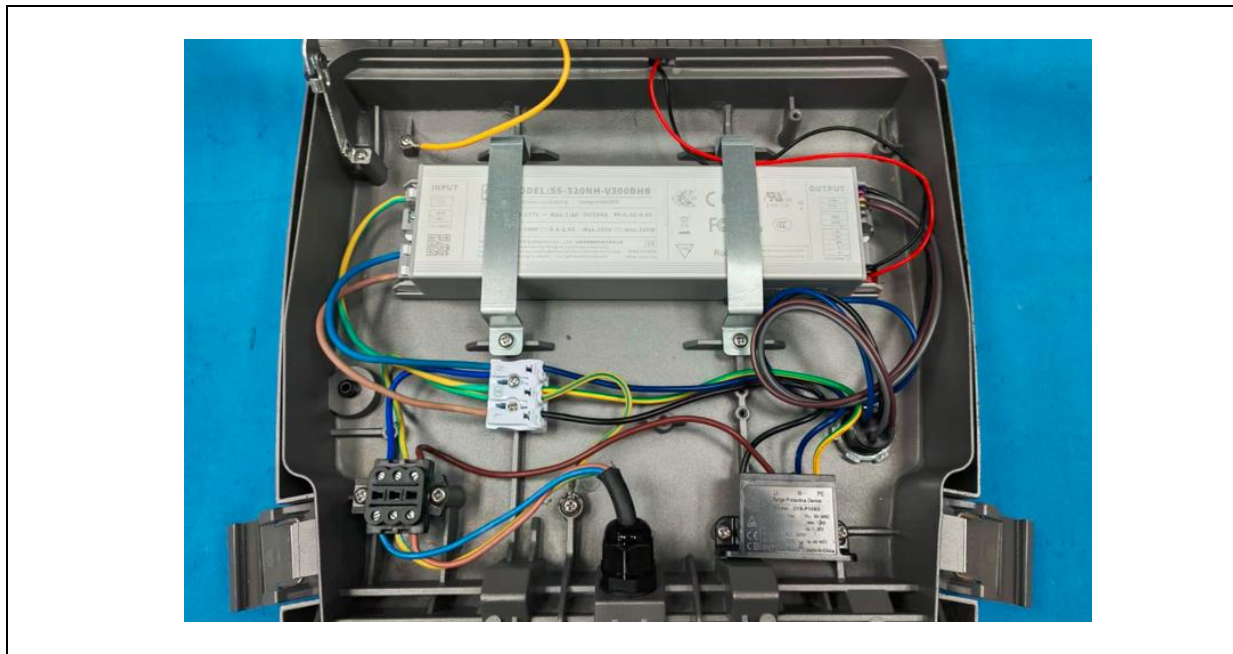
Details of: Internal view of Zhaga socket after removed sealing cap for AOK-300WiLH(XXL)-NV-A5-SN-6570-BN-P (Representative model)
 Remark:



Details of: Internal view for AOK-300WiLH(XXL)-NV-A5-SN-6570-BN-P (Representative model)
 Remark:



Details of: Internal view for AOK-300WiLH(XXL)-NV-A5-SN-6570-BN-P (Representative model)
 Remark:



Details of: Internal view for AOK-300WiLH(XXL)-NV-A5-SN-6570-BN-P (Representative model)
 Remark:



Details of: Internal view for AOK-300WiLH(XXL)-NV-A5-SN-6570-BN-P (Representative model)
 Remark:



Waterproof
gasket

Details of: LED module view for AOK-300WiLH(XXL)-NV-A5-SN-6570-BN-P (Representative model)

Remark:



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