

NEXT METERS GLOBAL, LLC TEST REPORT

SCOPE OF WORK

UL 2043, FOURTH EDITION, DATED OCTOBER 2, 2013, FIRE TEST FOR HEAT AND VISIBLE SMOKE RELEASE FOR DISCRETE PRODUCTS AND THEIR ACCESSORIES INSTALLED IN AIR-HANDLING SPACES ON NEXTMETER NM-4-I

REPORT NUMBER

105359430SAT-001

TEST DATE

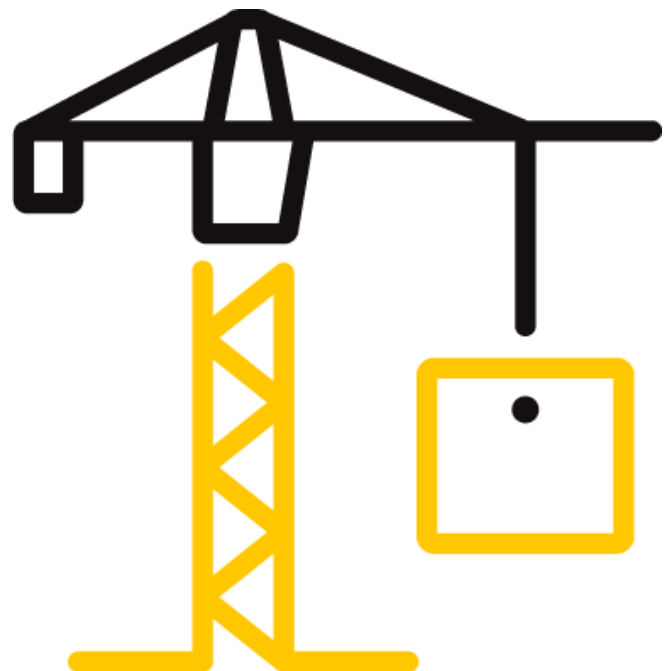
03/07/2023

ISSUE DATE

03/08/2023

PAGES

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TEST REPORT FOR BIAMP SYSTEMS LLC

Report No.: 105359430SAT-001

Date: 03/08/2023

REPORT ISSUED TO

NEXT METERS GLOBAL, LLC

517 W 100 N #105

Providence, UT 84322

SECTION 1

SCOPE

Intertek Building & Construction (B&C) was contracted by NEXT METERS GLOBAL, LLC to perform testing in accordance with UL 2043, Fourth Edition, dated October 2, 2013, Fire test for Heat and Visible Smoke Release for Discrete Products and Their Accessories Installed in Air-Handling Spaces, on their NEXTMETER NM-4-I. Results obtained are tested values and were secured by using the designated test method. Testing was conducted at Intertek B&C test facility in Elmendorf, Texas. This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.


Unless differently required, Intertek reports apply the "Simple Acceptance" rule also called "Shared Risk approach," of ILAC-G8:09/2019, Guidelines on Decision Rules and Statements of Conformity.

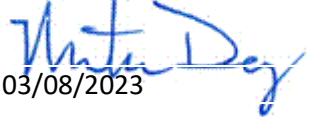
SECTION 2

SUMMARY OF TEST RESULTS

Test Run	Specimen Model	RESULTS
1	NEXTMETER NM-4-I	MET
2	NEXTMETER NM-4-I	MET

For INTERTEK B&C:

COMPLETED BY: Theodore Salazar
TITLE: Technician 3
SIGNATURE: 
DATE: 03/08/2023

REVIEWED BY: Michael Dey
TITLE: Project Engineer
SIGNATURE: 
DATE: 03/08/2023

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SECTION 3

TEST METHOD(S)

The specimen was evaluated in accordance with the following:

UL 2043, FOURTH EDITION, DATED OCTOBER 2, 2013, FIRE TEST FOR HEAT AND VISIBLE SMOKE RELEASE FOR DISCRETE PRODUCTS AND THEIR ACCESSORIES INSTALLED IN AIR-HANDLING SPACES

This test method is for determining the fire performance response of discrete products (including, but not limited to electrical equipment) intended to be installed in air handling spaces, such as above suspended ceilings or below floors. These products are subjected to an open flame ignition source and evaluated using a product calorimeter. The purpose of this test is to determine the rate of heat release and the rate of smoke release of the burning product samples as they relate to the requirements for fire-resistant and low-smoke-producing characteristics in accordance with the provisions of the following codes: National Electric Code, NFPA 70; the International Mechanical Code, NFPA 5000; and the Standard for the Installation of Air Conditioning and Ventilating Systems, NFPA 90A.

SECTION 4

LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Theodore Salazar	Intertek B&C

SECTION 5

TEST PROCEDURE

All instrumentation was zeroed and calibrated prior to testing. The test specimen, after conditioning to 73°F and 50% R.H., was placed on the specified test frame / enclosure. The 12" x 12" x 4" propane test burner was centered under the specimen and the test was started. The test specimen is exposed to a direct flame impingement with a heat release rate of 60 kW (92 cubic feet per hour). The test was conducted for 10 minutes at which time the gas burner is shut off.

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SECTION 6

TEST SPECIMEN SELECTION AND DESCRIPTION

Samples were submitted to Intertek directly from the client. Samples were not independently selected for testing. The samples consisted of 2 Ultrasonic Water Metering Device.

Samples, in good condition, were received at the Evaluation Center on March 2, 2023.
(SAT2303021619-001)

SECTION 7

TEST AND OBSERVATIONS RESULTS

Test Run – 1

The specimen was placed in the test enclosure and tested at 12:18 p.m. on March 7, 2023. The ambient temperature was 75°F, with a relative humidity of 63%. The data recorded includes Smoke Release Rate (SRR), Heat Release Rate (HRR). The acceptance criteria data was calculated from these values using the formulas in UL 2043 Section 7.

Observations during the test were recorded. The observations are as follows:

TIME (min:sec)	OBSERVATION
0:00	The 60-kW propane burner was ignited.
0:25	Melting was visible.
1:21	Smoke was visible.
10:00	Propane burner was turned off. Test Terminated.

Test Run – 2

The specimen was placed in the test enclosure and tested at 12:54 p.m. on March 7, 2023. The ambient temperature was 74°F, with a relative humidity of 60%. The data recorded includes Smoke Release Rate (SRR), Heat Release Rate (HRR). The acceptance criteria data was calculated from these values using the formulas in UL 2043 Section 7.

Observations during the test were recorded. The observations are as follows:

TIME (min:sec)	OBSERVATION
0:00	The 60-kW propane burner was ignited.
0:31	Melting was visible.
0:39	Smoke was visible.
10:00	Propane burner was turned off. Test Terminated.

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SECTION 8

EVALUATION RESULTS AND CONCLUSION

ITEM	RESULTS	
	Run 1	Run 2
Peak rate of heat release (HRR _s)	8 kW	6 kW
Peak rate of smoke release (SRR _s)	0.09 m ² /s	0.08 m ² /s
Total smoke released for first 10 minutes (TSR)	14 m ²	5 m ²
Peak normalized optical density*	0.20	0.19
Average normalized optical density (for first 10 minutes)	0.05	0.02
Results (Passed / Failed)	Passed	Passed

(*Informational data only, not used for acceptance criteria)

ACCEPTANCE CRITERIA

1. The peak rate of heat release (HRR_s) measured during each test shall be 100 kilowatts or less.
2. The peak smoke release rate measured during each test shall be 0.21 m²/s or less, SRRs.
3. The total smoke release (10-minute test duration) shall be 75 m² or less, TSR.

Intertek Testing Services NA (Intertek) has conducted testing for NEXT METERS GLOBAL, LLC, on the NEXTMETER NM-4-I to evaluate heat and smoke release. Testing was conducted in accordance with UL 2043, Fourth Edition, dated October 2, 2013, Fire test for Heat and Visible Smoke Release for Discrete Products and Their Accessories Installed in Air-Handling Spaces.

The conclusions of this test report may not be used as part of the requirements for Intertek product certification. Authority to Mark must be issued for a product to become certified.



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REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	03/08/2023	N/A	Original Report Issue