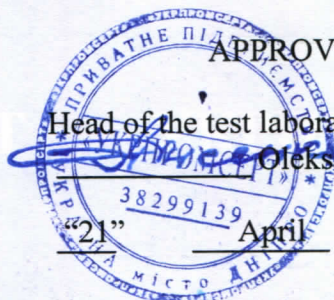




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УПС № 02709



APPROVED BY

Head of the test laboratory

Oleksandr RYSENKO

2025

TEST REPORT No. UPS 56/312-5-25

DATE: April 21, 2025

The testing laboratory of the private enterprise Ukrpromsert conducted tests on the Ventoxx Harmony Smart supply and exhaust ventilation system with heat recovery (and its modifications: Ventoxx Harmony Smart Slim Line and Ventoxx Harmony Smart Invisible).

Applicant VENTOXX LLC, Geroiv Kharkova av. 142, Kharkiv

The tests were carried out based on the letter of application from VENTOXX LLC
No. 10042025-01_ME dated April 21, 2025

Manufacturer VENTOXX LLC, Kharkiv, Ukraine

Sample receiving date and their registration numbers April 10, 2025
reg. No. UPS 56/1-5 – Ventoxx Harmony Smart supply and exhaust ventilation system with heat
recovery (and its modifications: Ventoxx Harmony Smart Slim Line, Ventoxx Harmony Smart
Invisible).

Test procedure is set according to:
DSTU EN 13141-8:2023 (EN 13141-8: 2022, IDT) Ventilation for buildings - Performance testing
of components/products for residential ventilation - Part 8: Performance testing of non-ducted
mechanical supply and exhaust ventilation units (including heat recovery)

Quantity and factory number of specimens 1 pc, no serial number

Testing period April 10, 2025 – April 21, 2025

Test performed by Testing laboratory of the private enterprise Ukrpromsert, Academician
Belelyubsky Street 70, Dnipro, Ukraine

Test condition:

The ambient temperature	<u>19 - 20</u>	<u>°C</u>
Atmospheric pressure	<u>99,5 – 100,8</u>	<u>kPa</u>
Relative humidity	<u>58 - 59</u>	<u>%</u>

The sample was tested for compliance with the following indicators:

- Productivity (m³/h);
- Efficiency coefficient (percentage of heat recovery);
- Noise level of operating equipment at distances of 1 m and 3 m (dBA).

Test Results:

By its nature, the Ventoxx Harmony Smart supply and exhaust ventilation system with heat recovery (and its modifications: Ventoxx Harmony Smart Slim Line, Ventoxx Harmony Smart Invisible) is a compact ventilation unit installed into the wall of a house or apartment. It automatically refreshes the indoor air while preserving the heat already present in the rooms.

High operational efficiency and reliability of the product are ensured by:

- continuous air exchange with closed windows and without human intervention;
- reliable elimination of mold and stale air by removing excess moisture;
- energy savings due to the absence of a need to reheat the room after ventilation;
- filtration of fresh air from dust, exhaust gases, and dirt before it enters the home;
- significant reduction of outdoor noise.

Operation of the Ventoxx Harmony Smart supply and exhaust ventilation system with heat recovery (and its modifications: Ventoxx Harmony Smart Slim Line, Ventoxx Harmony Smart Invisible) step by step:

- used air is drawn into the recuperator by the fan, passes through the heat exchanger, and transfers most of its heat to it (heat exchange effect), after which the air is discharged outside;
- after one minute, the heat exchanger is warmed to room temperature. At this point, the fan automatically switches direction, and fresh air is drawn into the room;
- as the fresh air passes through the warmed heat exchanger, it absorbs as much heat as possible from it and warms up to nearly room temperature, while the heat exchanger gradually cools down;
- after one minute, the fan changes direction again, and the cycle repeats.

The actual values of air exchange efficiency, heat recovery rate, and noise level of the operating equipment obtained during the tests are presented in Table 1.

Table 1.

Actual values of the obtained parameters

Indicator name	1st speed	2nd speed	3rd speed
Productivity, m ³ /h	17	30	50
Heat recovery percentage (Efficiency), %	95	88	78
Noise level at a distance of 3 m, dBA	13	17	22
Noise level at a distance of 1 m, dBA	22	27	30

Conclusions:

- The Ventoxx Harmony Smart supply and exhaust ventilation system with heat recovery (and its modifications: Ventoxx Harmony Smart Slim Line, Ventoxx Harmony Smart Invisible):
1. Provides high, economically and technologically justified parameters for ventilation volume (supply, exhaust) and allows adjustment of air exchange efficiency from 17 to 50 m³/h.
 2. Generates airflows at the outlet that make it possible to widely use the ventilation system in rooms of various functional purposes.
 3. The system ensures an optimal heat recovery efficiency of 78-95%.
 4. The system has a noise level at a distance of 1 m ranging from 22 to 30 dBA.

Additional Information: The measurement and test results presented in this protocol apply only to the tested sample with registration number UPS 56/1-5.

When determining the heat recovery percentage, the following air temperature parameters were maintained: indoor air at +20°C, outdoor air at minus 10°C.

Responsible executor

Andrii Rybakov
Full name

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