



SUMMARY FAN DATA SHEET

Nuair, Western Industrial Estate, Caerphilly, CF83 1NA, United Kingdom. email:info@nuair.co.uk

UK Commercial enquiries T:029 2085 8200 UK Residential enquiries T:029 2085 8500 International enquiries T:+44.29 2085 8497

Whilst the information given on this data sheet is fan specific, it is in summary and reference to the product selection catalogue and installation & maintenance documents is recommended.

This data sheet produced on 01 May 2025 11:38 using software version 5.8.4590.0

Project: n/a

Location: VU-1 Boost Rate

Technical Data

MRXBOX-ECO-AE - Wall Mounted Multi Room Xbox with Acoustic Enclosure

Fan Code: **MRXBOXAB-ECO2B-AE**

Installation Manual Links: **671824**

Required duty: 21 l/s at 70 Pa

Actual duty: 49 l/s at 377 Pa

Actual at required flow: 21 l/s at 508 Pa

When speed controlled to required duty (43.25%):

Motor Input Power: **0.013 kW**

Specific Fan Power: **0.6 W/(l/s)**

Velocity at required duty: 1.711 m/s

At full speed:

Motor Input Power: 0.155 kW

Specific Fan Power: 3.2 W/(l/s)

Maximum Fan Speed: 3,300 RPM

Electrical Supply: 230V, 1 Phase, 50 Hz

Motor current (flc): 1.2 A

Max. operating temp: 50°C

Weight: 45 kg

Starting currents are nominal.

Sound Data

Acoustic performance to ISO 13347 and AMCA 300.

Noise calculated speed controlled to required duty (43.25%)

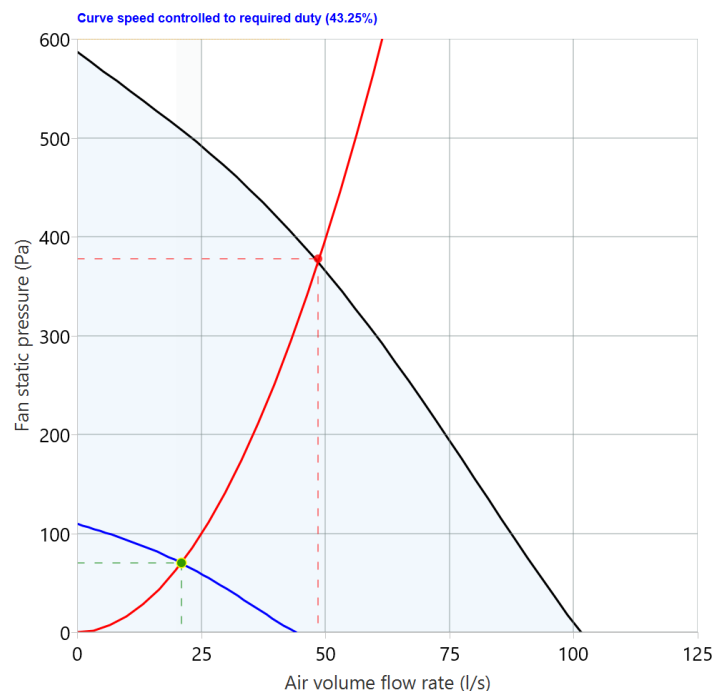
Sound Power Levels re 1 pWatts (Hz):

Hz	63	125	250	500	1k	2k	4k	8k	dBA
Breakout	36	44	36	28	<16	<16	<16	<16	<16
Open Inlet (Intake & Extract)	39	38	47	42	34	28	<16	<16	
Open Outlet (Supply & Exhaust)	45	51	53	55	51	47	35	23	

dBA is hemi-spherical at 3 metres. For spherical deduct 3 dBA.

Please note that the noise data stated on this data sheet for the unit and/or silencer is tested in accordance with UK, European and International industry laboratory standards. However onsite conditions may vary and we would recommend that this information is verified by an acoustic specialist in order to ensure its suitability for the intended application.

Performance Chart



Additional Notes

Specification

The unit shall be fully insulated providing excellent thermal and acoustic characteristics and shall be complete with a multi plate counter flow high efficiency heat exchanger block, with a thermal efficiency of up to 95%. The heat exchanger shall be protected by filters on fresh air inlet and system extract. The heat exchanger and filters shall be accessible via the front access panel, enabling quick and easy maintenance.

The unit shall have low energy, high efficiency EC fan/motor assemblies with sealed for life bearings, the impellers shall be backward curved centrifugal type. The motors shall be suitable for an ambient temperature of 40°C.

The unit shall be supplied complete with a condensate drip tray and 21.5mm drain connection.

The unit shall be suitable for 125mm circular ducting.

The breakout noise level and power requirements shall be as detailed by the unit manufacturer and in accordance with the ventilation equipment schedule.

The unit shall be provided within a white pre-painted or coated steel acoustic enclosure lined with a minimum of 20mm class '0' acoustic foam insulation to reduce breakout noise.

Flexible duct connections shall be within the enclosure, pre-fitted between the MVHR unit and the connection spigots on the top face of the enclosure. (Removing the need for flexible duct connectors outside of the unit which may cause breakout)

The MVHR unit shall be retained within the enclosure on a metal tray supported on turret type anti-vibration mounts of suitable deflection to ensure that vibration is not transmitted to the supporting structure. All operational components of the MVHR unit shall be accessible via the front panel of the enclosure. The enclosure shall be supported on 3mm (minimum) prefabricated steel cantilever wall brackets or other suitable fabricated steel supporting frame.

The unit shall be offered with a five year warranty. The product warranty applies to the UK mainland and in accordance with Clause 14 of our Conditions of Sale. Customers purchasing from outside of the UK should contact Nuair International Sales office for further details.

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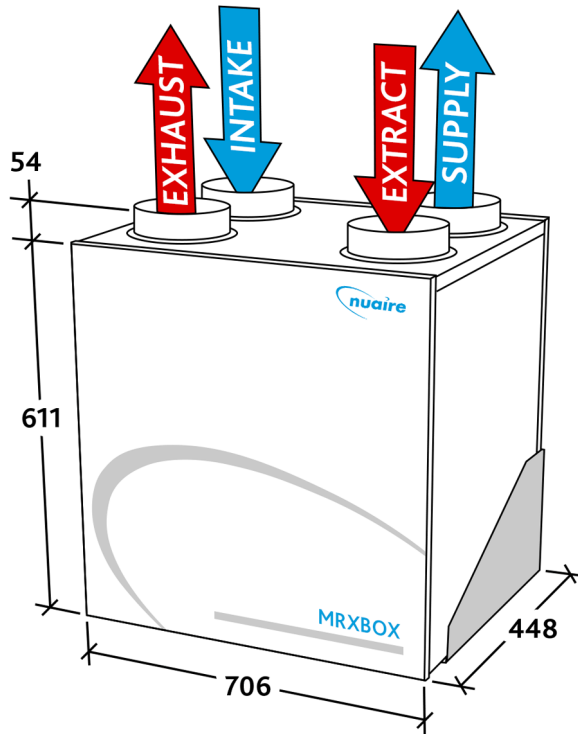
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Fan Dimensions

SPIGOT CONFIGURATION SHOWN IS VALID FOR THE STANDARD HANDED UNIT ONLY. OPPOSITE HANDED UNIT IS ALSO AVAILABLE UPON REQUEST.



Length: Width: Height:

448 706 611

Spigot size: 125

Duct size: 125

Drawing is for dimensional purposes only. Dimensions in mm.

Please see selected ancillaries section for additional dimensions for any requested additional ancillaries.

SAP Appendix Q Test Results

Application	Specific Fan Power (W/l/s)	Heat Exchange Efficiency %
Kitchen + 1 wet room	0.55	90%
Kitchen + 2 wet rooms	0.65	89%
Kitchen + 3 wet rooms	0.8	87%
Kitchen + 4 wet rooms	1.01	86%
Kitchen + 5 wet rooms	1.26	86%



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Project: n/a

Location: VU-2 Boost Rate

Technical Data

MRXBOX-ECO-AE - Wall Mounted Multi Room Xbox with Acoustic Enclosure

Fan Code: **MRXBOXAB-ECO5-AE**

Required duty: 21 l/s at 60 Pa
Actual duty: 69 l/s at 648 Pa
Actual at required flow: 21 l/s at 904 Pa

When speed controlled to required duty (30.36%):

Motor Input Power: **0.01 kW**
Specific Fan Power: **0.5 W/(l/s)**
Velocity at required duty: 1.193 m/s

At full speed:

Motor Input Power: 0.3 kW
Specific Fan Power: 4.3 W/(l/s)
Maximum Fan Speed: 4,120 RPM
Electrical Supply: 230V, 1 Phase, 50 Hz
Nominal Motor Rating: 0.34 kW
Motor current (flc): 2.8 A
Motor starting current (sc): 2.8 A

Max. operating temp: 40°C
Weight: 56 kg

Starting currents are nominal.

Sound Data

Acoustic performance to ISO 13347 and AMCA 300.

Noise calculated speed controlled to required duty (30.36%)

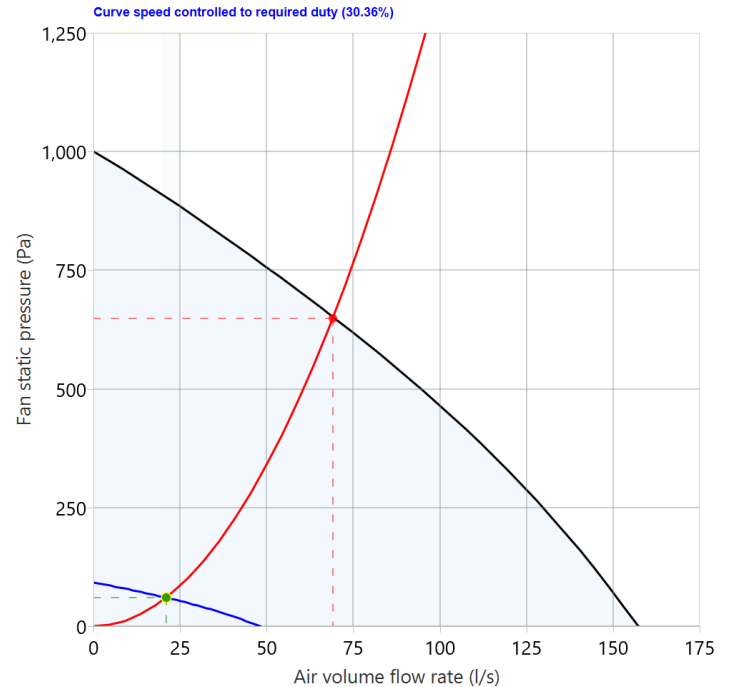
Sound Power Levels re 1 pWatts (Hz):

Hz	63	125	250	500	1k	2k	4k	8k	dBA
Breakout	44	40	36	18	<16	<16	<16	<16	<16
Open Inlet (Intake & Extract)	43	41	36	29	25	17	<16	<16	
Open Outlet (Supply & Exhaust)	50	47	42	37	32	26	18	<16	

dBA is hemi-spherical at 3 metres. For spherical deduct 3 dBA.

Please note that the noise data stated on this data sheet for the unit and/or silencer is tested in accordance with UK, European and International industry laboratory standards. However onsite conditions may vary and we would recommend that this information is verified by an acoustic specialist in order to ensure its suitability for the intended application.

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Additional Notes

Specification

The unit shall be fully insulated providing excellent thermal and acoustic characteristics and shall be complete with a multi plate counter flow high efficiency heat exchanger block, with a thermal efficiency of up to 95%. The heat exchanger shall be protected by filters on fresh air inlet and system extract. The heat exchanger and filters shall be accessible via the front access panel, enabling quick and easy maintenance.

The unit shall have low energy, high efficiency EC fan/motor assemblies with sealed for life bearings, the impellers shall be backward curved centrifugal type. The motors shall be suitable for an ambient temperature of 40°C.

The unit shall be supplied complete with a condensate drip tray and 21.5mm drain connection.

The unit shall be suitable for 150mm circular ducting.

The breakout noise level and power requirements shall be as detailed by the unit manufacturer and in accordance with the ventilation equipment schedule.

The unit shall be provided within a white pre-painted or coated steel acoustic enclosure lined with a minimum of 20mm class '0' acoustic foam insulation to reduce breakout noise.

Flexible duct connections shall be within the enclosure, pre-fitted between the MVHR unit and the connection spigots on the top face of the enclosure. (Removing the need for flexible duct connectors outside of the unit which may cause breakout)

The MVHR unit shall be retained within the enclosure on a metal tray supported on turret type anti-vibration mounts of suitable deflection to ensure that vibration is not transmitted to the supporting structure.

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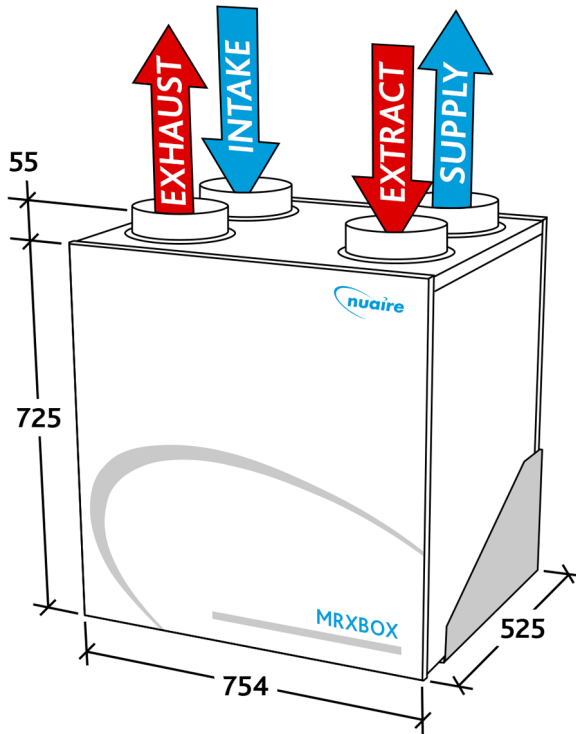
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Fan Dimensions

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Length: Width: Height:

525 754 725

Spigot size: 150

Duct size: 150

Drawing is for dimensional purposes only. Dimensions in mm.

Please see selected ancillaries section for additional dimensions for any requested additional ancillaries.

SAP Appendix Q Test Results

Application	Specific Fan Power (W/l/s)	Heat Exchange Efficiency %
Kitchen + 1 wet room	0.63	90%
Kitchen + 2 wet rooms	0.61	89%
Kitchen + 3 wet rooms	0.68	88%
Kitchen + 4 wet rooms	0.79	87%
Kitchen + 5 wet rooms	0.91	86%
Kitchen + 6 wet rooms	1.09	85%
Kitchen + 7 wet rooms	1.27	85%