Air source heat pump acoustic sound pressure calculation as per MCS020 a) Planning Standards – 24 Wood Vale, London N10 3DP



NEXT STEP HEATING

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Calculation Procedure	Result
Date Calculation Undertaken	15.05.2026
Description of assessment position tested (This must be detailed enough to allow for identification, including property address and exact location of window / door opening and floor level.)	The assessment position is the front ground floor window on the neighbouring property at 26 Wood Vale N10 3DP. The proposed 12kW Vaillant Arotherm Plus Heat Pump is located on the ground floor at the front of 24 Wood Vale, London N10 3DP
From manufacturers data, obtain the A-weighted sound power level of the heat pump. See „Note 1: Sound power level". The highest sound power level specified should be used (the power in "low noise mode" should not be used).	60dB
Use „Note 2: Sound pressure level" and „Note 3: Determination of directivity" below to establish the directivity „Q" of the heat pump noise.	Q4 – "Two Reflective Surfaces"
Measure the distance from the heat pump to the assessment position in metres. (rounded down to nearest m)	7m
Establish whether there is a solid barrier between the heat pump and the assessment position using „Note 5: Barriers between the heat pump and the assessment position„ and note any dB reduction.	There would be a timber enclosure around the heat pump between 26 and 24 Wood Vale, London N10 3DP. The view would be obscured between the heat pump and the assessment position.
Calculate the sound pressure level from the heat pump at the assessment position using MCS 020 a) calculation procedure	34 dB(A)
Final Result	37 dB(A)
Is the FINAL RESULT lower than the permitted development noise limit of 37 dB(A)? If YES - the air source heat pump will comply with the permitted development noise limit for this assessment position and may be permitted development (subject to compliance with other permitted development limitations/conditions and parts of this standard). NOTE - Other assessment positions may also need to be tested. If NO – the air source heat pump will not be permitted development. This installation may still go ahead if planning permission is granted by the local planning authority	YES – The air source heat pump complies with the permitted development noise limit for this assessment position and may be permitted.

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