

MSC 020A calculations
21st July 2026

Site address: 25 North Grove, London, N6 4SH

Calculation v1 Noise Limit 29 db – PASS

Step		Assessment Position 1
1	Date calculation undertaken	21.07.26
2	Description of assessment position	Centre of neighbour's closest window
3	A-weighted sound power level, dB(A)	61
4	Determination of directivity (Q) - select number of reflective surfaces	one reflective surface
5	Distance from heat pump to assessment positions, in m	5
6	Determination of barrier correction - select barrier type	solid wall (mass $\geq 10\text{kg/m}^2$)
7	Determination of barrier correction - select line of sight	no view
7	Calculate sound pressure level	29.0
8	Pass/fail noise limit of 37.0 dB(A)	PASS

Notes Calculation v1

- These are the calculations previously provided
- Assessment position is from centre of neighbours nearest window
- Assessment distance includes only horizontal distance across the roof of 5m
- Determination of Q as one reflective surface is due to unit being positioned on a roof with no reflective surfaces within 1m
- There is no view from the assessment position to roof
- Calculation includes solid wall for barrier correction as roof and parapet wall act as solid barrier between unit and assessment position (on advice from installers)

Calculation v2 Noise Limit 24.5db – PASS

Step		Assessment Position 1
1	Date calculation undertaken	21.07.26
2	Description of assessment position	Centre of neighbour's closest window
3	A-weighted sound power level, dB(A)	61
4	Determination of directivity (Q) - select number of reflective surfaces	one reflective surface
5	Distance from heat pump to assessment positions, in m	8.4
6	Determination of barrier correction - select barrier type	solid wall (mass $\geq 10\text{kg/m}^2$)
7	Determination of barrier correction - select line of sight	no view
7	Calculate sound pressure level	24.5
8	Pass/fail noise limit of 37.0 dB(A)	PASS

Notes Calculation v2

- Assessment position is from centre of neighbours nearest window
- Assessment distance is 1m less than distance from unit to assessment position, it includes both the horizontal distance across the roof (7.2m) and the vertical distance to the window (2.2m) added together to give $7.2 + 2.2 - 1 = 8.4\text{m}$
- Determination of Q as one reflective surface is due to unit being positioned on a roof with no reflective surfaces within 1m
- There is no view from the assessment position to roof
- Calculation includes solid wall for barrier correction as roof and parapet wall act as solid barrier between unit and assessment position (on advice from installers)

Calculation v3 Noise Limit 34.5 db – PASS

Step		Assessment Position 1
1	Date calculation undertaken	21.07.26
2	Description of assessment position	Centre of neighbour's closest window
3	A-weighted sound power level, dB(A)	61
4	Determination of directivity (Q) - select number of reflective surfaces	one reflective surface
5	Distance from heat pump to assessment positions, in m	8.4
6	Determination of barrier correction - select barrier type	no barrier
6	Determination of barrier correction - select line of sight	no view
7	Calculate sound pressure level	34.5
8	Pass/fail noise limit of 37.0 dB(A)	PASS

Notes Calculation v3

- Assessment position is from centre of neighbours nearest window
- Assessment distance is 1m less than distance from unit to assessment position, it includes both the horizontal distance across the roof (7.2m) and the vertical distance to the window (2.2m) added together to give $7.2 + 2.2 - 1 = 8.4\text{m}$
- Determination of Q as one reflective surface is due to unit being positioned on a roof with no reflective surfaces within 1m
- There is no view from the assessment position to roof
- Calculation includes no barrier correction

Calculation v4 Noise Limit 35.9 db – PASS

Step		Assessment Position 1
1	Date calculation undertaken	21.07.26
2	Description of assessment position	Centre of neighbour's closest window
3	A-weighted sound power level, dB(A)	61
4	Determination of directivity (Q) - select number of reflective surfaces	one reflective surface
5	Distance from heat pump to assessment positions, in m	7.2
6	Determination of barrier correction - select barrier type	no barrier
6	Determination of barrier correction - select line of sight	no view
7	Calculate sound pressure level	35.9
8	Pass/fail noise limit of 37.0 dB(A)	PASS

Notes Calculation v4

- Assessment position is from centre of neighbours nearest window
- Assessment distance includes only the horizontal distance across the roof of 7.2m
- Determination of Q as one reflective surface is due to unit being positioned on a roof with no reflective surfaces within 1m
- There is no view from the assessment position to roof
- Calculation includes no barrier correction