

PROJECT INFORMATION

Customer Faxon Render Systems
 Project The Bungalow
 Location S36 8YW

**AIR SOURCE HEAT PUMP**

	No. units
aroTHERM+ 7	1
Total sound power level dB(A)	55

INSTALLATION INFORMATION

Sound directivity Q	4
Distance to assessment point (m)	6
Barrier reduction dB	0

MCS 020 - TABLE 2

Sound Power Level	55 dB(A)	Step 1
Directivity	4 Q	Step 2
Distance to assessment point	6 m	Step 3
Distance reduction	-20 dB(A)	Step 4
Barrier reduction	0 dB	Step 5
Sound pressure level	35 dB(A) Lp	Step 6
Background noise	40 dB(A)	Step 7
Level difference	5 dB	Step 8
Decibel correction	2 dB(A)	Step 9
Result	42 dB(A)	Step 10

This form is prepared in accordance with MCS 020, the Planning Standard for air source heat pumps. This is to establish that the proposed location of the heat pump has a noise level lower than 42 dB(A) and would not require planning permission from the Local Authority.

For the purpose of the calculation, the following notes have been issued:

Assessment position means a position one metre external to the centre point of any door or window to a habitable room of a neighbouring property as measured perpendicular to the plane of the door or window.

Habitable room means a room other than a bathroom, shower room, water closet or kitchen

Neighbouring property means any purpose used for any purposes of Class C Town and Country Planning (Use Classes) Order 1987 (as amended) (includes dwelling houses, hotels, residential institutions and houses in multiple occupation). In instances where the air source heat pump would be installed on a block of flats, neighbouring property includes flats within the same block of flats (excluding the flat of the "owner(s)" of the air source heat pump).

MCS020 DECISION**PASS****Description of assessment position tested:**

Neighbours to the right hand side No 5 rear Kitchen Window

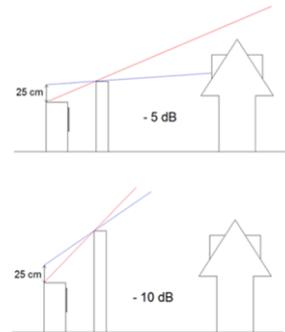
NOTE 5 - Barrier Reduction

A correction should be made for attenuation due to barriers between the air source heat pump and an assessment position. A correction will be necessary if an MCS Contractor is unable to see an assessment position from the top edge of the air source heat pump. Use the following instructions to determine whether a correction is appropriate:

For a solid barrier (e.g. a brick wall or a fence) that completely obscures an MCS Contractor's vision of an assessment position from the top edge of the air source heat pump attenuation of -10 dB may be assumed.

Where a solid barrier completely obscures an MCS Contractor's vision of an assessment position from the top or side edges of the air source heat pump, but moving a maximum distance of 25 cm in any direction to the air source heat pump allows an assessment position to be seen, attenuation of -5 dB may be assumed.

If it is possible for an MCS Contractor to see any part of an assessment position from the top or side edges of the air source heat pump no attenuation may be assumed.

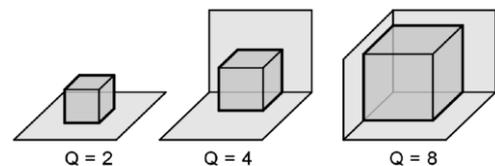
**NOTE 3 - Determination of Sound Directivity (Q)**

The sound pressure level increases with the number of reflecting surfaces. A reflective surface is any surface (including the ground) within 1 metre of the air source heat pump.

Q2 = one reflecting surface (i.e. the ground or a single wall if mounted on a wall off the ground).

Q4 = two reflecting surfaces (i.e. ground mounted and against a wall or off ground level against two walls)

Q8 = three reflecting surfaces (i.e. ground mounted and against 2 walls or off ground level between three walls).



NOTE – installations with more than three reflective surfaces (for example those within small lightwells) will not meet the MCS planning standards.