

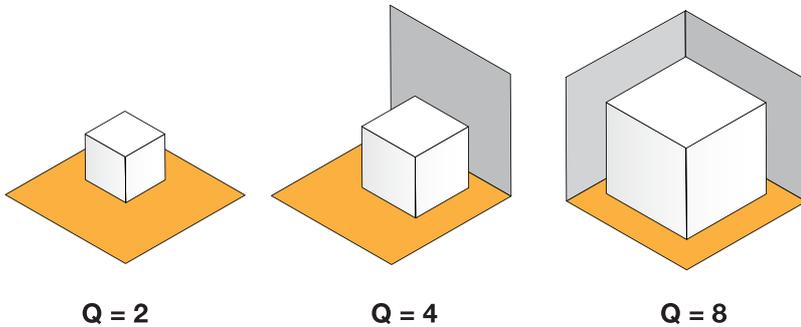
Assessment date:	10 Oct 2024	Assessment result:	PASS
MCS Installation company:	Aira Home		
Site Reference:	Dean Howard - 23 Tanyard Road		
ASHP Manufacturer:	Aira Home		
ASHP Model:	HPO-AW-12-230v-1.0		

Assessment position description:

Proposed location of the heat pump will be situated on the back of the property away from the highway. The heat pump will not be visible from both neighbouring properties and over 6 meters away from the closest habitable room.



Step 1:	A-Weighted Sound Power Level from manufacturer	59.0
Step 2:	Determination of directivity (Q)	8
Step 3:	Distance from heat pump to the assessment position in metres	6
Step 4:	dB distance reduction	-17
Step 5:	dB reduction for any barriers between heat pump and assessment point	-5
Step 6:	Calculated Sound Pressure Level (Step 1 + Step 4 + Step 5)	37.0
Step 7:	Assumed background noise level	40
Step 8:	Difference between background noise level and heat pump noise level	3.0
Step 9:	Final decibel corrected sound level (< or = 42dB = Pass)	42dB



Decibel Correction (Step 9)	
Left column values apply to both positive and negative dB values	
Difference between the two noise levels (dB) (+/-)	Correction to be added to the higher noise level
0	3.0
1	2.5
2	2.1
3	1.8
4	1.5
5	1.2
6	1.0
7	0.8
8	0.6
9	0.5
10	0.4
11	0.3
12	0.3
13	0.2
14	0.2
15	0.1

Barriers (Step 5)	
Is there a barrier between the heat pump and the assessment point?	
A solid barrier (e.g, brick wall or fence) completely obscures the installers vision of the assessment position from the top edge of the ASHP	-10
A solid barrier completely obscures the installers vision of the assessment position from the top or side edges of the ASHP, but moving a maximum distance of 25cm in any direction of the ASHP allows an assessment position to be seen	-5
It is possible for the installer to see any part of an assessment position from the top or side of the ASHP	0

dB Distance Reduction (Step 4)														
Distance in meters from Heat Pump (Step 3)														
	1	1.5	2	3	4	5	6	8	10	12	15	20	25	30
Q (step 2)														
2	-8	-11	-14	-17	-20	-21	-23	-26	-28	-29	-31	-34	-36	-37
4	-5	-8	-11	-14	-17	-19	-20	-23	-25	-26	-28	-31	-33	-34
8	-2	-5	-8	-11	-14	-16	-17	-20	-22	-23	-25	-28	-30	-31