

MCS 020 - Manual Sound Calculator

Assessment Details

Heat pump model is EDLA04E2V3 and it is 15 metres from the assessment window.
There is 1 Reflecting Surface and it is Not Seen.
The assessment position is one metre perpendicular to the centre of the closest habitable room.

Distance	15
Barrier	Not Seen
Heat Pump	EDLA04E2V3
Opposing Surfaces	1
Outcome	39.70
Result	Pass

Step	Instructions	MCS contractor results/notes
1	From manufacturer's 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	58
2	Use 'Note 2: Sound pressure level' and 'Note 3: Determination of directivity' below to establish the directivity 'Q' of the heat pump noise.	Q4
3	Measure the distance from the heat pump to the assessment position in metres	15
4	Use table in 'Note 4: dB distance reduction' below to obtain a dB reduction	-28.3
5	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	-10
6	Calculate the sound pressure level from the heat pump at the assessment position using the following calculation: (STEP 1) + (STEP 4) + (STEP 5)	19.7
7	Background noise level. For the purposes of the MCS Planning Standard for air source heat pumps 40 dB(A) the background noise level is assumed to be 40 dB(A) Lp.	40
8	Determine the difference between background noise level and the heat pump noise level using the following calculation: (STEP 7) - (STEP 6)	20.3
9	Using the table in 'Note 7: Decibel correction' obtain an adjustment figure and then add this to whichever is the higher dB figure from STEP 6 and STEP 7.	39.70
10	Final Result?	Pass