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MCS 020 - Manual Sound Calculator

Assessment Details
Heat pump model is EDLA09DA3V3 and it is 5.8 metres from the assessment window.
There is 1 Reflecting Surface and it is Fully Seen.
The assessment position is one metre perpendicular to the centre of the closest habitable room.

Distance 5.8
Barrier Fully Seen
Heat Pump EDLA09DA3V3
Reflecting Surfaces 1
Outcome **44.07**
Result **Fail - Planning Required**

- 1 You can now put in the precise distance to the assessment window including decimal places
- 2 Barriers, Heat Pump and Reflecting surfaces form Kracken Field heat pump and noise assessment tabs
- 3 Update Client name and address plus any other relevant details
- 4 Select all cells A3:C17 and File -> Download -> PDF (.pdf)
- 5 In the export settings choose Selected Cells, A4, Portrait, Fit to Page, Wide margins and deselect
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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	62
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	5.8
4	Use table in 'Note 4: dB distance reduction' below to obtain a dB reduction	-20.1
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	0
6	Calculate the sound pressure level from the heat pump at the assessment position using the following calculation: (STEP 1) + (STEP 4) + (STEP 5)	41.9
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)	-1.9
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.	44.07
10	Final Result?	Fail - Planning Required