

# Heat pump task


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# Heat Pump Load

In the Heat Pump task you can see the results of the heat loss calculation as well as information on the heat pump you have chosen. You can alter the flow temperature and see the impact of this on SCOP and output power. This is also given for each heat emitter as shown in the example below.

For more information on [Heat Emitters](#) see our guide on the topic.

Riello NXHM 8kW



Model20191942

Nominal capacity8.00 kW

Sound power level59.0

SCOP at 45 ° C4.11

Output Power at 45 ° C7000 W

Flow temperature

45 °C

Heat pump load

Heat Loss

The Outside Design Temperature for postcode CB4 1AF is -2.5°C

→

The expected heat loss at the Outside Design Temperature is 6586 W.

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The total area of the building is 49.72 m².

=

The average heat loss is 132 W/m².

Does the heat pump meet the demand?

If the flow temperature is 45 °C...

Output power of heat pump is7000 W

Total heat loss is6586 W

✓

Maximum demand met

The heat pump is sufficiently large to meet the maximum anticipated space heating demand.

# Sound Check (UK)

This guide applies to the [heatpunk.co.uk](https://heatpunk.co.uk) version of Heatpunk. The information provided here does not apply to [heatpunk.ie](https://heatpunk.ie).

The sound check is part of the [Heat Pump task](#) and helps determine whether the planned installation position will generate excessive noise that could disturb neighbouring properties. The results of the sound check will be displayed in the customer proposal and technical reports.

## Completing the sound assessment

When you create a new project you will be prompted to complete the sound check when you navigate to the heat pump task.

- Choose the **assessment method** suitable for your project. See below for guidance on which method to choose.
- Input the details about the **heat pump position** and **assessment points**.
- After selecting the kit you would like to use on the project, the **results** of the sound check will display on the left hand side of the page below the heat pump and cylinder details.

To edit the details of the sound check click the **pencil icon** to the top right of the results.

## Choosing a method

There are currently two sound assessment calculation methods published by MCS. England's Permitted Development Rights now require you to use the 2025 calculation method which is based on **MCS 020 a)**. Other UK nations, where they have not changed their Permitted Development Rights, may still require you to use the legacy calculation method based on **MCS 020**. Please contact your local planning authority if you are unsure which method to use.

When you start the sound check for your project you can choose between the 2025 calculation method or the legacy calculation method.

## Sound check ⓘ

### Assessment method

#### 2025 calculation method



This is based on the new MCS 020 a) standards referenced in England's Permitted Development Rights legislation.

#### Legacy calculation method



This is based on the previous MCS 020 and can only be used for nations which haven't adopted MCS 020 a) standards.


## Using the 2025 calculation method - MCS 020 a)

To comply with MCS 020 a), the calculated noise level at each assessment position must be below 37 dB. Under MCS 020 a), it is vital to include **multiple assessment positions**, as more distant locations without a barrier may experience higher noise levels than closer positions that are shielded.


- In order to comply with MCS 020 a) standard, start by selecting the 2025 calculation method.
- Select the number of reflective surfaces next to the heat pump.
- Add details for the first assessment position, including the description, distance and details of any barriers.
- Add additional assessment positions by clicking + *Add position*.
- Delete any positions you no longer need using the dustbin icon.
- Click *Confirm* to view the sound check results.

See [MCS guidelines](#) for further information on the calculation.


Number of reflective surfaces next to heat pump ⓘ



One



Two




Three

Position A    Position B    + Add position


Position description ⓘ

Bedroom window 2


Barriers between heatpump and position ⓘ



Full view



Partial view



No view

Distance from heat pump ⓘ    Barrier material ⓘ

3    m    No barrier

## Using the legacy calculation method - MCS 020

To comply with the legacy **MCS 020** standard, the noise level at a single assessment position must be below 42 dB.

- In order to comply with the previous MCS 020 standards, select the legacy calculation method.
- Add details for the assessment position, including the description, distance, number of reflective surfaces and details of any barriers.
- Click *Confirm* to view the sound check results.

See [MCS guidelines](#) for further information on the calculation.

Position description ⓘ

Bedroom window

Distance from heat pump ⓘ

5

m

Number of reflective surfaces next to heat pump ⓘ



One



Two



Three

Barriers between heatpump and position ⓘ



Full view



Partial view



No view

# Design Options

You can add multiple design options to your project allowing you to review a range of solutions. Use the drop down in the top right to choose which option you wish to produce a report for. With this tool you can easily produce several proposals for your customer to review before choosing their preferred option.

Design Options

Create new designs to experiment with and propose different system configurations.

As SurveyedOption 1⋮+ New option

Option In Report

Option 1▼

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