



The Certification Mark for Onsite Sustainable Energy Technologies

MCS Compliance Certificate Heat Pump

General Information

Customer Name & Address

Mary Ryan
The Laurels
High Beeches
Harpenden

HA4 1AS

Commissioning Date: 01/04/2014

Installer Name & Address

Best Electrical Ltd
24 High St
Bedford

MCS Certification: MCS 123456789

Purpose of Installation

Provide Space Heating
Provide Water Heating
Intermittent or Continuous:
BiValent or Multivalent:

Yes
True
Continuous
False

Regulations and Approvals

Have all regulations been met and approvals obtained (including planning approval as required)?

True

If installed in England, does the installation comply with MCS 020 where permitted development is required (air source heat pumps only)?

True

Heating Calculations

Heat loss calculation carried out for every heated room?

Yes

Heat loss calculator used (name and version)

Web MCS Calculator 1.01

Design external temperature (°C)

-1.8

Design ground temperature (°C) (for solid floor losses only)

-1.8

Design internal temperatures (°C)

See Rooms List

Total building heat loss in kW

1.8

If designed for intermittent heating, what uplift factor?

1.20

Has the Domestic Hot Water (DHW) system been designed by considering the number and types of points of use and anticipated consumption within the property?
Has the reheat time of the hot water storage vessel been estimated and agreed with the customer?

True

True

Have the implications of the system design on the costs associated with providing space heating and domestic hot water to the building been explained in writing to the owner?

True

Heat emitter design

Lowest of the oversize factors or pipe spacing (as appropriate) for the heat emitters that are to be used

3.1

What heat emitters are installed

See Rooms List

Floor covering (If underfloor heating)

All Room heat losses in watts (W) (or w/m2 together with floor areas)

See Rooms List

Has a blending valve been installed to reduce the water temperature in the heat emitters?

False

Temperature (°C) of the water leaving the heat pump when supplying space heating at the design external temperature?

45

What is the Temperature Star Rating for the whole heating system?

See Rooms List

Has the customer been provided with a copy of the calculations carried out for the HEG?

True

Hot water system

Is hot water heating provided by the heat pump

True

Maximum flow temperature (°C) of the heat pump while providing hot water

40

Fraction of hot water supplied by the heat pump, excluding the immersion heater

Full excluding Immersion

Volume of the cylinder in litres and note evidence for the choice

120BS 6700 Domestic HW Cylinder

Is the cylinder including the heat exchanger designed to operate with a heat pump

Selection Guide

True



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Individual Room Heat Loss Table

Room Description	Type	Stars Rating Oversize	Temp. °C	Heat Loss (w)	Loss (w) Area m2	Heat Emmitter Type & Dimensions
Living Room	Living Room	★★★★★☆☆	21	298	24.83	Fan Coil Unit
						H 0mm W 0mm
Bedroom	Bedroom	★★★★★☆☆	18	297	24.75	Standard Radiator
						H 450mm W 750mm



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<p>Heat pump selection</p> <p>Make and model name of the installed heat pump</p> <p>MCS product certification number for the heat pump</p> <p>Heat output from the heat pump in kW (excluding heat from any supplementary heaters) at the design external and design flow temperatures</p> <p>Does the heat pump provide a full or partial heating service</p> <p>If partial, what is the percentage of annual space heating requirements met by the heat pump (excluding supplementary heaters)</p> <p>Does the heat pump provide full or partial hot water heating</p> <p>If partial, what is the percentage of annual hot water requirements met by the heat pump (excluding supplementary heaters)</p>	<p>Dimplex LA6MI</p> <p>123456</p> <p>5.79</p> <p>False</p> <p>100</p> <p>True</p> <p>Full excluding Immersion</p>
<p>System performance calculations and annual energy figures</p> <p>Annual space heating demand (kWh/yr)</p> <p>Annual water heating demand (kWh/yr)</p> <p>Percentage of space heating and water heating demand provided by the heat pump (excluding auxiliary and immersion heaters)</p> <p>Annual electricity consumption of the heat pump (excluding auxiliary and immersion heaters) (kWh/yr)</p> <p>Annual electricity consumption of auxiliary and immersion heaters (kWh/yr)</p> <p>Annual energy consumption of other heat sources (kWh/yr)</p> <p>SPF or SPER of the heat pump</p> <p>If intended as domestic RHI installation, maximum qualifying renewable heat (kWh/yr) from the Energy Performance Certificate (EPC) where available</p>	<p>1401</p> <p>0</p> <p>100</p> <p>519</p> <p>0</p> <p>0</p> <p>2.7</p> <p>0</p>
<p>Installation Details</p> <p>Does the installation conform to the design</p> <p>Have all manufacturers' instructions been followed including installation location and condensate drainage (as appropriate)</p> <p>Where the requirements of MIS 3005 exceed those of the manufacturer, have the requirements of MIS 3005 been met</p> <p>Does the installation conform to the MCS Domestic RHI Metering Guidance</p> <p>What is the outcome of Procedure A in the MCS Domestic RHI Metering Guidance</p> <p>Is the installation meter ready? If not, please state why</p>	<p>True</p> <p>True</p> <p>False</p> <p>False</p> <p>False</p>
<p>Commissioning and handover</p> <p>Explain how the controls have been set to ensure that the system operating temperature is no higher than TFSH at the design external temperature</p> <p>Record the control settings</p> <p>Has the heat pump and other components of the system been commissioned according to the manufacturers' instructions and system design parameters</p> <p>Has a label been attached to the system in accordance with MIS 3005?</p> <p>Have you given the customer a handover pack?</p> <p>State the issue number of MIS 3005 used</p> <p>Have you informed the customer that they will receive an MCS installation certificate that they should keep with their handover pack</p>	<p>Yes</p> <p>False</p> <p>True</p> <p>Yes</p>