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| **01 - GENERAL** | |
| **Customer name:** | **Telephone number:** |
| **Address:** | |
| **Heat Pump make and model:** ICAXSeren 10 | |
| **Heat Pump serial number:** | |
| **Commissioning engineer’s full name:** | |
| **Company name:** | **Telephone number:** |
| **Company email:** | **Company address:** |
| **Commissioning date:** |
| **MCS installer registration Number (if applicable):** | |
| **MCS product certification number (if applicable):** | |
| **Refrigerant:** R290 (Propane) | |
| **ENA database number:** | |

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| **02 - CONTROLS – SYSTEM AND HEAT PUMP** | | |
| **Time and temperature control to heating** | Room sensor  Dynamic weather compensation curve (auto-adapt)  Time scheduler | |
| **Time and temperature control to hot water** | Cylinder sensor and time scheduler | |
| **Heating zone valves (incl. underfloor loops)** | Fitted | Not required |
| **Hot water zone valves** | Fitted | Not required |
| **Thermostatic radiator valves (TRVs)**  **(all rooms except room with zone sensor)** | Fitted | Not required |
| **Outdoor sensor** | Built in | |
| **Heat Pump Safety Interlock** | Built in (high and low limit pressure switches) | |
| **Room sensor positioned on a wall away from direct sunlight and other heat sources** | Yes | No |
| **DHW cylinder sensor correctly positioned and secured in place** | Yes | No |

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| **03 - HYDRAULIC INSTALLATION** | | | | |
| **Automatic bypass to system** | Fitted | | Not required | |
| **Buffer Vessel Fitted** | Yes | No | | Volume (L): |
| **ICAX Heat Hub installed** | Yes | | No | |

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| **If ICAX Heat Hub is installed:** | | | | |
| Heat pump circuit expansion vessel air pressure correctly set for the installation? | Yes | | No | |
| Heating circuit expansion vessel air pressure correctly set for the site? | Yes | | No | |
| Primary pump (Heat pump system) setting – Constant speed | Speed 1 | Speed 2 | | Speed 3 |
| Heat pump circuit flow rate | Heating mode (m3/h): | | DHW mode (m3/h): | |
| Secondary pump (Central heating) setting – Proportional pressure | Curve 1 | Curve 2 | | Curve 3 |

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| **If no ICAX Heat Hub is installed:** | | |
| Is a plate heat exchanger fitted to give hydronic separation between the heat pump circuit and the heating circuit? | Yes | No |
| Is a low loss header fitted to give flow separation between the heat pump circuit and the heating circuit? | Yes | No |
| Expansion vessel for heat pump circuit installed and sized according to installation requirements? | Yes | No |
| Expansion vessel for heating circuit installed and sized according to installation requirements? | Yes | No |
| Primary pump (Heat pump system) | Brand: | Model: |
| Primary pump setting –  Control mode and curve number |  | |
| Is a flow meter of a flow switch installed and wired to the heat pump to provide flow confirmation? | Yes | No |
| Flow meter / flow switch | Brand: | Model: |
| Secondary pump (Central heating) | Brand: | Model: |
| Secondary pump setting –  Control mode and curve number |  | |

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| **Additional notes:** |

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| **04 - HEAT PUMP SYSTEM** | | |
| **Has the system been fitted with a filter/strainer on the return pipe?** | Yes | No |
| **Has the filter/strainer got any means of isolation for servicing?** | Yes | No |
| **Has the system been filled and pressure tested?** | Yes | No |
| **Has the system been flushed and cleaned in accordance with BS7593 and manufacturer’s instructions?** | Yes | No |
| What system cleaner was used: | Brand: | Product: |
| **Has the system been treated with inhibitors?** | Yes | No |
| What inhibitor product was used: | Brand: | Product: |
| **Has the system been treated with biocide?** | Yes | No |
| What biocide product was used: | Brand: | Product: |
| **Is the system adequately frost protected?** | Yes | No |
| **What measure of frost protection was used?** |  | |
| If antifreeze, what product was used? | Brand: | Product: |
| If antifreeze, what concentration and frost protection was achieved? | Concentration (%): | Frost protection (°C): |
| If antifreeze valves were used, is there one on the flow pipe and one on the return pipe? | Yes | No |
| **Do all local high points have a mean of venting?** | Yes | No |
| **Has the system been vented?** | Yes | No |
| **What static pressure has it been set at?** | Static pressure (bar): |  |
| **Has the filter been checked and cleaned?** | Yes | No |
| **Is the pipework insulated?** | Yes | No |
| **Is the external pipework insulation suitable for outdoor installations?** | Yes | No |
| **Additional notes:** | | |

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| **05 - CENTRAL HEATING SYSTEM** | | | | |
| **Has the system been fitted with a magnetic filter on the return pipe?** | Yes | | No | |
| **Has the filter got any means of isolation for servicing?** | Yes | | No | |
| **Has the system been filled and pressure tested?** | Yes | | No | |
| **Has the system been flushed and cleaned in accordance with BS7593 and manufacturer’s instructions?** | Yes | | No | |
| What system cleaner was used: | Brand: | | Product: | |
| **Has the system been treated with inhibitors?** | Yes | | No | |
| What inhibitor product was used: | Brand: | | Product: | |
| **Has the system been treated with biocide?** | Yes | | No | |
| What biocide product was used: | Brand: | | Product: | |
| **Do all local high points have a mean of venting?** | Yes | | No | |
| **Has the system been vented? (including radiators)** | Yes | | No | |
| **What static pressure has the system been set at?** | Static pressure (bar): | | | |
| **Has the filter been checked and cleaned?** | Yes | | No | |
| **Is the pipework located in non-heated spaces insulated?** | Yes | | No | |
| **Is the radiator system correctly balanced?** | Yes | No | | N/A |
| **Is the underfloor system correctly balanced?** | Yes | No | | N/A |
| **Additional notes:** | | | | |

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| **06 - HEAT PUMP OUTDOOR UNIT** | | |
| **Is the unit fitted on a solid/stable surface capable of taking its weight?** | Yes | No |
| **Is the unit mounted on anti-vibration mounts?** | Yes | No |
| **Have the minimum clearances specified by the manufacturer’s been respected?** | Yes | No |
| **Is the condensate drain installed to manufacturer’s instructions?** | Yes | No |
| **Is the pressure relief valve installed on the flow pipe near the heat pump outlet?** | Yes | No |
| **Is the fan free from obstacles and operational?** | Yes | No |
| **Has suitable consideration been made for condensate discharge?** | Yes | No |
| **Outdoor unit fuse / MCB type & rating** | Fuse / MCB type: | Rating (A): |

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| **07 - SYSTEM DESIGN PARAMETERS** | | |
| **Design heating flow / return temperatures:** | Flow (°C): | Return (°C): |
| **Peak heat loss / Reference outdoor temperature** | Load (kW): | Outdoor temp (°C): |

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| **08 - DOMESTIC HOT WATER MODE** | | | | |
| **Is the heat pump connected to a hot water cylinder?** | Yes | No | | Volume (L): |
| **Is the hot water cylinder vented or unvented?** | Vented | | Unvented | |
| **Hot water temperature setpoint** | Setpoint (°C): | | | |
| **Is the water heated via an internal coil of an external plate heat exchanger?** | Coil | | PHE | |
| **Cylinder coil area (m2)** | Area (m2): | | | |
| **For unvented cylinders, is the T/P safety valve correctly installed?** | Yes | | No | |
| **Is the discharge of the T/P safety valve routed to drain via a tundish and according to Part G of building regulations?** | Yes | | No | |
| **Legionella pasteurisation routine enabled?** | Yes | No | | Interval (days): |
| **Hot water has been checked at all outlets?** | Yes | | No | |
| **Is there a solar thermal source connected a dedicated solar coil?** | Yes | | No | |
| **Is there an immersion heater connected as backup?** | Yes | | No | |
| **Has a mains pressure reducing valve been fitted?** | Yes | | No | |
| **What is the pressure reducing valve setting?** | Pressure setting (bar): | | | |

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| **09 - ALL INSTALLATIONS** | | |
| **Heating and hot water system complies with the appropriate Building Regulations?** | Yes | No |
| **Do all electrical work comply with the appropriate Regulations?** | Yes | No |
| **Does the heat pump and associated products have been installed and commissioned in accordance with the manufacturer’s instructions?** | Yes | No |
| **Has the operation of the heat pump and system controls been demonstrated to and understood by the customer?** | Yes | No |
| **Has the manufacturer’s literature, including the commissioning checklist and service record log book, been explained and left with the customer?** | Yes | No |
| **Commissioning engineer’s signature:** |  | |
| **Customer’s signature:**  **(to confirm satisfactory demonstration and receipt of manufacturer’s literature)** |  | |