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|---|---|
| **Project:** | Construction of Two-Storey and a half Dwelling at Land East of 1 Pond Close, Pidley, Huntingdon |

**Application reference – 23/01010/FUL - Rev A**

*Description: Construction of a detached two and a half storey dwelling with associated access*

*Address: 1 Pond Close, Pidley, Huntingdon, PE28 3DB*

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**Air Source Heat Pump**

Condition 6

Prior to the installation of the Air Source Heat Pump (or any other external plant equipment). Full specification details of the proposed unit shall be provided to the Local Planning Authority for approval in writing. The installation shall be in accordance with the approved details and retained as such unless the Local Planning Authority gives written permission to any variance.

Introduction

This statement has been produced to support a discharge of conditions application in relation to C6 in regard to the approval noted above.

This should be read in conjunction with drawing PL13 External Works Drawing, to show the proposed locations of the Heat pump.

After a conversation with the Environmental Protection officer (Claire Braybrook 28/02/2025) it was suggested to submit two proposals for the orientation of the ASHP, which responds to the noise-sensitive windows in the eastern facade of 1 Pond Close. The current eastern facade window serves a kitchen and utility room, which are not noise-sensitive windows, therefore, the orientation of the ASHP in Option 2 shows the ASHP facing 1 Pond Close. However, due to 1 Pond Close having planning permission for an extension which expires at the end of 2025, the proposal does show a bedroom roof light window on the eastern side of the house, which will be considered as noise sensitive. Therefore, the ASHP has been rotated 90 degrees to face the road to reduce the amount of reflective facades amplifying the sound level of the ASHP. The noise level at the bedroom roof light window will be at acceptable levels if the ASHP is rotated to this position. This window is located over 7m from the ASHP in Option 1.

The ASHP will be installed in the position shown in Option 2, but has the flexibility to be rotated to Option 1 if any part of the planning approval is implemented at 1 Pond Close before expiry of the application in December 2025.

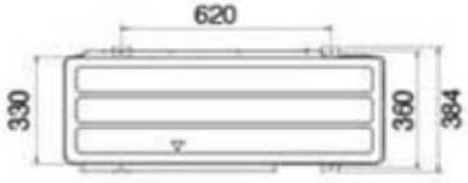
Efforts were made to source a quieter ASHP, but the unit listed below is advertised as the quietest ASHP on the market, so changing this will not have an impact on noise levels.

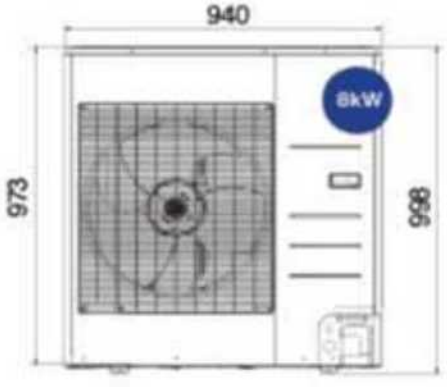
Air Source Heat Pump Details

Manufacturer: Samsung

Model: HHSM-G600008-1 R32 Outdoor Unit

Size:



**Project:** Construction of Two-Storey and a half Dwelling at Land East of 1 Pond Close, Pidley, Huntingdon

# Joule-Samsung Mono

## Specification R32 A+++







| | Outdoor Unit<br>Controller | | | | HHSM-G600005-1<br>HZSMC-G6000000 | HHSM-G600008-1<br>HZSMC-G6000000 |
|---|---|---|---|---|---|---|
| System | Operation | Nominal Capacity | Heating A7/W35[1]/A7/W55[2] | W | 5.000/4.300 | 8.000/7.100 |
| | | | Cooling A35/W18[1] | W | 5.000 | 7.500 |
| | | Power Input (Nominal) | Heating A7/W35[1]/A7/W55[2] | W | 1.030/1.520 | 1.770/2.530 |
| | | | Cooling A35/W18[1] | W | 1.140 | 1.900 |
| | | COP (Nominal Heating) A7/W35[1]/A7/W55[2] | | W/W | 4,85/2,83 | 4,52/2,81 |
| | | EER (Nominal Cooling) A35/W18[1] | | W/W | 4,39 | 3,95 |
| | | SCOP LWT 350C/550C | | W/W | 4,46/3,2 | 4,44/3,23 |
| | | Average Seasonal Space Heating Eff.Class* | | - | A+++/A++ | A+++/A++ |
| | | Current | MCA | A | 16,00 | 22,00 |
| | | | MFA | A | 20,00 | 27,50 |
| | | Water Flow Rate | Min | l/min | 7,00 | 7,00 |
| | | | Max | l/min | 48,00 | 48,00 |
| | | Leaving Water Temp | Heatiing | °C | 15-65 | 15-65 |
| | | | Cooling | °C | 5-25 | 5-25 |
| | Function | Smart Grid Ready | | - | ● | ● |
| | | PV Enabled | | - | ● | ● |
| | | 2-Zone Control | | - | ● | ● |
| Outdoor Unit | Power Supply | | | 0,#,V,Hz | 10,220-240V,50Hz | 10,220-240V,50Hz |
| | Compressor | Type | | - | BLDC Twin Rotary | BLDC Twin Rotary |
| | Base Heater | | | - | – | ● |
| | Sound | Sound | Heating Std | dB(A) | 45 | 48 |
| | | Pressure | Cooling Std | dB(A) | 45 | 48 |
| | | Sound | Heating Std | dB(A) | 61 | 63 |
| | | Power | Cooling Std | dB(A) | 62 | 64 |
| | Dimensions | Net Weight | | Kg | 58.5 | 76 |
| | | Net Dimensions (WxHxD) | | mm | 880 x 798 x 310 | 940 x 998 x 330 |
| | Refrigerant | Type | | - | R32 | R32 |
| | | Factory Charging | | tC02e | 0,68 | 0,78 |
| | | | | kg | 1,00 | 1,15 |
| | Piping | Water Pipe | Inlet/Outlet | Ø,mm | 28/28 | 28/28 |
| | | Water Pipe (DHW) | Inlet/Outlet | Ø,mm | 22/22 | 22/22 |
| | Operation | Ambient Temperature | Heating | °C | -25-35 | -25-35 |
| | | | Cooling | °C | 10-46 | 10-46 |
| | | | DHW | °C | -25-43 | -25-43 |