

## **System H.**

A Part L Solution  
for residential  
new build.



# System H overview.

## An air-to-water heat pump system.

A propane system with high modulation capacity.

System H is an air-to-water propane heat pump engineered to offer efficient and reliable heating. It utilises inverter technology to modulate compressor output to demand, making it ideal for homes built to new compliance standards with low heating requirements.

The system is available in 6kW and 8kW output sizes. It produces domestic hot water without the reliance on electrical immersion in temperatures as low as -20°C. System H uses propane (R290) to reduce its environmental impact whilst maximizing thermodynamic performance. Propane is a natural, non-toxic refrigerant which has a low impact on the environment.

The dual service indoor cylinder connects to the outdoor unit to provide hot water and space heating to the dwelling, as well as housing the system controls. It contains a 170l domestic hot water tank and a 3kW programmable electrical back up for peace of mind.

## At a glance.

Advantages of the System H heat pump system.

- 1 Efficient operation.**  
6kW and 8kW units with an SCOP up to 4.83 (W35).
- 2 Innovative modulation capacity.**  
Offering a wide capacity operation of 15-100%.
- 3 High temperature output down to -10°C.**  
Sterilisation (60°C) of water capable without backup heater.
- 4 Ecological refrigerant.**  
Using propane (R290), a natural and non-toxic refrigerant.
- 5 Delivering electrical savings.**  
Requiring a simple power supply of just 16A.
- 6 Reverse Cycle defrost.**  
No buffer required.



**Compact outdoor unit**

Due to a space-saving design and modern colour scheme, the outdoor unit can integrate harmoniously into the surroundings of the building.

# System H: Outdoor unit.

Designed with installation in mind.

## **Simplified installation compared to alternatives.**

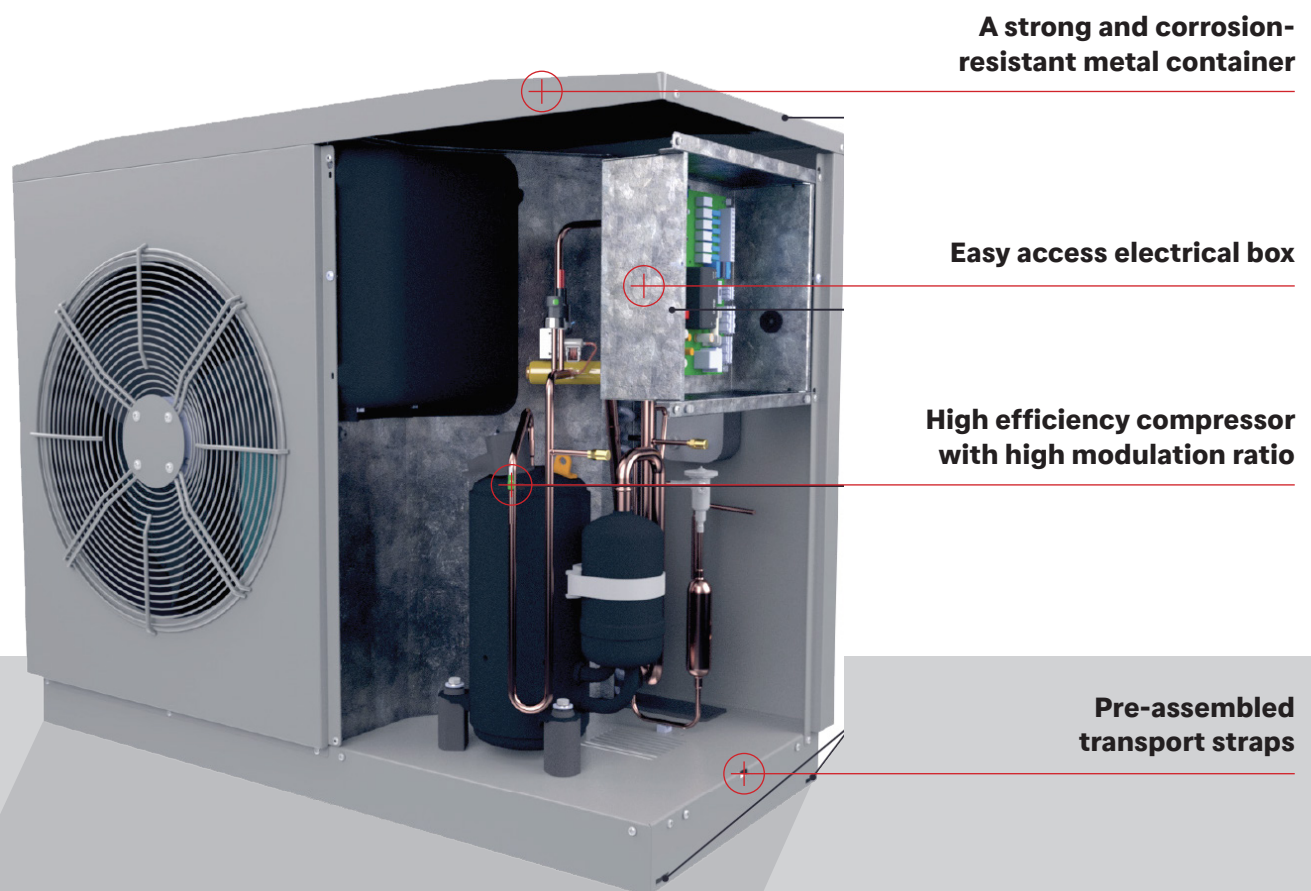
System H is a monobloc system and therefore is simplified in installation, just utilising a flow & return and electrical connections. This means the installer does not have to be refrigerant or gas certified to install the unit.

## **Savings on electrical installation.**

Its low power consumption allows a power supply of 16A, with a simple BUS connection between the outdoor unit and indoor water cylinder.

## **Additional features.**

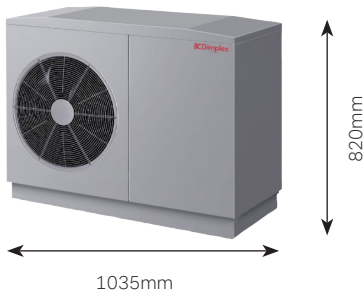
Adjustable foot set complete with anti-vibration pads aids when installing the heat pump and pre-assembled transport straps help during installation.



# Dimensions.

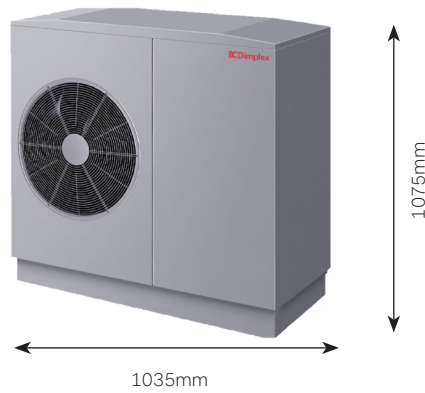
## 6 kW outdoor unit

Weight: 81kg



## 8 kW outdoor unit

Weight: 94kg



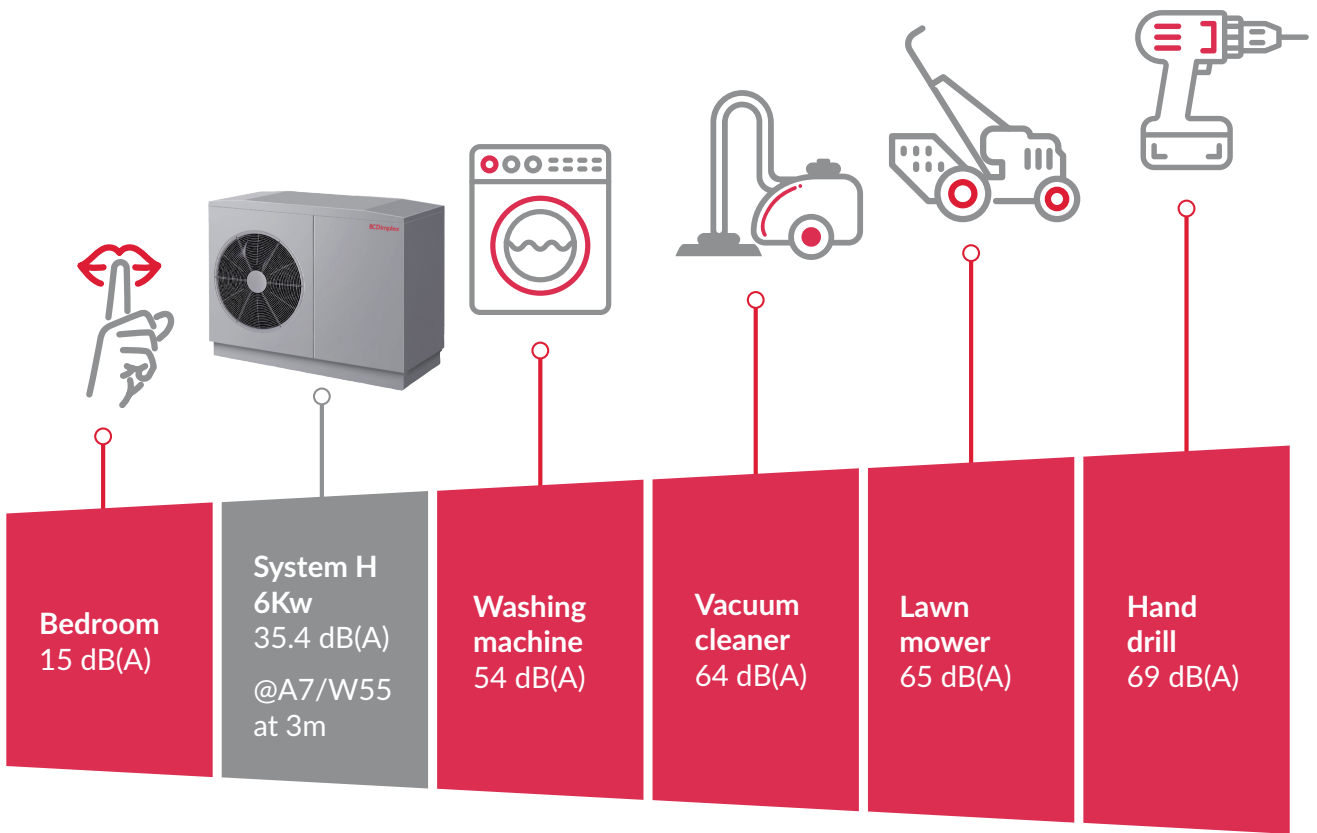
# Designed for quiet operation.

System H has been designed to be acoustically non-intrusive, making it ideal for projects where density is a consideration.

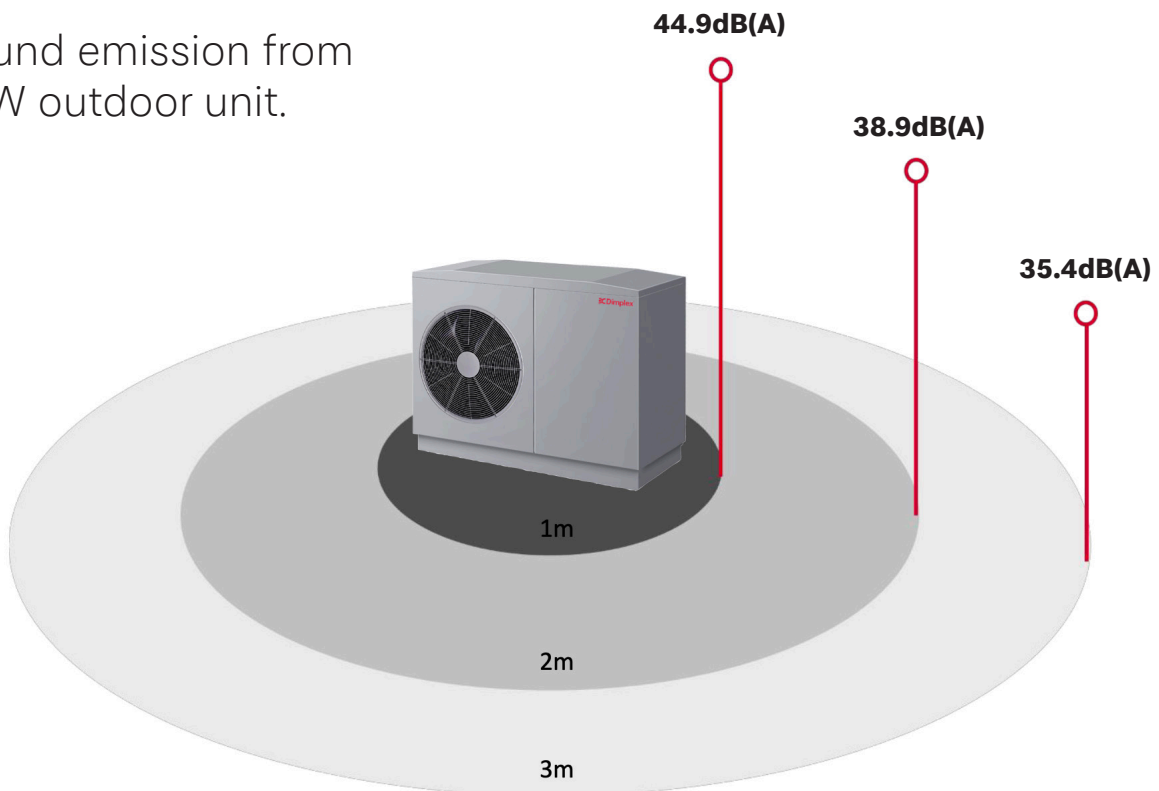
### Noise (Sound Power - EN 14825)

	6kW	8kW
Heating A7/W55	55.8 dB(A)	57.6 dB(A)





Sound emission from 6kW outdoor unit.



Above diagrams demonstrates Sound Pressure at 3m A7/W55.

# System H: A propane heat pump.

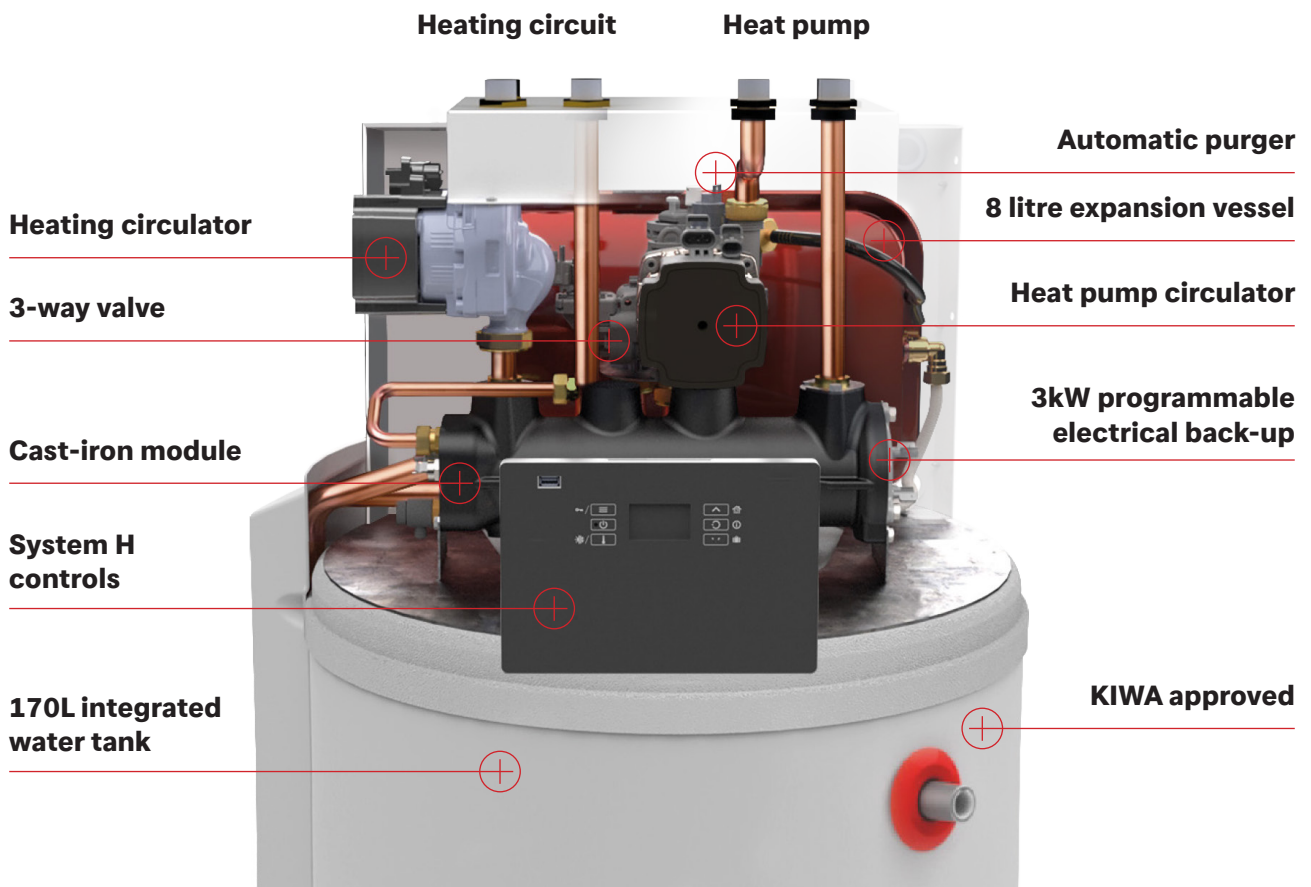
Environmental innovation.

- 1** R290 is a natural, non-toxic refrigerant.
- 2** Free of ozone-depleting properties.
- 3** Excellent thermodynamic performance.
- 4** Global warming potential (GWP) of 3.
- 5** Less than 1% of impact on global warming potential vs R410A.



# System H: Indoor unit.

Domestic hot water, heating & system controls.



## Intuitive system controls integrated within the indoor unit.

System controls features.

- ▶ Can be set up in multiple languages.
- ▶ Set and control temperatures for home heating and water.
- ▶ Holiday mode.
- ▶ Boost system to speed up water heating time.





# System H: Monobloc heat pump.

Utilising propane and high modulation capacity.

- 1** High temperature output up to 70°C.
- 2** Operational in low temperatures, down to -20°C.
- 3** High SCOP up to 4.83 (W35).
- 4** High modulation capacity between 15-100%.
- 5** Uses propane, a natural, non-toxic refrigerant.
- 6** Available in two output sizes, 6kW and 8kW.



## At a glance.

Variants 6kW and 8kW with DS 170D hot water cylinder.

Part No.	Description	Model
500000916	6kW Outdoor Unit	HTi6
500000912	8kW Outdoor Unit	HTi8
500000913	Indoor Unit	DS170UK
400001365	6kW System	System H6: HTi6 170 MS
400001366	8kW System	System H8: HTi8 170 MS
500000914*	Two zones kit & decoupling bypass	HDI Kit

\* Note that 500000914 is required to complete System H6 and System H8 installations.

Dimplex System H Model (Capacity)	6kW	8kW	
Model	System H6: HTi6 170 MS	System H8: HTi8 170 MS	
Part Number	400001365	400001366	
<b>Design</b>			
Heat Source	Air		
Model	Monobloc		
Controller	DS170		
<b>Installation</b>			
Installation Location	Indoors / Outdoors		
Degree of Protection (EN 60529) For Compact Unit Or Heating Element	IPX4		
Performance Level	Variable		
<b>System Characteristic</b>			
Nominal Flow Rate EN 14511	m <sup>3</sup> /h	1	1.35

<b>Operating Limits</b>		<b>6kW</b>	<b>8kW</b>
Heating Water Outlet Range	°C	7 to 70	
Ambient Conditions (Heating)	°C	-20 to 40	
<b>Noise (Sound Pressure - EN 14825)</b>			
ODU Sound Power - Heating A7 / W35 (EN 14825)	dB(A)	55.8	57.6
<b>Dimensions, Weights and Filling Quantities</b>			
Indoor Unit Dimensions (WxHxD)	mm	571 x 1725 x 542	
Outdoor Unit Dimensions (WxHxD)	mm	1035 x 820 x 450	1035 x 1075 x 450
Packaging Dimensions Outdoor	mm	1140 x 1030 x 590	1140 x 1250 x 590
Weight of Transportable Indoor Unit / Incl Packaging	kg	80 / 95	
Weight of Transportable Outdoor Unit / Incl Packaging	kg	81 / 96.5	94 / 110
Device Connections For Heating		G3/4"	
Refrigerant Type / Weight	kg	R290 / 0.42	R290 / 0.60
Refrigerant GWP Value; CO <sub>2</sub> Equivalent	T	3; 0.0001	
Electric Back up Heater Power	kW	3	
Safety Valve Space heating circuit- Start to Leak Pressure	bar	3	
<b>Electrical</b>			
Supply voltage / fuse protection			
Outdoor unit		1~ /N/PE 230V (50Hz) / D16A	
Indoor unit		1~ /N/PE 230V (50Hz) / C16A	
RCD type		B	
Control voltage / fuse protection		1~ /N/PE 230V (50Hz) / B13A	
Nominal power consumption at A7W35 (EN 14511)	kW	0.86	1.18
Nominal current at A7W35 (EN 14511)	A	3.7	5.1
<b>Additional Model Features</b>			
Method Of Defrosting		Reverse Cycle	
Condensate Tray Frost Protection		Yes	
Pipework Frost Protection		Yes	
<b>Heat Output / COP - EN 14511</b>			
A2 / W35	kW/COP	4.41 / 3.84	5.82 / 3.51
A7 / W35	kW/COP	4.06 / 4.73	5.72 / 4.85
A2 / W55	kW/COP	4.25 / 2.44	5.82 / 2.59
A7 / W55	kW/COP	4.27 / 3.04	5.86 / 3.33
<b>Efficiency Average - EN 14825</b>			
P Design (Design Heating Load) - W35	kW	5.92	7.63
SCOP W35	SCOP	4.75	4.83
P Design (Design Heat Load) - W55	kW	5.74	7.51
SCOP W55	SCOP	3.41	3.93
<b>Hot Water Cylinder</b>			
Cylinder Volume	litres	170	
Inner Cylinder	mm	418	
Maximum Hot Water Temperature	°C	70	
Maximum Standing Heat Loss (EN 15223)	kWh/24h	1.92	
Reheat Time (A7; cylinder temperature 55°C (mins))		3h10	3h23