



DHP-S ground source heat pump

An efficient and low-cost solution for larger homes

The DHP-S is a high-capacity heat pump designed for use in the large home and light commercial sector.

Ideal for nurseries, family homes, offices and shops, the DHP-S offers outstanding performance and capacity, combined with upgrade flexibility and a streamlined control system that simplifies operation and keeps costs down.

The DHP-S is an intelligent heat pump solution that extracts energy from the ground, rock or water.

The solution is very easy to dimension and install, meaning further savings, and the "set and forget" control system ensures hassle-free operation for building owners and managers.

Set and Forget

Intelligent control

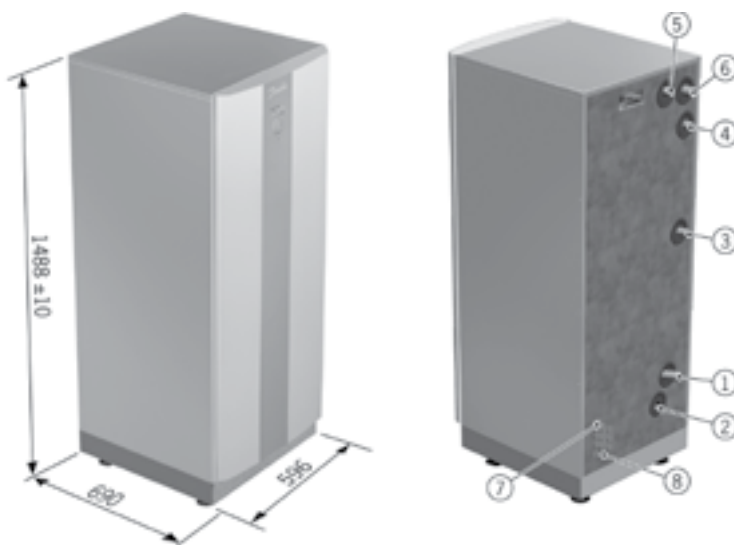
Once the optimised system is installed, it's so easy to run that you will quickly forget it's even there.



Connection heat pump

The brine lines can be connected on either the left or right-hand sides of the heat pump.

- 1 Coolant out (from HP)
- 2 Heat return (return line)
- 3 Return line hot-gas exchanger
- 4 Supply line hot-gas exchanger
- 5 Heat supply (supply line)
- 6 Coolant in (to HP)
- 7 Lead-in for communication cable
- 8 Lead-in for incoming power supply and sensors



DHP-S			20	26	35	42
Refrigerant	Type		R407C	R407C	R407C	R407C
	Amount	kg	3.4	3.5	3.6	4.2
	Test pressure	MPa	3.4	3.4	3.4	3.4
	Design pressure	MPa	2.95	2.95	2.95	2.95
Compressor	Type		Scroll	Scroll	Scroll	Scroll
	Oil		POE	POE	POE	POE
Electrical data 3-N	Main supply	Volt	400	400	400	400
	Rated power, compressor	kW	8.8	11.8	15.7	19.9
	Rated power, circulation pumps	kW	0.9	0.9	1.45	1.45
	Start Current	A	21.5	24	27	37.8
	Fuse	A	25	25	35	35
Performance	COP ¹		4.06	3.99	4.04	3.92
	Heating capacity ²	kW	18.2	24.5	32.8	38.4
	COP ²		3.73	3.70	3.81	3.53
	Power input ²	kW	4.9	6.6	8.4	10.9
Nominal flow ³	Cooling circuit ⁴	l/s	1.2	1.6	2.2	2.4
	Heating circuit	l/s	0.5	0.6	0.8	1.0
External available pressure ⁵	Cooling circuit	kPa	133	66.5	130	127
	Heating circuit	kPa	63.0	54.0	47	48
Internal pressure drop	Condenser	kPa	5	9	11	4
	Evaporator	kPa	37	72.5	58	53
	De-superheater	kPa	0.4	0.5	0.8	1.3
Max/min temperature ⁶	Cooling circuit	°C	20/-10	20/-10	20/-10	20/-10
	Heating circuit	°C	60/20	60/20	60/20	60/20
Pressure switches	Low pressure	MPa	0.08	0.08	0.08	0.08
	Operating		2.65	2.65	2.65	2.65
	High pressure	MPa	2.95	2.95	2.95	2.95
Sound power level ⁷		dB (A)	55	58	61	61
Anti freeze media ⁸	glycol + water solution with freezing point -17 ± 2 °C					
Water volume	Condensator	l	5.4	5.4	6.0	6.7
	Evaporator	l	3.4	3.8	5.6	5.1
	De-superheater	l	0.6	0.6	0.6	0.6
Weight		kg	274	278	297	315

The measurements are performed on a limited number of heat pumps which can cause variations in the results. Tolerances in the measuring methods can also cause variations.

3) Nominal flow heating circuit Δ10K, cooling circuit Δ3K.

4) Anti-freeze in cooling circuit: Ethanol-water.

5) At nominal flow.

6) Please note that not all cooling circuit temperatures and heating temperatures can be combined.

7) Sound power level measured according to EN ISO 3741 at 80W45 (EN12102).

8) Always check local rules and regulations before using antifreeze.

1) B0/W35 Δ10K heating circuit (excl. circ.pump)

2) B0/W35, According to EN14511 incl. circ.pump.



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