



## DHP-L ground source heat pump with DWH water heater

# Reliable and efficient heat source and advanced domestic hot water storage

The DHP-L uses innovative technology that allows it to operate at a high annual efficiency. Extracting energy from the ground, bedrock or water, the DHP-L heats your home whilst producing domestic hot water. The operational efficiency means you can cut your carbon emissions significantly.

The DHP-L is the same as the DHP-H, though does not have an integrated hot water tank which reduces its height, thus ideal for properties with low ceilings or wanting a heating only system. When connected to the

DWH integrated hot water tank, the incorporated TWS\* technology produces hot water faster than traditional alternatives can allow.

The DHP-L operates at a very low sound level and it can be easily adapted to produce cost effective cooling. There is an option to control and monitor the DHP-L via the internet.

The control system, although highly advanced, is both intuitive and user friendly.

## Reduced

### Height

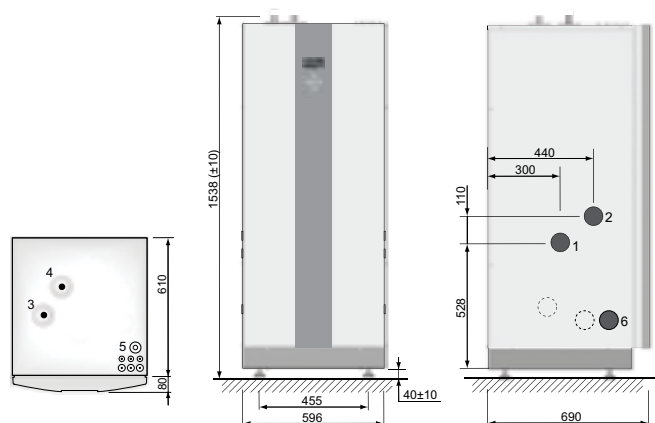
The DHP-L has a low height, perfect for home with limited head room.



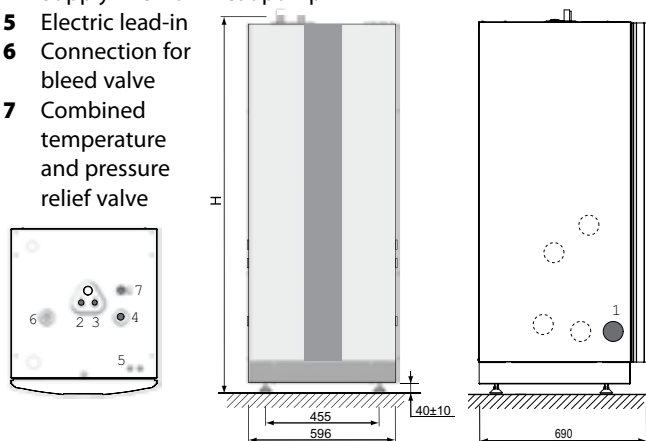
**Connection heat pump**

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

- 1 Brine in, 28 Cu
- 2 Brine out, 28 Cu
- 3 Heating system supply line, 22 Cu: 6-10 kW, 28 Cu: 12-16 kW
- 4 Heating system return line, 22 Cu: 6-10 kW, 28 Cu: 12-16 kW
- 5 Lead-in for supply, sensor and communication cables
- 6 Return line from water heater


**Connection water heater**

- 1 Return line to heat pump
- 2 Hot water
- 3 Cold water
- 4 Supply line from heat pump
- 5 Electric lead-in
- 6 Connection for bleed valve
- 7 Combined temperature and pressure relief valve



DWH			200	300
Volume	Sec/Prim	l	180/7.5	286/10
Design pressure	Sec/Prim	MPa	1.0/0.3	1.0/0.3
Test pressure	Sec/Prim	MPa	1.43/0.43	1.43/0.43
Weight empty		kg	141	147
Weight filled		kg	321	433
Height	H	mm	1538	1835

DHP-L			6	8	10	12	16
Refrigerant	Type		R407C	R407C	R407C	R407C	R407C
	Amount	kg	1.20	1.30	1.45	1.55	2.00
Compressor	Type		Scroll	Scroll	Scroll	Scroll	Scroll
	Main supply	Volt	400	400	400	400	400
Electrical data 3-N~50Hz	Rated power, compressor	kW	3.0	3.2	4.2	5.0	7.2
	Rated power, circulation pumps	kW	0.2	0.2	0.5	0.5	0.6
	Auxiliary heater, 3 steps	kW	3/6/9	3/6/9	3/6/9	3/6/9	3/6/9
	Start current <sup>1</sup>	A	9	10	12	14	20
	Fuse	A	10 <sup>4</sup> /16 <sup>5</sup> /20 <sup>6</sup>	16 <sup>4</sup> /16 <sup>5</sup> /20 <sup>6</sup>	16 <sup>4</sup> /16 <sup>5</sup> /20 <sup>6</sup>	16 <sup>4</sup> /20 <sup>5</sup> /25 <sup>6</sup>	20 <sup>4</sup> /20 <sup>5</sup> /25 <sup>6</sup>
	Electrical data 1-N~50Hz	Main supply	Volt	230	230	230	230
Rated power, compressor		kW	3.2	3.6	4.5	5.5	**
Rated power, circulation pumps		kW	0.2	0.2	0.5	0.5	**
Auxiliary heater, 3 steps		kW	1.5/3.0/4.5	1.5/3.0/4.5	1.5/3.0/4.5	1.5/3.0/4.5	**
Start current <sup>1</sup>		A	22	24	26	28	**
Fuse		A	25 <sup>4</sup> /32 <sup>5</sup> /40 <sup>6</sup>	25 <sup>4</sup> /32 <sup>5</sup> /40 <sup>6</sup>	32 <sup>4</sup> /40 <sup>5</sup> /50 <sup>6</sup>	32 <sup>4</sup> /40 <sup>5</sup> /50 <sup>6</sup>	**
Performance	COP <sup>2</sup>		4.74	4.88	4.84	4.75	4.80
	COP <sup>3</sup>		4.04	4.34	4.24	4.20	3.99
	Heating capacity <sup>3</sup>	kW	5.33	7.51	9.40	11.0	16.4
	Power input <sup>3</sup>	kW	1.3	1.7	2.2	2.6	4.1
Max/min temperature	Cooling circuit	°C	20/-10	20/-10	20/-10	20/-10	20/-10
	Heating circuit	°C	60/20	60/20	60/20	60/20	60/20
Anti freeze media <sup>7</sup>	glycol + water solution with freezing point -17 ±2 °C						
Dimensions LxWxH	mm	690x596x1538	690x596x1538	690x596x1538	690x596x1538	690x596x1538	
Weight empty	kg	145	150	155	165	175	
Sound power level <sup>8</sup>	dB(A)	45	44	47	48	50	

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.

- 1) According to IEC61000.
- 2) At B0W35 Δ10K warm side (excluding circulation pumps).
- 3) At B0W35 according to EN 14511 (including circulation pumps).
- 4) Heat pump with 3 kW auxiliary heater (1-N 1.5 kW).
- 5) Heat pump with 6 kW auxiliary heater (1-N 3 kW).

7) Always check local rules and regulations before using anti-freeze.

8) Sound power level measured according to EN ISO 3741 at B0W45 (EN 12102).

\*\* Not available in this version.

<sup>\*)</sup> TWS - Tap Water Stratification, our patented technology developed to ensure that the stored heat is always used optimally.

- 6) Heat pump with 9 kW auxiliary heater (1-N 4.5 kW).



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