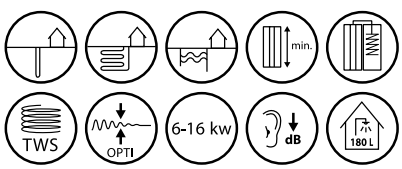
Danfoss Heat Pump
DHP-L Opti

Minimum energy consumption
thanks to optimized speed control.

Danfoss Water Heater
DWH

Advanced domestic hot
water storage.



Danfoss DHP-L Opti uses new innovative technology to operate at the highest possible annual efficiency, meaning you can get 75% of your energy consumption for free – using renewable energy stored in the bedrock, the ground or the water. This provides a sustainable and environmentally friendly heating solution.

The new Opti technology incorporates an intelligent control system that via speed controlled circulation pumps ensures that the performance is always adjusted to the prevailing requirements and conditions of the heating system. This makes the heat pump always work under the most ideal conditions available, guaranteeing maximum efficiency, second by second, hour by hour.

DHP-L Opti has a separate hot water tank, DWH (optional), ideal if you have a low ceiling or a high hot water demand. Danfoss DWH is available in different sizes. The tank incorporates our patented TWS* technology. You can also connect DHP-L Opti to your existing hot water tank.

This heat pump operates at a low sound level and it can easily be adapted to produce cost effective cooling. You can also control and monitor DHP-L Opti via the Internet.

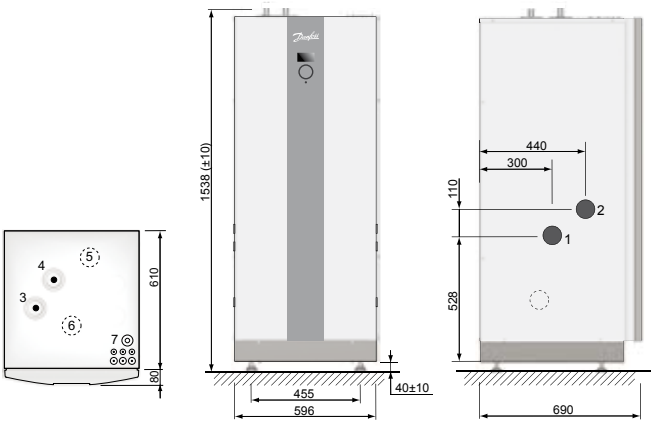
* Tap Water Stratificator, our patented technology developed to stratify hot water in a tank to ensure that heat is used optimally.

DANFOSS DHP-L OPTI

Connection heat pump

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

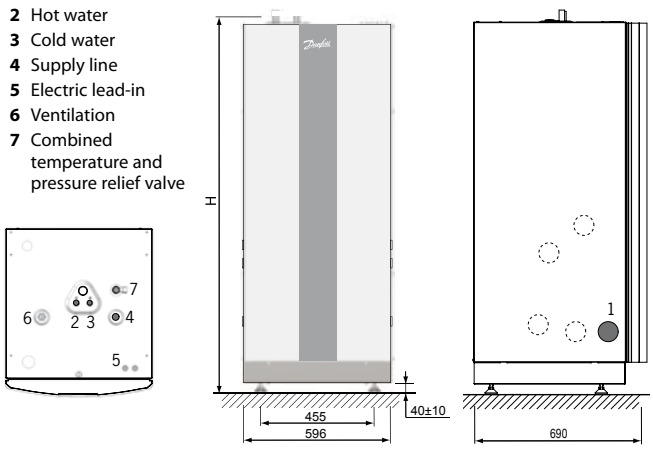
1. Brine in, 28 Cu
2. Brine out, 28 Cu
3. Heating system supply line, 22 Cu: 4-10 kW, 28 Cu: 12-16 kW
4. Heating system return line, 22 Cu: 4-10 kW, 28 Cu: 12-16 kW
5. Alternative for brine out
6. Alternative for brine in
7. Lead-in for supply, sensor and communication cables



DANFOSS DWH

Connection water heater

1. Return line
2. Hot water
3. Cold water
4. Supply line
5. Electric lead-in
6. Ventilation
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
Dry weight		kg	141	147
Filled weight		kg	321	419
Height	H	mm	1538	1835

DHP-L Opti			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
Electrical data 3-N~50Hz	Main supply	Volt	400	400	400	400	400
	Rated power, compressor	kW	2.0	2.3	3.6	4.4	5.6
	Rated power, circulation pumps	kW	0.3	0.3	0.3	0.3	0.4
	Auxiliary heater, 3 steps	kW	3/6/9	3/6/9	3/6/9	3/6/9	3/6/9
	Start current[1]	A	12	10	18	17	18
	Circuit breaker	A	10[4]/16[5]/20[6]	16[4]/16[5]/20[6]	16[4]/16[5]/20[6]	16[4]/20[5]/25[6]	20[4]/20[5]/25[6]
Electrical data 1-N~50Hz	Main supply	Volt	230	230	230	230	*
	Rated power, compressor	kW	3.3	4.2	5.4	5.7	*
	Rated power, circulation pumps	kW	0.3	0.3	0.3	0.3	*
	Auxiliary heater, 3 steps	kW	1.5/3/4.5	1.5/3/4.5	1.5/3/4.5	1.5/3/4.5	*
	Start current	A	11	21	26	28	*
	Circuit breaker	A	25[4]/32[5]/40[6]	25[4]/32[5]/40[6]	32[4]/40[5]/50[6]	32[4]/40[5]/50[6]	*
Performance	COP[2]		4.74	4.88	4.84	4.75	4.80
	COP[3]		4.04	4.34	4.24	4.20	3.99
	Heating capacity[3]	kW	5.33	7.51	9.40	11.0	16.4
	Power input[3]	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	55/20	55/20	55/20	55/20	55/20
Water volume	Water heater	l	*	*	*	*	*
	Condensor	l	1.6	1.9	2.1	2.1	2.9
	Evaporator	l	0.7	1.2	1.6	1.6	2.2
	De-superheater	l	*	*	*	*	*
Anti freeze media			Ethylene glycol/ Ethanol	Ethylene glycol/ Ethanol	Ethylene glycol/ Ethanol	Ethylene glycol/ Ethanol	Ethylene glycol/ Ethanol
Dimensions LxWxH		mm	690x596x1538	690x596x1538	690x596x1538	690x596x1538	690x596x1538
Weight empty		kg	145	150	155	165	175
Weight filled		kg	151	157	162	172	184
Sound power level[7]		dB(A)	44.5	43.5	46.7	48.2	49.9

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).
6) Heat pump with 9 kW auxiliary heater (1-N 4.5 kW).
7) Sound power level measured according to EN ISO 3741 at BOW45 (EN 12102).
8) Fuse protection phase L1 (size 4 is equipped with an 1-phase compressor).
*) Not available in this version.