

# Thermia Diplomat Optimum G2 Diplomat Duo Optimum G2



Diplomat Optimum G2



## Save energy and money without economising on hot water.

The **Thermia Diplomat Optimum G2** produces greater amounts of hotter water and uses less energy than any other heat pump on the market.

Surplus heat from indoor heating is used to produce hot water by means of our new, patent-pending HGW\* technique. So not only is your heat pump heating your home, it's giving you hot water into the bargain. In much larger quantities too.

The Diplomat Optimum ranked number one in the category of most water and hottest water in the test of heat pumps carried out by the Swedish Consumer Agency. We've now moved up yet another notch and in addition Diplomat Optimum G2 operates at a 20 percent higher annual efficiency than standard heat pumps.

The hot water tank is fitted with our TWS\*\* technique, which means that the hot water is produced faster and at higher temperatures than with traditional technique.

The **Thermia Diplomat Duo Optimum G2** is a variant of the Thermia Diplomat Optimum G2. What separate them is that the Duo variant does not have an integrated hot water tank. A separate hot water tank (Thermia MBH) is available in volumes of 200 and 300 litres.

The Thermia Diplomat Duo Optimum G2 is a good choice if you have a low ceiling height or require very large amounts of hot water.

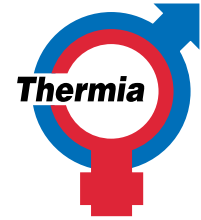
Diplomat Duo Optimum G2



\* HGW = Patent-pending heating technique, developed by Thermia.

\*\* TWS = Patented heating technique for water heaters, developed by Thermia.

# Technical data Diplomat Optimum G2 Diplomat Duo Optimum G2



## Connection Diplomat Optimum G2

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

- 1 Brine return line (Brine in), 28 Cu
- 2 Brine supply line (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 Expansion pipe, 22 Cu
- 6 Hot water pipe, 22 mm
- 7 Cold water pipe, 22 mm
- 8 Lead-in for incoming power supply, sensors and communication cable



Diplomat Optimum G2



Diplomat Duo Optimum G2

## Connection Diplomat Duo Optimum G2

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

- 1 Return pipe from water heater
- 2 Brine return line (Brine in), 28 Cu
- 3 Brine supply line (Brine out), 28 Cu
- 4 Heating system supply line, 22 Cu: 4-10 kW, 28 Cu: 12-16 kW
- 5 Heating system return line, 22 Cu: 4-10 kW, 28 Cu: 12-16 kW
- 6 Supply line to water heater
- 7 Lead-in for incoming power supply, sensors and communication cable

Diplomat Optimum G2/Diplomat Duo Optimum G2			6	8	10	12	16
<b>Refrigerant</b>	Type		R407C	R407C	R407C	R407C	R407C
	Amount	kg	1.15	1.35	1.40	1.55	1.70
<b>Compressor</b>	Type		Scroll	Scroll	Scroll	Scroll	Scroll
<b>Electrical data 3-N, -50Hz</b>	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	0.1	0.1	0.2	0.2	0.4
	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	12	10	18	17	18
	Circuit breaker	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>
<b>Electrical data 1-N, -50Hz</b>	Main supply	Volt	230	230	230	230	*
	Rated power, compressor	kW	3.3	4.2	5.4	5.7	*
	Rated power, circulation pumps	kW	0.1	0.1	0.2	0.2	*
	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 <sup>1</sup>	A	11	21	26	28	*
	Circuit breaker	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>	*
<b>Performance</b>	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
<b>Max/min temperature</b>	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
<b>Anti freeze media</b>			Ethylene glycol/Ethanol				
<b>Sound power level<sup>7</sup></b>		dB(A)	45	42	45	49	50
<b>Water volume</b>	Diplomat Optimum G2	l	180	180	180	180	180
	Diplomat Duo Optimum G2	l	Optional	Optional	Optional	Optional	Optional
<b>Weight</b>	Diplomat Optimum G2, empty	kg	231	231	231	240	244
	Diplomat Optimum G2, filled	kg	411	411	411	420	424
	Diplomat Duo Optimum G2	kg	150	155	160	170	180

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 BOW35 Δ10K warm side (excluding circulation pumps).
- 3) At BOW35 according to EN 14511 (including circulation pumps).
- 4) Heat pump with 3 kW auxiliary heater (I-N 1.5 kW).
- 5) Heat pump with 6 kW auxiliary heater (I-N 3 kW).

- 6) Heat pump with 9 kW auxiliary heater (I-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.

Thermia Värme AB reserves the right to make changes without further notice. 100622\_D0G2\_D0G2\_ENG