

# Thermia Diplomat Optimum G2 Diplomat Duo Optimum G2



Diplomat Optimum G2



Diplomat Duo Optimum G2



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

The **Thermia Diplomat Optimum G2** produces more and hotter water than traditional heat pumps, while also consuming less energy.

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 Thermia Diplomat Optimum G2 has speed control, which means that its performance can be continuously adjusted to the prevailing requirements and conditions. No unnecessary work – maximum efficiency and minimum energy consumption all the time.

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 separates 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.

\* 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: 6-10 kW, 28 Cu: 12-16 kW
- 4 Heating system return line, 22 Cu: 6-10 kW, 28 Cu: 12-16 kW
- 5 Connection for bleed valve, 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: 6-10 kW, 28 Cu: 12-16 kW
- 5 Heating system return line, 22 Cu: 6-10 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	3.0	3.2	4.2	5.0	7.2
	Rated power, circulation pumps	kW	0.1	0.1	0.3	0.3	0.5
	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>
<b>Electrical data 1-N, -50Hz</b>	Main supply	Volt	230	230	230	230	*
	Rated power, compressor	kW	3.2	4.1	4.5	5.5	*
	Rated power, circulation pumps	kW	0.1	0.1	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 <sup>1</sup>	A	22	24	26	28	*
	Fuse	A	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>	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	4.19
	Heating capacity <sup>3</sup>	kW	5.33	7.51	9.40	11.0	16.8
	Electrical power <sup>3</sup>	kW	1.3	1.7	2.2	2.6	4.0
<b>Max/min temperature</b>	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
<b>Anti freeze media</b>	Ethanol + water solution with freezing point -17 ±2 °C <sup>8</sup>						
<b>Sound power level<sup>7</sup></b>	Diplomat Optimum G2	dB(A)	45	42	45	49	50
	Diplomat Duo Optimum G2	dB(A)	45	44	47	48	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 Δ10°K 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) Always check local rules and regulations before using antifreeze.
- \* ) Not available in this version.