

# Thermia Diplomat Inverter Diplomat Duo Inverter



Diplomat Inverter



Diplomat Inverter Duo



## Total efficiency, unsurpassed performance !

The newly developed inverter-controlled compressor is a part of the secret behind the Diplomat Inverter, ground source heat pump with the highest SPF. The inverter-controlled compressor adjusts the heat load constantly according to the current heat demand. You never use more energy than is needed, and this of course reduces your energy bills further.

Our HGW\* technical solution utilizes the normal heating space to also produce hot water. The result is that when the heat pump heats your home, it generates hot water at the same time. The built-in TWS technology\*\* means that the hot water is produced faster and at higher temperatures than those methods used traditionally.

With the Thermia Diplomat Inverter you can customize a one-system solution that meets all your requirements, including heating, cooling, pool heating and all in combination with additional heat sources.

With Thermia Online you have the ability to remotely control and monitor your heat pump.

A+++

A++

A+++ energy class when the heat pump is part of an integrated system

A++ energy class when the heat pump is the sole heat generator

Energy class according to Eco-design Directive 811/2013

# Technical data Diplomat Inverter Diplomat Duo Inverter

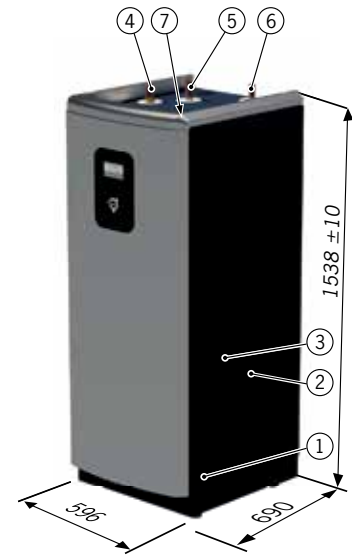
## Connections Diplomat Inverter

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 mm
- 2 Brine supply line (Brine out), 28 mm
- 3 Heating system supply line, 28 mm
- 4 Heating system return line, 28 mm
- 5 Connection for bleed valve, 22 mm
- 6 Hot water pipe, 22 mm
- 7 Cold water pipe, 22 mm
- 8 Lead-in for incoming power supply, sensors and communication cable



Diplomat Inverter



Diplomat Duo Inverter

## Connections Diplomat Duo Inverter

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

- 1 Cold water pipe, 22 mm (flexible hose)
- 2 Brine return line (Brine in), 28 mm
- 3 Brine supply line (Brine out), 28 mm
- 4 Heating system supply line, 28 mm
- 5 Heating system return line, 28 mm
- 6 Hot water pipe, 22 mm
- 7 Lead-in for incoming power supply, sensors and communication cable

Diplomat Inverter/Diplomat Inverter Duo		M	L	
<b>Heating capacity</b>		3 - 12 kW <sup>4</sup>	5 - 17 kW <sup>4</sup>	
<b>Refrigerant</b>	Type	R410A	R410A	
	Amount	kg	1,8	2,0
	Test pressure	MPa	4,5	4,5
	Design pressure	MPa	4,3	4,3
<b>Compressor</b>	Type	Scroll	Scroll	
	Oil	POE	POE	
<b>Electrical data 3-N</b>	Mains power supply	Volt	400	400
	Rated power, compressor	kW	4,6	5,9
	Rated power, circulation pumps	kW	0,3	0,3
	Auxiliary heater, 3 steps	kW	3/6/9	3/6/9
	Fuse <sup>1,9</sup>	A	10/16/20/25	16/20/25/32
<b>Performance</b>	SCOP Floor heating (35°C) <sup>2</sup>		5,6	5,4
	SCOP Radiator (55°C) <sup>2</sup>		4,4	4,3
	COP <sup>3</sup>		5,0	5,0
	COP <sup>4</sup>		4,6	4,7
<b>Energy class - system<sup>7</sup></b>	Floor heating (35°C), Radiator (55°C)		A+++	A+++
	<b>Energy class - product<sup>8</sup></b>	Floor heating (35°C), Radiator (55°C)		A++
		Domestic hot water		A
<b>Max/min temperature</b>	Cooling circuit	°C	20/-10	20/-10
	Heating circuit	°C	65/20	65/20
<b>Anti-freeze<sup>5</sup></b>			Ethanol + water solution -17°C ± 2	
<b>Max/min refrigerant circuit</b>	Low pressure	MPa(g)	0,21	0,21
	Operating pressure	MPa(g)	4,18	4,18
	High pressure	MPa(g)	4,30	4,30
<b>Sound power level<sup>6</sup></b>	Diplomat Inverter	dB(A)	36-49	38-49
	Diplomat Duo Inverter	dB(A)	38-50	41-51
<b>Water volume</b>	Diplomat Inverter	l	180	180
	Diplomat Duo Inverter	l	optional	optional
<b>Weight</b>	Diplomat Inverter, Empty	kg	193	200
	Diplomat Inverter, Filled	kg	373	380
	Diplomat Duo Inverter	kg	153	160

ver. 08.2016 Thermia Heat Pumps and their authorised retailers retain the right to make changes to components and specifications without prior notice. Subject to any typographical errors.

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) Fuse size depends on auxiliary heater (0/3/6/9 kW)

2) SCOP according to EN14825, Cold climate (Helsinki), P-design 15 kW

3) At BOW35 Δ10K warm side (excluding circulation pumps).

4) At BOW35 according to EN 14511

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

6) According to EN12102 and ENISO 3741 (BOW35)

7) When the heat pump is part of an integrated system. According to Eco-design Directive 811/2013

8) When the heat pump is the sole heat generator and the built-in controller is not included.

According to Eco-design Directive 811/2013.

9) Fulfils IEC 61000-3-12 when Ssc at interface point to the grid is ≥ 2,0 MVA

\* Hot Gas Water: our patented technology that utilises existing heating production to heat domestic hot water simultaneously.

\*\* Tap Water Stratification, our patented technology developed to ensure that the stored heat is always used optimally.