



# Thermia Atec



Atec

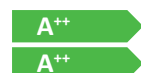
**The air/water heat pump that delivers maximum performance and comfort, year round.**

**Thermia Atec** sets a new standard for air/water heat pumps.

With a superior seasonal performance\* Thermia Atec delivers maximal energy savings. By a unique acoustic design, it is very quiet in operation. The cooling function assures a pleasant indoor climate also during the hottest period of the year. And if you have a swimming pool, you can reduce the heating cost significantly as Thermia Atec is prepared for heating of pools.

Thermia Atec is developed using the latest technology. The energy consumption is put to a minimum by continually optimizing the three key performance parameters of air flow (variable-speed EC fan), heating circuit flow (electronic expansion valve) and heat distribution flow (Optimum technology). Energy is collected from the outdoor air, and is used to heating of hot water and hydronic heating systems, delivering efficient energy savings at temperatures as low as -20 °C. This means you can reduce your energy consumption for heating by up to 75 percent.

Thermia Atec is available in a range of output sizes, and can be combined from 6 to 36 kW. It consists of two parts: the heat pump itself, which is installed outdoors, and an indoor unit. You can choose from three versions of the indoor unit, each with different features. The choice of unit depends on the set-up of your heating system, to ensure you never pay for more than you actually need.



A++ energy class when the heat pump is part of an integrated system, applies to Atec 13

A++ energy class when the heat pump is the sole heat generator, applies to Atec 13

Energy class according to Eco-design Directive 811/2013



# Technical data Atec

## Connection

- 1 Supply line heating system: 28 mm Cu
- 2 Return line heating system: 28 mm Cu

## Indoor packages



### STANDARD

- Control panel



### PLUS

- Intelligent Controller
- Optimum controlled circulation pump Class A
- Immersion heater (3/6/9/12/15 kW 3~400V; 3/6/9 kW 1~230 V)
- Three way valve for heating or hot water production

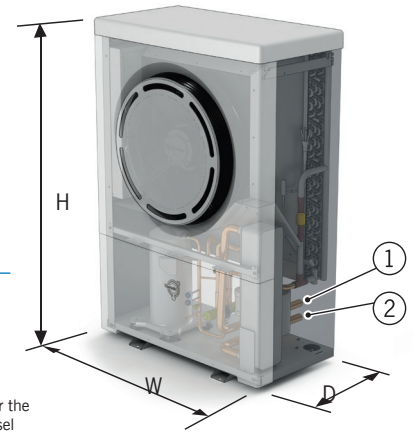


### TOTAL COMPACT

- Intelligent Controller
- Hot water tank, 180 litre
- Optimum controlled circulation pump Class A
- Immersion heater (3/6/9/12/15 kW 3~400 V; 1,5/3/4,5 kW 1~230 V)
- Three way valve for heating or hot water production

- Total feature additional free space in the lower part of the unit might be used for the extra 60 liters volume tank (available as an accessory) or for the expansion vessel or/and hydraulic connections

### TOTAL



Atec			6	9	11	13	16	18
<b>Refrigerant</b>	Type		R407C	R407C	R407C	R407C	R407C	R407C
	Amount <sup>12</sup>	kg	4.0	4.3	5.0	5.1	5.59	5.59
	Test pressure	MPa	3.4	3.4	3.4	3.4	3.4	3.4
	Design pressure	MPa	3.1	3.1	3.1	3.1	3.1	3.1
<b>Compressor</b>	Type		Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
	Oil		POE	POE	POE	POE	POE	POE
<b>Electrical data 3-N, ~50Hz</b>	Main supply	Volt	400	400	400	400	400	400
	Rated power, compressor	kW	2.2	2.9	3.3	4.2	5.0	6.1
	Rated power, fan	kW	0.2	0.2	0.2	0.3	0.3	0.7
	Start current	A	12	10	18	17	18	18
	Fuse	A	10	10	16	16	16	16
<b>Electrical data 1-N, ~50Hz</b>	Main supply	Volt	230	230	230	230	230	-
	Rated power, compressor	kW	2.4	2.8	3.6	4.3	5.5	-
	Rated power, fan	kW	0.2	0.2	0.2	0.3	0.3	-
	Start current	A	11	21	26	28	38	-
	Fuse	A	20	20	25	32	32	-
<b>Performance<sup>8</sup></b>	COP <sup>1</sup>		4.7	4.7	5.0	4.7	4.6	4.3
	COP <sup>2</sup>		4.3	4.4	4.7	4.4	4.1	4.0
	Heating capacity <sup>2</sup>	kW	6.5	8.6	11.1	12.3	15.2	17.6
	Power input – heating <sup>2</sup>	kW	1.5	2.0	2.4	2.8	3.7	4.4
	EER <sup>3</sup>		2.2	2.4	2.5	2.4	2.3	2.3
	Cooling capacity <sup>3</sup>		4.2	5.9	7.5	8.9	10.4	13.1
	Power input – cooling <sup>3</sup>		1.9	2.5	3.0	3.7	4.5	5.7
<b>Energy class - system <sup>10</sup></b>		Floor heating (35°C)/Radiator (55°C)	A+/A+	A+/A++	A++/A+	A++/A++	A++/A+	A+/A+
<b>Energy class - product <sup>11</sup></b>		Floor heating (35°C)/Radiator (55°C)	A+/A+	A+/A++	A++/A+	A+/A++	A++/A+	A+/A+
		Domestic hot water	B	A	A	A	B	B
<b>Nominal flow <sup>4</sup></b>	Heating circuit	l/s	0.150	0.216	0.263	0.299	0.372	0.432
<b>Operating range (outdoor)</b>		°C	-20~+45	-20~+45	-20~+45	-20~+45	-20~+45	-20~+45
<b>Max temperature <sup>5</sup></b>	Heating circuit	°C	60	60	60	60	60	60
<b>Pressure levels</b>	Low pressure	MPa	0.05	0.05	0.05	0.05	0.05	0.05
	Operating	MPa	2.85	2.85	2.85	2.85	2.85	2.85
	High pressure	MPa	3.1	3.1	3.1	3.1	3.1	3.1
<b>Sound power level</b>	Regular mode <sup>6</sup>	dB(A)	61	61	61	62	66	76
	"Silent mode" <sup>6</sup>	dB(A)	60	59	60	61	64	71
<b>Sound pressure level</b>	Regular mode <sup>7</sup>	dB(A)	46	46	46	47	51	61
	"Silent mode" <sup>7</sup>	dB(A)	45	44	44	46	48	55
<b>Weight</b>	Outdoor unit	kg	125	131	150	155	185	191
	Standard	kg	18	18	18	18	18	18
	Plus	kg	21	21	21	21	21	21
	Total	kg	106	106	106	106	-	-
	Total (+60) <sup>9</sup>	kg	142	142	142	142	-	-
	Total Compact	kg	100	100	100	100	-	-
<b>Dimensions (Width x Depth x Height)</b>		mm	856x510x1272	856x510x1272	1016x564x1477	1016x564x1477	1166x570x1557	1166x570x1557

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.

\* Seasonal performance is a measure of a heat pump's efficiency, on a yearly basis, incorporating hot and cold periods and the production of hot tap water.

1) At A7/W35 Δ10K warm side. (EN 255)

2) At A7/W35 according to EN 14511.

3) At A35/W7 according to EN14511.

4) Nominal flow: heating circuit Δ10K.

5) At outdoor temperature 0°C.

6) According to SS-EN 12102, EN ISO 3741.

7) According to ISO 11203, cuboid-shaped measuring surface.

8) The values apply to a new heat pump with clean heat exchangers.

9) Built-in tank 60-litre volume version, used when the building's heating system requires extra volume.

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

11) When the heat pump is the sole heat generator and the built-in controller is not included. According to Eco-design Directive 811/2013.

12) The refrigerant circuit is hermetically sealed and subject to the F-gas directive. Global Warming Potential (GWP) for R407C according to EC 517/2014 is 1774, giving a CO<sub>2</sub> equivalent corresponding to:

6: 7096kg, 9: 7628kg, 11: 8870kg, 13: 9047kg, 16: 9934kg 18: 9934kg