

Thermia Atec

The air/water heat pump
that sets a new standard



THERMIA ATEC

- The best annual efficiency* on the market
- Low sound level
- Cooling function
- Efficient energy savings down to -20 °C
- Pool heating
- Can be combined with other heat sources
- Calendar function

Newly developed, with superior function and savings

Thermia Atec is a smart, convenient and economical energy source. It's easy to install and it supplies your entire house with hydronic heat and hot water. It's a newly developed product that sets a new standard for air/water heat pumps.

An optimal design, the best components available and a unique control system mean Atec delivers superior annual efficiency* and maximum savings. It works efficiently down to -20 °C, and ensures that the house always maintains the correct temperature and has hot water.

Thanks to the unique acoustic design of the mechanical functions, Atec has the lowest noise levels on the market.

To bring you maximum comfort, Atec also features an active cooling function, so you can keep cool on the hottest of days. And if you have a swimming pool, it can be connected to Thermia Atec, reducing your pool heating costs.

*** Annual efficiency** is a measure of a heat pump's efficiency, on a yearly basis, incorporating hot and cold periods and the production of hot water. Our tests show that Thermia Atec has a 17–38 % better annual efficiency than the leading competitors.

INTELLIGENT CONTROL SYSTEM

The all-new control system coordinates and continually optimizes the three main parameters: flow in the heat distribution (Optimum technology), refrigerant circuit flow (EEV) and air flow (rpm-controlled fan), delivering the best annual efficiency on the market.

OPTIMUM TECHNOLOGY

The rpm-controlled circulation pump ensures the heat pump is always operating optimally.

EEV

The electronic expansion valve ensures maximum performance at any given temperature.

RPM-CONTROLLED FAN

An energy-efficient fan (EC technology) that regulates the air flow through the heat pump as required, and guarantees maximum performance, regardless of temperature. It also allows you to use silent mode, when extremely low noise levels are required.

POOL HEATING

You can connect the heating of your swimming pool to the heat pump. There is potential for big savings.

THE QUIETEST ON THE MARKET

Thanks to the unique acoustic design of the mechanical functions, Atec has the lowest noise levels on the market.



EASY INSTALLATION

Atec is delivered ready to install outdoors. The easy "plug-and-play" connection between the outdoor unit and some of our ready-to-use indoor solutions minimizes installation time and ensures proper operation.

COOLING FUNCTION

Atec can also provide active cooling, an efficient way to boost comfort on hot days.

EASY TO LOCATE

Atec can be located up to 30 metres from the house, with retained functionality.

6–36 kW

Atec is available in various sizes (6–36 kW), to suit everything from holiday homes to small multi-dwelling buildings.

AUTOMATIC DEFROSTING

Defrosts only when required, and for as long as required. That saves energy and boosts efficiency.

CALENDAR FUNCTION

Night-time reduction, holiday mode, time control of temperature and hot water – with the built-in calendar you can program and control the heat pump to meet your specific requirements.

Choose indoor package

ANNUAL EFFICIENCY
38% better than the leading competitors

LOW SOUND LEVEL

Thermia Atec is a flexible solution that is easy to adapt to existing equipment – and you don't need to buy more than you need. So we have put together three complete indoor solutions. You choose the one that best meets the circumstances in your home.

STANDARD

- Control panel



PLUS

- Control panel
- Electric heater cartridge, stepped settings from 3–15 kW
- Circulation pump
- 3-way valve



TOTAL

- Control panel
- Electric heater cartridge, stepped settings from 3–15 kW
- Hot water tank, 200 litre
- Circulation pump
- 3-way valve



(Not an option for Atec 16 and Atec 18)

Technical data

Connection

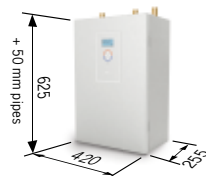
- 1 Supply line heating system: 28 mm Cu
- 2 Return line heating system: 28 mm Cu

Indoor packages



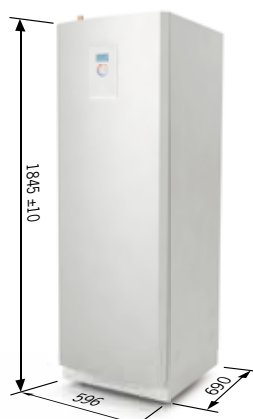
STANDARD

- Control panel



PLUS

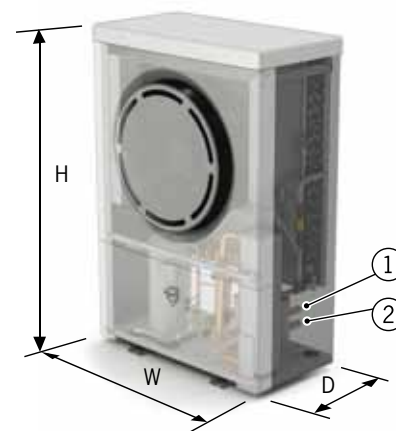
- Control panel
- Electric heater cartridge, from 3 to 15 kW
- Circulation pump
- 3-way valve



TOTAL

- Control panel
- Electric heater cartridge, from 3 to 15 kW
- Hot water tank, 200 litre
- Circulation pump
- 3-way valve

(Not an option for Atec 16 and Atec 18)



Atec			6	9	11	13	16	18
Refrigerant	Type		R407C	R407C	R407C	R407C	R407C	R407C
	Amount	kg	4.0	4.3	5.0	5.1	5.7	6.0
	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
Compressor	Type		Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
	Oil		POE	POE	POE	POE	POE	POE
Electrical data 3-N, -50Hz	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
Electrical data 1-N, -50Hz	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	32	32	32	-
Performance⁷	COP ¹		4.7	4.7	5.0	4.7	4.6	4.3
	COP ²		4.3	4.4	4.5	4.4	4.1	4.0
	Heating capacity ²	kW	6.5	8.6	10.6	12.3	15.2	17.6
	Power input – heating ²	kW	1.5	2.0	2.3	2.8	3.7	4.4
	EER ³		2.2	2.4	2.5	2.4	2.3	2.3
	Cooling capacity ³		4.2	5.9	7.5	8.9	10.4	13.1
Nominal flow⁴	Heating circuit	l/s	0.150	0.216	0.263	0.299	0.372	0.432
	Operating range (outdoor)	°C	-20~+45	-20~+45	-20~+45	-20~+45	-20~+45	-20~+45
Max temperature⁵	Heating circuit	°C	60	60	60	60	60	60
Pressure levels	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
Sound power level	Regular mode ⁶	dB(A)	61	61	61	62	66	76
	Silent mode ⁶	dB(A)	60	59	60	61	64	71
Sound pressure level	Regular mode ⁸	dB(A)	46	46	46	47	51	61
	"Silent mode" ⁸	dB(A)	45	44	44	46	48	55
Weight	Outdoor unit	kg	125	131	150	155	191	185
	Standard	kg	18	18	18	18	18	18
	Plus	kg	21	21	21	21	21	21
	Total	kg	106	106	106	106	-	-
Dimensions (Width x Depth x Height)	Outdoor unit	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.

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) The values apply to a new heat pump with clean heat exchangers. 8) According to ISO 11203, cuboid-shaped measuring surface.

