



Thermia iTec



iTec

The air source heat pump that delivers maximum performance and comfort, year round.

Thermia iTec is an air source heat pump with inverter technology. 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.

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 -25°C . 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 iTec is prepared for heating of pools. With a high seasonal performance Thermia iTec allows you to reduce your energy consumption by up to 75%.

Thermia iTec is available in three output sizes: 5 kW, 9 kW and 16 kW. It consists of two parts: the heat pump itself, which is installed outdoors, and an indoor unit. You can choose from two 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. With Thermia Online you have the ability to remotely control and monitor your heat pump.



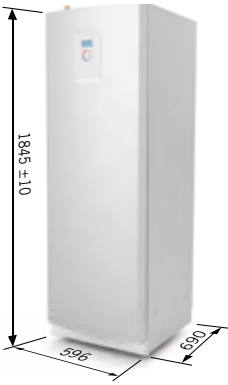
A+++ energy class when the heat pump is part of an integrated system

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

Energy class according to Eco-design Directive 811/2013



Technical data iTec



▶ **TOTAL**

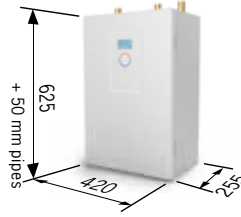
- Intelligent Controller
- Hot water tank, 180 litre
- Optimum controlled circulation pump Class A
- Immersion heater (3/6/9/12/15 kW 3~400 V; 1,5/3/4,5 kW 1~230 V)
- Three way valve for heating or hot water production
- Additional free space in the lower part of the unit might be used for the extra 60 liters volume tank (available as an accessory) or for the expansion vessel or/and hydraulic connections



▶ **TOTAL 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

Indoor unit



▶ **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



▶ **STANDARD**

- Intelligent Controller

Outdoor unit



▶ **iTec 16**

3,8 - 16 kW
1~230 V
3~400 V

Connection

- ① Supply line heating system: R25, steel, external thread (rear side of the heat pump)
- ② Return line heating system: R25, steel, external thread (rear side of the heat pump)
- ③ Power and communication wiring conduits (iTec 5 right upper side of the heat pump, iTec 9 and iTec 16 bottom right side of the heat pump)



▶ **iTec 5**

1,06 - 5 kW
1~230 V



▶ **iTec 9**

2,14 - 9 kW
1~230 V
3~400 V

iTec	1~230 V, 50 Hz						3~400 V, 50 Hz				
			5		9		16		9		16
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
	Amount ¹⁰	kg	1.15	1.4	2.6	1.5	2.6	1.5	2.6	1.5	2.6
	Test pressure	MPa	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
	Design pressure	MPa	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Compressor	Type		BLDC Twin Rotary POE	BLDC Twin Rotary POE	BLDC Twin Rotary PVE	BLDC Twin Rotary PVE	BLDC Twin Rotary PVE	BLDC Twin Rotary PVE	BLDC Twin Rotary PVE	BLDC Twin Rotary PVE	BLDC Twin Rotary PVE
	Oil										
Electrical data	Main supply	Volt	230	230	230	400	400	400	400	400	400
	Rated power, cooling	kW	1,21	1,95	3,84	1,92	3,84	1,92	3,84	1,92	3,84
	Rated power, heating	kW	1,06	2,14	3,8	2,14	3,8	2,14	3,8	2,14	3,8
	Fuse	A	16	16	25	10	16	10	16	10	16
Performance	COP ¹		4.72	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21
	Heating capacity ¹	kW	5.0	9.0	16.0	9.0	16.0	9.0	16.0	9.0	16.0
	Power input – heating ¹	kW	1.06	2.14	3.8	2.14	3.8	2.14	3.8	2.14	3.8
	EER ²		4.13	3.85	3.65	3.65	3.65	3.65	3.65	3.65	3.65
	Cooling capacity ²	kW	5.0	7.5	14.0	7.0	14.0	7.0	14.0	7.0	14.0
	Power input – cooling ²	kW	1.21	1.95	3.84	1.92	3.84	1.92	3.84	1.92	3.84
	SCOP 14825 (Average climate) Low temp		4.50	4.41	4.41	4.41	4.41	4.41	4.41	4.41	4.41
	SCOP 14825 (Cold climate) Low temp		3.74	3.96	3.99	3.91	3.99	3.91	3.99	3.91	3.99
	SCOP 14825 (Average climate) High temp		3.13	3.15	2.80	3.13	2.80	3.13	2.80	3.13	2.80
	SCOP 14825 (Cold climate) High temp		2.51	2.83	2.68	2.66	2.68	2.66	2.68	2.66	2.68
Energy class - system ⁸	Floor heating (35°C)/Radiator (55°C)		A+++ /A+++	A+++ /A+++	A+++ /A+	A+++ /A+++	A+++ /A+	A+++ /A+++	A+++ /A+	A+++ /A+	A+++ /A+
Energy class - product ⁹	Floor heating (35°C)/Radiator (55°C) Domestic hot water		A+++ /A+++ A	A+++ /A+++ A	A+++ /A+ A	A+++ /A+++ A	A+++ /A+++ A	A+++ /A+++ A	A+++ /A+++ A	A+++ /A+++ A	A+++ /A+++ A
Nominal flow ³	Heating circuit	l/s	0.12	0.22	0.39	0.22	0.39	0.22	0.39	0.22	0.39
Operating range (outdoor)	Heating	°C	-25~+35	-25~+35	-25~+35	-25~+35	-25~+35	-25~+35	-25~+35	-25~+35	-25~+35
	Cooling	°C	+10~+46	+10~+46	+10~+46	+10~+46	+10~+46	+10~+46	+10~+46	+10~+46	+10~+46
	Domestic hot water	°C	-25~+43	-25~+43	-25~+43	-25~+43	-25~+43	-25~+43	-25~+43	-25~+43	-25~+43
Max temperature ⁴	Heating circuit	°C	55	55	55	55	55	55	55	55	55
Sound power level	Regular mode ⁵	dB(A)	61	63	66	63	66	63	66	63	66
Sound pressure level	1m ⁶	dB(A)	46	48	51	48	51	48	51	48	51
	4m ⁷	dB(A)	44	46	49	46	49	46	49	46	49
Weight	Outdoor unit	kg	59	76	108	76	108	76	108	76	108
	Standard	kg	18	18	18	18	18	18	18	18	18
	Plus	kg	21	21	21	21	21	21	21	21	21
	Total Compact	kg	100	100	100	100	100	100	100	100	100
	Total	kg	106	106	106	106	106	106	106	106	106
Dimensions (WxDxH)	Outdoor unit	mm	880 x 310 x 798	940 x 330 x 998	940 x 330 x 1420	940 x 330 x 998	940 x 330 x 1420	940 x 330 x 998	940 x 330 x 1420	940 x 330 x 998	940 x 330 x 1420

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 according to EN 14511.
 2) At A35/W7 according to EN 14511.
 3) Nominal flow: heating circuit 10K.

4) At minimum outdoor temperature 0°C.
 5) According to EN 12102, nominal operation A7W35
 6) According to EN 11203, nominal operation A7W35,
 heat pump ground mounted against building facade
 7) Quarter spherical sound propagation in free field,
 nominal operation A7W35, heat pump ground mounted
 against building facade

8) When the heat pump is part of an integrated system. According to Eco-design Directive 811/2013
 9) When the heat pump is the sole heat generator and the built-in controller is not included.
 According to Eco-design Directive 811/2013.
 10) The refrigerant circuit is hermetically sealed and subject to the F-gas directive. Global Warming Potential (GWP) for R410A according to EC 517/2014 is 2088, giving a CO₂ equivalent corresponding to 5kw SP: 2401 kg, 9 kW SP: 2923 kg, 9 kW: 3132 kg, 16 kW SP: 5429 kg, 16 kW: 5429 kg

Thermia Heat Pumps reserves the right to make changes without further notice.