

Thermia Calibra Cool



The complete energy system – ground source heat pump with inverter technology and passive cooling function

Thermia Calibra Cool is a comprehensive energy system that ensures a pleasant indoor climate all year round. Calibra Cool covers the power range 1.5-7 kW and includes features that have been optimized to provide maximum energy savings when heating or cooling homes. Based on inverter technology, Calibra Cool is an excellent choice for energy-efficient new-build houses as well as being ideal for retrofitting projects, where Calibra Cool can be precisely adjusted to both heat demand and available energy source.

Calibra Cool has a built-in passive cooling function. In passive cooling, the cold brine circulating in the underground loops is used to produce natural cooling to the house. Cooling can be distributed in different ways, such as certain under floor heating systems or by fan coils. Using a heat pump to provide passive cooling is significantly more cost efficient than traditional air conditioning in terms of both initial investment and running costs.

Calibra Cool produces hot water faster and at higher temperatures than can be achieved using traditional systems, Calibra Cool is using TWS* technology, while a variety of other technical innovations provide excellent hot water comfort for its size class.

Using the integrated Thermia Online app, you can remotely monitor your heat pump via a computer, tablet or smartphone.

* Tap Water Stratification = a heating technique for water heaters, developed by Thermia.



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

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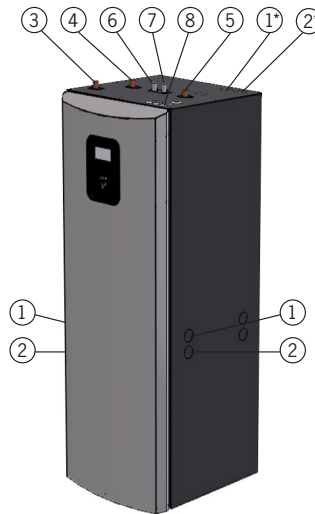


Technical data Thermia Calibra Cool

Connections Thermia Calibra Cool

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

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



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*Additional pipes needed for this type of connection

Thermia Calibra Cool		Calibra Cool 7 (1,5–7 kW)	
Refrigerant	Type		R410A
	Amount ²	kg	0,95
	Design pressure	bar(g)	45
Compressor	Type		Scroll
	Oil		POE
Electrical data 3-N, -50Hz	Main power supply	V	400
	Max working power, compressor	kW	2,63
	Rated power, circulation pumps	kW	0,12 ¹⁰
	Auxiliary heater, 3 steps	kW	(0)/2/4/6
	Fuse (heat pump + auxiliary heater) ³	A	(13)/13/13/16 ^{3A}
Performance	SCOP, Floor heating 35°C ⁴ cold climate		5,77
	SCOP, Radiator 55°C ⁴ cold climate		4,12
	SCOP, Floor heating 35°C ⁴ average climate		5,56 (7,82) ¹¹
	SCOP, Radiator 55°C ⁴ average climate		3,96 (5,47) ¹¹
	COP ¹		4,65
Energy class - system ⁷	Floor heating (35°C)		A+++
	Radiator (55°C)		A+++
Energy class - product ⁸	Floor heating (35°C)		A+++
	Radiator (55°C)		A+++
	Domestic hot water		A
Max/min temperature	Energy source circuit	°C	20/-10 ¹²
	Heating circuit	°C	65/20
Anti-freeze ⁵			Ethanol + water solution ¹² -17+/- 2 °C
Max/min refrigerant circuit	Low pressure	bar(g)	2,3
	Operating pressure	bar(g)	41,5
	High pressure	bar(g)	45
Sound power level		dB(A)	29-42 ^{6A} (33) ^{6B}
Hot water performance ⁹	Volume 40°C hot water	l	260
	COP, Hot water		2,7
Water volume		l	184
Weight	Empty	kg	157
	Filled	kg	347
Dimensions (WxDxH)		mm	598x703x1863 +/-10

1) At B0/W35, according to EN14511

2) 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: Calibra Cool 7: 1,984 ton

3) The minimum recommended fuse group size depends on auxiliary heater setting. The maximal steps of auxiliary heater may be configured differently with/without compressor in the controller.

3A) Controller and circulation pumps are connected by L1, auxiliary heater is connected to L1 and L2 and the frequency converter for the compressor is connected by L3.

4) SCOP according to EN14825, Average climate (Strasbourg); P-design CALIBRA COOL 7: 6 kW (B0W55), 7 kW (B0W35), 9 kW (W10/W55) 9kW (W10/W35).

4 Cold Climate (Helsinki), P-design: 6kW (B0/W55), 7kW (B0/W35).

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

6A) According to EN12102:2017 and EN 3741:2010 (B0W55).

6B) Sound power level according to Energy label, EN 12102:2017 and EN 3741:2010 (B0W55).

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) Hot water performance according to EN 16147: 2017, V40 according to XL cycle, COP with the control computer set for economy mode and built-in tank.

10) Applies for Calibra Cool 7 400V Brine/Water only.

11) Applies to Water/Water application (at W10)

12) Applies only to Calibra Cool 7 400V BW (Brine/Water) version. Calibra Cool 7 400V WW (Water/Water) version is intended for specific applications only within +20/+8 °C.