



Thermia Calibra RXT



A natural step into the future

Calibra RXT is a ground source heat pump that takes a big step forward by using the natural refrigerant R290. Natural refrigerants are the future of heating and cooling and we at Thermia are at the forefront of technological solutions that use natural refrigerants to meet environmental targets. The Calibra RXT is also uncompromising when it comes to safety, offering a built-in solution that does not require any extra space.

Exceptional performance and versatility

The Calibra RXT has a supply temperature of up to 70°C, delivering both hot water and heating extremely efficiently and very economically in high- and low-temperature systems. With two power sizes (1.7 kW and 3-12 kW) and the option of a cascade connection, the Calibra RXT can be used in many different ways and is a great choice for both new installations and retrofits.

Low GWP value

Geothermal heating is inherently a climate-smart choice, as it uses a renewable energy source; however, we at Thermia don't stop there. Thanks to the fact that natural refrigerants have a GWP value of 0,02*, the so-called CO₂ equivalent is extremely low for the Calibra RXT compared to similar geothermal heat pumps on the market.

Plenty of hot water at low cost

The Calibra RXT has a SCOP of 5,58** and provides hot water extremely efficiently as a result of the high supply temperature, as well as TWS technology and variable hot water charging. This means the Calibra RXT can deliver large amounts of hot water at low cost.

Smart and simple to control

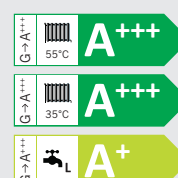
The Calibra RXT is totally intuitive to control via a touchscreen with a number of innovative features. With Thermia Online, you can both control and monitor your heat pump via mobile or computer. Spot price control is also possible through the free additional service Smart Price.

*GWP stands for "Global Warming Potential" and is expressed in GWP/gram gas. The CO₂ equivalent, in turn, is the most accurate measure of a product and shows the GWP value times the filling quantity. It also takes into account how much refrigerant a specific product contains.

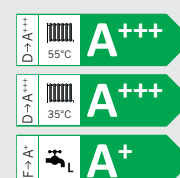
** SCOP 5,58 refers to the Calibra RXT 12, according to the measurement standard EN 14825, cold climate, underfloor heating



System:



Product:



Read more about the energy class in footnotes 5–6 on the next page.

Technical data Calibra RXT

Connections Calibra RXT

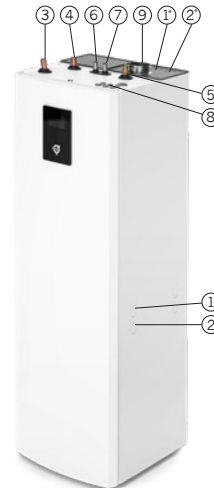
The brine lines can be connected on either the left or right-hand sides of the heat pump.

- 1 Brine return line (Brine in), Ø28 mm
- 2 Brine supply line (Brine out), Ø28 mm
- 3 Heating system supply line, Ø28 mm
- 4 Heating system return line, Ø28 mm
- 5 Manual air purging valve, Ø22mm
- 6 Hot water, Ø22 mm
- 7 Cold water, Ø22 mm
- 8 Lead-in for incoming power supply, sensors and communication cable
- 9 Fan duct, 100mm

Connections Calibra RXT Duo

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

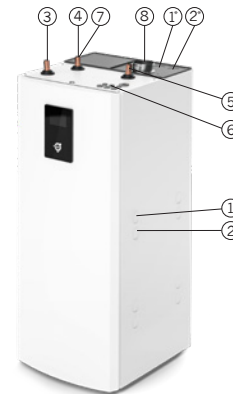
- 1 Brine return line (Brine in), Ø28 mm
- 2 Brine supply line (Brine out), Ø28 mm
- 3 Heating system supply line, Ø28 mm
- 4 Heating system return line, Ø28 mm
- 5 Hot water supply line, Ø28 mm
- 6 Lead-in for incoming power supply, sensors and communication cable
- 7 Return line hot water tank, Ø28 mm
- 8 Fan duct, 100mm



W: 598mm
D: 703mm
H: 1863mm

► CALIBRA RXT

*Additional pipes needed for this type of connection



W: 598mm
D: 703mm
H: 1450mm

► CALIBRA RXT DUO

*Additional pipes needed for this type of connection

Calibra RXT			Calibra RXT 7		Calibra RXT 12	
Heating capacity		kW	1-7		3-12	
Refrigerant	Typ		R290		R290	
	Amount ¹	kg	0,33		0,52	
	CO ₂ -equivalent	tCO ₂	0,000007		0,000010	
	Design pressure	Bar(g)	31		31	
Compressor	Typ		Inverter-controlled, Twin rotary		Inverter-controlled, Twin rotary	
	Oil		POE		POE	
Electrical data, 400V 3-N, ~50Hz	Main power supply	V	400		400	
	Max working power, compressor	kW	2,8		4,7	
	Rated power, circulation pumps	kW	0,1		0,2	
	Auxiliary heater, 3 steps	kW	(0)2/4/6		(0)3/6/9	
	Fuse ^{2A, 2B}	A	(13)/13/13/13 ^{2A}		(10)/16/20/25 ^{2B}	
Electrical data, 230V 1-N, ~50Hz	Main power supply	V	230		230	
	Max working power, compressor	kW	2,8		3,6	
	Rated power, circulation pumps	kW	0,1		0,2	
	Auxiliary heater, 3 steps	kW	(0)2/4/6		(0)2/4/6	
	Fuse ^{2C}	A	(13)25/32/40 ^{2C}		(20)25/40/50 ^{2C}	
Performance	SCOP, Floor heating (35°C) ³		5,46		5,58	
	SCOP, Radiator (55°C) ³		4,13		4,28	
	COP ⁴		4,62		4,87	
Energy class - system ⁵	Floor heating (35°C)		A+++		A+++	
	Radiator (55°C)		A+++		A+++	
Energy class - product ⁶	Radiator (55°C)		A+++		A+++	
	Hot water (Economy) ⁷		A+		A+	
	Hot water (Normal/Comfort) ⁸		A		A	
Max/min temperature	Cooling circuit	°C	20/-10		20/-10	
	Heating circuit	°C	70/20		70/20	
Anti-freeze ⁹			Ethanol + water solution -17±2°C			
Max/min refrigerant circuit	Low pressure	Bar(g)	1		1	
	High pressure	Bar(g)	31		31	
Sound power level	Calibra RXT	dB(A)	37-44 ¹⁰ (37) ¹¹		37-46 ¹⁰ (40) ¹¹	
	Calibra RXT Duo	dB(A)	37-45 ¹⁰ (38) ¹¹		37-47 ¹⁰ (40) ¹¹	
Hot water performance	Volume 40°C hot water ¹²	l	280		293	
	COP, Hot water ⁷		3,2		3,06	
Water volume	Calibra RXT	l	184		184	
	Calibra RXT Duo	l	optional		optional	
Weight	Calibra RXT, Empty	kg	158		175	
	Calibra RXT, Filled	kg	338		355	
	Calibra RXT Duo	kg	115		132	
Dimensions (W×D×H)	Calibra RXT	mm	598×703×1863 ±10		598×703×1863 ±10	
	Calibra RXT Duo	mm	598×703×1450 ±10		598×703×1450 ±10	

1) The refrigerant circuit is hermetically sealed and subject to the F-gas directive. Global Warming Potential (GWP) for R290 according to EC 517/2014 is 0,02.

2a) 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. Controller and circulation pumps are connected by L3, electrical immersion heater is connected by L1 and L2 and the frequency converter for the compressor is connected by L3. Meets IEC 61000-3-12 without action.

2b) The minimum recommended fuse group size depends on the auxiliary heater setting in combination with the compressor. The maximal steps of auxiliary heater may be configured differently with/without a compressor in the controller. Controller and circulation pumps are connected by L3. Electrical auxiliary heater and the frequency converter for the compressor

is connected by by L1, L2 and L3. Meets IEC61000-3-12 at Ssc connection point min. 0,7 MVA for Calibra RXT 12.

2c) Connection of the 230V version can be made to a 1-phase 230V mains supply, either with a standard supply or with physically separate supplies to the heat pump (compressor) and to the auxiliary heater in order to reduce the fuse rating required. Complies with IEC 61000-3-12 without conditional connection

3) SCOP according to EN14825, Cold climate (Helsinki)

4) At B0/W35, according to EN14511

5) When the heat pump is part of an integrated system.

According to Eco-design Directive 811/2013

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

7) Hot water performance according to EN16147, COP according to XL cycle with the control computer set for Economy mode and built-in tank.

8) Hot water performance according to EN16147, COP according to XL cycle with the control computer set for Normal / Comfort mode and built-in tank.

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

10) According to EN12102:2017 and EN 3741:2010 (max BOW35, min BOW35).

11) Sound power level according to Energy label, EN 12102:2017 and EN 3741:2010 (BOW55)

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