

CTC GSi 12

Variable speed heat pump 2.5–12 kW
for ground source, lake or geothermal heating.



CTC GSi 12 is our new variable speed heat pump adapts automatically to the building's output requirement during the year. Output will increase if required, otherwise the compressor speed will reduce and output will decrease. Thanks to this you will always achieve maximum savings.

The new CTC GSi 12 is perfect for most family homes having a large output range of 2.5-12 kW. The inverter-controlled compressor with electronic expansion valve gives a very high seasonal coefficient of performance (SCOP 5.43) and thus minimal operating costs. CTC GSi 12 is also equipped with highly efficient water heating that produces up to 300 litres of hot water, which is the best in the class. New, more efficient tank insulation also ensures minimal energy loss.

CTC GSi 12 has a 4.3-inch colour touchscreen with English text and clear symbols. This makes it simple to adjust hot and cold water or to retrieve information about operation. Compressor and refrigeration components are enclosed in a separate, sound-insulated unit. This provides exceptionally low noise and makes it the quietest geothermal heat pump we have ever developed.

Thanks to Energyflex, you have the option of supplementing it with solar heating or connecting an existing wood-fired system or water-jacketed stove. CTC GSi 12 can also be connected for efficient heating of your pool.

In order to achieve the lowest possible energy consumption and best savings, CTC GSi 12 is equipped with class A low-energy circulation pumps on both the brine and heating sides. Heat stored in rock, soil or lake water is used as the heat source. The brine system can easily be connected to the right, left or rear. To ensure smooth and easy installation, the heat pump is modular, which allows it to be divided into two separate units.

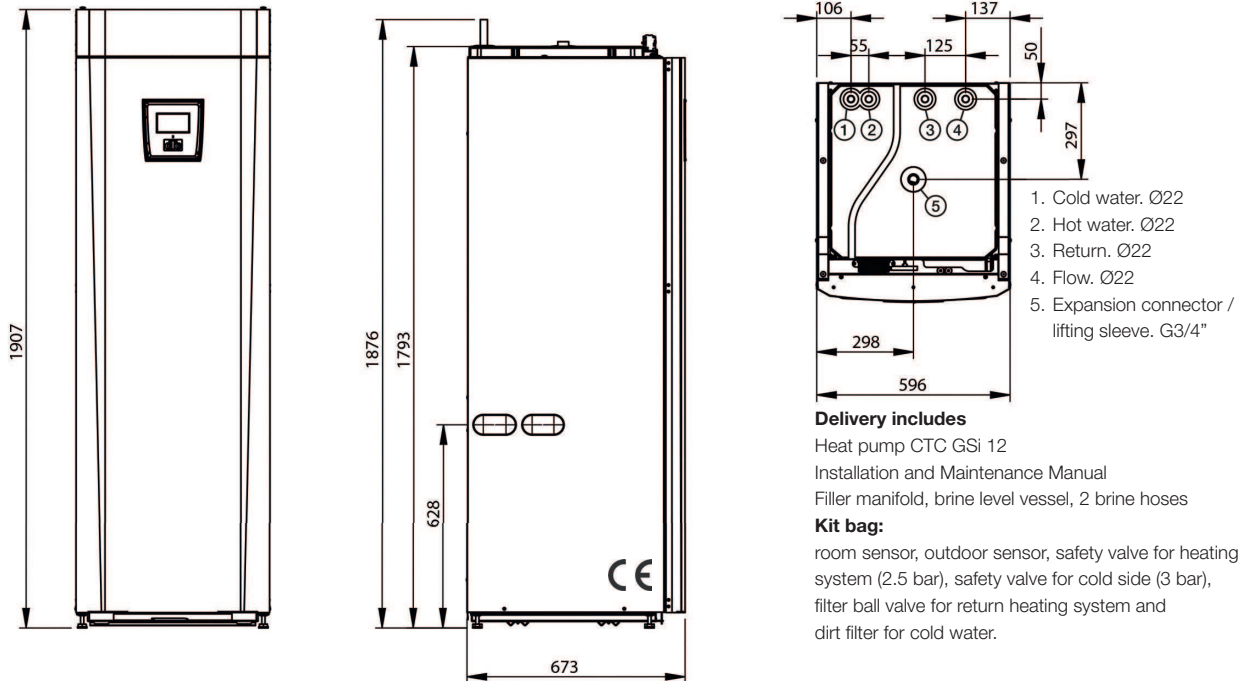
Using CTC Connect, the heat pump can easily be controlled from your smartphone.

Benefits of CTC GSi 12

- Savings of up to 85%
- Energy class A+++ (heating with built-in control)
- Most hot water in the class
- With high seasonal coefficient of performance (SCOP 5.43)
- Most output when required
- Inverter-controlled compressor
- Electronic expansion valve
- Can control two separate heating systems
- Very quiet, 45.6 dB(A) (0/35 at 50 rps)
- You can easily control it with your phone using CTC Connect



Dimensional drawing of CTC GSi 12



Delivery includes

Heat pump CTC GSi 12
Installation and Maintenance Manual
Filler manifold, brine level vessel, 2 brine hoses

Kit bag:

room sensor, outdoor sensor, safety valve for heating system (2.5 bar), safety valve for cold side (3 bar), filter ball valve for return heating system and dirt filter for cold water.

Recommended accessory:

CTC Installation kit GSi 587391301

(Expansion vessel, fittings, pressure gauge and automatic venting)

Technical data CTC GSi 12		
Electrical data		400V 3N~50Hz
Energy class heating 35/55°C (in package with control)		A+++ / A+++
Energy class heating 35/55°C (without control)		A++ / A++
Energy class hot water/tap profile		A / XL
Nominal heating (P _{designh}) 35/55 °C		10 / 7
Rated output electricity, excl. / incl. immersion heater	kW	5.8 / 14.8
Immersion heater (adjustable in steps of 0.3 kW)	kW	9
Cladding class		IPX1
Max. specified output compressor	kW	11.8
SCOP cold climate 35/ 55 °C (EN14825)		5.5 / 4.3
SCOP average climate 35/ 55 °C (EN14825)		5.4 / 4.0
Specified output 0/35 / 0/45 / 0/55 (50 rps) (EN14511)	kW	6.13 / 5.68 / 5.40
COP 0/35 / 0/45 / 0/55 (50 rps) (EN14511)		4.84 / 3.68 / 3.01
Specified output 5/35 / 5/45 / 5/55 (50 rps) (EN14511)	kW	7.10 / 6.65 / 6.36
COP 5/35 / 5/45 / 5/55 (50 rps) (EN14511)		5.62 / 4.26 / 3.57
Noise level (0/35 50 rps)	dB(A)	45.6
Max. operating current, compressor operation/with immersion heater	A	8.4 / 21.4
Max immersion heater output with group fuse 16A / 20A / 25A	kW	2.1 / 5.2 / 9.0
Water volume, boiler (V)	litre	229
Max. operating pressure, boiler (PS)	bar	3.0
Water volume, DHW system	litre	1.7
Max. operating pressure, DHW system	bar	10
Brine pump		Class A LEP
Brine system min. / max. pressure (PS)	bar	0.2/3.0
Refrigerant quantity (R407C, fluorinated greenhouse gas GWP 1774)	kg	2.4
CO ₂ Equivalent *	tons	4.258
Break value high pressure switch	bar	31
Dimensions (WxDxH)	mm	596 x 673 x 1907
Required ceiling height	mm	1910
Weight	kg	253

* The product require no annual inspection regarding leakage control of refrigerant

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