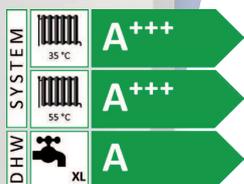


# ctc



## CTC GSi 12

variable-speed heat pump for ground source, lake or geothermal heating



**CTC GSi 12 adapts automatically to the building's output requirements during the year. When a lot of output is required, the output increases. When less output is required, the compressor shifts to lower output. Thanks to this you will always achieve maximum savings.**

CTC GSi is equipped with a highly efficient water heater, which produces over 300 litres of hot water. According to tests by the SP Technical Research Institute of Sweden, it is the best in its class. CTC GSi is perfect for most family homes with an output range of 2.5-12 kW.

CTC GSi 12 has a seasonal coefficient of performance (SCOP) of 5.5, which means that it produces more than five times as much heat as used by an electric heater over the same period. Compressor and refrigeration components are enclosed in a separate, sound-insulated unit, which makes it very quiet – only 39 dB(A) at 50 rps. The entire heat pump has also been given very efficient insulation which minimises energy losses.

CTC GSi is so energy efficient that it already complies with the strict EU energy requirements coming into force in 2019. CTC GSi is classed A+++, the absolute best energy class for a heat pump. CTC GSi comes in a stylish white design and is ideally sized, which means it fits well into most environments. Owing to the heat pump's modular construction, it can be easily divided into two separate units. The brine system can be connected to the right, left or rear, allowing for easy and simple installation. The 4.3-inch colour touchscreen has clear symbols with English text which makes it easy to adjust the heat and hot water or to retrieve a range of information about the operation.

Do you have an old heat pump that needs to be replaced? No problem. CTC GSi 12 automatically adapts to the existing borehole. This means that when you replace your old heat pump, your installation costs are significantly reduced. The built-in automatic control is climate controlled and takes into account both indoor and outdoor temperatures. CTC GSi is able to control two individual heating systems as standard.

All CTC heat pumps and boilers are designed, developed and manufactured in our factory in Ljungby. This gives us total control of all stages of the production process – from manufacture up to delivery of the finished product.

### Benefits

- Most hot water in its class
- High seasonal coefficient of performance (SCOP 5.5)
- Smart Grid – ready to adapt to electricity prices
- Can control two heating systems
- 4.3-inch touchscreen
- All-inclusive, most functions come as standard
- Easy to install
- Climate controlled
- Very quiet, 39 dB(A)
- Can be controlled from a smartphone with CTC Connect+



ENERGY  
FLEX

Find a CTC distributor in your country  
[www.ctc-heating.com](http://www.ctc-heating.com)

# Whenever you purchase a product from CTC, it usually comes fully equipped, but there are a few smart accessories to make life easier.

## CTC Internet

With CTC Internet and the CTC Connect+ app, you can monitor and control your system directly via your mobile phone. For instance, you can adjust the temperature or be alerted if the system shuts down for any reason.

CTC Connect+ can be downloaded for free from the App Store or Google Play.

CTC no.: 587581301



## CTC EcoVent 20 - Exhaust Air Unit

Allows for neat and easy installation in buildings with mechanical exhaust air ventilation. The used air is vented out and new, fresh air is supplied to the building by the building's own air supply diffuser.

CTC no.: 588000001

## CTC EcoVáf III - Exhaust Air Unit with recovery

Designed to dock with CTC's geothermal/ground heat pumps in buildings with mechanical exhaust air ventilation. Recovers the heat from the exhaust air and raises the temperature of the brine, which produces a higher COP.

CTC no.: 586713001

## CTC Extra Shunt Group

Complete package for neat and easy installation of additional heating circuits. Complete and ready-to-use with connected controls, which means that getting started is quick and simple. Equipped with an energy-efficient circulation pump, in accordance with the ErP Directive. Well-insulated unit with easy external access to all adjustment controls and electronic components.

CTC no.: 587396301



## CTC Expansion Tank GS

Everything you need to install your product. Contents: Expansion tank flexi-hose and connectors.

CTC no.: 587886301



## CTC SmartControl

A series of smart wireless sensors which detect temperature, humidity and carbon dioxide. The system is based on CTC SmartControl Gateway, a base unit able to control up to seven optional wireless accessories.

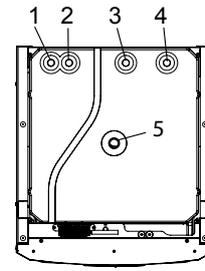
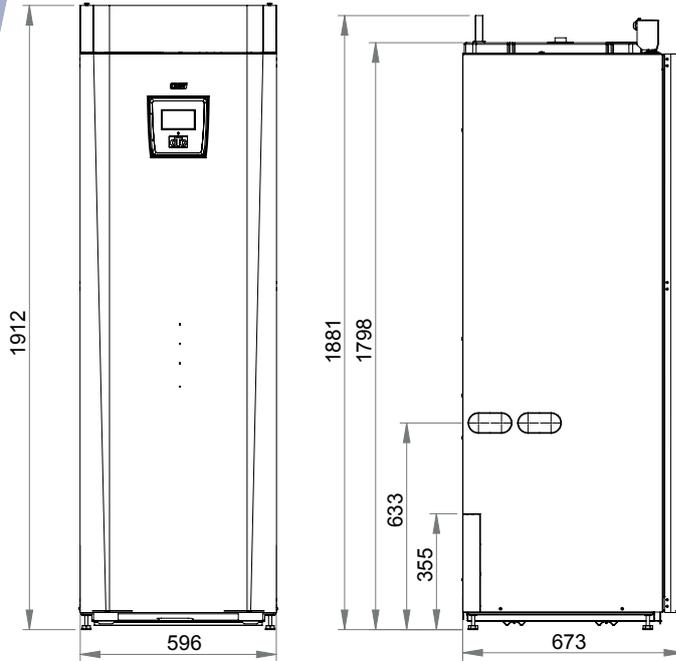
The series includes a wireless room sensor powered by solar cells, a humidity and CO<sub>2</sub> sensor that can control ventilation as needed, a repeater that amplifies signals between different accessories and a multi-button able to control several different functions, such as additional hot water.



## Other Accessories

Accessory Name	Description	CTC nr:
<b>CTC Top cabinet 480</b>	Conceal pipe connections, etc. with a stylish top cabinet, 488 mm	586463302R
<b>CTC Top cabinet 580</b>	Conceal pipe connections, etc. with a stylish top cabinet, 588 mm	586463303R
<b>CTC SMS Control</b>	For remote control of your heat pump via your mobile phone	585518301
<b>CTC BMS/Internet</b>	For external, online control of your property via Modbus	585513301
<b>CTC Volume Tank VT80</b>	Detached volume tank with 4 connections (3/4")	587190301
<b>CTC Installation Kit EVK</b>	For installing an additional heat source	587368301
<b>CTC Expansion EnergyFlex</b>	External control of solar/pool/tank charging, etc.	587202301
<b>CTC EcoComfort</b>	A passive cooling unit that uses the borehole's cool temperature	585920001
<b>Current Sensor, 3-pack</b>	For monitoring the building's main fuses	572271001
<b>CTC Diverting Valve, 3-way</b>	For interconnections in the system, e.g. pool (22 mm connection)	583621401
<b>CTC Through-flow heater</b>	INCOLOY - for those areas with corrosion problems	588360302

## Dimensions diagram



1. Cold water Ø22
2. DHW Ø22
3. Return line Ø22
4. Primary flow Ø22
5. Expansion/  
Lifting sleeve G3/4"

### Delivery includes:

Heat pump with 155 mm top cabinet and manual.

### Packaging includes:

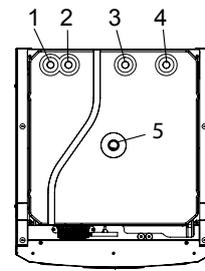
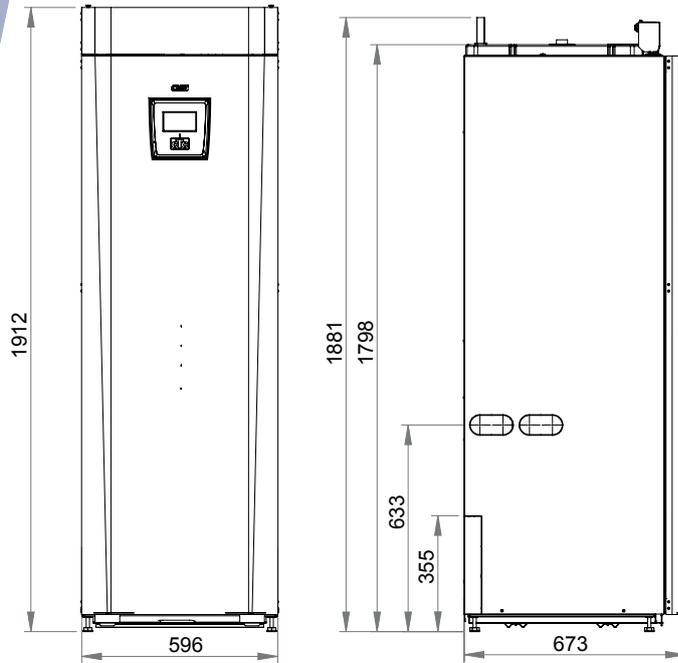
Room sensor, outdoor sensor, brine level tank, brine hoses, magnetite filter for return heating system, pressure gauge, cold water dirt filter, automatic bleeder, brine safety valve (3 bar) and heating system safety valve (2.5 bar)

Technical data 3x400 V		GSi 12
CTC no.		587304001
Weight (packaged weight)	kg	265 (295)
Dimensions (width x depth x height)	mm	673 x 596 x 1912
Required ceiling height	mm	1 940
Electrical Data, connection		400V 3N~ 50Hz
Energy efficiency class – Heating system @ 35/55 °C <sup>1)</sup>		A+++ / A+++
Energy efficiency class @ 35/55 °C		A++ / A++
Energy efficiency class – Hot tap water/charge profile (EN16147)		A / XL
Energy efficiency – water heating $\eta_{WH}$	%	100
Hot tap water performance ( $V_{max}$ ) Volume 40 °C @ Economy/Normal/Comfort (EN16147)	litres	215 / 235 / 311
Nominal heating output ( $P_{designH}$ ) @ moderate climate 35/55 °C		10 / 7
Rated current	A	24.9
Max. immersion heater output @ group fuse 13/16/20/25 A	kW	0/ 2.1/ 5.2/ 9
Output range (specified output cooling module)	kW	2.5-11.8
Output range immersion heater/number of level steps	kW/step	0.3-9 / 27
Ingress Protection (IP)		IP X1
Specified output @ 0/35   0/45   0/55 @ 50 rps (EN14511)	kW	6.17 / 5.64 / 5.40
COP @ 0/35   0/45   0/55 @ 50 rps (EN14511)		4.78 / 3.71 / 3.01
SCOP ( $P_{designH}$ ) cold climate @ 0/35   0/55 (EN14825)		5.5 / 4.3
SCOP ( $P_{designH}$ ) moderate climate @ 0/35   0/55 (EN14825)		5.4 / 4.1
Water volume – Heating system (V)	litres	229
Water volume – Water supply system (V)	litres	1.7
Refrigerant quantity (R407C, fluorinated greenhouse gas GWP 1774)	kg	2.40
CO <sub>2</sub> equivalent	tonnes	4.258
Sound power @ 0/35 @ 50 rps (EN12102)	dB(A)	39

<sup>1)</sup> The stated efficiency of the heating system takes into account the product's temperature regulator. Ecodesign data scale: A+++ to G

Energy labelling stickers and data sheets can be downloaded from [www.ctc-heating.com/Ecodesign](http://www.ctc-heating.com/Ecodesign)

## Dimensions diagram



1. Cold water Ø22
2. DHW Ø22
3. Return line Ø22
4. Primary flow Ø22
5. Expansion/  
Lifting sleeve G3/4"

### Delivery includes:

Heat pump with 155 mm top cabinet and manual.

### Packaging includes:

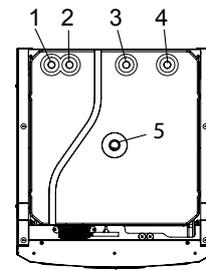
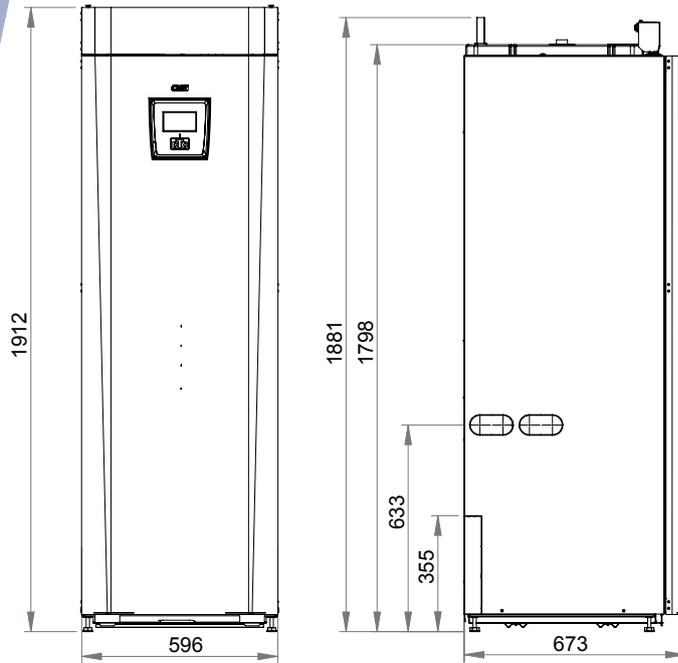
Room sensor, outdoor sensor, brine level tank, brine hoses, magnetite filter for return heating system, pressure gauge, cold water dirt filter, automatic bleeder, brine safety valve (3 bar) and heating system safety valve (2.5 bar)

Technical data 1x230 V		GSi 12
CTC no.		587305001
Weight (packaged weight)	kg	252 (282)
Dimensions (width x depth x height)	mm	673 x 596 x 1912
Required ceiling height	mm	1 940
Electrical Data, connection		230 V 1N~ 50Hz
Energy efficiency class – Heating system @ 35/55 °C <sup>1)</sup>		A+++ / A+++
Energy efficiency class @ 35/55 °C		A++ / A++
Energy efficiency class – Hot tap water/charge profile (EN16147)		A / XL
Energy efficiency – water heating $\eta_{WH}$	%	96
Hot tap water performance ( $V_{max}$ ) Volume 40 °C @ Economy/Normal/Comfort (EN16147)	litres	215 / 235 / 311
Nominal heating output ( $P_{designH}$ ) @ moderate climate 35/55 °C		10 / 7
Rated current	A	49
Max. immersion heater output @ Group fuse 25/32/35/50-63 A	kW	0 / 0.9 / 2.3 / 5.5
Output range (specified output cooling module)	kW	1.6-12.5
Output range immersion heater/number of level steps	kW/step	0.3-5.5 / 11
Ingress Protection (IP)		IP X1
Specified output @ 0/35   0/45   0/55 @ 50 rps (EN14511)	kW	6.17 / 5.64 / 5.40
COP @ 0/35   0/45   0/55 @ 50 rps (EN14511)		4.78 / 3.71 / 3.01
SCOP ( $P_{designH}$ ) cold climate @ 0/35   0/55 (EN14825)		5.3 / 4.0
SCOP ( $P_{designH}$ ) moderate climate @ 0/35   0/55 (EN14825)		5.1 / 3.9
Water volume – Heating system (V)	litres	229
Water volume – Water supply system (V)	litres	1.7
Refrigerant quantity (R410A, fluorinated greenhouse gas GWP 1774)	kg	2.30
CO <sub>2</sub> equivalent	tonnes	4.802
Sound power @ 0/35 @ 50 rps (EN12102)	dB(A)	38

<sup>1)</sup> The stated efficiency of the heating system takes into account the product's temperature regulator. Ecodesign data scale: A+++ to G

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## Dimensions diagram



1. Cold water Ø22
2. DHW Ø22
3. Return line Ø22
4. Primary flow Ø22
5. Expansion/  
Lifting sleeve G3/4"

### Delivery includes:

Heat pump with 155 mm top cabinet and manual.

### Packaging includes:

Room sensor, outdoor sensor, brine level tank, brine hoses, magnetite filter for return heating system, pressure gauge, cold water dirt filter, automatic bleeder, brine safety valve (3 bar) and heating system safety valve (2.5 bar)

Technical data 3x230 V		GSi 12
CTC no.		587306001
Weight (packaged weight)	kg	252 (282)
Dimensions (width x depth x height)	mm	673 x 596 x 1912
Required ceiling height	mm	1 940
Electrical Data, connection		230V 3~ 50Hz
Energy efficiency class – Heating system @ 35/55 °C <sup>1)</sup>		A+++ / A+++
Energy efficiency class @ 35/55 °C		A++ / A++
Energy efficiency class – Hot tap water/charge profile (EN16147)		A / XL
Energy efficiency – water heating $\eta_{WH}$	%	96
Hot tap water performance ( $V_{max}$ ) Volume 40 °C @ Economy/Normal/Comfort (EN16147)	litres	215 / 235 / 311
Nominal heating output ( $P_{designH}$ ) @ moderate climate 35/55 °C		10 / 7
Rated current	A	45
Max. immersion heater output @ Group fuse 25/32/35/50-63 A	kW	0 / 0.9 / 2.3 / 5.5
Output range (specified output cooling module)	kW	1.6-12.5
Output range immersion heater/number of level steps	kW/step	1.6-7 / 7
Ingress Protection (IP)		IP X1
Specified output @ 0/35   0/45   0/55 @ 50 rps (EN14511)	kW	6.17 / 5.64 / 5.40
COP @ 0/35   0/45   0/55 @ 50 rps (EN14511)		4.78 / 3.71 / 3.01
SCOP ( $P_{designH}$ ) cold climate @ 0/35   0/55 (EN14825)		5.3 / 4.0
SCOP ( $P_{designH}$ ) moderate climate @ 0/35   0/55 (EN14825)		5.1 / 3.9
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