



CTC EcoHeat 400

Heat pump for ground source, lake or geothermal heating, model 406-412, 6-12 kW



The quiet ground source heat pump with touchscreen and EnergyFlex

CTC EcoHeat 400 is suitable for different heating systems: one-pipe and two-pipe systems for radiators and convectors, as well as for floor heating. With the Extra Mixing Valve Group or Mixing Valve Group 2 accessories, you are able to control two separate heating systems.

CTC EcoHeat 400 has the highest efficiency thanks to the development of a refrigerant circuit with electronic expansion valve and an efficient compressor. Compressor and refrigeration components are enclosed in a separate, sound-insulated unit. This provides exceptionally low noise and makes it the quietest ground source heat pump we have ever developed.

With CTC EcoHeat 400, we guarantee legionella-free DHW. Our unique solution produces DHW as it is needed.

Now you can also cool down in summer. Supplement with CTC Comfort which uses the borehole's cool temperature for pleasant cool air.

For CTC EcoHeat 400, we have opted for a technology that provides heat that is much more even. Radiators and underfloor heating are always at the right temperature thanks to the automatically-controlled mixing valve. Since the temperature is constant, annoying expansion sounds in the floor and pipes are avoided.

EnergyFlex gives you the freedom to supplement with other energy sources. Thanks to two ingenious connections, you can supplement with solar heat, have a water-jacketed stove provide warmth, or connect a pool so you can also make use of heating in summer.

CTC EcoHeat 400 has internet connectivity as standard, so you can easily control your heat pump remotely. To ensure compatibility with smart homes, the product is equipped for connection to Alexa, Google Home, etc. It is also SmartGrid-ready, which means it is equipped for the electricity grid of the future.

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

- EnergyFlex offers total flexibility to connect other heat sources
- Offers up to 80% lower heating costs
- Mixing valve for even heat without noise
- High energy efficiency: SCOP 4.3
- 4.3" colour touchscreen
- Can control two heating systems
- Cooling in the summer
- Can be controlled from a smartphone with myUplink



ENERGY FLEX

Find a CTC distributor in your country
www.ctc-heating.com

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

myUplink

With the myUplink 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. The myUplink app can be downloaded for free from the App Store or Google Play.



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 CO₂ 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.

CTC Extra Mixing Valve Group

Complete package for neat and easy installation of additional heating circuits. Complete and ready-to-use with connected controls – so 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 Installation Kit EH400

Everything you need to install your product.

Contents: Expansion tank, circulation pump and connectors.

CTC no.: 586772411

Adapt your product to your ceiling height

Hide pipe connections, etc. with a stylish housing cover, or set the product on a base in the same design. Housing covers are available in three heights and all are combinable to fit most ceiling heights.

Cover 488 mm

Cover 588 mm

Raised base II 168 mm

CTC no.: 586463302R

CTC no.: 586463303R

CTC-no.: 589590301



Other accessories

CTC SMS Control

GSM modem that easily plugs into the heat pump control

CTC no.:

585518301

CTC EcoComfort

A passive cooling unit that uses the borehole's cool temperature

585920001

CTC Mixing Valve Group 2

For installing an additional heating circuit

586857001

CTC EnergyFlex Kit 400

For flexible top connection of external systems

587236301

CTC Expansion EnergyFlex II

External control of solar/pool/tank charging, etc.

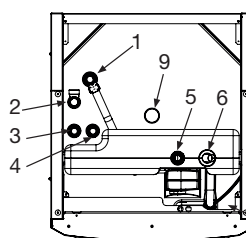
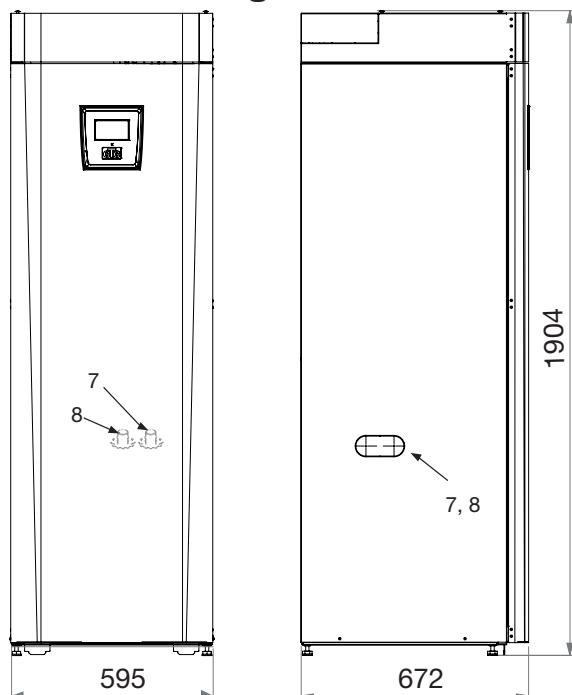
589262301

CTC Installation Kit Brine

For heat pump replacement with top connection

588909301

Dimensions diagram



1. Venting clamp ring 22
2. Waste pipe connection clamp ring 3/4"
3. Cold water connection Ø22
4. DHW Ø22
5. Radiator primary flow clamp ring Ø22
6. Radiator return/expansion connection Ø22
7. From ground/bedrock Ø28(right, left and back)
8. To ground/bedrock Ø28(right, left and back)
9. Lifting sleeve 3/4" BSP
10. Connection of external systems (pipe lead-through)

Delivery includes:

Heat pump with 155 mm top cabinet and manual.

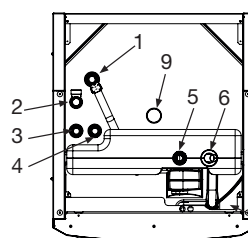
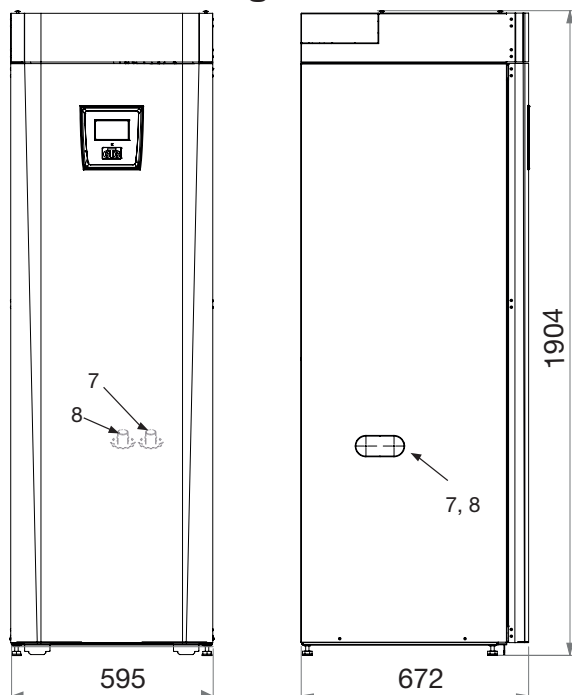
Packaging includes:

Room sensor, outdoor sensor, filler manifold, brine level tank, brine hoses, primary flow sensor, return sensor, current sensor, heating system safety valve (9 bar) and brine safety valve (3 bar).

Technical data 3x400 V		406	408	410	412
CTC-no	Tariff:	586610001	586610002	586610003	586610004
	Inox:	586613001	586613002	586613003	586613004
		586614001	586614002	586614003	586614004
Weight (packaged weight)	kg	278 (307)	276 (305)	281 (310)	294 (323)
Dimensions (width x depth x height)	mm	673 x 596 x 1904			
Required ceiling height	mm	1925			
Specified output max: W35 & B0/5/10 (EN14511)	kW	5.90/6.81/7.21	8.19/9.44/10.65	9.97/11.42/12.49	11.75/13.53/15.45
Input power max: W35 & B0/5/10 (EN14511)	kW	1.29/1.30/1.39	1.79/1.88/1.93	2.17/2.20/2.29	2.55/2.65/2.78
COP max: W35 & B0/5/10 (EN14511)		4.57 /5.24 /5.2	4.58/5.02/5.53	4.60/5.20/5.45	4.60/5.11/5.57
Sound power L _{WA} B0/W35 (EN 12102)	dB(A)	43	46	49	50
Sound pressure L _{PA} 1m B0/W35 (EN ISO 11203)	dB(A)	38	41	44	45
Electrical Data, connection		400V 3N~ 50Hz			
Rated current (recommended fuse: 25 A)	A	19.7	20.4	22	23,4
Max. immersion heater output at group fuse: 10/13/16/20/25 A	kW	2.1/ 2.1/ 6.9/ 9.0/ 9.0	0.9/ 2.1/ 6.9/ 7.8/ 9.0	0.9/ 2.1/ 2.1/ 7.8/ 9.0	NA/ 0.9/ 2.1/ 6.9/ 9.0
Ingress Protection (IP)		IP X1			
Output range immersion heater (min-max)	kW	0.3 - 9.0	0.3 - 9.0	0.3 - 9.0	0.3 - 9.0
Water volume (V)	litres	223	223	223	223
Refrigerant quantity (R407C, fluorinated greenhouse gas GWP 1774)	kg	1.9	1.9	1.9	2.3
CO ₂ -equivalent	tonnes	3.370	3.370	3.370	4.080
DHW-performance V ₄₀ Normal	litres	<200			
SCOP cold climate: W35 (EN14825, Pdesignh)		4.3	4.2	4.2	4.1
SCOP average climate: W35 (EN14825, Pdesignh)		4.3	4.2	4.1	4.1
Package efficiency class: W35/W55 (A+++ - G)		A++ / A++			
Energy efficiency class: W35/W55 (A+++ - D)		A++ / A++			
Energy efficiency class DHW (A+ - F) / charge profile (EN16147)		A/L			

Energy labelling stickers and data sheets can be downloaded from www.ctc-heating.com/Ecodesign

Dimensions diagram



1. Venting clamp ring 22
2. Waste pipe connection clamp ring 3/4"
3. Cold water connection Ø22
4. DHW Ø22
5. Radiator primary flow clamp ring Ø22
6. Radiator return/expansion connection Ø22
7. From ground/bedrock Ø28(right, left and back)
8. To ground/bedrock Ø28(right, left and back)
9. Lifting sleeve 3/4" BSP
10. Connection of external systems (pipe lead-through)

Delivery includes:

Heat pump with 155 mm top cabinet and manual.

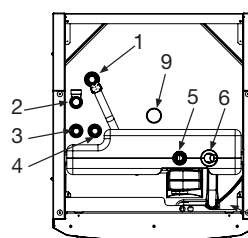
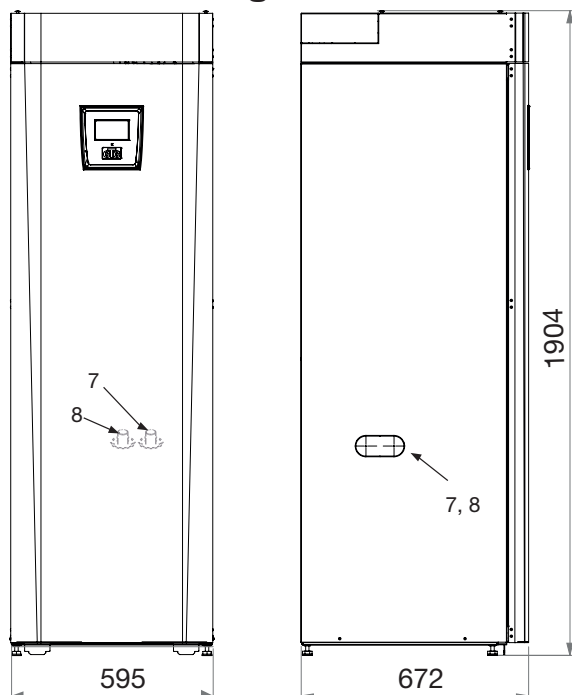
Packaging includes:

Room sensor, outdoor sensor, filler manifold, brine level tank, brine hoses, primary flow sensor, return sensor, current sensor, heating system safety valve (9 bar) and brine safety valve (3 bar).

Technical data 1x230 V		406	408	410	412
CTC-no		586611001	586612002	586612003	586612004
Weight (packaged weight)	kg	278 (309)	276 (306)	281 (311)	294 (324)
Dimensions (width x depth x height)	mm	673 x 596 x 1904			
Required ceiling height	mm	1925			
Specified output max: W35 & B0/5/10 (EN14511)	kW	5.90/6.81/7.21	8.19/9.44/10.65	9.97/11.42/12.49	11.75/13.53/15.45
Input power max: W35 & B0/5/10 (EN14511)	kW	1.29/1.30/1.39	1.79/1.88/1.93	2.17/2.20/2.29	2.55/2.65/2.78
COP max: W35 & B0/5/10 (EN14511)		4.57 /5.24 /5.2	4.58/5.02/5.53	4.60/5.20/5.45	4.60/5.11/5.57
Sound power L_{WA} B0/W35 (EN 12102)	dB(A)	43	46	49	50
Sound pressure L_{PA} 1m B0/W35 (EN ISO 11203)	dB(A)	38	41	44	45
Electrical Data, connection		230V 1N~ 50Hz			
Rated current (recommended fuse: 63 A)	A	52.2	57.6	59.7	62.3
Max. immersion heater output at group fuse: 20/25/32/35/50/63 A	kW	1.8/ 3.0/ 4.5/ 5.1/ 8.7/ 9.0	0.9/ 1.8/ 3.6/ 4.2/ 7.8/ 9.0	NA/ 1.2/ 3.0/ 3.6/ 6.9/ 9.0	NA/ 0.6/ 2.1/ 2.7/ 6.3/ 9.0
Ingress Protection (IP)		IP X1			
Output range immersion heater (min-max)	kW	0.3 - 9.0	0.3 - 9.0	0.3 - 9.0	0.3 - 9.0
Water volume (V)	litres	223	223	223	223
Refrigerant quantity (R407C, fluorinated greenhouse gas GWP 1774)	kg	1.9	1.9	1.9	2.3
CO ₂ -equivalent	tonnes	3.370	3.370	3.370	4.080
DHW-performance V_{40} Normal	litres	<200			
SCOP cold climate: W35 (EN14825, Pdesignh)		4.3	4.2	4.2	4.1
SCOP average climate: W35 (EN14825, Pdesignh)		4.3	4.2	4.1	4.1
Package efficiency class: W35/W55 (A+++ - G)		A++ / A++			
Energy efficiency class: W35/W55 (A+++ - D)		A++ / A++			
Energy efficiency class DHW (A+ - F) / charge profile (EN16147)		A/L			

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Dimensions diagram



1. Venting clamp ring 22
2. Waste pipe connection clamp ring 3/4"
3. Cold water connection Ø22
4. DHW Ø22
5. Radiator primary flow clamp ring Ø22
6. Radiator return/expansion connection Ø22
7. From ground/bedrock Ø28(right, left and back)
8. To ground/bedrock Ø28(right, left and back)
9. Lifting sleeve 3/4" BSP
10. Connection of external systems (pipe lead-through)

Delivery includes:

Heat pump with 155 mm top cabinet and manual.

Packaging includes:

Room sensor, outdoor sensor, filler manifold, brine level tank, brine hoses, primary flow sensor, return sensor, current sensor, heating system safety valve (9 bar) and brine safety valve (3 bar).

Technical data 3x230 V		406	408	410	412
CTC-no		586612001	586612002	586612003	586612004
Weight (packaged weight)	kg	278 (309)	276 (306)	281 (311)	294 (324)
Dimensions (width x depth x height)	mm	673 x 596 x 1904			
Required ceiling height	mm	1925			
Specified output max: W35 & B0/5/10 (EN14511)	kW	5.90/6.81/7.21	8.19/9.44/10.65	9.97/11.42/12.49	11.75/13.53/15.45
Input power max: W35 & B0/5/10 (EN14511)	kW	1.29/1.30/1.39	1.79/1.88/1.93	2.17/2.20/2.29	2.55/2.65/2.78
COP max: W35 & B0/5/10 (EN14511)		4.57 /5.24 /5.2	4.58/5.02/5.53	4.60/5.20/5.45	4.60/5.11/5.57
Sound power L_{WA} B0/W35 (EN 12102)	dB(A)	43	46	49	50
Sound pressure L_{PA} 1m B0/W35 (EN ISO 11203)	dB(A)	38	41	44	45
Electrical Data, connection		230V 3~ 50Hz			
Rated current (recommended fuse)	A	33.9 (35)	39.4 (50)	41.5 (50)	47 (50)
Max. immersion heater output at group fuse: 20/25/32/35/50/63 A	kW	2.3/ 4.7 / 5.8/ 7.0/ 7.0/ 7.0	NA/ 3.5/ 4.7/ 5.8/ 7.0/ 7.0	NA/ 3.5/ 4.7/ 4.7/ 7.0/ 7.0	NA/ NA/ 3.5/ 3.5/ 7.0/ 7.0
Ingress Protection (IP)		IP X1			
Output range immersion heater (min-max)	kW	1.2 - 7.05	1.2 - 7.05	1.2 - 7.05	1.2 - 7.05
Water volume (V)	litres	223	223	223	223
Refrigerant quantity (R407C, fluorinated greenhouse gas GWP 1774)	kg	1.9	1.9	1.9	2.3
CO ₂ -equivalent	tonnes	3.370	3.370	3.370	4.080
DHW-performance V_{40} Normal	litres	<200			
SCOP cold climate: W35 (EN14825, Pdesignh)		4.3	4.2	4.2	4.1
SCOP average climate: W35 (EN14825, Pdesignh)		4.3	4.2	4.1	4.1
Package efficiency class: W35/W55 (A+++ - G)		A++ / A++			
Energy efficiency class: W35/W55 (A+++ - D)		A++ / A++			
Energy efficiency class DHW (A+ - F) / charge profile (EN16147)		A/L			

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