

ctc



CTC EcoAir 400

Air-to-Water Heat Pumps,
model: 406-420, 6-17 kW



CTC EcoAir 400 is a series of air-to-water heat pumps for houses, properties or small industrial premises. CTC EcoAir 400 is designed to operate with both high efficiency and low noise levels. CTC EcoAir 400 is one of Sweden's best-selling series of air-to-water heat pumps.

CTC EcoAir 400 is equipped with a more efficient and more reliable compressor, and has a newly developed fan design. This makes it one of the most efficient and quietest air-to-water heat pumps we have ever developed.

The CTC EcoAir 400 lowers your heating costs by up to 70 %, provides heating down to -22 °C and produces up to 65 °C hot water.

The CTC EcoAir 400 transfers the energy in the air into heating and hot water, and requires no bore holes or coils in the ground. CTC EcoAir 400 has on-demand automatic defrost, which reduces the need for defrosting to a minimum. This produces more heat, more power and a longer life.

CTC EcoAir 400 functions best with the CTC EcoZenith indoor modules with built-in heat pump control. If you use a lot of water, you can connect CTC EcoAir 400 to the CTC EcoZenith i550 Pro multi-tank. It has a hot water capacity of more than 600 litres, which is enough for 15 shower-loving teenagers.

If you would like to connect CTC EcoAir 400 to your existing installation, just add the CTC EcoLogic Pro/Family control module. A unique control system that monitors and regulates the CTC's heat pumps, additional heating, buffer tank, swimming pool, cooling, etc. for up to four different heating systems. If the energy requirement is particularly large, up to ten pumps can be run together.

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 manufacturing to delivery of the finished product.

Benefits:

- High Energy Class A⁺⁺
- Produces up to 70 % lower heating costs
- Heat pump with low noise level
- High seasonal efficiency: SCOP of 3.9
- Easy to install
- Provides heating down to -22 °C and produces water up to 65 °C
- Built-in condensation water tray
- Can be controlled from a smartphone with CTC Connect+



ENERGY
FLEX

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

Compatible control units for CTC EcoAir 406-420 - For more detailed information, refer to the respective product's data sheet



CTC EcoZenith i350 * Only for CTC EcoAir 406-408

Indoor module with ultra-efficient water heating. Extremely well insulated with heat exchanger. Factory-assembled charge pump and installation package.

Low: 1,657 mm Top connection

High: 1,905 mm Bottom connection

CTC EcoZenith i250 * Only for CTC EcoAir 406-410

Indoor module with EnergyFlex. Flexible system tank with heat pump regulation and hot water coils. Charge pump included.

Low: 1,652 mm Top connection

High: 1,886 mm Top connection

CTC EcoLogic Pro/Family

EnergyFlex heating system control. A unique control system that monitors and controls CTC's heat pumps, solar panels, external additional heat sources, additional tanks, pools, cooling, etc.

The CTC EcoLogic Pro/Family automatically handles the connection/disconnection of the existing boiler and prioritises hot water production or heating.

Pro: Able to control ten CTC heat pumps in four heating systems

Family: Able to control two CTC heat pumps in two heating systems



CTC EcoZenith i550 Pro

Intelligent multi-tank with EnergyFlex. All-in-one tank able to control three heat pumps in three different heating systems, with integrated solar control and two hot water coils.

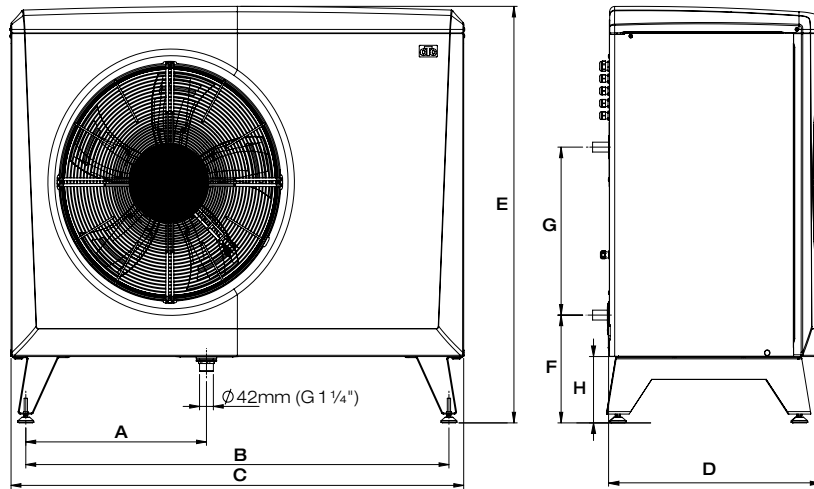
CTC EcoZenith i550 Pro has a hot water capacity of more than 600 litres, but is only 1,700 mm high, facilitating its installation in spaces with low ceiling heights.

Accessories

| | | CTC no.: |
|-------------------------------------|---|-----------|
| CTC Installation Kit EcoAir | Frost protection. Flexible hoses with insulation and connections for the heat pump | 586534402 |
| CTC Basic Control | Digital thermostat control. Used with tanks or when replacing older CTC EcoAir | 587893301 |
| CTC Basic Display 1 m | Digital display. Used for servicing and naming of heat pumps | 586043401 |
| CTC Basic Display 2.5 m | Digital display. Used for servicing and naming of heat pumps | 586043402 |
| Communication cable 10 m | For when the control unit and heat pump are far apart | 586041401 |
| CTC Charge pump 25/7-130 | Suitable for CTC EcoAir 406-408 | 586041401 |
| CTC Charge pump 25/7.5-130 | Suitable for CTC EcoAir 410 | 586396303 |
| CTC Charge pump 25/8.5-130 | Suitable for CTC EcoAir 415-420 | 586396301 |
| Heating cable 5 m | Frost protection kit for condensation pipe incl. 5 m cable. (terminal block: 586394401) | 586685401 |
| Flow meter G25 | For measuring and adjusting the water flow. (Insulated clamp: 586683411) | 586683401 |
| CTC Converter 2.0 | Enables CTC EcoAir 400 to be combined with CTC products in model version 3 | 585821303 |
| CTC Rain Cover EA Ø500 | Rain cover for CTC EcoAir 406-408 | 586997301 |
| CTC Rain Cover EA Ø630 | Rain cover for CTC EcoAir 410-420 | 586997302 |
| CTC Protection grid EA Ø500 | Evaporator impact protection for CTC EcoAir 406-408 | 588918301 |
| CTC Protection grid EA Ø650 | Evaporator impact protection for CTC EcoAir 410-420 | 588599301 |
| CTC Protection cover EA Ø500 | Protection for connection tubes, suitable for CTC EcoAir 406-408 | 588916301 |
| CTC Protection cover EA Ø650 | Protection for connection tubes, suitable for CTC EcoAir 410-420 | 588917301 |

Dimensions diagram

| CTC EcoAir 3x400V | A | B | C | D | E | F | G | H |
|-------------------|-----|------|------|-----|------|-----|-----|-----|
| 406-408 | 486 | 1155 | 1245 | 545 | 1080 | 301 | 476 | 188 |
| 410-420 | 551 | 1285 | 1375 | 645 | 1180 | 301 | 476 | 188 |



Delivery includes:

Heat pump with factory-fitted connectors for power supply and communication.
Communication cable 15 m. Power cable 2 m.

Packaging includes:

Manual, condensate drain G1¼" filter ball valve:
G1" (406-408)/ G1¼" (410-420)

Recommended accessories:

CTC Installation Kit EcoAir CTC no: 586534402
Flexi-hoses with insulation and connections for frost-protected installation outdoors.

Compatible control modules:

406-408 CTC EcoZenith i350
406-410 CTC EcoZenith i250
406-420 CTC EcoZenith i550 Pro
406-420 CTC EcoLogic Pro/ Family

| Technical data 3x400V | | 406 | 408 | 410 | 415 | 420 |
|--|-------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------|
| CTC no. | | 585600001 | 585600002 | 585600003 | 585600004 | 585600005 |
| Weight (packaged weight) | kg | 130 (150) | 150 (161) | 180 (201) | 187 (208) | 190 (211) |
| Dimensions (depth x width x height) | mm | 545x1245x1080 | | 645x1375x1180 | | |
| Electrical Data, connection | | 400V 3N~ 50Hz | | | | |
| Rated current | A | 4.0 | 4.9 | 7.5 | 10.0 | 11.8 |
| Energy efficiency class in heating system @ 35/55 °C ¹⁾ | | A ⁺⁺ / A ⁺ | A ⁺⁺ / A ⁺ | A ⁺⁺ / A ⁺ | A ⁺⁺ / A ⁺ | A ⁺ / A ⁺ |
| Energy efficiency class @ 35/55 °C (A ⁺⁺⁺ - D) | | A ⁺⁺ / A ⁺ | A ⁺⁺ / A ⁺ | A ⁺⁺ / A ⁺ | A ⁺ / A ⁺ | A ⁺ / A ⁺ |
| Ingress Protection class (IP) | | IP X4 | | | | |
| Nominal heating output (P _{designh}) @ moderate climate 35/55 °C | | 5 / 5 | 6 / 6 | 10 / 9 | 13 / 12 | 14 / 14 |
| Stated output @ W 35 °C and A +7/+2/-7 (EN14511) | kW | 6.2/4.8/3.8 | 7.8/6.0/4.7 | 11.5/8.8/7.3 | 15.9/12.0/10.0 | 17.6/13.9/11.5 |
| Supplied output @ W 35 °C and A +7/+2/-7 (EN14511) | kW | 1.3/1.3/1.2 | 1.6/1.6/1.6 | 2.4/2.3/2.3 | 3.5/3.4/3.3 | 4.1/3.9/3.9 |
| COP @ W 35 °C and A +7/+2/-7 (EN14511) | | 4.78/3.69/3.10 | 4.83/3.76/3.02 | 4.86/3.83/3.19 | 4.76/3.57/3.03 | 4.62/3.54/3.02 |
| SCOP moderate climate @ 35/55 °C (EN14825) | | 3.9 / 3.0 | 3.9 / 3.0 | 3.9 / 3.1 | 3.8 / 3.1 | 3.7 / 3.0 |
| SCOP cold climate @ 35/55 °C (EN14825) | | 3.5 / 2.7 | 3.4 / 2.7 | 3.5 / 2.8 | 3.3 / 2.8 | 3.3 / 2.8 |
| Refrigerant quantity (R407C, GWP 1774) | kg | 2.2 | 2.2 | 2.7 | 3.4 | 3.5 |
| CO ₂ equivalent (* Hermetically sealed equipment) | tonnes | 3.902 | 3.902 | 4.790 | 6.032 * | 6.209 * |
| Airflow rate / silent mode | m ³ /h | 2500 | 2800 | 4100 | 5400 / 4000 | 6200 / 5400 |
| Sound power L _{WA} /silent mode @ A7 W35 (EN12102) ²⁾ | dB(A) | 56 | 58 | 58 | 64 / 61 | 66 / 64 |
| Sound pressure L _{pA} 5 m @ A7 W35 | dB(A) | 37 | 39 | 39 | 45 / 42 | 47 / 45 |
| Sound pressure L _{pA} 10 m @ A7 W35 | dB(A) | 31 | 33 | 33 | 39 / 36 | 41 / 39 |

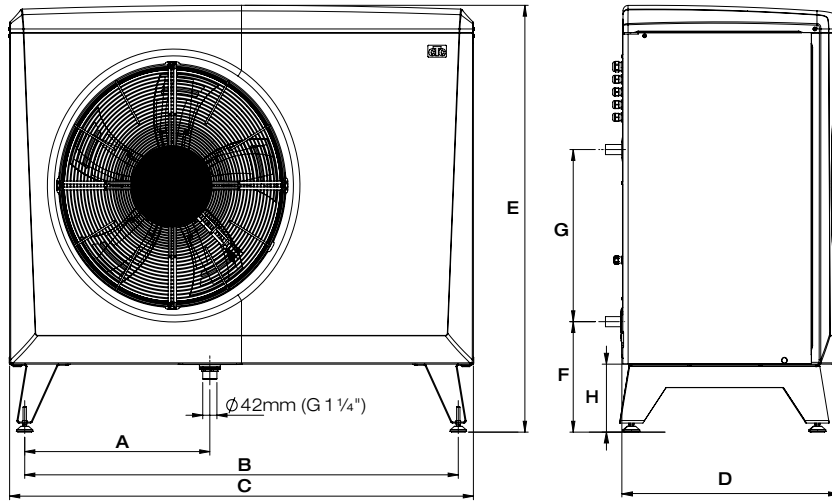
¹⁾ The reported data applies together with the CTC EcoZenith i250 control unit. Ecodesign data scale: A⁺⁺⁺ to G

Energy labeling decals can be easily downloaded at www.ctc-heating.com/Ecodesign.

²⁾ The sound specified should be regarded as an indication since the level is affected by the speed of the compressor and fan, as well as the surroundings.

Dimensions diagram

| CTC EcoAir 1x230V | A | B | C | D | E | F | G | H |
|--------------------|-----|------|------|-----|------|-----|-----|-----|
| CTC EcoAir 406-408 | 486 | 1155 | 1245 | 530 | 1080 | 301 | 476 | 188 |
| CTC EcoAir 410 | 551 | 1285 | 1375 | 610 | 1180 | 301 | 476 | 188 |



Delivery includes:

Heat pump with factory-fitted connectors for power supply and communication.
Communication cable 15 m. Power cable 2 m.

Packaging includes:

Manual, condensate drain G1¼" filter ball valve:
G1" (406-408)/ G1¼" (410)

Recommended accessories:

CTC Installation Kit EcoAir CTC no: 586534402
Flexi-hoses with insulation and connections for frost-protected installation outdoors.

Compatible control modules:

406-408 CTC EcoZenith i350
406-410 CTC EcoZenith i250
406-410 CTC EcoZenith i550 Pro
406-410 CTC EcoLogic Pro/Family

| Technical data 1x230V | | 406 | 408 | 410 |
|--|-------------------|----------------------------------|----------------------------------|----------------------------------|
| CTC no | | 585600011 | 585600012 | 585600013 |
| Weight (packaged weight) | kg | 130 (150) | 150 (161) | 180 (201) |
| Dimensions (depth x width x height) | mm | 545x1245x1080 | | 645x1375x1180 |
| Electrical Data, connection | | 230V 1N~ 50Hz | | |
| Rated current | A | 10.3 | 12.4 | 18.8 |
| Energy efficiency class in heating system @ 35/55 °C ¹⁾ | | A ⁺⁺ / A ⁺ | A ⁺⁺ / A ⁺ | A ⁺⁺ / A ⁺ |
| Energy efficiency class @ 35/55 °C (A ⁺⁺⁺ - D) | | A ⁺⁺ / A ⁺ | A ⁺⁺ / A ⁺ | A ⁺⁺ / A ⁺ |
| Ingress Protection class (IP) | | IP X4 | | |
| Nominal heating output (P _{designh}) @ moderate climate 35/55 °C | | 5 / 5 | 6 / 6 | 10 / 9 |
| Stated output @ W 35 °C and A +7/+2/-7 (EN14511) | kW | 6.2/4.8/3.8 | 7.8/6.0/4.7 | 11.5/8.8/7.3 |
| Supplied output @ W 35 °C and A +7/+2/-7 (EN14511) | kW | 1.3/1.3/1.2 | 1.6/1.6/1.6 | 2.4/2.3/2.3 |
| COP @ W 35 °C and A +7/+2/-7 (EN14511) | | 4.78/3.69/3.10 | 4.83/3.76/3.02 | 4.86/3.83/3.19 |
| SCOP moderate climate @ 35/55 °C (EN14825) | | 3.9 / 3.0 | 3.9 / 3.0 | 3.9 / 3.1 |
| SCOP cold climate @ 35/55 °C (EN14825) | | 3.5 / 2.7 | 3.4 / 2.7 | 3.5 / 2.8 |
| Refrigerant quantity (R407C, GWP 1774) | kg | 2.2 | 2.2 | 2.7 |
| CO ₂ equivalent | tonnes | 3.902 | 3.902 | 4.790 |
| Airflow rate | m ³ /h | 2500 | 2800 | 4100 |
| Sound power L _{WA} @ A7 W35 (EN12102) ²⁾ | dB(A) | 56 | 58 | 58 |
| Sound pressure L _{pA} 5 m @ A7 W35 | dB(A) | 37 | 39 | 39 |
| Sound pressure L _{pA} 10 m @ A7 W35 | dB(A) | 31 | 33 | 33 |

¹⁾ The reported data applies together with the CTC EcoZenith i250 control unit. Ecodesign data scale: A⁺⁺⁺ to G

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