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 i555 Pro multi-tank. It has a hot water capacity of more than 600 litres.

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+

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 EcoLogic L/M

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, passive cooling, etc.

CTC EcoLogic L/M automatically handles the connection/disconnection of the existing boiler, and prioritises hot water production or heating.

L: Able to control up to ten CTC heat pumps and four heating systems.
M: Able to control two CTC heat pumps in two heating systems.

CTC EcoLogic S EA

A simpler type of heat pump control for connecting a heat pump to an existing heating system.

CTC EcoVent i360F Only for CTC EcoAir 406-408

Indoor module with ultra-efficient hot water heating and integrated exhaust air ventilation.
Extremely well-insulated with heat exchanger. Factory-fitted charge pump and installation package.
A new concept for houses with exhaust air heating. A complete indoor module with heat pump control and integrated ventilation, which, when used in combination with an air-to-water heat pump, makes your property significantly more energy efficient, smarter, and quieter.

CTC EcoZenith i360 Only for CTC EcoAir 406-408

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

Low: 1.67 m Top connection.
High: 1.92 m Bottom connection.

CTC EcoZenith i555 Pro

All-in-one tank with built-in intelligent control that can control all components in one or multiple heating circuits. It is also able to control many different types of heat pumps and select which is to be used for optimal savings. Only 1.70 m tall with DHW capacity of more than 600 litres.

CTC EcoZenith i255 Only for CTC EcoAir 406-410

Indoor module with EnergyFlex. Flexible system tank with heat pump control and two hot water coils, including installation kit and charge pump.

Low: 1.65 m Top connection.
High: 1.90 m Top connection.

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
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 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

	A	B	C	D	E	F	G	H	K	L
406-408	486	1155	1245	188	1080	308	476	451	545	10
410-420	550	1285	1375	188	1180	308	476	551	645	32

Ø 28

Ø 42 (G 1¼")
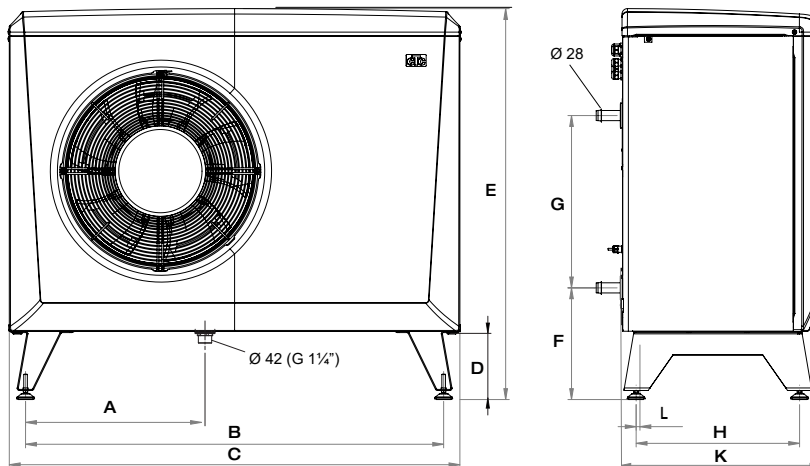
Delivery includes:
Heat pump with factory-fitted connectors for power supply and communication.
Communication cable 15 m. Power cable 2 m.

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 i360
406-408	CTC EcoVent i360F
406-410	CTC EcoZenith i255
406-420	CTC EcoZenith i555 Pro
406-420	CTC EcoLogic Pro/Family

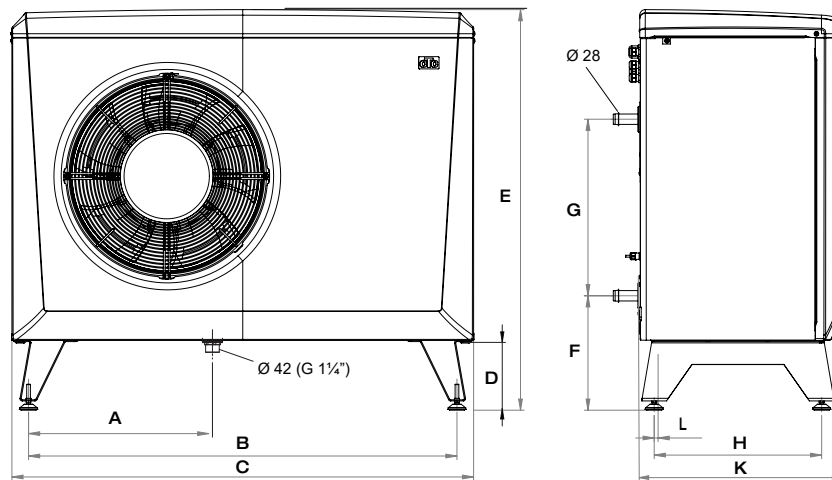| Technical data 3x400V		406	408	410	415	420
CTC-no		585600001	585600002	585600003	585600004	585600005
Weight (packaged weight)	kg	145 (164)	150 (169)	190 (210)	212 (232)	214 (234)
Dimensions (depth x width x height)	mm	545x1245x1080		645x1375x1180		
Specified output max: W35 & A +12/+7/+2/-7/-15 (EN14511)	kW	7.24 /6.22 /4.69 /3.87 /2.84	9.12 /7.83 /6.02 /4.73 /3.63	13.60 /11.51 /8.91 /7.32 /5.58	18.26 /15.92 /12.08 /10.03 /7.77	20.78 /17.55 /13.87 /11.42 /8.96
Input power max: W35 & A +12/+7/+2/-7/-15 (EN14511)	kW	1.33 /1.30 /1.28 /1.25 /1.17	1.66 /1.62 /1.60 /1.57 /1.50	2.44 /2.46 /2.39 /2.29 /2.15	3.55 /3.52 /3.39 /3.30 /3.10	4.14 /4.06 /3.92 /3.78 /3.59
COP max: W35 & A +12/+7/+2/-7/-15 (EN14511)		5.44 /4.78 /3.66 /3.10 /2.42	5.50 /4.83 /3.76 /3.02 /2.42	5.57 /4.68 /3.72 /3.20 /2.59	5.14 /4.52 /3.57 /3.03 /2.50	5.02 /4.33 /3.54 /3.02 /2.50
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 / silent mode A7/W35	dB(A)	37	39	39	45 / 42	47 / 45
Sound pressure L_{PA} 10 m / silent mode A7/W35	dB(A)	31	33	33	39 / 36	41 / 39
Electrical Data, connection		400V 3N~ 50Hz				
Rated current	A	4.0	4.9	7.5	10.0	11.8
Ingress Protection class (IP)		IP X4				
Airflow rate: max / silent mode	m³/h	2500	2800	4100	5400 / 4000	6200 / 5400
Refrigerant quantity (R407C, GWP 1774)	kg	2.2	2.2	2.7	3.4	3.5
CO₂ equivalent (* Hermetically sealed equipment)	tonnes	3.902	3.902	4.790	6.032 *	6.209 *
SCOP moderate climate: W35/W55 (EN14825, $P_{designh}$)		3.9 / 3.0	3.9 / 3.0	3.9 / 3.3	3.8 / 3.1	3.7 / 3.1
SCOP cold climate: W35/W55 W35/W55 (EN14825, $P_{designh}$)		3.4 / 2.7	3.4 / 2.7	3.5 / 2.8	3.3 / 2.8	3.3 / 2.8
Package efficiency class: W35/W55 [1]		A⁺⁺ / A⁺	A⁺⁺ / A⁺	A⁺⁺ / A⁺⁺	A⁺⁺ / A⁺	A⁺ / A⁺
Energy efficiency class: W35/W55 (A⁺⁺⁺ - D)		A⁺⁺ / A⁺	A⁺⁺ / A⁺	A⁺⁺ / A⁺⁺	A⁺ / A⁺	A⁺ / A⁺

[1] The reported data applies together with the CTC EcoLogic 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.

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Dimensions diagram

	A	B	C	D	E	F	G	H	K	L
406-408	486	1155	1245	188	1080	308	476	451	545	10
410-420	550	1285	1375	188	1180	308	476	551	645	32

E

Ø 28

G

F

Ø 42 (G 1¼")

A

B

C

D

L

H

K

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	145 (164)	150 (169)	190 (210)
Dimensions (depth x width x height)	mm	545x1245x1080		645x1375x1180
Specified output max: W35 & A +12/+7/+2/-7/-15 (EN14511)	kW	7.24 /6.22 /4.69 /3.87 /2.84	9.12 /7.83 /6.02 /4.73 /3.63	13.60 /11.51 /8.91 /7.32 /5.58
Input power max: W35 & A +12/+7/+2/-7/-15 (EN14511)	kW	1.33 /1.30 /1.28 /1.25 /1.17	1.66 /1.62 /1.60 /1.57 /1.50	2.44 /2.46 /2.39 /2.29 /2.15
COP max: W35 & A +12/+7/+2/-7/-15 (EN14511)		5.44 /4.78 /3.66 /3.10 /2.42	5.50 /4.83 /3.76 /3.02 /2.42	5.57 /4.68 /3.72 /3.20 /2.59
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
Electrical Data, connection		230V 1N~ 50Hz		
Rated current	A	10.3	12.4	18.8
Ingress Protection class (IP)		IP X4		
Airflow rate: max	m³/h	2500	2800	4100
Refrigerant quantity (R407C, GWP 1774)	kg	2.2	2.2	2.7
CO_2-equivalent	ton	3.902	3.902	4.790
SCOP moderate climate: W35/W55 (EN14825, P$_{designh}$)		3.9 / 3.0	3.9 / 3.0	3.9 / 3.3
SCOP cold climate: W35/W55 W35/W55 (EN14825, P$_{designh}$)		3.4 / 2.7	3.4 / 2.7	3.5 / 2.8
Package efficiency class: W35/W55 [1]		A++/A+	A++/A+	A++/A++
Energy efficiency class: W35/W55 (A^{+++} - D)		A++/A+	A++/A+	A++/A++

[1] The reported data applies together with the CTC EcoLogic 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.