EcoAir 400

Air / Water Heat Pump

Enertech Group

CTC EcoAir is the next generation in our Air to Water heat pump development. With a high COP and Low Noise High Performance comes as Standard!

CTC's EcoAir 400 range of air source heat pumps offer an extremely efficient solution for space heating and hot water generation. Absorbing energy from the air and using it for heating and domestic hot water.

CTC EcoAir 400 now has a new and improved compressor for reliability and greater efficiency. In addition the electronic expansion valve and newly developed fan design further improves efficiency making this the most efficient and quietist air/water heat pump CTC has developed.

Utilising an on demand defrosting system reduces the defrost frequency further improving efficiency whilst producing more heat, more power and a longer life. Combined with a condensation tray with a built-in heater, problems with icing are now a thing of the past.

The CTC EcoAir air source heat pump can operate at air temperatures as low as -22°C and provide hot water up to 65°C and reduce heating costs by up to as much as 70%.

With a discrete design and stylish grey pearl (RAL 9023) finish the CTC EcoAir fits into most environments.

With a CTC EcoLogic controller or EcoZenith intelligent thermal store the EcoAir can be integrated into a heating system with various heat inputs and numerous heat outputs. Alternatively using a CTC Basic Controller the EcoAir 400 can be controlled either on a fixed return temperature (also called fixed condensing) or thermostatic control.

Key features

- High efficiency with a SCOP of 3.92 at A7/W35
- Electronic expansion valve
- On demand defrosting
- Operates in temperatures down to -22°C
- Produces hot water up to 65°C
- Condensation tray with built-in heater
- Significantly reduced heating costs
- Available in sizes from 6 kW to 10 kW in single phase and up to 20 kW in three phase
- Low noise production
- Built-in Smart Start to reduce peak currents

ENERGY FLEX

Enertech Group

TECHNICAL DATA						
Electrical Data		**EcoAir 406**	**EcoAir 408**	**EcoAir 410**	**EcoAir 415**	**EcoAir 420**
Voltage		1 x 230V[1]	1 x 230V[1]	1 x 230V[1]	3 x 400V	3 x 400V
Rated Current[2]	A	10.3	12.4	18.8	10.0	11.8
Max. starting current	A	22.8	23.2	23.5	29.6	33.5
Max. system impedance	Ohm	0.418	0.413	0.408	-	-
IP Class				IP24		
ErP data for heat pump[3]						
Energy class heating 35/55°C (in package with control)		A+++/A+	A+++/A+	A+++/A++	A+++/A+	A+++/A+
Energy class heating 35/55°C (without control)		A++/A+	A++/A+	A++/A+	A++/A+	A++/A+
Nominal heat output (Pdesignh) 35/55°C	kW	5/5	6/6	10/9	13/12	14/14
Operational data for heat pump						
Input power[4]	kW	1.3 / 1.3 / 1.3	1.7 / 1.6 / 1.6	2.5 / 2.4 / 2.3	3.5 / 3.4 / 3.3	4.1 / 3.9 / 3.9
Output power[4]	kW	6.2 / 4.7 / 3.7	7.7 / 6.0 / 4.8	11.6 / 8.9 / 7.1	15.9 / 12.0 / 10.0	17.6 / 13.9 / 11.5
COP[4]		4.59 / 3.53 / 2.87	4.64 / 3.62 / 2.97	4.86 / 3.65 / 3.03	4.76 / 3.57 / 3.03	4.62 / 3.54 / 3.02
Heat pump dimensions						
Water volume	l	1.9	2.4	2.8	3.9	4.5
Refrigerant quantity (R407C)	kg	2.2	2.2	2.7	3.4	3.5
High pressure switch rating	bar			31		
Max. operating pressure water	bar			2.5		
Dimensions (H x W x D)	mm	1080 x 1245 x 545			1180 x 1375 x 610	
Compressor/oil type				Scroll / PVE FV50S		
Air volume (low/high speed)	m^3/h	2500	2800	4100	4000/5400	5400/6200
Fan speed	rpm	463	527	493	480/650	650/715
Fan input power	w	25	37	60	140	170
Weight	kg	120	126	180	187	190
Sound power	dB(A)	56	58	58	67/61[5]	70/64[5]
Noise data 10m	dB(A)	31	33	33	42/36[5]	46/39[5]

1) EcoAir 406, 408 and 410 also available in 3 x 400V versions
2) Including Charge Pump
3) ErP with EcoLogic Controller. Further details are available on the CTC website
4) At 35°C water temperature and +7/+2/-7 air temperature
5) Silent mode in which the fan runs at a lower speed to reduce noise levels

ENERGY FLEX

EcoAir 400

One of the quietest air/water heat pump we've ever developed.

Provides heat down to -22˚C outside temperature.

Produces up to 65˚C hot water.

On-demand defrosting for more heat and longer life.

Very high seasonal efficiency, SCOP 3.92.

Electronic expansion valve for optimum operation.

New efficient and reliable compressor.

Condensation water tray with built-in heater as standard.

EcoZenith in 250 L/H

The CTC EcoZenith i250 intelligent thermal store is the perfect complement for the EcoAir range 406 to 410. Having a 4.3" touch screen controller that provides control of two weather compensated heating circuits as well as Solar panels, Pool heating and cooling.

With the CTC EcoZenith i250 domestic hot water is produced by an internal finned tube copper coil and due to the small hot water storage volume of the coil is legionella free.

EcoZenith i550 Pro

The CTC EcoZenith i550 all in one thermal store can control all components of a heating system including solar, pool heating, extra hot water and buffer tanks, electricity, wood, oil, gas and pellet boilers.

With the ability to control up to three heat pumps and three fully weather compensated heating circuits the EcoZenith i550 is ideal for use with the EcoAir range of heat pumps.

Using two internal finned copper tube DHW coils the EcoZenith i550 can produce an impressive 600 litres of legionella free 40°C water with a flow rate of 22 l/min.

EcoLogic Pro

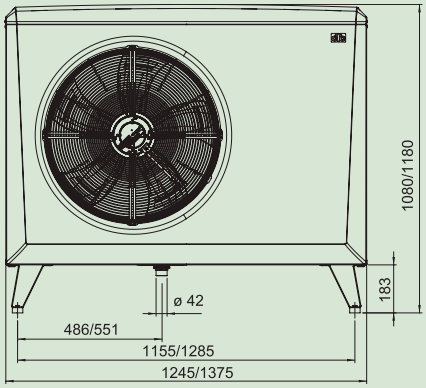
A unique control system that monitors and controls up to 10 CTC heat pumps and provide four fully weather compensated heating circuits. In addition the EcoLogic Pro can control solar panels, additional heating from a variety of sources including gas and oil boilers, buffer tank charging, swimming pool heating, cooling and borehole recharging.

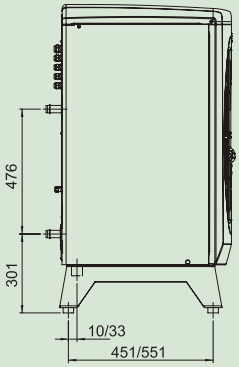
The CTC Ecologic Pro has a large and clear 4.3-inch colour touch screen with intuitive controls and a clear graphical representation of the system.

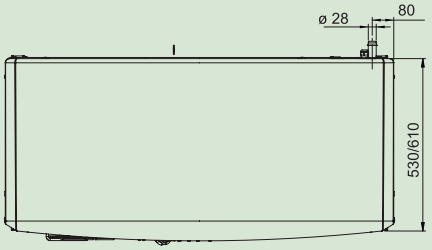
ENERGY FLEX

EcoAir 400

Dimensional drawing of the CTC EcoAir 400 heat pump







406 and 408/410, 415 and 420

Delivery includes:

LiYCY Communications cable 15m
Connector for power supply
Manual

Accessories:

CTC EcoAir 406 - 408 Charge pump	586396303
CTC EcoAir 410 Charge pump	586396302
CTC EcoAir 415 - 420 Charge pump	586396301
Insulated flexible connection 750 mm	REP0171
Insulated flexible connection 1000 mm	REP0170
EcoZenith i250 (1 x 230V)*	586621001
EcoZenith i550 (1 x 230V)*	586401001
Ecologic Pro controller	585888301
CTC Basic Display	586043401

*3 x 400V Version Available

Enertech Group

Go Geothermal Ltd
Ridgeway, Newton Aycliffe
County Durham, DL5 6SP

Tel: 01388 720228
Email: sales@gogeothermal.co.uk
www.ctc-uk.com

APPROVED PRODUCT