



## Air/Water Heat pump for outdoor placement

### Connection to an existing heating boiler or CTC EcoEI

- Provides by connection to EcoEI and EcoLogic heating down to -15 °C outdoors
- Equipped with a build-in control system for solid condensation / accumulator charging
- A heat pump for heating and DHW
- Easy to install, placed outdoors and connected to the existing heating boiler or CTC EcoEI
- Economical operation all the year round
- High efficiency
- A wide field of application
- Scroll-compressor with superior performance during winter time
- Build-in soft starter
- **Now even more silent**

The CTC EcoAir is a heat pump designed for connection to an existing - or new heating boiler. It utilizes the energy in the surrounding outdoor air, the compressor converts the energy to hot water which heats the house and provides DHW.

The CTC EcoAir has a build-in control system for solid condensation / accumulator charging which supervises the return flow temperature

The CTC EcoAir is easy to install. Since the outdoor air is utilized, neither drilled holes, nor coils in the ground, are required.

The heat pump is preferably placed close to an external wall and connected to e.g. heating boiler with 22 mm copper pipe.

The CTC EcoAir can provide a large economical saving during the winter season compared to direct electrical heating.

Together with CTC EcoEI the heat pump operates effectively at temperatures down to -15 °C.

#### **CTC EcoAir – CTC EcoEI**

The optimal function is provided by the connection of CTC EcoAir to the electric boiler CTC EcoEI, in which DHW is being produced.

All control functions such as heating, night reduction, operation times, temperatures etc. are supervised by a micro-processor based control system.

Heating is distributed by a 4-way heating circuit mixing valve.

CTC EcoEI may be installed in a boiler room, garage or utility room.

#### **CTC EcoAir – Existing boiler**

The CTC Eco Air operates perfectly well in combination with an existing electric/ oil/wood heating boiler.

The CTC EcoLogic control system then supervises the operation

The CTC EcoAir provides heating to the house most days of the year. Only at very low outdoor temperatures additional heating from the boiler is required.

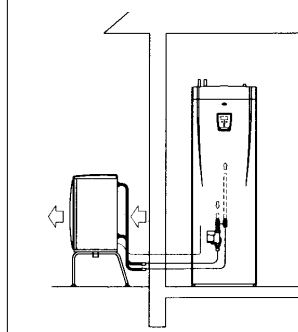
The CTC EcoAir and EcoLogic is also suitable for smaller sport- and camping facilities and smaller swimming pools.

# Technical data

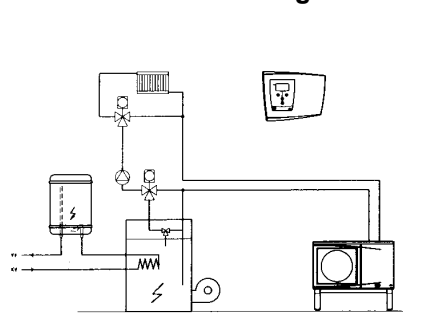
Model	Electrical boiler CTC EcoEI	Heat pump/outdoor unit CTC EcoAir				Heat pump control system CTC EcoLogic		
	1800/1550	105	107	109	111	System without mixing valve	System with mixing valve	
Measurements, wxhxd	600x624x1812/1562	1190x1040x407				290x225x95		
Weight, kg	170/155	100	105	135	140			
Water volume boiler, litre	223	-	-	-	-			
DHW type/volume, litre	fin/5,7	-	-	-	-			
Max operating pressure, bar/°C	2,5/100	-	-	-	-			
Electrical data	400V 3N~/230V 1N~							
Electrical output, kW	9+6	-	-	-	-	-	Flow valve	
Output limit kW	1,5 kW/step	-	-	-	-	-	Bypass valve	
Internal pressure guard	Yes	-	-	-	-	Outdoor sensor		
Emitted output 0/50 °C, kW	-	4,8	6	7,3	8,2	Room sensor		
COP at 0/50 °C	-	2,7	2,65	2,6	2,55	Flow gauge		
Emitted output 2/35 °C, kW	-	5,35	6,6	8,12	9,1	*) The speed alters automatically by thermostat.		
COP at 2/35 °C	-	3,55	3,45	3,65	3,6			
Type of compressor	-	Scroll	Scroll	Scroll	Scroll			
Refrigerant R407 C	-	1,20 kg	1,20 kg	2,20 kg	2,20 kg			
Fan speed, kW	-	0,12/0,10	0,12/0,10	0,14/0,12	0,14/0,12			
Fan speed *)	-	2 step	2 step	2 step	2 step			
Air quantity m <sup>3</sup> /h	-	2400/2300	2400/2300	3000/2500	3000/2500			
Cover	Stainless steel / galvanized enamelled steel plate / sound absorbing ABS							

## Hydraulic examples

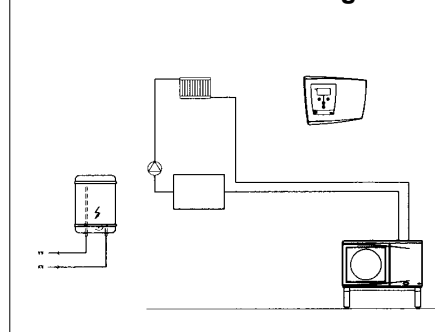
Installation example  
CTC EcoAir - CTC EcoEI



Installation example  
CTC EcoAir with mixing valve



Installation example  
CTC EcoAir without mixing valve

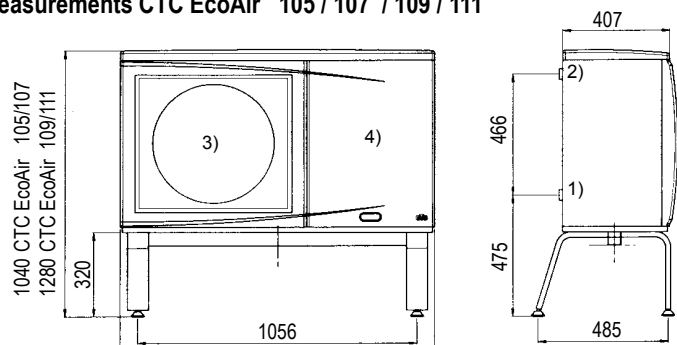


Note. For more connection alternatives, see leaflet for CTC EcoLogic.

## Noise installation data CTC EcoAir (dB(A))

From the front	Distance			
	1 meter	4 meters	10 meters	15 meters
EcoAir 105 and 107 fan speed high/low	56/50,5	45,5/41	38,5/35	36/32,5
EcoAir 109 and 111 fan speed high/low	57,5/52,5	48/44	40/36	36/33
45° angle	1 meter	4 meters	10 meters	15 meters
EcoAir 105 and 107 fan speed high/low	53,5/49	44,5/40,5	37,5/35,5	35/34
EcoAir 109 and 111 fan speed high/low	55/51	47,5/42	39,5/38,5	36/35

## Measurements CTC EcoAir 105 / 107 / 109 / 111



- 1) Water connection, return flow ø 1" int. 2) Water connection, forward flow ø 1" int. 3) Fan 4) Space for compressor/elec. connection

Subject to alterations in design.



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