

# CTC EcoAir 510M

Variable Speed air-to-water heat pump. 2–10kW



The CTC EcoAir 510M is a variable speed heat pump that adapts automatically to the building's output requirements during the year. Output will increase if required, otherwise the compressor speed will reduce and output will decrease.

The design is based on the tried and tested EcoAir 400 range, so it also has the same high-quality finish and good design. The focus of development was to retain the popular properties that characterise the other products in the EcoAir family. The result is a product with very high COP values and low sound levels. The product has been fitted with a new inverter driven compressor that adapts effectively to your own and your property's needs.

CTC EcoAir 510M has been optimised to make the best possible use of the environmentally friendly energy in the air. It converts the energy in the air into heat and hot water without the need for any boreholes or coils in the ground. The CTC EcoAir 510M has on-demand automatic defrost that provides more heat, more output and a longer service life. The CTC EcoAir 510M is of course fitted with a heated condensation water tray.

The CTC EcoAir 510M must always be installed with one of the Indoor Modules CTC EcoZenith i250 or CTC EcoZenith i350 for control and hot water. To simplify the adjustment of the heating and hot water, the CTC EcoZenith i250/i350 has a colour touchscreen. 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 enjoy the warmth in summer. We call this Energyflex.

The CTC EcoAir 510M is equipped with a new variable speed compressor that adapts the output as required and gives a very high SCOP value.

## Benefits of CTC EcoAir 510M:

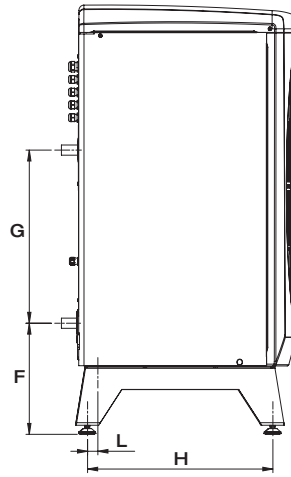
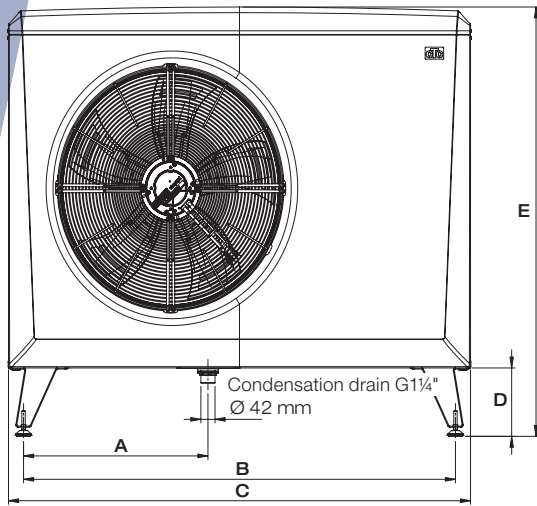
- Savings of up to 80%
- Energy class A+++ (in package with built-in control)
- Most output when required
- Optimal seasonal coefficient of performance 3.9 (SCOP)
- Simple and cost-efficient installation 3x400V
- Inverter-controlled compressor and electronic expansion valve
- Built-in condensation water tray with on-demand heater
- Provides heating down to -22°C and produces water up to 65°C
- Using CTC Connect and CTC EcoZenith, it can be controlled using your smartphone.



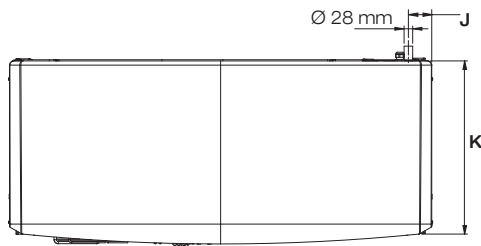
**ENERGY FLEX**

For more information in the range please visit:

[www.ctc-heating.com](http://www.ctc-heating.com)



Dimensions mm	
A	486
B	1 155
C	1 245
D	188
E	1 080
F	301
G	476
H	451
J	80
K	530
L	10



#### Delivery includes

Heat pump CTC EcoAir 510M,  
Installation and maintenance manual  
15 m cable LiYCY (TP) with connector for communication  
2 m power cable, fitted.

#### Recommended accessory:

Installation Kit CTC EcoAir: 586534401  
(Flexible hoses, pipe insulation and connections)

Technical data CTC EcoAir 510M		3 phase	1 phase
Electrical data		400V 3N~ 50Hz	230V 1N~ 50Hz
Energy class heating 35/55°C (in pack. with EZI350)		A+++ / A++	A++ / A++
Energy class heating 35/55°C (without control)		A++ / A+	A++ / A+
Max. specified output compressor (100 rps)	kW	10.98	10.98
Nominal heating (P <sub>designh</sub> ) 35/55°C	kW	6 / 6	6 / 6
COP <sup>1)</sup> (Coefficient Of Performance)		5.31 / 2.78	4.67 / 2.73
SCOP average climate 35°C (EN14825)		3.9 / 2.9	3.8 / 2.9
SCOP cold climate 35 / 55 °C (EN14825)		3.4 / 2.6	3.5 / 2.7
Maximum start current	A	2.7	2.8
Water volume	litre	1.9	1.9
Refrigerant quantity (R407C)	kg	2.2	2.2
CO <sub>2</sub> Equivalent <sup>2)</sup>	ton	3.903	4.594
Break value pressure switches HT	bar	31	45
Max. operating pressure water (PS)	bar	2.5	2.5
Compressor type		Inverter scroll	Twin rotary
Compressor oil type		PVE FV50S	PVE FV50S
Air flow 100%	m <sup>3</sup> /h	3800	3800
Fan speed	rpm	Modulating	Modulating
Fan, max power	W	73	73
Noise level (EN12102 at A7 W47/55 and A7 W30/35)	dB(A)	55.9 / 53.5	59.7 / 55.6
Acoustic pressure 5m <sup>3)</sup> (EN12102 at A7 / W35)	dB(A)	30-33	37-40
Acoustic pressure 10m <sup>3)</sup> (EN12102 at A7 / W35)	dB(A)	24-27	30-33
Dimensions (W x D x H)	mm	1245x545x1080	
Weight (excl / incl emb)	kg	126 / 155	119 / 148

1) At 35°C water temperature. +7 @ 20 rps / -7 °C @ 90 rps. According to EN 14511.

2) The product require no annual inspection regarding leakage control of refrigerant

3) The sound specified should be regarded as an indication since the level is affected by the compressor's and the fan's speed, as well as the surroundings.  
The upper value corresponds to 100% reflecting ground and walls (smooth concrete).

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