

EcoAir 510M & 520M

Air / Water Heat Pump

Variable Speed inverter driven air source heat pump with an output range of 2 to 10 kW for the 510M and 4.9 – 22 kW for the 520M

The CTC EcoAir 510M and 520M are variable speed inverter driven air source heat pumps that adapt automatically to the building's output requirements. Output is increased as required by increasing the speed of the inverter driven compressor and as less output is required the speed of the compressor is reduced.

The design is based on the tried and tested EcoAir 400 range with same high-quality finish, excellent design and attention to detail. The focus of development was to retain the popular properties that characterise the EcoAir family whilst taking full advantage of the inverter driven variable speed compressor. The result is a product that adapts to the heating demand and that has very high COP values and low sound levels.

CTC EcoAir 510M and 520M have 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 and 520M both have on-demand automatic defrost that provides more heat, more output and a longer service life. The CTC EcoAir 510M and 520M are of course fitted with a heated condensation water tray.



The CTC EcoAir 510M and 520M must always be installed with either a CTC EcoZenith i250, i350 or i550 thermal store with built in controller or with the CTC EcoLogic Family/Pro controller. All CTC controllers have a 4.3 inch colour touch screen with text and symbols providing a clear and simple to use interface. This makes it simple to adjust the heating temperature and hot water demand as well as retrieve operation information.

Key features

- Savings of up to 80%
- Energy class A++ (in package with built-in control)
- Most output when required
- Optimal seasonal coefficient of performance up to 4.5 (SCOP)
- Simple and cost-efficient installation
- 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 with the CTC Controller the EcoAir 510M can be controlled using your phone

EcoAir 510M & 520M

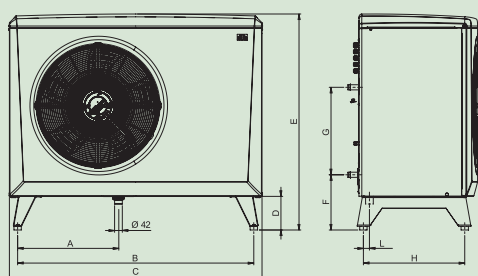
TECHNICAL DATA			
Electrical Data		EcoAir 510M	EcoAir 520M
Voltage		230V 1Ph	400V 3ph
Rated Current ¹⁾	A	20.8	19.5
Max starting current	A	2.8	4.9
IP class		IP24	IP24
ErP data for heat pump			
Energy class heating 35/55 °C (in package control with EZ i350)		A++ / A++	A+++ / A++
Energy class heating 35/55 °C (without control)		A++ / A+	A++ / A++
Max. specified output compressor (100 rps)	kW	10.98	21.8
Nominal heat output (Pdesign) 35/55 °C2)	kW	6 / 6	9 / 8
Operational data for heat pump			
COP ²⁾		4.67 / 2.73	5.24 / 2.71
SCOP average climate 35°C/55°C (EN14825)		3.8 / 2.9	4.5 / -
SCOP cold climate 35°C/55°C (EN 14825)		3.2 / 2.7	3.8 / 3.1
Heat pump dimensions			
Water volume	l	1.9	2.8
Refrigeration quantity type/quantity	kg	R410A / 2.2	R407C / 2.7
High pressure switch rating	bar	45	31
Max. operating pressure water	bar	2.5	2.5
Width x Height x Depth	mm	1245 x 1080 x 545	1375 x 1180 x 610
Compressor type		Twin rotary	Inverter scroll
Compressor Oil type		PVE FV50S	PVE FV50S
Air flow 100%	m³/h	3800	6200
Fan speed	Rpm	Modulating	Modulating
Fan, max power	W	73	170
Weight	kg	119	186
Noise level (EN12102 at A7 W47/55 and A7 W30/35)	dB(A)	59.7 / 55.6	60.5 / 55.4
Sound pressure at 5m ³⁾	dB(A)	37 - 40	32 - 35
Sound pressure at 10m ³⁾	dB(A)	30 - 33	26 - 29

1) At 120 rps (from factory max 90 rps) Incl. Grundfos UPM GEO 25 – 85 charge pump

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

3) The sound specified should be regarded as an indication only since the level is affected by the compressor and fan speed as well as the surroundings.
The upper value corresponds to 100% reflecting ground and walls (smooth concrete). Sound power level in accordance with EN12102/ISO3741 at test conditions A7 W47/55 and A7 W30/35

Dimensional drawing of the CTC EcoAir 510M & 520M



Dimensions (mm)		
	EcoAir 510M	EcoAir 520M
A	486	549
B	1155	1285
C	1245	1375
D	188	188
E	1080	1180
F	301	306
G	476	476
H	451	551
J	80	76
K	530	610
L	10	31

Delivery includes:

Heat pump CTC EcoAir 510M or 520M, Installation and maintenance manual, 15m cable LiYCY (TP) with connector for communication, 2m power cable, fitted

Accessories:

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

Part Number: 586534401



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