

Subtype CTC EcoAir 510M 1x230V

Certificate Holder	CTC AB
Address	Box 309, Näsvägen
ZIP	SE-341 26
City	Ljungby
Country	SE
Certification Body	RISE CERT
Subtype title	CTC EcoAir 510M 1x230V
Registration number	012-061
Heat Pump Type	Outdoor Air/Water
Refrigerant	R410A
Mass of Refrigerant	2.2 kg
Certification Date	11.12.2023
Testing basis	EN 14511:2013, EN 14825:2013, EN 12102:2013

Model CTC EcoAir 510M 1x230V

Model name	CTC EcoAir 510M 1x230V
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	No

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	6.21 kW	5.76 kW
El input	1.39 kW	2.07 kW
COP	4.46	2.79

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	171 %	125 %
Prated	4.30 kW	8.00 kW
SCOP	4.40	3.20
Tbiv	-10 °C	-8 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.90 kW	7.00 kW
COP Tj = -7°C	2.92	7.95
Cdh Tj = -7 °C		
Pdh Tj = +2°C	2.50 kW	4.40 kW
COP Tj = +2°C	4.70	3.14
Cdh Tj = +2 °C		
Pdh Tj = +7°C	2.60 kW	2.80 kW
COP Tj = +7°C	5.93	4.63
Cdh Tj = +7 °C		

Pdh Tj = 12°C	1.30 kW	2.90 kW
COP Tj = 12°C	7.59	6.17
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	4.30 kW	7.20 kW
COP Tj = Tbiv	2.62	1.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.30 kW	6.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.62	1.71
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.970	0.980
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	9 W	9 W
PSB	15 W	15 W
PCK	23 W	23 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	1.90 kW
Annual energy consumption Qhe	2005 kWh	5155 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	154 %	116 %
Prated	6.00 kW	5.80 kW
SCOP	3.90	3.00
Tbiv	-17 °C	-17 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	3.70 kW	3.60 kW
COP Tj = -7°C	3.16	2.45
Cdh Tj = -7 °C		
Pdh Tj = +2°C	2.20 kW	2.10 kW
COP Tj = +2°C	5.08	3.80
Cdh Tj = +2 °C		
Pdh Tj = +7°C	2.60 kW	2.50 kW
COP Tj = +7°C	6.27	4.95
Cdh Tj = +7 °C		
Pdh Tj = 12°C	2.90 kW	2.90 kW
COP Tj = 12°C	7.59	6.44
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	5.10 kW	4.70 kW
COP Tj = Tbiv	2.49	1.80

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.90 kW	4.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.91	1.56
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.970	0.980
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	9 W	9 W
PSB	15 W	15 W
PCK	23 W	23 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.10 kW	1.05 kW
Annual energy consumption Qhe	3780 kWh	4791 kWh
Pdh Tj = -15°C (if TOL	5.06	4.73
COP Tj = -15°C (if TOL	2.49	1.80
Cdh Tj = -15 °C	0.988	0.992