

Subtype CTC EcoAir 420

Certificate Holder	CTC AB
Address	Box 309, Näsvägen
ZIP	SE-341 26
City	Ljungby
Country	SE
Certification Body	RISE CERT
Subtype title	CTC EcoAir 420
Registration number	012-060
Heat Pump Type	Outdoor Air/Water
Refrigerant	R407c
Mass of Refrigerant	3.5 kg
Testing basis	EN 14511:2013, EN 14825:2013, EN12102:2013
Testing laboratory	Danish Technological Institute (DTI), DK

Model CTC EcoAir 420 3x400V

Model name	CTC EcoAir 420 3x400V
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	3x400V 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	18.72 kW	15.94 kW
El input	4.05 kW	5.45 kW
COP	4.62	2.92

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	66 dB(A)	66 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	145 %	119 %
Prated	13.88 kW	14.20 kW
SCOP	3.70	3.10
Tbiv	-6 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.50 kW	10.90 kW
COP Tj = -7°C	3.07	2.35
Pdh Tj = +2°C	14.00 kW	13.40 kW
COP Tj = +2°C	3.72	2.97
Pdh Tj = +7°C	17.70 kW	17.30 kW
COP Tj = +7°C	4.64	3.81
Pdh Tj = 12°C	21.40 kW	20.30 kW
COP Tj = 12°C	5.56	4.62
Pdh Tj = Tbiv	11.50 kW	11.50 kW

COP Tj = Tbiv	3.15	2.49
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.50 kW	10.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.82	2.10
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.98	0.99
WTOL	65 °C	65 °C
Poff	18 W	18 W
PTO	68 W	20 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.40 kW	4.30 kW
Annual energy consumption Qhe	7739 kWh	9646 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	66 dB(A)	66 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	129 %	107 %
Prated	11.91 kW	11.14 kW
SCOP	3.30	2.80
Tbiv	-14 °C	-14 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	11.60 kW	11.00 kW
COP Tj = -7°C	3.20	2.52
Pdh Tj = +2°C	14.10 kW	13.60 kW
COP Tj = +2°C	3.84	3.15
Pdh Tj = +7°C	17.80 kW	17.40 kW
COP Tj = +7°C	4.74	4.01
Pdh Tj = 12°C	21.30 kW	20.50 kW
COP Tj = 12°C	5.54	4.76
Pdh Tj = Tbiv	9.10 kW	8.50 kW
COP Tj = Tbiv	2.63	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.80 kW	6.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.04	1.44
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.98	0.99
WTOL	65 °C	65 °C
Poff	18 W	18 W
PTO	68 W	20 W

PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.00 kW	4.90 kW
Annual energy consumption Qhe	8876 kWh	9970 kWh