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

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
ηs	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