Subtype CTC EcoPart 414

Certificate Holder	CTC AB
Address	Box 309, Näsvägen
ZIP	SE-341 26
City	Ljungby
Country	SE
Certification Body	RISE CERT
Subtype title	CTC EcoPart 414
Registration number	012-066
Heat Pump Type	Brine/Water
Refrigerant	R407c
Mass of Refrigerant	2.7 kg
Testing basis	EN 14511:2013, EN 14825:2013, EN12102:2013
Testing laboratory	RISE Research Institutes of Sweden

Model CTC EcoPart 414 1x230V	
Model name	CTC EcoPart 414 1x230V
Application	Heating (medium temp)
Units	Indoor
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

Brine/Water

EN 14511-4 | Heating

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

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	14.51 kW	13.45 kW
El input	3.19 kW	4.32 kW
COP	4.55	3.11

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	53 dB(A)	53 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	174 %	137 %
Prated	16.47 kW	16.12 kW
SCOP	4.60	3.60
Tbiv	-7 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	14.60 kW	13.60 kW
COP Tj = -7°C	4.64	3.29
Pdh Tj = +2°C	14.70 kW	13.90 kW
COP Tj = +2°C	4.81	3.68
Pdh Tj = +7°C	14.80 kW	14.20 kW
COP Tj = +7°C	4.97	4.03
Pdh Tj = 12°C	14.90 kW	14.40 kW
COP Tj = 12°C	5.13	4.37
Pdh Tj = Tbiv	14.60 kW	13.60 kW
COP Tj = Tbiv	4.64	3.34

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.51 kW	13.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.55	3.11
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.96	0.99
WTOL	65 °C	65 °C
Poff	18 W	18 W
PTO	97 W	35 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.00 kW	2.70 kW
Annual energy consumption Qhe	7467 kWh	9158 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	53 dB(A)	53 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	176 %	140 %
Prated	16.30 kW	15.19 kW
SCOP	4.60	3.70
Tbiv	-18 °C	-18 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	14.70 kW	13.80 kW
COP Tj = -7°C	4.84	3.59
Pdh Tj = +2°C	14.80 kW	14.10 kW
COP Tj = +2°C	4.98	3.94
Pdh Tj = +7°C	14.90 kW	14.30 kW
COP Tj = +7°C	5.08	4.26
Pdh Tj = 12°C	14.90 kW	14.50 kW
COP Tj = 12°C	5.11	4.49
Pdh Tj = Tbiv	14.60 kW	13.60 kW
COP Tj = Tbiv	4.67	3.28
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.51 kW	13.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.55	3.11
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.96	0.99
WTOL	65 °C	65 °C
Poff	18 W	18 W
PTO	97 W	32 W
PSB	18 W	18 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.80 kW	1.70 kW
Annual energy consumption Qhe	8758 kWh	10139 kWh

Model CTC EcoPart 414 3x400V	
Model name	CTC EcoPart 414 3x400V
Application	Heating (medium temp)
Units	Indoor
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

Brine/Water

EN 14511-4 | Heating

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

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	14.51 kW	13.45 kW
El input	3.19 kW	4.32 kW
COP	4.55	3.11

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	53 dB(A)	53 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	174 %	137 %
Prated	16.47 kW	16.12 kW
SCOP	4.60	3.60
Tbiv	-7 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	14.60 kW	13.60 kW
COP Tj = -7°C	4.64	3.29
Pdh Tj = +2°C	14.70 kW	13.90 kW
COP Tj = +2°C	4.81	3.68
Pdh Tj = +7°C	14.80 kW	14.20 kW
COP Tj = +7°C	4.97	4.03
Pdh Tj = 12°C	14.90 kW	14.40 kW
COP Tj = 12°C	5.13	4.37
Pdh Tj = Tbiv	14.60 kW	13.60 kW
COP Tj = Tbiv	4.64	3.34

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.51 kW	13.45 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.55	3.11
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.96	0.99
WTOL	65 °C	65 °C
Poff	18 W	18 W
PTO	97 W	35 W
PSB	18 W	18 W
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Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.00 kW	2.70 kW
Annual energy consumption Qhe	7467 kWh	9158 kWh

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WTOL	65 °C	65 °C
Poff	18 W	18 W
PTO	97 W	32 W
PSB	18 W	18 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.80 kW	1.70 kW
Annual energy consumption Qhe	8758 kWh	10139 kWh