

Subtype CTC EcoAir 415

Certificate Holder	CTC AB
Address	Box 309, Näsvägen
ZIP	SE-341 26
City	Ljungby
Country	SE
Certification Body	RISE CERT
Subtype title	CTC EcoAir 415
Registration number	012-059
Heat Pump Type	Outdoor Air/Water
Refrigerant	R407c
Mass of Refrigerant	3.4 kg
Testing basis	EN 14511:2013, EN 14825:2013, EN12102:2013
Testing laboratory	Danish Technological Institute (DTI), DK

Model CTC EcoAir 415 1x230V

Model name	CTC EcoAir 415 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	16.33 kW	14.46 kW
El input	3.43 kW	4.66 kW
COP	4.76	3.11

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	64 dB(A)	64 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	147 %	119 %
Prated	13.09 kW	12.27 kW
SCOP	3.80	3.10
Tbiv	-5 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.10 kW	9.50 kW
COP Tj = -7°C	3.08	2.32
Pdh Tj = +2°C	12.30 kW	11.50 kW
COP Tj = +2°C	3.78	2.96
Pdh Tj = +7°C	16.30 kW	15.20 kW
COP Tj = +7°C	4.89	3.91
Pdh Tj = 12°C	18.80 kW	17.90 kW
COP Tj = 12°C	5.70	4.78
Pdh Tj = Tbiv	10.60 kW	9.90 kW

COP $T_j = T_{biv}$	3.25	2.48
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	9.20 kW	8.60 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.83	2.06
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.97	0.99
WTOL	65 °C	65 °C
P _{off}	18 W	18 W
PTO	67 W	20 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.90 kW	3.70 kW
Annual energy consumption Q _{he}	7193 kWh	8314 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	64 dB(A)	64 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	130 %	107 %
Prated	10.37 kW	9.58 kW
SCOP	3.30	2.80
T_{biv}	-14 °C	-14 °C
TOL	-22 °C	-22 °C
$P_{dh} T_j = -7^{\circ}C$	10.20 kW	9.60 kW
COP $T_j = -7^{\circ}C$	3.21	2.52
$P_{dh} T_j = +2^{\circ}C$	12.40 kW	11.70 kW
COP $T_j = +2^{\circ}C$	3.90	3.16
$P_{dh} T_j = +7^{\circ}C$	16.50 kW	15.50 kW
COP $T_j = +7^{\circ}C$	5.01	4.14
$P_{dh} T_j = 12^{\circ}C$	18.80 kW	18.00 kW
COP $T_j = 12^{\circ}C$	5.67	4.92
$P_{dh} T_j = T_{biv}$	7.90 kW	7.30 kW
COP $T_j = T_{biv}$	2.63	1.95
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	5.80 kW	5.20 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	2.04	1.40
$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	0.97	0.99
WTOL	65 °C	65 °C
P _{off}	18 W	18 W
PTO	67 W	20 W

PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.50 kW	4.40 kW
Annual energy consumption Q _{he}	7695 kWh	8576 kWh

Model CTC EcoAir 415 3x400V

Model name	CTC EcoAir 415 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
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