

## Subtype CTC EcoAir 700-series

Certificate Holder	CTC AB
Address	Box 309, Näsvägen
ZIP	SE-341 26
City	Ljungby
Country	SE
Certification Body	RISE CERT
Subtype title	CTC EcoAir 700-series
Registration number	012-C700200
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	0.8 kg
Certification Date	19.02.2024
Testing basis	EN 14511:2022, EN 14825:2022, EN 12102:2017
Testing laboratory	Danish Technological Institute (DTI), DK

## Model CTC EcoAir 708M 400V

Model name	CTC EcoAir 708M 400V
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Colder
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x400V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	5.02 kW	4.79 kW
El input	1.03 kW	1.46 kW
COP	4.89	3.28

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	46 dB(A)	46 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	198 %	151 %
Prated	5.30 kW	5.00 kW
SCOP	5.03	3.84
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.74 kW	4.43 kW
COP Tj = -7°C	3.30	2.43
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	2.91 kW	2.69 kW
COP Tj = +2°C	4.99	3.82
Cdh Tj = +2 °C	0.970	0.980
Pdh Tj = +7°C	2.11 kW	2.03 kW

COP Tj = +7°C	6.24	4.85
Cdh Tj = +7 °C	0.950	0.960
Pdh Tj = 12°C	2.44 kW	2.37 kW
COP Tj = 12°C	8.00	6.16
Cdh Tj = +12 °C	0.950	0.960
Pdh Tj = Tbiv	4.95 kW	4.61 kW
COP Tj = Tbiv	2.93	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.95 kW	4.61 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.93	2.14
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2176 kWh	2687 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	46 dB(A)	46 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	167 %	134 %
Prated	6.00 kW	6.00 kW
SCOP	4.25	3.43
Tbiv	-13 °C	-13 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	3.66 kW	3.70 kW
COP Tj = -7°C	3.63	2.93
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	2.25 kW	2.36 kW
COP Tj = +2°C	5.20	4.28
Cdh Tj = +2 °C	0.970	0.970
Pdh Tj = +7°C	2.10 kW	2.04 kW
COP Tj = +7°C	6.74	5.21
Cdh Tj = +7 °C	0.950	0.960
Pdh Tj = 12°C	2.43 kW	2.37 kW
COP Tj = 12°C	8.04	6.45
Cdh Tj = +12 °C	0.950	0.960
Pdh Tj = Tbiv	4.63 kW	4.32 kW

COP Tj = T <sub>biv</sub>	2.89	2.23
P <sub>dh</sub> Tj = TOL or P <sub>dh</sub> Tj = T <sub>designh</sub> if TOL < T <sub>designh</sub>	3.57 kW	3.09 kW
COP Tj = TOL or COP Tj = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.25	1.57
C <sub>dh</sub> Tj = TOL or P <sub>dh</sub> Tj = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.990	0.990
WTOL	55 °C	55 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.25 kW	2.91 kW
Annual energy consumption Q <sub>he</sub>	3484 kWh	4316 kWh
P <sub>dh</sub> Tj = -15°C (if TOL	4.35	4.05
COP Tj = -15°C (if TOL	2.69	2.09
C <sub>dh</sub> Tj = -15 °C	0.990	0.990

## Model CTC EcoAir 708M 230V

Model name	CTC EcoAir 708M 230V
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Colder
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	5.02 kW	4.79 kW
El input	1.03 kW	1.46 kW
COP	4.89	3.28

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	46 dB(A)	46 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	198 %	151 %
Prated	5.30 kW	5.00 kW
SCOP	5.03	3.84
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.74 kW	4.43 kW
COP Tj = -7°C	3.30	2.43
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	2.91 kW	2.69 kW
COP Tj = +2°C	4.99	3.82
Cdh Tj = +2 °C	0.970	0.980
Pdh Tj = +7°C	2.11 kW	2.03 kW

COP Tj = +7°C	6.24	4.85
Cdh Tj = +7 °C	0.950	0.960
Pdh Tj = 12°C	2.44 kW	2.37 kW
COP Tj = 12°C	8.00	6.16
Cdh Tj = +12 °C	0.950	0.960
Pdh Tj = Tbiv	4.95 kW	4.61 kW
COP Tj = Tbiv	2.93	2.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.95 kW	4.61 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.93	2.14
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2176 kWh	2687 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	46 dB(A)	46 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	167 %	134 %
Prated	6.00 kW	6.00 kW
SCOP	4.25	3.43
Tbiv	-13 °C	-13 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	3.66 kW	3.70 kW
COP Tj = -7°C	3.63	2.93
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	2.25 kW	2.36 kW
COP Tj = +2°C	5.20	4.28
Cdh Tj = +2 °C	0.970	0.970
Pdh Tj = +7°C	2.10 kW	2.04 kW
COP Tj = +7°C	6.74	5.21
Cdh Tj = +7 °C	0.950	0.960
Pdh Tj = 12°C	2.43 kW	2.37 kW
COP Tj = 12°C	8.04	6.45
Cdh Tj = +12 °C	0.950	0.960
Pdh Tj = Tbiv	4.63 kW	4.32 kW

COP Tj = Tbiv	2.89	2.23
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.57 kW	3.09 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.25	1.57
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.25 kW	2.91 kW
Annual energy consumption Qhe	3484 kWh	4316 kWh
Pdh Tj = -15°C (if TOL	4.35	4.05
COP Tj = -15°C (if TOL	2.69	2.09
Cdh Tj = -15 °C	0.990	0.990

## Model CTC EcoAir 712M 400V

Model name	CTC EcoAir 712M 400V
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Colder
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	3x400V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	5.02 kW	4.79 kW
El input	1.03 kW	1.46 kW
COP	4.89	3.28

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	47 dB(A)	47 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	197 %	151 %
Prated	7.30 kW	7.00 kW
SCOP	5.00	3.86
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.02 kW	5.97 kW
COP Tj = -7°C	3.07	2.31
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	3.84 kW	3.71 kW
COP Tj = +2°C	4.94	3.77
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	2.54 kW	2.39 kW



COP Tj = +7°C	6.46	5.16
Cdh Tj = +7 °C	0.960	0.970
Pdh Tj = 12°C	2.45 kW	2.37 kW
COP Tj = 12°C	8.23	6.31
Cdh Tj = +12 °C	0.950	0.960
Pdh Tj = Tbiv	7.23 kW	6.78 kW
COP Tj = Tbiv	2.54	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.23 kW	6.78 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.54	1.96
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3016 kWh	3751 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	47 dB(A)	47 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	167 %	132 %
Prated	8.00 kW	8.40 kW
SCOP	4.24	3.38
Tbiv	-15 °C	-13 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.08 kW	5.31 kW
COP Tj = -7°C	3.51	2.75
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	3.02 kW	2.95 kW
COP Tj = +2°C	5.29	4.33
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	2.11 kW	2.08 kW
COP Tj = +7°C	6.95	5.75
Cdh Tj = +7 °C	0.950	0.960
Pdh Tj = 12°C	2.43 kW	2.40 kW
COP Tj = 12°C	8.03	6.62
Cdh Tj = +12 °C	0.950	0.960
Pdh Tj = Tbiv	6.41 kW	6.48 kW

COP Tj = T <sub>biv</sub>	2.34	2.04
P <sub>dh</sub> Tj = TOL or P <sub>dh</sub> Tj = T <sub>designh</sub> if TOL < T <sub>designh</sub>	5.32 kW	3.20 kW
COP Tj = TOL or COP Tj = T <sub>designh</sub> if TOL < T <sub>designh</sub>	2.00	1.53
C <sub>dh</sub> Tj = TOL or P <sub>dh</sub> Tj = T <sub>designh</sub> if TOL < T <sub>designh</sub>	0.990	0.996
WTOL	55 °C	55 °C
P <sub>off</sub>	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.68 kW	5.20 kW
Annual energy consumption Q <sub>he</sub>	4653 kWh	6130 kWh
P <sub>dh</sub> Tj = -15°C (if TOL	6.41	6.10
COP Tj = -15°C (if TOL	2.34	1.92
C <sub>dh</sub> Tj = -15 °C	0.990	0.996

## Model CTC EcoAir 712M 230V

Model name	CTC EcoAir 712M 230V
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Colder
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

## General data

Power supply	1x230V 50Hz
Off-peak product	n/a

## Outdoor Air/Water

### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

### EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	5.02 kW	4.79 kW
El input	1.03 kW	1.46 kW
COP	4.89	3.28

### EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	47 dB(A)	47 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	197 %	151 %
Prated	7.30 kW	7.00 kW
SCOP	5.00	3.86
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.02 kW	5.97 kW
COP Tj = -7°C	3.07	2.31
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	3.84 kW	3.71 kW
COP Tj = +2°C	4.94	3.77
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	2.54 kW	2.39 kW

COP Tj = +7°C	6.46	5.16
Cdh Tj = +7 °C	0.960	0.970
Pdh Tj = 12°C	2.45 kW	2.37 kW
COP Tj = 12°C	8.23	6.31
Cdh Tj = +12 °C	0.950	0.960
Pdh Tj = Tbiv	7.23 kW	6.78 kW
COP Tj = Tbiv	2.54	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.23 kW	6.78 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.54	1.96
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3016 kWh	3751 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	47 dB(A)	47 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	167 %	132 %
Prated	8.00 kW	8.40 kW
SCOP	4.24	3.38
Tbiv	-15 °C	-13 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.08 kW	5.31 kW
COP Tj = -7°C	3.51	2.75
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	3.02 kW	2.95 kW
COP Tj = +2°C	5.29	4.33
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	2.11 kW	2.08 kW
COP Tj = +7°C	6.95	5.75
Cdh Tj = +7 °C	0.950	0.960
Pdh Tj = 12°C	2.43 kW	2.40 kW
COP Tj = 12°C	8.03	6.62
Cdh Tj = +12 °C	0.950	0.960
Pdh Tj = Tbiv	6.41 kW	6.48 kW

COP Tj = Tbiv	2.34	2.04
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.32 kW	3.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.00	1.53
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.996
WTOL	55 °C	55 °C
Poff	15 W	15 W
PTO	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.68 kW	5.20 kW
Annual energy consumption Qhe	4653 kWh	6130 kWh
Pdh Tj = -15°C (if TOL	6.41	6.10
COP Tj = -15°C (if TOL	2.34	1.92
Cdh Tj = -15 °C	0.990	0.996