

Subtype CTA Aeroheat CM 18a

Certificate Holder	CTC AB
Address	Box 309, Näsvägen
ZIP	SE-341 26
City	Ljungby
Country	SE
Certification Body	RISE CERT
Subtype title	CTA Aeroheat CM 18a
Registration number	012-SC0321-18
Heat Pump Type	Outdoor Air/Water
Refrigerant	R407c
Mass of Refrigerant	2.7 kg
Certification Date	17.05.2023
Testing basis	EN 14511:2013, EN 14825:2016, EN12102:2013

Model CTA Aeroheat CM 18a

Model name	CTA Aeroheat CM 18a
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	11.38 kW	9.35 kW
El input	2.25 kW	2.84 kW
COP	5.06	3.29

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	56 dB(A)	56 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	193 %	147 %
Prated	8.50 kW	8.50 kW
SCOP	4.92	3.77
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.76 kW	7.52 kW
COP Tj = -7°C	3.53	2.41
Pdh Tj = +2°C	4.49 kW	4.61 kW
COP Tj = +2°C	4.97	3.81
Pdh Tj = +7°C	4.81 kW	4.72 kW
COP Tj = +7°C	5.94	4.76
Pdh Tj = 12°C	5.56 kW	5.55 kW
COP Tj = 12°C	7.35	6.15
Pdh Tj = Tbiv	8.75 kW	8.66 kW

COP Tj = Tbiv	3.04	1.99
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.75 kW	8.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.04	1.99
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.98	0.99
WTOL	65 °C	65 °C
Poff	12 W	12 W
PTO	12 W	12 W
PSB	12 W	12 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	3567 kWh	4656 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	56 dB(A)	56 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	167 %	136 %
Prated	12.50 kW	11.50 kW
SCOP	4.26	3.47
Tbiv	-17 °C	-18 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.60 kW	7.29 kW
COP Tj = -7°C	3.67	2.91
Cdh Tj = -7 °C		
Pdh Tj = +2°C	4.70 kW	4.63 kW
COP Tj = +2°C	5.49	4.53
Cdh Tj = +2 °C		
Pdh Tj = +7°C	4.87 kW	4.76 kW
COP Tj = +7°C	6.70	5.28
Cdh Tj = +7 °C		
Pdh Tj = 12°C	5.58 kW	5.55 kW
COP Tj = 12°C	7.77	6.44
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	11.35 kW	10.87 kW
COP Tj = Tbiv	1.99	1.46
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.92 kW	4.57 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.99	1.51

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.980	0.990
WTOL	65 °C	65 °C
Poff	12 W	12 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7.58 kW	6.93 kW
Annual energy consumption Qhe	7225 kWh	8159 kWh
Pdh Tj = -15°C (if TOL	10.31	9.55
COP Tj = -15°C (if TOL	2.36	1.81
Cdh Tj = -15 °C	1.000	1.000