

This information was generated by the HP KEYMARK database on 21 Jun 2022

[Login](#)

Summary of	AEROTOP T20 / T20R	Reg. No.	011-1W0300
Certificate Holder			
Name	ELCO GmbH		
Address	Hohenzollernstrasse 31	Zip	72379
City	Hechingen	Country	Germany
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Subtype title	AEROTOP T20 / T20R		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R407c		
Mass of Refrigerant	6 kg		
Certification Date	04.05.2019		

Model: AEROTOP T20

Configure model	
Model name	AEROTOP T20
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x230V 50Hz

Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

EN 14511-2		
	Low temperature	Medium temperature
Heat output	22.40 kW	19.95 kW
El input	5.90 kW	7.50 kW
COP	3.80	2.66

Warmer Climate

This information was generated by the HP KEYMARK database on 21 Jun 2022

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	59 dB(A)	59 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	156 %	108 %
Prated	19.00 kW	19.00 kW
SCOP	3.97	2.77
Tbiv	2 °C	2 °C
TOL	-20 °C	-10 °C
Pdh Tj = +2°C	16.78 kW	14.00 kW
COP Tj = +2°C	3.10	1.89
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	22.89 kW	21.05 kW
COP Tj = +7°C	4.07	3.11
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	25.29 kW	24.75 kW
COP Tj = 12°C	4.60	2.17
Cdh Tj = +12 °C	1.00	1.00

This information was generated by the HP KEYMARK database on 21 Jun 2022

Pdh Tj = Tbiv	16.78 kW	14.00 kW
COP Tj = Tbiv	3.10	1.89
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	16.78 kW	14.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.10	1.89
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	57 °C	57 °C
Poff	0 W	0 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	80 W	80 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6362 kWh	9220 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	59 dB(A)	59 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825

This information was generated by the HP KEYMARK database on 21 Jun 2022

	Low temperature	Medium temperature
η_s	127 %	91 %
Prated	15.00 kW	20.00 kW
SCOP	3.25	2.34
Tbiv	-15 °C	-10 °C
TOL	-20 °C	-10 °C
Pdh Tj = -7°C	15.08 kW	13.63 kW
COP Tj = -7°C	2.80	2.25
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	17.89 kW	16.50 kW
COP Tj = +2°C	3.70	2.95
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	23.63 kW	22.77 kW
COP Tj = +7°C	4.48	4.01
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	25.43 kW	25.16 kW
COP Tj = 12°C	4.74	4.47
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	12.10 kW	12.86 kW
COP Tj = Tbiv	2.37	2.12
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	12.86 kW

This information was generated by the HP KEYMARK database on 21 Jun 2022

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.34	2.12
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	57 °C	57 °C
Poff	0 W	0 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	80 W	80 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	11167 kWh	20867 kWh
Pdh Tj = -15°C (if TOL<-20°C)	0.01	0.01
COP Tj = -15°C (if TOL<-20°C)	0.01	0.01
Cdh Tj = -15 °C	0.90	0.90

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	59 dB(A)	59 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825

This information was generated by the HP KEYMARK database on 21 Jun 2022

	Low temperature	Medium temperature
η_s	139 %	107 %
Prated	14.00 kW	14.00 kW
SCOP	3.56	2.75
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-10 °C
Pdh Tj = -7°C	14.66 kW	12.81 kW
COP Tj = -7°C	2.64	1.99
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	17.48 kW	15.81 kW
COP Tj = +2°C	3.48	2.59
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	23.38 kW	22.28 kW
COP Tj = +7°C	4.35	3.73
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	25.43 kW	25.02 kW
COP Tj = 12°C	4.74	4.33
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	25.29 kW	12.00 kW
COP Tj = Tbiv	2.50	1.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.90 kW	12.00 kW

This information was generated by the HP KEYMARK database on 21 Jun 2022

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	57 °C	57 °C
Poff	0 W	0 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	80 W	80 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	8071 kWh	10203 kWh

Model: AEROTOP T20R

Configure model	
Model name	AEROTOP T20R
Application	Heating (medium temp)
Units	Indoor + Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x230V 50Hz

Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

EN 14511-2		
	Low temperature	Medium temperature
Heat output	22.40 kW	19.95 kW
El input	5.90 kW	7.50 kW
COP	3.80	2.66

Warmer Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	59 dB(A)	59 dB(A)
Sound power level outdoor	66 dB(A)	66 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	165 %	112 %
Prated	19.00 kW	19.00 kW
SCOP	4.20	2.88
Tbiv	2 °C	2 °C
TOL	-20 °C	-10 °C
Pdh Tj = +2°C	16.78 kW	14.00 kW
COP Tj = +2°C	3.10	1.89
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	22.89 kW	21.05 kW
COP Tj = +7°C	4.07	3.11
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	25.29 kW	24.75 kW
COP Tj = 12°C	4.60	2.17
Cdh Tj = +12 °C	1.00	1.00

This information was generated by the HP KEYMARK database on 21 Jun 2022

Pdh Tj = Tbiv	16.78 kW	14.00 kW
COP Tj = Tbiv	3.10	4.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	16.78 kW	14.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.10	1.89
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	57 °C	57 °C
Poff	0 W	0 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	80 W	80 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6009 kWh	8867 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	59 dB(A)	59 dB(A)
Sound power level outdoor	66 dB(A)	66 dB(A)

EN 14825

This information was generated by the HP KEYMARK database on 21 Jun 2022

	Low temperature	Medium temperature
η_s	129 %	91 %
Prated	15.00 kW	20.00 kW
SCOP	3.30	2.36
Tbiv	-15 °C	-10 °C
TOL	-20 °C	-10 °C
Pdh Tj = -7°C	15.08 kW	13.63 kW
COP Tj = -7°C	2.80	2.25
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	17.89 kW	16.50 kW
COP Tj = +2°C	3.70	2.95
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	23.63 kW	22.77 kW
COP Tj = +7°C	4.48	4.01
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	25.43 kW	25.16 kW
COP Tj = 12°C	4.48	4.47
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	12.10 kW	12.86 kW
COP Tj = Tbiv	2.37	2.12
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.05 kW	12.86 kW

This information was generated by the HP KEYMARK database on 21 Jun 2022

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.34	2.12
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	57 °C	57 °C
Poff	0 W	0 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	80 W	80 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	10990 kWh	20690 kWh
Pdh Tj = -15°C (if TOL<-20°C)	0.01	0.01
COP Tj = -15°C (if TOL<-20°C)	0.01	0.01
Cdh Tj = -15 °C	0.90	0.90

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	59 dB(A)	59 dB(A)
Sound power level outdoor	66 dB(A)	66 dB(A)

EN 14825

This information was generated by the HP KEYMARK database on 21 Jun 2022

	Low temperature	Medium temperature
η_s	145 %	110 %
Prated	14.00 kW	14.00 kW
SCOP	3.69	2.84
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-10 °C
Pdh Tj = -7°C	14.66 kW	12.81 kW
COP Tj = -7°C	2.64	1.99
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	17.48 kW	15.81 kW
COP Tj = +2°C	3.48	2.59
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	23.38 kW	22.28 kW
COP Tj = +7°C	4.35	3.73
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	25.43 kW	25.02 kW
COP Tj = 12°C	4.74	4.33
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	13.90 kW	12.00 kW
COP Tj = Tbiv	2.50	1.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.90 kW	12.00 kW

This information was generated by the HP KEYMARK database on 21 Jun 2022

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.50	1.90
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	57 °C	57 °C
Poff	0 W	0 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	80 W	80 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	7777 kWh	9910 kWh