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Login

Summary of	AEROTOP T20 / T20R	Reg. No.	011-1W0300	
Certificate Holder				
Name	ELCO GmbH	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	
СОР	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	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
$COP Tj = +2^{\circ}C$	3.10	1.89
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = $+7^{\circ}$ C	22.89 kW	21.05 kW
$COP Tj = +7^{\circ}C$	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





	<u>, </u>	,
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	o w	0 W
РТО	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)





127 % 15.00 kW 3.25 -15 °C	91 % 20.00 kW 2.34 -10 °C
3.25 -15 °C	2.34
-15 °C	
	-10 °C
-20 °C	
20 0	-10 °C
15.08 kW	13.63 kW
2.80	2.25
1.00	1.00
17.89 kW	16.50 kW
3.70	2.95
1.00	1.00
23.63 kW	22.77 kW
4.48	4.01
1.00	1.00
25.43 kW	25.16 kW
4.74	4.47
1.00	1.00
12.10 kW	12.86 kW
2.37	2.12
12.05 kW	12.86 kW
	15.08 kW 2.80 1.00 17.89 kW 3.70 1.00 23.63 kW 4.48 1.00 25.43 kW 4.74 1.00 12.10 kW





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)	





	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
$COP Tj = -7^{\circ}C$	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 = $+7^{\circ}$ C	23.38 kW	22.28 kW
$COP Tj = +7^{\circ}C$	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



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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	o w	o w
РТО	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
СОР	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

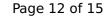




Pdh Tj = Tbiv	16.78 kW	14.00 kW
COP Tj = Tbiv	3.10	4.05
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	16.78 kW	14.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.10	1.89
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	57 °C	57 °C
Poff	o w	o w
РТО	10 W	10 W
PSB	10 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

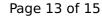
Colder Climate

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)	





	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
COPTj = +2°C	3.70	2.95
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	23.63 kW	22.77 kW
$COPTj = +7^{\circ}C$	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

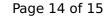




COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.34	2.12
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	57 °C	57 °C
Poff	0 W	0 W
РТО	10 W	10 W
PSB	10 W	10 W
PCK	80 W	80 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 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)		





Low temperature	Medium temperature
145 %	110 %
14.00 kW	14.00 kW
3.69	2.84
-10 °C	-10 °C
-20 °C	-10 °C
14.66 kW	12.81 kW
2.64	1.99
1.00	1.00
17.48 kW	15.81 kW
3.48	2.59
1.00	1.00
23.38 kW	22.28 kW
4.35	3.73
1.00	1.00
25.43 kW	25.02 kW
4.74	4.33
1.00	1.00
13.90 kW	12.00 kW
2.50	1.90
13.90 kW	12.00 kW
	14.00 kW 3.69 -10 °C -20 °C 14.66 kW 2.64 1.00 17.48 kW 3.48 1.00 23.38 kW 4.35 1.00 25.43 kW 4.74 1.00 13.90 kW 2.50



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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	o w	0 W
РТО	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