

Page 1 of 13

This information was generated by the HP KEYMARK database on 18 Mar 2022

Login

Summary of	AQUATOP T28H	Reg. No.	011-1W0310	
Certificate Holder				
Name	ELCO GmbH			
Address	Hohenzollernstrasse 31	Zip	72379	
City	Hechingen	Country	Germany	
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH			
Subtype title	AQUATOP T28H			
Heat Pump Type	Brine/Water and Water/Water			
Refrigerant	R407c			
Mass of Refrigerant	5.7 kg	5.7 kg		
Certification Date	04.05.2019			



Model: AQUATOP T28H

Configure model			
Model name	AQUATOP T28H		
Application	Heating (medium temp)		
Units	Indoor		
Climate Zone	Colder Climate + Warmer Climate		
Reversibility	No		
Cooling mode application (optional)	n/a		

General Data		
Power supply	3x230V 50Hz	

Brine/Water Heat Pump

Heating

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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	28.70 kW	24.80 kW
El input	6.50 kW	9.20 kW
СОР	4.40	2.70

Average Climate



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

	EN 14825	
	Low temperature	Medium temperature
η _s	192 %	155 %
Prated	29.00 kW	25.00 kW
SCOP	5.01	4.08
Tbiv	-10 °C	-10 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	28.99 kW	25.54 kW
COP Tj = -7°C	4.49	2.94
Pdh Tj = +2°C	29.85 kW	27.53 kW
COP Tj = +2°C	5.02	4.05
Pdh Tj = +7°C	30.42 kW	28.52 kW
COP Tj = +7°C	5.24	4.75
Pdh Tj = 12°C	31.00 kW	29.76 kW
COP Tj = 12°C	5.54	5.56
Pdh Tj = Tbiv	28.70 kW	24.80 kW
COP Tj = Tbiv	4.40	2.70

EHPA Secretariat | Rue dArlon 63-67 | Phone: +32 2 400 10 17 | Email: secretariat@heatpumpkeymark.com | www.heatpumpkeymark.com





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	28.70 kW	24.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.40	2.70
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	o w	o w
РТО	10 W	10 W
PSB	10 W	10 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	11837 kWh	12560 kWh

Warmer Climate

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

EN 14825		
	Low temperature	Medium temperature
η_{s}	193 %	157 %
Prated	29.00 kW	25.00 kW





SCOP	5.03	4.13
Tbiv	2 °C	2 °C
TOL	-22 °C	-22 °C
Pdh Tj = +2°C	28.70 kW	24.80 kW
COP Tj = +2°C	4.40	2.70
Pdh Tj = $+7^{\circ}$ C	29.56 kW	26.54 kW
$COPTj = +7^{\circ}C$	4.84	3.59
Pdh Tj = 12°C	30.42 kW	29.02 kW
COP Tj = 12°C	5.32	5.00
Pdh Tj = Tbiv	28.70 kW	24.80 kW
COP Tj = Tbiv	4.40	2.70
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	28.70 kW	24.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.40	2.70
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	0 W	0 W
РТО	10 W	10 W
PSB	10 W	10 W
РСК	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	7630 kWh	8030 kWh	

Colder Climate

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

EN 14825		
	Low temperature	Medium temperature
η_{s}	197 %	161 %
Prated	29.00 kW	25.00 kW
SCOP	5.13	4.23
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	29.85 kW	27.03 kW
COP Tj = -7°C	5.02	3.81
Pdh Tj = +2°C	30.42 kW	28.52 kW
COP Tj = +2°C	5.24	4.62
Pdh Tj = +7°C	30.71 kW	29.51 kW
COP Tj = +7°C	5.46	5.24
Pdh Tj = 12°C	31.00 kW	30.26 kW
		·

EHPA Secretariat | Rue dArlon 63-67 | Phone: +32 2 400 10 17 | Email: secretariat@heatpumpkeymark.com | www.heatpumpkeymark.com





5.54	5.67
28.70 kW	24.80 kW
4.40	2.70
28.70 kW	24.80 kW
4.40	2.70
1.00	1.00
60 °C	60 °C
0 W	0 W
10 W	10 W
10 W	10 W
0 W	0 W
Electricity	Electricity
0.00 kW	0.00 kW
13792 kWh	14453 kWh
	28.70 kW 4.40 28.70 kW 4.40 1.00 60 °C 0 W 10 W 10 W Electricity 0.00 kW

Water/Water Heat Pump

Heating



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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	35.50 kW	34.20 kW
El input	7.00 kW	9.70 kW
СОР	5.10	3.50

Average Climate

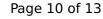
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	59 dB(A)	59 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{S}	232 %	189 %
Prated	37.00 kW	34.00 kW





	ted by the HI KETMAI	IN database on 10 Mai 2022
SCOP	6.00	4.92
Tbiv	-10 °C	-10 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	37.49 kW	34.90 kW
COP Tj = -7°C	5.47	3.76
Pdh Tj = $+2$ °C	38.35 kW	36.89 kW
COP Tj = +2°C	5.99	4.87
Pdh Tj = $+7^{\circ}$ C	38.92 kW	37.88 kW
$COPTj = +7^{\circ}C$	6.22	5.57
Pdh Tj = 12°C	39.50 kW	39.12 kW
COP Tj = 12°C	6.52	6.38
Pdh Tj = Tbiv	37.20 kW	34.16 kW
COP Tj = Tbiv	5.38	3.52
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	37.20 kW	34.16 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.38	3.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	0 W	o w
РТО	10 W	10 W
PSB	10 W	10 W
PCK	0 W	o w
		1





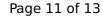
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	12807 kWh	14330 kWh

Warmer Climate

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

EN 14825		
	Low temperature	Medium temperature
η_{s}	233 %	191 %
Prated	37.00 kW	34.00 kW
SCOP	6.02	4.98
Tbiv	2 °C	2 °C
TOL	-22 °C	-22 °C
Pdh Tj = +2°C	37.20 kW	34.16 kW
COP Tj = +2°C	5.38	3.52
Pdh Tj = +7°C	38.06 kW	35.90 kW
COP Tj = +7°C	5.82	4.41
Pdh Tj = 12°C	38.92 kW	38.38 kW

EHPA Secretariat | Rue dArlon 63-67 | Phone: +32 2 400 10 17 | Email: secretariat@heatpumpkeymark.com | www.heatpumpkeymark.com



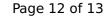


	1	
COP Tj = 12°C	6.30	5.82
Pdh Tj = Tbiv	37.20 kW	34.16 kW
COP Tj = Tbiv	5.38	3.52
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	37.20 kW	34.16 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.38	3.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	0 W	0 W
РТО	10 W	10 W
PSB	10 W	10 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	8253 kWh	9170 kWh

Colder Climate

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

EN 14825





	Low temperature	Medium temperature
η_{s}	236 %	192 %
Prated	37.00 kW	34.00 kW
SCOP	6.09	5.01
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	38.35 kW	36.39 kW
$COP Tj = -7^{\circ}C$	5.99	4.63
Pdh Tj = +2°C	38.92 kW	37.88 kW
COP Tj = +2°C	6.22	5.43
Pdh Tj = +7°C	39.21 kW	38.87 kW
$COP Tj = +7^{\circ}C$	6.44	6.05
Pdh Tj = 12°C	39.50 kW	39.62 kW
COP Tj = 12°C	6.52	6.48
Pdh Tj = Tbiv	37.20 kW	34.16 kW
COP Tj = Tbiv	5.38	3.52
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	37.20 kW	34.16 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.38	3.52
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	o w	o w



$$\operatorname{\textit{Page}}\ 13$$ of 13 This information was generated by the HP KEYMARK database on 18 Mar 2022

PTO	10 W	10 W
PSB	10 W	10 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	15056 kWh	16805 kWh