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#### **Login**

Summary of	AQUATOP T43H	Reg. No.	011-1W0312	
Certificate Holder				
Name	ELCO GmbH	ELCO GmbH		
Address	Hohenzollernstrasse 31	Zip	72379	
City	Hechingen	Country	Germany	
Certification Body	DIN CERTCO Gesellschaft für Kor	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Subtype title	AQUATOP T43H	AQUATOP T43H		
Heat Pump Type	Brine/Water and Water/Water	Brine/Water and Water/Water		
Refrigerant	R407c	R407c		
Mass of Refrigerant	7.4 kg	7.4 kg		
Certification Date	04.05.2019			

# **Model: AQUATOP T43H**

Configure model			
Model name AQUATOP T43H			
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	

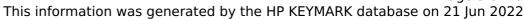
Brine/Water Heat Pump

## 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	44.44 kW	41.30 kW
El input	10.00 kW	13.50 kW
СОР	4.40	3.10

### Warmer Climate





EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	61 dB(A)	61 dB(A)

EN 14825				
	Low temperature	Medium temperature		
$\eta_{s}$	193 %	181 %		
Prated	44.00 kW	41.00 kW		
SCOP	5.04	4.74		
Tbiv	2 °C	2 °C		
TOL	-22 °C	-22 °C		
Pdh Tj = +2°C	44.40 kW	41.30 kW		
COPTj = +2°C	4.40	3.10		
Pdh Tj = +7°C	45.73 kW	44.19 kW		
COP Tj = +7°C	4.84	4.12		
Pdh Tj = 12°C	47.06 kW	48.32 kW		
COP Tj = 12°C	5.32	5.74		
Pdh Tj = Tbiv	44.40 kW	41.30 kW		
COP Tj = Tbiv	4.40	3.10		
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	44.40 kW	41.30 kW		
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.40	3.10		





Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	0 W	0 W
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	11777 kWh	11648 kWh

## Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	61 dB(A)	61 dB(A)

EN 14825			
Low temperature	Medium temperature		
197 %	187 %		
44.00 kW	41.00 kW		
5.13	4.87		
-22 °C	-22 °C		
	Low temperature  197 %  44.00 kW  5.13		





		NK database on 21 juli 202
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	46.18 kW	45.02 kW
$COP Tj = -7^{\circ}C$	5.02	4.37
Pdh Tj = +2°C	47.06 kW	47.50 kW
COP Tj = +2°C	5.24	5.30
Pdh Tj = $+7^{\circ}$ C	47.51 kW	49.15 kW
$COPTj = +7^{\circ}C$	5.46	6.01
Pdh Tj = 12°C	47.95 kW	50.39 kW
COP Tj = 12°C	5.54	6.51
Pdh Tj = Tbiv	44.40 kW	41.30 kW
COP Tj = Tbiv	4.40	3.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	44.40 kW	41.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.40	3.10
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	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	21336 kWh	20905 kWh	

# Average Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	61 dB(A)	61 dB(A)	

EN 14825			
	Low temperature	Medium temperature	
$\eta_{s}$	192 %	180 %	
Prated	44.00 kW	41.00 kW	
SCOP	5.01	4.69	
Tbiv	-10 °C	-10 °C	
TOL	-22 °C	-22 °C	
Pdh Tj = -7°C	44.84 kW	42.54 kW	
COP Tj = -7°C	4.49	3.38	
Pdh Tj = +2°C	46.18 kW	45.84 kW	
COP Tj = +2°C	5.02	4.65	
Pdh Tj = $+7^{\circ}$ C	47.06 kW	47.50 kW	
COP Tj = +7°C	5.24	5.46	
Pdh Tj = 12°C	47.95 kW	49.56 kW	
		·	





5.54	6.39
44.40 kW	41.30 kW
4.40	3.10
44.40 kW	41.30 kW
4.40	3.10
1.00	1.00
60 °C	60 °C
0 W	0 W
10 W	10 W
10 W	10 W
o w	0 W
Electricity	Electricity
0.00 kW	0.00 kW
18311 kWh	18195 kWh
	44.40 kW  4.40  44.40 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	47.30 kW	54.50 kW	
El input	11.30 kW	39.20 kW	
СОР	5.20	3.60	

## Warmer Climate

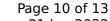
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	61 dB(A)	61 dB(A)	

EN 14825				
	Low temperature	Medium temperature		
$\eta_{S}$	225 %	201 %		
Prated 59.00 kW 55.00 kW				





		TR database on 21 juli 2022
SCOP	5.83	5.23
Tbiv	2 °C	2 °C
TOL	-22 °C	-22 °C
Pdh Tj = +2°C	58.60 kW	54.50 kW
COPTj = +2°C	5.19	3.56
Pdh Tj = $+7^{\circ}$ C	59.93 kW	57.39 kW
$COP Tj = +7^{\circ}C$	5.63	4.58
Pdh Tj = 12°C	61.26 kW	61.52 kW
COP Tj = 12°C	6.11	6.20
Pdh Tj = Tbiv	58.60 kW	54.50 kW
COP Tj = Tbiv	5.19	3.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	58.60 kW	54.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.19	3.56
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	o w	0 W
РТО	10 W	10 W
PSB	10 W	10 W
РСК	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW





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## Colder Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	61 dB(A)	61 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	228 %	203 %
Prated	59.00 kW	55.00 kW
SCOP	5.90	5.26
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	60.38 kW	58.22 kW
COP Tj = -7°C	5.81	4.83
Pdh Tj = $+2$ °C	61.26 kW	60.70 kW
COP Tj = +2°C	6.02	5.76
Pdh Tj = $+7^{\circ}$ C	61.71 kW	62.35 kW
$COP Tj = +7^{\circ}C$	6.25	6.47
Pdh Tj = 12°C	62.15 kW	63.59 kW

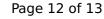


COP Tj = 12°C	6.33	6.97
Pdh Tj = Tbiv	58.60 kW	54.50 kW
COP Tj = Tbiv	5.19	3.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	58.60 kW	54.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.19	3.56
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	0 W	o w
РТО	10 W	10 W
PSB	10 W	10 W
PCK	0 W	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	24485 kWh	25527 kWh

# Average Climate

EN 12102-1				
	Low temperature	Medium temperature		
Sound power level indoor	61 dB(A)	61 dB(A)		

#### EN 14825





	Low temperature	Medium temperature
$\eta_{s}$	224 %	199 %
Prated	59.00 kW	55.00 kW
SCOP	5.81	5.17
Tbiv	-10 °C	-10 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	59.04 kW	55.74 kW
COP Tj = -7°C	5.28	3.84
Pdh Tj = +2°C	60.38 kW	59.04 kW
COP Tj = +2°C	5.81	5.11
Pdh Tj = +7°C	61.26 kW	60.70 kW
$COP Tj = +7^{\circ}C$	6.02	5.92
Pdh Tj = 12°C	62.15 kW	62.76 kW
COP Tj = 12°C	6.33	6.85
Pdh Tj = Tbiv	58.60 kW	54.50 kW
COP Tj = Tbiv	5.19	3.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	58.60 kW	54.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.19	3.56
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	60 °C	60 °C
Poff	0 W	o w



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РТО	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	20831 kWh	21775 kWh