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

#### Login

Summary of	AQUATOP S17	Reg. No.	011-1W0308
Certificate Holder			
Name	ELCO GmbH		
Address	Hohenzollernstrasse 31	Zip	72379
City	Hechingen	Country	Germany
Certification Body	DIN CERTCO Gesellschaft für Konformitä	itsbewertung mb	Н
Subtype title	AQUATOP S17		
Heat Pump Type	Brine/Water and Water/Water		
Refrigerant	R410A		
Mass of Refrigerant	3.8 kg		
Certification Date	04.05.2019		



# **Model: AQUATOP S17**

Co	onfigure model
Model name	AQUATOP S17
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	
	Medium temperature	Low temperature
Heat output	16.83 kW	14.78 kW
El input	3.44 kW	5.34 kW
СОР	4.89	2.77

# Average Climate



	EN 12102-1	
	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)

	EN 14825	
	Low temperature	Medium temperature
$\eta_{s}$	201 %	158 %
Prated	17.00 kW	15.00 kW
SCOP	5.22	4.15
Tbiv	-10 °C	-10 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	17.08 kW	15.72 kW
COP Tj = -7°C	5.37	3.05
Pdh Tj = +2°C	17.76 kW	17.10 kW
COP Tj = +2°C	5.37	4.11
Pdh Tj = +7°C	17.76 kW	18.17 kW
$COP Tj = +7^{\circ}C$	5.37	4.87
Pdh Tj = 12°C	17.76 kW	19.10 kW
COP Tj = 12°C	5.37	5.74
Pdh Tj = Tbiv	16.92 kW	15.27 kW
COP Tj = Tbiv	4.67	2.80





Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	16.92 kW	15.27 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.67	2.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	o w	o w
РТО	20 W	20 W
PSB	20 W	20 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	6700 kWh	7605 kWh

# Warmer Climate

	EN 12102-1	
	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	200 %	159 %
Prated	17.00 kW	15.00 kW





SCOP	5.19	4.19
Th.:.	2.00	3.00
Tbiv	2 °C	2 °C
TOL	-22 °C	-22 °C
Pdh Tj = +2°C	16.92 kW	15.27 kW
COP Tj = +2°C	4.67	2.80
Pdh Tj = +7°C	17.59 kW	16.64 kW
$COP Tj = +7^{\circ}C$	5.23	3.64
Pdh Tj = 12°C	17.76 kW	18.47 kW
COP Tj = 12°C	5.37	5.15
Pdh Tj = Tbiv	16.92 kW	15.27 kW
COP Tj = Tbiv	4.67	2.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	16.92 kW	15.27 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.67	2.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	0 W	o w
РТО	20 W	20 W
PSB	20 W	20 W
РСК	0 W	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW



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# Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	203 %	160 %
Prated	17.00 kW	15.00 kW
SCOP	5.28	4.19
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = $-7$ °C	17.76 kW	16.79 kW
COP Tj = $-7^{\circ}$ C	5.37	3.86
Pdh Tj = $+2$ °C	17.76 kW	18.01 kW
COP Tj = +2°C	5.37	4.73
Pdh Tj = $+7^{\circ}$ C	17.76 kW	18.78 kW
$COP Tj = +7^{\circ}C$	5.37	5.43
Pdh Tj = 12°C	17.76 kW	19.08 kW





COP Tj = 12°C	5.37	5.74
Pdh Tj = Tbiv	16.92 kW	15.27 kW
COP Tj = Tbiv	4.67	2.80
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	16.92 kW	15.27 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.67	2.80
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	0 W	0 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	7901 kWh	8986 kWh

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	21.27 kW	19.35 kW
El input	3.53 kW	5.31 kW
СОР	6.03	3.64

# **Average Climate**

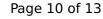
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	34 dB(A)	34 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	261 %	207 %
Prated	21.00 kW	19.00 kW





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SCOP	6.73	5.39
Tbiv	-10 °C	-10 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	21.47 kW	19.92 kW
$COP Tj = -7^{\circ}C$	6.21	3.97
Pdh Tj = +2°C	22.33 kW	21.67 kW
COP Tj = +2°C	6.93	5.34
Pdh Tj = $+7^{\circ}$ C	22.33 kW	23.02 kW
$COPTj = +7^{\circ}C$	6.93	6.93
Pdh Tj = 12°C	22.33 kW	24.18 kW
COP Tj = 12°C	6.93	7.46
Pdh Tj = Tbiv	21.47 kW	19.35 kW
COP Tj = Tbiv	6.21	3.64
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	21.47 kW	19.35 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.21	3.64
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	0 W	o w
РТО	20 W	20 W
PSB	20 W	20 W
РСК	0 W	o w



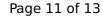


Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	6526 kWh	7422 kWh

### Warmer Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	34 dB(A)	34 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	260 %	210 %
Prated	21.00 kW	19.00 kW
SCOP	6.70	5.44
Tbiv	2 °C	2 °C
TOL	-22 °C	-22 °C
Pdh Tj = +2°C	21.27 kW	19.35 kW
COP Tj = +2°C	6.03	3.64
Pdh Tj = +7°C	22.11 kW	21.09 kW
COP Tj = +7°C	6.75	4.73
Pdh Tj = 12°C	22.33 kW	23.41 kW
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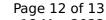


6.93	6.70
21.27 kW	19.35 kW
6.03	3.64
21.27 kW	19.35 kW
6.03	3.64
1.00	1.00
65 °C	65 °C
0 W	0 W
20 W	20 W
20 W	20 W
0 W	0 W
Electricity	Electricity
6.00 kW	6.00 kW
4242 kWh	4754 kWh
	21.27 kW 6.03 21.27 kW 6.03 1.00 65 °C 0 W 20 W 20 W 0 W Electricity 6.00 kW

### Colder Climate

EN 12102-1				
	Low temperature	Medium temperature		
Sound power level indoor	34 dB(A)	34 dB(A)		

#### EN 14825





	Low temperature	Medium temperature
$\eta_{s}$	264 %	215 %
Prated	21.00 kW	19.00 kW
SCOP	6.81	5.58
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	22.33 kW	21.28 kW
$COPTj = -7^{\circ}C$	6.93	5.02
Pdh Tj = +2°C	22.33 kW	22.82 kW
$COPTj = +2^{\circ}C$	6.93	6.15
Pdh Tj = +7°C	22.33 kW	23.80 kW
$COP Tj = +7^{\circ}C$	6.93	7.06
Pdh Tj = 12°C	22.33 kW	24.18 kW
COP Tj = 12°C	6.93	7.46
Pdh Tj = Tbiv	21.27 kW	19.35 kW
COP Tj = Tbiv	6.03	3.64
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	21.27 kW	19.35 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.03	3.64
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	o w	o w



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РТО	20 W	20 W
PSB	20 W	20 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	7701 kWh	8552 kWh