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

#### Login

Summary of	AQUATOP S14	Reg. No.	011-1W0307		
Certificate Holder	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 S14				
Heat Pump Type	Brine/Water and Water/Water				
Refrigerant	R410A				
Mass of Refrigerant	3.4 kg				
Certification Date	04.05.2019		_		

## **Model: AQUATOP S14**

Configure model		
Model name	AQUATOP S14	
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	13.47 kW	11.99 kW
El input	2.73 kW	4.27 kW
СОР	4.94	2.80

## **Average Climate**



CEN heat pump KEYMARK

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	199 %	157 %
Prated	13.00 kW	12.00 kW
SCOP	5.18	2.00
Tbiv	-10 °C	-10 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	13.52 kW	12.27 kW
COP Tj = -7°C	4.78	3.04
Pdh Tj = +2°C	14.07 kW	13.35 kW
COP Tj = +2°C	5.34	4.10
Pdh Tj = +7°C	14.07 kW	14.18 kW
$COP Tj = +7^{\circ}C$	5.34	4.85
Pdh Tj = 12°C	14.07 kW	14.90 kW
COP Tj = 12°C	5.34	5.71
Pdh Tj = Tbiv	13.40 kW	11.92 kW
COP Tj = Tbiv	4.65	2.79

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Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.40 kW	11.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.65	2.79
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	5348 kWh	5981 kWh

## Warmer Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	198 %	158 %
Prated	13.00 kW	12.00 kW





SCOP	5.15	4.15
Tbiv	2 °C	2 °C
TOL	-22 °C	-22 °C
Pdh Tj = +2°C	13.40 kW	11.92 kW
$COP Tj = +2^{\circ}C$	4.65	2.79
Pdh Tj = $+7$ °C	13.93 kW	12.99 kW
$COP Tj = +7^{\circ}C$	5.20	3.62
Pdh Tj = 12°C	14.07 kW	14.42 kW
COP Tj = 12°C	5.34	5.13
Pdh Tj = Tbiv	13.40 kW	11.92 kW
COP Tj = Tbiv	4.65	2.79
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.40 kW	11.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.65	2.79
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	o w	0 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	42 dB(A)	42 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	201 %	162 %
Prated	13.00 kW	12.00 kW
SCOP	5.23	4.26
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	14.07 kW	13.11 kW
COP Tj = $-7^{\circ}$ C	5.34	3.85
Pdh Tj = $+2$ °C	14.07 kW	14.06 kW
COP Tj = +2°C	5.34	4.71
Pdh Tj = $+7^{\circ}$ C	14.07 kW	14.66 kW
COP Tj = +7°C	5.34	5.41
Pdh Tj = 12°C	14.07 kW	14.90 kW
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5.34	5.71
13.40 kW	11.92 kW
4.65	2.79
13.40 kW	11.92 kW
4.65	2.79
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
6318 kWh	6899 kWh
	13.40 kW 4.65 13.40 kW 4.65 1.00 65 °C 0 W 20 W 20 W 0 W Electricity 6.00 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	17.06 kW	15.52 kW	
El input	2.81 kW	4.22 kW	
СОР	6.07	3.68	

## **Average Climate**

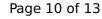
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	34 dB(A)	34 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	262 %	209 %
Prated	17.00 kW	16.00 kW





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SCOP	6.75	5.43
Tbiv	-10 °C	-10 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	17.21 kW	15.98 kW
$COP Tj = -7^{\circ}C$	6.24	4.01
Pdh Tj = +2°C	17.91 kW	17.38 kW
COP Tj = +2°C	6.97	5.41
Pdh Tj = $+7^{\circ}$ C	17.91 kW	18.46 kW
$COPTj = +7^{\circ}C$	6.97	6.40
Pdh Tj = 12°C	17.91 kW	19.40 kW
COP Tj = 12°C	6.97	7.53
Pdh Tj = Tbiv	17.06 kW	15.52 kW
COP Tj = Tbiv	6.07	3.68
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	17.06 kW	15.52 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.07	3.68
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





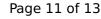
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	5221 kWh	5901 kWh

## 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 %	211 %
Prated	17.00 kW	16.00 kW
SCOP	6.71	5.47
Tbiv	2 °C	2 °C
TOL	-22 °C	-22 °C
Pdh Tj = $+2$ °C	17.06 kW	15.52 kW
COP Tj = +2°C	6.07	3.68
Pdh Tj = $+7^{\circ}$ C	17.73 kW	16.91 kW
$COP Tj = +7^{\circ}C$	6.79	4.77
Pdh Tj = 12°C	17.91 kW	18.78 kW

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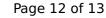


COP Tj = 12°C	6.97	6.77
Pdh Tj = Tbiv	17.06 kW	15.52 kW
COP Tj = Tbiv	6.07	3.68
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	17.06 kW	15.52 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.07	3.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	0 W	0 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	3397 kWh	3788 kWh

## 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
ης	265 %	217 %
Prated	17.00 kW	16.00 kW
SCOP	6.82	5.62
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	17.91 kW	17.07 kW
$COP Tj = -7^{\circ}C$	6.97	5.08
Pdh Tj = $+2$ °C	17.91 kW	18.31 kW
COP Tj = +2°C	6.97	6.21
Pdh Tj = $+7^{\circ}$ C	17.91 kW	19.09 kW
$COP Tj = +7^{\circ}C$	6.97	7.14
Pdh Tj = 12°C	17.91 kW	19.40 kW
COP Tj = 12°C	6.97	7.53
Pdh Tj = Tbiv	17.06 kW	15.52 kW
COP Tj = Tbiv	6.07	3.68
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	17.06 kW	15.52 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.07	3.68
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	0 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	6162 kWh	6804 kWh