

Summary of	AQUATOP S06	Reg. No.	011-1W0304	
Certificate Holder				
Name	ELCO GmbH	ELCO GmbH		
Address	Hohenzollernstrasse 31	Zip	72379	
City	Hechingen	Country	Germany	
Certification Body	DIN CERTCO Gesellschaft für	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Name of testing laboratory	Wärmepumpen-Testzentrum	Wärmepumpen-Testzentrum WPZ		
Subtype title	AQUATOP S06			
Heat Pump Type	Brine/Water and Water/Water	Brine/Water and Water/Water		
Refrigerant	R410a	R410a		
Mass Of Refrigerant	1.9 kg	1.9 kg		
Certification Date	04.05.2019	04.05.2019		



# **Model: AQUATOP S06**

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	5.59 kW	4.85 kW	
El input	1.22 kW	1.86 kW	
СОР	4.58	2.61	
Indoor water flow rate	1.06 m³/h	0.60 m³/h	

# **Average Climate**



EN 12102-1			
Low temperature Medium temperature			
Sound power level indoor	39 dB(A)	39 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	189 %	137 %
Prated	6.00 kW	5.00 kW
SCOP	4.93	3.64
Tbiv	-10 °C	-10 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.84 kW	5.35 kW
COP Tj = -7°C	4.47	2.79
Pdh Tj = +2°C	5.96 kW	5.61 kW
COP Tj = +2°C	5.00	3.65
Pdh Tj = +7°C	6.02 kW	5.77 kW
COP Tj = +7°C	5.39	4.27
Pdh Tj = 12°C	6.13 kW	5.98 kW
COP Tj = 12°C	5.79	5.02
Pdh Tj = Tbiv	5.79 kW	5.25 kW
COP Tj = Tbiv	4.39	2.59

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Pdh Tj = TOL	5.79 kW	5.25 kW
COP Tj = TOL	4.39	2.59
Cdh	1.00	1.00
WTOL	65 °C	65 °C
Poff	o w	0 W
РТО	20 W	20 W
PSB	20 W	20 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Elektrizität	Elektrizität
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	2426 kWh	2983 kWh

# Warmer Climate

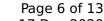
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	39 dB(A)	39 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	191 %	137 %
Prated	6.00 kW	5.00 kW
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SCOP	4.97	3.63
Tbiv	2 °C	2 °C
TOL	-22 °C	-22 °C
Pdh Tj = +2°C	5.79 kW	5.25 kW
COP Tj = +2°C	4.39	2.57
Pdh Tj = +7°C	5.90 kW	5.51 kW
$COP Tj = +7^{\circ}C$	5.53	3.26
Pdh Tj = 12°C	6.07 kW	5.88 kW
COP Tj = 12°C	5.53	4.48
Pdh Tj = Tbiv	5.79 kW	5.25 kW
COP Tj = Tbiv	4.39	2.59
Pdh Tj = TOL	5.79 kW	5.25 kW
COP Tj = TOL	4.39	2.59
Cdh	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	Elektrizität	Elektrizität
Supplementary Heater: PSUP	6.00 kW	6.00 kW





Annual energy consumption Qhe	1556 kWh	1931 kWh

# Colder Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	39 dB(A)	39 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	195 %	142 %
Prated	6.00 kW	5.00 kW
SCOP	5.08	3.75
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.40 kW	5.56 kW
COP Tj = -7°C	5.00	3.44
Pdh Tj = +2°C	5.46 kW	5.77 kW
COP Tj = +2°C	5.39	4.16
Pdh Tj = +7°C	5.51 kW	5.93 kW
COP Tj = +7°C	5.66	4.76
Pdh Tj = 12°C	5.56 kW	6.03 kW

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Pdh Tj = Tbiv       5.79 kW       5.25 kW         COP Tj = Tbiv       4.39       2.59         Pdh Tj = TOL       5.79 kW       5.25 kW         COP Tj = TOL       4.39       2.59         Cdh       1.00       1.00         WTOL       65 °C       65 °C         Poff       0 W       0 W         PTO       20 W       20 W         PSB       20 W       20 W         PCK       0 W       0 W         Supplementary Heater: Type of energy input       Elektrizität       Elektrizität         Supplementary Heater: PSUP       6.00 kW       6.00 kW			
COP Tj = Tbiv       4.39       2.59         Pdh Tj = TOL       5.79 kW       5.25 kW         COP Tj = TOL       4.39       2.59         Cdh       1.00       1.00         WTOL       65 °C       65 °C         Poff       0 W       0 W         PTO       20 W       20 W         PSB       20 W       20 W         PCK       0 W       0 W         Supplementary Heater: Type of energy input       Elektrizität       Elektrizität         Supplementary Heater: PSUP       6.00 kW       6.00 kW	COP Tj = 12°C	5.79	5.25
Pdh Tj = TOL       5.79 kW       5.25 kW         COP Tj = TOL       4.39       2.59         Cdh       1.00       1.00         WTOL       65 °C       65 °C         Poff       0 W       0 W         PTO       20 W       20 W         PSB       20 W       20 W         PCK       0 W       0 W         Supplementary Heater: Type of energy input       Elektrizität       Elektrizität         Supplementary Heater: PSUP       6.00 kW       6.00 kW	Pdh Tj = Tbiv	5.79 kW	5.25 kW
COP Tj = TOL       4.39       2.59         Cdh       1.00       1.00         WTOL       65 °C       65 °C         Poff       0 W       0 W         PTO       20 W       20 W         PSB       20 W       20 W         PCK       0 W       0 W         Supplementary Heater: Type of energy input       Elektrizität       Elektrizität         Supplementary Heater: PSUP       6.00 kW       6.00 kW	COP Tj = Tbiv	4.39	2.59
Cdh       1.00       1.00         WTOL       65 °C       65 °C         Poff       0 W       0 W         PTO       20 W       20 W         PSB       20 W       20 W         PCK       0 W       0 W         Supplementary Heater: Type of energy input       Elektrizität       Elektrizität         Supplementary Heater: PSUP       6.00 kW       6.00 kW	Pdh Tj = TOL	5.79 kW	5.25 kW
WTOL 65 °C 65 °C  Poff 0 W 0 W  PTO 20 W 20 W  PSB 20 W 20 W  PCK 0 W 0 W  Supplementary Heater: Type of energy input Elektrizität Elektrizität Supplementary Heater: PSUP 6.00 kW  6.00 kW	COP Tj = TOL	4.39	2.59
Poff 0 W 0 W  PTO 20 W 20 W  PSB 20 W 20 W  PCK 0 W 0 W  Supplementary Heater: Type of energy input Elektrizität Elektrizität  Supplementary Heater: PSUP 6.00 kW 6.00 kW	Cdh	1.00	1.00
PTO  20 W  20 W  PSB  20 W  20 W  PCK  0 W  Supplementary Heater: Type of energy input  Elektrizität  Elektrizität  Supplementary Heater: PSUP  6.00 kW  6.00 kW	WTOL	65 °C	65 °C
PSB 20 W 20 W  PCK 0 W 0 W  Supplementary Heater: Type of energy input Elektrizität Elektrizität  Supplementary Heater: PSUP 6.00 kW 6.00 kW	Poff	0 W	0 W
PCK 0 W 0 W  Supplementary Heater: Type of energy input Elektrizität Elektrizität  Supplementary Heater: PSUP 6.00 kW 6.00 kW	РТО	20 W	20 W
Supplementary Heater: Type of energy input Elektrizität Elektrizität  Supplementary Heater: PSUP 6.00 kW 6.00 kW	PSB	20 W	20 W
Supplementary Heater: PSUP 6.00 kW 6.00 kW	PCK	o w	0 W
	Supplementary Heater: Type of energy input	Elektrizität	Elektrizität
Annual energy consumption Qhe 2812 kWh 3453 kWh	Supplementary Heater: PSUP	6.00 kW	6.00 kW
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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	6.67 kW	6.07 kW	
El input	1.19 kW	1.79 kW	
СОР	5.61	3.39	
Indoor water flow rate	1.66 m³/h	1.34 m³/h	

# **Average Climate**

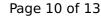
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	39 dB(A)	39 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_s$	243 %	182 %





Prated	7.00 kW	6.00 kW
SCOP	6.28	6.00
Tbiv	-10 °C	-10 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	6.73 kW	6.19 kW
COP Tj = -7°C	5.71	3.65
Pdh Tj = +2°C	6.87 kW	6.49 kW
$COP Tj = +2^{\circ}C$	6.39	4.78
Pdh Tj = +7°C	6.93 kW	6.67 kW
$COP Tj = +7^{\circ}C$	6.89	5.59
Pdh Tj = 12°C	7.06 kW	6.91 kW
COP Tj = 12°C	7.40	6.57
Pdh Tj = Tbiv	6.67 kW	6.07 kW
COP Tj = Tbiv	5.61	3.39
Pdh Tj = TOL	6.67 kW	6.10 kW
COP Tj = TOL	5.61	3.39
Cdh	1.00	1.00
WTOL	65 °C	65 °C
Poff	o w	o w
РТО	20 W	20 W
PSB	20 W	20 W





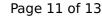
PCK	o w	0 W
Supplementary Heater: Type of energy input	Elektrizität	Elektrizität
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	2193 kWh	2645 kWh

# Warmer Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	39 dB(A)	39 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	245 %	182 %
Prated	7.00 kW	6.00 kW
SCOP	6.32	4.74
Tbiv	2 °C	2 °C
TOL	-22 °C	-22 °C
Pdh Tj = +2°C	6.67 kW	6.07 kW
COP Tj = +2°C	5.61	3.39
Pdh Tj = +7°C	6.80 kW	6.37 kW
COP Tj = +7°C	6.22	4.27

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Pdh Tj = 12°C	6.99 kW	6.80 kW
COP Tj = 12°C	7.07	5.86
Pdh Tj = Tbiv	6.67 kW	6.07 kW
COP Tj = Tbiv	5.61	3.39
Pdh Tj = TOL	6.67 kW	6.07 kW
COP Tj = TOL	5.61	3.39
Cdh	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	Elektrizität	Elektrizität
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	1409 kWh	1711 kWh

### Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	39 dB(A)	39 dB(A)





#### EN 14825

	Low temperature	Medium temperature
$\eta_{s}$	250 %	188 %
Prated	7.00 kW	6.00 kW
SCOP	6.46	4.89
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	6.22 kW	6.43 kW
COP Tj = -7°C	6.39	4.50
Pdh Tj = +2°C	4.29 kW	6.67 kW
COP Tj = +2°C	6.89	5.44
Pdh Tj = +7°C	6.35 kW	6.86 kW
COP Tj = +7°C	7.23	6.23
Pdh Tj = 12°C	6.41 kW	6.97 kW
COP Tj = 12°C	7.40	6.87
Pdh Tj = Tbiv	6.67 kW	6.07 kW
COP Tj = Tbiv	5.61	3.39
Pdh Tj = TOL	6.67 kW	6.07 kW
COP Tj = TOL	5.61	3.39
Cdh	1.00	1.00
WTOL	65 °C	65 °C



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Poff	o w	o w
РТО	20 W	20 W
PSB	20 W	20 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Elektrizität	Elektrizität
Supplementary Heater: PSUP	6.00 kW	6.00 kW
Annual energy consumption Qhe	2544 kWh	3059 kWh