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Login

Summary of	AQUATOP S11	Reg. No.	011-1W0306
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 S11		
Heat Pump Type	Brine/Water and Water/Water		
Refrigerant	R410A		
Mass of Refrigerant	2.9 kg		
Certification Date	04.05.2019		

Model: AQUATOP S11

Configure model	
Model name	AQUATOP S11
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	10.49 kW	9.10 kW
El input	2.11 kW	3.20 kW
COP	4.98	2.84

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	38 dB(A)	38 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	198 %	153 %
Prated	11.00 kW	10.00 kW
SCOP	5.15	4.04
Tbiv	-10 °C	-10 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	10.80 kW	9.99 kW
COP Tj = -7°C	4.80	3.12
Pdh Tj = +2°C	10.97 kW	10.44 kW
COP Tj = +2°C	5.18	4.06
Pdh Tj = +7°C	11.11 kW	10.70 kW
COP Tj = +7°C	5.46	4.62
Pdh Tj = 12°C	11.24 kW	10.97 kW
COP Tj = 12°C	5.75	5.18
Pdh Tj = Tbiv	10.75 kW	9.86 kW
COP Tj = Tbiv	4.71	2.84

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.75 kW	9.86 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.71	2.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4316 kWh	5046 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	38 dB(A)	38 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	199 %	154 %
Prated	11.00 kW	10.00 kW

SCOP	5.18	4.05
Tbiv	2 °C	2 °C
TOL	-22 °C	-22 °C
Pdh Tj = +2°C	10.75 kW	9.86 kW
COP Tj = +2°C	4.71	2.84
Pdh Tj = +7°C	10.93 kW	10.26 kW
COP Tj = +7°C	5.08	3.68
Pdh Tj = 12°C	11.15 kW	10.79 kW
COP Tj = 12°C	5.55	4.80
Pdh Tj = Tbiv	10.75 kW	9.86 kW
COP Tj = Tbiv	4.71	2.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.75 kW	9.86 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.71	2.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	2772 kWh	3252 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	38 dB(A)	38 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	202 %	158 %
Prated	11.00 kW	10.00 kW
SCOP	5.25	4.15
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	10.97 kW	10.35 kW
COP Tj = -7°C	5.18	3.87
Pdh Tj = +2°C	11.11 kW	10.66 kW
COP Tj = +2°C	5.46	4.52
Pdh Tj = +7°C	11.20 kW	10.88 kW
COP Tj = +7°C	5.65	4.99
Pdh Tj = 12°C	11.24 kW	11.06 kW

COP Tj = 12°C	5.74	5.36
Pdh Tj = Tbiv	10.75 kW	9.86 kW
COP Tj = Tbiv	4.71	2.84
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.75 kW	9.86 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.71	2.84
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5050 kWh	5859 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	13.34 kW	12.51 kW
El input	2.19 kW	3.31 kW
COP	6.08	3.78

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**
η_s	258 %	207 %
Prated	13.00 kW	13.00 kW

SCOP	6.65	5.38
Tbiv	-10 °C	-10 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	13.40 kW	12.67 kW
COP Tj = -7°C	6.20	4.15
Pdh Tj = +2°C	13.61 kW	13.25 kW
COP Tj = +2°C	6.69	5.40
Pdh Tj = +7°C	13.79 kW	13.58 kW
COP Tj = +7°C	7.05	6.15
Pdh Tj = 12°C	13.95 kW	13.92 kW
COP Tj = 12°C	7.41	6.89
Pdh Tj = Tbiv	13.34 kW	12.51 kW
COP Tj = Tbiv	6.08	3.78
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.34 kW	12.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.08	3.78
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4145 kWh	4801 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**
η_s	259 %	207 %
Prated	13.00 kW	13.00 kW
SCOP	6.68	5.38
Tbiv	2 °C	2 °C
TOL	-22 °C	-22 °C
Pdh Tj = +2°C	13.34 kW	12.51 kW
COP Tj = +2°C	6.08	3.78
Pdh Tj = +7°C	13.56 kW	13.02 kW
COP Tj = +7°C	6.56	4.90
Pdh Tj = 12°C	13.84 kW	13.69 kW

COP Tj = 12°C	7.16	6.39
Pdh Tj = Tbiv	13.34 kW	12.51 kW
COP Tj = Tbiv	6.08	3.78
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.34 kW	12.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.08	3.78
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2668 kWh	3105 kWh

Colder Climate

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

EN 14825

	Medium temperature	**Low temperature**
η_s	262 %	212 %
Prated	13.00 kW	13.00 kW
SCOP	6.75	5.51
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	13.61 kW	13.13 kW
COP Tj = -7°C	6.69	5.15
Pdh Tj = +2°C	13.79 kW	13.53 kW
COP Tj = +2°C	7.05	6.02
Pdh Tj = +7°C	13.90 kW	13.80 kW
COP Tj = +7°C	7.29	6.64
Pdh Tj = 12°C	13.95 kW	14.03 kW
COP Tj = 12°C	7.41	7.13
Pdh Tj = Tbiv	13.34 kW	12.51 kW
COP Tj = Tbiv	6.08	3.78
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.34 kW	12.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.08	3.78
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4869 kWh	5595 kWh