Subtype AQUATOP S17

Certificate Holder	ELCO GmbH
Address	Hohenzollernstrasse 31
ZIP	72379
City	Hechingen
Country	DE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	AQUATOP S17
Registration number	011-1W0308
Heat Pump Type	Brine/Water and Water/Water
Refrigerant	R410A
Mass of Refrigerant	3.8 kg
Certification Date	04.05.2019

Model AQUATOP S17	
Model name	AQUATOP S17
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	3x230V 50Hz
Off-peak product	n/a

Brine/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	16.83 kW	14.78 kW
El input	3.44 kW	5.34 kW
COP	4.89	2.77

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	201 %	158 %
Prated	16.92 kW	15.27 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
Cdh Tj = -7 °C		
Pdh Tj = +2°C	17.76 kW	17.10 kW
COP Tj = +2°C	5.37	4.11
Cdh Tj = +2 °C		
Pdh Tj = +7°C	17.76 kW	18.17 kW
COP Tj = +7°C	5.37	4.87
Cdh Tj = +7 °C		
Pdh Tj = 12°C	17.76 kW	19.10 kW

COP Tj = 12°C	5.37	5.74
Cdh Tj = +12 °C		
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	1.000	1.000
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	6700 kWh	7605 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	203 %	160 %
Prated	16.92 kW	15.27 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°C	5.37	3.86
Cdh Tj = -7 °C		
Pdh Tj = +2°C	17.76 kW	18.01 kW
COP Tj = +2°C	5.37	4.73
Cdh Tj = +2 °C		
Pdh Tj = +7°C	17.76 kW	18.78 kW
COP Tj = +7°C	5.37	5.43
Cdh Tj = +7 °C		
Pdh Tj = 12°C	17.76 kW	19.08 kW
COP Tj = 12°C	5.37	5.74
Cdh Tj = +12 °C		
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	1.000	1.000
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	7901 kWh	8986 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	200 %	159 %
Prated	16.92 kW	15.27 kW
SCOP	5.19	4.19
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
Cdh Tj = +2 °C		
Pdh Tj = +7°C	17.59 kW	16.64 kW
COP Tj = +7°C	5.23	3.64
Cdh Tj = +7 °C		
Pdh Tj = 12°C	17.76 kW	18.47 kW
COP Tj = 12°C	5.37	5.15
Cdh Tj = +12 °C		
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	1.000	1.000
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	4354 kWh	4872 kWh

Water/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	21.27 kW	19.35 kW
El input	3.53 kW	5.31 kW
COP	6.03	3.64

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	34 dB(A)	34 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	261 %	207 %
Prated	21.47 kW	19.35 kW
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°C	6.21	3.97
Cdh Tj = -7 °C		
Pdh Tj = +2°C	22.33 kW	21.67 kW
COP Tj = +2°C	6.93	5.34
Cdh Tj = +2 °C		
Pdh Tj = +7°C	22.33 kW	23.02 kW
COP Tj = +7°C	6.93	6.93
Cdh Tj = +7 °C		
Pdh Tj = 12°C	22.33 kW	24.18 kW
COP Tj = 12°C	6.93	7.46
Cdh Tj = +12 °C		
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	1.000	1.000
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	6526 kWh	7422 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	34 dB(A)	34 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	264 %	215 %
Prated	21.27 kW	19.35 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
COP Tj = -7°C	6.93	5.02
Cdh Tj = -7 °C		
Pdh Tj = +2°C	22.33 kW	22.82 kW
COP Tj = +2°C	6.93	6.15
Cdh Tj = +2 °C		
Pdh Tj = +7°C	22.33 kW	23.80 kW
COP Tj = +7°C	6.93	7.06
Cdh Tj = +7 °C		
Pdh Tj = 12°C	22.33 kW	24.18 kW
COP Tj = 12°C	6.93	7.46
Cdh Tj = +12 °C		
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	1.000	1.000
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	7701 kWh	8552 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	34 dB(A)	34 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	260 %	210 %
Prated	21.27 kW	19.35 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
Cdh Tj = +2 °C		
Pdh Tj = +7°C	22.11 kW	21.09 kW
COP Tj = +7°C	6.75	4.73
Cdh Tj = +7 °C		
Pdh Tj = 12°C	22.33 kW	23.41 kW
COP Tj = 12°C	6.93	6.70
Cdh Tj = +12 °C		
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	1.000	1.000
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	4242 kWh	4754 kWh