Subtype AQUATOP T35H

Certificate Holder	ELCO GmbH
Address	Hohenzollernstrasse 31
ZIP	72379
City	Hechingen
Country	DE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	AQUATOP T35H
Registration number	011-1W0311
Heat Pump Type	Brine/Water and Water/Water
Refrigerant	R407c
Mass of Refrigerant	6.2 kg
Certification Date	04.05.2019

Model AQUATOP T35H	
Model name	AQUATOP T35H
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	36.70 kW	34.70 kW
El input	8.30 kW	11.40 kW
COP	4.40	3.00

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	61 dB(A)	61 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	192 %	174 %
Prated	36.70 kW	34.70 kW
SCOP	5.01	4.54
Tbiv	-10 °C	-10 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	37.07 kW	35.74 kW
COP Tj = -7°C	4.49	3.27
Cdh Tj = -7 °C		
Pdh Tj = +2°C	38.17 kW	38.52 kW
COP Tj = +2°C	5.02	4.50
Cdh Tj = +2 °C		
Pdh Tj = +7°C	38.90 kW	39.91 kW
COP Tj = +7°C	5.24	5.28
Cdh Tj = +7 °C		
Pdh Tj = 12°C	39.64 kW	41.64 kW

COP Tj = 12°C	5.54	6.18
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	36.70 kW	34.70 kW
COP Tj = Tbiv	4.40	3.00
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	36.70 kW	34.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.40	3.00
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	0 W	0 W
PTO	10 W	10 W
PSB	10 W	10 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	15136 kWh	15793 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	61 dB(A)	61 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	197 %	180 %
Prated	36.70 kW	34.70 kW
SCOP	5.13	4.71
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	38.17 kW	37.82 kW
COP Tj = -7°C	5.02	4.23
Cdh Tj = -7 °C		
Pdh Tj = +2°C	38.90 kW	39.91 kW
COP Tj = +2°C	5.24	5.13
Cdh Tj = +2 °C		
Pdh Tj = +7°C	39.27 kW	41.29 kW
COP Tj = +7°C	5.46	5.82
Cdh Tj = +7 °C		
Pdh Tj = 12°C	39.64 kW	42.33 kW
COP Tj = 12°C	5.54	6.30
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	36.70 kW	34.70 kW
COP Tj = Tbiv	4.40	3.00
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	36.70 kW	34.70 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.40	3.00
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	0 W	0 W
PTO	10 W	10 W
PSB	10 W	10 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	17636 kWh	18161 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	61 dB(A)	61 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	193 %	175 %
Prated	36.70 kW	34.70 kW
SCOP	5.04	4.59
Tbiv	2 °C	2 °C
TOL	-22 °C	-22 °C
Pdh Tj = +2°C	36.70 kW	34.70 kW
COP Tj = +2°C	4.40	3.00
Cdh Tj = +2 °C		
Pdh Tj = +7°C	37.80 kW	37.12 kW
COP Tj = +7°C	4.84	3.99
Cdh Tj = +7 °C		
Pdh Tj = 12°C	38.90 kW	40.60 kW
COP Tj = 12°C	5.32	5.55
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	36.70 kW	34.70 kW
COP Tj = Tbiv	4.40	3.00
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	36.70 kW	34.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.40	3.00
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	0 W	0 W
PTO	10 W	10 W
PSB	10 W	10 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	9736 kWh	10108 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	49.00 kW	46.00 kW
El input	9.20 kW	12.60 kW
COP	5.30	3.70

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	61 dB(A)	61 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	229 %	200 %
Prated	48.85 kW	46.00 kW
SCOP	5.93	5.21
Tbiv	-10 °C	-10 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	49.22 kW	47.04 kW
COP Tj = -7°C	5.40	3.92
Cdh Tj = -7 °C		
Pdh Tj = +2°C	50.32 kW	49.82 kW
COP Tj = +2°C	5.93	5.15
Cdh Tj = +2 °C		
Pdh Tj = +7°C	51.05 kW	51.21 kW
COP Tj = +7°C	6.15	5.93
Cdh Tj = +7 °C		
Pdh Tj = 12°C	51.79 kW	52.94 kW
COP Tj = 12°C	6.45	6.83
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	48.85 kW	46.00 kW
COP Tj = Tbiv	5.31	3.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	48.85 kW	46.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.31	3.65

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	0 W	0 W
PTO	10 W	10 W
PSB	10 W	10 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	17006 kWh	18234 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	61 dB(A)	61 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	233 %	204 %
Prated	48.85 kW	46.00 kW
SCOP	6.02	5.30
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	50.32 kW	49.12 kW
COP Tj = -7°C	5.93	4.88
Cdh Tj = -7 °C		
Pdh Tj = +2°C	51.05 kW	51.21 kW
COP Tj = +2°C	6.15	5.78
Cdh Tj = +2 °C		
Pdh Tj = +7°C	51.42 kW	52.59 kW
COP Tj = +7°C	6.37	6.47
Cdh Tj = +7 °C		
Pdh Tj = 12°C	51.79 kW	53.63 kW
COP Tj = 12°C	6.45	6.95
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	48.85 kW	46.00 kW
COP Tj = Tbiv	5.31	3.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	48.85 kW	46.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.31	3.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	0 W	0 W
PTO	10 W	10 W
PSB	10 W	10 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	19989 kWh	21386 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	61 dB(A)	61 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	230 %	203 %
Prated	48.85 kW	46.00 kW
SCOP	5.96	5.27
Tbiv	2 °C	2 °C
TOL	-22 °C	-22 °C
Pdh Tj = +2°C	48.85 kW	46.00 kW
COP Tj = +2°C	5.31	3.65
Cdh Tj = +2 °C		
Pdh Tj = +7°C	49.95 kW	48.42 kW
COP Tj = +7°C	5.75	4.64
Cdh Tj = +7 °C		
Pdh Tj = 12°C	51.05 kW	51.90 kW
COP Tj = 12°C	6.23	6.20
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	48.85 kW	46.00 kW
COP Tj = Tbiv	5.31	3.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	48.85 kW	46.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.31	3.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	60 °C	60 °C
Poff	0 W	0 W
PTO	10 W	10 W
PSB	10 W	10 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	10958 kWh	11670 kWh