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Login

| Summary of | AQUATOP T43H | Reg. No. | 011-1W0312 | |
|---------------------|---|----------|------------|--|
| 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 T43H | | | |
| Heat Pump Type | Brine/Water and Water/Water | | | |
| Refrigerant | R407c | | | |
| Mass of Refrigerant | 7.4 kg | | | |
| Certification Date | 04.05.2019 | | | |

Model: AQUATOP T43H

| Configure model | | |
|-------------------------------------|---------------------------------|--|
| Model name | AQUATOP T43H | |
| 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

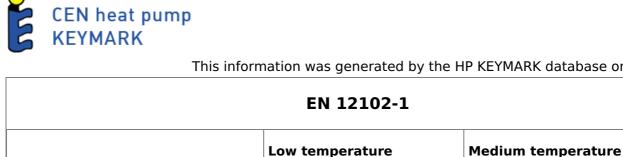
| EN 14511-4 | | |
|--|--------|--|
| | | |
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed | |
| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed | |
| Shutting off the heat transfer medium flow | passed | |
| Complete power supply failure | passed | |

| EN 14511-2 | | |
|------------------------------------|----------|--------------------|
| Low temperature Medium temperature | | Medium temperature |
| Heat output | 44.44 kW | 41.30 kW |
| El input | 10.00 kW | 13.50 kW |
| СОР | 4.40 | 3.10 |

Average Climate



61 dB(A)



61 dB(A)

Sound power level indoor

| EN 14825 | | |
|---------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| η_{s} | 192 % | 180 % |
| Prated | 44.00 kW | 41.00 kW |
| SCOP | 5.01 | 4.69 |
| Tbiv | -10 °C | -10 °C |
| TOL | -22 °C | -22 °C |
| Pdh Tj = -7°C | 44.84 kW | 42.54 kW |
| COP Tj = -7°C | 4.49 | 3.38 |
| Pdh Tj = +2°C | 46.18 kW | 45.84 kW |
| COP Tj = +2°C | 5.02 | 4.65 |
| Pdh Tj = +7°C | 47.06 kW | 47.50 kW |
| COP Tj = +7°C | 5.24 | 5.46 |
| Pdh Tj = 12°C | 47.95 kW | 49.56 kW |
| COP Tj = 12°C | 5.54 | 6.39 |
| Pdh Tj = Tbiv | 44.40 kW | 41.30 kW |
| COP Tj = Tbiv | 4.40 | 3.10 |





| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 44.40 kW | 41.30 kW |
|---|-------------|-------------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 4.40 | 3.10 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00 | 1.00 |
| WTOL | 60 °C | 60 °C |
| Poff | o w | o w |
| РТО | 10 W | 10 W |
| PSB | 10 W | 10 W |
| PCK | o w | o w |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 18311 kWh | 18195 kWh |

Warmer Climate

| EN 12102-1 | | |
|--------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 61 dB(A) | 61 dB(A) |

| EN 14825 | | |
|------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| η_{S} | 193 % | 181 % |
| Prated | 44.00 kW | 41.00 kW |
| | | |





| SCOP | 5.04 | 4.74 |
|---|-------------|-------------|
| Tbiv | 2 °C | 2 °C |
| TOL | -22 °C | -22 °C |
| Pdh Tj = +2°C | 44.40 kW | 41.30 kW |
| COP Tj = +2°C | 4.40 | 3.10 |
| Pdh Tj = +7°C | 45.73 kW | 44.19 kW |
| $COP Tj = +7^{\circ}C$ | 4.84 | 4.12 |
| Pdh Tj = 12°C | 47.06 kW | 48.32 kW |
| COP Tj = 12°C | 5.32 | 5.74 |
| Pdh Tj = Tbiv | 44.40 kW | 41.30 kW |
| COP Tj = Tbiv | 4.40 | 3.10 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 44.40 kW | 41.30 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 4.40 | 3.10 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00 | 1.00 |
| WTOL | 60 °C | 60 °C |
| Poff | 0 W | o w |
| РТО | 10 W | 10 W |
| PSB | 10 W | 10 W |
| РСК | 0 W | 0 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |



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Colder Climate

| EN 12102-1 | | |
|--------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 61 dB(A) | 61 dB(A) |

| EN 14825 | | |
|---------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| η_{s} | 197 % | 187 % |
| Prated | 44.00 kW | 41.00 kW |
| SCOP | 5.13 | 4.87 |
| Tbiv | -22 °C | -22 °C |
| TOL | -22 °C | -22 °C |
| Pdh Tj = -7°C | 46.18 kW | 45.02 kW |
| COP Tj = -7°C | 5.02 | 4.37 |
| Pdh Tj = +2°C | 47.06 kW | 47.50 kW |
| COP Tj = +2°C | 5.24 | 5.30 |
| Pdh Tj = +7°C | 47.51 kW | 49.15 kW |
| COP Tj = +7°C | 5.46 | 6.01 |
| Pdh Tj = 12°C | 47.95 kW | 50.39 kW |





| 5.54 | 6.51 |
|-------------|--|
| 44.40 kW | 41.30 kW |
| 4.40 | 3.10 |
| 44.40 kW | 41.30 kW |
| 4.40 | 3.10 |
| 1.00 | 1.00 |
| 60 °C | 60 °C |
| 0 W | 0 W |
| 10 W | 10 W |
| 10 W | 10 W |
| o w | 0 W |
| Electricity | Electricity |
| 0.00 kW | 0.00 kW |
| 21336 kWh | 20905 kWh |
| | 44.40 kW 4.40 44.40 kW 4.40 1.00 60 °C 0 W 10 W 10 W Electricity 0.00 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 | 47.30 kW | 54.50 kW | |
| El input | 11.30 kW | 39.20 kW | |
| СОР | 5.20 | 3.60 | |

Average Climate

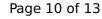
| EN 12102-1 | | | |
|--------------------------|-----------------|--------------------|--|
| | Low temperature | Medium temperature | |
| Sound power level indoor | 61 dB(A) | 61 dB(A) | |

| EN 14825 | | | |
|------------------------------------|----------|----------|--|
| Low temperature Medium temperature | | | |
| η_{S} | 224 % | 199 % | |
| Prated | 59.00 kW | 55.00 kW | |





| <u> </u> | • | |
|---|----------|----------|
| SCOP | 5.81 | 5.17 |
| Tbiv | -10 °C | -10 °C |
| TOL | -22 °C | -22 °C |
| Pdh Tj = -7°C | 59.04 kW | 55.74 kW |
| COP Tj = -7°C | 5.28 | 3.84 |
| Pdh Tj = +2°C | 60.38 kW | 59.04 kW |
| COP Tj = +2°C | 5.81 | 5.11 |
| Pdh Tj = $+7^{\circ}$ C | 61.26 kW | 60.70 kW |
| $COP Tj = +7^{\circ}C$ | 6.02 | 5.92 |
| Pdh Tj = 12°C | 62.15 kW | 62.76 kW |
| COP Tj = 12°C | 6.33 | 6.85 |
| Pdh Tj = Tbiv | 58.60 kW | 54.50 kW |
| COP Tj = Tbiv | 5.19 | 3.56 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 58.60 kW | 54.50 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 5.19 | 3.56 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00 | 1.00 |
| WTOL | 60 °C | 60 °C |
| Poff | o w | 0 W |
| РТО | 10 W | 10 W |
| PSB | 10 W | 10 W |
| PCK | o w | 0 W |



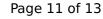


| Supplementary Heater: Type of energy input | Electricity | Electricity |
|--|-------------|-------------|
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 20831 kWh | 21775 kWh |

Warmer Climate

| EN 12102-1 | | | |
|--------------------------|-----------------|--------------------|--|
| | Low temperature | Medium temperature | |
| Sound power level indoor | 61 dB(A) | 61 dB(A) | |

| EN 14825 | | |
|-----------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| η_{s} | 225 % | 201 % |
| Prated | 59.00 kW | 55.00 kW |
| SCOP | 5.83 | 5.23 |
| Tbiv | 2 °C | 2 °C |
| TOL | -22 °C | -22 °C |
| Pdh Tj = +2°C | 58.60 kW | 54.50 kW |
| $COPTj = +2^{\circ}C$ | 5.19 | 3.56 |
| Pdh Tj = $+7$ °C | 59.93 kW | 57.39 kW |
| COP Tj = +7°C | 5.63 | 4.58 |
| Pdh Tj = 12°C | 61.26 kW | 61.52 kW |
| | · | |



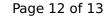


| COP Tj = 12°C | 6.11 | 6.20 |
|---|-------------|-------------|
| Pdh Tj = Tbiv | 58.60 kW | 54.50 kW |
| COP Tj = Tbiv | 5.19 | 3.56 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 58.60 kW | 54.50 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 5.19 | 3.56 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00 | 1.00 |
| WTOL | 60 °C | 60 °C |
| Poff | o w | 0 W |
| РТО | 10 W | 10 W |
| PSB | 10 W | 10 W |
| PCK | o w | 0 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 13422 kWh | 13929 kWh |

Colder Climate

| EN 12102-1 | | | |
|--------------------------|-----------------|--------------------|--|
| | Low temperature | Medium temperature | |
| Sound power level indoor | 61 dB(A) | 61 dB(A) | |

EN 14825





| | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| η_{s} | 228 % | 203 % |
| Prated | 59.00 kW | 55.00 kW |
| SCOP | 5.90 | 5.26 |
| Tbiv | -22 °C | -22 °C |
| TOL | -22 °C | -22 °C |
| Pdh Tj = -7°C | 60.38 kW | 58.22 kW |
| COP Tj = -7° C | 5.81 | 4.83 |
| Pdh Tj = $+2$ °C | 61.26 kW | 60.70 kW |
| COP Tj = +2°C | 6.02 | 5.76 |
| Pdh Tj = $+7^{\circ}$ C | 61.71 kW | 62.35 kW |
| $COPTj = +7^{\circ}C$ | 6.25 | 6.47 |
| Pdh Tj = 12°C | 62.15 kW | 63.59 kW |
| COP Tj = 12°C | 6.33 | 6.97 |
| Pdh Tj = Tbiv | 58.60 kW | 54.50 kW |
| COP Tj = Tbiv | 5.19 | 3.56 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 58.60 kW | 54.50 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 5.19 | 3.56 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00 | 1.00 |
| WTOL | 60 °C | 60 °C |
| Poff | 0 W | o w |



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| PTO | 10 W | 10 W |
|--|-------------|-------------|
| PSB | 10 W | 10 W |
| PCK | o w | 0 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 24485 kWh | 25527 kWh |