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This information was generated by the HP KEYMARK database on 18 Mar 2022

Login

| Summary of | THZ 5.5/8.5/504 | Reg. No. | 011-1W0050 | |
|---------------------|-------------------------------------------------------|----------|------------|--|
| Certificate Holder | | | | |
| Name | tecalor GmbH | | | |
| Address | Fürstenbergerstr. 77 | Zip | 37603 | |
| City | Holzminden | Country | Germany | |
| Certification Body | DIN CERTCO Gesellschaft für Konformitätsbewertung mbH | | | |
| Subtype title | THZ 5.5/8.5/504 | | | |
| Heat Pump Type | Outdoor Air/Water | | | |
| Refrigerant | R410A | | | |
| Mass of Refrigerant | 2.95 kg | | | |



Model: THZ 504

| Configure model | | | |
|-------------------------------------|---------------------------------|--|--|
| Model name | THZ 504 | | |
| Application | Heating (medium temp) | | |
| Units | Indoor | | |
| Climate Zone | Colder Climate + Warmer Climate | | |
| Reversibility | No | | |
| Cooling mode application (optional) | n/a | | |

| General Data | | |
|--------------|-------------|--|
| Power supply | 1x230V 50Hz | |

Heating

COP

4.74

| | Low temperature | Medium temperature | |
|-------------|-----------------|--------------------|--|
| Heat output | 4.40 kW | 3.84 kW | |
| El input | 0.93 kW | 1.44 kW | |

2.66

EN 14511-2

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

Average Climate



| EN 12102-1 | | |
|--------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 50 dB(A) | 50 dB(A) |

| EN 14825 | | |
|------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| η_{s} | 163 % | 128 % |
| Prated | 10.00 kW | 7.00 kW |
| SCOP | 4.14 | 3.27 |
| Tbiv | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 8.42 kW | 5.87 kW |
| COP Tj = -7°C | 2.76 | 2.26 |
| Pdh Tj = +2°C | 5.12 kW | 3.52 kW |
| COP Tj = +2°C | 3.94 | 3.27 |
| Pdh Tj = +7°C | 3.26 kW | 2.72 kW |
| $COP Tj = +7^{\circ}C$ | 5.53 | 4.14 |
| Pdh Tj = 12°C | 3.35 kW | 3.20 kW |
| COP Tj = 12°C | 7.09 | 5.29 |
| Pdh Tj = Tbiv | 8.42 kW | 5.87 kW |
| COP Tj = Tbiv | 2.76 | 2.26 |





| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.37 kW | 2.67 kW |
|-----------------------------------------------------|-------------|-------------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.69 | 1.88 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98 | 0.98 |
| WTOL | 60 °C | 60 °C |
| Poff | 27 W | 27 W |
| РТО | 63 W | 63 W |
| PSB | 27 W | 27 W |
| PCK | 35 W | 35 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 1.15 kW | 3.97 kW |
| Annual energy consumption Qhe | 4755 kWh | 4199 kWh |

Warmer Climate

| EN 12102-1 | | | |
|--------------------------|-----------------|--------------------|--|
| | Low temperature | Medium temperature | |
| Sound power level indoor | 50 dB(A) | 50 dB(A) | |

| EN 14825 | | | |
|-----------|----------------|-----------------|------------|
| nperature | Medium tempera | Low temperature | |
| | 150 % | 207 % | η_{s} |
| | 8.00 kW | 9.00 kW | Prated |
| _ | 8.00 KW | 9.00 KW | Prated |





| SCOP | 5.24 | 3.82 |
|-----------------------------------------------------|-------------|-------------|
| Tbiv | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| Pdh Tj = +2°C | 8.81 kW | 8.32 kW |
| $COP Tj = +2^{\circ}C$ | 3.18 | 2.34 |
| Pdh Tj = $+7^{\circ}$ C | 5.77 kW | 5.41 kW |
| $COPTj = +7^{\circ}C$ | 4.57 | 3.26 |
| Pdh Tj = 12°C | 3.34 kW | 3.17 kW |
| COP Tj = 12°C | 6.89 | 5.11 |
| Pdh Tj = Tbiv | 8.81 kW | 8.32 kW |
| COP Tj = Tbiv | 3.18 | 2.34 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.81 kW | 8.32 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.18 | 2.34 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98 | 0.98 |
| WTOL | 60 °C | 60 °C |
| Poff | 27 W | 27 W |
| РТО | 63 W | 63 W |
| PSB | 27 W | 27 W |
| РСК | 35 W | 35 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |



| This information was generat | ed by the HP KEYMAR | RK database on 18 Mar 2022 |
|------------------------------|---------------------|----------------------------|
| | | |

| Annual energy consumption Qhe | 2243 kWh | 2911 kWh |
|-------------------------------|----------|----------|
|-------------------------------|----------|----------|

Colder Climate

| EN 12102-1 | | |
|--------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 50 dB(A) | 50 dB(A) |

| EN 14825 | | |
|-------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| η_{S} | 131 % | 102 % |
| Prated | 14.00 kW | 11.00 kW |
| SCOP | 3.34 | 2.62 |
| Tbiv | -7 °C | -7 °C |
| TOL | -20 °C | -13 °C |
| Pdh Tj = -7°C | 8.62 kW | 6.38 kW |
| COP Tj = -7°C | 2.96 | 2.50 |
| Pdh Tj = $+2$ °C | 5.28 kW | 3.92 kW |
| COP Tj = +2°C | 4.20 | 3.48 |
| Pdh Tj = $+7^{\circ}$ C | 3.42 kW | 2.79 kW |
| COP Tj = +7°C | 5.87 | 4.68 |
| Pdh Tj = 12°C | 3.35 kW | 3.24 kW |
| | | |



| | * | |
|-----------------------------------------------------|-------------|-------------|
| COP Tj = 12°C | 7.12 | 5.67 |
| Pdh Tj = Tbiv | 8.62 kW | 6.38 kW |
| COP Tj = Tbiv | 2.56 | 2.50 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.73 kW | 2.58 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.56 | 6.38 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98 | 0.98 |
| WTOL | 60 °C | 60 °C |
| Poff | 27 W | 27 W |
| PTO | 63 W | 63 W |
| PSB | 27 W | 27 W |
| PCK | 35 W | 35 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 14.24 kW | 10.57 kW |
| Annual energy consumption Qhe | 10498 kWh | 9932 kWh |

passed



This information was generated by the HP KEYMARK database on 18 Mar 2022

Model: THZ 5.5 eco

| Configure model | | |
|-------------------------------------|---------------------------------|--|
| Model name | THZ 5.5 eco | |
| Application | Heating (medium temp) | |
| Units | Indoor | |
| Climate Zone | Colder Climate + Warmer Climate | |
| Reversibility | No | |
| Cooling mode application (optional) | n/a | |

| General Data | |
|--------------------------|--|
| Power supply 1x230V 50Hz | |

EN 14511-2

Heating

Heat output

El input

COP

0.93 kW

4.74

| Low temperature | Medium temperature | |
|-----------------|--------------------|--|
| 4.40 kW | 3.84 kW | |
| | | |

1.44 kW

2.66

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

Average Climate

Defrost test



| EN 12102-1 | | |
|---------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 52 dB(A) | 52 dB(A) |
| Sound power level outdoor | 52 dB(A) | 52 dB(A) |

| EN 14825 | | |
|-------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| η_{s} | 154 % | 121 % |
| Prated | 6.00 kW | 6.00 kW |
| SCOP | 3.92 | 3.11 |
| Tbiv | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 5.48 kW | 5.54 kW |
| COP Tj = -7°C | 2.93 | 2.26 |
| Pdh Tj = +2°C | 3.28 kW | 3.41 kW |
| COP Tj = +2°C | 4.18 | 3.27 |
| Pdh Tj = $+7^{\circ}$ C | 2.86 kW | 2.71 kW |
| COP Tj = +7°C | 5.43 | 4.09 |
| Pdh Tj = 12°C | 3.34 kW | 3.19 kW |
| COP Tj = 12°C | 6.96 | 5.29 |
| Pdh Tj = Tbiv | 5.48 kW | 5.54 kW |



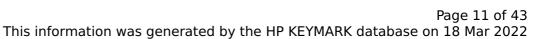


| COP Tj = Tbiv | 2.93 | 2.26 |
|-----------------------------------------------------|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.48 kW | 2.67 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.82 | 1.88 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98 | 0.98 |
| WTOL | 60 °C | 60 °C |
| Poff | 27 W | 27 W |
| PTO | 63 W | 63 W |
| PSB | 27 W | 27 W |
| PCK | 35 W | 35 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.75 kW | 3.55 kW |
| Annual energy consumption Qhe | 3280 kWh | 4138 kWh |

Warmer Climate

EN 12102-1 Low temperature Medium temperature Sound power level indoor 52 dB(A) 52 dB(A) Sound power level outdoor 52 dB(A) 52 dB(A)

| EN 14825 | | |
|------------------------------------|--|--------------------|
| Low temperature Medium temperature | | Medium temperature |
| | | |





| | | TK database on 10 Mai 2022 |
|-----------------------------------------------------|---------|----------------------------|
| η_{S} | 178 % | 134 % |
| Prated | 7.00 kW | 7.00 kW |
| SCOP | 4.53 | 3.42 |
| Tbiv | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| Pdh Tj = +2°C | 6.70 kW | 6.89 kW |
| $COPTj = +2^{\circ}C$ | 3.38 | 2.50 |
| Pdh Tj = $+7^{\circ}$ C | 4.31 kW | 4.47 kW |
| $COP Tj = +7^{\circ}C$ | 4.81 | 3.28 |
| Pdh Tj = 12°C | 3.32 kW | 3.16 kW |
| COP Tj = 12°C | 6.73 | 4.98 |
| Pdh Tj = Tbiv | 6.70 kW | 6.68 kW |
| COP Tj = Tbiv | 3.38 | 2.50 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 6.70 kW | 6.89 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.38 | 2.50 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98 | 0.98 |
| WTOL | 60 °C | 60 °C |
| Poff | 27 W | 27 W |
| РТО | 63 W | 63 W |
| PSB | 27 W | 27 W |
| РСК | 35 W | 35 W |
| | | |





| Supplementary Heater: Type of energy input | Electricity | Electricity |
|--------------------------------------------|-------------|-------------|
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 1977 kWh | 2694 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 52 dB(A) | 52 dB(A) |
| Sound power level outdoor | 52 dB(A) | 52 dB(A) |

| EN 14825 | | |
|------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| η_{S} | 135 % | 101 % |
| Prated | 9.00 kW | 9.00 kW |
| SCOP | 3.45 | 2.60 |
| Tbiv | -7 °C | -7 °C |
| TOL | -20 °C | -13 °C |
| Pdh Tj = -7 °C | 5.57 kW | 5.31 kW |
| COP Tj = -7°C | 3.14 | 2.52 |
| Pdh Tj = $+2$ °C | 3.45 kW | 3.28 kW |
| COP Tj = +2°C | 4.51 | 3.50 |
| | | |



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| Pdh Tj = +7°C | 2.89 kW | 2.78 kW |
|-----------------------------------------------------|-------------|-------------|
| $COP Tj = +7^{\circ}C$ | 5.78 | 4.56 |
| Pdh Tj = 12°C | 3.34 kW | 3.23 kW |
| COP Tj = 12°C | 6.96 | 5.59 |
| Pdh Tj = Tbiv | 5.57 kW | 5.31 kW |
| COP Tj = Tbiv | 3.14 | 2.52 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.36 kW | 2.58 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.55 | 2.09 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98 | 0.98 |
| WTOL | 60 °C | 60 °C |
| Poff | 27 W | 27 W |
| РТО | 63 W | 63 W |
| PSB | 27 W | 27 W |
| PCK | 35 W | 35 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 9.52 kW | 8.76 kW |
| Annual energy consumption Qhe | 6605 kWh | 8311 kWh |



Model: THZ 5.5 flex

| Configure model | | |
|-------------------------------------|---------------------------------|--|
| Model name | THZ 5.5 flex | |
| Application | Heating (medium temp) | |
| Units | Indoor | |
| Climate Zone | Colder Climate + Warmer Climate | |
| Reversibility | No | |
| Cooling mode application (optional) | n/a | |

| General Data | | |
|--------------|-------------|--|
| Power supply | 1x230V 50Hz | |

Heating

| | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 4.40 kW | 3.84 kW |
| El input | 0.93 kW | 1.44 kW |
| СОР | 4.74 | 2.66 |

EN 14511-2

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

Average Climate



| EN 12102-1 | | |
|--------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 52 dB(A) | 52 dB(A) |

| EN 14825 | | |
|---------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| η_{s} | 154 % | 121 % |
| Prated | 6.00 kW | 6.00 kW |
| SCOP | 3.92 | 3.11 |
| Tbiv | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 5.48 kW | 5.54 kW |
| COP Tj = -7°C | 2.93 | 2.26 |
| Pdh Tj = +2°C | 3.28 kW | 3.41 kW |
| COP Tj = +2°C | 4.18 | 3.27 |
| Pdh Tj = +7°C | 2.86 kW | 2.71 kW |
| COP Tj = +7°C | 5.43 | 4.09 |
| Pdh Tj = 12°C | 3.34 kW | 3.19 kW |
| COP Tj = 12°C | 6.96 | 5.26 |
| Pdh Tj = Tbiv | 5.48 kW | 5.54 kW |
| COP Tj = Tbiv | 2.93 | 2.26 |



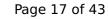


| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.47 kW | 2.67 kW |
|-----------------------------------------------------|-------------|-------------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.82 | 1.88 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98 | 0.98 |
| WTOL | 60 °C | 60 °C |
| Poff | 27 W | 27 W |
| РТО | 63 W | 63 W |
| PSB | 27 W | 27 W |
| PCK | 35 W | 35 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.75 kW | 3.55 kW |
| Annual energy consumption Qhe | 3280 kWh | 4138 kWh |

Warmer Climate

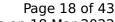
| EN 12102-1 | | |
|--------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 52 dB(A) | 52 dB(A) |

| EN 14825 | | |
|------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| η_{S} | 178 % | 134 % |
| Prated | 7.00 kW | 7.00 kW |
| | | |





| SCOP | 4.53 | 3.42 |
|-----------------------------------------------------|-------------|-------------|
| Tbiv | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| Pdh Tj = +2°C | 6.70 kW | 6.89 kW |
| COP Tj = +2°C | 3.38 | 2.50 |
| Pdh Tj = $+7^{\circ}$ C | 4.31 kW | 4.47 kW |
| $COPTj = +7^{\circ}C$ | 4.81 | 3.28 |
| Pdh Tj = 12°C | 3.32 kW | 3.16 kW |
| COP Tj = 12°C | 6.73 | 4.98 |
| Pdh Tj = Tbiv | 6.70 kW | 6.89 kW |
| COP Tj = Tbiv | 3.38 | 2.50 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 6.70 kW | 6.89 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.38 | 2.50 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98 | 0.98 |
| WTOL | 60 °C | 60 °C |
| Poff | 27 W | 27 W |
| РТО | 63 W | 63 W |
| PSB | 27 W | 27 W |
| РСК | 35 W | 35 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |





| Annual energy consumption Qhe | 1977 kWh | 2694 kWh | |
|-------------------------------|----------|----------|--|
| | | | |

Colder Climate

| EN 12102-1 | | |
|--------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 52 dB(A) | 52 dB(A) |

| EN 14825 | | |
|---------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| η_{s} | 135 % | 101 % |
| Prated | 9.00 kW | 9.00 kW |
| SCOP | 3.45 | 2.60 |
| Tbiv | -7 °C | -7 °C |
| TOL | -20 °C | -13 °C |
| Pdh Tj = -7°C | 5.57 kW | 5.31 kW |
| COP Tj = -7°C | 3.14 | 2.52 |
| Pdh Tj = +2°C | 3.45 kW | 3.28 kW |
| COP Tj = +2°C | 4.51 | 3.50 |
| Pdh Tj = +7°C | 2.89 kW | 2.78 kW |
| COP Tj = +7°C | 5.78 | 4.56 |
| Pdh Tj = 12°C | 3.34 kW | 3.23 kW |



| COP Tj = 12°C | 6.96 | 5.59 |
|-----------------------------------------------------|-------------|-------------|
| Pdh Tj = Tbiv | 5.57 kW | 5.31 kW |
| COP Tj = Tbiv | 3.14 | 2.52 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.36 kW | 2.58 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.55 | 2.09 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98 | 0.98 |
| WTOL | 60 °C | 60 °C |
| Poff | 27 W | 27 W |
| РТО | 63 W | 63 W |
| PSB | 27 W | 27 W |
| PCK | 35 W | 35 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 9.25 kW | 8.76 kW |
| Annual energy consumption Qhe | 6605 kWh | 8311 kWh |



Model: THZ 5.5 SOL

| Configure model | | |
|-------------------------------------|---------------------------------|--|
| Model name | THZ 5.5 SOL | |
| Application | Heating (medium temp) | |
| Units | Indoor | |
| Climate Zone | Colder Climate + Warmer Climate | |
| Reversibility | No | |
| Cooling mode application (optional) | n/a | |

| | General Data | |
|--------------|--------------|--|
| Power supply | 1x230V 50Hz | |

Heating

| EN 14511-2 | | |
|-------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Heat output | 4.40 kW | 3.84 kW |
| El input | 0.93 kW | 1.44 kW |
| СОР | 4.74 | 2.66 |

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

Average Climate



| EN 12102-1 | | | |
|--------------------------|-----------------|--------------------|--|
| | Low temperature | Medium temperature | |
| Sound power level indoor | 50 dB(A) | 50 dB(A) | |

| | EN 14825 | |
|---------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| η_{s} | 165 % | 129 % |
| Prated | 6.00 kW | 6.00 kW |
| SCOP | 4.21 | 3.29 |
| Tbiv | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 5.48 kW | 5.54 kW |
| COP Tj = -7°C | 2.93 | 2.26 |
| Pdh Tj = +2°C | 3.28 kW | 3.41 kW |
| COP Tj = +2°C | 4.18 | 3.27 |
| Pdh Tj = +7°C | 2.86 kW | 2.71 kW |
| COP Tj = +7°C | 5.43 | 4.09 |
| Pdh Tj = 12°C | 3.34 kW | 3.19 kW |
| COP Tj = 12°C | 6.96 | 5.26 |
| Pdh Tj = Tbiv | 5.48 kW | 5.54 kW |
| COP Tj = Tbiv | 2.93 | 2.26 |



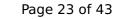


| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.47 kW | 2.67 kW |
|-----------------------------------------------------|-------------|-------------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.82 | 1.88 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98 | 0.98 |
| WTOL | 60 °C | 60 °C |
| Poff | 27 W | 27 W |
| РТО | 63 W | 63 W |
| PSB | 27 W | 27 W |
| PCK | 35 W | 35 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.75 kW | 3.55 kW |
| Annual energy consumption Qhe | 3052 kWh | 3910 kWh |

Warmer Climate

| EN 12102-1 | | |
|--------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 50 dB(A) | 50 dB(A) |

| EN 14825 | | |
|------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| η_{S} | 207 % | 149 % |
| Prated | 7.00 kW | 7.00 kW |
| | | |





| SCOP | 5.25 | 3.80 |
|-------------------------------------------------------|-------------|-------------|
| Tbiv | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| Pdh Tj = $+2$ °C | 6.70 kW | 6.89 kW |
| COP Tj = +2°C | 3.38 | 2.50 |
| Pdh Tj = $+7^{\circ}$ C | 4.31 kW | 4.47 kW |
| $COPTj = +7^{\circ}C$ | 4.81 | 3.28 |
| Pdh Tj = 12°C | 3.32 kW | 3.16 kW |
| COP Tj = 12°C | 6.73 | 4.98 |
| Pdh Tj = Tbiv | 6.70 kW | 6.89 kW |
| COP Tj = Tbiv | 3.38 | 2.50 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 6.70 kW | 6.89 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.38 | 2.50 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh | 0.98 | 0.98 |
| WTOL | 60 °C | 60 °C |
| Poff | 27 W | 27 W |
| РТО | 63 W | 63 W |
| PSB | 27 W | 27 W |
| РСК | 35 W | 35 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| | • | |



| Ar | nnual energy consumption Qhe | 1704 kWh | 2420 kWh | |
|----|------------------------------|----------|----------|--|
| | | | | |

Colder Climate

| EN 12102-1 | | | |
|--------------------------|-----------------|--------------------|--|
| | Low temperature | Medium temperature | |
| Sound power level indoor | 50 dB(A) | 50 dB(A) | |

| EN 14825 | | |
|---------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| η_{s} | 138 % | 103 % |
| Prated | 9.00 kW | 9.00 kW |
| SCOP | 3.53 | 2.64 |
| Tbiv | -7 °C | -7 °C |
| TOL | -20 °C | -13 °C |
| Pdh Tj = -7°C | 5.57 kW | 5.31 kW |
| COP Tj = -7°C | 3.14 | 2.52 |
| Pdh Tj = +2°C | 3.45 kW | 3.28 kW |
| COP Tj = +2°C | 4.51 | 3.50 |
| Pdh Tj = +7°C | 2.89 kW | 2.78 kW |
| COP Tj = +7°C | 5.78 | 4.56 |
| Pdh Tj = 12°C | 3.34 kW | 3.23 kW |
| | | · |



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| COP Tj = 12°C | 6.96 | 5.59 |
|-----------------------------------------------------|-------------|-------------|
| Pdh Tj = Tbiv | 5.57 kW | 5.31 kW |
| COP Tj = Tbiv | 3.14 | 2.52 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.36 kW | 2.58 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.55 | 2.09 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98 | 0.98 |
| WTOL | 60 °C | 60 °C |
| Poff | 27 W | 27 W |
| РТО | 63 W | 63 W |
| PSB | 27 W | 27 W |
| PCK | 35 W | 35 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 9.25 kW | 8.76 kW |
| Annual energy consumption Qhe | 6468 kWh | 8174 kWh |

Model: THZ 5.5 eco DHW

| Configure model | | |
|-------------------------------------|-----------------|--|
| Model name | THZ 5.5 eco DHW | |
| Application | Heating + DHW | |
| Units | Indoor | |
| Climate Zone | n/a | |
| Reversibility | No | |
| Cooling mode application (optional) | n/a | |

| General Data | | |
|--------------|-------------|--|
| Power supply | 1x230V 50Hz | |

Heating

| EN 14511-2 | |
|--------------------|---------|
| Medium temperature | |
| Heat output | 3.84 kW |
| El input | 1.44 kW |
| СОР | 2.66 |

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

Average Climate





| EN 12102-1 | |
|--------------------------|--------------------|
| | Medium temperature |
| Sound power level indoor | 52 dB(A) |

| EN 14825 | |
|------------------------|--------------------|
| | Medium temperature |
| η_{s} | 121 % |
| Prated | 6.00 kW |
| SCOP | 3.11 |
| Tbiv | -7 °C |
| TOL | -10 °C |
| Pdh Tj = -7°C | 5.54 kW |
| COP Tj = -7°C | 2.26 |
| Pdh Tj = +2°C | 3.41 kW |
| COP Tj = +2°C | 3.27 |
| Pdh Tj = +7°C | 2.71 kW |
| $COP Tj = +7^{\circ}C$ | 4.09 |
| Pdh Tj = 12°C | 3.19 kW |
| COP Tj = 12°C | 5.29 |
| Pdh Tj = Tbiv | 5.54 kW |
| COP Tj = Tbiv | 2.26 |



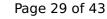
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This information was generated by the HP KEYMARK database on 18 Mar 2022

| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 2.67 kW |
|-----------------------------------------------------|-------------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 1.88 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98 |
| WTOL | 60 °C |
| Poff | 27 W |
| РТО | 63 W |
| PSB | 27 W |
| PCK | 35 W |
| Supplementary Heater: Type of energy input | Electricity |
| Supplementary Heater: PSUP | 3.55 kW |
| Annual energy consumption Qhe | 4138 kWh |

Domestic Hot Water (DHW)

Average Climate





| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| СОР | 2.70 |
| Heating up time | 02:06 h:min |
| Standby power input | 132.0 W |
| Reference hot water temperature | 57.0 °C |
| Mixed water at 40°C | 352 I |
| Efficiency ηDHW | 111 % |



Model: THZ 504 DHW

| Configure model | | |
|-------------------------------------|---------------|--|
| Model name | THZ 504 DHW | |
| Application | Heating + DHW | |
| Units | Indoor | |
| Climate Zone | n/a | |
| Reversibility | No | |
| Cooling mode application (optional) | n/a | |

| General Data | | |
|--------------------------|--|--|
| Power supply 1x230V 50Hz | | |

Heating

| EN 14511-2 | |
|--------------------|---------|
| Medium temperature | |
| Heat output | 3.84 kW |
| El input | 1.44 kW |
| СОР | 2.66 |

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

Average Climate



| EN 12102-1 | |
|--------------------------|--------------------|
| | Medium temperature |
| Sound power level indoor | 50 dB(A) |

| EN 14825 | |
|------------------------|--------------------|
| | Medium temperature |
| η_s | 128 % |
| Prated | 7.00 kW |
| SCOP | 3.27 |
| Tbiv | -7 °C |
| TOL | -10 °C |
| Pdh Tj = -7°C | 5.87 kW |
| COP Tj = -7°C | 2.26 |
| Pdh Tj = +2°C | 3.52 kW |
| $COP Tj = +2^{\circ}C$ | 3.27 |
| Pdh Tj = +7°C | 2.72 kW |
| $COP Tj = +7^{\circ}C$ | 4.14 |
| Pdh Tj = 12°C | 3.20 kW |
| COP Tj = 12°C | 5.29 |
| Pdh Tj = Tbiv | 5.87 kW |
| COP Tj = Tbiv | 2.26 |
| | |



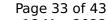
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This information was generated by the HP KEYMARK database on 18 Mar 2022

| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 2.67 kW |
|-----------------------------------------------------|-------------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 1.88 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98 |
| WTOL | 60 °C |
| Poff | 27 W |
| РТО | 63 W |
| PSB | 27 W |
| PCK | 35 W |
| Supplementary Heater: Type of energy input | Electricity |
| Supplementary Heater: PSUP | 3.97 kW |
| Annual energy consumption Qhe | 4199 kWh |

Domestic Hot Water (DHW)

Average Climate





| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| СОР | 2.70 |
| Heating up time | 02:06 h:min |
| Standby power input | 132.0 W |
| Reference hot water temperature | 57.0 °C |
| Mixed water at 40°C | 352 I |
| Efficiency ηDHW | 111 % |



Model: THZ 5.5 SOL DHW

| Configure model | |
|-------------------------------------|-----------------|
| Model name | THZ 5.5 SOL DHW |
| Application | Heating + DHW |
| Units | Indoor |
| Climate Zone | n/a |
| Reversibility | No |
| Cooling mode application (optional) | n/a |

| General Data | | |
|--------------|-------------|--|
| Power supply | 1x230V 50Hz | |

Heating

| EN 14511-2 | |
|--------------------|---------|
| Medium temperature | |
| Heat output | 3.84 kW |
| El input | 1.44 kW |
| СОР | 2.66 |

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

Average Climate



| | Medium temperature |
|-----------------------------------------------------|--------------------|
| η_{s} | 121 % |
| Prated | 6.00 kW |
| SCOP | 3.11 |
| Tbiv | -7 °C |
| TOL | -10 °C |
| Pdh Tj = -7°C | 5.54 kW |
| $COP Tj = -7^{\circ}C$ | 2.26 |
| Pdh Tj = $+2$ °C | 3.41 kW |
| COP Tj = +2°C | 3.27 |
| Pdh Tj = $+7^{\circ}$ C | 2.71 kW |
| $COP Tj = +7^{\circ}C$ | 4.09 |
| Pdh Tj = 12°C | 3.19 kW |
| COP Tj = 12°C | 5.29 |
| Pdh Tj = Tbiv | 5.54 kW |
| COP Tj = Tbiv | 2.26 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 2.67 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 1.88 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98 |
| WTOL | 60 °C |





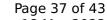
| This information was generated by the HP KEYMARK database on 18 Mar 2022 | |
|--------------------------------------------------------------------------|--|
| | |

| Poff | 27 W |
|--------------------------------------------|-------------|
| PTO | 63 W |
| PSB | 27 W |
| PCK | 35 W |
| Supplementary Heater: Type of energy input | Electricity |
| Supplementary Heater: PSUP | 3.55 kW |
| Annual energy consumption Qhe | 4138 kWh |

| EN 12102-1 | |
|--------------------------|--------------------|
| | Medium temperature |
| Sound power level indoor | 50 dB(A) |

Domestic Hot Water (DHW)

Average Climate





| EN 16147 | |
|---------------------------------|-------------|
| Declared load profile | XL |
| СОР | 2.70 |
| Heating up time | 02:06 h:min |
| Standby power input | 132.0 W |
| Reference hot water temperature | 57.0 °C |
| Mixed water at 40°C | 352 I |
| Efficiency ηDHW | 111 % |

Model: THZ 8.5 Flex

| Configure model | |
|-------------------------------------|---------------------------------|
| Model name | THZ 8.5 Flex |
| Application | Heating (medium temp) |
| Units | Indoor |
| Climate Zone | Colder Climate + Warmer Climate |
| Reversibility | No |
| Cooling mode application (optional) | n/a |

| General Data | | |
|--------------|-------------|--|
| Power supply | 1x230V 50Hz | |

Heating

COP

| | EN 14511-2 | | |
|------------------|------------|--------------------|--|
| Low temperature | | Medium temperature | |
| Heat output | 4.40 kW | 3.84 kW | |
| El input 0.93 kW | | 1.44 kW | |

2.66

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

Average Climate

4.74



| EN 12102-1 | | |
|--------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 52 dB(A) | 52 dB(A) |

| EN 14825 | | |
|------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| η_{s} | 155 % | 121 % |
| Prated | 10.00 kW | 7.00 kW |
| SCOP | 3.95 | 3.10 |
| Tbiv | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 8.42 kW | 5.87 kW |
| COP Tj = -7°C | 2.76 | 2.26 |
| Pdh Tj = +2°C | 5.12 kW | 3.52 kW |
| COP Tj = +2°C | 3.94 | 3.27 |
| Pdh Tj = +7°C | 3.26 kW | 2.72 kW |
| $COP Tj = +7^{\circ}C$ | 5.53 | 4.14 |
| Pdh Tj = 12°C | 3.35 kW | 3.20 kW |
| COP Tj = 12°C | 7.09 | 5.29 |
| Pdh Tj = Tbiv | 8.42 kW | 5.87 kW |
| COP Tj = Tbiv | 2.76 | 2.26 |



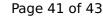


| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.37 kW | 2.67 kW |
|-----------------------------------------------------|-------------|-------------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.69 | 1.88 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98 | 0.98 |
| WTOL | 60 °C | 60 °C |
| Poff | 27 W | 27 W |
| РТО | 63 W | 63 W |
| PSB | 27 W | 27 W |
| PCK | 35 W | 35 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 1.15 kW | 3.97 kW |
| Annual energy consumption Qhe | 4982 kWh | 4427 kWh |

Warmer Climate

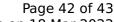
| EN 12102-1 | | |
|--------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 52 dB(A) | 52 dB(A) |

| EN 14825 | | |
|------------------------------------|---------|---------|
| Low temperature Medium temperature | | |
| η_{S} | 184 % | 133 % |
| Prated | 9.00 kW | 8.00 kW |
| | | |





| SCOP | 4.67 | 3.41 |
|-----------------------------------------------------|-------------|-------------|
| Tbiv | 2 °C | 0 °C |
| TOL | 2 °C | 0 °C |
| Pdh Tj = +2°C | 8.81 kW | 8.32 kW |
| COP Tj = +2°C | 3.18 | 2.34 |
| Pdh Tj = $+7^{\circ}$ C | 5.77 kW | 5.41 kW |
| $COPTj = +7^{\circ}C$ | 4.57 | 3.26 |
| Pdh Tj = 12°C | 3.34 kW | 3.17 kW |
| COP Tj = 12°C | 6.89 | 5.11 |
| Pdh Tj = Tbiv | 8.81 kW | 8.32 kW |
| COP Tj = Tbiv | 3.18 | 2.34 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.81 kW | 8.32 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.18 | 2.34 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98 | 0.98 |
| WTOL | 60 °C | 60 °C |
| Poff | 24 W | 24 W |
| РТО | 69 W | 69 W |
| PSB | 24 W | 24 W |
| РСК | 55 W | 55 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |





| Annual energy consumption Qhe | 2517 kWh | 3264 kWh | |
|-------------------------------|----------|----------|--|
| | | ı | |

Colder Climate

| EN 12102-1 | | |
|--------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 52 dB(A) | 52 dB(A) |

| EN 14825 | | |
|---------------|---------------|-------------------------|
| | Low temperate | ture Medium temperature |
| η_{s} | 129 % | 100 % |
| Prated | 14.00 kW | 11.00 kW |
| SCOP | 3.30 | 2.58 |
| Tbiv | -7 °C | -7 °C |
| TOL | -20 °C | -13 °C |
| Pdh Tj = -7°C | 8.62 kW | 6.38 kW |
| COP Tj = -7°C | 2.96 | 2.50 |
| Pdh Tj = +2°C | 5.28 kW | 3.92 kW |
| COP Tj = +2°C | 4.20 | 3.48 |
| Pdh Tj = +7°C | 3.42 kW | 2.79 kW |
| COP Tj = +7°C | 5.87 | 4.68 |
| Pdh Tj = 12°C | 3.35 kW | 3.24 kW |
| | , | |



| | * | |
|-----------------------------------------------------|-------------|-------------|
| COP Tj = 12°C | 7.12 | 5.67 |
| Pdh Tj = Tbiv | 8.62 kW | 6.38 kW |
| COP Tj = Tbiv | 2.56 | 2.50 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.73 kW | 2.58 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.56 | 2.09 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98 | 0.98 |
| WTOL | 60 °C | 60 °C |
| Poff | 27 W | 27 W |
| РТО | 63 W | 63 W |
| PSB | 27 W | 27 W |
| PCK | 35 W | 35 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 14.24 kW | 10.57 kW |
| Annual energy consumption Qhe | 10634 kWh | 10109 kWh |