

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

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|---------------------|---|----------|------------|
| Summary of | TTF 35 | Reg. No. | 011-1W0043 |
| Certificate Holder | | | |
| Name | tecalor GmbH | | |
| Address | Fürstenbergerstr. 77 | Zip | 37603 |
| City | Holzminden | Country | Germany |
| Certification Body | DIN CERTCO Gesellschaft für Konformitätsbewertung mbH | | |
| Subtype title | TTF 35 | | |
| Heat Pump Type | Brine/Water | | |
| Refrigerant | R410A | | |
| Mass of Refrigerant | 10 kg | | |
| Certification Date | 01.11.2016 | | |

Model: TTF 35

| Configure model | |
|-------------------------------------|---------------------------------|
| Model name | TTF 35 |
| Application | Heating (medium temp) |
| Units | Indoor + Outdoor |
| Climate Zone | Colder Climate + Warmer Climate |
| Reversibility | No |
| Cooling mode application (optional) | n/a |

| General Data | |
|--------------|-------------|
| Power supply | 3x400V 50Hz |

Heating

| EN 14511-2 | | |
|-------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Heat output | 37.70 kW | 34.49 kW |
| El input | 7.98 kW | 11.47 kW |
| COP | 4.72 | 3.01 |

| 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

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EN 12102-1

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 56 dB(A) | 56 dB(A) |
| Sound power level outdoor | 56 dB(A) | 56 dB(A) |

EN 14825

| | Low temperature | Medium temperature |
|---------------|-----------------|--------------------|
| η_s | 200 % | 133 % |
| Prated | 38.00 kW | 34.00 kW |
| SCOP | 5.19 | 3.52 |
| Tbiv | -10 °C | -10 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 38.10 kW | 34.50 kW |
| COP Tj = -7°C | 4.84 | 2.95 |
| Pdh Tj = +2°C | 38.60 kW | 35.80 kW |
| COP Tj = +2°C | 5.20 | 3.50 |
| Pdh Tj = +7°C | 39.00 kW | 37.50 kW |
| COP Tj = +7°C | 5.96 | 4.42 |
| Pdh Tj = 12°C | 38.00 kW | 34.10 kW |
| COP Tj = 12°C | 4.75 | 2.82 |
| Pdh Tj = Tbiv | 38.00 kW | 34.10 kW |

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|---|-------------|-------------|
| COP Tj = Tbiv | 4.78 | 2.82 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 38.00 kW | 34.10 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 4.78 | 2.82 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 0 W | 0 W |
| PTO | 7 W | 7 W |
| PSB | 7 W | 7 W |
| PCK | 74 W | 74 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Qhe | 15136 kWh | 20029 kWh |

Warmer Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 56 dB(A) | 56 dB(A) |
| Sound power level outdoor | 56 dB(A) | 56 dB(A) |

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

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| | | |
|---|----------|----------|
| η_s | 199 % | 132 % |
| Prated | 38.00 kW | 34.00 kW |
| SCOP | 5.17 | 3.50 |
| Tbiv | 2 °C | 2 °C |
| TOL | 2 °C | 2 °C |
| Pdh Tj = +2°C | 38.00 kW | 34.10 kW |
| COP Tj = +2°C | 4.78 | 2.82 |
| Pdh Tj = +7°C | 38.50 kW | 35.20 kW |
| COP Tj = +7°C | 5.12 | 3.24 |
| Pdh Tj = 12°C | 39.10 kW | 37.00 kW |
| COP Tj = 12°C | 5.69 | 4.08 |
| Pdh Tj = Tbiv | 38.00 kW | 34.10 kW |
| COP Tj = Tbiv | 4.78 | 2.82 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 38.00 kW | 34.10 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 4.78 | 2.82 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 0 W | 0 W |
| PTO | 7 W | 7 W |
| PSB | 7 W | 7 W |
| PCK | 74 W | 74 W |

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| | | |
|--|-------------|-------------|
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.00 kW | 0.00 kW |
| Annual energy consumption Q _{he} | 9834 kWh | 13033 kWh |

Colder Climate

| EN 12102-1 | | |
|---------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 56 dB(A) | 56 dB(A) |
| Sound power level outdoor | 56 dB(A) | 56 dB(A) |

| EN 14825 | | |
|---------------------------------------|------------------------|---------------------------|
| | Low temperature | Medium temperature |
| η_s | 208 % | 139 % |
| Prated | 47.00 kW | 43.00 kW |
| SCOP | 5.41 | 3.66 |
| T _{biv} | -15 °C | -15 °C |
| TOL | -22 °C | -22 °C |
| P _{dh} T _j = -7°C | 38.80 kW | 35.80 kW |
| COP T _j = -7°C | 5.38 | 3.48 |
| P _{dh} T _j = +2°C | 39.10 kW | 36.70 kW |
| COP T _j = +2°C | 5.67 | 3.91 |

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| | | |
|---|-------------|-------------|
| Pdh Tj = +7°C | 39.30 kW | 37.40 kW |
| COP Tj = +7°C | 5.90 | 4.32 |
| Pdh Tj = 12°C | 39.30 kW | 37.90 kW |
| COP Tj = 12°C | 5.94 | 4.66 |
| Pdh Tj = Tbiv | 38.60 kW | 34.10 kW |
| COP Tj = Tbiv | 5.26 | 2.82 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 38.60 kW | 34.10 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 5.26 | 2.82 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.90 | 0.90 |
| WTOL | 60 °C | 60 °C |
| Poff | 0 W | 0 W |
| PTO | 7 W | 7 W |
| PSB | 7 W | 7 W |
| PCK | 74 W | 74 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 9.32 kW | 9.15 kW |
| Annual energy consumption Qhe | 21594 kWh | 28986 kWh |