

Subtype TTF 07, TTF 07 cool, TTC 07, TTC 07 cool

| | |
|---------------------|---|
| Certificate Holder | tecalor GmbH |
| Address | Lütztringer Weg 3 |
| ZIP | 37603 |
| City | Holzminden |
| Country | DE |
| Certification Body | DIN CERTCO Gesellschaft für Konformitätsbewertung mbH |
| Subtype title | TTF 07, TTF 07 cool, TTC 07, TTC 07 cool |
| Registration number | 011-1W0040 |
| Heat Pump Type | Brine/Water |
| Refrigerant | R410A |
| Mass of Refrigerant | 1.72 kg |
| Certification Date | 28.10.2016 |

Model TTF 07, all climates

| | |
|-------------------------------------|--------------------------------|
| Model name | TTF 07, all climates |
| Application | Heating (low 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 | 3x400V 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 |
| Starting and operating test | passed |

EN 14511-2 | Heating

| | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 7.50 kW | |
| El input | 1.55 kW | |
| COP | 4.84 | |

EN 12102-1 | Average Climate

| | Low temperature | Medium temperature |
|--------------------------|-----------------|--------------------|
| Sound power level indoor | 44 dB(A) | |

EN 14825 | Average Climate

| | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| η_s | 205 % | |
| Prated | 8.00 kW | |
| SCOP | 5.32 | |
| Tbiv | -10 °C | |
| TOL | -10 °C | |
| Pdh Tj = -7°C | 7.50 kW | |
| COP Tj = -7°C | 4.90 | |
| Cdh Tj = -7 °C | 0.90 | |
| Pdh Tj = +2°C | 7.60 kW | |
| COP Tj = +2 °C | 5.25 | |
| Cdh Tj = +2 °C | 0.90 | |
| Pdh Tj = +7°C | 7.60 kW | |
| COP Tj = +7 °C | 5.60 | |
| Cdh Tj = +7 °C | 0.90 | |

| | |
|---|-------------|
| Pdh Tj = 12°C | 7.70 kW |
| COP Tj = 12°C | 5.99 |
| Cdh Tj = +12 °C | 0.90 |
| Pdh Tj = Tbiv | 7.50 kW |
| COP Tj = Tbiv | 4.84 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.50 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 4.84 |
| WTOL | 65 °C |
| Poff | 0 W |
| PTO | 54 W |
| PSB | 9 W |
| PCK | 0 W |
| Supplementary Heater: Type of energy input | Electricity |
| Supplementary Heater: PSUP | 0.00 kW |
| Annual energy consumption Qhe | 2912 kWh |

EN 14825 | Colder Climate

| | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| ηs | 211 % | |
| Prated | 9.00 kW | |
| SCOP | 5.48 | |
| Tbiv | -15 °C | |
| TOL | -22 °C | |
| Pdh Tj = -7°C | 7.60 kW | |
| COP Tj = -7°C | 5.42 | |
| Cdh Tj = -7 °C | 0.90 | |
| Pdh Tj = +2°C | 7.70 kW | |
| COP Tj = +2°C | 5.70 | |
| Cdh Tj = +2 °C | 0.90 | |
| Pdh Tj = +7°C | 7.70 kW | |
| COP Tj = +7°C | 5.93 | |
| Cdh Tj = +7 °C | 0.90 | |
| Pdh Tj = 12°C | 7.70 kW | |
| COP Tj = 12°C | 5.97 | |
| Cdh Tj = +12 °C | 0.90 | |
| Pdh Tj = Tbiv | 7.60 kW | |
| COP Tj = Tbiv | 5.31 | |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.60 kW | |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 5.31 | |
| WTOL | 65 °C | |
| Poff | 0 W | |
| PTO | 54 W | |

| | |
|--|-------------|
| PSB | 9 W |
| PCK | 0 W |
| Supplementary Heater: Type of energy input | Electricity |
| Supplementary Heater: PSUP | 1.80 kW |
| Annual energy consumption Qhe | 4184 kWh |
| Pdh Tj = -15°C (if TOL) | 7.60 |
| COP Tj = -15°C (if TOL) | 5.31 |
| Cdh Tj = -15 °C | 0.90 |

EN 14825 | Warmer Climate

| | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| ηs | 204 % | |
| Prated | 8.00 kW | |
| SCOP | 5.31 | |
| Tbiv | 2 °C | |
| TOL | 0 °C | |
| Pdh Tj = +2°C | 7.50 kW | |
| COP Tj = +2°C | 4.84 | |
| Cdh Tj = +2 °C | 0.90 | |
| Pdh Tj = +7°C | 7.60 kW | |
| COP Tj = +7°C | 5.17 | |
| Cdh Tj = +7 °C | 0.90 | |
| Pdh Tj = 12°C | 7.70 kW | |
| COP Tj = 12°C | 5.73 | |
| Cdh Tj = +12 °C | 0.90 | |
| Pdh Tj = Tbiv | 7.50 kW | |
| COP Tj = Tbiv | 4.84 | |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.50 kW | |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 4.84 | |
| WTOL | 65 °C | |
| Poff | 0 W | |
| PTO | 54 W | |
| PSB | 9 W | |
| PCK | 0 W | |
| Supplementary Heater: Type of energy input | Electricity | |
| Supplementary Heater: PSUP | 0.00 kW | |
| Annual energy consumption Qhe | 1888 kWh | |

Model TTF 07, average climates

| | |
|-------------------------------------|--------------------------|
| Model name | TTF 07, average climates |
| Application | Heating (medium temp) |
| Units | Indoor |
| Climate zone (for heating) | n/a |
| Cooling mode application (optional) | n/a |
| Any additional heat sources | n/a |

General data

| | |
|------------------|-------------|
| Power supply | 3x400V 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 |
| Starting and operating test | passed |

EN 14511-2 | Heating

| | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 7.50 kW | 6.91 kW |
| El input | 1.55 kW | 2.35 kW |
| COP | 4.84 | 2.94 |

EN 12102-1 | Average Climate

| | Low temperature | Medium temperature |
|--------------------------|-----------------|--------------------|
| Sound power level indoor | 44 dB(A) | 44 dB(A) |

EN 14825 | Average Climate

| | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| η_s | 205 % | 139 % |
| Prated | 8.00 kW | 7.00 kW |
| SCOP | 5.32 | 3.67 |
| Tbiv | -10 °C | -10 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 7.50 kW | 7.00 kW |
| COP Tj = -7°C | 4.90 | 3.07 |
| Cdh Tj = -7 °C | 0.90 | 0.90 |
| Pdh Tj = +2°C | 7.60 kW | 7.20 kW |
| COP Tj = +2°C | 5.25 | 3.61 |
| Cdh Tj = + 2 °C | 0.90 | 0.90 |
| Pdh Tj = +7°C | 7.60 kW | 7.30 kW |
| COP Tj = +7°C | 5.60 | 4.02 |
| Cdh Tj = + 7 °C | 0.90 | 0.90 |

| | | |
|---|-------------|-------------|
| Pdh Tj = 12°C | 7.70 kW | 7.40 kW |
| COP Tj = 12°C | 5.99 | 4.52 |
| Cdh Tj = +12 °C | 0.90 | 0.90 |
| Pdh Tj = Tbiv | 7.50 kW | 6.90 kW |
| COP Tj = Tbiv | 4.84 | 2.94 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.50 kW | 6.90 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 4.84 | 2.94 |
| WTOL | 65 °C | 65 °C |
| Poff | 0 W | 0 W |
| PTO | 54 W | 54 W |
| PSB | 9 W | 9 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 | 2912 kWh | 3891 kWh |

Model TTF 07 cool, all climates

| | |
|-------------------------------------|--------------------------------|
| Model name | TTF 07 cool, all climates |
| Application | Heating (low 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 | 3x400V 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 |
| Starting and operating test | passed |

EN 14511-2 | Heating

| | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 7.50 kW | |
| El input | 1.55 kW | |
| COP | 4.84 | |

EN 12102-1 | Average Climate

| | Low temperature | Medium temperature |
|--------------------------|-----------------|--------------------|
| Sound power level indoor | 44 dB(A) | |

EN 14825 | Average Climate

| | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| η_s | 205 % | |
| Prated | 8.00 kW | |
| SCOP | 5.32 | |
| Tbiv | -10 °C | |
| TOL | -10 °C | |
| Pdh Tj = -7°C | 7.50 kW | |
| COP Tj = -7°C | 4.90 | |
| Cdh Tj = -7 °C | 0.90 | |
| Pdh Tj = +2°C | 7.60 kW | |
| COP Tj = +2 °C | 5.25 | |
| Cdh Tj = +2 °C | 0.90 | |
| Pdh Tj = +7°C | 7.60 kW | |
| COP Tj = +7 °C | 5.60 | |
| Cdh Tj = +7 °C | 0.90 | |

| | |
|---|-------------|
| Pdh Tj = 12°C | 7.70 kW |
| COP Tj = 12°C | 5.99 |
| Cdh Tj = +12 °C | 0.90 |
| Pdh Tj = Tbiv | 7.50 kW |
| COP Tj = Tbiv | 4.84 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.50 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 4.84 |
| WTOL | 65 °C |
| Poff | 0 W |
| PTO | 54 W |
| PSB | 9 W |
| PCK | 0 W |
| Supplementary Heater: Type of energy input | Electricity |
| Supplementary Heater: PSUP | 0.00 kW |
| Annual energy consumption Qhe | 2912 kWh |

EN 14825 | Colder Climate

| | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| ηs | 211 % | |
| Prated | 9.00 kW | |
| SCOP | 5.48 | |
| Tbiv | -15 °C | |
| TOL | -22 °C | |
| Pdh Tj = -7°C | 7.60 kW | |
| COP Tj = -7°C | 5.42 | |
| Cdh Tj = -7 °C | 0.90 | |
| Pdh Tj = +2°C | 7.70 kW | |
| COP Tj = +2°C | 5.70 | |
| Cdh Tj = +2 °C | 0.90 | |
| Pdh Tj = +7°C | 7.70 kW | |
| COP Tj = +7°C | 5.93 | |
| Cdh Tj = +7 °C | 0.90 | |
| Pdh Tj = 12°C | 7.70 kW | |
| COP Tj = 12°C | 5.97 | |
| Cdh Tj = +12 °C | 0.90 | |
| Pdh Tj = Tbiv | 7.60 kW | |
| COP Tj = Tbiv | 5.31 | |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.60 kW | |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 5.31 | |
| WTOL | 65 °C | |
| Poff | 0 W | |
| PTO | 54 W | |

| | |
|--|-------------|
| PSB | 9 W |
| PCK | 0 W |
| Supplementary Heater: Type of energy input | Electricity |
| Supplementary Heater: PSUP | 1.80 kW |
| Annual energy consumption Qhe | 4184 kWh |
| Pdh Tj = -15°C (if TOL) | 7.60 |
| COP Tj = -15°C (if TOL) | 5.31 |
| Cdh Tj = -15 °C | 0.90 |

EN 14825 | Warmer Climate

| | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| ηs | 204 % | |
| Prated | 8.00 kW | |
| SCOP | 5.31 | |
| Tbiv | 2 °C | |
| TOL | 0 °C | |
| Pdh Tj = +2°C | 7.50 kW | |
| COP Tj = +2°C | 4.84 | |
| Cdh Tj = +2 °C | 0.90 | |
| Pdh Tj = +7°C | 7.60 kW | |
| COP Tj = +7°C | 5.17 | |
| Cdh Tj = +7 °C | 0.90 | |
| Pdh Tj = 12°C | 7.70 kW | |
| COP Tj = 12°C | 5.73 | |
| Cdh Tj = +12 °C | 0.90 | |
| Pdh Tj = Tbiv | 7.50 kW | |
| COP Tj = Tbiv | 4.84 | |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.50 kW | |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 4.84 | |
| WTOL | 65 °C | |
| Poff | 0 W | |
| PTO | 54 W | |
| PSB | 9 W | |
| PCK | 0 W | |
| Supplementary Heater: Type of energy input | Electricity | |
| Supplementary Heater: PSUP | 0.00 kW | |
| Annual energy consumption Qhe | 1888 kWh | |

Model TTF 07 cool, average climates

| | |
|-------------------------------------|-------------------------------|
| Model name | TTF 07 cool, average climates |
| Application | Heating (medium temp) |
| Units | Indoor |
| Climate zone (for heating) | n/a |
| Cooling mode application (optional) | n/a |
| Any additional heat sources | n/a |

General data

| | |
|------------------|-------------|
| Power supply | 3x400V 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 |
| Starting and operating test | passed |

EN 14511-2 | Heating

| | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 7.50 kW | 6.91 kW |
| El input | 1.55 kW | 2.35 kW |
| COP | 4.84 | 2.94 |

EN 12102-1 | Average Climate

| | Low temperature | Medium temperature |
|--------------------------|-----------------|--------------------|
| Sound power level indoor | 44 dB(A) | 44 dB(A) |

EN 14825 | Average Climate

| | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| η_s | 205 % | 139 % |
| Prated | 8.00 kW | 7.00 kW |
| SCOP | 5.32 | 3.67 |
| Tbiv | -10 °C | -10 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 7.50 kW | 7.00 kW |
| COP Tj = -7°C | 4.90 | 3.07 |
| Cdh Tj = -7 °C | 0.90 | 0.90 |
| Pdh Tj = +2°C | 7.60 kW | 7.20 kW |
| COP Tj = +2°C | 5.25 | 3.61 |
| Cdh Tj = +2 °C | 0.90 | 0.90 |
| Pdh Tj = +7°C | 7.60 kW | 7.30 kW |
| COP Tj = +7°C | 5.60 | 4.02 |
| Cdh Tj = +7 °C | 0.90 | 0.90 |

| | | |
|---|-------------|-------------|
| Pdh Tj = 12°C | 7.70 kW | 7.40 kW |
| COP Tj = 12°C | 5.99 | 4.52 |
| Cdh Tj = +12 °C | 0.90 | 0.90 |
| Pdh Tj = Tbiv | 7.50 kW | 6.90 kW |
| COP Tj = Tbiv | 4.84 | 2.94 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.50 kW | 6.90 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 4.84 | 2.94 |
| WTOL | 65 °C | 65 °C |
| Poff | 0 W | 0 W |
| PTO | 54 W | 54 W |
| PSB | 9 W | 9 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 | 2912 kWh | 3891 kWh |

Model TTC 07, all climates

| | |
|-------------------------------------|--------------------------------|
| Model name | TTC 07, all climates |
| Application | Heating (low 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 | 3x400V 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 |
| Starting and operating test | passed |

EN 14511-2 | Heating

| | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 7.50 kW | |
| El input | 1.55 kW | |
| COP | 4.84 | |

EN 12102-1 | Average Climate

| | Low temperature | Medium temperature |
|--------------------------|-----------------|--------------------|
| Sound power level indoor | 44 dB(A) | |

EN 14825 | Average Climate

| | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| η_s | 205 % | |
| Prated | 8.00 kW | |
| SCOP | 5.32 | |
| Tbiv | -10 °C | |
| TOL | -10 °C | |
| Pdh Tj = -7°C | 7.50 kW | |
| COP Tj = -7°C | 4.90 | |
| Cdh Tj = -7 °C | 0.90 | |
| Pdh Tj = +2°C | 7.60 kW | |
| COP Tj = +2 °C | 5.25 | |
| Cdh Tj = +2 °C | 0.90 | |
| Pdh Tj = +7°C | 7.60 kW | |
| COP Tj = +7 °C | 5.60 | |
| Cdh Tj = +7 °C | 0.90 | |

| | |
|---|-------------|
| Pdh Tj = 12°C | 7.70 kW |
| COP Tj = 12°C | 5.99 |
| Cdh Tj = +12 °C | 0.90 |
| Pdh Tj = Tbiv | 7.50 kW |
| COP Tj = Tbiv | 4.84 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.50 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 4.84 |
| WTOL | 65 °C |
| Poff | 0 W |
| PTO | 54 W |
| PSB | 9 W |
| PCK | 0 W |
| Supplementary Heater: Type of energy input | Electricity |
| Supplementary Heater: PSUP | 0.00 kW |
| Annual energy consumption Qhe | 2912 kWh |

EN 14825 | Colder Climate

| | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| ηs | 211 % | |
| Prated | 9.00 kW | |
| SCOP | 5.48 | |
| Tbiv | -15 °C | |
| TOL | -22 °C | |
| Pdh Tj = -7°C | 7.60 kW | |
| COP Tj = -7°C | 5.42 | |
| Cdh Tj = -7 °C | 0.90 | |
| Pdh Tj = +2°C | 7.70 kW | |
| COP Tj = +2°C | 5.70 | |
| Cdh Tj = +2 °C | 0.90 | |
| Pdh Tj = +7°C | 7.70 kW | |
| COP Tj = +7°C | 5.93 | |
| Cdh Tj = +7 °C | 0.90 | |
| Pdh Tj = 12°C | 7.70 kW | |
| COP Tj = 12°C | 5.97 | |
| Cdh Tj = +12 °C | 0.90 | |
| Pdh Tj = Tbiv | 7.60 kW | |
| COP Tj = Tbiv | 5.31 | |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.60 kW | |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 5.31 | |
| WTOL | 65 °C | |
| Poff | 0 W | |
| PTO | 54 W | |

| | |
|--|-------------|
| PSB | 9 W |
| PCK | 0 W |
| Supplementary Heater: Type of energy input | Electricity |
| Supplementary Heater: PSUP | 1.80 kW |
| Annual energy consumption Qhe | 4184 kWh |
| Pdh Tj = -15°C (if TOL) | 7.60 |
| COP Tj = -15°C (if TOL) | 5.31 |
| Cdh Tj = -15 °C | 0.90 |

EN 14825 | Warmer Climate

| | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| ηs | 204 % | |
| Prated | 8.00 kW | |
| SCOP | 5.31 | |
| Tbiv | 2 °C | |
| TOL | 0 °C | |
| Pdh Tj = +2°C | 7.50 kW | |
| COP Tj = +2°C | 4.84 | |
| Cdh Tj = +2 °C | 0.90 | |
| Pdh Tj = +7°C | 7.60 kW | |
| COP Tj = +7°C | 5.17 | |
| Cdh Tj = +7 °C | 0.90 | |
| Pdh Tj = 12°C | 7.70 kW | |
| COP Tj = 12°C | 5.73 | |
| Cdh Tj = +12 °C | 0.90 | |
| Pdh Tj = Tbiv | 7.50 kW | |
| COP Tj = Tbiv | 4.84 | |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.50 kW | |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 4.84 | |
| WTOL | 65 °C | |
| Poff | 0 W | |
| PTO | 54 W | |
| PSB | 9 W | |
| PCK | 0 W | |
| Supplementary Heater: Type of energy input | Electricity | |
| Supplementary Heater: PSUP | 0.00 kW | |
| Annual energy consumption Qhe | 1888 kWh | |

Model TTC 07, average climates

| | |
|-------------------------------------|--------------------------|
| Model name | TTC 07, average climates |
| Application | Heating (medium temp) |
| Units | Indoor |
| Climate zone (for heating) | n/a |
| Cooling mode application (optional) | n/a |
| Any additional heat sources | n/a |

General data

| | |
|------------------|-------------|
| Power supply | 3x400V 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 |
| Starting and operating test | passed |

EN 14511-2 | Heating

| | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 7.50 kW | 6.91 kW |
| El input | 1.55 kW | 2.35 kW |
| COP | 4.84 | 2.94 |

EN 12102-1 | Average Climate

| | Low temperature | Medium temperature |
|--------------------------|-----------------|--------------------|
| Sound power level indoor | 44 dB(A) | 44 dB(A) |

EN 14825 | Average Climate

| | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| η_s | 205 % | 139 % |
| Prated | 8.00 kW | 7.00 kW |
| SCOP | 5.32 | 3.67 |
| Tbiv | -10 °C | -10 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 7.50 kW | 7.00 kW |
| COP Tj = -7°C | 4.90 | 3.07 |
| Cdh Tj = -7 °C | 0.90 | 0.90 |
| Pdh Tj = +2°C | 7.60 kW | 7.20 kW |
| COP Tj = +2°C | 5.25 | 3.61 |
| Cdh Tj = + 2 °C | 0.90 | 0.90 |
| Pdh Tj = +7°C | 7.60 kW | 7.30 kW |
| COP Tj = +7°C | 5.60 | 4.02 |
| Cdh Tj = + 7 °C | 0.90 | 0.90 |

| | | |
|---|-------------|-------------|
| Pdh Tj = 12°C | 7.70 kW | 7.40 kW |
| COP Tj = 12°C | 5.99 | 4.52 |
| Cdh Tj = +12 °C | 0.90 | 0.90 |
| Pdh Tj = Tbiv | 7.50 kW | 6.90 kW |
| COP Tj = Tbiv | 4.84 | 2.94 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.50 kW | 6.90 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 4.84 | 2.94 |
| WTOL | 65 °C | 65 °C |
| Poff | 0 W | 0 W |
| PTO | 54 W | 54 W |
| PSB | 9 W | 9 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 | 2912 kWh | 3891 kWh |

Model TTC 07 cool, all climates

| | |
|-------------------------------------|--------------------------------|
| Model name | TTC 07 cool, all climates |
| Application | Heating (low 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 | 3x400V 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 |
| Starting and operating test | passed |

EN 14511-2 | Heating

| | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 7.50 kW | |
| El input | 1.55 kW | |
| COP | 4.84 | |

EN 12102-1 | Average Climate

| | Low temperature | Medium temperature |
|--------------------------|-----------------|--------------------|
| Sound power level indoor | 44 dB(A) | |

EN 14825 | Average Climate

| | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| η_s | 205 % | |
| Prated | 8.00 kW | |
| SCOP | 5.32 | |
| Tbiv | -10 °C | |
| TOL | -10 °C | |
| Pdh Tj = -7°C | 7.50 kW | |
| COP Tj = -7°C | 4.90 | |
| Cdh Tj = -7 °C | 0.90 | |
| Pdh Tj = +2°C | 7.60 kW | |
| COP Tj = +2 °C | 5.25 | |
| Cdh Tj = +2 °C | 0.90 | |
| Pdh Tj = +7°C | 7.60 kW | |
| COP Tj = +7 °C | 5.60 | |
| Cdh Tj = +7 °C | 0.90 | |

| | |
|---|-------------|
| Pdh Tj = 12°C | 7.70 kW |
| COP Tj = 12°C | 5.99 |
| Cdh Tj = +12 °C | 0.90 |
| Pdh Tj = Tbiv | 7.50 kW |
| COP Tj = Tbiv | 4.84 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.50 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 4.84 |
| WTOL | 65 °C |
| Poff | 0 W |
| PTO | 54 W |
| PSB | 9 W |
| PCK | 0 W |
| Supplementary Heater: Type of energy input | Electricity |
| Supplementary Heater: PSUP | 0.00 kW |
| Annual energy consumption Qhe | 2912 kWh |

EN 14825 | Colder Climate

| | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| ηs | 211 % | |
| Prated | 9.00 kW | |
| SCOP | 5.48 | |
| Tbiv | -15 °C | |
| TOL | -22 °C | |
| Pdh Tj = -7°C | 7.60 kW | |
| COP Tj = -7°C | 5.42 | |
| Cdh Tj = -7 °C | 0.90 | |
| Pdh Tj = +2°C | 7.70 kW | |
| COP Tj = +2°C | 5.70 | |
| Cdh Tj = +2 °C | 0.90 | |
| Pdh Tj = +7°C | 7.70 kW | |
| COP Tj = +7°C | 5.93 | |
| Cdh Tj = +7 °C | 0.90 | |
| Pdh Tj = 12°C | 7.70 kW | |
| COP Tj = 12°C | 5.97 | |
| Cdh Tj = +12 °C | 0.90 | |
| Pdh Tj = Tbiv | 7.60 kW | |
| COP Tj = Tbiv | 5.31 | |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.60 kW | |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 5.31 | |
| WTOL | 65 °C | |
| Poff | 0 W | |
| PTO | 54 W | |

| | |
|--|-------------|
| PSB | 9 W |
| PCK | 0 W |
| Supplementary Heater: Type of energy input | Electricity |
| Supplementary Heater: PSUP | 1.80 kW |
| Annual energy consumption Qhe | 4184 kWh |
| Pdh Tj = -15°C (if TOL) | 7.60 |
| COP Tj = -15°C (if TOL) | 5.31 |
| Cdh Tj = -15 °C | 0.90 |

EN 14825 | Warmer Climate

| | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| ηs | 204 % | |
| Prated | 8.00 kW | |
| SCOP | 5.31 | |
| Tbiv | 2 °C | |
| TOL | 0 °C | |
| Pdh Tj = +2°C | 7.50 kW | |
| COP Tj = +2°C | 4.84 | |
| Cdh Tj = +2 °C | 0.90 | |
| Pdh Tj = +7°C | 7.60 kW | |
| COP Tj = +7°C | 5.17 | |
| Cdh Tj = +7 °C | 0.90 | |
| Pdh Tj = 12°C | 7.70 kW | |
| COP Tj = 12°C | 5.73 | |
| Cdh Tj = +12 °C | 0.90 | |
| Pdh Tj = Tbiv | 7.50 kW | |
| COP Tj = Tbiv | 4.84 | |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.50 kW | |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 4.84 | |
| WTOL | 65 °C | |
| Poff | 0 W | |
| PTO | 54 W | |
| PSB | 9 W | |
| PCK | 0 W | |
| Supplementary Heater: Type of energy input | Electricity | |
| Supplementary Heater: PSUP | 0.00 kW | |
| Annual energy consumption Qhe | 1888 kWh | |

Model TTC 07 cool, average climates

| | |
|-------------------------------------|-------------------------------|
| Model name | TTC 07 cool, average climates |
| Application | Heating (medium temp) |
| Units | Indoor |
| Climate zone (for heating) | n/a |
| Cooling mode application (optional) | n/a |
| Any additional heat sources | n/a |

General data

| | |
|------------------|-------------|
| Power supply | 3x400V 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 |
| Starting and operating test | passed |

EN 14511-2 | Heating

| | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 7.50 kW | 6.91 kW |
| El input | 1.55 kW | 2.35 kW |
| COP | 4.84 | 2.94 |

EN 12102-1 | Average Climate

| | Low temperature | Medium temperature |
|--------------------------|-----------------|--------------------|
| Sound power level indoor | 44 dB(A) | 44 dB(A) |

EN 14825 | Average Climate

| | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| η_s | 205 % | 139 % |
| Prated | 8.00 kW | 7.00 kW |
| SCOP | 5.32 | 3.67 |
| Tbiv | -10 °C | -10 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 7.50 kW | 7.00 kW |
| COP Tj = -7°C | 4.90 | 3.07 |
| Cdh Tj = -7 °C | 0.90 | 0.90 |
| Pdh Tj = +2°C | 7.60 kW | 7.20 kW |
| COP Tj = +2°C | 5.25 | 3.61 |
| Cdh Tj = + 2 °C | 0.90 | 0.90 |
| Pdh Tj = +7°C | 7.60 kW | 7.30 kW |
| COP Tj = +7°C | 5.60 | 4.02 |
| Cdh Tj = + 7 °C | 0.90 | 0.90 |

| | | |
|---|-------------|-------------|
| Pdh Tj = 12°C | 7.70 kW | 7.40 kW |
| COP Tj = 12°C | 5.99 | 4.52 |
| Cdh Tj = +12 °C | 0.90 | 0.90 |
| Pdh Tj = Tbiv | 7.50 kW | 6.90 kW |
| COP Tj = Tbiv | 4.84 | 2.94 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.50 kW | 6.90 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 4.84 | 2.94 |
| WTOL | 65 °C | 65 °C |
| Poff | 0 W | 0 W |
| PTO | 54 W | 54 W |
| PSB | 9 W | 9 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 | 2912 kWh | 3891 kWh |