

Subtype TTF\TTC 7.1 comfort

Certificate Holder	tecalor GmbH
Address	Lüchtringer Weg 3
ZIP	37603
City	Holzminden
Country	DE
Certification Body	RISE CERT
Subtype title	TTF\TTC 7.1 comfort
Registration number	012-C700386
Heat Pump Type	Brine/Water and Water/Water
Refrigerant	R290
Mass of Refrigerant	0.33 kg
Certification Date	20.05.2025
Testing basis	EN 14511:2022, EN 14825:2022, EN 16147:2017+A1:2022, EN 12102:2022
Testing laboratory	Universität Stuttgart, Prüfstelle HLK am Institut für Gebäudeenergetik, Thermotechnik und Energiespeicherung (IGTE), DE

Model TTF 7.1 comfort

Model name	TTF 7.1 comfort
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, 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	3.36 kW	6.41 kW
El input	0.73 kW	2.28 kW
COP	4.62	2.82

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	200 %	154 %
Prated	7.02 kW	6.41 kW
SCOP	5.21	4.05
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.21 kW	5.67 kW
COP Tj = -7°C	4.57	3.10
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	3.78 kW	3.45 kW
COP Tj = +2°C	5.34	4.09
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	2.43 kW	2.22 kW
COP Tj = +7°C	5.84	4.73
Cdh Tj = +7 °C	0.960	0.970

Pdh Tj = 12°C	1.72 kW	1.95 kW
COP Tj = 12°C	5.70	5.61
Cdh Tj = +12 °C	0.940	0.950
Pdh Tj = Tbiv	7.02 kW	6.41 kW
COP Tj = Tbiv	4.22	2.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.02 kW	6.41 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.22	2.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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	2785 kWh	3271 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	210 %	157 %
Prated	7.02 kW	6.41 kW
SCOP	5.46	4.13
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.25 kW	3.88 kW
COP Tj = -7°C	5.33	3.82
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	2.59 kW	2.36 kW
COP Tj = +2°C	5.88	4.36
Cdh Tj = +2 °C	0.960	0.970
Pdh Tj = +7°C	1.66 kW	1.95 kW
COP Tj = +7°C	5.93	5.63
Cdh Tj = +7 °C	0.940	0.950
Pdh Tj = 12°C	1.70 kW	1.95 kW
COP Tj = 12°C	5.50	5.69
Cdh Tj = +12 °C	0.950	0.950
Pdh Tj = Tbiv	7.02 kW	6.41 kW
COP Tj = Tbiv	4.22	2.82

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.02 kW	6.41 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.22	2.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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	3168 kWh	3828 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	203 %	157 %
Prated	7.02 kW	6.41 kW
SCOP	5.28	4.11
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.02 kW	6.41 kW
COP Tj = +2°C	4.22	2.82
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.51 kW	4.12 kW
COP Tj = +7°C	5.22	3.65
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	2.01 kW	1.83 kW
COP Tj = 12°C	5.98	5.21
Cdh Tj = +12 °C	0.950	0.950
Pdh Tj = Tbiv	7.02 kW	6.41 kW
COP Tj = Tbiv	4.22	2.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.02 kW	6.41 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.22	2.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W

PSB	17 W	17 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 Q _{he}	1777 kWh	2083 kWh

Water/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	4.19 kW	7.66 kW
El input	0.68 kW	2.26 kW
COP	6.16	3.39

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	264 %	197 %
Prated	8.52 kW	7.66 kW
SCOP	6.79	5.11
T _{biv}	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	7.54 kW	6.78 kW
COP T _j = -7°C	5.47	3.78
C _{dh} T _j = -7 °C	0.990	0.990
P _{dh} T _j = +2°C	4.59 kW	4.12 kW
COP T _j = +2°C	7.08	5.21
C _{dh} T _j = +2 °C	0.970	0.980
P _{dh} T _j = +7°C	2.95 kW	2.65 kW
COP T _j = +7°C	7.80	6.25
C _{dh} T _j = +7 °C	0.950	0.960
P _{dh} T _j = 12°C	1.93 kW	1.91 kW
COP T _j = 12°C	7.69	6.38
C _{dh} T _j = +12 °C	0.930	0.940
P _{dh} T _j = T _{biv}	8.52 kW	7.66 kW
COP T _j = T _{biv}	4.94	3.39
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	8.52 kW	7.66 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.94	3.39

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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	2593 kWh	3094 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	277 %	207 %
Prated	8.52 kW	7.66 kW
SCOP	7.12	5.38
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.16 kW	4.64 kW
COP Tj = -7°C	6.91	4.90
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	3.14 kW	2.82 kW
COP Tj = +2°C	7.80	5.98
Cdh Tj = +2 °C	0.960	0.970
Pdh Tj = +7°C	2.02 kW	1.81 kW
COP Tj = +7°C	7.73	6.93
Cdh Tj = +7 °C	0.930	0.940
Pdh Tj = 12°C	1.94 kW	1.92 kW
COP Tj = 12°C	7.61	6.48
Cdh Tj = +12 °C	0.930	0.940
Pdh Tj = Tbiv	8.52 kW	7.66 kW
COP Tj = Tbiv	4.94	3.39
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.52 kW	7.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.94	3.39
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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 Q _{he}	2952 kWh	3509 kWh
EN 14825 Warmer Climate		
	Low temperature	Medium temperature
η_s	262 %	199 %
Prated	8.52 kW	7.66 kW
SCOP	6.74	5.16
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	8.52 kW	7.66 kW
COP T _j = +2°C	4.94	3.39
C _{dh} T _j = +2 °C	0.990	0.990
P _{dh} T _j = +7°C	5.48 kW	4.92 kW
COP T _j = +7°C	6.63	4.62
C _{dh} T _j = +7 °C	0.980	0.980
P _{dh} T _j = 12°C	2.43 kW	2.19 kW
COP T _j = 12°C	7.82	6.56
C _{dh} T _j = +12 °C	0.950	0.950
P _{dh} T _j = T _{biv}	8.52 kW	7.66 kW
COP T _j = T _{biv}	4.94	3.39
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	8.52 kW	7.66 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.94	3.39
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.990	0.990
WTOL	70 °C	70 °C
P _{off}	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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 Q _{he}	1689 kWh	1982 kWh

Model TTF 7.1 230 comfort

Model name	TTF 7.1 230 comfort
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 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	3.36 kW	6.41 kW
El input	0.73 kW	2.28 kW
COP	4.62	2.82

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	200 %	154 %
Prated	7.02 kW	6.41 kW
SCOP	5.21	4.05
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.21 kW	5.67 kW
COP Tj = -7°C	4.57	3.10
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	3.78 kW	3.45 kW
COP Tj = +2°C	5.34	4.09
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	2.43 kW	2.22 kW
COP Tj = +7°C	5.84	4.73
Cdh Tj = +7 °C	0.960	0.970

Pdh Tj = 12°C	1.72 kW	1.95 kW
COP Tj = 12°C	5.70	5.61
Cdh Tj = +12 °C	0.940	0.950
Pdh Tj = Tbiv	7.02 kW	6.41 kW
COP Tj = Tbiv	4.22	2.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.02 kW	6.41 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.22	2.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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	2785 kWh	3271 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	210 %	157 %
Prated	7.02 kW	6.41 kW
SCOP	5.46	4.13
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.25 kW	3.88 kW
COP Tj = -7°C	5.33	3.82
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	2.59 kW	2.36 kW
COP Tj = +2°C	5.88	4.36
Cdh Tj = +2 °C	0.960	0.970
Pdh Tj = +7°C	1.66 kW	1.95 kW
COP Tj = +7°C	5.93	5.63
Cdh Tj = +7 °C	0.940	0.950
Pdh Tj = 12°C	1.70 kW	1.95 kW
COP Tj = 12°C	5.50	5.69
Cdh Tj = +12 °C	0.950	0.950
Pdh Tj = Tbiv	7.02 kW	6.41 kW
COP Tj = Tbiv	4.22	2.82

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.02 kW	6.41 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.22	2.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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	3168 kWh	3828 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	203 %	157 %
Prated	7.02 kW	6.41 kW
SCOP	5.28	4.11
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.02 kW	6.41 kW
COP Tj = +2°C	4.22	2.82
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.51 kW	4.12 kW
COP Tj = +7°C	5.22	3.65
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	2.01 kW	1.83 kW
COP Tj = 12°C	5.98	5.21
Cdh Tj = +12 °C	0.950	0.950
Pdh Tj = Tbiv	7.02 kW	6.41 kW
COP Tj = Tbiv	4.22	2.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.02 kW	6.41 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.22	2.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W

PSB	17 W	17 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 Q _{he}	1777 kWh	2083 kWh

Water/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	4.19 kW	7.66 kW
El input	0.68 kW	2.26 kW
COP	6.16	3.39

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	264 %	197 %
Prated	8.52 kW	7.66 kW
SCOP	6.79	5.11
T _{biv}	-10 °C	-10 °C
TOL	-10 °C	-10 °C
P _{dh} T _j = -7°C	7.54 kW	6.78 kW
COP T _j = -7°C	5.47	3.78
C _{dh} T _j = -7 °C	0.990	0.990
P _{dh} T _j = +2°C	4.59 kW	4.12 kW
COP T _j = +2°C	7.08	5.21
C _{dh} T _j = +2 °C	0.970	0.980
P _{dh} T _j = +7°C	2.95 kW	2.65 kW
COP T _j = +7°C	7.80	6.25
C _{dh} T _j = +7 °C	0.950	0.960
P _{dh} T _j = 12°C	1.93 kW	1.91 kW
COP T _j = 12°C	7.69	6.38
C _{dh} T _j = +12 °C	0.930	0.940
P _{dh} T _j = T _{biv}	8.52 kW	7.66 kW
COP T _j = T _{biv}	4.94	3.39
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	8.52 kW	7.66 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.94	3.39

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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	2593 kWh	3094 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	277 %	207 %
Prated	8.52 kW	7.66 kW
SCOP	7.12	5.38
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.16 kW	4.64 kW
COP Tj = -7°C	6.91	4.90
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	3.14 kW	2.82 kW
COP Tj = +2°C	7.80	5.98
Cdh Tj = +2 °C	0.960	0.970
Pdh Tj = +7°C	2.02 kW	1.81 kW
COP Tj = +7°C	7.73	6.93
Cdh Tj = +7 °C	0.930	0.940
Pdh Tj = 12°C	1.94 kW	1.92 kW
COP Tj = 12°C	7.61	6.48
Cdh Tj = +12 °C	0.930	0.940
Pdh Tj = Tbiv	8.52 kW	7.66 kW
COP Tj = Tbiv	4.94	3.39
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.52 kW	7.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.94	3.39
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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 Q _{he}	2952 kWh	3509 kWh
EN 14825 Warmer Climate		
	Low temperature	Medium temperature
η_s	262 %	199 %
Prated	8.52 kW	7.66 kW
SCOP	6.74	5.16
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	8.52 kW	7.66 kW
COP T _j = +2°C	4.94	3.39
C _{dh} T _j = +2 °C	0.990	0.990
P _{dh} T _j = +7°C	5.48 kW	4.92 kW
COP T _j = +7°C	6.63	4.62
C _{dh} T _j = +7 °C	0.980	0.980
P _{dh} T _j = 12°C	2.43 kW	2.19 kW
COP T _j = 12°C	7.82	6.56
C _{dh} T _j = +12 °C	0.950	0.950
P _{dh} T _j = T _{biv}	8.52 kW	7.66 kW
COP T _j = T _{biv}	4.94	3.39
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	8.52 kW	7.66 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.94	3.39
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.990	0.990
WTOL	70 °C	70 °C
P _{off}	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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 Q _{he}	1689 kWh	1982 kWh

Model TTC 7.1 comfort "Profile XL"

Model name	TTC 7.1 comfort "Profile XL"
Application	Heating + DHW + 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 16147 | Average Climate

Declared load profile	XL
Efficiency η_{DHW}	128 %
COP	3.20
Heating up time	3:24 h:min
Standby power input	41.0 W
Reference hot water temperature	49.8 °C
Mixed water at 40°C	215 l

EN 16147 | Colder Climate

Declared load profile	XL
Efficiency η_{DHW}	128 %
COP	3.20
Heating up time	3:24 h:min
Standby power input	41.0 W
Reference hot water temperature	49.8 °C
Mixed water at 40°C	215 l

EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency η_{DHW}	128 %
COP	3.20
Heating up time	3:24 h:min
Standby power input	41.0 W
Reference hot water temperature	49.8 °C
Mixed water at 40°C	215 l

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	3.36 kW	6.41 kW
El input	0.73 kW	2.28 kW
COP	4.62	2.82

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	200 %	154 %
Prated	7.02 kW	6.41 kW
SCOP	5.21	4.05
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.21 kW	5.67 kW
COP Tj = -7°C	4.57	3.10
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	3.78 kW	3.45 kW
COP Tj = +2°C	5.34	4.09
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	2.43 kW	2.22 kW
COP Tj = +7°C	5.84	4.73
Cdh Tj = +7 °C	0.960	0.970
Pdh Tj = 12°C	1.72 kW	1.95 kW
COP Tj = 12°C	5.70	5.61
Cdh Tj = +12 °C	0.940	0.950
Pdh Tj = Tbiv	7.02 kW	6.41 kW
COP Tj = Tbiv	4.22	2.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.02 kW	6.41 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.22	2.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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	2785 kWh	3271 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	210 %	157 %
Prated	7.02 kW	6.41 kW
SCOP	5.46	4.13
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.25 kW	3.88 kW
COP Tj = -7°C	5.33	3.82
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	2.59 kW	2.36 kW
COP Tj = +2°C	5.88	4.36
Cdh Tj = +2 °C	0.960	0.970
Pdh Tj = +7°C	1.66 kW	1.95 kW
COP Tj = +7°C	5.93	5.63
Cdh Tj = +7 °C	0.940	0.950
Pdh Tj = 12°C	1.70 kW	1.95 kW
COP Tj = 12°C	5.50	5.69
Cdh Tj = +12 °C	0.950	0.950
Pdh Tj = Tbiv	7.02 kW	6.41 kW
COP Tj = Tbiv	4.22	2.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.02 kW	6.41 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.22	2.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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	3168 kWh	3828 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
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η_s	203 %	157 %
Prated	7.02 kW	6.41 kW
SCOP	5.28	4.11
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.02 kW	6.41 kW
COP Tj = +2°C	4.22	2.82
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.51 kW	4.12 kW
COP Tj = +7°C	5.22	3.65
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	2.01 kW	1.83 kW
COP Tj = 12°C	5.98	5.21
Cdh Tj = +12 °C	0.950	0.950
Pdh Tj = Tbiv	7.02 kW	6.41 kW
COP Tj = Tbiv	4.22	2.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.02 kW	6.41 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.22	2.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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	1777 kWh	2083 kWh

Water/Water

EN 16147 | Average Climate

Declared load profile	XL
Efficiency η_{DHW}	128 %
COP	3.20
Heating up time	3:24 h:min
Standby power input	41.0 W
Reference hot water temperature	49.8 °C
Mixed water at 40°C	215 l

EN 16147 | Colder Climate

Declared load profile	XL
Efficiency η_{DHW}	128 %
COP	3.20

Heating up time	3:24 h:min
Standby power input	41.0 W
Reference hot water temperature	49.8 °C
Mixed water at 40°C	215 l

EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency η_{DHW}	128 %
COP	3.20
Heating up time	3:24 h:min
Standby power input	41.0 W
Reference hot water temperature	49.8 °C
Mixed water at 40°C	215 l

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	4.19 kW	7.66 kW
El input	0.68 kW	2.26 kW
COP	6.16	3.39

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	264 %	197 %
Prated	8.52 kW	7.66 kW
SCOP	6.79	5.11
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.54 kW	6.78 kW
COP Tj = -7°C	5.47	3.78
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	4.59 kW	4.12 kW
COP Tj = +2°C	7.08	5.21
Cdh Tj = +2 °C	0.970	0.980
Pdh Tj = +7°C	2.95 kW	2.65 kW
COP Tj = +7°C	7.80	6.25
Cdh Tj = +7 °C	0.950	0.960
Pdh Tj = 12°C	1.93 kW	1.91 kW
COP Tj = 12°C	7.69	6.38
Cdh Tj = +12 °C	0.930	0.940
Pdh Tj = Tbiv	8.52 kW	7.66 kW

COP Tj = Tbiv	4.94	3.39
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.52 kW	7.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.94	3.39
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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	2593 kWh	3094 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	277 %	207 %
Prated	8.52 kW	7.66 kW
SCOP	7.12	5.38
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.16 kW	4.64 kW
COP Tj = -7°C	6.91	4.90
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	3.14 kW	2.82 kW
COP Tj = +2°C	7.80	5.98
Cdh Tj = +2 °C	0.960	0.970
Pdh Tj = +7°C	2.02 kW	1.81 kW
COP Tj = +7°C	7.73	6.93
Cdh Tj = +7 °C	0.930	0.940
Pdh Tj = 12°C	1.94 kW	1.92 kW
COP Tj = 12°C	7.61	6.48
Cdh Tj = +12 °C	0.930	0.940
Pdh Tj = Tbiv	8.52 kW	7.66 kW
COP Tj = Tbiv	4.94	3.39
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.52 kW	7.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.94	3.39
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W

PSB	17 W	17 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 Q _{he}	2952 kWh	3509 kWh

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	262 %	199 %
Prated	8.52 kW	7.66 kW
SCOP	6.74	5.16
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	8.52 kW	7.66 kW
COP T _j = +2°C	4.94	3.39
C _{dh} T _j = +2 °C	0.990	0.990
P _{dh} T _j = +7°C	5.48 kW	4.92 kW
COP T _j = +7°C	6.63	4.62
C _{dh} T _j = +7 °C	0.980	0.980
P _{dh} T _j = 12°C	2.43 kW	2.19 kW
COP T _j = 12°C	7.82	6.56
C _{dh} T _j = +12 °C	0.950	0.950
P _{dh} T _j = T _{biv}	8.52 kW	7.66 kW
COP T _j = T _{biv}	4.94	3.39
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	8.52 kW	7.66 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.94	3.39
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.990	0.990
WTOL	70 °C	70 °C
P _{off}	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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 Q _{he}	1689 kWh	1982 kWh

Model TTC 7.1 230 comfort "Profile XL"

Model name	TTC 7.1 230 comfort "Profile XL"
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Brine/Water

EN 16147 | Average Climate

Declared load profile	XL
Efficiency η_{DHW}	128 %
COP	3.20
Heating up time	3:24 h:min
Standby power input	41.0 W
Reference hot water temperature	49.8 °C
Mixed water at 40°C	215 l

EN 16147 | Colder Climate

Declared load profile	XL
Efficiency η_{DHW}	128 %
COP	3.20
Heating up time	3,24 h:min
Standby power input	41.0 W
Reference hot water temperature	49.8 °C
Mixed water at 40°C	215 l

EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency η_{DHW}	128 %
COP	3.20
Heating up time	3:24 h:min
Standby power input	41.0 W
Reference hot water temperature	49.8 °C
Mixed water at 40°C	215 l

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	3.36 kW	6.41 kW
El input	0.73 kW	2.28 kW
COP	4.62	2.82

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	200 %	154 %
Prated	7.02 kW	6.41 kW
SCOP	5.21	4.05
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.21 kW	5.67 kW
COP Tj = -7°C	4.57	3.10
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	3.78 kW	3.45 kW
COP Tj = +2°C	5.34	4.09
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	2.43 kW	2.22 kW
COP Tj = +7°C	5.84	4.73
Cdh Tj = +7 °C	0.960	0.970
Pdh Tj = 12°C	1.72 kW	1.95 kW
COP Tj = 12°C	5.70	5.61
Cdh Tj = +12 °C	0.940	0.950
Pdh Tj = Tbiv	7.02 kW	6.41 kW
COP Tj = Tbiv	4.22	2.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.02 kW	6.41 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.22	2.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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	2785 kWh	3271 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	210 %	157 %
Prated	7.02 kW	6.41 kW
SCOP	5.46	4.13
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.25 kW	3.88 kW
COP Tj = -7°C	5.33	3.82
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	2.59 kW	2.36 kW
COP Tj = +2°C	5.88	4.36
Cdh Tj = +2 °C	0.960	0.970
Pdh Tj = +7°C	1.66 kW	1.95 kW
COP Tj = +7°C	5.93	5.63
Cdh Tj = +7 °C	0.940	0.950
Pdh Tj = 12°C	1.70 kW	1.95 kW
COP Tj = 12°C	5.50	5.69
Cdh Tj = +12 °C	0.950	0.950
Pdh Tj = Tbiv	7.02 kW	6.41 kW
COP Tj = Tbiv	4.22	2.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.02 kW	6.41 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.22	2.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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	3168 kWh	3828 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
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η_s	203 %	157 %
Prated	7.02 kW	6.41 kW
SCOP	5.28	4.11
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.02 kW	6.41 kW
COP Tj = +2°C	4.22	2.82
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.51 kW	4.12 kW
COP Tj = +7°C	5.22	3.65
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	2.01 kW	1.83 kW
COP Tj = 12°C	5.98	5.21
Cdh Tj = +12 °C	0.950	0.950
Pdh Tj = Tbiv	7.02 kW	6.41 kW
COP Tj = Tbiv	4.22	2.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.02 kW	6.41 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.22	2.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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	1777 kWh	2083 kWh

Water/Water

EN 16147 | Average Climate

Declared load profile	XL
Efficiency η_{DHW}	128 %
COP	3.20
Heating up time	3:24 h:min
Standby power input	41.0 W
Reference hot water temperature	49.8 °C
Mixed water at 40°C	215 l

EN 16147 | Colder Climate

Declared load profile	XL
Efficiency η_{DHW}	128 %
COP	3.20

Heating up time	3:24 h:min
Standby power input	41.0 W
Reference hot water temperature	49.8 °C
Mixed water at 40°C	215 l

EN 16147 | Warmer Climate

Declared load profile	XL
Efficiency η_{DHW}	128 %
COP	3.20
Heating up time	3:24 h:min
Standby power input	41.0 W
Reference hot water temperature	49.8 °C
Mixed water at 40°C	215 l

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	4.19 kW	7.66 kW
El input	0.68 kW	2.26 kW
COP	6.16	3.39

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	264 %	197 %
Prated	8.52 kW	7.66 kW
SCOP	6.79	5.11
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.54 kW	6.78 kW
COP Tj = -7°C	5.47	3.78
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	4.59 kW	4.12 kW
COP Tj = +2°C	7.08	5.21
Cdh Tj = +2 °C	0.970	0.980
Pdh Tj = +7°C	2.95 kW	2.65 kW
COP Tj = +7°C	7.80	6.25
Cdh Tj = +7 °C	0.950	0.960
Pdh Tj = 12°C	1.93 kW	1.91 kW
COP Tj = 12°C	7.69	6.38
Cdh Tj = +12 °C	0.930	0.940
Pdh Tj = Tbiv	8.52 kW	7.66 kW

COP Tj = Tbiv	4.94	3.39
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.52 kW	7.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.94	3.39
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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	2593 kWh	3094 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	277 %	207 %
Prated	8.52 kW	7.66 kW
SCOP	7.12	5.38
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.16 kW	4.64 kW
COP Tj = -7°C	6.91	4.90
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	3.14 kW	2.82 kW
COP Tj = +2°C	7.80	5.98
Cdh Tj = +2 °C	0.960	0.970
Pdh Tj = +7°C	2.02 kW	1.81 kW
COP Tj = +7°C	7.73	6.93
Cdh Tj = +7 °C	0.930	0.940
Pdh Tj = 12°C	1.94 kW	1.92 kW
COP Tj = 12°C	7.61	6.48
Cdh Tj = +12 °C	0.930	0.940
Pdh Tj = Tbiv	8.52 kW	7.66 kW
COP Tj = Tbiv	4.94	3.39
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.52 kW	7.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.94	3.39
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W

PSB	17 W	17 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 Q _{he}	2952 kWh	3509 kWh

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	262 %	199 %
Prated	8.52 kW	7.66 kW
SCOP	6.74	5.16
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	8.52 kW	7.66 kW
COP T _j = +2°C	4.94	3.39
C _{dh} T _j = +2 °C	0.990	0.990
P _{dh} T _j = +7°C	5.48 kW	4.92 kW
COP T _j = +7°C	6.63	4.62
C _{dh} T _j = +7 °C	0.980	0.980
P _{dh} T _j = 12°C	2.43 kW	2.19 kW
COP T _j = 12°C	7.82	6.56
C _{dh} T _j = +12 °C	0.950	0.950
P _{dh} T _j = T _{biv}	8.52 kW	7.66 kW
COP T _j = T _{biv}	4.94	3.39
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	8.52 kW	7.66 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.94	3.39
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.990	0.990
WTOL	70 °C	70 °C
P _{off}	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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 Q _{he}	1689 kWh	1982 kWh

Model TTC 7.1 comfort "Profile M"

Model name	TTC 7.1 comfort "Profile M"
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, 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 16147 | Average Climate

Declared load profile	M
Efficiency η_{DHW}	78 %
COP	1.94
Heating up time	3:24 h:min
Standby power input	41.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	223 l

EN 16147 | Colder Climate

Declared load profile	M
Efficiency η_{DHW}	78 %
COP	1.94
Heating up time	3:24 h:min
Standby power input	41.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	223 l

EN 16147 | Warmer Climate

Declared load profile	M
Efficiency η_{DHW}	78 %
COP	1.94
Heating up time	3:24 h:min
Standby power input	41.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	223 l

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	3.36 kW	6.41 kW
El input	0.73 kW	2.28 kW
COP	4.62	2.82

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	200 %	154 %
Prated	7.02 kW	6.41 kW
SCOP	5.21	4.05
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.21 kW	5.67 kW
COP Tj = -7°C	4.57	3.10
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	3.78 kW	3.45 kW
COP Tj = +2°C	5.34	4.09
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	2.43 kW	2.22 kW
COP Tj = +7°C	5.84	4.73
Cdh Tj = +7 °C	0.960	0.970
Pdh Tj = 12°C	1.72 kW	1.95 kW
COP Tj = 12°C	5.70	5.61
Cdh Tj = +12 °C	0.940	0.950
Pdh Tj = Tbiv	7.02 kW	6.41 kW
COP Tj = Tbiv	4.22	2.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.02 kW	6.41 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.22	2.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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	2785 kWh	3271 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	210 %	157 %
Prated	7.02 kW	6.41 kW
SCOP	5.46	4.13
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.25 kW	3.88 kW
COP Tj = -7°C	5.33	3.82
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	2.59 kW	2.36 kW
COP Tj = +2°C	5.88	4.36
Cdh Tj = +2 °C	0.960	0.970
Pdh Tj = +7°C	1.66 kW	1.95 kW
COP Tj = +7°C	5.93	5.63
Cdh Tj = +7 °C	0.940	0.950
Pdh Tj = 12°C	1.70 kW	1.95 kW
COP Tj = 12°C	5.50	5.69
Cdh Tj = +12 °C	0.950	0.950
Pdh Tj = Tbiv	7.02 kW	6.41 kW
COP Tj = Tbiv	4.22	2.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.02 kW	6.41 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.22	2.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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	3168 kWh	3828 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
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η_s	203 %	157 %
Prated	7.02 kW	6.41 kW
SCOP	5.28	4.11
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.02 kW	6.41 kW
COP Tj = +2°C	4.22	2.82
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.51 kW	4.12 kW
COP Tj = +7°C	5.22	3.65
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	2.01 kW	1.83 kW
COP Tj = 12°C	5.98	5.21
Cdh Tj = +12 °C	0.950	0.950
Pdh Tj = Tbiv	7.02 kW	6.41 kW
COP Tj = Tbiv	4.22	2.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.02 kW	6.41 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.22	2.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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	1777 kWh	2083 kWh

Water/Water

EN 16147 | Average Climate

Declared load profile	M
Efficiency η_{DHW}	78 %
COP	1.94
Heating up time	3:24 h:min
Standby power input	41.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	223 l

EN 16147 | Colder Climate

Declared load profile	M
Efficiency η_{DHW}	78 %
COP	1.94

Heating up time	3:24 h:min
Standby power input	41.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	223 l

EN 16147 | Warmer Climate

Declared load profile	M
Efficiency η_{DHW}	78 %
COP	1.94
Heating up time	3:24 h:min
Standby power input	41.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	223 l

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	4.19 kW	7.66 kW
El input	0.68 kW	2.26 kW
COP	6.16	3.39

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	264 %	197 %
Prated	8.52 kW	7.66 kW
SCOP	6.79	5.11
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.54 kW	6.78 kW
COP Tj = -7°C	5.47	3.78
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	4.59 kW	4.12 kW
COP Tj = +2°C	7.08	5.21
Cdh Tj = +2 °C	0.970	0.980
Pdh Tj = +7°C	2.95 kW	2.65 kW
COP Tj = +7°C	7.80	6.25
Cdh Tj = +7 °C	0.950	0.960
Pdh Tj = 12°C	1.93 kW	1.91 kW
COP Tj = 12°C	7.69	6.38
Cdh Tj = +12 °C	0.930	0.940
Pdh Tj = Tbiv	8.52 kW	7.66 kW

COP Tj = Tbiv	4.94	3.39
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.52 kW	7.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.94	3.39
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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	2593 kWh	3094 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	277 %	207 %
Prated	8.52 kW	7.66 kW
SCOP	7.12	5.38
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.16 kW	4.64 kW
COP Tj = -7°C	6.91	4.90
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	3.14 kW	2.82 kW
COP Tj = +2°C	7.80	5.98
Cdh Tj = +2 °C	0.960	0.970
Pdh Tj = +7°C	2.02 kW	1.81 kW
COP Tj = +7°C	7.73	6.93
Cdh Tj = +7 °C	0.930	0.940
Pdh Tj = 12°C	1.94 kW	1.92 kW
COP Tj = 12°C	7.61	6.48
Cdh Tj = +12 °C	0.930	0.940
Pdh Tj = Tbiv	8.52 kW	7.66 kW
COP Tj = Tbiv	4.94	3.39
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.52 kW	7.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.94	3.39
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W

PSB	17 W	17 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 Q _{he}	2952 kWh	3509 kWh

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	262 %	199 %
Prated	8.52 kW	7.66 kW
SCOP	6.74	5.16
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	8.52 kW	7.66 kW
COP T _j = +2°C	4.94	3.39
C _{dh} T _j = +2 °C	0.990	0.990
P _{dh} T _j = +7°C	5.48 kW	4.92 kW
COP T _j = +7°C	6.63	4.62
C _{dh} T _j = +7 °C	0.980	0.980
P _{dh} T _j = 12°C	2.43 kW	2.19 kW
COP T _j = 12°C	7.82	6.56
C _{dh} T _j = +12 °C	0.950	0.950
P _{dh} T _j = T _{biv}	8.52 kW	7.66 kW
COP T _j = T _{biv}	4.94	3.39
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	8.52 kW	7.66 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.94	3.39
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.990	0.990
WTOL	70 °C	70 °C
P _{off}	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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 Q _{he}	1689 kWh	1982 kWh

Model TTC 7.1 230 comfort "Profile M"

Model name	TTC 7.1 230 comfort "Profile M"
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Brine/Water

EN 16147 | Average Climate

Declared load profile	M
Efficiency η_{DHW}	78 %
COP	1.94
Heating up time	3:24 h:min
Standby power input	41.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	223 l

EN 16147 | Colder Climate

Declared load profile	M
Efficiency η_{DHW}	78 %
COP	1.94
Heating up time	3:24 h:min
Standby power input	41.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	223 l

EN 16147 | Warmer Climate

Declared load profile	M
Efficiency η_{DHW}	78 %
COP	1.94
Heating up time	3:24 h:min
Standby power input	41.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	223 l

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	3.36 kW	6.41 kW
El input	0.73 kW	2.28 kW
COP	4.62	2.82

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	200 %	154 %
Prated	7.02 kW	6.41 kW
SCOP	5.21	4.05
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.21 kW	5.67 kW
COP Tj = -7°C	4.57	3.10
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	3.78 kW	3.45 kW
COP Tj = +2°C	5.34	4.09
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	2.43 kW	2.22 kW
COP Tj = +7°C	5.84	4.73
Cdh Tj = +7 °C	0.960	0.970
Pdh Tj = 12°C	1.72 kW	1.95 kW
COP Tj = 12°C	5.70	5.61
Cdh Tj = +12 °C	0.940	0.950
Pdh Tj = Tbiv	7.02 kW	6.41 kW
COP Tj = Tbiv	4.22	2.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.02 kW	6.41 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.22	2.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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	2785 kWh	3271 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	210 %	157 %
Prated	7.02 kW	6.41 kW
SCOP	5.46	4.13
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.25 kW	3.88 kW
COP Tj = -7°C	5.33	3.82
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	2.59 kW	2.36 kW
COP Tj = +2°C	5.88	4.36
Cdh Tj = +2 °C	0.960	0.970
Pdh Tj = +7°C	1.66 kW	1.95 kW
COP Tj = +7°C	5.93	5.63
Cdh Tj = +7 °C	0.940	0.950
Pdh Tj = 12°C	1.70 kW	1.95 kW
COP Tj = 12°C	5.50	5.69
Cdh Tj = +12 °C	0.950	0.950
Pdh Tj = Tbiv	7.02 kW	6.41 kW
COP Tj = Tbiv	4.22	2.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.02 kW	6.41 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.22	2.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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	3168 kWh	3828 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
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η_s	203 %	157 %
Prated	7.02 kW	6.41 kW
SCOP	5.28	4.11
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.02 kW	6.41 kW
COP Tj = +2°C	4.22	2.82
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.51 kW	4.12 kW
COP Tj = +7°C	5.22	3.65
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	2.01 kW	1.83 kW
COP Tj = 12°C	5.98	5.21
Cdh Tj = +12 °C	0.950	0.950
Pdh Tj = Tbiv	7.02 kW	6.41 kW
COP Tj = Tbiv	4.22	2.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.02 kW	6.41 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.22	2.82
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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	1777 kWh	2083 kWh

Water/Water

EN 16147 | Average Climate

Declared load profile	M
Efficiency η_{DHW}	78 %
COP	1.94
Heating up time	3:24 h:min
Standby power input	41.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	223 l

EN 16147 | Colder Climate

Declared load profile	M
Efficiency η_{DHW}	78 %
COP	1.94

Heating up time	3:24 h:min
Standby power input	41.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	223 l

EN 16147 | Warmer Climate

Declared load profile	M
Efficiency η_{DHW}	78 %
COP	1.94
Heating up time	3:24 h:min
Standby power input	41.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	223 l

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	4.19 kW	7.66 kW
El input	0.68 kW	2.26 kW
COP	6.16	3.39

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	264 %	197 %
Prated	8.52 kW	7.66 kW
SCOP	6.79	5.11
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.54 kW	6.78 kW
COP Tj = -7°C	5.47	3.78
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	4.59 kW	4.12 kW
COP Tj = +2°C	7.08	5.21
Cdh Tj = +2 °C	0.970	0.980
Pdh Tj = +7°C	2.95 kW	2.65 kW
COP Tj = +7°C	7.80	6.25
Cdh Tj = +7 °C	0.950	0.960
Pdh Tj = 12°C	1.93 kW	1.91 kW
COP Tj = 12°C	7.69	6.38
Cdh Tj = +12 °C	0.930	0.940
Pdh Tj = Tbiv	8.52 kW	7.66 kW

COP Tj = Tbiv	4.94	3.39
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.52 kW	7.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.94	3.39
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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	2593 kWh	3094 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	277 %	207 %
Prated	8.52 kW	7.66 kW
SCOP	7.12	5.38
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.16 kW	4.64 kW
COP Tj = -7°C	6.91	4.90
Cdh Tj = -7 °C	0.980	0.980
Pdh Tj = +2°C	3.14 kW	2.82 kW
COP Tj = +2°C	7.80	5.98
Cdh Tj = +2 °C	0.960	0.970
Pdh Tj = +7°C	2.02 kW	1.81 kW
COP Tj = +7°C	7.73	6.93
Cdh Tj = +7 °C	0.930	0.940
Pdh Tj = 12°C	1.94 kW	1.92 kW
COP Tj = 12°C	7.61	6.48
Cdh Tj = +12 °C	0.930	0.940
Pdh Tj = Tbiv	8.52 kW	7.66 kW
COP Tj = Tbiv	4.94	3.39
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.52 kW	7.66 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.94	3.39
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.990	0.990
WTOL	70 °C	70 °C
Poff	17 W	17 W
PTO	19 W	19 W

PSB	17 W	17 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 Q _{he}	2952 kWh	3509 kWh

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	Low temperature	Medium temperature
η_s	262 %	199 %
Prated	8.52 kW	7.66 kW
SCOP	6.74	5.16
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	8.52 kW	7.66 kW
COP T _j = +2°C	4.94	3.39
C _{dh} T _j = +2 °C	0.990	0.990
P _{dh} T _j = +7°C	5.48 kW	4.92 kW
COP T _j = +7°C	6.63	4.62
C _{dh} T _j = +7 °C	0.980	0.980
P _{dh} T _j = 12°C	2.43 kW	2.19 kW
COP T _j = 12°C	7.82	6.56
C _{dh} T _j = +12 °C	0.950	0.950
P _{dh} T _j = T _{biv}	8.52 kW	7.66 kW
COP T _j = T _{biv}	4.94	3.39
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	8.52 kW	7.66 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	4.94	3.39
C _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	0.990	0.990
WTOL	70 °C	70 °C
P _{off}	17 W	17 W
PTO	19 W	19 W
PSB	17 W	17 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 Q _{he}	1689 kWh	1982 kWh