This information was generated by the HP KEYMARK database on 17 Dec 2020

Summary of	TTF 07, TTF 07 cool, TTC 07, TTC 07 cool	Reg. No.	011-1W0040
Certificate Holder			
Name	tecalor GmbH		
Address	Fürstenbergerstr. 77	Zip	37603
City	Holzminden	Country	Germany
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Name of testing laboratory	VDE Prüf- und Zertifizierungsinstitut		
Subtype title	TTF 07, TTF 07 cool, TTC 07, TTC 07 cool		
Heat Pump Type	Brine/Water		
Refrigerant	Other		
Mass Of Refrigerant	1.72 kg		
Certification Date	28.10.2016		

Model: TTF 07, all climates

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2	
	Low temperature
Heat output	7.50 kW
El input	1.55 kW
COP	4.84
Indoor water flow rate	2.10 m³/h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Starting and operating test	passed

Average Climate

EN 12102-1	
	Low temperature
Sound power level indoor	44 dB(A)

EN 14825

	Low 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	0.90
Pdh Tj = +2°C	7.60 kW
COP Tj = +2°C	5.25
Cdh	0.90
Pdh Tj = +7°C	7.60 kW
COP Tj = +7°C	5.60
Cdh	0.90
Pdh Tj = 12°C	7.70 kW
COP Tj = 12°C	5.99
Cdh	0.90
Pdh Tj = Tbiv	7.50 kW
COP Tj = Tbiv	4.84

Pdh Tj = TOL	7.50 kW
COP Tj = TOL	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

Warmer Climate

EN 14825	
	Low temperature
η_s	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	0.90
Pdh Tj = +7°C	7.60 kW
COP Tj = +7°C	5.17
Cdh	0.90
Pdh Tj = 12°C	7.70 kW
COP Tj = 12°C	5.73
Cdh	0.90
Pdh Tj = Tbiv	7.50 kW
COP Tj = Tbiv	4.84
Pdh Tj = TOL	7.50 kW
COP Tj = TOL	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

Colder Climate

EN 14825

	Low temperature
η_s	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	0.90
Pdh Tj = +2°C	7.70 kW
COP Tj = +2°C	5.70
Cdh	0.90
Pdh Tj = +7°C	7.70 kW
COP Tj = +7°C	5.93
Cdh	0.90
Pdh Tj = 12°C	7.70 kW
COP Tj = 12°C	5.97
Cdh	0.90
Pdh Tj = Tbiv	7.60 kW
COP Tj = Tbiv	5.31

Pdh Tj = TOL	7.60 kW
COP Tj = TOL	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<-20°C)	7.60
COP Tj = -15°C (if TOL<-20°C)	5.31
Cdh	0.90

Model: TTF 07, average climates

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	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
Indoor water flow rate	2.10 m³/h	1.90 m³/h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Starting and operating test	passed

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	44 dB(A)	44 dB(A)

EN 14825

	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	0.90	0.90
Pdh Tj = +2°C	7.60 kW	7.20 kW
COP Tj = +2°C	5.25	3.61
Cdh	0.90	0.90
Pdh Tj = +7°C	7.60 kW	7.30 kW
COP Tj = +7°C	5.60	4.02
Cdh	0.90	0.90
Pdh Tj = 12°C	7.70 kW	7.40 kW
COP Tj = 12°C	5.99	4.52
Cdh	0.90	0.90
Pdh Tj = Tbiv	7.50 kW	6.90 kW
COP Tj = Tbiv	4.84	2.94

Pdh Tj = TOL	7.50 kW	6.90 kW
COP Tj = TOL	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

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2	
	Low temperature
Heat output	7.50 kW
El input	1.55 kW
COP	4.84
Indoor water flow rate	2.10 m³/h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Starting and operating test	passed

Average Climate

EN 12102-1	
	Low temperature
Sound power level indoor	44 dB(A)

EN 14825

	Low 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	0.90
Pdh Tj = +2°C	7.60 kW
COP Tj = +2°C	5.25
Cdh	0.90
Pdh Tj = +7°C	7.60 kW
COP Tj = +7°C	5.60
Cdh	0.90
Pdh Tj = 12°C	7.70 kW
COP Tj = 12°C	5.99
Cdh	0.90
Pdh Tj = Tbiv	7.50 kW
COP Tj = Tbiv	4.84

Pdh Tj = TOL	7.50 kW
COP Tj = TOL	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

Warmer Climate

EN 14825	
	Low temperature
η_s	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	0.90
Pdh Tj = +7°C	7.60 kW
COP Tj = +7°C	5.17
Cdh	0.90
Pdh Tj = 12°C	7.70 kW
COP Tj = 12°C	5.73
Cdh	0.90
Pdh Tj = Tbiv	7.50 kW
COP Tj = Tbiv	4.84
Pdh Tj = TOL	7.50 kW
COP Tj = TOL	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

Colder Climate

EN 14825

	Low temperature
η_s	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	0.90
Pdh Tj = +2°C	7.70 kW
COP Tj = +2°C	5.70
Cdh	0.90
Pdh Tj = +7°C	7.70 kW
COP Tj = +7°C	5.93
Cdh	0.90
Pdh Tj = 12°C	7.70 kW
COP Tj = 12°C	5.97
Cdh	0.90
Pdh Tj = Tbiv	7.60 kW
COP Tj = Tbiv	5.31

Pdh Tj = TOL	7.60 kW
COP Tj = TOL	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<-20°C)	7.60
COP Tj = -15°C (if TOL<-20°C)	5.31
Cdh	0.90

Model: TTF 07 cool, average climates

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	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
Indoor water flow rate	2.10 m³/h	1.90 m³/h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Starting and operating test	passed

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	44 dB(A)	44 dB(A)

EN 14825

	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	0.90	0.90
Pdh Tj = +2°C	7.60 kW	7.20 kW
COP Tj = +2°C	5.25	3.61
Cdh	0.90	0.90
Pdh Tj = +7°C	7.60 kW	7.30 kW
COP Tj = +7°C	5.60	4.02
Cdh	0.90	0.90
Pdh Tj = 12°C	7.70 kW	7.40 kW
COP Tj = 12°C	5.99	4.52
Cdh	0.90	0.90
Pdh Tj = Tbiv	7.50 kW	6.90 kW
COP Tj = Tbiv	4.84	2.94

Pdh Tj = TOL	7.50 kW	6.90 kW
COP Tj = TOL	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

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2	
	Low temperature
Heat output	7.50 kW
El input	1.55 kW
COP	4.84
Indoor water flow rate	2.10 m³/h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Starting and operating test	passed

Average Climate

EN 12102-1	
	Low temperature
Sound power level indoor	44 dB(A)

EN 14825

	Low 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	0.90
Pdh Tj = +2°C	7.60 kW
COP Tj = +2°C	5.25
Cdh	0.90
Pdh Tj = +7°C	7.60 kW
COP Tj = +7°C	5.60
Cdh	0.90
Pdh Tj = 12°C	7.70 kW
COP Tj = 12°C	5.99
Cdh	0.90
Pdh Tj = Tbiv	7.50 kW
COP Tj = Tbiv	4.84

Pdh Tj = TOL	7.50 kW
COP Tj = TOL	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

Warmer Climate

EN 14825	
	Low temperature
η_s	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	0.90
Pdh Tj = +7°C	7.60 kW
COP Tj = +7°C	5.17
Cdh	0.90
Pdh Tj = 12°C	7.70 kW
COP Tj = 12°C	5.73
Cdh	0.90
Pdh Tj = Tbiv	7.50 kW
COP Tj = Tbiv	4.84
Pdh Tj = TOL	7.50 kW
COP Tj = TOL	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

Colder Climate

EN 14825

	Low temperature
η_s	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	0.90
Pdh Tj = +2°C	7.70 kW
COP Tj = +2°C	5.70
Cdh	0.90
Pdh Tj = +7°C	7.70 kW
COP Tj = +7°C	5.93
Cdh	0.90
Pdh Tj = 12°C	7.70 kW
COP Tj = 12°C	5.97
Cdh	0.90
Pdh Tj = Tbiv	7.60 kW
COP Tj = Tbiv	5.31

Pdh Tj = TOL	7.60 kW
COP Tj = TOL	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<-20°C)	7.60
COP Tj = -15°C (if TOL<-20°C)	5.31
Cdh	0.90

Model: TTC 07, average climates

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	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
Indoor water flow rate	2.10 m³/h	1.90 m³/h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Starting and operating test	passed

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	44 dB(A)	44 dB(A)

EN 14825

	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	0.90	0.90
Pdh Tj = +2°C	7.60 kW	7.20 kW
COP Tj = +2°C	5.25	3.61
Cdh	0.90	0.90
Pdh Tj = +7°C	7.60 kW	7.30 kW
COP Tj = +7°C	5.60	4.02
Cdh	0.90	0.90
Pdh Tj = 12°C	7.70 kW	7.40 kW
COP Tj = 12°C	5.99	4.52
Cdh	0.90	0.90
Pdh Tj = Tbiv	7.50 kW	6.90 kW
COP Tj = Tbiv	4.84	2.94

Pdh Tj = TOL	7.50 kW	6.90 kW
COP Tj = TOL	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

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2	
	Low temperature
Heat output	7.50 kW
El input	1.55 kW
COP	4.84
Indoor water flow rate	2.10 m³/h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Starting and operating test	passed

Average Climate

EN 12102-1	
	Low temperature
Sound power level indoor	44 dB(A)

EN 14825

	Low 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	0.90
Pdh Tj = +2°C	7.60 kW
COP Tj = +2°C	5.25
Cdh	0.90
Pdh Tj = +7°C	7.60 kW
COP Tj = +7°C	5.60
Cdh	0.90
Pdh Tj = 12°C	7.70 kW
COP Tj = 12°C	5.99
Cdh	0.90
Pdh Tj = Tbiv	7.50 kW
COP Tj = Tbiv	4.84

Pdh Tj = TOL	7.50 kW
COP Tj = TOL	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

Warmer Climate

EN 14825	
	Low temperature
η_s	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	0.90
Pdh Tj = +7°C	7.60 kW
COP Tj = +7°C	5.17
Cdh	0.90
Pdh Tj = 12°C	7.70 kW
COP Tj = 12°C	5.73
Cdh	0.90
Pdh Tj = Tbiv	7.50 kW
COP Tj = Tbiv	4.84
Pdh Tj = TOL	7.50 kW
COP Tj = TOL	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

Colder Climate

EN 14825

	Low temperature
η_s	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	0.90
Pdh Tj = +2°C	7.70 kW
COP Tj = +2°C	5.70
Cdh	0.90
Pdh Tj = +7°C	7.70 kW
COP Tj = +7°C	5.93
Cdh	0.90
Pdh Tj = 12°C	7.70 kW
COP Tj = 12°C	5.97
Cdh	0.90
Pdh Tj = Tbiv	7.60 kW
COP Tj = Tbiv	5.31

Pdh Tj = TOL	7.60 kW
COP Tj = TOL	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<-20°C)	7.60
COP Tj = -15°C (if TOL<-20°C)	5.31
Cdh	0.90

Model: TTC 07 cool, average climates

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	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
Indoor water flow rate	2.10 m³/h	1.90 m³/h

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Starting and operating test	passed

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	44 dB(A)	44 dB(A)

EN 14825

	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	0.90	0.90
Pdh Tj = +2°C	7.60 kW	7.20 kW
COP Tj = +2°C	5.25	3.61
Cdh	0.90	0.90
Pdh Tj = +7°C	7.60 kW	7.30 kW
COP Tj = +7°C	5.60	4.02
Cdh	0.90	0.90
Pdh Tj = 12°C	7.70 kW	7.40 kW
COP Tj = 12°C	5.99	4.52
Cdh	0.90	0.90
Pdh Tj = Tbiv	7.50 kW	6.90 kW
COP Tj = Tbiv	4.84	2.94

Pdh Tj = TOL	7.50 kW	6.90 kW
COP Tj = TOL	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