

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

Summary of	TTF 13 basic	Reg. No.	011-1W0047
Certificate Holder			
Name	tecalor GmbH		
Address	Fürstenbergerstr. 77	Zip	37603
City	Holzminen	Country	Germany
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Name of testing laboratory	VDE Prüf- und Zertifizierungsinstitut		
Subtype title	TTF 13 basic		
Heat Pump Type	Brine/Water		
Refrigerant	Other		
Mass Of Refrigerant	2.5 kg		
Certification Date	01.11.2016		

Model: TTF 13 basic, all climates

General Data

Power supply	3x400V 50Hz
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Heating

EN 14511-2

	Low temperature
Heat output	12.59 kW
El input	2.85 kW
COP	4.42
Indoor water flow rate	2.21 m ³ /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	53 dB(A)

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EN 14825

	Low temperature
η_s	189 %
Prated	13.00 kW
SCOP	4.92
Tbiv	-10 °C
TOL	-20 °C
Pdh Tj = -7°C	12.60 kW
COP Tj = -7°C	4.48
Cdh	0.90
Pdh Tj = +2°C	12.70 kW
COP Tj = +2°C	4.84
Cdh	0.90
Pdh Tj = +7°C	12.80 kW
COP Tj = +7°C	5.21
Cdh	0.90
Pdh Tj = 12°C	12.90 kW
COP Tj = 12°C	5.63
Cdh	0.90
Pdh Tj = Tbiv	12.60 kW
COP Tj = Tbiv	4.42

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Pdh Tj = TOL	12.60 kW
COP Tj = TOL	4.42
WTOL	60 °C
Poff	0 W
PTO	78 W
PSB	3 W
PCK	0 W
Supplementary Heater: Type of energy input	electricity
Supplementary Heater: PSUP	0.00 kW
Annual energy consumption Qhe	5285 kWh

Warmer Climate

EN 14825	
	Low temperature
η_s	189 %
Prated	13.00 kW
SCOP	4.94
Tbiv	2 °C
TOL	0 °C
Pdh Tj = +2°C	12.60 kW
COP Tj = +2°C	4.42

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Cdh	0.90
Pdh Tj = +7°C	12.70 kW
COP Tj = +7°C	4.76
Cdh	0.90
Pdh Tj = 12°C	12.90 kW
COP Tj = 12°C	5.34
Cdh	0.90
Pdh Tj = Tbiv	12.60 kW
COP Tj = Tbiv	4.42
Pdh Tj = TOL	12.60 kW
COP Tj = TOL	4.42
WTOL	60 °C
Poff	0 W
PTO	78 W
PSB	3 W
PCK	0 W
Supplementary Heater: Type of energy input	electricity
Supplementary Heater: PSUP	0.00 kW
Annual energy consumption Qhe	3407 kWh

Colder Climate

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EN 14825

	Low temperature
η_s	196 %
Prated	16.00 kW
SCOP	5.10
Tbiv	-15 °C
TOL	-22 °C
Pdh Tj = -7°C	12.80 kW
COP Tj = -7°C	5.02
Cdh	0.90
Pdh Tj = +2°C	12.80 kW
COP Tj = +2°C	5.31
Cdh	0.90
Pdh Tj = +7°C	12.90 kW
COP Tj = +7°C	5.56
Cdh	0.90
Pdh Tj = 12°C	12.90 kW
COP Tj = 12°C	5.60
Cdh	0.90
Pdh Tj = Tbiv	12.70 kW
COP Tj = Tbiv	4.90

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Pdh Tj = TOL	12.70 kW
COP Tj = TOL	4.90
WTOL	60 °C
Poff	0 W
PTO	78 W
PSB	3 W
PCK	0 W
Supplementary Heater: Type of energy input	electricity
Supplementary Heater: PSUP	3.02 kW
Annual energy consumption Qhe	7542 kWh
Pdh Tj = -15°C (if TOL<-20°C)	12.70
COP Tj = -15°C (if TOL<-20°C)	4.90
Cdh	0.90

Model: TTF 13 basic, average climates

General Data

Power supply	3x400V 50Hz
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Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	12.59 kW	11.60 kW
El input	2.85 kW	4.52 kW
COP	4.42	2.57
Indoor water flow rate	2.21 m ³ /h	1.58 m ³ /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	53 dB(A)	53 dB(A)

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EN 14825

	Low temperature	Medium temperature
η_s	189 %	122 %
Prated	13.00 kW	12.00 kW
SCOP	4.92	3.26
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-10 °C
Pdh Tj = -7°C	12.60 kW	11.70 kW
COP Tj = -7°C	4.48	2.69
Cdh	0.90	0.90
Pdh Tj = +2°C	12.70 kW	12.00 kW
COP Tj = +2°C	4.84	3.20
Cdh	0.90	0.90
Pdh Tj = +7°C	12.80 kW	12.30 kW
COP Tj = +7°C	5.21	3.60
Cdh	0.90	0.90
Pdh Tj = 12°C	12.90 kW	12.50 kW
COP Tj = 12°C	5.63	4.09
Cdh	0.90	0.90
Pdh Tj = Tbiv	12.60 kW	11.60 kW
COP Tj = Tbiv	4.42	2.57

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Pdh Tj = TOL	12.60 kW	11.60 kW
COP Tj = TOL	4.42	2.57
WTOL	60 °C	60 °C
Poff	0 W	0 W
PTO	78 W	78 W
PSB	3 W	3 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	5285 kWh	7350 kWh