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

Summary of	TTF 12.6, TTF 15.6	Reg. No.	011-1W0397
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	RISE Research Institutes of Sweden AB		
Subtype title	TTF 12.6, TTF 15.6		
Heat Pump Type	Brine/Water		
Refrigerant	Other		
Mass Of Refrigerant	3.1 kg		
Certification Date	08.09.2020		

Model: TTF 12.6 (cool), TTC 12.6 (cool)

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	4.19 kW	4.20 kW
El input	0.84 kW	1.34 kW
COP	5.01	3.13
Indoor water flow rate	0.74 m³/h	0.52 m³/h

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

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	216 %	169 %
Prated	12.03 kW	11.99 kW
SCOP	5.59	4.42
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.61 kW	10.59 kW
COP Tj = -7°C	4.81	3.55
Cdh	0.90	0.90
Pdh Tj = +2°C	6.45 kW	6.44 kW
COP Tj = +2°C	5.72	4.49
Cdh	0.90	0.90
Pdh Tj = +7°C	4.14 kW	4.13 kW
COP Tj = +7°C	6.12	4.99
Cdh	0.90	0.90
Pdh Tj = 12°C	2.30 kW	2.21 kW

COP Tj = 12°C	6.29	5.25
Cdh	0.90	0.90
Pdh Tj = Tbiv	12.03 kW	11.99 kW
COP Tj = Tbiv	4.53	3.29
Pdh Tj = TOL	12.03 kW	11.99 kW
COP Tj = TOL	4.53	3.29
WTOL	75 °C	75 °C
Poff	19 W	19 W
PTO	19 W	19 W
PSB	19 W	19 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	4445 kWh	5607 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)

EN 14825		
	Low temperature	**Medium temperature**

η_s	214 %	168 %
Prated	12.03 kW	11.99 kW
SCOP	5.55	4.39
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.03 kW	11.99 kW
COP Tj = +2°C	4.53	3.29
Cdh	0.90	0.90
Pdh Tj = +7°C	7.71 kW	7.69 kW
COP Tj = +7°C	5.51	4.12
Cdh	0.90	0.90
Pdh Tj = 12°C	3.41 kW	3.41 kW
COP Tj = 12°C	6.14	5.10
Cdh	0.90	0.90
Pdh Tj = Tbiv	12.03 kW	11.99 kW
COP Tj = Tbiv	4.53	3.29
Pdh Tj = TOL	12.03 kW	11.99 kW
COP Tj = TOL	4.53	3.29
WTOL	75 °C	75 °C
Poff	19 W	19 W
PTO	19 W	19 W

PSB	19 W	19 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	2896 kWh	3650 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	224 %	174 %
Prated	12.03 kW	11.99 kW
SCOP	5.80	4.56
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.26 kW	7.24 kW
COP Tj = -7°C	5.69	4.31
Cdh	0.90	0.90

Pdh Tj = +2°C	4.41 kW	4.40 kW
COP Tj = +2°C	6.16	4.91
Cdh	0.90	0.90
Pdh Tj = +7°C	2.82 kW	2.82 kW
COP Tj = +7°C	6.19	5.16
Cdh	0.90	0.90
Pdh Tj = 12°C	2.29 kW	2.23 kW
COP Tj = 12°C	6.12	5.40
Cdh	0.90	0.90
Pdh Tj = Tbiv	12.03 kW	11.99 kW
COP Tj = Tbiv	4.53	3.29
Pdh Tj = TOL	12.03 kW	11.99 kW
COP Tj = TOL	4.53	3.29
WTOL	75 °C	75 °C
Poff	19 W	19 W
PTO	19 W	19 W
PSB	19 W	19 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	5108 kWh	6485 kWh

Model: TTF 15.6 (cool), TTC 15.6 (cool)

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	5.18 kW	4.72 kW
El input	1.07 kW	1.48 kW
COP	4.86	3.18
Indoor water flow rate	0.90 m³/h	0.52 m³/h

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

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	210 %	168 %
Prated	14.46 kW	13.77 kW
SCOP	5.44	4.39
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.77 kW	12.16 kW
COP Tj = -7°C	4.46	3.40
Cdh	0.90	0.90
Pdh Tj = +2°C	7.76 kW	7.40 kW
COP Tj = +2°C	5.51	4.44
Cdh	0.90	0.90
Pdh Tj = +7°C	4.98 kW	4.75 kW
COP Tj = +7°C	6.13	5.03
Cdh	0.90	0.90
Pdh Tj = 12°C	2.29 kW	2.22 kW

COP Tj = 12°C	6.18	5.31
Cdh	0.90	0.90
Pdh Tj = Tbiv	14.46 kW	13.77 kW
COP Tj = Tbiv	4.30	3.26
Pdh Tj = TOL	14.46 kW	13.77 kW
COP Tj = TOL	4.30	3.26
WTOL	75 °C	75 °C
Poff	19 W	19 W
PTO	19 W	19 W
PSB	19 W	19 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	5489 kWh	6476 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)

EN 14825		
	Low temperature	**Medium temperature**

η_s	208 %	167 %
Prated	14.46 kW	13.77 kW
SCOP	5.41	4.37
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	14.46 kW	13.77 kW
COP Tj = +2°C	4.30	3.26
Cdh	0.90	0.90
Pdh Tj = +7°C	9.27 kW	8.83 kW
COP Tj = +7°C	5.13	3.99
Cdh	0.90	0.90
Pdh Tj = 12°C	4.11 kW	3.92 kW
COP Tj = 12°C	6.17	5.16
Cdh	0.90	0.90
Pdh Tj = Tbiv	14.46 kW	13.77 kW
COP Tj = Tbiv	4.30	3.26
Pdh Tj = TOL	14.46 kW	13.77 kW
COP Tj = TOL	4.30	3.26
WTOL	75 °C	75 °C
Poff	19 W	19 W
PTO	19 W	19 W

PSB	19 W	19 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	3573 kWh	4211 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	39 dB(A)	39 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	218 %	174 %
Prated	14.46 kW	13.77 kW
SCOP	5.66	4.56
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	8.73 kW	8.32 kW
COP Tj = -7°C	5.32	4.24
Cdh	0.90	0.90

Pdh Tj = +2°C	5.30 kW	5.05 kW
COP Tj = +2°C	6.15	4.94
Cdh	0.90	0.90
Pdh Tj = +7°C	3.40 kW	3.24 kW
COP Tj = +7°C	6.27	5.24
Cdh	0.90	0.90
Pdh Tj = 12°C	2.29 kW	2.23 kW
COP Tj = 12°C	6.12	5.44
Cdh	0.90	0.90
Pdh Tj = Tbiv	14.46 kW	13.77 kW
COP Tj = Tbiv	4.30	3.26
Pdh Tj = TOL	14.46 kW	13.77 kW
COP Tj = TOL	4.30	3.26
WTOL	75 °C	75 °C
Poff	19 W	19 W
PTO	19 W	19 W
PSB	19 W	19 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	6298 kWh	7451 kWh