

Summary of	TTF 4.6, TTF 6.6, TTF 8.6	Reg. No.	011-1W0396	
Certificate Holder	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 4.6, TTF 6.6, TTF 8.6			
Heat Pump Type	Brine/Water			
Refrigerant	Other			
Mass Of Refrigerant	2.2 kg			
Certification Date	08.09.2020			



Model: TTF 4.6 (cool) / TTC 4.6 (cool)

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	1.96 kW	1.26 kW	
El input	0.43 kW	0.47 kW	
СОР	4.60	2.73	
Indoor water flow rate	0.34 m³/h	0.14 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	38 dB(A)	38 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	195 %	153 %
Prated	4.23 kW	3.76 kW
SCOP	5.07	4.02
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	3.73 kW	3.32 kW
COP Tj = -7°C	5.01	3.58
Cdh	0.90	0.90
Pdh Tj = +2°C	2.26 kW	2.02 kW
COP Tj = +2°C	5.38	4.22
Cdh	0.90	0.90
Pdh Tj = +7°C	1.45 kW	1.30 kW
COP Tj = +7°C	5.34	4.47
Cdh	0.90	0.90
Pdh Tj = 12°C	1.13 kW	1.08 kW





COP Tj = 12°C	5.32	4.49
Cdh	0.90	0.90
Pdh Tj = Tbiv	4.23 kW	3.76 kW
COP Tj = Tbiv	4.86	3.43
Pdh Tj = TOL	4.23 kW	3.76 kW
COP Tj = TOL	4.86	3.43
WTOL	75 °C	75 °C
Poff	16 W	16 W
РТО	16 W	16 W
PSB	16 W	16 W
PCK	o w	o w
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1723 kWh	1934 kWh

Warmer Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)

EN 14825		
	Low temperature	Medium temperature





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η_{s}	187 %	147 %
Prated	4.23 kW	3.76 kW
SCOP	4.87	3.87
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	4.23 kW	3.76 kW
COP Tj = +2°C	4.86	3.43
Cdh	0.90	0.90
Pdh Tj = $+7^{\circ}$ C	2.71 kW	2.41 kW
$COP Tj = +7^{\circ}C$	5.24	3.95
Cdh	0.90	0.90
Pdh Tj = 12°C	1.20 kW	1.08 kW
COP Tj = 12°C	5.31	4.39
Cdh	0.90	0.90
Pdh Tj = Tbiv	4.23 kW	3.76 kW
COP Tj = Tbiv	4.86	3.43
Pdh Tj = TOL	4.23 kW	3.76 kW
COP Tj = TOL	4.86	3.43
WTOL	75 °C	75 °C
Poff	16 W	16 W
РТО	16 W	16 W





PSB	16 W	16 W
PCK	o w	o w
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1159 kWh	1300 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	38 dB(A)	38 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	201 %	157 %
Prated	4.23 kW	3.76 kW
SCOP	5.21	4.12
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	2.55 kW	2.27 kW
COP Tj = -7°C	5.37	4.10
Cdh	0.90	0.90





		ANN database on 17 Dec 2020
Pdh Tj = +2°C	1.55 kW	1.38 kW
COP Tj = +2°C	5.45	4.37
Cdh	0.90	0.90
Pdh Tj = +7°C	1.13 kW	1.09 kW
$COP Tj = +7^{\circ}C$	5.31	4.51
Cdh	0.90	0.90
Pdh Tj = 12°C	1.12 kW	1.09 kW
COP Tj = 12°C	5.21	4.52
Cdh	0.90	0.90
Pdh Tj = Tbiv	4.23 kW	3.76 kW
COP Tj = Tbiv	4.86	3.43
Pdh Tj = TOL	4.23 kW	3.76 kW
COP Tj = TOL	4.86	3.43
WTOL	75 °C	75 °C
Poff	16 W	16 W
РТО	16 W	16 W
PSB	16 W	16 W
PCK	0 W	o w
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2000 kWh	2252 kWh



Model: TTF 6.6 (cool) / TTC 6.6 (cool)

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	2.37 kW	2.01 kW	
El input	0.52 kW	0.69 kW	
СОР	4.60	2.91	
Indoor water flow rate	0.41 m³/h	0.22 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	41 dB(A)	41 dB(A)

EN 14825		
	Low temperature	Medium temperature
ης	200 %	160 %
Prated	6.70 kW	6.05 kW
SCOP	5.20	4.18
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.91 kW	5.34 kW
COP Tj = -7°C	4.71	3.55
Cdh	0.90	0.90
Pdh Tj = +2°C	3.59 kW	3.25 kW
COP Tj = +2°C	5.39	4.27
Cdh	0.90	0.90
Pdh Tj = +7°C	2.30 kW	2.09 kW
COP Tj = +7°C	5.60	4.76
Cdh	0.90	0.90
Pdh Tj = 12°C	1.14 kW	1.08 kW
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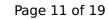


COP Tj = 12°C	5.47	4.61
Cdh	0.90	0.90
Pdh Tj = Tbiv	6.70 kW	6.05 kW
COP Tj = Tbiv	4.52	3.34
Pdh Tj = TOL	6.70 kW	6.05 kW
COP Tj = TOL	4.52	3.34
WTOL	75 °C	75 °C
Poff	16 W	16 W
РТО	16 W	16 W
PSB	16 W	16 W
PCK	o w	o w
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2662 kWh	2988 kWh

Warmer Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)

EN 14825		
	Low temperature	Medium temperature





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η_{s}	198 %	158 %
Prated	6.70 kW	6.05 kW
SCOP	5.14	4.14
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.70 kW	6.05 kW
COP Tj = +2°C	4.52	3.34
Cdh	0.90	0.90
Pdh Tj = $+7$ °C	4.29 kW	3.88 kW
COP Tj = +7°C	5.19	3.97
Cdh	0.90	0.90
Pdh Tj = 12°C	1.90 kW	1.72 kW
COP Tj = 12°C	5.71	4.81
Cdh	0.90	0.90
Pdh Tj = Tbiv	6.70 kW	6.05 kW
COP Tj = Tbiv	4.52	3.34
Pdh Tj = TOL	6.70 kW	6.05 kW
COP Tj = TOL	4.52	3.34
WTOL	75 °C	75 °C
Poff	16 W	16 W
РТО	16 W	16 W
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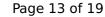
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PSB	16 W	16 W
PCK	o w	o w
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1741 kWh	1954 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	41 dB(A)

	Low temperature	Medium temperature
η_{s}	207 %	166 %
Prated	6.70 kW	6.05 kW
SCOP	5.38	4.34
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.04 kW	3.65 kW
COP Tj = -7°C	5.36	4.15
Cdh	0.90	0.90





	cherated by the fit RETI	ANN database on 17 Dec 2020
Pdh Tj = +2°C	2.45 kW	2.22 kW
COP Tj = +2°C	5.64	4.68
Cdh	0.90	0.90
Pdh Tj = +7°C	1.57 kW	1.42 kW
$COP Tj = +7^{\circ}C$	5.76	4.80
Cdh	0.90	0.90
Pdh Tj = 12°C	1.13 kW	1.10 kW
COP Tj = 12°C	5.32	4.73
Cdh	0.90	0.90
Pdh Tj = Tbiv	6.70 kW	6.05 kW
COP Tj = Tbiv	4.52	3.34
Pdh Tj = TOL	6.70 kW	6.05 kW
COP Tj = TOL	4.52	3.34
WTOL	75 °C	75 °C
Poff	16 W	16 W
РТО	16 W	16 W
PSB	16 W	16 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	3069 kWh	3439 kWh



Model: TTF 8.6 (cool) / TTC 8.6 (cool)

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	2.78 kW	2.42 kW	
El input	0.60 kW	0.79 kW	
СОР	4.67	3.07	
Indoor water flow rate	0.48 m³/h	0.27 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	40 dB(A)	40 dB(A)	

EN 14825		
	Low temperature	Medium temperature
η_{s}	197 %	158 %
Prated	7.66 kW	6.93 kW
SCOP	5.12	4.14
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.76 kW	6.12 kW
COP Tj = -7°C	4.53	3.44
Cdh	0.90	0.90
Pdh Tj = +2°C	4.11 kW	3.72 kW
COP Tj = +2°C	5.25	4.21
Cdh	0.90	0.90
Pdh Tj = +7°C	2.64 kW	2.39 kW
COP Tj = +7°C	5.59	4.69
Cdh	0.90	0.90
Pdh Tj = 12°C	1.16 kW	1.08 kW





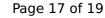
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	<u> </u>	
COP Tj = 12°C	5.52	4.61
Cdh	0.90	0.90
Pdh Tj = Tbiv	7.66 kW	6.93 kW
COP Tj = Tbiv	4.29	3.22
Pdh Tj = TOL	7.66 kW	6.93 kW
COP Tj = TOL	4.29	3.22
WTOL	75 °C	75 °C
Poff	16 W	16 W
РТО	16 W	16 W
PSB	16 W	16 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3094 kWh	3461 kWh

Warmer Climate

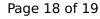
EN 12102-1			
Low temperature Medium temperature			
Sound power level indoor	40 dB(A)	40 dB(A)	

EN 14825		
	Low temperature	Medium temperature





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η_{S}	197 %	157 %
Prated	7.66 kW	6.93 kW
SCOP	5.13	4.13
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.66 kW	6.93 kW
COP Tj = +2°C	4.29	3.22
Cdh	0.90	0.90
Pdh Tj = $+7^{\circ}$ C	4.91 kW	4.45 kW
$COP Tj = +7^{\circ}C$	5.09	3.88
Cdh	0.90	0.90
Pdh Tj = 12°C	2.17 kW	1.97 kW
COP Tj = 12°C	5.75	4.85
Cdh	0.90	0.90
Pdh Tj = Tbiv	7.66 kW	6.93 kW
COP Tj = Tbiv	4.29	3.22
Pdh Tj = TOL	7.66 kW	6.93 kW
COP Tj = TOL	4.29	3.22
WTOL	75 °C	75 °C
Poff	16 W	16 W
РТО	16 W	16 W



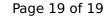


PSB	16 W	16 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1997 kWh	2243 kWh

Colder Climate

EN 12102-1				
	Low temperature	Medium temperature		
Sound power level indoor	40 dB(A)	40 dB(A)		

EN 14825				
	Low temperature	Medium temperature		
η_{s}	204 %	163 %		
Prated	7.66 kW	6.93 kW		
SCOP	5.29	4.29		
Tbiv	-22 °C	-22 °C		
TOL	-22 °C	-22 °C		
Pdh Tj = -7°C	4.62 kW	4.18 kW		
COP Tj = -7°C	5.17	4.07		
Cdh	0.90	0.90		





	Cherated by the Hir KETI	ANN database on 17 Dec 2020
Pdh Tj = +2°C	2.81 kW	2.54 kW
COP Tj = +2°C	5.60	4.60
Cdh	0.90	0.90
Pdh Tj = +7°C	1.80 kW	1.63 kW
COP Tj = +7°C	5.76	4.90
Cdh	0.90	0.90
Pdh Tj = 12°C	1.13 kW	1.09 kW
COP Tj = 12°C	5.34	4.75
Cdh	0.90	0.90
Pdh Tj = Tbiv	7.66 kW	6.93 kW
COP Tj = Tbiv	4.29	3.22
Pdh Tj = TOL	7.66 kW	6.93 kW
COP Tj = TOL	4.29	3.22
WTOL	75 °C	75 °C
Poff	16 W	16 W
РТО	16 W	16 W
PSB	16 W	16 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	3570 kWh	3985 kWh