

This information was generated by the HP KEYMARK database on 22 Jun 2022

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Summary of	TTF 87.5	Reg. No.	011-1W0460
Certificate Holder			
Name	tecalor GmbH		
Address	Fürstenbergerstr. 77	Zip	37603
City	Holzminden	Country	Germany
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Subtype title	TTF 87.5		
Heat Pump Type	Brine/Water		
Refrigerant	R410A		
Mass of Refrigerant	9 kg		
Certification Date	15.03.2021		
Testing basis	HP KEYMARK certification scheme rules V8		

Model: TTF 87.5

Configure model	
Model name	TTF 87.5
Application	Heating (medium temp)
Units	Indoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	52.18 kW	48.32 kW
El input	11.09 kW	17.02 kW
COP	4.71	2.84

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

Warmer Climate

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EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	50 dB(A)	50 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	202 %	160 %
Prated	84.67 kW	79.00 kW
SCOP	5.25	4.21
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	84.67 kW	79.00 kW
COP Tj = +2°C	3.97	2.72
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	54.43 kW	50.79 kW
COP Tj = +7°C	4.85	3.60
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	24.19 kW	24.07 kW
COP Tj = 12°C	5.85	5.16
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	84.67 kW	79.00 kW

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COP $T_j = T_{biv}$	3.97	2.72
$P_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	84.67 kW	79.00 kW
COP $T_j = TOL$ or COP $T_j = T_{designh}$ if $TOL < T_{designh}$	3.97	2.72
WTOL	65 °C	65 °C
Poff	9 W	9 W
PTO	11 W	11 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q_{he}	21524 kWh	23056 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	50 dB(A)	50 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	204 %	165 %
Prated	84.67 kW	79.00 kW

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SCOP	5.30	4.32
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	51.25 kW	48.52 kW
COP Tj = -7°C	5.06	3.85
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	31.20 kW	29.11 kW
COP Tj = +2°C	5.81	4.83
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	24.49 kW	24.11 kW
COP Tj = +7°C	5.85	5.20
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	24.39 kW	24.22 kW
COP Tj = 12°C	5.66	5.27
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	84.67 kW	79.00 kW
COP Tj = Tbiv	3.97	2.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	84.67 kW	79.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.97	2.72
WTOL	65 °C	65 °C
Poff	9 W	9 W

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PTO	11 W	11 W
PSB	11 W	11 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q _{he}	39378 kWh	45048 kWh
P _{dh} T _j = -15°C (if TOL<-20°C)	84.67	79.00
COP T _j = -15°C (if TOL<-20°C)	3.97	2.72
C _{dh} T _j = -15 °C	0.90	0.90

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	50 dB(A)	50 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	199 %	157 %
Prated	84.67 kW	79.00 kW
SCOP	5.17	4.13
T _{biv}	-10 °C	-10 °C

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TOL	-10 °C	-10 °C
Pdh Tj = -7°C	74.90 kW	69.88 kW
COP Tj = -7°C	4.26	3.00
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	45.59 kW	42.54 kW
COP Tj = +2°C	5.14	4.08
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	29.31 kW	27.35 kW
COP Tj = +7°C	5.81	4.94
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	24.37 kW	24.08 kW
COP Tj = 12°C	5.65	5.16
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	84.67 kW	79.00 kW
COP Tj = Tbiv	3.97	2.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	84.67 kW	79.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.97	2.72
WTOL	65 °C	65 °C
Poff	9 W	9 W
PTO	11 W	11 W
PSB	11 W	11 W

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PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q _{he}	33804 kWh	39457 kWh