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Summary of	TTF 27 HT	Reg. No.	011-1W0187
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	TÜV Rheinland Energy GmbH		
Subtype title	TTF 27 HT		
Heat Pump Type	Brine/Water		
Refrigerant	R134a		
Mass Of Refrigerant	6 kg		
Certification Date	04.09.2019		

Model: TTF 27 HT

General Data	
Power supply	3x400V 50Hz

Average Climate

EN 14825		
	Low temperature	**Medium temperature**
η_s	175 %	131 %
Prated	27.00 kW	25.00 kW
SCOP	4.58	4.58
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	27.50 kW	25.30 kW
COP Tj = -7°C	4.38	3.06
Cdh	0.90	0.90
Pdh Tj = +2°C	27.70 kW	26.10 kW
COP Tj = +2°C	4.59	3.48
Cdh	0.90	0.90
Pdh Tj = +7°C	27.90 kW	26.60 kW
COP Tj = +7°C	4.80	3.78
Cdh	0.90	
Pdh Tj = 12°C	28.20 kW	27.10 kW

COP Tj = 12°C	5.03	4.12
Cdh	0.90	0.90
Pdh Tj = Tbiv	27.40 kW	25.10 kW
COP Tj = Tbiv	4.34	2.96
Pdh Tj = TOL	27.40 kW	25.10 kW
COP Tj = TOL	4.34	2.96
WTOL	75 °C	75 °C
Poff	0 W	0 W
PTO	3 W	3 W
PSB	3 W	3 W
PCK	46 W	46 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	12359 kWh	14872 kWh

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	60 dB(A)	64 dB(A)
Sound power level outdoor	60 dB(A)	64 dB(A)

Warmer Climate

EN 14825

	Low temperature	**Medium temperature**
η_s	174 %	131 %
Prated	27.00 kW	25.00 kW
SCOP	4.58	4.58
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	27.40 kW	25.10 kW
COP Tj = +2°C	4.34	2.96
Cdh	0.90	0.90
Pdh Tj = +7°C	27.70 kW	25.80 kW
COP Tj = +7°C	4.55	3.29
Cdh	0.90	0.90
Pdh Tj = 12°C	28.00 kW	26.80 kW
COP Tj = 12°C	4.88	3.89
Cdh	0.90	0.90
Pdh Tj = Tbiv	27.40 kW	25.10 kW
COP Tj = Tbiv	4.34	2.96
Pdh Tj = TOL	27.40 kW	25.10 kW
COP Tj = TOL	4.34	2.96
WTOL	75 °C	75 °C
Poff	0 W	0 W

PTO	3 W	3 W
PSB	3 W	3 W
PCK	46 W	46 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	8031 kWh	9675 kWh

Heating

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

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	27.41 kW	25.10 kW
El input	6.32 kW	8.49 kW
COP	4.34	2.95
Indoor water flow rate	4.61 m³/h	4.61 m³/h

Colder Climate

EN 14825

	Low temperature	Medium temperature
η_s	180 %	136 %
Prated	34.00 kW	32.00 kW
SCOP	4.58	4.58
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	27.80 kW	26.10 kW
COP Tj = -7°C	4.70	3.46
Cdh	0.90	0.90
Pdh Tj = +2°C	28.00 kW	26.60 kW
COP Tj = +2°C	4.86	3.77
Cdh	0.90	0.90
Pdh Tj = +7°C	28.10 kW	27.00 kW
COP Tj = +7°C	5.00	4.05
Cdh	0.90	0.90
Pdh Tj = 12°C	28.20 kW	27.30 kW
COP Tj = 12°C	5.02	4.28
Cdh	0.90	0.90
Pdh Tj = Tbiv	27.80 kW	25.00 kW
COP Tj = Tbiv	4.63	3.29

Pdh Tj = TOL	27.40 kW	25.10 kW
COP Tj = TOL	4.34	2.96
WTOL	75 °C	75 °C
Poff	0 W	0 W
PTO	3 W	3 W
PSB	3 W	3 W
PCK	46 W	46 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	6.61 kW	6.52 kW
Annual energy consumption Qhe	17849 kWh	21670 kWh
Pdh Tj = -15°C (if TOL<-20°C)	27.80	25.00
COP Tj = -15°C (if TOL<-20°C)	4.63	3.29
Cdh	0.90	0.90