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Summary of	TTF 66	Reg. No.	011-1W0282	
Certificate Holder				
Name	tecalor GmbH			
Address	Fürstenbergerstr. 77	Zip	37603	
City	Holzminden	Country	Germany	
Certification Body	DIN CERTCO Gesellschaft fü	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Name of testing laboratory	TÜV Rheinland Energy GmbH			
Subtype title	TTF 66			
Heat Pump Type	Brine/Water			
Refrigerant	R410a			
Mass Of Refrigerant	14.5 kg			



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# **Model: TTF 66**

General Data	
Power supply 3x400V 50Hz	

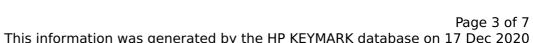
## Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	67.10 kW	62.30 kW	
El input	14.23 kW	21.60 kW	
СОР	4.56	2.82	
Indoor water flow rate	8.26 m³/h	8.26 m³/h	

EN 14511-4		
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	

## Average Climate

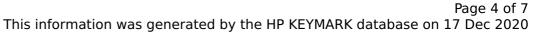
EN 14825		
	Low temperature	Medium temperature
	•	



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$\eta_{s}$	190 %	131 %
Prated	67.00 kW	62.00 kW
SCOP	4.95	3.48
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	67.20 kW	62.80 kW
COP Tj = -7°C	4.62	2.94
Pdh Tj = +2°C	67.20 kW	62.80 kW
COP Tj = +2°C	4.93	3.44
Pdh Tj = +7°C	68.20 kW	65.50 kW
COP Tj = +7°C	5.25	3.82
Pdh Tj = 12°C	68.70 kW	66.50 kW
COP Tj = 12°C	5.61	4.28
Pdh Tj = Tbiv	67.10 kW	62.30 kW
COP Tj = Tbiv	4.56	2.82
Pdh Tj = TOL	67.10 kW	62.30 kW
COP Tj = TOL	4.56	2.82
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	o w	0 W
РТО	7 W	7 W

CEN heat pump KEYMARK

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Annual energy consumption Qhe

PSB	7 W	7 W
PCK	99 W	99 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

28022 kWh

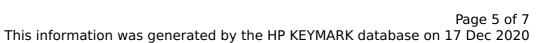
37120 kWh

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	59 dB(A)	59 dB(A)	
Sound power level outdoor	63 dB(A)	63 dB(A)	

### Warmer Climate

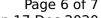
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	59 dB(A)	59 dB(A)	
Sound power level outdoor	63 dB(A)	63 dB(A)	

EN 14825		
Low temperature	Medium temperature	
190 %	130 %	
67.00 kW	62.00 kW	
	Low temperature	





SCOP	4.95	3.45
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	67.10 kW	62.30 kW
COP Tj = +2°C	4.56	2.82
Pdh Tj = +7°C	67.60 kW	63.70 kW
COP Tj = +7°C	4.86	3.20
Pdh Tj = 12°C	68.40 kW	65.90 kW
COP Tj = 12°C	5.37	3.96
Pdh Tj = Tbiv	67.10 kW	62.30 kW
COP Tj = Tbiv	4.56	2.82
Pdh Tj = TOL	67.10 kW	62.30 kW
COP Tj = TOL	4.56	2.82
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	0 W	0 W
РТО	7 W	7 W
PSB	7 W	7 W
PCK	99 W	99 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW





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Annual energy consumption Qhe	18119 kWh	24059 kWh
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### Colder Climate

EN 12102-1				
	Low temperature	Medium temperature		
Sound power level indoor	59 dB(A)	59 dB(A)		
Sound power level outdoor	63 dB(A)	63 dB(A)		

EN 14825			
	Low temperature	Medium temperature	
$\eta_{s}$	197 %	136 %	
Prated	83.00 kW	78.00 kW	
SCOP	5.13	3.60	
Tbiv	-15 °C	-15 °C	
TOL	-22 °C	-22 °C	
Pdh Tj = -7°C	68.00 kW	64.40 kW	
COP Tj = -7°C	5.09	3.42	
Pdh Tj = $+2^{\circ}$ C	68.30 kW	65.50 kW	
COP Tj = +2°C	5.34	3.81	
Pdh Tj = +7°C	68.60 kW	66.30 kW	
$COP Tj = +7^{\circ}C$	5.55	4.18	
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Pdh Tj = 12°C	68.70 kW	67.00 kW
COP Tj = 12°C	5.58	4.49
Pdh Tj = Tbiv	67.80 kW	63.70 kW
COP Tj = Tbiv	4.99	3.21
Pdh Tj = TOL	67.10 kW	62.30 kW
COP Tj = TOL	4.56	2.82
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	0 W	0 W
РТО	7 W	7 W
PSB	7 W	7 W
PCK	99 W	99 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	16.03 kW	15.83 kW
Annual energy consumption Qhe	39996 kWh	53447 kWh