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LUU	1111

Summary of	TTF 40	Reg. No.	011-1W0281
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 40		
Heat Pump Type	Brine/Water		
Refrigerant	R410A		
Mass of Refrigerant	10 kg		



## **Model: TTF 40**

Configure model		
Model name	TTF 40	
Application	Heating (medium temp)	
Units Indoor		
Climate Zone Colder Climate + Warmer Climate		
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 50Hz	

### Heating

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

EN 14511-2			
Low temperature Medium temperature			
Heat output	43.10 kW	40.20 kW	
El input	9.23 kW	17.45 kW	
СОР	4.67	2.99	

## Average Climate

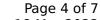


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EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	58 dB(A)	58 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	194 %	133 %
Prated	43.00 kW	40.00 kW
SCOP	5.05	3.53
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	43.20 kW	40.50 kW
COP Tj = -7°C	4.73	3.00
Pdh Tj = +2°C	43.50 kW	41.50 kW
COP Tj = +2°C	5.05	3.51
Pdh Tj = +7°C	43.80 kW	42.10 kW
$COP Tj = +7^{\circ}C$	5.38	3.90
Pdh Tj = 12°C	44.10 kW	42.80 kW
COP Tj = 12°C	5.76	4.38
Pdh Tj = Tbiv	43.10 kW	40.20 kW
COP Tj = Tbiv	4.67	2.88

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Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	43.10 kW	40.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.67	2.88
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	o w	0 W
РТО	7 W	7 W
PSB	7 W	7 W
PCK	74 W	74 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	17606 kWh	23479 kWh

#### Warmer Climate

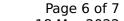
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	58 dB(A)	58 dB(A)	

Low temperature	Medium temperature
194 %	133 %
43.00 kW	40.00 kW
	194 %



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SCOP	5.05	3.53
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = $+2$ °C	43.10 kW	40.20 kW
$COPTj = +2^{\circ}C$	4.67	2.88
Pdh Tj = $+7^{\circ}$ C	43.40 kW	41.10 kW
$COPTj = +7^{\circ}C$	4.98	3.27
Pdh Tj = 12°C	43.90 kW	42.40 kW
COP Tj = 12°C	5.51	4.05
Pdh Tj = Tbiv	43.10 kW	40.20 kW
COP Tj = Tbiv	4.67	2.88
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	43.10 kW	40.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.67	2.88
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	0 W	0 W
РТО	7 W	7 W
PSB	7 W	7 W
РСК	74 W	74 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW





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	15248 kWh	11415 kWh	Annual energy consumption Qhe
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#### Colder Climate

EN 12102-1					
	Low temperature	Medium temperature			
Sound power level indoor	58 dB(A)	58 dB(A)			

EN 14825				
	Low t	emperature	Medium temperature	
$\eta_{s}$	202 %		139 %	
Prated	53.00	kW	50.00 kW	
SCOP	5.25		3.68	
Tbiv	-15 °C		-15 °C	
TOL	-22 °C		-22 °C	
Pdh Tj = -7°C	43.60	kW	41.50 kW	
COP Tj = -7°C	5.22		3.49	
Pdh Tj = +2°C	43.90	kW	42.10 kW	
COP Tj = +2°C	5.48		3.90	
Pdh Tj = +7°C	44.00	kW	42.60 kW	
COP Tj = +7°C	5.70		4.28	
Pdh Tj = 12°C	44.00	kW	41.10 kW	
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COP Tj = 12°C	5.11	3.27
Pdh Tj = Tbiv	43.10 kW	41.10 kW
COP Tj = Tbiv	5.11	3.27
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	43.10 kW	40.20 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.67	2.88
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.90	0.90
WTOL	60 °C	60 °C
Poff	o w	0 W
РТО	7 W	7 W
PSB	7 W	7 W
PCK	74 W	74 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	10.27 kW	10.14 kW
Annual energy consumption Qhe	25071 kWh	33723 kWh