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Summary of	TTF 35	Reg. No.	011-1W0043
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	VDE Prüf- und Zertifizierungsinstitut		
Subtype title	TTF 35		
Heat Pump Type	Brine/Water		
Refrigerant	R410a		
Mass Of Refrigerant	10 kg		
Certification Date	01.11.2016		

Model: TTF 35

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	37.70 kW	34.49 kW
El input	7.98 kW	11.47 kW
COP	4.72	3.01
Indoor water flow rate	4.48 m³/h	4.48 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 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	56 dB(A)	56 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	200 %	133 %
Prated	38.00 kW	34.00 kW
SCOP	5.19	3.52
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	38.10 kW	34.50 kW
COP Tj = -7°C	4.84	2.95
Pdh Tj = +2°C	38.60 kW	35.80 kW
COP Tj = +2°C	5.20	3.50
Pdh Tj = +7°C	39.00 kW	37.50 kW
COP Tj = +7°C	5.96	4.42
Pdh Tj = 12°C	38.00 kW	34.10 kW
COP Tj = 12°C	4.75	2.82
Pdh Tj = Tbiv	38.00 kW	34.10 kW

COP Tj = Tbiv	4.78	2.82
Pdh Tj = TOL	38.00 kW	34.10 kW
COP Tj = TOL	4.78	2.82
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	0 W	0 W
PTO	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	15136 kWh	20029 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	56 dB(A)	56 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

EN 14825		
	Low temperature	**Medium temperature**

η_s	199 %	132 %
Prated	38.00 kW	34.00 kW
SCOP	5.17	3.50
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	38.00 kW	34.10 kW
COP Tj = +2°C	4.78	2.82
Pdh Tj = +7°C	38.50 kW	35.20 kW
COP Tj = +7°C	5.12	3.24
Pdh Tj = 12°C	39.10 kW	37.00 kW
COP Tj = 12°C	5.69	4.08
Pdh Tj = Tbiv	38.00 kW	34.10 kW
COP Tj = Tbiv	4.78	2.82
Pdh Tj = TOL	38.00 kW	34.10 kW
COP Tj = TOL	4.78	2.82
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	0 W	0 W
PTO	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	9834 kWh	13033 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	56 dB(A)	56 dB(A)
Sound power level outdoor	56 dB(A)	56 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	208 %	139 %
Prated	47.00 kW	43.00 kW
SCOP	5.41	3.66
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	38.80 kW	35.80 kW
COP Tj = -7°C	5.38	3.48
Pdh Tj = +2°C	39.10 kW	36.70 kW
COP Tj = +2°C	5.67	3.91

Pdh Tj = +7°C	39.30 kW	37.40 kW
COP Tj = +7°C	5.90	4.32
Pdh Tj = 12°C	39.30 kW	37.90 kW
COP Tj = 12°C	5.94	4.66
Pdh Tj = Tbiv	38.60 kW	34.10 kW
COP Tj = Tbiv	5.26	2.82
Pdh Tj = TOL	38.60 kW	34.10 kW
COP Tj = TOL	5.26	2.82
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	0 W	0 W
PTO	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	9.32 kW	9.15 kW
Annual energy consumption Qhe	21594 kWh	28986 kWh