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Login

Summary of	TTF 10 basic	Reg. No.	011-1W0046
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 10 basic		
Heat Pump Type	Brine/Water		
Refrigerant	R410A		
Mass of Refrigerant	2.6 kg		
Certification Date	28.10.2016		

Model: TTF 10 basic, all climates

Configure model	
Model name	TTF 10 basic, all climates
Application	Heating (low 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 14511-2	
	Low temperature
Heat output	9.70 kW
El input	2.22 kW
COP	4.37

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

Average Climate

EN 12102-1	
	Low temperature
Sound power level indoor	51 dB(A)

EN 14825	
	Low temperature
η_s	190 %
Prated	10.00 kW
SCOP	4.94
Tbiv	-10 °C
TOL	-20 °C
Pdh Tj = -7°C	9.70 kW
COP Tj = -7°C	4.44
Cdh Tj = -7 °C	0.90
Pdh Tj = +2°C	9.80 kW
COP Tj = +2°C	4.85
Cdh Tj = +2 °C	0.90
Pdh Tj = +7°C	10.00 kW
COP Tj = +7°C	5.28
Cdh Tj = +7 °C	0.90
Pdh Tj = 12°C	10.10 kW

COP Tj = 12°C	5.78
Cdh Tj = +12 °C	0.90
Pdh Tj = Tbiv	9.70 kW
COP Tj = Tbiv	4.37
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.37
WTOL	60 °C
Poff	0 W
PTO	78 W
PSB	3 W
PCK	0 W
Supplementary Heater: Type of energy input	Electricity
Supplementary Heater: PSUP	0.00 kW
Annual energy consumption Qhe	4053 kWh

Warmer Climate

EN 14825	
	Low temperature
η_s	190 %
Prated	10.00 kW
SCOP	4.95

Tbiv	2 °C
TOL	0 °C
Pdh Tj = +2°C	9.70 kW
COP Tj = +2°C	4.37
Cdh Tj = +2 °C	0.90
Pdh Tj = +7°C	9.80 kW
COP Tj = +7°C	4.76
Cdh Tj = +7 °C	0.90
Pdh Tj = 12°C	10.00 kW
COP Tj = 12°C	5.44
Cdh Tj = +12 °C	0.90
Pdh Tj = Tbiv	9.70 kW
COP Tj = Tbiv	4.37
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.37
WTOL	60 °C
Poff	0 W
PTO	78 W
PSB	3 W
PCK	0 W
Supplementary Heater: Type of energy input	Electricity

Supplementary Heater: PSUP	0.00 kW
Annual energy consumption Qhe	2617 kWh

Colder Climate

EN 14825	
	Low temperature
η_s	199 %
Prated	12.00 kW
SCOP	5.17
Tbiv	-15 °C
TOL	-22 °C
Pdh Tj = -7°C	9.90 kW
COP Tj = -7°C	5.07
Cdh Tj = -7 °C	0.90
Pdh Tj = +2°C	10.00 kW
COP Tj = +2°C	5.41
Cdh Tj = +2 °C	0.90
Pdh Tj = +7°C	10.10 kW
COP Tj = +7°C	5.70
Cdh Tj = +7 °C	0.90
Pdh Tj = 12°C	10.10 kW

COP Tj = 12°C	5.75
Cdh Tj = +12 °C	0.90
Pdh Tj = Tbiv	9.90 kW
COP Tj = Tbiv	4.93
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.93
WTOL	60 °C
Poff	0 W
PTO	78 W
PSB	3 W
PCK	0 W
Supplementary Heater: Type of energy input	Electricity
Supplementary Heater: PSUP	2.40 kW
Annual energy consumption Qhe	5768 kWh
Pdh Tj = -15°C (if TOL<-20°C)	9.90
COP Tj = -15°C (if TOL<-20°C)	4.93
Cdh Tj = -15 °C	0.90

Model: TTF 10 basic, average climates

Configure model	
Model name	TTF 10 basic, average climates
Application	Heating (medium temp)
Units	Indoor
Climate Zone	n/a
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	9.70 kW	8.57 kW
El input	2.22 kW	3.67 kW
COP	4.37	2.34

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

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	51 dB(A)	51 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	190 %	114 %
Prated	10.00 kW	9.00 kW
SCOP	4.94	3.06
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-10 °C
Pdh Tj = -7°C	9.70 kW	8.70 kW
COP Tj = -7°C	4.44	2.46
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	9.80 kW	9.10 kW
COP Tj = +2°C	4.85	2.99
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	10.00 kW	9.30 kW
COP Tj = +7°C	5.28	3.42
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	10.10 kW	9.50 kW

COP Tj = 12°C	5.78	3.95
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	9.70 kW	8.60 kW
COP Tj = Tbiv	4.37	2.34
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.70 kW	8.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.37	2.34
WTOL	60 °C	60 °C
Poff	0 W	0 W
PTO	78 W	78 W
PSB	3 W	3 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4053 kWh	5788 kWh