

This information was generated by the HP KEYMARK database on 23 Jun 2022

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Summary of	TTL 25 A	Reg. No.	011-1W0049
Certificate Holder			
Name	tecalor GmbH		
Address	Fürstenbergerstr. 77	Zip	37603
City	Holzminden	Country	Germany
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Subtype title	TTL 25 A		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R410A		
Mass of Refrigerant	4.7 kg		
Certification Date	01.11.2016		

Model: TTL 25 A

Configure model

Model name	TTL 25 A
Application	Heating (medium temp)
Units	Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data

Power supply	3x400V 50Hz
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Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	7.84 kW	7.36 kW
El input	1.54 kW	2.33 kW
COP	5.09	3.16

EN 14511-4

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

Average Climate

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EN 12102-1

	Low temperature	Medium temperature
Sound power level outdoor	54 dB(A)	54 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	182 %	141 %
Prated	15.00 kW	15.00 kW
SCOP	4.63	3.59
Tbiv	-5 °C	-5 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	12.80 kW	13.80 kW
COP Tj = -7°C	2.98	2.48
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	8.30 kW	8.40 kW
COP Tj = +2°C	4.72	3.51
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	8.00 kW	7.80 kW
COP Tj = +7°C	6.16	4.61
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	9.10 kW	9.00 kW

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COP Tj = 12°C	8.11	6.66
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	11.80 kW	12.50 kW
COP Tj = Tbiv	3.16	2.59
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.60 kW	13.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.87	2.28
WTOL	65 °C	65 °C
Poff	10 W	10 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	38 W	38 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.21 kW	0.00 kW
Annual energy consumption Qhe	6689 kWh	8620 kWh

Warmer Climate

EN 14825		
	Low temperature	Medium temperature
η_s	219 %	163 %
Prated	8.00 kW	8.00 kW
SCOP	5.54	4.14

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Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.30 kW	8.40 kW
COP Tj = +2°C	4.14	2.74
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	7.90 kW	7.50 kW
COP Tj = +7°C	5.47	3.64
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	9.10 kW	9.00 kW
COP Tj = 12°C	7.72	6.11
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	8.30 kW	8.40 kW
COP Tj = Tbiv	4.14	2.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	16.90 kW	18.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.61	2.31
WTOL	65 °C	65 °C
Poff	10 W	10 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	38 W	38 W
Supplementary Heater: Type of energy input	Electricity	Electricity

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Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q _{he}	1930 kWh	2581 kWh

Colder Climate

EN 14825		
	Low temperature	Medium temperature
η_s	159 %	130 %
Prated	21.00 kW	22.00 kW
SCOP	4.05	3.33
T _{biv}	-10 °C	-10 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	12.60 kW	13.30 kW
COP T _j = -7°C	3.13	2.67
C _{dh} T _j = -7 °C	1.00	1.00
P _{dh} T _j = +2°C	8.30 kW	8.30 kW
COP T _j = +2°C	5.15	3.92
C _{dh} T _j = +2 °C	1.00	1.00
P _{dh} T _j = +7°C	8.00 kW	7.90 kW
COP T _j = +7°C	6.57	5.12
C _{dh} T _j = +7 °C	1.00	1.00
P _{dh} T _j = 12°C	9.10 kW	9.00 kW

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COP Tj = 12°C	8.11	6.95
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	14.10 kW	15.20 kW
COP Tj = Tbiv	2.90	2.53
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	16.70 kW	18.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.66	2.37
WTOL	65 °C	65 °C
Poff	10 W	10 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	38 W	38 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	20.59 kW	22.15 kW
Annual energy consumption Qhe	12796 kWh	16285 kWh
Pdh Tj = -15°C (if TOL<-20°C)	16.70	18.30
COP Tj = -15°C (if TOL<-20°C)	2.66	2.37
Cdh Tj = -15 °C	1.00	1.00