

Summary of	TTL 25 A, TTL 25 AC	Reg. No.	011-1W0049
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	VDE Prüf- und Zertifizierungsinstitut GmbH		
Subtype title	TTL 25 A, TTL 25 AC		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	Other		
Mass Of Refrigerant	4.7 kg	4.7 kg	
Certification Date	01.11.2016		



Model: TTL 25 A

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	7.84 kW	7.36 kW
El input	1.54 kW	2.33 kW
СОР	5.09	3.16
Indoor water flow rate	1.44 m³/h	0.82 m³/h

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 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	1.00	1.00
Pdh Tj = +2°C	8.30 kW	8.40 kW
COP Tj = +2°C	4.72	3.51
Cdh	1.00	1.00
Pdh Tj = +7°C	8.00 kW	7.80 kW
COP Tj = +7°C	6.16	4.61
Cdh	1.00	1.00
Pdh Tj = 12°C	9.10 kW	9.00 kW
COP Tj = 12°C	8.11	6.66
Cdh	1.00	1.00
Pdh Tj = Tbiv	11.80 kW	12.50 kW
COP Tj = Tbiv	3.16	2.59





Pdh Tj = TOL	12.60 kW	13.40 kW
COP Tj = TOL	2.87	2.28
WTOL	65 °C	65 °C
Poff	10 W	10 W
РТО	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
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	1.00	1.00
Pdh Tj = +7°C	7.90 kW	7.50 kW
COP Tj = +7°C	5.47	3.64
Cdh	1.00	1.00
Pdh Tj = 12°C	9.10 kW	9.00 kW
COP Tj = 12°C	7.72	6.11
Cdh	1.00	1.00
Pdh Tj = Tbiv	8.30 kW	8.40 kW
COP Tj = Tbiv	4.14	2.74
Pdh Tj = TOL	16.90 kW	18.80 kW
COP Tj = TOL	2.61	2.31
WTOL	65 °C	65 °C
Poff	10 W	10 W
РТО	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	0.00 kW	0.00 kW
Annual energy consumption Qhe	1930 kWh	2581 kWh

Colder Climate





EN 14825

	Low temperature	Medium temperature
	Low temperature	
η_{s}	159 %	130 %
Prated	21.00 kW	22.00 kW
SCOP	4.05	3.33
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	12.60 kW	13.30 kW
COP Tj = -7°C	3.13	2.67
Cdh	1.00	1.00
Pdh Tj = +2°C	8.30 kW	8.30 kW
COP Tj = +2°C	5.15	3.92
Cdh	1.00	1.00
Pdh Tj = +7°C	8.00 kW	7.90 kW
COP Tj = +7°C	6.57	5.12
Cdh	1.00	1.00
Pdh Tj = 12°C	9.10 kW	9.00 kW
COP Tj = 12°C	8.11	6.95
Cdh	1.00	1.00
Pdh Tj = Tbiv	14.10 kW	15.20 kW
COP Tj = Tbiv	2.90	2.53



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Pdh Tj = TOL	16.70 kW	18.30 kW
COP Tj = TOL	2.66	2.37
WTOL	65 °C	65 °C
Poff	10 W	10 W
РТО	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	1.00	1.00



Model: TTL 25 AC

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	7.84 kW	7.36 kW	
El input	1.54 kW	2.33 kW	
СОР	5.09	3.16	
Indoor water flow rate	1.44 m³/h	0.82 m³/h	

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

Average Climate

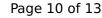
EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	54 dB(A)	54 dB(A)





EN 14825

	Low temperature	Medium temperature
η_{s}	187 %	144 %
Prated	15.00 kW	15.00 kW
SCOP	4.76	3.67
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	1.00	1.00
Pdh Tj = +2°C	8.30 kW	8.40 kW
COP Tj = +2°C	4.72	3.51
Cdh	1.00	1.00
Pdh Tj = +7°C	8.00 kW	7.80 kW
COP Tj = +7°C	6.16	4.61
Cdh	1.00	1.00
Pdh Tj = 12°C	9.10 kW	9.00 kW
COP Tj = 12°C	8.11	6.66
Cdh	1.00	1.00
Pdh Tj = Tbiv	11.80 kW	12.50 kW
COP Tj = Tbiv	3.16	2.59

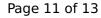




Pdh Tj = TOL	12.60 kW	13.40 kW
COP Tj = TOL	2.87	2.28
WTOL	65 °C	65 °C
Poff	10 W	10 W
РТО	10 W	10 W
PSB	10 W	10 W
PCK	38 W	38 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.21 kW	0.00 kW
Annual energy consumption Qhe	6513 kWh	8444 kWh

Warmer Climate

EN 14825		
	Low temperature	Medium temperature
η_{s}	246 %	177 %
Prated	8.00 kW	8.00 kW
SCOP	6.22	4.51
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





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Cdh	1.00	1.00
Pdh Tj = +7°C	7.90 kW	7.50 kW
COP Tj = +7°C	5.47	3.64
Cdh	1.00	1.00
Pdh Tj = 12°C	9.10 kW	9.00 kW
COP Tj = 12°C	7.72	6.11
Cdh	1.00	1.00
Pdh Tj = Tbiv	8.30 kW	8.40 kW
COP Tj = Tbiv	4.14	2.74
Pdh Tj = TOL	16.90 kW	18.80 kW
COP Tj = TOL	2.61	2.31
WTOL	65 °C	65 °C
Poff	10 W	10 W
РТО	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	0.00 kW	0.00 kW
Annual energy consumption Qhe	1718 kWh	2369 kWh

Colder Climate





EN 14825

	Low temperature	Medium temperature
η_{s}	160 %	131 %
Prated	21.00 kW	22.00 kW
SCOP	4.08	3.35
Tbiv	-10 °C	-10 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	12.60 kW	13.30 kW
COP Tj = -7°C	3.13	2.67
Cdh	1.00	1.00
Pdh Tj = +2°C	8.30 kW	8.30 kW
COP Tj = +2°C	5.15	3.92
Cdh	1.00	1.00
Pdh Tj = +7°C	8.00 kW	7.90 kW
COP Tj = +7°C	6.57	5.12
Cdh	1.00	1.00
Pdh Tj = 12°C	9.10 kW	9.00 kW
COP Tj = 12°C	8.11	6.95
Cdh	1.00	1.00
Pdh Tj = Tbiv	14.10 kW	15.20 kW
COP Tj = Tbiv	2.90	2.53



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COP Tj = TOL	2.66	2.37
WTOL	65 °C	65 °C
Poff	10 W	10 W
РТО	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	12690 kWh	16179 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	1.00	1.00