

Page 1 of 15

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Login

Summary of	TTL 5.6 ACS, TTL 7.6 ACS	Reg. No.	011-1W0405	
Certificate Holder				
Name	tecalor GmbH	tecalor GmbH		
Address	Fürstenbergerstr. 77	Zip	37603	
City	Holzminden	Country	Germany	
Certification Body	DIN CERTCO Gesellschaft für Ko	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Subtype title	TTL 5.6 ACS, TTL 7.6 ACS	TTL 5.6 ACS, TTL 7.6 ACS		
Heat Pump Type	Outdoor Air/Water	Outdoor Air/Water		
Refrigerant	R454C	R454C		
Mass of Refrigerant	3 kg	3 kg		
Certification Date	30.11.2020	30.11.2020		



Model: TTL 5.6 ACS

Configure model		
Model name	TTL 5.6 ACS	
Application	Heating (medium temp)	
Units	Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x230V 50Hz	

Heating

COP

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	3.31 kW	2.70 kW	
El input	0.61 kW	0.82 kW	

3.29

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

Warmer Climate

5.42





EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	208 %	143 %
Prated	3.00 kW	3.00 kW
SCOP	5.26	3.66
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	3.03 kW	2.97 kW
COP Tj = +2°C	4.29	2.86
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.07 kW	2.72 kW
COP Tj = +7°C	5.52	3.61
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.69 kW	3.46 kW
COP Tj = 12°C	7.51	5.33
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	3.03 kW	2.97 kW

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COP Tj = Tbiv	4.29	2.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.03 kW	2.97 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.29	2.86
WTOL	75 °C	75 °C
Poff	12 W	12 W
РТО	10 W	10 W
PSB	12 W	12 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	768 kWh	1085 kWh

Colder Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level outdoor	47 dB(A)	47 dB(A)	

EN 14825		
Low temperature	Medium temperature	
151 %	126 %	
8.20 kW	7.80 kW	
	Low temperature	





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SCOP	3.84	3.23		
Tbiv	-7 °C	-7 °C		
TOL	-22 °C	-22 °C		
Pdh Tj = -7°C	4.94 kW	4.70 kW		
$COP Tj = -7^{\circ}C$	3.67	2.94		
Cdh Tj = -7 °C	0.90	0.90		
Pdh Tj = +2°C	3.00 kW	2.86 kW		
$COPTj = +2^{\circ}C$	5.03	4.30		
Cdh Tj = +2 °C	0.90	0.90		
Pdh Tj = $+7^{\circ}$ C	3.21 kW	3.08 kW		
$COPTj = +7^{\circ}C$	6.81	5.42		
Cdh Tj = +7 °C	0.90	0.90		
Pdh Tj = 12°C	3.74 kW	3.63 kW		
COP Tj = 12°C	8.20	6.56		
Cdh Tj = +12 °C	0.90	0.90		
Pdh Tj = Tbiv	4.94 kW	4.70 kW		
COP Tj = Tbiv	3.67	2.94		
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.04 kW	2.58 kW		
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.93	2.20		
WTOL	75 °C	75 °C		
Poff	12 W	12 W		
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PTO	10 W	10 W
PSB	12 W	12 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.13 kW	5.19 kW
Annual energy consumption Qhe	5239 kWh	5927 kWh
Pdh Tj = -15°C (if TOL<-20°C)	4.00	3.64
COP Tj = -15°C (if TOL $<$ -20°C)	2.93	2.20
Cdh Tj = -15 °C	0.90	0.90

Average Climate

EN 12102-1			
Low temperature Medium temperature			
Sound power level outdoor	47 dB(A)	47 dB(A)	

EN 14825		
Low temperature Medium temperature		
η_{s}	185 %	151 %
Prated	5.50 kW	5.60 kW
SCOP	4.70	3.85
Tbiv	-7 °C	-7 °C





TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.86 kW	4.89 kW
COP Tj = -7°C	3.40	2.64
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	2.95 kW	3.03 kW
COP Tj = +2°C	4.58	3.80
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.16 kW	2.99 kW
$COPTj = +7^{\circ}C$	6.32	4.84
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.74 kW	3.57 kW
COP Tj = 12°C	8.19	6.09
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	4.68 kW	4.89 kW
COP Tj = Tbiv	3.40	2.64
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.43 kW	4.13 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.06	2.22
WTOL	75 °C	75 °C
Poff	12 W	12 W
РТО	10 W	10 W
PSB	12 W	12 W



Page 8 of 15

PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.07 kW	1.50 kW
Annual energy consumption Qhe	2415 kWh	3021 kWh



Model: TTL 7.6 ACS

Configure model		
Model name	TTL 7.6 ACS	
Application	Heating (medium temp)	
Units	Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x230V 50Hz	

Heating

5.42

COP

EN 14511-2				
Low temperature Medium temperature				
Heat output	3.31 kW	2.70 kW		
El input	0.61 kW	0.82 kW		

3.29

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

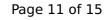
Warmer Climate



EN 12102-1			
Low temperature Medium temperature			
Sound power level outdoor	47 dB(A)	47 dB(A)	

EN 14825				
Low temperature Medium temperature				
η_{s}	230 %	163 %		
Prated	4.30 kW	4.30 kW		
SCOP	5.84	4.14		
Tbiv	2 °C	2 °C		
TOL	2 °C	2 °C		
Pdh Tj = +2°C	4.30 kW	4.30 kW		
COP Tj = +2°C	4.30	2.93		
Cdh Tj = +2 °C	0.90	0.90		
Pdh Tj = $+7^{\circ}$ C	3.10 kW	2.80 kW		
$COP Tj = +7^{\circ}C$	5.77	3.90		
Cdh Tj = +7 °C	0.90	0.90		
Pdh Tj = 12°C	3.70 kW	3.49 kW		
COP Tj = 12°C	7.69	5.53		
Cdh Tj = +12 °C	0.90	0.90		
Pdh Tj = Tbiv	4.30 kW	4.30 kW		

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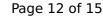


COP Tj = Tbiv	4.30	2.93
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.30 kW	4.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.30	2.93
WTOL	75 °C	75 °C
Poff	12 W	12 W
РТО	10 W	10 W
PSB	12 W	12 W
PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	984 kWh	1388 kWh

Colder Climate

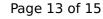
EN 12102-1			
Low temperature Medium temperature			
Sound power level outdoor	47 dB(A)	47 dB(A)	

EN 14825		
	Low temperature	Medium temperature
	151 %	128 %
	11.80 kW	11.90 kW
	11.80 kW	11.90 kW





SCOP	3.84	3.26
Tbiv	-7 °C	-7 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.15 kW	7.21 kW
COP Tj = -7°C	3.17	2.70
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	4.35 kW	4.39 kW
COP Tj = +2°C	5.24	4.31
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.24 kW	3.15 kW
COP Tj = +7°C	7.18	5.99
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.75 kW	3.66 kW
COP Tj = 12°C	8.41	6.88
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	7.15 kW	7.21 kW
COP Tj = Tbiv	3.17	2.70
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.25 kW	4.98 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.74	2.22
WTOL	75 °C	75 °C
Poff	12 W	12 W



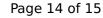


10 W	10 W
12 W	12 W
10 W	10 W
Electricity	Electricity
6.56 kW	6.93 kW
7574 kWh	9005 kWh
6.49	6.29
2.74	2.22
0.90	0.90
	12 W 10 W Electricity 6.56 kW 7574 kWh 6.49 2.74

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	47 dB(A)	47 dB(A)

EN 14825		
Low temperature	Medium temperature	
192 %	153 %	
8.10 kW	8.00 kW	
4.88	3.90	
-7 °C	-7 °C	
	Low temperature 192 % 8.10 kW 4.88	





TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.13 kW	7.04 kW
COP Tj = -7°C	3.00	2.43
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = $+2$ °C	4.34 kW	4.28 kW
$COPTj = +2^{\circ}C$	4.82	3.79
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = $+7^{\circ}$ C	3.19 kW	3.05 kW
$COP Tj = +7^{\circ}C$	6.66	5.22
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.75 kW	3.60 kW
COP Tj = 12°C	8.40	6.33
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	7.13 kW	7.04 kW
COP Tj = Tbiv	3.00	2.43
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	6.86 kW	6.53 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.80	2.43
WTOL	75 °C	75 °C
Poff	12 W	12 W
РТО	10 W	10 W
PSB	12 W	12 W



Page 15 of 15

PCK	10 W	10 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.20 kW	1.43 kW
Annual energy consumption Qhe	3413 kWh	4219 kWh