

Summary of	TTL 6.5/8.5 ACS	Reg. No.	011-1W0062
Certificate Holder	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	RISE Research Institute of S	RISE Research Institute of Sweden	
Subtype title	TTL 6.5/8.5 ACS		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R410a		
Mass Of Refrigerant	2 kg		
Certification Date	13.10.2017	13.10.2017	
Testing basis	HP KEYMARK certification scheme rules rev. no. 6		

Model: TTL 6.5 ACS + TSBC 200 ECO, TSBB 200 S

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	4.86 kW	4.31 kW
El input	1.02 kW	1.58 kW
СОР	4.76	2.73
Indoor water flow rate	0.80 m³/h	1.34 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	27 dB(A)	27 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	177 %	125 %
Prated	6.80 kW	7.55 kW
SCOP	4.50	3.21
Tbiv	-7 °C	-5 °C
TOL	-10 °C	-7 °C
Pdh Tj = -7°C	6.02 kW	5.10 kW
COP Tj = -7°C	2.90	1.97
Cdh	0.90	0.90
Pdh Tj = +2°C	3.89 kW	4.10 kW
COP Tj = +2°C	4.35	3.25
Cdh	0.90	0.90
Pdh Tj = +7°C	3.50 kW	2.60 kW
COP Tj = +7°C	6.60	4.56
Cdh	0.90	0.90





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Pdh Tj = 12°C	3.39 kW	3.30 kW
COP Tj = 12°C	6.78	5.98
Cdh	0.90	0.90
Pdh Tj = Tbiv	6.02 kW	6.10 kW
COP Tj = Tbiv	2.90	2.28
Pdh Tj = TOL	6.30 kW	5.10 kW
COP Tj = TOL	2.80	1.97
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	30 W	30 W
PSB	17 W	17 W
PCK	5 W	5 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.50 kW	7.55 kW
Annual energy consumption Qhe	3120 kWh	4865 kWh

Domestic Hot Water (DHW)



EN 16147	
Declared load profile	L
Efficiency ηDHW	113 %
СОР	2.70
Heating up time	01:50 h:min
Standby power input	35.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	245 I

Model: TTL 8.5 ACS + TSBC 200 ECO, TSBB 200 S

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	4.86 kW	4.31 kW
El input	1.02 kW	1.58 kW
СОР	4.76	2.73
Indoor water flow rate	0.80 m³/h	1.34 m³/h

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



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	27 dB(A)	27 dB(A)
Sound power level outdoor	57 dB(A)	57 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	177 %	125 %
Prated	9.19 kW	7.55 kW
SCOP	4.50	3.21
Tbiv	-7 °C	-5 °C
TOL	-10 °C	-7 °C
Pdh Tj = -7°C	8.13 kW	5.10 kW
COP Tj = -7°C	2.72	1.97
Cdh	0.90	0.90
Pdh Tj = +2°C	5.22 kW	4.10 kW
COP Tj = +2°C	4.35	3.25
Cdh	0.90	0.90
Pdh Tj = +7°C	3.50 kW	2.60 kW
COP Tj = +7°C	6.60	4.56
Cdh	0.90	0.90





Pdh Tj = 12°C	3.39 kW	3.30 kW
COP Tj = 12°C	6.78	5.98
Cdh	0.90	0.90
Pdh Tj = Tbiv	8.13 kW	6.10 kW
COP Tj = Tbiv	2.72	2.28
Pdh Tj = TOL	7.92 kW	5.10 kW
COP Tj = TOL	2.64	1.97
WTOL	60 °C	60 °C
Poff	17 W	17 W
РТО	30 W	30 W
PSB	17 W	17 W
PCK	5 W	5 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	1.27 kW	7.55 kW
Annual energy consumption Qhe	4218 kWh	4865 kWh

Domestic Hot Water (DHW)



EN 16147	
Declared load profile	L
Efficiency ηDHW	113 %
СОР	2.70
Heating up time	01:50 h:min
Standby power input	35.0 W
Reference hot water temperature	52.5 °C
Mixed water at 40°C	245 I



Model: TTL 6.5 ACS, low temperature, all climates

General Data	
Power supply	1x230V 50Hz

Heating

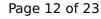
EN 14511-2		
	Low temperature	
Heat output	4.86 kW	
El input	1.02 kW	
СОР	4.76	
Indoor water flow rate	1.34 m³/h	

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



EN 12102-1	
	Low temperature
Sound power level outdoor	57 dB(A)

EN 14825	
	Low temperature
η_{s}	177 %
Prated	6.80 kW
SCOP	4.50
Tbiv	-7 °C
TOL	-10 °C
Pdh Tj = -7°C	6.02 kW
COP Tj = -7°C	2.90
Cdh	0.90
Pdh Tj = +2°C	3.89 kW
COP Tj = +2°C	4.35
Cdh	0.90
Pdh Tj = +7°C	3.50 kW
$COP Tj = +7^{\circ}C$	6.60
Cdh	0.90
Pdh Tj = 12°C	3.39 kW





COP Tj = 12°C	6.78
Cdh	0.90
Pdh Tj = Tbiv	6.02 kW
COP Tj = Tbiv	2.90
Pdh Tj = TOL	6.30 kW
COP Tj = TOL	2.80
WTOL	60 °C
Poff	17 W
РТО	30 W
PSB	17 W
PCK	5 W
Supplementary Heater: Type of energy input	electricity
Supplementary Heater: PSUP	0.50 kW
Annual energy consumption Qhe	3120 kWh

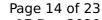
Warmer Climate

EN 14825	
w temperature	
3 %	
30 kW	
41	
.4	





Tbiv	2 °C
TOL	2 °C
Pdh Tj = +2°C	6.30 kW
$COP Tj = +2^{\circ}C$	3.60
Cdh	0.90
Pdh Tj = +7°C	4.10 kW
$COP Tj = +7^{\circ}C$	5.25
Cdh	0.90
Pdh Tj = 12°C	3.37 kW
COP Tj = 12°C	6.61
Cdh	0.90
Pdh Tj = Tbiv	6.30 kW
COP Tj = Tbiv	3.60
Pdh Tj = TOL	6.30 kW
COP Tj = TOL	3.60
WTOL	60 °C
Poff	17 W
РТО	30 W
PSB	17 W
PCK	5 W
Supplementary Heater: Type of energy input	electricity





Supplementary Heater: PSUP	0.00 kW
Annual energy consumption Qhe	1556 kWh

EN 12102-1	
	Low temperature
Sound power level outdoor	57 dB(A)

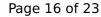
Colder Climate

EN 14825	
	Low temperature
η_s	151 %
Prated	5.80 kW
SCOP	3.85
Tbiv	-15 °C
TOL	-20 °C
Pdh Tj = -7°C	3.51 kW
COP Tj = -7°C	3.30
Cdh	0.90
Pdh Tj = +2°C	2.28 kW
COP Tj = +2°C	4.55
Cdh	0.90





This information was generated by the Hr K	
Pdh Tj = +7°C	2.79 kW
$COP Tj = +7^{\circ}C$	5.81
Cdh	0.90
Pdh Tj = 12°C	3.39 kW
COP Tj = 12°C	6.71
Cdh	0.90
Pdh Tj = Tbiv	5.80 kW
COP Tj = Tbiv	2.70
Pdh Tj = TOL	4.50 kW
COP Tj = TOL	2.40
WTOL	60 °C
Poff	17 W
РТО	30 W
PSB	17 W
PCK	5 W
Supplementary Heater: Type of energy input	electricity
Supplementary Heater: PSUP	5.80 kW
Annual energy consumption Qhe	3713 kWh
Pdh Tj = -15 °C (if TOL< -20 °C)	5.80
COP Tj = -15 °C (if TOL< -20 °C)	2.70
Cdh	0.90





EN 12102-1	
	Low temperature
Sound power level outdoor	57 dB(A)



Model: TTL 8.5 ACS, low temperature, all climates

General Data	
Power supply	1x230V 50Hz

Heating

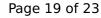
EN 14511-2	
	Low temperature
Heat output	4.86 kW
El input	1.02 kW
СОР	4.76
Indoor water flow rate	0.80 m³/h

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



EN 12102-1	
	Low temperature
Sound power level outdoor	57 dB(A)

EN 14825	
	Low temperature
η_{s}	177 %
Prated	9.19 kW
SCOP	4.50
Tbiv	-7 °C
TOL	-10 °C
Pdh Tj = -7°C	8.13 kW
COP Tj = -7°C	2.72
Cdh	0.90
dh Tj = +2°C	5.22 kW
COP Tj = +2°C	4.35
Cdh	0.90
Pdh Tj = +7°C	3.50 kW
COP Tj = +7°C	6.60
Cdh	0.90
Pdh Tj = 12°C	3.39 kW





COP Tj = 12°C	6.78
Cdh	0.90
Pdh Tj = Tbiv	8.13 kW
COP Tj = Tbiv	2.72
Pdh Tj = TOL	7.92 kW
COP Tj = TOL	2.64
WTOL	60 °C
Poff	17 W
РТО	30 W
PSB	17 W
PCK	5 W
Supplementary Heater: Type of energy input	electricity
Supplementary Heater: PSUP	1.27 kW
Annual energy consumption Qhe	4218 kWh

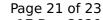
Warmer Climate

Low temperature
215 %
7.60 kW
5.44
L





This information was generated by the HP KETMARK database on 17 Dec 202		
Tbiv	2 °C	
TOL	2 °C	
Pdh Tj = +2°C	7.60 kW	
$COP Tj = +2^{\circ}C$	3.44	
Cdh	0.90	
Pdh Tj = $+7$ °C	4.89 kW	
$COP Tj = +7^{\circ}C$	5.15	
Cdh	0.90	
Pdh Tj = 12°C	3.37 kW	
COP Tj = 12°C	6.61	
Cdh	0.90	
Pdh Tj = Tbiv	7.60 kW	
COP Tj = Tbiv	3.44	
Pdh Tj = TOL	7.60 kW	
COP Tj = TOL	3.44	
WTOL	60 °C	
Poff	17 W	
РТО	30 W	
PSB	17 W	
PCK	5 W	
Supplementary Heater: Type of energy input	electricity	





Supplementary Heater: PSUP	0.00 kW
Annual energy consumption Qhe	1867 kWh

EN 12102-1	
	Low temperature
Sound power level outdoor	57 dB(A)

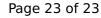
Colder Climate

EN 14825	
	Low temperature
η_s	147 %
Prated	8.70 kW
SCOP	3.75
Tbiv	-15 °C
TOL	-20 °C
Pdh Tj = -7°C	5.27 kW
COP Tj = -7°C	3.17
Cdh	0.90
Pdh Tj = +2°C	3.21 kW
COP Tj = +2°C	4.46
Cdh	0.90





Pdh Tj = $+7^{\circ}$ C	2.79 kW
$COP Tj = +7^{\circ}C$	5.81
COP IJ = +7 C	5.61
Cdh	0.90
Pdh Tj = 12°C	3.39 kW
COP Tj = 12°C	6.71
Cdh	0.90
Pdh Tj = Tbiv	7.10 kW
COP Tj = Tbiv	2.54
Pdh Tj = TOL	5.80 kW
COP Tj = TOL	2.19
WTOL	60 °C
Poff	17 W
PTO	30 W
PSB	17 W
РСК	5 W
Supplementary Heater: Type of energy input	electricity
Supplementary Heater: PSUP	8.70 kW
Annual energy consumption Qhe	5722 kWh
Pdh Tj = -15°C (if TOL<-20°C)	7.10
COP Tj = -15°C (if TOL<-20°C)	2.54
Cdh	0.90





EN 12102-1	
	Low temperature
Sound power level outdoor	57 dB(A)