

This information was generated by the HP KEYMARK database on 17 Dec 2020

Summary of	TTL 6.5/8.5 ACS	Reg. No.	011-1W0062
Certificate Holder			
Name	tecalor GmbH		
Address	Fürstenbergerstr. 77	Zip	37603
City	Holzminen	Country	Germany
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH		
Name of testing laboratory	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		
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
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Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	4.86 kW	4.31 kW
El input	1.02 kW	1.58 kW
COP	4.76	2.73
Indoor water flow rate	0.80 m ³ /h	1.34 m ³ /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

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

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
PTO	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)

Average Climate

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EN 16147	
Declared load profile	L
Efficiency η_{DHW}	113 %
COP	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 l

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

General Data

Power supply	1x230V 50Hz
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Heating

EN 14511-2

	Low temperature	Medium temperature
Heat output	4.86 kW	4.31 kW
El input	1.02 kW	1.58 kW
COP	4.76	2.73
Indoor water flow rate	0.80 m ³ /h	1.34 m ³ /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

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

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

This information was generated by the HP KEYMARK database on 17 Dec 2020

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
PTO	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)

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 16147	
Declared load profile	L
Efficiency η_{DHW}	113 %
COP	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 l

Model: TTL 6.5 ACS, low temperature, all climates

General Data

Power supply	1x230V 50Hz
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Heating

EN 14511-2

Low temperature

Heat output	4.86 kW
El input	1.02 kW
COP	4.76
Indoor water flow rate	1.34 m ³ /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

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

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°C	6.60
Cdh	0.90
Pdh Tj = 12°C	3.39 kW

This information was generated by the HP KEYMARK database on 17 Dec 2020

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
PTO	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	
	Low temperature
η_s	213 %
Prated	6.30 kW
SCOP	5.41

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Tbiv	2 °C
TOL	2 °C
Pdh Tj = +2°C	6.30 kW
COP Tj = +2°C	3.60
Cdh	0.90
Pdh Tj = +7°C	4.10 kW
COP Tj = +7°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
PTO	30 W
PSB	17 W
PCK	5 W
Supplementary Heater: Type of energy input	electricity

This information was generated by the HP KEYMARK database on 17 Dec 2020

Supplementary Heater: PSUP	0.00 kW
Annual energy consumption Q _{he}	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
T _{biv}	-15 °C
TOL	-20 °C
P _{dh} T _j = -7°C	3.51 kW
COP T _j = -7°C	3.30
C _{dh}	0.90
P _{dh} T _j = +2°C	2.28 kW
COP T _j = +2°C	4.55
C _{dh}	0.90

This information was generated by the HP KEYMARK database on 17 Dec 2020

Pdh Tj = +7°C	2.79 kW
COP Tj = +7°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
PTO	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

This information was generated by the HP KEYMARK database on 17 Dec 2020

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
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Heating

EN 14511-2

Low temperature

Heat output	4.86 kW
El input	1.02 kW
COP	4.76
Indoor water flow rate	0.80 m ³ /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

Average Climate

This information was generated by the HP KEYMARK database on 17 Dec 2020

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
Pdh 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

This information was generated by the HP KEYMARK database on 17 Dec 2020

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
PTO	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

EN 14825	
	Low temperature
η_s	215 %
Prated	7.60 kW
SCOP	5.44

This information was generated by the HP KEYMARK database on 17 Dec 2020

Tbiv	2 °C
TOL	2 °C
Pdh Tj = +2°C	7.60 kW
COP Tj = +2°C	3.44
Cdh	0.90
Pdh Tj = +7°C	4.89 kW
COP Tj = +7°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
PTO	30 W
PSB	17 W
PCK	5 W
Supplementary Heater: Type of energy input	electricity

This information was generated by the HP KEYMARK database on 17 Dec 2020

Supplementary Heater: PSUP	0.00 kW
Annual energy consumption Q _{he}	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
T _{biv}	-15 °C
TOL	-20 °C
P _{dh} T _j = -7°C	5.27 kW
COP T _j = -7°C	3.17
C _{dh}	0.90
P _{dh} T _j = +2°C	3.21 kW
COP T _j = +2°C	4.46
C _{dh}	0.90

This information was generated by the HP KEYMARK database on 17 Dec 2020

Pdh Tj = +7°C	2.79 kW
COP Tj = +7°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	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
PCK	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

This information was generated by the HP KEYMARK database on 17 Dec 2020

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