Login

Summary of	TTL 6.5/8.5 ACS	Reg. No.	011-1W0062
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 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

Configure model	
Model name	TTL 6.5 ACS + TSBC 200 ECO, TSBB 200 S
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a

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
COP	4.76	2.73

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

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 Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	3.89 kW	4.10 kW
COP Tj = +2°C	4.35	3.25
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.50 kW	2.60 kW
COP Tj = +7°C	6.60	4.56
Cdh Tj = +7 °C	0.90	0.90

Pdh Tj = 12°C	3.39 kW	3.30 kW
COP Tj = 12°C	6.78	5.98
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	6.02 kW	6.10 kW
COP Tj = Tbiv	2.90	2.28
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.30 kW	5.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	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

EN 16147

Declared load profile	L
Efficiency ηDHW	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

Configure model	
Model name	TTL 8.5 ACS + TSBC 200 ECO, TSBB 200 S
Application	Heating + DHW + low temp
Units	Indoor + Outdoor
Climate Zone	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a

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
COP	4.76	2.73

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

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 Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	5.22 kW	4.10 kW
COP Tj = +2°C	4.35	3.25
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.50 kW	2.60 kW
COP Tj = +7°C	6.60	4.56
Cdh Tj = +7 °C	0.90	0.90

Pdh Tj = 12°C	3.39 kW	3.30 kW
COP Tj = 12°C	6.78	5.98
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	8.13 kW	6.10 kW
COP Tj = Tbiv	2.72	2.28
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.92 kW	5.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	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

EN 16147

Declared load profile	L
Efficiency ηDHW	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

Configure model	
Model name	TTL 6.5 ACS, low temperature, all climates
Application	Heating (low temp)
Units	Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2	
	Low temperature
Heat output	4.86 kW
El input	1.02 kW
COP	4.76

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

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 Tj = -7 °C	0.90
Pdh Tj = +2°C	3.89 kW
COP Tj = +2°C	4.35
Cdh Tj = +2 °C	0.90
Pdh Tj = +7°C	3.50 kW
COP Tj = +7°C	6.60
Cdh Tj = +7 °C	0.90
Pdh Tj = 12°C	3.39 kW

COP Tj = 12°C	6.78
Cdh Tj = +12 °C	0.90
Pdh Tj = Tbiv	6.02 kW
COP Tj = Tbiv	2.90
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	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

Tbiv	2 °C
TOL	2 °C
Pdh Tj = +2°C	6.30 kW
COP Tj = +2°C	3.60
Cdh Tj = +2 °C	0.90
Pdh Tj = +7°C	4.10 kW
COP Tj = +7°C	5.25
Cdh Tj = +7 °C	0.90
Pdh Tj = 12°C	3.37 kW
COP Tj = 12°C	6.61
Cdh Tj = +12 °C	0.90
Pdh Tj = Tbiv	6.30 kW
COP Tj = Tbiv	3.60
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.60
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	0.00 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 Tj = -7 °C	0.90
Pdh Tj = +2°C	2.28 kW
COP Tj = +2°C	4.55
Cdh Tj = +2 °C	0.90

Pdh Tj = +7°C	2.79 kW
COP Tj = +7°C	5.81
Cdh Tj = +7 °C	0.90
Pdh Tj = 12°C	3.39 kW
COP Tj = 12°C	6.71
Cdh Tj = +12 °C	0.90
Pdh Tj = Tbiv	5.80 kW
COP Tj = Tbiv	2.70
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	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 Tj = -15 °C	0.90

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

Model: TTL 8.5 ACS, low temperature, all climates

Configure model	
Model name	TTL 8.5 ACS, low temperature, all climates
Application	Heating (low temp)
Units	Outdoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	Yes
Cooling mode application (optional)	n/a

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2	
	Low temperature
Heat output	4.86 kW
El input	1.02 kW
COP	4.76

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

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 Tj = -7 °C	0.90
Pdh Tj = +2°C	5.22 kW
COP Tj = +2°C	4.35
Cdh Tj = +2 °C	0.90
Pdh Tj = +7°C	3.50 kW
COP Tj = +7°C	6.60
Cdh Tj = +7 °C	0.90
Pdh Tj = 12°C	3.39 kW

COP Tj = 12°C	6.78
Cdh Tj = +12 °C	0.90
Pdh Tj = Tbiv	8.13 kW
COP Tj = Tbiv	2.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.92 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	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

Tbiv	2 °C
TOL	2 °C
Pdh Tj = +2°C	7.60 kW
COP Tj = +2°C	3.44
Cdh Tj = +2 °C	0.90
Pdh Tj = +7°C	4.89 kW
COP Tj = +7°C	5.15
Cdh Tj = +7 °C	0.90
Pdh Tj = 12°C	3.37 kW
COP Tj = 12°C	6.61
Cdh Tj = +12 °C	0.90
Pdh Tj = Tbiv	7.60 kW
COP Tj = Tbiv	3.44
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.44
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	0.00 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 Tj = -7 °C	0.90
Pdh Tj = +2°C	3.21 kW
COP Tj = +2°C	4.46
Cdh Tj = +2 °C	0.90

Pdh Tj = +7°C	2.79 kW
COP Tj = +7°C	5.81
Cdh Tj = +7 °C	0.90
Pdh Tj = 12°C	3.39 kW
COP Tj = 12°C	6.71
Cdh Tj = +12 °C	0.90
Pdh Tj = Tbiv	7.10 kW
COP Tj = Tbiv	2.54
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.80 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	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 Tj = -15 °C	0.90

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