Subtype TTL 9.6/12.6 AC

Certificate Holder	tecalor GmbH
Address	Lüchtringer Weg 3
ZIP	37603
City	Holzminden
Country	DE
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	TTL 9.6/12.6 AC
Registration number	011-1W0648
Heat Pump Type	Outdoor Air/Water
Refrigerant	R452B
Mass of Refrigerant	5 kg
Certification Date	22.06.2023
Testing basis	European KEYMARK Scheme for Heat Pumps Rev. 12 (as of 2023-04)

Model TTL 9.6 AC	
Model name	TTL 9.6 AC
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water	
EN 14511-4 | Heating	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating		
	Low temperature	Medium temperature
Heat output	8.24 kW	9.03 kW
El input	1.79 kW	2.88 kW
COP	4.61	3.14

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	55 dB(A)	55 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	169 %	135 %
Prated	11.20 kW	11.60 kW
SCOP	4.31	3.44
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.89 kW	10.22 kW
COP Tj = -7°C	3.36	2.59
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	7.12 kW	7.06 kW
COP Tj = +2°C	4.17	3.28
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	8.31 kW	8.01 kW

COP Tj = +7°C	5.24	4.25
Cdh Tj = +7 °C	0.980	0.990
Pdh Tj = 12°C	9.57 kW	9.28 kW
COP Tj = 12°C	6.41	5.25
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	9.89 kW	10.22 kW
COP Tj = Tbiv	3.36	2.59
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.25 kW	10.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.11	2.32
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	65 °C	65 °C
Poff	10 W	10 W
PTO	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	1.95 kW	1.60 kW
Annual energy consumption Qhe	5368 kWh	6969 kWh

Model TTL 12.6 AC	
Model name	TTL 12.6 AC
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	n/a
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water	
EN 14511-4 | Heating	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating		
	Low temperature	Medium temperature
Heat output	8.24 kW	9.03 kW
El input	1.79 kW	2.88 kW
COP	4.61	3.14

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	55 dB(A)	55 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	171 %	139 %
Prated	14.00 kW	14.80 kW
SCOP	4.35	3.54
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.34 kW	13.11 kW
COP Tj = -7°C	3.00	2.41
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	7.70 kW	8.08 kW
COP Tj = +2°C	4.31	3.48
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	8.28 kW	8.00 kW

COP Tj = +7°C	5.31	4.37
Cdh Tj = +7 °C	0.980	0.990
Pdh Tj = 12°C	9.52 kW	9.23 kW
COP Tj = 12°C	6.43	5.28
Cdh Tj = +12 °C	0.980	0.980
Pdh Tj = Tbiv	12.34 kW	13.11 kW
COP Tj = Tbiv	3.00	2.41
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.63 kW	13.48 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.93	2.27
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	65 °C	65 °C
Poff	10 W	10 W
PTO	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	1.37 kW	1.32 kW
Annual energy consumption Qhe	6657 kWh	8643 kWh