

Subtype Air to Water Monoblock heat pump (8KW&10KW)

Certificate Holder	Nanjing Tica Climate Solutions Co., LTD.
Address	No. 6 HengYe Road Economic Technological Development Zone, Nanjing
ZIP	210046
City	Jiangsu
Country	CN
Certification Body	DIN CERTCO Gesellschaft für Konformitätsbewertung mbH
Subtype title	Air to Water Monoblock heat pump (8KW&10KW)
Registration number	011-1W0889
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	0.8 kg
Certification Date	12.09.2024
Testing basis	HP KEYMARK certification scheme rules V14

Model TUCA100KHLB

Model name	TUCA100KHLB
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	1x230V 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	10.00 kW	9.50 kW
El input	1.98 kW	2.92 kW
COP	5.05	3.25

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	57 dB(A)	58 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	200 %	151 %
Prated	10.00 kW	9.50 kW
SCOP	5.09	3.86
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.94 kW	8.48 kW
COP Tj = -7°C	3.01	2.39
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.97 kW	4.77 kW
COP Tj = +2°C	4.79	3.60
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.27 kW	3.26 kW

COP Tj = +7°C	7.41	5.48
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.64 kW	2.55 kW
COP Tj = 12°C	9.40	7.28
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	8.94 kW	8.48 kW
COP Tj = Tbiv	3.01	2.39
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.25 kW	8.73 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.77	2.04
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	80 °C	80 °C
Poff	12 W	12 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	36 W	36 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.75 kW	0.77 kW
Annual energy consumption Qhe	4093 kWh	5116 kWh

Model TUCA080KHLB

Model name	TUCA080KHLB
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	1x230V 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	8.40 kW	8.00 kW
El input	1.63 kW	2.42 kW
COP	5.15	3.31

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	56 dB(A)	56 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	207 %	153 %
Prated	8.40 kW	8.00 kW
SCOP	5.27	3.92
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.51 kW	7.18 kW
COP Tj = -7°C	3.25	2.39
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.28 kW	4.09 kW
COP Tj = +2°C	5.01	3.71
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.80 kW	2.79 kW

COP Tj = +7°C	7.41	5.41
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.66 kW	2.48 kW
COP Tj = 12°C	9.29	6.96
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.51 kW	7.18 kW
COP Tj = Tbiv	3.25	2.39
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.79 kW	7.47 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.89	2.16
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	80 °C	80 °C
Poff	12 W	12 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	36 W	36 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.61 kW	0.53 kW
Annual energy consumption Qhe	3320 kWh	4264 kWh