Subtype Air To Water Monoblock Heat Pump (4KW&6KW)

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 (4KW&6KW)
Registration number	011-1W0888
Heat Pump Type	Outdoor Air/Water
Refrigerant	R290
Mass of Refrigerant	0.51 kg
Certification Date	12.09.2024
Testing basis	HP KEYMARK certification scheme rules V14

Model TUCA040KHLB	
Model name	TUCA040KHLB
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	4.50 kW	4.60 kW
El input	0.83 kW	1.35 kW
COP	5.42	3.41

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	53 dB(A)	55 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	205 %	151 %
Prated	4.50 kW	4.60 kW
SCOP	5.28	3.87
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.07 kW	4.16 kW
COP Tj = -7°C	3.50	2.58
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.48 kW	2.62 kW
COP Tj = +2°C	5.19	3.75
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	1.60 kW	1.86 kW

COP Tj = +7°C	6.69	5.01
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.90 kW	1.81 kW
COP Tj = 12°C	8.90	6.81
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	4.07 kW	4.16 kW
COP Tj = Tbiv	3.50	2.58
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.29 kW	4.31 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.18	2.31
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	37 W	37 W
PSB	12 W	12 W
PCK	25 W	25 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.21 kW	0.29 kW
Annual energy consumption Qhe	1818 kWh	2520 kWh

Model TUCA060KHLB	
Model name	TUCA060KHLB
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	5.60 kW	6.20 kW
El input	1.19 kW	1.85 kW
COP	4.70	3.35

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level outdoor	55 dB(A)	56 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	203 %	153 %
Prated	6.20 kW	6.20 kW
SCOP	5.17	3.91
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.58 kW	5.57 kW
COP Tj = -7°C	3.31	2.54
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	3.33 kW	3.50 kW
COP Tj = +2°C	4.92	3.74
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.12 kW	2.25 kW

COP Tj = +7°C	7.05	5.12
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.91 kW	1.82 kW
COP Tj = 12°C	9.01	7.01
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.58 kW	5.57 kW
COP Tj = Tbiv	3.31	2.54
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.58 kW	5.78 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.05	2.11
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	37 W	37 W
PSB	12 W	12 W
PCK	25 W	25 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.62 kW	0.43 kW
Annual energy consumption Qhe	2535 kWh	3343 kWh