

Subtype WWC 100 H/X

Certificate Holder	ait-deutschland GmbH
Address	Industriestr. 3
ZIP	95359
City	Kasendorf
Country	DE
Certification Body	BRE Global Limited
Subtype title	WWC 100 H/X
Registration number	041-K001-31
Heat Pump Type	Water/Water
Refrigerant	R407c
Mass of Refrigerant	2.95 kg
Certification Date	06.09.2019

Model WWC 100H/X

Model name	WWC 100H/X
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

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

Water/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	11.00 kW	9.00 kW
El input	1.96 kW	2.92 kW
COP	5.60	3.08

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	53 dB(A)	53 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	232 %	174 %
Prated	11.00 kW	9.93 kW
SCOP	5.99	4.56
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.02 kW	10.09 kW
COP Tj = -7°C	5.62	3.52
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	11.14 kW	10.63 kW
COP Tj = +2°C	6.01	4.51
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	11.25 kW	10.95 kW
COP Tj = +7°C	6.39	5.33
Cdh Tj = +7 °C	0.99	1.00

Pdh Tj = 12°C	11.35 kW	11.27 kW
COP Tj = 12°C	6.70	6.32
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	11.00 kW	9.93 kW
COP Tj = Tbiv	5.56	3.29
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.00 kW	9.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.56	3.29
WTOL	65 °C	65 °C
Poff	10 W	10 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	10 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3796 kWh	4499 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	239 %	182 %
Prated	11.00 kW	9.93 kW
SCOP	6.18	4.74
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	11.16 kW	10.52 kW
COP Tj = -7°C	6.09	4.28
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	11.25 kW	10.89 kW
COP Tj = +2°C	6.42	5.18
Cdh Tj = +2 °C	0.99	1.00
Pdh Tj = +7°C	11.32 kW	11.16 kW
COP Tj = +7°C	6.66	6.00
Cdh Tj = +7 °C	0.99	1.00
Pdh Tj = 12°C	11.34 kW	11.37 kW
COP Tj = 12°C	6.53	6.63
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	11.00 kW	9.93 kW
COP Tj = Tbiv	5.56	3.29
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.00 kW	9.93 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.56	3.29
WTOL	65 °C	65 °C
Poff	10 W	10 W
PTO	10 W	10 W

PSB	10 W	10 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q _{he}	4389 kWh	5165 kWh
P _{dh} T _j = -15 °C (if TOL	0.01	0.01
COP T _j = -15 °C (if TOL	0.01	0.01
C _{dh} T _j = -15 °C	1.00	1.00

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η _s	233 %	176 %
Prated	11.00 kW	9.93 kW
SCOP	6.01	4.59
T _{biv}	2 °C	2 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2 °C	11.00 kW	9.93 kW
COP T _j = +2 °C	5.56	3.29
C _{dh} T _j = +2 °C	1.00	1.00
P _{dh} T _j = +7 °C	11.12 kW	10.41 kW
COP T _j = +7 °C	5.93	4.07
C _{dh} T _j = +7 °C	1.00	1.00
P _{dh} T _j = 12 °C	11.28 kW	11.05 kW
COP T _j = 12 °C	6.52	5.65
C _{dh} T _j = +12 °C	0.99	1.00
P _{dh} T _j = T _{biv}	11.00 kW	9.93 kW
COP T _j = T _{biv}	5.56	3.29
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	11.00 kW	9.93 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	5.56	3.29
WTOL	65 °C	65 °C
P _{off}	10 W	10 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q _{he}	2443 kWh	2887 kWh