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Login

Summary of	LWC 100	Reg. No.	041-K001-29
Certificate Holder			
Name	ait-deutschland GmbH		
Address	Industriestr. 3	Zip	95359
City	Kasendorf	Country	Germany
Certification Body	BRE Global Limited		
Subtype title	LWC 100		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R404A		
Mass of Refrigerant	4.1 kg		
Certification Date	06.09.2019		

Model: LWC 100

Configure model	
Model name	LWC 100
Application	Heating (medium temp)
Units	Indoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Starting and operating test	passed

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	12.20 kW	11.20 kW
El input	2.98 kW	5.01 kW
COP	4.10	2.20

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	55 dB(A)	55 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	146 %	116 %
Prated	11.89 kW	11.19 kW
SCOP	3.73	2.97
Tbiv	-4 °C	-4 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.43 kW	7.83 kW
COP Tj = -7°C	2.86	2.01
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	10.51 kW	10.17 kW
COP Tj = +2°C	3.77	2.93
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	12.41 kW	12.15 kW
COP Tj = +7°C	4.63	3.93
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	14.06 kW	14.00 kW

COP Tj = 12°C	5.03	4.88
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	9.14 kW	8.61 kW
COP Tj = Tbiv	3.19	2.27
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.69 kW	7.17 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.59	1.79
WTOL	58 °C	58 °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	4.20 kW	4.02 kW
Annual energy consumption Qhe	6587 kWh	7791 kWh

Warmer Climate

EN 14825		
	Low temperature	**Medium temperature**
η_s	175 %	137 %
Prated	13.05 kW	12.23 kW
SCOP	4.45	3.51

Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	10.40 kW	9.73 kW
COP Tj = +2°C	3.47	2.25
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	12.31 kW	11.69 kW
COP Tj = +7°C	4.35	3.07
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	13.99 kW	13.76 kW
COP Tj = 12°C	4.92	4.43
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	11.18 kW	10.49 kW
COP Tj = Tbiv	3.87	2.53
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.40 kW	9.73 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.47	2.25
WTOL	58 °C	58 °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	2.65 kW	2.50 kW
Annual energy consumption Qhe	3920 kWh	4652 kWh

Colder Climate

EN 14825		
	Low temperature	**Medium temperature**
η_s	131 %	107 %
Prated	9.21 kW	8.82 kW
SCOP	3.34	2.74
Tbiv	-13 °C	-13 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	8.53 kW	8.10 kW
COP Tj = -7°C	3.04	2.32
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	10.57 kW	10.33 kW
COP Tj = +2°C	3.94	3.28
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	12.47 kW	12.34 kW
COP Tj = +7°C	4.75	4.36
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	14.04 kW	14.12 kW

COP Tj = 12°C	4.86	5.04
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	7.03 kW	6.73 kW
COP Tj = Tbiv	2.54	1.87
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.31 kW	5.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.89	1.42
WTOL	58 °C	58 °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	9.21 kW	8.82 kW
Annual energy consumption Qhe	6791 kWh	7942 kWh
Pdh Tj = -15°C (if TOL<-20°C)	6.53	6.30
COP Tj = -15°C (if TOL<-20°C)	2.35	1.73
Cdh Tj = -15 °C	1.00	1.00