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Login

Summary of	LW 121	Reg. No.	041-K001-37
Certificate Holder			
Name	ait-deutschland GmbH		
Address	Industriestr. 3	Zip	95359
City	Kasendorf	Country	Germany
Certification Body	BRE Global Limited		
Subtype title	LW 121		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R407c		
Mass of Refrigerant	5.8 kg		
Certification Date	08.10.2019		

Model: LW 121

Configure model	
Model name	LW 121
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	12.80 kW	12.60 kW
El input	3.00 kW	4.50 kW
COP	4.20	2.80

Average Climate

EN 14825

	Low temperature	**Medium temperature**
η_s	153 %	122 %
Prated	13.70 kW	12.51 kW
SCOP	3.90	3.13
Tbiv	-4 °C	-4 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.22 kW	8.70 kW
COP Tj = -7°C	3.05	2.08
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	11.90 kW	11.52 kW
COP Tj = +2°C	3.94	3.11
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	12.99 kW	12.56 kW
COP Tj = +7°C	4.86	4.14
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	15.09 kW	15.03 kW
COP Tj = 12°C	5.32	5.18
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	10.13 kW	9.62 kW
COP Tj = Tbiv	3.40	2.39
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.36 kW	7.86 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.78	1.85
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	5.34 kW	4.65 kW
Annual energy consumption Qhe	7258 kWh	8264 kWh

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	58 dB(A)	58 dB(A)

Warmer Climate

EN 14825		
	Low temperature	**Medium temperature**
η_s	185 %	145 %
Prated	14.24 kW	13.15 kW
SCOP	4.70	3.71
Tbiv	4 °C	4 °C

TOL	2 °C	2 °C
Pdh Tj = +2°C	11.78 kW	11.04 kW
COP Tj = +2°C	3.66	2.42
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	12.83 kW	11.82 kW
COP Tj = +7°C	4.59	3.22
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	15.01 kW	14.75 kW
COP Tj = 12°C	5.21	4.69
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	12.21 kW	11.27 kW
COP Tj = Tbiv	4.06	2.68
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.78 kW	11.04 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.66	2.42
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	2.46 kW	2.11 kW

Annual energy consumption Qhe	4044 kWh	4736 kWh

Colder Climate

EN 14825		
	Low temperature	**Medium temperature**
η_s	137 %	112 %
Prated	10.70 kW	10.21 kW
SCOP	3.50	2.87
Tbiv	-12 °C	-12 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.31 kW	8.93 kW
COP Tj = -7°C	3.28	2.43
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	11.96 kW	11.71 kW
COP Tj = +2°C	4.10	3.47
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	13.07 kW	12.86 kW
COP Tj = +7°C	4.99	4.59
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	15.06 kW	15.17 kW
COP Tj = 12°C	5.16	5.38

Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	7.88 kW	7.52 kW
COP Tj = Tbiv	2.86	2.02
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.60 kW	5.88 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.06	1.56
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	10.70 kW	10.21 kW
Annual energy consumption Qhe	7537 kWh	8774 kWh
Pdh Tj = -15°C (if TOL<-20°C)	7.02	6.69
COP Tj = -15°C (if TOL<-20°C)	2.56	1.78
Cdh Tj = -15 °C	1.00	1.00

Model: LW 121A

Configure model	
Model name	LW 121A
Application	Heating (medium temp)
Units	Outdoor
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	12.80 kW	12.60 kW
El input	3.00 kW	4.50 kW
COP	4.20	2.80

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	50 dB(A)	50 dB(A)
Sound power level outdoor	61 dB(A)	61 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	153 %	122 %
Prated	13.70 kW	12.51 kW
SCOP	3.90	3.13
Tbiv	-4 °C	-4 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.22 kW	8.70 kW
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Warmer Climate

EN 14825		
	Low temperature	**Medium temperature**
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Tbiv	4 °C	4 °C
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Colder Climate

EN 14825		
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Prated	10.70 kW	10.21 kW
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