

Summary of	LW 121	Reg. No.	041-K001-37	
Certificate Holder		· ·		
Name	ait-deutschland Gn	ait-deutschland GmbH		
Address	Industriestr. 3	Zip	95359	
City	Kasendorf	Country	Germany	
Certification Body	BRE Energy & Com	BRE Energy & Communications Division		
Name of testing laboratory	HLK Stuttgart	HLK Stuttgart		
Subtype title	LW 121			
Heat Pump Type	Outdoor Air/Water			
Refrigerant	R407c			
Mass Of Refrigerant	5.8 kg	5.8 kg		
Certification Date	08.10.2019			

# Model: LW 121

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	
СОР	4.20	2.80	
Indoor water flow rate	2.50 m³/h	2.50 m³/h	

## **Average Climate**

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	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	1.00	1.00
Pdh Tj = $+2$ °C	11.90 kW	11.52 kW
COP Tj = +2°C	3.94	3.11
Cdh	1.00	1.00
Pdh Tj = $+7^{\circ}$ C	12.99 kW	12.56 kW
$COPTj = +7^{\circ}C$	4.86	4.14
Cdh	1.00	1.00
Pdh Tj = 12°C	15.09 kW	15.03 kW
COP Tj = 12°C	5.32	5.18
Cdh	1.00	1.00
Pdh Tj = Tbiv	10.13 kW	9.62 kW
COP Tj = Tbiv	3.40	2.39
Pdh Tj = TOL	8.36 kW	7.86 kW
COP Tj = TOL	2.78	1.85
WTOL	65 °C	65 °C





Poff	10 W	10 W
РТО	10 W	10 W
PSB	10 W	10 W
PCK	o 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

	Low temperature	Medium temperature	
$\eta_{S}$	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	





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$COP Tj = +2^{\circ}C$	3.66	2.42
Cdh	1.00	1.00
Pdh Tj = +7°C	12.83 kW	11.82 kW
$COP Tj = +7^{\circ}C$	4.59	3.22
Cdh	1.00	1.00
Pdh Tj = 12°C	15.01 kW	14.75 kW
COP Tj = 12°C	5.21	4.69
Cdh	1.00	1.00
Pdh Tj = Tbiv	12.21 kW	11.27 kW
COP Tj = Tbiv	4.06	2.68
Pdh Tj = TOL	11.78 kW	11.04 kW
COP Tj = TOL	3.66	2.42
WTOL	65 °C	65 °C
Poff	10 W	10 W
РТО	10 W	10 W
PSB	10 W	10 W
PCK	o 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
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## Colder Climate





#### EN 14825

	Low temperature	Medium temperature
$\eta_{s}$	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	1.00	1.00
Pdh Tj = +2°C	11.96 kW	11.71 kW
COP Tj = +2°C	4.10	3.47
Cdh	1.00	1.00
Pdh Tj = +7°C	13.07 kW	12.86 kW
COP Tj = +7°C	4.99	4.59
Cdh	1.00	1.00
Pdh Tj = 12°C	15.06 kW	15.17 kW
COP Tj = 12°C	5.16	5.38
Cdh	1.00	1.00
Pdh Tj = Tbiv	7.88 kW	7.52 kW
COP Tj = Tbiv	2.86	2.02



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Pdh Tj = TOL	5.60 kW	5.88 kW
COP Tj = TOL	2.06	1.56
WTOL	65 °C	65 °C
Poff	10 W	10 W
РТО	10 W	10 W
PSB	10 W	10 W
PCK	o 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	1.00	1.00



# Model: LW 121A

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	

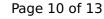
EN 14511-2			
	Low temperature	Medium temperature	
Heat output	12.80 kW	12.60 kW	
El input	3.00 kW	4.50 kW	
СОР	4.20	2.80	
Indoor water flow rate	2.50 m³/h	2.50 m³/h	

## **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
$\eta_{s}$	153 %	122 %
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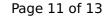




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2.78	1.85
65 °C	65 °C
10 W	10 W
10 W	10 W
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electricity	electricity
5.34 kW	4.65 kW
7258 kWh	8264 kWh
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## Warmer Climate

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Prated	14.24 kW	13.15 kW





This information was generated by the HP KEYMARK database on 17 Dec 2020				
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COP Tj = Tbiv	2.86	2.02		
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