

This information was generated by the HP KEYMARK database on 17 Dec 2020

Summary of	LWC 120	Reg. No.	041-K001-30
Certificate Holder			
Name	ait-deutschland GmbH		
Address	Industriestr. 3	Zip	95359
City	Kasendorf	Country	Germany
Certification Body	BRE Energy & Communications Division		
Name of testing laboratory	WPZ		
Subtype title	LWC 120		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	Other		
Mass Of Refrigerant	4.5 kg		
Certification Date	06.09.2019		

## Model: LWC 120

### General Data

Power supply	3x400V 50Hz
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## 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	13.70 kW	13.10 kW
El input	3.26 kW	5.95 kW
COP	4.20	2.20
Indoor water flow rate	2.50 m <sup>3</sup> /h	2.50 m <sup>3</sup> /h

## Average Climate

### EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	55 dB(A)	55 dB(A)

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**EN 14825**

	Low temperature	Medium temperature
$\eta_s$	144 %	115 %
Prated	13.51 kW	12.68 kW
SCOP	3.67	2.95
Tbiv	-4 °C	-4 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.54 kW	8.82 kW
COP Tj = -7°C	2.78	1.90
Cdh	1.00	1.00
Pdh Tj = +2°C	12.03 kW	11.62 kW
COP Tj = +2°C	3.66	2.92
Cdh	1.00	1.00
Pdh Tj = +7°C	13.95 kW	13.65 kW
COP Tj = +7°C	4.68	4.02
Cdh	1.00	1.00
Pdh Tj = 12°C	15.56 kW	15.50 kW
COP Tj = 12°C	4.93	4.79
Cdh	1.00	1.00
Pdh Tj = Tbiv	10.39 kW	9.75 kW
COP Tj = Tbiv	3.11	2.21

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Pdh Tj = TOL	8.68 kW	8.08 kW
COP Tj = TOL	2.53	1.70
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	4.83 kW	4.60 kW
Annual energy consumption Qhe	7606 kWh	8876 kWh

## Warmer Climate

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	175 %	140 %
Prated	14.81 kW	13.86 kW
SCOP	4.44	3.58
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.90 kW	11.10 kW
COP Tj = +2°C	3.40	2.30

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Cdh	1.00	1.00
Pdh Tj = +7°C	13.83 kW	13.11 kW
COP Tj = +7°C	4.42	3.19
Cdh	1.00	1.00
Pdh Tj = 12°C	15.49 kW	15.26 kW
COP Tj = 12°C	4.84	4.41
Cdh	1.00	1.00
Pdh Tj = Tbiv	12.69 kW	11.88 kW
COP Tj = Tbiv	3.84	2.61
Pdh Tj = TOL	11.90 kW	11.10 kW
COP Tj = TOL	3.40	2.30
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	2.91 kW	2.76 kW
Annual energy consumption Qhe	4452 kWh	5174 kWh

## Colder Climate

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**EN 14825**

	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	128 %	104 %
Prated	8.99 kW	8.71 kW
SCOP	3.28	2.69
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	9.64 kW	9.14 kW
COP Tj = -7°C	2.94	2.23
Cdh	1.00	1.00
Pdh Tj = +2°C	12.09 kW	11.82 kW
COP Tj = +2°C	3.77	3.23
Cdh	1.00	1.00
Pdh Tj = +7°C	14.00 kW	13.86 kW
COP Tj = +7°C	4.76	4.42
Cdh	1.00	1.00
Pdh Tj = 12°C	15.54 kW	15.62 kW
COP Tj = 12°C	4.74	4.89
Cdh	1.00	1.00
Pdh Tj = Tbiv	7.33 kW	7.10 kW
COP Tj = Tbiv	2.33	1.65

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Pdh Tj = TOL	5.92 kW	5.99 kW
COP Tj = TOL	1.89	1.36
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	8.99 kW	8.71 kW
Annual energy consumption Qhe	6750 kWh	7989 kWh
Pdh Tj = -15°C (if TOL<-20°C)	7.33	7.10
COP Tj = -15°C (if TOL<-20°C)	2.33	1.65
Cdh	1.00	1.00