

This information was generated by the HP KEYMARK database on 18 Mar 2022

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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 Global Limited		
Subtype title	LWC 120		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R404A		
Mass of Refrigerant	4.5 kg		
Certification Date	06.09.2019		

Model: LWC 120

Configure model	
Model name	LWC 120
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	13.70 kW	13.10 kW
El input	3.26 kW	5.95 kW
COP	4.20	2.20

Average Climate

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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	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 Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	12.03 kW	11.62 kW
COP Tj = +2°C	3.66	2.92
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	13.95 kW	13.65 kW
COP Tj = +7°C	4.68	4.02
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	15.56 kW	15.50 kW

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COP Tj = 12°C	4.93	4.79
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	10.39 kW	9.75 kW
COP Tj = Tbiv	3.11	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.68 kW	8.08 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	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

EN 14825		
	Low temperature	Medium temperature
η_s	175 %	140 %
Prated	14.81 kW	13.86 kW
SCOP	4.44	3.58

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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
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	13.83 kW	13.11 kW
COP Tj = +7°C	4.42	3.19
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	15.49 kW	15.26 kW
COP Tj = 12°C	4.84	4.41
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	12.69 kW	11.88 kW
COP Tj = Tbiv	3.84	2.61
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.90 kW	11.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	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

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Supplementary Heater: PSUP	2.91 kW	2.76 kW
Annual energy consumption Q _{he}	4452 kWh	5174 kWh

Colder Climate

EN 14825		
	Low temperature	Medium temperature
η_s	128 %	104 %
Prated	8.99 kW	8.71 kW
SCOP	3.28	2.69
T _{biv}	-15 °C	-15 °C
TOL	-20 °C	-20 °C
P _{dh} T _j = -7°C	9.64 kW	9.14 kW
COP T _j = -7°C	2.94	2.23
C _{dh} T _j = -7 °C	1.00	1.00
P _{dh} T _j = +2°C	12.09 kW	11.82 kW
COP T _j = +2°C	3.77	3.23
C _{dh} T _j = +2 °C	1.00	1.00
P _{dh} T _j = +7°C	14.00 kW	13.86 kW
COP T _j = +7°C	4.76	4.42
C _{dh} T _j = +7 °C	1.00	1.00
P _{dh} T _j = 12°C	15.54 kW	15.62 kW

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COP Tj = 12°C	4.74	4.89
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	7.33 kW	7.10 kW
COP Tj = Tbiv	2.33	1.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.92 kW	5.99 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	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 Tj = -15 °C	1.00	1.00