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

Summary of	LW 310	Reg. No.	041-K001-41
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	HLK Stuttgart		
Subtype title	LW 310		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	Other		
Mass Of Refrigerant	10 kg		
Certification Date	08.10.2019		

Model: LW 310 (L)

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	35.00 kW	33.42 kW
El input	8.75 kW	13.15 kW
COP	4.00	2.54
Indoor water flow rate	6.00 m³/h	6.00 m³/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	68 dB(A)	68 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	151 %	122 %
Prated	28.28 kW	26.86 kW
SCOP	3.86	3.11
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	25.02 kW	23.76 kW
COP Tj = -7°C	2.92	2.03
Cdh	1.00	1.00
Pdh Tj = +2°C	31.12 kW	30.53 kW
COP Tj = +2°C	3.67	3.02
Cdh	1.00	1.00
Pdh Tj = +7°C	19.40 kW	19.05 kW
COP Tj = +7°C	4.86	4.05
Cdh	1.00	1.00
Pdh Tj = 12°C	21.20 kW	21.11 kW
COP Tj = 12°C	5.26	4.92
Cdh	1.00	1.00
Pdh Tj = Tbiv	25.02 kW	23.76 kW
COP Tj = Tbiv	2.92	2.03

Pdh Tj = TOL	22.93 kW	21.51 kW
COP Tj = TOL	2.63	1.76
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	5.35 kW	5.35 kW
Annual energy consumption Qhe	15151 kWh	17816 kWh

Warmer Climate

EN 14825		
	Low temperature	**Medium temperature**
η_s	186 %	145 %
Prated	31.00 kW	29.67 kW
SCOP	4.73	3.70
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	31.00 kW	29.67 kW
COP Tj = +2°C	3.52	2.38

Cdh	1.00	1.00
Pdh Tj = +7°C	19.30 kW	18.56 kW
COP Tj = +7°C	4.62	3.26
Cdh	1.00	1.00
Pdh Tj = 12°C	21.16 kW	20.98 kW
COP Tj = 12°C	5.15	4.51
Cdh	1.00	1.00
Pdh Tj = Tbiv	26.34 kW	25.26 kW
COP Tj = Tbiv	3.83	2.64
Pdh Tj = TOL	31.00 kW	29.67 kW
COP Tj = TOL	3.52	2.38
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	0.00 kW	0.00 kW
Annual energy consumption Qhe	8750 kWh	10714 kWh

Colder Climate

EN 14825

	Low temperature	Medium temperature
η_s	131 %	107 %
Prated	29.62 kW	28.06 kW
SCOP	3.36	2.76
Tbiv	-12 °C	-12 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	25.20 kW	24.32 kW
COP Tj = -7°C	3.10	2.35
Cdh	1.00	1.00
Pdh Tj = +2°C	31.26 kW	30.87 kW
COP Tj = +2°C	3.85	3.36
Cdh	1.00	1.00
Pdh Tj = +7°C	19.47 kW	19.25 kW
COP Tj = +7°C	5.05	4.47
Cdh	1.00	1.00
Pdh Tj = 12°C	21.19 kW	21.17 kW
COP Tj = 12°C	5.21	5.15
Cdh	1.00	1.00
Pdh Tj = Tbiv	21.83 kW	20.68 kW
COP Tj = Tbiv	2.68	1.90

Pdh Tj = TOL	16.26 kW	14.82 kW
COP Tj = TOL	1.90	1.26
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	29.62 kW	28.06 kW
Annual energy consumption Qhe	21723 kWh	25057 kWh
Pdh Tj = -15°C (if TOL<-20°C)	19.75	18.50
COP Tj = -15°C (if TOL<-20°C)	2.38	1.65
Cdh	1.00	1.00

Model: LW 310A

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Power supply	3x400V 50Hz

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Complete power supply failure	passed
Starting and operating test	passed

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