Login

Summary of	LW 251	Reg. No.	041-K001-40
Certificate Holder			
Name	ait-deutschland GmbH		
Address	Industriestr. 3	Zip	95359
City	Kasendorf	Country	Germany
Certification Body	BRE Global Limited		
Subtype title	LW 251		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R407c		
Mass of Refrigerant	9.8 kg		
Certification Date	08.10.2019		

Model: LW 251 (L)

Configure model	
Model name	LW 251 (L)
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 14511-2		
	Low temperature	**Medium temperature**
Heat output	15.47 kW	15.28 kW
El input	3.77 kW	5.21 kW
COP	4.11	2.93

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Starting and operating test	passed

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	63 dB(A)	63 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	155 %	122 %
Prated	25.31 kW	25.01 kW
SCOP	3.95	3.13
Tbiv	-5 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	19.36 kW	19.18 kW
COP Tj = -7°C	2.96	2.07
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	24.23 kW	23.93 kW
COP Tj = +2°C	3.77	3.02
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	14.34 kW	14.29 kW
COP Tj = +7°C	5.06	4.13
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	16.85 kW	16.82 kW

COP Tj = 12°C	5.90	5.44
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	20.44 kW	20.20 kW
COP Tj = Tbiv	3.18	2.24
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	17.75 kW	17.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.66	1.83
WTOL	70 °C	70 °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	7.56 kW	7.31 kW
Annual energy consumption Qhe	13252 kWh	16517 kWh

Warmer Climate

EN 14825		
	Low temperature	**Medium temperature**
η_s	198 %	152 %
Prated	24.15 kW	23.51 kW
SCOP	5.02	3.87

Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	24.15 kW	23.51 kW
COP Tj = +2°C	3.55	2.35
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	14.33 kW	14.23 kW
COP Tj = +7°C	4.74	3.33
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	16.84 kW	16.77 kW
COP Tj = 12°C	5.71	4.90
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	20.25 kW	19.85 kW
COP Tj = Tbiv	3.88	2.63
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.15 kW	23.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.55	2.35
WTOL	70 °C	70 °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	6424 kWh	8123 kWh

Colder Climate

EN 14825		
	Low temperature	**Medium temperature**
η_s	134 %	110 %
Prated	22.63 kW	22.68 kW
SCOP	3.43	2.83
Tbiv	-12 °C	-12 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	19.39 kW	19.68 kW
COP Tj = -7°C	3.15	2.39
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	24.28 kW	24.09 kW
COP Tj = +2°C	3.93	3.37
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	14.35 kW	14.32 kW
COP Tj = +7°C	5.22	4.56
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	16.85 kW	16.85 kW

COP Tj = 12°C	5.78	5.71
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	16.68 kW	16.71 kW
COP Tj = Tbiv	2.71	1.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.40 kW	13.77 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.92	1.53
WTOL	70 °C	70 °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	22.63 kW	22.68 kW
Annual energy consumption Qhe	16286 kWh	19754 kWh
Pdh Tj = -15°C (if TOL<-20°C)	15.06	15.23
COP Tj = -15°C (if TOL<-20°C)	2.40	1.74
Cdh Tj = -15 °C	1.00	1.00

Model: LW 251A

Configure model	
Model name	LW 251A
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 14511-2		
	Low temperature	**Medium temperature**
Heat output	15.47 kW	15.28 kW
El input	3.77 kW	5.21 kW
COP	4.11	2.93

EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Starting and operating test	passed

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	63 dB(A)	63 dB(A)
Sound power level outdoor	62 dB(A)	62 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	155 %	122 %
Prated	25.31 kW	25.01 kW
SCOP	3.95	3.13
Tbiv	-5 °C	-5 °C
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Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	7.56 kW	7.31 kW
Annual energy consumption Qhe	13252 kWh	16517 kWh

Warmer Climate

EN 14825		
	Low temperature	**Medium temperature**
η_s	198 %	152 %
Prated	24.15 kW	23.51 kW

SCOP	5.02	3.87
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	24.15 kW	23.51 kW
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Poff	10 W	10 W
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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	6424 kWh	8123 kWh

Colder Climate

EN 14825		
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Prated	22.63 kW	22.68 kW
SCOP	3.43	2.83
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COP Tj = +7°C	5.22	4.56
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