Login

Summary of	LW 101	Reg. No.	041-K001-36
Certificate Holder			
Name	ait-deutschland GmbH		
Address	Industriestr. 3	Zip	95359
City	Kasendorf	Country	Germany
Certification Body	BRE Global Limited		
Subtype title	LW 101		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R407c		
Mass of Refrigerant	4.8 kg		
Certification Date	08.10.2019		

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Model: LW 101

Configure model	
Model name	LW 101
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	10.40 kW	10.27 kW
El input	2.49 kW	3.71 kW
COP	4.18	2.64

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

Average Climate

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EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	58 dB(A)	58 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	149 %	121 %
Prated	9.90 kW	9.35 kW
SCOP	3.81	3.11
Tbiv	-5 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.53 kW	6.98 kW
COP Tj = -7°C	2.97	2.03
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	9.54 kW	9.41 kW
COP Tj = +2°C	3.78	3.11
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	10.43 kW	10.40 kW
COP Tj = +7°C	4.69	4.04
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	12.19 kW	12.17 kW

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COP Tj = 12°C	5.15	5.02
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	8.00 kW	7.55 kW
COP Tj = Tbiv	3.19	2.25
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.84 kW	6.27 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.70	1.79
WTOL	65 °C	65 °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	3.06 kW	3.08 kW
Annual energy consumption Qhe	5367 kWh	6216 kWh

Warmer Climate

EN 14825		
	Low temperature	**Medium temperature**
η_s	179 %	145 %
Prated	11.53 kW	11.30 kW
SCOP	4.56	3.71

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Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	9.50 kW	9.23 kW
COP Tj = +2°C	3.56	2.52
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	10.42 kW	10.33 kW
COP Tj = +7°C	4.46	3.27
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	12.17 kW	12.10 kW
COP Tj = 12°C	5.08	4.61
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	9.88 kW	9.68 kW
COP Tj = Tbiv	3.94	2.78
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.50 kW	9.23 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.56	2.52
WTOL	65 °C	65 °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	2.03 kW	2.07 kW
Annual energy consumption Qhe	3376 kWh	4069 kWh

Colder Climate

EN 14825		
	Low temperature	**Medium temperature**
η_s	132 %	108 %
Prated	8.82 kW	8.22 kW
SCOP	3.38	2.77
Tbiv	-12 °C	-12 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	7.62 kW	7.23 kW
COP Tj = -7°C	3.18	2.37
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	9.57 kW	9.48 kW
COP Tj = +2°C	3.92	3.40
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	10.44 kW	10.42 kW
COP Tj = +7°C	4.83	4.44
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	12.18 kW	12.20 kW

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COP Tj = 12°C	5.00	5.18
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	6.50 kW	6.06 kW
COP Tj = Tbiv	2.77	1.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.66 kW	4.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.99	1.34
WTOL	65 °C	65 °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	8.82 kW	8.22 kW
Annual energy consumption Qhe	6437 kWh	7306 kWh
Pdh Tj = -15°C (if TOL<-20°C)	5.80	5.37
COP Tj = -15°C (if TOL<-20°C)	2.47	1.72
Cdh Tj = -15 °C	1.00	1.00

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Model: LW 101A

Configure model	
Model name	LW 101A
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	10.40 kW	10.27 kW
El input	2.49 kW	3.71 kW
COP	4.18	2.64

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

Average Climate

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EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	50 dB(A)	50 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	149 %	121 %
Prated	9.90 kW	9.35 kW
SCOP	3.81	3.11
Tbiv	-5 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.53 kW	6.98 kW
COP Tj = -7°C	2.97	2.03
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	9.54 kW	9.41 kW
COP Tj = +2°C	3.78	3.11
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	10.43 kW	10.40 kW
COP Tj = +7°C	4.69	4.04
Cdh Tj = +7 °C	1.00	1.00

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Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.06 kW	3.08 kW
Annual energy consumption Qhe	5367 kWh	6216 kWh

Warmer Climate

EN 14825		
	Low temperature	**Medium temperature**
η_s	179 %	145 %
Prated	11.53 kW	11.30 kW

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SCOP	4.56	3.71
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	9.50 kW	9.23 kW
COP Tj = +2°C	3.56	2.52
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	10.42 kW	10.33 kW
COP Tj = +7°C	4.46	3.27
Cdh Tj = +7 °C	1.00	1.00
Pdh Tj = 12°C	12.17 kW	12.10 kW
COP Tj = 12°C	5.08	4.61
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Pdh Tj = Tbiv	9.88 kW	9.68 kW
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COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.56	2.52
WTOL	65 °C	65 °C
Poff	10 W	10 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	0 W	0 W

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Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.03 kW	2.07 kW
Annual energy consumption Qhe	3376 kWh	4069 kWh

Colder Climate

EN 14825		
	Low temperature	**Medium temperature**
η_s	132 %	108 %
Prated	8.82 kW	8.22 kW
SCOP	3.38	2.77
Tbiv	-12 °C	-12 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	7.62 kW	7.23 kW
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COP Tj = +2°C	3.92	3.40
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	10.44 kW	10.42 kW
COP Tj = +7°C	4.83	4.44
Cdh Tj = +7 °C	1.00	1.00

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COP Tj = 12°C	5.00	5.18
Cdh Tj = +12 °C	1.00	1.00
Pdh Tj = Tbiv	6.50 kW	6.06 kW
COP Tj = Tbiv	2.77	1.95
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COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.99	1.34
WTOL	65 °C	65 °C
Poff	10 W	10 W
PTO	10 W	10 W
PSB	10 W	10 W
PCK	0 W	0 W
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