Subtype LW 101

Certificate Holder	ait-deutschland GmbH
Address	Industriestr. 3
ZIP	95359
City	Kasendorf
Country	DE
Certification Body	BRE Global Limited
Subtype title	LW 101
Registration number	041-K001-36
Heat Pump Type	Outdoor Air/Water
Refrigerant	R407c
Mass of Refrigerant	4.8 kg
Certification Date	08.10.2019

This information was generated by the HP KEYMARK database on 13.11.2023

Model LW 101	
Model name	LW 101
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water EN 14511-4 | Heating	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Starting and operating test	passed

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

EN 14825 | Average Climate	Low temperature	Medium temperature
ηs	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
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

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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

EN 14825 | Colder Climate		
	Low temperature	Medium temperature
ηs	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
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	5.80	5.37

COP Tj = -15°C (if TOL	2.47	1.72
Cdh Tj = -15 °C	1.00	1.00

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	179 %	145 %
Prated	11.53 kW	11.30 kW
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
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
Supplementary Heater: PSUP	2.03 kW	2.07 kW
Annual energy consumption Qhe	3376 kWh	4069 kWh

Model LW 101A	
Model name	LW 101A
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	3x400V 50Hz
Off-peak product	n/a

Outdoor Air/Water EN 14511-4 | Heating	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Starting and operating test	passed

EN 12102-1 | Average Climate	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 | Average Climate	Low temperature	Medium temperature
ηs	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
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

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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

EN 14825 | Colder Climate		
	Low temperature	Medium temperature
ηs	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
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
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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

This information was generated by the HP KEYMARK database on 13.11.2023

Annual energy consumption Qhe	6437 kWh	7306 kWh
Pdh Tj = -15°C (if TOL	5.80	5.37
COP Tj = -15°C (if TOL	2.47	1.72
Cdh Tj = -15 °C	1.00	1.00

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	179 %	145 %
Prated	11.53 kW	11.30 kW
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
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
Supplementary Heater: PSUP	2.03 kW	2.07 kW
Annual energy consumption Qhe	3376 kWh	4069 kWh

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