

Page 1 of 15

This information was generated by the HP KEYMARK database on 22 Jun 2022

Login

Summary of	LW 300	Reg. No.	041-K001-42	
Certificate Holder				
Name	ait-deutschland GmbH	ait-deutschland GmbH		
Address	Industriestr. 3	Zip	95359	
City	Kasendorf	Country	Germany	
Certification Body	BRE Global Limited			
Subtype title	LW 300			
Heat Pump Type	Outdoor Air/Water			
Refrigerant	R448A			
Mass of Refrigerant	10 kg			
Certification Date	20.07.2020			
Testing basis	Scheme Rules Rev 07			



Model: LW 300A-LUX 2.0

Configure model		
Model name	LW 300A-LUX 2.0	
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	19.78 kW	19.05 kW
El input	4.90 kW	6.85 kW
СОР	4.04	2.78

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

Warmer Climate





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

EN 14825		
	Low temperature	Medium temperature
η_{s}	166 %	133 %
Prated	16.37 kW	16.06 kW
SCOP	4.22	3.40
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	16.37 kW	16.06 kW
COP Tj = +2°C	3.50	2.35
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	18.83 kW	19.35 kW
COP Tj = +7°C	3.98	3.11
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	23.57 kW	23.17 kW
COP Tj = 12°C	5.28	4.38
Cdh Tj = +12 °C	0.98	0.99
Pdh Tj = Tbiv	16.37 kW	16.06 kW

EHPA Secretariat | Rue dArlon 63-67 | Phone: +32 2 400 10 17 | Email: secretariat@heatpumpkeymark.com | www.heatpumpkeymark.com





COP Tj = Tbiv	3.50	2.35
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	16.37 kW	16.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.50	2.35
WTOL	60 °C	60 °C
Poff	38 W	38 W
РТО	24 W	15 W
PSB	38 W	38 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	5177 kWh	6306 kWh

Colder Climate

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

	EN 14825		
Low temperature	Medium temperature		
125 %	100 %		
23.69 kW	24.72 kW		
	125 %		





SCOP	3.21	2.57
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	14.34 kW	14.96 kW
COP Tj = -7°C	2.83	2.28
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	16.68 kW	16.45 kW
COP Tj = +2°C	3.81	3.18
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	18.04 kW	18.01 kW
COP Tj = +7°C	4.22	3.67
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	23.68 kW	23.53 kW
COP Tj = 12°C	5.41	4.86
Cdh Tj = +12 °C	0.98	0.99
Pdh Tj = Tbiv	19.33 kW	20.16 kW
COP Tj = Tbiv	2.27	1.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	16.77 kW	20.16 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.90	1.74
WTOL	60 °C	60 °C
Poff	38 W	38 W





T .	
24 W	15 W
38 W	38 W
0 W	0 W
Electricity	Electricity
24.00 kW	25.00 kW
18202 kWh	23747 kWh
	38 W 0 W Electricity 24.00 kW

Average Climate

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

EN 14825		
	Low temperature	Medium temperature
η_{s}	138 %	114 %
Prated	21.95 kW	23.02 kW
SCOP	3.53	2.91
Tbiv	-10 °C	-10 °C





This information was gener	Tated by the HP KETMI	ARK database on 22 jun 202
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	19.41 kW	20.36 kW
COP Tj = -7°C	2.65	1.99
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	16.37 kW	16.38 kW
$COPTj = +2^{\circ}C$	3.59	2.94
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = $+7^{\circ}$ C	17.99 kW	18.36 kW
$COPTj = +7^{\circ}C$	4.05	3.51
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	23.01 kW	23.48 kW
COP Tj = 12°C	5.28	4.72
Cdh Tj = +12 °C	0.98	0.99
Pdh Tj = Tbiv	21.95 kW	23.02 kW
COP Tj = Tbiv	2.45	1.78
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	21.95 kW	23.02 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.45	1.78
WTOL	60 °C	60 °C
Poff	38 W	38 W
РТО	24 W	15 W
PSB	38 W	38 W



Page 8 of 15

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	12861 kWh	16314 kWh



Model: LW 300(L)

Configure model		
Model name	LW 300(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	19.78 kW	19.05 kW	
El input	4.90 kW	6.85 kW	
СОР	4.04	2.78	

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

Warmer Climate

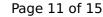


EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	68 dB(A)	68 dB(A)
Sound power level outdoor	68 dB(A)	68 dB(A)

CEN heat pump KEYMARK

EN 14825		
	Low temperature	Medium temperature
η_{s}	166 %	133 %
Prated	16.37 kW	16.06 kW
SCOP	4.22	3.40
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	16.37 kW	16.06 kW
COP Tj = +2°C	3.50	2.35
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	18.83 kW	19.35 kW
COP Tj = +7°C	3.98	3.11
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	23.57 kW	23.17 kW
COP Tj = 12°C	5.28	4.38
Cdh Tj = +12 °C	0.98	0.99

EHPA Secretariat | Rue dArlon 63-67 | Phone: +32 2 400 10 17 | Email: secretariat@heatpumpkeymark.com | www.heatpumpkeymark.com





Pdh Tj = Tbiv	16.37 kW	16.06 kW
COP Tj = Tbiv	3.50	2.35
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	16.37 kW	16.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.50	2.35
WTOL	60 °C	60 °C
Poff	38 W	38 W
РТО	24 W	15 W
PSB	38 W	38 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5177 kWh	6306 kWh

Colder Climate

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

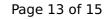
EN 14825		
	Low temperature	Medium temperature





inis information was gener	The	TRIC database on 22 jun 202
η_s	125 %	100 %
Prated	23.69 kW	24.72 kW
SCOP	3.21	2.57
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-15 °C
Pdh Tj = -7°C	14.34 kW	14.96 kW
COP Tj = -7°C	2.83	2.28
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	16.68 kW	16.45 kW
COP Tj = +2°C	3.81	3.18
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	18.04 kW	18.01 kW
$COP Tj = +7^{\circ}C$	4.22	3.67
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	23.68 kW	23.53 kW
COP Tj = 12°C	5.41	4.86
Cdh Tj = +12 °C	0.98	0.99
Pdh Tj = Tbiv	19.33 kW	20.16 kW
COP Tj = Tbiv	2.27	1.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	16.77 kW	20.16 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.90	1.74
	-	!

EHPA Secretariat | Rue dArlon 63-67 | Phone: +32 2 400 10 17 | Email: secretariat@heatpumpkeymark.com | www.heatpumpkeymark.com





	<u> </u>	
WTOL	60 °C	60 °C
Poff	38 W	38 W
РТО	24 W	15 W
PSB	38 W	38 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	24.00 kW	25.00 kW
Annual energy consumption Qhe	18202 kWh	23747 kWh
Pdh Tj = -15°C (if TOL<-20°C)		
COP Tj = -15°C (if TOL $<$ -20°C)		
Cdh Tj = -15 °C		

Average Climate

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

EN 14825		
	Low temperature	Medium temperature
$\eta_{\rm s}$	138 %	114 %





	, , , , , , , , , , , , , , , , , , , 	The database on 22 Juli 202.
Prated	21.95 kW	23.02 kW
SCOP	3.53	2.91
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	19.41 kW	20.36 kW
COP Tj = -7°C	2.65	1.99
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = $+2$ °C	16.37 kW	16.38 kW
COP Tj = +2°C	3.59	2.94
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = $+7^{\circ}$ C	17.99 kW	18.36 kW
$COP Tj = +7^{\circ}C$	4.05	3.51
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	23.01 kW	23.48 kW
COP Tj = 12°C	5.28	4.72
Cdh Tj = +12 °C	0.98	0.99
Pdh Tj = Tbiv	21.95 kW	23.02 kW
COP Tj = Tbiv	2.45	1.78
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	21.95 kW	23.02 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.45	1.78
WTOL	60 °C	60 °C



Page 15 of 15

Poff	38 W	38 W
PTO	24 W	15 W
PSB	38 W	38 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	12861 kWh	16314 kWh