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Login

Summary of	LWD 70A/RX	Reg. No.	041-K001-46	
Certificate Holder	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	LWD 70A/RX			
Heat Pump Type	Outdoor Air/Water			
Refrigerant	R290			
Mass of Refrigerant	2.2 kg			
Certification Date	24.11.2020			
Testing basis	HP Keymark Scheme Rules Rev 08			



Model: LWD 70A/RX-HMD

Configure model		
Model name	LWD 70A/RX-HMD	
Application	Heating (medium temp)	
Units	Outdoor	
Climate Zone	n/a	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply 3x400V 50Hz		

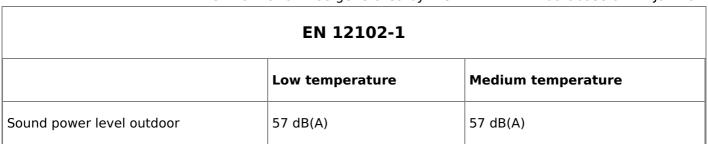
Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	8.74 kW	8.49 kW	
El input	2.02 kW	2.54 kW	
СОР	4.32	3.34	

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

Average Climate





CEN heat pump

EN 14825		
	Low temperature	Medium temperature
η_{s}	152 %	125 %
Prated	8.61 kW	7.92 kW
SCOP	3.87	3.20
Tbiv	-4 °C	-4 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7 °C	6.18 kW	5.58 kW
COP Tj = -7 °C	3.18	2.28
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = $+2^{\circ}$ C	7.46 kW	7.12 kW
COP Tj = +2°C	3.94	3.18
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7^{\circ}$ C	8.69 kW	8.75 kW
$COP Tj = +7^{\circ}C$	4.66	4.18
Cdh Tj = $+7$ °C	0.99	0.99
Pdh Tj = 12°C	10.34 kW	10.32 kW

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COP Tj = 12°C	5.58	5.43
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	6.62 kW	6.09 kW
COP Tj = Tbiv	3.47	2.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.60 kW	5.05 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.90	2.04
WTOL	62 °C	62 °C
Poff	15 W	15 W
РТО	15 W	15 W
PSB	15 W	15 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.01 kW	2.87 kW
Annual energy consumption Qhe	4595 kWh	5117 kWh

Model: LWD 70A/RX-HTD

Configure model		
Model name	LWD 70A/RX-HTD	
Application	Heating (medium temp)	
Units	Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 50Hz	

Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	8.74 kW	8.49 kW	
El input	2.02 kW	2.54 kW	
СОР	4.32	3.34	

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	57 dB(A)	57 dB(A)	

EN 14825			
	Low temperature	Medium temperature	
η_{s}	185 %	156 %	
Prated	9.25 kW	8.92 kW	
SCOP	4.71	3.98	
Tbiv	4 °C	4 °C	
TOL	2 °C	2 °C	
Pdh Tj = +2°C	7.35 kW	6.68 kW	
COP Tj = +2°C	3.68	2.52	
Cdh Tj = +2 °C	1.00	1.00	
Pdh Tj = +7°C	8.71 kW	8.85 kW	
COP Tj = +7°C	4.50	3.59	
Cdh Tj = +7 °C	0.99	0.99	
Pdh Tj = 12°C	10.31 kW	10.22 kW	
COP Tj = 12°C	5.58	5.10	
Cdh Tj = +12 °C	0.99	0.99	
Pdh Tj = Tbiv	7.93 kW	7.64 kW	

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COP Tj = Tbiv	4.06	2.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.35 kW	6.68 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.68	2.95
WTOL	62 °C	62 °C
Poff	15 W	15 W
РТО	15 W	15 W
PSB	15 W	15 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.90 kW	2.24 kW
Annual energy consumption Qhe	2626 kWh	2998 kWh

Colder Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level outdoor	57 dB(A)	57 dB(A)	

EN 14825			
Low temperature	Medium temperature		
136 %	114 %		
7.21 kW	6.70 kW		
	Low temperature		





SCOP	3.47	2.92
Tbiv	-12 °C	-12 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	6.28 kW	5.85 kW
COP Tj = -7°C	3.36	2.62
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	7.52 kW	7.28 kW
COP Tj = +2°C	4.06	3.48
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	8.68 kW	8.71 kW
$COPTj = +7^{\circ}C$	4.69	4.41
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	10.33 kW	10.37 kW
COP Tj = 12°C	5.28	5.43
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	5.31 kW	4.94 kW
COP Tj = Tbiv	2.93	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.73 kW	3.63 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.63	1.60
WTOL	62 °C	62 °C
Poff	15 W	15 W



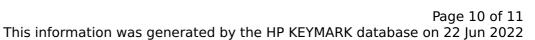


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15 W	15 W
15 W	15 W
o w	o w
Electricity	Electricity
7.21 kW	6.70 kW
5124 kWh	5657 kWh
4.73	4.43
2.63	1.96
1.00	1.00
	15 W 0 W Electricity 7.21 kW 5124 kWh 4.73 2.63

Average Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level outdoor	57 dB(A)	57 dB(A)	

EN 14825		
	Low temperature	Medium temperature
η_{s}	152 %	125 %
Prated	8.61 kW	7.92 kW
SCOP	3.87	3.20
Tbiv	-4 °C	-4 °C





TOL	-10 °C	-10 °C
Pdh Tj = -7 °C	6.18 kW	5.58 kW
$COP Tj = -7^{\circ}C$	3.18	2.28
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Pdh Tj = $+2$ °C	7.46 kW	7.12 kW
COP Tj = +2°C	3.94	3.18
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7^{\circ}$ C	8.69 kW	8.75 kW
$COPTj = +7^{\circ}C$	4.66	4.18
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	10.34 kW	10.32 kW
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COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.90	2.04
WTOL	62 °C	62 °C
Poff	15 W	15 W
РТО	15 W	15 W
PSB	15 W	15 W



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PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.01 kW	2.87 kW
Annual energy consumption Qhe	4595 kWh	5117 kWh