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Login

Summary of	LWD 50A/RX	Reg. No.	041-K001-45	
Certificate Holder				
Name	ait-deutschland Gmbl	ait-deutschland GmbH		
Address	Industriestr. 3	Zip	95359	
City	Kasendorf	Country	Germany	
Certification Body	BRE Global Limited	BRE Global Limited		
Subtype title	LWD 50A/RX	LWD 50A/RX		
Heat Pump Type	Outdoor Air/Water	Outdoor Air/Water		
Refrigerant	R290	R290		
Mass of Refrigerant	2.1 kg	2.1 kg		
Certification Date	24.11.2020	24.11.2020		
Testing basis	HP Keymark Scheme	HP Keymark Scheme Rules Rev 08		



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Model: LWD 50A/RX-HMD

Configure model		
Model name	LWD 50A/RX-HMD	
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	6.80 kW	6.16 kW		
El input	1.49 kW	1.78 kW		
СОР	4.56	3.46		

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



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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	5.78 kW	5.41 kW
SCOP	3.87	3.21
Tbiv	-5 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.45 kW	4.11 kW
COP Tj = -7°C	3.13	2.28
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = $+2$ °C	5.41 kW	5.26 kW
COP Tj = +2°C	3.90	3.19
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	6.89 kW	6.73 kW
COP Tj = +7°C	4.88	4.29
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	7.61 kW	7.58 kW

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





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COP Tj = 12°C	5.36	5.19
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	4.67 kW	4.37 kW
COP Tj = Tbiv	3.33	2.46
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.12 kW	3.78 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.85	2.06
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	1.66 kW	1.63 kW

Warmer Climate

Annual energy consumption Qhe

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

3084 kWh

3485 kWh

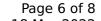
EN 14825			
	Low temperature	Medium temperature	





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		in ducasuse on 10 Mar 20
η_{s}	185 %	151 %
Prated	6.95 kW	6.51 kW
SCOP	4.69	3.85
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = $+2$ °C	5.36 kW	5.07 kW
COP Tj = +2°C	3.67	2.58
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = $+7^{\circ}$ C	6.83 kW	6.43 kW
$COP Tj = +7^{\circ}C$	4.73	3.53
Cdh Tj = $+7$ °C	0.99	0.99
Pdh Tj = 12°C	7.58 kW	7.47 kW
COP Tj = 12°C	5.48	4.96
Cdh Tj = $+12$ °C	0.99	0.99
Pdh Tj = Tbiv	5.96 kW	5.58 kW
COP Tj = Tbiv	4.16	2.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	5.36 kW	5.07 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.67	2.58
WTOL	62 °C	62 °C
Poff	15 W	15 W



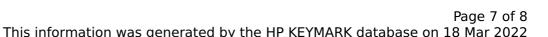


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РТО	15 W	15 W	
PSB	15 W	15 W	
PCK	0 W	0 W	
Supplementary Heater: Type of energy input	Electricity	Electricity	
Supplementary Heater: PSUP	1.59 kW	1.44 kW	
Annual energy consumption Qhe	1978 kWh	2259 kWh	

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		
η_{s}	135 %	114 %		
Prated	5.38 kW	5.04 kW		
SCOP	3.45	2.91		
Tbiv	-20 °C	-20 °C		
TOL	-12 °C	-12 °C		
Pdh Tj = -7°C	4.50 kW	4.26 kW		
COP Tj = -7°C	3.31	2.60		





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Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = $+2^{\circ}$ C	5.45 kW	5.33 kW
COP Tj = +2°C	4.04	3.47
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7^{\circ}$ C	6.93 kW	6.85 kW
$COPTj = +7^{\circ}C$	4.95	4.61
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	7.60 kW	7.63 kW
COP Tj = 12°C	5.06	5.16
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	3.96 kW	3.71 kW
COP Tj = Tbiv	2.86	2.21
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.09 kW	2.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.14	1.70
WTOL	62 °C	62 °C
Poff	15 W	15 W
PTO	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	5.38 kW	5.04 kW



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Annual energy consumption Qhe	3849 kWh	4264 kWh
Pdh Tj = -15°C (if TOL<-20°C)	3.63	3.40
COP Tj = -15°C (if TOL $<$ -20°C)	2.57	2.21
Cdh Tj = -15 °C	1.00	1.00