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Login

Summary of	LWD 50A/SX	Reg. No.	041-K001-43		
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 50A/SX				
Heat Pump Type	Outdoor Air/Water				
Refrigerant	R290				
Mass of Refrigerant	0.95 kg				
Certification Date	24.11.2020				
Testing basis	HP Keymark Scheme Rules Rev 08				

Model: LWD 50A/SX-HMD

Configure model		
Model name	LWD 50A/SX-HMD	
Application	Heating (medium temp)	
Units	Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

Heating

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	6.85 kW	6.04 kW	
El input	1.53 kW	2.01 kW	
СОР	4.46	3.00	

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



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

EN 14825		
	Low temperature	Medium temperature
η_{s}	152 %	127 %
Prated	6.37 kW	5.91 kW
SCOP	3.88	3.25
Tbiv	-4 °C	-4 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	4.57 kW	4.11 kW
COP Tj = -7°C	3.04	2.28
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	5.52 kW	5.36 kW
COP Tj = +2°C	3.94	3.23
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	7.03 kW	6.81 kW
COP Tj = +7°C	4.87	4.32
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	7.54 kW	7.51 kW

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COP Tj = 12°C	5.54	5.36
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	4.90 kW	4.55 kW
COP Tj = Tbiv	3.35	2.57
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.18 kW	3.72 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.81	2.05
WTOL	62 °C	1 °C
Poff	10 W	10 W
РТО	10 W	10 W
PSB	10 W	10 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.19 kW	2.19 kW
Annual energy consumption Qhe	3388 kWh	3762 kWh

Warmer Climate

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

EN 14825		
	Low temperature	Medium temperature





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η_{s}	189 %	155 %
Prated	7.07 kW	6.54 kW
SCOP	4.79	3.95
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = $+2$ °C	5.47 kW	5.16 kW
$COPTj = +2^{\circ}C$	3.70	2.62
Cdh Tj = $+2$ °C	1.00	1.00
Pdh Tj = $+7^{\circ}$ C	6.94 kW	6.40 kW
$COP Tj = +7^{\circ}C$	4.69	3.56
Cdh Tj = $+7$ °C	0.99	0.99
Pdh Tj = 12°C	7.51 kW	7.41 kW
COP Tj = 12°C	5.53	5.01
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	6.06 kW	5.60 kW
COP Tj = Tbiv	4.15	2.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	5.47 kW	5.16 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.70	2.62
WTOL	62 °C	62 °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	1.60 kW	1.38 kW
Annual energy consumption Qhe	1971 kWh	2211 kWh

Colder Climate

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

EN 14825			
	Low temperature	Medium temperature	
η_{s}	135 %	114 %	
Prated	5.43 kW	4.98 kW	
SCOP	3.44	2.93	
Tbiv	-12 °C	-12 °C	
TOL	-20 °C	-20 °C	
Pdh Tj = -7°C	4.64 kW	4.31 kW	
COP Tj = -7°C	3.19	2.58	

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Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	5.55 kW	5.44 kW
COP Tj = +2°C	4.07	3.51
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	7.08 kW	6.97 kW
$COP Tj = +7^{\circ}C$	4.93	4.63
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	7.54 kW	7.56 kW
COP Tj = 12°C	5.29	5.39
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	4.00 kW	3.67 kW
COP Tj = Tbiv	2.84	2.19
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.94 kW	2.72 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.18	1.61
WTOL	62 °C	62 °C
Poff	10 W	10 W
РТО	10 W	10 W
PSB	10 W	10 W
РСК	0 W	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	5.43 kW	4.98 kW



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Annual energy consumption Qhe	3888 kWh	4185 kWh
Pdh Tj = -15°C (if TOL<-20°C)	3.61	3.30
COP Tj = -15°C (if TOL $<$ -20°C)	2.60	1.97
Cdh Tj = -15 °C	1.00	1.00



Model: LWD 50A/SX-HTD S

Configure model		
Model name	LWD 50A/SX-HTD S	
Application	Heating (medium temp)	
Units	Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

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Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
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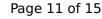
Average Climate



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EN 14825		
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Supplementary Heater: PSUP	2.19 kW	2.19 kW
Annual energy consumption Qhe	3388 kWh	3762 kWh

Warmer Climate

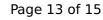
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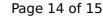
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