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Login

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

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
COP	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

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 %	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°C	6.83 kW	6.43 kW
COP Tj = +7°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
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	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
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°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°C	6.93 kW	6.85 kW
COP Tj = +7°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
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

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	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
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
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	1.66 kW	1.63 kW
Annual energy consumption Qhe	3084 kWh	3485 kWh