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Summary of	LWD 70A/RX	Reg. No.	041-K001-46
Certificate Holder			
Name	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

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
COP	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

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°C	3.18	2.28
Cdh	1.00	1.00
Pdh Tj = +2°C	7.46 kW	7.12 kW
COP Tj = +2°C	3.94	3.18
Cdh	0.99	0.99
Pdh Tj = +7°C	8.69 kW	8.75 kW
COP Tj = +7°C	4.66	4.18
Cdh	0.99	0.99
Pdh Tj = 12°C	10.34 kW	10.32 kW
COP Tj = 12°C	5.58	5.43
Cdh	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
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	3.01 kW	2.87 kW
Annual energy consumption Qhe	4595 kWh	5117 kWh

Model: LWD 70A/RX-HTD

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
COP	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

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°C	3.18	2.28
Cdh	1.00	1.00
Pdh Tj = +2°C	7.46 kW	7.12 kW
COP Tj = +2°C	3.94	3.18
Cdh	0.99	0.99
Pdh Tj = +7°C	8.69 kW	8.75 kW
COP Tj = +7°C	4.66	4.18
Cdh	0.99	0.99
Pdh Tj = 12°C	10.34 kW	10.32 kW
COP Tj = 12°C	5.58	5.43
Cdh	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
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	3.01 kW	2.87 kW
Annual energy consumption Qhe	4595 kWh	5117 kWh

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	1.00	1.00
Pdh Tj = +7°C	8.71 kW	8.85 kW
COP Tj = +7°C	4.50	3.59
Cdh	0.99	0.99
Pdh Tj = 12°C	10.31 kW	10.22 kW
COP Tj = 12°C	5.58	5.10
Cdh	0.99	0.99
Pdh Tj = Tbiv	7.93 kW	7.64 kW
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
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	1.90 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**
η_s	136 %	114 %
Prated	7.21 kW	6.70 kW
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	0.99	0.99
Pdh Tj = +2°C	7.52 kW	7.28 kW
COP Tj = +2°C	4.06	3.48
Cdh	0.99	0.99

Pdh Tj = +7°C	8.68 kW	8.71 kW
COP Tj = +7°C	4.69	4.41
Cdh	0.99	0.99
Pdh Tj = 12°C	10.33 kW	10.37 kW
COP Tj = 12°C	5.28	5.43
Cdh	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
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	7.21 kW	6.70 kW
Annual energy consumption Qhe	5124 kWh	5657 kWh
Pdh Tj = -15°C (if TOL<-20°C)	4.73	4.43
COP Tj = -15°C (if TOL<-20°C)	2.63	1.96
Cdh	1.00	1.00