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Summary of	LWC 80	Reg. No.	041-K001-28
Certificate Holder			
Name	ait-deutschland GmbH		
Address	Industriestr. 3	Zip	95359
City	Kasendorf	Country	Germany
Certification Body	BRE Energy & Communications Division		
Name of testing laboratory	WPZ		
Subtype title	LWC 80		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R407c		
Mass Of Refrigerant	3.2 kg		
Certification Date	06.09.2019		

Model: LWC 80

General Data	
Power supply	3x400V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	8.60 kW	8.08 kW
El input	2.05 kW	2.82 kW
COP	4.20	2.87
Indoor water flow rate	1.70 m³/h	1.70 m³/h

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

Average Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	55 dB(A)	55 dB(A)
Sound power level outdoor	55 dB(A)	55 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	151 %	122 %
Prated	8.34 kW	7.85 kW
SCOP	3.84	3.15
Tbiv	-5 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.32 kW	5.94 kW
COP Tj = -7°C	2.98	2.07
Cdh	1.00	1.00
Pdh Tj = +2°C	8.16 kW	7.85 kW
COP Tj = +2°C	3.81	3.07
Cdh	1.00	1.00
Pdh Tj = +7°C	8.61 kW	8.54 kW
COP Tj = +7°C	4.82	4.17
Cdh	0.99	1.00

Pdh Tj = 12°C	9.95 kW	9.93 kW
COP Tj = 12°C	5.08	4.94
Cdh	1.00	1.00
Pdh Tj = Tbiv	6.74 kW	6.34 kW
COP Tj = Tbiv	3.21	2.27
Pdh Tj = TOL	5.72 kW	5.38 kW
COP Tj = TOL	2.68	1.84
WTOL	60 °C	60 °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	2.62 kW	2.47 kW
Annual energy consumption Qhe	4489 kWh	5195 kWh

Warmer Climate

EN 14825		
	Low temperature	**Medium temperature**
η_s	181 %	146 %
Prated	9.68 kW	9.17 kW

SCOP	4.59	3.72
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.07 kW	7.43 kW
COP Tj = +2°C	3.59	2.43
Cdh	1.00	1.00
Pdh Tj = +7°C	8.58 kW	8.40 kW
COP Tj = +7°C	4.61	3.37
Cdh	1.00	1.00
Pdh Tj = 12°C	9.93 kW	9.88 kW
COP Tj = 12°C	5.04	4.57
Cdh	1.00	1.00
Pdh Tj = Tbiv	8.30 kW	7.86 kW
COP Tj = Tbiv	4.00	2.76
Pdh Tj = TOL	8.07 kW	7.43 kW
COP Tj = TOL	3.59	1.00
WTOL	60 °C	60 °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	1.61 kW	1.74 kW
Annual energy consumption Qhe	2817 kWh	3297 kWh

Colder Climate

EN 14825		
	Low temperature	**Medium temperature**
η_s	133 %	110 %
Prated	5.84 kW	5.65 kW
SCOP	3.40	2.82
Tbiv	-15 °C	-15 °C
TOL	-20 °C	-20 °C
Pdh Tj = -7°C	6.37 kW	6.11 kW
COP Tj = -7°C	3.14	2.40
Cdh	1.00	1.00
Pdh Tj = +2°C	8.21 kW	8.01 kW
COP Tj = +2°C	3.92	3.39
Cdh	1.00	1.00
Pdh Tj = +7°C	8.63 kW	8.59 kW
COP Tj = +7°C	4.88	4.53
Cdh	0.99	1.00

Pdh Tj = 12°C	9.94 kW	9.96 kW
COP Tj = 12°C	4.82	4.99
Cdh	1.00	1.00
Pdh Tj = Tbiv	4.76 kW	4.61 kW
COP Tj = Tbiv	2.37	1.76
Pdh Tj = TOL	3.77 kW	3.92 kW
COP Tj = TOL	1.86	1.48
WTOL	60 °C	60 °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	5.84 kW	5.65 kW
Annual energy consumption Qhe	4239 kWh	4931 kWh
Pdh Tj = -15°C (if TOL<-20°C)	4.76	4.61
COP Tj = -15°C (if TOL<-20°C)	2.37	1.76
Cdh	1.00	1.00