Summary of	PAC BTE 10/12/14/16/ kW 1 Ph	Reg. No.	ICIM-PDC-000043-00
Certificate Holder			
Name	Airwell Residential		
Address	10, rue du Fort de Saint Cyr	Zip	78180
City	Montigny le Bretonneux	Country	France
Certification Body	ICIM S.p.A.		
Name of testing laboratory	WPZ		
Subtype title	PAC BTE 10/12/14/16/ kW 1 Ph		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R410a		
Mass Of Refrigerant	3.9 kg		
Certification Date	11.09.2019		

Model: PAC-BT-UE-10KW-H11

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	15.63 kW	14.90 kW
El input	3.28 kW	4.67 kW
COP	4.81	3.19
Indoor water flow rate	2.63 m^3/h	1.60 m^3/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	158 %	120 %
Prated	15.17 kW	15.03 kW
SCOP	4.02	3.06
Tbiv	-6 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.04 kW	10.92 kW
COP Tj = -7°C	2.78	1.85
Cdh	0.90	0.90
Pdh Tj = +2°C	8.37 kW	8.29 kW
COP Tj = +2°C	3.50	2.81
Cdh	0.90	0.90
Pdh Tj = +7°C	7.01 kW	6.61 kW
COP Tj = +7°C	6.46	4.71
Cdh	0.90	0.90

Pdh Tj = 12°C	9.30 kW	8.87 kW
COP Tj = 12°C	9.10	7.41
Cdh	0.90	0.90
Pdh Tj = Tbiv	12.84 kW	12.14 kW
COP Tj = Tbiv	2.98	2.17
Pdh Tj = TOL	9.51 kW	9.24 kW
COP Tj = TOL	2.22	1.40
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	19 W	19 W
PTO	78 W	78 W
PSB	19 W	19 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	7790 kWh	10127 kWh

Model: PAC-BTE-UI-10-16KW-H11

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	14.48 kW	13.50 kW
El input	2.91 kW	4.26 kW
COP	4.87	3.17
Indoor water flow rate	2.41 m³/h	1.45 m³/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	157 %	121 %
Prated	13.84 kW	15.12 kW
SCOP	4.01	3.11
Tbiv	-6 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.93 kW	10.68 kW
COP Tj = -7°C	2.72	1.86
Cdh	0.90	0.90
Pdh Tj = +2°C	7.52 kW	8.38 kW
COP Tj = +2°C	3.53	2.79
Cdh	0.90	0.90
Pdh Tj = +7°C	6.58 kW	6.22 kW
COP Tj = +7°C	6.30	4.69
Cdh	0.90	0.90

Pdh Tj = 12°C	8.50 kW	8.22 kW
COP Tj = 12°C	9.66	7.86
Cdh	0.90	0.90
Pdh Tj = Tbiv	11.71 kW	12.21 kW
COP Tj = Tbiv	2.95	2.33
Pdh Tj = TOL	8.53 kW	8.17 kW
COP Tj = TOL	2.07	1.31
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	19 W	19 W
PTO	78 W	78 W
PSB	19 W	19 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	7126 kWh	10057 kWh

Model: PAC-BT-UE-12KW-H11

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	12.35 kW	11.60 kW
El input	2.54 kW	4.08 kW
COP	4.79	2.84
Indoor water flow rate	2.05 m^3/h	1.25 m^3/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	69 dB(A)	69 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	175 %	129 %
Prated	12.46 kW	11.94 kW
SCOP	4.46	3.30
Tbiv	-6 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.91 kW	8.60 kW
COP Tj = -7°C	3.02	2.02
Cdh	0.90	0.90
Pdh Tj = +2°C	6.65 kW	6.57 kW
COP Tj = +2°C	4.28	3.19
Cdh	0.90	0.90
Pdh Tj = +7°C	5.69 kW	5.30 kW
COP Tj = +7°C	6.47	5.31
Cdh	0.90	0.90

Pdh Tj = 12°C	7.47 kW	7.07 kW
COP Tj = 12°C	7.94	7.70
Cdh	0.90	0.90
Pdh Tj = Tbiv	10.54 kW	9.64 kW
COP Tj = Tbiv	3.22	2.02
Pdh Tj = TOL	8.02 kW	7.22 kW
COP Tj = TOL	2.33	1.47
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	19 W	19 W
PTO	78 W	78 W
PSB	19 W	19 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5772 kWh	7465 kWh

Model: PAC-BTE-UI-10-16KW-H11

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	9.69 kW	8.97 kW
El input	2.11 kW	3.20 kW
COP	4.59	2.80
Indoor water flow rate	1.69 m^3/h	0.96 m^3/h

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	174 %	128 %
Prated	8.73 kW	9.70 kW
SCOP	4.43	3.28
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.72 kW	8.58 kW
COP Tj = -7°C	2.66	1.94
Cdh	0.90	0.90
Pdh Tj = +2°C	4.61 kW	5.11 kW
COP Tj = +2°C	4.40	3.07
Cdh	0.90	0.90
Pdh Tj = +7°C	4.68 kW	4.48 kW
COP Tj = +7°C	6.53	5.11
Cdh	0.90	0.90

Pdh Tj = 12°C	5.63 kW	5.53 kW
COP Tj = 12°C	8.53	7.41
Cdh	0.90	0.90
Pdh Tj = Tbiv	7.72 kW	8.58 kW
COP Tj = Tbiv	2.66	1.94
Pdh Tj = TOL	6.12 kW	6.57 kW
COP Tj = TOL	2.10	1.42
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	19 W	19 W
PTO	78 W	78 W
PSB	19 W	19 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	electric	electric
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4075 kWh	6104 kWh

Model: PAC-BT-UE-14KW-H11

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	9.69 kW	8.97 kW
El input	2.11 kW	3.20 kW
COP	4.59	2.80
Indoor water flow rate	1.44 m³/h	0.96 m³/h

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	67 dB(A)	67 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	174 %	128 %
Prated	8.73 kW	9.70 kW
SCOP	4.44	3.29
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.72 kW	8.58 kW
COP Tj = -7°C	2.66	1.94
Pdh Tj = +2°C	4.61 kW	5.11 kW
COP Tj = +2°C	4.40	3.07
Pdh Tj = +7°C	4.68 kW	4.48 kW
COP Tj = +7°C	6.53	5.11
Pdh Tj = 12°C	5.63 kW	5.53 kW
COP Tj = 12°C	8.53	7.41
Pdh Tj = Tbiv	7.72 kW	8.58 kW

COP Tj = Tbiv	2.66	1.94
Pdh Tj = TOL	6.12 kW	6.57 kW
COP Tj = TOL	2.10	1.42
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	19 W	19 W
PTO	78 W	78 W
PSB	19 W	19 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	2.61 kW	3.13 kW
Annual energy consumption Qhe	4075 kWh	6104 kWh

Model: PAC-BTE-UI-10-16KW-H11

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	12.20 kW	11.60 kW
El input	2.54 kW	4.08 kW
COP	4.79	2.84
Indoor water flow rate	2.05 m³/h	1.25 m³/h

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	69 dB(A)	69 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	175 %	129 %
Prated	12.46 kW	11.94 kW
SCOP	4.46	3.30
Tbiv	-6 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.91 kW	8.60 kW
COP Tj = -7°C	3.02	2.02
Pdh Tj = +2°C	6.65 kW	6.57 kW
COP Tj = +2°C	4.28	3.19
Pdh Tj = +7°C	5.69 kW	5.30 kW
COP Tj = +7°C	6.47	5.31
Pdh Tj = 12°C	7.47 kW	7.07 kW
COP Tj = 12°C	7.94	7.70
Pdh Tj = Tbiv	10.54 kW	9.64 kW

COP Tj = Tbiv	3.22	2.02
Pdh Tj = TOL	8.02 kW	7.22 kW
COP Tj = TOL	2.33	1.47
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	19 W	19 W
PTO	78 W	78 W
PSB	19 W	19 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	4.44 kW	4.72 kW
Annual energy consumption Qhe	5772 kWh	7465 kWh

Model: PAC-BT-UE-16KW-H11

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	14.20 kW	13.50 kW
El input	2.91 kW	4.26 kW
COP	4.87	3.17
Indoor water flow rate	2.41 m³/h	1.45 m³/h

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	157 %	121 %
Prated	13.84 kW	15.12 kW
SCOP	4.01	3.11
Tbiv	-6 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.93 kW	10.68 kW
COP Tj = -7°C	2.72	1.86
Pdh Tj = +2°C	7.52 kW	8.38 kW
COP Tj = +2°C	3.53	2.79
Pdh Tj = +7°C	6.58 kW	6.22 kW
COP Tj = +7°C	6.30	4.69
Pdh Tj = 12°C	8.50 kW	8.22 kW
COP Tj = 12°C	9.66	7.86
Pdh Tj = Tbiv	11.71 kW	12.21 kW

COP Tj = Tbiv	2.95	2.33
Pdh Tj = TOL	8.53 kW	8.17 kW
COP Tj = TOL	2.07	1.31
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	19 W	19 W
PTO	78 W	78 W
PSB	19 W	19 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	5.31 kW	6.95 kW
Annual energy consumption Qhe	7126 kWh	10057 kWh

Model: PAC-BTE-UI-10-16KW-H11

General Data	
Power supply	1x230V 50Hz

Heating

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	15.80 kW	14.90 kW
El input	3.28 kW	4.67 kW
COP	4.81	3.19
Indoor water flow rate	2.63 m³/h	1.60 m³/h

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	35 dB(A)	35 dB(A)
Sound power level outdoor	70 dB(A)	70 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	158 %	120 %
Prated	15.17 kW	15.03 kW
SCOP	4.02	3.06
Tbiv	-6 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.04 kW	10.92 kW
COP Tj = -7°C	2.78	1.85
Pdh Tj = +2°C	8.37 kW	8.29 kW
COP Tj = +2°C	3.50	2.81
Pdh Tj = +7°C	7.01 kW	6.61 kW
COP Tj = +7°C	6.46	4.71
Pdh Tj = 12°C	9.30 kW	8.87 kW
COP Tj = 12°C	9.10	7.41
Pdh Tj = Tbiv	12.84 kW	12.14 kW

COP Tj = Tbiv	2.98	2.17
Pdh Tj = TOL	9.51 kW	9.24 kW
COP Tj = TOL	2.22	1.40
Cdh	0.90	0.90
WTOL	60 °C	60 °C
Poff	19 W	19 W
PTO	78 W	78 W
PSB	19 W	19 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: PSUP	5.66 kW	5.79 kW
Annual energy consumption Qhe	7790 kWh	10127 kWh