

This information was generated by the HP KEYMARK database on 17 Dec 2020

Summary of	PAC BTE 12/14/16 kW 3 Ph	Reg. No.	ICIM-PDC-000042-00
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 12/14/16 kW 3 Ph		
Heat Pump Type	Outdoor Air/Water		
Refrigerant	R410a		
Mass Of Refrigerant	3.9 kg		
Certification Date	11.09.2019		

## Model: PAC-BT-UE-12KW-H13

### General Data

Power supply	3x400V 50Hz
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## 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	15.77 kW	14.90 kW
El input	3.28 kW	4.67 kW
COP	4.81	3.19
Indoor water flow rate	2.66 m <sup>3</sup> /h	1.60 m <sup>3</sup> /h

## Average Climate

### EN 14825

This information was generated by the HP KEYMARK database on 17 Dec 2020

	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	169 %	132 %
Prated	15.19 kW	17.41 kW
SCOP	4.30	3.39
Tbiv	-6 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.06 kW	12.12 kW
COP Tj = -7°C	3.00	2.04
Cdh	0.90	0.90
Pdh Tj = +2°C	8.46 kW	9.37 kW
COP Tj = +2°C	3.72	3.02
Cdh	0.90	0.90
Pdh Tj = +7°C	7.01 kW	6.61 kW
COP Tj = +7°C	7.01	5.30
Cdh	0.90	0.90
Pdh Tj = 12°C	9.30 kW	8.87 kW
COP Tj = 12°C	9.82	7.98
Cdh	0.90	0.90
Pdh Tj = Tbiv	12.85 kW	14.06 kW
COP Tj = Tbiv	3.22	2.49
Pdh Tj = TOL	9.51 kW	9.24 kW

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COP Tj = TOL	2.41	1.53
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	7294 kWh	10623 kWh

### 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)

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

## General Data

Power supply	3x400V 50Hz
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## 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	14.16 kW	13.50 kW
El input	2.91 kW	4.26 kW
COP	4.87	3.17
Indoor water flow rate	2.38 m <sup>3</sup> /h	1.45 m <sup>3</sup> /h

## Average Climate

### EN 14825

This information was generated by the HP KEYMARK database on 17 Dec 2020

	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	166 %	131 %
Prated	14.37 kW	16.47 kW
SCOP	4.23	3.36
Tbiv	-6 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.29 kW	11.26 kW
COP Tj = -7°C	2.91	2.01
Cdh	0.90	0.90
Pdh Tj = +2°C	8.03 kW	8.95 kW
COP Tj = +2°C	3.65	2.93
Cdh	0.90	0.90
Pdh Tj = +7°C	6.58 kW	6.22 kW
COP Tj = +7°C	6.84	5.34
Cdh	0.90	0.90
Pdh Tj = 12°C	8.50 kW	8.22 kW
COP Tj = 12°C	10.44	8.48
Cdh	0.90	0.90
Pdh Tj = Tbiv	12.16 kW	13.30 kW
COP Tj = Tbiv	3.16	2.52
Pdh Tj = TOL	8.53 kW	8.17 kW

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COP Tj = TOL	2.24	1.43
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	7015 kWh	10110 kWh

### 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)

## Model: PAC-BT-UE-14KW-H13

### General Data

Power supply	3x400V 50Hz
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## 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	12.16 kW	11.60 kW
El input	2.54 kW	4.08 kW
COP	4.79	2.84
Indoor water flow rate	2.02 m <sup>3</sup> /h	1.25 m <sup>3</sup> /h

## Average Climate

### EN 14825



This information was generated by the HP KEYMARK database on 17 Dec 2020

	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	176 %	129 %
Prated	12.31 kW	13.66 kW
SCOP	4.48	3.31
Tbiv	-6 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.81 kW	9.55 kW
COP Tj = -7°C	2.91	1.96
Cdh	0.90	0.90
Pdh Tj = +2°C	6.63 kW	7.59 kW
COP Tj = +2°C	4.34	3.05
Cdh	0.90	0.90
Pdh Tj = +7°C	5.69 kW	5.30 kW
COP Tj = +7°C	6.46	5.00
Cdh	0.90	0.90
Pdh Tj = 12°C	7.47 kW	7.07 kW
COP Tj = 12°C	7.96	6.98
Cdh	0.90	0.90
Pdh Tj = Tbiv	10.42 kW	11.03 kW
COP Tj = Tbiv	3.14	2.45
Pdh Tj = TOL	8.02 kW	7.22 kW

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COP Tj = TOL	2.34	1.45
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	5664 kWh	8539 kWh

### 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)

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

### General Data

Power supply	3x400V 50Hz
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## 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	2.02 m <sup>3</sup> /h	1.25 m <sup>3</sup> /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

This information was generated by the HP KEYMARK database on 17 Dec 2020

### 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
$\eta_s$	176 %	129 %
Prated	12.31 kW	13.66 kW
SCOP	4.48	3.31
Tbiv	-6 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.81 kW	9.55 kW
COP Tj = -7°C	2.91	1.96
Pdh Tj = +2°C	6.63 kW	7.59 kW
COP Tj = +2°C	4.34	3.05
Pdh Tj = +7°C	5.69 kW	5.30 kW
COP Tj = +7°C	6.46	5.00
Pdh Tj = 12°C	7.47 kW	7.07 kW
COP Tj = 12°C	7.96	6.98
Pdh Tj = Tbiv	10.42 kW	11.03 kW

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COP $T_j = T_{biv}$	3.14	2.45
P <sub>dh</sub> $T_j = TOL$	8.02 kW	7.22 kW
COP $T_j = TOL$	2.34	1.45
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	19 W	19 W
P <sub>TO</sub>	78 W	78 W
P <sub>SB</sub>	19 W	19 W
P <sub>CK</sub>	14 W	14 W
Supplementary Heater: Type of energy input	gas	gas
Supplementary Heater: P <sub>SUP</sub>	4.29 kW	6.44 kW
Annual energy consumption Q <sub>he</sub>	5664 kWh	8539 kWh

## Model: PAC-BT-UE-16KW-H13

### General Data

Power supply	3x400V 50Hz
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## 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	2.38 m <sup>3</sup> /h	1.45 m <sup>3</sup> /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

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### EN 12102-1

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### EN 14825

	Low temperature	Medium temperature
$\eta_s$	166 %	131 %
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SCOP	4.23	3.36
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TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.29 kW	11.26 kW
COP Tj = -7°C	2.91	2.01
Pdh Tj = +2°C	8.03 kW	8.95 kW
COP Tj = +2°C	3.65	2.93
Pdh Tj = +7°C	6.58 kW	6.22 kW
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Pdh Tj = 12°C	8.50 kW	8.22 kW
COP Tj = 12°C	10.44	8.48
Pdh Tj = Tbiv	12.16 kW	13.30 kW

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COP $T_j = T_{biv}$	3.16	2.52
P <sub>dh</sub> $T_j = TOL$	8.53 kW	8.17 kW
COP $T_j = TOL$	2.24	1.43
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	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	5.84 kW	8.30 kW
Annual energy consumption Q <sub>he</sub>	7015 kWh	10110 kWh



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

### General Data

Power supply	3x400V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	15.80 kW	14.90 kW
El input	2.91 kW	4.67 kW
COP	4.81	3.19
Indoor water flow rate	2.66 m <sup>3</sup> /h	1.60 m <sup>3</sup> /h

### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
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COP Tj = -7°C	3.00	2.04
Pdh Tj = +2°C	8.46 kW	9.37 kW
COP Tj = +2°C	3.72	3.02
Pdh Tj = +7°C	7.01 kW	6.61 kW
COP Tj = +7°C	7.01	5.30
Pdh Tj = 12°C	9.30 kW	8.87 kW
COP Tj = 12°C	9.82	7.98
Pdh Tj = Tbiv	12.85 kW	14.06 kW

This information was generated by the HP KEYMARK database on 17 Dec 2020

COP $T_j = T_{biv}$	3.22	2.49
P <sub>dh</sub> $T_j = TOL$	9.51 kW	9.24 kW
COP $T_j = TOL$	2.41	1.53
C <sub>dh</sub>	0.90	0.90
WTOL	60 °C	60 °C
P <sub>off</sub>	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	5.68 kW	8.17 kW
Annual energy consumption Q <sub>he</sub>	7294 kWh	10623 kWh