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#### This information was generated by the HP KEYMARK database on 22 Jun 2022

#### Login

Summary of	Wellea A 4 6 kW	Reg. No.	041-K015-01	
Certificate Holder				
Name	Airwell Residential S.A.S.			
Address	10, rue du Fort de Saint Cyr	Zip	78180	
City	Montigny le Bretonneux	Country	France	
Certification Body	BRE Global Limited	BRE Global Limited		
Subtype title	Wellea A 4 6 kW	Wellea A 4 6 kW		
Heat Pump Type	Outdoor Air/Water	Outdoor Air/Water		
Refrigerant	R32	R32		
Mass of Refrigerant	1.5 kg	1.5 kg		
Certification Date	18.06.2021	18.06.2021		
Testing basis	Heat Pump Keymark Scheme Rules	Heat Pump Keymark Scheme Rules Rev 08		



# Model: AW-YHPSA04-H91 + AW-WHPSA0406-**N91**

Configure model		
Model name	AW-YHPSA04-H91 + AW-WHPSA0406-N91	
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility Yes		
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

## Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	4.25 kW	4.40 kW	
El input	0.82 kW	1.49 kW	
СОР	5.20	2.95	

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 indoor	38 dB(A)	38 dB(A)	
Sound power level outdoor	56 dB(A)	56 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	254 %	162 %
Prated	5.54 kW	5.02 kW
SCOP	6.52	4.14
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.35 kW	4.84 kW
COP Tj = +2°C	3.94	2.51
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.56 kW	3.23 kW
COP Tj = +7°C	5.92	3.68
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	1.64 kW	1.47 kW
COP Tj = 12°C	7.91	5.15
Cdh Tj = +12 °C	0.90	0.90





Pdh Tj = Tbiv	3.56 kW	3.23 kW
COP Tj = Tbiv	5.92	3.68
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.35 kW	4.84 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.94	2.51
WTOL	65 °C	65 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.19 kW	0.18 kW
Annual energy consumption Qhe	1152 kWh	1621 kWh

## Colder Climate

# EN 12102-1 Low temperature Medium temperature Sound power level indoor 38 dB(A) Sound power level outdoor 56 dB(A) 56 dB(A)

EN 14825		
	Low temperature	Medium temperature





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$\eta_{s}$	159 %	102 %
Prated	4.57 kW	3.37 kW
SCOP	4.06	2.63
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = $-7^{\circ}$ C	2.76 kW	2.14 kW
$COP Tj = -7^{\circ}C$	3.49	2.32
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	1.77 kW	1.28 kW
COP Tj = +2°C	4.95	2.99
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = $+7^{\circ}$ C	1.17 kW	1.01 kW
$COPTj = +7^{\circ}C$	5.53	3.86
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	1.43 kW	1.36 kW
COP Tj = 12°C	7.67	6.28
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	3.72 kW	2.75 kW
COP Tj = Tbiv	2.57	1.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.80 kW	1.64 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.97	1.02
	1	+





WTOL	65 °C	65 °C
Poff	14 W	14 W
РТО	24 W	24 W
PSB	14 W	14 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.76 kW	1.73 kW
Annual energy consumption Qhe	2770 kWh	3159 kWh
Pdh Tj = -15°C (if TOL<-20°C)	3.72	2.75
COP Tj = -15°C (if TOL $<$ -20°C)	2.57	1.74
Cdh Tj = -15 °C	0.90	0.90

## Average Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	38 dB(A)	38 dB(A)	
Sound power level outdoor	56 dB(A)	56 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	191 %	130 %





		This information was generated by the HF KETMAKK database on 22 Juli 2022			
Prated	5.52 kW	4.40 kW			
SCOP	4.85	3.31			
Tbiv	-7 °C	-7 °C			
TOL	-10 °C	-10 °C			
Pdh Tj = $-7^{\circ}$ C	4.88 kW	3.89 kW			
$COPTj = -7^{\circ}C$	3.19	2.17			
Cdh Tj = -7 °C	0.90	0.90			
Pdh Tj = $+2$ °C	3.06 kW	2.38 kW			
COP Tj = +2°C	4.78	3.30			
Cdh Tj = +2 °C	0.90	0.90			
Pdh Tj = $+7^{\circ}$ C	1.93 kW	2.95 kW			
$COPTj = +7^{\circ}C$	6.13	4.41			
Cdh Tj = +7 °C	0.90	0.90			
Pdh Tj = 12°C	1.48 kW	1.32 kW			
COP Tj = 12°C	8.05	5.66			
Cdh Tj = +12 °C	0.90	0.90			
Pdh Tj = Tbiv	4.88 kW	3.89 kW			
COP Tj = Tbiv	3.19	2.17			
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.42 kW	3.42 kW			
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.86	1.91			
WTOL	65 °C	65 °C			
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Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.11 kW	0.98 kW
Annual energy consumption Qhe	2351 kWh	2744 kWh



# Model: AW-YHPSA06-H91 + AW-WHPSA0406-N91

Configure model		
Model name AW-YHPSA06-H91 + AW-WHPSA0406- N91		
Application	Heating (medium temp)	
Units	Indoor + Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

## Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	6.20 kW	6.00 kW	
El input	1.24 kW	2.00 kW	
СОР	5.00	3.00	

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 indoor	38 dB(A)	38 dB(A)
Sound power level outdoor	58 dB(A)	58 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	258 %	165 %
Prated	6.12 kW	5.15 kW
SCOP	6.63	4.19
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.94 kW	5.03 kW
COP Tj = +2°C	3.91	2.48
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.93 kW	3.31 kW
COP Tj = +7°C	5.89	3.67
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	1.80 kW	1.60 kW
COP Tj = 12°C	8.20	5.29
Cdh Tj = +12 °C	0.90	0.90





Pdh Tj = Tbiv	3.93 kW	3.31 kW
COP Tj = Tbiv	5.89	3.67
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.94 kW	5.03 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.91	2.48
WTOL	65 °C	65 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.18 kW	0.12 kW
Annual energy consumption Qhe	1251 kWh	1640 kWh

## Colder Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	38 dB(A)	38 dB(A)	
Sound power level outdoor	58 dB(A)	58 dB(A)	

EN 14825		
	Low temperature	Medium temperature





This information was generation	T THE TIP KLIMA	The database on 22 Juli 2022
$\eta_{s}$	165 %	111 %
Prated	5.63 kW	4.26 kW
SCOP	4.21	2.85
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = $-7^{\circ}$ C	3.42 kW	2.70 kW
$COP Tj = -7^{\circ}C$	3.59	2.46
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = $+2$ °C	2.06 kW	1.61 kW
COP Tj = +2°C	5.21	3.36
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = $+7^{\circ}$ C	1.47 kW	1.02 kW
$COPTj = +7^{\circ}C$	6.24	3.94
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	1.44 kW	1.37 kW
COP Tj = 12°C	7.66	6.35
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	4.60 kW	3.48 kW
COP Tj = Tbiv	2.53	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.48 kW	2.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.96	1.13
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WTOL       65 °C       65 °C         Poff       20 W       20 W         PTO       24 W       24 W         PSB       14 W       14 W         PCK       0 W       0 W         Supplementary Heater: Type of energy input       Electricity       Electricity         Supplementary Heater: PSUP       2.15 kW       2.16 kW         Annual energy consumption Qhe       3301 kWh       3681 kWh         Pdh Tj = -15°C (if TOL<-20°C)       4.60       3.48         COP Tj = -15°C (if TOL<-20°C)       2.53       1.86         Cdh Tj = -15 °C       0.90       0.90			
PTO       24 W       24 W         PSB       14 W       14 W         PCK       0 W       0 W         Supplementary Heater: Type of energy input       Electricity       Electricity         Supplementary Heater: PSUP       2.15 kW       2.16 kW         Annual energy consumption Qhe       3301 kWh       3681 kWh         Pdh Tj = -15°C (if TOL<-20°C)	WTOL	65 °C	65 °C
PSB 14 W 14 W  PCK 0 W 0 W  Supplementary Heater: Type of energy input Electricity Electricity  Supplementary Heater: PSUP 2.15 kW 2.16 kW  Annual energy consumption Qhe 3301 kWh 3681 kWh  Pdh Tj = -15°C (if TOL<-20°C) 4.60 3.48  COP Tj = -15°C (if TOL<-20°C) 2.53 1.86	Poff	20 W	20 W
PCK 0 W 0 W  Supplementary Heater: Type of energy input Electricity Electricity  Supplementary Heater: PSUP 2.15 kW 2.16 kW  Annual energy consumption Qhe 3301 kWh 3681 kWh  Pdh Tj = -15°C (if TOL<-20°C) 4.60 3.48  COP Tj = -15°C (if TOL<-20°C) 2.53 1.86	РТО	24 W	24 W
Supplementary Heater: Type of energy input  Electricity  Electricity  2.15 kW  Annual energy consumption Qhe  3301 kWh  Pdh Tj = -15°C (if TOL<-20°C)  4.60  3.48  COP Tj = -15°C (if TOL<-20°C)  2.53  1.86	PSB	14 W	14 W
Supplementary Heater: PSUP 2.15 kW 2.16 kW  Annual energy consumption Qhe 3301 kWh 3681 kWh  Pdh Tj = $-15^{\circ}$ C (if TOL< $-20^{\circ}$ C) 4.60 3.48  COP Tj = $-15^{\circ}$ C (if TOL< $-20^{\circ}$ C) 2.53 1.86	PCK	0 W	0 W
Annual energy consumption Qhe 3301 kWh 3681 kWh  Pdh Tj = -15°C (if TOL<-20°C) 4.60 3.48  COP Tj = -15°C (if TOL<-20°C) 2.53 1.86	Supplementary Heater: Type of energy input	Electricity	Electricity
Pdh Tj = -15°C (if TOL<-20°C) 4.60 3.48  COP Tj = -15°C (if TOL<-20°C) 2.53 1.86	Supplementary Heater: PSUP	2.15 kW	2.16 kW
COP Tj = -15°C (if TOL<-20°C)  2.53  1.86	Annual energy consumption Qhe	3301 kWh	3681 kWh
	Pdh Tj = -15°C (if TOL<-20°C)	4.60	3.48
Cdh Tj = -15 °C 0.90	COP Tj = $-15$ °C (if TOL< $-20$ °C)	2.53	1.86
	Cdh Tj = -15 °C	0.90	0.90

## Average Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	38 dB(A)	38 dB(A)	
Sound power level outdoor	58 dB(A)	58 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	195 %	138 %





_		KK database on 22 juli 202
Prated	6.82 kW	5.70 kW
SCOP	4.95	3.52
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = $-7^{\circ}$ C	6.03 kW	5.05 kW
$COPTj = -7^{\circ}C$	3.09	2.17
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = $+2$ °C	3.88 kW	3.12 kW
COP Tj = +2°C	4.85	3.51
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = $+7^{\circ}$ C	2.40 kW	2.09 kW
$COPTj = +7^{\circ}C$	6.63	4.54
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	1.39 kW	1.28 kW
COP Tj = 12°C	7.83	5.59
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	6.03 kW	5.05 kW
COP Tj = Tbiv	3.09	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.36 kW	4.52 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.76	1.91
WTOL	65 °C	65 °C
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Poff	14 W	14 W
РТО	24 W	24 W
PSB	14 W	14 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.45 kW	1.18 kW
Annual energy consumption Qhe	2846 kWh	3345 kWh

# Model: AW-WHPMA04-H91

Configure model		
Model name	AW-WHPMA04-H91	
Application	Heating (medium temp)	
Units	Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

## Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	4.20 kW	4.40 kW
El input	0.82 kW	1.49 kW
СОР	5.10	2.95

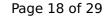
EN 14511-4		
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	
Starting and operating test	passed	

## Warmer Climate



EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	55 dB(A)	55 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	254 %	162 %
Prated	5.54 kW	5.02 kW
SCOP	6.52	4.14
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.35 kW	4.84 kW
COP Tj = +2°C	3.94	2.51
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.56 kW	3.23 kW
COP Tj = +7°C	5.92	3.68
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	1.64 kW	1.47 kW
COP Tj = 12°C	7.91	5.15
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	3.56 kW	3.23 kW





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5.92	3.68
5.35 kW	4.84 kW
3.94	2.51
65 °C	65 °C
14 W	14 W
24 W	24 W
14 W	14 W
0 W	o w
Electricity	Electricity
0.19 kW	0.18 kW
1152 kWh	1621 kWh
	5.35 kW  3.94  65 °C  14 W  24 W  14 W  0 W  Electricity  0.19 kW

## Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	55 dB(A)	55 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_s$	159 %	102 %
Prated	4.57 kW	3.37 kW





SCOP	4.06	2.63
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	2.76 kW	2.14 kW
COP Tj = -7°C	3.49	2.32
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	1.77 kW	1.28 kW
COP Tj = +2°C	4.95	2.99
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	1.17 kW	1.01 kW
COP Tj = +7°C	5.53	3.86
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	1.43 kW	1.36 kW
COP Tj = 12°C	7.67	6.28
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	3.72 kW	2.75 kW
COP Tj = Tbiv	2.57	1.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	2.80 kW	1.64 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.97	1.02
WTOL	65 °C	65 °C
Poff	14 W	14 W





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РТО	24 W	24 W
PSB	14 W	14 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.76 kW	1.73 kW
Annual energy consumption Qhe	2770 kWh	3159 kWh
Pdh Tj = -15°C (if TOL<-20°C)	3.72	2.75
COP Tj = -15°C (if TOL $<$ -20°C)	2.57	1.74
Cdh Tj = -15 °C	0.90	0.90

## **Average Climate**

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	55 dB(A)	55 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	191 %	130 %
Prated	5.52 kW	4.40 kW
SCOP	4.85	3.31
Tbiv	-7 °C	-7 °C





The state of the s	RK database on 22 Jun 202
-10 °C	-10 °C
4.88 kW	3.89 kW
3.19	2.17
0.90	0.90
3.06 kW	2.38 kW
4.78	3.30
0.90	0.90
1.93 kW	2.95 kW
6.13	4.41
0.90	0.90
1.48 kW	1.32 kW
8.05	5.66
0.90	0.90
4.88 kW	3.89 kW
3.19	2.17
4.42 kW	3.42 kW
2.86	1.91
65 °C	65 °C
14 W	14 W
24 W	24 W
14 W	14 W
	-10 °C  4.88 kW  3.19  0.90  3.06 kW  4.78  0.90  1.93 kW  6.13  0.90  1.48 kW  8.05  0.90  4.88 kW  3.19  4.42 kW  2.86  65 °C  14 W  24 W



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PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.11 kW	0.98 kW
Annual energy consumption Qhe	2351 kWh	2744 kWh

# Model: AW-WHPMA06-H91

Configure model		
Model name AW-WHPMA06-H91		
Application	Heating (medium temp)	
Units	Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply 1x230V 50Hz		

## Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	6.35 kW	6.00 kW
El input	1.28 kW	2.03 kW
СОР	4.95	2.95

EN 14511-4		
Shutting off the heat transfer medium flow	naccod	
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	58 dB(A)	58 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	258 %	165 %
Prated	6.12 kW	5.15 kW
SCOP	6.63	4.19
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	5.94 kW	5.03 kW
COP Tj = +2°C	3.91	2.48
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	3.93 kW	3.31 kW
$COP Tj = +7^{\circ}C$	5.89	3.67
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	1.80 kW	1.60 kW
COP Tj = 12°C	8.20	5.29
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	3.93 kW	3.31 kW
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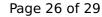


COP Tj = Tbiv	5.89	3.67
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.94 kW	5.03 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.91	2.48
WTOL	65 °C	65 °C
Poff	14 W	14 W
РТО	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.18 kW	0.12 kW
Annual energy consumption Qhe	1251 kWh	1640 kWh

## Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	58 dB(A)	58 dB(A)

temperature	Medium temperature
%	111 %
3 kW	4.26 kW





SCOP	4.21	2.85
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	3.42 kW	2.70 kW
COP Tj = -7°C	3.59	2.46
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	2.06 kW	1.61 kW
$COP Tj = +2^{\circ}C$	5.21	3.36
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	1.47 kW	1.02 kW
$COP Tj = +7^{\circ}C$	6.24	3.94
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	1.44 kW	1.37 kW
COP Tj = 12°C	7.66	6.35
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	4.60 kW	3.48 kW
COP Tj = Tbiv	2.53	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.48 kW	2.10 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.96	1.13
WTOL	65 °C	65 °C
Poff	20 W	20 W





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24 W	24 W
14 W	14 W
o w	o w
Electricity	Electricity
2.15 kW	2.16 kW
3301 kWh	3681 kWh
4.60	3.48
2.53	1.86
0.90	0.90
	14 W 0 W Electricity 2.15 kW 3301 kWh 4.60 2.53

## Average Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level outdoor	58 dB(A)	58 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	195 %	138 %
Prated	6.82 kW	5.70 kW
SCOP	4.95	3.52
Tbiv	-7 °C	-7 °C





TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.03 kW	5.05 kW
COP Tj = -7°C	3.09	2.17
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = $+2$ °C	3.88 kW	3.12 kW
$COPTj = +2^{\circ}C$	4.85	3.51
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = $+7^{\circ}$ C	2.40 kW	2.09 kW
$COPTj = +7^{\circ}C$	6.63	4.54
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	1.39 kW	1.28 kW
COP Tj = 12°C	7.83	5.59
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	6.03 kW	5.05 kW
COP Tj = Tbiv	3.09	2.17
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.36 kW	4.52 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.76	1.91
WTOL	65 °C	65 °C
Poff	14 W	14 W
РТО	24 W	24 W
PSB	14 W	14 W



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PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.45 kW	1.18 kW
Annual energy consumption Qhe	2846 kWh	3345 kWh