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

#### **Login**

Summary of	Aquantia PRO 4 - 6	Reg. No.	041-K009-01	
Certificate Holder	Certificate Holder			
Name	Frigicoll	Frigicoll		
Address	Blasco de Garay, 4 6	Zip	08960	
City	Sant Just Desvern	Country	Spain	
Certification Body	BRE Global Limited	BRE Global Limited		
Subtype title	Aquantia PRO 4 - 6	Aquantia PRO 4 - 6		
Heat Pump Type	Outdoor Air/Water	Outdoor Air/Water		
Refrigerant	R32			
Mass of Refrigerant	1.5 kg			
Certification Date	04.03.2021	04.03.2021		
Testing basis	Heat Pump Keymark Scheme Rules Rev 08			



# Model: KHP-BI 4 DVR2 + KHPM-BI 6 DVR2

Configure model		
Model name	KHP-BI 4 DVR2 + KHPM-BI 6 DVR2	
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 = $+7$ °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 %





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: KHP-BI 6 DVR2 + KHPM-BI 6 DVR2

Configure model		
Model name	KHP-BI 6 DVR2 + KHPM-BI 6 DVR2	
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 %





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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: KHP-MO 4 DVR2**

Configure model		
Model name	KHP-MO 4 DVR2	
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

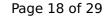
EN 14511-4	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

## 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





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-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: KHP-MO 6 DVR2**

Configure model		
Model name	KHP-MO 6 DVR2	
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	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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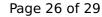


COP Tj = Tbiv	5.89	3.67
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.94 kW	5.03 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.91	2.48
WTOL	65 °C	65 °C
Poff	14 W	14 W
РТО	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary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