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Summary of	Beretta HYDRO UNIT M 18 22 26 30 kW	Reg. No.	041-K019-08	
Certificate Holder				
Name	Riello S.p.A.			
Address	Via Ing. Pilade Riello 7	Zip	37045	
City	Legnago (VR)	Country	Italy	
Certification Body	BRE Global Limited			
Subtype title	Beretta HYDRO UNIT M 18 22 26 30 kW			
Heat Pump Type	Outdoor Air/Water			
Refrigerant	R32			
Mass of Refrigerant	5 kg			
Certification Date	05.11.2021			
Testing basis	Heat Pump Keymark Scheme Rules Rev 08			



Model: HYDRO UNIT M 018T

Configure model			
Model name	HYDRO UNIT M 018T		
Application	Heating (medium temp)		
Units	Outdoor		
Climate Zone	Colder Climate + Warmer Climate		
Reversibility	Yes		
Cooling mode application (optional)	n/a		

General Data		
Power supply	3x400V 50Hz	

Heating

EN 14511-2				
Low temperature Medium temperature				
Heat output	18.32 kW	18.10 kW		
El input	3.96 kW	6.63 kW		
СОР	4.63	2.73		

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	71 dB(A)	71 dB(A)	

EN 14825			
	Low temperature	Medium temperature	
η_{s}	226 %	157 %	
Prated	17.67 kW	18.07 kW	
SCOP	5.74	4.00	
Tbiv	7 °C	7 °C	
TOL	2 °C	2 °C	
Pdh Tj = +2°C	17.67 kW	18.07 kW	
COP Tj = +2°C	3.53	2.12	
Cdh Tj = +2 °C	0.900	0.900	
Pdh Tj = +7°C	11.36 kW	11.62 kW	
COP Tj = +7°C	5.16	3.49	
Cdh Tj = +7 °C	0.900	0.900	
Pdh Tj = 12°C	5.45 kW	5.35 kW	
COP Tj = 12°C	7.01	5.09	
Cdh Tj = +12 °C	0.900	0.900	
Pdh Tj = Tbiv	11.36 kW	11.62 kW	

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COP Tj = Tbiv 5.16 3.49 Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh 17.67 kW 18.07 kW COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh 3.53 2.12 Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh 60 °C 60 °C Poff 18 W 18 W PTO 96 W 96 W PSB 18 W 18 W PCK 0 W 0 W Supplementary Heater: Type of energy input Electricity Electricity Supplementary Heater: PSUP 0.00 kW 0.00 kW Annual energy consumption Qhe 4116 kWh 6041 kWh			
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh WTOL 60 °C 60 °C Poff 18 W 18 W PTO 96 W 96 W PSB 18 W 18 W PCK 0 W 0 W Supplementary Heater: Type of energy input Electricity Electricity Supplementary Heater: PSUP	COP Tj = Tbiv	5.16	3.49
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh WTOL 60 °C 60 °C 70	Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	17.67 kW	18.07 kW
WTOL 60 °C 60 °C 18 W 18 W PTO 96 W 96 W PSB 18 W 18 W PCK 0 W 0 W Supplementary Heater: Type of energy input Electricity Electricity Supplementary Heater: PSUP 0.00 kW 0 °C 60 °C 60 °C 18 W 96 W 96 W 96 W 96 W 18 W 0 W 0 W	COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.53	2.12
Poff 18 W 18 W PTO 96 W 96 W PSB 18 W 18 W PCK 0 W 0 W Supplementary Heater: Type of energy input Electricity Electricity Supplementary Heater: PSUP 0.00 kW 0.00 kW	Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
PTO 96 W 96 W PSB 18 W 18 W 0 W Supplementary Heater: Type of energy input Electricity Electricity Supplementary Heater: PSUP 0.00 kW 0.00 kW	WTOL	60 °C	60 °C
PSB 18 W 18 W PCK 0 W 0 W Supplementary Heater: Type of energy input Electricity Electricity Supplementary Heater: PSUP 0.00 kW 0.00 kW	Poff	18 W	18 W
PCK 0 W 0 W Supplementary Heater: Type of energy input Electricity Electricity Supplementary Heater: PSUP 0.00 kW 0.00 kW	РТО	96 W	96 W
Supplementary Heater: Type of energy input Electricity Electricity Supplementary Heater: PSUP 0.00 kW 0.00 kW	PSB	18 W	18 W
Supplementary Heater: PSUP 0.00 kW 0.00 kW	PCK	0 W	0 W
	Supplementary Heater: Type of energy input	Electricity	Electricity
Annual energy consumption Qhe 4116 kWh 6041 kWh	Supplementary Heater: PSUP	0.00 kW	0.00 kW
	Annual energy consumption Qhe	4116 kWh	6041 kWh

Colder Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level outdoor	71 dB(A)	71 dB(A)	

EN 14825		
	Low temperature	Medium temperature
η_{S}	146 %	97 %





		10.20 kW
Prated	17.76 kW	18.38 kW
SCOP	3.73	2.50
Tbiv	-15 °C	-7 °C
TOL	-22 °C	-15 °C
Pdh Tj = -7°C	11.21 kW	11.13 kW
$COPTj = -7^{\circ}C$	3.09	1.98
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = $+2$ °C	6.64 kW	6.65 kW
$COPTj = +2^{\circ}C$	4.50	3.44
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = $+7^{\circ}$ C	4.77 kW	4.66 kW
$COPTj = +7^{\circ}C$	5.85	4.35
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.95 kW	3.74 kW
COP Tj = 12°C	7.18	5.68
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	14.49 kW	11.13 kW
COP Tj = Tbiv	2.42	1.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.14 kW	13.56 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.67	1.21
WTOL	60 °C	60 °C
	+	'





Poff	20 W	20 W
PTO	96 W	96 W
PSB	18 W	18 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.62 kW	18.38 kW
Annual energy consumption Qhe	11740 kWh	18156 kWh
Pdh Tj = -15°C (if TOL<-20°C)	14.49	13.56
COP Tj = -15°C (if TOL $<$ -20°C)	2.42	1.21
Cdh Tj = -15 °C	0.90	0.90

Average Climate

EN 12102-1			
Low temperature Medium temperature			
Sound power level outdoor	71 dB(A)	71 dB(A)	

EN 14825		
	Low temperature	Medium temperature
η_{s}	181 %	125 %
Prated	17.99 kW	17.67 kW
SCOP	4.60	3.21





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Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	15.90 kW	15.61 kW
COP Tj = -7°C	2.85	1.72
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	9.66 kW	9.59 kW
COP Tj = +2°C	4.59	3.32
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = $+7^{\circ}$ C	6.56 kW	6.37 kW
$COP Tj = +7^{\circ}C$	5.99	4.48
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	3.76 kW	3.57 kW
COP Tj = 12°C	7.08	5.27
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	15.90 kW	15.61 kW
COP Tj = Tbiv	2.85	1.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	17.99 kW	15.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.49	1.17
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	18 W	18 W
	+	•



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РТО	96 W	96 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	2.64 kW
Annual energy consumption Qhe	8086 kWh	11375 kWh



Model: HYDRO UNIT M 022T

Configure model		
Model name	HYDRO UNIT M 022T	
Application	Heating (medium temp)	
Units	Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 50Hz	

Heating

EN 14511-2			
Low temperature Medium temperature			
Heat output	22.30 kW	22.10 kW	
El input	5.13 kW	8.33 kW	
СОР	4.35	2.65	

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	73 dB(A)	73 dB(A)	

EN 14825		
	Low temperature	Medium temperature
η_{s}	234 %	161 %
Prated	21.90 kW	22.01 kW
SCOP	5.85	4.09
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	21.81 kW	22.01 kW
COP Tj = +2°C	3.31	2.12
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	14.08 kW	14.15 kW
COP Tj = +7°C	5.20	3.50
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	6.44 kW	6.38 kW
COP Tj = 12°C	7.50	5.34
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	14.08 kW	14.15 kW

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5.20	3.50
21.81 kW	22.01 kW
3.31	2.12
60 °C	60 °C
18 W	18 W
96 W	96 W
18 W	18 W
o w	0 W
Electricity	Electricity
0.09 kW	0.00 kW
4945 kWh	7180 kWh
	21.81 kW 3.31 60 °C 18 W 96 W 18 W 0 W Electricity 0.09 kW

Colder Climate

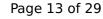
EN 12102-1			
Low temperature Medium temperature			
Sound power level outdoor	73 dB(A)	73 dB(A)	

EN 14825		
	Low temperature	Medium temperature
η_{s}	146 %	102 %





	<u> </u>	NK database on 23 jun 202.
Prated	21.40 kW	22.36 kW
SCOP	3.72	2.62
Tbiv	-15 °C	-7 °C
TOL	-22 °C	-15 °C
Pdh Tj = -7° C	13.30 kW	13.53 kW
$COPTj = -7^{\circ}C$	3.12	2.07
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = $+2$ °C	8.25 kW	8.61 kW
$COPTj = +2^{\circ}C$	4.42	3.70
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = $+7^{\circ}$ C	5.45 kW	5.21 kW
$COPTj = +7^{\circ}C$	5.87	4.49
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.98 kW	3.74 kW
COP Tj = 12°C	7.19	5.76
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	17.46 kW	13.53 kW
COP Tj = Tbiv	2.36	2.07
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.27 kW	13.78 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.69	1.24
WTOL	60 °C	60 °C





Poff	20 W	20 W
РТО	96 W	96 W
PSB	18 W	18 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	8.13 kW	22.36 kW
Annual energy consumption Qhe	14179 kWh	21067 kWh
Pdh Tj = -15°C (if TOL<-20°C)	17.46	13.78
COP Tj = -15°C (if TOL $<$ -20°C)	2.36	1.24
Cdh Tj = -15 °C	0.90	0.90

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	73 dB(A)	73 dB(A)

EN 14825		
Low temperature	Medium temperature	
178 %	126 %	
22.31 kW	22.43 kW	
4.53	3.22	
	Low temperature 178 % 22.31 kW	





3		ii iii aatabase on 25 jan 202
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	19.72 kW	19.82 kW
$COP Tj = -7^{\circ}C$	2.74	1.74
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	12.03 kW	11.89 kW
COP Tj = +2°C	4.41	3.32
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = $+7^{\circ}$ C	8.00 kW	7.97 kW
$COPTj = +7^{\circ}C$	6.29	4.66
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	3.79 kW	3.60 kW
COP Tj = 12°C	7.14	5.32
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	19.72 kW	19.82 kW
COP Tj = Tbiv	2.74	1.74
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	20.33 kW	13.81 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.08
WTOL	60 °C	60 °C
Poff	18 W	18 W
РТО	96 W	96 W



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PSB	18 W	18 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.97 kW	8.60 kW
Annual energy consumption Qhe	10180 kWh	14390 kWh



Model: HYDRO UNIT M 026T

Configure model		
Model name HYDRO UNIT M 026T		
Application	Heating (medium temp)	
Units Outdoor		
Climate Zone Colder Climate + Warmer Climate		
Reversibility Yes		
Cooling mode application (optional) n/a		

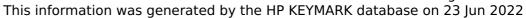
General Data		
Power supply 3x400V 50Hz		

Heating

EN 14511-2		
Low temperature Medium temperature		
Heat output	26.30 kW	26.06 kW
El input	6.50 kW	10.72 kW
СОР	4.05	2.43

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	75 dB(A)	75 dB(A)	

EN 14825		
	Low temperature	Medium temperature
η_{s}	231 %	168 %
Prated	26.08 kW	26.22 kW
SCOP	5.85	4.26
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	25.50 kW	26.22 kW
$COP Tj = +2^{\circ}C$	3.00	1.99
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = $+7$ °C	16.77 kW	16.86 kW
$COP Tj = +7^{\circ}C$	5.02	3.47
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	7.65 kW	7.58 kW
COP Tj = 12°C	7.78	5.94
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	16.77 kW	16.86 kW

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COP Tj = Tbiv	5.02	3.47
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	25.50 kW	26.22 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.00	1.99
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	60 °C	60 °C
Poff	18 W	18 W
PTO	96 W	96 W
PSB	18 W	18 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.58 kW	0.00 kW
Annual energy consumption Qhe	5959 kWh	8218 kWh

Colder Climate

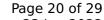
EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	75 dB(A)	75 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{S}	143 %	101 %





This information was generated by the HF KLIMAKK database on 25 Juli 2022			
Prated	25.75 kW	26.27 kW	
SCOP	3.64	2.59	
Tbiv	-12 °C	-7 °C	
TOL	-22 °C	-15 °C	
Pdh Tj = -7°C	15.91 kW	15.90 kW	
$COPTj = -7^{\circ}C$	3.10	2.10	
Cdh Tj = -7 °C	0.90	0.90	
Pdh Tj = $+2$ °C	10.10 kW	10.17 kW	
COP Tj = +2°C	4.45	3.58	
Cdh Tj = +2 °C	0.90	0.90	
Pdh Tj = $+7^{\circ}$ C	6.30 kW	6.52 kW	
$COPTj = +7^{\circ}C$	6.06	4.99	
Cdh Tj = +7 °C	0.90	0.90	
Pdh Tj = 12°C	4.03 kW	3.63 kW	
COP Tj = 12°C	7.13	5.68	
Cdh Tj = +12 °C	0.90	0.90	
Pdh Tj = Tbiv	18.97 kW	15.90 kW	
COP Tj = Tbiv	2.36	2.10	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.07 kW	13.37 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.67	1.20	
WTOL	60 °C	60 °C	
	•		



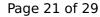


Poff	20 W	20 W
PTO	96 W	96 W
PSB	18 W	18 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	12.68 kW	26.27 kW
Annual energy consumption Qhe	17421 kWh	24967 kWh
Pdh Tj = -15°C (if TOL<-20°C)	18.95	13.37
COP Tj = -15°C (if TOL $<$ -20°C)	2.27	1.20
Cdh Tj = -15 °C	0.90	0.90

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level outdoor	75 dB(A)	75 dB(A)

EN 14825		
Low temperature	Medium temperature	
177 %	123 %	
25.04 kW	26.15 kW	
4.50	3.14	
	Low temperature 177 % 25.04 kW	





Tbiv	-7 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	22.12 kW	20.64 kW
COP Tj = -7°C	2.57	1.69
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	13.76 kW	14.26 kW
COP Tj = +2°C	4.44	3.12
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	9.36 kW	9.29 kW
COP Tj = +7°C	6.52	4.74
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	4.09 kW	3.89 kW
COP Tj = 12°C	7.35	5.48
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	22.12 kW	22.11 kW
COP Tj = Tbiv	2.57	1.88
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	20.33 kW	13.86 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.08
WTOL	60 °C	60 °C
Poff	18 W	18 W
РТО	96 W	96 W
	-	•



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PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.68 kW	12.28 kW
Annual energy consumption Qhe	11489 kWh	17204 kWh



Model: HYDRO UNIT M 030T

Configure model		
Model name	HYDRO UNIT M 030T	
Application	Heating (medium temp)	
Units	Outdoor	
Climate Zone	Colder Climate + Warmer Climate	
Reversibility	Yes	
Cooling mode application (optional)	n/a	

General Data		
Power supply	3x400V 50Hz	

Heating

EN 14511-2				
Low temperature Medium temperature				
Heat output	29.93 kW	29.68 kW		
El input	8.02 kW	12.97 kW		
СОР	3.73	2.29		

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	77 dB(A)	77 dB(A)	

EN 14825			
	Low temperature	Medium temperature	
η_{s}	213 %	163 %	
Prated	30.44 kW	29.73 kW	
SCOP	5.39	4.15	
Tbiv	7 °C	7 °C	
TOL	2 °C	2 °C	
Pdh Tj = $+2$ °C	26.29 kW	26.41 kW	
COP Tj = +2°C	2.94	1.99	
Cdh Tj = +2 °C	0.90	0.90	
Pdh Tj = $+7^{\circ}$ C	19.57 kW	19.11 kW	
$COP Tj = +7^{\circ}C$	4.75	3.37	
Cdh Tj = +7 °C	0.90	0.90	
Pdh Tj = 12°C	8.90 kW	8.92 kW	
COP Tj = 12°C	7.53	6.09	
Cdh Tj = +12 °C	0.90	0.90	
Pdh Tj = Tbiv	19.57 kW	19.11 kW	

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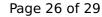


COP Tj = Tbiv	4.75	3.37
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	26.29 kW	26.41 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.94	1.99
WTOL	60 °C	60 °C
Poff	18 W	18 W
РТО	96 W	96 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.15 kW	3.32 kW
Annual energy consumption Qhe	7540 kWh	9580 kWh

Colder Climate

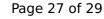
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level outdoor	77 dB(A)	77 dB(A)	

	EN 14825		
Low temperature	Medium temperature		
138 %	100 %		
29.13 kW	30.41 kW		
_	138 %		





SCOP	3.52	2.56
Tbiv	-10 °C	-7 °C
TOL	-22 °C	-15 °C
Pdh Tj = -7°C	18.49 kW	18.40 kW
COP Tj = -7°C	3.07	2.10
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	11.88 kW	11.22 kW
COP Tj = +2°C	4.42	3.51
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = $+7^{\circ}$ C	7.53 kW	7.42 kW
$COP Tj = +7^{\circ}C$	6.15	5.18
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	4.11 kW	3.64 kW
COP Tj = 12°C	6.87	5.73
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	19.93 kW	18.40 kW
COP Tj = Tbiv	2.44	2.10
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	13.17 kW	13.06 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.67	1.18
WTOL	60 °C	60 °C
Poff	18 W	18 W





РТО	96 W	96 W
PSB	18 W	18 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	15.96 kW	30.41 kW
Annual energy consumption Qhe	20390 kWh	29238 kWh
Pdh Tj = -15°C (if TOL<-20°C)	18.61	13.06
COP Tj = -15°C (if TOL $<$ -20°C)	2.24	1.18
Cdh Tj = -15 °C	0.90	0.90

Average Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level outdoor	77 dB(A)	77 dB(A)	

EN 14825		
	Low temperature	Medium temperature
η_{s}	165 %	123 %
Prated	29.18 kW	29.69 kW
SCOP	4.19	3.14
Tbiv	-5 °C	-5 °C





I his information was gener	acca by the Hi KETMA	ink database on 25 juli 202.
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	21.90 kW	20.11 kW
COP Tj = -7°C	2.54	1.63
Cdh Tj = -7 °C	0.90	0.90
Pdh Tj = +2°C	16.16 kW	16.49 kW
COP Tj = +2°C	4.16	3.09
Cdh Tj = +2 °C	0.90	0.90
Pdh Tj = +7°C	10.64 kW	10.50 kW
$COPTj = +7^{\circ}C$	6.38	4.75
Cdh Tj = +7 °C	0.90	0.90
Pdh Tj = 12°C	4.54 kW	4.64 kW
COP Tj = 12°C	7.72	5.91
Cdh Tj = +12 °C	0.90	0.90
Pdh Tj = Tbiv	23.51 kW	23.97 kW
COP Tj = Tbiv	2.71	2.02
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	20.37 kW	13.82 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.35	1.07
WTOL	60 °C	60 °C
Poff	18 W	18 W
РТО	96 W	96 W
PSB	18 W	18 W



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PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	8.75 kW	15.86 kW
Annual energy consumption Qhe	14165 kWh	19316.17 kWh