

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

Summary of	Thermia Calibra 7	Reg. No.	012-SC0066-19
Certificate Holder			
Name	Thermia		
Address	Snickaregatan 1	Zip	
City	Arvika	Country	Sweden
Certification Body	RISE CERT		
Name of testing laboratory	RISE		
Subtype title	Thermia Calibra 7		
Heat Pump Type	Brine/Water and Water/Water		
Refrigerant	R410a		
Mass Of Refrigerant	0.95 kg		
Certification Date	04.10.2019		

Model: Thermia Calibra 7 400V

General Data

Power supply	3x400V 50Hz
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Brine/Water Heat Pump

Heating

EN 14511-4

Starting and operating test	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	4.45 kW	5.05 kW
El input	0.96 kW	1.74 kW
COP	4.65	2.90
Indoor water flow rate	0.77 m ³ /h	0.55 m ³ /h

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	32 dB(A)	32 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	214 %	150 %
Prated	7.11 kW	6.39 kW
SCOP	5.56	3.96
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.29 kW	5.65 kW
COP Tj = -7°C	4.85	3.09
Cdh	0.99	0.99
Pdh Tj = +2°C	3.83 kW	3.44 kW
COP Tj = +2°C	5.70	4.03
Cdh	0.98	0.99
Pdh Tj = +7°C	2.46 kW	2.21 kW
COP Tj = +7°C	6.15	4.55
Cdh	0.96	0.97
Pdh Tj = 12°C	2.16 kW	2.07 kW

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COP Tj = 12°C	6.01	4.54
Cdh	0.96	0.97
Pdh Tj = Tbiv	7.11 kW	6.39 kW
COP Tj = Tbiv	4.43	2.81
Pdh Tj = TOL	7.11 kW	6.39 kW
COP Tj = TOL	4.43	2.81
WTOL	65 °C	65 °C
Poff	12 W	10 W
PTO	15 W	13 W
PSB	15 W	13 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	2597 kWh	3291 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	32 dB(A)	32 dB(A)

EN 14825		
	Low temperature	Medium temperature

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

η_s	223 %	157 %
Prated	7.11 kW	6.39 kW
SCOP	5.77	4.12
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.30 kW	3.87 kW
COP Tj = -7°C	5.67	3.84
Cdh	0.98	0.99
Pdh Tj = +2°C	2.62 kW	2.35 kW
COP Tj = +2°C	6.21	4.51
Cdh	0.97	0.98
Pdh Tj = +7°C	2.17 kW	2.07 kW
COP Tj = +7°C	6.09	4.65
Cdh	0.96	0.97
Pdh Tj = 12°C	2.15 kW	2.09 kW
COP Tj = 12°C	5.84	4.54
Cdh	0.96	0.97
Pdh Tj = Tbiv	7.11 kW	6.39 kW
COP Tj = Tbiv	4.43	2.81
Pdh Tj = TOL	7.11 kW	6.39 kW

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COP Tj = TOL	4.43	2.81
WTOL	65 °C	65 °C
Poff	12 W	10 W
PTO	15 W	13 W
PSB	15 W	13 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	3008 kWh	3802 kWh
Pdh Tj = -15°C (if TOL<-20°C)	5.80	5.21
COP Tj = -15°C (if TOL<-20°C)	5.05	3.33
Cdh	0.99	0.99

Water/Water Heat Pump

Heating

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

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EN 14511-2		
	Low temperature	Medium temperature
Heat output	9.43 kW	8.51 kW
El input	1.58 kW	2.35 kW
COP	5.96	3.63
Indoor water flow rate	1.65 m ³ /h	0.94 m ³ /h

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	32 dB(A)	32 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	305 %	211 %
Prated	9.43 kW	8.51 kW
SCOP	7.82	5.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.34 kW	7.53 kW
COP Tj = -7°C	6.48	4.03

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Cdh	1.00	1.00
Pdh Tj = +2°C	5.08 kW	4.58 kW
COP Tj = +2°C	7.93	5.47
Cdh	0.99	1.00
Pdh Tj = +7°C	3.26 kW	2.95 kW
COP Tj = +7°C	8.76	6.55
Cdh	0.99	0.99
Pdh Tj = 12°C	2.91 kW	2.78 kW
COP Tj = 12°C	8.65	6.84
Cdh	0.99	0.99
Pdh Tj = Tbiv	9.43 kW	8.51 kW
COP Tj = Tbiv	5.96	3.63
Pdh Tj = TOL	9.43 kW	8.51 kW
COP Tj = TOL	5.96	3.63
WTOL	65 °C	65 °C
Poff	8 W	8 W
PTO	4 W	4 W
PSB	4 W	4 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

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Annual energy consumption Q _{he}	2463 kWh	3186 kWh
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Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	32 dB(A)	32 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	317 %	219 %
Prated	9.43 kW	8.51 kW
SCOP	8.12	5.68
T _{biv}	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	5.71 kW	5.15 kW
COP T _j = -7°C	7.77	5.12
C _{dh}	1.00	1.00
P _{dh} T _j = +2°C	3.47 kW	3.14 kW
COP T _j = +2°C	8.76	6.31
C _{dh}	0.99	0.99
P _{dh} T _j = +7°C	2.91 kW	2.78 kW

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COP Tj = +7°C	8.76	6.85
Cdh	0.99	0.99
Pdh Tj = 12°C	2.89 kW	2.79 kW
COP Tj = 12°C	8.39	7.06
Cdh	0.99	0.99
Pdh Tj = Tbiv	9.43 kW	8.51 kW
COP Tj = Tbiv	5.96	3.63
Pdh Tj = TOL	9.43 kW	8.51 kW
COP Tj = TOL	5.96	3.63
WTOL	65 °C	65 °C
Poff	8 W	8 W
PTO	4 W	4 W
PSB	4 W	4 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	2847 kWh	3676 kWh
Pdh Tj = -15°C (if TOL<-20°C)	7.69	6.94
COP Tj = -15°C (if TOL<-20°C)	6.87	4.37
Cdh	1.00	1.00

Model: Thermia Calibra 7 Duo 400V

General Data

Power supply	3x400V 50Hz
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Brine/Water Heat Pump

Heating

EN 14511-4

Starting and operating test	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	4.45 kW	5.05 kW
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COP	4.65	2.90
Indoor water flow rate	0.77 m ³ /h	0.55 m ³ /h

Average Climate

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EN 14825

	Low temperature	Medium temperature
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Pdh Tj = +2°C	3.83 kW	3.44 kW
COP Tj = +2°C	5.70	4.03
Cdh	0.98	0.99
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Pdh Tj = 12°C	2.16 kW	2.07 kW

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Cdh	0.96	0.97
Pdh Tj = Tbiv	7.11 kW	6.39 kW
COP Tj = Tbiv	4.43	2.81
Pdh Tj = TOL	7.11 kW	6.39 kW
COP Tj = TOL	4.43	2.81
WTOL	65 °C	65 °C
Poff	12 W	10 W
PTO	15 W	13 W
PSB	15 W	13 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	2597 kWh	3291 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	33 dB(A)	33 dB(A)

EN 14825		
	Low temperature	Medium temperature

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η_s	223 %	157 %
Prated	7.11 kW	6.39 kW
SCOP	5.77	4.12
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COP Tj = +2°C	6.21	4.51
Cdh	0.97	0.98
Pdh Tj = +7°C	2.17 kW	2.07 kW
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Cdh	0.96	0.97
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COP Tj = Tbiv	4.43	2.81
Pdh Tj = TOL	7.11 kW	6.39 kW

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COP Tj = TOL	4.43	2.81
WTOL	65 °C	65 °C
Poff	12 W	10 W
PTO	15 W	13 W
PSB	15 W	13 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	3008 kWh	3802 kWh
Pdh Tj = -15°C (if TOL<-20°C)	5.80	5.21
COP Tj = -15°C (if TOL<-20°C)	5.05	3.33
Cdh	0.99	0.99

Water/Water Heat Pump

Heating

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

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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	9.43 kW	8.51 kW
El input	1.58 kW	2.35 kW
COP	5.96	3.63
Indoor water flow rate	1.65 m ³ /h	0.94 m ³ /h

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	33 dB(A)	33 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	305 %	211 %
Prated	9.43 kW	8.51 kW
SCOP	7.82	5.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.34 kW	7.53 kW
COP Tj = -7°C	6.48	4.03

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Cdh	1.00	1.00
Pdh Tj = +2°C	5.08 kW	4.58 kW
COP Tj = +2°C	7.93	5.47
Cdh	0.99	1.00
Pdh Tj = +7°C	3.26 kW	2.95 kW
COP Tj = +7°C	8.76	6.55
Cdh	0.99	0.99
Pdh Tj = 12°C	2.91 kW	2.78 kW
COP Tj = 12°C	8.65	6.84
Cdh	0.99	0.99
Pdh Tj = Tbiv	9.43 kW	8.51 kW
COP Tj = Tbiv	5.96	3.63
Pdh Tj = TOL	9.43 kW	8.51 kW
COP Tj = TOL	5.96	3.63
WTOL	65 °C	65 °C
Poff	8 W	8 W
PTO	4 W	4 W
PSB	4 W	4 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

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Annual energy consumption Q _{he}	2463 kWh	3186 kWh
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Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	33 dB(A)	33 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	317 %	219 %
Prated	9.43 kW	8.51 kW
SCOP	8.12	5.68
T _{biv}	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	5.71 kW	5.15 kW
COP T _j = -7°C	7.77	5.12
C _{dh}	1.00	1.00
P _{dh} T _j = +2°C	3.47 kW	3.14 kW
COP T _j = +2°C	8.76	6.31
C _{dh}	0.99	0.99
P _{dh} T _j = +7°C	2.91 kW	2.78 kW

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COP Tj = +7°C	8.76	6.85
Cdh	0.99	0.99
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Pdh Tj = TOL	9.43 kW	8.51 kW
COP Tj = TOL	5.96	3.63
WTOL	65 °C	65 °C
Poff	8 W	8 W
PTO	4 W	4 W
PSB	4 W	4 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	2847 kWh	3676 kWh
Pdh Tj = -15°C (if TOL<-20°C)	7.69	6.94
COP Tj = -15°C (if TOL<-20°C)	6.87	4.37
Cdh	1.00	1.00

Model: Thermia Calibra 7 230V

General Data

Power supply	1x230V 50Hz
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Brine/Water Heat Pump

Heating

EN 14511-4

Starting and operating test	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	4.45 kW	5.05 kW
El input	0.96 kW	1.74 kW
COP	4.65	2.90
Indoor water flow rate	0.77 m ³ /h	0.55 m ³ /h

Average Climate

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COP Tj = Tbiv	4.43	2.81
Pdh Tj = TOL	7.11 kW	6.39 kW
COP Tj = TOL	4.43	2.81
WTOL	65 °C	65 °C
Poff	12 W	10 W
PTO	15 W	13 W
PSB	15 W	13 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	2597 kWh	3291 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	32 dB(A)	32 dB(A)

EN 14825		
	Low temperature	Medium temperature

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

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Pdh Tj = TOL	7.11 kW	6.39 kW

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COP Tj = TOL	4.43	2.81
WTOL	65 °C	65 °C
Poff	12 W	10 W
PTO	15 W	13 W
PSB	15 W	13 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	3008 kWh	3802 kWh
Pdh Tj = -15°C (if TOL<-20°C)	5.80	5.21
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Water/Water Heat Pump

Heating

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

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	Low temperature	Medium temperature
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Sound power level indoor	32 dB(A)	32 dB(A)

EN 14825		
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η_s	305 %	211 %
Prated	9.43 kW	8.51 kW
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Annual energy consumption Q _{he}	2463 kWh	3186 kWh
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Model: Thermia Calibra 7 Duo 230V

General Data

Power supply	1x230V 50Hz
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Brine/Water Heat Pump

Heating

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Starting and operating test	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	4.45 kW	5.05 kW
El input	0.96 kW	1.74 kW
COP	4.65	2.90
Indoor water flow rate	0.77 m ³ /h	0.55 m ³ /h

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	33 dB(A)	33 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	214 %	150 %
Prated	7.11 kW	6.39 kW
SCOP	5.56	3.96
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.29 kW	5.65 kW
COP Tj = -7°C	4.85	3.09
Cdh	0.99	0.99
Pdh Tj = +2°C	3.83 kW	3.44 kW
COP Tj = +2°C	5.70	4.03
Cdh	0.98	0.99
Pdh Tj = +7°C	2.46 kW	2.21 kW
COP Tj = +7°C	6.15	4.55
Cdh	0.96	0.97
Pdh Tj = 12°C	2.16 kW	2.07 kW

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

COP Tj = 12°C	6.01	4.54
Cdh	0.96	0.97
Pdh Tj = Tbiv	7.11 kW	6.39 kW
COP Tj = Tbiv	4.43	2.81
Pdh Tj = TOL	7.11 kW	6.39 kW
COP Tj = TOL	4.43	2.81
WTOL	65 °C	65 °C
Poff	12 W	10 W
PTO	15 W	13 W
PSB	15 W	13 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	2597 kWh	3291 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	33 dB(A)	33 dB(A)

EN 14825		
	Low temperature	Medium temperature

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

η_s	223 %	157 %
Prated	7.11 kW	6.39 kW
SCOP	5.77	4.12
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.30 kW	3.87 kW
COP Tj = -7°C	5.67	3.84
Cdh	0.98	0.99
Pdh Tj = +2°C	2.62 kW	2.35 kW
COP Tj = +2°C	6.21	4.51
Cdh	0.97	0.98
Pdh Tj = +7°C	2.17 kW	2.07 kW
COP Tj = +7°C	6.09	4.65
Cdh	0.96	0.97
Pdh Tj = 12°C	2.15 kW	2.09 kW
COP Tj = 12°C	5.84	4.54
Cdh	0.96	0.97
Pdh Tj = Tbiv	7.11 kW	6.39 kW
COP Tj = Tbiv	4.43	2.81
Pdh Tj = TOL	7.11 kW	6.39 kW

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

COP Tj = TOL	4.43	2.81
WTOL	65 °C	65 °C
Poff	12 W	10 W
PTO	15 W	13 W
PSB	15 W	13 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	3008 kWh	3802 kWh
Pdh Tj = -15°C (if TOL<-20°C)	5.80	5.21
COP Tj = -15°C (if TOL<-20°C)	5.05	3.33
Cdh	0.99	0.99

Water/Water Heat Pump

Heating

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

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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	9.43 kW	8.51 kW
El input	1.58 kW	2.35 kW
COP	5.96	3.63
Indoor water flow rate	1.65 m ³ /h	0.94 m ³ /h

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	33 dB(A)	33 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	305 %	211 %
Prated	9.43 kW	8.51 kW
SCOP	7.82	5.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.34 kW	7.53 kW
COP Tj = -7°C	6.48	4.03

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

Cdh	1.00	1.00
Pdh Tj = +2°C	5.08 kW	4.58 kW
COP Tj = +2°C	7.93	5.47
Cdh	0.99	1.00
Pdh Tj = +7°C	3.26 kW	2.95 kW
COP Tj = +7°C	8.76	6.55
Cdh	0.99	0.99
Pdh Tj = 12°C	2.91 kW	2.78 kW
COP Tj = 12°C	8.65	6.84
Cdh	0.99	0.99
Pdh Tj = Tbiv	9.43 kW	8.51 kW
COP Tj = Tbiv	5.96	3.63
Pdh Tj = TOL	9.43 kW	8.51 kW
COP Tj = TOL	5.96	3.63
WTOL	65 °C	65 °C
Poff	8 W	8 W
PTO	4 W	4 W
PSB	4 W	4 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

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

Annual energy consumption Q _{he}	2463 kWh	3186 kWh
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Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	33 dB(A)	33 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	317 %	219 %
Prated	9.43 kW	8.51 kW
SCOP	8.12	5.68
T _{biv}	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	5.71 kW	5.15 kW
COP T _j = -7°C	7.77	5.12
C _{dh}	1.00	1.00
P _{dh} T _j = +2°C	3.47 kW	3.14 kW
COP T _j = +2°C	8.76	6.31
C _{dh}	0.99	0.99
P _{dh} T _j = +7°C	2.91 kW	2.78 kW

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

COP Tj = +7°C	8.76	6.85
Cdh	0.99	0.99
Pdh Tj = 12°C	2.89 kW	2.79 kW
COP Tj = 12°C	8.39	7.06
Cdh	0.99	0.99
Pdh Tj = Tbiv	9.43 kW	8.51 kW
COP Tj = Tbiv	5.96	3.63
Pdh Tj = TOL	9.43 kW	8.51 kW
COP Tj = TOL	5.96	3.63
WTOL	65 °C	65 °C
Poff	8 W	8 W
PTO	4 W	4 W
PSB	4 W	4 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	2847 kWh	3676 kWh
Pdh Tj = -15°C (if TOL<-20°C)	7.69	6.94
COP Tj = -15°C (if TOL<-20°C)	6.87	4.37
Cdh	1.00	1.00

Model: Thermia Calibra 7 400V (White)

General Data

Power supply	3x400V 50Hz
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Brine/Water Heat Pump

Heating

EN 14511-4

Starting and operating test	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	4.45 kW	5.05 kW
El input	0.96 kW	1.74 kW
COP	4.65	2.90
Indoor water flow rate	0.77 m ³ /h	0.55 m ³ /h

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	32 dB(A)	32 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	214 %	150 %
Prated	7.11 kW	6.39 kW
SCOP	5.56	3.96
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.29 kW	5.65 kW
COP Tj = -7°C	4.85	3.09
Cdh	0.99	0.99
Pdh Tj = +2°C	3.83 kW	3.44 kW
COP Tj = +2°C	5.70	4.03
Cdh	0.98	0.99
Pdh Tj = +7°C	2.46 kW	2.21 kW
COP Tj = +7°C	6.15	4.55
Cdh	0.96	0.97
Pdh Tj = 12°C	2.16 kW	2.07 kW

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

COP Tj = 12°C	6.01	4.54
Cdh	0.96	0.97
Pdh Tj = Tbiv	7.11 kW	6.39 kW
COP Tj = Tbiv	4.43	2.81
Pdh Tj = TOL	7.11 kW	6.39 kW
COP Tj = TOL	4.43	2.81
WTOL	65 °C	65 °C
Poff	12 W	10 W
PTO	15 W	13 W
PSB	15 W	13 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	2597 kWh	3291 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	32 dB(A)	32 dB(A)

EN 14825		
	Low temperature	Medium temperature

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

η_s	223 %	157 %
Prated	7.11 kW	6.39 kW
SCOP	5.77	4.12
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.30 kW	3.87 kW
COP Tj = -7°C	5.67	3.84
Cdh	0.98	0.99
Pdh Tj = +2°C	2.62 kW	2.35 kW
COP Tj = +2°C	6.21	4.51
Cdh	0.97	0.98
Pdh Tj = +7°C	2.17 kW	2.07 kW
COP Tj = +7°C	6.09	4.65
Cdh	0.96	0.97
Pdh Tj = 12°C	2.15 kW	2.09 kW
COP Tj = 12°C	5.84	4.54
Cdh	0.96	0.97
Pdh Tj = Tbiv	7.11 kW	6.39 kW
COP Tj = Tbiv	4.43	2.81
Pdh Tj = TOL	7.11 kW	6.39 kW

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

COP Tj = TOL	4.43	2.81
WTOL	65 °C	65 °C
Poff	12 W	10 W
PTO	15 W	13 W
PSB	15 W	13 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	3008 kWh	3802 kWh
Pdh Tj = -15°C (if TOL<-20°C)	5.80	5.21
COP Tj = -15°C (if TOL<-20°C)	5.05	3.33
Cdh	0.99	0.99

Water/Water Heat Pump

Heating

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

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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	9.43 kW	8.51 kW
El input	1.58 kW	2.35 kW
COP	5.96	3.63
Indoor water flow rate	1.65 m ³ /h	0.94 m ³ /h

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	32 dB(A)	32 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	305 %	211 %
Prated	9.43 kW	8.51 kW
SCOP	7.82	5.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.34 kW	7.53 kW
COP Tj = -7°C	6.48	4.03

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

Cdh	1.00	1.00
Pdh Tj = +2°C	5.08 kW	4.58 kW
COP Tj = +2°C	7.93	5.47
Cdh	0.99	1.00
Pdh Tj = +7°C	3.26 kW	2.95 kW
COP Tj = +7°C	8.76	6.55
Cdh	0.99	0.99
Pdh Tj = 12°C	2.91 kW	2.78 kW
COP Tj = 12°C	8.65	6.84
Cdh	0.99	0.99
Pdh Tj = Tbiv	9.43 kW	8.51 kW
COP Tj = Tbiv	5.96	3.63
Pdh Tj = TOL	9.43 kW	8.51 kW
COP Tj = TOL	5.96	3.63
WTOL	65 °C	65 °C
Poff	8 W	8 W
PTO	4 W	4 W
PSB	4 W	4 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

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

Annual energy consumption Q _{he}	2463 kWh	3186 kWh
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Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	32 dB(A)	32 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	317 %	219 %
Prated	9.43 kW	8.51 kW
SCOP	8.12	5.68
T _{biv}	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	5.71 kW	5.15 kW
COP T _j = -7°C	7.77	5.12
C _{dh}	1.00	1.00
P _{dh} T _j = +2°C	3.47 kW	3.14 kW
COP T _j = +2°C	8.76	6.31
C _{dh}	0.99	0.99
P _{dh} T _j = +7°C	2.91 kW	2.78 kW

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

COP Tj = +7°C	8.76	6.85
Cdh	0.99	0.99
Pdh Tj = 12°C	2.89 kW	2.79 kW
COP Tj = 12°C	8.39	7.06
Cdh	0.99	0.99
Pdh Tj = Tbiv	9.43 kW	8.51 kW
COP Tj = Tbiv	5.96	3.63
Pdh Tj = TOL	9.43 kW	8.51 kW
COP Tj = TOL	5.96	3.63
WTOL	65 °C	65 °C
Poff	8 W	8 W
PTO	4 W	4 W
PSB	4 W	4 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	2847 kWh	3676 kWh
Pdh Tj = -15°C (if TOL<-20°C)	7.69	6.94
COP Tj = -15°C (if TOL<-20°C)	6.87	4.37
Cdh	1.00	1.00

Model: Thermia Calibra Cool 7 400V BW

General Data

Power supply	3x400V 50Hz
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Brine/Water Heat Pump

Heating

EN 14511-4

Starting and operating test	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	4.45 kW	5.05 kW
El input	0.96 kW	1.74 kW
COP	4.65	2.90
Indoor water flow rate	0.77 m ³ /h	0.55 m ³ /h

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	32 dB(A)	32 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	214 %	150 %
Prated	7.11 kW	6.39 kW
SCOP	5.56	3.96
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.29 kW	5.65 kW
COP Tj = -7°C	4.85	3.09
Cdh	0.99	0.99
Pdh Tj = +2°C	3.83 kW	3.44 kW
COP Tj = +2°C	5.70	4.03
Cdh	0.98	0.99
Pdh Tj = +7°C	2.46 kW	2.21 kW
COP Tj = +7°C	6.15	4.55
Cdh	0.96	0.97
Pdh Tj = 12°C	2.16 kW	2.07 kW

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

COP Tj = 12°C	6.01	4.54
Cdh	0.96	0.97
Pdh Tj = Tbiv	7.11 kW	6.39 kW
COP Tj = Tbiv	4.43	2.81
Pdh Tj = TOL	7.11 kW	6.39 kW
COP Tj = TOL	4.43	2.81
WTOL	65 °C	65 °C
Poff	12 W	10 W
PTO	15 W	13 W
PSB	15 W	13 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	2597 kWh	3291 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	32 dB(A)	32 dB(A)

EN 14825		
	Low temperature	Medium temperature

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

η_s	223 %	157 %
Prated	7.11 kW	6.39 kW
SCOP	5.77	4.12
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.30 kW	3.87 kW
COP Tj = -7°C	5.67	3.84
Cdh	0.98	0.99
Pdh Tj = +2°C	2.62 kW	2.35 kW
COP Tj = +2°C	6.21	4.51
Cdh	0.97	0.98
Pdh Tj = +7°C	2.17 kW	2.07 kW
COP Tj = +7°C	6.09	4.65
Cdh	0.96	0.97
Pdh Tj = 12°C	2.15 kW	2.09 kW
COP Tj = 12°C	5.84	4.54
Cdh	0.96	0.97
Pdh Tj = Tbiv	7.11 kW	6.39 kW
COP Tj = Tbiv	4.43	2.81
Pdh Tj = TOL	7.11 kW	6.39 kW

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

COP Tj = TOL	4.43	2.81
WTOL	65 °C	65 °C
Poff	12 W	10 W
PTO	15 W	13 W
PSB	15 W	13 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	3008 kWh	3802 kWh
Pdh Tj = -15°C (if TOL<-20°C)	5.80	5.21
COP Tj = -15°C (if TOL<-20°C)	5.05	3.33
Cdh	0.99	0.99

Water/Water Heat Pump

Heating

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

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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	9.43 kW	8.51 kW
El input	1.58 kW	2.35 kW
COP	5.96	3.63
Indoor water flow rate	1.65 m ³ /h	0.94 m ³ /h

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	32 dB(A)	32 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	305 %	211 %
Prated	9.43 kW	8.51 kW
SCOP	7.82	5.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.34 kW	7.53 kW
COP Tj = -7°C	6.48	4.03

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

Cdh	1.00	1.00
Pdh Tj = +2°C	5.08 kW	4.58 kW
COP Tj = +2°C	7.93	5.47
Cdh	0.99	1.00
Pdh Tj = +7°C	3.26 kW	2.95 kW
COP Tj = +7°C	8.76	6.55
Cdh	0.99	0.99
Pdh Tj = 12°C	2.91 kW	2.78 kW
COP Tj = 12°C	8.65	6.84
Cdh	0.99	0.99
Pdh Tj = Tbiv	9.43 kW	8.51 kW
COP Tj = Tbiv	5.96	3.63
Pdh Tj = TOL	9.43 kW	8.51 kW
COP Tj = TOL	5.96	3.63
WTOL	65 °C	65 °C
Poff	8 W	8 W
PTO	4 W	4 W
PSB	4 W	4 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

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

Annual energy consumption Q _{he}	2463 kWh	3186 kWh
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Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	32 dB(A)	32 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	317 %	219 %
Prated	9.43 kW	8.51 kW
SCOP	8.12	5.68
T _{biv}	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	5.71 kW	5.15 kW
COP T _j = -7°C	7.77	5.12
C _{dh}	1.00	1.00
P _{dh} T _j = +2°C	3.47 kW	3.14 kW
COP T _j = +2°C	8.76	6.31
C _{dh}	0.99	0.99
P _{dh} T _j = +7°C	2.91 kW	2.78 kW

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

COP Tj = +7°C	8.76	6.85
Cdh	0.99	0.99
Pdh Tj = 12°C	2.89 kW	2.79 kW
COP Tj = 12°C	8.39	7.06
Cdh	0.99	0.99
Pdh Tj = Tbiv	9.43 kW	8.51 kW
COP Tj = Tbiv	5.96	3.63
Pdh Tj = TOL	9.43 kW	8.51 kW
COP Tj = TOL	5.96	3.63
WTOL	65 °C	65 °C
Poff	8 W	8 W
PTO	4 W	4 W
PSB	4 W	4 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	2847 kWh	3676 kWh
Pdh Tj = -15°C (if TOL<-20°C)	7.69	6.94
COP Tj = -15°C (if TOL<-20°C)	6.87	4.37
Cdh	1.00	1.00

Model: Thermia Calibra Cool 7 400V WW

General Data

Power supply	3x400V 50Hz
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Brine/Water Heat Pump

Heating

EN 14511-4

Starting and operating test	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	4.45 kW	5.05 kW
El input	0.96 kW	1.74 kW
COP	4.65	2.90
Indoor water flow rate	0.77 m ³ /h	0.55 m ³ /h

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	32 dB(A)	32 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	214 %	150 %
Prated	7.11 kW	6.39 kW
SCOP	5.56	3.96
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.29 kW	5.65 kW
COP Tj = -7°C	4.85	3.09
Cdh	0.99	0.99
Pdh Tj = +2°C	3.83 kW	3.44 kW
COP Tj = +2°C	5.70	4.03
Cdh	0.98	0.99
Pdh Tj = +7°C	2.46 kW	2.21 kW
COP Tj = +7°C	6.15	4.55
Cdh	0.96	0.97
Pdh Tj = 12°C	2.16 kW	2.07 kW

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

COP Tj = 12°C	6.01	4.54
Cdh	0.96	0.97
Pdh Tj = Tbiv	7.11 kW	6.39 kW
COP Tj = Tbiv	4.43	2.81
Pdh Tj = TOL	7.11 kW	6.39 kW
COP Tj = TOL	4.43	2.81
WTOL	65 °C	65 °C
Poff	12 W	10 W
PTO	15 W	13 W
PSB	15 W	13 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	2597 kWh	3291 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	32 dB(A)	32 dB(A)

EN 14825		
	Low temperature	Medium temperature

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

η_s	223 %	157 %
Prated	7.11 kW	6.39 kW
SCOP	5.77	4.12
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.30 kW	3.87 kW
COP Tj = -7°C	5.67	3.84
Cdh	0.98	0.99
Pdh Tj = +2°C	2.62 kW	2.35 kW
COP Tj = +2°C	6.21	4.51
Cdh	0.97	0.98
Pdh Tj = +7°C	2.17 kW	2.07 kW
COP Tj = +7°C	6.09	4.65
Cdh	0.96	0.97
Pdh Tj = 12°C	2.15 kW	2.09 kW
COP Tj = 12°C	5.84	4.54
Cdh	0.96	0.97
Pdh Tj = Tbiv	7.11 kW	6.39 kW
COP Tj = Tbiv	4.43	2.81
Pdh Tj = TOL	7.11 kW	6.39 kW

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

COP Tj = TOL	4.43	2.81
WTOL	65 °C	65 °C
Poff	12 W	10 W
PTO	15 W	13 W
PSB	15 W	13 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	3008 kWh	3802 kWh
Pdh Tj = -15°C (if TOL<-20°C)	5.80	5.21
COP Tj = -15°C (if TOL<-20°C)	5.05	3.33
Cdh	0.99	0.99

Water/Water Heat Pump

Heating

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

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

EN 14511-2		
	Low temperature	Medium temperature
Heat output	9.43 kW	8.51 kW
El input	1.58 kW	2.35 kW
COP	5.96	3.63
Indoor water flow rate	1.65 m ³ /h	0.94 m ³ /h

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	32 dB(A)	32 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	305 %	211 %
Prated	9.43 kW	8.51 kW
SCOP	7.82	5.47
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.34 kW	7.53 kW
COP Tj = -7°C	6.48	4.03

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

Cdh	1.00	1.00
Pdh Tj = +2°C	5.08 kW	4.58 kW
COP Tj = +2°C	7.93	5.47
Cdh	0.99	1.00
Pdh Tj = +7°C	3.26 kW	2.95 kW
COP Tj = +7°C	8.76	6.55
Cdh	0.99	0.99
Pdh Tj = 12°C	2.91 kW	2.78 kW
COP Tj = 12°C	8.65	6.84
Cdh	0.99	0.99
Pdh Tj = Tbiv	9.43 kW	8.51 kW
COP Tj = Tbiv	5.96	3.63
Pdh Tj = TOL	9.43 kW	8.51 kW
COP Tj = TOL	5.96	3.63
WTOL	65 °C	65 °C
Poff	8 W	8 W
PTO	4 W	4 W
PSB	4 W	4 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

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

Annual energy consumption Q_{he}	2463 kWh	3186 kWh
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Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	32 dB(A)	32 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	317 %	219 %
Prated	9.43 kW	8.51 kW
SCOP	8.12	5.68
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
$P_{dh} T_j = -7^{\circ}\text{C}$	5.71 kW	5.15 kW
$\text{COP } T_j = -7^{\circ}\text{C}$	7.77	5.12
C_{dh}	1.00	1.00
$P_{dh} T_j = +2^{\circ}\text{C}$	3.47 kW	3.14 kW
$\text{COP } T_j = +2^{\circ}\text{C}$	8.76	6.31
C_{dh}	0.99	0.99
$P_{dh} T_j = +7^{\circ}\text{C}$	2.91 kW	2.78 kW

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

COP Tj = +7°C	8.76	6.85
Cdh	0.99	0.99
Pdh Tj = 12°C	2.89 kW	2.79 kW
COP Tj = 12°C	8.39	7.06
Cdh	0.99	0.99
Pdh Tj = Tbiv	9.43 kW	8.51 kW
COP Tj = Tbiv	5.96	3.63
Pdh Tj = TOL	9.43 kW	8.51 kW
COP Tj = TOL	5.96	3.63
WTOL	65 °C	65 °C
Poff	8 W	8 W
PTO	4 W	4 W
PSB	4 W	4 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	2847 kWh	3676 kWh
Pdh Tj = -15°C (if TOL<-20°C)	7.69	6.94
COP Tj = -15°C (if TOL<-20°C)	6.87	4.37
Cdh	1.00	1.00