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Login

Summary of	Thermia Calibra 12	Reg. No.	012-SC0356-19
Certificate Holder	'		
Name	Thermia		
Address	Snickaregatan 1	Zip	
City	Arvika	Country	Sweden
Certification Body	RISE CERT		
Subtype title	Thermia Calibra 12		
Heat Pump Type	Brine/Water and Water/Water		
Refrigerant	R410A		
Mass of Refrigerant	1.4 kg		
Certification Date	04.10.2019		

Model: Thermia Calibra 12 400V

Configure model		
Model name	Thermia Calibra 12 400V	
Application	Heating (medium temp)	
Units	Indoor	
Climate Zone	Colder Climate	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data	
Power supply	3x400V 50Hz

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	

EN 14511-2		
	Low temperature	Medium temperature
El input	1.10 kW	1.68 kW
СОР	4.75	2.85



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	219 %	157 %
Prated	11.69 kW	10.60 kW
SCOP	5.68	4.12
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.34 kW	9.38 kW
COP Tj = -7°C	4.77	3.15
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	6.29 kW	5.71 kW
COP Tj = +2°C	5.82	4.20
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	4.05 kW	3.67 kW
$COP Tj = +7^{\circ}C$	6.40	4.81
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	2.91 kW	2.91 kW





COP Tj = 12°C	5.97	4.66
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	11.69 kW	10.60 kW
COP Tj = Tbiv	4.39	2.88
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.69 kW	10.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.88
WTOL	65 °C	65 °C
Poff	15 W	15 W
РТО	18 W	18 W
PSB	18 W	18 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4249 kWh	5320 kWh

Colder Climate

EN 14825		
	Low temperature	Medium temperature
η_{s}	224 %	163 %
Prated	11.69 kW	10.60 kW
SCOP	5.80	4.29





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Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.07 kW	6.41 kW
COP Tj = -7°C	5.46	3.99
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	4.31 kW	3.90 kW
$COPTj = +2^{\circ}C$	6.39	4.77
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = $+7^{\circ}$ C	2.77 kW	2.92 kW
$COPTj = +7^{\circ}C$	6.32	4.71
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	2.89 kW	2.92 kW
COP Tj = 12°C	5.78	4.74
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	11.69 kW	10.60 kW
COP Tj = Tbiv	4.39	2.88
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.69 kW	10.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.88
WTOL	65 °C	65 °C
Poff	15 W	15 W
РТО	18 W	18 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	4963 kWh	6094 kWh
Pdh Tj = -15°C (if TOL<-20°C)	9.53	8.65
COP Tj = -15°C (if TOL $<$ -20°C)	4.92	3.44
Cdh Tj = -15 °C	0.99	1.00

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	

EN 14511-2			
	Low temperature	Medium temperature	
El input	1.08 kW	1.71 kW	
СОР	6.56	3.66	



EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	35 dB(A)	35 dB(A)	

EN 14825		
	Low temperature	Medium temperature
η_{s}	290 %	206 %
Prated	10.42 kW	11.60 kW
SCOP	7.45	5.36
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.22 kW	10.26 kW
COP Tj = -7°C	6.60	4.09
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	5.61 kW	6.25 kW
COP Tj = +2°C	7.78	5.49
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	3.88 kW	4.02 kW
COP Tj = +7°C	8.02	6.19
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	3.88 kW	3.74 kW





COP Tj = 12°C 8.04 6.34 Cdh Tj = +12 °C 0.96 0.97 Pdh Tj = Tbiv 10.42 kW 11.60 kW COP Tj = Tbiv 6.34 3.73 Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh 10.42 kW 11.60 kW COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh 6.34 3.73 WTOL 65 °C 65 °C Poff 15 W 15 W PTO 18 W 18 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 2890 kWh 4473 kWh			
Pdh Tj = Tbiv 10.42 kW 11.60 kW COP Tj = Tbiv 6.34 3.73 Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	COP Tj = 12°C	8.04	6.34
COP Tj = Tbiv 6.34 3.73 Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	Pdh Tj = Tbiv	10.42 kW	11.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	COP Tj = Tbiv	6.34	3.73
WTOL 65 °C 65 °C Poff 15 W 15 W PTO 18 W 18 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	Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.42 kW	11.60 kW
Poff 15 W 15 W PTO 18 W 18 W PSB 18 W 0 W PCK 0 W 0 W Supplementary Heater: Type of energy input Electricity Electricity Supplementary Heater: PSUP 0.00 kW 0.00 kW	COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.34	3.73
PTO 18 W 18 W 18 W PCK 0 W 0 W Supplementary Heater: Type of energy input Electricity Electricity Union to the property of the prope	WTOL	65 °C	65 °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	15 W	15 W
PCK 0 W 0 W Supplementary Heater: Type of energy input Electricity Electricity Supplementary Heater: PSUP 0.00 kW 0.00 kW	РТО	18 W	18 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	o w	o w
	Supplementary Heater: Type of energy input	Electricity	Electricity
Annual energy consumption Qhe 2890 kWh 4473 kWh	Supplementary Heater: PSUP	0.00 kW	0.00 kW
	Annual energy consumption Qhe	2890 kWh	4473 kWh

Colder Climate

EN 14825		
	Low temperature	Medium temperature
η_{s}	299 %	214 %
Prated	10.42 kW	11.60 kW
SCOP	7.68	5.56





This information was genera		
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	6.31 kW	7.02 kW
COP Tj = -7°C	7.84	5.18
Cdh Tj = -7 °C	0.98	0.99
Pdh Tj = $+2^{\circ}$ C	3.84 kW	4.27 kW
COP Tj = +2°C	7.93	6.12
Cdh Tj = +2 °C	0.96	0.98
Pdh Tj = $+7^{\circ}$ C	3.88 kW	3.75 kW
$COPTj = +7^{\circ}C$	8.07	6.35
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	3.89 kW	3.78 kW
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COP Tj = Tbiv	6.34	3.73
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WTOL	65 °C	65 °C
Poff	15 W	15 W
РТО	18 W	18 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	0.00 kW	0.00 kW
Annual energy consumption Qhe	3346 kWh	5142 kWh
Pdh Tj = -15°C (if TOL<-20°C)	8.50	9.46
COP Tj = -15°C (if TOL $<$ -20°C)	7.09	4.46
Cdh Tj = -15 °C	0.99	0.99



Model: Thermia Calibra 12 Duo 400V

Configure model			
Model name Thermia Calibra 12 Duo 400V			
Application	Heating (medium temp)		
Units	Indoor		
Climate Zone	Colder Climate		
Reversibility	No		
Cooling mode application (optional)	n/a		

General Data		
Power supply	3x400V 50Hz	

Brine/Water Heat Pump

Heating

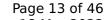
EN 14511-4		
Starting and operating test	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	

EN 14511-2			
Low temperature Medium temperature			
El input	1.10 kW	1.68 kW	
СОР	4.75	2.85	



EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	36 dB(A)	36 dB(A)	

EN 14825					
Low temperature Medium temperatur					
η_{s}	219 %	157 %			
Prated	11.69 kW	10.60 kW			
SCOP	5.68	4.12			
Tbiv	-10 °C	-10 °C			
TOL	-10 °C	-10 °C			
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$COP Tj = -7^{\circ}C$	4.77	3.15			
Cdh Tj = -7 °C	0.99	0.99			
Pdh Tj = +2°C	6.29 kW	5.71 kW			
COP Tj = +2°C	5.82	4.20			
Cdh Tj = +2 °C	0.98	0.99			
Pdh Tj = $+7^{\circ}$ C	4.05 kW	3.67 kW			
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Pdh Tj = 12°C	2.91 kW	2.91 kW			





		1.00
COP Tj = 12°C	5.97	4.66
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WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	18 W	18 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	4249 kWh	5320 kWh

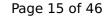
Colder Climate

EN 14825		
	Low temperature	Medium temperature
η_{s}	224 %	163 %
Prated	11.69 kW	10.60 kW
SCOP	5.80	4.29



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-22 °C	· ·
-22 C	-22 °C
-22 °C	-22 °C
7.07 kW	6.41 kW
5.46	3.99
0.99	0.99
4.31 kW	3.90 kW
6.39	4.77
0.98	0.98
2.77 kW	2.92 kW
6.32	4.71
0.96	0.97
2.89 kW	2.92 kW
5.78	4.74
0.96	0.97
11.69 kW	10.60 kW
4.39	2.88
11.69 kW	10.60 kW
4.39	2.88
65 °C	65 °C
15 W	15 W
18 W	18 W
	7.07 kW 5.46 0.99 4.31 kW 6.39 0.98 2.77 kW 6.32 0.96 2.89 kW 5.78 0.96 11.69 kW 4.39 11.69 kW 4.39 65 °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
Annual energy consumption Qhe	4963 kWh	6094 kWh
Pdh Tj = -15°C (if TOL<-20°C)	9.53	8.65
COP Tj = -15°C (if TOL $<$ -20°C)	4.92	3.44
Cdh Tj = -15 °C	0.99	1.00

Water/Water Heat Pump

Heating

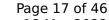
EN 14511-4	
Starting and operating test	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

EN 14511-2		
Low temperature		Medium temperature
El input	1.08 kW	1.71 kW
СОР	6.56	3.66



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	36 dB(A)	36 dB(A)

EN 14825			
	Low temperature	Medium temperature	
η_{s}	290 %	206 %	
Prated	10.42 kW	11.60 kW	
SCOP	7.45	5.36	
Tbiv	-10 °C	-10 °C	
TOL	-10 °C	-10 °C	
Pdh Tj = -7°C	9.22 kW	10.26 kW	
COP Tj = -7°C	6.60	4.09	
Cdh Tj = -7 °C	0.99	0.99	
Pdh Tj = +2°C	5.61 kW	6.25 kW	
COP Tj = +2°C	7.78	5.49	
Cdh Tj = +2 °C	0.98	0.99	
Pdh Tj = +7°C	3.88 kW	4.02 kW	
$COP Tj = +7^{\circ}C$	8.02	6.19	
Cdh Tj = +7 °C	0.96	0.97	
Pdh Tj = 12°C	3.88 kW	3.74 kW	





COP Tj = 12°C 8.04 6.34 Cdh Tj = +12 °C 0.96 0.97 Pdh Tj = Tbiv 10.42 kW 11.60 kW COP Tj = Tbiv 6.34 3.73 Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh 10.42 kW 11.60 kW COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh 6.34 3.73 WTOL 65 °C 65 °C Poff 15 W 15 W PTO 18 W 18 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 2890 kWh 4473 kWh			
Pdh Tj = Tbiv 10.42 kW 11.60 kW COP Tj = Tbiv 6.34 3.73 Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	COP Tj = 12°C	8.04	6.34
COP Tj = Tbiv 6.34 3.73 Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	Pdh Tj = Tbiv	10.42 kW	11.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	COP Tj = Tbiv	6.34	3.73
WTOL 65 °C 65 °C Poff 15 W 15 W PTO 18 W 18 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	Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.42 kW	11.60 kW
Poff 15 W 15 W PTO 18 W 18 W PSB 18 W 0 W PCK 0 W 0 W Supplementary Heater: Type of energy input Electricity Electricity Supplementary Heater: PSUP 0.00 kW 0.00 kW	COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.34	3.73
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PCK 0 W 0 W Supplementary Heater: Type of energy input Electricity Electricity Supplementary Heater: PSUP 0.00 kW 0.00 kW	РТО	18 W	18 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	o w	o w
	Supplementary Heater: Type of energy input	Electricity	Electricity
Annual energy consumption Qhe 2890 kWh 4473 kWh	Supplementary Heater: PSUP	0.00 kW	0.00 kW
	Annual energy consumption Qhe	2890 kWh	4473 kWh

Colder Climate

EN 14825				
Low temperature Medium temperatur				
η_{s}	299 %	214 %		
Prated	10.42 kW	11.60 kW		
SCOP	7.68	5.56		



	CEN heat pump KEYMARK This information was	as generated by t	he HP KEYMAR	K database
Tbiv		-22 °C		-22 °C

Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	6.31 kW	7.02 kW
$COP Tj = -7^{\circ}C$	7.84	5.18
Cdh Tj = -7 °C	0.98	0.99
Pdh Tj = $+2$ °C	3.84 kW	4.27 kW
COP Tj = +2°C	7.93	6.12
Cdh Tj = +2 °C	0.96	0.98
Pdh Tj = $+7^{\circ}$ C	3.88 kW	3.75 kW
$COP Tj = +7^{\circ}C$	8.07	6.35
Cdh Tj = $+7$ °C	0.96	0.97
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РТО	18 W	18 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	0.00 kW	0.00 kW
Annual energy consumption Qhe	3346 kWh	5142 kWh
Pdh Tj = -15°C (if TOL<-20°C)	8.50	9.46
COP Tj = -15°C (if TOL<-20°C)	7.09	4.46
Cdh Tj = -15 °C	0.99	0.99



Model: Thermia Calibra 12 230V

Configure model		
Model name	Thermia Calibra 12 230V	
Application	Heating (medium temp)	
Units	Indoor	
Climate Zone	Colder Climate	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data		
Power supply	1x230V 50Hz	

Brine/Water Heat Pump

Heating

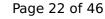
EN 14511-4	
Starting and operating test	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

EN 14511-2		
	Low temperature	Medium temperature
El input	1.10 kW	1.68 kW
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EN 12102-1		
Low temperature Medium temperature		
Sound power level indoor	35 dB(A)	35 dB(A)

EN 14825		
	Low temperature	Medium temperature
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COP Tj = +2°C	5.82	4.20
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = $+7^{\circ}$ C	4.05 kW	3.67 kW
COP Tj = +7°C	6.40	4.81
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	2.91 kW	2.91 kW

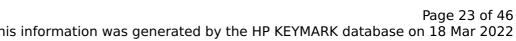




1	
5.97	4.66
0.96	0.97
11.69 kW	10.60 kW
4.39	2.88
11.69 kW	10.60 kW
4.39	2.88
65 °C	65 °C
15 W	15 W
18 W	18 W
18 W	18 W
o w	0 W
Electricity	Electricity
0.00 kW	0.00 kW
4249 kWh	5320 kWh
	0.96 11.69 kW 4.39 11.69 kW 4.39 65 °C 15 W 18 W 0 W Electricity 0.00 kW

Colder Climate

EN 14825		
	Low temperature	Medium temperature
η_{s}	224 %	163 %
Prated	11.69 kW	10.60 kW
SCOP	5.80	4.29



	CEN heat pump KEYMARK This informa	tion was generat	ed by the HP KEYMAR	K database
Tbiv			-22 °C	-22 °C
TOL			-22 °C	-22 °C
Pdh ⁻	Tj = -7°C		7.07 kW	6.41 kW

TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.07 kW	6.41 kW
$COP Tj = -7^{\circ}C$	5.46	3.99
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = $+2^{\circ}$ C	4.31 kW	3.90 kW
COP Tj = +2°C	6.39	4.77
Cdh Tj = $+2$ °C	0.98	0.98
Pdh Tj = $+7^{\circ}$ C	2.77 kW	2.92 kW
$COP Tj = +7^{\circ}C$	6.32	4.71
Cdh Tj = $+7$ °C	0.96	0.97
Pdh Tj = 12°C	2.89 kW	2.92 kW
COP Tj = 12°C	5.78	4.74
Cdh Tj = $+12$ °C	0.96	0.97
Pdh Tj = Tbiv	11.69 kW	10.60 kW
COP Tj = Tbiv	4.39	2.88
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.69 kW	10.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.88
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	18 W	18 W





This	information	was gene	rated by	the HP k	KEYMARK	database o	n 18 Mar	2022

PSB	18 W	18 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4963 kWh	6094 kWh
Pdh Tj = -15°C (if TOL<-20°C)	9.53	8.65
COP Tj = -15°C (if TOL $<$ -20°C)	4.92	3.44
Cdh Tj = -15 °C	0.99	1.00

Water/Water Heat Pump

Heating

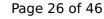
EN 14511-4			
Starting and operating test	passed		
Shutting off the heat transfer medium flow	passed		
Complete power supply failure	passed		

EN 14511-2				
	Low temperature	Medium temperature		
El input	1.08 kW	1.71 kW		
СОР	6.56	3.66		



EN 12102-1				
	Low temperature	Medium temperature		
Sound power level indoor	35 dB(A)	35 dB(A)		

EN 14825			
	Low temperature	Medium temperature	
η_{s}	290 %	206 %	
Prated	10.42 kW	11.60 kW	
SCOP	7.45	5.36	
Tbiv	-10 °C	-10 °C	
TOL	-10 °C	-10 °C	
Pdh Tj = -7°C	9.22 kW	10.26 kW	
COP Tj = -7°C	6.60	4.09	
Cdh Tj = -7 °C	0.99	0.99	
Pdh Tj = +2°C	5.61 kW	6.25 kW	
COP Tj = +2°C	7.78	5.49	
Cdh Tj = +2 °C	0.98	0.99	
Pdh Tj = +7°C	3.88 kW	4.02 kW	
COP Tj = +7°C	8.02	6.19	
Cdh Tj = +7 °C	0.96	0.97	
Pdh Tj = 12°C	3.88 kW	3.74 kW	

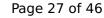




COP Tj = 12°C	8.04	6.34
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	10.42 kW	11.60 kW
COP Tj = Tbiv	6.34	3.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.42 kW	11.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.34	3.73
WTOL	65 °C	65 °C
Poff	15 W	15 W
РТО	18 W	18 W
PSB	18 W	18 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2890 kWh	4473 kWh

Colder Climate

EN 14825			
	Low temperature	Medium temperature	
η_{s}	299 %	214 %	
Prated	10.42 kW	11.60 kW	
SCOP	7.68	5.56	





This information was genera		
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	6.31 kW	7.02 kW
COP Tj = -7°C	7.84	5.18
Cdh Tj = -7 °C	0.98	0.99
Pdh Tj = $+2$ °C	3.84 kW	4.27 kW
COP Tj = +2°C	7.93	6.12
Cdh Tj = +2 °C	0.96	0.98
Pdh Tj = $+7^{\circ}$ C	3.88 kW	3.75 kW
$COPTj = +7^{\circ}C$	8.07	6.35
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	3.89 kW	3.78 kW
COP Tj = 12°C	7.88	6.54
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	10.42 kW	11.60 kW
COP Tj = Tbiv	6.34	3.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.42 kW	11.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.34	3.73
WTOL	65 °C	65 °C
Poff	15 W	15 W
РТО	18 W	18 W



PSB	18 W	18 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3346 kWh	5142 kWh
Pdh Tj = -15°C (if TOL<-20°C)	8.50	9.46
COP Tj = -15°C (if TOL<-20°C)	7.09	4.46
Cdh Tj = -15 °C	0.99	0.99



Model: Thermia Calibra 12 Duo 230V

Configure model				
Model name	Thermia Calibra 12 Duo 230V			
Application	Heating (medium temp)			
Units	Indoor			
Climate Zone	Colder Climate			
Reversibility	No			
Cooling mode application (optional)	n/a			

General Data	
Power supply	1x230V 50Hz

Brine/Water Heat Pump

Heating

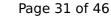
EN 14511-4		
Starting and operating test	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	

EN 14511-2		
	Low temperature	Medium temperature
El input	1.10 kW	1.68 kW
СОР	4.75	2.85



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	36 dB(A)	36 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	219 %	157 %
Prated	11.69 kW	10.60 kW
SCOP	5.68	4.12
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.34 kW	9.38 kW
COP Tj = -7°C	4.77	3.15
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = $+2$ °C	6.29 kW	5.71 kW
COP Tj = +2°C	5.82	4.20
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = $+7^{\circ}$ C	4.05 kW	3.67 kW
COP Tj = +7°C	6.40	4.81
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	2.91 kW	2.91 kW





COP Tj = 12°C	5.97	4.66
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	11.69 kW	10.60 kW
COP Tj = Tbiv	4.39	2.88
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.69 kW	10.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.88
WTOL	65 °C	65 °C
Poff	15 W	15 W
РТО	18 W	18 W
PSB	18 W	18 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4249 kWh	5320 kWh

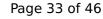
Colder Climate

EN 14825		
	Low temperature	Medium temperature
η_{s}	224 %	163 %
Prated	11.69 kW	10.60 kW
SCOP	5.80	4.29



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Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.07 kW	6.41 kW
COP Tj = -7°C	5.46	3.99
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	4.31 kW	3.90 kW
$COPTj = +2^{\circ}C$	6.39	4.77
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = $+7^{\circ}$ C	2.77 kW	2.92 kW
$COPTj = +7^{\circ}C$	6.32	4.71
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	2.89 kW	2.92 kW
COP Tj = 12°C	5.78	4.74
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	11.69 kW	10.60 kW
COP Tj = Tbiv	4.39	2.88
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.69 kW	10.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.88
WTOL	65 °C	65 °C
Poff	15 W	15 W
РТО	18 W	18 W





PSB	18 W	18 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4963 kWh	6094 kWh
Pdh Tj = -15°C (if TOL<-20°C)	9.53	8.65
COP Tj = -15°C (if TOL $<$ -20°C)	4.92	3.44
Cdh Tj = -15 °C	0.99	1.00

Water/Water Heat Pump

Heating

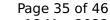
EN 14511-4	
Starting and operating test	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

EN 14511-2		
	Low temperature	Medium temperature
El input	1.08 kW	1.71 kW
СОР	6.56	3.66



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	36 dB(A)	36 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	290 %	206 %
Prated	10.42 kW	11.60 kW
SCOP	7.45	5.36
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.22 kW	10.26 kW
COP Tj = -7°C	6.60	4.09
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	5.61 kW	6.25 kW
COP Tj = +2°C	7.78	5.49
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	3.88 kW	4.02 kW
COP Tj = +7°C	8.02	6.19
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	3.88 kW	3.74 kW





COP Tj = 12°C	8.04	6.34
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	10.42 kW	11.60 kW
COP Tj = Tbiv	6.34	3.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.42 kW	11.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.34	3.73
WTOL	65 °C	65 °C
Poff	15 W	15 W
РТО	18 W	18 W
PSB	18 W	18 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2890 kWh	4473 kWh

Colder Climate

EN 14825		
	Low temperature	Medium temperature
η_{s}	299 %	214 %
Prated	10.42 kW	11.60 kW
SCOP	7.68	5.56



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This information was genera		
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	6.31 kW	7.02 kW
COP Tj = -7°C	7.84	5.18
Cdh Tj = -7 °C	0.98	0.99
Pdh Tj = $+2$ °C	3.84 kW	4.27 kW
$COPTj = +2^{\circ}C$	7.93	6.12
Cdh Tj = +2 °C	0.96	0.98
Pdh Tj = $+7^{\circ}$ C	3.88 kW	3.75 kW
$COP Tj = +7^{\circ}C$	8.07	6.35
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	3.89 kW	3.78 kW
COP Tj = 12°C	7.88	6.54
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	10.42 kW	11.60 kW
COP Tj = Tbiv	6.34	3.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.42 kW	11.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.34	3.73
WTOL	65 °C	65 °C
Poff	15 W	15 W
РТО	18 W	18 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	0.00 kW	0.00 kW
Annual energy consumption Qhe	3346 kWh	5142 kWh
Pdh Tj = -15°C (if TOL<-20°C)	8.50	9.46
COP Tj = -15°C (if TOL $<$ -20°C)	7.09	4.46
Cdh Tj = -15 °C	0.99	0.99



Model: Thermia Calibra 12 400V (White)

Configure model		
Model name	Thermia Calibra 12 400V (White)	
Application	Heating (medium temp)	
Units	Indoor	
Climate Zone	Colder Climate	
Reversibility	No	
Cooling mode application (optional)	n/a	

General Data	
Power supply 3x400V 50Hz	

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

EN 14511-2		
	Low temperature	Medium temperature
El input	1.10 kW	1.68 kW
COP 4.75 2.85		



EN 12102-1		
Low temperature Medium temperature		
Sound power level indoor	35 dB(A)	35 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	219 %	157 %
Prated	11.69 kW	10.60 kW
SCOP	5.68	4.12
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.34 kW	9.38 kW
$COP Tj = -7^{\circ}C$	4.77	3.15
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	6.29 kW	5.71 kW
COP Tj = +2°C	5.82	4.20
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = $+7^{\circ}$ C	4.05 kW	3.67 kW
$COPTj = +7^{\circ}C$	6.40	4.81
Cdh Tj = +7 °C	0.97	0.98
Pdh Tj = 12°C	2.91 kW	2.91 kW





COP Tj = 12°C	5.97	4.66
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	11.69 kW	10.60 kW
COP Tj = Tbiv	4.39	2.88
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.69 kW	10.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.88
WTOL	65 °C	65 °C
Poff	15 W	15 W
РТО	18 W	18 W
PSB	18 W	18 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4249 kWh	5320 kWh

Colder Climate

EN 14825		
	Low temperature	Medium temperature
η_{s}	224 %	163 %
Prated	11.69 kW	10.60 kW
SCOP	5.80	4.29
	·	





Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.07 kW	6.41 kW
$COP Tj = -7^{\circ}C$	5.46	3.99
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = $+2$ °C	4.31 kW	3.90 kW
COP Tj = +2°C	6.39	4.77
Cdh Tj = $+2$ °C	0.98	0.98
Pdh Tj = $+7^{\circ}$ C	2.77 kW	2.92 kW
$COP Tj = +7^{\circ}C$	6.32	4.71
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	2.89 kW	2.92 kW
COP Tj = 12°C	5.78	4.74
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	11.69 kW	10.60 kW
COP Tj = Tbiv	4.39	2.88
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.69 kW	10.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.88
WTOL	65 °C	65 °C
Poff	15 W	15 W
РТО	18 W	18 W





This information was generat	ed by the HP KEYMAR	K database on 18 Mar 2022

PSB	18 W	18 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4963 kWh	6094 kWh
Pdh Tj = -15°C (if TOL<-20°C)	9.53	8.65
COP Tj = -15°C (if TOL $<$ -20°C)	4.92	3.44
Cdh Tj = -15 °C	0.99	1.00

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	

EN 14511-2		
	Low temperature	Medium temperature
El input	1.08 kW	1.71 kW
СОР	6.56	3.66



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{s}	290 %	206 %
Prated	10.42 kW	11.60 kW
SCOP	7.45	5.36
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.22 kW	10.26 kW
COP Tj = -7°C	6.60	4.09
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	5.61 kW	6.25 kW
COP Tj = +2°C	7.78	5.49
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	3.88 kW	4.02 kW
COP Tj = +7°C	8.02	6.19
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	3.88 kW	3.74 kW





COP Tj = 12°C	8.04	6.34
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	10.42 kW	11.60 kW
COP Tj = Tbiv	6.34	3.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.42 kW	11.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.34	3.73
WTOL	65 °C	65 °C
Poff	15 W	15 W
РТО	18 W	18 W
PSB	18 W	18 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2890 kWh	4473 kWh

Colder Climate

EN 14825		
	Low temperature	Medium temperature
η_{s}	299 %	214 %
Prated	10.42 kW	11.60 kW
SCOP	7.68	5.56





Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	6.31 kW	7.02 kW
$COP Tj = -7^{\circ}C$	7.84	5.18
Cdh Tj = -7 °C	0.98	0.99
Pdh Tj = $+2$ °C	3.84 kW	4.27 kW
COP Tj = +2°C	7.93	6.12
Cdh Tj = +2 °C	0.96	0.98
Pdh Tj = $+7^{\circ}$ C	3.88 kW	3.75 kW
$COPTj = +7^{\circ}C$	8.07	6.35
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	3.89 kW	3.78 kW
COP Tj = 12°C	7.88	6.54
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	10.42 kW	11.60 kW
COP Tj = Tbiv	6.34	3.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.42 kW	11.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.34	3.73
WTOL	65 °C	65 °C
Poff	15 W	15 W
РТО	18 W	18 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	0.00 kW	0.00 kW
Annual energy consumption Qhe	3346 kWh	5142 kWh
Pdh Tj = -15°C (if TOL<-20°C)	8.50	9.46
COP Tj = -15°C (if TOL $<$ -20°C)	7.09	4.46
Cdh Tj = -15 °C	0.99	0.99