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#### This information was generated by the HP KEYMARK database on 21 Jun 2022

#### **Login**

Summary of	Thermia Calibra 7	Reg. No.	012-SC0066-19	
Certificate Holder	Certificate Holder			
Name	Thermia			
Address	Snickaregatan 1	Zip		
City	Arvika	Country	Sweden	
Certification Body	RISE CERT	RISE CERT		
Subtype title	Thermia Calibra 7	Thermia Calibra 7		
Heat Pump Type	Brine/Water and Water/	Brine/Water and Water/Water		
Refrigerant	R410A	R410A		
Mass of Refrigerant	0.95 kg	0.95 kg		
Certification Date	04.10.2019	04.10.2019		



# **Model: Thermia Calibra 7 400V**

Configure model		
Model name	Thermia Calibra 7 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	
Defrost test	passed	

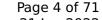
EN 14511-2		
	Low temperature	Medium temperature
Heat output	4.45 kW	5.05 kW
El input	0.96 kW	1.74 kW
СОР	4.65	2.90

### 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
$\eta_{s}$	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 Tj = -7 °C	0.98	0.99
Pdh Tj = $+2$ °C	2.62 kW	2.35 kW
COP Tj = +2°C	6.21	4.51
Cdh Tj = +2 °C	0.97	0.98
Pdh Tj = $+7^{\circ}$ C	2.17 kW	2.07 kW
$COPTj = +7^{\circ}C$	6.09	4.65
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	2.15 kW	2.09 kW





This information was generated by the HP KEYMARK database on 21 Jun 2022 COP Tj = 12°C5.84 4.54 Cdh Tj = +12 °C 0.96 0.97 Pdh Tj = Tbiv7.11 kW 6.39 kW COP Tj = Tbiv4.43 2.81 Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh 6.39 kW 7.11 kW COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh 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 3008 kWh 3802 kWh Annual energy consumption Qhe 5.80 5.21 Pdh Tj = -15°C (if TOL<-20°C) COP Tj = -15°C (if TOL<-20°C) 5.05 3.33

## **Average Climate**

Cdh Tj = -15 °C

0.99

0.99



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

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	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
$COPTj = -7^{\circ}C$	4.85	3.09
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	3.83 kW	3.44 kW
COP Tj = +2°C	5.70	4.03
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	2.46 kW	2.21 kW
$COP Tj = +7^{\circ}C$	6.15	4.55
Cdh Tj = +7 °C	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 Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	7.11 kW	6.39 kW
COP Tj = Tbiv	4.43	2.81
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.11 kW	6.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.43	2.81
WTOL	65 °C	65 °C
Poff	12 W	10 W
РТО	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

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

EN 14511-2		
Low temperature Medium temperature		
Heat output	9.43 kW	8.51 kW
El input	1.58 kW	2.35 kW
СОР	5.96	3.63

## 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
$\eta_{S}$	317 %	219 %
Prated	9.43 kW	8.51 kW





SCOP	8.12	5.68
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.71 kW	5.15 kW
COP Tj = -7°C	7.77	5.12
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = $+2^{\circ}$ C	3.47 kW	3.14 kW
$COP Tj = +2^{\circ}C$	8.76	6.31
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.91 kW	2.78 kW
$COP Tj = +7^{\circ}C$	8.76	6.85
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	2.89 kW	2.79 kW
COP Tj = 12°C	8.39	7.06
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	9.43 kW	8.51 kW
COP Tj = Tbiv	5.96	3.63
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.43 kW	8.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.96	3.63
WTOL	65 °C	65 °C
Poff	8 W	8 W



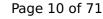


РТО	4 W	4 W
PSB	4 W	4 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2847 kWh	3676 kWh
Pdh Tj = -15°C (if TOL<-20°C)	7.69	6.94
COP Tj = -15°C (if TOL $<$ -20°C)	6.87	4.37
Cdh Tj = -15 °C	1.00	1.00

## 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
$\eta_{s}$	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
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	5.08 kW	4.58 kW
COP Tj = +2°C	7.93	5.47
Cdh Tj = +2 °C	0.99	1.00
Pdh Tj = +7°C	3.26 kW	2.95 kW
$COP Tj = +7^{\circ}C$	8.76	6.55
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	2.91 kW	2.78 kW
COP Tj = 12°C	8.65	6.84
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	9.43 kW	8.51 kW
COP Tj = Tbiv	5.96	3.63
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.43 kW	8.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.96	3.63
WTOL	65 °C	65 °C
Poff	8 W	8 W
РТО	4 W	4 W
PSB	4 W	4 W



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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
Annual energy consumption Qhe	2463 kWh	3186 kWh



# **Model: Thermia Calibra 7 Duo 400V**

Configure model		
Model name	Thermia Calibra 7 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
Defrost test	passed

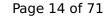
EN 14511-2		
	Low temperature	Medium temperature
Heat output	4.45 kW	5.05 kW
El input	0.96 kW	1.74 kW
СОР	4.65	2.90

### 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
$\eta_{s}$	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
$COP Tj = -7^{\circ}C$	5.67	3.84
Cdh Tj = -7 °C	0.98	0.99
Pdh Tj = $+2$ °C	2.62 kW	2.35 kW
COP Tj = +2°C	6.21	4.51
Cdh Tj = +2 °C	0.97	0.98
Pdh Tj = $+7^{\circ}$ C	2.17 kW	2.07 kW
$COPTj = +7^{\circ}C$	6.09	4.65
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	2.15 kW	2.09 kW





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COP Tj = 12°C	5.84	4.54
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	7.11 kW	6.39 kW
COP Tj = Tbiv	4.43	2.81
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.11 kW	6.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.43	2.81
WTOL	65 °C	65 °C
Poff	12 W	10 W
РТО	15 W	13 W
PSB	15 W	13 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	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 Tj = -15 °C	0.99	0.99

# 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
$\eta_{s}$	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 Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	3.83 kW	3.44 kW
COP Tj = +2°C	5.70	4.03
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	2.46 kW	2.21 kW
COP Tj = +7°C	6.15	4.55
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	2.16 kW	2.07 kW





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

Water/Water Heat Pump

# Heating

CEN heat pump KEYMARK

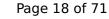
EN 14511-4		
Charting and accounting took		
Starting and operating test	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

EN 14511-2			
Low temperature Medium temperature			
Heat output	9.43 kW	8.51 kW	
El input	1.58 kW	2.35 kW	
СОР	5.96	3.63	

## Colder Climate

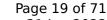
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	33 dB(A)	33 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	317 %	219 %
Prated	9.43 kW	8.51 kW





SCOP	8.12	5.68
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.71 kW	5.15 kW
COP Tj = -7°C	7.77	5.12
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = $+2^{\circ}$ C	3.47 kW	3.14 kW
$COP Tj = +2^{\circ}C$	8.76	6.31
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.91 kW	2.78 kW
$COP Tj = +7^{\circ}C$	8.76	6.85
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	2.89 kW	2.79 kW
COP Tj = 12°C	8.39	7.06
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	9.43 kW	8.51 kW
COP Tj = Tbiv	5.96	3.63
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.43 kW	8.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	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	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	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 Tj = -15 °C	1.00	1.00

## 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
$\eta_{s}$	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
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = $+2$ °C	5.08 kW	4.58 kW
COP Tj = +2°C	7.93	5.47
Cdh Tj = +2 °C	0.99	1.00
Pdh Tj = $+7^{\circ}$ C	3.26 kW	2.95 kW
$COPTj = +7^{\circ}C$	8.76	6.55
Cdh Tj = $+7$ °C	0.99	0.99
Pdh Tj = 12°C	2.91 kW	2.78 kW
COP Tj = 12°C	8.65	6.84
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	9.43 kW	8.51 kW
COP Tj = Tbiv	5.96	3.63
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.43 kW	8.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.96	3.63
WTOL	65 °C	65 °C
Poff	8 W	8 W
РТО	4 W	4 W
PSB	4 W	4 W



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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
Annual energy consumption Qhe	2463 kWh	3186 kWh



# **Model: Thermia Calibra 7 230V**

Configure model		
Model name Thermia Calibra 7 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	
Defrost test	passed	

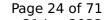
EN 14511-2		
	Low temperature	Medium temperature
Heat output	4.45 kW	5.05 kW
El input	0.96 kW	1.74 kW
СОР	4.65	2.90

### 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
$\eta_{s}$	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 Tj = -7 °C	0.98	0.99
Pdh Tj = $+2$ °C	2.62 kW	2.35 kW
COP Tj = +2°C	6.21	4.51
Cdh Tj = +2 °C	0.97	0.98
Pdh Tj = $+7^{\circ}$ C	2.17 kW	2.07 kW
$COPTj = +7^{\circ}C$	6.09	4.65
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	2.15 kW	2.09 kW





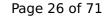
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COP Tj = 12°C	5.84	4.54
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	7.11 kW	6.39 kW
COP Tj = Tbiv	4.43	2.81
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.11 kW	6.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.43	2.81
WTOL	65 °C	65 °C
Poff	12 W	10 W
РТО	15 W	13 W
PSB	15 W	13 W
РСК	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	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 Tj = -15 °C	0.99	0.99

# **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
$\eta_{s}$	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
$COPTj = -7^{\circ}C$	4.85	3.09
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	3.83 kW	3.44 kW
COP Tj = +2°C	5.70	4.03
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	2.46 kW	2.21 kW
$COP Tj = +7^{\circ}C$	6.15	4.55
Cdh Tj = +7 °C	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 Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	7.11 kW	6.39 kW
COP Tj = Tbiv	4.43	2.81
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.11 kW	6.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.43	2.81
WTOL	65 °C	65 °C
Poff	12 W	10 W
РТО	15 W	13 W
PSB	15 W	13 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	2597 kWh	3291 kWh

Water/Water Heat Pump

# Heating



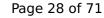
EN 14511-4		
Starting and operating test	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	
Defrost test	passed	

EN 14511-2		
	Low temperature	Medium temperature
Heat output	9.43 kW	8.51 kW
El input	1.58 kW	2.35 kW
СОР	5.96	3.63

## Colder Climate

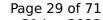
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	32 dB(A)	32 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	317 %	219 %
Prated	9.43 kW	8.51 kW





SCOP	8.12	5.68
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.71 kW	5.15 kW
COP Tj = -7°C	7.77	5.12
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	3.47 kW	3.14 kW
COP Tj = +2°C	8.76	6.31
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.91 kW	2.78 kW
$COP Tj = +7^{\circ}C$	8.76	6.85
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	2.89 kW	2.79 kW
COP Tj = 12°C	8.39	7.06
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	9.43 kW	8.51 kW
COP Tj = Tbiv	5.96	3.63
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.43 kW	8.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.96	3.63
WTOL	65 °C	65 °C
Poff	8 W	8 W





РТО	4 W	4 W
PSB	4 W	4 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	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 Tj = -15 °C	1.00	1.00

## 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	
305 %	211 %	
9.43 kW	8.51 kW	
7.82	5.47	
-10 °C	-10 °C	
	Low temperature  305 %  9.43 kW  7.82	





TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.34 kW	7.53 kW
COP Tj = -7°C	6.48	4.03
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	5.08 kW	4.58 kW
COP Tj = +2°C	7.93	5.47
Cdh Tj = +2 °C	0.99	1.00
Pdh Tj = $+7$ °C	3.26 kW	2.95 kW
$COP Tj = +7^{\circ}C$	8.76	6.55
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	2.91 kW	2.78 kW
COP Tj = 12°C	8.65	6.84
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	9.43 kW	8.51 kW
COP Tj = Tbiv	5.96	3.63
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.43 kW	8.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.96	3.63
WTOL	65 °C	65 °C
Poff	8 W	8 W
РТО	4 W	4 W
PSB	4 W	4 W



#### Page 31 of 71

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	2463 kWh	3186 kWh



# **Model: Thermia Calibra 7 Duo 230V**

Configure model		
Model name	Thermia Calibra 7 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	
Defrost test	passed	

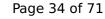
EN 14511-2		
	Low temperature	Medium temperature
Heat output	4.45 kW	5.05 kW
El input	0.96 kW	1.74 kW
СОР	4.65	2.90

### 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
$\eta_{s}$	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 Tj = -7 °C	0.98	0.99
Pdh Tj = +2°C	2.62 kW	2.35 kW
COP Tj = +2°C	6.21	4.51
Cdh Tj = +2 °C	0.97	0.98
Pdh Tj = +7°C	2.17 kW	2.07 kW
COP Tj = +7°C	6.09	4.65
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	2.15 kW	2.09 kW





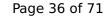
	aced by the in Reinin	THE database on 21 jun 202
COP Tj = 12°C	5.84	4.54
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	7.11 kW	6.39 kW
COP Tj = Tbiv	4.43	2.81
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.11 kW	6.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.43	2.81
WTOL	65 °C	65 °C
Poff	12 W	10 W
РТО	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 Tj = -15 °C	0.99	0.99

# **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
$\eta_{s}$	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
$COPTj = -7^{\circ}C$	4.85	3.09
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	3.83 kW	3.44 kW
COP Tj = +2°C	5.70	4.03
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	2.46 kW	2.21 kW
$COP Tj = +7^{\circ}C$	6.15	4.55
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	2.16 kW	2.07 kW
	·	





6.01	4.54
0.96	0.97
7.11 kW	6.39 kW
4.43	2.81
7.11 kW	6.39 kW
4.43	2.81
65 °C	65 °C
12 W	10 W
15 W	13 W
15 W	13 W
0 W	0 W
Electricity	Electricity
0.00 kW	0.00 kW
2597 kWh	3291 kWh
	0.96 7.11 kW 4.43 7.11 kW 4.43 65 °C 12 W 15 W 0 W Electricity 0.00 kW

Water/Water Heat Pump

# Heating



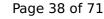
EN 14511-4		
passed		

EN 14511-2			
	Low temperature	Medium temperature	
Heat output	9.43 kW	8.51 kW	
El input	1.58 kW	2.35 kW	
СОР	5.96	3.63	

### Colder Climate

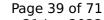
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	33 dB(A)	33 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	317 %	219 %
Prated	9.43 kW	8.51 kW





SCOP	8.12	5.68
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.71 kW	5.15 kW
COP Tj = -7°C	7.77	5.12
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = $+2^{\circ}$ C	3.47 kW	3.14 kW
COP Tj = +2°C	8.76	6.31
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7$ °C	2.91 kW	2.78 kW
$COP Tj = +7^{\circ}C$	8.76	6.85
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	2.89 kW	2.79 kW
COP Tj = 12°C	8.39	7.06
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	9.43 kW	8.51 kW
COP Tj = Tbiv	5.96	3.63
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.43 kW	8.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.96	3.63
WTOL	65 °C	65 °C
Poff	8 W	8 W





4 W	4 W
4 W	4 W
0 W	0 W
Electricity	Electricity
0.00 kW	0.00 kW
2847 kWh	3676 kWh
7.69	6.94
6.87	4.37
1.00	1.00
	4 W 0 W Electricity 0.00 kW 2847 kWh 7.69 6.87

## **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	
305 %	211 %	
9.43 kW	8.51 kW	
7.82	5.47	
-10 °C	-10 °C	
	Low temperature  305 %  9.43 kW  7.82	





TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.34 kW	7.53 kW
COP Tj = -7°C	6.48	4.03
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = $+2$ °C	5.08 kW	4.58 kW
COP Tj = +2°C	7.93	5.47
Cdh Tj = +2 °C	0.99	1.00
Pdh Tj = $+7^{\circ}$ C	3.26 kW	2.95 kW
$COPTj = +7^{\circ}C$	8.76	6.55
Cdh Tj = $+7$ °C	0.99	0.99
Pdh Tj = 12°C	2.91 kW	2.78 kW
COP Tj = 12°C	8.65	6.84
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	9.43 kW	8.51 kW
COP Tj = Tbiv	5.96	3.63
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.43 kW	8.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.96	3.63
WTOL	65 °C	65 °C
Poff	8 W	8 W
РТО	4 W	4 W
PSB	4 W	4 W



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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	2463 kWh	3186 kWh



# Model: Thermia Calibra 7 400V (White)

Configure model		
Model name	Thermia Calibra 7 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	
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	
СОР	4.65	2.90	

### 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
$\eta_{s}$	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 Tj = -7 °C	0.98	0.99
Pdh Tj = +2°C	2.62 kW	2.35 kW
COP Tj = +2°C	6.21	4.51
Cdh Tj = +2 °C	0.97	0.98
Pdh Tj = +7°C	2.17 kW	2.07 kW
$COP Tj = +7^{\circ}C$	6.09	4.65
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	2.15 kW	2.09 kW





Cdh Tj = +12 °C       0.96       0.97         Pdh Tj = Tbiv       7.11 kW       6.39 kW         COP Tj = Tbiv       4.43       2.81         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh       7.11 kW       6.39 kW         COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh       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			
Pdh Tj = Tbiv       7.11 kW       6.39 kW         COP Tj = Tbiv       4.43       2.81         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	COP Tj = 12°C	5.84	4.54
COP Tj = Tbiv       4.43       2.81         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	7.11 kW	6.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	COP Tj = Tbiv	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)	Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.11 kW	6.39 kW
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)	COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.43	2.81
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)	WTOL	65 °C	65 °C
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)	Poff	12 W	10 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	РТО	15 W	13 W
Supplementary Heater: Type of energy input  Electricity  D.00 kW  O.00 kW  Annual energy consumption Qhe  Blectricity  O.00 kW  3008 kWh  Blectricity  O.00 kW  Supplementary Heater: PSUP  Supplementary Heater: Type of energy input  Supplementary Heater: PSUP  Su	PSB	15 W	13 W
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)	PCK	o w	o w
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	Supplementary Heater: Type of energy input	Electricity	Electricity
Pdh Tj = -15°C (if TOL<-20°C)  5.80  5.21  COP Tj = -15°C (if TOL<-20°C)  5.05  3.33	Supplementary Heater: PSUP	0.00 kW	0.00 kW
COP Tj = -15°C (if TOL<-20°C) 5.05 3.33	Annual energy consumption Qhe	3008 kWh	3802 kWh
	Pdh Tj = -15°C (if TOL<-20°C)	5.80	5.21
Cdh Tj = -15 °C 0.99	COP Tj = -15°C (if TOL $<$ -20°C)	5.05	3.33
	Cdh Tj = -15 °C	0.99	0.99

## 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
$\eta_{s}$	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 Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	3.83 kW	3.44 kW
COP Tj = +2°C	5.70	4.03
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	2.46 kW	2.21 kW
COP Tj = +7°C	6.15	4.55
Cdh Tj = +7 °C	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 Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	7.11 kW	6.39 kW
COP Tj = Tbiv	4.43	2.81
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.11 kW	6.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	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	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	2597 kWh	3291 kWh

Water/Water Heat Pump

# Heating



EN 14511-4		
passed		

EN 14511-2				
Low temperature Medium temperature				
Heat output	9.43 kW	8.51 kW		
El input	1.58 kW	2.35 kW		
СОР	5.96	3.63		

### Colder Climate

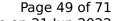
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	32 dB(A)	32 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	317 %	219 %
Prated	9.43 kW	8.51 kW





SCOP	8.12	5.68
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.71 kW	5.15 kW
COP Tj = -7°C	7.77	5.12
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	3.47 kW	3.14 kW
COP Tj = +2°C	8.76	6.31
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.91 kW	2.78 kW
$COP Tj = +7^{\circ}C$	8.76	6.85
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	2.89 kW	2.79 kW
COP Tj = 12°C	8.39	7.06
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	9.43 kW	8.51 kW
COP Tj = Tbiv	5.96	3.63
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.43 kW	8.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.96	3.63
WTOL	65 °C	65 °C
Poff	8 W	8 W





This information was generated by the HP KEYMARK database on 21 Jun 2022		
РТО	4 W	4 W
PSB	4 W	4 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	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

### **Average Climate**

Cdh Tj = -15  $^{\circ}$ C

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

1.00

1.00

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	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
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = $+2$ °C	5.08 kW	4.58 kW
COP Tj = +2°C	7.93	5.47
Cdh Tj = +2 °C	0.99	1.00
Pdh Tj = $+7^{\circ}$ C	3.26 kW	2.95 kW
$COPTj = +7^{\circ}C$	8.76	6.55
Cdh Tj = $+7$ °C	0.99	0.99
Pdh Tj = 12°C	2.91 kW	2.78 kW
COP Tj = 12°C	8.65	6.84
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	9.43 kW	8.51 kW
COP Tj = Tbiv	5.96	3.63
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.43 kW	8.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.96	3.63
WTOL	65 °C	65 °C
Poff	8 W	8 W
РТО	4 W	4 W
PSB	4 W	4 W



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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	2463 kWh	3186 kWh



# **Model: Thermia Calibra Cool 7 400V BW**

Configure model	
Model name	Thermia Calibra Cool 7 400V BW
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
Defrost test	passed

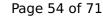
EN 14511-2		
	Low temperature	Medium temperature
Heat output	4.45 kW	5.05 kW
El input	0.96 kW	1.74 kW
СОР	4.65	2.90

### 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
$\eta_{s}$	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 Tj = -7 °C	0.98	0.99
Pdh Tj = +2°C	2.62 kW	2.35 kW
COP Tj = +2°C	6.21	4.51
Cdh Tj = +2 °C	0.97	0.98
Pdh Tj = +7°C	2.17 kW	2.07 kW
COP Tj = +7°C	6.09	4.65
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	2.15 kW	2.09 kW





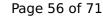
COP Tj = 12°C	5.84	4.54
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	7.11 kW	6.39 kW
COP Tj = Tbiv	4.43	2.81
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.11 kW	6.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.43	2.81
WTOL	65 °C	65 °C
Poff	12 W	10 W
РТО	15 W	13 W
PSB	15 W	13 W
PCK	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	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 Tj = -15 °C	0.99	0.99

# 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
$\eta_{s}$	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 Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	3.83 kW	3.44 kW
COP Tj = +2°C	5.70	4.03
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	2.46 kW	2.21 kW
COP Tj = +7°C	6.15	4.55
Cdh Tj = +7 °C	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 Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	7.11 kW	6.39 kW
COP Tj = Tbiv	4.43	2.81
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.11 kW	6.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.43	2.81
WTOL	65 °C	65 °C
Poff	12 W	10 W
РТО	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

Water/Water Heat Pump

# Heating



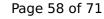
EN 14511-4	
Starting and operating test	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

EN 14511-2		
Low temperature Medium temperature		
Heat output	9.43 kW	8.51 kW
El input	1.58 kW	2.35 kW
СОР	5.96	3.63

### Colder Climate

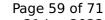
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	32 dB(A)	32 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	317 %	219 %
Prated	9.43 kW	8.51 kW





SCOP	8.12	5.68
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.71 kW	5.15 kW
COP Tj = -7°C	7.77	5.12
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = $+2^{\circ}$ C	3.47 kW	3.14 kW
$COP Tj = +2^{\circ}C$	8.76	6.31
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.91 kW	2.78 kW
$COP Tj = +7^{\circ}C$	8.76	6.85
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	2.89 kW	2.79 kW
COP Tj = 12°C	8.39	7.06
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	9.43 kW	8.51 kW
COP Tj = Tbiv	5.96	3.63
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.43 kW	8.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.96	3.63
WTOL	65 °C	65 °C
Poff	8 W	8 W





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PTO	4 W	4 W
PSB	4 W	4 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	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 Tj = -15 °C	1.00	1.00

### 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	
305 %	211 %	
9.43 kW	8.51 kW	
7.82	5.47	
-10 °C	-10 °C	
	Low temperature  305 %  9.43 kW  7.82	





TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.34 kW	7.53 kW
COP Tj = -7°C	6.48	4.03
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	5.08 kW	4.58 kW
COP Tj = +2°C	7.93	5.47
Cdh Tj = +2 °C	0.99	1.00
Pdh Tj = $+7$ °C	3.26 kW	2.95 kW
$COP Tj = +7^{\circ}C$	8.76	6.55
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	2.91 kW	2.78 kW
COP Tj = 12°C	8.65	6.84
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	9.43 kW	8.51 kW
COP Tj = Tbiv	5.96	3.63
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.43 kW	8.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.96	3.63
WTOL	65 °C	65 °C
Poff	8 W	8 W
РТО	4 W	4 W
PSB	4 W	4 W



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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
Annual energy consumption Qhe	2463 kWh	3186 kWh



# **Model: Thermia Calibra Cool 7 400V WW**

Configure model		
Model name	Thermia Calibra Cool 7 400V WW	
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	
Defrost test	passed	

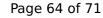
EN 14511-2		
	Low temperature	Medium temperature
Heat output	4.45 kW	5.05 kW
El input	0.96 kW	1.74 kW
СОР	4.65	2.90

### 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
$\eta_{s}$	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 Tj = -7 °C	0.98	0.99
Pdh Tj = +2°C	2.62 kW	2.35 kW
COP Tj = +2°C	6.21	4.51
Cdh Tj = +2 °C	0.97	0.98
Pdh Tj = +7°C	2.17 kW	2.07 kW
COP Tj = +7°C	6.09	4.65
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	2.15 kW	2.09 kW





This information was generated by the Fir RETHAMIX database on 21 July 2022			
COP Tj = 12°C	5.84	4.54	
Cdh Tj = +12 °C	0.96	0.97	
Pdh Tj = Tbiv	7.11 kW	6.39 kW	
COP Tj = Tbiv	4.43	2.81	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.11 kW	6.39 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.43	2.81	
WTOL	65 °C	65 °C	
Poff	12 W	10 W	
РТО	15 W	13 W	
PSB	15 W	13 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	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 Tj = -15 °C	0.99	0.99	

## 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
$\eta_{s}$	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
$COPTj = -7^{\circ}C$	4.85	3.09
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	3.83 kW	3.44 kW
COP Tj = +2°C	5.70	4.03
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	2.46 kW	2.21 kW
$COP Tj = +7^{\circ}C$	6.15	4.55
Cdh Tj = +7 °C	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 Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	7.11 kW	6.39 kW
COP Tj = Tbiv	4.43	2.81
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.11 kW	6.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.43	2.81
WTOL	65 °C	65 °C
Poff	12 W	10 W
РТО	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

Water/Water Heat Pump

## Heating



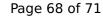
EN 14511-4		
passed		

EN 14511-2				
Low temperature Medium temperature				
Heat output	9.43 kW	8.51 kW		
El input	1.58 kW	2.35 kW		
СОР	5.96	3.63		

### 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
$\eta_{S}$	317 %	219 %
Prated	9.43 kW	8.51 kW





SCOP	8.12	5.68
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = $-7$ °C	5.71 kW	5.15 kW
COP Tj = -7°C	7.77	5.12
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = $+2$ °C	3.47 kW	3.14 kW
COP Tj = +2°C	8.76	6.31
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7^{\circ}$ C	2.91 kW	2.78 kW
COP Tj = +7°C	8.76	6.85
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	2.89 kW	2.79 kW
COP Tj = 12°C	8.39	7.06
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	9.43 kW	8.51 kW
COP Tj = Tbiv	5.96	3.63
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.43 kW	8.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.96	3.63
WTOL	65 °C	65 °C
Poff	8 W	8 W



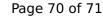


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РТО	4 W	4 W
PSB	4 W	4 W
РСК	o w	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2847 kWh	3676 kWh
Pdh Tj = -15°C (if TOL<-20°C)	7.69	6.94
COP Tj = -15°C (if TOL<-20°C)	6.87	4.37
Cdh Tj = -15 °C	1.00	1.00

# 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	
305 %	211 %	
9.43 kW	8.51 kW	
7.82	5.47	
-10 °C	-10 °C	
	305 % 9.43 kW 7.82	





TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.34 kW	7.53 kW
COP Tj = -7°C	6.48	4.03
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = $+2$ °C	5.08 kW	4.58 kW
COP Tj = +2°C	7.93	5.47
Cdh Tj = +2 °C	0.99	1.00
Pdh Tj = $+7^{\circ}$ C	3.26 kW	2.95 kW
$COPTj = +7^{\circ}C$	8.76	6.55
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	2.91 kW	2.78 kW
COP Tj = 12°C	8.65	6.84
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	9.43 kW	8.51 kW
COP Tj = Tbiv	5.96	3.63
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.43 kW	8.51 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.96	3.63
WTOL	65 °C	65 °C
Poff	8 W	8 W
РТО	4 W	4 W
PSB	4 W	4 W



#### Page 71 of 71

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	2463 kWh	3186 kWh