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

#### **Login**

Summary of	Thermia Calibra Eco 12	Reg. No.	012-C700111	
Certificate Holder				
Name	Thermia			
Address	Snickaregatan 1	Zip		
City	Arvika	Country	Sweden	
Certification Body	RISE CERT			
Subtype title	Thermia Calibra Eco 12			
Heat Pump Type	Brine/Water and Water/Water			
Refrigerant	R452B			
Mass of Refrigerant	1.3 kg			
Certification Date	25.08.2021			
Testing basis	EN 14511:2018, EN 14825:2018, EN 12102:2017			



# **Model: Thermia Calibra Eco 12 400V**

Configure model		
Model name	Thermia Calibra Eco 12 400V	
Application	Heating (medium temp)	
Units	Indoor	
Climate Zone	Colder Climate + Warmer 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	5.21 kW	8.42 kW
El input	1.09 kW	2.84 kW
СОР	4.78	2.96

### Warmer Climate



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	34 dB(A)	34 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	222 %	164 %
Prated	11.52 kW	10.57 kW
SCOP	5.76	4.29
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.52 kW	10.57 kW
COP Tj = +2°C	4.39	2.96
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	7.41 kW	6.79 kW
COP Tj = +7°C	5.38	3.81
Cdh Tj = +7 °C	0.99	1.00
Pdh Tj = 12°C	3.29 kW	3.02 kW
COP Tj = 12°C	6.47	5.12
Cdh Tj = +12 °C	0.98	0.99
Pdh Tj = Tbiv	11.52 kW	10.57 kW





COP Tj = Tbiv	4.39	2.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.52 kW	10.57 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.96
WTOL	65 °C	65 °C
Poff	7 W	7 W
РТО	9 W	9 W
PSB	9 W	9 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	2674 kWh	3290 kWh

### Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	34 dB(A)	34 dB(A)

EN 14825		
Low temperature	Medium temperature	
226 %	168 %	
11.52 kW	10.57 kW	
-	226 %	





SCOP	5.85	4.39
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	6.97 kW	6.40 kW
COP Tj = -7°C	5.69	4.02
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	4.24 kW	3.89 kW
COP Tj = +2°C	6.38	4.92
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.73 kW	2.50 kW
$COP Tj = +7^{\circ}C$	5.79	4.88
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	2.78 kW	2.74 kW
COP Tj = 12°C	5.51	4.74
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	11.52 kW	10.57 kW
COP Tj = Tbiv	4.39	2.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.52 kW	10.57 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.96
WTOL	65 °C	65 °C
Poff	7 W	7 W





РТО	9 W	9 W
PSB	9 W	9 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	4856 kWh	5928 kWh

# Average Climate

EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	34 dB(A)	34 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	219 %	162 %
Prated	11.52 kW	10.57 kW
SCOP	5.67	4.25
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.19 kW	9.35 kW
COP Tj = -7°C	4.66	3.23





This information was gener		int database on 22 jan 202
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	6.20 kW	5.69 kW
COP Tj = +2°C	5.81	4.27
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	3.99 kW	3.66 kW
$COPTj = +7^{\circ}C$	6.39	5.06
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	2.77 kW	2.73 kW
COP Tj = 12°C	5.67	4.67
Cdh Tj = +12 °C	0.98	0.99
Pdh Tj = Tbiv	11.52 kW	10.57 kW
COP Tj = Tbiv	4.39	2.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.52 kW	10.57 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.96
WTOL	65 °C	65 °C
Poff	7 W	7 W
РТО	9 W	9 W
PSB	9 W	9 W
РСК	0 W	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
	•	





This information was	s generated by the H	P KEYMARK database or	1 22 Jun 2022
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Annual energy consumption Qhe	4195 kWh	5134 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	12.24 kW	14.24 kW		
El input	2.01 kW	3.84 kW		
СОР	6.08	3.71		

### Warmer Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	295 %	214 %
Prated	12.24 kW	14.24 kW
		1





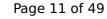




Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2161 kWh	3425 kWh

### Colder Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	300 %	223 %
Prated	12.24 kW	14.24 kW
SCOP	7.70	5.77
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.41 kW	8.62 kW
COP Tj = -7°C	7.43	5.28
Cdh Tj = -7 °C	0.99	1.00
Pdh Tj = +2°C	4.51 kW	5.25 kW
COP Tj = +2°C	8.14	6.31
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	3.71 kW	3.37 kW
COP Tj = +7°C	8.35	7.00
Cdh Tj = +7 °C	0.98	0.98





	<b>,</b> -	
Pdh Tj = 12°C	3.68 kW	3.66 kW
COP Tj = 12°C	7.96	6.72
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.24 kW	14.24 kW
COP Tj = Tbiv	6.08	3.71
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.24 kW	14.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.08	3.71
WTOL	65 °C	65 °C
Poff	7 W	7 W
РТО	9 W	9 W
PSB	9 W	9 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	3917 kWh	6086 kWh

# Average Climate

EN 14825			
Low temperature Medium tempera			
$\eta_s$	292 %	213 %	
Prated	12.24 kW	14.24 kW	





SCOP	7.51	5.52
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.83 kW	12.60 kW
COP Tj = -7°C	6.35	4.09
Cdh Tj = -7 °C	0.99	1.00
Pdh Tj = +2°C	6.59 kW	7.67 kW
$COP Tj = +2^{\circ}C$	7.52	5.56
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.24 kW	4.93 kW
$COP Tj = +7^{\circ}C$	8.40	6.49
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	3.70 kW	3.65 kW
COP Tj = 12°C	8.22	6.57
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.24 kW	14.24 kW
COP Tj = Tbiv	6.08	3.71
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.24 kW	14.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.08	3.71
WTOL	65 °C	65 °C
Poff	7 W	7 W



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PTO	9 W	9 W
PSB	9 W	9 W
PCK	o w	9 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3369 kWh	5331 kWh



# Model: Thermia Calibra Eco 12 Duo 400V

Configure model	
Model name	Thermia Calibra Eco 12 Duo 400V
Application	Heating (medium temp)
Units	Indoor
Climate Zone	Colder Climate + Warmer 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	5.21 kW	8.42 kW
El input	1.09 kW	2.84 kW
СОР	4.78	2.96

### Warmer Climate



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

EN 14825		
	Medium temperature	
$\eta_{s}$	222 %	164 %
Prated	11.52 kW	10.57 kW
SCOP	5.76	4.29
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.52 kW	10.57 kW
COP Tj = +2°C	4.39	2.96
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	7.41 kW	6.79 kW
COP Tj = +7°C	5.38	3.81
Cdh Tj = +7 °C	0.99	1.00
Pdh Tj = 12°C	3.29 kW	3.02 kW
COP Tj = 12°C	6.47	5.12
Cdh Tj = +12 °C	0.98	0.99
Pdh Tj = Tbiv	11.52 kW	10.57 kW



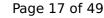


COP Tj = Tbiv	4.39	2.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.52 kW	10.57 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.96
WTOL	65 °C	65 °C
Poff	7 W	7 W
РТО	9 W	9 W
PSB	9 W	9 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2674 kWh	3290 kWh

### Colder Climate

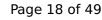
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	36 dB(A)	36 dB(A)

	EN 14825		
Low temperature	Medium temperature		
226 %	168 %		
11.52 kW	10.57 kW		
-	226 %		





SCOP	5.85	4.39
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	6.97 kW	6.40 kW
COP Tj = -7°C	5.69	4.02
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	4.24 kW	3.89 kW
COP Tj = +2°C	6.38	4.92
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7^{\circ}$ C	2.73 kW	2.50 kW
COP Tj = +7°C	5.79	4.88
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	2.78 kW	2.74 kW
COP Tj = 12°C	5.51	4.74
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	11.52 kW	10.57 kW
COP Tj = Tbiv	4.39	2.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.52 kW	10.57 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.96
WTOL	65 °C	65 °C
Poff	7 W	7 W





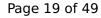
This information was genera	ted by the HP KEYMAI	RK database on 22 Jun 2022	

РТО	9 W	9 W
PSB	9 W	9 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	4856 kWh	5928 kWh

# Average Climate

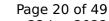
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	36 dB(A)	36 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	219 %	162 %
Prated	11.52 kW	10.57 kW
SCOP	5.67	4.25
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.19 kW	9.35 kW
COP Tj = -7°C	4.66	3.23





inis information was gener	acca by the in items	int database on EE jan Eoe.
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	6.20 kW	5.69 kW
$COP Tj = +2^{\circ}C$	5.81	4.27
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7$ °C	3.99 kW	3.66 kW
$COP Tj = +7^{\circ}C$	6.39	5.06
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	2.77 kW	2.73 kW
COP Tj = 12°C	5.67	4.67
Cdh Tj = +12 °C	0.98	0.99
Pdh Tj = Tbiv	11.52 kW	10.57 kW
COP Tj = Tbiv	4.39	2.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.52 kW	10.57 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.96
WTOL	65 °C	65 °C
Poff	7 W	7 W
РТО	9 W	9 W
PSB	9 W	9 W
PCK	0 W	o w
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW





This information was general	ted by the HP KEYMA	RK database on 22 Jun 2022

Annual energy consumption Qhe	4195 kWh	5134 kWh	

Water/Water Heat Pump

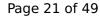
# Heating

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	12.24 kW	14.24 kW		
El input	2.01 kW	3.84 kW		
СОР	6.08	3.71		

### Warmer Climate

EN 14825		
Low temperature	Medium temperature	
295 %	214 %	
12.24 kW	14.24 kW	
	Low temperature 295 %	





SCOP	7.57	5.56
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = $+2$ °C	12.24 kW	14.24 kW
$COP Tj = +2^{\circ}C$	6.08	3.71
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = $+7^{\circ}$ C	7.87 kW	9.16 kW
$COP Tj = +7^{\circ}C$	7.15	4.96
Cdh Tj = +7 °C	0.99	1.00
Pdh Tj = 12°C	3.50 kW	4.07 kW
COP Tj = 12°C	8.40	6.62
Cdh Tj = +12 °C	0.98	0.99
Pdh Tj = Tbiv	12.24 kW	14.24 kW
COP Tj = Tbiv	6.08	3.71
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.24 kW	14.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.08	3.71
WTOL	65 °C	65 °C
Poff	7 W	7 W
РТО	9 W	9 W
PSB	9 W	9 W
PCK	0 W	0 W

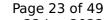




Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2161 kWh	3425 kWh

## Colder Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	300 %	223 %
Prated	12.24 kW	14.24 kW
SCOP	7.70	5.77
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.41 kW	8.62 kW
COP Tj = -7°C	7.43	5.28
Cdh Tj = -7 °C	0.99	1.00
Pdh Tj = +2°C	4.51 kW	5.25 kW
COP Tj = +2°C	8.14	6.31
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	3.71 kW	3.37 kW
COP Tj = +7°C	8.35	7.00
Cdh Tj = +7 °C	0.98	0.98





This information has generated by the First ALT with actualists on LL Jun 2011		
Pdh Tj = 12°C	3.68 kW	3.66 kW
COP Tj = 12°C	7.96	6.72
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.24 kW	14.24 kW
COP Tj = Tbiv	6.08	3.71
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.24 kW	14.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.08	3.71
WTOL	65 °C	65 °C
Poff	7 W	7 W
РТО	9 W	9 W
PSB	9 W	9 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	3917 kWh	6086 kWh

# Average Climate

EN 14825			
Low temperature   Medium temperature			
$\eta_s$	292 %	213 %	
Prated	12.24 kW	14.24 kW	





SCOP	7.51	5.52
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.83 kW	12.60 kW
$COP Tj = -7^{\circ}C$	6.35	4.09
Cdh Tj = -7 °C	0.99	1.00
Pdh Tj = $+2$ °C	6.59 kW	7.67 kW
COP Tj = +2°C	7.52	5.56
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7^{\circ}$ C	4.24 kW	4.93 kW
$COPTj = +7^{\circ}C$	8.40	6.49
Cdh Tj = $+7$ °C	0.98	0.99
Pdh Tj = 12°C	3.70 kW	3.65 kW
COP Tj = 12°C	8.22	6.57
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.24 kW	14.24 kW
COP Tj = Tbiv	6.08	3.71
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.24 kW	14.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.08	3.71
WTOL	65 °C	65 °C
Poff	7 W	7 W



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PTO	9 W	9 W
PSB	9 W	9 W
PCK	o w	9 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3369 kWh	5331 kWh



# **Model: Thermia Calibra Eco 12 230V**

Configure model		
Model name	Thermia Calibra Eco 12 230V	
Application	Heating (medium temp)	
Units	Indoor	
Climate Zone	Colder Climate + Warmer 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	

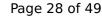
EN 14511-2		
	Low temperature	Medium temperature
Heat output	5.21 kW	8.42 kW
El input	1.09 kW	2.84 kW
СОР	4.78	2.96

### Warmer Climate



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	34 dB(A)	34 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	222 %	164 %
Prated	11.52 kW	10.57 kW
SCOP	5.76	4.29
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.52 kW	10.57 kW
COP Tj = +2°C	4.39	2.96
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = $+7^{\circ}$ C	7.41 kW	6.79 kW
$COP Tj = +7^{\circ}C$	5.38	3.81
Cdh Tj = +7 °C	0.99	1.00
Pdh Tj = 12°C	3.29 kW	3.02 kW
COP Tj = 12°C	6.47	5.12
Cdh Tj = +12 °C	0.98	0.99
Pdh Tj = Tbiv	11.52 kW	10.57 kW





COP Tj = Tbiv	4.39	2.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.52 kW	10.57 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.96
WTOL	65 °C	65 °C
Poff	7 W	7 W
РТО	9 W	9 W
PSB	9 W	9 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	2674 kWh	3290 kWh

### Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	34 dB(A)	34 dB(A)

EN 14825		
Low temperature	Medium temperature	
226 %	168 %	
11.52 kW	10.57 kW	
-	226 %	





SCOP	5.85	4.39
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	6.97 kW	6.40 kW
COP Tj = -7°C	5.69	4.02
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	4.24 kW	3.89 kW
COP Tj = +2°C	6.38	4.92
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.73 kW	2.50 kW
$COP Tj = +7^{\circ}C$	5.79	4.88
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	2.78 kW	2.74 kW
COP Tj = 12°C	5.51	4.74
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	11.52 kW	10.57 kW
COP Tj = Tbiv	4.39	2.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.52 kW	10.57 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.96
WTOL	65 °C	65 °C
Poff	7 W	7 W



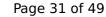


РТО	9 W	9 W
PSB	9 W	9 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4856 kWh	5928 kWh

# Average Climate

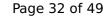
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	34 dB(A)	34 dB(A)

EN 14825		
	Low temperatur	re Medium temperature
$\eta_{s}$	219 %	162 %
Prated	11.52 kW	10.57 kW
SCOP	5.67	4.25
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.19 kW	9.35 kW
COP Tj = -7°C	4.66	3.23





3	•	_
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	6.20 kW	5.69 kW
COP Tj = +2°C	5.81	4.27
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	3.99 kW	3.66 kW
$COPTj = +7^{\circ}C$	6.39	5.06
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	2.77 kW	2.73 kW
COP Tj = 12°C	5.67	4.67
Cdh Tj = +12 °C	0.98	0.99
Pdh Tj = Tbiv	11.52 kW	10.57 kW
COP Tj = Tbiv	4.39	2.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.52 kW	10.57 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.96
WTOL	65 °C	65 °C
Poff	7 W	7 W
РТО	9 W	9 W
PSB	9 W	9 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	4195 kWh	5134 kWh	

Water/Water Heat Pump

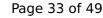
# Heating

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	12.24 kW	14.24 kW
El input	2.01 kW	3.84 kW
СОР	6.08	3.71

### Warmer Climate

EN 14825		
Low temperature	Medium temperature	
295 %	214 %	
12.24 kW	14.24 kW	
	Low temperature 295 %	





SCOP	7.57	5.56
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.24 kW	14.24 kW
COP Tj = +2°C	6.08	3.71
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	7.87 kW	9.16 kW
COP Tj = +7°C	7.15	4.96
Cdh Tj = +7 °C	0.99	1.00
Pdh Tj = 12°C	3.50 kW	4.07 kW
COP Tj = 12°C	8.40	6.62
Cdh Tj = +12 °C	0.98	0.99
Pdh Tj = Tbiv	12.24 kW	14.24 kW
COP Tj = Tbiv	6.08	3.71
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.24 kW	14.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.08	3.71
WTOL	65 °C	65 °C
Poff	7 W	7 W
РТО	9 W	9 W
PSB	9 W	9 W
PCK	0 W	0 W

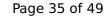




Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2161 kWh	3425 kWh

### Colder Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	300 %	223 %
Prated	12.24 kW	14.24 kW
SCOP	7.70	5.77
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.41 kW	8.62 kW
COP Tj = -7°C	7.43	5.28
Cdh Tj = -7 °C	0.99	1.00
Pdh Tj = +2°C	4.51 kW	5.25 kW
COP Tj = +2°C	8.14	6.31
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	3.71 kW	3.37 kW
COP Tj = +7°C	8.35	7.00
Cdh Tj = +7 °C	0.98	0.98

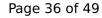




	<b>,</b> -	
Pdh Tj = 12°C	3.68 kW	3.66 kW
COP Tj = 12°C	7.96	6.72
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.24 kW	14.24 kW
COP Tj = Tbiv	6.08	3.71
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.24 kW	14.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.08	3.71
WTOL	65 °C	65 °C
Poff	7 W	7 W
РТО	9 W	9 W
PSB	9 W	9 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	3917 kWh	6086 kWh

# Average Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_s$	292 %	213 %
Prated	12.24 kW	14.24 kW





SCOP	7.51	5.52
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.83 kW	12.60 kW
COP Tj = -7°C	6.35	4.09
Cdh Tj = -7 °C	0.99	1.00
Pdh Tj = +2°C	6.59 kW	7.67 kW
COP Tj = +2°C	7.52	5.56
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	4.24 kW	4.93 kW
$COP Tj = +7^{\circ}C$	8.40	6.49
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	3.70 kW	3.65 kW
COP Tj = 12°C	8.22	6.57
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.24 kW	14.24 kW
COP Tj = Tbiv	6.08	3.71
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.24 kW	14.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.08	3.71
WTOL	65 °C	65 °C
Poff	7 W	7 W



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PTO	9 W	9 W
PSB	9 W	9 W
PCK	o w	9 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3369 kWh	5331 kWh



# Model: Thermia Calibra Eco 12 Duo 230V

Configure model		
Model name	Thermia Calibra Eco 12 Duo 230V	
Application	Heating (medium temp)	
Units	Indoor	
Climate Zone	Colder Climate + Warmer 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	5.21 kW	8.42 kW
El input	1.09 kW	2.84 kW
СОР	4.78	2.96

### Warmer Climate

EHPA Secretariat | Rue dArlon 63-67 | Phone: +32 2 400 10 17 | Email: secretariat@heatpumpkeymark.com | www.heatpumpkeymark.com



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

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	222 %	164 %
Prated	11.52 kW	10.57 kW
SCOP	5.76	4.29
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	11.52 kW	10.57 kW
COP Tj = +2°C	4.39	2.96
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	7.41 kW	6.79 kW
COP Tj = +7°C	5.38	3.81
Cdh Tj = +7 °C	0.99	1.00
Pdh Tj = 12°C	3.29 kW	3.02 kW
COP Tj = 12°C	6.47	5.12
Cdh Tj = +12 °C	0.98	0.99
Pdh Tj = Tbiv	11.52 kW	10.57 kW

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COP Tj = Tbiv	4.39	2.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.52 kW	10.57 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.96
WTOL	65 °C	65 °C
Poff	7 W	7 W
РТО	9 W	9 W
PSB	9 W	9 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	2674 kWh	3290 kWh

## Colder Climate

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

	EN 14825		
Low temperature	Medium temperature		
226 %	168 %		
11.52 kW	10.57 kW		
-	226 %		





SCOP	5.85	4.39
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = $-7$ °C	6.97 kW	6.40 kW
COP Tj = -7°C	5.69	4.02
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = $+2^{\circ}$ C	4.24 kW	3.89 kW
COP Tj = +2°C	6.38	4.92
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7^{\circ}$ C	2.73 kW	2.50 kW
$COP Tj = +7^{\circ}C$	5.79	4.88
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	2.78 kW	2.74 kW
COP Tj = 12°C	5.51	4.74
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	11.52 kW	10.57 kW
COP Tj = Tbiv	4.39	2.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.52 kW	10.57 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.96
WTOL	65 °C	65 °C
Poff	7 W	7 W





РТО	9 W	9 W
PSB	9 W	9 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	4856 kWh	5928 kWh

## Average Climate

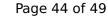
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	36 dB(A)	36 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	219 %	162 %
Prated	11.52 kW	10.57 kW
SCOP	5.67	4.25
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.19 kW	9.35 kW
COP Tj = -7°C	4.66	3.23





This information was gener	acca by the in Reinn	in the dialettical control of the co
Cdh Tj = -7 °C	1.00	1.00
Pdh Tj = +2°C	6.20 kW	5.69 kW
COP Tj = +2°C	5.81	4.27
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7$ °C	3.99 kW	3.66 kW
$COPTj = +7^{\circ}C$	6.39	5.06
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	2.77 kW	2.73 kW
COP Tj = 12°C	5.67	4.67
Cdh Tj = +12 °C	0.98	0.99
Pdh Tj = Tbiv	11.52 kW	10.57 kW
COP Tj = Tbiv	4.39	2.96
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.52 kW	10.57 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.96
WTOL	65 °C	65 °C
Poff	7 W	7 W
РТО	9 W	9 W
PSB	9 W	9 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	4195 kWh	5134 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	12.24 kW	14.24 kW	
El input	2.01 kW	3.84 kW	
СОР	6.08	3.71	

## Warmer Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	295 %	214 %
Prated	12.24 kW	14.24 kW
		1





SCOP	7.57	5.56
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = $+2$ °C	12.24 kW	14.24 kW
COP Tj = +2°C	6.08	3.71
Cdh Tj = +2 °C	1.00	1.00
Pdh Tj = +7°C	7.87 kW	9.16 kW
COP Tj = +7°C	7.15	4.96
Cdh Tj = +7 °C	0.99	1.00
Pdh Tj = 12°C	3.50 kW	4.07 kW
COP Tj = 12°C	8.40	6.62
Cdh Tj = +12 °C	0.98	0.99
Pdh Tj = Tbiv	12.24 kW	14.24 kW
COP Tj = Tbiv	6.08	3.71
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.24 kW	14.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.08	3.71
WTOL	65 °C	65 °C
Poff	7 W	7 W
РТО	9 W	9 W
PSB	9 W	9 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	2161 kWh	3425 kWh

## Colder Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	300 %	223 %
Prated	12.24 kW	14.24 kW
SCOP	7.70	5.77
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.41 kW	8.62 kW
COP Tj = -7°C	7.43	5.28
Cdh Tj = -7 °C	0.99	1.00
Pdh Tj = +2°C	4.51 kW	5.25 kW
COP Tj = +2°C	8.14	6.31
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	3.71 kW	3.37 kW
COP Tj = +7°C	8.35	7.00
Cdh Tj = +7 °C	0.98	0.98





This information was generated by the first ward addage on 22 jun 202			
Pdh Tj = 12°C	3.68 kW	3.66 kW	
COP Tj = 12°C	7.96	6.72	
Cdh Tj = +12 °C	0.98	0.98	
Pdh Tj = Tbiv	12.24 kW	14.24 kW	
COP Tj = Tbiv	6.08	3.71	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.24 kW	14.24 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.08	3.71	
WTOL	65 °C	65 °C	
Poff	7 W	7 W	
РТО	9 W	9 W	
PSB	9 W	9 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	3917 kWh	6086 kWh	

## Average Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_s$	292 %	213 %
Prated	12.24 kW	14.24 kW





SCOP	7.51	5.52
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.83 kW	12.60 kW
COP Tj = -7°C	6.35	4.09
Cdh Tj = -7 °C	0.99	1.00
Pdh Tj = +2°C	6.59 kW	7.67 kW
COP Tj = +2°C	7.52	5.56
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7$ °C	4.24 kW	4.93 kW
$COP Tj = +7^{\circ}C$	8.40	6.49
Cdh Tj = +7 °C	0.98	0.99
Pdh Tj = 12°C	3.70 kW	3.65 kW
COP Tj = 12°C	8.22	6.57
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	12.24 kW	14.24 kW
COP Tj = Tbiv	6.08	3.71
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.24 kW	14.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.08	3.71
WTOL	65 °C	65 °C
Poff	7 W	7 W



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PTO	9 W	9 W
PSB	9 W	9 W
PCK	o w	9 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	3369 kWh	5331 kWh