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#### **Login**

Summary of	Thermia Calibra Eco 8	Reg. No.	012-C700110	
Certificate Holder				
Name	Thermia			
Address	Snickaregatan 1	Zip		
City	Arvika	Country	Sweden	
Certification Body	RISE CERT	RISE CERT		
Subtype title	Thermia Calibra Eco 8	Thermia Calibra Eco 8		
Heat Pump Type	Brine/Water and Water/Water			
Refrigerant	R452B			
Mass of Refrigerant	0.9 kg			
Certification Date	25.08.2021			
Testing basis	EN 14511:2018, EN 14825:2018, EN 12102:2017			



# **Model: Thermia Calibra Eco 8 400V**

Configure model		
Model name	Thermia Calibra Eco 8 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	4.90 kW	6.21 kW	
El input	1.06 kW	2.20 kW	
СОР	4.60	2.83	

# 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
$\eta_{s}$	215 %	156 %
Prated	6.70 kW	6.24 kW
SCOP	5.57	4.10
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.92 kW	5.52 kW
COP Tj = -7°C	4.73	3.12
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	3.61 kW	3.36 kW
COP Tj = +2°C	5.70	4.10
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.32 kW	2.16 kW
$COP Tj = +7^{\circ}C$	5.96	4.80
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	2.54 kW	2.16 kW





Cdh Tj = +12 °C       0.98       0.98         Pdh Tj = Tbiv       6.70 kW       6.24 kW         COP Tj = Tbiv       4.44       2.82         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh       6.70 kW       6.24 kW         COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh       4.44       2.82         WTOL       65 °C       65 °C         Poff       5 W       5 W         PTO       9 W       9 W         PSB       9 W       9 W         PCK       0 W       9 W         Supplementary Heater: Type of energy input       Electricity       Electricity         Supplementary Heater: PSUP       0.00 kW       0.00 kW			
Pdh Tj = Tbiv       6.70 kW       6.24 kW         COP Tj = Tbiv       4.44       2.82         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	COP Tj = 12°C	6.28	5.05
COP Tj = Tbiv       4.44       2.82         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh  6.70 kW  6.24 kW  COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh  4.44  2.82  WTOL  65 °C  65 °C  Poff  5 W  9 W  9 W  PSB  9 W  9 W  PCK  0 W  9 W  Supplementary Heater: Type of energy input  Electricity  Electricity  Supplementary Heater: PSUP  0.00 kW  0.00 kW	Pdh Tj = Tbiv	6.70 kW	6.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	COP Tj = Tbiv	4.44	2.82
WTOL  65 °C  65 °C  Foff  5 W  5 W  FTO  9 W  9 W  PSB  9 W  9 W  PCK  0 W  9 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	6.70 kW	6.24 kW
Poff 5 W 5 W  PTO 9 W 9 W  PSB 9 W 9 W  PCK 0 W 9 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	4.44	2.82
PTO 9 W 9 W  PSB 9 W 9 W  PCK 0 W 9 W  Supplementary Heater: Type of energy input Electricity Electricity Supplementary Heater: PSUP 0.00 kW 0.00 kW	WTOL	65 °C	65 °C
PSB 9 W 9 W  PCK 0 W 9 W  Supplementary Heater: Type of energy input Electricity Electricity  Supplementary Heater: PSUP 0.00 kW 0.00 kW	Poff	5 W	5 W
PCK 0 W 9 W  Supplementary Heater: Type of energy input Electricity Electricity  Supplementary Heater: PSUP 0.00 kW 0.00 kW	РТО	9 W	9 W
Supplementary Heater: Type of energy input Electricity Electricity  Supplementary Heater: PSUP 0.00 kW 0.00 kW	PSB	9 W	9 W
Supplementary Heater: PSUP 0.00 kW 0.00 kW	PCK	o w	9 W
	Supplementary Heater: Type of energy input	Electricity	Electricity
Annual energy consumption Qhe 2485 kWh 3139 kWh	Supplementary Heater: PSUP	0.00 kW	0.00 kW
	Annual energy consumption Qhe	2485 kWh	3139 kWh

### Warmer Climate

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

EN 14825			
	Low temperature	Medium temperature	





This information was general	<b>,</b>	
$\eta_{s}$	218 %	153 %
Prated	6.70 kW	6.24 kW
SCOP	5.65	4.01
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.70 kW	6.24 kW
$COP Tj = +2^{\circ}C$	4.44	2.82
Cdh Tj = +2 °C	0.99	1.00
Pdh Tj = +7°C	4.30 kW	4.01 kW
COP Tj = +7°C	5.47	3.61
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	2.54 kW	2.40 kW
COP Tj = 12°C	6.24	4.77
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	6.70 kW	6.24 kW
COP Tj = Tbiv	4.44	2.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.70 kW	6.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.44	2.82
WTOL	65 °C	65 °C
Poff	5 W	5 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	1583 kWh	2076 kWh

### Colder Climate

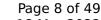
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	32 dB(A)	32 dB(A)	

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	227 %	156 %
Prated	6.70 kW	6.24 kW
SCOP	5.87	4.10
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.05 kW	3.77 kW
COP Tj = -7°C	5.68	3.81





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Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	2.47 kW	2.30 kW
COP Tj = +2°C	6.28	4.38
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	2.54 kW	2.41 kW
$COPTj = +7^{\circ}C$	6.30	4.93
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	2.53 kW	2.44 kW
COP Tj = 12°C	6.17	5.17
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	6.70 kW	6.24 kW
COP Tj = Tbiv	4.44	2.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.70 kW	6.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.44	2.82
WTOL	65 °C	65 °C
Poff	5 W	5 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
	•	•





Annual energy consumption Qhe	2810 kWh	3748 kWh	
		ı	

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	8.88 kW	8.39 kW	
El input	1.53 kW	2.36 kW	
СОР	5.82	3.56	

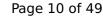
## Average Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	294 %	201 %
Prated	8.88 kW	8.39 kW





SCOP	7.56	5.23
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.86 kW	7.42 kW
COP Tj = -7°C	6.27	3.92
Cdh Tj = -7 °C	0.99	1.00
Pdh Tj = +2°C	4.78 kW	4.52 kW
COP Tj = +2°C	7.94	5.34
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7^{\circ}$ C	3.07 kW	3.20 kW
$COP Tj = +7^{\circ}C$	8.00	5.84
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	3.28 kW	2.16 kW
COP Tj = 12°C	8.14	6.63
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.88 kW	8.39 kW
COP Tj = Tbiv	5.82	3.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.88 kW	8.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.82	3.56
WTOL	65 °C	65 °C
Poff	5 W	5 W

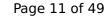




РТО	9 W	9 W
PSB	9 W	9 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2428 kWh	3316 kWh

### Warmer Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	291 %	193 %
Prated	8.88 kW	8.39 kW
SCOP	7.49	5.02
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.88 kW	8.39 kW
COP Tj = +2°C	5.82	3.56
Cdh Tj = +2 °C	0.99	1.00
Pdh Tj = +7°C	5.71 kW	5.39 kW
COP Tj = +7°C	7.44	4.59
Cdh Tj = +7 °C	0.99	0.99

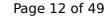




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Pdh Tj = 12°C	3.28 kW	3.20 kW
COP Tj = 12°C	8.08	5.84
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.88 kW	8.39 kW
COP Tj = Tbiv	5.82	3.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.88 kW	8.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.82	3.56
WTOL	65 °C	65 °C
Poff	5 W	5 W
РТО	9 W	9 W
PSB	9 W	9 W
PCK	9 W	9 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1585 kWh	2235 kWh

### Colder Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_s$	306 %	205 %
Prated	8.88 kW	8.39 kW





SCOP	7.86	5.32
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.38 kW	5.08 kW
COP Tj = -7°C	7.81	4.79
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	3.27 kW	3.09 kW
COP Tj = +2°C	8.34	5.96
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = $+7$ °C	3.28 kW	3.21 kW
$COP Tj = +7^{\circ}C$	8.17	6.09
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	3.28 kW	3.22 kW
COP Tj = 12°C	7.98	6.45
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.88 kW	8.39 kW
COP Tj = Tbiv	5.82	3.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.88 kW	8.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.82	3.56
WTOL	65 °C	65 °C
Poff	5 W	5 W



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РТО	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	2785 kWh	3888 kWh



# **Model: Thermia Calibra Eco 8 Duo 400V**

Configure model	
Model name	Thermia Calibra Eco 8 Duo 400V
Application	Heating (medium temp)
Units	Indoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

Genera	al 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	4.90 kW	6.21 kW	
El input	1.06 kW	2.20 kW	
СОР	4.60	2.83	

# **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
$\eta_{s}$	215 %	156 %
Prated	6.70 kW	6.24 kW
SCOP	5.57	4.10
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.92 kW	5.52 kW
COP Tj = -7°C	4.73	3.12
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	3.61 kW	3.36 kW
COP Tj = +2°C	5.70	4.10
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.32 kW	2.16 kW
$COP Tj = +7^{\circ}C$	5.96	4.80
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	2.54 kW	2.16 kW



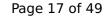


COP Tj = 12°C	6.28	5.05
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	6.70 kW	6.24 kW
COP Tj = Tbiv	4.44	2.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.70 kW	6.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.44	2.82
WTOL	65 °C	65 °C
Poff	5 W	5 W
РТО	9 W	9 W
PSB	9 W	9 W
PCK	o w	9 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2485 kWh	3139 kWh

## Warmer Climate

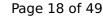
	EN 12102-1	
	Low temperature	Medium temperature
Sound power level indoor	33 dB(A)	33 dB(A)

EN 1482	25	
	Low temperature	Medium temperature





This information was general	<b>,</b>	
$\eta_{s}$	218 %	153 %
Prated	6.70 kW	6.24 kW
SCOP	5.65	4.01
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.70 kW	6.24 kW
$COP Tj = +2^{\circ}C$	4.44	2.82
Cdh Tj = +2 °C	0.99	1.00
Pdh Tj = +7°C	4.30 kW	4.01 kW
COP Tj = +7°C	5.47	3.61
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	2.54 kW	2.40 kW
COP Tj = 12°C	6.24	4.77
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	6.70 kW	6.24 kW
COP Tj = Tbiv	4.44	2.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.70 kW	6.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.44	2.82
WTOL	65 °C	65 °C
Poff	5 W	5 W



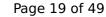


РТО	9 W	9 W
PSB	9 W	9 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1583 kWh	2076 kWh

### Colder Climate

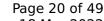
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	33 dB(A)	33 dB(A)

EN 14825		
Low temperature	Medium temperature	
227 %	156 %	
6.70 kW	6.24 kW	
5.87	4.10	
-22 °C	-22 °C	
-22 °C	-22 °C	
4.05 kW	3.77 kW	
5.68	3.81	
	Low temperature  227 %  6.70 kW  5.87  -22 °C  -22 °C  4.05 kW	





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Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	2.47 kW	2.30 kW
COP Tj = +2°C	6.28	4.38
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	2.54 kW	2.41 kW
COP Tj = +7°C	6.30	4.93
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	2.53 kW	2.44 kW
COP Tj = 12°C	6.17	5.17
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	6.70 kW	6.24 kW
COP Tj = Tbiv	4.44	2.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.70 kW	6.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.44	2.82
WTOL	65 °C	65 °C
Poff	5 W	5 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
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Annual energy consumption Qhe	2810 kWh	3748 kWh
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Water/Water Heat Pump

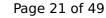
# Heating

EN 14511-4		
Starting and operating test	passed	
Starting and operating test	passeu	
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	8.88 kW	8.39 kW
El input	1.53 kW	2.36 kW
СОР	5.82	3.56

## Average Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	294 %	201 %
Prated	8.88 kW	8.39 kW





SCOP	7.56	5.23
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.86 kW	7.42 kW
COP Tj = -7°C	6.27	3.92
Cdh Tj = -7 °C	0.99	1.00
Pdh Tj = +2°C	4.78 kW	4.52 kW
COP Tj = +2°C	7.94	5.34
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7^{\circ}$ C	3.07 kW	3.20 kW
$COPTj = +7^{\circ}C$	8.00	5.84
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	3.28 kW	2.16 kW
COP Tj = 12°C	8.14	6.63
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.88 kW	8.39 kW
COP Tj = Tbiv	5.82	3.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.88 kW	8.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.82	3.56
WTOL	65 °C	65 °C
Poff	5 W	5 W

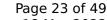




РТО	9 W	9 W
PSB	9 W	9 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2428 kWh	3316 kWh

### Warmer Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	291 %	193 %
Prated	8.88 kW	8.39 kW
SCOP	7.49	5.02
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.88 kW	8.39 kW
COP Tj = +2°C	5.82	3.56
Cdh Tj = +2 °C	0.99	1.00
Pdh Tj = +7°C	5.71 kW	5.39 kW
COP Tj = +7°C	7.44	4.59
Cdh Tj = +7 °C	0.99	0.99





	<u> </u>	
Pdh Tj = 12°C	3.28 kW	3.20 kW
COP Tj = 12°C	8.08	5.84
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.88 kW	8.39 kW
COP Tj = Tbiv	5.82	3.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.88 kW	8.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.82	3.56
WTOL	65 °C	65 °C
Poff	5 W	5 W
РТО	9 W	9 W
PSB	9 W	9 W
PCK	9 W	9 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1585 kWh	2235 kWh

### Colder Climate

EN 14825				
Low temperature   Medium temperature				
$\eta_s$	306 %	205 %		
Prated	8.88 kW	8.39 kW		





SCOP	7.86	5.32
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.38 kW	5.08 kW
COP Tj = -7°C	7.81	4.79
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	3.27 kW	3.09 kW
COP Tj = +2°C	8.34	5.96
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	3.28 kW	3.21 kW
$COP Tj = +7^{\circ}C$	8.17	6.09
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	3.28 kW	3.22 kW
COP Tj = 12°C	7.98	6.45
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.88 kW	8.39 kW
COP Tj = Tbiv	5.82	3.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.88 kW	8.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.82	3.56
WTOL	65 °C	65 °C
Poff	5 W	5 W
	•	



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РТО	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	2785 kWh	3888 kWh



# **Model: Thermia Calibra Eco 8 230V**

Configure model		
Model name	Thermia Calibra Eco 8 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	4.90 kW	6.21 kW
El input	1.06 kW	2.20 kW
СОР	4.60	2.83

# 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
$\eta_s$	215 %	156 %
Prated	6.70 kW	6.24 kW
SCOP	5.57	4.10
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.92 kW	5.52 kW
COP Tj = -7°C	4.73	3.12
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	3.61 kW	3.36 kW
COP Tj = +2°C	5.70	4.10
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.32 kW	2.16 kW
$COP Tj = +7^{\circ}C$	5.96	4.80
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	2.54 kW	2.16 kW



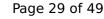


COP Tj = 12°C	6.28	5.05
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	6.70 kW	6.24 kW
COP Tj = Tbiv	4.44	2.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.70 kW	6.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.44	2.82
WTOL	65 °C	65 °C
Poff	5 W	5 W
РТО	9 W	9 W
PSB	9 W	9 W
PCK	o w	9 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2485 kWh	3139 kWh

## Warmer Climate

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

EN 14825		
	Low temperature	Medium temperature





		With database on 10 Mar
$\eta_{s}$	218 %	153 %
Prated	6.70 kW	6.24 kW
SCOP	5.65	4.01
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.70 kW	6.24 kW
$COP Tj = +2^{\circ}C$	4.44	2.82
Cdh Tj = +2 °C	0.99	1.00
Pdh Tj = +7°C	4.30 kW	4.01 kW
$COP Tj = +7^{\circ}C$	5.47	3.61
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	2.54 kW	2.40 kW
COP Tj = 12°C	6.24	4.77
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	6.70 kW	6.24 kW
COP Tj = Tbiv	4.44	2.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh	6.70 kW	6.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.44	2.82
WTOL	65 °C	65 °C
Poff	5 W	5 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	1583 kWh	2076 kWh

### Colder Climate

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

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	227 %	156 %
Prated	6.70 kW	6.24 kW
SCOP	5.87	4.10
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.05 kW	3.77 kW
COP Tj = -7°C	5.68	3.81



$\bigcirc$	
	CEN heat pump
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Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = $+2$ °C	2.47 kW	2.30 kW
COP Tj = +2°C	6.28	4.38
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = $+7^{\circ}$ C	2.54 kW	2.41 kW
$COP Tj = +7^{\circ}C$	6.30	4.93
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	2.53 kW	2.44 kW
COP Tj = 12°C	6.17	5.17
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	6.70 kW	6.24 kW
COP Tj = Tbiv	4.44	2.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.70 kW	6.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.44	2.82
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	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	2810 kWh	3748 kWh
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Water/Water Heat Pump

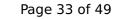
# Heating

EN 14511-4		
Starting and operating test	passed	
Starting and operating test	passeu	
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	8.88 kW	8.39 kW	
El input	1.53 kW	2.36 kW	
СОР	5.82	3.56	

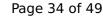
## Average Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	294 %	201 %
Prated	8.88 kW	8.39 kW





SCOP	7.56	5.23
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.86 kW	7.42 kW
$COP Tj = -7^{\circ}C$	6.27	3.92
Cdh Tj = -7 °C	0.99	1.00
Pdh Tj = +2°C	4.78 kW	4.52 kW
COP Tj = +2°C	7.94	5.34
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7^{\circ}$ C	3.07 kW	3.20 kW
COP Tj = +7°C	8.00	5.84
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	3.28 kW	2.16 kW
COP Tj = 12°C	8.14	6.63
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.88 kW	8.39 kW
COP Tj = Tbiv	5.82	3.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.88 kW	8.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.82	3.56
WTOL	65 °C	65 °C
Poff	5 W	5 W

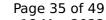




PTO	9 W	9 W
PSB	9 W	9 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2428 kWh	3316 kWh

### Warmer Climate

EN 14825				
	Low temperature	Medium temperature		
$\eta_{s}$	291 %	193 %		
Prated	8.88 kW	8.39 kW		
SCOP	7.49	5.02		
Tbiv	2 °C	2 °C		
TOL	2 °C	2 °C		
Pdh Tj = +2°C	8.88 kW	8.39 kW		
COP Tj = +2°C	5.82	3.56		
Cdh Tj = +2 °C	0.99	1.00		
Pdh Tj = +7°C	5.71 kW	5.39 kW		
COP Tj = +7°C	7.44	4.59		
Cdh Tj = +7 °C	0.99	0.99		

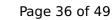




Pdh Tj = 12°C	3.28 kW	3.20 kW
COP Tj = 12°C	8.08	5.84
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.88 kW	8.39 kW
COP Tj = Tbiv	5.82	3.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.88 kW	8.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.82	3.56
WTOL	65 °C	65 °C
Poff	5 W	5 W
РТО	9 W	9 W
PSB	9 W	9 W
PCK	9 W	9 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1585 kWh	2235 kWh

### Colder Climate

EN 14825				
	Low temperature	Medium temperature		
$\eta_s$	306 %	205 %		
Prated	8.88 kW	8.39 kW		





SCOP	7.86	5.32
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.38 kW	5.08 kW
COP Tj = -7°C	7.81	4.79
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	3.27 kW	3.09 kW
COP Tj = +2°C	8.34	5.96
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	3.28 kW	3.21 kW
$COP Tj = +7^{\circ}C$	8.17	6.09
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	3.28 kW	3.22 kW
COP Tj = 12°C	7.98	6.45
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.88 kW	8.39 kW
COP Tj = Tbiv	5.82	3.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.88 kW	8.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.82	3.56
WTOL	65 °C	65 °C
Poff	5 W	5 W
	•	



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РТО	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	2785 kWh	3888 kWh



# **Model: Thermia Calibra Eco 8 Duo 230V**

Configure model		
Model name	Thermia Calibra Eco 8 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	4.90 kW	6.21 kW
El input	1.06 kW	2.20 kW
СОР	4.60	2.83

# Average 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	33 dB(A)	33 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	215 %	156 %
Prated	6.70 kW	6.24 kW
SCOP	5.57	4.10
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.92 kW	5.52 kW
COP Tj = -7°C	4.73	3.12
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	3.61 kW	3.36 kW
COP Tj = +2°C	5.70	4.10
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	2.32 kW	2.16 kW
$COP Tj = +7^{\circ}C$	5.96	4.80
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	2.54 kW	2.16 kW

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



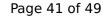


Cdh Tj = +12 °C       0.98       0.98         Pdh Tj = Tbiv       6.70 kW       6.24 kW         COP Tj = Tbiv       4.44       2.82         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh       6.70 kW       6.24 kW         COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh       4.44       2.82         WTOL       65 °C       65 °C         Poff       5 W       5 W         PTO       9 W       9 W         PSB       9 W       9 W         PCK       0 W       9 W         Supplementary Heater: Type of energy input       Electricity       Electricity         Supplementary Heater: PSUP       0.00 kW       0.00 kW			
Pdh Tj = Tbiv       6.70 kW       6.24 kW         COP Tj = Tbiv       4.44       2.82         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	COP Tj = 12°C	6.28	5.05
COP Tj = Tbiv       4.44       2.82         Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh  6.70 kW  6.24 kW  COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh  4.44  2.82  WTOL  65 °C  65 °C  Poff  5 W  9 W  9 W  PSB  9 W  9 W  PCK  0 W  9 W  Supplementary Heater: Type of energy input  Electricity  Electricity  Supplementary Heater: PSUP  0.00 kW  0.00 kW	Pdh Tj = Tbiv	6.70 kW	6.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	COP Tj = Tbiv	4.44	2.82
WTOL  65 °C  65 °C  Foff  5 W  5 W  FTO  9 W  9 W  PSB  9 W  9 W  PCK  0 W  9 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	6.70 kW	6.24 kW
Poff 5 W 5 W  PTO 9 W 9 W  PSB 9 W 9 W  PCK 0 W 9 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	4.44	2.82
PTO 9 W 9 W  PSB 9 W 9 W  PCK 0 W 9 W  Supplementary Heater: Type of energy input Electricity Electricity Supplementary Heater: PSUP 0.00 kW 0.00 kW	WTOL	65 °C	65 °C
PSB 9 W 9 W  PCK 0 W 9 W  Supplementary Heater: Type of energy input Electricity Electricity  Supplementary Heater: PSUP 0.00 kW 0.00 kW	Poff	5 W	5 W
PCK 0 W 9 W  Supplementary Heater: Type of energy input Electricity Electricity  Supplementary Heater: PSUP 0.00 kW 0.00 kW	РТО	9 W	9 W
Supplementary Heater: Type of energy input Electricity Electricity  Supplementary Heater: PSUP 0.00 kW 0.00 kW	PSB	9 W	9 W
Supplementary Heater: PSUP 0.00 kW 0.00 kW	PCK	o w	9 W
	Supplementary Heater: Type of energy input	Electricity	Electricity
Annual energy consumption Qhe 2485 kWh 3139 kWh	Supplementary Heater: PSUP	0.00 kW	0.00 kW
	Annual energy consumption Qhe	2485 kWh	3139 kWh

## Warmer Climate

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

EN 14825		
	Low temperature	Medium temperature





$\eta_{s}$	218 %	153 %
Prated	6.70 kW	6.24 kW
SCOP	5.65	4.01
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	6.70 kW	6.24 kW
COP Tj = +2°C	4.44	2.82
Cdh Tj = +2 °C	0.99	1.00
Pdh Tj = +7°C	4.30 kW	4.01 kW
$COPTj = +7^{\circ}C$	5.47	3.61
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	2.54 kW	2.40 kW
COP Tj = 12°C	6.24	4.77
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	6.70 kW	6.24 kW
COP Tj = Tbiv	4.44	2.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.70 kW	6.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.44	2.82
WTOL	65 °C	65 °C
Poff	5 W	5 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	1583 kWh	2076 kWh

### Colder Climate

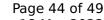
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	33 dB(A)	33 dB(A)	

EN 14825		
	Low tempe	rature Medium temperature
$\eta_{S}$	227 %	156 %
Prated	6.70 kW	6.24 kW
SCOP	5.87	4.10
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.05 kW	3.77 kW
COP Tj = -7°C	5.68	3.81





This information was genera	iced by the in Reimin	III database on 10 mai 202
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	2.47 kW	2.30 kW
COP Tj = +2°C	6.28	4.38
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	2.54 kW	2.41 kW
$COPTj = +7^{\circ}C$	6.30	4.93
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	2.53 kW	2.44 kW
COP Tj = 12°C	6.17	5.17
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	6.70 kW	6.24 kW
COP Tj = Tbiv	4.44	2.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.70 kW	6.24 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.44	2.82
WTOL	65 °C	65 °C
Poff	5 W	5 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





	2010 1 14/1	2740 1344	
Annual energy consumption Qhe	2810 kWh	3748 kWh	
		ı .	

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	8.88 kW	8.39 kW	
El input	1.53 kW	2.36 kW	
СОР	5.82	3.56	

## Average Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	294 %	201 %
Prated	8.88 kW	8.39 kW





SCOP	7.56	5.23
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.86 kW	7.42 kW
$COPTj = -7^{\circ}C$	6.27	3.92
Cdh Tj = -7 °C	0.99	1.00
Pdh Tj = +2°C	4.78 kW	4.52 kW
COP Tj = +2°C	7.94	5.34
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = $+7^{\circ}$ C	3.07 kW	3.20 kW
$COPTj = +7^{\circ}C$	8.00	5.84
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	3.28 kW	2.16 kW
COP Tj = 12°C	8.14	6.63
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.88 kW	8.39 kW
COP Tj = Tbiv	5.82	3.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.88 kW	8.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.82	3.56
WTOL	65 °C	65 °C
Poff	5 W	5 W





PTO	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	2428 kWh	3316 kWh

## Warmer Climate

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	291 %	193 %
Prated	8.88 kW	8.39 kW
SCOP	7.49	5.02
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.88 kW	8.39 kW
COP Tj = +2°C	5.82	3.56
Cdh Tj = +2 °C	0.99	1.00
Pdh Tj = +7°C	5.71 kW	5.39 kW
COP Tj = +7°C	7.44	4.59
Cdh Tj = +7 °C	0.99	0.99

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Pdh Tj = 12°C	3.28 kW	3.20 kW
COP Tj = 12°C	8.08	5.84
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.88 kW	8.39 kW
COP Tj = Tbiv	5.82	3.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.88 kW	8.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.82	3.56
WTOL	65 °C	65 °C
Poff	5 W	5 W
РТО	9 W	9 W
PSB	9 W	9 W
PCK	9 W	9 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	1585 kWh	2235 kWh

### Colder Climate

EN 14825		
Low temperature Medium temperature		
$\eta_{s}$	306 %	205 %
Prated	8.88 kW	8.39 kW





SCOP	7.86	5.32
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.38 kW	5.08 kW
COP Tj = -7°C	7.81	4.79
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	3.27 kW	3.09 kW
COP Tj = +2°C	8.34	5.96
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	3.28 kW	3.21 kW
$COP Tj = +7^{\circ}C$	8.17	6.09
Cdh Tj = +7 °C	0.98	0.98
Pdh Tj = 12°C	3.28 kW	3.22 kW
COP Tj = 12°C	7.98	6.45
Cdh Tj = +12 °C	0.98	0.98
Pdh Tj = Tbiv	8.88 kW	8.39 kW
COP Tj = Tbiv	5.82	3.56
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.88 kW	8.39 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.82	3.56
WTOL	65 °C	65 °C
Poff	5 W	5 W
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РТО	9 W	9 W
PSB	9 W	9 W
PCK	0 W	9 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	2785 kWh	3888 kWh