

Subtype Thermia Calibra Eco Cool 8 BW

Certificate Holder	Thermia
Address	Snickaregatan 1
ZIP	
City	Arvika
Country	SE
Certification Body	RISE CERT
Subtype title	Thermia Calibra Eco Cool 8 BW
Registration number	012-C700282
Heat Pump Type	Brine/Water and Water/Water
Refrigerant	R452B
Mass of Refrigerant	0.9 kg
Certification Date	15.04.2024
Testing basis	EN 14511:2022, EN 14825:2022, EN 16147:2017+A1:2022, EN 12102:2022
Testing laboratory	RISE Research Institutes of Sweden

Model Thermia Calibra Eco Cool 8 400V BW

Model name	Thermia Calibra Eco Cool 8 400V BW
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 50Hz
Off-peak product	n/a

Brine/Water**EN 16147 | Average Climate**

Declared load profile	XL
Efficiency η_{DHW}	127 %
COP	3.14
Heating up time	02:13 h:min
Standby power input	25.0 W
Reference hot water temperature	52.2 °C
Mixed water at 40°C	234 l

EN 16147 | Colder Climate

Declared load profile	
Efficiency η_{DHW}	%
COP	
Heating up time	h:min
Standby power input	W
Reference hot water temperature	°C
Mixed water at 40°C	l

EN 16147 | Warmer Climate

Declared load profile	
Efficiency η_{DHW}	%
COP	
Heating up time	h:min
Standby power input	W
Reference hot water temperature	°C
Mixed water at 40°C	l

EN 14511-4 | Heating

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

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	4.90 kW	6.21 kW
El input	1.06 kW	2.20 kW
COP	4.60	2.83

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	33 dB(A)	33 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_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	0.990	0.990
Pdh Tj = +2°C	3.61 kW	3.36 kW
COP Tj = +2°C	5.70	4.10
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	2.32 kW	2.16 kW
COP Tj = +7°C	5.96	4.80
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	2.54 kW	2.16 kW
COP Tj = 12°C	6.28	5.05
Cdh Tj = +12 °C	0.980	0.980
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
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	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	2485 kWh	3139 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	33 dB(A)	33 dB(A)
EN 14825 Colder Climate		
	Low temperature	Medium temperature
ηs	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
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	2.47 kW	2.30 kW
COP Tj = +2°C	6.28	4.38
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	2.54 kW	2.41 kW
COP Tj = +7°C	6.30	4.93
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	2.53 kW	2.44 kW
COP Tj = 12°C	6.17	5.17
Cdh Tj = +12 °C	0.980	0.980
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
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	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	2810 kWh	3748 kWh
EN 12102-1 Warmer Climate		
	Low temperature	Medium temperature
Sound power level indoor	33 dB(A)	33 dB(A)
EN 14825 Warmer Climate		
	Low temperature	Medium temperature

ηs	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	0.990	1.000
Pdh Tj = +7°C	4.30 kW	4.01 kW
COP Tj = +7°C	5.47	3.61
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	2.54 kW	2.40 kW
COP Tj = 12°C	6.24	4.77
Cdh Tj = +12 °C	0.980	0.980
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
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	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	1583 kWh	2076 kWh

Water/Water**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure passed

Starting and operating test passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	8.88 kW	8.39 kW
El input	1.53 kW	2.36 kW
COP	5.82	3.56

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	309 %	208 %
Prated	8.86 kW	8.28 kW
SCOP	7.93	5.41
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.84 kW	7.33 kW
COP Tj = -7°C	6.21	3.96
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.77 kW	4.46 kW
COP Tj = +2°C	8.15	5.46
Cdh Tj = +2 °C	0.990	1.000
Pdh Tj = +7°C	3.07 kW	3.22 kW
COP Tj = +7°C	8.96	6.33
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	3.38 kW	3.27 kW
COP Tj = 12°C	9.07	6.89
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	8.86 kW	8.28 kW
COP Tj = Tbiv	5.91	3.62
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.86 kW	8.28 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.91	3.62
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	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	2310 kWh	3165 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	327 %	218 %
Prated	8.86 kW	8.28 kW
SCOP	8.38	5.65
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.36 kW	5.01 kW
COP Tj = -7°C	8.01	5.10
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.27 kW	3.05 kW

COP Tj = +2°C	9.12	6.26
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	3.38 kW	3.26 kW
COP Tj = +7°C	9.10	6.80
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	3.37 kW	3.30 kW
COP Tj = 12°C	8.84	7.19
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	8.86 kW	8.28 kW
COP Tj = Tbiv	5.91	3.62
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.86 kW	8.28 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.91	3.62
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	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	2606 kWh	3613 kWh

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	308 %	207 %
Prated	8.86 kW	8.28 kW
SCOP	7.90	5.38
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.86 kW	8.28 kW
COP Tj = +2°C	5.91	3.62
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	5.70 kW	5.33 kW
COP Tj = +7°C	7.54	4.79
Cdh Tj = +7 °C	1.000	1.000
Pdh Tj = 12°C	3.38 kW	3.24 kW
COP Tj = 12°C	8.97	6.53
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	8.86 kW	8.28 kW
COP Tj = Tbiv	5.91	3.62
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.86 kW	8.28 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.91	3.62
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	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	1499 kWh	2058 kWh

Model Thermia Calibra Eco Cool 8 400V BW (with M-cycle)

Model name	Thermia Calibra Eco Cool 8 400V BW (with M-cycle)
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	n/a
Off-peak product	n/a

Brine/Water
EN 16147 | Average Climate

Declared load profile	M
Efficiency η_{DHW}	91 %
COP	2.16
Heating up time	02:02 h:min
Standby power input	25.3 W
Reference hot water temperature	52.0 °C
Mixed water at 40°C	217 l

EN 16147 | Colder Climate

Declared load profile	
Efficiency η_{DHW}	%
COP	
Heating up time	h:min
Standby power input	W
Reference hot water temperature	°C
Mixed water at 40°C	l

EN 16147 | Warmer Climate

Declared load profile	
Efficiency η_{DHW}	%
COP	
Heating up time	h:min
Standby power input	W
Reference hot water temperature	°C
Mixed water at 40°C	l

EN 14511-4 | Heating

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

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	4.90 kW	6.21 kW
El input	1.06 kW	2.20 kW
COP	4.60	2.83

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	33 dB(A)	33 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_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	0.990	0.990
Pdh Tj = +2°C	3.61 kW	3.36 kW
COP Tj = +2°C	5.70	4.10
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	2.32 kW	2.16 kW
COP Tj = +7°C	5.96	4.80
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	2.54 kW	2.16 kW
COP Tj = 12°C	6.28	5.05
Cdh Tj = +12 °C	0.980	0.980
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
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	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	2485 kWh	3139 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	33 dB(A)	33 dB(A)
EN 14825 Colder Climate		
	Low temperature	Medium temperature
ηs	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
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	2.47 kW	2.30 kW
COP Tj = +2°C	6.28	4.38
Cdh Tj = +2 °C	0.980	0.980
Pdh Tj = +7°C	2.54 kW	2.41 kW
COP Tj = +7°C	6.30	4.93
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	2.53 kW	2.44 kW
COP Tj = 12°C	6.17	5.17
Cdh Tj = +12 °C	0.980	0.980
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
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	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	2810 kWh	3748 kWh
EN 12102-1 Warmer Climate		
	Low temperature	Medium temperature
Sound power level indoor	33 dB(A)	33 dB(A)
EN 14825 Warmer Climate		
	Low temperature	Medium temperature

η_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	0.990	1.000
Pdh Tj = +7°C	4.30 kW	4.01 kW
COP Tj = +7°C	5.47	3.61
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	2.54 kW	2.40 kW
COP Tj = 12°C	6.24	4.77
Cdh Tj = +12 °C	0.980	0.980
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
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	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	1583 kWh	2076 kWh

Water/Water**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure passed

Starting and operating test passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	8.88 kW	8.39 kW
El input	1.53 kW	2.36 kW
COP	5.82	3.56

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	309 %	208 %
Prated	8.86 kW	8.28 kW
SCOP	7.93	5.41
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.84 kW	7.33 kW
COP Tj = -7°C	6.21	3.96
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	4.77 kW	4.46 kW
COP Tj = +2°C	8.15	5.46
Cdh Tj = +2 °C	0.990	1.000
Pdh Tj = +7°C	3.07 kW	3.22 kW
COP Tj = +7°C	8.96	6.33
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	3.38 kW	3.27 kW
COP Tj = 12°C	9.07	6.89
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	8.86 kW	8.28 kW
COP Tj = Tbiv	5.91	3.62
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.86 kW	8.28 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.91	3.62
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	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	2310 kWh	3165 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	327 %	218 %
Prated	8.86 kW	8.28 kW
SCOP	8.38	5.65
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	5.36 kW	5.01 kW
COP Tj = -7°C	8.01	5.10
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	3.27 kW	3.05 kW

COP Tj = +2°C	9.12	6.26
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	3.38 kW	3.26 kW
COP Tj = +7°C	9.10	6.80
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	3.37 kW	3.30 kW
COP Tj = 12°C	8.84	7.19
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	8.86 kW	8.28 kW
COP Tj = Tbiv	5.91	3.62
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.86 kW	8.28 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.91	3.62
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	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	2606 kWh	3613 kWh

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	308 %	207 %
Prated	8.86 kW	8.28 kW
SCOP	7.90	5.38
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.86 kW	8.28 kW
COP Tj = +2°C	5.91	3.62
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	5.70 kW	5.33 kW
COP Tj = +7°C	7.54	4.79
Cdh Tj = +7 °C	1.000	1.000
Pdh Tj = 12°C	3.38 kW	3.24 kW
COP Tj = 12°C	8.97	6.53
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	8.86 kW	8.28 kW
COP Tj = Tbiv	5.91	3.62
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.86 kW	8.28 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.91	3.62
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	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	1499 kWh	2058 kWh