Subtype Thermia Calibra Eco Cool 12	
Certificate Holder	Thermia
Address	Snickaregatan 1
ZIP	
City	Arvika
Country	SE
Certification Body	RISE CERT
Subtype title	Thermia Calibra Eco Cool 12
Registration number	012-C700284
Heat Pump Type	Brine/Water and Water/Water
Refrigerant	R452B
Mass of Refrigerant	1.3 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 12 400V BW

Model name	Thermia Calibra Eco Cool 12 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 ηDHW	113 %
COP	2.80
Heating up time	01:29 h:min
Standby power input	34.0 W
Reference hot water temperature	50.7 °C
Mixed water at 40°C	220 l

EN 16147 | Colder Climate

Declared load profile	
Efficiency ηDHW	%
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 ηDHW	%
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	5.21 kW	8.42 kW
El input	1.09 kW	2.84 kW
COP	4.78	2.96

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	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
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	6.20 kW	5.69 kW
COP Tj = +2°C	5.81	4.27
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	3.99 kW	3.66 kW
COP Tj = +7°C	6.39	5.06
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	2.77 kW	2.73 kW
COP Tj = 12°C	5.67	4.67
Cdh Tj = +12 °C	0.980	0.990
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
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	65 °C	65 °C
Poff	7 W	7 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	4195 kWh	5134 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	226 %	168 %
Prated	11.52 kW	10.57 kW
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	5.67	4.02
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	4.24 kW	3.89 kW
COP Tj = +2°C	6.38	4.92
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	2.73 kW	2.50 kW
COP Tj = +7°C	5.79	4.88
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	2.78 kW	2.74 kW
COP Tj = 12°C	5.51	4.74
Cdh Tj = +12 °C	0.980	0.980
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
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	65 °C	65 °C
Poff	7 W	7 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	4856 kWh	5928 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature

ηs	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	1.000	1.000
Pdh Tj = +7°C	7.41 kW	6.79 kW
COP Tj = +7°C	5.38	3.81
Cdh Tj = +7 °C	0.990	1.000
Pdh Tj = 12°C	3.29 kW	3.02 kW
COP Tj = 12°C	6.47	5.12
Cdh Tj = +12 °C	0.980	0.990
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
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	65 °C	65 °C
Poff	7 W	7 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	2674 kWh	3290 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	12.24 kW	14.24 kW
El input	2.01 kW	3.84 kW
COP	6.08	3.71

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	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	0.990	1.000
Pdh Tj = +2°C	6.59 kW	7.67 kW
COP Tj = +2°C	7.52	5.56
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.24 kW	4.93 kW
COP Tj = +7°C	8.40	6.49
Cdh Tj = +7 °C	0.980	0.990
Pdh Tj = 12°C	3.70 kW	3.65 kW
COP Tj = 12°C	8.22	6.57
Cdh Tj = +12 °C	0.980	0.980
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
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	65 °C	65 °C
Poff	7 W	7 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	3369 kWh	5331 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	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	0.990	1.000
Pdh Tj = +2°C	4.51 kW	5.25 kW

COP Tj = +2°C	8.14	6.31
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	3.71 kW	3.37 kW
COP Tj = +7°C	8.35	7.00
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	3.68 kW	3.66 kW
COP Tj = 12°C	7.96	6.72
Cdh Tj = +12 °C	0.980	0.980
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
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	65 °C	65 °C
Poff	7 W	7 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	3917 kWh	6086 kWh

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	295 %	214 %
Prated	12.24 kW	14.24 kW
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	1.000	1.000
Pdh Tj = +7°C	7.87 kW	9.16 kW
COP Tj = +7°C	7.15	4.96
Cdh Tj = +7 °C	0.990	1.000
Pdh Tj = 12°C	3.50 kW	4.07 kW
COP Tj = 12°C	8.40	6.62
Cdh Tj = +12 °C	0.980	0.990
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
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	65 °C	65 °C
Poff	7 W	7 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	2161 kWh	3425 kWh

Model Thermia Calibra Eco Cool 12 400V BW (with M-cycle)

Model name	Thermia Calibra Eco Cool 12 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 ηDHW	76 %
COP	1.89
Heating up time	01:34 h:min
Standby power input	38.0 W
Reference hot water temperature	49.9 °C
Mixed water at 40°C	215 l

EN 16147 | Colder Climate

Declared load profile	
Efficiency ηDHW	%
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 ηDHW	%
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	5.21 kW	8.42 kW
El input	1.09 kW	2.84 kW
COP	4.78	2.96

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	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
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	6.20 kW	5.69 kW
COP Tj = +2°C	5.81	4.27
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	3.99 kW	3.66 kW
COP Tj = +7°C	6.39	5.06
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	2.77 kW	2.73 kW
COP Tj = 12°C	5.67	4.67
Cdh Tj = +12 °C	0.980	0.990
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
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	65 °C	65 °C
Poff	7 W	7 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	4195 kWh	5134 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	226 %	168 %
Prated	11.52 kW	10.57 kW
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	5.67	4.02
Cdh Tj = -7 °C	0.990	0.990
Pdh Tj = +2°C	4.24 kW	3.89 kW
COP Tj = +2°C	6.38	4.92
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	2.73 kW	2.50 kW
COP Tj = +7°C	5.79	4.88
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	2.78 kW	2.74 kW
COP Tj = 12°C	5.51	4.74
Cdh Tj = +12 °C	0.980	0.980
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
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	65 °C	65 °C
Poff	7 W	7 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	4856 kWh	5928 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	35 dB(A)	35 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature

ηs	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	1.000	1.000
Pdh Tj = +7°C	7.41 kW	6.79 kW
COP Tj = +7°C	5.38	3.81
Cdh Tj = +7 °C	0.990	1.000
Pdh Tj = 12°C	3.29 kW	3.02 kW
COP Tj = 12°C	6.47	5.12
Cdh Tj = +12 °C	0.980	0.990
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
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	65 °C	65 °C
Poff	7 W	7 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	2674 kWh	3290 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	12.24 kW	14.24 kW
El input	2.01 kW	3.84 kW
COP	6.08	3.71

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	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	0.990	1.000
Pdh Tj = +2°C	6.59 kW	7.67 kW
COP Tj = +2°C	7.52	5.56
Cdh Tj = +2 °C	0.990	0.990
Pdh Tj = +7°C	4.24 kW	4.93 kW
COP Tj = +7°C	8.40	6.49
Cdh Tj = +7 °C	0.980	0.990
Pdh Tj = 12°C	3.70 kW	3.65 kW
COP Tj = 12°C	8.22	6.57
Cdh Tj = +12 °C	0.980	0.980
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
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	65 °C	65 °C
Poff	7 W	7 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	3369 kWh	5331 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	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	0.990	1.000
Pdh Tj = +2°C	4.51 kW	5.25 kW

COP Tj = +2°C	8.14	6.31
Cdh Tj = +2 °C	0.980	0.990
Pdh Tj = +7°C	3.71 kW	3.37 kW
COP Tj = +7°C	8.35	7.00
Cdh Tj = +7 °C	0.980	0.980
Pdh Tj = 12°C	3.68 kW	3.66 kW
COP Tj = 12°C	7.96	6.72
Cdh Tj = +12 °C	0.980	0.980
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
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	65 °C	65 °C
Poff	7 W	7 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	3917 kWh	6086 kWh

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	295 %	214 %
Prated	12.24 kW	14.24 kW
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	1.000	1.000
Pdh Tj = +7°C	7.87 kW	9.16 kW
COP Tj = +7°C	7.15	4.96
Cdh Tj = +7 °C	0.990	1.000
Pdh Tj = 12°C	3.50 kW	4.07 kW
COP Tj = 12°C	8.40	6.62
Cdh Tj = +12 °C	0.980	0.990
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
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
WTOL	65 °C	65 °C
Poff	7 W	7 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	2161 kWh	3425 kWh