

Subtype Thermia Calbra 12

Certificate Holder	Thermia
Address	Snickaregatan 1
ZIP	
City	Arvika
Country	SE
Certification Body	RISE CERT
Subtype title	Thermia Calbra 12
Registration number	012-SC0356-19
Heat Pump Type	Brine/Water and Water/Water
Refrigerant	R410A
Mass of Refrigerant	1.4 kg
Certification Date	04.10.2019
Testing basis	EN 14511:2018; EN 14825:2016; EN 12102:2017
Testing laboratory	RISE Research Institutes of Sweden

Model Thermia Calibra 12 400V

Model name	Thermia Calibra 12 400V
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	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 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	5.24 kW	4.78 kW
El input	1.10 kW	1.68 kW
COP	4.75	2.85

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
η_s	219 %	157 %
Prated	11.69 kW	10.60 kW
SCOP	5.68	4.12
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.34 kW	9.38 kW
COP Tj = -7°C	4.77	3.15
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	6.29 kW	5.71 kW
COP Tj = +2°C	5.82	4.20
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	4.05 kW	3.67 kW
COP Tj = +7°C	6.40	4.81
Cdh Tj = +7 °C	0.97	0.98

Pdh Tj = 12°C	2.91 kW	2.91 kW
COP Tj = 12°C	5.97	4.66
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	11.69 kW	10.60 kW
COP Tj = Tbiv	4.39	2.88
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.69 kW	10.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.88
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	18 W	18 W
PSB	18 W	18 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	4249 kWh	5320 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	224 %	163 %
Prated	11.69 kW	10.60 kW
SCOP	5.80	4.29
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.07 kW	6.41 kW
COP Tj = -7°C	5.46	3.99
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	4.31 kW	3.90 kW
COP Tj = +2°C	6.39	4.77
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	2.77 kW	2.92 kW
COP Tj = +7°C	6.32	4.71
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	2.89 kW	2.92 kW
COP Tj = 12°C	5.78	4.74
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	11.69 kW	10.60 kW
COP Tj = Tbiv	4.39	2.88
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.69 kW	10.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.88
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	18 W	18 W

PSB	18 W	18 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	4963 kWh	6094 kWh
Pdh Tj = -15°C (if TOL)	9.53	8.65
COP Tj = -15°C (if TOL)	4.92	3.44
Cdh Tj = -15 °C	0.99	1.00

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	7.06 kW	6.26 kW
El input	1.08 kW	1.71 kW
COP	6.56	3.66

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	290 %	206 %
Prated	10.42 kW	11.60 kW
SCOP	7.45	5.36
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.22 kW	10.26 kW
COP Tj = -7°C	6.60	4.09
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	5.61 kW	6.25 kW
COP Tj = +2°C	7.78	5.49
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	3.88 kW	4.02 kW
COP Tj = +7°C	8.02	6.19
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	3.88 kW	3.74 kW
COP Tj = 12°C	8.04	6.34

Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	10.42 kW	11.60 kW
COP Tj = Tbiv	6.34	3.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.42 kW	11.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.34	3.73
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	18 W	18 W
PSB	18 W	18 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	2890 kWh	4473 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	299 %	214 %
Prated	10.42 kW	11.60 kW
SCOP	7.68	5.56
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	6.31 kW	7.02 kW
COP Tj = -7°C	7.84	5.18
Cdh Tj = -7 °C	0.98	0.99
Pdh Tj = +2°C	3.84 kW	4.27 kW
COP Tj = +2°C	7.93	6.12
Cdh Tj = +2 °C	0.96	0.98
Pdh Tj = +7°C	3.88 kW	3.75 kW
COP Tj = +7°C	8.07	6.35
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	3.89 kW	3.78 kW
COP Tj = 12°C	7.88	6.54
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	10.42 kW	11.60 kW
COP Tj = Tbiv	6.34	3.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.42 kW	11.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.34	3.73
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	18 W	18 W
PSB	18 W	18 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	3346 kWh	5142 kWh
Pdh Tj = -15°C (if TOL)	8.50	9.46
COP Tj = -15°C (if TOL)	7.09	4.46
Cdh Tj = -15 °C	0.99	0.99

Model Thermia Calibra 12 Duo 400V

Model name	Thermia Calibra 12 Duo 400V
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	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 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	5.24 kW	4.78 kW
El input	1.10 kW	1.68 kW
COP	4.75	2.85

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	36 dB(A)	36 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	219 %	157 %
Prated	11.69 kW	10.60 kW
SCOP	5.68	4.12
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.34 kW	9.38 kW
COP Tj = -7°C	4.77	3.15
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	6.29 kW	5.71 kW
COP Tj = +2 °C	5.82	4.20
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	4.05 kW	3.67 kW
COP Tj = +7 °C	6.40	4.81
Cdh Tj = +7 °C	0.97	0.98

Pdh Tj = 12°C	2.91 kW	2.91 kW
COP Tj = 12°C	5.97	4.66
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	11.69 kW	10.60 kW
COP Tj = Tbiv	4.39	2.88
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.69 kW	10.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.88
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	18 W	18 W
PSB	18 W	18 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	4249 kWh	5320 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	224 %	163 %
Prated	11.69 kW	10.60 kW
SCOP	5.80	4.29
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.07 kW	6.41 kW
COP Tj = -7°C	5.46	3.99
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	4.31 kW	3.90 kW
COP Tj = +2°C	6.39	4.77
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	2.77 kW	2.92 kW
COP Tj = +7°C	6.32	4.71
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	2.89 kW	2.92 kW
COP Tj = 12°C	5.78	4.74
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	11.69 kW	10.60 kW
COP Tj = Tbiv	4.39	2.88
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.69 kW	10.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.88
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	18 W	18 W

PSB	18 W	18 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	4963 kWh	6094 kWh
Pdh Tj = -15°C (if TOL)	9.53	8.65
COP Tj = -15°C (if TOL)	4.92	3.44
Cdh Tj = -15 °C	0.99	1.00

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	7.06 kW	6.26 kW
El input	1.08 kW	1.71 kW
COP	6.56	3.66

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	36 dB(A)	36 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	290 %	206 %
Prated	10.42 kW	11.60 kW
SCOP	7.45	5.36
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.22 kW	10.26 kW
COP Tj = -7°C	6.60	4.09
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	5.61 kW	6.25 kW
COP Tj = +2°C	7.78	5.49
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	3.88 kW	4.02 kW
COP Tj = +7°C	8.02	6.19
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	3.88 kW	3.74 kW
COP Tj = 12°C	8.04	6.34

Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	10.42 kW	11.60 kW
COP Tj = Tbiv	6.34	3.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.42 kW	11.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.34	3.73
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	18 W	18 W
PSB	18 W	18 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	2890 kWh	4473 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	299 %	214 %
Prated	10.42 kW	11.60 kW
SCOP	7.68	5.56
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	6.31 kW	7.02 kW
COP Tj = -7°C	7.84	5.18
Cdh Tj = -7 °C	0.98	0.99
Pdh Tj = +2°C	3.84 kW	4.27 kW
COP Tj = +2°C	7.93	6.12
Cdh Tj = +2 °C	0.96	0.98
Pdh Tj = +7°C	3.88 kW	3.75 kW
COP Tj = +7°C	8.07	6.35
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	3.89 kW	3.78 kW
COP Tj = 12°C	7.88	6.54
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	10.42 kW	11.60 kW
COP Tj = Tbiv	6.34	3.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.42 kW	11.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.34	3.73
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	18 W	18 W
PSB	18 W	18 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	3346 kWh	5142 kWh
Pdh Tj = -15°C (if TOL)	8.50	9.46
COP Tj = -15°C (if TOL)	7.09	4.46
Cdh Tj = -15 °C	0.99	0.99

Model Thermia Calibra 12 230V

Model name	Thermia Calibra 12 230V
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Brine/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	5.24 kW	4.78 kW
El input	1.10 kW	1.68 kW
COP	4.75	2.85

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
η_s	219 %	157 %
Prated	11.69 kW	10.60 kW
SCOP	5.68	4.12
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.34 kW	9.38 kW
COP Tj = -7°C	4.77	3.15
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	6.29 kW	5.71 kW
COP Tj = +2°C	5.82	4.20
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	4.05 kW	3.67 kW
COP Tj = +7°C	6.40	4.81
Cdh Tj = +7 °C	0.97	0.98

Pdh Tj = 12°C	2.91 kW	2.91 kW
COP Tj = 12°C	5.97	4.66
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	11.69 kW	10.60 kW
COP Tj = Tbiv	4.39	2.88
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.69 kW	10.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.88
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	18 W	18 W
PSB	18 W	18 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	4249 kWh	5320 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	224 %	163 %
Prated	11.69 kW	10.60 kW
SCOP	5.80	4.29
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.07 kW	6.41 kW
COP Tj = -7°C	5.46	3.99
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	4.31 kW	3.90 kW
COP Tj = +2°C	6.39	4.77
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	2.77 kW	2.92 kW
COP Tj = +7°C	6.32	4.71
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	2.89 kW	2.92 kW
COP Tj = 12°C	5.78	4.74
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	11.69 kW	10.60 kW
COP Tj = Tbiv	4.39	2.88
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.69 kW	10.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.88
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	18 W	18 W

PSB	18 W	18 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	4963 kWh	6094 kWh
Pdh Tj = -15°C (if TOL)	9.53	8.65
COP Tj = -15°C (if TOL)	4.92	3.44
Cdh Tj = -15 °C	0.99	1.00

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	7.06 kW	6.26 kW
El input	1.08 kW	1.71 kW
COP	6.56	3.66

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	290 %	206 %
Prated	10.42 kW	11.60 kW
SCOP	7.45	5.36
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.22 kW	10.26 kW
COP Tj = -7°C	6.60	4.09
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	5.61 kW	6.25 kW
COP Tj = +2°C	7.78	5.49
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	3.88 kW	4.02 kW
COP Tj = +7°C	8.02	6.19
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	3.88 kW	3.74 kW
COP Tj = 12°C	8.04	6.34

Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	10.42 kW	11.60 kW
COP Tj = Tbiv	6.34	3.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.42 kW	11.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.34	3.73
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	18 W	18 W
PSB	18 W	18 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	2890 kWh	4473 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	299 %	214 %
Prated	10.42 kW	11.60 kW
SCOP	7.68	5.56
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	6.31 kW	7.02 kW
COP Tj = -7°C	7.84	5.18
Cdh Tj = -7 °C	0.98	0.99
Pdh Tj = +2°C	3.84 kW	4.27 kW
COP Tj = +2°C	7.93	6.12
Cdh Tj = +2 °C	0.96	0.98
Pdh Tj = +7°C	3.88 kW	3.75 kW
COP Tj = +7°C	8.07	6.35
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	3.89 kW	3.78 kW
COP Tj = 12°C	7.88	6.54
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	10.42 kW	11.60 kW
COP Tj = Tbiv	6.34	3.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.42 kW	11.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.34	3.73
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	18 W	18 W
PSB	18 W	18 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	3346 kWh	5142 kWh
Pdh Tj = -15°C (if TOL)	8.50	9.46
COP Tj = -15°C (if TOL)	7.09	4.46
Cdh Tj = -15 °C	0.99	0.99

Model Thermia Calibra 12 Duo 230V

Model name	Thermia Calibra 12 Duo 230V
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Brine/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	5.24 kW	4.78 kW
El input	1.10 kW	1.68 kW
COP	4.75	2.85

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	36 dB(A)	36 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	219 %	157 %
Prated	11.69 kW	10.60 kW
SCOP	5.68	4.12
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.34 kW	9.38 kW
COP Tj = -7°C	4.77	3.15
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	6.29 kW	5.71 kW
COP Tj = +2 °C	5.82	4.20
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	4.05 kW	3.67 kW
COP Tj = +7 °C	6.40	4.81
Cdh Tj = +7 °C	0.97	0.98

Pdh Tj = 12°C	2.91 kW	2.91 kW
COP Tj = 12°C	5.97	4.66
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	11.69 kW	10.60 kW
COP Tj = Tbiv	4.39	2.88
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.69 kW	10.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.88
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	18 W	18 W
PSB	18 W	18 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	4249 kWh	5320 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	224 %	163 %
Prated	11.69 kW	10.60 kW
SCOP	5.80	4.29
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.07 kW	6.41 kW
COP Tj = -7°C	5.46	3.99
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	4.31 kW	3.90 kW
COP Tj = +2°C	6.39	4.77
Cdh Tj = +2 °C	0.98	0.98
Pdh Tj = +7°C	2.77 kW	2.92 kW
COP Tj = +7°C	6.32	4.71
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	2.89 kW	2.92 kW
COP Tj = 12°C	5.78	4.74
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	11.69 kW	10.60 kW
COP Tj = Tbiv	4.39	2.88
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.69 kW	10.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.88
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	18 W	18 W

PSB	18 W	18 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	4963 kWh	6094 kWh
Pdh Tj = -15°C (if TOL)	9.53	8.65
COP Tj = -15°C (if TOL)	4.92	3.44
Cdh Tj = -15 °C	0.99	1.00

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	7.06 kW	6.26 kW
El input	1.08 kW	1.71 kW
COP	6.56	3.66

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	36 dB(A)	36 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	290 %	206 %
Prated	10.42 kW	11.60 kW
SCOP	7.45	5.36
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.22 kW	10.26 kW
COP Tj = -7°C	6.60	4.09
Cdh Tj = -7 °C	0.99	0.99
Pdh Tj = +2°C	5.61 kW	6.25 kW
COP Tj = +2°C	7.78	5.49
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	3.88 kW	4.02 kW
COP Tj = +7°C	8.02	6.19
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	3.88 kW	3.74 kW
COP Tj = 12°C	8.04	6.34

Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	10.42 kW	11.60 kW
COP Tj = Tbiv	6.34	3.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.42 kW	11.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.34	3.73
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	18 W	18 W
PSB	18 W	18 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	2890 kWh	4473 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	299 %	214 %
Prated	10.42 kW	11.60 kW
SCOP	7.68	5.56
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	6.31 kW	7.02 kW
COP Tj = -7°C	7.84	5.18
Cdh Tj = -7 °C	0.98	0.99
Pdh Tj = +2°C	3.84 kW	4.27 kW
COP Tj = +2°C	7.93	6.12
Cdh Tj = +2 °C	0.96	0.98
Pdh Tj = +7°C	3.88 kW	3.75 kW
COP Tj = +7°C	8.07	6.35
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	3.89 kW	3.78 kW
COP Tj = 12°C	7.88	6.54
Cdh Tj = +12 °C	0.96	0.97
Pdh Tj = Tbiv	10.42 kW	11.60 kW
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Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.42 kW	11.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.34	3.73
WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	18 W	18 W
PSB	18 W	18 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	3346 kWh	5142 kWh
Pdh Tj = -15°C (if TOL)	8.50	9.46
COP Tj = -15°C (if TOL)	7.09	4.46
Cdh Tj = -15 °C	0.99	0.99

Model Thermia Calibra 12 400V (White)

Model name	Thermia Calibra 12 400V (White)
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	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 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	5.24 kW	4.78 kW
El input	1.10 kW	1.68 kW
COP	4.75	2.85

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
η_s	219 %	157 %
Prated	11.69 kW	10.60 kW
SCOP	5.68	4.12
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.34 kW	9.38 kW
COP Tj = -7°C	4.77	3.15
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Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	4.05 kW	3.67 kW
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Pdh Tj = Tbiv	11.69 kW	10.60 kW
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Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.69 kW	10.60 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.39	2.88
WTOL	65 °C	65 °C
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Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
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WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	18 W	18 W

PSB	18 W	18 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	4963 kWh	6094 kWh
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Pdh Tj = +2°C	5.61 kW	6.25 kW
COP Tj = +2°C	7.78	5.49
Cdh Tj = +2 °C	0.98	0.99
Pdh Tj = +7°C	3.88 kW	4.02 kW
COP Tj = +7°C	8.02	6.19
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	3.88 kW	3.74 kW
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COP Tj = Tbiv	6.34	3.73
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WTOL	65 °C	65 °C
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PSB	18 W	18 W
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Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
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Pdh Tj = +2°C	3.84 kW	4.27 kW
COP Tj = +2°C	7.93	6.12
Cdh Tj = +2 °C	0.96	0.98
Pdh Tj = +7°C	3.88 kW	3.75 kW
COP Tj = +7°C	8.07	6.35
Cdh Tj = +7 °C	0.96	0.97
Pdh Tj = 12°C	3.89 kW	3.78 kW
COP Tj = 12°C	7.88	6.54
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Pdh Tj = Tbiv	10.42 kW	11.60 kW
COP Tj = Tbiv	6.34	3.73
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.42 kW	11.60 kW
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WTOL	65 °C	65 °C
Poff	15 W	15 W
PTO	18 W	18 W
PSB	18 W	18 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	3346 kWh	5142 kWh
Pdh Tj = -15°C (if TOL)	8.50	9.46
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