

Subtype Thermia Calibra 12

Certificate Holder	Thermia
Address	Snickaregatan 1
ZIP	
City	Arvika
Country	SE
Certification Body	RISE CERT
Subtype title	Thermia Calibra 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

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 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
η_s	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 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	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 Q _{he}	2890 kWh	4473 kWh
EN 14825 Colder Climate		
	Low temperature	Medium temperature
η_s	299 %	214 %
Prated	10.42 kW	11.60 kW
SCOP	7.68	5.56
T _{biv}	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	6.31 kW	7.02 kW
COP T _j = -7°C	7.84	5.18
C _{dh} T _j = -7 °C	0.98	0.99
P _{dh} T _j = +2°C	3.84 kW	4.27 kW
COP T _j = +2°C	7.93	6.12
C _{dh} T _j = +2 °C	0.96	0.98
P _{dh} T _j = +7°C	3.88 kW	3.75 kW
COP T _j = +7°C	8.07	6.35
C _{dh} T _j = +7 °C	0.96	0.97
P _{dh} T _j = 12°C	3.89 kW	3.78 kW
COP T _j = 12°C	7.88	6.54
C _{dh} T _j = +12 °C	0.96	0.97
P _{dh} T _j = T _{biv}	10.42 kW	11.60 kW
COP T _j = T _{biv}	6.34	3.73
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	10.42 kW	11.60 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	6.34	3.73
WTOL	65 °C	65 °C
P _{off}	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 Q _{he}	3346 kWh	5142 kWh
P _{dh} T _j = -15°C (if TOL	8.50	9.46
COP T _j = -15°C (if TOL	7.09	4.46
C _{dh} T _j = -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 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
η_s	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 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	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 Q _{he}	2890 kWh	4473 kWh
EN 14825 Colder Climate		
	Low temperature	Medium temperature
η_s	299 %	214 %
Prated	10.42 kW	11.60 kW
SCOP	7.68	5.56
T _{biv}	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	6.31 kW	7.02 kW
COP T _j = -7°C	7.84	5.18
C _{dh} T _j = -7 °C	0.98	0.99
P _{dh} T _j = +2°C	3.84 kW	4.27 kW
COP T _j = +2°C	7.93	6.12
C _{dh} T _j = +2 °C	0.96	0.98
P _{dh} T _j = +7°C	3.88 kW	3.75 kW
COP T _j = +7°C	8.07	6.35
C _{dh} T _j = +7 °C	0.96	0.97
P _{dh} T _j = 12°C	3.89 kW	3.78 kW
COP T _j = 12°C	7.88	6.54
C _{dh} T _j = +12 °C	0.96	0.97
P _{dh} T _j = T _{biv}	10.42 kW	11.60 kW
COP T _j = T _{biv}	6.34	3.73
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	10.42 kW	11.60 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	6.34	3.73
WTOL	65 °C	65 °C
P _{off}	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 Q _{he}	3346 kWh	5142 kWh
P _{dh} T _j = -15°C (if TOL	8.50	9.46
COP T _j = -15°C (if TOL	7.09	4.46
C _{dh} T _j = -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 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
η_s	224 %	163 %
Prated	11.69 kW	10.60 kW
SCOP	5.80	4.29
Tbiv	-22 °C	-22 °C
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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
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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

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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 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	290 %	206 %
Prated	10.42 kW	11.60 kW
SCOP	7.45	5.36
Tbiv	-10 °C	-10 °C
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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
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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 Q _{he}	2890 kWh	4473 kWh
EN 14825 Colder Climate		
	Low temperature	Medium temperature
η_s	299 %	214 %
Prated	10.42 kW	11.60 kW
SCOP	7.68	5.56
T _{biv}	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	6.31 kW	7.02 kW
COP T _j = -7°C	7.84	5.18
C _{dh} T _j = -7 °C	0.98	0.99
P _{dh} T _j = +2°C	3.84 kW	4.27 kW
COP T _j = +2°C	7.93	6.12
C _{dh} T _j = +2 °C	0.96	0.98
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COP T _j = 12°C	7.88	6.54
C _{dh} T _j = +12 °C	0.96	0.97
P _{dh} T _j = T _{biv}	10.42 kW	11.60 kW
COP T _j = T _{biv}	6.34	3.73
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	10.42 kW	11.60 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	6.34	3.73
WTOL	65 °C	65 °C
P _{off}	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 Q _{he}	3346 kWh	5142 kWh
P _{dh} T _j = -15°C (if TOL	8.50	9.46
COP T _j = -15°C (if TOL	7.09	4.46
C _{dh} T _j = -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 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
η_s	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 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	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 Q _{he}	2890 kWh	4473 kWh
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EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	299 %	214 %
Prated	10.42 kW	11.60 kW
SCOP	7.68	5.56
T _{biv}	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P _{dh} T _j = -7°C	6.31 kW	7.02 kW
COP T _j = -7°C	7.84	5.18
C _{dh} T _j = -7 °C	0.98	0.99
P _{dh} T _j = +2°C	3.84 kW	4.27 kW
COP T _j = +2°C	7.93	6.12
C _{dh} T _j = +2 °C	0.96	0.98
P _{dh} T _j = +7°C	3.88 kW	3.75 kW
COP T _j = +7°C	8.07	6.35
C _{dh} T _j = +7 °C	0.96	0.97
P _{dh} T _j = 12°C	3.89 kW	3.78 kW
COP T _j = 12°C	7.88	6.54
C _{dh} T _j = +12 °C	0.96	0.97
P _{dh} T _j = T _{biv}	10.42 kW	11.60 kW
COP T _j = T _{biv}	6.34	3.73
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	10.42 kW	11.60 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	6.34	3.73
WTOL	65 °C	65 °C
P _{off}	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 Q _{he}	3346 kWh	5142 kWh
P _{dh} T _j = -15°C (if TOL	8.50	9.46
COP T _j = -15°C (if TOL	7.09	4.46
C _{dh} T _j = -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 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
η_s	224 %	163 %
Prated	11.69 kW	10.60 kW
SCOP	5.80	4.29
Tbiv	-22 °C	-22 °C
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Pdh Tj = +7°C	2.77 kW	2.92 kW
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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 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	290 %	206 %
Prated	10.42 kW	11.60 kW
SCOP	7.45	5.36
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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
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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
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 Q _{he}	2890 kWh	4473 kWh
EN 14825 Colder Climate		
	Low temperature	Medium temperature
η_s	299 %	214 %
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C _{dh} T _j = -7 °C	0.98	0.99
P _{dh} T _j = +2°C	3.84 kW	4.27 kW
COP T _j = +2°C	7.93	6.12
C _{dh} T _j = +2 °C	0.96	0.98
P _{dh} T _j = +7°C	3.88 kW	3.75 kW
COP T _j = +7°C	8.07	6.35
C _{dh} T _j = +7 °C	0.96	0.97
P _{dh} T _j = 12°C	3.89 kW	3.78 kW
COP T _j = 12°C	7.88	6.54
C _{dh} T _j = +12 °C	0.96	0.97
P _{dh} T _j = T _{biv}	10.42 kW	11.60 kW
COP T _j = T _{biv}	6.34	3.73
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	10.42 kW	11.60 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	6.34	3.73
WTOL	65 °C	65 °C
P _{off}	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 Q _{he}	3346 kWh	5142 kWh
P _{dh} T _j = -15°C (if TOL	8.50	9.46
COP T _j = -15°C (if TOL	7.09	4.46
C _{dh} T _j = -15 °C	0.99	0.99