Login

Summary of	Mega S	Reg. No.	012-SC0836-18
Certificate Holder			
Name	Thermia		
Address	Snickaregatan 1	Zip	
City	Arvika	Country	Sweden
Certification Body	RISE CERT		
Subtype title	Mega S		
Heat Pump Type	Brine/Water and Water/Water		
Refrigerant	R410A		
Mass of Refrigerant	3.9 kg		
Certification Date	10.04.2019		

Model: Thermia Mega S 2020

Configure model	
Model name	Thermia Mega S 2020
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	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	20.18 kW	18.93 kW
El input	4.26 kW	6.42 kW
COP	4.73	2.95

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	214 %	159 %
Prated	33.28 kW	31.13 kW
SCOP	5.55	4.18
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	29.44 kW	27.54 kW
COP Tj = -7°C	4.63	3.14
Pdh Tj = +2°C	17.92 kW	16.76 kW
COP Tj = +2°C	5.57	4.21
Pdh Tj = +7°C	11.52 kW	10.78 kW
COP Tj = +7°C	6.11	4.83
Pdh Tj = 12°C	12.52 kW	12.16 kW
COP Tj = 12°C	6.05	5.00
Pdh Tj = Tbiv	33.28 kW	31.13 kW
COP Tj = Tbiv	4.26	2.86

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	33.28 kW	31.13 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.26	2.86
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	12 W	12 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	12358 kWh	15305 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	214 %	160 %
Prated	33.28 kW	31.13 kW

SCOP	5.54	4.19
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	33.28 kW	31.13 kW
COP Tj = +2°C	4.26	2.86
Pdh Tj = +7°C	21.39 kW	20.01 kW
COP Tj = +7°C	5.30	3.78
Pdh Tj = 12°C	12.51 kW	12.08 kW
COP Tj = 12°C	6.06	4.85
Pdh Tj = Tbiv	33.28 kW	31.13 kW
COP Tj = Tbiv	4.26	2.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	33.28 kW	31.13 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.26	2.86
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	12 W	12 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	7963 kWh	9906 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	221 %	165 %
Prated	33.28 kW	31.13 kW
SCOP	5.72	4.33
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	20.14 kW	18.84 kW
COP Tj = -7°C	5.49	3.99
Pdh Tj = +2°C	12.26 kW	11.47 kW
COP Tj = +2°C	6.11	4.73
Pdh Tj = +7°C	12.53 kW	12.14 kW
COP Tj = +7°C	6.10	4.98
Pdh Tj = 12°C	12.49 kW	12.22 kW

COP Tj = 12°C	5.91	5.12
Pdh Tj = Tbiv	33.28 kW	31.13 kW
COP Tj = Tbiv	4.26	2.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	33.28 kW	31.13 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.26	2.86
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	12 W	12 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	14325 kWh	17698 kWh

Water/Water Heat Pump

Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	24.52 kW	34.95 kW
El input	3.79 kW	9.26 kW
COP	6.47	3.77

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	298 %	214 %
Prated	24.52 kW	34.95 kW

SCOP	7.66	5.54
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	21.69 kW	30.92 kW
COP Tj = -7°C	6.85	4.12
Pdh Tj = +2°C	15.84 kW	18.82 kW
COP Tj = +2°C	7.75	5.61
Pdh Tj = +7°C	15.99 kW	15.99 kW
COP Tj = +7°C	8.11	6.32
Pdh Tj = 12°C	16.15 kW	16.19 kW
COP Tj = 12°C	8.50	6.81
Pdh Tj = Tbiv	24.52 kW	34.95 kW
COP Tj = Tbiv	6.47	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.52 kW	34.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.47	3.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	12 W	12 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W

Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6614 kWh	13029 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	302 %	213 %
Prated	24.52 kW	34.95 kW
SCOP	7.76	5.52
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	24.52 kW	34.95 kW
COP Tj = +2°C	6.47	3.77
Pdh Tj = +7°C	15.76 kW	22.47 kW
COP Tj = +7°C	7.72	4.98
Pdh Tj = 12°C	16.05 kW	16.06 kW

COP Tj = 12°C	8.25	6.49
Pdh Tj = Tbiv	24.52 kW	34.95 kW
COP Tj = Tbiv	6.47	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.52 kW	34.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.47	3.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	12 W	12 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4223 kWh	8453 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825

	Low temperature	**Medium temperature**
η_s	310 %	222 %
Prated	24.52 kW	34.95 kW
SCOP	7.94	5.74
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	15.93 kW	21.16 kW
COP Tj = -7°C	7.95	5.31
Pdh Tj = +2°C	16.01 kW	15.95 kW
COP Tj = +2°C	8.15	6.22
Pdh Tj = +7°C	16.11 kW	16.15 kW
COP Tj = +7°C	8.41	6.70
Pdh Tj = 12°C	16.11 kW	16.27 kW
COP Tj = 12°C	8.41	7.04
Pdh Tj = Tbiv	24.52 kW	34.95 kW
COP Tj = Tbiv	6.47	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.52 kW	34.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.47	3.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	12 W	12 W

PTO	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	7613 kWh	15016 kWh

Model: Thermia Mega S

Configure model	
Model name	Thermia Mega S
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	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	20.18 kW	18.93 kW
El input	4.26 kW	6.42 kW
COP	4.73	2.95

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	214 %	159 %
Prated	33.28 kW	31.13 kW
SCOP	5.55	4.18
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	29.44 kW	27.54 kW
COP Tj = -7°C	4.63	3.14
Pdh Tj = +2°C	17.92 kW	16.76 kW
COP Tj = +2°C	5.57	4.21
Pdh Tj = +7°C	11.52 kW	10.78 kW
COP Tj = +7°C	6.11	4.83
Pdh Tj = 12°C	12.52 kW	12.16 kW
COP Tj = 12°C	6.05	5.00
Pdh Tj = Tbiv	33.28 kW	31.13 kW
COP Tj = Tbiv	4.26	2.86

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	33.28 kW	31.13 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.26	2.86
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	12 W	12 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	12358 kWh	15305 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	214 %	160 %
Prated	33.28 kW	31.13 kW

SCOP	5.54	4.19
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	33.28 kW	31.13 kW
COP Tj = +2°C	4.26	2.86
Pdh Tj = +7°C	21.39 kW	20.01 kW
COP Tj = +7°C	5.30	3.78
Pdh Tj = 12°C	12.51 kW	12.08 kW
COP Tj = 12°C	6.06	4.85
Pdh Tj = Tbiv	33.28 kW	31.13 kW
COP Tj = Tbiv	4.26	2.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	33.28 kW	31.13 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.26	2.86
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	12 W	12 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	7963 kWh	9906 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	221 %	165 %
Prated	33.28 kW	31.13 kW
SCOP	5.72	4.33
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	20.14 kW	18.84 kW
COP Tj = -7°C	5.49	3.99
Pdh Tj = +2°C	12.26 kW	11.47 kW
COP Tj = +2°C	6.11	4.73
Pdh Tj = +7°C	12.53 kW	12.14 kW
COP Tj = +7°C	6.10	4.98
Pdh Tj = 12°C	12.49 kW	12.22 kW

COP Tj = 12°C	5.91	5.12
Pdh Tj = Tbiv	33.28 kW	31.13 kW
COP Tj = Tbiv	4.26	2.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	33.28 kW	31.13 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.26	2.86
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	12 W	12 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	14325 kWh	17698 kWh

Water/Water Heat Pump

Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	24.52 kW	34.95 kW
El input	3.79 kW	9.26 kW
COP	6.47	3.77

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	298 %	214 %
Prated	24.52 kW	34.95 kW

SCOP	7.66	5.54
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	21.69 kW	30.92 kW
COP Tj = -7°C	6.85	4.12
Pdh Tj = +2°C	15.84 kW	18.82 kW
COP Tj = +2°C	7.75	5.61
Pdh Tj = +7°C	15.99 kW	15.99 kW
COP Tj = +7°C	8.11	6.32
Pdh Tj = 12°C	16.15 kW	16.19 kW
COP Tj = 12°C	8.50	6.81
Pdh Tj = Tbiv	24.52 kW	34.95 kW
COP Tj = Tbiv	6.47	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.52 kW	34.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.47	3.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	12 W	12 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W

Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6614 kWh	13029 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	302 %	213 %
Prated	24.52 kW	34.95 kW
SCOP	7.76	5.52
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	24.52 kW	34.95 kW
COP Tj = +2°C	6.47	3.77
Pdh Tj = +7°C	15.76 kW	22.47 kW
COP Tj = +7°C	7.72	4.98
Pdh Tj = 12°C	16.05 kW	16.06 kW

COP Tj = 12°C	8.25	6.49
Pdh Tj = Tbiv	24.52 kW	34.95 kW
COP Tj = Tbiv	6.47	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.52 kW	34.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.47	3.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	12 W	12 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4223 kWh	8453 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825

	Low temperature	**Medium temperature**
η_s	310 %	222 %
Prated	24.52 kW	34.95 kW
SCOP	7.94	5.74
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	15.93 kW	21.16 kW
COP Tj = -7°C	7.95	5.31
Pdh Tj = +2°C	16.01 kW	15.95 kW
COP Tj = +2°C	8.15	6.22
Pdh Tj = +7°C	16.11 kW	16.15 kW
COP Tj = +7°C	8.41	6.70
Pdh Tj = 12°C	16.11 kW	16.27 kW
COP Tj = 12°C	8.41	7.04
Pdh Tj = Tbiv	24.52 kW	34.95 kW
COP Tj = Tbiv	6.47	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.52 kW	34.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.47	3.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	12 W	12 W

PTO	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	7613 kWh	15016 kWh

Model: Thermia Mega S 230

Configure model	
Model name	Thermia Mega S 230
Application	Heating (medium temp)
Units	Indoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x230V 50Hz

Brine/Water Heat Pump

Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	20.18 kW	18.93 kW
El input	4.26 kW	6.42 kW
COP	4.73	2.95

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	214 %	159 %
Prated	33.28 kW	31.13 kW
SCOP	5.55	4.18
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	29.44 kW	27.54 kW
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Pdh Tj = +2°C	17.92 kW	16.76 kW
COP Tj = +2°C	5.57	4.21
Pdh Tj = +7°C	11.52 kW	10.78 kW
COP Tj = +7°C	6.11	4.83
Pdh Tj = 12°C	12.52 kW	12.16 kW
COP Tj = 12°C	6.05	5.00
Pdh Tj = Tbiv	33.28 kW	31.13 kW
COP Tj = Tbiv	4.26	2.86

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	33.28 kW	31.13 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.26	2.86
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	12 W	12 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	12358 kWh	15305 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	214 %	160 %
Prated	33.28 kW	31.13 kW

SCOP	5.54	4.19
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	33.28 kW	31.13 kW
COP Tj = +2°C	4.26	2.86
Pdh Tj = +7°C	21.39 kW	20.01 kW
COP Tj = +7°C	5.30	3.78
Pdh Tj = 12°C	12.51 kW	12.08 kW
COP Tj = 12°C	6.06	4.85
Pdh Tj = Tbiv	33.28 kW	31.13 kW
COP Tj = Tbiv	4.26	2.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	33.28 kW	31.13 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.26	2.86
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	12 W	12 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	7963 kWh	9906 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	221 %	165 %
Prated	33.28 kW	31.13 kW
SCOP	5.72	4.33
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	20.14 kW	18.84 kW
COP Tj = -7°C	5.49	3.99
Pdh Tj = +2°C	12.26 kW	11.47 kW
COP Tj = +2°C	6.11	4.73
Pdh Tj = +7°C	12.53 kW	12.14 kW
COP Tj = +7°C	6.10	4.98
Pdh Tj = 12°C	12.49 kW	12.22 kW

COP Tj = 12°C	5.91	5.12
Pdh Tj = Tbiv	33.28 kW	31.13 kW
COP Tj = Tbiv	4.26	2.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	33.28 kW	31.13 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.26	2.86
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	12 W	12 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	14325 kWh	17698 kWh

Water/Water Heat Pump

Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	24.52 kW	34.95 kW
El input	3.79 kW	9.26 kW
COP	6.47	3.77

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	298 %	214 %
Prated	24.52 kW	34.95 kW

SCOP	7.66	5.54
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	21.69 kW	30.92 kW
COP Tj = -7°C	6.85	4.12
Pdh Tj = +2°C	15.84 kW	18.82 kW
COP Tj = +2°C	7.75	5.61
Pdh Tj = +7°C	15.99 kW	15.99 kW
COP Tj = +7°C	8.11	6.32
Pdh Tj = 12°C	16.15 kW	16.19 kW
COP Tj = 12°C	8.50	6.81
Pdh Tj = Tbiv	24.52 kW	34.95 kW
COP Tj = Tbiv	6.47	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.52 kW	34.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.47	3.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	12 W	12 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W

Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6614 kWh	13029 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	302 %	213 %
Prated	24.52 kW	34.95 kW
SCOP	7.76	5.52
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	24.52 kW	34.95 kW
COP Tj = +2°C	6.47	3.77
Pdh Tj = +7°C	15.76 kW	22.47 kW
COP Tj = +7°C	7.72	4.98
Pdh Tj = 12°C	16.05 kW	16.06 kW

COP Tj = 12°C	8.25	6.49
Pdh Tj = Tbiv	24.52 kW	34.95 kW
COP Tj = Tbiv	6.47	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.52 kW	34.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.47	3.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	12 W	12 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4223 kWh	8453 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825

	Low temperature	**Medium temperature**
η_s	310 %	222 %
Prated	24.52 kW	34.95 kW
SCOP	7.94	5.74
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	15.93 kW	21.16 kW
COP Tj = -7°C	7.95	5.31
Pdh Tj = +2°C	16.01 kW	15.95 kW
COP Tj = +2°C	8.15	6.22
Pdh Tj = +7°C	16.11 kW	16.15 kW
COP Tj = +7°C	8.41	6.70
Pdh Tj = 12°C	16.11 kW	16.27 kW
COP Tj = 12°C	8.41	7.04
Pdh Tj = Tbiv	24.52 kW	34.95 kW
COP Tj = Tbiv	6.47	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.52 kW	34.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.47	3.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	12 W	12 W

PTO	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	7613 kWh	15016 kWh

Model: Thermia Mega S 3-230 2020

Configure model	
Model name	Thermia Mega S 3-230 2020
Application	Heating (medium temp)
Units	Indoor
Climate Zone	Colder Climate + Warmer Climate
Reversibility	No
Cooling mode application (optional)	n/a

General Data	
Power supply	3x230V 50Hz

Brine/Water Heat Pump

Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	20.18 kW	18.93 kW
El input	4.26 kW	6.42 kW
COP	4.73	2.95

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	214 %	159 %
Prated	33.28 kW	31.13 kW
SCOP	5.55	4.18
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	29.44 kW	27.54 kW
COP Tj = -7°C	4.63	3.14
Pdh Tj = +2°C	17.92 kW	16.76 kW
COP Tj = +2°C	5.57	4.21
Pdh Tj = +7°C	11.52 kW	10.78 kW
COP Tj = +7°C	6.11	4.83
Pdh Tj = 12°C	12.52 kW	12.16 kW
COP Tj = 12°C	6.05	5.00
Pdh Tj = Tbiv	33.28 kW	31.13 kW
COP Tj = Tbiv	4.26	2.86

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	33.28 kW	31.13 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.26	2.86
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	12 W	12 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	12358 kWh	15305 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	214 %	160 %
Prated	33.28 kW	31.13 kW

SCOP	5.54	4.19
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	33.28 kW	31.13 kW
COP Tj = +2°C	4.26	2.86
Pdh Tj = +7°C	21.39 kW	20.01 kW
COP Tj = +7°C	5.30	3.78
Pdh Tj = 12°C	12.51 kW	12.08 kW
COP Tj = 12°C	6.06	4.85
Pdh Tj = Tbiv	33.28 kW	31.13 kW
COP Tj = Tbiv	4.26	2.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	33.28 kW	31.13 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.26	2.86
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	12 W	12 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	7963 kWh	9906 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	221 %	165 %
Prated	33.28 kW	31.13 kW
SCOP	5.72	4.33
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	20.14 kW	18.84 kW
COP Tj = -7°C	5.49	3.99
Pdh Tj = +2°C	12.26 kW	11.47 kW
COP Tj = +2°C	6.11	4.73
Pdh Tj = +7°C	12.53 kW	12.14 kW
COP Tj = +7°C	6.10	4.98
Pdh Tj = 12°C	12.49 kW	12.22 kW

COP Tj = 12°C	5.91	5.12
Pdh Tj = Tbiv	33.28 kW	31.13 kW
COP Tj = Tbiv	4.26	2.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	33.28 kW	31.13 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.26	2.86
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	12 W	12 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	14325 kWh	17698 kWh

Water/Water Heat Pump

Heating

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

EN 14511-2		
	Low temperature	**Medium temperature**
Heat output	24.52 kW	34.95 kW
El input	3.79 kW	9.26 kW
COP	6.47	3.77

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	298 %	214 %
Prated	24.52 kW	34.95 kW

SCOP	7.66	5.54
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	21.69 kW	30.92 kW
COP Tj = -7°C	6.85	4.12
Pdh Tj = +2°C	15.84 kW	18.82 kW
COP Tj = +2°C	7.75	5.61
Pdh Tj = +7°C	15.99 kW	15.99 kW
COP Tj = +7°C	8.11	6.32
Pdh Tj = 12°C	16.15 kW	16.19 kW
COP Tj = 12°C	8.50	6.81
Pdh Tj = Tbiv	24.52 kW	34.95 kW
COP Tj = Tbiv	6.47	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.52 kW	34.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.47	3.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	12 W	12 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W

Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6614 kWh	13029 kWh

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	302 %	213 %
Prated	24.52 kW	34.95 kW
SCOP	7.76	5.52
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	24.52 kW	34.95 kW
COP Tj = +2°C	6.47	3.77
Pdh Tj = +7°C	15.76 kW	22.47 kW
COP Tj = +7°C	7.72	4.98
Pdh Tj = 12°C	16.05 kW	16.06 kW

COP Tj = 12°C	8.25	6.49
Pdh Tj = Tbiv	24.52 kW	34.95 kW
COP Tj = Tbiv	6.47	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.52 kW	34.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.47	3.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	12 W	12 W
PTO	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4223 kWh	8453 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825

	Low temperature	**Medium temperature**
η_s	310 %	222 %
Prated	24.52 kW	34.95 kW
SCOP	7.94	5.74
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	15.93 kW	21.16 kW
COP Tj = -7°C	7.95	5.31
Pdh Tj = +2°C	16.01 kW	15.95 kW
COP Tj = +2°C	8.15	6.22
Pdh Tj = +7°C	16.11 kW	16.15 kW
COP Tj = +7°C	8.41	6.70
Pdh Tj = 12°C	16.11 kW	16.27 kW
COP Tj = 12°C	8.41	7.04
Pdh Tj = Tbiv	24.52 kW	34.95 kW
COP Tj = Tbiv	6.47	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.52 kW	34.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.47	3.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	12 W	12 W

PTO	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	7613 kWh	15016 kWh