Login

Summary of	Mega M	Reg. No.	012-SC0835-18
Certificate Holder			
Name	Thermia		
Address	Snickaregatan 1	Zip	
City	Arvika	Country	Sweden
Certification Body	RISE CERT		
Subtype title	Mega M		
Heat Pump Type	Brine/Water and Water/Water		
Refrigerant	R410A		
Mass of Refrigerant	4.4 kg		
Certification Date	10.04.2019		

Model: Thermia Mega M 2020

Configure model	
Model name	Thermia Mega M 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	26.71 kW	22.39 kW
El input	5.81 kW	7.52 kW
COP	4.60	2.98

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	48 dB(A)	50 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	220 %	167 %
Prated	38.06 kW	35.62 kW
SCOP	5.70	4.38
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	38.06 kW	35.62 kW
COP Tj = +2°C	4.29	2.95
Pdh Tj = +7°C	24.47 kW	22.90 kW
COP Tj = +7°C	5.35	3.89
Pdh Tj = 12°C	12.71 kW	12.48 kW
COP Tj = 12°C	6.31	5.17
Pdh Tj = Tbiv	38.06 kW	35.62 kW
COP Tj = Tbiv	4.29	2.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	38.06 kW	35.62 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.29	2.95

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	0.99
WTOL	65 °C	65 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 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	8920 kWh	10862 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	48 dB(A)	50 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	226 %	174 %
Prated	38.06 kW	35.62 kW
SCOP	5.86	4.55
Tbiv	-22 °C	-22 °C

TOL	-22 °C	-22 °C
Pdh Tj = -7°C	23.04 kW	21.56 kW
COP Tj = -7°C	5.57	4.12
Pdh Tj = +2°C	14.02 kW	13.12 kW
COP Tj = +2°C	6.27	5.02
Pdh Tj = +7°C	12.71 kW	12.56 kW
COP Tj = +7°C	6.35	5.32
Pdh Tj = 12°C	12.70 kW	12.65 kW
COP Tj = 12°C	6.19	5.49
Pdh Tj = Tbiv	38.06 kW	35.62 kW
COP Tj = Tbiv	4.29	2.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	38.06 kW	35.62 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.29	2.95
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	0.99
WTOL	65 °C	65 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 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	16014 kWh	19290 kWh

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	48 dB(A)	50 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	218 %	168 %
Prated	38.06 kW	35.62 kW
SCOP	5.65	4.39
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	33.67 kW	31.51 kW
COP Tj = -7°C	4.56	3.21
Pdh Tj = +2°C	20.49 kW	19.18 kW
COP Tj = +2°C	5.68	4.39
Pdh Tj = +7°C	13.18 kW	12.33 kW
COP Tj = +7°C	6.28	5.16
Pdh Tj = 12°C	12.70 kW	12.57 kW

COP Tj = 12°C	6.31	5.34
Pdh Tj = Tbiv	38.06 kW	35.62 kW
COP Tj = Tbiv	4.29	2.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	38.06 kW	35.62 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.29	2.95
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	0.99
WTOL	65 °C	65 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 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	13917 kWh	16768 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	30.84 kW	42.37 kW
El input	4.88 kW	11.23 kW
COP	6.31	3.77

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	48 dB(A)	50 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	307 %	220 %
Prated	30.84 kW	42.37 kW

SCOP	7.87	5.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	30.84 kW	42.37 kW
COP Tj = +2°C	6.32	3.77
Pdh Tj = +7°C	19.83 kW	27.24 kW
COP Tj = +7°C	7.73	5.08
Pdh Tj = 12°C	16.43 kW	16.23 kW
COP Tj = 12°C	8.44	6.76
Pdh Tj = Tbiv	30.84 kW	42.37 kW
COP Tj = Tbiv	6.32	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	30.84 kW	42.37 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.32	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	5238 kWh	9936 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	48 dB(A)	50 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	315 %	230 %
Prated	30.84 kW	42.37 kW
SCOP	8.07	5.94
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	18.67 kW	25.65 kW
COP Tj = -7°C	7.98	5.40
Cdh Tj = -7 °C	0.99	1.00
Pdh Tj = +2°C	16.42 kW	15.61 kW
COP Tj = +2°C	8.39	6.56
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	16.45 kW	16.33 kW

COP Tj = +7°C	8.57	6.96
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	16.44 kW	16.45 kW
COP Tj = 12°C	8.51	7.22
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	30.84 kW	42.37 kW
COP Tj = Tbiv	6.32	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	30.84 kW	42.37 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.32	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	9416 kWh	17581 kWh
Pdh Tj = -15°C (if TOL<-20°C)	25.16	34.57
COP Tj = -15°C (if TOL<-20°C)	7.15	4.59
Cdh Tj = -15 °C	1.00	1.00

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	48 dB(A)	50 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	306 %	221 %
Prated	30.84 kW	42.37 kW
SCOP	7.86	5.72
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	27.28 kW	37.48 kW
COP Tj = -7°C	6.72	4.10
Pdh Tj = +2°C	16.61 kW	22.82 kW
COP Tj = +2°C	8.06	5.73
Pdh Tj = +7°C	16.41 kW	14.67 kW
COP Tj = +7°C	8.34	6.82
Pdh Tj = 12°C	16.46 kW	16.36 kW
COP Tj = 12°C	8.62	7.01
Pdh Tj = Tbiv	30.84 kW	42.37 kW

COP Tj = Tbiv	6.32	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	30.84 kW	42.37 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.32	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	8104 kWh	15309 kWh

Model: Thermia Mega M

Configure model	
Model name	Thermia Mega M
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	26.71 kW	22.39 kW
El input	5.81 kW	7.52 kW
COP	4.60	2.98

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	48 dB(A)	50 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	220 %	167 %
Prated	38.06 kW	35.62 kW
SCOP	5.70	4.38
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	38.06 kW	35.62 kW
COP Tj = +2°C	4.29	2.95
Pdh Tj = +7°C	24.47 kW	22.90 kW
COP Tj = +7°C	5.35	3.89
Pdh Tj = 12°C	12.71 kW	12.48 kW
COP Tj = 12°C	6.31	5.17
Pdh Tj = Tbiv	38.06 kW	35.62 kW
COP Tj = Tbiv	4.29	2.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	38.06 kW	35.62 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.29	2.95

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	0.99
WTOL	65 °C	65 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 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	8920 kWh	10862 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	48 dB(A)	50 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	226 %	174 %
Prated	38.06 kW	35.62 kW
SCOP	5.86	4.55
Tbiv	-22 °C	-22 °C

TOL	-22 °C	-22 °C
Pdh Tj = -7°C	23.04 kW	21.56 kW
COP Tj = -7°C	5.57	4.12
Pdh Tj = +2°C	14.02 kW	13.12 kW
COP Tj = +2°C	6.27	5.02
Pdh Tj = +7°C	12.71 kW	12.56 kW
COP Tj = +7°C	6.35	5.32
Pdh Tj = 12°C	12.70 kW	12.65 kW
COP Tj = 12°C	6.19	5.49
Pdh Tj = Tbiv	38.06 kW	35.62 kW
COP Tj = Tbiv	4.29	2.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	38.06 kW	35.62 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.29	2.95
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	0.99
WTOL	65 °C	65 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 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	16014 kWh	19290 kWh

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	48 dB(A)	50 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	218 %	168 %
Prated	38.06 kW	35.62 kW
SCOP	5.65	4.39
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	33.67 kW	31.51 kW
COP Tj = -7°C	4.56	3.21
Pdh Tj = +2°C	20.49 kW	19.18 kW
COP Tj = +2°C	5.68	4.39
Pdh Tj = +7°C	13.18 kW	12.33 kW
COP Tj = +7°C	6.28	5.16
Pdh Tj = 12°C	12.70 kW	12.57 kW

COP Tj = 12°C	6.31	5.34
Pdh Tj = Tbiv	38.06 kW	35.62 kW
COP Tj = Tbiv	4.29	2.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	38.06 kW	35.62 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.29	2.95
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	0.99
WTOL	65 °C	65 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 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	13917 kWh	16768 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	30.84 kW	42.37 kW
El input	4.88 kW	11.23 kW
COP	6.31	3.77

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	48 dB(A)	50 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	307 %	220 %
Prated	30.84 kW	42.37 kW

SCOP	7.87	5.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	30.84 kW	42.37 kW
COP Tj = +2°C	6.32	3.77
Pdh Tj = +7°C	19.83 kW	27.24 kW
COP Tj = +7°C	7.73	5.08
Pdh Tj = 12°C	16.43 kW	16.23 kW
COP Tj = 12°C	8.44	6.76
Pdh Tj = Tbiv	30.84 kW	42.37 kW
COP Tj = Tbiv	6.32	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	30.84 kW	42.37 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.32	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	5238 kWh	9936 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	48 dB(A)	50 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	315 %	230 %
Prated	30.84 kW	42.37 kW
SCOP	8.07	5.94
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	18.67 kW	25.65 kW
COP Tj = -7°C	7.98	5.40
Cdh Tj = -7 °C	0.99	1.00
Pdh Tj = +2°C	16.42 kW	15.61 kW
COP Tj = +2°C	8.39	6.56
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	16.45 kW	16.33 kW

COP Tj = +7°C	8.57	6.96
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	16.44 kW	16.45 kW
COP Tj = 12°C	8.51	7.22
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	30.84 kW	42.37 kW
COP Tj = Tbiv	6.32	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	30.84 kW	42.37 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.32	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	9416 kWh	17581 kWh
Pdh Tj = -15°C (if TOL<-20°C)	25.16	34.57
COP Tj = -15°C (if TOL<-20°C)	7.15	4.59
Cdh Tj = -15 °C	1.00	1.00

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	48 dB(A)	50 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	306 %	221 %
Prated	30.84 kW	42.37 kW
SCOP	7.86	5.72
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	27.28 kW	37.48 kW
COP Tj = -7°C	6.72	4.10
Pdh Tj = +2°C	16.61 kW	22.82 kW
COP Tj = +2°C	8.06	5.73
Pdh Tj = +7°C	16.41 kW	14.67 kW
COP Tj = +7°C	8.34	6.82
Pdh Tj = 12°C	16.46 kW	16.36 kW
COP Tj = 12°C	8.62	7.01
Pdh Tj = Tbiv	30.84 kW	42.37 kW

COP Tj = Tbiv	6.32	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	30.84 kW	42.37 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.32	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	8104 kWh	15309 kWh

Model: Thermia Mega M 230

Configure model	
Model name	Thermia Mega M 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	26.71 kW	22.39 kW
El input	5.81 kW	7.52 kW
COP	4.60	2.98

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	48 dB(A)	50 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	220 %	167 %
Prated	38.06 kW	35.62 kW
SCOP	5.70	4.38
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	38.06 kW	35.62 kW
COP Tj = +2°C	4.29	2.95
Pdh Tj = +7°C	24.47 kW	22.90 kW
COP Tj = +7°C	5.35	3.89
Pdh Tj = 12°C	12.71 kW	12.48 kW
COP Tj = 12°C	6.31	5.17
Pdh Tj = Tbiv	38.06 kW	35.62 kW
COP Tj = Tbiv	4.29	2.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	38.06 kW	35.62 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.29	2.95

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	0.99
WTOL	65 °C	65 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 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	8920 kWh	10862 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	48 dB(A)	50 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	226 %	174 %
Prated	38.06 kW	35.62 kW
SCOP	5.86	4.55
Tbiv	-22 °C	-22 °C

TOL	-22 °C	-22 °C
Pdh Tj = -7°C	23.04 kW	21.56 kW
COP Tj = -7°C	5.57	4.12
Pdh Tj = +2°C	14.02 kW	13.12 kW
COP Tj = +2°C	6.27	5.02
Pdh Tj = +7°C	12.71 kW	12.56 kW
COP Tj = +7°C	6.35	5.32
Pdh Tj = 12°C	12.70 kW	12.65 kW
COP Tj = 12°C	6.19	5.49
Pdh Tj = Tbiv	38.06 kW	35.62 kW
COP Tj = Tbiv	4.29	2.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	38.06 kW	35.62 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.29	2.95
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	0.99
WTOL	65 °C	65 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 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	16014 kWh	19290 kWh

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	48 dB(A)	50 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	218 %	168 %
Prated	38.06 kW	35.62 kW
SCOP	5.65	4.39
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	33.67 kW	31.51 kW
COP Tj = -7°C	4.56	3.21
Pdh Tj = +2°C	20.49 kW	19.18 kW
COP Tj = +2°C	5.68	4.39
Pdh Tj = +7°C	13.18 kW	12.33 kW
COP Tj = +7°C	6.28	5.16
Pdh Tj = 12°C	12.70 kW	12.57 kW

COP Tj = 12°C	6.31	5.34
Pdh Tj = Tbiv	38.06 kW	35.62 kW
COP Tj = Tbiv	4.29	2.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	38.06 kW	35.62 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.29	2.95
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	0.99
WTOL	65 °C	65 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 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	13917 kWh	16768 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	30.84 kW	42.37 kW
El input	4.88 kW	11.23 kW
COP	6.31	3.77

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	48 dB(A)	50 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	307 %	220 %
Prated	30.84 kW	42.37 kW

SCOP	7.87	5.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	30.84 kW	42.37 kW
COP Tj = +2°C	6.32	3.77
Pdh Tj = +7°C	19.83 kW	27.24 kW
COP Tj = +7°C	7.73	5.08
Pdh Tj = 12°C	16.43 kW	16.23 kW
COP Tj = 12°C	8.44	6.76
Pdh Tj = Tbiv	30.84 kW	42.37 kW
COP Tj = Tbiv	6.32	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	30.84 kW	42.37 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.32	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	5238 kWh	9936 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	48 dB(A)	50 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	315 %	230 %
Prated	30.84 kW	42.37 kW
SCOP	8.07	5.94
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	18.67 kW	25.65 kW
COP Tj = -7°C	7.98	5.40
Cdh Tj = -7 °C	0.99	1.00
Pdh Tj = +2°C	16.42 kW	15.61 kW
COP Tj = +2°C	8.39	6.56
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	16.45 kW	16.33 kW

COP Tj = +7°C	8.57	6.96
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	16.44 kW	16.45 kW
COP Tj = 12°C	8.51	7.22
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	30.84 kW	42.37 kW
COP Tj = Tbiv	6.32	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	30.84 kW	42.37 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.32	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	9416 kWh	17581 kWh
Pdh Tj = -15°C (if TOL<-20°C)	25.16	34.57
COP Tj = -15°C (if TOL<-20°C)	7.15	4.59
Cdh Tj = -15 °C	1.00	1.00

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	48 dB(A)	50 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	306 %	221 %
Prated	30.84 kW	42.37 kW
SCOP	7.86	5.72
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	27.28 kW	37.48 kW
COP Tj = -7°C	6.72	4.10
Pdh Tj = +2°C	16.61 kW	22.82 kW
COP Tj = +2°C	8.06	5.73
Pdh Tj = +7°C	16.41 kW	14.67 kW
COP Tj = +7°C	8.34	6.82
Pdh Tj = 12°C	16.46 kW	16.36 kW
COP Tj = 12°C	8.62	7.01
Pdh Tj = Tbiv	30.84 kW	42.37 kW

COP Tj = Tbiv	6.32	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	30.84 kW	42.37 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.32	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	8104 kWh	15309 kWh

Model: Thermia Mega M 3-230 2020

Configure model	
Model name	Thermia Mega M 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	26.71 kW	22.39 kW
El input	5.81 kW	7.52 kW
COP	4.60	2.98

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	48 dB(A)	50 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	220 %	167 %
Prated	38.06 kW	35.62 kW
SCOP	5.70	4.38
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	38.06 kW	35.62 kW
COP Tj = +2°C	4.29	2.95
Pdh Tj = +7°C	24.47 kW	22.90 kW
COP Tj = +7°C	5.35	3.89
Pdh Tj = 12°C	12.71 kW	12.48 kW
COP Tj = 12°C	6.31	5.17
Pdh Tj = Tbiv	38.06 kW	35.62 kW
COP Tj = Tbiv	4.29	2.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	38.06 kW	35.62 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.29	2.95

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	0.99
WTOL	65 °C	65 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 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	8920 kWh	10862 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	48 dB(A)	50 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	226 %	174 %
Prated	38.06 kW	35.62 kW
SCOP	5.86	4.55
Tbiv	-22 °C	-22 °C

TOL	-22 °C	-22 °C
Pdh Tj = -7°C	23.04 kW	21.56 kW
COP Tj = -7°C	5.57	4.12
Pdh Tj = +2°C	14.02 kW	13.12 kW
COP Tj = +2°C	6.27	5.02
Pdh Tj = +7°C	12.71 kW	12.56 kW
COP Tj = +7°C	6.35	5.32
Pdh Tj = 12°C	12.70 kW	12.65 kW
COP Tj = 12°C	6.19	5.49
Pdh Tj = Tbiv	38.06 kW	35.62 kW
COP Tj = Tbiv	4.29	2.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	38.06 kW	35.62 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.29	2.95
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	0.99
WTOL	65 °C	65 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 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	16014 kWh	19290 kWh

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	48 dB(A)	50 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	218 %	168 %
Prated	38.06 kW	35.62 kW
SCOP	5.65	4.39
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	33.67 kW	31.51 kW
COP Tj = -7°C	4.56	3.21
Pdh Tj = +2°C	20.49 kW	19.18 kW
COP Tj = +2°C	5.68	4.39
Pdh Tj = +7°C	13.18 kW	12.33 kW
COP Tj = +7°C	6.28	5.16
Pdh Tj = 12°C	12.70 kW	12.57 kW

COP Tj = 12°C	6.31	5.34
Pdh Tj = Tbiv	38.06 kW	35.62 kW
COP Tj = Tbiv	4.29	2.95
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	38.06 kW	35.62 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.29	2.95
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	0.99
WTOL	65 °C	65 °C
Poff	7 W	7 W
PTO	7 W	7 W
PSB	7 W	7 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	13917 kWh	16768 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	30.84 kW	42.37 kW
El input	4.88 kW	11.23 kW
COP	6.31	3.77

Warmer Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	48 dB(A)	50 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	307 %	220 %
Prated	30.84 kW	42.37 kW

SCOP	7.87	5.70
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	30.84 kW	42.37 kW
COP Tj = +2°C	6.32	3.77
Pdh Tj = +7°C	19.83 kW	27.24 kW
COP Tj = +7°C	7.73	5.08
Pdh Tj = 12°C	16.43 kW	16.23 kW
COP Tj = 12°C	8.44	6.76
Pdh Tj = Tbiv	30.84 kW	42.37 kW
COP Tj = Tbiv	6.32	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	30.84 kW	42.37 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.32	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	5238 kWh	9936 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	48 dB(A)	50 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	315 %	230 %
Prated	30.84 kW	42.37 kW
SCOP	8.07	5.94
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	18.67 kW	25.65 kW
COP Tj = -7°C	7.98	5.40
Cdh Tj = -7 °C	0.99	1.00
Pdh Tj = +2°C	16.42 kW	15.61 kW
COP Tj = +2°C	8.39	6.56
Cdh Tj = +2 °C	0.99	0.99
Pdh Tj = +7°C	16.45 kW	16.33 kW

COP Tj = +7°C	8.57	6.96
Cdh Tj = +7 °C	0.99	0.99
Pdh Tj = 12°C	16.44 kW	16.45 kW
COP Tj = 12°C	8.51	7.22
Cdh Tj = +12 °C	0.99	0.99
Pdh Tj = Tbiv	30.84 kW	42.37 kW
COP Tj = Tbiv	6.32	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	30.84 kW	42.37 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.32	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	9416 kWh	17581 kWh
Pdh Tj = -15°C (if TOL<-20°C)	25.16	34.57
COP Tj = -15°C (if TOL<-20°C)	7.15	4.59
Cdh Tj = -15 °C	1.00	1.00

Average Climate

EN 12102-1		
	Low temperature	**Medium temperature**
Sound power level indoor	48 dB(A)	50 dB(A)

EN 14825		
	Low temperature	**Medium temperature**
η_s	306 %	221 %
Prated	30.84 kW	42.37 kW
SCOP	7.86	5.72
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	27.28 kW	37.48 kW
COP Tj = -7°C	6.72	4.10
Pdh Tj = +2°C	16.61 kW	22.82 kW
COP Tj = +2°C	8.06	5.73
Pdh Tj = +7°C	16.41 kW	14.67 kW
COP Tj = +7°C	8.34	6.82
Pdh Tj = 12°C	16.46 kW	16.36 kW
COP Tj = 12°C	8.62	7.01
Pdh Tj = Tbiv	30.84 kW	42.37 kW

COP Tj = Tbiv	6.32	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	30.84 kW	42.37 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.32	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	8104 kWh	15309 kWh