

This information was generated by the HP KEYMARK database on 7 Jul 2022

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Summary of	Mega L	Reg. No.	012-SC0834-18
Certificate Holder			
Name	Thermia		
Address	Snickaregatan 1	Zip	
City	Arvika	Country	Sweden
Certification Body	RISE CERT		
Subtype title	Mega L		
Heat Pump Type	Brine/Water and Water/Water		
Refrigerant	R410A		
Mass of Refrigerant	6.3 kg		
Certification Date	10.04.2019		

Model: Thermia Mega L 2020

Configure model	
Model name	Thermia Mega L 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	34.97 kW	31.56 kW
El input	7.76 kW	11.04 kW
COP	4.51	2.86

Warmer Climate

This information was generated by the HP KEYMARK database on 7 Jul 2022

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	203 %	157 %
Prated	59.64 kW	55.34 kW
SCOP	5.28	4.13
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	59.64 kW	55.34 kW
COP Tj = +2°C	3.93	2.77
Pdh Tj = +7°C	38.34 kW	35.58 kW
COP Tj = +7°C	5.00	3.69
Pdh Tj = 12°C	17.04 kW	15.81 kW
COP Tj = 12°C	5.79	4.85
Pdh Tj = Tbiv	59.64 kW	55.34 kW
COP Tj = Tbiv	3.93	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	59.64 kW	55.34 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.93	2.77

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$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	1.00	1.00
WTOL	65 °C	65 °C
Poff	9 W	9 W
PTO	11 W	11 W
PSB	18 W	18 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 Q_{he}	15055 kWh	17857 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	204 %	160 %
Prated	59.64 kW	55.34 kW
SCOP	5.29	4.20
Tbiv	-22 °C	-22 °C

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TOL	-22 °C	-22 °C
Pdh Tj = -7°C	35.77 kW	33.80 kW
COP Tj = -7°C	5.14	3.85
Pdh Tj = +2°C	21.97 kW	20.39 kW
COP Tj = +2°C	5.71	4.59
Pdh Tj = +7°C	16.74 kW	16.35 kW
COP Tj = +7°C	5.86	4.85
Pdh Tj = 12°C	16.58 kW	16.38 kW
COP Tj = 12°C	5.58	4.88
Pdh Tj = Tbiv	59.64 kW	55.34 kW
COP Tj = Tbiv	3.93	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	59.64 kW	55.34 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.93	2.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	9 W	9 W
PTO	11 W	11 W
PSB	18 W	18 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

This information was generated by the HP KEYMARK database on 7 Jul 2022

Annual energy consumption Q_{he}	27759 kWh	32491 kWh
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Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	200 %	155 %
Prated	59.64 kW	55.34 kW
SCOP	5.19	4.07
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	52.76 kW	48.96 kW
COP Tj = -7°C	4.26	3.01
Pdh Tj = +2°C	32.11 kW	29.80 kW
COP Tj = +2°C	5.23	4.11
Pdh Tj = +7°C	20.64 kW	19.16 kW
COP Tj = +7°C	5.74	4.84
Pdh Tj = 12°C	16.56 kW	16.33 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = 12°C	5.58	4.66
Pdh Tj = Tbiv	59.64 kW	55.34 kW
COP Tj = Tbiv	3.93	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	59.64 kW	55.34 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.93	2.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	9 W	9 W
PTO	11 W	11 W
PSB	18 W	18 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	23714 kWh	28063 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	48.57 kW	43.13 kW
El input	8.51 kW	11.59 kW
COP	5.71	3.72

Warmer Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	265 %	207 %
Prated	51.32 kW	53.23 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

SCOP	6.83	5.38
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	51.32 kW	53.23 kW
COP Tj = +2°C	5.35	3.65
Pdh Tj = +7°C	32.99 kW	34.22 kW
COP Tj = +7°C	6.59	4.90
Pdh Tj = 12°C	21.67 kW	21.11 kW
COP Tj = 12°C	7.37	6.21
Pdh Tj = Tbiv	51.32 kW	53.23 kW
COP Tj = Tbiv	5.35	3.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	51.32 kW	53.23 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.35	3.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	9 W	9 W
PTO	11 W	11 W
PSB	18 W	18 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

This information was generated by the HP KEYMARK database on 7 Jul 2022

Annual energy consumption Q_{he}	10032 kWh	13221 kWh
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Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	272 %	215 %
Prated	51.32 kW	53.23 kW
SCOP	6.99	5.57
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	31.06 kW	32.22 kW
COP Tj = -7°C	6.78	5.15
Pdh Tj = +2°C	21.66 kW	19.61 kW
COP Tj = +2°C	7.37	6.08
Pdh Tj = +7°C	21.70 kW	21.22 kW
COP Tj = +7°C	7.45	6.37
Pdh Tj = 12°C	21.65 kW	21.36 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = 12°C	7.34	6.60
Pdh Tj = Tbiv	51.32 kW	53.23 kW
COP Tj = Tbiv	5.35	3.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	51.32 kW	53.23 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.35	3.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	9 W	9 W
PTO	11 W	11 W
PSB	18 W	18 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	18086 kWh	23548 kWh

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825

This information was generated by the HP KEYMARK database on 7 Jul 2022

	Low temperature	Medium temperature
η_s	264 %	206 %
Prated	51.32 kW	53.23 kW
SCOP	6.80	5.35
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	45.39 kW	47.08 kW
COP Tj = -7°C	5.63	3.98
Pdh Tj = +2°C	27.63 kW	28.66 kW
COP Tj = +2°C	6.92	5.43
Pdh Tj = +7°C	21.64 kW	21.02 kW
COP Tj = +7°C	7.32	6.08
Pdh Tj = 12°C	21.70 kW	21.25 kW
COP Tj = 12°C	7.45	6.43
Pdh Tj = Tbiv	51.32 kW	53.23 kW
COP Tj = Tbiv	5.35	3.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	51.32 kW	53.23 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.35	3.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	9 W	9 W

This information was generated by the HP KEYMARK database on 7 Jul 2022

PTO	11 W	11 W
PSB	18 W	18 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 Q _{he}	15600 kWh	20546 kWh

Model: Thermia Mega L

Configure model	
Model name	Thermia Mega L
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	34.97 kW	31.56 kW
El input	7.76 kW	11.04 kW
COP	4.51	2.86

Warmer Climate

This information was generated by the HP KEYMARK database on 7 Jul 2022

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	203 %	157 %
Prated	59.64 kW	55.34 kW
SCOP	5.28	4.13
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	59.64 kW	55.34 kW
COP Tj = +2°C	3.93	2.77
Pdh Tj = +7°C	38.34 kW	35.58 kW
COP Tj = +7°C	5.00	3.69
Pdh Tj = 12°C	17.04 kW	15.81 kW
COP Tj = 12°C	5.79	4.85
Pdh Tj = Tbiv	59.64 kW	55.34 kW
COP Tj = Tbiv	3.93	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	59.64 kW	55.34 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.93	2.77

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$C_{dh} T_j = TOL$ or $P_{dh} T_j = T_{designh}$ if $TOL < T_{designh}$	1.00	1.00
WTOL	65 °C	65 °C
Poff	9 W	9 W
PTO	11 W	11 W
PSB	18 W	18 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 Q_{he}	15055 kWh	17857 kWh

Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	204 %	160 %
Prated	59.64 kW	55.34 kW
SCOP	5.29	4.20
Tbiv	-22 °C	-22 °C

This information was generated by the HP KEYMARK database on 7 Jul 2022

TOL	-22 °C	-22 °C
Pdh Tj = -7°C	35.77 kW	33.80 kW
COP Tj = -7°C	5.14	3.85
Pdh Tj = +2°C	21.97 kW	20.39 kW
COP Tj = +2°C	5.71	4.59
Pdh Tj = +7°C	16.74 kW	16.35 kW
COP Tj = +7°C	5.86	4.85
Pdh Tj = 12°C	16.58 kW	16.38 kW
COP Tj = 12°C	5.58	4.88
Pdh Tj = Tbiv	59.64 kW	55.34 kW
COP Tj = Tbiv	3.93	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	59.64 kW	55.34 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.93	2.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	9 W	9 W
PTO	11 W	11 W
PSB	18 W	18 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

This information was generated by the HP KEYMARK database on 7 Jul 2022

Annual energy consumption Q_{he}	27759 kWh	32491 kWh
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Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	200 %	155 %
Prated	59.64 kW	55.34 kW
SCOP	5.19	4.07
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	52.76 kW	48.96 kW
COP Tj = -7°C	4.26	3.01
Pdh Tj = +2°C	32.11 kW	29.80 kW
COP Tj = +2°C	5.23	4.11
Pdh Tj = +7°C	20.64 kW	19.16 kW
COP Tj = +7°C	5.74	4.84
Pdh Tj = 12°C	16.56 kW	16.33 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = 12°C	5.58	4.66
Pdh Tj = Tbiv	59.64 kW	55.34 kW
COP Tj = Tbiv	3.93	2.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	59.64 kW	55.34 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.93	2.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	9 W	9 W
PTO	11 W	11 W
PSB	18 W	18 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	23714 kWh	28063 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	48.57 kW	43.13 kW
El input	8.51 kW	11.59 kW
COP	5.71	3.72

Warmer Climate

EN 12102-1

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825

	Low temperature	Medium temperature
η_s	265 %	207 %
Prated	51.32 kW	53.23 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

SCOP	6.83	5.38
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	51.32 kW	53.23 kW
COP Tj = +2°C	5.35	3.65
Pdh Tj = +7°C	32.99 kW	34.22 kW
COP Tj = +7°C	6.59	4.90
Pdh Tj = 12°C	21.67 kW	21.11 kW
COP Tj = 12°C	7.37	6.21
Pdh Tj = Tbiv	51.32 kW	53.23 kW
COP Tj = Tbiv	5.35	3.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	51.32 kW	53.23 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.35	3.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	9 W	9 W
PTO	11 W	11 W
PSB	18 W	18 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

This information was generated by the HP KEYMARK database on 7 Jul 2022

Annual energy consumption Q_{he}	10032 kWh	13221 kWh
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Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_s	272 %	215 %
Prated	51.32 kW	53.23 kW
SCOP	6.99	5.57
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	31.06 kW	32.22 kW
COP Tj = -7°C	6.78	5.15
Pdh Tj = +2°C	21.66 kW	19.61 kW
COP Tj = +2°C	7.37	6.08
Pdh Tj = +7°C	21.70 kW	21.22 kW
COP Tj = +7°C	7.45	6.37
Pdh Tj = 12°C	21.65 kW	21.36 kW

This information was generated by the HP KEYMARK database on 7 Jul 2022

COP Tj = 12°C	7.34	6.60
Pdh Tj = Tbiv	51.32 kW	53.23 kW
COP Tj = Tbiv	5.35	3.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	51.32 kW	53.23 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.35	3.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	9 W	9 W
PTO	11 W	11 W
PSB	18 W	18 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	18086 kWh	23548 kWh

Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825

This information was generated by the HP KEYMARK database on 7 Jul 2022

	Low temperature	Medium temperature
η_s	264 %	206 %
Prated	51.32 kW	53.23 kW
SCOP	6.80	5.35
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	45.39 kW	47.08 kW
COP Tj = -7°C	5.63	3.98
Pdh Tj = +2°C	27.63 kW	28.66 kW
COP Tj = +2°C	6.92	5.43
Pdh Tj = +7°C	21.64 kW	21.02 kW
COP Tj = +7°C	7.32	6.08
Pdh Tj = 12°C	21.70 kW	21.25 kW
COP Tj = 12°C	7.45	6.43
Pdh Tj = Tbiv	51.32 kW	53.23 kW
COP Tj = Tbiv	5.35	3.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	51.32 kW	53.23 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.35	3.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	9 W	9 W

This information was generated by the HP KEYMARK database on 7 Jul 2022

PTO	11 W	11 W
PSB	18 W	18 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 Q _{he}	15600 kWh	20546 kWh