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		
Name of testing laboratory	RISE		
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

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
Indoor water flow rate	5.83 m³/h	3.39 m³/h

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
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	59.64 kW	55.34 kW
COP Tj = TOL	3.93	2.77
Cdh	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	No	No
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	23714 kWh	28063 kWh

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	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	59.64 kW	55.34 kW
COP Tj = TOL	3.93	2.77
Cdh	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	No	No
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	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
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	59.64 kW	55.34 kW
COP Tj = TOL	3.93	2.77
Cdh	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	No	No
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	27759 kWh	32491 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
Indoor water flow rate	8.47 m³/h	4.63 m³/h

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	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	51.32 kW	53.23 kW
COP Tj = TOL	5.35	3.65
Cdh	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	No	No
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	15600 kWh	20546 kWh

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
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	51.32 kW	53.23 kW
COP Tj = TOL	5.35	3.65
Cdh	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	No	No
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	10032 kWh	13221 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	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
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	51.32 kW	53.23 kW
COP Tj = TOL	5.35	3.65
Cdh	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	No	No
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	18086 kWh	23548 kWh

Model: Thermia Mega L

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
Indoor water flow rate	5.83 m³/h	3.39 m³/h

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
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	59.64 kW	55.34 kW
COP Tj = TOL	3.93	2.77
Cdh	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	No	No
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	23714 kWh	28063 kWh

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	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
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COP Tj = Tbiv	3.93	2.77
Pdh Tj = TOL	59.64 kW	55.34 kW
COP Tj = TOL	3.93	2.77
Cdh	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	No	No
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	15055 kWh	17857 kWh

Colder Climate

EN 12102-1		
	Low temperature	**Medium temperature**
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COP Tj = +2°C	5.71	4.59
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COP Tj = +7°C	5.86	4.85
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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	59.64 kW	55.34 kW
COP Tj = TOL	3.93	2.77
Cdh	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	No	No
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	27759 kWh	32491 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
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	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
Indoor water flow rate	8.47 m^3/h	4.63 m^3/h

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	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	51.32 kW	53.23 kW
COP Tj = TOL	5.35	3.65
Cdh	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	No	No
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	15600 kWh	20546 kWh

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
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	51.32 kW	53.23 kW
COP Tj = TOL	5.35	3.65
Cdh	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	No	No
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	10032 kWh	13221 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	272 %	215 %
Prated	51.32 kW	53.23 kW
SCOP	6.99	5.57
Tbiv	-22 °C	-22 °C
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Pdh Tj = -7°C	31.06 kW	32.22 kW
COP Tj = -7°C	6.78	5.15
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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
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	51.32 kW	53.23 kW
COP Tj = TOL	5.35	3.65
Cdh	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	No	No
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	18086 kWh	23548 kWh