

Summary of	Mega M	Reg. No.	012-SC0835-18	
Certificate Holder	-			
Name	Thermia	Thermia		
Address	Snickaregatan 1	Zip		
City	Arvika	Country	Sweden	
Certification Body	RISE CERT	RISE CERT		
Name of testing laboratory	RISE	RISE		
Subtype title	Mega M	Mega M		
Heat Pump Type	Brine/Water and Wat	Brine/Water and Water/Water		
Refrigerant	R410a	R410a		
Mass Of Refrigerant	4.4 kg	4.4 kg		
Certification Date	10.04.2019			



Model: Thermia Mega M 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	26.71 kW	22.39 kW	
El input	5.81 kW	7.52 kW	
СОР	4.60	2.98	
Indoor water flow rate	4.63 m³/h	2.44 m³/h	

Average Climate



EN 12102-1		
Medium temperature Low 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	38.06 kW	35.62 kW
COP Tj = TOL	4.29	2.95
Cdh	1.00	0.99
WTOL	65 °C	65 °C
Poff	7 W	7 W
РТО	7 W	7 W
PSB	7 W	7 W
PCK	0 W	o w
Supplementary Heater: Type of energy input	No	No
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	13917 kWh	16768 kWh

Warmer Climate

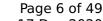
EN 12102-1		
	Medium temperature	Low temperature
Sound power level indoor	48 dB(A)	50 dB(A)

EN 14825		
	Low temperature	Medium temperature
η_{S}	220 %	167 %
Prated	38.06 kW	35.62 kW
		,





This information was generated by the HP KEYMARK database on 17 Dec 2020			
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	
$COPTj = +7^{\circ}C$	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	38.06 kW	35.62 kW	
COP Tj = TOL	4.29	2.95	
Cdh	1.00	0.99	
WTOL	65 °C	65 °C	
Poff	7 W	7 W	
РТО	7 W	7 W	
PSB	7 W	7 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	8920 kWh	10862 kWh
Thin and one gy consumption and		

Colder Climate

EN 12102-1		
	Medium temperature	Low 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 38.06 kW 35.62 kW COP Tj = TOL 4.29 2.95 Cdh 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 No No Supplementary Heater: PSUP 0.00 kW 0.00 kW Annual energy consumption Qhe 16014 kWh 19290 kWh			
COP Tj = Tbiv	COP Tj = 12°C	6.19	5.49
Pdh Tj = TOL 38.06 kW 35.62 kW COP Tj = TOL 4.29 2.95 Cdh 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 No No Supplementary Heater: PSUP 0.00 kW 0.00 kW	Pdh Tj = Tbiv	38.06 kW	35.62 kW
COP Tj = TOL 4.29 2.95 Cdh 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 No No Supplementary Heater: PSUP 0.00 kW 0.00 kW	COP Tj = Tbiv	4.29	2.95
Cdh 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 No No Supplementary Heater: PSUP 0.00 kW 0.00 kW	Pdh Tj = TOL	38.06 kW	35.62 kW
WTOL 65 °C 65 °C 7 W 7 W 7 W 7 W PTO 7 W 7 W 7 W PSB 7 W 0 W Supplementary Heater: Type of energy input No No Supplementary Heater: PSUP 0.00 kW	COP Tj = TOL	4.29	2.95
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 No No Supplementary Heater: PSUP 0.00 kW 0.00 kW	Cdh	1.00	0.99
PTO 7 W 7 W PSB 7 W 7 W PCK 0 W 0 W Supplementary Heater: Type of energy input No No Supplementary Heater: PSUP 0.00 kW 0.00 kW	WTOL	65 °C	65 °C
PSB 7 W 7 W PCK 0 W 0 W Supplementary Heater: Type of energy input No No Supplementary Heater: PSUP 0.00 kW 0.00 kW	Poff	7 W	7 W
PCK 0 W 0 W Supplementary Heater: Type of energy input No No Supplementary Heater: PSUP 0.00 kW 0.00 kW	РТО	7 W	7 W
Supplementary Heater: Type of energy input No No Supplementary Heater: PSUP 0.00 kW 0.00 kW	PSB	7 W	7 W
Supplementary Heater: PSUP 0.00 kW 0.00 kW	PCK	0 W	0 W
	Supplementary Heater: Type of energy input	No	No
Annual energy consumption Qhe 16014 kWh 19290 kWh	Supplementary Heater: PSUP	0.00 kW	0.00 kW
	Annual energy consumption Qhe	16014 kWh	19290 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	
СОР	6.31	3.77	
Indoor water flow rate	5.36 m³/h	4.63 m³/h	

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 = $+7^{\circ}$ 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	30.84 kW	42.37 kW
COP Tj = TOL	6.32	3.77
Cdh	1.00	1.00
WTOL	65 °C	65 °C
Poff	12 W	12 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	No	No



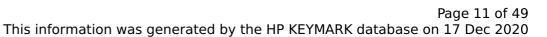


Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5238 kWh	9936 kWh

Colder Climate

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

EN 14825		
	Low temperat	ure 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	0.99	1.00
Pdh Tj = $+2$ °C	16.42 kW	15.61 kW
COP Tj = +2°C	8.39	6.56
Cdh	0.99	0.99





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Pdh Tj = +7°C	16.45 kW	16.33 kW
$COP Tj = +7^{\circ}C$	8.57	6.96
Cdh	0.99	0.99
Pdh Tj = 12°C	16.44 kW	16.45 kW
COP Tj = 12°C	8.51	7.22
Cdh	0.99	0.99
Pdh Tj = Tbiv	30.84 kW	42.37 kW
COP Tj = Tbiv	6.32	3.77
Pdh Tj = TOL	30.84 kW	42.37 kW
COP Tj = TOL	6.32	3.77
Cdh	1.00	1.00
WTOL	65 °C	65 °C
Poff	12 W	12 W
РТО	12 W	12 W
PSB	12 W	12 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	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	1.00	1.00

Average Climate

EN 12102-1		
	Medium temperature	Low 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	30.84 kW	42.37 kW
COP Tj = TOL	6.32	3.77
Cdh	1.00	1.00
WTOL	65 °C	65 °C
Poff	12 W	12 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	No	No
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	8104 kWh	15309 kWh

Model: Thermia Mega M

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
СОР	4.60	2.98
Indoor water flow rate	4.63 m³/h	2.44 m³/h

Average Climate



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

EN 14825		
	Low temperature	e 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	38.06 kW	35.62 kW
COP Tj = TOL	4.29	2.95
Cdh	1.00	0.99
WTOL	65 °C	65 °C
Poff	7 W	7 W
РТО	7 W	7 W
PSB	7 W	7 W
PCK	o w	o w
Supplementary Heater: Type of energy input	No	No
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	13917 kWh	16768 kWh

Warmer Climate

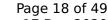
EN 12102-1		
	Medium temperature	Low temperature
Sound power level indoor	48 dB(A)	50 dB(A)

EN 14825		
Low temperature	Medium temperature	
220 %	167 %	
38.06 kW	35.62 kW	
	Low temperature 220 %	





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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
$COPTj = +7^{\circ}C$	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	38.06 kW	35.62 kW
COP Tj = TOL	4.29	2.95
Cdh	1.00	0.99
WTOL	65 °C	65 °C
Poff	7 W	7 W
РТО	7 W	7 W
PSB	7 W	7 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	No	No
Supplementary Heater: PSUP	0.00 kW	0.00 kW



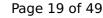


Annual energy consumption Qhe	8920 kWh	10862 kWh
Thin and one gy consumption and		

Colder Climate

EN 12102-1		
Medium temperature Low temperature		Low 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	38.06 kW	35.62 kW
COP Tj = TOL	4.29	2.95
Cdh	1.00	0.99
WTOL	65 °C	65 °C
Poff	7 W	7 W
РТО	7 W	7 W
PSB	7 W	7 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	16014 kWh	19290 kWh

Water/Water Heat Pump

Heating



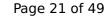
EN 14511-4	
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

EN 14511-2		
	Low temperature	Medium temperature
Heat output	30.84 kW	42.37 kW
El input	4.88 kW	11.23 kW
СОР	6.31	3.77
Indoor water flow rate	5.36 m³/h	4.63 m³/h

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 = $+7^{\circ}$ 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	30.84 kW	42.37 kW
COP Tj = TOL	6.32	3.77
Cdh	1.00	1.00
WTOL	65 °C	65 °C
Poff	12 W	12 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	No	No



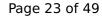


Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5238 kWh	9936 kWh

Colder Climate

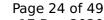
EN 12102-1		
	Low temperature	Medium temperature
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EN 14825		
	Low temperature	Medium temperature
η_{s}	315 %	230 %
Prated	30.84 kW	42.37 kW
SCOP	8.07	5.94
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7° C	18.67 kW	25.65 kW
COP Tj = -7°C	7.98	5.40
Cdh	0.99	1.00
Pdh Tj = $+2$ °C	16.42 kW	15.61 kW
COP Tj = +2°C	8.39	6.56
Cdh	0.99	0.99





Pdh Tj = +7°C	16.45 kW	16.33 kW
COP Tj = +7°C	8.57	6.96
Cdh	0.99	0.99
Pdh Tj = 12°C	16.44 kW	16.45 kW
COP Tj = 12°C	8.51	7.22
Cdh	0.99	0.99
Pdh Tj = Tbiv	30.84 kW	42.37 kW
COP Tj = Tbiv	6.32	3.77
Pdh Tj = TOL	30.84 kW	42.37 kW
COP Tj = TOL	6.32	3.77
Cdh	1.00	1.00
WTOL	65 °C	65 °C
Poff	12 W	12 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	No	No
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	1.00	1.00

Average Climate

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

EN 14825		
	Low temperature	Medium temperature
η_{s}	306 %	221 %
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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



$$\operatorname{\textit{Page}}\xspace$ 25 of 49 This information was generated by the HP KEYMARK database on 17 Dec 2020

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8.62	7.01
30.84 kW	42.37 kW
6.32	3.77
30.84 kW	42.37 kW
6.32	3.77
1.00	1.00
65 °C	65 °C
12 W	12 W
12 W	12 W
12 W	12 W
o w	o w
No	No
0.00 kW	0.00 kW
8104 kWh	15309 kWh
	30.84 kW 6.32 30.84 kW 6.32 1.00 65 °C 12 W 12 W 12 W 0 W No 0.00 kW

Model: Thermia Mega M 230

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	
СОР	4.60	2.98	
Indoor water flow rate	4.63 m³/h	2.44 m³/h	

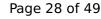
Average Climate



 $$\operatorname{\textit{Page}}\xspace$ 27 of 49 This information was generated by the HP KEYMARK database on 17 Dec 2020

EN 12102-1		
Medium temperature Low 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	38.06 kW	35.62 kW
COP Tj = TOL	4.29	2.95
Cdh	1.00	0.99
WTOL	65 °C	65 °C
Poff	7 W	7 W
РТО	7 W	7 W
PSB	7 W	7 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	13917 kWh	16768 kWh

Warmer Climate

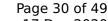
EN 12102-1			
Medium temperature Low temperature			
Sound power level indoor	48 dB(A)	50 dB(A)	

Low temperature	Medium temperature
220 %	167 %
38.06 kW	35.62 kW
_	220 %





This information was generated by the HP KEYMARK database on 17 Dec 2020			
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	
$COPTj = +7^{\circ}C$	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	38.06 kW	35.62 kW	
COP Tj = TOL	4.29	2.95	
Cdh	1.00	0.99	
WTOL	65 °C	65 °C	
Poff	7 W	7 W	
РТО	7 W	7 W	
PSB	7 W	7 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	8920 kWh	10862 kWh
Thin and one gy consumption and		

Colder Climate

EN 12102-1		
Medium temperature Low 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	38.06 kW	35.62 kW
COP Tj = TOL	4.29	2.95
Cdh	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	o w	0 W
Supplementary Heater: Type of energy input	No	No
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	16014 kWh	19290 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	
СОР	6.31	3.77	
Indoor water flow rate	5.36 m³/h	4.63 m³/h	

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 %



CEN heat pump KEYMARK

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
$COP Tj = +7^{\circ}C$	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	30.84 kW	42.37 kW
COP Tj = TOL	6.32	3.77
Cdh	1.00	1.00
WTOL	65 °C	65 °C
Poff	12 W	12 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	No	No



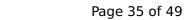


Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5238 kWh	9936 kWh

Colder Climate

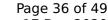
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	48 dB(A)	50 dB(A)

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	0.99	1.00
Pdh Tj = +2°C	16.42 kW	15.61 kW
COP Tj = +2°C	8.39	6.56
Cdh	0.99	0.99





Pdh Tj = +7°C	16.45 kW	16.33 kW
COP Tj = +7°C	8.57	6.96
Cdh	0.99	0.99
Pdh Tj = 12°C	16.44 kW	16.45 kW
COP Tj = 12°C	8.51	7.22
Cdh	0.99	0.99
Pdh Tj = Tbiv	30.84 kW	42.37 kW
COP Tj = Tbiv	6.32	3.77
Pdh Tj = TOL	30.84 kW	42.37 kW
COP Tj = TOL	6.32	3.77
Cdh	1.00	1.00
WTOL	65 °C	65 °C
Poff	12 W	12 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	o w	0 W
Supplementary Heater: Type of energy input	No	No
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	1.00	1.00

Average Climate

EN 12102-1		
	Medium temperature	Low 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



Annual energy consumption Qhe

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15309 kWh

This information was g	generated by the HP KEYM	1ARK database on 17 Dec 2020
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	30.84 kW	42.37 kW
COP Tj = TOL	6.32	3.77
Cdh	1.00	1.00
WTOL	65 °C	65 °C
Poff	12 W	12 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	No	No
Supplementary Heater: PSUP	0.00 kW	0.00 kW

8104 kWh



Model: Thermia Mega M 3-230 2020

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
СОР	4.60	2.98
Indoor water flow rate	4.63 m³/h	2.44 m³/h

Average Climate



EN 12102-1		
Medium temperature Low temperature		Low 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

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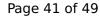


Pdh Tj = TOL	38.06 kW	35.62 kW
COP Tj = TOL	4.29	2.95
Cdh	1.00	0.99
WTOL	65 °C	65 °C
Poff	7 W	7 W
РТО	7 W	7 W
PSB	7 W	7 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	No	No
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	13917 kWh	16768 kWh

Warmer Climate

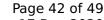
EN 12102-1		
Medium temperature Low temperature		Low temperature
Sound power level indoor	48 dB(A)	50 dB(A)

Low temperature	Medium temperature
220 %	167 %
38.06 kW	35.62 kW
	220 %





This information was generated by the HP KEYMARK database on 17 Dec 2020				
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		
$COPTj = +7^{\circ}C$	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	38.06 kW	35.62 kW		
COP Tj = TOL	4.29	2.95		
Cdh	1.00	0.99		
WTOL	65 °C	65 °C		
Poff	7 W	7 W		
РТО	7 W	7 W		
PSB	7 W	7 W		
PCK	0 W	0 W		
Supplementary Heater: Type of energy input	No	No		
Supplementary Heater: PSUP	0.00 kW	0.00 kW		





|--|

Colder Climate

EN 12102-1		
Medium temperature Low temper		Low 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

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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 38.06 kW 35.62 kW COP Tj = TOL 4.29 2.95 Cdh 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 No No Supplementary Heater: PSUP 0.00 kW 0.00 kW Annual energy consumption Qhe 16014 kWh 19290 kWh			
COP Tj = Tbiv	COP Tj = 12°C	6.19	5.49
Pdh Tj = TOL 38.06 kW 35.62 kW COP Tj = TOL 4.29 2.95 Cdh 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 No No Supplementary Heater: PSUP 0.00 kW 0.00 kW	Pdh Tj = Tbiv	38.06 kW	35.62 kW
COP Tj = TOL 4.29 2.95 Cdh 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 No No Supplementary Heater: PSUP 0.00 kW 0.00 kW	COP Tj = Tbiv	4.29	2.95
Cdh 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 No No Supplementary Heater: PSUP 0.00 kW 0.00 kW	Pdh Tj = TOL	38.06 kW	35.62 kW
WTOL 65 °C 65 °C 7 W 7 W 7 W 7 W PTO 7 W 7 W 7 W PSB 7 W 0 W Supplementary Heater: Type of energy input No No Supplementary Heater: PSUP 0.00 kW	COP Tj = TOL	4.29	2.95
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 No No Supplementary Heater: PSUP 0.00 kW 0.00 kW	Cdh	1.00	0.99
PTO 7 W 7 W PSB 7 W 7 W PCK 0 W 0 W Supplementary Heater: Type of energy input No No Supplementary Heater: PSUP 0.00 kW 0.00 kW	WTOL	65 °C	65 °C
PSB 7 W 7 W PCK 0 W 0 W Supplementary Heater: Type of energy input No No Supplementary Heater: PSUP 0.00 kW 0.00 kW	Poff	7 W	7 W
PCK 0 W 0 W Supplementary Heater: Type of energy input No No Supplementary Heater: PSUP 0.00 kW 0.00 kW	РТО	7 W	7 W
Supplementary Heater: Type of energy input No No Supplementary Heater: PSUP 0.00 kW 0.00 kW	PSB	7 W	7 W
Supplementary Heater: PSUP 0.00 kW 0.00 kW	PCK	0 W	0 W
	Supplementary Heater: Type of energy input	No	No
Annual energy consumption Qhe 16014 kWh 19290 kWh	Supplementary Heater: PSUP	0.00 kW	0.00 kW
	Annual energy consumption Qhe	16014 kWh	19290 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	
СОР	6.31	3.77	
Indoor water flow rate	5.36 m³/h	4.63 m³/h	

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
$COP Tj = +7^{\circ}C$	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	30.84 kW	42.37 kW
COP Tj = TOL	6.32	3.77
Cdh	1.00	1.00
WTOL	65 °C	65 °C
Poff	12 W	12 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	0 W	o w
Supplementary Heater: Type of energy input	No	No





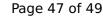
This information was ger	Terated by the HP KETM	ARK database on 17 Dec 2020

Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	5238 kWh	9936 kWh

Colder Climate

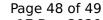
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	48 dB(A)	50 dB(A)

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	0.99	1.00
Pdh Tj = +2°C	16.42 kW	15.61 kW
COP Tj = +2°C	8.39	6.56
Cdh	0.99	0.99





Pdh Tj = $+7^{\circ}$ C	16.45 kW	16.33 kW
COP Tj = +7°C	8.57	6.96
Cdh	0.99	0.99
Pdh Tj = 12°C	16.44 kW	16.45 kW
COP Tj = 12°C	8.51	7.22
Cdh	0.99	0.99
Pdh Tj = Tbiv	30.84 kW	42.37 kW
COP Tj = Tbiv	6.32	3.77
Pdh Tj = TOL	30.84 kW	42.37 kW
COP Tj = TOL	6.32	3.77
Cdh	1.00	1.00
WTOL	65 °C	65 °C
Poff	12 W	12 W
РТО	12 W	12 W
PSB	12 W	12 W
РСК	o w	0 W
Supplementary Heater: Type of energy input	No	No
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





This information	was generated by	y the HP KEYMARK	database on 17	Dec 2020

C.II.	1.00	1.00	
Cdh	1.00	1.00	

Average Climate

EN 12102-1		
	Medium temperature	Low 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

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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	30.84 kW	42.37 kW
COP Tj = TOL	6.32	3.77
Cdh	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	No	No
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	8104 kWh	15309 kWh