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#### This information was generated by the HP KEYMARK database on 18 Mar 2022

#### **Login**

Summary of	Mega S	Reg. No.	012-SC0836-18		
Certificate Holder					
Name	Thermia	Thermia			
Address	Snickaregatan 1	Zip			
City	Arvika	Country	Sweden		
Certification Body	RISE CERT	RISE CERT			
Subtype title	Mega S	Mega S			
Heat Pump Type	Brine/Water and Water	Brine/Water and Water/Water			
Refrigerant	R410A	R410A			
Mass of Refrigerant	3.9 kg	3.9 kg			
Certification Date	10.04.2019	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
СОР	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	
$\eta_{s}$	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
РТО	12 W	12 W
PSB	12 W	12 W
PCK	o w	o 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

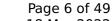
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	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 = $+7^{\circ}$ C	21.39 kW	20.01 kW
$COPTj = +7^{\circ}C$	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
РТО	12 W	12 W
PSB	12 W	12 W
РСК	0 W	o w
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW





		l	
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
$\eta_{s}$	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





5.91	5.12
33.28 kW	31.13 kW
4.26	2.86
33.28 kW	31.13 kW
4.26	2.86
0.99	0.99
65 °C	65 °C
12 W	12 W
12 W	12 W
12 W	12 W
o w	0 W
n/a	n/a
0.00 kW	0.00 kW
14325 kWh	17698 kWh
	33.28 kW  4.26  33.28 kW  4.26  0.99  65 °C  12 W  12 W  12 W  0 W  n/a  0.00 kW

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	
СОР	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
$\eta_{s}$	298 %	214 %
Prated	24.52 kW	34.95 kW





	ted by the HI KETMAI	NK database on 10 Mai 2022
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
$COP Tj = -7^{\circ}C$	6.85	4.12
Pdh Tj = +2°C	15.84 kW	18.82 kW
COP Tj = +2°C	7.75	5.61
Pdh Tj = $+7^{\circ}$ C	15.99 kW	15.99 kW
$COPTj = +7^{\circ}C$	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
РТО	12 W	12 W
PSB	12 W	12 W
PCK	0 W	o w
	1	1



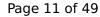


Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	6614 kWh	13029 kWh

### 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
$\eta_{s}$	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 = $+7^{\circ}$ C	15.76 kW	22.47 kW
$COP Tj = +7^{\circ}C$	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
РТО	12 W	12 W
PSB	12 W	12 W
PCK	o 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
$\eta_{S}$	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 = $-7^{\circ}$ C	7.95	5.31
Pdh Tj = $+2$ °C	16.01 kW	15.95 kW
$COP Tj = +2^{\circ}C$	8.15	6.22
Pdh Tj = $+7$ °C	16.11 kW	16.15 kW
$COP Tj = +7^{\circ}C$	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



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РТО	12 W	12 W
PSB	12 W	12 W
PCK	o 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	

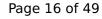
EN 14511-2		
Low temperature Medium temperature		
Heat output	20.18 kW	18.93 kW
El input	4.26 kW	6.42 kW
СОР	4.73	2.95

## **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
$\eta_{s}$	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



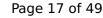


Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	33.28 kW	31.13 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.26	2.86
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	12 W	12 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	o w	o w
Supplementary Heater: Type of energy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

## Warmer Climate

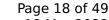
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
Low temperature Medium temperatu		
$\eta_{S}$	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 = $+7^{\circ}$ C	21.39 kW	20.01 kW
$COPTj = +7^{\circ}C$	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
РТО	12 W	12 W
PSB	12 W	12 W
РСК	0 W	o w
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW



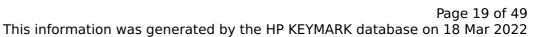


Annual energy consumption Qhe	7963 kWh	9906 kWh
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## Colder Climate

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

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	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
РТО	12 W	12 W
PSB	12 W	12 W
PCK	o 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





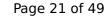
EN 14511-4		
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed	
Shutting off the heat transfer medium flow	passed	
Complete power supply failure	passed	

EN 14511-2			
Low temperature Medium temperature			
Heat output	24.52 kW	34.95 kW	
El input	3.79 kW	9.26 kW	
СОР	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
$\eta_{S}$	298 %	214 %
Prated	24.52 kW	34.95 kW





This information was generated by the HF KLTMAKK database on 16 Mai 2022				
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		
$COPTj = -7^{\circ}C$	6.85	4.12		
Pdh Tj = +2°C	15.84 kW	18.82 kW		
$COPTj = +2^{\circ}C$	7.75	5.61		
Pdh Tj = $+7$ °C	15.99 kW	15.99 kW		
$COPTj = +7^{\circ}C$	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		
РТО	12 W	12 W		
PSB	12 W	12 W		
РСК	o w	o 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
$\eta_{s}$	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
$COP Tj = +7^{\circ}C$	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
РТО	12 W	12 W
PSB	12 W	12 W
PCK	o 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
$\eta_{s}$	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
$COP Tj = -7^{\circ}C$	7.95	5.31
Pdh Tj = +2°C	16.01 kW	15.95 kW
$COP Tj = +2^{\circ}C$	8.15	6.22
Pdh Tj = $+7^{\circ}$ C	16.11 kW	16.15 kW
$COP Tj = +7^{\circ}C$	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



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PTO	12 W	12 W
PSB	12 W	12 W
PCK	o w	o 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	
СОР	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
$\eta_{s}$	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
РТО	12 W	12 W
PSB	12 W	12 W
PCK	o w	o 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

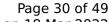
EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	47 dB(A)	47 dB(A)	

EN 14825			
Low temperature Medium temperature			
$\eta_{S}$	214 %	160 %	
Prated	33.28 kW	31.13 kW	
		1	





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 = $+7^{\circ}$ C	21.39 kW	20.01 kW
$COPTj = +7^{\circ}C$	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
РТО	12 W	12 W
PSB	12 W	12 W
РСК	0 W	o w
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW





		l	
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	
$\eta_{s}$	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
РТО	12 W	12 W
PSB	12 W	12 W
PCK	o 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	
СОР	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
$\eta_{S}$	298 %	214 %
Prated	24.52 kW	34.95 kW



KEYMARK		Page 33 of 49		
This information was generated by the HP KEYMARK database on 18 Mar 2022				
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 = $+7^{\circ}$ C	15.99 kW	15.99 kW		
$COP Tj = +7^{\circ}C$	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		

CEN heat pump

Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = $-7^{\circ}$ C	21.69 kW	30.92 kW
$COP Tj = -7^{\circ}C$	6.85	4.12
Pdh Tj = $+2$ °C	15.84 kW	18.82 kW
COP Tj = +2°C	7.75	5.61
Pdh Tj = $+7^{\circ}$ C	15.99 kW	15.99 kW
$COP Tj = +7^{\circ}C$	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
РТО	12 W	12 W
PSB	12 W	12 W
PCK	0 W	0 W
	I	1





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
$\eta_{s}$	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 = $+7^{\circ}$ C	15.76 kW	22.47 kW
$COP Tj = +7^{\circ}C$	7.72	4.98
Pdh Tj = 12°C	16.05 kW	16.06 kW



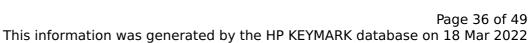


COP Tj = 12°C	8.25	6.49
Pdh Tj = Tbiv	24.52 kW	34.95 kW
COP Tj = Tbiv	6.47	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	24.52 kW	34.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.47	3.77
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.00	1.00
WTOL	65 °C	65 °C
Poff	12 W	12 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	o w	o 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
$\eta_{s}$	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
$COP Tj = -7^{\circ}C$	7.95	5.31
Pdh Tj = $+2^{\circ}$ C	16.01 kW	15.95 kW
$COPTj = +2^{\circ}C$	8.15	6.22
Pdh Tj = $+7^{\circ}$ C	16.11 kW	16.15 kW
$COPTj = +7^{\circ}C$	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
		•



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РТО	12 W	12 W
PSB	12 W	12 W
PCK	o 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
СОР	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	
$\eta_{s}$	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
РТО	12 W	12 W
PSB	12 W	12 W
PCK	o w	o 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

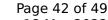
EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	47 dB(A)	47 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{S}$	214 %	160 %
Prated	33.28 kW	31.13 kW
	<u> </u>	'





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
$COPTj = +2^{\circ}C$	4.26	2.86
Pdh Tj = $+7^{\circ}$ C	21.39 kW	20.01 kW
$COPTj = +7^{\circ}C$	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
РТО	12 W	12 W
PSB	12 W	12 W
РСК	0 W	o w
Supplementary Heater: Type of energy input	n/a	n/a
Supplementary Heater: PSUP	0.00 kW	0.00 kW



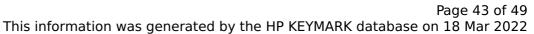


		l	
Annual energy consumption Qhe	7963 kWh	9906 kWh	

# 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
$\eta_{s}$	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
$COP Tj = -7^{\circ}C$	5.49	3.99
Pdh Tj = $+2^{\circ}$ C	12.26 kW	11.47 kW
$COP Tj = +2^{\circ}C$	6.11	4.73
Pdh Tj = +7°C	12.53 kW	12.14 kW
$COP Tj = +7^{\circ}C$	6.10	4.98
Pdh Tj = 12°C	12.49 kW	12.22 kW
		·

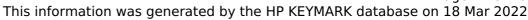




COP Tj = 12°C	5.91	5.12
Pdh Tj = Tbiv	33.28 kW	31.13 kW
COP Tj = Tbiv	4.26	2.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	33.28 kW	31.13 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.26	2.86
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	12 W	12 W
РТО	12 W	12 W
PSB	12 W	12 W
PCK	o 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
СОР	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
$\eta_{S}$	298 %	214 %
Prated	24.52 kW	34.95 kW





	ted by the HI KETMAI	NK database on 10 Mai 2022
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
$COP Tj = -7^{\circ}C$	6.85	4.12
Pdh Tj = +2°C	15.84 kW	18.82 kW
COP Tj = +2°C	7.75	5.61
Pdh Tj = $+7^{\circ}$ C	15.99 kW	15.99 kW
$COPTj = +7^{\circ}C$	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
РТО	12 W	12 W
PSB	12 W	12 W
PCK	0 W	o w
	1	1





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
$\eta_{s}$	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
$COP Tj = +7^{\circ}C$	7.72	4.98
Pdh Tj = 12°C	16.05 kW	16.06 kW





8.25	6.49
24.52 kW	34.95 kW
6.47	3.77
24.52 kW	34.95 kW
6.47	3.77
1.00	1.00
65 °C	65 °C
12 W	12 W
12 W	12 W
12 W	12 W
0 W	0 W
n/a	n/a
0.00 kW	0.00 kW
4223 kWh	8453 kWh
	24.52 kW 6.47 24.52 kW 6.47 1.00 65 °C 12 W 12 W 12 W 0 W n/a 0.00 kW

## 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
$\eta_{s}$	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
$COP Tj = +2^{\circ}C$	8.15	6.22
Pdh Tj = $+7$ °C	16.11 kW	16.15 kW
$COP Tj = +7^{\circ}C$	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



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РТО	12 W	12 W
PSB	12 W	12 W
PCK	o 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