Subtype Thermia Mega Eco M 230-3	
Certificate Holder	Thermia
Address	Snickaregatan 1
ZIP	
City	Arvika
Country	SE
Certification Body	RISE CERT
Subtype title	Thermia Mega Eco M 230-3
Registration number	012-C700327
Heat Pump Type	Brine/Water and Water/Water
Refrigerant	R454B
Mass of Refrigerant	4.5 kg
Certification Date	17.06.2024
Testing basis	EN 14511:2022, EN 14825:2022, EN 12102:2022
Testing laboratory	RISE Research Institutes of Sweden

Model Thermia Mega Eco M 230-3

Model name	Thermia Mega Eco M 230-3
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x230V 50Hz
Off-peak product	n/a

Brine/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	26.89 kW	25.23 kW
El input	5.98 kW	8.54 kW
COP	4.50	2.95

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	50 dB(A)	50 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	204 %	155 %
Prated	44.39 kW	41.89 kW
SCOP	5.29	4.09
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	39.27 kW	37.05 kW
COP Tj = -7°C	4.16	2.95
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	23.90 kW	22.55 kW
COP Tj = +2°C	5.23	4.07
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	15.37 kW	14.50 kW
COP Tj = +7°C	6.08	4.83
Cdh Tj = +7 °C	0.990	1.000

Pdh Tj = 12°C	11.48 kW	11.44 kW
COP Tj = 12°C	6.31	5.17
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	44.39 kW	41.89 kW
COP Tj = Tbiv	3.84	2.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	44.39 kW	41.89 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.84	2.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
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	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	17334 kWh	21183 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	50 dB(A)	50 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	213 %	163 %
Prated	44.39 kW	41.89 kW
SCOP	5.54	4.27
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	26.87 kW	25.35 kW
COP Tj = -7°C	5.08	3.83
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	16.35 kW	15.43 kW
COP Tj = +2°C	6.01	4.71
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	11.49 kW	11.45 kW
COP Tj = +7°C	6.54	5.24
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	11.48 kW	11.45 kW
COP Tj = 12°C	6.13	5.26
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	44.39 kW	41.89 kW
COP Tj = Tbiv	3.84	2.72

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	44.39 kW	41.89 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.84	2.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
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	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	19763 kWh	24167 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	50 dB(A)	50 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	209 %	159 %
Prated	44.39 kW	41.89 kW
SCOP	5.42	4.19
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	44.39 kW	41.89 kW
COP Tj = +2°C	3.84	2.72
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	28.54 kW	26.93 kW
COP Tj = +7°C	4.87	3.61
Cdh Tj = +7 °C	1.000	1.000
Pdh Tj = 12°C	12.68 kW	11.97 kW
COP Tj = 12°C	6.31	5.12
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	44.39 kW	41.89 kW
COP Tj = Tbiv	3.84	2.72
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	44.39 kW	41.89 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.84	2.72
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
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	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	10939 kWh	13370 kWh

Water/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	35.91 kW	33.53 kW
El input	6.11 kW	8.74 kW
COP	5.87	3.84

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	297 %	217 %
Prated	60.14 kW	57.04 kW
SCOP	7.63	5.62
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	53.20 kW	50.46 kW
COP Tj = -7°C	5.35	3.99
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	32.38 kW	30.71 kW
COP Tj = +2°C	7.61	5.54
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	20.82 kW	19.74 kW
COP Tj = +7°C	9.23	6.77
Cdh Tj = +7 °C	0.990	1.000
Pdh Tj = 12°C	15.04 kW	14.82 kW
COP Tj = 12°C	9.68	7.32
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	60.14 kW	57.04 kW
COP Tj = Tbiv	4.88	3.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	60.14 kW	57.04 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	3.65

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
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	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	16276 kWh	20986 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	319 %	228 %
Prated	60.14 kW	57.04 kW
SCOP	8.17	5.90
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	36.40 kW	34.52 kW
COP Tj = -7°C	7.30	5.17
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	22.16 kW	21.01 kW
COP Tj = +2°C	9.17	6.55
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	14.24 kW	13.51 kW
COP Tj = +7°C	10.12	7.71
Cdh Tj = +7 °C	0.990	0.990
Pdh Tj = 12°C	14.97 kW	14.85 kW
COP Tj = 12°C	9.25	7.47
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	60.14 kW	57.04 kW
COP Tj = Tbiv	4.88	3.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	60.14 kW	57.04 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	3.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
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	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW

Annual energy consumption Qhe	18151 kWh	23833 kWh

EN 14825 | Warmer Climate		
	Low temperature	Medium temperature
ηs	309 %	223 %
Prated	60.14 kW	57.04 kW
SCOP	7.93	5.76
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	60.14 kW	57.04 kW
COP Tj = +2°C	4.88	3.65
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	38.66 kW	36.67 kW
COP Tj = +7°C	6.93	4.87
Cdh Tj = +7 °C	1.000	1.000
Pdh Tj = 12°C	17.18 kW	16.30 kW
COP Tj = 12°C	9.71	7.22
Cdh Tj = +12 °C	0.990	0.990
Pdh Tj = Tbiv	60.14 kW	57.04 kW
COP Tj = Tbiv	4.88	3.65
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	60.14 kW	57.04 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.88	3.65
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	1.000	1.000
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	Electricity	Electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	10131 kWh	13222 kWh