Subtype Thermia Mega ECO XL	
Certificate Holder	Thermia
Address	Snickaregatan 1
ZIP	
City	Arvika
Country	SE
Certification Body	RISE CERT
Subtype title	Thermia Mega ECO XL
Registration number	012-C700189
Heat Pump Type	Brine/Water and Water/Water
Refrigerant	R454B
Mass of Refrigerant	8.8 kg
Certification Date	22.09.2023
Testing basis	EN 14511:2018, EN 14825:2016, EN 12102:2017.
Testing laboratory	RISE Research Institutes of Sweden

Model Thermia Mega ECO XL 400V	
Model name	Thermia Mega ECO XL 400V
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	3x400V 50Hz
Off-peak product	Yes

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	50.31 kW	48.10 kW
El input	11.06 kW	15.92 kW
COP	4.55	3.02

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	202 %	159 %
Prated	84.07 kW	81.29 kW
SCOP	5.25	4.18
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	74.37 kW	71.91 kW
COP Tj = -7°C	4.23	3.15
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	45.27 kW	43.77 kW
COP Tj = +2°C	5.26	4.15
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	29.10 kW	28.14 kW
COP Tj = +7°C	5.95	4.91
Cdh Tj = +7 °C	1.000	1.000

Pdh Tj = 12°C	22.80 kW	23.00 kW
COP Tj = 12°C	5.72	4.94
Cdh Tj = +12 °C	1.000	1.000
Pdh Tj = Tbiv	84.07 kW	81.29 kW
COP Tj = Tbiv	3.95	2.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	84.07 kW	81.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.95	2.91
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	33054 kWh	40141 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	209 %	166 %
Prated	84.07 kW	81.29 kW
SCOP	5.44	4.35
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	50.89 kW	49.20 kW
COP Tj = -7°C	5.11	3.92
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	30.97 kW	29.95 kW
COP Tj = +2°C	5.91	4.84
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	22.81 kW	23.10 kW
COP Tj = +7°C	5.80	5.00
Cdh Tj = +7 °C	1.000	1.000
Pdh Tj = 12°C	22.79 kW	23.19 kW
COP Tj = 12°C	5.58	5.06
Cdh Tj = +12 °C	1.000	1.000
Pdh Tj = Tbiv	84.07 kW	81.29 kW
COP Tj = Tbiv	3.95	2.91

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	84.07 kW	81.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.95	2.91
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	38123 kWh	46029 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	203 %	158 %
Prated	84.07 kW	81.29 kW
SCOP	5.27	4.16
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	84.07 kW	81.29 kW
COP Tj = +2°C	3.95	2.91
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	54.05 kW	52.26 kW
COP Tj = +7°C	4.94	3.69
Cdh Tj = +7 °C	1.000	1.000
Pdh Tj = 12°C	24.02 kW	23.23 kW
COP Tj = 12°C	5.84	4.87
Cdh Tj = +12 °C	1.000	1.000
Pdh Tj = Tbiv	84.07 kW	81.29 kW
COP Tj = Tbiv	3.95	2.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	84.07 kW	81.29 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.95	2.91
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	21295 kWh	26114 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	50.31 kW	48.10 kW
El input	11.06 kW	15.92 kW
COP	4.55	3.02

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	303 %	219 %
Prated	75.12 kW	79.55 kW
SCOP	7.78	5.68
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	66.45 kW	70.37 kW
COP Tj = -7°C	5.86	4.11
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	40.45 kW	42.83 kW
COP Tj = +2°C	7.78	5.61
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	28.63 kW	27.54 kW
COP Tj = +7°C	9.07	6.84
Cdh Tj = +7 °C	1.000	1.000
Pdh Tj = 12°C	28.63 kW	28.56 kW
COP Tj = 12°C	9.08	7.16
Cdh Tj = +12 °C	1.000	1.000
Pdh Tj = Tbiv	75.12 kW	79.55 kW
COP Tj = Tbiv	5.44	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	75.12 kW	79.55 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.44	5.44

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	19949 kWh	28911 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	320 %	229 %
Prated	75.12 kW	79.55 kW
SCOP	8.20	5.93
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	45.47 kW	48.15 kW
COP Tj = -7°C	7.58	5.25
Cdh Tj = -7 °C	1.000	1.000
Pdh Tj = +2°C	27.68 kW	29.31 kW
COP Tj = +2°C	9.08	6.62
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	28.63 kW	28.55 kW
COP Tj = +7°C	9.11	7.13
Cdh Tj = +7 °C	1.000	1.000
Pdh Tj = 12°C	28.60 kW	28.61 kW
COP Tj = 12°C	8.86	7.38
Cdh Tj = +12 °C	1.000	1.000
Pdh Tj = Tbiv	75.12 kW	79.55 kW
COP Tj = Tbiv	5.44	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	75.12 kW	79.55 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.44	3.77
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	22572 kWh	33084 kWh

EN 14825 | Warmer Climate		
	Low temperature	Medium temperature
ηs	307 %	221 %
Prated	75.12 kW	79.55 kW
SCOP	7.88	5.72
Tbiv	2 °C	2 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	75.12 kW	79.55 kW
COP Tj = +2°C	5.44	3.77
Cdh Tj = +2 °C	1.000	1.000
Pdh Tj = +7°C	48.29 kW	51.14 kW
COP Tj = +7°C	7.27	4.96
Cdh Tj = +7 °C	1.000	1.000
Pdh Tj = 12°C	28.61 kW	28.49 kW
COP Tj = 12°C	8.99	6.92
Cdh Tj = +12 °C	1.000	1.000
Pdh Tj = Tbiv	75.12 kW	79.55 kW
COP Tj = Tbiv	5.44	3.77
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	75.12 kW	79.55 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.44	3.77
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	12740 kWh	18594 kWh