Subtype Thermia Legend 10	
Certificate Holder	Thermia
Address	Snickaregatan 1
ZIP	
City	Arvika
Country	SE
Certification Body	RISE CERT
Subtype title	Thermia Legend 10
Registration number	012-C700138
Heat Pump Type	Brine/Water and Water/Water
Refrigerant	R452B
Mass of Refrigerant	0.9 kg
Certification Date	25.10.2022
Testing basis	EN 14511:2018, EN 14825:2018, EN 12102:2017.
Testing laboratory	RISE Research Institutes of Sweden

Model Thermia Legend 10 400V	
Model name	Thermia Legend 10 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
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	9.81 kW	9.25 kW
El input	2.06 kW	3.04 kW
COP	4.76	3.05

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	42 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	195 %	145 %
Prated	10.60 kW	11.77 kW
SCOP	5.09	3.84
Tbiv	-8 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.81 kW	9.39 kW
COP Tj = -7°C	4.78	3.26
Cdh Tj = -7 °C	0.996	0.997
Pdh Tj = +2°C	10.00 kW	9.63 kW
COP Tj = +2°C	5.08	3.86
Cdh Tj = +2 °C	0.996	0.997
Pdh Tj = +7°C	10.13 kW	9.76 kW
COP Tj = +7°C	5.37	4.24

Cdh Tj = +7 °C	0.996	0.996
Pdh Tj = 12°C	10.15 kW	9.88 kW
COP Tj = 12°C	5.62	4.69
Cdh Tj = +12 °C	0.995	0.996
Pdh Tj = Tbiv	9.79 kW	9.51 kW
COP Tj = Tbiv	4.73	3.44
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.74 kW	9.22 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.65	3.02
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.86 kW	2.55 kW
Annual energy consumption Qhe	4305 kWh	6337 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	42 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	202 %	150 %
Prated	11.43 kW	11.29 kW
SCOP	5.24	3.94
Tbiv	-17 °C	-16 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	10.06 kW	9.59 kW
COP Tj = -7°C	5.17	3.72
Cdh Tj = -7 °C	0.996	0.997
Pdh Tj = +2°C	10.13 kW	9.73 kW
COP Tj = +2°C	5.40	4.15
Cdh Tj = +2 °C	0.996	0.996
Pdh Tj = +7°C	10.15 kW	9.84 kW
COP Tj = +7°C	5.56	4.54
Cdh Tj = +7 °C	0.995	0.996
Pdh Tj = 12°C	10.15 kW	9.93 kW
COP Tj = 12°C	5.59	4.87
Cdh Tj = +12 °C	0.995	0.996
Pdh Tj = Tbiv	9.93 kW	9.50 kW
COP Tj = Tbiv	4.96	3.44

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.74 kW	9.22 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.65	3.02
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.69 kW	2.07 kW
Annual energy consumption Qhe	5379 kWh	7064 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	42 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	198 %	147 %
Prated	11.52 kW	10.99 kW
SCOP	5.15	3.87
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	9.74 kW	9.22 kW
COP Tj = +2°C	4.65	3.02
Cdh Tj = +2 °C	0.996	0.997
Pdh Tj = +7°C	9.99 kW	9.55 kW
COP Tj = +7°C	5.05	3.57
Cdh Tj = +7 °C	0.996	0.997
Pdh Tj = 12°C	10.14 kW	9.79 kW
COP Tj = 12°C	5.47	4.37
Cdh Tj = +12 °C	0.995	0.996
Pdh Tj = Tbiv	9.87 kW	9.42 kW
COP Tj = Tbiv	4.88	3.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.74 kW	9.22 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.65	3.02
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	8 W	8 W

PSB	8 W	8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.78 kW	1.77 kW
Annual energy consumption Qhe	2990 kWh	3799 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	12.55 kW	12.01 kW
El input	2.13 kW	3.18 kW
COP	5.90	3.78

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	247 %	186 %
Prated	13.27 kW	14.46 kW
SCOP	6.38	4.85
Tbiv	-9 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.76 kW	12.18 kW
COP Tj = -7°C	6.14	4.08
Cdh Tj = -7 °C	0.996	0.997
Pdh Tj = +2°C	12.73 kW	12.45 kW
COP Tj = +2°C	6.37	4.86
Cdh Tj = +2 °C	0.996	0.997
Pdh Tj = +7°C	12.64 kW	12.55 kW
COP Tj = +7°C	6.62	5.39
Cdh Tj = +7 °C	0.996	0.996
Pdh Tj = 12°C	12.51 kW	12.69 kW
COP Tj = 12°C	6.85	5.99
Cdh Tj = +12 °C	0.995	0.996
Pdh Tj = Tbiv	12.76 kW	12.24 kW
COP Tj = Tbiv	6.05	4.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.76 kW	12.01 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.01	3.78

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	2.45 kW
Annual energy consumption Qhe	4301 kWh	6164 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	252 %	192 %
Prated	14.25 kW	14.10 kW
SCOP	6.50	4.99
Tbiv	-18 °C	-17 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	12.71 kW	12.40 kW
COP Tj = -7°C	6.45	4.68
Cdh Tj = -7 °C	0.996	0.997
Pdh Tj = +2°C	12.62 kW	12.53 kW
COP Tj = +2°C	6.65	5.27
Cdh Tj = +2 °C	0.996	0.996
Pdh Tj = +7°C	12.54 kW	12.64 kW
COP Tj = +7°C	6.79	5.80
Cdh Tj = +7 °C	0.995	0.996
Pdh Tj = 12°C	12.52 kW	12.74 kW
COP Tj = 12°C	6.82	6.24
Cdh Tj = +12 °C	0.995	0.996
Pdh Tj = Tbiv	12.75 kW	12.25 kW
COP Tj = Tbiv	6.23	4.22
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.76 kW	12.01 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.01	3.78
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.49 kW	2.09 kW

Annual energy consumption Qhe	4301 kWh	6970 kWh

EN 14825 | Warmer Climate		
	Low temperature	Medium temperature
ηs	249 %	188 %
Prated	13.75 kW	14.24 kW
SCOP	6.42	4.89
Tbiv	3 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.76 kW	12.01 kW
COP Tj = +2°C	6.01	3.78
Cdh Tj = +2 °C	0.996	0.997
Pdh Tj = +7°C	12.73 kW	12.35 kW
COP Tj = +7°C	6.33	4.50
Cdh Tj = +7 °C	0.996	0.997
Pdh Tj = 12°C	12.59 kW	12.59 kW
COP Tj = 12°C	6.70	5.58
Cdh Tj = +12 °C	0.996	0.996
Pdh Tj = Tbiv	12.76 kW	12.21 kW
COP Tj = Tbiv	6.11	4.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.76 kW	12.01 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.01	3.78
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.99 kW	2.23 kW
Annual energy consumption Qhe	2862 kWh	3890 kWh

Model Thermia Legend 10 230-1	
Model name	Thermia Legend 10 230-1
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	1x230V 50Hz
Off-peak product	Yes

Brine/Water

EN 14511-4 | Heating

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

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	9.81 kW	9.25 kW
El input	2.06 kW	3.04 kW
COP	4.76	3.05

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	42 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	195 %	145 %
Prated	10.60 kW	11.77 kW
SCOP	5.09	3.84
Tbiv	-8 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.81 kW	9.39 kW
COP Tj = -7°C	4.78	3.26
Cdh Tj = -7 °C	0.996	0.997
Pdh Tj = +2°C	10.00 kW	9.63 kW
COP Tj = +2°C	5.08	3.86
Cdh Tj = +2 °C	0.996	0.997
Pdh Tj = +7°C	10.13 kW	9.76 kW
COP Tj = +7°C	5.37	4.24

Cdh Tj = +7 °C	0.996	0.996
Pdh Tj = 12°C	10.15 kW	9.88 kW
COP Tj = 12°C	5.62	4.69
Cdh Tj = +12 °C	0.995	0.996
Pdh Tj = Tbiv	9.79 kW	9.51 kW
COP Tj = Tbiv	4.73	3.44
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.74 kW	9.22 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.65	3.02
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.86 kW	2.55 kW
Annual energy consumption Qhe	4305 kWh	6337 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	42 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	202 %	150 %
Prated	11.43 kW	11.29 kW
SCOP	5.24	3.94
Tbiv	-17 °C	-16 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	10.06 kW	9.59 kW
COP Tj = -7°C	5.17	3.72
Cdh Tj = -7 °C	0.996	0.997
Pdh Tj = +2°C	10.13 kW	9.73 kW
COP Tj = +2°C	5.40	4.15
Cdh Tj = +2 °C	0.996	0.996
Pdh Tj = +7°C	10.15 kW	9.84 kW
COP Tj = +7°C	5.56	4.54
Cdh Tj = +7 °C	0.995	0.996
Pdh Tj = 12°C	10.15 kW	9.93 kW
COP Tj = 12°C	5.59	4.87
Cdh Tj = +12 °C	0.995	0.996
Pdh Tj = Tbiv	9.93 kW	9.50 kW
COP Tj = Tbiv	4.96	3.44

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.74 kW	9.22 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.65	3.02
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.69 kW	2.07 kW
Annual energy consumption Qhe	5379 kWh	7064 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	41 dB(A)	42 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	198 %	147 %
Prated	11.52 kW	10.99 kW
SCOP	5.15	3.87
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	9.74 kW	9.22 kW
COP Tj = +2°C	4.65	3.02
Cdh Tj = +2 °C	0.996	0.997
Pdh Tj = +7°C	9.99 kW	9.55 kW
COP Tj = +7°C	5.05	3.57
Cdh Tj = +7 °C	0.996	0.997
Pdh Tj = 12°C	10.14 kW	9.79 kW
COP Tj = 12°C	5.47	4.37
Cdh Tj = +12 °C	0.995	0.996
Pdh Tj = Tbiv	9.87 kW	9.42 kW
COP Tj = Tbiv	4.88	3.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.74 kW	9.22 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.65	3.02
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	8 W	8 W

PSB	8 W	8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.78 kW	1.77 kW
Annual energy consumption Qhe	2990 kWh	3799 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	12.55 kW	12.01 kW
El input	2.13 kW	3.18 kW
COP	5.90	3.78

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	247 %	186 %
Prated	13.27 kW	14.46 kW
SCOP	6.38	4.85
Tbiv	-9 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.76 kW	12.18 kW
COP Tj = -7°C	6.14	4.08
Cdh Tj = -7 °C	0.996	0.997
Pdh Tj = +2°C	12.73 kW	12.45 kW
COP Tj = +2°C	6.37	4.86
Cdh Tj = +2 °C	0.996	0.997
Pdh Tj = +7°C	12.64 kW	12.55 kW
COP Tj = +7°C	6.62	5.39
Cdh Tj = +7 °C	0.996	0.996
Pdh Tj = 12°C	12.51 kW	12.69 kW
COP Tj = 12°C	6.85	5.99
Cdh Tj = +12 °C	0.995	0.996
Pdh Tj = Tbiv	12.76 kW	12.24 kW
COP Tj = Tbiv	6.05	4.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.76 kW	12.01 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.01	3.78

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	2.45 kW
Annual energy consumption Qhe	4301 kWh	6164 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	252 %	192 %
Prated	14.25 kW	14.10 kW
SCOP	6.50	4.99
Tbiv	-18 °C	-17 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	12.71 kW	12.40 kW
COP Tj = -7°C	6.45	4.68
Cdh Tj = -7 °C	0.996	0.997
Pdh Tj = +2°C	12.62 kW	12.53 kW
COP Tj = +2°C	6.65	5.27
Cdh Tj = +2 °C	0.996	0.996
Pdh Tj = +7°C	12.54 kW	12.64 kW
COP Tj = +7°C	6.79	5.80
Cdh Tj = +7 °C	0.995	0.996
Pdh Tj = 12°C	12.52 kW	12.74 kW
COP Tj = 12°C	6.82	6.24
Cdh Tj = +12 °C	0.995	0.996
Pdh Tj = Tbiv	12.75 kW	12.25 kW
COP Tj = Tbiv	6.23	4.22
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.76 kW	12.01 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.01	3.78
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.49 kW	2.09 kW

Annual energy consumption Qhe	4301 kWh	6970 kWh

EN 14825 | Warmer Climate		
	Low temperature	Medium temperature
ηs	249 %	188 %
Prated	13.75 kW	14.24 kW
SCOP	6.42	4.89
Tbiv	3 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.76 kW	12.01 kW
COP Tj = +2°C	6.01	3.78
Cdh Tj = +2 °C	0.996	0.997
Pdh Tj = +7°C	12.73 kW	12.35 kW
COP Tj = +7°C	6.33	4.50
Cdh Tj = +7 °C	0.996	0.997
Pdh Tj = 12°C	12.59 kW	12.59 kW
COP Tj = 12°C	6.70	5.58
Cdh Tj = +12 °C	0.996	0.996
Pdh Tj = Tbiv	12.76 kW	12.21 kW
COP Tj = Tbiv	6.11	4.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.76 kW	12.01 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.01	3.78
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.99 kW	2.23 kW
Annual energy consumption Qhe	2862 kWh	3890 kWh

Model Thermia Legend 10 Duo 400V	
Model name	Thermia Legend 10 Duo 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
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	9.81 kW	9.25 kW
El input	2.06 kW	3.04 kW
COP	4.76	3.05

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	44 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	195 %	145 %
Prated	10.60 kW	11.77 kW
SCOP	5.09	3.84
Tbiv	-8 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.81 kW	9.39 kW
COP Tj = -7°C	4.78	3.26
Cdh Tj = -7 °C	0.996	0.997
Pdh Tj = +2°C	10.00 kW	9.63 kW
COP Tj = +2°C	5.08	3.86
Cdh Tj = +2 °C	0.996	0.997
Pdh Tj = +7°C	10.13 kW	9.76 kW
COP Tj = +7°C	5.37	4.24

Cdh Tj = +7 °C	0.996	0.996
Pdh Tj = 12°C	10.15 kW	9.88 kW
COP Tj = 12°C	5.62	4.69
Cdh Tj = +12 °C	0.995	0.996
Pdh Tj = Tbiv	9.79 kW	9.51 kW
COP Tj = Tbiv	4.73	3.44
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.74 kW	9.22 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.65	3.02
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.86 kW	2.55 kW
Annual energy consumption Qhe	4305 kWh	6337 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	44 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	202 %	150 %
Prated	11.43 kW	11.29 kW
SCOP	5.24	3.94
Tbiv	-17 °C	-16 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	10.06 kW	9.59 kW
COP Tj = -7°C	5.17	3.72
Cdh Tj = -7 °C	0.996	0.997
Pdh Tj = +2°C	10.13 kW	9.73 kW
COP Tj = +2°C	5.40	4.15
Cdh Tj = +2 °C	0.996	0.996
Pdh Tj = +7°C	10.15 kW	9.84 kW
COP Tj = +7°C	5.56	4.54
Cdh Tj = +7 °C	0.995	0.996
Pdh Tj = 12°C	10.15 kW	9.93 kW
COP Tj = 12°C	5.59	4.87
Cdh Tj = +12 °C	0.995	0.996
Pdh Tj = Tbiv	9.93 kW	9.50 kW
COP Tj = Tbiv	4.96	3.44

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.74 kW	9.22 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.65	3.02
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.69 kW	2.07 kW
Annual energy consumption Qhe	5379 kWh	7064 kWh

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	44 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	198 %	147 %
Prated	11.52 kW	10.99 kW
SCOP	5.15	3.87
Tbiv	4 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	9.74 kW	9.22 kW
COP Tj = +2°C	4.65	3.02
Cdh Tj = +2 °C	0.996	0.997
Pdh Tj = +7°C	9.99 kW	9.55 kW
COP Tj = +7°C	5.05	3.57
Cdh Tj = +7 °C	0.996	0.997
Pdh Tj = 12°C	10.14 kW	9.79 kW
COP Tj = 12°C	5.47	4.37
Cdh Tj = +12 °C	0.995	0.996
Pdh Tj = Tbiv	9.87 kW	9.42 kW
COP Tj = Tbiv	4.88	3.31
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.74 kW	9.22 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.65	3.02
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	8 W	8 W

PSB	8 W	8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.78 kW	1.77 kW
Annual energy consumption Qhe	2990 kWh	3799 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	12.55 kW	12.01 kW
El input	2.13 kW	3.18 kW
COP	5.90	3.78

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	247 %	186 %
Prated	13.27 kW	14.46 kW
SCOP	6.38	4.85
Tbiv	-9 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.76 kW	12.18 kW
COP Tj = -7°C	6.14	4.08
Cdh Tj = -7 °C	0.996	0.997
Pdh Tj = +2°C	12.73 kW	12.45 kW
COP Tj = +2°C	6.37	4.86
Cdh Tj = +2 °C	0.996	0.997
Pdh Tj = +7°C	12.64 kW	12.55 kW
COP Tj = +7°C	6.62	5.39
Cdh Tj = +7 °C	0.996	0.996
Pdh Tj = 12°C	12.51 kW	12.69 kW
COP Tj = 12°C	6.85	5.99
Cdh Tj = +12 °C	0.995	0.996
Pdh Tj = Tbiv	12.76 kW	12.24 kW
COP Tj = Tbiv	6.05	4.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.76 kW	12.01 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.01	3.78

Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.51 kW	2.45 kW
Annual energy consumption Qhe	4301 kWh	6164 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	252 %	192 %
Prated	14.25 kW	14.10 kW
SCOP	6.50	4.99
Tbiv	-18 °C	-17 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	12.71 kW	12.40 kW
COP Tj = -7°C	6.45	4.68
Cdh Tj = -7 °C	0.996	0.997
Pdh Tj = +2°C	12.62 kW	12.53 kW
COP Tj = +2°C	6.65	5.27
Cdh Tj = +2 °C	0.996	0.996
Pdh Tj = +7°C	12.54 kW	12.64 kW
COP Tj = +7°C	6.79	5.80
Cdh Tj = +7 °C	0.995	0.996
Pdh Tj = 12°C	12.52 kW	12.74 kW
COP Tj = 12°C	6.82	6.24
Cdh Tj = +12 °C	0.995	0.996
Pdh Tj = Tbiv	12.75 kW	12.25 kW
COP Tj = Tbiv	6.23	4.22
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.76 kW	12.01 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.01	3.78
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.49 kW	2.09 kW

Annual energy consumption Qhe	4301 kWh	6970 kWh

EN 14825 | Warmer Climate		
	Low temperature	Medium temperature
ηs	249 %	188 %
Prated	13.75 kW	14.24 kW
SCOP	6.42	4.89
Tbiv	3 °C	4 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	12.76 kW	12.01 kW
COP Tj = +2°C	6.01	3.78
Cdh Tj = +2 °C	0.996	0.997
Pdh Tj = +7°C	12.73 kW	12.35 kW
COP Tj = +7°C	6.33	4.50
Cdh Tj = +7 °C	0.996	0.997
Pdh Tj = 12°C	12.59 kW	12.59 kW
COP Tj = 12°C	6.70	5.58
Cdh Tj = +12 °C	0.996	0.996
Pdh Tj = Tbiv	12.76 kW	12.21 kW
COP Tj = Tbiv	6.11	4.14
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	12.76 kW	12.01 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	6.01	3.78
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.996	0.997
WTOL	65 °C	65 °C
Poff	4 W	4 W
PTO	8 W	8 W
PSB	8 W	8 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.99 kW	2.23 kW
Annual energy consumption Qhe	2862 kWh	3890 kWh