

Subtype S1x55-12

Certificate Holder	Nibe AB
Address	Box 14
ZIP	S-28521
City	Markaryd
Country	SE
Certification Body	RISE CERT
Subtype title	S1x55-12
Registration number	012-SC0191-19
Heat Pump Type	Brine/Water and Water/Water
Refrigerant	R407c
Mass of Refrigerant	2 kg
Certification Date	05.08.2019
Testing laboratory	Austrian Institute of Technology (AIT)

**Model S1255-12 3x400**

Model name	S1255-12 3x400
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x400V 50Hz
Off-peak product	No

**Brine/Water**
**EN 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	98 %
COP	2.45
Heating up time	01:42 h:min
Standby power input	50.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	222 l

**EN 16147 | Colder Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	98 %
COP	2.45
Heating up time	01:42 h:min
Standby power input	50.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	222 l

**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure passed

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	5.06 kW	4.46 kW
El input	1.04 kW	1.47 kW
COP	4.87	3.02

**EN 12102-1 | Average Climate**

Low temperature	Medium temperature
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Sound power level indoor	44 dB(A)	44 dB(A)
EN 14825   Average Climate		
ηs	Low temperature	Medium temperature
Prated	201 %	157 %
SCOP	11.00 kW	12.40 kW
Tbiv	5.23	4.13
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	-10 °C	-10 °C
COP Tj = -7°C	10.30 kW	11.10 kW
Cdh Tj = -7 °C	4.52	3.18
Pdh Tj = +2°C	0.98	0.99
COP Tj = +2°C	6.30 kW	6.77 kW
Cdh Tj = +2 °C	5.22	4.12
Pdh Tj = +7°C	0.98	0.99
COP Tj = +7°C	4.10 kW	4.40 kW
Cdh Tj = +7 °C	5.60	4.67
Pdh Tj = 12°C	0.98	0.99
COP Tj = 12°C	2.70 kW	2.60 kW
Cdh Tj = +12 °C	5.78	5.06
Pdh Tj = Tbiv	0.98	0.99
COP Tj = Tbiv	11.50 kW	12.30 kW
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.26	2.91
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	11.50 kW	12.30 kW
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.98	0.99
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	20 W	15 W
PSB	7 W	7 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	4582 kWh	6213 kWh
EN 12102-1   Colder Climate		
Sound power level indoor	Low temperature	Medium temperature
44 dB(A)	44 dB(A)	44 dB(A)
EN 14825   Colder Climate		
ηs	Low temperature	Medium temperature
208 %	208 %	162 %

Prated	11.60 kW	12.40 kW
SCOP	5.40	4.25
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.10 kW	7.60 kW
COP Tj = -7°C	5.26	3.94
Pdh Tj = +2°C	4.30 kW	4.70 kW
COP Tj = +2°C	5.62	4.58
Pdh Tj = +7°C	2.80 kW	3.00 kW
COP Tj = +7°C	6.01	5.11
Pdh Tj = 12°C	2.70 kW	2.60 kW
COP Tj = 12°C	5.44	4.98
Pdh Tj = Tbiv	11.50 kW	12.30 kW
COP Tj = Tbiv	4.26	2.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.50 kW	12.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.26	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.97	0.98
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	20 W	15 W
PSB	7 W	7 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	5292 kWh	7173 kWh

#### Water/Water

##### EN 16147 | Average Climate

Declared load profile	XL
Efficiency ηDHW	113 %
COP	2.82
Heating up time	01:32 h:min
Standby power input	45.0 W
Reference hot water temperature	49.0 °C
Mixed water at 40°C	222 l

##### EN 16147 | Colder Climate

Declared load profile	XL
Efficiency ηDHW	113 %
COP	2.82
Heating up time	01:32 h:min
Standby power input	45.0 W

Reference hot water temperature	49.0 °C
Mixed water at 40°C	222 l

**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure passed

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	6.33 kW	5.79 kW
El input	1.03 kW	1.54 kW
COP	6.12	3.75

**EN 12102-1 | Average Climate**

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

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
ηs	253 %	197 %
Prated	14.00 kW	14.00 kW
SCOP	6.52	5.12
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.50 kW	12.40 kW
COP Tj = -7°C	5.46	3.84
Pdh Tj = +2°C	7.60 kW	7.60 kW
COP Tj = +2°C	6.56	5.12
Pdh Tj = +7°C	4.90 kW	4.90 kW
COP Tj = +7°C	7.14	5.90
Pdh Tj = 12°C	3.30 kW	3.20 kW
COP Tj = 12°C	7.65	6.52
Pdh Tj = Tbiv	14.00 kW	14.00 kW
COP Tj = Tbiv	5.08	3.48
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.00 kW	14.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.08	3.48
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.97	0.98
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	30 W	25 W
PSB	10 W	7 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	4433 kWh	5657 kWh
<b>EN 12102-1   Colder Climate</b>		
Sound power level indoor	Low temperature 44 dB(A)	Medium temperature 44 dB(A)
<b>EN 14825   Colder Climate</b>		
ηs	Low temperature 263 %	Medium temperature 204 %
Prated	14.00 kW	14.00 kW
SCOP	6.77	5.30
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	8.60 kW	8.60 kW
COP Tj = -7°C	6.50	4.85
Cdh Tj = -7 °C		
Pdh Tj = +2°C	5.20 kW	5.20 kW
COP Tj = +2°C	7.13	5.76
Cdh Tj = +2 °C		
Pdh Tj = +7°C	3.40 kW	3.40 kW
COP Tj = +7°C	7.84	6.65
Cdh Tj = +7 °C		
Pdh Tj = 12°C	3.30 kW	3.20 kW
COP Tj = 12°C	7.39	6.58
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	14.00 kW	14.00 kW
COP Tj = Tbiv	5.08	3.48
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.00 kW	14.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.08	3.48
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.960	0.970
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	30 W	25 W
PSB	10 W	7 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	5091 kWh	6497 kWh

**Model S1255-12 1x230**

Model name	S1255-12 1x230
Application	Heating + DHW + low temp
Units	Indoor
Climate zone (for heating)	Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	No

**Brine/Water**
**EN 16147 | Average Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	98 %
COP	2.45
Heating up time	01:42 h:min
Standby power input	50.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	222 l

**EN 16147 | Colder Climate**

Declared load profile	XL
Efficiency $\eta_{DHW}$	98 %
COP	2.45
Heating up time	01:42 h:min
Standby power input	50.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	222 l

**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure passed

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	5.06 kW	4.46 kW
El input	1.04 kW	1.47 kW
COP	4.87	3.02

**EN 12102-1 | Average Climate**

Low temperature	Medium temperature
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Sound power level indoor	44 dB(A)	44 dB(A)
EN 14825   Average Climate		
ηs	Low temperature	Medium temperature
Prated	201 %	157 %
SCOP	11.00 kW	12.40 kW
Tbiv	5.23	4.13
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	-10 °C	-10 °C
COP Tj = -7°C	10.30 kW	11.10 kW
Cdh Tj = -7 °C	4.52	3.18
Pdh Tj = +2°C	0.98	0.99
COP Tj = +2°C	6.30 kW	6.77 kW
Cdh Tj = +2 °C	5.22	4.12
Pdh Tj = +7°C	0.98	0.99
COP Tj = +7°C	4.10 kW	4.40 kW
Cdh Tj = +7 °C	5.60	4.67
Pdh Tj = 12°C	0.98	0.99
COP Tj = 12°C	2.70 kW	2.60 kW
Cdh Tj = +12 °C	5.78	5.06
Pdh Tj = Tbiv	0.98	0.99
COP Tj = Tbiv	11.50 kW	12.30 kW
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.26	2.91
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	11.50 kW	12.30 kW
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.98	0.99
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	20 W	15 W
PSB	7 W	7 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	4582 kWh	6213 kWh
EN 12102-1   Colder Climate		
Sound power level indoor	Low temperature	Medium temperature
44 dB(A)	44 dB(A)	44 dB(A)
EN 14825   Colder Climate		
ηs	Low temperature	Medium temperature
208 %	208 %	162 %

Prated	11.60 kW	12.40 kW
SCOP	5.40	4.25
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.10 kW	7.60 kW
COP Tj = -7°C	5.26	3.94
Pdh Tj = +2°C	4.30 kW	4.70 kW
COP Tj = +2°C	5.62	4.58
Pdh Tj = +7°C	2.80 kW	3.00 kW
COP Tj = +7°C	6.01	5.11
Pdh Tj = 12°C	2.70 kW	2.60 kW
COP Tj = 12°C	5.44	4.98
Pdh Tj = Tbiv	11.50 kW	12.30 kW
COP Tj = Tbiv	4.26	2.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.50 kW	12.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.26	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.97	0.98
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	20 W	15 W
PSB	7 W	7 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	5292 kWh	7173 kWh

#### Water/Water

##### EN 16147 | Average Climate

Declared load profile	XL
Efficiency ηDHW	113 %
COP	2.82
Heating up time	01:32 h:min
Standby power input	45.0 W
Reference hot water temperature	49.0 °C
Mixed water at 40°C	222 l

##### EN 16147 | Colder Climate

Declared load profile	XL
Efficiency ηDHW	113 %
COP	2.82
Heating up time	01:32 h:min
Standby power input	45.0 W

Reference hot water temperature	49.0 °C
Mixed water at 40°C	222 l

**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure passed

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	6.33 kW	5.79 kW
El input	1.03 kW	1.54 kW
COP	6.12	3.75

**EN 12102-1 | Average Climate**

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

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	253 %	197 %
Prated	14.00 kW	14.00 kW
SCOP	6.52	5.12
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.50 kW	12.40 kW
COP Tj = -7°C	5.46	3.84
Pdh Tj = +2°C	7.60 kW	7.60 kW
COP Tj = +2°C	6.56	5.12
Pdh Tj = +7°C	4.90 kW	4.90 kW
COP Tj = +7°C	7.14	5.90
Pdh Tj = 12°C	3.30 kW	3.20 kW
COP Tj = 12°C	7.65	6.52
Pdh Tj = Tbiv	14.00 kW	14.00 kW
COP Tj = Tbiv	5.08	3.48
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.00 kW	14.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.08	3.48
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.97	0.98
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	30 W	25 W
PSB	10 W	7 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	4433 kWh	5657 kWh
<b>EN 12102-1   Colder Climate</b>		
Sound power level indoor	Low temperature 44 dB(A)	Medium temperature 44 dB(A)
<b>EN 14825   Colder Climate</b>		
ηs	Low temperature 263 %	Medium temperature 204 %
Prated	14.00 kW	14.00 kW
SCOP	6.77	5.30
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	8.60 kW	8.60 kW
COP Tj = -7°C	6.50	4.85
Cdh Tj = -7 °C		
Pdh Tj = +2°C	5.20 kW	5.20 kW
COP Tj = +2°C	7.13	5.76
Cdh Tj = +2 °C		
Pdh Tj = +7°C	3.40 kW	3.40 kW
COP Tj = +7°C	7.84	6.65
Cdh Tj = +7 °C		
Pdh Tj = 12°C	3.30 kW	3.20 kW
COP Tj = 12°C	7.39	6.58
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	14.00 kW	14.00 kW
COP Tj = Tbiv	5.08	3.48
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.00 kW	14.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.08	3.48
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.960	0.970
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	30 W	25 W
PSB	10 W	7 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	5091 kWh	6497 kWh

**Model S1155-12 3x400**

Model name	S1155-12 3x400
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	3x400V 50Hz
Off-peak product	No

**Brine/Water**
**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
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**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	5.06 kW	4.46 kW
EI input	1.04 kW	1.47 kW
COP	4.87	3.02

**EN 12102-1 | Average Climate**

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

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	201 %	157 %
Prated	11.00 kW	12.40 kW
SCOP	5.23	4.13
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	10.30 kW	11.10 kW
COP Tj = -7°C	4.52	3.18
Cdh Tj = -7 °C	0.98	0.99
Pdh Tj = +2°C	6.30 kW	6.77 kW
COP Tj = +2°C	5.22	4.12
Cdh Tj = + 2 °C	0.98	0.99
Pdh Tj = +7°C	4.10 kW	4.40 kW
COP Tj = +7°C	5.60	4.67
Cdh Tj = + 7 °C	0.98	0.99
Pdh Tj = 12°C	2.70 kW	2.60 kW

COP Tj = 12°C	5.78	5.06
Cdh Tj = +12 °C	0.98	0.99
Pdh Tj = Tbiv	11.50 kW	12.30 kW
COP Tj = Tbiv	4.26	2.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.50 kW	12.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.26	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.98	0.99
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	20 W	15 W
PSB	7 W	7 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	4582 kWh	6213 kWh

**EN 12102-1 | Colder Climate**

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

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	208 %	162 %
Prated	11.60 kW	12.40 kW
SCOP	5.40	4.25
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.10 kW	7.60 kW
COP Tj = -7°C	5.26	3.94
Pdh Tj = +2°C	4.30 kW	4.70 kW
COP Tj = +2°C	5.62	4.58
Pdh Tj = +7°C	2.80 kW	3.00 kW
COP Tj = +7°C	6.01	5.11
Pdh Tj = 12°C	2.70 kW	2.60 kW
COP Tj = 12°C	5.44	4.98
Pdh Tj = Tbiv	11.50 kW	12.30 kW
COP Tj = Tbiv	4.26	2.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.50 kW	12.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.26	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.97	0.98

WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	20 W	15 W
PSB	7 W	7 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	5292 kWh	7173 kWh

**Water/Water**
**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
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**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	6.33 kW	5.79 kW
El input	1.03 kW	1.54 kW
COP	6.12	3.75

**EN 12102-1 | Average Climate**

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

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
ηs	253 %	197 %
Prated	14.00 kW	14.00 kW
SCOP	6.52	5.12
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.50 kW	12.40 kW
COP Tj = -7°C	5.46	3.84
Pdh Tj = +2°C	7.60 kW	7.60 kW
COP Tj = +2°C	6.56	5.12
Pdh Tj = +7°C	4.90 kW	4.90 kW
COP Tj = +7°C	7.14	5.90
Pdh Tj = 12°C	3.30 kW	3.20 kW
COP Tj = 12°C	7.65	6.52
Pdh Tj = Tbiv	14.00 kW	14.00 kW
COP Tj = Tbiv	5.08	3.48
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.00 kW	14.00 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.08	3.48
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.97	0.98
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	30 W	25 W
PSB	10 W	7 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	4433 kWh	5657 kWh

**EN 12102-1 | Colder Climate**

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

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	263 %	204 %
Prated	14.00 kW	14.00 kW
SCOP	6.77	5.30
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	8.60 kW	8.60 kW
COP Tj = -7°C	6.50	4.85
Cdh Tj = -7 °C		
Pdh Tj = +2°C	5.20 kW	5.20 kW
COP Tj = +2°C	7.13	5.76
Cdh Tj = +2 °C		
Pdh Tj = +7°C	3.40 kW	3.40 kW
COP Tj = +7°C	7.84	6.65
Cdh Tj = +7 °C		
Pdh Tj = 12°C	3.30 kW	3.20 kW
COP Tj = 12°C	7.39	6.58
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	14.00 kW	14.00 kW
COP Tj = Tbiv	5.08	3.48
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.00 kW	14.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.08	3.48
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.960	0.970
WTOL	65 °C	65 °C
Poff	5 W	5 W

PTO	30 W	25 W
PSB	10 W	7 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	5091 kWh	6497 kWh

**Model S1155-12 1x230**

Model name	S1155-12 1x230
Application	Heating (medium temp)
Units	Indoor
Climate zone (for heating)	Colder Climate
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

**General data**

Power supply	1x230V 50Hz
Off-peak product	No

**Brine/Water**
**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure passed

**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	5.06 kW	4.46 kW
EI input	1.04 kW	1.47 kW
COP	4.87	3.02

**EN 12102-1 | Average Climate**

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

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
$\eta_s$	201 %	157 %
P <sub>rated</sub>	11.00 kW	12.40 kW
SCOP	5.23	4.13
T <sub>biv</sub>	-10 °C	-10 °C
T <sub>OL</sub>	-10 °C	-10 °C
P <sub>dh T<sub>j</sub></sub> = -7°C	10.30 kW	11.10 kW
COP T <sub>j</sub> = -7°C	4.52	3.18
C <sub>dh T<sub>j</sub></sub> = -7 °C	0.98	0.99
P <sub>dh T<sub>j</sub></sub> = +2°C	6.30 kW	6.77 kW
COP T <sub>j</sub> = +2°C	5.22	4.12
C <sub>dh T<sub>j</sub></sub> = + 2 °C	0.98	0.99
P <sub>dh T<sub>j</sub></sub> = +7°C	4.10 kW	4.40 kW
COP T <sub>j</sub> = +7°C	5.60	4.67
C <sub>dh T<sub>j</sub></sub> = + 7 °C	0.98	0.99
P <sub>dh T<sub>j</sub></sub> = 12°C	2.70 kW	2.60 kW

COP Tj = 12°C	5.78	5.06
Cdh Tj = +12 °C	0.98	0.99
Pdh Tj = Tbiv	11.50 kW	12.30 kW
COP Tj = Tbiv	4.26	2.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.50 kW	12.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.26	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.98	0.99
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	20 W	15 W
PSB	7 W	7 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	4582 kWh	6213 kWh

**EN 12102-1 | Colder Climate**

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

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	208 %	162 %
Prated	11.60 kW	12.40 kW
SCOP	5.40	4.25
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.10 kW	7.60 kW
COP Tj = -7°C	5.26	3.94
Pdh Tj = +2°C	4.30 kW	4.70 kW
COP Tj = +2°C	5.62	4.58
Pdh Tj = +7°C	2.80 kW	3.00 kW
COP Tj = +7°C	6.01	5.11
Pdh Tj = 12°C	2.70 kW	2.60 kW
COP Tj = 12°C	5.44	4.98
Pdh Tj = Tbiv	11.50 kW	12.30 kW
COP Tj = Tbiv	4.26	2.91
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	11.50 kW	12.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.26	2.91
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.97	0.98

WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	20 W	15 W
PSB	7 W	7 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	5292 kWh	7173 kWh

**Water/Water**
**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
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**EN 14511-2 | Heating**

	Low temperature	Medium temperature
Heat output	6.33 kW	5.79 kW
El input	1.03 kW	1.54 kW
COP	6.12	3.75

**EN 12102-1 | Average Climate**

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

**EN 14825 | Average Climate**

	Low temperature	Medium temperature
ηs	253 %	197 %
Prated	14.00 kW	14.00 kW
SCOP	6.52	5.12
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	12.50 kW	12.40 kW
COP Tj = -7°C	5.46	3.84
Pdh Tj = +2°C	7.60 kW	7.60 kW
COP Tj = +2°C	6.56	5.12
Pdh Tj = +7°C	4.90 kW	4.90 kW
COP Tj = +7°C	7.14	5.90
Pdh Tj = 12°C	3.30 kW	3.20 kW
COP Tj = 12°C	7.65	6.52
Pdh Tj = Tbiv	14.00 kW	14.00 kW
COP Tj = Tbiv	5.08	3.48
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.00 kW	14.00 kW

COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.08	3.48
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.97	0.98
WTOL	65 °C	65 °C
Poff	5 W	5 W
PTO	30 W	25 W
PSB	10 W	7 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	4433 kWh	5657 kWh

**EN 12102-1 | Colder Climate**

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

**EN 14825 | Colder Climate**

	Low temperature	Medium temperature
ηs	263 %	204 %
Prated	14.00 kW	14.00 kW
SCOP	6.77	5.30
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	8.60 kW	8.60 kW
COP Tj = -7°C	6.50	4.85
Cdh Tj = -7 °C		
Pdh Tj = +2°C	5.20 kW	5.20 kW
COP Tj = +2°C	7.13	5.76
Cdh Tj = +2 °C		
Pdh Tj = +7°C	3.40 kW	3.40 kW
COP Tj = +7°C	7.84	6.65
Cdh Tj = +7 °C		
Pdh Tj = 12°C	3.30 kW	3.20 kW
COP Tj = 12°C	7.39	6.58
Cdh Tj = +12 °C		
Pdh Tj = Tbiv	14.00 kW	14.00 kW
COP Tj = Tbiv	5.08	3.48
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	14.00 kW	14.00 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	5.08	3.48
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.960	0.970
WTOL	65 °C	65 °C
Poff	5 W	5 W

PTO	30 W	25 W
PSB	10 W	7 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	5091 kWh	6497 kWh