

Summary of	S1x55-12	Reg. No.	012-SC0191-19
Certificate Holder	+		-
Name	Nibe AB		
Address	Box 14	Zip	S-28521
City	Markaryd	Country	Sweden
Certification Body	RISE CERT		
Name of testing laboratory	AIT		
Subtype title	S1x55-12		
Heat Pump Type	Brine/Water a	Brine/Water and Water/Water	
Refrigerant	R407c	R407c	
Mass Of Refrigerant	2 kg		
Certification Date	05.08.2019		



Model: S1255-12 3x400

General Data	
Power supply	3x400V 50Hz
Off-peak product	No

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	5.06 kW	4.46 kW
El input	1.04 kW	1.47 kW
СОР	4.87	3.02
Indoor water flow rate	2.00 m³/h	1.33 m³/h

# Average Climate



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)

EN 14825		
	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		
Pdh Tj = +2°C	6.30 kW	6.77 kW
COP Tj = +2°C	5.22	4.12
Cdh		
Pdh Tj = +7°C	4.10 kW	4.40 kW
COP Tj = +7°C	5.60	4.67
Cdh		
Pdh Tj = 12°C	2.70 kW	2.60 kW
	,	





5.78	5.06
11.50 kW	12.30 kW
4.26	2.91
11.50 kW	12.30 kW
4.26	2.91
0.98	0.99
65 °C	65 °C
5 W	5 W
20 W	15 W
7 W	7 W
0 W	o w
electricity	electricity
0.00 kW	0.00 kW
4582 kWh	6213 kWh
	11.50 kW 4.26 11.50 kW 4.26 0.98 65 °C 5 W 20 W 7 W 0 W electricity 0.00 kW

# Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)

#### EN 14825





	Low temperature	Medium temperature
$\eta_{s}$	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	11.50 kW	12.30 kW
COP Tj = TOL	4.26	2.91
Cdh	0.97	0.98
WTOL	65 °C	65 °C





Poff	5 W	5 W
РТО	20 W	15 W
PSB	7 W	7 W
PCK	o w	o 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

# Domestic Hot Water (DHW)

# Average Climate

EN 16147		
Declared load profile	XL	
Efficiency ηDHW	98 %	
СОР	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	240	

#### Colder Climate



EN 16147		
Declared load profile	XL	
Efficiency ηDHW	98 %	
СОР	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	240	

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	6.33 kW	5.79 kW
El input	1.03 kW	1.54 kW
СОР	6.12	3.75
Indoor water flow rate	2.41 m³/h	1.51 m³/h

# Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)

	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
$COP Tj = +2^{\circ}C$	6.56	5.12
Pdh Tj = $+7^{\circ}$ C	4.90 kW	4.90 kW
$COP Tj = +7^{\circ}C$	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	14.00 kW	14.00 kW
COP Tj = TOL	5.08	3.48
Cdh	0.97	0.98
WTOL	65 °C	65 °C
Poff	5 W	5 W
РТО	30 W	25 W
PSB	10 W	7 W
PCK	0 W	o 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

# Colder Climate



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EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)

Low temperature	
	Medium temperature
263 %	204 %
14.00 kW	14.00 kW
6.77	5.30
-22 °C	-22 °C
-22 °C	-22 °C
8.60 kW	8.60 kW
6.50	4.85
5.20 kW	2.20 kW
7.13	5.76
3.40 kW	3.40 kW
7.84	6.65
3.30 kW	3.20 kW
7.39	6.58
14.00 kW	14.00 kW
5.08	3.48
	14.00 kW 6.77 -22 °C -22 °C 8.60 kW 6.50 5.20 kW 7.13 3.40 kW 7.84 3.30 kW 7.39 14.00 kW



Pdh Tj = TOL	14.00 kW	14.00 kW
COP Tj = TOL	5.08	3.48
Cdh	0.96	0.97
WTOL	65 °C	65 °C
Poff	5 W	5 W
РТО	30 W	25 W
PSB	10 W	7 W
PCK	o 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

Domestic Hot Water (DHW)

Average Climate



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EN 16147	
Declared load profile	XL
Efficiency ηDHW	113 %
СОР	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	235 I

## Colder Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	113 %
СОР	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	235 I



# Model: S1255-12 1x230

General Data		
Power supply	1x230V 50Hz	
Off-peak product	No	

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

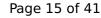
EN 14511-2		
	Low temperature	Medium temperature
Heat output	5.06 kW	4.46 kW
El input	1.04 kW	1.47 kW
СОР	4.87	3.02
Indoor water flow rate	2.00 m³/h	1.33 m³/h

# Average Climate



EN 12102-1			
Low temperature Medium temperature			
Sound power level indoor	44 dB(A)	44 dB(A)	

EN 14825		
	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		
Pdh Tj = +2°C	6.30 kW	6.77 kW
COP Tj = +2°C	5.22	4.12
Cdh		
Pdh Tj = +7°C	4.10 kW	4.40 kW
COP Tj = +7°C	5.60	4.67
Cdh		
Pdh Tj = 12°C	2.70 kW	2.60 kW
	,	



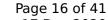


	· · · · · · · · · · · · · · · · · · ·	
COP Tj = 12°C	5.78	5.06
Cdh		
Pdh Tj = Tbiv	11.50 kW	12.30 kW
COP Tj = Tbiv	4.26	2.91
Pdh Tj = TOL	11.50 kW	12.30 kW
COP Tj = TOL	4.26	2.91
Cdh	0.98	0.99
WTOL	65 °C	65 °C
Poff	5 W	5 W
РТО	20 W	15 W
PSB	7 W	7 W
PCK	o w	o w
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4582 kWh	6213 kWh

## Colder Climate

EN 12102-1			
Low temperature Medium temperature			
Sound power level indoor	44 dB(A)	44 dB(A)	

#### EN 14825





	Low temperature	Medium temperature
$\eta_{s}$	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
$COP Tj = +7^{\circ}C$	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	11.50 kW	12.30 kW
COP Tj = TOL	4.26	2.91
Cdh	0.97	0.98
WTOL	65 °C	65 °C





Poff	5 W	5 W
РТО	20 W	15 W
PSB	7 W	7 W
PCK	o w	o 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

# Domestic Hot Water (DHW)

# Average Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	98 %
СОР	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	240

#### Colder Climate



EN 16147	
Declared load profile	XL
Efficiency ηDHW	98 %
СОР	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	240

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	6.33 kW	5.79 kW	
El input	1.03 kW	1.54 kW	
СОР	6.12	3.75	
Indoor water flow rate	2.41 m³/h	1.51 m³/h	

# Average Climate

EN 12102-1			
Low temperature Medium temperature			
Sound power level indoor	44 dB(A)	44 dB(A)	

EN 14825		
	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
$COP Tj = +2^{\circ}C$	6.56	5.12
Pdh Tj = $+7^{\circ}$ C	4.90 kW	4.90 kW
$COP Tj = +7^{\circ}C$	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	14.00 kW	14.00 kW
COP Tj = TOL	5.08	3.48
Cdh	0.97	0.98
WTOL	65 °C	65 °C
Poff	5 W	5 W
РТО	30 W	25 W
PSB	10 W	7 W
PCK	0 W	o 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

# Colder Climate



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	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
Pdh Tj = +2°C	5.20 kW	2.20 kW
COP Tj = +2°C	7.13	5.76
Pdh Tj = +7°C	3.40 kW	3.40 kW
COP Tj = +7°C	7.84	6.65
Pdh Tj = 12°C	3.30 kW	3.20 kW
COP Tj = 12°C	7.39	6.58
Pdh Tj = Tbiv	14.00 kW	14.00 kW
COP Tj = Tbiv	5.08	3.48



Pdh Tj = TOL	14.00 kW	14.00 kW
COP Tj = TOL	5.08	3.48
Cdh	0.96	0.97
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

Domestic Hot Water (DHW)

**Average Climate** 



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EN 16147	
Declared load profile	XL
Efficiency ηDHW	113 %
СОР	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	235 I

## Colder Climate

EN 16147	
Declared load profile	XL
Efficiency ηDHW	113 %
СОР	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	235 I



# Model: S1155-12 3x400

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	5.06 kW	4.46 kW
El input	1.04 kW	1.47 kW
СОР	4.87	3.02
Indoor water flow rate	2.00 m³/h	1.33 m³/h

## **Average Climate**



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EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)

EN 14825		
	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		
Pdh Tj = +2°C	6.30 kW	6.77 kW
COP Tj = +2°C	5.22	4.12
Cdh		
Pdh Tj = +7°C	4.10 kW	4.40 kW
COP Tj = +7°C	5.60	4.67
Cdh		
Pdh Tj = 12°C	2.70 kW	2.60 kW
	,	





COP Tj = 12°C	5.78	5.06
Cdh		
Pdh Tj = Tbiv	11.50 kW	12.30 kW
COP Tj = Tbiv	4.26	2.91
Pdh Tj = TOL	11.50 kW	12.30 kW
COP Tj = TOL	4.26	2.91
Cdh	0.98	0.99
WTOL	65 °C	65 °C
Poff	5 W	5 W
РТО	20 W	15 W
PSB	7 W	7 W
PCK	o w	o 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
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## Colder Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)

#### EN 14825





	Low temperature	Medium temperature
$\eta_{s}$	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	11.50 kW	12.30 kW
COP Tj = TOL	4.26	2.91
Cdh	0.97	0.98
WTOL	65 °C	65 °C



Poff	5 W	5 W
	J VV	J **
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 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	6.33 kW	5.79 kW	
El input	1.03 kW	1.54 kW	
СОР	6.12	3.75	
Indoor water flow rate	2.41 m³/h	1.51 m³/h	

# Average Climate

EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)

	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
$COP Tj = +2^{\circ}C$	6.56	5.12
Pdh Tj = $+7^{\circ}$ C	4.90 kW	4.90 kW
$COP Tj = +7^{\circ}C$	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	14.00 kW	14.00 kW
COP Tj = TOL	5.08	3.48
Cdh	0.97	0.98
WTOL	65 °C	65 °C
Poff	5 W	5 W
РТО	30 W	25 W
PSB	10 W	7 W
PCK	o w	o 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

# Colder Climate



EN 12102-1		
	Low temperature	Medium temperature
Sound power level indoor	44 dB(A)	44 dB(A)

EN 14825		
	Low temperature	Medium temperature
$\eta_{s}$	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
Pdh Tj = +2°C	5.20 kW	2.20 kW
COP Tj = +2°C	7.13	5.76
Pdh Tj = +7°C	3.40 kW	3.40 kW
COP Tj = +7°C	7.84	6.65
Pdh Tj = 12°C	3.30 kW	3.20 kW
COP Tj = 12°C	7.39	6.58
Pdh Tj = Tbiv	14.00 kW	14.00 kW
COP Tj = Tbiv	5.08	3.48



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Pdh Tj = TOL	14.00 kW	14.00 kW
COP Tj = TOL	5.08	3.48
Cdh	0.96	0.97
WTOL	65 °C	65 °C
Poff	5 W	5 W
РТО	30 W	25 W
PSB	10 W	7 W
PCK	o w	o 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

General Data	
Power supply	1x230V 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	5.06 kW	4.46 kW
El input	1.04 kW	1.47 kW
СОР	4.87	3.02
Indoor water flow rate	2.00 m³/h	1.33 m³/h

## **Average Climate**



EN 12102-1			
Low temperature Medium temperature			
Sound power level indoor	44 dB(A)	44 dB(A)	

EN 14825		
	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		
Pdh Tj = +2°C	6.30 kW	6.77 kW
COP Tj = +2°C	5.22	4.12
Cdh		
Pdh Tj = +7°C	4.10 kW	4.40 kW
COP Tj = +7°C	5.60	4.67
Cdh		
Pdh Tj = 12°C	2.70 kW	2.60 kW



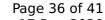


COP Tj = 12°C	5.78	5.06
Cdh		
Pdh Tj = Tbiv	11.50 kW	12.30 kW
COP Tj = Tbiv	4.26	2.91
Pdh Tj = TOL	11.50 kW	12.30 kW
COP Tj = TOL	4.26	2.91
Cdh	0.98	0.99
WTOL	65 °C	65 °C
Poff	5 W	5 W
РТО	20 W	15 W
PSB	7 W	7 W
PCK	o w	o w
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	4582 kWh	6213 kWh
•		

## Colder Climate

EN 12102-1			
Low temperature Medium temperature			
Sound power level indoor	44 dB(A)	44 dB(A)	

#### EN 14825





	Low temperature	Medium temperature
$\eta_{s}$	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	11.50 kW	12.30 kW
COP Tj = TOL	4.26	2.91
Cdh	0.97	0.98
WTOL	65 °C	65 °C



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Poff	5 W	5 W
РТО	20 W	15 W
PSB	7 W	7 W
PCK	o w	o 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 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	6.33 kW	5.79 kW	
El input	1.03 kW	1.54 kW	
СОР	6.12	3.75	
Indoor water flow rate	2.41 m³/h	1.51 m³/h	

# Average Climate

EN 12102-1			
Low temperature Medium temperature			
Sound power level indoor	44 dB(A)	44 dB(A)	

EN 14825			
	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
$COP Tj = +2^{\circ}C$	6.56	5.12
Pdh Tj = $+7^{\circ}$ C	4.90 kW	4.90 kW
$COP Tj = +7^{\circ}C$	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	14.00 kW	14.00 kW
COP Tj = TOL	5.08	3.48
Cdh	0.97	0.98
WTOL	65 °C	65 °C
Poff	5 W	5 W
РТО	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

# Colder Climate



EN 12102-1			
	Low temperature	Medium temperature	
Sound power level indoor	44 dB(A)	44 dB(A)	

EN 14825				
	Low temperature	Medium temperature		
$\eta_{s}$	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		
Pdh Tj = +2°C	5.20 kW	2.20 kW		
COP Tj = +2°C	7.13	5.76		
Pdh Tj = +7°C	3.40 kW	3.40 kW		
COP Tj = +7°C	7.84	6.65		
Pdh Tj = 12°C	3.30 kW	3.20 kW		
COP Tj = 12°C	7.39	6.58		
Pdh Tj = Tbiv	14.00 kW	14.00 kW		
COP Tj = Tbiv	5.08	3.48		



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Pdh Tj = TOL	14.00 kW	14.00 kW
COP Tj = TOL	5.08	3.48
Cdh	0.96	0.97
WTOL	65 °C	65 °C
Poff	5 W	5 W
РТО	30 W	25 W
PSB	10 W	7 W
PCK	o 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