

This information was generated by the HP KEYMARK database on 17 Dec 2020

Summary of	F1x45-12 1x230	Reg. No.	012-044
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	F1x45-12 1x230		
Heat Pump Type	Brine/Water		
Refrigerant	R407c		
Mass Of Refrigerant	2 kg		

## Model: F1145-12 1x230

### General Data

Power supply	1x230V 50Hz
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## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	11.60 kW	10.97 kW
El input	2.72 kW	3.78 kW
COP	4.26	2.90
Indoor water flow rate	2.41 m <sup>3</sup> /h	1.51 m <sup>3</sup> /h

### EN 14511-4

Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed

## Average Climate

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<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	45 dB(A)	45 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	175 %	136 %
Prated	14.00 kW	14.00 kW
SCOP	4.58	3.60
Tbiv	-6 °C	-4 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	11.70 kW	10.80 kW
COP Tj = -7°C	4.51	3.16
Pdh Tj = +2°C	11.80 kW	11.10 kW
COP Tj = +2°C	4.70	3.68
Pdh Tj = +7°C	11.90 kW	11.40 kW
COP Tj = +7°C	4.86	3.97
Pdh Tj = 12°C	12.00 kW	11.60 kW
COP Tj = 12°C	4.89	4.24
Pdh Tj = Tbiv	11.70 kW	10.90 kW
COP Tj = Tbiv	4.55	3.35

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Pdh Tj = TOL	11.60 kW	10.60 kW
COP Tj = TOL	4.38	2.98
Cdh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	30 W	30 W
PSB	7 W	7 W
PCK	30 W	30 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	2.40 kW	3.40 kW
Annual energy consumption Qhe	6322 kWh	8040 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	45 dB(A)	45 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	181 %	139 %
Prated	14.00 kW	14.00 kW

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SCOP	4.73	3.68
Tbiv	-16 °C	-14 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	11.80 kW	11.00 kW
COP Tj = -7°C	4.77	3.59
Pdh Tj = +2°C	11.90 kW	11.30 kW
COP Tj = +2°C	4.88	3.90
Pdh Tj = +7°C	12.00 kW	11.50 kW
COP Tj = +7°C	4.94	4.18
Pdh Tj = 12°C	12.00 kW	11.70 kW
COP Tj = 12°C	4.71	4.30
Pdh Tj = Tbiv	11.70 kW	10.90 kW
COP Tj = Tbiv	4.60	3.37
Pdh Tj = TOL	11.60 kW	10.60 kW
COP Tj = TOL	4.38	2.98
Cdh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
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PCK	30 W	30 W

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Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	2.40 kW	2.40 kW
Annual energy consumption Qhe	7313 kWh	9382 kWh

## Model: F1245-12 1x230

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

### Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	11.60 kW	10.97 kW
El input	2.72 kW	3.78 kW
COP	4.26	2.90
Indoor water flow rate	2.41 m <sup>3</sup> /h	1.51 m <sup>3</sup> /h

EN 14511-4	
Operating range outdoor exchanger/indoor exchanger lower limit/lower limit	passed
Operating range outdoor exchanger/indoor exchanger upper limit/upper limit	passed
Shutting off the heat transfer medium flow	passed
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Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	2.40 kW	2.40 kW
Annual energy consumption Q <sub>he</sub>	7313 kWh	9382 kWh

## Domestic Hot Water (DHW)

### Average Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	96 %
COP	2.40
Heating up time	0:58 h:min
Standby power input	55.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	230 l

### Colder Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	96 %
COP	2.40
Heating up time	0:58 h:min
Standby power input	55.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	230 l