

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

Summary of	F1x45-8 3x400	Reg. No.	012-039
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	F1x45-8 3x400		
Heat Pump Type	Brine/Water		
Refrigerant	R407c		
Mass Of Refrigerant	1.8 kg		

## Model: F1145-8 3x400

### General Data

Power supply	3x400V 50Hz
--------------	-------------

## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	8.01 kW	6.36 kW
El input	1.74 kW	2.06 kW
COP	4.60	3.09
Indoor water flow rate	1.55 m <sup>3</sup> /h	0.86 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

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

<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>
$\eta_s$	188 %	141 %
Prated	9.00 kW	8.00 kW
SCOP	4.90	3.73
Tbiv	-7 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.80 kW	6.20 kW
COP Tj = -7°C	4.79	3.28
Pdh Tj = +2°C	8.00 kW	6.90 kW
COP Tj = +2°C	4.99	3.81
Pdh Tj = +7°C	8.20 kW	7.20 kW
COP Tj = +7°C	5.17	4.13
Pdh Tj = 12°C	8.30 kW	7.60 kW
COP Tj = 12°C	5.23	4.41
Pdh Tj = Tbiv	7.80 kW	6.40 kW
COP Tj = Tbiv	4.81	3.44

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

Pdh Tj = TOL	7.70 kW	5.90 kW
COP Tj = TOL	4.67	3.07
Cdh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	15 W	15 W
PSB	7 W	7 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	1.30 kW	2.10 kW
Annual energy consumption Qhe	3797 kWh	4433 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>
$\eta_s$	194 %	145 %
Prated	9.00 kW	8.00 kW

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

SCOP	5.05	3.83
Tbiv	-17 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	8.00 kW	6.70 kW
COP Tj = -7°C	5.06	3.71
Pdh Tj = +2°C	8.20 kW	7.10 kW
COP Tj = +2°C	5.20	4.07
Pdh Tj = +7°C	8.30 kW	7.50 kW
COP Tj = +7°C	5.26	4.36
Pdh Tj = 12°C	8.30 kW	7.70 kW
COP Tj = 12°C	5.06	4.45
Pdh Tj = Tbiv	7.80 kW	6.40 kW
COP Tj = Tbiv	4.56	3.46
Pdh Tj = TOL	7.70 kW	5.90 kW
COP Tj = TOL	4.67	3.07
Cdh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	15 W	15 W
PSB	7 W	7 W
PCK	14 W	14 W

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

Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	1.30 kW	2.10 kW
Annual energy consumption Qhe	4393 kWh	5142 kWh

## Model: F1145-8 PC 3x400

### General Data

Power supply	3x400V 50Hz
--------------	-------------

## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	8.01 kW	6.36 kW
El input	1.74 kW	2.06 kW
COP	4.60	3.09
Indoor water flow rate	1.55 m <sup>3</sup> /h	0.86 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

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

<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>
$\eta_s$	188 %	141 %
Prated	9.00 kW	8.00 kW
SCOP	4.90	3.73
Tbiv	-7 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.80 kW	6.20 kW
COP Tj = -7°C	4.79	3.28
Pdh Tj = +2°C	8.00 kW	6.90 kW
COP Tj = +2°C	4.99	3.81
Pdh Tj = +7°C	8.20 kW	7.20 kW
COP Tj = +7°C	5.17	4.13
Pdh Tj = 12°C	8.30 kW	7.60 kW
COP Tj = 12°C	5.23	4.41
Pdh Tj = Tbiv	7.80 kW	6.40 kW
COP Tj = Tbiv	4.81	3.44



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

Pdh Tj = TOL	7.70 kW	5.90 kW
COP Tj = TOL	4.67	3.07
Cdh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	15 W	15 W
PSB	7 W	7 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	1.30 kW	2.10 kW
Annual energy consumption Qhe	3797 kWh	4433 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>
$\eta_s$	194 %	145 %
Prated	9.00 kW	8.00 kW

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

SCOP	5.05	3.83
Tbiv	-17 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	8.00 kW	6.70 kW
COP Tj = -7°C	5.06	3.71
Pdh Tj = +2°C	8.20 kW	7.10 kW
COP Tj = +2°C	5.20	4.07
Pdh Tj = +7°C	8.30 kW	7.50 kW
COP Tj = +7°C	5.26	4.36
Pdh Tj = 12°C	8.30 kW	7.70 kW
COP Tj = 12°C	5.06	4.45
Pdh Tj = Tbiv	7.80 kW	6.40 kW
COP Tj = Tbiv	4.56	3.46
Pdh Tj = TOL	7.70 kW	5.90 kW
COP Tj = TOL	4.67	3.07
Cdh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	15 W	15 W
PSB	7 W	7 W
PCK	14 W	14 W

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

Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	1.30 kW	2.10 kW
Annual energy consumption Q <sub>he</sub>	4393 kWh	5142 kWh

## Model: F1245-8 3x400

### General Data

Power supply	3x400V 50Hz
Off-peak product	No

## Heating

### EN 14511-2

	Low temperature	Medium temperature
Heat output	8.01 kW	6.36 kW
El input	1.74 kW	2.06 kW
COP	4.60	3.09
Indoor water flow rate	1.55 m <sup>3</sup> /h	0.86 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

<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>
$\eta_s$	188 %	141 %
Prated	9.00 kW	8.00 kW
SCOP	4.90	3.73
Tbiv	-7 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.80 kW	6.20 kW
COP Tj = -7°C	4.79	3.28
Pdh Tj = +2°C	8.00 kW	6.90 kW
COP Tj = +2°C	4.99	3.81
Pdh Tj = +7°C	8.20 kW	7.20 kW
COP Tj = +7°C	5.17	4.13
Pdh Tj = 12°C	8.30 kW	7.60 kW
COP Tj = 12°C	5.23	4.41
Pdh Tj = Tbiv	7.80 kW	6.40 kW
COP Tj = Tbiv	4.81	3.44

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

Pdh Tj = TOL	7.70 kW	5.90 kW
COP Tj = TOL	4.67	3.07
Cdh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	15 W	15 W
PSB	7 W	7 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	1.30 kW	2.10 kW
Annual energy consumption Qhe	3797 kWh	4433 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>
$\eta_s$	194 %	145 %
Prated	9.00 kW	8.00 kW

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

SCOP	5.05	3.83
Tbiv	-17 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	8.00 kW	6.70 kW
COP Tj = -7°C	5.06	3.71
Pdh Tj = +2°C	8.20 kW	7.10 kW
COP Tj = +2°C	5.20	4.07
Pdh Tj = +7°C	8.30 kW	7.50 kW
COP Tj = +7°C	5.26	4.36
Pdh Tj = 12°C	8.30 kW	7.70 kW
COP Tj = 12°C	5.06	4.45
Pdh Tj = Tbiv	7.80 kW	6.40 kW
COP Tj = Tbiv	4.56	3.46
Pdh Tj = TOL	7.70 kW	5.90 kW
COP Tj = TOL	4.67	3.07
Cdh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	15 W	15 W
PSB	7 W	7 W
PCK	14 W	14 W

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

Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	1.30 kW	2.10 kW
Annual energy consumption Q <sub>he</sub>	4393 kWh	5142 kWh

## Domestic Hot Water (DHW)

### Average Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	100 %
Heating up time	01:28 h:min
Standby power input	55.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	240 l
COP	2.51

### Colder Climate



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

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	100 %
Heating up time	01:28 h:min
Standby power input	55.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	240 l
COP	2.51

## Model: F1245-8 PC 3x400

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

### Heating

EN 14511-2		
	Low temperature	Medium temperature
Heat output	8.01 kW	6.36 kW
El input	1.74 kW	2.06 kW
COP	4.60	3.09
Indoor water flow rate	1.55 m <sup>3</sup> /h	0.86 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

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

<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>
$\eta_s$	188 %	141 %
Prated	9.00 kW	8.00 kW
SCOP	4.90	3.73
Tbiv	-7 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.80 kW	6.20 kW
COP Tj = -7°C	4.79	3.28
Pdh Tj = +2°C	8.00 kW	6.90 kW
COP Tj = +2°C	4.99	3.81
Pdh Tj = +7°C	8.20 kW	7.20 kW
COP Tj = +7°C	5.17	4.13
Pdh Tj = 12°C	8.30 kW	7.60 kW
COP Tj = 12°C	5.23	4.41
Pdh Tj = Tbiv	7.80 kW	6.40 kW
COP Tj = Tbiv	4.81	3.44

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

Pdh Tj = TOL	7.70 kW	5.90 kW
COP Tj = TOL	4.67	3.07
Cdh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	15 W	15 W
PSB	7 W	7 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	1.30 kW	2.10 kW
Annual energy consumption Qhe	3797 kWh	4433 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>
$\eta_s$	194 %	145 %
Prated	9.00 kW	8.00 kW

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

SCOP	5.05	3.83
Tbiv	-17 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	8.00 kW	6.70 kW
COP Tj = -7°C	5.06	3.71
Pdh Tj = +2°C	8.20 kW	7.10 kW
COP Tj = +2°C	5.20	4.07
Pdh Tj = +7°C	8.30 kW	7.50 kW
COP Tj = +7°C	5.26	4.36
Pdh Tj = 12°C	8.30 kW	7.70 kW
COP Tj = 12°C	5.06	4.45
Pdh Tj = Tbiv	7.80 kW	6.40 kW
COP Tj = Tbiv	4.56	3.46
Pdh Tj = TOL	7.70 kW	5.90 kW
COP Tj = TOL	4.67	3.07
Cdh	0.99	0.99
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	15 W	15 W
PSB	7 W	7 W
PCK	14 W	14 W

Supplementary Heater: Type of energy input	electricity	electricity
Supplementary Heater: PSUP	1.30 kW	2.10 kW
Annual energy consumption Q <sub>he</sub>	4393 kWh	5142 kWh

## Domestic Hot Water (DHW)

### Average Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	100 %
Heating up time	01:28 h:min
Standby power input	55.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	240 l
COP	2.51

### Colder Climate

<b>EN 16147</b>	
Declared load profile	XL
Efficiency $\eta_{DHW}$	100 %
Heating up time	01:28 h:min
Standby power input	55.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	240 l
COP	2.51