

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

Summary of	F1355-43	Reg. No.	012-C700002
Certificate Holder			
Name	Nibe AB		
Address	Box 14	Zip	S-28521
City	Markaryd	Country	Sweden
Certification Body	RISE CERT		
Name of testing laboratory	RISE		
Subtype title	F1355-43		
Heat Pump Type	Brine/Water and Water/Water		
Refrigerant	Other		
Mass Of Refrigerant	3.8 kg		
Certification Date	12.02.2020		
Testing basis	HP Keymark Scheme Rules rev 7		

## Model: F1355-43

### General Data

Power supply	3x400V 50Hz
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Brine/Water Heat Pump

### Heating

#### EN 14511-4

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

#### EN 14511-2

	Low temperature	Medium temperature
Heat output	31.10 kW	29.30 kW
El input	7.10 kW	9.80 kW
COP	4.40	3.00
Indoor water flow rate	5.35 m <sup>3</sup> /h	3.20 m <sup>3</sup> /h

### Average Climate

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<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	47 dB(A)	47 dB(A)
Sound power level outdoor	0 dB(A)	0 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	192 %	152 %
Prated	45.00 kW	42.00 kW
SCOP	5.00	4.00
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	39.50 kW	36.50 kW
COP Tj = -7°C	4.24	3.13
Cdh	1.00	1.00
Pdh Tj = +2°C	26.43 kW	26.59 kW
COP Tj = +2°C	4.82	3.87
Cdh	1.00	1.00
Pdh Tj = +7°C	15.39 kW	13.32 kW
COP Tj = +7°C	5.61	4.66
Cdh	1.00	1.00

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Pdh Tj = 12°C	7.81 kW	7.78 kW
COP Tj = 12°C	6.51	5.41
Cdh	1.00	1.00
Pdh Tj = Tbiv	42.90 kW	40.11 kW
COP Tj = Tbiv	4.02	2.83
Pdh Tj = TOL	42.90 kW	40.11 kW
COP Tj = TOL	4.02	2.83
WTOL	65 °C	65 °C
Poff	8 W	8 W
PTO	0 W	0 W
PSB	18 W	18 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	non	non
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	18588 kWh	21700 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	47 dB(A)	47 dB(A)
Sound power level outdoor	0 dB(A)	0 dB(A)

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**EN 14825**

	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	203 %	158 %
Prated	45.00 kW	42.00 kW
SCOP	5.30	4.10
Tbiv	-22 °C	-22 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	27.15 kW	25.15 kW
COP Tj = -7°C	4.93	3.68
Cdh	1.00	1.00
Pdh Tj = +2°C	16.45 kW	15.47 kW
COP Tj = +2°C	5.54	4.50
Cdh	1.00	1.00
Pdh Tj = +7°C	10.89 kW	9.95 kW
COP Tj = +7°C	6.28	5.36
Cdh	1.00	1.00
Pdh Tj = 12°C	7.77 kW	7.74 kW
COP Tj = 12°C	6.22	5.40
Cdh	1.00	1.00
Pdh Tj = Tbiv	42.87 kW	40.11 kW
COP Tj = Tbiv	4.02	2.83

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Pdh Tj = TOL	42.87 kW	40.11 kW
COP Tj = TOL	4.02	2.83
WTOL	65 °C	65 °C
Poff	8 W	8 W
PTO	0 W	0 W
PSB	18 W	18 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	non	non
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	21023 kWh	24990 kWh

Water/Water Heat Pump

## Heating

<b>EN 14511-4</b>	
Starting and operating test	passed
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed

<b>EN 14511-2</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Heat output	40.40 kW	37.20 kW
El input	7.30 kW	9.76 kW
COP	5.52	3.81
Indoor water flow rate	6.96 m <sup>3</sup> /h	4.00 m <sup>3</sup> /h

## Average Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	47 dB(A)	47 dB(A)
Sound power level outdoor	0 dB(A)	0 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	244 %	194 %
Prated	58.00 kW	52.00 kW
SCOP	6.30	5.05
Tbiv	-10 °C	-10 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	51.30 kW	46.00 kW

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COP Tj = -7°C	5.20	3.65
Cdh	1.00	1.00
Pdh Tj = +2°C	33.97 kW	27.75 kW
COP Tj = +2°C	6.13	4.90
Cdh	1.00	1.00
Pdh Tj = +7°C	20.10 kW	18.00 kW
COP Tj = +7°C	7.30	6.34
Cdh	0.99	0.99
Pdh Tj = 12°C	9.00 kW	8.00 kW
COP Tj = 12°C	7.50	6.34
Cdh	0.98	0.98
Pdh Tj = Tbiv	57.80 kW	51.93 kW
COP Tj = Tbiv	5.04	3.53
Pdh Tj = TOL	57.80 kW	51.93 kW
COP Tj = TOL	5.04	3.53
WTOL	65 °C	65 °C
Poff	8 W	8 W
PTO	30 W	20 W
PSB	18 W	18 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	non	non

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Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Q <sub>he</sub>	19008 kWh	21282 kWh

## Colder Climate

<b>EN 12102-1</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
Sound power level indoor	47 dB(A)	47 dB(A)
Sound power level outdoor	0 dB(A)	0 dB(A)

<b>EN 14825</b>		
	<b>Low temperature</b>	<b>Medium temperature</b>
$\eta_s$	252 %	204 %
Prated	58.00 kW	52.00 kW
SCOP	6.50	5.29
T <sub>biv</sub>	-22 °C	-22 °C
TOL	-22 °C	-22 °C
P <sub>dh</sub> T <sub>j</sub> = -7°C	35.10 kW	31.50 kW
COP T <sub>j</sub> = -7°C	6.13	4.50
C <sub>dh</sub>	1.00	1.00
P <sub>dh</sub> T <sub>j</sub> = +2°C	21.50 kW	19.20 kW
COP T <sub>j</sub> = +2°C	7.00	6.20

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Cdh	0.99	0.99
Pdh Tj = +7°C	13.80 kW	12.50 kW
COP Tj = +7°C	7.00	6.20
Cdh	0.99	0.99
Pdh Tj = 12°C	9.00 kW	8.00 kW
COP Tj = 12°C	7.00	6.20
Cdh	0.98	0.99
Pdh Tj = Tbiv	57.79 kW	51.90 kW
COP Tj = Tbiv	5.04	3.53
Pdh Tj = TOL	57.79 kW	51.90 kW
COP Tj = TOL	5.04	3.53
WTOL	65 °C	65 °C
Poff	8 W	8 W
PTO	30 W	20 W
PSB	18 W	18 W
PCK	20 W	20 W
Supplementary Heater: Type of energy input	non	non
Supplementary Heater: PSUP	0.00 kW	0.00 kW
Annual energy consumption Qhe	21986 kWh	24241 kWh