

## Subtype F1x45-8 1x230

Certificate Holder	Nibe AB
Address	Box 14
ZIP	S-28521
City	Markaryd
Country	SE
Certification Body	RISE CERT
Subtype title	F1x45-8 1x230
Registration number	012-040
Heat Pump Type	Brine/Water
Refrigerant	R407c
Mass of Refrigerant	1.7 kg

## Model F1145-8 1x230

Model name	F1145-8 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 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)

### EN 14825 | Average Climate

	Low temperature	Medium temperature
$\eta_s$	185 %	141 %
Prated	10.00 kW	9.00 kW
SCOP	4.83	3.73
Tbiv	-5 °C	-6 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	8.20 kW	7.50 kW
COP Tj = -7°C	4.70	3.27
Pdh Tj = +2°C	8.30 kW	7.80 kW
COP Tj = +2°C	4.94	3.77
Pdh Tj = +7°C	8.30 kW	8.00 kW
COP Tj = +7°C	5.10	4.09
Pdh Tj = 12°C	8.40 kW	8.10 kW
COP Tj = 12°C	5.18	4.39
Pdh Tj = Tbiv	8.20 kW	7.60 kW
COP Tj = Tbiv	4.75	3.33
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.10 kW	7.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.57	3.07
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	1.90 kW	1.60 kW
Annual energy consumption Qhe	4290 kWh	4993 kWh

#### EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	45 dB(A)	45 dB(A)

#### EN 14825 | Colder Climate

	Low temperature	Medium temperature
$\eta_s$	190 %	146 %
Prated	10.00 kW	9.00 kW
SCOP	4.95	3.85
Tbiv	-15 °C	-16 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	8.30 kW	7.80 kW
COP Tj = -7°C	4.97	3.67
Pdh Tj = +2°C	8.40 kW	7.90 kW
COP Tj = +2°C	5.12	4.04
Pdh Tj = +7°C	8.40 kW	8.10 kW
COP Tj = +7°C	5.23	4.33
Pdh Tj = 12°C	8.40 kW	8.20 kW
COP Tj = 12°C	5.03	4.47
Pdh Tj = Tbiv	8.20 kW	7.60 kW
COP Tj = Tbiv	4.81	3.34
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.10 kW	7.40 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.57	3.07
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	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	1.90 kW	1.60 kW
Annual energy consumption Qhe	4981 kWh	5777 kWh

## Model F1245-8 1x230

Model name	F1245-8 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 $\eta_{DHW}$	100 %
COP	2.51
Heating up time	1:28 h:min
Standby power input	55.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	235 l

### EN 16147 | Colder Climate

Declared load profile	XL
Efficiency $\eta_{DHW}$	100 %
COP	2.51
Heating up time	1:28 h:min
Standby power input	55.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	235 l