

Subtype F1x45-6

Certificate Holder	Nibe AB
Address	Box 14
ZIP	S-28521
City	Markaryd
Country	SE
Certification Body	RISE CERT
Subtype title	F1x45-6
Registration number	012-038
Heat Pump Type	Brine/Water
Refrigerant	R407c
Mass of Refrigerant	1.5 kg
Testing laboratory	Austrian Institute of Technology (AIT)

Model F1145-6 3x400

Model name	F1145-6 3x400
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	3x400V 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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	6.10 kW	4.56 kW
EI input	1.35 kW	1.50 kW
COP	4.52	3.04

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	184 %	137 %
Prated	7.00 kW	6.00 kW
SCOP	4.80	3.63
Tbiv	-7 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.20 kW	4.80 kW
COP Tj = -7°C	4.71	3.18
Pdh Tj = +2°C	6.30 kW	5.30 kW
COP Tj = +2°C	4.91	3.69
Pdh Tj = +7°C	6.50 kW	5.60 kW
COP Tj = +7°C	5.09	4.02
Pdh Tj = 12°C	6.70 kW	6.00 kW
COP Tj = 12°C	5.14	4.29
Pdh Tj = Tbiv	6.20 kW	4.90 kW
COP Tj = Tbiv	4.71	3.30

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.10 kW	4.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.59	2.96
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	1 W	2 W
PTO	12 W	10 W
PSB	7 W	7 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.90 kW	1.50 kW
Annual energy consumption Qhe	3010 kWh	3425 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	190 %	141 %
Prated	7.00 kW	6.00 kW
SCOP	4.95	3.73
Tbiv	-18 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	6.40 kW	5.20 kW
COP Tj = -7°C	4.96	3.58
Pdh Tj = +2°C	6.50 kW	5.60 kW
COP Tj = +2°C	5.10	3.96
Pdh Tj = +7°C	6.60 kW	5.90 kW
COP Tj = +7°C	5.18	4.25
Pdh Tj = 12°C	6.60 kW	6.10 kW
COP Tj = 12°C	4.97	4.33
Pdh Tj = Tbiv	6.20 kW	4.90 kW
COP Tj = Tbiv	4.75	3.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.10 kW	4.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.59	2.96
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	12 W	10 W
PSB	7 W	7 W

PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.90 kW	1.50 kW
Annual energy consumption Qhe	3487 kWh	3969 kWh

Model F1145-6 PC 3x400

Model name	F1145-6 PC 3x400
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	3x400V 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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	6.10 kW	4.56 kW
EI input	1.35 kW	1.50 kW
COP	4.52	3.04

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	184 %	137 %
Prated	7.00 kW	6.00 kW
SCOP	4.80	3.63
Tbiv	-7 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.20 kW	4.80 kW
COP Tj = -7°C	4.71	3.18
Pdh Tj = +2°C	6.30 kW	5.30 kW
COP Tj = +2°C	4.91	3.69
Pdh Tj = +7°C	6.50 kW	5.60 kW
COP Tj = +7°C	5.09	4.02
Pdh Tj = 12°C	6.70 kW	6.00 kW
COP Tj = 12°C	5.14	4.29
Pdh Tj = Tbiv	6.20 kW	4.90 kW
COP Tj = Tbiv	4.71	3.30

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.10 kW	4.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.59	2.96
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	1 W	2 W
PTO	12 W	10 W
PSB	7 W	7 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.90 kW	1.50 kW
Annual energy consumption Qhe	3010 kWh	3425 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	190 %	141 %
Prated	7.00 kW	6.00 kW
SCOP	4.95	3.73
Tbiv	-18 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	6.40 kW	5.20 kW
COP Tj = -7°C	4.96	3.58
Pdh Tj = +2°C	6.50 kW	5.60 kW
COP Tj = +2°C	5.10	3.96
Pdh Tj = +7°C	6.60 kW	5.90 kW
COP Tj = +7°C	5.18	4.25
Pdh Tj = 12°C	6.60 kW	6.10 kW
COP Tj = 12°C	4.97	4.33
Pdh Tj = Tbiv	6.20 kW	4.90 kW
COP Tj = Tbiv	4.75	3.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.10 kW	4.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.59	2.96
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	12 W	10 W
PSB	7 W	7 W

PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.90 kW	1.50 kW
Annual energy consumption Qhe	3487 kWh	3969 kWh

Model F1245-6 3x400

Model name	F1245-6 3x400
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	3x400V 50Hz
Off-peak product	No

Brine/Water**EN 16147 | Average Climate**

Declared load profile	XL
Efficiency η_{DHW}	98 %
COP	2.45
Heating up time	2:45 h:min
Standby power input	55.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	240 l

EN 16147 | Colder Climate

Declared load profile	XL
Efficiency η_{DHW}	98 %
COP	2.45
Heating up time	2:45 h:min
Standby power input	55.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	240 l

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	6.10 kW	4.56 kW
El input	1.35 kW	1.50 kW
COP	4.52	3.04

EN 12102-1 | Average Climate

Low temperature Medium temperature

Sound power level indoor	43 dB(A)	43 dB(A)
--------------------------	----------	----------

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	184 %	137 %
Prated	7.00 kW	6.00 kW
SCOP	4.80	3.63
Tbiv	-7 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.20 kW	4.80 kW
COP Tj = -7°C	4.71	3.18
Pdh Tj = +2°C	6.30 kW	5.30 kW
COP Tj = +2°C	4.91	3.69
Pdh Tj = +7°C	6.50 kW	5.60 kW
COP Tj = +7°C	5.09	4.02
Pdh Tj = 12°C	6.70 kW	6.00 kW
COP Tj = 12°C	5.14	4.29
Pdh Tj = Tbiv	6.20 kW	4.90 kW
COP Tj = Tbiv	4.71	3.30
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.10 kW	4.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.59	2.96
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	1 W	2 W
PTO	12 W	10 W
PSB	7 W	7 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.90 kW	1.50 kW
Annual energy consumption Qhe	3010 kWh	3425 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	190 %	141 %
Prated	7.00 kW	6.00 kW
SCOP	4.95	3.73
Tbiv	-18 °C	-15 °C
TOL	-22 °C	-22 °C

Pdh Tj = -7°C	6.40 kW	5.20 kW
COP Tj = -7°C	4.96	3.58
Pdh Tj = +2°C	6.50 kW	5.60 kW
COP Tj = +2°C	5.10	3.96
Pdh Tj = +7°C	6.60 kW	5.90 kW
COP Tj = +7°C	5.18	4.25
Pdh Tj = 12°C	6.60 kW	6.10 kW
COP Tj = 12°C	4.97	4.33
Pdh Tj = Tbiv	6.20 kW	4.90 kW
COP Tj = Tbiv	4.75	3.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.10 kW	4.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.59	2.96
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	12 W	10 W
PSB	7 W	7 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.90 kW	1.50 kW
Annual energy consumption Qhe	3487 kWh	3969 kWh

Model F1245-6 PC 3x400

Model name	F1245-6 PC 3x400
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	3x400V 50Hz
Off-peak product	No

Brine/Water**EN 16147 | Average Climate**

Declared load profile	XL
Efficiency η_{DHW}	98 %
COP	2.45
Heating up time	2:45 h:min
Standby power input	55.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	240 l

EN 16147 | Colder Climate

Declared load profile	XL
Efficiency η_{DHW}	98 %
COP	2.45
Heating up time	2:45 h:min
Standby power input	55.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	240 l

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

Complete power supply failure passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	6.10 kW	4.56 kW
El input	1.35 kW	1.50 kW
COP	4.52	3.04

EN 12102-1 | Average Climate

Low temperature Medium temperature

Sound power level indoor	43 dB(A)	43 dB(A)
--------------------------	----------	----------

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	184 %	137 %
Prated	7.00 kW	6.00 kW
SCOP	4.80	3.63
Tbiv	-7 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	6.20 kW	4.80 kW
COP Tj = -7°C	4.71	3.18
Pdh Tj = +2°C	6.30 kW	5.30 kW
COP Tj = +2°C	4.91	3.69
Pdh Tj = +7°C	6.50 kW	5.60 kW
COP Tj = +7°C	5.09	4.02
Pdh Tj = 12°C	6.70 kW	6.00 kW
COP Tj = 12°C	5.14	4.29
Pdh Tj = Tbiv	6.20 kW	4.90 kW
COP Tj = Tbiv	4.71	3.30
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.10 kW	4.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.59	2.96
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	1 W	2 W
PTO	12 W	10 W
PSB	7 W	7 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.90 kW	1.50 kW
Annual energy consumption Qhe	3010 kWh	3425 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	43 dB(A)	43 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	190 %	141 %
Prated	7.00 kW	6.00 kW
SCOP	4.95	3.73
Tbiv	-18 °C	-15 °C
TOL	-22 °C	-22 °C

Pdh Tj = -7°C	6.40 kW	5.20 kW
COP Tj = -7°C	4.96	3.58
Pdh Tj = +2°C	6.50 kW	5.60 kW
COP Tj = +2°C	5.10	3.96
Pdh Tj = +7°C	6.60 kW	5.90 kW
COP Tj = +7°C	5.18	4.25
Pdh Tj = 12°C	6.60 kW	6.10 kW
COP Tj = 12°C	4.97	4.33
Pdh Tj = Tbiv	6.20 kW	4.90 kW
COP Tj = Tbiv	4.75	3.32
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.10 kW	4.50 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.59	2.96
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	12 W	10 W
PSB	7 W	7 W
PCK	14 W	14 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.90 kW	1.50 kW
Annual energy consumption Qhe	3487 kWh	3969 kWh