

Subtype F1x45-10 1x230

Certificate Holder	Nibe AB
Address	Box 14
ZIP	S-28521
City	Markaryd
Country	SE
Certification Body	RISE CERT
Subtype title	F1x45-10 1x230
Registration number	012-042
Heat Pump Type	Brine/Water
Refrigerant	R407c
Mass of Refrigerant	2.1 kg

Model F1145-10 1x230

Model name	F1145-10 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 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	9.69 kW	7.93 kW
El input	2.07 kW	2.48 kW
COP	4.68	3.20

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
η_s	188 %	147 %
Prated	12.00 kW	10.20 kW
SCOP	4.90	3.88
Tbiv	-5 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.80 kW	8.20 kW
COP Tj = -7°C	4.79	3.40
Pdh Tj = +2°C	10.00 kW	8.80 kW
COP Tj = +2°C	5.00	3.90
Pdh Tj = +7°C	10.20 kW	9.20 kW
COP Tj = +7°C	5.14	4.22
Pdh Tj = 12°C	10.40 kW	9.60 kW
COP Tj = 12°C	5.18	4.50
Pdh Tj = Tbiv	9.90 kW	8.30 kW
COP Tj = Tbiv	4.84	3.52

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.70 kW	7.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.68	3.21
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1.00
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	20 W	10 W
PSB	7 W	7 W
PCK	9 W	9 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.30 kW	2.30 kW
Annual energy consumption Qhe	5060 kWh	5454 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
η_s	193 %	150 %
Prated	12.00 kW	10.20 kW
SCOP	5.03	3.95
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	10.10 kW	8.70 kW
COP Tj = -7°C	5.04	3.79
Pdh Tj = +2°C	10.20 kW	9.20 kW
COP Tj = +2°C	5.17	4.14
Pdh Tj = +7°C	10.30 kW	9.50 kW
COP Tj = +7°C	5.22	4.43
Pdh Tj = 12°C	10.40 kW	9.80 kW
COP Tj = 12°C	5.01	4.57
Pdh Tj = Tbiv	9.90 kW	8.40 kW
COP Tj = Tbiv	4.92	3.53
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.70 kW	7.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.68	3.21
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1.00
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	20 W	20 W
PSB	7 W	7 W

PCK	9 W	9 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.30 kW	2.30 kW
Annual energy consumption Q _{he}	5901 kWh	6370 kWh

Model F1245-10 1x230

Model name	F1245-10 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 η_{DHW}	96 %
COP	2.40
Heating up time	01:10 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 η_{DHW}	96 %
COP	2.40
Heating up time	01:10 h:min
Standby power input	55.0 W
Reference hot water temperature	50.0 °C
Mixed water at 40°C	235 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	9.69 kW	7.93 kW
El input	2.07 kW	2.48 kW
COP	4.68	3.20

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
η_s	188 %	147 %
Prated	12.00 kW	10.20 kW
SCOP	4.90	3.88
Tbiv	-5 °C	-5 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.80 kW	8.20 kW
COP Tj = -7°C	4.79	3.40
Pdh Tj = +2°C	10.00 kW	8.80 kW
COP Tj = +2°C	5.00	3.90
Pdh Tj = +7°C	10.20 kW	9.20 kW
COP Tj = +7°C	5.14	4.22
Pdh Tj = 12°C	10.40 kW	9.60 kW
COP Tj = 12°C	5.18	4.50
Pdh Tj = Tbiv	9.90 kW	8.30 kW
COP Tj = Tbiv	4.84	3.52
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.70 kW	7.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.68	3.21
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1.00
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	20 W	10 W
PSB	7 W	7 W
PCK	9 W	9 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.30 kW	2.30 kW
Annual energy consumption Qhe	5060 kWh	5454 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
η_s	193 %	150 %
Prated	12.00 kW	10.20 kW
SCOP	5.03	3.95
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	10.10 kW	8.70 kW
COP Tj = -7°C	5.04	3.79
Pdh Tj = +2°C	10.20 kW	9.20 kW
COP Tj = +2°C	5.17	4.14

Pdh Tj = +7°C	10.30 kW	9.50 kW
COP Tj = +7°C	5.22	4.43
Pdh Tj = 12°C	10.40 kW	9.80 kW
COP Tj = 12°C	5.01	4.57
Pdh Tj = Tbiv	9.90 kW	8.40 kW
COP Tj = Tbiv	4.92	3.53
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	9.70 kW	7.90 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	4.68	3.21
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	1.00
WTOL	65 °C	65 °C
Poff	2 W	2 W
PTO	20 W	20 W
PSB	7 W	7 W
PCK	9 W	9 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.30 kW	2.30 kW
Annual energy consumption Qhe	5901 kWh	6370 kWh