

Subtype F2120-8

Certificate Holder	Nibe AB
Address	Box 14
ZIP	S-28521
City	Markaryd
Country	SE
Certification Body	RISE CERT
Subtype title	F2120-8
Registration number	012-029
Heat Pump Type	Outdoor Air/Water
Refrigerant	R410A
Mass of Refrigerant	2.4 kg
Testing laboratory	Austrian Institute of Technology (AIT)

Model F2120-8 1x230

Model name	F2120-8 1x230
Application	Heating (medium temp)
Units	Outdoor
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

Outdoor Air/Water**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	3.57 kW	3.75 kW
El input	0.78 kW	1.23 kW
COP	4.57	3.05

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	53 dB(A)	53 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	189 %	147 %
Prated	5.90 kW	6.30 kW
SCOP	4.80	3.67
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.20 kW	5.50 kW
COP Tj = -7°C	3.25	2.48
Pdh Tj = +2°C	4.00 kW	4.10 kW
COP Tj = +2°C	4.91	3.80
Pdh Tj = +7°C	2.90 kW	2.90 kW
COP Tj = +7°C	5.60	4.45
Pdh Tj = 12°C	3.30 kW	3.30 kW
COP Tj = 12°C	6.40	5.26
Pdh Tj = Tbiv	5.20 kW	5.50 kW

COP Tj = Tbiv	3.25	2.48
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.30 kW	5.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.12	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	25 W	25 W
PTO	10 W	10 W
PSB	25 W	25 W
PCK	37 W	37 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.60 kW	0.60 kW
Annual energy consumption Qhe	4182 kWh	5524 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	53 dB(A)	53 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	158 %	130 %
Prated	6.80 kW	7.40 kW
SCOP	4.02	3.32
Tbiv	-12 °C	-12 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.10 kW	4.50 kW
COP Tj = -7°C	3.30	2.74
Pdh Tj = +2°C	2.60 kW	2.70 kW
COP Tj = +2°C	5.20	4.10
Pdh Tj = +7°C	2.90 kW	2.90 kW
COP Tj = +7°C	5.52	4.65
Pdh Tj = 12°C	3.30 kW	3.30 kW
COP Tj = 12°C	6.25	5.31
Pdh Tj = Tbiv	5.00 kW	5.50 kW
COP Tj = Tbiv	3.00	2.50
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.80 kW	4.30 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.30	1.85
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
Poff	25 W	25 W
PTO	10 W	10 W

PSB	25 W	25 W
PCK	37 W	37 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.10 kW	3.10 kW
Annual energy consumption Qhe	4182 kWh	5524 kWh

Model F2120-8 3x400

Model name	F2120-8 3x400
Application	Heating (medium temp)
Units	Outdoor
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

Outdoor Air/Water**EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

Complete power supply failure	passed
Defrost test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	3.57 kW	3.75 kW
El input	0.78 kW	1.23 kW
COP	4.57	3.05

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	53 dB(A)	53 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	189 %	147 %
Prated	5.90 kW	6.30 kW
SCOP	4.80	3.67
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	5.20 kW	5.50 kW
COP Tj = -7°C	3.25	2.48
Pdh Tj = +2°C	4.00 kW	4.10 kW
COP Tj = +2°C	4.91	3.80
Pdh Tj = +7°C	2.90 kW	2.90 kW
COP Tj = +7°C	5.60	4.45
Pdh Tj = 12°C	3.30 kW	3.30 kW
COP Tj = 12°C	6.40	5.26
Pdh Tj = Tbiv	5.20 kW	5.50 kW

COP Tj = Tbiv	3.25	2.48
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	5.30 kW	5.70 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.12	2.34
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.99	0.99
WTOL	65 °C	65 °C
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PTO	10 W	10 W
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PCK	37 W	37 W
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Supplementary Heater: PSUP	3.10 kW	3.10 kW
Annual energy consumption Qhe	4182 kWh	5524 kWh