Subtype F2120-16

Certificate Holder	Nibe AB
Address	Box 14
ZIP	S-28521
City	Markaryd
Country	SE
Certification Body	RISE CERT
Subtype title	F2120-16
Registration number	012-031
Heat Pump Type	Outdoor Air/Water
Refrigerant	R410A
Mass of Refrigerant	3 kg
Certification Date	05.05.2020
Testing laboratory	Danish Technological Institute (DTI), DK

Model F2120-16

Model name	F2120-16
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	6.94 kW	7.25 kW
El input	1.43 kW	2.35 kW
COP	4.85	3.08

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	53 dB(A)	55 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	199 %	153 %
Prated	11.00 kW	12.30 kW
SCOP	5.05	3.90
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	9.74 kW	10.91 kW
COP Tj = -7°C	3.41	2.48
Pdh Tj = +2°C	6.47 kW	6.66 kW
COP Tj = +2°C	5.08	3.96
Pdh Tj = +7°C	6.86 kW	5.93 kW
COP Tj = +7°C	5.95	4.69
Pdh Tj = 12°C	6.76 kW	6.49 kW
COP Tj = 12°C	7.36	5.81
Pdh Tj = Tbiv	9.74 kW	10.91 kW

COP Tj = Tbiv	3.41	2.48
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	10.80 kW	11.59 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.11	2.40
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	7 W	12 W
PSB	25 W	25 W
PCK	37 W	37 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.20 kW	0.70 kW
Annual energy consumption Qhe	4508 kWh	6530 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	165 %	134 %
Prated	13.00 kW	14.00 kW
SCOP	4.19	3.41
Tbiv	-12 °C	-12 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	7.87 kW	8.47 kW
COP Tj = -7°C	3.50	2.85
Pdh Tj = +2°C	6.20 kW	6.10 kW
COP Tj = +2°C	5.25	4.15
Pdh Tj = +7°C	5.90 kW	6.00 kW
COP Tj = +7°C	5.60	4.80
Pdh Tj = 12°C	6.70 kW	6.40 kW
COP Tj = 12°C	7.00	5.80
Pdh Tj = Tbiv	9.58 kW	10.32 kW
COP Tj = Tbiv	3.15	2.55
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.30 kW	8.69 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.30	1.94
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	7 W	12 W

PSB	25 W	25 W
PCK	37 W	37 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.70 kW	5.30 kW
Annual energy consumption Qhe	7639 kWh	10108 kWh