

Subtype F2120-20

| | |
|---------------------|-------------------|
| Certificate Holder | Nibe AB |
| Address | Box 14 |
| ZIP | S-28521 |
| City | Markaryd |
| Country | SE |
| Certification Body | RISE CERT |
| Subtype title | F2120-20 |
| Registration number | 012-032 |
| Heat Pump Type | Outdoor Air/Water |
| Refrigerant | R410A |
| Mass of Refrigerant | 3 kg |
| Certification Date | 05.05.2020 |

Model F2120-20

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|-------------------------------------|-----------------------|
| Model name | F2120-20 |
| 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 | n/a |

Outdoor Air/Water

EN 14511-4 | Heating

| | |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

EN 12102-1 | Average Climate

| | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor | 35 dB(A) | 35 dB(A) |
| Sound power level outdoor | 53 dB(A) | 55 dB(A) |

EN 14825 | Average Climate

| | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| η_s | 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 indoor | 35 dB(A) | 35 dB(A) |
| Sound power level outdoor | 53 dB(A) | 53 dB(A) |

EN 14825 | Colder Climate

| | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| η_s | 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 | 35 W | 35 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |

| | | |
|---|----------|-----------|
| Supplementary Heater: PSUP | 4.70 kW | 5.30 kW |
| Annual energy consumption Q _{he} | 7639 kWh | 10108 kWh |