

Subtype F1x45-12 3x400

| | |
|---------------------|--|
| Certificate Holder | Nibe AB |
| Address | Box 14 |
| ZIP | S-28521 |
| City | Markaryd |
| Country | SE |
| Certification Body | RISE CERT |
| Subtype title | F1x45-12 3x400 |
| Registration number | 012-043 |
| Heat Pump Type | Brine/Water |
| Refrigerant | R407c |
| Mass of Refrigerant | 2 kg |
| Testing laboratory | Austrian Institute of Technology (AIT) |

Model F1145-12 3x400

| | |
|-------------------------------------|-----------------------|
| Model name | F1145-12 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 | 11.89 kW | 10.84 kW |
| El input | 2.70 kW | 3.78 kW |
| COP | 4.40 | 2.91 |

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 | 183 % | 141 % |
| Prated | 14.00 kW | 14.00 kW |
| SCOP | 4.78 | 3.73 |
| Tbiv | -5 °C | -4 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 11.50 kW | 10.80 kW |
| COP Tj = -7°C | 4.70 | 3.30 |
| Pdh Tj = +2°C | 11.60 kW | 11.10 kW |
| COP Tj = +2°C | 4.94 | 3.80 |
| Pdh Tj = +7°C | 11.70 kW | 11.30 kW |
| COP Tj = +7°C | 5.10 | 4.10 |
| Pdh Tj = 12°C | 11.80 kW | 11.50 kW |
| COP Tj = 12°C | 5.14 | 4.40 |
| Pdh Tj = Tbiv | 11.50 kW | 10.90 kW |
| COP Tj = Tbiv | 4.75 | 3.46 |

| | | |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 11.50 kW | 10.70 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 4.56 | 3.12 |
| 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 | 30 W | 30 W |
| PSB | 7 W | 7 W |
| PCK | 30 W | 30 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 2.50 kW | 3.30 kW |
| Annual energy consumption Qhe | 6042 kWh | 7785 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 |
|---|-----------------|--------------------|
| ηs | 189 % | 145 % |
| Prated | 14.00 kW | 14.00 kW |
| SCOP | 4.93 | 3.83 |
| Tbiv | -15 °C | -14 °C |
| TOL | -22 °C | -22 °C |
| Pdh Tj = -7°C | 11.70 kW | 11.00 kW |
| COP Tj = -7°C | 4.98 | 3.70 |
| Pdh Tj = +2°C | 11.70 kW | 11.20 kW |
| COP Tj = +2°C | 5.12 | 4.06 |
| Pdh Tj = +7°C | 11.80 kW | 11.40 kW |
| COP Tj = +7°C | 5.22 | 4.37 |
| Pdh Tj = 12°C | 11.80 kW | 11.50 kW |
| COP Tj = 12°C | 4.94 | 4.50 |
| Pdh Tj = Tbiv | 11.60 kW | 10.90 kW |
| COP Tj = Tbiv | 4.81 | 3.49 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 11.50 kW | 10.70 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 4.56 | 3.12 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.99 | 0.99 |
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| PTO | 30 W | 30 W |
| PSB | 7 W | 7 W |

| | | |
|--|-------------|-------------|
| PCK | 30 W | 30 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 2.50 kW | 3.30 kW |
| Annual energy consumption Q _{he} | 6993 kWh | 9049 kWh |

Model F1245-12 3x400

| | |
|-------------------------------------|--------------------------|
| Model name | F1245-12 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} | 96 % |
| COP | 2.40 |
| Heating up time | 00:58 h:min |
| Standby power input | 55.0 W |
| Reference hot water temperature | 50.0 °C |
| Mixed water at 40°C | 230 l |

EN 16147 | Colder Climate

| | |
|---------------------------------|-------------|
| Declared load profile | XL |
| Efficiency η_{DHW} | 96 % |
| COP | 2.40 |
| Heating up time | 00:58 h:min |
| Standby power input | 55.0 W |
| Reference hot water temperature | 50.0 °C |
| Mixed water at 40°C | 230 l |

EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

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| PSB | 7 W | 7 W |
| PCK | 30 W | 30 W |
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| Supplementary Heater: PSUP | 2.50 kW | 3.30 kW |
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