

This information was generated by the HP KEYMARK database on 17 Dec 2020

|                            |             |          |         |
|----------------------------|-------------|----------|---------|
| Summary of                 | F1x45-15    | Reg. No. | 012-045 |
| Certificate Holder         |             |          |         |
| Name                       | Nibe AB     |          |         |
| Address                    | Box 14      | Zip      | S-28521 |
| City                       | Markaryd    | Country  | Sweden  |
| Certification Body         | RISE CERT   |          |         |
| Name of testing laboratory | AIT         |          |         |
| Subtype title              | F1x45-15    |          |         |
| Heat Pump Type             | Brine/Water |          |         |
| Refrigerant                | R407c       |          |         |
| Mass Of Refrigerant        | 2 kg        |          |         |

## Model: F1145-15

### General Data

|              |             |
|--------------|-------------|
| Power supply | 3x400V 50Hz |
|--------------|-------------|

## Heating

### EN 14511-2

|                        | Low temperature        | Medium temperature     |
|------------------------|------------------------|------------------------|
| Heat output            | 10.42 kW               | 14.83 kW               |
| El input               | 3.63 kW                | 5.05 kW                |
| COP                    | 4.25                   | 2.94                   |
| Indoor water flow rate | 3.10 m <sup>3</sup> /h | 1.93 m <sup>3</sup> /h |

### EN 14511-4

|  |        |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow                                 | passed |
| Complete power supply failure  | passed |

## Average Climate

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| <b>EN 12102-1</b>        |                        |                           |
|--------------------------|------------------------|---------------------------|
|                          | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor | 43 dB(A)               | 43 dB(A)                  |

| <b>EN 14825</b> |                        |                           |
|-----------------|------------------------|---------------------------|
|                 | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$        | 175 %                  | 138 %                     |
| Prated          | 18.00 kW               | 18.00 kW                  |
| SCOP            | 4.57                   | 3.65                      |
| Tbiv            | -6 °C                  | -5 °C                     |
| TOL             | -10 °C                 | -10 °C                    |
| Pdh Tj = -7°C   | 15.40 kW               | 6.00 kW                   |
| COP Tj = -7°C   | 4.52                   | 3.16                      |
| Pdh Tj = +2°C   | 15.60 kW               | 14.80 kW                  |
| COP Tj = +2°C   | 4.70                   | 3.72                      |
| Pdh Tj = +7°C   | 15.70 kW               | 15.10 kW                  |
| COP Tj = +7°C   | 4.82                   | 4.01                      |
| Pdh Tj = 12°C   | 15.80 kW               | 15.40 kW                  |
| COP Tj = 12°C   | 4.73                   | 4.27                      |
| Pdh Tj = Tbiv   | 15.50 kW               | 14.60 kW                  |
| COP Tj = Tbiv   | 4.55                   | 3.27                      |

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|--|-------------|-------------|
| Pdh Tj = TOL                               | 15.40 kW    | 14.60 kW    |
| COP Tj = TOL                               | 4.41        | 2.96        |
| Cdh  | 0.98        | 0.99        |
| WTOL                                       | 65 °C       | 65 °C       |
| Poff                                       | 2 W         | 2 W         |
| PTO  | 60 W        | 60 W        |
| PSB  | 7 W         | 7 W         |
| PCK  | 35 W        | 35 W        |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP                 | 2.60 kW     | 3.40 kW     |
| Annual energy consumption Qhe              | 8134 kWh    | 10194 kWh   |

## Colder Climate

| <b>EN 12102-1</b>        |                        |                           |
|--------------------------|------------------------|---------------------------|
|                          | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor | 43 dB(A)               | 43 dB(A)                  |

| <b>EN 14825</b> |                        |                           |
|-----------------|------------------------|---------------------------|
|                 | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$        | 180 %                  | 141 %                     |
| Prated          | 18.00 kW               | 18.00 kW                  |

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|               |          |          |
|---------------|----------|----------|
| SCOP          | 4.70     | 3.72     |
| Tbiv          | -17 °C   | -15 °C   |
| TOL           | -22 °C   | -22 °C   |
| Pdh Tj = -7°C | 15.60 kW | 14.70 kW |
| COP Tj = -7°C | 4.73     | 3.60     |
| Pdh Tj = +2°C | 15.70 kW | 15.00 kW |
| COP Tj = +2°C | 4.85     | 3.95     |
| Pdh Tj = +7°C | 15.80 kW | 15.30 kW |
| COP Tj = +7°C | 4.84     | 4.21     |
| Pdh Tj = 12°C | 15.80 kW | 15.50 kW |
| COP Tj = 12°C | 4.49     | 4.35     |
| Pdh Tj = Tbiv | 15.50 kW | 14.60 kW |
| COP Tj = Tbiv | 4.58     | 3.29     |
| Pdh Tj = TOL  | 15.40 kW | 14.60 kW |
| COP Tj = TOL  | 4.41     | 2.96     |
| Cdh           | 0.98     | 0.99     |
| WTOL          | 65 °C    | 65 °C    |
| Poff          | 2 W      | 2 W      |
| PTO           | 60 W     | 60 W     |
| PSB           | 7 W      | 7 W      |
| PCK           | 35 W     | 35 W     |

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|  |             |             |
|--|-------------|-------------|
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP                 | 2.60 kW     | 3.40 kW     |
| Annual energy consumption Q <sub>he</sub>  | 9454 kWh    | 11893 kWh   |