

**Model HM143HF UB60 / HN1639HC NK0**

|                                     |                             |
|-------------------------------------|-----------------------------|
| Model name                          | HM143HF UB60 / HN1639HC NK0 |
| Application                         | Heating (medium temp)       |
| Units                               | Indoor, Outdoor             |
| Climate zone (for heating)          | n/a                         |
| 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 |
| Starting and operating test                | passed |

**EN 14511-2 | Heating**

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 14.00 kW        | 11.00 kW           |
| El input    | 3.11 kW         | 3.38 kW            |
| COP         | 4.50            | 3.25               |

**EN 12102-1 | Average Climate**

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 39 dB(A)        | 39 dB(A)           |
| Sound power level outdoor | 51 dB(A)        | 51 dB(A)           |

**EN 14825 | Average Climate**

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| $\eta_s$       | 212 %           | 155 %              |
| Prated         | 11.00 kW        | 11.00 kW           |
| SCOP           | 5.38            | 3.96               |
| Tbiv           | -7 °C           | -10 °C             |
| TOL            | -10 °C          | -10 °C             |
| Pdh Tj = -7°C  | 9.70 kW         | 9.70 kW            |
| COP Tj = -7°C  | 3.30            | 2.45               |
| Cdh Tj = -7 °C | 0.900           | 0.900              |
| Pdh Tj = +2°C  | 5.90 kW         | 5.90 kW            |
| COP Tj = +2°C  | 5.18            | 3.84               |
| Cdh Tj = +2 °C | 0.900           | 0.900              |
| Pdh Tj = +7°C  | 3.80 kW         | 3.80 kW            |

|                                                     |             |             |
|-----------------------------------------------------|-------------|-------------|
| COP Tj = +7°C                                       | 7.38        | 5.40        |
| Cdh Tj = +7 °C                                      | 0.900       | 0.900       |
| Pdh Tj = 12°C                                       | 3.60 kW     | 3.60 kW     |
| COP Tj = 12°C                                       | 9.15        | 6.15        |
| Cdh Tj = +12 °C                                     | 0.900       | 0.900       |
| Pdh Tj = Tbiv                                       | 9.70 kW     | 11.00 kW    |
| COP Tj = Tbiv                                       | 3.30        | 2.20        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 10.70 kW    | 11.00 kW    |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.95        | 2.20        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL                                                | 75 °C       | 75 °C       |
| Poff                                                | 10 W        | 10 W        |
| PTO                                                 | 30 W        | 30 W        |
| PSB                                                 | 10 W        | 10 W        |
| PCK                                                 | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.30 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 4223 kWh    | 5741 kWh    |