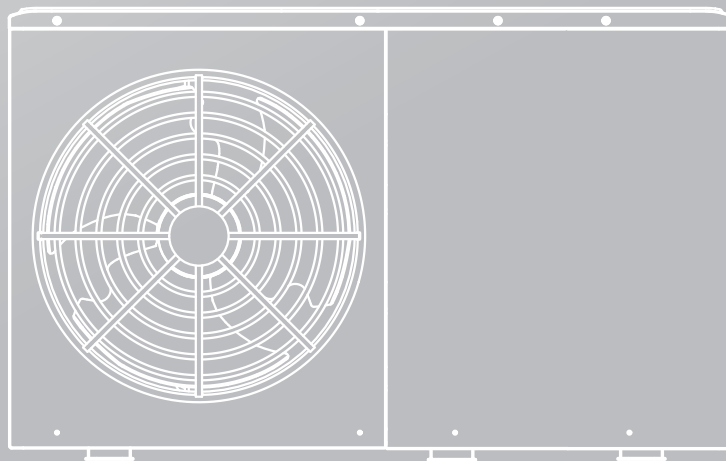


TECHNICAL DATA MANUAL

ATW Heat Pump



IMPORTANT NOTE:

Thank you very much for purchasing our product,
Before using your unit , please read this manual carefully and keep it for future reference.

| Model | For medium - temperature application | | | | | | | | | | | |
|---|--------------------------------------|--------------------------|-------------------|--|--|-------------------|--|--|-------------------|--|--|--|
| | Energy efficiency class | Outdoor unit sound power | average climate | | | colder climate | | | warmer climate | | | |
| | | | Rated heat output | Seasonal space heating energy efficiency | For space heating, annual energy consumption | Rated heat output | Seasonal space heating energy efficiency | For space heating, annual energy consumption | Rated heat output | Seasonal space heating energy efficiency | For space heating, annual energy consumption | |
| Outdoor unit | - | dB | kW | % | kWh | kW | % | kWh | kW | % | kWh | |
| MHC-V4WD2N7 | A++ | 56 | 4.9 | 148.6 | 2668 | 4.3 | 124.3 | 3328 | 4.7 | 170.6 | 1446 | |
| MHC-V4WD2N7-E** | A++ | 56 | 4.9 | 148.6 | 2668 | 4.3 | 124.3 | 3328 | 4.7 | 170.6 | 1446 | |
| MHC-V6WD2N7 | A++ | 58 | 5.9 | 149.7 | 3191 | 5.9 | 132.0 | 4325 | 6.0 | 179.0 | 1762 | |
| MHC-V6WD2N7-E** | A++ | 58 | 5.9 | 149.7 | 3191 | 5.9 | 132.0 | 4325 | 6.0 | 179.0 | 1762 | |
| MHC-V8WD2N7 | A++ | 60 | 6.8 | 149.7 | 3676 | 7.0 | 135.2 | 4992 | 8.3 | 184.3 | 2368 | |
| MHC-V8WD2N7-E** | A++ | 60 | 6.8 | 149.7 | 3676 | 7.0 | 135.2 | 4992 | 8.3 | 184.3 | 2368 | |
| MHC-V8WD2N7-ER** | A++ | 60 | 6.8 | 149.7 | 3676 | 7.0 | 135.2 | 4992 | 8.3 | 184.3 | 2368 | |
| MHC-V10WD2N7 | A++ | 61 | 7.8 | 149.8 | 4215 | 8.0 | 136.4 | 5659 | 8.8 | 188.5 | 2456 | |
| MHC-V10WD2N7-E** | A++ | 61 | 7.8 | 149.8 | 4215 | 8.0 | 136.4 | 5659 | 8.8 | 188.5 | 2456 | |
| MHC-V10WD2N7-ER** | A++ | 61 | 7.8 | 149.8 | 4215 | 8.0 | 136.4 | 5659 | 8.8 | 188.5 | 2456 | |
| MHC-V12WD2N7 | A++ | 65 | 12.0 | 141.8 | 6843 | 10.8 | 127.3 | 8197 | 12.4 | 174.9 | 3724 | |
| MHC-V12WD2N7-E** | A++ | 65 | 12.0 | 141.8 | 6843 | 10.8 | 127.3 | 8197 | 12.4 | 174.9 | 3724 | |
| MHC-V12WD2N7-ER** | A++ | 65 | 12.0 | 141.8 | 6843 | 10.8 | 127.3 | 8197 | 12.4 | 174.9 | 3724 | |
| MHC-V14WD2N7 | A++ | 65 | 13.0 | 141.4 | 7438 | 12.0 | 126.1 | 9168 | 14.1 | 174.1 | 4256 | |
| MHC-V14WD2N7-E** | A++ | 65 | 13.0 | 141.4 | 7438 | 12.0 | 126.1 | 9168 | 14.1 | 174.1 | 4256 | |
| MHC-V14WD2N7-ER** | A++ | 65 | 13.0 | 141.4 | 7438 | 12.0 | 126.1 | 9168 | 14.1 | 174.1 | 4256 | |
| MHC-V16WD2N7 | A++ | 69 | 14.4 | 139.9 | 8349 | 13.9 | 128.4 | 10408 | 14.9 | 181.9 | 4306 | |
| MHC-V16WD2N7-E** | A++ | 69 | 14.4 | 139.9 | 8349 | 13.9 | 128.4 | 10408 | 14.9 | 181.9 | 4306 | |
| MHC-V16WD2N7-ER** | A++ | 69 | 14.4 | 139.9 | 8349 | 13.9 | 128.4 | 10408 | 14.9 | 181.9 | 4306 | |
| MHC-V12WD2RN7 | A++ | 65 | 12.0 | 141.8 | 6843 | 10.8 | 127.3 | 8197 | 12.4 | 174.9 | 3724 | |
| MHC-V12WD2RN7-E** | A++ | 65 | 12.0 | 141.8 | 6843 | 10.8 | 127.3 | 8197 | 12.4 | 174.9 | 3724 | |
| MHC-V12WD2RN7-ER** | A++ | 65 | 12.0 | 141.8 | 6843 | 10.8 | 127.3 | 8197 | 12.4 | 174.9 | 3724 | |
| MHC-V14WD2RN7 | A++ | 65 | 13.0 | 141.4 | 7438 | 12.0 | 126.1 | 9168 | 14.1 | 174.1 | 4256 | |
| MHC-V14WD2RN7-E** | A++ | 65 | 13.0 | 141.4 | 7438 | 12.0 | 126.1 | 9168 | 14.1 | 174.1 | 4256 | |
| MHC-V14WD2RN7-ER** | A++ | 65 | 13.0 | 141.4 | 7438 | 12.0 | 126.1 | 9168 | 14.1 | 174.1 | 4256 | |
| MHC-V16WD2RN7 | A++ | 69 | 14.4 | 139.9 | 8349 | 13.9 | 128.4 | 10408 | 14.9 | 181.9 | 4306 | |
| MHC-V16WD2RN7-E** | A++ | 69 | 14.4 | 139.9 | 8349 | 13.9 | 128.4 | 10408 | 14.9 | 181.9 | 4306 | |
| MHC-V16WD2RN7-ER** | A++ | 69 | 14.4 | 139.9 | 8349 | 13.9 | 128.4 | 10408 | 14.9 | 181.9 | 4306 | |
| MHC-V16WD2RN7 | A++ | 69 | 14.4 | 139.9 | 8349 | 13.9 | 128.4 | 10408 | 14.9 | 181.9 | 4306 | |
| MHC-V16WD2RN7-E** | A++ | 69 | 14.4 | 139.9 | 8349 | 13.9 | 128.4 | 10408 | 14.9 | 181.9 | 4306 | |
| MHC-V16WD2RN7-ER** | A++ | 69 | 14.4 | 139.9 | 8349 | 13.9 | 128.4 | 10408 | 14.9 | 181.9 | 4306 | |
| Unit type explanation: 1.MHC-V*****N7, without back-up heater, 2.MHC-V*****N7-E30, with 3kW back-up heater and 1-Phase power source 3.MHC-V*****N7-ER60, with 6kW back-up heater and 3-Phase power source 4.MHC-V*****N7-ER90, with 9kW back-up heater and 3-Phase power source | | | | | | | | | | | | |

Unit type explanation:

- 1.MHC-V*****N7, without back-up heater,
- 2.MHC-V*****N7-E30, with 3kW back-up heater and 1-Phase power source
- 3.MHC-V*****N7-ER60, with 6kW back-up heater and 3-Phase power source
- 4.MHC-V*****N7-ER90, with 9kW back-up heater and 3-Phase power source

| Model | For low - temperature application | | | | | | | | | | | |
|---|-----------------------------------|--------------------------|-------------------------|---|---|-------------------------|---|---|-------------------------|---|---|--|
| Outdoor unit | Energy efficiency class | Outdoor unit sound power | average climate | | | colder climate | | | warmer climate | | | |
| | - | dB | Rated heat output kW | Seasonal space heating energy efficiency % | For space heating, annual energy consumption kWh | Rated heat output kW | Seasonal space heating energy efficiency % | For space heating, annual energy consumption kWh | Rated heat output kW | Seasonal space heating energy efficiency % | For space heating, annual energy consumption kWh | |
| MHC-V4WD2N7 | A+++ | 56 | 5.0 | 199.8 | 2034 | 5.0 | 158.3 | 3056 | 4.6 | 235.9 | 1024 | |
| MHC-V4WD2N7-E** | A+++ | 56 | 5.0 | 199.8 | 2034 | 5.0 | 158.3 | 3056 | 4.6 | 235.9 | 1024 | |
| MHC-V6WD2N7 | A+++ | 58 | 6.4 | 192.6 | 2700 | 6.3 | 166.7 | 3663 | 5.5 | 242.4 | 1198 | |
| MHC-V6WD2N7-E** | A+++ | 58 | 6.4 | 192.6 | 2700 | 6.3 | 166.7 | 3663 | 5.5 | 242.4 | 1198 | |
| MHC-V8WD2N7 | A+++ | 60 | 8.0 | 204.4 | 3184 | 6.8 | 174.5 | 3772 | 8.2 | 259.2 | 1669 | |
| MHC-V8WD2N7-E** | A+++ | 60 | 8.0 | 204.4 | 3184 | 6.8 | 174.5 | 3772 | 8.2 | 259.2 | 1669 | |
| MHC-V8WD2N7-ER** | A+++ | 60 | 8.0 | 204.4 | 3184 | 6.8 | 174.5 | 3772 | 8.2 | 259.2 | 1669 | |
| MHC-V10WD2N7 | A+++ | 61 | 9.2 | 199.9 | 3744 | 7.9 | 178.7 | 4269 | 8.6 | 281.3 | 1614 | |
| MHC-V10WD2N7-E** | A+++ | 61 | 9.2 | 199.9 | 3744 | 7.9 | 178.7 | 4269 | 8.6 | 281.3 | 1614 | |
| MHC-V10WD2N7-ER** | A+++ | 61 | 9.2 | 199.9 | 3744 | 7.9 | 178.7 | 4269 | 8.6 | 281.3 | 1614 | |
| MHC-V12WD2N7 | A+++ | 65 | 12.1 | 183.7 | 5352 | 11.5 | 162.1 | 6869 | 11.7 | 232.9 | 2651 | |
| MHC-V12WD2N7-E** | A+++ | 65 | 12.1 | 183.7 | 5352 | 11.5 | 162.1 | 6869 | 11.7 | 232.9 | 2651 | |
| MHC-V12WD2N7-ER** | A+++ | 65 | 12.1 | 183.7 | 5352 | 11.5 | 162.1 | 6869 | 11.7 | 232.9 | 2651 | |
| MHC-V14WD2N7 | A+++ | 65 | 13.7 | 182.2 | 6110 | 12.6 | 162.3 | 7513 | 12.7 | 231.1 | 2897 | |
| MHC-V14WD2N7-E** | A+++ | 65 | 13.7 | 182.2 | 6110 | 12.6 | 162.3 | 7513 | 12.7 | 231.1 | 2897 | |
| MHC-V14WD2N7-ER** | A+++ | 65 | 13.7 | 182.2 | 6110 | 12.6 | 162.3 | 7513 | 12.7 | 231.1 | 2897 | |
| MHC-V16WD2N7 | A+++ | 69 | 14.7 | 180.5 | 6617 | 14.6 | 160.2 | 8813 | 14.3 | 238.9 | 3159 | |
| MHC-V16WD2N7-E** | A+++ | 69 | 14.7 | 180.5 | 6617 | 14.6 | 160.2 | 8813 | 14.3 | 238.9 | 3159 | |
| MHC-V16WD2N7-ER** | A+++ | 69 | 14.7 | 180.5 | 6617 | 14.6 | 160.2 | 8813 | 14.3 | 238.9 | 3159 | |
| MHC-V12WD2RN7 | A+++ | 65 | 12.1 | 183.7 | 5352 | 11.5 | 162.1 | 6869 | 11.7 | 232.9 | 2651 | |
| MHC-V12WD2RN7-E** | A+++ | 65 | 12.1 | 183.7 | 5352 | 11.5 | 162.1 | 6869 | 11.7 | 232.9 | 2651 | |
| MHC-V12WD2RN7-ER** | A+++ | 65 | 12.1 | 183.7 | 5352 | 11.5 | 162.1 | 6869 | 11.7 | 232.9 | 2651 | |
| MHC-V14WD2RN7 | A+++ | 65 | 13.7 | 182.2 | 6110 | 12.6 | 162.3 | 7513 | 12.7 | 231.1 | 2897 | |
| MHC-V14WD2RN7-E** | A+++ | 65 | 13.7 | 182.2 | 6110 | 12.6 | 162.3 | 7513 | 12.7 | 231.1 | 2897 | |
| MHC-V14WD2RN7-ER** | A+++ | 65 | 13.7 | 182.2 | 6110 | 12.6 | 162.3 | 7513 | 12.7 | 231.1 | 2897 | |
| MHC-V16WD2RN7 | A+++ | 69 | 14.7 | 180.5 | 6617 | 14.6 | 160.2 | 8813 | 14.3 | 238.9 | 3159 | |
| MHC-V16WD2RN7-E** | A+++ | 69 | 14.7 | 180.5 | 6617 | 14.6 | 160.2 | 8813 | 14.3 | 238.9 | 3159 | |
| MHC-V16WD2RN7-ER** | A+++ | 69 | 14.7 | 180.5 | 6617 | 14.6 | 160.2 | 8813 | 14.3 | 238.9 | 3159 | |
| MHC-V16WD2RN7 | A+++ | 69 | 14.7 | 180.5 | 6617 | 14.6 | 160.2 | 8813 | 14.3 | 238.9 | 3159 | |
| MHC-V16WD2RN7-E** | A+++ | 69 | 14.7 | 180.5 | 6617 | 14.6 | 160.2 | 8813 | 14.3 | 238.9 | 3159 | |
| MHC-V16WD2RN7-ER** | A+++ | 69 | 14.7 | 180.5 | 6617 | 14.6 | 160.2 | 8813 | 14.3 | 238.9 | 3159 | |
| Unit type explanation: 1.MHC-V*****N7 , without back-up heater , 2.MHC-V*****N7-E30, with 3kW back-up heater and 1-Phase power source 3.MHC-V*****N7-ER60, with 6kW back-up heater and 3-Phase power source 4.MHC-V*****N7-ER90, with 9kW back-up heater and 3-Phase power source | | | | | | | | | | | | |

Unit type explanation:

- 1.MHC-V*****N7, without back-up heater,
- 2.MHC-V*****N7-E30, with 3kW back-up heater and 1-Phase power source
- 3.MHC-V*****N7-ER60, with 6kW back-up heater and 3-Phase power source
- 4.MHC-V*****N7-ER90, with 9kW back-up heater and 3-Phase power source

Product fiche 1

Heat pump space heater

| | | Outdoor | MHC-V4WD2N7-*** | MHC-V6WD2N7-*** | MHC-V8WD2N7-*** | MHC-V10WD2N7-*** | MHC-V12WD2N7-*** |
|--|--|---------|-----------------|-----------------|-----------------|------------------|------------------|
| Outdoor unit sound power (*) | Average climate low temperature application | dB | 56 | 58 | 60 | 61 | 65 |
| | Average climate medium temperature application | dB | 56 | 58 | 60 | 61 | 65 |
| Capacity of the back-up heater integrated in the unit | | [kW] | 0/3 | 0/3 | 0/3/6/9 | 0/3/6/9 | 0/3/6/9 |
| Space heating | Psup back-up heater (optional) | - | A+++ | A+++ | A+++ | A+++ | A+++ |
| Space heating | Energy efficiency class 35°C (Low temp. app.) | - | A++ | A++ | A++ | A++ | A++ |
| Average climate (Design temperature = -10°C) | | | | | | | |
| Space heating 35°C | Prated (declared heating capacity) @ -10°C | [kW] | 5.0 | 6.4 | 8.0 | 9.2 | 12.1 |
| | Seasonal space heating efficiency (ηs) | [%] | 199.8 | 192.6 | 204.4 | 199.9 | 183.7 |
| | Annual energy consumption | [kWh] | 2,034 | 2,700 | 3,184 | 3,744 | 5,352 |
| Space heating 55°C | Prated (declared heating capacity) @ -10°C | [kW] | 4.9 | 5.9 | 6.8 | 7.8 | 12.0 |
| | Seasonal space heating efficiency (ηs) | [%] | 148.6 | 149.7 | 149.7 | 149.8 | 141.8 |
| | Annual energy consumption | [kWh] | 2,668 | 3,191 | 3,676 | 4,215 | 6,843 |
| Part load conditions space heating average climate low temperature application | | | | | | | |
| (A) condition (-7°C) | Pdh (declared heating capacity) | [kW] | 4.45 | 5.75 | 7.09 | 8.11 | 10.75 |
| | COPd (declared COP) | - | 3.39 | 3.10 | 3.06 | 2.84 | 2.78 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (B) condition (2°C) | Pdh (declared heating capacity) | [kW] | 2.75 | 3.71 | 4.53 | 5.10 | 6.73 |
| | COPd (declared COP) | - | 5.04 | 4.73 | 5.10 | 4.96 | 4.55 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (C) condition (7°C) | Pdh (declared heating capacity) | [kW] | 2.72 | 2.72 | 3.96 | 3.96 | 5.23 |
| | COPd (declared COP) | - | 6.72 | 6.92 | 7.47 | 7.47 | 6.89 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (D) condition (12°C) | Pdh (declared heating capacity) | [kW] | 3.14 | 3.15 | 4.51 | 4.48 | 5.34 |
| | COPd (declared COP) | - | 8.52 | 8.65 | 9.66 | 9.56 | 7.41 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (E) Tol (temperature operating limit) | Tol (temperature operating limit) | [°C] | -10.00 | -10.00 | -10.00 | -10.00 | -10.00 |
| | Pdh (declared heating capacity) | [kW] | 5.00 | 5.50 | 7.97 | 8.50 | 10.77 |
| | COPd (declared COP) | - | 2.92 | 2.87 | 2.56 | 2.52 | 2.61 |
| | WTOL (Heating water Operation Limit) | [°C] | 75 | 75 | 75 | 75 | 75 |

Product fiche 1

Heat pump space heater

| Outdoor unit sound power (*) | | Outdoor | MHC-V14WD2N7-*** | MHC-V16WD2N7-*** | MHC-V12WD2RN7-*** | MHC-V14WD2RN7-*** | MHC-V16WD2RN7-*** |
|--|--|---------|------------------|------------------|-------------------|-------------------|-------------------|
| Capacity of the back-up heater integrated in the unit | Average climate low temperature application | dB | 65 | 69 | 65 | 65 | 69 |
| | Average climate medium temperature application | dB | 65 | 69 | 65 | 65 | 69 |
| Space heating | Psup back-up heater (optional) | [kW] | 0/3/6/9 | 0/3/6/9 | 0/3/6/9 | 0/3/6/9 | 0/3/6/9 |
| | Energy efficiency class 35°C (Low temp. app.) | - | A+++ | A+++ | A+++ | A+++ | A+++ |
| Average climate (Design temperature = -10°C) | Energy efficiency class 55°C (Medium temp. app.) | - | A++ | A++ | A++ | A++ | A++ |
| | Prated (declared heating capacity) @ -10°C | [kW] | 13.7 | 14.7 | 12.1 | 13.7 | 14.7 |
| Space heating 35°C | Seasonal space heating efficiency (ηs) | [%] | 182.2 | 180.5 | 183.7 | 182.2 | 180.5 |
| | Annual energy consumption | [kWh] | 6,110 | 6,617 | 5,352 | 6,110 | 6,617 |
| Space heating 55°C | Prated (declared heating capacity) @ -10°C | [kW] | 13.0 | 14.4 | 12.0 | 13.0 | 14.4 |
| | Seasonal space heating efficiency (ηs) | [%] | 141.4 | 139.9 | 141.8 | 141.4 | 139.9 |
| Part load conditions space heating average climate low temperature application | Annual energy consumption | [kWh] | 7,438 | 8,349 | 6,843 | 7,438 | 8,349 |
| | Pdh (declared heating capacity) | [kW] | 12.08 | 13.04 | 10.75 | 12.08 | 13.04 |
| (A) condition (-7°C) | COPd (declared COP) | - | 2.66 | 2.54 | 2.78 | 2.66 | 2.54 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (B) condition (2°C) | Pdh (declared heating capacity) | [kW] | 7.55 | 8.00 | 6.73 | 7.55 | 8.00 |
| | COPd (declared COP) | - | 4.45 | 4.40 | 4.55 | 4.45 | 4.40 |
| (C) condition (7°C) | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| | Pdh (declared heating capacity) | [kW] | 5.25 | 5.26 | 5.23 | 5.25 | 5.26 |
| (D) condition (12°C) | COPd (declared COP) | - | 7.06 | 7.12 | 6.89 | 7.06 | 7.12 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (E) Tol (temperature operating limit) | Pdh (declared heating capacity) | [kW] | 5.23 | 5.28 | 5.34 | 5.23 | 5.28 |
| | COPd (declared COP) | - | 7.46 | 7.56 | 7.41 | 7.46 | 7.56 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| | Tol (temperature operating limit) | [°C] | -10.00 | -10.00 | -10.00 | -10.00 | -10.00 |
| | Pdh (declared heating capacity) | [kW] | 11.62 | 12.81 | 10.77 | 11.62 | 12.81 |
| | COPd (declared COP) | - | 2.53 | 2.37 | 2.61 | 2.53 | 2.37 |
| | WTOL (Heating water Operation Limit) | [°C] | 75 | 75 | 75 | 75 | 75 |
| | | | | | | | |

Product fiche 2

Heat pump space heater

| | | Outdoor | MHC-V4WD2N7-*** | MHC-V6WD2N7-*** | MHC-V8WD2N7-*** | MHC-V10WD2N7-*** | MHC-V12WD2N7-*** |
|---|--|---------|-----------------|-----------------|-----------------|------------------|------------------|
| (F) Trivalent temperature | Tblv | [°C] | -7.00 | -7.00 | -7.00 | -7.00 | -7.00 |
| | Pdh (declared heating capacity) | [kW] | 4.45 | 5.75 | 7.09 | 8.11 | 10.75 |
| | COPd (declared COP) | - | 3.39 | 3.10 | 3.06 | 2.84 | 2.78 |
| Supplementary capacity at P_design | Psup (@Tdesignh: -10°C) | [kW] | 0.00 | 0.90 | 0.05 | 0.66 | 1.33 |
| Part load conditions space heating average climate medium temperature application | | | | | | | |
| (A) condition (-7°C) | Pdh (declared heating capacity) | [kW] | 4.36 | 5.36 | 5.97 | 6.88 | 10.58 |
| | COPd (declared COP) | - | 2.60 | 2.41 | 2.37 | 2.31 | 2.23 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (B) condition (2°C) | Pdh (declared heating capacity) | [kW] | 2.65 | 3.12 | 3.71 | 4.23 | 6.59 |
| | COPd (declared COP) | - | 3.75 | 3.73 | 3.85 | 3.80 | 3.52 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (C) condition (7°C) | Pdh (declared heating capacity) | [kW] | 2.57 | 2.62 | 3.62 | 3.62 | 4.78 |
| | COPd (declared COP) | - | 4.97 | 5.21 | 5.12 | 5.21 | 4.99 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (D) condition (12°C) | Pdh (declared heating capacity) | [kW] | 3.04 | 3.03 | 4.31 | 4.31 | 5.59 |
| | COPd (declared COP) | - | 6.55 | 6.78 | 6.77 | 6.86 | 6.41 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (E) Tol (temperature operating limit) | Tol (temperature operating limit) | [°C] | -10.00 | -10.00 | -10.00 | -10.00 | -10.00 |
| | Pdh (declared heating capacity) | [kW] | 4.36 | 5.10 | 6.46 | 7.42 | 10.15 |
| | COPd (declared COP) | - | 2.08 | 2.15 | 2.08 | 1.99 | 2.05 |
| | WTOL (Heating water Operation Limit) | [°C] | 75 | 75 | 75 | 75 | 75 |
| | Tblv | [°C] | -7.00 | -7.00 | -7.00 | -7.00 | -7.00 |
| (F) Trivalent temperature | Pdh (declared heating capacity) | [kW] | 4.36 | 5.36 | 5.97 | 6.88 | 10.58 |
| | COPd (declared COP) | - | 2.60 | 2.41 | 2.37 | 2.31 | 2.23 |
| | Psup (@Tdesignh: -10°C) | [kW] | 0.57 | 0.75 | 0.29 | 0.35 | 1.95 |
| Colder climate (Design temperature = -22°C) | | | | | | | |
| Space heating 35°C | Prated (declared heating capacity) @ -22°C | [kW] | 5.0 | 6.3 | 6.8 | 7.9 | 11.5 |
| | Seasonal space heating efficiency (ηs) | [%] | 158.3 | 166.7 | 174.5 | 178.7 | 162.1 |
| | Annual energy consumption | [kWh] | 3,056 | 3,663 | 3,772 | 4,269 | 6,869 |

Product fiche 2

Heat pump space heater

| | | Outdoor | MHC-V14WD2N7-*** | MHC-V16WD2N7-*** | MHC-V12WD2RN7-*** | MHC-V14WD2RN7-*** | MHC-V16WD2RN7-*** |
|---|--|---------|------------------|------------------|-------------------|-------------------|-------------------|
| (F) Tbivalent temperature | Tblv | [°C] | -7.00 | -7.00 | -7.00 | -7.00 | -7.00 |
| | Pdh (declared heating capacity) | [kW] | 12.08 | 13.04 | 10.75 | 12.08 | 13.04 |
| | COPd (declared COP) | - | 2.66 | 2.54 | 2.78 | 2.66 | 2.54 |
| Supplementary capacity at P_design | Psup (@Tdesignh: -10°C) | [kW] | 2.08 | 1.89 | 1.33 | 2.08 | 1.89 |
| Part load conditions space heating average climate medium temperature application | | | | | | | |
| (A) condition (-7°C) | Pdh (declared heating capacity) | [kW] | 11.47 | 12.78 | 10.58 | 11.47 | 12.78 |
| | COPd (declared COP) | - | 2.15 | 2.05 | 2.23 | 2.15 | 2.05 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (B) condition (2°C) | Pdh (declared heating capacity) | [kW] | 7.29 | 7.96 | 6.59 | 7.29 | 7.96 |
| | COPd (declared COP) | - | 3.50 | 3.44 | 3.52 | 3.50 | 3.44 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (C) condition (7°C) | Pdh (declared heating capacity) | [kW] | 4.85 | 4.78 | 4.78 | 4.85 | 4.78 |
| | COPd (declared COP) | - | 5.10 | 5.13 | 4.99 | 5.10 | 5.13 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (D) condition (12°C) | Pdh (declared heating capacity) | [kW] | 5.60 | 5.72 | 5.59 | 5.60 | 5.72 |
| | COPd (declared COP) | - | 6.46 | 6.58 | 6.41 | 6.46 | 6.58 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (E) Tol (temperature operating limit) | Tol (temperature operating limit) | [°C] | -10.00 | -10.00 | -10.00 | -10.00 | -10.00 |
| | Pdh (declared heating capacity) | [kW] | 10.97 | 12.54 | 10.15 | 10.97 | 12.54 |
| | COPd (declared COP) | - | 2.02 | 1.94 | 2.05 | 2.02 | 1.94 |
| (F) Tbivalent temperature | WTOL (Heating water Operation Limit) | [°C] | 75 | 75 | 75 | 75 | 75 |
| | Tblv | [°C] | -7.00 | -7.00 | -7.00 | -7.00 | -7.00 |
| | Pdh (declared heating capacity) | [kW] | 11.47 | 12.78 | 10.58 | 11.47 | 12.78 |
| Supplementary capacity at P_design | COPd (declared COP) | - | 2.15 | 2.05 | 2.23 | 2.15 | 2.05 |
| | Psup (@Tdesignh: -10°C) | [kW] | 2.03 | 1.86 | 1.95 | 2.03 | 1.86 |
| Colder climate (Design temperature = -22°C) | | | | | | | |
| Space heating 35°C | Prated (declared heating capacity) @ -22°C | [kW] | 12.6 | 14.6 | 11.5 | 12.6 | 14.6 |
| | Seasonal space heating efficiency (ns) | [%] | 162.3 | 160.2 | 162.1 | 162.3 | 160.2 |
| | Annual energy consumption | [kWh] | 7,513 | 8,813 | 6,869 | 7,513 | 8,813 |

Product fiche 3

| Heat pump space heater | | | | | | | |
|--|--------------------------------------|--|---------|-----------------|-----------------|-----------------|------------------|
| Space heating 55°C | | | Outdoor | MHC-V4WD2N7-*** | MHC-V6WD2N7-*** | MHC-V8WD2N7-*** | MHC-V12WD2N7-*** |
| Prated (declared heating capacity) @ -22°C | | | [kW] | 4.3 | 5.9 | 7.0 | 8.0 |
| Seasonal space heating efficiency (ηs) | | | [%] | 124.3 | 132.0 | 135.2 | 136.4 |
| Annual energy consumption | | | [kWh] | 3,328 | 4,325 | 4,992 | 5,659 |
| Part load conditions space heating colder climate low temperature application | | | | | | | |
| (A) condition (-7°C) | Pdh (declared heating capacity) | | [kW] | 3.02 | 3.90 | 4.11 | 4.89 |
| | COPd (declared COP) | | - | 3.54 | 3.71 | 3.97 | 3.74 |
| | Cdh(degradation coefficient) | | - | 0.90 | 0.90 | 0.90 | 0.90 |
| (B) condition (2°C) | Pdh (declared heating capacity) | | [kW] | 2.20 | 2.34 | 3.18 | 3.07 |
| | COPd (declared COP) | | - | 4.89 | 5.15 | 5.60 | 5.66 |
| | Cdh(degradation coefficient) | | - | 0.90 | 0.90 | 0.90 | 0.90 |
| (C) condition (7°C) | Pdh (declared heating capacity) | | [kW] | 2.61 | 2.69 | 3.90 | 3.83 |
| | COPd (declared COP) | | - | 6.60 | 6.85 | 6.46 | 7.63 |
| | Cdh(degradation coefficient) | | - | 0.90 | 0.90 | 0.90 | 0.90 |
| (D) condition (12°C) | Pdh (declared heating capacity) | | [kW] | 2.86 | 2.91 | 4.43 | 4.46 |
| | COPd (declared COP) | | - | 7.03 | 7.46 | 8.67 | 9.24 |
| | Cdh(degradation coefficient) | | - | 0.90 | 0.90 | 0.90 | 0.90 |
| (E) Tol (temperature operating limit) | Tol (temperature operating limit) | | [°C] | -22.00 | -22.00 | -22.00 | -22.00 |
| | Pdh (declared heating capacity) | | [kW] | 3.40 | 3.96 | 5.64 | 6.39 |
| | COPd (declared COP) | | - | 1.98 | 1.95 | 2.09 | 2.08 |
| (F) Tblv (temperature bivalent) | WTOL (Heating water Operation Limit) | | [°C] | 75 | 75 | 75 | 75 |
| | Tblv | | [°C] | -15.00 | -15.00 | -15.00 | -15.00 |
| | Pdh (declared heating capacity) | | [kW] | 4.08 | 5.15 | 5.48 | 6.42 |
| Supplementary capacity at P_design | COPd (declared COP) | | - | 2.56 | 2.56 | 2.73 | 2.69 |
| | P-sup (@Tdesignh: -22°C) | | [kW] | 1.60 | 2.35 | 1.15 | 1.48 |
| Part load conditions space heating colder climate medium temperature application | | | | | | | |
| (A) condition (-7°C) | Pdh (declared heating capacity) | | [kW] | 2.60 | 3.56 | 4.49 | 4.85 |
| | COPd (declared COP) | | - | 2.75 | 2.89 | 2.87 | 2.90 |
| | Cdh(degradation coefficient) | | - | 0.90 | 0.90 | 0.90 | 0.90 |

Product fiche 3

Heat pump space heater

| | | Outdoor | MHC-V14WD2N7-*** | MHC-V16WD2N7-*** | MHC-V12WD2RN7-*** | MHC-V14WD2RN7-*** | MHC-V16WD2RN7-*** |
|--|--|---------|------------------|------------------|-------------------|-------------------|-------------------|
| Space heating 55°C | Prated (declared heating capacity) @ -22°C | [kW] | 12.0 | 13.9 | 10.8 | 12.0 | 13.9 |
| | Seasonal space heating efficiency (ηs) | [%] | 126.1 | 128.4 | 127.3 | 126.1 | 128.4 |
| | Annual energy consumption | [kWh] | 9,168 | 10,408 | 8,197 | 9,168 | 10,408 |
| Part load conditions space heating colder climate low temperature application | | | | | | | |
| (A) condition (-7°C) | Pdh (declared heating capacity) | [kW] | 7.83 | 8.89 | 7.11 | 7.83 | 8.89 |
| | COPd (declared COP) | - | 3.35 | 3.25 | 3.47 | 3.35 | 3.25 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (B) condition (2°C) | Pdh (declared heating capacity) | [kW] | 4.77 | 5.87 | 4.33 | 4.77 | 5.87 |
| | COPd (declared COP) | - | 5.37 | 5.22 | 5.18 | 5.37 | 5.22 |
| | Cdh(degradation coefficient) | - | 0.89 | 0.90 | 0.84 | 0.89 | 0.90 |
| (C) condition (7°C) | Pdh (declared heating capacity) | [kW] | 5.08 | 5.24 | 5.08 | 5.08 | 5.24 |
| | COPd (declared COP) | - | 6.50 | 6.67 | 6.46 | 6.50 | 6.67 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (D) condition (12°C) | Pdh (declared heating capacity) | [kW] | 5.15 | 5.32 | 5.15 | 5.15 | 5.32 |
| | COPd (declared COP) | - | 6.85 | 7.26 | 6.84 | 6.85 | 7.26 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (E) Tol (temperature operating limit) | Tol (temperature operating limit) | [°C] | -22.00 | -22.00 | -22.00 | -22.00 | -22.00 |
| | Pdh (declared heating capacity) | [kW] | 8.57 | 10.06 | 7.70 | 8.57 | 10.06 |
| | COPd (declared COP) | - | 2.01 | 2.02 | 2.04 | 2.01 | 2.02 |
| (F) Tbiivalent temperature | WTOL (Heating water Operation Limit) | [°C] | 75 | 75 | 75 | 75 | 75 |
| | Tblv | [°C] | -15.00 | -15.00 | -15.00 | -15.00 | -15.00 |
| | Pdh (declared heating capacity) | [kW] | 10.31 | 11.91 | 9.39 | 10.31 | 11.91 |
| Supplementary capacity at P_design | COPd (declared COP) | - | 2.39 | 2.41 | 2.49 | 2.39 | 2.41 |
| | Psup (@Tdesignh: -22°C) | [kW] | 4.03 | 4.54 | 3.80 | 4.03 | 4.54 |
| Part load conditions space heating colder climate medium temperature application | | | | | | | |
| (A) condition (-7°C) | Pdh (declared heating capacity) | [kW] | 7.39 | 8.30 | 6.76 | 7.39 | 8.30 |
| | COPd (declared COP) | - | 2.67 | 2.70 | 2.72 | 2.67 | 2.70 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |

Product fiche 4

Heat pump space heater

| | | Outdoor | MHC-V4WD2N7-*** | MHC-V6WD2N7-*** | MHC-V8WD2N7-*** | MHC-V10WD2N7-*** | MHC-V12WD2N7-*** |
|---|--|---------|-----------------|-----------------|-----------------|------------------|------------------|
| (B) condition (2°C) | Pdh (declared heating capacity) | [kW] | 2.11 | 2.28 | 3.07 | 3.09 | 4.14 |
| | COPd (declared COP) | - | 3.91 | 4.12 | 4.38 | 4.38 | 4.05 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (C) condition (7°C) | Pdh (declared heating capacity) | [kW] | 2.47 | 2.55 | 3.67 | 3.76 | 5.00 |
| | COPd (declared COP) | - | 5.04 | 5.31 | 5.58 | 5.64 | 5.15 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (D) condition (12°C) | Pdh (declared heating capacity) | [kW] | 2.77 | 2.82 | 4.36 | 4.32 | 5.01 |
| | COPd (declared COP) | - | 6.14 | 6.22 | 7.22 | 6.92 | 5.66 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (E) Tol (temperature operating limit) | Tol (temperature operating limit) | [°C] | -22.00 | -22.00 | -22.00 | -22.00 | -22.00 |
| | Pdh (declared heating capacity) | [kW] | 2.96 | 3.44 | 5.08 | 5.80 | 6.84 |
| | COPd (declared COP) | - | 1.43 | 1.44 | 1.54 | 1.57 | 1.52 |
| | WTOL (Heating water Operation Limit) | [°C] | 75 | 75 | 75 | 75 | 75 |
| | Tblv | [°C] | -15.00 | -15.00 | -15.00 | -15.00 | -15.00 |
| (F) Tbiivalent temperature | Pdh (declared heating capacity) | [kW] | 3.51 | 4.94 | 5.69 | 6.55 | 8.84 |
| | COPd (declared COP) | - | 2.11 | 2.08 | 2.09 | 1.99 | 1.98 |
| Supplementary capacity at P_design | Psup (@Tdesign: -22°C) | [kW] | 1.34 | 2.48 | 1.92 | 2.20 | 3.96 |
| Warmer climate (Design temperature = 2°C) | | | | | | | |
| Space heating 35°C | Prated (declared heating capacity) @ 2°C | [kW] | 4.6 | 5.5 | 8.2 | 8.6 | 11.7 |
| | Seasonal space heating efficiency (ηs) | [%] | 235.9 | 242.4 | 259.2 | 281.3 | 232.9 |
| | Annual energy consumption | [kWh] | 1,024 | 1,198 | 1,669 | 1,614 | 2,651 |
| | Prated (declared heating capacity) @ 2°C | [kW] | 4.7 | 6.0 | 8.3 | 8.8 | 12.4 |
| Space heating 55°C | Seasonal space heating efficiency (ηs) | [%] | 170.6 | 179.0 | 184.3 | 188.5 | 174.9 |
| | Annual energy consumption | [kWh] | 1,446 | 1,762 | 2,368 | 2,456 | 3,724 |
| Part load conditions space heating warmer climate low temperature application | | | | | | | |
| (B) condition (2°C) | Pdh (declared heating capacity) | [kW] | 4.47 | 5.48 | 8.27 | 8.61 | 11.58 |
| | COPd (declared COP) | - | 4.08 | 3.87 | 3.59 | 3.62 | 3.30 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (C) condition (7°C) | Pdh (declared heating capacity) | [kW] | 2.97 | 3.57 | 5.27 | 5.52 | 7.57 |
| | COPd (declared COP) | - | 5.78 | 5.77 | 6.03 | 6.26 | 5.78 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |

Product fiche 4

Heat pump space heater

| | | Outdoor | MHC-V14WD2N7_*** | MHC-V16WD2N7_*** | MHC-V12WD2RN7_*** | MHC-V14WD2RN7_*** | MHC-V16WD2RN7_*** |
|---|--|---------|------------------|------------------|-------------------|-------------------|-------------------|
| (B) condition (2°C) | Pdh (declared heating capacity) | [kW] | 4.56 | 5.18 | 4.14 | 4.56 | 5.18 |
| | COPd (declared COP) | - | 4.00 | 4.03 | 4.05 | 4.00 | 4.03 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (C) condition (7°C) | Pdh (declared heating capacity) | [kW] | 4.99 | 5.17 | 5.00 | 4.99 | 5.17 |
| | COPd (declared COP) | - | 5.20 | 5.44 | 5.15 | 5.20 | 5.44 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (D) condition (12°C) | Pdh (declared heating capacity) | [kW] | 5.06 | 5.23 | 5.01 | 5.06 | 5.23 |
| | COPd (declared COP) | - | 5.81 | 6.07 | 5.66 | 5.81 | 6.07 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (E) Tol (temperature operating limit) | Tol (temperature operating limit) | [°C] | -22.00 | -22.00 | -22.00 | -22.00 | -22.00 |
| | Pdh (declared heating capacity) | [kW] | 7.63 | 9.07 | 6.84 | 7.63 | 9.07 |
| | COPd (declared COP) | - | 1.53 | 1.56 | 1.52 | 1.53 | 1.56 |
| | WTOL (Heating water Operation Limit) | [°C] | 75 | 75 | 75 | 75 | 75 |
| (F) Tbiivalent temperature | Tblv | [°C] | -15.00 | -15.00 | -15.00 | -15.00 | -15.00 |
| | Pdh (declared heating capacity) | [kW] | 9.77 | 11.32 | 8.84 | 9.77 | 11.32 |
| | COPd (declared COP) | - | 1.95 | 1.97 | 1.98 | 1.95 | 1.97 |
| Supplementary capacity at P_design | Psup (@Tdesignh: -22°C) | [kW] | 4.37 | 4.83 | 3.96 | 4.37 | 4.83 |
| Warmer climate (Design temperature = 2°C) | | | | | | | |
| Space heating 35°C | Prated (declared heating capacity) @ 2°C | [kW] | 12.7 | 14.3 | 11.7 | 12.7 | 14.3 |
| | Seasonal space heating efficiency (ηs) | [%] | 231.1 | 238.9 | 232.9 | 231.1 | 238.9 |
| | Annual energy consumption | [kWh] | 2,897 | 3,159 | 2,651 | 2,897 | 3,159 |
| Space heating 55°C | Prated (declared heating capacity) @ 2°C | [kW] | 14.1 | 14.9 | 12.4 | 14.1 | 14.9 |
| | Seasonal space heating efficiency (ηs) | [%] | 174.1 | 181.9 | 174.9 | 174.1 | 181.9 |
| | Annual energy consumption | [kWh] | 4,256 | 4,306 | 3,724 | 4,256 | 4,306 |
| Part load conditions space heating warmer climate low temperature application | | | | | | | |
| (B) condition (2°C) | Pdh (declared heating capacity) | [kW] | 12.41 | 13.82 | 11.58 | 12.41 | 13.82 |
| | COPd (declared COP) | - | 3.21 | 3.18 | 3.30 | 3.21 | 3.18 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (C) condition (7°C) | Pdh (declared heating capacity) | [kW] | 8.19 | 9.17 | 7.57 | 8.19 | 9.17 |
| | COPd (declared COP) | - | 5.67 | 5.82 | 5.78 | 5.67 | 5.82 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |

Product fiche 5

Heat pump space heater

| | | Outdoor | MHC-V4WD2N7-*** | MHC-V6WD2N7-*** | MHC-V8WD2N7-*** | MHC-V10WD2N7-*** | MHC-V12WD2N7-*** |
|--|--------------------------------------|---------|-----------------|-----------------|-----------------|------------------|------------------|
| (D) condition (12°C) | Pdh (declared heating capacity) | [kW] | 3.05 | 3.03 | 4.46 | 4.61 | 5.17 |
| | COPd (declared COP) | - | 7.64 | 7.67 | 8.58 | 9.84 | 6.98 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (E) Tol (temperature operating limit) | Tol (temperature operating limit) | [°C] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| | Pdh (declared heating capacity) | [kW] | 4.47 | 5.48 | 8.27 | 8.61 | 11.58 |
| | COPd (declared COP) | - | 4.08 | 3.87 | 3.59 | 3.62 | 3.30 |
| | WTOL (Heating water Operation Limit) | [°C] | 75 | 75 | 75 | 75 | 75 |
| (F) Tivalent temperature | Tblv | [°C] | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 |
| | Pdh (declared heating capacity) | [kW] | 2.97 | 3.57 | 5.27 | 5.52 | 7.57 |
| | COPd (declared COP) | - | 5.78 | 5.77 | 6.03 | 6.26 | 5.78 |
| Supplementary capacity at P_design | Psup (@Tdesignh: 2°C) | [kW] | 0.13 | 0.02 | 0.00 | 0.00 | 0.12 |
| Part load conditions space heating warmer climate medium temperature application | | | | | | | |
| (B) condition (2°C) | Pdh (declared heating capacity) | [kW] | 4.61 | 5.96 | 7.99 | 8.54 | 11.41 |
| | COPd (declared COP) | - | 2.69 | 2.59 | 2.54 | 2.50 | 2.55 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (C) condition (7°C) | Pdh (declared heating capacity) | [kW] | 3.08 | 3.89 | 5.36 | 5.68 | 7.85 |
| | COPd (declared COP) | - | 3.91 | 4.00 | 4.15 | 4.20 | 3.99 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| | Pdh (declared heating capacity) | [kW] | 2.94 | 2.99 | 4.21 | 4.29 | 5.47 |
| (D) condition (12°C) | COPd (declared COP) | - | 5.85 | 6.05 | 6.35 | 6.53 | 5.90 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| | Tol (temperature operating limit) | [°C] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| (E) Tol (temperature operating limit) | Pdh (declared heating capacity) | [kW] | 4.61 | 5.96 | 7.99 | 8.54 | 11.41 |
| | COPd (declared COP) | - | 2.69 | 2.59 | 2.54 | 2.50 | 2.55 |
| | WTOL (Heating water Operation Limit) | [°C] | 75 | 75 | 75 | 75 | 75 |
| | Tblv | [°C] | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 |
| (F) Tivalent temperature | Pdh (declared heating capacity) | [kW] | 3.08 | 3.89 | 5.36 | 5.68 | 7.85 |
| | COPd (declared COP) | - | 3.91 | 4.00 | 4.15 | 4.20 | 3.99 |
| | Psup (@Tdesignh: 2°C) | [kW] | 0.09 | 0.00 | 0.03 | 0.00 | 1.38 |

Product fiche 5

| Heat pump space heater | | Outdoor | MHC-V14WD2N7-*** | MHC-V16WD2N7-*** | MHC-V12WD2RN7-*** | MHC-V14WD2RN7-*** | MHC-V16WD2RN7-*** |
|--|--------------------------------------|---------|------------------|------------------|-------------------|-------------------|-------------------|
| (D) condition (12°C) | Pdh (declared heating capacity) | [kW] | 5.17 | 5.34 | 5.17 | 5.17 | 5.34 |
| | COPd (declared COP) | - | 7.02 | 7.33 | 6.98 | 7.02 | 7.33 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (E) Tol (temperature operating limit) | Tol (temperature operating limit) | [°C] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| | Pdh (declared heating capacity) | [kW] | 12.41 | 13.82 | 11.58 | 12.41 | 13.82 |
| | COPd (declared COP) | - | 3.21 | 3.18 | 3.30 | 3.21 | 3.18 |
| (F) Tivalent temperature | WTOL (Heating water Operation Limit) | [°C] | 75 | 75 | 75 | 75 | 75 |
| | Tblv | [°C] | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 |
| | Pdh (declared heating capacity) | [kW] | 8.19 | 9.17 | 7.57 | 8.19 | 9.17 |
| Supplementary capacity at P_design | COPd (declared COP) | - | 5.67 | 5.82 | 5.78 | 5.67 | 5.82 |
| | Psup (@Tdesignh: 2°C) | [kW] | 0.29 | 0.48 | 0.12 | 0.29 | 0.48 |
| Part load conditions space heating warmer climate medium temperature application | | | | | | | |
| (B) condition (2°C) | Pdh (declared heating capacity) | [kW] | 12.05 | 13.47 | 11.41 | 12.05 | 13.47 |
| | COPd (declared COP) | - | 2.48 | 2.48 | 2.55 | 2.48 | 2.48 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (C) condition (7°C) | Pdh (declared heating capacity) | [kW] | 9.11 | 9.58 | 7.85 | 9.11 | 9.58 |
| | COPd (declared COP) | - | 3.98 | 4.04 | 3.99 | 3.98 | 4.04 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (D) condition (12°C) | Pdh (declared heating capacity) | [kW] | 5.49 | 5.64 | 5.47 | 5.49 | 5.64 |
| | COPd (declared COP) | - | 6.01 | 6.31 | 5.90 | 6.01 | 6.31 |
| | Cdh(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (E) Tol (temperature operating limit) | Tol (temperature operating limit) | [°C] | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| | Pdh (declared heating capacity) | [kW] | 12.05 | 13.47 | 11.41 | 12.05 | 13.47 |
| | COPd (declared COP) | - | 2.48 | 2.48 | 2.55 | 2.48 | 2.48 |
| (F) Tivalent temperature | WTOL (Heating water Operation Limit) | [°C] | 75 | 75 | 75 | 75 | 75 |
| | Tblv | [°C] | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 |
| | Pdh (declared heating capacity) | [kW] | 9.11 | 9.58 | 7.85 | 9.11 | 9.58 |
| Supplementary capacity at P_design | COPd (declared COP) | - | 3.98 | 4.04 | 3.99 | 3.98 | 4.04 |
| | Psup (@Tdesignh: 2°C) | [kW] | 2.35 | 1.43 | 1.38 | 2.35 | 1.43 |

Product fiche 6

| Heat pump space heater | | Outdoor | MHC-V4WD2N7-*** | MHC-V6WD2N7-*** | MHC-V8WD2N7-*** | MHC-V10WD2N7-*** | MHC-V12WD2N7-*** |
|---------------------------|---|---------|-----------------|-----------------|-----------------|------------------|------------------|
| Product description | Air-to-water heat pump | Y/N | Yes | Yes | Yes | Yes | Yes |
| | Water-to-water heat pump | Y/N | No | No | No | No | No |
| | Brine-to-water heat pump | Y/N | No | No | No | No | No |
| | Low-temperature heat pump | Y/N | No | No | No | No | No |
| | Equipped with a supplementary heater | Y/N | Yes | Yes | Yes | Yes | Yes |
| | Heat pump combination heater | Y/N | Yes | Yes | Yes | Yes | Yes |
| Air to water unit | Rated airflow (outdoor) | [m³/h] | 2770 | 2770 | 4030 | 4030 | 4450 |
| Brine/water to water unit | Rated water/brine flow (outdoor H/E) | | / | / | / | / | / |
| Other | Capacity control | - | Inverter | Inverter | Inverter | Inverter | Inverter |
| | Poff (Power consumption Off mode) | [kW] | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 |
| | Pto (Power consumption Thermostat off mode) | [kW] | 0.014 | 0.014 | 0.014 | 0.014 | 0.014 |
| | Psb (Power consumption Standby mode) | [kW] | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 |
| | PCK (Power crankcase heater model) | [kW] | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Qelec (Daily electricity consumption) | [kWh] | / | / | / | / | / |
| | Qfuel (Daily fuel consumption) | [kWh] | / | / | / | / | / |

Note :

Product fiche data according to energy label directive 2010/30/EC regulation (EU) 811/2013.

(*) Sound power measured according to the EN12102 under conditions of the EN14825.

Details and precautions on installation, maintenance and assembly can be found in the installation and or operation manuals.

Product fiche 6

| Heat pump space heater | | Outdoor | MHC-V14WD2N7-*** | MHC-V16WD2N7-*** | MHC-V12WD2RN7-*** | MHC-V14WD2RN7-*** | MHC-V16WD2RN7-*** |
|------------------------|---|---------|------------------|------------------|-------------------|-------------------|-------------------|
| Product description | Air-to-water heat pump | Y/N | Yes | Yes | Yes | Yes | Yes |
| | Water-to-water heat pump | Y/N | No | No | No | No | No |
| | Brine-to-water heat pump | Y/N | No | No | No | No | No |
| | Low-temperature heat pump | Y/N | No | No | No | No | No |
| | Equipped with a supplementary heater | Y/N | Yes | Yes | Yes | Yes | Yes |
| | Heat pump combination heater | Y/N | Yes | Yes | Yes | Yes | Yes |
| | Rated airflow (outdoor) | [m³/h] | 4450 | 5040 | 4450 | 4450 | 5040 |
| Air to water unit | Rated water/brine flow (outdoor H/E) | | / | / | / | / | / |
| Other | Capacity control | - | Inverter | Inverter | Inverter | Inverter | Inverter |
| | Poff (Power consumption Off mode) | [kW] | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 |
| | Pto (Power consumption Thermostat off mode) | [kW] | 0.014 | 0.014 | 0.014 | 0.014 | 0.014 |
| | Psb (Power consumption Standby mode) | [kW] | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 |
| | PCK (Power crankcase heater model) | [kW] | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Qelec (Daily electricity consumption) | [kWh] | / | / | / | / | / |
| | Qfuel (Daily fuel consumption) | [kWh] | / | / | / | / | / |

Note :

Product fiche data according to energy label directive 2010/30/EC regulation (EU) 811/2013.

(*)Sound power measured according to the EN12102 under conditions of the EN14825.

Details and precautions on installation, maintenance and assembly can be found in the installation and or operation manuals.

Product fiche 7

Heat pump space cooling

| Outdoor unit sound power (*) | | Outdoor | MHC-V4WD2N7-*** | MHC-V6WD2N7-*** | MHC-V8WD2N7-*** | MHC-V10WD2N7-*** | MHC-V12WD2N7-*** |
|--|--|---------|-----------------|-----------------|-----------------|------------------|------------------|
| Space cooling 7°C | Average climate low temperature application | dB | 56 | 58 | 60 | 61 | 65 |
| | Average climate medium temperature application | dB | 56 | 58 | 60 | 61 | 65 |
| | Prated (declared cooling capacity) @ 35°C | [kW] | 4.7 | 6.8 | 7.5 | 8.9 | 11.5 |
| | Seasonal space cooling efficiency (ηs) | [%] | 206.3 | 209.8 | 231.3 | 218.8 | 204.4 |
| Space cooling 18°C | Annual energy consumption | [kWh] | 539 | 767 | 768 | 963 | 1,331 |
| | Prated (declared cooling capacity) @ 35°C | [kW] | 4.5 | 6.5 | 8.3 | 10.0 | 12.0 |
| | Seasonal space cooling efficiency (ηs) | [%] | 251.4 | 263.1 | 322.5 | 323.3 | 253.8 |
| | Annual energy consumption | [kWh] | 424 | 586 | 612 | 735 | 1,122 |
| Part load conditions space cooling : low temperature application@7°C | | | | | | | |
| (A) condition (35°C) | Pdc (declared cooling capacity) | [kW] | 4.72 | 6.86 | 7.57 | 9.02 | 11.61 |
| | EERd (declared EER) | - | 3.64 | 3.10 | 3.51 | 3.25 | 3.06 |
| | Cdc(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (B) condition (30°C) | Pdc (declared cooling capacity) | [kW] | 3.57 | 5.22 | 5.74 | 6.85 | 8.58 |
| | EERd (declared EER) | - | 4.73 | 4.58 | 4.89 | 4.61 | 4.61 |
| | Cdc(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (C) condition (25°C) | Pdc (declared cooling capacity) | [kW] | 2.88 | 3.23 | 3.80 | 4.36 | 5.71 |
| | EERd (declared EER) | - | 6.16 | 6.19 | 6.68 | 5.98 | 5.89 |
| | Cdc(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (D) condition (20°C) | Pdc (declared cooling capacity) | [kW] | 2.88 | 2.89 | 4.32 | 4.32 | 5.15 |
| | EERd (declared EER) | - | 7.34 | 7.35 | 9.13 | 9.13 | 6.85 |
| | Cdc(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |

Product fiche 7

Heat pump space cooling

| Outdoor unit sound power (*) | | Outdoor | MHC-V14WD2N7-*** | MHC-V16WD2N7-*** | MHC-V12WD2RN7-*** | MHC-V14WD2RN7-*** | MHC-V16WD2RN7-*** |
|--|--|---------|------------------|------------------|-------------------|-------------------|-------------------|
| Space cooling 7°C | Average climate low temperature application | dB | 66 | 69 | 65 | 66 | 69 |
| | Average climate medium temperature application | dB | 66 | 69 | 65 | 66 | 69 |
| | Prated (declared cooling capacity) @ 35°C | [kW] | 12.7 | 14.0 | 11.5 | 12.7 | 14.0 |
| | Seasonal space cooling efficiency (ηs) | [%] | 204.1 | 201.6 | 204.4 | 204.1 | 201.6 |
| | Annual energy consumption | [kWh] | 1,472 | 1,624 | 1,331 | 1,472 | 1,624 |
| Space cooling 18°C | Prated (declared cooling capacity) @ 35°C | [kW] | 14.0 | 16.0 | 12.0 | 14.0 | 16.0 |
| | Seasonal space cooling efficiency (ηs) | [%] | 266.8 | 263.1 | 253.8 | 266.8 | 263.1 |
| | Annual energy consumption | [kWh] | 1,245 | 1,443 | 1,122 | 1,245 | 1,443 |
| Part load conditions space cooling : low temperature application@7°C | | | | | | | |
| (A) condition (35°C) | Pdc (declared cooling capacity) | [kW] | 12.87 | 14.42 | 11.61 | 12.87 | 14.42 |
| | EERd (declared EER) | - | 2.87 | 2.73 | 3.06 | 2.87 | 2.73 |
| | Cdc(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (B) condition (30°C) | Pdc (declared cooling capacity) | [kW] | 9.72 | 10.78 | 8.58 | 9.72 | 10.78 |
| | EERd (declared EER) | - | 4.43 | 4.22 | 4.61 | 4.43 | 4.22 |
| | Cdc(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (C) condition (25°C) | Pdc (declared cooling capacity) | [kW] | 6.19 | 6.94 | 5.71 | 6.19 | 6.94 |
| | EERd (declared EER) | - | 6.05 | 6.06 | 5.89 | 6.05 | 6.06 |
| | Cdc(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (D) condition (20°C) | Pdc (declared cooling capacity) | [kW] | 5.18 | 5.20 | 5.15 | 5.18 | 5.20 |
| | EERd (declared EER) | - | 6.88 | 6.93 | 6.85 | 6.88 | 6.93 |
| | Cdc(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |

Product fiche 8

| Heat pump space cooling | | Outdoor | MHC-V4WD2N7-*** | MHC-V6WD2N7-*** | MHC-V8WD2N7-*** | MHC-V10WD2N7-*** | MHC-V12WD2N7-*** |
|--|---|---------|-----------------|-----------------|-----------------|------------------|------------------|
| Part load conditions space cooling : medium temperature application@18°C | | | | | | | |
| (A) condition (35°C) | Pdc (declared cooling capacity) | [kW] | 4.66 | 6.77 | 8.53 | 10.14 | 12.29 |
| | EERd (declared EER) | - | 5.51 | 5.12 | 5.34 | 4.87 | 4.62 |
| | Cdc(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (B) condition (30°C) | Pdc (declared cooling capacity) | [kW] | 3.50 | 5.09 | 6.55 | 7.68 | 9.26 |
| | EERd (declared EER) | - | 7.36 | 6.16 | 7.27 | 6.91 | 6.62 |
| | Cdc(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (C) condition (25°C) | Pdc (declared cooling capacity) | [kW] | 3.29 | 3.46 | 5.05 | 5.05 | 6.27 |
| | EERd (declared EER) | - | 7.06 | 7.74 | 9.60 | 9.60 | 7.12 |
| | Cdc(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (D) condition (20°C) | Pdc (declared cooling capacity) | [kW] | 3.29 | 3.21 | 5.16 | 5.16 | 5.94 |
| | EERd (declared EER) | - | 7.98 | 8.14 | 11.62 | 11.62 | 7.29 |
| | Cdc(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Air to water unit | Rated airflow (outdoor) | [m³/h] | 2770 | 2770 | 4030 | 4030 | 4450 |
| Brine/water to water unit | Rated water/brine flow (outdoor H/E) | | / | / | / | / | / |
| Other | Capacity control | - | Inverter | Inverter | Inverter | Inverter | Inverter |
| | Poff (Power consumption Off mode) | [kW] | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 |
| | Pto (Power consumption Thermostat off mode) | [kW] | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 |
| | Psb (Power consumption Standby mode) | [kW] | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 |
| | PCK (Power crankcase heater model) | [kW] | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Qelec (Daily electricity consumption) | [kWh] | / | / | / | / | / |
| | Qfuel (Daily fuel consumption) | [kWh] | / | / | / | / | / |
| | | | | | | | |

Note :

Product fiche data according to energy label directive 2010/30/EC regulation (EU) 811/2013.

(*)Sound power measured according to the EN12102 under conditions of the EN14825.

Details and precautions on installation, maintenance and assembly can be found in the installation and or operation manuals.

Product fiche 8

Heat pump space cooling

Part load conditions space cooling : medium temperature application@18°C

| | | Outdoor | MHC-V14WD2N7-*** | MHC-V16WD2N7-*** | MHC-V12WD2RN7-*** | MHC-V14WD2RN7-*** | MHC-V16WD2RN7-*** |
|---------------------------|---|---------|------------------|------------------|-------------------|-------------------|-------------------|
| (A) condition (35°C) | Pdc (declared cooling capacity) | [kW] | 14.16 | 16.00 | 12.29 | 14.16 | 16.00 |
| | EERd (declared EER) | - | 4.19 | 3.94 | 4.62 | 4.19 | 3.94 |
| | Cdc(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (B) condition (30°C) | Pdc (declared cooling capacity) | [kW] | 10.60 | 11.81 | 9.26 | 10.60 | 11.81 |
| | EERd (declared EER) | - | 6.34 | 5.93 | 6.62 | 6.34 | 5.93 |
| | Cdc(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (C) condition (25°C) | Pdc (declared cooling capacity) | [kW] | 6.77 | 7.69 | 6.27 | 6.77 | 7.69 |
| | EERd (declared EER) | - | 8.20 | 8.23 | 7.12 | 8.20 | 8.23 |
| | Cdc(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| (D) condition (20°C) | Pdc (declared cooling capacity) | [kW] | 5.96 | 5.99 | 5.94 | 5.96 | 5.99 |
| | EERd (declared EER) | - | 7.31 | 7.34 | 7.29 | 7.31 | 7.34 |
| | Cdc(degradation coefficient) | - | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Air to water unit | Rated airflow (outdoor) | [m³/h] | 4450 | 5040 | 4450 | 4450 | 5040 |
| Brine/water to water unit | Rated water/brine flow (outdoor H/E) | | / | / | / | / | / |
| Other | Capacity control | - | Inverter | Inverter | Inverter | Inverter | Inverter |
| | Poff (Power consumption Off mode) | [kW] | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 |
| | Pto (Power consumption Thermostat off mode) | [kW] | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 |
| | Psb (Power consumption Standby mode) | [kW] | 0.009 | 0.009 | 0.009 | 0.009 | 0.009 |
| | PCK (Power crankcase heater model) | [kW] | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| | Qelec (Daily electricity consumption) | [kWh] | / | / | / | / | / |
| | Qfuel (Daily fuel consumption) | [kWh] | / | / | / | / | / |
| | | | | | | | |

Note :

Product fiche data according to energy label directive 2010/30/EC regulation (EU) 811/2013.

(*)Sound power measured according to the EN12102 under conditions of the EN14825.

Details and precautions on installation, maintenance and assembly can be found in the installation and or operation manuals.

| Condition(°C) | Model | Capacity (kW) | Power input (kW) | EER/COP (/) |
|--|-------------------|------------------|---------------------|------------------|
| Ambient Temperature: 35/24 Water temperature: 12/7 | MHC-V4WD2N7-*** | 4.7 | 1.29 | 3.65 |
| | MHC-V6WD2N7-*** | 6.8 | 2.19 | 3.10 |
| | MHC-V8WD2N7-*** | 7.5 | 2.17 | 3.45 |
| | MHC-V10WD2N7-*** | 8.9 | 2.74 | 3.25 |
| | MHC-V12WD2N7-*** | 11.5 | 3.77 | 3.05 |
| | MHC-V14WD2N7-*** | 12.7 | 4.38 | 2.90 |
| | MHC-V16WD2N7-*** | 14.0 | 5.09 | 2.75 |
| | MHC-V12WD2RN7-*** | 11.5 | 3.77 | 3.05 |
| | MHC-V14WD2RN7-*** | 12.7 | 4.38 | 2.90 |
| | MHC-V16WD2RN7-*** | 14.0 | 5.09 | 2.75 |
| Ambient Temperature: 35/24 Water temperature: 23/18 | MHC-V4WD2N7-*** | 4.5 | 0.82 | 5.50 |
| | MHC-V6WD2N7-*** | 6.5 | 1.27 | 5.10 |
| | MHC-V8WD2N7-*** | 8.3 | 1.61 | 5.15 |
| | MHC-V10WD2N7-*** | 10.0 | 2.11 | 4.75 |
| | MHC-V12WD2N7-*** | 12.0 | 2.67 | 4.50 |
| | MHC-V14WD2N7-*** | 14.0 | 3.33 | 4.20 |
| | MHC-V16WD2N7-*** | 16.0 | 4.10 | 3.90 |
| | MHC-V12WD2RN7-*** | 12.0 | 2.67 | 4.50 |
| | MHC-V14WD2RN7-*** | 14.0 | 3.33 | 4.20 |
| | MHC-V16WD2RN7-*** | 16.0 | 4.10 | 3.90 |
| Ambient Temperature: 7/6 Water temperature: 30/35 | MHC-V4WD2N7-*** | 4.5 | 0.87 | 5.15 |
| | MHC-V6WD2N7-*** | 6.2 | 1.27 | 4.90 |
| | MHC-V8WD2N7-*** | 8.4 | 1.68 | 5.00 |
| | MHC-V10WD2N7-*** | 10.0 | 2.13 | 4.70 |
| | MHC-V12WD2N7-*** | 12.0 | 2.50 | 4.80 |
| | MHC-V14WD2N7-*** | 14.0 | 3.11 | 4.50 |
| | MHC-V16WD2N7-*** | 15.0 | 3.41 | 4.40 |
| | MHC-V12WD2RN7-*** | 12.0 | 2.50 | 4.80 |
| | MHC-V14WD2RN7-*** | 14.0 | 3.11 | 4.50 |
| | MHC-V16WD2RN7-*** | 15.0 | 3.41 | 4.40 |
| Ambient Temperature: 2/1 Water temperature: 30/35 | MHC-V4WD2N7-*** | 4.4 | 1.07 | 4.10 |
| | MHC-V6WD2N7-*** | 5.6 | 1.44 | 3.90 |
| | MHC-V8WD2N7-*** | 7.1 | 1.84 | 3.85 |
| | MHC-V10WD2N7-*** | 8.2 | 2.25 | 3.65 |
| | MHC-V12WD2N7-*** | 9.1 | 2.39 | 3.80 |
| | MHC-V14WD2N7-*** | 10.8 | 3.09 | 3.50 |
| | MHC-V16WD2N7-*** | 12.8 | 4.00 | 3.20 |
| | MHC-V12WD2RN7-*** | 9.1 | 2.39 | 3.80 |
| | MHC-V14WD2RN7-*** | 10.8 | 3.09 | 3.50 |
| | MHC-V16WD2RN7-*** | 12.8 | 4.00 | 3.20 |

| Condition(°C) | Model | Capacity (kW) | Power input (kW) | EER/COP (/) |
|--|-------------------|---------------|------------------|---------------|
| Ambient Temperature: -7/-8 Water temperature: 30/35 | MHC-V4WD2N7-*** | 4.5 | 1.45 | 3.10 |
| | MHC-V6WD2N7-*** | 5.9 | 2.00 | 2.95 |
| | MHC-V8WD2N7-*** | 7.0 | 2.33 | 3.00 |
| | MHC-V10WD2N7-*** | 8.0 | 2.81 | 2.85 |
| | MHC-V12WD2N7-*** | 10.0 | 3.57 | 2.80 |
| | MHC-V14WD2N7-*** | 11.5 | 4.26 | 2.70 |
| | MHC-V16WD2N7-*** | 12.7 | 5.08 | 2.50 |
| | MHC-V12WD2RN7-*** | 10.0 | 3.57 | 2.80 |
| | MHC-V14WD2RN7-*** | 11.5 | 4.26 | 2.70 |
| | MHC-V16WD2RN7-*** | 12.7 | 5.08 | 2.50 |
| Ambient Temperature: 7/6 Water temperature: 40/45 | MHC-V4WD2N7-*** | 4.5 | 1.11 | 4.05 |
| | MHC-V6WD2N7-*** | 6.4 | 1.68 | 3.80 |
| | MHC-V8WD2N7-*** | 8.2 | 2.13 | 3.85 |
| | MHC-V10WD2N7-*** | 10.0 | 2.74 | 3.65 |
| | MHC-V12WD2N7-*** | 12.0 | 3.24 | 3.70 |
| | MHC-V14WD2N7-*** | 14.0 | 4.00 | 3.50 |
| | MHC-V16WD2N7-*** | 15.0 | 4.48 | 3.35 |
| | MHC-V12WD2RN7-*** | 12.0 | 3.24 | 3.70 |
| | MHC-V14WD2RN7-*** | 14.0 | 4.00 | 3.50 |
| | MHC-V16WD2RN7-*** | 15.0 | 4.48 | 3.35 |
| Ambient Temperature: 2/1 Water temperature: 40/45 | MHC-V4WD2N7-*** | 4.4 | 1.31 | 3.35 |
| | MHC-V6WD2N7-*** | 5.8 | 1.87 | 3.10 |
| | MHC-V8WD2N7-*** | 7.7 | 2.57 | 3.00 |
| | MHC-V10WD2N7-*** | 8.2 | 2.78 | 2.95 |
| | MHC-V12WD2N7-*** | 11.3 | 3.90 | 2.90 |
| | MHC-V14WD2N7-*** | 12.0 | 4.21 | 2.85 |
| | MHC-V16WD2N7-*** | 13.1 | 4.76 | 2.75 |
| | MHC-V12WD2RN7-*** | 11.3 | 3.90 | 2.90 |
| | MHC-V14WD2RN7-*** | 12.0 | 4.21 | 2.85 |
| | MHC-V16WD2RN7-*** | 13.1 | 4.76 | 2.75 |
| Ambient Temperature: -7/-8 Water temperature: 40/45 | MHC-V4WD2N7-*** | 4.7 | 1.74 | 2.70 |
| | MHC-V6WD2N7-*** | 5.5 | 2.20 | 2.50 |
| | MHC-V8WD2N7-*** | 7.1 | 3.09 | 2.30 |
| | MHC-V10WD2N7-*** | 7.6 | 3.38 | 2.25 |
| | MHC-V12WD2N7-*** | 10.5 | 4.29 | 2.45 |
| | MHC-V14WD2N7-*** | 11.4 | 4.96 | 2.30 |
| | MHC-V16WD2N7-*** | 12.5 | 5.56 | 2.25 |
| | MHC-V12WD2RN7-*** | 10.5 | 4.29 | 2.45 |
| | MHC-V14WD2RN7-*** | 11.4 | 4.96 | 2.30 |
| | MHC-V16WD2RN7-*** | 12.5 | 5.56 | 2.25 |

| Condition(°C) | Model | Capacity (kW) | Power input (kW) | EER/COP (/) |
|--|-------------------|---------------|------------------|---------------|
| Ambient Temperature: 7/6 Water temperature: 47/55 | MHC-V4WD2N7-*** | 4.6 | 1.44 | 3.20 |
| | MHC-V6WD2N7-*** | 6.2 | 2.00 | 3.10 |
| | MHC-V8WD2N7-*** | 7.8 | 2.44 | 3.20 |
| | MHC-V10WD2N7-*** | 9.5 | 3.11 | 3.05 |
| | MHC-V12WD2N7-*** | 12.0 | 3.87 | 3.10 |
| | MHC-V14WD2N7-*** | 14.0 | 4.67 | 3.00 |
| | MHC-V16WD2N7-*** | 15.0 | 5.26 | 2.85 |
| | MHC-V12WD2RN7-*** | 12.0 | 3.87 | 3.10 |
| | MHC-V14WD2RN7-*** | 14.0 | 4.67 | 3.00 |
| | MHC-V16WD2RN7-*** | 15.0 | 5.26 | 2.85 |
| Ambient Temperature: 2/1 Water temperature: 47/55 | MHC-V4WD2N7-*** | 4.6 | 1.70 | 2.70 |
| | MHC-V6WD2N7-*** | 5.8 | 2.19 | 2.65 |
| | MHC-V8WD2N7-*** | 7.8 | 3.06 | 2.55 |
| | MHC-V10WD2N7-*** | 8.4 | 3.36 | 2.50 |
| | MHC-V12WD2N7-*** | 11.3 | 4.43 | 2.55 |
| | MHC-V14WD2N7-*** | 12.0 | 4.80 | 2.50 |
| | MHC-V16WD2N7-*** | 13.1 | 5.35 | 2.45 |
| | MHC-V12WD2RN7-*** | 11.3 | 4.43 | 2.55 |
| | MHC-V14WD2RN7-*** | 12.0 | 4.80 | 2.50 |
| | MHC-V16WD2RN7-*** | 13.1 | 5.35 | 2.45 |
| Ambient Temperature: -7/-8 Water temperature: 47/55 | MHC-V4WD2N7-*** | 4.7 | 2.14 | 2.20 |
| | MHC-V6WD2N7-*** | 5.2 | 2.42 | 2.15 |
| | MHC-V8WD2N7-*** | 6.9 | 3.21 | 2.15 |
| | MHC-V10WD2N7-*** | 7.4 | 3.52 | 2.10 |
| | MHC-V12WD2N7-*** | 10.4 | 4.84 | 2.15 |
| | MHC-V14WD2N7-*** | 11.3 | 5.38 | 2.10 |
| | MHC-V16WD2N7-*** | 12.4 | 6.05 | 2.05 |
| | MHC-V12WD2RN7-*** | 10.4 | 4.84 | 2.15 |
| | MHC-V14WD2RN7-*** | 11.3 | 5.38 | 2.10 |
| | MHC-V16WD2RN7-*** | 12.4 | 6.05 | 2.05 |

Unit type explanation:

- 1.MHC-V*****N7, without back-up heater,
- 2.MHC-V*****N7-E30, with 3kW back-up heater and 1-Phase power source
- 3.MHC-V*****N7-ER60, with 6kW back-up heater and 3-Phase power source
- 4.MHC-V*****N7-ER90, with 9kW back-up heater and 3-Phase power source

Note

EER and COP calculation is based in accordance to EN14511

ErP Information

| | | | |
|--|-----------------|---|--|
| Fan Types | Axial fan | | |
| Directive (or Standard) for Regulation | | ErP Directive 2009/125/EC COMMISSION REGULATION (EU) No 327/2011 | |
| Model Name | ZKSN-170-8-3L-1 | Rev. | |
| Prepare by | | | |

Specified Information of Fan:

| No. | Information Item | Comment |
|------|--|--|
| 1 | $\eta_{\text{target}} =$ | 28.6% |
| 2 | Overall efficiency (η_e) = | 34.0% |
| 3 | Pass or not (Criteria: $\eta_e \geq \eta_{\text{target}}$) | Pass |
| 4 | Measurement category (A-D) | A |
| 5 | Efficiency category (static or total) | Static |
| 6 | Efficiency grade at optimum energy efficiency point | N =45.4 |
| 7 | VSD is integrated within the fan | YES |
| 8 | Year of Manufacture | Ref. to the Unit Nameplate |
| 9 | Manufacturer's name and place of manufacture | Ref. to the Unit Nameplate |
| 10.1 | Rated motor power input(s) (kW), at optimum energy efficiency | 0.156 |
| 10.2 | Rated motor flow rate(s) at optimum energy efficiency | 1.290m ³ /s |
| 10.3 | Rated motor pressure(s) at optimum energy efficiency | 36Pa |
| 11 | Rotations per minute (R.P.M)at the optimum energy efficiency point | 750r/min |
| 12 | Specific ratio | 1.001 |
| 13 | Information relevant for facilitating disassembly, recycling or disposal at end-of-life | all materials can be recycled |
| 14 | Information relevant to minimize impact on the environment and ensure optimal life expectancy as regards installation, use and maintenance of the fan | For installation, the clearance of 500 mm shall be kept from inlet |
| 15 | Description of additional items used when determining the fan energy efficiency,such as ducts, that are not described in the measurement category and not supplied with the fan. | Measurement category A, fan is free inlet and outlet conditions |
| 16 | Motor manufacturer | SHISHISHI TONGDA MOTOR CO.,LTD. |

ErP Information

| | | | |
|--|------------------|---|--|
| Fan Types | Axial fan | | |
| Directive (or Standard) for Regulation | | ErP Directive 2009/125/EC COMMISSION REGULATION (EU) No 327/2011 | |
| Model Name | ZKSN-170-8- 3L-1 | Rev. | |
| Prepare by | | | |

Specified Information of Fan:

| No. | Information Item | Comment |
|------|--|--|
| 1 | $\eta_{\text{target}} =$ | 28.5% |
| 2 | Overall efficiency (η_e) = | 33.9% |
| 3 | Pass or not (Criteria: $\eta_e \geq \eta_{\text{target}}$) | Pass |
| 4 | Measurement category (A-D) | A |
| 5 | Efficiency category (static or total) | Static |
| 6 | Efficiency grade at optimum energy efficiency point | N =45.4 |
| 7 | VSD is integrated within the fan | YES |
| 8 | Year of Manufacture | Ref. to the Unit Nameplate |
| 9 | Manufacturer's name and place of manufacture | Ref. to the Unit Nameplate |
| 10.1 | Rated motor power input(s) (kW), at optimum energy efficiency | 0.153 |
| 10.2 | Rated motor flow rate(s) at optimum energy efficiency | 1.248m ³ /s |
| 10.3 | Rated motor pressure(s) at optimum energy efficiency | 36Pa |
| 11 | Rotations per minute (R.P.M)at the optimum energy efficiency point | 750r/min |
| 12 | Specific ratio | 1.001 |
| 13 | Information relevant for facilitating disassembly, recycling or disposal at end-of-life | all materials can be recycled |
| 14 | Information relevant to minimize impact on the environment and ensure optimal life expectancy as regards installation, use and maintenance of the fan | For installation, the clearance of 500 mm shall be kept from inlet |
| 15 | Description of additional items used when determining the fan energy efficiency,such as ducts, that are not described in the measurement category and not supplied with the fan. | Measurement category A, fan is free inlet and outlet conditions |
| 16 | Motor manufacturer | GUANGDONG WELLING MOTOR MANUFACTURING CO.,LTD. |

ErP Information

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|--|------------------|---|--|
| Fan Types | Axial fan | | |
| Directive (or Standard) for Regulation | | ErP Directive 2009/125/EC COMMISSION REGULATION (EU) No 327/2011 | |
| Model Name | ZKSN-200-10-4L-1 | Rev. | |
| Prepare by | | | |

Specified Information of Fan:

| No. | Information Item | Comment |
|------|--|--|
| 1 | $\eta_{\text{target}} =$ | 29.41% |
| 2 | Overall efficiency (η_e) = | 33.44% |
| 3 | Pass or not (Criteria: $\eta_e \geq \eta_{\text{target}}$) | Pass |
| 4 | Measurement category (A-D) | A |
| 5 | Efficiency category (static or total) | Static |
| 6 | Efficiency grade at optimum energy efficiency point | N =42.6 |
| 7 | VSD is integrated within the fan | YES |
| 8 | Year of Manufacture | Ref. to the Unit Nameplate |
| 9 | Manufacturer's name and place of manufacture | Ref. to the Unit Nameplate |
| 10.1 | Rated motor power input(s) (kW), at optimum energy efficiency | 0.211 |
| 10.2 | Rated motor flow rate(s) at optimum energy efficiency | 1.35 m ³ /s |
| 10.3 | Rated motor pressure(s) at optimum energy efficiency | 50 Pa |
| 11 | Rotations per minute (R.P.M)at the optimum energy efficiency point | 800r/min |
| 12 | Specific ratio | 1.001 |
| 13 | Information relevant for facilitating disassembly, recycling or disposal at end-of-life | all materials can be recycled |
| 14 | Information relevant to minimize impact on the environment and ensure optimal life expectancy as regards installation, use and maintenance of the fan | For installation, the clearance of 500 mm shall be kept from inlet |
| 15 | Description of additional items used when determining the fan energy efficiency,such as ducts, that are not described in the measurement category and not supplied with the fan. | Measurement category A, fan is free inlet and outlet conditions |
| 16 | Motor manufacturer | GUANGDONG WELLING MOTOR MANUFACTURING CO.,LTD. |

ErP Information

| | | | |
|--|------------------|---|--|
| Fan Types | Axial fan | | |
| Directive (or Standard) for Regulation | | ErP Directive 2009/125/EC COMMISSION REGULATION (EU) No 327/2011 | |
| Model Name | ZKSN-200-10-4L-1 | Rev. | |
| Prepare by | | | |

Specified Information of Fan:

| No. | Information Item | Comment |
|------|--|--|
| 1 | $\eta_{\text{target}} =$ | 29.23% |
| 2 | Overall efficiency (η_e) = | 36.14% |
| 3 | Pass or not (Criteria: $\eta_e \geq \eta_{\text{target}}$) | Pass |
| 4 | Measurement category (A-D) | A |
| 5 | Efficiency category (static or total) | Static |
| 6 | Efficiency grade at optimum energy efficiency point | N =45.3 |
| 7 | VSD is integrated within the fan | YES |
| 8 | Year of Manufacture | Ref. to the Unit Nameplate |
| 9 | Manufacturer's name and place of manufacture | Ref. to the Unit Nameplate |
| 10.1 | Rated motor power input(s) (kW), at optimum energy efficiency | 0.198 |
| 10.2 | Rated motor flow rate(s) at optimum energy efficiency | 1.35 m ³ /s |
| 10.3 | Rated motor pressure(s) at optimum energy efficiency | 50 Pa |
| 11 | Rotations per minute (R.P.M)at the optimum energy efficiency point | 800r/min |
| 12 | Specific ratio | 1.001 |
| 13 | Information relevant for facilitating disassembly, recycling or disposal at end-of-life | all materials can be recycled |
| 14 | Information relevant to minimize impact on the environment and ensure optimal life expectancy as regards installation, use and maintenance of the fan | For installation, the clearance of 500 mm shall be kept from inlet |
| 15 | Description of additional items used when determining the fan energy efficiency,such as ducts, that are not described in the measurement category and not supplied with the fan. | Measurement category A, fan is free inlet and outlet conditions |
| 16 | Motor manufacturer | Jiangsu Shangqi Group Co.,Ltd. |

ErP Information

| | | | |
|--|------------------|---|--|
| Fan Types | Axial fan | | |
| Directive (or Standard) for Regulation | | ErP Directive 2009/125/EC COMMISSION REGULATION (EU) No 327/2011 | |
| Model Name | ZKSN-200-10-2L-1 | Rev. | |
| Prepare by | | | |

Specified Information of Fan:

| No. | Information Item | Comment |
|------|--|--|
| 1 | $\eta_{\text{target}} =$ | 29.1% |
| 2 | Overall efficiency (η_e) = | 33.6% |
| 3 | Pass or not (Criteria: $\eta_e \geq \eta_{\text{target}}$) | Pass |
| 4 | Measurement category (A-D) | A |
| 5 | Efficiency category (static or total) | Static |
| 6 | Efficiency grade at optimum energy efficiency point | N =44.6 |
| 7 | VSD is integrated within the fan | YES |
| 8 | Year of Manufacture | Ref. to the Unit Nameplate |
| 9 | Manufacturer's name and place of manufacture | Ref. to the Unit Nameplate |
| 10.1 | Rated motor power input(s) (kW), at optimum energy efficiency | 0.186 |
| 10.2 | Rated motor flow rate(s) at optimum energy efficiency | 1.292m ³ /s |
| 10.3 | Rated motor pressure(s) at optimum energy efficiency | 43Pa |
| 11 | Rotations per minute (R.P.M)at the optimum energy efficiency point | 800r/min |
| 12 | Specific ratio | 1.001 |
| 13 | Information relevant for facilitating disassembly, recycling or disposal at end-of-life | all materials can be recycled |
| 14 | Information relevant to minimize impact on the environment and ensure optimal life expectancy as regards installation, use and maintenance of the fan | For installation, the clearance of 500 mm shall be kept from inlet |
| 15 | Description of additional items used when determining the fan energy efficiency,such as ducts, that are not described in the measurement category and not supplied with the fan. | Measurement category A, fan is free inlet and outlet conditions |
| 16 | Motor manufacturer | GUANGDONG WELLING MOTOR MANUFACTURING CO.,LTD. |

ErP Information

| | | | |
|--|------------------|---|--|
| Fan Types | Axial fan | | |
| Directive (or Standard) for Regulation | | ErP Directive 2009/125/EC COMMISSION REGULATION (EU) No 327/2011 | |
| Model Name | ZKSN-200-10-2L-1 | Rev. | |
| Prepare by | | | |

Specified Information of Fan:

| No. | Information Item | Comment |
|------|--|--|
| 1 | $\eta_{\text{target}} =$ | 28.9% |
| 2 | Overall efficiency (η_e) = | 33.0% |
| 3 | Pass or not (Criteria: $\eta_e \geq \eta_{\text{target}}$) | Pass |
| 4 | Measurement category (A-D) | A |
| 5 | Efficiency category (static or total) | Static |
| 6 | Efficiency grade at optimum energy efficiency point | N =44.1 |
| 7 | VSD is integrated within the fan | YES |
| 8 | Year of Manufacture | Ref. to the Unit Nameplate |
| 9 | Manufacturer's name and place of manufacture | Ref. to the Unit Nameplate |
| 10.1 | Rated motor power input(s) (kW), at optimum energy efficiency | 0.178 |
| 10.2 | Rated motor flow rate(s) at optimum energy efficiency | 1.420m ³ /s |
| 10.3 | Rated motor pressure(s) at optimum energy efficiency | 36Pa |
| 11 | Rotations per minute (R.P.M)at the optimum energy efficiency point | 800r/min |
| 12 | Specific ratio | 1.001 |
| 13 | Information relevant for facilitating disassembly, recycling or disposal at end-of-life | all materials can be recycled |
| 14 | Information relevant to minimize impact on the environment and ensure optimal life expectancy as regards installation, use and maintenance of the fan | For installation, the clearance of 500 mm shall be kept from inlet |
| 15 | Description of additional items used when determining the fan energy efficiency,such as ducts, that are not described in the measurement category and not supplied with the fan. | Measurement category A, fan is free inlet and outlet conditions |
| 16 | Motor manufacturer | JIANGSU SHANGQI GROUP CO., LTD. |

NOTE

NOTE

16125300003562 V.B

此页不做菲林，仅核对使用

印刷技术要求

| | |
|----|-------------|
| 材质 | 双胶纸80g |
| 规格 | 210*297(双面) |
| 颜色 | 黑白 |
| 其他 | |

设计更改记录表（仅做说明用，不做菲林）

| 版本升级 | 更改人 | 更改日期 | 更改主要内容 | 涉及更改页面 (印刷页码) |
|------|-----|----------|--------|------------------|
| A-B | 彭泉贵 | 23.06.21 | 更改参数 | 全本 |
| | | | | |
| | | | | |
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