



**ENERG**  
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**Midea**

MGC-V14WD2RN8-B



55°C

35°C



**A<sup>++</sup>**

**A<sup>+++</sup>**



-- dB



**72dB**

12  
**14**  
13  
kW

14  
**14**  
13  
kW



2019

811/2013

# Temperature application

| Model           | For medium - temperature application |                  |                   |  |   |                   |  |   |                   |  |   |
|-----------------|--------------------------------------|------------------|-------------------|--|---|-------------------|--|---|-------------------|--|---|
|                 | Energy efficiency class              | 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 |
|                 | -                                    | dB               | kW                | %  | kWh   | kW                | %  | kWh   | kW                | %  | kWh   |
| MGC-V14WD2RN8-B | A++                                  | 72               | 14.2              | 141.8                                    | 8079  | 12.5              | 126.6                                    | 9496  | 13.1              | 182.4                                    | 3782  |

| Model           | For low - temperature application |                  |                   |  |   |                   |  |   |                   |  |   |
|-----------------|-----------------------------------|------------------|-------------------|--|---|-------------------|--|---|-------------------|--|---|
|                 | Energy efficiency class           | 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 |
|                 | -                                 | dB               | kW                | %  | kWh   | kW                | %  | kWh   | kW                | %  | kWh   |
| MGC-V14WD2RN8-B | A+++                              | 72               | 14.2              | 192.5                                    | 5984  | 14.3              | 171.3                                    | 8095  | 13.2              | 260.6                                    | 2683  |

| Mini Inverter heat pump space heating  |  | Outdoor | MGC-V14WD2RN8-B |
|--|--|---------|-----------------|
| Outdoor unit sound power (*)   | Average climate low temperature application      | dB      | 72              |
|  | Average climate medium temperature application   | dB      | 72              |
| Space heating  | Energy efficiency class 35°C (Low temp. app.)    | -       | A+++            |
| Space heating  | Energy efficiency class 55°C (Medium temp. app.) | -       | A++             |
| Average climate (Design temperature = -10°C)                                   |  |         |                 |
| Space heating 35°C   | Prated (declared heating capacity) @ -10°C       | [kW]    | 14.2            |
|  | Seasonal space heating efficiency ( $\eta_s$ )   | [%]     | 192.5           |
|  | Annual energy consumption                        | [kWh]   | 5,984           |
| Space heating 55°C   | Prated (declared heating capacity) @ -10°C       | [kW]    | 14.2            |
|  | Seasonal space heating efficiency ( $\eta_s$ )   | [%]     | 141.8           |
|  | Annual energy consumption                        | [kWh]   | 8,079           |
| Part load conditions space heating average climate low temperature application |  |         |                 |
| (A) condition (-7°C)   | Pdh (declared heating capacity)                  | [kW]    | 12.52           |
|  | COPd (declared COP)                              | -       | 2.97            |
|  | Cdh(degradation coefficient)                     | -       | 0.90            |
| (B) condition (2°C)  | Pdh (declared heating capacity)                  | [kW]    | 7.98            |
|  | COPd (declared COP)                              | -       | 4.56            |
|  | Cdh(degradation coefficient)                     | -       | 0.90            |
| (C) condition (7°C)  | Pdh (declared heating capacity)                  | [kW]    | 5.04            |
|  | COPd (declared COP)                              | -       | 7.01            |
|  | Cdh(degradation coefficient)                     | -       | 0.90            |
| (D) condition (12°C)   | Pdh (declared heating capacity)                  | [kW]    | 3.73            |
|  | COPd (declared COP)                              | -       | 9.02            |
|  | Cdh(degradation coefficient)                     | -       | 0.90            |
| (E) Tol (temperature operating limit)  | Tol (temperature operating limit)                | [°C]    | -10.00          |
|  | Pdh (declared heating capacity)                  | [kW]    | 13.41           |
|  | COPd (declared COP)                              | -       | 2.66            |
|  | WTOL (Heating water Operation Limit)             | [°C]    | 65              |

| Mini Inverter heat pump space heating   |  | Outdoor | MGC-V14WD2RN8-B |
|---|--|---------|-----------------|
| (F) Tbivalent temperature   | Tblv                                       | [°C]    | -7.00           |
|   | Pdh (declared heating capacity)            | [kW]    | 12.52           |
|   | COPd (declared COP)                        | -       | 2.97            |
| Supplementary capacity at P_design  | Psup (@Tdesignh: -10°C)                    | [kW]    | 0.80            |
| Part load conditions space heating average climate medium temperature application |  |         |                 |
| (A) condition (-7°C)  | Pdh (declared heating capacity)            | [kW]    | 12.52           |
|   | COPd (declared COP)                        | -       | 2.20            |
|   | Cdh(degradation coefficient)               | -       | 0.90            |
| (B) condition (2°C)   | Pdh (declared heating capacity)            | [kW]    | 7.71            |
|   | COPd (declared COP)                        | -       | 3.58            |
|   | Cdh(degradation coefficient)               | -       | 0.90            |
| (C) condition (7°C)   | Pdh (declared heating capacity)            | [kW]    | 5.07            |
|   | COPd (declared COP)                        | -       | 5.06            |
|   | Cdh(degradation coefficient)               | -       | 0.90            |
| (D) condition (12°C)  | Pdh (declared heating capacity)            | [kW]    | 2.15            |
|   | COPd (declared COP)                        | -       | 4.52            |
|   | Cdh(degradation coefficient)               | -       | 0.90            |
| (E) Tol (temperature operating limit)   | Tol (temperature operating limit)          | [°C]    | -10.00          |
|   | Pdh (declared heating capacity)            | [kW]    | 11.51           |
|   | COPd (declared COP)                        | -       | 1.96            |
|   | WTOL (Heating water Operation Limit)       | [°C]    | 65              |
| (F) Tbivalent temperature   | Tblv                                       | [°C]    | -7.00           |
|   | Pdh (declared heating capacity)            | [kW]    | 12.52           |
|   | COPd (declared COP)                        | -       | 2.20            |
| Supplementary capacity at P_design  | Psup (@Tdesignh: -10°C)                    | [kW]    | 2.69            |
| Colder climate (Design temperature = -22°C)                                       |  |         |                 |
| Space heating 35°C  | Prated (declared heating capacity) @ -22°C | [kW]    | 14.3            |
|   | Seasonal space heating efficiency (ηs)     | [%]     | 171.3           |
|   | Annual energy consumption                  | [kWh]   | 8,095           |

| Mini Inverter heat pump space heating  |  | Outdoor | MGC-V14WD2RN8-B |
|--|--|---------|-----------------|
| Space heating 55°C   | Prated (declared heating capacity) @ -22°C     | [kW]    | 12.5            |
|  | Seasonal space heating efficiency ( $\eta_s$ ) | [%]     | 126.6           |
|  | Annual energy consumption                      | [kWh]   | 9,496           |
| Part load conditions space heating colder climate low temperature application    |  |         |                 |
| (A) condition (-7°C)   | Pdh (declared heating capacity)                | [kW]    | 8.74            |
|  | COPd (declared COP)                            | -       | 3.59            |
|  | Cdh(degradation coefficient)                   | -       | 0.90            |
| (B) condition (2°C)  | Pdh (declared heating capacity)                | [kW]    | 5.52            |
|  | COPd (declared COP)                            | -       | 5.35            |
|  | Cdh(degradation coefficient)                   | -       | 0.90            |
| (C) condition (7°C)  | Pdh (declared heating capacity)                | [kW]    | 3.70            |
|  | COPd (declared COP)                            | -       | 7.06            |
|  | Cdh(degradation coefficient)                   | -       | 0.90            |
| (D) condition (12°C)   | Pdh (declared heating capacity)                | [kW]    | 3.69            |
|  | COPd (declared COP)                            | -       | 9.34            |
|  | Cdh(degradation coefficient)                   | -       | 0.90            |
| (E) Tol (temperature operating limit)  | Tol (temperature operating limit)              | [°C]    | -22.00          |
|  | Pdh (declared heating capacity)                | [kW]    | 9.14            |
|  | COPd (declared COP)                            | -       | 2.02            |
|  | WTOL (Heating water Operation Limit)           | [°C]    | 65              |
| (F) Tbivalent temperature  | Tblv   | [°C]    | -15.00          |
|  | Pdh (declared heating capacity)                | [kW]    | 11.67           |
|  | COPd (declared COP)                            | -       | 2.58            |
| Supplementary capacity at P_design   | Psup (@Tdesignh: -22°C)                        | [kW]    | 5.16            |
| Part load conditions space heating colder climate medium temperature application |  |         |                 |
| (A) condition (-7°C)   | Pdh (declared heating capacity)                | [kW]    | 7.80            |
|  | COPd (declared COP)                            | -       | 2.77            |
|  | Cdh(degradation coefficient)                   | -       | 0.90            |

| Mini Inverter heat pump space heating   |  | Outdoor | MGC-V14WD2RN8-B |
|---|--|---------|-----------------|
| (B) condition (2°C)   | Pdh (declared heating capacity)          | [kW]    | 4.64            |
|   | COPd (declared COP)                      | -       | 3.91            |
|   | Cdh(degradation coefficient)             | -       | 0.90            |
| (C) condition (7°C)   | Pdh (declared heating capacity)          | [kW]    | 3.00            |
|   | COPd (declared COP)                      | -       | 4.88            |
|   | Cdh(degradation coefficient)             | -       | 0.90            |
| (D) condition (12°C)  | Pdh (declared heating capacity)          | [kW]    | 3.61            |
|   | COPd (declared COP)                      | -       | 6.61            |
|   | Cdh(degradation coefficient)             | -       | 0.90            |
| (E) Tol (temperature operating limit)   | Tol (temperature operating limit)        | [°C]    | -22.00          |
|   | Pdh (declared heating capacity)          | [kW]    | 7.28            |
|   | COPd (declared COP)                      | -       | 1.35            |
|   | WTOL (Heating water Operation Limit)     | [°C]    | 65              |
| (F) Tbivalent temperature   | Tblv                                     | [°C]    | -15.00          |
|   | Pdh (declared heating capacity)          | [kW]    | 10.19           |
|   | COPd (declared COP)                      | -       | 1.91            |
| Supplementary capacity at P_design  | Psup (@Tdesignh: -22°C)                  | [kW]    | 5.22            |
| Warmer climate (Design temperature = 2°C)                                     |  |         |                 |
| Space heating 35°C  | Prated (declared heating capacity) @ 2°C | [kW]    | 13.2            |
|   | Seasonal space heating efficiency (ηs)   | [%]     | 260.6           |
|   | Annual energy consumption                | [kWh]   | 2,683           |
| Space heating 55°C  | Prated (declared heating capacity) @ 2°C | [kW]    | 13.1            |
|   | Seasonal space heating efficiency (ηs)   | [%]     | 182.4           |
|   | Annual energy consumption                | [kWh]   | 3,782           |
| Part load conditions space heating warmer climate low temperature application |  |         |                 |
| (B) condition (2°C)   | Pdh (declared heating capacity)          | [kW]    | 12.94           |
|   | COPd (declared COP)                      | -       | 3.51            |
|   | Cdh(degradation coefficient)             | -       | 0.90            |
| (C) condition (7°C)   | Pdh (declared heating capacity)          | [kW]    | 8.51            |
|   | COPd (declared COP)                      | -       | 5.72            |
|   | Cdh(degradation coefficient)             | -       | 0.90            |

| Mini Inverter heat pump space heating  |                                      | Outdoor | MGC-V14WD2RN8-B |
|--|--------------------------------------|---------|-----------------|
| (D) condition (12°C)   | Pdh (declared heating capacity)      | [kW]    | 3.96            |
|  | COPd (declared COP)                  | -       | 8.51            |
|  | Cdh(degradation coefficient)         | -       | 0.90            |
| (E) Tol (temperature operating limit)  | Tol (temperature operating limit)    | [°C]    | 2.00            |
|  | Pdh (declared heating capacity)      | [kW]    | 12.94           |
|  | COPd (declared COP)                  | -       | 3.51            |
|  | WTOL (Heating water Operation Limit) | [°C]    | 65              |
| (F) Tbivalent temperature  | Tblv                                 | [°C]    | 7.00            |
|  | Pdh (declared heating capacity)      | [kW]    | 8.51            |
|  | COPd (declared COP)                  | -       | 5.72            |
| Supplementary capacity at P_design   | Psup (@Tdesignh: 2°C)                | [kW]    | 0.26            |
| Part load conditions space heating warmer climate medium temperature application |                                      |         |                 |
| (B) condition (2°C)  | Pdh (declared heating capacity)      | [kW]    | 13.01           |
|  | COPd (declared COP)                  | -       | 2.37            |
|  | Cdh(degradation coefficient)         | -       | 0.90            |
| (C) condition (7°C)  | Pdh (declared heating capacity)      | [kW]    | 8.44            |
|  | COPd (declared COP)                  | -       | 3.91            |
|  | Cdh(degradation coefficient)         | -       | 0.90            |
| (D) condition (12°C)   | Pdh (declared heating capacity)      | [kW]    | 3.90            |
|  | COPd (declared COP)                  | -       | 6.08            |
|  | Cdh(degradation coefficient)         | -       | 0.90            |
| (E) Tol (temperature operating limit)  | Tol (temperature operating limit)    | [°C]    | 2.00            |
|  | Pdh (declared heating capacity)      | [kW]    | 13.01           |
|  | COPd (declared COP)                  | -       | 2.37            |
|  | WTOL (Heating water Operation Limit) | [°C]    | 65              |
| (F) Tbivalent temperature  | Tblv                                 | [°C]    | 7.00            |
|  | Pdh (declared heating capacity)      | [kW]    | 8.44            |
|  | COPd (declared COP)                  | -       | 3.91            |
| Supplementary capacity at P_design   | Psup (@Tdesignh: 2°C)                | [kW]    | 0.09            |

| Mini Inverter heat pump space heating  |   | Outdoor             | MGC-V14WD2RN8-B |
|--|---|---------------------|-----------------|
| Product description  | Air-to-water heat pump                      | Y/N                 | Yes             |
|  | Water-to-water heat pump                    | Y/N                 | No              |
|  | Brine-to-water heat pump                    | Y/N                 | No              |
|  | Low-temperature heat pump                   | Y/N                 | No              |
|  | Equipped with a supplementary heater        | Y/N                 | Yes             |
|  | Heat pump combination heater                | Y/N                 | Yes             |
| Air to water unit  | Rated airflow (outdoor)                     | [m <sup>3</sup> /h] | 5200            |
| Brine/water to water unit  | Rated water/brine flow (outdoor H/E)        |                     | /               |
| Other  | Capacity control                            | -                   | Inverter        |
|  | Poff (Power consumption Off mode)           | [kW]                | 0.006           |
|  | Pto (Power consumption Thermostat off mode) | [kW]                | 0.018           |
|  | Psb (Power consumption Standby mode)        | [kW]                | 0.006           |
|  | PCK (Power crankcase heater model)          | [kW]                | 0.000           |
|  | Qelec (Daily electricity consumption)       | [kWh]               | /               |
|  | Qfuel (Daily fuel consumption)              | [kWh]               | /               |
| <p>Note :</p> <p>Product fiche data according to energy label directive 2010/30/EC regulation (EU) 811/2013.</p> <p>Sound power measured according to the EN12102 under conditions of the EN14825.</p> <p>Details and precautions on installation, maintenance and assembly can be found in the installation and or operation manuals.</p> |   |                     |                 |



| Mini Inverter heat pump space cooling                                |  | Outdoor | MGC-V14WD2RN8-B |
|--|--|---------|-----------------|
| Outdoor unit sound power (*)   | Average climate low temperature application    | dB      | 71              |
|  | Average climate medium temperature application | dB      | 71              |
| Space cooling 7°C  | Prated (declared cooling capacity) @ 35°C      | [kW]    | 13.5            |
|  | Seasonal space cooling efficiency ( $\eta_s$ ) | [%]     | 201.81          |
|  | Annual energy consumption                      | [kWh]   | 1,583           |
| Space cooling 18°C   | Prated (declared cooling capacity) @ 35°C      | [kW]    | 14.0            |
|  | Seasonal space cooling efficiency ( $\eta_s$ ) | [%]     | 303             |
|  | Annual energy consumption                      | [kWh]   | 1,100           |
| Part load conditions space cooling : low temperature application@7°C |  |         |                 |
| (A) condition (35°C)   | Pdc (declared cooling capacity)                | [kW]    | 13.51           |
|  | EERd (declared EER)                            | -       | 3.01            |
|  | Cdc(degradation coefficient)                   | -       | 0.90            |
| (B) condition (30°C)   | Pdc (declared cooling capacity)                | [kW]    | 10.06           |
|  | EERd (declared EER)                            | -       | 4.17            |
|  | Cdc(degradation coefficient)                   | -       | 0.90            |
| (C) condition (25°C)   | Pdc (declared cooling capacity)                | [kW]    | 6.49            |
|  | EERd (declared EER)                            | -       | 5.64            |
|  | Cdc(degradation coefficient)                   | -       | 0.90            |
| (D) condition (20°C)   | Pdc (declared cooling capacity)                | [kW]    | 3.06            |
|  | EERd (declared EER)                            | -       | 6.95            |
|  | Cdc(degradation coefficient)                   | -       | 0.90            |

| Mini Inverter heat pump space cooling                                    |   | Outdoor             | MGC-V14WD2RN8-B |
|--|---|---------------------|-----------------|
| Part load conditions space cooling : medium temperature application@18°C |   |                     |                 |
| (A) condition (35°C)   | Pdc (declared cooling capacity)             | [kW]                | 14.03           |
|  | EERd (declared EER)                         | -                   | 4.55            |
|  | Cdc(degradation coefficient)                | -                   | 0.90            |
| (B) condition (30°C)   | Pdc (declared cooling capacity)             | [kW]                | 10.60           |
|  | EERd (declared EER)                         | -                   | 6.43            |
|  | Cdc(degradation coefficient)                | -                   | 0.90            |
| (C) condition (25°C)   | Pdc (declared cooling capacity)             | [kW]                | 7.08            |
|  | EERd (declared EER)                         | -                   | 8.93            |
|  | Cdc(degradation coefficient)                | -                   | 0.90            |
| (D) condition (20°C)   | Pdc (declared cooling capacity)             | [kW]                | 3.89            |
|  | EERd (declared EER)                         | -                   | 9.38            |
|  | Cdc(degradation coefficient)                | -                   | 0.90            |
| Air to water unit  | Rated airflow (outdoor)                     | [m <sup>3</sup> /h] | 5200            |
| Brine/water to water unit  | Rated water/brine flow (outdoor H/E)        | -                   | /               |
| Other  | Capacity control                            | -                   | Inverter        |
|  | Poff (Power consumption Off mode)           | [kW]                | 0.006           |
|  | Pto (Power consumption Thermostat off mode) | [kW]                | 0.006           |
|  | Psb (Power consumption Standby mode)        | [kW]                | 0.006           |
|  | Pck (Power crankcase heater mode)           | [kW]                | 0.000           |
|  | Qelec (Daily electricity consumption)       | [kWh]               | /               |
|  | Qfuel (Daily fuel consumption)              | [kWh]               | /               |

| Outdoor unit    | Ambient Temperature: 35/24<br>Water temperature: 23/18 |                   |      | Ambient Temperature: 35/24<br>Water temperature: 12/7 |                   |      | Ambient Temperature: 7/6<br>Water temperature: 30/35 |                   |      | Ambient Temperature: 2/1<br>Water temperature: 30/35 |                   |      |
|-----------------|--|-------------------|------|---|-------------------|------|--|-------------------|------|--|-------------------|------|
|                 | Capacity<br>kW   | Power input<br>kW | EER  | Capacity<br>kW  | Power input<br>kW | EER  | Capacity<br>kW                                       | Power input<br>kW | COP  | Capacity<br>kW                                       | Power input<br>kW | COP  |
| MGC-V14WD2RN8-B | 13.90  | 3.159             | 4.40 | 13.40   | 4.573             | 2.93 | 14.10  | 3.000             | 4.70 | 13.00  | 3.714             | 3.50 |

| Outdoor unit    | Ambient Temperature: -7/-8<br>Water temperature: 30/35 |                   |      | Ambient Temperature: 7/6<br>Water temperature: 40/45 |                   |      | Ambient Temperature: 2/1<br>Water temperature: 40/45 |                   |      | Ambient Temperature: -7/-8<br>Water temperature: 40/45 |                   |      |
|-----------------|--|-------------------|------|--|-------------------|------|--|-------------------|------|--|-------------------|------|
|                 | Capacity<br>kW   | Power input<br>kW | COP  | Capacity<br>kW                                       | Power input<br>kW | COP  | Capacity<br>kW                                       | Power input<br>kW | COP  | Capacity<br>kW   | Power input<br>kW | COP  |
| MGC-V14WD2RN8-B | 12.50  | 4.464             | 2.80 | 14.50  | 4.085             | 3.55 | 13.00  | 4.643             | 2.80 | 12.50  | 5.435             | 2.30 |

| Outdoor unit    | Ambient Temperature: 7/6<br>Water temperature: 47/55 |                   |      | Ambient Temperature: 2/1<br>Water temperature: 47/55 |                   |      | Ambient Temperature: -7/-8<br>Water temperature: 47/55 |                   |      |
|-----------------|--|-------------------|------|--|-------------------|------|--|-------------------|------|
|                 | Capacity<br>kW                                       | Power input<br>kW | COP  | Capacity<br>kW                                       | Power input<br>kW | COP  | Capacity<br>kW   | Power input<br>kW | COP  |
| MGC-V14WD2RN8-B | 14.00  | 4.746             | 2.95 | 13.00  | 5.603             | 2.32 | 11.70  | 5.625             | 2.08 |