

Multi Digital Scroll Solution



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Multi Digital Scroll System

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Product Overview



| | | |
|------------------------------|---|---|
| |  |  |
| Model Name | MDS A Series | MDS-B Series (Single Condenser) |
| Model Range | MDS 030/040/050/060A/AR | MDS 080/100/120/150B |
| Cooling Capacity (kW) | 8.5 - 14.5 | 24.5 – 40.0 |
| Heating Capacity (kW) | 9.0 - 16.5 | 26.0 – 43.0 |

| | | |
|------------------------------|--|--|
| |  |  |
| Model Name | Wall Mounted G Series | Ceiling Cassette A Series |
| Model Range | MWMD 009/010/015/020/025G | MCKD 020/025/030/040/050 |
| Cooling Capacity (kW) | 2.5 - 6.5 | 5.6 - 14.0 |
| Heating Capacity (kW) | 2.8 - 7.4 | 6.3 - 16.0 |

| | | |
|------------------------------|--|---|
| |  |  |
| Model Name | Ceiling Convertible E Series | Ceiling Convertible D Series |
| Model Range | MCMD 020/025/028E | MCMD 040/050D MCMD |
| Cooling Capacity (kW) | 5.6 - 8.0 | 11.2 - 16.4 |
| Heating Capacity (kW) | 6.3 - 9.0 | 12.5 - 18.5 |

| | |
|-----------------|---|
| |  |
| Condensing Fan) | MDS-B Series (Double Condensing Fan) |
| /BR | MDS 180/200/220/240/260/280/300/320B/BR |
| | 47.5 – 85.0 |
| | 50.0 – 92.0 |

| | |
|--------|--|
| |  |
| Series | Ceiling Cassette C Series |
| 050A | MCKD 010/015/020C |
| | 2.8 - 5.6 |
| | 3.2 - 6.3 |

| | | |
|--------|---|--|
| |  |  |
| Series | Ceiling Concealed C Series | HRB Heat Exchanger |
| 062C | MCCD 010/015/020/025/030/040/050/060C | HRB 030/050/080/100/150/200A |
| | 2.8 - 16.4 | - |
| | 3.2 - 18.5 | - |

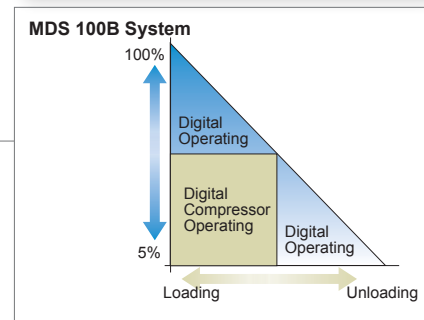
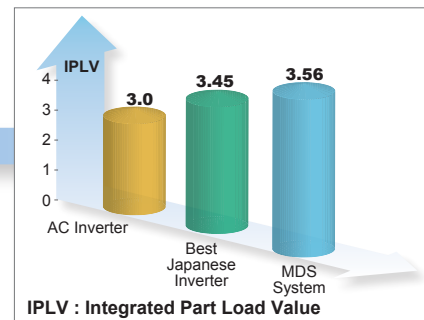
System Features

Utilising the latest state-of-the-art technology, the McQuay Multi Digital Scroll System (MDS) is seen as the next generation products for high-efficiency air conditioning.

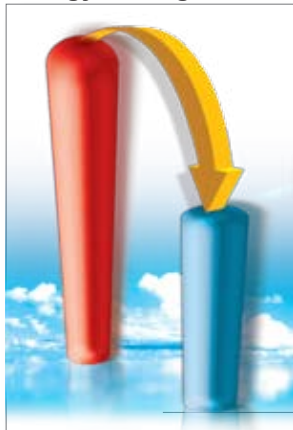


High Part Load Efficiency

Most air-conditioning system operates in the 30%~70% region. Integrated with the up-to-date technology, MDS is capable to modulate its supply capacity to meet all indoors requirement closely. This modulating capability enable the MDS system to offer high IPLV (Integrated Part Load Value) that conventional air-conditioner can never compete.



Energy Saving



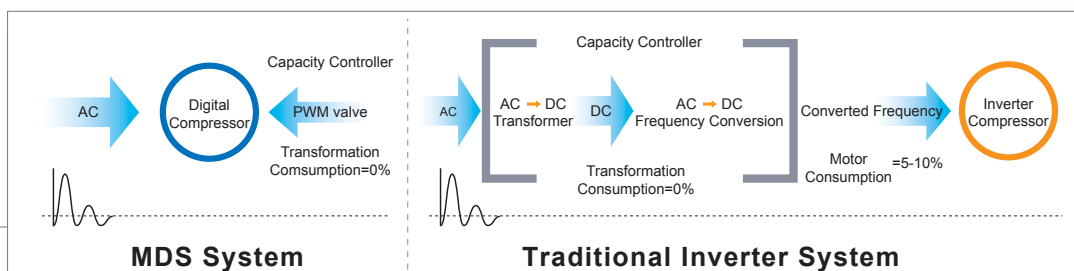
Conventional System MDS System

More Economical Operation

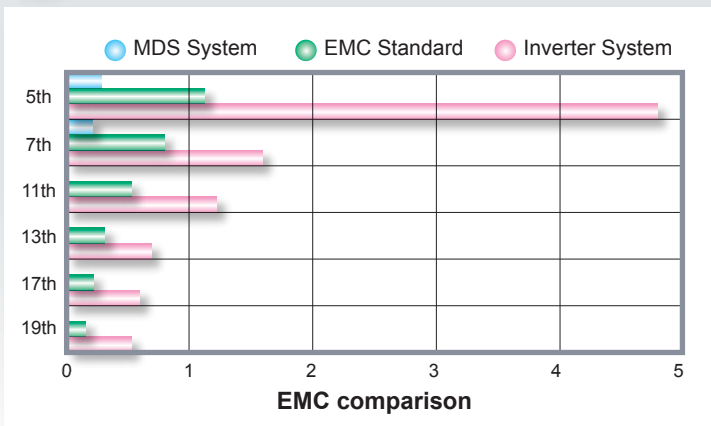
With high IPLV, MDS is able to operate at high Seasonal Energy Efficient Ratio (SEER) region. This indicates that MDS is able to supply the required capacity with lower power consumption, in other words, lower electricity bills.

No conversion Lost

Comparing to the traditional inverter drive air-conditioner, MDS has eliminated the possibility of lost of energy during the conversion of power signal.



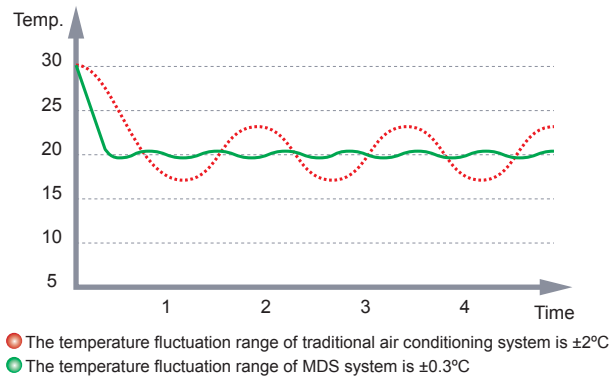
Excellent Electromagnetic Compatibility



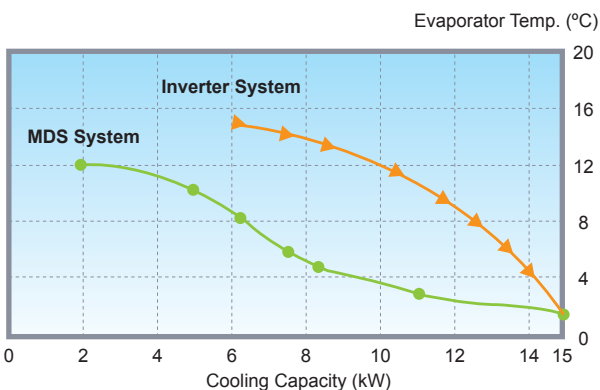
Unlike variable speed compressors air conditioners, MDS runs at a constant speed throughout the operation, thus there is NEGLIGIBLE electromagnetic interference. This unique feature eliminates the need for expensive electromagnetic suppression electronics required to ensure electromagnetic compatibility.

Precise Temperature Control

The ambient of the outdoor and indoor change frequently and this will affect the indoor cooling and heating load. With MDS system, using a unique control algorithm, the temperature is kept constant throughout the operation. The temperature fluctuation is maintain at only $\pm 0.3^{\circ}\text{C}$, thereby providing unprecedented levels of comfort.



Excellent Dehumidifying Performance

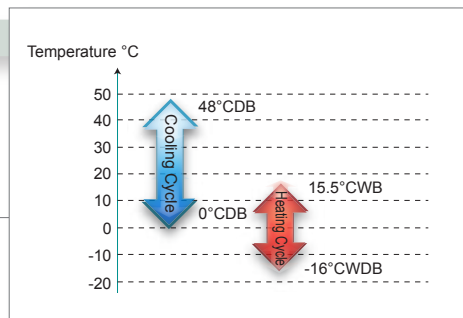


The continuously operating compressor in the MDS system provides excellent dehumidifying performance, and hence able to reduce the indoor RH to a more desired level. With lower RH in the interior, the growth of the bacteria and fungus are inhibited.



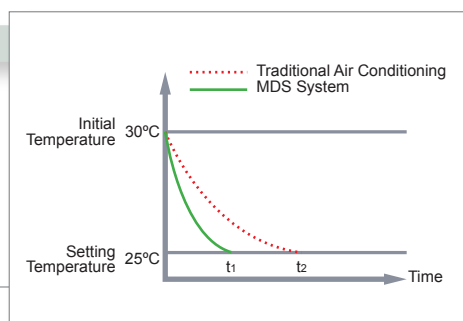
Wide Operating Range

MDS system undergo rigorous test to ensure superior performance. MDS system can run in a very good condition from -15°C to 48°C .



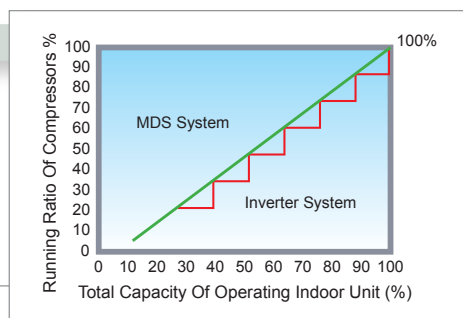
Rapid Cooling and Heating Capability

The stage of the art heat-exchanger combining with the high efficiency compressor promotes rapid exchange between refrigerant and air, ensuring set temperature to be achieved faster compared to traditional air-conditioning system.



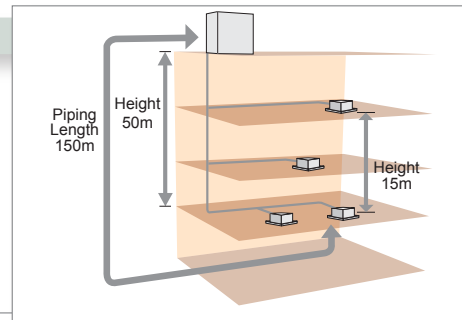
Intelligent Capacity Modulation

The MDS system operates in a stepless capacity modulation ranging from 10~100%. The modulation will closely match the demand capacity whereby contributing to high SEER ratings that no conventional air-conditioners can achieve.



Long Piping Design For Flexibility

Piping length between outdoor and indoor unit can be extended up to 150 meters. The height between outdoor unit and indoor unit can be extended up to 50 meters. The height difference between indoor units can be as high as 15 meters. This greatly reduces constraint and offers huge flexibility in system design.



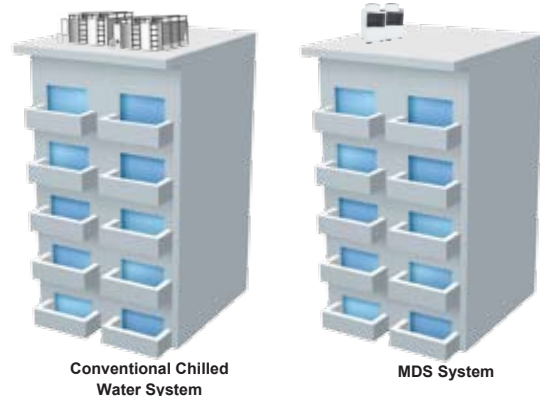
Better Place Utilisation

MDS uses the single outdoor multiple indoors combination. This concept has greatly reduced the outdoors units and enhances flexibility during installation.



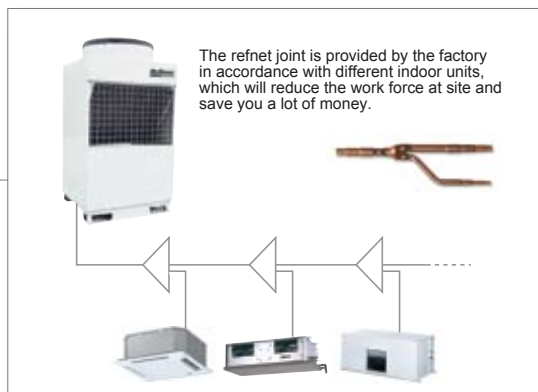
Better Solution

Comparing to conventional chilled water system, MDS required far less equipment. Boilers, cooling tower are things in the past with MDS. Thus, MDS is clearly a better solution for new projects or even retrofit purposes.

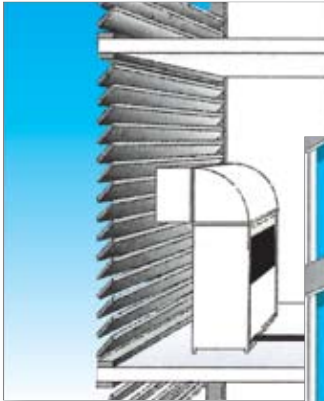


Simple Installation

Unique piping joints and simple wiring make it possible to install MDS system quickly and easily.



Floor by Floor Installation



The optional outdoor fan with external static pressure of 50Pa is suitable for short-discharge ductwork application. With this feature, an outdoor unit can be placed on each floor, thus allowing installation to be performed floor by floor.



Adapts Easily to Any Floor Plan

The wide indoor models can meet the needs of building size and interior design easily. Incorporate with the flexible piping design, the MDS system is suitable for all type of floor layout and various applications.



Alarm and Diagnosis System

The MDS system is built in with an alarm system, alerting owners or users for any abnormal operation. A user-friendly diagnosis system helps to identify the problems, ensuring continuous operation of the MDS system.



Auto-Random Restart

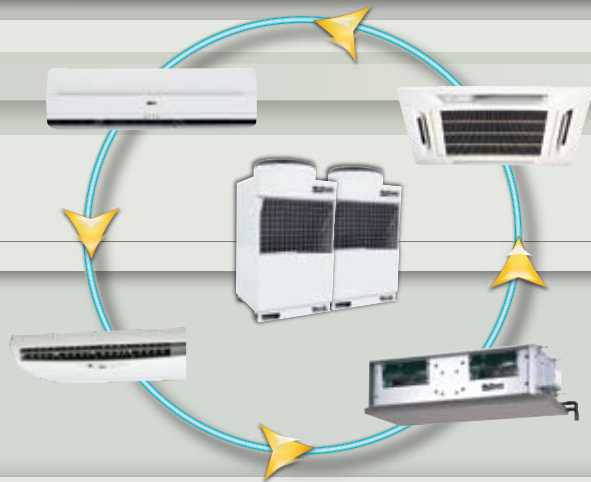
After power failure, the MDS system will automatically restart operation base on the last state memory. Setting of the unit will not be lost, thus eliminating the needs for re-programming.

Central Control System

The MDS System Management Software is designed with user-friendly interface, enable simple monitoring and control of the whole system via a computer.

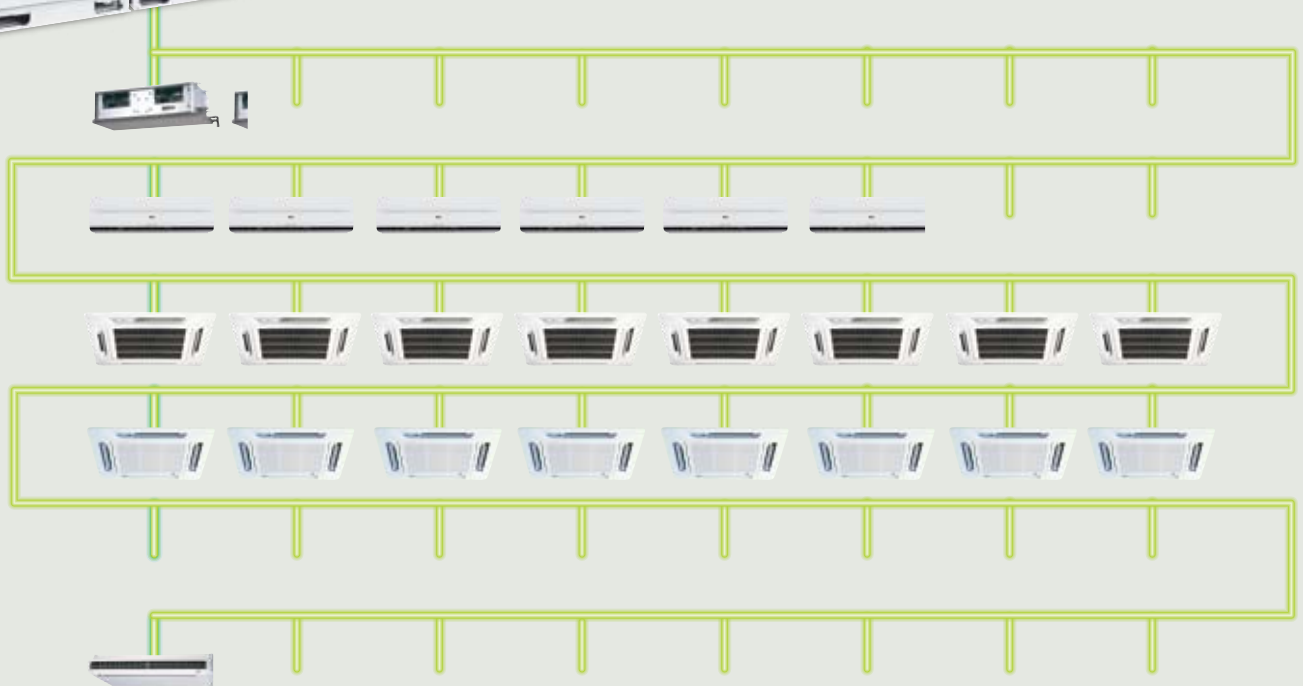
Wide Variety of Indoors

The MDS indoors come with a variety of design and capacity which can be selected to suit any air conditioning needs.



Wide Variety of Indoors

MDS-B series is capable to connect up to 48 units of indoors. Total indoor units capacity can range from 50% to 120% of the outdoor capacity.



Application

With all these advantages, it is very clear that MDS is an ideal solution for centralised air-condition system. What would be the consideration factor to select MDS? Here are some of the main consideration factors and examples.

Factor 1 - Location for outdoor is limited.

MDS can be used due to the ability to couple multiple indoors with only 1 outdoor. Better space utilization.

Factor 2 - Various type of indoor unit with separate temperature requirement

MDS system can be couple with various type of indoors. Each indoor can be design to supply to a specific area only and the temperature setting is base on individual indoor setting.

Factor 3 - Heat load of the same air-conditioned area varies

MDS is able to match the indoor load requirement with its part loading capability.

Factor 4 - Centralized Control

MDS outdoors and indoors can be linked together and control using the MDS Control & Monitoring Software. The software can also perform scheduling of the indoor units base on the operating duration.

Factor 5 - Places that require low or no EMC interference

The MDS modulation is control by mechanical parts. No change in power supply (frequency or current), thus no EMC interference.



Building Type:
House / Apartment / Condominium

Consideration:

- Location for outdoor is limited.
- Various type of indoor unit with separate temperature requirement.
- Heat load of the same air-conditioned area varies



Building Type:
Exhibition / Concert Hall

Consideration:

- Heat load of the same air-conditioned area varies.
- Various type of indoor unit with separate temperature requirement
- Centralized Control



Building Type: Department Store / Restaurant

Consideration:

- Heat load of the same air-conditioned area varies.
- Various type of indoor unit with separate temperature requirement
- Centralized Control



Building Type: Hospital

Consideration:

- Places that require low or no EMC interference
- Heat load of the same air-conditioned area varies.
- Various type of indoor unit with separate temperature requirement
- Centralized Control



Building Type: Offices

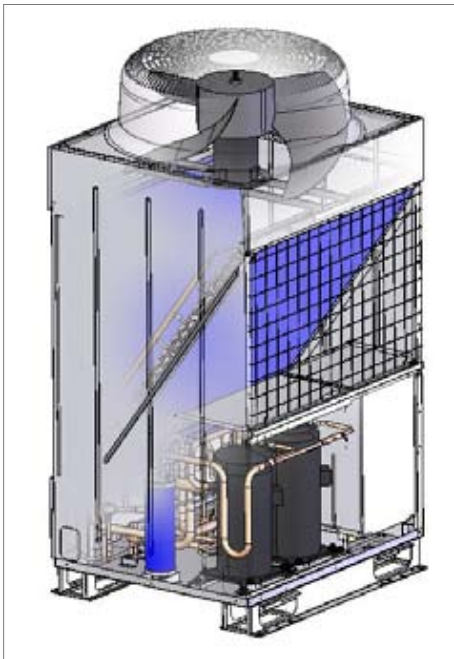
Consideration:

- Heat load of the same air-conditioned area varies.
- Various type of indoor unit with separate temperature requirement
- Location for outdoor is limited
- Centralized Control

Outdoor Features

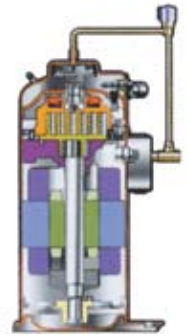
The brain of the MDS system is the compressor which is incorporated in the outdoor condensing unit. With this reliable technology, the outdoor is constructed in a uniform and solid design and focusing on smaller footprint to provide better space utilisation.

Reliable Technology



MDS system adopts the advantaged capacity modulation technology to reduce the control devices, which reduce the malfunction odds mostly.

- MDS system has excellent oil return performance even at low capacities, which will make sure that all of the removable parts of the compressor can be lubricated and cooled down. Thus, the compressor is very reliable.
- It reduces the star/stop times, which will reduce the attack to the electricity supply net.
- The PWM (Pulse Width Modulation) valve has the longevity of 40 million times.
- The design is simple and there is no requirement for bypass valve.



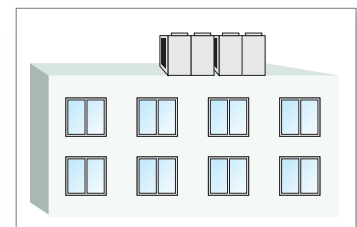
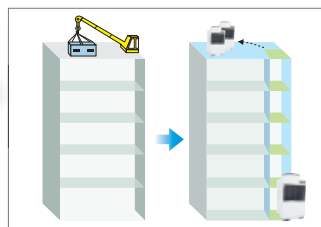
Unique Return Oil Technology

The comparison between MDS system and inverter system.

| | Inverter System | MDS system |
|-----------------------------|-----------------|-------------|
| Microprocessor | Multi | Single |
| Solenoid | Multi | Single |
| Gas Bypass System | Required | No Required |
| Liquid Bypass System | Required | No Required |
| Electromagnetic Suppression | Required | No Required |

Uniform Design

The outdoor units can be located on the rooftop. The uniform outlook and dimension allows side by side installation while providing an elegant view.



Small Footprint

The outdoor unit of MDS system is designed as package, the compact structure occupies less space and is easy to move.



Quiet Operation

The condensing unit utilises an advanced spiral fan blades. The smooth material and fan blade design help to reduce the turbulent flow and thus reduce the air flow noise. Besides that, a specially designed compressor jacket also contributes in reducing the noise from the compressor.

Indoor Features

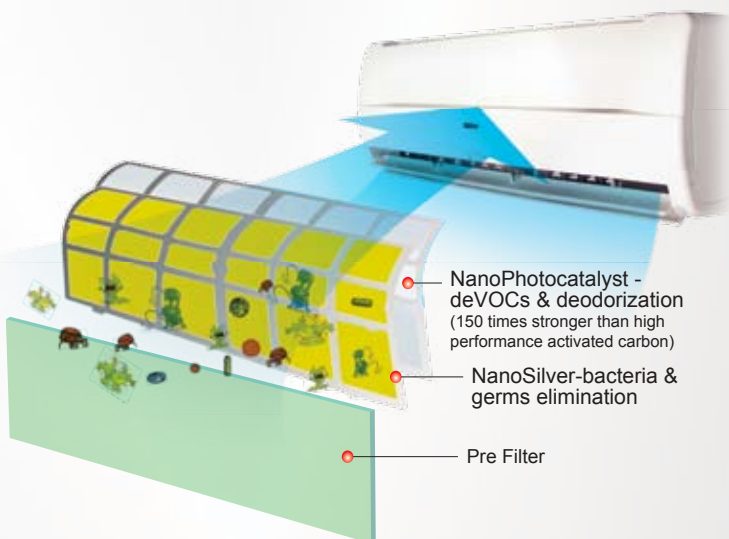


MMWD 009/010/015/020/025 G

Cooling 8,500 Btu/h – 22,200 Btu/h
2.5 kW – 6.5 kW

Heating 9,600 Btu/h – 25,200 Btu/h
2.8 kW – 7.4 kW

Effectively Inactivate & Eliminate Various Harmful Airborne Elements 99.9% bacteria free, no more worries



McQuay is focused on developing new and exciting products to improve everyday living environment of the 21st century. The all-new NanoGuard combines powerful sterilizing and deodorizing effect of NanoSilver and Nano-Photocatalyst.

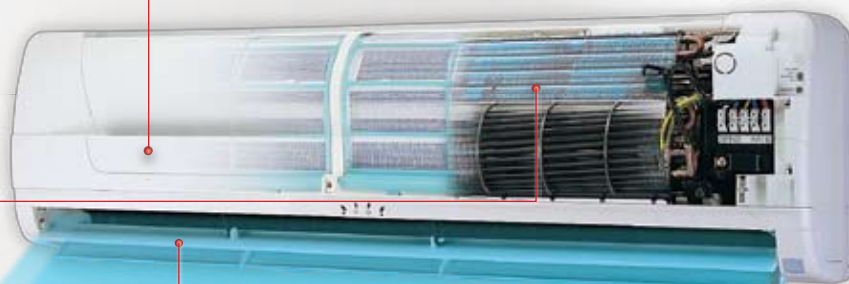
Silver is used from the days of Hippocrates (Father of Medicine) as a healing agent and its use has been expanded into anti-bacterial applications ever since. Modern nanotechnology provides through full-infusion onto the filters and larger coated surface area, with this sterilization, deodorizing power is 150 times stronger whereas filtration effectiveness is improved 20 times.

New Aesthetically Outlook
A smooth front panel makes the cleaning process much easier for the user. These units blended easily into any interior decoration and design. The centrally located LED light makes it easier for user to check the operating conditions.

3-Fold Heat Exchanger
The compact design of this 3-fold structure provides a large surface area for better & efficient heat exchange.



Double Louver
This new louver design together with its automatic air swing function fully optimizes the room comfort by distributing the air evenly to every corner of the room.





| |
|---|
| MCKD 010/015/020 C |
| MCKD 020/025/030/040/050 A |
| Cooling 9,600 Btu/h – 47,800 Btu/h 2.8 kW – 14.0 kW |
| Heating 10,900 Btu/h – 54,600 Btu/h 3.2 kW – 16.0 kW |

Stylish And Slim Panel

The slim panel can be blended easily into any interior decoration and design.

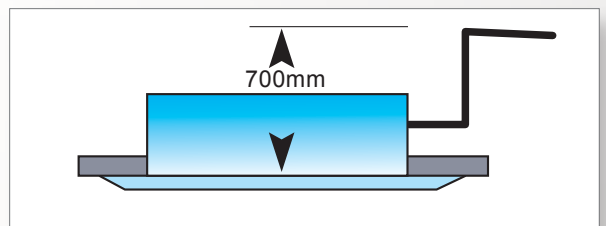
4 Way Air Discharge And Air Swing

It comes with 4 way air discharge and air swing function to ensure better air distribution and circulation in the room.



Built-In High Head Drain Pump

The unit comes with a built-in high head drain pump 700mm head. A safety float is incorporated in the drain pump to monitor its water level.





MCMD 020/025/028 E

Cooling 19,100 Btu/h – 27,300 Btu/h
5.6 kW – 8.0 kW

Heating 21,500 Btu/h – 30,700 Btu/h
6.3 kW – 9.0 kW



Ceiling and Floor Installation Option

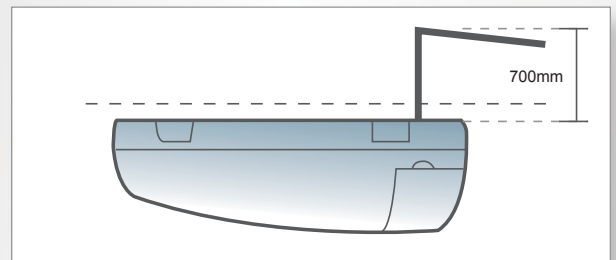
The MCM is uniquely designed with the option to install either below the ceiling or mounted at low wall position to suit any interior design requirement.



Wall bracket supplied as optional item

Flexible Installation

The unit is designed to work with high pressure head drain pump (optional). Thus offering flexibility for installation on condensate drain pipe. The drain pump comes with a high head and is incorporate with the float switch as safety protection.



Better Serviceability

The washable filter can be easily access by just pulling down the intake grill. During servicing or repairing, only the bottom panel need to be remove in order to access.

- Fan Motor
- Blower
- Wiring Connection
- Control Box
- Piping Connection





MCMD 040/050 D
MCMD 062 C

Cooling 38,200 Btu/h – 56,000 Btu/h
11.2 kW – 16.4 kW

Heating 42,700 Btu/h – 63,100 Btu/h
12.5 kW – 18.5 kW



Ceiling And Floor Installing Option

The unit is uniquely designed with possibility to be installed under the ceiling or sitting on the floor to suit any interior design requirements.



Two Way Air Discharge

Equipped with two way air discharge, at front and bottom discharge; to provide excellent air distribution, for both cooling and heating effect.



Automatic Air Swing

The swing mode enables the air flow to be evenly distributed into the room from the front discharge area.



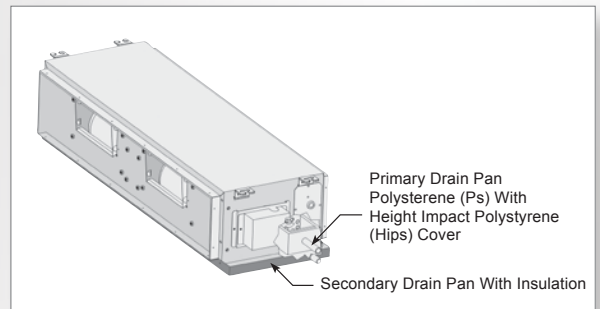


| | |
|--|---|
| MCCD 010/015/020/025/030/ 040/050/060 C | |
| Cooling | 9,600 Btu/h – 56,000 Btu/h 2.8 kW – 16.4 kW |
| Heating | 10,900 Btu/h – 63,100 Btu/h 3.2 kW – 18.5 kW |



Double Protection Drainage System

The primary drain pan is designed with high thermal insulation material and moulded in gradient for better condensate water drainage. The extra secondary drain pan “built in” to the standard unit offers extra protection against possible water leaking problems.

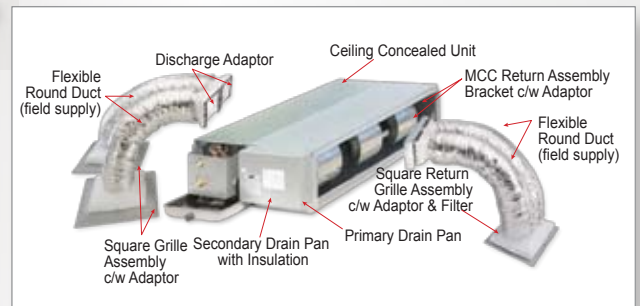


Flexibility In System Design

The unit offers fan motor that can operate up to 4 speeds, thus provide choices of external static pressure for designing ducting system. In addition, a range of MCCD-C model with optional specification of low external static pressure is also provided. Please refer to the technical specification of MCCD-C model.

Duct Accessories (Optional)

A set duct accessories specifically designed to fit and to suit the MCCD-C model is being created. Thus offers a one stop solution to installing the unit.



Available for MCCD 010-025 C/CR only.



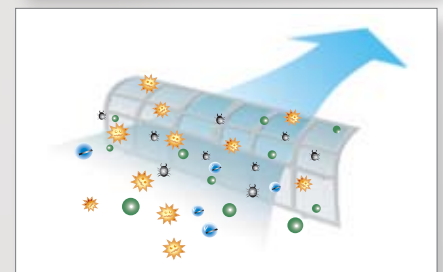
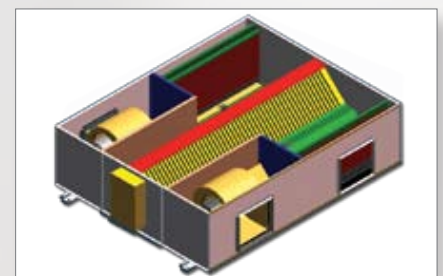
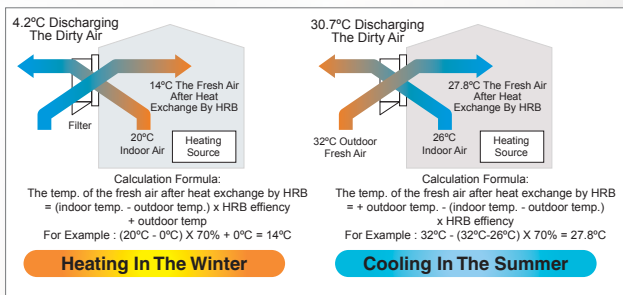
HRB 030/050/080/100/150/200 A

Capacity 300m³/h - 2000 m³/h
177 cfm - 1177 cfm

This highly efficient Heat Exchanger (HRB) is able to introduce fresh air into the confined room or area and at the same time, it is able to reduce power consumption up to 60%. The HRB are available in 6 sizes, namely 300m³/h, 500m³/h, 800m³/h, 1000m³/h, 1500m³/h and 2000m³/h.

2-Way Air Exchange

The HRB is capable to provide 2-way air exchange. While providing clean & filtered fresh air into the indoor, the unit is also ejecting dirty indoor air to the outdoor. This has help to maintain the quality of the indoor air.



Better Living Environment

While designing the HRB, the concept of providing healthy air remains as one of the main criteria. In order to provide clean fresh air, the HRB is incorporated with active carbon filter (TiO₂ filter), bactericidal lamp and humidifier. It is able to remove dust, odors and other pollutants in the fresh air to provide a healthier living environment to the user.

Energy Saving

The unique design of the HRB has the maximum temperature recovery efficiency of 79%. Beside that, the unit design enables it to have the maximum enthalpy exchange efficiency of 66%. This has help tp reduce the workload of the air-conditioner to maintain the comfort level in the room and in turn reduces power consumption of the air - conditioner.

- High heat exchange efficiency - 79%
- Industry-leading moisture penetrability, fire-retardance
- Height of body 50%
- No mixture of fresh air and return air, more reliable.



Integrated Software

As a system provider, McQuay MDS system is equipped together with a collection of customized software to provide ease-of-use in system design & selection and individual units control & monitoring.

MDS System Management Software

For central monitoring and control purposes, the MDS offers a real time system. This software is the system to human interface, allowing users or owners to monitor and to control the entire MDS system.

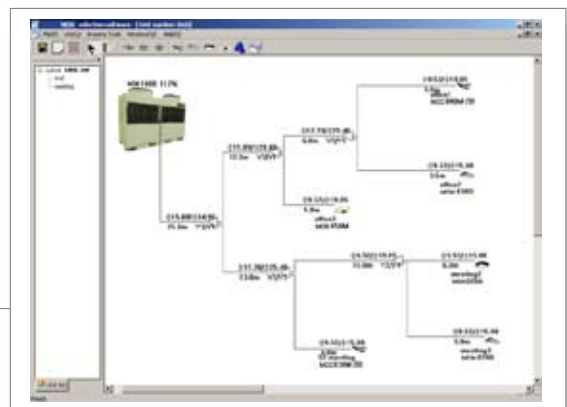
With this software, user or owners is able to ;

- Monitor & control any MDS indoor & outdoor unit
- Zoning & grouping capabilities
- Alarming alert
- Scheduling option



Design Software

This software is incorporated with all data on indoor models operating in various ambient conditions. This allow the designers to choose the appropriate indoors model to suit they needs. Besides that, this software will determine the required quantity of refnet joints, pipes and other accessories base on the design. With this user friendly software, any complex design can be completed with just a few simple clicks.



Controller & Accessories

Standard Controller

Wireless G11



Standard wireless controller for MMWD-G and MCMD-E. Basic control such as ON/OFF, mode setting, temperature setting and others.

Wireless G7



Standard wireless controller for MCKD-A/C and MCMD-D/C. Basic control such as ON/OFF, mode setting, temperature setting and others.

Wired Controller



Standard wired controller for MCCD-C. Basic control such as ON/OFF, mode setting, temperature setting and others.

Optional Controller and Accessories



AC 5300

Optional Item. To provide wireless control for wired controller. Basic control such as ON/OFF, mode setting, temperature setting and others.

PC Control



MDS Central Monitoring Software (known as Smart Commander) act as the system to human interface. A communication gateway is inclusive for the wiring connection.

Refnet & Distributors Joint



Piping joint design for the MDS system. A total of 6 types of refnet joint is available for different piping combination.

Job Reference

MDS systems has proven to be reliable and a system of choice. Many projects, whether government or privately own premises had chosen MDS as their comfort provider:



Oakwood Premier Cozmo, Indonesia
Residential Sector
Indoor Type: Ceiling Concealed



Zion Church, Singapore
Commercial Sector
Indoor Type: Ceiling Concealed,
Ceiling Convertible and Ceiling Cassette



Wei Xing Software Park, China
Commercial Sector
Indoor Type: Ceiling Concealed, and Ceiling Convertible



Poh Teck Tung, Thailand
Commercial Sector
Indoor Type: Ceiling Concealed

Outdoor Specifications

MDS - A SERIES

| MODEL | OUTDOOR UNIT | | MDS 030AR | MDS 040AR | MDS 050AR | MDS 060AR | |
|-------------------------------------|----------------------|---------|--------------|--------------|-----------------------------|-----------------------------|---------------------|
| NOMINAL COOLING CAPACITY | | Btu/h | 29,002 | 34,120 | 42,650 | 49,474 | |
| | | W | 8,500 | 10,000 | 12,500 | 14,500 | |
| NOMINAL HEATING CAPACITY | | Btu/h | 30,708 | 39,238 | 46,062 | 56,298 | |
| | | W | 9,000 | 11,500 | 13,500 | 16,500 | |
| NOMINAL TOTAL INPUT POWER - 1Ø <3Ø> | COOLING | W | 3,000 | 3,500 | 4,400 <4,300> | 5,000 <5,000> | |
| | HEATING | W | 2,500 | 3,400 | 4,200 <3,900> | 4,200 <4,200> | |
| MODEL | OUTDOOR UNIT | | MDS 030A | MDS 040A | MDS 050A | MDS 060A | |
| NOMINAL COOLING CAPACITY | | Btu/h | 29,002 | 34,120 | 42,650 | 49,474 | |
| | | W | 8,500 | 10,000 | 12,500 | 14,500 | |
| NOMINAL TOTAL INPUT POWER - 1Ø <3Ø> | | W | 3,000 | 3,500 | 4,400 <4,300> | 5,000 <5,000> | |
| POWER SOURCE - 1Ø <3Ø> | | V/Ph/Hz | 220-240/1/50 | 220-240/1/50 | 220-240/1/50 <380-415/3/50> | 220-240/1/50 <380-415/3/50> | |
| REFRIGERANT TYPE | | | R22 | R22 | R22 | R22 | |
| OUTDOOR UNIT | AIR FLOW | | l/s / cfm | 1055/2230 | 695+695/1470+1470 | 695+695/1470+1470 | 1055+1055/2230+2230 |
| | SOUND PRESSURE LEVEL | | dB(A) | 59 | 59 | 59 | 60 |
| | UNIT DIMENSION | HEIGHT | mm/in | 900/35.4 | 1044/41.1 | 1044/41.1 | 1247/49.1 |
| | | WIDTH | mm/in | 840/33.0 | 1058/41.7 | 1058/41.7 | 1058/41.7 |
| | | DEPTH | mm/in | 408/16.0 | 430/16.9 | 430/16.9 | 430/16.9 |
| | UNIT WEIGHT | | kg/lb | 85 | 115 | 120 | 130 |
| | PIPE CONNECTION | TYPE | | Flare | Flare | Flare | Flare |
| | | SIZE | LIQUID | mm/in | 9.52 / 3/8 | 9.52 / 3/8 | 9.52 / 3/8 |
| | | | GAS | mm/in | 15.88 / 5/8 | 19.05 / 3/4 | 19.05 / 3/4 |

NOTE :

- 1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.
- 2) ALL UNITS ARE BEING TESTED AND COMPLY TO ISO 5151.
- 3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :
 - a) COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR
 - b) HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR
- 4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT THE MACHINE AND 1.42m ABOVE THE MACHINE BASE.
- 5) THE VALUE OF REFRIGERANT CHARGE IS THE REFRIGERANT CHARGED IN THE OUTDOOR UNIT BEFORE LEAVING FACTORY. THIS CHARGE DOES NOT INCLUDE THE AMOUNT NEEDED FOR EXTENDED PIPING.

MDS - B SERIES

| MODEL | OUTDOOR UNIT | | MDS 080BR | MDS 100BR | MDS 120BR | MDS 150BR | |
|-------------------------------------|----------------------|-------------------|--------------|--------------|--------------|--------------|--------------|
| NOMINAL COOLING CAPACITY | | Btu/h | 83,594 | 95,536 | 110,890 | 136,480 | |
| | | W | 24,500 | 28,000 | 32,500 | 40,000 | |
| NOMINAL HEATING CAPACITY | | Btu/h | 88,712 | 102,360 | 116,008 | 146,716 | |
| | | W | 26,000 | 30,000 | 34,000 | 43,000 | |
| NOMINAL TOTAL INPUT POWER (COOLING) | | W | 7,500 | 8,500 | 9,800 | 12,900 | |
| NOMINAL TOTAL INPUT POWER (HEATING) | | W | 7,200 | 8,300 | 9,000 | 11,100 | |
| MODEL | OUTDOOR UNIT | | MDS 080B | MDS 100B | MDS 120B | MDS 150B | |
| NOMINAL COOLING CAPACITY | | Btu/h | 83,594 | 95,536 | 110,890 | 136,480 | |
| | | W | 24,500 | 28,000 | 32,500 | 40,000 | |
| NOMINAL TOTAL INPUT POWER | | W | 7,500 | 8,500 | 9,800 | 12,900 | |
| POWER SOURCE | | V/Ph/Hz | 380-415/3/50 | | | | |
| REFRIGERANT TYPE | | | R22 | R22 | R22 | R22 | |
| OUTDOOR UNIT | AIR FLOW | HI-FAN | l/s / cfm | 3194/6768 | 3194/6768 | 3472/7357 | 3750/7945 |
| | | LOW-FAN | l/s / cfm | 1528/3237 | 1528/3237 | 2083/4414 | 2222/4708 |
| | SOUND PRESSURE LEVEL | | dB(A) | 62 | 64 | 66 | 67 |
| | UNIT DIMENSION | HEIGHT | mm/in | 1840/72.4 | 1840/72.4 | 1840/72.4 | 1840/72.4 |
| | | WIDTH | mm/in | 990/39.0 | 990/39.0 | 990/39.0 | 1290/50.8 |
| | | DEPTH | mm/in | 840/33.0 | 840/33.0 | 840/33.0 | 840/33.0 |
| | UNIT WEIGHT | | kg/lb | 275/606 | 385/628 | 290/639 | 355/783 |
| | PIPE CONNECTION | TYPE (LIQUID/GAS) | | Flare/Brazed | Flare/Brazed | Flare/Brazed | Flare/Brazed |
| | | SIZE | LIQUID | mm/in | 12.7/0.5 | 12.7/0.5 | 15.88/0.625 |
| | | | GAS | mm/in | 28.6/1.125 | 28.6/1.125 | 28.6/1.125 |

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- 3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :
 - a) COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR
 - b) HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR
- 4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT THE MACHINE AND 1.42m ABOVE THE MACHINE BASE.
- 5) THE VALUE OF REFRIGERANT CHARGE IS THE REFRIGERANT CHARGED IN THE OUTDOOR UNIT BEFORE LEAVING FACTORY. THIS CHARGE DOES NOT INCLUDE THE AMOUNT NEEDED FOR EXTENDED PIPING.

MDS - B SERIES

| MODEL | | OUTDOOR UNIT | | MDS 180BR | MDS 200BR | MDS 220BR | MDS 240BR | |
|-------------------------------------|----------------------|--------------|-------------------|--------------|---------------------|---------------------|---------------------|---------------------|
| NOMINAL COOLING CAPACITY | | Btu/h | | 162,070 | 170,600 | 187,660 | 221,780 | |
| | | W | | 47,500 | 50,000 | 55,000 | 65,000 | |
| NOMINAL HEATING CAPACITY | | Btu/h | | 170,600 | 180,836 | 197,896 | 232,016 | |
| | | W | | 50,000 | 53,000 | 58,000 | 68,000 | |
| NOMINAL TOTAL INPUT POWER (COOLING) | | W | | 14,100 | 15,200 | 16,700 | 19,800 | |
| NOMINAL TOTAL INPUT POWER (HEATING) | | W | | 13,200 | 14,700 | 16,200 | 18,500 | |
| MODEL | | OUTDOOR UNIT | | MDS 180B | MDS 200B | MDS 220B | MDS 240B | |
| NOMINAL COOLING CAPACITY | | Btu/h | | 162,070 | 170,600 | 187,660 | 221,780 | |
| | | W | | 47,500 | 50,000 | 55,000 | 65,000 | |
| NOMINAL TOTAL INPUT POWER | | W | | 14,100 | 15,200 | 16,700 | 19,800 | |
| POWER SOURCE | | V/Ph/Hz | | 380-415/3/50 | | | | |
| REFRIGERANT TYPE | | | | R22 | R22 | R22 | R22 | |
| OUTDOOR UNIT | AIR FLOW | | HI-FAN | l/s / cfm | 3194+3194/6768+6768 | 3194+3194/6768+6768 | 3194+3194/6768+6768 | 3472+3472/7357+7357 |
| | | | LOW-FAN | l/s / cfm | 1528+1528/3237+3237 | 1528+1528/3237+3237 | 1528+1528/3237+3237 | 2083+2083/4414+4414 |
| | SOUND PRESSURE LEVEL | | | dB(A) | 66 | 66 | 66 | 68 |
| | UNIT DIMENSION | | | HEIGHT | mm/in | 1840/72.4 | 1840/72.4 | 1840/72.4 |
| | | | | WIDTH | mm/in | 1990/78.3 | 1990/78.3 | 1990/78.3 |
| | | | | DEPTH | mm/in | 840/33.0 | 840/33.0 | 840/33.0 |
| | UNIT WEIGHT | | | kg/lb | 520/1146 | 560/1235 | 560/1235 | 570/1257 |
| | PIPE CONNECTION | | TYPE (LIQUID/GAS) | | Flare/Brazed | | Flare/Brazed | |
| SIZE | | | LIQUID | mm/in | 15.88/0.625 | 15.88/0.625 | 19.05/0.75 | 19.05/0.75 |
| | | | GAS | mm/in | 34.9/1.375 | 34.9/1.375 | 38.1/1.5 | 38.1/1.5 |

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 - a) COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR
 - b) HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR
- 4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT THE MACHINE AND 1.42m ABOVE THE MACHINE BASE.
- 5) THE VALUE OF REFRIGERANT CHARGE IS THE REFRIGERANT CHARGED IN THE OUTDOOR UNIT BEFORE LEAVING FACTORY. THIS CHARGE DOES NOT INCLUDE THE AMOUNT NEEDED FOR EXTENDED PIPING.

MDS - B SERIES

| MODEL | | OUTDOOR UNIT | | MDS 260BR | MDS 280BR | MDS 300BR | MDS 320B | |
|-------------------------------------|----------------------|------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | | MASTER UNIT+SLAVE UNIT | | MDS120BRM+MDS150BRS | MDS150BRM+MDS130BRS | MDS150BRM+MDS150BRS | MDS160BRM+MDS160BRS | |
| NOMINAL COOLING CAPACITY | | Btu/h | | 238,840 | 255,900 | 272,960 | 290,020 | |
| | | W | | 70,000 | 75,000 | 80,000 | 85,000 | |
| NOMINAL HEATING CAPACITY | | Btu/h | | 255,900 | 272,960 | 290,020 | 313,904 | |
| | | W | | 75,000 | 80,000 | 85,000 | 92,000 | |
| NOMINAL TOTAL INPUT POWER (COOLING) | | W | | 21,300 | 22,800 | 26,200 | 27,700 | |
| NOMINAL TOTAL INPUT POWER (HEATING) | | W | | 20,900 | 22,000 | 23,600 | 25,500 | |
| MODEL | | OUTDOOR UNIT | | MDS 260B | MDS 280B | MDS 300B | MDS 320B | |
| | | MASTER UNIT+SLAVE UNIT | | MDS120BRM+MDS150BS | MDS150BRM+MDS130BS | MDS150BRM+MDS150BS | MDS160BRM+MDS160BS | |
| NOMINAL COOLING CAPACITY | | Btu/h | | 238,840 | 255,900 | 272,960 | 290,020 | |
| | | W | | 70,000 | 75,000 | 80,000 | 85,000 | |
| NOMINAL TOTAL INPUT POWER | | W | | 21,300 | 22,800 | 26,200 | 27,700 | |
| POWER SOURCE | | V/Ph/Hz | | 380-415/3/50 | | | | |
| REFRIGERANT TYPE | | | | R22 | R22 | R22 | R22 | |
| OUTDOOR UNIT | AIR FLOW | | HI-FAN | l/s / cfm | 3472+3750/7357+7945 | 3750+3750/7945+7945 | 3750+3750/7945+7945 | 3750+3750/7945+7945 |
| | | | LOW-FAN | l/s / cfm | 2083+2222/4414+4708 | 2222+2222/4708+4708 | 2222+2222/4708+4708 | 2222+2222/4708+4708 |
| | SOUND PRESSURE LEVEL | | | dB(A) | 68 | 69 | 69 | 69 |
| | UNIT DIMENSION | | | HEIGHT | mm/in | 1840/72.4 | 1840/72.4 | 1840/72.4 |
| | | | | WIDTH | mm/in | 2290/90.2 | 2590/102.0 | 2590/102.0 |
| | | | | DEPTH | mm/in | 840/33.0 | 840/33.0 | 840/33.0 |
| | UNIT WEIGHT | | | kg/lb | 645/1422 | 710/1565 | 710/1565 | 720/1587 |
| | PIPE CONNECTION | | TYPE (LIQUID/GAS) | | Flare/Brazed | | Flare/Brazed | |
| SIZE | | | LIQUID | mm/in | 19.05/0.75 | 19.05/0.75 | 19.05/0.75 | 19.05/0.75 |
| | | | GAS | mm/in | 41.3/1.625 | 41.3/1.625 | 41.3/1.625 | 41.3/1.625 |

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 - a) COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR
 - b) HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR
- 4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT THE MACHINE AND 1.42m ABOVE THE MACHINE BASE.
- 5) THE VALUE OF REFRIGERANT CHARGE IS THE REFRIGERANT CHARGED IN THE OUTDOOR UNIT BEFORE LEAVING FACTORY. THIS CHARGE DOES NOT INCLUDE THE AMOUNT NEEDED FOR EXTENDED PIPING.

Indoor Specifications

MWMD-G

| MODEL | INDOOR UNIT | | | MWMD 009G | MWMD 010G | MWMD 015G | MWMD 020G | MWMD 025G | |
|---------------------------|------------------------------|---------------|-----------|--------------------|---|--------------|--------------|--------------|--|
| NOMINAL COOLING CAPACITY | Btu/h | | | 8500 | 9600 | 12300 | 19100 | 22200 | |
| | kW | | | 2.5 | 2.8 | 3.6 | 5.6 | 6.5 | |
| NOMINAL HEATING CAPACITY | Btu/h | | | 9600 | 10900 | 13600 | 21500 | 25200 | |
| | kW | | | 2.8 | 3.2 | 4.0 | 6.3 | 7.4 | |
| POWER SOURCE | V/Ph/Hz | | | 220 - 240 / 1 / 50 | | | | | |
| REFRIGERANT TYPE/ CONTROL | | | | R22 / EXV | | | | | |
| INDOOR UNIT | CONTROL | AIR DISCHARGE | | | DOUBLE LOUVER (UP & DOWN) & GRILLE (LEFT & RIGHT) | | | | |
| | | OPERATION | | | WIRELESS REMOTE CONTROL | | | | |
| | AIR FLOW | HIGH | l/s / cfm | 130 / 275 | 142 / 300 | 163 / 345 | 231 / 490 | 397 / 630 | |
| | | MEDIUM | l/s / cfm | 106 / 225 | 118 / 250 | 135 / 285 | 193 / 410 | 231 / 490 | |
| | | LOW | l/s / cfm | 83 / 175 | 94 / 200 | 104 / 220 | 160 / 340 | 208 / 440 | |
| | SOUND PRESSURE LEVEL (H/M/L) | | dBA | 40 / 35 / 29 | 39 / 34 / 28 | 42 / 36 / 29 | 43 / 40 / 35 | 49 / 44 / 42 | |
| | UNIT DIMENSION | HEIGHT | mm/in | 260 / 10.2 | | | 304 / 12.0 | 304 / 12.0 | |
| | | WIDTH | mm/in | 799 / 31.5 | 899 / 35.4 | | 1062 / 41.8 | 1062 / 41.8 | |
| | | DEPTH | mm/in | 198 / 7.8 | | | 222 / 8.7 | 222 / 8.7 | |
| | UNIT WEIGHT | kg/lb | | 10/22.05 | 12/26.46 | | 16 / 35.27 | 16 / 35.27 | |
| CONDENSATE DRAIN SIZE | mm/in | | 16 / 0.63 | | | 20 / 0.79 | | | |
| PIPE CONNECTION | TYPE | | | FLARE VALVE | | | | | |
| | SIZE | LIQUID | mm/in | 6.35 / 1/4 | | | | 9.52 / 3/8 | |
| | | GAS | mm/in | 9.52 / 3/8 | | 12.70 / 1/2 | 15.88 / 5/8 | | |

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- 3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :
 - a) COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR
 - b) HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR
- 4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.
- 5) ALL INDOOR MODELS CAN BE USED FOR COOLING ONLY OR HEATPUMP APPLICATION.

MCKD-A

| MODEL | INDOOR UNIT | | | MCKD 020A | MCKD 025A | MCKD 030A | MCKD 040A | MCKD 050A | |
|----------------------------|------------------------------------|---------------|---------------------|-------------------------|------------------------------------|---------------------|---------------------|--------------------|--|
| NOMINAL COOLING CAPACITY | Btu/h | | | 19100 | 22200 | 30700 | 38200 | 47800 | |
| | kW | | | 5.6 | 6.5 | 9.0 | 11.2 | 14.0 | |
| NOMINAL HEATING CAPACITY | Btu/h | | | 21500 | 25200 | 34100 | 42700 | 54600 | |
| | kW | | | 6.3 | 7.4 | 10.0 | 12.5 | 16.0 | |
| POWER SOURCE | V/Ph/Hz | | | 220 - 240 / 1 / 50 | | 220 - 240 / 1 / 50 | | 220 - 240 / 1 / 50 | |
| REFRIGERANT TYPE / CONTROL | | | | R22 / EXV | | R22 / EXV | | R22 / EXV | |
| INDOOR UNIT | CONTROL | AIR DISCHARGE | | | 4 WAY AUTOMATIC LOUVER (UP & DOWN) | | | | |
| | | OPERATION | | | WIRELESS REMOTE CONTROL | | | | |
| | AIR FLOW | HIGH | l/s / CFM | 349 / 740 | 368 / 780 | 415 / 880 | 467 / 990 | 491 / 1040 | |
| | | MEDIUM | l/s / CFM | 297 / 630 | 311 / 660 | 349 / 740 | 406 / 860 | 448 / 950 | |
| | | LOW | l/s / CFM | 283 / 600 | 283 / 600 | 321 / 680 | 359 / 760 | 411 / 870 | |
| | EXTERNAL STATIC PRESSURE (H/M/L) | | Pa / in.wg. | 0 | 0 | 0 | | 0 | |
| | SOUND PRESSURE LEVEL (H/M/L) | | dBA | 42 / 39 / 37 | 45 / 42 / 40 | 49 / 45 / 43 | 51 / 48 / 46 | 53 / 52 / 50 | |
| | UNIT DIMENSION () - WITH PANEL | HEIGHT | mm/in | 335 (363) / 13.2 (14.3) | | | | | |
| | | WIDTH | mm/in | 820 (930) / 32.2 (36.6) | | | | | |
| | | DEPTH | mm/in | 820 (930) / 32.2 (36.6) | | | | | |
| UNIT WEIGHT (UNIT + PANEL) | kg/lb | | 31 + 4 / 68.3 + 8.8 | 32 + 4 / 70.5 + 8.8 | 35 + 4 / 77.2 + 8.8 | 38 + 4 / 83.8 + 8.8 | 40 + 4 / 88.2 + 8.8 | | |
| CONDENSATE DRAIN SIZE | mm/in | | 19.05 / 3/4 | | | | | | |
| PIPE CONNECTION | TYPE | | | FLARE VALVE | | | | | |
| | SIZE | LIQUID | mm/in | 6.35 / 1/4 | | 9.52 / 3/8 | | | |
| | | GAS | mm/in | 15.88 / 5/8 | | | | 19.05 / 3/4 | |

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 - a) COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR
 - b) HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR
- 4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS C 9612 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1.4m BELOW FASCIA.
- 5) ALL INDOOR MODELS CAN BE USED FOR COOLING ONLY OR HEATPUMP APPLICATION.

MCKD-C

| MODEL | | INDOOR UNIT | | MCKD 010C | MCKD 015C | MCKD 020C |
|----------------------------|------------------------------------|---------------|---------------------|------------------------------------|---------------------|--------------------|
| NOMINAL COOLING CAPACITY | | Btu/h | | 9600 | 12300 | 19100 |
| | | kW | | 2.8 | 3.6 | 5.6 |
| NOMINAL HEATING CAPACITY | | Btu/h | | 10900 | 13600 | 21500 |
| | | kW | | 3.2 | 4.0 | 6.3 |
| POWER SOURCE | | V/Ph/Hz | | 220 - 240 / 1 / 50 | | 220 - 240 / 1 / 50 |
| REFRIGERANT TYPE / CONTROL | | | | R22 / EXV | | R22 / EXV |
| INDOOR UNIT | CONTROL | AIR DISCHARGE | | 4 WAY AUTOMATIC LOUVER (UP & DOWN) | | |
| | | OPERATION | | WIRELESS REMOTE CONTROL | | |
| | AIR FLOW | HIGH | l/s / CFM | 194 / 410 | 194 / 410 | 212 / 450 |
| | | MEDIUM | l/s / CFM | 184 / 390 | 184 / 390 | 203 / 430 |
| | | LOW | l/s / CFM | 175 / 370 | 170 / 360 | 194 / 410 |
| | EXTERNAL STATIC PRESSURE (H/M/L) | | Pa / in.wg. | 0 | 0 | 0 |
| | SOUND PRESSURE LEVEL (H/M/L) | | dBA | 44 / 43 / 42 | 44 / 42 / 41 | 47 / 46 / 44 |
| | UNIT DIMENSION () - WITH PANEL | HEIGHT | mm/in | 250 (295) / 9.8 (11.6) | | |
| | | WIDTH | mm/in | 570 (640) / 22.4 (25.2) | | |
| | | DEPTH | mm/in | 570 (640) / 22.4 (25.2) | | |
| UNIT WEIGHT (UNIT + PANEL) | | kg/lb | 22 + 2 / 48.5 + 4.4 | 23.2 / 50.7 + 4.4 | 23 + 2 / 50.7 + 4.4 | |
| CONDENSATE DRAIN SIZE | | mm/in | 19.05 / 3/4 | | | |
| PIPE CONNECTION | SIZE | TYPE | | FLARE VALVE | | |
| | | LIQUID | mm/in | 6.35 / 1/4 | | |
| | | GAS | mm/in | 9.52 / 3/8 | 12.70 / 1/2 | 15.88 / 5/8 |

NOTE :

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 - a) COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR
 - b) HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR
- 4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS C 9612 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1.4m BELOW FASCIA.
- 5) ALL INDOOR MODELS CAN BE USED FOR COOLING ONLY OR HEATPUMP APPLICATION.

MCMD-E

| MODEL | | INDOOR UNIT | | MCMD 020E | MCMD 025E | MCMD 028E |
|----------------------------|----------------------------------|---------------|-------------|------------------------------|--------------|--------------|
| NOMINAL COOLING CAPACITY | | Btu/h | | 19100 | 22200 | 27300 |
| | | kW | | 5.6 | 6.5 | 8.0 |
| NOMINAL HEATING CAPACITY | | Btu/h | | 21500 | 25200 | 30700 |
| | | kW | | 6.3 | 7.4 | 9.0 |
| POWER SOURCE | | V/Ph/Hz | | 220 - 240 / 1 / 50 | | |
| REFRIGERANT TYPE / CONTROL | | | | R22 / EXV | | |
| INDOOR UNIT | CONTROL | AIR DISCHARGE | | AUTOMATIC LOUVER (UP & DOWN) | | |
| | | OPERATION | | WIRELESS REMOTE CONTROL | | |
| | AIR FLOW | HIGH | l/s / CFM | 245 / 520 | 274 / 580 | 293 / 620 |
| | | MEDIUM | l/s / CFM | 217 / 460 | 250 / 530 | 269 / 570 |
| | | LOW | l/s / CFM | 192 / 406 | 231 / 490 | 245 / 520 |
| | EXTERNAL STATIC PRESSURE (H/M/L) | | Pa / in.wg. | 0 | 0 | 0 |
| | SOUND PRESSURE LEVEL (H/M/L) | | dBA | 48 / 46 / 43 | 50 / 47 / 46 | 51 / 48 / 47 |
| | UNIT DIMENSION | HEIGHT | mm/in | 218 / 8.58 | | |
| | | WIDTH | mm/in | 1080 / 42.52 | | |
| | | DEPTH | mm/in | 630 / 24.80 | | |
| UNIT WEIGHT | | kg/lb | 27 / 60 | 27 / 60 | 28 / 62 | |
| CONDENSATE DRAIN SIZE | | mm/in | 19.05 / 3/4 | | | |
| PIPE CONNECTION | SIZE | TYPE | | FLARE VALVE | | |
| | | LIQUID | mm/in | 6.35 / 1/4 | 9.52 / 3/8 | |
| | | GAS | mm/in | 15.88 / 5/8 | | |

NOTE:

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- 2) ALL UNITS ARE BEING TESTED AND COMPLY TO ISO 5151.
- 3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :
 - a) COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR
 - b) HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR
- 4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.
- 5) ALL INDOOR MODELS CAN BE USED FOR COOLING ONLY OR HEATPUMP APPLICATION.

MCMD-D/C

| MODEL | INDOOR UNIT | | | MCMD 040D | MCMD 050D | MCMD 062C | |
|----------------------------|------------------------------|-------------------------|-----------|--------------------|---|--------------|--------------|
| NOMINAL COOLING CAPACITY | Btu/h | | | 38200 | 47800 | 56000 | |
| | kW | | | 11.2 | 14.0 | 16.4 | |
| NOMINAL HEATING CAPACITY | Btu/h | | | 42700 | 54600 | 63100 | |
| | kW | | | 12.5 | 16.0 | 18.5 | |
| POWER SOURCE | V/Ph/Hz | | | 220 - 240 / 1 / 50 | | | |
| REFRIGERANT TYPE / CONTROL | | | | R22 / EXV | | | |
| INDOOR UNIT | CONTROL | AIR DISCHARGE OPERATION | | | AUTOMATIC LOUVER (UP & DOWN) & MANUAL LOUVER (BOTTOM) | | |
| | | | | | WIRELESS REMOTE CONTROL | | |
| | AIR FLOW | HIGH | l/s / CFM | 477 / 1010 | 491 / 1040 | 731 / 1550 | |
| | | MEDIUM | l/s / CFM | 420 / 890 | 448 / 950 | 623 / 1320 | |
| | | LOW | l/s / CFM | 368 / 780 | 387 / 820 | 472 / 1000 | |
| | SOUND PRESSURE LEVEL (H/M/L) | | | dBA | 54 / 53 / 52 | 54 / 53 / 52 | 56 / 53 / 46 |
| | UNIT DIMENSION | HEIGHT | mm/in | 249 / 9.80 | | 285 / 11.2 | |
| | | WIDTH | mm/in | 1714 / 67.40 | | 1903 / 74.9 | |
| | | DEPTH | mm/in | 670 / 26.30 | | 680 / 26.8 | |
| | UNIT WEIGHT | | | kg/lb | 70 / 154.3 | 85 / 187.4 | |
| | CONDENSATE DRAIN SIZE | | | mm/in | 19.05 / 3/4 | | |
| | PIPE CONNECTION | TYPE | | | FLARE VALVE | | |
| | | SIZE | LIQUID | mm/in | 9.52 / 3/8 | | 12.7 / 1/2 |
| GAS | | | mm/in | 19.05 / 3/4 | | | |

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MCCD-C

| MODEL | INDOOR UNIT | | | MCCD 010C | MCCD 015C | MCCD 020C | MCCD 025C | |
|----------------------------|----------------------------------|-------------------------|-----------|--------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| NOMINAL COOLING CAPACITY | Btu/h | | | 9600 | 12300 | 19100 | 22200 | |
| | kW | | | 2.8 | 3.6 | 5.6 | 6.5 | |
| NOMINAL HEATING CAPACITY | Btu/h | | | 10900 | 13600 | 21500 | 25200 | |
| | kW | | | 3.2 | 4.0 | 6.3 | 7.4 | |
| POWER SOURCE | V/Ph/Hz | | | 220 - 240 / 1 / 50 | | | | |
| REFRIGERANT TYPE / CONTROL | | | | R22 / EXV | | | | |
| INDOOR UNIT | CONTROL | AIR DISCHARGE OPERATION | | | DUCTED | | | |
| | | | | | WIRED CONTROL | | | |
| | AIR FLOW | SUPER HIGH | l/s / CFM | - | - | - | - | |
| | | HIGH | l/s / CFM | 142 / 300 | 241 / 510 | 330 / 700 | 345 / 730 | |
| | | MEDIUM | l/s / CFM | 123 / 260 | 208 / 440 | 321 / 680 | 340 / 720 | |
| | | LOW | l/s / CFM | 104 / 220 | 170 / 360 | 293 / 620 | 274 / 580 | |
| | EXTERNAL STATIC PRESSURE (H/M/L) | | | Pa (in.wg.) | 49/39/29(0.20/0.16/0.12) | 49/39/20(0.20/0.16/0.08) | 69/65/42(0.28/0.26/0.17) | 41/31/18(0.16/0.12/0.07) |
| | SOUND PRESSURE LEVEL (H/M/L) | | | dBA | 33 / 30 / 26 | 37 / 34 / 29 | 38 / 36 / 34 | 40 / 39 / 36 |
| | UNIT DIMENSION | HEIGHT | mm/in | 261 / 10.28 | 261 / 10.28 | 261 / 10.28 | 261 / 10.28 | |
| | | WIDTH | mm/in | 765 / 30.12 | 905 / 35.63 | 1065 / 41.93 | 1200 / 47.24 | |
| | | DEPTH | mm/in | 411 / 16.18 | 411 / 16.18 | 411 / 16.18 | 411 / 16.18 | |
| | WEIGHT | | | kg/lb | 17 / 37.5 | 21 / 46.3 | 22 / 48.5 | 25 / 55.1 |
| | CONDENSATE DRAIN SIZE | | | mm/in | 19.05 / 3/4 | | | |
| PIPE CONNECTION | TYPE | | | FLARE VALVE | | | | |
| | SIZE | LIQUID | mm/in | 6.35 / 1/4 | | 9.52 / 3/8 | | |
| | | GAS | mm/in | 9.52 / 3/8 | 12.70 / 1/2 | 15.88 / 5/8 | | |

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MCCD-C

| MODEL | | INDOOR UNIT | | MCCD 030C | MCCD 040C | MCCD 050C | MCCD 060C |
|----------------------------|----------------------------------|---------------|-------------|-------------------------------------|-------------------------------------|--------------------------------------|-------------------------------------|
| NOMINAL COOLING CAPACITY | | Btu/h | | 30700 | 38200 | 47800 | 56000 |
| | | kW | | 9.0 | 11.2 | 14.0 | 16.4 |
| NOMINAL HEATING CAPACITY | | Btu/h | | 34100 | 42700 | 54600 | 63100 |
| | | kW | | 10.0 | 12.5 | 16.0 | 18.5 |
| POWER SOURCE | | V/Ph/Hz | | 220 - 240 / 1 / 50 | | | |
| REFRIGERANT TYPE / CONTROL | | | | R22 / EXV | | | |
| INDOOR UNIT | CONTROL | AIR DISCHARGE | | DUCTED | | | |
| | | OPERATION | | WIRED CONTROL | | | |
| | AIR FLOW | SUPER HIGH | l/s / CFM | 425 / 900 | 519 / 1100 | 750 / 1590 | 779 / 1650 |
| | | HIGH | l/s / CFM | 392 / 830 | 500 / 1060 | 651 / 1380 | 722 / 1530 |
| | | MEDIUM | l/s / CFM | 359 / 760 | 467 / 990 | 604 / 1280 | 675 / 1430 |
| | | LOW | l/s / CFM | 335 / 710 | 425 / 900 | 571 / 1210 | 609 / 1290 |
| | EXTERNAL STATIC PRESSURE (H/M/L) | | Pa (in.wg.) | 206/167/127/88(0.83/0.67/0.51/0.35) | 206/176/127/93(0.83/0.71/0.51/0.37) | 176/157/137/108(0.71/0.63/0.55/0.43) | 176/157/137/98(0.71/0.63/0.55/0.39) |
| | SOUND PRESSURE LEVEL (H/M/L) | | dBA | 49 / 46 / 42 / 38 | 51 / 49 / 45 / 41 | 53 / 52 / 50 / 47 | 55 / 53 / 50 / 47 |
| | UNIT DIMENSION | HEIGHT | mm/in | 378 / 14.88 | 378 / 14.88 | 378 / 14.88 | 378 / 14.88 |
| | | WIDTH | mm/in | 929 / 36.57 | 1045 / 41.14 | 1299 / 51.14 | 1499 / 59.02 |
| | | DEPTH | mm/in | 541 / 21.30 | 541 / 21.30 | 541 / 21.30 | 541 / 21.30 |
| | WEIGHT | | kg/lb | 39 / 85.98 | 42 / 92.59 | 54 / 119.05 | 62 / 136.69 |
| | CONDENSATE DRAIN SIZE | | mm/in | 19.05 / 3/4 | | | |
| PIPE CONNECTION | TYPE | | FLARE VALVE | | | | |
| | SIZE | LIQUID | mm/in | 9.52 / 3/8 | | | 12.70 / 1/2 |
| | | GAS | mm/in | 15.88 / 5/8 | 19.05 / 3/4 | | |

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HRB

| MODEL | | | HRB 030A | HRB 050A | HRB 080A | HRB 100A | HRB 150A | HRB 200A |
|---------------------|--------|------------|-------------|-------------|-------------|-------------|-------------|-------------|
| POWER INPUT | | W | 175 | 287 | 437 | 607 | 720 | 1400 |
| AIR FLOW | HIGH | CFM / m³/h | 177 / 300 | 294 / 500 | 471 / 800 | 589 / 1000 | 883 / 1500 | 1177 / 2000 |
| | MEDIUM | CFM / m³/h | 118 / 220 | 261 / 444 | 377 / 640 | 471 / 800 | 783 / 1330 | 942 / 1600 |
| | LOW | CFM / m³/h | 88 / 150 | 197 / 335 | 294 / 500 | 383 / 650 | 683 / 1160 | 824 / 1400 |
| EXT STATIC PRESSURE | HIGH | Pa | 70 | 70 | 90 | 110 | 150 | 150 |
| | MEDIUM | Pa | 60 | 70 | 90 | 110 | 150 | 150 |
| | LOW | Pa | 50 | 70 | 90 | 100 | 150 | 150 |
| DIMENSION | LENGTH | mm / in | 1200 / 47.2 | 1236 / 48.6 | 1408 / 55.4 | 1708 / 67.2 | 1775 / 69.9 | 1735 / 68.3 |
| | WIDTH | mm / in | 900 / 35.4 | 1138 / 44.8 | 1264 / 49.7 | 1345 / 52.9 | 1345 / 52.9 | 1687 / 66.4 |
| | HEIGH | mm / in | 290 / 11.4 | 321 / 12.6 | 386 / 15.2 | 433 / 17.0 | 460 / 18.1 | 600 / 23.6 |

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