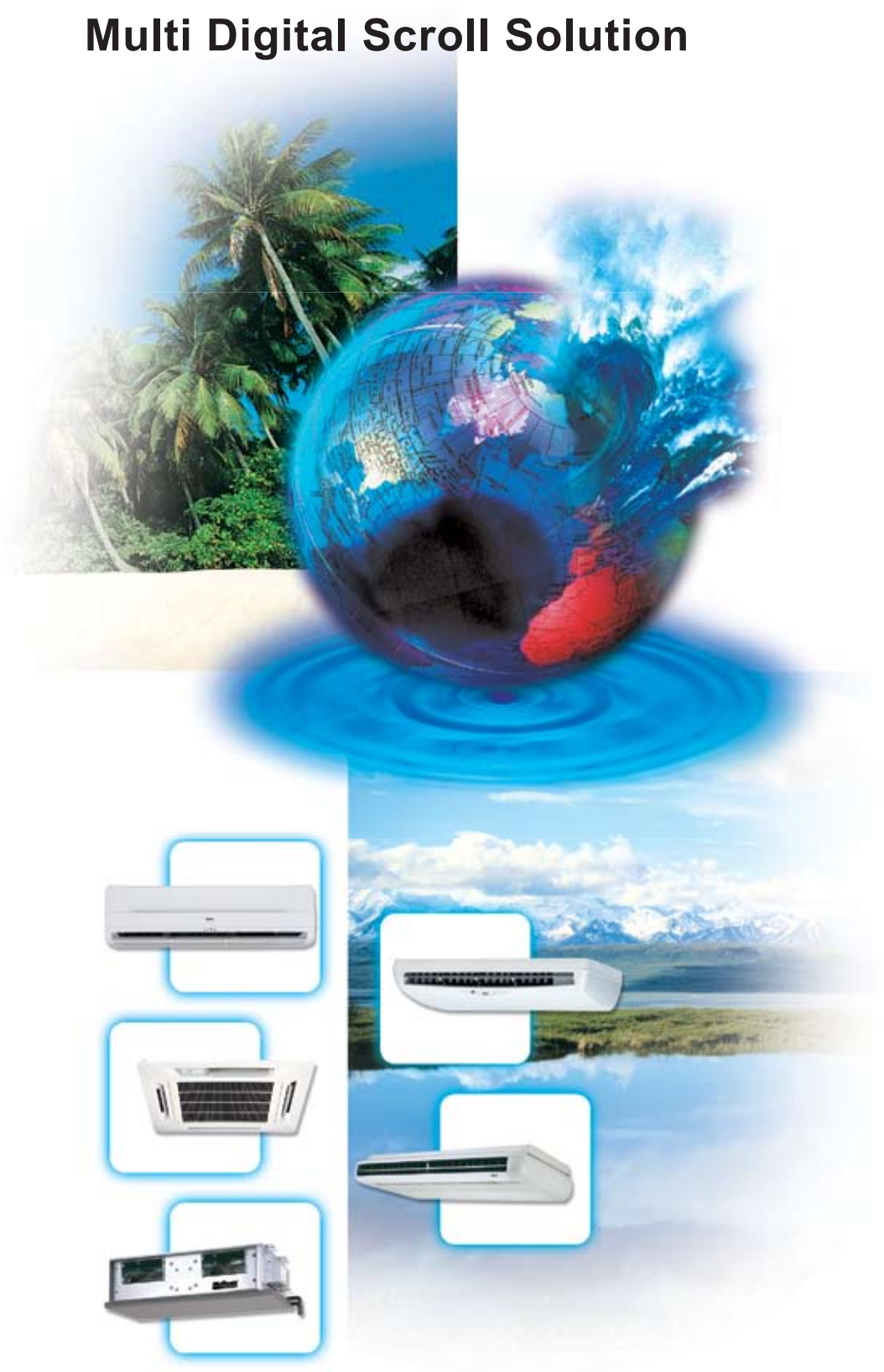
Multi Digital Scroll Solution



McQuay® Air Conditioning

Engineered for flexibility and performance.™

CONTENTS:

Multi Digital Scroll System

Specification

GLOBAL DISTRIBUTION NETWORK

Americas

• USA • Puerto Rico • Mexico • Paraguay • Uruguay • Guadaloupe •

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• Australia • New Zealand •

Middle East & Africa

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• Mauritius • South Africa • Kenya • Madagascar • Ghana • Nigeria • Tanzania •

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• Belgium • Tunisia • Croatia • Cyprus • Lithuania • Yugoslavia • Malta • Slovenia • Ukraine •
• Turkey • Finland • Czech Republic • Romania •

Asia

• Cambodia • China • Hong Kong • Indonesia • Maldives •
• Malaysia • Singapore • Thailand • Vietnam • Pakistan •

Product Overview

		
Model Name	**MDS A Series**	**MDS-B Series (Single Conder**
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 Ser**
Model Range	MWMD 009/010/015/020/025G	MCKD 020/025/030/040/0
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 Se**
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

	
nsing 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

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

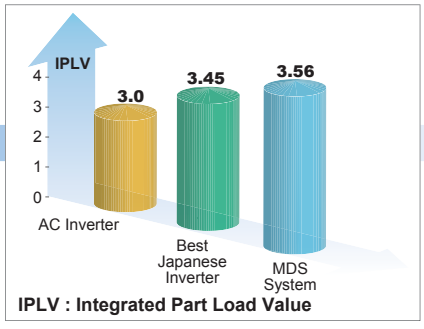
		
eries	**Ceiling Concealed C Series**	**HRB Heat Exchanger**
062C	MCCD 010/015/020/025/030/040/050/060C	HRB 030/050/080/100/150/200A
	2.8 - 16.4	-
	3.2 - 18.5	-

System Features

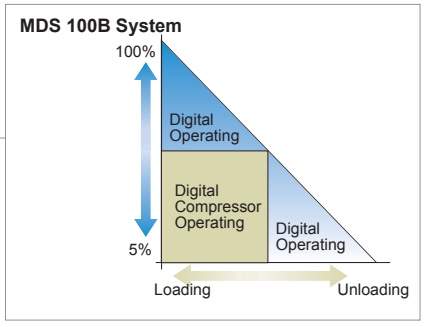
Utilising the latest state-of-the-art technology, the McQuay Multi Digital Scroll System (MDS) is seen as the next generation products for high-efficiency air conditioning.

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.



IPLV : Integrated Part Load Value



Energy Saving

Conventional System

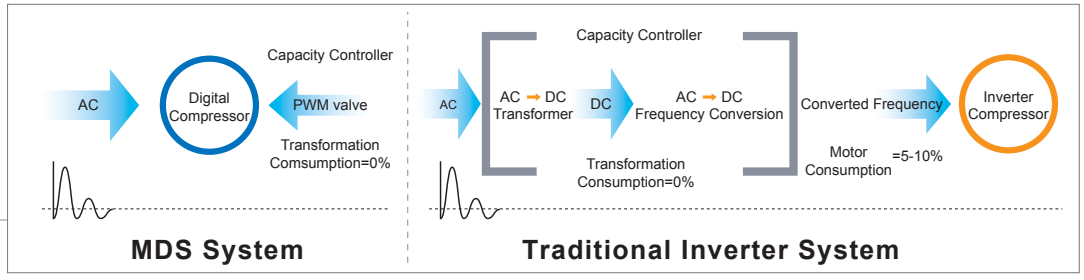
MDS System

More Economical Operation

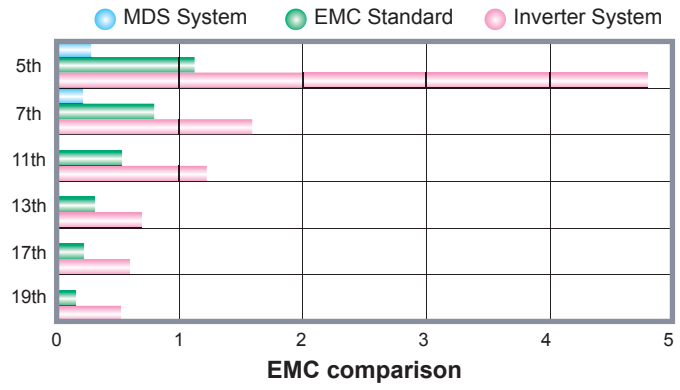
With high IPLV, MDS is able to operate at high Seasonal Energy Efficient Ratio (SEER) region. This indicates that MDS is able to supply the required capacity with lower power consumption, in other words, lower electricity bills.

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.



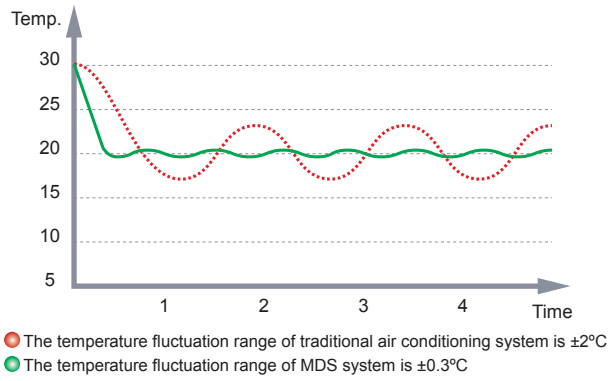
Excellent Electromagnetic Compatibility



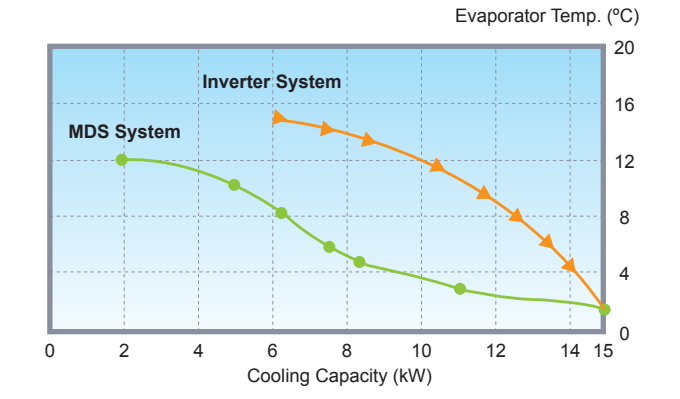
Unlike variable speed compressors air conditioners, MDS runs at a constant speed throughout the operation, thus there is NEGLIGIBLE electromagnetic interference. This unique feature eliminates the need for expensive electro-magnetic suppression electronics required to ensure electromagnetic compatibility.

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 ±0.3°C, thereby providing unprecedented levels of comfort.



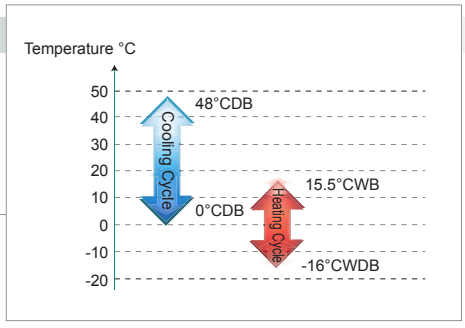
Excellent Dehumidifying Performance



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 inhabited.

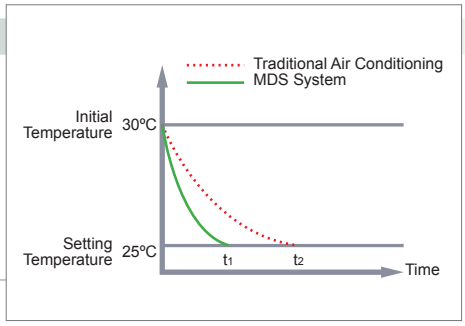
Wide Operating Range

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



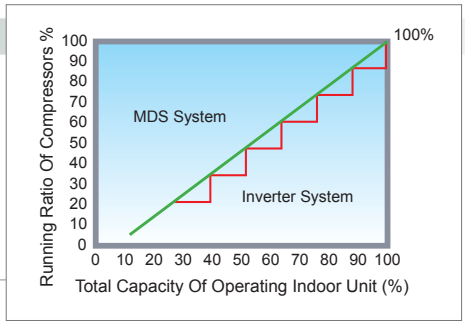
Rapid Cooling and Heating Capability

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.



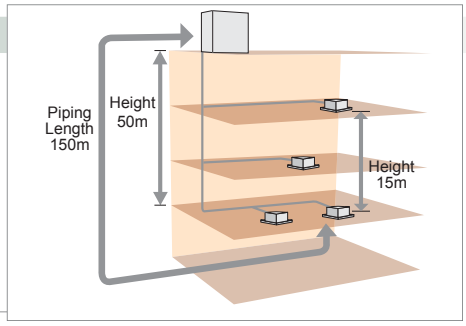
Intelligent Capacity Modulation

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

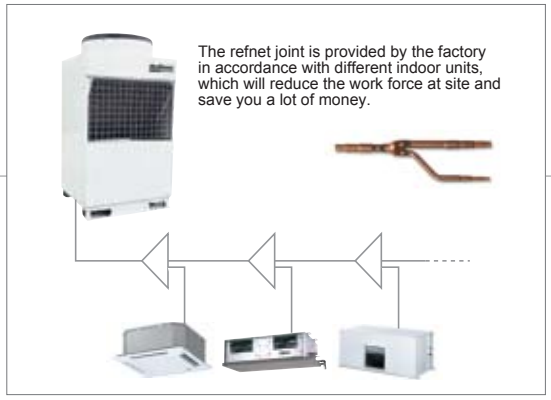
MDS uses the single outdoor multiple indoors combination. This concept has greatly reduced the outdoors units and enhances flexibility during installation.

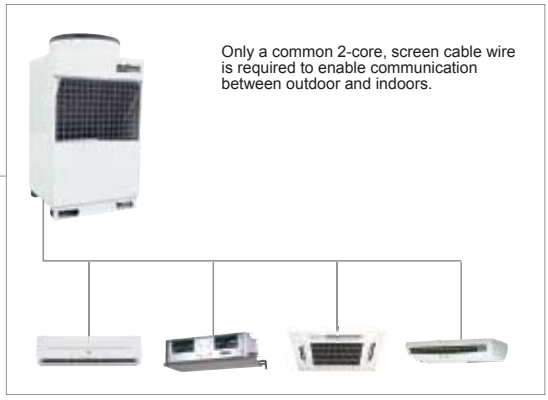
Better Solution

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.

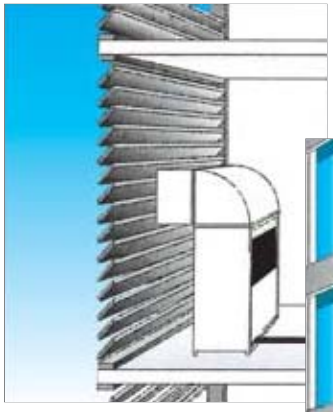
Simple Installation

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





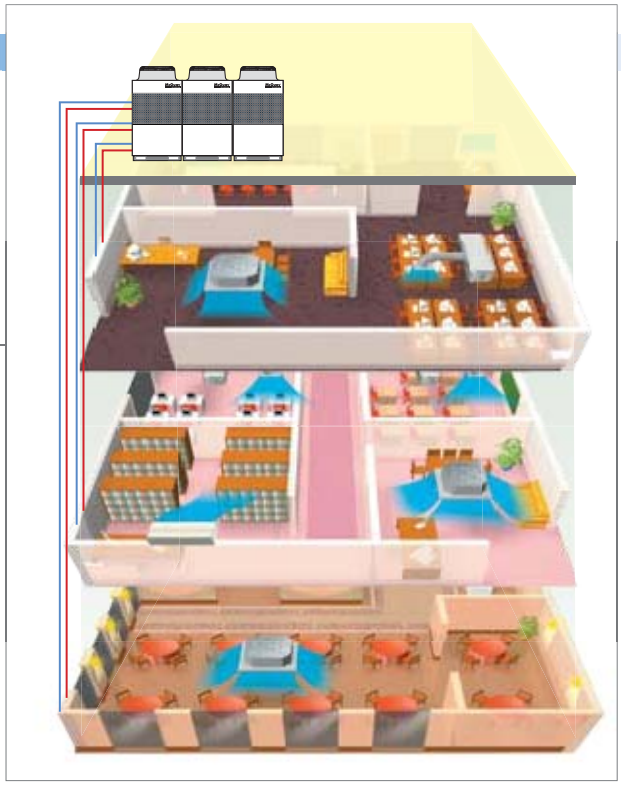
Floor by Floor Installation



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.

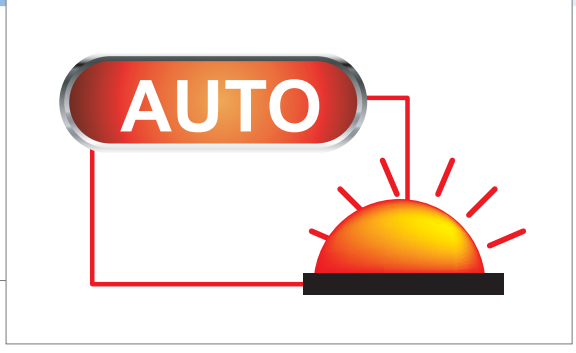
Adapts Easily to Any Floor Plan

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

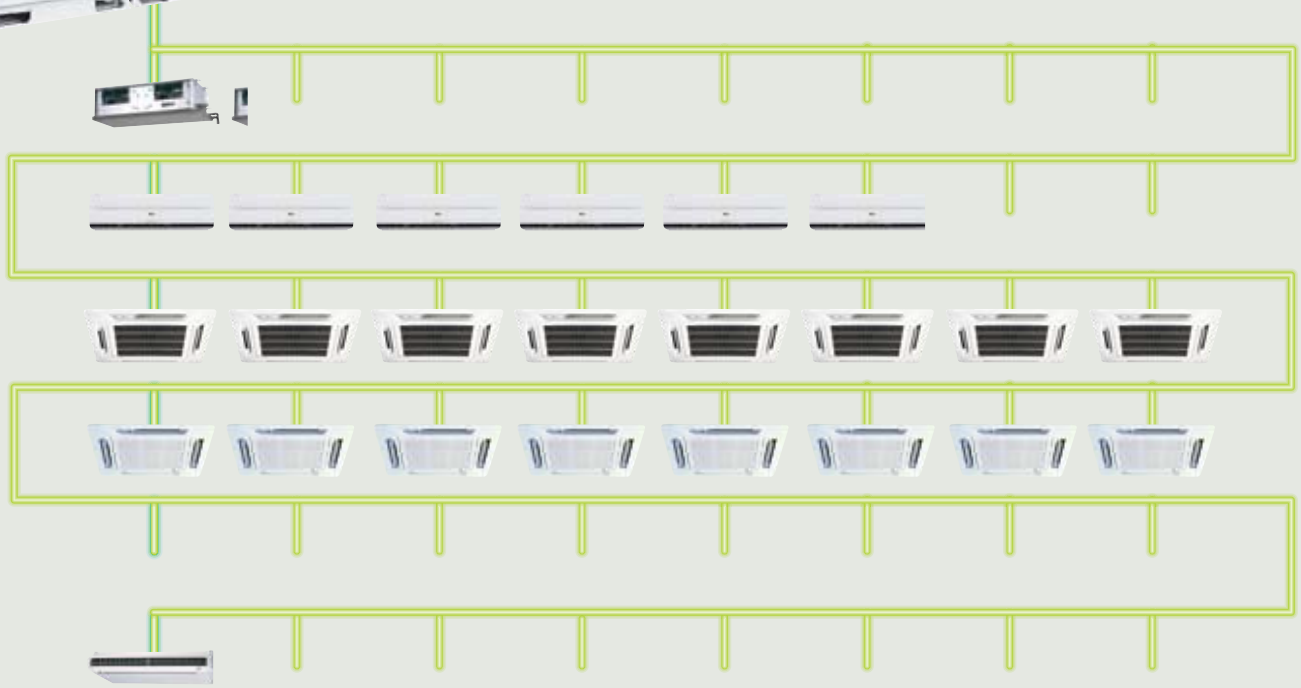
The MDS System Management Software is designed with user-friendly interface, enable simple monitoring and control of the whole system via a computer.

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

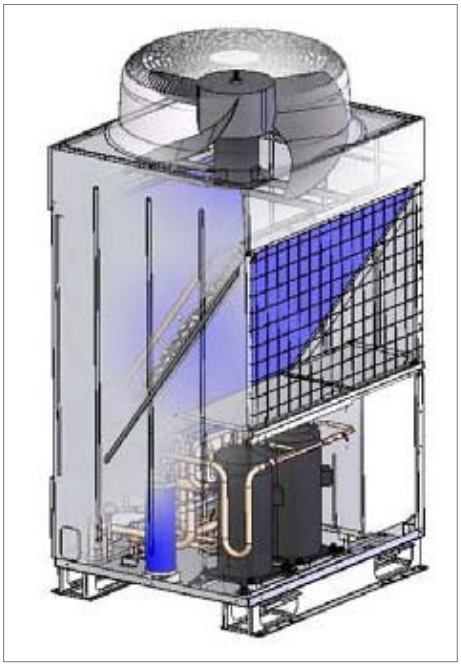
Consideration:

- 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

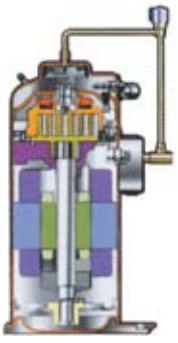
The brain of the MDS system is the compressor which is incorporated in the outdoor condensing unit. With this reliable technology, the outdoor is constructed in a uniform and solid design and focusing on smaller footprint to provide better space utilisation.

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 requirment for bypass valve.



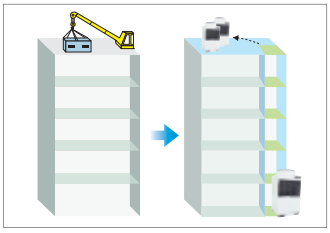
Unique Return Oil Technology

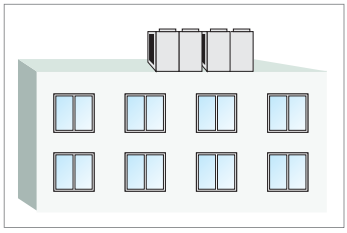
The comparison between MDS system and inverter system.

	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.

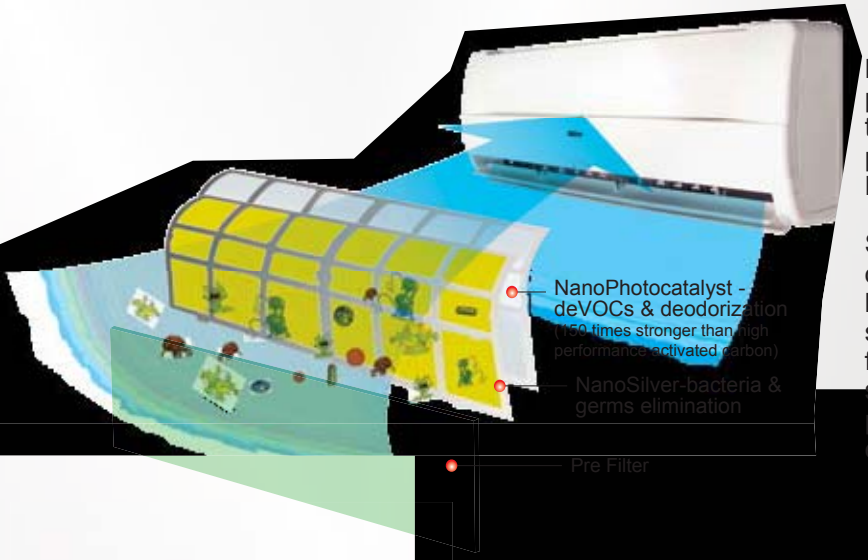
Quiet Operation

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

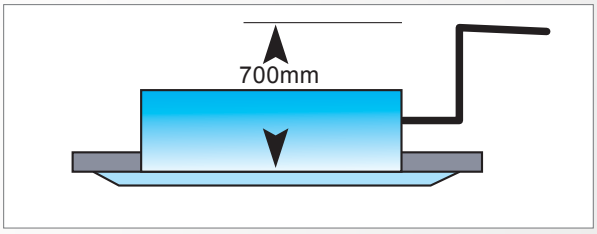
The slim panel can be blended easily into any interior decoration and design.

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

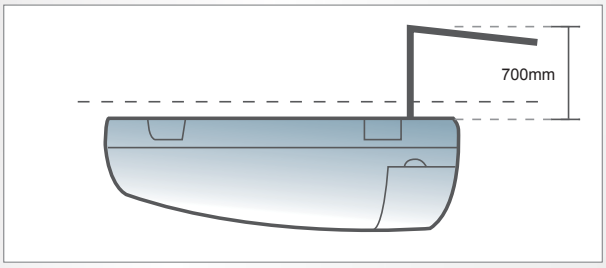
Ceiling and Floor Installation Option

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.

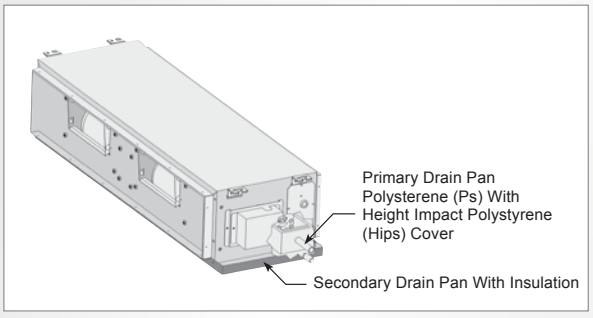
Automatic Air Swing

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.

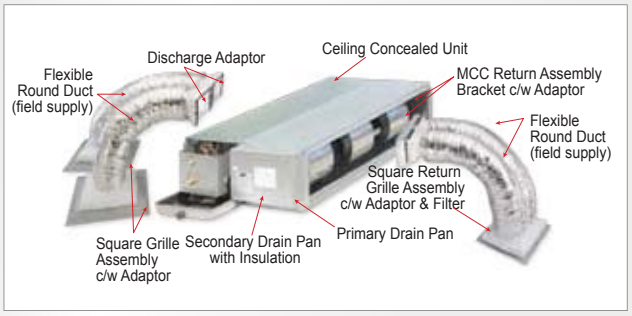


Flexibility In System Design

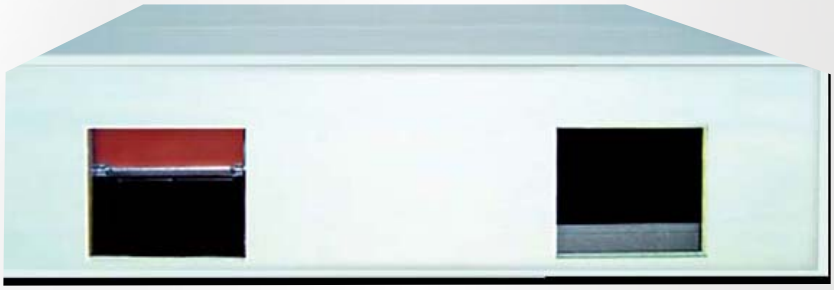
The unit offers fan motor that can operate up to 4 speeds, thus provide choices of external static pressure for designing ducting system. In addition, a range of MCCD-C model with optional specification of low external static pressure is also provided. Please refer to the technical specification of MCCD-C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

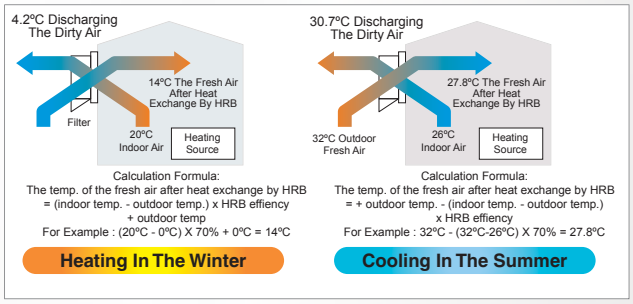


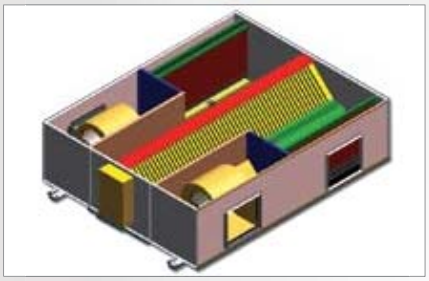
HRB 030/050/080/100/150/200 A	
Capacity	300m³/h - 2000 m³/h 177 cfm - 1177 cfm

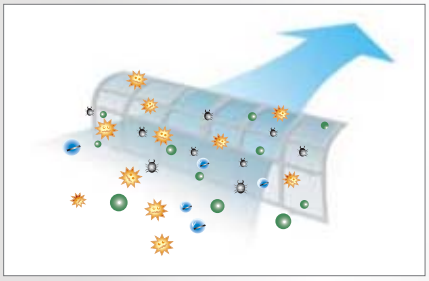
This highly efficient Heat Exchanger (HRB) is able to introduce fresh air into the confined room or area and at the same time, it is able to reduce power consumption up to 60%. The HRB are available in 6 sizes, namely 300m³/h, 500m³/h, 800m³/h, 1000m³/h, 1500m³/h and 2000m³/h.

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

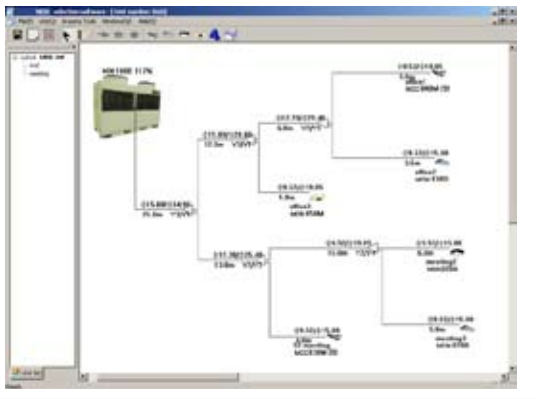
For central monitoring and control purposes, the MDS offers a real time system. This software is the system to human interface, allowing users or owners to monitor and to control the entire MDS system.

With this software, user or owners is able to ;

- Monitor & control any MDS indoor & o utdoor 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	9.52 / 3/8
		SIZE GAS	mm/in	15.88 / 5/8	19.05 / 3/4	19.05 / 3/4	19.05 / 3/4

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 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	15.88/0.625
		SIZE GAS	mm/in	28.6/1.125	28.6/1.125	28.6/1.125	34.9/1.375

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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 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	1840/72.4
		WIDTH	mm/in	1990/78.3	1990/78.3	1990/78.3	1990/78.3
		DEPTH	mm/in	840/33.0	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	Flare/Brazed	Flare/Brazed
		SIZE LIQUID	mm/in	15.88/0.625	15.88/0.625	19.05/0.75	19.05/0.75
		SIZE GAS	mm/in	34.9/1.375	34.9/1.375	38.1/1.5	38.1/1.5

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b) HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR
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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			**MDS120BM+MDS150BS**	**MDS150BM+MDS130BS**	**MDS150BM+MDS150BS**	**MDS160BM+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	1840/72.4
		WIDTH	mm/in	2290/90.2	2590/102.0	2590/102.0	2590/102.0
		DEPTH	mm/in	840/33.0	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	Flare/Brazed	Flare/Brazed
		SIZE LIQUID	mm/in	19.05/0.75	19.05/0.75	19.05/0.75	19.05/0.75
		SIZE GAS	mm/in	41.3/1.625	41.3/1.625	41.3/1.625	41.3/1.625

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b) HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR
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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
		SIZE 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			
		SIZE GAS	mm/in	15.88 / 5/8			19.05 / 3/4	

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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 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	TYPE			FLARE VALVE		
		SIZE	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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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 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	TYPE			FLARE VALVE		
		SIZE	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		AUTOMATIC LOUVER (UP & DOWN) & MANUAL LOUVER (BOTTOM)		
		OPERATION		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
		SIZE GAS	mm/in	19.05 / 3/4		

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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.
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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		DUCTED			
		OPERATION		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
		SIZE GAS	mm/in	9.52 / 3/8	12.70 / 1/2	15.88 / 5/8	

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b) HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR
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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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b) HEATING - 20°C DB INDOOR AND 7°C DB / 6°C WB OUTDOOR
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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 / m^3/h	177 / 300	294 / 500	471 / 800	589 / 1000	883 / 1500	1177 / 2000
	MEDIUM	CFM / m^3/h	118 / 220	261 / 444	377 / 640	471 / 800	783 / 1330	942 / 1600
	LOW	CFM / m^3/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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HEATING - 20°C DB / 15°C WB INDOOR AND 7°C DB / 6°C WB OUTDOOR

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