Braemar
By SEELEY INTERNATIONAL

VRF

Commercial Air Conditioning Systems

SEELEY INTERNATIONAL

World leading climate control solutions

Seeley International is Australia's largest air conditioning manufacturer and a global leader in developing ingenious, energy-efficient cooling and heating products.

AIRA By SEELEY INTERNATIONAL

Commercial air conditioners, heaters & HCV

Braemar By SEELEY INTERNATIONAL

Refrigerated air conditioning range including VRF (heat pump and heat recovery)

Industrial & commercial evaporative air conditioners

Climate Wizard® By SEELEY INTERNATIONAL

Indirect evaporative air conditioners

Coolerado® By SEELEY INTERNATIONAL

Indirect evaporative air conditioners

Contents

Why Braemar VRF?

Braemar offers the latest generation in VRF technology with a number of clever features that provide outstanding energy savings, excellent efficiency, airflow and performance in combination with smart management and reliable operation.

Comprehensive lineup, featuring the latest generation in VRF technology

Mini VRF ranging from 8-16 kW

Large capacity heat pump and heat recovery VRF, up to 180 kW

12 indoor unit types

A range of control options

Excellent efficiency, airflow and performance

Seven speed DC inverter fan motor, DC outdoor motor and DC compressor

Outstanding energy savings

Fast start due to outstanding energy-saving all DC inverter technology, including compressors, fan motors along with advanced and intelligent software controlling the entire system

Energy-saving mode

Comfortable operation

Wider operating range

Low noise control technology, customisable to users' needs

Filter clean reminder

High stability system

Designed without a liquid receiver

Outstanding oil circulating control technology

High-efficiency sub-cooling technology

Reduced refrigerant charge

Flexible design

Up to 1,000m total pipe length

High ESP outdoor fan

Up to 1,500m total communication wire

Up to 80 indoor units on one system

Simple wiring

Powerful and intelligent commissioning software

Safe operation

Basic module operation in emergency

Compressor operation in emergency

Smart management

Central control of several indoor units with common WRC (wired remote control)

Intelligent network

CAN Bus communication technology allows for system response speed to be faster and for communication to be more reliable

Flexible linkage control

More visualised operation platform

Power consumption calculating*

*Power calculation is an estimate of power used and may not fully cover all power input per indoor unit

The VRF product range is sourced from the world's largest and most experienced manufacturer of refrigerated systems – Gree.

It is backed up by world class Australian manufacturer, Seeley International, offering local service and support.

Comprehensive lineup

Flexible Mini VRF options

Comprehensive range of indoor combinations

Mini VRF outdoor units are available in size ranging from **8 kW** to **16 kW** single phase.

Large capacity VRF – 180 kW

MCHX heat pump and MCRX heat recovery

Comprehensive range of indoor combinations

The maximum capacity of a single outdoor unit can reach **45 kW**.
Groups of individual units can also be combined reaching **180 kW** capacity.

Hyper-efficient air conditioning

Combination VRF and Climate Wizard indirect evaporative air conditioning

Climate Wizard® By SEELEY INTERNATIONAL

Take control of electrical kW demand, particularly during summer, when the cooling loads increase

Extend the life of existing refrigerated equipment by reducing the load on refrigerated equipment

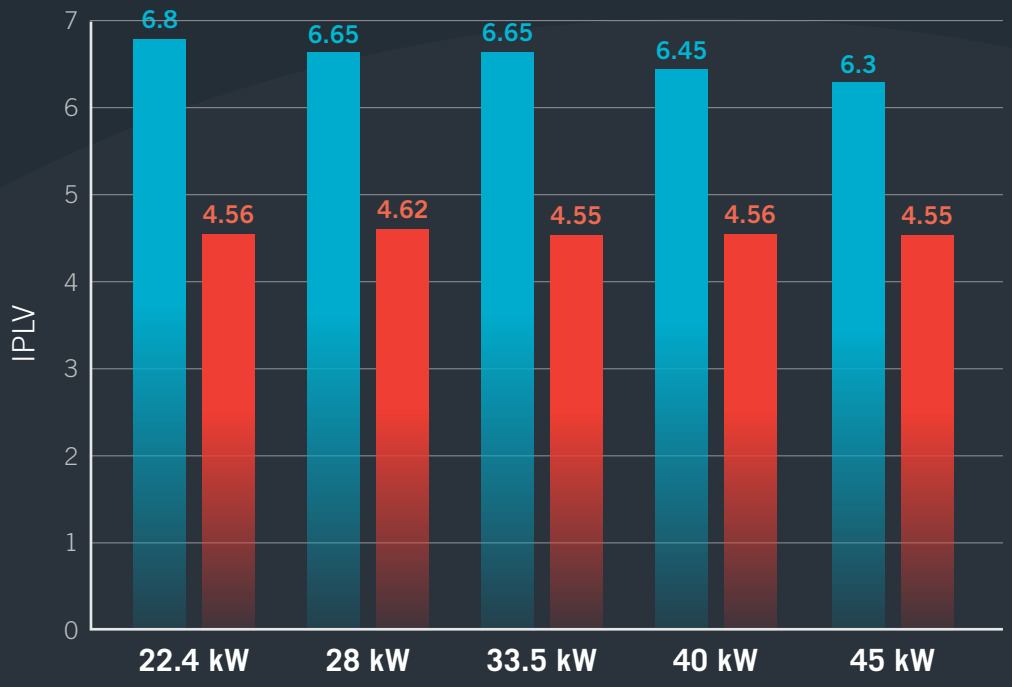
Simple and reliable solution to improve COP/EER for various regulatory requirements

See p. 39 for more information

Energy savings

High efficiency – IPLV (Integrated Part Load Value)

Braemar Generation 5

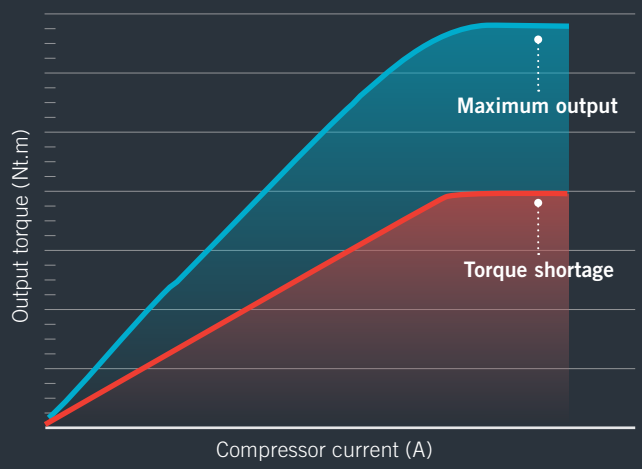


Braemar Generation 5

Other Generation 4

DC inverter compressor

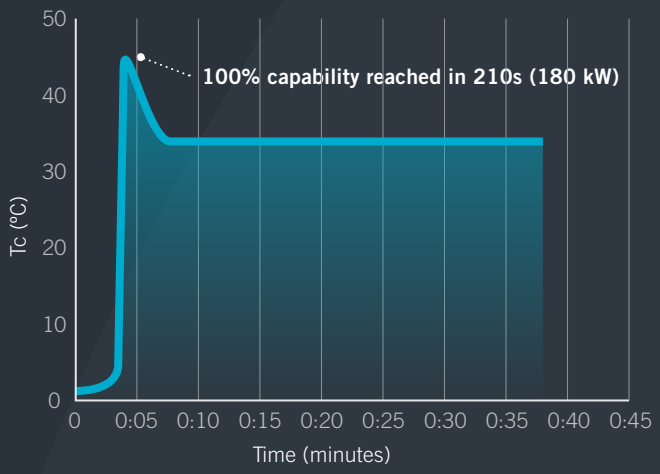
Torque control



Braemar Generation 5
Reaches maximum output quickly and easily

Traditional torque control
Raises slowly

Fast start for heating



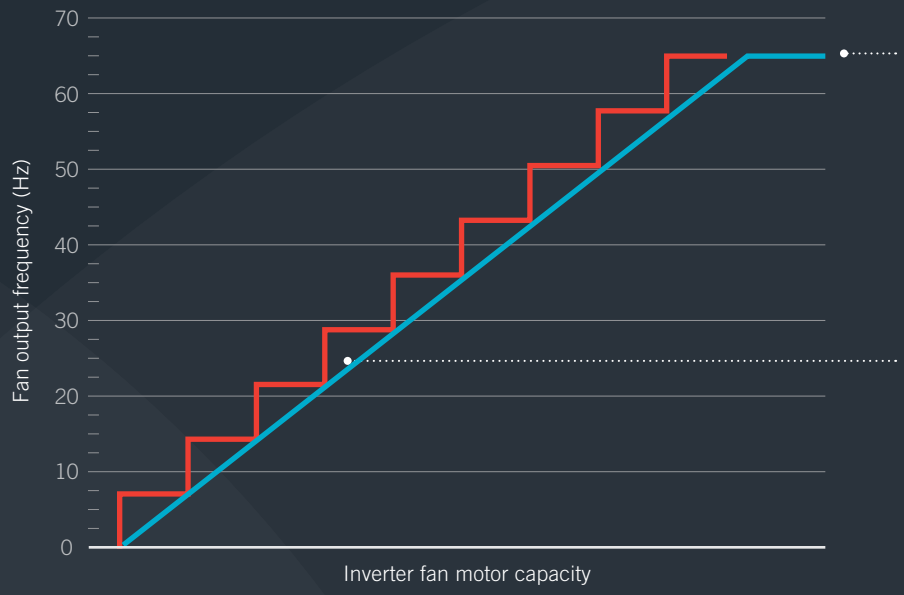
All compressors have the ability to reach maximum output in only 3 1/2 minutes.

Once the heating requirement has been reached, the system will decrease the compressor and fan speeds to increase efficiency whilst maintaining maximum output.

Energy savings

Inverter fan motor

Stepless regulation



Braemar Generation 5 speed-up

High efficiency

Low noise

Good stability

Traditional speed-up

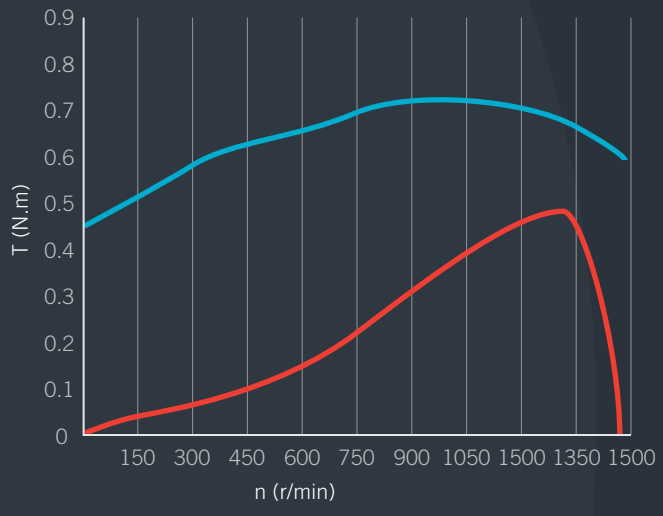
Low efficiency

High noise

Poor stability

Brushless DC inverter fan motor

Load curve

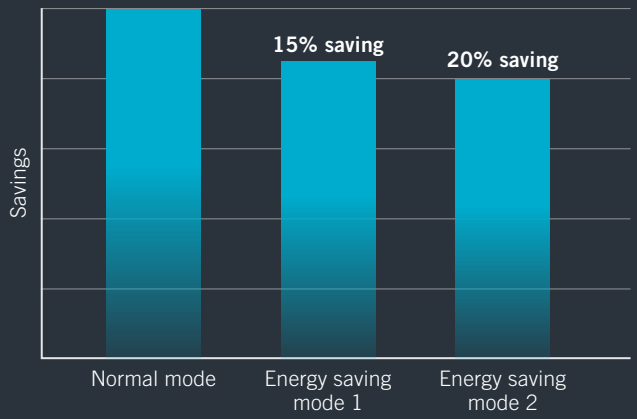


30% increase in efficiency compared to previous motor designs, whilst providing a smoother and quieter operation.

Wider operating range with a lowest speed of 100r/min.

Energy saving mode

Savings



During electricity shortage period, the unit can operate under Energy-saving mode.

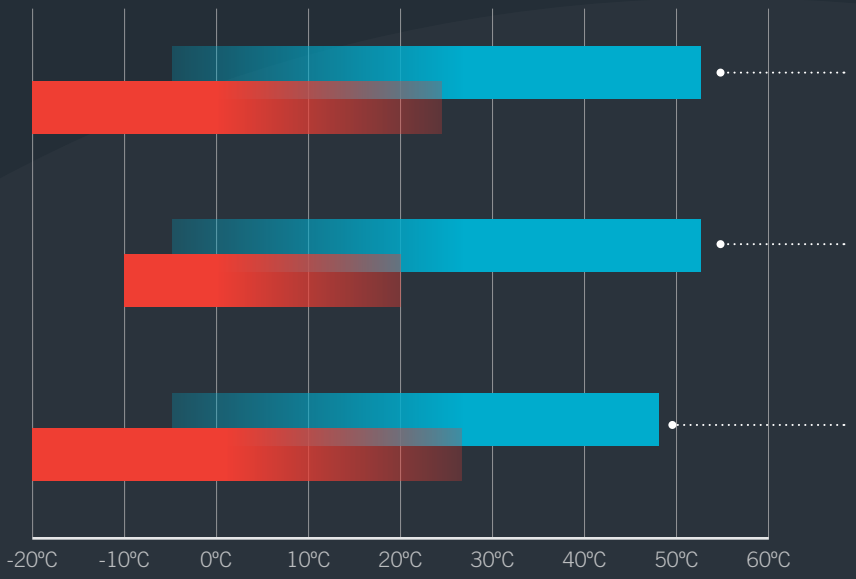
Energy-saving mode can be set through:

- Function button on the outdoor unit's PCB (printed circuit board)
- Wired Remote Control of any indoor unit
- Long Distance Monitoring Software on PC

Comfortable operation

Wider operating range

Outdoor operating range



Braemar Generation 5 Heat Pump
Cooling: -5°C ~ 52°C
Heating: -20°C ~ 24°C

Braemar Generation 5 Heat Recovery
Cooling: -5°C ~ 52°C
Heating: -10°C ~ 20°C

Braemar Generation 5 Mini VRF
Cooling: -5°C ~ 48°C
Heating: -20°C ~ 27°C

Low noise

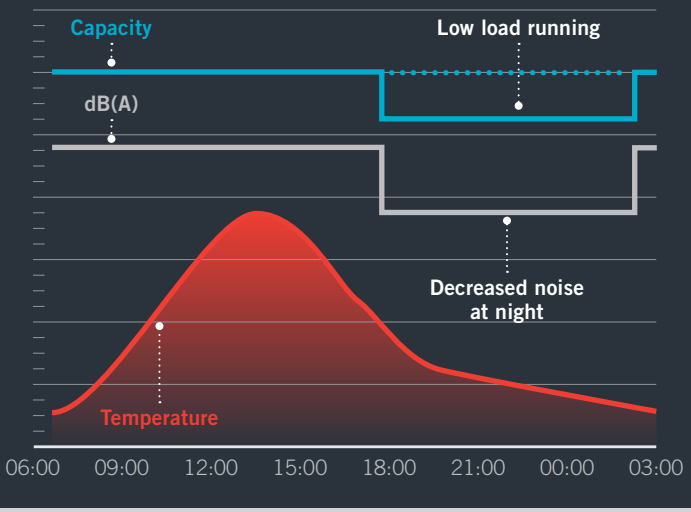
Two modes

Forcible low-noise mode

Outdoor unit can be set to 'Low noise' mode, where it can be as quiet as **45dB(A)**.

Low-noise control technology

9 night-time automatic silent modes can be selected according to users' needs.



Other comfort features

Filter clean reminder

The filter reminder is provided on IDU. Different cleaning stages can be set according to users' needs.

Vacation function

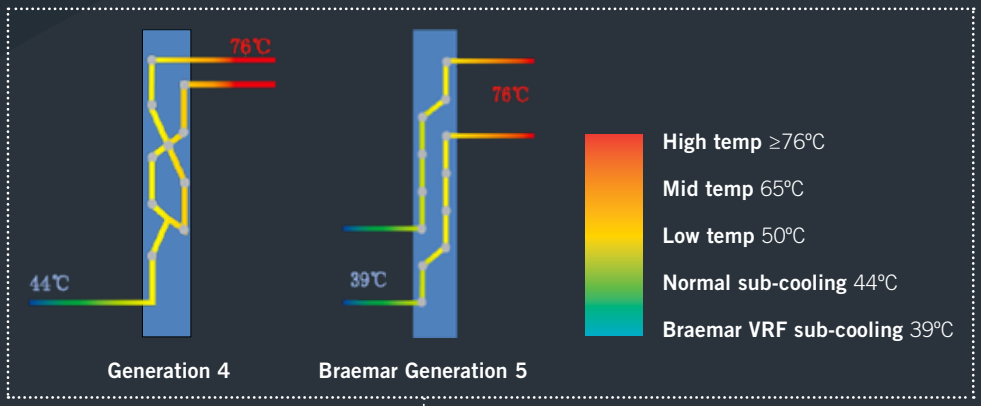
In winter, under heating mode, vacation function can keep the indoor ambient temperature around 8°C to avoid freezing with little energy consumption.

High stability system

High-efficiency sub-cooling technology

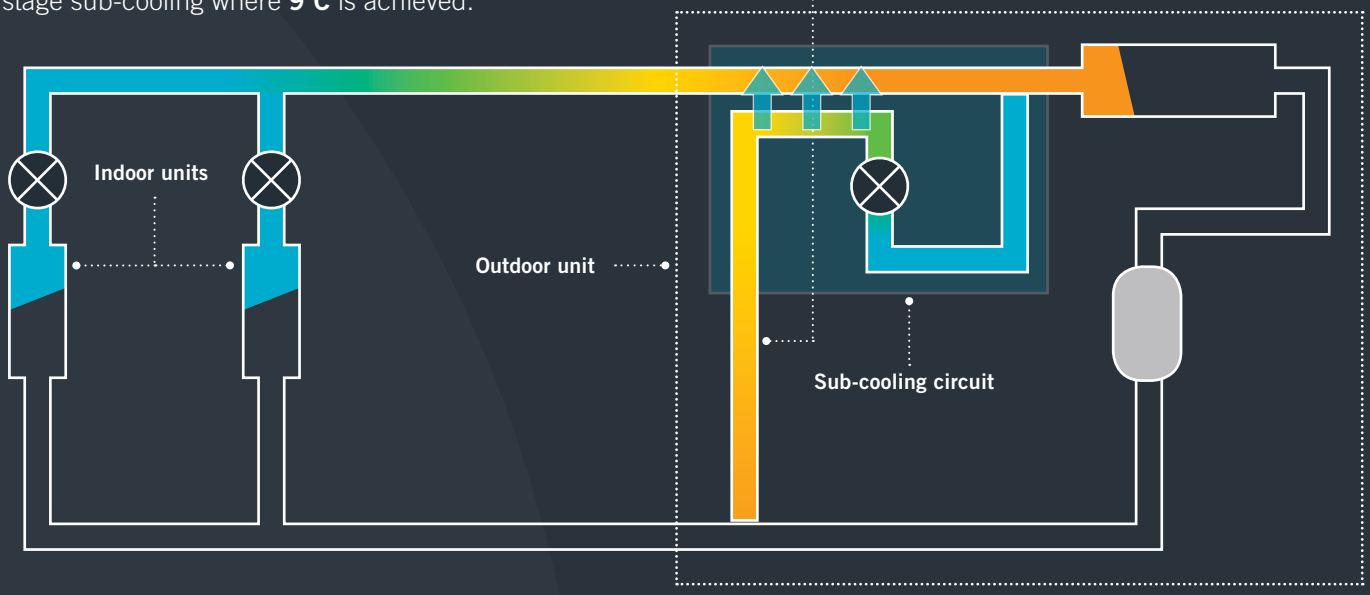
First-stage sub-cooling

The heat exchange loop controls the first stage of sub-cooling, reaching **11°C**.



Second-stage sub-cooling

A plate heat exchanger is utilised to provide second stage sub-cooling where **9°C** is achieved.



Other high stability features

Refrigerant control: no liquid receiver

The Braemar VRF system is designed without liquid receiver and the excess refrigerant is stored in the piping, which can minimise the refrigerant charging volume and enhance the control accuracy of refrigerant.

Outstanding oil circulating control technology

Two-stage oil-separating mechanism.

1st stage: Adopts filter expansion valve separating efficiency reaches **98%**

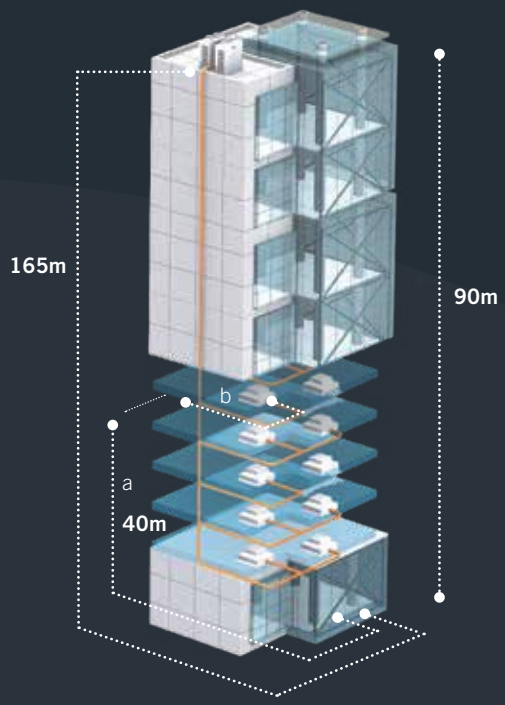
2nd stage: Separating the remaining 2% refrigeration oil. Separating efficiency reaches **95%**

Total separating efficiency = **99%**

Easy installation

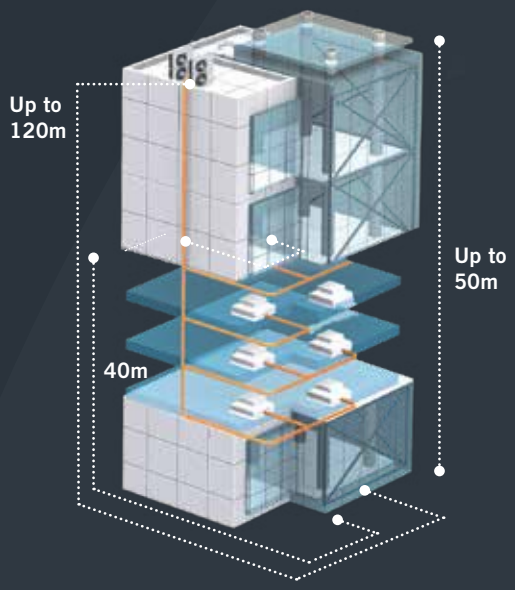
Extended pipe length
MCHX & MCRX Series

	Braemar Gen 5 VRF	Other brand
Total pipe length	1,000m	1,000m
Pipe length ODU to farthest IDU	165m	165m
Pipe length 1st branch to farthest IDU	a-b< = 40m	40m
Height difference (ODU to IDU)	90m	90m
Height difference (IDU to IDU)	30m	30m
Main pipe length	90m	90m



Extended pipe length
MCMX Series

	Braemar Gen 5 VRF 08, 10	Braemar Gen 5 VRF 12, 14, 16
Total pipe length	250m	300m
Pipe length ODU to farthest IDU	100m	120m
Pipe length 1st branch to farthest IDU	40m	40m
Height difference (ODU above IDU)	30m	50m
Height difference (ODU below IDU)	30m	40m
Height difference (IDU to IDU)	10m	15m



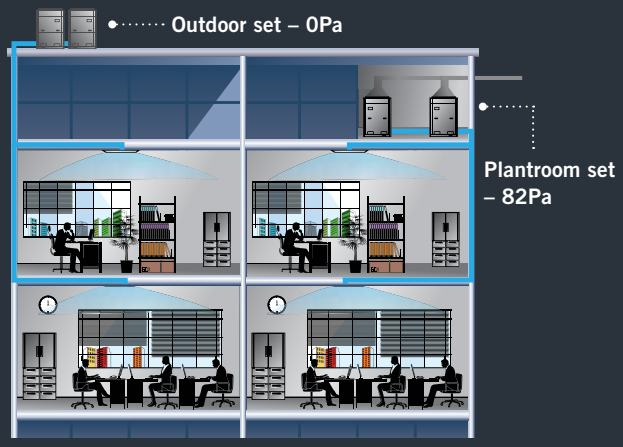
Easy installation

Higher ESP design

Up to 82Pa pressure can be set for an outdoor unit. This design is especially useful when an outdoor unit needs to be placed in an internal plant room.

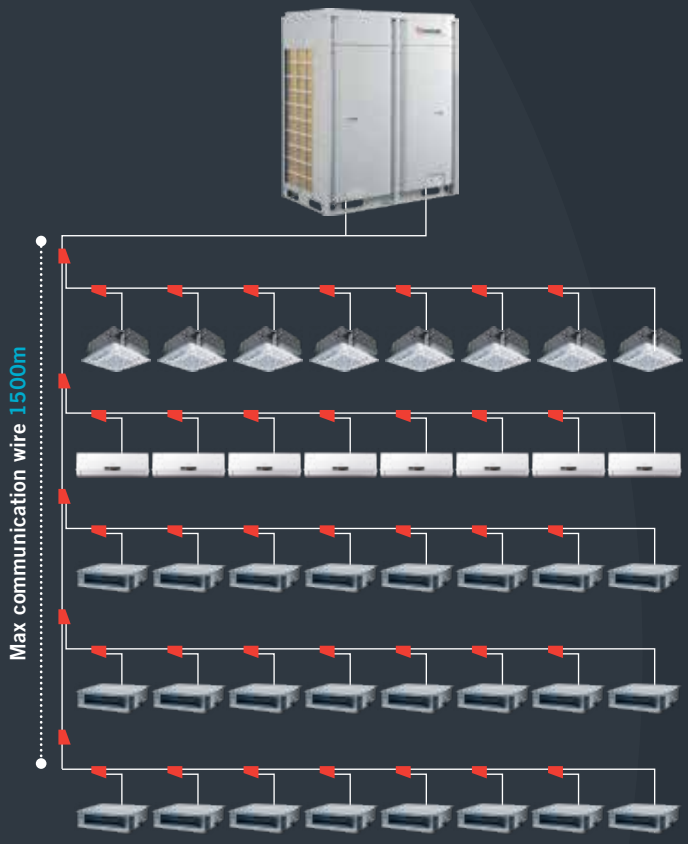
System has 4 levels of static pressure that can be set. **0Pa, 30Pa, 50Pa and 82Pa.**

Note: Default setting is 0Pa

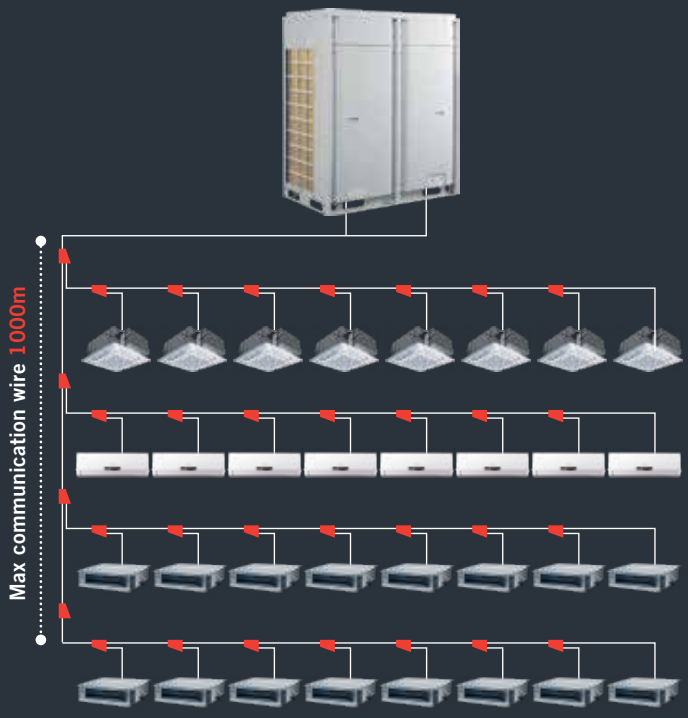


Longer communication wire

Braemar Generation 5
Up to 80 sets



Generation 4
64 sets



Simple wiring

Intelligent commissioning software

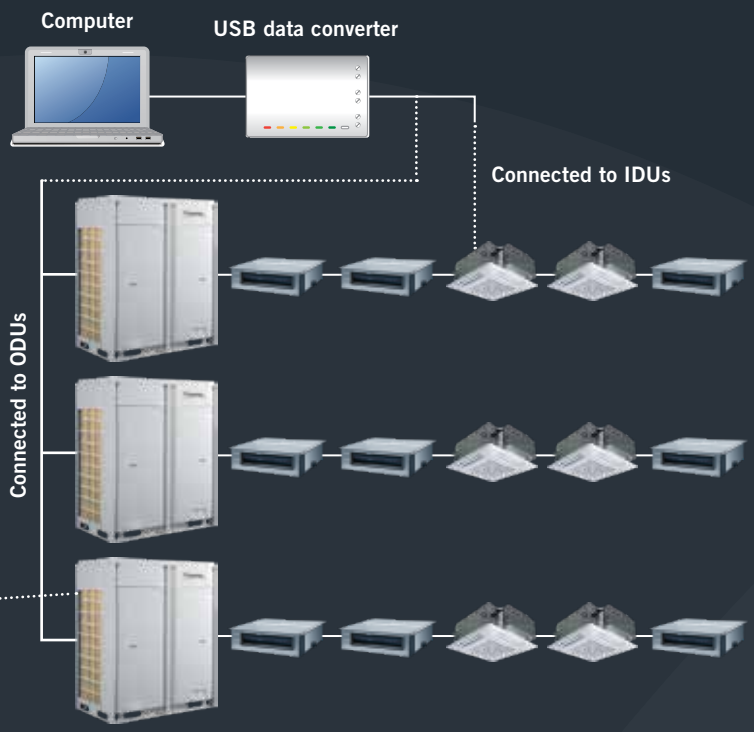
Up to 80 indoor units

The commissioning software can be connected into an indoor unit or an outdoor unit via a USB data converter.

Features include:

- View all data of up to 80 IDUs and 4 ODUs at the same time
- Auto detect quantity of IDUs and ODUs
- Auto detect malfunction
- Auto start commissioning
- Auto judge the abnormality of a pipeline
- Auto assign address of IDU and ODU

Simplified wire connections



Inspection window

The system's operation status can be checked in a quick manner

LED display instantly reports on error codes and other parameters

Easy access to error history and suggested solution

Ability to check real-time operation status on both indoor and outdoor units

Ability to easily detect a faulty indoor unit by the signal it will emit

Safe operation

Emergency operation

Basic Module in emergency (50.4 kW-180 kW)

On systems with more than one outdoor module, when one of the basic modules is in malfunction, other basic modules can still operate in emergency, which can eliminate the impact of malfunction.

Compressor in emergency (40 kW-45 kW)

When one of the compressors is in malfunction, the other compressor in this module and the whole system can still operate in emergency.

Fan in emergency (Double fan motors)

For basic modules with two fan motors, the unique control logic and optimised system design can make sure that when there is malfunction in one fan motor the other fan motor can run in emergency.

Flexible installation of outdoor units

Can be installed without fixed sequence

Flexible outdoor configuration

Not necessary to install in order from smallest to largest

Alternative operation of outdoor units

Intelligent control circuits also look after the running cycle of the outdoor units, ensuring each outdoor unit has operated an equal number of hours.

Unit 1 06:00 – 14:00
Unit 2 14:00 – 22:00
Unit 3 22:00 – 06:00

Intelligent network

Intelligent network

Performance index	Other	Braemar VRF CAN network
Reliability	Software verification	Hardware verification
	One unit's communication error may lead to a breakdown of the whole network	If one unit has errors, it will exit from the network without any influence to other units
Communication efficiency	Modbus protocol – master-slave	CAN bus protocol – multi-master
	Communication speed is about 10Kbps	Communication speed is about 20Kbps
Compatability	Single master unit network	Multi master units network, easy to extend new equipment, such as lighting, ventilation, etc.
Communication distance	1,000m	1,500m

Flexible linkage control

Linkage control with:

Fire detector

Light switch

Emergency button

Power consumption calculating

Calculating power consumption according to operation time, mode, EXV opening and ambient temperature, etc.

Providing detailed bills, operation list, and analysis form*.

*Model specific, may not be available on all models.

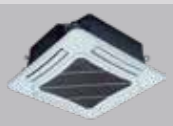
More visualised operation platform

The actual position of an air conditioner can be shown in the building, floor or room layout of the system interface, giving the system controller a visual representation of the system layout.

In the visualised interface of each area of the building, the running quantity, stopping quantity and malfunction quantity of the air conditioner in this area can be displayed.

Indoor units

Specifications

Type of indoor unit	Specification	22	25	28	32	36	40	45	50	56	63	71	72	80	90	100	112	125	140	160	224	250	280	450
High static pressure duct type unit	 MDHX..D1H									•	•	•		•	•	•	•	•	•	•	•		•	
Low static pressure duct type unit	 MDHX..D1L	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•					
High static pressure, low profile duct type unit	 MDHX..D1A	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•				
Bulkhead ducted unit	 MDHX..D1B	•	•	•	•	•	•	•	•	•	•		•											
4-way ceiling mounted cassette	 MBHX..D1N			•		•		•	•	•	•	•		•	•	•	•	•	•	•				
Compact 4-way ceiling mounted cassette	 MBHX..D1C	•		•		•		•	•	•														
2-way ceiling mounted cassette	 MBHX..D12			•		•		•	•	•	•	•												
1-way ceiling mounted cassette	 MBHX..D11	•		•		•		•	•															
Wall-mounted inverter split system	 MSHX..D1S	•		•		•		•	•	•	•	•												
Floor ceiling type unit	 MUHX..D1S			•		•			•		•	•			•		•	•	•					
Low wall console unit	 MLHX..D1S	•		•		•		•	•															
Outside air processing indoor unit	 MFHX..D1S																		•		•	•	•	•

Indoor units

High static pressure, duct type indoor unit

High static pressure design
Static pressure can be adjusted from 50Pa to a massive 200Pa by utilising a DC indoor fan motor.

High efficiency and energy-saving motor
DC brushless motor improves efficiency by over 30% when compared with a common motor.

Protection function
Anti-freezing protection, fan motor overload protection, temperature sensor malfunction protection.

Condensate pump
Comes standard with a condensate pump* (water height difference up to 1.0m), which can effectively drain out condensing water and save space.

*Model specific

Convenient installation
Can be suspended on hanging bracket supplied or can sit on a platform.

All DC inverter technology
All motors adopt energy-efficient DC inverter technology.

Intelligent network
CAN Bus communication technology allows for system response speed to be faster and for communication to be more reliable.

Indoor units

Low static pressure duct type indoor unit

Low static pressure, low noise
Suitable for rooms where space prevents long duct runs and, where noise levels are required to be at a minimum.

High efficiency and energy-saving motor
DC brushless motor improves efficiency by over 30% when compared with a common motor.

Convenient installation and maintenance
Tab type plastic filter, detachable fan motor, independent water pump assembly and electric box assembly, all for convenient maintenance.

Condensate pump
Comes standard with a condensate pump (water height difference up to 1.0m), which can effectively drain out condensing water and save space.

Protection function
Water overflow protection, anti-freezing protection, fan motor overload protection, temperature sensor malfunction protection.

All DC inverter technology
All motors adopt energy-efficient DC inverter technology.

Intelligent network
CAN Bus communication technology allows for system response speed to be faster and for communication to be more reliable.

Indoor units

High static pressure, low profile duct type unit

Low profile design
Designed to suit installations where space is at a premium.

High static pressure design
Static pressure can be adjusted from 50Pa to a massive 200Pa by utilising a DC indoor fan motor.

High efficiency and energy-saving motor
DC brushless motor improves efficiency by over 30% when compared with a common motor.

Protection function
Anti-freezing protection, fan motor overload protection, temperature sensor malfunction protection.

Condensate pump
Comes standard with a condensate pump* (water height difference up to 1.0m), which can effectively drain out condensing water and save space.

*Model specific

Convenient installation
Can be suspended on hanging bracket supplied or can sit on a platform.

All DC inverter technology
All motors adopt energy-efficient DC inverter technology.

Intelligent network
CAN Bus communication technology allows for system response speed to be faster and for communication to be more reliable.

Indoor units

Bulkhead ducted unit

Slim and small

All bulkhead duct type indoor units are only 200mm high and 450mm deep, making them suitable for concealing above cupboards and small spaces where they can be hidden from view.

High efficiency and energy-saving motor

DC brushless motor improves efficiency by over 30% when compared with a common motor.

Protection function

Anti-freezing protection, fan motor built-in overload protection, temperature sensor error protection.

Ultra-quiet

High-efficiency centrifugal fan and ultra low noise volute are developed with the latest simulation technology ensuring noise levels are minimised and airflow and efficiency are maximised.

All DC inverter technology

All motors adopt energy-efficient DC inverter technology.

Intelligent network

CAN Bus communication technology allows for system response speed to be faster and for communication to be more reliable.

High static pressure duct type indoor unit specifications

Model		MDHX056D1H	MDHX063D1H	MDHX071D1H	MDHX080D1H	MDHX090D1H	MDHX100D1H
Capacity	Cooling (kW)	5.6	6.3	7.1	8.0	9.0	10.0
	Heating (kW)	6.3	7.1	8.0	9.0	10.0	11.2
Power supply	V / Ph / Hz	220-240/1/50					
Power consumption	W	120	120	130	130	200	200
Airflow volume	(H/M/L) m³/h	1000/800/600	1000/800/600	1100/900/700	1100/900/700	1700/1450/1100	1700/1450/1100
	(H/M/L) l/s	280/220/165	280/220/165	305/250/195	305/250/195	470/400/305	470/400/305
Rated current	Cooling (A)	0.6	0.6	0.6	0.6	1.0	1.0
	Heating (A)	0.6	0.6	0.6	0.6	1.0	1.0
ESP	Pa	70/0~100					
Sound pressure level	(H/M/L) dB(A)	44/40/36	44/40/36	45/41/37	45/41/37	46/44/42	46/44/42
Connecting pipe diameter	Liquid (mm)	Ø9.52	Ø9.52	Ø9.52	Ø9.52	Ø9.52	Ø9.52
	Gas (mm)	Ø15.9	Ø15.9	Ø15.9	Ø15.9	Ø15.9	Ø15.9
Drain pipe	Ext. dia. (mm)	Ø25	Ø25	Ø25	Ø25	Ø25	Ø25
	Thickness (mm)	2.5	2.5	2.5	2.5	2.5	2.5
Built in drain pump		Yes	Yes	Yes	Yes	Yes	Yes
Dimension (WxDxH)	Outline (mm)	1271 x 558 x 268				1229 x 775 x 290	
	Package (mm)	1348 x 597 x 283				1338 x 887 x 305	
Net / Gross weight	kg	35/40	35/40	35/40	35/40	47/54	47/54

Model		MDHX112D1H	MDHX125D1H	MDHX140D1H	MDHX160D1H	MDHX224D1H	MDHX280D1H
Capacity	Cooling (kW)	11.2	12.5	14.0	16.0	22.4	28.0
	Heating (kW)	12.5	14.0	16.0	17.0	25.0	31.0
Power supply	V / Ph / Hz	220-240/1/50					
Power consumption	W	200	220	220	350	800	900
Airflow volume	(H/M/L) m³/h	1700/1450/1100	2000/1550/1200	2000/1700/1400	2650	4000/3600/3200	4400/4000/3600
	(H/M/L) l/s	470/400/305	555/430/335	555/470/390	735	1110/1000/890	1220/1110/1000
Rated current	Cooling (A)	1.0	1.0	1.0	1.7	4.1	4.6
	Heating (A)	1.0	1.0	1.0	1.7	4.1	4.6
ESP	Pa	70/0~100			70/0~150	150/50~200	150/50~200
Sound pressure level	(H/M/L) dB(A)	46/44/42	48/45/42	48/46/44	50/48/46	54/52/49	55/52/50
Connecting pipe diameter	Liquid (mm)	Ø9.52	Ø9.52	Ø9.52	Ø9.52	Ø9.52	Ø9.52
	Gas (mm)	Ø15.9	Ø15.9	Ø15.9	Ø19.05	Ø19.05	Ø22.2
Drain pipe	Ext. dia. (mm)	Ø25	Ø25	Ø25	Ø20	Ø30	Ø30
	Thickness (mm)	2.5	2.5	2.5	1.2	1.5	1.5
Built in drain pump		Yes	Yes	Yes	Yes	No	No
Dimension (WxDxH)	Outline (mm)	1229 x 775 x 290			1340 x 750 x 350	1483 x 791 x 385	1686 x 870 x 450
	Package (mm)	1338 x 877 x 305			1423 x 837 x 455	1578 x 883 x 472	1788 x 988 x 580
Net / Gross weight	kg	47/54	47/54	47/54	60/71	82/104	105/140

Low static pressure duct type indoor unit specifications

Model		MDHX022D1L	MDHX025D1L	MDHX028D1L	MDHX032D1L	MDHX036D1L
Capacity	Cooling (kW)	2.2	2.5	2.8	3.2	3.6
	Heating (kW)	2.5	2.8	3.2	3.6	4.0
Power supply	V / Ph / Hz	220-240/1/50				
Power consumption	W	35	35	35	43	43
Airflow volume	(H/M/L) m³/h	450/350/250	450/350/250	450/350/250	550/450/350	550/450/350
	(H/M/L) l/s	125/95/70	125/95/70	125/95/70	155/125/95	155/125/95
Rated current	Cooling (A)	0.2	0.2	0.2	0.2	0.2
	Heating (A)	0.2	0.2	0.2	0.2	0.2
ESP	Pa	15/0~30				
Sound pressure level	(H/M/L) dB(A)	31/28/25	31/28/25	31/28/25	32/30/27	32/30/27
Connecting pipe diameter	Liquid (mm)	Ø6.35	Ø6.35	Ø6.35	Ø6.35	Ø6.35
	Gas (mm)	Ø9.52	Ø9.52	Ø9.52	Ø12.7	Ø12.7
Drain pipe	Ext. dia. (mm)	25	25	25	25	25
	Thickness (mm)	2.5	2.5	2.5	2.5	2.5
Built in drain pump		Yes	Yes	Yes	Yes	Yes
Dimension (WxDxH)	Outline (mm)	700 x 615 x 200				
	Package (mm)	893 x 743 x 305				
Net / Gross weight	kg	22/27	22/27	22/27	22/28	22/28

Model		MDHX040D1L	MDHX045D1L	MDHX050D1L	MDHX056D1L	MDHX063D1L	MDHX071D1L
Capacity	Cooling (kW)	4.0	4.5	5.0	5.6	6.3	7.1
	Heating (kW)	4.5	5.0	5.6	6.3	7.1	8.0
Power supply	V / Ph / Hz	220-240/1/50					
Power consumption	W	52	52	52	99	99	105
Airflow volume	(H/M/L) m³/h	700/600/450	700/600/450	700/600/450	1000/800/600	1000/800/600	1000/800/600
	(H/M/L) l/s	195/165/125	195/165/125	195/165/125	280/220/165	280/220/165	280/220/165
Rated current	Cooling (A)	0.3	0.3	0.3	0.5	0.5	0.5
	Heating (A)	0.3	0.3	0.3	0.5	0.5	0.5
ESP	Pa	15/0~30					30/0~50
Sound pressure level	(H/M/L) dB(A)	33/31/28	33/31/28	33/31/28	35/33/30	35/33/30	35/33/30
Connecting pipe diameter	Liquid (mm)	Ø6.35	Ø6.35	Ø6.35	Ø9.52	Ø9.52	Ø9.52
	Gas (mm)	Ø12.7	Ø12.7	Ø12.7	Ø15.9	Ø15.9	Ø15.9
Drain pipe	Ext. dia. (mm)	25	25	25	25	25	25
	Thickness (mm)	2.5	2.5	2.5	2.5	2.5	2.5
Built in drain pump		Yes	Yes	Yes	Yes	Yes	Yes
Dimension (WxDxH)	Outline (mm)	900 x 615 x 200			1100 x 615 x 200		1200 x 655 x 260
	Package (mm)	1123 x 743 x 305			1323 x 743 x 305		1448 x 858 x 315
Net / Gross weight	kg	27/33	27/33	27/33	31/38	31/38	40/47

Indoor units

Low static pressure duct type indoor unit specifications continued

Model		MDHX080D1L	MDHX090D1L	MDHX100D1L	MDHX112D1L	MDHX125D1L	MDHX140D1L
Capacity	Cooling (kW)	8.0	9.0	10.0	11.2	12.5	14.0
	Heating (kW)	9.0	10.0	11.2	12.5	14.0	16.0
Power supply	V / Ph / Hz	220-240/1/50					
Power consumption	W	140	209	209	209	230	230
Airflow volume	(H/M/L) m³/h	1100/1000/800	1500/1250/950	1500/1350/1000	1700/1500/1100	2000/1500/1150	2000/1500/1150
	(H/M/L) l/s	305/280/220	415/345/265	415/375/280	470/415/305	550/415/320	550/415/320
Rated current	Cooling (A)	0.7	1.0	1.0	1.0	1.1	1.1
	Heating (A)	0.7	1.0	1.0	1.0	1.1	1.1
ESP	Pa	30/0~50					
Sound pressure level	(H/M/L) dB(A)	36/34/31	40/36/32	40/36/32	40/36/32	42/40/37	42/40/37
Connecting pipe diameter	Liquid (mm)	Ø9.52	Ø9.52	Ø9.52	Ø9.52	Ø9.52	Ø9.52
	Gas (mm)	Ø15.9	Ø15.9	Ø15.9	Ø15.9	Ø15.9	Ø15.9
Drain pipe	Ext. dia. (mm)	25	25	25	25	25	25
	Thickness (mm)	2.5	2.5	2.5	2.5	2.5	2.5
Built in drain pump		Yes	Yes	Yes	Yes	Yes	Yes
Dimension (WxDxH)	Outline (mm)	1200 x 655 x 260	1340 x 655 x 260				
	Package (mm)	1448 x 858 x 315	1591 x 861 x 330				
Net / Gross weight	kg	40/47	46/55	46/55	46/55	47/56	47/56

High static low profile duct type indoor unit specification

Model		MDHX022D1A	MDHX025D1A	MDHX028D1A	MDHX032D1A	MDHX036D1A	MDHX040D1A
Capacity	Cooling (kW)	2.2	2.5	2.8	3.2	3.6	4.0
	Heating (kW)	2.5	2.8	3.2	3.6	4.0	4.5
Power supply	V / Ph / Hz	220-240/1/50					
Power consumption	W	55	55	55	65	65	85
Airflow volume	(H/M/L) m³/h	550/480/400	550/480/400	550/480/400	600/500/420	600/500/420	850/700/600
	(H/M/L) l/s	155/135/110	155/135/110	155/135/110	165/140/115	165/140/115	235/190/165
ESP	Pa	60/0~150	60/0~150	60/0~150	60/0~150	60/0~150	60/0~150
Sound pressure level	(H/M/L) dB(A)	33/30/28	33/30/28	33/30/28	33/31/29	33/31/29	36/34/32
Connecting pipe diameter	Liquid (mm)	Ø6.35	Ø6.35	Ø6.35	Ø6.35	Ø6.35	Ø6.35
	Gas (mm)	Ø9.52	Ø9.52	Ø9.52	Ø12.7	Ø12.7	Ø12.7
Drain pipe	Ext. dia. (mm)	25.0	25.0	25.0	25.0	25.0	25.0
	Thickness (mm)	2.5	2.5	2.5	2.5	2.5	2.5
Built in drain pump		Yes	Yes	Yes	Yes	Yes	Yes
Dimension (WxDxH)	Outline (mm)	700 x 700 x 300					
	Package (mm)	897 x 808 x 362					
Net / Gross weight	kg	32/38					34/40

High static low profile duct type indoor unit specification continued

Model		MDHX045D1A	MDHX050D1A	MDHX056D1A	MDHX063D1A	MDHX071D1A	MDHX080D1A
Capacity	Cooling (kW)	4.5	5.0	5.6	6.3	7.1	8.0
	Heating (kW)	5.0	5.6	6.3	7.1	8.0	9.0
Power supply	V / Ph / Hz	220-240/1/50					
Power consumption	W	85	85	90	90	100	100
Airflow volume	(H/M/L) m³/h	850/700/600	850/700/600	1000/800/700	1000/800/700	1250/1050/950	1250/1050/950
	(H/M/L) l/s	235/190/165	235/190/165	280/220/195	280/220/195	345/290/265	345/290/265
ESP	Pa	60/0~150	60/0~150	90/0~200	90/0~200	90/0~200	90/0~200
Sound pressure level	(H/M/L) dB(A)	36/34/32	36/34/32	37/35/33	37/35/33	38/36/34	38/36/34
Connecting pipe diameter	Liquid (mm)	Ø6.35	Ø6.35	Ø9.52	Ø9.52	Ø9.52	Ø9.52
	Gas (mm)	Ø12.7	Ø12.7	Ø15.9	Ø15.9	Ø15.9	Ø15.9
Drain pipe	Ext. dia. (mm)	25.0	25.0	25.0	25.0	25.0	25.0
	Thickness (mm)	2.5	2.5	2.5	2.5	2.5	2.5
Built in drain pump		Yes	Yes	Yes	Yes	Yes	Yes
Dimension (WxDxH)	Outline (mm)	700 x 700 x 300		1000 x 700 x 300			
	Package (mm)	897 x 808 x 362		1205 x 813 x 360			
Net / Gross weight	kg	34/40		43 / 49			

Model		MDHX090D1A	MDHX100D1A	MDHX112D1A	MDHX125D1A	MDHX140D1A	MDHX160D1A
Capacity	Cooling (kW)	9.0	10.0	11.2	12.5	14.0	16.0
	Heating (kW)	10.0	11.2	12.5	14.0	16.0	18.0
Power supply	V / Ph / Hz	220-240/1/50					
Power consumption	W	140	140	160	160	220	230
Airflow volume	(H/M/L) m³/h	1800/1450/1250	1800/1450/1250	2000/1600/1400	2000/1600/1400	2350/1900/1650	2500/2000/1750
	(H/M/L) l/s	500/405/345	500/405/345	555/445/390	555/445/390	655/530/460	695/555/485
ESP	Pa	90/0~200	90/0~200	90/0~200	90/0~200	90/0~200	90/0~200
Sound pressure level	(H/M/L) dB(A)	40/37/35	40/37/35	40/38/36	40/38/36	42/39/37	44/41/38
Connecting pipe diameter	Liquid (mm)	Ø9.52	Ø9.52	Ø9.52	Ø9.52	Ø9.52	Ø9.52
	Gas (mm)	Ø15.9	Ø15.9	Ø15.9	Ø15.9	Ø15.9	Ø19.05
Drain pipe	Ext. dia. (mm)	25.0	25.0	25.0	25.0	25.0	25.0
	Thickness (mm)	2.5	2.5	2.5	2.5	2.5	2.5
Built in drain pump		Yes	Yes	Yes	Yes	Yes	Yes
Dimension (WxDxH)	Outline (mm)	1400 x 700 x 300					
	Package (mm)	1601 x 813 x 360				1678 x 808 x 360	
Net / Gross weight	kg	57 / 64				58 / 67	

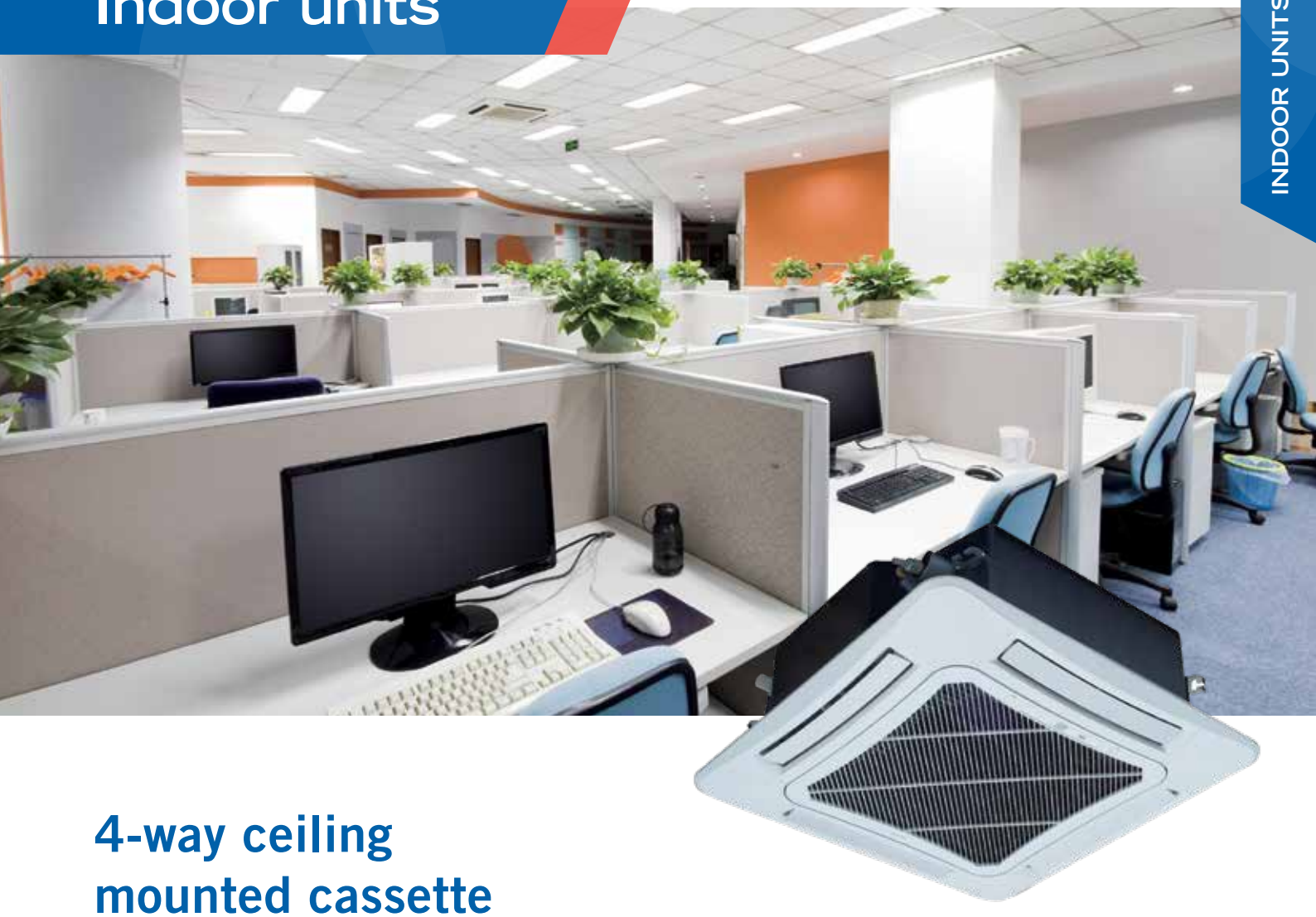
Indoor units

Bulkhead ducted unit specifications

Model		MDHX022D1B	MDHX025D1B	MDHX028D1B	MDHX032D1B	MDHX036D1B
Capacity	Cooling (kW)	2.2	2.5	2.8	3.2	3.6
	Heating (kW)	2.5	2.8	3.2	3.6	4.0
Power supply	V / Ph / Hz	220-240/1/50				
Power consumption	W	25	25	25	30	30
Airflow volume	(H/M/L) m³/h	450/400/320	450/400/320	450/400/320	550/450/340	550/450/340
	(H/M/L) l/s	125/110/90	125/110/90	125/110/90	155/125/90	155/125/90
Rated current	Cooling (A)	0.2	0.2	0.2	0.3	0.3
	Heating (A)	0.2	0.2	0.2	0.3	0.3
ESP	Pa	0 / 15				
Sound pressure level	(H/M/L) dB(A)	30/28/22	30/28/22	30/28/22	31/29/25	31/29/25
Connecting pipe diameter	Liquid (mm)	Ø6.35	Ø6.35	Ø6.35	Ø6.35	Ø6.35
	Gas (mm)	Ø9.52	Ø9.52	Ø9.52	Ø9.52	Ø12.7
Drain pipe	Ext. dia. (mm)	25	25	25	25	25
	Thickness (mm)	2.5	2.5	2.5	2.5	2.5
Built in drain pump		No	No	No	No	No
Dimension (WxDxH)	Outline (mm)	710 x 450 x 200				
	Package (mm)	1003 x 551 x 285				
Net / Gross weight	kg	18.5/22	18.5/22	18.5/22	19.5/23	19.5/23

Model		MDHX040D1B	MDHX045D1B	MDHX050D1B	MDHX056D1B	MDHX063D1B	MDHX072D1B
Capacity	Cooling (kW)	4.0	4.5	5.0	5.6	6.3	7.2
	Heating (kW)	4.5	5.0	5.6	6.3	7.0	8.0
Power supply	V / Ph / Hz	220-240/1/50					
Power consumption	W	35	35	35	45	45	50
Airflow volume	(H/M/L) m³/h	750/660/540	750/660/540	750/660/540	850/700/610	850/700/610	1100/800/640
	(H/M/L) l/s	210/185/150	210/185/150	210/185/150	235/195/170	235/195/170	305/220/180
Rated current	Cooling (A)	0.3	0.3	0.3	0.3	0.3	0.5
	Heating (A)	0.3	0.3	0.3	0.3	0.3	0.5
ESP	Pa	0/15					
Sound pressure level	(H/M/L) dB(A)	33/30/27	33/30/27	33/30/27	35/33/29	35/33/29	37/34/30
Connecting pipe diameter	Liquid (mm)	Ø6.35	Ø6.35	Ø6.35	Ø9.52	Ø9.52	Ø9.52
	Gas (mm)	Ø12.7	Ø12.7	Ø12.7	Ø15.9	Ø15.9	Ø15.9
Drain pipe	Ext. dia. (mm)	25	25	25	25	25	25
	Thickness (mm)	2.5	2.5	2.5	2.5	2.5	2.5
Built in drain pump		No	No	No	No	No	No
Dimension (WxDxH)	Outline (mm)	1010 x 450 x 200				1010 x 450 x 200	1350 x 450 x 200
	Package (mm)	1303 x 551 x 285				1303 x 551 x 285	1603 x 551 x 285
Net / Gross weight	kg	23.5/28	23.5/28	23.5/28	24.5/29	24.5/29	30.5/36

Indoor units



4-way ceiling mounted cassette

Strong and balanced airflow
Unit features auto operation, 4-way airflow, 7 fan speeds and strong circulating airflow.

Ultra-low noise operation
DC inverter motor can realise stepless speed regulation to lower noise. Indoor unit can be set to work under auto quiet mode via wired controller.

Condensate pump
Comes standard with a condensate pump (water height difference up to 1.0m), which can effectively drain out condensing water and save space.

Wired or wireless control
Controls ordered separately.

Protection function
Water overflow protection, anti-freezing protection, temperature sensor malfunction protection, fan motor overload protection.

All DC inverter technology
All motors adopt energy-efficient DC inverter technology.

Intelligent network
CAN Bus communication technology allows for system response speed to be faster and for communication to be more reliable.

Indoor units

Compact 4-way ceiling mounted cassette

Compact design
Suits half T-bar grid. Units maintain the uniform length and width with consistent ceiling opening and panel dimension. Convenient for design and installation.

Ultra-low noise operation
DC inverter motor can realise stepless speed regulation to lower noise. Indoor unit can be set to work under auto quiet mode via wired controller.

Condensate pump
Comes standard with a condensate pump (water height difference up to 1.0m), which can effectively drain out condensing water and save space.

Wired or wireless control
Controls ordered separately.

All DC inverter technology
All motors adopt energy-efficient DC inverter technology.

Intelligent network
CAN Bus communication technology allows for system response speed to be faster and for communication to be more reliable.

Indoor units

2-way ceiling mounted cassette

Discreet appearance
Elegant and discreet front panel blends in well with interior decor.

Condensate pump
Comes standard with a condensate pump (water height difference up to 1.0m), which can effectively drain out condensing water and save space.

Two-way air flow design
Two-way air outlet, ideally suited for long narrow rooms.

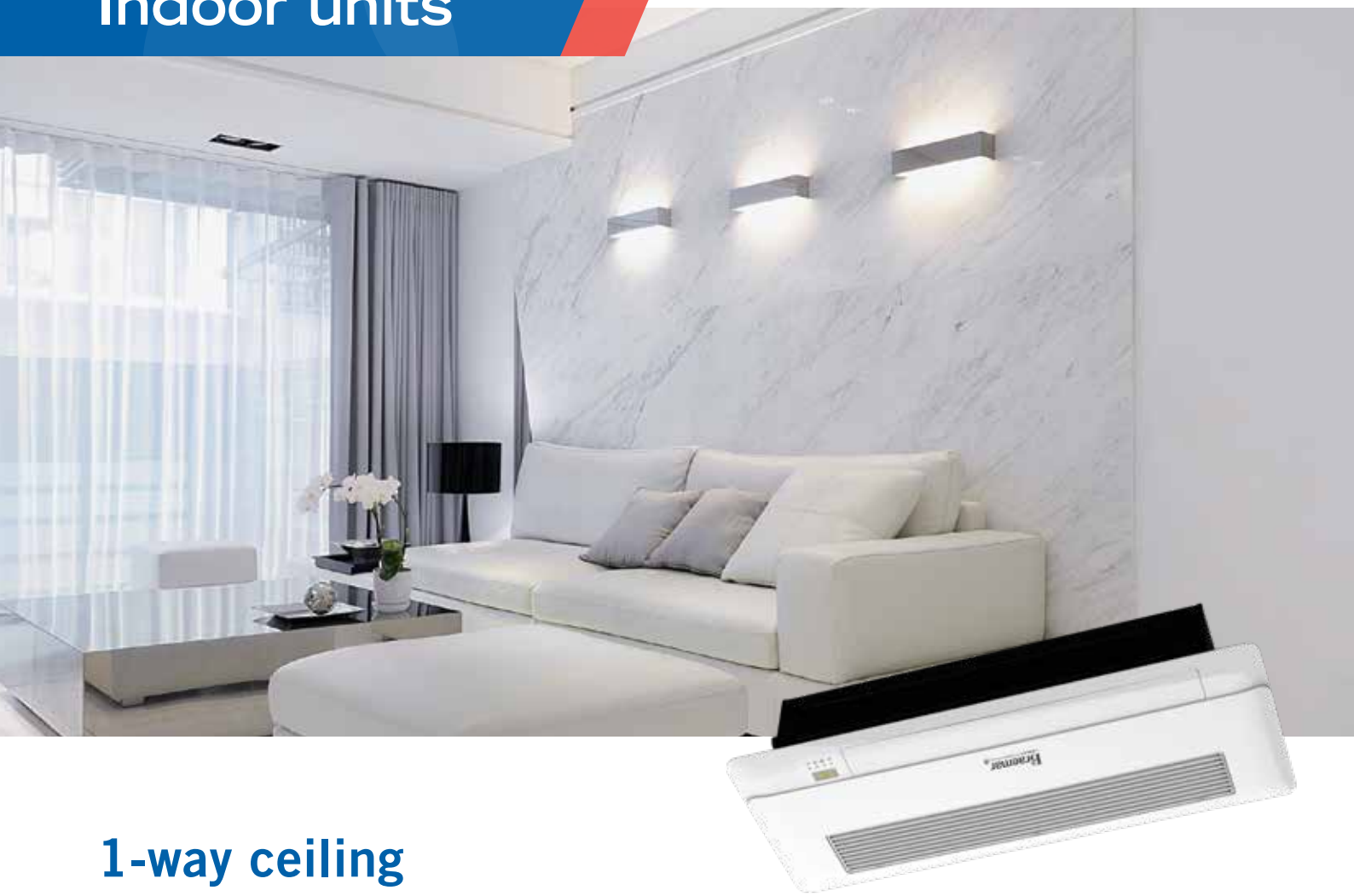
Protection function
Water overflow protection, anti-freezing protection, fan motor overload protection, temperature sensor malfunction protection.

Wired or wireless control
Controls ordered separately.

All DC inverter technology
All motors adopt energy-efficient DC inverter technology.

Intelligent network
CAN Bus communication technology allows for system response speed to be faster and for communication to be more reliable.

Indoor units



1-way ceiling mounted cassette

Compact design
178mm ultra low profile.

Condensate pump
Comes standard with a condensate pump (water height difference up to 1.0m), which can effectively drain out condensing water and save space.

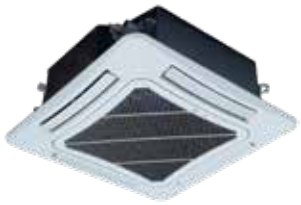
Protection function
Water overflow protection, anti-freezing protection, fan motor overload protection, temperature sensor malfunction protection.

Wired or wireless control
Controls ordered separately.

All DC inverter technology
All motors adopt energy-efficient DC inverter technology.

Intelligent network
CAN Bus communication technology allows for system response speed to be faster and for communication to be more reliable.

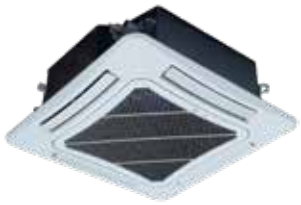
Indoor units



4-way cassette indoor unit specifications

Model		MBHX028D1N	MBHX036D1N	MBHX045D1N	MBHX050D1N
Capacity	Cooling (kW)	2.8	3.6	4.5	5.0
	Heating (kW)	3.2	4.0	5.0	5.6
Power supply	V / Ph / Hz	220-240/1/50			
Power consumption	W	48	48	48	50
Airflow volume	(H/M/L) m³/h	750/650/550	750/650/550	750/650/550	830/650/550
	(H/M/L) l/s	210/180/155	210/180/155	210/180/155	230/180/155
Rated current	Cooling (A)	0.2	0.2	0.2	0.2
	Heating (A)	0.2	0.2	0.2	0.2
Sound pressure level	(H/M/L) dB(A)	36/34/31	36/34/31	36/34/31	36/34/31
Connecting pipe diameter	Liquid (mm)	Ø6.35	Ø6.35	Ø6.35	Ø6.35
	Gas (mm)	Ø9.52	Ø12.7	Ø12.7	Ø12.7
Drain pipe	Ext. dia. (mm)	25	25	25	25
	Thickness (mm)	2.5	2.5	2.5	2.5
Built in drain pump		Yes	Yes	Yes	Yes
Main Body Dimension (WxDxH)	Outline (mm)	840 x 840 x 190			
	Package (mm)	963 x 963 x 272			
Main Body Net / Gross weight	kg	22.5/29.5	22.5/29.5	22.5/29.5	22.5/29.5
Panel dimension (WxDxH)	Outline (mm)	950 x 950 x 65			
	Package (mm)	1033 x 1038 x 133			
Panel net weight / Gross weight	kg	7/11	7/11	7/11	7/11

Model		MBHX056D1N	MBHX063D1N	MBHX071D1N	MBHX080D1N	MBHX090D1N
Capacity	Cooling (kW)	5.6	6.3	7.1	8.0	9.0
	Heating (kW)	6.3	7.1	8.0	9.0	10.0
Power supply	V / Ph / Hz	220-240/1/50				
Power consumption	W	59	59	68	68	98
Airflow volume	(H/M/L) m³/h	1000/900/750	1000/900/750	1180/950/850	1180/950/850	1500/1350/1100
	(H/M/L) l/s	280/250/210	280/250/210	330/265/235	330/265/235	415/375/305
Rated current	Cooling (A)	0.3	0.3	0.3	0.3	0.4
	Heating (A)	0.3	0.3	0.3	0.3	0.4
Sound pressure level	(H/M/L) dB(A)	37/35/32	37/35/32	38/36/33	38/36/33	40/37/35
Connecting pipe diameter	Liquid (mm)	Ø9.52	Ø9.52	Ø9.52	Ø9.52	Ø9.52
	Gas (mm)	Ø15.9	Ø15.9	Ø15.9	Ø15.9	Ø15.9
Drain pipe	Ext. dia. (mm)	25	25	25	25	25
	Thickness (mm)	2.5	2.5	2.5	2.5	2.5
Built in drain pump		Yes	Yes	Yes	Yes	Yes
Main Body Dimension (WxDxH)	Outline (mm)	840 x 840 x 240			840 x 840 x 240	840 x 840 x 320
	Package (mm)	963 x 963 x 325			963 x 963 x 325	963 x 963 x 409
Main Body Net / Gross weight	kg	26.5/34.5	26.5/34.5	26.5/34.5	26.5/34.5	32.5/40.0
Panel dimension (WxDxH)	Outline (mm)	950 x 950 x 65				
	Package (mm)	1033 x 1038 x 133				
Panel net weight / Gross weight	kg	7/11	7/11	7/11	7/11	7/11



4-way cassette indoor unit specifications continued

Model		MBHX100D1N	MBHX112D1N	MBHX125D1N	MBHX140D1N	MBHX160D1N
Capacity	Cooling (kW)	10.0	11.2	12.5	14.0	16.0
	Heating (kW)	11.2	12.5	14.0	16.0	17.5
Power supply	V / Ph / Hz	220-240/1/50				
Power consumption	W	98	110	110	110	120
Airflow volume	(H/M/L) m³/h	1500/1350/1100	1700/1400/1100	1860/1500/1150	1860/1500/1150	2100/1700/1400
	(H/M/L) l/s	415/375/305	470/390/305	515/415/320	515/415/320	585/470/390
Rated current	Cooling (A)	0.4	0.5	0.5	0.5	0.6
	Heating (A)	0.4	0.5	0.5	0.5	0.6
Sound pressure level	(H/M/L) dB(A)	40/37/35	41/38/36	43/41/38	43/41/38	47/44/42
Connecting pipe diameter	Liquid (mm)	Ø9.52	Ø9.52	Ø9.52	Ø9.52	Ø9.52
	Gas (mm)	Ø15.9	Ø15.9	Ø15.9	Ø15.9	Ø19.05
Drain pipe	Ext. dia. (mm)	25	25	25	25	25
	Thickness (mm)	2.5	2.5	2.5	2.5	2.5
Built in drain pump		Yes	Yes	Yes	Yes	Yes
Main Body Dimension (WxDxH)	Outline (mm)	840 x 840 x 320	840 x 840 x 320	840 x 840 x 320	840 x 840 x 320	910 x 910 x 293
	Package (mm)	963 x 963 x 409	963 x 963 x 409	963 x 963 x 409	963 x 963 x 409	1023 x 993 x 375
Main Body Net / Gross weight	kg	32.5/40.0	32.5/40.0	32.5/40.0	32.5/40.0	46.5/56.5
Panel dimension (WxDxH)	Outline (mm)	950 x 950 x 65				1040 x 1040 x 65
	Package (mm)	1033 x 1038 x 133				1137 x 1137 x 140
Panel net weight / Gross weight	kg	7/11	7/11	7/11	7/11	7.5/11.5

Indoor units

Compact 4-way ceiling mounted cassette specifications

Model		MBHX022D1C	MBHX028D1C	MBHX036D1C	MBHX045D1C	MBHX050D1C	MBHX056D1C
Capacity	Cooling (kW)	2.2	2.8	3.6	4.5	5.0	5.6
	Heating (kW)	2.5	3.2	4.0	5.0	5.6	6.3
Power supply	V / Ph / Hz	220-240/1/50					
Power consumption	W	35	35	35	45	45	45
Airflow volume	(H/M/L) m³/h	600/500/400	600/500/400	600/500/400	700/600/480	700/600/480	700/600/480
	(H/M/L) l/s	165/140/110	165/140/110	165/140/110	194/165/135	194/165/135	194/165/135
Rated current	Cooling (A)	0.4	0.4	0.4	0.5	0.5	0.5
	Heating (A)	0.4	0.4	0.4	0.5	0.5	0.5
Sound pressure level	(H/M/L) dB(A)	41/39/35	41/39/35	41/39/35	45/43/38	45/43/38	45/43/38
Connecting pipe diameter	Liquid (mm)	Ø6.35	Ø6.35	Ø6.35	Ø6.35	Ø6.35	Ø9.52
	Gas (mm)	Ø9.52	Ø9.52	Ø12.7	Ø12.7	Ø12.7	Ø15.9
Drain pipe	Ext. dia. (mm)	25	25	25	25	25	25
	Thickness (mm)	2.5	2.5	2.5	2.5	2.5	2.5
Built in drain pump		Yes	Yes	Yes	Yes	Yes	Yes
Main Body Dimension (WxDxH)	Outline (mm)	596 x 596 x 240					
	Package (mm)	773 x 773 x 300					
Main Body Net / Gross weight	kg	20.5/25.5	20.5/25.5	20.5/25.5	20.5/25.5	20.5/25.5	20.5/25.5
Panel dimension (WxDxH)	Outline (mm)	670 x 670 x 50					
	Package (mm)	763 x 763 x 105					
Panel net weight / Gross weight	kg	3.5/5.0	3.5/5.0	3.5/5.0	3.5/5.0	3.5/5.0	3.5/5.0

2-way ceiling mounted cassette specifications

Model		MBHX028D12	MBHX036D12	MBHX045D12	MBHX050D12
Capacity	Cooling (kW)	2.8	3.6	4.5	5.0
	Heating (kW)	3.2	4.0	5.0	5.6
Power supply	V / Ph / Hz	220-240/1/50			
Power consumption	W	55.0	55.0	55.0	55.0
Airflow volume	(H/M/L) m³/h	830/660/580	830/660/580	830/660/580	830/660/580
	(H/M/L) l/s	230/185/160	230/185/160	230/185/160	230/185/160
Rated current	Cooling (A)	0.3	0.3	0.3	0.3
	Heating (A)	0.3	0.3	0.3	0.3
Sound pressure level	(H/M/L) dB(A)	35/32/29	35/32/29	35/32/29	35/32/29
Connecting pipe diameter	Liquid (mm)	Ø6.35	Ø6.35	Ø6.35	Ø6.35
	Gas (mm)	Ø9.52	Ø12.7	Ø12.7	Ø12.7
Drain pipe	Ext. dia. (mm)	25	25	25	25
	Thickness (mm)	2.5	2.5	2.5	2.5
Built in drain pump		Yes	Yes	Yes	Yes
Main Body Dimension (WxDxH)	Outline (mm)	1200 x 520 x 315	1200 x 520 x 315	1200 x 520 x 315	1200 x 520 x 315
	Package (mm)	1523 x 658 x 430	1523 x 658 x 430	1523 x 658 x 430	1523 x 658 x 430
Main Body Net / Gross weight	kg	43/54	43/54	43/54	43/54
Panel dimension (WxDxH)	Outline (mm)	1443 x 630 x 33			
	Package (mm)	1578 x 768 x 120			
Panel net weight / Gross weight	kg	7.0/11.0	7.0/11.0	7.0/11.0	7.0/11.0

2-way ceiling mounted cassette specifications continued

Model		MBHX056D12	MBHX063D12	MBHX071D12
Capacity	Cooling (kW)	5.6	6.3	7.1
	Heating (kW)	6.3	7.1	8.0
Power supply	V / Ph / Hz	220-240/1/50		
Power consumption	W	103.0	103.0	103.0
Airflow volume	(H/M/L) m³/h	1100/900/750	1100/900/750	1100/900/750
	(H/M/L) l/s	305/250/210	305/250/210	305/250/210
Rated current	Cooling (A)	0.7	0.7	0.7
	Heating (A)	0.7	0.7	0.7
Sound pressure level	(H/M/L) dB(A)	39/36/33	39/36/33	39/36/33
Connecting pipe diameter	Liquid (mm)	Ø9.52	Ø9.52	Ø9.52
	Gas (mm)	Ø15.9	Ø15.9	Ø15.9
Drain pipe	Ext. dia. (mm)	25	25	25
	Thickness (mm)	2.5	2.5	2.5
Built in drain pump		Yes	Yes	Yes
Main Body Dimension (WxDxH)	Outline (mm)	1200 x 520 x 315	1200 x 520 x 315	1200 x 520 x 315
	Package (mm)	1523 x 658 x 430	1523 x 658 x 430	1523 x 658 x 430
Main Body Net / Gross weight	kg	46/56	46/56	46/56
Panel dimension (WxDxH)	Outline (mm)	1443 x 630 x 33		
	Package (mm)	1578 x 768 x 120		
Panel net weight / Gross weight	kg	7.0/11.0	7.0/11.0	7.0/11.0

1-way ceiling mounted cassette specifications

Model		MBHX022D11	MBHX028D11	MBHX036D11	MBHX045D11	MBHX050D11
Capacity	Cooling (kW)	2.2	2.8	3.6	4.5	5.0
	Heating (kW)	2.5	3.2	4.0	5.0	5.6
Power supply	V / Ph / Hz	220-240/1/50				
Power consumption	W	30.0	30.0	30.0	45.0	45.0
Airflow volume	(H/M/L) m³/h	600/500/450	600/500/450	600/500/450	830/600/500	830/600/500
	(H/M/L) l/s	165/140/125	165/140/125	165/140/125	230/165/140	230/165/140
Rated current	Cooling (A)	0.2	0.2	0.2	0.3	0.3
	Heating (A)	0.2	0.2	0.2	0.3	0.3
Sound pressure level	(H/M/L) dB(A)	36/32/28	36/32/28	36/32/28	40/35/30	40/35/30
Connecting pipe diameter	Liquid (mm)	Ø6.35	Ø6.35	Ø6.35	Ø6.35	Ø6.35
	Gas (mm)	Ø9.52	Ø9.52	Ø12.7	Ø12.7	Ø12.7
Drain pipe	Ext. dia. (mm)	25	25	25	25	25
	Thickness (mm)	2.5	2.5	2.5	2.5	2.5
Built in drain pump		Yes	Yes	Yes	Yes	Yes
Main Body Dimension (WxDxH)	Outline (mm)	987 x 385 x 178	987 x 385 x 178	987 x 385 x 178	987 x 385 x 178	987 x 385 x 178
	Package (mm)	1307 x 501 x 310	1307 x 501 x 310	1307 x 501 x 310	1307 x 501 x 310	1307 x 501 x 310
Main Body Net / Gross weight	kg	20.0/27.0	20.0/27.0	20.0/27.0	21.0/28.5	21.0/28.5
Panel dimension (WxDxH)	Outline (mm)	1200 x 460 x 55				
	Package (mm)	1265 x 536 x 118				
Panel net weight / Gross weight	kg	4.2/6.0	4.2/6.0	4.2/6.0	4.2/6.0	4.2/6.0

Indoor units

Wall-mounted inverter split system

Motorised vertical louvres, up-down airflow
For comfortably even temperature and air distribution.

Triple defenders for better purification
Mildew-proof filter, electrostatic fibre and anti-biotic fibre adopted to remove dust, smell, bacteria and mildew.

Cold air prevention design
The system is designed to prevent blowing cold air in the heating mode.

Protection function
Anti-freezing protection, fan motor built-in overload protection, temperature sensor error protection.

Wired or wireless control
Controls ordered separately.

All DC inverter technology
All motors adopt energy-efficient DC inverter technology.

Intelligent network
CAN Bus communication technology allows for system response speed to be faster and for communication to be more reliable.

Indoor units

Floor ceiling type unit

Universal low wall or under ceiling
Flexible installation options.

Discreet appearance
Elegant and discreet front panel blends in well with interior decor.

Protection function
Anti-freezing protection, fan motor built-in overload protection, temperature sensor error protection.

3D airflow
Vertical and horizontal motorised louvres for comfortably even temperature and air distribution.

Wired or wireless control
Controls ordered separately.

All DC inverter technology
All motors adopt energy-efficient DC inverter technology.

Intelligent network
CAN Bus communication technology allows for system response speed to be faster and for communication to be more reliable.

Indoor units

Low wall console unit

Multiple fan speeds

The fan can operate in multiple speeds and satisfy different air flow volume requirements.

Detachable grille and long life filter

Grille is detachable for easy cleaning. With long life filter, cleaning cycle is 20 times longer.

All DC inverter technology

All motors adopt energy-efficient DC inverter technology.

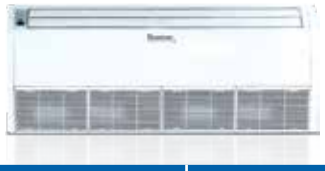
Intelligent network

CAN Bus communication technology allows for system response speed to be faster and for communication to be more reliable.

Wall-mounted inverter split system specifications

Model		MSHX022D1S	MSHX028D1S	MSHX036D1S	MSHX045D1S	MSHX050D1S
Capacity	Cooling (kW)	2.2	2.8	3.6	4.5	5.0
	Heating (kW)	2.5	3.2	4.0	5.0	5.8
Power supply	V / Ph / Hz	220-240/1/50				
Power consumption	W	50	50	60	60	60
Airflow volume	(H/M/L) m³/h	500/420/350	500/420/350	630/550/480	630/550/480	630/550/480
	(H/M/L) l/s	140/115/95	140/115/95	175/155/135	175/155/135	175/155/135
Rated current	Cooling (A)	0.2	0.2	0.31	0.31	0.31
	Heating (A)	0.2	0.2	0.31	0.31	0.31
Sound pressure level	(H/M/L) dB(A)	38/34/30	38/34/30	44/41/38	44/41/38	44/41/38
Connecting pipe diameter	Liquid (mm)	Ø6.35	Ø6.35	Ø6.35	Ø6.35	Ø6.35
	Gas (mm)	Ø9.52	Ø9.52	Ø12.7	Ø12.7	Ø12.7
Drain pipe	Ext. dia. (mm)	Ø20	Ø20	Ø20	Ø20	Ø20
	Thickness (mm)	1.5	1.5	1.5	1.5	1.5
Built in drain pump		No	No	No	No	No
Dimension (WxDxH)	Outline (mm)	843 x 180 x 275		940 x 200 x 298		
	Package (mm)	970 x 255 x 355		1065 x 285 x 380		
Net / Gross weight	kg	10/12.5	10/12.5	12.5/15.5	12.5/15.5	12.5/15.5

Model		MSHX056D1S	MSHX063D1S	MSHX071H1S
Capacity	Cooling (kW)	5.6	6.3	7.1
	Heating (kW)	6.3	7.0	7.5
Power supply	V / Ph / Hz	220-240/1/50		
Power consumption	W	70	70	70
Airflow volume	(H/M/L) m³/h	750/600/500	750/600/500	750/600/500
	(H/M/L) l/s	210/165/140	210/165/140	210/165/140
Rated current	Cooling (A)	0.31	0.31	0.31
	Heating (A)	0.31	0.31	0.31
Sound pressure level	(H/M/L) dB(A)	44/41/38	44/41/38	44/41/38
Connecting pipe diameter	Liquid (mm)	Ø9.52	Ø9.52	Ø9.52
	Gas (mm)	Ø15.9	Ø15.9	Ø15.9
Drain pipe	Ext. dia. (mm)	Ø30	Ø30	Ø30
	Thickness (mm)	1.5	1.5	1.5
Built in drain pump		No	No	No
Dimension (WxDxH)	Outline (mm)	1008 x 221 x 319		
	Package (mm)	1128 x 395 x 313		
Net / Gross weight	kg	15/18.5	15/18.5	15/18.5



Floor ceiling type unit specifications

Model		MUHX028D1S	MUHX036D1S	MUHX050D1S	MUHX063D1S	MUHX071D1S	MUHX090D1S
Capacity	Cooling (kW)	2.8	3.6	5.0	6.3	7.1	9.0
	Heating (kW)	3.2	4.0	5.6	7.1	8.0	10.0
Power supply	V / Ph / Hz	220-240/1/50					
Power consumption	W	40	40	50	75	75	140
Airflow volume	(H/M/L) m³/h	650/580/500	650/580/500	950/850/700	1400/1150/1000	1400/1150/1000	1600/1400/1200
	(H/M/L) l/s	180/160/140	180/160/140	265/235/195	390/320/280	390/320/280	445/390/335
Rated current	Cooling (A)	0.3	0.3	0.4	0.6	0.6	1.1
	Heating (A)	0.3	0.3	0.4	0.6	0.6	1.1
Sound pressure level	(H/M/L) dB(A)	36/34/32	36/34/32	42/38/33	44/42/39	44/42/39	50/47/43
Connecting pipe diameter	Liquid (mm)	Ø6.35	Ø6.35	Ø6.35	Ø9.52	Ø9.52	Ø9.52
	Gas (mm)	Ø9.52	Ø12.7	Ø12.7	Ø15.9	Ø15.9	Ø15.9
Drain pipe	Ext. dia. (mm)	Ø17	Ø17	Ø17	Ø17	Ø17	Ø17
	Thickness (mm)	1.75	1.75	1.75	1.75	1.75	1.75
Built in drain pump		No	No	No	No	No	No
Dimension (WxDxH)	Outline (mm)	1220 x 700 x 225			1420 x 700 x 245		
	Package (mm)	1343 x 823 x 315			1548 x 828 x 315		
Net / Gross weight	kg	40/49	40/49	40/49	50/58	50/58	50/58

Model		MUHX112D1S	MUHX125D1S	MUHX140D1S
Capacity	Cooling (kW)	11.2	12.5	14.0
	Heating (kW)	12.5	14.0	16.0
Power supply	V / Ph / Hz	220-240/1/50		
Power consumption	W	160	160	160
Airflow volume	(H/M/L) m³/h	2000/1800/1450	2000/1800/1450	2000/1800/1450
	(H/M/L) l/s	555/500/405	555/500/405	555/500/405
Rated current	Cooling (A)	1.4	1.4	1.4
	Heating (A)	1.4	1.4	1.4
Sound pressure level	(H/M/L) dB(A)	51/47/42	52/49/45	52/49/45
Connecting pipe diameter	Liquid (mm)	Ø9.52	Ø9.52	Ø9.52
	Gas (mm)	Ø15.9	Ø15.9	Ø15.9
Drain pipe	Ext. dia. (mm)	Ø17	Ø17	Ø17
	Thickness (mm)	1.75	1.75	1.75
Built in drain pump		No	No	No
Dimension (WxDxH)	Outline (mm)	1700 x 700 x 245		
	Package (mm)	1828 x 828 x 345		
Net / Gross weight	kg	60/68	60/68	60/68

Indoor units

Low wall console unit specifications

Model		MLHX022D1S	MLHX028D1L	MLHX036D1L	MLHX045D1L	MLHX050D1L
Capacity	Cooling (kW)	2.2	2.8	3.6	4.5	5.0
	Heating (kW)	2.5	3.2	4.0	5.0	5.5
Power supply	V / Ph / Hz	220-240/1/50				
Power consumption	W	15	15	20	40	40
Airflow volume	(H/M/L) m³/h	400/320/270	400/320/270	480/400/300	580/600/500	580/600/500
	(H/M/L) l/s	110/90/75	110/90/75	135/110/85	160/165/140	160/165/140
Rated current	Cooling (A)	0.17	0.17	0.25	0.4	0.4
	Heating (A)	0.17	0.17	0.25	0.4	0.4
Sound pressure level	(H/M/L) dB(A)	38/33/27	38/33/27	40/37/32	46/43/39	46/43/39
Connecting pipe diameter	Liquid (mm)	Ø6.35	Ø6.35	Ø6.35	Ø6.35	Ø6.35
	Gas (mm)	Ø9.52	Ø9.52	Ø9.52	Ø12.7	Ø12.7
Drain pipe	Ext. dia. (mm)	Ø28	Ø28	Ø28	Ø28	Ø28
	Thickness (mm)	1	1	1	1	1
Built in drain pump		No	No	No	No	No
Dimension (WxDxH)	Outline (mm)	700/215/600	700/215/600	700/215/600	700/215/600	700/215/600
	Package (mm)	788/283/777	788/283/777	788/283/777	788/283/777	788/283/777
Net / Gross weight	kg	16/19	16/19	16/19	16/19	16/19

Outside air conditioning

Outside air processing indoor unit

Option 1

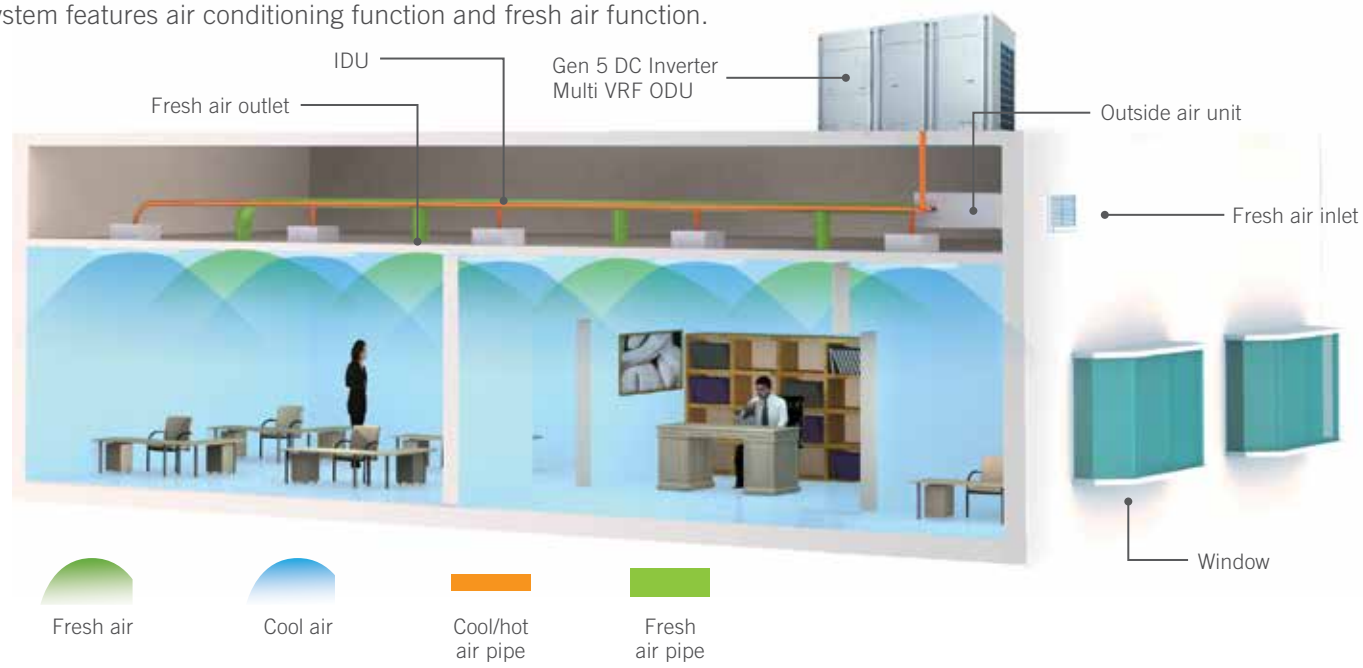
Airflow volume: 330 L/s - 1,100 L/s

Applicable range: Residential houses, villas, business buildings, hotels, apartments, etc.

A range of three single-phase and four three-phase models is available.

One system, two functions

Adopted with DC inverter technology, Fresh Air DC Inverter Multi VRF System features air conditioning function and fresh air function.



Enjoy fresh air

Airflow volume: 330 L/s – 1,100 L/s
Cooling capacity: 14-45 kW
Applicable for all kinds of structures

Pre-condition the outside air to deliver a fixed discharge air temperature to suit your needs, whilst using less power thanks to DC inverter technology.

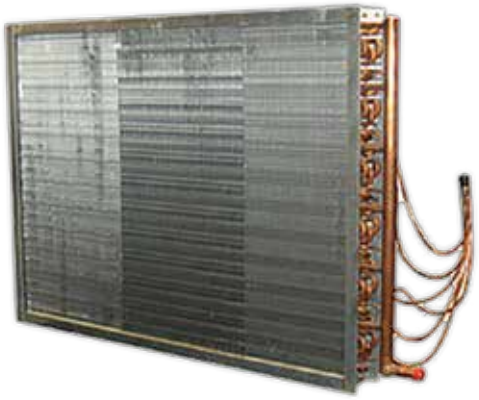
The Outside Air Processing Unit can be controlled as part of a multi VRF system.

Outside air conditioning

AHU kit

Maximum control, maximum efficiency

AHU kits are ideal for updating an existing DX refrigeration coil. By attaching the AHU kit, almost any existing or new coil can be transformed into an inverter coil and included into a full VRF system or have its own VRF outdoor unit.



Convenient installation

AHU kit and DX coil can be incorporated with Climate Wizard indirect evaporative air conditioning, thus massively reducing the running cost for treating outside air.

Adjustable capacity

AHU kits are available in five sizes, ranging from 2.8 kW to 56 kW.

Combination VRF and Climate Wizard indirect evaporative air conditioning

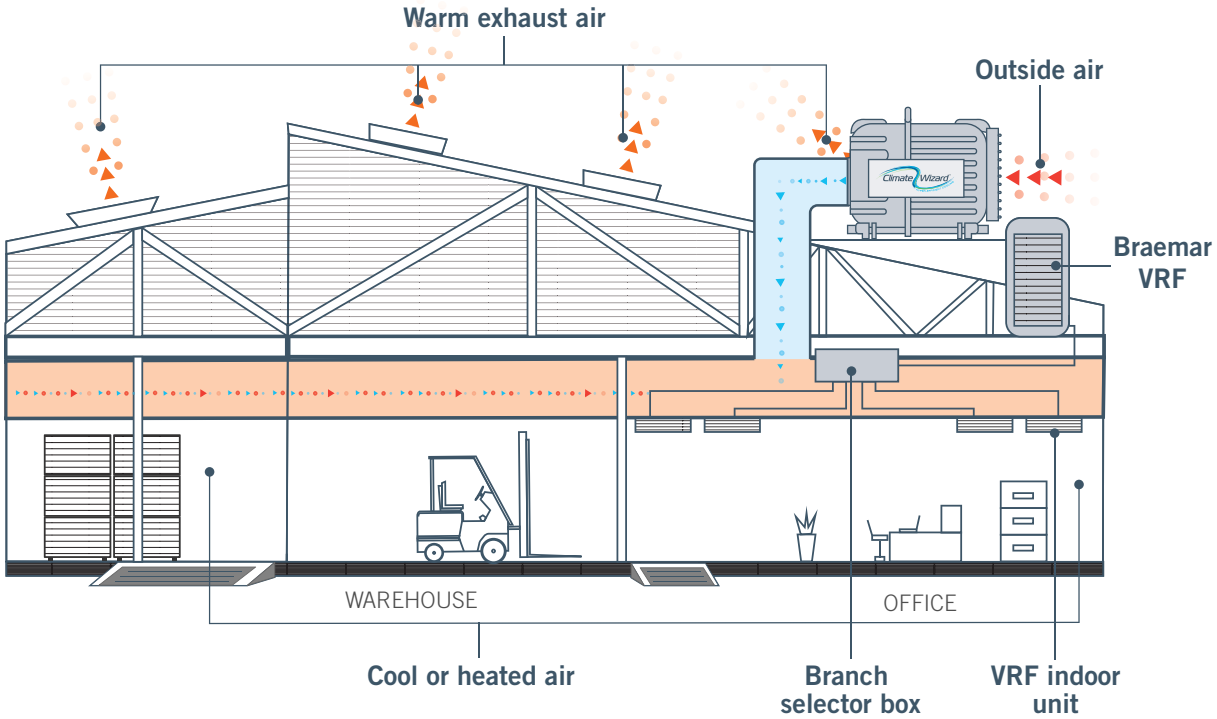
Option 2

Combining Climate Wizard with Braemar VRF will successfully resolve a variety of heat load and comfort challenges.

Climate Wizard's unique indirect evaporative heat exchange core provides hyper-efficient cooling of outside air.

When in combination with VRF, it reduces the load on refrigerated equipment, thus extending the life of equipment and reducing the electrical kW demand.

Combining Climate Wizard with VRF is a simple and reliable solution. For more information go to **climatewizard.com**



Outside air processing indoor unit specifications

Model		MFHX140D1S	MFHX224D3S	MFHX250D3S	MFHX280D3S
Capacity	Cooling (kW)	14.0	22.4	28.0	28.0
	Heating (kW)	10.0	16.0	20.0	20.0
Power supply	V / Ph / Hz	220-240/1/50	380~415/3/50		
Power consumption	W	360	740	760	1060
Airflow volume	(H/M/L) m³/h	1200	2000	2500	3000/835
	(H/M/L) l/s	330	555	695	160/165/140
Rated current	Cooling (A)	1.82	1.32	1.36	1.89
	Heating (A)	1.82	1.32	1.36	1.89
ESP	Pa	150	200		
Sound pressure level	(H/M/L) dB(A)	42	47	48	51
Connecting pipe diameter	Liquid (mm)	Ø9.52	Ø9.52	Ø9.52	Ø9.52
	Gas (mm)	Ø15.9	Ø19.05	Ø22.2	Ø22.2
Drain pipe	Ext. dia. (mm)	30	33	33	33
	Thickness (mm)	1.5	3	3	3
Built in drain pump		No	No	No	No
Dimension (WxDxH)	Outline (mm)	1463 x 756 x 300	1500 x 1000 x 500		
	Package (mm)	1514 x 785 x 360	1840 x 1200 x 673		
Net / Gross weight	kg	63.5/71	130/182	134/188	134/188

Model		MFHX450D3S	MFHX224D1S	MFHX280D1S
Capacity	Cooling (kW)	45.0	22.4	28.0
	Heating (kW)	32.0	16.0	20.0
Power supply	V / Ph / Hz	380~415/3/50	220-240/1/50	
Power consumption	W	1240	760	860
Airflow volume	(H/M/L) m³/h	4000	2000/2000~3500	2500/2000~3500
	(H/M/L) l/s	1110	555 ~ 970	555 ~ 970
Rated current	Cooling (A)	2.22	2.5	3.1
	Heating (A)	2.22	2.5	3.1
ESP	Pa	200	200/50~300	200/50~300
Sound pressure level	(H/M/L) dB(A)	58	45~54	47~54
Connecting pipe diameter	Liquid (mm)	Ø12.7	Ø9.52	Ø9.52
	Gas (mm)	Ø28.6	Ø19.05	Ø22.2
Drain pipe	Ext. dia. (mm)	33	30	30
	Thickness (mm)	3	1.5	1.5
Built in drain pump		No	No	No
Dimension (WxDxH)	Outline (mm)	1700 x 1100 x 650	1483 x 791 x 385	1483 x 791 x 385
	Package (mm)	1890 x 1460 x 835	1578 x 883 x 472	1578 x 883 x 472
Net / Gross weight	kg	208/266	82/104	82/104

Mini VRF

Mini VRF

MCMX Series

Mini VRF outdoor units are available in size ranging from 8 kW to 16 kW single phase.

All DC inverter technology

All motors adopt energy-efficient DC inverter technology.

Long connection pipe

With sub-cooling technology, the indoor and outdoor unit can operate reliably with longer connection pipe.

Stepless speed regulation

Ranges from 5Hz to 65Hz providing more efficiency than traditional inverter motors.

Ultra-low noise operation

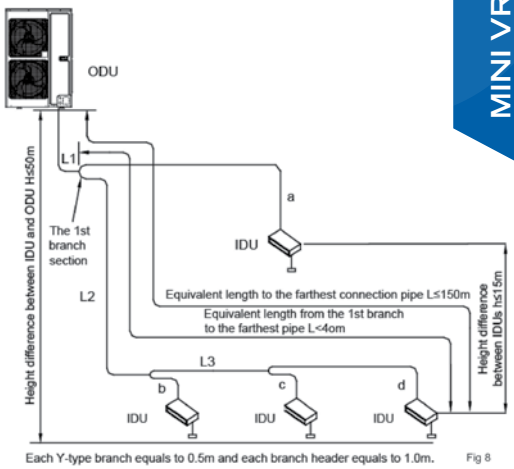
Sensorless control technology guarantees lower noise, less vibration and steadier operation.

Protection function

Water overflow protection, anti-freezing protection, fan motor overload protection, temperature sensor malfunction protection.

Pipe specifications

		Allowable value		Fitting pipe
		MCMX080D104, MCMX100D105	MCMX120D107, MCMX140D108, MCMX160D109	
Total length (actual length) of fitting pipe		250m	300m	L1+L2+L3+a+b+c+d
Length of farthest fitting pipe (m)	Actual length	100m	120m	L1+L2+L3+d
	Equivalent length	120m	150m	L1+L2+L3+d
From the 1st branch to the farthest indoor pipe		40m	40m	L2+L3+d
Height difference between ODU and IDU	ODU at upper side	30m	50m	-
	ODU at lower side	30m	40m	-
Height difference between IDUs		10m	15m	-



Each Y-type branch equals to 0.5m and each branch header equals to 1.0m. Fig 8

Operating conditions

Item	Nominal operating condition (temperature)				Operating range (temperature)
	Outdoor condition		Indoor condition		Outdoor condition DB (°C)
	DB (°C)	WB (°C)	DB (°C)	WB (°C)	Braemar Mini VRF
Cooling	35	24	27	19	-5~48
Heating	7	6	20	-	-20~27

Specifications

Model		MCMX080D104	MCMX100D105	MCMX120D107	MCMX140D108	MCMX160D109
Capacity	Cooling (kW)	8.0	10.0	12.1	14.0	15.5
	Heating (kW)	9.0	11.0	14.0	16.5	18.0
EER (rated)	kW/kW	3.81	3.45	3.51	3.33	3.44
COP (rated)	kW/kW	4.39	4.23	3.94	3.79	3.6
AEER (tested)	kW/kW	3.48	3.15	3.22	3.16	3.24
ACOP (tested)	kW/kW	4.13	4.00	3.71	3.68	3.34
Power supply	V/Ph/Hz	220~240/1/50				
Max.circuit/Fuse current	A	25	25	32	32	40
Power consumption	Cooling (kW)	2.1	2.9	3.45	4.2	4.5
	Heating (kW)	2.05	2.6	3.55	4.35	5
Maximum drive IDU NO.	unit	4	5	7	8	9
Refrigerant charge volume	kg	2.29	2.29	3.3	3.3	3.3
Sound pressure level	(H/M/L) dB(A)	56	56	55	56	58
Connecting pipe diameter	Liquid (mm)	9.52	9.52	9.52	9.52	9.52
	Gas (mm)	15.9	15.9	15.9	15.9	19.05
Dimension (WxDxH)	Outline (mm)	980x360x790	980x360x790	900x340x1345	900x340x1345	900x340x1345
	Package (mm)	1129x478x937	1129x478x937	1048x458x1507	1048x458x1507	1048x458x1507
Net / Gross weight	kg	85/95	85/95	112/123	112/123	112/123

Typical **2 pipe branch kit**

VRF heat pump

VRF heat pump

MCHX Series

With VRF heat pump system, the indoor units are either all in cooling or all in heating mode. The maximum capacity of a single outdoor unit can reach 45 kW. Groups of individual units can also be combined reaching 180 kW capacity.

All DC inverter technology

All motors adopt energy-efficient DC inverter technology.

Long connection pipe

Long connection pipe design with a maximum length of 1,000m.

Quiet mode

Outdoor unit quiet mode allowing noise to reach as little as 45dB(A).

Modular operation

Improved reliability by auto switching the lead module every 8 hours.

Static pressure

Outdoor fan motor with adjustable static pressure up to a maximum of 82Pa.

Protection function

Water overflow protection, anti-freezing protection, fan motor overload protection, temperature sensor malfunction protection.

Wide operating range

Cooling: -5ºC ~ 52ºC
Heating: -20ºC~ 24ºC

Operating conditions

Item	Nominal operating condition (temperature)				Operating range (temperature)
	Outdoor condition		Indoor condition		Outdoor condition DB (°C)
	DB (°C)	WB (°C)	DB (°C)	WB (°C)	Heat Recovery & Heat Pump
Cooling	35	24	27	19	-5~52
Heating	7	6	20	-	-20~24

Specifications

Model		MCHX224D313	MCHX280D316	MCHX335D319	MCHX400D323*	MCHX450D326*
Capacity	Cooling (kW)	22.4	28.0	33.5	40.0	45.0
	Heating (kW)	25.0	31.5	37.5	45.0	50.0
EER (rated)	kW/kW	3.39	3.24	3.22	3.59	3.42
COP (rated)	kW/kW	3.62	3.30	3.59	3.88	3.7
AEER (tested)	kW/kW	3.36	3.18	3.30	–	–
ACOP (tested)	kW/kW	3.38	3.59	3.69	–	–
Power supply	V/Ph/Hz	380~415V/3Ph/50Hz				
Max.circuit/Fuse current	A	20	25	32	40	40
Power consumption	Cooling (kW)	6.6	8.65	10.41	11.15	13.15
	Heating (kW)	6.9	9.55	10.46	11.6	13.5
Maximum drive IDU NO.	unit	13	16	19	23	26
Refrigerant charge volume	kg	5.9	9	9.7	9.8	10.3
Sound pressure level	(H/M/L) dB(A)	60	61	63	63	63
Connecting pipe diameter	Liquid (mm)	9.52	9.52	12.7	12.7	12.7
	Gas (mm)	19.05	22.2	25.4	25.4	28.6
Dimension (WxDxH)	Outline (mm)	930x765x1605	930x765x1605	1340x765x1605	1340x765x1605	1340x765x1605
	Package (mm)	1010x840x1775	1010x840x1775	1420x840x1775	1420x840x1725	1420x840x1725
Net / Gross weight	kg	220/230	235/245	290/305	360/375	360/375

*Available from August 2017. AEER/ACOP to be confirmed.

Typical **2 pipe branch kit**

VRF heat recovery

VRF heat recovery

5th Generation

With VRF heat recovery system, the indoor units can be in cooling and heating mode simultaneously. The maximum capacity of a single outdoor unit can reach 45 kW. Groups of individual units can also be combined reaching 180 kW capacity.

All DC inverter technology

All motors adopt energy-efficient DC inverter technology.

Flexible piping design

Choose from one mode exchange module per indoor unit; or one mode exchange module per up to four indoor units; or one mode exchange module per up to eight indoor units.

High efficiency, excellent performance and reliability

Ensured by advanced technology, such as precise control of capacity output, balancing control of refrigerant, original oil balancing technology with high pressure chamber, high-efficiency output control, low-temperature operation control technology etc, its energy efficiency is improved by up to 78% compared with conventional heat pump VRF.

Self diagnostic/self addressing

Can all be done from panel on outdoor unit or from the convenience of your laptop, on-site or off-site.*

Wide operation range

Cooling: -5ºC ~ 52ºC
Heating: -20ºC ~ 24ºC
Heating and cooling: -10ºC ~ 20ºC

Protection function

Water overflow protection, anti-freezing protection, fan motor overload protection, temperature sensor malfunction protection.

Static pressure

Outdoor fan motor with adjustable static pressure up to a maximum of 82Pa.

*Long distance monitoring needs to be installed.

Specifications

Model		MCRX224D313	MCRX280D316	MCRX335D319	MCRX400D323*	MCRX450D326*
Capacity	Cooling (kW)	22.4	28.0	33.5	40.0	45.0
	Heating (kW)	25.0	31.5	37.5	45.0	50.0
EER (rated)	kW/kW	3.42	3.22	3.40	3.56	3.42
COP (rated)	kW/kW	3.57	3.46	3.64	3.85	3.70
AEER (tested)	kW/kW	3.11	3.21	3.17	–	–
ACOP (tested)	kW/kW	3.23	3.49	3.43	–	–
Power supply	V/Ph/Hz	380~415V/3Ph/50Hz				
Max.circuit/Fuse current	A	20	25	32	40	40
Power consumption	Cooling (kW)	6.55	8.7	9.86	11.25	13.15
	Heating (kW)	7	9.1	10.31	11.7	13.5
Maximum drive IDU NO.	unit	13	16	19	23	26
Refrigerant charge volume	kg	6.2	9.6	12.1	9.8	10.3
Sound pressure level	(H/M/L) dB(A)	60	61	63	63	63
Connecting pipe	Liquid (mm)	9.52	9.52	12.7	12.7	12.7
	Gas Low Pressure (mm)	19.05	22.2	25.4	22.2	22.2
	Gas High Pressure (mm)	15.9	19.05	19.05	28.6	28.6
Dimension (WxDxH)	Outline (mm)	930x765x1605	930x765x1605	1340x765x1605	1340x765x1605	1340x765x1605
	Package (mm)	1010x840x1775	1010x840x1775	1420x840x1775	1420x840x1775	1420x840x1775
Net / Gross weight	kg	233/243	248/260	310/325	370/385	370/385

*Available from August 2017. AEER/ACOP to be confirmed.

Model		NCHS1B	NCHS4B	NCHS8B
Max. IDU branches	unit	1	4	8
No. of connectable IDU of each branch	unit	8	8	8
Total connectable IDU	unit	8	32	64
Max. capacity of each branch	kW	14	14	14
Max.capacity of connectable ODU	kW	14	45	65
Power supply	V/Ph/Hz	220-240V-1Ph-50/60Hz		
Power consumption	W	8	44	80
Maximum drive IDU No.	unit	1	4	8
Outdoor unit piping connection	Liquid (mm)	9.52	12.7	15.9
	Gas high pressure (mm)	15.9	22.2	22.2
	Gas low pressure (mm)	22.2	28.6	28.6
Indoor unit piping connection	Liquid (mm)	9.52	9.52	9.52
	Gas (mm)	15.9	15.9	15.9

Typical **3 pipe branch kit**

Mode exchange box
NCHS1B

Mode exchange box
NCHS4B

Mode exchange box
NCHS8B

Control systems lineup

Type	Model	Cassette IDU	Slim duct	High and low static duct	Fresh air IDU	Wall mounted	Floor ceiling	Console
Wireless	 YAP1F	Standard	Optional	Optional	Optional	Standard	Standard	Standard
Wired	 XK46	Optional	Standard	Standard	Standard	Optional	Optional	Optional
	 XK79	Optional	Optional	Optional	Optional	Optional	Optional	Optional
	 XK55	Optional	Optional	Optional	Optional	Optional	Optional	Optional
	 XK86	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Central	 CE52-24/F(C)	Optional	Optional	Optional	Optional	Optional	Optional	Optional
	 CE53-24/F(C)	Optional	Optional	Optional	Optional	Optional	Optional	Optional
	 CE54-24/F(C)	Optional	Optional	Optional	Optional	Optional	Optional	Optional

Control systems

Remote controller YAP1F

- 5 modes: auto, cool, dry, fan, heat
- 7 fan speed settings, including Turbo function
- Available functions: child lock, drying, health, ventilation, turbo, sleep, light, absence, I-feel and timer
- Clock display and indoor/outdoor ambient temperature viewing functions
- Up and down swing and left and right swing*

*Indoor model dependent

Wired controller XK55

- Elegant appearance
- LCD display
- Capacitive touchscreen display
- Receives infrared remote controller signal
- Various timing functions: three weekly timers and one countdown timer can be set simultaneously; mode, temperature and fan speed can be pre-set in weekly timer
- Easy to navigate interface with a personalised screen for each function
- Easy to customise functions, e.g. setting brightness and backlight time
- Semi-recessed

Control systems

Wired controller XK46

- LCD with black background and white words; touch buttons
- Clock can be displayed and set; 24 hours timer setting for on/off
- 7 levels of fan speed, up and down swing and left and right swing*
- Can be switched in auto, cooling, dehumidifying, fan, heating, floor heating, 3D heating and space heating operation modes
- Master and slave wired controllers can be set; simultaneous control over several IDUs is available
- Available functions: sleep, ventilation, quiet/auto quiet, light, energy saving, auxiliary heating, drying, memory, low-temperature dehumidifying, absence in heating, controllable auxiliary heating in dehumidifying, filter cleaning reminder, etc.
- Detect ambient temperature; receive infrared remote controller signal
- With project parameters viewing and setting functions
- Surface mounted

*Indoor model dependent

Wired controller XK79

- With simplified functions, mechanical buttons, back lighting LCD and convenient operation
- Can be switched in auto, cooling, dehumidifying, fan and heating operation modes
- Master and slave wired controllers can be set; simultaneous control over several IDUs is available
- Input voltage 220-240 V required
- Detect ambient temperature; receive infrared remote controller signal
- With system parameters viewing and setting functions
- 7 levels of fan speed, up and down swing*
- Door control system can be connected
- Semi recessed

*Indoor model dependent

Control systems

Wired controller XK86

- Elegant appearance
- Touch buttons with back lighting LCD
- Weekly timer function
- Complete system functions with each function implemented in an individual page
- Refreshing, auto dehumidifying, absence and other modes can be set
- Detect ambient temperature precisely
- Semi recessed

Smart zone controllers CE52, CE53, CE54

- Connectable with a network of indoor or outdoor units
- Long distance shield function (shield switch on/off, mode, temperature setting, etc) for single unit, group or all indoor units
- Access to centralised control of all indoor units, group management (including DIY grouping), schedule management (ability to set several schedules) and single unit control (on/off, mode, temperature setting, fan speed, quiet, swing control*, etc) functions
- Access to project setting, parameter viewing, malfunction record and access management functions
- Ability to name indoor units, select icons and personalise settings (background, backlight etc)
- Input voltage 220-240 V required
- Semi recessed

*Indoor model dependent

Central controller CE52-24/F(C)

- High-resolution colour LCD display
- 7" (178mm) capacitive touch screen for easy operation
- Elegant appearance
- Wall mounted controller (visible depth of the frame is 11mm only)
- Can centrally control up to 255 units

Control systems

Smart zone controller CE53-24/F(C)

- High-resolution LCD colour display
- 7” (178mm) capacitive touch screen for easy operation
- Elegant appearance
- Wall mounted controller (visible depth of the frame is 11mm only)
- Can centrally control up to 32 units

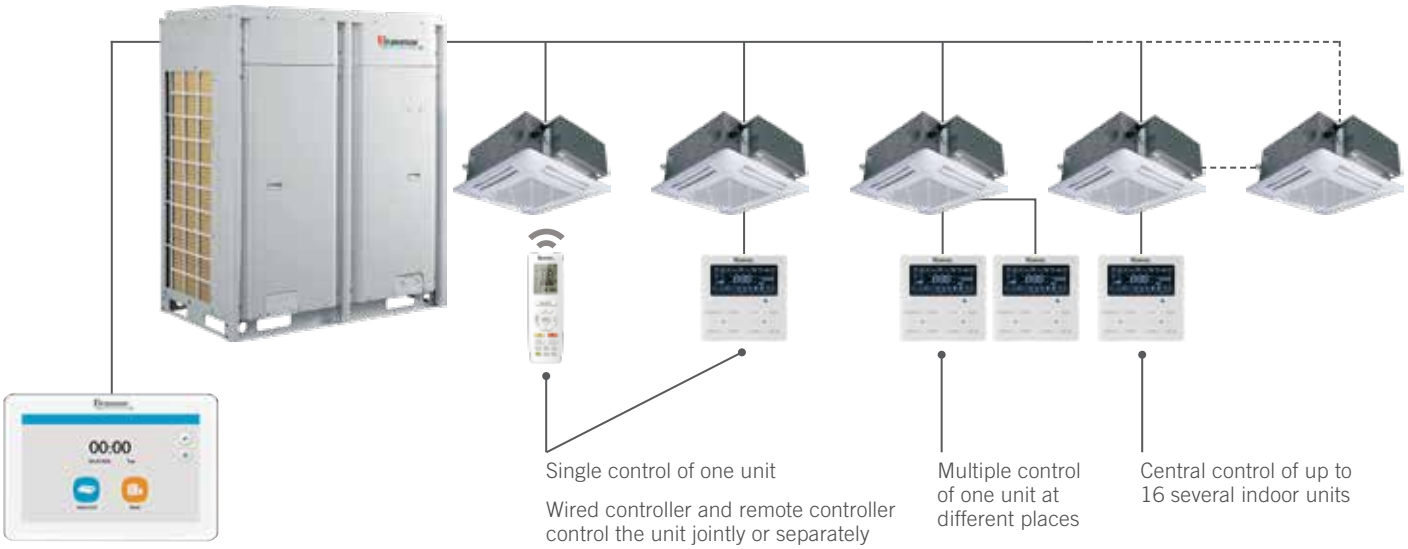
E-smart zone controller CE54-24/F(C)

- High-resolution colour LCD display
- 4.3” (109mm) capacitive touch screen for easy operation
- Wall mounted controller (visible depth of the frame is 11mm only)
- Supports up to a maximum of 32 indoor units

Multiple controllers per system

Flexible control system

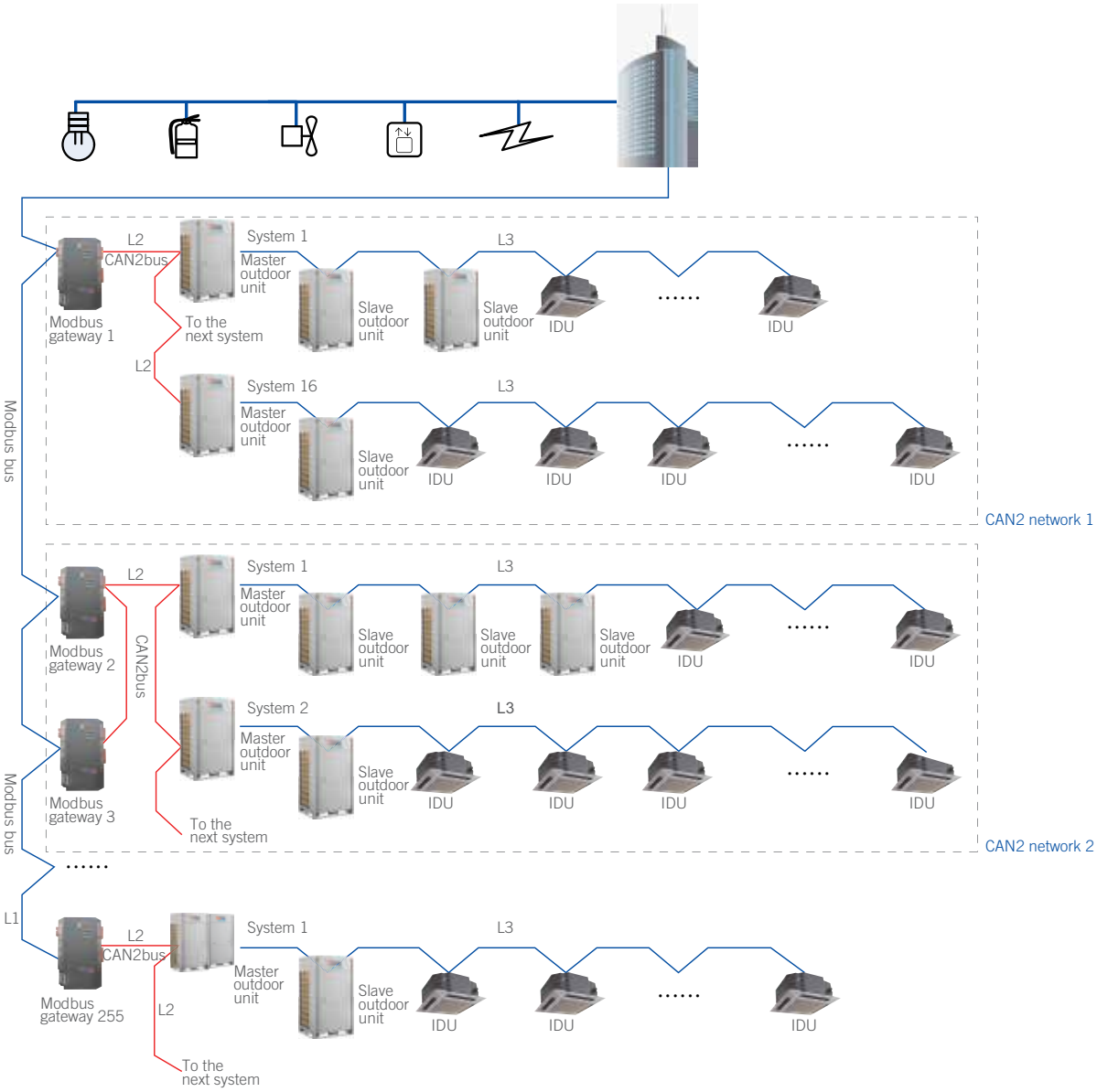
- Adaptable to all customer requirements
- Single control - wired or IR (infra-red) remote
- Multiple control of indoor unit from two locations
- Control up to 16 indoor units for a single controller
- Central control - allows to control the entire system from a single point
- BMS control - allows for long distance monitoring, either via a Bacnet Gateway or a Modbus Gateway



Control systems

Modbus

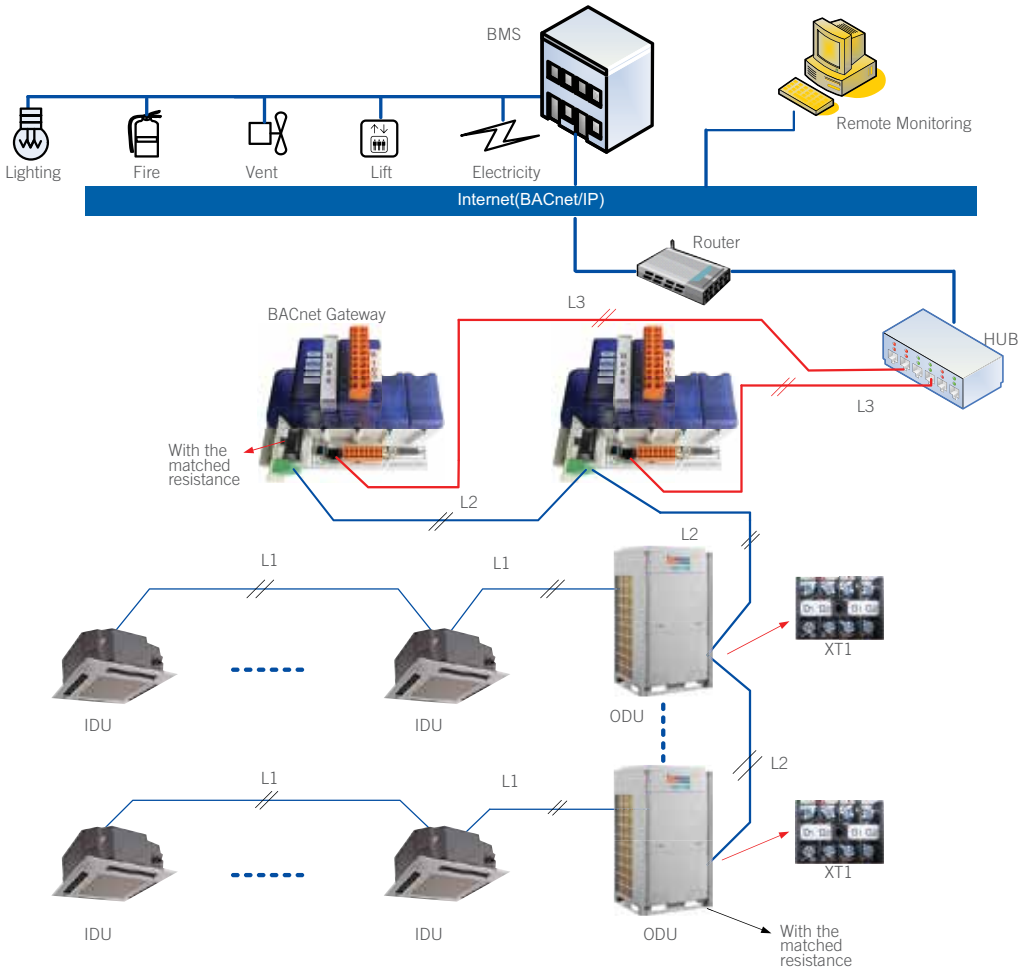
Modbus Gateway provides Braemar VRF with a Modbus protocol interface that allows Braemar VRF to be integrated with the BMS (Building Management System), to achieve both central and remote control.



- Real-time monitoring of unit operation status, e.g. on/off, mode, temperature
- Real-time response to the control of unit (on/off, mode setting and speed setting, etc.) by monitoring software
- Control on/off function of all units
- Monitor unit errors
- One Modbus bus can support up to 255 gateways. One Modbus gateway can support at most 16 outdoor units (up to 64 modular outdoor units) and 128 indoor units
- Ability to lock unit operation status, either all control functions at once or a certain setting function
- Linkage control, supporting 5 DI and 5 DO for receiving fire alarm signal and user's definition logic
- CAN, RS485 communication ports are non-polar, convenient for construction wiring
- Set cooling and heating temperature limits
- 220-240 VAC, 50/60Hz voltage required

BACnet

BACnet gateway kit MG30-24/D2(B) is intended to facilitate the data exchange between the air conditioning unit and BAS (Building Automation System), and providing the standard BACnet/IP building interface and 8 I/O interfaces, one of which is the fire alarm signal interface. The status of the other 7 I/O interfaces is mapped to the specific objects of the BACnet/IP bus and can be defined by the user.



- International standard BACnet/IP interface, which has passed BTL certification
- Real-time monitoring of unit operation status, e.g. on/off, mode, temperature
- Real-time response to the control of unit (on/off, mode setting and speed setting, etc.) by monitoring software
- Monitor unit errors
- Ability to lock unit operation status, either all control functions at once or a certain setting function
- Set cooling and heating temperature limits
- 5DI and 5DO interfaces for receiving fire alarm signal and user's definition logic
- Ability to control up to 255 indoor units

Long distance monitoring software

Interactive screen

- has a map that can display air conditioners' locations in rooms and buildings
- is able to measure the status and number of air conditioners on different levels

Everyday management

Setting for daily operation

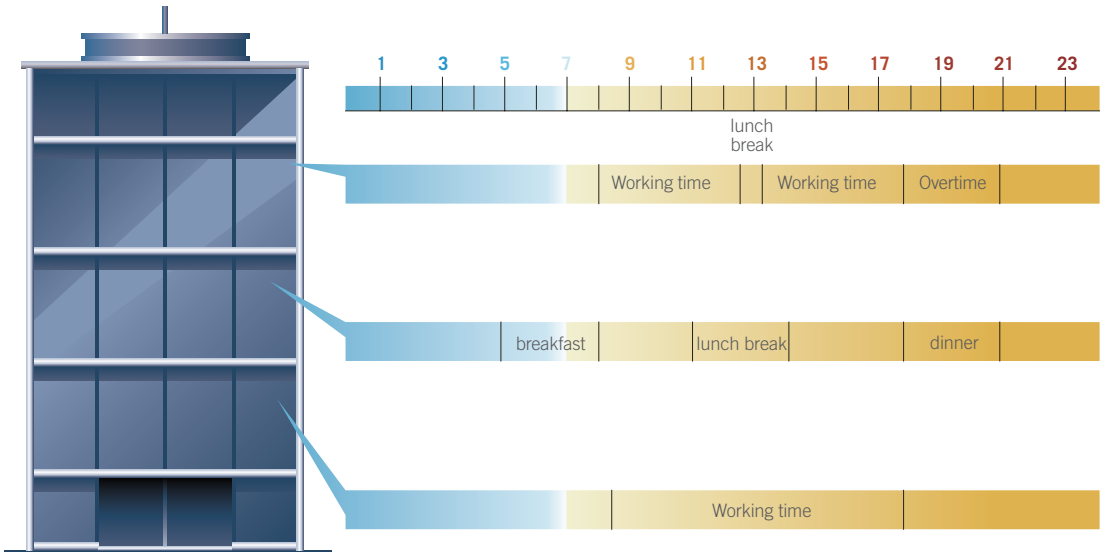
a. Management in days/weeks/months/years
b. Management of each unit
c. Simple display for management

Other functions

a. Power on/off, modes, humidity, fan speed
b. Ability to turn off the air conditioner remotely to reduce energy waste

Everyday Management at different locations

a. Management of overtime
b. Management of rest/meal breaks
c. Management of working time



Long distance monitoring software

Group management

Central management in groups

a. Ability to divide units into groups as required
b. Central control over power on/off
c. Central control over temperature
d. Central control over modes
e. Central control over user authority

Authority management

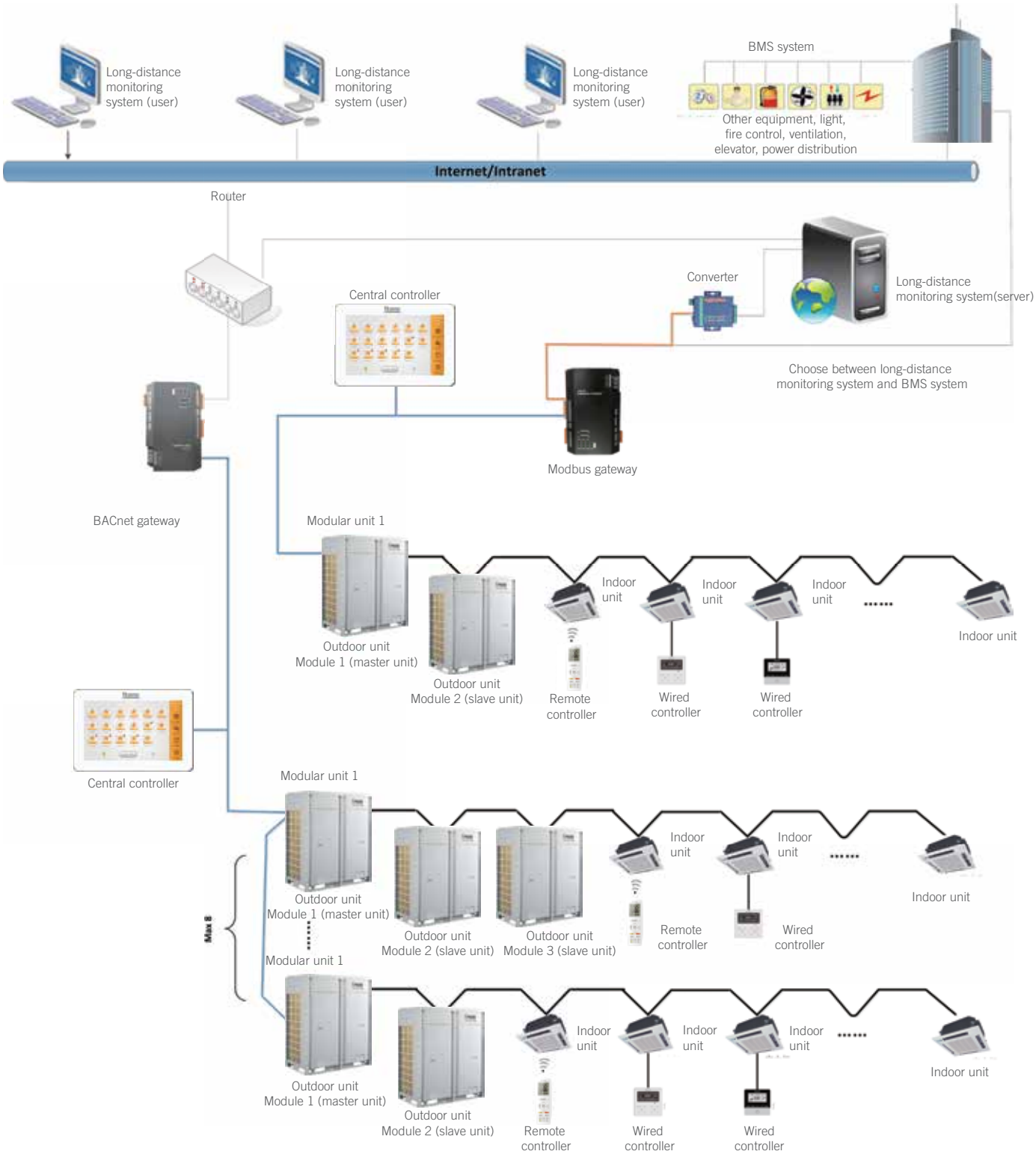
Only for indoor units

a. Limit control over power on/off
b. Limit control over temperature
c. Limit control over modes

Multiple intelligent remote control management

Braemar VRF provides multiple intelligent controls to satisfy all demands.

It can control both a room and a building at the same time.



Drawing for illustration purposes only. For more details refer to installation manual.

Notes

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Breezair By SEELEY INTERNATIONAL

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BREEZAIR
Ducted Evaporative Air Conditioning

BRAEMAR
Ducted Evaporative Air Conditioning | Ducted Gas Heating
Reverse Cycle Air Conditioning | Gas Wall Furnaces and Space Heaters

CLIMATE WIZARD
Indirect Evaporative Air Conditioning

CONVAIR
Portable Air Conditioning

COOLAIR
Ducted Evaporative Air Conditioning

COOLERADO
Indirect Evaporative Air Conditioning

AIRA
Direct and Indirect Evaporative Air Conditioning | Ducted Gas Heating
Commercial Gas Space Heating | Energy Recovery Systems

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