Haier

HVAC Solutions

Commercial & Applied HVAC Solutions Catalogue 2021

EUROVENT

Haier has been awarded the prestigious Eurovent certification for its MRV outdoor units, and the entire production facility. This recognition further underlines Haier's desire to create high-quality, high-performance and environmentally friendly products and services.

CERTIFICATE N° 18.06.003

Variable Refrigerant Flow / *Débit de réfrigérant variable*

Granted on June 12, 2018 - *Date 1ère admission 12 juin 2018*

This document is valid at the date of issue - Check the current validity on:
Document valable à la date d'émission - Vérifier la validité en cours sur :
www.eurovent-certification.com

Participant/ Titulaire

Haier Overseas Electric Appliances Corp. Ltd
South room #401, Brand Center Building - Haier High-Tech Industrial Park, Lao Shan District,
266101 Qingdao (Shandong Province), China

This certificate is issued by Eurovent Certita Certification according to the certification rules:

ECP VRF - « Variable Refrigerant Flow » in force at established date.

Pursuant to the decision notified by Eurovent Certita Certification, the right to use the mark ECP shall be granted to the beneficiary company for all products inside the defined scope according to "certify-all" principle and in the conditions defined by the certification program mentioned.

Unless withdrawn or suspended, this certificate remains valid as long as the requirements for the certification program framework are met. The validity of the certificate is to be verified on www.eurovent-certification.com

THIS CERTIFICATE HAS BEEN ISSUED ON 18/11/2020
THIS CERTIFICATE IS VALID UNTIL 31/12/2021

Ce certificat est délivré par Eurovent Certita Certification dans les conditions fixées par le référentiel :

ECP VRF – « Débit de réfrigérant variable » en vigueur à date d'édition.

En vertu de la décision notifiée par Eurovent Certita Certification, le droit d'usage de la marque ECP, est accordé à la société qui en est bénéficiaire pour les tous les produits entrant dans le champ d'application défini selon le principe "certify-all" et dans les conditions définies par le programme de certification mentionné.

Sauf retrait ou suspension, ce certificat demeure valide tant que les conditions du référentiel du programme de certification sont respectées. La validité du certificat est à vérifier sur le site Internet www.eurovent-certification.com

CE CERTIFICAT A ÉTÉ EMIS LE 18/11/2020
CE CERTIFICAT EST VALIDE JUSQU'AU 31/12/2021

Paris, 18 novembre 2020

MANAGING BOARD MEMBER / MEMBRE DIRECTOIRE

Organisme accrédité n° 5-0517 Certification Produits et Services selon la norme NF EN ISO/CEI 17065:2012
Portée disponible sur www.cofrac.fr

Accreditation #5-0517 Products and Services Certification according to NF EN ISO/CEI 17065:2012 –
Scope available on www.cofrac.fr

COFRAC est signataire des accords MLA d'EA et MLA d'IAF,
COFRAC is signatory of EA MLA and IAF MLA,
list of EA members is available on
www.european-accreditation.org/ea-members
list of IAF members is available on
www.iaf.nu//articles/IAF_MEMBERS_SIGNATORIES/4

BRAND STORY

Today, in the diverse and unconventional age of the Internet, "one size fits all" products and solutions are not enough to satisfy the customer. Customers want to be treated as autonomous individuals and respected for who they are. Everyone wants their unique lifestyle acknowledged.

That is why we listen carefully to our customers in order to gain a genuine understanding of their lifestyle and requirements. Each of us deserves to live an extraordinary smart home experience, which can be simple, sophisticated, organised and enjoyable.

As a global leader, Haier, in addition to innovating its products and solutions, transforms its organisation into a connected platform. In doing so, internal and external resources are connected quickly and easily. We believe only by doing so, we can best meet our customers' expectations in this rapidly evolving world. Join the Haier network. Create new possibilities.

HAIER GLOBAL NETWORK

Haier has built its infrastructure in various parts of the world to quickly meet the demands of its customers including R&D centres, production facilities, commercial companies and sales points.
Through the five R&D centres around the world, Haier has forged strategic alliances with first-class providers, research institutes and prestigious universities to create an innovative ecosystem of scholars and engineers connected by a single virtual and physical network.

Worldwide Network	Overseas	Global
Trading Company	24	66
R&D Centre	8	10
Production Facility	54	108
Industry Park	12	24
Sales Network	37683	143330

Haier

Leader 统帅 · Hoover · Casarte · Candy · Rosières · Fisher & Paykel · GE Appliances

The data in this catalogue is purely indicative as the data may vary. Please be advised to check the accuracy of the data with the supplier before purchasing products.

RESEARCH AND DEVELOPMENT LABORATORY

Haier has set a new standard for HVAC laboratories, giving life to what today represents 'The state of the art' and one of its kind. Operating since March 2014, it is now the world's reference point.

Inside the "Haier Park" industrial complex in Qingdao China, there is the world's most advanced laboratory for testing, research and development of products for the HVAC (heating, ventilation, cooling) sector.
The 'Haier Park' has a large exhibition space with the most significant Haier innovations. You can also view the powerful Haier centrifugal chiller with magnetic suspension compressor used for comfort cooling in large commercial buildings.

Developed on 10 floors, each with different themes, you can learn about over 1,000 different technological experiences.

The building has an impressive 150 laboratories where it is possible to test all products according to all national and international regulations specific to the HVAC sector. From calorimeters, to anechoic halls, to atmospheric simulators, electromagnetic tests and more.

Haier employs specialised engineers from all over the world and initiate several collaborations with many renowned manufacturers worldwide.

The 'Haier Tower' is a proud landmark for Haier. It is located next to the main set of laboratories at the 'Haier Park'. With a height of 106 m, the highest in the world, the 'Haier Tower' encompasses 5 laboratories where our MRV systems and beyond are tested, predicting and controlling all the variables that can occur in the phases of installation and real operation.

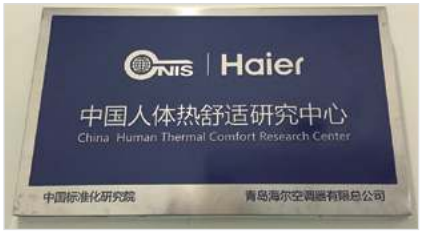
With the creation of this futuristic laboratory, Haier wanted to reaffirm its intention to becoming a world-leading manufacturer in the HVAC sector.

COLLABORATIONS

Collaborations with the world's leading manufacturers, inside the haier centre in qingdao

The Haier laboratory is Shared with 'HIGHLY', a Hitachi group company, manufacturing compressors for the development and testing of refrigerating circuits and compressors.

Haier laboratory shared with 'MITSUBISHI ELECTRIC', for the study and discovery of innovative technologies.



Haier laboratory shared with the Chinese national agency, for the study and research for human comfort.

PRODUCTION FACILITIES

Haier AC has 8 production facilities in China, another 8 located between South Asia and North Africa.
Haier has a total production capacity of 20.1 million units per year.

MRV 5 & MRV 5 - H Full DC Inverter 2-pipe Heat Pump

SERIES	8 HP	10 HP	12 HP	14 HP	16 HP	18 HP	20 HP	22 HP	24 HP	26 HP	28 HP	30 HP	32 HP	34 HP
														
MRV 5 (Model)	AV08	AV10	AV12	AV14	AV16	AV18	AV20	AV22	AV24	AV26	AV28	AV30	AV32	AV34IMVEVA
	IMVEVA					IMVEVA					IMVEVA			
MRV 5 - H (Model)	AV08	AV10	AV12	AV14	AV16	AV18	AV20	AV22	AV24	AV26	AV28	AV30	AV32	AV34NMVETA
	NMVETA					NMVETA					NMVETA			

SERIES	36 HP	38 HP	40 HP	42 HP	44 HP	46 HP	48 HP	50 HP	52 HP	54 HP	56 HP	58 HP	60 HP	62 HP	64 HP	66 HP	68 HP	70 HP	72 HP	74 HP	76 HP	78 HP
																						
MRV 5 Model	AV36	AV38	AV40	AV42	AV44	AV46	AV48	AV50	AV52	AV54	AV56	AV58	AV60	AV62	AV64	AV66	AV68	AV70	AV72	AV74	AV76	AV78
	IMVEVA									IMVEVA												
MRV 5 - H Model	AV36	AV38	AV40	AV42	AV44	AV46	AV48	AV50	AV52	AV54	AV56	AV58	AV60	AV62	AV64	AV66	AV68	AV70	AV72	AV74	AV76	AV78
	NMVETA									NMVETA												

SERIES	80 HP	82 HP	84 HP	86 HP	88 HP	90 HP	92 HP	94 HP	96 HP	98 HP	100 HP	102 HP	104 HP
													
MRV 5 Model	AV80	AV82	AV84	AV86	AV88	AV90	AV92	AV94	AV96	AV98	AV100	AV102	AV104
	IMVEVA												
MRV 5 - H Model	AV80	AV82	AV84	AV86	AV88	AV90	AV92	AV94	AV96	AV98	AV100	AV102	AV104
	NMVETA												

MRV S II Outdoor Units

SERIES	4-5 HP	4 HP	5 HP	6 HP	8 HP	10 HP	12 HP
MRV S II							
Model	AU042FNERA AU052FNERA	AU042FPERA AU04IFPERA	AU052FPERA AU05IFPERA	AU062FPERA AU06IFPERA	AU08NFKERA	AU10NFKERA	AU12NFKERA

Range

MRV 5-RC Full DC Inverter 3-Pipe Heat Recovery

SERIES	8 HP	10 HP	12 HP	14 HP	16 HP	18 HP	20 HP	22 HP	24 HP	26 HP	28 HP	30 HP
MRV 5-RC												
(Model)	AV08	AV10	AV12	AV14	AV16	AV18	AV20	AV22	AV24	AV26	AV28	AV30IMVURA
	IMVURA				IMVURA				IMVURA			

SERIES	32 HP	34 HP	36 HP	38 HP	40 HP	42 HP	44 HP	46 HP	48 HP	50 HP	52 HP	54 HP	56 HP	58 HP	60 HP	62 HP	64 HP	66 HP
																		
MRV 5-RC (Model)	AV32	AV34	AV36	AV38	AV40	AV42	AV44	AV46IMVURA	AV48	AV50	AV52	AV54	AV56	AV58	AV60	AV62	AV64	AV66
	IMVURA								IMVURA									

SERIES	68 HP	70 HP	72 HP	74 HP	76 HP	78 HP	80 HP	82 HP	84 HP	86 HP	88 HP
MRV 5-RC											
Model	AV68	AV70	AV72	AV74	AV76	AV78	AV80	AV82	AV84	AV86	AV88
	IMVURA										

MRV 5-RC 3-pipe connection kit

SERIES	X ≤ 11.2KW	11.2 < X ≤ 18KW	18 < X ≤ 28KW	4 ways - max 11.2kW for single output.
VP - BOXES				
Model	VP1-112B	VP1-180B	VP1-280B	VP4-450B

MRV W Water Cooled Heat Pump Outdoor Units

SERIES	8 HP	10 HP	12 HP	16 HP	18 HP	20 HP	22 HP	24 HP	28 HP	30 HP	32 HP	34 HP	36 HP
MRV-W													
Model	AV08	AV10	AV12	AV16	AV18	AV20	AV22	AV24	AV28	AV30	AV32	AV34	AV36
	IMWEWA			IMWEWA					IMWEWA				

AHU kit to create direct-expansion air treatment units

SERIES	3,5 ≤ X ≤ 7KW	7 ≤ X ≤ 14KW	14 ≤ X ≤ 28KW	28 ≤ X ≤ 56KW	56 ≤ X ≤ 73KW
AHU KIT					
Model	AH1-070B	AH1-140B	AH1-280B	AH1-560B	AH1-730B
MRV Compatibility	"S" series with front air discharge and "5" series				

EASY MRV Residential and Commercial Supermatch Indoor Units - Connectable to MRV Systems with MS Valves

SERIES	Kbtu/h	7	9	12	18	24	28	30	38	48	60
	kW	2.0	2.8	3.6	5.6	7.1	8	9	11.2	14	16
FLEXIS (MW)		●	●	●	●	●					
FLEXIS (MB)		●	●	●	●	●					
PEARL			●	●	●						
FLOOR CONSOLE, EXPOSED TYPE, 2 WAY AIR FLOW			●	●	●						
CASSETTE			●	●	●	●	●				
CEILING FLOOR CONVERTIBLE				●	●	●	●				
SLIM DUCT LOW PRESSURE			●	●	●	●					
DUCTED MEDIUM PRESSURE				●	●	●	●				
TOWER										●	●

EASY MRV MS Valves for Residential and Commercial Units

SERIES	11.2 kW	11.2 to 18 kW	Max 33.6 kW (max 11.2 kW per single output)
EASY MRV			
Model	MS1-036A	MS1-060A	MS3-036A
Combination with Number of IU	1:1	1:1	1:3
MRV Compatibility	"S" series with front air discharge and "5" series		

Range

MRV Indoor Units

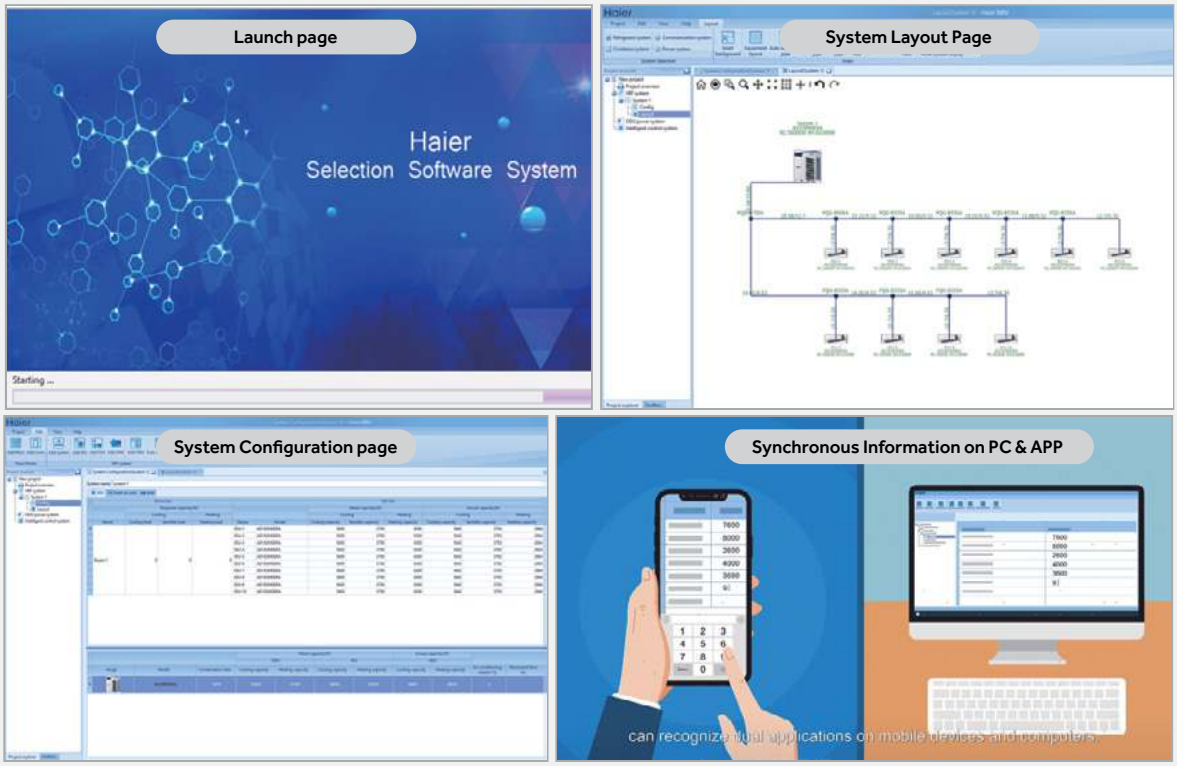
SERIES	Kbtu/h	5	7	9	12	16	18	24	28	30	38	48	60	72	96
	kW	1.5	2.2	2.8	3.6	4.5	5.6	7.1	8	9	11.2	14	16	22.6	28
WALL		●	●	●	●	●	●	●	●	●					
CONSOLE		●	●	●	●	●	●								
CASSETTE 1 WAY		●	●	●	●										
CASSETTE 2 WAY			●	●	●	●	●								
CASSETTE 4 WAY 90x90 AC							●	●	●	●	●	●			
CASSETTE 4 WAY 60x60 AC		●	●	●	●	●	●								
CASSETTE SMART FLOW 4 WAY DC			●	●	●	●	●	●	●	●	●	●	●		
CASSETTE 4 WAY 60x60 DC		●	●	●	●	●	●								
CEILING / FLOOR CONVERTIBLE				●	●	●	●	●	●	●	●	●			
SLIM DUCT LOW PRESSURE DC		●	●	●	●	●	●	●							
DUCTED MEDIUM PRESSURE		●	●	●	●	●	●	●	●	●	●	●			
DUCTED HIGH PRESSURE							●	●	●	●	●	●		●	●
DUCTED- CONSTANT AIR FLOW			●	●	●	●	●	●	●	●	●	●	●		
FLOOR CONSOLE, DBILT-IN			●	●	●	●	●	●							
FLOOR CONSOLE, EXPOSED			●	●	●	●	●	●							
DUCTED FRESH AIR ALL OUTDOOR AIR												●		●	●

Selection Software

HAIER SELECTION SOFTWARE - EASY DESIGN AND CUSTOMISATION

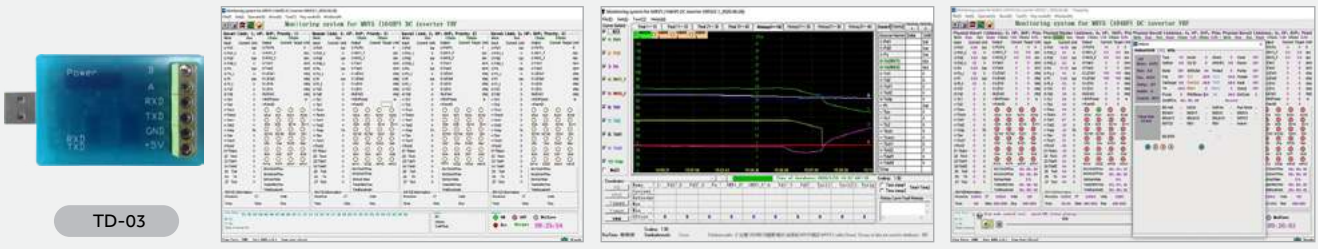
The Haier Selection Software supports PC & Apps, which means the reports and information on all devices and phones are synchronised.

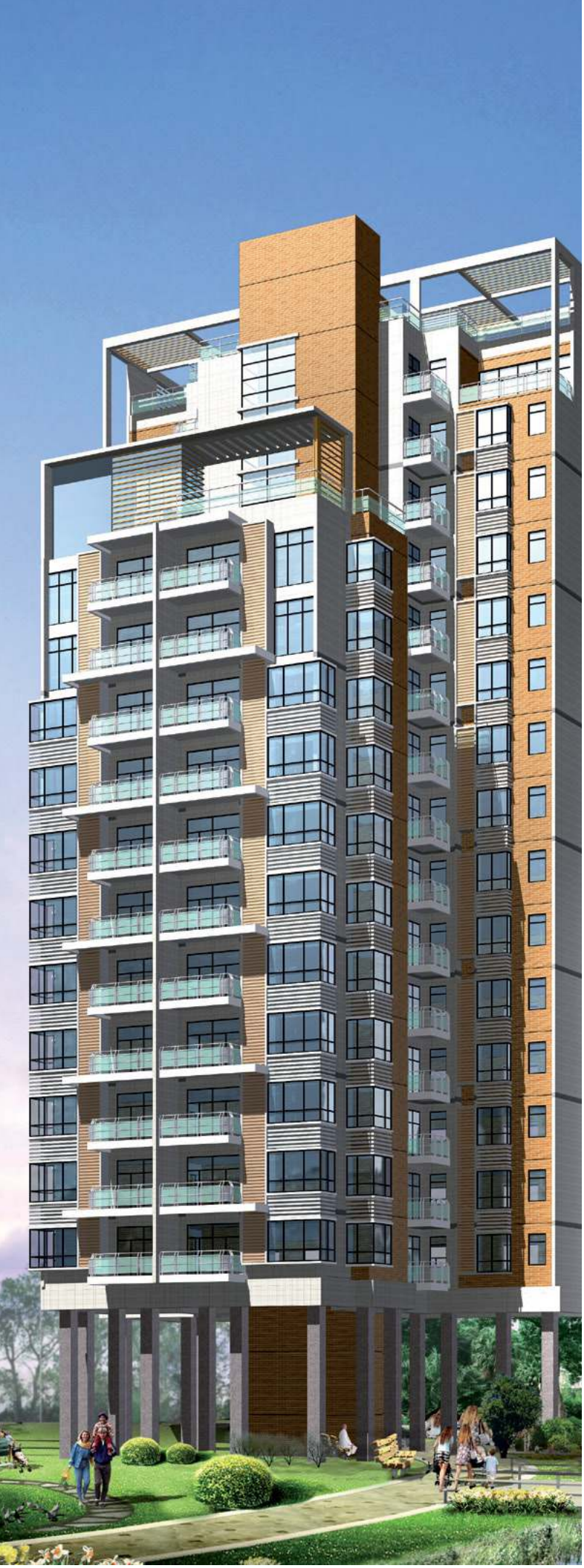
With the Haier MRV Selection software, engineers and consultants can easily design layouts and prepare a full MRV system in a few steps. It selects the right models to meet your building load requirements and calculates the piping schematic automatically or manually, as well as the wiring. It's possible to import DWG and JPG drawings. The selection software guides you within design rules and offers a comprehensive system design report in PDF, Word or Excel format.



SERVICE TOOL TD-03 WITH MONITORING SOFTWARE

Installers can use TD-03 service tool together with monitoring software for real-time monitoring of the system as well as access to operating data of VRF system through the PC. The running data and parameters can be used to analyse error's for fast troubleshooting. You can save the data for further analysis.





MRV S^{II}

DC Inverter Unit with Front Discharge

IMPROVED CONFIGURATION AND PERFORMANCE (8/10/12HP SIDE DISCHARGE)

Flexible applications with bigger outdoor capacity options.

High efficiency DC fan motor
•DC fan motor with stepless inverter control, increases efficiency by 45% comparing with AC motor.

Larger fan diameter
•Ø570mm larger axial flow fan
•Zigzag design, reduces disturbance in airflow as well as increasing air volume and reducing noise level.

High efficiency condenser
•Newly designed high efficiency inner grooved tube.
•New hydrophilic corrugated fissure fin increases efficiency.

Vector inverter control
•180 degrees sine wave vector control, 64-bit operation
•Precision control achieves high efficiency and lower noise levels

Double pressure sensor
•Equipped with high and low voltage pressure sensors
•Accurate pressure control ensures the system runs smoothly, increasing energy efficiency.

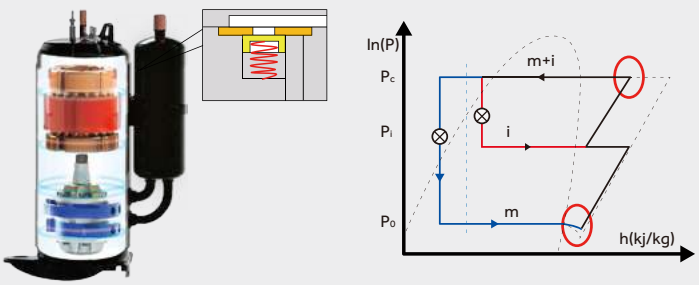
Twin rotary DC Inverter compressor
•High chamber DC inverter twin rotary compressor
•Increased energy efficiency by achieving smaller vibrations and benefiting from lower sound levels.

LEADING TECHNOLOGY (4-6HP)

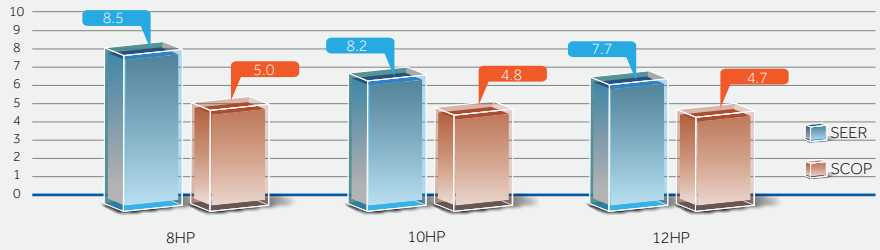
- Two-stage super cooling cycle technology, increases efficiency by 9%. (Double fan)
- 30°C maximum temperature in cooling increases unit refrigerating capacity by 46%

INCREASING POWERFUL HEATING CAPACITY

When the ambient temperature is low, the heat exchange capability of the outdoor unit is decreased and the amount of air returned by the compressor is reduced. By increasing the refrigerant flow during the heating cycle of the indoor unit heat exchanger, we improve the heating capacity.

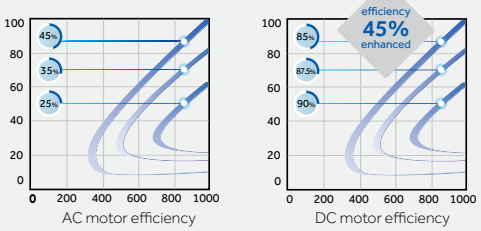


HIGH EER AND COP(8/10/12HP)



DC FAN AND FAN MOTOR

- DC inverter fan motor is highly efficient during part load operation
- 16-stage speed control; high efficiency operation especially in low speed
- 45% increase in efficiency compared with AC motor due to reduced input power
- 570mm diameter fan, increases air flow and achieves higher efficiency(8/10/12HP)



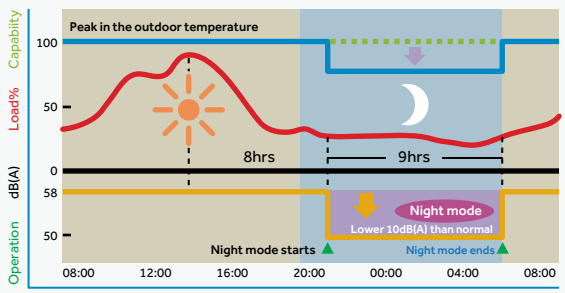
SELF-CLEANING FUNCTION ON INDOOR AND OUTDOOR UNITS

During operation, dirt accumulates on the evaporator. If the evaporator is not cleaned regularly, accumulated dirt reduces the thermal exchange by 15-30% and also promotes the proliferation of bacteria and mould.

The new Self Clean technology is the first of its kind to integrate the self-cleaning function of both the evaporator and the condenser. It starts with cleaning the evaporator, then switches to cleaning the condenser without stopping the compressor.

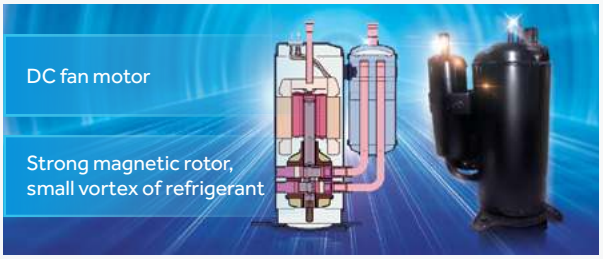
LOW NOISE LEVEL

- Night quiet operation function
- Noise levels can be reduced down to 45dB(A)



NEW DC INVERTER TWIN ROTARY COMPRESSOR

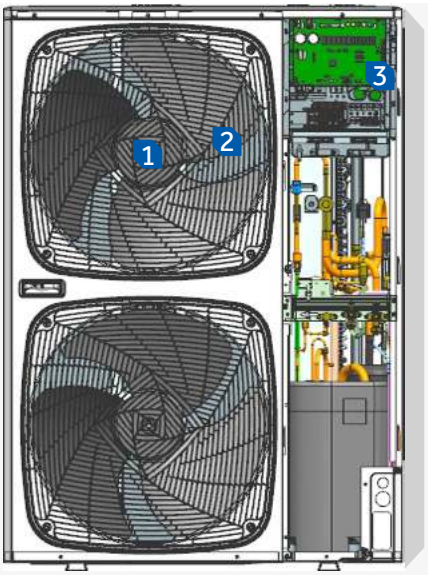
- A small torque change and a good dynamic balance of the system allows the unit to runs smoothly with little vibration, low noise levels and increased efficiency
- Increased efficiency during part load operation



1 New aerodynamics fan
550mm super big diameter aerospace helix fan. lowering sound level 3dB(A)

2 Enlarged air inlet path and spiral air outlet path. Air flow direction follows the grill direction which reduces sound levels by 2-4 dB(A)

3 Automatic sound reduction capability. Night mode set by the PCB is 8dB(A) lower



LOW SOUND OPERATION

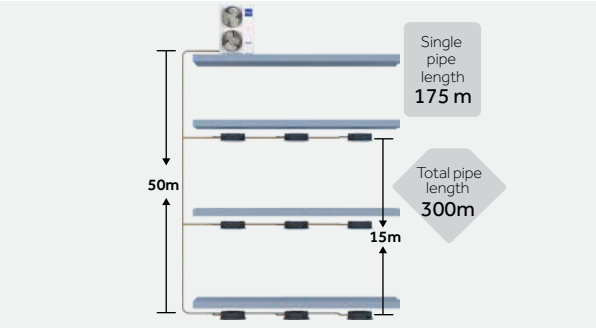
•DC inverter compressor achieves a smoother operation and effectively reduces sound levels by eliminating the frequent start up of the compressor.
•Precision control achieved by vector inverter control
•Non-resonance motor brackets are used on the DC fan motor which ensures a smoother operation of the motor and reduces operating sound levels
•Larger fan diameter inspired by aviation design principles for quieter operation

COMPACT SIDE DISCHARGE DESIGN

Side discharge design eliminates the need for additional ventilation hood compared with a top discharge unit, ideal for narrow spaces.

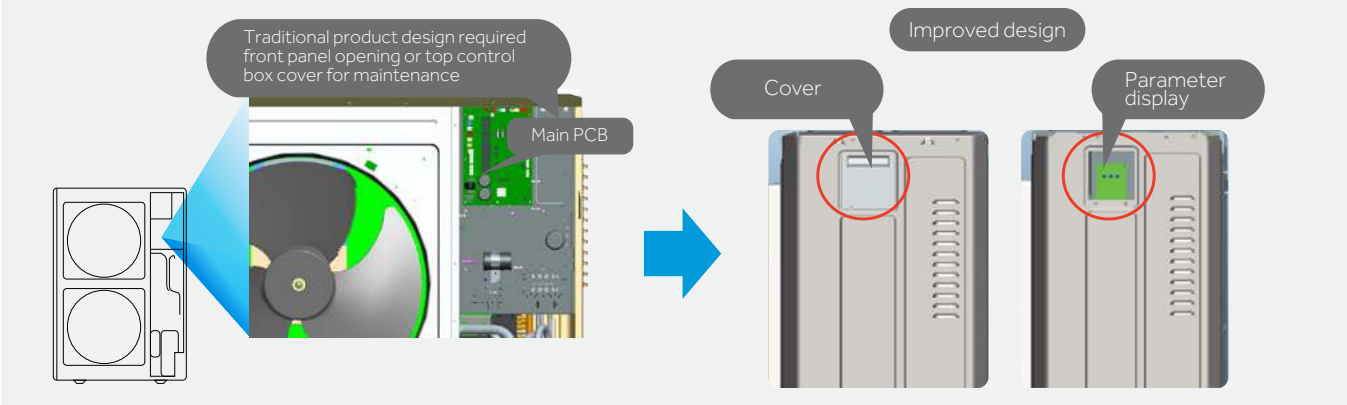
LONG PIPE LENGTH, INCREASED HEIGHT DROP

•Total pipe length: 300m
•Single pipe length: Max.175m
•From outdoor to the first branch pipe: 135m
•From the first branch to the furthest indoor door unit: 40m
•Height drop: 50m(outdoor above)/40m (outdoor below)
•Height drop between indoor units: 15m



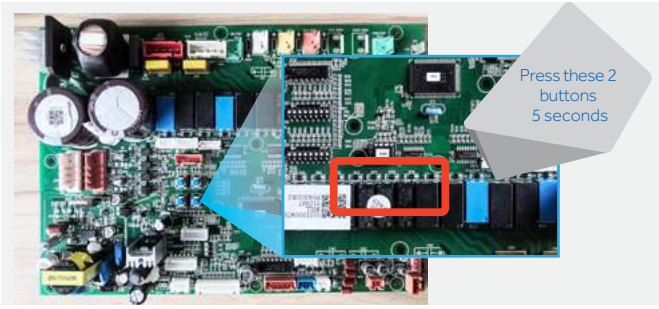
PARAMETER DISPLAY PANEL

The parameter display panel has been improved by moving it to the side of the unit. The parameter can be easily accessed by directly opening the protective cover for maintenance.



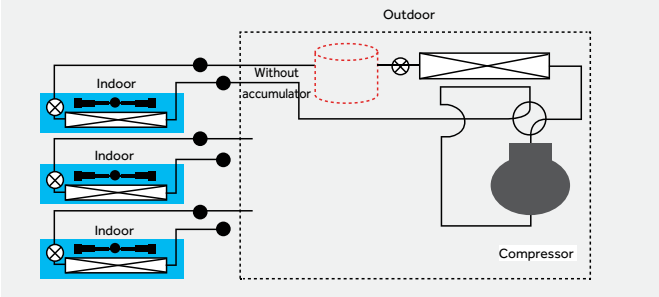
AUTOMATIC REFRIGERANT RECLAIM TECHNOLOGY

Set automatic refrigerant reclaim through the dip switch. The refrigerant in the indoor unit can be automatically returned to the outdoor unit. This is convenient during maintenance, reducing refrigerant waste, maintenance cost and time.



REFRIGERANT CONTROL TECHNOLOGY

Refrigerant control technology without high pressure accumulator, reduces the refrigerant volume and enhances operating efficiency.



4-5HP
AU042FNERA
AU052FNERA

Model			AU042FNERA	AU052FNERA
Capacity[1]	Capacity range	HP	4	5
	Cooling	kW	12.1	14.0
	Heating	kW	14.0	15.5
	SEER(T1)	/	4.90	4.85
	ηs,c	%	193	191
	SCOP(T1)	/	3.50	3.55
	ηs,h	%	137	139
Electrical parameters	Power supply	Ph/V/Hz	1/220-240/50/60	1/220-240/50/60
	Rated Power input (Cooling)	kW	4.25	5.00
	Rated Power input (Heating)	kW	4.10	4.83
	Max. current absorption - Cooling	A	28.3	29.3
	Max. current absorption - Heating	A	27.9	29.3
Dimensions	External (W/D/H)	mm	950/370/965	950/370/965
	Shipping (W/D/H)	mm	1010/458/990	1010/458/990
Weight	Net/Shipping weight	kg	90/102	90/102
Compressor	Compressor type	/	Rotary	Rotary
	Motor Power	W	4130	4130
	Compressor quantity	/	1	1
Fan	Air flow (H)	m3/h	5400	5400
Pressure sound level	Cooling	dB(A)	58	60
	Heating	dB(A)	60	62
Refrigerant	Type	/	R410A	R410A
	Charge	kg	3.3	3.3
Piping	Refrigerant liquid pipe	mm	9.52	9.52
	Refrigerant gas pipe	mm	15.88	15.88
	Total pipe length	m	120	120
	Max. pipe length(Equivalent/Actual)	m	70/60	70/60
	Max drop between I.U.&O.U.(ODU above / below)	m	30/20	30/20
	Max drop between I.U.&I.U.	m	10	10
Connection ratio	Connectable indoor unit ratio	%	50~130	50~130
	Maximum number of indoor units	/	5	6
Working temp.	Cooling	°C	-5~52	-5~52
	Heating	°C	-15~21	-15~21

(*) The specifications indicated are obtained with the following test conditions: in Cooling mode, Indoor temperature of 27°C WB / 19°C DB and Outdoor temperature of 35°C WB / 24°C DB. In Heating mode, Indoor temperature of 20°C WB and Outdoor temperature of 7°C WB / 6°C DB

MRV S II - Outdoor Units with Frontal Discharge

4-6HP

AU042FPERA
AU052FPERA
AU062FPERA
AU04IFPERA
AU05IFPERA
AU06IFPERA

Model			AU042FPERA	AU052FPERA	AU062FPERA	AU04IFPERA	AU05IFPERA	AU06IFPERA
Capacity[1]	Capacity range	HP	4	5	6	4	5	6
	Cooling	kW	12.1	14	15.5	12.1	14	15.5
	Heating	kW	14.2	16	18	14.2	16	18
	SEER(T1)	/	6.82	6.92	6.45	6.82	6.63	6.45
	ηs,c	%	269.8	273.8	255	269.8	262.2	255
	SCOP(T1)	/	3.92	4.17	3.8	3.92	3.85	3.8
	ηs,h	%	153.8	151	149	153.8	151	149
Electrical parameters	Power supply	Ph/V/Hz	1/220-240/50/60	1/220-240/50/60	1/220-240/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60
	Rated Power input (Cooling)	kW	2.99	3.51	4.31	3.11	3.51	4.31
	Rated Power input (Heating)	kW	3.18	3.72	4.39	3.18	3.72	4.39
	Max. current absorption - Cooling	A	34.1	35.5	36.9	11.4	11.9	12.9
	Max. current absorption - Heating	A	32.7	34.1	35.5	10.9	11.4	11.9
Dimensions	External (W/D/H)	mm	950/370/1340	950/370/1340	950/370/1340	950/370/1340	950/370/1340	950/370/1340
	Shipping (W/D/H)	mm	1023/483/1492	1023/483/1492	1023/483/1492	1023/483/1492	1023/483/1492	1023/483/1492
Weight	Net/Shipping weight	kg	115/123	115/123	115/123	115/123	115/123	115/123
Compressor	Compressor type	/	Rotary	Rotary	Rotary	Rotary	Rotary	Rotary
	Motor Power	W	4130	4130	4130	4060	4060	4060
	Compressor quantity	/	1	1	1	1	1	1
Fan	Air flow (H)	m3/h	7200	7200	7200	7200	7200	7200
Pressure sound level	Cooling	dB(A)	57	58	59	57	58	59
	Heating	dB(A)	57	58	59	57	58	59
Refrigerant	Type	/	R410A	R410A	R410A	R410A	R410A	R410A
	Charge	kg	4	4	4	4	4	4
Piping	Refrigerant liquid pipe	mm	9.52	9.52	9.52	9.52	9.52	9.52
	Refrigerant gas pipe	mm	15.88	15.88	15.88	15.88	15.88	15.88
	Total pipe length	m	300	300	300	300	300	300
	Max. pipe length(Equivalent/Actual)	m	175/150	175/150	175/150	175/150	175/150	175/150
	Max drop between I.U.&O.U.(ODU above / below)	m	50	50	50	50	50	50
	Max drop between I.U.&I.U.	m	15	15	15	15	15	15
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130	50-130
	Maximum number of indoor units	/	8	10	13	8	10	13
Working temp.	Cooling	°C	-15~48	-15~48	-15~48	-15~48	-15~48	-15~48
	Heating	°C	-20~27	-20~27	-20~27	-20~27	-20~27	-20~27

(*) The specifications indicated are obtained with the following test conditions: in Cooling mode, Indoor temperature of 27°C WB / 19°C DB and Outdoor temperature of 35°C WB / 24°C DB. In Heating mode, Indoor temperature of 20°C WB and Outdoor temperature of 7°C WB / 6°C DB

(a) With solder reduced from 22.22 to 19.05 for connecting the pipe to the unit valve accessory accompanying the product.

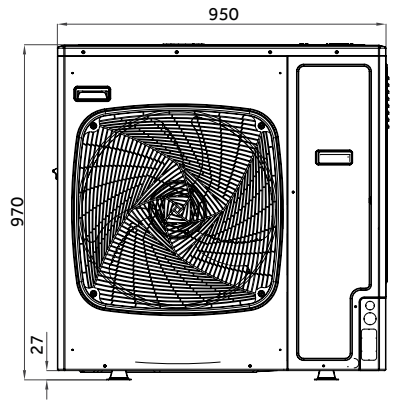
(b) The unit also works regularly with 9.52 diameter pipe. Requires 9.52>12.7 adapter to connect to the machine (not provided by Haier).

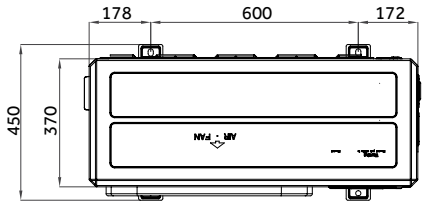
8-12HP
AU08NFKERA
AU10NFKERA
AU12NFKERA

Model			AU08NFKERA	AU10NFKERA	AU12NFKERA
Capacity[1]	Capacity range	HP	8	10	12
	Cooling	kW	22.6	28	31.5
	Heating	kW	22.6	30.5	31.5
	Heating(Max)	kW	25	32	35
	SEER(T1)	/	8.50	8.20	7.70
	ηs,c	%	337	325	305
	SCOP(T1)	/	5.00	4.80	4.70
	ηs,h	%	197	189	185
Electrical parameters	Power supply	Ph/V/Hz	3/380~415/50/60	3/380~415/50/60	3/380~415/50/60
	Rated Power input (Cooling)	kW	6.46	8.75	10.16
	Rated Power input (Heating)	kW	5.79	8.03	8.49
	Max. current absorption - Cooling	A	19.0	23.8	25.4
	Max. current absorption - Heating	A	18.0	22.6	24.2
Dimensions	External (W/D/H)	mm	1050/400/1636	1050/400/1636	1050/400/1636
	Shipping (W/D/H)	mm	1150/510/1790	1150/510/179	1150/510/1790
Weight	Net/Shipping weight	kg	149/168	149/168	149/168
Compressor	Compressor type	/	Inverter Twin Rotary	Inverter Twin Rotary	Inverter Twin Rotary
	Motor Power	W	6270	6270	6270
	Compressor quantity	/	1	1	1
Fan	Air flow (H)	m3/h	10000	10000	10000
Pressure sound level	Cooling	dB(A)	63	64	65
	Heating	dB(A)	65	66	67
Refrigerant	Type	/	R410A	R410A	R410A
	Charge	kg	5.1	5.1	5.1
Piping	Refrigerant liquid pipe	mm	9.52	9.52	12.7
	Refrigerant gas pipe	mm	19.05	22.22	25.4
	Total pipe length	m	300	300	300
	Max. pipe length(Equivalent/Actual)	m	175/150	175/150	175/150
	Max drop between I.U.&O.U.(ODU above / below)	m	50	50	50
	Max drop between I.U.&I.U.	m	15	15	15
Connection ratio	Connectable indoor unit ratio	%	50~130	50~130	50~130
	Maximum number of indoor units	/	13	16	19
Working temp.	Cooling	°C	-5~48	-5~48	-5~48
	Heating	°C	-20~27	-20~27	-20~27

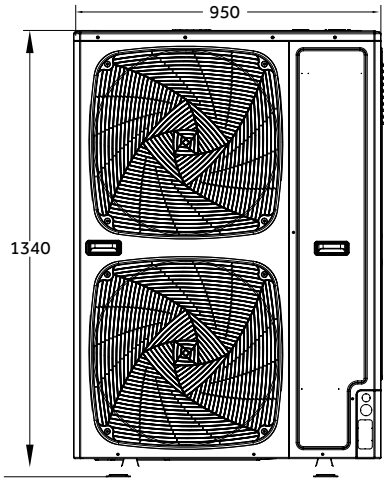
(*) The specifications indicated are obtained with the following test conditions: in Cooling mode, Indoor temperature of 27°C WB / 19°C DB and Outdoor temperature of 35°C WB / 24°C DB. In Heating mode, Indoor temperature of 20°C WB and Outdoor temperature of 7°C WB / 6°C DB

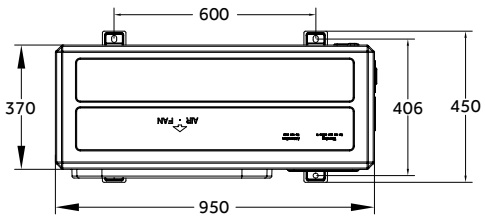
AU042FNERA AU052FNERA



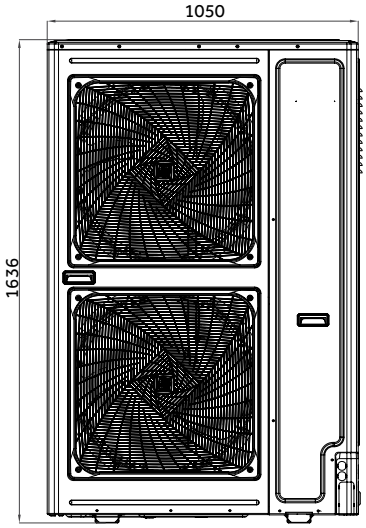


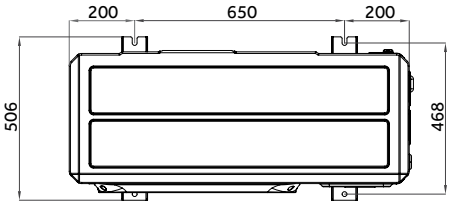
AU042FPERA AU052FPERA AU062FPERA AU04IFPERA AU05IFPERA AU06IFPERA





AU08NFKERA AU10NFKERA AU12NFKERA





EASY MRV

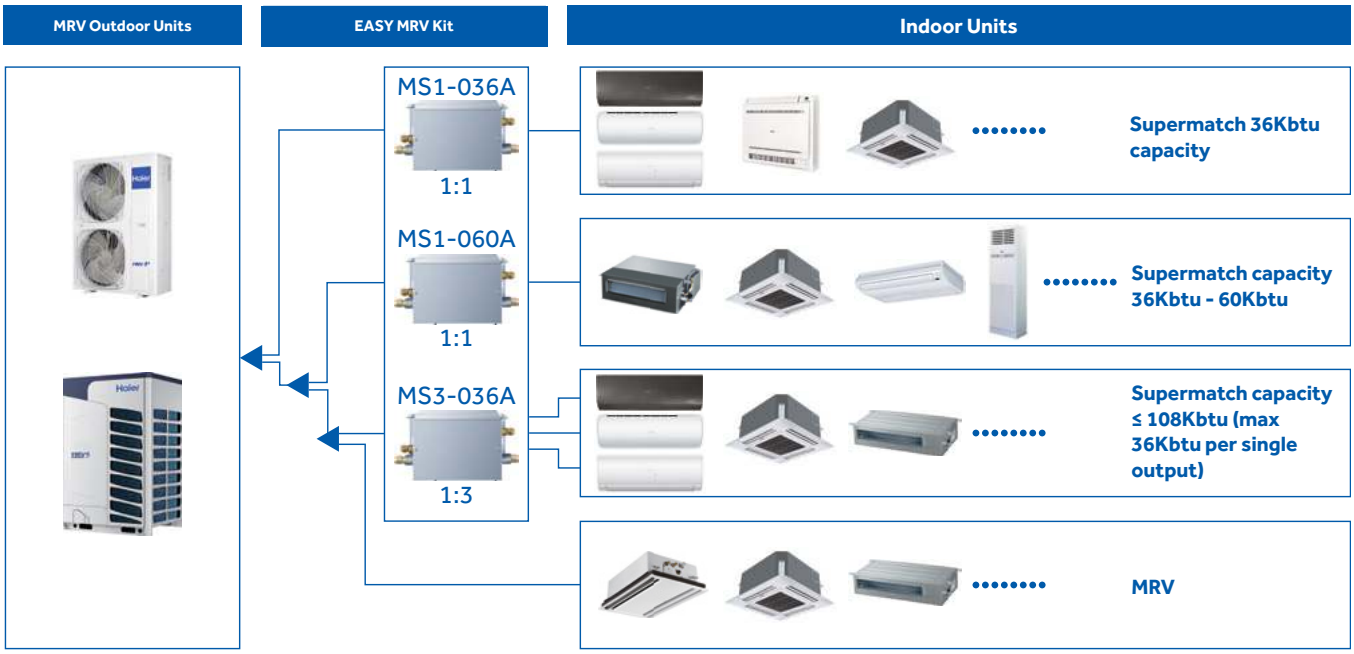
Flexible, high-efficiency MRV systems

MS valves for connecting residential and commercial units

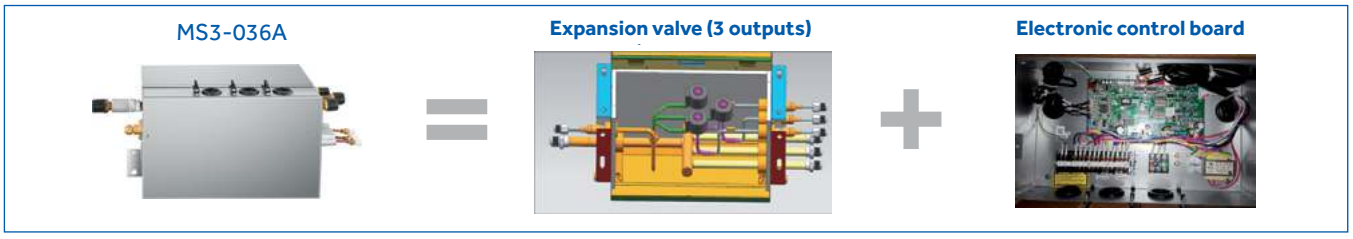
EASY MRV SYSTEMS

Haier's "Easy MRV" system is the ideal solution for environments where an exceptionally low sound level is required by the indoor air conditioning unit.

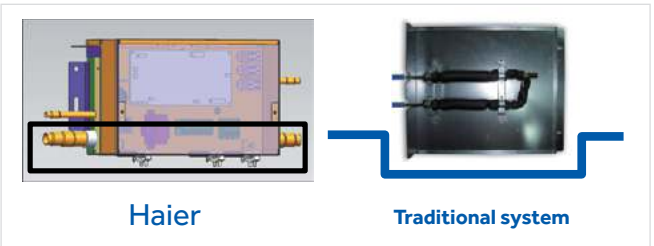
Thanks to the external remote thermal expansion valves (MS valve box) it is possible to connect to our Supermatch indoor residential units. Which as standard are not equipped with a valve and ensure very low operating sound levels, to the MRV outdoor units (with some types of indoor units, you can reach 16 dBA). In addition, if you are looking for internal wall units with a modern and different design, with high class functionality and features, our FLEXIS and PEARL series connected to an "Easy MRV" system will meet your requirements.



CONNECTIONS



Haier's valve boxes have built-in gas pipes to facilitate installation without requiring welds due to utilising a flare connection.



INTEGRATED SOLUTIONS FOR ALL UNITS

MRV Indoor Units

MRV Outdoor Units

MS valve

Supermatch residential and commercial line indoor units


(*)

(*)


(**)


(**)

For more details on our Supermatch range which can be connected through the "MS" valve boxes, see our "Residential & Commercial" line catalogue.

(*) WK-B adapter is required to connect the wired controller to the Supermatch series of wall units
(**) available only with remote control

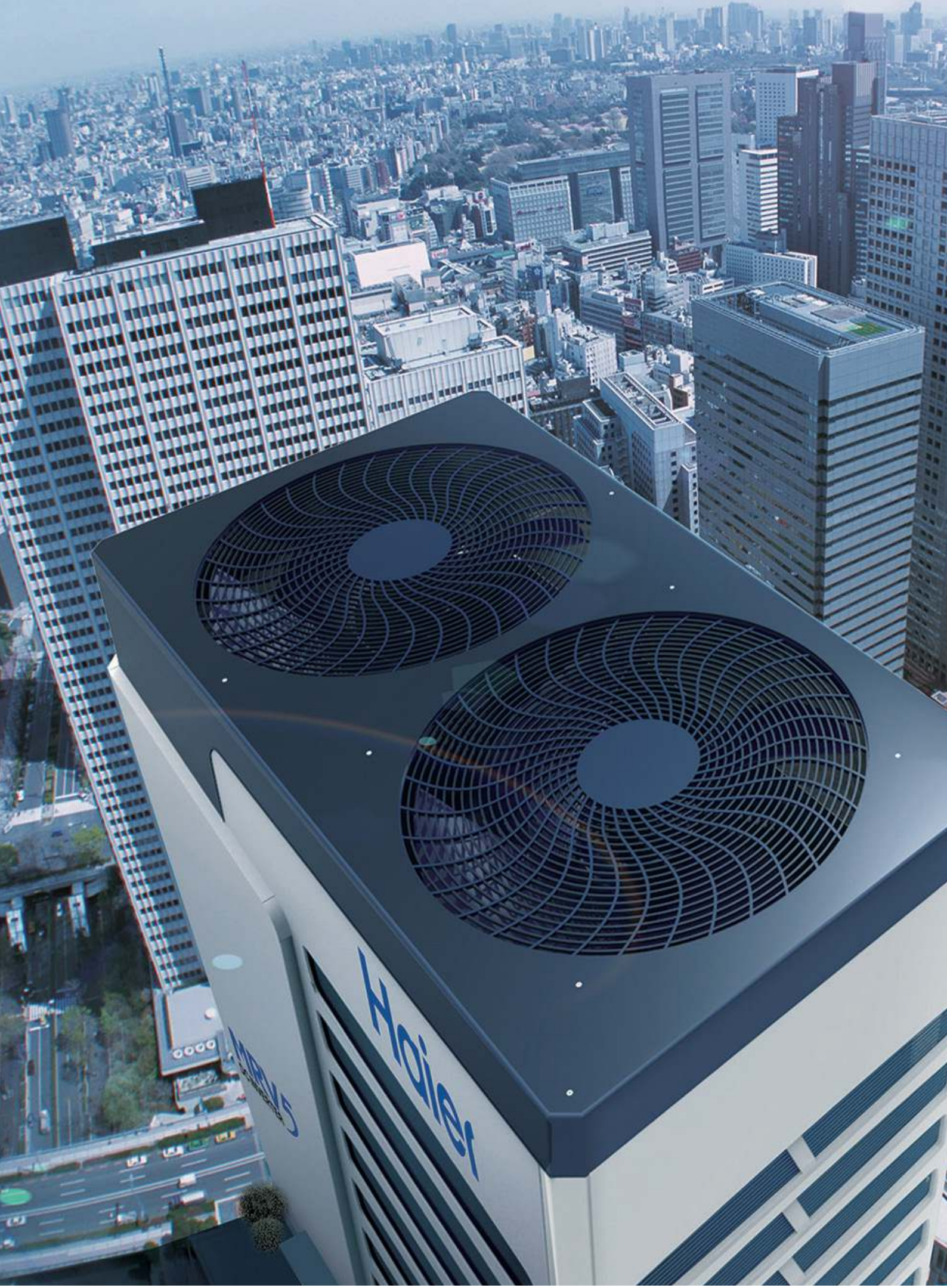
SERIES	Kbtu/h	7	9	12	15	18	24	28	48	60
	kW	2.0	2.8	3.6	4.4	5.6	7.1	8	14	16
FLEXIS-MB WK-B adapter is required to connect the wired controller										
		AS20S2SF1FA-MB	AS25S2SF1FA-MB	AS35S2SF1FA-MB	AS42S2SF1FA-MB3	AS50S2SF1FA-MB	AS71S2SF1FA-MB			
FLEXIS-MW WK-B adapter is required to connect the wired controller										
		AS20S2SF1FA-MW	AS25S2SF1FA-MW	AS35S2SF1FA-MW	AS42S2SF1FA-MW	AS50S2SF1FA-MW	AS71S2SF1FA-MW			
PEARL WK-B adapter is required to connect the wired controller										
		AS20PBAHRA	AS25PBAHRA	AS35PBAHRA		AS50PDAHRA				
CONSOLE only available with remote control										
			AF25S2SD1FA	AF35S2SD1FA	AF42S2SD1FA					
CASSETTE										
			AB09CS1ERA(S)	AB12CS1ERA(S)		AB18CS1ERA(S)	AB24ES1ERA(S)	AB28ES1ERA(S)		
CEILING / FLOOR CONVERTIBLE										
				AC35S2SG1FA		AC50S2SG1FA	AC71S2SG1FA			
SLIM DUCT LOW PRESSURE										
			AD09SS1ERA(N)	AD12SS1ERA(N)		AD18SS1ERA(N)	AD24SS1ERA(N)			
DUCTED MEDIUM PRESSURE										
				AD12MS1ERA		AD18MS1ERA	AD24MS1ERA	AD28MS1ERA		
TOWER standard remote control + keyboard on the unit										
									AP48KS1ERA(S)	AP60KS1ERA(S)
										
									AP48DS1ERA(S)	

EASY MRV

MS1-036A
MS1-060A

MS3-036A

Model		MS1-036A	MS1-060A	MS3-036A
Commercial code		25030270J	25030275J	25030280J
Max number of indoor units	No.	1	1	3
Maximum connectable indoor unit capacity	Btu/h	≤ 36Kbtu	36Kbtu - 60Kbtu	≤ 36Kbtu per single output (Tot. max 108Kbtu)
	kW	11.2	11.2 to 18 kW	Max 33.6 kW (max 11.2 kW per single output)
Power supply	V-Ph-Hz	220~230-1-50/60	220~230-1-50/60	220~230-1-50/60
Dimensions WxDxH	mm	310x217x155	310x217x155	394x227x253
Net weight	Kg	5	5	9
Material		Galvanised steel	Galvanised steel	Galvanised steel
Colour		Grey	Grey	Grey
Liquid pipe Ø	mm	9.52 (male) / 6.35	9.52 (male) / 12.7	6.35 (male) /9.52 - 9.52 (male) / 12.7
Gas pipe Ø	mm	15.88 (male) / 12.7 / 9.52	19.05 (male) /15.88	19.05 (male) /15.88 - 15.88 (male) /12.7 / 9.52
Connection type		Flare connection	Flare connection	Flare connection
Maximum piping length (BOX - IU)	m	15	15	15
Maximum height difference of pipes (BOX - IU)	m	15	15	15



MRV 5 DC INVERTER

Full DC inverter heat pump VRF system

WIDE RANGE OF POWER

Up to 26 HP with single module and up to 104 HP by combining up to 4 modules. Modules 8 to 16 HP are equipped with single fan, for maximum installation flexibility and a small footprint on the surface.

8-16HP single module single flow

18-26HP single module double flow

104HP by combining 4 modules

NEW FULL DC "STEP LESS" TECHNOLOGY

The new compressors and fan motors use a new stepless inverter control.
The control is linear from 0 to 91 Hz for a more accurate response to changes in demand, further increasing efficiency and rotation of the motors compared to a classic step vector control.

NEW 4-SIDED CONTINUOUS HEAT EXCHANGER COIL

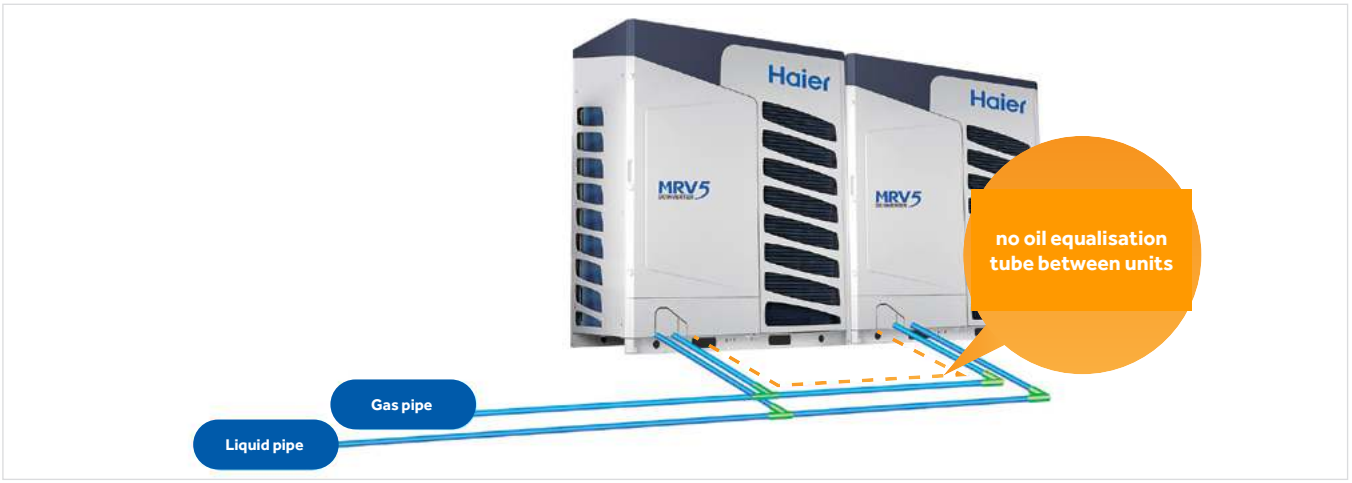
Thanks to this new development of continuous bending, the exchanger offers a higher exchange area than other configurations, increasing the overall efficiency of the unit. Increased efficiency by 30% compared to other configurations, thanks to the absence of interruptions between the various sides of the exchanger and the systems to connect these sides together.

NEW AUTO-ADDRESSING SYSTEM

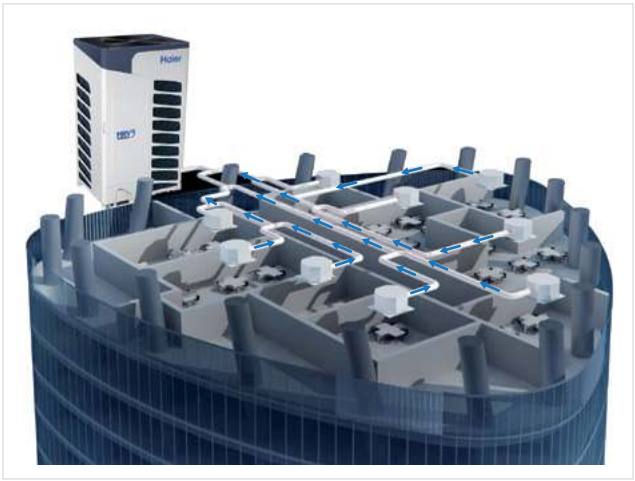
New automatic system for digital addressing indoor units reduces system commissioning time

AUTOMATIC OIL BALANCING

When pairing multiple modules with each other, it is not necessary to provide the oil equalisation pipe, as the lubrication system inside each module is self-controlled.



REFRIGERANT MANAGEMENT SYSTEM



Advanced technology allows the system to manage the volume of refrigerant in the indoor units, piping and outdoor units, this allows the reduction of refrigerant in the entire system and increases efficiency.

NEW CERTIFIED AND REGISTERED DESIGN

The unit is equipped with a hinged technical door that allows access to the electronic parts in a simple and secure way. The electronic part in turn is mounted on a mobile base that can also be opened for access to the refrigeration part of the unit.
This line of products includes new and generous fans with an aerodynamic profile tested in the wind tunnel, with a diameter of 700 mm to move large air flows in maximum tranquillity and quietness.

SMARTLINK - WIRELESS WI-FI COMMUNICATION

Wi-Fi "Smartlink", the new and exclusive wireless communication system between outdoor and indoor units (optional)

"SMARTLINK" WI-FI FEATURES

- As an alternative to the classic digital communication cable, which is required to make all indoor units talk to their outdoor units, you can install these wireless radio accessories with ZigBee technology on each indoor and outdoor unit.
- At the time of activation, the indoor units begin to dialog with each other creating a stable network of coded signals that bounce between the various internal units until they reach the outdoor unit and vice versa.
  Each indoor unit works as a signal repeater. With this system, communication is guaranteed even to the most distant indoor unit, and in the presence of walls or other obstacles.
- When an indoor unit is in maintenance, the signal of the unit is lost, this does not affect the normal functioning of the other units.
- The system is set up by the Haier service centres in the start-up phase through a special application (APP) that can be installed on smartphones or tablets (it does not require access to the Internet, as it works on a local WIFI network)

The use of the 'Smartlink' system is useful where it is impossible to reach all the units with a cable. It is expensive in economic terms and takes time to roll out a cable, intervening on an existing redevelopment plant where the existing layout of the wired communication is not known and where there was a problem on the existing cable (damage etc.) and it is not possible to detect the problem.

Radio adapter for the indoor unit to be connected to the respective electronic board.

8-16HP

AV08IMVEVA
AV10IMVEVA
AV12IMVEVA
AV14IMVEVA
AV16IMVEVA

Model		AV08IMVEVA	AV10IMVEVA	AV12IMVEVA	AV14IMVEVA	AV16IMVEVA
Capacity						
Power Class	HP	8	10	12	14	16
Cooling	kW	25.2	28.0	33.5	40.0	45.0
Heating	kW	27.0	31.5	37.5	45.0	50.0
Electrical Parameters						
Power supply	Ph-V/Hz	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)
Absorbed power - Cooling	kW	5.60	6.80	8.40	10.90	11.80
Max absorbed power - Cooling	kW	12.00	12.90	13.80	16.40	19.20
Absorbed current in cooling.	A	9.45	11.48	14.18	18.40	19.92
Max absorbed current - Cooling	A	20.26	21.78	23.30	27.69	32.41
Absorbed power – Heating	kW	5.20	6.30	8.00	10.30	11.20
Max absorbed power – Heating	kW	10.90	12.20	12.5	15.10	18.40
Absorbed current in heating	A	8.78	10.64	13.51	17.39	18.91
Max absorbed current – Heating	A	18.40	20.60	21.10	25.49	31.06
EER energy class	W/W	4.50	4.12	3.99	3.67	3.81
COP energy class	W/W	5.19	5.00	4.69	4.37	4.46
SEER energy class	W/W	7.50	7.33	7.20	6.85	6.40
SCOP energy class	W/W	5.50	5.45	5.30	5.12	4.55
Ventilation						
Air flow (High)	m^3/h	11000	11000	12000	13500	13500
Sound pressure level (High)	dB(A)	56	56	59	59	60
Sound power level (High)	dB(A)	67	67	70	70	71
Installation - Dimensions - Components						
Unit Dimensions WxDxH	mm	980x750x1690	980x750x1690	980x750x1690	980x750x1690	980x750x1690
Packaged unit dimensions WxDxH	mm	1070x850x1838	1070x850x1838	1070x850x1838	1070x850x1838	1070x850x1838
Net weight / Gross weight	Kg	224/250	224/250	224/250	244/270	244/270
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	1 INV	1 INV	1 INV	1 INV	1 INV
Refrigerant type		R410A	R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	8.5	8.5	8.5	10	10
Ø Liquid side refrigerant pipe	mm	9.52	9.52	12.7	12.7	12.7
Ø Gas side refrigerant pipe	mm	19.05	22.22	25.4	25.4	28.58
Maximum piping length	m	1000	1000	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18	18	18
Static Pressure Fans	Pa	110	110	110	110	110
Connectable Indoor Capacity Ratio						
Indoor / Outdoor Capacity Ratio	%	50 – 130	50 – 130	50 – 130	50 – 130	50 – 130
Maximum number of connectable IUs	No.	13	16	20	24	27
External Temperature Operating Limits						
Cooling	°C	-5~50	-5~50	-5~50	-5~50	-5~50
Heating	°C	-23~21	-23~21	-23~21	-23~21	-23~21

The specifications indicated are obtained with the following test conditions: in Cooling mode, Indoor temperature of 27°C WB / 19°C DB and Outdoor temperature of 35°C WB / 24°C DB. In Heating mode, Indoor temperature of 20°C WB and Outdoor temperature of 7°C WB / 6°C DB

18-26HP
AV18IMVEVA
AV20IMVEVA
AV22IMVEVA
AV24IMVEVA
AV26IMVEVA

Model		AV18IMVEVA	AV20IMVEVA	AV22IMVEVA	AV24IMVEVA	AV26IMVEVA
Capacity						
Power Class	HP	18	20	22	24	26
Cooling	kW	50.4	56.0	61.5	68.0	73.5
Heating	kW	56.5	61.5	69.0	73.0	82.5
Electrical Parameters						
Power supply	Ph-V/Hz	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)
Absorbed power - Cooling	kW	14.30	15.10	16.50	17.60	18.80
Max absorbed power - Cooling	kW	21.40	25.10	28.50	29.10	33.00
Absorbed current in cooling.	A	24.14	25.49	27.86	29.71	31.74
Max absorbed current - Cooling	A	36.13	42.37	48.11	49.13	55.80
Absorbed power – Heating	kW	13.40	14.60	15.40	16.80	17.70
Max absorbed power – Heating	kW	17.70	22.70	25.50	26.50	30.40
Absorbed current in heating	A	22.62	24.65	26.00	28.36	29.88
Max absorbed current – Heating	A	29.88	38.32	43.05	44.74	51.32
EER energy class	W/W	3.52	3.71	3.73	3.86	3.91
COP energy class	W/W	4.22	4.21	4.48	4.35	4.66
SEER energy class	W/W	6.50	6.35	6.20	6.03	5.86
SCOP energy class	W/W	4.65	4.55	4.40	4.26	4.15
Ventilation						
Air flow (High)	m^3/h	17000	17000	18000	18000	19000
Sound pressure level (High)	dB(A)	61	61	61	62	62
Sound power level (High)	dB(A)	72	72	72	73	73
Installation - Dimensions - Components						
Unit Dimensions WxDxH	mm	1410x750x1690	1410x750x1690	1410x750x1690	1410x750x1690	1410x750x1690
Packaged unit dimensions WxDxH	mm	1515x850x1838	1515x850x1838	1515x850x1838	1515x850x1838	1515x850x1838
Net weight / Gross weight	Kg	287/317	370/400	370/400	370/400	370/400
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	1 INV	2 INV	2 INV	2 INV	2 INV
Refrigerant type		R410A	R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	10	10	10	10	10
Ø Liquid side refrigerant pipe	mm	15.88	15.88	15.88	15.88	15.88
Ø Gas side refrigerant pipe	mm	28.58	28.58	28.58	28.58	28.58
Maximum piping length	m	1000	1000	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18	18	18
Static Pressure Fans	Pa	110	110	110	110	110
Connectable Indoor Capacity Ratio						
Indoor / Outdoor Capacity Ratio	%	50 – 130	50 – 130	50 – 130	50 – 130	50 – 130
Maximum number of connectable IUs	No.	30	33	36	40	43
External Temperature Operating Limits						
Cooling	°C	-5~50	-5~50	-5~50	-5~50	-5~50
Heating	°C	-23~21	-23~21	-23~21	-23~21	-23~21

The specifications indicated are obtained with the following test conditions: in Cooling mode, Indoor temperature of 27°C WB / 19°C DB and Outdoor temperature of 35°C WB / 24°C DB. In Heating mode, Indoor temperature of 20°C WB and Outdoor temperature of 7°C WB / 6°C DB

18-34HP
AV14IMVEVA
AV16IMVEVA
AV18IMVEVA

Model		AV28IMVEVA AV14IMVEVA AV14IMVEVA	AV30IMVEVA AV14IMVEVA AV16IMVEVA	AV32IMVEVA AV16IMVEVA AV16IMVEVA	AV34IMVEVA AV16IMVEVA AV18IMVEVA
Capacity					
Power Class	HP	28	30	32	34
Cooling	kW	80.0	85.0	90.0	95.4
Heating	kW	90.0	95.0	100.0	106.5
Electrical Parameters					
Power supply	Ph-V/Hz	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)
Absorbed power - Cooling	kW	21.80	22.70	23.60	26.10
Max absorbed power - Cooling	kW	32.80	35.60	38.40	40.60
Absorbed current in cooling.	A	36.80	38.32	39.84	44.06
Max absorbed current - Cooling	A	55.37	60.10	64.83	68.54
Absorbed power – Heating	kW	20.60	21.50	22.40	24.60
Max absorbed power – Heating	kW	30.20	33.50	36.80	36.10
Absorbed current in heating	A	34.78	36.30	37.82	41.53
Max absorbed current – Heating	A	50.98	56.55	62.13	60.94
EER energy class	W/W	3.67	3.74	3.81	3.66
COP energy class	W/W	4.37	4.42	4.46	4.33
SEER energy class	W/W	6.97	6.71	6.50	6.56
SCOP energy class	W/W	5.15	4.81	4.55	4.60
Ventilation					
Air flow (High)	m^3/h	27000	27000	27000	30500
Sound pressure level (High)	dB(A)	62	62.5	63	63.5
Sound power level (High)	dB(A)	73	73.5	74	74.5
Installation - Dimensions - Components					
Unit Dimensions WxDxH	mm	980x750x1690 + 980x750x1690	980x750x1690 + 980x750x1690	980x750x1690 + 980x750x1690	980x750x1690 + 1410x750x1690
Packaged unit dimensions WxDxH	mm	1070x850x1838 + 1070x850x1838	1070x850x1838 + 1070x850x1838	1070x850x1838 + 1070x850x1838	1070x850x1838 + 1515x850x1838
Net weight / Gross weight	Kg	244/270 + 244/270	244/270 + 244/270	244/270 + 244/270	244/270 + 287/317
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	2 INV	2 INV	2 INV	2 INV
Refrigerant type		R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	20	20	20	20
Ø Liquid side refrigerant pipe	mm	15.88	19.05	19.05	19.05
Ø Gas side refrigerant pipe	mm	28.58	31.8	31.8	31.8
Maximum piping length	m	1000	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18	18
Static Pressure Fans	Pa	110	110	110	110
Connectable Indoor Capacity Ratio					
Indoor / Outdoor Capacity Ratio	%	50 – 130	50 – 130	50 – 130	50 – 130
Maximum number of connectable IUs	No.	47	50	53	56
External Temperature Operating Limits					
Cooling	°C	-5~50	-5~50	-5~50	-5~50
Heating	°C	-23~21	-23~21	-23~21	-23~21

The specifications indicated are obtained with the following test conditions: in Cooling mode, Indoor temperature of 27°C WB / 19°C DB and Outdoor temperature of 35°C WB / 24°C DB. In Heating mode, Indoor temperature of 20°C WB and Outdoor temperature of 7°C WB / 6°C DB

36-44HP
AV18IMVEVA
AV20IMVEVA
AV22IMVEVA

Model		AV36IMVEVA AV18IMVEVA AV18IMVEVA	AV38IMVEVA AV18IMVEVA AV20IMVEVA	AV40IMVEVA AV20IMVEVA AV20IMVEVA	AV42IMVEVA AV20IMVEVA AV22IMVEVA	AV44IMVEVA AV22IMVEVA AV22IMVEVA
Capacity						
Power Class	HP	36	38	40	42	44
Cooling	kW	100.8	106.4	112.0	117.5	123.0
Heating	kW	113.0	118.0	123.0	130.5	138.0
Electrical Parameters						
Power supply	Ph-V/Hz	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)
Absorbed power - Cooling	kW	28.60	29.40	30.20	31.60	33.00
Max absorbed power - Cooling	kW	42.80	46.50	50.20	53.60	57.00
Absorbed current in cooling.	A	48.28	49.63	50.98	53.35	55.71
Max absorbed current - Cooling	A	72.26	78.50	84.75	90.49	96.23
Absorbed power – Heating	kW	26.80	28.00	29.20	30.00	30.80
Max absorbed power – Heating	kW	35.40	40.40	45.40	48.20	51.00
Absorbed current in heating	A	45.24	47.27	49.30	50.65	52.00
Max absorbed current – Heating	A	59.76	68.20	76.64	81.37	86.10
EER energy class	W/W	3.52	3.62	3.71	3.72	3.73
COP energy class	W/W	4.22	4.21	4.21	4.35	4.48
SEER energy class	W/W	6.60	6.51	6.43	6.34	6.26
SCOP energy class	W/W	4.65	4.61	4.58	4.49	4.42
Ventilation						
Air flow (High)	m^3/h	34000	34000	34000	35000	36000
Sound pressure level (High)	dB(A)	64	64	64	64	64
Sound power level (High)	dB(A)	75	75	75	75	75
Installation - Dimensions - Components						
Unit Dimensions WxDxH	mm	1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690
Packaged unit dimensions WxDxH	mm	1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838
Net weight / Gross weight	Kg	287/317 + 287/317	287/317 + 370/400	370/400 + 370/400	370/400 + 370/400	370/400 + 370/400
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	2 INV	3 INV	4 INV	4 INV	4 INV
Refrigerant type		R410A	R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	20	20	20	20	20
Ø Liquid side refrigerant pipe	mm	19.05	19.05	19.05	19.05	19.05
Ø Gas side refrigerant pipe	mm	38.1	38.1	38.1	38.1	38.1
Maximum piping length	m	1000	1000	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18	18	18
Static Pressure Fans	Pa	110	110	110	110	110
Connectable Indoor Capacity Ratio						
Indoor / Outdoor Capacity Ratio	%	50 – 130	50 – 130	50 – 130	50 – 130	50 – 130
Maximum number of connectable IUs	No.	59	63	64	64	64
External Temperature Operating Limits						
Cooling	°C	-5~50	-5~50	-5~50	-5~50	-5~50
Heating	°C	-23~21	-23~21	-23~21	-23~21	-23~21

The specifications indicated are obtained with the following test conditions: in Cooling mode, Indoor temperature of 27°C WB / 19°C DB and Outdoor temperature of 35°C WB / 24°C DB. In Heating mode, Indoor temperature of 20°C WB and Outdoor temperature of 7°C WB / 6°C DB

46-54HP
AV18IMVEVA
AV22IMVEVA
AV24IMVEVA
AV26IMVEVA

Model		AV46IMVEVA AV22IMVEVA AV24IMVEVA	AV48IMVEVA AV24IMVEVA AV24IMVEVA	AV50IMVEVA AV24IMVEVA AV26IMVEVA	AV52IMVEVA AV26IMVEVA AV26IMVEVA	AV54IMVEVA AV18IMVEVA AV18IMVEVA AV18IMVEVA
Capacity						
Power Class	HP	46	48	50	52	54
Cooling	kW	129.5	136.0	141.5	147.0	151.2
Heating	kW	142.0	146.0	155.5	165.0	169.5
Electrical Parameters						
Power supply	Ph-V/Hz	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)
Absorbed power - Cooling	kW	34.10	35.20	36.40	37.60	42.90
Max absorbed power - Cooling	kW	57.60	58.20	62.10	66.00	64.20
Absorbed current in cooling.	A	57.57	59.42	61.45	63.48	72.42
Max absorbed current - Cooling	A	97.24	98.25	104.93	111.60	108.38
Absorbed power – Heating	kW	32.20	33.60	34.50	35.40	40.20
Max absorbed power – Heating	kW	52.00	53.00	56.90	60.80	53.10
Absorbed current in heating	A	54.36	56.72	58.24	59.76	67.87
Max absorbed current – Heating	A	87.79	89.48	96.06	102.64	89.64
EER energy class	W/W	3.80	3.86	3.89	3.91	3.52
COP energy class	W/W	4.41	4.35	4.51	4.66	4.22
SEER energy class	W/W	6.17	6.09	5.99	5.91	6.63
SCOP energy class	W/W	4.34	4.27	4.21	4.16	4.65
Ventilation						
Air flow (High)	m^3/h	36000	36000	37000	38000	51000
Sound pressure level (High)	dB(A)	64.5	65	65	65	65.8
Sound power level (High)	dB(A)	75.5	76	76	76	76.5
Installation - Dimensions - Components						
Unit Dimensions WxDxH	mm	1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690
Packaged unit dimensions WxDxH	mm	1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838
Net weight / Gross weight	Kg	370/400 + 370/400	370/400 + 370/400	370/400 + 370/400	370/400 + 370/400	287/317 + 287/317 + 287/317
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	4 INV	4 INV	4 INV	4 INV	3 INV
Refrigerant type		R410A	R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	20	20	20	20	30
Ø Liquid side refrigerant pipe	mm	19.05	19.05	19.05	19.05	19.05
Ø Gas side refrigerant pipe	mm	38.1	38.1	38.1	38.1	38.1
Maximum piping length	m	1000	1000	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18	18	18
Static Pressure Fans	Pa	110	110	110	110	110
Connectable Indoor Capacity Ratio						
Indoor / Outdoor Capacity Ratio	%	50 – 130	50 – 130	50 – 130	50 – 130	50 – 130
Maximum number of connectable IUs	No.	64	64	64	64	64
External Temperature Operating Limits						
Cooling	°C	-5~50	-5~50	-5~50	-5~50	-5~50
Heating	°C	-23~21	-23~21	-23~21	-23~21	-23~21

The specifications indicated are obtained with the following test conditions: in Cooling mode, Indoor temperature of 27°C WB / 19°C DB and Outdoor temperature of 35°C WB / 24°C DB. In Heating mode, Indoor temperature of 20°C WB and Outdoor temperature of 7°C WB / 6°C DB

56-64HP
AV18IMVEVA
AV20IMVEVA
AV22IMVEVA

Model		AV56IMVEVA AV18IMVEVA AV18IMVEVA AV20IMVEVA	AV58IMVEVA AV18IMVEVA AV20IMVEVA AV20IMVEVA	AV60IMVEVA AV20IMVEVA AV20IMVEVA AV20IMVEVA	AV62IMVEVA AV20IMVEVA AV20IMVEVA AV22IMVEVA	AV64IMVEVA AV20IMVEVA AV22IMVEVA AV22IMVEVA
Capacity						
Power Class	HP	56	58	60	62	64
Cooling	kW	156.8	162.4	168.0	173.5	179.0
Heating	kW	174.5	179.5	184.5	192.0	199.5
Electrical Parameters						
Power supply	Ph-V/Hz	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)
Absorbed power - Cooling	kW	43.70	44.50	45.30	46.70	48.10
Max absorbed power - Cooling	kW	67.90	71.60	75.30	78.70	82.10
Absorbed current in cooling.	A	73.77	75.13	76.48	78.84	81.20
Max absorbed current - Cooling	A	114.63	120.88	127.12	132.86	138.60
Absorbed power – Heating	kW	41.40	42.60	43.80	44.60	45.40
Max absorbed power – Heating	kW	58.10	63.10	68.10	70.90	73.70
Absorbed current in heating	A	69.89	71.92	73.94	75.29	76.64
Max absorbed current – Heating	A	98.08	106.53	114.97	119.69	124.42
EER energy class	W/W	3.59	3.65	3.71	3.72	3.72
COP energy class	W/W	4.21	4.21	4.21	4.30	4.39
SEER energy class	W/W	6.56	6.50	6.45	6.39	6.33
SCOP energy class	W/W	4.63	4.60	4.58	4.52	4.47
Ventilation						
Air flow (High)	m^3/h	51000	51000	51000	52000	53000
Sound pressure level (High)	dB(A)	65.8	65.8	65.8	65.8	65.8
Sound power level (High)	dB(A)	76.5	76.5	76.5	76.5	76.5
Installation - Dimensions - Components						
Unit Dimensions WxDxH	mm	1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690
Packaged unit dimensions WxDxH	mm	1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838
Net weight / Gross weight	Kg	287/317 + 287/317 + 370/400	287/317 + 370/400 + 370/400	370/400 + 370/400 + 370/400	370/400 + 370/400 + 370/400	370/400 + 370/400 + 370/400
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	4 INV	5 INV	6 INV	6 INV	6 INV
Refrigerant type		R410A	R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	30	30	30	30	30
Ø Liquid side refrigerant pipe	mm	19.05	19.05	19.05	19.05	19.05
Ø Gas side refrigerant pipe	mm	38.1	41.3	41.3	41.3	41.3
Maximum piping length	m	1000	1000	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18	18	18
Static Pressure Fans	Pa	110	110	110	110	110
Connectable Indoor Capacity Ratio						
Indoor / Outdoor Capacity Ratio	%	50 – 130	50 – 130	50 – 130	50 – 130	50 – 130
Maximum number of connectable IUs	No.	64	64	64	64	64
External Temperature Operating Limits						
Cooling	°C	-5~50	-5~50	-5~50	-5~50	-5~50
Heating	°C	-23~21	-23~21	-23~21	-23~21	-23~21

The specifications indicated are obtained with the following test conditions: in Cooling mode, Indoor temperature of 27°C WB / 19°C DB and Outdoor temperature of 35°C WB / 24°C DB. In Heating mode, Indoor temperature of 20°C WB and Outdoor temperature of 7°C WB / 6°C DB

66-74HP
AV22IMVEVA
AV24IMVEVA
AV26IMVEVA

Model		AV66IMVEVA AV22IMVEVA AV22IMVEVA AV22IMVEVA	AV68IMVEVA AV22IMVEVA AV22IMVEVA AV24IMVEVA	AV70IMVEVA AV22IMVEVA AV24IMVEVA AV24IMVEVA	AV72IMVEVA AV24IMVEVA AV24IMVEVA AV24IMVEVA	AV74IMVEVA AV24IMVEVA AV24IMVEVA AV26IMVEVA
Capacity						
Power Class	HP	66	68	70	72	74
Cooling	kW	184.5	191.0	197.5	204.0	209.5
Heating	kW	207.0	211.0	215.0	219.0	228.5
Electrical Parameters						
Power supply	Ph-V/Hz	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)
Absorbed power - Cooling	kW	49.50	50.60	51.70	52.80	54.00
Max absorbed power - Cooling	kW	85.50	86.10	86.70	87.30	91.20
Absorbed current in cooling.	A	83.57	85.42	87.28	89.14	91.16
Max absorbed current - Cooling	A	144.34	145.35	146.37	147.38	154.05
Absorbed power – Heating	kW	46.20	47.60	49.00	50.40	51.30
Max absorbed power – Heating	kW	76.50	77.50	78.50	79.50	83.40
Absorbed current in heating	A	78.00	80.36	82.72	85.09	86.61
Max absorbed current – Heating	A	129.15	130.84	132.52	134.21	140.80
EER energy class	W/W	3.73	3.77	3.82	3.86	3.88
COP energy class	W/W	4.48	4.43	4.39	4.35	4.45
SEER energy class	W/W	6.28	6.22	6.16	6.10	6.04
SCOP energy class	W/W	4.42	4.37	4.32	4.27	4.23
Ventilation						
Air flow (High)	m^3/h	54000	54000	54000	54000	55000
Sound pressure level (High)	dB(A)	65.8	66	66.5	66.8	66.8
Sound power level (High)	dB(A)	76.5	77	77.5	77.8	77.8
Installation - Dimensions - Components						
Unit Dimensions WxDxH	mm	1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690
Packaged unit dimensions WxDxH	mm	1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838
Net weight / Gross weight	Kg	370/400 + 370/400 + 370/400	370/400 + 370/400 + 370/400	370/400 + 370/400 + 370/400	370/400 + 370/400 + 370/400	370/400 + 370/400 + 370/400
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	6 INV	6 INV	6 INV	6 INV	6 INV
Refrigerant type		R410A	R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	30	30	30	30	30
Ø Liquid side refrigerant pipe	mm	19.05	22.2	22.2	22.2	22.2
Ø Gas side refrigerant pipe	mm	41.3	44.5	44.5	44.5	44.5
Maximum piping length	m	1000	1000	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18	18	18
Static Pressure Fans	Pa	110	110	110	110	110
Connectable Indoor Capacity Ratio						
Indoor / Outdoor Capacity Ratio	%	50 – 130	50 – 130	50 – 130	50 – 130	50 – 130
Maximum number of connectable IUs	No.	64	64	64	64	64
External Temperature Operating Limits						
Cooling	°C	-5~50	-5~50	-5~50	-5~50	-5~50
Heating	°C	-23~21	-23~21	-23~21	-23~21	-23~21

The specifications indicated are obtained with the following test conditions: in Cooling mode, Indoor temperature of 27°C WB / 19°C DB and Outdoor temperature of 35°C WB / 24°C DB. In Heating mode, Indoor temperature of 20°C WB and Outdoor temperature of 7°C WB / 6°C DB

76-84HP
AV20IMVEVA
AV22IMVEVA
AV24IMVEVA
AV26IMVEVA

Model		AV76IMVEVA AV24IMVEVA AV26IMVEVA AV26IMVEVA	AV78IMVEVA AV26IMVEVA AV26IMVEVA AV26IMVEVA	AV80IMVEVA AV20IMVEVA AV20IMVEVA AV20IMVEVA AV20IMVEVA	AV82IMVEVA AV20IMVEVA AV20IMVEVA AV20IMVEVA AV22IMVEVA	AV84IMVEVA AV20IMVEVA AV20IMVEVA AV22IMVEVA AV22IMVEVA
Capacity						
Power Class	HP	76	78	80	82	84
Cooling	kW	215.0	220.5	224.0	229.5	235.0
Heating	kW	238.0	247.5	246.0	253.5	261.0
Electrical Parameters						
Power supply	Ph-V/Hz	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)
Absorbed power - Cooling	kW	55.20	56.40	60.40	61.80	63.20
Max absorbed power - Cooling	kW	95.10	99.00	100.40	103.80	107.20
Absorbed current in cooling.	A	93.19	95.21	101.97	104.33	106.69
Max absorbed current - Cooling	A	160.73	167.40	169.50	175.24	180.98
Absorbed power – Heating	kW	52.20	53.10	58.40	59.20	60.00
Max absorbed power – Heating	kW	87.30	91.20	90.80	93.60	96.40
Absorbed current in heating	A	88.12	89.64	98.59	99.94	101.29
Max absorbed current – Heating	A	147.38	153.96	153.29	158.02	162.74
EER energy class	W/W	3.89	3.91	3.71	3.71	3.72
COP energy class	W/W	4.56	4.66	4.21	4.28	4.35
SEER energy class	W/W	5.98	5.92	6.46	6.41	6.37
SCOP energy class	W/W	4.20	4.16	4.58	4.53	4.49
Ventilation						
Air flow (High)	m^3/h	56000	57000	68000	69000	70000
Sound pressure level (High)	dB(A)	66.8	66.8	67	67	67
Sound power level (High)	dB(A)	77.8	77.7	78	78	78
Installation - Dimensions - Components						
Unit Dimensions WxDxH	mm	1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690 + 1410x750x1690
Packaged unit dimensions WxDxH	mm	1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838 + 1515x850x1838
Net weight / Gross weight	Kg	370/400 + 370/400 + 370/400	370/400 + 370/400 + 370/400	370/400 + 370/400 + 370/400 + 370/400	370/400 + 370/400 + 370/400 + 370/400	370/400 + 370/400 + 370/400 + 370/400
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	6 INV	6 INV	8 INV	8 INV	8 INV
Refrigerant type		R410A	R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	30	30	40	40	40
Ø Liquid side refrigerant pipe	mm	22.2	22.2	22.2	22.2	22.2
Ø Gas side refrigerant pipe	mm	44.5	44.5	44.5	44.5	44.5
Maximum piping length	m	1000	1000	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18	18	18
Static Pressure Fans	Pa	110	110	110	110	110
Connectable Indoor Capacity Ratio						
Indoor / Outdoor Capacity Ratio	%	50 – 130	50 – 130	50 – 130	50 – 130	50 – 130
Maximum number of connectable IUs	No.	64	64	64	64	64
External Temperature Operating Limits						
Cooling	°C	-5~50	-5~50	-5~50	-5~50	-5~50
Heating	°C	-23~21	-23~21	-23~21	-23~21	-23~21

The specifications indicated are obtained with the following test conditions: in Cooling mode, Indoor temperature of 27°C WB / 19°C DB and Outdoor temperature of 35°C WB / 24°C DB. In Heating mode, Indoor temperature of 20°C WB and Outdoor temperature of 7°C WB / 6°C DB

86-94HP
AV20IMVEVA
AV22IMVEVA
AV24IMVEVA
AV26IMVEVA

Model		AV86IMVEVA AV20IMVEVA AV22IMVEVA AV22IMVEVA AV22IMVEVA	AV88IMVEVA AV22IMVEVA AV22IMVEVA AV22IMVEVA AV22IMVEVA	AV90IMVEVA AV22IMVEVA AV22IMVEVA AV22IMVEVA AV24IMVEVA	AV92IMVEVA AV22IMVEVA AV22IMVEVA AV24IMVEVA AV24IMVEVA	AV94IMVEVA AV22IMVEVA AV24IMVEVA AV24IMVEVA AV24IMVEVA
Capacity						
Power Class	HP	86	88	90	92	94
Cooling	kW	240.5	246.0	252.5	259.0	265.5
Heating	kW	268.5	276.0	280.0	284.0	288.0
Electrical Parameters						
Power supply	Ph-V/Hz	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)
Absorbed power - Cooling	kW	64.60	66.00	67.10	68.20	69.30
Max absorbed power - Cooling	kW	110.60	114.00	114.60	115.20	115.80
Absorbed current in cooling.	A	109.06	111.42	113.28	115.14	116.99
Max absorbed current - Cooling	A	186.72	192.46	193.47	194.48	195.49
Absorbed power – Heating	kW	60.80	61.60	63.00	64.40	65.80
Max absorbed power – Heating	kW	99.20	102.00	103.00	104.00	105.00
Absorbed current in heating	A	102.64	103.99	106.36	108.72	111.08
Max absorbed current – Heating	A	167.47	172.20	173.89	175.57	177.26
EER energy class	W/W	3.72	3.73	3.76	3.80	3.83
COP energy class	W/W	4.42	4.48	4.44	4.41	4.38
SEER energy class	W/W	6.33	6.29	6.24	6.19	6.15
SCOP energy class	W/W	4.46	4.43	4.38	4.35	4.31
Ventilation						
Air flow (High)	m^3/h	71000	72000	72000	72000	72000
Sound pressure level (High)	dB(A)	67	67	67.5	67.5	68
Sound power level (High)	dB(A)	78	78	78.5	78.5	78.8
Installation - Dimensions - Components						
Unit Dimensions WxDxH	mm	1410x750x1690 + 1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690 + 1410x750x1690
Packaged unit dimensions WxDxH	mm	1515x850x1838 + 1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838 + 1515x850x1838
Net weight / Gross weight	Kg	370/400 + 370/400 + 370/400 + 370/400	370/400 + 370/400 + 370/400 + 370/400	370/400 + 370/400 + 370/400 + 370/400	370/400 + 370/400 + 370/400 + 370/400	370/400 + 370/400 + 370/400 + 370/400
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	8 INV	8 INV	8 INV	8 INV	8 INV
Refrigerant type		R410A	R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	40	40	40	40	40
Ø Liquid side refrigerant pipe	mm	25.4	25.4	25.4	25.4	25.4
Ø Gas side refrigerant pipe	mm	50.8	50.8	50.8	50.8	50.8
Maximum piping length	m	1000	1000	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18	18	18
Static Pressure Fans	Pa	110	110	110	110	110
Connectable Indoor Capacity Ratio						
Indoor / Outdoor Capacity Ratio	%	50 – 130	50 – 130	50 – 130	50 – 130	50 – 130
Maximum number of connectable IUs	No.	64	64	64	64	64
External Temperature Operating Limits						
Cooling	°C	-5~50	-5~50	-5~50	-5~50	-5~50
Heating	°C	-23~21	-23~21	-23~21	-23~21	-23~21

The specifications indicated are obtained with the following test conditions: in Cooling mode, Indoor temperature of 27°C WB / 19°C DB and Outdoor temperature of 35°C WB / 24°C DB. In Heating mode, Indoor temperature of 20°C WB and Outdoor temperature of 7°C WB / 6°C DB

96-104HP
AV24IMVEVA
AV26IMVEVA

Model		AV96IMVEVA AV24IMVEVA AV24IMVEVA AV24IMVEVA AV24IMVEVA	AV98IMVEVA AV24IMVEVA AV24IMVEVA AV24IMVEVA AV26IMVEVA	AV100IMVEVA AV24IMVEVA AV24IMVEVA AV26IMVEVA AV26IMVEVA	AV102IMVEVA AV24IMVEVA AV26IMVEVA AV26IMVEVA AV26IMVEVA	AV104IMVEVA AV26IMVEVA AV26IMVEVA AV26IMVEVA AV26IMVEVA
Capacity						
Power Class	HP	96	98	100	102	104
Cooling	kW	272.0	277.5	283.0	288.5	294.0
Heating	kW	292.0	301.5	311.0	320.5	330.0
Electrical Parameters						
Power supply	Ph-V/Hz	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)
Absorbed power - Cooling	kW	70.40	71.60	72.80	74.00	75.20
Max absorbed power - Cooling	kW	116.40	120.30	124.20	128.10	132.00
Absorbed current in cooling.	A	118.85	120.88	122.90	124.93	126.95
Max absorbed current - Cooling	A	196.51	203.18	209.85	216.53	223.20
Absorbed power – Heating	kW	67.20	68.10	69.00	69.90	70.80
Max absorbed power – Heating	kW	106.00	109.90	113.80	117.70	121.60
Absorbed current in heating	A	113.45	114.97	116.49	118.01	119.53
Max absorbed current – Heating	A	178.95	185.53	192.12	198.70	205.29
EER energy class	W/W	3.86	3.88	3.89	3.90	3.91
COP energy class	W/W	4.35	4.43	4.51	4.59	4.66
SEER energy class	W/W	6.11	6.06	6.01	5.97	5.93
SCOP energy class	W/W	4.27	4.24	4.21	4.19	4.16
Ventilation						
Air flow (High)	m^3/h	72000	73000	74000	75000	76000
Sound pressure level (High)	dB(A)	68	68	68	68	68
Sound power level (High)	dB(A)	79	79	79	79	79
Installation - Dimensions - Components						
Unit Dimensions WxDxH	mm	1410x750x1690 + 1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690 + 1410x750x1690
Packaged unit dimensions WxDxH	mm	1515x850x1838 + 1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838 + 1515x850x1838
Net weight / Gross weight	Kg	370/400 + 370/400 + 370/400 + 370/400	370/400 + 370/400 + 370/400 + 370/400	370/400 + 370/400 + 370/400 + 370/400	370/400 + 370/400 + 370/400 + 370/400	370/400 + 370/400 + 370/400 + 370/400
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	8 INV	8 INV	8 INV	8 INV	8 INV
Refrigerant type		R410A	R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	40	40	40	40	40
Ø Liquid side refrigerant pipe	mm	25.4	25.4	25.4	25.4	25.4
Ø Gas side refrigerant pipe	mm	50.8	54.1	54.1	54.1	54.1
Maximum piping length	m	1000	1000	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18	18	18
Static Pressure Fans	Pa	110	110	110	110	110
Connectable Indoor Capacity Ratio						
Indoor / Outdoor Capacity Ratio	%	50 – 130	50 – 130	50 – 130	50 – 130	50 – 130
Maximum number of connectable IUs	No.	64	64	64	64	64
External Temperature Operating Limits						
Cooling	°C	-5~50	-5~50	-5~50	-5~50	-5~50
Heating	°C	-23~21	-23~21	-23~21	-23~21	-23~21

The specifications indicated are obtained with the following test conditions: in Cooling mode, Indoor temperature of 27°C WB / 19°C DB and Outdoor temperature of 35°C WB / 24°C DB. In Heating mode, Indoor temperature of 20°C WB and Outdoor temperature of 7°C WB / 6°C DB

MRV5-H DC INVERTER

Heat Pump VRF Continuous Heating System

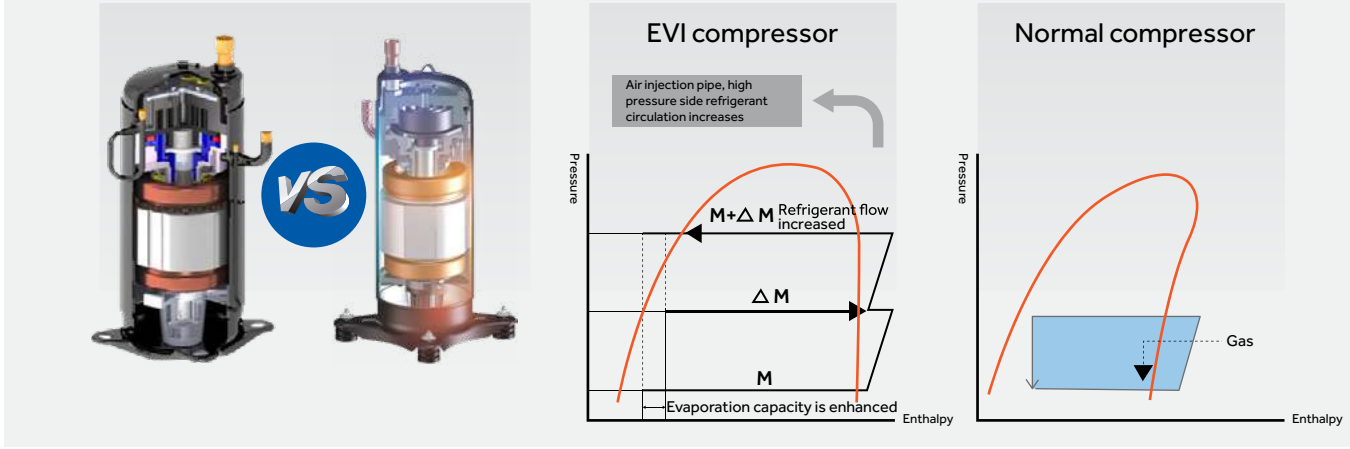
MRV 5-H CONTINUOUS HEATING, EVEN DURING DEFROST MODE.

MRV 5-H continuous heating VRF system by Haier adopts intelligent defrost technology according to the system pressure, coil temperature and humidity changes, coupled with the fan motor inspection technology to initiate automatic defrost mode.

Indoor temperature fluctuations are reduced by using direct defrosting technology and ensuring that in certain defrosting modes the four-way valve does not reverse direction giving you uninterrupted heating temperatures.

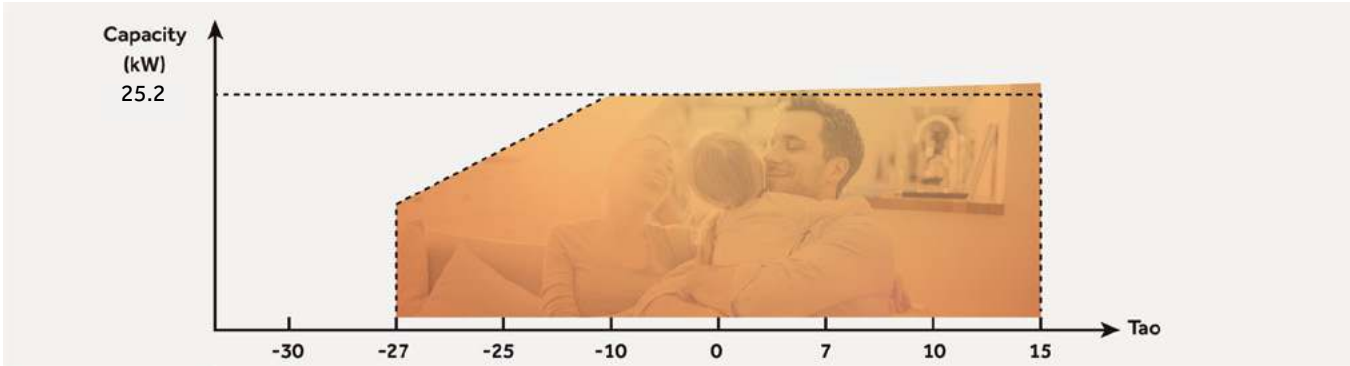
ENHANCED VAPOR INJECTION TECHNOLOGY, LOW TEMPERATURE HEATING AND HIGH TEMPERATURE COOLING

The MRV 5-H unit adopts an EVI compressor, which can increase the circulation of the refrigerant by 15%, and improve the heating effect by 30% compared with standard compressor types. The heating operating temperature in winter can be -27°C, and the cooling operating temperature in summer can be 52°C.



RELIABLE PERFORMANCE IN LOW TEMPERATURES

Compared with the standard series, the heating capacity in MRV 5-H is increased by 10% in the low temperature. For example, in the 8HP unit the heating capacity is 100% under -10°C environment temperature.



ELECTRIC HEATING OF CHASSIS (OPTIONAL)

Electric chassis heating can be chosen in colder environments, in order to ensure effective defrost and continue with a stable operation of the unit.

8-16HP

AV08NMVETA
AV10NMVETA
AV12NMVETA
AV14NMVETA
AV16NMVETA

Model		AV08NMVETA	AV10NMVETA	AV12NMVETA	AV14NMVETA	AV16NMVETA
Capacity						
Power Class	HP	8	10	12	14	16
Cooling	kW	25.2	28.0	33.5	40.0	45.0
Heating	kW	25.2	28.0	33.5	40.0	45.0
Electrical Parameters						
Power supply	Ph-V/Hz	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"
Absorbed power - Cooling	kW	6.24	7.37	9.31	11.94	13.24
Max absorbed power - Cooling	kW	14.30	15.10	16.32	17.58	20.69
Absorbed current in cooling.	A	10.53	12.44	15.71	20.16	22.34
Max absorbed current - Cooling	A	23.81	25.14	27.17	29.27	34.50
Absorbed power – Heating	kW	5.56	6.32	7.71	9.71	10.92
Max absorbed power – Heating	kW	11.69	12.19	12.69	16.10	19.56
Absorbed current in heating	A	9.67	10.99	13.40	16.88	18.99
Max absorbed current – Heating	A	19.47	20.30	21.13	26.81	32.57
EER energy class	W/W	4.03	3.79	3.59	3.35	3.39
COP energy class	W/W	4.53	4.43	4.34	4.11	4.12
SEER energy class	W/W	7.25	7.09	6.69	6.60	6.36
SCOP energy class	W/W	4.27	4.24	4.21	4.19	4.16
Ventilation						
Air flow (High)	m^3/h	11000	11000	12000	13500	13500
Sound pressure level (High)	dB(A)	56	56	59	59	60
Sound power level (High)	dB(A)	81	82	88	88	88
Installation - Dimensions - Components						
Unit Dimensions WxDxH	mm	980/750/1690				
Packaged unit dimensions WxDxH	mm	1070/850/1858				
Net weight / Gross weight	Kg	255/280				
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	1INV	1INV	1INV	1INV	1INV
Refrigerant type		R410A	R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	10	10	10	10	10
Ø Liquid side refrigerant pipe	mm	9.52	9.52	12.7	12.7	12.7
Ø Gas side refrigerant pipe	mm	19.05	22.22	25.4	25.4	28.58
Maximum piping length	m	1000	1000	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18	18	18
Static Pressure Fans	Pa	110	110	110	110	110
Connectable Indoor Capacity Ratio						
Indoor / Outdoor Capacity Ratio	%	50~130	50~130	50~130	50~130	50~130
Maximum number of connectable IUs	No.	13	16	20	24	27
External Temperature Operating Limits						
Cooling	°C	-5~52				
Heating	°C	-27~21				

18-26HP

AV18NMVETA
AV20NMVETA
AV22NMVETA
AV24NMVETA
AV26NMVETA

Model		AV18NMVETA	AV20NMVETA	AV22NMVETA	AV24NMVETA	AV26NMVETA
Capacity						
Power Class	HP	18	20	22	24	26
Cooling	kW	50.4	56.0	61.5	68.0	73.5
Heating	kW	50.4	56.0	61.5	68.0	73.5
Electrical Parameters						
Power supply	Ph-V/Hz	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"
Absorbed power - Cooling	kW	15.70	16.62	18.30	21.94	24.75
Max absorbed power - Cooling	kW	25.90	28.91	31.82	32.81	35.35
Absorbed current in cooling.	A	26.51	28.05	30.90	31.42	35.87
Max absorbed current - Cooling	A	40.30	46.30	51.91	54.12	58.86
Absorbed power – Heating	kW	12.81	14.23	16.14	18.86	21.62
Max absorbed power – Heating	kW	21.93	24.70	25.69	30.40	32.45
Absorbed current in heating	A	22.27	24.75	28.06	32.80	37.60
Max absorbed current – Heating	A	36.51	41.13	42.78	50.62	54.03
EER energy class	W/W	3.21	3.36	3.36	3.09	2.96
COP energy class	W/W	3.93	3.93	3.81	3.6	3.39
SEER energy class	W/W	6.78	6.75	6.54	5.97	5.68
SCOP energy class	W/W	4.31	4.38	4.39	4.34	3.88
Ventilation						
Air flow (High)	m^3/h	17000	17000	18000	18000	19000
Sound pressure level (High)	dB(A)	61	61	61	62	62
Sound power level (High)	dB(A)	88	88	88	90	90
Installation - Dimensions - Components						
Unit Dimensions WxDxH	mm	1410/750/1690				
Packaged unit dimensions WxDxH	mm	1515/850/1858				
Net weight / Gross weight	Kg	385/410				
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	2INV	2INV	2INV	2INV	2INV
Refrigerant type		R410A	R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	10	10	10	10	10
Ø Liquid side refrigerant pipe	mm	15.88	15.88	15.88	15.88	15.88
Ø Gas side refrigerant pipe	mm	28.58	28.58	28.58	28.58	28.58
Maximum piping length	m	1000	1000	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18	18	18
Static Pressure Fans	Pa	110	110	110	110	110
Connectable Indoor Capacity Ratio						
Indoor / Outdoor Capacity Ratio	%	50~130	50~130	50~130	50~130	50~130
Maximum number of connectable IUs	No.	30	33	36	40	43
External Temperature Operating Limits						
Cooling	°C	-5~52				
Heating	°C	-27~21				

28-32 HP
AV14NMVETA
AV16NMVETA

Model		**AV28NMVETA** AV14NMVETA AV14NMVETA	**AV30NMVETA** AV14NMVETA AV16NMVETA	**AV32NMVETA** AV16NMVETA AV16NMVETA
Capacity				
Power Class	HP	28	30	32
Cooling	kW	80.0	85.0	90.0
Heating	kW	80.0	85.0	90.0
Electrical Parameters				
Power supply	Ph-V/Hz	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"
Absorbed power - Cooling	kW	23.88	25.18	26.47
Max absorbed power - Cooling	kW	35.16	38.27	41.38
Absorbed current in cooling.	A	40.32	42.50	44.69
Max absorbed current - Cooling	A	58.54	69.00	80.60
Absorbed power – Heating	kW	19.42	20.63	21.84
Max absorbed power – Heating	kW	32.20	39.12	43.86
Absorbed current in heating	A	33.76	35.87	37.98
Max absorbed current – Heating	A	53.61	65.14	73.03
EER energy class	W/W	3.35	3.37	3.4
COP energy class	W/W	4.11	4.12	4.12
SEER energy class	W/W	5.68	6.54	6.42
SCOP energy class	W/W	4.31	4.19	4.10
Ventilation				
Air flow (High)	m^3/h	27000	27000	27000
Sound pressure level (High)	dB(A)	62	62.5	63
Sound power level (High)	dB(A)	91	91	91
Installation - Dimensions - Components				
Unit Dimensions WxDxH	mm	980/750/1690+980/750/1690		
Packaged unit dimensions WxDxH	mm	1070/850/1858+1070/850/1858		
Net weight / Gross weight	Kg	255/280+255/280		
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	2INV	2INV	2INV
Refrigerant type		R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	20	20	20
Ø Liquid side refrigerant pipe	mm	15.88	19.05	19.05
Ø Gas side refrigerant pipe	mm	28.58	31.8	31.8
Maximum piping length	m	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18
Static Pressure Fans	Pa	110	110	110
Connectable Indoor Capacity Ratio				
Indoor / Outdoor Capacity Ratio	%	50~130	50~130	50~130
Maximum number of connectable IUs	No.	47	50	53
External Temperature Operating Limits				
Cooling	°C	-5~52		
Heating	°C	-27~21		

28-38HP
AV14NMVETA
AV18NMVETA
AV20NMVETA

Model		AV34NMVETA AV14NMVETA AV14NMVETA	AV36NMVETA AV18NMVETA AV18NMVETA	AV38NMVETA AV18NMVETA AV20NMVETA
Capacity				
Power Class	HP	28	36	38
Cooling	kW	80.0	100.8	106.4
Heating	kW	80.0	100.8	106.4
Electrical Parameters				
Power supply	Ph-V/Hz	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"
Absorbed power - Cooling	kW	23.88	31.40	32.32
Max absorbed power - Cooling	kW	35.16	51.80	54.81
Absorbed current in cooling.	A	40.32	53.01	54.56
Max absorbed current - Cooling	A	58.54	103.82	108.24
Absorbed power – Heating	kW	19.42	25.62	27.04
Max absorbed power – Heating	kW	32.20	51.38	60.80
Absorbed current in heating	A	33.76	44.55	47.02
Max absorbed current – Heating	A	53.61	85.55	101.23
EER energy class	W/W	3.35	3.21	3.29
COP energy class	W/W	4.11	3.93	3.93
SEER energy class	W/W	5.68	6.84	6.82
SCOP energy class	W/W	4.31	4.31	4.34
Ventilation				
Air flow (High)	m^3/h	27000	34000	34000
Sound pressure level (High)	dB(A)	62	64	64
Sound power level (High)	dB(A)	91	91	91
Installation - Dimensions - Components				
Unit Dimensions WxDxH	mm	980/750/1690+1410/750/1690	1410/750/1690+1410/750/1690	
Packaged unit dimensions WxDxH	mm	1070/850/1858+1485/850/1858	1485/850/1858+1485/850/1858	
Net weight / Gross weight	Kg	255/280+385/410	385/410+385/410	
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	3INV	4INV	4INV
Refrigerant type		R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	20	20	20
Ø Liquid side refrigerant pipe	mm	19.05	19.05	19.05
Ø Gas side refrigerant pipe	mm	31.8	38.1	38.1
Maximum piping length	m	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18
Static Pressure Fans	Pa	110	110	110
Connectable Indoor Capacity Ratio				
Indoor / Outdoor Capacity Ratio	%	50~130	50~130	50~130
Maximum number of connectable IUs	No.	56	59	63
External Temperature Operating Limits				
Cooling	°C	-5~52		
Heating	°C	-27~21		

40-48HP
AV20NMVETA
AV22NMVETA
AV24NMVETA

Model		**AV40NMVETA** AV20NMVETA AV20NMVETA	**AV42NMVETA** AV20NMVETA AV22NMVETA	**AV44NMVETA** AV22NMVETA AV22NMVETA	**AV46NMVETA** AV22NMVETA AV24NMVETA	**AV48NMVETA** AV24NMVETA AV24NMVETA
Capacity						
Power Class	HP	40	42	44	46	48
Cooling	kW	112.0	117.5	123.0	129.5	136.0
Heating	kW	112.0	117.5	123.0	129.5	136.0
Electrical Parameters						
Power supply	Ph-V/Hz	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"
Absorbed power - Cooling	kW	33.23	34.92	36.61	36.91	37.22
Max absorbed power - Cooling	kW	57.82	60.73	63.64	64.63	65.62
Absorbed current in cooling.	A	56.11	58.95	61.80	62.32	62.84
Max absorbed current - Cooling	A	117.72	117.08	138.00	161.20	185.20
Absorbed power – Heating	kW	28.47	30.37	32.27	35.00	37.73
Max absorbed power – Heating	kW	64.90	64.40	78.24	87.72	98.80
Absorbed current in heating	A	49.50	52.81	56.12	60.86	65.60
Max absorbed current – Heating	A	108.06	107.23	130.28	146.05	164.50
EER energy class	W/W	3.37	3.36	3.35	3.5	3.65
COP energy class	W/W	3.93	3.86	3.81	3.7	3.6
SEER energy class	W/W	6.80	6.69	6.59	6.76	6.97
SCOP energy class	W/W	4.38	4.38	4.39	4.36	4.34
Ventilation						
Air flow (High)	m^3/h	34000	35000	36000	36000	36000
Sound pressure level (High)	dB(A)	64	64	64	64.5	65
Sound power level (High)	dB(A)	91	92	93	93	93
Installation - Dimensions - Components						
Unit Dimensions WxDxH	mm	1410/750/1690+1410/750/1690				
Packaged unit dimensions WxDxH	mm	1485/850/1858+1485/850/1858				
Net weight / Gross weight	Kg	385/410+385/410				
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	4INV	4INV	4INV	4INV	4INV
Refrigerant type		R410A	R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	20	20	20	20	20
Ø Liquid side refrigerant pipe	mm	19.05	19.05	19.05	19.05	19.05
Ø Gas side refrigerant pipe	mm	38.1	38.1	38.1	38.1	38.1
Maximum piping length	m	1000	1000	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18	18	18
Static Pressure Fans	Pa	110	110	110	110	110
Connectable Indoor Capacity Ratio						
Indoor / Outdoor Capacity Ratio	%	50~130	50~130	50~130	50~130	50~130
Maximum number of connectable IUs	No.	64	64	64	64	64
External Temperature Operating Limits						
Cooling	°C	-5~52				
Heating	°C	-27~21				

50-56HP
AV18NMVETA
AV20NMVETA
AV24NMVETA
AV26NMVETA

Model		AV50NMVETA AV24NMVETA AV26NMVETA	AV52NMVETA AV26NMVETA AV26NMVETA	AV54NMVETA AV18NMVETA AV18NMVETA AV18NMVETA	AV56NMVETA AV18NMVETA AV18NMVETA AV20NMVETA
Capacity					
Power Class	HP	50	52	54	56
Cooling	kW	141.5	147.0	151.2	156.8
Heating	kW	141.5	147.0	151.2	156.8
Electrical Parameters					
Power supply	Ph-V/Hz	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"
Absorbed power - Cooling	kW	39.86	42.49	47.10	48.02
Max absorbed power - Cooling	kW	68.16	70.70	77.70	80.71
Absorbed current in cooling.	A	67.29	71.73	79.52	81.07
Max absorbed current - Cooling	A	207.64	216.48	235.43	234.17
Absorbed power – Heating	kW	40.49	43.25	38.43	39.85
Max absorbed power – Heating	kW	102.77	121.60	129.80	128.80
Absorbed current in heating	A	70.40	75.20	66.82	69.30
Max absorbed current – Heating	A	171.11	202.46	216.12	214.45
EER energy class	W/W	3.54	3.45	3.21	3.26
COP energy class	W/W	3.49	3.39	3.93	3.93
SEER energy class	W/W	6.87	6.78	6.85	6.84
SCOP energy class	W/W	4.08	3.88	4.31	4.33
Ventilation					
Air flow (High)	m^3/h	37000	38000	51000	51000
Sound pressure level (High)	dB(A)	65	65	65.8	65.8
Sound power level (High)	dB(A)	93	93	93	93
Installation - Dimensions - Components					
Unit Dimensions WxDxH	mm	1410/750/1690+1410/750/1690		1410/750/1690+1410/750/1690+1410/750/1690	
Packaged unit dimensions WxDxH	mm	1485/850/1858+1485/850/1858		1485/850/1858+1485/850/1858+1485/850/1858	
Net weight / Gross weight	Kg	385/410+385/410		385/410+385/410+385/410	
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	4INV	4INV	6INV	6INV
Refrigerant type		R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	20	20	30	30
Ø Liquid side refrigerant pipe	mm	19.05	19.05	19.05	19.05
Ø Gas side refrigerant pipe	mm	38.1	38.1	38.1	38.1
Maximum piping length	m	1000	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18	18
Static Pressure Fans	Pa	110	110	110	110
Connectable Indoor Capacity Ratio					
Indoor / Outdoor Capacity Ratio	%	50~130	50~130	50~130	50~130
Maximum number of connectable IUs	No.	64	64	64	64
External Temperature Operating Limits					
Cooling	°C	-5~52			
Heating	°C	-27~21			

58-64HP
AV18NMVETA
AV20NMVETA
AV22NMVETA

Model		**AV58NMVETA** AV18NMVETA AV20NMVETA AV20NMVETA	**AV60NMVETA** AV20NMVETA AV20NMVETA AV20NMVETA	**AV62NMVETA** AV20NMVETA AV20NMVETA AV22NMVETA	**AV64NMVETA** AV20NMVETA AV22NMVETA AV22NMVETA
Capacity					
Power Class	HP	58	60	62	64
Cooling	kW	162.4	168.0	173.5	179.0
Heating	kW	162.4	168.0	173.5	179.0
Electrical Parameters					
Power supply	Ph-V/Hz	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"
Absorbed power - Cooling	kW	48.94	49.85	51.54	53.22
Max absorbed power - Cooling	kW	83.72	86.73	89.64	92.55
Absorbed current in cooling.	A	82.61	84.16	87.01	89.85
Max absorbed current - Cooling	A	276.00	322.40	370.40	415.28
Absorbed power – Heating	kW	41.27	42.70	44.60	46.51
Max absorbed power – Heating	kW	156.48	175.44	197.60	205.54
Absorbed current in heating	A	71.77	74.25	77.56	80.87
Max absorbed current – Heating	A	260.56	292.11	329.00	342.22
EER energy class	W/W	3.31	3.37	3.36	3.36
COP energy class	W/W	3.93	3.93	3.89	3.84
SEER energy class	W/W	6.83	6.81	6.74	6.67
SCOP energy class	W/W	4.36	4.38	4.38	4.39
Ventilation					
Air flow (High)	m^3/h	51000	51000	52000	53000
Sound pressure level (High)	dB(A)	65.8	65.8	65.8	65.8
Sound power level (High)	dB(A)	93	93	93.5	94
Installation - Dimensions - Components					
Unit Dimensions WxDxH	mm	1410/750/1690+1410/750/1690+1410/750/1690			
Packaged unit dimensions WxDxH	mm	1485/850/1858+1485/850/1858+1485/850/1858			
Net weight / Gross weight	Kg	385/410+385/410+385/410			
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	6INV	6INV	6INV	6INV
Refrigerant type		R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	30	30	30	30
Ø Liquid side refrigerant pipe	mm	19.05	19.05	19.05	19.05
Ø Gas side refrigerant pipe	mm	41.3	41.3	41.3	41.3
Maximum piping length	m	1000	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18	18
Static Pressure Fans	Pa	110	110	110	110
Connectable Indoor Capacity Ratio					
Indoor / Outdoor Capacity Ratio	%	50~130	50~130	50~130	50~130
Maximum number of connectable IUs	No.	64	64	64	64
External Temperature Operating Limits					
Cooling	°C	-5~52			
Heating	°C	-27~21			

66-72HP
AV22NMVETA
AV24NMVETA

Model		AV66NMVETA AV22NMVETA AV22NMVETA AV22NMVETA	AV68NMVETA AV22NMVETA AV22NMVETA AV24NMVETA	AV70NMVETA AV22NMVETA AV24NMVETA AV24NMVETA	AV72NMVETA AV24NMVETA AV24NMVETA AV24NMVETA
Capacity					
Power Class	HP	66	68	70	72
Cooling	kW	184.5	191.0	197.5	204.0
Heating	kW	184.5	191.0	197.5	204.0
Electrical Parameters					
Power supply	Ph-V/Hz	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"
Absorbed power - Cooling	kW	54.91	55.22	55.53	55.83
Max absorbed power - Cooling	kW	95.46	96.45	97.44	98.43
Absorbed current in cooling.	A	92.70	93.22	93.74	94.26
Max absorbed current - Cooling	A	432.96	470.86	468.33	552.00
Absorbed power – Heating	kW	48.41	51.14	53.86	56.59
Max absorbed power – Heating	kW	243.20	259.60	257.60	312.96
Absorbed current in heating	A	84.18	88.92	93.66	98.40
Max absorbed current – Heating	A	404.93	432.23	428.90	521.12
EER energy class	W/W	3.36	3.45	3.55	3.65
COP energy class	W/W	3.81	3.73	3.66	3.6
SEER energy class	W/W	6.60	6.80	6.86	6.98
SCOP energy class	W/W	4.39	4.37	4.35	4.34
Ventilation					
Air flow (High)	m^3/h	54000	54000	54000	54000
Sound pressure level (High)	dB(A)	65.8	66	66.5	66.8
Sound power level (High)	dB(A)	95	95	95	95
Installation - Dimensions - Components					
Unit Dimensions WxDxH	mm	1410/750/1690+1410/750/1690+1410/750/1690			
Packaged unit dimensions WxDxH	mm	1485/850/1858+1485/850/1858+1485/850/1858			
Net weight / Gross weight	Kg	385/410+385/410+385/410			
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	6INV	6INV	6INV	6INV
Refrigerant type		R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	30	30	30	30
Ø Liquid side refrigerant pipe	mm	19.05	22.2	22.2	22.2
Ø Gas side refrigerant pipe	mm	41.3	44.5	44.5	44.5
Maximum piping length	m	1000	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18	18
Static Pressure Fans	Pa	110	110	110	110
Connectable Indoor Capacity Ratio					
Indoor / Outdoor Capacity Ratio	%	50~130	50~130	50~130	50~130
Maximum number of connectable IUs	No.	64	64	64	64
External Temperature Operating Limits					
Cooling	°C	-5~52			
Heating	°C	-27~21			

74-78HP
AV24NMVETA
AV26NMVETA

Model		AV74NMVETA AV24NMVETA AV24NMVETA AV26NMVETA	AV76NMVETA AV24NMVETA AV26NMVETA AV26NMVETA	AV78NMVETA AV26NMVETA AV26NMVETA AV26NMVETA
Capacity				
Power Class	HP	74	76	78
Cooling	kW	209.5	215.0	220.5
Heating	kW	209.5	215.0	220.5
Electrical Parameters				
Power supply	Ph-V/Hz	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"
Absorbed power - Cooling	kW	58.47	61.10	63.74
Max absorbed power - Cooling	kW	100.97	103.51	106.05
Absorbed current in cooling.	A	98.71	103.15	107.60
Max absorbed current - Cooling	A	644.80	740.80	830.56
Absorbed power – Heating	kW	59.35	62.11	64.87
Max absorbed power – Heating	kW	350.88	395.20	411.07
Absorbed current in heating	A	103.20	108.00	112.80
Max absorbed current – Heating	A	584.22	658.01	684.44
EER energy class	W/W	3.58	3.51	3.45
COP energy class	W/W	3.52	3.46	3.39
SEER energy class	W/W	6.92	6.85	6.79
SCOP energy class	W/W	4.16	4.01	3.88
Ventilation				
Air flow (High)	m^3/h	55000	56000	57000
Sound pressure level (High)	dB(A)	66.8	66.8	66.8
Sound power level (High)	dB(A)	95	95	95
Installation - Dimensions - Components				
Unit Dimensions WxDxH	mm	1410/750/1690+1410/750/1690+1410/750/1690		
Packaged unit dimensions WxDxH	mm	1485/850/1858+1485/850/1858+1485/850/1858		
Net weight / Gross weight	Kg	385/410+385/410+385/410		
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	6INV	6INV	6INV
Refrigerant type		R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	30	30	30
Ø Liquid side refrigerant pipe	mm	22.2	22.2	22.2
Ø Gas side refrigerant pipe	mm	44.5	44.5	44.5
Maximum piping length	m	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18
Static Pressure Fans	Pa	110	110	110
Connectable Indoor Capacity Ratio				
Indoor / Outdoor Capacity Ratio	%	50~130	50~130	50~130
Maximum number of connectable IUs	No.	64	64	64
External Temperature Operating Limits				
Cooling	°C	-5~52		
Heating	°C	-27~21		

80-86HP
AV20NMVETA
AV22NMVETA

Model		AV80NMVETA AV20NMVETA AV20NMVETA AV20NMVETA AV20NMVETA	AV82NMVETA AV20NMVETA AV20NMVETA AV20NMVETA AV22NMVETA	AV84NMVETA AV20NMVETA AV20NMVETA AV22NMVETA AV22NMVETA	AV86NMVETA AV20NMVETA AV22NMVETA AV22NMVETA AV22NMVETA
Capacity					
Power Class	HP	80	82	84	86
Cooling	kW	224.0	229.5	235.0	240.5
Heating	kW	224.0	229.5	235.0	240.5
Electrical Parameters					
Power supply	Ph-V/Hz	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"
Absorbed power - Cooling	kW	66.47	68.16	69.84	71.53
Max absorbed power - Cooling	kW	115.64	118.55	121.46	124.37
Absorbed current in cooling.	A	112.21	115.06	117.91	120.75
Max absorbed current - Cooling	A	865.92	941.72	936.66	1104.00
Absorbed power – Heating	kW	56.93	58.84	60.74	62.65
Max absorbed power – Heating	kW	486.40	519.20	515.20	625.92
Absorbed current in heating	A	98.99	102.31	105.62	108.93
Max absorbed current – Heating	A	809.86	864.47	857.81	1042.24
EER energy class	W/W	3.36	3.36	3.36	3.36
COP energy class	W/W	3.93	3.9	3.86	3.83
SEER energy class	W/W	6.82	6.76	6.71	6.65
SCOP energy class	W/W	4.38	4.38	4.38	4.39
Ventilation					
Air flow (High)	m^3/h	68000	69000	70000	71000
Sound pressure level (High)	dB(A)	67	67	67	67
Sound power level (High)	dB(A)	94	95	95	96
Installation - Dimensions - Components					
Unit Dimensions WxDxH	mm	1410/750/1690+1410/750/1690+1410/750/1690+1410/750/1690			
Packaged unit dimensions WxDxH	mm	1485/850/1858+1485/850/1858+1485/850/1858+1485/850/1858			
Net weight / Gross weight	Kg	385/410+385/410+385/410+385/410			
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	8INV	8INV	8INV	8INV
Refrigerant type		R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	40	40	40	40
Ø Liquid side refrigerant pipe	mm	22.2	22.2	22.2	25.4
Ø Gas side refrigerant pipe	mm	44.5	44.5	44.5	50.8
Maximum piping length	m	1000	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18	18
Static Pressure Fans	Pa	110	110	110	110
Connectable Indoor Capacity Ratio					
Indoor / Outdoor Capacity Ratio	%	50~130	50~130	50~130	50~130
Maximum number of connectable IUs	No.	64	64	64	64
External Temperature Operating Limits					
Cooling	°C	-5~52			
Heating	°C	-27~21			

88-96HP
AV22NMVETA
AV24NMVETA

Model		AV88NMVETA AV22NMVETA AV22NMVETA AV22NMVETA AV22NMVETA	AV90NMVETA AV22NMVETA AV22NMVETA AV22NMVETA AV24NMVETA	AV92NMVETA AV22NMVETA AV22NMVETA AV24NMVETA AV24NMVETA	AV94NMVETA AV22NMVETA AV24NMVETA AV24NMVETA AV24NMVETA	AV96NMVETA AV24NMVETA AV24NMVETA AV24NMVETA AV24NMVETA
Capacity						
Power Class	HP	88	90	92	94	96
Cooling	kW	246.0	252.5	259.0	265.5	272.0
Heating	kW	246.0	252.5	259.0	265.5	272.0
Electrical Parameters						
Power supply	Ph-V/Hz	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"
Absorbed power - Cooling	kW	73.21	73.52	73.83	74.14	74.44
Max absorbed power - Cooling	kW	127.28	128.27	129.26	130.25	131.24
Absorbed current in cooling.	A	123.60	124.12	124.64	125.16	125.68
Max absorbed current - Cooling	A	1289.60	1481.60	1661.12	1731.84	1883.45
Absorbed power – Heating	kW	64.55	67.28	70.00	72.73	75.45
Max absorbed power – Heating	kW	701.76	790.40	822.14	972.80	1038.40
Absorbed current in heating	A	112.24	116.98	121.72	126.46	131.20
Max absorbed current – Heating	A	1168.43	1316.02	1368.87	1619.71	1728.94
EER energy class	W/W	3.36	3.43	3.5	3.58	3.65
COP energy class	W/W	3.81	3.75	3.7	3.65	3.6
SEER energy class	W/W	6.61	6.70	6.80	6.90	6.99
SCOP energy class	W/W	4.39	4.38	4.36	4.35	4.34
Ventilation						
Air flow (High)	m^3/h	72000	72000	72000	72000	72000
Sound pressure level (High)	dB(A)	67	67.5	67.5	68	68
Sound power level (High)	dB(A)	96	96	96	96	96
Installation - Dimensions - Components						
Unit Dimensions WxDxH	mm	1410/750/1690+1410/750/1690+1410/750/1690+1410/750/1690				
Packaged unit dimensions WxDxH	mm	1485/850/1858+1485/850/1858+1485/850/1858+1485/850/1858				
Net weight / Gross weight	Kg	385/410+385/410+385/410+385/410				
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	8INV	8INV	8INV	8INV	8INV
Refrigerant type		R410A	R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	40	40	40	40	40
Ø Liquid side refrigerant pipe	mm	25.4	25.4	25.4	25.4	25.4
Ø Gas side refrigerant pipe	mm	50.8	50.8	50.8	50.8	50.8
Maximum piping length	m	1000	1000	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18	18	18
Static Pressure Fans	Pa	110	110	110	110	110
Connectable Indoor Capacity Ratio						
Indoor / Outdoor Capacity Ratio	%	50~130	50~130	50~130	50~130	50~130
Maximum number of connectable IUs	No.	64	64	64	64	64
External Temperature Operating Limits						
Cooling	°C	-5~52				
Heating	°C	-27~21				

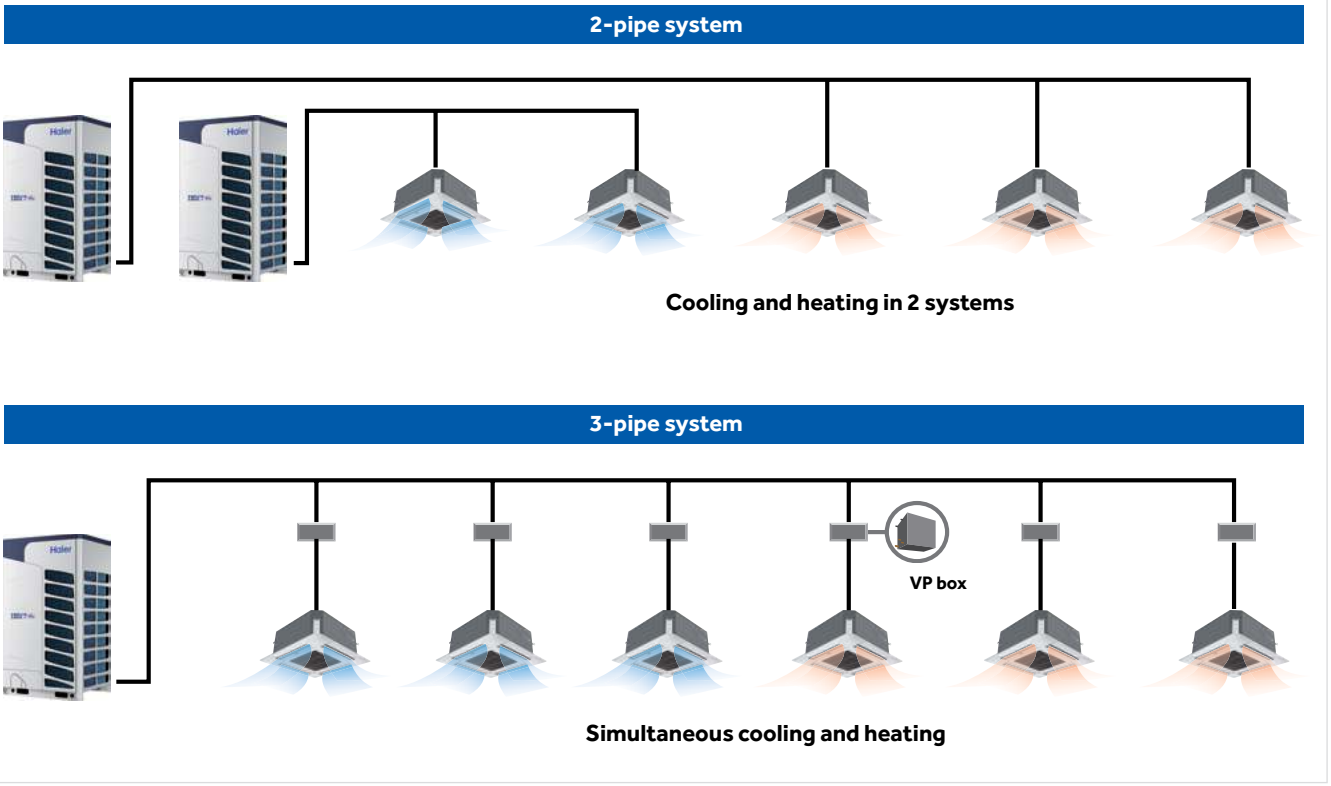
98-104HP
AV24NMVETA
AV26NMVETA

Model		AV98NMVETA AV24NMVETA AV24NMVETA AV24NMVETA AV26NMVETA	AV100NMVETA AV24NMVETA AV24NMVETA AV26NMVETA AV26NMVETA	AV102NMVETA AV24NMVETA AV26NMVETA AV26NMVETA AV26NMVETA	AV104NMVETA AV26NMVETA AV26NMVETA AV26NMVETA AV26NMVETA
Capacity					
Power Class	HP	98	100	102	104
Cooling	kW	277.5	283.0	288.5	294.0
Heating	kW	277.5	283.0	288.5	294.0
Electrical Parameters					
Power supply	Ph-V/Hz	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"	"3/380-400/50/60 (5 wires L1+L2+L3+N+T)"
Absorbed power - Cooling	kW	77.08	79.71	82.35	84.98
Max absorbed power - Cooling	kW	133.78	136.32	138.86	141.40
Absorbed current in cooling.	A	130.13	134.57	139.02	143.47
Max absorbed current - Cooling	A	1873.33	2208.00	2579.20	2963.20
Absorbed power – Heating	kW	78.21	80.97	83.73	86.50
Max absorbed power – Heating	kW	1030.40	1251.84	1403.52	1580.80
Absorbed current in heating	A	136.00	140.80	145.60	150.40
Max absorbed current – Heating	A	1715.62	2084.48	2336.86	2632.03
EER energy class	W/W	3.6	3.55	3.5	3.45
COP energy class	W/W	3.54	3.49	3.44	3.39
SEER energy class	W/W	6.94	6.89	6.84	6.80
SCOP energy class	W/W	4.20	4.08	3.98	3.88
Ventilation					
Air flow (High)	m^3/h	73000	74000	75000	76000
Sound pressure level (High)	dB(A)	68	68	68	68
Sound power level (High)	dB(A)	96	96	96	96
Installation - Dimensions - Components					
Unit Dimensions WxDxH	mm	1410/750/1690+1410/750/1690+1410/750/1690+1410/750/1690			
Packaged unit dimensions WxDxH	mm	1485/850/1858+1485/850/1858+1485/850/1858+1485/850/1858			
Net weight / Gross weight	Kg	385/410+385/410+385/410+385/410			
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	8INV	8INV	8INV	8INV
Refrigerant type		R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	40	40	40	40
Ø Liquid side refrigerant pipe	mm	25.4	25.4	25.4	25.4
Ø Gas side refrigerant pipe	mm	54.1	54.1	54.1	54.1
Maximum piping length	m	1000	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18	18
Static Pressure Fans	Pa	110	110	110	110
Connectable Indoor Capacity Ratio					
Indoor / Outdoor Capacity Ratio	%	50~130	50~130	50~130	50~130
Maximum number of connectable IUs	No.	64	64	64	64
External Temperature Operating Limits					
Cooling	°C	-5~52			
Heating	°C	-27~21			

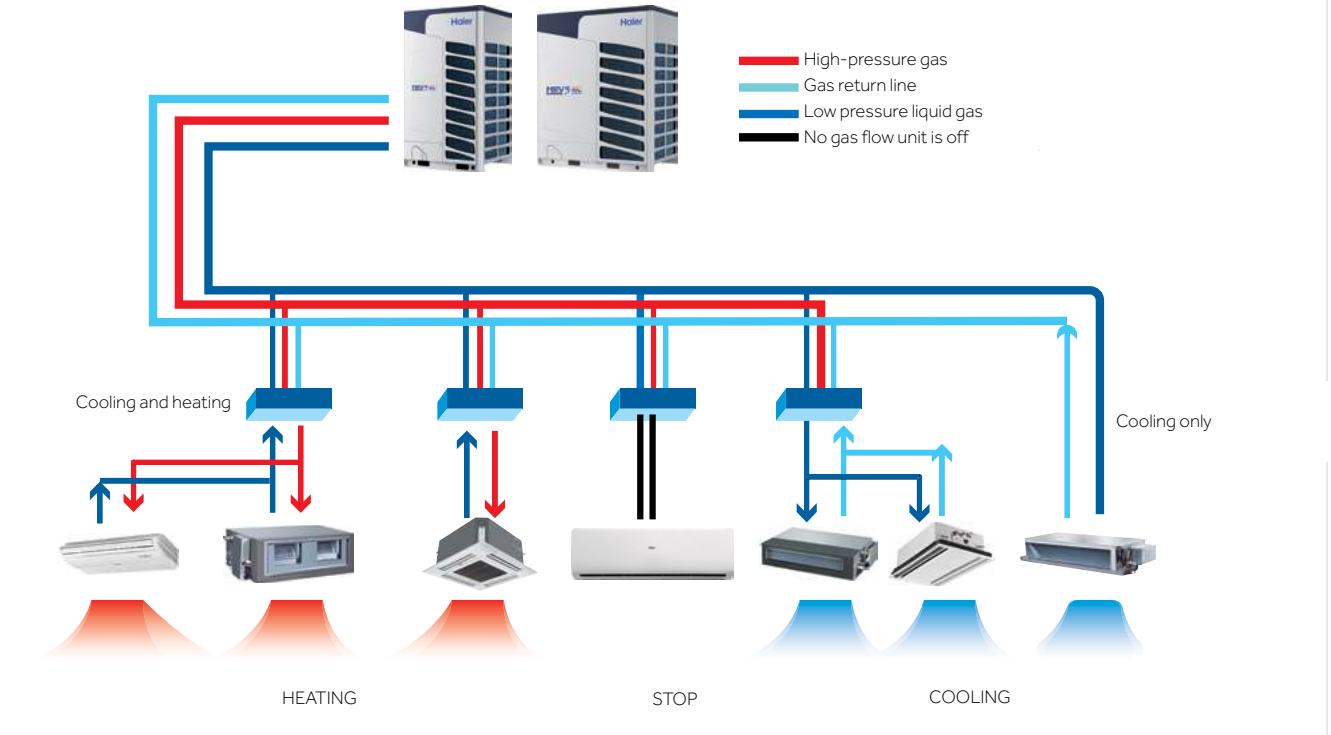
MRV5-RC DC INVERTER

Full DC Inverter 3-Pipe Heat Recovery Systems

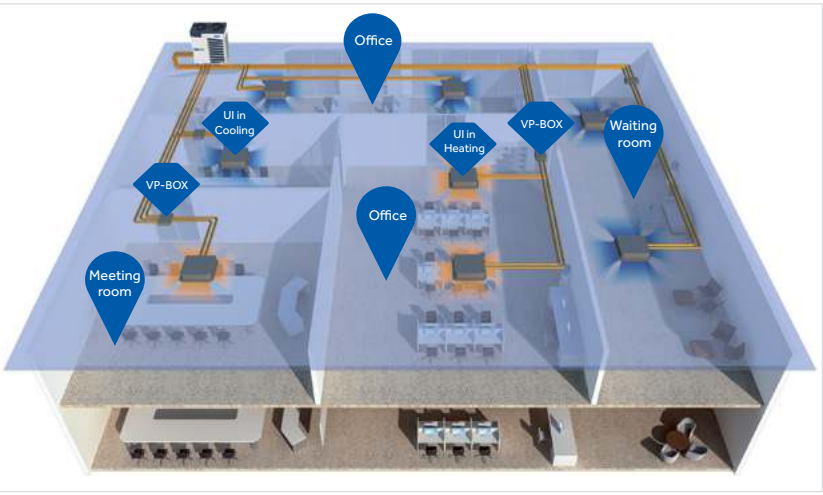
Simultaneous heating and cooling available with a 3-pipe heat recovery outdoor unit



Various modes of simultaneous operation

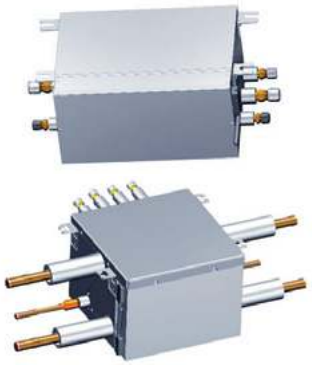


EXAMPLE OF A 3-PIPE MRV 5-RC SYSTEM



NEW SELECTION VALVES

- Reduced clutter
- Electronic valves for each flow line

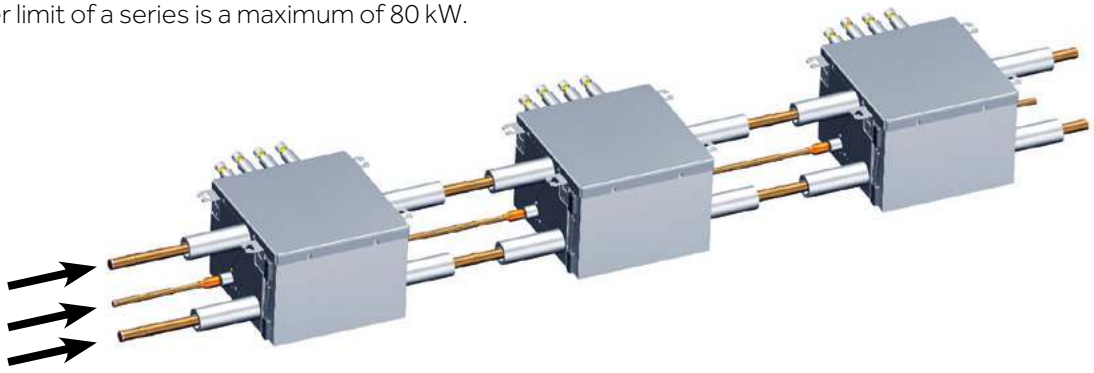


NEW SELECTION VALVES

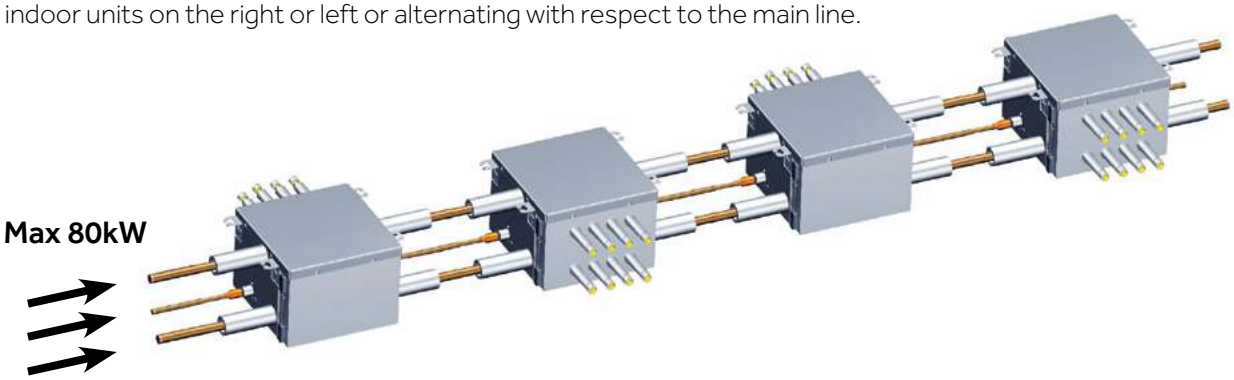
- Specially designed for MRV 5-RC, volume is small to 0.02m3 (for VP1 box), 0.05m3 (for VP4 box).
- Extensively reduces installation space.
- Individual Valve and Pipe Box for Heat Recovery.
- The valve box can be connected in a series which reduces the use of diverging pipes and reduces the installation cost.

Model	Maximum connectable capacity (kW)	Power supply	Maximum number of connectable indoor units, same mode of operation	Dimensions (mm)
VP1-112B	x ≤ 11.2	220-240V single-phase - 50/60Hz	5	388x200x277
VP1-180B	11.2 < x ≤ 18	220-240V single-phase - 50/60Hz	8	388x200x277
VP1-280B	18 < x ≤ 28	220-240V single-phase - 50/60Hz	8	388x200x277
VP4-450B	4 ways - max 11.2kW for single output.	220-240V single-phase - 50/60Hz	20	405x300x421

The 4-way box has standard closed output connections. To be opened in case of multiple installations, so that the output of the box becomes the input of the next box. You can connect multiple 4-way boxes in sequence. The input power limit of a series is a maximum of 80 kW.



FLEXIBLE INSTALLATION - ability to reverse the orientation of the series in order to have the connections of the indoor units on the right or left or alternating with respect to the main line.



* (limit determined by the diameters of the input pipes of the valve boxes)

8-14HP

AV08IMVURA
AV10IMVURA
AV12IMVURA
AV14IMVURA

Model		AV08IMVURA	AV10IMVURA	AV12IMVURA	AV14IMVURA
Capacity					
Power Class	HP	8	10	12	14
Cooling	kW	22.4	28	33.5	40
Heating	kW	25	31.5	37.5	45
Electrical Parameters					
Power supply	Ph-V/Hz	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)
Absorbed power - Cooling	kW	5.09	6.95	8.63	11.17
Max absorbed power - Cooling	kW	12.80	13.80	18.20	19.20
Absorbed current in cooling.	A	8.41	11.47	14.26	18.45
Max absorbed current - Cooling	A	21.14	22.79	30.06	31.71
Absorbed power – Heating	kW	5.08	6.73	8.54	10.71
Max absorbed power – Heating	kW	11.50	12.5	17.40	18.40
Absorbed current in heating	A	8.39	11.12	14.11	17.69
Max absorbed current – Heating	A	18.99	20.64	28.74	30.39
EER energy class	W/W	4.40	4.03	3.88	3.58
COP energy class	W/W	4.92	4.68	4.39	4.20
SEER energy class	W/W	6.23	6.32	6.17	6.12
SCOP energy class	W/W	4.12	4.03	3.93	3.72
Ventilation					
Air flow (High)	m^3/h	12000	12000	13500	13500
Sound pressure level (High)	dB(A)	57	58	60	61
Sound power level (High)	dB(A)	78	79	82	82
Installation - Dimensions - Components					
Unit Dimensions WxDxH	mm	980x750x1690	980x750x1690	980x750x1690	980x750x1690
Packaged unit dimensions WxDxH	mm	1070x850x1838	1070x850x1838	1070x850x1838	1070x850x1838
Net weight / Gross weight	Kg	246/271	246/271	257/282	257/282
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	1 INV	1 INV	1 INV	1 INV
Refrigerant type		R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	10	10	10	10
Ø Liquid side refrigerant pipe	mm	9.52	9.52	12.7	12.7
Ø Gas recovery side refrigerant pipe	mm	19.05	22.22	25.4	25.4
Ø High-pressure refrigerant gas pipe	mm	19.05	19.05	22.22	22.22
Maximum piping length	m	1000	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18	18
Static Pressure Fans	Pa	110	110	110	110
Connectable Indoor Capacity Ratio					
Indoor / Outdoor Capacity Ratio	%	50 – 130	50 – 130	50 – 130	50 – 130
Maximum number of connectable IUs	No.	13	16	20	24
External Temperature Operating Limits					
Cooling	°C	-5~50	-5~50	-5~50	-5~50
Heating	°C	-23~21	-23~21	-23~21	-23~21

The specifications indicated are obtained with the following test conditions: in Cooling mode, Indoor temperature of 27°C WB / 19°C DB and Outdoor temperature of 35°C WB / 24°C DB. In Heating mode, Indoor temperature of 20°C WB and Outdoor temperature of 7°C WB / 6°C DB

16-22HP

AV16IMVURA
AV18IMVURA
AV20IMVURA
AV22IMVURA

Model		AV16IMVURA	AV18IMVURA	AV20IMVURA	AV22IMVURA
Capacity					
Power Class	HP	16	18	20	22
Cooling	kW	45	50	56	63
Heating	kW	50	56	63	69
Electrical Parameters					
Power supply	Ph-V/Hz	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)
Absorbed power - Cooling	kW	12.68	14.75	16.92	19.57
Max absorbed power - Cooling	kW	25.10	28.50	32.00	33.00
Absorbed current in cooling.	A	20.93	24.36	27.94	32.31
Max absorbed current - Cooling	A	41.45	47.07	52.85	54.50
Absorbed power – Heating	kW	12.02	14.25	16.36	18.70
Max absorbed power – Heating	kW	22.70	25.50	29.40	30.40
Absorbed current in heating	A	19.85	23.53	27.02	30.88
Max absorbed current – Heating	A	37.49	42.11	48.55	50.21
EER energy class	W/W	3.55	3.39	3.31	3.22
COP energy class	W/W	4.16	3.93	3.85	3.69
SEER energy class	W/W	6.02	5.92	5.71	5.63
SCOP energy class	W/W	3.67	3.62	3.57	3.48
Ventilation					
Air flow (High)	m^3/h	17000	17000	19000	19000
Sound pressure level (High)	dB(A)	62	63	63	64
Sound power level (High)	dB(A)	83	84	84	85
Installation - Dimensions - Components					
Unit Dimensions WxDxH	mm	1410x750x1690	1410x750x1690	1410x750x1690	1410x750x1690
Packaged unit dimensions WxDxH	mm	1515x850x1838	1515x850x1838	1515x850x1838	1515x850x1838
Net weight / Gross weight	Kg	366/395	366/395	375/404	375/404
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	2 INV	2 INV	2 INV	2 INV
Refrigerant type		R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	10	10	10	10
Ø Liquid side refrigerant pipe	mm	12.7	15.88	15.88	15.88
Ø Gas recovery side refrigerant pipe	mm	28.58	28.58	28.58	28.58
Ø High-pressure refrigerant gas pipe	mm	25.4	25.4	25.4	25.4
Maximum piping length	m	1000	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18	18
Static Pressure Fans	Pa	110	110	110	110
Connectable Indoor Capacity Ratio					
Indoor / Outdoor Capacity Ratio	%	50 – 130	50 – 130	50 – 130	50 – 130
Maximum number of connectable IUs	No.	27	30	33	36
External Temperature Operating Limits					
Cooling	°C	-5~50	-5~50	-5~50	-5~50
Heating	°C	-23~21	-23~21	-23~21	-23~21

The specifications indicated are obtained with the following test conditions: in Cooling mode, Indoor temperature of 27°C WB / 19°C DB and Outdoor temperature of 35°C WB / 24°C DB. In Heating mode, Indoor temperature of 20°C WB and Outdoor temperature of 7°C WB / 6°C DB

24-30HP
AV12IMVURA
AV14IMVURA
AV16IMVURA

Model		**AV24IMVURA** AV12IMVURA AV12IMVURA	**AV26IMVURA** AV12IMVURA AV14IMVURA	**AV28IMVURA** AV14IMVURA AV14IMVURA	**AV30IMVURA** AV14IMVURA AV16IMVURA
Capacity					
Power Class	HP	24	26	28	30
Cooling	kW	67.0	73.5	80.0	85.0
Heating	kW	75.0	82.5	90.0	95.0
Electrical Parameters					
Power supply	Ph-V/Hz	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)
Absorbed power - Cooling	kW	17.27	19.81	22.35	23.85
Max absorbed power - Cooling	kW	36.400	37.40	38.40	44.30
Absorbed current in cooling.	A	28.52	32.71	36.91	39.39
Max absorbed current - Cooling	A	60.115	61.77	63.42	73.16
Absorbed power – Heating	kW	17.08	19.26	21.43	22.73
Max absorbed power – Heating	kW	34.800	35.80	36.80	41.10
Absorbed current in heating	A	28.21	31.80	35.39	37.54
Max absorbed current – Heating	A	57.472	59.12	60.78	67.88
EER energy class	W/W	3.88	3.71	3.58	3.56
COP energy class	W/W	4.39	4.28	4.20	4.18
SEER energy class	W/W	6.14	6.12	6.10	6.04
SCOP energy class	W/W	3.93	3.82	3.72	3.69
Ventilation					
Air flow (High)	m^3/h	27000	27000	27000	30500
Sound pressure level (High)	dB(A)	63	63.5	64	64.5
Sound power level (High)	dB(A)	85	85	85	85.5
Installation - Dimensions - Components					
Unit Dimensions WxDxH	mm	980x750x1690 + 980x750x1690	980x750x1690 + 980x750x1690	980x750x1690 + 980x750x1690	980x750x1690 + 1410x750x1690
Packaged unit dimensions WxDxH	mm	1070x850x1838 + 1070x850x1838	1070x850x1838 + 1070x850x1838	1070x850x1838 + 1070x850x1838	1070x850x1838 + 1515x850x1838
Net weight / Gross weight	Kg	257/282 + 257/282	257/282 + 257/282	257/282 + 257/282	257/282 + 366/395
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	2 INV	2 INV	2 INV	3 INV
Refrigerant type		R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	20	20	20	20
Ø Liquid side refrigerant pipe	mm	15.88	15.88	15.88	19.05
Ø Gas recovery side refrigerant pipe	mm	28.58	28.58	28.58	31.8
Ø High-pressure refrigerant gas pipe	mm	25.4	25.4	25.4	28.58
Maximum piping length	m	1000	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18	18
Static Pressure Fans	Pa	110	110	110	110
Connectable Indoor Capacity Ratio					
Indoor / Outdoor Capacity Ratio	%	50 – 130	50 – 130	50 – 130	50 – 130
Maximum number of connectable IUs	No.	40	43	47	50
External Temperature Operating Limits					
Cooling	°C	-5~50	-5~50	-5~50	-5~50
Heating	°C	-23~21	-23~21	-23~21	-23~21

The specifications indicated are obtained with the following test conditions: in Cooling mode, Indoor temperature of 27°C WB / 19°C DB and Outdoor temperature of 35°C WB / 24°C DB. In Heating mode, Indoor temperature of 20°C WB and Outdoor temperature of 7°C WB / 6°C DB

32-40HP
AV16IMVURA
AV18IMVURA
AV20IMVURA

Model		AV32IMVURA AV16IMVURA AV16IMVURA	AV34IMVURA AV16IMVURA AV18IMVURA	AV36IMVURA AV18IMVURA AV18IMVURA	AV38IMVURA AV18IMVURA AV20IMVURA	AV40IMVURA AV20IMVURA AV20IMVURA
Capacity						
Power Class	HP	32	34	36	38	40
Cooling	kW	90.0	95.0	100.0	106.0	112.0
Heating	kW	100.0	106.0	112.0	119.0	126.0
Electrical Parameters						
Power supply	Ph-V/Hz	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)
Absorbed power - Cooling	kW	25.35	27.43	29.50	31.67	33.84
Max absorbed power - Cooling	kW	50.20	53.60	57.00	60.50	64.00
Absorbed current in cooling.	A	41.87	45.29	48.72	52.30	55.88
Max absorbed current - Cooling	A	82.91	88.52	94.14	99.92	105.70
Absorbed power – Heating	kW	24.04	26.27	28.50	30.61	32.73
Max absorbed power – Heating	kW	45.40	48.20	51.00	54.90	58.80
Absorbed current in heating	A	39.70	43.38	47.07	50.56	54.05
Max absorbed current – Heating	A	74.98	79.60	84.23	90.67	97.11
EER energy class	W/W	3.55	3.46	3.39	3.35	3.31
COP energy class	W/W	4.16	4.04	3.93	3.89	3.85
SEER energy class	W/W	6.00	5.95	5.91	5.80	5.71
SCOP energy class	W/W	3.67	3.64	3.62	3.59	3.57
Ventilation						
Air flow (High)	m^3/h	34000	34000	34000	36000	38000
Sound pressure level (High)	dB(A)	65	65.5	66	66	66
Sound power level (High)	dB(A)	86	86.5	87	87	87
Installation - Dimensions - Components						
Unit Dimensions WxDxH	mm	1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690
Packaged unit dimensions WxDxH	mm	1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838
Net weight / Gross weight	Kg	366/395 + 366/395	366/395 + 366/395	366/395 + 366/395	366/395 + 375/404	375/404 + 375/404
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	4 INV	4 INV	4 INV	4 INV	4 INV
Refrigerant type		R410A	R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	20	20	20	20	20
Ø Liquid side refrigerant pipe	mm	19.05	19.05	19.05	19.05	19.05
Ø Gas recovery side refrigerant pipe	mm	31.8	31.8	38.1	38.1	38.1
Ø High-pressure refrigerant gas pipe	mm	28.58	28.58	34.9	34.9	34.9
Maximum piping length	m	1000	1000	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18	18	18
Static Pressure Fans	Pa	110	110	110	110	110
Connectable Indoor Capacity Ratio						
Indoor / Outdoor Capacity Ratio	%	50 – 130	50 – 130	50 – 130	50 – 130	50 – 130
Maximum number of connectable IUs	No.	53	56	59	63	64
External Temperature Operating Limits						
Cooling	°C	-5~50	-5~50	-5~50	-5~50	-5~50
Heating	°C	-23~21	-23~21	-23~21	-23~21	-23~21

The specifications indicated are obtained with the following test conditions: in Cooling mode, Indoor temperature of 27°C WB / 19°C DB and Outdoor temperature of 35°C WB / 24°C DB. In Heating mode, Indoor temperature of 20°C WB and Outdoor temperature of 7°C WB / 6°C DB

42-46HP
AV14IMVURA
AV16IMVURA
AV20IMVURA
AV22IMVURA

Model		**AV42IMVURA** AV20IMVURA AV22IMVURA	**AV44IMVURA** AV22IMVURA AV22IMVURA	**AV46IMVURA** AV14IMVURA AV16IMVURA AV16IMVURA
Capacity				
Power Class	HP	42	44	46
Cooling	kW	119.0	126.0	130.0
Heating	kW	132.0	138.0	145.0
Electrical Parameters				
Power supply	Ph-V/Hz	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)
Absorbed power - Cooling	kW	36.48	39.13	36.53
Max absorbed power - Cooling	kW	65.00	66.00	69.40
Absorbed current in cooling.	A	60.25	64.62	60.32
Max absorbed current - Cooling	A	107.35	109.00	114.61
Absorbed power – Heating	kW	35.06	37.40	34.75
Max absorbed power – Heating	kW	59.80	60.80	63.80
Absorbed current in heating	A	57.91	61.76	57.39
Max absorbed current – Heating	A	98.76	100.41	105.37
EER energy class	W/W	3.26	3.22	3.56
COP energy class	W/W	3.76	3.69	4.17
SEER energy class	W/W	5.67	5.63	6.03
SCOP energy class	W/W	3.52	3.48	3.68
Ventilation				
Air flow (High)	m^3/h	38000	38000	47500
Sound pressure level (High)	dB(A)	66.5	67	66.5
Sound power level (High)	dB(A)	87.5	88	87.5
Installation - Dimensions - Components				
Unit Dimensions WxDxH	mm	1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690	980x750x1690 + 1410x750x1690 + 1410x750x1690
Packaged unit dimensions WxDxH	mm	1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838	1070x850x1838 + 1515x850x1838 + 1515x850x1838
Net weight / Gross weight	Kg	375/404 + 375/404	375/404 + 375/404	257/282 + 366/395 + 366/395
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	4 INV	4 INV	5 INV
Refrigerant type		R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	20	20	30
Ø Liquid side refrigerant pipe	mm	19.05	19.05	19.05
Ø Gas recovery side refrigerant pipe	mm	38.1	38.1	38.1
Ø High-pressure refrigerant gas pipe	mm	34.9	34.9	34.9
Maximum piping length	m	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18
Static Pressure Fans	Pa	110	110	110
Connectable Indoor Capacity Ratio				
Indoor / Outdoor Capacity Ratio	%	50 – 130	50 – 130	50 – 130
Maximum number of connectable IUs	No.	64	64	64
External Temperature Operating Limits				
Cooling	°C	-5~50	-5~50	-5~50
Heating	°C	-23~21	-23~21	-23~21

The specifications indicated are obtained with the following test conditions: in Cooling mode, Indoor temperature of 27°C WB / 19°C DB and Outdoor temperature of 35°C WB / 24°C DB. In Heating mode, Indoor temperature of 20°C WB and Outdoor temperature of 7°C WB / 6°C DB

48-56HP

AV16IMVURA
AV18IMVURA
AV20IMVURA

Model		AV48IMVURA AV16IMVURA AV16IMVURA AV16IMVURA	AV50IMVURA AV16IMVURA AV16IMVURA AV18IMVURA	AV52IMVURA AV16IMVURA AV18IMVURA AV18IMVURA	AV54IMVURA AV18IMVURA AV18IMVURA AV18IMVURA	AV56IMVURA AV18IMVURA AV18IMVURA AV20IMVURA
Capacity						
Power Class	HP	48	50	52	54	56
Cooling	kW	135.0	140.0	145.0	150.0	156.0
Heating	kW	150.0	156.0	162.0	168.0	175.0
Electrical Parameters						
Power supply	Ph-V/Hz	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)
Absorbed power - Cooling	kW	38.03	40.10	42.17	44.25	46.42
Max absorbed power - Cooling	kW	75.30	78.70	82.10	85.50	89.00
Absorbed current in cooling.	A	62.80	66.23	69.65	73.08	76.66
Max absorbed current - Cooling	A	124.36	129.97	135.59	141.20	146.98
Absorbed power – Heating	kW	36.06	38.29	40.52	42.75	44.86
Max absorbed power – Heating	kW	68.10	70.90	73.70	76.50	80.40
Absorbed current in heating	A	59.55	63.23	66.92	70.60	74.09
Max absorbed current – Heating	A	112.47	117.09	121.72	126.34	132.78
EER energy class	W/W	3.55	3.49	3.44	3.39	3.36
COP energy class	W/W	4.16	4.07	4.00	3.93	3.90
SEER energy class	W/W	6.00	5.96	5.93	5.91	5.83
SCOP energy class	W/W	3.67	3.65	3.64	3.62	3.60
Ventilation						
Air flow (High)	m^3/h	51000	51000	51000	51000	53000
Sound pressure level (High)	dB(A)	67	67	67.5	68	68
Sound power level (High)	dB(A)	88	88	88.5	89	89
Installation - Dimensions - Components						
Unit Dimensions WxDxH	mm	1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690
Packaged unit dimensions WxDxH	mm	1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838
Net weight / Gross weight	Kg	366/395 + 366/395 + 366/395	366/395 + 366/395 + 366/395	366/395 + 366/395 + 366/395	366/395 + 366/395 + 366/395	366/395 + 366/395 + 375/404
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	6 INV	6 INV	6 INV	6 INV	6 INV
Refrigerant type		R410A	R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	30	30	30	30	30
Ø Liquid side refrigerant pipe	mm	19.05	19.05	19.05	19.05	19.05
Ø Gas recovery side refrigerant pipe	mm	38.1	38.1	38.1	38.1	38.1
Ø High-pressure refrigerant gas pipe	mm	34.9	34.9	34.9	34.9	34.9
Maximum piping length	m	1000	1000	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18	18	18
Static Pressure Fans	Pa	110	110	110	110	110
Connectable Indoor Capacity Ratio						
Indoor / Outdoor Capacity Ratio	%	50 – 130	50 – 130	50 – 130	50 – 130	50 – 130
Maximum number of connectable IUs	No.	64	64	64	64	64
External Temperature Operating Limits						
Cooling	°C	-5~50	-5~50	-5~50	-5~50	-5~50
Heating	°C	-23~21	-23~21	-23~21	-23~21	-23~21

The specifications indicated are obtained with the following test conditions: in Cooling mode, Indoor temperature of 27°C WB / 19°C DB and Outdoor temperature of 35°C WB / 24°C DB. In Heating mode, Indoor temperature of 20°C WB and Outdoor temperature of 7°C WB / 6°C DB

58-66HP
AV18IMVURA
AV20IMVURA
AV22IMVURA

Model		AV58IMVURA AV18IMVURA AV20IMVURA AV20IMVURA	AV60IMVURA AV20IMVURA AV20IMVURA AV20IMVURA	AV62IMVURA AV20IMVURA AV20IMVURA AV22IMVURA	AV64IMVURA AV20IMVURA AV22IMVURA AV22IMVURA	AV66IMVURA AV22IMVURA AV22IMVURA AV22IMVURA
Capacity						
Power Class	HP	58	60	62	64	66
Cooling	kW	162.0	168.0	175.0	182.0	189.0
Heating	kW	182.0	189.0	195.0	201.0	207.0
Electrical Parameters						
Power supply	Ph-V/Hz	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)
Absorbed power - Cooling	kW	48.59	50.76	53.40	56.05	58.70
Max absorbed power - Cooling	kW	92.50	96.00	97.00	98.00	99.00
Absorbed current in cooling.	A	80.24	83.82	88.19	92.57	96.94
Max absorbed current - Cooling	A	152.76	158.54	160.20	161.85	163.50
Absorbed power – Heating	kW	46.98	49.09	51.43	53.76	56.10
Max absorbed power – Heating	kW	84.30	88.20	89.20	90.20	91.20
Absorbed current in heating	A	77.58	81.07	84.93	88.79	92.65
Max absorbed current – Heating	A	139.22	145.66	147.31	148.97	150.62
EER energy class	W/W	3.33	3.31	3.28	3.25	3.22
COP energy class	W/W	3.87	3.85	3.79	3.74	3.69
SEER energy class	W/W	5.77	5.71	5.68	5.66	5.63
SCOP energy class	W/W	3.58	3.57	3.53	3.51	3.48
Ventilation						
Air flow (High)	m^3/h	55000	57000	57000	57000	57000
Sound pressure level (High)	dB(A)	68	68	68	68.5	69
Sound power level (High)	dB(A)	89	89	89	89.5	90
Installation - Dimensions - Components						
Unit Dimensions WxDxH	mm	1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690
Packaged unit dimensions WxDxH	mm	1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838
Net weight / Gross weight	Kg	366/395 + 375/404 + 375/404	375/404 + 375/404 + 375/404	375/404 + 375/404 + 375/404	375/404 + 375/404 + 375/404	375/404 + 375/404 + 375/404
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	6 INV	6 INV	6 INV	6 INV	6 INV
Refrigerant type		R410A	R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	30	30	30	30	30
Ø Liquid side refrigerant pipe	mm	19.05	19.05	19.05	19.05	19.05
Ø Gas recovery side refrigerant pipe	mm	41.3	41.3	41.3	41.3	41.3
Ø High-pressure refrigerant gas pipe	mm	38.1	38.1	38.1	38.1	38.1
Maximum piping length	m	1000	1000	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18	18	18
Static Pressure Fans	Pa	110	110	110	110	110
Connectable Indoor Capacity Ratio						
Indoor / Outdoor Capacity Ratio	%	50 – 130	50 – 130	50 – 130	50 – 130	50 – 130
Maximum number of connectable IUs	No.	64	64	64	64	64
External Temperature Operating Limits						
Cooling	°C	-5~50	-5~50	-5~50	-5~50	-5~50
Heating	°C	-23~21	-23~21	-23~21	-23~21	-23~21

The specifications indicated are obtained with the following test conditions: in Cooling mode, Indoor temperature of 27°C WB / 19°C DB and Outdoor temperature of 35°C WB / 24°C DB. In Heating mode, Indoor temperature of 20°C WB and Outdoor temperature of 7°C WB / 6°C DB

68-74HP

AV16IMVURA
AV18IMVURA
AV20IMVURA

Model		AV68IMVURA AV16IMVURA AV16IMVURA AV18IMVURA AV18IMVURA	AV70IMVURA AV16IMVURA AV18IMVURA AV18IMVURA AV18IMVURA	AV72IMVURA AV18IMVURA AV18IMVURA AV18IMVURA AV18IMVURA	AV74IMVURA AV18IMVURA AV18IMVURA AV18IMVURA AV20IMVURA
Capacity					
Power Class	HP	68	70	72	74
Cooling	kW	190.0	195.0	200.0	206.0
Heating	kW	212.0	218.0	224.0	231.0
Electrical Parameters					
Power supply	Ph-V/Hz	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)
Absorbed power - Cooling	kW	54.85	56.92	59.00	61.17
Max absorbed power - Cooling	kW	107.20	110.60	114.00	117.50
Absorbed current in cooling.	A	90.59	94.01	97.43	101.02
Max absorbed current - Cooling	A	177.04	182.66	188.27	194.05
Absorbed power – Heating	kW	52.54	54.77	57.00	59.11
Max absorbed power – Heating	kW	96.40	99.20	102.00	105.90
Absorbed current in heating	A	86.77	90.45	94.13	97.62
Max absorbed current – Heating	A	159.21	163.83	168.45	174.89
EER energy class	W/W	3.46	3.43	3.39	3.37
COP energy class	W/W	4.04	3.98	3.93	3.91
SEER energy class	W/W	5.95	5.93	5.91	5.85
SCOP energy class	W/W	3.64	3.63	3.62	3.61
Ventilation					
Air flow (High)	m^3/h	68000	68000	68000	70000
Sound pressure level (High)	dB(A)	69	69	69	69
Sound power level (High)	dB(A)	90	90	90	90
Installation - Dimensions - Components					
Unit Dimensions WxDxH	mm	1410x750x1690 + 1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690 + 1410x750x1690
Packaged unit dimensions WxDxH	mm	1515x850x1838 + 1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838 + 1515x850x1838
Net weight / Gross weight	Kg	366/395 + 366/395 + 366/395 + 366/395	366/395 + 366/395 + 366/395 + 366/395	366/395 + 366/395 + 366/395 + 366/395	366/395 + 366/395 + 366/395 + 375/404
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	8 INV	8 INV	8 INV	8 INV
Refrigerant type		R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	40	40	40	40
Ø Liquid side refrigerant pipe	mm	22.2	22.2	22.2	22.2
Ø Gas recovery side refrigerant pipe	mm	44.5	44.5	44.5	44.5
Ø High-pressure refrigerant gas pipe	mm	41.3	41.3	41.3	41.3
Maximum piping length	m	1000	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18	18
Static Pressure Fans	Pa	110	110	110	110
Connectable Indoor Capacity Ratio					
Indoor / Outdoor Capacity Ratio	%	50 – 130	50 – 130	50 – 130	50 – 130
Maximum number of connectable IUs	No.	64	64	64	64
External Temperature Operating Limits					
Cooling	°C	-5~50	-5~50	-5~50	-5~50
Heating	°C	-23~21	-23~21	-23~21	-23~21

The specifications indicated are obtained with the following test conditions: in Cooling mode, Indoor temperature of 27°C WB / 19°C DB and Outdoor temperature of 35°C WB / 24°C DB. In Heating mode, Indoor temperature of 20°C WB and Outdoor temperature of 7°C WB / 6°C DB

76-82HP
AV18IMVURA
AV20IMVURA
AV22IMVURA

Model		AV76IMVURA AV18IMVURA AV18IMVURA AV20IMVURA AV20IMVURA	AV78IMVURA AV18IMVURA AV20IMVURA AV20IMVURA AV20IMVURA	AV80IMVURA AV20IMVURA AV20IMVURA AV20IMVURA AV20IMVURA	AV82IMVURA AV20IMVURA AV20IMVURA AV20IMVURA AV22IMVURA
Commercial code					
Capacity					
Power Class	HP	76	78	80	82
Cooling	kW	212.0	218.0	224.0	231.0
Heating	kW	238.0	245.0	252.0	258.0
Electrical Parameters					
Power supply	Ph-V/Hz	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)
Absorbed power - Cooling	kW	63.34	65.50	67.67	70.32
Max absorbed power - Cooling	kW	121.00	124.50	128.00	129.00
Absorbed current in cooling.	A	104.60	108.18	111.76	116.13
Max absorbed current - Cooling	A	199.83	205.61	211.39	213.04
Absorbed power – Heating	kW	61.23	63.34	65.45	67.79
Max absorbed power – Heating	kW	109.80	113.70	117.60	118.60
Absorbed current in heating	A	101.12	104.61	108.10	111.96
Max absorbed current – Heating	A	181.34	187.78	194.22	195.87
EER energy class	W/W	3.35	3.33	3.31	3.28
COP energy class	W/W	3.89	3.87	3.85	3.81
SEER energy class	W/W	5.80	5.75	5.71	5.69
SCOP energy class	W/W	3.59	3.58	3.57	3.54
Ventilation					
Air flow (High)	m^3/h	72000	74000	76000	76000
Sound pressure level (High)	dB(A)	69	69	69	69
Sound power level (High)	dB(A)	90	90	90	90
Installation - Dimensions - Components					
Unit Dimensions WxDxH	mm	1410x750x1690 + 1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690 + 1410x750x1690
Packaged unit dimensions WxDxH	mm	1515x850x1838 + 1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838 + 1515x850x1838
Net weight / Gross weight	Kg	366/395 + 366/395 + 375/404 + 375/404	366/395 + 375/404 + 375/404 + 375/404	375/404 + 375/404 + 375/404 + 375/404	375/404 + 375/404 + 375/404 + 375/404
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	8 INV	8 INV	8 INV	8 INV
Refrigerant type		R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	40	40	40	40
Ø Liquid side refrigerant pipe	mm	22.2	22.2	22.2	22.2
Ø Gas recovery side refrigerant pipe	mm	44.5	44.5	44.5	44.5
Ø High-pressure refrigerant gas pipe	mm	41.3	41.3	41.3	41.3
Maximum piping length	m	1000	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18	18
Static Pressure Fans	Pa	110	110	110	110
Connectable Indoor Capacity Ratio					
Indoor / Outdoor Capacity Ratio	%	50 – 130	50 – 130	50 – 130	50 – 130
Maximum number of connectable IUs	No.	64	64	64	64
External Temperature Operating Limits					
Cooling	°C	-5~50	-5~50	-5~50	-5~50
Heating	°C	-23~21	-23~21	-23~21	-23~21

The specifications indicated are obtained with the following test conditions: in Cooling mode, Indoor temperature of 27°C WB / 19°C DB and Outdoor temperature of 35°C WB / 24°C DB. In Heating mode, Indoor temperature of 20°C WB and Outdoor temperature of 7°C WB / 6°C DB

84-88HP
AV20IMVURA
AV22IMVURA

Model		AV84IMVURA AV20IMVURA AV20IMVURA AV22IMVURA AV22IMVURA	AV86IMVURA AV20IMVURA AV22IMVURA AV22IMVURA AV22IMVURA	AV88IMVURA AV22IMVURA AV22IMVURA AV22IMVURA AV22IMVURA
Commercial code				
Capacity				
Power Class	HP	84	86	88
Cooling	kW	238.0	245.0	252.0
Heating	kW	264.0	270.0	276.0
Electrical Parameters				
Power supply	Ph-V/Hz	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)
Absorbed power - Cooling	kW	72.97	75.61	78.26
Max absorbed power - Cooling	kW	130.00	131.00	132.00
Absorbed current in cooling.	A	120.51	124.88	129.25
Max absorbed current - Cooling	A	214.70	216.35	218.00
Absorbed power – Heating	kW	70.13	72.46	74.80
Max absorbed power – Heating	kW	119.60	120.60	121.60
Absorbed current in heating	A	115.81	119.67	123.53
Max absorbed current – Heating	A	197.52	199.17	200.82
EER energy class	W/W	3.26	3.24	3.22
COP energy class	W/W	3.76	3.73	3.69
SEER energy class	W/W	5.67	5.65	5.63
SCOP energy class	W/W	3.52	3.50	3.48
Ventilation				
Air flow (High)	m^3/h	76000	76000	76000
Sound pressure level (High)	dB(A)	69.5	70	70
Sound power level (High)	dB(A)	90.5	91	91
Installation - Dimensions - Components				
Unit Dimensions WxDxH	mm	1410x750x1690 + 1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690 + 1410x750x1690	1410x750x1690 + 1410x750x1690 + 1410x750x1690 + 1410x750x1690
Packaged unit dimensions WxDxH	mm	1515x850x1838 + 1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838 + 1515x850x1838	1515x850x1838 + 1515x850x1838 + 1515x850x1838 + 1515x850x1838
Net weight / Gross weight	Kg	375/404 + 375/404 + 375/404 + 375/404	375/404 + 375/404 + 375/404 + 375/404	375/404 + 375/404 + 375/404 + 375/404
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	8 INV	8 INV	8 INV
Refrigerant type		R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	40	40	40
Ø Liquid side refrigerant pipe	mm	22.2	25.4	25.4
Ø Gas recovery side refrigerant pipe	mm	44.5	50.8	50.8
Ø High-pressure refrigerant gas pipe	mm	41.3	44.5	44.5
Maximum piping length	m	1000	1000	1000
Max linear piping length (Equivalent/Real)	m	260/220	260/220	260/220
Standard height difference between IU and OU	m	50/40	50/40	50/40
Standard height difference between IU and IU	m	18	18	18
Static Pressure Fans	Pa	110	110	110
Connectable Indoor Capacity Ratio				
Indoor / Outdoor Capacity Ratio	%	50 – 130	50 – 130	50 – 130
Maximum number of connectable IUs	No.	64	64	64
External Temperature Operating Limits				
Cooling	°C	-5~50	-5~50	-5~50
Heating	°C	-23~21	-23~21	-23~21

The specifications indicated are obtained with the following test conditions: in Cooling mode, Indoor temperature of 27°C WB / 19°C DB and Outdoor temperature of 35°C WB / 24°C DB. In Heating mode, Indoor temperature of 20°C WB and Outdoor temperature of 7°C WB / 6°C DB

MRV W

Heat Pump System Full DC Inverter Water Cooled

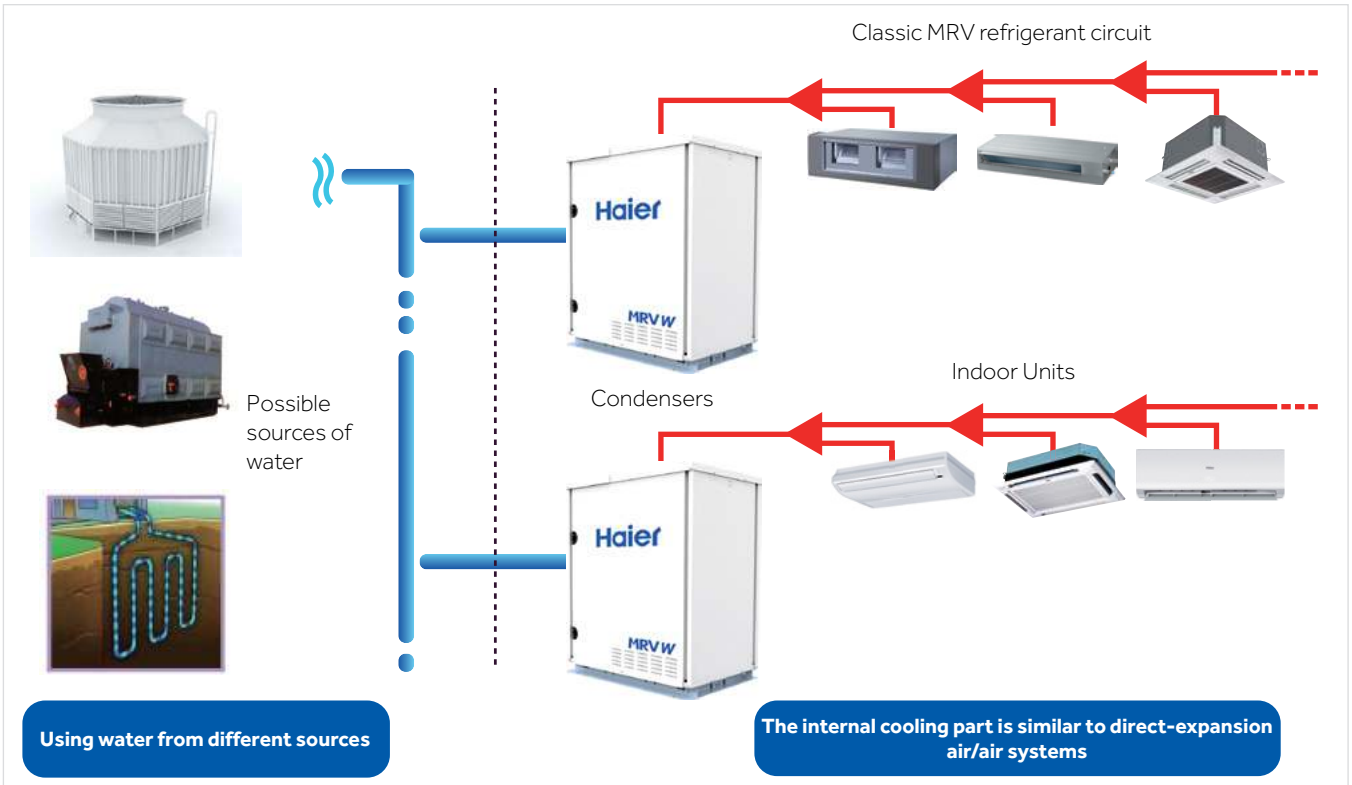
OPERATING PRINCIPLE

MRV-W are MRV/VRF systems with direct refrigerant expansion and inverter compressors that use the same indoor units as the classic MRV systems, controls and joints.

The design and implementation of the internal circuit follows the same rules as a normal MRV/VRF system, the only difference is that they use water and not air to condense or evaporate on the outdoor unit. MRV-W therefore does not have fans and large air/refrigerant exchangers but uses special water/refrigerant exchangers. This allows to significantly reduce the size of the product compared to a classic MRV of equal cooling capacity.

Thanks to its small footprint, of only W 775 x D 545 x H 995, the installation of the MRV-W takes place inside technical rooms, basements, garages and corridors as it does not need to exchange energy with the outdoor air.

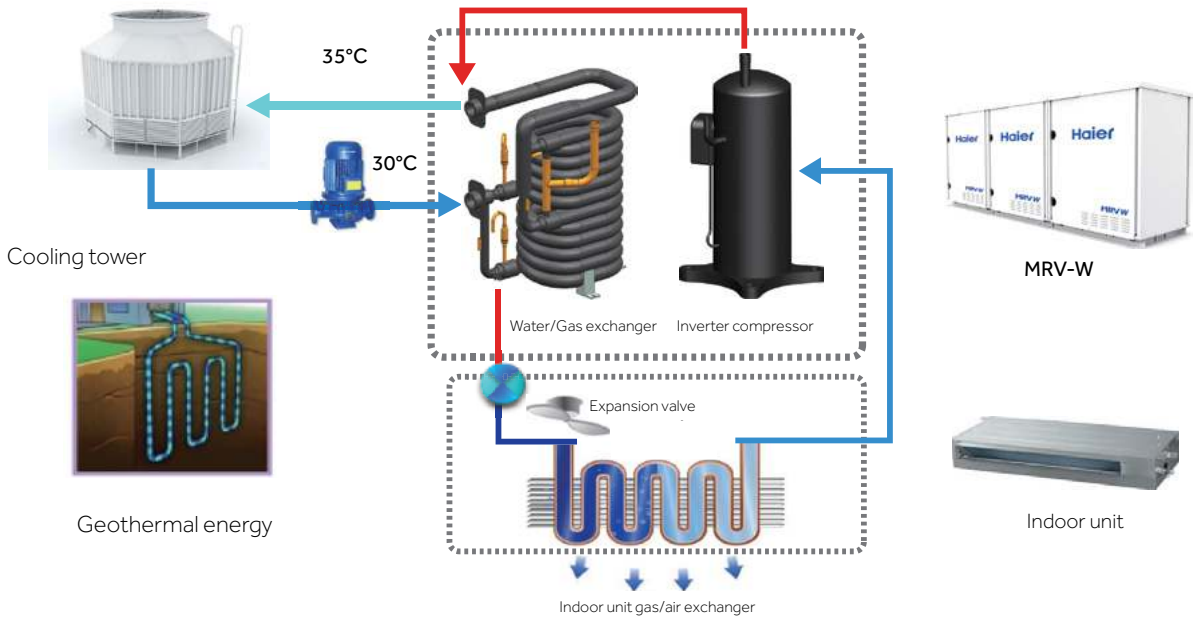
The water needed for operation reaches the units through small diameter pipes. Water can have different origins such as ground water, lake, sea, river, end industrial processes, accumulation of non-drinking water.



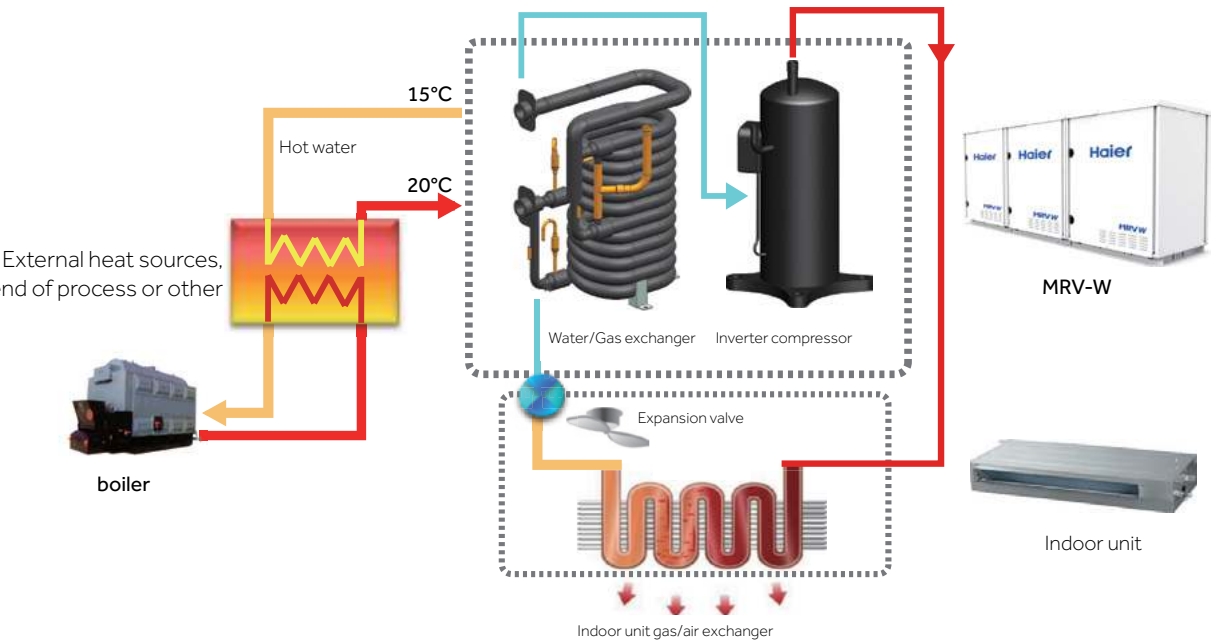
CONFIGURATION

MRW-W is a direct expansion system that combines the efficiency of the VRF technology with the use of water from a variety of sources.

EXAMPLE OF COOLING OPERATION

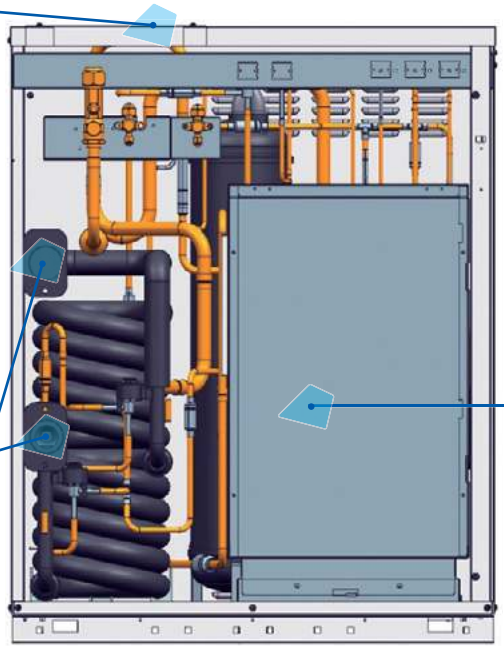


EXAMPLE OF HEATING OPERATION



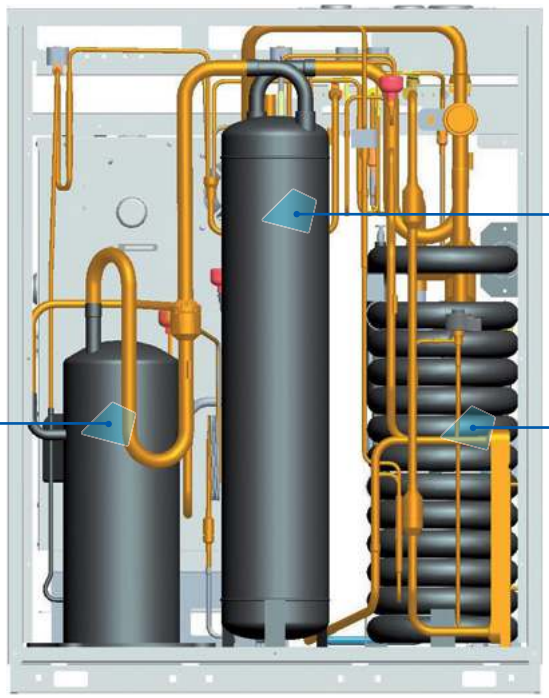
MRV-W INTERNAL STRUCTURE

Refrigerant connections
to indoor units



Water entry and exit to
the gas/water exchanger

Electrical, compact and easily removable
panel to access the compressor



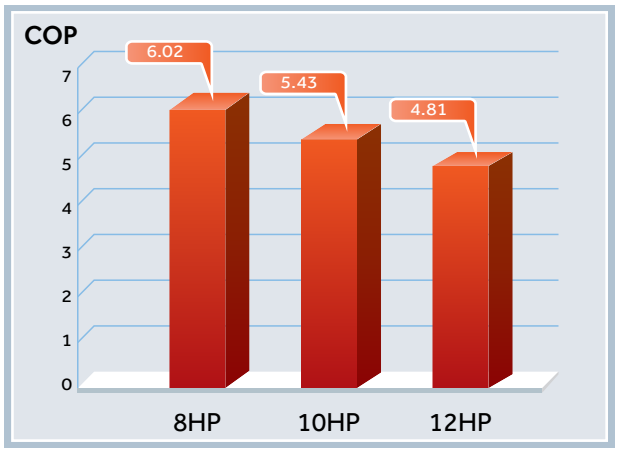
Generous gas separator and liquid
refrigerant side.

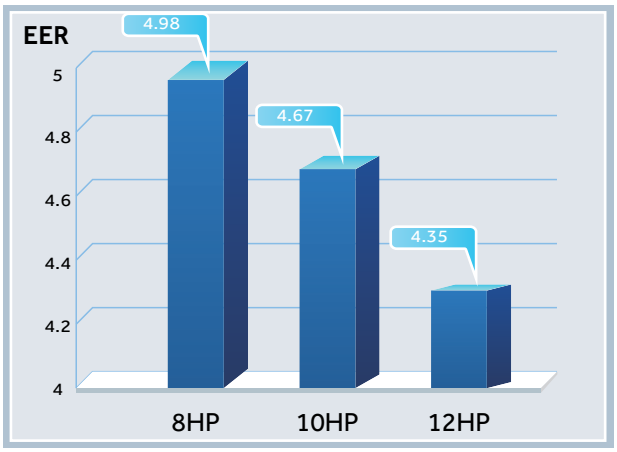
Double-wrapped "pipe in pipe" gas water
exchanger in counter flow, great efficiency
and uniformity of exchange.

DC Inverter Compressor

HIGH EFFICIENCY

Using a constant source, the COP can also reach values of 6.02, much higher than an air/air system. As a result, EER values are also increased in equal proportion.



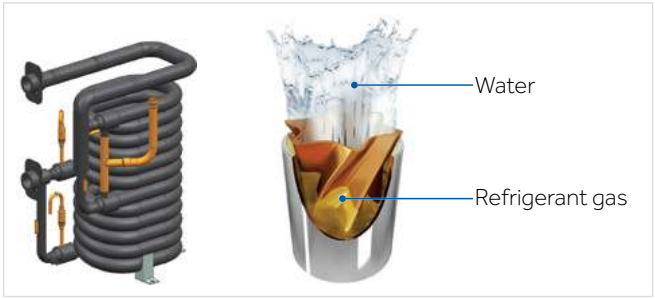


HIGH-EFFICIENCY COMPRESSOR

DC Inverter Scroll

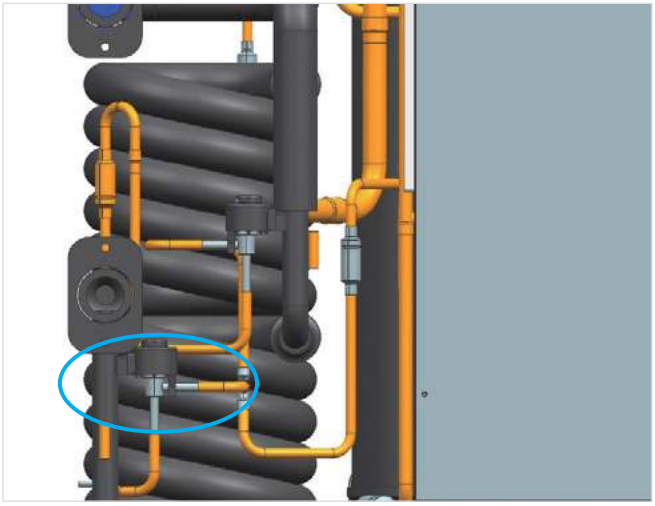
COUNTER CURRENT "PIPE IN PIPE" EXCHANGER

Water circulates inside and refrigerant circulates outside. The internal star-section and spiral tube offers a greater exchange surface than a classic circular section, for the benefit of efficiency.



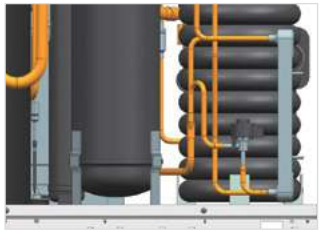
DUAL ELECTRONIC EXPANSION VALVE

To modulate the surface of the active exchanger according to the thermal demand.



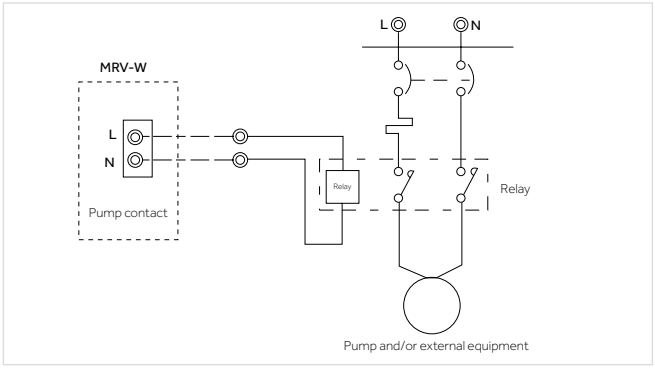
2-SIDED SUB-COOLING SYSTEM

- The first stage acts on the condenser
- The second stage acts independently
- The independent or joint activity of the two stages allows to increase the exchange of refrigerant by 46% and to reduce the loss of load through the pipes by 55%, leading to an increase in overall efficiency of 9% compared to single circuits "Under cooling"



RELIABILITY

The management of the external pump or electro-valves to power the flow of water to the MRV-W systems, is controlled by the unit itself according to the activity of the compressor and the real need for water. Avoiding unnecessary waste of energy.

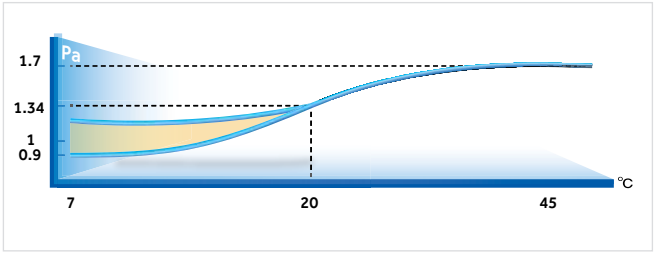


COOLING ELECTRONIC CIRCUITS

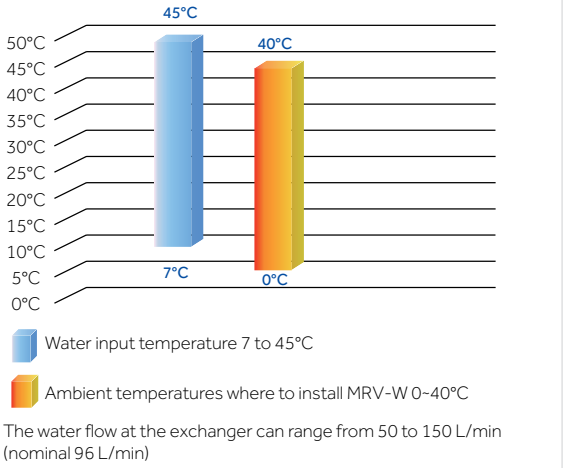
The circuits are cooled by special static exchangers where the refrigerant gas circulates inside. This allows you to cool and keep the temperature of the electric panel and power modules constant, avoiding cumbersome sinks and especially the use of noisy electric fans.

CONSTANT PRESSURE

Accurate system to maintain the pressure adequate to the compressor according to the operating temperature of the refrigerant in order to maintain a more stable output capacity and for the reliability over time of the component itself.



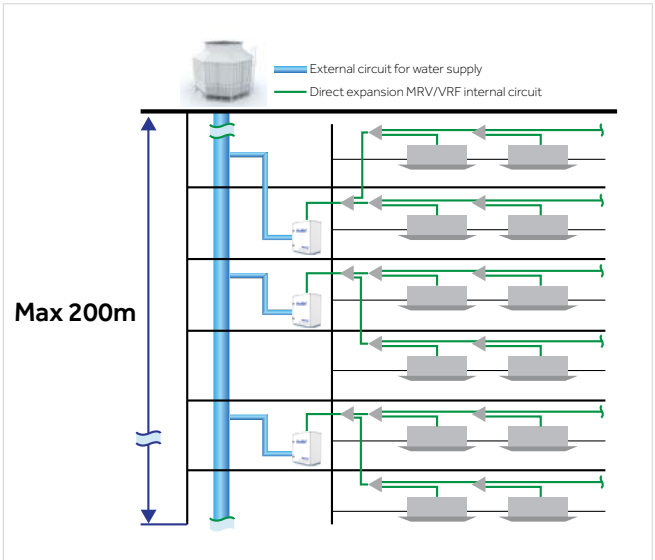
TEMPERATURE RANGE



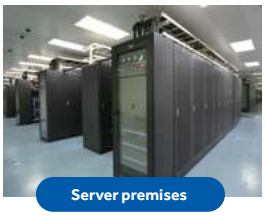
The water flow at the exchanger can range from 50 to 150 L/min (nominal 96 L/min)

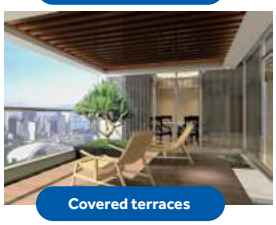
FLEXIBLE INSTALLATION

Using water as a condenser, you can air-condition very tall buildings, where you can reach up to 200 meters in height with a pressure of 1.6 MPa.



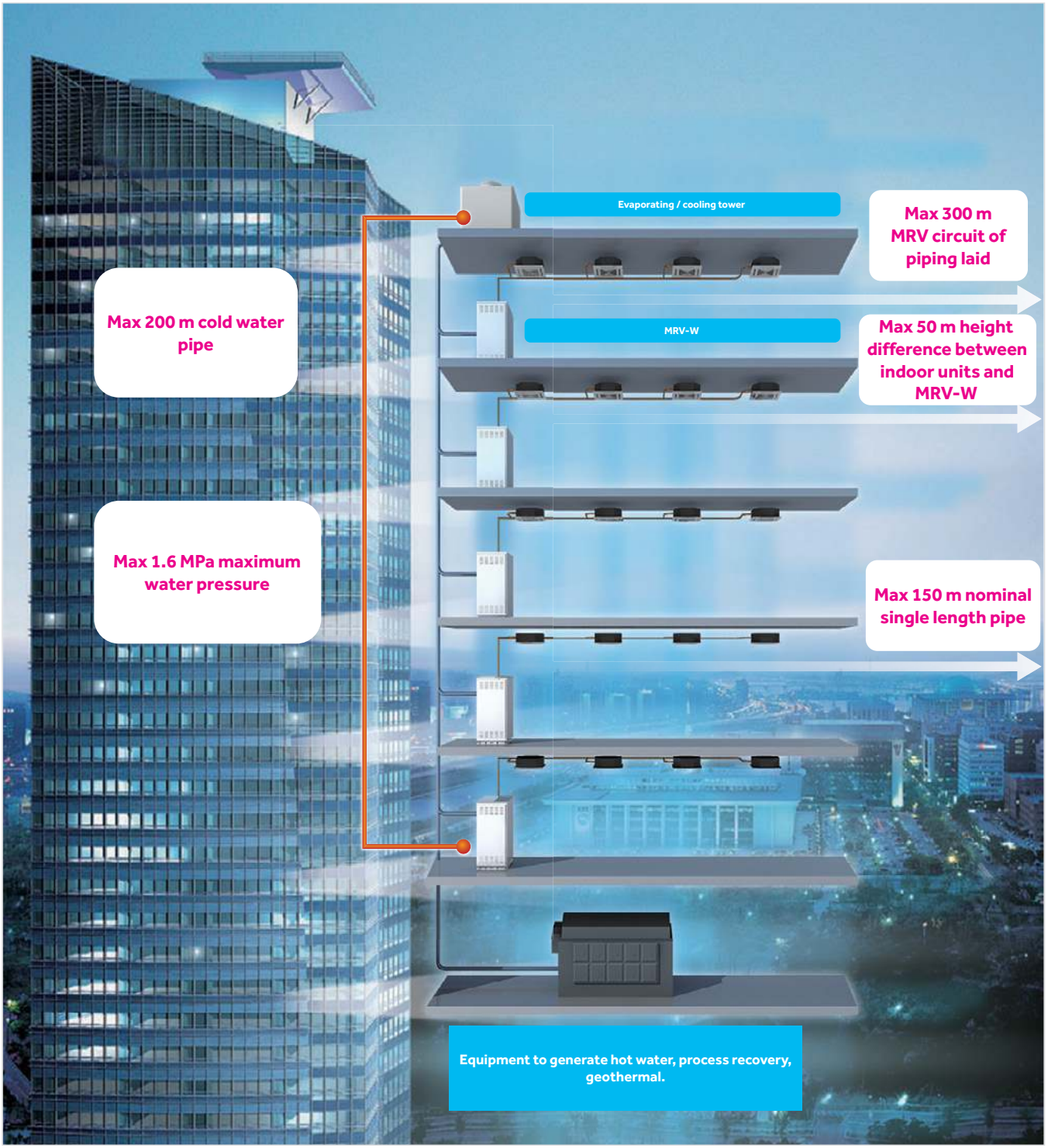
POSSIBLE ENVIRONMENTS WHERE MRV-W CAN BE INSTALLED INDOOR





EXAMPLES OF PIPING LENGTHS

Ability to achieve large elevations and lengths within each floor served by an MRV-W.



8-12HP
AV08IMWEWA
AV10IMWEWA
AV12IMWEWA

Model		AV08IMWEWA	AV10IMWEWA	AV12IMWEWA
Commercial code				
Capacity				
Power Class	HP	8	10	12
Cooling	kW	22.4	28	33.5
Heating	kW	25	31.5	37.5
Electrical Parameters				
Power supply	Ph-V/Hz	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)
Absorbed power - Cooling	kW	4.50	6.00	7.70
Max absorbed power - Cooling	kW	13.00	15.00	17.00
Absorbed current in cooling.	A	7.20	9.60	12.32
Max absorbed current - Cooling	A	20.79	23.99	27.19
Absorbed power – Heating	kW	4.15	5.80	7.80
Max absorbed power – Heating	kW	13.00	15.00	17.00
Absorbed current in heating	A	6.64	9.28	12.47
Max absorbed current – Heating	A	20.79	23.99	27.19
EER energy class	W/W	4.98	4.67	4.35
COP energy class	W/W	6.02	5.43	4.81
SEER energy class	W/W	5.87	5.76	5.69
SCOP energy class	W/W	6.13	6.01	5.96
Performance				
Water flow (High)	m^3/h	4.8	6	7.2
Sound pressure level (High)	dB(A)	50	51	53
Sound power level (High)	dB(A)	61	62	64
Installation - Dimensions - Components				
Unit Dimensions WxDxH	mm	775x545x995	775x545x995	775x545x995
Packaged unit dimensions WxDxH	mm	840x625x1150	840x625x1150	840x625x1150
Net weight / Gross weight	Kg	172/183	172/183	172/183
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	1 INV	1 INV	1 INV
Refrigerant type		R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	2	2	2
Ø Liquid side refrigerant pipe	mm	9.52	9.52	12.7
Ø Gas side refrigerant pipe	mm	19.05	22.2	25.4
Ø OU Oil Equalisation Pipe	mm	9.52	9.52	9.52
Maximum piping length	m	300	300	300
Max linear piping length (Equivalent/Real)	m	150/120	150/120	150/120
Max height difference between IU and OU (*)	m	50/40	50/40	50/40
Water/gas exchanger				
Type		Double - tube in tube	Double - tube in tube	Double - tube in tube
Material		Copper/steel	Copper/steel	Copper/steel
Water input connection		DN32	DN32	DN32
Water output connection		DN32	DN32	DN32
Exchanger pressure drop	Kpa	35	50	70
Connection type		Internal thread	Internal thread	Internal thread
Max water input pressure	Mpa	1.6	1.6	1.6
Water input temperature range (Cooling/ Heating)	°C	7~45	7~45	7~45
Connectable Indoor Capacity Ratio				
Indoor / Outdoor Capacity Ratio	%	50-130	50-130	50-130
Maximum number of connectable IUs	No.	13	16	19

(*1) 50 m when the outdoor unit is above the indoor unit / 40 m when it is below
The specifications indicated are obtained with the following test conditions: in Cooling mode, Indoor temperature of 27°C WB / 19°C DB and Outdoor temperature of 35°C WB / 24°C DB. In Heating mode, Indoor temperature of 20°C WB and Outdoor temperature of 7°C WB / 6°C DB

16-24HP
AV08IMWEWA
AV10IMWEWA
AV12IMWEWA

Model		AV16IMWEWA AV08IMWEWA AV08IMWEWA	AV18IMWEWA AV08IMWEWA AV10IMWEWA	AV20IMWEWA AV10IMWEWA AV10IMWEWA	AV22IMWEWA AV10IMWEWA AV12IMWEWA	AV24IMWEWA AV12IMWEWA AV12IMWEWA
Commercial code						
Capacity						
Power Class	HP	16	18	20	22	24
Cooling	kW	44.8	50.4	56	61.5	67.0
Heating	kW	50.0	56.5	63	69.0	75.0
Electrical Parameters						
Power supply	Ph-V/Hz	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)
Absorbed power - Cooling	kW	9.00	10.50	12.00	13.70	15.40
Max absorbed power - Cooling	kW	26.00	28.00	30.00	32.00	34.00
Absorbed current in cooling.	A	14.39	16.79	19.19	21.91	24.63
Max absorbed current - Cooling	A	41.58	44.78	47.98	51.18	54.38
Absorbed power – Heating	kW	8.30	9.95	11.60	13.60	15.60
Max absorbed power – Heating	kW	26.00	28.00	30.00	32.00	34.00
Absorbed current in heating	A	13.27	15.91	18.55	21.75	24.95
Max absorbed current – Heating	A	41.58	44.78	47.98	51.18	54.38
EER energy class	W/W	4.98	4.8	4.67	4.49	4.35
COP energy class	W/W	6.02	5.68	5.43	5.07	4.81
SEER energy class	W/W	5.87	5.82	5.76	5.73	5.69
SCOP energy class	W/W	6.13	6.10	6.01	5.98	5.96
Performance						
Water flow (High)	m^3/h	9.6	10.8	12	13.2	14.4
Sound pressure level (High)	dB(A)	53	54	54	55	56
Sound power level (High)	dB(A)	64	65	65	66	67
Installation - Dimensions - Components						
Unit Dimensions WxDxH	mm	(775x545x995)*2	(775x545x995)*2	(775x545x995)*2	(775x545x995)*2	(775x545x995)*2
Packaged unit dimensions WxDxH	mm	(840x625x1150)*2	(840x625x1150)*2	(840x625x1150)*2	(840x625x1150)*2	(840x625x1150)*2
Net weight / Gross weight	Kg	344/366	344/366	344/366	344/366	344/366
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	2 INV	2 INV	2 INV	2 INV	2 INV
Refrigerant type		R410A	R410A	R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	4	4	4	4	4
Ø Liquid side refrigerant pipe	mm	12.7	15.9	15.9	15.9	15.9
Ø Gas side refrigerant pipe	mm	28.6	28.6	28.6	28.6	28.6
Ø OU Oil Equalisation Pipe	mm	9.52	9.52	9.52	9.52	9.52
Maximum piping length	m	300	300	300	300	300
Max linear piping length (Equivalent/Real)	m	150/120	150/120	150/120	150/120	150/120
Max height difference between IU and OU (*)	m	50/40	50/40	50/40	50/40	50/40
Water/gas exchanger						
Type		Double - tube in tube	Double - tube in tube	Double - tube in tube	Double - tube in tube	Double - tube in tube
Material		Copper/steel	Copper/steel	Copper/steel	Copper/steel	Copper/steel
Water input connection		DN32	DN32	DN32	DN32	DN32
Water output connection		DN32	DN32	DN32	DN32	DN32
Exchanger pressure drop	Kpa	35+35	35+50	50+50	50+70	70+70
Connection type		Internal thread	Internal thread	Internal thread	Internal thread	Internal thread
Max water input pressure	Mpa	1.6	1.6	1.6	1.6	1.6
Water input temperature range (Cooling/ Heating)	°C	7~45	7~45	7~45	7~45	7~45
Connectable Indoor Capacity Ratio						
Indoor / Outdoor Capacity Ratio	%	50-130	50-130	50-130	50-130	50-130
Maximum number of connectable IUs	No.	23	29	33	36	39

(*1) 50 m when the outdoor unit is above the indoor unit / 40 m when it is below
The specifications indicated are obtained with the following test conditions: in Cooling mode, Indoor temperature of 27°C WB / 19°C DB and Outdoor temperature of 35°C WB / 24°C DB. In Heating mode, Indoor temperature of 20°C WB and Outdoor temperature of 7°C WB / 6°C DB

26-30HP
AV08IMWEWA
AV10IMWEWA
AV12IMWEWA

Model		AV26IMWEWA AV08IMWEWA AV08IMWEWA AV10IMWEWA	AV28IMWEWA AV08IMWEWA AV10IMWEWA AV10IMWEWA	AV30IMWEWA AV10IMWEWA AV10IMWEWA AV10IMWEWA
Commercial code				
Capacity				
Power Class	HP	26	28	30
Cooling	kW	72.8	78.4	84.0
Heating	kW	81.5	88.0	94.5
Electrical Parameters				
Power supply	Ph-V/Hz	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)
Absorbed power - Cooling	kW	15.00	16.50	18.00
Max absorbed power - Cooling	kW	41.00	43.00	45.00
Absorbed current in cooling.	A	23.99	26.39	28.79
Max absorbed current - Cooling	A	65.57	68.77	71.97
Absorbed power – Heating	kW	14.10	15.75	17.40
Max absorbed power – Heating	kW	41.00	43.00	45.00
Absorbed current in heating	A	22.55	25.19	27.83
Max absorbed current – Heating	A	65.57	68.77	71.97
EER energy class	W/W	4.85	4.75	4.67
COP energy class	W/W	5.78	5.59	5.43
SEER energy class	W/W	5.84	5.80	5.76
SCOP energy class	W/W	6.11	6.10	6.01
Performance				
Water flow (High)	m^3/h	15.6	16.8	18.0
Sound pressure level (High)	dB(A)	55	55	56
Sound power level (High)	dB(A)	66	66	67
Installation - Dimensions - Components				
Unit Dimensions WxDxH	mm	(775x545x995)*3	(775x545x995)*3	(775x545x995)*3
Packaged unit dimensions WxDxH	mm	(840x625x1150)*2	(840x625x1150)*2	(840x625x1150)*2
Net weight / Gross weight	Kg	516/549	516/549	516/549
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	3 INV	3 INV	3 INV
Refrigerant type		R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	6	6	6
Ø Liquid side refrigerant pipe	mm	19.1	19.1	19.1
Ø Gas side refrigerant pipe	mm	31.8	31.8	31.8
Ø OU Oil Equalisation Pipe	mm	9.52	9.52	9.52
Maximum piping length	m	300	300	300
Max linear piping length (Equivalent/Real)	m	150/120	150/120	150/120
Max height difference between IU and OU (*)	m	50/40	50/40	50/40
Water/gas exchanger				
Type		Double - tube in tube	Double - tube in tube	Double - tube in tube
Material		Copper/steel	Copper/steel	Copper/steel
Water input connection		DN32	DN32	DN32
Water output connection		DN32	DN32	DN32
Exchanger pressure drop	Kpa	35+35+50	35+50+50	50+50+50
Connection type		Internal thread	Internal thread	Internal thread
Max water input pressure	Mpa	1.6	1.6	1.6
Water input temperature range (Cooling/ Heating)	°C	7~45	7~45	7~45
Connectable Indoor Capacity Ratio				
Indoor / Outdoor Capacity Ratio	%	50-130	50-130	50-130
Maximum number of connectable IUs	No.	43	46	50

(*1) 50 m when the outdoor unit is above the indoor unit / 40 m when it is below
The specifications indicated are obtained with the following test conditions: in Cooling mode, Indoor temperature of 27°C WB / 19°C DB and Outdoor temperature of 35°C WB / 24°C DB. In Heating mode, Indoor temperature of 20°C WB and Outdoor temperature of 7°C WB / 6°C DB

32-36HP
AV08IMWEWA
AV10IMWEWA
AV12IMWEWA

Model		AV32IMWEWA AV10IMWEWA AV10IMWEWA AV12IMWEWA	AV34IMWEWA AV10IMWEWA AV12IMWEWA AV12IMWEWA	AV36IMWEWA AV12IMWEWA AV12IMWEWA AV12IMWEWA
Commercial code				
Capacity				
Power Class	HP	32	34	36
Cooling	kW	89.5	95.0	100.5
Heating	kW	100.5	106.5	112.5
Electrical Parameters				
Power supply	Ph-V/Hz	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)	3/380-400/50/60 (5 wires L1+L2+L3+N+T)
Absorbed power - Cooling	kW	19.70	21.40	23.10
Max absorbed power - Cooling	kW	47.00	49.00	51.00
Absorbed current in cooling.	A	31.51	34.23	36.95
Max absorbed current - Cooling	A	75.17	78.37	81.57
Absorbed power – Heating	kW	19.40	21.40	23.40
Max absorbed power – Heating	kW	47.00	49.00	51.00
Absorbed current in heating	A	31.03	34.23	37.42
Max absorbed current – Heating	A	75.17	78.37	81.57
EER energy class	W/W	4.54	4.44	4.35
COP energy class	W/W	5.18	4.98	4.81
SEER energy class	W/W	5.74	5.72	5.69
SCOP energy class	W/W	5.99	5.97	5.96
Performance				
Water flow (High)	m^3/h	19.2	20.4	21.6
Sound pressure level (High)	dB(A)	57	57	58
Sound power level (High)	dB(A)	68	68	69
Installation - Dimensions - Components				
Unit Dimensions WxDxH	mm	(775x545x995)*3	(775x545x995)*3	(775x545x995)*3
Packaged unit dimensions WxDxH	mm	(840x625x1150)*2	(840x625x1150)*2	(840x625x1150)*2
Net weight / Gross weight	Kg	516/549	516/549	516/549
Compressor type		DC Inverter Scroll	DC Inverter Scroll	DC Inverter Scroll
Quantity and type of the compressor	No.	3 INV	3 INV	3 INV
Refrigerant type		R410A	R410A	R410A
Pre-charged refrigerant qty.	Kg	6	6	6
Ø Liquid side refrigerant pipe	mm	19.1	19.1	19.1
Ø Gas side refrigerant pipe	mm	31.8	31.8	38.1
Ø OU Oil Equalisation Pipe	mm	9.52	9.52	9.52
Maximum piping length	m	300	300	300
Max linear piping length (Equivalent/Real)	m	150/120	150/120	150/120
Max height difference between IU and OU (*)	m	50/40	50/40	50/40
Water/gas exchanger				
Type		Double - tube in tube	Double - tube in tube	Double - tube in tube
Material		Copper/steel	Copper/steel	Copper/steel
Water input connection		DN32	DN32	DN32
Water output connection		DN32	DN32	DN32
Exchanger pressure drop	Kpa	50+50+70	50+70+70	70+70+70
Connection type		Internal thread	Internal thread	Internal thread
Max water input pressure	Mpa	1.6	1.6	1.6
Water input temperature range (Cooling/ Heating)	°C	7-45	7-45	7-45
Connectable Indoor Capacity Ratio				
Indoor / Outdoor Capacity Ratio	%	50-130	50-130	50-130
Maximum number of connectable IUs	No.	53	56	59

(*1) 50 m when the outdoor unit is above the indoor unit / 40 m when it is below
The specifications indicated are obtained with the following test conditions: in Cooling mode, Indoor temperature of 27°C WB / 19°C DB and Outdoor temperature of 35°C WB / 24°C DB. In Heating mode, Indoor temperature of 20°C WB and Outdoor temperature of 7°C WB / 6°C DB

MRV

Indoor units

Cassette Smart Flow

4-Way Cassette compact

Wall Mounted

1-Way Cassette

2-Way Cassette

Ceiling-Floor

Duct

Floor console, built-in

Floor Console - exposed type

Floor Console - exposed type – 2-way air flow

Wide range of OPTIONAL controllers.

Indoor units are NOT equipped with controller.

AB072MRERA
AB092MRERA
AB122MRERA
AB162MRERA
AB182MRERA
AB242MRERA

Panel with OPTIONAL presence sensor that can be managed with YR-E17A, YR-HWB01, YR-E16B controllers

Optional controller HW-BA116ABK

Optional controller HW-BA101ABT

These controllers does not allow individual vane control.

Optional controller YR-E17A

Optional remote control YR-HWB01

Optional controller YR-E16B

- Exclusive 360° air flow system for a uniform air distribution
- Independent control of the 4 vanes
- 6 levels of positioning per individual vane
- DC inverter fan motor
- 5 fan speeds ONLY selectable with wired controller YR-E16B, YR-E17A and with wireless controller YR-HWB01.
- Standard condensate drain pump
- Preparation for fresh air input (pre-cut)

OPTIONAL FUNCTION PANEL WITH PRESENCE SENSOR

- With "Follow me or Avoid me" function, the sensor detects the position of people by automatically managing the 4 vanes independently so that they direct the air flow towards people or direct away to avoid them, depending on the selection made on the controller.
- When people are not detected in the room, the unit automatically adjusts the temperature set on the controller by increasing or decreasing it (cooling or heating) by 1°C per hour, for the next 4 hours. After 4 hours, the unit will continue to work with the new setting. This will allow a significant reduction in energy consumption. When the unit detects people in the room it will revert the temperature back to the initial setting. A detection during the 4 hours of "ECO" management will reassign the initial temperature setting.

Model		AB072MRERA	AB092MRERA	AB122MRERA	AB162MRERA	AB182MRERA	AB242MRERA
Commercial code		25014505J	25014515J	25014525J	25014545J	25014555J	25014565J
Capacity							
Cooling	kW	2.2	2.8	3.6	4.5	5.6	7.1
Heating	kW	2.5	3,2	4	5	6.3	8
Electrical Parameters							
Power supply	Ph-V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
Ventilation							
Air flow (High)	m^3/h	1000	1000	1000	1000	1000	1380
Sound pressure level (H/m/l)	dB(A)	30/27/25	30/27/25	30/27/25	32/29/27	33/30/29	35/34/31
Installation – Dimensions							
Unit Dimensions WxDxH	mm	840x840x183	840x840x183	840x840x183	840x840x183	840x840x183	840x840x204
Packaged unit dimensions WxDxH	mm	983x983x268	983x983x268	983x983x268	983x983x268	983x983x268	983x983x290
Net weight / Gross weight	Kg	28/31	28/31	28/31	28/31	28/31	29/32
Ø Liquid side refrigerant pipe	mm	6.35	6.35	6.35	6.35	6.35	9.52
Ø Gas side refrigerant pipe	mm	9.52	9.52	12.7	12.7	12.7	15.88
Panel							
Model		PB-950KB	PB-950KB	PB-950KB	PB-950KB	PB-950KB	PB-950KB
Model with optional presence sensor		PB-950MB	PB-950MB	PB-950MB	PB-950MB	PB-950MB	PB-950MB
Dimensions WxDxH	mm	950x950x50	950x950x50	950x950x50	950x950x50	950x950x50	950x950x50
Packaging dimensions WxDxH	mm	1013x1025x123	1013x1025x123	1013x1025x123	1013x1025x123	1013x1025x123	1013x1025x123
Net weight / Gross weight	Kg	6.5/9	6.5/9	6.5/9	6.5/9	6.5/9	6.5/9

AB282MRERA
AB302MRERA
AB382MRERA
AB482MRERA
AB602MRERA

Panel with OPTIONAL presence sensor that can be managed with YR-E17A, YR-HWB01, YR-E16B controllers

Optional controller HW-BA116ABK

Optional controller HW-BA101ABT

These controllers does not allow individual vane control.

Optional controller YR-E17A

Optional remote control YR-HWB01

Optional controller YR-E16B

- Exclusive 360° air flow system for a uniform air distribution
- Independent control of the 4 vanes
- 6 levels of positioning per individual vane
- DC inverter fan motor
- 5 fan speeds ONLY selectable with wired controller YR-E16B, YR-E17A and with wireless controller YR-HWB01.
- Standard condensate drain pump
- Preparation for fresh air input (pre-cut)

OPTIONAL FUNCTION PANEL WITH PRESENCE SENSOR

- With "Follow me or Avoid me" function, the sensor detects the position of people by automatically managing the 4 vanes independently so that they direct the air flow towards people or direct away to avoid them, depending on the selection made on the controller.
- When people are not detected in the room, the unit automatically adjusts the temperature set on the controller by increasing or decreasing it (cooling or heating) by 1°C per hour, for the next 4 hours. After 4 hours, the unit will continue to work with the new setting. This will allow a significant reduction in energy consumption. When the unit detects people in the room it will revert the temperature back to the initial setting. A detection during the 4 hours of "ECO" management will reassign the initial temperature setting.

Model		AB282MRERA	AB302MRERA	AB382MRERA	AB482MRERA	AB602MRERA
Commercial code		25014576J	25014577J	25014585J	25014595J	25014597J
Capacity						
Cooling	kW	8	9	11.2	14	16
Heating	kW	9	10	12.5	16	18
Electrical Parameters						
Power supply	Ph-V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
Ventilation						
Air flow (High)	m^3/h	1380	2050	2050	2100	2100
Sound pressure level (H/m/l)	dB(A)	37/35/31	37/35/31	37/35/31	44/40/36	44/40/36
Installation – Dimensions						
Unit Dimensions WxDxH	mm	840x840x204	840x840x246	840x840x246	840x840x288	840x840x288
Packaged unit dimensions WxDxH	mm	983x983x290	983x983x331	983x983x331	983x983x373	983x983x373
Net weight / Gross weight	Kg	29/32	34/37	34/37	35/38	35/38
Ø Liquid side refrigerant pipe	mm	9.52	9.52	9.52	9.52	9.52
Ø Gas side refrigerant pipe	mm	15.88	15.88	15.88	15.88	15.88
Panel						
Model		PB-950KB	PB-950KB	PB-950KB	PB-950KB	PB-950KB
Model with optional presence sensor		PB-950MB	PB-950MB	PB-950MB	PB-950MB	PB-950MB
Dimensions WxDxH	mm	950x950x50	950x950x50	950x950x50	950x950x50	950x950x50
Packaging dimensions WxDxH	mm	1013x1025x123	1013x1025x123	1013x1025x123	1013x1025x123	1013x1025x123
Net weight / Gross weight	Kg	6.5/9	6.5/9	6.5/9	6.5/9	6.5/9

The data in this catalogue is purely indicative as the data may vary. Please be advised to check the accuracy of the data with the supplier before purchasing products.

MRV INDOOR UNIT 4-Way Cassette 60X60

AB052MCERA(M)
AB072MCERA(M)
AB092MCERA(M)
AB122MCERA(M)
AB162MCERA(M)
AB182MCERA(M)

Optional controller
HW-BA116ABK

Optional controller
HW-BA101ABT

These controllers does not allow individual vane control.

Optional controller
YR-E17A

Optional remote control
YR-HWB01

Optional controller
YR-E16B

- Panel design max 620x620 dimensions, maximum compatibility with module ceilings
- Independent control of the 4 Vanes
- 6 positioning levels per single vane
- DC inverter fan motor
- 5 fan speeds ONLY selectable with wired controller YR-E16B, YR-E17A and with wireless controller YR-HWB01.
- Standard condensate drain pump
- Preparation for fresh air input (pre-cut)

Model		AB052MCERA(M)	AB072MCERA(M)	AB092MCERA(M)	AB122MCERA(M)	AB162MCERA(M)	AB182MCERA(M)
Commercial code		2501450AJ	2501450BJ	2501451AJ	2501452AJ	2501454AJ	2501455AJ
Capacity							
Cooling	kW	1.5	2.2	2.8	3.6	4.5	5.6
Heating	kW	1.7	2.5	3,2	4.0	5.0	6.3
Electrical Parameters							
Power supply	Ph-V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
Ventilation							
Air flow (High)	m^3/h	650	700	700	700	700	700
Sound pressure level (H/m/l)	dB(A)	31/29/28	32/30/29	32/30/29	32/30/29	33/30/29	33/30/29
Sound power level (H/m/l)	dB(A)	45/43/42	46/44/43	46/44/43	46/44/43	47/44/43	47/44/43
Installation – Dimensions							
Unit Dimensions WxDxH	mm	570x570x260	570x570x260	570x570x260	570x570x260	570x570x260	570x570x260
Packaged unit dimensions WxDxH	mm	718x680x380	718x680x380	718x680x380	718x680x380	718x680x380	718x680x380
Net weight / Gross weight	Kg	17/21	17/21	17/21	19/23	19/23	19/23
Ø Liquid side refrigerant pipe	mm	6.35	6.35	6.35	6.35	6.35	6.35
Ø Gas side refrigerant pipe	mm	9.52	9.52	9.52	12.7	12.7	12.7
Panel							
Model		PB-620KB	PB-620KB	PB-620KB	PB-620KB	PB-620KB	PB-620KB
Dimensions WxDxH	mm	620x620x60	620x620x60	620x620x60	620x620x60	620x620x60	620x620x60
Packaging dimensions WxDxH	mm	660x660x115	660x660x115	660x660x115	660x660x115	660x660x115	660x660x115
Net weight / Gross weight	Kg	3.1/4.8	3.1/4.8	3.1/4.8	3.1/4.8	3.1/4.8	3.1/4.8

MRV INDOOR UNIT 4-Way Cassette Compact

AB052MCERA
AB072MCERA
AB092MCERA
AB122MCERA
AB162MCERA
AB182MCERA(C)

Optional controller
HW-BA116ABK

Optional controller
HW-BA101ABT

Optional controller
YR-E17A

Optional remote control
YR-HD01

Optional controller
YR-E16B

- Aesthetic Panel 700x700
- Preparation for fresh air input (pre-cut)
- Standard condensate drain pump
- Silent operation

Model		AB052MCERA	AB072MCERA	AB092MCERA	AB122MCERA	AB162MCERA	AB182MCERA(C)
Commercial code		25014501J	25014502J	25014512J	25014522J	25014542J	25014551J
Capacity							
Cooling	kW	1.5	2.2	2.8	3.6	4.5	5.6
Heating	kW	1.7	2.5	3,2	4	5	6.3
Electrical Parameters							
Power supply	Ph-V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
Ventilation							
Air flow (High)	m^3/h	650	700	700	700	700	700
Sound pressure level (H/m/l)	dB(A)	31/29/28	32/30/29	32/30/29	32/30/29	33/30/29	33/30/29
Sound power level (H/m/l)	dB(A)	45/43/42	46/44/43	46/44/43	46/44/43	47/44/43	47/44/43
Installation – Dimensions							
Unit Dimensions WxDxH	mm	570/570/260	570/570/260	570x570x260	570x570x260	570x570x260	570x570x260
Packaged unit dimensions WxDxH	mm	718/680/380	718/680/380	718x680x380	718x680x380	718x680x380	718x680x380
Net weight / Gross weight	Kg	17/21	17/21	17/21	19/23	19/23	19/23
Ø Liquid side refrigerant pipe	mm	6.35	6.35	6.35	6.35	6.35	6.35
Ø Gas side refrigerant pipe	mm	9.52	9.52	9.52	12.7	12.7	12.7
Panel							
Model		PB-700IB	PB-700IB	PB-700IB	PB-700IB	PB-700IB	PB-700IB
Dimensions WxDxH	mm	700x700x60	700x700x60	700x700x60	700x700x60	700x700x60	700x700x60
Packaging dimensions WxDxH	mm	740x740x115	740x740x115	740x740x115	740x740x115	740x740x115	740x740x115
Net weight / Gross weight	Kg	2.8/4.5	2.8/4.5	2.8/4.5	2.8/4.5	2.8/4.5	2.8/4.5

MRV INDOOR UNIT 4-Way Cassette

AB182MNERA
AB242MNERA
AB282MNERA
AB302MNERA
AB382MNERA
AB482MNERA

Optional controller
HW-BA116ABK

Optional controller
HW-BA101ABT

Optional controller
YR-E17A

Optional remote control
YR-HD01

Optional controller
YR-E16B

- Linear and compact panel design
- Preparation for fresh air input (pre-cut)
- Standard condensate drain pump
- Preparation for additional air delivery from unit body

Model/Indoor unit			AB182MNERA	AB242MNERA	AB282MNERA	AB302MNERA	AB382MNERA	AB482MNERA	AB602MNERA
Capacity	Cooling	kBtu/h	19.1	24.2	27.3	30.7	38.2	47.8	54.6
		kW	5.6	7.1	8	9	11.2	14	16
	Heating	kBtu/h	21.5	27.3	30.7	34.1	42.7	54.6	61.2
		kW	6.3	8	9	10	12.5	16	18
Electrical parameters	Power supply	Ph/V/Hz	1,220~230/50/60	1,220~230/50/60	1,220~230/50/60	1,220~230/50/60	1,220~230/50/60	1,220~230/50/60	1,220~230/50/60
Preformance	Air flow (H)	m^3/h	1000/810/620	1380/1190/1000	1380/1190/1000	2050/1860/1670	2050/1860/1670	2100/1910/1720	2100/1910/1720
	Sound pressure level(H/M/L)	dB(A)	33/30/29	35/34/31	37/35/31	37/35/31	37/35/31	44/40/36	44/40/36
	Sound power level(H/M/L)	dB(A)	47/44/43	49/48/45	51/49/45	51/49/45	51/49/45	58/54/50	58/54/50
Installation	External dimensions(W/D/H)	mm	840/840/183	840/840/204	840/840/204	840/840/246	840/840/246	840/840/288	840/840/288
	Shipping dimensions(W/D/H)	mm	983/983/268	983/983/290	983/983/290	983/983/331	983/983/331	983/983/373	983/983/373
	Net/Shipping weight	kg	25/28	25/28	25/28	25/28	25/28	25/28	25/28
	Refrigerant liquid pipe	mm	6.35	9.52	9.52	9.52	9.52	9.52	9.52
	Refrigerant gas pipe	mm	12.7	15.88	15.88	15.88	15.88	15.88	15.88
Panel	Model name		PB-950JB	PB-950JB	PB-950JB	PB-950JB	PB-950JB	PB-950JB	PB-950JB
	External dimensions(W/D/H)	mm	950/950/60	950/950/60	950/950/60	950/950/60	950/950/60	950/950/60	950/950/60
	Shipping dimensions(W/D/H)	mm	992/992/115	992/992/115	992/992/115	992/992/115	992/992/115	992/992/115	992/992/115
	Net/Shipping weight	kg	6/7.5	6/7.5	6/7.5	6/7.5	6/7.5	6/7.5	6/7.5
Controller	Wired Optional	/	HW-BA101ABT	HW-BA101ABT	HW-BA101ABT	HW-BA101ABT	HW-BA101ABT	HW-BA101ABT	HW-BA101ABT
		/	YR-E16B	YR-E16B	YR-E16B	YR-E16B	YR-E16B	YR-E16B	YR-E16B
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
		/	YR-E17A	YR-E17A	YR-E17A	YR-E17A	YR-E17A	YR-E17A	YR-E17A
	Infared Optional	/	YR -HD	YR -HD	YR -HD	YR -HD	YR -HD	YR -HD	YR -HD

MRV INDOOR UNIT Wall Mounted

AS052MNERAB
AS072MNERAB
AS092MNERAB
AS122MNERAB
AS162MNERA
AS182MNERA
AS242MNERA
AS282MNERA
AS302MNERA

Optional controller
HW-BA116ABK

Optional controller
HW-BA101ABT

Optional controller
YR-E17A

Optional remote control
YR-HD01

Optional controller
YR-E16B

- Compact, linear design with dimmable information display
- Silenced EEV modulation valve
- DC inverter fan motor
- 5 fan speeds selectable with wired controller YR-E16B and YR-E17A.

Model		AS052MNERAB	AS072MNERAB	AS092MNERAB	AS122MNERAB	AS162MNERA	AS182MNERA	AS242MNERA	AS282MNERA	AS302MNERA
Capacity										
Cooling	kW	1.5	2.2	2.8	3.6	4.5	5.6	7.1	8.0	9.0
Heating	kW	1.7	2.5	3,2	4	5	6.3	8	9	10
Electrical Parameters										
Power supply	Ph-V/Hz	1/220-230/50/60								
Ventilation										
Air flow (H/m/l)	m^3/h	500/430/370	550/480/420	600/530/470	630/560/500	800/720/650	920/800/720	1010/920/800	1500/1400/1300	1600/1500/1400
Sound pressure level (H/m/l)	dB(A)	33/31/29	35/31/29	36/31/29	37/33/29	39/36/34	40/39/35	44/40/36	48/43/40	49/44/41
Sound power level (H/m/l)	dB(A)	49/46/41	50/47/42	52/48/44	54/51/50	56/53/51	57/54/52	58/56/54	60/57/53	61/58/54
Installation – Dimensions										
Unit Dimensions WxDxH	mm	855x200x280	855x200x280	855x200x280	855x200x280	1115x243x336	1115x243x336	1115x243x336	1316x270x365	1316x270x365
Packaged unit dimensions WxDxH	mm	954x279x355	954x279x355	954x279x355	954x279x355	1206x342x418	1206x342x418	1206x342x418	1403x384x463	1403x384x463
Net weight / Gross weight	Kg	10.5/12.7	10.5/12.7	10.5/12.7	10.5/12.7	16.5/20.1	16.5/20.1	16.5/20.1	21.5/26.0	21.5/26.0
Ø Liquid side refrigerant pipe	mm	6.35	6.35	6.35	6.35	6.35	6.35	9.52	9.52	9.52
Ø Gas side refrigerant pipe	mm	9.52	9.52	9.52	12.7	12.7	12.7	15.88	15.88	15.88

MRV INDOOR UNIT 1-Way Cassette

AB052MAERA
AB072MAERA
AB092MAERA
AB122MAERA

Optional controller
HW-BA116ABK

Optional controller
HW-BA101ABT

Optional controller
YR-E17A

Optional remote control
YR-HD01

Optional controller
YR-E16B

- Modern, thin and linear design panel
- Automatic opening and closing of air discharge and air intake louvres
- 3D ventilation
- DC inverter fan motor
- 5 fan speeds selectable with wired controller YR-E16B and YR-E17A.
- Quiet and thin
- Standard intake filter
- Standard condensate drain pump

Model		AB052MAERA	AB072MAERA	AB092MAERA	AB122MAERA
Capacity					
Cooling	kW	1.5	2.2	2.8	3.6
Heating	kW	1.7	2.5	3,2	4.0
Electrical Parameters					
Power supply	Ph-V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
Ventilation					
Air flow (High)	m^3/h	450	480	500	550
Sound pressure level (H/m/l)	dB(A)	35/32/29	36/33/30	37/34/31	38/35/32
Sound power level (H/m/l)	dB(A)	48/45/42	49/46/43	50/47/44	51/48/45
Installation – Dimensions					
Unit Dimensions WxDxH	mm	875x505x185	875x505x185	875x505x185	875x505x185
Packaged unit dimensions WxDxH	mm	1028x581x270	1028x581x270	1028x581x270	1028x581x270
Net weight / Gross weight	Kg	14.2/17.7	14.2/17.7	14.2/17.7	14.2/17.7
Ø Liquid side refrigerant pipe	mm	6.35	6.35	6.35	6.35
Ø Gas side refrigerant pipe	mm	12.7	12.7	12.7	12.7
Panel					
Model		HMB-01A/T	HMB-01A/T	HMB-01A/T	HMB-01A/T
Dimensions WxDxH	mm	1050x550x125	1050x550x125	1050x550x125	1050x550x125
Packaging dimensions WxDxH	mm	1133x623x197	1133x623x197	1133x623x197	1133x623x197
Net weight / Gross weight	Kg	5.7/9.3	5.7/9.3	5.7/9.3	5.7/9.3

MRV INDOOR UNIT 2-Way Cassette

AB072MBERA
AB092MBERA
AB122MBERA
AB162MBERA
AB182MBERA

Optional controller
HW-BA116ABK

Optional controller
HW-BA101ABT

Optional controller
YR-E17A

optional remote control YR-HD01
(RE-02 remote control receiver)

Optional controller
YR-E16B

- Thin design, only 220 mm high
- Standard condensate drain pump
- Silent operation

Model		AB072MBERA	AB092MBERA	AB122MBERA	AB162MBERA	AB182MBERA
Capacity						
Cooling	kW	2.2	2.8	3.6	4.5	5.6
Heating	kW	2.5	3,2	4	5	6.3
Electrical Parameters						
Power supply	Ph-V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
Ventilation						
Air flow (High)	m^3/h	840	840	840	840	840
Sound pressure level (H/m/l)	dB(A)	42/37/33	42/37/33	42/37/33	44/39/34	44/39/34
Sound power level (H/m/l)	dB(A)	55/50/46	55/50/46	55/50/46	57/52/47	57/52/47
Installation – Dimensions						
Unit Dimensions WxDxH	mm	817x620x220	817x620x220	817x620x220	817x620x220	817x620x220
Packaged unit dimensions WxDxH	mm	1022x682x274	1022x682x274	1022x682x274	1022x682x274	1022x682x274
Net weight / Gross weight	Kg	21/23	21/23	21/23	21/23	21/23
Ø Liquid side refrigerant pipe	mm	6.35	6.35	6.35	6.35	6.35
Ø Gas side refrigerant pipe	mm	9.52	9.52	12.7	12.7	12.7
Panel						
Model		P2B-1055IB	P2B-1055IB	P2B-1055IB	P2B-1055IB	P2B-1055IB
Dimensions WxDxH	mm	1055x680x68	1055x680x68	1055x680x68	1055x680x68	1055x680x68
Packaging dimensions WxDxH	mm	1097x707x136	1097x707x136	1097x707x136	1097x707x136	1097x707x136
Net weight / Gross weight	Kg	7/8	7/8	7/8	7/8	7/8

AC092MDERA
AC122MDERA
AC162MDERA
AC182MDERA
AC242MDERA
AC282MDERA
AC302MDERA
AC382MDERA
AC482MDERA

Optional controller
HW-BA116ABK

Optional controller
HW-BA101ABT

Optional controller
YR-E17A

Optional remote control
YR-HD01

Optional controller
YR-E16B

- New design, subtle and harmonious
- DC inverter fan motor
- 5 fan speeds selectable with wired controller YR-E16B and YR-E17A.
- 3D ventilation with independent right and left wing group
- Outstanding installation height - the 14kW model can be installed up to 4.2 m high still ensuring adequate air distribution in the environment

Model		AC092MDERA	AC122MDERA	AC162MDERA	AC182MDERA	AC242MDERA	AC282MDERA	AC302MDERA	AC382MDERA	AC482MDERA
Capacity										
Cooling	kW	2.8	3.6	4.5	5.6	7.1	8	9	11.2	14
Heating	kW	3,2	4	5	6.3	8	9	10	12.5	16
Electrical Parameters										
Power supply	Ph-V/Hz	1/220-230/50/60								
Ventilation										
Air flow (High)	m³/h	820	820	950	950	1420	1570	1570	2110	2110
Sound pressure level (H/m/l)	dB(A)	38/36/34	38/36/34	42/38/35	42/38/35	46/44/41	47/44/41	47/44/41	50/46/43	50/46/43
Sound power level (H/m/l)	dB(A)	52/50/47	52/50/47	55/51/48	55/51/48	60/58/54	61/58/55	61/58/55	63/60/57	63/60/57
Installation – Dimensions										
Unit Dimensions WxDxH	mm	100x680x230				1325x680x230			1650x680x230	
Packaged unit dimensions WxDxH	mm	1100x779x305				1425x779x305			1750x779x305	
Net weight / Gross weight	Kg	27.9/33.6	27.9/33.6	27.9/33.6	27.9/33.6	35.8/42.1	35.8/42.1	35.8/42.1	43.5/50.5	43.5/50.5
Ø Liquid side refrigerant pipe	mm	6.35	6.35	6.35	6.35	9.52	9.52	9.52	9.52	9.52
Ø Gas side refrigerant pipe	mm	9.52	12.7	12.7	12.7	15.88	15.88	15.88	15.88	15.88

MRV INDOOR UNIT Slim Duct Low Pressure

AD052MSERA(D)
AD072MSERA(D)
AD092MSERA(D)
AD122MSERA(D)
AD162MSERA(D)

Panel Kit **OPTIONAL**

New panel with built-in receiver for infrared remote control and temperature info display dimmable from controller

Air discharge grill equipped with vertical and horizontal 3D effect motorised fins

Air intake grill equipped with filter

AD182MSERA(D)
AD242MSERA(D)

Static pressure values PA of the fan cannot be modified using this controller

Optional controller HW-BA116ABK

Optional controller HW-BA101ABT

Optional controller YR-E17A

optional remote control YR-HD01 (in combination with the RE-02 receiver, not necessary if the panel kit is used)

Optional controller YR-E16B

- Ideal for bedrooms, hotel rooms and quiet environments
- Extremely thin, only 185 mm
- Preparation for fresh air input
- Standard condensate drain pump
- Intake of lower or rear air by moving the panel as standard
- Silent operation
- Designed for free-mount installation without duct, with a standard prevalence of 0 PA. You can increase static pressure to 15 or 30 PA by using this unit with the flush wired controllers: HW-BA101ABT, YR-E17A, YR-E16B.
- Possibility of optional functional aesthetic control kit panel
- DC inverter fan motor
- 5 fan speeds only selectable with wired controller YR-E16B and YR-E17A

Model		AD052MSERA(D)	AD072MSERA(D)	AD092MSERA(D)	AD122MSERA(D)	AD162MSERA(D)	AD182MSERA(D)	AD242MSERA(D)
Capacity								
Cooling	kW	1.5	2.2	2.8	3.6	4.5	5.6	7.1
Heating	kW	1.7	2.5	3,2	4	5	6.3	8.0
Electrical Parameters								
Power supply	Ph-V/Hz	1/220-230/50/60						
Ventilation								
Air flow (H/m/l)	m³/h	430/370/310	480/420/360	480/410/350	550/430/370	600/540/460	800/690/580	930/850/750
Sound pressure level (H/m/l)	dB(A)	26/22/19	27/23/20	27/23/20	30/27/24	32/29/26	33/30/27	36/33/30
Sound power level (H/m/l)	dB(A)	40/36/33	41/37/34	41/37/34	44/41/38	46/43/40	47/44/41	50/47/43
Installation – Dimensions								
Unit Dimensions WxDxH	mm	850x420x185	850x420x185	850x420x185	850x420x185	850/420/185	1170x420x185	1170x420x185
Packaged unit dimensions WxDxH	mm	1045x540x270	1045x540x270	1045x540x270	1045x540x270	1045x540x270	1365x540x270	1365x540x270
Net weight / Gross weight	Kg	16.5/21.5	17.5/22.5	17.5/22.5	17.5/22.5	18.5/23.5	22.2/28.2	24/30
Ø Liquid side refrigerant pipe	mm	6.35	6.35	6.35	6.35	6.35	6.35	9.52
Ø Gas side refrigerant pipe	mm	9.52	9.52	9.52	12.7	12.7	12.7	15.88
Static pressure (Standard / Max)	Pa	0/30	0/30	0/30	0/30	0/30	0/30	0/30
Panel								
Model		P1B-890IA/D With Display and Receiver					P1B-1210IA/D With Display and Receiver	
Commercial code		2505451A2 With Display and Receiver					2505451F2 With Display and Receiver	
Dimensions WxDxH (delivery deflector)	mm	890x190x100					1210x190x100	
Dimensions WxDxH (intake panel with filter)	mm	890x290.5x32.4					1210x290.5x32.4	
Packaging dimensions WxDxH	mm	938x335x220					1258x335x220	1258x335x220
Net weight / Gross weight	Kg	4/5	4/5	4/5	4/5	4/5	5/6	5/6

AD052MJERAB
AD072MJERAB
AD092MJERAB
AD122MJERAB
AD162MJERAB
AD182MJERAB
AD242MJERAB
AD282MJERAB
AD302MJERA
AD382MJERA
AD482MJERA
AD542MJERA

On the side of the unit there is a circular flange fitting, with 120mm diameter as standard to connect a hose for primary air entry.
Normally this flange is closed and fixed backwards, if not used.

Optional controller
HW-BA116ABK

Optional controller
HW-BA101ABT

Optional controller
YR-E17A

optional remote control YR-HD01
(RE-02 remote control receiver)

Optional controller
YR-E16B

- Compact Ducted Medium Pressure
- Static pressure fan 50 / 100 PA.
- The standard static pressure is 50 PA.
- It is possible to increase the PA from 50 to 100 by only using wired controller models HW-BA101ABT, YR-E17A, YR-E16B .
- With all other controllers, the pressure remains fixed at 50 PA.
- Standard condensate drain pump

Model		AD052MJERAB	AD072MJERAB	AD092MJERAB	AD122MJERAB	AD162MJERAB	AD182MJERAB	AD242MJERAB	AD282MJERAB	AD302MJERA	AD382MJERA	AD482MJERA	AD542MJERA
Capacity													
Cooling	kW	1.5	2.2	2.8	3.6	4.5	5.6	7.1	8	9	11.2	14	16
Heating	kW	1.7	2.5	3,2	4	5	6.3	8	9	10	13	16.3	18
Electrical Parameters													
Power supply	Ph-V/Hz	1/220-230/50/60											
Ventilation													
Air flow (H/m/l)	m³/h	515/ 440/390	545/ 470/390	545/ 470/390	570/ 495/420	700/ 625/550	915/ 765/640	1275/ 1050/875	1275/ 1050/875	1450/ 1200/1000	2000/ 1700/1400	2150/ 1750/1400	2350/ 1950/1600
Sound pressure level (H/m/l)	dB(A)	29/27/25	30/28/25	30/28/25	31/29/27	32/30/28	33/31/29	34/31/29	35/33/30	36/33/30	38/35/32	40/36/32	42/38/34
Sound power level (H/m/l)	dB(A)	41/39/37	42/40/37	42/40/37	43/41/39	44/42/40	45/43/41	46/43/41	47/45/42	48/45/42	50/47/44	52/48/44	54/50/46
Installation – Dimensions													
Unit Dimensions WxDxH	mm	700/700/248					1100/700/248				1500/700/248		
Packaged unit dimensions WxDxH	mm	932/835/280					1332/835/280				1698/857/305		
Net weight / Gross weight	Kg	27/32	27/32	27/32	27/32	28.5/33.5	36.8/43.4	36.8/43.4	36.8/43.4	39.4/45.4	48.3/56.5	51.3/59.5	51.3/59.5
Ø Liquid side refrigerant pipe	mm	6.35	6.35	6.35	6.35	6.35	6.35	9.52	9.52	9.52	9.52	9.52	9.52
Ø Gas side refrigerant pipe	mm	9.52	9.52	9.52	12.7	12.7	12.7	15.88	15.88	15.88	15.88	15.88	15.88
Static pressure (Standard / Max)	Pa	20/200	20/200	20/200	20/200	20/200	20/200	20/200	20/200	20/180	20/180	20/180	20/180

AD052MJERAD
AD072MJERAD
AD092MJERAD
AD122MJERAD
AD162MJERAD
AD182MJERAD
AD242MJERAD
AD282MJERAD
AD302MJERAD
AD382MJERAD
AD482MJERAD
AD542MJERAD

On the side of the unit there is a circular flange fitting, with 120mm diameter as standard to connect a hose for primary air entry.
Normally this flange is closed and fixed backwards, if not used.

Optional controller
HW-BA116ABK

Optional controller
HW-BA101ABT

Optional controller
YR-E17A

optional remote control YR-HD01
(RE-02 remote control receiver)

Optional controller
YR-E16B

- Compact Ducted Medium Pressure
- Static pressure fan 20 / 200 PA.
- The standard static pressure is 20 PA.
- It is possible to increase the PA from 20 to 200 by only using wired controller models HW-BA101ABT, YR-E17A, YR-E16B .
- With all other controllers, the pressure remains fixed at 50 PA.
- Standard condensate drain pump

Model		AD052MJERAD	AD072MJERAD	AD092MJERAD	AD122MJERAD	AD162MJERAD	AD182MJERAD	AD242MJERAD	AD282MJERAD	AD302MJERAD	AD382MJERAD	AD482MJERAD	AD542MJERAD
Capacity													
Cooling	kW	1.5	2.2	2.8	3.6	4.5	5.6	7.1	8	9	11.2	14	16
Heating	kW	1.7	2.5	3,2	4	5	6.3	8	9	10	13	16.3	18
Electrical Parameters													
Power supply	Ph-V/Hz	1/220-230/50/60											
Ventilation													
Air flow (H/m/l)	m^3/h	515/ 440/390	545/ 470/390	545/ 470/390	570/ 495/420	700/ 625/550	915/ 765/640	1275/ 1050/875	1275/ 1050/875	1450/ 1200/1000	2000/ 1700/1400	2150/ 1750/1400	2350/ 1950/1600
Sound pressure level (H/m/l)	dB(A)	29/27/25	30/28/25	30/28/25	31/29/27	32/30/28	33/31/29	34/31/29	35/33/30	36/33/30	38/35/32	40/36/32	42/38/34
Sound power level (H/m/l)	dB(A)	41/39/37	42/40/37	42/40/37	43/41/39	44/42/40	45/43/41	46/43/41	47/45/42	48/45/42	50/47/44	52/48/44	54/50/46
Installation – Dimensions													
Unit Dimensions WxDxH	mm	700/700/248					1100/700/248				1500/700/248		
Packaged unit dimensions WxDxH	mm	932/835/280					1332/835/280				1698/857/305		
Net weight / Gross weight	Kg	27/32	27/32	27/32	27/32	28.5/33.5	36.8/43.4	36.8/43.4	36.8/43.4	39.4/45.4	48.3/56.5	51.3/59.5	51.3/59.5
Ø Liquid side refrigerant pipe	mm	6.35	6.35	6.35	6.35	6.35	6.35	9.52	9.52	9.52	9.52	9.52	9.52
Ø Gas side refrigerant pipe	mm	9.52	9.52	9.52	12.7	12.7	12.7	15.88	15.88	15.88	15.88	15.88	15.88
Static pressure (Standard / Max)	Pa	20/200	20/200	20/200	20/200	20/200	20/200	20/200	20/200	20/180	20/180	20/180	20/180

AD182MHERA
AD242MHERA
AD282MHERA
AD302MHERA
AD382MHERA
AD482MHERA

AD722MHERA
AD962MHERA

Optional controller
HW-BA116ABK

Optional controller
HW-BA101ABT

Optional controller
YR-E17A

optional remote control YR-HD01
(RE-02 remote control receiver)

Optional controller
YR-E16B

- Flexible and simple ductwork
- Simple maintenance
- Static pressure varies from 100 to 200 Pa using included booster cable.
- Not equipped with condensate drain pump
- 3 speeds + booster

Model		AD182MHERA	AD242MHERA	AD282MHERA	AD302MHERA	AD382MHERA	AD482MHERA	AD722MHERA	AD962MHERA
Capacity									
Cooling	kW	5.6	7.1	8	9	11.2	14	22.6	28
Heating	kW	6.3	8	9	10	12.5	16	25	31
Electrical Parameters									
Power supply	Ph-V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
Ventilation									
Air flow (H/m/l)	m^3/h	900/800/700	900/800/700	900/800/700	1560/1470/1390	1600/1500/1400	2100/2000/1900	4050/3250/2900	4050/3250/2900
Sound pressure level (A/B)	dB(A)	42/40	42/40	42/40	45/40	45/40	45/40	54/49	54/49
Sound power level (A/B)	dB(A)	55/53	55/53	55/53	58/53	58/53	58/53	67/62	67/62
Installation – Dimensions									
Unit Dimensions WxDxH	mm	975x876x360	975x876x360	975x876x360	1355x876x360	1355x876x360	1355x876x360	1725x876x360	1725x876x360
Packaged unit dimensions WxDxH	mm	1050x945x405	1050x945x405	1050x945x405	1386x966x418	1386x966x418	1386x966x418	1830x990x530	1830x990x530
Net weight / Gross weight	Kg	48/58	48/58	48/58	62/77	62/77	62/77	92/100	92/100
Ø Liquid side refrigerant pipe	mm	6.35	9.52	9.52	9.52	9.52	9.52	9.52	9.52
Ø Gas side refrigerant pipe	mm	12.7	15.88	15.88	15.88	15.88	15.88	25.4	25.4
Static pressure (Standard / Max)	Pa	100/196	100/196	100/196	100/196	100/196	100/196	100/196	100/196

MRV INDOOR UNIT Ducted - Fixed Flow

AD072MQERA
AD092MQERA
AD122MQERA
AD152MQERA
AD182MQERA
AD242MQERA

Optional controller
HW-BA116ABK

Optional controller
HW-BA101ABT

Optional controller
YR-E17A

optional remote control YR-HD01
(RE-02 remote control receiver)

Optional controller
YR-E16B

- Automatic system to maintain nominal air flow, offsetting duct losses of up to 200 PA
- Useful Static pressure up to 200 Pa with automatic selection.
- Maximum flexibility for the construction of air distribution ducts.
- Standard condensate drain pump
- DC inverter fan motor
- 5 fan speeds only selectable with wired controller YR-E16B and YR-E17A.

Model		AD072MQERA	AD092MQERA	AD122MQERA	AD152MQERA	AD182MQERA	AD242MQERA
Capacity							
Cooling	kW	2.2	2.8	3.36	4.5	5.6	7.1
Heating	kW	2.5	3,2	4.0	5.0	6.3	8.0
Electrical Parameters							
Power supply	Ph-V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
Ventilation							
Air flow (H/m/l)	m^3/h	500/410/360	600/510/450	700/580/500	780/680/600	900/780/600	1100/1020/920
Sound pressure level (H/m/l)	dB(A)	30/25/23	30/25/23	32/29/26	32/29/26	32/29/26	33/29/25
Installation – Dimensions							
Unit Dimensions WxDxH	mm	750x635x280	750x635x280	750x635x280	750x635x280	750x635x280	950x635x280
Packaged unit dimensions WxDxH	mm	917x736x325	917x736x325	917x736x325	917x736x325	917x736x325	1117x736x325
Net weight / Gross weight	Kg	29/34	29/34	29/34	29/34	29/34	34/39
Ø Liquid side refrigerant pipe	mm	6.35	6.35	6.35	6.35	6.35	9.52
Ø Gas side refrigerant pipe	mm	9.52	9.52	12.7	12.7	12.7	15.88
Static pressure (automatic selection)	Pa	50 std - max 200	50 std - max 200	50 std - max 200	50 std - max 200	50 std - max 200	50 std - max 200

AD302MQERA
AD362MQERA
AD422MQERA
AD482MQERA
AD542MQERA

Optional controller
HW-BA116ABK

Optional controller
HW-BA101ABT

Optional controller
YR-E17A

optional remote control YR-HD01
(RE-02 remote control receiver)

Optional controller
YR-E16B

- Automatic system to maintain nominal air flow, offsetting duct losses of up to 200 PA
- Useful Static pressure up to 200 Pa with automatic selection.
- Maximum flexibility for the construction of air distribution ducts.
- Standard condensate drain pump.
- DC inverter fan motor
- 5 fan speeds only selectable with wired controller YR-E16B and YR-E17A.
- For sizes 36-42-48-54 it is possible to fix the PA pressure at 50-100-150-200 excluding automatic function. This setting can only be achieved with the wired controller YR-E17A and YR-E16B.

Model		AD302MQERA	AD362MQERA	AD422MQERA	AD482MQERA	AD542MQERA
Capacity						
Cooling	kW	9.0	11.2	12.5	14.0	16.0
Heating	kW	10.0	12.5	14.0	16.0	18.0
Electrical Parameters						
Power supply	Ph-V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
Ventilation						
Air flow (H/m/l)	m^3/h	1500/1320/1220	1700/1510/1400	2000/1780/1620	2280/1920/1780	2280/1920/1780
Sound pressure level (H/m/l)	dB(A)	33/29/25	38/36/30	38/36/30	40/34/29	40/34/29
Installation – Dimensions						
Unit Dimensions WxDxH	mm	950x635x280	1370x740x280	1370x740x280	1370x740x280	1370x740x280
Packaged unit dimensions WxDxH	mm	1117x736x325	1535x839x362	1535x839x362	1535x839x362	1535x839x362
Net weight / Gross weight	Kg	34/39	54/62	54/62	54/62	54/62
Ø Liquid side refrigerant pipe	mm	9.52	9.52	9.52	9.52	9.52
Ø Gas side refrigerant pipe	mm	15.88	15.88	15.88	15.88	15.88
Static pressure (Standard / Max)	Pa	50 std - max 200	50 std - max 200	50 std - max 200	50 std - max 200	50 std - max 200

MRV UNIT INTERNAL Floor Console, built-in

AE072MLERA
AE092MLERA
AE122MLERA
AE162MLERA
AE182MLERA
AE242MLERA

Optional controller
HW-BA116ABK

Optional controller
HW-BA101ABT

Optional controller
YR-E17A

optional remote control YR-HD01
(RE-02 remote control receiver)

Optional controller
YR-E16B

- Compact and thin, only 220 mm depth
- Ideal for installation under window
- High-efficiency standard filter

Model		AE072MLERA	AE092MLERA	AE122MLERA	AE162MLERA	AE182MLERA	AE242MLERA
Capacity							
Cooling	kW	2.2	2.8	3.6	4.5	5.6	7.1
Heating	kW	2.5	3,2	4	5	6.3	8
Electrical Parameters							
Power supply	Ph-V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
Ventilation							
Air flow (H/m/l)	m³/h	750/640/550	750/640/550	750/640/550	900/820/750	900/820/750	900/820/750
Sound pressure level (H/m/l)	dB(A)	38/35/33	38/35/33	40/37/35	40/37/35	42/39/36	42/39/36
Sound power level (H/m/l)	dB(A)	51/48/46	51/48/46	53/50/48	53/50/48	55/52/49	55/52/49
Installation – Dimensions							
Unit Dimensions WxDxH	mm	1116x221x624	1116x221x624	1116x221x624	1116x221x624	1116x221x624	1116x221x624
Packaged unit dimensions WxDxH	mm	1198x295x707	1198x295x707	1198x295x707	1198x295x707	1198x295x707	1198x295x707
Net weight / Gross weight	Kg	29/37	29/37	29/37	31/39	31/39	31/39
Ø Liquid side refrigerant pipe	mm	6.35	6.35	6.35	6.35	6.35	9.52
Ø Gas side refrigerant pipe	mm	9.52	9.52	12.7	12.7	12.7	15.88
Static pressure (Standard / Max)	Pa	0/30	0/30	0/30	0/30	0/30	0/30

MRV INDOOR UNIT Floor Console, exposed type, double flow

AF052MBERA
AF072MBERA
AF092MBERA
AF122MBERA
AF162MBERA
AF182MBERA

Optional controller
HW-BA116ABK

Optional controller
HW-BA101ABT

Optional controller
YR-E17A

Optional remote control
YR-HD01

Optional controller
YR-E16B

- Double air delivery, upper and lower.
  In heating mode: both outputs are enabled, to spread hot air at floor level preventing the "cold feet" effect typical of only higher deliveries.
  By acting on the on-board selector it is possible to inhibit the lower output in heating mode.
  In cooling mode: The unit works only with the top delivery, the lower output automatically closes.
- Compact and elegant design
- Silent operation
- DC inverter fan motor
- 5 fan speeds only selectable with wired controller YR-E16B and YR-E17A.

Model		AF052MBERA	AF072MBERA	AF092MBERA	AF122MBERA	AF162MBERA	AF182MBERA
Capacity							
Cooling	kW	1.5	2.2	2.8	3.6	4.5	5.0
Heating	kW	1.7	2.6	3,2	4	5	5.5
Electrical Parameters							
Power supply	Ph-V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
Ventilation							
Air flow (High)	m^3/h	460/380/300	460/380/300	460/380/300	510/450/350	640/470/390	640/470/390
Sound pressure level (H/m/l)	dB(A)	42/36/31	42/36/31	43/39/35	43/39/35	48/44/38	48/44/38
Sound power level (H/m/l)	dB(A)	53/47/42	53/47/42	54/50/46	54/50/46	59/55/49	59/55/49
Installation – Dimensions							
Unit Dimensions WxDxH	mm	700x210x600	700x210x600	700x210x600	700x210x600	700x210x600	700x210x600
Packaged unit dimensions WxDxH	mm	783x303x695	783x303x695	783x303x695	783x303x695	783x303x695	783x303x695
Net weight / Gross weight	Kg	17/19	17/19	17/19	17/19	17/19	17/19
Ø Liquid side refrigerant pipe	mm	6.35	6.35	6.35	6.35	6.35	6.35
Ø Gas side refrigerant pipe	mm	12.7	12.7	12.7	12.7	12.7	12.7

AD482MPERA

AD722MPERA
AD962MPERA

Optional controller
HW-BA116ABK

Optional controller
HW-BA101ABT

Optional controller
YR-E17A

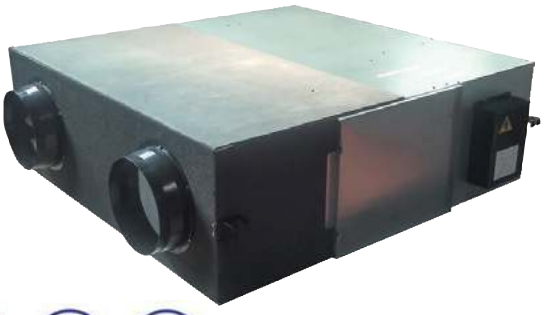
optional remote control YR-HD01
(RE-02 remote control receiver)

Optional controller
YR-E16B

- Static pressure varies from 100 to 200 Pa using included booster cable.
- Can be installed together with other indoor units on the same refrigerating circuit, to pre-treat the outdoor air before sending it to indoor units or in the environment.
- The nominal potential in heating is always lower than that of cooling.
- Not equipped with condensate drain pump.

NOTE:
The AD482MPERA unit cannot be used in 1:1 combination to create a mono system.
The use of air-to-air units outside the interior of a mixed MRV system must be evaluated and approved by a Haier technician.

Model		AD482MPERA	AD722MPERA	AD962MPERA
Capacity				
Cooling	kW	14	22.6	28
Heating	kW	8.9	15.2	17.8
Electrical Parameters				
Power supply	Ph-V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
Ventilation				
Air flow (High)	m^3/h	1600	2400	2800
Sound pressure level (A/B)	dB(A)	48	55	55
Sound power level (A/B)	dB(A)	61	68	68
Installation – Dimensions				
Unit Dimensions WxDxH	mm	1355x876x360	1725x876x360	1725x876x360
Packaged unit dimensions WxDxH	mm	1386x966x418	1830x990x530	1830x990x530
Net weight / Gross weight	Kg	62/77	92/100	92/100
Ø Liquid side refrigerant pipe	mm	9.52	9.52	9.52
Ø Gas side refrigerant pipe	mm	15.88	25.4	25.4
Static pressure (Standard / Max)	Pa	100/185	100/200	100/200



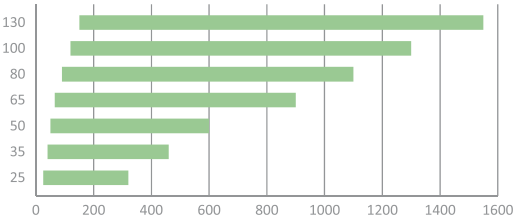
HACI-RP 25
HACI-RP 35
HACI-RP 50
HACI-RP 65
HACI-RP 80
HACI-RP 100
HACI-RP 130

EC

Enthalpy Exchanger

Not compatible with with MRV-S and MRV-5RC

ErP 2018 COMPLIANT



Wide range, flow selectable by controller

TECHNICAL SPECIFICATIONS

- **Static enthalpic cross-flow heat recovery unit with thermal efficiency up to 76%. Paper exchanger.**
- Self-supporting galvanised steel metal structure insulated internally and externally; accessibility through side door.
- Air filtration in efficiency class F9 (with pre-filter G3) on the fresh air, filter G3 on the intake flow
- Integrated dirty filters signalling pressure switch
- Motorised by-pass system of the heat recovery unit automatically implemented by the electronic control to guarantee free cooling with the outside air when convenient
- Electric fans with low consumption, high performance and low noise DC motor; possibility of managing 10 speed levels.
- Connections to the ducts with plastic fittings
- Built-in electrical panel with electronic board for controlling the ventilation and free-cooling functions
- Direct management from the controller of the SBE electrical resistor kit for pre or post-heating.
- **Electronic board with standard MOD-DBS output**
- Inputs for CO_2 and humidity ambient probes

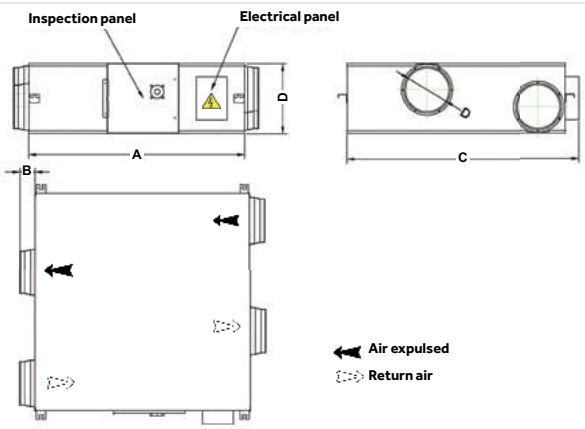
standard controller
PTS TOUCH

HACI-RP model		25	35	50	65	80	100	130
Rated air flow	m³/h	250	350	500	650	800	1000	1300
Nominal useful static pressure	Pa	90	140	110	100	140	140	140
Power supply	V/ph/Hz	230/1/50						
Total maximum absorbed current	A	0.5	0.6	0.6	1.2	1.4	2.1	2.7
FANS		**25**	**35**	**50**	**65**	**80**	**100**	**130**
Motor type		EC	EC	EC	EC	EC	EC	EC
No. of speeds (WIDE FLOW RANGE)		10	10	10	10	10	10	10
Ventilation control (1)		Man	Man	Man	Man	Man	Man	Man
Internal specific ventilation power - SFP (5)	W/(m³/s)	812	670	547	846	865	881	873
Total nominal absorbed power	kW	0.08	0.13	0.15	0.23	0.32	0.39	0.50
Sound pressure level (2)	db (A)	34	37	39	40	42	43	44
HEAT RECOVERY UNIT		**25**	**35**	**50**	**65**	**80**	**100**	**130**
Winter thermal efficiency (3)	%	73.0	74.0	76.0	74.0	76.0	76.0	74.2
Winter enthalpic efficiency (3)	%	65.0	65.0	67.0	65.0	65.0	62.0	59.0
Summer thermal efficiency (4)	%	73.0	74.0	76.0	74.0	76.0	76.0	74.0
Summer enthalpic efficiency (4)	%	62.0	62.0	63.0	60.0	63.0	60.0	58.0
Dry enthalpic efficiency (5)	%	73.0	74.0	76.0	74.0	76.0	76.0	74.0

(1) Man = Manual from selector or keyboard;
(2) Sound pressure level rated at 1m by: ducted delivery-discharge / ducted external air intake / inspection side at nominal conditions
(3) Outdoor air -5°C 80% UR; ambient air 20°C 50% UR
(4) Outdoor air 32°C 50% UR; ambient air 26°C 50% UR
(5) According to EU Regulation 1253/2014: at nominal pressure; temperature and humidity conditions for EN 308

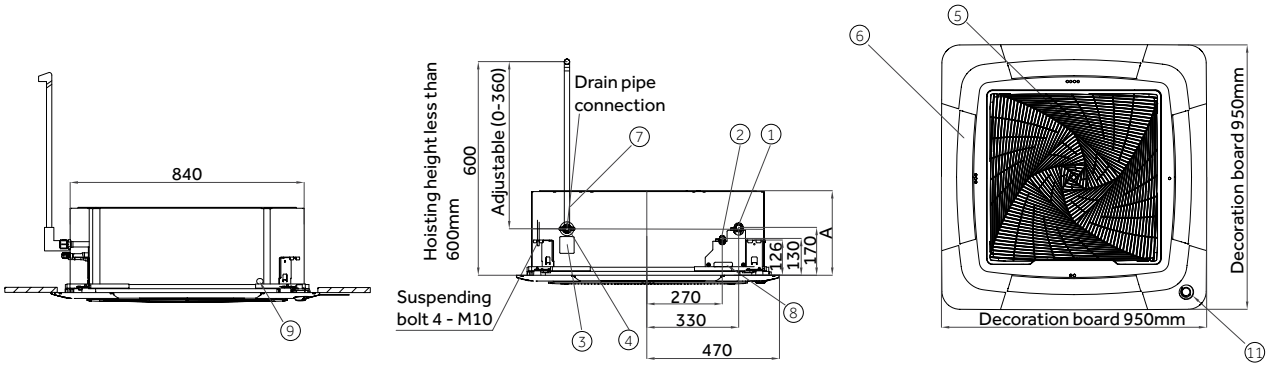
DIMENSIONS

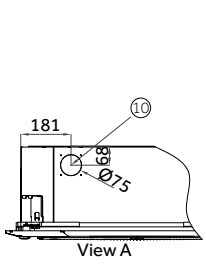
Model HACI-RP	Dimensions				Weight
	A [mm]	B [mm]	C [mm]	D [mm]	[kg]
25	814	100	650	270	30
35	814	100	855	270	37
50	894	107	955	270	43
65	1186	85	945	388	65
80	1186	85	1200	388	71
100	1199	85	1290	388	83
130	1199	85	1290	388	83

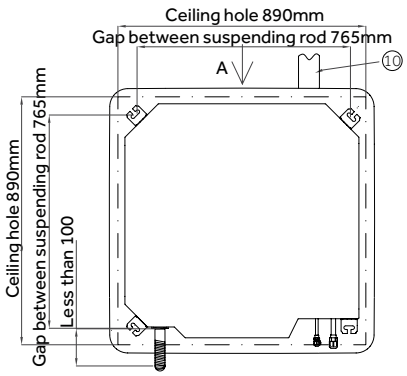


MRV INDOOR UNITS CASSETTE SMART FLOW

AB072MRERA AB092MRERA AB122MRERA AB162MRERA AB182MRERA AB242MRERA
AB282MRERA AB302MRERA AB382MRERA AB482MRERA AB602MRERA



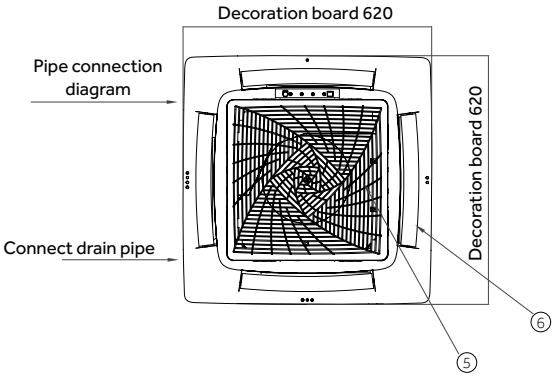


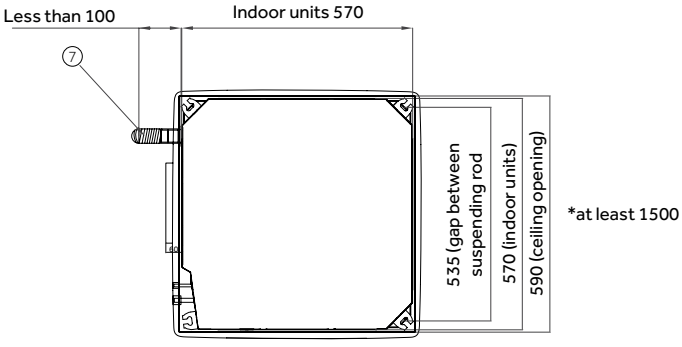


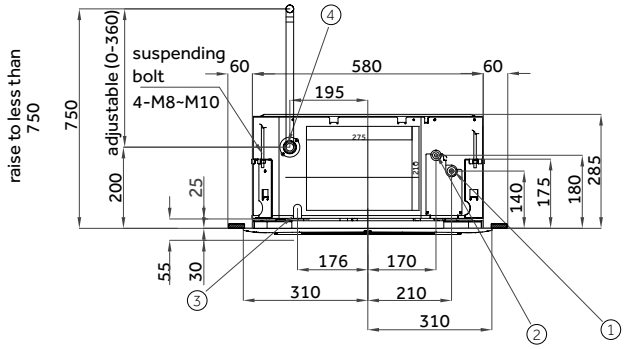
SN	Part name
1	Gas pipe
2	Liquid pipe
3	Observe plate
4	Drain pipe
5	Air return grille
6	Air outlet
7	Drain soft pipe (accessory)
8	Power supply inlet
9	PQlineinlet
10	Fresh air inlet
11	Move eye (optional)

MRV INDOOR UNIT 4-WAY CASSETTE 60X60

AB052MCERA(M) AB072MCERA(M) AB092MCERA(M) AB122MCERA(M) AB162MCERA(M) AB182MCERA(M)



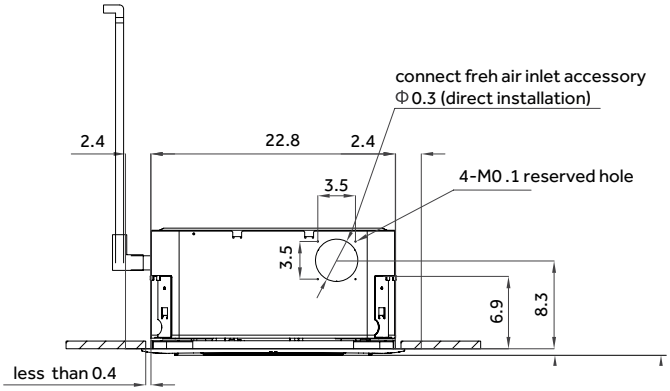


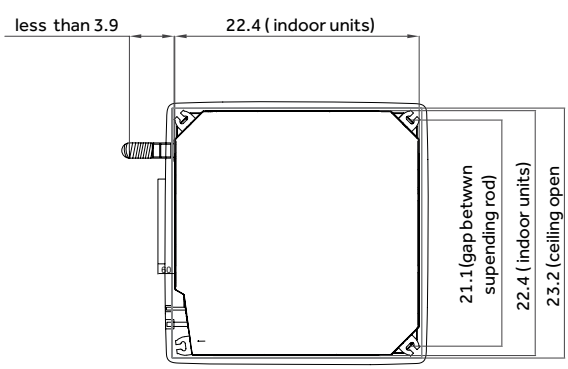


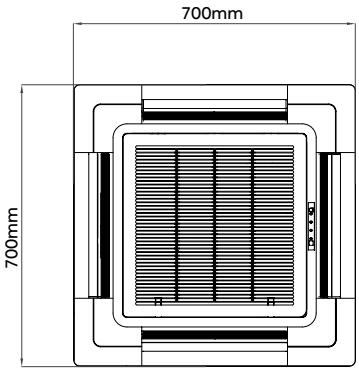
SN	Part name
1	Connection port of gas pipe
2	Connection liquid pipe
3	Wiring connection port of motor/pumping motor
4	Connect drain pipe
5	Inlet grill
6	Outlet grill
7	Drain hose (accessory)

MRV INDOOR UNIT 4-WAY CASSETTE COMPACT

AB052MCERA AB072MCERA AB092MCERA AB122MCERA AB162MCERA AB182MCERA(C)

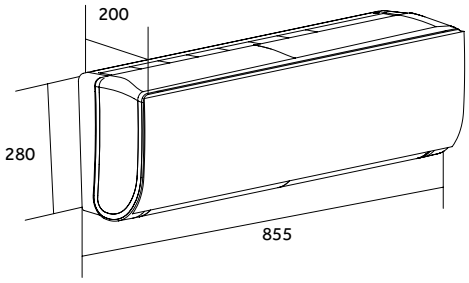


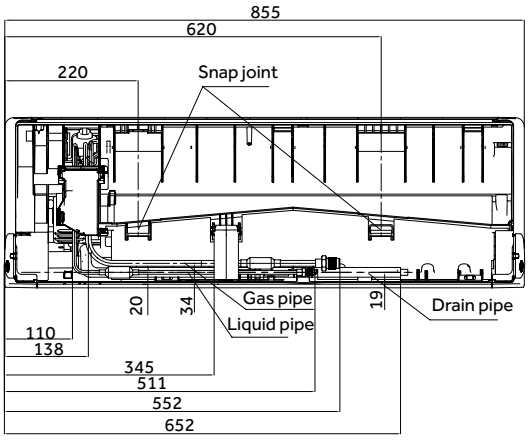


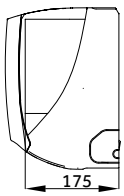


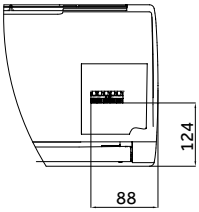
MRV INDOOR UNIT WALL MOUNTED

AS052MNERAB AS052MFERAB AS072MNERAB AS072MFERAB
AS092MNERAB AS092MFERAB AS122MNERAB



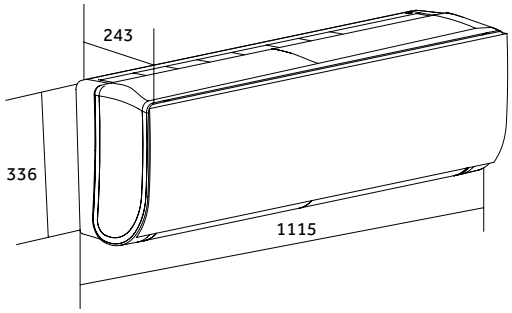


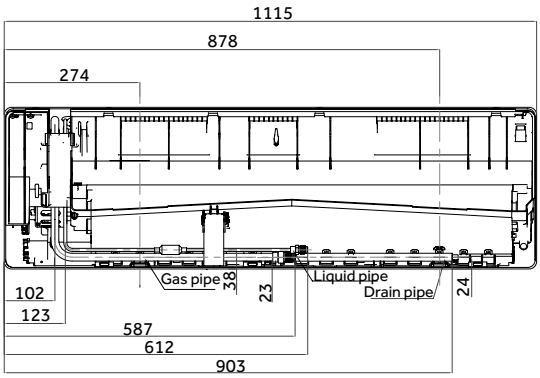


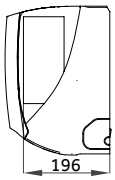


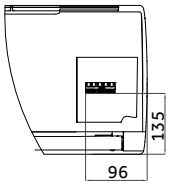
MRV INDOOR UNIT WALL MOUNTED

AS162MNERA AS182MNERA AS242MNERA AS162MFERA AS182MFERA AS242MFERA



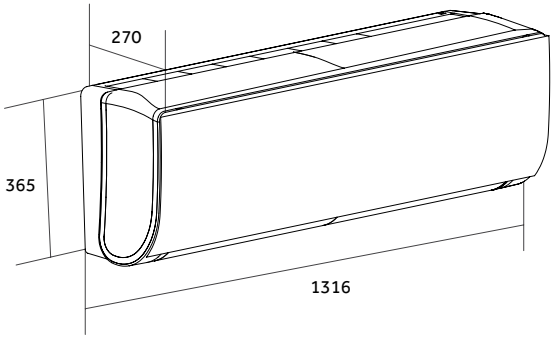


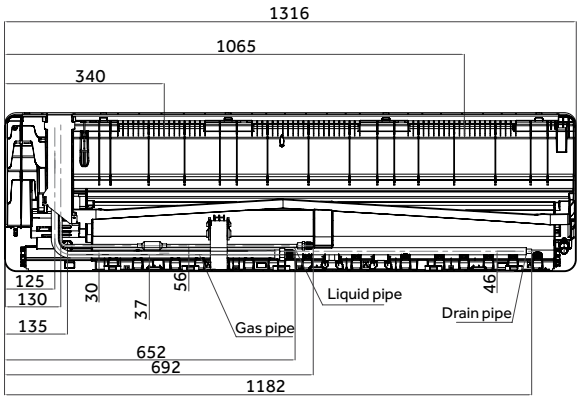


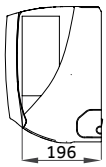


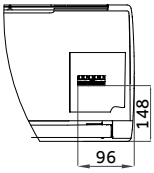
MRV INDOOR UNIT WALL MOUNTED

AS282MNERA AS302MNERA



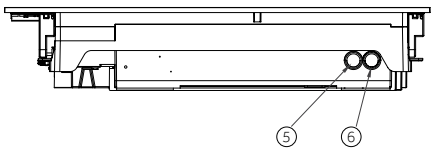


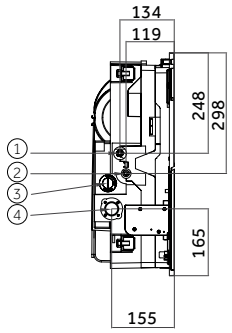




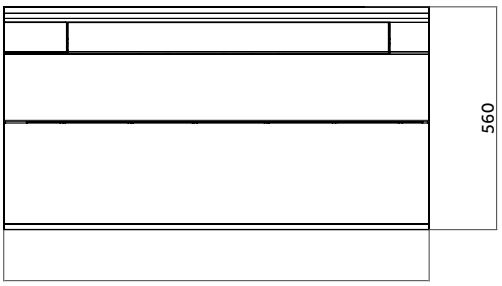
MRV INDOOR UNIT 1-WAY CASSETTE

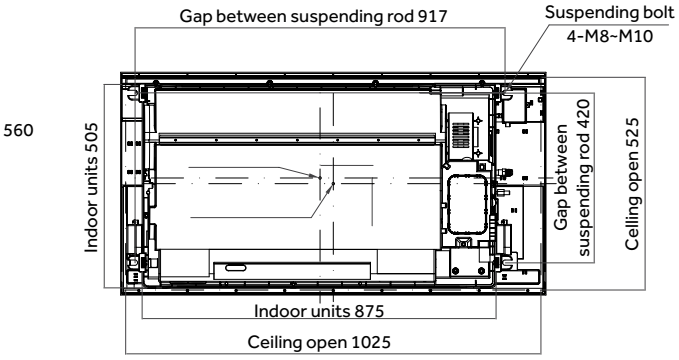
AB052MAERA AB072MAERA AB092MAERA AB122MAERA





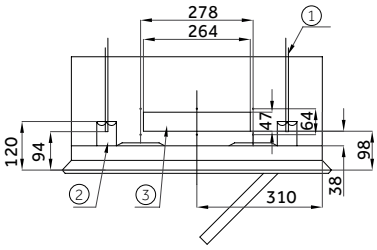
SN	Part name
1	Gas pipe
2	Lquid pipe
3	Water filling hole
4	Drain pipe
5	Power supply
6	Communication wire

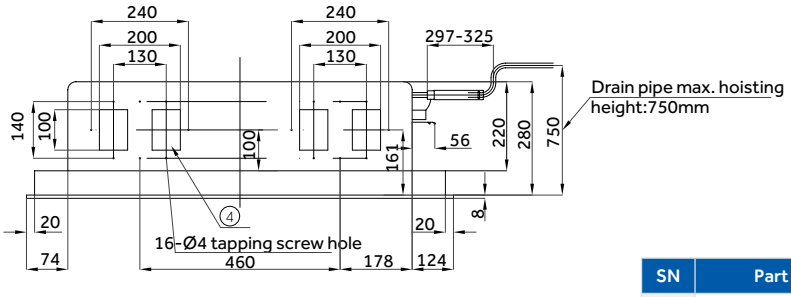




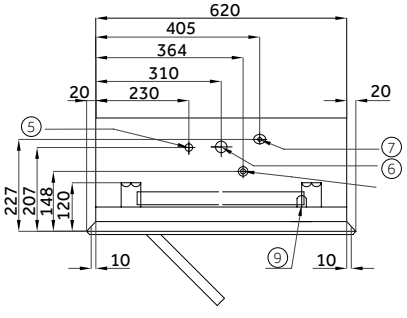
MRV INDOOR UNIT 2-WAY CASSETTE

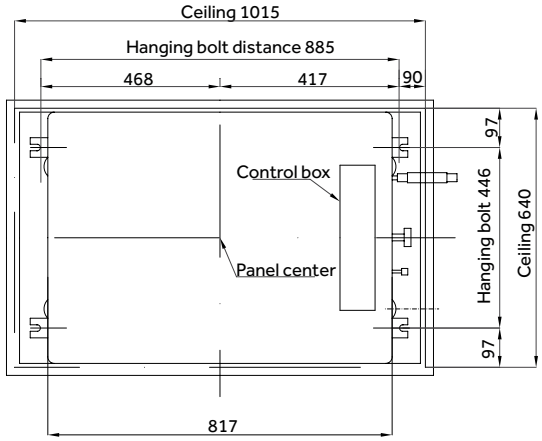
AB072MBERA AB092MBERA AB122MBERA AB162MBERA AB182MBERA





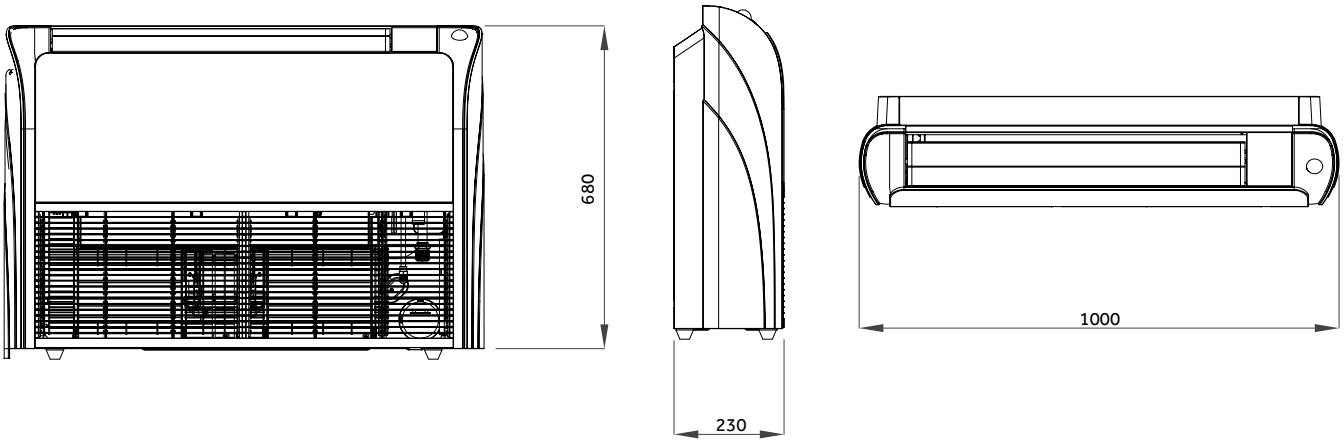
SN	Part name
1	Hanging bolt
2	Pothook
3	Fresh air entrance
4	Exhaust outlet: 4
5	Lquid pipe connect hole
6	Gas pipe connect hole
7	Drain pipe connect hole
8	Natural drain
9	Power line entrance





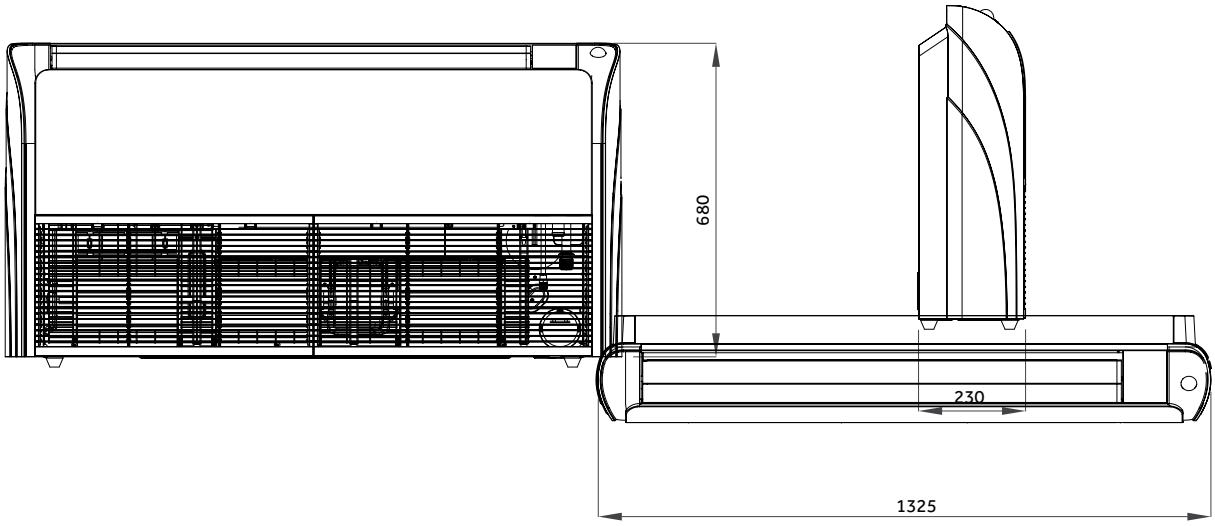
CONVERTIBLE

AC092MDERA AC122MDERA AC162MDERA AC182MDERA



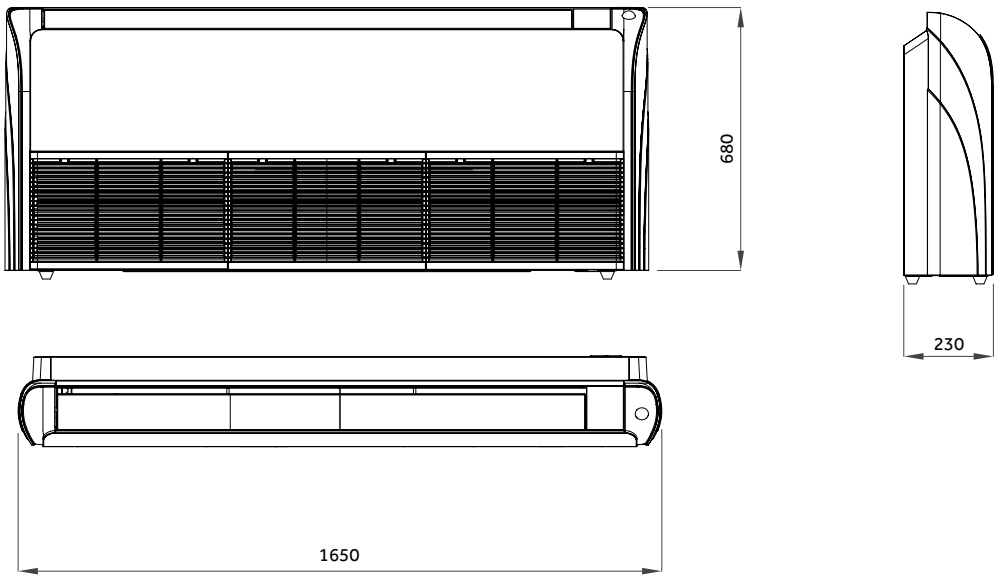
CONVERTIBLE

AC242MDERA AC282MDERA AC302MDERA



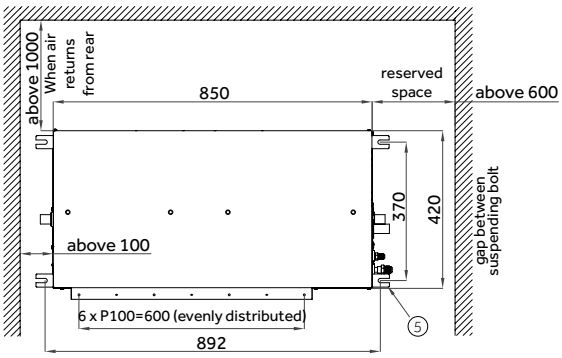
CONVERTIBLE

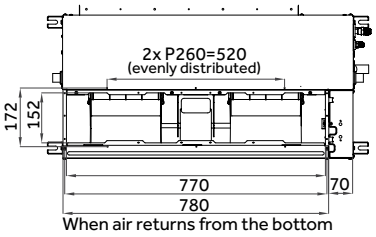
AC382MDERA AC482MDERA

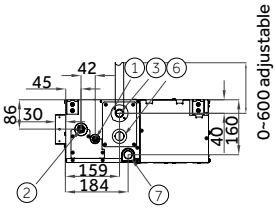


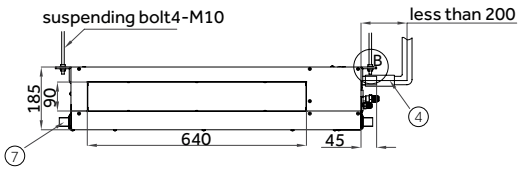
MRV INDOOR UNIT SLIM DUCT LOW PRESSURE

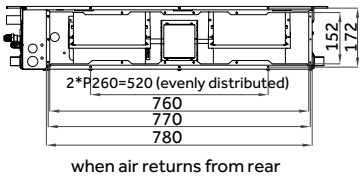
AD052MSERA(D) AD072MSERA(D) AD092MSERA(D) AD122MSERA(D) AD162MSERA(D)







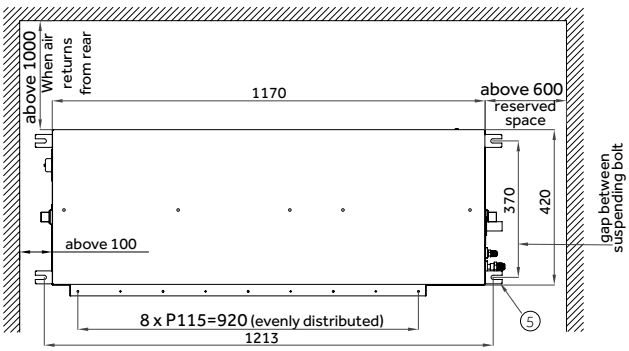


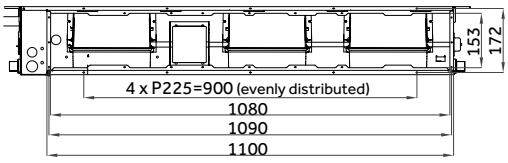


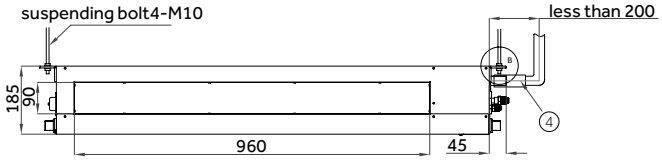
SN	Part name
1	Liquid pipe connection
2	Gas pipe connection
3	Drain hose the pump
4	Drain hose (accessory)
5	Suspending point
6	Checking hole
7	Water drainage outley

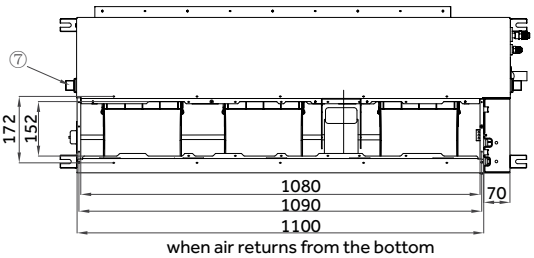
MRV INDOOR UNIT SLIM DUCT LOW PRESSURE

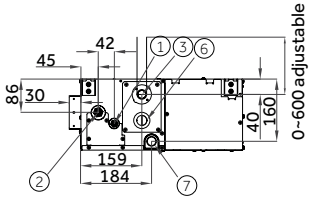
AD182MSERA(D) AD242MSERA(D)







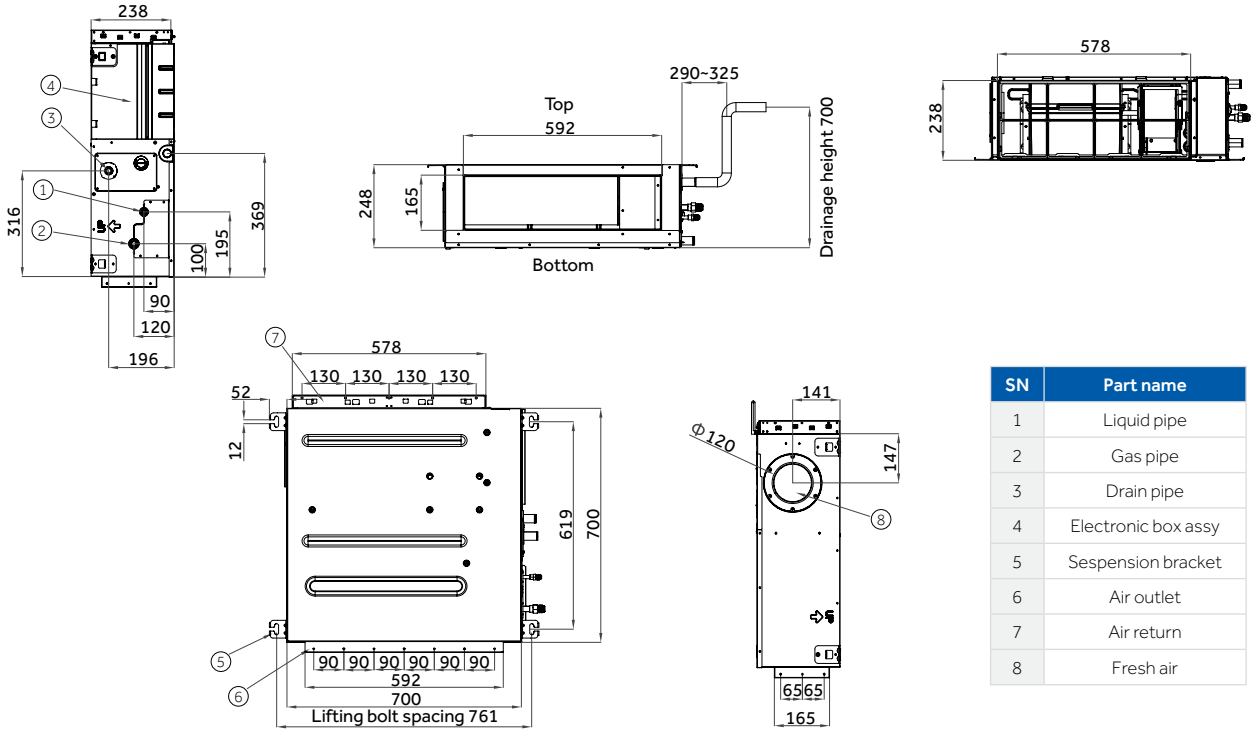




SN	Part name
1	Liquid pipe connection
2	Gas pipe connection
3	Drain hose the pump
4	Drain hose (accessory)
5	Suspending point
6	Checking hole
7	Water drainage outley

MRV INDOOR UNIT DUCTED MEDIUM PRESSURE

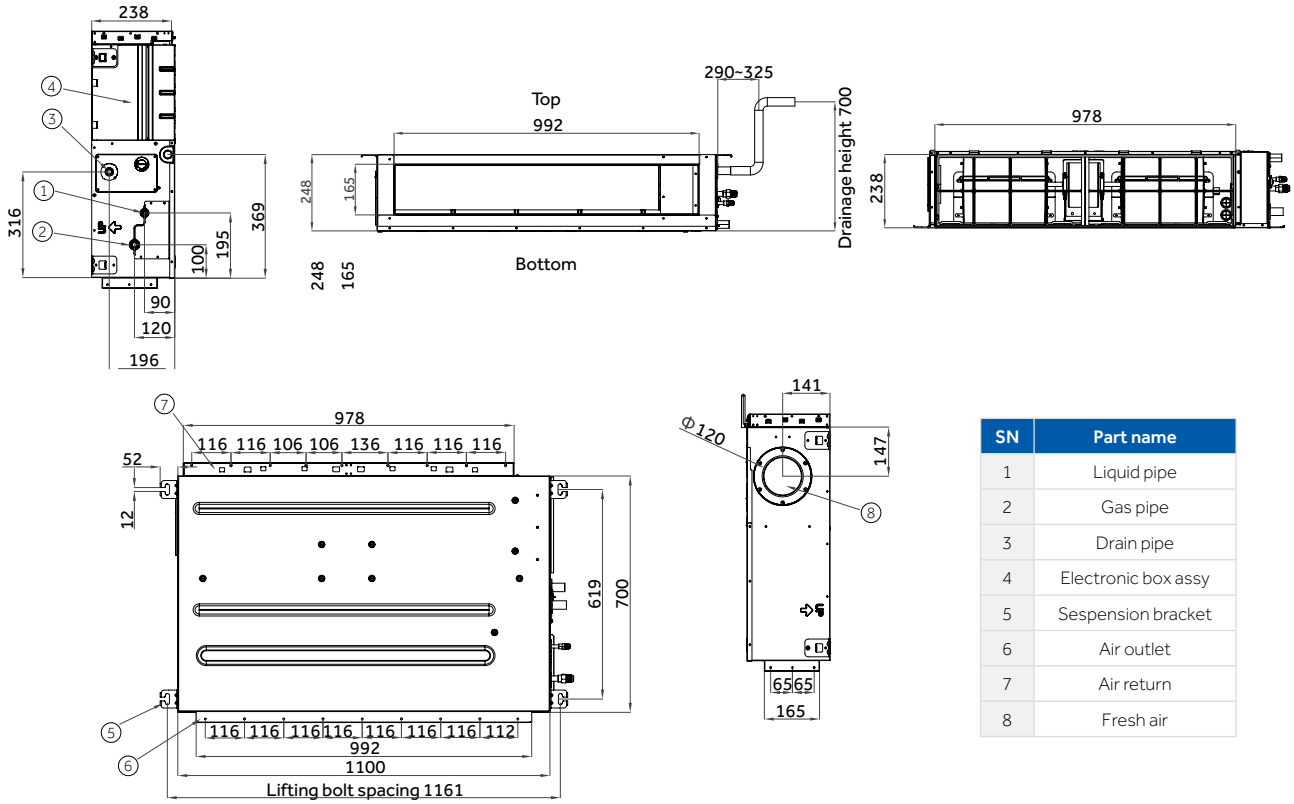
AD52MJERAD AD72MJERAD AD92MJERAD AD122MJERAD AD162MJERAD
AD052MJERAB AD072MJERAB AD092MJERAB AD122MJERAB AD162MJERAB



SN	Part name
1	Liquid pipe
2	Gas pipe
3	Drain pipe
4	Electronic box assy
5	Sespension bracket
6	Air outlet
7	Air return
8	Fresh air

MRV INDOOR UNIT DUCTED MEDIUM PRESSURE

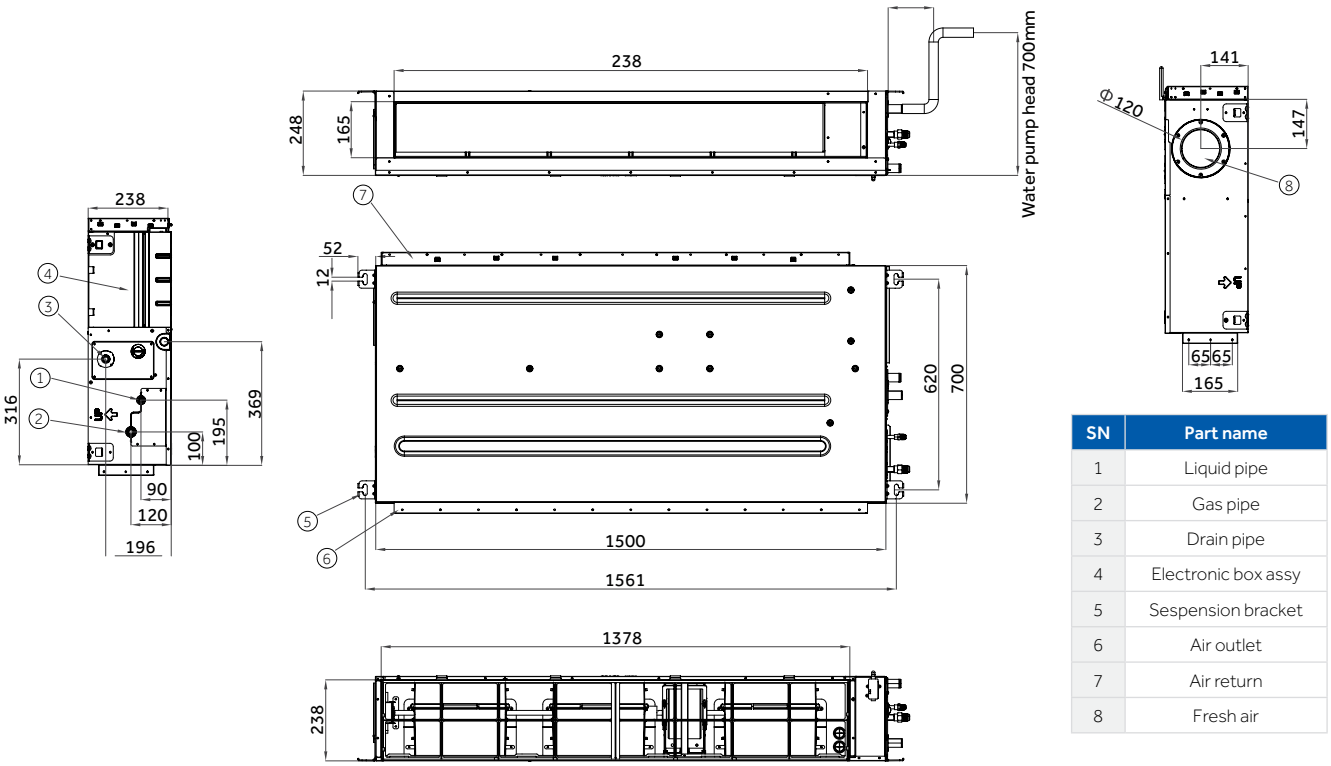
AD182MJERAD AD242MJERAD AD282MJERAD AD302MJERAD
AD182MJERAB AD242MJERAB AD282MJERAB AD302MJERA



SN	Part name
1	Liquid pipe
2	Gas pipe
3	Drain pipe
4	Electronic box assy
5	Sespension bracket
6	Air outlet
7	Air return
8	Fresh air

MRV INDOOR UNIT DUCTED MEDIUM PRESSURE

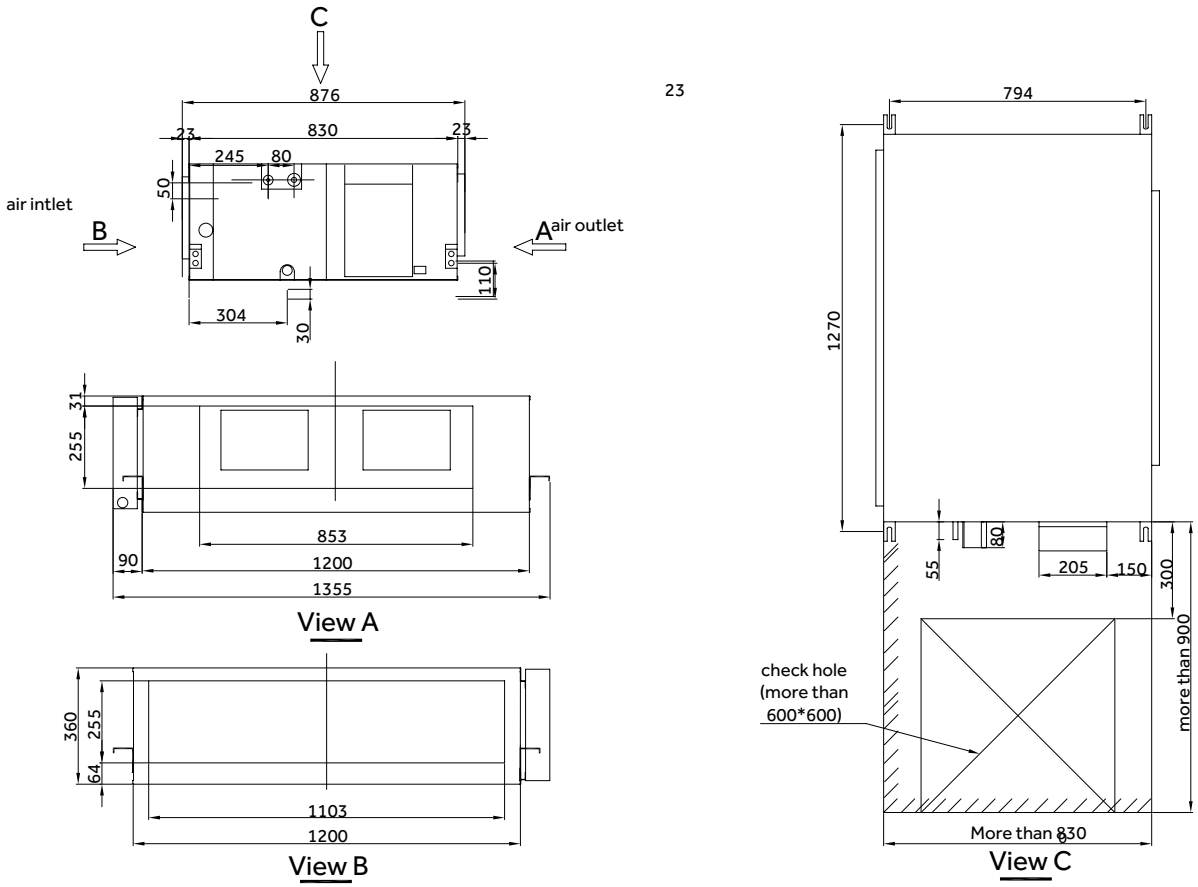
AD382MJERAD AD482MJERAD AD542MJERAD AD382MJERA AD482MJERA AD542MJERA



SN	Part name
1	Liquid pipe
2	Gas pipe
3	Drain pipe
4	Electronic box assy
5	Sespension bracket
6	Air outlet
7	Air return
8	Fresh air

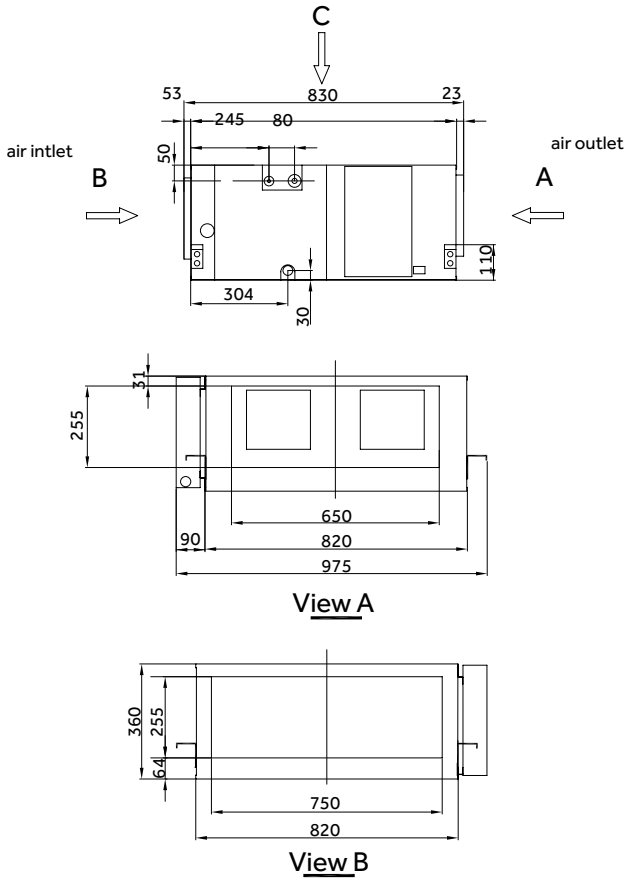
MRV INDOOR UNIT DUCTED MEDIUM PRESSURE

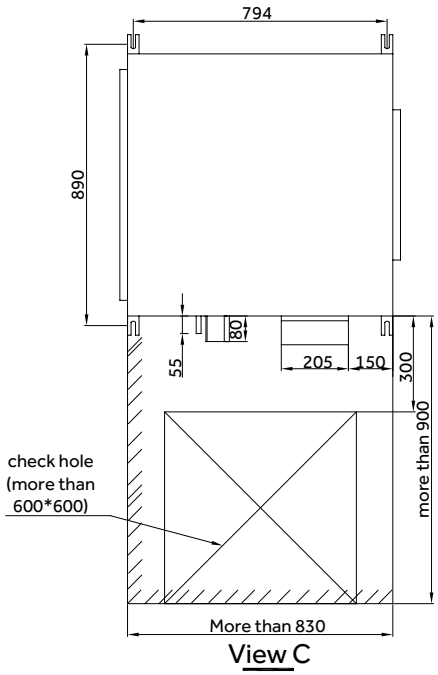
AD302MHERA AD382MHERA AD482MHERA



MRV INDOOR UNIT DUCTED HIGH PRESSURE

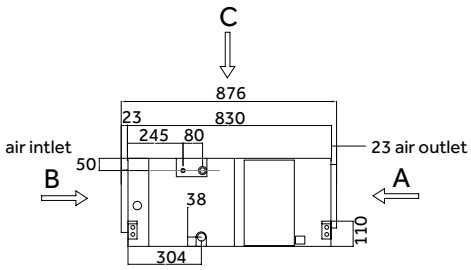
AD182MHERA AD242MHERA AD282MHERA

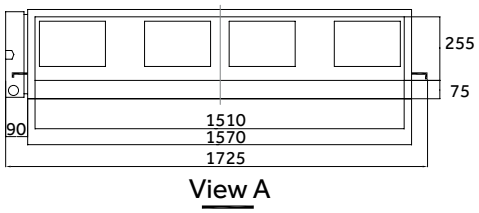


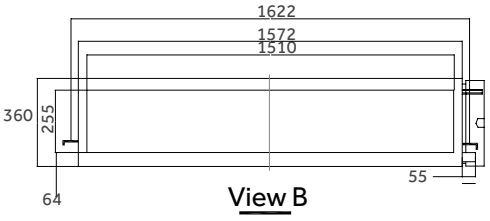


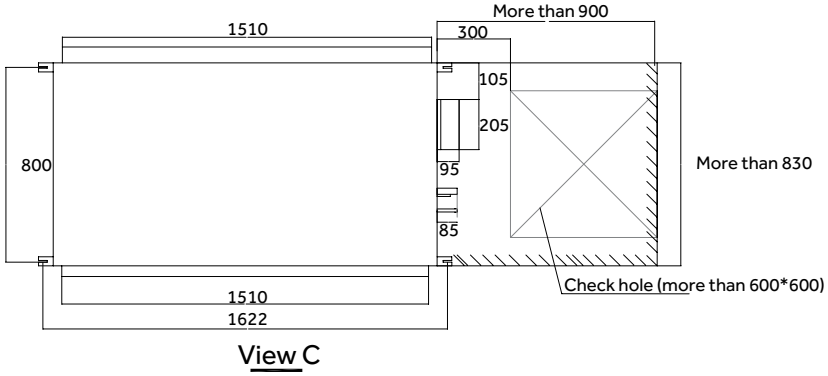
MRV INDOOR UNIT DUCTED HIGH PRESSURE

AD722MHERA AD962MHERA



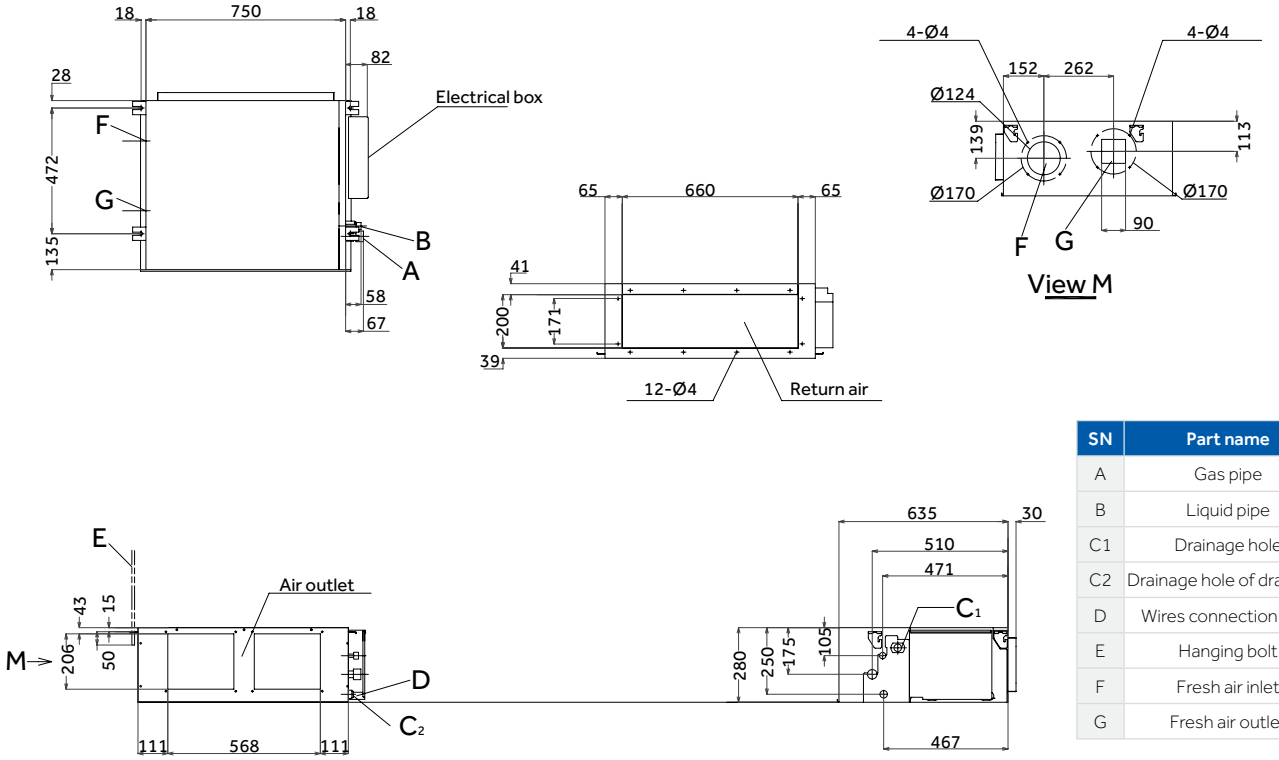






MRV INDOOR UNIT DUCTED - FIXED FLOW

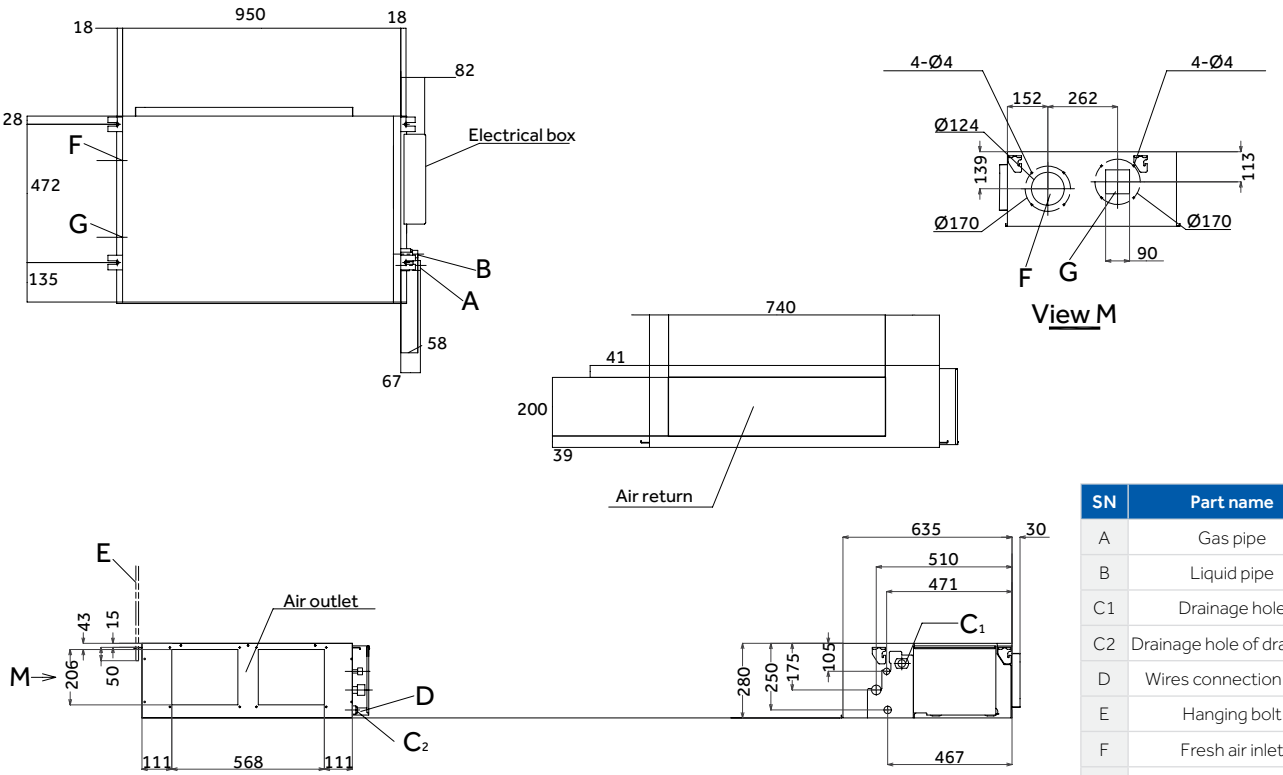
AD072MQERA AD092MQERA AD122MQERA AD152MQERA AD182MQERA



SN	Part name
A	Gas pipe
B	Liquid pipe
C1	Drainage hole
C2	Drainage hole of drain pan
D	Wires connection hole
E	Hanging bolt
F	Fresh air inlet
G	Fresh air outlet

MRV INDOOR UNIT DUCTED - FIXED FLOW

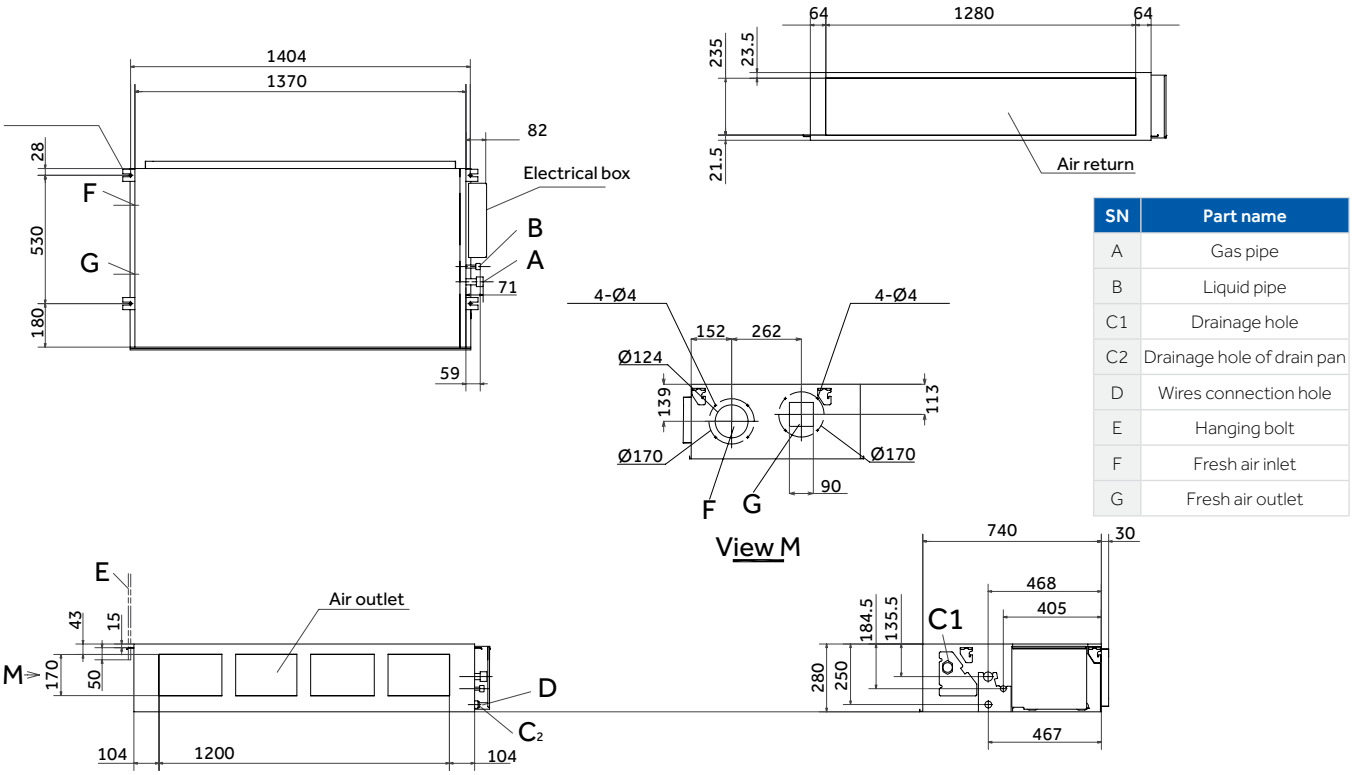
AD242MQERA AD282MQERA AD302MQERA



SN	Part name
A	Gas pipe
B	Liquid pipe
C1	Drainage hole
C2	Drainage hole of drain pan
D	Wires connection hole
E	Hanging bolt
F	Fresh air inlet
G	Fresh air outlet

MRV INDOOR UNIT DUCTED - FIXED FLOW

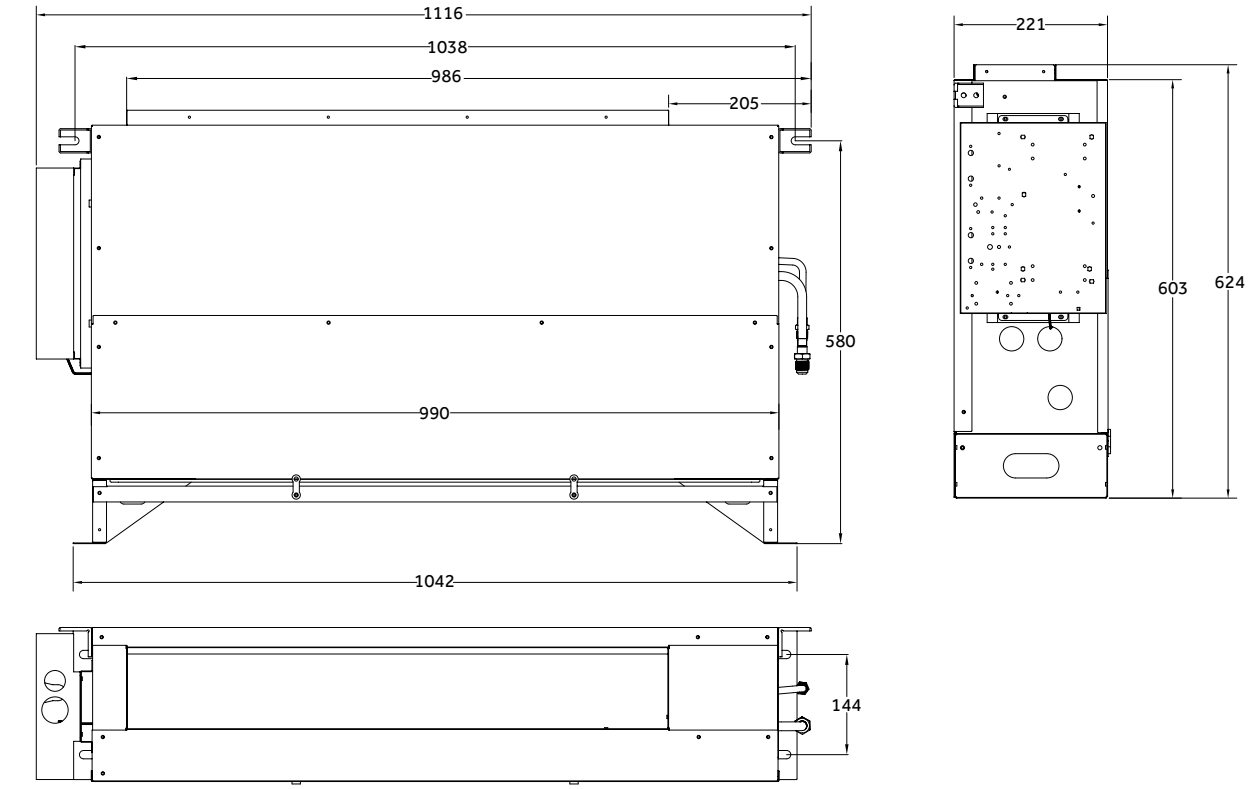
AD362MQERA AD422MQERA AD482MQERA AD542MQERA



SN	Part name
A	Gas pipe
B	Liquid pipe
C1	Drainage hole
C2	Drainage hole of drain pan
D	Wires connection hole
E	Hanging bolt
F	Fresh air inlet
G	Fresh air outlet

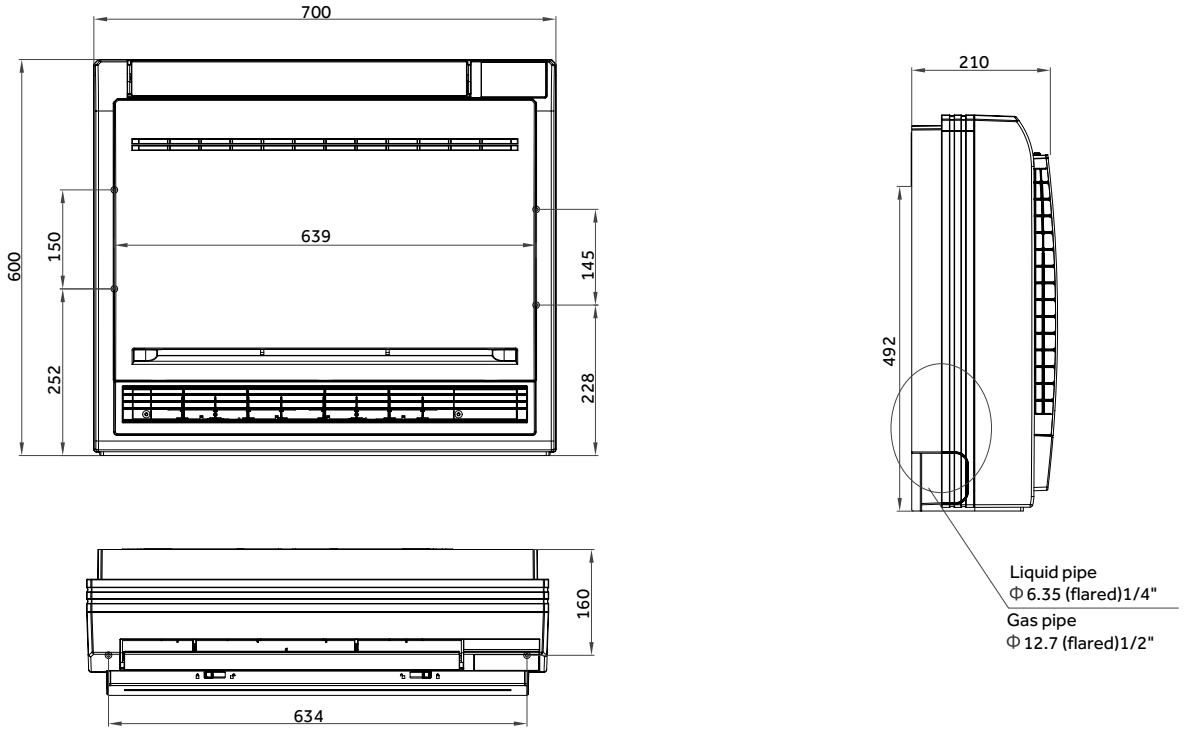
UNIT INTERNAL FLOOR CONSOLE, BUILT-IN

AE072MLERA AE092MLERA AE122MLERA AE162MLERA AE182MLERA AE242MLERA



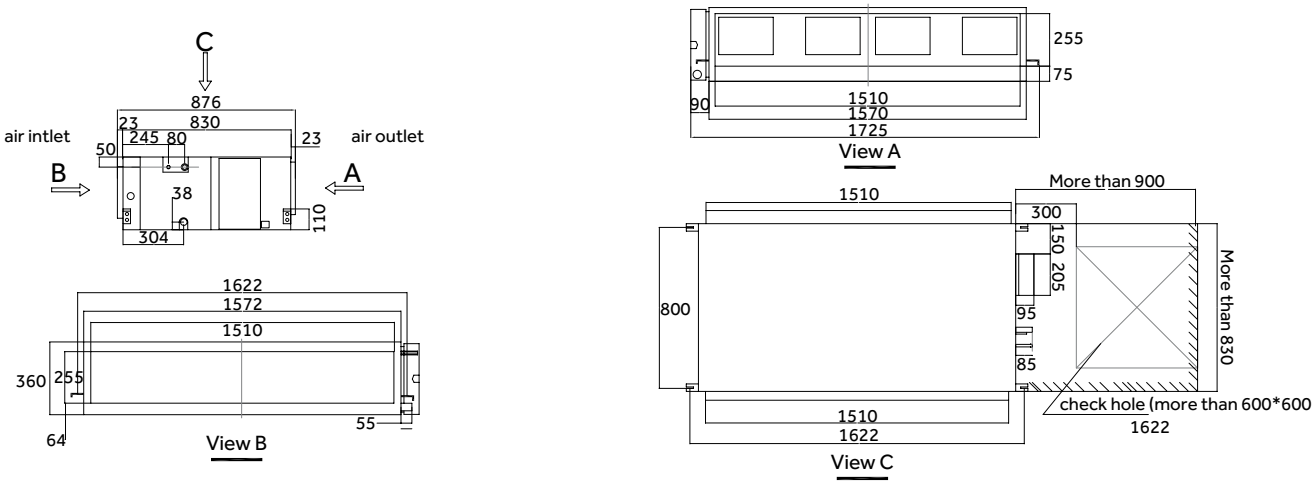
MRV INDOOR UNIT FLOOR CONSOLE, EXPOSED TYPE, DOUBLE FLOW

AF052MBERA AF072MBERA AF092MBERA AF122MBERA AF162MBERA AF182MBERA



MRV INDOOR UNITS DUCTED HIGH-PRESSURE AT ALL OUTDOOR AIR

AD482MPERA AD722MPERA AD962MPERA



MRV AHU

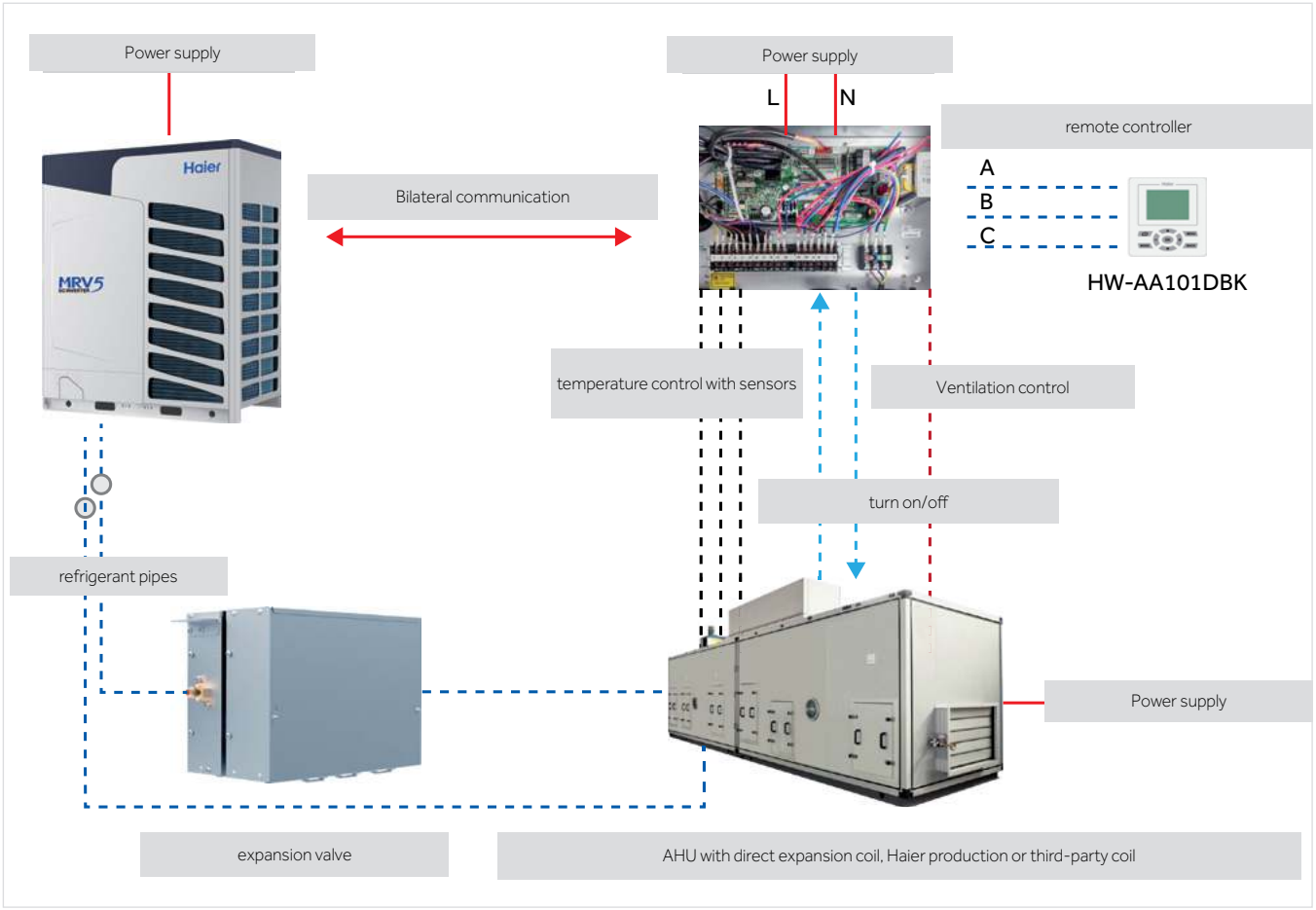
Application

APPLICATIONS

Regulations require adequate air renewal in the premises according to the activity carried out inside the building. Thanks to the interface kit between high efficiency MRV units and direct expansion air treatment units, Haier is able to meet the needs for air renewal and treatment.



GENERIC CONNECTION SCHEME



CONNECTABLE OUTDOOR UNITS

Valve box	 MRV-S	 MRV5
	AH1-070B - AH1-140B - AH1-280B	AH1-280B - AH1-560B - AH1-730B
Valve box		
	1HP (3.5kW) <AHU connection capacity ≤10HP (28kW)	10HP (28kW) <AHU connection capacity ≤26HP (73kW)
AHU	 AHU, Haier	 Third-party AHU

CONTENTS OF THE AHU KIT

AH1-070B
AH1-140B
AH1-280B

 =  Refrigerant expansion valve included +  Control electronics included +  Temperature sensors and wiring included +  HW-AA101DBK wired touch screen remote control included

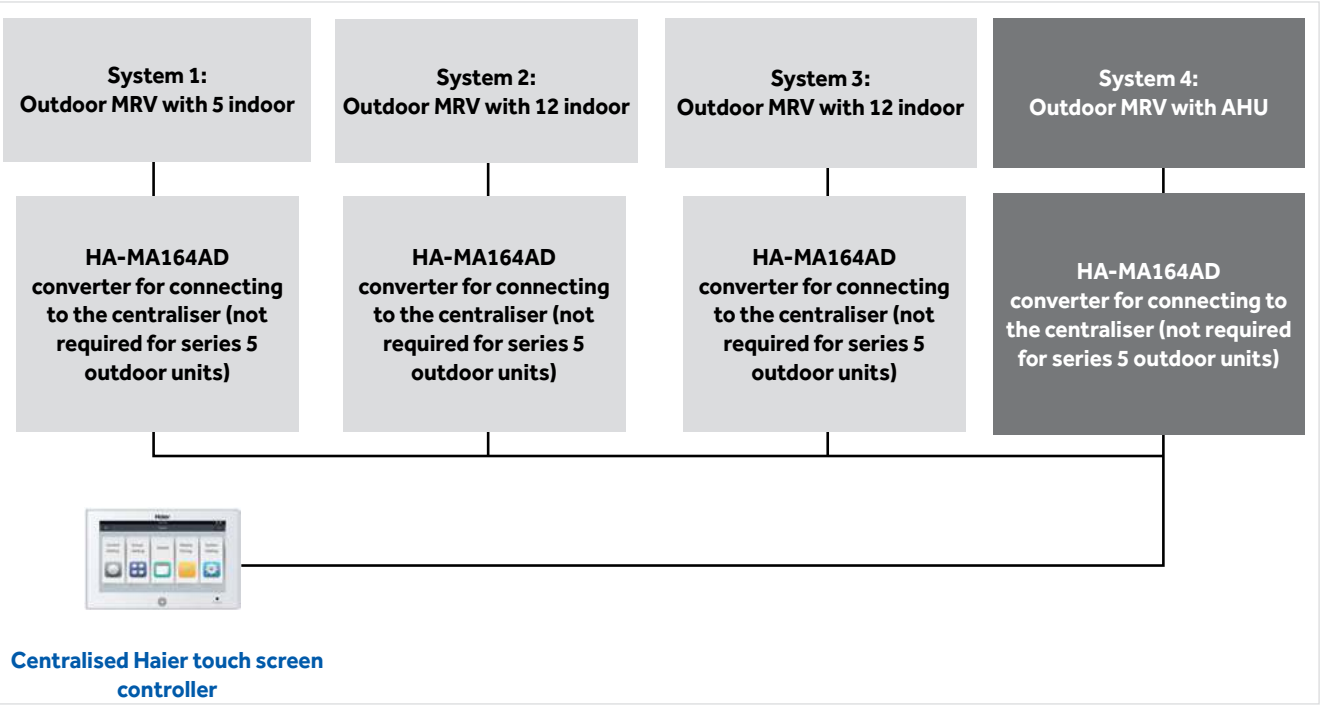
AH1-560B
AH1-730B

 =  Refrigerant expansion valve included +  Control electronics included +  Temperature sensors and wiring included +  HW-AA101DBK wired touch screen remote control included

CONTROL AND MANAGEMENT SYSTEMS

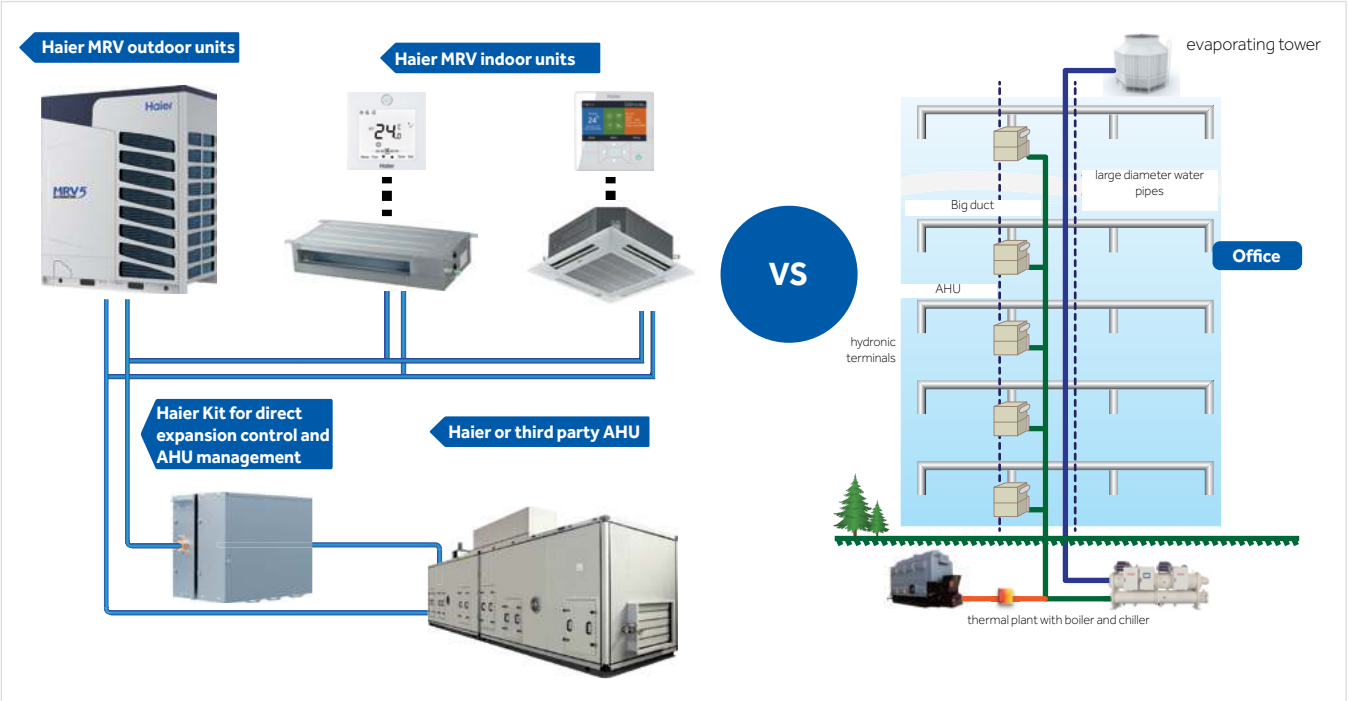
A Haier MRV-AHU system is comparable to a classic VRF system, therefore it can be inserted in a group control context.

Example



SIMPLE INSTALLATION

Compared to a traditional water system, Haier's AHU-MRV direct-expansion technology minimises plant components. No cooling towers, large water pipes or pumps are needed. In addition, the efficiency of MRV/VRF/VRV systems is notoriously higher than traditional air/water systems. Haier AHU-MRV systems can be independently or centrally controlled thanks to Haier's multiple solutions for product control and management. It is also possible to power MRV and AHU indoor units within the same plant.



CHARACTERISTICS AND FUNCTIONS

- Ability to control third-party AHU
- Compatible with MRV 5-series outdoor units and S-series" (4-12 HP)
- A single box covers a power range of 3.5 to 73 kW. Can to connect up to 3 boxes in parallel for large capacity.
- Expansion valve and paired electronic boards, with separation possibilities for greater flexibility during installation.
- Managing 0-10 V DDC inbound signal from third-party controller
- Temperature signal control provided by a DDC control or return from the Haier sensor
- Remote contact input to select Hot/Cold mode
- Clean contact input for managing 3 ventilation speeds
- Status signal output "Defrost / Defrost"

Technical specifications

AH1-070B
AH1-140B
AH1-280B

AH1-560B
AH1-730B

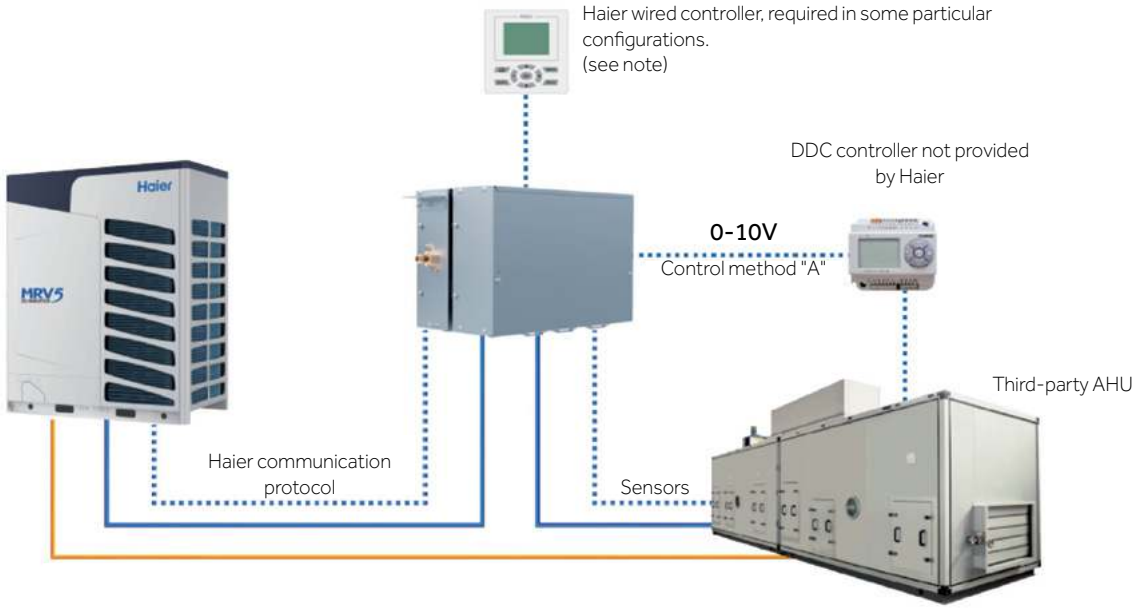
Model		AH1-070B	AH1-140B	AH1-280B	AH1-560B	AH1-730B
Commercial code		25030291J	25030292J	25030293J	25030294J	25030295J
Connectable capacity (kW AHU internal exchanger)	kW	3.5≤X≤7kW (1-3HP)	7≤X≤14kW (3-5HP)	14≤X≤28kW (5-10HP)	28≤X≤56kW (10-20HP)	56≤X≤73kW (20-26HP)
Power supply	V-Ph-Hz	220~230-1-50/60	220~230-1-50/60	220~230-1-50/60	220~230-1-50/60	220~230-1-50/60
Unit Dimensions WxDxH	mm	420x260x165	420x260x165	420x260x165	420x260x215	420x260x215
Packaged unit dimensions WxDxH	mm	520x340x225	520x340x225	520x340x225	520x340x275	520x340x275
Net weight / Gross weight	Kg	5.5 / 8.5	5.5 / 8.5	5.5 / 8.5	6.5 / 10	6.5 / 10
Material		Galvanised sheet				
Colour		Grey	Grey	Grey	Grey	Grey
Liquid pipe diameter (input/output to AHU)	mm	9.52 / 6.35	9.52 / 6.35	9.52 / 6.35	12.7/ 15.88	12.7/ 15.88
Connection method		Flare	Flare	Flare	Flare	Flare
Maximum distance between BOX and AHU	m	5	5	5	5	5
Maximum height difference between BOX and AHU	m	5	5	5	5	5

ADVANTAGES

Valve capacity	**Possibility to control AHU with power values from 3 to 73 kW with a single valve**
High compatibility	**The same electronic boards as the MRV indoor units for simple management and maintenance**
Reliability	**The expansion valve is produced by FUJIKOKI, the Japanese leader in this sector.**  

Control method "A"

The third-party control system generates a signal ranging from 0-10 V to represent the required power demand. Haier's AHU Kit uses this input signal to adjust the power delivered by the MRV unit to meet the real need for thermal air treatment.

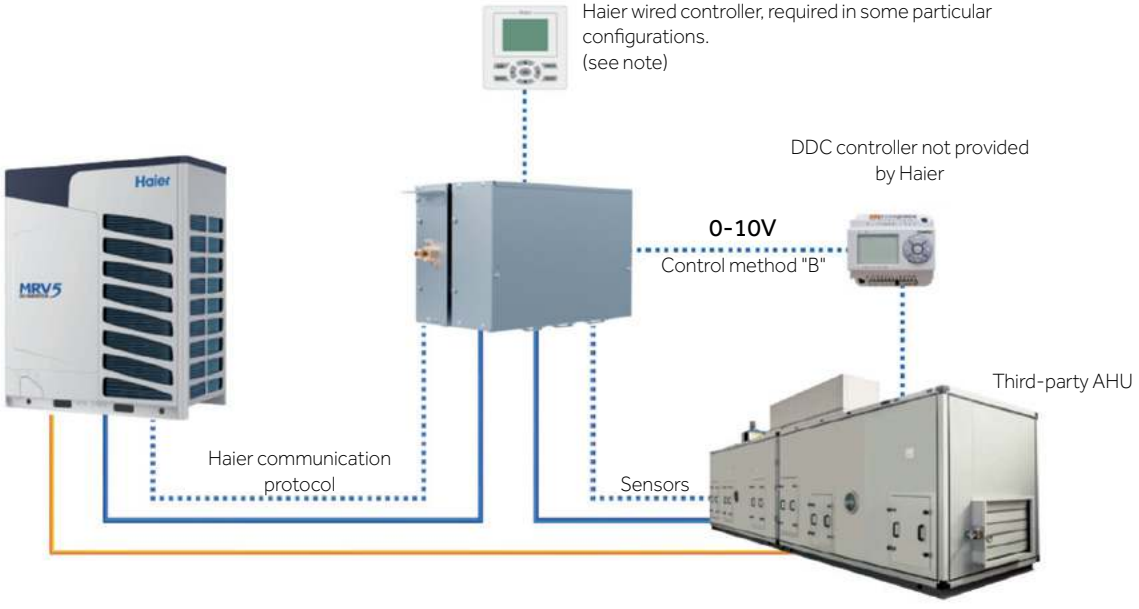


Liquid/Gas refrigerant pipes, only the liquid pipe enters the valve box and then continues to the direct expansion coil. The Gas pipe goes directly from the outdoor unit to the coil inside the AHU.

Note:
If the third-party DDC controller generates only the 0-10 V demand indicator signal, the Haier wired controller is necessary to handle the following signals: Hot/cold operating mode, switching AHU on/off, alarms.
If the DDC controller generates all the necessary signals, the Haier controller is not required.

Control method "B"

The temperature is controlled by the third-party DDC, which sends the 0-10 V modulating signal to the Haier kit that will control the temperature set point.

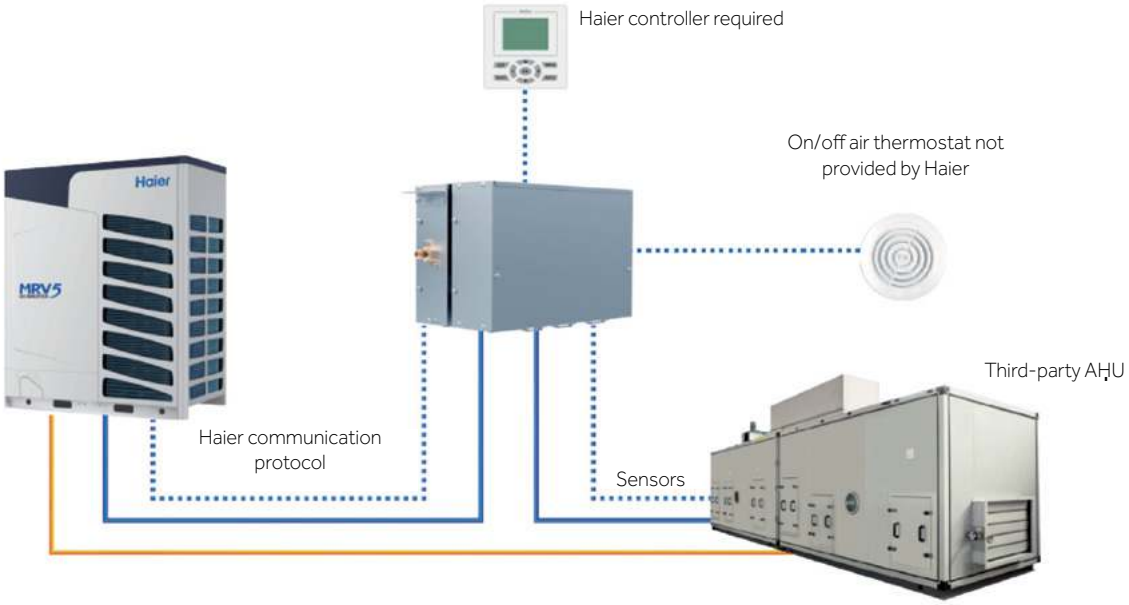


Liquid/Gas refrigerant pipes, only the liquid pipe enters the valve box and then continues to the direct expansion coil. The Gas pipe goes directly from the outdoor unit to the coil inside the AHU.

Note:
If the third-party DDC controller only generates the 0-10 V signal corresponding to the required temperature set point, the Haier wired controller is necessary to handle the following signals: Hot/cold operating mode, switching AHU on/off, alarms. If the DDC controller generates all the necessary signals, the Haier controller is not required.

Control method "C", special applications

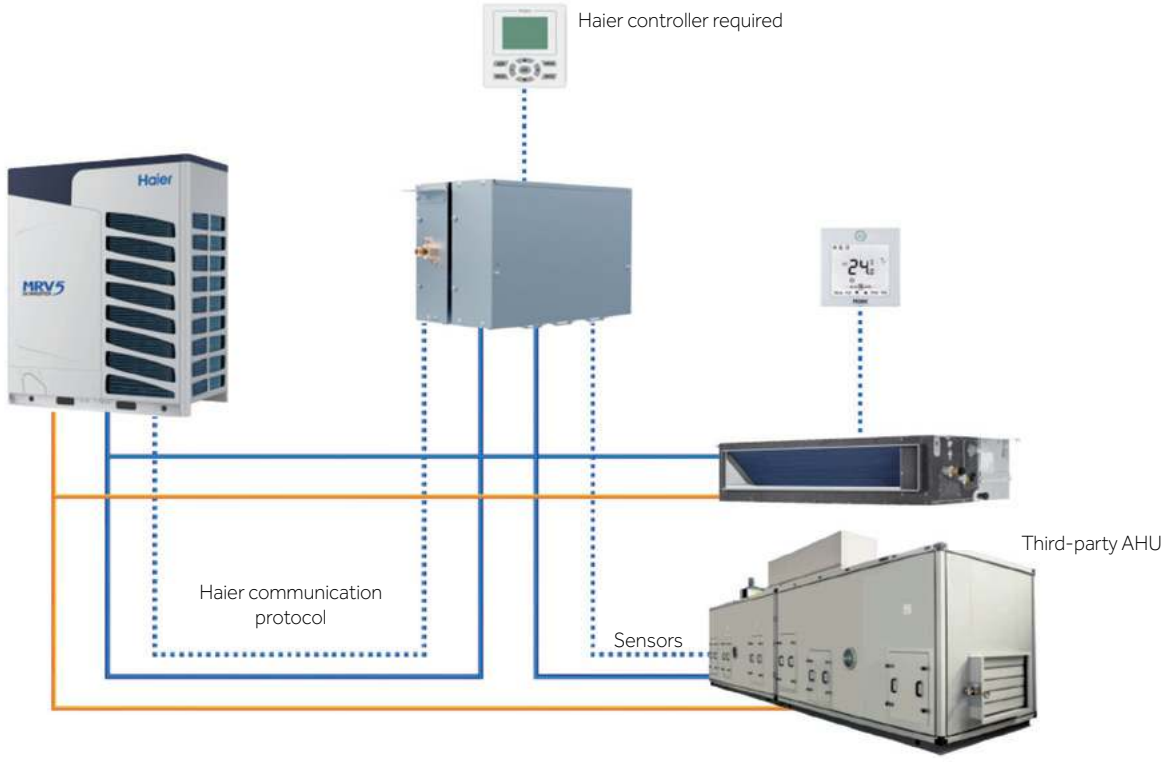
Configuring the system WITHOUT a third-party DDC. In this case, the Haier controller is necessary to make all the settings. This system requires the installation of an on/off thermostat that switches on or off the AHU when the temperature set point is reached. This "C" method is used to continuously heat or cool in an on/off manner, without modulation and therefore with less comfort in the environments.



Liquid/Gas refrigerant pipes, only the liquid pipe enters the valve box and then continues to the direct expansion coil. The Gas pipe goes directly from the outdoor unit to the coil inside the AHU.

Control method "D"

MRV and AHU mixed air conditioning system work in the same cooling circuit with MRV Haier and third-party AHU indoor unit. In this case Haier controller is required.



Liquid/Gas refrigerant pipes, only the liquid pipe enters the valve box and then continues to the direct expansion coil. The Gas pipe goes directly from the outdoor unit to the coil inside the AHU.

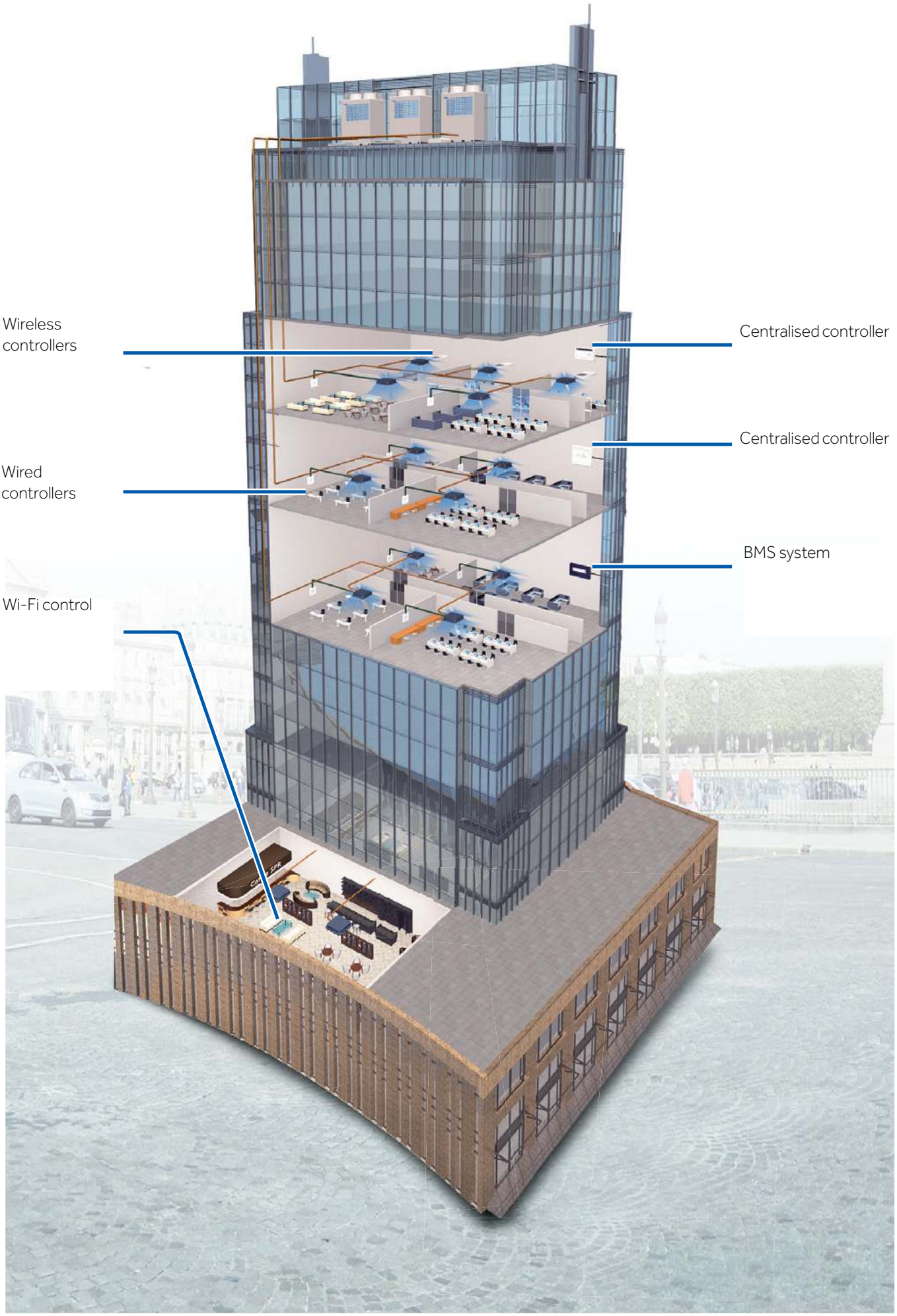
Control & Management Systems

SIMPLE AND INTUITIVE SOLUTIONS TO MANAGE PLANTS

A SINGLE INTEGRATED SYSTEM
Haier's communication protocol is unique to MRV systems and the residential and commercial products of the Supermatch line. This allows the same controls to be used for both small and large MRV plants.

MANAGEMENT AND SUPERVISION
Haier provides reliable and professional supervision systems for better management of preventive maintenance as well.

"SMART" CONTROLS
Systems that can be customised to meet your needs.



CENTRALISED CONTROL

The centralised controls provide a customised control of the entire system from a single point.
Manage individual units, groups, or zones and define different settings for each of them.

HC-SA164DBT

- Possibility to control via WEB/Internet by means of optional Wi-Fi module HI-WA164DBI
- Intelligent system for plants up to 64 indoor units
- 5" LCD TFT full touchscreen display backlit
- Built-in weekly timer
- Possibility of naming units and groups
- Displaying alarms
- Require HA-MA164AD converter (see diagrams on page 129)
- 32 independent cooling circuits, each with their own HA-MA164AD converter

- Ability to simultaneously control MRV units and line units Supermatch / Residential.
- MODBUS output as standard

HC-LA1CDBT

- 12.5-inch TFT LCD touch screen
- Max. 800 MRV indoor units and Max. 128 LCAC IDUs connectable for one controller (totally 928) IDUS connectable
- Floor plan layout view
- Web Access and Email Alarm
- Weekly Schedule and Special day setting
- Integrate 3rd party devices like fire alarm, lighting with Haier indoor units
- All MRV system requires the new gateway HA-MA1ADB(one system requires one gateway)
- LCAC products requires PCB adapter YCJ-A002(One IDU requires one YCJ-A002)

HA-MA1ADB

- Interface: Modbus
- Match with 12.5-inch webserver central controller HC-LA1CDBT
- Max. 128 indoor units connectable
- Digital tube display Indoor quantity, gateway address, time and date
- Electricity data collection, calculation, distribution and storage

YCZ-A004

- Smart system for medium size plants up to 256 indoor units
- Large 7" LCD TFT full touchscreen display
- Built-in weekly timer
- Possibility of naming units and groups
- Displaying alarms
- Require HA-MA164AD converter (see diagrams on page 129)
- 32 independent cooling circuits, each with their own HA-MA164AD converter

- **You cannot control MRV units and Supermatch/Residential line units at the same time.**

- MODBUS output as standard

HA-MA164AD

- Haier protocol converter to RS-485
- To be connected to centralised systems (not required for series 5 outdoor units)
- Each cooling circuit needs 1 converter (see diagrams from page 129)
- 1 converter can handle max 64 internal units on single cooling circuit

- This accessory, if NOT connected to a centralised controller as a dedicated converter, can be used individually to transform the communication protocol "Homebus Haier" into "MODBUS". (For this feature, configure the selectors in the desired mode)

HI-WA164DBI WI-FI MODULE

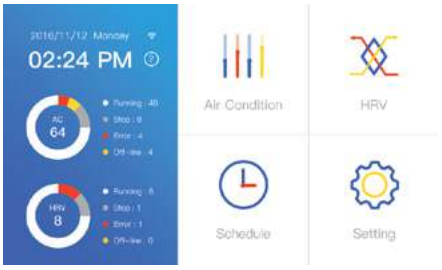
Features:
This module, connected to an Internet access with Wi-Fi, allows remote control via dedicated APP on tablets and smartphones (no PC).
Each Wi-Fi module can control up to 64 indoor units.
Through the APP, the same functionality as the centraliser, connected to the MRV system, is replicated and managed.

Specifications:

- Compact 86x86x10 mm
- Control functions, on/off, temperature setting, timer settings, weekly, fan speed.
- Alarm monitoring function, errors, error history.
- User account management, including account registration, password change and account information modification via APP.
- Convenient sharing of the management authority. The primary account can share the management of the primary account with the secondary accounts, without re-registering the units.
- Each individual APP can handle up to 256 indoor units.
  Example: 4 Wi-Fi modules with 64 Interior each, or 7 Wi-Fi modules with 36 interiors each
- If a HC-SA164DBT centralised controller is used directly, the Wi-Fi module can be connected directly to the centraliser on a dedicated terminal.
- The Wi-Fi module can be connected directly to the MRV series 5 outdoor units, or to the HA-MA164AD converter if the outdoor units are NOT series 5.

With this configuration it is possible to control the MRV system even without local centralised controllers, using only the APP installed on tablet or smartphone, by ensuring stable and fast Wi-Fi coverage to the module.

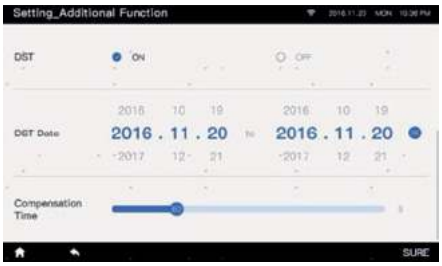
HC-SA164DBT

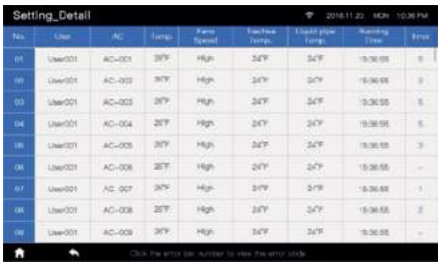


- Control of up to 64 indoor units
- Control of the operating mode, temperature, ventilation, deflectors
- Error control and alarm memory

- Daily and weekly programming for single unit
- Free and independent programming

HC-LA1CDBT





- Monitoring the status of each individual unit

HA-MA1ADB

- Individual - group- total visualisation

- Password setting at different levels of operation

YCZ-A004

Monitoring and control

- Control of up to 256 indoor units
- Control of the operating mode, temperature, ventilation, deflectors
- Icons displayed similar to those on remote commands

Power-saving function

- User function locking mode
- Defining lower and upper limits for desired temperature selection

Zone management

- Defining zones as per user requests

Timer programmer

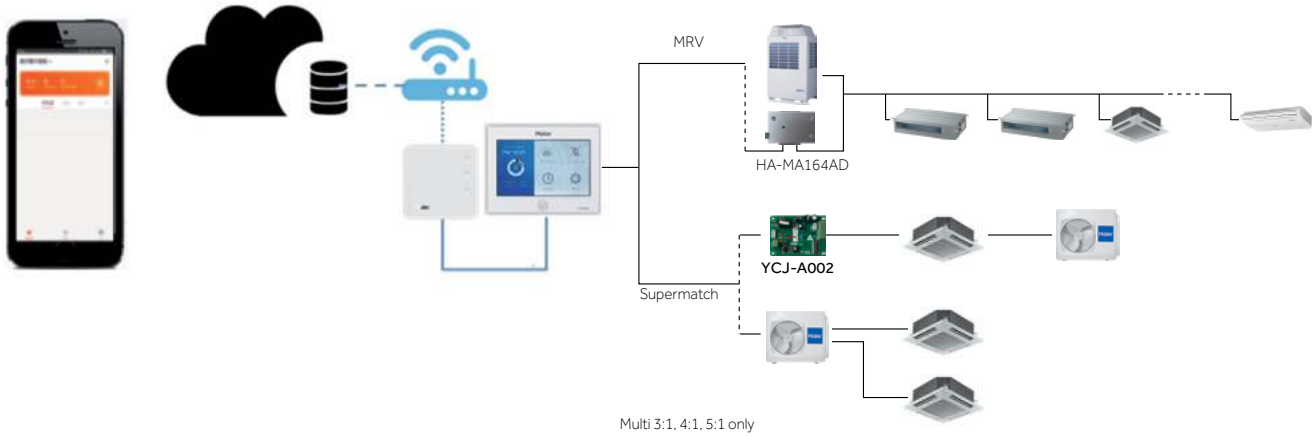
- Daily and weekly programming for single unit
- Free and independent programming

HI-WA164DBI WI-FI MODULE FOR CENTRALISED CONTROLLER HC-SA164DBT

HC-SA164DBT

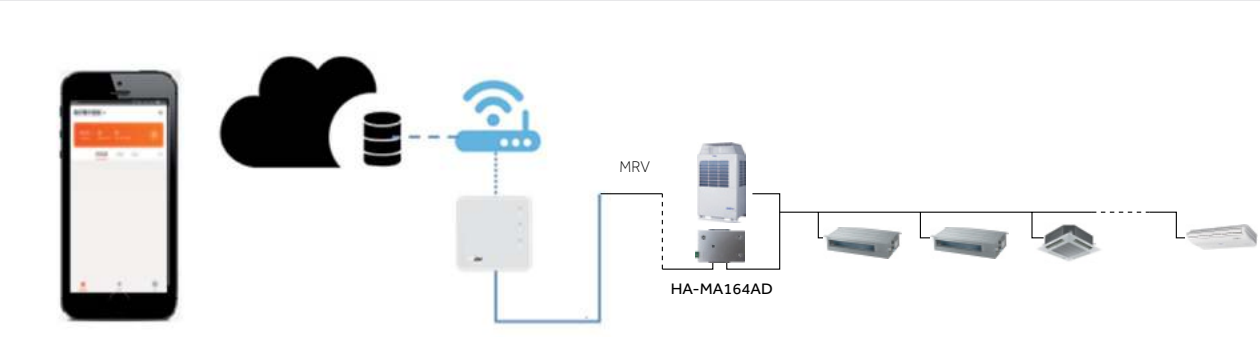
WI-FI MODULE
HI-WA164DBI

Configuration with centraliser



Configuration without centraliser

The Wi-Fi module can be connected directly to the MRV series 5 outdoor units, or to the HA-MA164AD converter connected to other non-series 5 MRV outdoor units.
With this system you can control the MRV system even without a centraliser installed, but through the APP alone by ensuring adequate Wi-Fi coverage to the module.

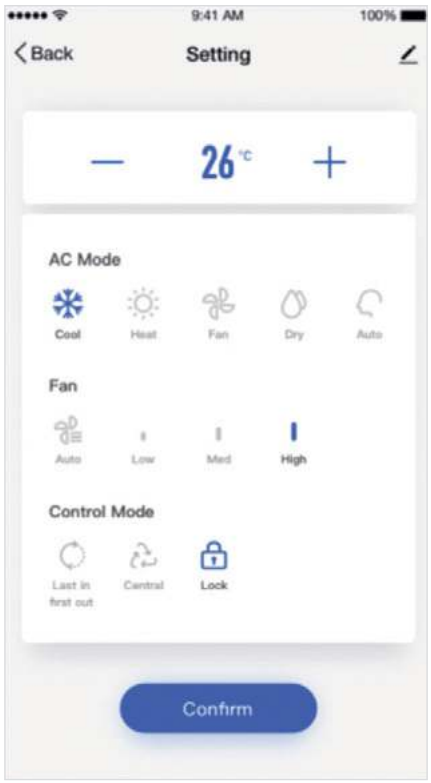


WI-FI FEATURES

This module, connected to an Internet access with Wi-Fi, allows remote control via dedicated APP on tablets and smartphones (no PC).
Each Wi-Fi module can control up to a maximum of 64 indoor units, which is the limit of the centraliser. Through the APP, the same functionality as the centraliser, connected to the MRV system, is replicated and managed.

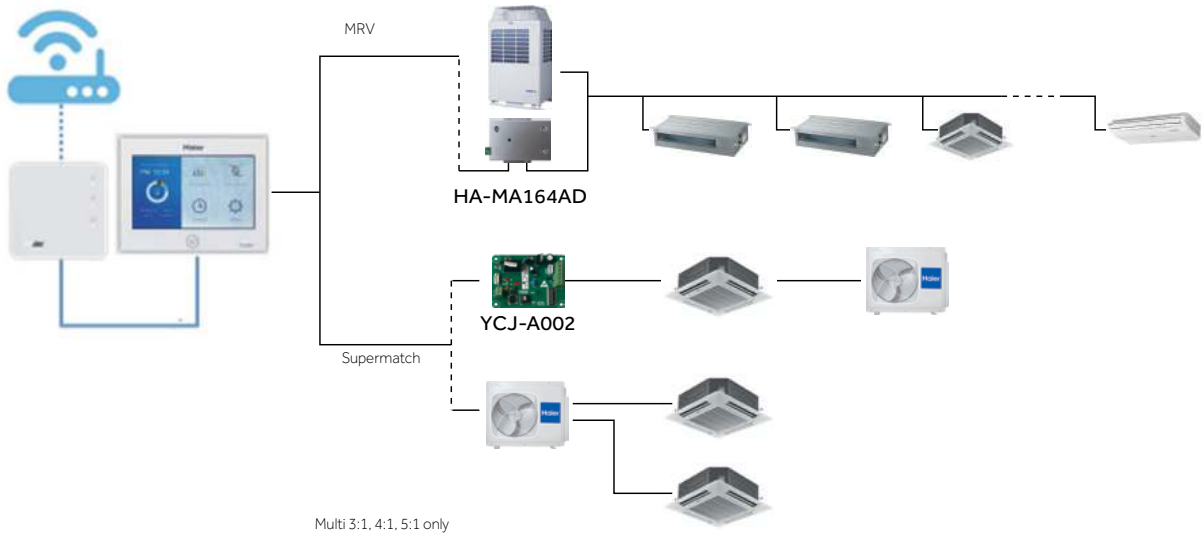
SPECIFICATIONS:

- Compact 86x86x10 mm
- It is connected to the centraliser through the cable supplied, from which it is powered.
- It can be connected up to 100 meters from the centraliser, so as to reach an area covered by Wi-Fi
- Control functions, on/off, temperature setting, timer settings, weekly, fan speed.
- Alarm monitoring function, errors, error history.
- User account management, including account registration, password change and account information modification via APP.
- Convenient sharing of the management authority. The primary account can share the management of the primary account with the secondary accounts, without re-registering the units.
- Each individual APP can handle up to 256 indoor units.
  Example: 4 Wi-Fi modules with 64 Interior each, or 7 Wi-Fi modules with 36 interiors each
- The Wi-Fi module can be connected directly to the MRV series 5 outdoor units, or to the HA-MA164AD converter if the outdoor units are NOT series 5.
  With this system you can control the MRV system even without a centraliser installed, but through the APP alone by ensuring adequate Wi-Fi coverage to the module.
- The APP is available for Android and iOS.

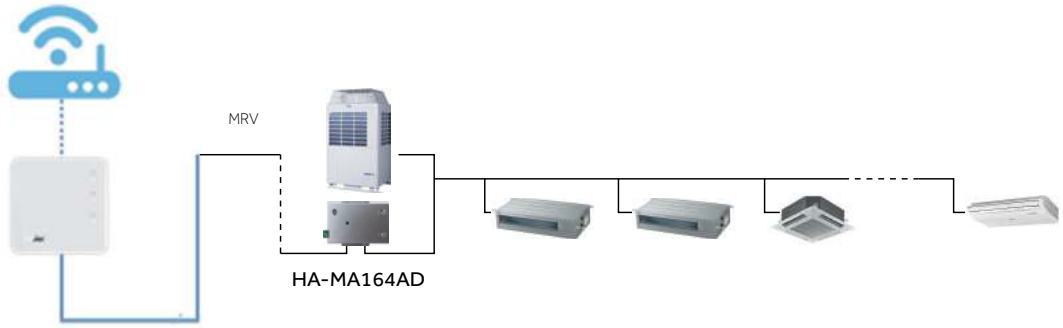


EXAMPLES OF CONNECTION FOR THE "HI-WA164DBI" WI-FI MODULE ACCORDING TO THE TYPE OF SYSTEM AND THE EXPECTED PRODUCTS

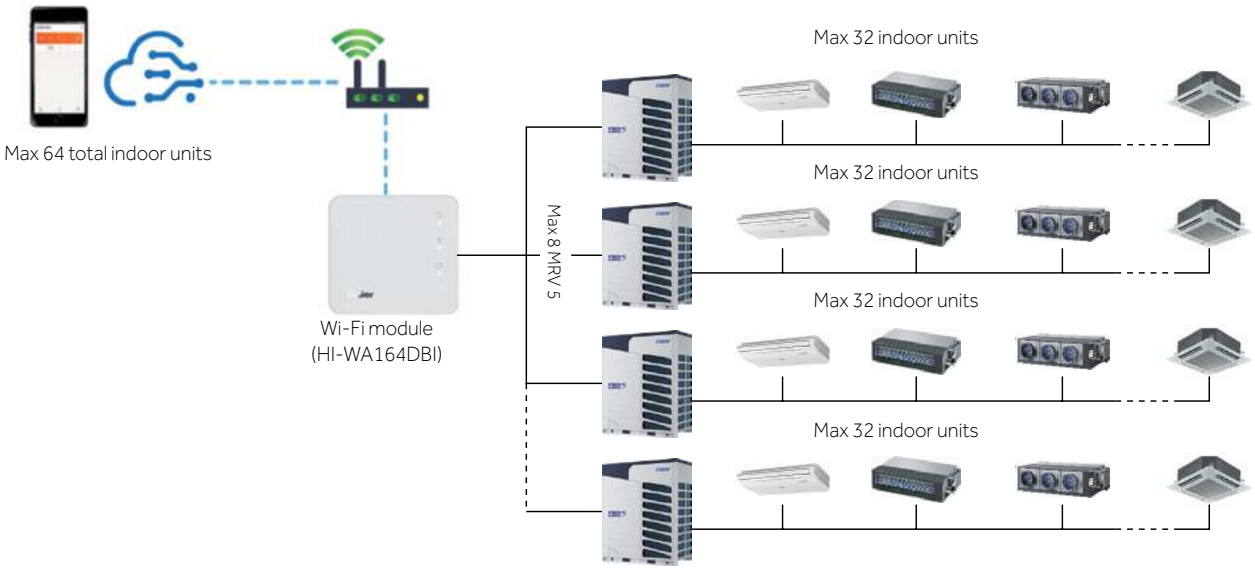
Directly to the HC-SA164DBT centralised controller if provided.
The module can only be connected directly to this centralised controller.



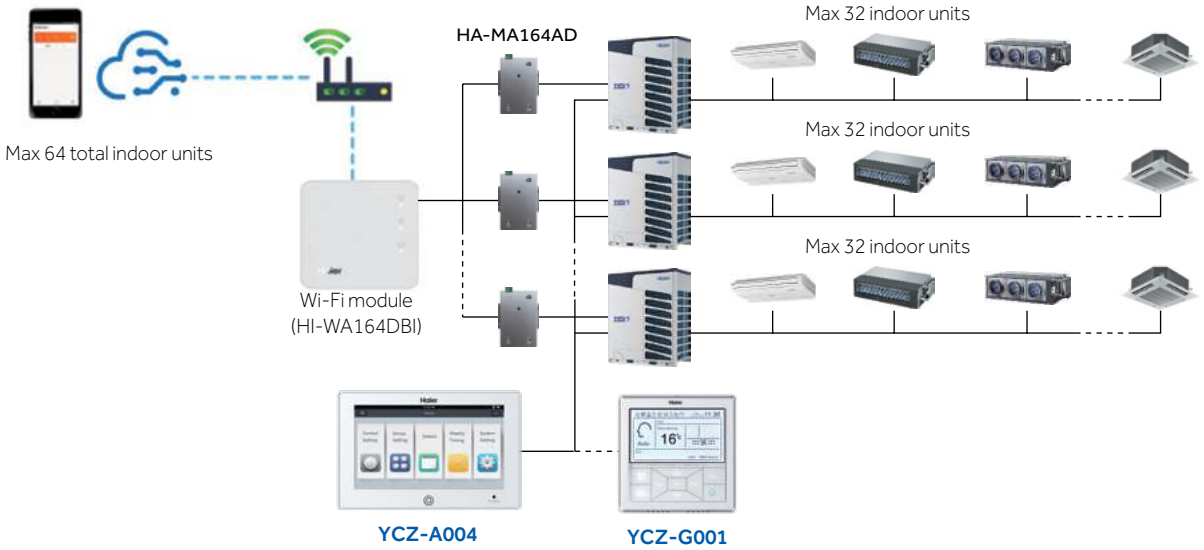
Directly to the plant; therefore, system management only via WEB / Wi-Fi



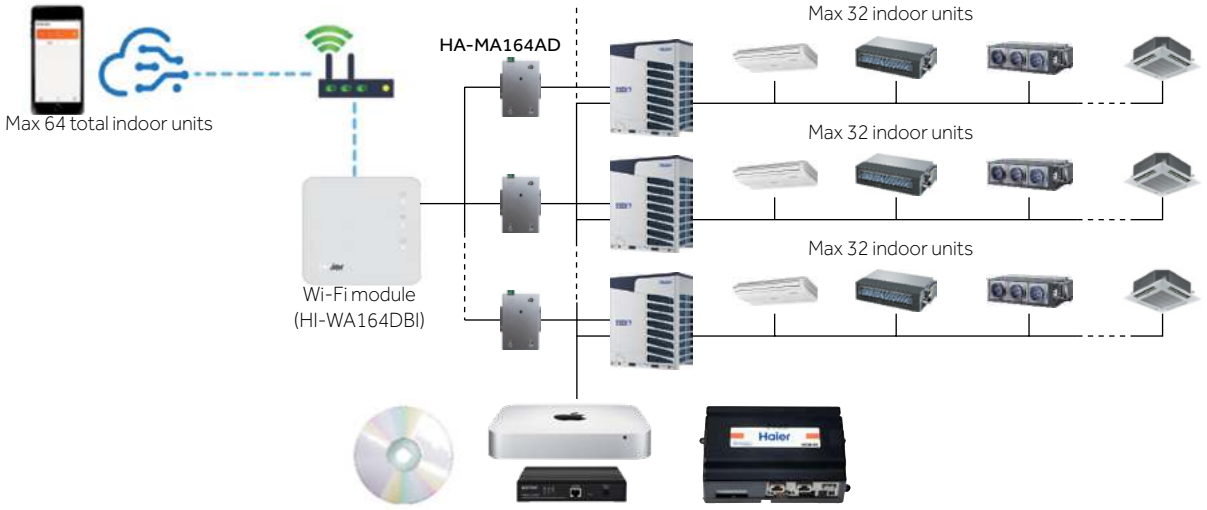
Directly to the plant; therefore, system management only via WEB / Wi-Fi
If the outdoor units are series 5, the HA-MA adapter is not required



If a centralised controller OTHER THAN the HC-SA164DBT model is required locally, it is necessary to add 1 HA-MA interface for each external unit

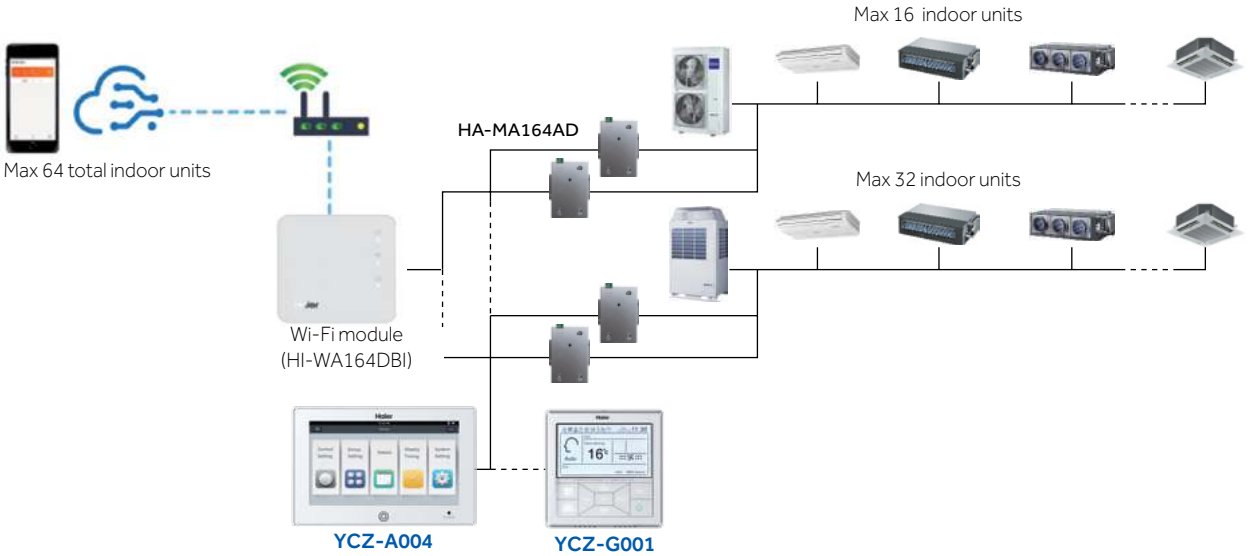


Coupled to a BMS-web or local system, always with the addition of HA-MA adapters

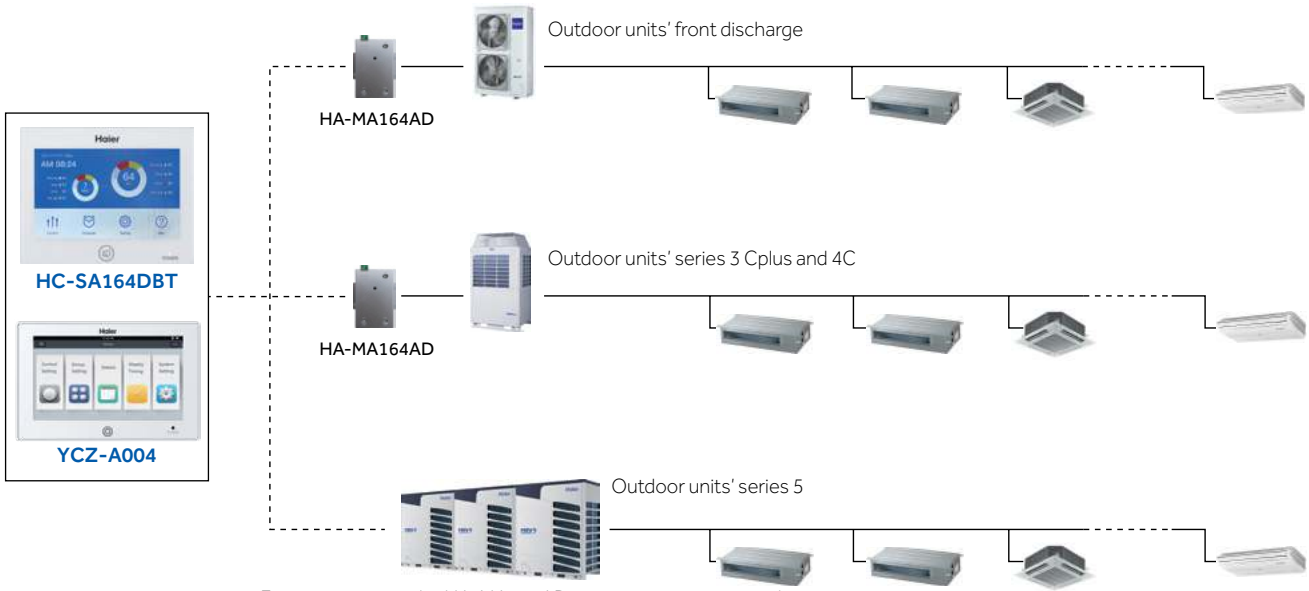


HCM-01A / HCM-03A / HCM-05 / HCM-05A

If a centralised controller is required locally and the external units are NOT 5 series, but 3C plus or S-series (front discharge), it is necessary to add 2 HA-MA interface for each outdoor unit, 1 for Wi-Fi and 1 for the centraliser

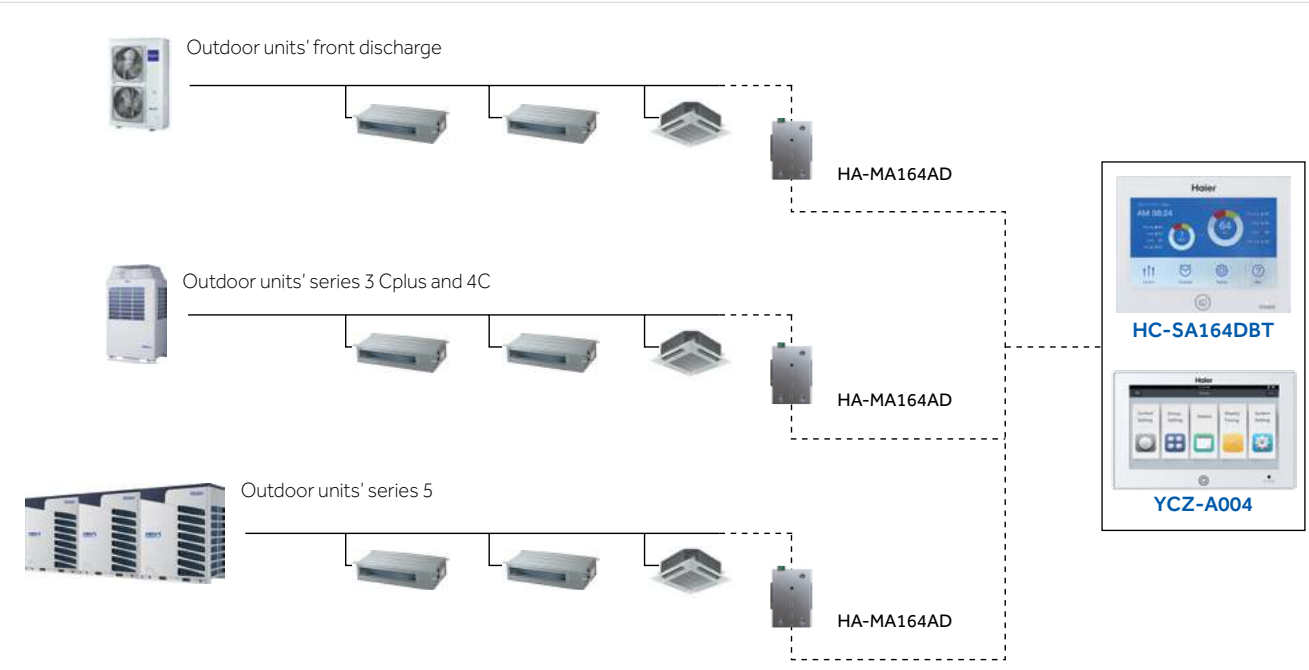


CONNECTION OF CENTRALISED CONTROLLERS DIRECTLY TO OUTDOOR UNITS

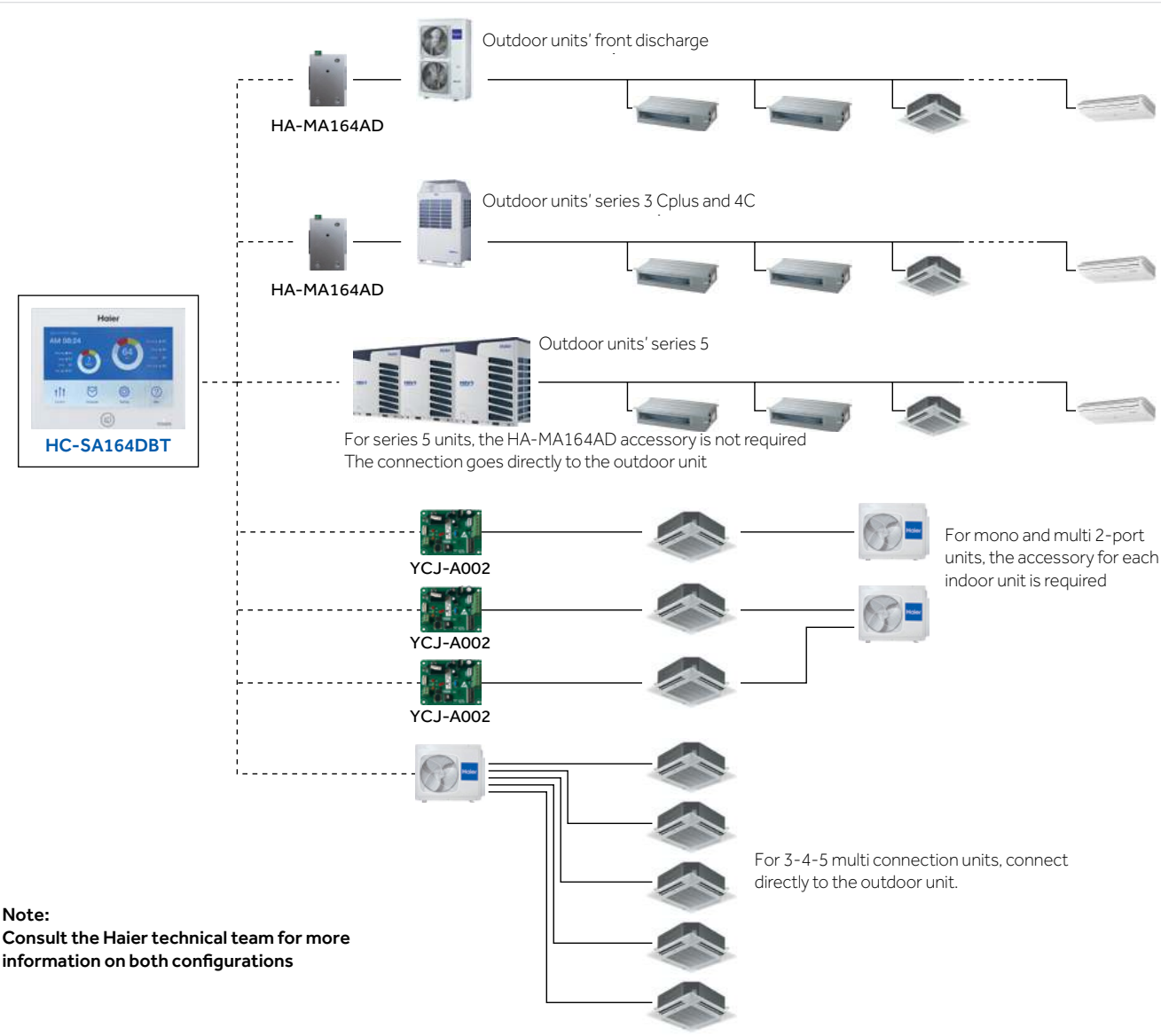


For series 5 units, the HA-MA164AD accessory is not required
The connection goes directly to the outdoor unit

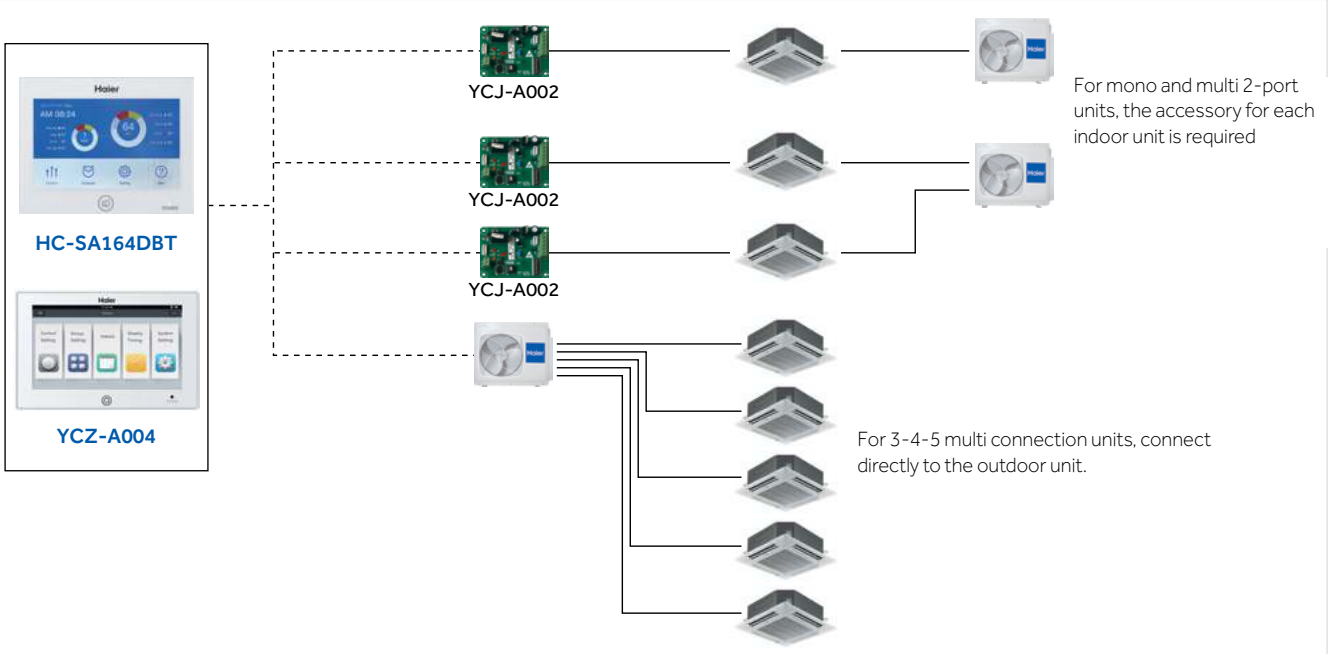
CONNECTION OF CENTRALISED CONTROLLERS IN AN INTERNAL POINT OF THE PLANT
In this configuration, the 5 series units also require the HA-MA164AD accessory



CONNECTION OF CENTRALISED CONTROLLERS IN MIXED MRV AND SUPERMATCH SYSTEMS
Only for HC-SA164DBT



CONNECTION OF CENTRALISED CONTROLLERS TO SYSTEMS COMPOSED ONLY OF SUPERMATCH UNITS



Remote controllers

Haier offers different types of remote controllers to choose from based on your functional and design requirements.

YR-HWB01

- On/off, temperature mode, deflectors
- Independent control
- 5 selectable ventilation speeds
- Independent control of deflectors [[only for cassette AB-MRERA-MCERA(M)]
- Daily clock and timer

YR-HD01

- On/off, temperature mode, deflectors
- Independent control
- Timer function on-off-on/off-off/on hour counter (no clock)

RE-02

- Universal receiver for wireless remote controllers
- Required for all units installed in the concealed position, without aesthetic panel.
- Only the 2-way cassette requires the receiver even if equipped with an aesthetic panel.

HW-BA116ABK

- On/off, temperature mode, deflectors
- Limited features ideal for hotels
- Filter cleaning interval indication
- Error control
- NOT equipped with a clock or timer
- On-board receiver for wireless infrared remote controllers, to create a double control mode (see diagram on page 135)
- Standard ambient temperature sensor. Select the ambient temperature control on the controller if you want a more accurate reading at standing height or in particular installation conditions.
- Possibility of group management with a single controller, (max 16 indoor units on a single controller), the functions and operating modes of all the indoor units connected to that controller will be identical to each other. Independent management is not possible. Each command will be replicated on all indoor units connected to that controller in the same way. (see diagrams on page 135)

YR-E17A

- On/off, temperature mode, deflectors
- Smart and compact design with only 86x86x13 mm.
- Touch keys with large backlit display
- Independent control of deflectors [only for cassette AB-MRERA-MCERA(M)]
- Daily clock and timer
- Simple installation and intuitive operation
- Error display
- PA static pressure management of indoor unit fans (on models where possible)
- Standard ambient temperature sensor. Select the ambient temperature control on the controller if you want a more accurate reading at standing height or in particular installation conditions.
- Possibility of group management with a single controller, (max 16 indoor units on a single controller), the functions and operating modes of all the indoor units connected to that controller will be identical to each other. Independent management is not possible. Each command will be replicated on all indoor units connected to that controller in the same way. (see diagrams on page 135)

HW-BA101ABT

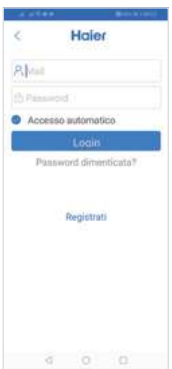
- Modern, high-intensity LED design
- Full touch black display. Automatic lighting when the keys are pressed. Black screen at rest position.
- NOT equipped with a clock or timer
- Double temperature and fan speed setting mode; a continuous infinite range or by acting on the classic + and -
- Quiet operation
- Operating mode, deflectors in on / off mode
- Possibility of group control of up to 16 indoor units with the same operating mode
- Limited features ideal for hotels
- Filter cleaning interval indication
- Error control
- Function block from centraliser
- On-board receiver for wireless infrared remote controllers, to create a double control mode (see diagram on page 135)
- Standard ambient temperature sensor. Select the ambient temperature control on the controller if you want a more accurate reading at standing height or in particular installation conditions.
- Possibility of group management with a single controller, (max 16 indoor units on a single controller), the functions and operating modes of all the indoor units connected to that controller will be identical to each other. Independent management is not possible. Each command will be replicated on all indoor units connected to that controller in the same way.
(see diagrams on page 135)

YR-E16B

- On/off, temperature mode, deflectors
- Large backlit touch screen display
- Independent control of deflectors [only cassette AB-MRERA-MCERA(M)]
- Weekly clock and timer
- Alarm history
- Fan static pressure management function
- Selection between Celsius and Fahrenheit, (+/- 0,5 °C - +/- 1 °F)
- Standard ambient temperature sensor. Select the ambient temperature control on the controller if you want a more accurate reading at standing height or in particular installation conditions.
- Possibility of group management with a single controller, (max 16 indoor units on a single controller), the functions and operating modes of all the indoor units connected to that controller will be identical to each other. Independent management is not possible. Each command will be replicated on all indoor units connected to that controller in the same way. (see diagrams on page 135)

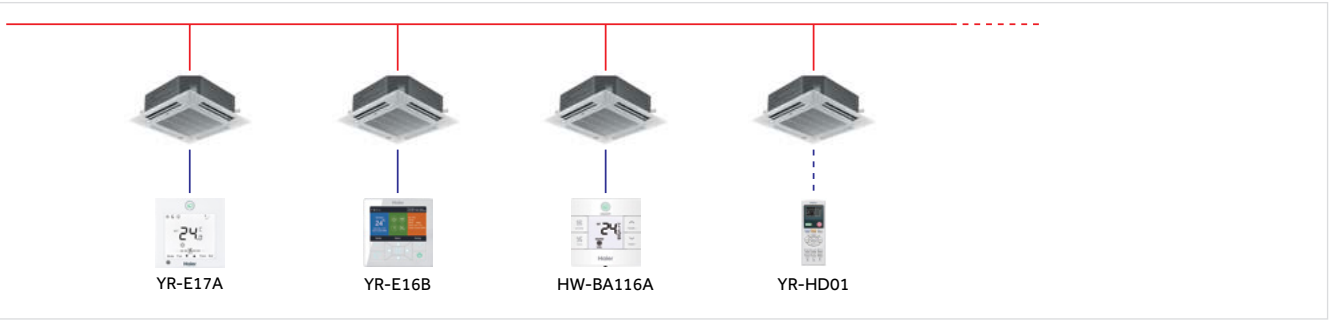
KZW-W001 Wi-Fi module for individual units

- Ideal for small plants with stable Wi-Fi coverage that reaches all indoor units. The end user and/or user of the system must ensure their own Wi-Fi coverage that has access to the internet.
- The module must be installed and connected to the electronic board of the MRV series indoor units that you want to control with Wi-Fi.
- The user will have to download the APP "Haier Smart Air" for android, create a profile and then register each individual indoor unit following the step-by-step instructions that the APP shows on the screen.
- Control: on/off, mode, temperature, deflectors, fan speed, weekly timer, function check, generic alarm signalling.
- By carrying out a group management with the wired controllers, (max 16 indoor units on a single controller), only one Wi-Fi module will have to be installed on the Master unit which will be the one where the wired controller will be connected. In a group management with a single wired controller, the functions and operating modes of all the internal units connected to that controller will be identical to each other. Independent management is not possible. As for the wired controller, also by acting through the web with the APP, each command will be replicated on all the indoor units connected to that Wi-Fi controller / module in the same way. (see diagrams on page 135)

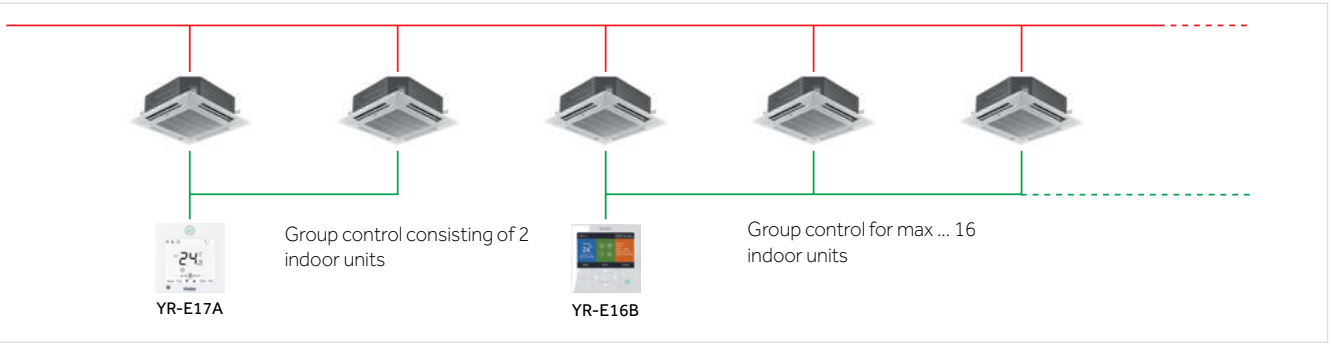


EXAMPLES OF CONNECTION OF REMOTE CONTROLLERS AND WI-FI MODULES

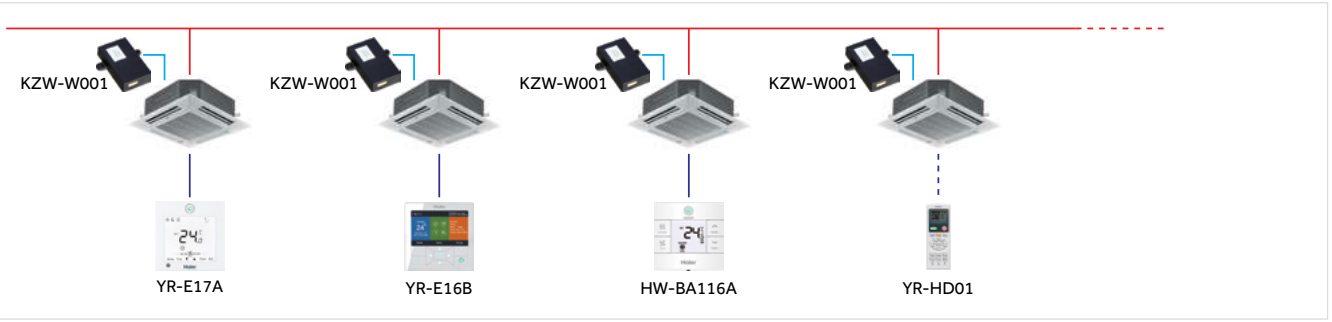
Example of single controller connection for independent operation of each indoor unit



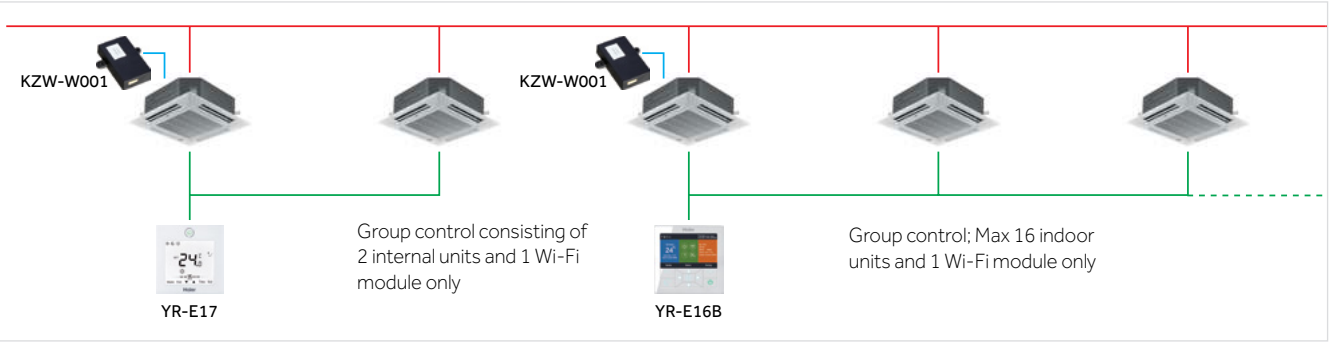
Example of group controller (only for wired controllers - max 16 indoor units on a single controller)
In a group management with a single wired controller, the functions and operating modes of all the internal units connected to that controller will be identical to each other. Independent management is not possible. Each command given will be replicated on all the indoor units in the same way.



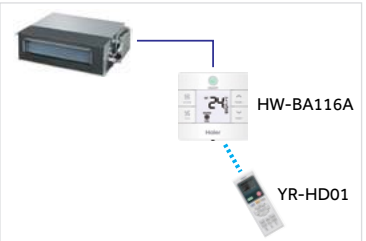
Example of a Wi-Fi module connection, for independent operation of each indoor unit



Example of group management through Wi-Fi module
Connect only one Wi-Fi module on the same Master unit, where the group wired controller is connected. Each command given through the APP, as for a group wire controller, will be replicated in the same way on all the indoor units connected to that wi-fi controller / module.



Infrared receiver on controller.
Wired controller models: HW-BA101ABT, HW-BA116ABK and YR-E17A are equipped with receiver for wireless remote controllers.
This function allows you to control an indoor unit with the wired controller and with a remote control simultaneously. (example: wired controller on the wall and remote controller on the desk or on the bedside.)

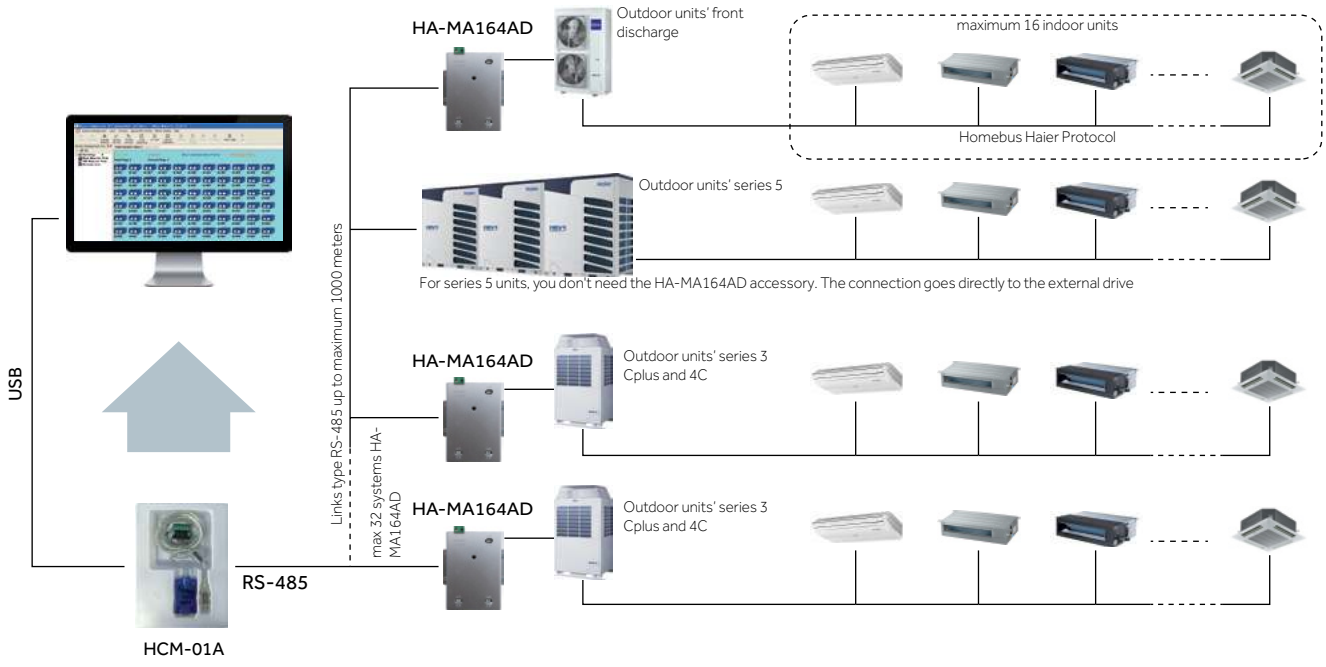


INTEGRATED MANAGEMENT SYSTEM FOR MEDIUM AND LARGE BMS PLANTS

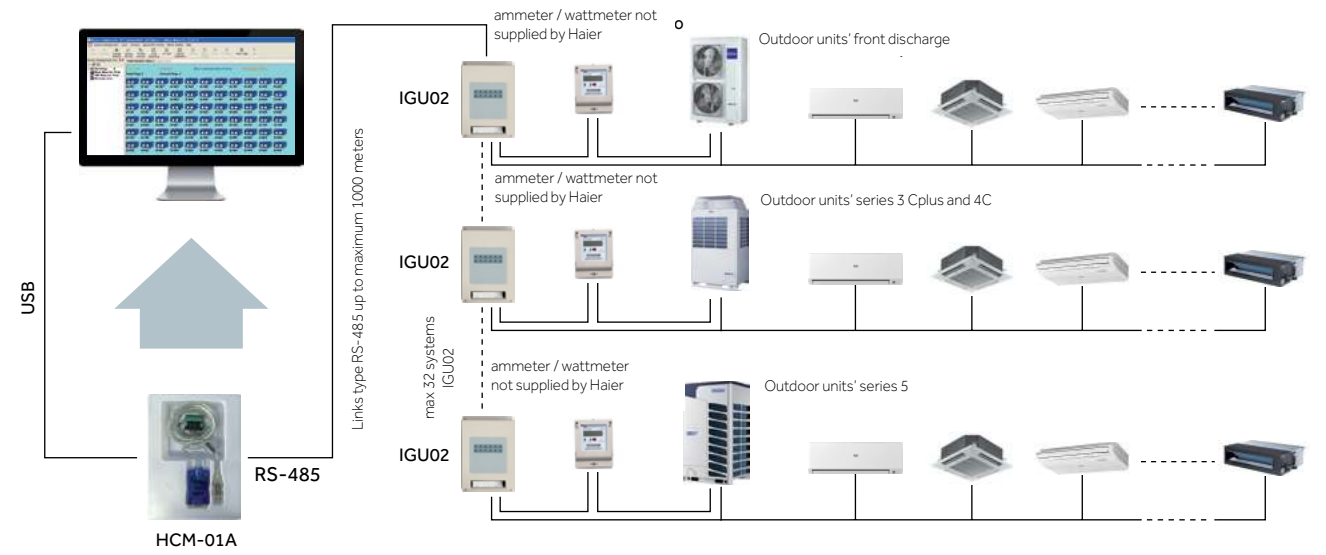
HCM-01A local management system for medium-sized plants

- MRV plant supervision and management system for local use on PC.
- RS-485 protocol converter in RS-232 via USB adapter for local use on PC.
- Control max 400 units and/or maximum 32 independent cooling circuits
- Each cooling circuit requires HA-MA164AD adapter (except for outdoor unit series 5)
- Management of all system parameters by zones / groups / individual units, weekly and monthly timers, error management and alarm history.
- Clear and intuitive visualisation software
- **DOES NOT allow management via web/Internet**
- The software works on Windows platform (7 32/64 bits- 8 Pro -10 Pro)
- The software has a license for use on a single PC. If you plan to use on two or more PCs, you need to purchase 2 or more licenses
- Possibility of accounting for electricity consumption. Providing IGU-02 adapters instead of HA-MA164AD. One IGU-02 for each cooling circuit, also for series 5 outdoor units. For each cooling circuit / IGU-02, a "Wattmeter / pulse generator" must be provided which detects the energy absorption of the outdoor units and proportionally generates counting pulses that the IGU-02 adapter receives and transforms into values to be managed and visualised by the software.
  (the pulse generator wattmeter / ammeter is not supplied by Haier, as it must be selected and sized according to the power of the plants).

Indicative diagram for local management with HCM-01A



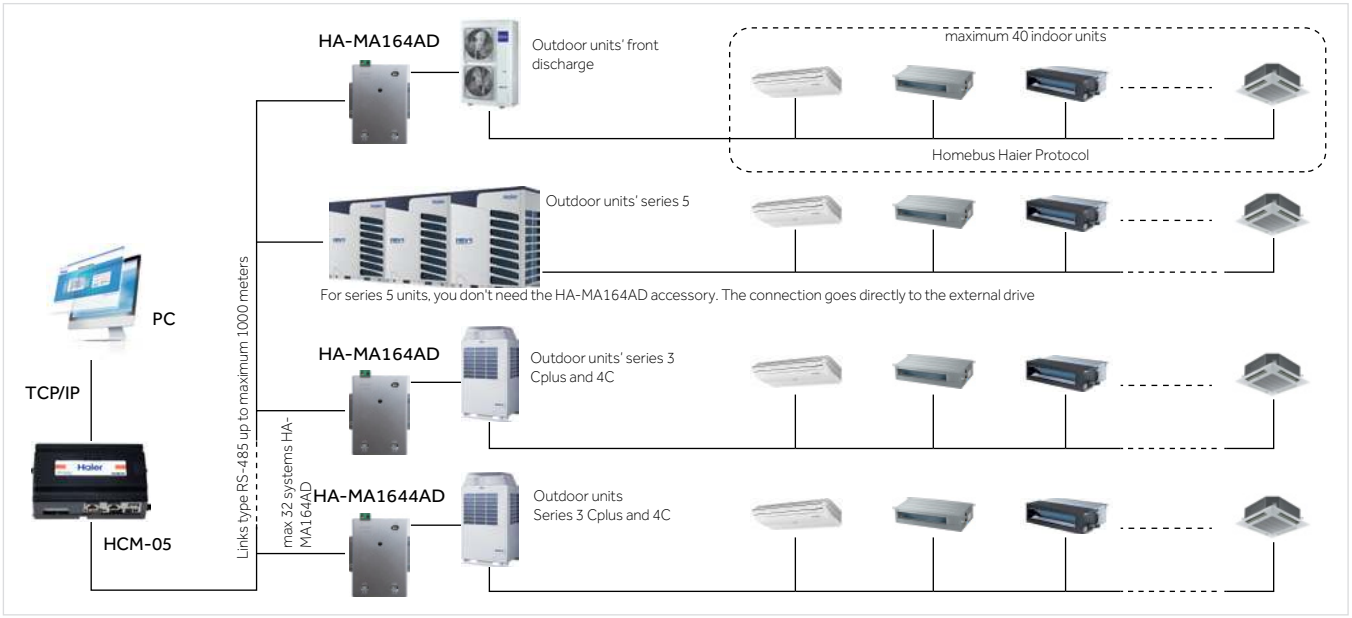
Indicative diagram for local management with HCM-01A and consumption accounting



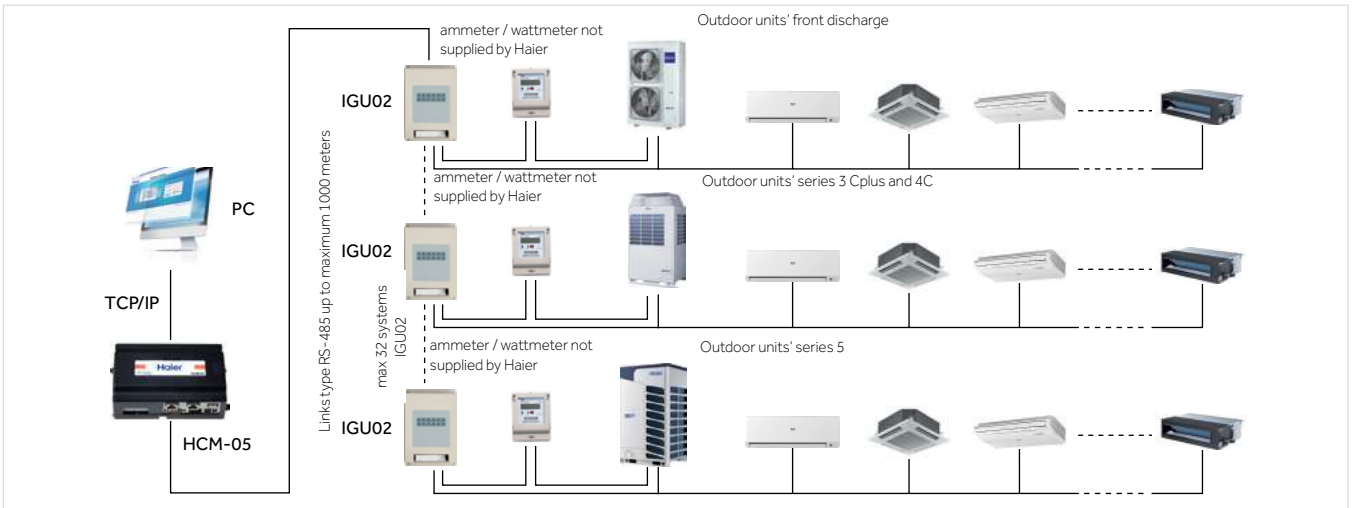
HCM-05 / HCM-05A medium plant management system with WEB / Internet control function
Integrated system for plants up to 250 internal units and up to 500 for the 05A model

- Local control over the network from PC or remotely via web/internet.
- Each HCM-05 adapter is equipped with a web browser integrated with a specific IP address. Requires a connection to a network with internet access, via ethernet cable. Once configured, anywhere in the world simply enter the IP address supplied with the HCM-05 in the web search engine **Google Chrome** to access the system to be controlled. Access to specific system management is protected by multi-level passwords.
- Possibility of communication with systems, not supplied by Haier, through the BACnet - IP protocol.
- Max 250 indoor units that can be controlled with the HCM-05 model and a maximum 500 indoor units that can be controlled with the HCM-05A model.
- Up to a maximum of 32 independent cooling circuits can be controlled. Each cooling circuit requires HA-MA164AD adapter (except for outdoor unit series 5)
- Management of all system parameters by zones / groups / individual units, weekly and monthly timers, error management and alarm history. Clear and intuitive visualisation software
- Possibility of accounting for electricity consumption. Providing IGU-02 adapters instead of HA-MA164AD. One IGU-02 for each cooling circuit, also for series 5 outdoor units. For each cooling circuit / IGU-02, a "Wattmeter / pulse generator" must be provided which detects the energy absorption of the outdoor units and proportionally generates counting pulses that the IGU-02 adapter receives and transforms into values to be managed and visualised by the software.
(the pulse generator wattmeter / ammeter is not supplied by Haier, as it must be selected and sized according to the power of the plants).

Illustrative diagram for management via WEB with HCM-05

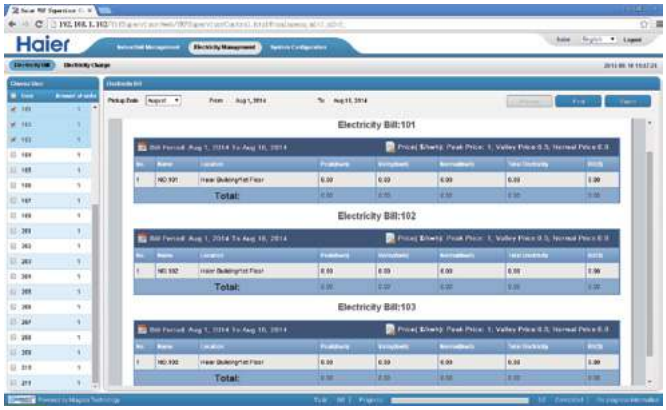


Illustrative diagram for management via WEB with HCM-05 with consumption accounting



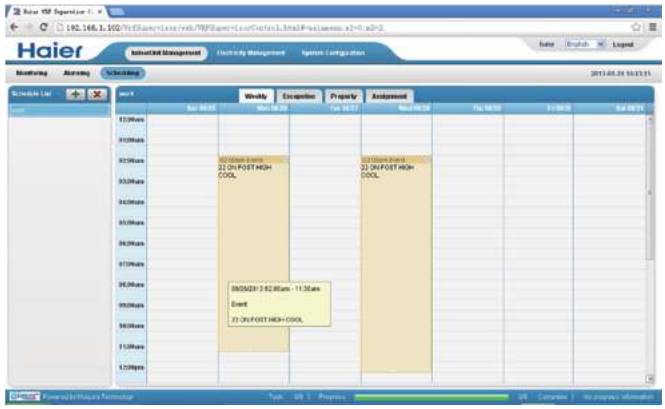
Monitoring

Independent control of up to 500 indoor units
- Mode, temperature, ventilation, deflectors
- Blocking of user functions
- Controlling of blocking levels
- An icon with all the information for each individual unit



Energy consumption report for each unit

- Data store
- Possibility of defining different costs by usage ranges
- Preview and print the results
- Comparison of operating costs over time

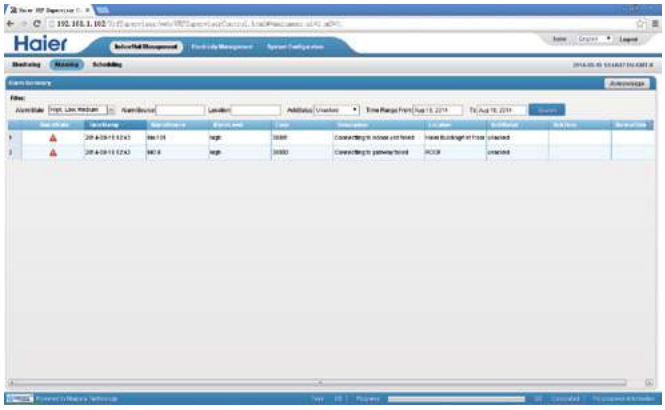


Programming

- Weekly and monthly schedule graph
- Free configuration
- Defining sample programmes

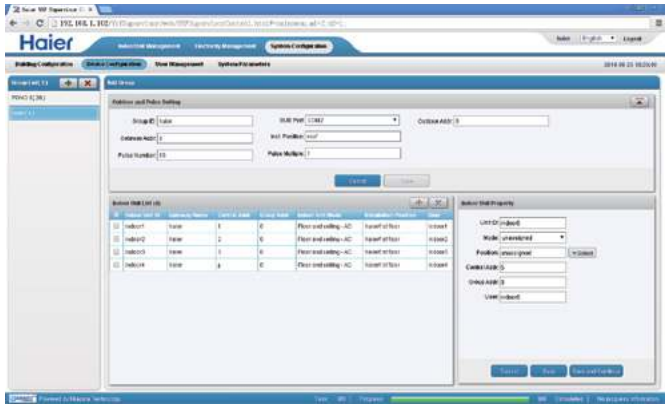
Zone control

- Creation of zones for management that can be customised according to the requests



Alarm management

- History of alarm messages
- Detail of every single alarm



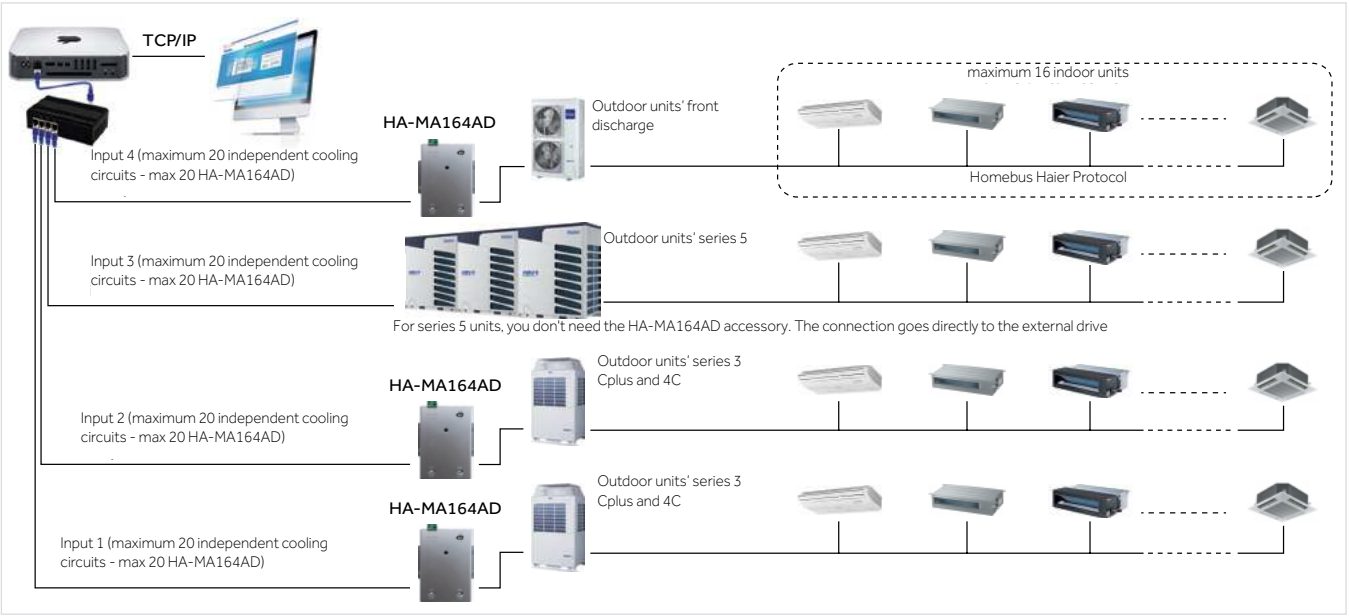
System configuration

- Building-based configuration
- Equipment configuration
- Management of access levels
- Management of parameters

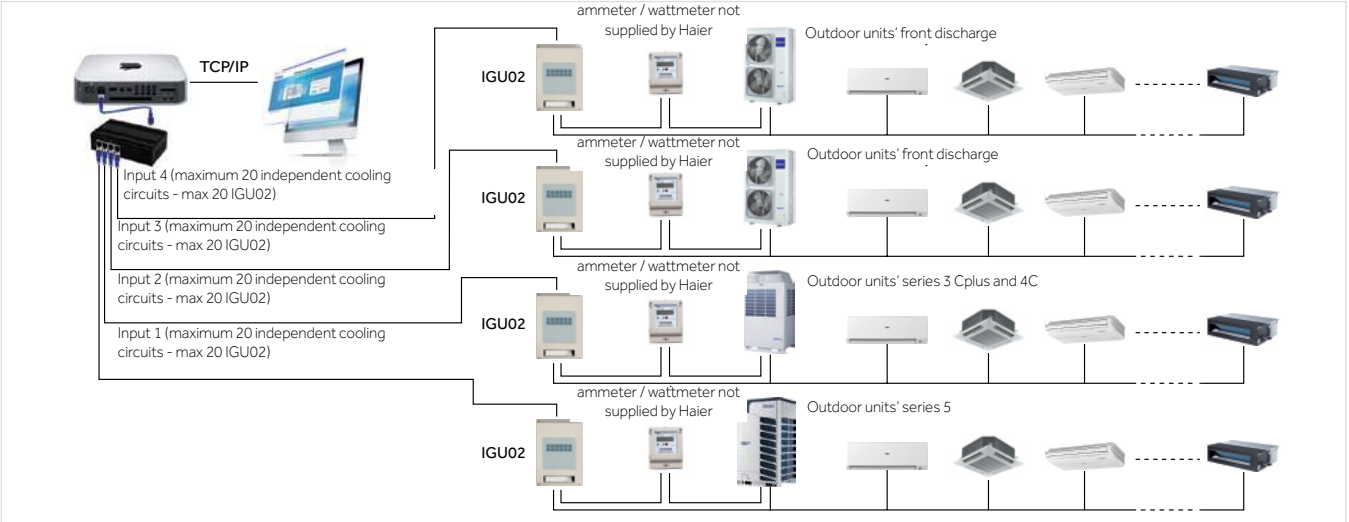
HCM-03A large plant management system with WEB/Internet control function
Integrated system for plants up to 1500 indoor units

- Local control over the network from PC or remotely via web/internet.
- Each HCM-03A adapter is equipped with a web browser integrated with a specific IP address. Requires a connection to a network with internet access, via ethernet cable. Once configured, anywhere in the world simply enter the IP address supplied with the HCM-03 in the web search engines **Google Chrome or Firefox** to access the system to be controlled. Access to specific system management is protected by multi-level passwords.
- Possibility of communication with systems, not supplied by Haier, through the BACnet - IP, Modbus protocol.
- Max 1500 controllable indoor units.
- Up to 20 independent cooling circuits can be connected to one of the four available ports, in order to obtain a system that provides a maximum of 80 circuits. Each cooling circuit requires HA-MA164AD adapter (except for outdoor unit series 5)
- Management of all system parameters by zones / groups / individual units, weekly and monthly timers, error management and alarm history. Clear and intuitive visualisation software
- Possibility of accounting for electricity consumption. Providing IGU-02 adapters instead of HA-MA164AD. One IGU-02 for each cooling circuit, also for series 5 outdoor units. For each cooling circuit / IGU-02, a "Wattmeter / pulse generator" must be provided which detects the energy absorption of the outdoor units and proportionally generates counting pulses that the IGU-02 adapter receives and transforms into values to be managed and visualised by the software.
  (the pulse generator wattmeter / ammeter is not supplied by Haier, as it must be selected and sized according to the power of the plants).
- Possibility to insert the building layout as a file in the HCM-03A system to create specific command buttons within the reference rooms via the loaded floor plan.
- Technology developed in collaboration with **MAC mini**.

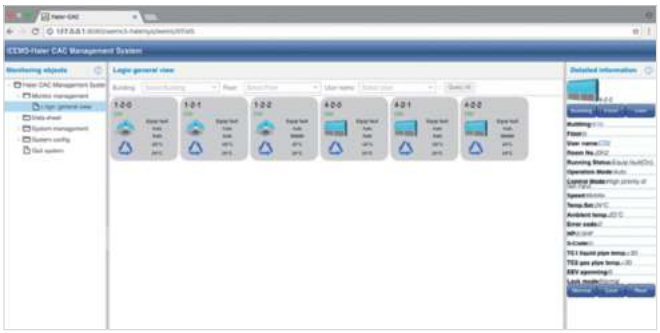
Illustrative diagram for management via WEB with HCM-03A.

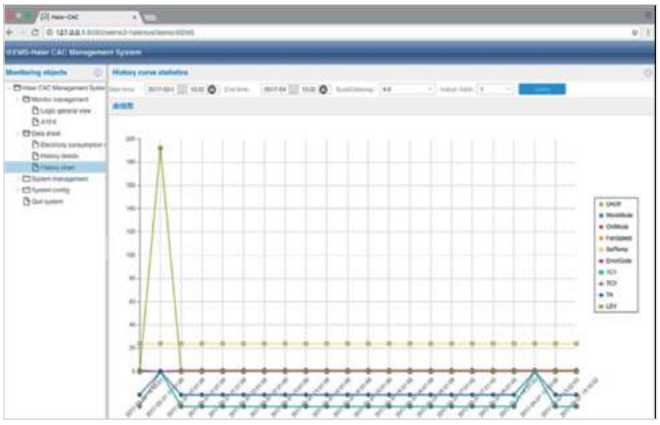


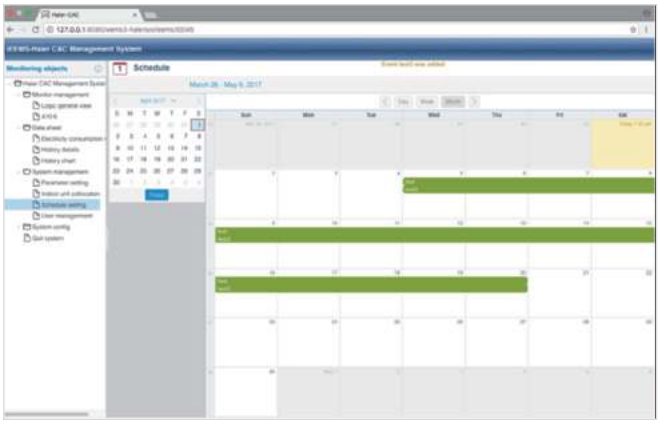
Illustrative diagram for management via WEB with HCM-03A with consumption accounting



SIMPLE AND INTUITIVE NAVIGATION







Building layouts can be inserted as a file in the HCM-03A system to configure by positioning the specific indoor unit and the dedicated controller.
The creation of specific command buttons inside the premises allows direct management of the floor plan, simulating reality more accurately which makes everything more intuitive and simple.

HA-MA164AD - MODBUS adapter

- Haier to MODBUS protocol converter (not required for series 5 outdoor units)
- Each cooling circuit requires 1 converter
- 1 converter can handle max 64 indoor units on single cooling circuit
- Power supply transformer included
- It is not possible to account for electricity consumption

IGU02 - adaptor to account for consumption

- Haier protocol converter to RS-485 to be used in conjunction with BMS systems: HCM-01A / 03A / 05-05A, necessary if you want to monitor the electrical consumption of MRV systems.
- Each IGU-02 can control up to a maximum of 40 indoor units
- You need an IGU-02 for each cooling circuit, even for outdoor 5 series.
  For each cooling circuit / IGU-02, a "Wattmeter / pulse generator" must be provided which detects the energy absorption of the outdoor units and proportionally generates counting pulses that the IGU-02 adapter receives and transforms into values to be managed and visualised by the software.
  (the pulse generator wattmeter / ammeter is not supplied by Haier, as it must be selected and sized according to the power of the plants).

IGU07 - LonWorks adapter

- Modbus > Lonworks protocol converter
- Each IGU-07 can control only 1 cooling circuit and up to a maximum of 32 indoor units
- The cooling circuit connected require adapter HA-MA164AD (except for series 5 outdoor units)
- **The IGU07 adapter does not have a power transformer, therefore it is necessary to have a 24 Volt DC power supply (24 VDC) fitted by the installer.**
- It is not possible to account for electricity consumption

HA-AC-KNX - KNX adapter

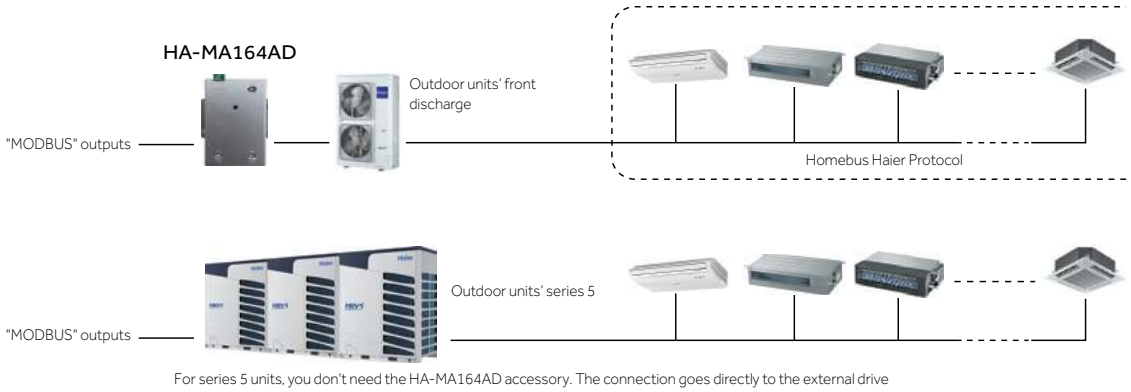
- Haier to KNX protocol converter
- Requires HA-MA164AD adapter
- 3 available models, up to 8, up to 16 and up to 64 controllable indoor units (HA-AC-KNX-8, HA-AC-KNX-16, HA-AC-KNX-64)
- Does not require power supply

HCM-04

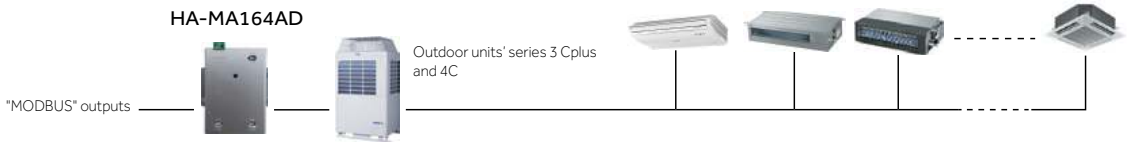
- BACnet gateway, convert modbus rtu to BACnet ip
- Max.128 indoor units/ 4 systems can be controlled. Max. 32 indoor units for one system
- MRV 5 and upgraded MRV SI I (8/10/12HP) can connect directly with HCM-04.
- Other MRV systems require IGU02 or HA-MA164AD
- BTL certificate

EXAMPLES OF CONNECTION ADAPTERS

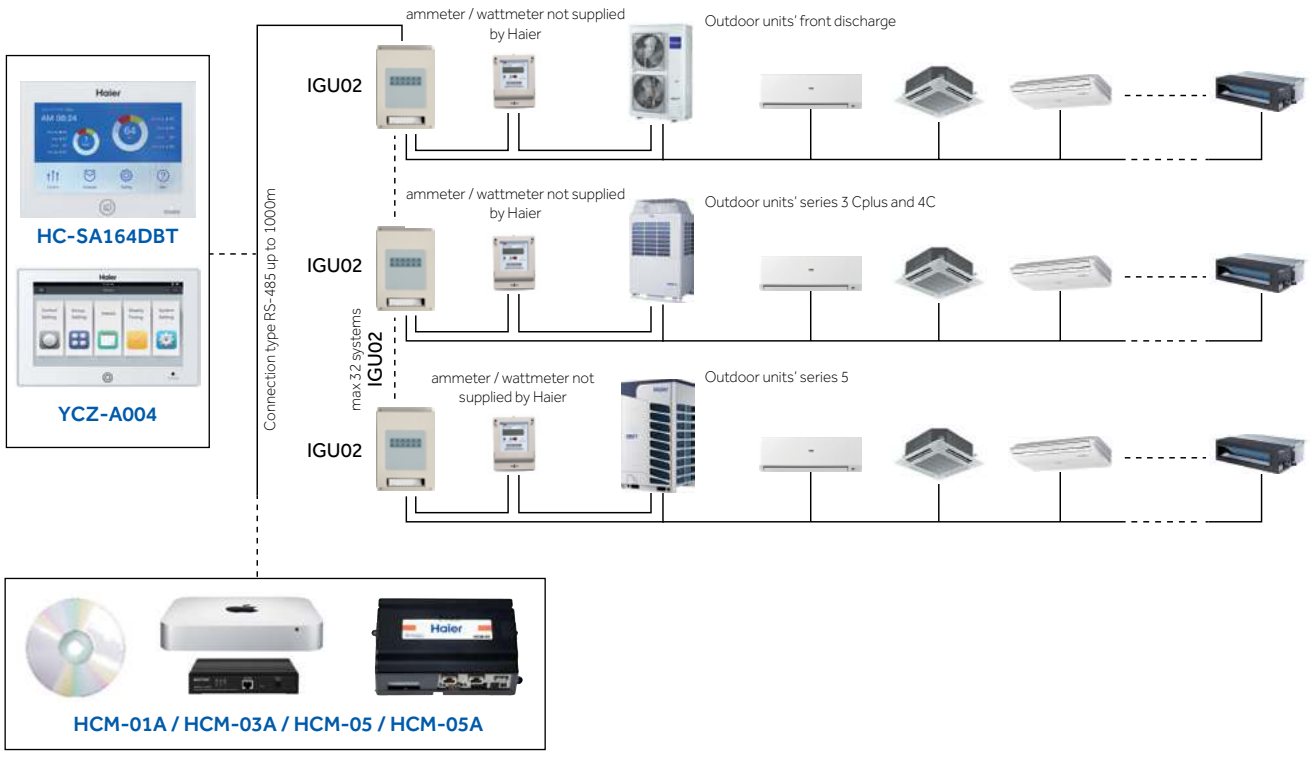
HA-MA164AD, MODBUS adapter



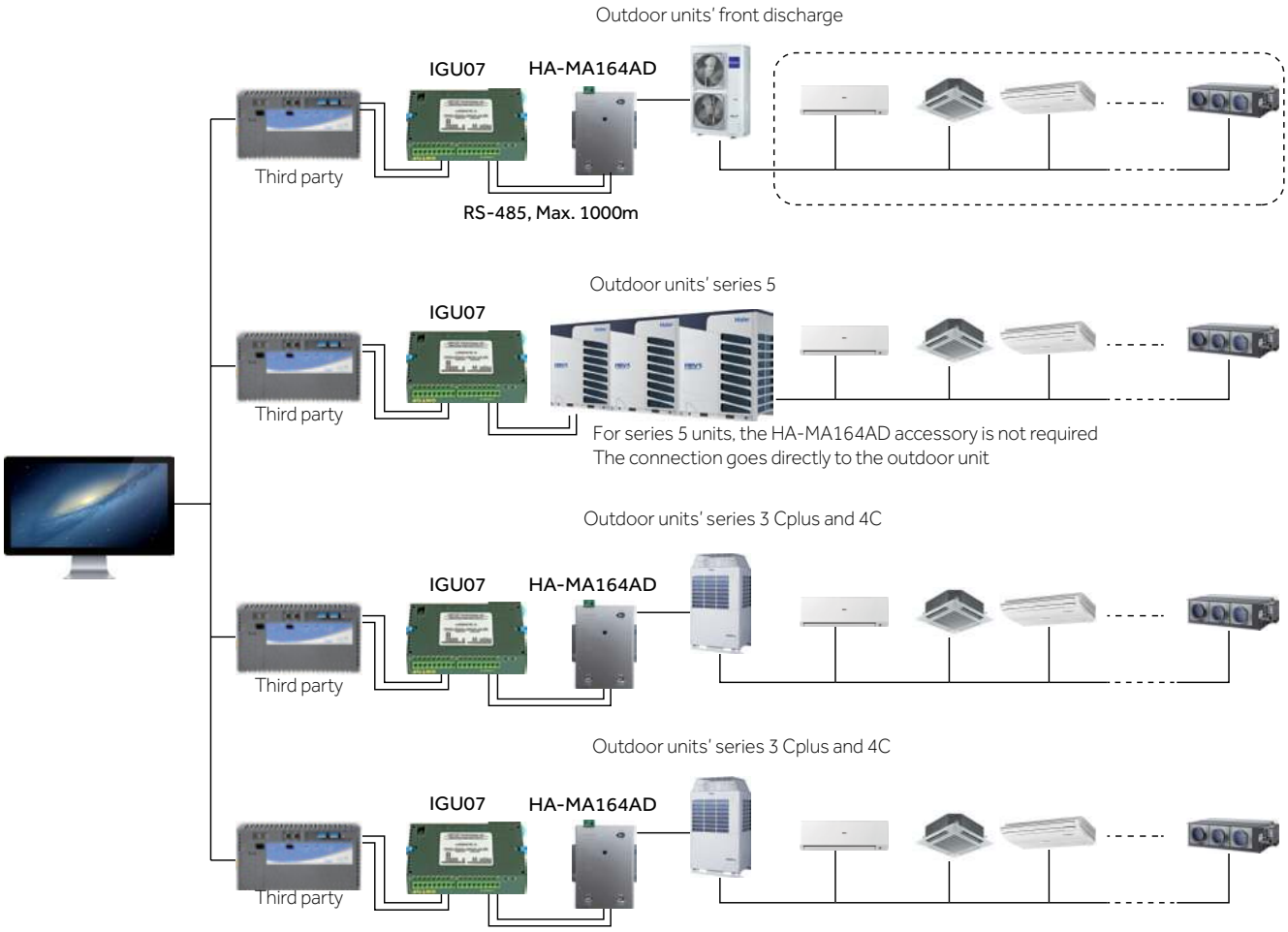
For series 5 units, you don't need the HA-MA164AD accessory. The connection goes directly to the external drive



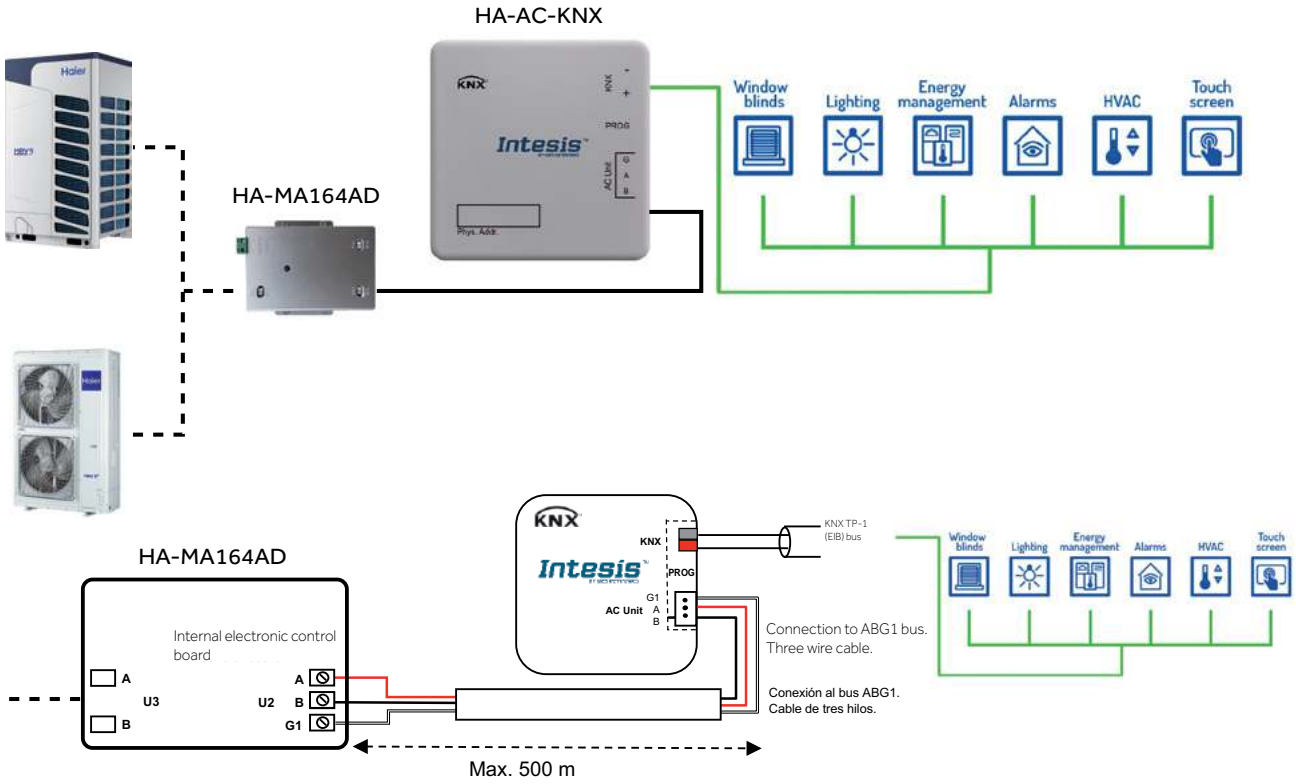
IGU-02 – adapter for accounting



IGU-07 illustrative connection scheme for LonWorks Systems



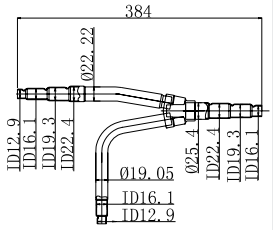
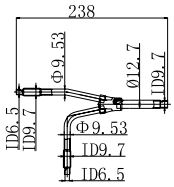
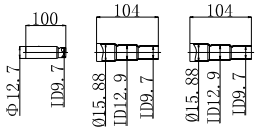
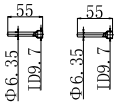
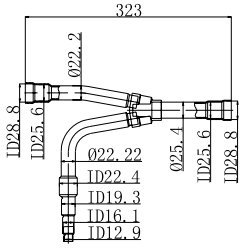
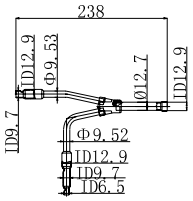
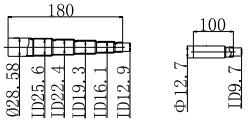
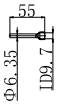
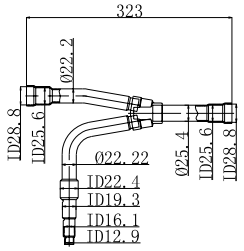
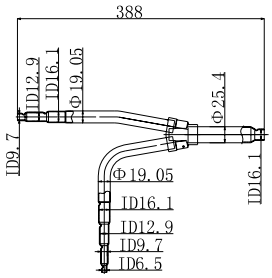
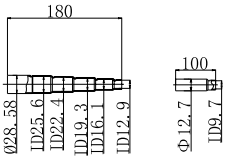
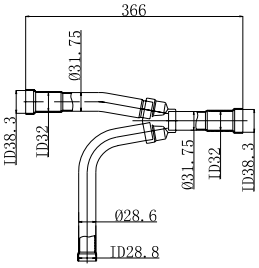
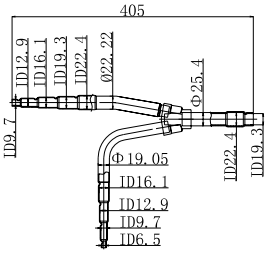
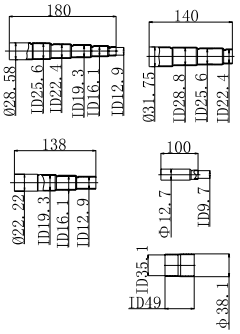
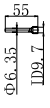
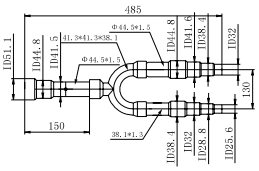
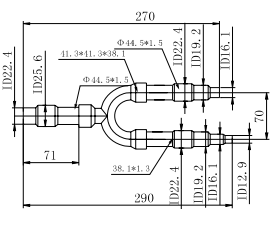
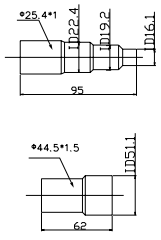
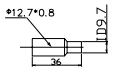
HA-AC-KNX - KNX adapter



SOLDER JOINTS TO CREATE COOLING CIRCUITS

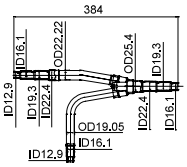
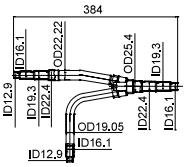
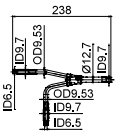
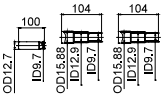
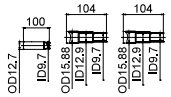
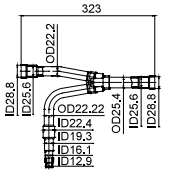
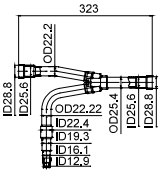
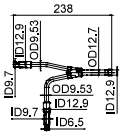
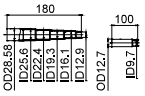
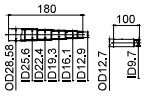
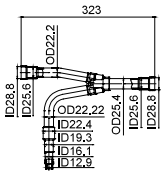
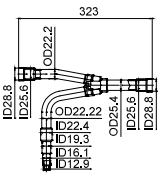
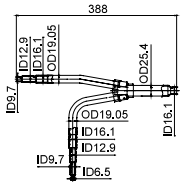
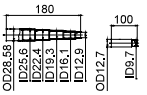
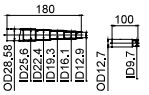
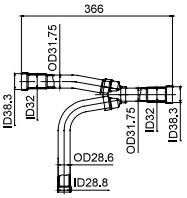
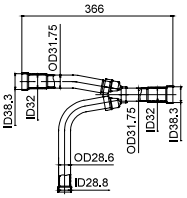
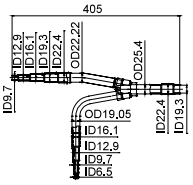
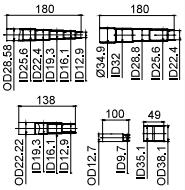
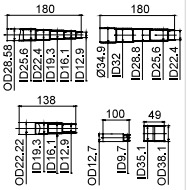
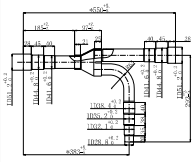
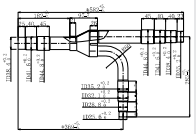
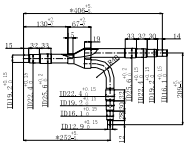
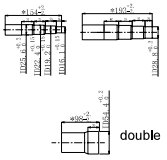
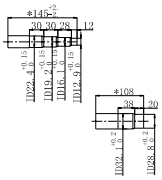
Joints for 2-pipe circuit - indoor unit side

Measurements in millimetres ID - inner diameter / OD - outer diameter

Model	Gas Side Joint	Liquid Side Joint	Gas Side Adapters included in the kit	Liquid side adapters included in the kit	Applicable kW power (total sum of the nominal cooling powers of the indoor units to be powered downstream of the joint)
FQG-B335A					Up to 33.5
FQG-B506A					33.5 to 50.6
FQG-B730A					50.6 to 73
FQG-B1350A					73 to 135
FQG-B2040A					Over 135

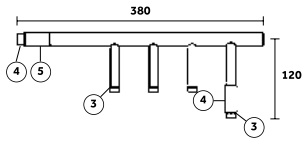
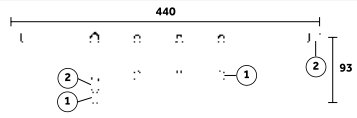
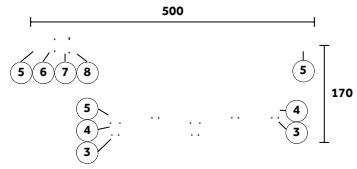
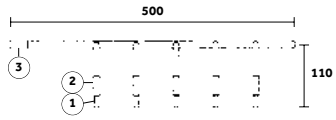
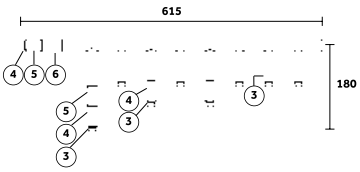
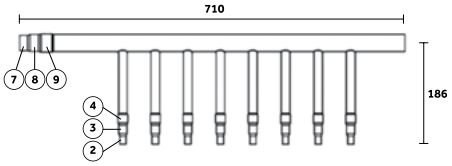
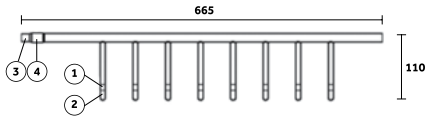
Joints for 3-pipe circuit - indoor unit side

Measurements in millimetres ID - inner diameter / OD - outer diameter

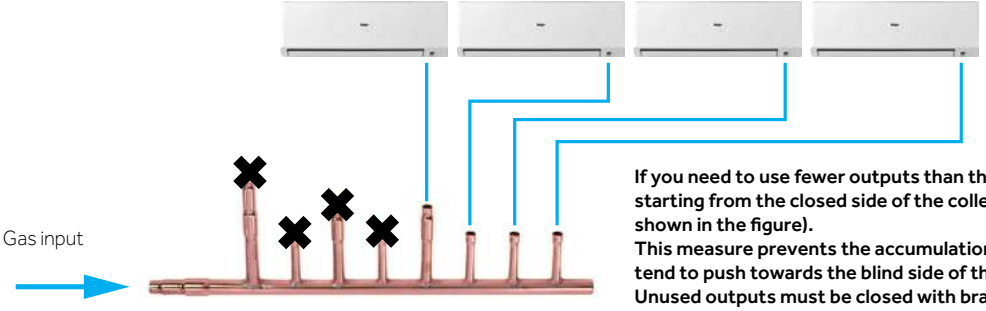
Model	Gas Side Joint Recovery/Return	Gas Side Joint High Pressure	Liquid Side Joint	Adapters side Gas Recovery/Return included in the kit	Adapters Side Gas High Pressure included in the kit	Adapters Side Liquid included in the kit	Applicable Power in kW (total sum of the nominal cooling powers of the indoor units to be powered downstream of the joint)
FQG-R335A							Up to 33.5
FQG-R506A							33.5 to 50.6
FQG-R730A							50.6 to 73
FQG-R1350A							73 to 135
FQG-R2040A							Over 135

SOLDER JOINTS TO CREATE COOLING CIRCUITS

Collectors for 2-pipe circuit on the side of indoor units

Model	Pipes	Branch	Adapter, Included in the kit	Applicable power in kW (total sum of the nominal cooling powers of the indoor units connected to the collector)
FQG-H3704	Gas		 2 PZ	up to 30 total (sum of all outputs) If you need to connect indoor units with power exceeding 5.6 kW, you must use model FQG-H3705 with more than 5 outputs for pipe diameter requirements
	Liquid			
FQG-H3705	Gas			up to 30 total (sum of all outputs)
	Liquid			
FQG H3708_35kW	Gas			up to 35 total (sum of all outputs)
	Liquid			
FQG-H3708_70kW	Gas		 1 PZ	up to 70 total (sum of all outputs)
	Liquid		 1 PZ	

Diameters in inches (")												
1	6.35 mm	1/4"	5	19.05 mm	3/4"	9	31.75 mm	1"1/4	13	44.45 mm	1"3/4
2	9.52 mm	3/8"	6	22.40 mm	7/8"	10	34.92 mm	1"3/8	14	50.80 mm	2"
3	12.70 mm	1/2"	7	25.40 mm	1"	11	38.10 mm	1"1/2			
4	15.88 mm	5/8"	8	28.57 mm	1"1/8	12	41.28 mm	1"5/8			

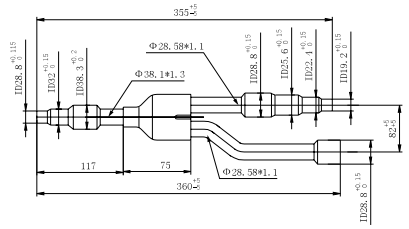
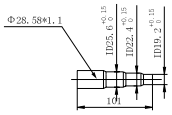
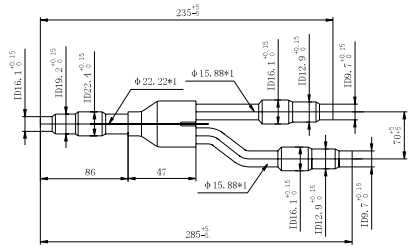


If you need to use fewer outputs than those provided by the collector, connect starting from the closed side of the collector, opposite to the gas input (as shown in the figure).
This measure prevents the accumulation of oil and dirt, which the gas would tend to push towards the blind side of the collector.
Unused outputs must be closed with braze welding.

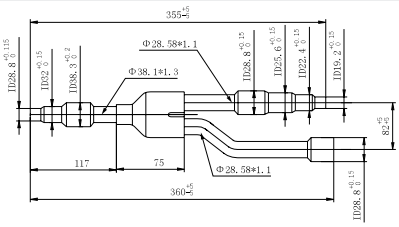
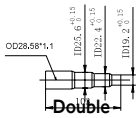
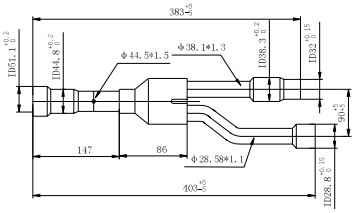
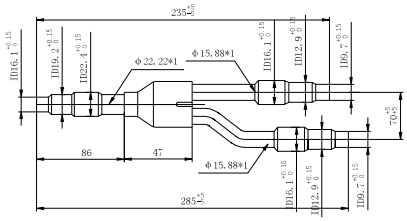
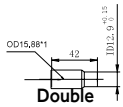
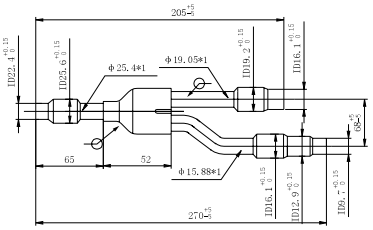
Joints to combine outdoor units with 2 tubes.

Measurements in millimetres ID - inner diameter / OD - outer diameter

HZG-20B - kit to be provided to combine 2 modules

Model	Pipes	ID	Branch	Gas Side Adapters Recovery/Return included in the kit
HZG-20B	Gas Side Joint	A		
	Liquid Side Joint	B		

HZG-30B - kit to be provided to combine 3 modules

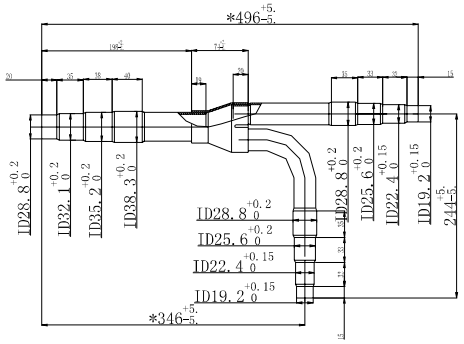
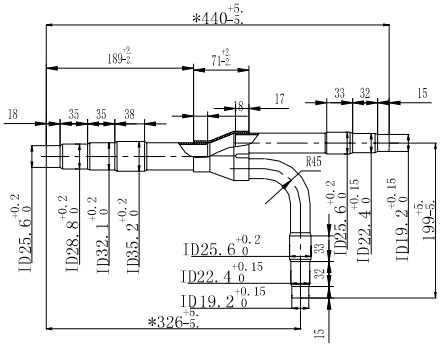
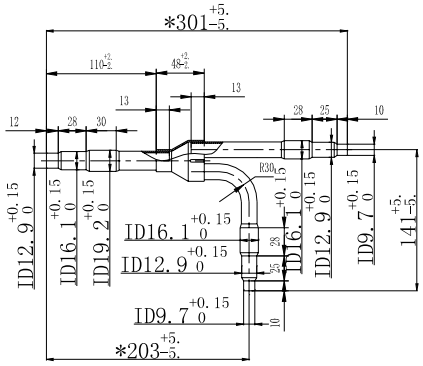
Model	Pipes	ID	Branch	Gas Side Adapters Recovery/Return included in the kit
HZG-30B	Gas Side Joint	C		
		D		
	Liquid Side Joint	E		
		F		

SOLDER JOINTS TO CREATE COOLING CIRCUITS

Joints to combine outdoor units with 3 heat recovery tubes

Measurements in millimetres ID - inner diameter / OD - outer diameter

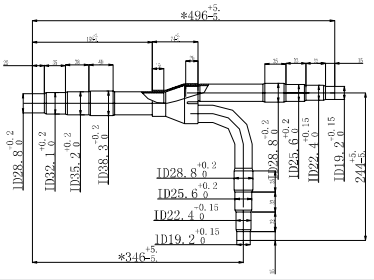
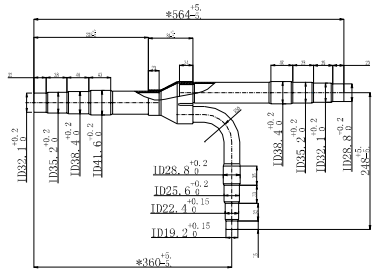
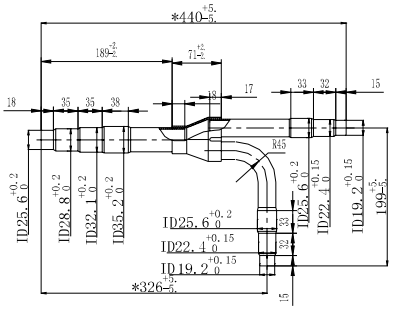
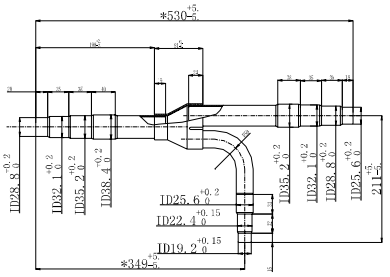
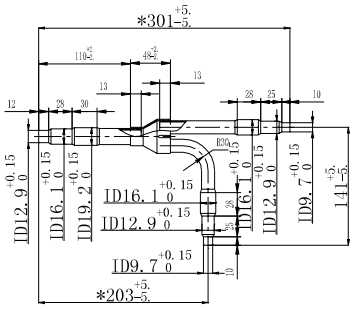
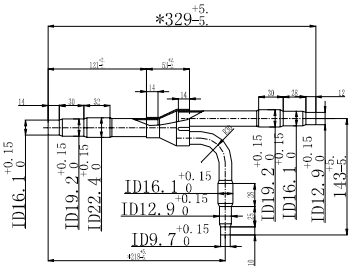
HZG-R20B - kit to be provided to combine 2 modules

Model	Pipes	ID	Branch
HZG-R20B	Gas Side Joint Recovery/ Return	A	
	Gas High Pressure Side Joint	B	
	Liquid Side Joint	C	

Joints to combine outdoor units with 3 heat recovery tubes

Measurements in millimetres ID - inner diameter / OD - outer diameter

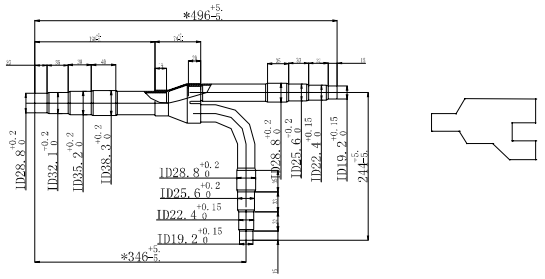
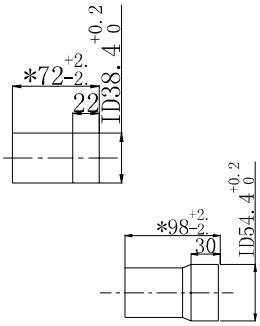
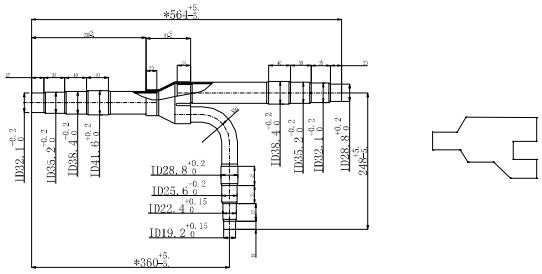
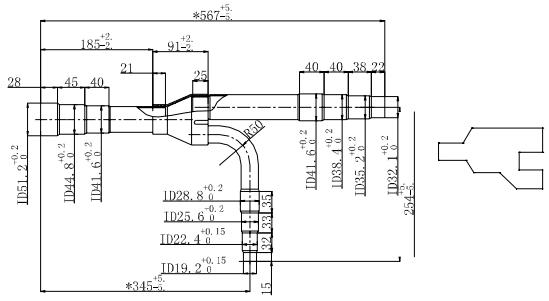
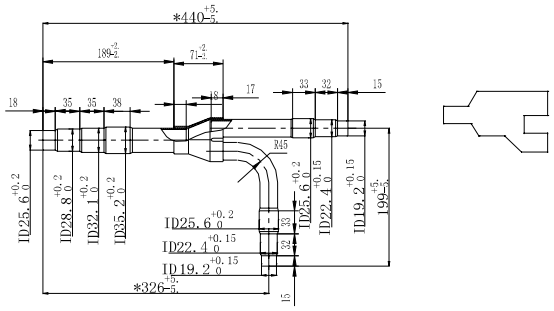
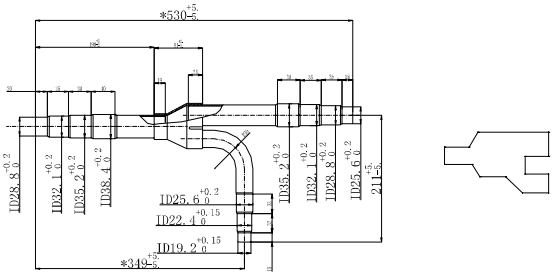
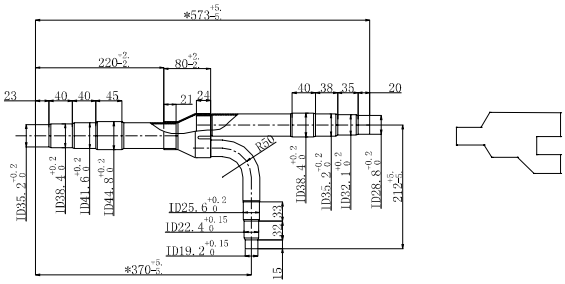
HZG-R30B - kit to be provided to combine 3 modules

Model	Pipes	ID	Branch
HZG-R30B	Gas Side Joint Recovery/ Return	D	
		E	
	Gas High Pressure Side Joint	F	
		G	
	Joint side Liquid	H	
		I	

Joints to combine outdoor units with 3 heat recovery tubes

Measurements in millimetres ID - inner diameter / OD - outer diameter

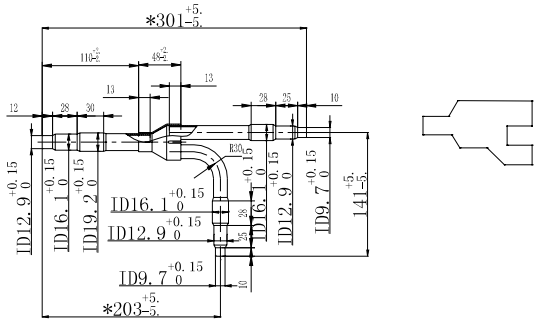
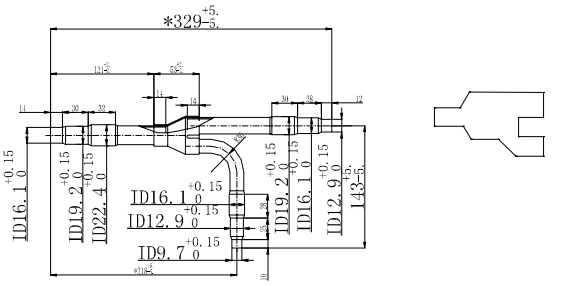
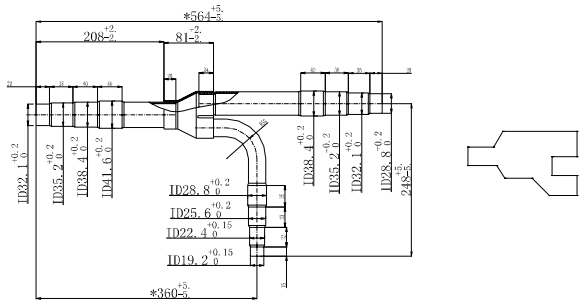
HZG-R40B – kit to be provided to combine 4 modules

Model	Pipes	ID	Branch	Gas Side Adapters Recovery/Return included in the kit
HZG-R40B	Gas Side Joint Recovery/Return	J		
		K		
		L		
	Gas High Pressure Side Joint	M		
		N		
		O		

Joints to combine outdoor units with 3 heat recovery tubes

Measurements in millimetres ID - inner diameter / OD - outer diameter

HZG-R40B – kit to be provided to combine 4 modules

Model	Pipes	ID	Branch	Gas Side Adapters Recovery/Return included in the kit
HZG-R40B	Joint side Liquid	P		
		Q		
		R		

Haier

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