

AQUA

# AQUA

2019 General Catalogue

# MRV

MRV

Commercial A C



## Haier Commercial Air Conditioning



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2019 General Catalogue  
AQUA Commercial Air Conditioning



# Haier Global Network

From introduction to absorption, from manufacture to creation, Haier has been accomplishing Chinese people's goal of creating a world-renowned brand step over the past 30 years. Haier boasts 66 trading companies, 10 design R&D Centers, 108 manufacturing bases and 24 innovative industrial parks across the world with a global selling network comprised of 143,300 sales outlets spanning more than 100 countries. With more than 73 thousand employees worldwide, Haier has now established a "Three in one" network layout.



## Haier Brand Story

The Internet era is a diverse and unconventional time, where "one size fits all" products and solutions simply aren't enough. Customers want to be treated as individuals and respected for who they are. Everyone wants their unique lifestyle acknowledged. That is why Haier listens closely to you in order to gain a genuine understanding of what is going on in your life and what is on your mind. So each of you can get the smart home experience you deserve: be it simple, sophisticated, organized or enjoyable. As a worldwide industry leader, Haier innovates beyond products and solutions and turns the organization into a wholly 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 consumers' expectations in this rapidly evolving world. Be part of the Haier Network. Create new possibilities.

## Haier Global Revenue

Established in 1984, Haier is the world's **No.1** major appliance brand.



Steady growth has been achieved due to Haier's exploration of IoT business models. From the income generated by the conventional economy, Haier is expected to see its 2016 global revenue hit RMB **201.6 billion**. Online transaction volume, which reached RMB **272.7 billion**, was generated on Haier's product online platforms, B2B, B2C socialized online platforms and internet finance platforms, representing a **73%** year-on-year increase.

# Haier AC Milestones



**1984**  
Haier group was founded in Qingdao, China.

**1985**  
Developing China's first split air conditioner.

**1993**  
Developing China's first inverter air conditioner.

**1995**  
Launching China's first dual split inverter air conditioner.  
Starting to export air conditioners to Europe market.

**1996**  
Launching full range light commercial air conditioning solution.

**1998**  
Launching VRF system with the cooperation with Toshiba.  
Developing the first digital DC inverter air conditioner in China.

**1999**  
Starting to export air conditioners to USA.

**2001**  
Building up industry park in Pakistan and catching No.1 market share in 2005.

**2005**  
Releasing R410a DC inverter X-multi system.

**2006**  
Achieving IF design award, one of 10 creative products in the world.  
Releasing R410a centrifugal chiller with magnetic technology and R410a DC inverter VRF system.

**2007**  
Achieving the bid of 20 projects of Beijing Olympic Games.

**2009**  
Achieving red dot design award. The first magnetic bearing centrifugal water source heat pump in China came out in Haier

**2010**

Introducing the more advanced Freon-free DC inverter air conditioner and magnetic bearing centrifugal chiller system with high energy efficiency.

**2012**

Establishing Haier Europe HOME SOLUTION platform at Lyon France to accelerate the marketing of RAC/CAC/heat pump/Solar solution.

**2013**

Launching Emperor series and Aero series floor standing models which lead the innovation in design and air supply system.

**2014**

Establishing AC R&D center to enhance the R&D ability with more focus on users' requirement.

**2015**

Launching MRV IV full DC INV. technology Max. 3 modular up to 72HP.

**2016**

Launching Super Match Smart Power Series, high performance A++ full line.

**2017**

Launching MRV5 full DC INV. technology Max. 4 modular up to 104HP.

**2018**

Launching R32 Super Match Series. Providing more environmental friendly solutions.

# AC R&D Center

Haier Air Conditioning R&D Center, located in Qingdao, China, completed in December 2013, covers 20,000 square meters. It has more than 120 laboratories, including testing laboratories, key part research laboratories and all-weather user experience simulation laboratories. The R&D center also has the world tallest "drop tower" for testing long refrigerant piping tests(106 meters tall).

In April 2014, Haier established joint laboratories with Highly for research in heating & cooling technology and with Mitsubishi Electric for innovative technology for user experience. Research by the user experience center covers the fields of user comfort evaluation, aerodynamics, acoustics, EMC(Electro-Magnetic Compatibility) and mechanics etc. The labs can carry out more than 600 international tests as per ISO, IEC, EN, CISPR and ANSI etc. to meet the requirements of Europe, Asia, America, Australia, Middle East and other 100 countries and regions.

The user experience center gains recognition by domestic well-known certification and testing institutions, also is recognized by international organizations like TUV and Intertek etc. At Haier, we believe that the best air conditioning is one that builds on uncompromising quality control worldwide, developing and manufacturing fine products and delivering them to customers everywhere.



# Global Manufacturing Capacity

Domestically, Haier AC is running 8 factories, 1 of which is MHAQ, a JV between Haier and Mitsubishi Heavy. In overseas markets, Haier is running 8 manufacturing plants.

With all these factories, Haier AC has a product capacity amounts to 20.1 million sets per year.



014



## MRV 5

- full DC inverter compressors
- Maximum Single module 26HP
- Maximum combination 104HP
- Total pipe length 1000m
- Height drop 110 m

197

## New Console

- 5-17K/Btu
- Five fan wind speed
- Flexible supply air
- Low sound level
- Floor mount



029



## MRV 5-RC

- Full DC inverter compressors
- Automatic oil balancing
- Instant cooling and heating

187

## New Medium ESP Duct(50/100pa)

- 5-48K/Btu
- Only 250mm thick
- Built-in drain pump
- 50/100Pa

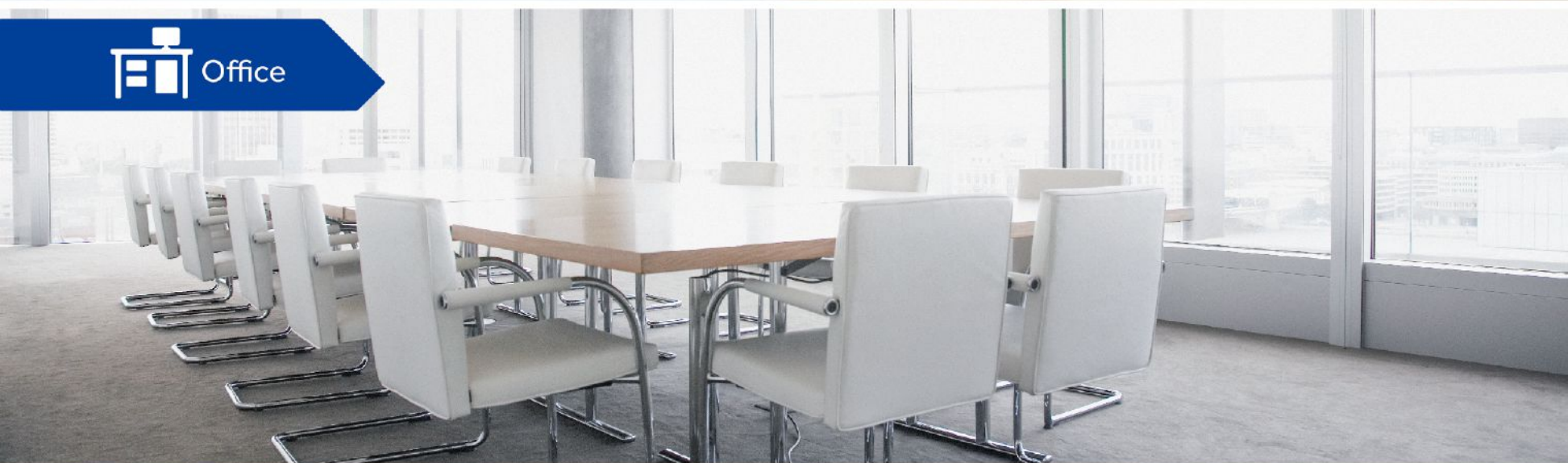




Showroom



Office



Shop



Hotel



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# AQUA MRV Milestone

AQUA, as China's earliest VRF practitioners, has been always committed to the extreme pursuit to VRF system



**1993**  
AQUA  
Enter into China  
commercial  
AC field

**1996**  
Home VRF  
(Home MRV) First  
unit in China  
AQUA first home  
inverter multi



**1999**  
Commercial VRF  
(C-MRV) First  
Modular VRF  
unit in China



**2005**  
Modular combination  
MRV II  
First pure DC  
inverter in China  
Technology from  
Toshiba



**2008**  
MRV III DC Inverter  
23 Olympic  
reference projects  
in Beijing



**2012**  
MRV S  
Full DC inverter Side  
discharge outdoor  
Largest capacity  
of side discharge



**2013**  
MRV III-RC  
Heat recovery  
(3 pipe system)



MRV W  
Water-cooled / MRV



**2014**  
MRV IV  
Full DC inverter,  
Large single module



**2015**  
MRV IV (T3)  
Full DC inverter



**2016**  
MRV III PLUS  
Full DC inverter



MRV S II  
New platform, new  
outlook



**2017**  
MRV S II Launched  
Globally  
Including the first  
ever AQUA MRV  
product for the  
north american  
market



**2018**  
MRV 5-RC  
Launching  
MRV 5-RC heat  
recovery range



# PRODUCT LINE-UP

(Outdoor Units)

Series	HP	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86	88	90	92	94	96	98	100	102	104
MRV 5	3/380-415/50 3/380-415/60																																																	
MRV 5-RC	3/380-415/50 3/380-415/60																																																	

Series	HP	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72
MRV IV (T1)	3/380-400/50 3/380-400/60																																	
	3/208-230/50 3/208-230/60																																	
MRV IV (T3)	3/380-400/50 3/380-400/60																																	













Series	HP	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64
MRV III <sup>PLUS</sup> (T1)	3/380-400/50 3/380-400/60																													

Series	HP	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
MRV III (T1)	3/208-230/60																					
	3/460/60																					
MRV III (T3)	3/380-400/50 3/380-400/60																					
MRV III-RC	3/380-400/50 3/380-400/60 3/208-230/60																					






# PRODUCT LINE-UP



(Outdoor Units)

Series	HP	3	4	5	6	7	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	
MRV S'	1/220-240/50 1/220-240/60																					
	3/380-400/50 3/380-400/60																					
MRV S'' (T1)	1/220-240/50 1/220-240/60																					
	3/380-415/50 3/380-415/60																					
	3/380-400/50 3/380-400/60																					
MRV S'' (T3)	1/220-240/50 1/220-240/60																					
	3/380-415/50 3/380-415/60																					
MRV W	3/380-400/50(60) 3/208-230/60																					

## EASY MRV

MODEL	MS1-036A	MS1-060A	MS3-036A
Match with indoor	1 by 1	1 by 1	1 by 3
EASY MRV Connection Kit			
Capacity(Btu/h)	≤36K	36K<X≤60K	Every indoor capacity ≤36K
MRV series	MRV 5, MRV IV, MRV III PLUS, MRV III (2-Pipe), MRV S'', MRV S' (5/7HP)		

## DX AHU Connection Kit

MODEL	AH1-280A	AH1-560A
CAPACITY	14 ≤ x ≤ 28 kW	28 < x ≤ 56 kW
		
MRV series	MRV 5, MRV IV, MRV III PLUS, MRV III (2-Pipe), MRV S'' (8/10/12HP)	

# PRODUCT LINE-UP

(Indoor Units)

Series	KBTU/h kW			5	7	9	12	16	18	24	28	30	38	42	48	54	72	96
				1.5	2.2	2.8	3.6	4.5	5.6	7.1	8.0	9.0	11.2	12.5	14.0	16.0	22.6	28.0
1-Way Cassette		AB**2MAERA		■	■	■	■											
2-Way Cassette		AB**2MBERA			■	■	■	■	■									
MINI 4-Way Cassette		AB**2MCERA(M)		■	■	■	■	■	■									
Round Flow 4-Way Cassette		AB**2MRERA			■	■	■	■	■	■	■	■	■		■	■		
4-Way Cassette		AB**2MCERA		■	■	■	■	■	■	■	■	■	■		■			
Convertible		AC**2MCERA AC**2MFERA					■	■	■	■	■	■	■		■			
Low ESP Slim Duct (0/15/30Pa)		AD**2MSERA(D) AD**2MSERA		■	■	■	■	■	■	■								
Medium ESP Duct (50/96Pa)		AD**2MMERA							■	■	■	■	■		■			
Medium ESP Duct (50/100Pa) <span style="color: blue; font-weight: bold;">NEW</span>		AD**2MJERA		■	■	■	■	■	■	■	■	■	■		■			

# PRODUCT LINE-UP

(Indoor Units)

Series	KBTU/h kW		5	7	9	12	16	18	24	28	30	38	42	48	54	72	96
			1.5	2.2	2.8	3.6	4.5	5.6	7.1	8.0	9.0	11.2	12.5	14.0	16.0	22.6	28.0
Medium ESP Duct (80/120Pa)		AD**2MNERA									■	■		■			
High ESP Duct (100/196Pa)		AD**2MHERA						■	■	■	■	■		■		■	■
High ESP Duct (0-200Pa)		AD**2MQERA		■	■	■	■	■	■	■	■	■	■	■	■		
Built-in Floor Standing		AE**2MLERA		■	■	■	■	■	■								
New Console		AF*2MAERA	■	■	■	■	■	■									
High Wall-N		AS**2MNERA	■	■	■	■	■	■	■	■	■						
		AS**2MFERA	■	■	■	■	■	■	■								
Fresh Air Duct		AD*2MPERA												■		■	■
HRV (Heat Reclaim Ventilation) (ERV0150/0260/ 0800/1000ANN)	 150m <sup>3</sup> /h 260m <sup>3</sup> /h																
								 500m <sup>3</sup> /h 800m <sup>3</sup> /h 1000m <sup>3</sup> /h									



# MRV5

DC INVERTER



011 Features & Benefits

014 MRV 5 Outdoor

# FEATURES & BENEFITS

## Leadership in technology

Maximum single module 26HP Maximum combination 104HP

With large capacity full DC inverter compressors, MRV 5 can reach single module 26HP, maximum combination 104HP.

Max. 4 module combination up to **104HP**



Max. single module up to **26HP**



8-16HP 18-26HP  
Single module 8-26HP

Super efficiency with full DC inverter compress and Speedless inverter DC-motor

Outdoor unit matches efficient variable-speed DC-motor, driven by sine wave, wider efficiency range and torque range, motor efficiency is increased by 17%. air fan of outdoor unit can achieve 0-91Hz stepless frequency control, matches up inverter with step less compressor, the durability and stability of the compressor are guaranteed, fault can be reduced.



Total pipe length 1000m, height drop 110m

Longer piping length and higher level differences allow for more flexible design with little limitations.



New one-piece of four-way heat exchanger

Heat exchanger area can be wide rised, the efficiency of the whole machine is improved.

primary four-way heat exchange



heat exchange area  $660 \times 1690 \times 2 = 2.23\text{m}^2$

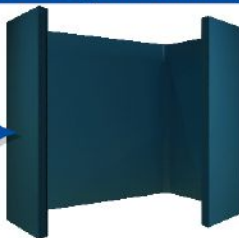
common three-way heat exchange



heat exchange area  $1400 \times 1770 = 2.47\text{m}^2$

AQUA new four-way heat exchanger

Heat transfer efficiency increased by **30%**



heat exchange area  $1260 \times 2294 = 2.89\text{m}^2$

Flexible Vortex disk

The unit matches by flexible vortex inverter DC-compressor, realized full inverter of compressor, efficiency is 5% higher than that of conventional scroll compressors.



## Installation friendly

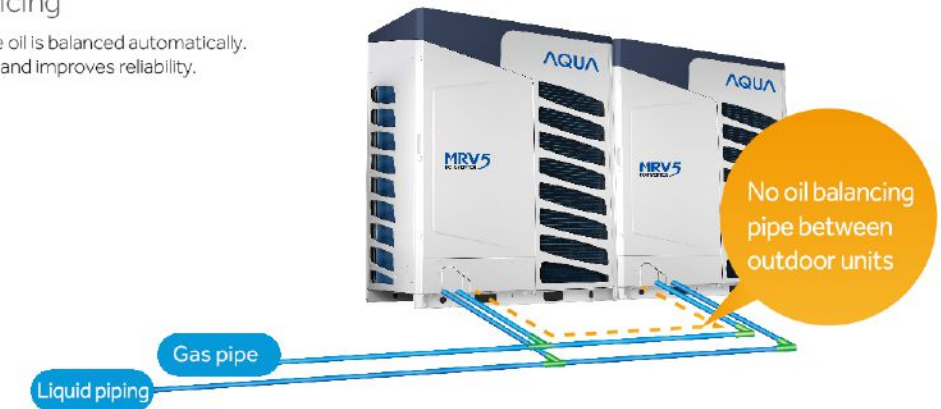
Auto addressing indoor units

Outdoor units can address indoor units automatically, greatly reducing labor.



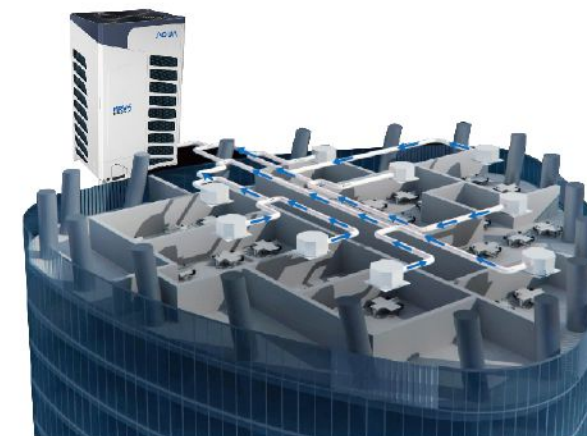
Automatic oil balancing

Without oil balancing pipe, the oil is balanced automatically. This simplifies system design and improves reliability.



Piping refrigerant storage technology

Advanced refrigerant control technology, the refrigerant is stored in the indoor and outdoor machine piping, remove the high pressure tank, less refrigerant filling in unit, high efficiency.



New appearance of patented design

Design of hidden screw, one-piece streamline air grille, practical and beautiful. large diameter fan of 700mm, large air flow, low noise figure, improved heat transfer efficiency, originate rotation type service door, easy to operate.

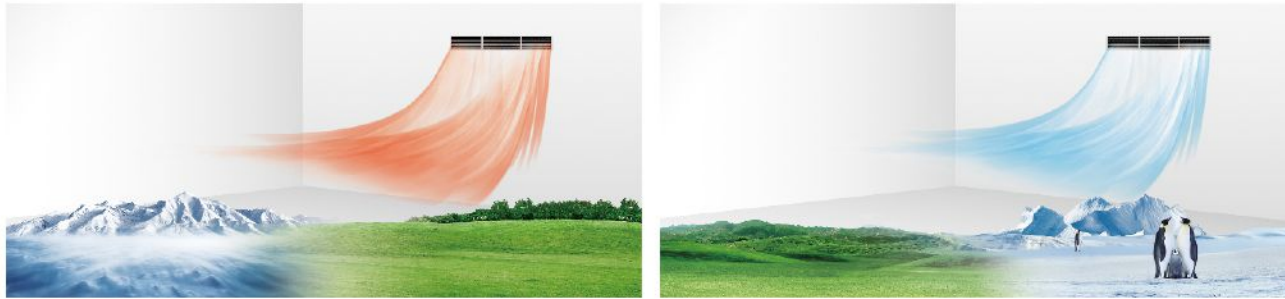


# FEATURES & BENEFITS

## Super comfort

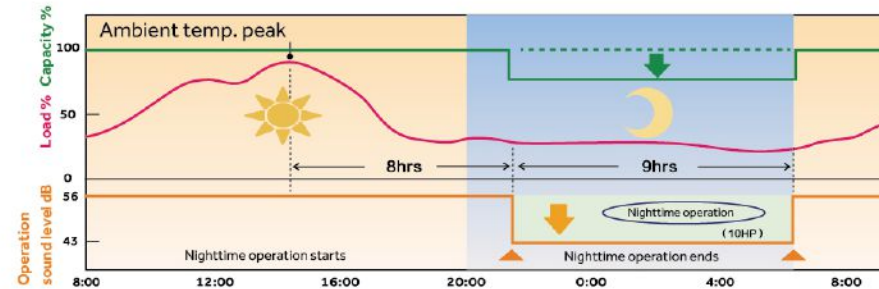
### Quick cooling and heating

Start up and reaching maximum output in short time, realizing quick cooling and heating.



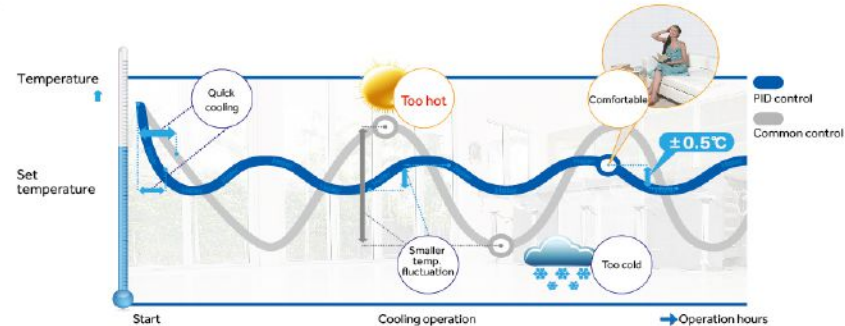
### Nighttime quiet operation at 10dB(A) reduced sound level

When quiet operation is required, this function can be configured by outdoor PCB to greatly reduce sound level.



### Precise temperature control at $\pm 0.5^{\circ}\text{C}$

With twin pressure sensors and twin EEVS, the refrigerant volume can be adjusted automatically to realize precise temperature control, improving indoor comfort.



### Intelligent defrosting technology

According to system status to intelligently judge if defrosting is required, improving indoor comfort.



# MRV 5 T1 380~415V



AV08IMVEVA  
AV10IMVEVA  
AV12IMVEVA  
AV14IMVEVA  
AV16IMVEVA



AV18IMVEVA  
AV20IMVEVA  
AV22IMVEVA  
AV24IMVEVA  
AV26IMVEVA

Model			AV08IMVEVA	AV10IMVEVA	AV12IMVEVA	AV14IMVEVA	AV16IMVEVA	
Combination model			/	/	/	/	/	
Capacity	Capacity range	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	
Power supply		Ph/V/Hz	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
Electrical parameters	Cooling	Rated power input	kW	5.60	6.80	8.40	10.90	11.80
		Max power input	kW	12.000	12.900	13.800	16.400	19.200
		Rated current	A	9.45	11.48	14.18	18.40	19.92
		Max current	A	20.26	21.78	23.30	27.69	32.41
	Heating	Rated power input	kW	5.20	6.30	8.00	10.30	11.20
		Max power input	kW	10.90	12.20	12.50	15.10	18.40
		Rated current	A	8.78	10.64	13.51	17.39	18.91
		Max current	A	18.40	20.60	21.10	25.49	31.06
EER			4.50	4.12	3.99	3.67	3.81	
COP			5.19	5.00	4.69	4.57	4.46	
SEER			7.50	7.33	7.20	6.85	6.40	
SCOP			5.50	5.45	5.30	5.12	4.55	
Performance	Air flow (H)	m <sup>3</sup> /h	11000	11000	12000	13500	13500	
	Sound pressure level (H)	dB(A)	56	56	59	59	60	
	Sound power level (H)	dB(A)	67	67	70	70	71	
	External dimensions(W/D/H)	mm	980/750/1690					
	Shipping dimensions(W/D/H)	mm	1070/850/1838					
Net/Shipping weight		kg	224/250			244/270		
Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
Compressor brand			MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	
Compressor quantity			1INV	1INV	1INV	1INV	1INV	
Refrigerant type			R410A	R410A	R410A	R410A	R410A	
Refrigerant charge		kg	8.5	8.5	8.5	10	10	
Refrigerant liquid pipe		mm	9.52	9.52	12.7	12.7	12.7	
Refrigerant gas pipe		mm	19.05	22.22	25.4	25.4	28.58	
Max. total pipe length		m	1000	1000	1000	1000	1000	
Max. pipe length (Equivalent/Actual)		m	260/220	260/220	260/220	260/220	260/220	
Max drop between I.U.&O.U (O.U. down/up) *1		m	110/90	110/90	110/90	110/90	110/90	
Standard drop between I.U.&O.U (O.U. up/down) *2		m	50/40	50/40	50/40	50/40	50/40	
Max drop between I.U.*3		m	30	30	30	30	30	
Standard drop between I.U.*4		m	18	18	18	18	18	
External static pressure		Pa	110	110	110	110	110	
Connection ratio			50-130	50-130	50-130	50-130	50-130	
Maximum number of indoor units			13	16	20	24	27	
Working temp.								
Cooling		$^{\circ}\text{C}$					-5-50	
Heating		$^{\circ}\text{C}$					-23-21	

Max drop between I.U.&O.U. \*1  
Standard drop between I.U.&O.U. \*2  
Max drop between I.U. \*3  
Standard drop between I.U. \*4  
\* All the specifications are tested under normal condition for cooling, indoor temp. is 27 $^{\circ}\text{C}$  DB/19 $^{\circ}\text{C}$  WB, outdoor temp. 35 $^{\circ}\text{C}$  DB/24 $^{\circ}\text{C}$  WB, in heating, indoor temp. is 20 $^{\circ}\text{C}$  DB, outdoor temp. is 7 $^{\circ}\text{C}$  DB/6 $^{\circ}\text{C}$  WB.  
If the height difference between the outdoor and the indoor units is from 50 to 110m, you MUST contact your local distributor/dealer for individual design and production.  
Standard design and production in the factory.  
If the height difference between the indoor units is from 18 to 30m, you MUST contact your local distributor/dealer for individual design and production.  
Standard design and production in the factory.

# MRV 5 T1 380~415V



AV08IMVEVA  
AV10IMVEVA  
AV12IMVEVA  
AV14IMVEVA  
AV16IMVEVA



AV18IMVEVA  
AV20IMVEVA  
AV22IMVEVA  
AV24IMVEVA  
AV26IMVEVA

Model			AV18IMVEVA	AV20IMVEVA	AV22IMVEVA	AV24IMVEVA	AV26IMVEVA	
Combination model			/	/	/	/	/	
Capacity	Capacity range	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	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
	Cooling	Rated power input	kW	14.30	15.10	16.50	17.60	18.80
		Max power input	kW	21.400	25.100	28.500	29.100	33.000
		Rated current	A	24.14	25.49	27.86	29.71	31.74
		Max current	A	36.13	42.37	48.11	49.13	55.80
	Heating	Rated power input	kW	13.40	14.60	15.40	16.80	17.70
		Max power input	kW	17.70	22.70	25.50	26.50	30.40
		Rated current	A	22.62	24.65	26.00	28.36	29.88
		Max current	A	29.88	38.32	43.05	44.74	51.32
	EER		3.52	3.71	3.73	3.86	3.91	
	COP		4.22	4.21	4.48	4.35	4.66	
	SEER		6.50	6.35	6.20	6.03	5.86	
	SCOP		4.65	4.55	4.40	4.26	4.15	
	Performance	Air flow (H)	m³/h	17000	17000	18000	18000	19000
Sound pressure level (H)		dB(A)	61	61	61	62	62	
Sound power level (H)		dB(A)	72	72	72	73	73	
External dimensions(W/D/H)	mm	1410/750/1690						
Shipping dimensions(W/D/H)	mm	1515/850/1838						
Net/Shipping weight	kg	287/317	370/400					
Compressor type		DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL		
Compressor brand		DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN		
Compressor quantity		2INV	2INV	2INV	2INV	2INV		
Refrigerant type		R410A	R410A	R410A	R410A	R410A		
Refrigerant charge	kg	10	10	10	10	10		
Refrigerant liquid pipe	mm	15.88	15.88	15.88	15.88	15.88		
Refrigerant gas pipe	mm	28.58	28.58	28.58	28.58	28.58		
Max. total pipe length	m	1000	1000	1000	1000	1000		
Max. pipe length (Equivalent/Actual)	m	260/220	260/220	260/220	260/220	260/220		
Max drop between I.U.&O.U (O.U down/up) *1	m	110/90	110/90	110/90	110/90	110/90		
Standard drop between I.U.&O.U (O.U up/down) *2	m	50/40	50/40	50/40	50/40	50/40		
Max drop between I.U *3	m	30	30	30	30	30		
Standard drop between I.U *4	m	18	18	18	18	18		
External static pressure	Pa	110	110	110	110	110		
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130	
	Maximum number of indoor units		30	33	36	40	43	
Working temp.	Cooling	°C	-5~50					
	Heating	°C	-23~21					

\*1 Max drop between I.U.&O.U \*1  
Standard drop between I.U.&O.U \*2  
Max drop between I.U. \*3  
Standard drop between I.U. \*4  
If the height difference between the outdoor and the indoor units is from 50 to 110m, you MUST contact your local distributor/dealer for individual design and production.  
Standard design and production in the factory.  
If the height difference between the indoor units is from 18 to 30m, you MUST contact your local distributor/dealer for individual design and production.  
Standard design and production in the factory.

- Full DC inverter compressors
- Maximum Single module 26HP
- Maximum combination 104HP
- Total pipe length 1000m
- Height drop 110 m

Model			AV28IMVEVA	AV30IMVEVA	AV32IMVEVA	AV34IMVEVA	
Combination model			AV14IMVEVA	AV14IMVEVA	AV16IMVEVA	AV16IMVEVA	
			AV14IMVEVA	AV16IMVEVA	AV16IMVEVA	AV18IMVEVA	
			/	/	/	/	
			/	/	/	/	
Capacity	Capacity range	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	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
	Cooling	Rated power input	kW	21.80	22.70	23.60	26.10
		Max power input	kW	32.800	35.600	38.400	40.600
		Rated current	A	36.80	38.32	39.84	44.06
		Max current	A	55.37	60.10	64.83	68.54
	Heating	Rated power input	kW	20.60	21.50	22.40	24.60
		Max power input	kW	30.20	33.50	36.80	36.10
		Rated current	A	34.78	36.30	37.82	41.53
		Max current	A	50.98	56.55	62.13	60.94
	EER		3.67	3.74	3.81	3.66	
	COP		4.37	4.42	4.46	4.33	
	SEER		6.97	6.71	6.50	6.56	
	SCOP		5.15	4.81	4.55	4.60	
	Performance	Air flow (H)	m³/h	27000	27000	27000	30500
Sound pressure level (H)		dB(A)	62	62.5	63	63.5	
Sound power level (H)		dB(A)	73	73.5	74	74.5	
External dimensions(W/D/H)	mm	980×750×1690+980×750×1690				980×750×1690+1410×750×1690	
Shipping dimensions(W/D/H)	mm	1070/850/1838+1070/850/1838				1070/850/1838+1515/850/1838	
Net/Shipping weight	kg	244/270+244/270	244/270+244/270			244/270+287/317	
Compressor type		DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL		
Compressor brand		DAIKIN	DAIKIN	DAIKIN	DAIKIN		
Compressor quantity		2INV	2INV	2INV	2INV		
Refrigerant type		R410A	R410A	R410A	R410A		
Refrigerant charge	kg	20	20	20	20		
Refrigerant liquid pipe	mm	15.88	19.05	19.05	19.05		
Refrigerant gas pipe	mm	28.58	31.8	31.8	31.8		
Max. total pipe length	m	1000	1000	1000	1000		
Max. pipe length (Equivalent/Actual)	m	260/220	260/220	260/220	260/220		
Max drop between I.U.&O.U (O.U down/up) *1	m	110/90	110/90	110/90	110/90		
Standard drop between I.U.&O.U (O.U up/down) *2	m	50/40	50/40	50/40	50/40		
Max drop between I.U *3	m	30	30	30	30		
Standard drop between I.U *4	m	18	18	18	18		
External static pressure	Pa	110	110	110	110		
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	
	Maximum number of indoor units		47	50	53	56	
Working temp.	Cooling	°C	-5~50				
	Heating	°C	-23~21				

\* All the specifications are tested under normal condition in cooling, indoor temp. is 27°C DB/19°C WB, outdoor temp 35°C DB/24WB in heating, indoor temp. is 20°C DB in heating, outdoor temp. is 7°C DB/6°C WB

# MRV 5 T1 380~415V



AV08IMVEVA  
AV10IMVEVA  
AV12IMVEVA  
AV14IMVEVA  
AV16IMVEVA



AV18IMVEVA  
AV20IMVEVA  
AV22IMVEVA  
AV24IMVEVA  
AV26IMVEVA

Model			AV36IMVEVA	AV38IMVEVA	AV40IMVEVA	AV42IMVEVA	AV44IMVEVA	
Combination model			AV18IMVEVA	AV18IMVEVA	AV20IMVEVA	AV20IMVEVA	AV22IMVEVA	
			AV18IMVEVA	AV20IMVEVA	AV20IMVEVA	AV22IMVEVA	AV22IMVEVA	
			/	/	/	/	/	
Capacity								
	Capacity range	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	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
Cooling	Rated power input	kW	28.60	29.40	30.20	31.60	33.00	
		Max power input	kW	42.800	46.500	50.200	53.600	57.000
		Rated current	A	48.28	49.63	50.98	53.35	55.71
		Max current	A	72.26	78.50	84.75	90.49	96.23
	Heating	Rated power input	kW	26.80	28.00	29.20	30.00	30.80
		Max power input	kW	35.40	40.40	45.40	48.20	51.00
		Rated current	A	45.24	47.27	49.30	50.65	52.00
		Max current	A	59.76	68.20	76.64	81.37	86.10
	EER		3.52	3.62	3.71	3.72	3.73	
	COP		4.22	4.21	4.21	4.35	4.48	
SEER		6.60	6.51	6.43	6.34	6.26		
SCOP		4.65	4.61	4.58	4.49	4.42		
Performance								
	Air flow (H)	m <sup>3</sup> /h	34000	34000	34000	35000	36000	
	Sound pressure level (H)	dB(A)	64	64	64	64	64	
	Sound power level (H)	dB(A)	75	75	75	75	75	
Installation			1410×750×1690+1410×750×1690					
	External dimensions(W/D/H)	mm	1410×750×1690+1410×750×1690					
	Shipping dimensions(W/D/H)	mm	1515/850/1838+1515/850/1838					
	Net/Shipping 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 INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
	Compressor brand		DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	
	Compressor quantity		2INV	3INV	4INV	4INV	4INV	
	Refrigerant type		R410A	R410A	R410A	R410A	R410A	
	Refrigerant charge	kg	20	20	20	20	20	
	Refrigerant liquid pipe	mm	19.05	19.05	19.05	19.05	19.05	
	Refrigerant gas pipe	mm	38.1	38.1	38.1	38.1	38.1	
	Max. total pipe length	m	1000	1000	1000	1000	1000	
	Max. pipe length (Equivalent/Actual)	m	260/220	260/220	260/220	260/220	260/220	
	Max drop between I.U.&O.U (O.U. down/up) *1	m	110/90	110/90	110/90	110/90	110/90	
	Standard drop between I.U.&O.U (O.U. up/down) *2	m	50/40	50/40	50/40	50/40	50/40	
	Max drop between I.U *3	m	30	30	30	30	30	
	Standard drop between I.U *4	m	18	18	18	18	18	
	External static pressure	Pa	110	110	110	110	110	
Connection ratio								
	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130	
	Maximum number of indoor units		59	63	64	64	64	
Working temp.								
	Cooling	°C	-5~50					
	Heating	°C	-23~21					

\*1 Max drop between I.U.&O.U. \*2 Standard drop between I.U.&O.U. \*3 Max drop between I.U. \*4 Standard drop between I.U. If the height difference between the outdoor and the indoor units is from 50 to 110m, you MUST contact your local distributor/dealer for individual design and production. Standard design and production in the factory. If the height difference between the indoor units is from 18 to 30m, you MUST contact your local distributor/dealer for individual design and production. Standard design and production in the factory.

Model			AV46IMVEVA	AV48IMVEVA	AV50IMVEVA	AV52IMVEVA	
Combination model			AV22IMVEVA	AV24IMVEVA	AV24IMVEVA	AV26IMVEVA	
			AV24IMVEVA	AV24IMVEVA	AV26IMVEVA	AV26IMVEVA	
			/	/	/	/	
Capacity							
	Capacity range	HP	46	48	50	52	
	Cooling	kW	129.5	136.0	141.5	147.0	
	Heating	kW	142.0	146.0	155.5	165.0	
Electrical parameters							
	Power supply	Ph/V/Hz	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
Cooling	Rated power input	kW	34.10	35.20	36.40	37.60	
		Max power input	kW	57.600	58.200	62.100	66.000
		Rated current	A	57.57	59.42	61.45	63.48
		Max current	A	97.24	98.25	104.93	111.60
	Heating	Rated power input	kW	32.20	33.60	34.50	35.40
		Max power input	kW	52.00	53.00	56.90	60.80
		Rated current	A	54.36	56.72	58.24	59.76
		Max current	A	87.79	89.48	96.06	102.64
	EER		3.80	3.86	3.89	3.91	
	COP		4.41	4.35	4.51	4.66	
SEER		6.17	6.09	5.99	5.91		
SCOP		4.34	4.27	4.21	4.16		
Performance							
	Air flow (H)	m <sup>3</sup> /h	36000	36000	37000	38000	
	Sound pressure level (H)	dB(A)	64.5	65	65	65	
	Sound power level (H)	dB(A)	75.5	76	76	76	
Installation			1410×750×1690+1410×750×1690				
	External dimensions(W/D/H)	mm	1410×750×1690+1410×750×1690				
	Shipping dimensions(W/D/H)	mm	1515/850/1838+1515/850/1838				
	Net/Shipping weight	kg	370/400+370/400	370/400+370/400	370/400+370/400	370/400+370/400	
	Compressor type		DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
	Compressor brand		DAIKIN	DAIKIN	DAIKIN	DAIKIN	
	Compressor quantity		4INV	4INV	4INV	4INV	
	Refrigerant type		R410A	R410A	R410A	R410A	
	Refrigerant charge	kg	20	20	20	20	
	Refrigerant liquid pipe	mm	19.05	19.05	19.05	19.05	
	Refrigerant gas pipe	mm	38.1	38.1	38.1	38.1	
	Max. total pipe length	m	1000	1000	1000	1000	
	Max. pipe length (Equivalent/Actual)	m	260/220	260/220	260/220	260/220	
	Max drop between I.U.&O.U (O.U. down/up) *1	m	110/90	110/90	110/90	110/90	
	Standard drop between I.U.&O.U (O.U. up/down) *2	m	50/40	50/40	50/40	50/40	
	Max drop between I.U *3	m	30	30	30	30	
	Standard drop between I.U *4	m	18	18	18	18	
	External static pressure	Pa	110	110	110	110	
Connection ratio							
	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	
	Maximum number of indoor units		64	64	64	64	
Working temp.							
	Cooling	°C	-5~50				
	Heating	°C	-23~21				

\* All the specifications are tested under normal condition in cooling, indoor temp. is 27°C DB/19°C WB, outdoor temp. is 35°C DB/24°C WB in heating, indoor temp. is 20°C DB in heating, outdoor temp. is 7°C DB/6°C WB



# MRV 5 T1 380~415V



AV08IMVEVA  
AV10IMVEVA  
AV12IMVEVA  
AV14IMVEVA  
AV16IMVEVA



AV18IMVEVA  
AV20IMVEVA  
AV22IMVEVA  
AV24IMVEVA  
AV26IMVEVA

- Full DC inverter compressors
- Maximum Single module 26HP
- Maximum combination 104HP
- Total pipe length 1000m
- Height drop 110 m

Model			AV54IMVEVA	AV58IMVEVA	AV58IMVEVA	AV60IMVEVA	
Combination model			AV18IMVEVA	AV18IMVEVA	AV18IMVEVA	AV20IMVEVA	
			AV18IMVEVA	AV18IMVEVA	AV20IMVEVA	AV20IMVEVA	
			AV18IMVEVA	AV20IMVEVA	AV20IMVEVA	AV20IMVEVA	
			/	/	/	/	
Capacity	Capacity range	HP	54	56	58	60	
	Cooling	kW	151.2	156.8	162.4	168.0	
	Heating	kW	169.5	174.5	179.5	184.5	
Power supply			PhV/Hz	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
Electrical parameters	Cooling	Rated power input	kW	42.90	43.70	44.50	45.30
		Max power input	kW	64.200	67.900	71.600	75.300
		Rated current	A	72.42	73.77	75.13	76.48
		Max current	A	108.38	114.63	120.88	127.12
	Heating	Rated power input	kW	40.20	41.40	42.60	43.80
		Max power input	kW	53.10	58.10	63.10	68.10
		Rated current	A	67.87	69.89	71.92	73.94
		Max current	A	89.64	98.08	106.53	114.97
	EER		3.52	3.59	3.65	3.71	
	COP		4.22	4.21	4.21	4.21	
	SEER		6.63	6.56	6.50	6.45	
	SCOP		4.65	4.63	4.60	4.58	
Performance	Air flow (H)	m³/h	51000	51000	51000	51000	
	Sound pressure level (H)	dB(A)	65.8	65.8	65.8	65.8	
	Sound power level (H)	dB(A)	76.5	76.5	76.5	76.5	
	External dimensions(W/D/H)	mm	1410×750×1690+1410×750×1690+1410×750×1690				
Shipping dimensions(W/D/H)	mm	1515/850/1838+1515/850/1838+1515/850/1838					
Net/Shipping weight	kg	287/317+287/317+287/317	287/317+287/317+370/400	287/317+370/400+370/400	370/400+370/400+370/400		
Compressor type		DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL		
Compressor brand		MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC		
Compressor quantity		3INV	4INV	5INV	6INV		
Refrigerant type		R410A	R410A	R410A	R410A		
Refrigerant charge	kg	30	30	30	30		
Refrigerant liquid pipe	mm	19.05	19.05	19.05	19.05		
Refrigerant gas pipe	mm	38.1	38.1	41.3	41.3		
Max. total pipe length	m	1000	1000	1000	1000		
Max. pipe length (Equivalent/Actual)	m	260/220	260/220	260/220	260/220		
Max drop between I.U.&O.U (O.U down/up) *1	m	110/90	110/90	110/90	110/90		
Standard drop between I.U.&O.U (O.U up/down) *2	m	50/40	50/40	50/40	50/40		
Max drop between I.U *3	m	30	30	30	30		
Standard drop between I.U *4	m	18	18	18	18		
External static pressure	Pa	110	110	110	110		
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	
	Maximum number of indoor units		64	64	64	64	
Working temp.	Cooling	°C	-5-50				
	Heating	°C	-23-21				

\*1 Max drop between I.U.&O.U \*1  
Standard drop between I.U.&O.U \*2  
Max drop between I.U. \*3  
Standard drop between I.U. \*4  
If the height difference between the outdoor and the indoor units is from 50 to 110m, you MUST contact your local distributor/dealer for individual design and production.  
Standard design and production in the factory.  
If the height difference between the indoor units is from 18 to 30m, you MUST contact your local distributor/dealer for individual design and production.  
Standard design and production in the factory.

Model			AV62IMVEVA	AV64IMVEVA	AV66IMVEVA	AV68IMVEVA	
Combination model			AV22IMVEVA	AV22IMVEVA	AV22IMVEVA	AV22IMVEVA	
			AV20IMVEVA	AV22IMVEVA	AV22IMVEVA	AV22IMVEVA	
			AV20IMVEVA	AV20IMVEVA	AV22IMVEVA	AV24IMVEVA	
			/	/	/	/	
Capacity	Capacity range	HP	62	64	66	68	
	Cooling	kW	173.5	179.0	184.5	191.0	
	Heating	kW	192.0	199.5	207.0	211.0	
Power supply			PhV/Hz	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
Electrical parameters	Cooling	Rated power input	kW	46.70	48.10	49.50	50.60
		Max power input	kW	78.700	82.100	85.500	86.100
		Rated current	A	78.84	81.20	83.57	85.42
		Max current	A	132.86	138.60	144.34	145.35
	Heating	Rated power input	kW	44.60	45.40	46.20	47.60
		Max power input	kW	70.90	73.70	76.50	77.50
		Rated current	A	75.29	76.64	78.00	80.36
		Max current	A	119.69	124.42	129.15	130.84
	EER		3.72	3.72	3.73	3.77	
	COP		4.30	4.39	4.48	4.43	
	SEER		6.39	6.33	6.28	6.22	
	SCOP		4.52	4.47	4.42	4.37	
Performance	Air flow (H)	m³/h	52000	53000	54000	54000	
	Sound pressure level (H)	dB(A)	65.8	65.8	65.8	66	
	Sound power level (H)	dB(A)	76.5	76.5	76.5	77	
	External dimensions(W/D/H)	mm	1410×750×1690+1410×750×1690+1410×750×1690				
Shipping dimensions(W/D/H)	mm	1515/850/1838+1515/850/1838+1515/850/1838					
Net/Shipping weight	kg	370/400+370/400+370/400					
Compressor type		DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL		
Compressor brand		MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC		
Compressor quantity		6INV	6INV	6INV	6INV		
Refrigerant type		R410A	R410A	R410A	R410A		
Refrigerant charge	kg	30	30	30	30		
Refrigerant liquid pipe	mm	19.05	19.05	19.05	22.2		
Refrigerant gas pipe	mm	41.3	41.3	41.3	44.5		
Max. total pipe length	m	1000	1000	1000	1000		
Max. pipe length (Equivalent/Actual)	m	260/220	260/220	260/220	260/220		
Max drop between I.U.&O.U (O.U down/up) *1	m	110/90	110/90	110/90	110/90		
Standard drop between I.U.&O.U (O.U up/down) *2	m	50/40	50/40	50/40	50/40		
Max drop between I.U *3	m	30	30	30	30		
Standard drop between I.U *4	m	18	18	18	18		
External static pressure	Pa	110	110	110	110		
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	
	Maximum number of indoor units		64	64	64	64	
Working temp.	Cooling	°C	-5-50				
	Heating	°C	-23-21				

\* All the specifications are tested under normal condition in cooling, indoor temp. is 27°C DB/19°C WB, outdoor temp 35°C DB/24WB in heating, indoor temp. is 20°C DB in heating, outdoor temp. is 7°C DB/6°CWB

# MRV 5 T1 380~415V



AV08IMVEVA  
AV10IMVEVA  
AV12IMVEVA  
AV14IMVEVA  
AV16IMVEVA



AV18IMVEVA  
AV20IMVEVA  
AV22IMVEVA  
AV24IMVEVA  
AV26IMVEVA

- Full DC inverter compressors
- Maximum Single module 26HP
- Maximum combination 104HP
- Total pipe length 1000m
- Height drop 110 m

Model			AV70IMVEVA	AV72IMVEVA	AV74IMVEVA	AV76IMVEVA	AV78IMVEVA	
Combination model			AV22IMVEVA	AV24IMVEVA	AV26IMVEVA	AV26IMVEVA	AV26IMVEVA	
			AV24IMVEVA	AV24IMVEVA	AV24IMVEVA	AV26IMVEVA	AV26IMVEVA	
			AV24IMVEVA	AV24IMVEVA	AV24IMVEVA	AV24IMVEVA	AV26IMVEVA	
			/	/	/	/	/	
Capacity	Capacity range	HP	70	72	74	76	78	
	Cooling	kW	197.5	204.0	209.5	215.0	220.5	
	Heating	kW	215.0	219.0	228.5	238.0	247.5	
Power supply		Ph/V/Hz	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
Electrical parameters	Cooling	Rated power input	kW	51.70	52.80	54.00	55.20	56.40
		Max power input	kW	86.700	87.300	91.200	95.100	99.000
		Rated current	A	87.28	89.14	91.16	93.19	95.21
		Max current	A	146.37	147.38	154.05	160.73	167.40
	Heating	Rated power input	kW	49.00	50.40	51.30	52.20	53.10
		Max power input	kW	78.50	79.50	83.40	87.30	91.20
		Rated current	A	82.72	85.09	86.61	88.12	89.64
		Max current	A	132.52	134.21	140.80	147.38	153.96
	EER			3.82	3.86	3.88	3.89	3.91
	COP			4.39	4.35	4.45	4.56	4.66
	SEER			6.16	6.10	6.04	5.98	5.92
	SCOP			4.32	4.27	4.23	4.20	4.16
Performance	Air flow (H)	m <sup>3</sup> /h	54000	54000	55000	56000	57000	
	Sound pressure level (H)	dB(A)	66.5	66.8	66.8	66.8	66.8	
	Sound power level (H)	dB(A)	77.5	77.8	77.8	77.8	77.7	
External dimensions(W/D/H)		mm	1410×750×1690+1410×750×1690+1410×750×1690					
Shipping dimensions(W/D/H)		mm	1515/850/1838+1515/850/1838+1515/850/1838					
Net/Shipping weight		kg	370/400+370/400+370/400					
Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
Compressor brand			MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	
Compressor quantity			6INV	6INV	6INV	6INV	6INV	
Refrigerant type			R410A	R410A	R410A	R410A	R410A	
Refrigerant charge		kg	30	30	30	30	30	
Refrigerant liquid pipe		mm	22.2	22.2	22.2	22.2	22.2	
Refrigerant gas pipe		mm	44.5	44.5	44.5	44.5	44.5	
Max. total pipe length		m	1000	1000	1000	1000	1000	
Max. pipe length (Equivalent/Actual)		m	260/220	260/220	260/220	260/220	260/220	
Max drop between I.U.&O.U (O.U. down/up) *1		m	110/90	110/90	110/90	110/90	110/90	
Standard drop between I.U.&O.U (O.U. up/down) *2		m	50/40	50/40	50/40	50/40	50/40	
Max drop between I.U *3		m	30	30	30	30	30	
Standard drop between I.U *4		m	18	18	18	18	18	
External static pressure		Pa	110	110	110	110	110	
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130	
	Maximum number of indoor units		64	64	64	64	64	
Working temp.	Cooling	°C	-5~50					
	Heating	°C	-23~21					

\*1 Max drop between I.U.&O.U. \*2 Standard drop between I.U.&O.U. \*3 Max drop between I.U. \*4 Standard drop between I.U. \*1 If the height difference between the outdoor and the indoor units is from 50 to 110m, you MUST contact your local distributor/dealer for individual design and production. Standard design and production in the factory. \*2 If the height difference between the indoor units is from 18 to 30m, you MUST contact your local distributor/dealer for individual design and production. Standard design and production in the factory.

Model			AV80IMVEVA	AV82IMVEVA	AV84IMVEVA	AV86IMVEVA	AV88IMVEVA	
Combination model			AV20IMVEVA	AV20IMVEVA	AV20IMVEVA	AV20IMVEVA	AV22IMVEVA	
			AV20IMVEVA	AV20IMVEVA	AV20IMVEVA	AV22IMVEVA	AV22IMVEVA	
			AV20IMVEVA	AV20IMVEVA	AV22IMVEVA	AV22IMVEVA	AV22IMVEVA	
			AV20IMVEVA	AV22IMVEVA	AV22IMVEVA	AV22IMVEVA	AV22IMVEVA	
Capacity	Capacity range	HP	80	82	84	86	88	
	Cooling	kW	224.0	229.5	235.0	240.5	246.0	
	Heating	kW	246.0	253.5	261.0	268.5	276.0	
Power supply		Ph/V/Hz	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
Electrical parameters	Cooling	Rated power input	kW	60.40	61.80	63.20	64.60	66.00
		Max power input	kW	100.400	103.800	107.200	110.600	114.000
		Rated current	A	101.97	104.33	106.69	109.06	111.42
		Max current	A	169.50	175.24	180.98	186.72	192.46
	Heating	Rated power input	kW	58.40	59.20	60.00	60.80	61.60
		Max power input	kW	90.80	93.60	96.40	99.20	102.00
		Rated current	A	98.59	99.94	101.29	102.64	103.99
		Max current	A	153.29	158.02	162.74	167.47	172.20
	EER			3.71	3.71	3.72	3.72	3.73
	COP			4.21	4.28	4.35	4.42	4.48
	SEER			6.46	6.41	6.37	6.33	6.29
	SCOP			4.58	4.53	4.49	4.46	4.43
Performance	Air flow (H)	m <sup>3</sup> /h	68000	69000	70000	71000	72000	
	Sound pressure level (H)	dB(A)	67	67	67	67	67	
	Sound power level (H)	dB(A)	78	78	78	78	78	
External dimensions(W/D/H)		mm	1410×750×1690+1410×750×1690+1410×750×1690+1410×750×1690					
Shipping dimensions(W/D/H)		mm	1515/850/1838+1515/850/1838+1515/850/1838+1515/850/1838					
Net/Shipping weight		kg	370/400+370/400+370/400+370/400					
Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
Compressor brand			MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	
Compressor quantity			8INV	8INV	8INV	8INV	8INV	
Refrigerant type			R410A	R410A	R410A	R410A	R410A	
Refrigerant charge		kg	40	40	40	40	40	
Refrigerant liquid pipe		mm	22.2	22.2	22.2	25.4	25.4	
Refrigerant gas pipe		mm	44.5	44.5	44.5	50.8	50.8	
Max. total pipe length		m	1000	1000	1000	1000	1000	
Max. pipe length (Equivalent/Actual)		m	260/220	260/220	260/220	260/220	260/220	
Max drop between I.U.&O.U (O.U. down/up) *1		m	110/90	110/90	110/90	110/90	110/90	
Standard drop between I.U.&O.U (O.U. up/down) *2		m	50/40	50/40	50/40	50/40	50/40	
Max drop between I.U *3		m	30	30	30	30	30	
Standard drop between I.U *4		m	18	18	18	18	18	
External static pressure		Pa	110	110	110	110	110	
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130	
	Maximum number of indoor units		64	64	64	64	64	
Working temp.	Cooling	°C	-5~50					
	Heating	°C	-23~21					

\* All the specifications are tested under normal condition in cooling, indoor temp. is 27°C DB/19°C WB, outdoor temp. 35°C DB/24WB in heating, indoor temp. is 20°C DB in heating, outdoor temp. is 7°C DB/6°CWB

# MRV 5 T1 380~415V



AV08IMVEVA  
AV10IMVEVA  
AV12IMVEVA  
AV14IMVEVA  
AV16IMVEVA



AV18IMVEVA  
AV20IMVEVA  
AV22IMVEVA  
AV24IMVEVA  
AV26IMVEVA

- Full DC inverter compressors
- Maximum Single module 26HP
- Maximum combination 104HP
- Total pipe length 1000m
- Height drop 110 m

Model			AV90IMVEVA	AV92IMVEVA	AV94IMVEVA	AV96IMVEVA	
<b>Combination model</b>			AV24IMVEVA	AV24IMVEVA	AV24IMVEVA	AV24IMVEVA	
			AV22IMVEVA	AV24IMVEVA	AV24IMVEVA	AV24IMVEVA	
			AV22IMVEVA	AV24IMVEVA	AV24IMVEVA	AV24IMVEVA	
			AV22IMVEVA	AV22IMVEVA	AV22IMVEVA	AV24IMVEVA	
<b>Capacity</b>	Capacity range	HP	90	92	94	96	
	Cooling	kW	252.5	259.0	265.5	272.0	
	Heating	kW	280.0	284.0	288.0	292.0	
<b>Electrical parameters</b>	Power supply	Ph/V/Hz	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
	Cooling	Rated power input	kW	67.10	68.20	69.30	70.40
		Max power input	kW	114.600	115.200	115.800	116.400
		Rated current	A	113.28	115.14	116.99	118.85
		Max current	A	193.47	194.48	195.49	196.51
	Heating	Rated power input	kW	63.00	64.40	65.80	67.20
		Max power input	kW	103.00	104.00	105.00	106.00
		Rated current	A	106.36	108.72	111.08	113.45
		Max current	A	173.89	175.57	177.26	178.95
	EER		3.76	3.80	3.83	3.86	
	COP		4.44	4.41	4.38	4.35	
	SEER		6.24	6.19	6.15	6.11	
	SCOP		4.38	4.35	4.31	4.27	
	<b>Performance</b>	Air flow (H)	m <sup>3</sup> /h	72000	72000	72000	72000
		Sound pressure level (H)	dB(A)	67.5	67.5	68	68
Sound power level (H)		dB(A)	78.5	78.5	78.8	79	
External dimensions(W/D/H)	mm	1410×750×1690+1410×750×1690+1410×750×1690+1410×750×1690					
Shipping dimensions(W/D/H)	mm	1515/850/1838+1515/850/1838+1515/850/1838+1515/850/1838					
Net/Shipping weight	kg	370/400+370/400+370/400+370/400					
Compressor type		DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL		
Compressor brand		MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC		
Compressor quantity		8INV	8INV	8INV	8INV		
Refrigerant type		R410A	R410A	R410A	R410A		
Refrigerant charge	kg	40	40	40	40		
Refrigerant liquid pipe	mm	25.4	25.4	25.4	25.4		
Refrigerant gas pipe	mm	50.8	50.8	50.8	50.8		
Max. total pipe length	m	1000	1000	1000	1000		
Max. pipe length (Equivalent/Actual)	m	260/220	260/220	260/220	260/220		
Max drop between I.U.&O.U (O.U down/up) *1	m	110/90	110/90	110/90	110/90		
Standard drop between I.U.&O.U (O.U up/down) *2	m	50/40	50/40	50/40	50/40		
Max drop between I.U *3	m	30	30	30	30		
Standard drop between I.U *4	m	18	18	18	18		
External static pressure	Pa	110	110	110	110		
<b>Connection ratio</b>	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	
	Maximum number of indoor units		64	64	64	64	
<b>Working temp.</b>	Cooling	°C	-5-50				
	Heating	°C	-23-21				

Model			AV98IMVEVA	AV100IMVEVA	AV102IMVEVA	AV104IMVEVA	
<b>Combination model</b>			AV26IMVEVA	AV26IMVEVA	AV26IMVEVA	AV26IMVEVA	
			AV24IMVEVA	AV26IMVEVA	AV26IMVEVA	AV26IMVEVA	
			AV24IMVEVA	AV24IMVEVA	AV26IMVEVA	AV26IMVEVA	
			AV24IMVEVA	AV24IMVEVA	AV24IMVEVA	AV26IMVEVA	
<b>Capacity</b>	Capacity range	HP	98	100	102	104	
	Cooling	kW	277.5	283.0	288.5	294.0	
	Heating	kW	301.5	311.0	320.5	330.0	
<b>Electrical parameters</b>	Power supply	Ph/V/Hz	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
	Cooling	Rated power input	kW	71.60	72.80	74.00	75.20
		Max power input	kW	120.300	124.200	128.100	132.000
		Rated current	A	120.88	122.90	124.93	126.95
		Max current	A	203.18	209.85	216.53	223.20
	Heating	Rated power input	kW	68.10	69.00	69.90	70.80
		Max power input	kW	109.90	113.80	117.70	121.60
		Rated current	A	114.97	116.49	118.01	119.53
		Max current	A	185.53	192.12	198.70	205.29
	EER		3.88	3.89	3.90	3.91	
	COP		4.43	4.51	4.59	4.66	
	SEER		6.06	6.01	5.97	5.93	
	SCOP		4.24	4.21	4.19	4.16	
	<b>Performance</b>	Air flow (H)	m <sup>3</sup> /h	73000	74000	75000	76000
		Sound pressure level (H)	dB(A)	68	68	68	68
Sound power level (H)		dB(A)	79	79	79	79	
External dimensions(W/D/H)	mm	1410×750×1690+1410×750×1690+1410×750×1690+1410×750×1690					
Shipping dimensions(W/D/H)	mm	1515/850/1838+1515/850/1838+1515/850/1838+1515/850/1838					
Net/Shipping weight	kg	370/400+370/400+370/400+370/400					
Compressor type		DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL		
Compressor brand		MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC		
Compressor quantity		8INV	8INV	8INV	8INV		
Refrigerant type		R410A	R410A	R410A	R410A		
Refrigerant charge	kg	40	40	40	40		
Refrigerant liquid pipe	mm	25.4	25.4	25.4	25.4		
Refrigerant gas pipe	mm	54.1	54.1	54.1	54.1		
Max. total pipe length	m	1000	1000	1000	1000		
Max. pipe length (Equivalent/Actual)	m	260/220	260/220	260/220	260/220		
Max drop between I.U.&O.U (O.U down/up) *1	m	110/90	110/90	110/90	110/90		
Standard drop between I.U.&O.U (O.U up/down) *2	m	50/40	50/40	50/40	50/40		
Max drop between I.U *3	m	30	30	30	30		
Standard drop between I.U *4	m	18	18	18	18		
External static pressure	Pa	110	110	110	110		
<b>Connection ratio</b>	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	
	Maximum number of indoor units		64	64	64	64	
<b>Working temp.</b>	Cooling	°C	-5-50				
	Heating	°C	-23-21				

\*1 Max drop between I.U.&O.U \*1  
Standard drop between I.U.&O.U \*2  
Max drop between I.U. \*3  
Standard drop between I.U. \*4  
If the height difference between the outdoor and the indoor units is from 50 to 110m, you MUST contact your local distributor/dealer for individual design and production.  
Standard design and production in the factory.  
If the height difference between the indoor units is from 18 to 30m, you MUST contact your local distributor/dealer for individual design and production.  
Standard design and production in the factory.

\* All the specifications are tested under normal condition in cooling, indoor temp. is 27°C DB/19°C WB, outdoor temp. is 35°C DB/24WB in heating, indoor temp. is 20°C DB in heating, outdoor temp. is 7°C DB/6°CWB



# MRV5-RC

DC INVERTER

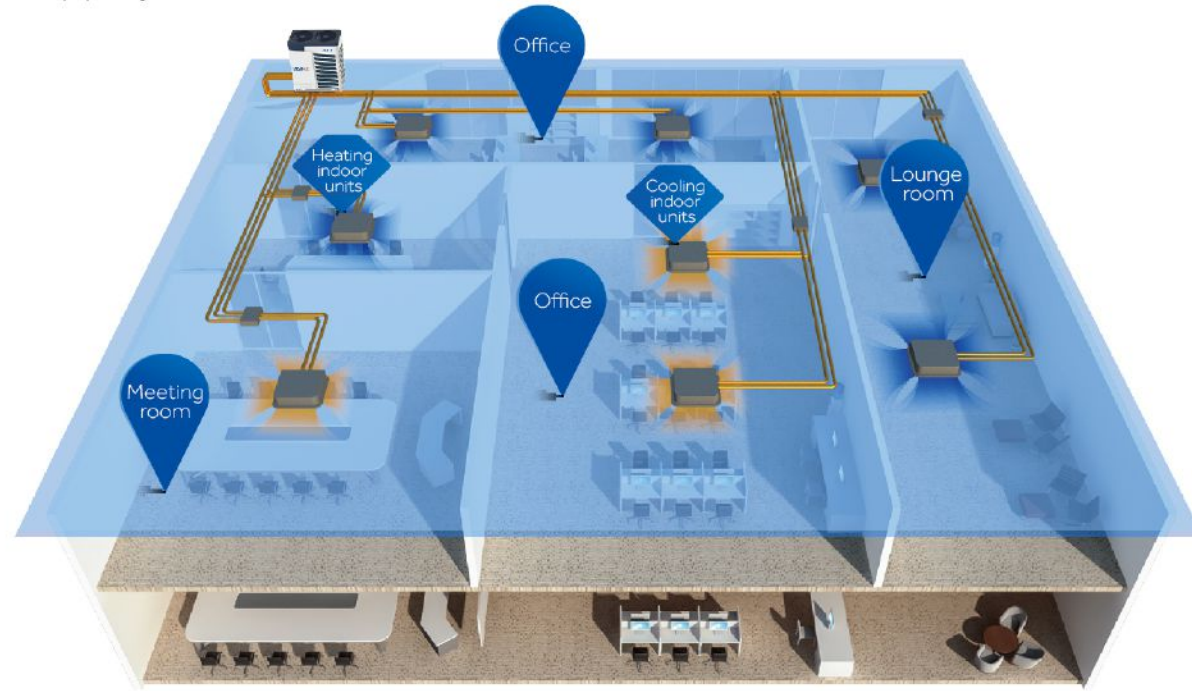


027 Features & Benefits  
029 Outdoor Specification

# FEATURES & BENEFITS

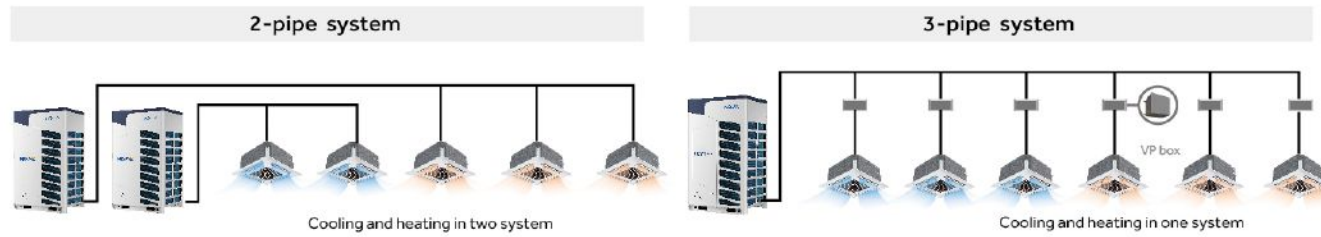
## System Introduction

Typical 3 pipe system

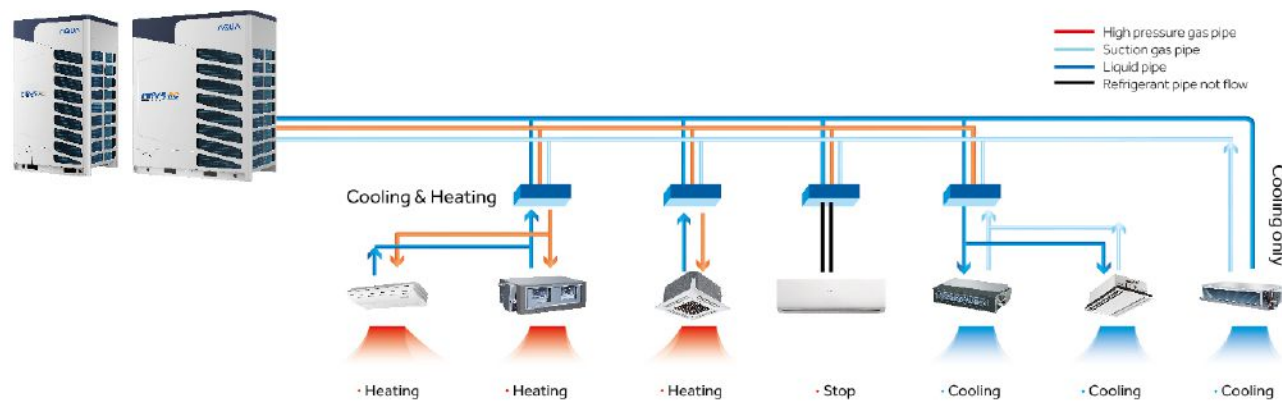


What is MRV 5-RC

- Cooling and heating simultaneously with only one outdoor unit
- Heat recovery system



Variable operation mode in one system

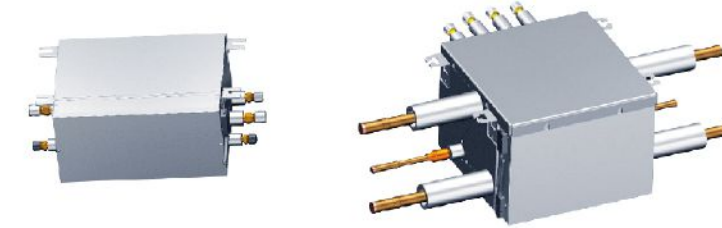


## Outdoor Structure

Vp (valve pipe) box structure overview

Overview

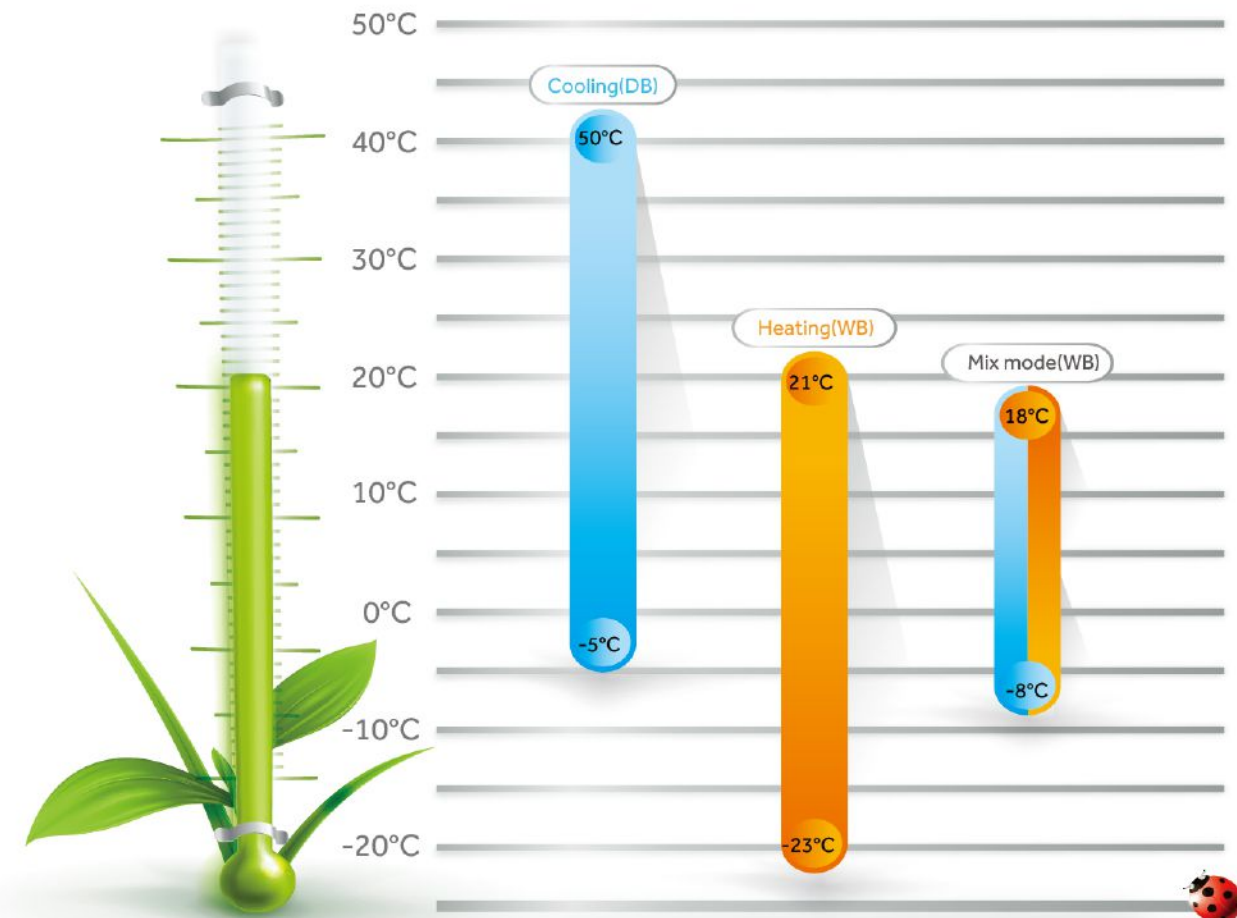
- Specially designed for MRV 5-RC, greatly reduced the volume
- Individual Valve + Pipe Box for Heat Recovery
- High comfort : Individual control box and change over for one group indoor units
- Threaded joint connection, easy for installation



Model name	Max.capacity of indoor(kw)	Power Supply	Max. indoor units	Dimension
VP1-112B	$x \leq 11.2$	1/220-240/50/60	5	388/200/277
VP1-180B	$11.2 < x \leq 18$	1/220-240/50/60	8	388/200/277
VP1-280B	$18 < x \leq 28$	1/220-240/50/60	8	388/200/277
VP4-450B	$\leq 45$	1/220-240/50/60	20	405/300/421

## System Introduction

Wide temperature operation range



# MRV 5-RC 3/380~415/50(60)



AV08IMVURA  
AV10IMVURA  
AV12IMVURA  
AV14IMVURA



AV16IMVURA  
AV18IMVURA  
AV20IMVURA  
AV22IMVURA

- Full DC inverter compressors
- Automatic oil balancing
- Instant cooling and heating

Model			AV08IMVURA	AV10IMVURA	AV12IMVURA	AV14IMVURA
Combination model			/	/	/	/
Capacity						
	Capacity range	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	3/380~415/50/60	3/380~415/50/60	3/380~415/50/60	3/380~415/50/60
Cooling	Rated power input	kW	5.09	6.95	8.63	11.17
	Max power input	kW	12.80	13.80	18.20	19.20
	Rated current	A	8.41	11.47	14.26	18.45
	Max current	A	21.14	22.79	30.06	31.71
	Rated power input	kW	5.08	6.73	8.54	10.71
	Max power input	kW	11.50	12.50	17.40	18.40
Heating	Rated current	A	8.39	11.12	14.11	17.69
	Max current	A	18.99	20.64	28.74	30.39
	EER		4.40	4.03	3.88	3.58
	COP		4.92	4.68	4.39	4.20
	SEER		6.23	6.32	6.17	6.12
	SCOP		4.12	4.03	3.93	3.72
Performance						
	Air flow (H)	m <sup>3</sup> /h	12000	12000	13500	13500
	Sound pressure level (H)	dB(A)	57	58	60	61
	Sound power level (H)	dB(A)	78	79	82	82
Installation						
	External dimensions(W/D/H)	mm	980/750/1690			
	Shipping dimensions(W/D/H)	mm	1070/850/1838			
	Net/Shipping weight	kg	246/271		257/282	
	Compressor type		DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL
	Compressor brand		MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI
	Compressor quantity		1INV	1INV	1INV	1INV
	Refrigerant type		R410A	R410A	R410A	R410A
	Refrigerant charge	kg	10	10	10	10
	Refrigerant liquid pipe	mm	9.52	9.52	12.7	12.7
	Refrigerant gas pipe	mm	19.05	22.22	25.4	25.4
	Refrigerant high gas pipe	m	19.05	19.05	22.22	22.22
	Max.total pipe length	m	1000	1000	1000	1000
	Max. pipe length (Equivalent/Actual)	m	260/220	260/220	260/220	260/220
	Max drop between I.U.&O.U (O.U down/up) *1	m	110/90	110/90	110/90	110/90
	Standard drop between I.U.&O.U (O.U up/down) *2	m	50/40	50/40	50/40	50/40
	Max drop between I.U *3	m	30	30	30	30
	Standard drop between I.U *4	Pa	18	18	18	18
	External static pressure	%	110	110	110	110
Connection ratio						
	Connectable indoor unit ratio		50-130	50-130	50-130	50-130
	Maximum number of indoor units	°C	13	16	20	24
Working temp.						
	Cooling	°C	-5-50			
	Heating		-23-21			

\*1 Max drop between I.U.&O.U \*1 If the height difference between the outdoor and the indoor units is from 50 to 110m, you MUST contact your local distributor/dealer for individual design and production.  
 \*2 Standard drop between I.U.&O.U \*2 Standard design and production in the factory.  
 \*3 Max drop between I.U. \*3 If the height difference between the indoor units is from 18 to 30m, you MUST contact your local distributor/dealer for individual design and production.  
 \*4 Standard drop between I.U. \*4 Standard design and production in the factory.

Model			AV16IMVURA	AV18IMVURA	AV20IMVURA	AV22IMVURA
Combination model			/	/	/	/
Capacity						
	Capacity range	HP	16	18	20	22
	Cooling	kW	45	50	56	63
	Heating	kW	50	56	63	69
Electrical parameters						
	Power supply	Ph/V/Hz	3/380~415/50/60	3/380~415/50/60	3/380~415/50/60	3/380~415/50/60
Cooling	Rated power input	kW	12.68	14.75	16.92	19.57
	Max power input	kW	25.10	28.50	32.00	33.00
	Rated current	A	20.93	24.36	27.94	32.31
	Max current	A	41.45	47.07	52.85	54.50
	Rated power input	kW	12.02	14.25	16.36	18.70
	Max power input	kW	22.70	25.50	29.40	30.40
Heating	Rated current	A	19.85	23.53	27.02	30.88
	Max current	A	37.49	42.11	48.55	50.21
	EER		3.55	3.39	3.31	3.22
	COP		4.16	3.93	3.85	3.69
	SEER		6.02	5.92	5.71	5.63
	SCOP		3.67	3.62	3.57	3.48
Performance						
	Air flow (H)	m <sup>3</sup> /h	17000	17000	19000	19000
	Sound pressure level (H)	dB(A)	62	63	63	64
	Sound power level (H)	dB(A)	83	84	84	85
Installation						
	External dimensions(W/D/H)	mm	1410/750/1690			
	Shipping dimensions(W/D/H)	mm	1515/850/1838			
	Net/Shipping weight	kg	366/395		375/404	
	Compressor type		DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL
	Compressor brand		MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI
	Compressor quantity		2INV	2INV	2INV	2INV
	Refrigerant type		R410A	R410A	R410A	R410A
	Refrigerant charge	kg	10	10	10	10
	Refrigerant liquid pipe	mm	12.7	15.88	15.88	15.88
	Refrigerant gas pipe	mm	28.58	28.58	28.58	28.58
	Refrigerant high gas pipe	m	25.4	25.4	25.4	25.4
	Max.total pipe length	m	1000	1000	1000	1000
	Max. pipe length (Equivalent/Actual)	m	260/220	260/220	260/220	260/220
	Max drop between I.U.&O.U (O.U down/up) *1	m	110/90	110/90	110/90	110/90
	Standard drop between I.U.&O.U (O.U up/down) *2	m	50/40	50/40	50/40	50/40
	Max drop between I.U *3	m	30	30	30	30
	Standard drop between I.U *4	Pa	18	18	18	18
	External static pressure	%	110	110	110	110
Connection ratio						
	Connectable indoor unit ratio		50-130	50-130	50-130	50-130
	Maximum number of indoor units	°C	27	30	33	36
Working temp.						
	Cooling	°C	-5-50			
	Heating		-23-21			

\* All the specifications are tested under nominal condition in cooling, indoor temp. is 27°C DB/19°C WB; Outdoor temp 35°C DB/24WB in heating, indoor temp is 20°C DB in heating, outdoor temp is 7°C DB/6°C WB

# MRV 5-RC 3/380~415/50(60)



AV08IMVURA  
AV10IMVURA  
AV12IMVURA  
AV14IMVURA



AV16IMVURA  
AV18IMVURA  
AV20IMVURA  
AV22IMVURA

- Full DC inverter compressors
- Automatic oil balancing
- Instant cooling and heating

Model			AV24IMVURA	AV26IMVURA	AV28IMVURA	AV30IMVURA	
Combination model			AV12IMVURA	AV12IMVURA	AV14IMVURA	AV14IMVURA	
			AV12IMVURA	AV14IMVURA	AV14IMVURA	AV16IMVURA	
			/	/	/	/	
			/	/	/	/	
Capacity	Capacity range	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	
Power supply			Ph/V/Hz	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
Electrical parameters	Cooling	Rated power input	kW	17.27	19.81	22.35	23.85
		Max power input	kW	36.400	37.40	38.40	44.30
		Rated current	A	28.52	32.71	36.91	39.39
		Max current	A	60.115	61.77	63.42	73.16
	Heating	Rated power input	kW	17.08	19.26	21.43	22.73
		Max power input	kW	34.800	35.80	36.80	41.10
		Rated current	A	28.21	31.80	35.39	37.54
		Max current	A	57.472	59.12	60.78	67.88
	EER		3.88	3.71	3.58	3.56	
	COP		4.39	4.28	4.20	4.18	
	SEER		6.14	6.12	6.10	6.04	
	SCOP		3.93	3.82	3.72	3.69	
Performance	Air flow (H)	m <sup>3</sup> /h	27000	27000	27000	30500	
	Sound pressure level (H)	dB(A)	63	63.5	64	64.5	
	Sound power level (H)	dB(A)	85	85	85	85.5	
External dimensions(W/D/H)			mm			980/750/1690+980/750/1690	
Shipping dimensions(W/D/H)			mm			1070/850/1838+1070/850/1838	
Net/Shipping weight			kg			257/282+257/282	
Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
Compressor brand			MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	
Compressor quantity			2INV	2INV	2INV	3INV	
Refrigerant type			R410A	R410A	R410A	R410A	
Refrigerant charge			kg	20	20	20	
Installation	Refrigerant liquid pipe	mm	15.88	15.88	15.88	19.05	
	Refrigerant gas pipe	mm	28.58	28.58	28.58	31.8	
	Refrigerant high gas pipe	m	25.4	25.4	25.4	28.58	
	Max total pipe length	m	1000	1000	1000	1000	
	Max pipe length (Equivalent/Actual)	m	260/220	260/220	260/220	260/220	
	Max drop between I.U. & O.U. (O.U. down/up) *1	m	110/90	110/90	110/90	110/90	
	Standard drop between I.U. & O.U. (O.U. up/down) *2	m	50/40	50/40	50/40	50/40	
	Max drop between I.U. *3	m	30	30	30	30	
	Standard drop between I.U. *4	Pa	18	18	18	18	
	External static pressure	%	110	110	110	110	
	Connection ratio	Connectable indoor unit ratio		50-130	50-130	50-130	50-130
		Maximum number of indoor units	°C	40	43	47	50
Working temp.	Cooling	°C	-5-50				
	Heating		-23-21				

\*1 Max drop between I.U. & O.U. (O.U. down/up) \*1  
Standard drop between I.U. & O.U. \*2  
\*2 Max drop between I.U. \*2  
Standard drop between I.U. \*4  
\*3 Max drop between I.U. \*3  
Standard drop between I.U. \*4  
\*4 Max drop between I.U. \*4  
Standard drop between I.U. \*4

Model			AV32IMVURA	AV34IMVURA	AV36IMVURA	AV38IMVURA	AV40IMVURA	
Combination model			AV16IMVURA	AV16IMVURA	AV18IMVURA	AV18IMVURA	AV20IMVURA	
			AV16IMVURA	AV18IMVURA	AV18IMVURA	AV20IMVURA	AV20IMVURA	
			/	/	/	/	/	
			/	/	/	/	/	
Capacity	Capacity range	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	
Power supply			Ph/V/Hz	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
Electrical parameters	Cooling	Rated power input	kW	25.35	27.43	29.50	31.67	33.84
		Max power input	kW	50.20	53.60	57.00	60.50	64.00
		Rated current	A	41.87	45.29	48.72	52.30	55.88
		Max current	A	82.91	88.52	94.14	99.92	105.70
	Heating	Rated power input	kW	24.04	26.27	28.50	30.61	32.73
		Max power input	kW	45.40	48.20	51.00	54.90	58.80
		Rated current	A	39.70	43.38	47.07	50.56	54.05
		Max current	A	74.98	79.60	84.23	90.67	97.11
	EER		3.55	3.46	3.39	3.35	3.31	
	COP		4.16	4.04	3.93	3.89	3.85	
	SEER		6.00	5.95	5.91	5.80	5.71	
	SCOP		3.67	3.64	3.62	3.59	3.57	
Performance	Air flow (H)	m <sup>3</sup> /h	34000	34000	34000	36000	38000	
	Sound pressure level (H)	dB(A)	65	65.5	66	66	66	
	Sound power level (H)	dB(A)	86	86.5	87	87	87	
External dimensions(W/D/H)			mm			1410/750/1690+1410/750/1690		
Shipping dimensions(W/D/H)			mm			1515/850/1838+1515/850/1838		
Net/Shipping weight			kg			366/395+366/395	366/395+375/404	
Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
Compressor brand			MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	
Compressor quantity			4INV	4INV	4INV	4INV	4INV	
Refrigerant type			R410A	R410A	R410A	R410A	R410A	
Refrigerant charge			kg	20	20	20	20	
Installation	Refrigerant liquid pipe	mm	19.05	19.05	19.05	19.05	19.05	
	Refrigerant gas pipe	mm	31.8	31.8	38.1	38.1	38.1	
	Refrigerant high gas pipe	m	28.58	28.58	34.9	34.9	34.9	
	Max total pipe length	m	1000	1000	1000	1000	1000	
	Max pipe length (Equivalent/Actual)	m	260/220	260/220	260/220	260/220	260/220	
	Max drop between I.U. & O.U. (O.U. down/up) *1	m	110/90	110/90	110/90	110/90	110/90	
	Standard drop between I.U. & O.U. (O.U. up/down) *2	m	50/40	50/40	50/40	50/40	50/40	
	Max drop between I.U. *3	m	30	30	30	30	30	
	Standard drop between I.U. *4	Pa	18	18	18	18	18	
	External static pressure	%	110	110	110	110	110	
	Connection ratio	Connectable indoor unit ratio		50-130	50-130	50-130	50-130	50-130
		Maximum number of indoor units	°C	53	56	59	63	64
Working temp.	Cooling	°C	-5-50					
	Heating		-23-21					

\* All the specifications are tested under nominal condition in cooling, indoor temp. is 27°C DB/19°C WB; Outdoor temp 35°C DB/24°C WB; In heating, indoor temp. is 20°C DB, outdoor temp. is 7°C DB/6°C WB.

# MRV 5-RC 3/380~415/50(60)



AV08IMVURA  
AV10IMVURA  
AV12IMVURA  
AV14IMVURA



AV16IMVURA  
AV18IMVURA  
AV20IMVURA  
AV22IMVURA

- Full DC inverter compressors
- Automatic oil balancing
- Instant cooling and heating

Model			AV42IMVURA	AV44IMVURA	AV46IMVURA	
Combination model			AV20IMVURA	AV22IMVURA	AV14IMVURA	
			AV22IMVURA	AV22IMVURA	AV16IMVURA	
			/	/	AV16IMVURA	
			/	/	/	
Capacity	Capacity range	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	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
	Cooling	Rated power input	kW	36.48	39.13	36.53
		Max power input	kW	65.00	66.00	69.40
		Rated current	A	60.25	64.62	60.32
		Max current	A	107.35	109.00	114.61
	Heating	Rated power input	kW	35.06	37.40	34.75
		Max power input	kW	59.80	60.80	63.80
		Rated current	A	57.91	61.76	57.39
		Max current	A	98.76	100.41	105.37
	EER			3.26	3.22	3.56
	COP			3.76	3.69	4.17
	SEER			5.67	5.63	6.03
	SCOP			3.52	3.48	3.68
Performance	Air flow (H)	m³/h	38000	38000	47500	
	Sound pressure level (H)	dB(A)	66.5	67	66.5	
	Sound power level (H)	dB(A)	87.5	88	87.5	
Installation	External dimensions(W/D/H)	mm	1410/750/1690+1410/750/1690		980/750/1690+1410/750/1690+1410/750/1690	
	Shipping dimensions(W/D/H)	mm	1515/850/1838+1515/850/1838		1070/850/1838+1515/850/1838+1515/850/1838	
	Net/Shipping weight	kg	375/404+375/404		257/282+366/395+366/395	
	Compressor type		DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
	Compressor brand		MITSUBISHI	MITSUBISHI	MITSUBISHI	
			ELECTRIC	ELECTRIC	ELECTRIC	
	Compressor quantity		4INV	4INV	5INV	
	Refrigerant type		R410A	R410A	R410A	
	Refrigerant charge	kg	20	20	30	
	Refrigerant liquid pipe	mm	19.05	19.05	19.05	
	Refrigerant gas pipe	mm	38.1	38.1	38.1	
	Refrigerant high gas pipe	m	34.9	34.9	34.9	
	Max.total pipe length	m	1000	1000	1000	
	Max. pipe length (Equivalent/Actual)	m	260/220	260/220	260/220	
	Max drop between I.U.&O.U (O.U down/up) *1	m	110/90	110/90	110/90	
	Standard drop between I.U.&O.U (O.U up/down) *2	m	50/40	50/40	50/40	
	Max drop between I.U *3	m	30	30	30	
	Standard drop between I.U *4	Pa	18	18	18	
	External static pressure	%	110	110	110	
	Connection ratio	Connectable indoor unit ratio		50-130	50-130	50-130
Maximum number of indoor units		°C	64	64	64	
Working temp.	Cooling	°C	-5-50			
	Heating		-23-21			

\*1 Max drop between I.U.&O.U \*1 If the height difference between the outdoor and the indoor units is from 50 to 110m, you MUST contact your local distributor/dealer for individual design and production.  
 \*2 Standard drop between I.U.&O.U \*2 Standard design and production in the factory.  
 \*3 Max drop between I.U. \*3 If the height difference between the indoor units is from 18 to 30m, you MUST contact your local distributor/dealer for individual design and production.  
 \*4 Standard drop between I.U. \*4 Standard design and production in the factory.

Model			AV48IMVURA	AV50IMVURA	AV52IMVURA	AV54IMVURA	AV56IMVURA	
Combination model			AV16IMVURA	AV16IMVURA	AV16IMVURA	AV18IMVURA	AV18IMVURA	
			AV16IMVURA	AV16IMVURA	AV18IMVURA	AV18IMVURA	AV18IMVURA	
			AV16IMVURA	AV18IMVURA	AV18IMVURA	AV18IMVURA	AV20IMVURA	
			/	/	/	/	/	
Capacity	Capacity range	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	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
	Cooling	Rated power input	kW	38.03	40.10	42.17	44.25	46.42
		Max power input	kW	75.30	78.70	82.10	85.50	89.00
		Rated current	A	62.80	66.23	69.65	73.08	76.66
		Max current	A	124.36	129.97	135.59	141.20	146.98
	Heating	Rated power input	kW	36.06	38.29	40.52	42.75	44.86
		Max power input	kW	68.10	70.90	73.70	76.50	80.40
		Rated current	A	59.55	63.23	66.92	70.60	74.09
		Max current	A	112.47	117.09	121.72	126.34	132.78
	EER			3.55	3.49	3.44	3.39	3.36
	COP			4.16	4.07	4.00	3.93	3.90
	SEER			6.00	5.96	5.93	5.91	5.83
	SCOP			3.67	3.65	3.64	3.62	3.60
Performance	Air flow (H)	m³/h	51000	51000	51000	51000	53000	
	Sound pressure level (H)	dB(A)	67	67	67.5	68	68	
	Sound power level (H)	dB(A)	88	88	88.5	89	89	
Installation	External dimensions(W/D/H)	mm	1410/750/1690+1410/750/1690+1410/750/1690					
	Shipping dimensions(W/D/H)	mm	1515/850/1838+1515/850/1838+1515/850/1838					
	Net/Shipping weight	kg	366/395+366/395+366/395				366/395+366/395+375/404	
	Compressor type		DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
	Compressor brand		MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	
			ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC	
	Compressor quantity		6INV	6INV	6INV	6INV	6INV	
	Refrigerant type		R410A	R410A	R410A	R410A	R410A	
	Refrigerant charge	kg	30	30	30	30	30	
	Refrigerant liquid pipe	mm	19.05	19.05	19.05	19.05	19.05	
	Refrigerant gas pipe	mm	38.1	38.1	38.1	38.1	38.1	
	Refrigerant high gas pipe	m	34.9	34.9	34.9	34.9	34.9	
	Max.total pipe length	m	1000	1000	1000	1000	1000	
	Max. pipe length (Equivalent/Actual)	m	260/220	260/220	260/220	260/220	260/220	
	Max drop between I.U.&O.U (O.U down/up) *1	m	110/90	110/90	110/90	110/90	110/90	
	Standard drop between I.U.&O.U (O.U up/down) *2	m	50/40	50/40	50/40	50/40	50/40	
	Max drop between I.U *3	m	30	30	30	30	30	
	Standard drop between I.U *4	Pa	18	18	18	18	18	
	External static pressure	%	110	110	110	110	110	
	Connection ratio	Connectable indoor unit ratio		50-130	50-130	50-130	50-130	50-130
Maximum number of indoor units		°C	64	64	64	64	64	
Working temp.	Cooling	°C	-5-50					
	Heating		-23-21					

\* All the specifications are tested under nominal condition in cooling, indoor temp. is 27°C DB/19°C WB; Outdoor temp 35°C DB/24°C WB in heating, indoor temp. is 20°C DB in heating, outdoor temp. is 7°C DB/6°C WB.



# MRV 5-RC 3/380~415/50(60)



AV08IMVURA  
AV10IMVURA  
AV12IMVURA  
AV14IMVURA



AV16IMVURA  
AV18IMVURA  
AV20IMVURA  
AV22IMVURA

- Full DC inverter compressors
- Automatic oil balancing
- Instant cooling and heating

Model			AV58IMVURA	AV60IMVURA	AV52IMVURA	AV64IMVURA	AV66IMVURA	
Combination model			AV18IMVURA	AV20IMVURA	AV20IMVURA	AV20IMVURA	AV22IMVURA	
			AV20IMVURA	AV20IMVURA	AV20IMVURA	AV22IMVURA	AV22IMVURA	
			AV20IMVURA	AV20IMVURA	AV22IMVURA	AV22IMVURA	AV22IMVURA	
			/	/	/	/	/	
Capacity	Capacity range	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	
Power supply			Ph/V/Hz	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
Electrical parameters	Cooling	Rated power input	kW	48.59	50.76	53.40	56.05	58.70
		Max power input	kW	92.50	96.00	97.00	98.00	99.00
		Rated current	A	80.24	83.82	88.19	92.57	96.94
		Max current	A	152.76	158.54	160.20	161.85	163.50
	Heating	Rated power input	kW	46.98	49.09	51.43	53.76	56.10
		Max power input	kW	84.30	88.20	89.20	90.20	91.20
		Rated current	A	77.58	81.07	84.93	88.79	92.65
		Max current	A	139.22	145.66	147.31	148.97	150.62
	EER		3.33	3.31	3.28	3.25	3.22	
	COP		3.87	3.85	3.79	3.74	3.69	
	SEER		5.77	5.71	5.68	5.66	5.63	
	SCOP		3.58	3.57	3.53	3.51	3.48	
Performance	Air flow (H)	m <sup>3</sup> /h	55000	57000	57000	57000	57000	
	Sound pressure level (H)	dB(A)	68	68	68	68.5	69	
	Sound power level (H)	dB(A)	89	89	89	89.5	90	
External dimensions(W/D/H)			mm				1410/750/1690+1410/750/1690+1410/750/1690	
Shipping dimensions(W/D/H)			mm				1515/850/1838+1515/850/1838+1515/850/1838	
Net/Shipping weight			kg		366/395+375/404+375/404		375/404+375/404+375/404	
Compressor type			DC INV. SCROLL				DC INV. SCROLL	
Compressor brand			MITSUBISHI				MITSUBISHI	
Compressor quantity			ELECTRIC				ELECTRIC	
Compressor quantity			6INV				6INV	
Refrigerant type			R410A				R410A	
Refrigerant charge			kg				30	
Refrigerant liquid pipe			mm				19.05	
Refrigerant gas pipe			mm				41.3	
Refrigerant high gas pipe			m				38.1	
Max total pipe length			m				1000	
Max pipe length (Equivalent/Actual)			m				260/220	
Max drop between I.U. & O.U. (O.U. down/up) *1			m				110/90	
Standard drop between I.U. & O.U. (O.U. up/down) *2			m				50/40	
Max drop between I.U. *3			m				30	
Standard drop between I.U. *4			Pa				18	
External static pressure			%				110	
Connection ratio	Connectable indoor unit ratio		50-130				50-130	
	Maximum number of indoor units	°C	64				64	
Working temp.	Cooling	°C					-5-50	
	Heating						-23-21	

\*1 Max drop between I.U. & O.U. (O.U. down/up) \*1  
\*2 Standard drop between I.U. & O.U. (O.U. up/down) \*2  
\*3 Max drop between I.U. \*3  
\*4 Standard drop between I.U. \*4  
If the height difference between the outdoor and the indoor units is from 50 to 110m, you MUST contact your local distributor/dealer for individual design and production.  
Standard design and production in the factory.  
If the height difference between the indoor units is from 18 to 30m, you MUST contact your local distributor/dealer for individual design and production.  
Standard design and production in the factory.

Model			AV68IMVURA	AV70IMVURA	AV72IMVURA	AV74IMVURA	
Combination model			AV16IMVURA	AV16IMVURA	AV18IMVURA	AV18IMVURA	
			AV16IMVURA	AV18IMVURA	AV18IMVURA	AV18IMVURA	
			AV18IMVURA	AV18IMVURA	AV18IMVURA	AV18IMVURA	
			AV18IMVURA	AV18IMVURA	AV18IMVURA	AV20IMVURA	
Capacity	Capacity range	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	
Power supply			Ph/V/Hz	3/380-415/50/60	3/380-415/50/60	3/380-415/50/60	
Electrical parameters	Cooling	Rated power input	kW	54.85	56.92	59.00	61.17
		Max power input	kW	107.20	110.60	114.00	117.50
		Rated current	A	90.59	94.01	97.43	101.02
		Max current	A	177.04	182.66	188.27	194.05
	Heating	Rated power input	kW	52.54	54.77	57.00	59.11
		Max power input	kW	96.40	99.20	102.00	105.90
		Rated current	A	86.77	90.45	94.13	97.62
		Max current	A	159.21	163.83	168.45	174.89
	EER		3.46	3.43	3.39	3.37	
	COP		4.04	3.98	3.93	3.91	
	SEER		5.95	5.93	5.91	5.85	
	SCOP		3.64	3.63	3.62	3.61	
Performance	Air flow (H)	m <sup>3</sup> /h	68000	68000	68000	70000	
	Sound pressure level (H)	dB(A)	69	69	69	69	
	Sound power level (H)	dB(A)	90	90	90	90	
External dimensions(W/D/H)			mm				1410/750/1690+1410/750/1690+1410/750/1690+1410/750/1690
Shipping dimensions(W/D/H)			mm				1515/850/1838+1515/850/1838+1515/850/1838+1515/850/1838
Net/Shipping weight			kg		366/395+366/395+366/395+366/395		366/395+366/395+366/395+375/404
Compressor type			DC INV. SCROLL				DC INV. SCROLL
Compressor brand			MITSUBISHI				MITSUBISHI
Compressor quantity			ELECTRIC				ELECTRIC
Compressor quantity			8INV				8INV
Refrigerant type			R410A				R410A
Refrigerant charge			kg				40
Refrigerant liquid pipe			mm				22.2
Refrigerant gas pipe			mm				44.5
Refrigerant high gas pipe			m				41.3
Max total pipe length			m				1000
Max pipe length (Equivalent/Actual)			m				260/220
Max drop between I.U. & O.U. (O.U. down/up) *1			m				110/90
Standard drop between I.U. & O.U. (O.U. up/down) *2			m				50/40
Max drop between I.U. *3			m				30
Standard drop between I.U. *4			Pa				18
External static pressure			%				110
Connection ratio	Connectable indoor unit ratio		50-130				50-130
	Maximum number of indoor units	°C	64				64
Working temp.	Cooling	°C					-5-50
	Heating						-23-21

\* All the specifications are tested under nominal condition in cooling, indoor temp. is 27°C DB/19°C WB; Outdoor temp 35°C DB/24WB; In heating, indoor temp. is 20°C DB; In heating, outdoor temp. is 7°C DB/6°C WB.

# MRV 5-RC 3/380~415/50(60)



AV08IMVURA  
AV10IMVURA  
AV12IMVURA  
AV14IMVURA



AV16IMVURA  
AV18IMVURA  
AV20IMVURA  
AV22IMVURA

- Full DC inverter compressors
- Automatic oil balancing
- Instant cooling and heating

Model			AV76IMVURA	AV78IMVURA	AV80IMVURA	AV82IMVURA	
Combination model			AV18IMVURA	AV18IMVURA	AV20IMVURA	AV20IMVURA	
			AV18IMVURA	AV20IMVURA	AV20IMVURA	AV20IMVURA	
			AV20IMVURA	AV20IMVURA	AV20IMVURA	AV20IMVURA	
			AV20IMVURA	AV20IMVURA	AV20IMVURA	AV22IMVURA	
Capacity	Capacity range	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	3/380~415/50/60	3/380~415/50/60	3/380~415/50/60	3/380~415/50/60	
	Cooling	Rated power input	kW	63.34	65.50	67.67	70.32
		Max power input	kW	121.00	124.50	128.00	129.00
		Rated current	A	104.60	108.18	111.76	116.13
		Max current	A	199.83	205.61	211.39	213.04
	Heating	Rated power input	kW	61.23	63.34	65.45	67.79
		Max power input	kW	109.80	113.70	117.60	118.60
		Rated current	A	101.12	104.61	108.10	111.96
		Max current	A	181.34	187.78	194.22	195.87
	EER		3.35	3.33	3.31	3.28	
	COP		3.89	3.87	3.85	3.81	
	SEER		5.80	5.75	5.71	5.69	
	SCOP		3.59	3.58	3.57	3.54	
Performance	Air flow (H)	m <sup>3</sup> /h	72000	74000	76000	76000	
	Sound pressure level (H)	dB(A)	69	69	69	69	
	Sound power level (H)	dB(A)	90	90	90	90	
Installation	External dimensions(W/D/H)	mm	1410/750/1690+1410/750/1690+1410/750/1690+1410/750/1690				
	Shipping dimensions(W/D/H)	mm	1515/850/1838+1515/850/1838+1515/850/1838+1515/850/1838				
	Net/Shipping 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		
	Compressor type		DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
	Compressor brand		MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	
	Compressor quantity		8INV	8INV	8INV	8INV	
	Refrigerant type		R410A	R410A	R410A	R410A	
	Refrigerant charge	kg	40	40	40	40	
	Refrigerant liquid pipe	mm	22.2	22.2	22.2	22.2	
	Refrigerant gas pipe	mm	44.5	44.5	44.5	44.5	
	Refrigerant high gas pipe	m	41.3	41.3	41.3	41.3	
	Max.total pipe length	m	1000	1000	1000	1000	
	Max. pipe length (Equivalent/Actual)	m	260/220	260/220	260/220	260/220	
	Max drop between I.U.&O.U (O.U down/up) *1	m	110/90	110/90	110/90	110/90	
	Standard drop between I.U.&O.U (O.U up/down) *2	m	50/40	50/40	50/40	50/40	
	Max drop between I.U *3	m	30	30	30	30	
	Standard drop between I.U *4	Pa	18	18	18	18	
External static pressure	%	110	110	110	110		
Connection ratio	Connectable indoor unit ratio		50~130	50~130	50~130	50~130	
	Maximum number of indoor units	°C	64	64	64	64	
Working temp.	Cooling	°C	-5~50				
	Heating		-23~21				

\*1 Max drop between I.U.&O.U \*1 If the height difference between the outdoor and the indoor units is from 50 to 110m, you MUST contact your local distributor/dealer for individual design and production.  
 \*2 Standard drop between I.U.&O.U \*2 Standard design and production in the factory.  
 \*3 Max drop between I.U. \*3 If the height difference between the indoor units is from 18 to 30m, you MUST contact your local distributor/dealer for individual design and production.  
 \*4 Standard drop between I.U. \*4 Standard design and production in the factory.

Model			AV84IMVURA	AV86IMVURA	AV88IMVURA	
Combination model			AV20IMVURA	AV20IMVURA	AV22IMVURA	
			AV20IMVURA	AV22IMVURA	AV22IMVURA	
			AV22IMVURA	AV22IMVURA	AV22IMVURA	
			AV22IMVURA	AV22IMVURA	AV22IMVURA	
Capacity	Capacity range	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	3/380~415/50/60	3/380~415/50/60	3/380~415/50/60	
	Cooling	Rated power input	kW	72.97	75.61	78.26
		Max power input	kW	130.00	131.00	132.00
		Rated current	A	120.51	124.88	129.25
		Max current	A	214.70	216.35	218.00
	Heating	Rated power input	kW	70.13	72.46	74.80
		Max power input	kW	119.60	120.60	121.60
		Rated current	A	115.81	119.67	123.53
		Max current	A	197.52	199.17	200.82
	EER		3.26	3.24	3.22	
	COP		3.76	3.73	3.69	
	SEER		5.67	5.65	5.63	
	SCOP		3.52	3.50	3.48	
Performance	Air flow (H)	m <sup>3</sup> /h	76000	76000	76000	
	Sound pressure level (H)	dB(A)	69.5	70	70	
	Sound power level (H)	dB(A)	90.5	91	91	
Installation	External dimensions(W/D/H)	mm	1410/750/1690+1410/750/1690+1410/750/1690+1410/750/1690			
	Shipping dimensions(W/D/H)	mm	1515/850/1838+1515/850/1838+1515/850/1838+1515/850/1838			
	Net/Shipping weight	kg	375/404+375/404+375/404+375/404			
	Compressor type		DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
	Compressor brand		MITSUBISHI	MITSUBISHI	MITSUBISHI	
	Compressor quantity		8INV	8INV	8INV	
	Refrigerant type		R410A	R410A	R410A	
	Refrigerant charge	kg	40	40	40	
	Refrigerant liquid pipe	mm	22.2	25.4	25.4	
	Refrigerant gas pipe	mm	44.5	50.8	50.8	
	Refrigerant high gas pipe	m	41.3	44.5	44.5	
	Max.total pipe length	m	1000	1000	1000	
	Max. pipe length (Equivalent/Actual)	m	260/220	260/220	260/220	
	Max drop between I.U.&O.U (O.U down/up) *1	m	110/90	110/90	110/90	
	Standard drop between I.U.&O.U (O.U up/down) *2	m	50/40	50/40	50/40	
	Max drop between I.U *3	m	30	30	30	
	Standard drop between I.U *4	Pa	18	18	18	
External static pressure	%	110	110	110		
Connection ratio	Connectable indoor unit ratio		50~130	50~130	50~130	
	Maximum number of indoor units	°C	64	64	64	
Working temp.	Cooling	°C	-5~50			
	Heating		-23~21			

\* All the specifications are tested under nominal condition in cooling, indoor temp. is 27°C DB/19°C WB; Outdoor temp 35°C DB/24WB in heating, indoor temp. is 20°C DB in heating, outdoor temp. is 7°C DB/6°C WB.



# MRV IV



041 Features & Benefits

048 MRV IV Outdoor

# FEATURES & BENEFITS

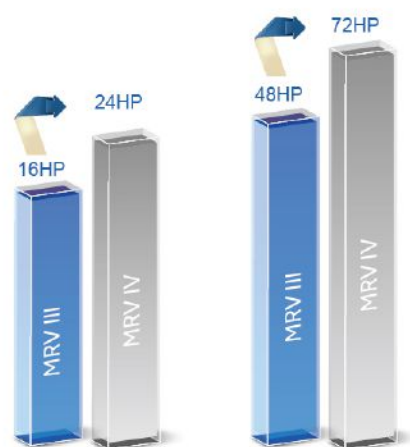
## MRV Milestones & MRV IV line-up

Largest capacity single module

24 HP

1 Unit Capacity

Combinations



Single module line-up



Combination line-up



- ▶ Max. 3 modules combination 72HP, every 2HP one model.
- ▶ Footprint of 72HP only 2.92m<sup>2</sup>, 50% size reduced

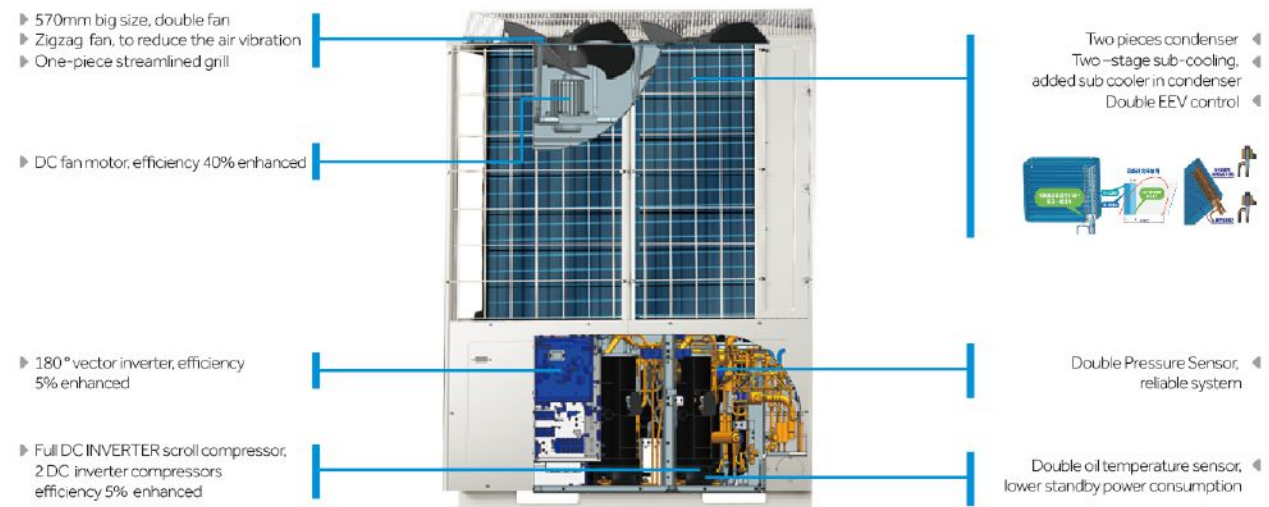
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●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

## Full DC Inverter High Efficiency

Full DC inverter technology

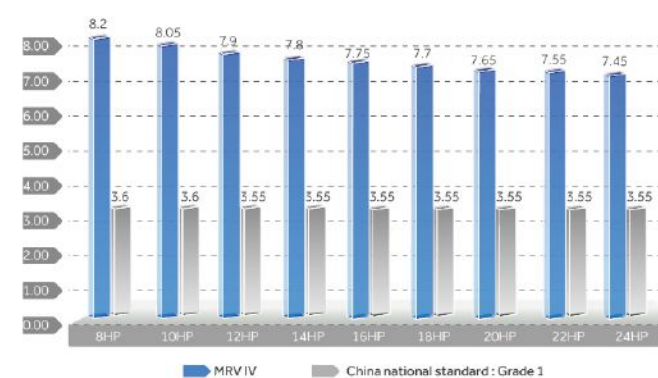


Full new outlook, full DC inverter technology key parts



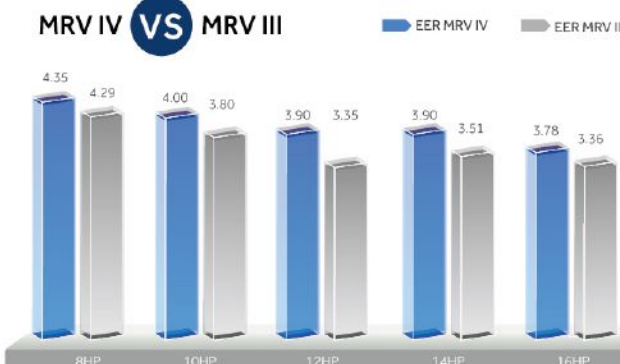
High efficiency

IPLV(c) up to 8.2, average IPLV(c) up to 7.7, low running cost



High efficiency

Higher energy efficiency than MRV III



# FEATURES & BENEFITS

## Easy Installation

Largest capacity single module in the industry: 24HP, Smallest footprint in the industry: 0.97m<sup>2</sup>



82Pa ESP, long air duct connecting available



## Easy Installation



Max. total pipe length **1000m**

Max. single pipe length **165m** (equivalent pipe **190m**)

Max. height drop between ID and OD **Max. 110m/90m<sup>+1</sup>** Standard 50m/40m

Max. height drop between ID **Max. 30m<sup>+2</sup>** (standard 18m)

<sup>+1</sup> <sup>+2</sup> Need contact your local distributor/dealer for individual design.

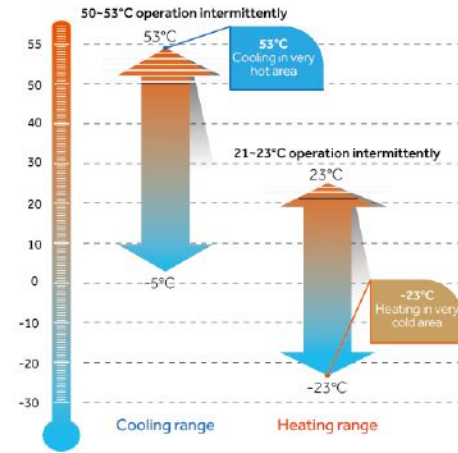
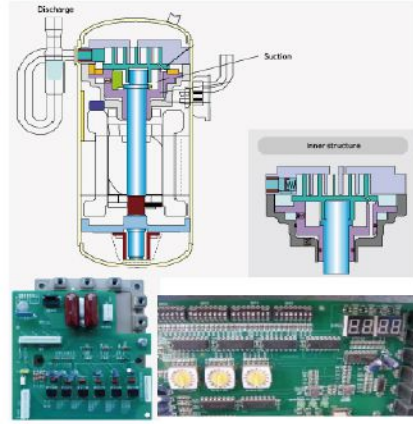
# FEATURES & BENEFITS

## Comfort

Wide operation range, -23°C heating, 53°C cooling

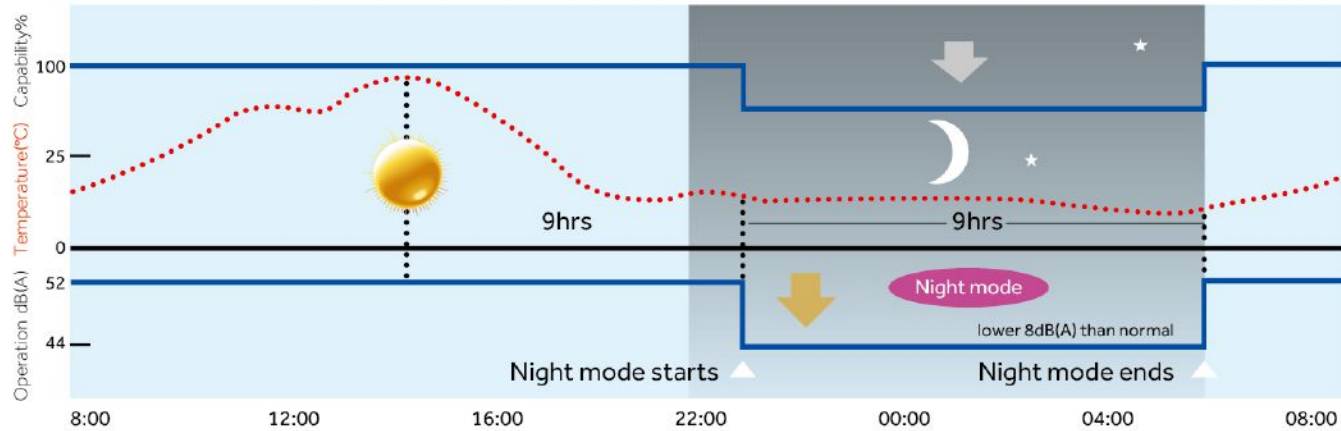
Full DC Inverter Comp.

Precise control Tech.



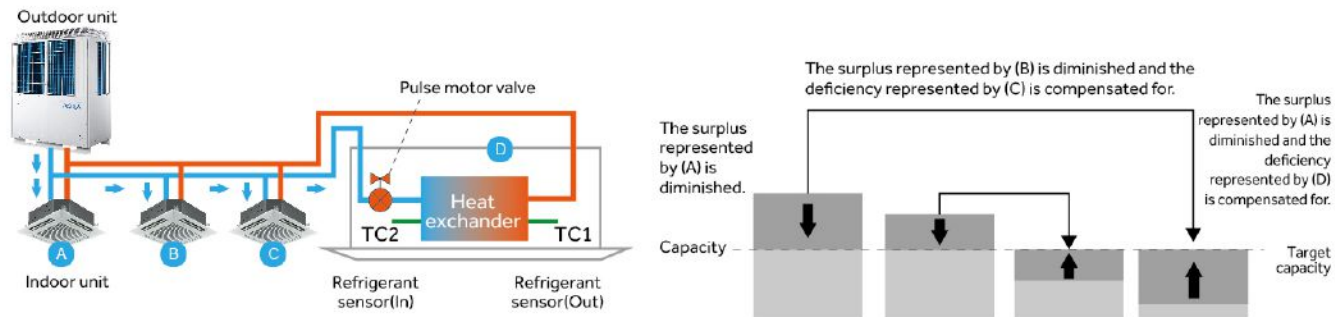
## Low noise and night silent running

► 8dB(A) noise will be reduced if night silent mode starts.



## Optimal temperature control

- When a multiple number of indoor units are connected, an insufficient or excess amount of refrigerant may be supplied to indoor units depending on the difference in length of the piping connection from outdoor units
- Optimal refrigerant control uses the indoor coil temperature to detect the air conditioning status of each indoor unit and control the capacity (refrigerant amounts) very precisely



## High Reliability

Recycling operation

Recycling operation, longer life of compressor

Group 1

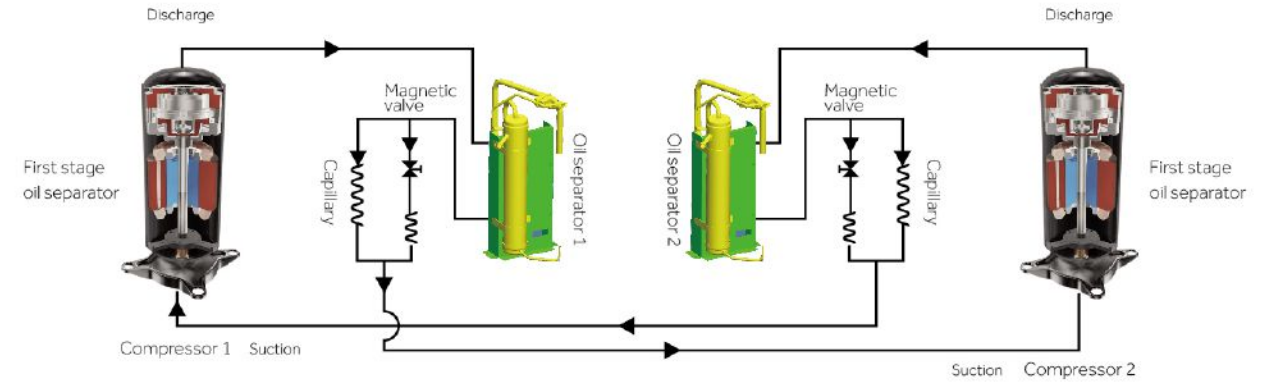
Group 2



Average operation time  
Comparing with fix speed + inverter system, longer life

## Oil return

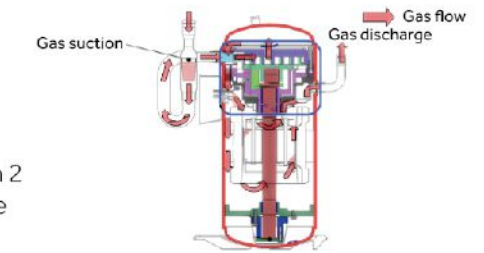
If the compressor operate at low frequency, oil return is only through the capillary. If the compressor operate at high frequency, oil return is through the capillary and magnetic valve.



## Compressor double protection

Base on the basic gas discharge sensor, MRV IV add the oil temperature sensor at the bottom of compressor.

- Control the on/off of heater of compressor, preventing from the liquid shock of compressor
- Judge if the liquid refrigerant enter into the compressor
- Compressor oil sub heating protection
- High pressure sensor for every compressor so for the module with 2 compressors, there are 2 high pressure sensors and 1 low pressure sensors, total 3 sensors



## Thunder protection

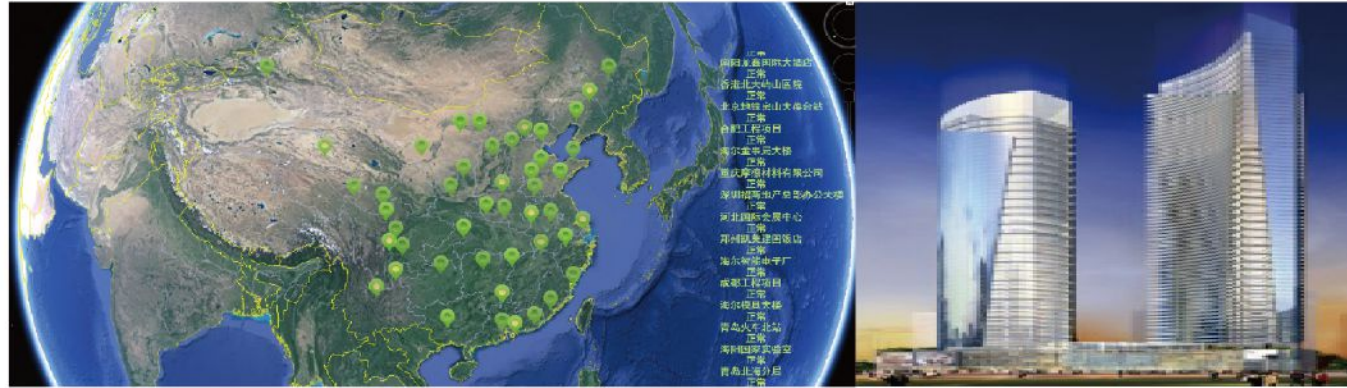
There are electricity discharge wire in the terminal block, to lead the abnormal voltage into the earth, then to prevent the thunder affect.



# FEATURES & BENEFITS

## Cloud Service Platform

### Cloud Service



- 7\*24 on-line service
- Intelligent service:failure reminder, maintenance reminder information
- Energy saving:real-time data saving, provide energy saving solution according to data analysis
- Under development

# MRV IV T1 3/380~400/50(60)



AV08NMMEUA  
AV10NMMEUA  
AV12NMMEUA  
AV14NMMEUA  
AV16NMMEUA

8/10/12/14/16HP



AV18NMMEUA  
AV20NMMEUA  
AV22NMMEUA  
AV24NMMEUA

18/20/22/24HP

Model		AV08NMMEUA	AV10NMMEUA	AV12NMMEUA	AV14NMMEUA	AV16NMMEUA	AV18NMMEUA		
Combination model		/	/	/	/	/	/		
Capacity	Capacity range	HP	8	10	12	14	16	18	
	Cooling	kW	25.2	28	33.5	40	45	50.4	
	Heating	kW	27.3	31.5	37.5	45	50	56.5	
Power supply		Ph/V/Hz	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	
Electrical parameters	Cooling	Rated power input	kW	5.79	7.00	8.59	10.26	11.90	13.62
		Max power input	kW	14.02	14.38	14.73	16.91	22.68	22.10
		Rated current	A	9.57	11.56	14.19	16.94	19.66	22.50
	Heating	Rated power input	kW	6.00	7.08	8.72	10.71	12.05	13.95
		Max power input	kW	12.72	13.23	13.68	15.60	17.20	22.68
		Rated current	A	9.91	11.69	14.40	17.69	19.90	23.04
	Max current		A	20.95	21.79	22.1	25.2	27.88	37.8
	EER			4.35	4.00	3.90	3.90	3.78	3.70
	COP			4.55	4.45	4.30	4.20	4.15	4.05
SEER			7.13	6.95	6.84	6.48	5.99	6.13	
SCOP			5.15	5.08	4.98	4.73	4.16	4.27	
Performance	Air flow (H)	m <sup>3</sup> /h	C:15000/H:13200	C:15000/H:13200	C:15000/H:13200	C:15000/H:13200	C:15600/H:14400	C:16200/H:15000	
	Sound pressure level (H)	dB(A)	57	57	59	59.5	61	62	
	Sound power level (H)	dB(A)	73	73	75	76	77	79	
External dimensions (W/D/H)		mm	1350×720×1690	1350×720×1690	1350×720×1690	1350×720×1690	1350×720×1690	1350×720×2048	
Shipping dimensions (W/D/H)		mm	1450×826×1885	1450×826×1885	1450×826×1885	1450×826×1885	1450×826×1885	1450×826×2225	
Net/Shipping weight		kg	269/305	269/305	269/305	275/311	323/359	354/400	
Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
Compressor brand			MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	
Compressor quantity			1INV	1INV	1INV	1INV	2INV	2INV	
Refrigerant type			R410A	R410A	R410A	R410A	R410A	R410A	
Refrigerant charge		kg	9.7	9.7	9.7	10	10	10	
Refrigerant liquid pipe		mm	9.52	9.52	12.7	12.7	12.7	15.88	
Refrigerant gas pipe		mm	19.05	22.22	25.4	25.4	28.58	28.58	
Oil equalization pipe		mm	9.52	9.52	9.52	9.52	9.52	9.52	
Max. total pipe length		m	1000	1000	1000	1000	1000	1000	
Max. pipe length (Equivalent/Actual)		m	190/165	190/165	190/165	190/165	190/165	190/165	
Max drop between I.U.&O.U (O.U up/down) *1		m	90/110	90/110	90/110	90/110	90/110	90/110	
Standard drop between I.U.&O.U*2		m	50/40	50/40	50/40	50/40	50/40	50/40	
Max drop between I.U *3		m	30	30	30	30	30	30	
Standard drop between I.U *4		m	18	18	18	18	18	18	
External static pressure		Pa	82	82	82	82	82	82	
Connection ratio	Connectable indoor unit ratio	%	50-160	50-160	50-160	50-160	50-160	50-160	
	Maximum number of indoor units		18	20	24	29	33	37	
Working temp.	Cooling(DB)	°C	(-5-50)						
	Heating(WB)	°C	(-23-21)						

Max drop between I.U.&O.U \*1 If the height difference between the outdoor and the indoor units is from 50 to 110m, you MUST contact your local distributor/dealer for individual design and production.  
Standard drop between I.U.&O.U\*2 Standard design and production in the factory.  
Max drop between I.U. \*3 If the height difference between the indoor units is from 18 to 30m, you MUST contact your local distributor/dealer for individual design and production.

# MRV IV T1 3/380~400/50(60)



AV08NMMEUA  
AV10NMMEUA  
AV12NMMEUA  
AV14NMMEUA  
AV16NMMEUA

8/10/12/14/16HP



AV18NMMEUA  
AV20NMMEUA  
AV22NMMEUA  
AV24NMMEUA

18/20/22/24HP

- Single Module: 8/10/12/14/16HP, 18/20/22/24HP
- Combination Module: 26~72HP, 2~3 modules
- Full DC INVERTER technology
- Max. 1000m total pipe length, Max. 110m height drop
- Compatible with all the MRV indoor units.

Model		AV20NMMEUA	AV22NMMEUA	AV24NMMEUA	AV26NMMEUA	AV28NMMEUA		
Combination model		/	/	/	AV12NMMEUA	AV14NMMEUA		
		/	/	/	AV14NMMEUA	AV14NMMEUA		
		/	/	/				
Capacity	Capacity range	HP	20	22	24	26	28	
	Cooling	kW	56	61.5	68	73.5	80	
	Heating	kW	63	69	73	82.5	90	
Electrical parameters	Power supply	Ph/V/Hz	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	
	Cooling	Rated power input	kW	15.56	17.57	19.71	18.85	20.51
		Max power input	kW	25.19	30.56	37.47	31.64	33.81
		Rated current	A	25.69	29.02	32.55	31.12	33.88
		Max current	A	41.1	49.65	60.45	53.5	56.8
	Heating	Rated power input	kW	15.95	18.16	19.47	19.44	21.43
		Max power input	kW	25.19	27.72	28.62	29.28	31.20
		Rated current	A	26.34	29.99	32.15	32.10	35.39
		Max current	A	42	46.05	47.4	47.3	50.4
	EER			3.60	3.50	3.45	3.90	3.90
	COP			3.95	3.80	3.75	4.24	4.20
	SEER			6.00	5.88	5.69	6.63	6.48
	SCOP			4.19	3.99	3.87	4.84	4.73
	Performance	Air flow (H)	m³/h	C:16200/H:15000	C:16200/H:15000	C:16200/H:15000	C:30000/H:26400	C:30000/H:26400
Sound pressure level (H)		dB(A)	62	62	63	62	62.5	
Sound power level (H)		dB(A)	79	79	80	79	80	
Installation	External dimensions (W/D/H)	mm	1350×720×2048	1350×720×2048	1350×720×2048	1350×720×1690+	1350×720×1690*2	
	Shipping dimensions (W/D/H)	mm	1450×826×2225	1450×826×2225	1450×826×2225	1450×826×1885+	1450×826×1885*2	
	Net/Shipping weight	kg	354/400	380/426	380/426	269/305+275/311	275/311+275/311	
	Compressor type		DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
	Compressor brand		DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	
	Compressor quantity		2INV	2INV	2INV	1INV+1INV	1INV*2	
	Refrigerant type		R410A	R410A	R410A	R410A	R410A	
	Refrigerant charge	kg	10	10	10	19.7	20	
	Refrigerant liquid pipe	mm	15.88	15.88	15.88	19.05	19.05	
	Refrigerant gas pipe	mm	28.58	28.58	28.58	31.8	31.8	
	Oil equalization pipe	mm	9.52	9.52	9.52	9.52	9.52	
	Max. total pipe length	m	1000	1000	1000	1000	1000	
	Max. pipe length (Equivalent/Actual)	m	190/165	190/165	190/165	190/165	190/165	
	Max drop between I.U.&O.U (O.U up/down) *1	m	90/110	90/110	90/110	90/110	90/110	
	Standard drop between I.U.&O.U*2	m	50/40	50/40	50/40	50/40	50/40	
	Max drop between I.U. *3	m	30	30	30	30	30	
Standard drop between I.U. *4	m	18	18	18	18	18		
External static pressure	Pa	82	82	82	82	82		
Connection ratio	Connectable indoor unit ratio	%	50~160	50~160	50~160	50~160	50~160	
	Maximum number of indoor units		41	45	49	53	58	
Working temp.	Cooling(DB)	°C	(-5~50)					
	Heating(WB)	°C	(-23~21)					

Model		AV30NMMEUA	AV32NMMEUA	AV34NMMEUA	AV36NMMEUA	AV38NMMEUA		
Combination model		AV14NMMEUA	AV14NMMEUA	AV16NMMEUA	AV16NMMEUA	AV18NMMEUA		
		AV16NMMEUA	AV18NMMEUA	AV18NMMEUA	AV20NMMEUA	AV20NMMEUA		
Capacity	Capacity range	HP	30	32	34	36	38	
	Cooling	kW	85	90.4	95.4	101	106.4	
	Heating	kW	95	101.5	106.5	113	119.5	
Electrical parameters	Power supply	Ph/V/Hz	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	
	Cooling	Rated power input	kW	22.16	23.88	25.53	27.46	29.18
		Max power input	kW	39.59	39.00	44.78	47.87	47.28
		Rated current	A	36.60	39.43	42.16	45.35	48.19
		Max current	A	65.2	64.55	72.95	77.9	77.25
	Heating	Rated power input	kW	22.76	24.66	26.00	28.00	29.90
		Max power input	kW	32.80	38.28	39.88	42.39	47.87
		Rated current	A	37.59	40.73	42.94	46.24	49.38
		Max current	A	53.08	63	65.68	69.88	79.8
	EER			3.84	3.79	3.74	3.68	3.65
	COP			4.17	4.12	4.10	4.04	4.00
	SEER			6.21	6.29	6.07	6.01	6.08
	SCOP			4.41	4.46	4.21	4.17	4.23
	Performance	Air flow (H)	m³/h	C:30600/H:27600	C:31200/H:28200	C:31480/H:29400	C:31480/H:29400	C:32400/H:30000
Sound pressure level (H)		dB(A)	63	64	64.5	64.5	65	
Sound power level (H)		dB(A)	80	81	82	82	83	
Installation	External dimensions (W/D/H)	mm	1350×720×1690+	1350×720×1690+	1350×720×1690+	1350×720×1690+	1350×720×2048+	
	Shipping dimensions (W/D/H)	mm	1450×826×2225	1450×826×2225	1450×826×2225	1450×826×2225	1450×826×2225	
	Net/Shipping weight	kg	275/311+323/359	275/311+354/400	323/359+354/400	323/359+354/400	354/400+354/400	
	Compressor type		DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
	Compressor brand		DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	
	Compressor quantity		1INV+2INV	1INV+2INV	2INV+2INV	2INV+2INV	2INV+2INV	
	Refrigerant type		R410A	R410A	R410A	R410A	R410A	
	Refrigerant charge	kg	20	20	20	20	20	
	Refrigerant liquid pipe	mm	19.05	19.05	19.05	19.05	19.05	
	Refrigerant gas pipe	mm	31.8	31.8	31.8	38.1	38.1	
	Oil equalization pipe	mm	9.52	9.52	9.52	9.52	9.52	
	Max. total pipe length	m	1000	1000	1000	1000	1000	
	Max. pipe length (Equivalent/Actual)	m	190/165	190/165	190/165	190/165	190/165	
	Max drop between I.U.&O.U (O.U up/down) *1	m	90/110	90/110	90/110	90/110	90/110	
	Standard drop between I.U.&O.U*2	m	50/40	50/40	50/40	50/40	50/40	
	Max drop between I.U. *3	m	30	30	30	30	30	
Standard drop between I.U. *4	m	18	18	18	18	18		
External static pressure	Pa	82	82	82	82	82		
Connection ratio	Connectable indoor unit ratio	%	50~160	50~160	50~160	50~160	50~160	
	Maximum number of indoor units		62	64	64	64	64	
Working temp.	Cooling(DB)	°C	(-5~50)					
	Heating(WB)	°C	(-23~21)					

Max drop between I.U.&O.U \*1 If the height difference between the outdoor and the indoor units is from 50 to 110m, you MUST contact your local distributor/dealer for individual design and production.  
Standard drop between I.U.&O.U \*2 Standard design and production in the factory.  
Max drop between I.U. \*3 If the height difference between the indoor units is from 18 to 30m, you MUST contact your local distributor/dealer for individual design and production.

Standard drop between I.U. \*4 Standard design and production in the factory.  
Connectable indoor unit ratio \*5 If the connection capacity is between 130%-160%, you MUST contact your local distributor/dealer for individual design and separate order.  
\* All the specifications are tested under nominal condition (in cooling, indoor temp. is 27°C DB/19°C WB; Outdoor temp 35°C DB/24°C WB; in heating, indoor temp is 20°C DB, in heating, outdoor temp. is 7°C DB/6°CWB)



# MRV IV T1 3/380~400/50(60)



AV08NMMEUA  
AV10NMMEUA  
AV12NMMEUA  
AV14NMMEUA  
AV16NMMEUA

8/10/12/14/16HP



AV18NMMEUA  
AV20NMMEUA  
AV22NMMEUA  
AV24NMMEUA

18/20/22/24HP

- Single Module: 8/10/12/14/16HP,18/20/22/24HP
- Combination Module: 26-72HP, 2-3 modules
- Full DC INVERTER technology
- Max.1000m total pipe length, Max.110m height drop
- Compatible with all the MRV indoor units.

Model		AV40NMMEUA	AV42NMMEUA	AV44NMMEUA	AV46NMMEUA	AV48NMMEUA		
Combination model		AV20NMMEUA	AV20NMMEUA	AV20NMMEUA	AV22NMMEUA	AV24NMMEUA		
		AV20NMMEUA	AV22NMMEUA	AV24NMMEUA	AV24NMMEUA	AV24NMMEUA		
Capacity	Capacity range	HP	40	42	44	46	48	
	Cooling	kW	112	117.5	124	129.5	136	
	Heating	kW	126	132	136	142	146	
Electrical parameters	Power supply	Ph/V/Hz	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	
	Cooling	Rated power input	kW	31.11	33.13	35.27	37.28	39.42
		Max power input	kW	50.37	55.75	62.66	68.03	74.94
		Rated current	A	51.38	54.71	58.24	61.57	65.10
		Max current	A	82.2	90.75	101.55	110.1	120.9
	Heating	Rated power input	kW	31.90	34.11	35.42	37.62	38.93
		Max power input	kW	50.37	52.91	53.81	56.34	57.24
		Rated current	A	52.68	56.33	58.49	62.14	64.30
		Max current	A	84	88.05	89.4	93.45	94.8
	EER			3.60	3.55	3.52	3.47	3.45
	COP			3.95	3.87	3.84	3.77	3.75
	SEER			6.00	5.96	5.84	5.80	5.69
	SCOP			4.19	4.08	4.01	3.93	3.87
	Performance	Air flow (H)	m <sup>3</sup> /h	C:32400/H:30000	C:32400/H:30000	C:32400/H:30000	C:32400/H:30000	C:32400/H:30000
Sound pressure level (H)		dB(A)	65	65	65.5	65.5	66	
Sound power level (H)		dB(A)	83	83	83	83	84	
Installation	External dimensions (W/D/H)	mm	1350×720×2048*2	1350×720×2048	1350×720×2048	1350×720×2048	1350×720×2048	
	Shipping dimensions (W/D/H)	mm	1450×826×2225*2	1450×826×2225	1450×826×2225	1450×826×2225	1450×826×2225	
	Net/Shipping weight	kg	354/400+354/400	354/400+380/426	354/400+380/426	380/426+380/426	380/426+380/426	
	Compressor type		DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
	Compressor brand		DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	
	Compressor quantity		2INV*2	2INV+2INV	2INV+2INV	2INV+2INV	2INV*2	
	Refrigerant type		R410A	R410A	R410A	R410A	R410A	
	Refrigerant charge	kg	20	20	20	20	20	
	Refrigerant liquid pipe	mm	19.05	19.05	19.05	19.05	19.05	
	Refrigerant gas pipe	mm	38.1	38.1	38.1	38.1	38.1	
	Oil equalization pipe	mm	9.52	9.52	9.52	9.52	9.52	
	Max.total pipe length	m	1000	1000	1000	1000	1000	
	Max. pipe length (Equivalent/Actual)	m	190/165	190/165	190/165	190/165	190/165	
	Max drop between I.U.&O.U (O.U up/down) *1	m	90/110	90/110	90/110	90/110	90/110	
	Standard drop between I.U.&O.U*2	m	50/40	50/40	50/40	50/40	50/40	
	Max drop between I.U *3	m	30	30	30	30	30	
	Standard drop between I.U*4	m	18	18	18	18	18	
External static pressure	Pa	82	82	82	82	82		
Connection ratio	Connectable indoor unit ratio	%	50-160	50-160	50-160	50-160	50-160	
	Maximum number of indoor units		64	64	64	64	64	
Working temp.	Cooling(DB)	°C	(-5~50)					
	Heating(WB)	°C	(-23~21)					

Max drop between I.U.&O.U \*1 If the height difference between the outdoor and the indoor units is from 50 to 110m, you MUST contact your local distributor/dealer for individual design and production.  
Standard drop between I.U.&O.U\*2 Standard design and production in the factory.  
Max drop between I.U. \*3 If the height difference between the indoor units is from 18 to 30m, you MUST contact your local distributor/dealer for individual design and production.

Model		AV50NMMEUA	AV52NMMEUA	AV54NMMEUA	AV56NMMEUA		
Combination model		AV14NMMEUA	AV16NMMEUA	AV16NMMEUA	AV16NMMEUA		
		AV18NMMEUA	AV16NMMEUA	AV18NMMEUA	AV20NMMEUA		
		AV18NMMEUA	AV20NMMEUA	AV20NMMEUA	AV20NMMEUA		
Capacity	Capacity range	HP	50	52	54	56	
	Cooling	kW	140.8	146	151.4	157	
	Heating	kW	158	163	169.5	176	
Electrical parameters	Power supply	Ph/V/Hz	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	
	Cooling	Rated power input	kW	37.50	39.37	41.08	43.02
		Max power input	kW	61.10	70.55	69.96	73.05
		Rated current	A	61.93	65.01	67.85	71.04
		Max current	A	100.7	114.7	114.05	119
	Heating	Rated power input	kW	38.62	40.05	41.95	43.95
		Max power input	kW	60.96	59.59	65.07	67.57
		Rated current	A	63.77	66.14	69.28	72.58
		Max current	A	100.8	97.76	107.68	111.88
	EER			3.75	3.71	3.69	3.65
	COP			4.09	4.07	4.04	4.00
	SEER			6.36	6.12	6.05	6.01
	SCOP			4.39	4.17	4.20	4.18
	Performance	Air flow (H)	m <sup>3</sup> /h	C: 44440/H: 43200	C: 44440/H: 43480	C: 48000/H: 44400	C: 48000/H: 44400
Sound pressure level (H)		dB(A)	66	66	66.5	66.5	
Sound power level (H)		dB(A)	84	84	85	85	
Installation	External dimensions (W/D/H)	mm	1350×720×1690+ (1350×720×2048)*2	(1350×720×1690)*2+ (1350×720×2048)	(1350×720×1690)+(1350× 720×2048)+(1350×720×2048)	(1350×720×1690)+ (1350×720×2048)*2	
	Shipping dimensions (W/D/H)	mm	1450×826×1885+ (1450×826×2225)*2	(1450×826×1885)*2+ (1450×826×2225)	(1450×826×1885)+(1450× 826×2225)+(1450×826×2225)	(1450×826×1885)+ (1450×826×2225)*2	
	Net/Shipping weight	kg	275/311+354/400+354/400	323/359+323/359+354/400	323/359+354/400+354/400	323/359+354/400+354/400	
	Compressor type		DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
	Compressor brand		DAIKIN	DAIKIN	DAIKIN	DAIKIN	
	Compressor quantity		1INV+2INV*2	2INV*2+2INV	2INV+2INV+2INV	2INV+2INV*2	
	Refrigerant type		R410A	R410A	R410A	R410A	
	Refrigerant charge	kg	30	30	30	30	
	Refrigerant liquid pipe	mm	19.05	19.05	19.05	19.05	
	Refrigerant gas pipe	mm	38.1	38.1	38.1	41.3	
	Oil equalization pipe	mm	9.52	9.52	9.52	9.52	
	Max.total pipe length	m	1000	1000	1000	1000	
	Max. pipe length (Equivalent/Actual)	m	190/165	190/165	190/165	190/165	
	Max drop between I.U.&O.U (O.U up/down) *1	m	90/110	90/110	90/110	90/110	
	Standard drop between I.U.&O.U*2	m	50/40	50/40	50/40	50/40	
	Max drop between I.U *3	m	30	30	30	30	
	Standard drop between I.U*4	m	18	18	18	18	
External static pressure	Pa	82	82	82	82		
Connection ratio	Connectable indoor unit ratio	%	50-160	50-160	50-160	50-160	
	Maximum number of indoor units		64	64	64	64	
Working temp.	Cooling(DB)	°C	(-5~50)				
	Heating(WB)	°C	(-23~21)				

Standard drop between I.U. \*4 Standard design and production in the factory.  
Connectable indoor unit ratio \*5 If the connection capacity is between 130%-160%, you MUST contact your local distributor/dealer for individual design and separate order.  
\* All the specifications are tested under nominal condition in cooling. indoor temp. is 27°C DB/19°C WB; Outdoor temp 35°C DB/24°C WB in heating. indoor temp is 20°C DB in heating. outdoor temp is 7°C DB/6°C WB

# MRV IV T1 3/380~400/50(60)



AV08NMMEUA  
AV10NMMEUA  
AV12NMMEUA  
AV14NMMEUA  
AV16NMMEUA

8/10/12/14/16HP



AV18NMMEUA  
AV20NMMEUA  
AV22NMMEUA  
AV24NMMEUA

18/20/22/24HP

- Single Module: 8/10/12/14/16HP,18/20/22/24HP
- Combination Module: 26~72HP, 2~3 modules
- Full DC INVERTER technology
- Max.1000m total pipe length, Max.110m height drop
- Compatible with all the MRV indoor units.

Model			AV58NMMEUA	AV60NMMEUA	AV62NMMEUA	AV64NMMEUA	
Combination model			AV18NMMEUA	AV20NMMEUA	AV20NMMEUA	AV20NMMEUA	
			AV20NMMEUA	AV20NMMEUA	AV20NMMEUA	AV20NMMEUA	
			AV20NMMEUA	AV20NMMEUA	AV22NMMEUA	AV24NMMEUA	
Capacity	Capacity range	HP	58	60	62	64	
	Cooling	kW	162.4	168	173.5	180	
	Heating	kW	182.5	189	195	199	
	Power supply	Ph/V/Hz	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	
Electrical parameters	Cooling	Rated power input	kW	44.73	46.67	48.68	50.82
		Max power input	kW	72.47	75.56	80.93	87.84
		Rated current	A	73.88	77.07	80.40	83.93
		Max current	A	118.35	123.3	131.85	142.65
	Heating	Rated power input	kW	45.85	47.85	50.06	51.37
		Max power input	kW	73.05	75.56	78.09	78.99
		Rated current	A	75.72	79.02	82.67	84.83
		Max current	A	121.8	126	130.05	131.4
	EER			3.63	3.60	3.56	3.54
	COP			3.98	3.95	3.90	3.87
SEER			6.06	6.00	5.98	5.90	
SCOP			4.21	4.19	4.12	4.07	
Performance	Air flow (H)	m <sup>3</sup> /h	C: 48600/H: 45000	C: 48600/H: 45000	C: 48600/H: 45000	C: 48600/H: 45000	
	Sound pressure level (H)	dB(A)	67	67	67	67	
	Sound power level (H)	dB(A)	85	85	85	85	
Installation	External dimensions (W/D/H)		mm	(1350×720×2048)+ (1350×720×2048)*2	(1350×720×2048)*3	(1350×720×2048)*2+ (1350×720×2048)	(1350×720×2048)*2+ (1350×720×2048)
	Shipping dimensions (W/D/H)		mm	(1450×826×2225)+ (1450×826×2225)*2	(1450×826×2225)*3	(1450×826×2225)*2+ (1450×826×2225)	(1450×826×2225)*2+ (1450×826×2225)
	Net/Shipping weight	kg	354/400+354/400+354/400	354/400+354/400+354/400	354/400+354/400+380/426	354/400+354/400+380/426	
	Compressor type		DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
	Compressor brand		MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	
	Compressor quantity		2INV+2INV*2	2INV*3	2INV*2+2INV	2INV*2+2INV	
	Refrigerant type		R410A	R410A	R410A	R410A	
	Refrigerant charge	kg	30	30	30	30	
	Refrigerant liquid pipe	mm	19.05	19.05	19.05	19.05	
	Refrigerant gas pipe	mm	41.3	41.3	41.3	41.3	
	Oil equalization pipe	mm	9.52	9.52	9.52	9.52	
	Max.total pipe length	m	1000	1000	1000	1000	
	Max. pipe length (Equivalent/Actual)	m	190/165	190/165	190/165	190/165	
	Max drop between I.U.&O.U (O.U up/down) *1	m	90/110	90/110	90/110	90/110	
	Standard drop between I.U.&O.U*2	m	50/40	50/40	50/40	50/40	
	Max drop between I.U *3	m	30	30	30	30	
	Standard drop between I.U *4	m	18	18	18	18	
	External static pressure	Pa	82	82	82	82	
Connection ratio	Connectable indoor unit ratio	%	50~160	50~160	50~160	50~160	
	Maximum number of indoor units		64	64	64	64	
Working temp.	Cooling(DB)	°C	(-5~50)				
	Heating(WB)	°C	(-23~21)				

Max drop between I.U.&O.U \*1 If the height difference between the outdoor and the indoor units is from 50 to 110m, you MUST contact your local distributor/dealer for individual design and production.  
Standard drop between I.U.&O.U \*2 Standard design and production in the factory.  
Max drop between I.U. \*3 If the height difference between the indoor units is from 18 to 30m, you MUST contact your local distributor/dealer for individual design and production.

Model			AV66NMMEUA	AV68NMMEUA	AV70NMMEUA	AV72NMMEUA	
Combination model			AV20NMMEUA	AV20NMMEUA	AV22NMMEUA	AV24NMMEUA	
			AV22NMMEUA	AV24NMMEUA	AV24NMMEUA	AV24NMMEUA	
			AV24NMMEUA	AV24NMMEUA	AV24NMMEUA	AV24NMMEUA	
Capacity	Capacity range	HP	66	68	70	72	
	Cooling	kW	185.5	192	197.5	204	
	Heating	kW	205	209	215	219	
	Power supply	Ph/V/Hz	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	
Electrical parameters	Cooling	Rated power input	kW	52.84	54.98	56.99	59.13
		Max power input	kW	93.22	100.13	105.50	112.41
		Rated current	A	87.26	90.79	94.12	97.65
		Max current	A	151.2	162	170.55	181.35
	Heating	Rated power input	kW	53.57	54.88	57.09	58.40
		Max power input	kW	81.53	82.43	84.96	85.86
		Rated current	A	88.48	90.64	94.29	96.45
		Max current	A	135.45	136.8	140.85	142.2
	EER			3.51	3.49	3.47	3.45
	COP			3.83	3.81	3.77	3.75
SEER			5.86	5.79	5.77	5.69	
SCOP			4.00	3.96	3.91	3.87	
Performance	Air flow (H)	m <sup>3</sup> /h	C: 48600/H: 45000	C: 48600/H: 45000	C: 48600/H: 45000	C: 48600/H: 45000	
	Sound pressure level (H)	dB(A)	67	67.5	67.5	68	
	Sound power level (H)	dB(A)	85	86	86	86	
Installation	External dimensions (W/D/H)		mm	(1350×720×2048)+(1350×720×2048)	(1350×720×2048)+ (1350×720×2048)*2	(1350×720×2048)+ (1350×720×2048)*2	(1350×720×2048)*3
	Shipping dimensions (W/D/H)		mm	(1450×826×2225)+(1450×826×2225)	(1450×826×2225)+ (1450×826×2225)*2	(1450×826×2225)+ (1450×826×2225)*2	(1450×826×2225)*3
	Net/Shipping weight	kg	354/400+380/426+380/426	354/400+380/426+380/426	380/426+380/426+380/426	380/426+380/426+380/426	
	Compressor type		DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
	Compressor brand		MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	
	Compressor quantity		2INV+2INV	2INV+2INV*2	2INV+2INV*2	2INV*3	
	Refrigerant type		R410A	R410A	R410A	R410A	
	Refrigerant charge	kg	30	30	30	30	
	Refrigerant liquid pipe	mm	22.22	22.22	22.22	22.22	
	Refrigerant gas pipe	mm	44.5	44.5	44.5	44.5	
	Oil equalization pipe	mm	9.52	9.52	9.52	9.52	
	Max.total pipe length	m	1000	1000	1000	1000	
	Max. pipe length (Equivalent/Actual)	m	190/165	190/165	190/165	190/165	
	Max drop between I.U.&O.U (O.U up/down) *1	m	90/110	90/110	90/110	90/110	
	Standard drop between I.U.&O.U*2	m	50/40	50/40	50/40	50/40	
	Max drop between I.U *3	m	30	30	30	30	
	Standard drop between I.U *4	m	18	18	18	18	
	External static pressure	Pa	82	82	82	82	
Connection ratio	Connectable indoor unit ratio	%	50~160	64	50~160	50~160	
	Maximum number of indoor units		64	64	64	64	
Working temp.	Cooling(DB)	°C	(-5~50)				
	Heating(WB)	°C	(-23~21)				

Standard drop between I.U. \*4 Standard design and production in the factory.  
Connectable indoor unit ratio \*5 If the connection capacity is between 130%~160%, you MUST contact your local distributor/dealer for individual design and separate order.  
\* All the specifications are tested under nominal condition in cooling. indoor temp. is 27°C DB/19°C WB; Outdoor temp 35°C DB/24WB; in heating, indoor temp is 20°C DB; in heating, outdoor temp. is 7°C DB/6°C WB

# MRV IV T1 3/208~230/50(60)



AV08NMMEUA  
AV10NMMEUA  
AV12NMMEUA  
AV14NMMEUA  
AV16NMMEUA

8/10/12/14/16HP



AV18NMMEUA  
AV20NMMEUA  
AV22NMMEUA  
AV24NMMEUA

18/20/22/24HP

- Single Module: 8/10/12/14/16HP, 18/20HP
- Combination Module: 22-60HP, 2-3 modules
- Full DC INVERTER technology
- Max. 1000m total pipe length, Max. 110m height drop
- Compatible with all the MRV indoor units.

Model		AV08CMMEUA	AV10CMMEUA	AV12CMMEUA	AV14CMMEUA	AV16CMMEUA		
Combination model		/	/	/	/	/		
Capacity	Capacity range	HP	8	10	12	14	16	
	Cooling	kW	25.2	28	33.5	40	45	
	Heating	kW	27.3	31.5	37.5	45	50	
Power supply		Ph/V/Hz	3/208-230V/60	3/208-230V/60	3/208-230V/60	3/208-230V/60	3/208-230V/60	
Electrical parameters	Cooling	Rated power input	kW	5.31	6.09	7.61	9.20	10.84
		Max power input	kW	12.64	13.99	16.28	23.18	23.18
		Rated current	A	16.07	18.44	23.06	27.85	32.84
		Max current	A	36.99	40.16	40.81	56.54	57.03
	Heating	Rated power input	kW	5.25	6.36	7.98	9.78	11.11
		Max power input	kW	9.48	12.60	15.31	17.87	17.77
		Rated current	A	15.90	19.27	24.17	29.63	33.65
		Max current	A	27.05	36.49	38.44	50.22	50.68
	EER			4.75	4.60	4.40	4.35	4.15
COP			5.20	4.95	4.70	4.60	4.50	
Performance	Air flow (H)	m³/h	C:15000/H:13200	C:15000/H:13200	C:15000/H:13200	C:15600/H:14400	C:15600/H:14400	
	Sound pressure level (H)	dB(A)	57	57	59	61	61	
	Sound power level (H)	dB(A)	73	73	75	77	77	
External dimensions (W/D/H)	mm	1350×720×1690	1350×720×1690	1350×720×1690	1350×720×1690	1350×720×1690		
	Shipping dimensions (W/D/H)	mm	1450×826×1885	1450×826×1885	1450×826×1885	1450×826×1885	1450×826×1885	
Net/Shipping weight	kg	276/301	276/301	276/301	321/346	321/346		
Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
Compressor brand			MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	
Compressor quantity			1INV	1INV	1INV	2INV	2INV	
Refrigerant type			R410A	R410A	R410A	R410A	R410A	
Refrigerant charge		kg	9.7	9.7	9.7	10	10	
Refrigerant liquid pipe		mm	9.52	9.52	12.7	12.7	12.7	
Refrigerant gas pipe		mm	19.05	22.22	25.4	25.4	28.58	
Oil equalization pipe		mm	9.52	9.52	9.52	9.52	9.52	
Max. total pipe length		m	1000	1000	1000	1000	1000	
Max. pipe length (Equivalent/Actual)		m	190/165	190/165	190/165	190/165	190/165	
Max drop between I.U.&O.U (O.U up/down) *1		m	90/110	90/110	90/110	90/110	90/110	
Standard drop between I.U.&O.U*2		m	50/40	50/40	50/40	50/40	50/40	
Max drop between I.U. *3		m	30	30	30	30	30	
Standard drop between I.U. *4		m	18	18	18	18	18	
External static pressure		Pa	82	82	82	82	82	
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130	
	Maximum number of indoor units		14	16	20	24	27	
Working temp.	Cooling(DB)	°C	(-5-50)					
	Heating(WB)	°C	(-23-21)					

Max drop between I.U.&O.U \*1 If the height difference between the outdoor and the indoor units is from 50 to 110m, you MUST contact your local distributor/dealer for individual design and production.  
Standard drop between I.U.&O.U \*2 Standard design and production in the factory.  
Max drop between I.U. \*3 If the height difference between the indoor units is from 18 to 30m, you MUST contact your local distributor/dealer for individual design and production.

Model		AV18CMMEUA	AV20CMMEUA	AV22CMMEUA	AV24CMMEUA	AV26CMMEUA		
Combination model		/	/	AV10CMMEUA AV12CMMEUA	AV10CMMEUA AV14CMMEUA	AV12CMMEUA AV14CMMEUA		
Capacity	Capacity range	HP	18	20	22	24	26	
	Cooling	kW	50.4	56	61.5	68	73.5	
	Heating	kW	56.5	63	69	76.5	82.5	
Power supply		Ph/V/Hz	3/208-230V/60	3/208-230V/60	3/208-230V/60	3/208-230V/60	3/208-230V/60	
Electrical parameters	Cooling	Rated power input	kW	12.60	14.36	13.70	15.29	16.81
		Max power input	kW	23.90	28.36	30.27	37.17	39.46
		Rated current	A	38.16	43.49	41.50	46.29	50.91
		Max current	A	65.53	69.56	80.97	96.7	97.35
	Heating	Rated power input	kW	13.14	15.18	14.34	16.14	17.76
		Max power input	kW	20.94	22.23	27.91	30.47	33.18
		Rated current	A	39.80	45.98	43.44	48.9	53.8
		Max current	A	61.06	61.93	74.93	86.71	88.66
	EER			4.00	3.90	4.49	4.45	4.37
COP			4.30	4.15	4.81	4.74	4.65	
Performance	Air flow (H)	m³/h	C:16200/H:15000	C:16200/H:15000	C:30000/H:26400	C:30600/H:27600	C:30600/H:27600	
	Sound pressure level (H)	dB(A)	62	62	61.5	62.5	63.5	
	Sound power level (H)	dB(A)	79	79	79	80	81	
External dimensions (W/D/H)	mm	1350×720×2048	1350×720×2048	1350×720×1690 +1350×720×1690	1350×720×1690 +1350×720×1690	1350×720×1690 +1350×720×1690		
	Shipping dimensions (W/D/H)	mm	1450×826×2225	1450×826×2225	1450×826×1885 +1450×826×1885	1450×826×1885 +1450×826×1885		
Net/Shipping weight	kg	335/360	335/360	276/301+276/301	321/346+276/301	321/346+276/301		
Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL		
Compressor brand			MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC		
Compressor quantity			2INV	2INV	1INV+1INV	1INV+2INV		
Refrigerant type			R410A	R410A	R410A	R410A		
Refrigerant charge		kg	10	10	19.4	19.7		
Refrigerant liquid pipe		mm	15.88	15.88	15.88	19.05		
Refrigerant gas pipe		mm	28.58	28.58	28.58	31.8		
Oil equalization pipe		mm	9.52	9.52	9.52	9.52		
Max. total pipe length		m	1000	1000	1000	1000		
Max. pipe length (Equivalent/Actual)		m	190/165	190/165	190/165	190/165		
Max drop between I.U.&O.U (O.U up/down) *1		m	90/110	90/110	90/110	90/110		
Standard drop between I.U.&O.U*2		m	50/40	50/40	50/40	50/40		
Max drop between I.U. *3		m	30	30	30	30		
Standard drop between I.U. *4		m	18	18	18	18		
External static pressure		Pa	82	82	82	82		
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130		
	Maximum number of indoor units		30	33	36	40	43	
Working temp.	Cooling(DB)	°C	(-5-50)					
	Heating(WB)	°C	(-23-21)					

Standard drop between I.U. \*4 Standard design and production in the factory.  
Connectable indoor unit ratio \*5 If the connection capacity is between 130%-160%, you MUST contact your local distributor/dealer for individual design and separate order.  
\* All the specifications are tested under nominal condition (in cooling, indoor temp. is 27°C DB/19°C WB; Outdoor temp 35°C DB/24°C WB; in heating, indoor temp. is 20°C DB; in heating, outdoor temp. is 7°C DB/6°C WB)

# MRV IV T1 3/208~230/50(60)



AV08NMMEUA  
AV10NMMEUA  
AV12NMMEUA  
AV14NMMEUA  
AV16NMMEUA

8/10/12/14/16HP



AV18NMMEUA  
AV20NMMEUA  
AV22NMMEUA  
AV24NMMEUA

18/20/22/24HP

- Single Module: 8/10/12/14/16HP, 18/20HP
- Combination Module: 22-60HP, 2-3 modules
- Full DC INVERTER technology
- Max. 1000m total pipe length, Max. 110m height drop
- Compatible with all the MRV indoor units.

Model			AV28CMMEUA	AV30CMMEUA	AV32CMMEUA	AV34CMMEUA	AV36CMMEUA	
Combination model			AV12CMMEUA	AV14CMMEUA	AV14CMMEUA	AV14CMMEUA	AV16CMMEUA	
			AV16CMMEUA	AV16CMMEUA	AV18CMMEUA	AV20CMMEUA	AV20CMMEUA	
Capacity								
Capacity	Capacity range	HP	/	/	/	/	/	
	Cooling	kW	78.5	85	90.4	96	101	
	Heating	kW	87.5	95	101.5	108	113	
Power supply			PhV/Hz					
Cooling			PhV/Hz					
Electrical parameters	Rated power input	kW	18.45	20.04	21.8	23.56	25.2	
	Max power input	kW	39.46	46.36	47.08	51.54	51.54	
	Rated current	A	55.9	60.69	66.01	71.34	76.33	
	Max current	A	97.84	113.57	122.07	126.1	126.59	
	Heating	Rated power input	kW	19.09	20.89	22.92	24.96	26.29
		Max power input	kW	33.08	35.64	38.81	40.1	40
		Rated current	A	57.82	63.28	69.43	75.61	79.63
		Max current	A	89.12	100.9	111.28	112.15	112.61
	EER		4.25	4.24	4.15	4.07	4.01	
	COP		4.58	4.55	4.43	4.33	4.30	
Performance								
Air flow (H)	m³/h	C:30600/H:27600	C:31200/H:28800	C:31800/H:29400	C:31800/H:29400	C:31800/H:29400		
Sound pressure level (H)	dB(A)	63.5	64	64.5	64.5	64.5		
Sound power level (H)	dB(A)	81	82	82	82	82		
External dimensions (W/D/H)			mm					
Shipping dimensions (W/D/H)			mm					
Net/Shipping weight			kg					
Compressor type			DC INV. SCROLL					
Compressor brand			MITSUBISHI ELECTRIC					
Compressor quantity			2INV+1INV					
Refrigerant type			R410A					
Refrigerant charge			kg					
Refrigerant liquid pipe			mm					
Refrigerant gas pipe			mm					
Oil equalization pipe			mm					
Max. total pipe length			m					
Max. pipe length (Equivalent/Actual)			m					
Max drop between I.U.&O.U (O.U up/down) *1			m					
Standard drop between I.U.&O.U*2			m					
Max drop between I.U. *3			m					
Standard drop between I.U. *4			m					
External static pressure			Pa					
Connection ratio								
Connectable indoor unit ratio			%					
Maximum number of indoor units								
Working temp.								
Cooling(DB)			°C					
Heating(WB)			°C					

Max drop between I.U.&O.U \*1 If the height difference between the outdoor and the indoor units is from 50 to 110m, you MUST contact your local distributor/dealer for individual design and production.  
Standard drop between I.U.&O.U \*2 Standard design and production in the factory.  
Max drop between I.U. \*3 If the height difference between the indoor units is from 18 to 30m, you MUST contact your local distributor/dealer for individual design and production.

Model			AV38CMMEUA	AV40CMMEUA	AV42CMMEUA	AV44CMMEUA	
Combination model			AV18CMMEUA	AV20CMMEUA	AV12CMMEUA	AV12CMMEUA	
			AV20CMMEUA	AV20CMMEUA	AV14CMMEUA	AV16CMMEUA	
Capacity							
Capacity	Capacity range	HP	38	40	42	44	
	Cooling	kW	106.4	112	118.5	123.5	
	Heating	kW	119.5	126	132.5	137.5	
Power supply			PhV/Hz				
Cooling			PhV/Hz				
Electrical parameters	Rated power input	kW	26.96	28.72	27.65	29.29	
	Max power input	kW	52.26	56.72	62.64	62.64	
	Rated current	A	81.65	86.98	83.75	88.74	
	Max current	A	135.09	139.12	154.38	154.87	
	Heating	Rated power input	kW	28.32	30.36	28.87	30.2
		Max power input	kW	43.17	44.46	50.95	50.85
		Rated current	A	85.78	91.96	87.45	91.47
		Max current	A	122.99	123.86	139.34	139.8
	EER		3.95	3.90	4.29	4.22	
	COP		4.22	4.15	4.59	4.55	
Performance							
Air flow (H)	m³/h	C:32400/H:30000	C:32400/H:30000	C:46200/H:42000	C:46200/H:42000		
Sound pressure level (H)	dB(A)	65	65	65.5	65.5		
Sound power level (H)	dB(A)	83	83	84	84		
External dimensions (W/D/H)			mm				
Shipping dimensions (W/D/H)			mm				
Net/Shipping weight			kg				
Compressor type			DC INV. SCROLL				
Compressor brand			MITSUBISHI ELECTRIC				
Compressor quantity			2INV+2INV				
Refrigerant type			R410A				
Refrigerant charge			kg				
Refrigerant liquid pipe			mm				
Refrigerant gas pipe			mm				
Oil equalization pipe			mm				
Max. total pipe length			m				
Max. pipe length (Equivalent/Actual)			m				
Max drop between I.U.&O.U (O.U up/down) *1			m				
Standard drop between I.U.&O.U*2			m				
Max drop between I.U. *3			m				
Standard drop between I.U. *4			m				
External static pressure			Pa				
Connection ratio							
Connectable indoor unit ratio			%				
Maximum number of indoor units							
Working temp.							
Cooling(DB)			°C				
Heating(WB)			°C				

Standard drop between I.U. \*4 Standard design and production in the factory.  
Connectable indoor unit ratio \*5 If the connection capacity is between 130%-160%, you MUST contact your local distributor/dealer for individual design and separate order.  
\* All the specifications are tested under nominal condition in cooling, indoor temp. is 27°C DB/19°C WB; Outdoor temp 35°C DB/24WB; in heating, indoor temp is 20°C DB, in heating, outdoor temp. is 7°C DB/6°CWB

# MRV IV T1 3/208~230/50(60)



8/10/12/14/16HP

AV08NMMEUA  
AV10NMMEUA  
AV12NMMEUA  
AV14NMMEUA  
AV16NMMEUA



18/20/22/24HP

AV18NMMEUA  
AV20NMMEUA  
AV22NMMEUA  
AV24NMMEUA

- Single Module: 8/10/12/14/16HP, 18/20HP
- Combination Module: 22-60HP, 2-3 modules
- Full DC INVERTER technology
- Max. 1000m total pipe length, Max. 110m height drop
- Compatible with all the MRV indoor units.

Model			AV46CMMEUA	AV48CMMEUA	AV50CMMEUA	AV52CMMEUA	
Combination model			AV14CMMEUA	AV16CMMEUA	AV16CMMEUA	AV16CMMEUA	
			AV16CMMEUA	AV16CMMEUA	AV16CMMEUA	AV16CMMEUA	
			AV16CMMEUA	AV16CMMEUA	AV18CMMEUA	AV20CMMEUA	
Capacity	Capacity range	HP	46	48	50	52	
	Cooling	kW	130	135	140.4	146	
	Heating	kW	145	150	156.5	163	
Power supply			PhV/Hz	3/208-230V/60	3/208-230V/60	3/208-230V/60	
Electrical parameters	Cooling	Rated power input	kW	30.88	32.52	34.28	36.04
		Max power input	kW	69.54	69.54	70.26	74.72
		Rated current	A	93.53	98.52	103.84	109.17
		Max current	A	170.6	171.09	179.59	183.62
		Rated power input	kW	32	33.33	35.36	37.4
	Heating	Max power input	kW	53.41	53.31	56.48	57.77
		Rated current	A	96.93	100.95	107.1	113.28
		Max current	A	151.58	152.04	162.42	163.29
		EER		4.21	4.15	4.10	4.05
	COP			4.53	4.50	4.43	4.36
	Performance	Air flow (H)	m³/h	C:46800/H:43200	C:46800/H:43200	C:47400/H:43800	C:47400/H:43800
Sound pressure level (H)		dB(A)	66	66	66.5	66.5	
Sound power level (H)		dB(A)	84	84	85	85	
Installation	External dimensions (W/D/H)		mm	(1350×720×1690)*2 +1350×720×1690	(1350×720×1690)*3	(1350×720×1690)*2 +1350×720×2048	(1350×720×1690)*2 +1350×720×2048
	Shipping dimensions (W/D/H)		mm	(1450×826×1885)*2 +1450×826×1885	(1450×826×1885)*3	(1450×826×1885)*2 +1450×826×2225	(1450×826×1885)*2 +1450×826×2225
	Net/Shipping weight		kg	(321/346)*2+321/346	(321/346)*3	(321/346)*2+335/360	(321/346)*2+335/360
	Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL
	Compressor brand			MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC
	Compressor quantity			(2INV)*2+2INV	(2INV)*3	(2INV)*2+2INV	(2INV)*2+2INV
	Refrigerant type			R410A	R410A	R410A	R410A
	Refrigerant charge		kg	30	30	30	30
	Refrigerant liquid pipe		mm	19.05	19.05	19.05	19.05
	Refrigerant gas pipe		mm	38.1	38.1	38.1	38.1
	Oil equalization pipe		mm	9.52	9.52	9.52	9.52
	Max. total pipe length		m	1000	1000	1000	1000
	Max. pipe length (Equivalent/Actual)		m	190/165	190/165	190/165	190/165
	Max drop between I.U.&O.U (O.U up/down) *1		m	90/110	90/110	90/110	90/110
	Standard drop between I.U.&O.U *2		m	50/40	50/40	50/40	50/40
	Max drop between I.U. *3		m	30	30	30	30
	Standard drop between I.U. *4		m	18	18	18	18
	External static pressure		Pa	82	82	82	82
	Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130
Maximum number of indoor units			64	64	64	64	
Working temp.	Cooling (DB)	°C					
	Heating (WB)	°C					

Max drop between I.U.&O.U \*1 If the height difference between the outdoor and the indoor units is from 50 to 110m, you MUST contact your local distributor/dealer for individual design and production.  
 Standard drop between I.U.&O.U \*2 Standard design and production in the factory.  
 Max drop between I.U. \*3 If the height difference between the indoor units is from 18 to 30m, you MUST contact your local distributor/dealer for individual design and production.

Model			AV54CMMEUA	AV56CMMEUA	AV58CMMEUA	AV60CMMEUA	
Combination model			AV16CMMEUA	AV18CMMEUA	AV18CMMEUA	AV20CMMEUA	
			AV18CMMEUA	AV18CMMEUA	AV20CMMEUA	AV20CMMEUA	
			AV20CMMEUA	AV20CMMEUA	AV20CMMEUA	AV20CMMEUA	
Capacity	Capacity range	HP	54	56	58	60	
	Cooling	kW	151.4	156.8	162.4	168	
	Heating	kW	169.5	176	182.5	189	
Power supply			PhV/Hz	3/208-230V/60	3/208-230V/60	3/208-230V/60	
Electrical parameters	Cooling	Rated power input	kW	37.8	39.56	41.32	43.08
		Max power input	kW	75.44	76.16	80.62	85.08
		Rated current	A	114.49	119.81	125.14	130.47
		Max current	A	192.12	200.62	204.65	208.68
		Rated power input	kW	39.43	41.46	43.5	45.54
	Heating	Max power input	kW	60.94	64.11	65.4	66.69
		Rated current	A	119.43	125.58	131.76	137.94
		Max current	A	173.67	184.05	184.92	185.79
		EER		4.01	3.96	3.93	3.90
	COP			4.30	4.25	4.20	4.15
	Performance	Air flow (H)	m³/h	C:48000/H:44400	C:48600/H:45000	C:48600/H:45000	C:48600/H:45000
Sound pressure level (H)		dB(A)	66.5	67	67	67	
Sound power level (H)		dB(A)	85	85	85	85	
Installation	External dimensions (W/D/H)		mm	1350×720×1690 +1350×720×2048 +1350×720×2048	1350×720×2048 +(1350×720×2048)*2	1350×720×2048 +(1350×720×2048)*2	(1350×720×2048)*3
	Shipping dimensions (W/D/H)		mm	1450×826×1885 +1450×826×2225 +1450×826×2225	1450×826×2225 +(1450×826×2225)*2	1450×826×2225 +(1450×826×2225)*2	(1450×826×2225)*3
	Net/Shipping weight		kg	321/346+335/360+335/360	335/360+(335/360)*2	335/360+(335/360)*2	(335/360)*3
	Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL
	Compressor brand			MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC
	Compressor quantity			2INV+2INV+2INV	2INV+(2INV)*2	2INV+(2INV)*2	(2INV)*3
	Refrigerant type			R410A	R410A	R410A	R410A
	Refrigerant charge		kg	30	30	30	30
	Refrigerant liquid pipe		mm	19.05	19.05	19.05	19.05
	Refrigerant gas pipe		mm	38.1	41.3	41.3	41.3
	Oil equalization pipe		mm	9.52	9.52	9.52	9.52
	Max. total pipe length		m	1000	1000	1000	1000
	Max. pipe length (Equivalent/Actual)		m	190/165	190/165	190/165	190/165
	Max drop between I.U.&O.U (O.U up/down) *1		m	90/110	90/110	90/110	90/110
	Standard drop between I.U.&O.U *2		m	50/40	50/40	50/40	50/40
	Max drop between I.U. *3		m	30	30	30	30
	Standard drop between I.U. *4		m	18	18	18	18
	External static pressure		Pa	82	82	82	82
	Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130
Maximum number of indoor units			64	64	64	64	
Working temp.	Cooling (DB)	°C					
	Heating (WB)	°C					

Standard drop between I.U. \*4 Standard design and production in the factory.  
 Connectable indoor unit ratio \*5 If the connection capacity is between 130%-160%, you MUST contact your local distributor/dealer for individual design and separate order.  
 \* All the specifications are tested under nominal condition (in cooling, indoor temp. is 27°C DB/19°C WB; Outdoor temp 35°C DB/24WB; in heating, indoor temp. is 20°C DB; in heating, outdoor temp. is 7°C DB/6°CWB)

# MRV IV T3 3/380~400/50(60)



AV08NMMEUA  
AV10NMMEUA  
AV12NMMEUA  
AV14NMMEUA  
AV16NMMEUA

8/10/12/14/16HP



AV18NMMEUA  
AV20NMMEUA  
AV22NMMEUA  
AV24NMMEUA

18/20/22/24HP

- Single Module: 8/10/12/14HP, 16/18/20HP
- Combination Module: 22-60HP, 2-3 modules
- Full DC INVERTER technology
- Max. 1000m total pipe length, Max. 110m height drop
- Compatible with all the MRV indoor units.

Model			AV08IMMEUB	AV10IMMEUB	AV12IMMEUB	AV14IMMEUB	AV16IMMEUB	
Combination model			/	/	/	/	/	
Capacity	Capacity range	HP	8	10	12	14	16	
	Cooling (T1)	kW	25.2	28	33.5	40	45	
	Cooling (T3)	kW	23.2	25.2	28.5	32.8	39.6	
	Heating	kW	27	33.5	37.8	45	50	
Power supply		Ph/V/Hz	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	
Electrical parameters	Cooling (T1)	Rated power input	kW	6.00	7.28	8.52	10.22	11.66
		Rated current	A	10.13	12.29	14.38	17.25	19.68
	Cooling (T3)	Rated power input	kW	7.02	8.66	9.76	11.45	13.26
		Rated current	A	11.85	14.62	16.48	19.33	22.39
	Cooling	Max power input	kW	16.91	17.65	22.68	24.36	32.30
		Max current	A	25.10	28.40	32.37	36.80	54.53
	Heating	Rated power input	kW	5.85	7.32	8.70	10.57	11.95
		Max power input	kW	11.90	15.60	17.20	19.7	23.80
		Rated current	A	9.88	12.56	14.69	17.84	20.17
		Max current	A	19.00	25.20	27.90	33.26	38.00
	EER			4.20	3.85	3.93	3.91	3.86
	COP			4.62	4.58	4.34	4.26	4.18
Performance	Air flow (H)	m <sup>3</sup> /h	C: 15000/H: 13200	C: 15000/H: 13200	C: 15000/H: 13200	C: 15600/H: 14400	C: 16200/H: 15000	
	Sound pressure level (H)	dB(A)	57	57	57	58	59	
	Sound power level (H)	dB(A)	73	73	73	74	76	
External dimensions (W/D/H)		mm	1350×720×1690	1350×720×1690	1350×720×1690	1350×720×1690	1350×720×2048	
	Shipping dimensions (W/D/H)	mm	1450×826×1885	1450×826×1885	1450×826×1885	1450×826×1885	1450×826×2225	
Net/Shipping weight		kg	269/305	269/305	275/311	323/359	380/426	
Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
Compressor brand			MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	
Compressor quantity			1INV	1INV	1INV	2INV	2INV	
Refrigerant type			R410A	R410A	R410A	R410A	R410A	
Refrigerant charge		kg	9.7	9.7	10	10	10	
Refrigerant liquid pipe		mm	9.52	12.7	12.7	12.7	15.88	
Refrigerant gas pipe		mm	22.22	25.4	28.58	28.58	28.58	
Oil equalization pipe		mm	9.52	9.52	9.52	9.52	9.52	
Max. total pipe length		m	1000	1000	1000	1000	1000	
Max. pipe length (Equivalent/Actual)		m	190/165	190/165	190/165	190/165	190/165	
Max drop between I.U. & O.U. (O.U. down/up) *1		m	110/90	110/90	110/90	110/90	110/90	
Standard drop between I.U. & O.U. (O.U. up/down) *2		m	50/40	50/40	50/40	50/40	50/40	
Max drop between I.U. *3		m	30	30	30	30	30	
Standard drop between I.U. *4		m	18	18	18	18	18	
External static pressure		Pa	82	82	82	82	82	
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130	
	Maximum number of indoor units		13	16	20	24	27	
Working temp.	Cooling (DB)	°C	(-5-52)					
	Heating (WB)	°C	(-23-21)					

**Max drop between I.U. & O.U. \*1** If the height difference between the outdoor and the indoor units is from 50 to 110m, you MUST contact your local distributor/dealer for individual design and production.  
**Standard drop between I.U. & O.U. \*2** Standard design and production in the factory.  
**Max drop between I.U. \*3** If the height difference between the indoor units is from 18 to 30m, you MUST contact your local distributor/dealer for individual design and production.

Model			AV18IMMEUB	AV20IMMEUB	AV22IMMEUB	AV24IMMEUB	AV26IMMEUB	
Combination model			/	/	AV10IMMEUB	AV10IMMEUB	AV12IMMEUB	
			/	/	AV12IMMEUB	AV14IMMEUB	AV14IMMEUB	
			/	/	/	/	/	
Capacity	Capacity range	HP	18	20	22	24	26	
	Cooling (T1)	kW	50.4	56	61.5	68	73.5	
	Cooling (T3)	kW	42.8	44.8	53.7	58.0	61.3	
	Heating	kW	58.5	63	71.3	78.5	82.8	
Power supply		Ph/V/Hz	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	
Electrical parameters	Cooling (T1)	Rated power input	kW	13.25	15.20	15.80	17.50	18.74
		Rated current	A	22.37	25.66	26.67	29.54	31.64
	Cooling (T3)	Rated power input	kW	15.25	16.96	18.42	20.11	21.21
		Rated current	A	25.75	28.63	31.10	33.95	35.81
	Cooling	Max power input	kW	35.24	37.47	40.33	42.01	47.04
		Max current	A	56.60	60.50	60.77	65.20	69.17
	Heating	Rated power input	kW	14.05	15.40	16.02	17.89	19.27
		Max power input	kW	25.20	28.62	32.80	35.30	36.90
		Rated current	A	23.72	26.00	27.05	30.20	32.53
		Max current	A	42.30	47.40	53.10	58.46	61.16
	EER			3.80	3.68	3.89	3.89	3.92
	COP			4.16	4.09	4.45	4.39	4.30
Performance	Air flow (H)	m <sup>3</sup> /h	C: 16200/H: 15000	C: 16200/H: 15000	(C: 15000/H: 13200)*2	(C: 15000/H: 13200) +(C: 15600/H: 14400)	(C: 15000/H: 13200) +(C: 15600/H: 14400)	
	Sound pressure level (H)	dB(A)	60	61	60	60.5	60.5	
	Sound power level (H)	dB(A)	77	78	77	78	78	
External dimensions (W/D/H)		mm	1350×720×2048	1350×720×2048	(1350×720×1690)*2	(1350×720×1690)*2	(1350×720×1690)*2	
	Shipping dimensions (W/D/H)	mm	1450×826×2225	1450×826×2225	(1450×826×1885)*2	(1450×826×1885)*2	(1450×826×1885)*2	
Net/Shipping weight		kg	380/426	380/426	269/305+275/311	269/305+323/359	275/311+323/359	
Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
Compressor brand			MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	
Compressor quantity			2INV	2INV	1INV+1INV	1INV+2INV	1INV+2INV	
Refrigerant type			R410A	R410A	R410A	R410A	R410A	
Refrigerant charge		kg	10	10	9.7+9.7	9.7+10	10+10	
Refrigerant liquid pipe		mm	15.88	15.88	19.05	19.05	19.05	
Refrigerant gas pipe		mm	28.58	28.58	31.8	31.8	31.8	
Oil equalization pipe		mm	9.52	9.52	9.52	9.52	9.52	
Max. total pipe length		m	1000	1000	1000	1000	1000	
Max. pipe length (Equivalent/Actual)		m	190/165	190/165	190/165	190/165	190/165	
Max drop between I.U. & O.U. (O.U. down/up) *1		m	110/90	110/90	110/90	110/90	110/90	
Standard drop between I.U. & O.U. (O.U. up/down) *2		m	50/40	50/40	50/40	50/40	50/40	
Max drop between I.U. *3		m	30	30	30	30	30	
Standard drop between I.U. *4		m	18	18	18	18	18	
External static pressure		Pa	82	82	82	82	82	
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130	
	Maximum number of indoor units		30	33	36	40	43	
Working temp.	Cooling (DB)	°C	(-5-52)					
	Heating (WB)	°C	(-23-21)					

**Standard drop between I.U. \*4** Standard design and production in the factory.  
 \* All the specifications are tested under nominal condition (in cooling T1, indoor temp. is 27°C DB/19°C WB; Outdoor temp 35°C DB/24WB; in cooling T3, indoor temp. is 27°C DB/19°C WB; Outdoor temp 45°C DB/24WB; in heating, indoor temp. is 20°C DB; in heating, outdoor temp. is 7°C DB/6°C WB)

# MRV IV T3 3/380~400/50(60)



8/10/12/14/16HP

AV08NMMEUA  
AV10NMMEUA  
AV12NMMEUA  
AV14NMMEUA  
AV16NMMEUA



18/20/22/24HP

AV18NMMEUA  
AV20NMMEUA  
AV22NMMEUA  
AV24NMMEUA

- Single Module: 8/10/12/14HP,16/18/20HP
- Combination Module: 22-60HP, 2-3 modules
- Full DC INVERTER technology
- Max.1000m total pipe length, Max.110m height drop
- Compatible with all the MRV indoor units.

Model			AV28IMMEUB	AV30IMMEUB	AV32IMMEUB	AV34IMMEUB	AV36IMMEUB	
Combination model			AV14IMMEUB AV14IMMEUB	AV14IMMEUB AV16IMMEUB	AV14IMMEUB AV18IMMEUB	AV16IMMEUB AV18IMMEUB	AV18IMMEUB AV18IMMEUB	
			/	/	/	/	/	
Capacity	Capacity range	HP	28	30	32	34	36	
	Cooling (T1)	kW	80	85	90.4	95.4	100.8	
	Cooling (T3)	kW	65.6	72.4	75.6	82.4	85.6	
	Heating	kW	90	95	103.5	108.5	117	
Power supply		Ph/V/Hz	3/380~400/50/60	3/380~400/50/60	3/380~400/50/60	3/380~400/50/60	3/380~400/50/60	
Electrical parameters	Cooling (T1)	Rated power input	kW	20.44	21.88	23.47	24.91	26.50
		Rated current	A	34.51	36.94	39.62	42.05	44.74
	Cooling (T3)	Rated power input	kW	22.90	24.71	26.70	28.51	30.50
		Rated current	A	38.66	41.72	45.08	48.13	51.49
	Cooling	Max power input	kW	48.72	56.66	59.60	67.54	70.48
		Max current	A	73.60	91.33	93.40	111.13	113.20
	Heating	Rated power input	kW	21.14	22.52	24.62	26.00	28.10
		Max power input	kW	39.40	43.50	44.90	49.00	50.40
		Rated current	A	35.69	38.02	41.56	43.89	47.44
		Max current	A	66.52	71.26	75.56	80.30	84.60
	EER			3.91	3.88	3.85	3.83	3.80
	COP			4.26	4.22	4.20	4.17	4.16
Performance	Air flow (H)	m³/h	(C: 15600/H: 14400)*2	(C: 16200/H: 15000) +(C: 15600/H: 14400)	(C: 16200/H: 15000) +(C: 15600/H: 14400)	(C: 16200/H: 15000)*2	(C: 16200/H: 15000)*2	
	Sound pressure level (H)	dB(A)	61	61.5	62	62.5	63	
	Sound power level (H)	dB(A)	78	79	79	80	80	
External dimensions (W/D/H)		mm	1350*720*1690 +1350*720*2048	1350*720*1690 +1350*720*2048	1350*720*1690 +1350*720*2048	(1350*720*2048)*2	(1350*720*2048)*2	
Shipping dimensions (W/D/H)		mm	(1450*826*1885)*2	1450*826*1885 +1450*826*2225	1450*826*1885 +1450*826*2225	((1450*826*2225)*2)	(1450*826*2225)*2	
Net/Shipping weight		kg	323/359+323/359	323/359+380/426	323/359+380/426	380/426+380/426	380/426+380/426	
Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
Compressor brand			MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	
Compressor quantity			2INV*2	2INV*2	2INV*2	2INV*2	2INV*2	
Refrigerant type			R410A	R410A	R410A	R410A	R410A	
Refrigerant charge		kg	10+10	10+10	10+10	10+10	10+10	
Refrigerant liquid pipe		mm	19.05	19.05	19.05	19.05	19.05	
Refrigerant gas pipe		mm	31.8	38.1	38.1	38.1	38.1	
Oil equalization pipe		mm	9.52	9.52	9.52	9.52	9.52	
Max.total pipe length		m	1000	1000	1000	1000	1000	
Max. pipe length(Equivalent/Actual)		m	190/165	190/165	190/165	190/165	190/165	
Max drop between I.U.&O.U (O.U down/up) *1		m	110/90	110/90	110/90	110/90	110/90	
Standard drop between I.U. &O.U (O.U up/down) *2		m	50/40	50/40	50/40	50/40	50/40	
Max drop between I.U *3		m	30	30	30	30	30	
Standard drop between I.U *4		m	18	18	18	18	18	
External static pressure		Pa	82	82	82	82	82	
Connectable indoor unit ratio		%	50-130	50-130	50-130	50-130	50-130	
Maximum number of indoor units			46	50	53	57	60	
Working temp. Cooling(DB)		°C					(-5~52)	
Working temp. Heating(WB)		°C					(-23~18)	

**Max drop between I.U.&O.U \*1** If the height difference between the outdoor and the indoor units is from 50 to 110m, you MUST contact your local distributor/dealer for individual design and production.  
**Standard drop between I.U.&O.U \*2** Standard design and production in the factory.  
**Max drop between I.U. \*3** If the height difference between the indoor units is from 18 to 30m, you MUST contact your local distributor/dealer for individual design and production.

Model			AV38IMMEUB	AV40IMMEUB	AV42IMMEUB	AV44IMMEUB	AV46IMMEUB	
Combination model			AV18IMMEUB AV20IMMEUB	AV20IMMEUB AV20IMMEUB	AV14IMMEUB AV14IMMEUB	AV14IMMEUB AV16IMMEUB	AV14IMMEUB AV18IMMEUB	
			/	/	AV14IMMEUB	AV16IMMEUB	AV18IMMEUB	
Capacity	Capacity range	HP	38	40	42	44	46	
	Cooling (T1)	kW	106.4	112	120	125	130.4	
	Cooling (T3)	kW	87.6	89.6	98.4	105.2	108.4	
	Heating	kW	121.5	126	135	140	148.5	
Power supply		Ph/V/Hz	3/380~400/50/60	3/380~400/50/60	3/380~400/50/60	3/380~400/50/60	3/380~400/50/60	
Electrical parameters	Cooling (T1)	Rated power input	kW	28.45	30.40	30.66	32.10	33.30
		Rated current	A	48.03	51.32	51.76	55.20	56.22
	Cooling (T3)	Rated power input	kW	32.21	33.92	34.35	37.07	38.53
		Rated current	A	54.38	57.26	57.99	62.58	65.05
	Cooling	Max power input	kW	72.71	74.94	73.08	79.48	82.34
		Max current	A	117.10	121.00	110.40	125.70	125.97
	Heating	Rated power input	kW	29.45	30.80	31.71	33.29	33.91
		Max power input	kW	53.82	57.24	59.10	63.92	68.10
		Rated current	A	49.72	52.00	53.53	56.20	57.25
		Max current	A	89.70	94.80	99.77	105.86	111.56
	EER			3.74	3.68	3.91	3.89	3.92
	COP			4.13	4.09	4.26	4.21	4.38
Performance	Air flow (H)	m³/h	(C: 16200/H: 15000)*2	(C: 16200/H: 15000)*2	(C: 15600/H: 14400)*3	(C: 15600/H: 14400)*2 +(C: 16200/H: 15000)	(C: 15600/H: 14400)*2 +(C: 16200/H: 15000)	
	Sound pressure level (H)	dB(A)	63.5	65	63	63	63.5	
	Sound power level (H)	dB(A)	81	83	81	81	82	
External dimensions (W/D/H)		mm	(1350*720*2048)*2	(1350*720*2048)*2	1350*720*2048+ (1350*720*1690)*3	1350*720*2048+ (1350*720*1690)*2	1350*720*2048+ (1350*720*1690)*2	
Shipping dimensions (W/D/H)		mm	(1450*826*2225)*2	(1450*826*2225)*2	(1450*826*1885)*3	1450*826*2225+ (1450*826*1885)*2	1450*826*2225+ (1450*826*1885)*2	
Net/Shipping weight		kg	380/426+380/426	380/426+380/426	323/359+323/359+323/359	323/359+323/359+380/426	323/359+323/359+380/426	
Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
Compressor brand			MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	
Compressor quantity			2INV*2	2INV*2	2INV*3	2INV*3	2INV*3	
Refrigerant type			R410A	R410A	R410A	R410A	R410A	
Refrigerant charge		kg	10+10	10+10	10+10+10	10+10+10	10+10+10	
Refrigerant liquid pipe		mm	19.05	19.05	19.05	19.05	19.05	
Refrigerant gas pipe		mm	38.1	38.1	38.1	38.1	41.3	
Oil equalization pipe		mm	9.52	9.52	9.52	9.52	9.52	
Max.total pipe length		m	1000	1000	1000	1000	1000	
Max. pipe length(Equivalent/Actual)		m	190/165	190/165	190/165	190/165	190/165	
Max drop between I.U.&O.U (O.U down/up) *1		m	110/90	110/90	110/90	110/90	110/90	
Standard drop between I.U. &O.U (O.U up/down) *2		m	50/40	50/40	50/40	50/40	50/40	
Max drop between I.U *3		m	30	30	30	30	30	
Standard drop between I.U *4		m	18	18	18	18	18	
External static pressure		Pa	82	82	82	82	82	
Connectable indoor unit ratio		%	50-130	50-130	50-130	50-130	50-130	
Maximum number of indoor units			64	64	64	64	64	
Working temp. Cooling(DB)		°C					(-5~52)	
Working temp. Heating(WB)		°C					(-23~18)	

**Standard drop between I.U. \*4** Standard design and production in the factory.

\* All the specifications are tested under nominal condition (in cooling T1, indoor temp. is 27°C DB/19°C WB; Outdoor temp 35°C DB/24°C WB; in cooling T3, indoor temp. is 27°C DB/19°C WB; Outdoor temp 45°C DB/24°C WB; in heating, indoor temp. is 20°C DB; in heating, outdoor temp. is 7°C DB/6°C WB)

# MRV IV T3 3/380~400/50(60)



8/10/12/14/16HP

AV08NMMEUA  
AV10NMMEUA  
AV12NMMEUA  
AV14NMMEUA  
AV16NMMEUA



18/20/22/24HP

AV18NMMEUA  
AV20NMMEUA  
AV22NMMEUA  
AV24NMMEUA

- Single Module: 8/10/12/14HP,16/18/20HP
- Combination Module: 22~60HP, 2~3 modules
- Full DC INVERTER technology
- Max.1000m total pipe length, Max.110m height drop
- Compatible with all the MRV indoor units.

Model		AV48IMMEUB		AV50IMMEUB		AV52IMMEUB		AV54IMMEUB		
Combination model		AV14IMMEUB		AV14IMMEUB		AV16IMMEUB		AV18IMMEUB		
		AV16IMMEUB		AV18IMMEUB		AV18IMMEUB		AV18IMMEUB		
		AV18IMMEUB		AV18IMMEUB		AV18IMMEUB		AV18IMMEUB		
Capacity	Capacity range	HP	48	50	52	54				
	Cooling (T1)	kW	135.4	140.8	145.8	151.2				
	Cooling (T3)	kW	115.2	118.4	125.2	128.4				
	Heating	kW	153.5	162	167	175.5				
Electrical parameters	Power supply		Ph/V/Hz	3/380~400/50/60	3/380~400/50/60	3/380~400/50/60	3/380~400/50/60			
	Cooling (T1)	Rated power input	kW	35.13	36.72	38.16	39.75			
		Rated current	A	59.31	61.99	64.42	67.11			
	Cooling (T3)	Rated power input	kW	39.96	41.95	43.76	45.75			
		Rated current	A	67.46	70.82	73.88	77.24			
	Cooling	Max power input	kW	91.90	94.84	102.78	105.72			
		Max current	A	147.93	150.00	167.73	169.80			
	Heating	Rated power input	kW	36.57	38.67	40.05	42.15			
		Max power input	kW	68.70	70.10	74.20	75.60			
		Rated current	A	61.74	65.28	67.61	71.16			
		Max current	A	113.56	117.86	122.60	126.90			
		EER		3.85	3.83	3.82	3.80			
		COP		4.20	4.19	4.17	4.16			
	Performance	Air flow (H)	m³/h	(C: 15600/H: 14400)+ (C: 16200/H: 15000)*2	(C: 15600/H: 14400)+ (C: 16200/H: 15000)*2	(C: 16200/H: 15000)*3	(C: 16200/H: 15000)*3			
		Sound pressure level (H)	dB(A)	64	64	64.5	65			
		Sound power level (H)	dB(A)	82	82	83	83			
Installation	External dimensions (W/D/H)	mm	(1350×720×2048)*2 +1350×720×1690	(1350×720×2048)*2 +1350×720×1690	(1350×720×2048)*3	(1350×720×2048)*3				
	Shipping dimensions (W/D/H)	mm	1450×826×1885+ (1450×826×2225)*2	1450×826×1885+ (1450×826×2225)*2	(1450×826×2225)*3	(1450×826×2225)*3				
	Net/Shipping weight	kg	323/359+380/426+380/426	323/359+380/426+380/426	380/426+380/426+380/426	380/426+380/426+380/426				
	Compressor type		DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL				
	Compressor brand		MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC				
	Compressor quantity		2INV*3	2INV*3	2INV*3	2INV*3				
	Refrigerant type		R410A	R410A	R410A	R410A				
	Refrigerant charge	kg	10+10+10	10+10+10	10+10+10	10+10+10				
	Refrigerant liquid pipe	mm	19.05	19.05	19.05	19.05				
	Refrigerant gas pipe	mm	41.3	41.3	41.3	41.3				
	Oil equalization pipe	mm	9.52	9.52	9.52	9.52				
	Max total pipe length	m	1000	1000	1000	1000				
	Max pipe length(Equivalent/Actual)	m	190/165	190/165	190/165	190/165				
	Max drop between I.U.&O.U (O.U down/up) *1	m	110/90	110/90	110/90	110/90				
	Standard drop between I.U. &O.U (O.U up/down) *2	m	50/40	50/40	50/40	50/40				
	Max drop between I.U *3	m	30	30	30	30				
	Standard drop between I.U *4	m	18	18	18	18				
	External static pressure	Pa	82	82	82	82				
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130				
	Maximum number of indoor units		64	64	64	64				
Working temp.	Cooling(DB)	°C	(-5~52)							
	Heating(WB)	°C	(-23~18)							

Max drop between I.U.&O.U \*1 If the height difference between the outdoor and the indoor units is from 50 to 110m, you MUST contact your local distributor/dealer for individual design and production.  
Standard drop between I.U.&O.U \*2 Standard design and production in the factory.  
Max drop between I.U. \*3 If the height difference between the indoor units is from 18 to 30m, you MUST contact your local distributor/dealer for individual design and production.

Model		AV56IMMEUB		AV58IMMEUB		AV60IMMEUB		
Combination model		AV18IMMEUB		AV18IMMEUB		AV20IMMEUB		
		AV18IMMEUB		AV20IMMEUB		AV20IMMEUB		
		AV20IMMEUB		AV20IMMEUB		AV20IMMEUB		
Capacity	Capacity range	HP	56	58	60			
	Cooling (T1)	kW	156.8	162.4	168			
	Cooling (T3)	kW	130.4	132.4	134.4			
	Heating	kW	180	184.5	189			
Electrical parameters	Power supply		Ph/V/Hz	3/380~400/50/60	3/380~400/50/60	3/380~400/50/60		
	Cooling (T1)	Rated power input	kW	41.70	43.65	45.60		
		Rated current	A	70.40	73.69	76.98		
	Cooling (T3)	Rated power input	kW	47.46	49.17	50.88		
		Rated current	A	80.12	83.01	85.90		
	Cooling	Max power input	kW	107.95	110.18	112.41		
		Max current	A	173.70	177.60	181.50		
	Heating	Rated power input	kW	43.50	44.85	46.20		
		Max power input	kW	79.02	82.44	85.86		
		Rated current	A	73.44	75.72	78.00		
		Max current	A	132.00	137.10	142.20		
		EER		3.76	3.72	3.68		
		COP		4.14	4.11	4.09		
	Performance	Air flow (H)	m³/h	(C: 16200/H: 15000)*3	(C: 16200/H: 15000)*3	(C: 16200/H: 15000)*3		
		Sound pressure level (H)	dB(A)	65	65.5	66		
		Sound power level (H)	dB(A)	83	84	84		
Installation	External dimensions (W/D/H)	mm	(1350×720×2048)*3	(1350×720×2048)*3	(1350×720×2048)*3			
	Shipping dimensions (W/D/H)	mm	(1450×826×2225)*3	(1450×826×2225)*3	(1450×826×2225)*3			
	Net/Shipping weight	kg	380/426+380/426+380/426	380/426+380/426+380/426	380/426+380/426+380/426			
	Compressor type		DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL			
	Compressor brand		MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC			
	Compressor quantity		2INV*3	2INV*3	2INV*3			
	Refrigerant type		R410A	R410A	R410A			
	Refrigerant charge	kg	10+10+10	10+10+10	10+10+10			
	Refrigerant liquid pipe	mm	22.22	22.22	22.22			
	Refrigerant gas pipe	mm	44.5	44.5	44.5			
	Oil equalization pipe	mm	9.52	9.52	9.52			
	Max total pipe length	m	1000	1000	1000			
	Max pipe length(Equivalent/Actual)	m	190/165	190/165	190/165			
	Max drop between I.U.&O.U (O.U down/up) *1	m	110/90	110/90	110/90			
	Standard drop between I.U. &O.U (O.U up/down) *2	m	50/40	50/40	50/40			
	Max drop between I.U *3	m	30	30	30			
	Standard drop between I.U *4	m	18	18	18			
	External static pressure	Pa	82	82	82			
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130			
	Maximum number of indoor units		64	64	64			
Working temp.	Cooling(DB)	°C	(-5~52)					
	Heating(WB)	°C	(-23~18)					

Standard drop between I.U. \*4 Standard design and production in the factory.

\* All the specifications are tested under nominal condition (in cooling T1, indoor temp. is 27°C DB/19°C WB; Outdoor temp 35°C DB/24WB; in cooling T3, indoor temp. is 27°C DB/19°C WB; Outdoor temp 45°C DB/24WB; in heating, indoor temp. is 20°C DB; in heating, outdoor temp. is 7°C DB/6°C WB)





# MRV III *PLUS*

DC FAN MOTOR

- Full DC Inverter Technology
- Max. 4 modules combination 64HP
- Total pipe length 500m, height drop 50m
- Without oil balancing pipe




069 Features & Benefits  
073 Outdoor Specification

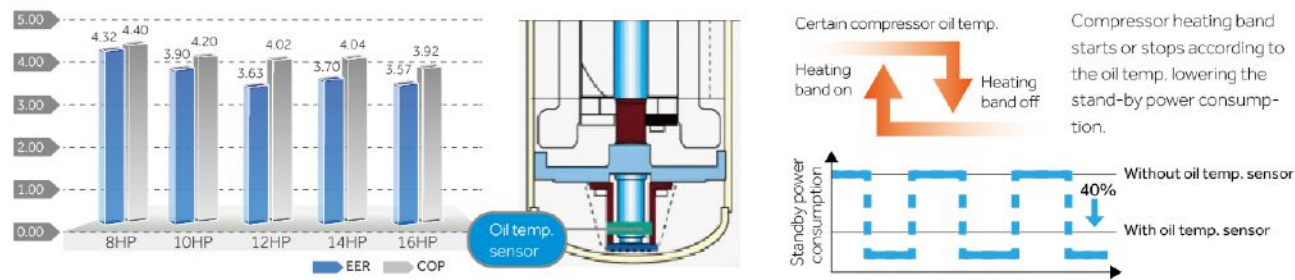
# FEATURES & BENEFITS

## Energy Saving

High efficiency DC INVERTER scroll compressor

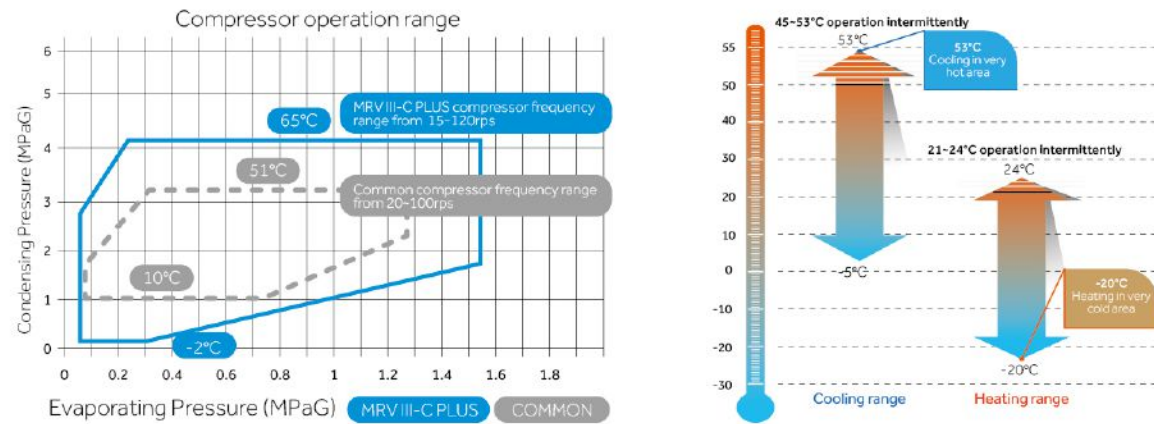
	<b>FULL DC INVERTER</b>	180° vector DC inverter drive, 17% compressor efficiency improved
	<b>FLEXIBLE SCROLL INVERTER TECHNOLOGY</b>	Flexible scroll design, maximize the compressor efficiency 15-120rps adjustment ensures wide range operating (-5-53)
	<b>HIGH EFFICIENCY MOTOR</b>	30% compressor efficiency improved

Smart controlled oil temp., 40% stand-by power consumption reduced

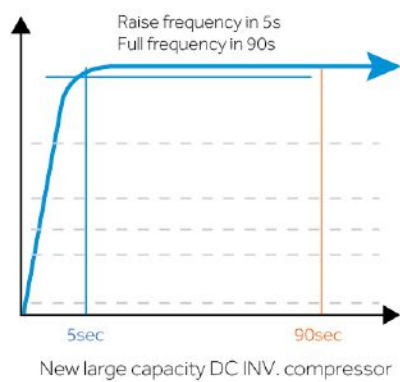


## Comfort

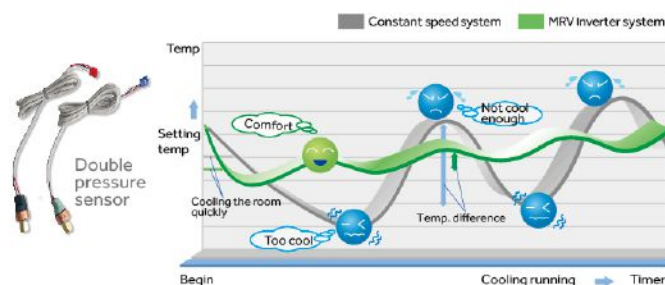
Mitsubishi large capacity compressor, wider operating range



Quick start, quick cooling and heating



Double pressure sensors, ±0.5°C temp. precise control



## Comfort

Low sound level, quiet and comfort

	642mm big fan, large air flow
	DC fan motor, low sound level
	Night mode set by PCB, sound level low to 40dB(A)

## Convenience

Separated machine room and air supply room, easier installation and testing

	<b>Automatic addressing</b>		<b>4-way connection</b>		<b>One-key commissioning</b>
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No oil balancing pipe, easy installation and maintenance

	<b>3 pipe</b> With oil balancing pipe		<b>2 pipe</b> Without oil balancing pipe
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# FEATURES & BENEFITS

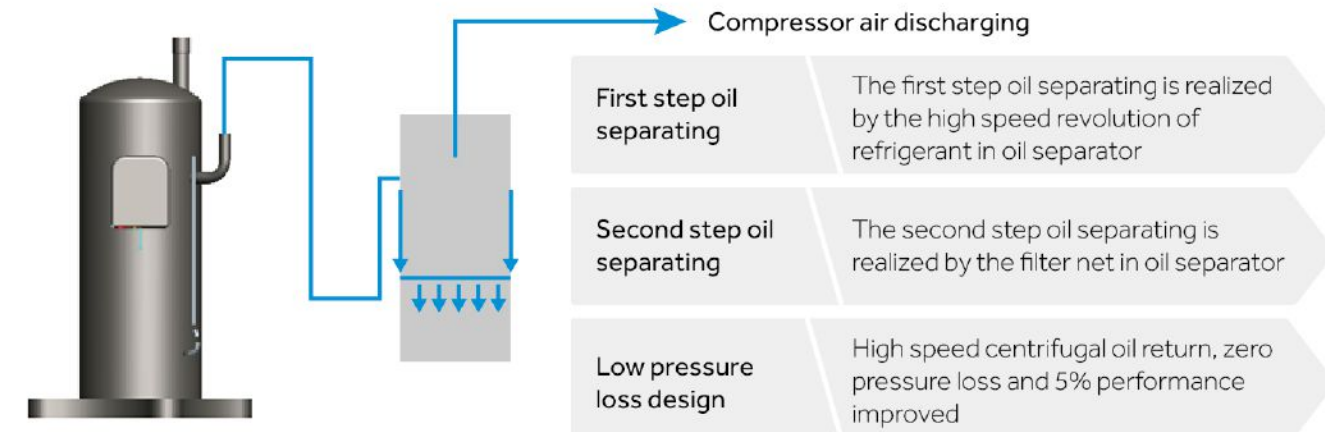
## Convenience

Long pipe length, high height drop



## Reliability

Low pressure loss high efficiency oil separator



Oil separating efficiency up to 99%!

Soft start of compressor prevents the shock to the pipeline and extends lifespan

	INV. COMPRESSOR A	INV. COMPRESSOR A	PIPELINE STRESS CURVE LINE	PIPELINE EFFECT
<b>MRV III-C PLUS</b>	<p>FREQUENCY 1</p> <p>25RPS</p>	<p>75RPS</p>		
<b>Other</b>	<p>25RPS</p>	<p>INV.+FIX</p> <p>25+FIX on</p>		

Multi-protection, longer lifespan

Safe Earthing 	Temp. Protection 	Voltage Protection 	Pressure Protection 
Liquid Return Protection 	Phase-break Protection 	Thunder Protection 	Overheating Protection 

# MRVIII PLUS 3/380~400/50(60)



AV08IMSEVA  
AV10IMSEVA

8/10HP



AV12IMSEVA  
AV14IMSEVA  
AV16IMSEVA

12/14/16HP

Model			AV08IMSEVA	AV10IMSEVA	AV12IMSEVA	AV14IMSEVA	AV16IMSEVA	
Combination model			/	/	/	/	/	
			/	/	/	/	/	
			/	/	/	/	/	
			/	/	/	/	/	
Capacity	Capacity range	HP	8	10	12	14	16	
	Cooling	kW	25.2	28	33.5	40	45	
	Heating	kW	27.3	31.5	37.5	45	50	
Electrical parameters	Power supply		Ph/V/Hz	3/380-400/50(60)	3/380-400/50(60)	3/380-400/50(60)	3/380-400/50(60)	3/380-400/50(60)
	Cooling	Rated power input	kW	5.83	7.18	9.24	10.8	12.61
		Max power input	kW	14.02	14.38	16.58	16.91	19.99
		Rated current	A	9.6	11.9	15.1	17.4	20.2
		Max current	A	23.1	23.7	27.1	28.4	31.6
	Heating	Rated power input	kW	6.21	7.5	9.32	11.14	12.74
		Max power input	kW	12.72	13.23	15.2	15.6	17.1
		Rated current	A	10.2	12.4	15.2	18	20.4
		Max current	A	21	21.8	24.8	25.2	27.3
	EER			4.32	3.90	3.63	3.70	3.57
	COP			4.40	4.20	4.02	4.04	3.92
	SEER			5.74	5.69	5.65	5.57	5.53
	SCOP			4.36	4.31	4.29	4.20	4.15
	Performance	Air flow (H)	m³/h	12200	12200	14100	15200	15200
		Sound pressure level (H)	dB(A)	57	57	59	59	60
		Sound power level (H)	dB(A)	73	73	76	76	76
		External dimensions(W/D/H)	mm	990/750/1808	990/750/1808	1390/750/1808	1390/750/1808	1390/750/1808
Shipping dimensions(W/D/H)	mm	1090/860/1990	1090/860/1990	1490/860/1990	1490/860/1990	1490/860/1990		
Net/Shipping weight	kg	220/236	220/236	276/295	276/295	296/315		
Compressor type		DC INV.SCROLL	DC INV.SCROLL	DC INV.SCROLL	DC INV.SCROLL	DC INV.SCROLL		
Compressor brand		MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI		
Installation	Compressor brand		ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC	
	Compressor quantity		1 INV	1 INV	1 INV	1 INV	1 INV	
	Refrigerant type		R410A	R410A	R410A	R410A	R410A	
	Refrigerant charge	kg	7	7	8.5	8.5	10	
	Refrigerant liquid pipe	mm	9.52	9.52	12.7	12.7	12.7	
	Refrigerant gas pipe	mm	19.05	22.22	25.4	25.4	28.58	
	Oil equalization pipe	mm	/	/	/	/	/	
	Total pipe length	m	500	500	500	500	500	
	Max. pipe length(Equivalent/Actual)	m	175/150	175/150	175/150	175/150	175/150	
	Max drop between I.U.&O.U	m	50/40	50/40	50/40	50/40	50/40	
	External static pressure	pa	50	50	50	50	50	
	Connection Ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130
		Maximum number of indoor units		13	16	19	23	26
	Working temp.	Cooling (DB)	°C	-5-45	-5-45	-5-45	-5-45	-5-45
		Heating (WB)	°C	-20-21	-20-21	-20-21	-20-21	-20-21

\*1 Outdoor above 50m, outdoor below 40m.

- Dual Frequency 50/60Hz-380-400V-3Ph
- DC Inverter Scroll Compressor & BLDC Fan
- Basic Modular Units: 8HP, 10HP,12HP, 14HP, 16HP
- Free Combination up to 64HP with Incremental 2HP
- Max. Indoor Units up to 64

Model			AV18IMSEVA	AV20IMSEVA	AV22IMSEVA	AV24IMSEVA	AV26IMSEVA	
Combination model			AV08IMSEVA	AV10IMSEVA	AV10IMSEVA	AV10IMSEVA	AV12IMSEVA	
			AV10IMSEVA	AV10IMSEVA	AV12IMSEVA	AV14IMSEVA	AV14IMSEVA	
			/	/	/	/	/	
			/	/	/	/	/	
Capacity	Capacity range	HP	18	20	22	24	26	
	Cooling	kW	53.2	56	61.5	68	73.5	
	Heating	kW	58.8	63	69	76.5	82.5	
Electrical parameters	Power supply		Ph/V/Hz	3/380-400/50(60)	3/380-400/50(60)	3/380-400/50(60)	3/380-400/50(60)	3/380-400/50(60)
	Cooling	Rated power input	kW	13.01	14.36	16.42	17.98	20.04
		Max power input	kW	28.4	28.76	30.96	31.29	33.49
		Rated current	A	21.5	23.8	27	29.3	32.5
		Max current	A	46.8	47.4	50.8	52.1	55.5
	Heating	Rated power input	kW	13.71	15	16.82	18.64	20.46
		Max power input	kW	25.95	26.46	28.43	28.83	30.8
		Rated current	A	22.6	24.8	27.6	30.4	33.2
		Max current	A	42.8	43.6	46.6	47	50
	EER			4.09	3.90	3.75	3.78	3.67
	COP			4.29	4.20	4.10	4.10	4.03
	SEER			5.65	5.62	5.60	5.56	5.61
	SCOP			4.30	4.27	4.26	4.21	4.17
	Performance	Air flow (H)	m³/h	24400	24400	26300	27400	29300
		Sound pressure level (H)	dB(A)	60	60	61	61	61
		Sound power level (H)	dB(A)	77	77	79	79	79
		External dimensions(W/D/H)	mm	990/750/1808+	990/750/1808+	990/750/1808+	990/750/1808+	1390/750/1808+
Shipping dimensions(W/D/H)	mm	990/750/1808	990/750/1808	1390/750/1808	1390/750/1808	1390/750/1808		
Shipping dimensions(W/D/H)	mm	1090/860/1990+	1090/860/1990+	1090/860/1990+	1090/860/1990+	1490/860/1990+		
Net/Shipping weight	kg	1090/860/1990	1090/860/1990	1490/860/1990	1490/860/1990	1490/860/1990		
Net/Shipping weight	kg	220/236+220/236	220/236+220/236	220/236+276/295	220/236+276/295	276/295+276/295		
Compressor type		DC INV.SCROLL	DC INV.SCROLL	DC INV.SCROLL	DC INV.SCROLL	DC INV.SCROLL		
Compressor brand		MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI		
Installation	Compressor brand		ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC	
	Compressor quantity		1 INV +1 INV	1 INV +1 INV	1 INV +1 INV	1 INV +1 INV	1 INV +1 INV	
	Refrigerant type		R410A	R410A	R410A	R410A	R410A	
	Refrigerant charge	kg	14	14	15.5	15.5	17	
	Refrigerant liquid pipe	mm	15.88	15.88	15.88	15.88	19.05	
	Refrigerant gas pipe	mm	28.58	28.58	28.58	28.58	31.8	
	Oil equalization pipe	mm	/	/	/	/	/	
	Total pipe length	m	500	500	500	500	500	
	Max. pipe length(Equivalent/Actual)	m	175/150	175/150	175/150	175/150	175/150	
	Max drop between I.U.&O.U	m	50/40	50/40	50/40	50/40	50/40	
	External static pressure	pa	50	50	50	50	50	
	Connection Ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130
		Maximum number of indoor units		29	33	36	39	43
	Working temp.	Cooling (DB)	°C	-5-45	-5-45	-5-45	-5-45	-5-45
		Heating (WB)	°C	-20-21	-20-21	-20-21	-20-21	-20-21

\*All the specifications are tested under nominal condition ( In cooling, indoor temp. is 27°C DB/19°C WB, outdoor temp. is 35°C DB/24°C WB; In heating, indoor temp. is 20°C DB, outdoor temp. is 7°C DB/6°C WB.)

# MRV III PLUS 3/380~400/50(60)



AV08IMSEVA  
AV10IMSEVA

8/10HP



AV12IMSEVA  
AV14IMSEVA  
AV16IMSEVA

12/14/16HP

- Dual Frequency 50/60Hz-380-400V-3Ph
- DC Inverter Scroll Compressor & BLDC Fan
- Basic Modular Units: 8HP, 10HP, 12HP, 14HP, 16HP
- Free Combination up to 64HP with Incremental 2HP
- Max. Indoor Units up to 64

Model		AV28IMSEVA	AV30IMSEVA	AV32IMSEVA	AV34IMSEVA	AV36IMSEVA				
Combination model		AV14IMSEVA	AV14IMSEVA	AV16IMSEVA	AV10IMSEVA	AV10IMSEVA				
		AV14IMSEVA	AV16IMSEVA	AV16IMSEVA	AV10IMSEVA	AV10IMSEVA				
		/	/	/	AV14IMSEVA	AV16IMSEVA				
Capacity		Capacity range	HP	28	30	32	34	36		
Cooling		kW	80	85	90	96	101			
Heating		kW	90	95	100	108	113			
Electrical parameters		Power supply	Ph/V/Hz	3/380-400/50(60)	3/380-400/50(60)	3/380-400/50(60)	3/380-400/50(60)	3/380-400/50(60)		
Cooling		Rated power input	kW	21.6	23.41	25.22	25.16	26.97		
		Max power input	kW	33.82	36.9	39.98	45.67	48.75		
		Rated current	A	34.8	37.6	40.4	41.2	44		
		Max current	A	56.8	60	63.2	75.8	79		
		Heating		Rated power input	kW	22.28	23.88	25.48	26.14	27.74
				Max power input	kW	31.2	32.7	34.2	42.06	43.56
				Rated current	A	36	38.4	40.8	42.8	45.2
				Max current	A	50.4	52.5	54.6	68.8	70.9
EER			3.70	3.63	3.57	3.82	3.74			
COP			4.04	3.98	3.92	4.13	4.07			
SEER			5.52	5.50	5.47	5.58	5.56			
SCOP			4.16	4.13	4.11	4.23	4.20			
Performance		Air flow (H)	m³/h	30400	30400	30400	39600	39600		
Sound pressure level (H)		dB(A)	62	62	62	63	63			
Sound power level (H)		dB(A)	80	80	80	82	82			
Installation		External dimensions(W/D/H)	mm	1390/750/1808+	1390/750/1808+	1390/750/1808+	990/750/1808+	990/750/1808+		
			mm	1390/750/1808	1390/750/1808	1390/750/1808	990/750/1808+	990/750/1808+		
			mm	1390/750/1808	1390/750/1808	1390/750/1808	1390/750/1808	1390/750/1808		
		Shipping dimensions(W/D/H)	mm	1490/860/1990+	1490/860/1990+	1490/860/1990+	1090/860/1990+	1090/860/1990+		
			mm	1490/860/1990	1490/860/1990	1490/860/1990	1090/860/1990+	1090/860/1990+		
			mm	1490/860/1990	1490/860/1990	1490/860/1990	1490/860/1990	1490/860/1990		
		Net/Shipping weight	kg	276/295+276/295	276/295+296/315	296/315+296/315	220/236+220/236+276/295	220/236+220/236+296/315		
		Compressor type		DC INV.SCROLL	DC INV.SCROLL	DC INV.SCROLL	DC INV.SCROLL	DC INV.SCROLL		
		Compressor brand		DAIKIN	DAIKIN	DAIKIN	DAIKIN ELECTRIC	DAIKIN		
				ELECTRIC	ELECTRIC	ELECTRIC	1 INV +1 INV+1 INV	ELECTRIC		
		Compressor quantity		1 INV +1 INV	1 INV +1 INV	1 INV +1 INV	R410A	1 INV +1 INV+1 INV		
		Refrigerant type		R410A	R410A	R410A	22.5	R410A		
		Refrigerant charge	kg	17	18.5	20	19.05	24		
		Refrigerant liquid pipe	mm	19.05	19.05	19.05	31.8	19.05		
		Refrigerant gas pipe	mm	31.8	31.8	31.8	/	38.1		
		Oil equalization pipe	mm	/	/	/	500	/		
		Total pipe length	m	500	500	500	175/150	500		
Max. pipe length(Equivalent/Actual)	m	175/150	175/150	175/150	50/40	175/150				
Max drop between I.U.&O.U	m	50/40	50/40	50/40	50	50/40				
External static pressure	pa	50	50	50	50-130	50				
Connection Ratio		Connectable indoor unit ratio	%	50-130	50-130	50-130	56	50-130		
		Maximum number of indoor units		46	50	53	-5-45	59		
Working temp.		Cooling (DB)	°C	-5-45	-5-45	-5-45	-20-21	-5-45		
		Heating (WB)	°C	-20-21	-20-21	-20-21	-20-21	-20-21		

\*1 Outdoor above 50m, outdoor below 40m.

Model		AV38IMSEVA	AV40IMSEVA	AV42IMSEVA	AV44IMSEVA	AV46IMSEVA				
Combination model		AV10IMSEVA	AV10IMSEVA	AV10IMSEVA	AV12IMSEVA	AV14IMSEVA				
		AV12IMSEVA	AV14IMSEVA	AV16IMSEVA	AV16IMSEVA	AV16IMSEVA				
		AV16IMSEVA	AV16IMSEVA	AV16IMSEVA	AV16IMSEVA	AV16IMSEVA				
Capacity		Capacity range	HP	38	40	42	44	46		
Cooling		kW	106.5	113	118	123.5	130			
Heating		kW	119	126.5	131.5	137.5	145			
Electrical parameters		Power supply	Ph/V/Hz	3/380-400/50(60)	3/380-400/50(60)	3/380-400/50(60)	3/380-400/50(60)	3/380-400/50(60)		
Cooling		Rated power input	kW	29.03	30.59	32.4	34.46	36.02		
		Max power input	kW	50.95	51.28	54.36	56.56	56.89		
		Rated current	A	47.2	49.5	52.3	55.5	57.8		
		Max current	A	82.4	83.7	86.9	90.3	91.6		
		Heating		Rated power input	kW	29.56	31.38	32.98	34.8	36.62
				Max power input	kW	45.53	45.93	47.43	49.4	49.8
				Rated current	A	48	50.8	53.2	56	58.8
				Max current	A	73.9	74.3	76.4	79.4	79.8
EER			3.67	3.69	3.64	3.58	3.61			
COP			4.03	4.03	3.99	3.95	3.96			
SEER			5.55	5.52	5.51	5.50	5.49			
SCOP			4.20	4.17	4.15	4.15	4.12			
Performance		Air flow (H)	m³/h	41500	42600	42600	44500	45600		
Sound pressure level (H)		dB(A)	64	64	64	65	65			
Sound power level (H)		dB(A)	82	82	82	84	84			
Installation		External dimensions(W/D/H)	mm	990/750/1808+	990/750/1808+	990/750/1808+	1390/750/1808+	1390/750/1808+		
			mm	1390/750/1808+	1390/750/1808+	1390/750/1808+	1390/750/1808+	1390/750/1808+		
			mm	1390/750/1808	1390/750/1808	1390/750/1808	1390/750/1808	1390/750/1808		
		Shipping dimensions(W/D/H)	mm	1090/860/1990+	1090/860/1990+	1090/860/1990+	1490/860/1990+	1490/860/1990+		
			mm	1490/860/1990+	1490/860/1990+	1490/860/1990+	1490/860/1990+	1490/860/1990+		
			mm	1490/860/1990	1490/860/1990	1490/860/1990	1490/860/1990	1490/860/1990		
		Net/Shipping weight	kg	220/236+276/295+296/315	220/236+276/295+296/315	220/236+296/315+296/315	276/295+296/315+296/315	276/295+296/315+296/315		
		Compressor type		DC INV.SCROLL	DC INV.SCROLL	DC INV.SCROLL	DC INV.SCROLL	DC INV.SCROLL		
		Compressor brand		DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN		
				ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC		
		Compressor quantity		1 INV +1 INV+1 INV	1 INV +1 INV+1 INV	1 INV +1 INV+1 INV	1 INV +1 INV+1 INV	1 INV +1 INV+1 INV		
		Refrigerant type		R410A	R410A	R410A	R410A	R410A		
		Refrigerant charge	kg	25.5	25.5	27	28.5	28.5		
		Refrigerant liquid pipe	mm	19.05	19.05	19.05	19.05	19.05		
		Refrigerant gas pipe	mm	38.1	38.1	38.1	38.1	38.1		
		Oil equalization pipe	mm	/	/	/	/	/		
		Total pipe length	m	500	500	500	500	500		
Max. pipe length(Equivalent/Actual)	m	175/150	175/150	175/150	175/150	175/150				
Max drop between I.U.&O.U	m	50/40	50/40	50/40	50/40	50/40				
External static pressure	pa	50	50	50	50	50				
Connection Ratio		Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130		
		Maximum number of indoor units		63	64	64	64	64		
Working temp.		Cooling (DB)	°C	-5-45	-5-45	-5-45	-5-45	-5-45		
		Heating (WB)	°C	-20-21	-20-21	-20-21	-20-21	-20-21		

\*All the specifications are tested under nominal condition ( In cooling, indoor temp. is 27°C DB/19°C WB, outdoor temp. is 35°C DB/24°C WB; In heating, indoor temp. is 20°C DB, outdoor temp. is 7°C DB/6°C WB.)

# MRV VIII PLUS 3/380~400/50(60)



AV08IMSEVA  
AV10IMSEVA

8/10HP



AV12IMSEVA  
AV14IMSEVA  
AV16IMSEVA

12/14/16HP

- Dual Frequency 50/60Hz-380-400V-3Ph
- DC Inverter Scroll Compressor & BLDC Fan
- Basic Modular Units: 8HP, 10HP, 12HP, 14HP, 16HP
- Free Combination up to 64HP with Incremental 2HP
- Max. Indoor Units up to 64

Model		AV48IMSEVA	AV50IMSEVA	AV52IMSEVA	AV54IMSEVA	AV56IMSEVA		
Combination model		AV16IMSEVA	AV10IMSEVA	AV10IMSEVA	AV10IMSEVA	AV10IMSEVA		
		AV16IMSEVA	AV10IMSEVA	AV10IMSEVA	AV12IMSEVA	AV14IMSEVA		
		AV16IMSEVA	AV14IMSEVA	AV16IMSEVA	AV16IMSEVA	AV16IMSEVA		
		/	AV16IMSEVA	AV16IMSEVA	AV16IMSEVA	AV16IMSEVA		
Capacity	Capacity range	HP	48	50	52	54	56	
	Cooling	kW	135	141	146	151.5	158	
	Heating	kW	150	158	163	169	176.5	
Electrical parameters	Power supply	Ph/V/Hz	3/380~400/50(60)					
	Cooling	Rated power input	kW	37.83	37.77	39.58	41.64	43.2
		Max power input	kW	59.97	65.66	68.74	70.94	71.27
		Rated current	A	60.6	61.4	64.2	67.4	69.7
		Max current	A	94.8	107.4	110.6	114	115.3
	Heating	Rated power input	kW	38.22	38.88	40.48	42.3	44.12
		Max power input	kW	51.3	59.16	60.66	62.63	63.03
		Rated current	A	61.2	63.2	65.6	68.4	71.2
		Max current	A	81.9	96.1	98.2	101.2	101.6
	EER		3.57	3.73	3.69	3.64	3.66	
	COP		3.92	4.06	4.03	4.00	4.00	
	SEER		5.48	5.55	5.54	5.53	5.51	
SCOP		4.11	4.19	4.17	4.17	4.15		
Performance	Air flow (H)	m³/h	45600	54800	54800	56700	57800	
	Sound pressure level (H)	dB(A)	65	65	66	66	66	
	Sound power level (H)	dB(A)	84	87	87	87	87	
Installation	External dimensions(W/D/H)	mm	1390/750/1808+	990/750/1808*2+	990/750/1808*2+	990/750/1808+	990/750/1808+	
			1390/750/1808+	1390/750/1808*2	1390/750/1808*2	1390/750/1808*3	1390/750/1808*3	
	Shipping dimensions(W/D/H)	mm	1490/860/1990+	1090/860/1990*2+	*1090/860/1990*2+	1090/860/1990+	1090/860/1990+	
			1490/860/1990+	1490/860/1990*2	1490/860/1990*2	1490/860/1990*3	1490/860/1990*3	
	Net/Shipping weight	kg	296/315+296/315+296/315	220/236+220/236+276/295+296/315	220/236+220/236+296/315+296/315	220/236+276/295+296/315+296/315	220/236+276/295+296/315+296/315	
	Compressor type		DC INV.SCROLL	DC INV.SCROLL	DC INV.SCROLL	DC INV.SCROLL	DC INV.SCROLL	
	Compressor brand		DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	
			ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC	
	Compressor quantity		1 INV +1 INV+1 INV	1 INV +1 INV+1 INV+1 INV	1 INV +1 INV+1 INV+1 INV	1 INV +1 INV+1 INV+1 INV	1 INV +1 INV+1 INV+1 INV	
	Refrigerant type		R410A	R410A	R410A	R410A	R410A	
	Refrigerant charge	kg	30	32.5	34	35.5	35.5	
	Refrigerant liquid pipe	mm	19.05	19.05	19.05	19.05	19.05	
	Refrigerant gas pipe	mm	38.1	38.1	38.1	38.1	41.3	
	Oil equalization pipe	mm	/	/	/	/	/	
	Total pipe length	m	500	500	500	500	500	
	Max. pipe length(Equivalent/Actual)	m	175/150	175/150	175/150	175/150	175/150	
	Max drop between I.U.&O.U	m	50/40	50/40	50/40	50/40	50/40	
	External static pressure	pa	50	50	50	50	50	
Connection Ratio	Connectable indoor unit ratio	%	50~130	50~130	50~130	50~130	50~130	
	Maximum number of indoor units		64	64	64	64	64	
Working temp.	Cooling (DB)	°C	-5~45	-5~45	-5~45	-5~45	-5~45	
	Heating (WB)	°C	-20~21	-20~21	-20~21	-20~21	-20~21	

\*1 Outdoor above 50m, outdoor below 40m.

Model		AV58IMSEVA	AV60IMSEVA	AV62IMSEVA	AV64IMSEVA		
Combination model		AV10IMSEVA	AV12IMSEVA	AV14IMSEVA	AV16IMSEVA		
		AV16IMSEVA	AV16IMSEVA	AV16IMSEVA	AV16IMSEVA		
		AV16IMSEVA	AV16IMSEVA	AV16IMSEVA	AV16IMSEVA		
		AV16IMSEVA	AV16IMSEVA	AV16IMSEVA	AV16IMSEVA		
Capacity	Capacity range	HP	58	60	62	64	
	Cooling	kW	163	168.5	175	180	
	Heating	kW	181.5	187.5	195	200	
Electrical parameters	Power supply	Ph/V/Hz	3/380~400/50(60)				
	Cooling	Rated power input	kW	45.01	47.07	48.63	50.44
		Max power input	kW	74.35	76.55	76.88	79.96
		Rated current	A	72.5	75.7	78	80.8
		Max current	A	118.5	121.9	123.2	126.4
	Heating	Rated power input	kW	45.72	47.54	49.36	50.96
		Max power input	kW	64.53	66.5	66.9	68.4
		Rated current	A	73.6	76.4	79.2	81.6
		Max current	A	103.7	106.7	107.1	109.2
	EER		3.62	3.58	3.60	3.57	
	COP		3.97	3.94	3.95	3.92	
	SEER		5.50	5.49	5.48	5.47	
SCOP		4.14	4.14	4.12	4.11		
Performance	Air flow (H)	m³/h	57800	59700	60800	60800	
	Sound pressure level (H)	dB(A)	66	66	66	66	
	Sound power level (H)	dB(A)	87	87	87	87	
Installation	External dimensions(W/D/H)	mm	990/750/1808+	1390/750/1808*4	1390/750/1808*4	1390/750/1808*4	
			1390/750/1808*3				
	Shipping dimensions(W/D/H)	mm	1090/860/1990+	1490/860/1990*4	1490/860/1990*4	1490/860/1990*4	
			1490/860/1990*3				
	Net/Shipping weight	kg	220/236+296/315+296/315+296/315	276/295+296/315+296/315+296/315	276/295+296/315+296/315+296/315	296/315+296/315+296/315+296/315	
	Compressor type		DC INV.SCROLL	DC INV.SCROLL	DC INV.SCROLL	DC INV.SCROLL	
	Compressor brand		DAIKIN	DAIKIN	DAIKIN	DAIKIN	
			ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC	
	Compressor quantity		1 INV +1 INV+1 INV+1 INV	1 INV +1 INV+1 INV+1 INV	1 INV +1 INV+1 INV+1 INV	1 INV +1 INV+1 INV+1 INV	
	Refrigerant type		R410A	R410A	R410A	R410A	
	Refrigerant charge	kg	37	38.5	38.5	40	
	Refrigerant liquid pipe	mm	19.05	19.05	19.05	19.05	
	Refrigerant gas pipe	mm	41.3	41.3	41.3	41.3	
	Oil equalization pipe	mm	/	/	/	/	
	Total pipe length	m	500	500	500	500	
	Max. pipe length(Equivalent/Actual)	m	175/150	175/150	175/150	175/150	
	Max drop between I.U.&O.U	m	50/40	50/40	50/40	50/40	
	External static pressure	pa	50	50	50	50	
Connection Ratio	Connectable indoor unit ratio	%	50~130	50~130	50~130	50~130	
	Maximum number of indoor units		64	64	64	64	
Working temp.	Cooling (DB)	°C	-5~45	-5~45	-5~45	-5~45	
	Heating (WB)	°C	-20~21	-20~21	-20~21	-20~21	

\*All the specifications are tested under nominal condition ( In cooling, indoor temp. is 27°C DB/19°C WB, outdoor temp. is 35°C DB/24°C WB; In heating, indoor temp. is 20°C DB, outdoor temp. is 7°C DB/6°C WB.)



# MRV III



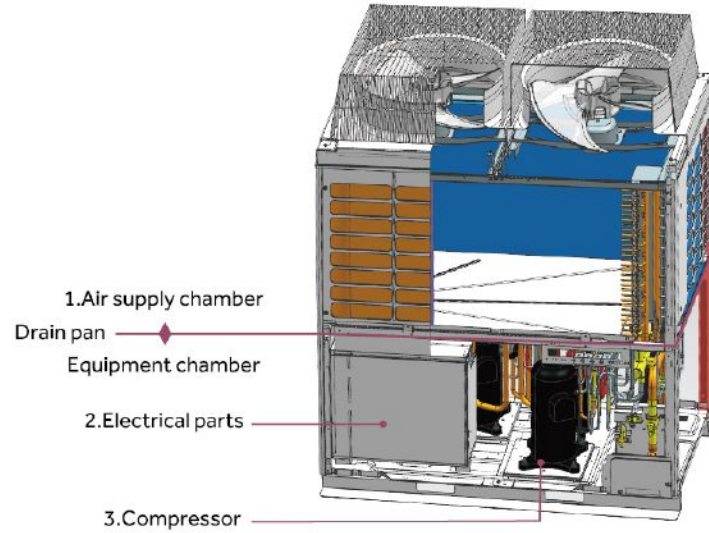
081 Features & Benefits  
087 Outdoor Specification

# FEATURES & BENEFITS

## MRV III

### Air supply chamber and equipment chamber separation design

1. Prevent electrical parts and the main functional components by the rain Erosion, prolong the service life of components;
2. Compressor running noise was closed in the equipment room, reduce the running noise about 3 dB(A);
3. Air supply chamber complete isolation: During commissioning and maintenance, the units can be used normally.



### Special heat exchanger design

#### 4 way air return heat exchanger design

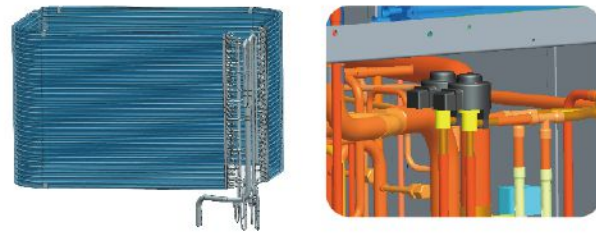
Reduce the heat exchanger height (650mm), and the upper and lower wind speed uniform and high efficiency.



The two stage heat exchanger are respectively controlled by a electronic expansion valve control, which can adjust the condenser volume.

### Two-stage heat exchanger design

Two stages heat exchanger can separate control and adjust heat exchanger size, effectively cope with small load operation, to ensure the reliable operation range.



### Special heat exchanger design

#### Aviation noise reduction patent fan design

Streamline vortex fan, sharp fan blade edge, and a certain degree of curvature, reduce the vibration, and pressure loss.

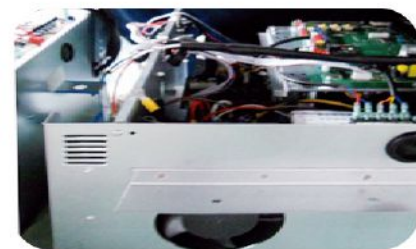
#### DC fan motor

DC inverter technology / High efficiency / Low noise



### Electric control box heat dissipation design

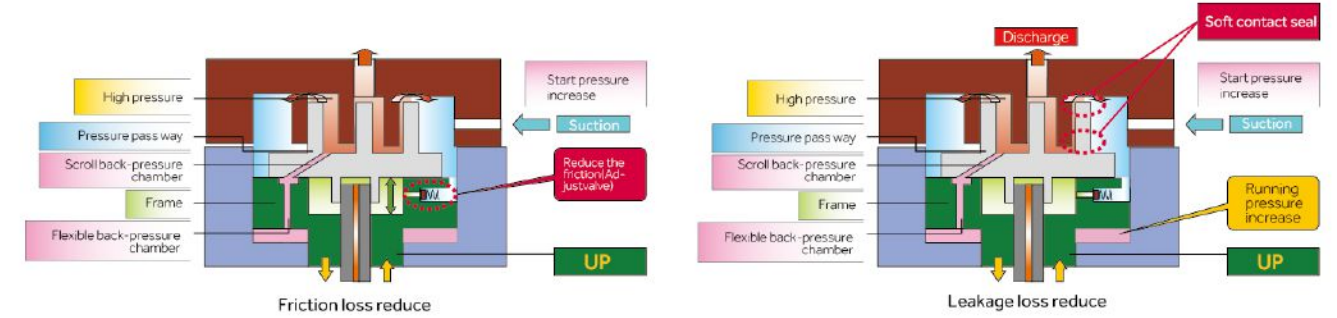
Streamline vortex fan forced heat dissipation fan inside the electric control box, to ensure the stable internal temperature and stable system operation, sharp fan blade edge, and a certain degree of curvature, reduce the vibration, and pressure loss.



## Energy Efficient

### High efficiency DC inverter scroll compressor

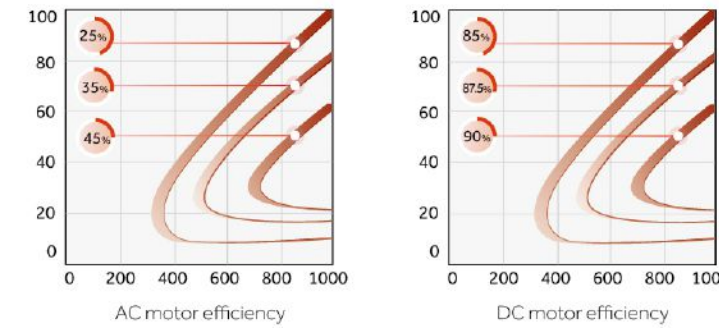
- DC inverter scroll compressor imported from mitsubishi electric.
- Equipped with a "Frame Compliance Mechanism" that allows movement in the axial direction of the frame supporting the cradle scroll. This greatly reduces both leakage and friction loss, ensuring very high efficiency throughout the whole speed range.



### 64 stage speed adjustment DC fan motor

Efficiency increase 45% comparing with AC motor and power input largely decrease.

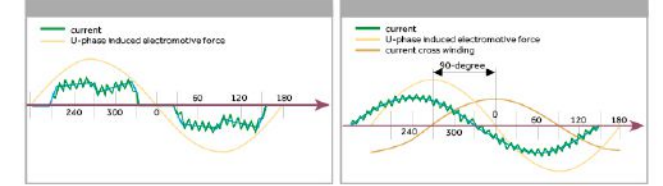
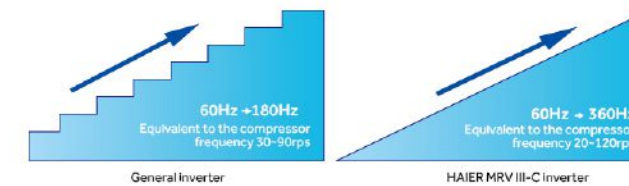
64 stage speed adjustment plus DC inverter drive, stabilizing compressor discharge pressure and suction pressure to ensure high system reliability.



### Stepless DC Inverter control technology

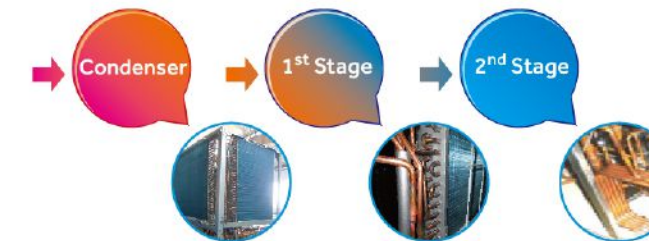
High precision control, variable frequency drive from 0 to 360Hz.

180° vector DC inverter drive technology: Sine wave current drive, efficiency improve 17% comparing to conventional rectangle wave.



### Two stage deep sub cooling technology

1<sup>st</sup> stage sub cooling added a sub cooling coil to condenser. 2<sup>nd</sup> stage sub cooling added a stand alone sub cooler. After further cooling, sub-cooling degree can be up to 30°C, with the heat exchanging capacity per unit mass of xrefrigerant improved by 46% and flow resistance reduced by 55%, and running efficiency improved by 9%.



### Energy management technology

There is energy saving dip switch (SW8-3) in the indoor unit which can be lock the temperature at 26°C in summer and 20°C in winter, to avoid the energy waste and realize the centralized management.

The temperature lock function also can be realized through the new wired controller YR-E16.



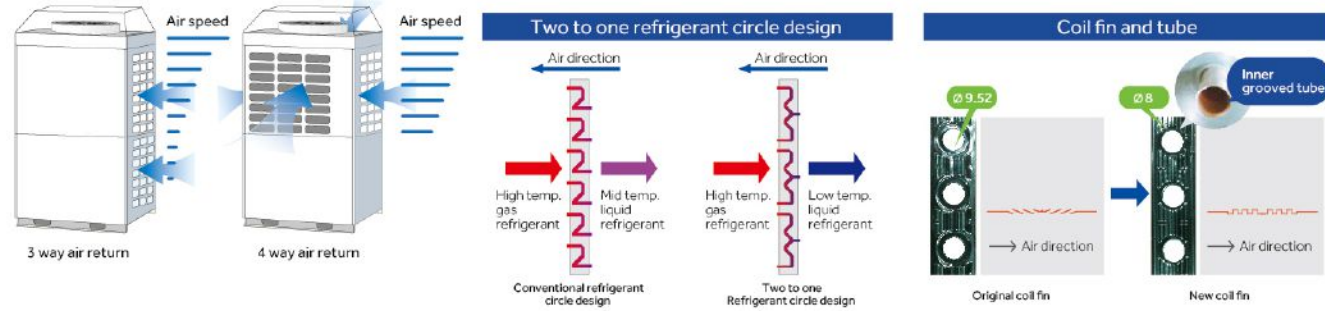


# FEATURES & BENEFITS

## Energy Efficient

### High efficiency heat exchanging technology

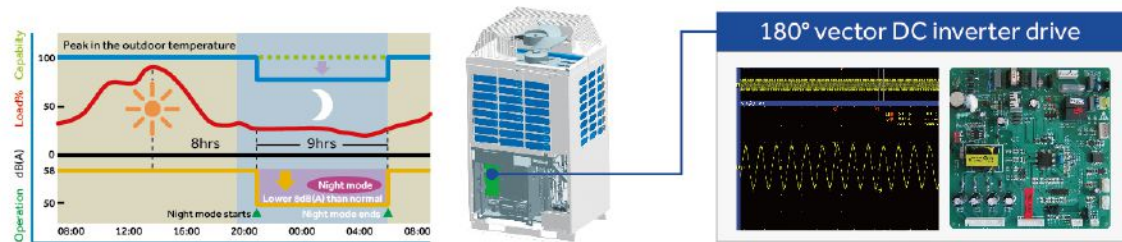
Outdoor high efficiency four way air return heat exchanger design. The compressor and condenser are placed in separated chamber. High efficiency heat exchanger design. Efficient  $\phi 8$  inner grooved tube and 0.11 hydrophilic aluminum coil fin, corrosion and oxidation resistance treatment.



## Comfort

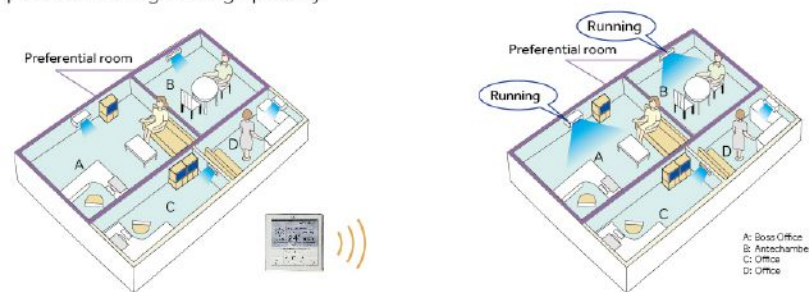
### Low noise and night silent running

Machinery chamber is separated from air supply chamber; built-in high efficient muffler in the machinery chamber greatly reduce the compressor noise. The night silent running function can be set on the outdoor PCB. the noise can be reduced by 8 dB(A) at most.



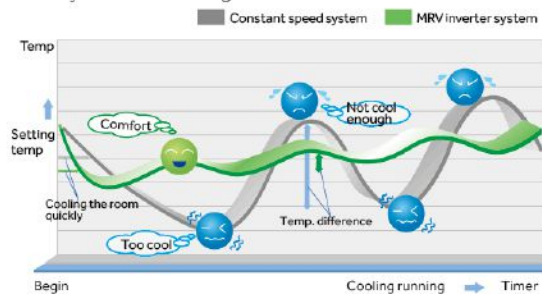
### Priority setting

With the human design, you can set different preferential steps of some indoor units according to the room functions, so that it will ensure that the most important room gains high priority.



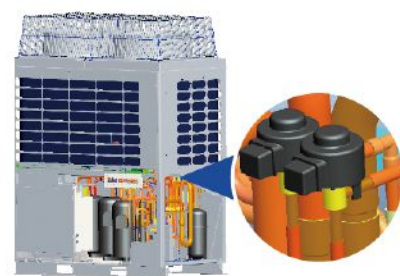
### Precise control

Adopt the inverter control, the temperature could be control precisely within the range of  $\pm 0.5^{\circ}\text{C}$ .



### Double EEV control

Make sure the refrigerant flow equally, to provide more comfort temperature.

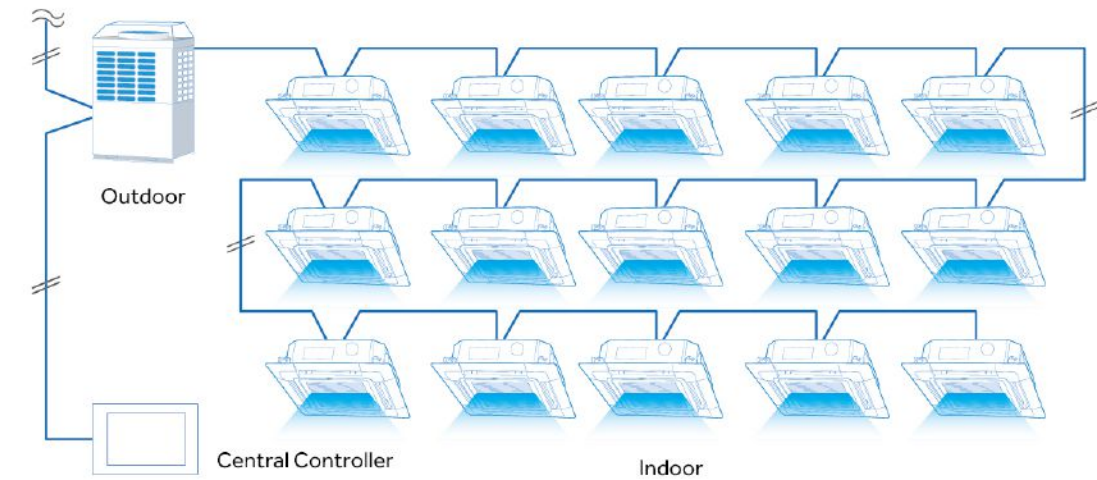


## Convenient Installation

### Connection wire

Two core nonpolar communication line way, no joint wrong hidden trouble.

Centralized controller bus and indoor/outdoor bus shareable, wiring and access is very simple Indoor address automatically set.



### Outdoor high external static pressure

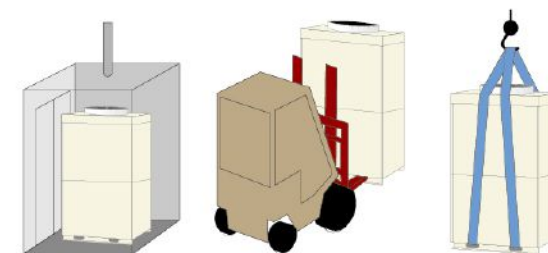
Up to 50Pa and can be installed at different floors .



### Easy transportation

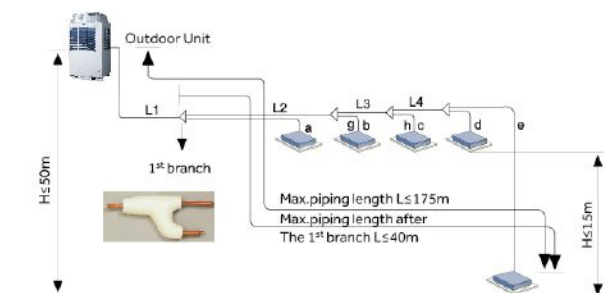
Outdoor footprint only occupy 0.74m<sup>2</sup>(8/10HP) and 1.04m<sup>2</sup> (12/14/16HP) .

Can lift with elevators and save lots of transport cost and time.



### Long pipe length, high height drop

Total 300m refrigerant piping length.  
Max.175m refrigerant piping length.  
Max.50m height drop between indoor and outdoor units.  
Max.15m height drop between indoor units.

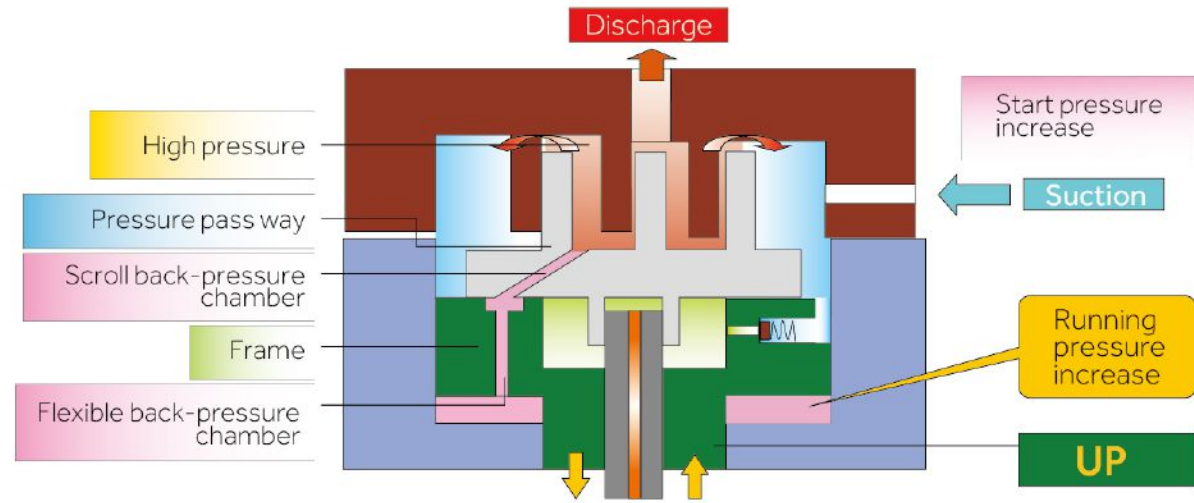


# FEATURES & BENEFITS

## High Reliability

Compressor anti-liquid shock technology

Compressor adopt flexible frame mechanism, when any liquid enter into compressor, cradle scroll detaching fixed scroll, discharging liquid refrigerant out of scroll set, to avoid scroll damage.



Duty cycle operation to extend the system lifetime (combination model)

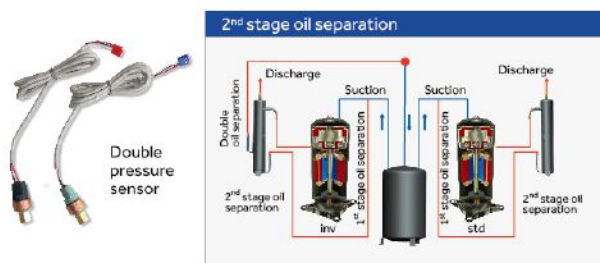
The outdoor units priority operating changes every 24 hours. Outdoor units start in turn and operation time can be balanced. Inverter compressor lifetime can be extend maximum 3 times.



The first 2-stages oil separation and cross Oil return technology in the industry

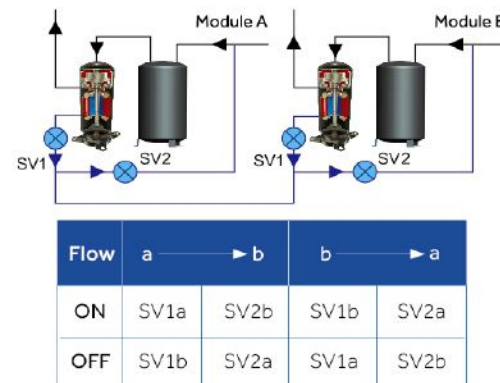
1<sup>st</sup> stage oil separation: built-in oil separating unit, greatly reduced the oil from the compressor discharge.

2<sup>nd</sup> stage oil separation: external oil separator to separate the small amount oil from discharge.



High pressure difference oil equalization

Using the pressure difference between suction and discharge, to realize fast oil balance between module.



## High Reliability

Backup operation

If one outdoor unit get into malfunction, the other units continue to operate without affecting the whole system.

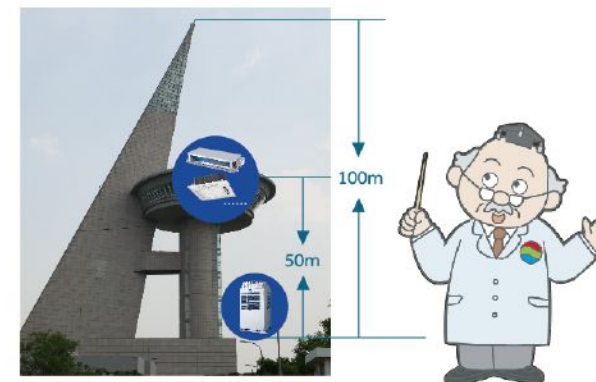


Test lab.



Field test

The system has been running for over 3 years at the jobsite where the vertical height approximately to 100m.



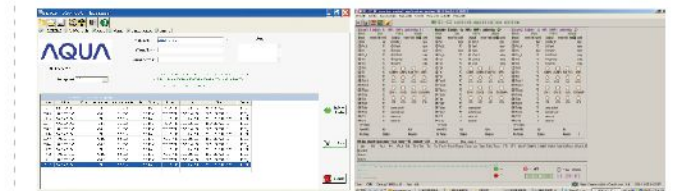
Supporting tools

•MRV design express

This software supply a solution of piping & wiring design, can help the designer select the right material lists, basic wiring diagram and control wiring diagram etc, most important thing is to save lots of time during design procedure.

•On-site service software

Features: save the installation and maintenance people time. More precise than normal checking method.



# MRV III T1 3/208~230/60



8/10HP

AV08CMVESA  
AV10CMVESA



12/14/16HP

AV12CMVESA  
AV14CMVESA  
AV16CMVESA

Model			AV08CMVESA	AV10CMVESA	AV12CMVESA	AV14CMVESA	AV16CMVESA	AV18CMVESA	
Combination model			/	/	/	/	/	AV08CMVESA	
			/	/	/	/	/	AV10CMVESA	
			/	/	/	/	/	/	
Capacity	Capacity range	HP	8	10	12	14	16	18	
	Cooling	kW	22.6	28	33.5	40	45	50.6	
	Heating	kW	25	31.5	37.5	45	50	56.5	
Power supply		Ph/V/Hz	3/208-230/60	3/208-230/60	3/208-230/60	3/208-230/60	3/208-230/60	3/208-230/60	
Electrical parameters	Cooling	Rated power input	kW	5.6	8.5	10	12	14	14.1
		Max power input	kW	12.5	14.5	16.5	18.5	20	27
		Rated current	A	15.15	23.35	27.55	32.75	38.95	38.5
		Max current	A	38.6	44.7	50.9	57.1	61.7	83.3
	Heating	Rated power input	kW	5.9	8.8	10.3	12.6	14.5	14.7
		Max power input	kW	12.5	14.5	16.5	18.5	20	27
		Rated current	A	16.05	24.25	28.45	34.65	39.85	40.3
		Max current	A	38.6	44.7	50.9	57.1	61.7	83.3
EER			4.04	3.29	3.35	3.33	3.21	3.59	
COP			4.24	3.58	3.64	3.57	3.45	3.84	
Performance	Air flow (H)	m <sup>3</sup> /h	11100	11100	14100	14100	14100	22200	
	Sound pressure level (H)	dB(A)	57	57	60	60	60	60	
	Sound power level (H)	dB(A)	73	73	76	76	76	77	
Installation	External dimensions (W/D/H)		mm	990/750/1808	990/750/1808	1390/750/1808	1390/750/1808	1390/750/1808	990/750/1808+ 990/750/1808
	Shipping dimensions (W/D/H)		mm	1090/860/1990	1090/860/1990	1490/860/1990	1490/860/1990	1490/860/1990	1090/860/1990+ 1090/860/1990
	Net/Shipping weight		kg	240/255	240/255	368/386	368/386	368/386	480/510
	Compressor type			DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	DC INV SCROLL
	Compressor brand			MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC
	Compressor quantity			1 INV	1 INV	1 INV +1 FIX	1 INV +1 FIX	1 INV +1 FIX	1 INV +1 INV
	Refrigerant type			R410A	R410A	R410A	R410A	R410A	R410A
	Refrigerant charge		kg	10	10	10	10	10	20
	Refrigerant liquid pipe		mm	9.52	9.52	12.7	12.7	12.7	15.88
	Refrigerant gas pipe		mm	19.05	22.22	25.4	25.4	28.58	28.58
	Oil equalization pipe		mm	9.52	9.52	9.52	9.52	9.52	9.52
	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.		m	50/40	50/40	50/40	50/40	50/40	50/40
	External static pressure		Pa	50	50	50	50	50	50
	Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130	50-130
		Maximum number of indoor units		13	16	19	23	26	29
Working temp.	Cooling(DB)	°C	-5-43	-5-43	-5-43	-5-43	-5-43	-5-43	
	Heating(WB)	°C	-15-21	-15-21	-15-21	-15-21	-15-21	-15-21	

- Dual Frequency 60Hz-208~230V-3Ph
- DC Inverter Scroll Compressor & BLDC Fan
- 5 Basic Modular Units: 8HP, 10HP, 12HP, 14HP, 16HP
- Free Combination up to 48HP with Incremental 2HP,
- Max. Indoor Units up to 64

Model			AV20CMVESA	AV22CMVESA	AV24CMVESA	AV26CMVESA	AV28CMVESA	
Combination model			AV10CMVESA	AV10CMVESA	AV10CMVESA	AV10CMVESA	AV14CMVESA	
			AV10CMVESA	AV12CMVESA	AV14CMVESA	AV16CMVESA	AV14CMVESA	
			/	/	/	/	/	
Capacity	Capacity range	HP	20	22	24	26	28	
	Cooling	kW	56	61.5	68	73	80	
	Heating	kW	63	69	76.5	81.5	90	
Power supply		Ph/V/Hz	3/208-230/60	3/208-230/60	3/208-230/60	3/208-230/60	3/208-230/60	
Electrical parameters	Cooling	Rated power input	kW	17	18.5	20.5	22.5	24
		Max power input	kW	29	31	33	34.5	37
		Rated current	A	46.7	50.9	56.1	62.3	65.5
		Max current	A	89.4	95.6	101.8	106.4	114.2
	Heating	Rated power input	kW	17.6	19.1	21.4	23.3	25.2
		Max power input	kW	29	31	33	34.5	37
		Rated current	A	48.5	52.7	58.9	64.1	69.3
		Max current	A	89.4	95.6	101.8	106.4	114.2
EER			3.29	3.32	3.32	3.24	3.33	
COP			3.58	3.61	3.57	3.50	3.57	
Performance	Air flow (H)	m <sup>3</sup> /h	22200	25200	25200	25200	28200	
	Sound pressure level (H)	dB(A)	60	61	61	61	62	
	Sound power level (H)	dB(A)	77	78	78	78	79	
Installation	External dimensions (W/D/H)		mm	990/750/1808+ 990/750/1808	990/750/1808+ 1390/750/1808	990/750/1808+ 1390/750/1808	990/750/1808+ 1390/750/1808	1390/750/1808+ 1390/750/1808
	Shipping dimensions (W/D/H)		mm	1090/860/1990+ 1090/860/1990	1090/860/1990+ 1490/860/1990	1090/860/1990+ 1490/860/1990	1090/860/1990+ 1490/860/1990	1490/860/1990+ 1490/860/1990
	Net/Shipping weight		kg	480/510	608/641	608/641	608/641	736/772
	Compressor type			DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	DC INV SCROLL
	Compressor brand			MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC
	Compressor quantity			1 INV +1 INV	(1 INV) +(1 INV+1 FIX)	(1 INV) +(1 INV+1 FIX)	(1 INV) +(1 INV+1 FIX)	(1 INV+1 FIX) +(1 INV+1 FIX)
	Refrigerant type			R410A	R410A	R410A	R410A	R410A
	Refrigerant charge		kg	20	20	20	20	20
	Refrigerant liquid pipe		mm	15.88	15.88	15.88	19.05	19.05
	Refrigerant gas pipe		mm	28.58	28.58	28.58	31.8	31.8
	Oil equalization pipe		mm	9.52	9.52	9.52	9.52	9.52
	Total pipe length		m	300	300	300	300	300
	Max. pipe length (Equivalent/Actual)		m	175/150	175/150	175/150	175/150	175/150
	Max. drop between I.U.&O.U.		m	50/40	50/40	50/40	50/40	50/40
	External static pressure		Pa	50	50	50	50	50
	Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130
		Maximum number of indoor units		33	36	39	43	46
Working temp.	Cooling(DB)	°C	-5-43	-5-43	-5-43	-5-43	-5-43	
	Heating(WB)	°C	-15-21	-15-21	-15-21	-15-21	-15-21	

\* 1 outdoor above 50m, outdoor below 40m.  
\* All the specifications are tested under nominal condition(In cooling, Indoor temp is 27°C DB/19°C WB; Outdoor temp 35°C DB/24°C WB; In heating, Indoor temp is 20°C DB, Outdoor temp is 7°C DB/6°C WB).

# MRVIII T1 3/208~230/60



**AV08CMVESA  
AV10CMVESA**

8/10HP



**AV12CMVESA  
AV14CMVESA  
AV16CMVESA**

12/14/16HP

Model			AV30CMVESA	AV32CMVESA	AV34CMVESA	AV36CMVESA	AV38CMVESA	
Combination model			AV14CMVESA	AV16CMVESA	AV10CMVESA	AV10CMVESA	AV10CMVESA	
			AV16CMVESA	AV16CMVESA	AV10CMVESA	AV10CMVESA	AV14CMVESA	
			/	/	AV14CMVESA	AV16CMVESA	AV14CMVESA	
Capacity	Capacity range	HP	30	32	34	36	38	
	Cooling	kW	85	90	96	101	108	
	Heating	kW	95	100	108	113	121.5	
Power supply		Ph/V/Hz	3/208-230/60	3/208-230/60	3/208-230/60	3/208-230/60	3/208-230/60	
Electrical parameters	Cooling	Rated power input	kW	26	28	29	31	32.5
		Max power input	kW	38.5	40	47.5	49	51.5
		Rated current	A	71.7	77.9	79.5	85.7	88.9
		Max current	A	118.8	123.4	146.5	151.1	158.9
	Heating	Rated power input	kW	27.1	29	30.2	32.1	34
		Max power input	kW	38.5	40	47.5	49	51.5
		Rated current	A	74.5	79.7	83.2	88.4	93.6
		Max current	A	118.8	123.4	146.5	151.1	158.9
EER			3.27	3.21	3.31	3.26	3.32	
COP			3.51	3.45	3.58	3.52	3.57	
Performance	Air flow (H)	m³/h	28200	28200	36300	36300	39300	
	Sound pressure level (H)	dB(A)	62	62	63	63	63	
	Sound power level (H)	dB(A)	79	79	81	81	81	
Installation	External dimensions (W/D/H)		mm	1390/750/1808+ 1390/750/1808	1390/750/1808+ 1390/750/1808	990/750/1808+ 990/750/1808	990/750/1808+ 990/750/1808	990/750/1808+ 1390/750/1808
	Shipping dimensions (W/D/H)		mm	1490/860/1990+ 1490/860/1990	1490/860/1990+ 1490/860/1990	1090/860/1990+ 1490/860/1990	1090/860/1990+ 1490/860/1990	1090/860/1990+ 1490/860/1990
	Net/Shipping weight		kg	736/772	736/772	848/896	848/896	976/1027
	Compressor type			DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	DC INV SCROLL
	Compressor brand			MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC
	Compressor quantity			(1 INV+1 FIX) +(1 INV+1 FIX)	(1 INV+1 FIX) +(1 INV+1 FIX)	1 INV +1 INV +(1 INV+1 FIX)	1 INV +1 INV +(1 INV+1 FIX)	1 INV +(1 INV+1 FIX) +(1 INV+1 FIX)
	Refrigerant type			R410A	R410A	R410A	R410A	R410A
	Refrigerant charge		kg	20	20	30	30	30
	Refrigerant liquid pipe		mm	19.05	19.05	19.05	19.05	19.05
	Refrigerant gas pipe		mm	31.8	31.8	31.8	38.1	38.1
	Oil equalization pipe		mm	9.52	9.52	9.52	9.52	9.52
	Total pipe length		m	300	300	300	300	300
	Max. pipe length(Equivalent/Actual)		m	175/150	175/150	175/150	175/150	175/150
	Max drop between I.U.&O.U		m	50/40	50/40	50/40	50/40	50/40
	External static pressure		Pa	50	50	50	50	50
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130	
	Maximum number of indoor units		50	53	56	59	63	
Working temp.	Cooling(DB)	°C	-5-43	-5-43	-5-43	-5-43	-5-43	
	Heating(WB)	°C	-15-21	-15-21	-15-21	-15-21	-15-21	

- Dual Frequency 60Hz-208-230V-3Ph
- DC Inverter Scroll Compressor & BLDC Fan
- 5 Basic Modular Units: 8HP, 10HP, 12HP, 14HP, 16HP
- Free Combination up to 48HP with Incremental 2HP,
- Max. Indoor Units up to 64

Model			AV40CMVESA	AV42CMVESA	AV44CMVESA	AV46CMVESA	AV48CMVESA	
Combination model			AV10CMVESA	AV10CMVESA	AV12CMVESA	AV14CMVESA	AV16CMVESA	
			AV14CMVESA	AV16CMVESA	AV16CMVESA	AV16CMVESA	AV16CMVESA	
			AV16CMVESA	AV16CMVESA	AV16CMVESA	AV16CMVESA	AV16CMVESA	
Capacity	Capacity range	HP	40	42	44	46	48	
	Cooling	kW	113	118	123.5	130	135	
	Heating	kW	126.5	131.5	137.5	145	150	
Power supply		Ph/V/Hz	3/208-230/60	3/208-230/60	3/208-230/60	3/208-230/60	3/208-230/60	
Electrical parameters	Cooling	Rated power input	kW	34.5	36.5	38	40	42
		Max power input	kW	53	54.5	56.5	58.5	60
		Rated current	A	95.1	101.3	105.5	110.7	116.9
		Max current	A	163.5	168.1	174.3	180.5	185.1
	Heating	Rated power input	kW	35.9	37.8	39.3	41.6	43.5
		Max power input	kW	53	54.5	56.5	58.5	60
		Rated current	A	98.8	104.0	108.2	114.4	119.6
		Max current	A	163.5	168.1	174.3	180.5	185.1
EER			3.28	3.23	3.25	3.25	3.21	
COP			3.52	3.48	3.50	3.49	3.45	
Performance	Air flow (H)	m³/h	39300	39300	42300	42300	42300	
	Sound pressure level (H)	dB(A)	63	63	64	64	64	
	Sound power level (H)	dB(A)	81	81	82	82	82	
Installation	External dimensions (W/D/H)		mm	990/750/1808+ 1390/750/1808+ 1390/750/1808	990/750/1808+ 1390/750/1808+ 1390/750/1808	1390/750/1808+ 1390/750/1808+ 1390/750/1808	1390/750/1808+ 1390/750/1808+ 1390/750/1808	1390/750/1808+ 1390/750/1808+ 1390/750/1808
	Shipping dimensions (W/D/H)		mm	1090/860/1990+ 1490/860/1990+ 1490/860/1990	1090/860/1990+ 1490/860/1990+ 1490/860/1990	1490/860/1990+ 1490/860/1990+ 1490/860/1990	1490/860/1990+ 1490/860/1990+ 1490/860/1990	1490/860/1990+ 1490/860/1990+ 1490/860/1990
	Net/Shipping weight		kg	976/1027	976/1027	1104/1158	1104/1158	1104/1158
	Compressor type			DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	DC INV SCROLL
	Compressor brand			MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC
	Compressor quantity			1 INV +(1 INV+1 FIX) +(1 INV+1 FIX)	1 INV +(1 INV+1 FIX) +(1 INV+1 FIX)	(1 INV+1 FIX) +(1 INV+1 FIX) +(1 INV+1 FIX)	(1 INV+1 FIX) +(1 INV+1 FIX) +(1 INV+1 FIX)	(1 INV+1 FIX) +(1 INV+1 FIX) +(1 INV+1 FIX)
	Refrigerant type			R410A	R410A	R410A	R410A	R410A
	Refrigerant charge		kg	30	30	30	30	30
	Refrigerant liquid pipe		mm	19.05	19.05	19.05	19.05	19.05
	Refrigerant gas pipe		mm	38.1	38.1	38.1	38.1	38.1
	Oil equalization pipe		mm	9.52	9.52	9.52	9.52	9.52
	Total pipe length		m	300	300	300	300	300
	Max. pipe length(Equivalent/Actual)		m	175/150	175/150	175/150	175/150	175/150
	Max drop between I.U.&O.U		m	50/40	50/40	50/40	50/40	50/40
	External static pressure		Pa	50	50	50	50	50
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130	
	Maximum number of indoor units		64	64	64	64	64	
Working temp.	Cooling(DB)	°C	-5-43	-5-43	-5-43	-5-43	-5-43	
	Heating(WB)	°C	-15-21	-15-21	-15-21	-15-21	-15-21	

\* 1 outdoor above 50m,outdoor below 40m.  
\* All the specifications are tested under nominal condition(In cooling, Indoor temp is 27°C DB/19°C WB; Outdoor temp 35°C DB/24°C WB; In heating, Indoor temp is 20°C DB, Outdoor temp is 7°C DB/6°C WB).

# MRV III T1 3/460/60



AV08GMVESA  
AV10GMVESA

8/10HP



AV12GMVESA  
AV14GMVESA  
AV16GMVESA

12/14/16HP

- Dual Frequency 60Hz-460V-3Ph
- DC Inverter Scroll Compressor & BLDC Fan
- 5 Basic Modular Units: 8HP, 10HP, 12HP, 14HP, 16HP
- Free Combination up to 48HP with Incremental 2HP,
- Max. Indoor Units up to 64

Model			AV08GMVESA	AV10GMVESA	AV12GMVESA	AV14GMVESA	AV16GMVESA	AV18GMVESA	
Combination model			/	/	/	/	/	AV08GMVESA AV10GMVESA /	
Capacity	Capacity range	HP	8	10	12	14	16	18.0	
	Cooling	kW	22.4	28	33.5	40	45	50.4	
	Heating	kW	25	31.5	37.5	45	50	56.5	
Power supply			Ph/V/Hz	3/460/60	3/460/60	3/460/60	3/460/60	3/460/60	
Electrical parameters	Cooling	Rated power input	kW	5.27	7.36	10.00	11.40	13.40	12.63
		Max power input	kW	13.00	15.00	17.00	19.00	20.50	28.00
		Rated current	A	6.96	9.72	13.21	15.06	17.70	16.69
		Max current	A	17.18	19.82	22.46	25.10	27.08	37.00
	Heating	Rated power input	kW	5.89	7.97	10.00	11.60	13.50	13.86
		Max power input	kW	10.27	12.40	15.10	17.10	18.30	22.67
		Rated current	A	7.78	10.53	13.21	15.33	17.84	18.31
		Max current	A	13.57	16.38	19.95	22.59	24.18	29.95
	EER			4.25	3.80	3.35	3.51	3.36	3.99
	COP			4.24	3.95	3.75	3.88	3.70	4.08
Performance	Air flow (H)	m <sup>3</sup> /h	11000	11000	14100	14100	14100	22000	
	Sound pressure level (H)	dB(A)	57	57	60	60	60	60	
	Sound power level (H)	dB(A)	73	73	76	76	76	77	
Installation	External dimensions (W/D/H)		mm	990/750/1808	990/750/1808	1390/750/1808	1390/750/1808	1390/750/1808	(990*1808*750)*2
	Shipping dimensions (W/D/H)		mm	1090/860/1990	1090/860/1990	1490/860/1990	1490/860/1990	1490/860/1990	(1090*1990*860)*2
	Net/Shipping weight		kg	240/255	240/255	368/386	368/386	368/386	240/255+240/255
	Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL
	Compressor brand			DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN
	Compressor quantity			1 INV	1 INV	1 INV +1 FIX	1 INV +1 FIX	1 INV +1 FIX	1 INV +1 INV
	Refrigerant type			R410A	R410A	R410A	R410A	R410A	R410A
	Refrigerant charge		kg	10	10	10	10	10	20
	Refrigerant liquid pipe		mm	9.52	9.52	12.7	12.7	12.7	15.88
	Refrigerant gas pipe		mm	19.05	22.22	25.4	25.4	28.58	28.58
	Oil equalization pipe		mm	9.52	9.52	9.52	9.52	9.52	9.52
	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		m	50/40	50/40	50/40	50/40	50/40	50/40
	External static pressure		Pa	50	50	50	50	50	50
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130	50-130	
	Maximum number of indoor units		13	16	19	23	26	29	
Working temp.	Cooling (DB)	°C	-5-43	-5-43	-5-43	-5-43	-5-43	-5-43	
	Heating (WB)	°C	-15-21	-15-21	-15-21	-15-21	-15-21	-15-21	

Model			AV20GMVESA	AV22GMVESA	AV24GMVESA	AV26GMVESA	AV28GMVESA	
Combination model			AV10GMVESA AV10GMVESA /	AV10GMVESA AV12GMVESA /	AV10GMVESA AV14GMVESA /	AV10GMVESA AV16GMVESA /	AV14GMVESA AV14GMVESA /	
Capacity	Capacity range	HP	20.0	22.0	24.0	26.0	28.0	
	Cooling	kW	56.0	61.5	68.0	73.0	80.0	
	Heating	kW	63.0	69.0	76.5	81.5	90.0	
Power supply			Ph/V/Hz	3/460/60	3/460/60	3/460/60	3/460/60	
Electrical parameters	Cooling	Rated power input	kW	14.72	17.36	18.76	20.76	22.80
		Max power input	kW	30.00	32.00	34.00	35.50	38.00
		Rated current	A	19.45	22.94	24.79	27.43	30.12
		Max current	A	39.64	42.28	44.92	46.90	50.20
	Heating	Rated power input	kW	15.94	17.97	19.57	21.47	23.20
		Max power input	kW	24.80	27.50	29.50	30.70	34.20
		Rated current	A	21.06	23.74	25.86	28.37	30.65
		Max current	A	32.77	36.33	38.98	40.56	45.19
	EER			3.80	3.54	3.62	3.52	3.51
	COP			3.95	3.84	3.91	3.80	3.88
Performance	Air flow (H)	m <sup>3</sup> /h	22000	25100	25100	25100	28200.0	
	Sound pressure level (H)	dB(A)	60	61	61	61	62	
	Sound power level (H)	dB(A)	77	78	78	78	79	
Installation	External dimensions (W/D/H)		mm	(990/750/1808)*2	990/750/1808 +1390/750/1808	990/750/1808 +1390/750/1808	990/750/1808 +1390/750/1808	1390/750/1808 +1390/750/1808
	Shipping dimensions (W/D/H)		mm	(1090/860/1990)*2	1090/860/1990 +1490/860/1990	1090/860/1990 +1490/860/1990	1090/860/1990 +1490/860/1990	1490/860/1990 +1490/860/1990
	Net/Shipping weight		kg	(240/255)*2	240/255+368/386	240/255+368/386	240/255+368/386	368/386+368/386
	Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL
	Compressor brand			DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN
	Compressor quantity			1 INV*2	1 INV +(1 INV +1 FIX)	1 INV +(1 INV +1 FIX)	1 INV +(1 INV +1 FIX)	(1 INV +1 FIX) +(1 INV +1 FIX)
	Refrigerant type			R410A	R410A	R410A	R410A	R410A
	Refrigerant charge		kg	20	20	20	20	20
	Refrigerant liquid pipe		mm	15.88	15.88	15.88	19.05	19.05
	Refrigerant gas pipe		mm	28.58	28.58	28.58	31.8	31.8
	Oil equalization pipe		mm	9.52	9.52	9.52	9.52	9.52
	Total pipe length		m	300	300	300	300	300
	Max. pipe length (Equivalent/Actual)		m	175/150	175/150	175/150	175/150	175/150
	Max drop between I.U.&O.U		m	50/40	50/40	50/40	50/40	50/40
	External static pressure		Pa	50	50	50	50	50
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130	
	Maximum number of indoor units		33	36	39	43	46	
Working temp.	Cooling (DB)	°C	-5-43	-5-43	-5-43	-5-43	-5-43	
	Heating (WB)	°C	-15-21	-15-21	-15-21	-15-21	-15-21	

\* 1 outdoor above 50m, outdoor below 40m.  
 \* All the specifications are tested under nominal condition (In cooling, Indoor temp is 27°C DB/19°C WB; Outdoor temp 35°C DB/24°C WB; In heating, Indoor temp is 20°C DB, Outdoor temp is 7°C DB/6°C WB).

# MRVIII T1 3/460/60



AV08GMVESA  
AV10GMVESA

8/10HP



AV12GMVESA  
AV14GMVESA  
AV16GMVESA

12/14/16HP

- Dual Frequency 60Hz-460V-3Ph
- DC Inverter Scroll Compressor & BLDC Fan
- 5 Basic Modular Units: 8HP, 10HP, 12HP, 14HP, 16HP
- Free Combination up to 48HP with Incremental 2HP,
- Max. Indoor Units up to 64

Model			AV30GMVESA	AV32GMVESA	AV34GMVESA	AV36GMVESA	AV38GMVESA	
Combination model			AV14GMVESA	AV16GMVESA	AV10GMVESA	AV10GMVESA	AV10GMVESA	
			AV16GMVESA	AV16GMVESA	AV10GMVESA	AV10GMVESA	AV14GMVESA	
			/	/	AV14GMVESA	AV16GMVESA	AV14GMVESA	
Capacity	Capacity range	HP	30	32	34	36	38.0	
	Cooling	kW	85	90	96	101	108.0	
	Heating	kW	95	100	108	113	121.5	
Power supply			Ph/V/Hz	3/460/60	3/460/60	3/460/60	3/460/60	
Electrical parameters	Cooling	Rated power input	kW	24.80	26.80	26.12	28.12	30.16
		Max power input	kW	39.50	41.00	49.00	50.50	53.00
		Rated current	A	32.77	35.41	34.51	37.15	39.85
		Max current	A	52.18	54.16	64.74	66.72	70.02
	Heating	Rated power input	kW	25.10	27.00	27.54	29.44	31.17
		Max power input	kW	35.40	36.60	41.90	43.10	46.60
		Rated current	A	33.16	35.67	36.39	38.90	41.18
		Max current	A	46.77	48.36	55.36	56.94	61.57
	EER			3.43	3.36	3.68	3.59	3.58
	COP			3.78	3.70	3.92	3.84	3.90
	Performance	Air flow (H)	m <sup>3</sup> /h	28200	28200	36100	36100	39200.0
		Sound pressure level (H)	dB(A)	62	62	63	63	63
Sound power level (H)		dB(A)	79	79	81	81	81	
Installation	External dimensions (W/D/H)		mm	1390/750/1808 +1390/750/1808	(1390/750/1808)*2	990/750/1808*2 +1390/750/1808	(990/750/1808)*2 +(1390/750/1808)	(990/750/1808) +(1390/750/1808)
	Shipping dimensions (W/D/H)		mm	1490/860/1990 +1490/860/1990	(1490/860/1990)*2	1090/860/1990*2 +1490/860/1990	(1090/860/1990)*2 +(1490/860/1990)	(1090/860/1990) +(1490/860/1990)
	Net/Shipping weight		kg	368/386+368/386	(368/386)*2	240/255*2+368/386	240/255*2+368/386	240/255+368/386+368/386
	Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL
	Compressor brand			MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC
	Compressor quantity			(1 INV +1 FIX) +(1 INV +1 FIX)	(1 INV +1 FIX)*2	1 INV*2 +(1 INV +1 FIX)	1 INV*2 +(1 INV +1 FIX)	1 INV +(1 INV +1 FIX) +(1 INV +1 FIX)
	Refrigerant type			R410A	R410A	R410A	R410A	R410A
	Refrigerant charge		kg	20	20	30	30	30
	Refrigerant liquid pipe		mm	19.05	19.05	19.05	19.05	19.05
	Refrigerant gas pipe		mm	31.8	31.8	31.8	38.1	38.1
	Oil equalization pipe		mm	9.52	9.52	9.52	9.52	9.52
	Total pipe length		m	300	300	300	300	300
	Max. pipe length(Equivalent/Actual)		m	175/150	175/150	175/150	175/150	175/150
	Max drop between I.U.&O.U		m	50/40	50/40	50/40	50/40	50/40
	External static pressure		Pa	50	50	50	50	50
	Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130
		Maximum number of indoor units		50	53	56	59	63
	Working temp.	Cooling(DB)	°C	-5~43	-5~43	-5~43	-5~43	-5~43
		Heating(WB)	°C	-15~21	-15~21	-15~21	-15~21	-15~21

Model			AV40GMVESA	AV42GMVESA	AV44GMVESA	AV46GMVESA	AV48GMVESA	
Combination model			AV10GMVESA	AV10GMVESA	AV12GMVESA	AV14GMVESA	AV16GMVESA	
			AV14GMVESA	AV16GMVESA	AV16GMVESA	AV16GMVESA	AV16GMVESA	
			AV16GMVESA	AV16GMVESA	AV16GMVESA	AV16GMVESA	AV16GMVESA	
Capacity	Capacity range	HP	40	42.0	44.0	46.0	48.0	
	Cooling	kW	113	118.0	123.5	130.0	135.0	
	Heating	kW	127	131.5	137.5	145.0	150.0	
Power supply			Ph/V/Hz	3/460/60	3/460/60	3/460/60	3/460/60	
Electrical parameters	Cooling	Rated power input	kW	32.16	34.16	36.80	38.20	40.20
		Max power input	kW	54.50	56.00	58.00	60.00	61.50
		Rated current	A	42.49	45.13	48.62	50.47	53.11
		Max current	A	72.00	73.98	76.62	79.26	81.24
	Heating	Rated power input	kW	33.07	34.97	37.00	38.60	40.50
		Max power input	kW	47.80	49.00	51.70	53.70	54.90
		Rated current	A	43.69	46.20	48.88	51.00	53.51
		Max current	A	63.15	64.74	68.31	70.95	72.53
	EER			3.51	3.45	3.36	3.40	3.36
	COP			3.83	3.76	3.72	3.76	3.70
	Performance	Air flow (H)	m <sup>3</sup> /h	39200	39200	42300	42300	42300
		Sound pressure level (H)	dB(A)	63	63	64	64	64
Sound power level (H)		dB(A)	81	81	82	82	82	
External dimensions (W/D/H)		mm	(990/750/1808) +(1390/750/1808) +(1390/750/1808)	(990/750/1808) +(1390/750/1808)*2	(1390/750/1808) +(1390/750/1808)*2	(1390/750/1808) +(1390/750/1808)*2	(1390/750/1808)*3 +(1390/750/1808)*2	
Shipping dimensions (W/D/H)		mm	(1090/860/1990) +(1490/860/1990) +(1490/860/1990)	(1090/860/1990) +(1490/860/1990)*2	(1490/860/1990) +(1490/860/1990)*2	(1490/860/1990) +(1490/860/1990)*2	(1490/860/1990)*3 +(1490/860/1990)*2	
Net/Shipping weight		kg	240/255+368/386+368/386	240/255+368/386*2	368/386+368/386*2	368/386+368/386*2	(368/386)*3	
Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
Compressor brand			MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	
Compressor quantity			1 INV +(1 INV +1 FIX) +(1 INV +1 FIX)	1 INV +(1 INV +1 FIX)*2	(1 INV +1 FIX) +(1 INV +1 FIX)*2	(1 INV +1 FIX) +(1 INV +1 FIX)*2	(1 INV +1 FIX)*3	
Refrigerant type			R410A	R410A	R410A	R410A	R410A	
Refrigerant charge		kg	30	30	30	30	30	
Refrigerant liquid pipe		mm	19.05	19.05	19.05	19.05	19.05	
Refrigerant gas pipe		mm	38.1	38.1	38.1	38.1	38.1	
Oil equalization pipe		mm	9.52	9.52	9.52	9.52	9.52	
Total pipe length		m	300	300	300	300	300	
Max. pipe length(Equivalent/Actual)		m	175/150	175/150	175/150	175/150	175/150	
Max drop between I.U.&O.U		m	50/40	50/40	50/40	50/40	50/40	
External static pressure		Pa	50	50	50	50	50	
Connection ratio	Connectable indoor unit ratio	%	50-130%	50-130	50-130	50-130	50-130	
	Maximum number of indoor units		64	64	64	64	64	
Working temp.	Cooling(DB)	°C	-5~43	-5~43	-5~43	-5~43	-5~43	
	Heating(WB)	°C	-15~21	-15~21	-15~21	-15~21	-15~21	

\* 1 outdoor above 50m, outdoor below 40m.  
\* All the specifications are tested under nominal condition(In cooling, Indoor temp is 27°C DB/19°C WB; Outdoor temp 35°C DB/24°C WB; In heating, Indoor temp is 20°C DB; Outdoor temp is 7°C DB/6°C WB).

# MRVIII T3 3/380~400/50(60)



AV08NMVERB

8HP



AV10NMVERB  
AV12NMVERB

10/12HP

- Dual Frequency 50/60Hz-380-400v-3Ph
- DC Inverter Scroll Compressor & BLDC Fan
- 3 Basic Modular Units: 8HP, 10HP, 12HP
- Free Combination up to 36HP with Incremental 2HP,
- Max. Indoor Units up to 36
- High Ambient Operation up to 52°C

Model			AV08NMVERB	AV10NMVERB	AV12NMVERB	AV16NMVERB	
Combination model			/	/	/	AV08NMVERB	
			/	/	/	AV08NMVERB	
			/	/	/	/	
Capacity	Capacity range	HP	8	10	12	16	
	Cooling capacity	kW	22.6	28.0	33.5	45.2	
	Heating capacity	kW	25.0	31.5	37.5	50.0	
Power supply		Ph/V/Hz	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	
Electrical parameters	Cooling	Rated power input	kW	6.28	7.81	9.36	12.6
		Max. power input	kW	14.7	17.54	20.48	29.4
		Rated current	A	10.6	13.18	15.8	21.2
		Max.current	A	23.4	27.9	32.37	46.8
	Heating	Rated power input	kW	5.98	7.51	9.11	12.0
		Max. power input	kW	11.9	14.6	17.8	23.8
		Rated current	A	10.1	12.68	15.38	20.2
		Max.current	A	19	23.3	28.4	38.0
EER			3.60	3.59	3.58	3.60	
COP			4.18	4.19	4.12	4.18	
Performance	Air flow (H)	m <sup>3</sup> /h	11000	14100	14100	22000.0	
	Sound pressure level (H)	dB(A)	60	65	65	63	
	Sound power level (H)	dB(A)	76	81	81	80	
	External dimensions(W/D/H)		mm	990/750/1808	1390/750/1808	1390/750/1808	990/750/1808 +990/750/1808
Shipping dimensions(W/D/H)		mm	1090/860/1990	1490/860/1990	1490/860/1990	1090/860/1990 +1090/860/1990	
Net/Shipping weight		kg	240/255	360/378	368/386	480/510	
Compressor type			DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	
Compressor quantity			1 INV	1 INV +1 FIX	1 INV +1 FIX	2 INV	
Refrigerant type			R410A	R410A	R410A	R410A	
Installation	Refrigerant charge		kg	10	10	10	20
	Refrigerant liquid pipe		mm	9.52	12.7	12.7	15.88
	Refrigerant gas pipe		mm	22.22	25.4	28.58	28.58
	Oil equalization pipe		mm	9.52	9.52	9.52	9.52
	Total pipe length		m	300	300	300	300
	Max. pipe length(Equivalent/Actual)		m	175/150	175/150	175/150	175/150
	Max drop between I.U.&O.U		m	50/40	50/40	50/40	50/40
	External static pressure		Pa	50	50	50	50
	Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130
		Maximum number of indoor units		10	13	16	20
Working temp.	Cooling	°C	-5-52	-5-52	-5-52	-5-52	
	Heating	°C	-15-15.5	-15-15.5	-15-15.5	-15-15.5	

Model			AV18NMVERB	AV20NMVERB	AV22NMVERB	AV24NMVERB	AV26NMVERB	
Combination model			AV08NMVERB	AV10NMVERB	AV10NMVERB	AV12NMVERB	AV08NMVERB	
			AV10NMVERB	AV10NMVERB	AV12NMVERB	AV12NMVERB	AV08NMVERB	
			/	/	/	/	AV10NMVERB	
Capacity	Capacity range	HP	18	20	22	24	26	
	Cooling capacity	kW	50.6	56	61.5	67.0	73.2	
	Heating capacity	kW	56.5	63.0	69.0	75.0	81.5	
Power supply		Ph/V/Hz	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	
Electrical parameters	Cooling	Rated power input	kW	14.1	15.62	17.2	18.7	20.4
		Max. power input	kW	32.2	35.08	38.0	41.0	46.9
		Rated current	A	23.8	26.36	29.0	31.6	34.4
		Max.current	A	51.3	55.8	60.3	64.7	74.7
	Heating	Rated power input	kW	13.49	15.02	16.6	18.2	19.5
		Max. power input	kW	26.5	29.2	32.4	35.6	38.4
		Rated current	A	22.8	25.36	28.1	30.8	32.9
		Max.current	A	42.3	46.6	51.7	56.8	61.3
EER			3.59	3.59	3.58	3.58	3.59	
COP			4.19	4.19	4.15	4.12	4.19	
Performance	Air flow (H)	m <sup>3</sup> /h	25100.0	28200	28200.0	28200.0	36100.0	
	Sound pressure level (H)	dB(A)	66	68	68	68	67	
	Sound power level (H)	dB(A)	83	85	85	85	85	
	External dimensions(W/D/H)		mm	990/750/1808 +1390/750/1808	1390/750/1808 +1390/750/1808	1390/750/1808 +1390/750/1808	1390/750/1808 +1390/750/1808	990/750/1808 +990/750/1808 +1390/750/1808
Shipping dimensions(W/D/H)		mm	1090/860/1990 +1490/860/1990	1490/860/1990 +1490/860/1990	1490/860/1990 +1490/860/1990	1490/860/1990 +1490/860/1990	1090/860/1990 +1090/860/1990 +1490/860/1990	
Net/Shipping weight		kg	600/633	720/756	728/764	736/772	840/888	
Compressor type			DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	
Compressor quantity			2 INV +1 FIX	2 INV +2 FIX	2 INV +2 FIX	2 INV +2 FIX	3 INV +1 FIX	
Installation	Refrigerant type			R410A	R410A	R410A	R410A	R410A
	Refrigerant charge		kg	20	20	20.0	20.0	30.0
	Refrigerant liquid pipe		mm	15.88	15.88	19.05	19.05	19.05
	Refrigerant gas pipe		mm	28.58	28.58	31.8	31.8	31.8
	Oil equalization pipe		mm	9.52	9.52	9.52	9.52	9.52
	Total pipe length		m	300	300	300	300	300
	Max. pipe length(Equivalent/Actual)		m	175/150	175/150	175/150	175/150	175/150
	Max drop between I.U.&O.U		m	50/40	50/40	50/40	50/40	50/40
	External static pressure		Pa	50	50	50	50	50
	Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130
Maximum number of indoor units			20	24	24	28	28	
Working temp.	Cooling	°C	-5-52	-5-52	-5-52	-5-52	-5-52	
	Heating	°C	-15-15.5	-15-15.5	-15-15.5	-15-15.5	-15-15.5	

\* 1 outdoor above 50m,outdoor below 40m.  
\* All the specifications are tested under nominal condition(In cooling, Indoor temp is 27°C DB/19°C WB; Outdoor temp 35°C DB/24°C WB; In heating, Indoor temp is 20°C DB. Outdoor temp is 7°C DB/6°C WB).

# MRVIII T3 3/380~400/50(60)



AV08NMVERB

8HP



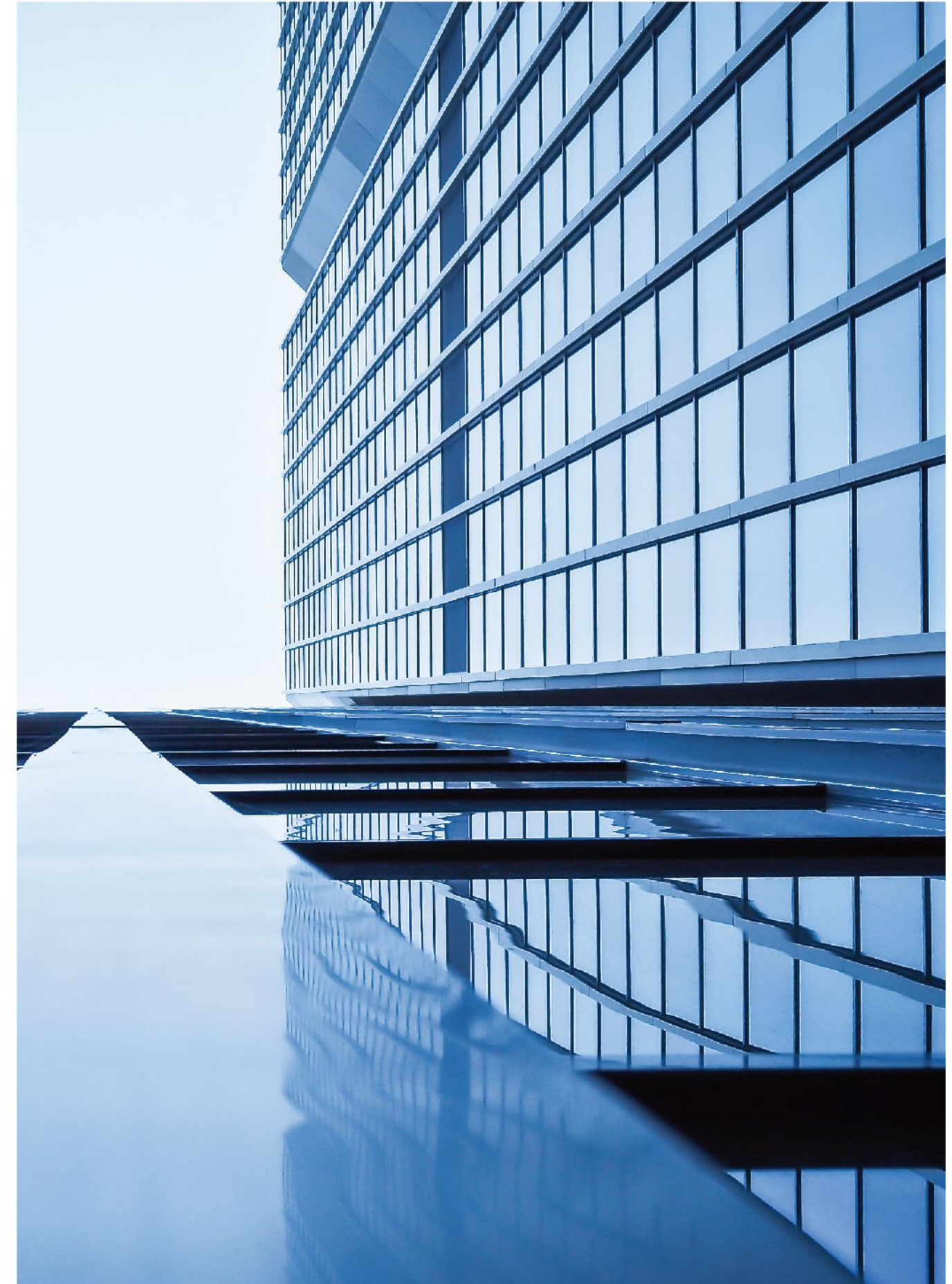
AV10NMVERB  
AV12NMVERB

10/12HP

Model			AV28NMVERB	AV30NMVERB	AV32NMVERB	AV34NMVERB	AV36NMVERB	
Combination model			AV08NMVERB	AV10NMVERB	AV10NMVERB	AV10NMVERB	AV12NMVERB	
			AV08NMVERB	AV10NMVERB	AV10NMVERB	AV12NMVERB	AV12NMVERB	
			AV12NMVERB	AV10NMVERB	AV12NMVERB	AV12NMVERB	AV12NMVERB	
Capacity	Capacity range	HP	28	30	32	34	36	
	Cooling capacity	kW	78.7	84.0	89.5	95.0	100.5	
	Heating capacity	kW	87.5	94.5	100.5	106.5	112.5	
Power supply			PhV/Hz	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	
Electrical parameters	Cooling	Rated power input	kW	21.9	23.4	25.0	26.5	28.08
		Max. power input	kW	49.9	52.6	55.6	58.5	61.44
		Rated current	A	37.0	39.5	42.2	44.8	47.4
		Max. current	A	79.2	83.7	88.2	92.6	97.11
	Heating	Rated power input	kW	21.1	22.5	24.1	25.7	27.33
		Max. power input	kW	41.6	43.8	47.0	50.2	53.4
		Rated current	A	35.6	38.0	40.7	43.4	46.14
		Max. current	A	66.4	69.9	75.0	80.1	85.2
EER				3.59	3.59	3.58	3.58	3.58
COP				4.15	4.19	4.16	4.14	4.12
Performance	Air flow (H)	m³/h	36100.0	42300.0	42300.0	42300.0	42300	
	Sound pressure level (H)	dB(A)	67	70	70	70	70	
	Sound power level (H)	dB(A)	85	88	88	88	88	
External dimensions(W/D/H)	mm		990/750/1808	1390/750/1808	1390/750/1808	1390/750/1808	1390/750/1808	
			+990/750/1808	+1390/750/1808	+1390/750/1808	+1390/750/1808	+1390/750/1808	
			+1390/750/1808	+1390/750/1808	+1390/750/1808	+1390/750/1808	+1390/750/1808	
Shipping dimensions(W/D/H)	mm		1090/860/1990	1490/860/1990	1490/860/1990	1490/860/1990	1490/860/1990	
			+1090/860/1990	+1490/860/1990	+1490/860/1990	+1490/860/1990	+1490/860/1990	
			+1490/860/1990	+1490/860/1990	+1490/860/1990	+1490/860/1990	+1490/860/1990	
Net/Shipping weight			kg	848/896	1080/1134	1088/1142	1096/1150	1104/1158
Compressor type				DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	DC INV SCROLL
Compressor quantity				3 INV +1 FIX	3 INV +3 FIX	3 INV +3 FIX	3 INV +3 FIX	3 INV +3 FIX
Refrigerant type				R410A	R410A	R410A	R410A	R410A
Installation	Refrigerant charge	kg	30.0	30.0	30.0	30.0	30	
	Refrigerant liquid pipe	mm	19.05	19.05	19.05	19.05	19.05	
	Refrigerant gas pipe	mm	31.8	38.1	38.1	38.1	38.1	
	Oil equalization pipe	mm	9.52	9.52	9.52	9.52	9.52	
	Total pipe length	m	300	300	300	300	300	
	Max. pipe length(Equivalent/Actual)	m	175/150	175/150	175/150	175/150	175/150	
	Max drop between I.U.&O.U	m	50/40	50/40	50/40	50/40	50/40	
	External static pressure	Pa	50	50	50	50	50	
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130	
	Maximum number of indoor units		28	32	32	36	36	
Working temp.	Cooling	°C	-5-52	-5-52	-5-52	-5-52	-5-52	
	Heating	°C	-15-15.5	-15-15.5	-15-15.5	-15-15.5	-15-15.5	

\* 1 outdoor above 50m, outdoor below 40m.

† All the specifications are tested under nominal condition(In cooling, indoor temp is 27°C DB/19°C WB; Outdoor temp 35°C DB/24°C WB; In heating, indoor temp is 20°C DB, Outdoor temp is 7°C DB/6°C WB).







# MRV III-RC

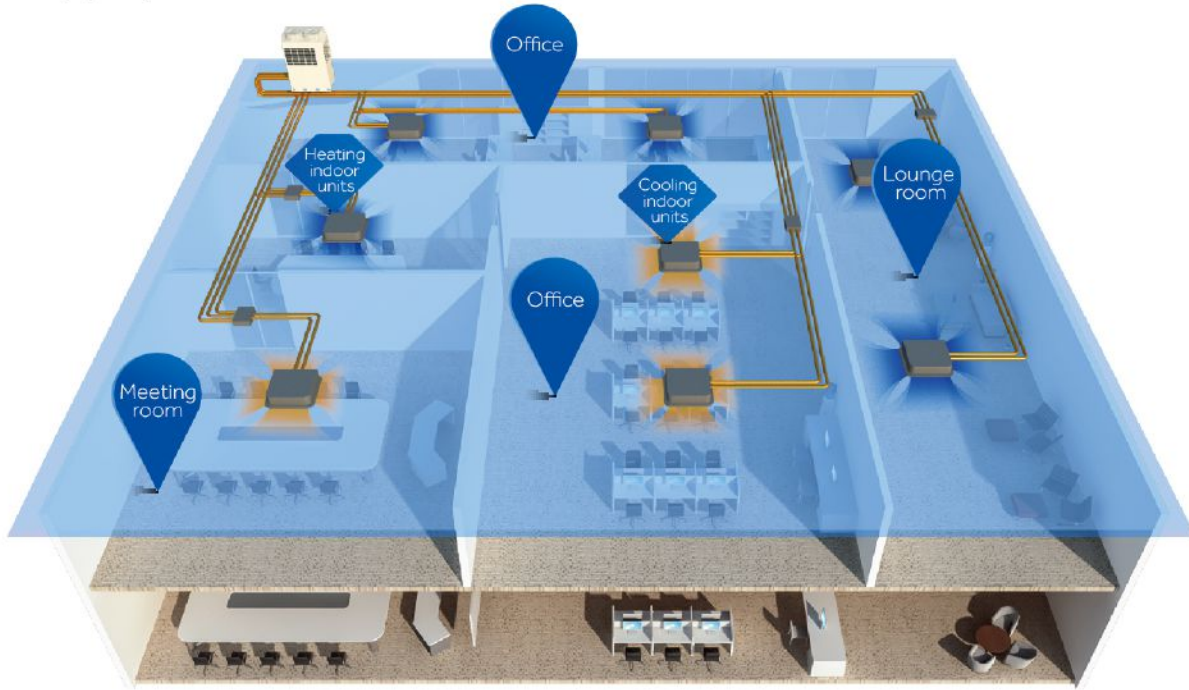


101 Features & Benefits  
111 MRV III-RC (Heat Recovery)

# FEATURES & BENEFITS

## System Introduction

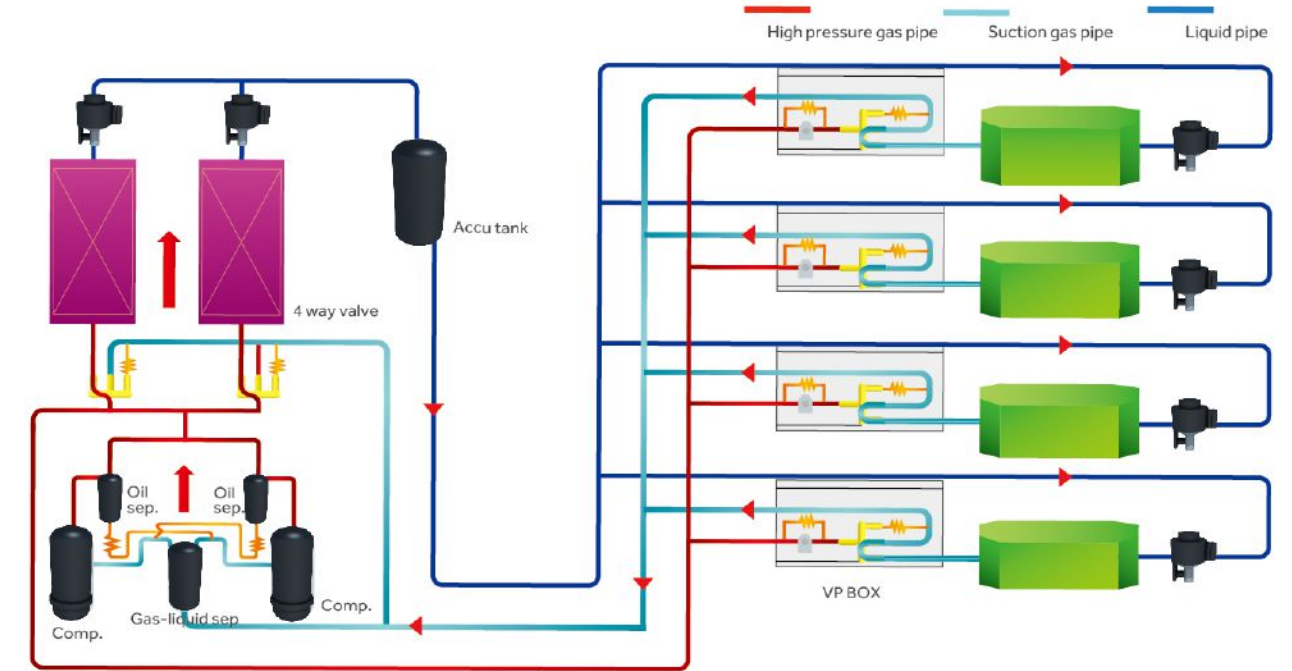
Typical 3 pipe system



## System Introduction

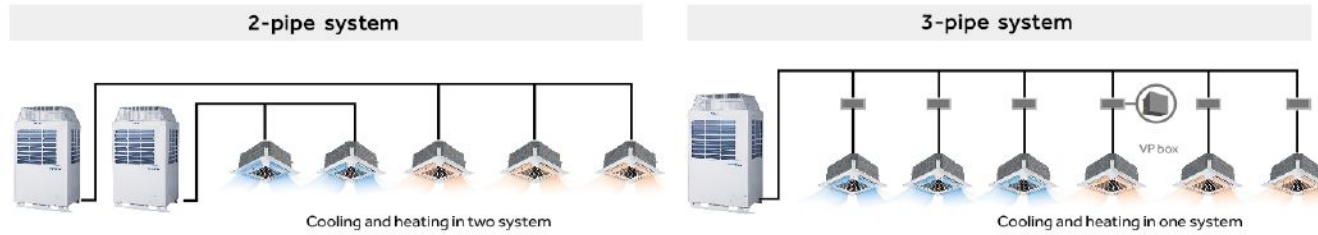
All cooling circuit

•12/14/16HP double compressor module for example

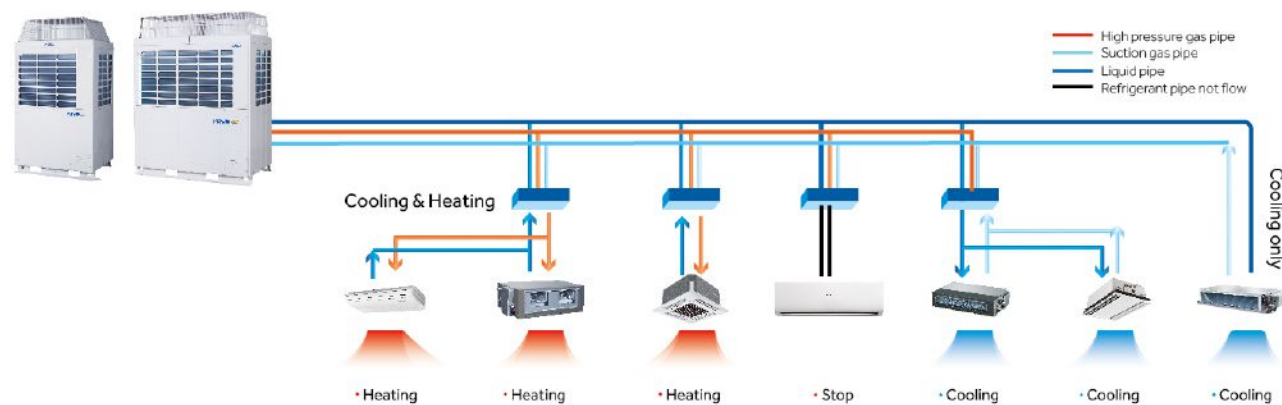


What is MRVIII-RC

- Cooling and heating simultaneously with only one outdoor unit
- Heat recovery system

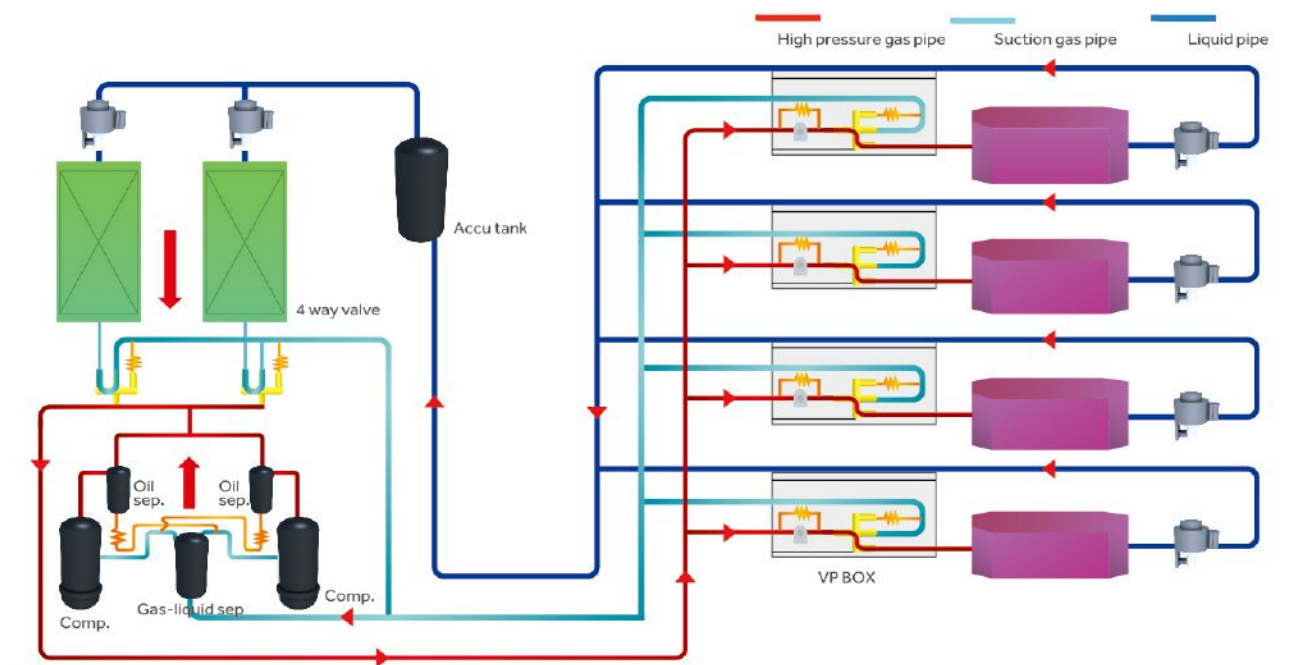


Variable operation mode in one system



All heating circuit

•12/14/16HP double compressor module for example

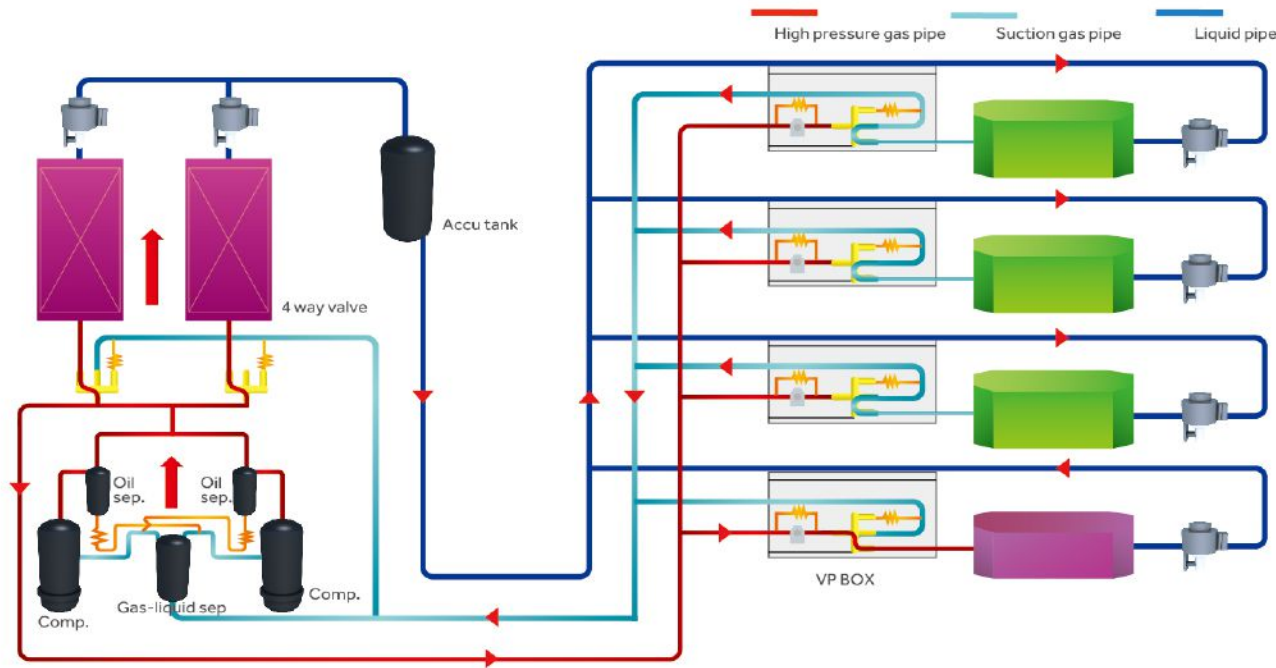


# FEATURES & BENEFITS

## System Introduction

Cooling > heating circuit

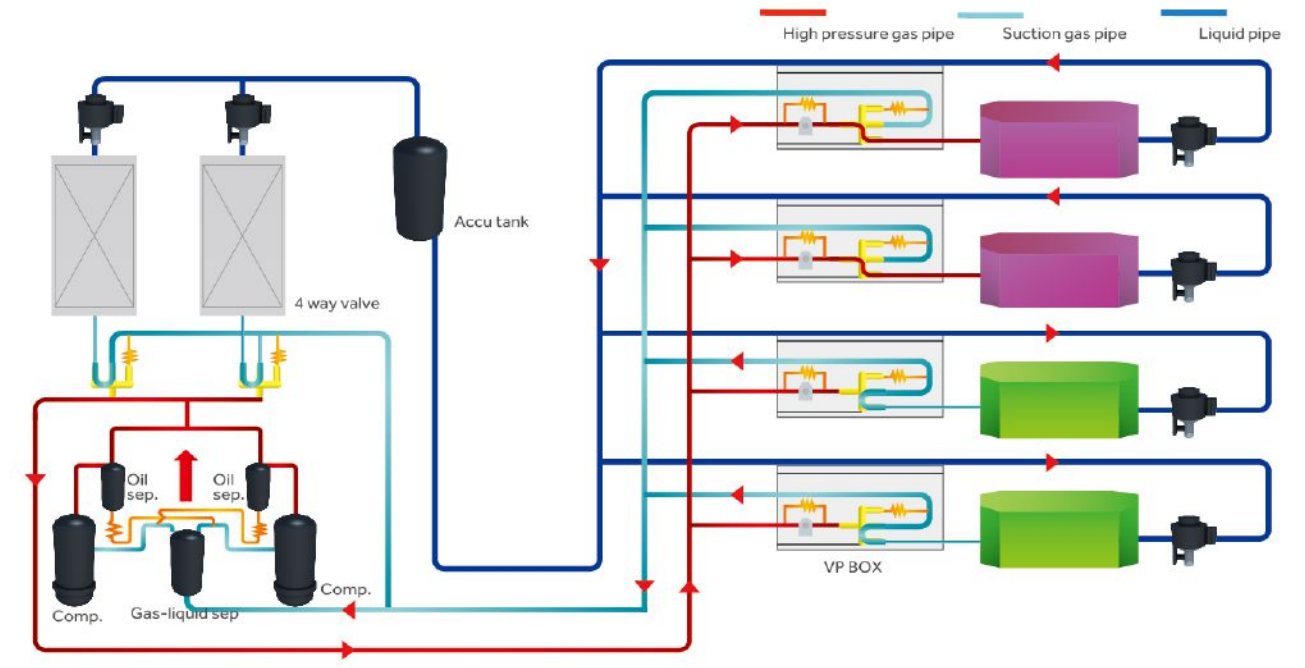
•12/14/16HP double compressor module for example



## System Introduction

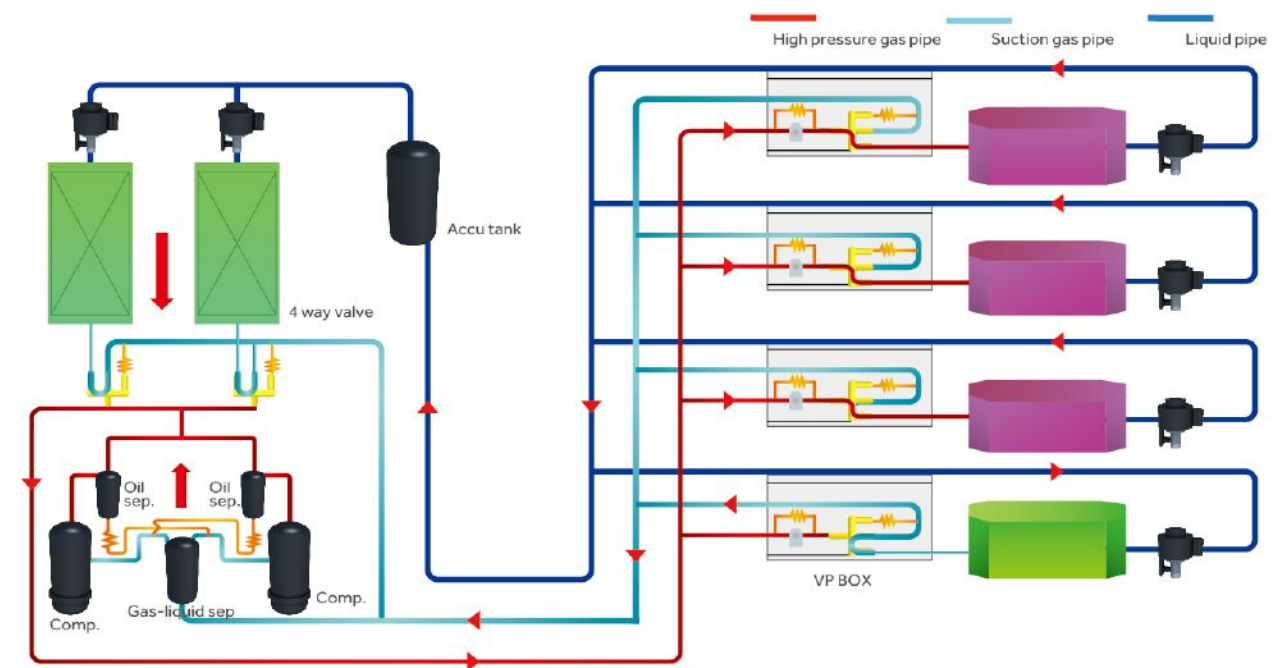
Cooling = heating circuit

•12/14/16HP double compressor module for example



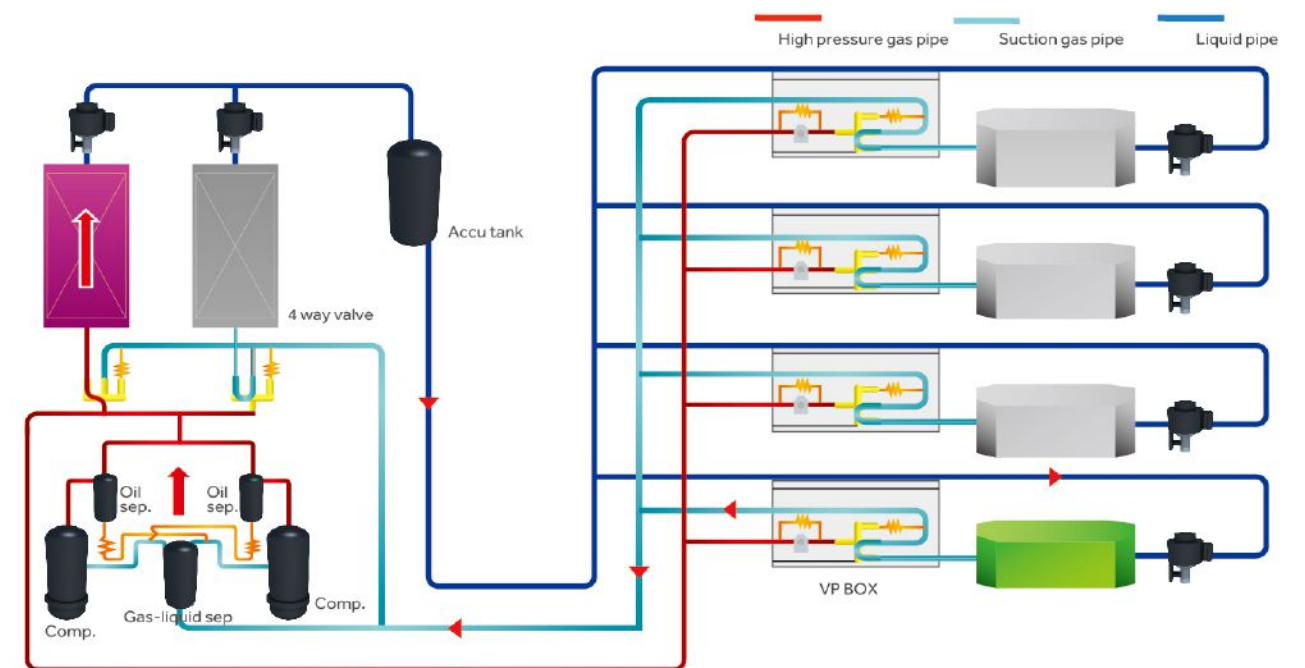
Cooling < heating circuit

•12/14/16HP double compressor module for example



Light part load cooling

•12/14/16HP double compressor module for example, little indoor heating, others off

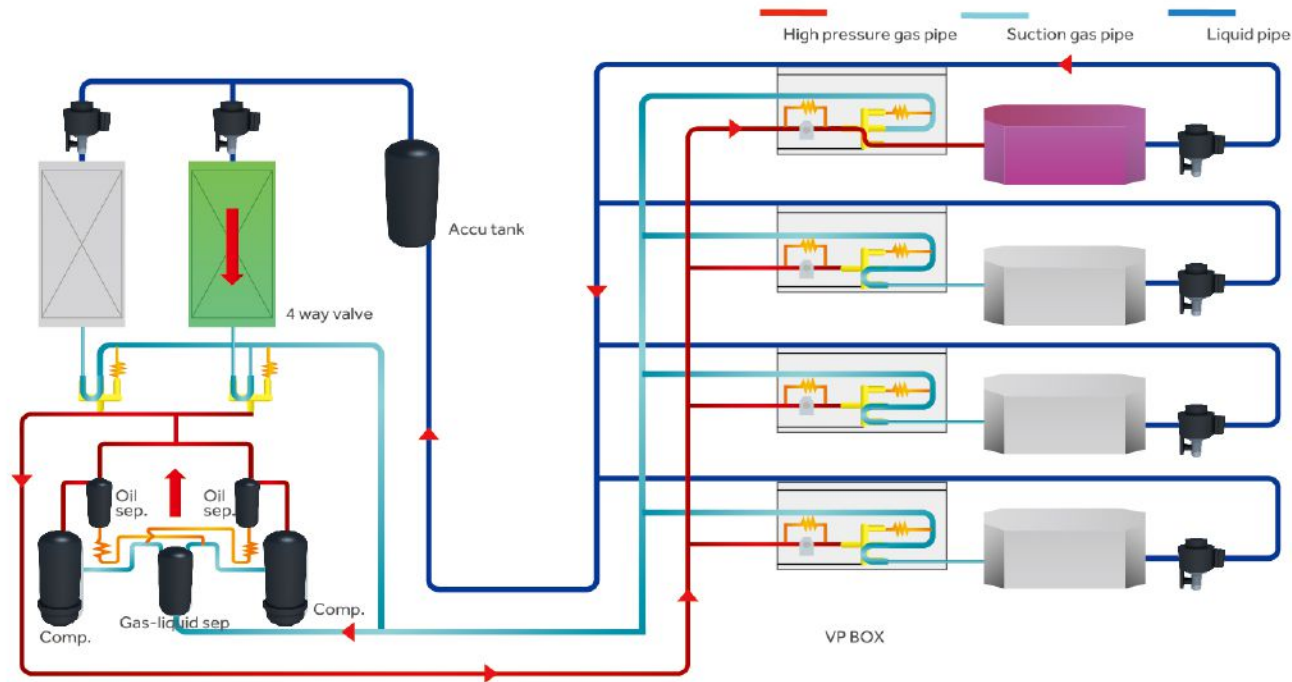


# FEATURES & BENEFITS

## System Introduction

Light part load heating

•12/14/16HP double compressor module for example, little indoor heating, others off



## Outdoor Structure

User friendly outdoor structure

Core Technologies and Parts

### Patent fan design and DC fan motor

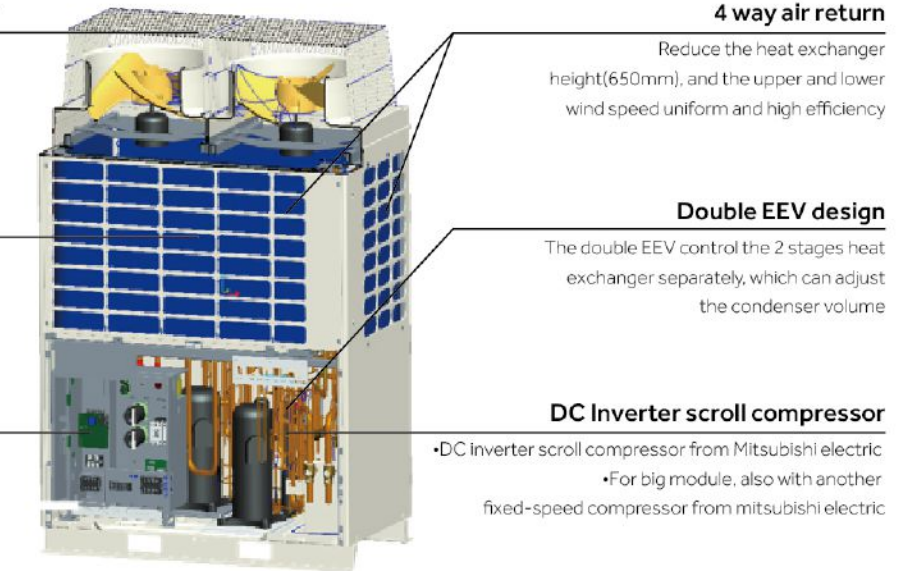
- Air flow improved by 17.5% with patent fan design
- Noise reduced 3 dB(A) with DC fan motor

### 2 stages heat exchanger

Separate control and heat exchanger size can be adjusted, effectively cope with small load operation, to ensure reliable operation

### Forced heat dissipation fan

Forced heat dissipation fan inside the electric control box, to ensure the stable Internal temperature and stable system operation



### 4 way air return

Reduce the heat exchanger height(650mm), and the upper and lower wind speed uniform and high efficiency

### Double EEV design

The double EEV control the 2 stages heat exchanger separately, which can adjust the condenser volume

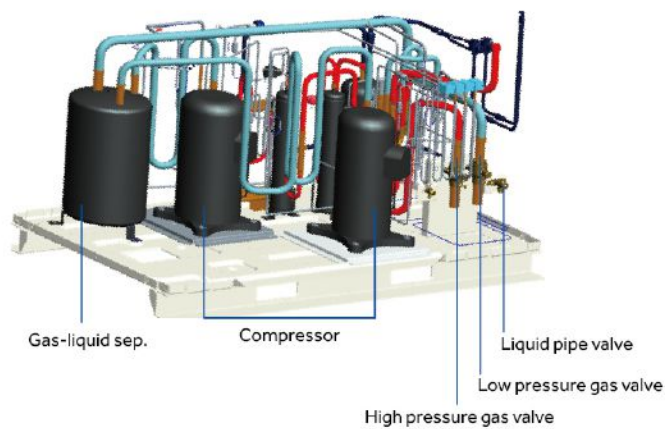
### DC Inverter scroll compressor

- DC inverter scroll compressor from Mitsubishi electric
- For big module, also with another fixed-speed compressor from mitsubishi electric

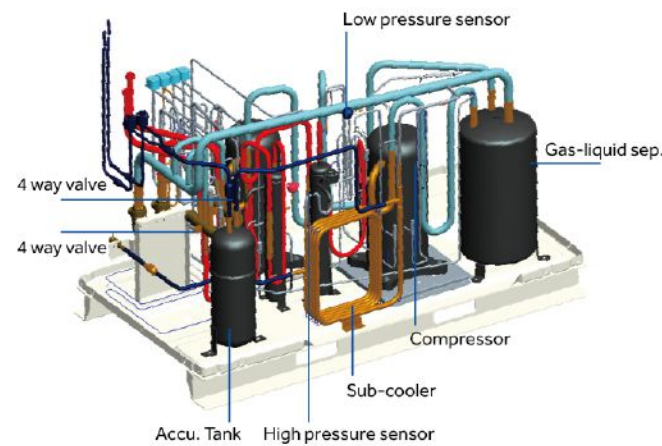
## Outdoor Structure

Inner system

Core Parts: For 12/14/16 Single Module



Core Parts: For 12/14/16 Single Module

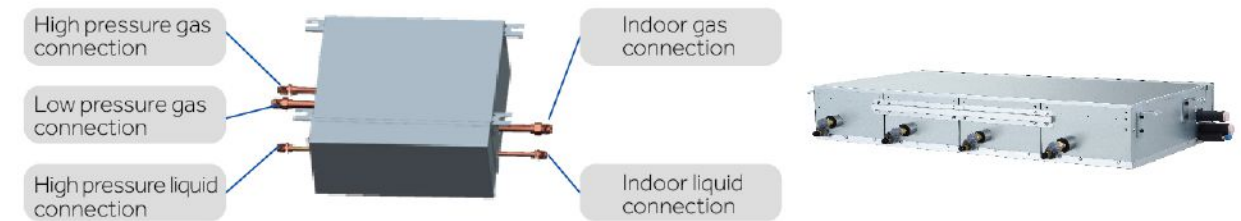


Vp (valve pipe) box structure

Overview

### Individual Valve + Pipe Box for Heat Recovery

- High comfort: Individual control box and change over for one group indoor units
- Super slim built-in height: only 180mm
- Threaded joint connection, easy for installation



Model name	Max.capacity of indoor(kw)	Power Supply	Max. indoor units	Dimension
VP1-112A	≤11.2	1/220-240/50/60	5	400/365/180
VP1-180A	11.2<x≤18	1/220-240/50/60	8	400/365/180
VP1-280A	18<x≤28	1/220-240/50/60	8	400/365/180
VP4-450A	≤ 45	1/220-240/50/60	20	1188/597/182

# FEATURES & BENEFITS

## System Introduction

Typical 3 pipe system

The heat discharged from outdoor unit can be used to cooling Indoor units. It can save energy above 30% averagely

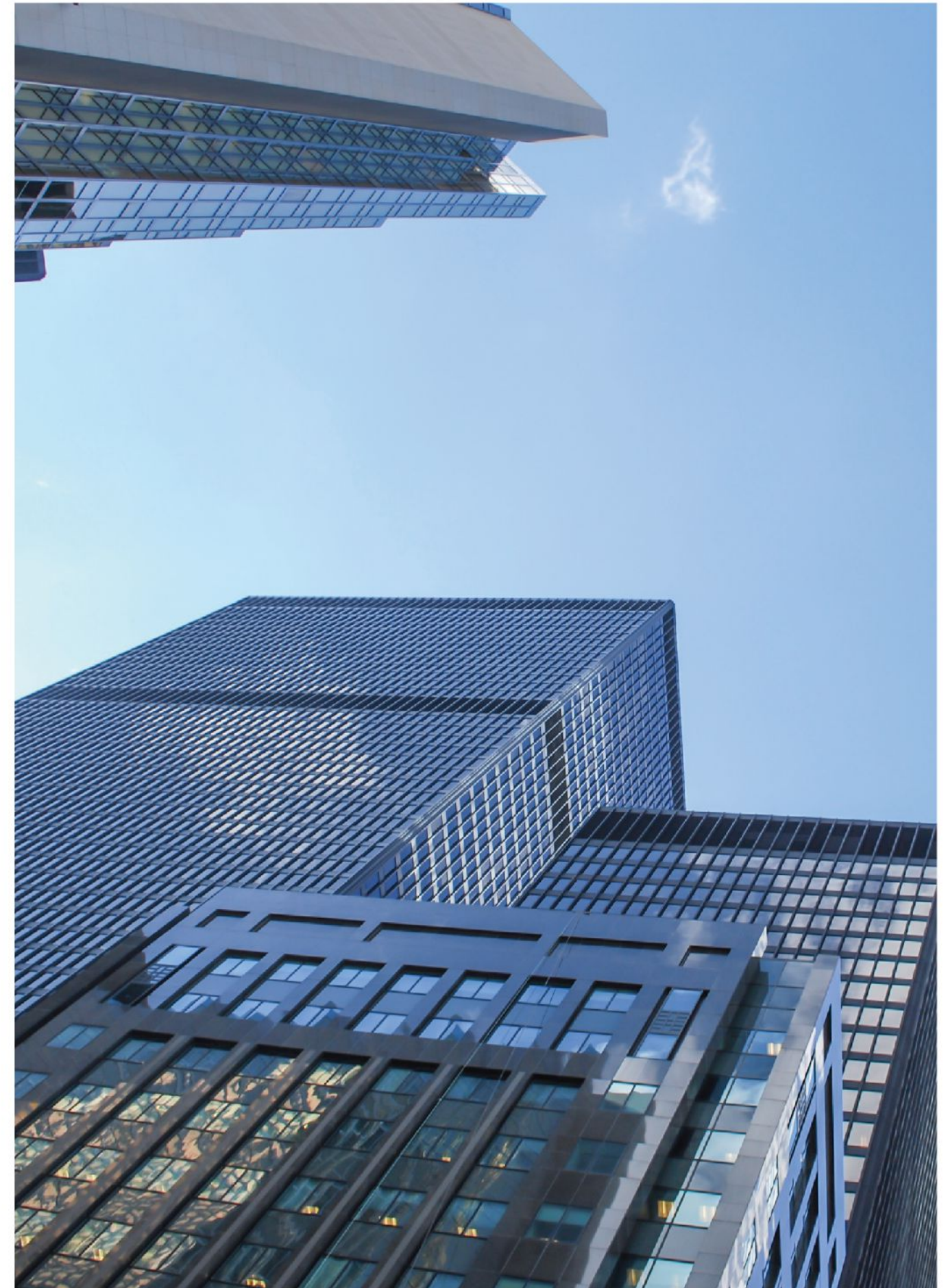
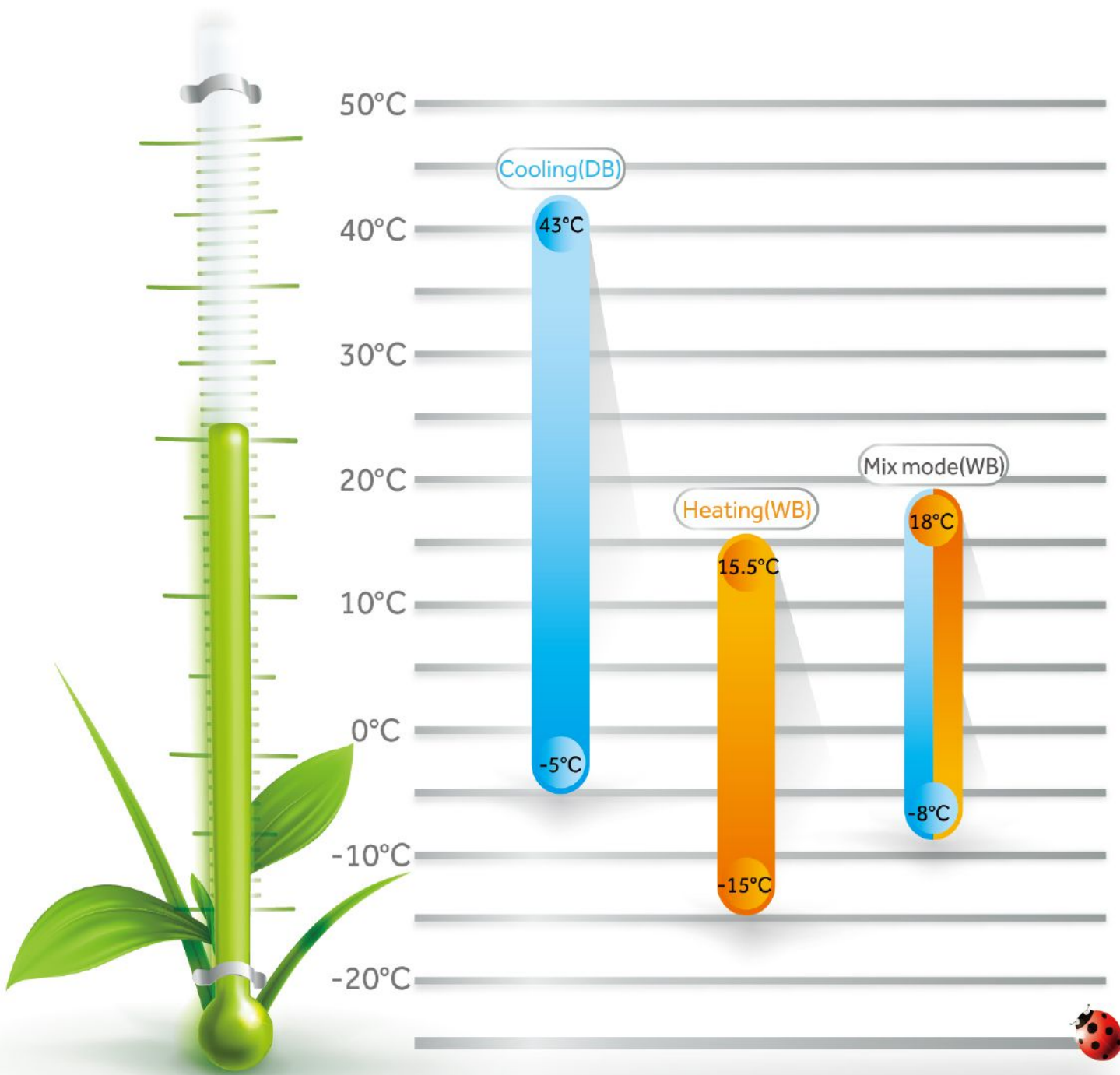
Mode	Heat recovery system operation	Part Load	Energy Saving
<b>Cooling only</b> (10HP outdoor each indoor 2HP)			0%
<b>Heating only</b> (10HP outdoor)			0%
<b>Cooling&gt;Heating</b>			20%
<b>Cooling=Heating</b>			50%
<b>Cooling&lt;Heating</b>			40%

MRVIII-RC

# FEATURES & BENEFITS

## System Introduction

Wide temperature operation range



MRV111-RC

# MRV8-RC 3/380~400/50(60)



AV08IMVUSA  
AV10IMVUSA



AV12IMVUSA  
AV14IMVUSA  
AV16IMVUSA

8/10HP

12/14/16HP

Model		AV08IMVUSA	AV10IMVUSA	AV12IMVUSA	AV14IMVUSA	AV16IMVUSA	AV18IMVUSA
Combination model		/	/	/	/	/	AV08IMVUSA AV10IMVUSA /
Capacity	Capacity range	HP	8	10	12	14	16
	Cooling	kW	22.4	28	33.5	40	45
	Heating	kW	25	31.5	37.5	45	50
Power supply		PhV/Hz	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60
Electrical parameters	Cooling	Rated power input	kW	5.81	7.55	9.18	12.3
		Max power input	kW	12.37	14.7	17.54	18.55
		Rated current	A	9.49	12.33	15.00	20.10
	Heating	Max current	A	19.85	23.4	27.9	29.5
		Rated power input	kW	6.1	7.97	9.15	11.1
		Max power input	kW	9.77	11.9	14.6	16.6
	Rated current	A	9.97	13.02	14.95	18.13	
	Max current	A	15.7	19	23.3	26.5	
	EER		3.86	3.71	3.65	3.25	
	COP		4.10	3.95	4.10	4.05	
	SEER		5.39	5.32	5.33	5.19	
	SCOP		4.05	3.99	3.92	3.81	
Performance	Air flow (H)	m³/h	11100	11100	14100	14100	14100
	Sound pressure level (H)	dB(A)	57	57	60	60	60
	Sound power level (H)	dB(A)	73	73	76	76	76
Installation	External dimensions(W/D/H)	mm	990/750/1808	990/750/1808	1390/750/1808	1390/750/1808	1390/750/1808
	Shipping dimensions(W/D/H)	mm	1090/860/1990	1090/860/1990	1490/860/1990	1490/860/1990	1490/860/1990
	Net/Shipping weight	kg	236/264	236/264	347/383	347/383	347/383
	Compressor type		DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	DC INV SCROLL
	Compressor brand		MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC
	Compressor quantity		1 INV	1 INV	1 INV +1 FIX	1 INV +1 FIX	1 INV +1 INV
	Refrigerant type		R410A	R410A	R410A	R410A	R410A
	Refrigerant charge	kg	10	10	10	10	20
	Refrigerant liquid pipe	mm	9.52	9.52	12.7	12.7	15.88
	Refrigerant gas pipe	mm	19.05	22.22	25.4	25.4	28.58
	High pressure gas pipe	m	19.05	19.05	22.22	22.22	25.4
	Oil equalization pipe	m	9.52	9.52	9.52	9.52	9.52
	Total pipe length	m	300	300	300	300	300
	Max. pipe length(Equivalent/Actual)	m	175/150	175/150	175/150	175/150	175/150
	Max drop between I.U.&O.U	m	50/40	50/40	50/40	50/40	50/40
External static pressure	m	50	50	50	50	50	
Connection ratio	Connectable indoor unit ratio	Pa	50~130	50~130	50~130	50~130	50~130
	Maximum number of indoor units	%	13	16	19	19	26
Working temp.	Cooling(DB)		-5~43	-5~43	-5~43	-5~43	-5~43
	Heating(WB)	°C	-15~21	-15~21	-15~21	-15~21	-15~21
	Cooling & Heating(WB)	°C	-8~18	-8~18	-8~18	-8~18	-8~18v

- Power Supply: 3/380-400/50/60
- DC Inverter Scroll Compressor & BLDC Fan
- 5 Basic Single Modular Units: 8HP, 10HP, 12HP, 14HP, 16HP
- Max. 3 Modules Combination up to 48HP, Max Connected Indoor Units up to 64.

Model		AV20IMVUSA	AV22IMVUSA	AV24IMVUSA	AV26IMVUSA	AV28IMVUSA
Combination model		AV10IMVUSA AV10IMVUSA /	AV10IMVUSA AV12IMVUSA /	AV10IMVUSA AV14IMVUSA /	AV10IMVUSA AV16IMVUSA /	AV14IMVUSA AV14IMVUSA /
Capacity	Capacity range	HP	20	22	24	26
	Cooling	kW	56	61.5	68	73
	Heating	kW	63	69	76.5	81.5
Power supply		PhV/Hz	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60
Electrical parameters	Cooling	Rated power input	kW	15.1	16.73	19.85
		Max power input	kW	29.4	32.24	33.25
		Rated current	A	24.67	27.33	32.43
	Heating	Max current	A	46.8	51.3	52.9
		Rated power input	kW	15.94	17.12	19.07
		Max power input	kW	23.8	26.5	28.5
	Rated current	A	26.04	27.97	31.16	
	Max current	A	38	42.3	45.5	
	EER		3.71	3.68	3.43	
	COP		3.95	4.03	4.01	
	SEER		5.24	5.31	5.25	
	SCOP		3.99	3.97	3.93	
Performance	Air flow (H)	m³/h	22200	25200	25200	
	Sound pressure level (H)	dB(A)	60	61	61	
	Sound power level (H)	dB(A)	77	78	78	
Installation	External dimensions(W/D/H)	mm	990/750/1808+ 990/750/1808	990/750/1808+ 1390/750/1808	990/750/1808+ 1390/750/1808	990/750/1808+ 1390/750/1808
	Shipping dimensions(W/D/H)	mm	1090/860/1990+ 1090/860/1990	1090/860/1990+ 1490/860/1990	1090/860/1990+ 1490/860/1990	1090/860/1990+ 1490/860/1990
	Net/Shipping weight	kg	236/264+236/264	236/264+347/383	236/264+347/383	236/264+347/383
	Compressor type		DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	DC INV SCROLL
	Compressor brand		MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC
	Compressor quantity		1 INV +1 INV	(1 INV) + (1 INV +1 FIX)		(1 INV +1 FIX) + (1 INV +1 FIX)
	Refrigerant type		R410A	R410A	R410A	R410A
	Refrigerant charge	kg	20	20	20	20
	Refrigerant liquid pipe	mm	15.88	15.88	15.88	19.05
	Refrigerant gas pipe	mm	28.58	28.58	28.58	31.8
	High pressure gas pipe	m	25.4	25.4	25.4	28.58
	Oil equalization pipe	m	9.52	9.52	9.52	9.52
	Total pipe length	m	300	300	300	300
	Max. pipe length(Equivalent/Actual)	m	175/150	175/150	175/150	175/150
	Max drop between I.U.&O.U	m	50/40	50/40	50/40	50/40
External static pressure	m	50	50	50	50	
Connection ratio	Connectable indoor unit ratio	Pa	50~130	50~130	50~130	50~130
	Maximum number of indoor units	%	33	36	39	43
Working temp.	Cooling(DB)		-5~43	-5~43	-5~43	-5~43
	Heating(WB)	°C	-15~21	-15~21	-15~21	-15~21
	Cooling & Heating(WB)	°C	-8~18	-8~18	-8~18	-8~18

\* 1 outdoor above 50m, outdoor below 40m  
 \* All the specifications are tested under nominal condition(In cooling, Indoor temp is 27°C DB/19°C WB; Outdoor temp 35°C DB/24°C WB; In heating, Indoor temp is 20°C DB, Outdoor temp is 7°C DB/6°C WB)  
 \* The specification may change according to the further product development.

# MRV8-RC 3/380~400/50(60)



AV08IMVUSA  
AV10IMVUSA

8/10HP



AV12IMVUSA  
AV14IMVUSA  
AV16IMVUSA

12/14/16HP

- Power Supply: 3/380~400/50/60
- DC Inverter Scroll Compressor & BLDC Fan
- 5 Basic Single Modular Units: 8HP, 10HP, 12HP, 14HP, 16HP
- Max. 3 Modules Combination up to 48HP, Max Connected Indoor Units up to 64.

Model		AV30IMVUSA	AV32IMVUSA	AV34IMVUSA	AV36IMVUSA	AV38IMVUSA		
Combination model		AV14IMVUSA	AV16IMVUSA	AV10IMVUSA	AV10IMVUSA	AV10IMVUSA		
		AV16IMVUSA	AV16IMVUSA	AV10IMVUSA	AV10IMVUSA	AV14IMVUSA		
		/	/	AV14IMVUSA	AV16IMVUSA	AV14IMVUSA		
Capacity	Capacity range	HP	30	32	34	36	38	
	Cooling	kW	85	90	96	101	106.5	
	Heating	kW	95	100	108	113	119	
Electrical parameters	Power supply	PhV/Hz	3/380~400/50/60	3/380~400/50/60	3/380~400/50/60	3/380~400/50/60	3/380~400/50/60	
	Cooling	Rated power input	kW	26.4	28.2	27.4	29.2	30.83
		Max power input	kW	39.03	40.96	47.95	49.88	52.72
		Rated current	A	43.13	46.07	44.76	47.71	50.37
	Heating	Max current	A	61.87	64.74	76.3	79.17	83.67
		Rated power input	kW	24.6	27	27.04	29.44	30.62
		Max power input	kW	34.4	35.6	40.4	41.6	44.3
	EER	Rated current	A	40.19	44.11	44.18	48.10	50.03
		Max current	A	54.9	56.8	64.5	66.4	70.7
				3.22	3.19	3.50	3.46	3.45
			3.86	3.70	3.99	3.84	3.89	
			5.11	5.06	5.27	5.20	5.20	
			3.81	3.72	3.95	3.89	3.88	
Performance	Air flow (H)	m³/h	28200	28200	36300	36300	39300	
	Sound pressure level (H)	dB(A)	62	62	63	63	63	
	Sound power level (H)	dB(A)	79	79	81	81	81	
Installation	External dimensions(W/D/H)	mm	1390/750/1808+	990/750/1808+	990/750/1808+	990/750/1808+	990/750/1808+	
		mm	1390/750/1808	1390/750/1808+	1390/750/1808+	1390/750/1808+	1390/750/1808+	
	Shipping dimensions(W/D/H)	mm	1490/860/1990+	1490/860/1990+	1090/860/1990+	1090/860/1990+	1090/860/1990+	
		mm	1490/860/1990	1490/860/1990	1090/860/1990+	1090/860/1990+	1090/860/1990+	
	Net/Shipping weight	kg	347/383+347/383	347/383+347/383	236/264+236/264+347/383	236/264+347/383+347/383	236/264+347/383+347/383	
	Compressor type		DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	
	Compressor brand		MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	
	Compressor quantity		(1 INV+1 FIX)+(1 INV+1 FIX)	(1 INV+1 FIX)+(1 INV+1 FIX)	1 INV+1 INV+(1 INV+1 FIX)	1 INV+(1 INV+1 FIX)+(1 INV+1 FIX)	1 INV+(1 INV+1 FIX)+(1 INV+1 FIX)	
	Refrigerant type		R410A	R410A	R410A	R410A	R410A	
	Refrigerant charge	kg	20	20	20	20	20	
	Refrigerant liquid pipe	mm	15.88	15.88	15.88	19.05	19.05	
	Refrigerant gas pipe	mm	28.58	28.58	28.58	31.8	31.8	
	High pressure gas pipe	m	25.4	25.4	25.4	28.58	28.58	
	Oil equalization pipe	m	9.52	9.52	9.52	9.52	9.52	
	Total pipe length	m	300	300	300	300	300	
	Max pipe length(Equivalent/Actual)	m	175/150	175/150	175/150	175/150	175/150	
Max drop between I.U.&O.U	m	50/40	50/40	50/40	50/40	50/40		
External static pressure	m	50	50	50	50	50		
Connection ratio	Connectable indoor unit ratio	Pa	50~130	50~130	50~130	50~130	50~130	
	Maximum number of indoor units	%	33	36	39	43	50	
Working temp.	Cooling(DB)	°C	-5~43	-5~43	-5~43	-5~43	-5~43	
	Heating(WB)	°C	-15~21	-15~21	-15~21	-15~21	-15~21	
	Cooling&Heating(WB)	°C	-8~18	-8~18	-8~18	-8~18	-8~18	

Model		AV40IMVUSA	AV42IMVUSA	AV44IMVUSA	AV46IMVUSA	AV48IMVUSA		
Combination model		AV10IMVUSA	AV10IMVUSA	AV12IMVUSA	AV14IMVUSA	AV16IMVUSA		
		AV14IMVUSA	AV16IMVUSA	AV16IMVUSA	AV16IMVUSA	AV16IMVUSA		
		AV16IMVUSA	AV16IMVUSA	AV16IMVUSA	AV16IMVUSA	AV16IMVUSA		
Capacity	Capacity range	HP	40	42	44	46	48	
	Cooling	kW	113	118	123.5	130	135	
	Heating	kW	126.5	131.5	137.5	145	150	
Electrical parameters	Power supply	PhV/Hz	3/380~400/50/60	3/380~400/50/60	3/380~400/50/60	3/380~400/50/60	3/380~400/50/60	
	Cooling	Rated power input	kW	33.95	35.75	37.38	40.5	42.3
		Max power input	kW	53.73	55.66	58.5	59.51	61.44
		Rated current	A	55.47	58.41	61.07	66.17	69.11
	Heating	Max current	A	85.27	88.14	92.64	94.24	97.11
		Rated power input	kW	32.57	34.97	36.15	38.1	40.5
		Max power input	kW	46.3	47.5	50.2	52.2	53.4
	EER	Rated current	A	53.21	57.13	59.06	62.25	66.17
		Max current	A	73.9	75.8	80.1	83.3	85.2
				3.33	3.30	3.30	3.21	3.19
			3.88	3.76	3.80	3.81	3.70	
			5.17	5.12	5.12	5.09	5.06	
			3.86	3.81	3.81	3.80	3.72	
Performance	Air flow (H)	m³/h	39300	39300	42300	42300	42300	
	Sound pressure level (H)	dB(A)	63	63	64	64	64	
	Sound power level (H)	dB(A)	81	81	82	82	82	
Installation	External dimensions(W/D/H)	mm	990/750/1808+	990/750/1808+	1390/750/1808+	1390/750/1808+	1390/750/1808+	
		mm	1390/750/1808+	1390/750/1808+	1390/750/1808+	1390/750/1808+	1390/750/1808+	
	Shipping dimensions(W/D/H)	mm	1090/860/1990+	1090/860/1990+	1490/860/1990+	1490/860/1990+	1490/860/1990+	
		mm	1490/860/1990+	1490/860/1990+	1490/860/1990+	1490/860/1990+	1490/860/1990+	
	Net/Shipping weight	kg	236/264+347/383+347/383	236/264+347/383+347/383	347/383+347/383+347/383	347/383+347/383+347/383	347/383+347/383+347/383	
	Compressor type		DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	
	Compressor brand		MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	
	Compressor quantity		1 INV+(1 INV+1 FIX)+(1 INV+1 FIX)	1 INV+(1 INV+1 FIX)+(1 INV+1 FIX)	(1 INV+1 FIX)+(1 INV+1 FIX)+(1 INV+1 FIX)	(1 INV+1 FIX)+(1 INV+1 FIX)+(1 INV+1 FIX)	(1 INV+1 FIX)+(1 INV+1 FIX)+(1 INV+1 FIX)	
	Refrigerant type		R410A	R410A	R410A	R410A	R410A	
	Refrigerant charge	kg	30	30	30	30	30	
	Refrigerant liquid pipe	mm	19.05	19.05	19.05	19.05	19.05	
	Refrigerant gas pipe	mm	38.1	38.1	38.1	38.1	38.1	
	High pressure gas pipe	m	34.9	34.9	34.9	34.9	34.9	
	Oil equalization pipe	m	9.52	9.52	9.52	9.52	9.52	
	Total pipe length	m	300	300	300	300	300	
	Max pipe length(Equivalent/Actual)	m	175/150	175/150	175/150	175/150	175/150	
Max drop between I.U.&O.U	m	50/40	50/40	50/40	50/40	50/40		
External static pressure	m	50	50	50	50	50		
Connection ratio	Connectable indoor unit ratio	Pa	50~130	50~130	50~130	50~130	50~130	
	Maximum number of indoor units	%	64	64	64	64	64	
Working temp.	Cooling(DB)	°C	-5~43	-5~43	-5~43	-5~43	-5~43	
	Heating(WB)	°C	-15~21	-15~21	-15~21	-15~21	-15~21	
	Cooling&Heating(WB)	°C	-8~18	-8~18	-8~18	-8~18	-8~18	

\* 1. outdoor above 50m, outdoor below 40m.  
 \* All the specifications are tested under nominal condition(In cooling, Indoor temp is 27°C DB/19°C WB, Outdoor temp 35°C DB/24°C WB, In heating, Indoor temp is 20°C DB, Outdoor temp is 7°C DB/5°C WB).  
 \* The specification may change according to the further product development.



# MRVIII-RC 3/208~230/60



AV08CMVUSA  
AV10CMVUSA

8/10HP



AV12CMVUSA  
AV14CMVUSA  
AV16CMVUSA

12/14/16HP

Model			AV08CMVUSA	AV10CMVUSA	AV12CMVUSA	AV14CMVUSA	AV16CMVUSA	AV18CMVUSA	
Combination model			/	/	/	/	/	AV08CMVUVA	
			/	/	/	/	/	AV10CMVUVA	
			/	/	/	/	/	/	
Capacity	Capacity range	HP	8	10	12	14	16	18	
	Cooling	kW	22.4	28	33.5	40	45	50.4	
	Heating	kW	25	31.5	37.5	45	50	56.5	
Power supply		PhV/Hz	3/208-230/60	3/208-230/60	3/208-230/60	3/208-230/60	3/208-230/60	3/208-230/60	
Electrical parameters	Cooling	Rated power input	kW	5.81	7.55	9.18	12.3	14.1	13.36
		Max power input	kW	12.5	14.5	16.5	18.5	20	27
		Rated current	A	16.40	21.31	25.91	34.71	39.79	37.70
		Max current	A	38.6	44.7	50.9	57.1	61.7	83.3
	Heating	Rated power input	kW	6.1	7.97	9.15	11.1	13.5	14.07
		Max power input	kW	12.5	14.5	16.5	18.5	20	27
		Rated current	A	17.21	22.49	25.82	31.32	38.10	39.70
		Max current	A	38.6	44.7	50.9	57.1	61.7	83.3
	EER			3.86	3.71	3.65	3.25	3.19	3.77
	COP			4.10	3.95	4.10	4.05	3.70	4.02
	Air flow (H)		m³/h	11100	11100	14100	14100	14100	22200
	Performance	Sound pressure level (H)	dB(A)	57	57	60	60	60	60
Sound power level (H)		dB(A)	73	73	76	76	76	77	
External dimensions (W/D/H)		mm	990/750/1808	990/750/1808	1390/750/1808	1390/750/1808	1390/750/1808	990/750/1808 +	
Shipping dimensions (W/D/H)		mm	1090/860/1990	1090/860/1990	1490/860/1990	1490/860/1990	1490/860/1990	1090/860/1990 +	
Net/Shipping weight		kg	240/268	240/268	368/393	368/393	368/393	480/536	
Compressor type			DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	
Compressor brand			MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	
Compressor quantity			1 INV	1 INV	1 INV +1 FIX	1 INV +1 FIX	1 INV +1 FIX	1 INV +1 INV	
Installation	Refrigerant type			R410A	R410A	R410A	R410A	R410A	R410A
	Refrigerant charge	kg	10	10	10	10	10	20	
	Refrigerant liquid pipe	mm	9.52	9.52	12.7	12.7	12.7	15.88	
	Refrigerant gas pipe	mm	19.05	22.22	25.4	25.4	28.58	28.58	
	High pressure gas pipe	mm	19.05	19.05	22.22	22.22	25.4	25.4	
	Oil equalization pipe	mm	9.52	9.52	9.52	9.52	9.52	9.52	
	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	m	50/40	50/40	50/40	50/40	50/40	50/40	
	External static pressure	Pa	50	50	50	50	50	50	
	Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130	50-130
		Maximum number of indoor units		13	16	19	23	26	29
Working temp.	Cooling(DB)	°C	-5-43	-5-43	-5-43	-5-43	-5-43	-5-43	
	Heating(WB)	°C	-15-21	-15-21	-15-21	-15-21	-15-21	-15-21	
	Cooling&Heating(WB)	°C	-8-18	-8-18	-8-18	-8-18	-8-18	-8-18	

- Power Supply: 3/208-230/60
- DC Inverter Scroll Compressor & BLDC Fan
- 5 Basic Single Modular Units: 8HP, 10HP, 12HP, 14HP, 16HP
- Max. 3 Modules Combination up to 48HP, Max Connected Indoor Units up to 64.

Model			AV20CMVUSA	AV22CMVUSA	AV24CMVUSA	AV26CMVUSA	AV28CMVUSA	
Combination model			AV10CMVUVA	AV10CMVUVA	AV10CMVUVA	AV10CMVUVA	AV14CMVUVA	
			AV10CMVUVA	AV12CMVUVA	AV14CMVUVA	AV16CMVUVA	AV14CMVUVA	
			/	/	/	/	/	
Capacity	Capacity range	HP	20	22	24	26	28	
	Cooling	kW	56	61.5	68	73	80	
	Heating	kW	63	69	76.5	81.5	90	
Power supply		PhV/Hz	3/208-230/60	3/208-230/60	3/208-230/60	3/208-230/60	3/208-230/60	
Electrical parameters	Cooling	Rated power input	kW	15.1	16.73	19.85	21.65	24.6
		Max power input	kW	29	31	33	34.5	37
		Rated current	A	42.61	47.21	56.02	61.09	69.42
		Max current	A	89.4	95.6	101.8	106.4	114.2
	Heating	Rated power input	kW	15.94	17.12	19.07	21.47	22.2
		Max power input	kW	29	31	33	34.5	37
		Rated current	A	44.98	48.31	53.81	60.59	62.65
		Max current	A	89.4	95.6	101.8	106.4	114.2
	EER			3.71	3.68	3.43	3.37	3.25
	COP			3.95	4.03	4.01	3.80	4.05
	Air flow (H)		m³/h	22200	25200	25200	25200	28200
	Performance	Sound pressure level (H)	dB(A)	60	61	61	61	62
Sound power level (H)		dB(A)	77	78	78	78	79	
External dimensions (W/D/H)		mm	990/750/1808 +	990/750/1808 +	990/750/1808 +	990/750/1808 +	1390/750/1808 +	
Shipping dimensions (W/D/H)		mm	1090/860/1990 +	1090/860/1990 +	1090/860/1990 +	1090/860/1990 +	1490/860/1990 +	
Net/Shipping weight		kg	480/536	608/661	608/641	608/641	736/786	
Compressor type			DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	DC INV SCROLL	
Compressor brand			MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	
Compressor quantity			1 INV +1 INV	(1 INV) +(1 INV+1 FIX)	(1 INV) +(1 INV+1 FIX)	(1 INV) +(1 INV+1 FIX)	(1 INV+1 FIX) +(1 INV+1 FIX)	
Installation	Refrigerant type			R410A	R410A	R410A	R410A	R410A
	Refrigerant charge	kg	20	20	20	20	20	
	Refrigerant liquid pipe	mm	15.88	15.88	15.88	19.05	19.05	
	Refrigerant gas pipe	mm	28.58	28.58	28.58	31.8	31.8	
	High pressure gas pipe	mm	25.4	25.4	25.4	28.58	28.58	
	Oil equalization pipe	mm	9.52	9.52	9.52	9.52	9.52	
	Total pipe length	m	300	300	300	300	300	
	Max. pipe length(Equivalent/Actual)	m	175/150	175/150	175/150	175/150	175/150	
	Max drop between I.U.&O.U	m	50/40	50/40	50/40	50/40	50/40	
	External static pressure	Pa	50	50	50	50	50	
	Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130
		Maximum number of indoor units		33	36	39	43	46
Working temp.	Cooling(DB)	°C	-5-43	-5-43	-5-43	-5-43	-5-43	
	Heating(WB)	°C	-15-21	-15-21	-15-21	-15-21	-15-21	
	Cooling&Heating(WB)	°C	-8-18	-8-18	-8-18	-8-18	-8-18	

\* 1 outdoor above 50m, outdoor below 40m  
 \* All the specifications are tested under nominal condition(In cooling, Indoor temp is 27°C DB/19°C WB; Outdoor temp 35°C DB/24°C WB; In heating, Indoor temp is 20°C DB, Outdoor temp is 7°C DB/6°C WB)  
 \* The specification may change according to the further product development.

# MRVIII-RC 3/208~230/60



AV08CMVUSA  
AV10CMVUSA

8/10HP



AV12CMVUSA  
AV14CMVUSA  
AV16CMVUSA

12/14/16HP

- Power Supply: 3/208-230/60
- DC Inverter Scroll Compressor & BLDC Fan
- 5 Basic Single Modular Units: 8HP, 10HP, 12HP, 14HP, 16HP
- Max. 3 Modules Combination up to 48HP, Max Connected Indoor Units up to 64.

Model			AV30CMVUSA	AV32CMVUSA	AV34CMVUSA	AV36CMVUSA	AV38CMVUSA	
Combination model			AV14CMVUVA AV16CMVUVA	AV16CMVUVA	AV10CMVUVA AV14CMVUVA	AV10CMVUVA AV16CMVUVA	AV10CMVUVA AV14CMVUVA	
Capacity	Capacity range	HP	30	32	34	36	38	
	Cooling	kW	85	90	96	101	106.5	
	Heating	kW	95	100	108	113	119	
Power supply			3/208-230/60					
Electrical parameters	Cooling	Rated power input	kW	26.4	28.2	27.4	29.2	30.83
		Max power input	kW	38.5	40	47.5	49	51
		Rated current	A	74.50	79.58	77.32	82.40	87.00
		Max current	A	118.8	123.4	146.5	151.1	157.3
	Heating	Rated power input	kW	24.6	27	27.04	29.44	30.62
		Max power input	kW	38.5	40	47.5	49	51
		Rated current	A	69.42	76.19	76.31	83.08	86.41
		Max current	A	118.8	123.4	146.5	151.1	157.3
EER		3.22	3.19	3.50	3.46	3.45		
COP		3.86	3.70	3.99	3.84	3.89		
Air flow (H)			28200					
Performance	Sound pressure level (H)	dB(A)	62	62	63	63	63	
	Sound power level (H)	dB(A)	79	79	81	81	81	
External dimensions (W/D/H)			1390/750/1808		990/750/1808+		990/750/1808+	
Shipping dimensions (W/D/H)			1490/860/1990		1090/860/1990+		1090/860/1990+	
Net/Shipping weight			736/786		848/929		976/1054	
Compressor type			DC INV SCROLL					
Compressor brand			MITSUBISHI ELECTRIC					
Compressor quantity			(1 INV+1 FIX) +(1 INV+1 FIX)		1 INV +1 INV +(1 INV+1 FIX)		1 INV +(1 INV+1 FIX) +(1 INV+1 FIX)	
Refrigerant type			R410A					
Refrigerant charge			20		30		30	
Refrigerant liquid pipe			19.05		19.05		19.05	
Refrigerant gas pipe			31.8		31.8		38.1	
High pressure gas pipe			28.58		28.58		34.9	
Oil equalization pipe			9.52		9.52		9.52	
Total pipe length			300		300		300	
Max. pipe length(Equivalent/Actual)			175/150		175/150		175/150	
Max drop between I.U.&O.U.			50/40		50/40		50/40	
External static pressure			50					
Connection ratio	Connectable indoor unit ratio	%	50-130					
	Maximum number of indoor units		50		56		59	
Working temp.	Cooling(DB)	°C	-5-43					
	Heating(WB)	°C	-15-21					
	Cooling&Heating(WB)	°C	-8-18					

Model			AV40CMVUSA	AV42CMVUSA	AV44CMVUSA	AV46CMVUSA	AV48CMVUSA	
Combination model			AV10CMVUVA AV14CMVUVA AV16CMVUVA	AV10CMVUVA AV16CMVUVA	AV12CMVUVA AV16CMVUVA	AV14CMVUVA AV16CMVUVA	AV16CMVUVA AV16CMVUVA	
Capacity	Capacity range	HP	40	42	44	46	48	
	Cooling	kW	113	118	123.5	130	135	
	Heating	kW	126.5	131.5	137.5	145	150	
Power supply			3/208-230/60					
Electrical parameters	Cooling	Rated power input	kW	33.95	35.75	37.38	40.5	42.3
		Max power input	kW	53	54.5	56.5	58.5	60
		Rated current	A	95.80	100.88	105.48	114.29	119.37
		Max current	A	163.5	168.1	174.3	180.5	185.1
	Heating	Rated power input	kW	32.57	34.97	36.15	38.1	40.5
		Max power input	kW	53	54.5	56.5	58.5	60
		Rated current	A	91.91	98.68	102.01	107.52	114.29
		Max current	A	163.5	168.1	174.3	180.5	185.1
EER		3.33	3.30	3.30	3.21	3.19		
COP		3.88	3.76	3.80	3.81	3.70		
Air flow (H)			39300		42300		42300	
Performance	Sound pressure level (H)	dB(A)	63	63	64	64	64	
	Sound power level (H)	dB(A)	81	81	82	82	82	
External dimensions (W/D/H)			990/750/1808+		1390/750/1808+		1390/750/1808+	
Shipping dimensions (W/D/H)			1090/860/1990+		1490/860/1990+		1490/860/1990+	
Net/Shipping weight			976/1054		1104/1179		1104/1179	
Compressor type			DC INV SCROLL					
Compressor brand			MITSUBISHI ELECTRIC					
Compressor quantity			1 INV +(1 INV+1 FIX) +(1 INV+1 FIX)		1 INV +(1 INV+1 FIX) +(1 INV+1 FIX)		1 INV +(1 INV+1 FIX) +(1 INV+1 FIX)	
Refrigerant type			R410A					
Refrigerant charge			30		30		30	
Refrigerant liquid pipe			19.05		19.05		19.05	
Refrigerant gas pipe			38.1		38.1		38.1	
High pressure gas pipe			34.9		34.9		34.9	
Oil equalization pipe			9.52		9.52		9.52	
Total pipe length			300		300		300	
Max. pipe length(Equivalent/Actual)			175/150		175/150		175/150	
Max drop between I.U.&O.U.			50/40		50/40		50/40	
External static pressure			50					
Connection ratio	Connectable indoor unit ratio	%	50-130					
	Maximum number of indoor units		64		64		64	
Working temp.	Cooling(DB)	°C	-5-43					
	Heating(WB)	°C	-15-21					
	Cooling&Heating(WB)	°C	-8-18					

• 1 outdoor above 50m, outdoor below 40m.  
• All the specifications are tested under nominal condition(In cooling, Indoor temp is 27°C DB/19°C WB; Outdoor temp 35°C DB/24°C WB; In heating, Indoor temp is 20°C DB; Outdoor temp is 7°C DB/5°C WB).  
• The specification may change according to the further product development.

# MRVS



121 Features & Benefits

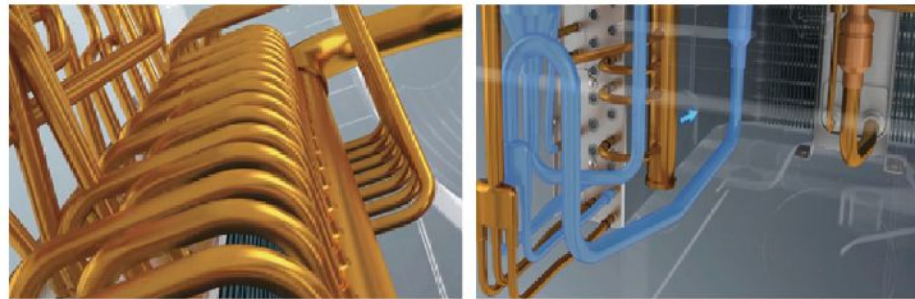
127 MRV S' Outdoor

131 MRV S' Outdoor

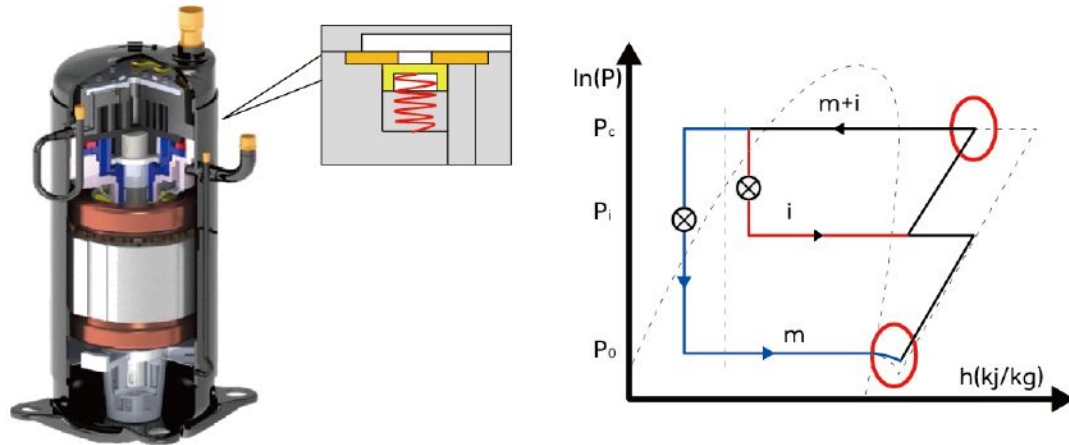
# MRV S<sup>II</sup> (4/5/6HP)

## Leadership in technology

- Two-stage supercooling cycle technology, Increased unit efficiency by 9%.
- Maximizing 30°C undercooling, Increase unit refrigerating capacity by 46%.
- Add the supercooled coil at the bottom of the outdoor exchanger, Increase the efficiency of the supercooler in system, achieve deep supercooling.



**Increasing enthalpy by replenish gas, realize the unit powerful heating capacity:**  
Taking the heating cycle as an example, when environment temperature is low, heat exchanged capability of outdoor unit is depressed. The amount of air returned by compressor is reduced, Increase the amount of refrigerant in the heating cycle of the indoor unit heat exchanger, Thereby achieving improved heating capacity.

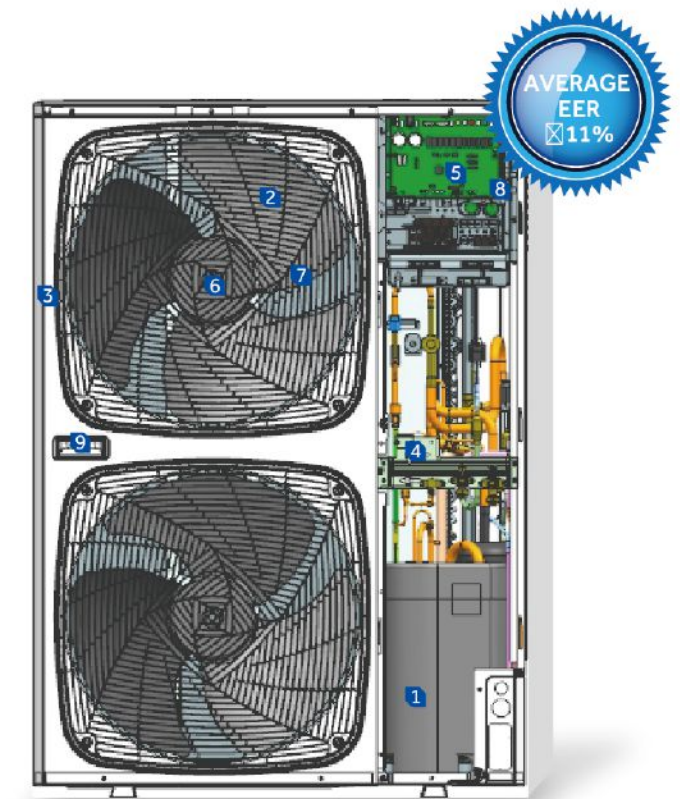


## High energy efficiency

- DC inverter compressor**  
Haier takes DC INV. compressor, 5% power input lower. (14kw)
- DC fan motor and 550mm big fan**  
38% power input lower and 8% airflow higher
- Larger heat exchanger**  
Heat exchange area rise 10 %
- Charge Valve**  
Built-in charge valve enables safer and easier maintenance
- Low standby power**  
New PCB programme, reduce 20% standby power consumption

## Comfort

- New aerodynamics fan**  
550mm super big diameter aerospace helix fan. lowering sound level 3dB(A)
- Enlarged air inlet path and spiral air outlet path**  
Air flow direction follows the grill direction. lowering sound level 2-4 dB(A)
- Automatic sound-lowering programme**  
Night mode set by PCB, 8dB(A) lower



## Convenience

- Double side "4" handles**  
Easy to carry
- "888" test panel**  
All running data & error code can be checked from "888" screen, which is easy for installers
- "Four-way" pipe connection**  
4-way (front, back, left & right) pipe connection, easy to design and install



# MRV S<sup>II</sup> (8/10/12HP)

## Outdoor Structure (8/10/12HP Side Discharge)

Bigger Outdoor Capacity, More Flexible Application



### High efficiency DC fan motor

- DC fan motor with stepless inverter control, efficiency increase 45% comparing with AC motor and power input largely decrease

### Large diameter fan

- 570mm big diameter axial flow fan
- Zigzag design, reduce airflow disturbance, air volume is bigger, the noise is lower

### High efficiency condenser

- New type: high efficiency Ø8 inner grooved tube
- New hydrophilic corrugated fissure fin, high efficiency



### Vector inverter control

- 180 degrees sine wave vector control, 64-bit operation
- High precision control, to achieve high efficiency and lower noise

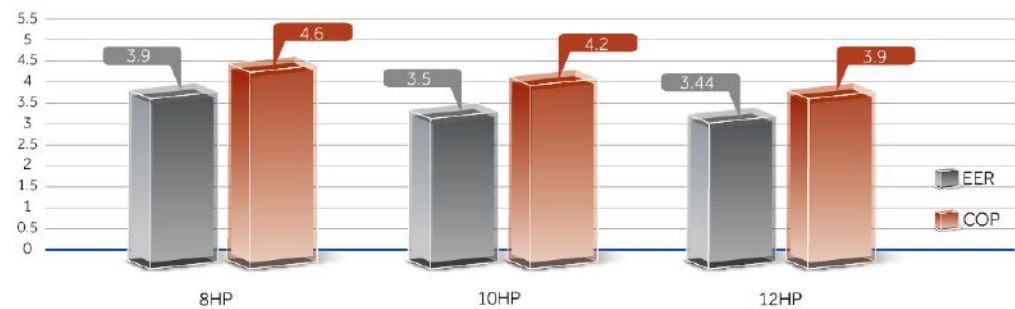
### Twin rotary DC Inverter compressor

- High chamber DC INVERTER twin rotary compressor
- Small vibration, low noise, high energy efficiency

### Double pressure sensor

- Equipped with high and low voltage Pressure double sensors
- Accurate Pressure control, the system run more smoothly, more energy efficiency

### High EER and COP



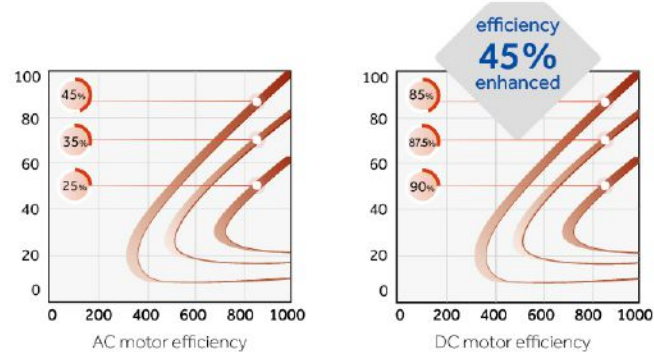
### DC Fan and Fan Motor

DC inverter fan motor more higher efficiency in part load running

- 16-stage speed control; high efficiency running especially in low speed
- Efficiency increase 45% comparing with AC motor and power input largely decrease

Big diameter fan

- 550mm big diameter fan, more big air flow and more higher efficiency

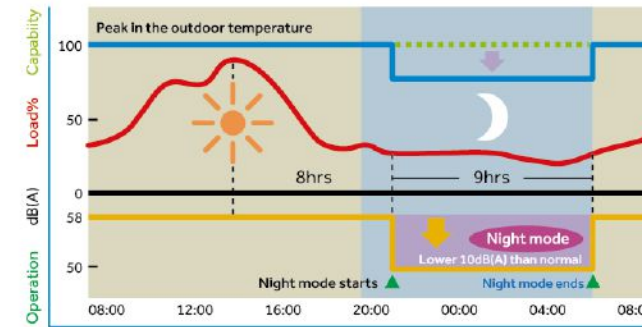


## Energy Efficiency

Low noise level

### Night Quiet Operation Function

Noise can be reduced to 45dB(A)



Low noise operation

- DC INVERTER compressor, smooth operation, no need frequent start the compressor, effectively reduce the noise outdoor
- Vector inverter control, more precise control
- DC fan motor, motor bracket used the non-resonance structure, ensure smooth running of the motor, reduce operating noise
- Big diameter fan, design according to aviation quieter principle



Easy installation

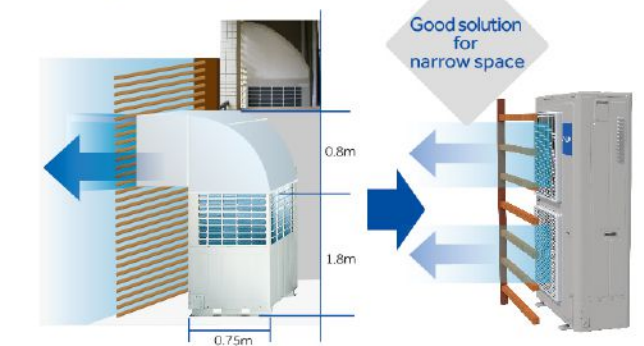
Compact Side Discharge Design, Big Capacity, Small Footprint

Small footprint, only 0.42m<sup>2</sup>, 43% floor area can be reduced



Compact Side Discharge Design

No need additional ventilation hood comparing with top discharge unit



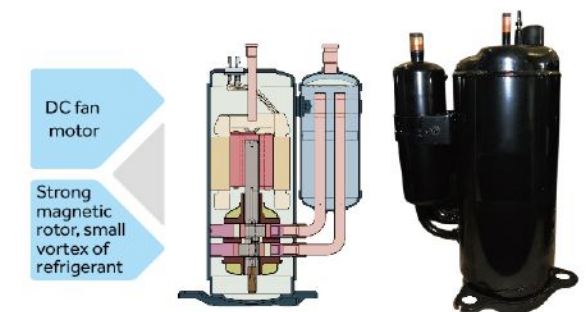
Easy installation

4 Way pipe connection  
Front, rear, right, down 4 way pipe connection, flexible installation



New DC inverter twin rotary compressor

- Small torque change, good dynamic balance, the system runs stably, little vibration, low noise, high efficiency
- More higher efficiency in part load running

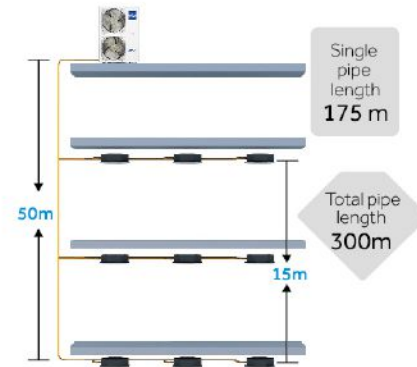


# MRV S<sup>II</sup> (8/10/12HP)

## Easy Installation

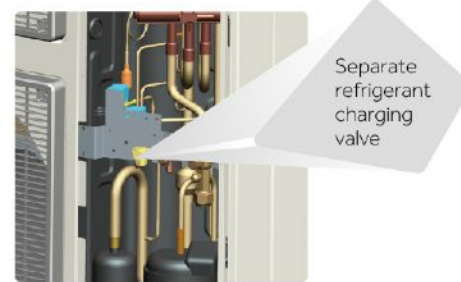
Long pipe length, high height drop

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



Separate refrigerant charging valve

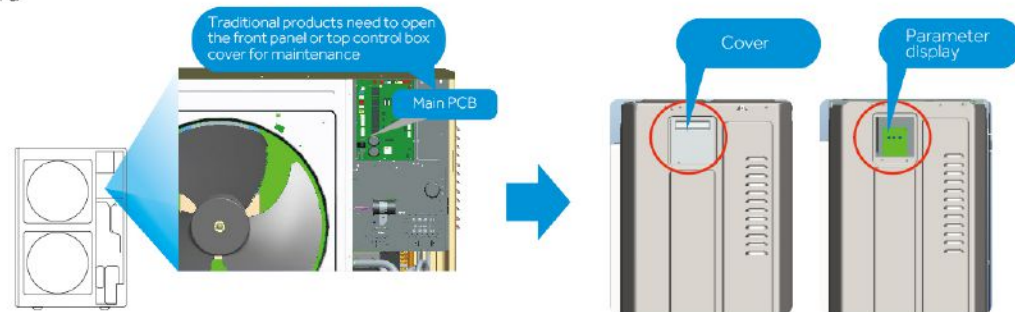
Easy for refrigerant charging



## Easy Service

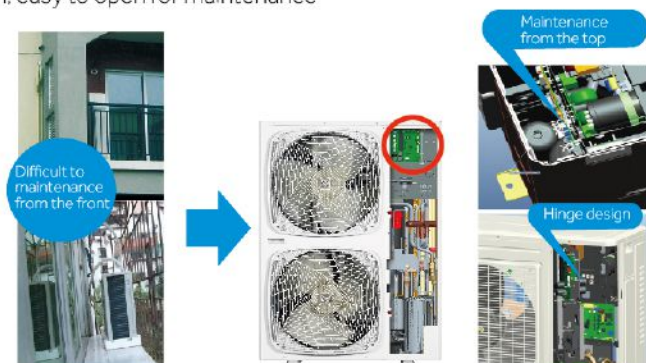
Parameter display panel

- The first original parameter display panel on the side
- The parameter can be observed directly by opening the protective cover in case of maintenance, to avoid removing the repair board



Easy maintenance for control

- The control box is in front, reserving space 108mm between control box and top panel, easy maintenance from the top. Control box is with hinge design, easy to open for maintenance



## High Reliability

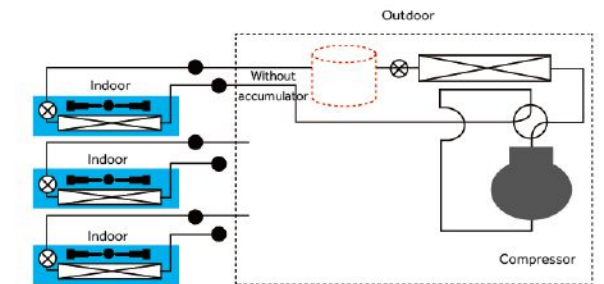
Refrigerant automatically reclaim Technology

- Set refrigerant automatically reclaim through dip switch, the refrigerant in indoor and pipe can be automatically return to outdoor, convenient in maintenance and reducing waste of refrigerant, reduce customer maintenance cost, improve the efficiency of after-sales maintenance



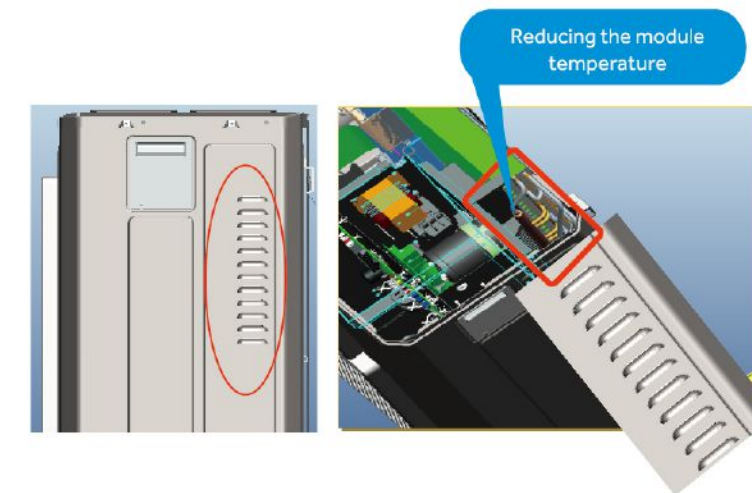
Refrigerant control technology

- Refrigerant control technology without high pressure accumulator, reducing the refrigerant volume and enhancing the running efficiency



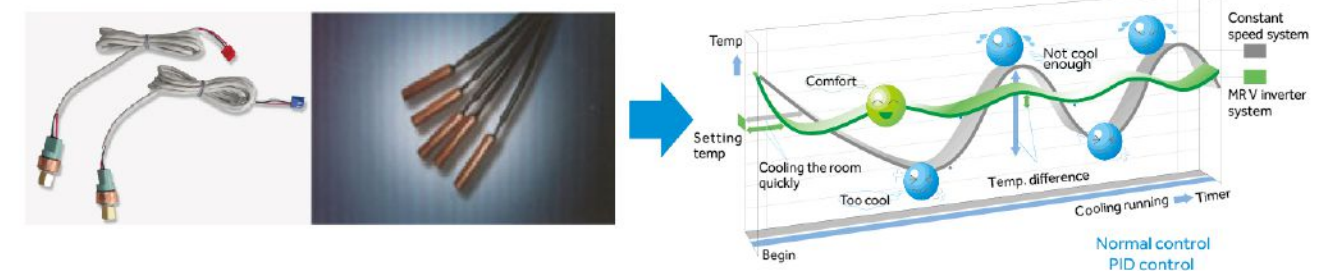
Air inlet grill design on right side panel

- Air inlet grill design, reducing the module temperature and avoid air dust into air conditioner



High and low double pressure sensor

- Double pressure sensor with PID control technology
- Together with high speed communication to realize the quick start of compressor and more precise control, the temperature can be control  $\pm 0.5^{\circ}\text{C}$



# MRV S<sup>II</sup> Specification



- AU042FPERA    AU042FPERB
- AU052FPERA    AU052FPERB
- AU062FPERA    AU062FPERB
- AU041FPERA    AU041FPERB
- AU051FPERA    AU051FPERB
- AU061FPERA    AU061FPERB

- AV08NMSETA
- AV10NMSETA
- AV12NMSETA



Model		T1 T3	AU042FPERA	AU052FPERA	AU062FPERA	AU041FPERA	AU051FPERA	AU061FPERA
			AU042FPERB	AU052FPERB	AU062FPERB	AU041FPERB	AU051FPERB	AU061FPERB
Capacity	Capacity range	HP	4	5	6	4	5	6
	Cooling (T1)	kW	12.1	14	15.5	12.1	14	15.5
	Cooling (T3)	kW	11.2	12.6	14	11.2	12.6	14
Electrical parameters	Heating	kW	14.2	16	18	14.2	16	18
	Power supply	PhV/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
	Power input (Cooling T1)	kW	2.99	3.51	4.31	2.99	3.51	4.31
	Power input (Cooling T3)	kW	3.77	4.25	5.22	3.77	4.25	5.22
	Power input (Heating)	kW	3.18	3.72	4.39	3.18	3.72	4.39
	EER	/	4.05	3.99	3.60	4.05	3.99	3.60
	COP	/	4.47	4.30	4.10	4.47	4.30	4.10
	SEER(T1)	/	6.82	6.92	6.45	6.82	6.92	6.45
	SCOP(T1)	/	3.92	4.17	3.80	3.92	4.17	3.80
	Performance	Air flow (H)	m <sup>3</sup> /h	7200	7200	7200	7200	7200
Sound pressure level (H)		dB(A)	57	58	59	57	58	59
Sound power level (H)		dB(A)	68	69	70	68	69	70
Installation	External dimensions(W/D/H)	mm	950/370/1340	950/370/1340	950/370/1340	950/370/1340	950/370/1340	950/370/1340
	Shipping dimensions(W/D/H)	mm	1023/471/1420	1023/471/1420	1023/471/1420	1023/471/1420	1023/471/1420	1023/471/1420
	Net/Shipping weight	kg	108/123	108/123	108/123	108/123	108/123	108/123
	Compressor type	/	Rotary	Rotary	Rotary	Rotary	Rotary	Rotary
	Compressor brand	/	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC
	Compressor quantity	/	1	1	1	1	1	1
	Refrigerant type	/	R410A	R410A	R410A	R410A	R410A	R410A
	Refrigerant charge	kg	4	4	4	4	4	4
	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	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 (T1)	°C	-15-48	-15-48	-15-48	-15-48	-15-48	-15-48
	Cooling (T3)	°C	-15-53	-15-53	-15-53	-15-53	-15-53	-15-53
	Heating	°C	-20-27	-20-27	-20-27	-20-27	-20-27	-20-27

Model		AV08NMSETA	AV10NMSETA	AV12NMSETA	
Capacity	Capacity range	HP	8HP	10HP	12HP
	Cooling	kBtu/h	77.1	95.5	114.3
		kW	22.6	28	33.5
	Heating	kBtu/h	85.3	107.5	128
kW		25	31.5	37.5	
Electrical parameters	Power supply	PhV/Hz	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60
	Power input (Cooling)	kW	5.79	8	9.75
	Power input (Heating)	kW	5.43	7.5	9.62
	EER/COP		3.9/4.6	3.5/4.2	3.44/3.9
	SEER/SCOP		5.1/3.45	4.8/3.43	4.6/3.4
Performance	Airflow (H)	m <sup>3</sup> /h	10000	10000	10000
	Sound pressure level (H)	dB(A)	55	58	60
	Sound power level (H)	dB(A)	66	69	71
Installation	External dimensions(W/D/H)	mm	1050/400/1636	1050/400/1636	1050/400/1636
	Shipping dimensions(W/D/H)	mm	1150/510/1790	1150/510/1790	1150/510/1790
	Net/Shipping weight	kg	168/183	168/183	168/183
	Compressor type		Rotary	Rotary	Rotary
	Compressor brand		MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC
	Compressor quantity		1 INV	1 INV	1 INV
	Refrigerant type		R410A	R410A	R410A
	Refrigerant charge	kg	6.1	6.1	6.1
	Refrigerant liquid pipe	mm	9.52	12.7	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	m	50	50	50	
Connection ratio	Connectable indoor unit ratio %	%	50-130	50-130	50-130
	Maximum number of indoor units		13	16	16
Working temp.	Cooling	°C	-5-48	-5-48	-5-48
	Heating	°C	-20-27	-20-27	-20-27

\*All the specifications are tested under nominal condition (In cooling, Indoor temp. is 27°C DB/19°C WB; Outdoor temp. 35°C DB/24°C WB; In heating, Indoor temp. is 20°C DB, Outdoor temp. is 7°C DB/6°C WB)

\*All the specifications are tested under nominal condition (In cooling T1, indoor temp. is 27°C DB/19°C WB; Outdoor temp. 35°C DB/24°C WB; In cooling T3, indoor temp. is 27°C DB/19°C WB; Outdoor temp. 46°C DB/24°C WB; In heating, indoor temp. is 20°C DB, in heating, outdoor temp. is 7°C DB/6°C WB)

# MRV S<sup>I</sup> (3/5/7HP)

## MRV S<sup>I</sup>

### DC Inverter Twin Rotary Compressor

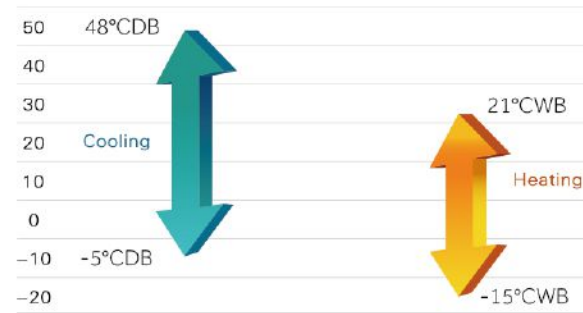
Realize high efficiency and compact designed compressor by the joint type motor, hot riveting fixation and composite partition technology.

Wide range inverter compressors would satisfy the customer's innovative requirement and design.



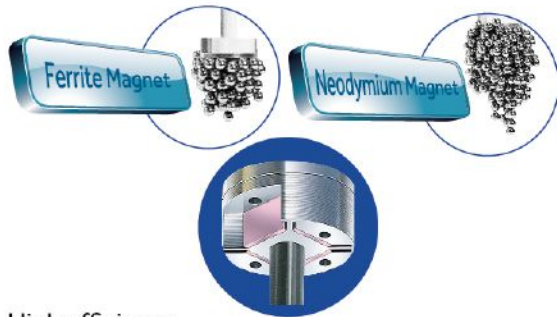
### Operation Range

- MRV S<sup>I</sup> series permits a system design considering a heating range operation under a low temperature condition from -15°C of previous model and a cooling range operation -5°C.
- For the capacities under low temperature conditions, please see technical data sheets.



### DC Inverter Technology

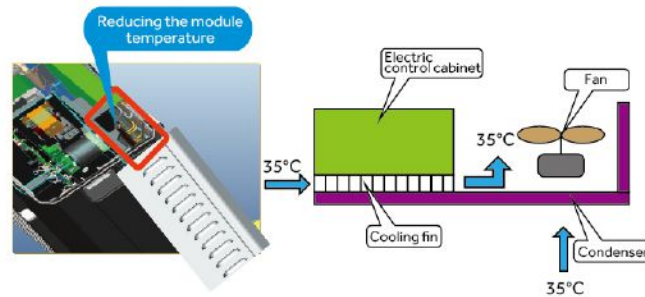
DC fan motor speed can be adjusted from 0-960r/min, it can improve the unit efficiency, at the same time, the unit can realize low ambient cooling operation.



High efficiency  
Low vibration, low noise  
High reliability

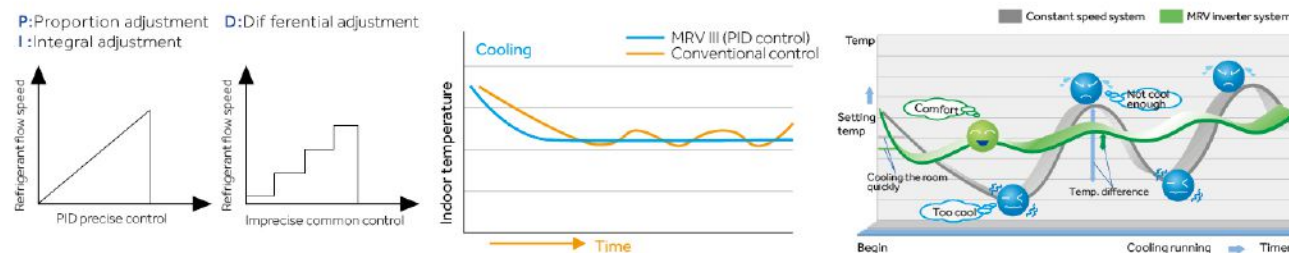
### Air inlet grill design on right side panel

The unit adopts louver at right side panel for better heat dissipation to guarantee high frequency operation at high temperature. The air inlet grill design, reduces the module temperature and avoids air dust into air conditioner.



### Precise Control

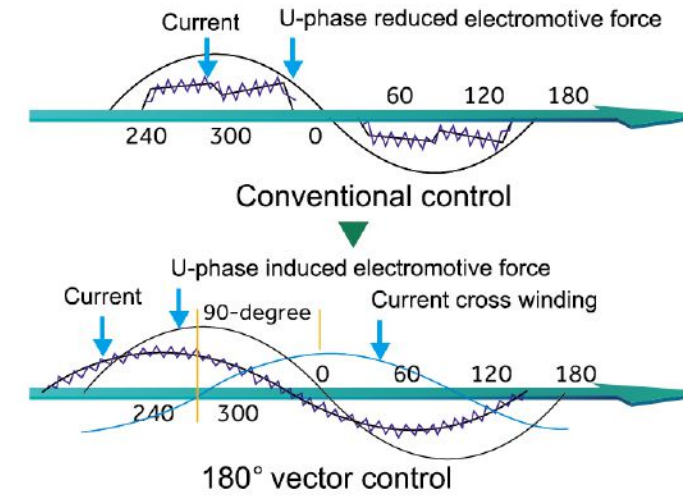
PID control adjusts the output of compressor and the open degree of EEV, balances the indoor refrigerant flow, realizes the linear output, creates a comfortable environment. The temperature could be controlled precisely.



## MRV S<sup>I</sup>

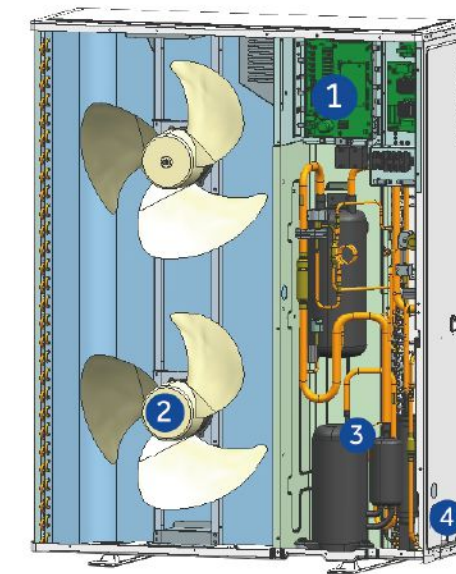
### 180° Vector Control Technology

AQUA using power resistance to detect the rotor position of compressor, results in the consistency of the compressor working current and current sine waves, improve power efficiency about 17%.



### Side Discharge MRV S<sup>I</sup> Outdoor Units

- Dual Frequency 50/60Hz / DC Inverter TWIN Rotary Compressor / BLDC Fan (BrushLess DC motor)



- 1 Control the compressor running frequency by temp. Sensor, more precise and prompt than conventional control system.
  - 2 DC fan motor (AU48/60).
  - 3 DC inverter compressor, high efficiency.
  - 4 Single set valve, easy to installation and save installation time.
- 1 Protections: Pressure, temp, compressor, fan motor, refrigerant, oil quantity etc. Realize perfect performance.
- 1 Malfunction self-diagnose.



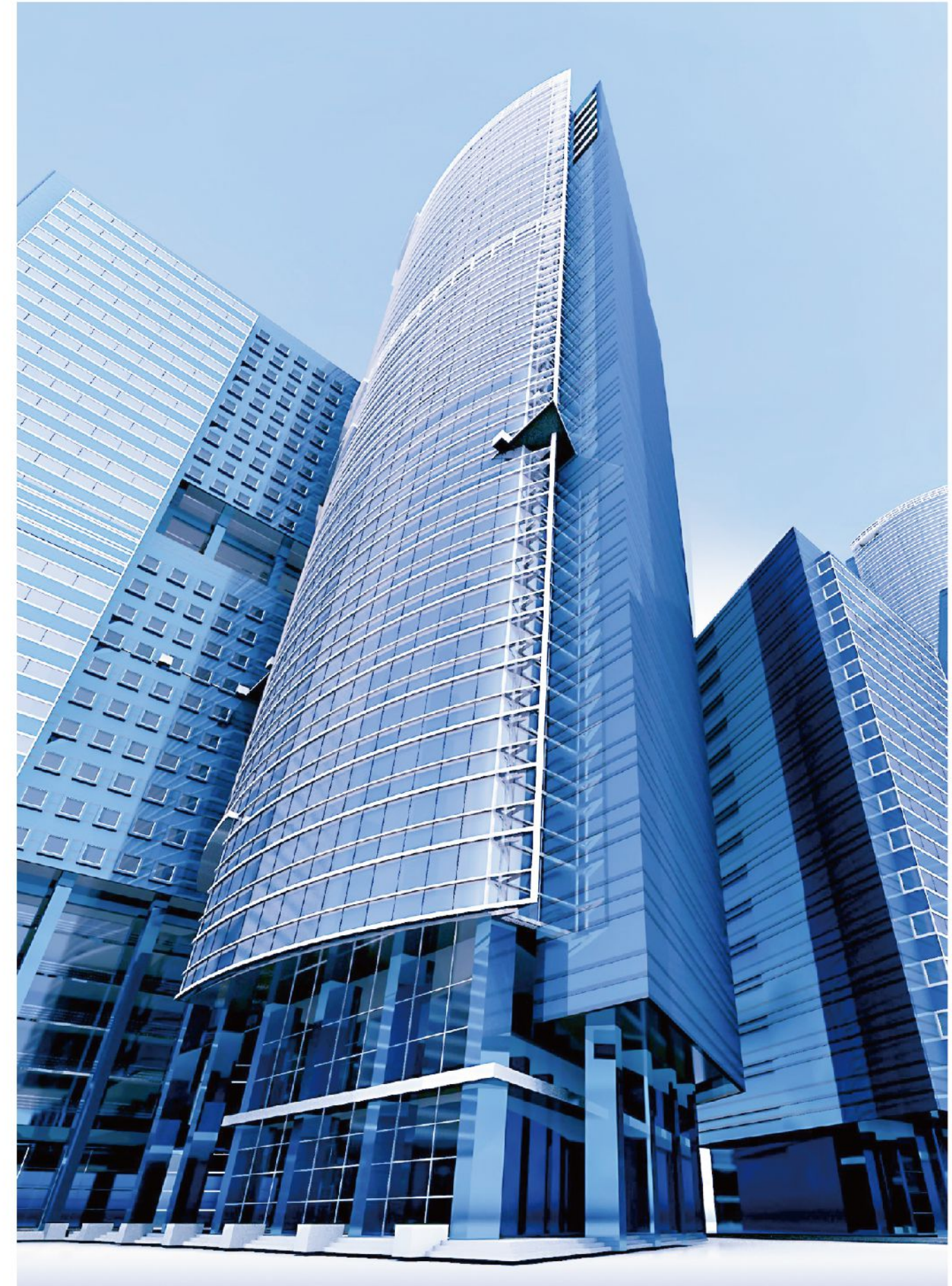
# MRV S<sup>1</sup> Specification

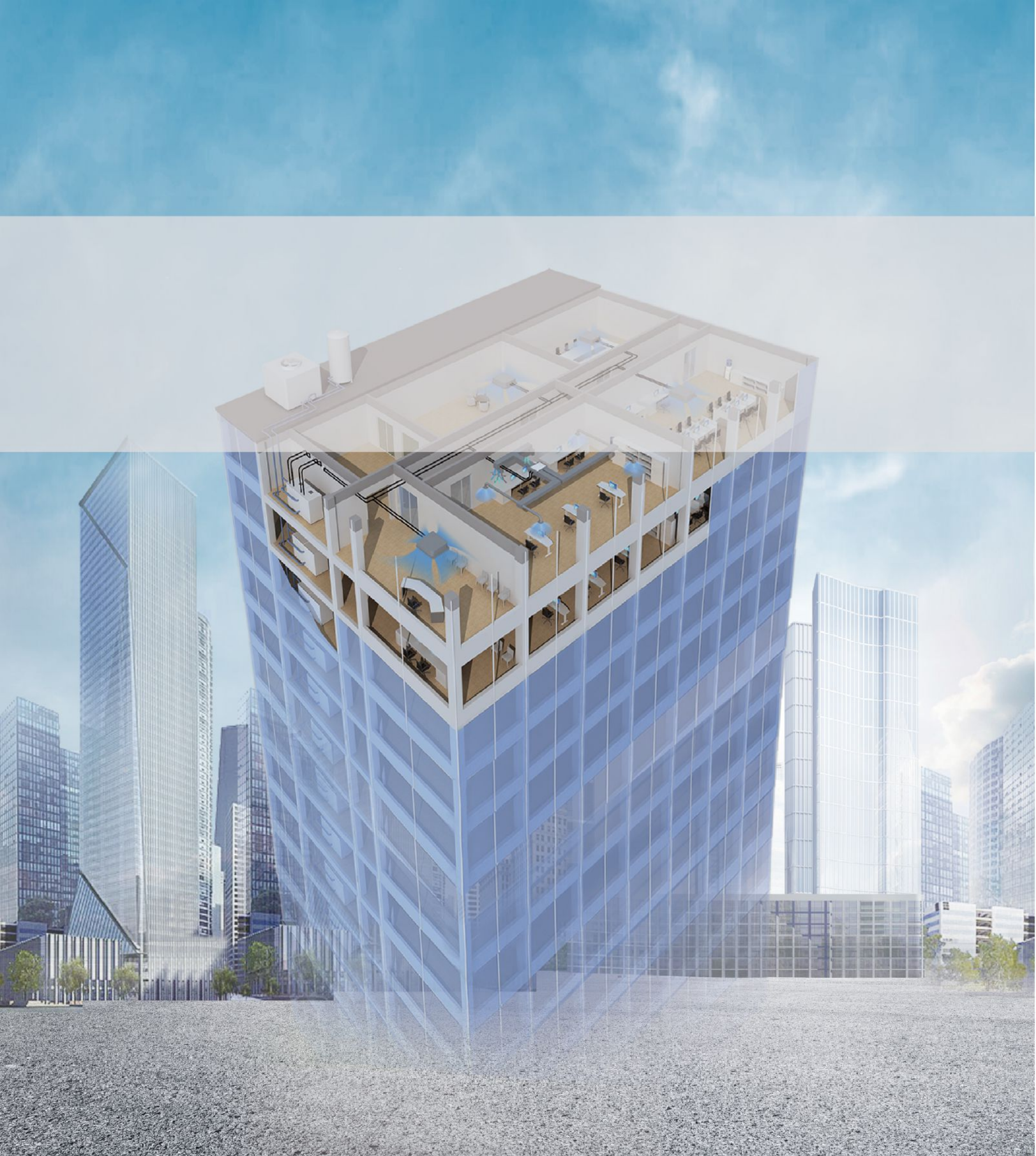


- AU282FHRA(H)
- AU482FHRA(H)
- AU48NFIRA(H)
- AU60NFIRA(H)

Model		AU282FHRA(H)	AU482FHRA(H)	AU48NFIRA(H)	AU60NFIRA(H)	
Capacity	Capacity range	HP	3HP	5HP	5HP	7HP
	Cooling	kBtu/h	27.3	51.2	51.2	61.4
		kW	8	15	15	18
	Heating	kBtu/h	32.4	58	58	68.2
		kW	9.5	17	17	20
Electrical parameters	Power supply	Ph/V/Hz	1/220-230/50	1/220-230/50/60	3/380-400/50/60	3/380-400/50/60
	Power input (Cooling)	kW	2.08	3.98	3.98	5.19
	Power input (Heating)	kW	2.10	3.91	3.91	5.13
	EER/COP		3.84/4.52	3.77/4.35	3.77/4.35	3.47/3.9
	SEER/SCOP		4.79/3.31	4.61/3.15	4.61/3.15	4.14/3.06
Performance	Air flow (H)	m <sup>3</sup> /h	3500	6500	6500	6500
	Sound pressure level (H)	dB(A)	54	58	58	59
	Sound power level (H)	dB(A)	65	69	69	70
Installation	External dimensions(W/D/H) mm		960/340/830	960/340/1250	960/340/1250	960/340/1250
	Shipping dimensions(W/D/H) mm		1095/410/945	1095/410/1400	1095/410/1400	1095/410/1400
	Net/Shipping weight	kg	70/76	99/107	99/107	99/107
	Compressor type		Rotary	Rotary	Rotary	Rotary
	Compressor brand		MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC	MITSUBISHI ELECTRIC
	Compressor quantity		1 INV	1 INV	1 INV	1 INV
	Refrigerant type		R410A	R410A	R410A	R410A
	Refrigerant charge	kg	2.4	3.8	3.8	3.8
	Refrigerant liquid pipe	mm	9.52	9.52	9.52	9.52
	Refrigerant gas pipe	mm	15.88	19.05	19.05	19.05
	Total pipe length	m	100	150	150	150
	Max. pipe length(Equivalent/Actual)	m	50	70	70	70
	Max drop between I.U.&O.U	m	30	30	30	30
	Max drop between I.U.&I.U	m	10	10	10	10
Connection ratio	Connectable indoor unit ratio %		50-130	50-130	50-130	50-130
	Maximum number of indoor units		4	8	8	9
Working temp.	Cooling	°C	10-48	-5-48	-5-48	-5-48
	Heating	°C	-15-21	-15-21	-15-21	-15-21

\*All the specifications are tested under nominal condition(In cooling, Indoor temp is 27°C DB/19°C WB, Outdoor temp 35°C DB/24°C WB; in heating, Indoor temp is 20°C DB, Outdoor temp is 7°C DB/5°C WB)





# MRV W



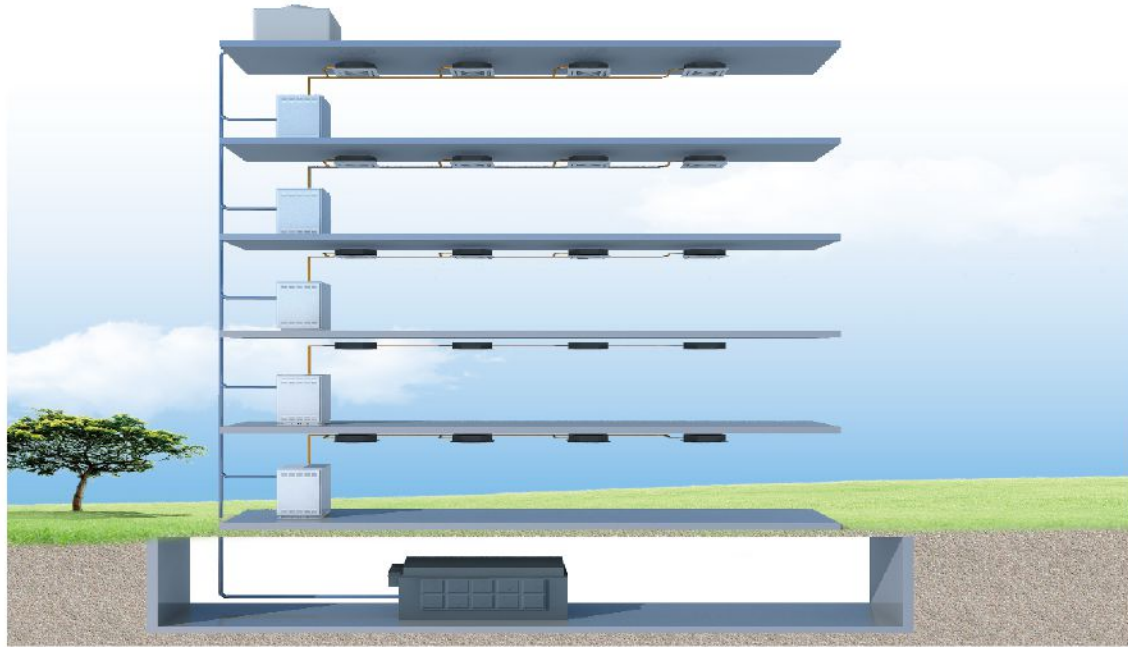
8/10/12HP

- 135 Features & Benefits
- 147 MRV W Outdoor

# FEATURES & BENEFITS

## Outdoor Structure (8/10/12HP Side Discharge)

Much bigger outdoor capacity, more flexible application

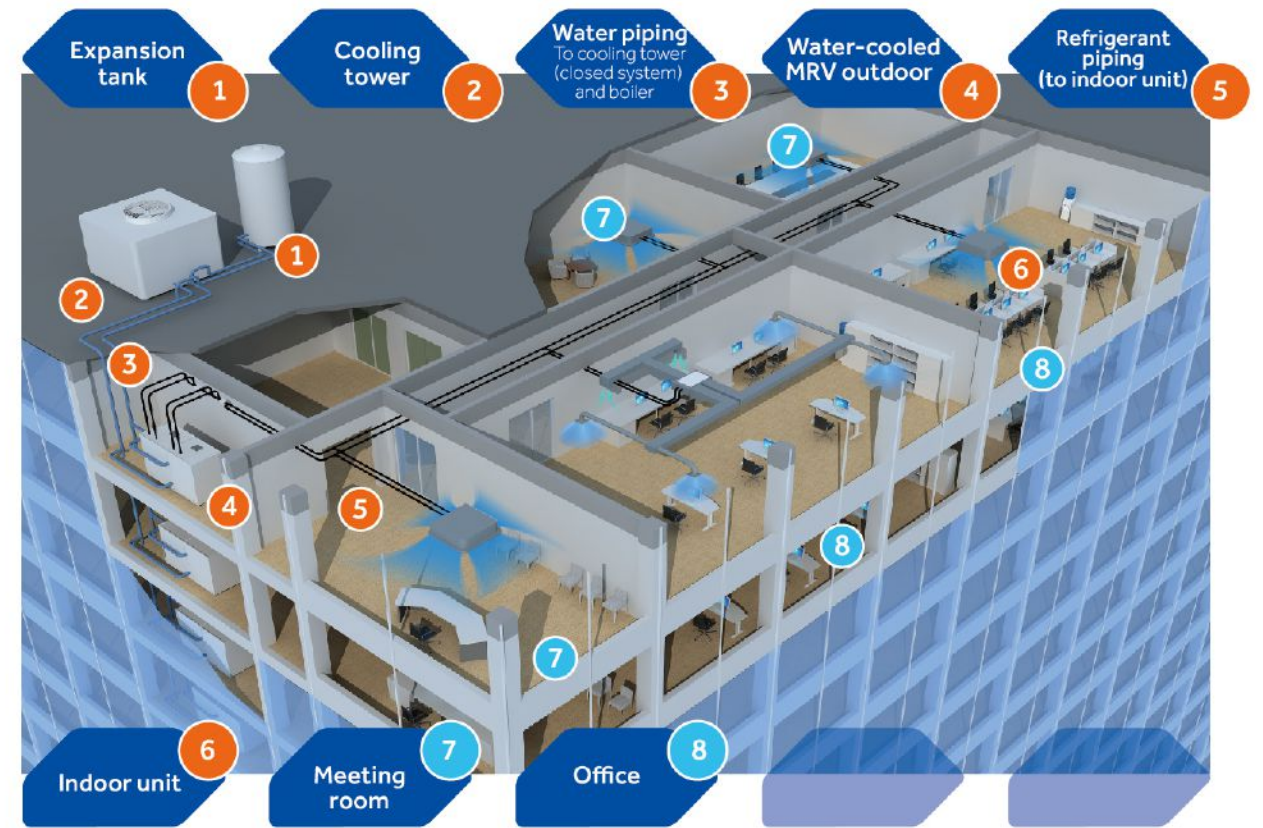


## What is MRV W Series

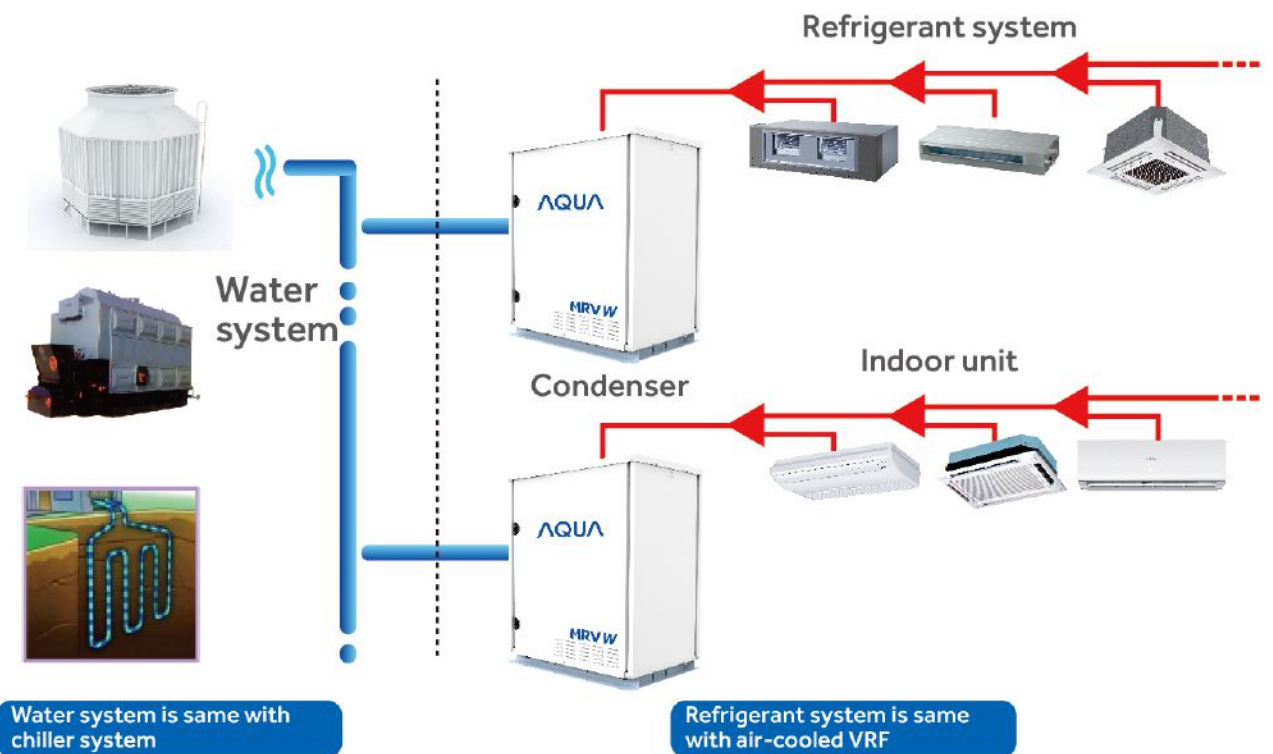
- MRV W series system is a VRF air conditioning system that adopts water as a cooling or heating source
- MRV W series can combine water system and refrigerant system together



## System Introduction



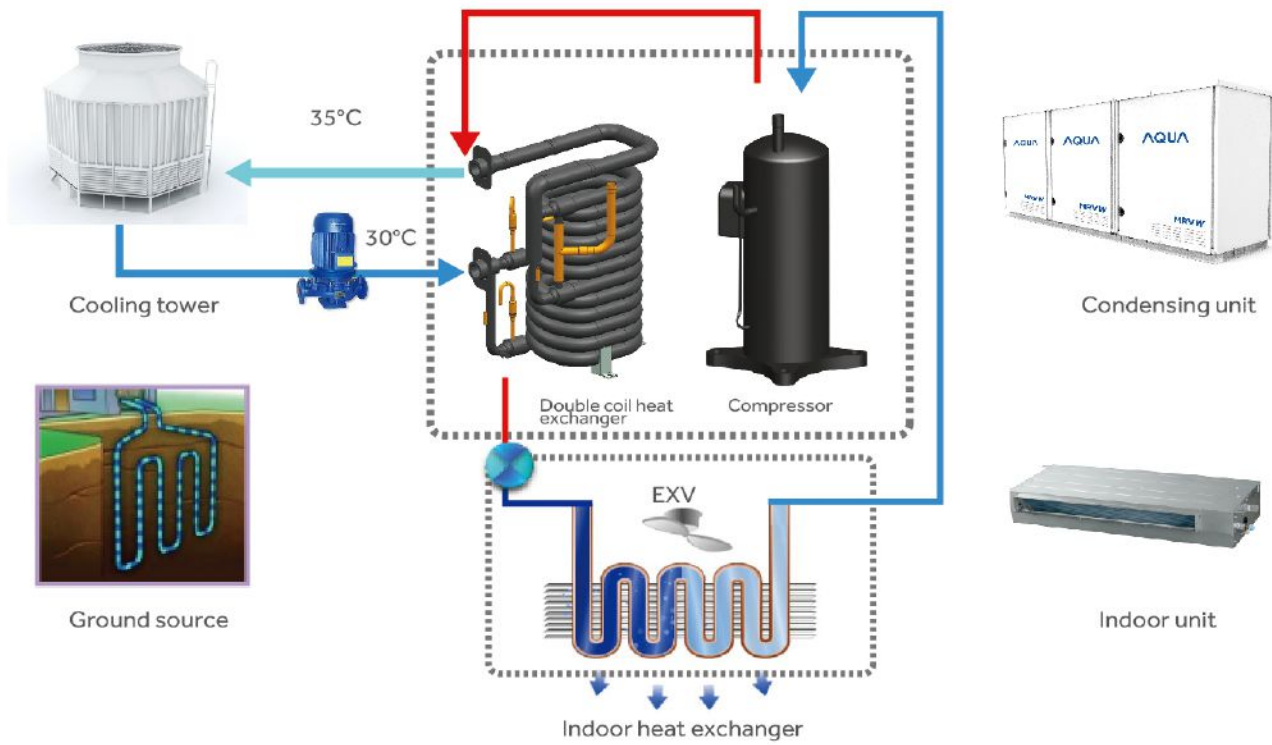
## Working Principle



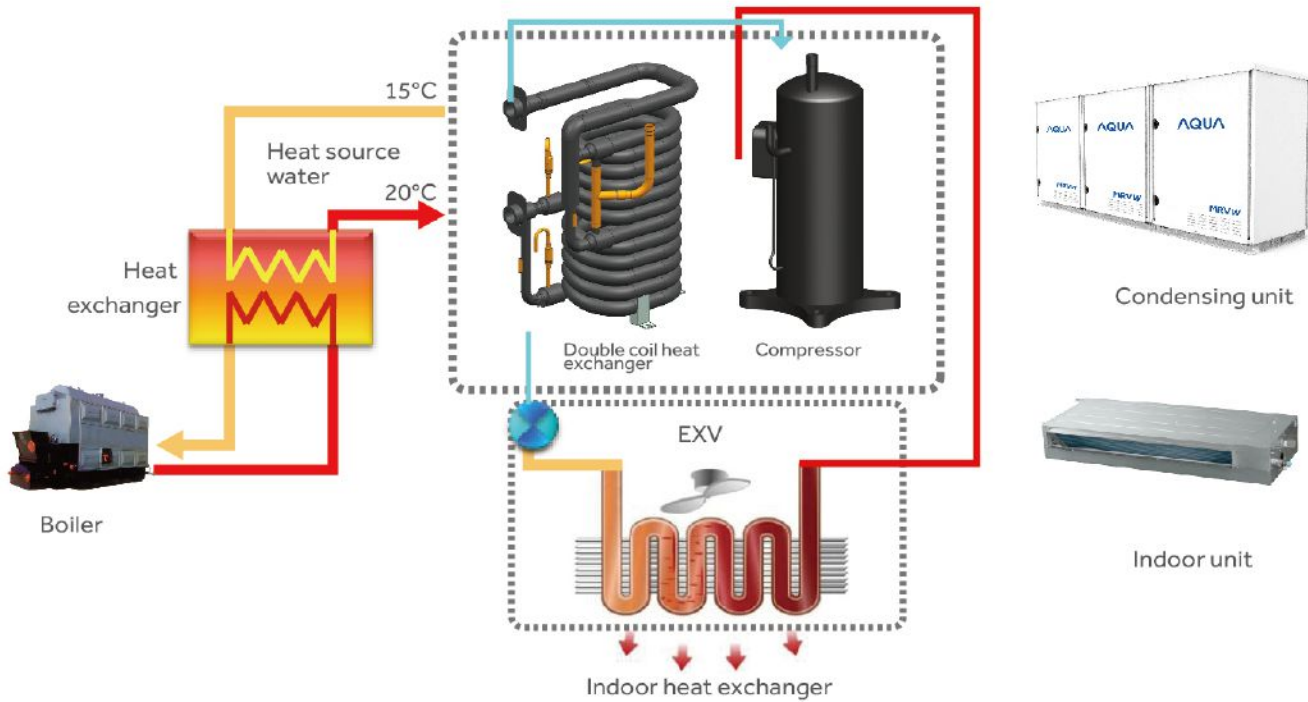
# FEATURES & BENEFITS

## Working Principle

Working principle in cooling mode



Working principle in heating mode



## Outdoor Structure

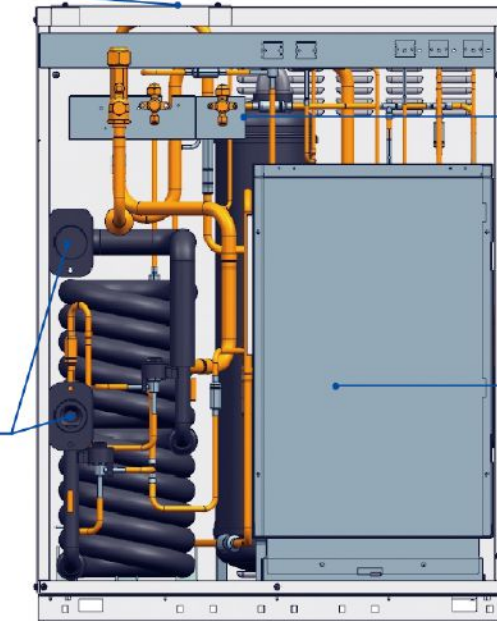
Core technologies and parts (front side)

### Refrigerant pipe

Refrigerant pipe to connect the indoor units

### Water outlet and inlet

Water outlet and inlet pipe to connect the double coil heat exchanger



### Gas-liquid separator

Reduce the heat exchanger height(650mm), and the upper and lower wind speed uniform and high efficiency

### Compact electrical control box

Compact electric control box, which can rotate up and down, easy for compressor service

Core technologies and parts(back side)

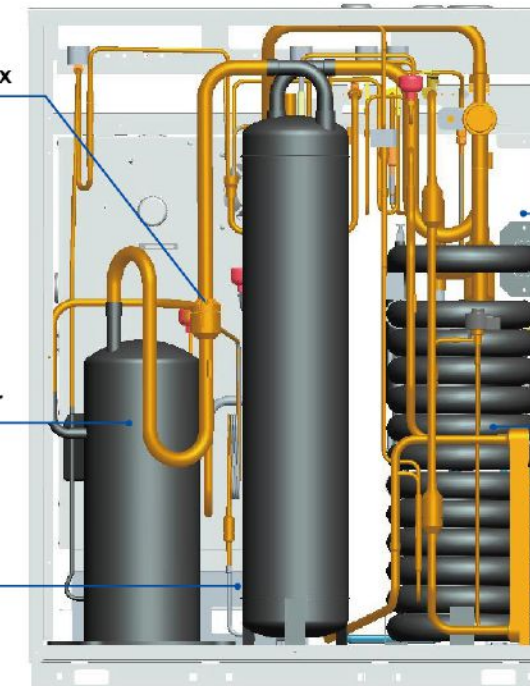
### Compact electrical control box

Compact electric control box, which can rotate up and down, easy for compressor service

### DC inverter scroll compressor

DC inverter scroll compressor; more higher energy efficiency

### Oil separator



### Water switch

### Double coil heat exchanger

- Double coil heat exchanger, more uniform Heat transfer effect
- Much higher double coil, saving more space, more compact design

# FEATURES & BENEFITS

## MRV W Application Typical high-rise buildings

3 types typical high-rise buildings

- Compact inner structure and core parts



Type 1  
High rise building without podium



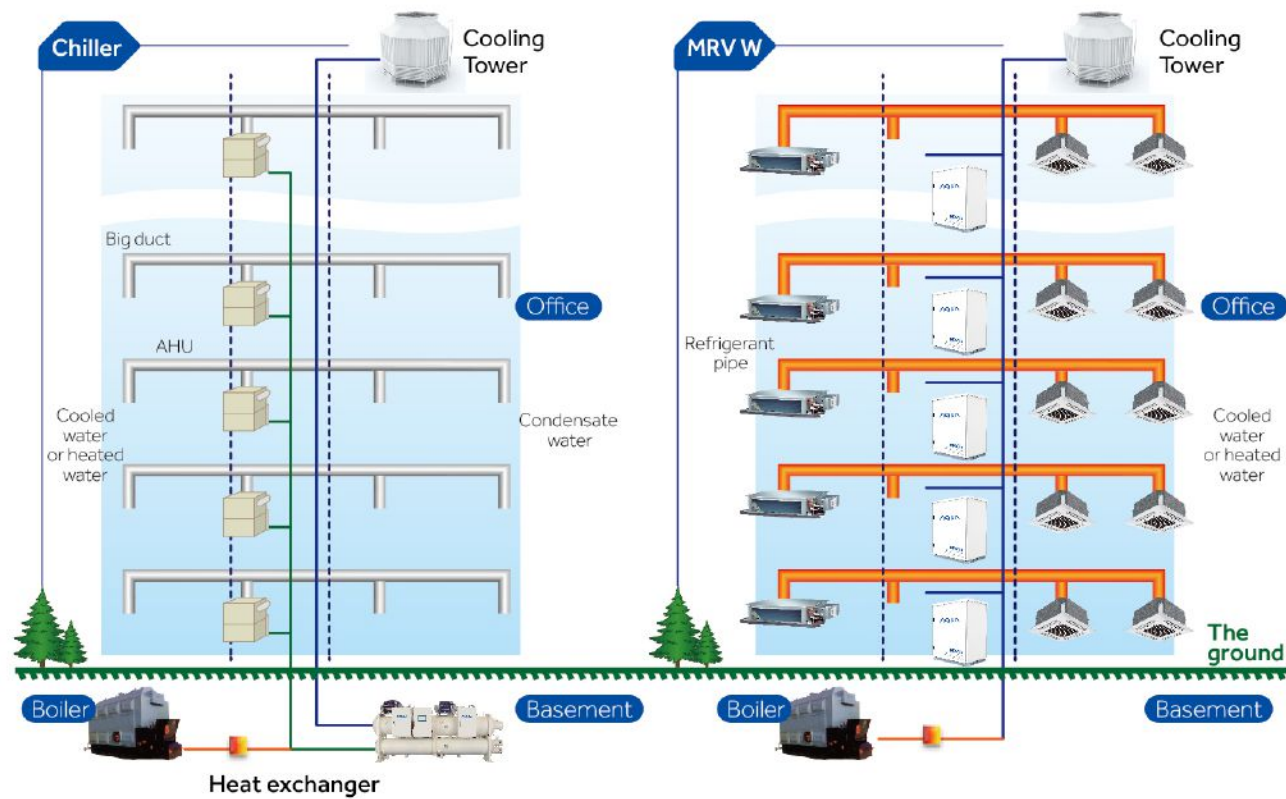
Type 2  
High rise building with podium



Type 3  
Single layer with a large area

Type 1 high-rise building

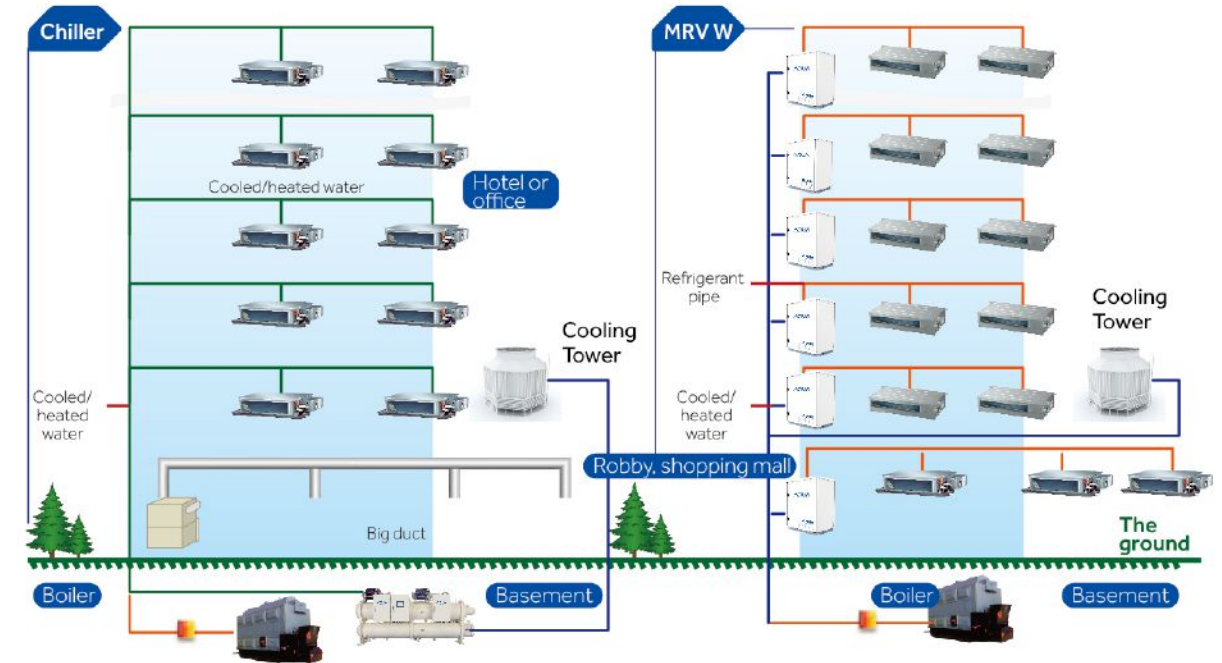
- Conventional chiller system, and new water-cooled MRV solution



## MRV W Application

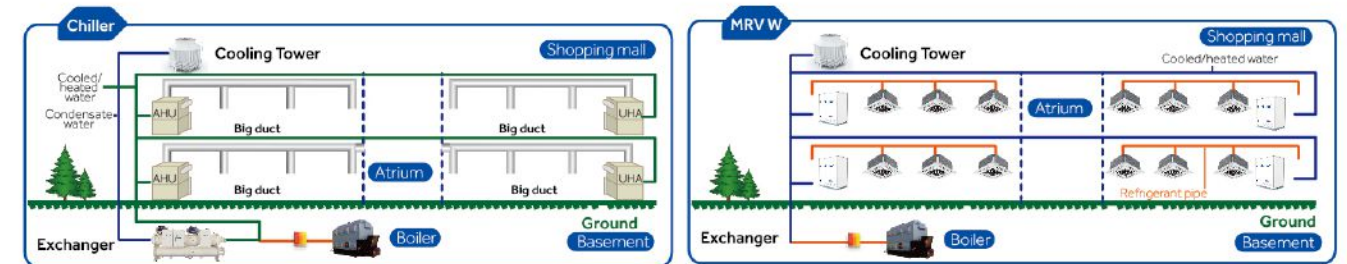
Type 2 high-rise building

- Conventional chiller system, and water-cooled MRV solution



Type 3 high-rise building

- Conventional chiller system, and water-cooled MRV solution



Suitable buildings

- New construction or retrofit building: MRV W provides an energy efficient solution anywhere that could use a water-cooled chiller or replacing water source heat pump design by enabling them to afford the water-cooled chiller benefits. It is especially true for high-rise buildings such as condos, offices, medical centers, schools
- High-rise building that didn't design with VRF system
- Glass curtain wall or special design building
- No enough space to put the outdoor unit even accept the VRF system
- Building which required to renewable energy sources

Benefit

- Lower initial cost for the developer and builder
- Client or developer can add air conditioning to match load requirement
- No rebalancing of water systems if commissioning valves are installed on each floor
- Connect to the full suite of MRV control solution A/C management system
- Separate control to every indoor unit

# FEATURES & BENEFITS

1 Energy Efficiency

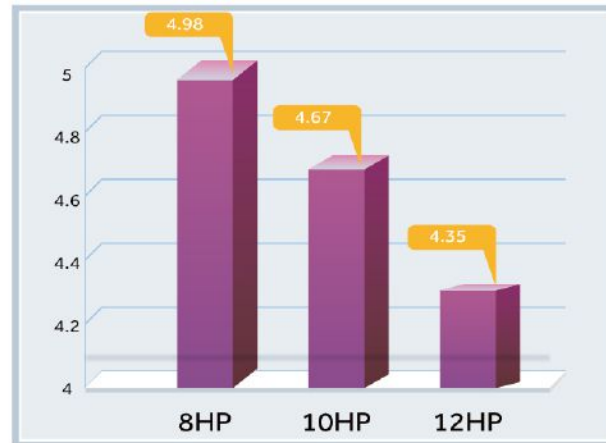
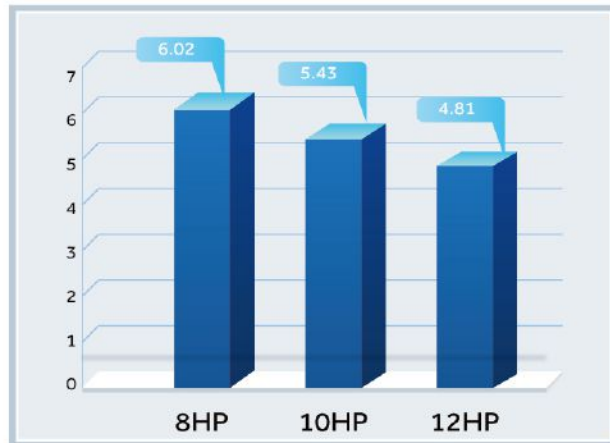
2 Comfort

3 High Reliability

4 High Convenience

## Energy Saving

- COP can be up to 6.02, much more higher energy level than air system
- EER can be up to 4.98, more higher energy level than air system



### High efficiency dc inverter compressor

- High efficiency DC inverter compressor from mitsubishi electric



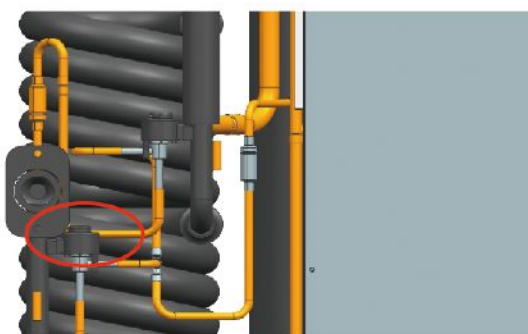
### High efficiency double coil heat exchanger

- Double coil heat-exchanger, more uniform heat transfer effect



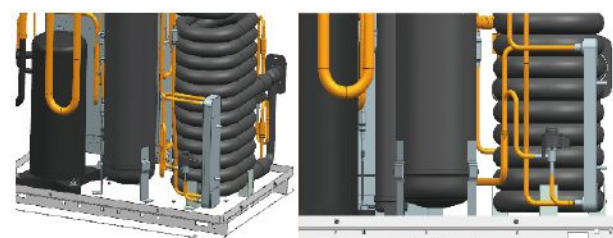
### Double EEV control

- The double EEV control the 2 stages heat exchanger separately, which can adjust the condenser volume



### Two stage deep sub cooling technology

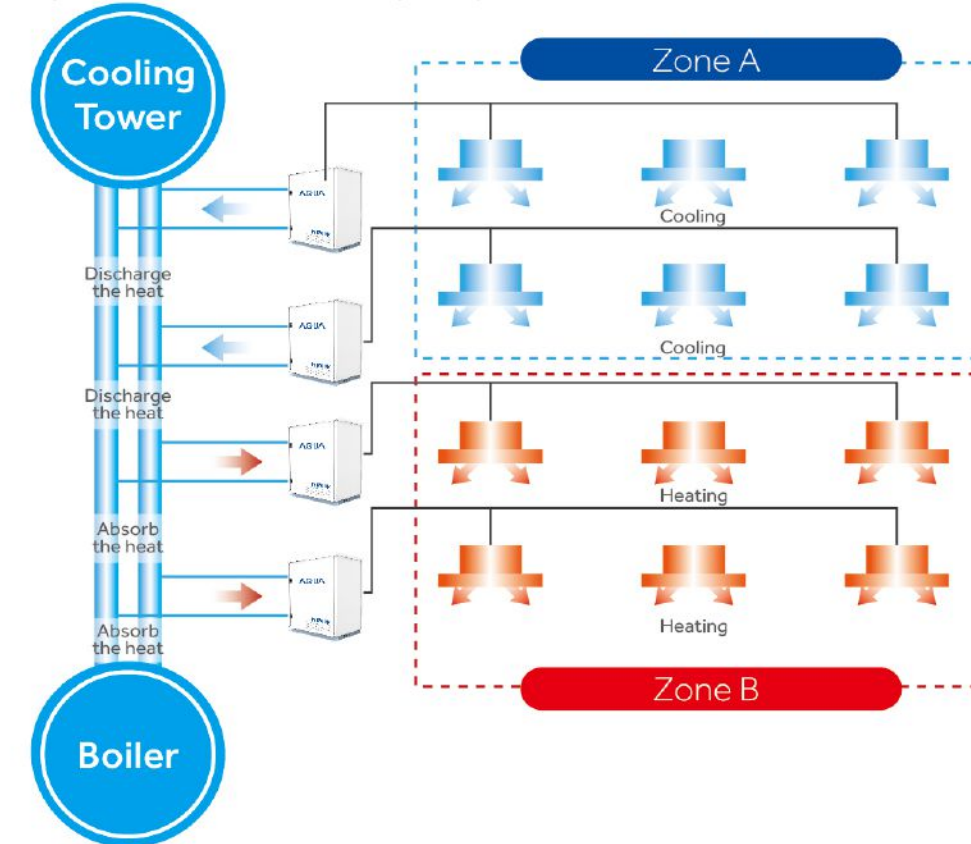
- 1<sup>st</sup> stage sub cooling added a sub cooling coil to condenser
- 2<sup>nd</sup> stage sub cooling added a stand alone sub cooler
- After further cooling, sub-cooling degree can be up to 30°C, with the heat exchanging capacity per unit mass of refrigerant improved by 46% and flow resistance reduced by 55%, and running efficiency improved by 9%



## Energy Saving

Heat recovery between different refrigerant systems

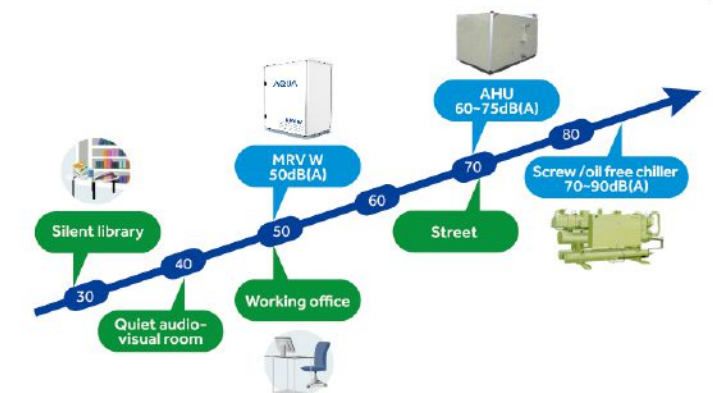
- Heat recovery is achieved within the water loop between different refrigerant system, more higher total COP
- Cooling and heating at the same time in different refrigerant system



## Comfortable Environment

### Low noise level

- Comparing with air system, without fan in the outdoor and with full insulation design, the noise level can be reduced to only 50dB(A), much lower than the air system and conventional chiller



### No influence from ambient temperature

- Thanks to the stable water source, the capacity and efficiency will not reduce with extreme ambient conditions compare with air-cooled system
- Especially in heating mode, water cooling means no defrost operation is required, the resultant rapid start up time assures quick and comfortable heating, even in cold environment

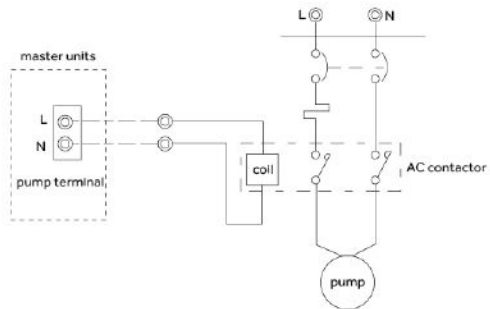


# FEATURES & BENEFITS

## High Reliability

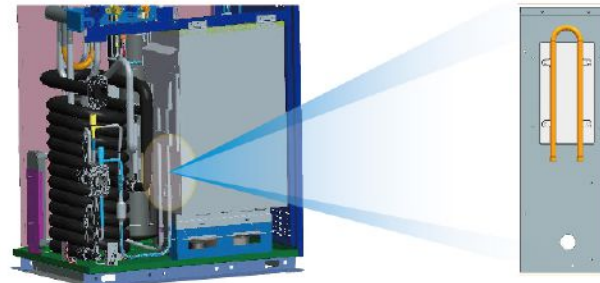
Water pump controlled together with the outdoor

- The reserved water pump linkage control, realize the pump linkage control, reduce the energy consumption and eliminate hidden dangers



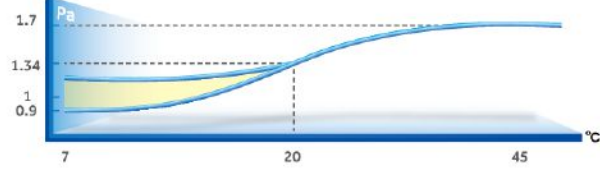
Chilled electric control module

- Using refrigerant to reduce the module temperature, to realize stable module temperature, more reliable operation
- Canceling heat dissipation fan of the module, reduce the power consumption and noise level

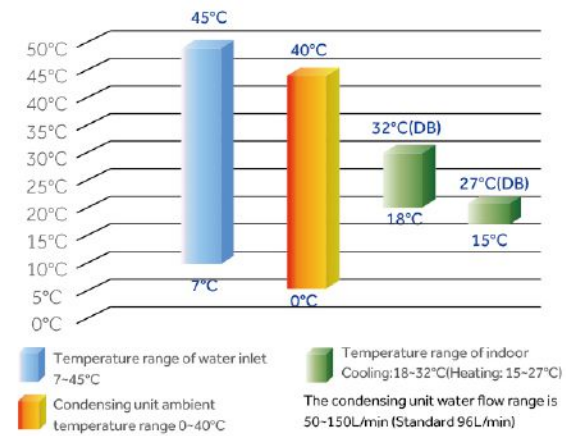


Stable Pressure Setting

- Stable pressure setting design, to make the high pressure keep above the required pressure, ensure the compressor reliability and stable capacity output



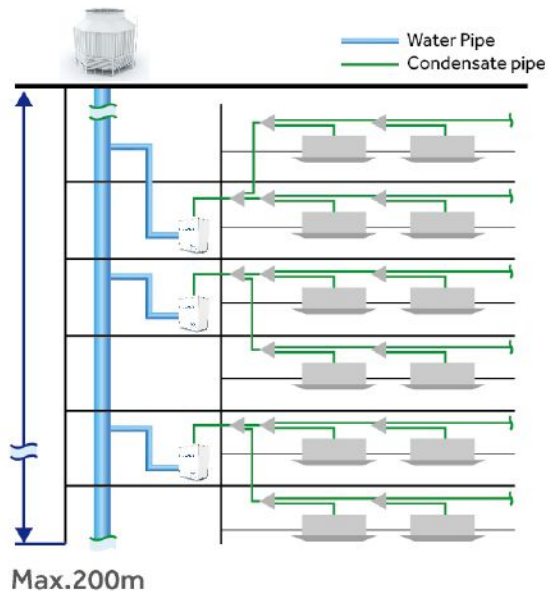
Wide Operation Range



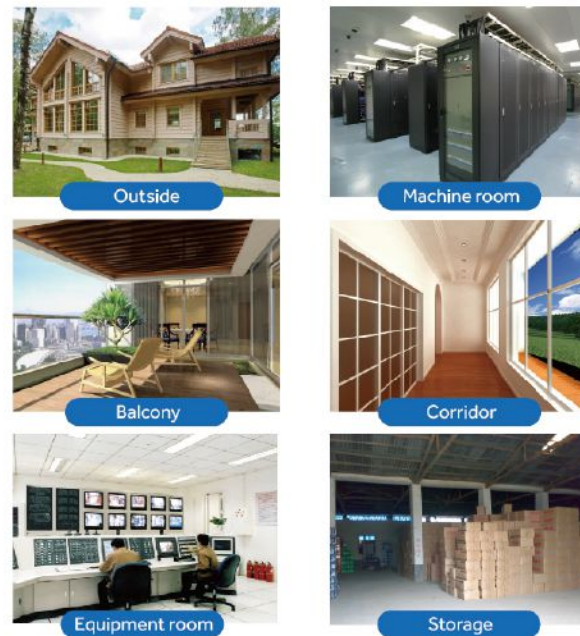
## Energy Efficiency

Flexible water pipe design

- Max water pressure can be up to 1.96MPa
- Condensate pipe length can be up to 200m



Flexible Installation Location



## Energy Efficiency

Long pipe length and high height drop

The condensers are smaller and can be stacked, reducing the installation space.

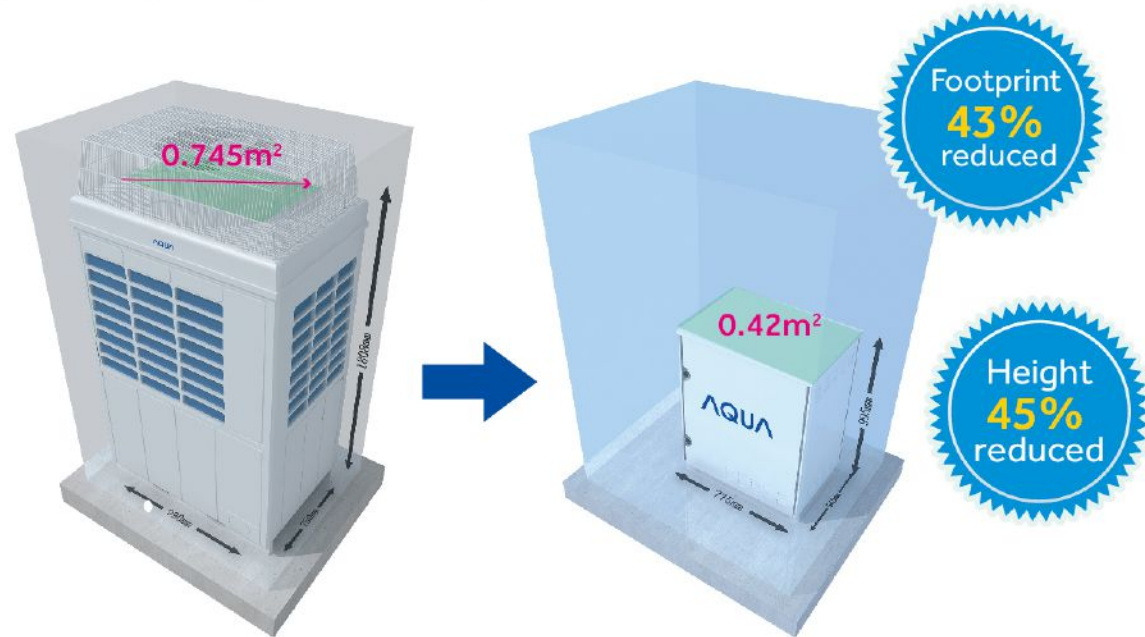


# FEATURES & BENEFITS

## High Convenience (Use/installation/service)

Compact and lightweight design

- The industry's most compact and lightweight design, installed in the narrow space. Comparing with the conventional top discharge air-cooled system, height 45% reduced, footprint 43% reduced



Stacked installation

- The condensers are smaller and can be staked, reducing the installation space and increasing the customers' usable square footage



## High Convenience (Use/installation/service)

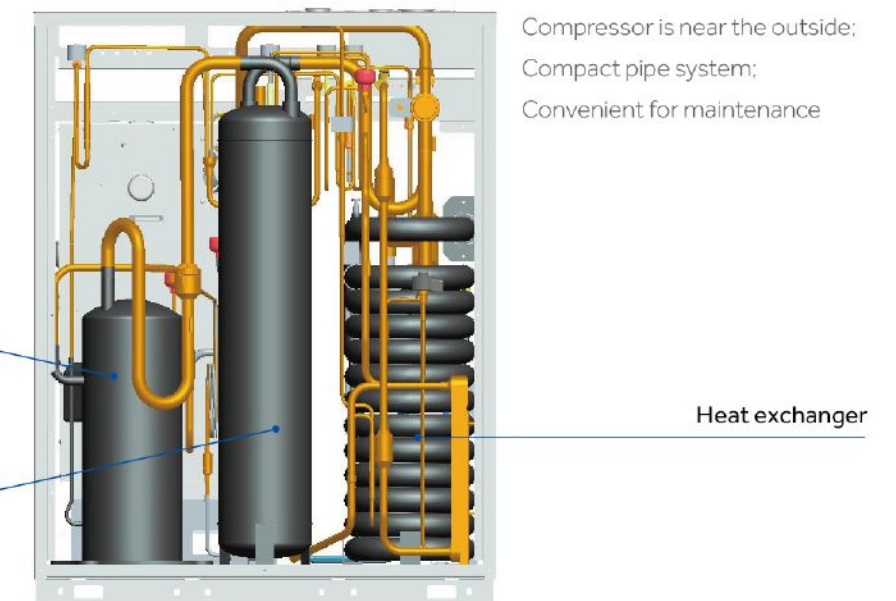
Various mode and priority selection

- The condensers are smaller and can be staked, reducing the installation space and increasing the customers' usable square footage



Easy maintenance

Compact outdoor structure design





# MRV W 3/380~400/50(60)



AV08IMWEWA  
AV10IMWEWA  
AV12IMWEWA

8/10/12HP

Model			AV08IMWEWA	AV10IMWEWA	AV12IMWEWA	AV16IMWEWA	AV18IMWEWA	
Combination model			/	/	/	AV08IMWEWA	AV08IMWEWA	
			/	/	/	AV08IMWEWA	AV10IMWEWA	
			/	/	/	/	/	
Capacity	Capacity range	HP	8	10	12	16	18	
	Cooling capacity	kW	22.4	28	33.5	44.8	50.4	
	Heating capacity	kW	25	31.5	37.5	50.0	56.5	
Electrical parameters	Power supply		PhV/Hz	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	
	Cooling	Rated power input	kW	4.50	6.00	7.70	9.00	10.50
		Max. power input	kW	13.00	15.00	17.00	26.00	28.00
		Rated current	A	7.20	9.60	12.32	14.39	16.79
		Max. current	A	20.79	23.99	27.19	41.58	44.78
	Heating	Rated power input	kW	4.15	5.80	7.80	8.30	9.95
		Max. power input	kW	13.00	15.00	17.00	26.00	28.00
		Rated current	A	6.64	9.28	12.47	13.27	15.91
		Max. current	A	20.79	23.99	27.19	41.58	44.78
	EER/COP			4.98/6.02	4.67/5.43	4.35/4.81	4.98/6.02	4.80/5.68
	Performance	Water flow (H)	m <sup>3</sup> /h	4.8	6	7.2	9.6	10.8
Sound pressure level (H)		dB(A)	50	51	53	53	54	
Sound power level (H)		dB(A)	61	62	64	64	65	
Installation	External dimensions(W/D/H)		mm	775/545/995	775/545/995	775/545/995	(775/545/995)*2	(775/545/995)*2
	Shipping dimensions(W/D/H)		mm	875/655/1182	875/655/1182	875/655/1182	(875/655/1182)*2	(875/655/1182)*2
	Net/Shipping weight		kg	172/183	172/183	172/183	344/366	344/366
	Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL
	Compressor quantity			1 INV	1 INV	1 INV	2 INV	2 INV
	Refrigerant type			R410A	R410A	R410A	R410A	R410A
	Refrigerant charge	kg	2	2	2	4	4	
	Refrigerant liquid pipe	mm	9.52	9.52	12.7	12.7	15.88	
	Refrigerant gas pipe	mm	19.05	22.22	25.4	28.58	28.58	
	Oil equalization pipe	mm	9.52	9.52	9.52	9.52	9.52	
	Total pipe length	m	300	300	300	300	300	
	Max. pipe length(Equivalent/Actual)	m	150/120	150/120	150/120	150/120	150/120	
	Max drop between I.U.&O.U	m	50/40	50/40	50/40	50/40	50/40	
Heat Exchanger	Type		Double coil	Double coil	Double coil	Double coil	Double coil	
	Material		Copper & steel	Copper & steel	Copper & steel	Copper & steel	Copper & steel	
Water side	Inlet water connection pipe	mm	DN32	DN32	DN32	DN32	DN32	
	Outlet water connection pipe	mm	DN32	DN32	DN32	DN32	DN32	
	pressure drop(Inlet and outlet)	Kpa	35	50	70	35+35	35+50	
	Connection type		inner grooved	inner grooved	inner grooved	inner grooved	inner grooved	
	Max. system water pressure	Mpa	1.6	1.6	1.6	1.6	1.6	
Connection ratio	Inlet water temperature range (Cooling & Heating)	°C	7-45	7-45	7-45	7-45	7-45	
	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130	
	Maximum number of indoor units	unit	13	16	19	23	29	

- Water Sourced MRV Outdoor Unit, Combine Water System and Refrigerant System in one System
- 3 Basic Single Module:8/10/12HP, Max. 3 Modules Combination up to 36HP
- Most Compact Size Outdoor Design in the Industry
- Total 300m Long Pipe Length, Easy for Installation
- Double Coil Outdoor Heat Exchanger
- Compatible with all the MRV Indoor Units

Model			AV20IMWEWA	AV22IMWEWA	AV24IMWEWA	AV26IMWEWA	AV28IMWEWA	
Combination model			AV10IMWEWA	AV10IMWEWA	AV12IMWEWA	AV08IMWEWA	AV08IMWEWA	
			AV10IMWEWA	AV12IMWEWA	AV12IMWEWA	AV08IMWEWA	AV10IMWEWA	
			/	/	/	AV10IMWEWA	AV10IMWEWA	
Capacity	Capacity range	HP	20	22	24	26	28	
	Cooling capacity	kW	56	61.5	67.0	72.8	78.4	
	Heating capacity	kW	63	69.0	75.0	81.5	88.0	
Electrical parameters	Power supply		PhV/Hz	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	
	Cooling	Rated power input	kW	12.00	13.70	15.40	15.00	16.50
		Max. power input	kW	30.00	32.00	34.00	41.00	43.00
		Rated current	A	19.19	21.91	24.63	23.99	26.39
		Max. current	A	47.98	51.18	54.38	65.57	68.77
	Heating	Rated power input	kW	11.60	13.60	15.60	14.10	15.75
		Max. power input	kW	30.00	32.00	34.00	41.00	43.00
		Rated current	A	18.55	21.75	24.95	22.55	25.19
		Max. current	A	47.98	51.18	54.38	65.57	68.77
	EER/COP			4.67/5.43	4.49/5.07	4.35/4.81	4.85/5.78	4.75/5.59
	Performance	Water flow (H)	m <sup>3</sup> /h	12	13.2	14.4	15.6	16.8
Sound pressure level (H)		dB(A)	54	55	56	55	55	
Sound power level (H)		dB(A)	65	66	67	66	66	
Installation	External dimensions(W/D/H)		mm	(775/545/995)*2	(775/545/995)*2	(775/545/995)*2	(775/545/995)*3	(775/545/995)*3
	Shipping dimensions(W/D/H)		mm	(875/655/1182)*2	(875/655/1182)*2	(875/655/1182)*2	(875/655/1182)*3	(875/655/1182)*3
	Net/Shipping weight		kg	344/366	344/366	344/366	516/549	516/549
	Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL
	Compressor quantity			2 INV	2 INV	2 INV	3 INV	3 INV
	Refrigerant type			R410A	R410A	R410A	R410A	R410A
	Refrigerant charge	kg	4	4	4	6	6	
	Refrigerant liquid pipe	mm	15.88	15.88	15.88	19.05	19.05	
	Refrigerant gas pipe	mm	28.58	28.58	28.58	31.8	31.8	
	Oil equalization pipe	mm	9.52	9.52	9.52	9.52	9.52	
	Total pipe length	m	300	300	300	300	300	
	Max. pipe length(Equivalent/Actual)	m	150/120	150/120	150/120	150/120	150/120	
	Max drop between I.U.&O.U	m	50/40	50/40	50/40	50/40	50/40	
Heat Exchanger	Type		Double coil	Double coil	Double coil	Double coil	Double coil	
	Material		Copper & steel	Copper & steel	Copper & steel	Copper & steel	Copper & steel	
Water side	Inlet water connection pipe	mm	DN32	DN32	DN32	DN32	DN32	
	Outlet water connection pipe	mm	DN32	DN32	DN32	DN32	DN32	
	pressure drop(Inlet and outlet)	Kpa	50+50	50+70	70+70	35+35+50	35+50+50	
	Connection type		inner grooved	inner grooved	inner grooved	inner grooved	inner grooved	
	Max. system water pressure	Mpa	1.6	1.6	1.6	1.6	1.6	
Connection ratio	Inlet water temperature range (Cooling & Heating)	°C	7-45	7-45	7-45	7-45	7-45	
	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130	
	Maximum number of indoor units	unit	33	36	39	43	46	

• 1 outdoor above 50m,outdoor below 40m.  
 • All the specifications are tested under nominal condition.In cooling, Indoor temp is 27°C DB/19°C WB, Outdoor temp 35°C DB/24°C WB, In heating, Indoor temp is 20°C DB, Outdoor temp is 7°C DB/6°C WB.  
 • The specification may change according to the further product development.

# MRV W 3/380~400/50(60)

# MRV W 3/208~230/60



AV08IMWEWA  
AV10IMWEWA  
AV12IMWEWA

8/10/12HP

- Water Sourced MRV Outdoor Unit, Combine Water System and Refrigerant System in one System
- 3 Basic Single Module:8/10/12HP, Max. 3 Modules Combination up to 36HP
- Most Compact Size Outdoor Design in the Industry
- Total 300m Long Pipe Length, Easy for Installation
- Double Coil Outdoor Heat Exchanger
- Compatible with all the MRV Indoor Units

Model			AV30IMWEWA	AV32IMWEWA	AV34IMWEWA	AV36IMWEWA	
Combination model			AV10IMWEWA	AV10IMWEWA	AV10IMWEWA	AV12IMWEWA	
			AV10IMWEWA	AV10IMWEWA	AV12IMWEWA	AV12IMWEWA	
			AV10IMWEWA	AV12IMWEWA	AV12IMWEWA	AV12IMWEWA	
Capacity	Capacity range	HP	30	32	34	36	
	Cooling capacity	kW	84.0	89.5	95.0	100.5	
	Heating capacity	kW	94.5	100.5	106.5	112.5	
Electrical parameters	Power supply		PhV/Hz	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60	3/380-400/50/60
	Cooling	Rated power input	kW	18.00	19.70	21.40	23.10
		Max. power input	kW	45.00	47.00	49.00	51.00
		Rated current	A	28.79	31.51	34.23	36.95
		Max. current	A	71.97	75.17	78.37	81.57
	Heating	Rated power input	kW	17.40	19.40	21.40	23.40
		Max. power input	kW	45.00	47.00	49.00	51.00
		Rated current	A	27.83	31.03	34.23	37.42
		Max. current	A	71.97	75.17	78.37	81.57
	EER/COP			4.67/5.43	4.54/5.18	4.44/4.98	4.35/4.81
Performance	Water flow (H)	m³/h	18.0	19.2	20.4	21.6	
	Sound pressure level (H)	dB(A)	56	57	57	58	
	Sound power level (H)	dB(A)	67	68	68	69	
Installation	External dimensions(W/D/H)		mm	(775/545/995)*3	(775/545/995)*3	(775/545/995)*3	(775/545/995)*3
	Shipping dimensions(W/D/H)		mm	(875/655/1182)*3	(875/655/1182)*3	(875/655/1182)*3	(875/655/1182)*3
	Net/Shipping weight		kg	516/549	516/549	516/549	516/549
	Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL
	Compressor quantity			3 INV	3 INV	3 INV	3 INV
	Refrigerant type			R410A	R410A	R410A	R410A
	Refrigerant charge	kg	6	6	6	6	
	Refrigerant liquid pipe	mm	19.05	19.05	19.05	19.05	
	Refrigerant gas pipe	mm	31.8	31.8	31.8	38.1	
	Oil equalization pipe	mm	9.52	9.52	9.52	9.52	
	Total pipe length	m	300	300	300	300	
	Max. pipe length(Equivalent/Actual)	m	150/120	150/120	150/120	150/120	
	Max drop between I.U.&O.U	m	50/40	50/40	50/40	50/40	
Heat Exchanger	Type		Double coil	Double coil	Double coil	Double coil	
	Material		Copper & steel	Copper & steel	Copper & steel	Copper & steel	
Water side	Inlet water connection pipe	mm	DN32	DN32	DN32	DN32	
	Outlet water connection pipe	mm	DN32	DN32	DN32	DN32	
	pressure drop(inlet and outlet)	Kpa	50+50+50	50+50+70	50+70+70	70+70+70	
	Connection type		inner grooved	inner grooved	inner grooved	inner grooved	
	Max. system water pressure	Mpa	1.6	1.6	1.6	1.6	
	Inlet water temperature range (Cooling & Heating)	°C	7-45	7-45	7-45	7-45	
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	
	Maximum number of indoor units	unit	50	53	56	59	

\* 1 outdoor above 50m, outdoor below 40m.  
\* All the specifications are tested under nominal condition(In cooling, Indoor temp is 27°C DB/19°C WB; Outdoor temp 35°C DB/24°C WB; In heating, Indoor temp is 20°C DB, Outdoor temp is 7°C DB/6°C WB).  
\* The specification may change according to the further product development.

Model			AV08CMWEWA	AV10CMWEWA	AV12CMWEWA	AV16CMWEWA	AV18CMWEWA	
Combination model			/	/	/	AV08CMWEWA	AV08CMWEWA	
			/	/	/	AV08CMWEWA	AV10CMWEWA	
			/	/	/	/	/	
Capacity	Capacity range	HP	8	10	12	16	18	
	Cooling capacity	kW	22.4	28	33.5	44.8	50.4	
	Heating capacity	kW	25	31.5	37.5	50.0	56.5	
Electrical parameters	Power supply		PhV/Hz	3/208-230/60	3/208-230/60	3/208-230/60	3/208-230/60	3/208-230/60
	Cooling	Rated power input	kW	4.50	6.00	7.70	9.00	10.50
		Max. power input	kW	13.00	15.00	17.00	26.00	28.00
		Rated current	A	12.43	16.58	21.27	24.86	29.01
		Max. current	A	35.91	41.44	46.96	71.83	77.35
	Heating	Rated power input	kW	4.15	5.80	7.80	8.30	9.95
		Max. power input	kW	13.00	15.00	17.00	26.00	28.00
		Rated current	A	11.46	16.02	21.55	22.93	27.49
		Max. current	A	35.91	41.44	46.96	71.83	77.35
	EER/COP			4.98/6.02	4.67/5.43	4.35/4.81	4.98/6.02	4.8/5.68
Performance	Water flow (H)	m³/h	4.8	6	7.2	9.6	10.8	
	Sound pressure level (H)	dB(A)	50	51	53	53	54	
	Sound power level (H)	dB(A)	61	62	64	64	65	
Installation	External dimensions(W/D/H)		mm	775/545/995	775/545/995	775/545/995	(775/545/995)*2	(775/545/995)*2
	Shipping dimensions(W/D/H)		mm	875/655/1182	875/655/1182	875/655/1182	(875/655/1182)*2	(875/655/1182)*2
	Net/Shipping weight		kg	172/183	172/183	172/183	344/366	344/366
	Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL
	Compressor quantity			1 INV	1 INV	1 INV	2 INV	2 INV
	Refrigerant type			R410A	R410A	R410A	R410A	R410A
	Refrigerant charge	kg	2	2	2	4	4	
	Refrigerant liquid pipe	mm	9.52	9.52	12.7	12.7	15.88	
	Refrigerant gas pipe	mm	19.05	22.22	25.4	28.58	28.58	
	Oil equalization pipe	mm	9.52	9.52	9.52	9.52	9.52	
	Total pipe length	m	300	300	300	300	300	
	Max. pipe length(Equivalent/Actual)	m	150/120	150/120	150/120	150/120	150/120	
	Max drop between I.U.&O.U	m	50/40	50/40	50/40	50/40	50/40	
Heat Exchanger	Type		Double coil	Double coil	Double coil	Double coil	Double coil	
	Material		Copper&Steel	Copper&Steel	Copper&Steel	Copper&Steel	Copper&Steel	
Water side	Inlet water connection pipe	mm	DN32	DN32	DN32	DN32	DN32	
	Outlet water connection pipe	mm	DN32	DN32	DN32	DN32	DN32	
	pressure drop(inlet and outlet)	Kpa	35	50	70	35+35	35+50	
	Connection type		inner grooved	inner grooved	inner grooved	inner grooved	inner grooved	
	Max. system water pressure	Mpa	1.6	1.6	1.6	1.6	1.6	
	Inlet water temperature range (Cooling & Heating)	°C	7-45	7-45	7-45	7-45	7-45	
Connection ratio	Connectable indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130	
	Maximum number of indoor units	unit	13	16	19	23	29	

# MRV W 3/208~230/60



AV081MWEWA  
AV101MWEWA  
AV121MWEWA

8/10/12HP

- Water Sourced MRV Outdoor Unit, Combine Water System and Refrigerant System in one System
- 3 Basic Single Module:8/10/12HP, Max. 3 Modules Combination up to 36HP
- Most Compact Size Outdoor Design in the Industry
- Total 300m Long Pipe Length, Easy for Installation
- Double Coil Outdoor Heat Exchanger
- Compatible with all the MRV Indoor Units

Model			AV20CMWEWA	AV22CMWEWA	AV24CMWEWA	AV26CMWEWA	AV28CMWEWA	
Combination model			AV10CMWEWA	AV10CMWEWA	AV12CMWEWA	AV08CMWEWA	AV08CMWEWA	
			AV10CMWEWA	AV12CMWEWA	AV12CMWEWA	AV08CMWEWA	AV10CMWEWA	
			/	/	/	AV10CMWEWA	AV10CMWEWA	
Capacity	Capacity range	HP	20	22	24	26	28	
	Cooling capacity	kW	56	61.5	67.0	72.8	78.4	
	Heating capacity	kW	63	69.0	75.0	81.5	88.0	
Power supply		PhV/Hz	3/208-230/60	3/208-230/60	3/208-230/60	3/208-230/60	3/208-230/60	
Electrical parameters	Cooling	Rated power input	kW	12.00	13.70	15.40	15.00	16.50
		Max. power input	kW	30.00	32.00	34.00	41.00	43.00
		Rated current	A	33.15	37.85	42.54	41.44	45.58
		Max.current	A	82.88	88.40	93.93	113.26	118.79
	Heating	Rated power input	kW	11.60	13.60	15.60	14.10	15.75
		Max. power input	kW	30.00	32.00	34.00	41.00	43.00
		Rated current	A	32.05	37.57	43.10	38.95	43.51
		Max.current	A	82.88	88.40	93.93	113.26	118.79
EER/COP			4.67/5.43	4.49/5.07	4.35/4.81	4.85/5.78	4.75/5.59	
Performance	Water flow (H)	m³/h	12	13.2	14.4	15.6	16.8	
	Sound pressure level (H)	dB(A)	54	55	56	55	55	
	Sound power level (H)	dB(A)	65	66	67	66	66	
External dimensions(W/D/H)		mm	(775/545/995)*2	(775/545/995)*2	(775/545/995)*2	(775/545/995)*3	(775/545/995)*3	
Shipping dimensions(W/D/H)		mm	(875/655/1182)*2	(875/655/1182)*2	(875/655/1182)*2	(875/655/1182)*3	(875/655/1182)*3	
Net/Shipping weight		kg	344/366	344/366	344/366	516/549	516/549	
Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
Compressor quantity			2 INV	2 INV	2 INV	3 INV	3 INV	
Refrigerant type			R410A	R410A	R410A	R410A	R410A	
Installation	Refrigerant charge	kg	4	4	4	6	6	
	Refrigerant liquid pipe	mm	15.88	15.88	15.88	19.05	19.05	
	Refrigerant gas pipe	mm	28.58	28.58	28.58	31.8	31.8	
	Oil equalization pipe	mm	9.52	9.52	9.52	9.52	9.52	
	Total pipe length	m	300	300	300	300	300	
	Max. pipe length(Equivalent/Actual)	m	150/120	150/120	150/120	150/120	150/120	
	Max drop between I.U.&O.U	m	50/40	50/40	50/40	50/40	50/40	
	Heat Exchanger	Type		Double coil	Double coil	Double coil	Double coil	Double coil
		Material		Copper&Steel	Copper&Steel	Copper&Steel	Copper&Steel	Copper&Steel
	Water side	Inlet water connection pipe	mm	DN32	DN32	DN32	DN32	DN32
Outlet water connection pipe		mm	DN32	DN32	DN32	DN32	DN32	
pressure drop(Inlet and outlet)		Kpa	50+50	50+70	70+70	35+35+50	35+50+50	
Connection type			inner grooved	inner grooved	inner grooved	inner grooved	inner grooved	
Max. system water pressure		Mpa	1.6	1.6	1.6	1.6	1.6	
Inlet water temperature range (Cooling & Heating)		°C	7-45	7-45	7-45	7-45	7-45	
Connection ratio	Connectable Indoor unit ratio	%	50-130	50-130	50-130	50-130	50-130	
	Maximum number of indoor units	unit	33	36	39	43	46	

Model			AV30CMWEWA	AV32CMWEWA	AV34CMWEWA	AV36CMWEWA	
Combination model			AV10CMWEWA	AV10CMWEWA	AV10CMWEWA	AV12CMWEWA	
			AV10CMWEWA	AV10CMWEWA	AV12CMWEWA	AV12CMWEWA	
			AV10CMWEWA	AV12CMWEWA	AV12CMWEWA	AV12CMWEWA	
Capacity	Capacity range	HP	30	32	34	36	
	Cooling capacity	kW	84.0	89.5	95.0	100.5	
	Heating capacity	kW	94.5	100.5	106.5	112.5	
Power supply		PhV/Hz	3/208-230/60	3/208-230/60	3/208-230/60	3/208-230/60	
Electrical parameters	Cooling	Rated power input	kW	18.00	19.70	21.40	23.10
		Max. power input	kW	45.00	47.00	49.00	51.00
		Rated current	A	49.73	54.42	59.12	63.81
		Max.current	A	124.31	129.84	135.36	140.89
	Heating	Rated power input	kW	17.40	19.40	21.40	23.40
		Max. power input	kW	45.00	47.00	49.00	51.00
		Rated current	A	48.07	53.59	59.12	64.64
		Max.current	A	124.31	129.84	135.36	140.89
EER/COP			4.67/5.43	4.54/5.18	4.44/4.98	4.35/4.81	
Performance	Water flow (H)	m³/h	18.0	19.2	20.4	21.6	
	Sound pressure level (H)	dB(A)	56	57	57	58	
	Sound power level (H)	dB(A)	67	68	68	69	
External dimensions(W/D/H)		mm	(775/545/995)*3	(775/545/995)*3	(775/545/995)*3	(775/545/995)*3	
Shipping dimensions(W/D/H)		mm	(875/655/1182)*3	(875/655/1182)*3	(875/655/1182)*3	(875/655/1182)*3	
Net/Shipping weight		kg	516/549	516/549	516/549	516/549	
Compressor type			DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	DC INV. SCROLL	
Compressor quantity			3 INV	3 INV	3 INV	3 INV	
Refrigerant type			R410A	R410A	R410A	R410A	
Installation	Refrigerant charge	kg	6	6	6	6	
	Refrigerant liquid pipe	mm	19.05	19.05	19.05	19.05	
	Refrigerant gas pipe	mm	31.8	31.8	31.8	38.1	
	Oil equalization pipe	mm	9.52	9.52	9.52	9.52	
	Total pipe length	m	300	300	300	300	
	Max. pipe length(Equivalent/Actual)	m	150/120	150/120	150/120	150/120	
	Max drop between I.U.&O.U	m	50/40	50/40	50/40	50/40	
	Heat Exchanger	Type		Double coil	Double coil	Double coil	Double coil
		Material		Copper&Steel	Copper&Steel	Copper&Steel	Copper&Steel
	Water side	Inlet water connection pipe	mm	DN32	DN32	DN32	DN32
Outlet water connection pipe		mm	DN32	DN32	DN32	DN32	
pressure drop(Inlet and outlet)		Kpa	50+50+50	50+50+70	50+70+70	70+70+70	
Connection type			inner grooved	inner grooved	inner grooved	inner grooved	
Max. system water pressure		Mpa	1.6	1.6	1.6	1.6	
Inlet water temperature range (Cooling & Heating)		°C	7-45	7-45	7-45	7-45	
Connection ratio	Connectable Indoor unit ratio	%	50-130	50-130	50-130	50-130	
	Maximum number of indoor units	unit	50	53	56	59	

• 1: outdoor above 50m, outdoor below 40m.  
• All the specifications are tested under nominal condition(In cooling, Indoor temp is 27°C DB/19°C WB, Outdoor temp 35°C DB/24°C WB, In heating, Indoor temp is 20°C DB, Outdoor temp is 7°C DB/6°C WB).  
• The specification may change according to the further product development.

# EASY MRV Connection Kit



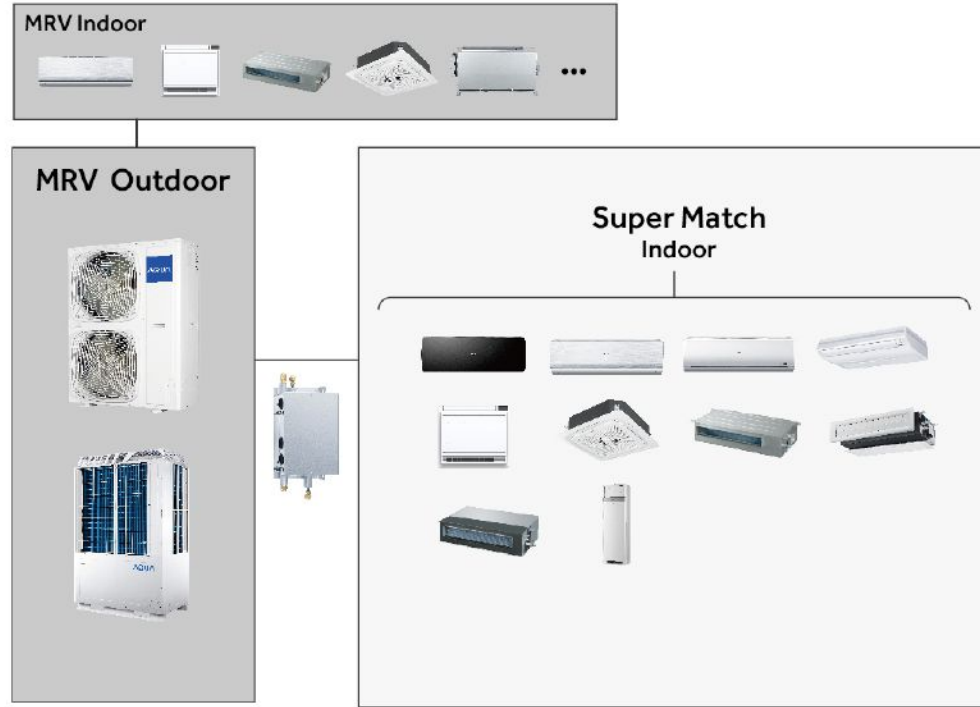
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# FEATURES & BENEFITS

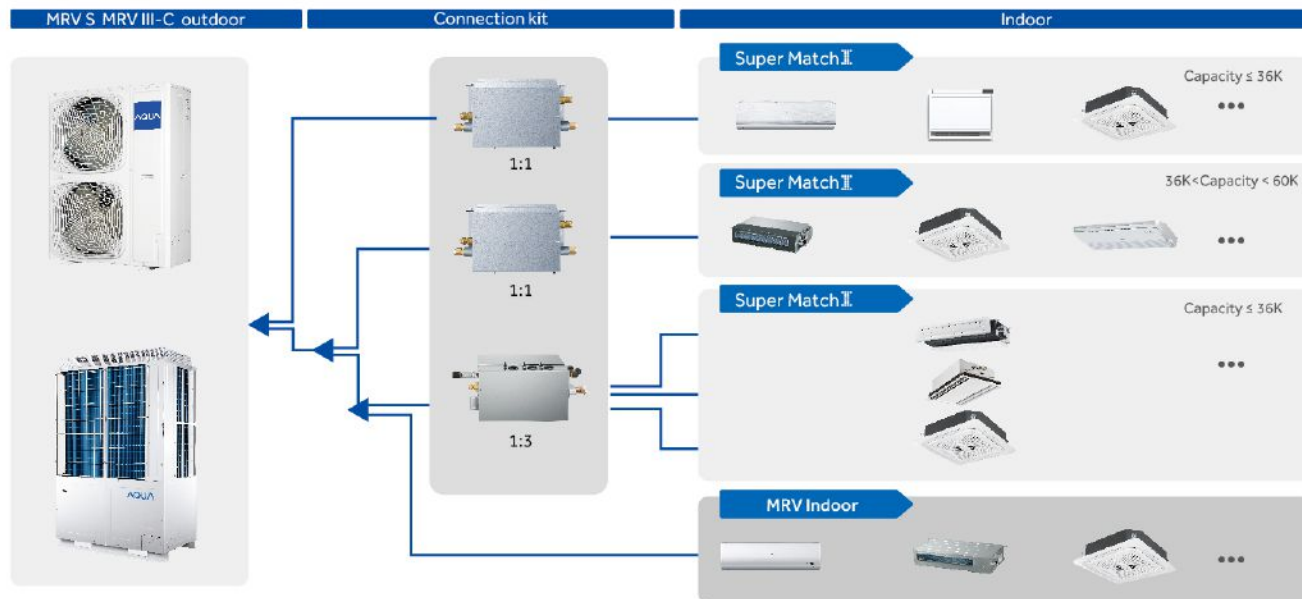
## Intergraded System Solution

Connect MRV with super match together



## Easy MRV System Introduction

AQUA Easy MRV kit provides a solution to connect Super Match indoor units with MRV outdoor units.



## Easy MRV Line-up

Easy MRV kits provide a solution to connect super match indoor units with MRV outdoor units.

OUTDOOR	MRV S	MRV IV	MRV III-C <sup>PLUS</sup> MRV III(2-Pipe)	MRV S <sup>A</sup>			MRV S <sup>I</sup>				
HP	8-26	8-24	8-16	4	5	6	8	10	12	5	7
Power supply	3Ph/380-415V/50(60)Hz	3Ph/380-400V/50(60)Hz 3Ph/208-230V/50(60)Hz	3Ph/380-400V/50(60)Hz 3Ph/208-230V/60Hz 3Ph/460V/60Hz	3Ph/380-415V/50(60)Hz 1Ph/220-240V/50(60)Hz			3Ph/380-400V/50(60)Hz		3Ph/380-400V/50(60)Hz 1Ph/220-230V/50(60)Hz		



## Easy MRV Super Match Indoor

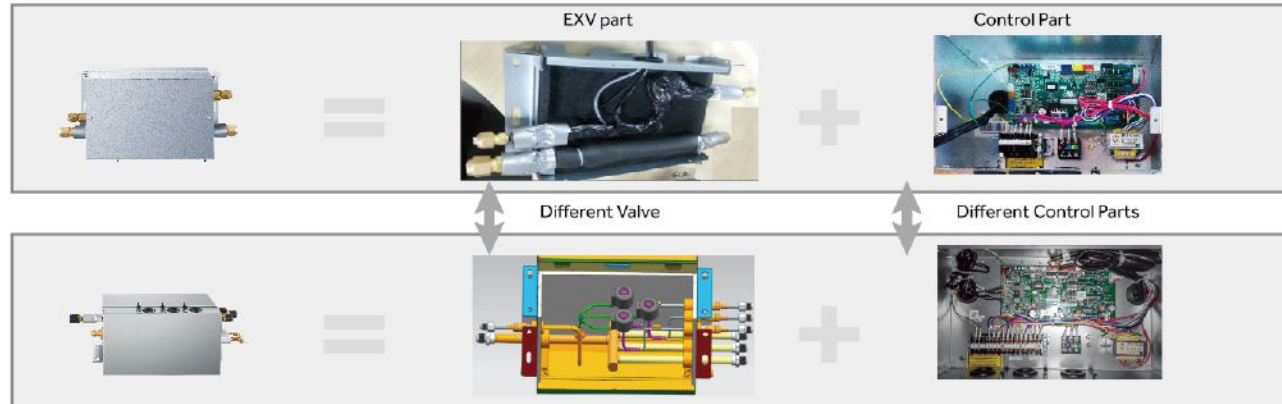
Easy MRV indoor is universal indoor unit with Super Match

Super Match I	PHOTO	7K	9K	12K	15K	18K	24K	28K	36K	48K	60K
INDOOR		2.2	2.8	3.6	4.4	5.5	7.1	8.0	10.0	14.0	16.0
AQUA Hi-Wall		AS07QS2HRA	AS09QS2HRA	AS12QS2HRA							
N F series		AS07NS1HRA-WU AS07NS1HRA-GU	AS09NS1HRA-WU AS09NS1HRA-GU	AS12NS1HRA-WU AS12NS1HRA-GU	AS15NS1HRA-WU AS15NS1HRA-GU	AS18NS1HRA-WU AS18NS1HRA-GU	AS24NS1HRA-WU AS24NS1HRA-GU				
N H series		AS07BS4HRA	AS09BS4HRA	AS12BS4HRA	AS15BS4HRA	AS18BS4HRA	AS24BS4HRA				
Cassette				AB12CS2ERA(S)		AB18CS2ERA(S)	ABH071G2ERG	AB090H1ERG	ABH105H1ERG	ABH10K1ERG	
Convertible				AC12CS1ERA(S) AC18CS1ERA(S)			AC24CS1ERA(S)	AC28ES1ERA(S)	AC36ES1ERA(S)	AC48FS1ERA(S)	AC60FS1ERA(S)
Slim ESP			AD09SS1ERA(N) AD12SS1ERA(N)			AD18SS1ERA(N)	AD24SS1ERA(N)				
Medium ESP duct				AD12MS1ERA		AD18MS1ERA	ADH071M4RG AD24MS3ERA	ADH090M4ERG AD28MS3ERA(S)	ADH105M4ERG AD36MS3ERA(S)	ADH140M4ERG	

# FEATURES & BENEFITS

## Valve Box Inner Structure

AQUA easy MRV connection kit consists the following 2 parts.



## High compatible

- Provide a new solution with MRV outdoor and Super Match indoor units to dealers/consumers, more compatible, stock reduced.
- Super match new Hi-wall NF, NH unit and console type can be directly connected with MRV outdoor.



House / Villa



Apartment



Small Office

## Easy Installation

EXV part and control part integration, easy for translation and installation. gas pipe is integrated into the valve box.	Gas pipe no need the bend and welding, easy installation. AQUA  Traditional
Optional installation location EEV box inlet and outlet pipe can be left or right.	Installation can choose lifting or nailed to the wall. Hang  Nail to the wall
Flare Connection	Different sizes of nut.

## Good Performance

<b>Largest Indoor capacity</b>	Largest Indoor capacity can be up to 60K, the largest indoor in the industry for this integrated system
<b>Largest outdoor capacity</b>	Largest capacity of side discharge up to 12HP for EASY MRV system Largest capacity of top discharge up to 26HP for Easy MRV system
<b>Low noise</b>	Outside EEV box, low noise
<b>Good parts</b>	FUJIKOKI EEV, good performance and high reliability

## Specification



MS1-036A/MS1-060A



MS3-036A

Model		MS1-036A	MS1-060A	MS3-036A
Connected indoor quantity	/	1	1	3
Connected indoor capacity	Btu/h	x ≤36K	36K < x ≤60K	x ≤36K (each indoor unit)
Power Supply	Ph/V/Hz	1/220-240/50/60	1/220-240/50/60	1/220-240/50/60
Size(W/D/H)	mm	310/217/155	310/217/155	394/227/253
Shipping dimensions	mm	509/285/209	509/285/209	687/295/303
Material	/	Galvanized steel	Galvanized steel	Galvanized steel
Color	/	Grey	Grey	Grey
Net/shipping weight	kg	5/7	5/7	9/12
Liquid pipe	mm	9.52 (Main) / 6.35	9.52 (Main) / 12.7	6.35(Main)/9.52 9.52(Main)/12.7
Gas pipe (mm)	mm	15.88(Main)/ 12.7 / 9.52	19.05 (Main)/ 15.88	19.05(Main)/ 15.88 15.88(Main)/ 12.7 / 9.52
Pipe connection method	/	Flare connection	Flare connection	Flare connection
Brand box-Indoor Max Single pipe length	m	15	15	15
Branch box- indoor max drop	m	15	15	15
Height Drop between branch box	m	15	15	15

# MRVAHU Connection Kit



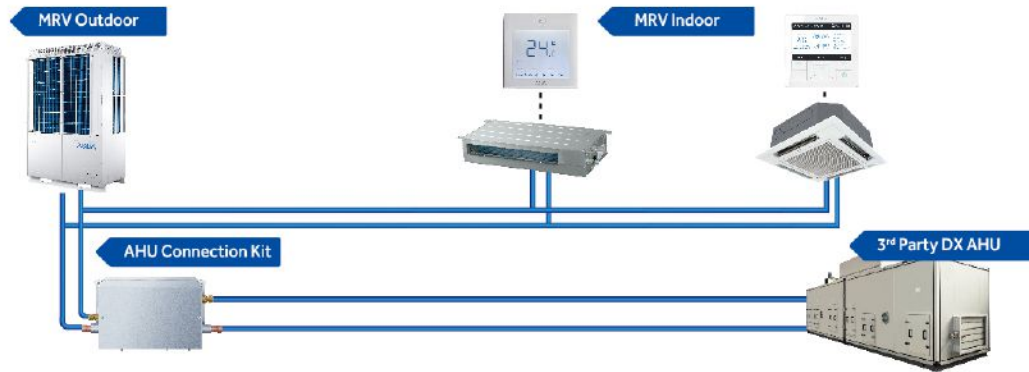
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# FEATURES & BENEFITS

## System Introduction

AQUA offers a range of connection kit to connect MRV outdoor units to third party DX air handling units.



## System Application

- Provide a solution for big space to cool down the supply fresh air with MRV outdoor units to match the air handling units. Intergrated the advantages of MRV and AHU units
- Meet the requirement of law in EU, that for every working placel it have to supply at minimum 25 m<sup>3</sup>/h fresh air. so it means that every office, every shop and mostly every commercial building MUST have this solution.



## System Line-up

AQUA MRV AHU provide a wide range of MRV outdoor, valve box and Super Match indoor solution.

OUTDOOR	MRV5	MRV IV	MRV III-C <sup>PLUS</sup> / MRV III(2-Pipe)	MRV S <sup>II</sup>
HP	8-26	8-24	8 - 16	8   10   12
Power supply	3Ph/380-415V/50(60)Hz	3Ph/380-400V/50(60)Hz 3Ph/208-230V/50(60)Hz	3Ph/380-400V/50(60)Hz 3Ph/208-230V/60Hz 3Ph/460V/60Hz	3Ph/380-400V/50(60)Hz

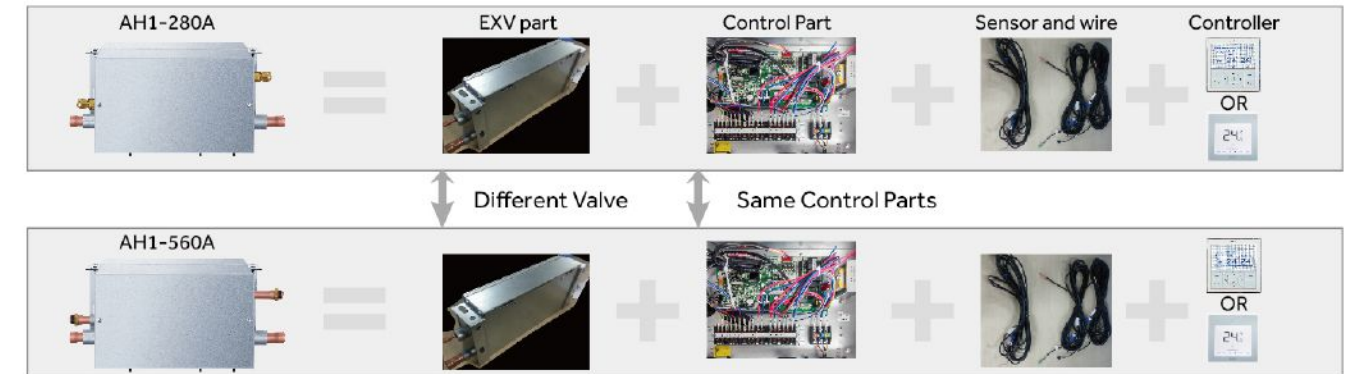
Valve Box	AH1-280A	AH1-560A
	5HP(14KW) <Connected AHU capa. ≤10HP(28KW)	10HP(28KW) <Connected AHU capa. ≤20HP(56KW)

AHU & MRV indoor

AHU need purchase in Market

## AHU Kit Configuration

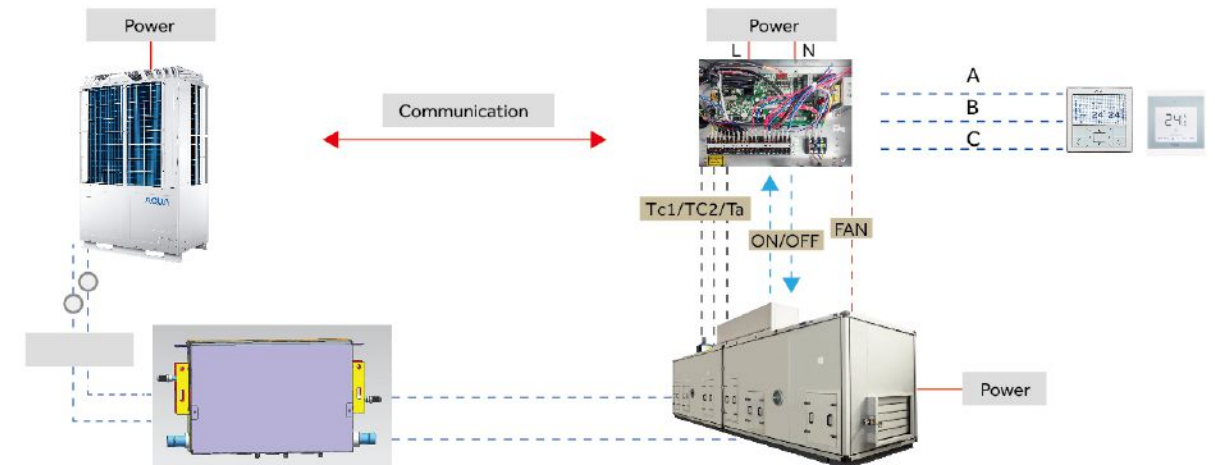
AQUA AHU connection Kit consists the following 4 parts.



•EXV part, Control part, Sensor and wire are all integrated in one box. •Controller need to be purchased separately.

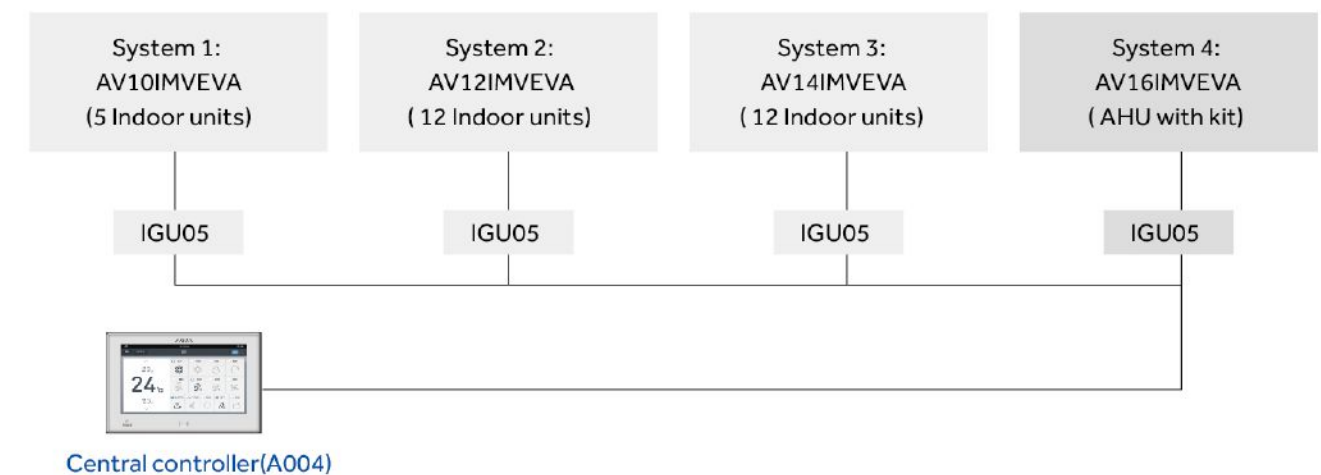
## AHU Connection Kit Control

System control



## Connection Kit Control

Central control: AHU control is same as MRV indoor unit control.

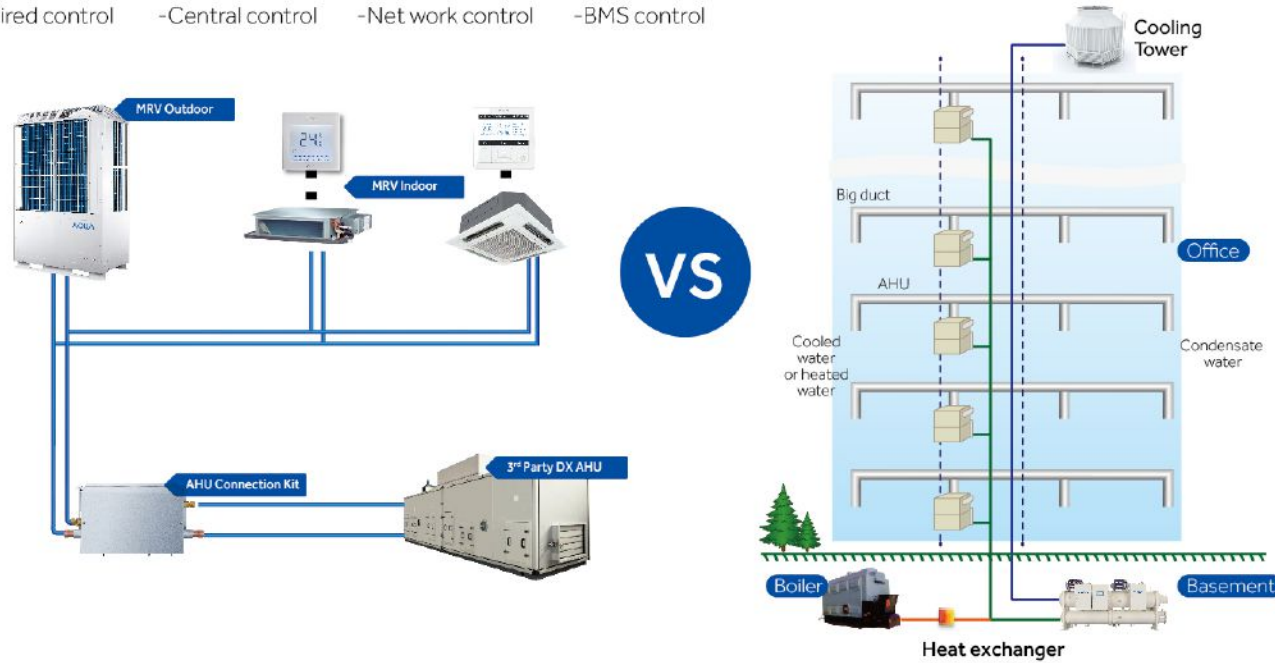




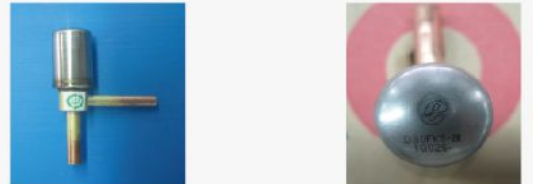
# FEATURES & BENEFITS

## Easy Installation

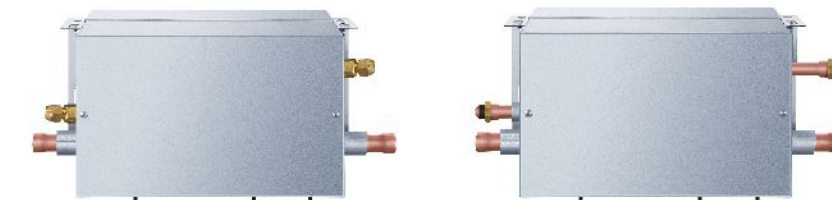
- Adopting the MRV outdoor, not the traditional chiller outdoor system, is easy to design and install since no additional water system such as boilers, gas connections, cooling tower etc. are required. this also reduces the total system cost.
- AHU can provide enough cooled fresh air to big space other than HRV and fresh air indoor units.
- All the control system for MRV outdoor is available:
  - Wired control
  - Central control
  - Net work control
  - BMS control



## Advantages

Wide Capacity	Connected AHU capacity from 5HP to 20HP.
High Compatible	1. Same PCB board with MRV indoor, easy operation and service. 2. Same wired controller can be used with MRV indoor unit such as YR-E16, YR-E17 and YR-E14.
Reliable EEV	EEV is imported from Japan. 

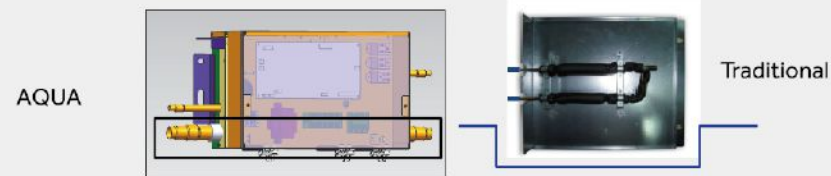
## Specification



Model	AH1-280A	AH1-560A
Connected AHU capacity	14≤x≤28KW (5-10HP)	28<x≤56KW (10-20HP)
Power Supply (Ph/V/Hz)	1/220~240/50/60	1/220~240/50/60
Dimension (mm)	350/226/155	433/296/193
Shipping dimensions (mm)	606/295/209	667/365/249
Material	Galvanized steel	Galvanized steel
Color	Grey	Grey
Weight (KG)	6	8
Shipping Weight (KG)	10	13
Liquid pipe (mm)	9.52 (Main) / 12.7	12.7 (Main) / 15.88
Gas pipe (mm)	25.4 (Main) / 22.2 / 19.05	28.58 (Main) / 25.4 / 22.22
Pipe connection method	Flare connection and welding	Flare connection and welding
AHU Kit-Indoor units Max Single pipe length (m)	5	5
AHU Kit-Indoor units Max drop (m)	5	5

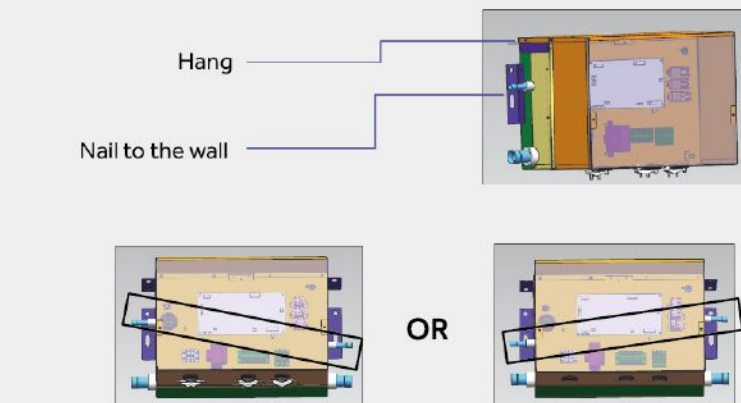
EXV part and Control part integration, easy for translation and installation. Gas pipe is integrated into the valve box.

Needn't bend and weld the gas pipe, easy installation



Optional installation location  
EEV box inlet and outlet pipe can be left or right.

Installation can choose lifting or nailed to the wall





# MRV *INDOOR*

- 167 1-way Cassette
- 169 2-Way Cassette
- 171 MINI 4-Way Cassette
- 173 Round Flow 4-way Cassette
- 175 4-Way Cassette
- 179 Convertible Type
- 181 Low ESP Slim Duct(0/15/30Pa)
- 185 Medium ESP Duct (50/96Pa)
- 187 Medium ESP Duct (50/100Pa)
- 189 Medium ESP Duct (80/120Pa)
- 191 High ESP Duct (100/196Pa)
- 193 High ESP Duct (0-200Pa)
- 195 Built-in Floor Standing
- 197 Console
- 199 High Wall

1-way  
**CASSETTE**



- Ultra thin design
- Ultra low sound level
- Built-in high head drain pump

# Specification

Model/Indoor unit			AB052MAERA	AB072MAERA
Capacity	Cooling	kBtu/h	5.1	7.5
		kW	1.5	2.2
	Heating	kBtu/h	5.8	8.5
		kW	1.7	2.5
Electrical Parameters	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60
	Air flow (H/M/L)	m <sup>3</sup> /h	530/490/450	530/490/450
Performance	Sound pressure level(H/M/L)	dB(A)	32/29/24	32/29/24
	Sound power level(H/M/L)	dB(A)	46/43/38	46/43/38
	External dimensions(W/D/H)	mm	875/505/185	875/505/185
Installation	Shipping dimensions(W/D/H)	mm	1028/581/270	1028/581/270
	Net/Shipping weight	kg	15.3/17.9	15.3/17.9
	Refrigerant liquid pipe	mm	6.35	6.35
	Refrigerant gas pipe	mm	9.52	9.52
	Model Name		P1B-1050IB	P1B-1050IB
Panel	External dimensions(W/D/H)	mm	1050/560/122	1050/560/122
	Shipping dimensions(W/D/H)	mm	1133/623/197	1133/623/197
	Net/Shipping weight	kg	5.3/8.3	5.3/8.3
Controller		/	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B
	Wired(Optional)	/	HW-BA116ABK	HW-BA116ABK
		/	YR-E17	YR-E17
	Infrared (Optional)	/	YR-HD	YR-HD

Model/Indoor unit			AB092MAERA	AB122MAERA
Capacity	Cooling	kBtu/h	9.6	12.3
		kW	2.8	3.6
	Heating	kBtu/h	10.9	13.6
		kW	3.2	4
Electrical Parameters	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60
	Air flow (H/M/L)	m <sup>3</sup> /h	530/490/450	550/530/490
Performance	Sound pressure level(H/M/L)	dB(A)	32/29/24	34/30/25
	Sound power level(H/M/L)	dB(A)	46/43/38	48/44/39
	External dimensions(W/D/H)	mm	875/505/185	875/505/185
Installation	Shipping dimensions(W/D/H)	mm	1028/581/270	1028/581/270
	Net/Shipping weight	kg	15.3/17.9	15.3/17.9
	Refrigerant liquid pipe	mm	6.35	6.35
	Refrigerant gas pipe	mm	9.52	12.7
	Model Name		P1B-1050IB	P1B-1050IB
Panel	External dimensions(W/D/H)	mm	1050/560/122	1050/560/122
	Shipping dimensions(W/D/H)	mm	1133/623/197	1133/623/197
	Net/Shipping weight	kg	5.3/8.3	5.3/8.3
Controller		/	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B
	Wired(Optional)	/	HW-BA116ABK	HW-BA116ABK
		/	YR-E17	YR-E17
	Infrared (Optional)	/	YR-HD	YR-HD

## 2-way CASSETTE



- Compact design: only 220mm height
- Built in high head drain pump
- Ceiling antifouling design unique antifouling design
- Quiet operation

# Specification

Model/Indoor unit			AB072MBERA	AB092MBERA
Capacity	Cooling	kBtu/h	7.5	9.6
		kW	2.2	2.8
	Heating	Btu/h	8.5	10.9
kW		2.5	3.2	
Electrical Parameters	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60
	Air flow (H)	m <sup>3</sup> /h	840/700/550	840/700/550
Performance	Sound pressure level(H/M/L)	dB(A)	42/37/33	42/37/33
	Sound power level(H/M/L)	dB(A)	55/50/46	55/50/46
Installation	External dimensions(W/D/H)	mm	817/620/220	817/620/220
	Shipping dimensions(W/D/H)	mm	1015/695/260	1015/695/260
	Net/Shipping weight	kg	21/23	21/23
	Refrigerant liquid pipe	mm	6.35	6.35
	Refrigerant gas pipe	mm	9.52	9.52
Panel	Model name		P2B-1055IB	P2B-1055IB
	External dimensions(W/D/H)	mm	1055/680/68	1055/680/68
	Shipping dimensions(W/D/H)	mm	1110/720/160	1110/720/160
	Net/Shipping weight	kg	7/8	7/8
Controller	Wired(Optional)	/	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B
		/	HW-BA116ABK	HW-BA116ABK
		/	YR-E17	YR-E17
		/	YR-HD	YR-HD
Infrared(Optional)	/	YR-HD	YR-HD	

Model/Indoor unit			AB122MBERA	AB162MBERA	AB182MBERA
Capacity	Cooling	kBtu/h	12.3	15.4	19.1
		kW	3.6	4.5	5.6
	Heating	Btu/h	13.6	17.1	21.5
kW		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
	Air flow (H)	m <sup>3</sup> /h	840/700/550	840/700/550	840/700/550
Performance	Sound pressure level(H/M/L)	dB(A)	42/37/33	44/39/34	44/39/34
	Sound power level(H/M/L)	dB(A)	55/50/46	57/52/47	57/52/47
Installation	External dimensions(W/D/H)	mm	817/620/220	817/620/220	817/620/220
	Shipping dimensions(W/D/H)	mm	1015/695/260	1015/695/260	1015/695/260
	Net/Shipping weight	kg	21/23	21/23	21/23
	Refrigerant liquid pipe	mm	6.35	6.35	6.35
	Refrigerant gas pipe	mm	12.7	12.7	12.7
Panel	Model name		P2B-1055IB	P2B-1055IB	P2B-1055IB
	External dimensions(W/D/H)	mm	1055/680/68	1055/680/68	1055/680/68
	Shipping dimensions(W/D/H)	mm	1110/720/160	1110/720/160	1110/720/160
	Net/Shipping weight	kg	7/8	7/8	7/8
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
		/	YR-E17	YR-E17	YR-E17
		/	YR-HD	YR-HD	YR-HD
Infrared(Optional)	/	YR-HD	YR-HD	YR-HD	

# MINI 4-way CASSETTE



- Compact design
- New panel design 620\*620mm
- Fresh air outlet
- Low sound level

# Specification

Model/Indoor unit			AB052MCERA(M)	AB072MCERA(M)	AB092MCERA(M)
<b>Capacity</b>	Cooling	kBtu/h	5.1	7.5	9.5
		kW	1.5	2.2	2.8
	Heating	kBtu/h	5.8	8.5	10.9
		kW	1.7	2.5	3.2
<b>Electrical Parameters</b>	Power supply	Ph/V/Hz	1/220-240/50/60	1/220-240/50/60	1/220-240/50/60
	Air flow (H/M/L)	m <sup>3</sup> /h	520/450/400	520/450/400	520/450/400
<b>Performance</b>	Sound pressure level(H/M/L)	dB(A)	32/30/29	32/30/29	32/30/29
	Sound power level(H/M/L)	dB(A)	46/44/43	46/44/43	46/44/43
<b>Installation</b>	External dimensions(W/D/H)	mm	570/570/260	570/570/260	570/570/260
	Shipping dimensions(W/D/H)	mm	718/680/380	718/680/380	718/680/380
	Net/Shipping weight	kg	16/19	16/19	16/19
	Refrigerant liquid pipe	mm	6.35	6.35	6.35
	Refrigerant gas pipe	mm	9.52	9.52	9.52
<b>Panel</b>	Model Name		PB-620KB	PB-620KB	PB-620KB
	External dimensions(W/D/H)	mm	620/620/60	620/620/60	620/620/60
	Shipping dimensions(W/D/H)	mm	660/660/115	660/660/115	660/660/115
<b>Controller</b>	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B
		/	YR-E17	YR-E17	YR-E17
	Infrared (Optional)	/	YR-HBS01	YR-HBS01	YR-HBS01

Model/Indoor unit			AB122MCERA(M)	AB162MCERA(M)	AB182MCERA(M)
<b>Capacity</b>	Cooling	kBtu/h	12.3	15.3	19.1
		kW	3.6	4.5	5.6
	Heating	kBtu/h	13.6	17.1	21.5
		kW	4	5	6.3
<b>Electrical Parameters</b>	Power supply	Ph/V/Hz	1/220-240/50/60	1/220-240/50/60	1/220-240/50/60
	Air flow (H/M/L)	m <sup>3</sup> /h	520/450/400	650/520/450	760/650/520
<b>Performance</b>	Sound pressure level(H/M/L)	dB(A)	33/30/29	33/30/29	34/32/30
	Sound power level(H/M/L)	dB(A)	47/44/43	47/44/43	48/46/44
<b>Installation</b>	External dimensions(W/D/H)	mm	570/570/260	570/570/260	570/570/260
	Shipping dimensions(W/D/H)	mm	718/680/380	718/680/380	718/680/380
	Net/Shipping weight	kg	19/22	19/22	19/22
	Refrigerant liquid pipe	mm	6.35	6.35	6.35
	Refrigerant gas pipe	mm	12.7	12.7	12.7
<b>Panel</b>	Model Name		PB-620KB	PB-620KB	PB-620KB
	External dimensions(W/D/H)	mm	620/620/60	620/620/60	620/620/60
	Shipping dimensions(W/D/H)	mm	660/660/115	660/660/115	660/660/115
<b>Controller</b>	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B
		/	YR-E17	YR-E17	YR-E17
	Infrared (Optional)	/	YR-HBS01	YR-HBS01	YR-HBS01

ROUND FLOW 4-way  
**CASSETTE**



- Unique round-way air outlet, no blind spot
- Innovative 4 independent air flow control
- 6 adjustable louver positions, 1296 air flow combinations
- Move Eye intelligent system, intelligence all around(optional)

# Specification

Model/Indoor unit		AB072MRERA	AB092MRERA	AB122MRERA	AB162MRERA	AB182MRERA		
Capacity	Cooling	kBtu/h	7.5	9.5	12.3	15.3	19.1	
		kW	2.2	2.8	3.6	4.5	5.6	
	Heating	Btu/h	8.5	10.9	13.6	17.1	21.5	
		kW	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	
	Performance	Air flow (H)	m³/h	1000/810/620	1000/810/620	1000/810/620	1000/810/620	1000/810/620
		Sound pressure level(H/M/L)	dB(A)	30/27/25	30/27/25	30/27/25	32/29/27	33/30/29
Installation	External dimensions(W/D/H)	mm	840/840/183	840/840/183	840/840/183	840/840/183	840/840/183	
	Shipping dimensions(W/D/H)	mm	983/983/268	983/983/268	983/983/268	983/983/268	983/983/268	
	Net/Shipping weight	kg	25/28	25/28	25/28	25/28	25/28	
	Refrigerant liquid pipe	mm	6.35	6.35	6.35	6.35	6.35	
	Refrigerant gas pipe	mm	9.52	9.52	12.7	12.7	12.7	
	Panel	Model name		PB-950KB	PB-950KB	PB-950KB	PB-950KB	PB-950KB
External dimensions(W/D/H)		mm	950/950/50	950/950/50	950/950/50	950/950/50	950/950/50	
Shipping dimensions(W/D/H)		mm	1013/1025/123	1013/1025/123	1013/1025/123	1013/1025/123	1013/1025/123	
Net/Shipping weight		kg	6.5/9	6.5/9	6.5/9	6.5/9	6.5/9	
Controller	Wired(Optional)	/	YR-E17	YR-E17	YR-E17	YR-E17	YR-E17	
		/	YR-E16A	YR-E16A	YR-E16A	YR-E16A	YR-E16A	
		/	YR-E16B	YR-E16B	YR-E16B	YR-E16B	YR-E16B	
	Infrared(Optional)	/	YR-HBS01	YR-HBS01	YR-HBS01	YR-HBS01	YR-HBS01	

Model/Indoor unit		AB242MRERA	AB282MRERA	AB302MRERA	AB382MRERA	AB482MRERA	AB602MRERA		
Capacity	Cooling	kBtu/h	24.2	27.3	30.7	38.2	47.7	54.6	
		kW	7.1	8.0	9.0	11.2	14.0	16.0	
	Heating	Btu/h	27.3	30.7	34.1	42.6	54.6	61.2	
		kW	8.0	9.0	10.0	12.5	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	1/220-230/50/60	
	Performance	Air flow (H)	m³/h	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)	35/34/31	37/35/31	37/35/31	37/35/31	44/40/36	44/40/36
Installation	External dimensions(W/D/H)	mm	840/840/204	840/840/204	840/840/246	840/840/246	840/840/288	840/840/288	
	Shipping dimensions(W/D/H)	mm	983/983/290	983/983/290	983/983/331	983/983/331	983/983/373	983/983/373	
	Net/Shipping weight	kg	27/30	27/30	31/36	31/36	33/38	33/38	
	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	
	Panel	Model name		PB-950KB	PB-950KB	PB-950KB	PB-950KB	PB-950KB	PB-950KB
External dimensions(W/D/H)		mm	950/950/50	950/950/50	950/950/50	950/950/50	950/950/50	950/950/50	
Shipping dimensions(W/D/H)		mm	1013/1025/123	1013/1025/123	1013/1025/123	1013/1025/123	1013/1025/123	1013/1025/123	
Net/Shipping weight		kg	6.5/9	6.5/9	6.5/9	6.5/9	6.5/9	6.5/9	
Controller	Wired(Optional)	/	YR-E17	YR-E17	YR-E17	YR-E17	YR-E17		
		/	YR-E16A	YR-E16A	YR-E16A	YR-E16A	YR-E16A		
		/	YR-E16B	YR-E16B	YR-E16B	YR-E16B	YR-E16B		
	Infrared(Optional)	/	YR-HBS01	YR-HBS01	YR-HBS01	YR-HBS01	YR-HBS01		

# 4-way CASSETTE



# Specification

Model/Indoor unit			AB052MCERA	AB072MCERA	AB092MCERA
Capacity	Cooling	kBtu/h	5.1	7.5	9.5
		kW	1.5	2.2	2.8
	Heating	Btu/h	5.8	8.5	10.9
kW		1.7	2.5	3.2	
Electrical Parameters	Power supply	PhV/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
	Air flow (H)	m <sup>3</sup> /h	650/540/430	700/590/480	700/590/480
Performance	Sound pressure level(H/M/L)	dB(A)	31/29/28	32/30/29	32/30/29
		Sound power level(H/M/L)	45/43/42	46/44/43	46/44/43
	Installation	External dimensions(W/D/H)	mm	570/570/260	570/570/260
Shipping dimensions(W/D/H)		mm	718/680/380	718/680/380	718/680/380
Net/Shipping weight		kg	16/19	16/19	16/19
Refrigerant liquid pipe		mm	6.35	6.35	6.35
Refrigerant gas pipe		mm	9.52	9.52	9.52
Panel	Model name		PB-700IB	PB-700IB	PB-700IB
	External dimensions(W/D/H)	mm	700/700/60	700/700/60	700/700/60
	Shipping dimensions(W/D/H)	mm	740/740/115	740/740/115	740/740/115
	Net/Shipping weight	kg	2.8/4.5	2.8/4.5	2.8/4.5
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
		/	YR-E17	YR-E17	YR-E17
		/	YR-E17	YR-E17	YR-E17
		/	YR-HD	YR-HD	YR-HD

Model/Indoor unit			AB122MCERA	AB162MCERA	AB182MCERA(C)
Capacity	Cooling	kBtu/h	12.3	15.3	19.1
		kW	3.6	4.5	5.6
	Heating	Btu/h	13.6	17.1	21.5
kW		4.0	5.0	6.3	
Electrical Parameters	Power supply	PhV/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
	Air flow (H)	m <sup>3</sup> /h	700/590/480	700/590/480	700/590/480
Performance	Sound pressure level(H/M/L)	dB(A)	32/30/29	33/30/29	33/30/29
		Sound power level(H/M/L)	46/44/43	47/44/43	47/44/43
	Installation	External dimensions(W/D/H)	mm	570/570/260	570/570/260
Shipping dimensions(W/D/H)		mm	718/680/380	718/680/380	718/680/380
Net/Shipping weight		kg	19/22	19/22	19/22
Refrigerant liquid pipe		mm	6.35	6.35	6.35
Refrigerant gas pipe		mm	12.7	12.7	12.7
Panel	Model name		PB-700IB	PB-700IB	PB-700IB
	External dimensions(W/D/H)	mm	700/700/60	700/700/60	700/700/60
	Shipping dimensions(W/D/H)	mm	740/740/115	740/740/115	740/740/115
	Net/Shipping weight	kg	2.8/4.5	2.8/4.5	2.8/4.5
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
		/	YR-E17	YR-E17	YR-E17
		/	YR-E17	YR-E17	YR-E17
		/	YR-HD	YR-HD	YR-HD



- 700x700mm new panel design
- Pre-set fresh air inlet
- Built-in high head drain pump
- Quiet operation



# Specification

Model/Indoor unit			AB182MCERA	AB242MCERA	AB282MCERA	
Capacity	Cooling	kBtu/h	19.1	24.2	27.3	
		kW	5.6	7.1	8.0	
	Heating	Btu/h	21.5	27.3	30.7	
kW		6.3	8.0	9.0		
Electrical Parameters	Power supply	PhV/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	
	Air flow (H)	m³/h	1200/1010/820	1200/1010/820	1200/1010/820	
Performance	Sound pressure level(H/M/L)	dB(A)	34/32/30	35/34/31	37/35/31	
		Sound power level(H/M/L)	dB(A)	48/46/44	49/48/45	51/49/45
	Installation	External dimensions(W/D/H)	mm	840/840/240	840/840/240	840/840/240
Shipping dimensions(W/D/H)		mm	930/930/330	930/930/330	930/930/330	
Net/Shipping weight		kg	26/31	26/31	26/31	
Refrigerant liquid pipe		mm	6.35	9.52	9.52	
Panel	Refrigerant gas pipe	mm	12.7	15.88	15.88	
	Model name		PB-950JB	PB-950JB	PB-950JB	
	External dimensions(W/D/H)	mm	950/950/60	950/950/60	950/950/60	
	Shipping dimensions(W/D/H)	mm	992/992/115	992/992/115	992/992/115	
Controller	Net/Shipping weight	kg	6/7.5	6/7.5	6/7.5	
		Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A
			/	YR-E16B	YR-E16B	YR-E16B
			/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
		Infrared (Optional)	/	YR-E17	YR-E17	YR-E17
			/	YR-HD	YR-HD	YR-HD
/						

Model/Indoor unit			AB302MCERA	AB382MCERA	AB482MCERA	
Capacity	Cooling	kBtu/h	30.7	38.2	47.7	
		kW	9.0	11.2	14.0	
	Heating	Btu/h	34.1	42.6	54.6	
kW		10.0	12.5	16.0		
Electrical Parameters	Power supply	PhV/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60	
	Air flow (H)	m³/h	1800/1610/1420	1800/1610/1420	1800/1610/1420	
Performance	Sound pressure level(H/M/L)	dB(A)	37/35/31	37/35/31	42/39/35	
		Sound power level(H/M/L)	dB(A)	51/49/45	51/49/45	56/53/49
	Installation	External dimensions(W/D/H)	mm	840/840/295	840/840/295	840/840/295
Shipping dimensions(W/D/H)		mm	930/930/390	930/930/390	930/930/390	
Net/Shipping weight		kg	31/37	31/37	31/37	
Refrigerant liquid pipe		mm	9.52	9.52	9.52	
Panel	Refrigerant gas pipe	mm	15.88	15.88	15.88	
	Model name		PB-950JB	PB-950JB	PB-950JB	
	External dimensions(W/D/H)	mm	950/950/60	950/950/60	950/950/60	
	Shipping dimensions(W/D/H)	mm	992/992/115	992/992/115	985/985/115	
Controller	Net/Shipping weight	kg	6/7.5	6/7.5	6/7.5	
		Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A
			/	YR-E16B	YR-E16B	YR-E16B
			/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
		Infrared (Optional)	/	YR-E17	YR-E17	YR-E17
			/	YR-HD	YR-HD	YR-HD
/						



- Compact design
- Pre-set fresh air inlet
- Built-in high head drain pump
- Reserve branch outlet





- Flexible installation, on the floor or on the ceiling
- Automatic horizontal and vertical swing
- Reserved fresh air inlet
- Multiple direction for connection pipe setting
- Long-life and high efficiency air purify filter

# Specification

Model/Indoor unit			AC092MCERA	AC122MCERA	AC162MCERA	AC182MCERA	AC242MCERA
Capacity	Cooling	kBtu/h	9.5	12.3	15.4	19.1	24.2
		kW	2.8	3.6	4.5	5.6	7.1
	Heating	Btu/h	10.9	13.6	17.1	21.5	27.3
		kW	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
	Air flow (H)	m <sup>3</sup> /h	800/710/580	800/710/580	800/710/580	800/710/580	800/710/580
Performance	Sound pressure level(H/M/L)	dB(A)	38/35/33	38/35/33	40/37/35	40/37/35	40/37/35
	Sound power level(H/M/L)	dB(A)	51/48/46	51/48/46	53/50/48	53/50/48	53/50/48
	Installation	External dimensions(W/D/H)	mm	990/655/199	990/655/199	990/655/199	990/655/199
Shipping dimensions(W/D/H)		mm	1160/730/280	1160/730/280	1160/730/280	1160/730/280	1160/730/280
Net/Shipping weight		kg	28.3/34.3	28.3/36.4	28.3/36.4	28.3/36.4	28.3/36.4
Refrigerant liquid pipe		mm	6.35	6.35	6.35	6.35	9.52
Refrigerant gas pipe		mm	9.52	12.7	12.7	12.7	15.88
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B	YR-E16B	YR-E16B
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
		/	YR-E17	YR-E17	YR-E17	YR-E17	YR-E17
	Infrared(Optional)	/	YR-HD	YR-HD	YR-HD	YR-HD	YR-HD

Model/Indoor unit			AC282MFERA	AC302MFERA	AC382MFERA	AC482MFERA
Capacity	Cooling	kBtu/h	27.3	30.7	38.2	48.0
		kW	8.0	9.0	11.2	14.0
	Heating	Btu/h	30.7	34.1	42.6	55.0
		kW	9.0	10.0	12.5	16.0
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
	Air flow (H)	m <sup>3</sup> /h	2040/1820/1610	2040/1820/1610	2040/1820/1610	2040/1820/1610
Performance	Sound pressure level(H/M/L)	dB(A)	43/40/38	43/40/38	46/42/38	46/42/38
	Sound power level(H/M/L)	dB(A)	56/53/51	56/53/51	59/55/51	59/55/51
	Installation	External dimensions(W/D/H)	mm	1580/700/240	1580/700/240	1580/700/240
Shipping dimensions(W/D/H)		mm	1720/800/330	1720/800/330	1720/800/330	1720/800/330
Net/Shipping weight		kg	50/57	50/57	54/61	54/61
Refrigerant liquid pipe		mm	9.52	9.52	9.52	9.52
Refrigerant gas pipe		mm	15.88	15.88	15.88	15.88
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B	YR-E16B
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
		/	YR-E17	YR-E17	YR-E17	YR-E17
	Infrared(Optional)	/	YR-HD	YR-HD	YR-HD	YR-HD

LOW ESP SLIM  
**DUCT** (0/15/30Pa)



- DC fan motor
- New design 3D airflow air grille(optional)
- Super slim design, only 185mm
- Reserved fresh air inlet
- Built-in high head drain pump
- Friendly design of rear or bottom air return
- Quiet operation
- Static pressure 0/15/30Pa

# Specification

Model/Indoor unit			AD052MSERA(D)	AD072MSERA(D)	AD092MSERA(D)	AD122MSERA(D)
Capacity	Cooling	kBtu/h	5.1	7.5	9.5	12.3
		kW	1.5	2.2	2.8	3.6
Capacity	Heating	kBtu/h	5.8	8.5	10.9	13.6
		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
	Air flow (H/M/L)	m³/h	430/370/310	480/420/360	480/420/360	550/430/370
Performance	Sound pressure level(H/M/L)	dB(A)	26/22/19	27/23/20	27/23/20	30/27/24
	Sound power level(H/M/L)	dB(A)	40/36/33	41/37/34	41/37/34	44/41/38
Installation	External dimensions(W/D/H)	mm	850/420/185	850/420/185	850/420/185	850/420/185
	Shipping dimensions(W/D/H)	mm	1045/540/270	1045/540/270	1045/540/270	1045/540/270
	Net/Shipping weight	kg	16.5/21.5	17.5/22.5	17.5/22.5	17.5/22.5
	Refrigerant liquid pipe	mm	6.35	6.35	6.35	6.35
	Refrigerant gas pipe	mm	9.52	9.52	9.52	12.7
	Static Pressure(Standard/Max.)	Pa	0/15/30	0/15/30	0/15/30	0/15/30
Panel	Panel model	/	P1B-890A/D	P1B-890A/D	P1B-890A/D	P1B-890A/D
	External dimensions(W/D/H)	mm	890/190/100 (outlet panel)	890/190/100 (outlet panel)	890/190/100 (outlet panel)	890/190/100 (outlet panel)
	External dimensions(W/D/H)		890/290.5/32.4 (inlet panel)	890/290.5/32.4 (inlet panel)	890/290.5/32.4 (inlet panel)	890/290.5/32.4 (inlet panel)
	Shipping dimensions(W/D/H)	mm	938/335/220	938/335/220	938/335/220	938/335/220
Drain pump	Net/Shipping weight	Kg	4/5	4/5	4/5	4/5
	O-optional,S-standard,W-without		S	S	S	S
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B	YR-E16B
	Infrared (Optional)	/	YR-E17	YR-E17	YR-E17	YR-E17
		/	YR-HD	YR-HD	YR-HD	YR-HD

Model/Indoor unit			AD162MSERA(D)	AD182MSERA(D)	AD242MSERA(D)
Capacity	Cooling	kBtu/h	15.3	19.1	24.2
		kW	4.5	5.6	7.1
Capacity	Heating	kBtu/h	17.1	21.5	27.3
		kW	5.0	6.3	8.0
Electrical Parameters	Power supply	PhV/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
	Air flow (H/M/L)	m³/h	600/540/460	800/690/580	930/850/750
Performance	Sound pressure level(H/M/L)	dB(A)	32/29/26	33/30/27	36/33/30
	Sound power level(H/M/L)	dB(A)	46/43/40	47/44/41	50/47/43
Installation	External dimensions(W/D/H)	mm	850/420/185	1170/420/185	1170/420/185
	Shipping dimensions(W/D/H)	mm	1045/540/270	1365/540/270	1365/540/270
	Net/Shipping weight	kg	18.5/23.5	22.2/28.2	24/30
	Refrigerant liquid pipe	mm	6.35	6.35	9.52
	Refrigerant gas pipe	mm	12.7	12.7	15.88
	Static Pressure(Standard/Max.)	Pa	0/15/30	0/15/30	0/15/30
Panel	Panel model	/	P1B-890A/D	P1B-1210A/D	P1B-1210A/D
	External dimensions(W/D/H)	mm	890/190/100 (outlet panel)	1210/190/100 (outlet panel)	1210/190/100 (outlet panel)
	External dimensions(W/D/H)		890/290.5/32.4 (inlet panel)	1210/290.5/32.4 (inlet panel)	1210/290.5/32.4 (inlet panel)
	Shipping dimensions(W/D/H)	mm	938/335/220	1258/335/220	1258/335/220
Drain pump	Net/Shipping weight	Kg	4/5	5/6	5/6
	O-optional,S-standard,W-without		S	S	S
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B
	Infrared (Optional)	/	YR-E17	YR-E17	YR-E17
		/	YR-HD	YR-HD	YR-HD

LOW ESP SLIM  
**DUCT** (0/30Pa)



- Static pressure 0/30Pa
- Super slim design, only 185mm
- Reserved fresh air inlet
- Built-in high head drain pump
- Friendly design of rear or bottom air return
- Quiet operation

# Specification

Model/Indoor unit			AD052MSERA	AD072MSERA	AD092MSERA	AD122MSERA
Capacity	Cooling	kBtu/h	5.1	7.5	9.5	12.3
		kW	1.5	2.2	2.8	3.6
	Heating	kBtu/h	5.8	8.5	10.9	13.6
		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
	Air flow (H/M/L)	m³/h	430/370/310	480/420/360	480/420/360	550/430/370
Performance	Sound pressure level(H/M/L)	dB(A)	26/23/20	27/24/21	27/24/21	30/28/25
	Sound power level(H/M/L)	dB(A)	40/37/34	41/38/35	41/38/35	44/42/39
	External dimensions(W/D/H)	mm	850/420/185	850/420/185	850/420/185	850/420/185
	Shipping dimensions(W/D/H)	mm	1045/540/270	1045/540/270	1045/540/270	1045/540/270
Installation	Net/Shipping weight	kg	16.5/21.5	17.5/22.5	17.5/22.5	17.5/22.5
	Refrigerant liquid pipe	mm	6.35	6.35	6.35	6.35
	Refrigerant gas pipe	mm	9.52	9.52	9.52	12.7
	Static Pressure(Standard/Max.)	Pa	0/30	0/30	0/30	0/30
	Panel model	/	P1B-890A/D	P1B-890A/D	P1B-890A/D	P1B-890A/D
Panel	External dimensions(W/D/H)	mm	890/190/100 (outlet panel)	890/190/100 (outlet panel)	890/190/100 (outlet panel)	890/190/100 (outlet panel)
	External dimensions(W/D/H)		890/290.5/32.4 (inlet panel)	890/290.5/32.4 (inlet panel)	890/290.5/32.4 (inlet panel)	890/290.5/32.4 (inlet panel)
	Shipping dimensions(W/D/H)	mm	938/335/220	938/335/220	938/335/220	938/335/220
	Net/Shipping weight	Kg	4/5	4/5	4/5	4/5
Drain pump	O-optional,S-standard,W-without		S	S	S	S
		/	YR-E16A	YR-E16A	YR-E16A	YR-E16A
Controller	Wired(Optional)	/	YR-E16B	YR-E16B	YR-E16B	YR-E16B
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
	/	YR-E17	YR-E17	YR-E17	YR-E17	
	Infrared (Optional)	/	YR-HD	YR-HD	YR-HD	YR-HD

Model/Indoor unit			AD162MSERA	AD182MSERA	AD242MSERA
Capacity	Cooling	kBtu/h	15.3	19.1	24.2
		kW	4.5	5.6	7.1
	Heating	kBtu/h	17.1	21.5	27.3
		kW	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
	Air flow (H/M/L)	m³/h	600/540/460	800/690/580	930/850/750
Performance	Sound pressure level(H/M/L)	dB(A)	33/30/27	33/30/28	36/33/31
	Sound power level(H/M/L)	dB(A)	47/44/41	47/44/42	50/47/44
	External dimensions(W/D/H)	mm	850/420/185	1170/420/185	1170/420/185
	Shipping dimensions(W/D/H)	mm	1045/540/270	1365/540/270	1365/540/270
Installation	Net/Shipping weight	kg	18.5/23.5	22.2/28.2	24/30
	Refrigerant liquid pipe	mm	6.35	6.35	9.52
	Refrigerant gas pipe	mm	12.7	12.7	15.88
	Static Pressure(Standard/Max.)	Pa	0/30	0/30	0/30
	Panel model	/	P1B-890A/D	P1B-12102A/D	P1B-12102A/D
Panel	External dimensions(W/D/H)	mm	890/190/100 (outlet panel)	890/190/100 (outlet panel)	890/190/100 (outlet panel)
	External dimensions(W/D/H)		890/290.5/32.4 (inlet panel)	890/290.5/32.4 (inlet panel)	890/290.5/32.4 (inlet panel)
	Shipping dimensions(W/D/H)	mm	938/335/220	938/335/220	938/335/220
	Net/Shipping weight	Kg	4/5	4/5	4/5
Drain pump	O-optional,S-standard,W-without		S	S	S
		/	YR-E16A	YR-E16A	YR-E16A
Controller	Wired(Optional)	/	YR-E16B	YR-E16B	YR-E16B
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
	/	YR-E17	YR-E17	YR-E17	
	Infrared (Optional)	/	YR-HD	YR-HD	YR-HD

MEDIUM ESP  
**DUCT**  
(50/96Pa)



- Flexible duct connection
- Built in drain pump
- Static pressure 50/96Pa

# Specification

Model/Indoor unit			AD182MMERA	AD242MMERA	AD282MMERA
Capacity	Cooling	kBtu/h	19.1	24.2	27.3
		kW	5.6	7.1	8
Capacity	Heating	Btu/h	21.5	27.3	30.7
		kW	6.3	8	9
Electrical Parameters	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
	Air flow (H)	m <sup>3</sup> /h	1200/1123/1072	1200/1123/1072	1200/1123/1072
Performance	Sound pressure level(H/M/L)	dB(A)	36/34/31	36/34/31	39/37/35
	Sound power level(H/M/L)	dB(A)	49/47/44	49/47/44	52/50/48
Installation	External dimensions(W/D/H)	mm	990/655/300	990/655/300	990/655/300
	Shipping dimensions(W/D/H)	mm	1180/743/340	1180/743/340	1180/743/340
	Net/Shipping weight	kg	39/45	39/45	39/45
	Refrigerant liquid pipe	mm	6.35	9.52	9.52
	Refrigerant gas pipe	mm	12.7	15.88	15.88
	Static Pressure(Standard/Max)	Pa	50/96	50/96	50/96
Drain pump	O-optional,S-standard,W-without		S	S	S
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
	Infrared(Optional)	/	YR-E17	YR-E17	YR-E17
		/	YR-HD	YR-HD	YR-HD

Model/Indoor unit			AD302MMERA	AD382MMERA	AD482MMERA
Capacity	Cooling	kBtu/h	30.7	38.2	47.7
		kW	9	11.2	14
Capacity	Heating	Btu/h	34.1	42.6	54.6
		kW	10	12.5	16
Electrical Parameters	Power supply	Ph/V/Hz	1/220-230/50	1/220-230/50	1/220-230/50
	Air flow (H)	m <sup>3</sup> /h	1900/1726/1538	1900/1726/1538	2100/1908/1700
Performance	Sound pressure level(H/M/L)	dB(A)	39/37/35	41/40/39	41/40/39
	Sound power level(H/M/L)	dB(A)	52/50/48	54/53/52	54/53/52
Installation	External dimensions(W/D/H)	mm	1418/655/350	1418/655/350	1418/655/350
	Shipping dimensions(W/D/H)	mm	1570/813/383	1570/813/383	1570/813/383
	Net/Shipping weight	kg	53.2/60.3	53.2/60.3	54.6/61.7
	Refrigerant liquid pipe	mm	9.52	9.52	9.52
	Refrigerant gas pipe	mm	15.88	15.88	15.88
	Static Pressure(Standard/Max)	Pa	50/96	50/96	50/96
Drain pump	O-optional,S-standard,W-without		S	S	S
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
	Infrared(Optional)	/	YR-E17	YR-E17	YR-E17
		/	YR-HD	YR-HD	YR-HD

MEDIUM ESP  
**DUCT** (50/100Pa)



**NEW**



- 5-48K
- Only 250mm thick
- Built-in drain pump
- 50/100Pa

# Specification

Model/Indoor unit			AD052MJERA	AD072MJERA	AD092MJERA	AD122MJERA	AD162MJERA	AD182MJERA
Capacity	Cooling	kBtu/h	5.1	7.5	9.5	12.3	15.3	19.1
		kW	1.5	2.2	2.8	3.6	4.5	5.6
Capacity	Heating	Btu/h	5.8	8.5	10.9	13.6	17.1	21.5
		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
	Air flow (H)	m³/h	585/495/408	585/495/408	585/495/408	585/495/408	750/652/566	920/805/699
Performance	Sound pressure level(H/M/L)	dB(A)	35/33/31	35/33/31	35/33/31	35/33/31	35/33/31	36/34/32
	Sound power level(H/M/L)	dB(A)	39/37/35	39/37/35	39/37/35	39/37/35	39/37/35	40/38/36
Installation	External dimensions(W/D/H)	mm	750/720/250	750/720/250	750/720/250	750/720/250	750/720/250	1050/720/250
	Shipping dimensions(W/D/H)	mm	920/820/340	920/820/340	920/820/340	920/820/340	920/820/340	1170/860/340
	Net/Shipping weight	kg	24.1/28.3	24.1/28.3	24.1/28.3	24.1/28.3	25.9/30.1	30.5/35.9
	Refrigerant liquid pipe	mm	6.35	6.35	6.35	6.35	6.35	6.35
	Refrigerant gas pipe	mm	12.7	12.7	12.7	12.7	12.7	12.7
	Static Pressure(Standard/Max.)	Pa	50/100	50/100	50/100	50/100	50/100	50/100
Drain pump	O-optional,S-standard,W-without		S	S	S	S	S	S
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B	YR-E16B	YR-E16B	YR-E16B
		/	YR-E17	YR-E17	YR-E17	YR-E17	YR-E17	YR-E17
	Infrared(Optional)	/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
		/	YR-HD	YR-HD	YR-HD	YR-HD	YR-HD	YR-HD

Model/Indoor unit			AD242MJERA	AD282MJERA	AD302MJERA	AD382MJERA	AD482MJERA
Capacity	Cooling	kBtu/h	24.2	27.3	30.7	38.2	47.8
		kW	7.1	8	9	11.2	14
Capacity	Heating	Btu/h	27.3	30.7	34.1	44.4	55.6
		kW	8	9	10	13	16.3
Electrical Parameters	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60	1,220-230,50	1,220-230,50	1,220-230,50
	Air flow (H)	m³/h	1230/1090/950	1230/1090/950	1500/1180/930	1700/1300/900	2000/1700/1250
Performance	Sound pressure level(H/M/L)	dB(A)	38/36/34	42/39/35	42/38/34	42/39/35	43/40/35
	Sound power level(H/M/L)	dB(A)	42/40/38	46/43/39	46/42/38	46/33/39	47/44/39
Installation	External dimensions(W/D/H)	mm	1050/720/250	1050/720/250	1100/700/248	1500/700/248	1500/700/248
	Shipping dimensions(W/D/H)	mm	1170/860/340	1170/860/340	1332/835/280	1698/857/305	1698/857/305
	Net/Shipping weight	kg	33.1/38.5	33.1/38.5	39.4/45.4	48.3/56.5	51.3/59.5
	Refrigerant liquid pipe	mm	9.52	9.52	9.52	9.52	9.52
	Refrigerant gas pipe	mm	15.88	15.88	15.88	15.88	15.88
	Static Pressure(Standard/Max.)	Pa	50/100	50/100	50/100	50/100	50/100
Drain pump	O-optional,S-standard,W-without		S	S	S	S	S
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B	YR-E16B	YR-E16B
		/	YR-E17	YR-E17	YR-E17	YR-E17	YR-E17
	Infrared(Optional)	/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
		/	YR-HD	YR-HD	YR-HD	YR-HD	YR-HD

# Specification



Model/Indoor unit			AD302MNERA	AD382MNERA	AD482MNERA
Capacity	Cooling	kBtu/h	30	38	48
		kW	9	11.2	14
Capacity	Heating	Btu/h	34	43	55
		kW	10	12.5	16
Electrical Parameters	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
	Air flow (H)	m³/h	2208/1973/1795	2208/1973/1795	2208/1973/1795
Performance	Sound pressure level(H/M/L)	dB(A)	49/47/43	49/47/43	49/47/43
	Sound power level(H/M/L)	dB(A)	62/60/56	62/60/56	62/60/56
Installation	External dimensions(W/D/H)	mm	1135/742/270	1135/742/270	1135/742/270
	Shipping dimensions(W/D/H)	mm	1355/856/380	1355/856/380	1355/856/380
	Net/Shipping weight	kg	47/53	47/53	47/53
	Refrigerant liquid pipe	mm	9.52	9.52	9.52
	Refrigerant gas pipe	mm	15.88	15.88	15.88
	Static Pressure(Standard/Max.)	Pa	50/120	50/120	50/120
Drain pump	O-optional,S-standard,W-without		KT-NP01(Optional)	KT-NP01(Optional)	KT-NP01(Optional)
Controller		/	YR-E16A	YR-E16A	YR-E16A
	Wired(Optional)	/	YR-E16B	YR-E16B	YR-E16B
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
		/	YR-E17	YR-E17	YR-E17
	Infrared(Optional)	/	YR-HD	YR-HD	YR-HD



- New compact design:270mm height
- Flexible duct connection
- Static pressure 80/120Pa

# HIGH ESP DUCT (100/196Pa)



- Flexible duct connection
- Variable static pressure 100/196Pa setting

# Specification

Model/Indoor unit			AD182MHERA	AD242MHERA	AD282MHERA	AD302MHERA
Capacity	Cooling	kBtu/h	19.1	24.2	27.3	30.7
		kW	5.6	7.1	8.0	9.0
	Heating	Btu/h	21.5	27.3	30.73	34.1
		kW	6.3	8.0	9.0	10.0
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
	Air flow (H)	m <sup>3</sup> /h	1500/1357/1089	1500/1357/1089	1500/1357/1089	1560/1412/1133
Performance	Sound pressure level(H/M/L)	dB(A)	42/40/38	42/40/38	42/40/38	45/43/40
	Sound power level(H/M/L)	dB(A)	55/53/51	55/53/51	55/53/51	58/53/50
Installation	External dimensions(W/D/H)	mm	975/906/360	975/906/360	975/906/360	1355/876/360
	Shipping dimensions(W/D/H)	mm	1048/943/413	1048/943/413	1048/943/413	1378/938/405
	Net/Shipping weight	kg	54/62	54/62	54/62	66/74
	Refrigerant liquid pipe	mm	6.35	9.52	9.52	9.52
	Refrigerant gas pipe	mm	12.7	15.88	15.88	15.88
	Static Pressure(Standard/Max.)	Pa	100/196	100/196	100/196	100/196
Drain pump	O-optional,S-standard,W-without		W	W	W	W
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B	YR-E16B
	/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	
	/	YR-E17	YR-E17	YR-E17	YR-E17	
	Infrared(Optional)	/	YR-HD	YR-HD	YR-HD	YR-HD

Model/Indoor unit			AD382MHERA	AD482MHERA	AD722MHERA	AD962MHERA
Capacity	Cooling	kBtu/h	38.2	47.8	77.1	95.6
		kW	11.2	14.0	22.6	28.0
	Heating	Btu/h	42.6	54.6	85.3	105.8
		kW	12.5	16.0	25.0	31.0
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
	Air flow (H)	m <sup>3</sup> /h	1600/1448/1162	2100/1901/1525	4050/3255/2612	4050/3255/2612
Performance	Sound pressure level(H/M/L)	dB(A)	45/43/40	45/43/40	54/51/49	54/51/49
	Sound power level(H/M/L)	dB(A)	58/53/50	58/53/50	67/62/59	67/62/59
Installation	External dimensions(W/D/H)	mm	1355/876/360	1355/876/360	1725/876/360	1725/876/360
	Shipping dimensions(W/D/H)	mm	1378/938/405	1378/938/405	1830/990/530	1830/990/530
	Net/Shipping weight	kg	66/74	66/74	100/112	100/112
	Refrigerant liquid pipe	mm	9.52	9.52	9.52	9.52
	Refrigerant gas pipe	mm	15.88	15.88	25.4	25.4
	Static Pressure(Standard/Max.)	Pa	100/196	100/196	100/196	100/196
Drain pump	O-optional,S-standard,W-without		W	W	W	W
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B	YR-E16B
	/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	
	/	YR-E17	YR-E17	YR-E17	YR-E17	
	Infrared(Optional)	/	YR-HD	YR-HD	YR-HD	YR-HD

HIGH ESP  
**DUCT**  
(0/200Pa)



- Auto adjusted ESP 0-200Pa
- Low sound level
- Built-in high head drain pump

# Specification

Model/Indoor unit			AD072MQERA	AD092MQERA	AD122MQERA	AD152MQERA	AD182MQERA	AD242MQERA
Capacity	Cooling	kBtu/h	7.6	9.6	12.1	15.1	18.2	24
		kW	2.2	2.8	3.6	4.5	5.6	7.1
	Heating	kBtu/h	8.6	10.6	13.6	17	20	27
		kW	2.5	3.2	4	5	6.3	8
Electrical Parameters	Power supply	PhV/Hz	1/220-240/50(60)	1/220-240/50(60)	1/220-240/50(60)	1/220-240/50(60)	1/220-240/50(60)	1/220-240/50(60)
	Air flow (H/M/L)	m³/h	500/410/360	600/510/450	700/580/500	780/680/600	900/780/600	1100/1020/920
Performance	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
	External dimensions(W/D/H)	mm	750/635/280	750/635/280	750/635/280	750/635/280	750/635/280	950/635/280
Installation	Shipping dimensions(W/D/H)	mm	980/740/335	980/740/335	980/740/335	980/740/335	980/740/335	1180/740/335
	Net/Shipping weight	kg	29/35	29/35	29/35	29/35	29/35	34/41
	Refrigerant liquid pipe	mm	6.35	6.35	6.35	6.35	6.35	9.52
	Refrigerant gas pipe	mm	9.52	9.52	12.7	12.7	12.7	15.88
	Static Pressure(Standard/Max.)	Pa	0-200	0-200	0-200	0-200	0-200	0-200
	Drain pump	O-optional,S-standard,W-without		S	S	S	S	S
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B	YR-E16B	YR-E16B	YR-E16B
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
		/	YR-E17	YR-E17	YR-E17	YR-E17	YR-E17	YR-E17
	Infrared (Optional)	/	YR-HD	YR-HD	YR-HD	YR-HD	YR-HD	YR-HD

Model/Indoor unit			AD282MQERA	AD302MQERA	AD362MQERA	AD422MQERA	AD482MQERA	AD542MQERA
Capacity	Cooling	kBtu/h	27.3	30	36	42	48	54
		kW	8	9	11.2	12.5	14	16
	Heating	kBtu/h	30.7	34	40	47	54	60
		kW	9	10	12.5	15	16	18
Electrical Parameters	Power supply	PhV/Hz	1/220-240/50(60)	1/220-240/50(60)	1/220-240/50(60)	1/220-240/50(60)	1/220-240/50(60)	1/220-240/50(60)
	Air flow (H/M/L)	m³/h	1500/1320/1220	1500/1320/1220	1700/1510/1400	2000/1780/1620	2280/1920/1780	2280/1920/1780
Performance	Sound pressure level(H/M/L)	dB(A)	33/29/25	33/29/25	38/36/30	38/36/30	40/34/29	40/34/29
	External dimensions(W/D/H)	mm	950/635/280	950/635/280	1370/740/280	1370/740/280	1370/740/280	1370/740/280
Installation	Shipping dimensions(W/D/H)	mm	1180/740/335	1180/740/335	1555/839/380	1555/839/380	1555/839/380	1555/839/380
	Net/Shipping weight	kg	34/41	34/41	54/68	54/68	54/68	54/68
	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
	Static Pressure(Standard/Max.)	Pa	0-200	0-200	0-200	0-200	0-200	0-200
	Drain pump	O-optional,S-standard,W-without		S	S	S	S	S
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B	YR-E16B	YR-E16B	YR-E16B
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
		/	YR-E17	YR-E17	YR-E17	YR-E17	YR-E17	YR-E17
	Infrared (Optional)	/	YR-HD	YR-HD	YR-HD	YR-HD	YR-HD	YR-HD



## BUILT-IN FLOOR STANDING



# Specification

Model/Indoor unit			AE072MLERA	AE092MLERA	AE122MLERA
Capacity	Cooling	kBtu/h	7.5	9.5	12.3
		kW	2.2	2.8	3.6
	Heating	Btu/h	8.5	10.9	13.6
		kW	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
	Air flow (H)	m³/h	750/650/550	750/650/550	750/650/550
Performance	Sound pressure level(H/M/L)	dB(A)	38/35/33	38/35/33	40/37/35
	Sound power level(H/M/L)	dB(A)	51/48/46	51/48/46	53/50/48
	External dimensions(W/D/H)	mm	1116/221/624	1116/221/624	1116/221/624
Installation	Shipping dimensions(W/D/H)	mm	1198/295/707	1198/295/707	1198/295/707
	Net/Shipping weight	kg	29/37	29/37	29/37
	Refrigerant liquid pipe	mm	6.35	6.35	6.35
	Refrigerant gas pipe	mm	9.52	9.52	12.7
	Static Pressure	Pa	0/30	0/30	0/30
	Controller	Wired(Optional)	/	YR-E16A	YR-E16A
/			YR-E16B	YR-E16B	YR-E16B
/			HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
Infrared (Optional)		/	YR-E17	YR-E17	YR-E17
		/	YR-HD	YR-HD	YR-HD
		/	YR-HD	YR-HD	YR-HD

Model/Indoor unit			AE162MLERA	AE182MLERA	AE242MLERA
Capacity	Cooling	kBtu/h	15.3	19.1	24.2
		kW	4.5	5.6	7.1
	Heating	Btu/h	17.1	21.5	27.3
		kW	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
	Air flow (H)	m³/h	950/830/720	950/830/720	950/830/720
Performance	Sound pressure level(H/M/L)	dB(A)	40/37/35	42/39/36	42/39/36
	Sound power level(H/M/L)	dB(A)	53/50/48	55/52/49	55/52/49
	External dimensions(W/D/H)	mm	1116/221/624	1116/221/624	1116/221/624
Installation	Shipping dimensions(W/D/H)	mm	1198/295/707	1198/295/707	1198/295/707
	Net/Shipping weight	kg	31/39	31/39	31/39
	Refrigerant liquid pipe	mm	6.35	6.35	9.52
	Refrigerant gas pipe	mm	12.7	12.7	15.88
	Static Pressure	Pa	0/30	0/30	0/30
	Controller	Wired(Optional)	/	YR-E16A	YR-E16A
/			YR-E16B	YR-E16B	YR-E16B
/			HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
Infrared (Optional)		/	YR-E17	YR-E17	YR-E17
		/	YR-HD	YR-HD	YR-HD
		/	YR-HD	YR-HD	YR-HD



- Require very little installation space: only 220mm
- Good solution for installation beneath a window
- High efficiency filter fitted as standard



NEW



- Air discharge through top and bottom
- Compact design & small space occupation
- Quiet operation

## Specification

Model/Indoor unit			AF052MBERA	AF072MBERA	AF092MBERA
Capacity	Cooling	kBtu/h	5.1	7.5	9.5
		kW	1.5	2.2	2.8
	Heating	Btu/h	5.8	8.5	10.9
		kW	1.7	2.6	3.2
Electrical Parameters	Power supply	Ph/V/Hz	1/220-240.50/60	1/220-240.50/60	1/220-240.50/60
	Air flow (H)	m <sup>3</sup> /h	460/380/300	460/380/300	460/380/300
Performance	Sound pressure level(H/M/L)	dB(A)	42/36/31	42/36/31	43/39/35
	Sound power level(H/M/L)	dB(A)	53/47/42	53/47/42	54/50/46
	External dimensions(W/D/H)	mm	700/210/600	700/210/600	700/210/600
Installation	Shipping dimensions(W/D/H)	mm	783/303/695	783/303/695	783/303/695
	Net/Shipping weight	kg	17/19	17/19	17/19
	Refrigerant liquid pipe	mm	6.35	6.35	6.35
Controller	Refrigerant gas pipe	mm	12.7	12.7	12.7
	Wired (Optional)	/	YR-E17/YR-E16A/YR-E16B	YR-E17/YR-E16A/YR-E16B	YR-E17/YR-E16A/YR-E16B
	Infrared(Optional)	/	YR-HD	YR-HD	YR-HD

Model/Indoor unit			AF122MBERA	AF162MBERA	AF182MBERA
Capacity	Cooling	kBtu/h	12.3	15.3	16.5
		kW	3.6	4.5	4.8
	Heating	Btu/h	13.6	17	18.2
		kW	4	5	5.3
Electrical Parameters	Power supply	Ph/V/Hz	1/220-240.50/60	1/220-240.50/60	1/220-240.50/60
	Air flow (H)	m <sup>3</sup> /h	510/450/350	640/470/390	640/470/390
Performance	Sound pressure level(H/M/L)	dB(A)	43/39/35	48/44/38	48/44/38
	Sound power level(H/M/L)	dB(A)	54/50/46	59/55/49	59/55/49
	External dimensions(W/D/H)	mm	700/210/600	700/210/600	700/210/600
Installation	Shipping dimensions(W/D/H)	mm	783/303/695	783/303/695	783/303/695
	Net/Shipping weight	kg	17/19	17/19	17/19
	Refrigerant liquid pipe	mm	6.35	6.35	6.35
Controller	Refrigerant gas pipe	mm	12.7	12.7	12.7
	Wired (Optional)	/	YR-E17/YR-E16A/YR-E16B	YR-E17/YR-E16A/YR-E16B	YR-E17/YR-E16A/YR-E16B
	Infrared(Optional)	/	YR-HD	YR-HD	YR-HD

# N HIGH WALL



- Stylish design & LED display
- Built in EEV, easy to installation
- Negative ion, vitamin C, and ESF filter optional

# Specification

Model/Indoor unit			AS052MNERA AS052MFERA	AS072MNERA AS072MFERA	AS092MNERA AS092MFERA	AS122MNERA AS122MFERA	AS162MNERA AS162MFERA
Capacity	Cooling	kBtu/h	5.1	7.5	9.5	12.3	15.3
		kW	1.5	2.2	2.8	3.6	4.5
	Heating	Btu/h	5.8	8.5	10.9	13.6	17.1
		kW	1.7	2.5	3.2	4.0	5.0
Electrical Parameters	Power supply	Ph/V/Hz	1/220-240/50/60	1/220-240/50/60	1/220-240/50/60	1/220-240/50/60	1/220-240/50/60
	Air flow (H)	m³/h	500/430/370	550/480/420	600/530/470	630/560/500	800/720/650
Performance	Sound pressure level(H/M/L)	dB(A)	33/31/29	35/31/29	36/31/29	37/33/29	39/36/34
	Sound power level(H/M/L)	dB(A)	49/46/41	50/47/42	52/48/44	54/51/50	56/53/51
	External dimensions(W/D/H)	mm	855/200/280	855/200/280	855/200/280	855/200/280	1115/243/336
Installation	Shipping dimensions(W/D/H)	mm	954/279/355	954/279/355	954/279/355	954/279/355	1206/342/418
	Net/Shipping weight	kg	9.9/12	9.9/12	9.9/12	9.9/12	15.8/18.9
	Refrigerant liquid pipe	mm	6.35	6.35	6.35	6.35	6.35
	Refrigerant gas pipe	mm	9.52	9.52	9.52	12.7	12.7
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B	YR-E16B	YR-E16B
		/	YR-E17	YR-E17	YR-E17	YR-E17	YR-E17
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
	Infrared(Optional)	/	YR-HD	YR-HD	YR-HD	YR-HD	YR-HD

Model/Indoor unit			AS182MNERA AS182MFERA	AS242MNERA AS242MFERA	AS282MNERA	AS302MNERA
Capacity	Cooling	kBtu/h	19.1	24.2	27.3	30.7
		kW	5.6	7.1	8.0	9.0
	Heating	Btu/h	21.5	27.3	30.7	34.1
		kW	6.3	8.0	9.0	10.0
Electrical Parameters	Power supply	Ph/V/Hz	1/220-240/50/60	1/220-240/50/60	1/220-240/50/60	1/220-240/50/60
	Air flow (H)	m³/h	920/800/720	1010/920/800	1500/1400/1300	1600/1500/1400
Performance	Sound pressure level(H/M/L)	dB(A)	40/39/35	44/40/36	48/43/40	49/44/41
	Sound power level(H/M/L)	dB(A)	57/54/52	58/56/54	60/57/53	61/58/54
	External dimensions(W/D/H)	mm	1115/243/336	1115/243/336	1316/270/365	1316/270/365
Installation	Shipping dimensions(W/D/H)	mm	1206/342/418	1206/342/418	1403/384/463	1403/384/463
	Net/Shipping weight	kg	15.8/18.9	15.8/18.9	21.8/26.3	21.8/26.3
	Refrigerant liquid pipe	mm	6.35	9.52	9.52	9.52
	Refrigerant gas pipe	mm	12.7	15.88	15.88	15.88
Controller	Wired(Optional)	/	YR-E16A	YR-E16A	YR-E16A	YR-E16A
		/	YR-E16B	YR-E16B	YR-E16B	YR-E16B
		/	YR-E17	YR-E17	YR-E17	YR-E17
		/	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
	Infrared(Optional)	/	YR-HD	YR-HD	YR-HD	YR-HD



**MRV***INDOOR*

# Ventilation



**202 VENTILATION**

Fresh Air Duct  
HRV

## FRESH AIR DUCT



# Specification

Model/Indoor unit			AD482MPERA	AD722MPERA	AD962MPERA
Capacity	Cooling	kBtu/h	47.7	77.1	95.5
		kW	14	22.6	28
	Heating	Btu/h	30.4	51.8	60.8
		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
	Air flow (H)	m <sup>3</sup> /h	1600/1460/1070	2300/1900/1320	2800/2400/1820
Performance	Sound pressure level(H/M/L)	dB(A)	48/47/42	55/53/50	55/54/52
	Sound power level(H/M/L)	dB(A)	61/60/56	68/65/60	68/66/62
	External dimensions(W/D/H)	mm	1355/876/360	1725/876/360	1725/876/360
Installation	Shipping dimensions(W/D/H)	mm	1386/966/418	1830/990/530	1830/990/530
	Net/Shipping weight	kg	69/74	100/127	101/128
	Refrigerant liquid pipe	mm	9.52	9.52	9.52
	Refrigerant gas pipe	mm	15.88	25.4	25.4
	Static Pressure(Standard/Max)	Pa	100/185	100/200	100/200
	Controller	Wired (Optional)	/	YR-E16A	YR-E16A
/			YR-E16B	YR-E16B	YR-E16B
/			HW-BA116ABK	HW-BA116ABK	HW-BA116ABK
/			YR-E17	YR-E17	YR-E17



- Variable static pressure 100~200Pa setting
- Install with other indoor units together, and introduce the outdoor fresh air into indoor

# HRV



YR-N07

- Be controlled with other indoor units together
- Efficient heat recovery air processing
- Heat recovery media element

# Specification

Model/Indoor unit			ERV0150ANN	ERV0260ANN
Electrical	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60
	Rated power input	kW	0.1	0.12
	Rated current	A	0.55	0.55
Performance	Air flow (H)	m³/h	150	260
	Sound pressure level(H/L)	dB(A)	44/43	44/43
	Sound power level(H/L)	dB(A)	55/54	55/54
Installation	External dimensions(W/D/H)	mm	940/685/276	940/685/276
	Shipping dimensions(W/D/H)	mm	1013/773/345	1013/773/345
	Net/Shipping weight	kg	28.7/31.2	28.7/31.2
	Static Pressure	Pa	80	60
Controller	Wired (Standard)	/	YR-N07	YR-N07

Model/Indoor unit			ERV0500ANN	ERV0800ANN	ERV1000ANN
Electrical	Power supply	Ph/V/Hz	1/220-230/50/60	1/220-230/50/60	1/220-230/50/60
	Rated power input	kW	0.36	0.36	0.36
	Rated current	A	1.65	1.65	1.65
Performance	Air flow (H)	m³/h	500	800	1000
	Sound pressure level(H/L)	dB(A)	57/55	57/55	57/55
	Sound power level(H/L)	dB(A)	68/66	68/66	68/66
Installation	External dimensions(W/D/H)	mm	1227/1115/387	1227/1115/387	1227/1115/387
	Shipping dimensions(W/D/H)	mm	1465/1213/430	1465/1213/430	1465/1213/430
	Net/Shipping weight	kg	85.5/90.6	85.5/90.6	85.5/90.6
	Static Pressure	Pa	150	120	100
Controller	Wired (Standard)	/	YR-N07	YR-N07	YR-N07

# CONTROL SYSTEM

## User Friendly Management Control Solution

### Integrated Management

Convenient and efficient. AQUA controllers realize the co-management of Super match and MRV in one system, providing you more combination choices for better managing large or middle-sized buildings

### Building Management

The excellent building management system provides a professional and reliable service for a better management of your air conditioning units

### Intelligent Management

"AQUA Smart AC" provides an intelligent and personalized experience for your smart life

### Applications

AQUA control products are designed to provide you a perfect solution for the small, medium or large commercial projects

- 209 Individual Controller
- 211 Centralized Controller
- 215 BMS
- 219 Adapter



# CONTROL SYSTEM

## Individual Controller

The individual control system has a variety of wired and wireless controllers which enable you easy and intelligent control of your air conditioners. You can choose the one which best suits for your air conditioning management.



### YR-HBS01

- On/off, mode, fan speed, temperature setting, swing
- Turbo, quiet
- Individual blade control for smart power cassette
- Clock & timer
- Follow/evade function
- Celsius to fahrenheit



### YR-HD

- On/off, mode, fan speed, temperature setting, swing
- One button solution: cool, heat, dry, quiet
- Simple timer control

## Individual Controller



### YL-HE

- Cooling only
- Turbo, Quiet



### YR-E17

- On/off, mode, fan speed, temperature setting, swing
- Individual & group control (max.16 indoor units)
- Simple and smart design, 86\*86\*13.05mm
- Touch button with back light
- Timer/ clock
- Easy installation
- Individual blade control for round way cassette.



### YR-E16A

- On/off, mode, fan speed, temperature setting, swing
- Individual & group control (max 16 indoor units)
- Large button
- Fahrenheit/ celsius selectable; sensitivity  $\pm 0.5^{\circ}\text{C}$  ( $\pm 1^{\circ}\text{F}$ )
- Weekly timer
- Individual louver control for smart power cassette
- Static pressure setting



### YR-E16B

- Colorful screen
- On/off, mode, fan speed, temperature setting, swing
- Individual & group control (max 16 indoor units)
- Fahrenheit/ celsius selectable; sensitivity  $\pm 0.5^{\circ}\text{C}$  ( $\pm 1^{\circ}\text{F}$ )
- Weekly timer
- Individual blade control for round way cassette
- Static pressure setting



### HW-BA116ABK

- Alternating current
- Basic function: on/off, mode, fan speed, temperature
- Individual & group control (max 16 indoor units)
- Simple and smart design, 86\*86\*14.80mm
- Could receive wireless controller signal



### RE-01/02

- Infrared signal receiver
- Realize the remote control of duct type indoor unit
- Model selection depends on the duct indoor unit



### WIFI Module (KZW-W001)

- Remote control: on/off, mode, fan speed, Temperature setting, swing
- Individual control
- Weekly timer
- A YCJ-A002 is required on some indoor unit



# CONTROL SYSTEM

## Centralized Controller

The centralized control system offers you a smart and convenient experience while managing your air conditioner individually or by groups or by zones. a variety of controllers can be used to perfect your air conditioning management.



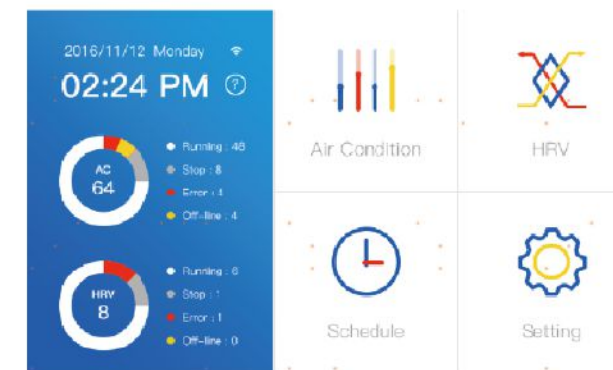
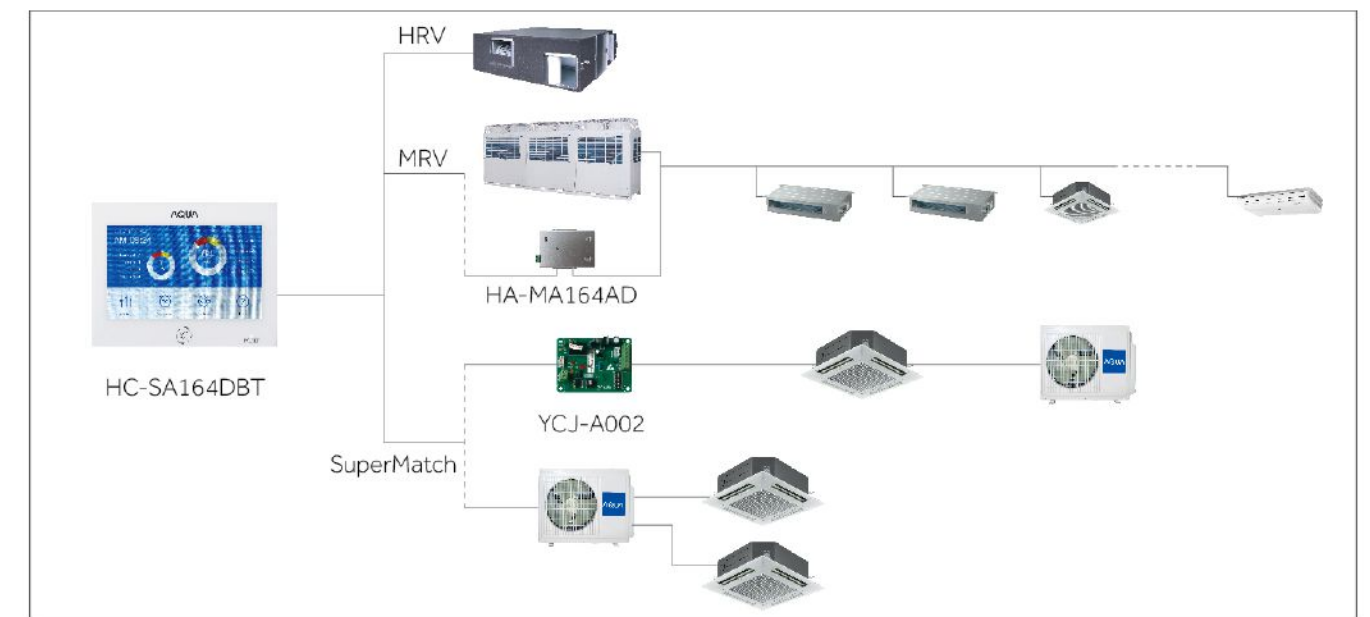
## Centralized Controller



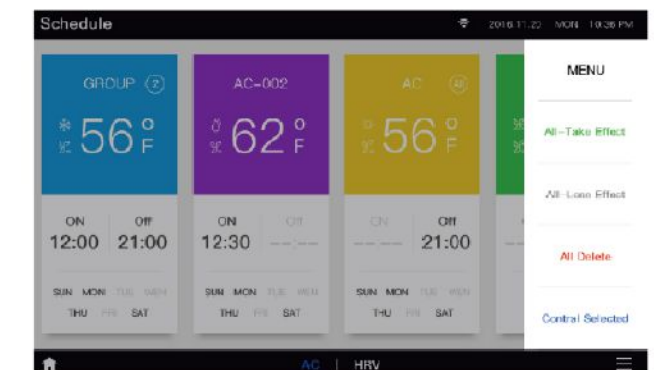
### HC-SA164DBT

- Individual control, central control (max. 64 indoor units)
- 5-inch tft TFT LCD touch screen with back light
- Weekly timer
- Indoor units' information edit
- Historical error backup
- Must be used in combination with a HA-MA164AD for each MRV system. (max. 32 sets)

### HC-SA164DBT System



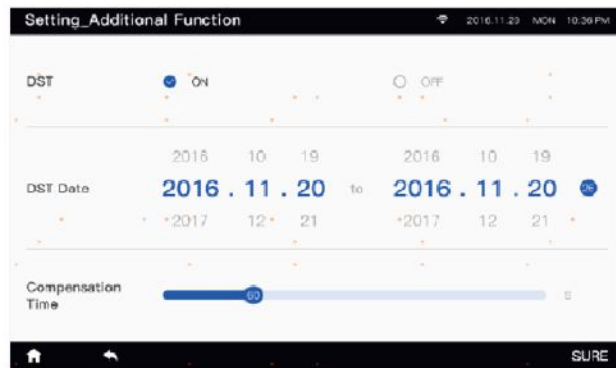
Monitoring up to 64 indoor unit  
could control HRV and monitoring the state of all IDU  
display IDU number, ON/OFF, Fault IDU number



Set schedule for unit, group, all  
time control could be add, change, delete, unit control,  
group control, all ON/OFF

# CONTROL SYSTEM

## Centralized Controller



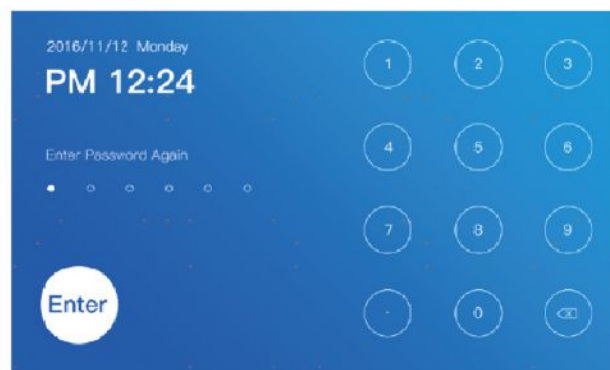
Turn ON/OFF the DST  
DST schedule time setting  
DST compensation setting

No.	User	AC	Temp.	Fan Speed	Toucha Temp.	Liquid pipe Temp.	Run Time	Error
01	User001	AC-001	26°F	High	24°F	24°F	15:36:55	5
02	User001	AC-002	26°F	High	24°F	24°F	15:36:55	2
03	User001	AC-003	26°F	High	24°F	24°F	15:36:55	5
04	User001	AC-004	26°F	High	24°F	24°F	15:36:55	5
05	User001	AC-005	26°F	High	24°F	24°F	15:36:55	3
06	User001	AC-006	26°F	High	24°F	24°F	15:36:55	-
07	User001	AC-007	26°F	High	24°F	24°F	15:36:55	1
08	User001	AC-008	26°F	High	24°F	24°F	15:36:55	2
09	User001	AC-009	26°F	High	24°F	24°F	15:36:55	-

Display the detailed information  
check the name, number, temperature,  
running time and fault code.

Room	Mode	Temp.	Set Temp.	Fan Speed	Control	Schedule
AC-001	Cooling	56°F	66°F	High	Centralize	Yes
AC-002	Cooling	56°F	66°F	High	Centralize	Yes
AC-003	Heating	56°F	66°F	High	Centralize	No
AC-004	Cooling	56°F	66°F	Low	Centralize	No
AC-005	Cooling	56°F	66°F	High	Centralize	No
AC-006	Heating	56°F	66°F	High	Centralize	No
AC-007	Cooling	56°F	66°F	Low	Centralize	No
AC-008	Auto	56°F	66°F	High	Centralize	No
AC-009	Cooling	56°F	66°F	High	Centralize	No

Interface display mode choice: list or icon  
All on, all off, control all, control select



Setting password according to user demand

## Centralized Controller



### YCZ-G001

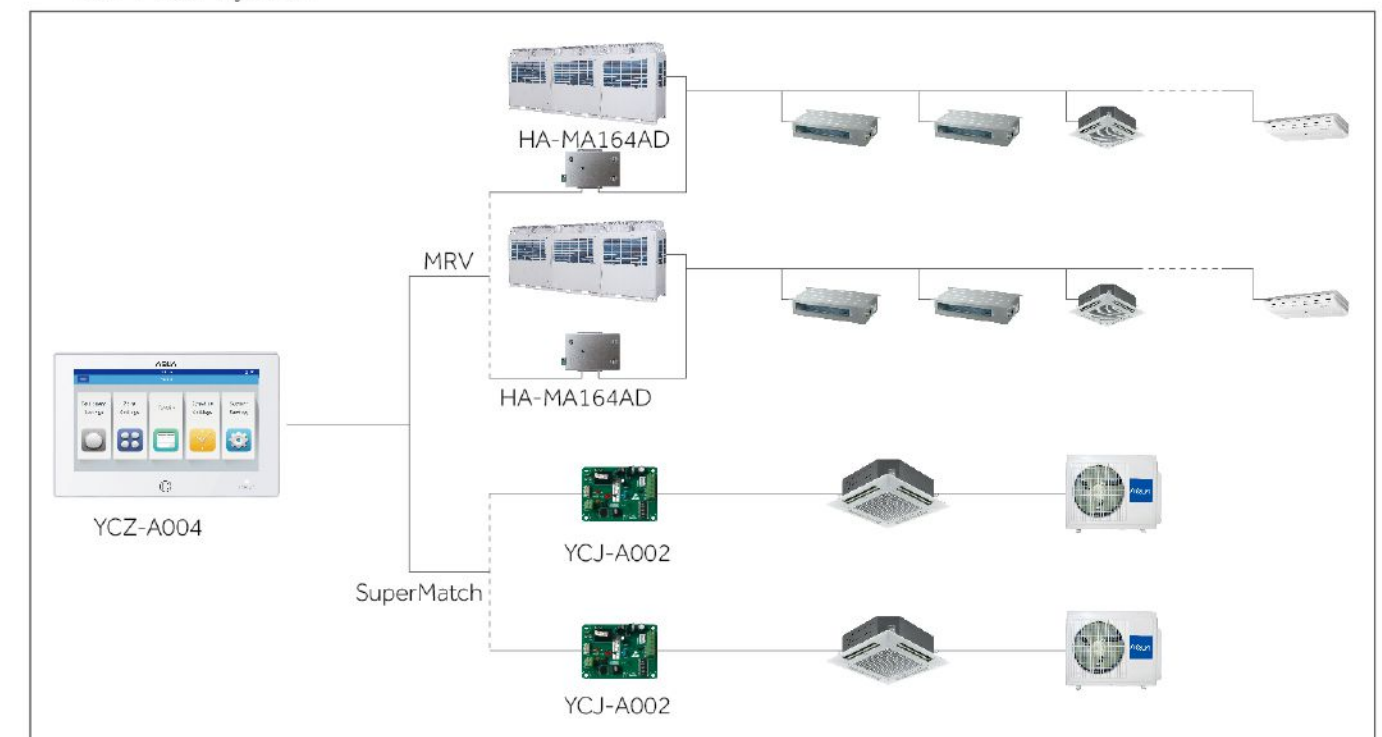
- Individual control, group control & central control (max. 32 indoor units)
- Large touch key
- Weekly timer
- Unit name & group name free setting, four background available (mall, hotel, office, home)
- Error display
- Must be used in combination with a HA-MA164AD for each MRV system (max. 32 sets)



### YCZ-A004

- Individual control, group control & central control (Max. 256 indoor units)
- 7-inch TFT LCD touch screen with back light
- Weekly timer
- Indoor units' information edit
- Error display
- Must be used in combination with a HA-MA164AD for each MRV system. (max. 32 sets)

### YCZ-A004 System



# CONTROL SYSTEM

## BMS

The building management modules could perfectly integrate air conditioners into the building management system, providing an excellent solution for large commercial areas.



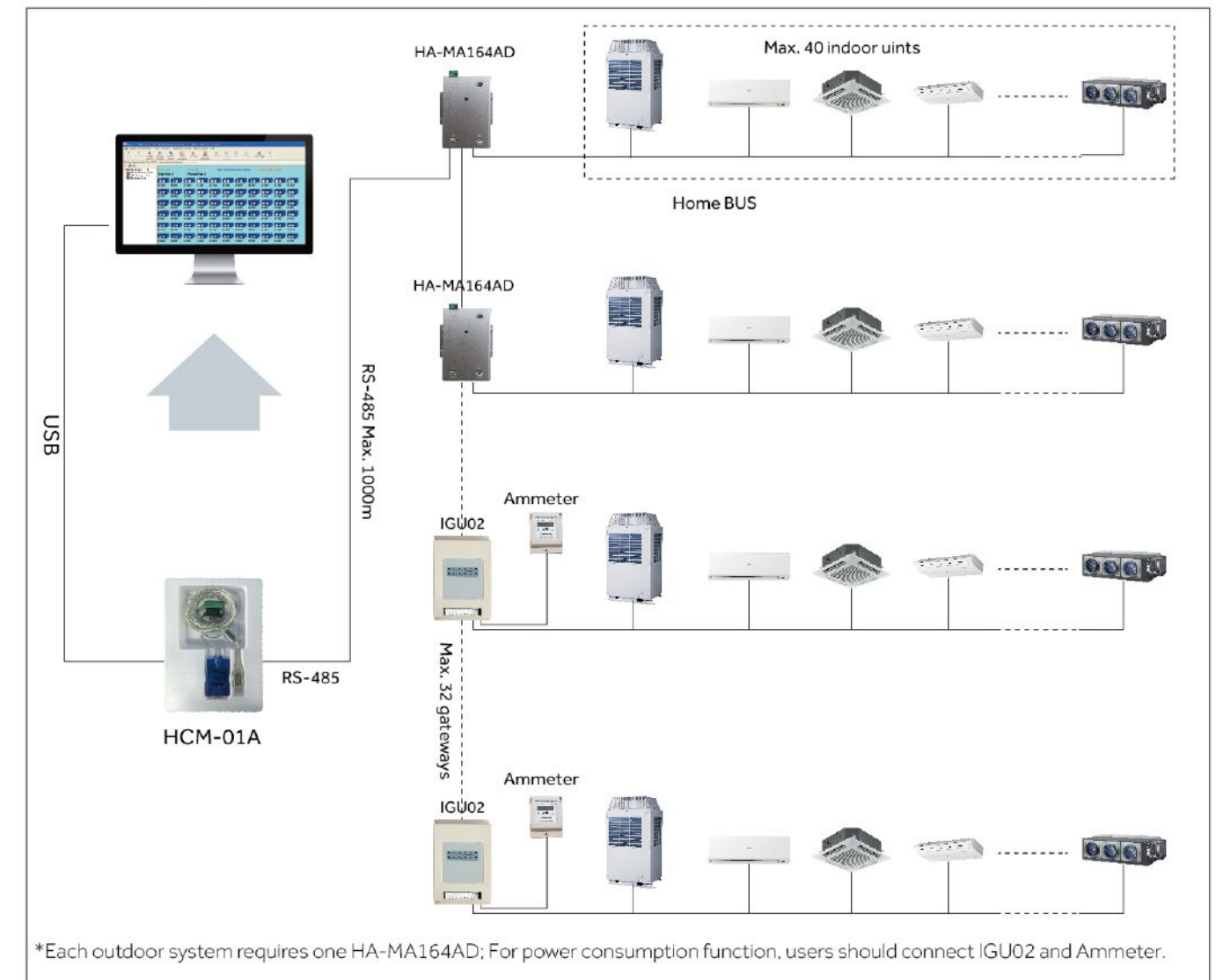
## BMS



### HCM-01A

- Local control version; convert USB to RS-485
- Max. 400 indoor units can be controlled
- Modbus rtu interface
- Brand new interface design
- Win 7 32bits/64bits, Win 8 Pro, Win 10 Pro
- Max. 32 systems / outdoor units, each system unit requires one HA-MA164AD
- Schedule setting
- Electricity charge report (must use IGU-02)

### HCM-01A System



# CONTROL SYSTEM

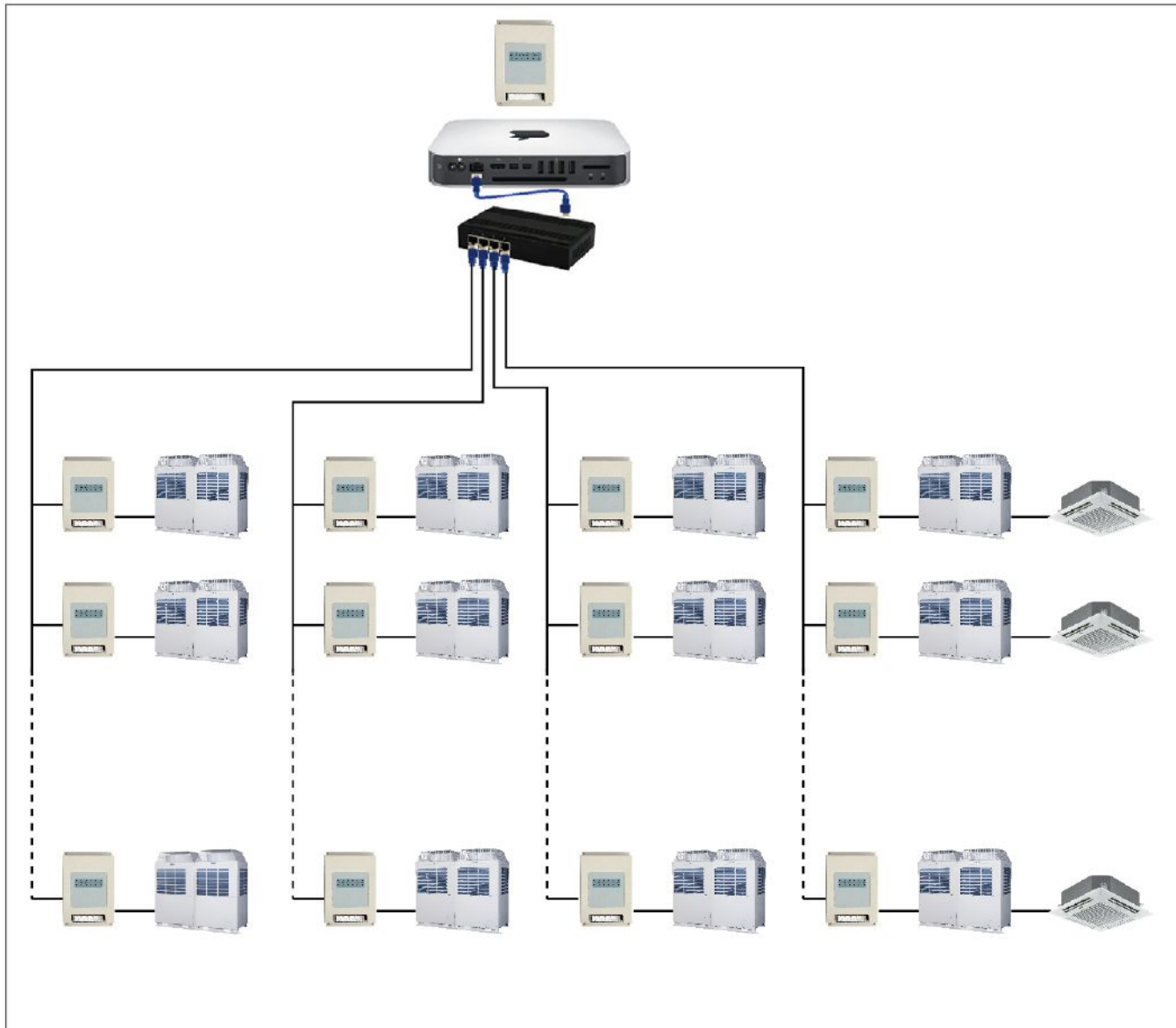
## BMS



### HCM-03A

- Remote monitoring version; third party interface: BACnet ip/ Modbus ip
- Max. 1500 indoor units can be controlled
- Max. 4 groups, each group can connect 20 systems. Each system requires one IGU02 /HA-MA164AD
- Operation status setting & monitoring.
- Schedule setting
- Multi user management with different authorized levels
- Operation and error history log
- Electricity charge report

HCM-03A System



## BMS



### HCM-05/HCM-05A

- Remote monitoring version
- Third party interface: BACnet ip
- Max. 250 indoor units can be controlled for f HCM-05; and 500 indoor units for HCM-05A
- Max. 32 systems, each system requires one IGU02/HA-MA164AD
- Max. 64 systems for HCM-05A. Each system requires one IGU02/HA-MA164AD
- Operation status setting & monitoring.
- Schedule setting
- Multi user management with different authorized levels
- Electricity charge report (must use IGU-02)
- Operation and error history log
- Cooperated technology with honeywell

HCM-05 System



# CONTROL SYSTEM

## Adapter

The adapters offer you an easy and convenient way to integrate air conditioners into various building management system; perfect for large commercial projects.



## Adapter



### HA-MA164AD

- Protocol adapter, convert homebus to RS-485
- Gateway: modbus rtu
- Max. 64 indoor units can be connected with one HA-MA164AD
- Each MRV system requires one HA-MA164AD when connecting with centralized controller or BMS system.

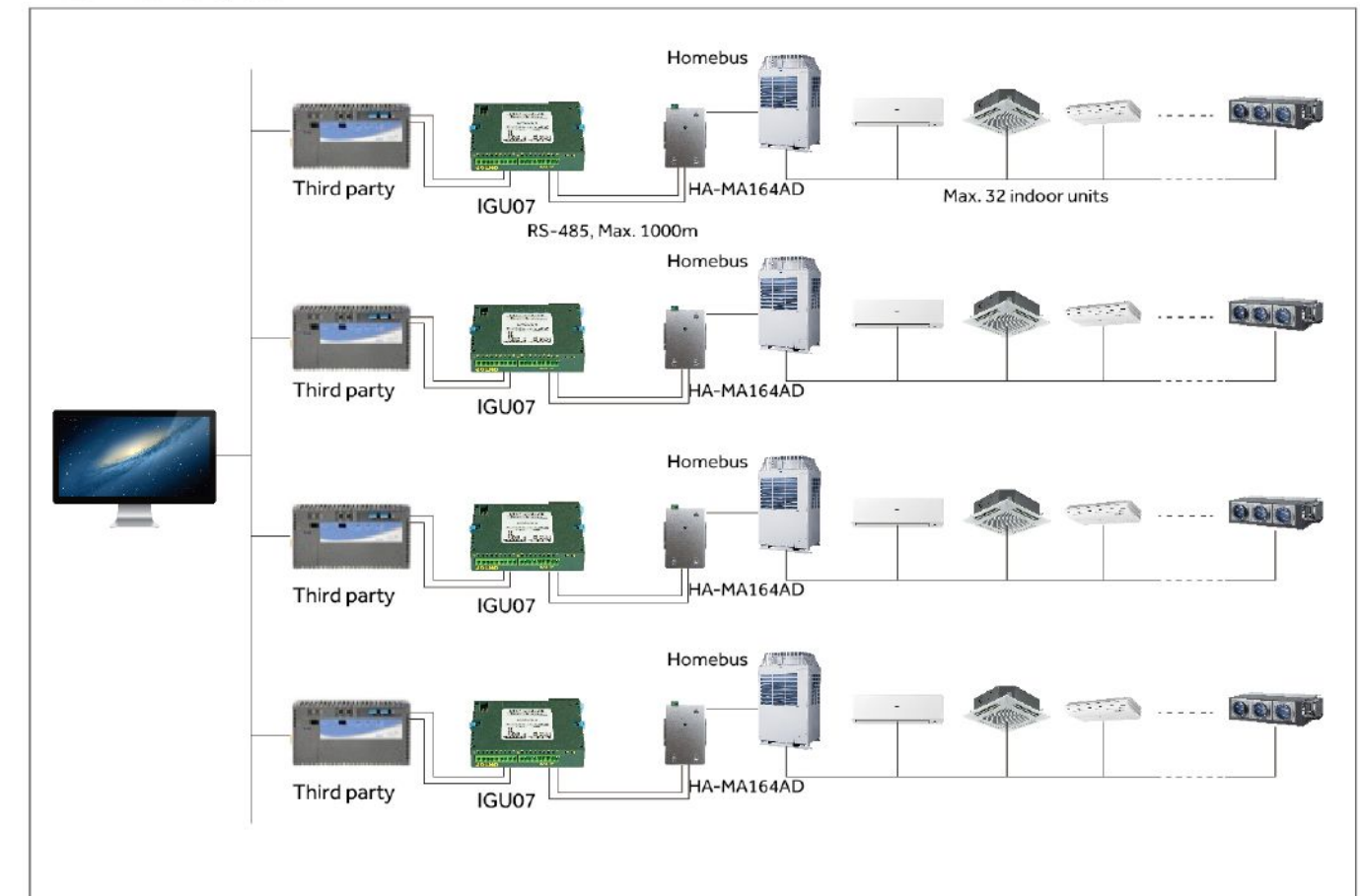
Modbus model No.	No. of I.U. controllable	Installation Method	Compatible O.U. Type
HA-MA164AD	64	Outside the O.U.	Side and Top discharge O.U.
HA-MB164AD	64	Inside the O.U.	Top discharge O.U.



### IGU07

- Protocol adapter, convert modbus rtu to lonworks
- Each system requires one IGU07+ HA-MA164AD
- Max. 32 indoor units can be connected in one system
- External 24V DC power supply is needed

## LonWorks System



# CONTROL SYSTEM

## Adapter



### HCM-04

- BACnet gateway, convert modbus rtu to BACnet ip
- Max.62 indoor units/2 systems can be controlled, each system can control max. 31 indoor units
- IGU02 is required for each outdoor system



### HA-AC-KNX-8/16/64

- KNX gateway
- Convert modbus to KNX
- Max. 8/ 16/ 64 indoor units can be connected in one system each system requires one KNX gateway+HA-MA164AD



### IGU02

- Protocol adapter, convert homebus to modbus
- Match with BMS (HCM-01A,03A,05,05A), each system requires one IGU02
- Max.40 indoor units can be connected with one IGU02
- Electricity data collection, calculation, allocation and storage




















## Controllers Match Table for MRV Indoor Units

Outlook	Series	Model						
			YR-HD	YR-HBS01	HW-BA116ABK	YR-E17	YR-E16A	YR-E16B
	1-way Cassette	AB**2MAERA	▲		▲	▲	▲	▲
	2-way Cassette	AB**2MBERA	▲		▲	▲	▲	▲
	Mini 4-way Cassette	AB**2MCERA(M)		▲		▲	▲	▲
	Round Flow 4-way Cassette	AB**2MRERA		▲		▲	▲	▲
	4-way Cassette	AB**2MCERA	▲		▲	▲	▲	▲
	Convertible	AC**2MCERA	▲		▲	▲	▲	▲
	Convertible	AC**2MFERA	▲		▲	▲	▲	▲
	Low ESP Slim Duct (0/15/30Pa)	AD**2MSERA(D)	▲			▲	▲	▲
	Low ESP Slim Duct (0/30Pa)	AD**2MSERA	▲		▲	▲	▲	▲
	Medium ESP Duct (50/96 Pa)	AD**2MNERA	▲		▲	▲	▲	▲
	Medium ESP Duct (50/100 Pa)	AD**2MJERA	▲		▲	▲	▲	▲
	Medium ESP Duct (80/120 Pa)	AD**2MNERA	▲		▲	▲	▲	▲
	High ESP Duct (100/196 Pa)	AD**2MHERA	▲		▲	▲	▲	▲
	High ESP Duct (0-200Pa)	AD**2MQERA	▲		▲	▲	▲	▲
	High Wall (N platform)	AS**2MNERA	▲		▲	▲	▲	▲
	High Wall (N platform)	AS**2MFERA	▲		▲	▲	▲	▲
	Console	AF**2MBERA	▲			▲	▲	▲
	Built-in Floor Standing	AE**2MLERA	▲		▲	▲	▲	▲
	Fresh Air Duct	AD**2MPERA			▲	▲	▲	▲
	HRV	ERV****ANN			▲	▲	▲	▲

▲ Controllers can match with the indoor unit

# ACCESSORIES

## Accessories

Name	Design	Model	Functions	For what units
Gather pipe		HZG-20A	Refrigerant gathering	2 outdoor units
Gather pipe		HZG-30A	Refrigerant gathering	3 outdoor units
Gather pipe		HZG-20B	Refrigerant gathering	MRV IV-C, 2 outdoor units
Gather pipe		HZG-30B	Refrigerant gathering	MRV IV-C, 3 outdoor units
Gather pipe		HZG-R20A	Refrigerant gathering for heat recovery MRV	2 outdoor units
Gather pipe		HZG-R30A	Refrigerant gathering for heat recovery MRV	3 outdoor units
Manifold pipe		FQG-B335A	Refrigerant distribution for heat pump MRV	Total indoor units capacity less than 33,500W
Manifold pipe		FQG-B506A	Refrigerant distribution for heat pump MRV	Total indoor units capacity less than 50,600W, but equal or bigger than 33,500W
Manifold pipe		FQG-B730A	Refrigerant distribution for heat pump MRV	Total indoor units capacity less than 73,000W, but equal or bigger than 50,600W
Manifold pipe		FQG-B1350A	Refrigerant distribution for heat pump MRV	Total indoor units capacity less than 135,000W, but equal or bigger than 73,000W
Manifold pipe		FQG-R335A	Refrigerant distribution for heat recovery MRV	Total indoor units capacity less than 33,500W
Manifold pipe		FQG-R506A	Refrigerant distribution for heat recovery MRV	Total indoor units capacity less than 50,600W, but equal or bigger than 33,500W
Manifold pipe		FQG-R730A	Refrigerant distribution for heat recovery MRV	Total indoor units capacity less than 73,000W, but equal or bigger than 50,600W
Manifold pipe		FQG-R1350A	Refrigerant distribution for heat recovery MRV	Total indoor units capacity less than 135,000W, but equal or bigger than 73,000W
Manifold pipe		FQG-B2040A	Refrigerant distribution for MRV IV-C	Total indoor capacity less than 204,000W but equal or bigger than 135,000W
VP box		VP1-112A, VP1-180A VP1-280A	Valve pipe box	MRV III-RC(heat recovery)
VP box		VP4-450A	Valve pipe box	MRV III-RC(heat recovery)
VP box		VP1-112B, VP1-180B VP1-280B	Valve pipe box	MRV 5-RC(heat recovery)
VP box		VP4-450B	Valve pipe box	MRV 5-RC(heat recovery)

**REFERENCE  
PROJECTS**

# REFERENCE PROJECTS

Country: Algeria

Project Name: Hotel-amillia bab ezzouar  
Product Series: MRVII-C



Country: Algeria

Project Name: AGB Bank  
Product Series: MRVII-C



Project Name: Hotel-Akbou Bedjaia  
Product Series: MRVII-C&MRVIII-C



Project Name: Al Qods  
Product Series: MRVII





# REFERENCE PROJECTS

Country: Algeria

Project Name: Mole Fix Office  
Product Series: MRVII-C



Project Name: PPT Tipaza Office  
Product Series: MRVII-C



Country: Algeria

Project Name: Ofarco Office  
Product Series: MRVII-S



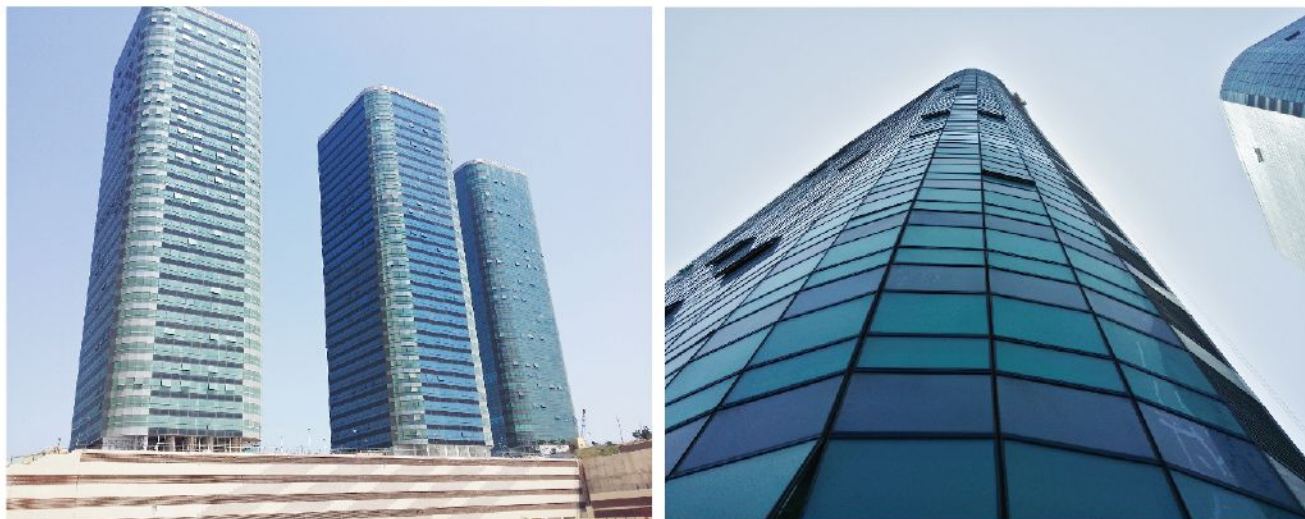
Project Name: Telecom Com Office  
Product Series: MRVII-C



# REFERENCE PROJECTS

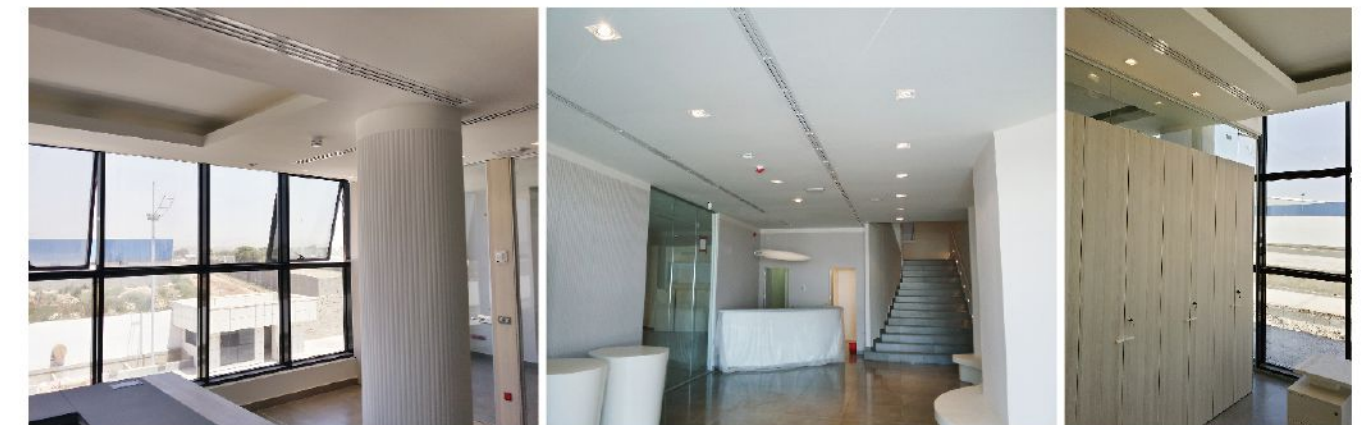
Country: Algeria

Project Name: Mobil Art  
Product Series: MRV-S&MRVIII



Country: Algeria

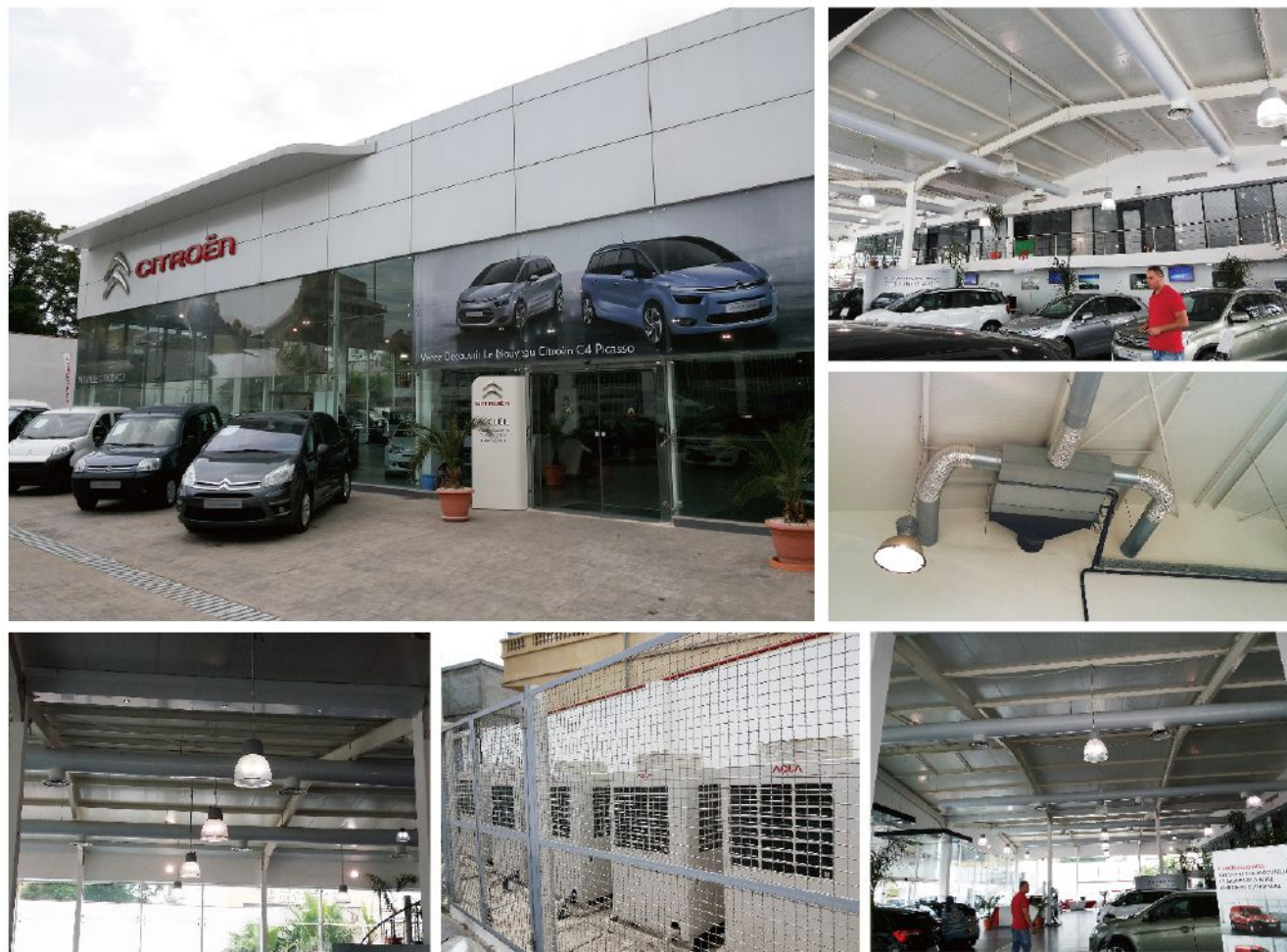
Project Name: Tapis office and showroom  
Product Series: MRVII-C



# REFERENCE PROJECTS

## Country: Algeria

Project Name: Tapis office and showroom  
Product Series: MRV-C



## Country: Angola

Project Name: Cabinda Stadium  
Product Series: MRVII-C



## Country: Bulgaria

Project Name: Varna Tower  
Product Series: MRVII-C



# REFERENCE PROJECTS

## Country: Czech Republic

Project name: Geosan Group  
Product series: MRVIII-C



Project name: National digital archiv  
Product series: MRVII-C



## Country: Cyprus

Project Name: Avlogyros  
Product Series: MRVII-C2



Project Name: Coop Kato Varosion  
Product Series: MRV-C



# REFERENCE PROJECTS

## Country: Cyprus

Project Name: House at Pyla Near CTO  
Product Series: MRVII-C2



Project Name: Viva Souvenir Shop Ayia Napa  
Product Series: MRVII-C2



Project Name: Ydroyios Insurance  
Product Series: MRV-C

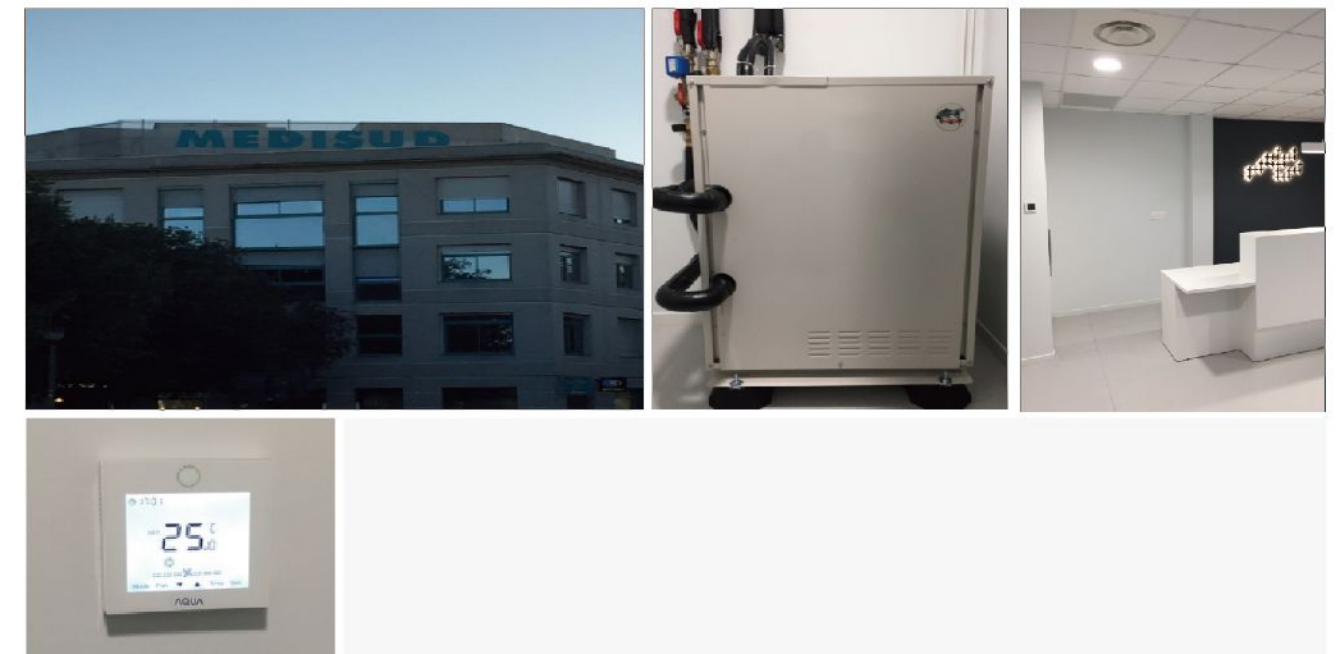


## Country: France

Project Name: Les Roches Rouges hotel  
Product Series: MRV IV



Project Name: Centre Ophthalmic hospital  
Product Series: MRV W



# REFERENCE PROJECTS

## Country: Hungary

Project Name: National Institute  
Product Series: MRVII-C



Project Name: Cordia City Garden Budapest  
Product Series: MRVII-C



Project Name: DEC Oncology Medical Center, Debrecen  
Product Series: MRVII-C



## Country: Iran

Project Name: Isfahan library  
Product Series: MRVIII-C



# REFERENCE PROJECTS

## Country: Iran

Project Name: Ebrahimi's Carpet gallery  
Product Series: MRV-III



Project Name: Takbiri's House  
Product Series: MRVII-C2



## Country: Italy

Project Name: Venpa, Brescia  
Product Series: MRVII-C



Project Name: Autosalone(BS)  
Product Series: MRVII-C



# REFERENCE PROJECTS

Country: Italy

Project Name: Marina Hotel  
Product Series: MRV IV



Project Name: Milano Factory  
Product Series: MRV IV



Country: Italy

Type of Application: Hotel  
Product Series: MRV-III





# REFERENCE PROJECTS

## Country: Italy

Project Name : Yamaha motor bike- MilanoCaterpillar Italian headquarter  
 Product Series: MRV III-C Plus, 4 way cassette, 4 medium ESP duct



Project Name : Extension Logistic Office  
 Product Series: MRV IV-C



## Country: Indonesia

Project Name: Swiss-bel Hotel In Jambi  
 Product Series: MRVIII-C+Light commercial



Project Name: Swiss-bel Hotel In Bali  
 Product Series: MRVIII-C+Light commercial+ RAC



# REFERENCE PROJECTS

## Country: Indonesia

Project Name : Kosambi Apartement  
Product Series: MRV IV-C & SINGLE



Project Name : Departement Building  
Product Series: MRV III-C



## Country: Indonesia

Project Name : St. Borromeus Hospital  
Product Series: MRV III-C



## Country: Laos

Project Name: Lao President Palace  
Product Series: MRVII-C



# REFERENCE PROJECTS

## Country: Mauritius

Project Name: Precigraph  
Product Series: MRVII-C



## Country: Mauritius

Project Name: Mr. Bricolage  
Product Series: MRVIII-C & HCM-03



Project Name: EBENE SKIES-port Louis  
Product Series: MRVII-C



## Country: Myanmar

Project Name: City Hospital  
Product Series: MRV III



# REFERENCE PROJECTS

## Country: Nigeria

Project Name: Takyi Plaza  
Product Series: MRVII-C



## Country: Pakistan

Project Name: CNS Head Office  
Product Series: MRVIII-C



## Country: Pakistan

Project Name: Barat Ghar  
Product Series: MRVII-C



Project Name: Shapes Health club  
Product Series: MRVIII



# REFERENCE PROJECTS

## Country: Pakistan

Project Name: Such TV  
Product Series: MRVIII



Project Name: Centaurus  
Product Series: MRVIII-C



## Country: Poland

Project Name: Hotel & conference center  
Product Series: MRV III-C



Project Name: 4 separate building designated for business, retail and entertainment purposes  
Product Series: MRV III-C



# REFERENCE PROJECTS

Country: Poland

Project Name: DCC Rakietowa Congress Center  
Product Series: MRV III-C



Country: Poland

Project Name : Stadium  
Product Series: 5 MRV III-S systems



Project Name : 46 luxury apartments  
Product Series: 3 MRV IV-C systems, 1 MRV III-S system



Project Name : Sience Laboratories  
Product Series: 2 MRV III



# REFERENCE PROJECTS

## Country: Poland

Project Name : 2000sq m, 3 story building  
Product Series: MRV III-C



## Country: Russia

Project Name : Azimut hotel  
Product Series: MRVIII-C

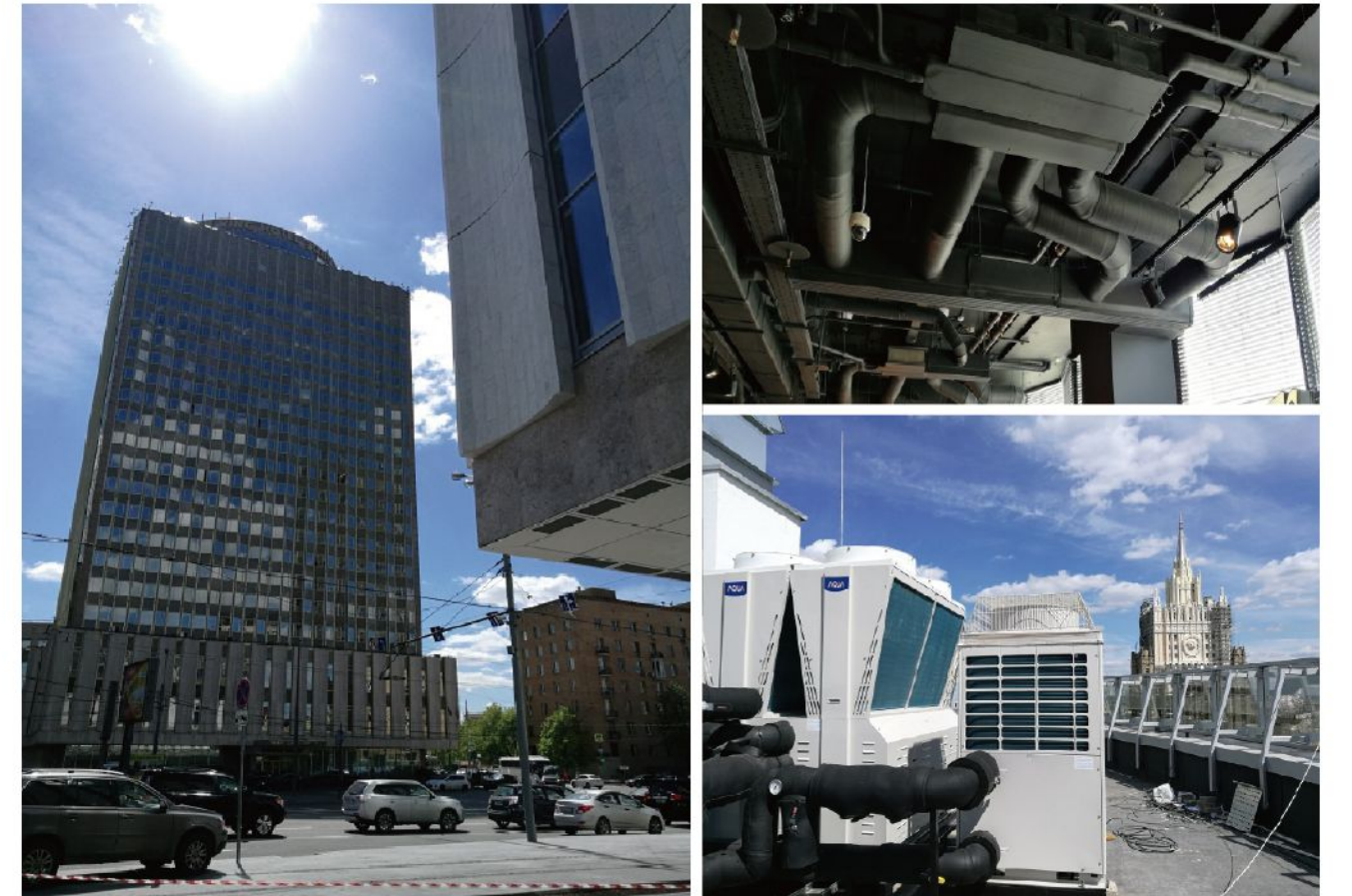


## Country: Russia

Project Name : Ashang shopping center  
Product Series: MRVIII-C



Project Name : Azimut hotel  
Product Series: MRVIII-C



# REFERENCE PROJECTS

## Country: Republic of Malta

Project Name: Water front  
Installation Series: MRV-IV



## Country: Thailand

Project Name: Royal Lee Dimension  
Product Series: MRV IV



## Country: Spain

Project Name: Madrid University Project  
Product Series: MRVIII-C



Project Name: Wandee Culinary Cook School  
Product Series: MRV III-C PLUS





# REFERENCE PROJECTS

Country: Vietnam

Project Name: Nissan Centre  
Product Series:MRVII-C



# AQUA