

HYUNDAI
AIR CONDITIONER



GENUINE PRODUCT OF
HYUNDAI CORPORATION



HYUNDAI
AIR CONDITIONER

HYUNDAI
VRF

PRODUCT
CATALOGUE



INTERNATIONAL AIR CONDITIONER JOINT STOCK COMPANY

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GENUINE PRODUCT OF
HYUNDAI CORPORATION





Enthalpy Difference Lab



Laboratory Control Room



200kg Transport Simulation Platform



Professional Engineers



EMC Lab



Noise Test Lab



200HP Long-term Running Lab



Modular Chiller Test Lab



Electromagnetic Vibration Lab

HYUNDAI has more than 200 technical engineers. And carry out technology collaboration and joint research with postdoctoral research workstations, at the same time, introducing senior technical experts from Japan to join HVM and served as senior technical consultants, HVM pay great attention in R&D and invest 4.5% of annual income every year to develop new technology, by continuous innovation, HVM has established a solid development foundation and strength in performance, structure, electronic control, industrial design and other professional aspects.

The test center covers an area of more than 6,000 square meters. It has a series of industry-leading professional laboratories. In 2010, it passed the consistency check of the National Energy Efficiency Label Management Center and obtained certificate, in 2018, the test center obtained CNAS national certification

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2002 Develop intelligent VRF system, enter VRF market.

2004 Successfully developed intelligent inverter VRF system.

2009 Upgrade performance; launch more stable, energy saving, and more comfortable super DC inverter module.

2011 Launch new HVM system adopt the industry fourth generation core technology, both process and quality upgrade.

2013 Full DC inverter HDV-X was successful developed;

VRF Development History



2020 HVM-Pro got Eurovent certification in 2020

2019 Launched New generation HVM-Pro VRF series.

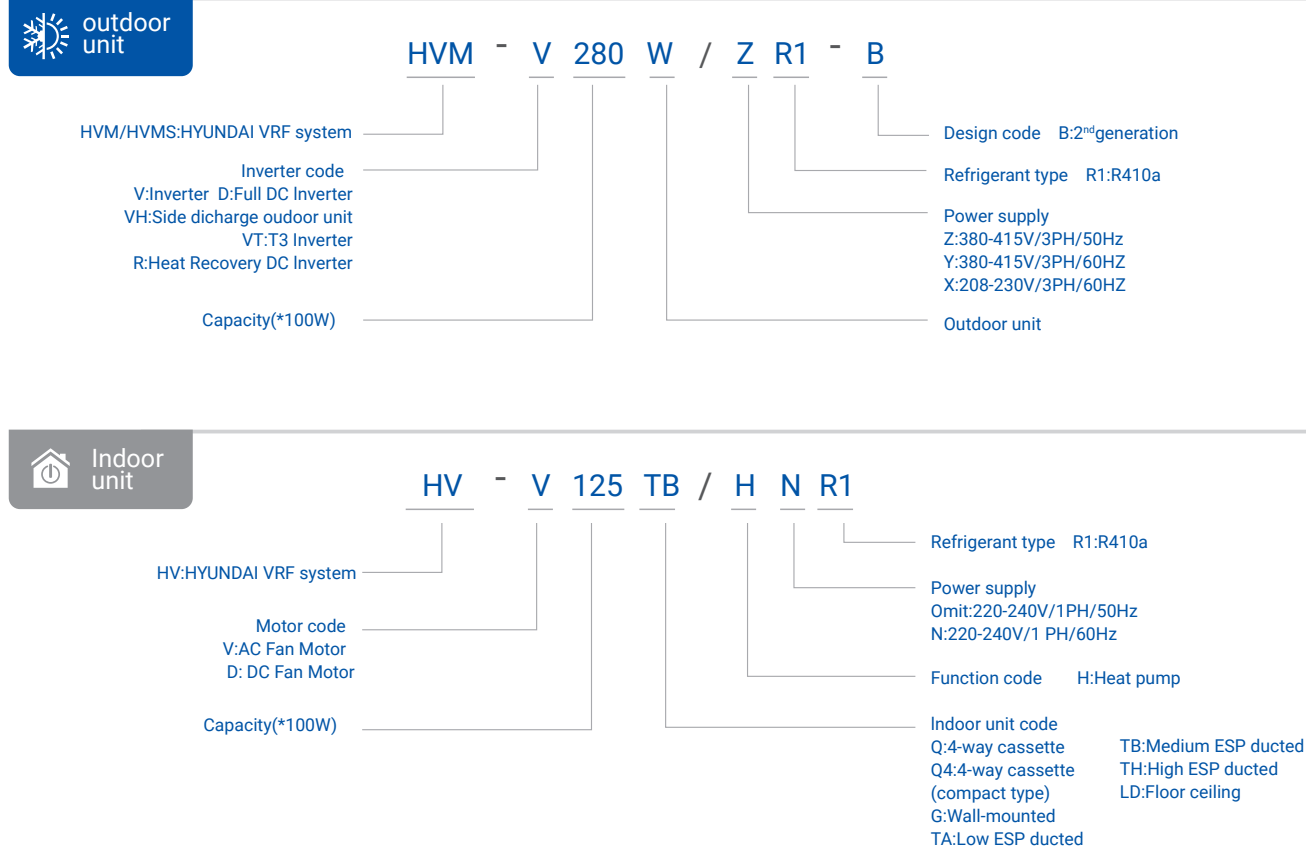
2018 Launched HVM-X* Full DC inverter EVI VRF system.

2017 HDV-X got EUROVENT certification in 2017.

2016 Launched HVM-R heat recovery VRF system.

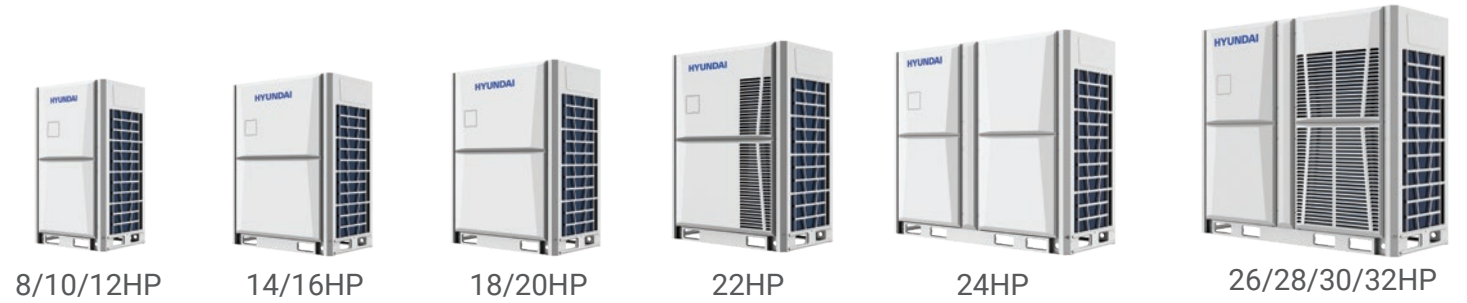
2015 New HVM-C series launched with high efficiency and excellent performance.

How To Read The Model Name



HYUNDAI AIR CONDITIONER

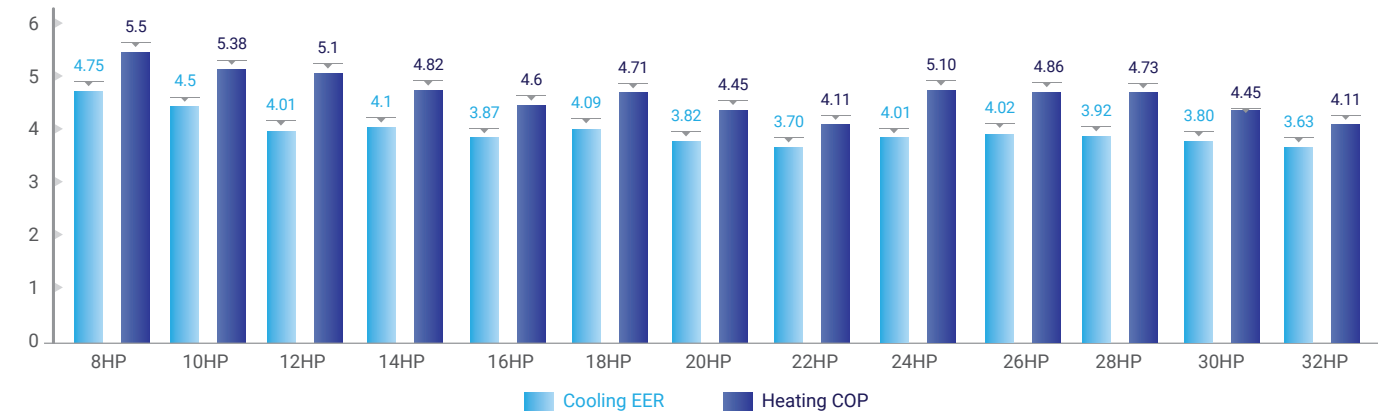
380~415V/3N/50Hz&60Hz
New Generation Full DC
Inverter EVI VRF



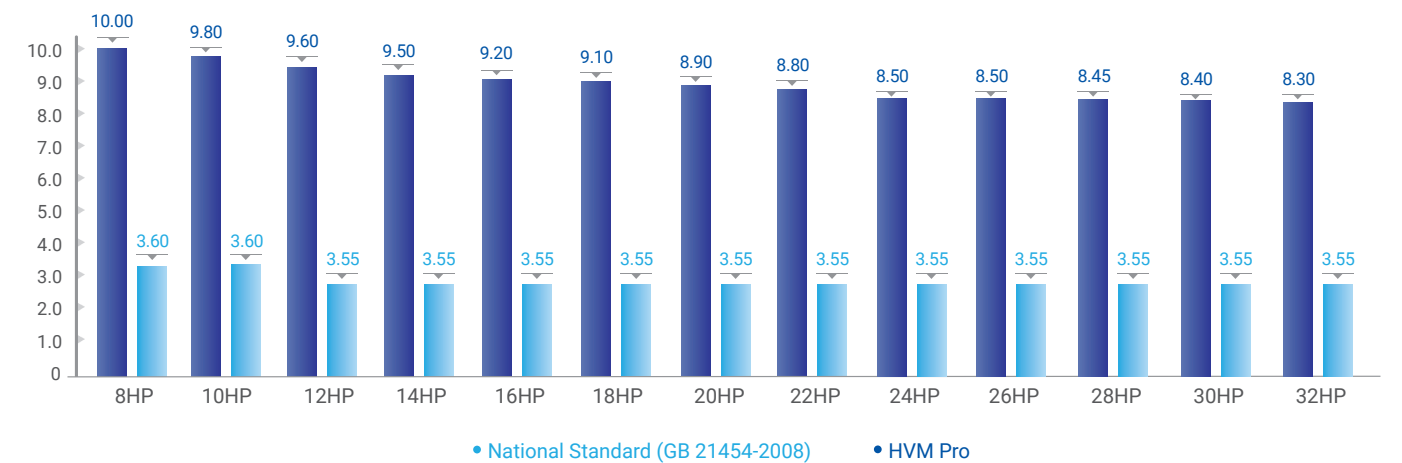
13 Basic Modules

Capacity	8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP	24HP	26HP	28HP	30HP	32HP
	25.2kW	28kW	33.5kW	40kW	45kW	50kW	56kW	61.5kW	67kW	73kW	78.5kW	85kW	90kW
Compressor	DC	DC	DC	DC	DC	DC	DC	DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC
Fan motor	DC	DC	DC	DC	DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC

EER&COP



IPLV(C)

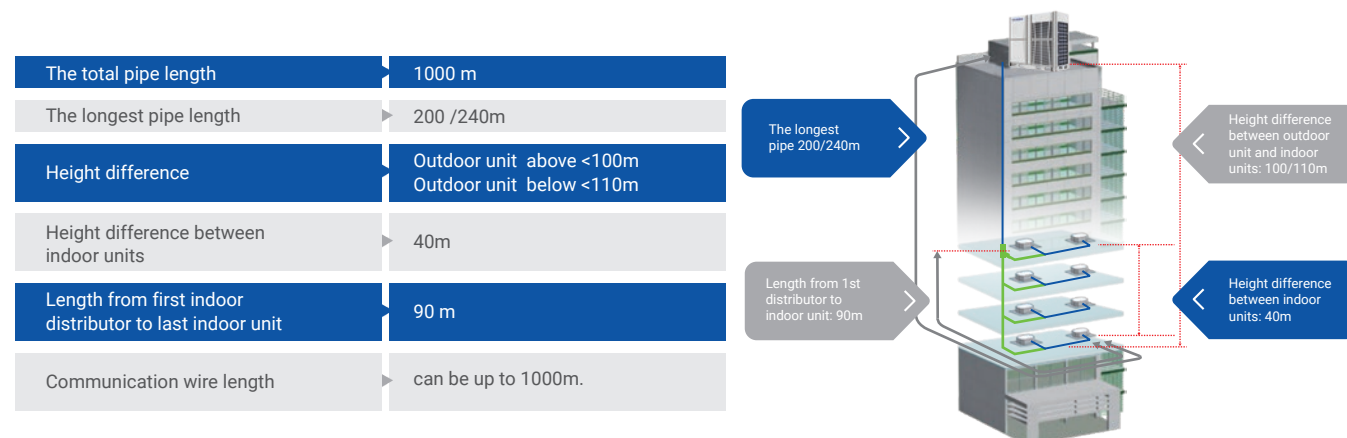


Combination Table

HP	Cooling Cap.(kW)	8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP	24HP	26HP	28HP	30HP	32HP
8	25.2	●												
10	28		●											
12	33.5			●										
14	40				●									
16	45					●								
18	50						●							
20	56							●						
22	61.5								●					
24	67									●				
26	73										●			
28	78.5											●		
30	85												●	
32	90													●
34	95													●
36	100													●
38	106.5													●
40	111.5													●
42	117.5													●
44	123													●
46	128.5													●
48	134													●
50	140													●
52	145.5													●
54	152													●
56	157													●
58	163													●
60	168.5													●
62	175													●
64	180													●
66	184.5													●
68	190													●
70	195.5													●
72	201.5													●
74	207													●
76	212.5													●
78	218.5													●
80	224													●
82	230													●
84	235.5													●
86	242													●
88	247													●
90	253													●
92	258.5													●
94	265													●
96	270													●

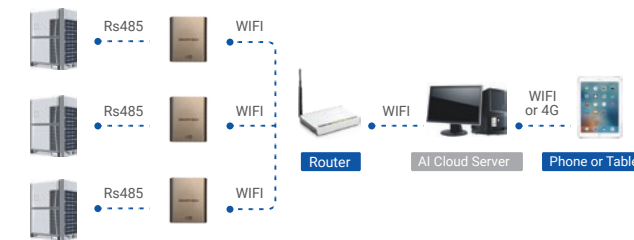
*Note:Max.4 outdoor units can be freely combined to become a larger unit,the maximum capacity of single system is 96HP, when 4 outdoor units are combined,the single unit capacity can not exceed 24HP.

Long Piping & Height Difference



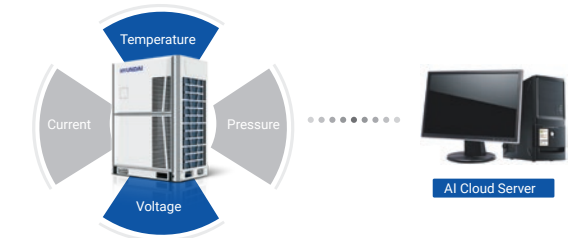
Features

Long Distance Remote Control
Long distance remote control by phone or tablet.



Malfunction Forecasting

- Thanks to the AI cloud server, malfunction can be forecasted when system running parameter is abnormal.
- Technician can be sent to site to check the system before it stops.



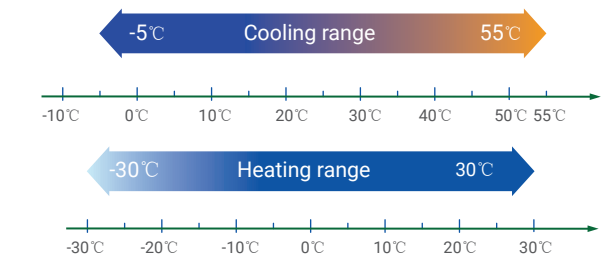
Refrigerant Cooling Design

We use refrigerant to cool down inverter modular board to keep it in a safe condition even when outdoor temperature is up to 55°C.



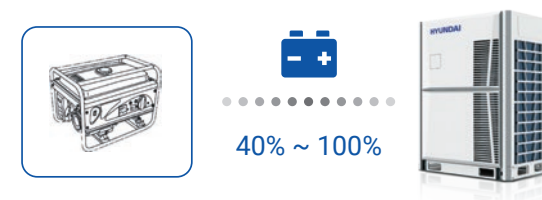
Wide Outdoor Operation Range

- Due to EVI technology, HDV PRO heating performance increased by 35% compare to conventional VRF system.
- Due to EVI technology, h PRO still has 85% of rated capacity even in -15°C.



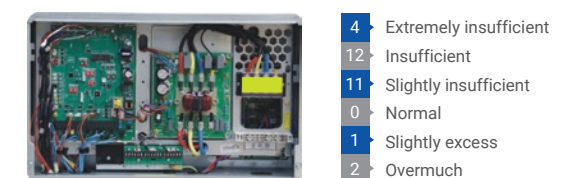
Power Saving Mode

In the case of power shortage, HDV PRO can run power saving mode to ease generator's pressure.



Refrigerant Status Detection

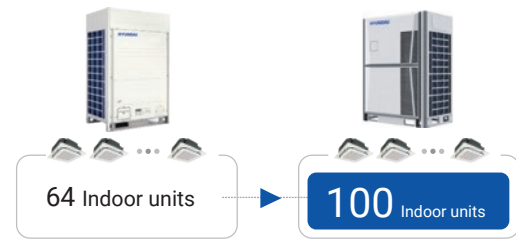
- Built-in with smart refrigerant auto check function, which can give suggestion about refrigerant status.
- Different code means different refrigerant status:



Features

2 More indoor units

Max. 100 Indoor units can be connect in ONE system.



Electrical Lock Function(optional)

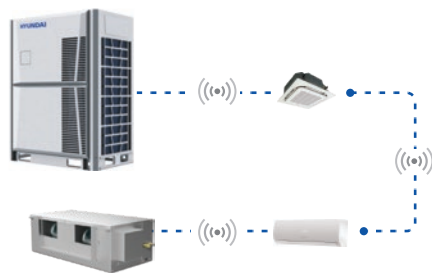


In case of end user doesn't pay as contract, electrical lock function can be used to stop VRF system, and end user can not start the system without permission.

System can be unlock with password by authorized technician.

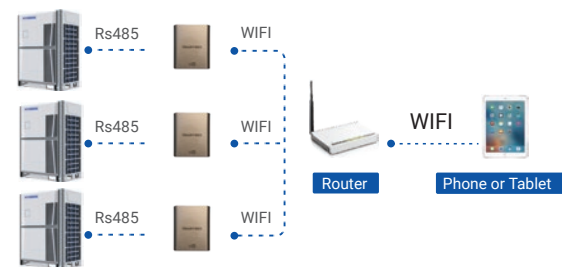
Wireless Communication(optional)

Wireless communication between indoor units.
Wireless communication between indoor unit and outdoor unit.



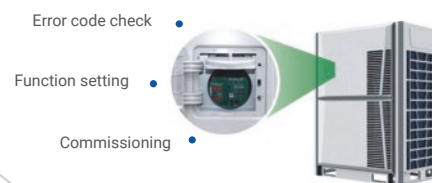
On Site Diagnosis

Technician can do the commissioning & diagnosis by phone or tablet on site.



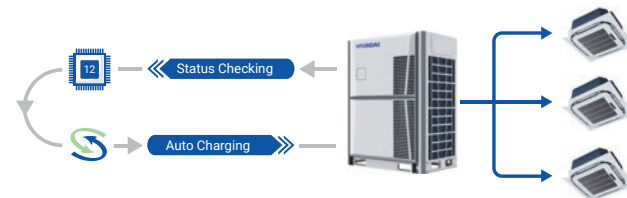
Service Window On Front Cover

Thanks to the service window, checking outdoor units status and setting is now easy, no need to remove the front cover.



Auto Charging Refrigerant(optional)

HDV PRO can customize with auto refrigerant charging function, additional solenoid valve will be added in gas pipe, and outdoor unit will control the valve to charge refrigerant.



13 Basic Modules



Maximum 96HP



Max.4 outdoor units can be freely combined to become a larger unit.the maximum capacity of single system is 96HP.

*:when 4 outdoor units are combined,the single unit capacity can not exceed 24HP.

1 High Efficiency

2 Benefits For Users

3 Benefits For Installers

Advantages



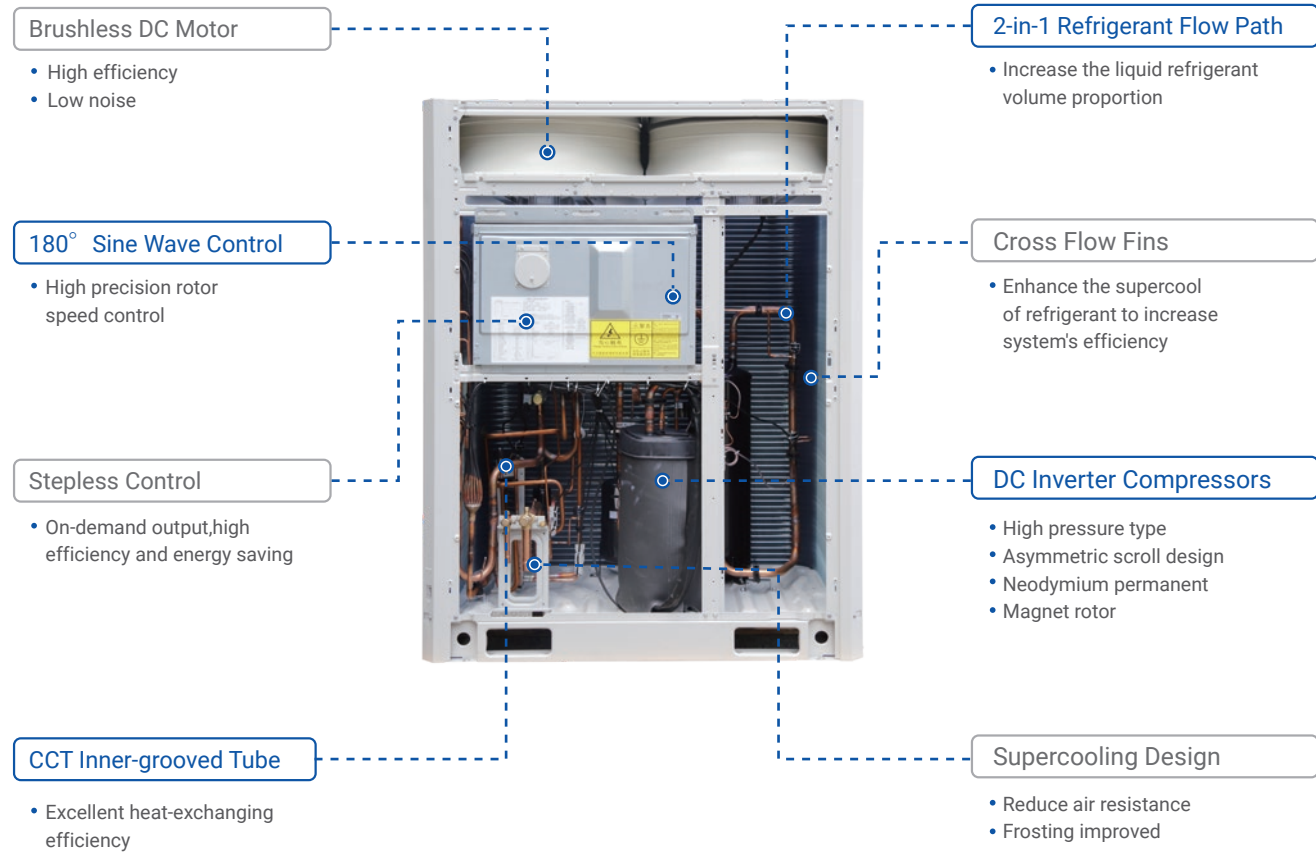
Provide You With Fresh Air

1 High Efficiency

Low carbon life advocate

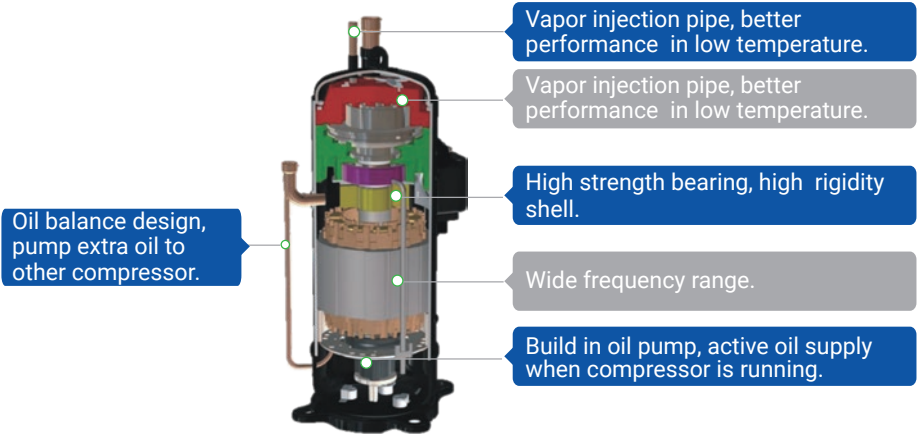
HDV always focus on low-carbon energy-saving products development, and spare no effort for technological research and development, to become a practitioner and advocate of low-carbon technology!

Core Technologies Make High Efficiency



High Efficiency DC Inverter Compressor

- From Hitachi, famous inverter compressor manufacturer.
- R410a ECO friendly refrigerant.
- Small torque fluctuation, low vibration and quiet operation.
- High efficiency due to its patent internal structure design.
- Internal oil circulation structure.
- High reliability.
- Wide rotation speed range.
- Neodymium permanent magnet rotor, has powerful magnetic force, large torque and high efficiency.
- Concentrated winding, improving low frequency efficiency.
- High pressure chamber
- Has small suction superheat and high refrigerant volume efficiency



• Has large refrigerant discharge buffer volume, Low vibration and noise

Neodymium permanent magnet rotor

Powerful magnetic force, large force moment and high efficiency.

Ferrite magnet Neodymium permanent magnet

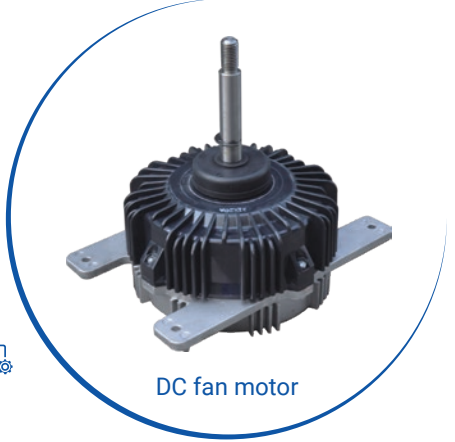
Concentrated winding

Magnetic efficiency is 12% higher than distributed winding

Concentrated winding Distributed winding

High Efficiency DC Motor

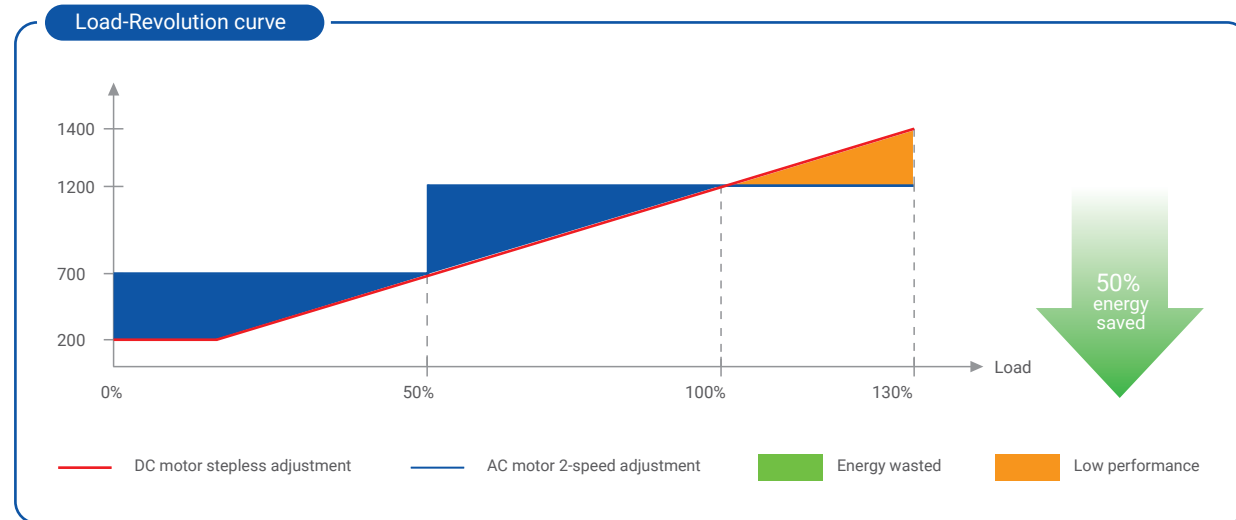
- High efficiency DC fan motor is from well-known brand.
- Low noise and high efficiency because of high-density wire winding engineering.
- Brushless with built-in sensor.





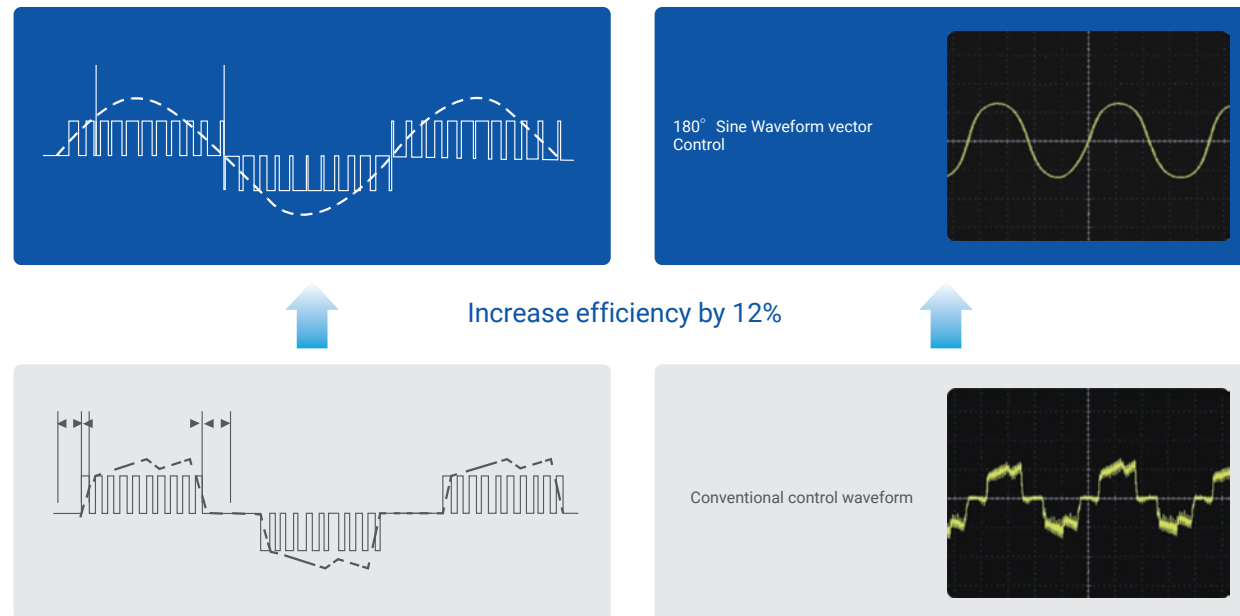
Stepless Control

DC fan motor can be stepless controlled by outdoor PCB according to system's operating pressure. And it is able to reduce the energy consumption and maintain the system in the best performance.



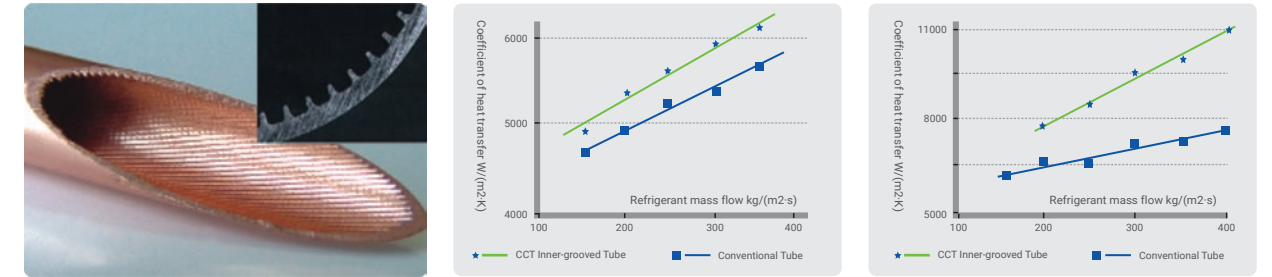
180° Sine Waveform Control

The perfect combination of 180° Sine waveform rotor frequency drive control technology and excellent IPM inverters, reduces the reactive loss of motor-driven, increases motor efficiency by 12%.

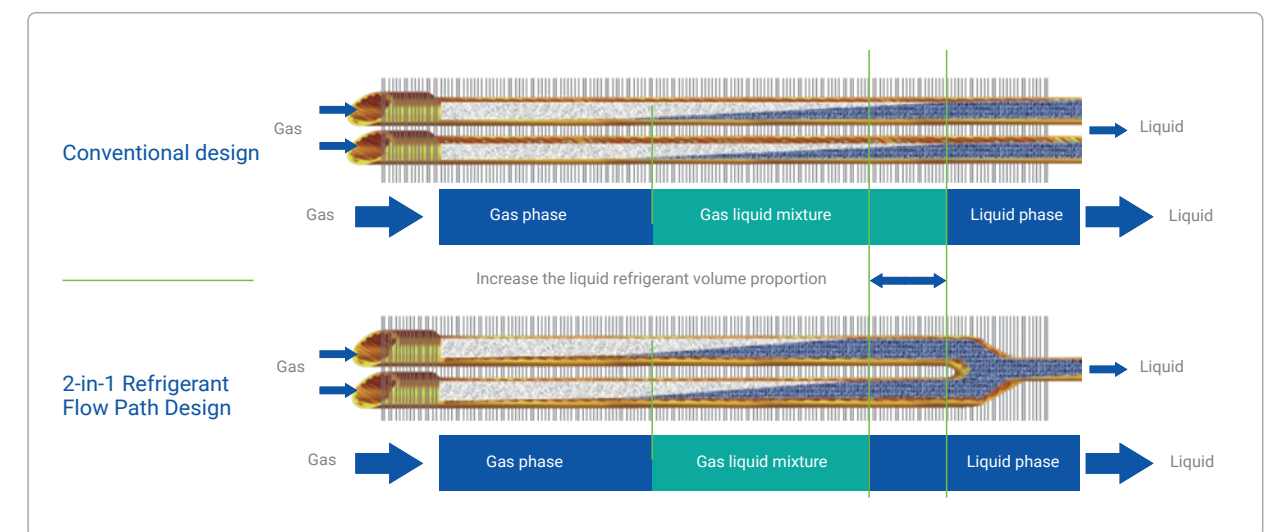
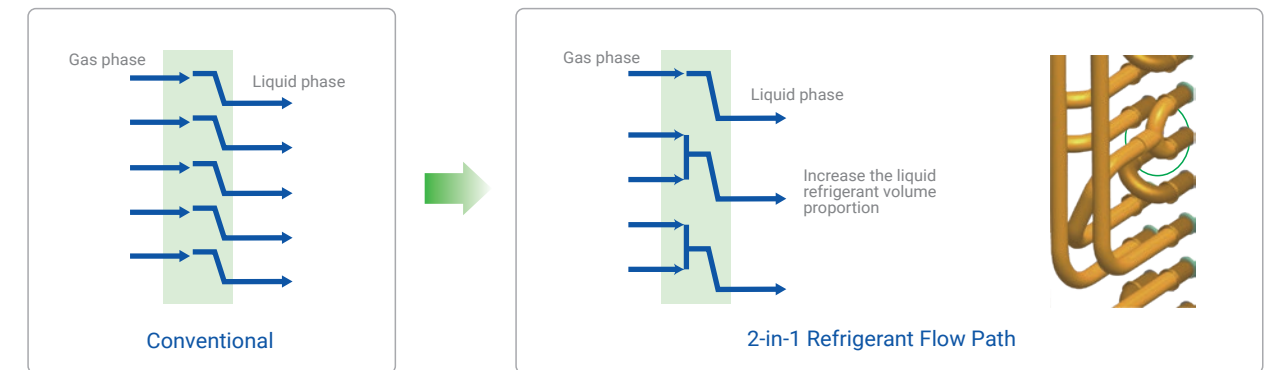


CCT Inner-grooved Tube

CCT (Continuous Cooling Transformation) inner-grooved copper tube has high thermometric conductivity. This inner-grooved fins break the refrigerant flow boundary layer to enhance refrigerant disturbance to increase heat-exchanging efficiency.



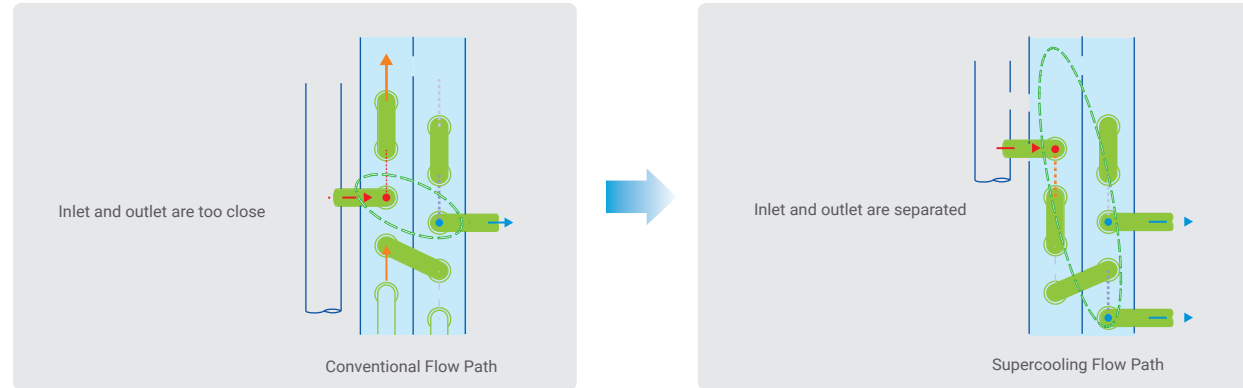
2-in-1 Refrigerant Flow Path Design





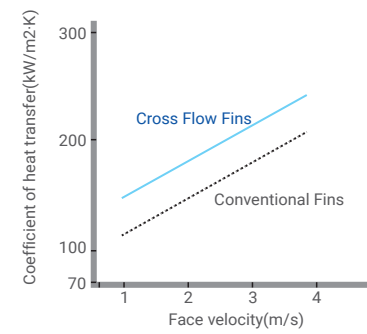
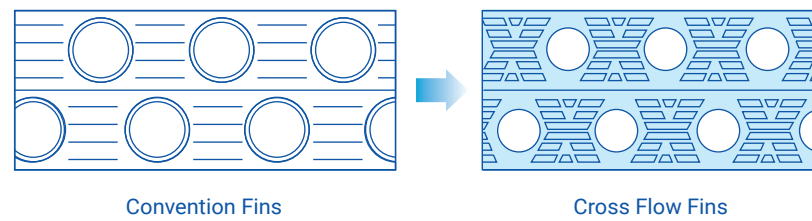
Supercooling Flow Path Design

Supercooling flow path design, separates the refrigerant inlet and outlet, increase the supercooling degree, reduce the effect of high temperature inlet gas refrigerant to low temperature outlet liquid refrigerant, therefore, the system efficiency will be greatly increased.



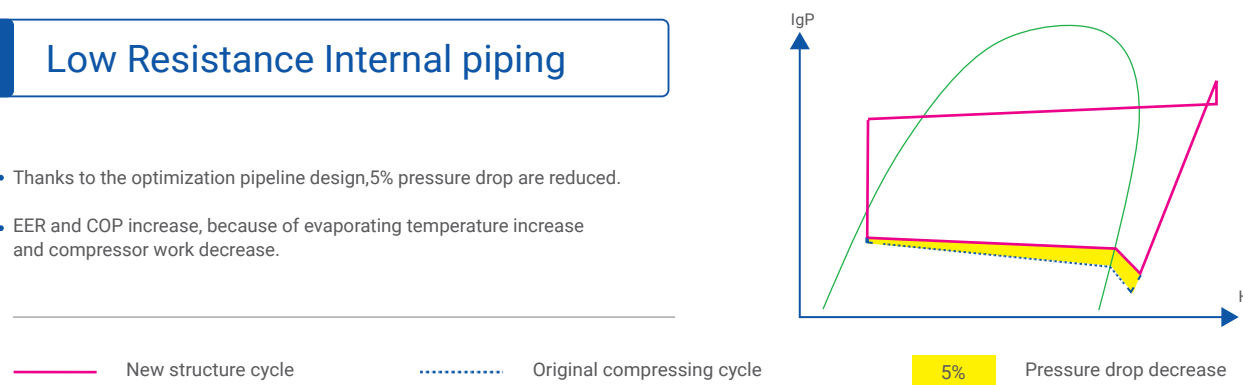
Cross Flow Fins

- Has low air resistance and great heat transfer coefficient.
- Frosting improved, frost on the heat-exchanger will be well-distributed, easy for defrosting.



Low Resistance Internal piping

- Thanks to the optimization pipeline design, 5% pressure drop are reduced.
- EER and COP increase, because of evaporating temperature increase and compressor work decrease.



2

Benefits For Users

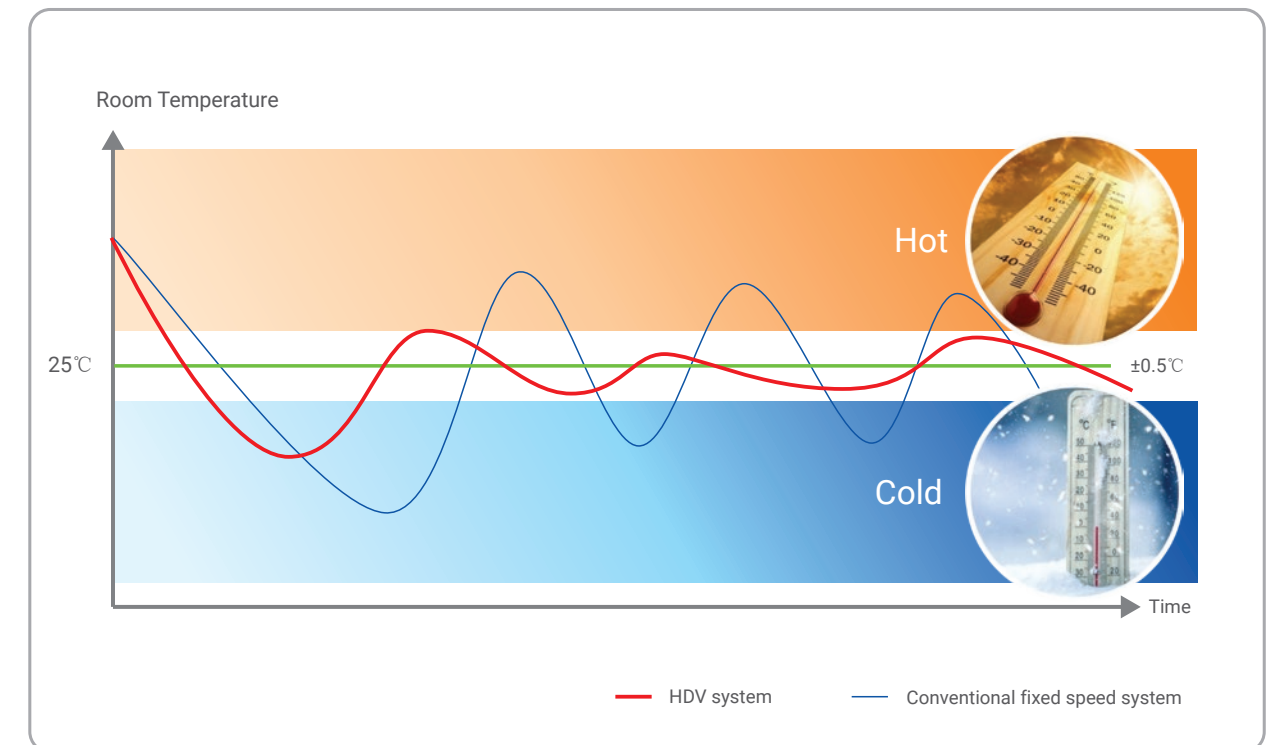
Livable environment creator

HDV focuses on starting point of CAC system: create a friendly, comfortable and pleasant living environment as always. DC inverter VRF system's comfort technologies include quick cooling and heating, precise temperature control, low noise, use environmental friendly refrigerant and so on, we strive to create livable environment for users.....



Outstanding Comfort Ability

- HDV system have excellent cooling&heating performance, thanks to the high efficiency DC fan motor, DC compressor and optimized refrigerant flow control logic.
- Precisely room temperature control by adopting 2000 pulse EXV. Indoor temperature fluctuation can be maintain within 0.5°C, offers outstanding comfort ability.





Wide Operation Range

- Due to EVI technology, HDV PRO's heating performance increased by 35% compare to conventional VRF system.
- Due to EVI technology, HDV PRO still has 85% of rated capacity even in -15°C.

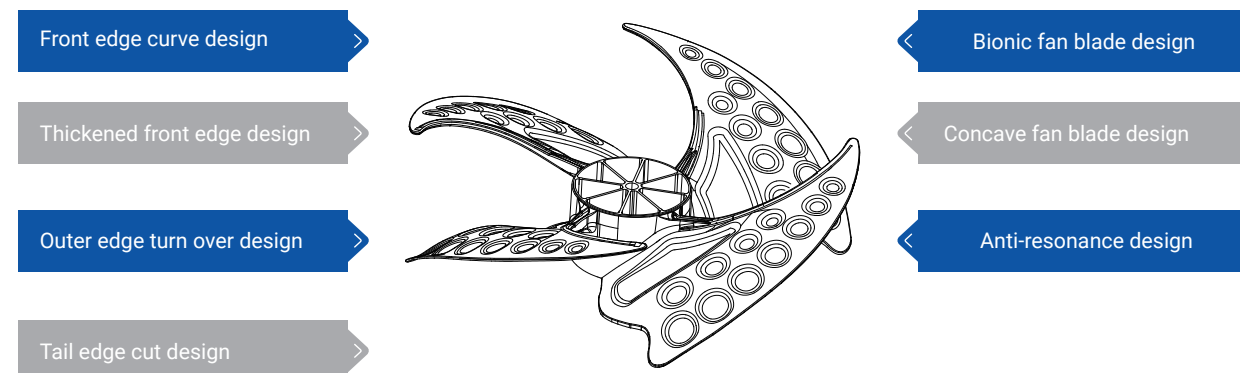


7 Improvements To Reduce Noise

- Maximum 10dB(A) of operating sound decrease.

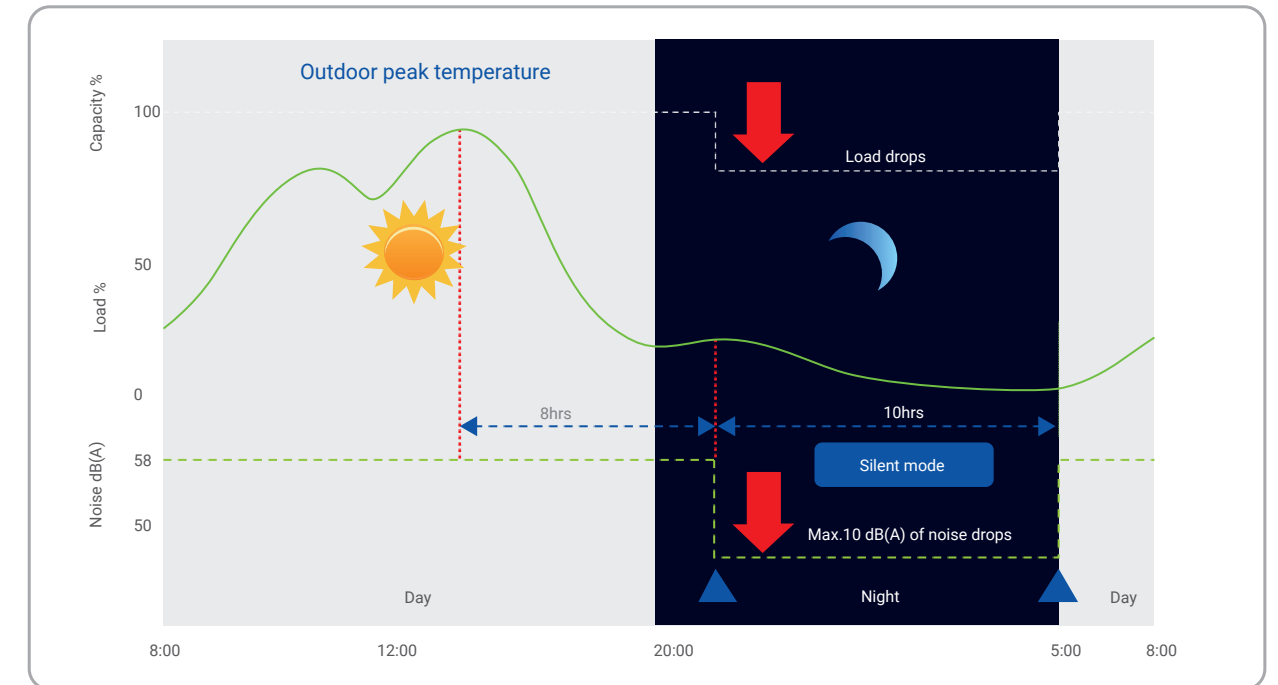


Low Noise Fan Blade



Silent Mode, Night Time Noise Control

- Compressor and fan motor rotating speed can be reduced to lower the noise at night.
- Maximum 10dB(A) decrease.



Snow-proof Function

- In the cold weather, outdoor fan will start to run for a while at intervals, for preventing the snow to accumulate on fan blade. Because accumulated snow will freeze and block fan blade rotating, even worse it will damage the motor.
- It only start when temperature is lower than 0°C.



The PHE Economizer

- PHE Economizer technology provide an additional sub cooling.
- Improved heat exchanger+PHE economizer+Optimized control logic.
- Heating performance highly increased.



◀ PHE Economizer

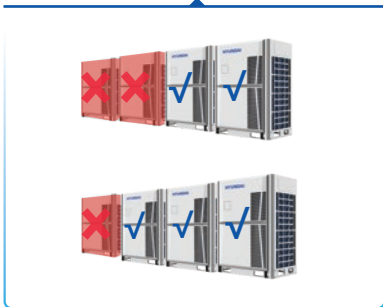
The PHE economizer need customization.



3-stage Back Up Function

Module back up function.

When some modules are failure, the others can keep running by simply settings.



Compressor back up function

When one compressor is failure, the other one can keep running by simply settings.

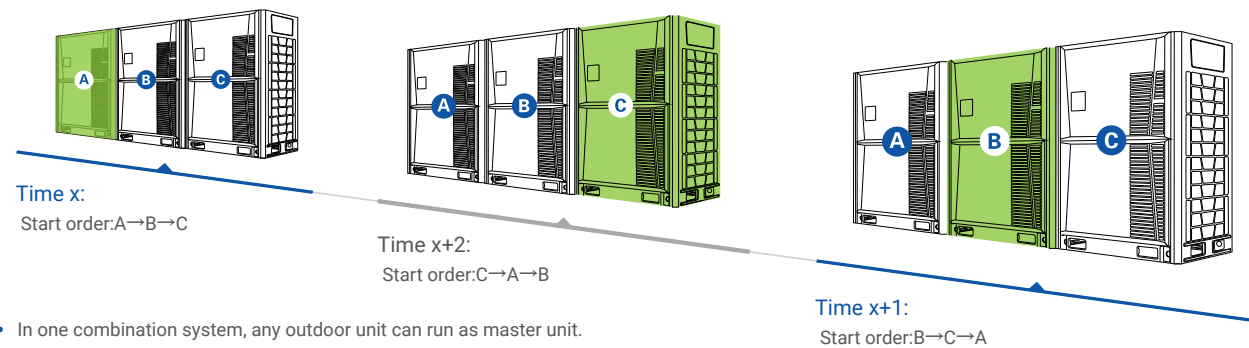


Fan motor back up function.

When one fan motor is failure, the other one can keep running by simply settings.



All Outdoor Units Cycle Operation



- In one combination system, any outdoor unit can run as master unit.
- Balance the lifespan among outdoor units in one system.

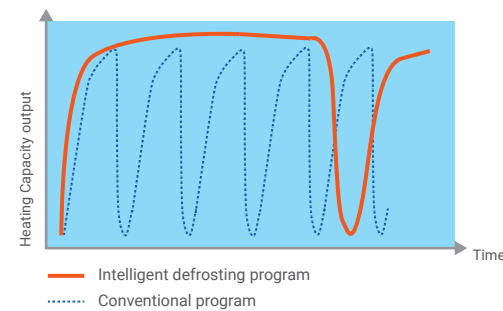


Intelligent Defrosting Program

Program starts only when unit needs to. Whereas conventional unit's defrosting timing & duration is fixed, causing fluctuations in temperature and personal comfort.

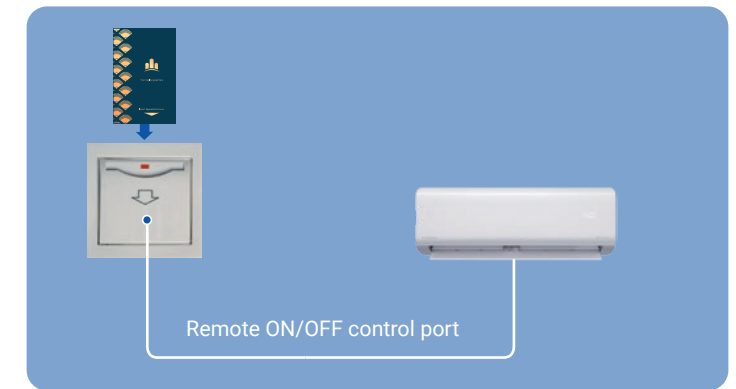
Defrost Curve

- Conventional unit's defrosting timing & duration is fixed
- Intelligent defrosting program starts according to heat exchanging efficiency & capacity change due to the frost. Less temperature fluctuations, people feel more comfortable



Remote ON/OFF Control Function

- Indoor units standard build in with ON/OFF control port.
- It can be used for hotel card control and also can be used for long distance remote ON/OFF control. And no need additional hotel VRF indoor unit control module.
- When contactor is open(card pulled out),indoor unit will be off can not be controlled, current running parameters will be saved in indoor PCB.
- When contactor is close(card insert),indoor unit will recover previous running state.



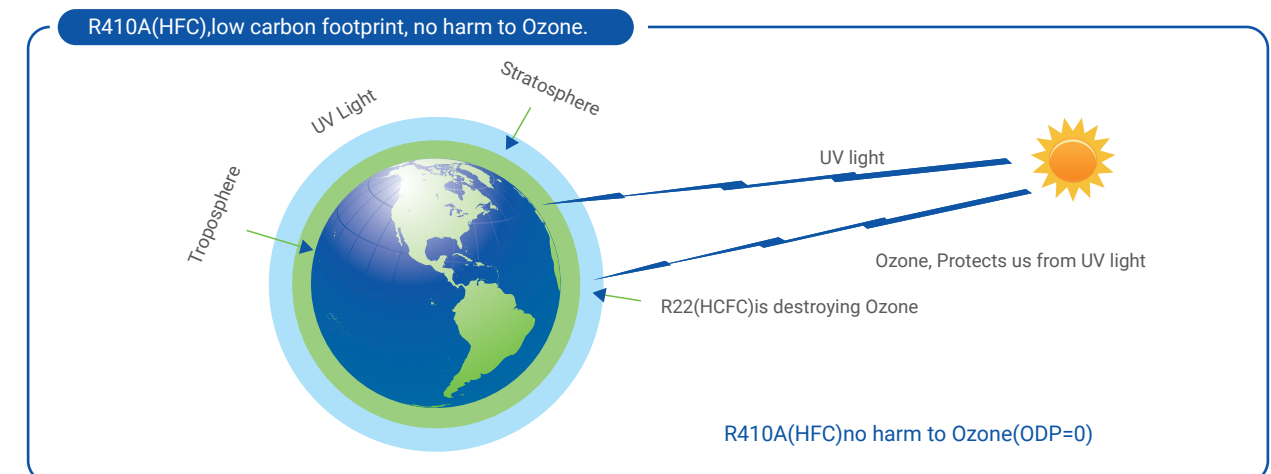
Emergency Stop Operation Function

Outdoor unit have a fire alarm linkage signal control function. When emergency situation can stop the whole AC system.



Environment Friendly

Refrigerant R410A(HFC),low carbon footprint, no harm to Ozone.





3

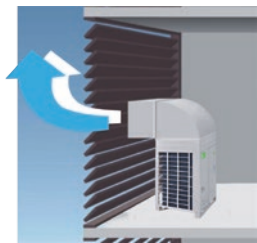
Benefits For Installers

Optimization for designer and installer

HDV DC inverter VRF system is designed with flexible modular combination concept, we keep optimizing the module size, reduce equipment on space occupied to meet the demand of designer and installer. Some unique technologies are used for our installers to reduce their working load, installation is becoming easier and easier!



Adjustable Outdoor Fan Static Pressure



- Thanks to DC fan motor, the external static pressure of outdoor fan is adjustable.
- Outdoor units can be installed in the service floor or facility room.
- Maximum ESP 85Pa.



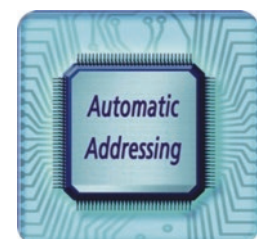
Touch Screen Wired Controller



- Air filter cleaning reminding function.
- Touch screen with black background and white light
- Ultra thin body and stylish design meet high-end environments.
- On/off, temperature setting, fan speed setting, mode setting, timer and check function.



Addressing Methods



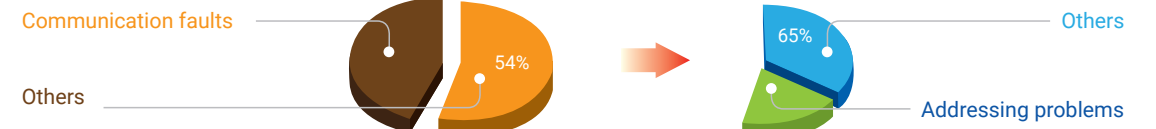
- 2 addressing methods:
 - Automatically addressing: system will distribute address to indoor unit automatically.
 - Manually setting by wireless remote controller.
- Addressing method can be selected easily by adjusting the switch on outdoor PCB.



Automatic Addressing

- Automatic addressing will reduce artificial faults by 35% and 5% manual works.
- 54% system failure were caused by communication faults.
- 65% communication faults were caused by address problems.
- Most of the address problems were: address setting forgotten, wrong settings, address repeat.

Failure chart



Address faults was awarded to the most hated fault after had investigated 120 VRF after-sale engineers in 2011.



New Wired Controller

- Bidirectional communication. Indoor unit's operating parameters (error code, temperature, address) can be inquired and displayed on the controller.
- Compact design.
 - Timer function.



Indoor unit operation state
Indoor unit control order



- Easy
- Safe
- Convenient

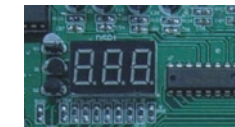


User can check the error code and inquiry unit status very easy, safe and convenient.



LED Display On The PCB

- LED display on the PCB, it can show system's operation status and error codes.



- Record error code list at main PCB chip, easy for service people to check.



Service Window

Thanks to the service window, checking outdoor unit's status and setting is now easy, no need to remove the electric control box cover.

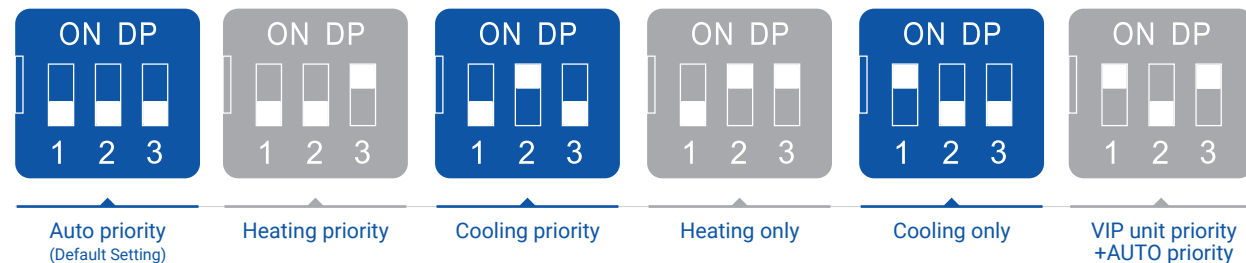
Error Code Check



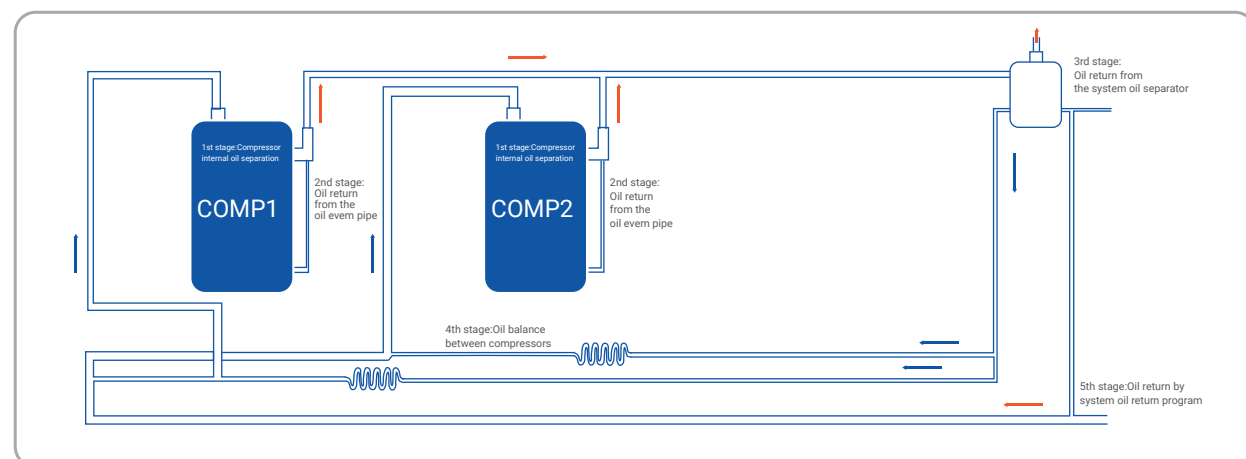
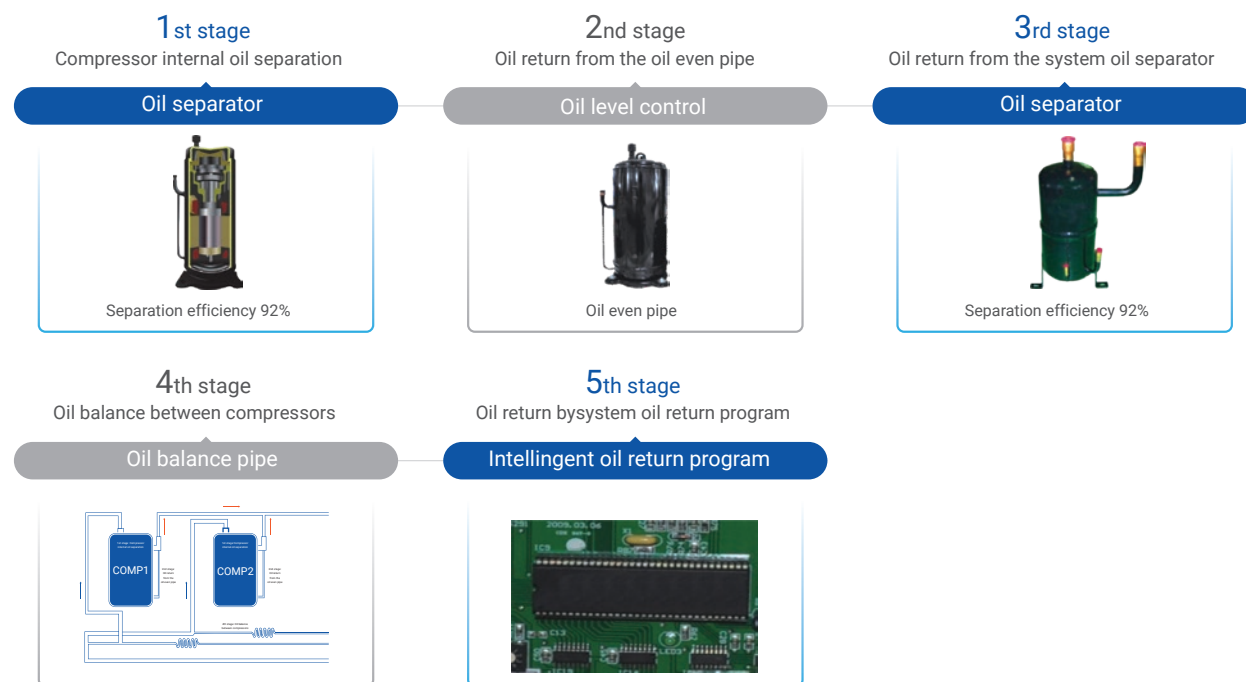


Mode Restriction

- 6 kinds of mode restriction
- Auto priority(Default Setting) • Cooling(or heating)priority mode. • Cooling only(or heating only)mode. • VIP unit priority+AUTO priority mode
- Mode restriction function can be selected on the outdoor PCB.



5-Stage Oil Control



Humanized Internal Structure

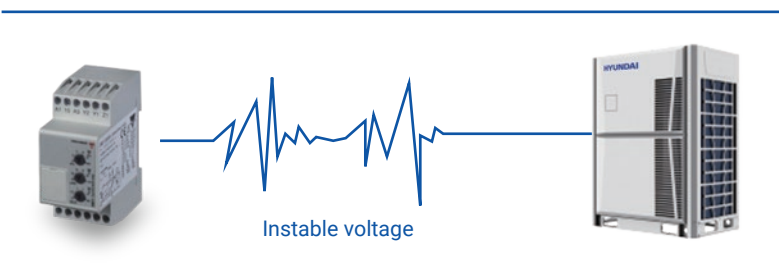


- All key components are designed to close to outside, it is convenient for repair and replacement.
- Thanks to the new balance technology, gas balance pipe does no longer exist, brazing points and leaking risk are decreased.



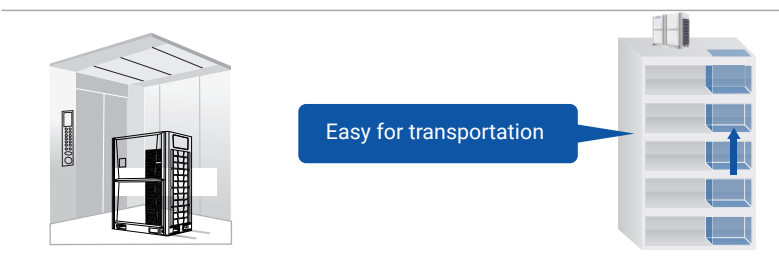
3-Phase Power Protector(Optional)

Protect the outdoor unit from instable voltage.



Easy Installation

- Easy for the outdoor unit to transport to roof floor by elevator due to its compact size.
- Communication wire length can be up to 1000m.



Use 2-Core Shielded Wire As Signal Wire

- Save installation cost.
- Reduce manual works.





HP		8	10	12	
Combination Unit		HVHS08G1Y5	HVHS10G1Y5	HVHS12G1Y5	
Power supply		V / Ø / Hz 380~415V/3/50			
Capacity	Colling	kW	25.2	28	33.5
		Btu/h	86000	95500	114000
		RT	7.2	8	9.5
	Heating	kW	27.4	31.5	37.5
		Btu/h	93500	107500	128000
		RT	7.8	9	10.7
Power input	Colling	A	9.04	11.30	14.51
		kW	5.31	6.22	8.35
	Heating	A	8.93	11.25	14.34
		kW	4.98	5.86	7.35
Efficiency EER / COP	Cooling	W/W	4.75	4.5	4.01
		(kBtu/h)/kW	16.21	15.35	13.65
	Heating	W/W	5.5	5.38	5.1
		(kBtu/h)/kW	18.77	18.36	17.41
Compressor	Quantity	-	1	1	1
	Type	-	Scroll - Inverter	Scroll - Inverter	Scroll - Inverter
Refrigerant	Type	-	R410a	R410a	R410a
	Volume	kg	9	9	11
	Type	-	DC Inverter	DC Inverter	DC Inverter
Outdoor Motor Fan	Quantity	-	1	1	1
	Air flow	m ³ /h	11000	11000	12000
		m ³ /min	183.3	183.3	200
	Max Static Pressure (Pa)		80	80	80
	Discharge Direction		TOP	TOP	TOP
Dimension	Net (L*H*W)	mm	990*1740*840	990*1740*840	990*1740*840
weight	Net	kg	228	228	230
Noise Level		dB(A)	58	58	60
Pipe size	Liquid pipe	mm	Ø12.7	Ø12.7	Ø12.7
	Gas pipe	mm	Ø22.2	Ø22.2	Ø22.2
Connection wire	Power wire	mm ²	6*5(L≤20m)	6*5(L≤20m)	6*5(L≤20m)
			10*5(20m<L≤50m)	10*5(20m<L≤50m)	10*5(20m<L≤50m)
	Signal	mm ² x cores	0.75 mm x 2c	0.75 mm x 2c	0.75 mm x 2c
Indoor Units	Max. (Conditional)		13	16	19



HP		14	16	18	20	22	
Combination Unit		HVHS14G1Y5	HVHS16G1Y5	HVHS18G1Y5	HVHS20G1Y5	HVHS22G1Y5	
Power supply		V / Ø / Hz 380~415V/3/50					
Capacity	Colling	kW	40	45	50	56	61.5
		Btu/h	136500	153500	170600	191000	209800
		RT	11.4	12.8	14.2	16	17.5
	Heating	kW	45	50	56	63	69
		Btu/h	153500	170600	191000	214900	235400
		RT	12.8	14.2	16	18	19.7
Power input	Colling	A	18.10	21.60	23.29	26.10	29.06
		kW	9.76	11.63	12.22	14.66	16.62
	Heating	A	18.00	20.25	22.61	25.70	28.40
		kW	9.34	10.87	11.89	14.16	16.80
Efficiency EER / COP	Cooling	W/W	4.1	3.87	4.09	3.82	3.70
		(kBtu/h)/kW	13.99	13.20	13.96	13.03	12.62
	Heating	W/W	4.82	4.6	4.71	4.45	4.11
		(kBtu/h)/kW	16.44	15.70	16.06	15.18	14.01
Compressor	Quantity	-	1	1	1	1	1
	Type	-	Scroll - Inverter	Scroll - Inverter	Scroll - Inverter	Scroll - Inverter	Scroll - Inverter
Refrigerant	Type	-	R410a	R410a	R410a	R410a	R410a
	Volume	kg	14	14	15	16	16
	Type	-	DC Inverter	DC Inverter	DC Inverter	DC Inverter	DC Inverter
Outdoor Motor Fan	Quantity	-	1	1	2	2	2
	Air flow	m ³ /h	14000	14000	16000	16000	16000
		m ³ /min	233.3	233.3	266.7	266.7	266.7
	Max Static Pressure (Pa)		80	80	80	80	80
	Discharge Direction		TOP	TOP	TOP	TOP	TOP
Dimension	Net (L*H*W)	mm	1340*1740*840	1340*1740*840	1340*1740*840	1340*1740*840	1340*1740*840
weight	Net	kg	275	275	285	290	297
Noise Level		dB(A)	60	61	62	63	63
Pipe size	Liquid pipe	mm	Ø15.88	Ø15.88	Ø15.88	Ø15.88	Ø15.88
	Gas pipe	mm	Ø28.6	Ø28.6	Ø28.6	Ø28.6	Ø28.6
Connection wire	Power wire	mm ²	10*5(L≤20m)	10*5(L≤20m)	16*5(L≤20m)	16*5(L≤20m)	16*5(L≤20m)
			16*5(20m<L≤50m)	16*5(20m<L≤50m)	25*5(20m<L≤50m)	25*5(20m<L≤50m)	25*5(20m<L≤50m)
	Signal	mm ² x cores	0.75 mm x 2c	0.75 mm x 2c	0.75 mm x 2c	0.75 mm x 2c	0.75 mm x 2c
Indoor Units	Max. (Conditional)		23	26	29	33	36



HP		24	26	28	30	32	
Combination Unit		HVHS24G1Y5	HVHS26G1Y5	HVHS28G1Y5	HVHS30G1Y5	HVHS32G1Y5	
Power supply		380~415V/3/50					
Capacity	Cooling	kW	67	73	78.5	85	90
		Btu/h	228600	249100	267800	290000	307100
	RT	19.1	20.8	22.3	24.2	25.6	
	Heating	kW	75	81.5	87.5	95	100
		Btu/h	255900	278100	298600	324100	341200
Power input	Cooling	A	29.09	32.59	36.13	40.36	44.73
		kW	16.71	18.16	20.03	22.37	24.79
	Heating	A	28.65	30.28	33.38	38.52	43.90
		kW	14.72	16.78	18.50	21.35	24.33
Efficiency EER / COP	Cooling	W/W	4.01	4.02	3.92	3.80	3.63
		(kBtu/h)/kW	13.68	13.72	13.37	12.96	12.39
	Heating	W/W	5.10	4.86	4.73	4.45	4.11
		(kBtu/h)/kW	17.38	16.57	16.14	15.18	14.02
Compressor	Quantity	-	2	2	2	2	
	Type	-	Scroll - Inverter	Scroll - Inverter	Scroll - Inverter	Scroll - Inverter	Scroll - Inverter
Refrigerant	Type	-	R410a	R410a	R410a	R410a	
	Volume	-	16	20	20	23	
Outdoor Motor Fan	Type	-	DC Inverter	DC Inverter	DC Inverter	DC Inverter	
	Quantity	-	2	2	2	2	
	Air flow	m ³ /h	-	25000	25000	25000	24000
		m ³ /min	-	416.7	416.7	416.7	400
	Max Static Pressure (Pa)	-	80	80	80	80	
	Discharge Direction	-	TOP	TOP	TOP	TOP	
Dimension	Net (L*H*W)	mm	1990*1740*840	1990*1740*840	1990*1740*840	1990*1740*840	
weight	Net	kg	388	433	433	480	
Noise Level		dB(A)	62	63	63	64	
Pipe size	Liquid pipe	mm	Ø15.88	Ø22.2	Ø22.2	Ø22.2	
	Gas pipe	mm	Ø28.6	Ø35	Ø35	Ø35	
Connection wire	Power wire	mm ²	16*5(L≤20m) 25*5(20m<L≤50m)	16*5(L≤20m) 25*5(20m<L≤50m)	16*5(L≤20m) 25*5(20m<L≤50m)	25*5(L≤20m) 35*5(20m<L≤50m)	
	Signal	mm ² x cores	0.75 mm x 2c	0.75 mm x 2c	0.75 mm x 2c	0.75 mm x 2c	
Indoor Units	Max. (Conditional)		39	43	46	50	



HP		34	36	38	40	
Combination Unit		HVHS16G1Y5 HVHS18G1Y5	HVHS18G1Y5 HVHS18G1Y5	HVHS16G1Y5 HVHS22G1Y5	HVHS18G1Y5 HVHS22G1Y5	
Power supply		380~415V/3/50				
Capacity	Cooling	kW	95	100	106.5	111.5
		Btu/h	324100	341200	363300	380400
	RT	27	28.4	30.3	31.7	
	Heating	kW	106	112	119	125
		Btu/h	361600	382000	406000	426400
Power input	Cooling	A	44.89	46.58	50.66	52.35
		kW	23.85	24.45	28.25	28.85
	Heating	A	42.86	45.22	48.65	51.01
		kW	22.76	23.78	27.67	28.69
Efficiency EER / COP	Cooling	W/W	3.98	4.09	3.77	3.87
		(kBtu/h)/kW	13.59	13.96	12.86	13.19
	Heating	W/W	4.66	4.71	4.30	4.36
		(kBtu/h)/kW	15.89	16.06	14.67	14.86
Compressor	Quantity	-	1+1	1+1	1+1	1+1
	Type	-	Scroll - Inverter	Scroll - Inverter	Scroll - Inverter	Scroll - Inverter
Refrigerant	Type	-	R410a	R410a	R410a	
	Volume	-	14+15	15+15	14+16	
	Type	-	DC Inverter	DC Inverter	DC Inverter	
Outdoor Motor Fan	Quantity	-	1+2	2+2	1+2	
	Air flow	m ³ /h	30000	32000	30000	
	Max Static Pressure (Pa)	-	80	80	80	
	Discharge Direction	-	TOP	TOP	TOP	
Dimension	Net (L*H*W)	mm	(990*1740*840)*2	(990*1740*840)*2	(990*1740*840)*2	
weight	Net	kg	275+285	285+285	275+297	
Noise Level		dB(A)	62	62	63	
Connecting	Signal	mm ² x cores	0.75mm x 2c	0.75mm x 2c	0.75mm x 2c	
Indoor Units	Max. (Conditional)		56	59	63	

1. Cooling operating temperature range is from -5°C to 55°C (It can be customized down to -10°C). Heating operating temperature range from -30°C to 30°C.
 2. The cooling conditions: indoor side 27°C (80.6°F) DB, 19°C (66°F) WB outdoor side 35°C (95°F) DB.
 3. The heating conditions: indoor side 20°C (68°F) DB, 15°C (44.6°F) WB outdoor side 7°C (42.8°F) DB.
 4. Sound level: measured at a point 1 m in front of the unit at a height of 1.5 m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
 5. The above data may be changed without notice for future improvement on quality and performance.



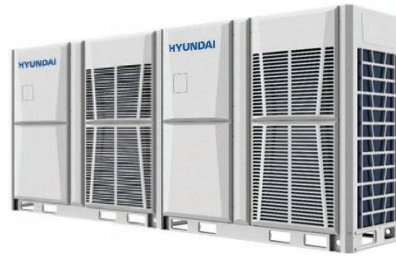
HP			42	44	46	48
Combination Unit			HVHS20G1Y5	HVHS22G1Y5	HVHS24G1Y5	HVHS24G1Y5
Power supply			V / Ø / Hz	380~415V/3/50	380~415V/3/50	380~415V/3/50
Capacity	Colling	kW	117.5	123	128.5	134
		Btu/h	400800	419600	438400	457200
		RT	33.5	35	36.6	38.2
	Heating	kW	132	138	144	150
		Btu/h	450300	470800	491300	511800
		RT	37.7	39.4	41	42.6
Power input	Colling	A	55.16	58.12	58.15	58.18
		kW	31.28	33.24	33.33	33.42
	Heating	A	54.1	56.8	57.05	57.30
		kW	30.96	33.60	31.52	29.44
Efficiency EER / COP	Cooling	W/W	3.76	3.70	3.86	4.01
		(kBtu/h)/kW	12.81	12.62	13.15	13.68
	Heating	W/W	4.26	4.11	4.57	5.10
		(kBtu/h)/kW	14.55	14.01	15.59	17.38
Compressor	Quantity	-	1+1	1+1	2+1	2+2
	Type	-	Scroll - Inverter	Scroll - Inverter	Scroll - Inverter	Scroll - Inverter
Refrigerant	Type	-	R410a	R410a	R410a	R410a
	Volume	kg	16+16	16+16	16+16	16+16
	Type	-	DC Inverter	DC Inverter	DC Inverter	DC Inverter
Outdoor Motor Fan	Quantity	-	2+2	2+2	2+2	2+2
	Air flow	m ³ /h	32000	32000	41000	50000
	Max Static Pressure (Pa)		80	80	80	80
	Discharge Direction		TOP	TOP	TOP	TOP
	Dimension	Net (L*H*W)	mm	(990*1740*840)*2	(990*1740*840)*2	1990*1740*840 1340*1740*840
weight	Net	kg	290+297	297+297	388+297	388+388
Noise Level		dB(A)	63	63	63	63
Connecting	Signal	mm ² x cores	0.75mm x 2c	0.75mm x 2c	0.75mm x 2c	0.75mm x 2c
Indoor Units	Max. (Conditional)		71	74	78	81



HP			50	52	54	56
Combination Unit			HVHS22G1Y5	HVHS24G1Y5	HVHS24G1Y5	HVHS24G1Y5
Power supply			V / Ø / Hz	380~415V/3/50	380~415V/3/50	380~415V/3/50
Capacity	Colling	kW	140	145.5	152	157
		Btu/h	477600	496400	518600	535700
		RT	39.8	41.4	43.3	44.7
	Heating	kW	156.5	162.5	170	175
		Btu/h	534000	554500	580000	597100
		RT	44.58	46.18	48.3	49.7
Power input	Colling	A	65.19	65.22	69.45	73.82
		kW	36.65	36.73	39.08	41.50
	Heating	A	61.78	62.03	67.17	72.55
		kW	35.30	33.22	36.07	39.05
Efficiency EER / COP	Cooling	W/W	3.82	3.96	3.89	3.78
		(kBtu/h)/kW	13.03	13.51	13.27	12.91
	Heating	W/W	4.43	4.89	4.71	4.48
		(kBtu/h)/kW	15.13	16.69	16.08	15.29
Compressor	Quantity	-	1+2	2+2	2+2	2+2
	Type	-	Scroll - Inverter	Scroll - Inverter	Scroll - Inverter	Scroll - Inverter
Refrigerant	Type	-	R410a	R410a	R410a	R410a
	Volume	kg	16+20	16+20	16+23	16+23
	Type	-	DC Inverter	DC Inverter	DC Inverter	DC Inverter
Outdoor Motor Fan	Quantity	-	2+2	2+2	2+2	2+2
	Air flow	m ³ /h	41000	50000	49000	49000
	Max Static Pressure (Pa)		80	80	80	80
	Discharge Direction		TOP	TOP	TOP	TOP
	Dimension	Net (L*H*W)	mm	1340*1740*840 1990*1740*840	(1990*1740*840)*2	(1990*1740*840)*2
weight	Net	kg	297+433	388+433	388+480	388+480
Noise Level		dB(A)	64	64	64	64
Connecting	Signal	mm ² x cores	0.75mm x 2c	0.75mm x 2c	0.75mm x 2c	0.75mm x 2c
Indoor Units	Max. (Conditional)		84	87	91	94

Note

- Cooling operating temperature range is from -5°C to 55°C (It can be customized down to -10°C). Heating operating temperature range from -30°C to 30°C.
- The cooling conditions: indoor side 27°C (80.6°F) DB, 19°C (60°F) WB outdoor side 35°C (95°F) DB.
- The heating conditions: indoor side 20°C (68°F) DB, 15°C (44.6°F) WB outdoor side 7°C (42.8°F) DB.
- Sound level: measured at a point 1 m in front of the unit at a height of 1.5 m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
- The above data may be changed without notice for future improvement on quality and performance.



HP			58	60	62	64
Combination Unit			HVHS26G1Y5	HVHS28G1Y5	HVHS30G1Y5	HVHS32G1Y5
Power supply			V / Ø / Hz	380~415V/3/50	380~415V/3/50	380~415V/3/50
Capacity	Colling	kW	163	168.5	175	180
		Btu/h	556200	574900	597100	614200
		RT	46.4	47.9	49.8	51.2
	Heating	kW	181.5	187.5	195	200
		Btu/h	619300	639800	665300	682400
		RT	51.6	53.28	55.4	56.8
Power input	Colling	A	77.32	80.86	85.09	89.46
		kW	42.95	44.82	47.16	49.59
	Heating	A	74.18	77.28	82.42	87.80
		kW	41.11	42.83	45.68	48.66
Efficiency EER / COP	Cooling	W/W	3.79	3.76	3.71	3.63
		(kBtu/h)/kW	12.95	12.83	12.66	12.39
	Heating	W/W	4.41	4.38	4.27	4.11
		(kBtu/h)/kW	15.06	14.94	14.56	14.02
Compressor	Quantity	-	2+2	2+2	2+2	2+2
	Type	-	Scroll - Inverter	Scroll - Inverter	Scroll - Inverter	Scroll - Inverter
Refrigerant	Type	-	R410a	R410a	R410a	R410a
	Volume	kg	23+23	23+23	23+23	23+23
	Type	-	DC Inverter	DC Inverter	DC Inverter	DC Inverter
Outdoor Motor Fan	Quantity	-	2+2	2+2	2+2	2+2
	Air flow	m ³ /h	49000	49000	48000	48000
	Max Static Pressure (Pa)		80	80	80	80
	Discharge Direction		TOP	TOP	TOP	TOP
	Dimension	Net (L*H*W)	mm	(1990*1740*840)*2	(1990*1740*840)*2	(1990*1740*840)*2
weight	Net	kg	433+480	433+480	480+480	480+480
Noise Level		dB(A)	64	64	64	64
Connecting	Signal	mm ² x cores	0.75mm x 2c	0.75mm x 2c	0.75mm x 2c	0.75mm x 2c
Indoor Units	Max. (Conditional)		97	100	100	100



HP			66	68	70	72
Combination Unit			HVHS22G1Y5	HVHS22G1Y5	HVHS22G1Y5	HVHS22G1Y5
Power supply			V / Ø / Hz	380~415V/3/50	380~415V/3/50	380~415V/3/50
Capacity	Colling	kW	184.5	190	195.5	201.5
		Btu/h	629400	648200	667000	687400
		RT	52.5	54.1	55.7	57.3
	Heating	kW	207	213	219	225.5
		Btu/h	706200	726700	747200	769400
		RT	59.1	60.7	62.3	64.28
Power input	Colling	A	87.18	87.21	87.24	94.25
		kW	49.86	49.95	50.04	53.27
	Heating	A	85.2	85.45	85.7	90.18
		kW	50.40	48.32	46.24	52.10
Efficiency EER / COP	Cooling	W/W	3.70	3.80	3.91	3.78
		(kBtu/h)/kW	12.62	12.98	13.33	12.90
	Heating	W/W	4.11	4.41	4.74	4.33
		(kBtu/h)/kW	14.01	15.04	16.16	14.77
Compressor	Quantity	-	1+1+1	1+1+2	1+2+2	1+1+1
	Type	-	Scroll - Inverter	Scroll - Inverter	Scroll - Inverter	Scroll - Inverter
Refrigerant	Type	-	R410a	R410a	R410a	R410a
	Volume	kg	14+15	15+15	14+16	15+16
	Type	-	DC Inverter	DC Inverter	DC Inverter	DC Inverter
Outdoor Motor Fan	Quantity	-	2+2+2	2+2+2	2+2+2	2+2+2
	Air flow	m ³ /h	48000	57000	66000	75000
	Max Static Pressure (Pa)		80	80	80	80
	Discharge Direction		TOP	TOP	TOP	TOP
	Dimension	Net (L*H*W)	mm	(990*1740*840)*3	(990*1740*840)*3	(990*1740*840)*3
weight	Net	kg	891	982	1073	1027
Noise Level		dB(A)	70	70	70	70
Connecting	Signal	mm ² x cores	0.75mm x 2c	0.75mm x 2c	0.75mm x 2c	0.75mm x 2c
Indoor Units	Max. (Conditional)		100	100	100	100

1. Cooling operating temperature range is from -5°C to 55°C (It can be customized down to -10°C). Heating operating temperature range from -30°C to 30°C.
 2. The cooling conditions: indoor side 27°C (80.6°F) DB, 19°C (60°F) WB outdoor side 35°C (95°F) DB.
 3. The heating conditions: indoor side 20°C (68°F) DB, 15°C (44.6°F) WB outdoor side 7°C (42.8°F) DB.
 4. Sound level: measured at a point 1 m in front of the unit at a height of 1.5 m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
 5. The above data may be changed without notice for future improvement on quality and performance.



HP		74	76	78	80	
Combination Unit		HVHS18G1Y5	HVHS24G1Y5	HVHS22G1Y5	HVHS24G1Y5	
		HVHS28G1Y5	HVHS24G1Y5	HVHS28G1Y5	HVHS28G1Y5	
		HVHS28G1Y5	HVHS28G1Y5	HVHS28G1Y5	HVHS28G1Y5	
Power supply		V / Ø / Hz	380~415V/3/50	380~415V/3/50	380~415V/3/50	380~415V/3/50
Capacity	Colling	kW	207	212.5	218.5	224
		Btu/h	706200	725000	745400	764200
		RT	58.8	60.5	62.1	63.7
	Heating	kW	231	237.5	244	250
		Btu/h	788200	810400	832600	853100
		RT	65.76	67.48	69.46	71.06
Power input	Colling	A	95.55	94.31	101.32	101.35
		kW	52.28	53.44	56.67	56.76
	Heating	A	89.37	90.68	95.16	95.41
		kW	48.89	47.94	53.80	51.72
Efficiency EER / COP	Cooling	W/W	3.96	3.98	3.86	3.95
		(kBtu/h)/kW	13.51	13.57	13.15	13.46
	Heating	W/W	4.72	4.95	4.54	4.83
		(kBtu/h)/kW	16.12	16.90	15.48	16.49
Compressor	Quantity	-	1+2+2	2+2+2	2+2+2	2+2+2
	Type	-	Scroll - Inverter	Scroll - Inverter	Scroll - Inverter	Scroll - Inverter
Refrigerant	Type	-	R410a	R410a	R410a	R410a
	Volume	kg	16+16	16+16	16+16	16+16
	Type	-	DC Inverter	DC Inverter	DC Inverter	DC Inverter
Outdoor Motor Fan	Quantity	-	2+2+2	2+2+2	2+2+2	2+2+2
	Air flow	m ³ /h	66000	32000	41000	75000
	Max Static Pressure (Pa)		80	80	80	80
	Discharge Direction		TOP	TOP	TOP	TOP
Dimension	Net (L*H*W)	mm	(990*1740*840)*3	(990*1740*840)*3	(990*1740*840)*3	(1990*1740*840)*2
					1340*1740*840	
weight	Net	kg	1151	1209	1163	1254
Noise Level		dB(A)	70	70	70	70
Connecting	Signal	mm ² x cores	0.75mm x 2c	0.75mm x 2c	0.75mm x 2c	0.75mm x 2c
Indoor Units		Max. (Conditional)	100	100	100	100



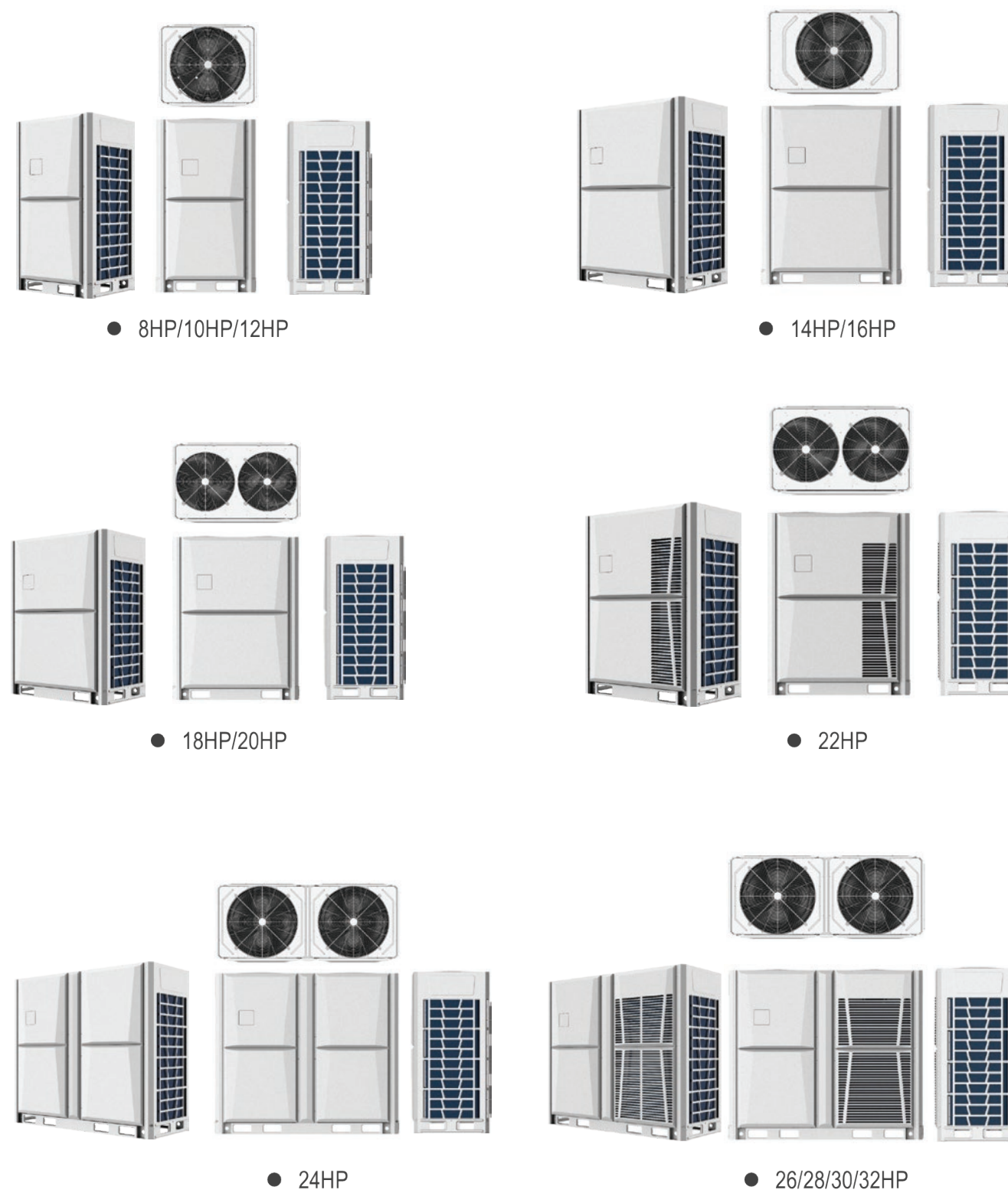
HP		82	84	86	88	
Combination Unit		HVHS26G1Y5	HVHS28G1Y5	HVHS30G1Y5	HVHS32G1Y5	
		HVHS28G1Y5	HVHS28G1Y5	HVHS28G1Y5	HVHS28G1Y5	
		HVHS28G1Y5	HVHS28G1Y5	HVHS28G1Y5	HVHS28G1Y5	
Power supply		V / Ø / Hz	380~415V/3/50	380~415V/3/50	380~415V/3/50	380~415V/3/50
Capacity	Colling	kW	230	235.5	242	247
		Btu/h	784700	803400	825600	842700
		RT	65.4	66.9	68.8	70.2
	Heating	kW	256.5	262.5	270	275
		Btu/h	875300	895800	921300	938400
		RT	72.96	74.64	76.76	78.2
Power input	Colling	A	104.85	108.39	112.62	116.99
		kW	58.21	60.08	62.42	64.84
	Heating	A	97.04	100.14	105.28	110.66
		kW	53.78	55.50	58.35	61.33
Efficiency EER / COP	Cooling	W/W	3.95	3.92	3.88	3.81
		(kBtu/h)/kW	13.48	13.37	13.23	13.00
	Heating	W/W	4.77	4.73	4.63	4.48
		(kBtu/h)/kW	16.28	16.14	15.79	15.30
Compressor	Quantity	-	2+2+2	2+2+2	2+2+2	2+2+2
	Type	-	Scroll - Inverter	Scroll - Inverter	Scroll - Inverter	Scroll - Inverter
Refrigerant	Type	-	R410a	R410a	R410a	R410a
	Volume	kg	16+20	16+20	16+23	16+23
	Type	-	DC Inverter	DC Inverter	DC Inverter	DC Inverter
Outdoor Motor Fan	Quantity	-	2+2+2	2+2+2	2+2+2	2+2+2
	Air flow	m ³ /h	75000	75000	74000	74000
	Max Static Pressure (Pa)		80	80	80	80
	Discharge Direction		TOP	TOP	TOP	TOP
Dimension	Net (L*H*W)	mm	1340*1740*840	(1990*1740*840)*3	(1990*1740*840)*3	(1990*1740*840)*3
			1990*1740*840			
weight	Net	kg	1299	1299	1346	1346
Noise Level		dB(A)	70	70	70	70
Connecting	Signal	mm ² x cores	0.75mm x 2c	0.75mm x 2c	0.75mm x 2c	0.75mm x 2c
Indoor Units		Max. (Conditional)	100	100	100	100

Note

- Cooling operating temperature range is from -5°C to 55°C (It can be customized down to -10°C). Heating operating temperature range from -30°C to 30°C.
- The cooling conditions: indoor side 27°C (80.6°F) DB, 19°C (60°F) WB outdoor side 35°C (95°F) DB.
- The heating conditions: indoor side 20°C (68°F) DB, 15°C (44.6°F) WB outdoor side 7°C (42.8°F) DB.
- Sound level: measured at a point 1 m in front of the unit at a height of 1.5 m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
- The above data may be changed without notice for future improvement on quality and performance.



HP		90	92	94	96
Combination Unit		HVHS26G1Y5	HVHS28G1Y5	HVHS30G1Y5	HVHS32G1Y5
		HVHS32G1Y5	HVHS32G1Y5	HVHS32G1Y5	HVHS32G1Y5
		HVHS32G1Y5	HVHS32G1Y5	HVHS32G1Y5	HVHS32G1Y5
Power supply		V / Ø / Hz	380~415V/3/50	380~415V/3/50	380~415V/3/50
Capacity	Cooling	kW	253	258.5	265
		Btu/h	863300	882000	904200
	Heating	kW	281.5	287.5	295
		Btu/h	960500	981000	1006500
Power input	Cooling	A	122.05	125.59	129.82
		kW	67.75	69.61	71.96
	Heating	A	118.08	121.18	126.32
		kW	65.44	67.16	70.01
Efficiency EER / COP	Cooling	W/W	3.73	3.71	3.68
		(kBtu/h)/kW	12.74	12.67	12.57
	Heating	W/W	4.30	4.28	4.21
		(kBtu/h)/kW	14.68	14.61	14.38
Compressor	Quantity	-	2+2+2	2+2+2	2+2+2
	Type	-	Scroll - Inverter	Scroll - Inverter	Scroll - Inverter
Refrigerant	Type	-	R410a	R410a	R410a
	Volume	kg	23+23	23+23	23+23
Outdoor Motor Fan	Type	-	DC Inverter	DC Inverter	DC Inverter
	Quantity	-	2+2+2	2+2+2	2+2+2
	Air flow	m ³ /h	73000	73000	72000
	Max Static Pressure (Pa)		80	80	80
Discharge Direction			TOP	TOP	TOP
Dimension	Net (L*H*W)	mm	(1990*1740*840)*3	(1990*1740*840)*3	(1990*1740*840)*3
weight	Net	kg	1393	1393	1440
Noise Level		dB(A)	70	70	70
Connecting	Signal	mm ² x cores	0.75mm x 2c	0.75mm x 2c	0.75mm x 2c
Indoor Units	Max. (Conditional)		100	100	100

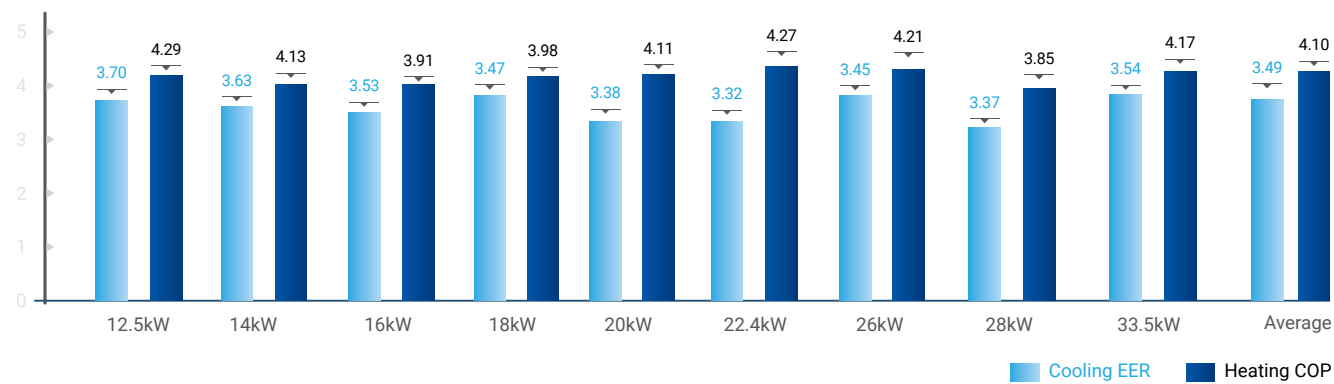




9 Models

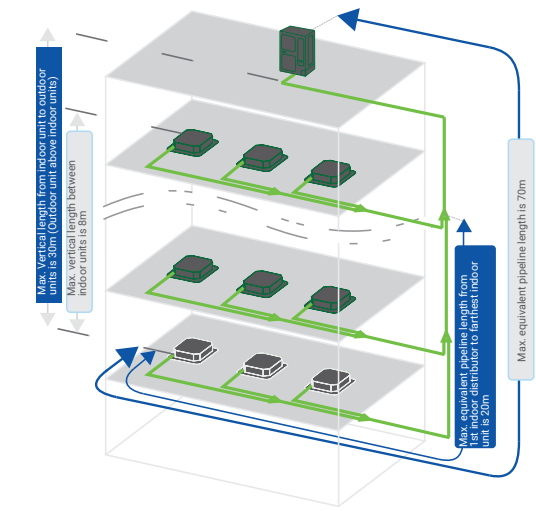
Capacity	12.5kW	14kW	16kW	18kW	20kW	22.4kW	26kW	28kW	33.5kW
Compressor	DC	DC	DC	DC	DC	DC	DC	DC	DC
Fan motor	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC	DC+DC

EER&COP



Long Piping & Height Difference

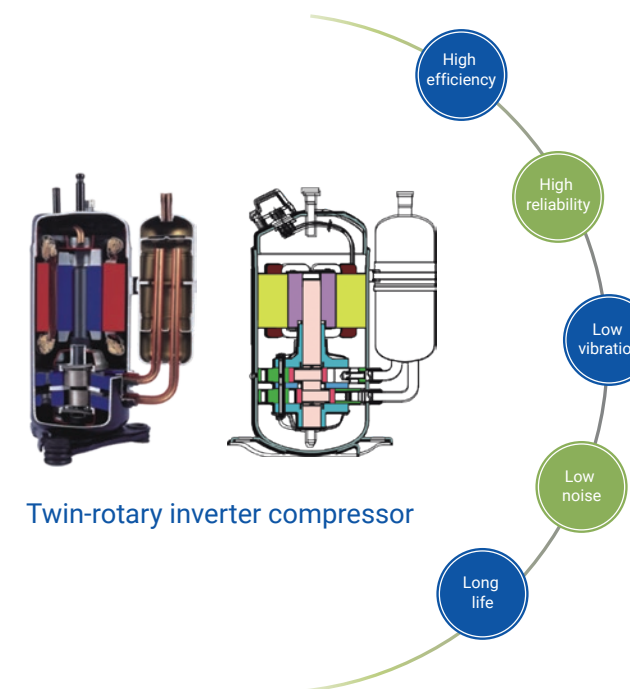
The total pipe length	100m(12.5-18kW), 120m(22.4-33.5kW)
The longest pipe length	Actual length 60m Equivalent length 70m
Equivalent length from first indoor distributor to last indoor unit	20m
Height difference between indoor and outdoor unit:	Outdoor unit above<30m Outdoor unit below<20m
Height difference between indoor units	8m



Advantage - HVMS-Mini



High Efficiency DC Inverter Compressor



Twin-rotary DC inverter compressor/

- Use high efficiency and reliability compressor
- Has very good efficiency in part load condition

High Efficiency, Low Noise

- Optimized the efficiency and noise during operation with the latest technology.

Environmental Protection

- Developed the compressor with alternative refrigerant which can protect environment.

Low Vibration

- Reduced the vibration during compressor start and operation by using 2CYL Structure, simplified the match of air-conditioning.

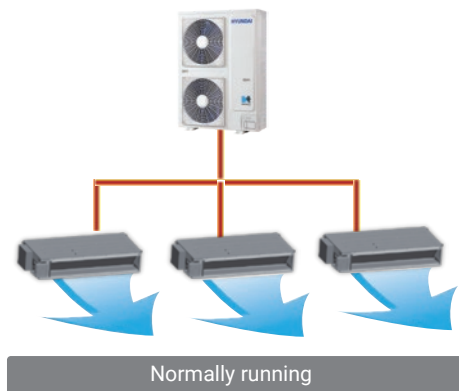
High Efficiency DC Motor



- ◆ High efficiency DC fan motor
- ◆ Low noise and high efficiency because of high-density wire winding engineering
- ◆ Brushless with built-in sensor

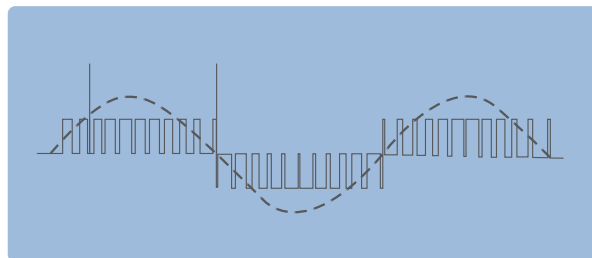
Fast Cooling And Heating

Every rooms meet set point most quickly and comfortably by optimized refrigerant control.

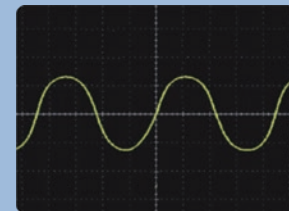


180° Sine Wave Control

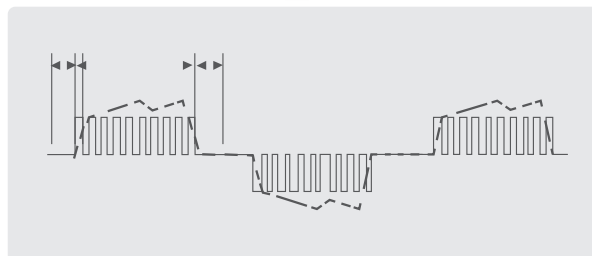
The perfect combination of 180° Sine wave rotor frequency drive control technology and excellent IPM inverters, reduces the reactive loss of motor-driven, increases motor efficiency by 12%.



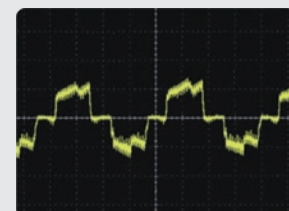
180° Sine Waveform vector Control



Increase efficiency by 12%



Conventional control waveform



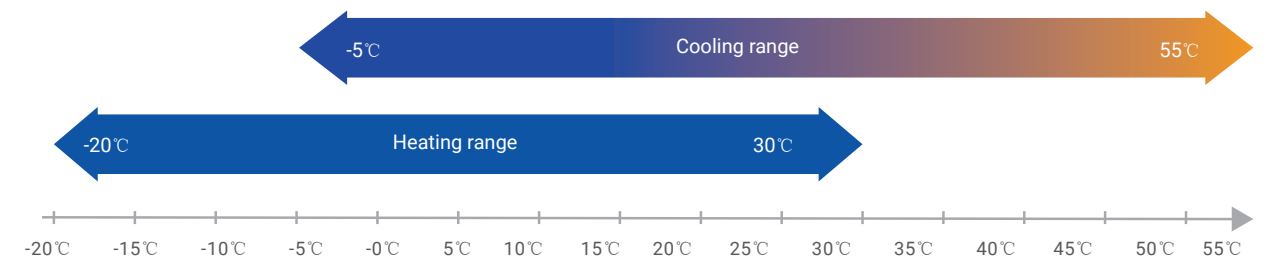
Silent Technology



- Brushless DC motor : Adopting permanent magnet rotor, low vibration and low noise.
- Forward-curve fan blade : Unique design to increase air flow, reducing the return air resistance, reducing vibration.
- Pipeline silencer : To reduce the refrigerant flow noise.
- Optimized design by CFD : To reduce refrigerant flow resistance and vibration.

Wide Outdoor Operation Range

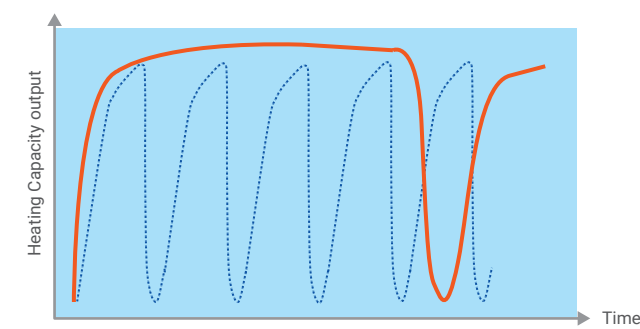
Because global warming is getting worse, Max. cooling operating temperature is designed up to 50°C. Heating operating temperature is down to -20°C. In the cold winter, system can heat the room continuously.



Outdoor unit running at temperature above 50°C need customized in factory, please consult to sales engineer.

Intelligent Defrosting Program

Program starts only when unit needs to. Whereas conventional unit's defrosting timing & duration is fixed, causing fluctuations in temperature and personal comfort.

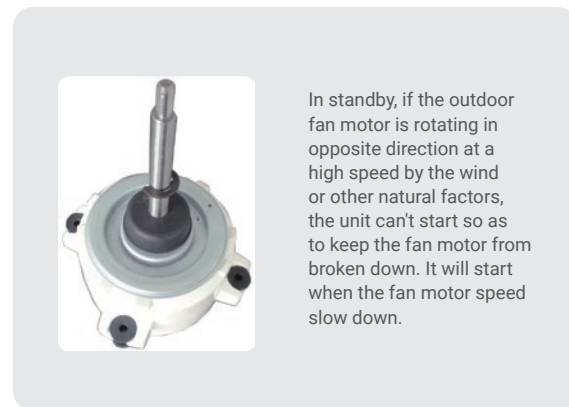
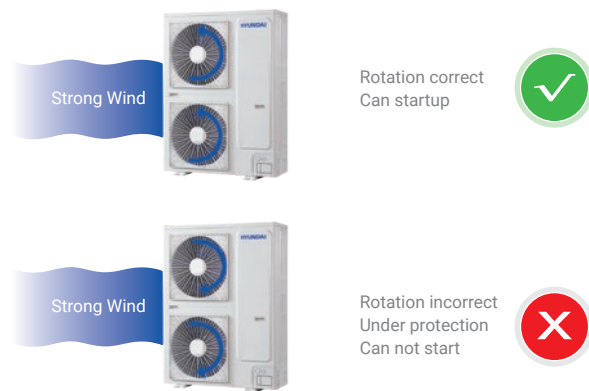


— Intelligent defrosting program
 Conventional program

Defrost curve

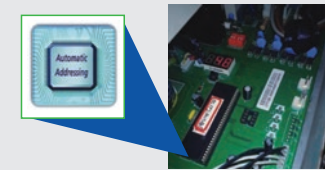
- Conventional unit's defrosting timing & duration is fixed.
- Intelligent defrosting program starts according to heat exchanging efficiency & capacity change due to the frost. Less temperature fluctuations, people feel more comfortable.

Fan Reversal Protection

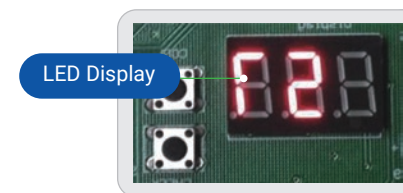


Automatically Addressing

- Automatically addressing: system will distribute address to indoor unit automatically
- Automatic addressing will reduce artificial faults and manual works.



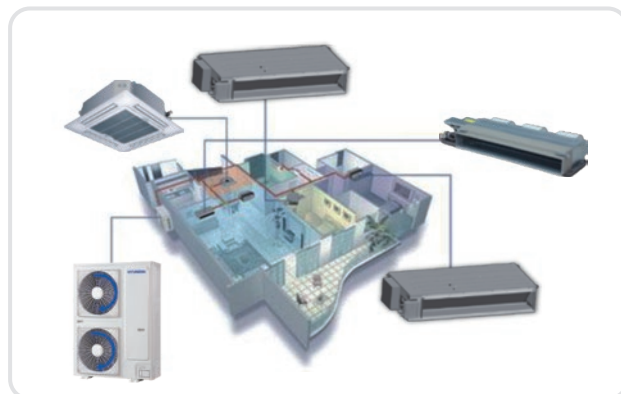
LED Display On PCB



LED display on the PCB, it can show system's operation status and error codes.

Space Saving Installation

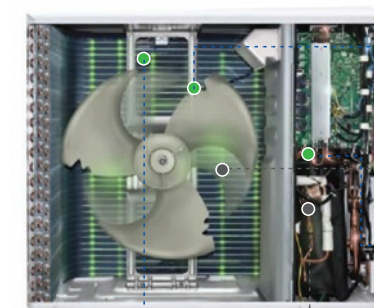
- Multiple indoor units can be connected to 1 outdoor unit, and long piping connection is also possible.
- Compare to one-drive-one type, the outdoor unit can be installed in various places to realize the space-saving installation.



Lower Noise

5 Major Technology Leads to Lower Noise

The Min. noise level is 54 dB(A)



- Streamline optimization for fan blade
- CFD simulation improvements to eliminate most of the turbulence
- Silent EXV
- Low noise compressor
- DC motor

High Efficiency



Refrigerant cooling technology for PCB

- 1 The radiation fin is made of aluminum panels fitting together seamlessly.
- 2 This helps to cool down the IPM, it has better performance compared to air cooling for PCB.
- 3 The outdoor unit has capability to run in max. 55°C ambient temperature.

NEW TECHNOLOGY



8 / 10 / 12.5 / 14 / 16kW
Smaller size, higher efficiency

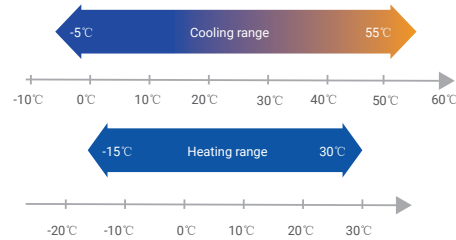


Digital display

Digital display on the PCB, it can show system's operation status and error codes.

Compact appearance

- The center of gravity has been reduced
- The vibration level is smaller
- It is suitable to be installed on terrace due to its compact appearance



Wide Outdoor Operation Range

Due to global warming, cooling ambient temperature is designed up to 55°C. Heating ambient temperature is down to -15°C. In cold weather, HDV Mini VRF has capability to heat the room continuously.

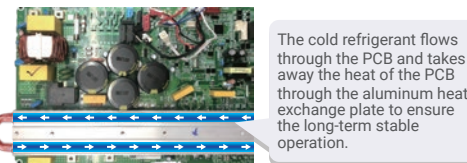
Easy Maintenance Window

LED display on the PCB: this is available to show operation status and error codes of the system.



Refrigerant cooling tech. for PCB

- Good performance with enhanced refrigerant cooling solution
- Intelligent refrigerant control technology to protect PCB
- Quick action speed to make the main PCB working at suitable temperature range
- High reliability



The cold refrigerant flows through the PCB and takes away the heat of the PCB through the aluminum heat exchange plate to ensure the long-term stable operation.

HVMS-Mini

Model name	Power type (V/N/Hz)	Cooling(T1/T3)				Heating			Refrigerant	Sound pressure level	Dimension (WxHxD)	Weight	Connecting	Max. Connected indoor units quantity										
		Capacity		Power input	EER	Capacity	Power input	COP																
		kW	kBtu/h	kW		kW	kBtu/h								kW									
HVMS04HG1Y2	380-415/3/50	T1:12.5/T3:10	T1:42/T3:33.6	T1:3.38/T3:3.48	T1:3.70/T3:2.87	14	47	3.26	4.29	R410a	56	1010 x 1445 x 415	975 x 1335 x 400	86.6 x 96.4 x 15.88	90.1 x 100 x 104.4	φ19.05	6							
HVMS05HG1Y2	380-415/3/50	T1:14/T3:11.48	T1:47.8/T3:39.2	T1:3.80/T3:4.04	T1:3.68/T3:2.84	16	54	3.97	4.03									58	1095x1545x485	1015x1430x450	112.7 x 126.8 x 19.05	94.7 x 104.4	φ12.7	7
HVMS06HG1Y2	380-415/3/50	T1:16/T3:13.12	T1:54/T3:44.3	T1:4.53/T3:4.69	T1:3.53/T3:2.80	18	61	4.61	3.91															
HVMS065HG1Y2	380-415/3/50	T1:18/T3:14.76	T1:61/T3:50	T1:5.18/T3:5.37	T1:3.47/T3:2.75	20	68	5.02	3.98									58	1095x1545x485	1015x1430x450	112.7 x 126.8 x 19.05	94.7 x 104.4	φ19.05	9
HVMS07HG1Y2	380-415/3/50	T1:20/T3:16.4	T1:68.2/T3:55.9	T1:5.92/T3:6.13	T1:3.38/T3:2.70	22	75	5.35	4.11															
HVMS08HG1Y2	380-415/3/50	T1:22.4/T3:19	T1:76.4/T3:64.8	T1:6.85/T3:7.05	T1:3.27/T3:2.69	24	81.8	5.62	4.27									60	1278 x 1703 x 560	1120 x 1549 x 528	142 x 162 x 174	φ22.2	10	
HVMS09HG1Y2	380-415/3/50	T1:26/T3:21	T1:88.7/T3:70.9	T1:7.72/T3:7.95	T1:3.37/T3:2.72	28.5	97.2	6.77	4.21															60
HVMS10HG1Y2	380-415/3/50	T1:28/T3:23.4	T1:95.5/T3:79.3	T1:8.54/T3:8.66	T1:3.28/T3:2.70	31.5	107.5	8.18	3.85									60	1278 x 1703 x 560	1120 x 1549 x 528	142 x 162 x 174	φ22.2	15	
HVMS12HG1Y2	380-415/3/50	T1:33.5/T3:27.5	T1:114.3/T3:93.3	T1:9.77/T3:10.05	T1:3.43/T3:2.75	37.5	128	8.99	4.17															60

Note

- Cooling Operation Conditions: Indoor Air Inlet Temperature: 27°C DB / 19°C WB; T1: Outdoor Air Inlet Temperature: 35°C DB; T3: Outdoor Air Inlet Temperature: 46°C DB
- Heating Operation Conditions: Indoor Air Inlet Temperature: 20.0°C DB; Outdoor Air Inlet Temperature: 7°C DB / 6°C WB

HVM-Multi

Model name	HVM02HG1V1	HVM03HG1V1	HVM04HG1V1	HVMS04HG1Y1	HVM05HG1V1	HVMS05HG1Y1	HVM06HG1V1	HVMS06HG1Y1
	HVM-DH080W/NR1	HVM-DH100W/NR1	HVM-DH125W/NR1	HVMS-D125W/HYR1-F01	HVM-DH140W/NR1	HVMS-D140W/HYR1-F01	HVM-DH160W/NR1	HVMS-D160W/HYR1-F01
Power supply	220~240V/1N/50Hz	220~240V/1N/50Hz	220~240V/1N/50Hz	380~415V/3N/50Hz	220~240V/1N/50Hz	380~415V/3N/50Hz	220~240V/1N/50Hz	380~415V/3N/50Hz
	220~240V/1N/60Hz	220~240V/1N/60Hz	220~240V/1N/60Hz	380~415V/3N/60Hz	220~240V/1N/60Hz	380~415V/3N/60Hz	220~240V/1N/60Hz	380~415V/3N/60Hz

Performance data			T1		T3		T1		T3		T1		T3		T1		T3	
Cooling	Capacity	kW	8	7.2	10	9.0	12.5	11.3	12.5	11.3	14	12.7	14	12.7	16	14.5	16	14.5
		Btu/h	27300	24570	34100	30690	42600	38340	42600	38340	47800	43020	47800	43020	54600	49140	54608	49140
	Power input (T1/T3)	kW	2.60	2.81	3.00	3.25	3.20	3.46	3.20	3.46	3.75	4.06	3.75	4.06	4.75	5.14	4.75	5.14
	Rated current(T1/T3)	A	11.8	14.2	13.6	16.4	14.5	17.5	6.0	7.2	17.0	20.5	7.0	8.4	21.8	25.96	8.8	10.5
	EER (T1/T3)	W/W	3.08	2.56	3.33	2.77	3.91	3.27	3.91	3.27	3.73	3.13	3.73	3.13	3.37	2.82	3.37	2.82
Heating	Capacity	kW	9		11		14		14		16		16		17		17	
		Btu/h	30700		37500		47800		47780		54600		54600		58000		58020	
	Power input	kW	2.65		3.1		3.52		3.52		4		4		4.4		4.4	
	Rated current	A	12		14		16.1		16.1		18.2		18.2		20		20	
	COP	W/W	3.40		3.55		3.98		3.98		4.00		4.00		3.86		3.86	
Compressor data			Quantity		Type		Brand		Quantity		Type		Brand		Quantity		Type	
DC Inverter compressor			1		Twin-rotary		Mitsubishi		1		Twin-rotary		Highly		1		Twin-rotary	
Fan data			Quantity		Type		Brand		Quantity		Type		Brand		Quantity		Type	
Fan motor			1		DC		Mitsubishi		1		DC		Mitsubishi		1		DC	
Fan blade			1		DC		Mitsubishi		1		DC		Mitsubishi		1		DC	
Physical data			Fin type		Number of rows		Tube type		Fin type		Number of rows		Tube type		Fin type		Number of rows	
Outdoor coil			Hydrophilic Foil		3		Inner-grooved copper tube		Hydrophilic Foil		3		Inner-grooved copper tube		Hydrophilic Foil		3	
Refrigerant			R410a		R410a		R410a		R410a		R410a		R410a		R410a		R410a	
Dimension (WxHxD)			935x702x383		1032x810x445		1100x870x528		1032x810x445		1100x870x528		1100x870x528		1100x870x528		1100x870x528	
Weight			47		60		85		67.4		90		90		100		100	
ODU sound level			≤54		≤56		≤56		≤56		≤57		≤57		≤57		≤57	
Operation temperature range			Cooling		Heating		Cooling		Heating		Cooling		Heating		Cooling		Heating	
			Outdoor side		Outdoor side		Outdoor side		Outdoor side		Outdoor side		Outdoor side		Outdoor side		Outdoor side	
			-5~55		-15~30		-5~55		-15~30		-5~55		-15~30		-5~55		-15~30	

Note

- The cooling conditions: indoor temp.:27°C DB(80.6°F),19°C WB(60°F)outdoor temp.:35°C DB(95°F)equivalent pipe length:5m drop length:0m.
- The heating conditions: indoor temp.:20°C DB(68°F),15°C WB(44.6°F)outdoor temp.:7°C DB(42.8°F)equivalent pipe length:5m drop length:0m.
- Sound level: Anechoic chamber conversion value, measured at point 1 min front of the unit at a height of 1.2m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
- The above data may be changed without notice for future improvement on quality at performance.

INDOOR UNITS

Provide you with fresh air



Indoor Units line Up

Capacity (kW)	1-way cassette	2-way cassette	Round flow cassette	4-way cassette (Compact type)	Air Handler
2.2	•			•	
2.8	•			•	
3.6	•			•	
4.5	•	•		•	
5.6	•	•	•		
7.1	•	•	•		•
8.0		•	•		
9.0			•		
10.0			•		•
11.2			•		
12.0					
12.5			•		
14.0			•		
15.0					
16.0			•		•

Capacity (kW)	Wall-mounted	Floor Ceiling	Short ceiling concealed ducted unit	Medium ESP ducted unit	High ESP ducted unit	Fresh air processor
2.2	•		•			
2.8	•		•			
3.6	•	•	•			
4.5	•	•	•			
5.6	•	•	•			
7.1	•	•	•	•	•	
8.0		•		•	•	
9.0		•		•	•	
10.0				•	•	
11.2		•			•	
12.0				•	•	
14.0		•				•
15.0				•	•	
16.0		•				
20.0					•	
22.4						•
25.0					•	
28.0					•	•
45.0					•	•
56.0					•	•

1-way Cassette



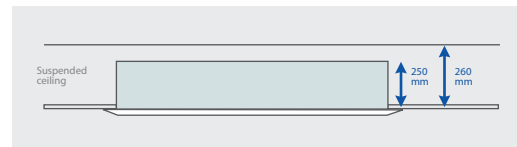
Features

Accessories

Plenum box	Air filter	EXV	Drain pump	AC motor	DC motor
/	Standard	Standard(built-in)	Standard(built-in)	Standard	/

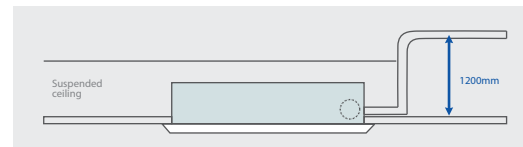
Slim body, easy to install

Has slim body with 250mm height, it is specially suitable for low suspended ceiling rooms.



Built-in with drainage pump

Built-in with low noise long life drainage pump, Pumping head is 1200mm, flexible for drainage pipe design.



Specification

Model name	Power type	Capacity				Motor input	Air flow	Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller		
		Cooling		Heating						Packing	Body	Panel packing	Panel	Net	Gross	Gas	Liquid	Drain			
		kW	kBtu/h	kW	kBtu/h	kW	M ³ /h	CFM	DB(A)	Pa	mm	mm	mm	mm	kg	kg	mm	mm	mm		
HV-CS22Q1ACV	50Hz	2.2	7.5	2.5	8.5	0.04	520	306	32~36	/	1160	994	1090	1070	24/3.6	30/5.0	Ø9.53	/	/	/	Remote controller
HV-CS28Q1ACV	50Hz	2.8	9.5	3.2	10.9						275	250	65	50							
HV-CS36Q1ACV	50Hz	3.6	12.2	4.0	13.6						655	532	540								
HV-CS45Q1ACV	50Hz	4.5	15.3	5.0	17.0	0.05	610	360	36~41	/	1160	994	1090	1070	26/3.6	32/5.0	Ø12.7	Ø6.35	ØDØ25	Remote controller	
HV-CS56Q1ACV	50Hz	5.6	19.1	6.3	21.4	0.07	750	440	35~41		1470	1304	1390	1380	34/3.6	39/5.0					
HV-CS71Q1ACV	50Hz	7.1	24.2	8.0	27.2	0.09	950	550	38~45		305	290	70	50			Ø15.9	Ø9.53			
											690	572	560	520							

Notes:
 1. Power supply: 220~240V/1N for 50Hz;
 2. Cooling test condition: indoor side 27°C DB, 19°C WB outdoor side 35°C DB. Heating test condition: indoor side 20°C DB, 15°C WB outdoor side 7°C DB
 3. Sound level: measured at a point 1 m in front of the unit at a height of 1.5m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
 4. The above data may be changed without notice for future improvement on quality and performance.

2-way Cassette



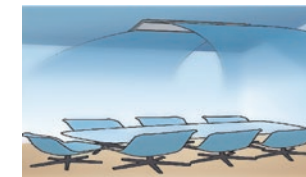
Features

Accessories

Plenum box	Air filter	EXV	Drain pump	AC motor	DC motor
/	Standard	Standard(built-in)	Standard(built-in)	Standard	/

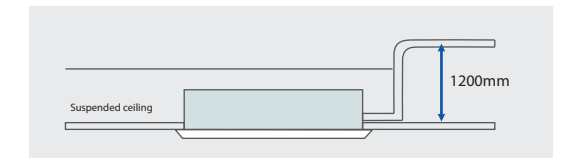
2 way air direction

Two direction air flow, flexibly install in various rooms or hallway



Built-in with drainage pump

Built-in with low noise long life drainage pump, Pumping head is 1200mm, flexible for drainage pipe design.



Specification

Model name	Power type	Capacity				Motor input	Air flow	Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller	
		Cooling		Heating						Packing	Body	Panel packing	Panel	Net	Gross	Gas	Liquid	Drain		
		kW	kBtu/h	kW	kBtu/h	kW	M ³ /h	CFM	DB(A)	Pa	mm	mm	mm	mm	kg	kg	mm	mm	mm	
HV-CS45Q2ACV	50Hz	4.5	15.3	5.0	17	0.07	800	470	36~42	/	1215	1068	1235	1205	33/6.5	36/8.5	Ø12.7	Ø6.35	/	Remote controller
HV-CS56Q2ACV	50Hz	5.6	19.1	6.3	21.4						365	310	70	50						
HV-CS71Q2ACV	50Hz	7.1	24.2	8.0	27.2						1455	1308	1475	1445						
HV-CS80Q2ACV	50Hz	8.0	27.2	9.0	30.7	0.10	1120	650	40~46		365	310	70	50	40/7.5	47/10.0	Ø15.9	Ø9.53		
											630	517	655	630						

Notes:
 1. Power supply: 220~240V/1N for 50Hz;
 2. Cooling test condition: indoor side 27°C DB, 19°C WB outdoor side 35°C DB. Heating test condition: indoor side 20°C DB, 15°C WB outdoor side 7°C DB
 3. Sound level: measured at a point 1 m in front of the unit at a height of 1.5m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
 4. The above data may be changed without notice for future improvement on quality and performance.

4-way Cassette/Round-flow Cassette

Compact Type



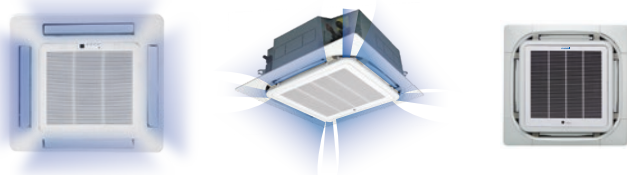
Features

Accessories

Plenum box	Air filter	EXV	Drain pump	AC motor	DC motor
/	Standard	Standard(built-in)	Standard(built-in)	Standard	Optional

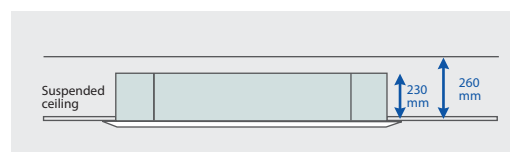
4 way air delivering

Air flow is soft and smooth, air can be delivered to every corner without dead angle, it makes the room temperature distribution more balance.



Slim body, easy to install

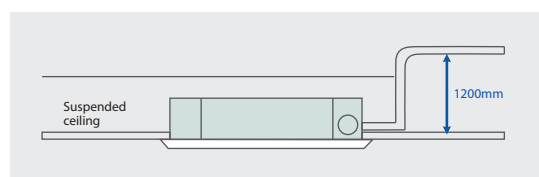
Has slim body with 230mm height, it is specially suitable for low suspended ceiling rooms.



Built-in with drainage pump

Built-in with low noise long life drainage pump, Pumping head is 1200mm, flexible for drainage pipe design.

Note: The pumping head of 4-way cassette unit (compact type) is 700mm.



Fresh Air intake



Specification

4-way Cassette Unit(Compact type)

Model name	Power type	Capacity				Motor input	Air flow		Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller	
		Cooling		Heating			M ³ /h	CFM			Packing	Body	Panel packing	Panel	Net	Gross	Gas	Liquid	Drain		
		kW	kBtu/h	kW	kBtu/h	kW	M ³ /h	CFM	DB(A)	Pa	mm	mm	mm	mm	kg	kg	mm	mm	mm		
HV-CS22Q4ACV	50Hz	2.2	7.5	2.5	8.5	0.038	447	263	22-34						17.5	25					
HV-CS28Q4ACV	50Hz	2.8	9.5	3.2	10.9	0.038	447	263	22-34						17.5	25					
HV-CS36Q4ACV	50Hz	3.6	12.2	4.0	13.6	0.040	515	303	27-38						17.5	25					
HV-CS45Q4ACV	50Hz	4.5	15.3	5.0	17	0.040	515	303	27-38						17.5	25					

Round-flow Cassette

Model name	Power type	Capacity				Motor input	Air flow		Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller	
		Cooling		Heating			M ³ /h	CFM			Packing	Body	Panel packing	Panel	Net	Gross	Gas	Liquid	Drain		
		kW	kBtu/h	kW	kBtu/h	kW	M ³ /h	CFM	DB(A)	Pa	mm	mm	mm	mm	kg	kg	mm	mm	mm		
HV-CS56QRACV	50Hz	5.6	19.1	6.3	21.4	0.09	860	500	32-39						24	30					
HV-CS71QRACV	50Hz	7.1	24.2	8.0	27.2										24	30					
HV-CS80QRACV	50Hz	8.0	27.2	8.8	30		1200	700	35-39						24	30					
HV-CS90QRACV	50Hz	9.0	30.7	10	34.1	0.18									28.5	30					
HV-CS100QRACV	50Hz	10	34.1	11	37.5										28.5	35					
HV-CS112QRACV	50Hz	11.2	38.2	12.5	42.6		1400	820	37-41						28.5	35					
HV-CS125QRACV	50Hz	12.5	42.6	14	47.7										28.5	35					
HV-CS140QRACV	50Hz	14	47.7	15	51.1	0.27									28.5	35					
HV-CS160QRACV	50Hz	16	54.5	17	58		1800	1050	38-42						28.5	35					

Notes:

1.Power supply: 220~240V/1N for 50Hz;208~230V/1N for 60Hz

2.Cooling test condition: indoor side 27°C DB,19°C WB outdoor side 35°C DB,Heating test condition: indoor side 20°C DB, 15°C WB outdoor side 7°C DB

3.Sound level: measured at a point 1 m in front of the unit at a height of 1.5m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.

4.The above data may be changed without notice for future improvement on quality and performance.

Short Ceiling Concealed Ducted Unit



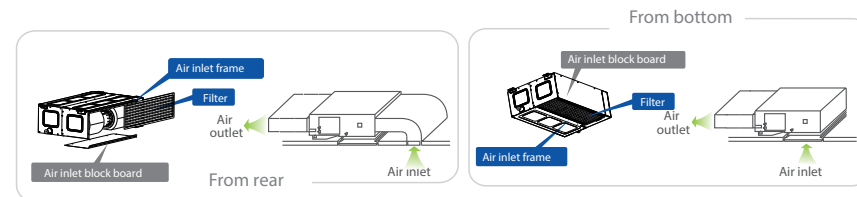
Features

Accessories

Plenum box	Air filter	EXV	Drain pump	AC motor	DC motor
Standard	Optional	Standard(built-in)	Optional	Standard	Optional

Flexible installation

Air return method is optional by actual installation, from rear or from bottom.



Short body, easy to install.

Has short body, minimum 700mm width, It is specially suitable for installation location in entrance ceiling of hotel room. Low noise and light Weight.

Drain pump is optional

Pumping head is 700mm.

Big air flow low noise centrifugal fan wheel

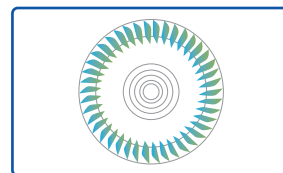
Big air flow low noise centrifugal fan blade with special air tunnel system, and the unique shock absorption measures, making this series ducted units' running noise is as low as 24 dB(A), let users to enjoy the comfort, sleep without any disturbance.



Rustled leaves



Silent reading room



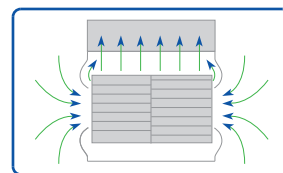
Special resin material fan wheel.



All vanes are dislocation distribution to offset sound wave, so that the noise can be reduced.



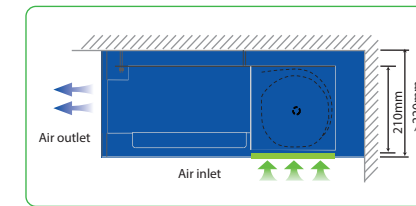
High efficiency low noise motor, motor and support frame with rubber ring isolation, can absorb vibration and reduce noise.



Air inlet of fan wheel casing is arch curved design; it can reduce air flow's disturbance, make if flow smoother to reduce noise.

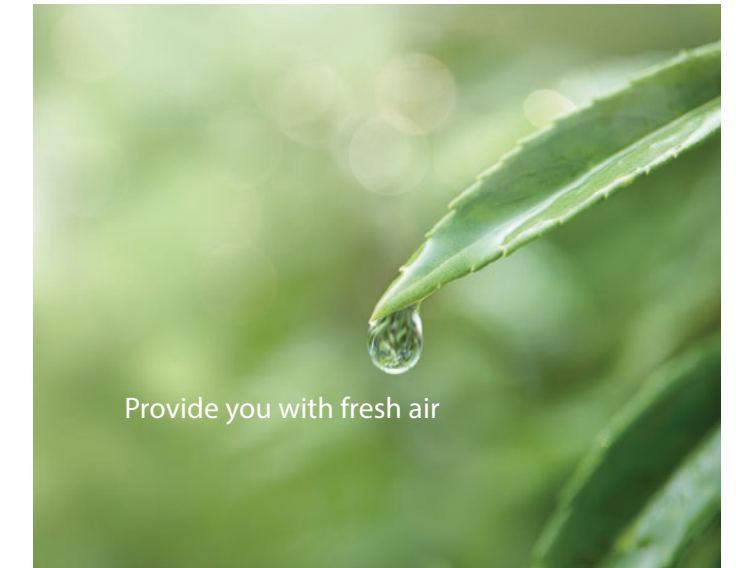
Slim body, easy to install

Has slim body with 210mm height, it is specially suitable for low suspended ceiling rooms.



DC fan motor is optional

Integrated design of motor and motor bracket, lower noise



Provide you with fresh air

Specification

Model name	Power type	Capacity				Motor input	Air flow		Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller
		Cooling kW	Heating kW	Heating kbtu/h	Cooling kbtu/h		M ³ /h	CFM			Packing mm	Body mm	Panel packing mm	Panel mm	Net kg	Gross kg	Gas mm	Liquid mm	Drain mm	
HV-DL22ACV	50Hz	2.2	7.5	2.5	8.5	0.05	450	260	24-29	30	910 x 240 x 510	814 x 210 x 467	/	/	16	18.5	Ø9.53	Ø6.35	ØD25	Wired controller
HV-DL28ACV	50Hz	2.8	9.5	3.2	10.9										16	18.5				
HV-DL36ACV	50Hz	3.6	12.2	4	13.6	0.07	550	324	25-32						16.5	19				
HV-DL45ACV	50Hz	4.5	15.3	5	17	0.08	620	360	32-37		16.5	19	Ø12.7							
HV-DL56ACV	50Hz	5.6	19.1	6.3	21.4	0.09	800	520	28-38		1110 x 240 x 510	1010 x 210 x 467	21	24						
HV-DL71ACV	50Hz	7.1	24.2	8	27.2	0.11	1000	640	30-39		1310 x 240 x 510	1214 x 210 x 467	25.5	28.5	Ø15.9	Ø9.53				

Notes:

- Power supply: 220-240V/1N for 50Hz; 208-230V/1N for 60Hz
- Cooling test condition: indoor side 27°C DB, 19°C WB outdoor side 35°C DB, 15°C WB outdoor side 7°C DB
- Sound level: measured at a point 1 m in front of the unit at a height of 1.5m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
- The above data may be changed without notice for future improvement on quality and performance.

Medium Static Pressure Ducted Unit



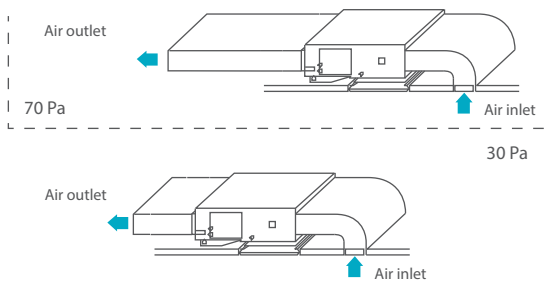
Features

Accessories

Plenum box	Air filter	EXV	Drain pump	AC motor	DC motor
Standard	Standard	Standard(built-in)	Optional	Standard	Optional

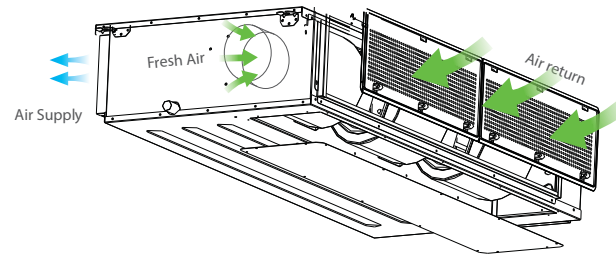
Static pressure

70Pa ESP is standard, suitable for long distance air supply, 30Pa is optional(can be set on site), suitable for low noise requirement rooms.



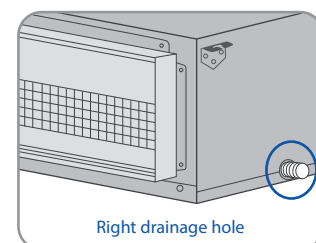
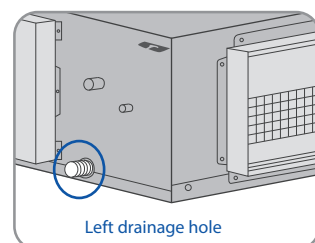
Fresh air intake

A reserved outside air intake port allows outdoor air to be introduced directly into the unit, no need for a separate ventilation system.



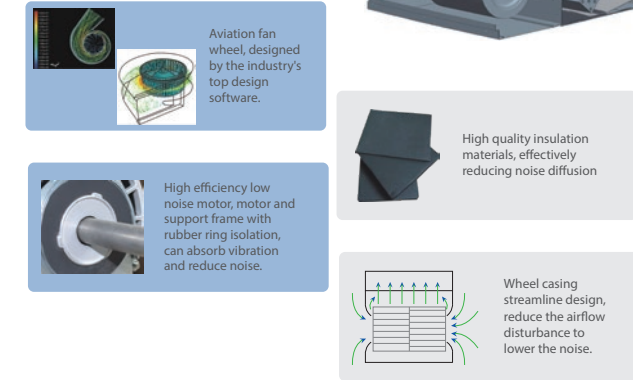
Convenient in drainage pipe installation

Reserved drainage pipe outlet holes on left side and right side, installer can choose the outlet holes on site as per actual conditions, flexible for drainage pipe installation.



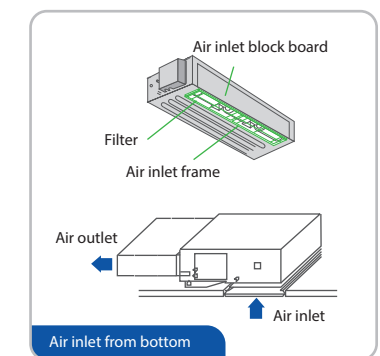
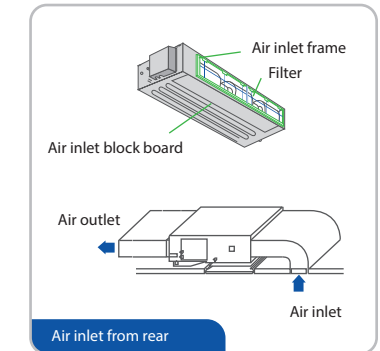
Low noise design

Using multiple noise reduction technology, including the design of high efficiency low noise motor, aviation fan wheel, low vibration wheel casing, unique design, the inner wall configuration with high quality insulation materials, and so on, to make the units running in a low noise condition.



Two air return installation methods

Air return from rear or bottom is easy to change on site, convenient for installation.



DC fan motor is optional

Integrated design of motor and motor bracket, lower noise

Specification

Model name	Power type	Capacity				Motor input	Air flow	Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller	
		Cooling	Heating	Cooling	Heating					Packing	Body	Panel packing	Panel	Net	Gross	Gas	Liquid	Drain		
		kW	kBtu/h	kW	kBtu/h	kW	M ³ /h	CFM	DB(A)	Pa	mm	mm	mm	mm	kg	kg	mm	mm	mm	
HV-DM71ACV	50Hz	7.1	24.2	8.0	27.2	0.30	1220	710	36-41	70	1255	1209			33	37				
HV-DM80ACV	50Hz	8.0	27.2	9.0	30.7						325	260			33	37				
HV-DM90ACV	50Hz	9.0	30.7	10.0	34.1		1850	1080	38-43					46	50	Ø15.9	Ø9.53	ODØ25	Wired controller	
HV-DM100ACV	50Hz	10.0	34.1	11.0	37.5	0.34					1490	1445	/	/	46	50				
HV-DM120ACV	50Hz	12.0	40.9	13.0	44.3		2000	1170	40-44		325	260			46	50				
HV-DM150ACV	50Hz	15.0	51.1	17.0	58						720	680			46	50				

Notes:
 1. Power supply: 220-240V/1N for 50Hz; 208-230V/1N for 60Hz
 2. Cooling test condition: indoor side 27°C DB, 19°C WB outdoor side 35°C DB. Heating test condition: indoor side 20°C DB, 15°C WB outdoor side 7°C DB
 3. Sound level: measured at a point 1 m in front of the unit at a height of 1.5m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
 4. The above data may be changed without notice for future improvement on quality and performance.

High Static Pressure Ducted Unit



Features

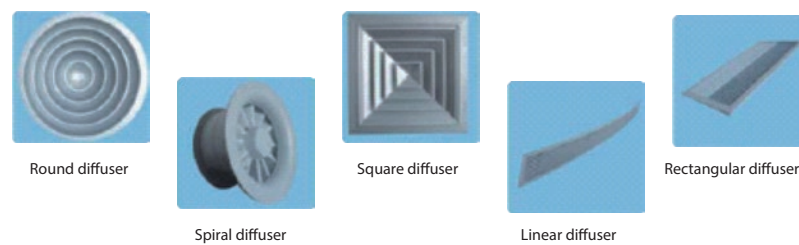
Accessories

Plenum box	Air filter	EXV	Drain pump	AC motor	DC motor
Standard	Standard	Standard(built-in)	Optional	Standard	/

Slim body, saving suspended ceiling spaces



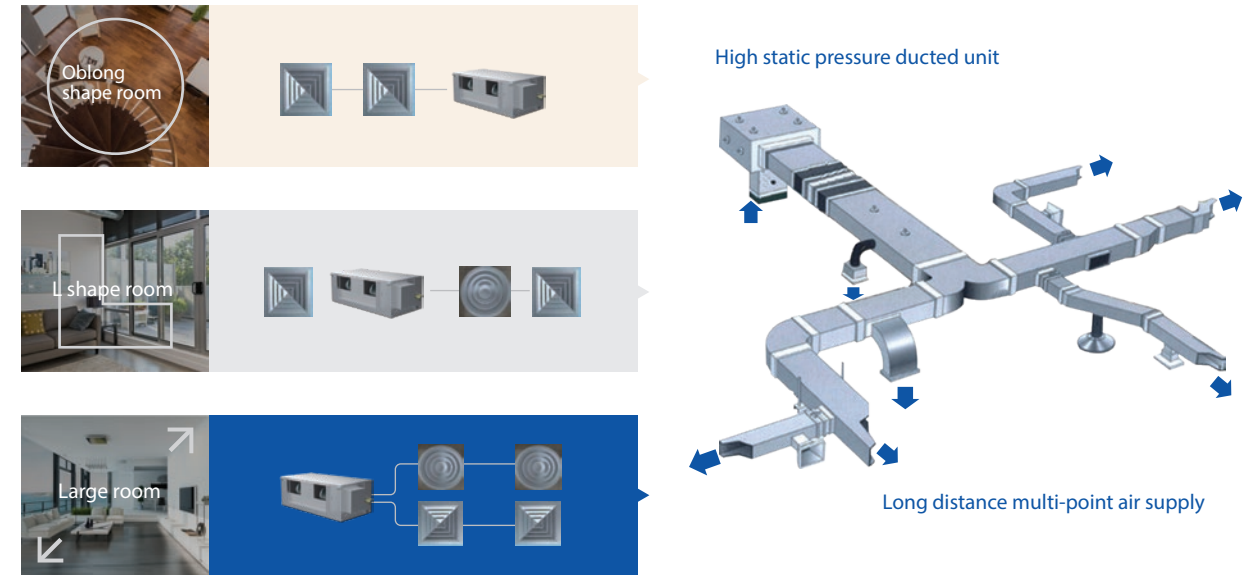
Can be used with various diffusers



Used with various diffusers, meet for different kinds of decoration.

High static pressure

Big air flow with high static pressure, easy for large rooms duct design. Suitable for different shape of rooms.



Specification

Model name	Power type	Capacity				Motor input	Air flow		Sound level	ESP	Dimension(WxHxD)		Body Weight			Connecting pipe			Standard controller
		Cooling	Heating	Motor input	Air flow		Packing	Body			Net	Gross	Gas	Liquid	Drain				
		kW	kBtu/h	kW	kBtu/h	kW	M ³ /h	CFM	DB(A)	Pa	mm	mm	kg	kg	mm	mm	mm		
HV-DH71ACV-A	50Hz	7.1	24.2	7.8	26.6	0.34	1500	880	40-42	150	1490 x 325 x 720	1445 x 260 x 680	46	50	Ø15.9	Ø9.53	ODØ25	Wired controller	
HV-DH80ACV-A	50Hz	8.0	27.2	8.8	30								46	50					
HV-DH90ACV-A	50Hz	9.0	30.7	10.0	34.1								46	50					
HV-DH100ACV-B	50Hz	10.0	34.1	11.0	37.5	0.45	2300	1350	44-52	150	1245 x 445 x 655	1190 x 370 x 620	47	51	Ø15.9	Ø9.53	ODØ25	Wired controller	
HV-DH120ACV-B	50Hz	12.0	40.9	13.0	44.3								47	51					
HV-DH150ACV-B	50Hz	15.0	51.1	17.0	58.0								47	51					
HV-DH200ACV-B	50Hz	20.0	68.2	22.0	75.0	1.2	4000	2350	45-53	150	1510x580x870	1465x448x811	102	113	Ø22.2	Ø12.7	ODØ30	Wired controller	
HV-DH250ACV-B	50Hz	25.0	85.3	27.5	93.8	1.2	4200	2470	45-54										
HV-DH280ACV-B	50Hz	28.0	95.5	30.8	105.0	1.2	4400	2580	45-55										
HV-DH450ACY	50Hz	45.0	153.5	50.0	170.6	1.6	6000	3520	60	200	2267 x 840 x 1050	2165 x 676 x 916	222	260	Ø28.6	Ø15.9	ODØ32	Wired controller	
HV-DH560ACY	50Hz	56.0	191.0	63.0	214.9	2.5	8000	4700	64										

Notes:

1. Power supply: 220-240V/1N for 50Hz; 208-230V/1N for 60Hz
2. Cooling test condition: indoor side 27°C DB, 19°C WB outdoor side 35°C DB. Heating test condition: indoor side 20°C DB, 15°C WB outdoor side 7°C DB
3. Sound level: measured at a point 1 m in front of the unit at a height of 1.5m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
4. The above data may be changed without notice for future improvement on quality and performance.

Wall Mounted Unit



Features

Accessories

Plenum box	Air filter	EXV	Drain pump	AC motor	DC motor
/	Standard	Standard(built-in)	/	/	Standard



Air supply smoothly

Cross flow fan, In Cooling mode, cold air is blown from horizontal. In heating mode, warm air is blown from vertical.



2 panels can be chosen, suitable for all kinds of decoration style

Simple, elegant, stylish, mirror design, suitable for all kinds of decoration style.



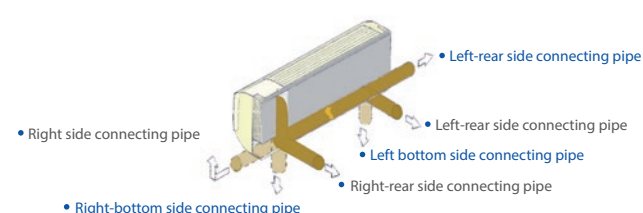
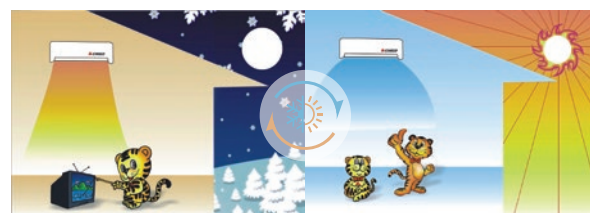
Flexible in installation

Refrigerant pipe can be connected from 3 directions.



Wide adjustable angle air supply

65° Wide angle air supply, louver angle can be fixed or set to auto-swing by controller.



Specification

Model	HV-WM22GDCVA	HV-WM28GDCVA	HV-WM36GDCVA	HV-WM45GDCVB	HV-WM56GDCVB	HV-WM71GDCVB	
Power Supply	220-240V/1N/50&60Hz	220-240V/1N/50&60Hz	220-240V/1N/50&60Hz	220-240V/1N/50&60Hz	220-240V/1N/50&60Hz	220-240V/1N/50&60Hz	
Capacity	Cooling	2.2	2.8	3.6	4.5	5.6	7.1
	Heating	2.5	3.2	4.0	5.0	6.3	8.0
Power input	15	15	18	20	23	35	
Fan motor	Type	DC	DC	DC	DC	DC	DC
	Speed (Hi/Med/Low)	1000/900/870/850	1000/900/870/850	1100/1000/950/900	1050/950/900/850	1100/1000/950/900	1300/1200/1100/1000
Air flow	440/380/360/350	440/380/360/350	500/440/415/380	655/610/565/525	720/645/580/560	890/805/720/645	
Sound Pressure level	24~33	24~33	27~36	29~38	32~42	35~43	
Body dimension (WxHxD)	Net	864x300x200	864x300x200	864x300x200	972x320x215	972x320x215	972x320x215
	Packing	945x375x290	945x375x290	945x375x290	1060x400x310	1060x400x310	1060x400x310
Body weight	9.5/12	9.5/12	9.5/12	11.5/14	11.5/14	11.5/14	
Refrigerant type	R410A	R410A	R410A	R410A	R410A	R410A	
Throttle type	EXV	EXV	EXV	EXV	EXV	EXV	
Liquid pipe/Gas pipe	mm	Φ6.35/Φ9.53	Φ6.35/Φ9.53	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ6.35/Φ12.7	Φ9.52/Φ15.88
Drainage water pipe (Outer diameter)	mm	Φ20	Φ20	Φ20	Φ20	Φ20	Φ20
Operation temperature	℃	16~32	16~32	16~32	16~32	16~32	16~32

Notes:

1. Power supply: 220~240V/1N for 50Hz; 208~230V/1N for 60Hz

2. Cooling test condition: indoor side 27℃ DB, 19℃ WB outdoor side 35℃ DB. Heating test condition: indoor side 20℃ DB, 15℃ WB outdoor side 7℃ DB

3. Sound level: measured at a point 1 m in front of the unit at a height of 1.5m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.

4. The above data may be changed without notice for future improvement on quality and performance.

Wall Mounted Unit



Floor Ceiling Unit



Features

Accessories

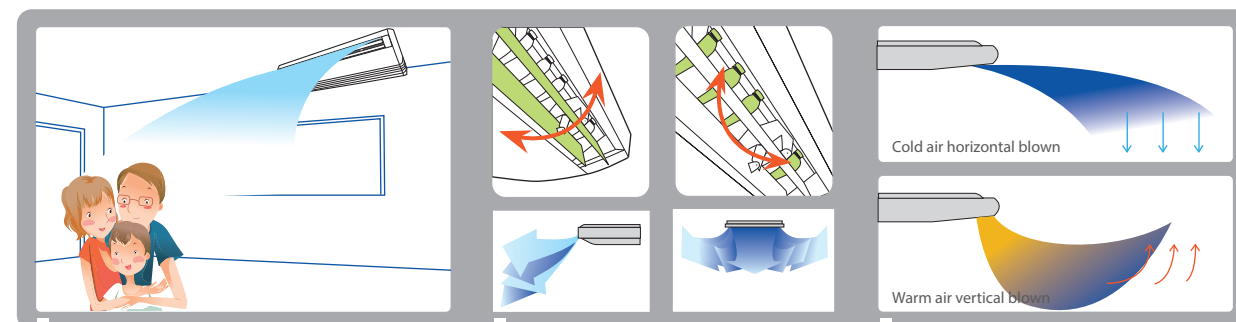
Plenum box	Air filter	EXV	Drain pump	AC motor	DC motor
/	Standard	Standard(built-in)	Optional	Standard	/

Flexible installation

According to actual project needs, choose ceiling suspended installation or floor standing installation.



Wide angle air supply

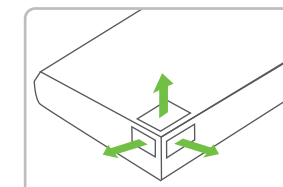


Configured with low noise high performance centrifugal fans, has big air flow and long distance air supply.

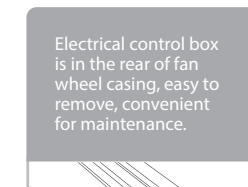
3 dimensional air supply, wide air supply angle, easily supply to every corners.

In Cooling mode, cold air is blown from horizontal. In heating mode, warm air is blown from vertical.

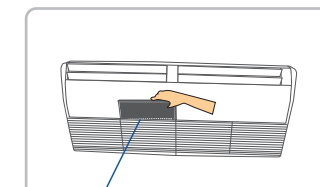
Easy for installation



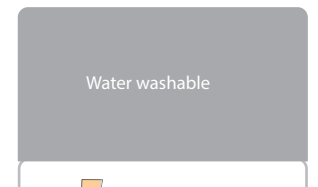
Refrigerant pipe can be connected from 3 directions.



Electrical control box is in the rear of fan wheel casing, easy to remove, convenient for maintenance.



Long term filter can be remove from air inlet grille to clean



Water washable

Air inlet grille

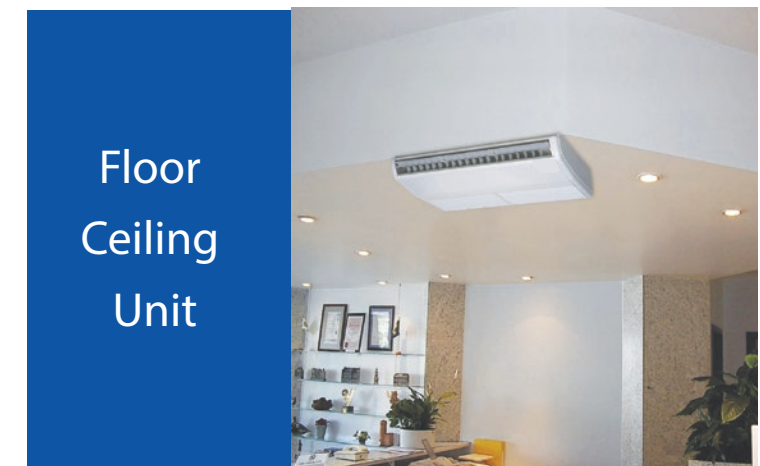
Two kinds of grilles for selection



Horizontal Type Grill (Standard)



Honeycomb Type Grill (Optional)



Specification

Model name	Power type	Capacity				Motor input	Air flow		Sound Level	Dimension(WxHxD)		Body Weight		Connecting pipe			Standard controller
		Cooling	Heating	Cooling	Heating		M ³ /h	CFM		DB(A)	Packing	Body	Net	Gross	Gas	Liquid	
		kW	kBtu/h	kW	kBtu/h	kW	M ³ /h	CFM	DB(A)	mm	mm	kg	kg	mm	mm	mm	
HV-CF36ACVA	50Hz	3.6	12.3	4.0	13.7	0.09	800	470	32-46	1130 x 765 x 330	1050 x 675 x 235	26.5	31.5	Φ12.7	Φ6.35	DN20	Remote controller
HV-CF45ACVA	50Hz	4.5	15.3	5.0	17												
HV-CF56ACVA	50Hz	5.6	19.1	6.3	21.4												
HV-CF71ACVB	50Hz	7.1	24.2	8.0	27.2	0.10	1200	706	41-48	1380 x 765 x 330	1300 x 675 x 235	32.5	37.5	Φ15.9	Φ9.52	DN20	
HV-CF80ACVB	50Hz	8.0	27.2	8.8	30												
HV-CF90ACVC	50Hz	9.0	30.7	10.0	34.1	0.20	2000	1177	38-53	1750 x 765 x 330	1670 x 675 x 235	41.0	47.0	Φ15.9	Φ9.52	DN20	
HV-CF112ACVC	50Hz	11.2	38.2	12.5	42.6												
HV-CF140ACVC	50Hz	14.0	47.7	15	51.1												
HV-CF160ACVC	50Hz	16.0	54.5	17	58												

Notes:

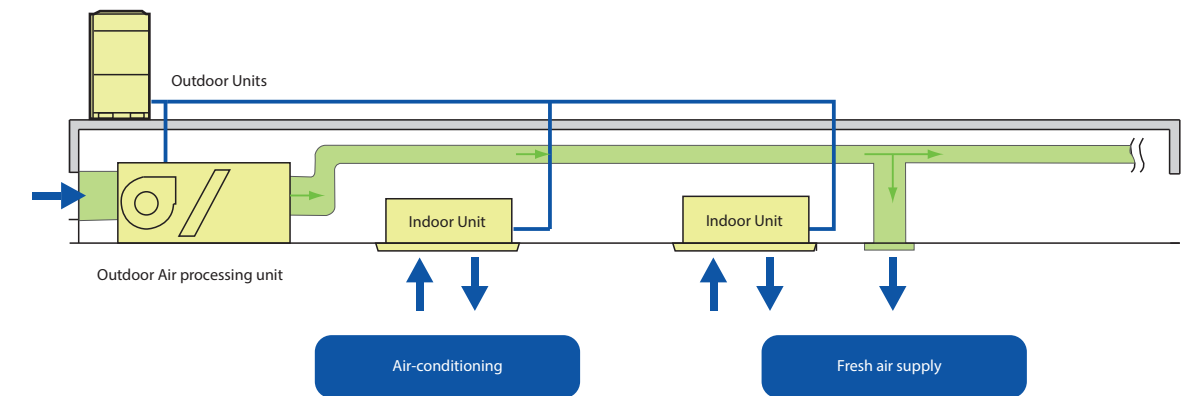
- 1.Power supply: 220-240V/1N for 50Hz;208-230V/1N for 60Hz
- 2.Cooling test condition: indoor side 27°C DB, 19°C WB outdoor side 35°C DB.Heating test condition: indoor side 20°C DB, 15°C WB outdoor side 7°C DB
- 3.Sound level: measured at a point 1 m in front of the unit at a height of 1.5m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
- 4.The above data may be changed without notice for future improvement on quality and performance.

Fresh Air Processor



Innovative air supply technology for excellent room temperature control

Fresh air unit can be connected with other type indoor units(only for 14/22.4/28kw fresh air unit).
Layout Example:



Notes:1. When VRF system connect fresh air indoor unit and other type indoor units together, the capacity combination ratio between indoor unit and outdoor unit should within 100%
2. Fresh air unit capacity can't bigger than 30% of total indoor units capacity.

Features

Accessories

Plenum box	Air filter	EXV	Drain pump	AC motor	DC motor
Standard	Optional	Standard(built-in)	Optional	Standard	/

Healthy and comfortable

Fresh air is imported, provides a healthy and comfortable living environment.

100% Fresh air processing unit

Both fresh air filtration and heating/cooling can be achieved in a single system. Indoor units and fresh air processing unit can be connected to the same refrigerant system, increase design flexibility and greatly reduce total system costs.

High external static pressure

External static pressure can be up to 300Pa for more flexible duct applications. The maximum distance of air supply is about 20m and the maximum height of air supply is about 6.5m.

Specification

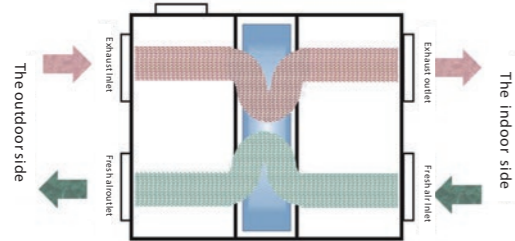
Model name	Power type	Capacity				Motor input	Air flow		Sound Level	ESP	Dimension(WxHxD)				Body Weight		Connecting pipe			Standard controller
		Cooling kW	Heating kW	Heating kbtu/h	Cooling kbtu/h		M ³ /h	CFM			Packing mm	Body mm	Panel packing mm	Panel mm	Net kg	Gross kg	Gas mm	Liquid mm	Drain mm	
HV-DFAP140ACV-A	50Hz	14.0	47.7	9.0	30.7	0.45	1400	820	42-48	220	1245 x 445 x 655	1190 x 370 x 620	47	51	Φ15.9	Φ9.53				
HV-DFAP224ACV-B	50Hz	22.4	76.4	16.0	54.5	1.2	2000	1170	45-52	220	1510 x 580 x 870	1465 x 448 x 811	100	111				OD Φ25		
HV-DFAP280ACV-B	50Hz	28.0	95.5	20.0	68.2	1.2	2800	1640	45-52	220	1510 x 580 x 870	1465 x 448 x 811	100	111	Φ22.2	Φ12.7			Wired controller	
HV-DFAP450ACY-C	50Hz	45.0	153.5	31.4	107.1	1.6	4000	3520	58	300	2267 x 840 x 1050	2165 x 676 x 916	222	260						
HV-DFAP560ACY-C	50Hz	56.0	191.0	39.0	133.0	2.5	6000	4700	62	300	2267 x 840 x 1050	2165 x 676 x 916	222	260	Φ28.6	Φ15.9		OD Φ32		

Notes:1.45kW & 56kW units' power supply are 380-415V/3N for 50Hz and 208-230V/3N for 60Hz, the others' power supply is 220-240V/1N for 50Hz and 208-230V/1N for 60Hz
2.Cooling test condition: Indoor and outdoor side 33 °C DB, 28 °C WB.Heating test condition: Indoor and outdoor side 0 °C DB, -2.9 °C WB
3.Sound level: measured at a point 1 min front of the unit at a height of 1.5m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
4.The above data may be changed without notice for future improvement on quality and performance.

Heat Recovery Ventilator



Features

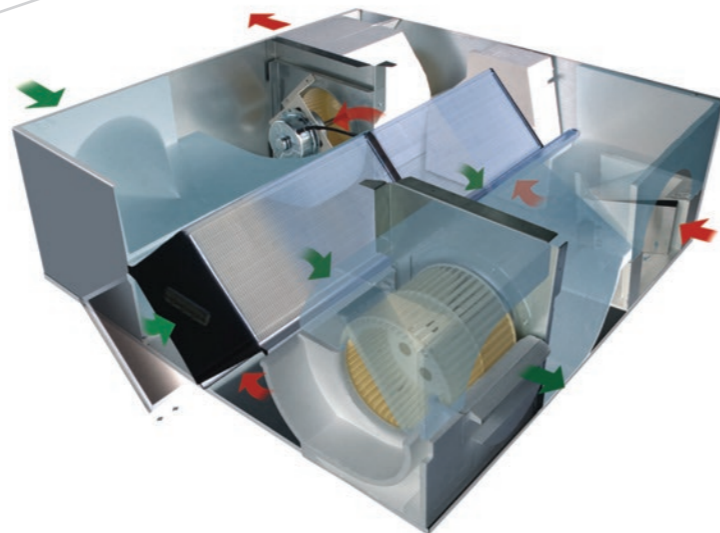


How it works

When air flow formed by exhaust air and outdoor air through the heat exchanged core in cross way, because of temperature difference in the two sides of flat partition board, the heat transmission is occurred.

In summer, outdoor air acquire cooling from air exhaust to decrease environment temperature; In winter, outdoor air acquire heating from air exhaust to increase temperature, that is to say, it realizing the energy recovery during air exhaust process to exchange the heating in heat exchanged core to outdoor air.

Application for: business office buildings, hotels, restaurants, meeting rooms, exhibition centres, leisure centres, workshop and other places.



Specification

Suspended type specification

Model name	Air flow M ³ /h	ESP Pa	Power input W	Power supply (V)	Temperature exchanging efficiency(%)		Enthalpy exchanging efficiency(%)		Noise dB(A)	Body dimension (WxDxH) mm	Weight kg
					Cooling	Heating	Cooling	Heating			
HRV-02D	200	75	65	220V/1N/50Hz	60.0	65.0	50.0	55.0	30	666x580x264	25
HRV-03D	300	75	130		60.0	65.0	50.0	55.0	33	744x599x270	27
HRV-04D	400	80	200		60.0	65.0	50.0	55.0	35	744x804x270	30
HRV-05D	500	80	220		60.0	65.0	50.0	55.0	38	824x904x270	41
HRV-06D	600	90	242		60.0	65.0	50.0	55.0	40	824x904x270	42
HRV-08D	800	100	410		60.0	65.0	50.0	55.0	42	1116x884x388	68
HRV-10D	1000	150	510		60.0	65.0	50.0	55.0	43	1116x1134x388	82
HRV-13D	1300	150	530		60.0	65.0	50.0	55.0	45	1116x1134x388	82
HRV-15DS	1500	160	1000	380V/3N/50Hz	60.0	65.0	50.0	55.0	51	1600x1200x540	200
HRV-20DS	2000	170	1200		60.0	65.0	50.0	55.0	53	1650x1400x540	225
HRV-25DS	2500	180	2000		60.0	65.0	50.0	55.0	55	1430x1610x600	240
HRV-30DS	3000	200	2100		60.0	65.0	50.0	55.0	57	1600x1700x640	270
HRV-40DS	4000	220	2400		60.0	65.0	50.0	55.0	60	1330x1725x1050	265
HRV-50DS	5000	240	3000		60.0	65.0	50.0	55.0	61	1660x1820x1050	280
HRV-60WS	6000	290	3600		60.0	65.0	50.0	55.0	70	1660x1820x1050	310
HRV-70WS	7000	310	4200		60.0	65.0	50.0	55.0	73	2060x1660x1168	360
HRV-80WS	8000	320	6000		60.0	65.0	50.0	55.0	74	2060x1660x1168	382
QR-X90WS	9000	340	7500		60.0	65.0	50.0	55.0	77	2310x1900x1200	500
QR-X100WS	10000	400	8000	60.0	65.0	50.0	55.0	78	2310x1900x1200	534	

Notes: 1.Cooling test condition: indoor side 27 °C DB, 19.5 ° WB ; outdoor fresh air 35 °C DB, 28 °C ;
 2.Heating test condition: indoor side 21 °C DB, 13 ° WB outdoor fresh air 5 °C DB, 2 °C ;
 3.The above data may be changed without notice for future improvement on quality and performance.

Heat Recovery Ventilator



Air Handler Unit



Features

- Insulated cabinet**
 Galvanized steel with paint on all panels. Thermal insulator cover all inside panels to reduce heat and cooling losses and prevent condensed water accumulation.
- Motor & Blower**
 Direct drive motors, 3-speed, provide selections of air flow to meet desired applications. Φ10" big fan, powerful wind.
- Coil**
 "A" shape coils, constructed with copper tubing and enhanced aluminum fins.
- Filter optional**
 Detachable air filter for cleaning or renewal.
- Multi-position installation**
 Versatile 4-way convertible design for vertical up airflow, horizontal right airflow.

Controllers & Software

Specification

Model name	Power type	Capacity				Power input	Air flow			Sound Level	ESP	Dimension(WxHxD)		Body Weight		Connecting pipe			Standard controller
		Cooling kW	Heating kW	Cooling kBTu/h	Heating kBTu/h		W	M ³ /h	CFM			DB(A)	Pa	Body mm	Packing mm	Net kg	Gross kg	Gas mm	
HV-V71AH/HNR1	60Hz	7.1	24.1	8.0	27.2	290	1500	882.3	51~54	25	774x520x460	834x520x565	36	39	Ø15.88	Ø9.52	Ø20	Wired Controller	
HV-V105AH/HNR1	60Hz	10.5	35.7	11.5	39.1	290	1500	882.3	51~54	37	774x520x460	834x520x565	36	39	Ø15.88	Ø9.52	Ø20	Wired Controller	
HV-V160AH/HNR1	60Hz	16.0	54.4	18.0	61.2	517	2500	1470.6	57~60	50	970x550x500	1030x560x595	48	52	Ø15.88	Ø9.52	Ø20	Wired Controller	

Notes: 1. Power supply: 208-230V/1N/60Hz;
 2. Cooling test condition: Indoor side 27 °C DB, 19 °C WB, outdoor side 35 °C DB, 15 °C WB, Outdoor side 7 °C DB;
 3. Sound level: measured at a point 1 m in front of the unit at a height of 1.5m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
 4. The above data may be changed without notice for future improvement on quality and performance.

Wireless Remote Controllers

- Indoor unit address inquiry
- Indoor unit address setting
- Temperature setting
- Operation mode setting
- Fan speed setting
- Timer function

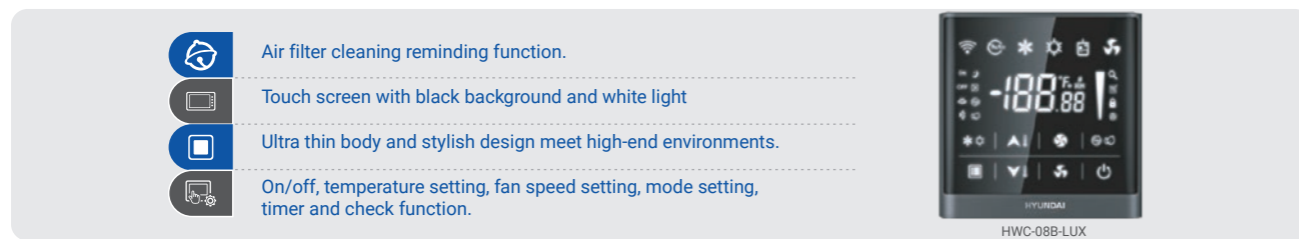


Wired Controllers



- Bidirectional communication. Indoor unit's operating parameters(error code, temperature, address)can be inquired and displayed on the controller.
- Compact design
- Timer function

Touch Screen Wired Controller



- Air filter cleaning reminding function.
- Touch screen with black background and white light
- Ultra thin body and stylish design meet high-end environments.
- On/off, temperature setting, fan speed setting, mode setting, timer and check function.

Simple Centralized Controller



- Easy to install. Controller connects to outdoor units only.
- Able to install this controller after building decoration.
- 1 Controller can control max. 100 indoor units.
- Mode lock function, user can lock the running mode of indoor unit.
- Build in Modbus protocol.

Smart Manager

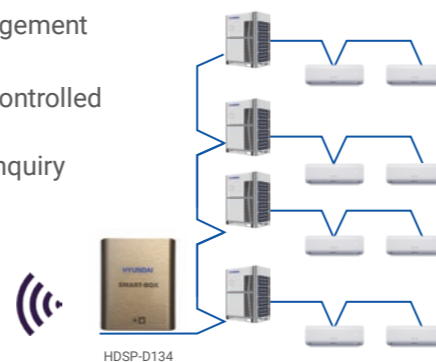
- Available on iOS and Android



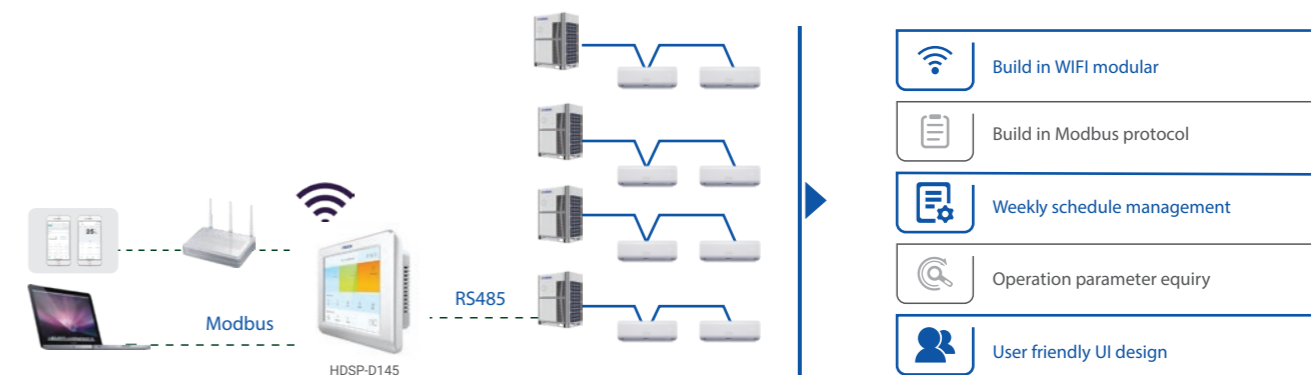
- Remote control via cloud server



- Single unit controller or group control
- Weekly schedule management
- 64 indoor unit can be controlled
- Operation parameter enquiry



Touch Screen Centralized Controller

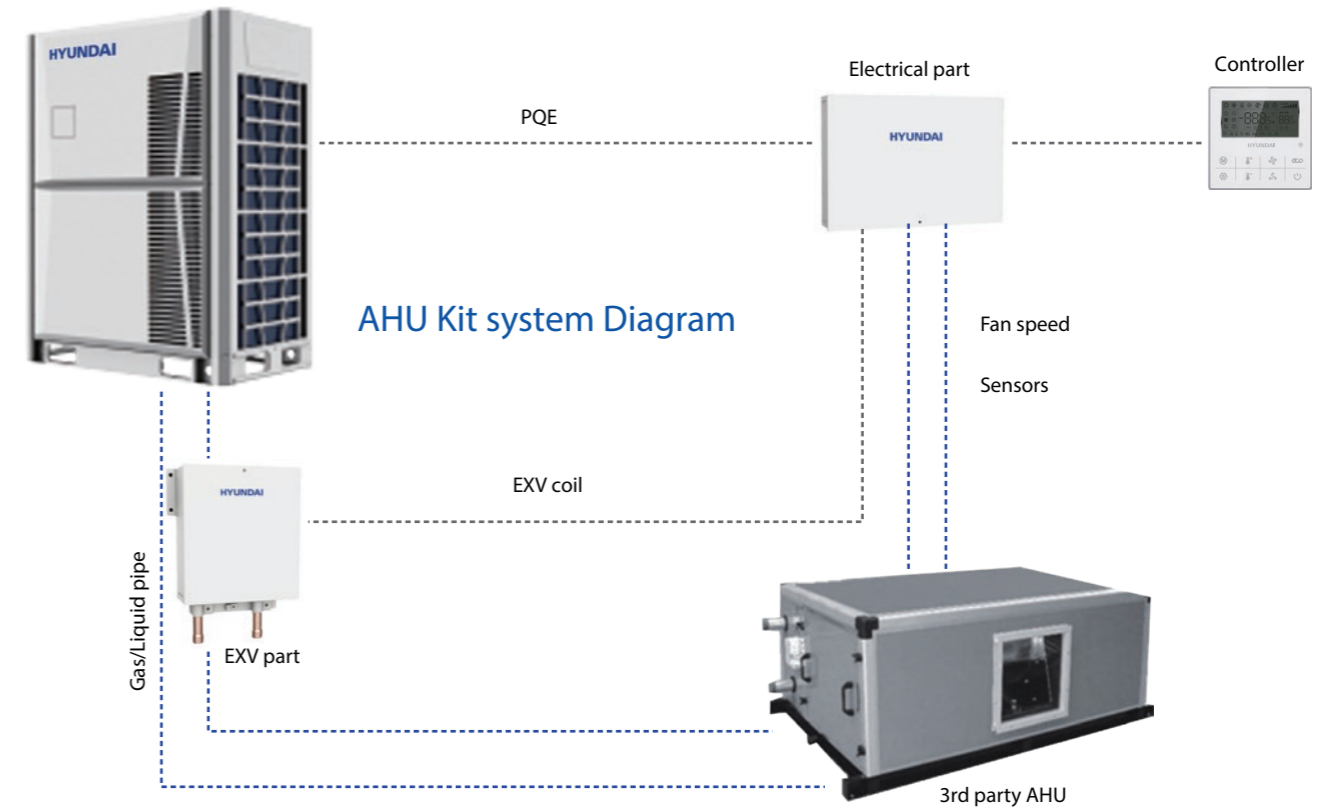
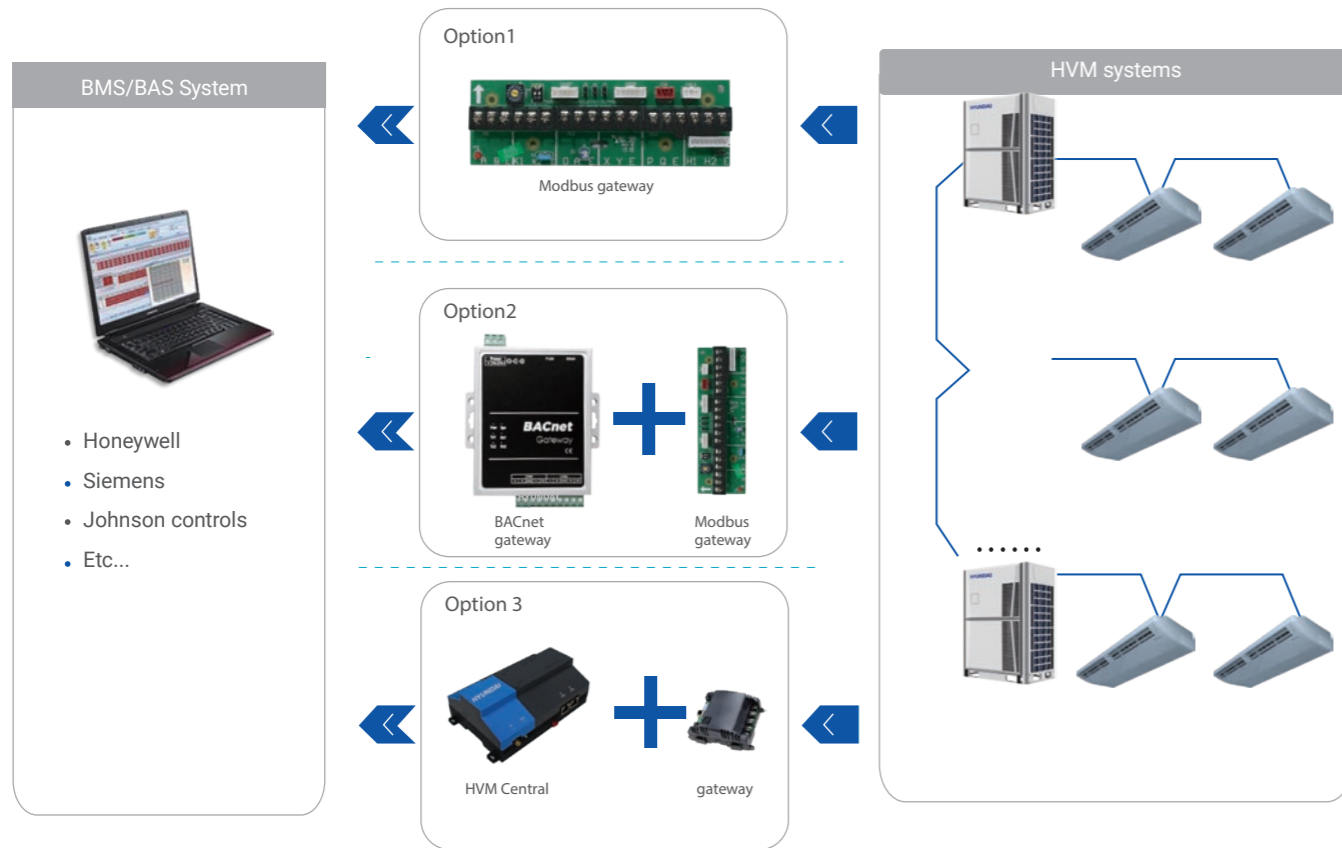


Touch screen centralized controller

- Build in WIFI modular
- Build in Modbus protocol
- Weekly schedule management
- Operation parameter enquiry
- User friendly UI design

BMS Gateway

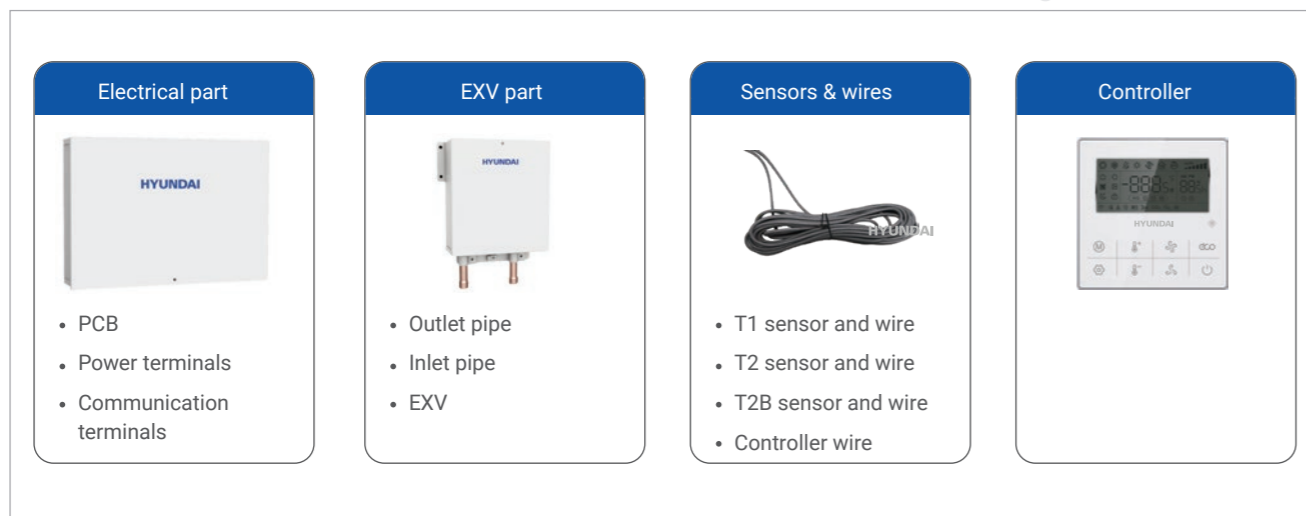
- Modbus gateway | Outdoor unit built in with Modbus gateway can be customized
- BACnet gateway | Verified by BACnet International, fully compatible with all BACnet protocol product



AHU Connection Kit

- HYUNDAI AHU kit is an interface that allows 3rd party manufacturer's AHU connecting to HYUNDAI VRF outdoor units.
- No address limit and automatic addressing.
- Split type, convenient for installation.
- One electrical part has one address and can max. connect 4 EXV parts.
- One AHU kit can max. connect up to 120HP.

HYUNDAI AHU Connection Kit



VRF Selection Software Pro

