X-Power Full DC Inverter
Mini H Series

NEW
Fashion
Design

R-410A

DC Inverter

Features

Wide Application Range

Wide range of outdoor units

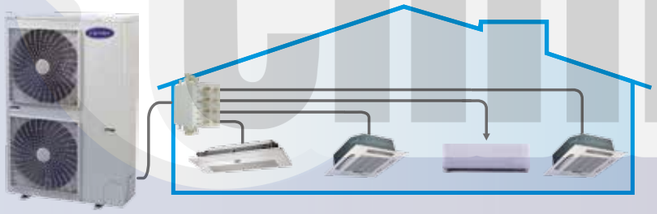
The outdoor units' capacity range from 8kW(27,3kBtu/h) to 45kW(153,5kBtu/h) which is ideal for small offices, villas, apartment and shops, making it perfect for commercial and residential application.

8kW; 10kW (27,3BkBtu/h;35,8kBtu/h)	12kW; 14kW; 16kW (40,9kBtu/h; 47,8kBtu/h; 52,9kBtu/h)	20kW; 22.4kW; 26kW; 33.5kW (68.2kBtu/h; 76,4kBtu/h; 88,7kBtu/h114.3kBtu/h)	40kW; 50kW (136,5kBtu/h; 153,5kBtu/h)

Flexible indoor units connection

Mini VRF with intelligent control gives you independent zoning control with maximum flexibility.
A single outdoor unit supports up to nine indoor units, freeing up considerable space outside. Use your backyard more wisely with much more space available created by less number of outdoor units.

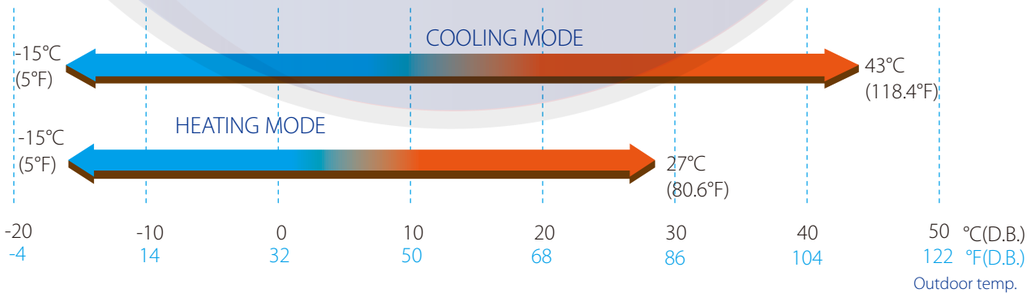
- Max. 7 indoor units for a 16kW(52,900Btu/h) outdoor unit installation
- Max. 6 indoor units for a 14kW(47,800Btu/h) outdoor unit installation
- Max. 6 indoor units for a 12kW(40,900Btu/h) outdoor unit installation
- Max. 5 indoor units for a 10.5kW(35,800Btu/h) outdoor unit installation



* For 20-45KW unit, please check the information in the specifications.

Wide operation temperature range

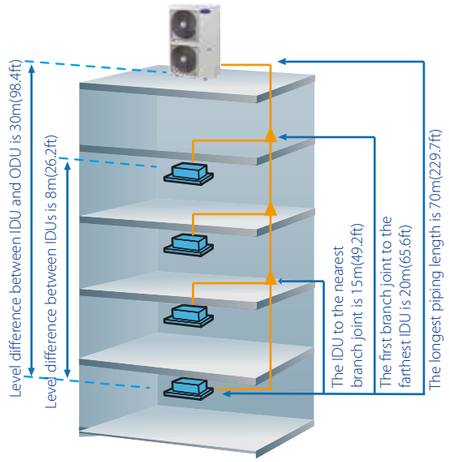
Mini VRF system operates stably at extreme temperature range from minus 15°C (5°F) to 43°C(118.4°F).



*For 20-45KW unit, please check the information in the following specifications.

Flexible piping design

The Mini VRF provides a total piping length possibility of 250m(820.2ft), a maximum height difference between outdoor and indoor units of 30m(98.4ft). The height difference between indoors unit can be up to 8m(26.2ft). These generous allowances facilitate an extensive array of system designs.

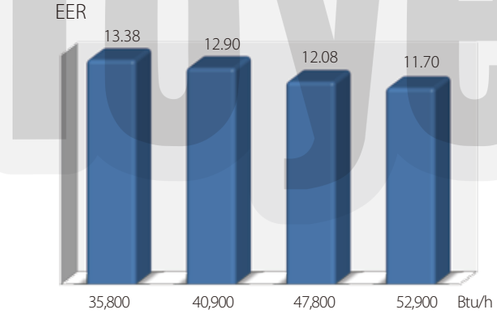


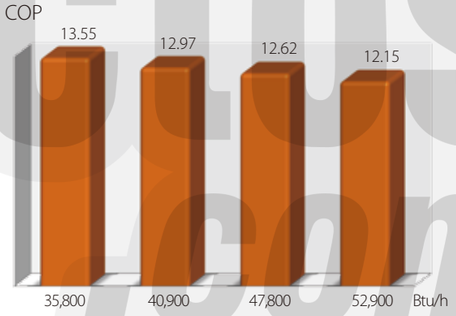
Permitted value			8/10kW (27.3/35.8kBtu/h)	12/14/16/18kW (40.9/47.8/ 52.9 kBtu/h)	20/22.4/26/28/ 33.5kW(68.2/76.4/ 88.7/114.3kBtu/h)	40/45kW 136.5/153.5kBtu/h
Piping length	Total piping length (Actual)		100m(328ft)	100m(328ft)	120m(393.7ft)	250m(820.2ft)
	Longest piping (L)	Actual length	45m(146.7ft)	60m(196.9ft)	60m(196.9ft)	100m(328ft)
		Equivalent length	50m(164ft)	70m(229.7ft)	70m(229.7ft)	120m(393.7ft)
Level difference	Equivalent piping length (from the farthest IDU to the frst indoor branch joint)		20m(65.6ft)	20m(65.6ft)	20m(65.6ft)	40m(131.2)
	Level difference between IDU~ODU	Outdoor unit up	30m(98.4ft)	30m(98.4ft	30m(98.4ft)	30m(98.4ft
		Outdoor unit down	20m(65.6ft)	20m(65.6ft)	20m(65.6ft)	20m(65.6ft)
	Level difference between IDU~IDU		8m(26.2ft)	8m(26.2ft)	8m(26.2ft)	8m(26.2ft)

1 Total pipe length is equal to all the liquid pipe or all the gas pipe length.
2 When the total equivalent pipe length of liquid side plus gas side is more than 90m(295.2ft), it needs to meet the specific conditions according to the installation part of the technical manual.
3 *For 20-45KW unit, please check the information in the specifications.

High Efficiency

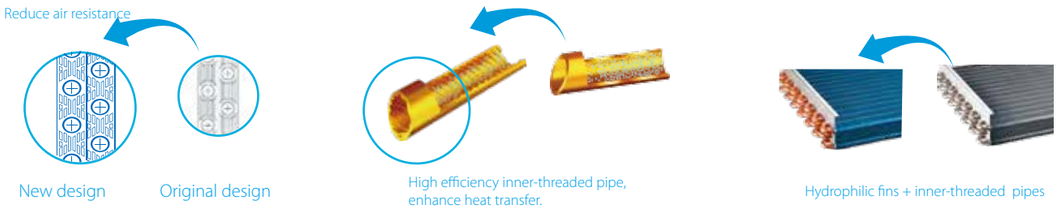
High COP and EER values





*For 20-45KW unit, please check the information in the specifications.

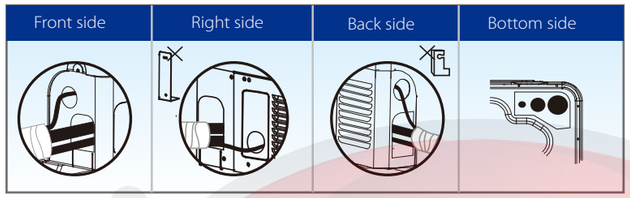
High performance heat exchanger

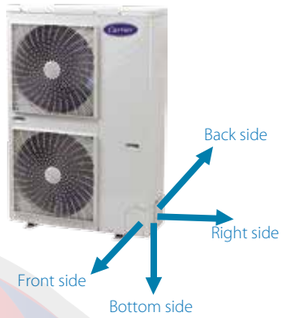


- The new designed window fins enlarge the heat-exchanging area , decrease the air resistance, save more power and enhance heat exchange performance.
- Hydrophilic film fins and inner-threaded copper pipes optimize heat exchange efficiency.
- The specially coated blue fins enhance durability and protect against corrosion from air, water and other corrosive agents, assures a longer coil service life.

More convenience in installation

A four-direction space is available for connecting pipes and wiring in various installation sites.





More convenient piping connector - branch box

Easier and safer installation thanks to a branch box that simplifies piping work and the adoption of screw connection.

Both left and right pipe flare connection from outdoor unit to branch box is reserved, which greatly simplifies field installation.

Two sets of pipe size converter are packed with branch box to transfer the pipe size from Φ6.35mm(Φ1/4in) to Φ9.53mm(Φ3/8in) and from Φ12.7mm(Φ1/2in) to Φ15.9mm(Φ5/8in).

Low noise

The branch pipe is linear expansion design regulates the flow of refrigerant and reduces the noise. By locating the branch box in the ceiling or outside ,noise generated by the branch box can be kept clear of living spaces, thus makes noise level to a minimum.

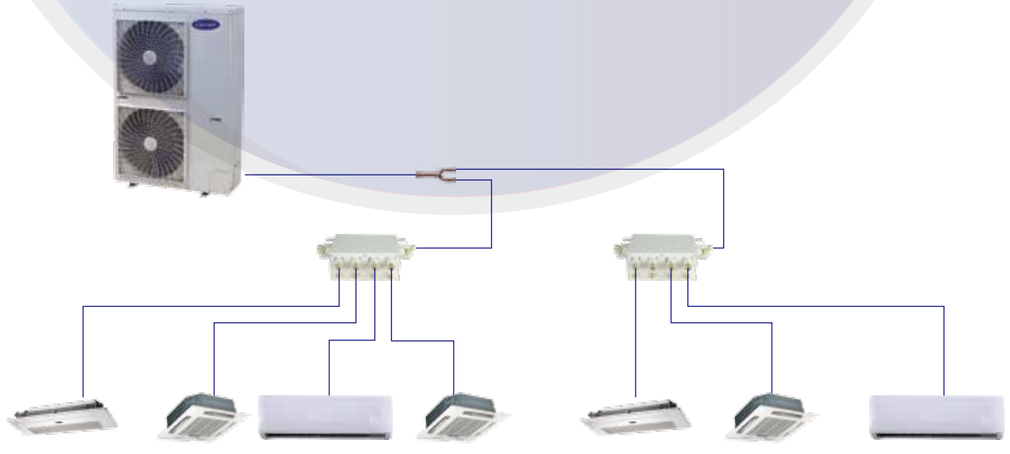
Brazing-free quick installation

All the piping leading to and from the branch box is connected using screw joints,which can be installed quickly and easily.

Indoor installation

The branch box can be installed in the ceiling rather than outside. Removing the side and bottom covers provides easy access for maintaining inner components such as circuit boards.

New piping connection design

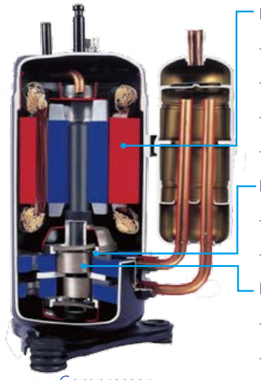


*40/45KW unit can not connect branch box

Advanced Technologies

Full DC inverter technology

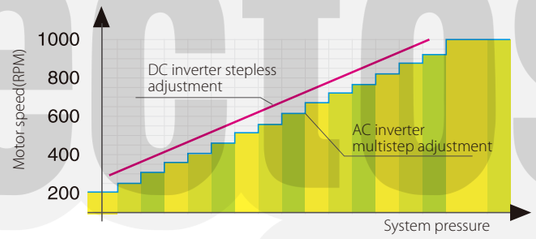
At the heart of our system is a highly intelligent inverter driven compressor. This advanced technology enables the output of the outdoor unit to be modulated by the cooling or heating demands of the zone that it controls. This advanced system ensures precise temperature regulation and highly efficient energy usage, making a significant contribution to the limiting the impact on the environment.



Compressor
(Twin Rotary) structure

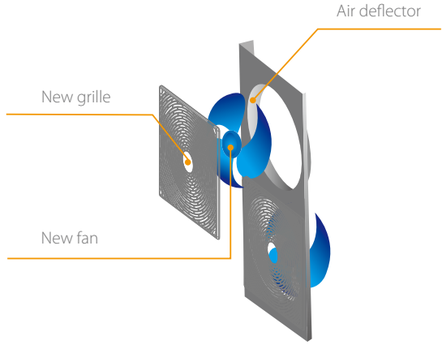
- Highly Efficient DC Motor:
  - Creative motor core design
  - High density neodymium magnet
  - Concentrated type stator
  - Wider operating frequency range
- Better balance and Extremely Low Vibration:
  - Twin eccentric cams
  - 2 balance weights
- Highly Stable Moving Parts:
  - Optimal material matching rollers and vanes
  - Optimize compressor drive technology
  - Highly robust bearings
  - Compact structure

High efficiency DC fan motor saved power up to 50%.

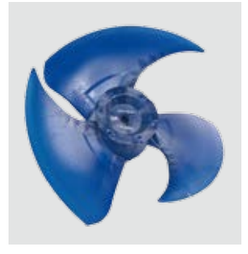


Noise reducing design

Optimally designed fan shape and air discharge grille increases air volume and reduces running noise.



Newly Designed Fan Guard



Powerful Large Propeller

Specifications 50Hz

Sales Model			38VR007H119010	38VR008H11901S	38VR010H11901S	38VR012H11901S	38VR014H11901S	38VR016H11901S
Power supply		V-Ph-Hz	380-415V-3N~50Hz	380-415V-3N~50Hz	380-415V-3N~50Hz	380-415-3N~50	380-415-3N~50	380-415-3N~50
Cooling	Capacity	kW	20	22.4	26	33.5	40	45
		RT	5.7	6.4	7.4	9.5	11.4	12.9
	Input	kW	6.1	6.8	7.6	9.85	11.9	13.6
	EER	KBtu/h/kW	11.19	11.23	11.67	11.6	11.43	11.33
Heating	Capacity	kW	22	24.5	28.5	33.5	45	50
		RT	6.29	7	8.1	9.5	12.86	14.3
	Input	kW	6.1	5.9	6.8	8.38	11.1	12.7
	COP	KBtu/h/kW	12.32	14.16	14.30	13.65	13.82	13.41
Outdoor sound level(*3)		dB(A)	59	59	60	62	62	62
Pipe connections	Liquid side	mm	Φ9.53	Φ9.53	Φ9.53	Φ12.7	Φ12.7	Φ12.7
	Gas side	mm	Φ19.1	Φ19.1	Φ22.2	Φ22.2	Φ22.2	Φ25.4
Connectable	Total capacity	%	50-130%	50-130%	50-130%	50-130%	50-130%	50-130%
	Max.quantity		10	11	12	13	14	15
Compressor	Type		Rotary	Rotary	Rotary	Rotary	Rotary	Rotary
	Brand		MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI
	Capacity	Btu/h	13980	16860	16860	57526	13980×2	16860×2
	Crankcase	W	25	25	25	5.2	25×2	25×2
	Refrigerant oil	Type	FV50S	FV50S	FV50S	FV50S	FV50S	FV50S
	Refrigerant oil	ml	1400+1300	1700+1500	1700+1500	1700+1500	1400×2+2500	1700×2+3600
Fan Motor	Type		DC motor	DC motor	DC motor	DC	DC+AC	DC+AC
	Quantity		2	2	2	2	1+1	1+1
	Output	W	210/160	200/150	200/150	220+180	560/320	560/320
	Airflow	CFM	6470	6173	6173	6374	9750	9750
		m^3/h	10999	10494	10494	10837	16575	16575
Outdoor unit	Dimension(W x H x D)	mm	1120×1558×528	1120×1558×528	1120×1558×528	1120×1558×528	1360×1650×540	1460×1650×540
	Net/Gross weight	kg	137/153	146.5/162.5	147/163	157/173	240/260	275/290
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A	R410A
	Charged volume	g	4800	6200	6200	3750	9000	12000
Throttle type			EXV					
Design pressure		MPa	4.4/2.6					
Ambient temp		°F(°C)	-15~46	-15~46	-15~46	-5~48	-5~48	-5~48
			-15~24	-15~24	-15~24	-15~24	-15~24	-15~24

Note:
1. 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.
2. 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.
3. Sound level: Anechoic chamber conversion value, measured at a point 1 m(3.28ft) in front of the unit at a height of *m(1m(3.28ft) for 105 model,1.2m(3.94ft) for 120~160model). During actual operation, sound level might be affected by ambient conditions.
4. The above data may be changed without notice for future improvement on quality and performance.

Outdoor Unit

208/230V~1Ph~60Hz
38VR004H11301S
38VR004H113010
38VR005H113010
38VR006H113010

220-240V~1Ph~50Hz
38VR003H112010
38VR004H11201S
38VR004H112010
38VR005H112010
38VR006H112010

Specifications 60Hz&50Hz

Sale Model			38VR004H11301S	38VR004H113010	38VR005H113010	38VR006H113010
Power supply		V-Ph-Hz	208-230V-1Ph~60Hz	208-230V-1Ph~60Hz	208-230V-1Ph~60Hz	208-230V-1Ph~60Hz
Cooling	Capacity	kW	10.5	12	14	15.5
		RT	3	3.4	4.0	4.4
	Input	kW	2.68	3.25	3.95	4.52
	EER	KBtu/h/kW	13.38	12.59	12.08	11.70
Heating	Capacity	kW	11.5	13.2	15.4	17
		RT	3.3	3.8	4.4	4.9
	Input	kW	2.9	3.47	4.16	4.77
	COP	KBtu/h/kW	13.55	12.97	12.62	12.15
Coneectable indoor unit	Total capacity	%	50-130%	50-130%	50-130%	50-130%
	Max.quantity		5	6	6	7
Outdoor sound level (*3)		dB(A)	57	57	57	57
Pipe connections	Liquid side	mm	Φ9.53	Φ9.53	Φ9.53	Φ9.53
	Gas side	mm	Φ15.9	Φ15.9	Φ15.9	Φ19.1
Compressor	Type		Rotary	Rotary	Rotary	Rotary
	Brand		MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI
	Capacity	Btu/h	24330	33710	33710	47713
	Input	W	2200	3010	3010	4240
	Crankcase	W	25	27	25	20
	Refrigerant oil	Type	FV50S	FV50S	FV50S	FV50S
		ml	670	870	870	1400
Fan Motor	Type		DC motor	DC motor	DC motor	DC motor
	Quantity		1	2	2	2
	Output	W	170	2 x 85	2 x 85	2 x 85
	Air floor rate	CFM	3000	3531	3531	3531
		m^3/h	5100	6000	6000	6000
Outdoor unit	Dimension (W x H x D)	mm	1075x966x396	900x1327x400		
	Packing (W x H x D)	mm	1120x1100x435	1030x1456x435		
	Net/Gross weight	kg	78/85	95/106	95/106	102/113
Refrigerant	Type		R410a			
	Charged volume	kg	3	3.3	3.9	3.9
Throttle type			EXV	EXV	EXV	EXV
Design pressure		MPa	4.4/2.6	4.4/2.6	4.4/2.6	4.4/2.6
Ambient temperature range	Cooling	℃	-15~43℃			
	Heating	℃	-15~27℃			

Note:
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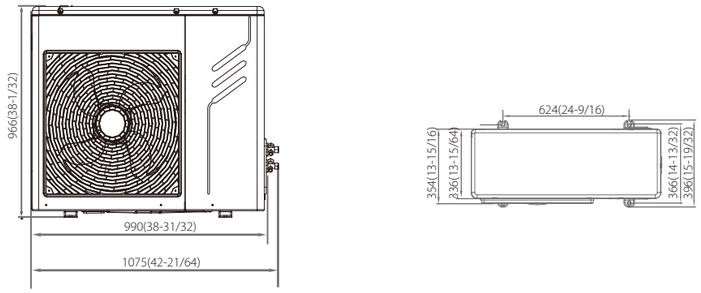
2. The heating conditions: indoor temp.: 20°C DB(68°C), 15°C WB(44.6°F) outdoor temp.: 7°C DB(42.8°F) equivalent pipe length: 5m drop length: 0m.
3. Sound level: Anechoic chamber conversion value, measured at a point 1 m in front of the unit at a height of *m(0.9m for 80model, 1m for 105 model,1.2m for 120~160model). 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.

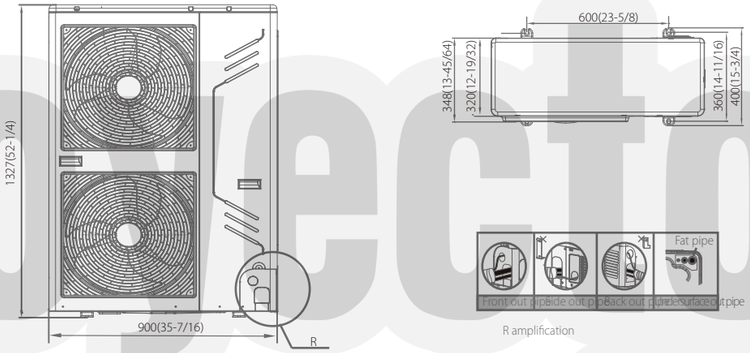
Dimension

Unit Dimensions, unit: mm(in)

8/10.5kW



12/14/16kW



18/20/24/26kW