

V4 Plus Cooling Only Unit

V4 Plus Series

Power supply		V-Ph-Hz	220V -3Ph-60Hz	220V -3Ph-60Hz	220V -3Ph-60Hz	220V -3Ph-60Hz	220V -3Ph-60Hz	
Cooling	Capacity	RT	7.2	8.0	9.5	11.4	12.8	
		kW	25.2	28	33.5	40	45	
		Btu/h	86,000	95,500	114,300	136,500	153,500	
		kcal/h	21,672	24,080	28,810	34,400	38,700	
	Input	kW	5.87	7.2	9.05	12.31	14.02	
EER	kW/kW	4.29	3.89	3.7	3.25	3.21		
Connectable Indoor Unit	Total Capacity	%	50-130	50-130	50-130	50-130	50-130	
	Max. Quantity		13	16	16	16	20	
Sound Pressure Level		dB(A)	57	57	58	60	60	
Pipe Connections	Liquid pipe	in.(mm)	Φ1/2(Φ12.7)	Φ1/2(Φ12.7)	Φ5/8(Φ15.9)	Φ5/8(Φ15.9)	Φ5/8(Φ15.9)	
	Gas pipe	in.(mm)	Φ1(Φ25.4)	Φ1(Φ25.4)	Φ1-1/4(Φ31.8)	Φ1-1/4(Φ31.8)	Φ1-1/4(Φ31.8)	
	Oil balance pipe	in.(mm)	Φ1/4(Φ6.35)	Φ1/4(Φ6.35)	Φ1/4(Φ6.35)	Φ1/4(Φ6.35)	Φ1/4(Φ6.35)	
Outdoor fan motor	Motor type		DC Inverter	DC Inverter	DC Inverter	DC Inverter	DC Inverter	
	Quantities		1	1	2	2	2	
	Air Flow Rate	m ³ /h		11,700	11,700	15,600	15,600	15,600
		CFM		6,880	6,880	9,173	9,173	9,173
	Motor output	W	750	750	560× 2	560× 2	560× 2	
	Fan type		Axial	Axial	Axial	Axial	Axial	
	ESP	Pa		0~20 (default)	0~20 (default)	0~20 (default)	0~20 (default)	0~20 (default)
			20~40(customized)	20~40(customized)	20~60(customized)	20~40(customized)	20~40(customized)	
DC Inverter compressor	Quantities		1	1	1	1	1	
	Capacity	W	11,800	11,800	11,800	11,800	11,800	
	Crankcase heater	W	27.6×2	27.6×2	27.6×2	27.6×2	27.6×2	
	Refrigerant oil	gal.(ml)	FVC68D 0.132/ 500	FVC68D 0.132/ 500	FVC68D 0.132/ 500	FVC68D 0.132×2/ 500×2	FVC68D 0.132×2/ 500×2	
Fixed scroll compressor	Quantities		1	1	1	2	2	
	Capacity	W	15,500	15,500	15,500	15,500×2	15,500×2	
	Crankcase heater	W	27.6	27.6	27.6	27.6×2	27.6×2	
	Refrigerant oil	gal.(ml)	FVC68D 0.132/ 500	FVC68D 0.132/ 500	FVC68D 0.132/ 500	FVC68D 0.132×2/ 500×2	FVC68D 0.132×2/ 500×2	
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A	
	Factory Charging	lbs.(kg)	22(10)	22(10)	26(12)	33(15)	33(15)	
Design Pressure (Hi/Lo)		MPa	4.4/2.6	4.4/2.6	4.4/2.6	4.4/2.6	4.4/2.6	
Unit Dimension	Net (W×H×D)	in.(mm)	37-25/32×63-9/16×30-1/8(960×1,615×765)		49-7/32×63-9/16×30-1/8(1,250×1,615×765)			
	Packing Size (W×H×D)	in.(mm)	40-3/8×70-1/2×32-11/16(1,025×1,790×830)		51-9/16×70-1/2×32-1/2(1,305×1,790×820)			
Unit weight	Net	lbs.(kg)	560(245)	560(245)	607(275)	717(325)	717(325)	
	Gross weight	lbs.(kg)	573(260)	573(260)	651(295)	761(345)	761(345)	
Operating Temp. Range- cooling		°F(°C)	23°F-118.4°F(-5°C - 48°C)					

Notes:

1.Nominal conditions

Cooling	27°C DB(80.6°F), 19°C WB(60°F)	35°C DB(95°F)	7.5m(24.6ft)	0m(0ft)
---------	--------------------------------	---------------	--------------	---------

2.Sound level: Anechoic chamber conversion value, measured at a position 1m(3.28ft) in front of the unit and 1.3m(4.26ft)above the floor.

3.Refrigerant pipe dim.listed here only for when the total equivalent length < 90m(295.2ft). For the data when total equivalent length ≥90m(295.2ft) please refer to technical manual.

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

Recommended combination table

Model (capacity)		N ^o of outdoor units	N ^o of compressors	Maximum N ^o of connectable indoor units	Capacity (kW)	
HP	kW				Cooling	Heating
8	25.2	1	2	13	25.2	27
10	28.0	1	2	16	28	31.5
12	33.5	1	2	16	33.5	37.5
14	40.0	1	3	16	40	45
16	45.0	1	3	20	45	50
18	53.2	2	4	20	53.2	58.5
20	56.0	2	4	24	56	63
22	61.5	2	4	24	61.5	69
24	68.0	2	5	28	68	76.5
26	73.0	2	5	28	73	81.5
28	80.0	2	6	28	80	90
30	85.0	2	6	32	85	95
32	90.0	2	6	32	90	100
34	96.0	3	7	36	96	108
36	101.0	3	7	36	101	113
38	106.5	3	7	36	106.5	119
40	113.0	3	8	42	113	126.5
42	120.0	3	9	42	120	135
44	125.0	3	9	42	125	140
46	130.0	3	9	48	130	145
48	135.0	3	9	48	135	150
50	143.2	4	10	54	143.2	158.5
52	146.0	4	10	54	146	163
54	151.5	4	10	54	151.5	169
56	158.0	4	11	58	158	176.5
58	165.0	4	12	58	165	185
60	170.0	4	12	58	170	190
62	175.0	4	12	64	175	195
64	180.0	4	12	64	180	200

Notes:

Capacities are based on the following conditions:

Cooling: Indoor temperature 27°C(80.6°F) DB/19°C(66.2°F) WB; Outdoor temperature 35°C(95°F) DB/24°C(75.2°F) WB

Heating: Indoor temperature 20°C(68°F) DB/15°C(59°F) WB; Outdoor temperature 7°C(44.6°F) DB/6°C(42.8°F) WB

Piping length: Interconnecting piping length is 7.5m, level difference is zero.

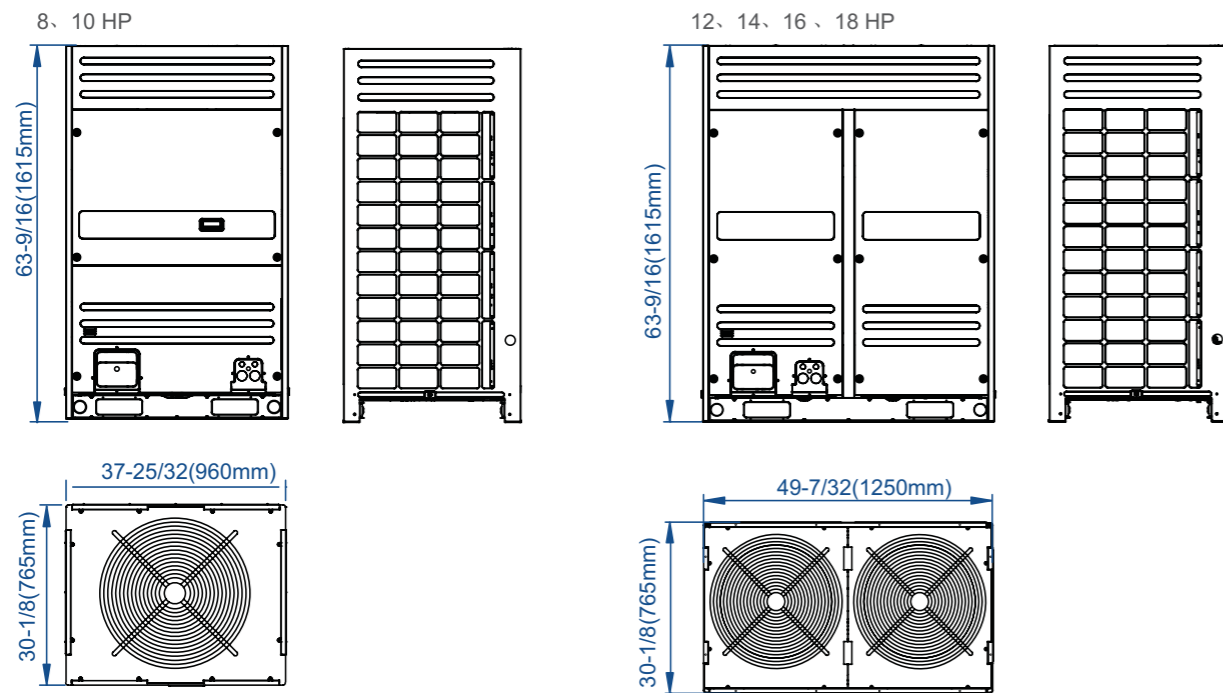
The above combination models are factory-recommended models.

V4 Plus Series

Dimensions

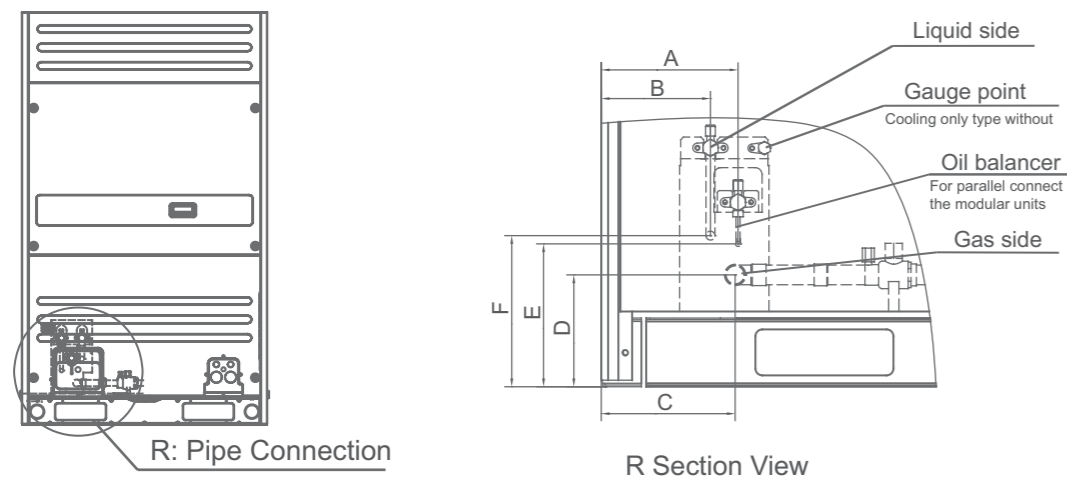
Body dimensions

Unit: in.(mm)



Pipe connection

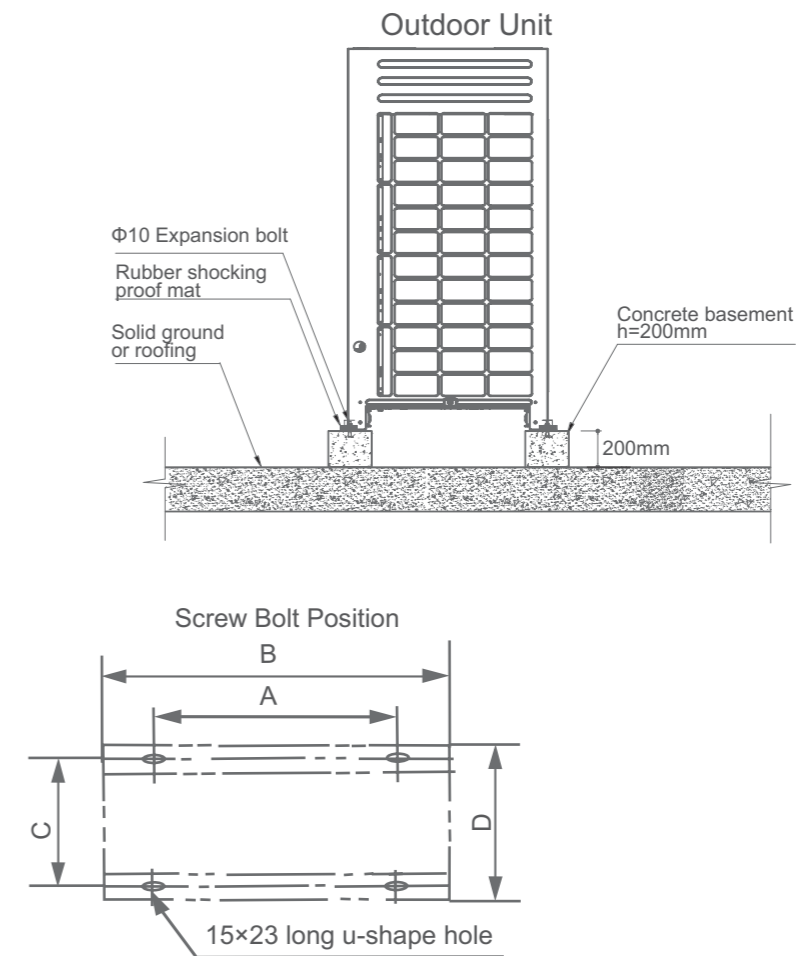
Unit: in.(mm)



SIZE	HP	8HP	10HP	12HP	14HP	16HP
A		7-53/64(199)			6-21/32(169)	
B		6-17/64(159)			8-15/64(209)	
C		7-43/64(195)			6-21/32(169)	
D		6-39/64(168)			6-39/64(168)	
E		8-3/16(208)			8-3/16(208)	
F		8-21/32(220)			8-21/32(220)	
Liquid pipe		Φ1/2(Φ12.7)			Φ5/8(Φ15.9)	
Gas pipe		Φ1(Φ25.4)			Φ1-1/4(Φ31.8)	

Installation dimensions

Unit: in.(mm)



HP SIZE	8/10	12/14/16
A	32-43/64(830)	44-3/32(1120)
B	37-51/64(960)	49-7/32(1250)
C	28-31/32(736)	28-31/32(736)
D	30-1/8(765)	30-1/8(765)

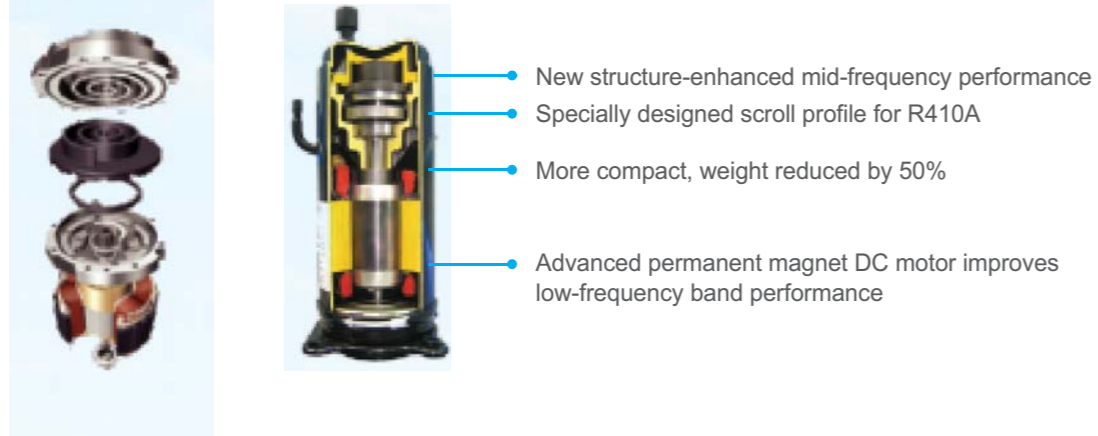
Notes:

- Ensure that the outdoor unit is installed in a dry, well-ventilated place.
- Ensure that the noise and exhaust ventilation of the outdoor unit do not affect the neighbors of the property owner or the surrounding ventilation.
- Ensure that the outdoor unit is installed in a well-ventilated place that is possibly closest to the indoor unit.
- Ensure that the outdoor unit is installed in a cool place without direct sunshine exposure or direct radiation of high-temp heat source.
- Do not install the outdoor unit in a dirty or severely polluted place, so as to avoid blockage of the heat exchanger in the outdoor unit.
- Do not install the outdoor unit in a place with oil pollution or full of harmful gases such as sulfurous gas.
- Do not install the outdoor unit in a place surrounded by salty air. (Except for the models with corrosion-resistant function.)

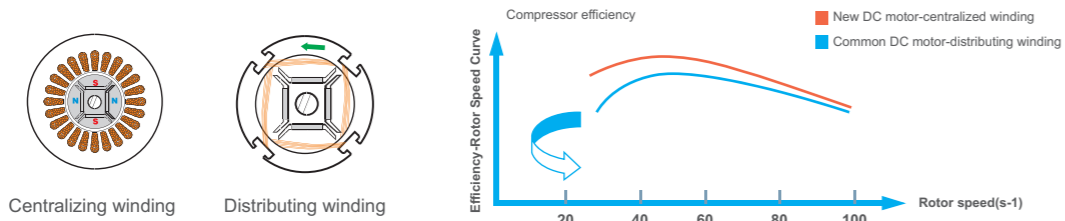
Technologies

High efficiency full DC inverter compressor

High efficiency DC inverter compressor reduces power consumption by 25%.



Powerful magnets provide high torque and efficiency and achieve 70% reduction in volume.



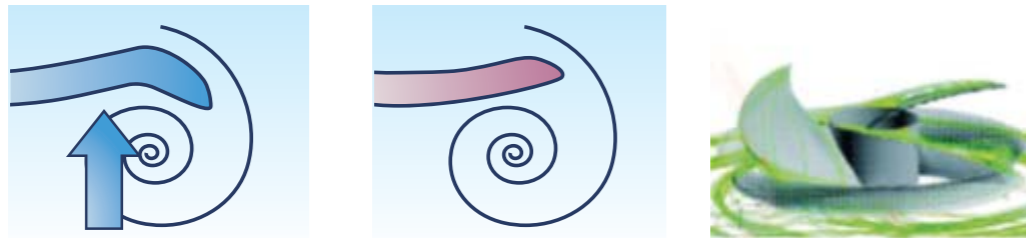
Fan grille

Optimized fan blade shape with new air outlet grille enhanced air flow volume which greatly improves fan performance and decreases noise. Also, a higher external static pressure has been achieved up to 40Pa. (0-20Pa is standard, 20~40Pa should be customized.)



New profile fan blade

A new blade with sharp edges and a slight curve increases the airflow rate and lowers vibration and airflow resistance.



Smooth 180° sine wave DC Inverter

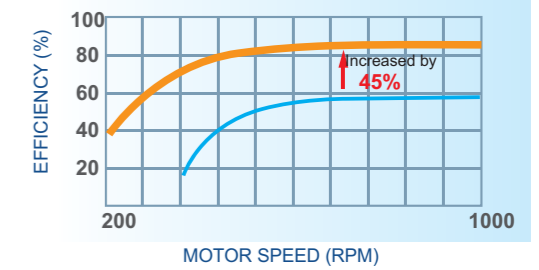
Adopting the 180° Sine Wave Inverter to smooth motor rotation greatly improves operating efficiency compared with traditional sawtooth wave.



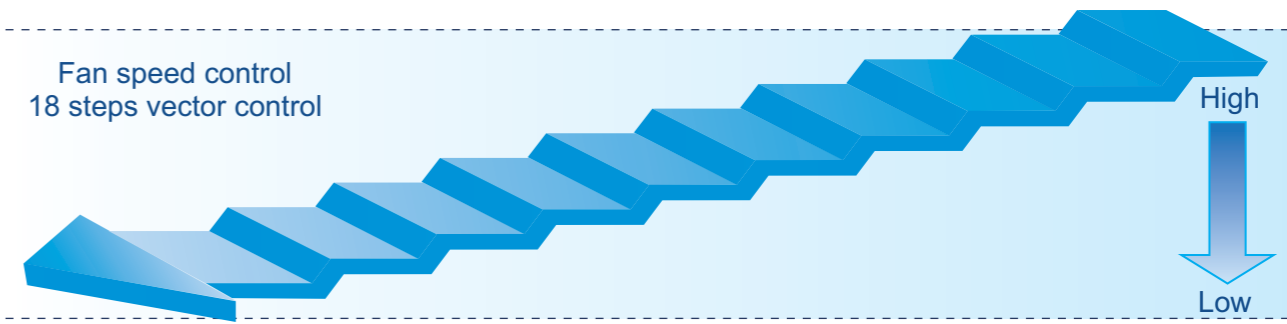
DC fan motor

According to the running load and pressure, it controls the speed of DC fan to achieve the minimum power consumption.

- Used across entire range of models (from 8 to 64 HP).
- Efficiency improvement up to 45% especially at low speed.
- Wide speed adjustment with 18 steps vector control.



Fan speed control
18 steps vector control



Multi solenoid valves control technology

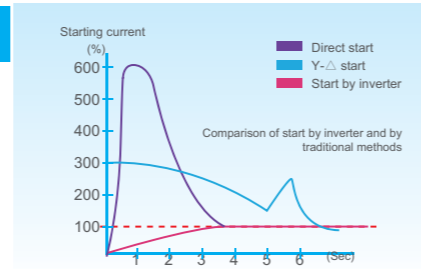
Multi solenoid valves control technology in one system. All the solenoid valves equipped in the unit ensure temperature-control precisely, system running steadily and economic to provide a comfortable environment.



Enhanced Comfort

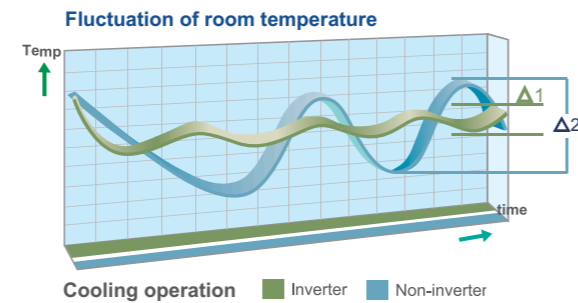
Intelligent soft start technology

DC inverter compressor soft start function reduces strike to the electric network. This kind of high-performance and low sound scroll compressor operates at a faster rate when starting, reducing start-up time. It also helps the unit to quickly adjust the room temperature to the set level.



Quick warm-up & cool-down design

By utilizing the benefits of the inverter compressor, the system can reach full load quickly and shorten the warm-up and cool-down times to provide an immediate and comfortable air solution. Less temperature fluctuation will create a better living environment.



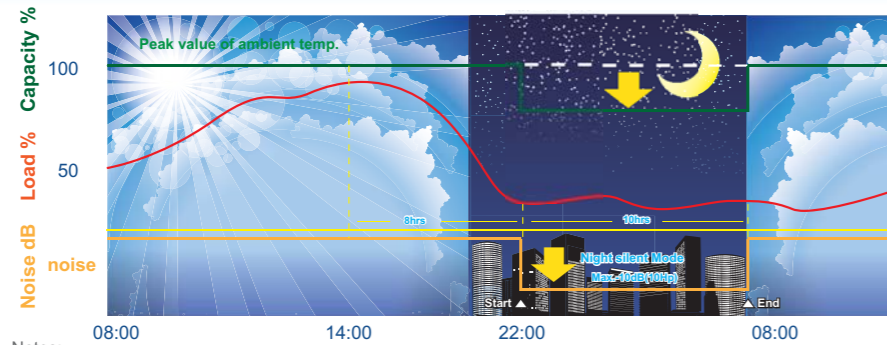
Night silent operation mode

Midea's Night Silent Mode feature which is easily set on the PCB board allows the unit to be set to varies time options during Non Peak and Peak operation time optimizing the units noise output.

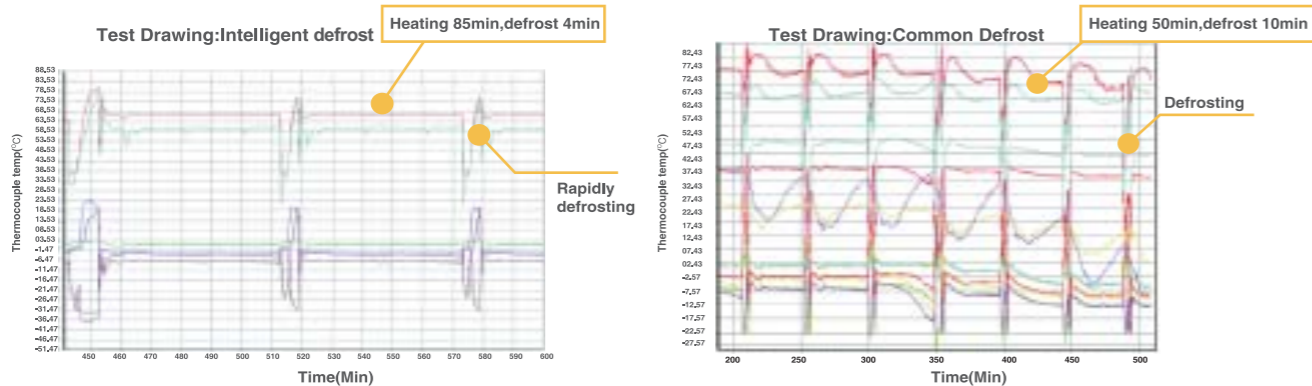
Extra silent operation mode can reduce sound level further, minimum 46.8dB (A).

Night silent operation will be activated X hours after the peak temperature during daytime, and it will go back to normal operation after Y hours.

- Model 1→X: 6 hours, Y: 10 hours
- Model 2→X: 8 hours, Y: 10 hours
- Model 3→X: 6 hours, Y: 12 hours
- Model 4→X: 8 hours, Y: 8 hours



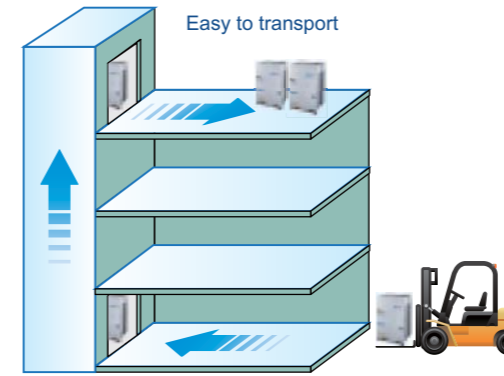
Intelligent defrosting raises heat capacity*



*V4 Plus C system is without this function.

Easier Installation and Service

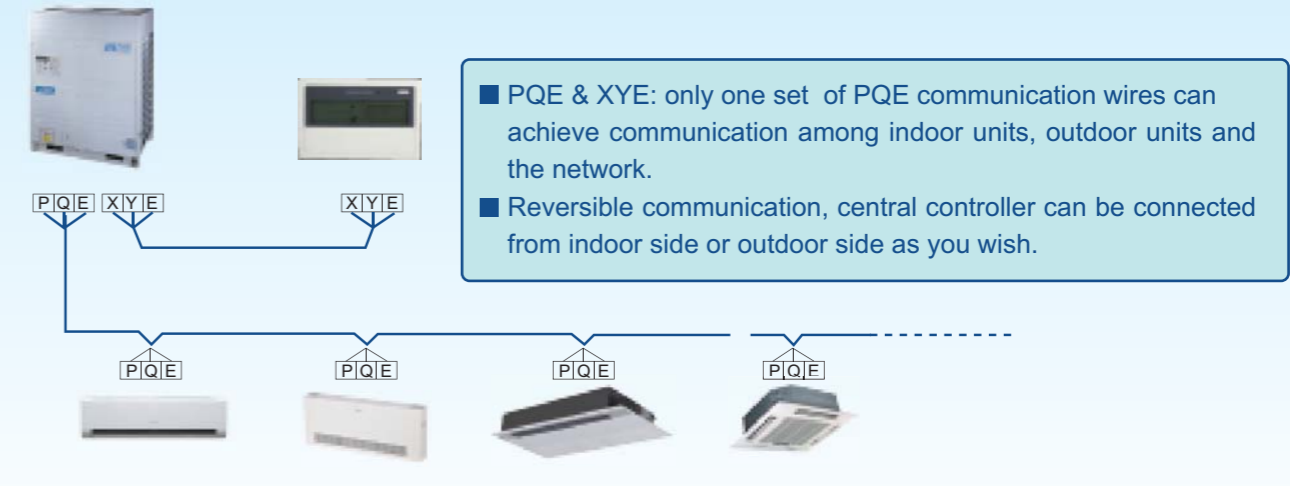
Compact design for effective use of space



Compact size and light weight design minimizes the installation footprint, reduces the installation floor load, and is easier for transportation. For some projects the units can even be transported through the elevator or forklift, reduce access problem at the jobsite.

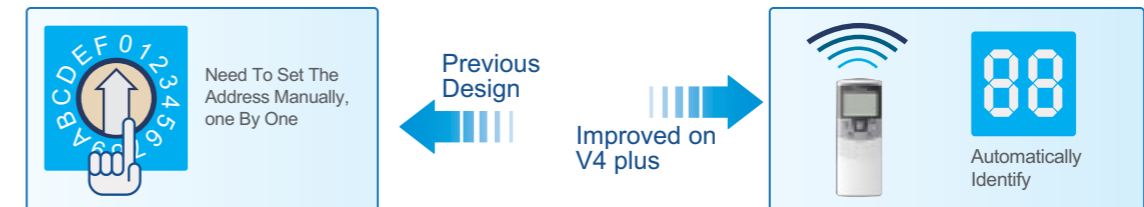
Simple signal line connection

Installation is easier as communication wiring can be shared by indoor & outdoor units. It's easy for the user to retrofit the existing system with a centralized simply connecting to the outdoor units.



Auto addressing

The outdoor unit can automatically distribute the addresses to indoor units without any manual settings. Wireless controller can inquire and modify each indoor unit's address.



Easy access



The checking window on electric control box for convenient spot checking and status enquiry.



Compressor is located near the door, which simplifies checks and enables valve or compressor parts to be replaced easily.