

ERV2



Commercial VRF Inverter

Air Conditioners

High Efficiency Systems with Variable Refrigerant Flow



Smart Perform

Full DC
Inverter System



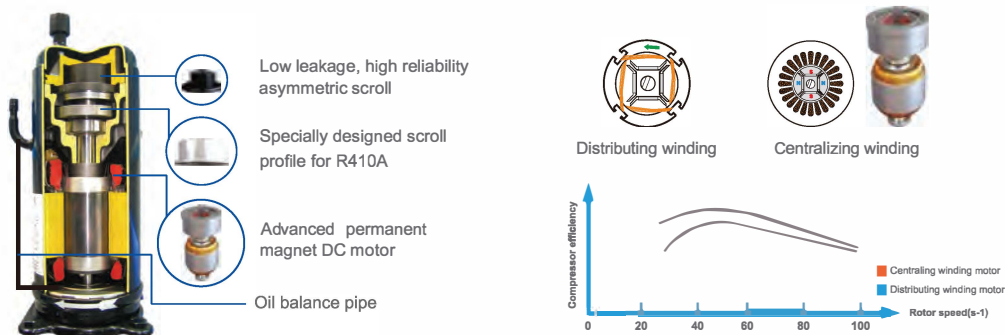
ERV2 – 2nd Generation Full DC Inverter

ERV2

Outdoor Units

High Efficiency Scroll Compressors

Latest technology ERV2 Series with FULL DC INVERTER achieves top rated high efficiency levels for cooling and heating from DC compressor control, DC Fan motor and improved performance heat exchanger. All compressors are inverter type



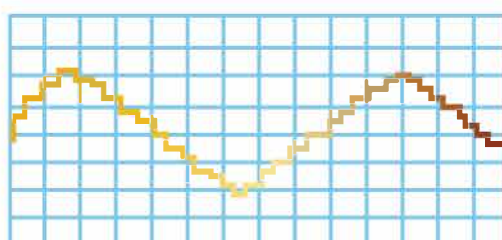
DC Fan Motor

Variable speed DC fan motor automatically adjusts speed to maintain optimal performance and highest system efficiency. Motor efficiency is improved up to 45%

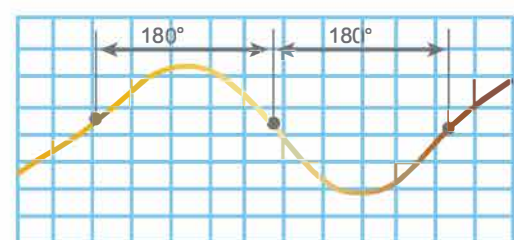


Smooth 180° Sine Wave

High performance inverter driver generates smooth sine wave for higher compressor efficiency, reduced harmonic currents and comply with EMC standards.



Common Sawtooth Wave

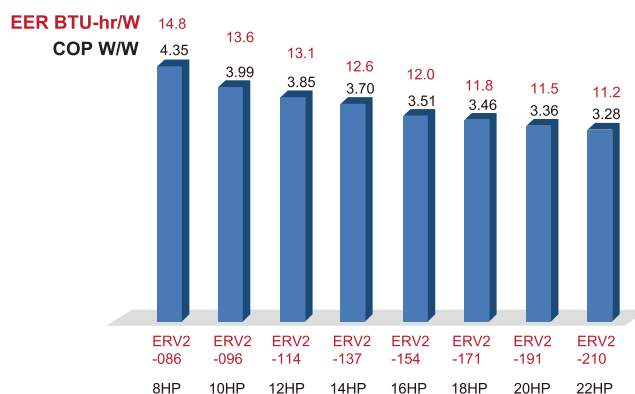


180° Sine Wave DC Inverter

High Efficiency

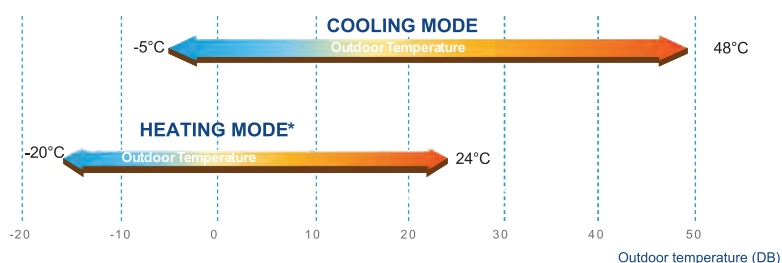
ERV2 achieves the industry's top class energy efficiency of cooling and heating by using DC compressor control, DC fan motor and high technology heat exchanger design.

EER



Wide Operation range

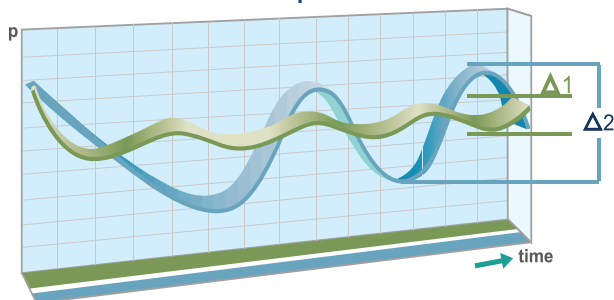
Capable of stable operation at extreme outdoor temperatures from -20°C to 48°C.



Quick Cool Down

With DC inverter compressors the system can reach full load quickly for reduced cool down time and stable room temperature.

Fluctuation of room temperature

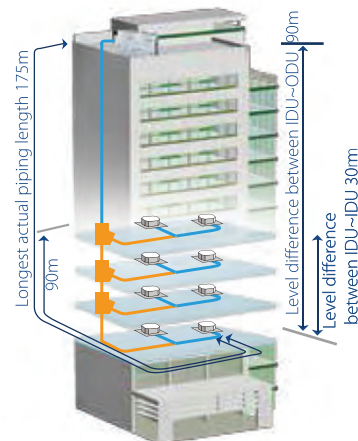


Cooling Operation

■ Inverter ■ Non-inverter

Long Piping Length

ERV2 supports total system piping length up to 1000m, making it suitable for large projects.



Permitted value m			
Piping length	Total pipe length*(Actual)		1000
	Maximum piping(L)	Actual length	175
		Equivalent length	200
	Piping (From the first IDU branch to the farthest IDU) equivalent length		40/90*
Level difference	Level difference between IDU~ODU	Outdoor unit above	90
		Outdoor unit below	110
	Level difference between IDU~IDU		30

*Total pipe length is equal to two times orange pipe length plus blue pipe length.

High External Static Pressure

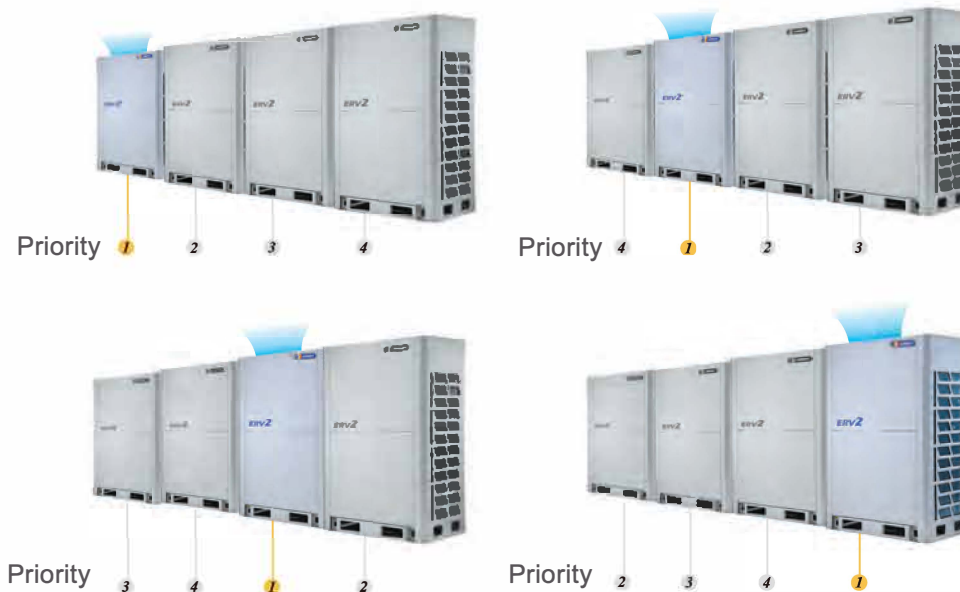
Condensor fan is capable to use with ducted air discharge or decorative grille, ESP can be up to 40 Pa (0.16" W.G.)



Outdoor Units

Balanced Duty Cycling

Each outdoor module can operate as the master unit to balance the service life of all modules.



Back-up Operation

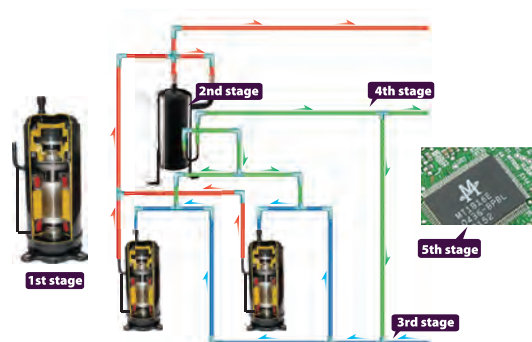
Outdoor unit adopts double backup function. If one module failed, other modules can be backup instead of the failed one, or if one of compressors in one module failed, the other one can backup for continuing operation.

- Running state
- Standby state
- Fault or stop state



High Efficiency Oil Balance and Oil Return Technology

- 1st Stage** - compressor oil separator
- 2nd Stage** - oil separator removes oil from the discharge gas
- 3rd Stage** - oil balance pipes keep even oil distribution in each compressor
- 4th Stage** - oil balance pipes distribute oil evenly between modules
- 5th Stage** - Auto oil return program



Night Silent Mode

Reduce the outdoor unit sound level up to 15 dB(A).
The unit will automatically return to normal operation during daytime.



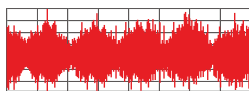
3+4 Fan Blade

Unequal numbered fan blades reduces harmonic vibration and noise level.

Conventional design (3+3 fan blade)



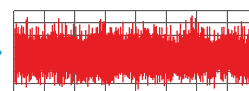
3+3 spectrogram



New design (3+4 fan blade)



3+4 spectrogram



Auto-Test Function and Auto Addressing

- Pressing the operation button will perform an automatic system check for wiring, valves and sensors.
- Outdoor unit can assign addresses for indoor units automatically.

86,000 - 114,000 BTU/hr (8 - 12 HP)



137,000 - 210,000 BTU/hr (14 - 22 HP)



228,000 - 420,000 BTU/hr (24 - 44 HP)



438,000 - 630,000 BTU/hr (46 - 66 HP)



648,000 - 840,000 BTU/hr (68 - 88 HP)



Multiple protection functions



Ground protection



Phase sequence protection



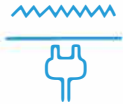
Default phase protection



High-voltage protection



Low-voltage protection



Current protection



Fan motor Temp. protection



Compressor overload protection



Compressor Temp. protection



Pressure protection

Outdoor
Units

“ High
Reliability

ERV2 has many
features to provide
system reliability
and stable
performance

”

ERV2

Coollest Indoor System

with high
efficiency levels



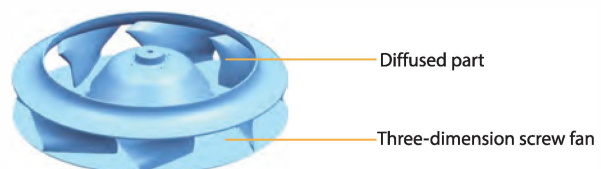
VCS4 – 4 Way Cassette

High capacity and high efficiency 4 way ceiling cassette



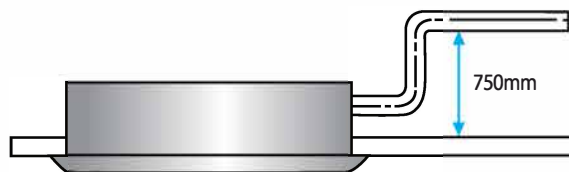
The adoption of the most advanced 3-dimensional centrifugal fan

- Reduces the air resistance passing through
- Smooths the air flow
- Provides uniform air distribution to the heat exchanger.



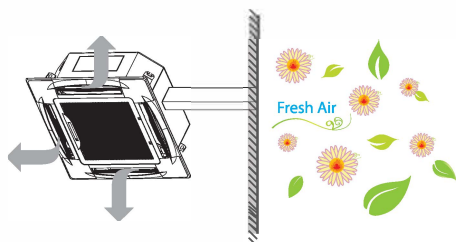
Drain Pump

Built in drain pump with 750mm head supplied as standard, for flexible location selection and easy drain line installation



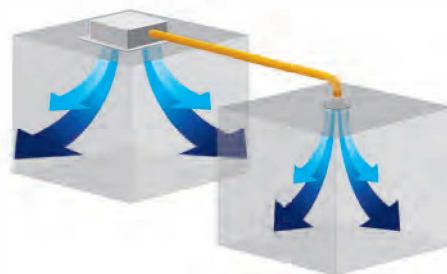
Fresh Air Port

Fresh air inlet port for high quality air inside the room and a healthy environment.



Extra Duct Connection

Available duct port to provide cool air to another room or remote location



Air Swing

Automatic air swing guarantees even airflow distribution and better room temperature balance.

EXV

Factory installed EXV

LED display

LED display shows the unit operating and aids for fault diagnosis

Auto restart

When the indoor unit is powered off, it will auto restart when powered on again after 3 minutes and operate in the original state.

VCS2 – 2 Way Cassette

Stylish design two way cassette, with very low noise operation.

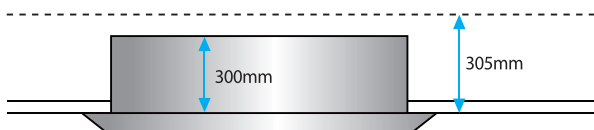


Low Noise Operation

Optimized airflow duct with low resistance greatly reduces noise, minimum down to 24 dB(A)

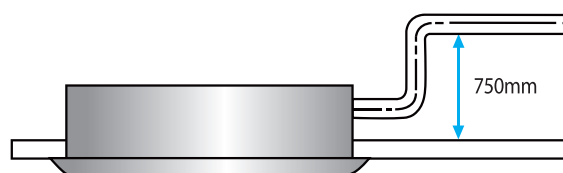
Slim Profile

With the modern stylish appearance and slim body the unit can suit any room decor and ambience. At only 300mm high it can be installed in rooms with low ceiling clearance space



Drain Pump

Built in drain pump with 750mm head supplied as standard, for flexible location selection and easy drain line installation



Fresh Air

Fresh air inlet port for high quality air inside the room and a healthy environment.

Air Swing

Automatic air swing guarantees even airflow distribution and better room temperature balance.

EXV

Factory installed EXV

LED display

LED display shows the unit operating and aids for fault diagnosis

Auto restart

When the indoor unit is powered off, it will auto restart when powered on again after 3 minutes and operate in the original state.

VCS1 - 1 Way Cassette

Decorative one way cassette suitable for installation in corners or rooms with narrow ceilings.



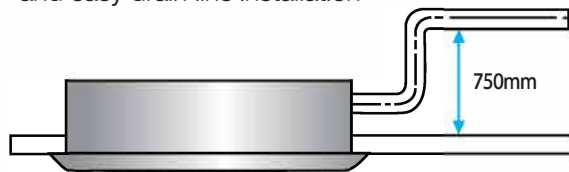
Ultra Thin Profile

Compact design ultra thin body, especially suitable for rooms with very limited false ceiling clearance.

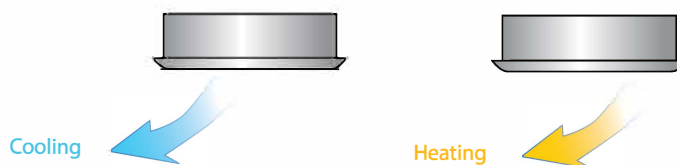


Drain Pump

Built in drain pump with 750mm head supplied as standard, for flexible location selection and easy drain line installation



Single-flow design suits corner installation



Fresh Air

Fresh air inlet port for high quality air inside the room and a healthy environment.

Air Swing

Automatic air swing guarantees even airflow distribution and better room temperature balance.

EXV

Factory installed EXV

LED display

LED display shows the unit operating and aids for fault diagnosis

Auto restart

When the indoor unit is powered off, it will auto restart when powered on again after 3 minutes and operate in the original state.

Indoor Units

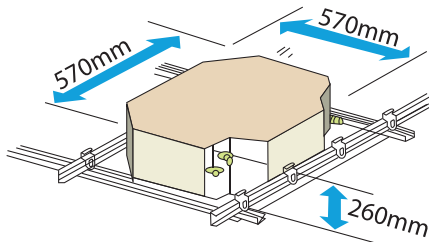
VCSS – Small Body 4 Way Cassette

Compact body 4 way cassette suits any room decor and requires little space for installation on a low ceiling.



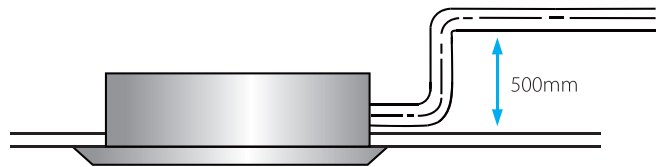
Easy Installation

Compact size can fit within standard size suspended ceiling tiles.
Due to the small size and light weight all models can be installed without a hoist.

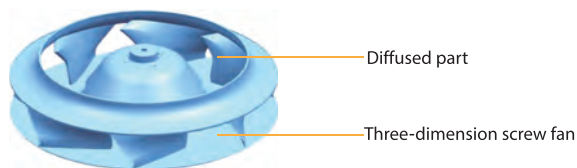


Drain Pump

Built in drain pump with 500mm head supplied as standard, for flexible location selection and easy drain line installation



Advanced 3-D spiral fan design reduces air resistance and operation noise.



4 Way uniform airflow

Four air discharge ports provide high air flow circulation to cool or heat every corner of a room and provide even temperature distribution. High airflow mode can give maximum cooling in rooms with ceiling that are over 3m high.



Auto restart

When the indoor unit is powered off, it will auto restart when powered on again after 3 minutes and operate in the original state.

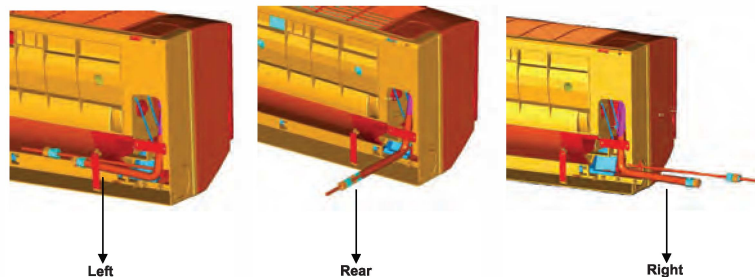
VEWM – Wall Mounted

**Decorative wall mounted unit.
Updated panel design with LED display.**



Convenient for installation

- Multi-refrigerant outlet pipe method: left\right\rear, more flexible for installation.
- Longer connection pipe for more flexible installation.
- Using new type sturdy mounting plate, for easy and stable mounting to the wall.



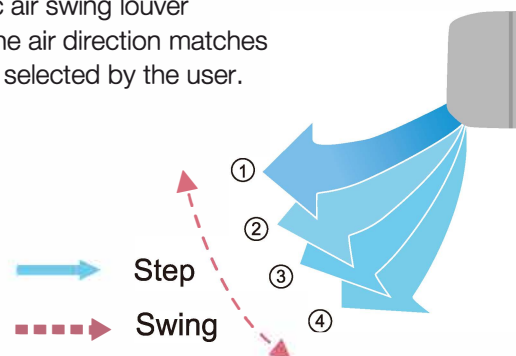
- Wireless remote control.
- Factory installed internal EXV.
- Three air flow speeds (High, Medium, Low) and double air guides.

Easy Maintenance

Filters are easily removed and cleaned by any staff, no special skill required. Front panel can be removed for cleaning and service.

Air Swing

Automatic air swing louver ensures the air direction matches the mode selected by the user.



Auto restart

When the indoor unit is powered off, it will auto restart when powered on again after 3 minutes and operate in the original state.

VEFC – Floor / Ceiling

Universal mount decorative Floor/ Ceiling unit.
Can installed either horizontally on the ceiling or vertically against a wall.

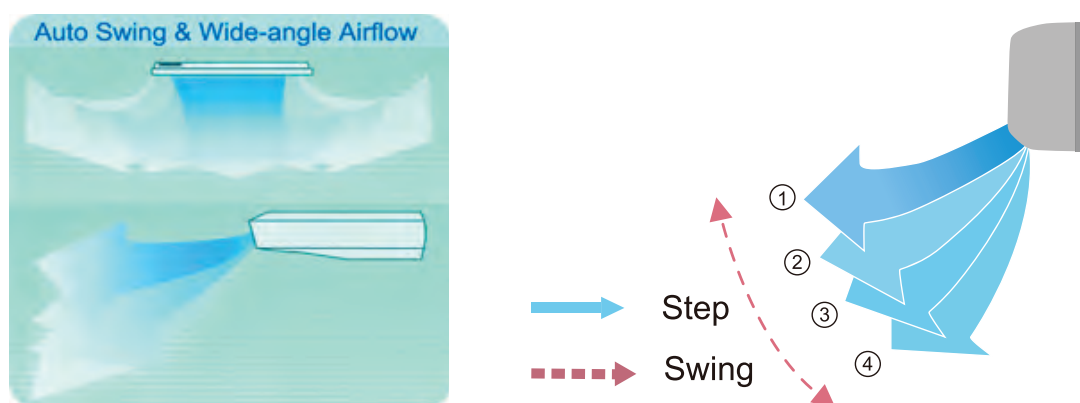


Quiet Operation

Utilizing special design blower, the lowest noise is 36 dB(A).

4 Way Air Swing

With auto horizontal and auto vertical air swing, air is distributed evenly throughout the room.



- Wireless remote control.
- Factory installed EXV.
- Three air flow speeds (High, Medium, Low) and double air guides.
- Smoother air flow and less turbulence due to multi-blade fan and air guide design

Auto restart

When the indoor unit is powered off, it will auto restart when powered on again after 3 minutes and operate in the original state.

VEFS – Floor Standing Console

Decorative floor standing console unit.



Indoor Units

Easy Installation

Floor standing types can be hung on the wall or installed on the floor. The former can make cleaning and maintenance much more easily. Running the piping from the back allows the unit to be hung on walls. Cleaning under the unit, where dust tends to accumulate, is considerably easier.

Easy maintenance

Filter is equipped as standard accessory; and it can be removed and cleaned easily due to the unit's sophisticated design and service friendly design.

The narrow profile and streamlined appearance makes it easy to match with any decoration or architectural design. All metal parts are made of commercial grade galvanized steel, providing maximum protection against corrosion.

- Factory installed EXV.
- Three air flow speeds (High, Medium, Low).
- Smoother air flow and less turbulence due to multi-blade fan and air guide design

Auto restart

When the indoor unit is powered off, it will auto restart when powered on again after 3 minutes and operate in the original state.

VEPF - Free Standing Tower

**Robust steel casing free standing tower type indoor unit.
Updated design and high strength casing is suitable for both
decorative commercial or heavy duty industrial applications**



Low Noise with High Airflow Rate

Special design low speed centrifugal blower provides high air flow rate but maintains low noise level for deluxe installations. Long length air throw distance can provide cooling throughout large rooms.

Easy Servicing and Maintenance

All maintenance tasks can be handled easily through the front of the unit without dismantling the casing. Permanent washable filter are serviceable by unskilled staff. Motor servicing and replacement can be carried out without removing the evaporator.

All electrical parts and controllers are accessible from the front of the unit.

Air Swing

Automatic air swing function for cool air distribution throughout the conditioned space.

VDCC – Ceiling Concealed

Ultra slim low profile ceiling concealed indoor unit suitable for low Static Pressure installations up to 30 Pa (0.12 in. WG)

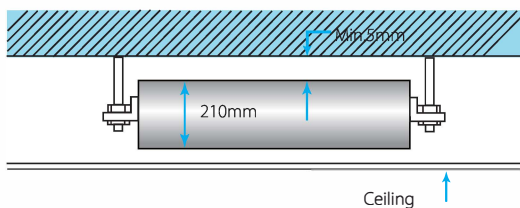


Silent Operation

Utilizing special design centrifugal type blower, the lowest noise is 24dB(A). Suitable for the most sensitive installations requiring silent operation.

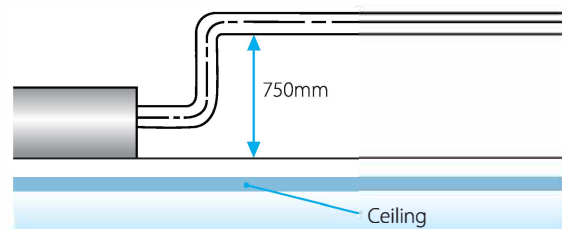
Light Weight and Super Thin

Flat design for easy fit when ceiling over head space is minimal. Only 210 mm in height, this model can be installed in rooms with as little as 220 mm depth between the drop-ceiling and ceiling slab



Drain Pump (optional)

Available with 750mm head drain pump, for flexible location selection and easy drain line installation



- Wired control (standard) or Wireless remote control.
- Factory installed EXV.
- Easy to adjust the direction of connecting pipes.
- Special design evaporator increases heat exchange efficiency around 22%

Auto restart

When the indoor unit is powered off, it will auto restart when powered on again after 3 minutes and operate in the original state.

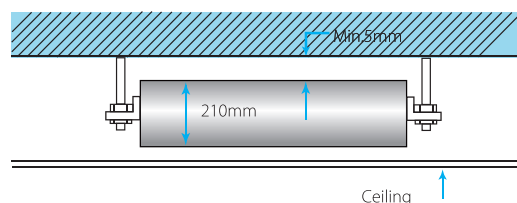
VDLS – Ducted Low Static

Narrow profile ceiling suspended indoor unit suitable for External Static Pressure up to 30 Pa (0.12 in. WG) for low static ducted installations



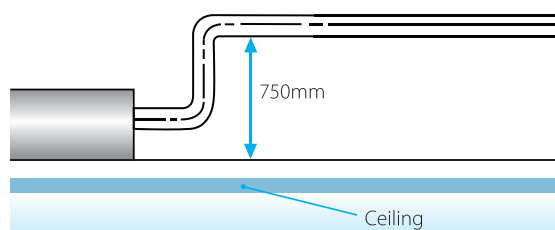
Narrow Profile

Only 210mm height body, the minimum ceiling clearance is only 240 mm.



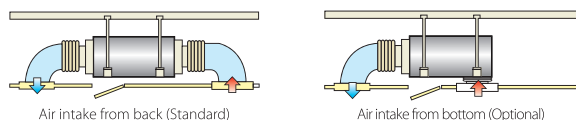
Drain Pump

Drain pump with 750mm head supplied as standard, for flexible location selection and easy drain line installation



Flexible Return Air Connection

Common sized rear/bottom panels for easy field convertible return air connection. Return air duct can be attached to the rear or bottom of the unit by the installer.



Controller Display

Unit Controller has display panel for indication of running status and easy trouble shooting.



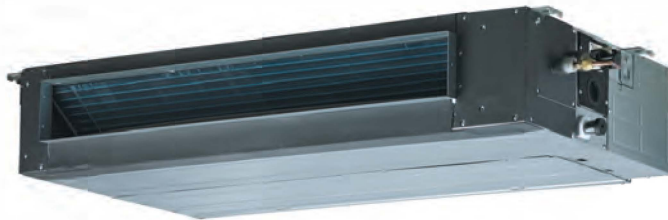
- Wired control (standard) or Wireless remote control.
- Factory installed EXV.
- Standard filter with aluminum frame, easily removed from bottom for servicing.
- Return air plenum is included as standard equipment.
- Flanges for supply/return air duct connections are standard.

Auto restart

When the indoor unit is powered off, it will auto restart when powered on again after 3 minutes and operate in the original state.

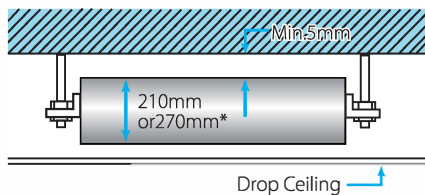
VDMS – Ducted Medium Static

Narrow profile ceiling suspended indoor unit suitable for External Static Pressure up to 100 Pa (0.40 in. WG), which allows extensive duct work for flexible applications.



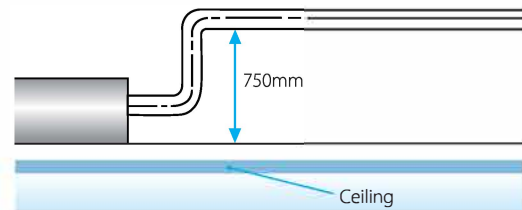
Narrow Profile

Only 210mm (up to VDMS-20) or 270mm (up to VDMS-38) height body, the minimum ceiling clearance is only 240-300 mm.



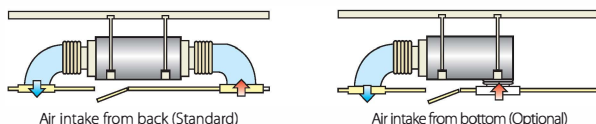
Drain Pump

Drain pump with 750mm head supplied as standard, for flexible location selection and easy drain line installation



Flexible Return Air Connection

Common sized rear/bottom panels for easy field convertible return air connection. Return air duct can be attached to the rear or bottom of the unit by the installer.



Controller Display

Unit Controller has display panel for indication of running status and easy trouble shooting.

Standard Display Panels

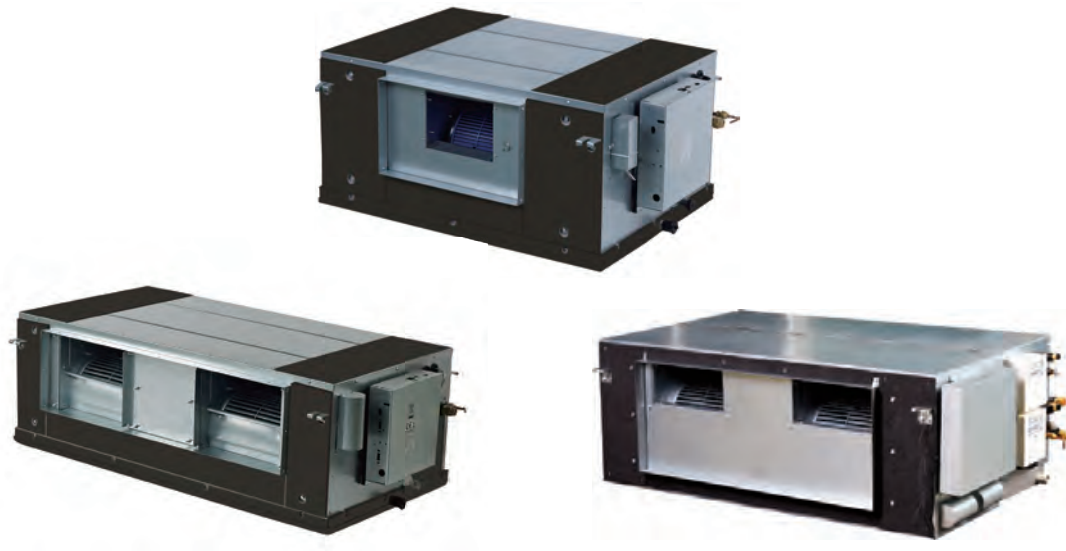


Optional Display Panel

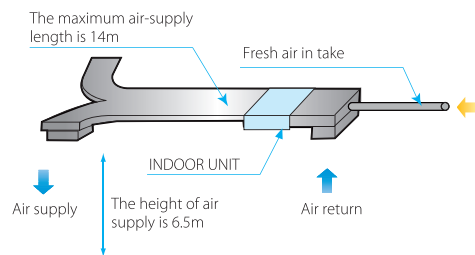


- Wired control (standard) or Wireless remote control.
- Factory installed EXV.
- Standard filter with aluminum frame, easily removed from bottom for servicing.
- Return air plenum is included as standard equipment.
- Flanges for supply/return air duct connections are standard.

VDHS – Ducted High Static

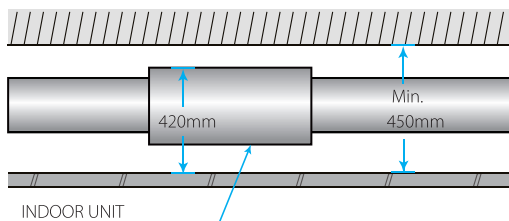


External Static Pressure of Indoor Unit can be up to 280 Pa (1.125 in. WG), which allows extensive duct work for flexible applications. So the cool air can be delivered to each corner even in a super-high ceiling



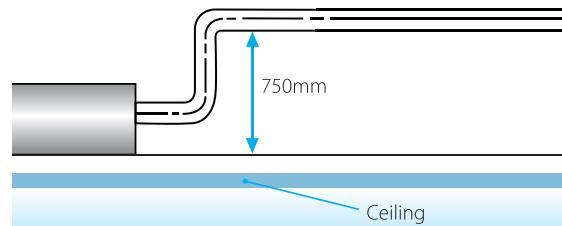
Narrow Profile

With 420mm (up to VDHS-60) height body, the minimum ceiling clearance is only 450mm.



Drain Pump (optional)

Available with 750mm head drain pump, for flexible location selection and easy drain line installation



Easy Maintenance

Easy to access the motor and for maintenance. Possible to replace the motor without removing the whole unit. Integrated electrical control box structure which is convenient for maintenance and installation.

- Wired control (standard) or Wireless remote control.
- Factory installed EXV
- Standard filter with aluminum frame, easily removed from bottom for servicing.
- Return air plenum is included as standard equipment.
- Flanges for supply/return air duct connections are standard.

VDFV - Concealed Vertical Mount

Super Quiet

Flat shape air outlet, with three speeds adjustment. Smoother airflow with less turbulence for low noise. Adoption of the built-in famous brand electrical expansion valve ensures precise flow control, and lower modulation noise when the EXV is operating.



Indoor Units

Easy Installation

Floor standing types can be hung on the wall or installed on the floor. The former can make cleaning and maintenance much more easily. Running the piping from the back allows the unit to be hung on walls. Cleaning under the unit, where dust tends to accumulate, is considerably easier.

Easy maintenance

Filter is equipped as standard accessory; and it can be removed and cleaned easily due to the unit's sophisticated design and service friendly design.

The narrow profile and streamlined appearance makes it easy to match with any decoration or architectural design. All metal parts are made of commercial grade galvanized steel, providing maximum protection against corrosion.

Auto restart

When the indoor unit is powered off, it will auto restart when powered on again after 3 minutes and operate in the original state.

VDFA - Fresh Air Processing Unit

100% Fresh Air Processing Unit

Both fresh air treatment and heating and cooling can be achieved successfully in a single system. Indoor units and fresh air processing unit can be connected to the same refrigerant system, resulting in enhanced design flexibility and a significant reduction in total system costs.



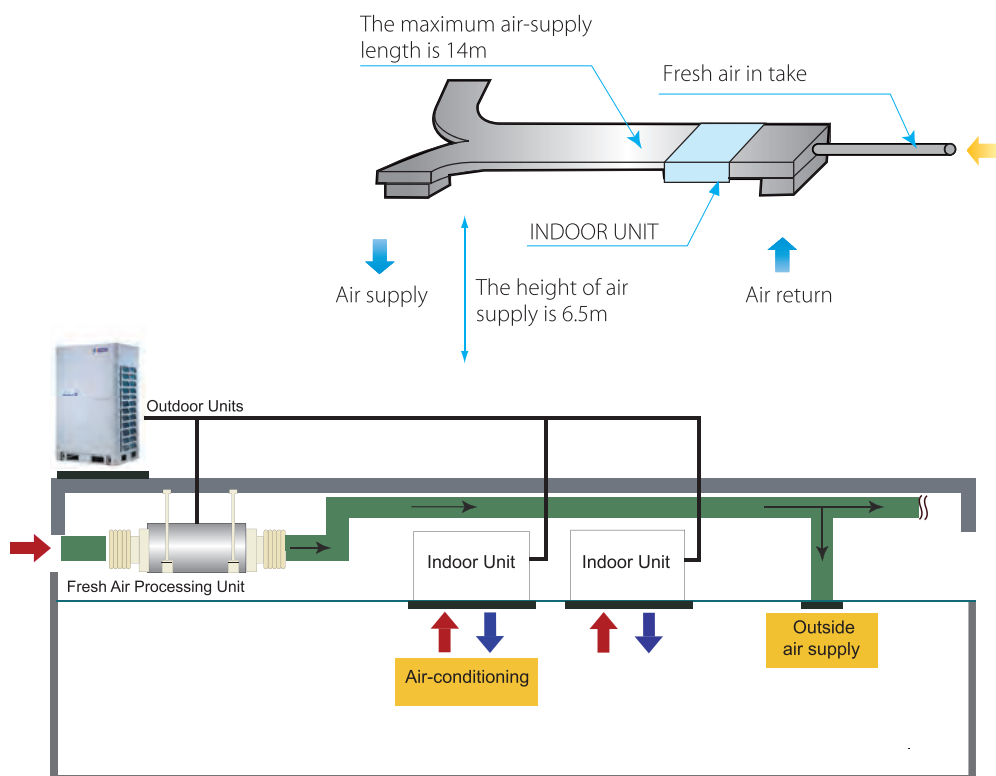
- Wired control and group control available
- High capacity of cooling/heating and high efficiency
- Innovative air supply provides even temperature distribution throughout the room

High External Static Pressure

External static pressure of Indoor Unit up to 280Pa (1.125 in. WG), which allows extensive duct work for flexible applications. So the cool air can be delivered to every indoor corner even in a super-high ceiling. The maximal distance of air supply duct is about 14m; and ceiling height up to 6.5m

Auto restart

When the indoor unit is powered off, it will auto restart when powered on again after 3 minutes and operate in the original state.



Well Match System

Technical
Specifications



MODEL



Specification & Model

Power Supply		V-Ph-Hz	380-415/3/50-60							
Cooling Capacity		BTU/hr.	86,000	96,000	114,000	137,000	154,000	171,000	191,000	210,000
		Tons	7.2	8	9.5	11.4	12.8	14.3	15.9	17.5
HP			8	10	12	14	16	18	20	22
Input Power		kW	5.79	7.02	8.71	10.81	12.83	14.47	16.67	18.77
EER			14.85	13.68	13.09	12.67	12	11.82	11.46	11.19
Heating Capacity		BTU/hr	92,100	107,500	128,000	153,500	170,600	191,100	214,900	235,400
Input Power		kW	5.79	7.19	8.82	10.98	12.47	14.15	15.98	17.86
COP			4.66	4.38	4.25	4.1	4.01	3.96	3.94	3.86
Connected Indoor Units			50%-130% of outdoor unit capacity							
Capacity %			13	16	20	23	26	29	33	36
quantity										
Compressor			DC Inverter							
type										
quantity			1	1	1	2	2	2	2	2
Fan Motor			DC motor							
type										
quantity			1	1	1	2	2	2	2	2
Sound Pressure level										
dB(A)			58	59	60	62	62	63	63	63
Refrigerant			R410A							
Connect										
Liquid		Inch	3/8”	3/8”	1/2”	1/2”	1/2”	5/8”	5/8”	5/8”
Suction		Inch	7/8”	7/8”	1”	1”	1-1/8”	1-1/8”	1-1/8”	1-1/8”
Oil balance		Inch	5/16”	5/16”	5/16”	5/16”	5/16”	5/16”	5/16”	5/16”
Dimension										
Body		WxHxD (mm.)	990x1635x790			1340x1635x790				
Packing		WxHxD (mm.)	1055x1805x855			1405x1805x855				
NW/GW		(kg)	219 / 234	219 / 234	237 / 252	297 / 315	297 / 315	305 / 323	340 / 358	340 / 358
Operation Range		deg C	Cooling-5-48 / Heating-20-24 deg C							

ERV2 Combination Table

HP	Tons	BTU/hr	Standard combination		Max. Qty. of indoor units
			Model	Combination type	
8	7.2	86,000	ERV2-086	single module	13
10	8	96,000	ERV2-096	single module	16
12	9.5	114,000	ERV2-114	single module	20
14	11.4	137,000	ERV2-137	single module	23
16	12.8	154,000	ERV2-154	single module	26
18	14.3	171,000	ERV2-171	single module	29
20	15.9	191,000	ERV2-191	single module	33
22	17.5	210,000	ERV2-210	single module	36
24	19	228,000	ERV2-228	ERV2-114 x 2	39
26	20.8	250,000	ERV2-250	ERV2-096 + ERV2-154	43
28	22.3	267,000	ERV2-267	ERV2-096 + ERV2-171	46
30	23.9	287,000	ERV2-287	ERV2-096 + ERV2-191	50
32	25.5	306,000	ERV2-306	ERV2-096 + ERV2-210	53
34	27	324,000	ERV2-324	ERV2-114 + ERV2-210	56
36	28.6	342,000	ERV2-342	ERV2-171 x 2	59
38	30.3	364,000	ERV2-364	ERV2-154 + ERV2-210	63
40	31.8	381,000	ERV2-381	ERV2-171 + ERV2-210	64
42	33.4	401,000	ERV2-401	ERV2-191 + ERV2-210	64
44	35	420,000	ERV2-420	ERV2-210 x 2	64
46	36.5	438,000	ERV2-438	ERV2-114 + ERV2-114 + ERV2-210	64
48	38.3	460,000	ERV2-460	ERV2-096 + ERV2-154 + ERV2-210	64
50	39.8	477,000	ERV2-477	ERV2-096 + ERV2-171 + ERV2-210	64
52	41.4	497,000	ERV2-497	ERV2-096 + ERV2-191 + ERV2-210	64
54	43	516,000	ERV2-516	ERV2-096 + ERV2-210 + ERV2-210	64
56	44.5	534,000	ERV2-534	ERV2-114 + ERV2-210 + ERV2-210	64
58	46.1	552,000	ERV2-552	ERV2-171 + ERV2-171 + ERV2-210	64
60	47.8	574,000	ERV2-574	ERV2-154 + ERV2-210 + ERV2-210	64
62	49.3	591,000	ERV2-591	ERV2-171 + ERV2-210 + ERV2-210	64
64	50.9	611,000	ERV2-611	ERV2-191 + ERV2-210 + ERV2-210	64
66	52.5	630,000	ERV2-630	ERV2-210 x 3	64
68	54	648,000	ERV2-648	ERV2-114 + ERV2-114 + ERV2-210 + ERV2-210	64
70	55.8	670,000	ERV2-670	ERV2-096 + ERV2-154 + ERV2-210 + ERV2-210	64
72	57.3	687,000	ERV2-687	ERV2-096 + ERV2-171 + ERV2-210 + ERV2-210	64
74	58.9	707,000	ERV2-707	ERV2-096 + ERV2-191 + ERV2-210 + ERV2-210	64
76	60.5	726,000	ERV2-726	ERV2-096 + ERV2-210 + ERV2-210 + ERV2-210	64
78	62	744,000	ERV2-744	ERV2-114 + ERV2-210 + ERV2-210 + ERV2-210	64
80	63.6	762,000	ERV2-762	ERV2-171 + ERV2-171 + ERV2-210 + ERV2-210	64
82	65.3	784,000	ERV2-784	ERV2-154 + ERV2-210 + ERV2-210 + ERV2-210	64
84	66.8	801,000	ERV2-801	ERV2-171 + ERV2-210 + ERV2-210 + ERV2-210	64
86	68.4	821,000	ERV2-821	ERV2-191 + ERV2-210 + ERV2-210 + ERV2-210	64
88	70	840,000	ERV2-840	ERV2-210 x 4	64

Specs.

VCS4

MODEL



		VCS4 -10	VCS4 -12	VCS4 -16	VCS4 -20	VCS4 -25
Power Supply	V-Hz-Ph	220-240V-50Hz-1Ph				
Cooling Capacity	BTU/hr.	9,554	12,283	16,378	20,131	25,249
	kW	2.8	3.6	4.8	5.9	7.4
Heating Capacity	BTU/hr.	10,918	13,648	18,084	22,860	29,002
	kW	3.2	4	5.3	6.7	8.5
Input	Power (W)	65	65	75	75	82
	Current (A)	0.4	0.4	0.4	0.4	0.5
Evaporator	Type	High Efficiency Inner Grooved Copper Tube / Aluminum Fin				
Indoor Air Flow	cfm	500	500	510	510	680
	m ³ /h	847	847	864	864	1157
Indoor Noise Level	dB(A)	35	35	35	35	39
Refrigerant Type		R410A				
Expansion Device	Type	Electronic Expansion Valve				
Connection						
Liquid	Inch	1/4"	1/4"	1/4"	3/8"	3/8"
Suction	Inch	1/2"	1/2"	1/2"	5/8"	5/8"
Drain	Inch	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"
Standard Controller		Wireless Remote Controller				
Body						
Dimension	WxHxD (mm.)	904x230x840				
Packing	WxHxD (mm.)	955x260x955				
	NW/GW (kg)	24 / 28	24 / 28	26 / 30	26 / 30	26 / 30
Panel						
Dimension	WxHxD (mm.)	950x54.5x950				
Packing	WxHxD (mm.)	1035x90x1035				
	NW/GW (kg)	5 / 9	5 / 9	5 / 9	5 / 9	5 / 9



Specification & Model

MODEL		VCS4 -28	VCS4 -30	VCS4 -34	VCS4 -38	VCS4 -48	VCS4 -60
Power Supply V-Hz-Ph		220-240V-50Hz-1Ph					
Cooling Capacity	BTU/hr.	27,296	30,708	34,120	38,214	48,109	60,051
	kW	8	9	10	11.2	14.1	17.6
Heating Capacity	BTU/hr.	30,708	34,120	37,532	42,650	51,521	66,534
	kW	9	10	11	12.5	15.1	19.5
Input	Power (W)	97	160	160	160	170	170
	Current (A)	0.5	0.7	0.7	0.7	0.8	0.8
Evaporator	Type	High Efficiency Inner Grooved Copper Tube / Aluminum Fin					
Indoor Air Flow	cfm	730	910	910	910	1060	1260
	m ³ /h	1236	1540	1540	1540	1800	2140
Indoor Noise Level	dB(A)	39	43	43	43	44	45
Refrigerant Type		R410A					
Expansion Device		Electronic Expansion Valve					
Connection							
Liquid	Inch	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
Suction	Inch	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"
Drain	Inch	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"
Standard Controller		Wireless Remote Controller					
Body							
Dimension	WxHxD (mm.)	904x230x840	904x300x840				
Packing	WxHxD (mm.)	955x260x955	955x330x955				
	NW/GW (kg)	26 / 30	32 / 37	32 / 37	32 / 37	32 / 37	32 / 37
Panel							
Dimension	WxHxD (mm.)	950x54.5x950					
Packing	WxHxD (mm.)	1035x90x1035					
	NW/GW (kg)	5 / 9	5 / 9	5 / 9	5 / 9	5 / 9	5 / 9

Specs.

VCS2

MODEL



Specification & Model

		VCS2 -08	VCS2 -10	VCS2 -12	VCS2 -16	VCS2 -20	VCS2 -25
Power Supply V-Hz-Ph		220-240V-50Hz-1Ph					
Cooling Capacity	BTU/hr.	7,506	9,554	12,283	16,378	20,131	25,249
	kW	2.2	2.8	3.6	4.8	5.9	7.4
Heating Capacity	BTU/hr.	8,871	10,918	13,648	18,084	22,860	29,002
	kW	2.6	3.2	4	5.3	6.7	8.5
Input	Power (W)	57	57	60	92	108	154
	Current (A)	0.35	0.45	0.45	0.55	0.55	0.75
Evaporator Type		High Efficiency Inner Grooved Copper Tube / Aluminum Fin					
Indoor Air Flow	cfm	380	380	430	500	580	710
	m ³ /h	654	654	725	850	980	1200
Indoor Noise Level	dB(A)	24	29	29	30	30	34
Refrigerant Type		R410A					
Expansion Device Type		Electronic Expansion Valve					
Connection							
Liquid	Inch	1/4"	1/4"	1/4"	1/4"	3/8"	3/8"
Suction	Inch	1/2"	1/2"	1/2"	1/2"	5/8"	5/8"
Drain	Inch	1"-1/4"	1"-1/4"	1"-1/4"	1"-1/4"	1"-1/4"	1"-1/4"
Standard Controller		Wireless Remote Controller					
Body							
Dimension	WxHxD (mm.)	1172x299x591					
Packing	WxHxD (mm.)	1355x400x675					
	NW/GW (kg)	34 / 43	34 / 43	34 / 43	36 / 45	36 / 45	36 / 45
Panel							
Dimension	WxHxD (mm.)	1430x53x680					
Packing	WxHxD (mm.)	1525x130x765					
	NW/GW (kg)	11 / 15	11 / 15	11 / 15	11 / 15	11 / 15	11 / 15

VCS1

MODEL



Specification & Model

		VCS1 -06	VCS1 -08	VCS1 -10	VCS1 -12	VCS1 -16	VCS1 -20	VCS1 -25
Power Supply V-Hz-Ph		220-240V-50Hz-1Ph						
Cooling Capacity	BTU/hr.	6,142	7,506	9,554	12,283	16,378	20,131	25,249
	kW	1.8	2.2	2.8	3.6	4.8	5.9	7.4
Heating Capacity	BTU/hr.	7,506	8,871	10,918	13,648	18,084	22,860	29,002
	kW	2.2	2.6	3.2	4	5.3	6.7	8.5
Input	Power (W)	41	41	41	41	48	48	60
	Current (A)	0.24	0.24	0.25	0.25	0.27	0.32	0.36
Evaporator Type		High Efficiency Inner Grooved Copper Tube / Aluminum Fin						
Indoor Air Flow	cfm	310	310	340	340	410	470	550
	m ³ /h	523	523	573	573	693	792	933
Indoor Noise Level	dB(A)	30	30	34	34	35	36	37
Refrigerant Type		R410A						
Expansion Device Type		Electronic Expansion Valve						
Connection								
Liquid	Inch	1/4"	1/4"	1/4"	1/4"	1/4"	1/2"	1/2"
Suction	Inch	1/2"	1/2"	1/2"	1/2"	1/2"	5/8"	5/8"
Drain	Inch	1"	1"	1"	1"	1"	1"	1"
Standard Controller		Wireless Remote Controller						
Body								
Dimension	WxHxD (mm.)	1054x153x425				1204x189x443		
Packing	WxHxD (mm.)	1155x245x490				1370x295x505		
	NW/GW (kg)	12 / 16	12 / 16	13 / 17	13 / 17	19 / 23	19 / 23	20 / 24
Panel								
Dimension	WxHxD (mm.)	1180x25x465				1350x25x505		
Packing	WxHxD (mm.)	1232x107x517				1410x95x560		
	NW/GW (kg)	4 / 6	4 / 6	4 / 6	4 / 6	4 / 6	4 / 6	4 / 6

Specs.

VCSS

MODEL



Specification & Model

		VCSS -06	VCSS -08	VCSS -10	VCSS -12	VCSS -16
Power Supply	V-Hz-Ph	220-240V-50Hz-1Ph				
Cooling Capacity	BTU/hr.	5,118	7,506	9,554	12,283	16,378
	kW	1.5	2.2	2.8	3.6	4.8
Heating Capacity	BTU/hr.	5,800	8,189	10,918	13,648	18,084
	kW	1.7	2.4	3.2	4	5.3
Input	Power (W)	36	50	50	56	56
	Current (A)	0.22	0.22	0.22	0.25	0.25
Evaporator	Type	High Efficiency Inner Grooved Copper Tube / Aluminum Fin				
Indoor Air Flow	cfm	240	240	240	310	310
	m ³ /h	414	414	414	521	521
Indoor Noise Level	dB(A)	23	24	24	29	29
Refrigerant Type		R410A				
Expansion Device	Type	Electronic Expansion Valve				
Connection						
Liquid	Inch	1/4"	1/4"	1/4"	1/4"	1/4"
Suction	Inch	1/2"	1/2"	1/2"	1/2"	1/2"
Drain	Inch	1"	1"	1"	1"	1"
Standard Controller		Wireless Remote Controller				
Body						
Dimension	WxHxD (mm.)	570x260x570				
Packing	WxHxD (mm.)	675x285x675				
	NW/GW (kg)	16 / 20	16 / 20	16 / 20	18 / 22	18 / 22
Panel						
Dimension	WxHxD (mm.)	647x50x647				
Packing	WxHxD (mm.)	715x123x715				
	NW/GW (kg)	3 / 5	3 / 5	3 / 5	3 / 5	3 / 5

VEWM

MODEL



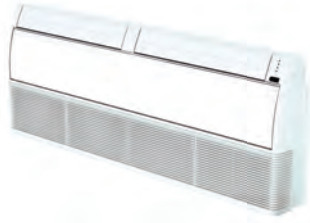
Specification & Model

		VEWM -06	VEWM -08	VEWM -10	VEWM -12	VEWM -16	VEWM -20	VEWM -25	VEWM -28	VEWM -30
Power Supply	V-Hz-Ph	220-240V-50Hz-1Ph								
Cooling Capacity	BTU/hr.	5,118	7,506	9,554	12,283	16,378	20,131	25,249	27,296	30,708
	kW	1.5	2.2	2.8	3.6	4.8	5.9	7.4	8	9
Heating Capacity	BTU/hr.	5,800	8,189	10,918	13,648	18,084	22,860	29,002	30,708	34,120
	kW	1.7	2.4	3.2	4	5.3	6.7	8.5	9	10
Input	Power (W)	28	28	28	28	45	45	75	86	86
	Current (A)	0.12	0.14	0.14	0.14	0.2	0.2	0.33	0.39	0.39
Evaporator	Type	High Efficiency Inner Grooved Copper Tube / Aluminum Fin								
Indoor Air Flow	cfm	250	310	310	350	510	540	700	780	780
	m ³ /h	427	525	525	590	860	925	1190	1320	1320
Indoor Noise Level	dB(A)	28	29	29	29	34	34	42	38	38
Refrigerant Type		R410A								
Expansion Device	Type	Electronic Expansion Valve								
Connection										
Liquid	Inch	1/4"	1/4"	1/4"	1/4"	1/4"	3/8"	3/8"	3/8"	3/8"
Suction	Inch	1/2"	1/2"	1/2"	1/2"	1/2"	5/8"	5/8"	5/8"	5/8"
Drain	Inch	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"
Standard Controller		Wireless Remote Controller								
Dimension										
Body	WxHxD (mm.)	915x230x290			1072x230x315			1250x245x325		
Packing	WxHxD (mm.)	1020x315x390			1180x315x415			1345x335x430		
	NW/GW (kg)	12 / 16	13 / 17	13 / 17	13 / 17	15 / 20	15 / 20	20 / 25	20 / 25	20 / 25

Specs.

VEFC

MODEL



Specification & Model

		VEFC -12	VEFC -16	VEFC -20	VEFC -25	VEFC -28	VEFC -30	VEFC -38	VEFC -48	VEFC -60
Power Supply V-Hz-Ph		220-240V-50Hz-1Ph								
Cooling Capacity	BTU/hr.	12,283	16,378	20,131	25,249	27,296	30,708	38,214	48,109	60,051
	kW	3.6	4.8	5.9	7.4	8	9	11.2	14.1	17.6
Heating Capacity	BTU/hr.	13,648	18,084	22,860	29,002	30,708	34,120	42,650	52,886	66,534
	kW	4	5.3	6.7	8.5	9	10	12.5	15.5	19.5
Input	Power (W)	49	120	122	125	130	130	182	182	300
	Current (A)	0.23	0.67	0.67	0.67	0.83	0.83	1.11	1.11	1.41
Evaporator	Type	High Efficiency Inner Grooved Copper Tube / Aluminum Fin								
Indoor Air Flow	cfm	380	470	470	470	710	710	1170	1170	1170
	m ³ /h	650	800	800	800	1200	1200	1980	1980	1980
Indoor Noise Level	dB(A)	36	38	38	38	40	40	42	42	42
Refrigerant Type		R410A								
Expansion Device	Type	Electronic Expansion Valve								
Connection										
Liquid	Inch	1/4"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
Suction	Inch	1/2"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"
Drain	Inch	1"	1"	1"	1"	1"	1"	1"	1"	1"
Standard Controller		Wireless Remote Controller								
Dimension										
Body	WxHxD (mm.)	990x203x660				1280x203x660		1670x244x680		1670x285x680
Packing	WxHxD (mm.)	1089x296x744				1379x296x744		1764x329x760		1775x377x760
	NW/GW (kg)	26 / 32	28 / 34	28 / 34	28 / 34	35 / 41	35 / 41	54 / 59	54 / 59	58 / 64

VEFS

MODEL



Specification & Model

		VEFS -08	VEFS -10	VEFS -12	VEFS -16	VEFS -20	VEFS -25	VEFS -28
Power Supply V-Hz-Ph		220-240V-50Hz-1Ph						
Cooling Capacity	BTU/hr.	7,506	9,554	12,283	16,378	20,131	25,249	27,296
	kW	2.2	2.8	3.6	4.8	5.9	7.4	8
Heating Capacity	BTU/hr.	8,189	10,918	13,648	18,084	22,860	29,002	30,708
	kW	2.4	3.2	4	5.3	6.7	8.5	9
Input	Power (W)	40	46	46	49	88	130	130
	Current (A)	0.18	0.19	0.22	0.22	0.43	0.63	0.63
Evaporator Type		High Efficiency Inner Grooved Copper Tube / Aluminum Fin						
Indoor Air Flow	cfm	310	330	370	390	680	810	810
	m ³ /h	530	569	624	660	1150	1380	1380
Indoor Noise Level	dB(A)	29	29	30	30	31	33	33
Refrigerant Type		R410A						
Expansion Device Type		Electronic Expansion Valve						
Connection								
Liquid	Inch	1/4"	1/4"	1/4"	1/4"	3/8"	3/8"	3/8"
Suction	Inch	1/2"	1/2"	1/2"	1/2"	5/8"	5/8"	5/8"
Drain	Inch	1"	1"	1"	1"	1"	1"	1"
Standard Controller		Wireless Remote Controller						
Body								
Dimension	WxHxD (mm.)	1000x569x225		1200x596x225		1500x596x225		
Packing	WxHxD (mm.)	1089x683x312		1289x683x312		1589x683x312		
	NW/GW (kg)	30 / 35	30 / 35	36 / 44	36 / 44	41 / 47	41 / 47	43 / 49

Specs.

VEPF

MODEL



Specification & Model

		VEPF -36	VEPF -42	VEPF -48	VEPF -60	VEPF -90	VEPF -120
Power Supply		220-240V-50Hz-1Ph					
Cooling Capacity	BTU/hr.	36,167	41,968	48,109	60,051	90,077	120,102
	kW	10.6	12.3	14.1	17.6	26.4	35.2
Heating Capacity	BTU/hr.	40,262	46,403	53,568	66,534	99,972	133,409
	kW	11.8	13.6	15.7	19.5	29.3	39.1
Input	Power (W)	390	390	410	430	820	860
	Current (A)	1.8	1.8	1.9	2.0	3.8	4.0
Evaporator	Type	High Efficiency Inner Grooved Copper Tube / Aluminum Fin					
Indoor Air Flow	cfm	1200	1200	1600	2000	3000	4000
	m ³ /h	2040	2040	2720	3400	5100	6800
Indoor Noise Level	dB(A)	40	40	42	43	45	46
Refrigerant Type		R410A					
Expansion Device		Electronic Expansion Valve					
Connection							
Liquid	Inch	1/2"	1/2"	1/2"	1/2"	5/8"	5/8"
Suction	Inch	3/4"	3/4"	3/4"	3/4"	1-1/8"	1-3/8"
Drain	Inch	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Standard Controller		Wired Panel Controller					
Dimension							
Body	WxHxD (mm.)	610x1890x345			860x1890 x345	1210x1890x395	
Packing	WxHxD (mm.)	690x1950x425			940x1950 x425	1290x1950x475	
	NW/GW (kg)	70 / 75	70 / 75	80 / 87	100 / 108	140 / 150	160 / 170

VDCC

MODEL



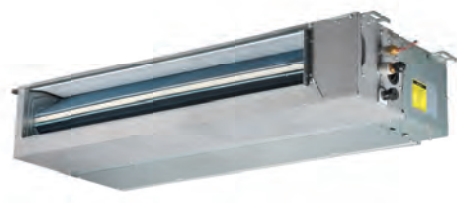
Specification & Model

		VDCC -06	VDCC -08	VDCC -10	VDCC -12	VDCC -16	VDCC -20	VDCC -25
Power Supply V-Hz-Ph		220-240V-50Hz-1Ph						
Cooling Capacity	BTU/hr.	6,142	7,506	9,554	12,283	16,378	20,131	25,249
	kW	1.8	2.2	2.8	3.6	4.8	5.9	7.4
Heating Capacity	BTU/hr.	7,506	8,871	10,918	13,648	18,084	22,860	29,002
	kW	2.2	2.6	3.2	4	5.3	6.7	8.5
Input	Power (W)	59	59	59	65	105	105	130
	Current (A)	0.31	0.31	0.31	0.36	0.36	0.36	0.5
Evaporator Type		High Efficiency Inner Grooved Copper Tube / Aluminum Fin						
Indoor Air Flow	cfm	340	340	340	360	490	490	620
	m³/h	578	578	578	617	824	824	1060
External Static Pressure Pa		10-30	10-30	10-30	10-30	10-30	10-30	10-30
Indoor Noise Level dB(A)		24	24	24	24	29	29	30
Refrigerant Type		R410A						
Expansion Device Type		Electronic Expansion Valve						
Connection								
Liquid	Inch	1/4"	1/4"	1/4"	1/4"	1/4"	3/8"	3/8"
Suction	Inch	1/2"	1/2"	1/2"	1/2"	1/2"	5/8"	5/8"
Drain	Inch	1"	1"	1"	1"	1"	1"	1"
Standard Controller		Wireless Remote Controller						
Dimension								
Body	WxHxD (mm.)	740x210x470				960x210x470		1180x210x470
Packing	WxHxD (mm.)	910x230x510				1130x230x510		1350x230x510
	NW/GW (kg)	14 / 18	14 / 18	14 / 18	14 / 18	18 / 22	18 / 22	21 / 27

Specs.

VDLS

MODEL



Specification & Model

		VDLS -06	VDLS -08	VDLS -10	VDLS -12	VDLS -16	VDLS -20	VDLS -25
Power Supply V-Hz-Ph		220-240V-50Hz-1Ph						
Cooling Capacity	BTU/hr.	5,118	7,506	9,554	12,283	16,378	20,131	25,249
	kW	1.5	2.2	2.8	3.6	4.8	5.9	7.4
Heating Capacity	BTU/hr.	5,800	8,871	10,918	13,648	18,084	22,860	29,002
	kW	1.7	2.6	3.2	4	5.3	6.7	8.5
Input	Power (W)	56	57	57	61	98	103	140
	Current (A)	0.31	0.31	0.31	0.33	0.36	0.36	0.47
Evaporator	Type	High Efficiency Inner Grooved Copper Tube / Aluminum Fin						
Indoor Air Flow	cfm	320	320	320	350	480	480	610
	m³/h	538	538	538	597	811	811	1029
External Static Pressure	Pa	10-30	10-30	10-30	10-30	10-30	10-30	10-30
Indoor Noise Level	dB(A)	32	32	32	34	34	34	35
Refrigerant Type		R410A						
Expansion Device	Type	Electronic Expansion Valve						
Connection	Liquid	1/4"	1/4"	1/4"	1/4"	1/4"	3/8"	3/8"
	Suction	1/2"	1/2"	1/2"	1/2"	1/2"	5/8"	5/8"
	Drain	1"	1"	1"	1"	1"	1"	1"
Standard Controller		Wired Panel Controller						
Dimension	Body	740x210x500				960x210x500		1180x210x500
	Packing	870x285x525				1115x285x525		1335x285x525
	NW/GW (kg)	18 / 21	18 / 21	18 / 21	18 / 21	23 / 26	23 / 26	28 / 32

VDFV

MODEL



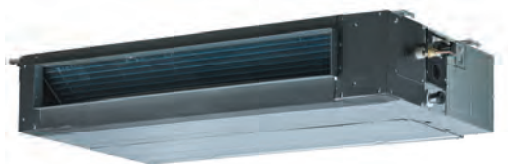
Specification & Model

		VDFV -08	VDFV -10	VDFV -12	VDFV -16	VDFV -20	VDFV -25	VDFV -28
Power Supply V-Hz-Ph		220-240V-50Hz-1Ph						
Cooling Capacity	BTU/hr.	7,506	9,554	12,283	16,378	20,131	25,249	27,296
	kW	2.2	2.8	3.6	4.8	5.9	7.4	8
Heating Capacity	BTU/hr.	8,871	10,918	13,648	18,084	22,860	29,002	30,708
	kW	2.6	3.2	4	5.3	6.7	8.5	9
Input	Power (W)	40	46	46	49	88	130	130
	Current (A)	0.18	0.21	0.22	0.22	0.4	0.56	0.59
Evaporator	Type	High Efficiency Inner Grooved Copper Tube / Aluminum Fin						
Indoor Air Flow	cfm	310	330	370	390	680	810	810
	m³/h	530	569	624	660	1150	1380	1380
Indoor Noise Level	dB(A)	29	29	30	30	31	33	33
Refrigerant Type		R410A						
Expansion Device Type		Electronic Expansion Valve						
Connection								
Liquid	Inch	1/4"	1/4"	1/4"	1/4"	3/8"	3/8"	3/8"
Suction	Inch	1/2"	1/2"	1/2"	1/2"	5/8"	5/8"	5/8"
Drain	Inch	1"	1"	1"	1"	1"	1"	1"
Standard Controller		Wireless Remote Controller						
Dimension								
Body	WxHxD (mm.)	840x545x212		1040x545x212		1340x545x212		
Packing	WxHxD (mm.)	939x639x305		1139x639x305		1425x639x305		
	NW/GW (kg)	25 / 27	25 / 27	30 / 34	30 / 34	33 / 39	33 / 39	36 / 40

Specs.

VDMS

MODEL



		VDMS -08	VDMS -10	VDMS -12	VDMS -16	VDMS -20
Power Supply	V-Hz-Ph	220-240V-50Hz-1Ph				
Cooling Capacity	BTU/hr.	7,506	9,554	12,283	16,378	20,131
	kW	2.2	2.8	3.6	4.8	5.9
Heating Capacity	BTU/hr.	8,871	10,918	13,648	18,084	22,860
	kW	2.6	3.2	4	5.3	6.7
Input	Power (W)	57	57	61	92	92
	Current (A)	0.28	0.28	0.28	0.5	0.5
Evaporator	Type	High Efficiency Inner Grooved Copper Tube / Aluminum Fin				
Indoor Air Flow	cfm	310	310	310	500	500
	m³/h	528	528	528	852	852
External Static Pressure	Pa	10-30	10-30	10-30	10-30	10-30
Indoor Noise Level	dB(A)	32	36	36	36	36
Refrigerant Type		R410A				
Expansion Device	Type	Electronic Expansion Valve				
Connection	Liquid	1/4"	1/4"	1/4"	1/4"	3/8"
	Suction	1/2"	1/2"	1/2"	1/2"	5/8"
	Drain	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"
Standard Controller		Wired Panel Controller				
Body	Dimension	740x210x635			1010x210x635	
	Packing	915x290x655			1135x290x655	
	NW/GW (kg)	22 / 27	22 / 27	22 / 27	27 / 32	27 / 32



Specification & Model

MODEL		VDMS -25	VDMS -28	VDMS -30	VDMS -38	VDMS -48
Power Supply V-Hz-Ph		220-240V-50Hz-1Ph				
Cooling Capacity	BTU/hr.	25,249	27,296	30,708	38,214	48,109
	kW	7.4	8	9	11.2	14.1
Heating Capacity	BTU/hr.	29,002	30,708	34,120	42,650	52,886
	kW	8.5	9	10	12.5	15.5
Input	Power (W)	149	198	200	313	274
	Current (A)	0.7	1.0	1.0	1.8	1.55
Evaporator	Type	High Efficiency Inner Grooved Copper Tube / Aluminum Fin				
Indoor Air Flow	cfm	620	790	790	1060	1120
	m³/h	1047	1345	1345	1800	1905
External Static Pressure	Pa	10-30	10-50	10-50	10-80	10-100
Indoor Noise Level	dB(A)	36	37	37	38	39
Refrigerant Type		R410A				
Expansion Device	Type	Electronic Expansion Valve				
Connection						
Liquid	Inch	3/8"	3/8"	3/8"	3/8"	3/8"
Suction	Inch	5/8"	5/8"	5/8"	5/8"	5/8"
Drain	Inch	1-1/4"	1"	1"	1"	1"
Standard Controller		Wired Panel Controller				
Body						
Dimension	WxHxD (mm.)	960x270x635	1180x270x775			1240x300x865
Packing	WxHxD (mm.)	1135x350x655	1355x350x795			1400x375x925
	NW/GW (kg)	30 / 34	38 / 47	40 / 48	40 / 48	49 / 58

Specs.

VDHS

MODEL



		VDHS -25	VDHS -28	VDHS -30	VDHS -38	VDHS -48	VDHS -60
Power Supply V-Hz-Ph		220-240V-50Hz-1Ph					
Cooling Capacity	BTU/hr.	25,249	27,296	30,708	38,214	48,109	60,051
	kW	7.4	8	9	11.2	14.1	17.6
Heating Capacity	BTU/hr.	29,002	30,708	34,120	42,650	54,592	66,534
	kW	8.5	9	10	12.5	16	19.5
Input	Power (W)	269	269	437	528	724	940
	Current (A)	1.23	1.23	1.87	2.3	2.85	4.77
Evaporator Type		High Efficiency Inner Grooved Copper Tube / Aluminum Fin					
Indoor Air Flow	cfm	850	850	1150	1250	1770	2130
	m³/h	1443	1443	1951	2116	3000	3620
External Static Pressure	Pa	25-200	37-200	37-200	50-200	50-200	50-200
Indoor Noise Level	dB(A)	44	45	47	47	48	50
Refrigerant Type		R410A					
Expansion Device Type		Electronic Expansion Valve					
Connection							
Liquid	Inch	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"
Suction	Inch	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"
Drain	Inch	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"
Standard Controller		Wired Panel Controller					
Body							
Dimension	WxHxD (mm.)	952x420x690				1300x420x690	
Packing	WxHxD (mm.)	1090x440x768				1436x450x768	
	NW/GW (kg)	45 / 50	45 / 50	47 / 53	51 / 56	68 / 70	70 / 78



Specification & Model

MODEL		VDHS -70	VDHS -86	VDHS -96	VDHS -136	VDHS -156	VDHS -192
Power Supply V-Hz-Ph		220-240V-50Hz-1Ph					
Cooling Capacity	BTU/hr.	68,240	85,300	95,536	136,480	153,540	191,072
	kW	20	25	28	40	45	56
Heating Capacity	BTU/hr.	76,770	88,712	107,478	153,540	170,600	214,956
	kW	22.5	26	31.5	45	50	63
Input	Power (W)	1978	1978	1978	2700	2700	3400
	Current (A)	8.6	8.6	8.6	13.5	13.5	15.5
Evaporator Type		High Efficiency Inner Grooved Copper Tube / Aluminum Fin					
Indoor Air Flow	cfm	2770	2770	2770	4400	4400	5620
	m³/h	4700	4700	4700	7472	7472	9550
External Static Pressure Pa		50-280	50-280	50-280	50-280	50-280	50-280
Indoor Noise Level dB(A)		52	52	52	56	56	57
Refrigerant Type		R410A					
Expansion Device Type		Electronic Expansion Valve					
Connection							
Liquid	Inch	3/8" x 2	3/8" x 2	3/8" x 2	3/8" x 2	3/8" x 2	3/8" x 2
Suction	Inch	5/8" x 2	5/8" x 2	5/8" x 2	7/8" x 2	7/8" x 2	7/8" x 2
Drain	Inch	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"
Standard Controller		Wired Panel Controller					
Body							
Dimension	WxHxD (mm.)	1443x470x810			1970x668x902.5		
Packing	WxHxD (mm.)	1509x550x990			2095x800x964		
	NW/GW (kg)	115 / 129	115 / 129	115 / 129	232 / 245	232 / 245	235 / 250

Specs.

VDFA

MODEL



Specification & Model

		VDFA -42	VDFA -48	VDFA -70	VDFA -86	VDFA -96
Power Supply	V-Hz-Ph	220-240V-50Hz-1Ph				
Cooling Capacity	BTU/hr.	42,650	48,109	68,240	85,300	95,536
	kW	12.5	14.1	20	25	28
Heating Capacity	BTU/hr.	35,826	41,285	61,416	68,240	75,064
	kW	10.5	12.1	18	20	22
Input	Power (W)	430	430	2000	2130	2130
	Current (A)	2.4	2.4	5.3	5.6	5.6
Evaporator	Type	High Efficiency Inner Grooved Copper Tube / Aluminum Fin				
Indoor Air Flow	cfm	1260	1260	1690	1770	1770
	m ³ /h	2142	2142	2870	3005	3005
External Static Pressure	Pa	50-196	50-196	50-280	50-280	50-280
Indoor Noise Level	dB(A)	50	50	51	52	52
Refrigerant Type		R410A				
Expansion Device	Type	Electronic Expansion Valve				
Connection						
Liquid	Inch	3/8"	3/8"	3/8"	3/8"	3/8"
Suction	Inch	5/8"	5/8"	5/8"	5/8"	5/8"
Drain	Inch	1"	1"	1-1/4"	1-1/4"	1-1/4"
Standard Controller		Wired Panel Controller				
Body						
Dimension	WxHxD (mm.)	1300x420x690		1443x470x810		
Packing	WxHxD (mm.)	1436x450x768		1509x550x990		
	NW/GW (kg)	70 / 76	70 / 76	115 / 125	115 / 125	115 / 125

Controls

ctrl.

Remote Controls - Wired & Wireless

KJR-29

Auto mode

Dry mode

Heat mode

Cool mode

Fan mode

24h Timer

Lock

Address setting

RM05

Address Setting

Wired Remote Controller

KJR-29 have an address setting function. Service personnel can set the address for the indoor unit for easy installation and future maintenance.

Wireless Remote Controller

Besides the machine's auto addressing function, users can set the indoor unit's address on the wireless remote controller RM05

Remote Signal Receiving Function (Optional)

KJZ-29 provide a signal receiver for the remote controller.

Signals from the remote control can be received by a wired controller, then sent to the indoor unit for easy control.

Built-in timer (Optional)

The built-in daily timer offers the convenience of auto-matically starting and stopping the system at set times on the wireless remote controller RM05.

Outdoor Central Controller

CCM-02



Set Fan: Low, Med, High

Override - Forced Cooling

Interface: PC or Gateway

QUERY SET				88 # Module 88 # Outdoor unit Online ON Online ON			
MODE OFF Four-way valve				Power (kWh) Freq (Hz) Indoor unit Temp °C Current (A) Digital Valve			
Fan COMP 1 2 3 4 ST2 VALVE 1 2 3 4 5 6 7 8				Error 888888 Protect			
Oil-return Defrost				Operate-mode: unsuccessful			

Parameters Display

Check outdoor units running status: frequency, temperature, current, pressure, protection codes or error codes

Indoor Central Control

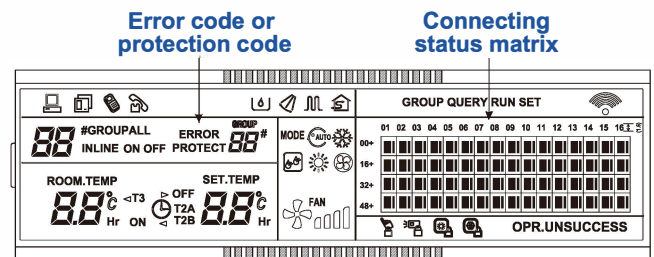


CCM-03

The indoor central controller can operate and control up to 64 indoor units with a maximum connection length of 1,200m



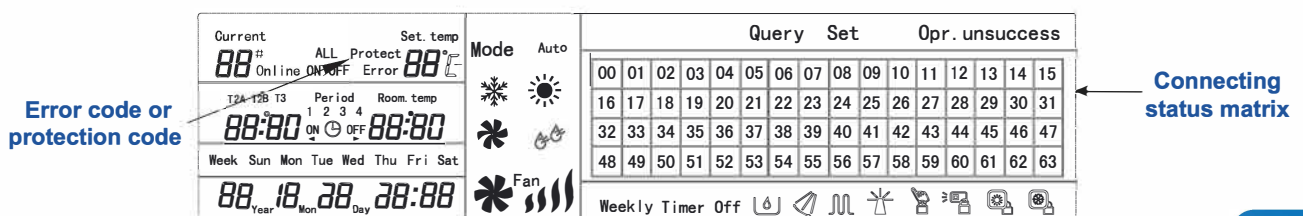
The display indicates indoor units working status and error codes so users can easily identify any faults from the referral table in the technical manual



Weekly Central Control



CCM-09



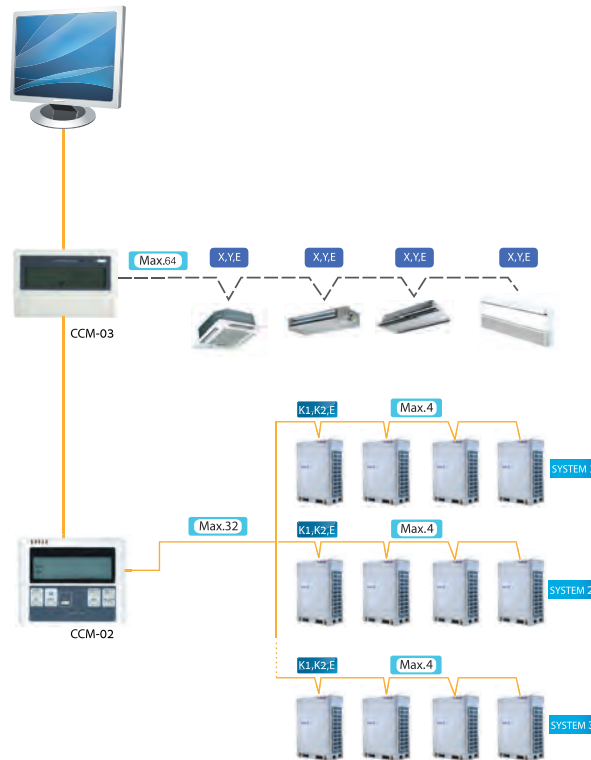
Weekly Controller can operate up to 64 indoor units. Users can set up to 4 periods per day, and control the running modes and room temperature. Control effect can be single units or all indoor units

Set mode: Cool, Heat, Auto, Fan, Dry **Air Swing:** On/Off, set position

Lock functions: Keyboard, Cool, Heat, Wireless remote **Interface:** PC or Gateway

Access to Network monitoring

CCM02 can connect up to 8 refrigerant systems and 32 outdoor units. Interface with network control or BMS



BMS Gateway



BMS software	Brand
APOGEE / Siemens	
Tracer Summit / Trane	
Alerton / Honeywell	
Andover / Schneider	
METASYS / Johnson Controls	

BACnet® Gateway

Integrated Control System for Seamless Connection between VRF and BMS Systems

Provides 4 RS-485 communication ports able to connect up to 256 indoor units or 28 outdoor units to the BMS. Can interface with BMS system or remote management software

Modbus Gateway

Integrated Control System for Seamless Connection between VRF and BMS Systems



Supports Modbus protocol networks, acting as a bridge between Eminent central a/c system and the BMS. Supports up to 1,024 indoor units and 64 outdoor units

LonWorks® Gateway

Integrated Control System for Seamless Connection between VRF and BMS Systems

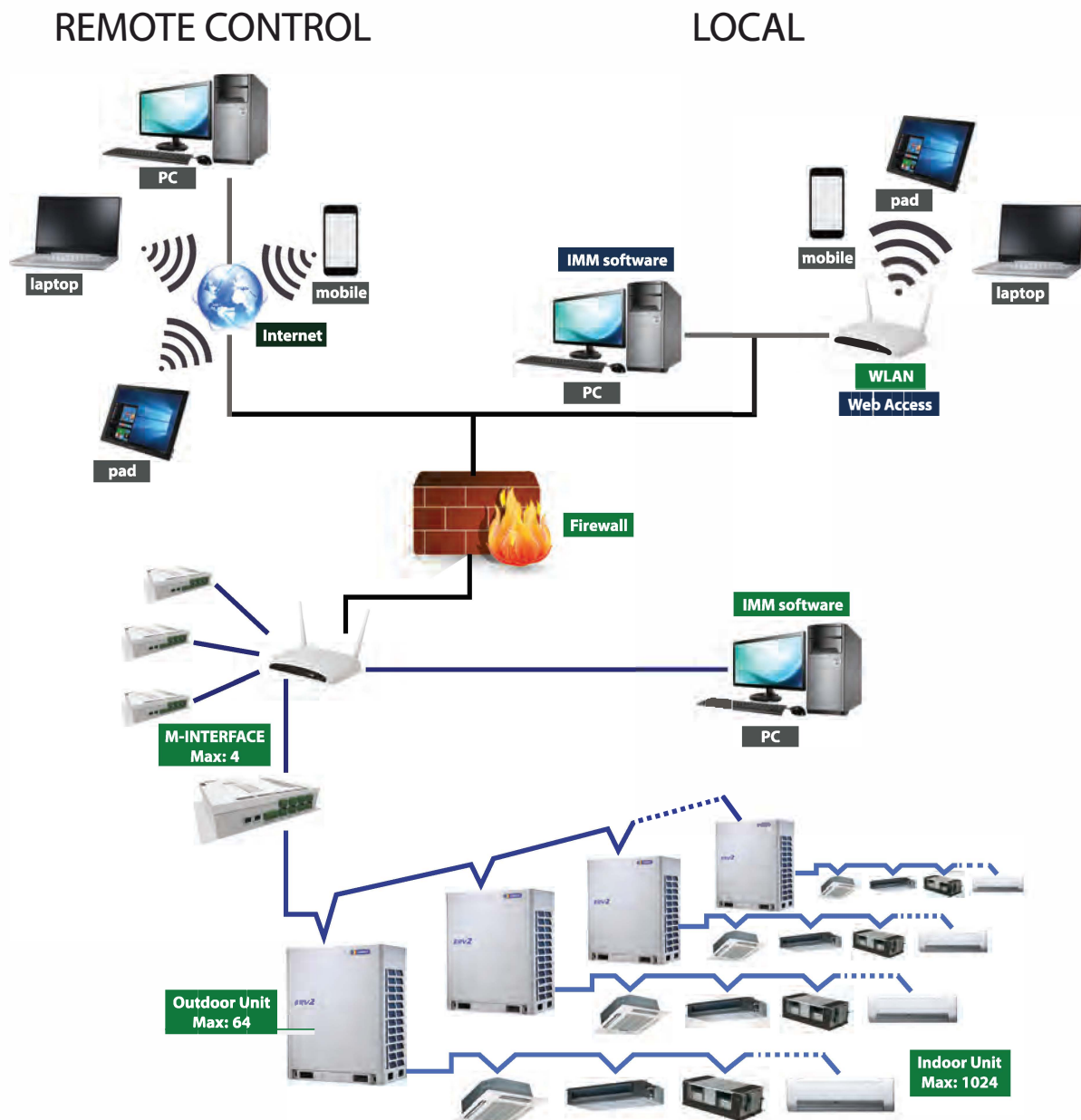


Complies with LonMark protocol. Supports up to 64 indoor units. Open network integration of ERV Monitoring and control functions into LonWorks networks.

IMM Central Control Software

Key Features

- Up to 4 M-interface gateways, 64 refrigerant systems, 1,024 indoor units, and 256 outdoor units can be controlled by one PC.
- User friendly operation
- Web access for M-interface gateway
- Central building monitoring and control
- Energy saving management
- Zone management
- Warning message
- *SMS modem(optional)
- Electricity charge distribution
- Annual schedule management
- Low-load operation indicate
- Generate operational history reports (daily, weekly)
- Fault display & Warning message
- Air filter cleaning reminding function
- Emergency stop and Alarm signal output
- Multiple languages



Selection Software

Windows based selection and design software for design engineers and technical sales
Calculate and adjust the system capacity according to actual project conditions

Load Calculation

Detailed room load calculation or enter cooling load directly



Report Output

Creates the selection report and materials lists.
Output to Excel, Word or PDF

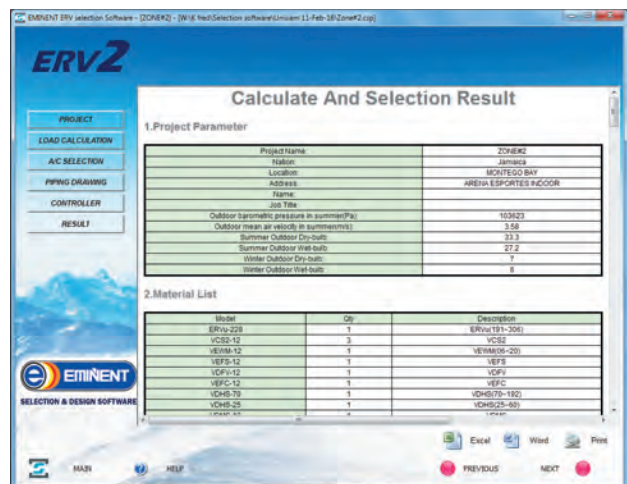


Piping Drawing

Create the detailed layout of the a/c system indoor and outdoor units.

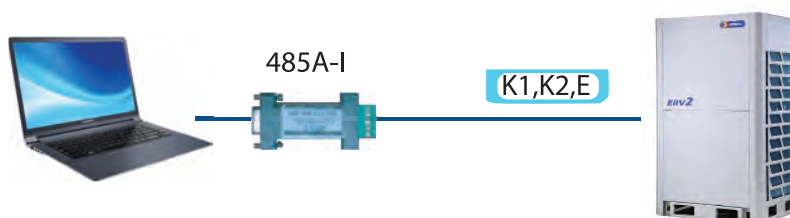
Control Wiring Drawing

Automatically generate the field wiring diagrams for control systems



Outdoor Unit Diagnosis Software

Display the outdoor unit real time running conditions. Automatically output of running status charts.
Assists service technicians for fault analysis.





Eminent Air (Thailand) Co., Ltd.

405 Moo 5 Soi Soonthonvasu,
Bhudharaksa Road, Preakasamai,
Muang, Samutprakarn ,10280 Thailand

Tel. +662 083-5555

Fax: +662 033-6234 or 35

E-mail: info@eminent.co.th

Website: www.eminent.co.th



@Eminent Air

"Eminent Air reserves the right to modify product details and specifications without prior notice, in accordance with our policy of ceaseless product improvement."