



WORLD STANDARD AIR CONDITIONERS

ERV3

ADVANCED INVERTER



8 - 102 HP
86,000 - 972,000 BTU/hr

Smart Perform

Full DC
Inverter System



Energy Saving High Efficiency Design

With latest refrigerant efficiency technology ERV3 can increase energy savings up to 30% more than standard VRF models.



Capacity Output Control

Output limitation during electricity supply restrictions

For locations with temporary electricity supply restrictions, ERV3 can be set to limit output 40 - 100% capacity to prevent overloading the electricity supply network.



- Limit the maximum capacity output
- Reduce power consumption
- Ensure basic cooling/heating
- Good solution for temporary electricity supply restrictions

High Efficiency Enhanced Vapor Injection (EVI) Compressor

The enhanced vapor injection DC inverter compressor on the ERV3 Series increases refrigerant circulation and increases cooling capacity more than 10%.



EVI Compressor

High Efficiency Enhanced Vapor Injection (EVI) Compressor (Hermetic Scroll Type)

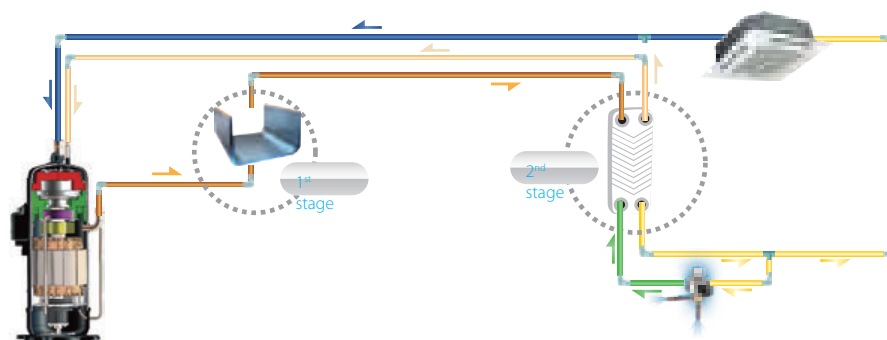
The enhanced vapor injection DC inverter compressor on the ERV3 Series increases refrigerant circulation and improves more than 10% cooling capacity.



EVI Compressor

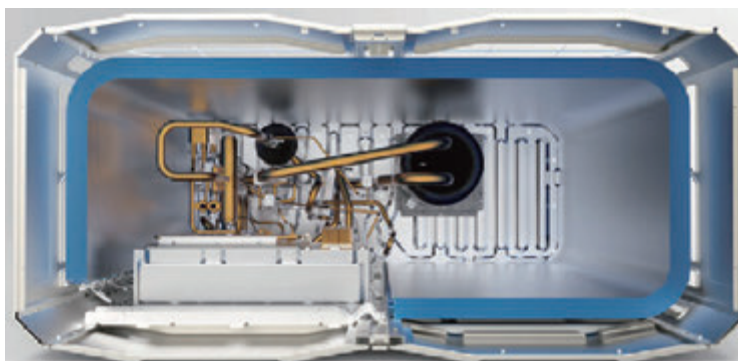
Plate Heat Exchanger (PHE) Subcooling, Heat Interchange Circuit

Plate Heat Exchanger as a secondary intercooler boosts up refrigerant subcooling and improves 10% energy efficiency.

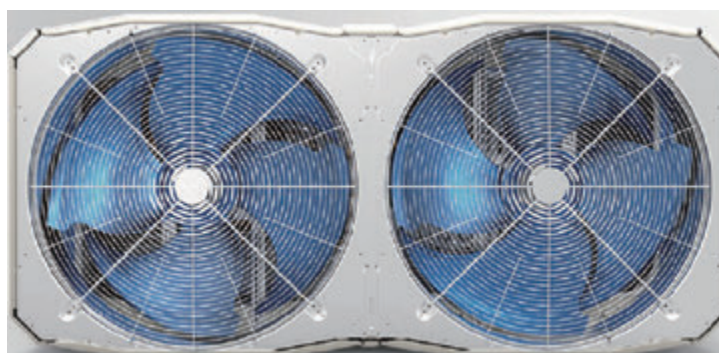


High Efficiency G-Type Heat Exchanger

26-34HP units use a high efficiency 3-row G-type heat exchanger with a heat exchange area 1.5 times that of the 24HP unit. The 26-34HP units also use super big size fan which diameter is up to 750mm.



3-rows G-type heat exchanger



Super big size fan



Wide Application Range

Wide Capacity Range

Starting at 8HP, capacity increases in 2HP increments up to 102HP, for flexible system design and meeting the widest range of capacity requirements.

8-14HP
(with single fan)



16-18HP
(with single fan)



20-24HP
(with dual fans)



26-34HP
(with dual fans)



16-68HP

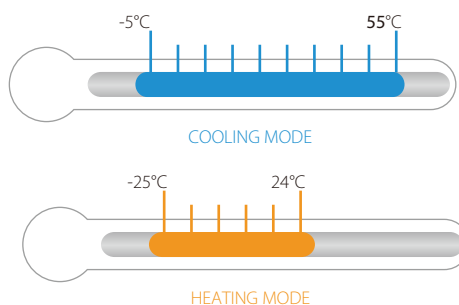


24-102HP



Wide Operation Range

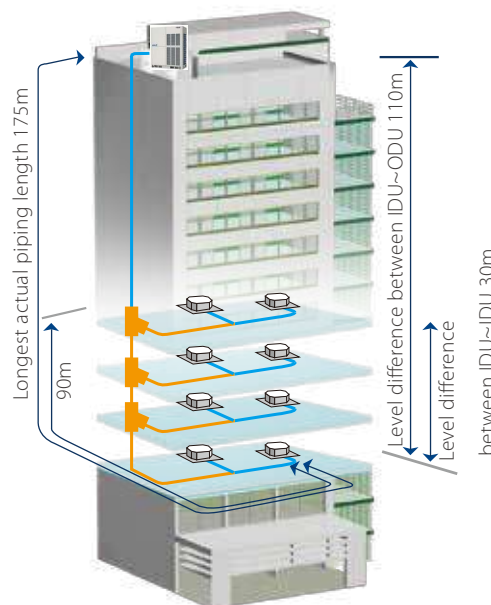
The ERV3 VRF can operate stably in a wide ambient temperature range: from -5°C to 55°C in cooling mode and from -25°C to 24°C in heating mode.

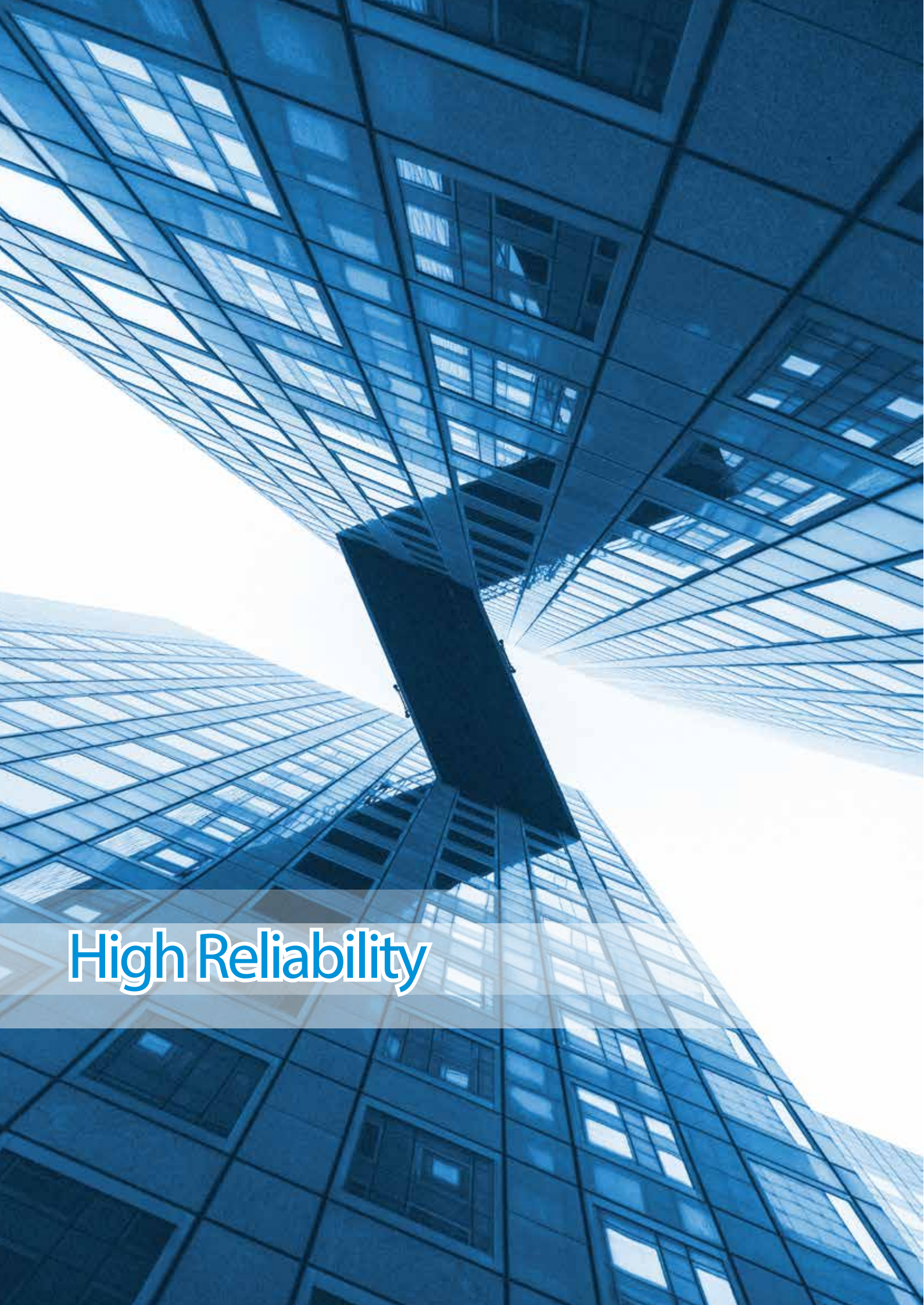


Long Piping Capability

- Total piping length: 1000m
- Longest piping length – actual (equivalent): 175m (220m)
- Longest piping length after first branch: 40/90*m
- Level difference between IDUs and ODU - ODU above (below): 90m (110m)
- Level difference between IDUs: 30m

*The longest length after first branch is 40m as standard but can be extended to up to 90m under certain conditions. Please contact your Eminent dealer for further information.





High Reliability

Duty Cycling

Duty cycling equalizes the running time of the outdoor units in a multiple-unit system and of the compressors in each unit, significantly extending compressor lifespan.



1st cycle



2nd cycle

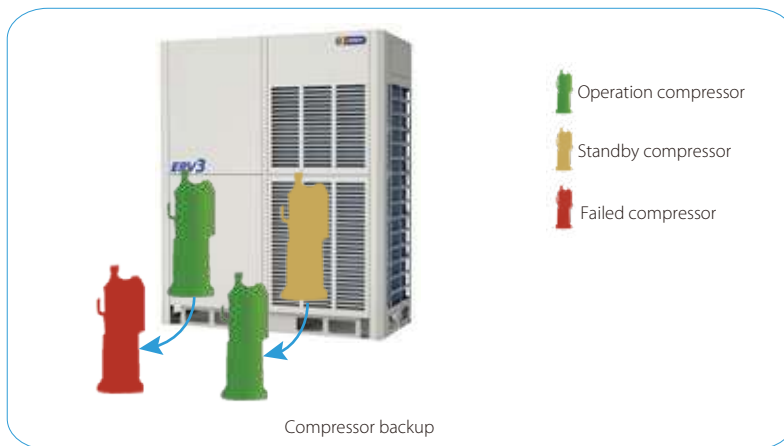


3rd cycle

Double Back-up Operation

1 Compressor backup

In units with two compressors, if one compressor fails, the other compressor can run on its own for up to 4 days, allowing time for maintenance or repair while maintaining comfort.



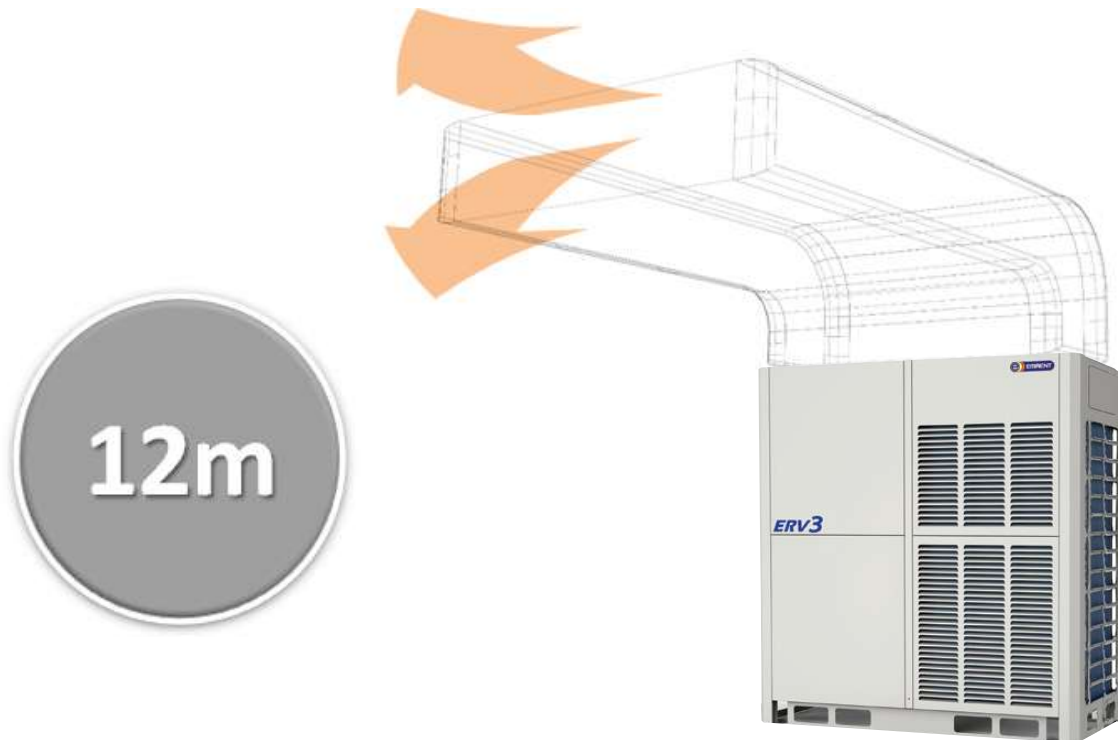
2 Unit backup

In a multi-unit system, if one module fails, the other modules provide backup so that the system can continue operating.



High External Static Pressure

Condensor fan is capable to use with ducted air discharge or decorative grille, ESP can be up to 120 Pa (0.48" W.G.)



High Efficiency Compressor

Extended compressor speed from 15rpm to 140rpm.

<p>Can operate in low-load conditions at a minimum frequency of 5 Hz</p>		<p>Vapor injection technology: In heating mode, increase refrigerant circulation amount and heating capacity</p>											
<p>Regular Suction</p>		<p>Release Valve : Reduce the leakage loss and Decrease discharge noise greatly, prevent over compression</p>											
<p>Improved asymmetric scroll wrap: Improving compressor efficiency by reducing leakage and invalid suction superheat.</p>													
<p>Non-contact oil membrane Adopted in both axial and radial chamber, oil film seal formed by lubricating oil, so friction reduced and reliability improved</p>		<p>Advanced bearing design for high speed running: Cylindrical bearing + aligning ball bearing to support compressor running at 140rps perfectly</p>											
<p>Concentrated BLDC motor Compared with distributed type, it has lower height and higher efficiency in the mid-low speed area, better to improve part load EER</p>		<p>High pressure chamber structure: Achieve high volumetric efficiency, good performance, good lubrication effect, low operation sound and high stability</p>											
<table border="1"> <tr> <td colspan="2">[Before] Distributed BLDCM</td> <td colspan="2">[New] Concentrated BLDCM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>High winding shape</td> <td>Long winding span</td> <td>Low winding shape</td> <td>Short winding span</td> </tr> </table>	[Before] Distributed BLDCM		[New] Concentrated BLDCM						High winding shape	Long winding span	Low winding shape	Short winding span	<p>Internal oil circulation, positive displacement gear oil pump and dynamic oil balance Reduce the over-heat loss and oil discharge rate, as well ensure oil supply during high and low frequency operation; As well dynamic oil balance between compressors in parallel operation.</p>
[Before] Distributed BLDCM		[New] Concentrated BLDCM											
High winding shape	Long winding span	Low winding shape	Short winding span										

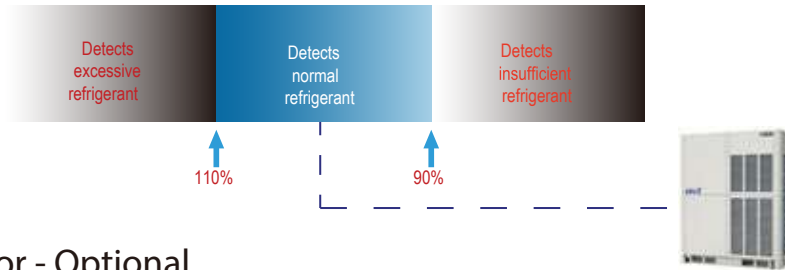
PCB Double Cooling Technology

The electrical control compartment uses both passive heat sink and active refrigerant cooling to ensure safe and stable operation of the control system. Lower temperature of electrical components helps ensure long lifespan.



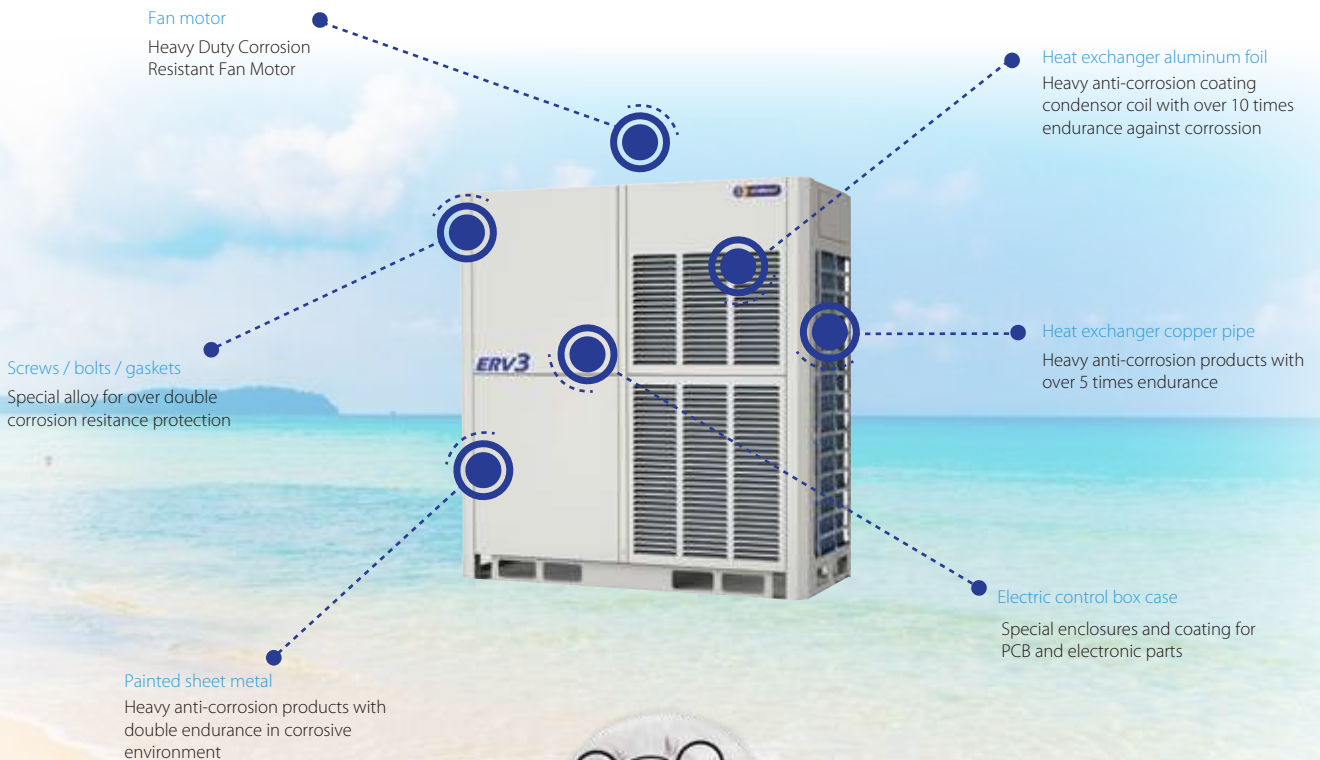
Real-time Refrigerant Amount Monitoring

ERV3 outdoor unit can provide real-time monitoring of the refrigerant temperature and pressure. Excessive high or low level of refrigerant can cause damage to the unit and poor performance. ERV3 outdoor unit can detect excessive or insufficient amounts of refrigerant, to ensure consistent and stable performance.



Coastal Protector - Optional

Outdoor units are given anti-corrosion treatment for non-extreme conditions as standard and can also be customized with heavy anti-corrosion treatment on main components for surface protection against corrosive air, acid rain and saline air (for installations in coastal regions) to extend overall useful life. The integrity of the anti-corrosion treatment is ensured by subjecting major components and parts to salt mist testing, moisture and heat/ sunlight aging testing.



Anti-corrosion Protection

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Fan motor

Standard products:
72h of neutral salt mist



Heavy anti-corrosion products:
240h of neutral salt mist



Heat exchanger aluminum foil

Standard products:
72h of neutral salt mist

Heavy anti-corrosion products:
1000h of neutral salt mist
140h of acid salt mis



Screws / bolts / gaskets

Standard products:
300h of neutral salt mist

Heavy anti-corrosion products:
720h of neutral salt mist



Heat exchanger copper pipe

Standard products:
24h of neutral salt mist

Heavy anti-corrosion products:
120h of neutral salt mist



Painted sheet metal

Standard products:
500h of neutral salt mist
1000h of moisture and heating test
500h of light aging test

Heavy anti-corrosion products:
1000h of neutral salt mist
2000h of moisture and heating test
720h of light aging test

Electric control box case

Standard products:
96h of neutral salt mist

Heavy anti-corrosion products:
240h of neutral salt mist



Advanced Silent Technology

4 night silent modes, 3 silent modes and 4 super silent modes selections, provide more freedom and convenience to match the customer needs.



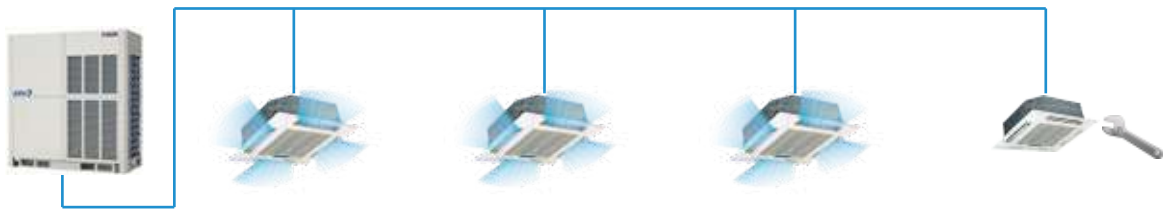
- In night silent mode and silent mode, only maximum fan speed is limited to meet the normal silent requirement.



- In super silent mode, both maximum fan speed and compressor frequency are limited to meet higher silent requirement.

Continuous Running under Indoor Unit Repair Mode

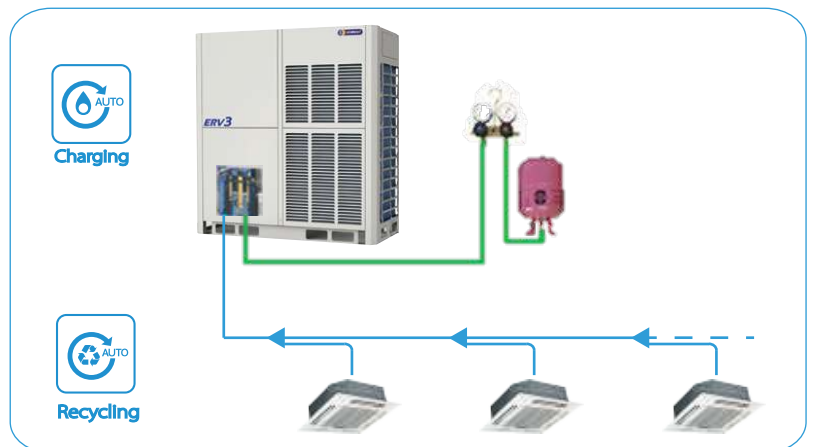
In case of one IDU needs to be repaired, it can be power off and serviced without any interruption to the system's operation.



Automatic Refrigerant Charging/Recycling Function*

Automatic refrigerant charging and recycling make installation and service easier and more efficient.

*This function is available as a customization option.



ERV3 Standard Combination Table

HP	tons	BTU/hr	kW	Standard Combination		Max. Qty of Indoor Units	COP W/W
				Model	Combination type		
8	7.2	86,000	25.2	ERV3-086	single module	13	4.75
10	8.0	96,000	28.0	ERV3-096	single module	16	4.51
12	9.5	114,000	33.5	ERV3-114	single module	20	4.31
14	11.3	136,000	40.0	ERV3-137	single module	23	4.21
16	12.8	154,000	45.0	ERV3-154	single module	26	4.12
18	14.3	171,000	50.0	ERV3-171	single module	29	4.10
20	15.9	191,000	56.0	ERV3-191	single module	33	4.05
22	17.5	210,000	61.5	ERV3-210	single module	36	4.00
24	19.1	229,000	67.0	ERV3-229	single module	39	3.75
26	20.8	249,000	73.0	ERV3-250	single module	43	3.95
28	22.3	268,000	78.5	ERV3-268	single module	46	3.90
30	24.2	290,000	85.0	ERV3-290	single module	50	3.71
32	25.6	307,000	90.0	ERV3-307	single module	53	3.65
34	27.0	324,000	95.0	ERV3-324	single module	56	3.50
36	28.6	343,000	100.5	ERV3-343	ERV3-114 + ERV3-229	59	3.94
38	30.4	365,000	107.0	ERV3-366	ERV3-137 + ERV3-229	63	3.92
40	31.8	382,000	112.0	ERV3-383	ERV3-154 + ERV3-229	64	3.90
42	33.3	399,000	117.0	ERV3-400	ERV3-171 + ERV3-229	64	3.90
44	35.0	420,000	123.0	ERV3-420	ERV3-210 + ERV3-210	64	4.00
46	36.5	438,000	128.5	ERV3-439	ERV3-210 + ERV3-229	64	3.87
48	38.1	457,000	134.0	ERV3-458	ERV3-229 + ERV3-229	64	3.75
50	39.8	478,000	140.0	ERV3-479	ERV3-229 + ERV3-250	64	3.85
52	41.3	496,000	145.5	ERV3-497	ERV3-229 + ERV3-268	64	3.83
54	43.3	519,000	152.0	ERV3-519	ERV3-229 + ERV3-290	64	3.73
56	44.7	536,000	157.0	ERV3-536	ERV3-268 + ERV3-268	64	3.90
58	46.5	558,000	163.5	ERV3-558	ERV3-268 + ERV3-290	64	3.80
60	48.3	580,000	170.0	ERV3-580	ERV3-290 + ERV3-290	64	3.71
62	49.8	597,000	175.0	ERV3-597	ERV3-290 + ERV3-307	64	3.68
64	51.2	614,000	180.0	ERV3-614	ERV3-290 + ERV3-324	64	3.60
66	52.6	631,000	185.0	ERV3-631	ERV3-307 + ERV3-324	64	3.57
68	54.0	648,000	190.0	ERV3-648	ERV3-324 + ERV3-324	64	3.50
70	55.6	667,000	195.5	ERV3-667	ERV3-114 + ERV3-229 + ERV3-324	64	3.72
72	57.4	689,000	202.0	ERV3-690	ERV3-137 + ERV3-229 + ERV3-324	64	3.72
74	58.8	706,000	207.0	ERV3-707	ERV3-154 + ERV3-229 + ERV3-324	64	3.72
76	60.3	723,000	212.0	ERV3-724	ERV3-171 + ERV3-229 + ERV3-324	64	3.72
78	62.0	744,000	218.0	ERV3-744	ERV3-210 + ERV3-210 + ERV3-324	64	3.78
80	63.6	763,000	223.5	ERV3-763	ERV3-210 + ERV3-229 + ERV3-324	64	3.71
82	65.1	781,000	229.0	ERV3-782	ERV3-229 + ERV3-229 + ERV3-324	64	3.65
84	66.8	802,000	235.0	ERV3-803	ERV3-229 + ERV3-250 + ERV3-324	64	3.71
86	68.4	821,000	240.5	ERV3-821	ERV3-229 + ERV3-268 + ERV3-324	64	3.70
88	70.3	843,000	247.0	ERV3-843	ERV3-229 + ERV3-290 + ERV3-324	64	3.64
90	71.7	860,000	252.0	ERV3-860	ERV3-268 + ERV3-268 + ERV3-324	64	3.75
92	73.5	882,000	258.5	ERV3-882	ERV3-268 + ERV3-290 + ERV3-324	64	3.69
94	75.3	904,000	265.0	ERV3-904	ERV3-290 + ERV3-290 + ERV3-324	64	3.63
96	76.8	921,000	270.0	ERV3-921	ERV3-290 + ERV3-307 + ERV3-324	64	3.62
98	78.2	938,000	275.0	ERV3-938	ERV3-290 + ERV3-324 + ERV3-324	64	3.56
100	79.6	955,000	280.0	ERV3-955	ERV3-307 + ERV3-324 + ERV3-324	64	3.55
102	81.0	972,000	285.0	ERV3-972	ERV3-324 + ERV3-324 + ERV3-324	64	3.50

ERV3 High Efficiency Combination Table

HP	tons	BTU/hr	kW	High Efficiency Combination		Max. Qty of Indoor Units	COP W/W
				Model	Combination type		
8	7.2	86,000	25.2	ERV3-086	single module	13	4.75
10	8.0	96,000	28.0	ERV3-096	single module	16	4.51
12	9.5	114,000	33.5	ERV3-114	single module	20	4.31
14	11.3	136,000	40.0	ERV3-137	single module	23	4.21
16	12.8	154,000	45.0	ERV3-154	single module	26	4.12
18	14.3	171,000	50.0	ERV3-171	single module	29	4.10
20	15.9	191,000	56.0	ERV3-191	single module	33	4.05
22	17.5	210,000	61.5	ERV3-210	single module	36	4.00
24	19.1	229,000	67.0	ERV3-228	ERV3-114 + ERV3-114	39	4.31
26	20.8	249,000	73.0	ERV3-250	single module	43	3.95
28	22.3	268,000	78.5	ERV3-268	single module	46	3.90
30	24.2	290,000	85.0	ERV3-291	ERV3-137 + ERV3-154	50	4.16
32	25.6	307,000	90.0	ERV3-308	ERV3-154 + ERV3-154	53	4.12
34	27.0	324,000	95.0	ERV3-325	ERV3-154 + ERV3-171	56	4.11
36	28.8	345,000	101.0	ERV3-345	ERV3-191 + ERV3-154	59	4.08
38	30.2	362,000	106.0	ERV3-362	ERV3-191 + ERV3-171	63	4.07
40	31.8	382,000	112.0	ERV3-382	ERV3-191 + ERV3-191	64	4.05
42	33.4	401,000	117.5	ERV3-401	ERV3-191 + ERV3-210	64	4.02
44	35.0	420,000	123.0	ERV3-420	ERV3-210 + ERV3-210	64	4.00
46	36.7	440,000	129.0	ERV3-441	ERV3-191 + ERV3-250	64	3.99
48	38.3	459,000	134.5	ERV3-459	ERV3-191 + ERV3-268	64	3.96
50	39.8	478,000	140.0	ERV3-478	ERV3-210 + ERV3-268	64	3.94
52	41.5	498,000	146.0	ERV3-500	ERV3-250 + ERV3-250	64	3.95
54	43.1	517,000	151.5	ERV3-518	ERV3-250 + ERV3-268	64	3.92
56	44.7	536,000	157.0	ERV3-536	ERV3-268 + ERV3-268	64	3.90
58	46.1	553,000	162.0	ERV3-553	ERV3-171 + ERV3-191 + ERV3-191	64	4.07
60	47.8	573,000	168.0	ERV3-573	ERV3-191 + ERV3-191 + ERV3-191	64	4.05
62	49.3	592,000	173.5	ERV3-592	ERV3-191 + ERV3-191 + ERV3-210	64	4.03
64	50.9	611,000	179.0	ERV3-611	ERV3-191 + ERV3-210 + ERV3-210	64	4.02
66	52.5	630,000	184.5	ERV3-630	ERV3-210 + ERV3-210 + ERV3-210	64	4.00
68	54.2	650,000	190.5	ERV3-650	ERV3-191 + ERV3-191 + ERV3-268	64	3.99
70	55.8	669,000	196.0	ERV3-669	ERV3-191 + ERV3-210 + ERV3-268	64	3.97
72	57.3	688,000	201.5	ERV3-688	ERV3-210 + ERV3-210 + ERV3-268	64	3.96
74	59.0	708,000	207.5	ERV3-709	ERV3-191 + ERV3-250 + ERV3-268	64	3.96
76	60.6	727,000	213.0	ERV3-728	ERV3-210 + ERV3-250 + ERV3-268	64	3.95
78	62.2	746,000	218.5	ERV3-746	ERV3-210 + ERV3-268 + ERV3-268	64	3.93
80	63.8	766,000	224.5	ERV3-768	ERV3-250 + ERV3-250 + ERV3-268	64	3.93
82	65.4	785,000	230.0	ERV3-786	ERV3-250 + ERV3-268 + ERV3-268	64	3.92
84	67.0	804,000	235.5	ERV3-804	ERV3-268 + ERV3-268 + ERV3-268	64	3.90

Specifications

HP		8		10		12		14	
Model name		ERV3-086		ERV3-096		ERV3-114		ERV3-137	
Power supply		V/Ph/Hz		380-415/3/50(60)					
Cooling ¹	Capacity	kW	25.2	28.0	33.5	40.0			
		kBtu/h	86.0	95.5	114.3	136.5			
	Power input	kW	5.30	6.21	7.77	9.50			
	EER / COP		4.75	4.51	4.31	4.21			
Heating ²	Capacity	kW	27.0	31.5	37.5	45.0			
		kBtu/h	92.1	107.5	128.0	153.5			
	Power input	kW	4.82	5.92	7.55	9.57			
	COP		5.60	5.32	4.97	4.70			
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity						
	Maximum quantity		13	16	20	23			
Compressors	Type		DC inverter						
	Quantity		1						
Fan motors	Type		DC						
	Quantity		1						
Refrigerant	Type		R410A						
	Factory charge		kg 11						
Pipe connections ³	Liquid pipe	mm	Φ12.7		Φ15.9		Φ15.9		
	Gas pipe	mm	Φ25.4		Φ28.6		Φ31.8		
Air flow rate		m ³ /h	11000						
Sound pressure level ⁴		dB(A)	58	58	60	60			
Net dimensions (W×H×D)		mm	990×1635×790						
Packed dimensions (W×H×D)		mm	1090×1805×860						
Net weight		kg	227						
Gross weight		kg	242						
Ambient temp. operation range	Cooling	°C	-5 ~ 55						
	Heating	°C	-23 ~ 24						

HP		16		18	
Model name		ERV3-154		ERV3-171	
Power supply		V/Ph/Hz		380-415/3/50(60)	
Cooling ¹	Capacity	kW	45.0		50.0
		kBtu/h	153.5		170.6
	Power input	kW	10.92		12.20
	EER / COP		4.12		4.10
Heating ²	Capacity	kW	50.0		56.0
		kBtu/h	170.6		191.1
	Power input	kW	10.87		12.44
	COP		4.60		4.50
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity		
	Maximum quantity		26		29
Compressors	Type		DC inverter		
	Quantity		1		
Fan motors	Type		DC		
	Quantity		1		
Refrigerant	Type		R410A		
	Factory charge		kg 13		
Pipe connections ³	Liquid pipe	mm	Φ15.9		Φ19.1
	Gas pipe	mm	Φ31.8		Φ31.8
Air flow rate		m ³ /h	13000		
Sound pressure level ⁴		dB(A)	60		61
Net dimensions (W×H×D)		mm	1340×1635×850		
Packed dimensions (W×H×D)		mm	1405×1805×910		
Net weight		kg	277		
Gross weight		kg	304		
Ambient temp. operation range	Cooling	°C	-5 ~ 55		
	Heating	°C	-23 ~ 24		

Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Diameters given are those of the unit's stop valve.
- Sound pressure level is measured at a position 1m in front of the unit and 1.3m above the floor in a semi-anechoic chamber.

Specifications

HP			20	22	24
Model name			ERV3-191	ERV3-210	ERV3-229
Power supply			V/Ph/Hz 380-415/3/50(60)		
Cooling ¹	Capacity	kW	56.0	61.5	67.0
		kBtu/h	191.1	209.8	228.6
	Power input	kW	13.83	15.38	17.87
	EER / COP			4.05	4.00
Heating ²	Capacity	kW	63.0	69.0	75.0
		kBtu/h	215.0	235.4	255.9
	Power input	kW	14.48	16.83	17.16
	COP			4.35	4.10
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity		
	Maximum quantity		33	36	39
Compressors	Type		DC inverter		
	Quantity		2		
Fan motors	Type		DC		
	Quantity		2		
	Static pressure	Pa	0-20 (default); 20-60 (customized)		
Refrigerant	Type		R410A		
	Factory charge	kg	17		
Pipe connections ³	Liquid pipe	mm	Φ19.1		
	Gas pipe	mm	Φ31.8		
Air flow rate		m ³ /h	17000		
Sound pressure level ⁴		dB(A)	62	63	63
Net dimensions (W×H×D)		mm	1340×1635×825		
Packed dimensions (W×H×D)		mm	1405×1805×910		
Net weight		kg	348		
Gross weight		kg	368		
Ambient temp. operation range	Cooling	°C	-5 ~ 55		
	Heating	°C	-23 ~ 24		

HP			26	28	30
Model name			ERV3-250	ERV3-268	ERV3-290
Power supply			V/Ph/Hz 380-415/3/50(60)		
Cooling ¹	Capacity	kW	73.0	78.5	85.0
		kBtu/h	249.1	267.8	290.0
	Power input	kW	18.48	20.13	22.91
	EER / COP			3.95	3.90
Heating ²	Capacity	kW	81.5	87.5	95.0
		kBtu/h	278.1	298.6	324.1
	Power input	kW	18.15	19.98	22.09
	COP			4.49	4.38
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity		
	Maximum quantity		43	46	50
Compressors	Type		DC inverter		
	Quantity		2		
Fan motors	Type		DC		
	Quantity		2		
	Static pressure	Pa	0-20 (default); 20-60 (customized)		
Refrigerant	Type		R410A		
	Factory charge	kg	22		
Pipe connections ³	Liquid pipe	mm	Φ22.2		Φ22.2
	Gas pipe	mm	Φ31.8		Φ38.1
Air flow rate		m ³ /h	25000		
Sound pressure level ⁴		dB(A)	64		
Net dimensions (W×H×D)		mm	1730×1830×850		
Packed dimensions (W×H×D)		mm	1800×2000×910		
Net weight		kg	430		
Gross weight		kg	453		
Ambient temp. operation range	Cooling	°C	-5 ~ 55		
	Heating	°C	-23 ~ 24		

Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Diameters given are those of the unit's stop valve.
- Sound pressure level is measured at a position 1m in front of the unit and 1.3m above the floor in a semi-anechoic chamber.

Specifications

HP			32	34
Model name			ERV3-307	ERV3-324
Power supply			V/Ph/Hz 380-415/3/50(60)	
Cooling ¹	Capacity	kW	90.0	95.0
		kBtu/h	307.1	324.1
	Power input	kW	24.66	27.14
	EER / COP		3.65	3.50
Heating ²	Capacity	kW	100.0	106.0
		kBtu/h	341.2	361.7
	Power input	kW	23.36	26.37
	COP		4.28	4.02
Connected indoor unit	Total capacity 50-130% of outdoor unit capacity			
	Maximum quantity		53	56
Compressors	Type DC inverter			
	Quantity 2			
Fan motors	Type DC			
	Quantity 2			
	Static pressure		Pa 0-20 (default); 20-60 (customized)	
Refrigerant	Type R410A			
	Factory charge		kg 25	
Pipe connections ³	Liquid pipe	mm	Φ22.2	
	Gas pipe	mm	Φ38.1	
Air flow rate		m ³ /h	24000	
Sound pressure level ⁴		dB(A)	64	
Net dimensions (W×H×D)		mm	1730×1830×850	
Packed dimensions (W×H×D)		mm	1800×2000×910	
Net weight		kg	475	
Gross weight		kg	507	
Ambient temp. operation range	Cooling	°C	-5 ~ 55	
	Heating	°C	-23 ~ 24	

HP			36	38	40	42
Model name			ERV3-343	ERV3-366	ERV3-383	ERV3-400
Combination type			12HP+24HP	14HP+24HP	16HP+24HP	18HP+24HP
Power supply			V/Ph/Hz 380-415/3/50(60)			
Cooling ¹	Capacity	kW	100.5	107.0	112.0	117.0
		kBtu/h	342.9	365.1	382.1	399.2
	Power input	kW	25.64	27.37	28.79	30.07
	EER / COP		3.94	3.92	3.90	3.90
Heating ²	Capacity	kW	112.5	120.0	125.0	131.0
		kBtu/h	383.9	409.4	426.5	447.0
	Power input	kW	24.7	26.7	28.0	29.6
	COP		4.55	4.49	4.46	4.42
Connected indoor unit	Total capacity 50-130% of outdoor unit capacity					
	Maximum quantity		59	63	64	
Compressors	Type DC inverter					
	Quantity 3					
Fan motors	Type DC					
	Quantity 3					
	Static pressure		Pa 0-20 (default); 20-60 (customized)			
Refrigerant	Type R410A					
	Factory charge		kg 11+17		13+17	
Pipe connections ³	Liquid pipe	mm	Φ19.1			
	Gas pipe	mm	Φ38.1			
Air flow rate		m ³ /h	28000		30000	
Sound pressure level ⁴		dB(A)	65			
Net dimensions (W×H×D)		mm	(990×1635×790)+(1340×1635×825)		(1340×1635×850)+(1340×1635×825)	
Packed dimensions (W×H×D)		mm	(1090×1805×860)+(1405×1805×910)		(1405×1805×910)×2	
Net weight		kg	227+348		277+348	
Gross weight		kg	242+368		304+368	
Ambient temp. operation range	Cooling	°C	-5 ~ 55			
	Heating	°C	-23 ~ 24			

Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to the ERV3 Series Engineering Data for connection piping diameters..
- Sound pressure level is measured at a position 1m in front of the unit and 1.3m above the floor in a semi-anechoic chamber.

Specifications

HP			44	46	48
Model name			ERV3-420	ERV3-439	ERV3-458
Combination type			22HP+22HP	22HP+24HP	24HP+24HP
Power supply			V/Ph/Hz 380-415/3/50(60)		
Cooling ¹	Capacity	kW	123.0	128.5	134.0
		kBtu/h	419.7	438.4	457.2
	Power input	kW	30.76	33.25	35.74
	EER / COP		4.00	3.87	3.75
Heating ²	Capacity	kW	138.0	144.0	150.0
		kBtu/h	470.9	491.3	511.8
	Power input	kW	33.7	34.0	34.3
	COP		4.10	4.24	4.37
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity		
	Maximum quantity		64		
Compressors	Type		DC inverter		
	Quantity		4		
Fan motors	Type		DC		
	Quantity		4		
	Static pressure	Pa	0-20 (default); 20-60 (customized)		
Refrigerant	Type		R410A		
	Factory charge	kg	17×2		
Pipe connections ³	Liquid pipe	mm	Φ19.1		
	Gas pipe	mm	Φ38.1		
Air flow rate		m ³ /h	34000		
Sound pressure level ⁴		dB(A)	66		
Net dimensions (W×H×D)		mm	(1340×1635×825)×2		
Packed dimensions (W×H×D)		mm	(1405×1805×910)×2		
Net weight		kg	348×2		
Gross weight		kg	368×2		
Ambient temp. operation range	Cooling	°C	-5 ~ 55		
	Heating	°C	-23 ~ 24		

HP			50	52	54
Model name			ERV3-479	ERV3-497	ERV3-519
Combination type			24HP+26HP	24HP+28HP	24HP+30HP
Power supply			V/Ph/Hz 380-415/3/50(60)		
Cooling ¹	Capacity	kW	140.0	145.5	152.0
		kBtu/h	477.7	496.4	518.6
	Power input	kW	36.35	38.00	40.78
	EER / COP		3.85	3.83	3.73
Heating ²	Capacity	kW	156.5	162.5	170.0
		kBtu/h	534.0	554.5	580.0
	Power input	kW	35.3	37.1	39.3
	COP		4.43	4.38	4.33
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity		
	Maximum quantity		64		
Compressors	Type		DC inverter		
	Quantity		4		
Fan motors	Type		DC		
	Quantity		4		
	Static pressure	Pa	0-20 (default); 20-60 (customized)		
Refrigerant	Type		R410A		
	Factory charge	kg	17+22		
Pipe connections ³	Liquid pipe	mm	Φ19.1		
	Gas pipe	mm	Φ38.1		
Air flow rate		m ³ /h	42000		
Sound pressure level ⁴		dB(A)	66		
Net dimensions (W×H×D)		mm	(1340×1635×825)+(1730×1830×850)		
Packed dimensions (W×H×D)		mm	(1405×1805×910)+(1800×2000×910)		
Net weight		kg	348+430		
Gross weight		kg	368+453		
Ambient temp. operation range	Cooling	°C	-5 ~ 55		
	Heating	°C	-23 ~ 24		

Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to the ERV3 Series Engineering Data for connection piping diameters..
- Sound pressure level is measured at a position 1m in front of the unit and 1.3m above the floor in a semi-anechoic chamber.

Specifications

HP			56	58	60	62
Model name			ERV3-536	ERV3-558	ERV3-580	ERV3-597
Combination type			28HP+28HP	28HP+30HP	30HP+30HP	30HP+32HP
Power supply			V/Ph/Hz 380-415/3/50(60)			
Cooling ¹	Capacity	kW	157.0	163.5	170.0	175.0
		kBtu/h	535.7	557.9	580.0	597.1
	Power input	kW	40.26	43.04	45.82	47.57
	EER / COP		3.90	3.80	3.71	3.68
Heating ²	Capacity	kW	175.0	182.5	190.0	195.0
		kBtu/h	597.1	622.7	648.3	665.3
	Power input	kW	40.0	42.1	44.2	45.5
	COP		4.38	4.34	4.30	4.29
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity			
	Maximum quantity		64			
Compressors	Type		DC inverter			
	Quantity		4			
Fan motors	Type		DC			
	Quantity		4			
	Static pressure	Pa	0-20 (default); 20-60 (customized)			
Refrigerant	Type		R410A			
	Factory charge	kg	22×2		22+25	
Pipe connections ³	Liquid pipe	mm	Φ19.1			
	Gas pipe	mm	Φ41.3			
Air flow rate		m ³ /h	50000			49000
Sound pressure level ⁴		dB(A)	67			
Net dimensions (W×H×D)		mm	(1730×1830×850)×2			
Packed dimensions (W×H×D)		mm	(1800×2000×910)×2			
Net weight		kg	430×2			430+475
Gross weight		kg	453×2			453+507
Ambient temp. operation range	Cooling	°C	-5 ~ 55			
	Heating	°C	-23 ~ 24			

HP			64	66	68
Model name			ERV3-614	ERV3-631	ERV3-648
Combination type			30HP+34HP	32HP+34HP	34HP+34HP
Power supply			V/Ph/Hz 380-415/3/50(60)		
Cooling ¹	Capacity	kW	180.0	185.0	190.0
		kBtu/h	614.2	631.2	648.3
	Power input	kW	50.05	51.80	54.29
	EER / COP		3.60	3.57	3.50
Heating ²	Capacity	kW	201.0	206.0	212.0
		kBtu/h	685.8	702.9	723.3
	Power input	kW	48.5	49.7	52.7
	COP		4.15	4.14	4.02
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity		
	Maximum quantity		64		
Compressors	Type		DC inverter		
	Quantity		4		
Fan motors	Type		DC		
	Quantity		4		
	Static pressure	Pa	0-20 (default); 20-60 (customized)		
Refrigerant	Type		R410A		
	Factory charge	kg	22+25		25×2
Pipe connections ³	Liquid pipe	mm	Φ19.1		Φ22.2
	Gas pipe	mm	Φ41.3		Φ44.5
Air flow rate		m ³ /h	49000	48000	
Sound pressure level ⁴		dB(A)	67		
Net dimensions (W×H×D)		mm	(1730×1830×850)×2		
Packed dimensions (W×H×D)		mm	(1800×2000×910)×2		
Net weight		kg	430+475		475×2
Gross weight		kg	453+507		507×2
Ambient temp. operation range	Cooling	°C	-5 ~ 55		
	Heating	°C	-23 ~ 24		

Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to the ERV3 Series Engineering Data for connection piping diameters..
- Sound pressure level is measured at a position 1m in front of the unit and 1.3m above the floor in a semi-anechoic chamber.

Specifications

HP			70	72
Model name			ERV3-667	ERV3-690
Combination type			12HP+24HP+34HP	14HP+24HP+34HP
Power supply			380-415/3/50(60)	
Cooling ¹	Capacity	kW	195.5	202.0
		kBtu/h	667.0	689.2
	Power input	kW	52.79	54.51
	EER / COP		3.72	3.72
Heating ²	Capacity	kW	218.5	226.0
		kBtu/h	745.5	771.1
	Power input	kW	51.1	53.1
	COP		4.28	4.26
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity	
	Maximum quantity		64	
Compressors	Type		DC inverter	
	Quantity		5	
Fan motors	Type		DC	
	Quantity		5	
	Static pressure	Pa	0-20 (default); 20-60 (customized)	
Refrigerant	Type		R410A	
	Factory charge	kg	11+17+25	
	Pipe connections ³			
Liquid pipe	mm		Φ22.2	
	Gas pipe		mm	
Air flow rate		m ³ /h	52000	
Sound pressure level ⁴		dB(A)	68	
Net dimensions (W×H×D)		mm	(990×1635×790)+(1340×1635×825)+(1730×1830×850)	
Packed dimensions (W×H×D)		mm	(1090×1805×860)+(1405×1805×910)+(1800×2000×910)	
Net weight		kg	227+348+475	
Gross weight		kg	242+368+507	
Ambient temp. operation range	Cooling	°C	-5 ~ 55	
	Heating	°C	-23 ~ 24	

HP			74	76
Model name			ERV3-707	ERV3-724
Combination type			16HP+24HP+34HP	18HP+24HP+34HP
Power supply			380-415/3/50(60)	
Cooling ¹	Capacity	kW	207.0	212.0
		kBtu/h	706.3	723.3
	Power input	kW	55.94	57.21
	EER / COP		3.72	3.72
Heating ²	Capacity	kW	231.0	237.0
		kBtu/h	788.2	808.6
	Power input	kW	54.4	56.0
	COP		4.25	4.23
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity	
	Maximum quantity		64	
Compressors	Type		DC inverter	
	Quantity		5	
Fan motors	Type		DC	
	Quantity		5	
	Static pressure	Pa	0-20 (default); 20-60 (customized)	
Refrigerant	Type		R410A	
	Factory charge	kg	13+17+25	
	Pipe connections ³			
Liquid pipe	mm		Φ22.2	
	Gas pipe		mm	
Air flow rate		m ³ /h	54000	
Sound pressure level ⁴		dB(A)	68	
Net dimensions (W×H×D)		mm	(1340×1635×850)+(1340×1635×825)+(1730×1830×850)	
Packed dimensions (W×H×D)		mm	(1405×1805×910)×2+(1800×2000×910)	
Net weight		kg	277+348+475	
Gross weight		kg	304+368+507	
Ambient temp. operation range	Cooling	°C	-5 ~ 55	
	Heating	°C	-23 ~ 24	

Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to the ERV3 Series Engineering Data for connection piping diameters.
- Sound pressure level is measured at a position 1m in front of the unit and 1.3m above the floor in a semi-anechoic chamber.

Specifications

HP			78	80	82
Model name			ERV3-744	ERV3-763	ERV3-782
Combination type			22HP+22HP+34HP	22HP+24HP+34HP	24HP+24HP+34HP
Power supply			V/Ph/Hz		
			380-415/3/50(60)		
Cooling ¹	Capacity	kW	218.0	223.5	229.0
		kBtu/h	743.8	762.6	781.3
	Power input	kW	57.90	60.39	62.88
	EER / COP		3.78	3.71	3.65
Heating ²	Capacity	kW	244.0	250.0	256.0
		kBtu/h	832.5	853.0	873.5
	Power input	kW	60.0	60.4	60.7
	COP		4.06	4.14	4.22
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity		
	Maximum quantity		64		
Compressors	Type		DC inverter		
	Quantity		6		
Fan motors	Type		DC		
	Quantity		6		
	Static pressure	Pa	0-20 (default); 20-60 (customized)		
	Type		R410A		
Refrigerant	Factory charge		kg		
			17×2+25		
Pipe connections ³	Liquid pipe	mm	Φ22.2		
	Gas pipe	mm	Φ44.5		
Air flow rate		m ³ /h	58000		
Sound pressure level ⁴		dB(A)	69		
Net dimensions (W×H×D)		mm	(1340×1635×825)×2+(1730×1830×850)		
Packed dimensions (W×H×D)		mm	(1405×1805×910)×2+(1800×2000×910)		
Net weight		kg	348×2+475		
Gross weight		kg	368×2+507		
Ambient temp. operation range	Cooling	°C	-5 ~ 55		
	Heating	°C	-23 ~ 24		

HP			84	86	88
Model name			ERV3-803	ERV3-821	ERV3-843
Combination type			24HP+26HP+34HP	24HP+28HP+34HP	24HP+30HP+34HP
Power supply			V/Ph/Hz		
			380-415/3/50(60)		
Cooling ¹	Capacity	kW	235.0	240.5	247.0
		kBtu/h	801.8	820.6	842.8
	Power input	kW	63.49	65.14	67.92
	EER / COP		3.71	3.70	3.64
Heating ²	Capacity	kW	262.5	268.5	276.0
		kBtu/h	895.7	916.1	941.7
	Power input	kW	61.7	63.5	65.6
	COP		4.26	4.23	4.21
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity		
	Maximum quantity		64		
Compressors	Type		DC inverter		
	Quantity		6		
Fan motors	Type		DC		
	Quantity		6		
	Static pressure	Pa	0-20 (default); 20-60 (customized)		
	Type		R410A		
Refrigerant	Factory charge		kg		
			17+22+25		
Pipe connections ³	Liquid pipe	mm	Φ25.4		
	Gas pipe	mm	Φ50.8		
Air flow rate		m ³ /h	66000		
Sound pressure level ⁴		dB(A)	69		
Net dimensions (W×H×D)		mm	(1340×1635×825)+(1730×1830×850)×2		
Packed dimensions (W×H×D)		mm	(1405×1805×910)+(1800×2000×910)×2		
Net weight		kg	348+430+475		
Gross weight		kg	368+453+507		
Ambient temp. operation range	Cooling	°C	-5 ~ 55		
	Heating	°C	-23 ~ 24		

Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to the ERV3 Series Engineering Data for connection piping diameters..
- Sound pressure level is measured at a position 1m in front of the unit and 1.3m above the floor in a semi-anechoic chamber.

Specifications

HP			90	92	94	96
Model name			ERV3-860	ERV3-882	ERV3-904	ERV3-921
Combination type			28HP+28HP+34HP	28HP+30HP+34HP	30HP+30HP+34HP	30HP+32HP+34HP
Power supply			V/Ph/Hz 380-415/3/50(60)			
Cooling ¹	Capacity	kW	252.0	258.5	265.0	270.0
		kBtu/h	859.8	882.0	904.2	921.2
	Power input	kW	67.40	70.18	72.96	74.71
	EER / COP		3.75	3.69	3.63	3.62
Heating ²	Capacity	kW	281.0	288.5	296.0	301.0
		kBtu/h	958.8	984.4	1010.0	1027.0
	Power input	kW	66.3	68.4	70.6	71.8
	COP		4.24	4.22	4.20	4.19
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity			
	Maximum quantity		64			
Compressors	Type		DC inverter			
	Quantity		6			
Fan motors	Type		DC			
	Quantity		6			
	Static pressure	Pa	0-20 (default); 20-60 (customized)			
Refrigerant	Type		R410A			
	Factory charge	kg	22×2+25		22+25×2	
Pipe connections ³	Liquid pipe	mm	Φ25.4			
	Gas pipe	mm	Φ50.8			
Air flow rate		m ³ /h	74000			73000
Sound pressure level ⁴		dB(A)	70			
Net dimensions (W×H×D)		mm	(1730×1830×850)×3			
Packed dimensions (W×H×D)		mm	(1800×2000×910)×3			
Net weight		kg	430×2+475			430+475×2
Gross weight		kg	453×2+507			453+507×2
Ambient temp. operation range	Cooling	°C	-5 ~ 55			
	Heating	°C	-23 ~ 24			

HP			98	100	102
Model name			ERV3-938	ERV3-955	ERV3-972
Combination type			30HP+34HP+34HP	32HP+34HP+34HP	34HP+34HP+34HP
Power supply			V/Ph/Hz 380-415/3/50(60)		
Cooling ¹	Capacity	kW	275.0	280.0	285.0
		kBtu/h	938.3	955.4	972.4
	Power input	kW	77.20	78.94	81.43
	EER / COP		3.56	3.55	3.50
Heating ²	Capacity	kW	307.0	312.0	318.0
		kBtu/h	1047.5	1064.5	1085.0
	Power input	kW	74.8	76.1	79.1
	COP		4.10	4.10	4.02
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity		
	Maximum quantity		64		
Compressors	Type		DC inverter		
	Quantity		6		
Fan motors	Type		DC		
	Quantity		6		
	Static pressure	Pa	0-20 (default); 20-60 (customized)		
Refrigerant	Type		R410A		
	Factory charge	kg	22+25×2		25×3
Pipe connections ³	Liquid pipe	mm	Φ25.4		
	Gas pipe	mm	Φ50.8		
Air flow rate		m ³ /h	73000	72000	
Sound pressure level ⁴		dB(A)	71		
Net dimensions (W×H×D)		mm	(1730×1830×850)×3		
Packed dimensions (W×H×D)		mm	(1800×2000×910)×3		
Net weight		kg	430+475×2		475×3
Gross weight		kg	453+507×2		507×3
Ambient temp. operation range	Cooling	°C	-5 ~ 55		
	Heating	°C	-23 ~ 24		

Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m. For systems with total equivalent liquid piping lengths of 90m or longer, please refer to the ERV3 Series Engineering Data for connection piping diameters..
- Sound pressure level is measured at a position 1m in front of the unit and 1.3m above the floor in a semi-anechoic chamber.

2nd Generation VRF

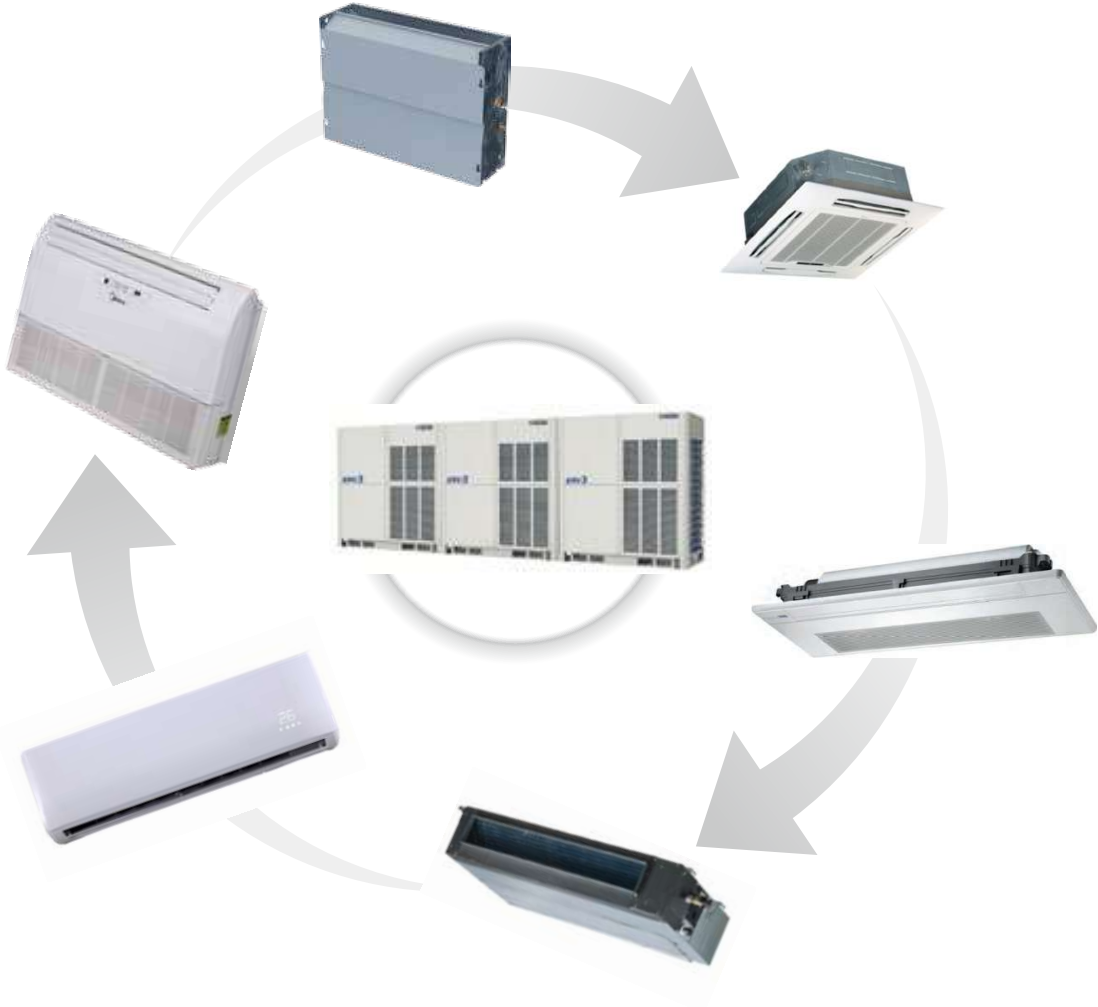
DC INDOOR UNITS



Wide Application Range

Wide Range of Indoor Units

With 11 types and more than 100 models, Eminent VRF indoor units meet varied customer requirements in a wide range of locations including shopping malls, hospitals, office buildings, hotels and airports.



INDOOR UNIT

Comfort and Efficiency

High Efficiency DC Fan Motor

The power consumption of DC fan motor can be reduced greatly in comparison to corresponding AC type.



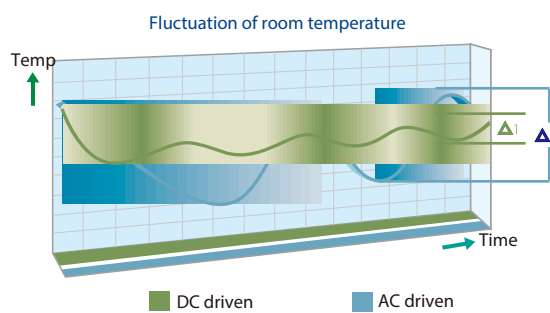
Quiet Operation

The low sound operation DC fan motor and optimized fan blades guarantees the air discharge smoothly and provides a quiet living environment.



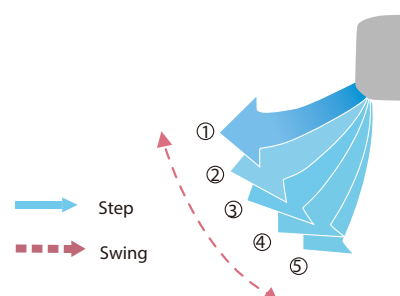
Constant Level of Indoor Air Temperature

The DC Inverter fan motor adjusts of air flow based on thermal load instantly providing less temperature fluctuation and an improved living environment.



5-step Swing Louver

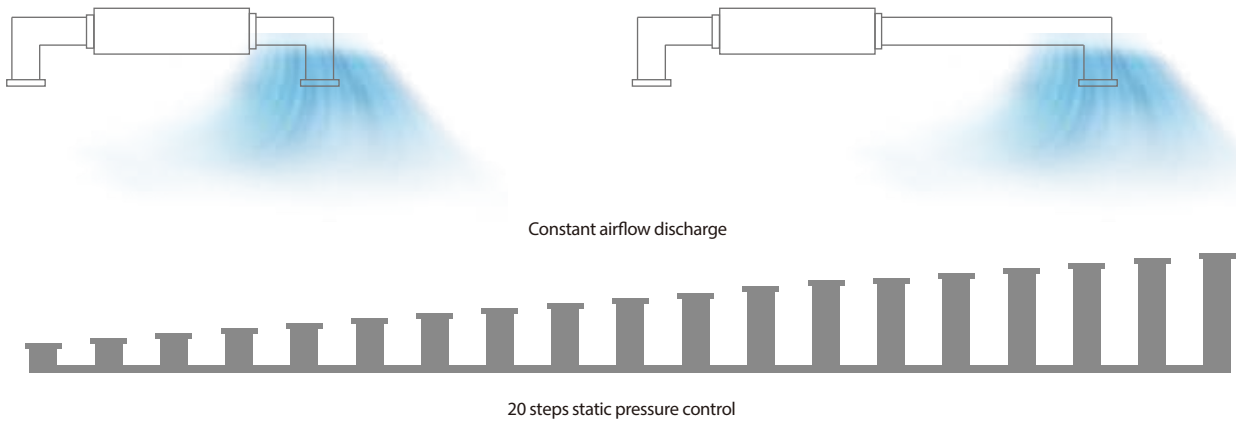
The air is comfortably spread upwards and downwards thanks to the 5-step swing louver that can be programmed via the controller.



Comfort and Efficiency

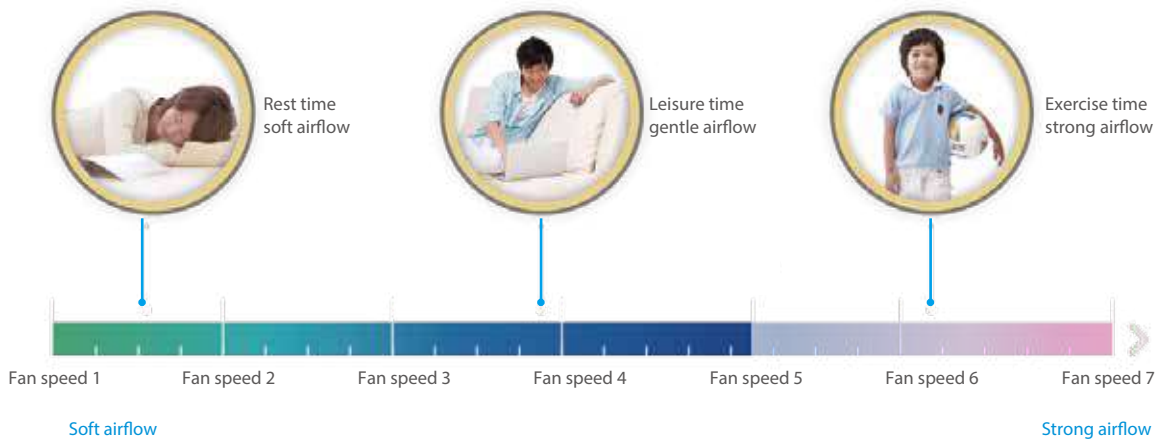
Static Pressure 20 Steps Control (Duct Unit)

Depending on the installation environment, medium static pressure duct is controlled the static pressure up to 10 steps and high static pressure duct is controlled the static pressure up to 20 steps via wired remote controller, for providing comfortable environment suitable for any environment.



7-Speed Fan Control

7 indoor fan speeds provide control flexibility to meet the needs of different indoor conditions.



Fresh Air Intake

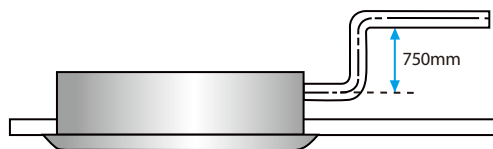
On selected models, a reserved outside air intake port allows outdoor air to be introduced directly into the unit, negating the need for a separate ventilation system.



Convenience

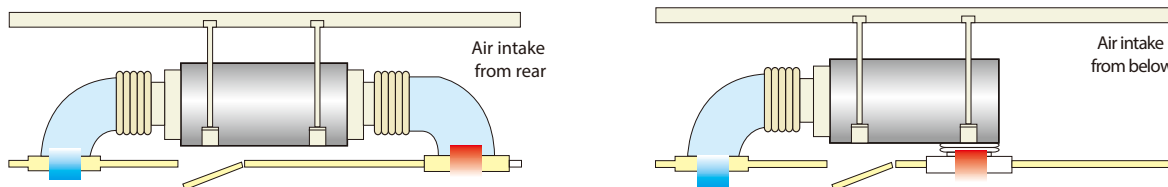
High-lift Drain Pump

A drain pump with a 750mm or 500mm pump head is fitted as standard or optional, simplifying installation of the drain piping.

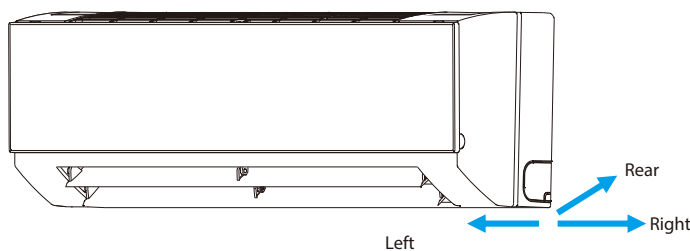


Flexible Installation

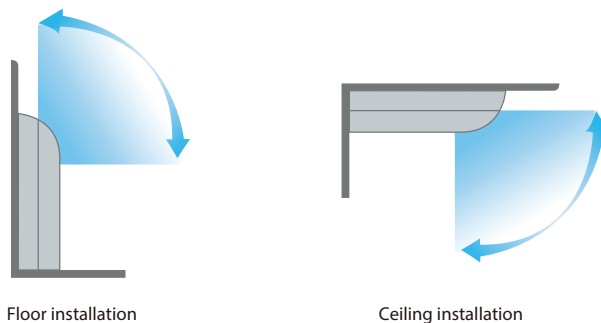
For Medium Static Pressure Duct Units, to provide the flexibility to adapt to differing installation situations, the air inlet may be positioned either on the underside or the rear of the unit.



For Wall Mounted Units, the refrigerant outlet direction can be left, right or rear as the installation situation requires. A new fixing plate design speeds installation and provides extra stability.



Ceiling / Floor Units can be installed either on the ceiling or the floor, providing flexibility to accommodate a wide range of room designs.



One-way Cassette

- Fresh air intake (45~71 models)
- One-way air discharge, ideal for corner locations
- Drain pump with 750mm pump head fitted as standard



Optional wireless remote controller



Optional wired controller



Model			VCS1-06DC	VCS1-08DC	VCS1-10DC	VCS1-12DC
Power supply			1-phase, 220-240V, 50/60Hz			
Cooling ¹	Capacity	kW	1.8	2.2	2.8	3.6
		kBtu/h	6.1	7.5	9.6	12.3
	Power input	W	25	25	30	30
Heating ²	Capacity	kW	2.2	2.6	3.2	4.0
		kBtu/h	7.5	8.9	10.9	13.6
	Power input	W	25	25	30	30
Air flow rate ³		m ³ /h	523/482/448/404/360/312/275			573/531/492/456/420/364/315
Sound pressure level ⁴		dB(A)	37/36/35/34/32/31/30			39/38/37/36/35/34
Main body	Net dimensions ⁵ (WxHxD)	mm	1054×153×425			
	Packed dimensions (WxHxD)	mm	1155×245×490			
	Net/Gross weight	kg	11.8/15.3		12.3/15.8	
Panel	Net dimensions (WxHxD)	mm	1180×25×465			
	Packed dimensions (WxHxD)	mm	1232×107×517			
	Net/Gross weight	kg	3.5/5.2			
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7			
	Drain pipe	mm	OD Φ32			

Model			VCS1-16DC	VCS1-20DC	VCS1-25DC	
Power supply			1-phase, 220-240V, 50/60Hz			
Cooling ¹	Capacity	kW	4.5	5.6	7.1	
		kBtu/h	15.4	19.1	24.2	
	Power input	W	40	48	60	
Heating ²	Capacity	kW	5.0	6.3	8.0	
		kBtu/h	17.1	21.5	27.3	
	Power input	W	40	48	60	
Air flow rate ³		m ³ /h	693/662/638/600/556/510/476	792/763/728/688/643/589/549	933/873/815/749/689/637/592	
Sound pressure level ⁴		dB(A)	41/40/39/38/37/36/35	42/41/40/39/38/37/36	44/43/42/41/39/38/37	
Main body	Net dimensions ⁵ (WxHxD)	mm	1275×189×450			
	Packed dimensions (WxHxD)	mm	1370×295×505			
	Net/Gross weight	kg	16.1/20.4	16.4/20.7	17.6/22.4	
Panel	Net dimensions (WxHxD)	mm	1350×25×505			
	Packed dimensions (WxHxD)	mm	1410×95×560			
	Net/Gross weight	kg	4/5.4			
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7	Φ9.53/Φ15.9		
	Drain pipe	mm	OD Φ32			

Notes:

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Each model's 7 airflow rate options are listed in order, from highest to lowest.
4. Each model's 7 sound pressure levels are listed in order from highest to lowest and correspond to the model's 7 airflow rate options (see Note 3).
Sound pressure level is measured 1.4m below the unit in a semi-anechoic chamber.
5. Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

Two-way Cassette

- Fresh air intake
- Two-way air discharge, perfect for limited ceiling space applications
- Drain pump with 750mm pump head fitted as standard



Optional wireless remote controller



Optional wired controller



Model			VCS2-08DC	VCS2-10DC	VCS2-12DC
Power supply			1-phase, 220-240V, 50/60Hz		
Cooling ¹	Capacity	kW	2.2	2.8	3.6
		kBtu/h	7.5	9.6	12.3
	Power input	W	35	40	40
Heating ²	Capacity	kW	2.6	3.2	4.0
		kBtu/h	8.9	10.9	13.6
	Power input	W	35	40	40
Air flow rate ³		m ³ /h	654/612/571/530/488/449/410		725/679/641/591/554/509/458
Sound pressure level ⁴		dB(A)	33/31/30/29/27/25/24		35/33/32/30/29/27/25
Main body	Net dimensions ⁵ (WxHxD)		mm 1172x299x591		
	Packed dimensions (WxHxD)		mm 1355x400x675		
	Net/Gross weight		kg 33.5/42.0		
Panel	Net dimensions (WxHxD)		mm 1430x53x680		
	Packed dimensions (WxHxD)		mm 1525x130x765		
	Net/Gross weight		kg 10.5/15		
Pipe connections	Liquid/Gas pipe		mm Φ6.35/Φ12.7		
	Drain pipe		mm OD Φ32		

Model			VCS2-16DC	VCS2-20DC	VCS2-25DC
Power supply			1-phase, 220-240V, 50/60Hz		
Cooling ¹	Capacity	kW	4.5	5.6	7.1
		kBtu/h	15.4	19.1	24.2
	Power input	W	50	69	98
Heating ²	Capacity	kW	5.0	6.3	8.0
		kBtu/h	17.1	21.5	27.3
	Power input	W	50	69	98
Air flow rate ³		m ³ /h	850/792/731/670/631/592/550	980/925/855/800/755/702/670	1200/1115/1068/1000/921/808/770
Sound pressure level ⁴		dB(A)	37/36/35/34/32/31/30	39/37/36/35/33/31/30	44/42/41/40/38/36/34
Main body	Net dimensions ⁵ (WxHxD)		mm 1172x299x591		
	Packed dimensions (WxHxD)		mm 1355x400x675		
	Net/Gross weight		kg 35/43.5		
Panel	Net dimensions (WxHxD)		mm 1430x53x680		
	Packed dimensions (WxHxD)		mm 1525x130x765		
	Net/Gross weight		kg 10.5/15		
Pipe connections	Liquid/Gas pipe		mm Φ6.35/Φ12.7		Φ9.53/Φ15.9
	Drain pipe		mm OD Φ32		

Notes:

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Each model's 7 airflow rate options are listed in order, from highest to lowest.
4. Each model's 7 sound pressure levels are listed in order from highest to lowest and correspond to the model's 7 airflow rate options (see Note 3).
Sound pressure level is measured 1.4m below the unit in a semi-anechoic chamber.
5. Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

Compact Four-way Cassette

- 360° airflow allows for even, wide-range cooling and heating

Drain pump with 500mm pump head fitted as standard

-



Optional wireless remote controller



Optional wired controller



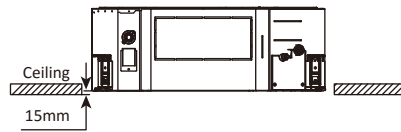
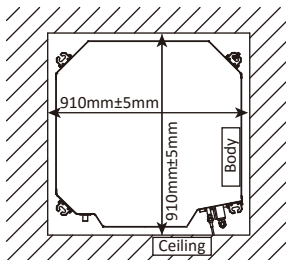
Model			VCSS-08DC	VCSS-10DC	VCSS-12DC	VCSS-16DC
Power supply			1-phase, 220-240V, 50/60Hz			
Cooling ¹	Capacity	kW	2.2	2.8	3.6	4.5
		kBtu/h	7.5	9.6	12.3	15.4
	Power input	W	35	35	40	50
Heating ²	Capacity	kW	2.4	3.2	4.0	5.0
		kBtu/h	8.2	10.9	13.6	17.1
	Power input	W	35	35	40	50
Air flow rate ³		m ³ /h	576/552/524/503/462/441/405		604/573/541/516/478/434/400	
Sound pressure level ⁴		dB(A)	35/34/33/29/26/23/22		41/38/35/32/30/29/28	
Main body	Net dimensions ⁵ (WxHxD)	mm	630×260×570			
	Packed dimensions (WxHxD)	mm	700×330×660			
	Net/Gross weight	kg	18/23.5		19.2/24.7	
Panel	Net dimensions (W×H×D)	mm	647×50×647			
	Packed dimensions (W×H×D)	mm	715×123×715			
	Net/Gross weight	kg	2.5/4.5			
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7			
	Drain pipe	mm	OD Φ32			

Notes:

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Each model's 7 airflow rate options are listed in order, from highest to lowest.
4. Each model's 7 sound pressure levels are listed in order from highest to lowest and correspond to the model's 7 airflow rate options (see Note 3).
Sound pressure level is measured 1.4m below the unit in a semi-anechoic chamber.
5. Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

Four-way Cassette

- Fresh air intake
- Four-way airflow, allows wide-angle, equal distribution of cooling and heating
- Drain pump with 750mm pump head fitted as standard
- Brand-new, elegant panel with four independently controlled louvers



New panel installation dimensions

Optional wireless remote controller



Optional wired controller



Model			VCS4-10DC	VCS4-12DC	VCS4-16DC	VCS4-20DC	VCS4-25DC	
Power supply			1 phase, 220-240V, 50/60Hz					
Cooling ¹	Capacity	kW	2.8	3.6	4.5	5.6	7.1	
		kBtu/h	9.6	12.3	15.4	19.1	24.2	
	Power input	W	25	25	31	31	46	
Heating ²	Capacity	kW	3.2	4.0	5.0	6.3	8.0	
		kBtu/h	10.9	13.6	17.1	21.5	27.3	
	Power input	W	25	25	31	31	46	
Air flow rate ³		m ³ /h	982/935/877/832/788/732/677			1029/957/899/857/801/756/704		1200/1132/1065/996/920/866/748
Sound pressure level ⁴		dB(A)	42/40/38/37/35/34/32			43/41/39/38/36/35/34		45/43/41/39/37/35/34
Main body	Net dimensions ⁵ (WxHxD)		840×230×840					
	Packed dimensions (WxHxD)		955×260×955					
	Net/Gross weight		21.3/25.8			23.2/27.6		
Panel	Net dimensions (WxHxD)		950×54.5×950					
	Packed dimensions (WxHxD)		1035×90×1035					
	Net/Gross weight		5/8					
Pipe connections	Liquid/Gas pipe		Φ6.35/Φ12.7			Φ9.53/Φ15.9		
	Drain pipe		OD Φ32					

Model			VCS4-28DC	VCS4-30DC	VCS4-34DC	VCS4-38DC	VCS4-48DC	VCS4-60DC
Power supply			1 phase, 220-240V, 50/60Hz					
Cooling ¹	Capacity	kW	8.0	9.0	10.0	11.2	14.0	17.6
		kBtu/h	27.3	30.7	34.1	38.2	47.8	60.0
	Power input	W	48	75	75	75	94	94
Heating ²	Capacity	kW	9.0	10.0	11.0	12.5	16.0	19.5
		kBtu/h	30.7	34.1	37.5	42.7	54.6	66.5
	Power input	W	48	75	75	75	94	94
Air flow rate ³		m ³ /h	1264/1195/1117 /1055/975/893/811		1596/1477/1365 /1239/1154/1087/1034		1727/1622/1517 /1426/1351/1289/1224	
Sound pressure level ⁴		dB(A)	46/44/42/40/38/36/35			47/45/43/41/39/37/36		50/48/46/45/41/39/38
Main body	Net dimensions ⁵ (WxHxD)		840×230×840			840×300×840		
	Packed dimensions (WxHxD)		955×260×955			955×330×955		
	Net/Gross weight		23.2/27.6			28.4/33.8		30.7/35.8
Panel	Net dimensions (WxHxD)		950×54.5×950					
	Packed dimensions (WxHxD)		1035×90×1035					
	Net/Gross weight		5/8					
Pipe connections	Liquid/Gas pipe		Φ9.53/Φ15.9					
	Drain pipe		OD Φ32					

Notes:

- Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
- Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
- Each model's 7 airflow rate options are listed in order, from highest to lowest.
- Each model's 7 sound pressure levels are listed in order from highest to lowest and correspond to the model's 7 airflow rate options (see Note 3).
Sound pressure level is measured 1.4m below the unit in a semi-anechoic chamber.
- Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

Medium Static Pressure Duct

- Fresh air intake
- 6-step static pressure control on 2.2kW to 7.1kW models and 10-step static pressure control on 8kW to 14kW units (requires latest generation wired controllers)
- Drain pump with 750mm pump head fitted as standard
- Flexible installation for the air inlet may be positioned either on the underside or the rear of the unit



Model			VDMS-08DC	VDMS-10DC	VDMS-12DC
Power supply			1 phase, 220-240V, 50/60Hz		
Cooling ¹	Capacity	kW	2.2	2.8	3.6
		kBtu/h	7.5	9.6	12.3
	Power input	W	40	40	45
Heating ²	Capacity	kW	2.6	3.2	4.0
		kBtu/h	8.2	10.9	13.6
	Power input	W	40	40	45
Air flow rate ³	m ³ /h	520/480/440/400/360/330/300			580/540/500/460/430/400/370
External static pressure	Pa	10 (0~50)			
Sound pressure level ⁴	dB(A)	32/31/29/28/26/25/23			33/32/31/30/28/27/25
Unit	Net dimensions ⁵ (WxHxD)	mm	780×210×500		
	Packed dimensions (WxHxD)	mm	870×285×525		
	Net/Gross weight	kg	18/21		
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/ Φ12.7		
	Drain pipe	mm	OD Φ25		

Model			VDMS-16DC	VDMS-20DC	VDMS-25DC
Power supply			1 phase, 220-240V, 50/60Hz		
Cooling ¹	Capacity	kW	4.5	5.6	7.1
		kBtu/h	15.4	19.1	24.2
	Power input	W	92	92	98
Heating ²	Capacity	kW	5.0	6.3	8.0
		kBtu/h	17.1	21.5	27.3
	Power input	W	92	92	98
Air flow rate ³	m ³ /h	800/740/680/620/540/480/400	830/760/720/680/640/600/560	1000/960/900/840/780/720/680	
External static pressure	Pa	10 (0~50)			
Sound pressure level ⁴	dB(A)	36/34/32/31/29/27/25	36/34/33/32/30/29/28	37/35/33/32/30/29/28	
Unit	Net dimensions ⁵ (WxHxD)	mm	1000×210×500		1220×210×500
	Packed dimensions (WxHxD)	mm	1115×285×525		1335×285×525
	Net/Gross weight	kg	21.5/25		27.5/31.5
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/ Φ12.7		Φ9.53/Φ15.9
	Drain pipe	mm	OD Φ25		

Model			VDMS-28DC	VDMS-30DC	VDMS-38DC	VDMS-48DC
Power supply			1 phase, 220-240V, 50/60Hz			
Cooling ¹	Capacity	kW	8.0	9.0	11.2	14.0
		kBtu/h	27.3	30.7	38.2	47.8
	Power input	W	110	120	200	250
Heating ²	Capacity	kW	9.0	10.0	12.5	15.5
		kBtu/h	30.7	34.1	42.7	52.9
	Power input	W	110	120	200	250
Air flow rate ³	m ³ /h	1260/1180/1100/1020/940/860/780		1500/1430/1360/1290/1210/1140/1080	1960/1860/1760/1660/1560/1460/1360	
External static pressure	Pa	20 (10~100)				40 (30~150)
Sound pressure level ⁴	dB(A)	37/35/34/33/31/29/28		39/38/38/37/35/34/33	41/39/38/37/36/35/33	
Unit	Net dimensions ⁵ (WxHxD)	mm	1230×270×775			1290×300×865
	Packed dimensions (WxHxD)	mm	1355×350×795			1400×375×925
	Net/Gross weight	kg	36.5/44.5	37/45		46.5/55.5
Pipe connections	Liquid/Gas pipe	mm	Φ9.53/Φ15.9			
	Drain pipe	mm	OD Φ25			

Notes:

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Each model's 7 airflow rate options are listed in order, from highest to lowest.
4. Each model's 7 sound pressure levels are listed in order from highest to lowest and correspond to the model's 7 airflow rate options (see Note 3). Sound pressure level is measured 1.4m below the unit in a semi-anechoic chamber.
5. Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments. All specifications are measured at standard external static pressure.

High Static Pressure Duct

- External static pressure up to 400Pa facilitates extensive duct and grille network
- 20-step static pressure control on all models (requires latest generation wired controllers)
- A double-skin drainage pan provides double protection for ceilings (models 71 to 160).
- Drain pump with a 750mm pump head available as a customization option



Optional wireless remote controller



Optional wired controller



Model			VDHS-24DC	VDHS-28DC	VDHS-30DC
Power supply			1 phase, 220-240V, 50/60Hz		
Cooling ¹	Capacity	kW	7.1	8.0	9.0
		kBtu/h	24.2	27.3	30.7
	Power input	W	180	180	220
Heating ²	Capacity	kW	8.0	9.0	10.0
		kBtu/h	27.3	30.7	34.1
	Power input	W	180	180	220
Air flow rate ³		m ³ /h	1360/1327/1293/1260/1227/1193/1160	1360/1327/1293/1260/1227/1193/1160	1420/1373/1327/1280/1233/1187/1140
External static pressure		Pa	100 (30~ 200)		
Sound pressure level ⁴		dB(A)	46/46/45/45/44/43/42	46/46/45/45/44/43/42	50/49/48/48/47/46/45
Unit	Net dimensions ⁵ (WxHxD)		965x423x690		
	Packed dimensions (WxHxD)		1090x440x768		
	Net/Gross weight		41/47		
Pipe connections	Liquid/Gas pipe		Φ9.53/Φ15.9		
	Drain pipe		OD Φ25		

Model			VDHS-38DC	VDHS-48DC	VDHS-60DC
Power supply			1 phase, 220-240V, 50/60Hz		
Cooling ¹	Capacity	kW	11.2	14.0	16.0
		kBtu/h	38.2	47.8	54.6
	Power input	W	380	420	700
Heating ²	Capacity	kW	12.5	16.0	17.0
		kBtu/h	42.7	54.6	58.0
	Power input	W	380	420	700
Air flow rate ³		m ³ /h	1870/1783/1697/1610/1523/1437/1350	2240/2133/2027/1920/1813/1707/1600	2660/2530/2400/2270/2140/2010/1880
External static pressure		Pa	100 (30~ 200)		
Sound pressure level ⁴		dB(A)	50/50/49/48/47/46/45	53/52/51/51/50/49/48	54/54/53/52/51/50/50
Unit	Net dimensions ⁵ (WxHxD)		965x423x690		
	Packed dimensions (WxHxD)		1090x440x768		
	Net/Gross weight		51/57		
Pipe connections	Liquid/Gas pipe		Φ9.53/Φ15.9		
	Drain pipe		OD Φ25		

Model			VDHS-70DC	VDHS-86DC	VDHS-96DC
Power supply			1 phase, 220-240V, 50/60Hz		
Cooling ¹	Capacity	kW	20.0	25.0	28.0
		kBtu/h	68.2	85.3	95.5
	Power input	W	990	1200	1200
Heating ²	Capacity	kW	22.5	26.0	31.5
		kBtu/h	76.8	88.7	107.5
	Power input	W	990	1200	1200
Air flow rate ³		m ³ /h	4330/4230/4130/4030/3930/3830/3730		
External static pressure		Pa	170 (20~250)		
Sound pressure level ⁴		dB(A)	57/56/55/54/53/52/50		
Unit	Net dimensions ⁵ (WxHxD)		1454x515x931		
	Packed dimensions (WxHxD)		1509x550x990		
	Net/Gross weight		130/142		
Pipe connections	Liquid/Gas pipe		Φ12.7/Φ22.2		
	Drain pipe		OD Φ32		

Notes:

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
 2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
 3. Each model's 7 airflow rate options are listed in order, from highest to lowest.
 4. Each model's 7 sound pressure levels are listed in order from highest to lowest and correspond to the model's 7 airflow rate options (see Note 3). Sound pressure level is measured 1.4m below the unit in a semi-anechoic chamber.
 5. Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.
- All specifications are measured at standard external static pressure.

Fresh Air Processing Unit

- 100% fresh air processing unit, both fresh air filtration and heating/cooling can be achieved in a single system
- External static pressure up to 400Pa facilitates extensive duct and grille network
- 20-step static pressure control on all models (requires latest generation wired controllers)
- Drain pump with a 750mm pump head available as a customization option



Optional wireless remote controller



Optional wired controller



RM05B

RM12D

WDC-86E/KD

WDC-120G/WK

Model			VDFA-42DC	VDFA-48DC
Power supply			1 phase, 220-240V, 50/60Hz	
Cooling ¹	Capacity	kW	12.5	14.0
		kBtu/h	42.6	47.8
	Power input	W	480	480
Heating ²	Capacity	kW	10.5	12.0
		kBtu/h	36.0	41.0
	Power input	W	480	480
Air flow rate ³		m ³ /h	2000/1917/1833/1750/1667/1583/1500	
External static pressure		Pa	180 (30~200)	
Sound pressure level ⁴		dB(A)	48/47/46/45/44/43/42	
Unit	Net dimensions ⁵ (WxHxD)		mm 1322x423x691	
	Packed dimensions (WxHxD)		mm 1436x450x768	
	Net/Gross weight		kg 68/76	
Pipe connections	Liquid/Gas pipe		mm Φ9.53/Φ15.9	
	Drain pipe		mm OD Φ25	

Model			VDFA-70DC	VDFA-86DC	VDFA-96DC
Power supply			1 phase, 220-240V, 50/60Hz		
Cooling ¹	Capacity	kW	20.0	25.0	28.0
		kBtu/h	68.2	85.3	95.5
	Power input	W	850	850	850
Heating ²	Capacity	kW	12.8	16.0	18.0
		kBtu/h	43.7	54.6	61.4
	Power input	W	850	850	850
Air flow rate ³		m ³ /h	3000/2833/2667/2500/2333/2167/2000		
External static pressure		Pa	200 (30~250)		
Sound pressure level ⁴		dB(A)	50/49/48/47/46/44/43		
Unit	Net dimensions ⁵ (WxHxD)		mm 1454x515x931		
	Packed dimensions (WxHxD)		mm 1509x550x990		
	Net/Gross weight		kg 130/142		
Pipe connections	Liquid/Gas pipe		mm Φ12.7/Φ22.2		
	Drain pipe		mm OD Φ32		

Notes:

1. Outdoor temperature 33°C DB, 28°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Outdoor temperature 0°C DB, -2.9°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Each model's 7 airflow rate options are listed in order, from highest to lowest.
4. Each model's 7 sound pressure levels are listed in order from highest to lowest and correspond to the model's 7 airflow rate options (see Note 3). Sound pressure level is measured 1.4m below the unit in a semi-anechoic chamber.
5. Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

All specifications are measured at standard external static pressure.

The Fresh Air Processing Unit can be used either independently or in conjunction with other types of indoor unit. If used independently, the total capacity of the Fresh Air Processing Units must be between 50% and 100% of that of the outdoor units. If used in conjunction with other types of indoor unit, the total capacity of the indoor units and Fresh Air Processing Units must be between 50% and 100% of that of the outdoor units and the total capacity of the Fresh Air Processing Units must not exceed 30% of that of the outdoor units.

Wall Mounted Unit

- Three interchangeable panels allow units to blend easily with any interior decoration, perfect for rooms with no false ceilings or free floor space
- Refrigerant outlet direction can be left, right or rear as the installation situation requires



Optional wireless remote controller



Optional wired controller



Model		VEWM-08DC		VEWM-10DC	
Power supply		1 phase, 220-240V, 50/60Hz			
Cooling ¹	Capacity	kW	2.2		2.8
		kBtu/h	7.5		9.6
Heating ²	Power input	W	28		28
	Capacity	kW	2.4		3.2
Heating ²		kBtu/h	8.2		10.9
	Power input	W	28		28
Air flow rate ³		m ³ /h	422/411/402/393/380/368/356		417/402/386/370/353/338/316
Sound pressure level ⁴		dB(A)	31/30/30/30/29/29/29		31/30/30/30/29/29/29
Unit	Net dimensions ⁵ (WxHxD)	mm	835×280×203		
	Packed dimensions (WxHxD)	mm	935×385×320		
	Net/Gross weight	kg	8.4/12.1		9.5/13.1
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7		
	Drain pipe	mm	OD Φ16		

Model		VEWM-12DC		VEWM-16DC		VEWM-20DC		
Power supply		1 phase, 220-240V, 50/60Hz						
Cooling ¹	Capacity	kW	3.6	4.5		5.6		
		kBtu/h	12.3	15.4		19.1		
Heating ²	Power input	W	30	40		45		
	Capacity	kW	4.0	5.0		6.3		
Heating ²		kBtu/h	13.6	17.1		21.5		
	Power input	W	30	40		45		
Air flow rate ³		m ³ /h	656/628/591/573/544/515/488		594/563/535/507/478/450/424		747/713/685/648/613/578/547	
Sound pressure level ⁴		dB(A)	33/32/32/31/31/30/30		35/34/33/33/32/31/31		38/37/36/36/35/34/34	
Unit	Net dimensions ⁵ (WxHxD)	mm	990×315×223					
	Packed dimensions (WxHxD)	mm	1085×420×335					
	Net/Gross weight	kg	11.4/15.5		12.8/16.9			
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7				Φ9.53/Φ15.9	
	Drain pipe	mm	OD Φ16					

Model		VEWM-25DC		VEWM-28DC		VEWM-30DC		
Power supply		1 phase, 220-240V, 50/60Hz						
Cooling ¹	Capacity	kW	7.1	8.0		9.0		
		kBtu/h	24.2	27.3		30.7		
Heating ²	Power input	W	55	55		82		
	Capacity	kW	8.0	9.0		10.0		
Heating ²		kBtu/h	27.3	30.7		34.1		
	Power input	W	55	55		82		
Air flow rate ³		m ³ /h	1195/1130/1065/1005/940/875/809		1195/1130/1065/1005/940/875/809		1421/1300/1125/1067/1005/934/867	
Sound pressure level ⁴		dB(A)	44/43/42/39/38/37/36		44/43/42/39/38/37/36		48/46/45/43/41/40/38	
Unit	Net dimensions ⁵ (WxHxD)	mm	1194×343×262					
	Packed dimensions (WxHxD)	mm	1290×375×460					
	Net/Gross weight	kg	17.0/22.4					
Pipe connections	Liquid/Gas pipe	mm	Φ9.53/Φ15.9					
	Drain pipe	mm	OD Φ16					

Notes:

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Each model's 7 airflow rate options are listed in order, from highest to lowest.
4. Each model's 7 sound pressure levels are listed in order from highest to lowest and correspond to the model's 7 airflow rate options (see Note 3).
Sound pressure level is measured 1m in front and 1m below the unit in a semi-anechoic chamber.
5. Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

Ceiling / Floor

- Can be installed either on the ceiling or floor



Optional wireless remote controller



RM05B

RM12D

Optional wired controller



WDC-86E/KD

WDC-120G/WK

Model			VEFC-12DC	VEFC-16DC	VEFC-20DC	VEFC-25DC
Power supply			1 phase, 220-240V, 50/60Hz			
Cooling ¹	Capacity	kW	3.6	4.5	5.6	7.1
		kBtu/h	12.3	15.4	19.1	24.2
	Power input	W	49	115	115	115
Heating ²	Capacity	kW	4.0	5.0	6.3	8.0
		kBtu/h	13.6	17.1	21.5	27.3
	Power input	W	49	115	115	115
Air flow rate ³		m ³ /h	550/525/500/480/460/440/420		930/895/860/830/792/755/720	
Sound pressure level ⁴		dB(A)	40/39/38/38/37/36/36		43/42/41/41/39/38/38	
Unit	Net dimensions ⁵ (WxHxD)	mm	990×660×203			
	Packed dimensions (WxHxD)	mm	1089×744×296			
	Net/Gross weight	kg	27/33		28/34	
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7		Φ9.53/Φ15.9	
	Drain pipe	mm	OD Φ16			

Model			VEFC-28DC	VEFC-30DC	VEFC-38DC	VEFC-48DC	VEFC-60DC
Power supply			1 phase, 220-240V, 50/60Hz				
Cooling ¹	Capacity	kW	8.0	9.0	11.2	14.0	17.8
		kBtu/h	27.2	30.7	38.2	47.8	60.8
	Power input	W	130	130	180	180	180
Heating ²	Capacity	kW	9.0	10.0	12.5	15.0	19.5
		kBtu/h	30.7	34.1	42.7	51.2	66.5
	Power input	W	130	130	180	180	180
Air flow rate ³		m ³ /h	1280/1245/1210/1170/1130/1085/1050			1890/1830/1765/1700/1660/1620/1580	
Sound pressure level ⁴		dB(A)	45/44/43/43/42/41/40			47/46/45/45/44/43/42	
Unit	Net dimensions ⁵ (WxHxD)	mm	1280×660×203			1670×680×244	
	Packed dimensions (WxHxD)	mm	1379×744×296			1915×760×330	
	Net/Gross weight	kg	35/41			48/58	
Pipe connections	Liquid/Gas pipe	mm	Φ9.53/Φ15.9				
	Drain pipe	mm	OD Φ16				

Notes:

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Each model's 7 airflow rate options are listed in order, from highest to lowest.
4. Each model's 7 sound pressure levels are listed in order from highest to lowest and correspond to the model's 7 airflow rate options (see Note 3).
Floor standing: Sound pressure level is measured 1m in front and 1m above the floor in a semi-anechoic chamber.
Ceiling mounted: Sound pressure level is measured 1m in front and 1m below the unit in a semi-anechoic chamber.
5. Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.

Floor Standing Unit (Concealed)

- Designed to be concealed in walls with only the suction and discharge grills visible



Optional wireless remote controller



RM05B

RM12D

Optional wired controller



WDC-86E/KD

WDC-120G/WK

Model			VDFV-08DC	VDFV-10DC
Power supply			1 phase, 220-240V, 50/60Hz	
Cooling ¹	Capacity	kW	2.2	2.8
		kBtu/h	7.5	9.6
	Power input	W	40	45
Heating ²	Capacity	kW	2.4	3.2
		kBtu/h	8.2	10.9
	Power input	W	40	45
Air flow rate ³		m ³ /h	530/504/478/456/439/418/400	569/540/515/485/462/443/421
Sound pressure level ⁴		dB(A)	36/35/34/33/31/30/29	36/35/34/33/31/30/29
Unit	Net dimensions ⁵ (WxHxD)	mm	840×545×212	
	Packed dimensions (W×H×D)	mm	925×639×305	
	Net/Gross weight	kg	21/25.5	
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7	
	Drain pipe	mm	Φ16	

Model			VDFV-12DC	VDFV-16DC
Power supply			1 phase, 220-240V, 50/60Hz	
Cooling ¹	Capacity	kW	3.6	4.5
		kBtu/h	12.3	15.4
	Power input	W	55	60
Heating ²	Capacity	kW	4.0	5.0
		kBtu/h	13.6	17.1
	Power input	W	55	60
Air flow rate ³		m ³ /h	624/591/557/522/473/420/375	660/625/583/542/501/475/440
Sound pressure level ⁴		dB(A)	37/36/35/34/32/31/30	37/36/35/34/32/31/30
Unit	Net dimensions ⁵ (WxHxD)	mm	1036×639×305	
	Packed dimensions (W×H×D)	mm	1125×639×305	
	Net/Gross weight	kg	25.5/30.5	
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7	
	Drain pipe	mm	Φ16	

Model			VDFV-20DC	VDFV-25DC	VDFV-28DC
Power supply			1 phase, 220-240V, 50/60Hz		
Cooling ¹	Capacity	kW	5.6	7.1	8.0
		kBtu/h	19.1	24.2	27.3
	Power input	W	88	110	130
Heating ²	Capacity	kW	6.3	8.0	9.0
		kBtu/h	21.5	27.3	30.7
	Power input	W	88	110	130
Air flow rate ³		m ³ /h	1150/1094/1028/970/925/886/830	1380/1290/1205/1100/1033/955/870	1380/1290/1205/1100/1033/955/870
Sound pressure level ⁴		dB(A)	41/39/37/35/33/32/31	44/42/40/39/37/35/33	44/42/40/39/37/35/33
Unit	Net dimensions ⁵ (WxHxD)	mm	1340×545×212		
	Packed dimensions (W×H×D)	mm	1425×639×305		
	Net/Gross weight	kg	30.5/35.5		32/37
Pipe connections	Liquid/Gas pipe	mm	Φ9.53/Φ15.9		
	Drain pipe	mm	Φ16		

Notes:

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
 2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
 3. Each model's 7 airflow rate options are listed in order, from highest to lowest.
 4. Each model's 7 sound pressure levels are listed in order from highest to lowest and correspond to the model's 7 airflow rate options (see Note 3).
Sound pressure level is measured 1m in front and 1m above the floor in a semi-anechoic chamber.
 5. Unit body dimensions given are the largest external dimensions of the unit, including hanger attachments.
- All specifications are measured at 10Pa external static pressure.

CONTROL SOLUTIONS



Wireless Remote Controllers

Wired Controllers

Centralized Controllers

Data Converter


Network Control System

BMS Gateways

Accessories

CONTROLLER LINEUP



Wireless Remote/ Wireless Controllers	Centralized Controllers Data	Data converter
 <p>RM05B RM12D</p>	 <p>CCM-180A/BWS</p>	 <p>CCM-15</p>
 <p>WDC-86E/KD</p>	 <p>CCM-270B/WS</p>	
 <p>WDC-120G/AWK</p>		

Network Control System	BMS Gateways	Accessories
 <p>IMMP-BAC</p>	 <p>IMMP-BAC</p>	<p>Hotel Key Card Interface Module</p>  <p>MD-NIM05/E</p>  <p>MD-NIM05B/E</p>
<p>+</p> <p>IMMP-S</p>	 <p>GW-LON</p>	<p>Infrared Sensor Controller</p>   <p>MD-NIM09</p>
 <p>CCM-270B/WS</p>	 <p>GW-MOD</p>	<p>Diagnosis software</p>  <p>MCAC-DIAG-B</p>
<p>+</p>  <p>IMMP-S</p>	 <p>GW-KNX</p>	 <p>MCAC-PIDU</p>

Wireless Remote Controllers

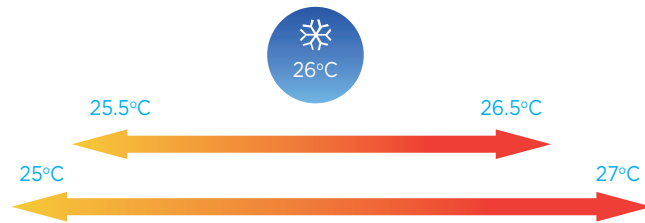


Features

Model	 RM05B	 RM12D
On / Off	●	●
Mode selection	●	●
Temperature setting	● (0.5°C or 1°C steps)	● (0.5°C or 1°C steps)
7-speed fan control	●	●
Auto swing	●	●
5-step swing louver	●	●
Address setting	●	●
Follow me	—	●
Eco mode	●	●
Night silent mode	●	●
Display shut-off	●	●
Daily timer	●	●
Keyboard lock	●	●
Background light	●	●
Dimensions (H×W×D) (mm)	150×65×20	170×48×20
Batteries	1.5V (LR03/AAA) × 2	

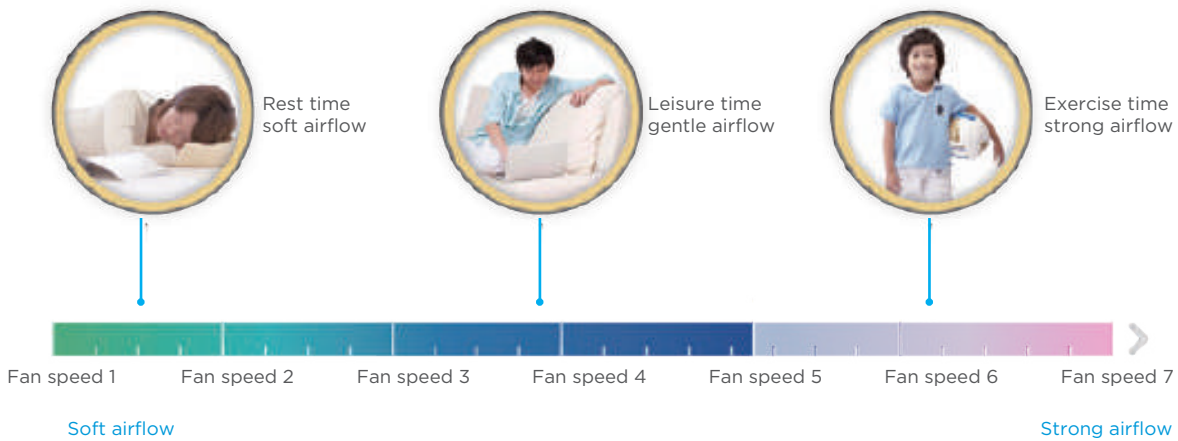
Temperature Setting

Set temperature can be adjusted in 0.5°C or 1°C steps, enabling precise comfort control.



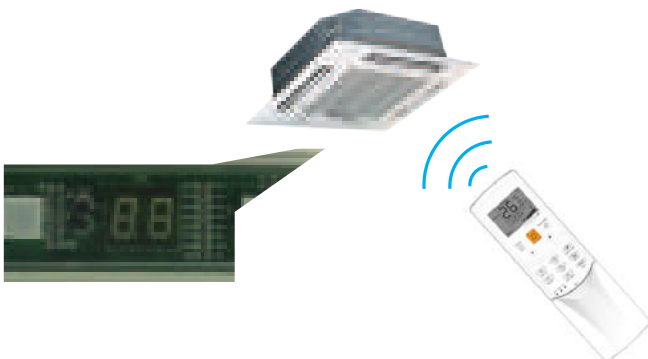
7-Speed Fan Control

7 indoor fan speeds provide control flexibility to meet the needs of different indoor conditions.



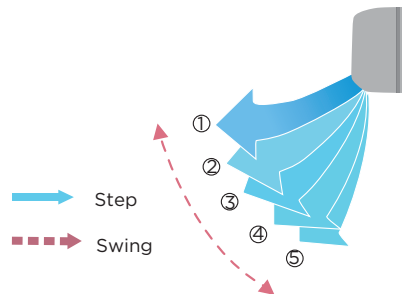
Display Shut-off

Indoor unit displays can be shut off at night, creating a better environment for rest.



5-step Swing Louver

The air is comfortably spread upwards and downwards thanks to the 5-step swing louver that can be programmed via the controller.



Follow Me

With the follow me function, the indoor unit responds to the temperature measured by the temperature sensor built-in to the wireless remote controller, rather than the temperature sensor in the indoor unit itself, enabling more precise control of the temperature in the user's immediate environment.

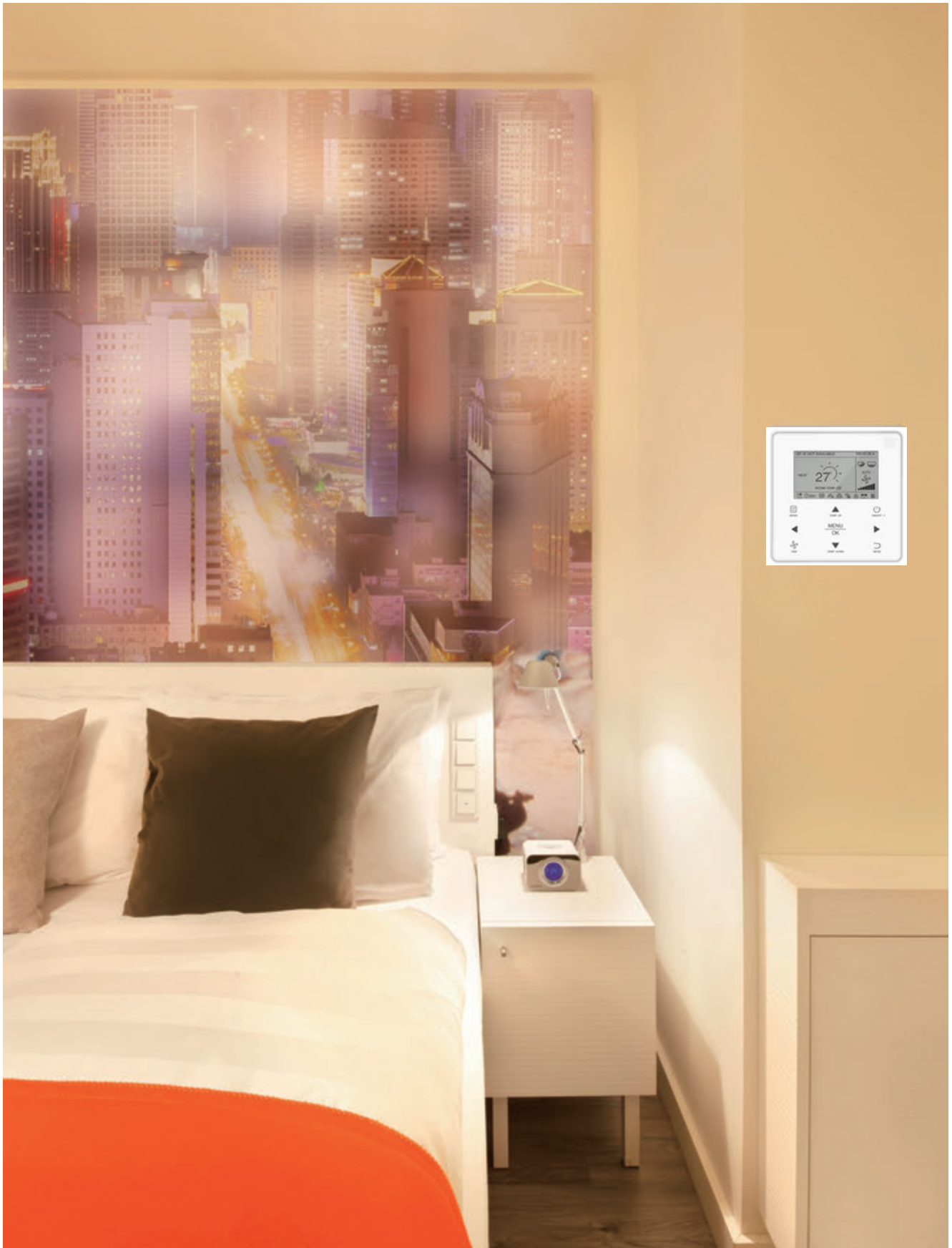


Eco Mode



Eco mode saves energy whilst retaining a comfortable indoor environment.



Wired Controllers

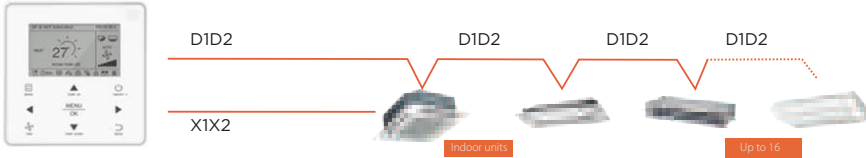


Features

Model	 WDC-86E/KD	 WDC-86E/K	 WDC-120G/WK
On / Off	●	●	●
Mode selection	●	●	●
Temperature setting	● (0.5°C or 1°C steps)	● (0.5°C or 1°C steps)	● (0.5°C or 1°C steps)
Dual temperature set points	●	—	●
7-speed fan control	●	●	●
Auto swing	●	●	●
5-step swing louver	●	●	●
Address setting	●	●	●
Follow me	●	●	●
Eco mode	●	●	●
Room temperature display	●	—	●
°F/°C display	●	●	●
Keyboard lock	—	—	●
Background light	●	●	●
Daily timer	●	●	●
Weekly schedule timer	—	—	●
Auto restart	●	●	●
2 permission levels	—	—	●
Bi-directional communication	●	—	●
Group control	—	—	●
Main or secondary controller setting	●	—	●
Display shut-off	●	●	●
Night silent mode	●	●	●
Remote signal receiver	●	●	●
Clean filter reminder	●	●	●
Extension function	—	—	●
Daylight saving time	—	—	●
Clock display	—	—	●
Dot matrix display	—	—	●
Error check function	●	—	●
System parameter querying	●	—	●
System setting control	●	—	●
Dimensions (WxHxD) (mm)	86x86x18	86x86x18	120x120x20
Power supply	18V DC	5V DC	18V DC

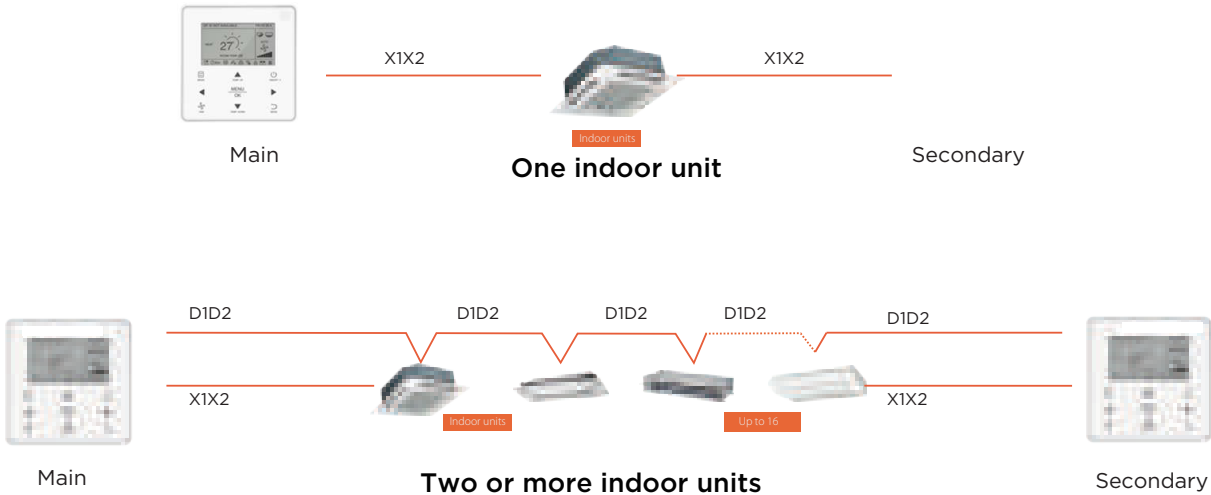
Group Control

One controller can be used to unify the settings across up to 16 indoor units.



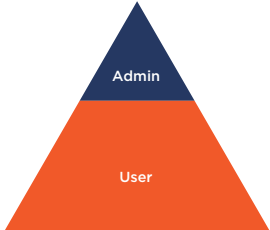
Main or Secondary Controller Setting

Two controllers can be used together, with the indoor units' operating mode and settings being set according to the most recent instruction received. The controller display screens are synchronized so that both displays update when a setting is adjusted.



2 Permission Levels

2 permission levels ensure users can easily access control functions and allow administrators convenient access to operating parameters.



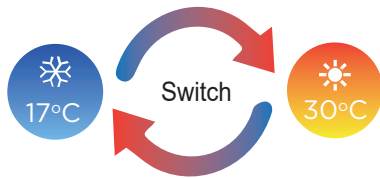
Extension Function

The extension function is specifically designed for users working overtime. Pressing the delay button postpones system shutdown by 1 or 2 hours.



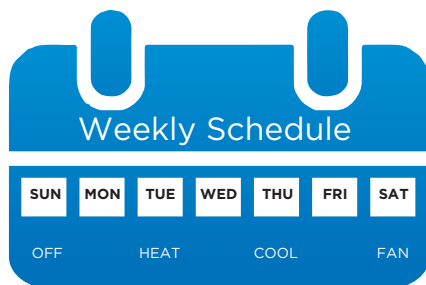
Dual Temperature Set Points

With dual temperature set point control, the set temperature changes automatically when the operating mode is changed.



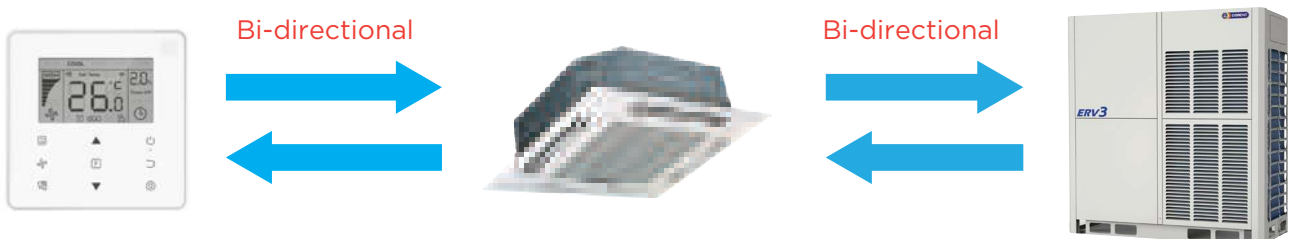
Weekly Schedule Timer

The weekly schedule timer allows users to set multiple schedules each with its own operating mode, temperature settings and fan speeds.



Bi-directional Communication

The wired controller can query the system operating parameters thanks to the new bi-directional communication functionality. In addition, settings including static pressure, cold draft prevention and temperature compensation can be configured on the wired controller.



Centralized Controllers



Features

Model	 CCM-180A/WS	 CCM-270A/WS
Max. number of indoor units	64	384
Max. number of outdoor units	32	192
Max. number of refrigerant systems	8	48
Touch screen	● (6.2-inch)	● (10.1-inch)
On / Off	●	●
Mode selection	●	●
Dual temperature set points	●	●
7-speed fan control	●	●
Auto swing	●	●
5-step swing louver	●	●
Room temperature display	—	●
Outdoor unit Eco mode setting	●	●
Holiday setting	●	●
°C/°F display	●	●
Schedule management	●	●
Clock display	●	●
2 permission levels	●	●
Extension function	●	—
Daylight saving time	●	—
Unit model recognition	●	●
Electricity charge distribution	—	●
Visual schematic	—	●
Energy management	●	●
Group management	●	●
Error check function	●	●
System parameter querying	●	—
USB output		Error report, operation record and electricity consumption report
Report display	Error report	
Email output	—	●
Operation log	—	●
LAN access	—	●
languages supported	English	English
Dimensions (W×H×D) (mm)	181x124x30	270×183×27
Power supply	12V DC	24V AC

Touch Screen

Colorful touch screen and vivid display make operation more convenient and simple.



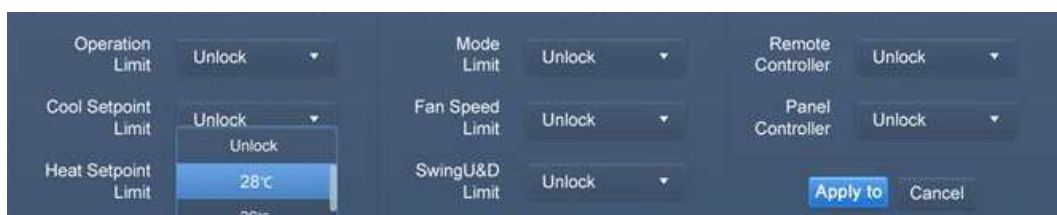
Electricity Charge Distribution

The controllers use the patented Eminent Calculation Method to estimate the electricity consumption of the outdoor units and then divide it among the indoor units so that the electricity charges can be equitably divided among building occupants.



Energy Management

User can set limits or locks on an indoor unit, such as minimum cooling temperature, maximum heating temperature, fan speed, operation mode, swing lock, remote controller lock and wired controller lock.



Visual Schematic

By importing floor plans and then dragging and dropping the indoor units to their actual positions on the floor plan, users can create a tailored system schematic which enables monitoring and control of the indoor units through a clear visual representation of the system layout.



Group Management

Units can be viewed according to group, system or location, making unit management clearer and more convenient.



Outdoor Unit Configuration

Outdoor unit configuration and settings can be monitored and controlled without having to go outdoors.



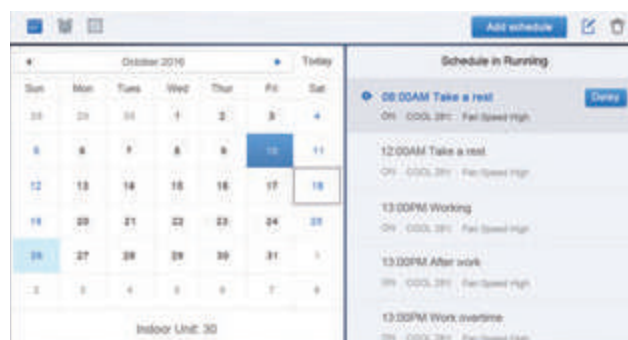
Unit Model Recognition

The controller recognizes the model of indoor and outdoor units and different models are represented by different icons.



Schedule Management

Daily, weekly or annual schedules can be used to set unit settings such as on/off, operating mode, set temperature, fan speed and swing.



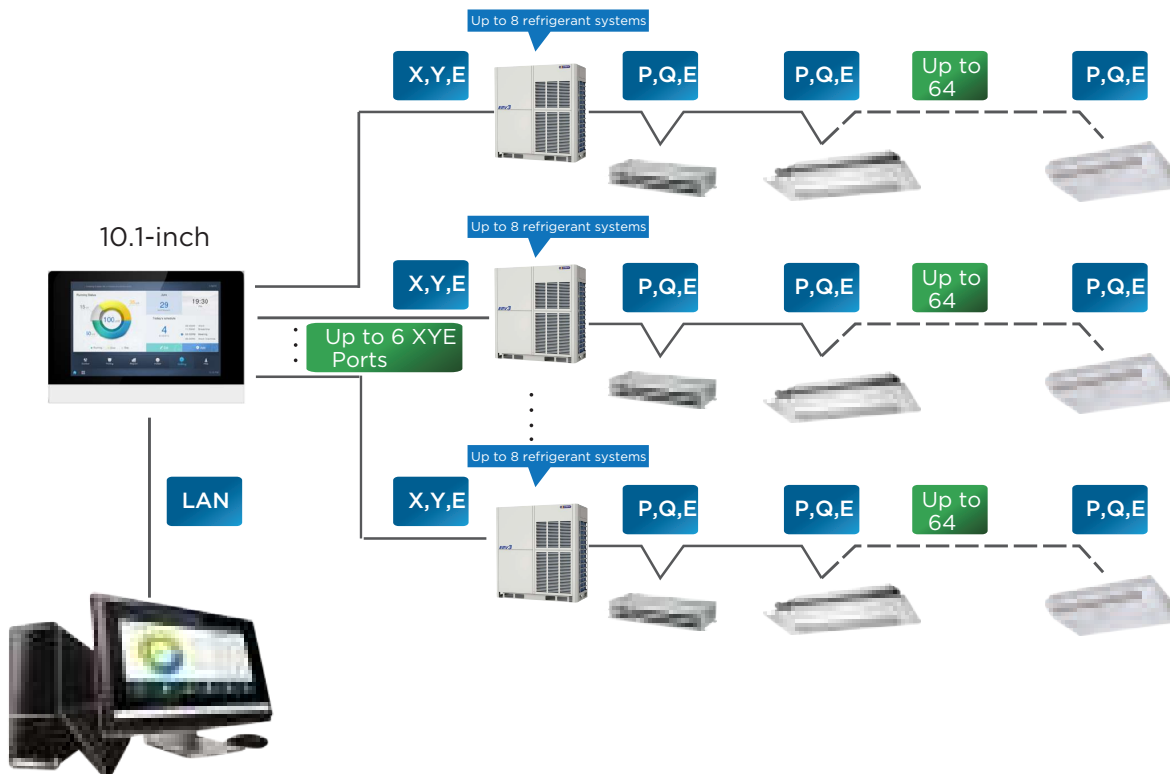
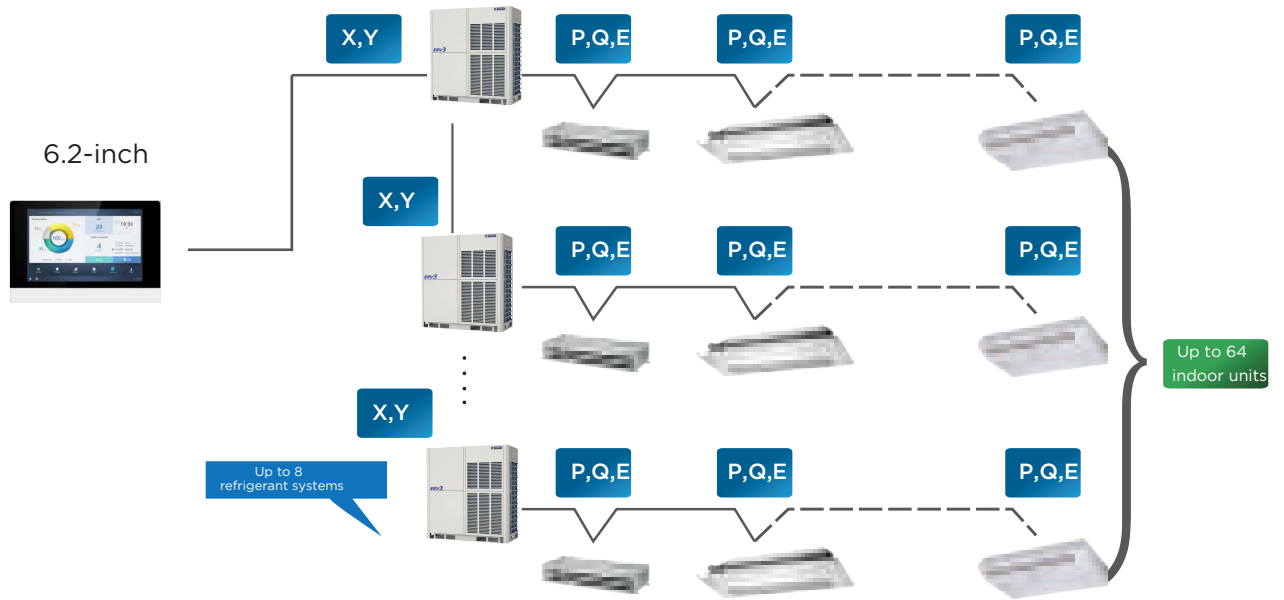
LAN Access

A desktop or laptop PC can be used for browser-based access via a LAN connection.



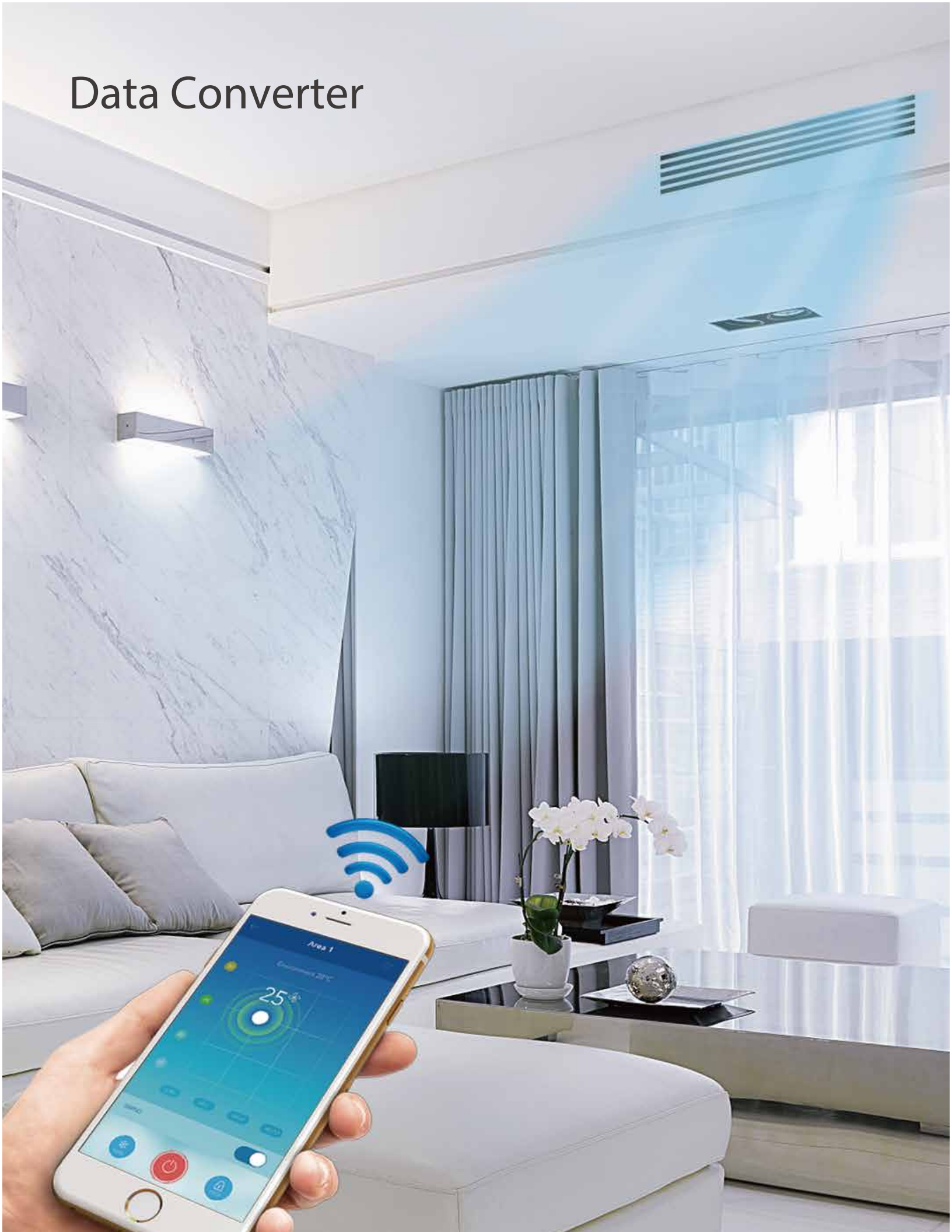
Wiring Flexibility

The controllers can be connected to the master outdoor unit directly.




CONTROL SOLUTIONS

Data Converter



Features

<p>Hardware model</p>	 <p>CCM-15</p>	
<p>Application scenarios</p>	 <p>Mobile Phone Application</p>	 <p>Cloud Server Website</p>
<p>Max. number of CCM-15 for one mobile APP</p>	<p>10</p>	<p>10</p>
<p>Max. number of indoor units</p>	<p>640</p>	<p>640</p>
<p>Max. number of refrigerant systems</p>	<p>80</p>	<p>80</p>
<p>On/Off</p>	<p>●</p>	<p>●</p>
<p>Mode selection</p>	<p>●</p>	<p>●</p>
<p>Temperature setting</p>	<p>● (1°C steps)</p>	<p>● (1°C steps)</p>
<p>7-speed fan control</p>	<p>—</p>	<p>—</p>
<p>Auto swing</p>	<p>●</p>	<p>●</p>
<p>5-step swing louver</p>	<p>—</p>	<p>—</p>
<p>Room temperature display</p>	<p>●</p>	<p>●</p>
<p>°C/°F display</p>	<p>●</p>	<p>●</p>
<p>Weekly timer</p>	<p>●</p>	<p>●</p>
<p>Indoor unit type recognition</p>	<p>—</p>	<p>—</p>
<p>Energy management</p>	<p>●</p>	<p>●</p>
<p>Group management</p>	<p>●</p>	<p>●</p>
<p>User group management</p>	<p>●</p>	<p>●</p>
<p>Operation log</p>	<p>●</p>	<p>●</p>
<p>Device log</p>	<p>●</p>	<p>●</p>
<p>Login record</p>	<p>●</p>	<p>●</p>
<p>Error log</p>	<p>—</p>	<p>●</p>
<p>Configuration</p>	<p>●</p>	<p>—</p>
<p>Account registration</p>	<p>●</p>	<p>—</p>
<p>Virtual</p>	<p>●</p>	<p>—</p>
<p>Mode display</p>	<p>●</p>	<p>●</p>
<p>Languages supported</p>	<p>English, French, Spanish</p>	<p>English, French, Spanish</p>
<p>Dimensions (WxHxD) (mm)</p>	<p>187×115×28</p>	
<p>Power supply</p>	<p>1 phase, 100-240V, 50/60Hz</p>	
<p>Outdoor unit series</p>	<p>All series</p>	

High Compatibility

Compatible with a variety of operating systems.



User Friendly Interface

Clear, stylish interface designed by leading industrial designers.



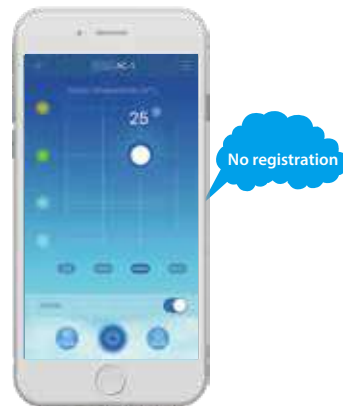
Cloud Server Website

In addition to "M-control", users can control air conditioners and query the status of air conditioning equipment anytime and anywhere through the cloud server website.



Virtual Experience

After downloading "M-control", you can experience the operation of the interface through the virtual experience function without registration.



Easy Configuration

User groups can be joined simply by scanning a QR code.



Convenient Operation

Drag the position of the floating bubbles to change temperature and fan speed.



Anytime Control

Remote access to CCM-15 allows anytime, anywhere control.



Clear Icons

Clear, color-coded icons allow unit operating states to be viewed at a glance.



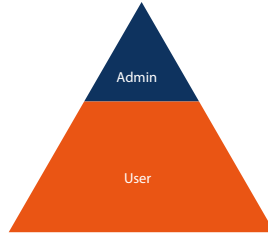
Group Management

The user can group the air conditioners equipment, and the air conditioner in the same group can be controlled together just with one tap.



2 Permission Levels

Administrators can set different permissions for different users to facilitate better management of devices.



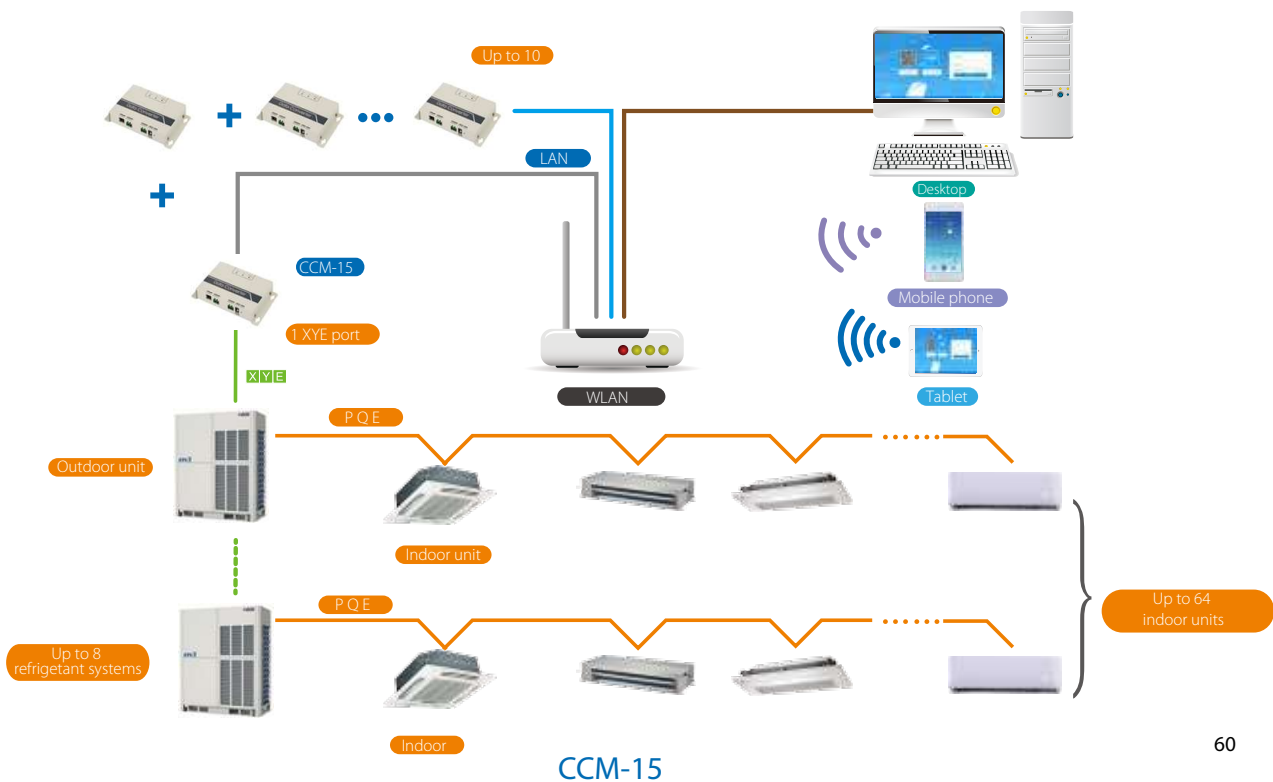
Multiple Language Options

Supports multiple languages so that users of different languages can operate easily.



Flexibility

The Data Converter can be connected directly to a network of indoor/outdoor units.



Network Control System



Features

Software model	 IMMP-S		 IMM
Hardware model	 IMMP-BAC	 CCM-270B/WS	 M-interface
Max. number per software system	10	10	4
Max. number of indoor units	2560	3840	1024
Max. number of refrigerant systems	320	480	16
Temperature setting	● (0.5°C steps)	● (0.5°C steps)	● (1°C steps)
7-speed fan control*	●	●	— (3-speed)
Auto swing	●	●	●
5-step swing louver*	●	●	—
Outdoor unit Eco mode setting	●	●	—
Holiday setting	●	●	—
Schedule management	●	●	●
Clock display	●	●	●
2 permission levels	●	●	●
Unit model recognition	●	●	—
Electricity charge distribution	●	●	●
Visual schematic	●	●	●
Energy management	●	●	●
Group management	●	●	●
Error check function	●	●	●
System parameter querying	●	●	●
Report output	●	●	●
Operation log	●	●	●
LAN access	●	●	●
Languages supported	English	English	9 languages
Dimensions (W×H×D) (mm)	251×319×61	270×183×27	251×319×66
Power supply	1 phase, 100-240V, 50/60Hz	24V AC	1 phase, 100-240V, 50/60Hz
Outdoor unit series	ERV2/ERV3/ERVc		ERV1/ERVm

Note: *means this function is only available for ERV2/ERV3/ERVc I(10-12HP) outdoor unit connected to 2nd generation DC indoor unit.

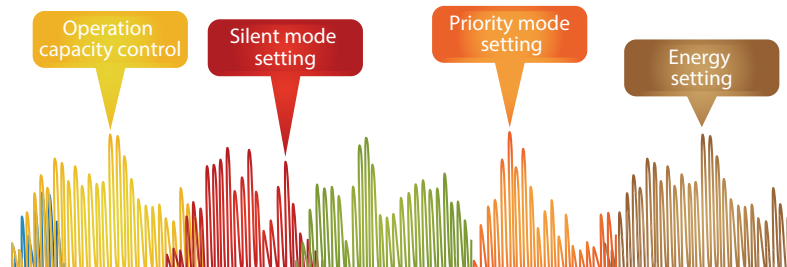
User-friendly Interface

Simple, practical user interface makes for a user-friendly experience even for first-time users.



Outdoor Unit Configuration

Outdoor unit configuration and settings can be monitored and controlled without having to go outdoors.



Note: This function is only available for ERV2/ERV3/ERV outdoor unit.

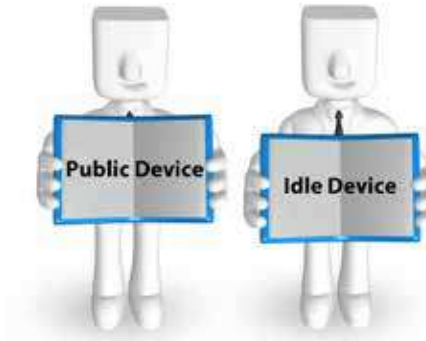
Electricity Charge Distribution

The IMMPRO uses the patented **Eminent** Calculation Method to estimate the electricity consumption of the outdoor units and then divide it among the indoor units so that the electricity charges can be equitably divided among building occupants.



Public and Idle Devices

Marking a unit as a public device or idle device ensures the electricity charge distribution is more accurate and reasonable.



Visual Schematic

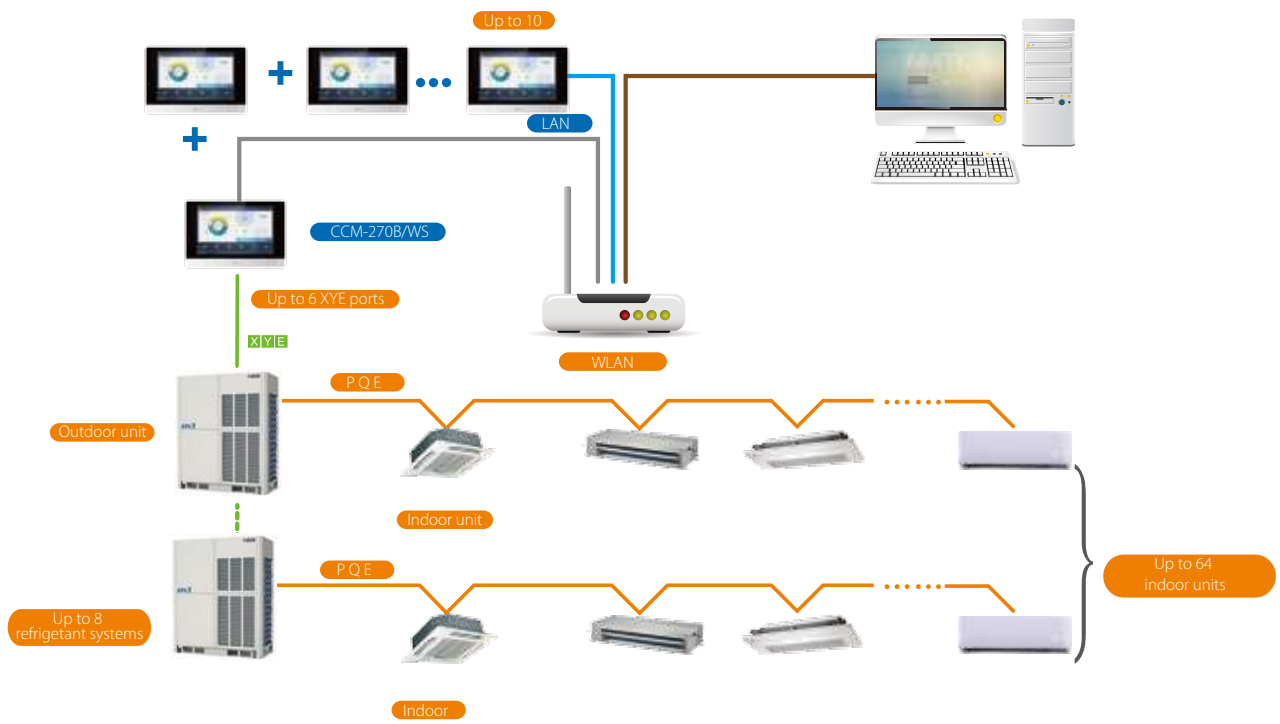
By importing floor plans and then dragging and dropping the indoor units to their actual positions on the floor plan, users can create a tailored system schematic which enables monitoring and control of the indoor units through a clear visual representation of the system layout.



Schedule Management

Daily, weekly or annual schedules can be used to set unit settings such as on/off, operating mode, set temperature, fan speed and swing.





CCM-270B/WS

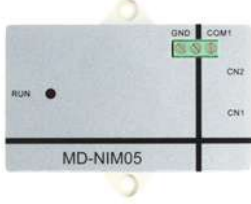

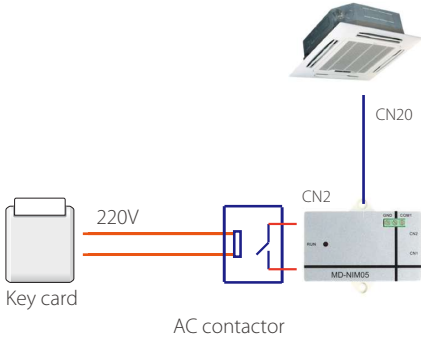
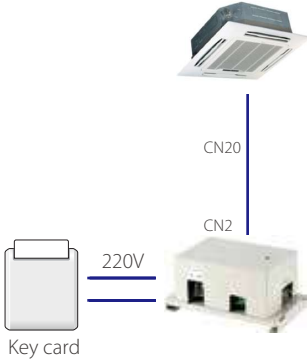


Hotel Key Card Interface Modules

Full Integration

The Hotel Key Card Interface Modules enable power supply to indoor units to be integrated with hotel key card power supply management systems, which are designed to save energy by only running appliances whilst guests are present in their room.

Features

Model	MD-NIM05/E	MD-NIM05B/E
Appearance		
Network flexibility		
Auto restart	●	●
Compatibility	Remote and wired controller	Remote and wired controller
Dimensions (HxWxD) (mm)	15.5x86x72.8	87x150x70
Power supply	5V DC (Supplied by indoor unit)	1 phase, 100-240V, 50/60Hz
Indoor unit series	all series	

Note : The Hotel Key Card Interface Modules only compatible while using the infrared communication ports of wired Controllers.

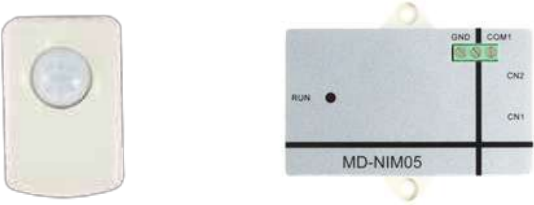
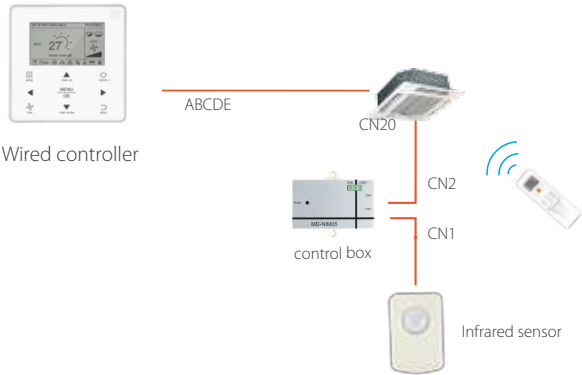


Infrared Sensor Controller

Full Integration

Using infrared sensors to detect movement, the MD-NIM09 Infrared Sensor Controller automatically turns indoor units on or off upon sensing that the room is occupied or unoccupied. Suitable for hotels, offices, conference rooms and residences, the Infrared Sensor Controller ensures climate control whilst minimizing energy consumption.

Features

Model	MD-NIM09
Appearance	
Network flexibility	
Dimensions (HxWxD)(mm)	Sensor 46x30x25.6, Control box 86x72.8x15.5
Power supply	5V DC (Supplied by indoor unit)
Indoor unit series	all series

Note : The Hotel Key Card Interface Modules only compatible while using the infrared communication ports of wired Controllers.

Diagnosis Software




Monitor and Diagnose

Eminent's VRF Diagnosis Software tool is used to monitor VRF systems and diagnose system errors.

System settings and operating parameters can be accessed easily and data logs can be reviewed for fault prevention purposes.

Features

Model		 <p>MCAC-DIAG-B</p>	
Max. number of indoor units		64	
Max. number of refrigerant systems		1	
Control	Mode selection	●	
	Temperature setting	●	
	Fan speed	●	
Outdoor unit monitoring	Operating mode	●	
	Capacity	●	
	Compressor operating frequency	●	
	Operating current	●	
	Error status	●	
	Temperatures	T3,T4,Tp (See note 1)	
	Valve statuses	SV4, SV5, SVX, ST1 (See note 2)	
	EXV position	●	
Indoor unit monitoring	Operating mode	●	
	Capacity	●	
	Fan speed	●	
	Address	●	
	Temperatures	T1, T2, T2B, TS (See note 3)	
	EXV position	●	
Error codes		●	
Toubleshooting		●	
Data logs		●	
Diagrams		System schematic, refrigerant flow diagram, parameter chart	
Languages supported		English	

Notes:

1. Heat exchanger temperature, outdoor ambient temperature, discharge temperature.

2. Oil return valve, defrosting valve, EXV bypass valve, four-way valve.

3. Indoor ambient temperature, indoor heat exchanger mid-point temperature, indoor heat exchanger outlet temperature, set temperature.

Expert Diagnosis

VRF Diagnosis Software is specially designed to allow after-sales engineers, to understand the operating status of the system at a glance.



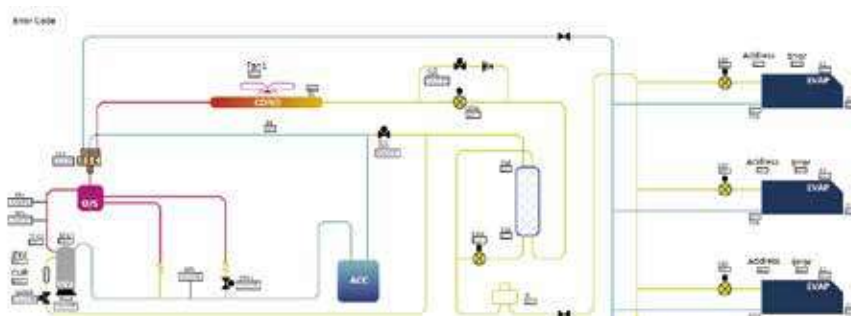
Use-friendly Interface

A stylish and simple interface with rich graphical representations makes diagnosing system issues quick and convenient.



Diagrams

A system schematic, refrigerant flow diagram and parameter chart can be generated to provide a graphical interpretation of the system status.



Parameter Querying

Access all the system parameters easily.

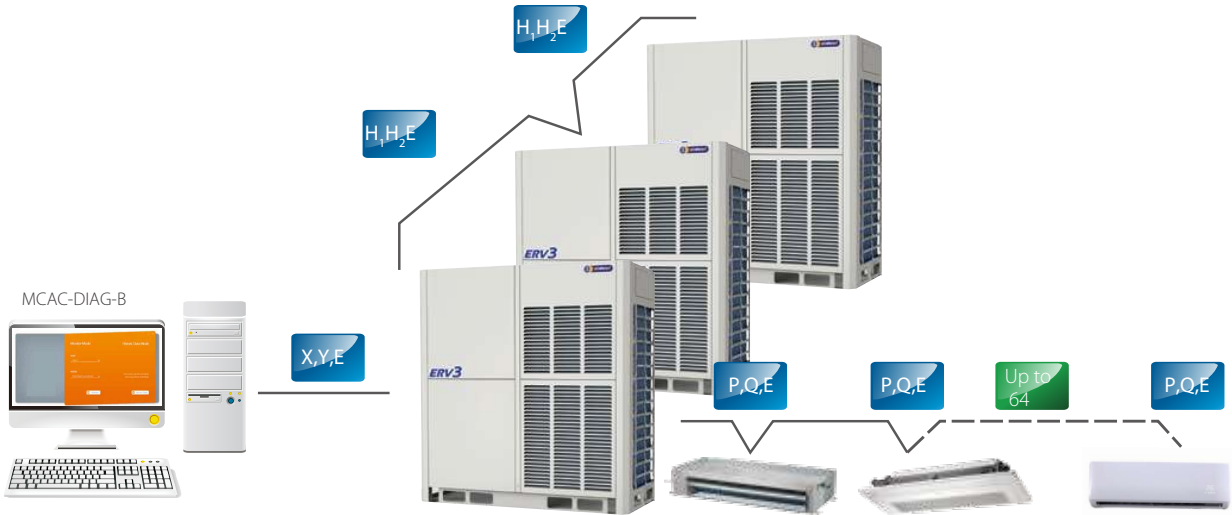


Data Logs

Data logs including operating records and error reports are saved by the software which is useful for discovering system issues.



Wiring Schematic




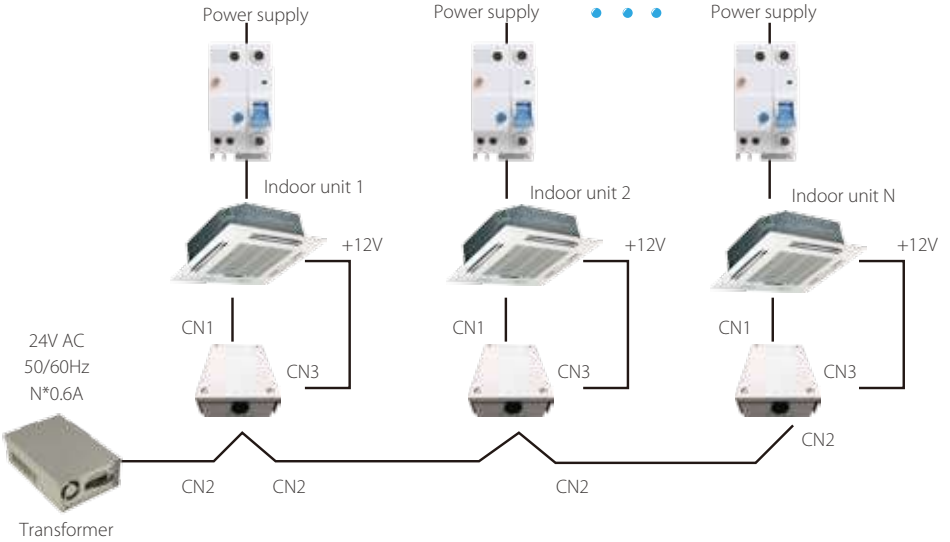
Indoor Unit Online Kit



Prevent Unnecessary Shutdown

If the power supply for one indoor unit fails, the indoor unit will still remain online and the whole VRF system will not stop. The IDU online kit will keep the indoor unit online, thus keeping the other indoor units of the system working normally and prevent unnecessary shutdown.

Features

<p>Model</p>	 <p>MCAC-PIDU</p>
<p>Network flexibility</p>	 <p>The diagram illustrates a power distribution system. A transformer provides 24V AC (50/60Hz, N*0.6A) to a bus of MCAC-PIDU units connected at their CN2 ports. Each MCAC-PIDU unit then supplies +12V power to an indoor unit (Indoor unit 1, 2, ..., N) through its CN1 port and the indoor unit's power supply. The MCAC-PIDU units are also connected to each other via their CN3 ports.</p>
<p>Dimensions (HxWxD)(mm)</p>	<p>146.6 x 100.6x 46.8</p>
<p>Power supply</p>	<p>24V AC</p>
<p>Indoor unit series</p>	<p>2nd generation DC IDU</p>

VRF AHU Control Box

High Efficiency

AHU Control Box facilitates raising the EER/COP of the complete AHU system.



Wide Capacity Range

Four Control Box can be used in parallel, giving an overall capacity range of 3.2HP to 80HP.



AHUKZ-01B
3.2-6HP



AHUKZ-02B
8-12HP



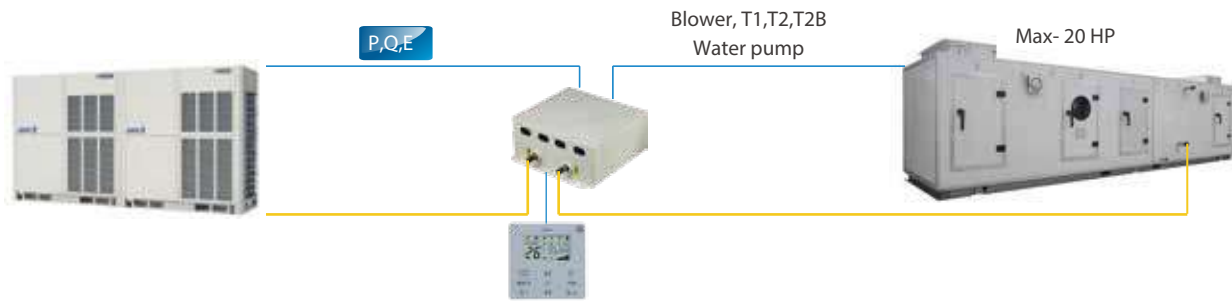
AHUKZ-03B
14-20HP

Compatible with VRF Systems

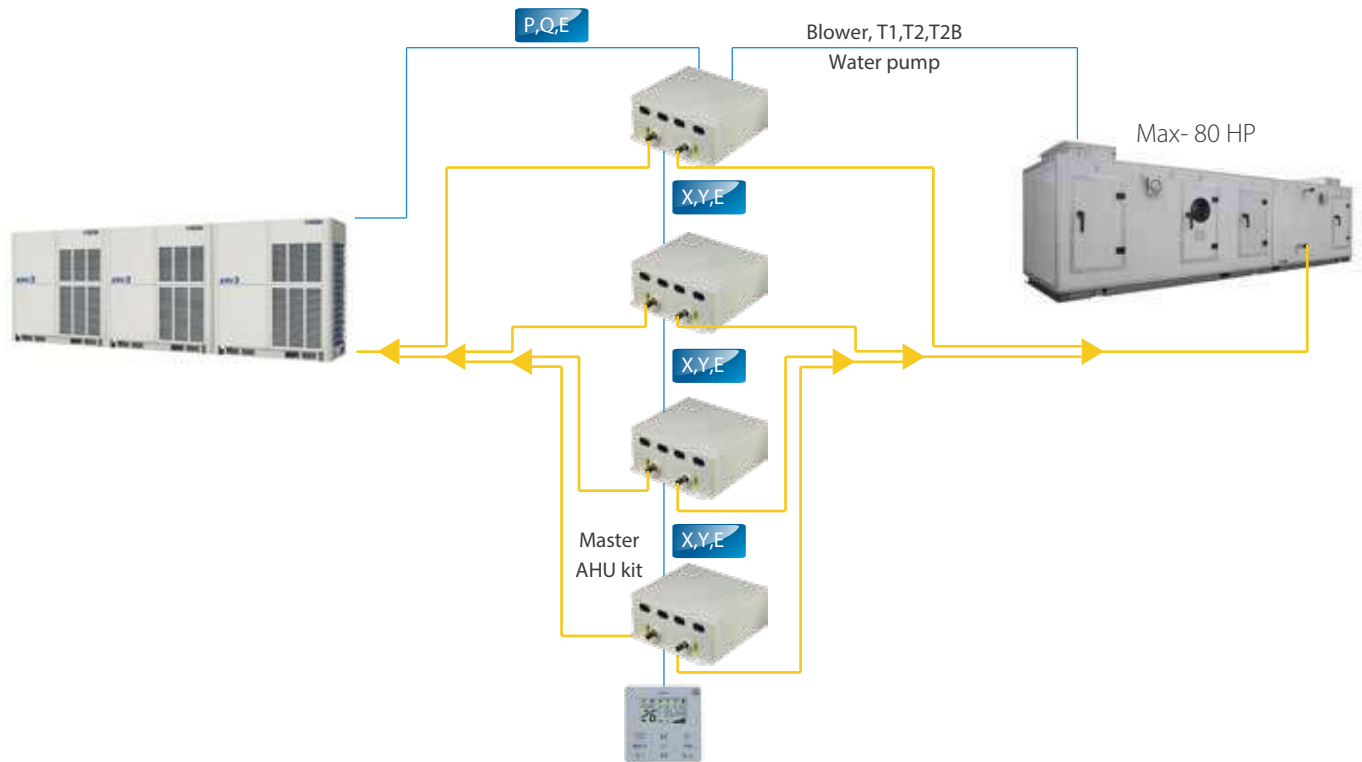
AHU Control Box are compatible with **Eminent** VRF outdoor units and can be used together with all types of **Eminent** VRF indoor units.



Single AHU Control Box Connection



Multi AHU Control Boxes Connection



Specifications

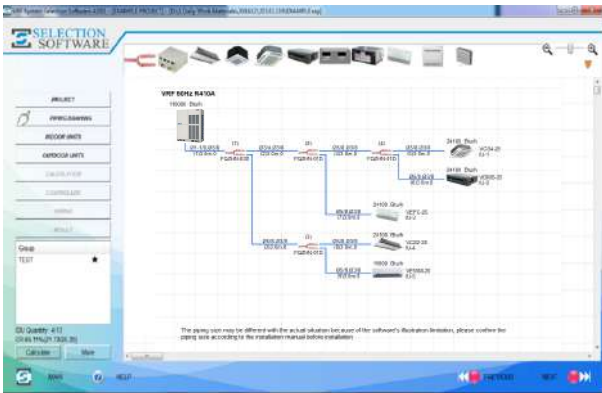
Model		AHUKZ-01B	AHUKZ-02B	AHUKZ-03B
Capacity	HP	3.2-6	8-12	14-20
Power supply		1 phase, 220-240V, 50Hz; 1 phase, 208-230V, 60Hz		
Refrigerant			R410A	
Pipe connections (inlet and outlet)	mm	Ø8	Ø12.7	Ø15.9
Net dimensions (WxHxD)	mm	350x150x375		
Packed dimensions (WxHxD)	mm	420x240x490		
Net weight	kg	8.4	8.7	8.9
Gross weight	kg	11.4	11.7	11.9
Operating modes		Cooling, heating and fan only		
Standard controller		Wired controller		
Optional controller		Wireless remote controller; SIEMENS controller		

Selection Software

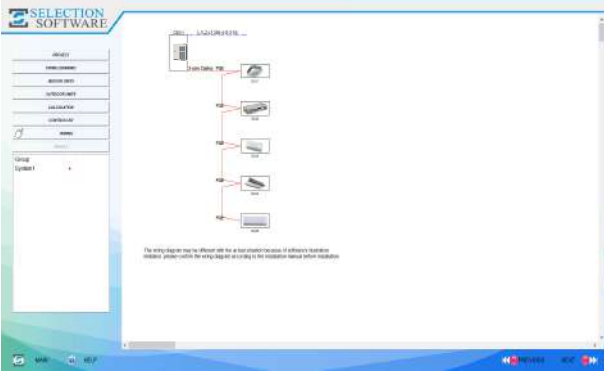
High Efficiency

Eminent's advanced design automation tool can be use by designer, consultants and distributors to greatly reduce the time and effort that must be devoted to the selection process. The software provide quick and convenient selectable option for users, supports multiple languages, and greatly improves the selection process.

The Selection Software provide distributors' sales team with a comprehensive selection of system design reports and calculations. Based on the indoor units, outdoor units and controllers selected, the software produces detailed system layout diagrams and piping requirement calculations.



Piping diagram



Wiring diagram

System	I.U. No.	I.U. Type	O.U. Model	Controller	Capacity	Controller
ORO	IU-1		VCS4-25			
GRO	IU-2		YDMS-25			
GRO	IU-3		VEFC-25			
GRO	IU-4		VCS2-25			
GRO	IU-5		VEVM			

Controller Selection

Project Name	Room Name	Room Type
Project	Room	Room
System	System	System
Capacity	Capacity	Capacity
Controller	Controller	Controller
Indoor Unit	Indoor Unit	Indoor Unit
Outdoor Unit	Outdoor Unit	Outdoor Unit
Wiring	Wiring	Wiring
Material List	Material List	Material List

Item	Qty	Unit	Description
CON-1	1	Set	Controller
IU-1	1	Set	Indoor Unit
IU-2	1	Set	Indoor Unit
IU-3	1	Set	Indoor Unit
IU-4	1	Set	Indoor Unit
IU-5	1	Set	Indoor Unit
OU-1	1	Set	Outdoor Unit
OU-2	1	Set	Outdoor Unit
OU-3	1	Set	Outdoor Unit
OU-4	1	Set	Outdoor Unit
OU-5	1	Set	Outdoor Unit

Report

Heat Recovery Ventilator

Fan Motor Options

AC and DC fan versions available.

Enhanced Efficiency

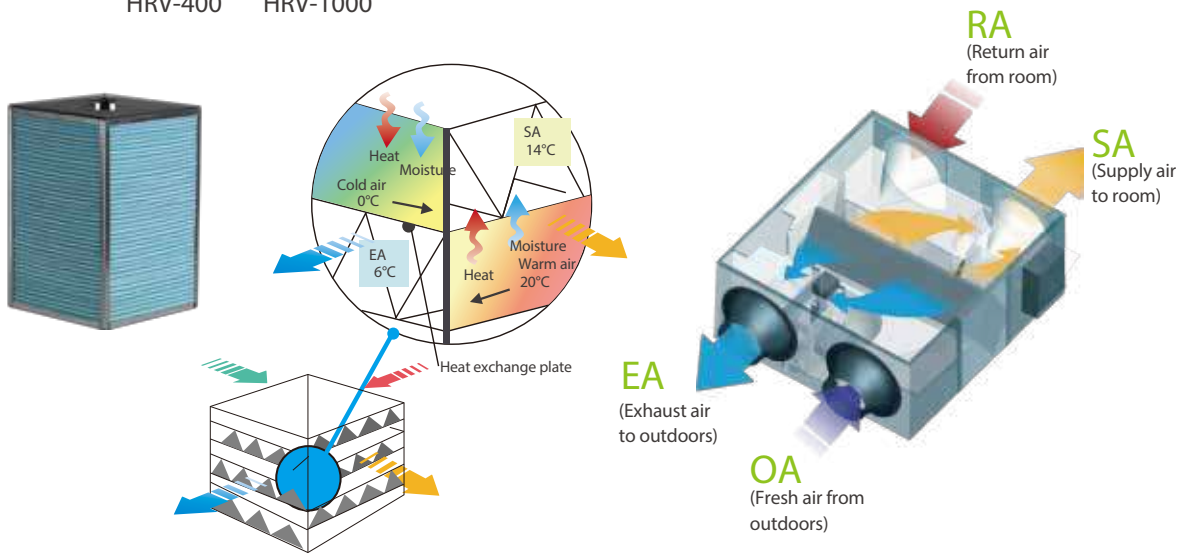
The **Eminent** heat recovery ventilator (HRV) can greatly reduce energy losses and room temperature fluctuations caused by the ventilation process. The **Eminent** HRV's strong performance is a result of the advanced technology incorporated into its design. The heat exchanger core is made of specially treated paper which gives enhanced temperature and humidity control. Temperature exchange efficiency is over 65% and enthalpy exchange efficiency is 50-65%.



HRV-200 HRV-500
 HRV-300 HRV-800
 HRV-400 HRV-1000



HRV-1500
 HRV-2000



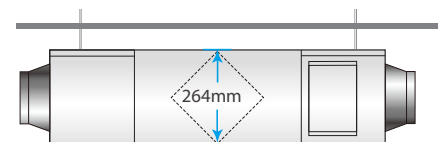
CONTROL SOLUTIONS

Low Noise

Soundproofing is used to guarantee quiet operation.

Flexibility

Heights starting from as little as 264mm and weights from as little as 23kg mean that the HRV can be easily installed even where space is limited.



Multiple Modes

Heat exchange mode

The flows of incoming and outgoing air pass close to each other, allowing heat transfer between the two channels. During summer, incoming air is cooled by the indoor air being exhausted and in winter, incoming air is warmed.

Bypass mode

In mild climates or seasons, where temperature and humidity differences between indoors and outdoors are small, the HRV can work as a conventional ventilation fan. In standard bypass mode the supply and exhaust fans run at the same speed.

Air supply mode

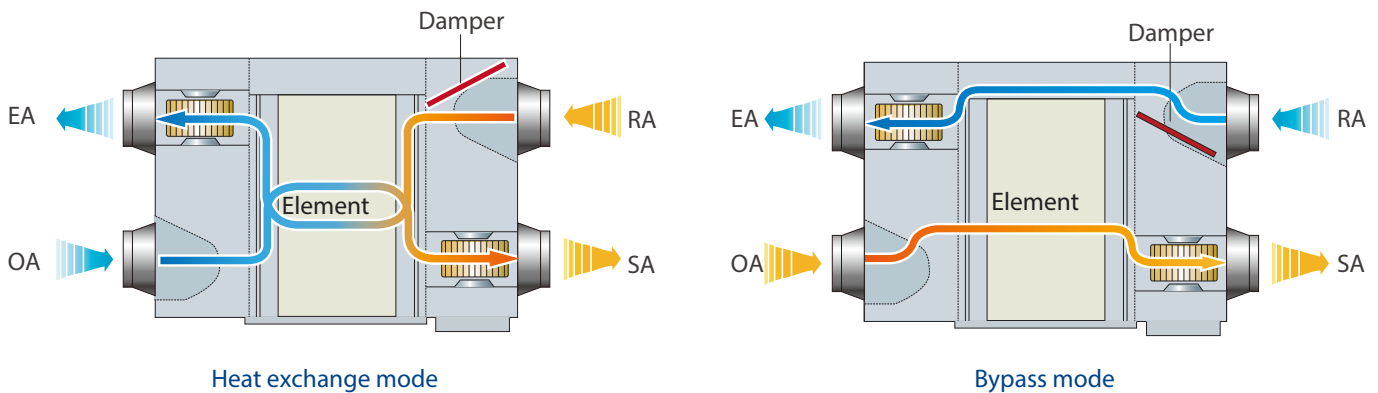
Air supply mode is where the supply fan is set to run faster than the exhaust fan, which is useful in mild climate installations with high fresh air ventilation requirements.

Exhaust mode

Exhaust mode is where the exhaust fan is set to run faster than the supply fan, which is useful in mild climate installations with large amounts of exhaust air to be expelled.

Auto mode

The controller chooses heat exchange mode or bypass mode according to the temperature difference between outdoors and indoors. Both fans are set to run at low speed.



HRV Wired Controller

KJR-27B is individually designed for HRV—Heat Recovery Ventilator. The HRV can work in the following modes: exhaust, air supply, bypass, heat exchange, and auto.



KJR-27B

Specifications

AC Series

Model		HRV-200	HRV-300	HRV-400	HRV-500
Power supply	V/Ph/Hz	220-240/1/50		220-240/1/50 & 220/1/60	
Cooling temp. exchange efficiency (H/M/L)	%	55/55/60	55/55/60	55/55/60	55/55/60
Cooling enthalpy exchange efficiency (H/M/L)	%	50/50/55	50/50/55	50/50/55	50/50/55
Heating temp. exchange efficiency (H/M/L)	%	60/60/65	60/60/65	60/60/65	65/65/70
Heating enthalpy exchange efficiency (H/M/L)	%	55/55/60	55/55/60	60/60/65	60/60/65
Sound pressure level in heat exchange mode (H/M/L)	dB(A)	27/26/20	30/29/23	32/31/25	35/34/28
Sound pressure level in bypass mode (H/M/L)	dB(A)	28/27/22	31/30/25	33/32/27	36/35/30
Airflow rate (H/M/L)	m ³ /h	200/200/150	300/300/225	400/400/300	500/500/375
External static pressure (H/M/L)	Pa	75/58/35	75/60/40	80/65/43	80/68/45
Motor type		AC			
Duct diameter	mm	Φ144	Φ144	Φ144	Φ194
Net dimensions (WxDxH)	mm	866x655x264	944x722x270	944x927x270	1038x1026x270
Packed dimensions (WxDxH)	mm	960x770x445	1020x810x452	1020x1020x452	1120x1120x452
Net weight	kg	23	26	31	41
Gross weight	kg	40	44	52	64
Operating temperature range	°C	-7 to 43 DB, RH 80% or lower			

Model		HRV-800	HRV-1000	HRV-1500	HRV-2000
Power supply	V/Ph/Hz	220-240/1/50 & 220/1/60		380-415/3/50 & 220/3/60	
Cooling temp. exchange efficiency (H/M/L)	%	55/55/60	55/55/60	55	55
Cooling enthalpy exchange efficiency (H/M/L)	%	50/50/55	50/50/55	50	50
Heating temp. exchange efficiency (H/M/L)	%	65/65/70	65/65/70	65	65
Heating enthalpy exchange efficiency (H/M/L)	%	60/60/65	60/60/65	60	60
Sound pressure level in heat exchange mode (H/M/L)	dB(A)	39/38/32	40/39/33	51	53
Sound pressure level in bypass mode (H/M/L)	dB(A)	40/39/34	41/40/35	52	54
Airflow rate (H/M/L)	m ³ /h	800/800/600	1000/1000/750	1500	2000
External static pressure (H/M/L)	Pa	100/82/54	100/85/58	160	170
Motor type		AC			
Duct dimensions	mm	Φ242	Φ242	346x326	346x326
Net dimensions (WxDxH)	mm	1286x1006x388	1286x1256x388	1600x1270x540	1650x1470x540
Packed dimensions (WxDxH)	mm	1380x1100x573	1400x1370x573	1710x1410x720	1760x1610x720
Net weight	kg	62	79	163	182
Gross weight	kg	88	110	224	247
Operating temperature range	°C	-7 to 43 DB, RH 80% or lower			

Note:

1. Models HRV-200 to HRV-1000 each have have 3 airflow settings; the airflow rates of the HRV-1500 and HRV-2000 are not adjustable.
2. Sound level is measured 1.4m below the center of the unit in an semi-anechoic chamber.
3. Efficiency is measured under the following conditions:
Cooling: exhaust air temp 27°C DB, 19.5°C WB; fresh air temp. 35°C DB, 28°C WB.
Heating: exhaust air temp 21°C DB, 13°C WB; fresh air temp. 5°C DB, 2°C WB.

Specifications

DC Series





Model		HRV-D200(A)	HRV-D300(A)	HRV-D400(A)	HRV-D500(A)	
Power supply	V/Ph/Hz	220-240/1/50(60)				
Power input	kW	0.07	0.1	0.11	0.15	
Nominal temperature efficiency	%	81.1	75.5	77.7	80.6	
Nominal enthalpy efficiency	%	77.5	72.1	73.5	74	
Current	A	0.64	0.84	0.97	1.2	
Indoor external static pressure (Hi)	Pa	100	90	100	90	
Nominal air flow	m ³ /h	200	300	400	500	
Sound pressure level	dB(A)	45	48	48	50	
Net dimension (WxDxH)	mm	1195×801×272	1195×914×272	1276×1204×272	1311×1106×390	
Packing size (WxDxH)	mm	1275×880×420	1275×994×420	1360×1284×420	1390×1244×540	
Net/Gross weight	kg	46.5/63.5	56.5/75.5	71.5/91.5	76/98	
Fresh air	Fresh Air Diameter	mm	Φ144	Φ144	Φ198	Φ244
	Air drop	Pa	52	179	218	189
Operating temperature range	°C	-7 to 43 DB, RH 80% or lower				

Model		HRV-D800(A)	HRV-D1000(A)	HRV-D1500(A)	HRV-D2000(A)	
Power supply	V/Ph/Hz	220-240/1/50(60)				
Power input	kW	0.32	0.38	0.68	0.95	
Nominal temperature efficiency	%	2.4	2.9	3.8	5.7	
Nominal enthalpy efficiency	%	78.7	82.8	75.5	77.2	
Current	A	72.3	76	69.4	74.7	
Indoor external static pressure (Hi)	Pa	140	160	180	200	
Nominal air flow	m ³ /h	800	1000	1500	2000	
Sound pressure level	dB(A)	55	54	69	70	
Net dimension (WxDxH)	mm	1311×1286×390	1311×1526×390	1740×1375×615	1811×1575×685	
Packing size (WxDxH)	mm	1390×1424×540	1390×1670×540	1830×1520×770	1900×1720×845	
Net/Gross weight	kg	80/104	90/112	181.5/213	208.5/245	
Fresh air	Fresh Air Diameter	mm	Φ244	Φ244	346×326	346×326
	Air drop	Pa	357	384	253	322
Operating temperature range	°C	-7 to 43 DB, RH 80% or lower				





Note:

1. All models each have 3 airflow setting.
2. Sound level is measured 1.4m below the center of the unit in a semi-anechoic chamber.
3. The parameters in the above table are measured at high speed.



Branch Joints

Model	Gas side joints	Liquid side joints
FQZHN-01D	 <p>Gas side joints for model FQZHN-01D, showing a Y-shaped black metal fitting with two horizontal copper pipes and one angled copper pipe, along with a separate angled copper pipe.</p>	 <p>Liquid side joints for model FQZHN-01D, showing a Y-shaped black metal fitting with two horizontal copper pipes and one angled copper pipe, along with a separate angled copper pipe.</p>
FQZHN-02D	 <p>Gas side joints for model FQZHN-02D, showing a Y-shaped black metal fitting with two horizontal copper pipes and one angled copper pipe, along with three separate angled copper pipes.</p>	 <p>Liquid side joints for model FQZHN-02D, showing a Y-shaped black metal fitting with two horizontal copper pipes and one angled copper pipe, along with three separate angled copper pipes.</p>

Branch Joints

Model	Gas side joints	Liquid side joints
FQZHN-03D	 <p>Three sets of gas side joints for the FQZHN-03D model. Each set includes a black plastic manifold with three ports, a copper pipe with a 90-degree elbow, and two copper pipe fittings (one straight and one with a 90-degree elbow).</p>	 <p>Three sets of liquid side joints for the FQZHN-03D model. Each set includes a black plastic manifold with three ports, a copper pipe with a 90-degree elbow, and two copper pipe fittings (one straight and one with a 90-degree elbow).</p>
FQZHN-04D	 <p>Three sets of gas side joints for the FQZHN-04D model. Each set includes a black plastic manifold with four ports, a copper pipe with a 90-degree elbow, and two copper pipe fittings (one straight and one with a 90-degree elbow).</p>	 <p>Three sets of liquid side joints for the FQZHN-04D model. Each set includes a black plastic manifold with four ports, a copper pipe with a 90-degree elbow, and two copper pipe fittings (one straight and one with a 90-degree elbow).</p>

Branch Joints

Model	Gas side joints	Liquid side joints
FQZHN-05D	 <p>The image shows the gas side joints for the FQZHN-05D model. It features a black plastic manifold with three outlets. Two of these outlets are connected to copper pipes using copper fittings. The fittings include a tee fitting, a straight fitting, and a cap. The copper pipes are shown in a disassembled state, highlighting the individual components used for gas-side connections.</p>	 <p>The image shows the liquid side joints for the FQZHN-05D model. It features a black plastic manifold with three outlets. Two of these outlets are connected to copper pipes using copper fittings. The fittings include a tee fitting, a straight fitting, and a cap. The copper pipes are shown in a disassembled state, highlighting the individual components used for liquid-side connections.</p>

Dimensions

Branch Joints

Model	Gas side joints	Liquid side joints
FQZHN-01D		
FQZHN-02D		

Dimensions

Branch Joints

Model	Gas side joints	Liquid side joints
FQZHN-03D		
FQZHN-04D		

Dimensions

Branch Joints

Model	Gas side joints	Liquid side joints
FQZHN-05D		



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