

VCX4 FULL DC INVERTER VRF

COOLING CAPACITY : 8HP TO 90HP



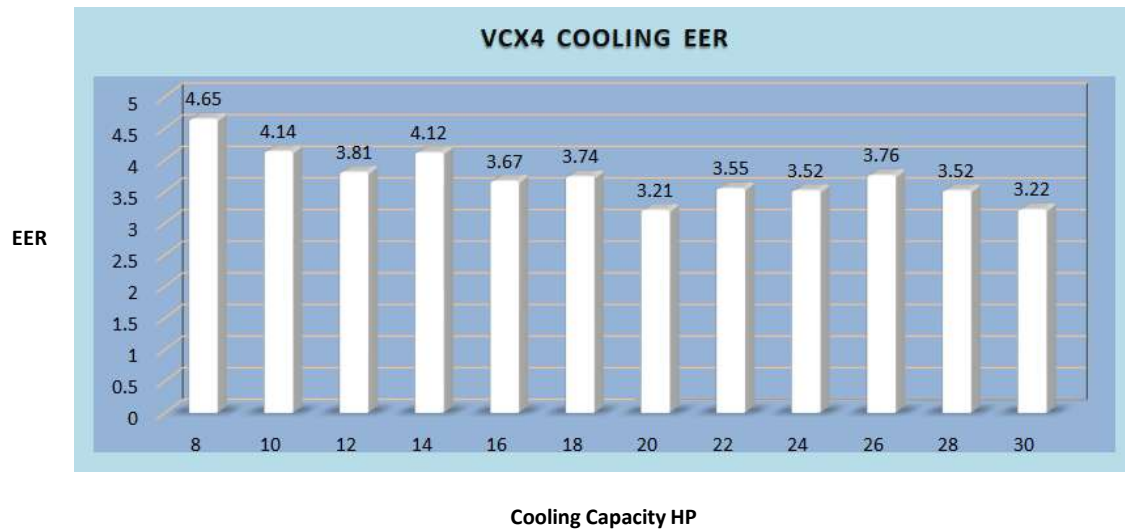
THE ENERGY SAVING AIR CONDITIONING SYSTEM

- AIR COOLED VRF SYSTEM
- MINI AIR COOLED VRF SYSTEM

HIGH EFFICIENCY

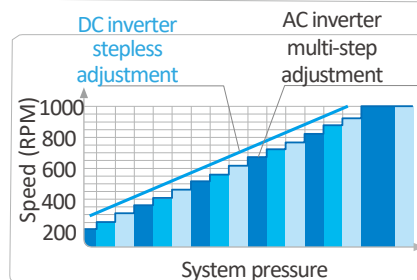
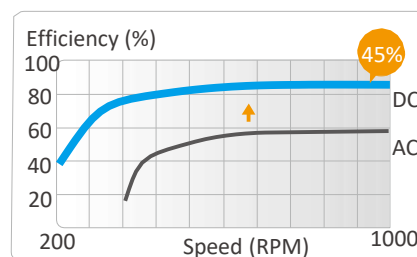
High EER in cooling

Topaire VRF Air Conditioner achieves the industry's top class energy efficiency in cooling by utilizing DC inverter compressor, DC fan motor and high efficiency heat exchanger.



High Efficiency DC Inverter Compressor

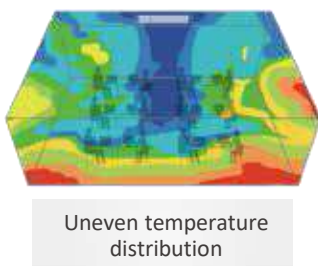
The VCX4 Series VRF uses full DC inverter compressor and fan motor to achieve high precision stepless speed adjustment according to system operation, and ensures that the system is always in optimum condition, operating more efficiently, more consistently and with less noise.



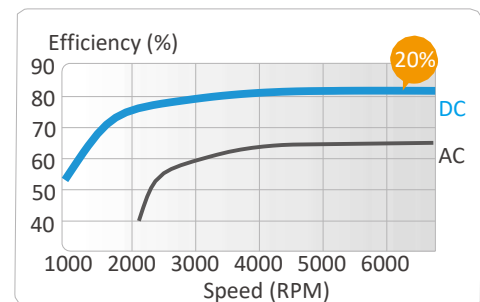
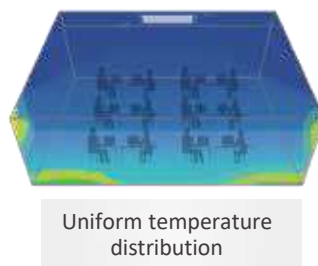
- Wider frequency adjustment range
- Faster cooling
- Higher energy efficiency

Full DC Inverter for Indoor Components

All power devices such as indoor fan motor, drain pump and electric control board are fully DC, which increases electrical efficiency by 20% and results in more accurate temperature control, a more constant indoor temperature and higher energy efficiency.

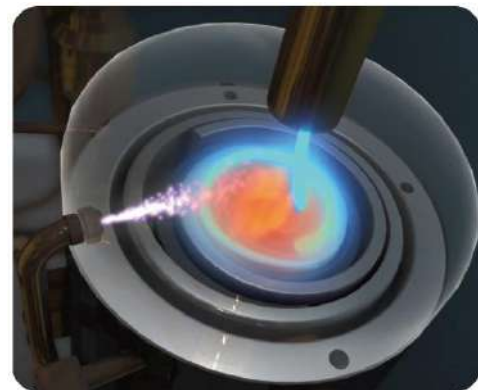


VS



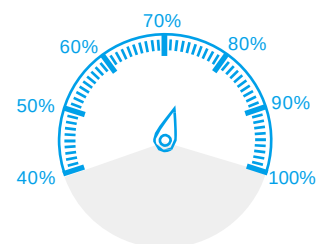
Enhanced Vapor Injection (EVI) Compressor

The enhanced vapor injection DC inverter compressor increases refrigerant circulation and improves cooling capacity.



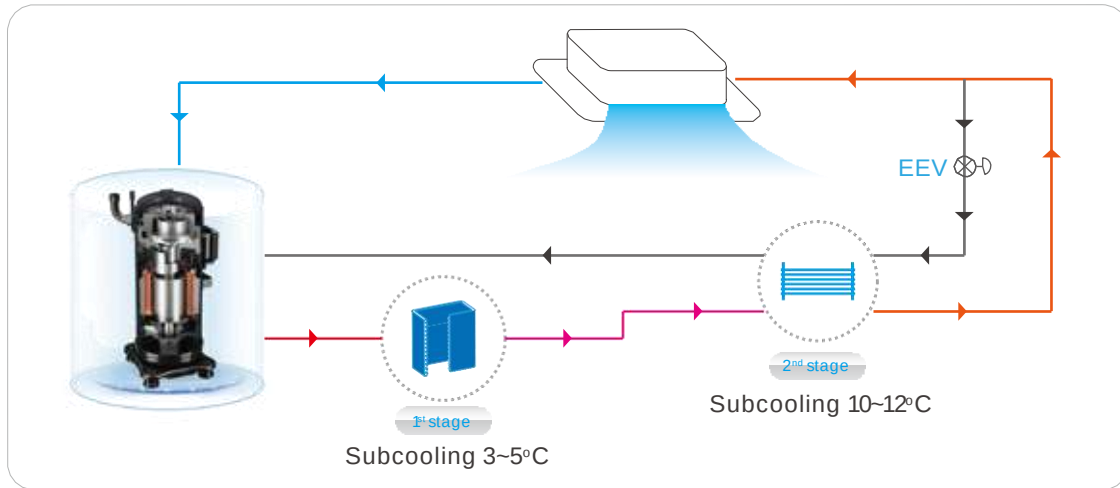
Energy Management System (EMS)

VCX4 outdoor can be set to output 40-100% capacity in 1% increments for projects with temporary electricity supply restrictions to prevent tripping and allows the system to continue to operate.



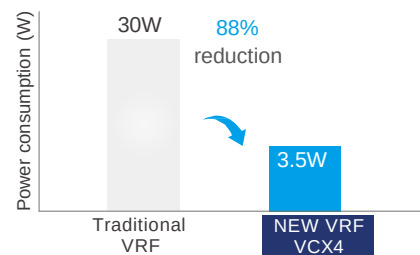
Advanced Subcooling Technology

The VCX4 Series VRF uses a micro-channel heat exchanger to further cool the refrigerant and the refrigerant system can achieve 15°C refrigerant subcooling, which can further improve the refrigerant heat transfer efficiency while reducing the sound of refrigerant flow.



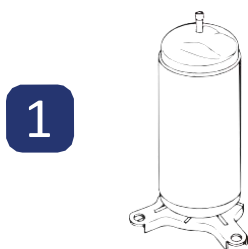
Low Standby Power Consumption

In comparison to the standby power consumption of previous series VRF which is about 30W, the VCX4 Series now uses optimized control scheme to further reduce standby power consumption to as low as 3.5W.

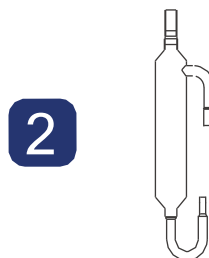


Precise Oil Control Technology

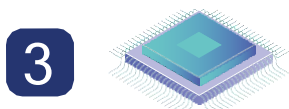
Four stages of oil control technology ensure all outdoor compressor oil is always kept at a safe level, eliminating any compressor oil shortage problems



Compressor internal oil separation.



High-efficiency centrifugal oil separator (with separation efficiency of up to 99%) ensures that oil is separated from the discharge gas and returned to the compressors in a timely fashion.



The automatic oil return program determines the oil return through the running time and the oil discharge amount, enabling precise oil return.

WIDE APPLICATION RANGE

Wide Capacity Range

Starting at 8HP, capacity increases in 2HP increment up to 90HP, which is the world's largest single system VRF capacity



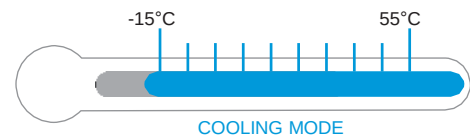
8 HP until 20 HP
(Single fan)



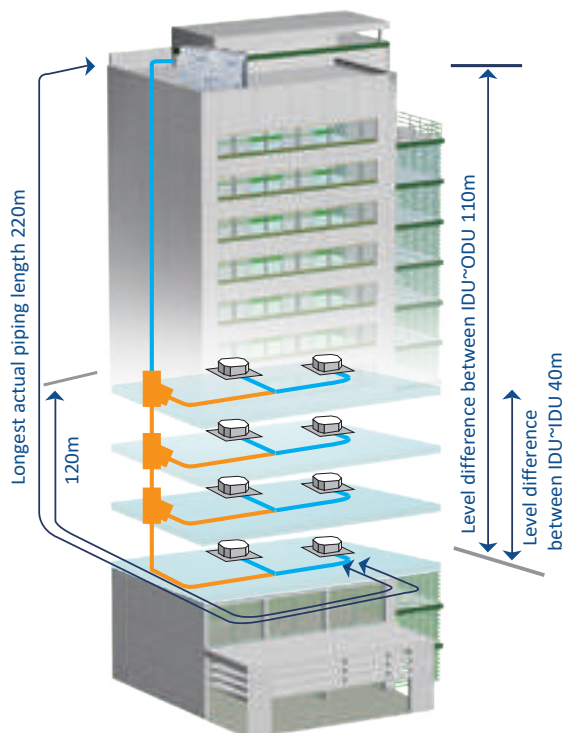
22 HP until 38 HP
(Dual fans)

Wide Operation Range

The VCX4 Series VRF can operate stably in a wide ambient temperature range: from -15°C to 55°C in cooling mode.



Piping Length & Unit Elevation



<u>Piping length</u>	<u>Capability</u>
Total piping length	1100m
Max. pipe length - actual (equivalent)	220 m(260m)*
Longest length after first branch (standard)	40/120m**
Largest height difference between indoor and outdoor units - ODU up (down)	110 m (110m)
Largest height difference between indoor units	40m

*Max. pipe length including Y-joint is 200m.

**The longest length after first branch can be extended up to 120m under certain conditions. Please contact Topaire Sales & Services office for further information.

Note : Total piping length = all liquid & gas pipe length

INNOVATIVE TECHNOLOGY

HyperLink

HyperLink communication bus chip technology supports any wiring pattern rather than just daisy chain. In addition to the traditional daisy chain connection, the communication wire supports tree connection, star connection, ring connection and so on. The wiring is flexible, which greatly reduces installation costs and has no possibility of wrong connection on site.



Flexible installation



Low installation cost

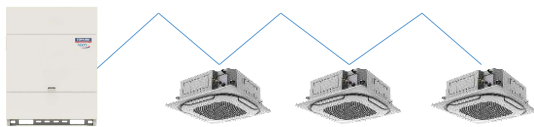


High reliability

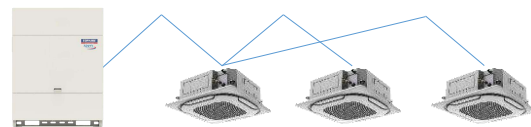


Stable operation

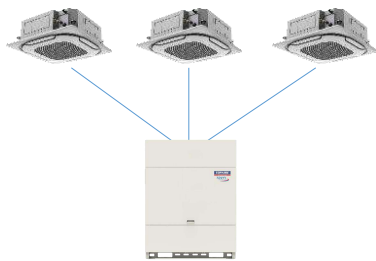
VCX4 Wiring Connection



Daisy chain connection



Tree connection



Star connection

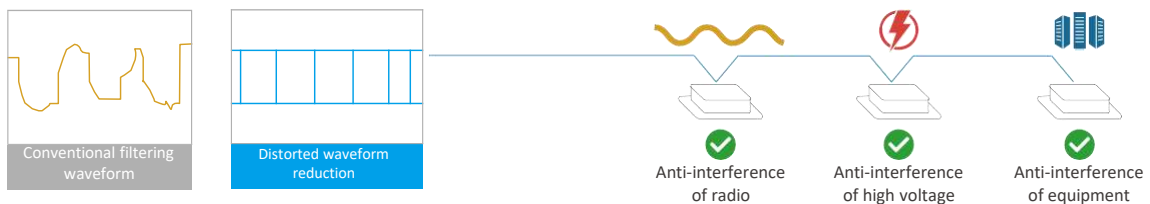


Ring connection

*In ring connection, the communication wire must be connected polarized (M1 port to M1 port and M2 port to M2 port).

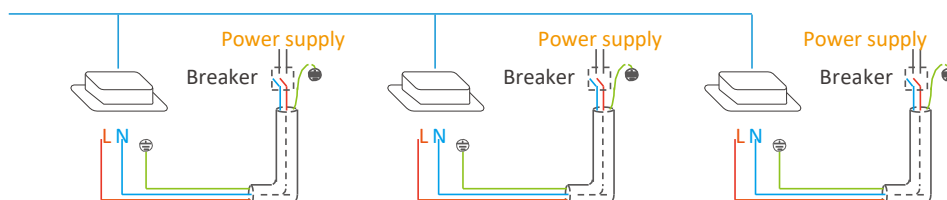
Super Anti-Interference Capability

Special waveform restoration technology enhances anti-interference performance for more stable communication. It has stronger anti-interference ability, achieving a communication distance of up to 2000m.



Flexible Power Supply for Indoor Units

HyperLink's unique communication method allows the indoor units to be powered not only by a uniform power supply, but also by individual and zone power supplies, making it particularly suitable for each shop in a large complex building, which can independently power on and off its own indoor units.



SuperSense



High Reliability



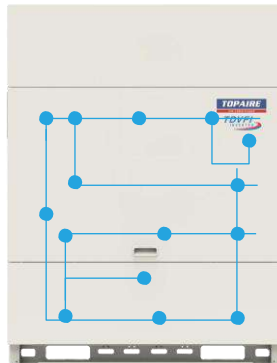
Stable operation



Enhanced comfort

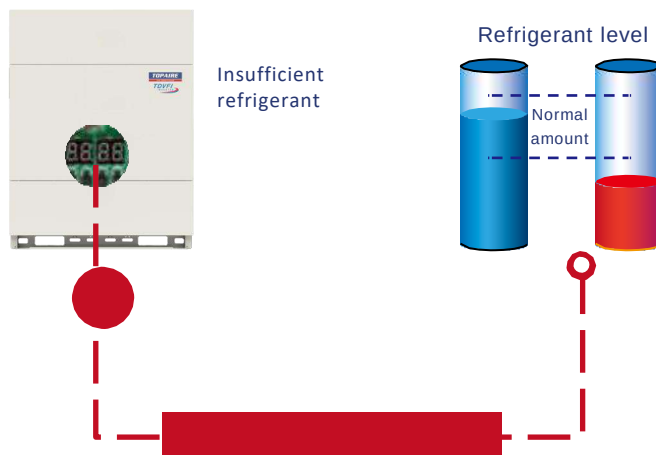
Up to 17 Sensors

The VCX4 Series VRF is equipped with up to 17 condition monitoring sensors, combined with built-in data models of compressors, heat exchangers and throttling components, which can analyze the operation data in real time and monitor the refrigerant condition of the system.



Refrigerant Amount Diagnosis

Thanks to the complete sensors, the refrigerant running state is clearly visible, so as to accurately diagnose the amount of refrigerant.



Virtual Sensor Backup

In the event of a sensor failure, other sensors can automatically simulate a virtual backup sensor, so that the VRF system can continue to operate without stopping.



Failure of a
physical sensor

Real-time
generation of
virtual sensor

IP55 fully enclosed electric control box provides all-round protection for internal electronic components, greatly improving system reliability.



High Reliability



Stable operation

IP (INGRESS PROTECTION)

IP
55

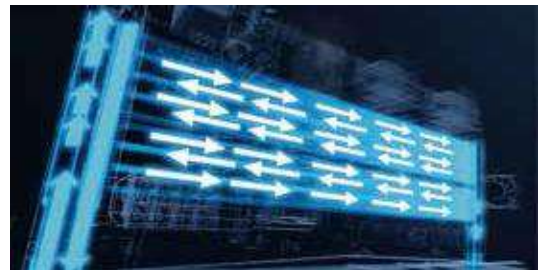
Dustproof grade code
Prevent entry foreign
objects and dust

Waterproof grade code
Prevent water spray
in all directions

Fully enclosed electronic components are isolated from the external environment to protect against corrosion, sand, humidity, snowstorms and other harsh conditions, and prevent small animals and insects from entering the chamber. This protects internal electronic devices and improves the overall environmental tolerance.

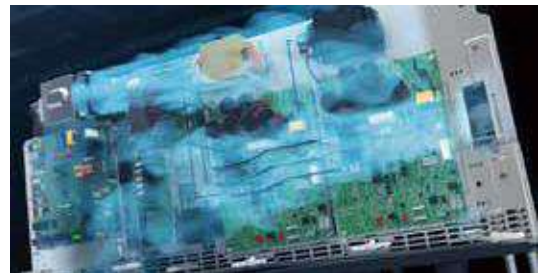
All Microchannel Refrigerant Cooling

All electronic components including inverter module, filter module and power module are cooled by specially designed microchannel refrigerant to ensure that the electronic components work in the best temperature range.



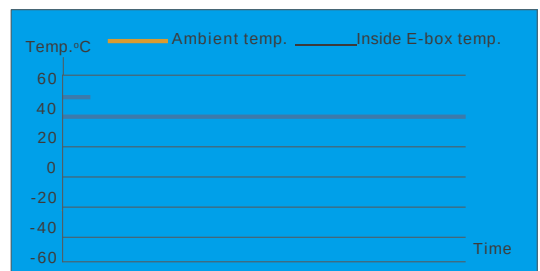
Built-in Circulating Fan

The built-in circulating fan accelerates the air flow inside the chamber, and the heat exchange is more sufficient to ensure the consistent ambient temperature inside the chamber.



5 High Precision Temperature Sensors

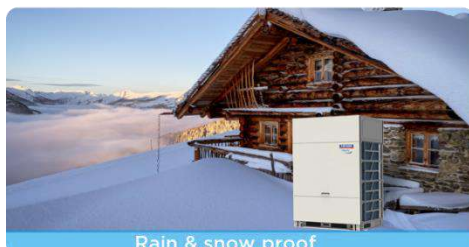
5 high precision temperature sensors are used to accurately monitor the operation state of electronic control under various conditions to ensure that the internal temperature of the chamber is always kept within a stable range.



Anti-corrosion



Dustproof



Rain & snow proof



Insect proof

AETA 2.0

AETA is the abbreviation of Advance Evaporating Temperature Alteration. Further upgraded AETA technology to maximize ENERGY SAVING.



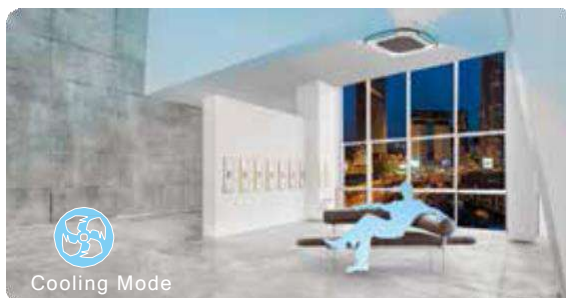
Energy saving



Enhanced comfort



Fast cooling



Doctor M 2.0

Further upgraded DOCTOR M technology to maximize EASY SERVICE.



Easy maintenance



Fast maintenance



Low maintenance cost



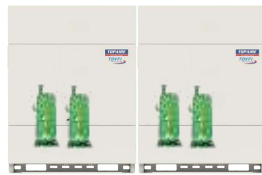
HIGH RELIABILITY

Quadruple Backup

In two fans, two compressors and multiple units, one can run in backup for another. Additionally, the VCX4 series VRF generates a corresponding virtual sensor for each physical sensor by means of a digital algorithm, which serves as a backup for each other, ensuring no shutdown in the event of a fault, and further guaranteeing comfort.

Unit Backup

In a multi-unit system, the different units act as a backup to each other, ensuring that the system can continue to operate if one unit fails.



Intelligent load-bearing
between units during
normal operation

 Operation compressor



Continue operating in case
of failure of one unit

 Failed compressor

Fan Backup

In unit with two fans, the two fans act as a backup to each other, ensuring that the system can continue to operate if one fan fails.



In normal operation,
each fan runs on
demand

 Operation fan



Automatic backup operation
of another fan in case of
failure of one fan

 Failed fan

Compressor Backup

In unit with two compressors, the two compressors act as a backup to each other, ensuring that the system can continue to operate if one compressor fails.



Intelligent load-bearing
between compressors
during normal
operation



Continue operating
in case of failure of
one compressor

Quadruple Backup

Sensor Backup

Through digital algorithms, each physical sensor generates a corresponding virtual sensor that acts as a backup to each other, ensuring that the failure of one sensor does not affect the normal operation of the system.

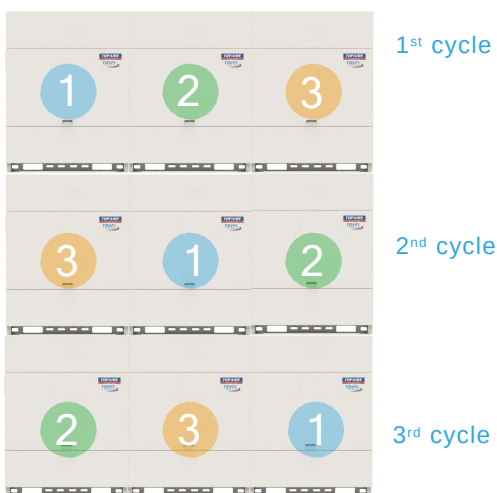


Automatic backup operation of the corresponding virtual sensor in case of failure of one physical sensor

Double Duty Cycling

1 Unit Duty Cycling

In a multi-unit system, duty cycling equalizes the running time of each outdoor unit, significantly extending unit lifespan.



2 Compressor Duty Cycling

In units with two compressors, duty cycling equalizes the running time of each compressor, significantly extending compressor lifespan.



Compressor start-up sequence

Note: The duty cycling sequence shown in the figure is only a schematic reference. The actual duty cycling sequence is not a fixed sequence. Please refer to the technical manual for specific rotation rules.

Anti-corrosion Protection (Optional)

Outdoor units are given corrosion resistance treatment for non-extreme conditions as standard and can also be customized with heavy corrosion resistance 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 corrosion resistance treatment is ensured by subjecting major components and parts to salt mist testing, moisture and heating testing and light aging testing.

Fan motor

Standard products: 72hrs of neutral salt mist

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



Painted sheet metal

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

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



Heat exchanger aluminum foil

Standard products: 72hrs of neutral salt mist

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

Heat exchanger copper pipe

Standard products: 24hrs of neutral salt mist
Heavy anti-corrosion products: 120hrs of neutral salt mist



Screws / bolts / gaskets

Standard products: 300hrs of neutral salt mist

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

Electric control box case

Standard products: 96hrs of neutral salt mist

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



UL Anti-Corrosion Certificate (Optional)

It has been certified by UL that our VRF outdoor unit can withstand 27 years of simulated severe corrosion under a salt contaminated traffic environment.

*UL anti-corrosion certificate is available for heavy anti-corrosion treatment units.

Outdoor Unit can resist 27 years of simulated severe corrosion under a salt contaminated traffic environment



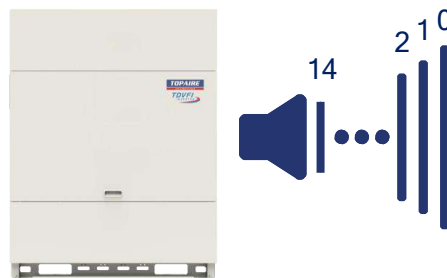
ENHANCED COMFORT

Advanced Silent Technology

Multiple noise reduction measures reduce the running noise of outdoor units.

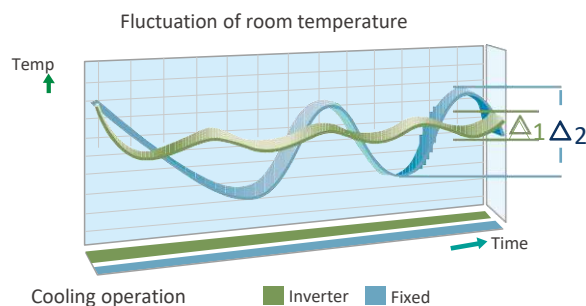


15-step silent mode provide more freedom and convenience to match the customer needs.



Precise Temperature Control

Thanks to advanced full DC inverter technology, the system can quickly reach full load output, shorten cooling time, reduce temperature fluctuations, and create a more comfortable living environment.



EASY INSTALLATION SERVICE

Anti-Interference Ability

HyperLink communication technology supports any wiring pattern rather than just daisy chain connection, reducing the installation cost and the possibility of incorrect connection. It has stronger anti-interference ability, achieving a communication distance of up to 2000m.



Auto Addressing

Outdoor units can distribute addresses to indoor units automatically. Remote and wired controllers can be used to query or modify each indoor unit's address.



Multi-Function Control Monitoring Capability

Triple (local/remote/network) configurations greatly simplifies installation, commissioning and servicing.

- Field local configuration achieve quick and easy on-site settings, simplifies installation and commissioning.
- System checking and settings also can be easily achieved via wired and centralized controller, making the configuration more flexible and convenient.
- A desktop or laptop PC can be used for browser-based access to achieve system configurations through IMM Pro gateway via a LAN connection.



TDVFI - VCX4 MODULE COMBINATION TABLE

Model	Capacity (Btu/hr)	Module Combination	Total Combination (Hp)	Max. Indoor Units
TDVFI 80VCX4	76,429	8	8	13
TDVFI 100VCX4	95,536	10	10	16
TDVFI 120VCX4	114,302	12	12	19
TDVFI 140VCX4	136,480	14	14	23
TDVFI 160VCX4	153,540	16	16	26
TDVFI 180VCX4	170,600	18	18	29
TDVFI 200VCX4	191,072	20	20	33
TDVFI 220VCX4	209,838	22	22	36
TDVFI 240VCX4	228,604	24	24	39
TDVFI 260VCX4	249,076	26	26	43
TDVFI 280VCX4	267,842	28	28	46
TDVFI 300VCX4	290,020	30	30	50
TDVFI 320VCX4	307,080	16+16	32	53
TDVFI 340VCX4	327,552	14+20	34	56
TDVFI 360VCX4	344,612	16+20	36	59
TDVFI 380VCX4	361,672	18+20	38	62
TDVFI 400VCX4	382,144	16+24	40	64
TDVFI 420VCX4	399,204	18+24	42	64
TDVFI 440VCX4	419,676	20+24	44	64
TDVFI 460VCX4	443,560	16+30	46	64
TDVFI 480VCX4	460,620	18+30	48	64
TDVFI 500VCX4	481,092	20+30	50	64
TDVFI 520VCX4	499,858	22+30	52	64
TDVFI 540VCX4	518,624	24+30	54	64
TDVFI 560VCX4	539,096	26+30	56	64
TDVFI 580VCX4	557,862	28+30	58	64
TDVFI 600VCX4	580,040	30+30	60	64
TDVFI 620VCX4	597,100	16+16+30	62	64
TDVFI 640VCX4	617,572	14+20+30	64	64
TDVFI 660VCX4	634,632	16+20+30	66	64
TDVFI 680VCX4	651,692	18+20+30	68	64
TDVFI 700VCX4	672,164	16+24+30	70	64
TDVFI 720VCX4	689,224	18+24+30	72	64
TDVFI 740VCX4	709,696	20+24+30	74	64
TDVFI 760VCX4	733,580	16+30+30	76	64
TDVFI 780VCX4	750,640	18+30+30	78	64
TDVFI 800VCX4	771,112	20+30+30	80	64
TDVFI 820VCX4	789,878	22+30+30	82	64
TDVFI 840VCX4	808,644	24+30+30	84	64
TDVFI 860VCX4	829,116	26+30+30	86	64
TDVFI 880VCX4	847,882	28+30+30	88	64
TDVFI 900VCX4	870,060	30+30+30	90	64

TECHNICAL SPECIFICATION

TDVFI - VCX4 Single Module



Model name			TDVFI 80VCX4	TDVFI 100VCX4	TDVFI 120VCX4	TDVFI 140VCX4
Power supply		V/Ph/Hz	380-415/3/50			
Cooling Capacity		Btu/h	76,429	95,536	114,302	136,480
		kW	22.4	28.0	33.5	40.0
Power input		kW	4.8	6.8	8.8	9.7
Rated current		A	13.8	16.0	19.9	22.3
EER		kw / kw	4.65	4.14	3.81	4.12
Compressor	Type	Scroll DC inverter				
	Quantity		1			
Fan	Type	DC				
	Quantity		1			
	Static pressure	inwg	0 - 0.08 (default); 0.08 - 0.48 (customized)			
	Airflow rate	CFM	7,416	7,946		9,182
	Airflow rate	m³/h	12,600	13,500		15,600
Refrigerant	Type	R410A				
	Factory charge	kg	7.4			8.4
Pipe	Liquid pipe	mm (inch)	Φ12.7 (1/2)			Φ15.9 (5/8)
connections	Suction pipe	mm (inch)	Φ28.6 (1 1/8)			Φ28.6 (1 1/8)
Sound pressure level		dB(A)	57	58	60	
Net dimensions (W×H×D)		mm	940×1760×825			
Net weight		kg	185			200
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity			
	Maximum quantity		13	16	19	23

TDVFI - VCX4 Single Module



Model name		TDVFI 160VCX4	TDVFI 180VCX4	TDVFI 200VCX4	TDVFI 220VCX4
Power supply	V/Ph/Hz	380-415/3/50			
Cooling Capacity	Btu/h	153,540	170,600	191,072	209,838
	kW	45.0	50.0	56.0	61.5
Power input	kW	12.3	13.4	17.4	17.3
Rated current	A	26.8	31.8	39.8	41.6
EER	kw / kw	3.67	3.74	3.21	3.55
Compressor	Type	Scroll DC inverter			
	Quantity	1			
Fan	Type	DC			
	Quantity	1			2
	Static pressure	inwg	0 - 0.08 (default); 0.08 - 0.48 (customized)		
	Airflow rate	CFM	9,182	9,711	12,654
	Airflow rate	m ³ /h	15,600	16,500	21,500
Refrigerant	Type	R410A			
	Factory charge	kg	8.4	10.0	12.8
Pipe connections	Liquid pipe	mm (inch)	Φ15.9 (5/8)		Φ19.1 (3/4)
	Suction pipe	mm (inch)	Φ28.6 (1 1/8)		Φ34.9 (1 3/8)
Sound pressure level	dB(A)	61	62	63	
Net dimensions (W×H×D)	mm	940×1760×825			1340×1760×825
Net weight	kg	200	212	225	260
Connected indoor unit	Total capacity	50-130% of outdoor unit capacity			
	Maximum quantity	26	29	33	36

All specifications are subject to change by manufacturer without prior notice.

Note : The nominal cooling capacity is based on outdoor air entering temp. 35 °C (DB); indoor on coil temp. 27/19 °C (DB / WB)

TECHNICAL SPECIFICATION

TDVFI - VCX4 Single Module



Model name			TDVFI 240VCX4	TDVFI 260VCX4	TDVFI 280VCX4	TDVFI 300VCX4
Power supply		V/Ph/Hz	380-415/3/50			
Cooling Capacity		Btu/h	228,604	249,076	267,842	290,020
		kW	67.0	73.0	78.5	85.0
Power input		kW	19.0	19.4	22.3	26.4
Rated current		A	45.0	42.6	44.9	46.7
EER		kw / kw	3.52	3.76	3.52	3.22
Compressor	Type		Scroll DC inverter			
	Quantity		1	2		
Fan	Type		DC			
	Quantity		2			
	Static pressure	inwg	0 - 0.08 (default); 0.08 - 0.48 (customized)			
	Airflow rate	CFM	12,654	12,949		
	Airflow rate	m³/h	21,500	22,000		
Refrigerant	Type		R410A			
	Factory charge	kg	12.8	15.4		
Pipe	Liquid pipe	mm (inch)	Φ19.1 (3/4)	Φ22.2 (7/8)		
connections	Suction pipe	mm (inch)	Φ34.9 (1 3/8)	Φ34.9 (1 3/8)		
Sound pressure level		dB(A)	64			
Net dimensions (W×H×D)		mm	1340×1760×825			
Net weight		kg	260	325		
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity			
	Maximum quantity		39	43	46	50

TDVFI - VCX4 Dual Module



Model name			TDVFI 320VCX4	TDVFI 340VCX4	TDVFI 360VCX4	TDVFI 380VCX4
Combination units			TDVFI 160 + 160VCX4	TDVFI 140 + 200VCX4	TDVFI 160 + 200VCX4	TDVFI 180 + 200VCX4
Power supply		V/Ph/Hz	380-415/3/50			
Cooling Capacity		Btu/h	307,080	327,552	344,612	361,672
		kW	90.0	96.0	101.0	106.0
Power input		kW	24.6	27.1	29.7	30.8
Rated current		A	53.6	62.1	66.6	71.6
EER		kw / kw	3.66	3.54	3.40	3.44
Compressor	Type	Scroll DC inverter				
	Quantity	2				
Fan	Type	DC				
	Quantity	2				
	Static pressure	inwg	0 - 0.08 (default); 0.08 - 0.48 (customized)			
	Airflow rate	CFM	18,364	18,893	19,423	
	Airflow rate	m ³ /h	31,200	32,100	33,000	
Refrigerant	Type	R410A				
	Factory charge	kg	8.4+8.4	8.4+10		10+10
Pipe connections	Liquid pipe	mm (inch)	Φ19.1 (3/4)			Φ41.3 (1 5/8)
	Suction pipe	mm (inch)	Φ34.9 (1 3/8)			
Sound pressure level		dB(A)	64	65		66
Net dimensions (W×H×D)		mm	(940×1760×825)×2			
Net weight		kg	200+200	200+225		212+225
Connected indoor unit	Total capacity	50-130% of outdoor unit capacity				
	Maximum quantity		53	56	59	62

All specifications are subject to change by manufacturer without prior notice.

Note : The nominal cooling capacity is based on outdoor air entering temp. 35 °C (DB); indoor on coil temp. 27/19 °C (DB / WB)

TECHNICAL SPECIFICATION

TDVFI - VCX4 Dual Module



Model name		TDVFI 400VCX4	TDVFI 420VCX4	TDVFI 440VCX4	TDVFI 460VCX4
Combination units		TDVFI 160 + 240VCX4	TDVFI 180 + 240VCX4	TDVFI 200 + 240VCX4	TDVFI 160 + 300VCX4
Power supply	V/Ph/Hz	380-415/3/50			
Cooling Capacity	Btu/h	382,144	399,204	419,676	443,560
	kW	112.0	117.0	123.0	130.0
Power input	kW	31.3	32.4	36.4	38.7
Rated current	A	71.8	76.8	84.8	73.5
EER	kw / kw	3.58	3.61	3.38	3.36
Compressor	Type	Scroll DC inverter			
	Quantity	2			
Fan	Type	DC			
	Quantity	3			
	Static pressure	inwg	0 - 0.08 (default); 0.08 - 0.48 (customized)		
	Airflow rate	CFM	21,836	22,366	22,130
	Airflow rate	m ³ /h	37,100	38,000	37,600
Refrigerant	Type	R410A			
	Factory charge	kg	8.4+12.8	10+12.8	8.4+15.4
Pipe connections	Liquid pipe	mm (inch)	Φ19.1 (3/4)		
	Suction pipe	mm (inch)	Φ41.3 (1 5/8)		
Sound pressure level	dB(A)	66	66	67	66
Net dimensions (W×H×D)	mm	(940×1760×825)+(1340×1760×825)			
Net weight	kg	200+260	212+260	225+260	200+325
Connected indoor unit	Total capacity	50-130% of outdoor unit capacity			
	Maximum quantity	64			

TDVFI - VCX4 Dual Module



Model name			TDVFI 480VCX4	TDVFI 500VCX4	TDVFI 520VCX4	TDVFI 540VCX4
Combination units			TDVFI 180 + 300VCX4	TDVFI 200 + 300VCX4	TDVFI 220 + 300VCX4	TDVFI 240 + 300VCX4
Power supply		V/Ph/Hz	380-415/3/50			
Cooling Capacity		Btu/h	460,620	481,092	499,858	518,624
		kW	135.0	141.0	146.5	152.0
Power input		kW	39.8	43.8	43.7	45.4
Rated current		A	78.5	86.5	88.3	91.7
EER		kw / kw	3.39	3.22	s	3.35
Compressor	Type	Scroll DC inverter				
	Quantity	3				
Fan	Type	DC				
	Quantity	3			4	
	Static pressure	inwg	0 - 0.08 (default); 0.08 - 0.48 (customized)			
	Airflow rate	CFM	22,660	25,603		
	Airflow rate	m ³ /h	38,500	43,500		
Refrigerant	Type	R410A				
	Factory charge	kg	10+15.4	12.8+15.4		
Pipe connections	Liquid pipe	mm (inch)	Φ19.1 (3/4)			
	Suction pipe	mm (inch)	Φ41.3 (1 5/8)			
Sound pressure level		dB(A)	66	67		
Net dimensions (W×H×D)		mm	(940×1760×825)+(1340×1760×825)			(1340×1760×825)×2
Net weight		kg	212+325	225+325	260+325	
Connected indoor unit	Total capacity	50-130% of outdoor unit capacity				
	Maximum quantity	64				

All specifications are subject to change by manufacturer without prior notice.

Note : The nominal cooling capacity is based on outdoor air entering temp. 35 °C (DB); indoor on coil temp. 27/19 °C (DB / WB)

TECHNICAL SPECIFICATION

TDVFI - VCX4 Dual Module



Model name			TDVFI 560VCX4	TDVFI 580VCX4	TDVFI 600VCX4
Combination units			TDVFI 260 + 300VCX4	TDVFI 280 + 300VCX4	TDVFI 300 + 300VCX4
Power supply	V/Ph/Hz		380-415/3/50		
Cooling Capacity	Btu/h		539,096	557,862	580,040
	kW		158.0	163.5	170.0
Power input	kW		45.8	48.7	52.8
Rated current	A		89.3	91.6	93.4
EER	kw / kw		3.45	3.36	3.22
Compressor	Type		Scroll DC inverter		
	Quantity		4		
Fan	Type		DC		
	Quantity		4		
	Static pressure	inwg	0 - 0.08 (default); 0.08 - 0.48 (customized)		
	Airflow rate	CFM	25,897		
	Airflow rate	m ³ /h	44,000		
Refrigerant	Type		R410A		
	Factory charge	kg	15.4+15.4		
Pipe connections	Liquid pipe	mm (inch)	Φ19.1 (3/4)		
	Suction pipe	mm (inch)	Φ41.3 (1 5/8)		
Sound pressure level	dB(A)		67		
Net dimensions (W×H×D)	mm		(1340×1760×825)×2		
Net weight	kg		325x2		
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity		
	Maximum quantity		64		

TDVFI - VCX4 Tri Module



Model name			TDVFI 620VCX4	TDVFI 640VCX4	TDVFI 660VCX4
Combination units			TDVFI 160 + 160 + 300VCX4	TDVFI 140 + 200 + 300VCX4	TDVFI 160 + 200 + 300VCX4
Power supply		V/Ph/Hz	380-415/3/50		
Cooling Capacity		Btu/h	597,100	617,572	634,632
		kW	175.0	181.0	186.0
Power input		kW	51.0	53.5	56.1
Rated current		A	100.3	108.8	113.3
EER		kw / kw	3.43	3.38	3.32
Compressor	Type		Scroll DC inverter		
	Quantity		4		
Fan	Type		DC		
	Quantity		4		
	Static pressure	inwg	0 - 0.08 (default); 0.08 - 0.48 (customized)		
	Airflow rate	CFM	31,312	31,842	31,842
	Airflow rate	m³/h	53,200	54,100	54,100
Refrigerant	Type		R410A		
	Factory charge	kg	(8.4x2)+15.4	8.4+10+15.4	
Pipe connections	Liquid pipe	mm (inch)	Φ19.1 (3/4)		
	Suction pipe	mm (inch)	Φ41.3 (1 5/8)		
Sound pressure level		dB(A)	67		68
Net dimensions (W×H×D)		mm	(940×1760×825)×2+(1340×1760×825)		
Net weight		kg	(200×2)+325	200+225+325	200+225+325
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity		
	Maximum quantity		64		

All specifications are subject to change by manufacturer without prior notice.

Note : The nominal cooling capacity is based on outdoor air entering temp. 35 °C (DB); indoor on coil temp. 27/19 °C (DB / WB)

TECHNICAL SPECIFICATION

TDVFI - VCX4 Tri Module



Model name			TDVFI 680VCX4	TDVFI 700VCX4	TDVFI 720VCX4
Combination units			TDVFI 180 + 200 + 300VCX4	TDVFI 160 + 240 + 300VCX4	TDVFI 180 + 240 + 300VCX4
Power supply	V/Ph/Hz		380-415/3/50		
Cooling Capacity	Btu/h		651,692	672,164	689,224
	kW		191.0	197.0	202.0
Power input	kW		57.2	57.7	58.8
Rated current	A		118.3	118.5	123.5
EER	kw / kw		3.34	3.41	3.44
Compressor	Type		Scroll DC inverter		
	Quantity		4		
Fan	Type		DC		
	Quantity		4	5	
	Static pressure	inwg	0 - 0.08 (default); 0.08 - 0.48 (customized)		
	Airflow rate	CFM	32,372	34,785	35,315
	Airflow rate	m ³ /h	55,000	59,100	60,000
Refrigerant	Type		R410A		
	Factory charge	kg	(10x2)+15.4	8.4+12.8+15.4	10 + 12.8 + 15.4
Pipe	Liquid pipe	mm (inch)	Φ22.2 (7/8)		
connections	Suction pipe	mm (inch)	Φ53.9 (2 1/8)		
Sound pressure level	dB(A)		68		
Net dimensions (W×H×D)	mm		(940×1760×825)×2+ (1340×1760×825)	(940×1760×825)+(1340×1760×825)×2	
Net weight	kg		212+225+325	200+260+325	212+260+325
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity		
	Maximum quantity		64		

TDVFI - VCX4 Tri Module



Model name			TDVFI 740VCX4	TDVFI 760VCX4	TDVFI 780VCX4
Combination units			TDVFI 200 + 240 + 300VCX4	TDVFI 160 + 300 + 300VCX4	TDVFI 180 + 300 + 300VCX4
Power supply	V/Ph/Hz		380-415/3/50		
Cooling Capacity	Btu/h		709,696	733,580	750,640
	kW		208.0	215.0	220.0
Power input	kW		62.8	65.1	66.2
Rated current	A		131.5	120.2	125.2
EER	kw / kw		3.31	3.30	3.32
Compressor	Type		Scroll DC inverter		
	Quantity		4	5	
Fan	Type		DC		
	Quantity		5		
	Static pressure	inwg	0 - 0.08 (default); 0.08 - 0.48 (customized)		
	Airflow rate	CFM	35,315	35,079	35,609
	Airflow rate	m ³ /h	60,000	59,600	60,500
Refrigerant	Type		R410A		
	Factory charge	kg	10+12.8+15.4	8.4+(15.4x2)	10+(15.4x2)
Pipe	Liquid pipe	mm (inch)	Φ22.2 (7/8)		
connections	Suction pipe	mm (inch)	Φ53.9 (2 1/8)		
Sound pressure level	dB(A)		69	68	
Net dimensions (W×H×D)	mm		(940×1760×825)+(1340×1760×825)×2		
Net weight	kg		225+260+325	200+(325x2)	212+(325x2)
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity		
	Maximum quantity		64		

All specifications are subject to change by manufacturer without prior notice.

Note : The nominal cooling capacity is based on outdoor air entering temp. 35 °C (DB); indoor on coil temp. 27/19 °C (DB / WB)

TECHNICAL SPECIFICATION

TDVFI - VCX4 Tri Module



Model name			TDVFI 800VCX4	TDVFI 820VCX4	TDVFI 840VCX4
Combination units			TDVFI 200 + 300 + 300VCX4	TDVFI 220 + 300 + 300VCX4	TDVFI 240 + 300 + 300VCX4
Power supply		V/Ph/Hz	380-415/3/50		
Cooling Capacity		Btu/h	771,112	789,878	808,644
		kW	226.0	231.5	237.0
Power input		kW	70.2	70.1	71.8
Rated current		A	133.2	135.0	138.4
EER		kw / kw	3.22	3.30	3.30
Compressor	Type	Scroll DC inverter			
	Quantity	5			
Fan	Type	DC			
	Quantity	5		6	
	Static pressure	inwg	0 - 0.08 (default); 0.08 - 0.48 (customized)		
	Airflow rate	CFM	35,609	38,552	
	Airflow rate	m ³ /h	60,500	65,500	
Refrigerant	Type	R410A			
	Factory charge	kg	10 + (15.4 x 2)	12.8 + (15.4 x 2)	12.8 + (15.4 x 2)
Pipe connections	Liquid pipe	mm (inch)	Φ22.2 (7/8)		Φ28.6 (1 1/8)
	Suction pipe	mm (inch)	Φ53.9 (2 1/8)		Φ53.9 (2 1/8)
Sound pressure level		dB(A)	69		
Net dimensions (W×H×D)		mm	(940×1760×825)+ (1340×1760×825)×2	(1340×1760×825)×3	
Net weight		kg	225+(325x2)	260+(325x2)	
Connected indoor unit	Total capacity	50-130% of outdoor unit capacity			
	Maximum quantity	64			

TDVFI - VCX4 Tri Module



Model name			TDVFI 860VCX4	TDVFI 880VCX4	TDVFI 900VCX4
Combination units			TDVFI 260 + 300 + 300VCX4	TDVFI 280 + 300 + 300VCX4	TDVFI 300 + 300 + 300VCX4
Power supply	V/Ph/Hz		380-415/3/50		
Cooling Capacity	Btu/h		829,116	847,882	870,060
	kW		243.0	248.5	255.0
Power input	kW		72.2	75.1	79.2
Rated current	A		136.0	138.3	140.1
EER	kw / kw		3.37	3.31	3.22
Compressor	Type		Scroll DC inverter		
	Quantity		6		
Fan	Type		DC		
	Quantity		6		
	Static pressure	inwg	0 - 0.08 (default); 0.08 - 0.48 (customized)		
	Airflow rate	CFM	38,846		
	Airflow rate	m ³ /h	66,000		
Refrigerant	Type		R410A		
	Factory charge	kg	15.4x3		
Pipe connections	Liquid pipe	mm (inch)	Φ28.6 (1 1/8)		
	Suction pipe	mm (inch)	Φ53.9 (2 1/8)		
Sound pressure level	dB(A)		69		
Net dimensions (W×H×D)	mm		(1340×1760×825)×3		
Net weight	kg		325x3		
Connected indoor unit	Total capacity		50-130% of outdoor unit capacity		
	Maximum quantity		64		

All specifications are subject to change by manufacturer without prior notice.

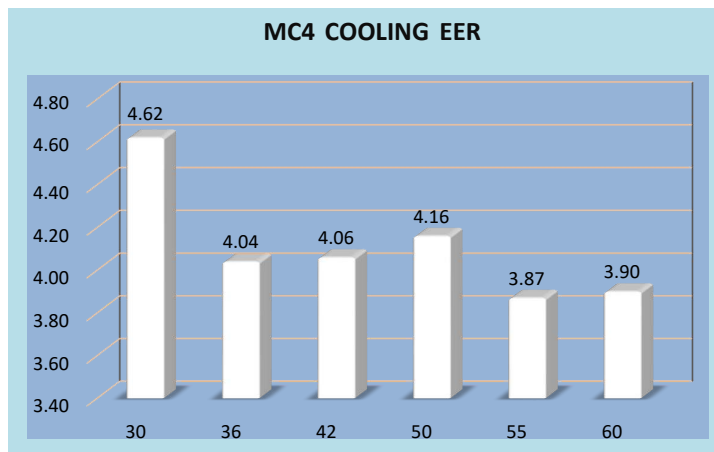
Note : The nominal cooling capacity is based on outdoor air entering temp. 35 °C (DB); indoor on coil temp. 27/19 °C (DB / WB)

MC4 MINI INVERTER SERIES

TDVI MC4 Mini DC Inverter VRF Outdoor Units (1 Phase)

- Superior Performance EER = 4.62 (3HP).
- Simple independent system configuration.
- Versatile application and less complications.
- 5 basic modules (3HP, 3.5HP, 4HP, 5HP, 6HP - Single phase power supply)
- Max. piping length (up to 100 m).
- Max. connectable indoor units (up to 9).

EER in Cooling



* EER = Capacity [kW] /
Power Consumption [kW]



3 HP

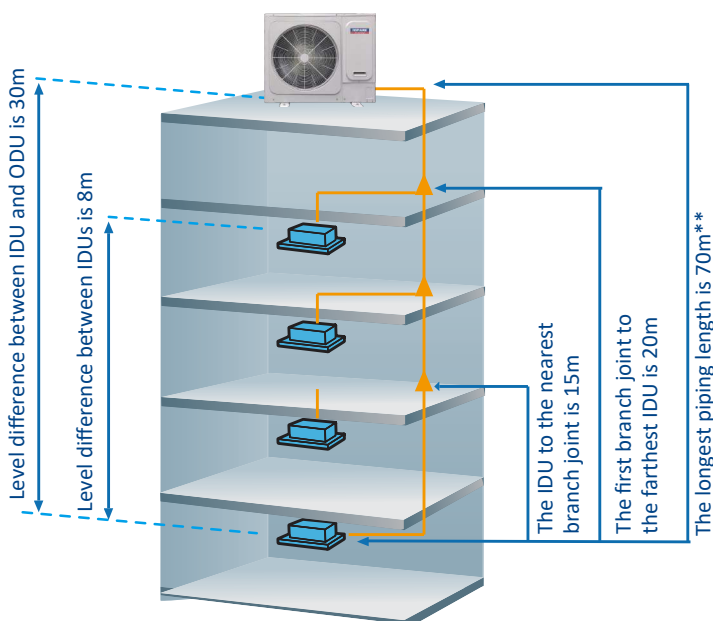


3.5, 4 HP



5, 5.5, 6 HP

Piping Length & Unit Elevation



<u>Capacity</u>	3.0~ 4 HP	5 ~ 6.0 HP
Total piping length	100m	100m
Max. pipe length	45m*	60m**
Longest length after first branch (standard)	20m	20m
Largest height difference between indoor and outdoor units - ODU up (down)	30m (20m)	30m (20m)
Largest height difference between indoor units	8m	8m

*Max. pipe length including Y-joint is 50m.

**Max. pipe length including Y-joint is 70m.

Note : Total piping length = All liquid & gas pipe length

TECHNICAL SPECIFICATIONS



Mini Single Independent Module



Model name			TDVI 30MC4	TDVI 36MC4	TDVI 42MC4	TDVI 50MC4	TDVI 55MC4	TDVI 60MC4
Power supply		V/Ph/Hz	220-240/1/50					
Cooling Capacity		Btu/h	27,300	34,100	41,000	47,800	52,900	59,700
		kW	8.0	10.0	12.0	14.0	15.5	17.5
Power input		kW	2.0	2.55	3.10	3.75	4.80	5.20
Rated current		A	10.45	10.97	13.82	17.02	17.02	17.02
EER		kw / kw	4.62	4.04	4.06	4.16	3.87	3.90
Compressor	Type		Rotary DC inverter					
	Quantity		1					
Fan	Type		DC					
	Quantity		1					
	Airflow rate	CFM	2,176	3,059	2,941	3,059	2,941	3,118
	Airflow rate	m³/h	3,700	5,200	5,000	5,200	5,000	5,300
Refrigerant	Type		R410A					
	Factory charge	kg	1.7	2.3	2.4	3.1	3.6	4.6
Pipe	Liquid pipe	mm (inch)	ø9.53 (3/8)				ø9.53 (3/8)	
connections	Suction pipe	mm (inch)	ø15.9 (5/8)				ø19.1 (3/4)	
Sound pressure level		dB(A)	54			56		57
Net dimensions (W×H×D)		mm	910x712x426	950x840x440				1040x865x523
Net weight		kg	49.0	59.5	63.0	75.0	77.5	91.0
Connected indoor unit	Total capacity		45-130% of outdoor unit capacity					
	Maximum quantity		4	6	7	8	9	

Single Independent Module



Model			TDVI 70 CS4	TDVI 80 CS4	TDVI 90 CS4	TDVI 100 CS4	TDVI 140 S4	TDVI 160 S4
Cooling Capacity		BTU/Hr	68,200	76,400	88,700	96,000	136,500	153,500
		kW	19.99	22.39	26.00	28.14	40.01	44.99
EER		w/w	3.90	3.78	3.50	3.41	3.36	3.31
		Btu/hw	13.29	12.88	11.94	11.65	11.47	11.29
Power supply		V / Ph / Hz	380 ~ 415 V / 3 Ph / 50 Hz					
Nominal Operating	Running current	Amp	12.40	14.29	17.90	19.86	28.67	32.77
	Power input	kW	5.13	5.93	7.43	8.24	11.90	13.60
Compressor	Type		DC Inverter					
	Quantity		1				2	
	Start-up		Soft Start					
Fan	Air flow rate	CFM	4,209				9,756	
	Quantity		2					
	Motor type		AC				DC + AC	
Noise level		dB(A)	57	57	58	59	62	62
Refrigerant	Type		R 410 A					
	Charged volume	kg	3.9	3.9	3.9	3.9	9	12
Net dimension	WxHxD	mm	902 x 1327 x 370				1360 x 1650 x 540	1460 x 1650 x 540
Net weight		kg	115				240	275
Pipe Diameter ø	Liquid side	mm(inch)	9.5 (3/8)				12.7 (1/2)	
	Suction side	mm(inch)	19.1 (3/4)				22.2 (7/8)	28.6 (1 1/8)
Max. indoor unit nos		Units	10	13	15	16	14	15

All specifications are subject to change by manufacturer without prior notice.

Note : The nominal cooling capacity is based on condenser outdoor air entering temp. 35 °C (DB); indoor on coil temp. 27/19 °C (DB / WB)

COMPLETE RANGE OF INDOOR UNITS

Indoor Units Line Up

Capacity (Btu/hr)	8k	10k	13k	16k	20k	25k	28k	32k	36k	40k	45k	50k	60k	65k	70k	80k	85k	90k	100k	120k	140k	160k	200k
	✓	✓	✓	✓																			
					✓	✓	✓	✓	✓	✓		✓	✓	✓									
	✓	✓	✓	✓	✓	✓	✓																
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															✓	✓	✓		✓	✓	✓	✓	✓

Compact Four Way Cassette



Compact Cassette
7,500-15,400 Btu/hr

Features

- New 360° air distribution outlet panel with auto air swing (Up & Down).
- Standard 620 x 620mm (compact) unified square air discharge panel.
- Slim, stylish with removable easy clean air filter grille and discharge panel. Low noise level range 25-37 dB(A) at low fan speed.
- LED indicator light display panel and auto restart function.
- Evaporator coil with durable hydrophilic coated slit fins.
- Aerodynamic turbo fan to enhance strong air flow for better air circulation.
- EXV throttle kit box attach to unit casing main body.
- Built in drain pump to boost condensate water discharge.
- Durable washable saran net air filter.

MODEL			TDVI 08CCS-D3	TDVI 10CCS-D3
Cooling capacity	BTU/hr		7,500	9,600
	kW		2.20	2.80
Power supply		V/Ph/Hz	220 ~ 240 / 1 / 50	
Fan motor	Type		DC Motor	
	Power input	W	14.0	16.0
	FLA	A	0.37	0.43
	Airflow (High-low)	CFM	265/250/235/218/203/188/174	300/283/268/250/232/218/200
Sound level (High-low)		dB(A)	29/28/27/27/26/26/25	30/29/28/27/26/26/25
Refrigerant control device			EXV	
Pipe connection	Liquid	mm (in)	6.35 (1/4)	
	Suction	mm (in)	12.7 (1/2)	
Drain pipe		mm	25	
Dimension (WxHxD)	Body	mm	575×235×638	
	Panel	mm	620×65×620	
Net weight		kg	13.00	

MODEL			TDVI 13CCS-D3	TDVI 16CCS-D3
Cooling capacity	BTU/hr		12,300	15,400
	kW		3.60	4.50
Power supply		V/Ph/Hz	220 ~ 240 / 1 / 50	
Fan motor	Type		DC Motor	
	Power input	W	18.0	25.0
	FLA	A	0.43	0.49
	Airflow (High-low)	CFM	312/294/277/259/238/221/203	377/356/335/312/291/271/250
Sound level (High-low)		dB(A)	31/30/29/28/27/26/25.5	36.5/35/33/31/29/28/26.5
Refrigerant control device			EXV	
Pipe connection	Liquid	mm (in)	6.35 (1/4)	
	Suction	mm (in)	12.7 (1/2)	
Drain pipe		mm	25	
Dimension (WxHxD)	Body	mm	575×235×638	
	Panel	mm	620×65×620	
Net weight		kg	14.00	

All specifications are subject to change by manufacturer without prior notice.

Note : The nominal cooling capacity is based on condenser outdoor air entering temp. 35 °C (DB); indoor on coil temp. 27/19 °C (DB / WB)

TECHNICAL SPECIFICATIONS

DC MOTOR

Four Way Cassette



Four-Way Cassette
19,100-61,400 Btu/hr

Features

- New 360° air distribution outlet panel with auto air swing (Up & Down).
- Standard 840 x 840mm (four-way) unified square air discharge panel.
- Slim, stylish with removable easy clean air filter grille and discharge panel.
- Low noise level range 27-38 dB(A) at low fan speed.
- LED indicator light display panel and auto restart function.
- Evaporator coil with durable hydrophilic coated slit fins.
- Aerodynamic turbo fan to enhance strong air flow for better air circulation.
- EXV throttle kit box attach to unit casing main body.
- Built in drain pump to boost condensate water discharge.
- Durable washable saran net air filter.

MODEL			TDVI 20CS-D3	TDVI 25CS-D3	TDVI 28CS-D3
Cooling capacity	BTU/hr		19,100	24,200	27,300
	kW		5.60	7.10	8.00
Power supply	V/Ph/Hz		220 ~ 240 / 1 / 50		
Fan motor	Type		DC Motor		
	Power input	W	23.0	32.0	41.0
	FLA	A	0.26	0.33	0.51
	Airflow (High-low)	CFM	494/466/436/407/378/349/320	589/555/521/488/454/421/387	647/600/553/505/457/410/363
Sound level (High-low)		dB(A)	33/32/31/30/29/28/27	37/36/34/33/31/30/28	42.5/40/38/36/34/32/30
Refrigerant control device			EXV		
Pipe connection	Liquid	mm (in)	6.35 (1/4)	9.53 (3/8)	
	Suction	mm (in)	12.7 (1/2)	15.9 (5/8)	
Drain pipe		mm	25.00		
Dimension	Body	mm	840×204×840		
(W×H×D)	Panel	mm	950×53×950		
Net weight		kg	19.50		

MODEL			TDVI 32CS-D3	TDVI 36CS-D3	TDVI 40CS-D3
Cooling capacity	BTU/hr		30,700	34,100	38,200
	kW		9.00	10.00	11.20
Power supply		V/Ph/Hz	220 ~ 240 / 1 / 50		
Fan motor	Type		DC Motor		
	Power input	W	43.0	74.0	61.0
	FLA	A	0.46	0.72	0.62
	Airflow (High-low)	CFM	783/729/676/622/568/514/461	865/800/736/672/607/542/477	942/881/820/759/698/637/576
Sound level (High-low)		dB(A)	38/37/35/34/32/31/29	43/41/40/38/36/35/33	41/40/38/37/36/34/33
Refrigerant control device			EXV		
Pipe connection	Liquid	mm (in)	9.53 (3/8)		
	Suction	mm (in)	15.9 (5/8)		
Drain pipe		mm	25.00		
Dimension (WxHxD)	Body	mm	840×246×840	840×288×840	
	Panel	mm	950×53×950	950×53×950	
Net weight		kg	21.50	24.00	

MODEL			TDVI 50CS-D3	TDVI 60CS-D3	TDVI 65CS-D3
Cooling capacity	BTU/hr		47,800	54,600	61,400
	kW		14.00	16.00	18.00
Power supply		V/Ph/Hz	220 ~ 240 / 1 / 50		
Fan motor	Type		DC Motor		
	Power input	W	118.0	110.0	145.0
	FLA	A	1.14	1.83	2.10
	Airflow (High-low)	CFM	1118/1052/985/918/851/785/717	1236/1118/1036/959/883/812/747	1354/1260/1154/1042/942/842/747
Sound level (High-low)		dB(A)	47.5/46/44/42/40/38/36.5	48/46/44/43/41/39/37	52/49/47/45/42/39/38
Refrigerant control device			EXV		
Pipe connection	Liquid	mm (in)	9.53 (3/8)		
	Suction	mm (in)	15.9 (5/8)		19.1 (3/4)
Drain pipe		mm	25.00		
Dimension (WxHxD)	Body	mm	840×288×840	950×300×950	
	Panel	mm	950×53×950	1050×55×1050	
Net weight		kg	24.00	32.60	32.70

All specifications are subject to change by manufacturer without prior notice.

Note : The nominal cooling capacity is based on condenser outdoor air entering temp. 35 °C (DB); indoor on coil temp. 27/19 °C (DB / WB)

TECHNICAL SPECIFICATIONS

DC MOTOR

Wall Mounted



(7,500 - 27,300 Btu/hr)

Features

- Air distribution with auto air swing (Up & Down) / manual (Left & Right).
- Low noise level range 27 - 32 dB(A) at low fan speed.
- LED indicator with digital temperature display panel and auto restart function.
- Evaporator coil with durable hydrophilic coated slit fins.
- Cross flow fan to enhance strong air flow for better air circulation.
- Built in EXV throttle kit
- Durable washable saran net air filter.
- Drain pump to boost condensate water discharge (optional)

MODEL			TDVI 08WM-D3	TDVI 10WM-D3	TDVI 13WM-D3
Cooling capacity	BTU/hr		7,500	9,600	12,300
	kW		2.20	2.80	3.60
Power supply		V/Ph/Hz	220 ~ 240 / 1 / 50		
Fan motor	Type		DC Motor		
	Power input	W	21.0	24.0	27.0
	FLA	A	0.23	0.29	0.31
	Airflow (High-low)	CFM	294/276/259/241/230/218/200	318/300/277/253/235/218/200	341/318/294/271/247/224/200
Sound level (High-low)		dB(A)	33/32/31/30/29/28/27	35/34/33/32/31/30/28	37/36/34/33/31/30/28
Refrigerant control device			EXV		
Pipe connection	Liquid	mm (in)	6.35 (1/4)		
	Suction	mm (in)	12.7 (1/2)		
Drain pipe		mm	16		
Dimension(WxHxD)		mm	750x295x265		
Net weight		kg	9	10	

MODEL			TDVI 16WM-D3	TDVI 20WM-D3	TDVI 25WM-D3	TDVI 28WM-D3
Cooling capacity	BTU/hr		15,400	19,100	24,200	27,300
	kW		4.50	5.60	7.10	8.00
Power supply		V/Ph/Hz	220 ~ 240 / 1 / 50			
Fan motor	Type		DC Motor			
	Power input	W	30.0	40.0	50.0	65.0
	FLA	A	0.33	0.41	0.55	0.78
	Airflow (High-low)	CFM	424/394/364/330/ 300/271/241	506/459/412/364/ 324/283/241	718/659/606/553/ 500/441/388	812/742/671/600/ 530/459/388
Sound level (High-low)		dB(A)	37/35/33/32/31/30/29	41/39/37/35/33/31/29	44/42/40/38/36/34/32	45/43/41/39/37/35/32
Refrigerant control device			EXV			
Pipe	Liquid	mm (in)	6.35 (1/4)		9.53 (3/8)	
connection	Suction	mm (in)	12.7 (1/2)		15.9 (5/8)	
Drain pipe		mm	16			
Dimension(WxHxD)		mm	950×295×265		1200×295×265	
Net weight		kg	11.5		15	

All specifications are subject to change by manufacturer without prior notice.

Note : The nominal cooling capacity is based on condenser outdoor air entering temp. 35 °C (DB); indoor on coil temp. 27/19 °C (DB / WB)

TECHNICAL SPECIFICATIONS

DC MOTOR

Ceiling and Floor



(12,300 - 47,800 Btu/hr)

Features

- Convertible ceiling suspended or floor mounted unit versatile for installation.
- Compact slim casing design with 234 mm height.
- 4 way air distribution with auto air swing (Up & Down) / (Left & Right).
- Low noise level range 25 - 40 dB(A) at low fan speed.
- LED indicator light display panel and auto restart function.
- Evaporator coil with durable hydrophilic coated slit fins.
- Centrifugal fan to enhance strong air flow for better air circulation.
- Built in EXV throttle kit.

MODEL			TDVI 13CF-D3	TDVI 16CF-D3	TDVI 20CF-D3
Cooling capacity	BTU/hr		12,300	15,400	19,100
	kW		3.60	4.50	5.60
Power supply		V/Ph/Hz	220 ~ 240 / 1 / 50		
Fan motor	Type		DC MOTOR		
	Power input	W	16.0	24.0	40.0
	FLA	A	0.16	0.22	0.34
	Airflow (High-low)	CFM	332/317/303/290/275/262/250	419/397/375/355/333/313/294	546/520/494/467/442/416/391
Sound level (High-low)		dBA	32/30/29/28/27/26/25	36/35/34/33/32/31/30	43/41/40/38/36/34/33
Refrigerant control device			EXV		
Pipe connection	Liquid	mm (in)	6.35 (1/4)		
	Suction	mm (in)	12.7 (1/2)		
Drain pipe		mm	25		
Dimension(WxHxD)		mm	1069x234x674		
Net weight		kg	24.7		

MODEL			TDVI 25CF-D3	TDVI 28CF-D3	TDVI 32CF-D3
Cooling capacity	BTU/hr		24,200	27,300	30,700
	kW		7.10	8.00	9.00
Power supply		V/Ph/Hz	220 ~ 240 / 1 / 50		
Fan motor	Type		DC Motor		
	Power input	W	42.0	56.0	75.0
	FLA	A	0.36	0.48	0.60
	Airflow (High-low)	CFM	664/625/603/545/506/466/429	765/717/670/622/578/532/485	871/822/766/717/670/622/576
Sound level (High-low)		dBA	43/40/39/37/35/34/33	45/44/42/40/38/36/34	48/47/46/44/42/40/37
Refrigerant control device			EXV		
Pipe connection	Liquid	mm (in)	9.53 (3/8)		
	Suction	mm (in)	15.9 (5/8)		
Drain pipe		mm	25		
Dimension(WxHxD)		mm	1284x234x674		
Net weight		kg	29.8		

MODEL			TDVI 36CF-D3	TDVI 40CF-D3	TDVI 45CF-D3	TDVI 50CF-D3
Cooling capacity	BTU/hr		34,100	38,200	42,700	47,800
	kW		10.00	11.20	12.50	14.00
Power supply		V/Ph/Hz	220 ~ 240 / 1 / 50			
Fan motor	Type		DC Motor			
	Power input	W	50.0	65.0	95.0	140.0
	FLA	A	0.50	0.60	0.80	1.00
	Airflow (High-low)	CFM	881/865/763/706/650/597/540	970/901/865/760/693/628/563	1184/1105/1043/971/901/865/756	1298/1218/1140/1065/987/892/825
Sound level (High-low)		dBA	42/40/39/37/35/33/32	44/42/41/39/37/35/33	49/48/46/44/42/40/38	51.5/50/48/46/44/42/40
Refrigerant control device			EXV			
Pipe connection	Liquid	mm (in)	9.53 (3/8)			
	Suction	mm (in)	15.9 (5/8)			
Drain pipe		mm	25			
Dimension(WxHxD)		mm	1649x234x674			
Net weight		kg	36.4			

All specifications are subject to change by manufacturer without prior notice.

Note : The nominal cooling capacity is based on condenser outdoor air entering temp. 35 °C (DB); indoor on coil temp. 27/19 °C (DB / WB)

TECHNICAL SPECIFICATIONS

DC MOTOR

Low Static Arc Ducted



(ESP: 0.04 - 0.2 inwg)
(7,500 - 38,200 Btu/Hr)

Features

- Compact slim casing design with 199mm height (7,500 - 15,400 Btu/hr)
- External static pressure operating range 0.04 - 0.32 inwg.
- LED indicator light display panel and auto restart function.
- Evaporator coil with durable hydrophilic coated slit fins.
- Centrifugal fan to enhance strong air flow for better air circulation.
- Built in EXV throttle kit.
- Durable electro-galvanized steel casing.
- Durable washable saran net air filter.
- Built in drain pump to boost condensate water discharge.

MODEL			TDVI 08CA-D3	TDVI 10CA-D3	TDVI 13CA-D3
Cooling capacity	BTU/hr		7,500	9,600	12,300
	kW		2.20	2.80	3.60
Power supply		V/Ph/Hz	220 ~ 240 / 1 / 50		
Fan motor	Type		DC Motor		
	Power input	W	22.0	28.0	31.0
	FLA	A	0.70	0.70	0.75
	Airflow (High-low)	CFM	218/204/200/190/185/180/174	271/254/243/223/207/190/177	356/328/299/267/244/215/188
	ESP	inwg	0.04 (0.04 - 0.2)		
Sound level (High-low)		dBA	28/27.5/26.5/25.5/24.5/23.5/22	30/29.5/28.5/27.5/26/24.5/22	30/29.5/28.5/27.5/26.5/25.5/25
Refrigerant control device			EXV		
Pipe connection	Liquid	mm (in)	6.35 (1/4)		
	Suction	mm (in)	12.7 (1/2)		
Drain pipe		mm	25.00	25.00	25.00
Dimension(WxHxD)		mm	550x199x450		700x199x450
Net weight		kg	11.50	11.50	13.00

MODEL			TDVI 16CA-D3	TDVI 20CA-D3	TDVI 25CA-D3
Cooling capacity	BTU/hr		15,400	19,100	24,200
	kW		4.50	5.60	7.10
Power supply		V/Ph/Hz	220 ~ 240 / 1 / 50		
Fan motor	Type		DC Motor		
	Power input	W	43.0	58.0	65.0
	FLA	A	0.85	0.85	0.94
	Airflow (High-low)	CFM	471/453/413/370/328/298/256	530/471/448/401/355/323/277	674/608/563/506/449/395/341
	ESP	inwg	0.04 (0.04 - 0.2)		
Sound level (High-low)		dBA	33/32.5/32/30.5/29/27.5/26	36/34.5/33.5/32.5/31/29/27	37/35/34/32.5/31/30/29
Refrigerant control device			EXV		
Pipe connection	Liquid	mm (in)	6.35 (1/4)		9.53 (3/8)
	Suction	mm (in)	12.7 (1/2)		15.9 (5/8)
Drain pipe		mm	25.00		
Dimension(WxHxD)		mm	900x199x450	900x199x450	1100x199x450
Net weight		kg	16.50	16.50	20.00

MODEL			TDVI 28CA-D3	TDVI 32CA-D3	TDVI 40CA-D3
Cooling capacity	BTU/hr		27,300	30,700	38,200
	kW		8.00	9.00	11.20
Power supply		V/Ph/Hz	220 ~ 240 / 1 / 50		
Fan motor	Type		DC Motor		
	Power input	W	108.0	108.0	128.0
	FLA	A	1.35	1.35	1.35
	Airflow (High-low)	CFM	824/781/735/692/645/604/565	824/781/735/692/645/604/566	954/896/843/791/738/689/636
	ESP	inwg	0.08 (0.04 - 0.32)		
Sound level (High-low)		dBA	36.5/35.5/34.5/33/32/31.5/30.5	36.5/35.5/34/33/32/31.5/30.5	39.5/38/36.5/35/34/32.5/31.5
Refrigerant control device			EXV		
Pipe connection	Liquid	mm (in)	9.53 (3/8)		
	Suction	mm (in)	15.9 (5/8)		
Drain pipe		mm	25.00		
Dimension(WxHxD)		mm	1600x199x450	1600x199x450	1600x199x450
Net weight		kg	28.00	28.00	28.00

All specifications are subject to change by manufacturer without prior notice.

Note : The nominal cooling capacity is based on condenser outdoor air entering temp. 35 °C (DB); indoor on coil temp. 27/19 °C (DB / WB)

TECHNICAL SPECIFICATIONS

DC MOTOR

Medium Static Ceiling Concealed



(ESP: 0.04 - 0.64 inwg)
(7,500 - 54,600 Btu/Hr)

Features

- Casing design with 245mm height (7,500 - 54,600 Btu/hr)
- External static pressure operating range 0.12 - 0.64 inwg.
- LED indicator light display panel and auto restart function.
- Evaporator coil with durable hydrophilic coated slit fins.
- Centrifugal fan to enhance strong air flow for better air circulation.
- Built in EXV throttle kit.
- Durable electro-galvanized steel casing.
- Durable washable saran net air filter.
- Built in drain pump to boost condensate water discharge.

MODEL			TDVI 08CR-D3	TDVI 10CR-D3	TDVI 13CR-D3
Cooling capacity	BTU/hr		7,500	9,600	12,300
	kW		2.20	2.80	3.60
Power supply		V/Ph/Hz	220 ~ 240 / 1 / 50		
Fan motor	Type		DC Motor		
	Power input	W	36.0	40.0	50.0
	FLA	A	0.50	0.50	0.64
	Airflow (High-low)	CFM	294/275/255/235/216/196/177	318/296/275/253/231/210/188	338/315/291/268/244/221/197
	ESP	inwg	0.12 (0.04 - 0.64)		
Sound level (High-low)		dBA	26.5/26/25/24/23/22.5/22	26.5/26/25/24/23/22.5/22	29/28/27/26/25/23/22
Refrigerant control device			EXV		
Pipe connection	Liquid	mm (in)	6.35 (1/4)		
	Suction	mm (in)	12.7 (1/2)		
Drain pipe		mm	25.00		
Dimension(WxHxD)		mm	600x245x750		
Net weight		kg	18.50		

MODEL			TDVI 16CR-D3	TDVI 20CR-D3	TDVI 25CR-D3	TDVI 28CR-D3
Cooling capacity		BTU/hr	15,400	19,100	24,200	27,300
		kW	4.50	5.60	7.10	8.00
Power supply		V/Ph/Hz	220 ~ 240 / 1 / 50			
Fan motor	Type		DC Motor			
	Power input	W	70.0	70.0	96.0	102.0
	FLA	A	0.95	0.95	1.20	1.20
	Airflow (High-low)	CFM	391/367/341/317/ 291/267/241	571/532/493/455/ 416/377/338	677/629/580/532/ 484/436/388	798/743/690/636/ 582/528/474
	ESP	inwg	0.12 (0.04 - 0.64)			0.16 (0.04 - 0.64)
Sound level (High-low)		dBA	33/32/29.5/28/ 26.5/25/24	33/32/31/30/ 27.5/26/25	35/33.5/32/30.5/ 29/27.5/26	37/35.5/34/32.5/ 31/29.5/28
Refrigerant control device			EXV			
Pipe	Liquid	mm (in)	6.35 (1/4)		9.53 (3/8)	
connection	Suction	mm (in)	12.7 (1/2)		15.9 (5/8)	
Drain pipe		mm	25			
Dimension(WxHxD)		mm	600x245x750	800x245x750	800x245x750	1050x245x750
Net weight		kg	20.00	24.00	25.00	30.00

MODEL			TDVI 32CR-D3	TDVI 40CR-D3	TDVI 50CR-D3	TDVI 60CR-D3
Cooling capacity	BTU/hr		30,700	38,200	47,800	54,600
	kW		9.00	11.20	14.00	16.00
Power supply		V/Ph/Hz	220 ~ 240 / 1 / 50			
Fan motor	Type		DC Motor			
	Power input	W	110.0	138.0	172.0	210.0
	FLA	A	1.30	1.80	1.90	2.20
	Airflow (High-low)	CFM	836/779/721/664/606/549/491	1148/1069/991/912/834/755/677	1239/1160/1081/1002/923/844/765	1383/1271/1186/1101/1045/902/824
	ESP	inwg	0.16 (0.04 - 0.64)			
Sound level (High-low)		dBA	37/35.5/34/32.5/31/29.5/28	39/37/35/33/31/29/28	40/38/36/34/32/30/29	65/63/61/58.5/56.5/54/52
Refrigerant control device			EXV			
Pipe connection	Liquid	mm (in)	9.53 (3/8)			
	Suction	mm (in)	15.9 (5/8)			
Drain pipe		mm	25			
Dimension(WxHxD)		mm	1050x245x750	1400x245x750		
Net weight		kg	31.00	37.00	39.00	39.00

All specifications are subject to change by manufacturer without prior notice.

Note : The nominal cooling capacity is based on condenser outdoor air entering temp. 35 °C (DB); indoor on coil temp. 27/19 °C (DB / WB)

TECHNICAL SPECIFICATIONS

DC MOTOR

High Static Ceiling Ducted



(ESP: 0.32 - 1.6 inwg)
(19,100 - 191,100 Btu/Hr)

Features

- Casing design with 299mm height (19,100 - 191,100 Btu/hr)
- External static pressure operating range 0.32 - 1.6 inwg.
- LED indicator light display panel and auto restart function.
- Evaporator coil with durable hydrophilic coated slit fins.
- Centrifugal fan to enhance strong air flow for better air circulation.
- Built in EXV throttle kit.
- Durable electro-galvanized steel casing.
- Durable washable saran net air filter.
- Built in drain pump to boost condensate water discharge.

MODEL			TDVI 20EB-D3	TDVI 25EB-D3	TDVI 28EB-D3	TDVI 32EB-D3
Cooling capacity		BTU/hr	19,100	24,200	27,300	30,700
		kW	5.60	7.10	8.00	9.00
Power supply		V/Ph/Hz	220 ~ 240 / 1 / 50			
Fan motor	Type		DC Motor			
	Power input	W	159.0	159.0	159.0	196.0
	FLA	A	1.86	1.86	1.86	1.97
	Airflow (High-low)	CFM	801/754/707/660/614/567/520			
	ESP	inwg	0.32 (0 - 1)			
Sound level (High-low)		dBA	39/38/36/35/33/32/30	39/38/36/35/33/32/30	39/38/36/35/33/32/30	40/39/37/36/34/33/31
Refrigerant control device			EXV			
Pipe	Liquid	mm (in)	6.35 (1/4)	9.53 (3/8)		
connection	Suction	mm (in)	12.7 (1/2)	15.9 (5/8)		
Drain pipe		mm	25			
Dimension(WxHxD)		mm	1050x299x750			
Net weight		kg	35			

All specifications are subject to change by manufacturer without prior notice.

Note : The nominal cooling capacity is based on condenser outdoor air entering temp. 35 °C (DB); indoor on coil temp. 27/19 °C (DB / WB)

TECHNICAL SPECIFICATIONS

DC MOTOR

High Static Ceiling Ducted

MODEL			TDVI 40EB-D3	TDVI 45EB-D3	TDVI 50EB-D3	TDVI 60EB-D3
Cooling capacity	BTU/hr		38,200	42,700	47,800	54,600
	kW		11.20	12.50	14.00	16.00
Power supply	V/Ph/Hz		220 ~ 240 / 1 / 50			
Fan motor	Type		DC Motor			
	Power input	W	248.0	252.0	284.0	339.0
	FLA	A	2.67	2.70	3.00	3.30
	Airflow (High-low)	CFM	1260/1186/1112/1039/966/892/819	1266/1192/1118/1044/971/896/823	1412/1330/1248/1165/1083/1001/918	1530/1441/1352/1262/1173/1084/995
	ESP	inwg	0.32 (0 - 1)	0.4 (0 - 1)		
Sound level (High-low)	dBA		41/40/38/37/35/34/32	41/40/39/37/36/35/33	43/42/40/39/37/36/34	44/43/41/40/38/37/35
Refrigerant control device			EXV			
Pipe connection	Liquid	mm (in)	9.53 (3/8)			
	Suction	mm (in)	15.9 (5/8)			
Drain pipe		mm	25.00			
Dimension(WxHxD)		mm	1400x299x750			
Net weight		kg	44.50	46.50		

MODEL			TDVI 70EB-D3	TDVI 80EB-D3	TDVI 90EB-D3	TDVI 100EB-D3
Cooling capacity		BTU/hr	68,300	76,500	86,000	95,600
		kW	20.00	22.40	25.20	28.00
Power supply		V/Ph/Hz	220 ~ 240 / 1 / 50			
Fan motor	Type		DC Motor			
	Power input	W	780.00			
	FLA	A	6.55	6.55	6.55	6.55
	Airflow (High-low)	CFM	2766/2582/2397/2213/2029/1844/1660			
	ESP	inwg	0.8 (0 - 1.6)			
Sound level (High-low)		dBA	51/50/48/46/44/43/42			
Refrigerant control device			EXV			
Pipe	Liquid	mm (in)	9.53 (3/8)		12.7 (1/2)	
connection	Suction	mm (in)	15.9 (5/8)		22.2 (7/8)	
Drain pipe		mm	32.00			
Dimension(WxHxD)		mm	1300x580x900			
Net weight		kg	125.00			

MODEL			TDVI 120EB-D3	TDVI 140EB-D3	TDVI 160EB-D3	TDVI 200EB-D3
Cooling capacity	BTU/hr		114,300	136,500	153,600	191,100
	kW		33.50	40.00	45.00	56.00
Power supply	V/Ph/Hz		220 ~ 240 / 1 / 50			
Fan motor	Type		DC Motor			
	Power input	W	810.00	1,850.00		2,030.00
	FLA	A	6.65	10.38	10.38	12.39
	Airflow (High-low)	CFM	2766/2582/2397/2213/ 2029/1844/1660	4414/4120/3826/3532/3237/2943/2649		4944/4615/4285/3955/ 3626/3296/2966
	ESP	inwg	0.8 (0 - 1.6)	1.2 (0 - 1.6)		
Sound level (High-low)	dBA		52/51/49/48/46/44/43	58/56/54/52/50/49/48		59/58/56/54/53/51/49
Refrigerant control device			EXV			
Pipe	Liquid	mm (in)	12.7 (1/2)		15.9 (5/8)	
connection	Suction	mm (in)	28.6 (1 1/8)		28.6 (1 1/8)	
Drain pipe		mm	32.00			
Dimension(WxHxD)	mm		1300x580x900	1850x580x900		
Net weight	kg		128.00	166.00	170.00	

All specifications are subject to change by manufacturer without prior notice.

Note : The nominal cooling capacity is based on condenser outdoor air entering temp. 35 °C (DB); indoor on coil temp. 27/19 °C (DB / WB)

TECHNICAL SPECIFICATIONS

DC MOTOR

Small Air Flow Fresh Air Processing



(ESP: 0.4 - 1.2 inwg)
(30,700 - 95,600 Btu/Hr)

Features

- 100% fresh air processing unit, both fresh air filtration and cooling can be achieved in a single system
- External static pressure up to 0.4 - 1.2 inwg facilitates extensive duct and grille network
- Drain pump with a 1200mm pump head available as a customization option

MODEL			TDVI 32FAS-D3	TDVI 50FAS-D3	TDVI 60FAS-D3
Cooling capacity	BTU/hr		30,700	47,800	54,600
	kW		9.00	14.00	16.00
Power supply		V/Ph/Hz	220 ~ 240 / 1 / 50		
Fan motor	Type		DC MOTOR		
	Power input	W	80.0	165.0	185.0
	FLA	A	1.46	2.33	2.60
	Airflow (High-low)	CFM	406/373/338/305/271/237/203	647/593/540/486/431/378/324	724/664/603/543/483/423/362
	ESP	inwg	0.4 (0 - 1.2)	0.6 (0 - 1.2)	
Sound level (High-low)		dBA	39/37.5/36/34/32.5/30.5/29	44.5/42.5/40/37/35/33/32	44.5/43/41/38/36/34/32.5
Refrigerant control device			EXV		
Pipe connection	Liquid	mm (in)	9.53 (3/8)		
	Suction	mm (in)	15.9 (5/8)		
Drain pipe		mm	25.00		
Dimension(WxHxD)		mm	1215x885x360	1216x885x360	1217x885x360
Net weight		kg	37.00	40.00	40.00

MODEL			TDVI 80FAS-D3	TDVI 100FAS-D3
Cooling capacity	BTU/hr		76,500	95,600
	kW		22.40	28.00
Power supply		V/Ph/Hz	220 ~ 240 / 1 / 50	
Fan motor	Type		DC MOTOR	
	Power input	W	320.0	400.0
	FLA	A	3.97	4.93
	Airflow (High-low)	CFM	1024/939/853/768/683/597/512	1271/1165/1059/953/848/742/636
	ESP	inwg	0.8 (0 - 1.2)	
Sound level (High-low)		dBA	49/47/45/43/40/38/36	51/49/47/44/42/39/37
Refrigerant control device			EXV	
Pipe connection	Liquid	mm (in)	9.53 (3/8)	12.7 (1/2)
	Suction	mm (in)	19.1 (3/4)	22.2 (7/8)
Drain pipe		mm	25.00	
Dimension(WxHxD)		mm	1645x885x360	
Net weight		kg	54.00	

All specifications are subject to change by manufacturer without prior notice.

Note : The nominal cooling capacity is based on condenser outdoor air entering temp. 35 °C (DB); indoor on coil temp. 27/19 °C (DB / WB)

TECHNICAL SPECIFICATIONS

DC MOTOR

Standard Air Flow Fresh Air Processing



(ESP: 0.88 - 1.6 inwg)
(68,300 - 191,100 Btu/Hr)

Features

- 100% fresh air processing unit, both fresh air filtration and cooling can be achieved in a single system
- External static pressure up to 0.88 - 1.6 inwg facilitates extensive duct and grille network
- Drain pump with a 1200mm pump head available as a customization option

MODEL			TDVI 70FA-D3	TDVI 80FA-D3	TDVI 85FA-D3	TDVI 100FA-D3
Cooling capacity		BTU/hr	68,300	76,500	86,000	95,600
		kW	20.00	22.40	25.20	28.00
Power supply		V/Ph/Hz	220 ~ 240 / 1 / 50			
Fan motor	Type		DC MOTOR			
	Power input	W	425.0	425.0	480.0	540.0
	FLA	A	2.94	2.94	3.36	3.68
	Airflow (High-low)	CFM	1471/1423/1373/1324/ 1275/1226/1177	1471/1423/1373/1324/ 1275/1226/1177	1648/1570/1491/1413/ 1334/1255/1177	1766/1667/1570/1471/ 1373/1275/1177
	ESP	inwg	0.88 (0 - 1.6)			
Sound level (High-low)		dBA	47/46/46/45/44/43/42	47/46/46/45/44/43/42	48/47/47/46/45/44/43/42	49/48/48/47/46/45/44
Refrigerant control device			EXV			
Pipe	Liquid	mm (in)	9.53 (3/8)		12.7 (1/2)	
connection	Suction	mm (in)	19.1 (3/4)		22.2 (7/8)	
Drain pipe		mm	32.00			
Dimension(WxHxD)		mm	1300x1050x580			
Net weight		kg	117.00			

MODEL			TDVI 120FA-D3	TDVI 140FA-D3	TDVI 160FA-D3	TDVI 200FA-D3
Cooling capacity	BTU/hr		114,300	136,500	153,600	191,100
	kW		33.50	40.00	45.00	56.00
Power supply	V/Ph/Hz		220 ~ 240 / 1 / 50			
Fan motor	Type		DC MOTOR			
	Power input	W	550.0	900.0	900.0	1,330.0
	FLA	A	3.78	5.25	5.25	8.30
	Airflow (High-low)	CFM	1883/1766/1648/1530/ 1413/1295/1177	2649/2482/2315/2148/ 1982/1815/1648	2649/2482/2315/2148/ 1982/1815/1648	3649/3433/3218/3001/ 2786/2570/2354
	ESP	inwg	0.88 (0 - 1.6) 1.2 (0 - 1.6)			
Sound level (High-low)	dBA		51/50/49/48/47/46/45	53/52/52/51/50/49/48	53/52/52/51/50/49/48	56/55/55/54/53/52/51
Refrigerant control device			EXV			
Pipe	Liquid	mm (in)	12.7 (1/2)		15.90 (5/8)	
connection	Suction	mm (in)	28.6 (1 1/8)		28.6 (1 1/8)	
Drain pipe		mm	32.00			
Dimension(WxHxD)	mm		1300x1050x580	1850x1050x580		
Net weight	kg		121.00	161.00	164.00	

All specifications are subject to change by manufacturer without prior notice.

Note : The nominal cooling capacity is based on condenser outdoor air entering temp. 35 °C (DB); indoor on coil temp. 27/19 °C (DB / WB)

TECHNICAL SPECIFICATIONS



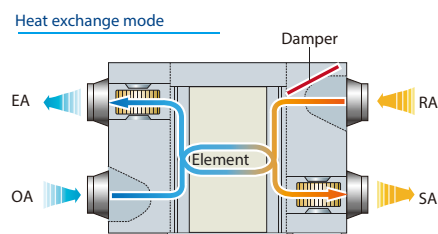
Heat Recovery Ventilator

Heat recovery ventilator (HRV) can greatly reduce energy losses and room temperature fluctuations caused by the ventilation process. Topaire 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%.

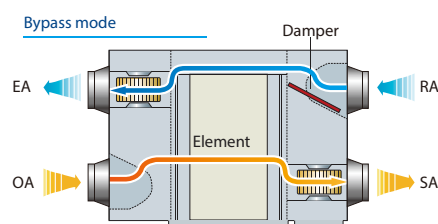
Heat exchange mode

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.



THR 120 THR 180 THR 240
THR 300 THR 480 THR 600



THR 900 THR 1200

Features

- Compact, easy installation and energy saving ventilation.
- Soundproofing is used to guarantee quiet operation.
- Three fan speed for the model (THR 120 - THR 600).
- Single fan speed for the model (THR 900 - THR 1200).
- External static pressure operating range 0.3 - 0.68 inwg.
- Special heat exchange element with HEP (High Efficiency Paper).
- Dual Mode provided (Heat recovery mode / Bypass ventilation mode).

MODEL			THR 120	THR 180	THR 240	THR 300	THR 480	THR 600	THR 900	THR 1200
Fan motor	Airflow (H/M/L)	CFM	118 / 118 / 89	177 / 177 / 133	236 / 236 / 177	295 / 295 / 221	471 / 471 / 354	589 / 589 / 442	883	1,178
	ESP (H/M/L)	inwg	0.30 / 0.23 / 0.14	0.30 / 0.23 / 0.16	0.32 / 0.26 / 0.17	0.32 / 0.27 / 0.18	0.4 / 0.32 / 0.22	0.4 / 0.34 / 0.23	0.64	0.68
	Type		AC							
	Power input	W	20	40	80	120	360	360	900	1,100
	FLA	A	0.50	0.56	1.00	1.00	2.00	2.40	3.20	3.60
Power supply			220 ~ 240 / 1 / 50						415 / 3 / 50	
Temperature exchange efficiency (H/M/L)			55 / 55 / 60						55	
Enthalpy exchange efficiency (H/M/L)			50 / 50 / 55						50	
Sound level (H/M/L)	Heat exchange mode	dBA	27 / 26 / 20	30 / 29 / 23	32 / 31 / 25	35 / 34 / 28	39 / 38 / 32	40 / 39 / 33	51	53
	Bypass mode	dBA	28 / 27 / 22	31 / 30 / 25	33 / 32 / 27	36 / 35 / 30	40 / 39 / 34	41 / 40 / 35	52	54
Duct diameter			mm Ø144			mm Ø194	mm Ø242		mm 346 x 326	
Dimension (WxDxH)			mm 866 x 655 x 264	944 x 722 x 270	944 x 927 x 270	1038 x 1026 x 270	1286 x 1006 x 388	1286 x 1256 x 388	1600 x 1270 x 540	1650 x 1470 x 540
Net weight			kg 23	26	31	41	62	79	163	182
Operation condition			Air exhaust temperature 27/19.5C (DB/WB) & fresh air temperature 35/28C (DB/WB) ; RH 80% or lower							

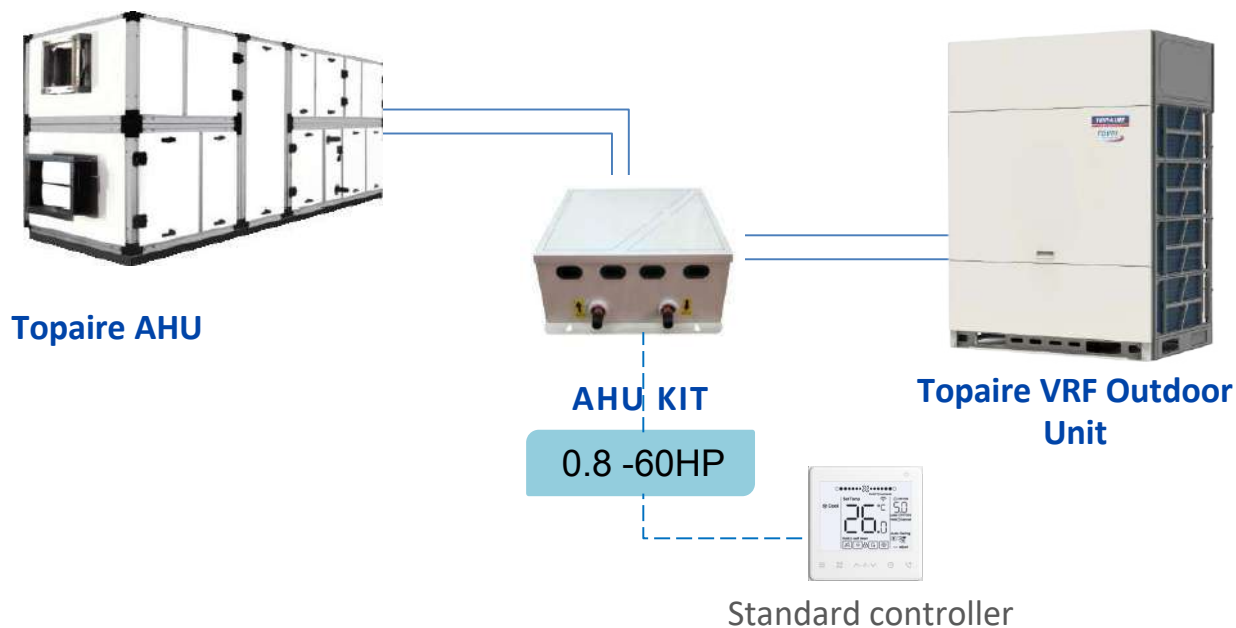
All specifications are subject to change by manufacturer without prior notice.

Note : The nominal cooling capacity is based on condenser outdoor air entering temp. 35 °C (DB); indoor on coil temp. 27/19 °C (DB / WB)

VRF AIR HANDLING UNIT SYSTEM



Combination with AHU Kit (Cooling Capacity Range 0.8-60 HP)



Basic Specification

Model		AHUKZ-00D	AHUKZ-01D	AHUKZ-02D
Power supply	V/Ph/Hz	380-415/3/50		
Connected indoor unit capacity	Btu/hr	7,500 - 30,700	30,700 - 68,300	68,300 - 122,800
	kW	2.2 - 9	9 - 20	20 - 36
IP class		IP20		
Piping size (In/Out)	mm	Φ 9.53/9.53	Φ 9.53/9.53	Φ 12.7/12.7
Weight (Net/Gross)	kg	5.7/8.6	5.7/8.6	5.9/8.8
Dimension	mm	393x344x125		
Packing dimension	mm	490x205x440		

Model		AHUKZ-03D	AHUKZ-04D	AHUKZ-05D
Power supply	V/Ph/Hz	380-415/3/50		
Connected indoor unit capacity	Btu/hr	122,800 - 191,100	191,100 - 382,100	382,100 - 580,040
	kW	36 - 56	56 - 112	112 - 170
IP class		IP20		
Piping size (In/Out)	mm	Φ 15.9/15.9	Φ 15.9/15.9	Φ 15.9/15.9
Weight (Net/Gross)	kg	6.0/8.9	12.0/16.0	14.0/18.0
Dimension	mm	393x344x125	648x401x160	
Packing dimension	mm	490x205x440	730x230x480	

CONTROLLERS

Wireless Remote Controllers



RM12F1 Remote Controller LCD Display

ON/OFF | Mode selection | Eco mode | Temperature setting | 7-speed fan control | Swing control | 24 hr timer | Clock | Background light | Address setting | Night silent mode | Display shut off | Indoor unit spot check function | Self cleaning | Sterilization | Indoor unit parameter setting

Wired Controllers



WDC3-86S Wired Controller (2-Core Shielded Copper Wire by Others)

ON/OFF | Mode selection | Eco mode | Temperature setting | 7-speed fan control | Swing control | 24 hr timer | Address setting | Group controller up to 16 indoor units | IDU parameter setting | Clean filter reminder | Remote signal receiver | 'Follow me' function

Centralized Control Monitor



TC3-10.1 Touch Screen Centralized Controller

Control up to 384 indoor units and 48 master outdoor units
ON/OFF | Mode selection | Eco mode | Temperature Setting | Room temperature display | 7-speed fan control | Swing control | Languages supported | ODU parameter setting backup, Reset Backup | Schedule, energy, group management | Unit model recognition | Electricity charge distribution | Emergency stop | Error check | Operation log | Email output | LAN access

CONTROLLERS

BMS Gateways



GW-LON LonWorks Gateway

Control up to 64 indoor units & 8 master outdoor units



IMMP-BAC BACnet Gateway

Control up to 256 indoor units & 32 master outdoor units



GW-MOD Modbus Gateway

Control up to 64 indoor units & 1 master outdoor units

Network Control System



+



IMMP-BAC

Control up to 256 indoor units & 32 master outdoor units

IMMP-S

Network control software



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