



TVR^C DC INVERTER

Full DC Inverter Air Conditioning System
R410A Series 50Hz

TRANE
TECHNOLOGIES





HOTEL



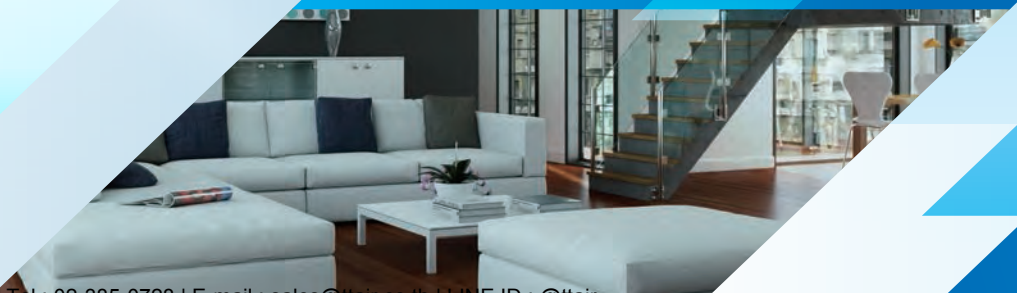
OFFICE



Urban Complex HOPSCA



APARTMENT



Full Line Up

8~90HP

Biggest single model up to 30HP, which makes combination system capacity reach 90HP. *If 4 modulars system is requested, inquire Trane's engineer please.



ICE

High Efficiency

EER 4.33

TVR C can provide the highest EER up to 4.33. With the high efficiency, more expense saved when operating.

PARK



Reliability

Refrigerant cooling technology

Refrigerant cooling makes system operating in high temperature ambiance up to 55°C.

SHOPPING MALL



Comfort

Silent noise: 24dB(A)

TVR C can operate in a smooth and silent way, which lowest noise will down to 24 dB(A). Also the night silence mode can give you a extremely quiet experience.

CONVENTION



Friendly Installation

Auto configuration

Triple (local/remote/network) configuration, power limitation on site, IDUs auto addressing, without oil balance pipe between modulars .

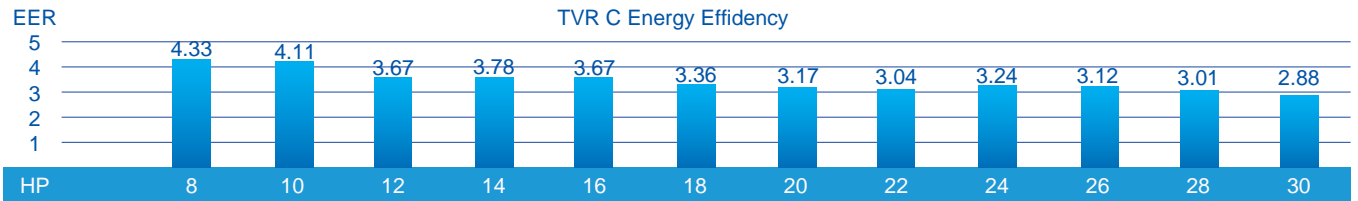
Intelligent Management Control System

Max. 2,560 IDUs

TVR control system can provide a intelligent management experience of central control, there will be maximum 2560 IDUs controlled together through the powerful software

High Efficiency

High Efficiency



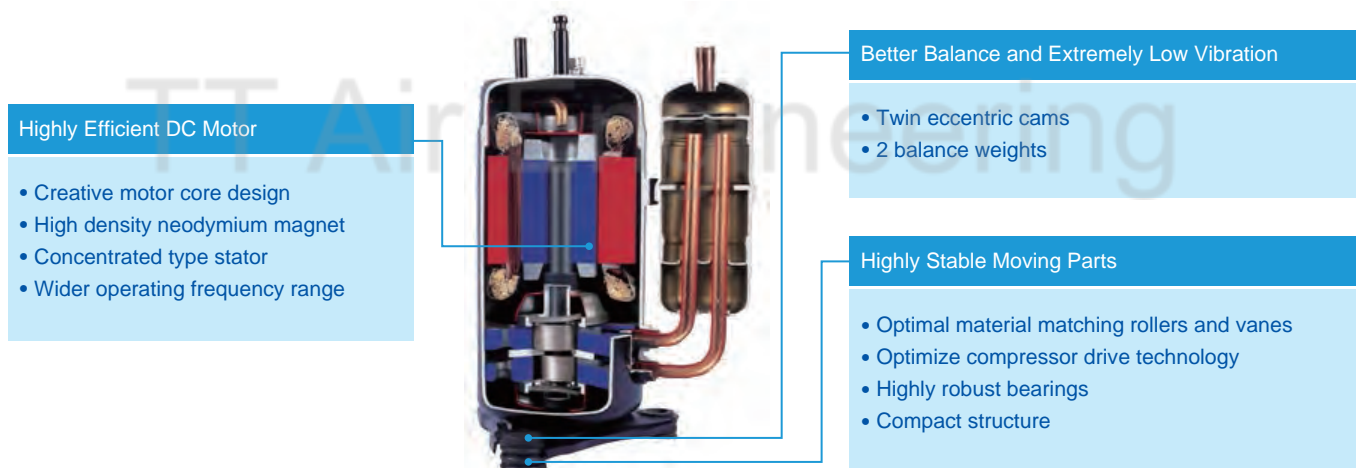
TVR C can provide the highest EER up to 4.33(8HP) with high efficiency DC compressor and DC motor. System can adjust to best efficiency according to output needs in time.

High Technology DC Compressor

New DC inverter rotary compressor utilized.

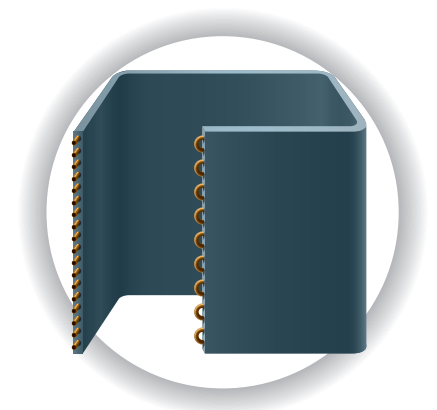
DC inverter rotary compressors do not start and stop all the time and thus will have a longer lifetime compared to standard compressors used in traditional systems.

The electronic control can adjust/optimize the compressor's operating conditions under extreme weather by changing the compressor speed during hot summer. This greatly extends the lifetime operation of the compressor.



4-side Heat Exchanger

24-30HP units use a high efficiency G-shape heat exchanger with a heat exchange area 1.5 times that of the 22HP unit.

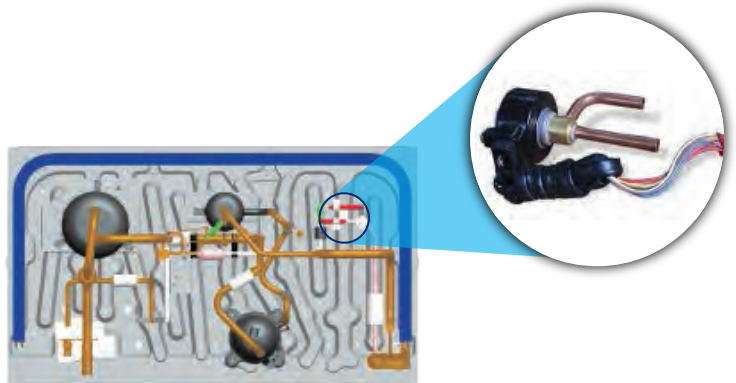


Multiple Electronic Expansion Valves, Precise Temperature Control

The indoor and outdoor unit features a design of multiple electronic expansion valves that are connected in parallel in the system. The refrigerant flow is adjusted simultaneously according to the actual load requirement to achieve true on-demand adjustment and output.

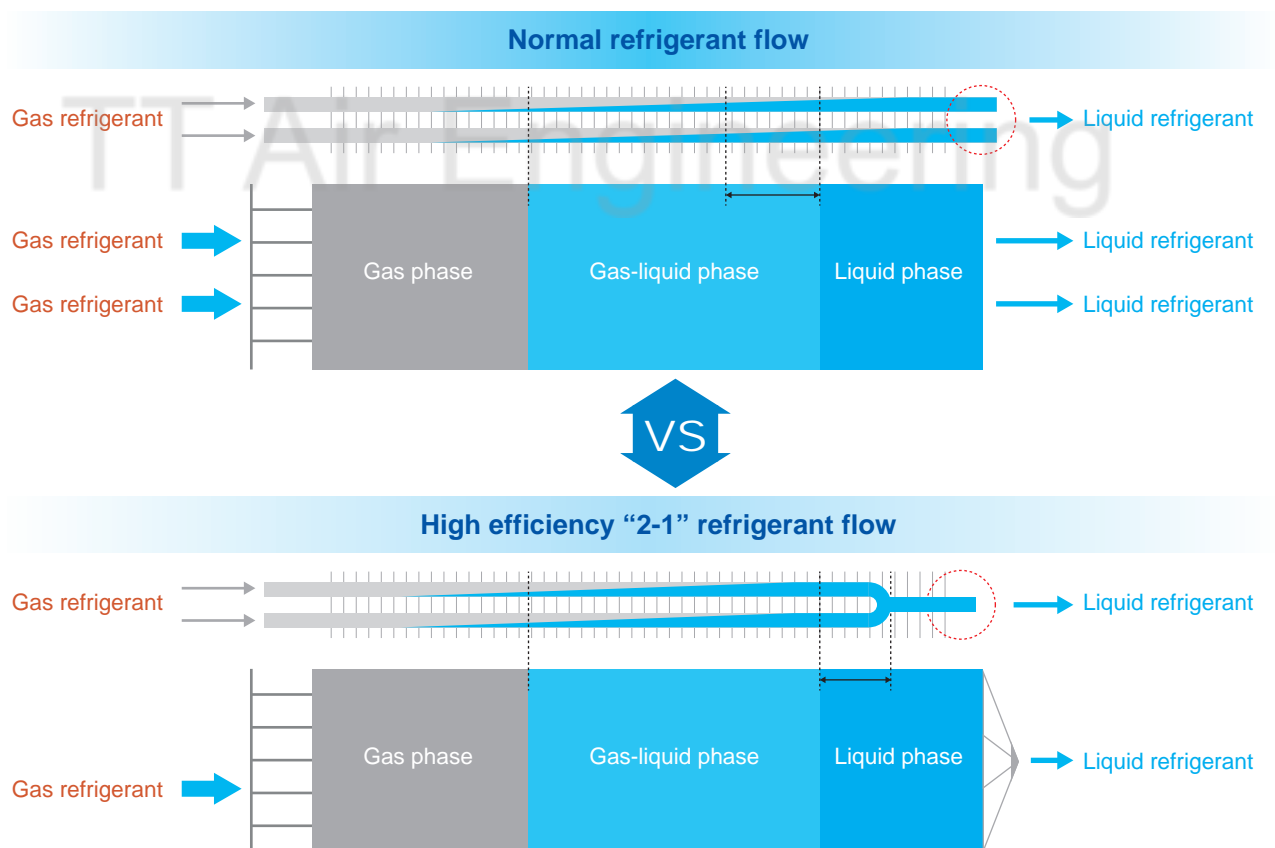
The result of precise temperature control is comfortable indoor air environment.

Indoor unit adopts mute type electronic expansion valve control.



"2-1" Refrigerant Flow

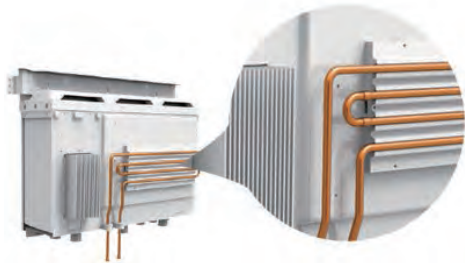
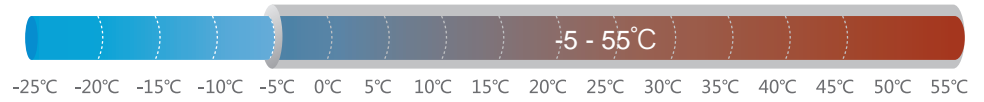
The high efficiency "2-1" refrigerant flow increases the proportion of liquid refrigerant in heat exchanger and improve heat exchange efficiency.



Reliability

High Operating Temperature

- The TVR C Cooling Only can operate stably in a wide ambient temperature range: from -5°C to 55°C in cooling

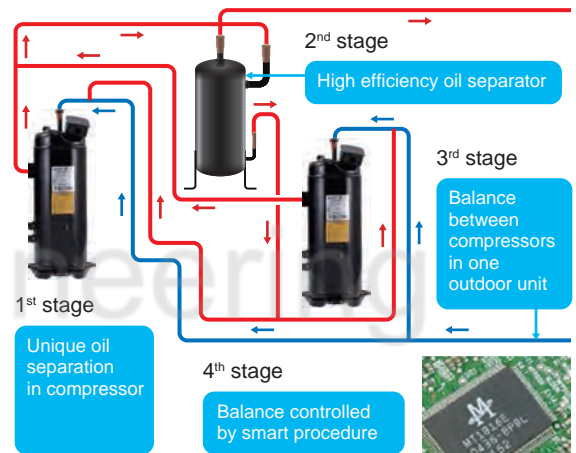


- Refrigerate cooling technology make the high ambience operating stable
- Compared with air cooling method, the PC Double U-shape refrigerant pipe decrease the PCB temperature and enhance the reliability.

Advance Oil Control

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

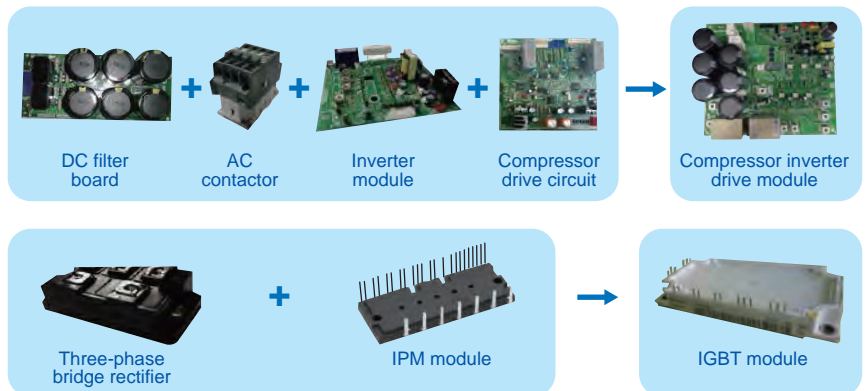
- Compressor internal oil separation.
- High-efficiency centrifugal oil separator (with separation efficiency of up to 99%) ensures that oil is separated from the discharge gas and returned to the compressors in time.
- Oil balance pipes between compressors ensure even oil distribution to keep compressors running normally.
- Auto oil return program monitors the running time and system status to ensure reliable oil return.



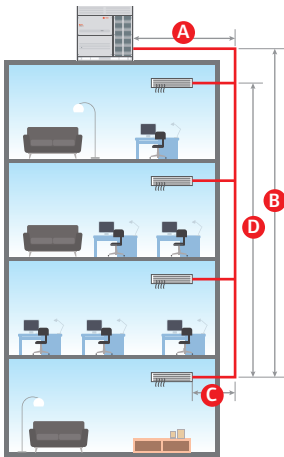
PCB Integrated Design

PCB integrated design

- DC filter board, AC contactor, inverter module and compressor drive circuit are integrated to one compressor inverter drive board.
- The integrated design can reduce the wiring connections greatly, making the electrical wiring more simple and reliable.
- Three-phase bridge rectifier and IPM module are integrated to one IGBT module.



Piping Length Flexibilities



The unique concept of a pre-engineered system that arrives at the jobsite with a predefined piping layout per system and the necessary piping kits, allows for fast and correct installation of the system.

The actual piping length from the condensing unit to the indoor unit furthest away is 175m (200m equivalent) up to a total piping length of 1000m.

The height difference can be 90m equivalent for outdoor units being installed on the roof and

- | | |
|---|-----------|
| • Maximum Actual piping length (A+B+C) | 175m |
| • Maximum height between indoor units (D) | 30m |
| • Maximum height between indoor units and outdoor units (B) | 90m/110m* |
| • Total Actual pipe length | 1000m |
| • Longest piping length after first branch(C+D) | 90m |

* when outdoor unit is below indoor units

Multiple Protection Function for More Stable System Operation

Protection 1: Real-time monitoring and automatic adjustment of operating status.

The important operating parameters of the compressor including discharge temperature, high and low pressure and running current would be monitored real-time by the control system, it will automatically adjust or initiate protective measures to ensure the system is safe and effective to operate.

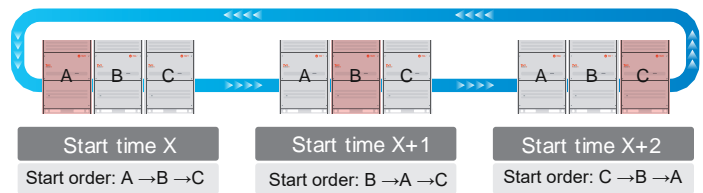
Protection 2: Perform emergency back-up operation when fault occurs.

When a single module compressor failure occurs or one module in one system requires maintenance, the system can continue stand-alone operations to guarantee uninterrupted indoor air conditioning effect, until the failure is rectified or maintenance is completed.



Protection 3: Balance compressor operation time to improve system stability

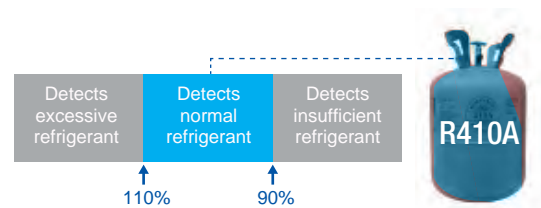
The outdoor unit always gives priority to start the module with least total running time to balance running hours of different modules and ensure reliability of the whole



Refrigerant Monitoring

Real-time refrigerant amount monitoring

The temperature and pressure of refrigerant can be real-time monitored by the outdoor unit. TVR C Cooling Only outdoor unit can detect excessive or insufficient amounts of refrigerant, to ensure



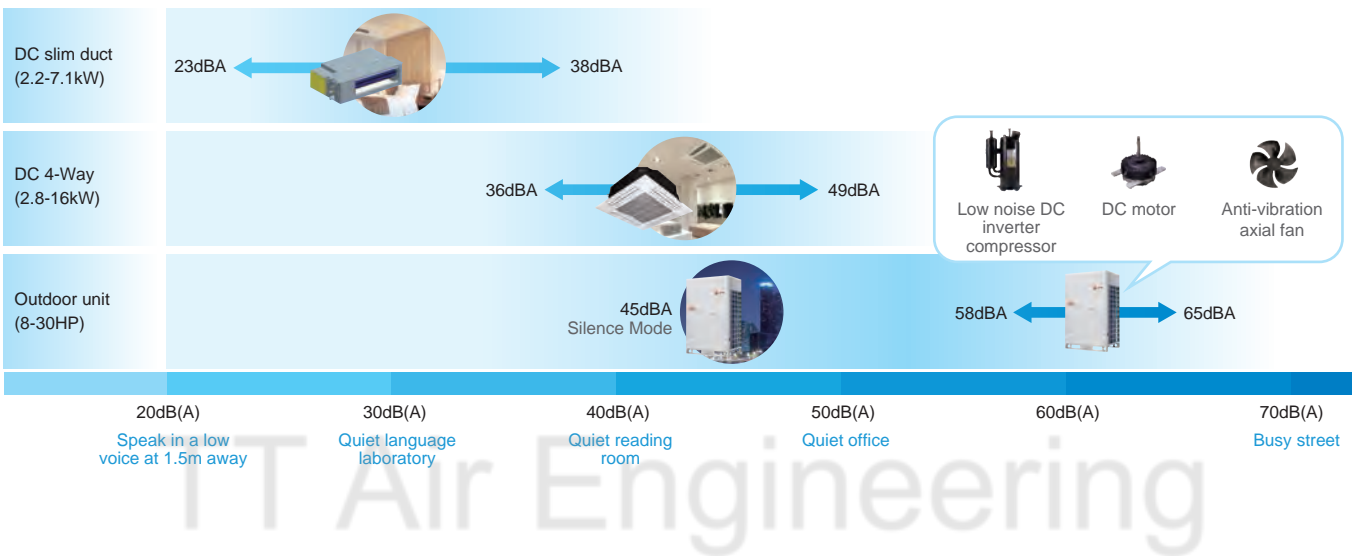
Comfort

Quiet system

TVR C gives you a quiet experience with premium comfort.

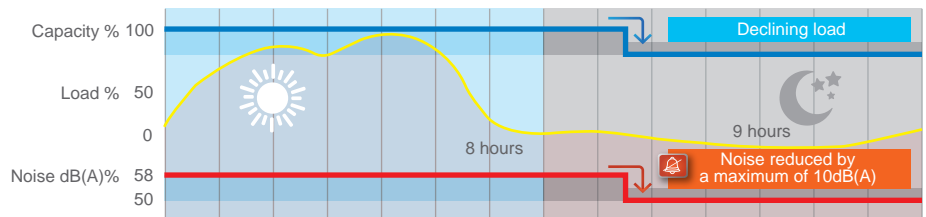
The integration of DC inverter technology used in the condensing unit results in an industry leading low noise level, i.e., 58 dB(A) for a 86 MBH outdoor unit.

- The noise level of the indoor units is low due to the especially designed fans and heat exchanger designs.
- The variety of ducted indoor units allow for flexible design to meet any sound requirements per zone.



Human-friendly silent mode for night time

Particularly suitable for villas and high-end apartments, this technology automatically achieves reduction of the fan and compressor speeds by a maximum of 10 dB(A). It allows users to achieve maximum comfort and avoid disturbing neighbors.



Precise Temperature Control

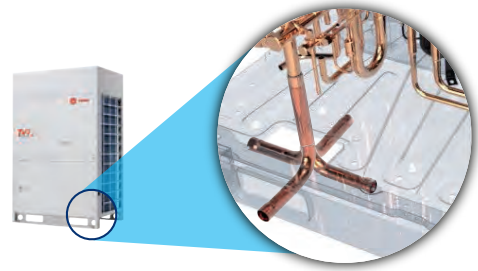
TVR C outdoor unit uses multiple and high precision EXVs to create comfortable indoor environment. The EXV control precision is up to 3000-stage which can precisely control refrigerant flow and guarantee stable indoor temperature. In this way, temperature setting can be adjusted in 0.5°C step, enabling precise comfort control.



Installation

Installation Flexibility

The knock-out holes for refrigerant piping, as well as for power and communication cables, have been located in a variety of directions. The refrigerant piping and cables can be installed on the front, left, or right side of the unit. This flexible design allows for a more convenient.



Triple configurations

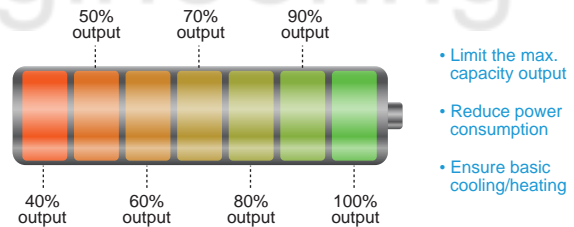
Triple (local/remote/network) configurations greatly simplified installation, commissioning and servicing.

- Field local configuration achieves 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.



Output limitation during electricity supply restrictions

For projects with temporary electricity supply restrictions, TVR C Cooling Only can be set to output 40-100% capacity.



Auto addressing

ODU distribute addresses to IDUs automatically
Up to 64 IDUs can be connected and identified.

Friendly Installation – Without Oil Balance Pipe



Without oil balance pipe

Balancing pipe become unnecessary by New oil management system.



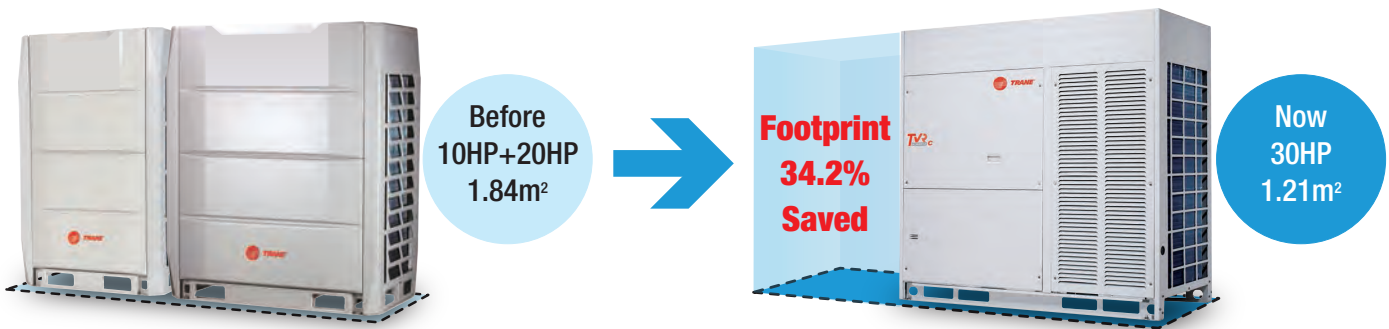
Outdoor Units

● Basic Model 8~30HP

Capacity	8,10,12,14,16	18,20,22	24,26,28,30
Picture			
Dimension (WxHxD)	960x1615x765	1250x1615x765	1585x1615x765

Large 30HP model

30HP model leads installation space saving up to 34.2% compared with previous products



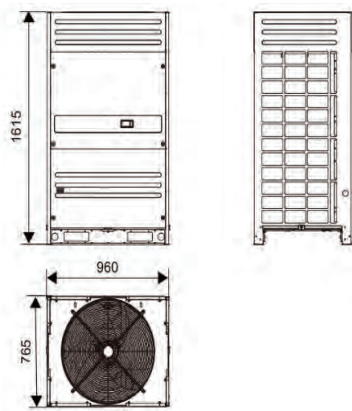
TT Air Engineering

● Model Combinations up to 90HP

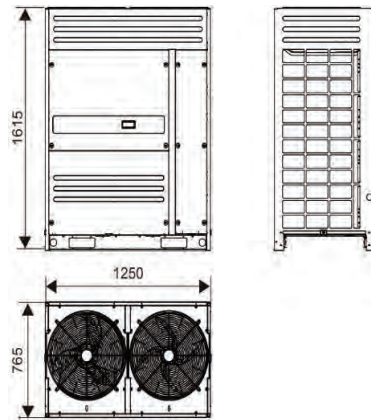
HP	2 modules															3 modules															
	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82	84	86	88	90	
Picture																															
16	2	1	1	1	1	1	1	1								2	1	1	1	1	1	1	1								
18		1							1								1							1							
20			1							1								1								1					
22				1							1								1								1				
24					1							1								1								1			
26						1							1								1								1		
28							1							1								1								1	
30								1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	2	2	2	2	2	2	3

Outdoor Unit Dimensions

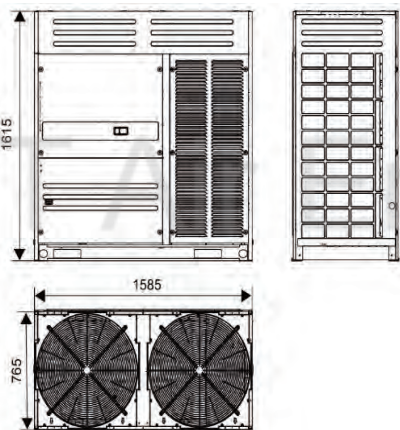
● **Dimension** Unit: mm



8-16 HP

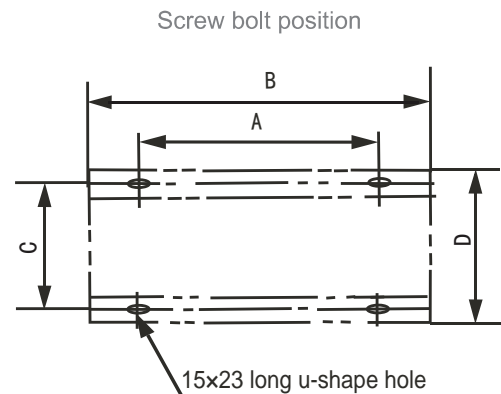
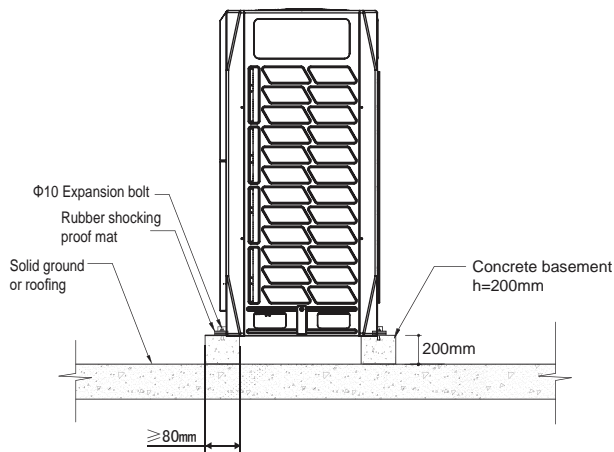


18-22 HP



24-30 HP

● **Installation dimension** Unit: mm



Model		4TVS0086FE	4TVS0096FE	4TVS0115FE	4TVS0135FE	4TVS0155FE	4TVS0170FE	4TVS0192FE	4TVS0210FE	4TVS0228FE	4TVS0250FE		
Constituent Units													
Power supply	V-Ph-Hz	380-415V 3Ph-50Hz											
Cooling (*1)	Capacity	HP	8	10	12	14	16	18	20	22	24	26	
		kW	22.4	28.0	33.5	40.0	45.0	50.0	56.0	61.5	67.0	73.0	
		Btu/h	76,500	95,500	114,300	136,500	153,500	170,600	191,100	209,800	228,600	249,100	
	Power input	kW	5.17	6.81	9.13	10.58	12.26	14.88	17.66	20.23	20.68	23.40	
EER	W/W	4.33	4.11	3.67	3.78	3.67	3.36	3.17	3.04	3.24	3.12		
Connectable	Maximum	13	16	20	23	26	29	33	36	39	43		
Indoor unit	Cooling capacity range	50-130%											
Compressor Configuration		DC Inverter											
RLA	A	10	11.1	14.8	26	26.5	15+16	18+19	19+20	19.8+20.9	20.5+21.2		
Air flow	m³/h	10,400		10,800	11,600		12,000	12,200	12,200	19,600	19,600		
	CFM	6,121		6,356	6,827		7,062	7,180	7,180	11,536	11,536		
Sound level (2*)	dB (A)	58	58	60	62	63	62	63	63	64	64		
Outdoor Unit Dimension	Body (HxWxD)	1,615x960x765				1,615x1,250x765				1,615x1,585x765			
	Packing (HxWxD)	1,790x1,025x830				1,790x1,305x820				1,810x1,650x840			
Net weight	kg	188				197				278			
Refrigerant Type and Charged Volume	kg	R-410A (8)	R-410A (8)	R-410A (8)	R-410A (11)	R-410A (11)	R-410A (13)	R-410A (13)	R-410A (13)	R-410A (19)	R-410A (19)		
Refrigerant	Liquid side	Φ12.7				Φ15.9				Φ19.1			
Piping (*3)	Gas side	Φ25.4				Φ28.6				Φ31.8			

Model		4TVS0270FE	4TVS0290FE	4TVS0310FE	4TVS0325FE	4TVS0347FE	4TVS0365FE	4TVS0383FE	4TVS0405FE	4TVS0425FE	4TVS0445FE	
Constituent Units				4TVS0155FE	4TVS0155FE	4TVS0155FE	4TVS0155FE	4TVS0155FE	4TVS0155FE	4TVS0155FE	4TVS0155FE	
Power supply		380-415V 3Ph-50Hz										
Cooling (*1)	Capacity	HP	28	30	32	34	36	38	40	42	44	46
		kW	78.5	85.0	90.0	95.0	101.0	106.5	112.0	118.0	123.5	130.0
		Btu/h	267,800	290,000	307,100	324,100	344,600	363,400	382,200	402,600	421,400	443,600
	Power input	kW	26.08	29.51	24.52	27.14	29.71	32.49	32.94	35.66	38.34	41.77
EER	W/W	3.01	2.88	3.67	3.67	3.50	3.40	3.40	3.31	3.22	3.11	
Connectable	Maximum	46	50	53	53	56	59	64	64	64	64	
Indoor unit	Cooling capacity range	50-130%										
Compressor Configuration		DC Inverter										
RLA	A	25+26	26+27	26.5+26.5	15+16+26.5	18+19+26.5	19+20+26.5	19.8+20.9+26.5	20.5+21.2+26.5	25+26+26.5	26+27+26.5	
Air flow	m³/h	20,600	20,600	23,200	23,600	23,800	23,800	31,200	31,200	32,200	32,200	
	CFM	12,124	12,124	13,655	13,890	14,008	14,008	18,364	18,364	18,952	18,952	
Sound level (2*)	dB (A)	64	65	66	66	66	66	67	67	67	67	
Outdoor Unit Dimension	Body (HxWxD)	1,615x1,585x765		(1,615x960x765) x 2		(1,615x960x765)+(1,615x1,250x765)		(1,615x960x765)+(1,615x1,585x765)				
	Packing (HxWxD)	1,810x1,650x840		(1,790x1,025x830) x 2		(1,790x1,025x830)+(1,790x1,305x840)		(1,790x1,025x830)+(1,810x1,650x840)				
Net weight	kg	338		188 x 2	197 x 2	197 + 278		197 + 338				
Refrigerant Type and Charged Volume	kg	R-410A (19)	R-410A (19)	R-410A (11+11)	R-410A (11+13)	R-410A (11+13)	R-410A (11+13)	R-410A (11+19)	R-410A (11+19)	R-410A (11+19)	R-410A (11+19)	
Refrigerant	Liquid side	Φ22.2				Φ19.1						
Piping (*3)	Gas side	Φ31.8										

Notes: Capacities are based on the following conditions:

Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB.

Connection piping diameter is based on the condition that the total equivalent liquid length is less than 90m. When the total equivalent liquid length is more than 90m, please refer to technical manual to choose the connection piping diameter.

Sound values are measured in a semi-anechoic room, at a position 1m in front of the unit and 1.3m above the floor. *18HP can be customized. Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

Model		4TVS0460FE	4TVS0482FE	4TVS0500FE	4TVS0518FE	4TVS0540FE	4TVS0560FE	4TVS0580FE	4TVS0600FE	4TVS0615FE	4TVS0637FE	4TVS0655FE	
Constituent Units		4TVS0170FE	4TVS0192FE	4TVS0210FE	4TVS0228FE	4TVS0250FE	4TVS0270FE	4TVS0290FE	4TVS0155FE	4TVS0155FE	4TVS0155FE	4TVS0155FE	
		4TVS0290FE	4TVS0290FE	4TVS0290FE	4TVS0290FE	4TVS0290FE	4TVS0290FE	4TVS0290FE	4TVS0290FE	4TVS0155FE	4TVS0170FE	4TVS0192FE	4TVS0210FE
Power supply	V-Ph-Hz	380-415V 3Ph-50Hz											
Cooling (*1)	Capacity	HP	48	50	52	54	56	58	60	62	64	66	68
		kW	135.0	141.0	146.5	152.0	158.0	163.5	170.0	175.0	180.0	186.0	191.5
	Btu/h	460,600	481,100	499,900	518,600	539,100	557,900	580,000	597,100	614,200	634,600	653,400	
	Power input	kW	44.39	47.17	49.74	50.19	52.91	55.59	59.02	54.03	56.65	59.43	62.00
EER	W/W	3.04	2.99	2.95	3.03	2.99	2.94	2.88	3.24	3.18	3.13	3.09	
Connectable	Maximum	64	64	64	64	64	64	64	64	64	64	64	
Indoor unit	Cooling capacity range	% 50-130%											
Compressor Configuration		DC Inverter											
RLA	A	15+16+26+27	18+19+26+27	19+20+26+27	19.8+20.9+26+27	20.5+21.2+26+27	25+26+26+27	26+27+26+27	26.5+26.5+26+27	15+16+26.5+26+27	18+19+26.5+26+27	19+20+26.5+26+27	
Air flow	m³/h	32,600	32,800	32,800	40,200	40,200	40,200	41,200	43,800	44,200	44,400	44,400	
	CFM	19,188	19,305	19,305	23,661	23,661	23,661	24,249	25,780	26,015	26,133	26,133	
Sound level (2*)	dB (A)	68	67	67	68	68	68	68	69	68	69	69	
Outdoor Unit Dimension	Body (HxWxD)	mm (1,615x1,250x765)+(1,615x1,585x765)			mm (1,615x1,585x765) x 2				mm (1,615x960x765)x2+(1,615x1,585x765)		mm (1,615x960x765)+(1,615x1,250x765)+(1,615x1,585x765)		
	Packing (HxWxD)	mm (1,790x1,305x820)+(1,810x1,650x840)			mm (1,810x1,650x840) x 2				mm 1,790x1,025x830)x2+(1,810x1,650x840)		mm (1,790x1,025x830)+(1,790x1,305x820)+(1,810x1,650x840)		
Net weight	kg	278 + 338				338 x 2				188 x 2 + 338		197 + 278 + 338	
Refrigerant Type and Charged Volume	kg	R-410A (13+19)	R-410A (13+19)	R-410A (13+19)	R-410A (19+19)	R-410A (19+19)	R-410A (19+19)	R-410A (19+19)	R-410A (11+11+19)	R-410A (11+13+19)	R-410A (11+13+19)	R-410A (11+13+19)	
Refrigerant	Liquid side	mm Φ19.1											
Piping (*3)	Gas side	mm Φ38.1					mm Φ41.2				mm Φ44.5		











Model		4TVS0673FE	4TVS0695FE	4TVS0715FE	4TVS0735FE	4TVS0750FE	4TVS0772FE	4TVS0790FE	4TVS0808FE	4TVS0830FE	4TVS0850FE	4TVS0870FE	
Constituent Units		4TVS0155FE	4TVS0155FE	4TVS0155FE	4TVS0155FE	4TVS0170FE	4TVS0192FE	4TVS0210FE	4TVS0228FE	4TVS0250FE	4TVS0270FE	4TVS0290FE	
		4TVS0228FE	4TVS0250FE	4TVS0270FE	4TVS0290FE	4TVS0290FE	4TVS0290FE	4TVS0290FE	4TVS0290FE	4TVS0290FE	4TVS0290FE	4TVS0290FE	4TVS0290FE
		4TVS0290FE	4TVS0290FE	4TVS0290FE	4TVS0290FE	4TVS0290FE	4TVS0290FE	4TVS0290FE	4TVS0290FE	4TVS0290FE	4TVS0290FE	4TVS0290FE	4TVS0290FE
Power supply	V-Ph-Hz	380-415V 3Ph-50Hz											
Cooling (*1)	Capacity	HP	70	72	74	76	78	80	82	84	86	88	90
		kW	197.0	203.0	208.5	215.0	220.0	226.0	231.5	237.0	243.0	248.5	255.0
	Btu/h	672,200	692,600	711,400	733,600	750,600	771,100	789,900	808,600	829,100	847,900	870,100	
	Power input	kW	62.45	65.17	67.85	71.28	73.90	76.68	79.25	79.70	82.42	85.10	88.53
EER	W/W	3.15	3.11	3.07	3.02	2.98	2.95	2.92	2.97	2.95	2.92	2.88	
Connectable	Maximum	64	64	64	64	64	64	64	64	64	64	64	
Indoor unit	Cooling capacity range	% 50-130%											
Compressor Configuration		DC Inverter											
RLA	A	19.8+20.9+26.5+26+27	20.5+21.2+26.5+26+27	25+26+26.5+26+27	26+27+26.5+26+27	15+16+26+27+26+27	18+19+26+27+26+27	19+20+26+27+26+27	19.8+20.9+26+27+26+27	20.5+21.2+26+27+26+27	25+26+26+27+26+27	26+27+26+27+26+27	
Air flow	m³/h	51,800	51,800	52,800	52,800	53,200	53,400	53,400	60,800	60,800	61,800	61,800	
	CFM	30,488	30,488	31,077	31,077	31,312	31,430	31,430	35,786	35,786	36,374	36,374	
Sound level (2*)	dB (A)	69	69	69	69	69	69	69	69	69	69	70	
Outdoor Unit Dimension	Body (HxWxD)	mm (1,615x960x765)+(1,615x1,585x765)x2				mm (1,615x1,250x765)+(1,615x1,585x765)x2				mm (1,615x1,585x765)x3			
	Packing (HxWxD)	mm (1,790x1,025x830)+(1,810x1,650x840)x2				mm (1,790x1,305x820)+(1,810x1,650x840)x2				mm (1,810x1,650x840)x3			
Net weight	kg	197 + 338 + 338				278 + 338 + 338				338 x 3			
Refrigerant Type and Charged Volume	kg	R-410A (11+19+19)	R-410A (11+19+19)	R-410A (11+19+19)	R-410A (11+19+19)	R-410A (13+19+19)	R-410A (13+19+19)	R-410A (13+19+19)	R-410A (13+19+19)	R-410A (19+19+19)	R-410A (19+19+19)	R-410A (19+19+19)	
Refrigerant	Liquid side	mm Φ22.2								mm Φ25.4			
Piping (*3)	Gas side	mm Φ44.5								mm Φ50.8			

Notes: Capacities are based on the following conditions:

Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB.

Connection piping diameter is based on the condition that the total equivalent liquid length is less than 90m. When the total equivalent liquid length is more than 90m, please refer to technical manual to choose the connection piping diameter.

Sound values are measured in a semi-anechoic room, at a position 1m in front of the unit and 1.3m above the floor. *18HP can be customized. Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

Type	Model (capacity MBH)	5	7	9	12	15	18	24	27	30	34	36	38	42	48	54	60	68	85	95	100	120	135	155	190
One-way cassette																									
Two-way cassette																									
Modern four-way cassette																									
Four-way cassette (Cozy Series)																									
Medium Static Pressure Concealed																									
High Static Pressure Duct Concealed Duct																									
Convertible																									
High-Wall Unit M Series																									
Fresh Air processing unit																									
Floor Standing unit																									

12 types and over 100 models are available to meet varied customer requirements.

Indoor Units Lineup

● High-Wall Unit

High-Wall Unit M Series



-  Auto Restart
-  Cleanable Panel
-  Follow Me
-  Auto Addressing
-  Anti-Cold Air Function
-  LED Display
-  Economic operation

Panel with LED display

The front panel and display panel have different colors for choose: white and brown for big panel, blue and brown for small panel.

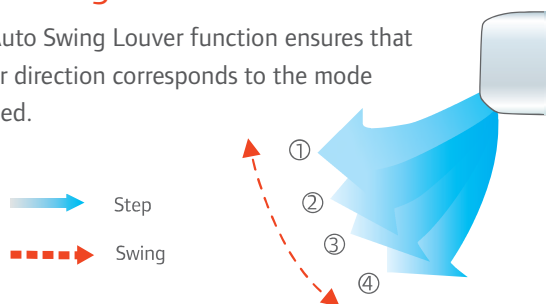
Flexible installation

Multi-refrigerant outlet pipe method: left\right\rear, more flexible for installation.



Auto swing louver

The Auto Swing Louver function ensures that the air direction corresponds to the mode selected.



Easy maintenance

The front panel can be removed for easy maintenance access.



Quiet operation

Adoption of the 2000 stages element positioning mechanical expansion value, ensures precise flow control, as well as lower modulation noise when EXV operating.

More smooth airflow with less turbulence. Owing to the multiple-blade fan and the air guide design, the airflow is getting smooth and more comfortable.

M Series

Model			4TVW0007EBA000AA	4TVW0009EBA000AA	4TVW0012EBA000AA	4TVW0015EBA000AA
Power supply			220-240V, 50Hz, 1-Phase			
Cooling capacity		kW	2.2	2.8	3.6	4.5
		Btu/h	7,500	9,600	12,300	15,400
Power (Cooling)	Cooling	W	29	29	31	45
	Rated current	A	0.2	0.2	0.23	0.35
Airflow rate (H/M/L)		m ³ /h	446/409/373	457/421/402	447/369/303	648/563/476
		CFM	263/241/220	269/248/237	263/217/178	381/331/280
Sound level		dB (A)	34/32/31	33/32/31	36/33/32	37/34/31
Refrigerant		Type	R410A			
		Control method	EXV			
Net dimension (HxWxD)		mm	280x835x203	280x835x203	315x990x223	315x990x223
Packing dimension (HxWxD)		mm	385x935x320	385x935x320	420x1,085x335	420x1,085x335
Net weight		kg	8.5	8.5	9.7	13.8
Gross weight		kg	11.0	11.0	12.2	16.4
Piping connecting	L (flare)	mm	ø6.35	ø6.35	ø6.35	ø6.35
	G (flare)	mm	ø12.7	ø12.7	ø12.7	ø12.7
	Drain piping	mm	ODø16.5	ODø16.5	ODø16.5	ODø16.5
Standard Controller		-	TCONTRM12F			

Model			4TVW0018EBA000AA	4TVW0024EBA000AA	4TVW0027EBA000AA	4TVW0030EBA000AA
Power supply			220-240V, 50Hz, 1-phase			
Cooling capacity		kW	5.6	7.1	8	9
		Btu/h	19,100	24,200	27,300	30,700
Power (Cooling)	Cooling	W	54	77	77	90
	Rated current	A	0.40	0.45	0.45	0.52
Airflow rate (H/M/L)		m ³ /h	798/691/595	1,240/1,045/869	1,248/1,056/863	1,427/1,232/1,043
		CFM	470/407/350	730/615/511	735/622/508	840/725/614
Sound level		dB (A)	42/39/36	48/44/38	48/43/38	52/49/43
Refrigerant		Type	R410A			
		Control method	EXV			
Net dimension (HxWxD)		mm	315x990x223	343x1,194x262	343x1,194x262	343x1,194x262
Packing dimension (HxWxD)		mm	395x1,075x300	420x1,265x345	420x1,265x345	420x1,265x345
Net weight		kg	13.8	17.4	17.6	17.6
Gross weight		kg	16.4	20.8	21.0	21.0
Piping connecting	L (flare)	mm	ø9.53	ø9.53	ø9.53	ø9.53
	G (flare)	mm	ø15.9	ø15.9	ø15.9	ø15.9
	Drain piping	mm	ODø16.5	ODø16.5	ODø16.5	ODø16.5
Standard Controller		-	TCONTRM12F			

Notes:

- Nominal cooling capacities are based on the following conditions: return air temp.: 27°CDB, 19°CWB, and outdoor temp.: 35°CDB, equivalent ref. piping: 8m (horizontal)
- Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB, outdoor temp.: 7°CDB, 6°CWB, and equivalent ref. Piping: 8m (horizontal)
- Sound level is measured 1m below the air outlet horizontally and vertically. Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

* Specifications are subject to change without prior notice for product improvement.

Indoor Units Lineup

● Convertible Unit

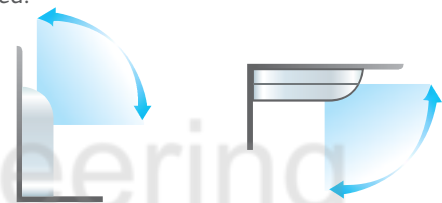


Panel with LED display

The front panel and display panel have different colors for choose: white and brown for big panel, blue and brown for small panel. Other colors are available if required.

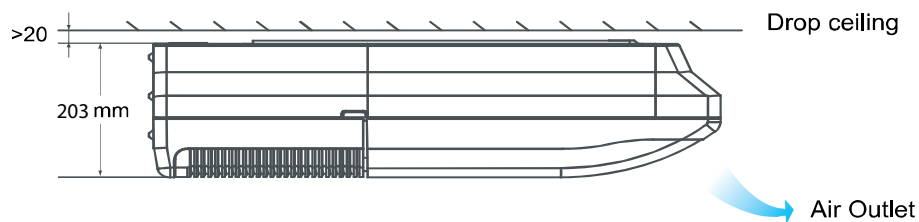
Convenient installation

- The unit even can be easily installed at the corner of a narrow ceilings.
- It is especially useful when central installation is impossible due to features such as lights.



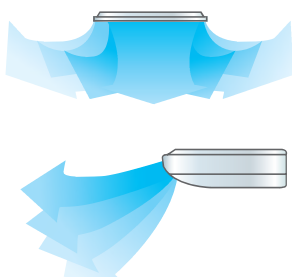
The unit can be installed either horizontally on the ceiling or vertically against the wall.

Quiet and comfortable environment



- The slim and sleek design starting at just 30kg enables quick, easy and neat installation.
- Low noise operations; minimum 36 dB(A)

Auto swing and wide angle air flow



1. Auto horizontal and auto vertical swing functions for more even and comfortable airflow.
2. Three air flow speeds: low, medium and high; double air guides.
3. Adopt electronic expansion valve, ensure precise flow control, lower modulation noise when EXV operating.
4. Smoother airflow and less turbulence due to the multi-blade fan and the air guide design.

Model		4TVX0012EBA00AA	4TVX0015EBA00AA	4TVX0018EBA00AA	4TVX0024EBA00AA	4TVX0027EBA00AA	
Power supply		220-240V, 50Hz, 1-phase					
Cooling capacity		kW	3.6	4.5	5.6	7.1	8
		Btu/h	12,300	15,400	19,100	24,200	27,300
Power (Cooling)	Cooling	W	49	120	122	125	130
	Rated current	A	0.2	0.7	0.7	0.8	0.8
Airflow rate (H/M/L)		m ³ /h	650/570/500	800/600/500	800/600/500	800/600/500	1,200/900/700
		CFM	383/335/294	471/353/294	471/353/294	471/353/294	706/530/412
Sound level		dB (A)	40/38/36	43/41/38	43/41/38	43/41/38	45/43/40
Refrigerant		Type	R410A				
		Control method	EXV				
Net dimension (HxWxD)		mm	203x990x660	203x990x660	203x990x660	203x990x660	203x1,280x660
Packing dimension (HxWxD)		mm	296x1,089x744	296x1,089x744	296x1,089x744	296x1,089x744	296x1,379x744
Net weight		kg	26	28	28	28	34.5
Gross weight		kg	32	34	34	34	41
Piping connecting	L (flare)	mm	ø6.35	ø6.35	ø9.53	ø9.53	ø9.53
	G (flare)	mm	ø12.7	ø12.7	ø15.9	ø15.9	ø15.9
	Drain piping	mm	ODø25	ODø25	ODø25	ODø25	ODø25
Standard Controller		-	TCONTRM12F				

Model		4TVX0030EBA00AA	4TVX0038EBA00AA	4TVX0048EBA00AA	4TVXD055DB0REAA	
Power supply		220-240V, 50Hz, 1-phase				
Cooling capacity		kW	9	11.2	14	16
		Btu/h	30,700	38,200	47,800	54,600
Power (Cooling)	Cooling	W	130	182	182	288
	Rated current	A	0.8	1.1	1.1	1.3
Airflow rate (H/M/L)		m ³ /h	1,200/900/700	1,980/1,860/1,730	1,980/1,860/1,730	2,300/2,240/2,180/2,100 2,005/1,950/1,800
		CFM	706/530/412	1,165/1,095/1,018	1,165/1,095/1,018	1,354/1,319/1,284/1,237 1,180/1,148/1,060
Sound level		dB (A)	45/43/40	47/45/42	47/45/42	50/49/48/47/46/45/44
Refrigerant		Type	R410A			
		Control method	EXV			
Net dimension (HxWxD)		mm	203x1,280x660	244x1,670x680	244x1,670x680	244x1,670x680
Packing dimension (HxWxD)		mm	296x1,379x744	329x1,764x760	329x1,764x760	328x1,915x760
Net weight		kg	34.5	54	54	54
Gross weight		kg	41	59	59	58
Piping connecting	L (flare)	mm	ø9.53	ø9.53	ø9.53	ø9.53
	G (flare)	mm	ø15.9	ø15.9	ø15.9	ø15.9
	Drain piping	mm	ODø25	ODø25	ODø25	ODø16
Standard Controller		-	TCONTRM12F			

Notes:

- Nominal cooling capacities are based on the following conditions: return air temp.: 27°CDB, 19°CWB, and outdoor temp.: 35°CDB, equivalent ref. piping: 8m (horizontal)
- Nominal heating capacities are based on the following conditions: return air temp.: 20°CDB, outdoor temp.: 7°CDB, 6°CWB, and equivalent ref. Piping: 8m (horizontal)
- Sound level is measured 1m below the air outlet horizontally and vertically. Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

* Specifications are subject to change without prior notice for product improvement.

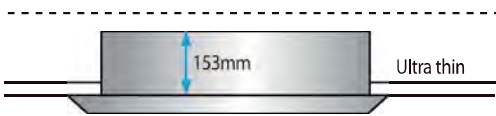
Indoor Units Lineup

● One-Way Cassette



-  Auto mode
-  Dry mode
-  Cool mode
-  Fan mode
-  Lock
-  Economic operation
-  Address setting

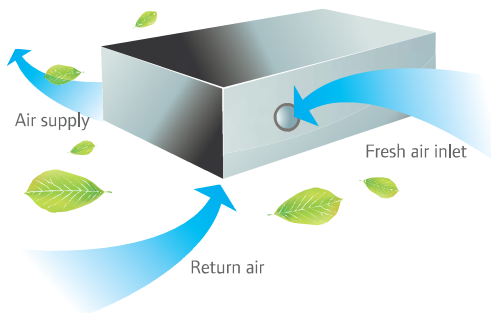
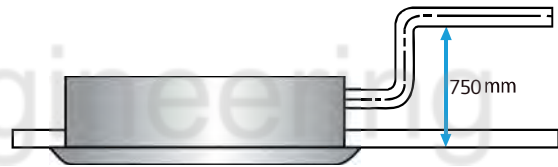
Min. 153mm Thickness



Compact design, ultra slim body with a minimum thickness of 153mm for models 12,300 Btu, especially suitable for narrow ceiling, such as in lobbies and small meeting rooms.

High-lift Pump

Standard built-in drain pump with 750mm pumphead.



Fresh Air, Improved Air Quality

Reserved fresh air intake port for high quality air creates a comfortable and healthy environment (for models 45-71).



Model		4TVA0009EBA00AA	4TVA0012EBA00AA	4TVA0015EBA00AA	4TVA0018EBA00AA	4TVA0024EBA00AA	
Power supply		220-240V, 50Hz, 1-phase					
Cooling capacity		kW	2.8	3.6	4.5	5.6	7.1
		Btu/h	9,600	12,300	15,400	19,100	24,200
Power (Cooling)	Cooling	W	41	41	48	48	60
	Rated current	A	0.3	0.3	0.3	0.3	0.4
Airflow rate (H/M/L)		m ³ /h	573/456/315	573/456/315	693/600/476	792/688/549	933/749/592
		CFM	337/268/185	337/268/185	408/353/280	446/405/323	549/441/348
Sound level		dB (A)	39/37/34	39/37/34	41/39/35	42/40/36	44/41/37
Refrigerant		Type	R410A				
		Control method	EXV				
Unit Dimension	Net (HxWxD)	mm	153x1,054x425	153x1,054x425	189x1,275x450	189x1,275x450	189x1,275x450
	Gross (HxWxD)	mm	245x1,155x490	245x1,155x490	295x1,370x505	295x1,370x505	295x1,370x505
	Net / Gross	kg	13/16.5	13/16.5	18.5/22.8	18.8/23.1	19.5/23.8
Panel Dimension	Net (HxWxD)	mm	25x1,180x465	25x1,180x465	25x1,350x505	25x1,350x505	25x1,350x505
	Gross (HxWxD)	mm	107x1,232x517	107x1,232x517	95x1,410x560	95x1,410x560	95x1,410x560
	Net / Gross	kg	3.5/5.2	3.5/5.2	4/5.4	4/5.4	4/5.4
Piping connecting	L (flare)	mm	ø6.35	ø6.35	ø6.35	ø9.53	ø9.53
	G (flare)	mm	ø12.7	ø12.7	ø12.7	ø15.9	ø15.9
	Drain piping	mm	ODø25	ODø25	ODø25	ODø25	ODø25
Drain pump	Pumphead	mm	750	750	750	750	750
Standard Controller		-	TCONTRM12F				

Notes:

- Nominal cooling capacities are based on the following conditions: return air temperature: 27°CDB, 19°CWB, outdoor temperature: 35°CDB, equivalent ref. piping: 8 m(horizontal).
- Nominal heating capacities are based on the following conditions: return air temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent ref. piping: 8 m(horizontal).
- Sound level is measured at 1.4m below the unit. Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

Indoor Units Lineup

● Two-Way Cassette



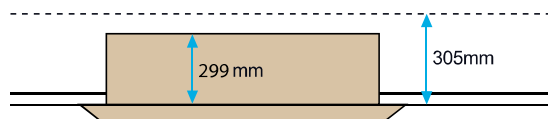
-  Auto Restart
-  Cleanable Panel
-  Follow Me
-  Auto Addressing
-  Anti-Cold Air Function
-  LED Display
-  Economic operation
-  Fresh Air
-  Super High Air Flow

Quiet operation

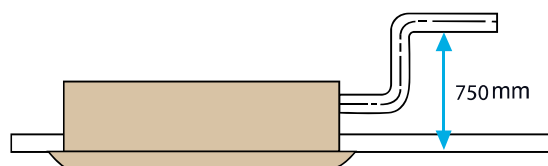
Optimized airflow duct with low resistance greatly reduces noise, minimum down to 24 dB(A).

Stylish design and slim body

Thanks to the stylish appearance and slim body, the unit suits any room's decor and ambience. At only 299 mm high, the unit requires only a small suspended ceiling space. Installation has no height limitations, which makes overall design features much more flexible.



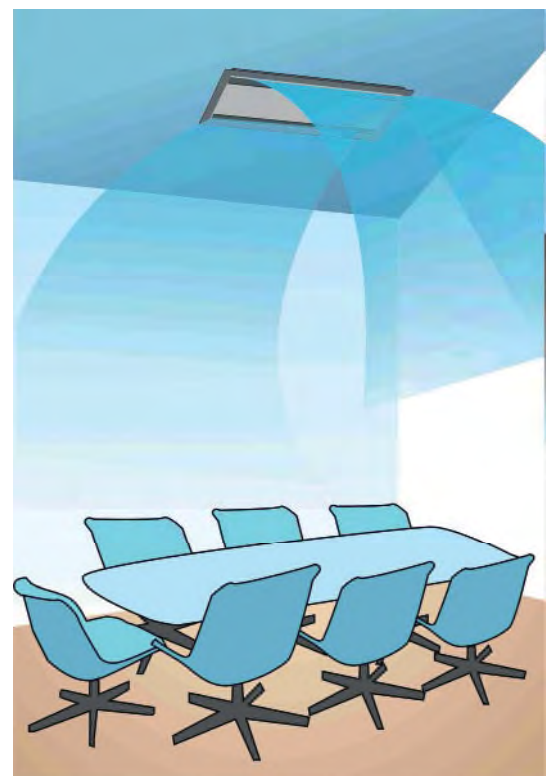
Standard built-in drain pump with 750mm pumphead (higher pumphead can be customized).



Flat-type suction grille design greatly simplifies maintenance work.

High airflow

High airflow for high ceiling application guarantees comfort in large space. It makes every person in the room get even distribution of airflow and temperature.



Model			4TVE0007EBA00AA	4TVE0009EBA00AA	4TVE0012EBA00AA
Power supply			220-240V, 50Hz, 1-phase		
Cooling capacity		kW	2.2	2.8	3.6
		Btu/h	7,500	9,600	12,300
Power (Cooling)	Cooling	W	57	57	60
	Rated current	A	0.4	0.4	0.4
Airflow rate (H/M/L)		m ³ /h	654/530/410	654/530/410	725/591/458
		CFM	385/312/241	385/312/241	427/348/270
Sound level		dB (A)	33/29/24	36/32/29	36/32/29
Refrigerant		Type	R410A		
		Control method	EXV		
Unit Dimension	Net (HxWxD)	mm	299x1,172x591	299x1,172x591	299x1,172x591
	Gross (HxWxD)	mm	400x1,355x675	400x1,355x675	400x1,355x675
	Net / Gross	kg	34/42.5	34/42.5	34/42.5
Panel Dimension	Net (HxWxD)	mm	53x1,430x680	53x1,430x680	53x1,430x680
	Gross (HxWxD)	mm	130x1,525x765	130x1,525x765	130x1,525x765
	Net / Gross	kg	10.5/15	10.5/15	10.5/15
Piping connecting	L (flare)	mm	ø6.35	ø6.35	ø6.35
	G (flare)	mm	ø12.7	ø12.7	ø12.7
	Drain piping	mm	ODø32	ODø32	ODø32
Drain pump	Pumphead	mm	750	750	750
Standard Controller		-	TCONTRM12F		

Model			4TVE0015EBA00AA	4TVE0018EBA00AA	4TVE0024EBA00AA
Power supply			220-240V, 50Hz, 1-phase		
Cooling capacity		kW	4.5	5.6	7.1
		Btu/h	15,400	19,100	24,200
Power (Cooling)	Cooling	W	92	108	154
	Rated current	A	0.5	0.7	0.9
Airflow rate (H/M/L)		m ³ /h	850/670/550	980/800/670	1,200/1,000/770
		CFM	500/394/324	577/471/394	706/589/453
Sound level		dB (A)	39/35/30	39/35/30	44/40/34
Refrigerant		Type	R410A		
		Control method	EXV		
Unit Dimension	Net (HxWxD)	mm	299x1,172x591	299x1,172x591	299x1,172x591
	Gross (HxWxD)	mm	400x1,355x675	400x1,355x675	400x1,355x675
	Net / Gross	kg	36/44.5	36/44.5	36/44.5
Panel Dimension	Net (HxWxD)	mm	53x1,430x680	53x1,430x680	53x1,430x680
	Gross (HxWxD)	mm	130x1,525x765	130x1,525x765	130x1,525x765
	Net / Gross	kg	10.5/15	10.5/15	10.5/15
Piping connecting	L (flare)	mm	ø6.35	ø9.53	ø9.53
	G (flare)	mm	ø12.7	ø15.9	ø15.9
	Drain piping	mm	ODø32	ODø32	ODø32
Drain pump	Pumphead	mm	750	750	750
Standard Controller		-	TCONTRM12F		

Notes:

- Nominal cooling capacities are based on the following conditions: return air temp. : 27°CDB, 19°CWB, outdoor temp.: 35°CDB, equivalent ref. Piping: 8m(horizontal)
- Sound level is measured at 1.4m below the unit. Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

Indoor Units Lineup

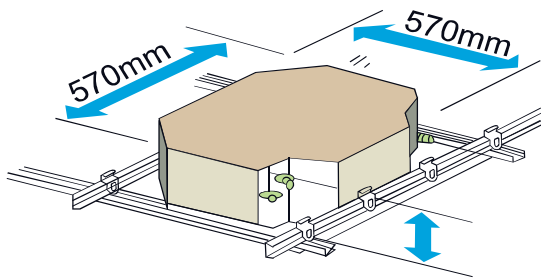
● Modern Four-Way Cassette



- Auto Restart
- Cleanable Panel
- Follow Me
- Auto Addressing
- Anti-Cold Air Function
- LED Display
- Economic operation
- Fresh Air
- Built-in Drain Pump
- Super High Air Flow

Compact design, easy installation and maintenance

Extremely compact casing suits any room's decor and requires little space for installation on a low ceiling. Due to the compact body and light weight, all models can be installed without a hoist.



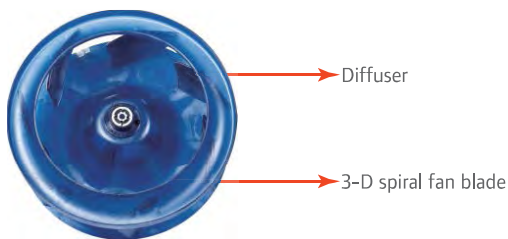
360° Airflow outlet

360° air outlet provides strong air flow circulation to cool or heat every corner of a room and evenly distribute temperature.



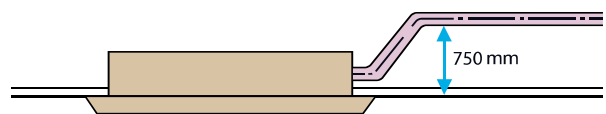
Quiet operation, gentle air supply

Streamline plate ensures quiet operation. Advanced 3-D spiral fan design reduces air resistance and operation noise.



Lift pump

Drain pump with a 750mm pumphead is fitted as standard; maximum 750mm pumphead is available.



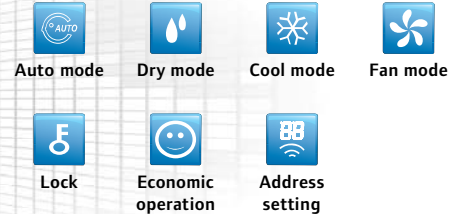
Model		4TVB0007EBA00AA	4TVB0009EBA00AA	4TVB0012EBA00AA	4TVB0015EBA00AA	
Power supply		220-240V, 50Hz, 1-phase				
Cooling capacity		kW	2.2	2.8	3.6	4.5
		Btu/h	7,500	9,600	12,300	15,400
Power (Cooling)	Cooling	W	50	52	56	56
	Rated current	A	0.2	0.2	0.3	0.3
Airflow rate (H/M/L)		m ³ /h	414/313/238	414/313/238	521/408/314	521/409/314
		CFM	244/184/140	244/184/140	306/241/185	306/241/185
Sound level		dB (A)	36/33/23	36/33/23	42/36/29	42/36/29
Refrigerant		Type	R410A			
		Control method	EXV			
Unit Dimension	Net (HxWxD)	mm	260x570x630	260x570x630	260x570x630	260x570x630
	Gross (HxWxD)	mm	285x675x675	285x675x675	285x675x675	285x675x675
	Net / Gross	kg	17/20	17/20	18.5/21.5	18.5/21.5
Panel Dimension	Net (HxWxD)	mm	50x647x647	50x647x647	50x647x647	50x647x647
	Gross (HxWxD)	mm	123x715x715	123x715x715	123x715x715	123x715x715
	Net / Gross	kg	2.5/4.5	2.5/4.5	2.5/4.5	2.5/4.5
Piping connecting	L (flare)	mm	ø6.35	ø6.35	ø6.35	ø6.35
	G (flare)	mm	ø12.7	ø12.7	ø12.7	ø12.7
	Drain piping	mm	ODø25	ODø25	ODø25	ODø25
Drain pump	Pumphead	mm	750	750	750	750
Standard Controller		-	TCONTRM12F			

Notes:

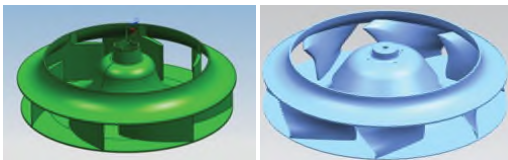
- Nominal cooling capacities are based on the following conditions: return air temp. : 27°CDB,19°CWB,outdoor temp.:35°CDB, equivalent ref. Piping: 8m(horizontal)
- Sound level is measured at 1.4m below the unit. Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

Indoor Units Lineup

● Four-Way Cassette (Cozy Series)



- *Regardless of difference in capacity, all indoor units feature the same panel size and design, in consideration or harmonized interior decoration.*
- *Four way uniform airflow*
Four air discharge ports provide strong air flow circulation to cool or heat every corner of a room and evenly distribute temperature. High airflow mode can maximize the conditioning effect in rooms that are over 3m high.
- *Ultra-thin machine body to easy installation and maintenance*
9,500~27,200 Btu models in 230mm height and 30,700~47,700 Btu models in 300mm height which can be installed in narrow false ceilings.
- *Low operating sound*
The new designed wind wheel, ring and the built-in throttling part make the noise reduced greatly.

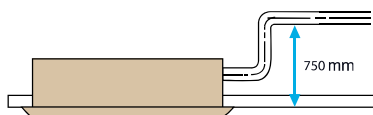


The former wind wheel Optimized wind wheel

- *Easier installation and maintenance*
 - The optimized wiring connection and the application of pluggable terminal block make the installation and maintenance easier.
 - Built-in electronic throttle components make the installation easier.
- *Fresh air makes life healthier and more comfortable.*

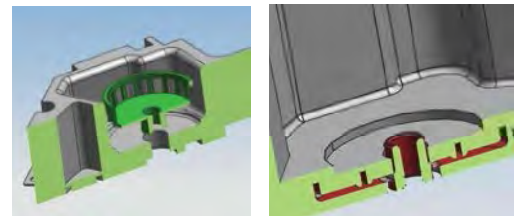


- *Provided with high lift 750mm drain water pump.*



• *More reliability*

- The vacuum forming mould thickness of drainage pan is increased from 0.45 mm to 0.8 mm. Further improve quality and reliability.
- The connection of drainage pan adopts foaming technology which can further improve the connection tightness.

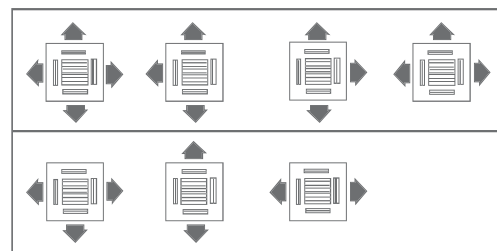


The former connection The new connection

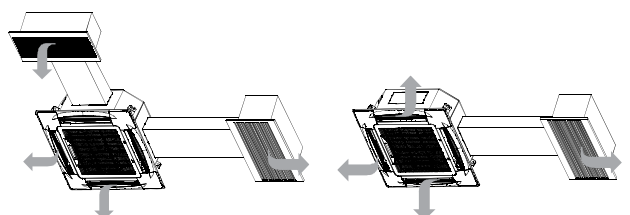
- Capacitance is isolated by sheet metal box making more safety and higher reliability.
- Adopt the new water level switch .The floater is on the water surface which can avoid impurity plugging.
- The strong and weak electricity wires are separated in electronic control box making the interference decreased greatly.

• *Flexible air distribution type*

- 7 discharge patterns in 2 to 4 directions can be selected to suit the requirements of installation site or the shape of the room.



- Duct connection is possible



Model			4TVC0009EBA00AA	4TVC0012EBA00AA	4TVC0015EBA00AA	4TVC0018EBA00AA	4TVC0024EBA00AA
Power supply			220-240V, 50Hz, 1-phase				
Cooling capacity		kW	2.8	3.6	4.5	5.6	7.1
		Btu/h	9,600	12,300	15,400	19,100	24,200
Power (Cooling)	Cooling	W	80	80	88	88	88
	Rated current	A	0.3	0.3	0.3	0.4	0.4
Airflow rate (H/M/L)		m ³ /h	764/638/554	764/638/554	905/740/651	905/740/651	950/767/663
		CFM	450/376/326	450/376/326	533/436/383	533/436/383	559/451/390
Sound level		dB (A)	32/31/30	32/31/30	36/34/33	36/34/33	38/36/35
Refrigerant		Type	R-410A				
		Control method	EXV				
Unit Dimension	Net (HxWxD)	mm	230x840x840	230x840x840	230x840x840	230x840x840	230x840x840
	Gross (HxWxD)	mm	260x955x955	260x955x955	260x955x955	260x955x955	260x955x955
	Net / Gross	kg	21.5/26.7	21.5/26.7	23.7/28.9	23.7/28.9	23.7/28.9
Panel Dimension	Net (HxWxD)	mm	70x950x950	70x950x950	70x950x950	70x950x950	70x950x950
	Gross (HxWxD)	mm	89x1,035x1,035	89x1,035x1,035	89x1,035x1,035	89x1,035x1,035	89x1,035x1,035
	Net / Gross	kg	5.8/7.9	5.8/7.9	5.8/7.9	5.8/7.9	5.8/7.9
Piping connecting	L (flare)	mm	ø6.35	ø6.35	ø6.35	ø9.53	ø9.53
	G (flare)	mm	ø12.7	ø12.7	ø12.7	ø15.9	ø15.9
	Drain piping	mm	ø32	ø32	ø32	ø32	ø32
Drain pump	Pumphead	mm	750	750	750	750	750
Standard Controller		-	TCONTRM12F				

Model			4TVC0027EBA00AA	4TVC0030EBA00AA	4TVC0034EBA00AA	4TVC0038EBA00AA	4TVC0048EBA00AA
Power supply			220-240V, 50Hz, 1-phase				
Cooling capacity		kW	8.0	9.0	10.0	11.2	14.0
		Btu/h	27,300	30,700	34,100	38,200	47,800
Power (Cooling)	Cooling	W	110	140	165	165	176
	Rated current	A	1.0	1.0	1.3	1.3	1.6
Airflow rate (H/M/L)		m ³ /h	1,200/1,021/789	1,332/1,129/908	1,651/1,304/1,127	1,651/1,304/1,127	1,658/1,335/1,130
		CFM	706/601/464	784/665/534	972/768/663	972/768/663	976/786/665
Sound level		dB (A)	42/39/37	43/39/38	45/42/40	45/42/40	46/41/39
Refrigerant		Type	R-410A				
		Control method	EXV				
Unit Dimension	Net (HxWxD)	mm	230x840x840	300x840x840	300x840x840	300x840x840	300x840x840
	Gross (HxWxD)	mm	260x955x955	330x955x955	330x955x955	330x955x955	330x955x955
	Net / Gross	kg	23.7/28.9	28.7/34.1	28.7/34.1	28.7/34.1	30.9/36.3
Panel Dimension	Net (HxWxD)	mm	70x950x950	70x950x950	70x950x950	70x950x950	70x950x950
	Gross (HxWxD)	mm	89x1,035x1,035	89x1,035x1,035	89x1,035x1,035	89x1,035x1,035	89x1,035x1,035
	Net / Gross	kg	5.8/7.9	5.8/7.9	5.8/7.9	5.8/7.9	5.8/7.9
Piping connecting	L (flare)	mm	ø9.53	ø9.53	ø9.53	ø9.53	ø9.53
	G (flare)	mm	ø15.9	ø15.9	ø15.9	ø15.9	ø15.9
	Drain piping	mm	ø32	ø32	ø32	ø32	ø32
Drain pump	Pumphead	mm	750	750	750	750	750
Standard Controller		-	TCONTRM12F				

Notes:

1. Capacities are based on the following conditions:
2. Cooling: Indoor temperature 27°C DB / 19°C WB; Outdoor temperature 35°C DB / 24°C WB.
3. Piping length: Interconnecting piping length is 7.5m, level difference is 0m.
4. Sound values are measured in a semi-anechoic room, at a position 1.4m downward from the unit center. Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

Indoor Units Lineup

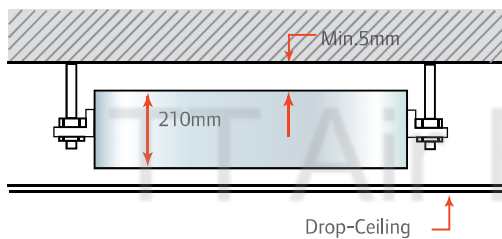
● Medium Static Concealed Unit



- Auto Restart
- Follow Me
- Built-in Drain Pump
- Auto Addressing
- Connectable To Duct
- Fresh Air
- Anti-Cold Air Function
- Wired Controller
- Cleanable Panel
- Super High Air Flow

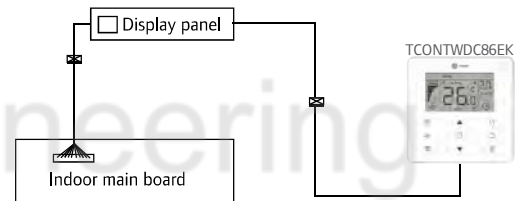
Compact size

Only 210mm (7,500~19,100 Btu models)



Easy Connection

Wired controller conveniently connects to display panel of the indoor units with the appropriate connecting wire.



External static pressure

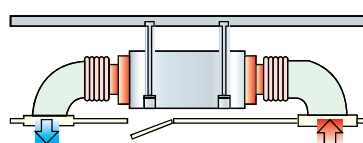
Four speed fan motor (Super high speed is optional)
Change the wiring connection from 'SH' to 'Hi' to change the ESP.

Convenient installation

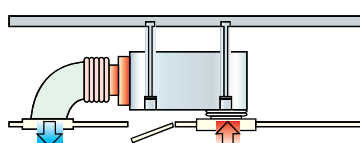
The EXV is fixed inside of the indoor unit.
Standard filter is housed in an aluminum frame, which is removable from the bottom in the downward direction.
Suction chamber is included as standard equipment.
Fresh air hole, air inlet/outlet flange are standard for easy duct connection.
A rear air inlet is standard and an inlet at the bottom is optional. Both use the same connectable duct.

Flexible control and easy maintenance

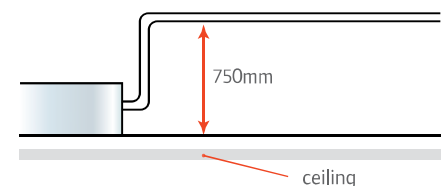
Standard wired remote controller TCNTWDC86EK.
The electrical control box can be removed 1m away from the unit for easy maintenance access. Customers need to request this service in advance for this option.
Standard functional ports are included such as Remote On/Off Dry contact switch and Alarm signal output (220V).



Air Intake from Back



Air Intake from Below



Drain pump is fitted as standard, accessory with 750mm pumphead.

Model		4TVD0007EBA00AA	4TVD0009EBA00AA	4TVD0012EBA00AA	4TVD0015EBA00AA	4TVD0018EBA00AA	
Power supply		220-240V, 50Hz, 1-phase					
Cooling capacity		kW	2.2	2.8	3.6	4.5	5.6
		Btu/h	7,500	9,600	12,300	15,400	19,100
Power (Cooling)	Input	W	57	57	61	98	92
	Rated current	A	0.3	0.3	0.3	0.4	0.4
Indoor airflow (SH)/ (H/M/L)		m ³ /h	550/397/309	550/397/309	605/442/351	800/573/479	800/573/479
		CFM	323/233/181	323/233/181	356/260/206	471/337/282	471/337/282
ESP (external static pressure)		Pa	10(0-30)	10(0-30)	10(0-30)	10(0-30)	10(0-30)
Sound Pressure (Hi/Mid/Lo)		dB (A)	32/24/21	31/24/21	35/28/24	36/29/26	36/29/27
Refrigerant		Type	R410A				
		Control method	EXV				
Net Dimension (HxWxD)		mm	210x778x500			210x997x500	
Packing Dimension (HxWxD)		mm	285x870x525	285x870x525	285x870x525	285x1,115x525	285x1,115x525
Net / Gross Weight		kg	17.5/20	17.5/20	17.5/20	22/25	22/25
Piping connecting	L (flare)	mm	ø6.35	ø6.35	ø6.35	ø6.35	ø9.53
	G (flare)	mm	ø12.7	ø12.7	ø12.7	ø12.7	ø16
	Drain piping	mm	ODø25	ODø25	ODø25	ODø25	ODø25
Drain pump	Pump head	mm	750	750	750	750	750
Standard Controller		-	TCONTWDC86EK				

Model		4TVD0024EBA00AA	4TVD0027EBA00AA	4TVD0030EBA00AA	4TVD0038EBA00AA	4TVD0048EBA00AA	
Power supply		220-240V, 50Hz, 1-phase					
Cooling capacity		kW	7.1	8	9	11.2	14
		Btu/h	24,200	27,300	30,700	38,200	47,800
Power (Cooling)	Input	W	140	198	200	313	274
	Rated current	A	0.6	1	1	1.3	1.6
Indoor airflow (SH)/ (H/M/L)		m ³ /h	985/738/630	1,345/1,165/1,013	1,345/1,165/1,013	1,800/1,556/1,400	1,905/1,636/1,400
		CFM	580/434/371	792/686/596	792/686/596	1,059/916/824	1,121/963/824
ESP (external static pressure)		Pa	10(0-30)	20(10-50)	20(10-50)	40(10-80)	40(10-100)
Sound Pressure (Hi/Mid/Lo)		dB (A)	36/30/27	45/40/37	45/40/37	48/42/38	48/43/39
Refrigerant		Type	R410A				
		Control method	EXV				
Net Dimension (HxWxD)		mm	210x1,218x500	270x1,230x775	270x1,230x775	270x1,230x775	300x1,290x865
Packing Dimension (HxWxD)		mm	285x1,335x525	350x1,355x795	350x1,355x795	350x1,355x795	375x1,400x925
Net / Gross Weight		kg	27.5/31	37.5/43	37.5/43	37.5/43	46.5/55.5
Piping connecting	L (flare)	mm	ø9.53	ø9.53	ø9.53	ø9.53	ø9.53
	G (flare)	mm	ø15.9	ø15.9	ø15.9	ø15.9	ø15.9
	Drain piping	mm	ODø25	ODø25	ODø25	ODø25	ODø25
Drain pump	Pump head	mm	750	750	750	750	750
Standard Controller		-	TCONTWDC86EK				

Notes:

- Nominal cooling capacities are based on the following conditions: return air temp.: 27°CDB, 19°CWB, and outdoor temp.:35°CDB, equivalent ref. piping: 8m (horizontal)
- Sound level is measured at 1.4m below the air out-let. Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

* External static pressure is based on high speed indoor air flow.

* Specifications are subject to change without prior notice for product improvement.

Indoor Units Lineup

● High Static Pressure Concealed Unit



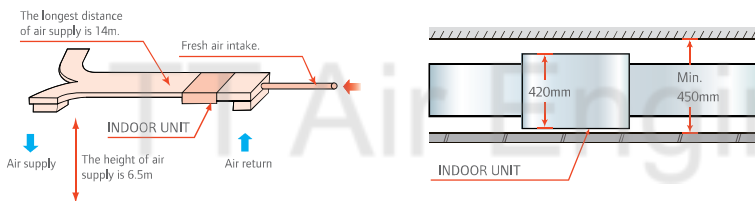
- Auto Restart
- Auto Addressing
- Follow Me
- Wired Controller
- Fresh Air
- Cleanable Panel
- Anti-Cold Air Function
- Connectable To Duct

Flexible duct design

Four speed fan motor super high speed as an option for models (24,200-54,600 Btu)
 The maximum distance for air supply is about 14 m. at height of 6.5m.
 With a 420 mm. (models 24,200 to 54,600 Btu) thick body, the minimum distance required above the ceiling is 450mm.

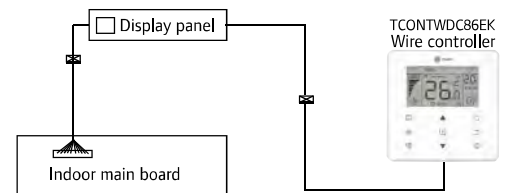


TCONTWDC86EK



Easy Connection

Wired controller conveniently connects to display panel of the indoor units with the appropriate connecting wire.



Greater flexibility with the four-speed fan

Exchange the wiring connections for 'MH' and 'Me' (models 24 to 55).

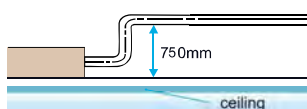
Convenient installation

The EXV is fixed inside the indoor unit (models 24-55), requires no extra connection.
 Standard filter is housed in an aluminum frame, which is removable from the bottom in the downward direction.
 Flange for air in/outlet duct connection is standard.

Flexible control and convenient for maintenance

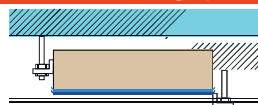
Wired remote controller is as standard, and wireless remote controller is as an option.
 The display board is connected to the E-box in factory, easier troubleshooting by LED display.
 Easy access filters both at the rear & bottom.
 Standard functional port such as remote on/off dry contact.

Option:



Drain pump with 750mm pumphead is optional (models 24 to 55)

Double-skin drainage pan



Double-skin drainage pan provide double protection for ceilings (models 24 to 55 and models 75 to 96)

Follow Me

With the Follow Me function, the wired controller can detect the air temperature at the user's altitude instead that of the ceiling or the floor, thus creating more comfortable environment and precise temperature control.

Model		4TVP0024EBA00AA	4TVP0027EBA00AA	4TVP0030EBA00AA	4TVP0038EBA00AA	4TVP0048EBA00AA	4TVP0054EBA00AA	
Power supply		220-240V, 50Hz, 1-phase						
Cooling Capacity	kW	7.1	8	9	11.2	14	16	
	Btu/h	24,200	27,300	30,700	38,200	47,800	54,600	
Power (Cooling)	Input	W	263	263	423	524	724	940
	Rated current	A	1.3	1.3	1.9	2.3	2.9	4.8
Indoor airflow (SH)/ (H/M/L)	m ³ /h	1395/1315/1248/1204	1361/1285/1217/1175	1801/1687/1643/1431	2063/1939/1716/1533	2965/2561/2207/1905	3417/2875/2587/2383	
	CFM	821/774/735/709	801/756/716/692	1060/993/967/842	1214/1141/1010/902	1745/1507/1299/1121	2011/1692/1523/1403	
ESP (external static pressure)	Pa	25(25-196)	37(37-196)	37(37-196)	50(50-196)	50(50-196)	50(50-196)	
Sound Pressure (Hi/Mid/Lo)	dB (A)	48/46/44/43	48/46/45/43	52/49/47/45	52/49/47/46	53/50/48/46	54/52/50/48	
Refrigerant	Type	R410A						
	Control method	EXV						
Net Dimension (HxWxD)	mm	423x965x690	423x965x690	423x965x690	423x965x690	423x1322x691	423x1322x691	
Packing Dimension (HxWxD)	mm	440x1,090x768	440x1,090x768	440x1,090x768	440x1090x768	450x1,436x768	450x1,436x768	
Net / Gross Weight	kg	45/50	45/50	46.5/52.4	48/53	67/73	67/73	
Piping connecting	L (flare)	mm	ø9.53	ø9.53	ø9.53	ø9.53	ø9.53	
	G (flare)	mm	ø15.9	ø15.9	ø15.9	ø15.9	ø15.9	
	Drain piping	mm	ODø25	ODø25	ODø25	ODø25	ODø25	
Drain pump	Pump head	mm	750	750	750	750	750	
Standard Controller	-	TCONTWDC86EK						

Model		4TVP0068EBA00AA	4TVP0085EBA00AA	4TVP0095EBA00AA	4TVP0135EBA00AA	4TVP0155EBA00AA	4TVP0190EBA00AA	
Power supply		220-240V, 50Hz, 1-phase						
Cooling Capacity	kW	20	25	28	40	45	56	
	Btu/h	68,200	85,300	95,500	136,500	153,500	191,100	
Power (Cooling)	Input	W	1,408	1,408	1,408	2,100	2,100	2,800
	Rated current	A	8.6	8.6	8.6	12.5	12.5	15.5
Indoor airflow (SH)/ (H/M/L)	m ³ /h	4600/3765/2900/2100	4600/3765/2900/2100	4600/3765/2900/2100	7500/5800/4310/3090	7500/5800/4310/3090	8400/5859/4300/3100	
	CFM	2707/2216/1707/1236	2707/2216/1707/1236	2707/2216/1707/1236	4414/3414/2537/1819	4414/3414/2537/1819	4944/3448/2531/1825	
ESP (external static pressure)	Pa	250(50-300)	250(50-300)	250(50-300)	300(50-400)	300(50-400)	300(50-400)	
Sound Pressure (Hi/Mid/Lo)	dB (A)	57/56/52/47	57/56/52/47	57/56/52/47	60/58/54/49	60/58/54/49	61/56/51/46	
Refrigerant	Type	R410A						
	Control method	EXV						
Net Dimension (HxWxD)	mm	515x1,454x931	515x1,454x931	515x1,454x931	680x2,010x905	680x2,010x905	680x2,010x905	
Packing Dimension (HxWxD)	mm	550x1,509x990	550x1,509x990	550x1,509x990	800x2,095x964	800x2,095x964	800x2,095x964	
Net / Gross Weight	kg	124/135	124/135	124/135	203/233	203/233	203/233	
Piping connecting	L (flare)	mm	ø12.7	ø12.7	ø12.7	ø15.9	ø15.9	ø15.9
	G (flare)	mm	ø22.2	ø22.2	ø22.2	ø28.6	ø28.6	ø28.6
	Drain piping	mm	ODø32	ODø32	ODø32	ODø32	ODø32	ODø32
Drain pump	Pump head	mm	750	750	750	750	750	
Standard Controller	-	TCONTWDC86EK						

Notes:

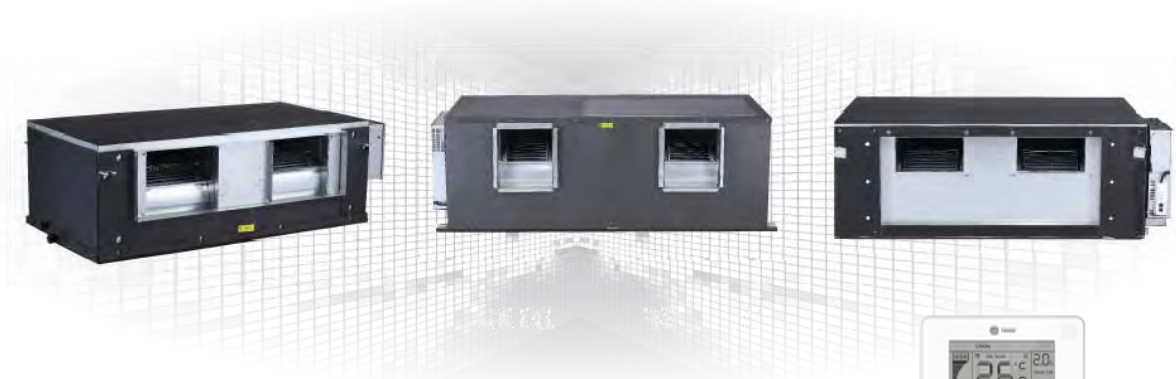
- Nominal cooling capacities are based on the following conditions: return air temp.: 27°CDB, 19°CWB, and outdoor temp.:35°CDB, equivalent ref. piping: 8m (horizontal)
- Sound level is measured at 1.4m below the air out-let. Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.

* External static pressure is based on high speed indoor air flow.

* Specifications are subject to change without prior notice for product improvement.

Indoor Units Lineup

● Fresh Air Processing Unit



Healthy and comfortable

Fresh air is imported, provides a healthy and comfortable living environment.



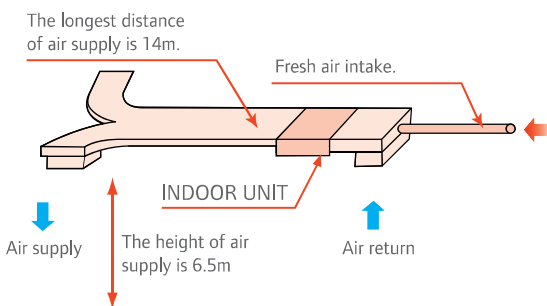
TCONTWD86EKD

100% Fresh air processing unit

Both fresh air filtration and heating/cooling can be achieved in a single system. Indoor units and fresh air processing unit can be connected to the same refrigerant system, increase design flexibility and greatly reduce total system costs.

Follow Me

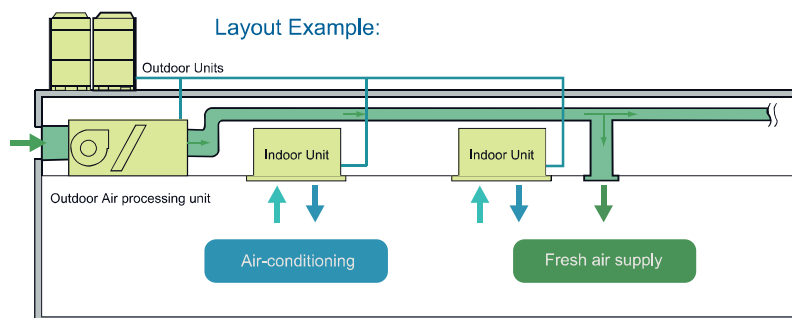
With the Follow Me function, the wired controller can detect the air temperature at the user's altitude instead that of the ceiling or the floor, thus creating more comfortable environment and precise temperature control.



High external static pressure

External static pressure can be up to 196Pa (models 42,200 to 54,600 Btu), 300Pa (models 68,200 to 95,500 Btu) and 400Pa (models 136,500 to 191,100) for more flexible duct applications. The maximum distance of air supply is about 14m and the maximum height of air supply is about 6.5m.

Innovative air supply technology for excellent room temperature control



Model			4TVF0042EBB00AA	4TVF0048EBB00AA	4TVF0068EBB00AA	4TVF0085EBB00AA	4TVF0095EBB00AA	4TVF0195EBB00AA	4TVF0190EBB00AA
Power supply			220-240V, 50Hz, 1-phase						
Cooling Capacity		kW	12.5	14	20	25	28	45	56
		Btu/h	42,600	47,800	68,200	85,300	95,500	153,500	191,100
Power (Cooling)	Input	W	480	480	850	850	850	1,080	2,272
	Rated current	A	2.8	2.8	4.1	4.1	4.1	4.1	11.6
Indoor airflow (SH)/ (H/M/L)		m ³ /h	2,000/1,750/1,500	2,000/1,750/1,500	3,000/2,500/2,000	3,000/2,500/2,000	3,000/2,500/2,000	4,200/3,500/2,800	6,000/5,000/4,000
		CFM	1,177/1,030/883	1,177/1,030/883	1,766/1,471/1,177	1,766/1,471/1,177	1,766/1,471/1,177	2,472/2,060/1,648	3,531/2,943/2,354
ESP (external static pressure)		Pa	150(100-250)	150(100-250)	200(100-400)	200(100-400)	200(100-400)	300(100-400)	300(100-400)
Sound Pressure (Hi/Mid/Lo)		dB (A)	48/45/42	48/45/42	50/47/43	50/47/43	50/47/43	58/53/48	59/55/50
Refrigerant		Type	R410A						
		Control method	EXV						
Net Dimension (HxWxD)		mm	423x1,322x691	423x1,322x691	515x1,454x931	515x1,454x931	515x1,454x931	680x2,010x905	680x2,010x905
Packing Dimension (HxWxD)		mm	450x1,436x768	450x1,436x768	550x1,509x990	550x1,509x990	550x1,509x990	689x2,095x929	689x2,095x929
Net / Gross Weight		kg	68/76	68/76	130/142	130/142	130/142	195/215	281/248
Piping connecting	L (flare)	mm	ø9.53	ø9.53	ø12.7	ø12.7	ø12.7	ø15.9	ø15.9
	G (flare)	mm	ø15.9	ø15.9	ø22.2	ø22.2	ø22.2	ø28.6	ø28.6
	Drain piping	mm	ODø25	ODø25	ODø32	ODø32	ODø32	ODø32	ODø32
Standard Controller		-	TCONTWD86EKD						

Notes:

- Nominal cooling capacities are based on the following conditions: outdoor air temp.: 33°C DB, 24°C WB, equivalent ref. piping: 8m (horizontal)
 - Sound level is measured 1.4m from the air out-let. Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.
- * external static pressure are based on high speed indoor air flow.
 - * Specifications are subject to change without prior notice for product improvement.

Connection Conditions:

The following restrictions must be observed in order to maintain the indoor units connected to the same system.

- * When outdoor-air processing units are connected, the total connection capacity must be within 50% to 100% of that of the outdoor units.
- * When outdoor-air processing units and standard indoor units are connected, the total connection capacity of the outdoor-air processing units must not exceed 30% of that of the outdoor units.
- * Outdoor-air processing units can be used without indoor units.

Indoor Units Lineup

● Floor Standing Unit



Floor Standing Unit

- New compact design that fits well for a variety of usages.
- Offers a silent operation with the Single Inlet Centrifugal Fan.
- Fan speed can be adjusted to four different levels (high, medium, low and automatic).
- Auto Swing Function for vertical grills (left-right direction) to better distributes the cooled air.
- The front unit can be opened, making it easy for maintenance to be carried out without any space constraints.

Model	Indoor unit		MCVB36BB	MCVB48BB	MCVB60BB	MCV090JB	MCV120JB	
Electrical Data	Power Supply	V/ph/Hz	220-240/1/50					
Performance Data	Nominal Capacity	Btu/h	36,000	48,000	60,000	100,000	120,000	
	Airflow	cfm	1,200	1,600	2,000	3,000	4,000	
Fan Motor	RLA x Qty		1.78	2.34	3.42	1.78x2	2.34x2	
Dimensions	H x W x D (Each)	mm	1,900x848x400			1,900x1,196x400		
Weight (Each)	Uncrated (Net)	kg	64	68	90	136	143	
Refrigerant	Type		R-410A					

Indoor Units Lineup

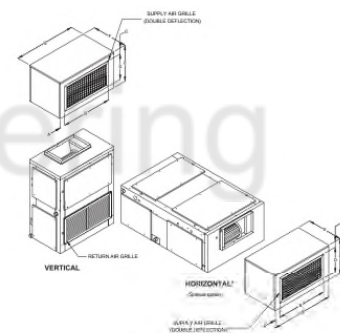
● Air Handling Unit



TWE Air Handling Unit

- TWE can easily be converted for vertical or horizontal air discharge.
- Belt drive
- Fan motor hp output will be specially selected to properly match with Free Blow and duct application.
- The smooth power paint finish cabinet are fabricated or rugged.
- Optional for Supply Air Plenum and Return Air Grille.

Optional



Model	Indoor unit		TWE120JD	TWE160JD	TWE180JD	TWE210JD	TWE240JD
Electrical Data	Power Supply	V/ph/Hz	380-415/3/50				
Performance Data	Cooling Capacity	Btu/h	120,000	150,000	180,000	200,000	240,000
	Nominal Airflow	cfm	4,000	5,300	6,000	7,000	8,000
No. of Refrigerant Circuit			1	2	2	2	2
Fan	Type		Forward Cure Centrifugal Fan - Belt Drive				
	Qty		1	1	1	2	2
Fan Motor	Out put	hp	2	2	3	3	5
	RLA x Qty	A	3.66	3.66	5.16	5.16	8.80
Filter	Type		1-Inch Thickness Washable Aluminium				
Dimensions	H x W xD	mm	1,523x1,410x635	1,751x1,613x850		1,751x210x702	
Weight		kg	154	275	285	356	356
Refrigerant Pipe Size (per each circuit)	Liquid	in	1/2	1/2	1/2	1/2	1/2
	Suction	in	1-3/8	1-1/8	1-1/8	1-1/8	1-3/8
Refrigerant	Type		R-410A				

Indoor Units Lineup

● Air Handling Unit



Air Handling Unit - TTV Model

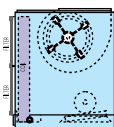
- Vertical or Horizontal discharge configuration.
- Zinc coated, heavy gauge, galvanized steel cabinet finished with a baked polyester powder paint.
- Completely insulated with fire retardant polyethylene foam.
- Factory installed thermal expansion valve(s).
- Evaporator coil leak-tested.
- Double inlet, double width, forward curved centrifugal type evaporator fan(s) with fixed belt drive.
- Thermal overload protection for the evaporator fan motor.
- Washable air filters.
- Oversized motors for high static pressure applications (Optional).

General Data - Air Handler Unit

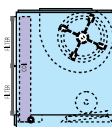
Unit Model		TTV250	TTV300	TTV400	TTV500	TTV600
Cooling Capacity	Btu/h	250,000	300,000	400,000	500,000	600,000
Power Connection	V/ph/Hz	380-415/3/50				
MCA ¹	A	10.0	15.0	15.0	19.0	27.5
System Data						
Refrigerant Type		R410A	R410A	R410A	R410A	R410A
No. Refrigerant Circuits		2	2	2	2	2
Refrigerant Connection Type		Brazed	Brazed	Brazed	Brazed	Brazed
Suction Line OD	in (mm)	2-1/8(53.98)	2-1/8(53.98)	1-5/8(41.28)	2-1/8(53.98)	2-1/8(53.98)
Liquid Line OD	in (mm)	1.0(25.4)	1.0(25.4)	1.0(25.4)	1.0(25.4)	1.0(25.4)
Drain Connection Size	in (mm)	1.0(25.4)	1.0(25.4)	1.0(25.4)	1.0(25.4)	1.0(25.4)
Fan						
Fan Type		Centrifugal FC	Centrifugal FC	Centrifugal FC	Centrifugal FC	Centrifugal FC
Qty	in	1	1	1	1	1
Fixed Drive Type	in	Belt and Pulley	Belt and Pulley	Belt and Pulley	Belt and Pulley	Belt and Pulley
Fan Speed - Std.(Factory set)		828	870	923	725	780
Nominal Airflow ²		7,760 (13,180)	9,240 (15,700)	12,120 (20,590)	15,130 (25,700)	18,080 (30,720)
Motor						
Motor Type		TEFC				
Qty		1	1	1	1	1
Motor hp - Std.	hp (kW)	5(3.7)	7.5(5.5)	7.5(5.5)	10(7.5)	15(11)
Hi Static	Pa	7.5(5.5)/10(7.5)	10(7.5)/15(11)	10(7.5)/15(11)	15(11)/20(15)	20(15)
No. of Speed		1	1	1	1	1
V/ph/Hz		380-415/3/50				
RLA/LRA		8.0/63.0	12.0/79.0	12.0/79.0	15.2/111.0	22.0/153.0
Filter						
Type		Washable	Washable	Washable	Washable	Washable
Qty		8	9	9	12	9
Size (WxLxD)-Std.	in	16x20x1	4-5x20x1	6-16x25x1	2-16x20x1	3-20x20x1
			2-16x20x1	3-20x25x1	6-16x25x1	6-20x25x1
			1-16x25x1		1-20x25x1	
			2-15x25x1		3-25x15x1	
Dimension (HxWxD)						
Crated (Shipping)	mm	1,500x2,100x1,290	1,650x2,100x1,290	1,780x2,390x1,290	1,900x2,900x1,520	1,980x2,900x1,520
Unit (Net)	mm	1,219x1,808x1,040	1,372x1,808x1,040	1,520x2,088x1,040	1,653x2,596x1,275	1,777x2,596x1,270
Weight						
Crated (Shipping)	Kg(lbs)	402 (886)	470 (1,036)	543 (1,197)	768 (1,693)	832 (1,834)
Unit (Net)	Kg(lbs)	353 (778)	421 (928)	487 (1,073)	685 (1,510)	749 (1,651)

¹MCA - Minimum Circuit Ampacity.
²CFM is rated with standard air-dry coil.

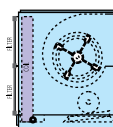
Fan Arrangement



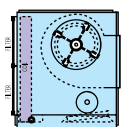
Arrangement 1
(Standard arrangement
for TTV250-600)



Arrangement 2



Arrangement 3



Arrangement 4

ERV - Energy Recovery Ventilator

*Larger air supply rate
enhanced heat exchange efficiency
enhanced energy saving*

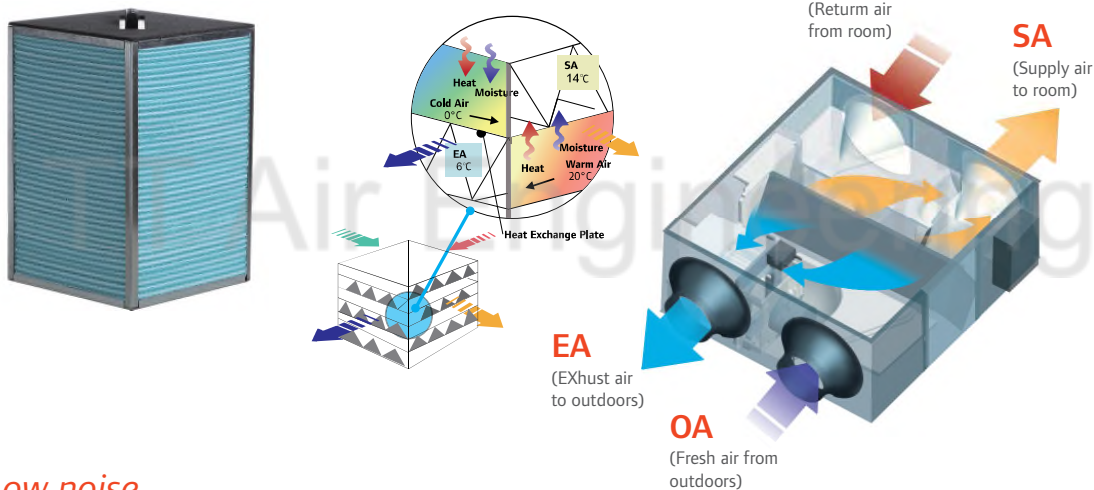
The heat recovery ventilator (ERV) can reclaim the energy lost through ventilation and reduce room temperature fluctuations caused by the ventilation process. By utilizing the latest technologies and techniques, Trane ERV guarantees outstanding performance. The heat exchange core is made of chemically treated paper that optimally controls temperature and humidity in a given room. Temperature exchange efficiency exceeds 65%, and enthalpy exchange efficiency ranges from 50 to 65%.

Model Names

TERV0120AB000AA	TERV0180AB000AA
TERV0235AB000AA	TERV0300AB000AA
TERV0470AB000AA	TERV0600AB000AA



TERV0900AD000AA	TERV1200AD000AA
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Low noise

Sound proof material is used to guarantee quiet operation.

Compact design, flexible installation and easy maintenance

With a height of just 264mm and a weight of 23kg, the unit can be easily installed in a limited space.



Multiple modes for different scenarios

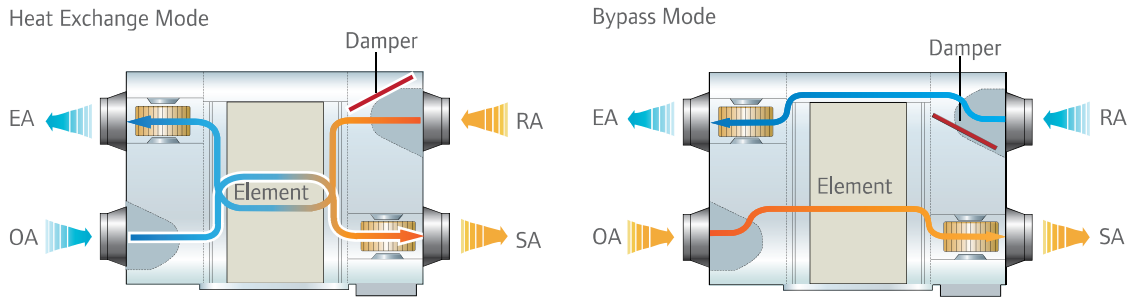
Heat exchange mode

When the airflow generated by fans travels across the heat exchange core, the temperature difference between the two channels of the core causes natural thermal transmission. On summer days, hot outdoor air is cooled by the indoor exhaust air; in winter, cold outdoor air is heated by the indoor exhaust air conditions. The energy contained in the exhaust air can be reclaimed to improve energy efficiency.

ERV - Energy Recovery Ventilator

Bypass mode

In mild climates where the temperature and humidity difference between indoors and outdoors is small, the unit works as conventional ventilation fan. Both the supply fan and exhaust fan work at the same speed (auto/low/medium/high).



Air supply mode

It is one kind of bypass mode with air supply fan speed higher than exhaust fan speed. It can be used in mild climate area where large amount fresh air is needed.

Exhaust air mode

It is also one kind of bypass mode with exhaust fan speed higher than air supply fan speed. It can be used in mild climate area where large amount exhaust air needs to be expelled.

Auto mode

The controller chooses heat exchange mode or bypass mode according to the temperature difference between outdoor and indoor temperature. Both the two fans work at low speed.

Flexible control

Interlocking control with other indoor units via controller is possible



Centralized control



indoor centralize controller



Model			TERV0120AB000AA	TERV0180AB000AA	TERV0235AB000AA	TERV0300AB000AA	
Power supply			220-240 V, 50 Hz, 1 Phase				
Temp. Exchange Efficiency (%) 50Hz			65	65	65	65	
			65	65	65	65	
			70	70	70	70	
Enthalpy Exchange Efficiency 50 Hz	For Cooling	High	50	50	50	50	
		Medium	50	50	50	50	
		Low	55	55	55	55	
	For Heating	High	27	30	32	35	
		Medium	55	55	60	60	
		Low	60	60	65	65	
Sound Level	Heat Exchange Mode	High	27	30	32	35	
		Medium	26	29	31	34	
		Low	20	23	25	28	
	Bypass Mode	High	28	31	33	36	
		Medium	27	30	32	35	
		Low	22	25	27	30	
Dimensions (HxWxD)			mm	655/866/264	722/944/270	722/944/270	1,026x1,038x270
Machine Weight			Kg	23	26	31	41
Casing			-	Galvanized steel plate			
Heat Exchange System			-	Air to air cross flow total heat (Sensible heat + latent heat) exchange			
Heat Exchange Element Material			-	Specially processed nonflammable paper			
Fan	Type		-	Centrifugal fan			
	Airflow Rate (50Hz)	High	m³/h	200	300	400	500
		Medium		200	300	400	500
		Low		150	225	300	375
	ESP (Pa) (50 Hz)	High		75	75	80	80
		Medium	Pa	58	60	65	68
		Low		35	40	43	45
Motor Output		W	20	40	80	120	
Duct diameter			ø/mm	144	144	144	194
Operation ambient condition			-	-7°C-43°C (DB), 80%RH or less			

Model			TERV0470AB000AA	TERV0600AB000AA	TERV0900AD000AA	TERV1200AD000AA	
Power supply			220-240 V, 50 Hz, 1 Phase			380 V, 50 Hz, 3 Phase	
Temp. Exchange Efficiency (%) 50Hz			65	65	65	65	
			65	65	/	/	
			70	70	/	/	
Enthalpy Exchange Efficiency 50 Hz	For Cooling	High	50	50	50	50	
		Medium	50	50	/	/	
		Low	55	55	/	/	
	For Heating	High	60	60	60	60	
		Medium	60	60	/	/	
		Low	65	65	/	/	
Sound Level	Heat Exchange Mode	High	39	40	51	53	
		Medium	38	39	/	/	
		Low	32	33	/	/	
	Bypass Mode	High	40	41	52	54	
		Medium	39	40	/	/	
		Low	34	35	/	/	
Dimensions (HxWxD)			mm	1,006x1,286x388	1,006x1,286x388	1,270x1,600x540	1,270x1,600x540
Machine Weight			Kg	62	79	163	182
Casing			-	Galvanized steel plate			
Heat Exchange System			-	Air to air cross flow total heat (Sensible heat + latent heat) exchange			
Heat Exchange Element Material			-	Specially processed nonflammable paper			
Fan	Type		-	Centrifugal fan			
	Airflow Rate (50Hz)	High	m³/h	800	1,000	1,500	2,000
		Medium		800	1000	/	/
		Low		600	750	/	/
	ESP (Pa) (50 Hz)	High		100	100	160	170
		Medium	Pa	82	85	/	/
		Low		54	58	/	/
Motor Output		W	360	360	450	450	
Duct diameter			ø/mm	242	242	346x326	346x326
Operation ambient condition			-	-7°C-43°C (DB), 80%RH or less			

Note:

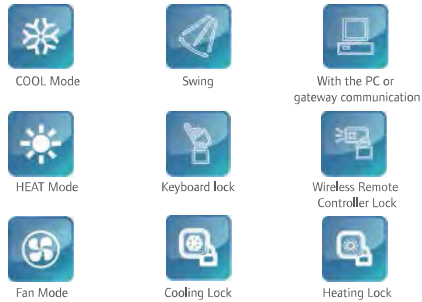
- Three speeds (low/med/high) are available for ERV models 200 to 1000; one speed is available for HRV models 1500 to 2000.
- The sound level is measured at 1.4m below the body center in an anechoic chamber.
Normally, the values measured in the actual operating environment become larger than the indicated values due to the effects of external sound.
- The airflow rate can transmit between low and high modes.
- The temperature exchange efficiency is the mean value between cooling and heating
- Efficiency is measured under the following conditions:
* Cooling Condition: Air Exhaust Temp. 27°C DB, 19.5°C CWB., Fresh Air Temp. 35°C DB, 28°C CWB
* Heating Condition: Air Exhaust Temp. 21°C DB, 13°C CWB., Fresh Air Temp. 5°C DB, 2°C CWB

Control Systems - Centralized Controller

Indoor Centralized Controller



TMCCW008A

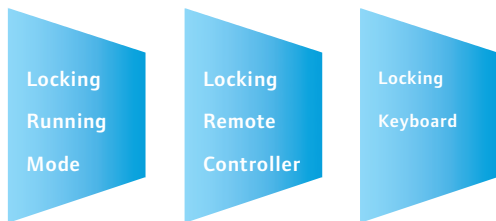


Functions

Centralized controller

The centralized controller is a multifunctional device that can control up to 64 indoor units within a maximum connection length of 1,200m.

The device connects to the master outdoor units of Trane's newly designed products to simplify and centralize the wiring configuration. The two connection modes are as follows:

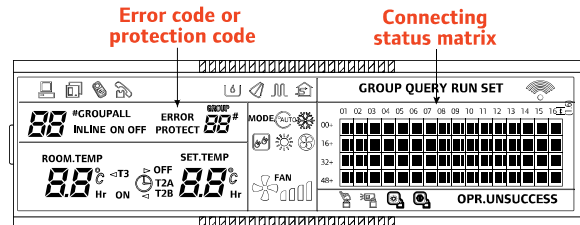


Three lock modes

Centralized controller provides a superior way to manage the indoor units. Users are able to make their own choice from locking the wireless controller, locking the running mode or lock the centralized controller's keyboard as they wish.

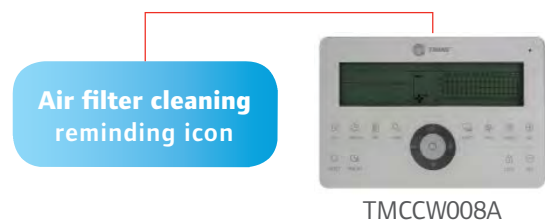
Indoor unit working status display

The centralized controller displays indoor units' working status and error codes so users can easily identify faults via checking the error codes table in the user's manual before contacting a service engineer.



Air filter cleaning reminding function

The air filter cleaning reminder function is only available on the touch-key central controller TMCCW008A. The "FL" icon indicates that the air filter in a given indoor unit needs cleaning.



Control Systems - Centralized Controller

Functions

Stylish design

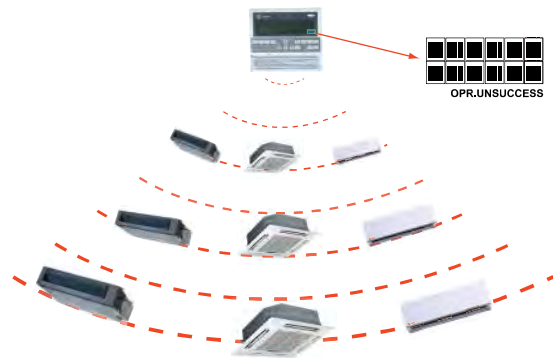
CCM's stylish design suits high-end environments. The keyboard lock function is used to prevent operational mistakes.



Single/unified control

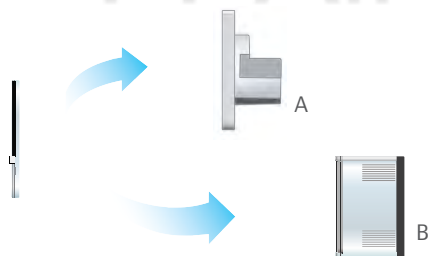
The control object can be either a single unit or all units, which vastly simplifies the control process.

Operation signal feedback ensures that all units are working in the correct mode.

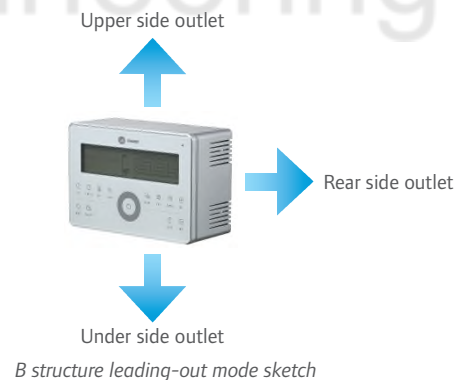


Easy installation

Centralized controller offers two different appearances to mostly suit the installation. The A structure must be embedded into the wall and the B structure doesn't need. Both of them are easy to operate.

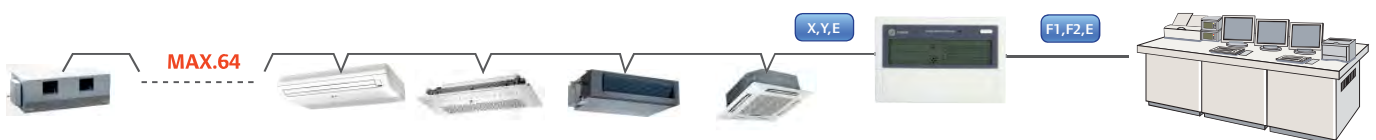


*The A,B structure is available for TMCCW008A and TMCCW001A only has B structure



Access to network monitoring

The centralized controller is able to bridge up to 64 indoor units on the network monitoring and building management systems.



Indoor CCM

Specifications

Model	TMCCW001A	TMCCW008A
Dimensions (HxWxD)(mm)	179x119x74	180x122x78 and 180x122x68
Power (V)	198-242V(50/60Hz)	

Control Systems - Centralized Controller

Weekly schedule centralized



TMCCW002A

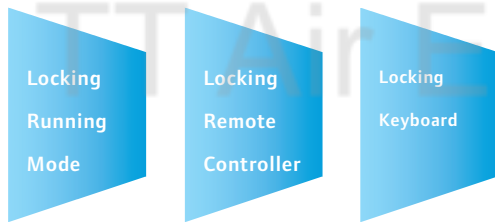


Functions

Weekly schedule

TMCCW002A can include up to 64 indoor units in the weekly schedule. Users can set up to 4 periods per day, and select the desired running mode and room temperature. The operating object can be a single indoor unit or all the indoor units.

	8:00	16:00	23:59
Sun	28°C	22°C	24°C
Mon	26°C	22°C	17°C 23°C
Tue	26°C	22°C	17°C 23°C
Wed	26°C	22°C	17°C 23°C
Thu	26°C	22°C	26°C
Fri	26°C	22°C	26°C
Sat	28°C	off	24°C

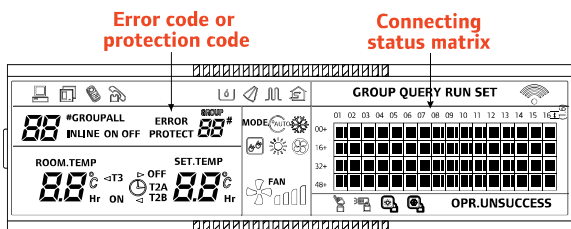


Three lock modes

Centralized controller TMCCW002A provides a superior way to manage the indoor units. Users are able to make their own choice from locking the wireless controller, locking the running mode or lock the TMCCW002A.

Indoor unit working status display

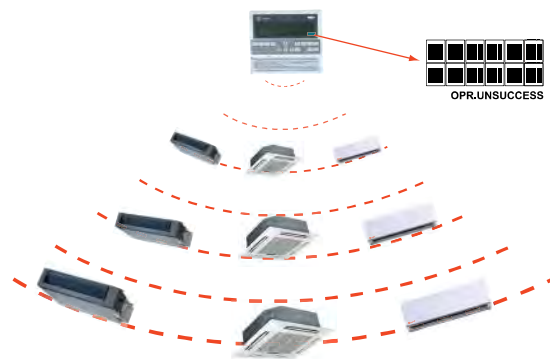
The centralized controller displays indoor units' working status and error codes so users can easily identify faults via checking the error codes table in the user's manual before contacting a service engineer.



Single/unified control

The control object can be either a single unit or all units, which vastly simplifies the control process.

Operation signal feedback ensures that all units are working in the correct mode.



Specifications

Model	TMCCW002A
Dimensions (H×W×D)(mm)	179×119×74
Power (V)	198-242V(50/60Hz)

Control Systems - Centralized Controller

● Touch Screen Centralized



TCONTCCM180A (6.2 Inch)



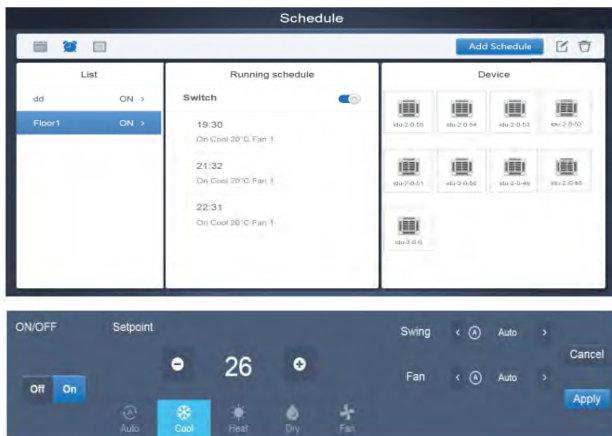
TCONTCCM270B (10.1 Inch)

Features

- Colorful touch screen and vivid display make operation more convenient and simple for 6.2, 10.1 Inch display.
- Support up to 64 indoor units and 8 refrigerant systems in each port, Touch screen 6.2" with 1 port and 10.1" with 6 ports connection.
- Schedule management: multiple daily or weekly schedule can be set.
- Control on/off mode, fan speed and setting temperature range of indoor units by individual or grouping.
- One USB port can be used to output running status (Available for 10.1 inch)
- A desktop or Laptop PC can be used for browser-based access via a LAN connection (Available for 10.1 inch)

Indoor unit grouping status display

Touch screen centralized controller displays indoor units working status and error with easily identify



Schedule management

Touch screen centralized controller can be controlled indoor unit function by individual or group

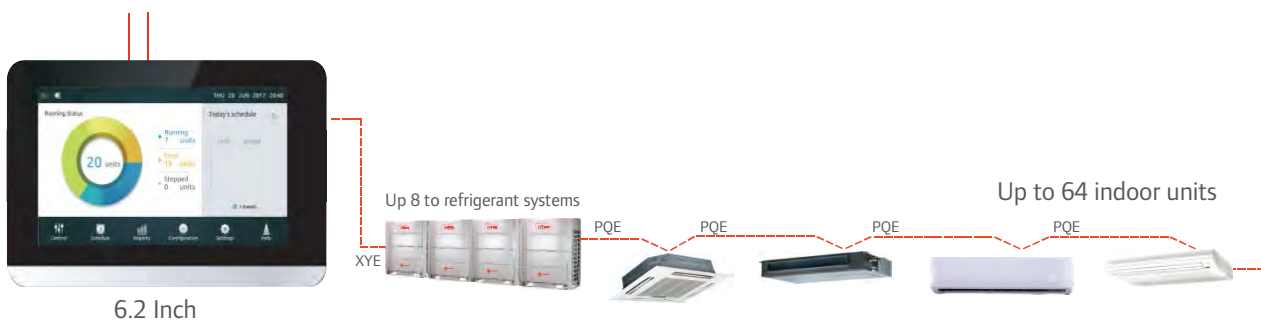
Control Systems - Centralized Controller

● Touch Screen Centralized

Wiring Flexibility

Touch screen centralized controller can be connected to the master outdoor unit directly

Power supply



Power supply



Specifications

Model	TCONTCCM180A	TCONTCCM270B
Dimensions (HxWxD)(mm)	123x182x34	183x270x27
Power (V)	12V DC	24V AC

Control Systems - Accessories

Outdoor centralized controller



TOCCW001A



HEAT lock



COOL lock



With the outdoor units communication



With the PC or gateway communication



Forced



Cooling



Low

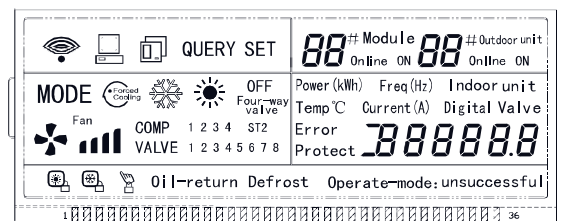


Middle High

Functions

ODU parameters display

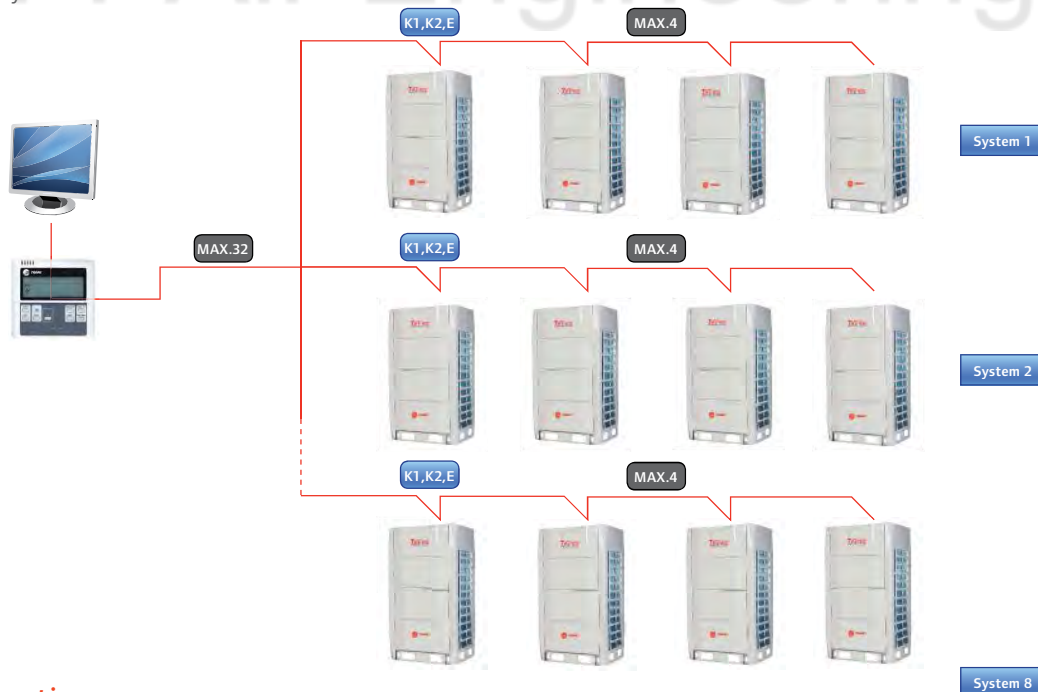
TOCCW001A enables users to easily check outdoor units' running status, including frequency, temperature, current, pressure, protection codes and error codes.



Graph 2 LCD Screen

Access to network monitoring Outdoor centralized controller

TOCCW001A can connect up to 8 refrigerant systems and 32 outdoor units to the network monitoring and building management systems.



Specifications

Model	TOCCW001A
Dimensions (H×W×D)(mm)	120×120×15
Power (V)	198-242V(50/60Hz)

Control Systems - Accessories

● ERV wired controller

Functions

ERV controller

TMUHW001A is individually designed for ERV — Energy Recovery Ventilator. The ERV can work in the following modes: exhaust, air supply, bypass, heat exchange, and auto.

**AUTO->HEAT EXCHANGE->
EXHAUST->BYPASS->AIR SUPPLY**

Specifications

Model	TMUHW001A
Dimensions (HxWxD)(mm)	120x120x15
Power (V)	198-242V(50/60Hz)

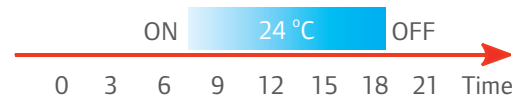


TMUHW 001A

Built-in timer

Built-in daily timer offers the convenience of automatically starting and stopping the ERV at the set times.

Setup screen example
Set to wednesday: 8:00 to 20:00



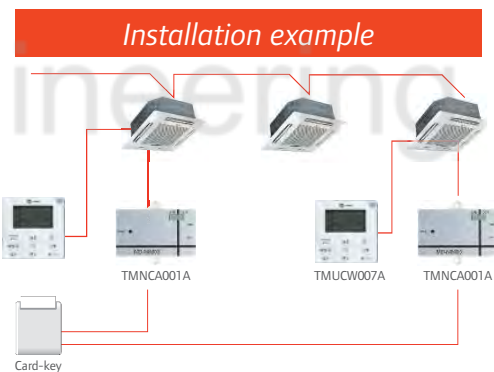
● Hotel card key interface module

Cooperate with the wired controller to automate control. Eliminates the need for high voltage power, making the device safe and steady.

Includes a build-in auto-restart function.

Specifications

Model	TMNCA001A
Dimensions (HxWxD)(mm)	86x72.8x15.5
Power (V)	DC 5V



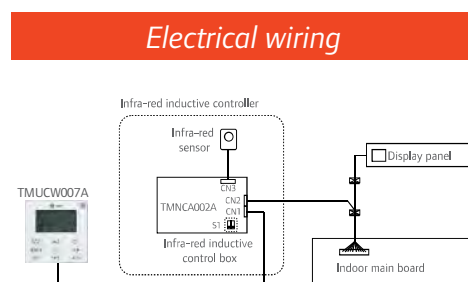
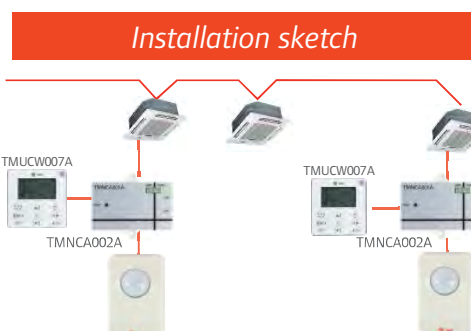
Wired controller is necessary in this card-key system.

● BMS Room temperature management module



TMNCA002A

Automatically adjust the room environment.
Automatically extend the shutting down time, avoiding frequent ON/OFF.
Graceful appearance accommodates itself to different buildings.



Building Management System (IMM)

● TCONTBAC00A

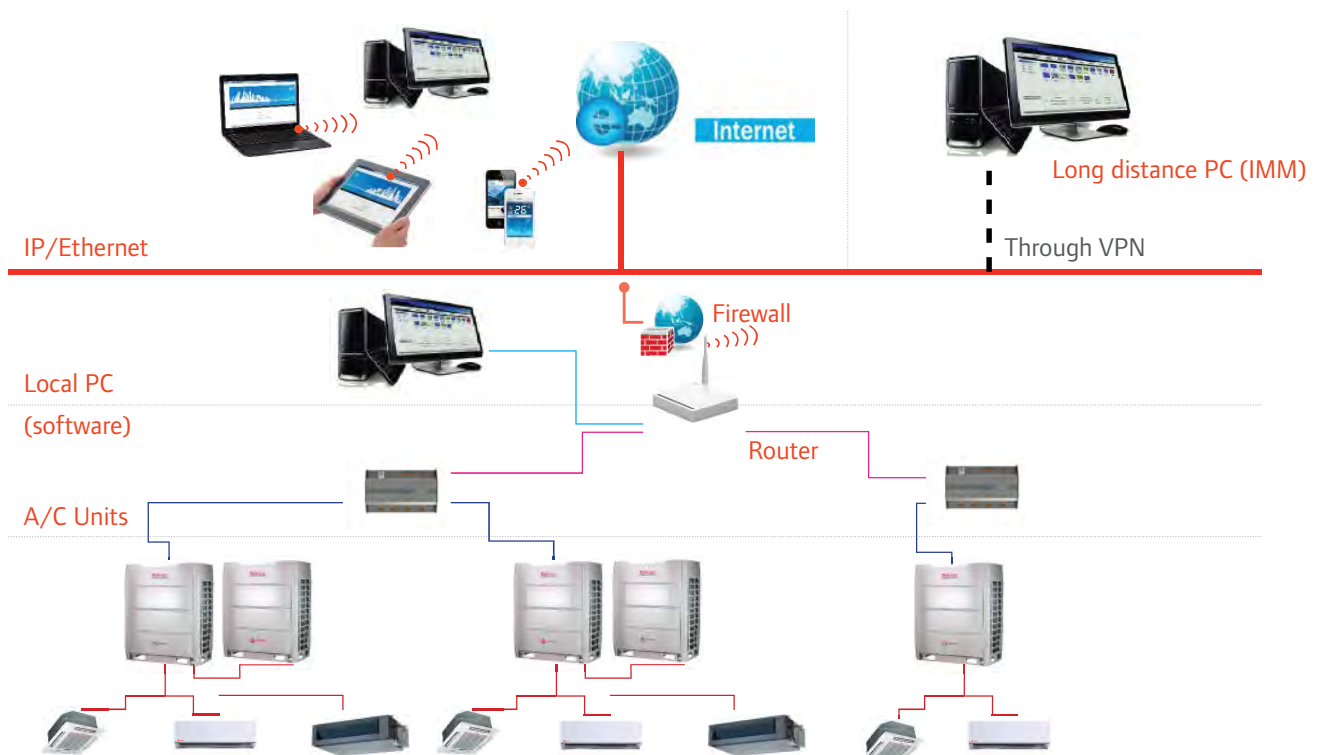


Functions

TCONTBAC00A, designed specifically to control TVR systems, is based on a centralized format and dedicated to the complete control and monitoring of all the system's functions. It can be used as a flexible multi-purpose system and applied to a variety of needs, according to the scale, purpose and control method of each building.

- Up to 10 TCONTBAC00A, 320 refrigerant systems, 2,560 indoor units, and 1,280 outdoor units can be controlled by one PC.
- Annual schedule control
- Web Access
- Low-load operation indicate
- User friendly operation
- Generate operational history reports (daily, weekly, monthly)
- Central building monitoring and control
- Fault display & Warning message
- Lock control (individual controllers)
- Filter replacement reminder
- Set temperature limit
- Emergency stop and Alarm signal output
- Proportional power distribution

Network Control Application



Building Management System (IMM)

• Various Managements

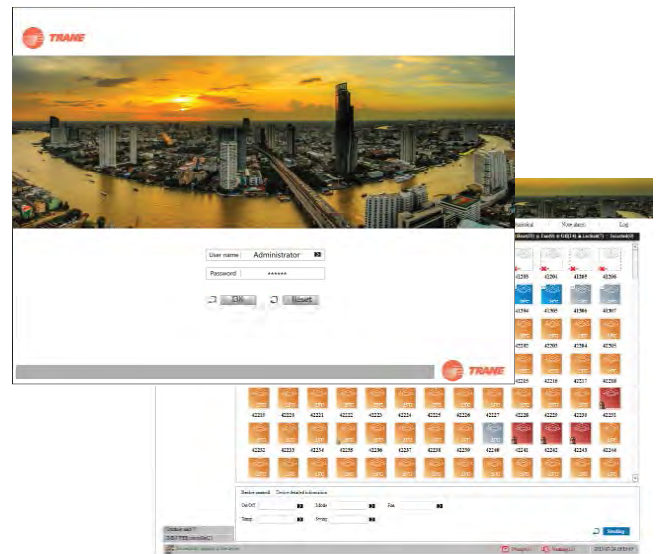
Simple Operation and Management

Click & Operate, a user-friendly interface allows even non-experts to perform the building management system easily.

Data Management

Operational information of individual indoor units are monitored, allowing for distribution of power consumption at outdoor units. Stores operation data on multiple systems and displays it in graphical format for visual management.

Uses TIM software to generate tenant reports and help building owners bill for energy use.



Electricity Charge Distribution(Patented)

Provides information on proportional electrical power distribution to optimize electricity consumption management.

Uses software to calculate electric power proportional distribution, output and save electricity consumption data for each indoor unit (or group) which is connected to the intelligent manager.

Applies the patented Trane Calculation Method to calculate consumption rates according to capacity demand which is based on various parameters: setting temperature, room temperature, running mode, rated HP, public areas, unused rooms, and night-time use; outputs this information on a charge calculation sheet to evenly divide power consumption charges among tenants.

Highlights



Web Access function

With the web access function, a PC, laptop computer or a smart phone can be used as a remote controller.



Energy Saving Management

Based on a predetermined schedule, the Intelligent Manager executes capacity control and intermittent operations on all air conditioning units to maintain a high comfort index.



Schedule Control

Automatically performs facility start/stop control, switches the operating mode, sets temperatures and enables/disables the remote control according to the present time schedule. 4 sections and 20 actions per day for each single unit or group.



Warning Message

The system can receive error messages from air conditioning units in more than one buildings or structures via public phone lines.
*Requires the Trane "SMS Modem" to send automatic warning messages to designated phone numbers.



Visual Navigation

Clicking the jump button will display a list of all available screens. Clicking the back button will return to the previous screen.



Data Backup

The Trane-interface will automatically back up data on the installed SD card (2GB) in case system failure occurs, such as: power failure or system dam. TIM software also stores the previous 3 months' operational data on the HDD.



Multiple Languages

Provides eight language settings
English French Italian
Russian German Spanish
Simple Chinese Traditional Chinese



Electricity Charge Distribution

Electricity charges can be easily divided when billing users for air conditioning power charges; for example, for tenants in a commercial building, offices in a rented building, or rooms in a hotel.

BMS Accessories



● BMS Lonworks Gateway (TCONTLON00A)

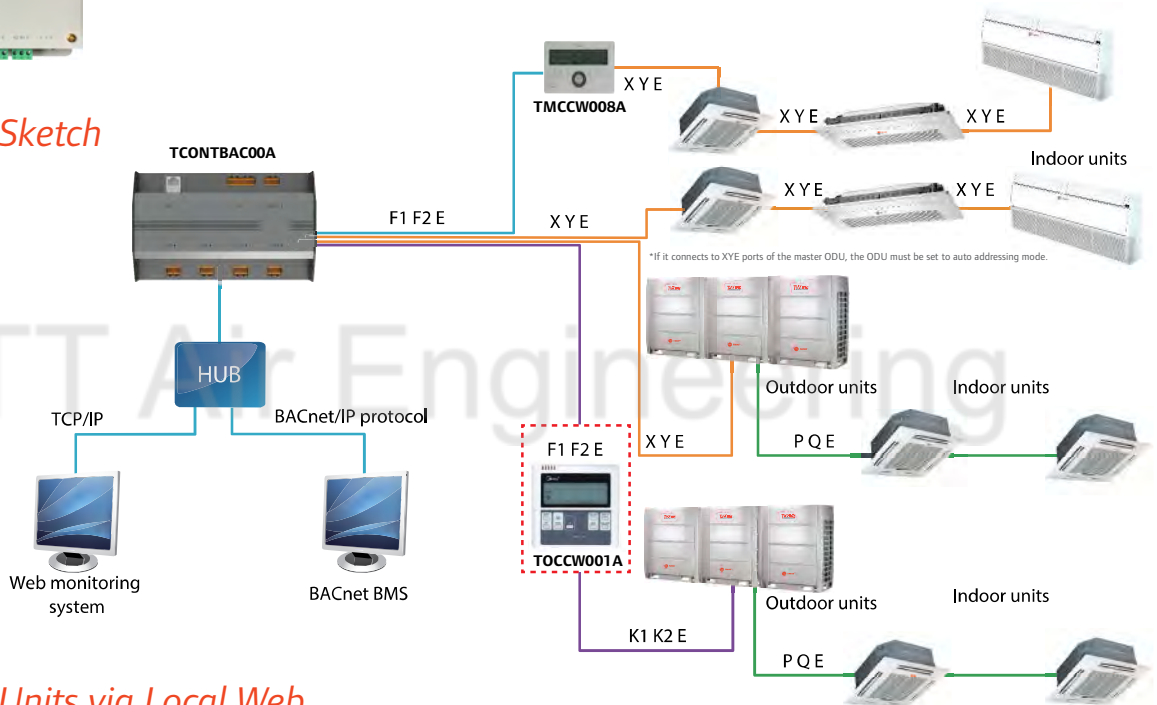
Enables centralized control of up to 32 indoor units and 32 outdoor units to the LonWorks BMS. Easily connectable to the BMS system. Ideal module for scattered units in large projects.



● BMS Modbus Gateway (TCONTMOD00A)

Enables centralized control of up to 64 indoor units and 8 outdoor units. Integrated development through the Modbus RTU or Modbus TCP/IP. Freely connectable to the BMS. Compatible with TCONTLON00A. Monitor units via local network.

Network Sketch



Monitoring Units via Local Web

TCONTBAC00A allows users explore the units via local network, simply using the Internet Explorer or other web browser. In addition, users not only can check the units running conditions, but also change the running parameter, which is quite convenient for users to control.

Wide Compatibility

TCONTBAC00A has a wonderful adaptability to the BMS.

Company	BMS software	Brand
TRANE	Tracer Summit	
SIEMENS	APOGEE	
Honeywell	Alerton	
Schneider	Andover	
Johnson	METASYS	

BMS Accessories

● Digital Power Meter



Calculates power consumption.
Does not need adjusting after long-term use.
Corresponds one outdoor unit to one digital power meter.

Low power consumption

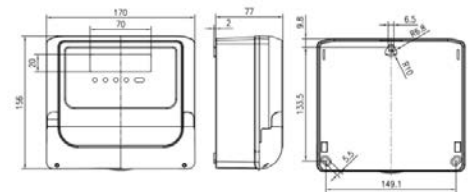
The digital power meter consumes minimal energy.
Voltage circuit: less than 2W/10VA
Current circuit: less than 2.5VA

Indications and installation

The digital power meter is tested after manufacture so it can be immediately deployment and used on-site. The LED indicators and installation schematic are shown in the figure on the left.

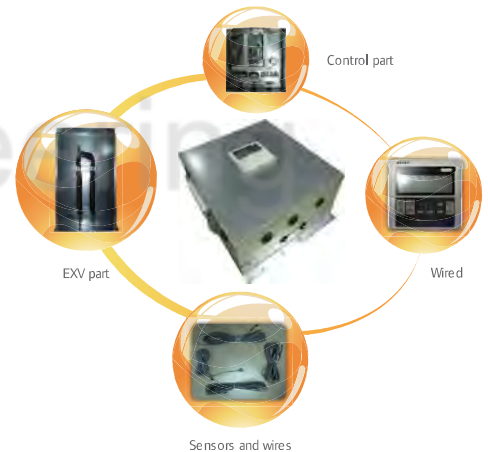
Specifications

Model	TTCONTDTS38050
Dimensions (HxWxD)(mm)	156x170x77
Power (V)	154-286V (50Hz)



● DX AHU Connection Kit (TCONTAHU007A/TCONTAHU014A/ TCONTAHU028A/TCONTAHU056A/ TCONTAHU112A/TCONTAHU170A)

Inclusive of control part, EXV part, temperature sensors and wired controller.
Easy interface to apply to different DX AHU, such as CLCP or else.
Applicable for DX AHU connecting to TVR™ C outdoor units.



Model Name	Capacity
TCONTAHU007A	2.2-9kW
TCONTAHU014A	9-20kW
TCONTAHU028A	20-36kW
TCONTAHU056A	36-56kW
TCONTAHU112A	56-112kW
TCONTAHU170A	112-170kW

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