



# SPLIT WATER COOLED CONDENSING UNIT



*Mini-Split Air Conditioner  
12,000 - 60,000 BTU/H  
WTK R32 Series 50 Hz*

TRANE  
TECHNOLOGIES





# Human Comfort Solutions

## Improved Cash Management

- Factory packaging and testing reduce field labor, installation risk and improve system reliability.
- Phased equipment start-up matches building lease-up.
- Short construction cycles maximize cash flow.
- Requires less sophisticated maintenance than built-up systems.

## Tenant Satisfaction

- Enjoy the benefits of individual tenant metering since buildings can often be occupied on a tenant per unit basis.
- After-hour operational cost savings are tremendously reduced since units can be deactivated when not required.
- Complete HVAC system of each area minimizes tenant inconvenience during routine maintenance.

## Low First Cost

- Factory packaged controls reduce field labor, installation time, and costs.
- Minimize need and cost for fire dampers and air shafts.
- Large equipment rooms and penthouses are not needed.
- Condenser water is available on each floor for tenant computer systems.

## Economical Operation

- Area-by-area system results in energy saving since only air conditioners of specific areas require cooling.
- Especially saves energy after normal building occupancy hours.
- Annual system energy consumption comparable to central chilled water system is reduced significantly during partial occupancy and after-hours.

## Space Saving

- Compact size.
- Unit can be installed in a very limited space.

## A New Standard For The Industry

Trane sets new standards for

- Serviceability
- Installability
- Reliability
- Flexibility of application in their commercial air conditioning products.

These products enhance Trane's reputation for quality air conditioning equipments.

## Quality Control

All of Trane products have been inspected in assembly line. After completion, the condensing unit has been evacuated, leak tested and holding charged with refrigerant to protect rust and dirt. This is to assure that every parts will work in the right condition and at the highest efficiency.

Figure 1- System Diagram of WTK

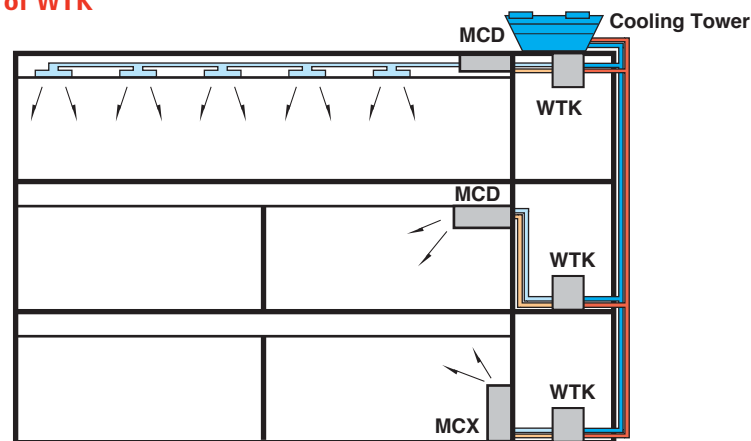


Table 1- Product Specification

Unit Model		WTKE12AB	WTKE18AB	WTKE24AB	WTKE30AB	WTKE36AB	WTKE36AD	WTKE48AD	WTKE60AD
Nominal Capacity	Btu/h	12,000	18,000	24,000	30,000	36,000	36,000	48,000	60,000
Power supply	V/ph/Hz	220-240/1/50					380-415/3/50		
Compressor Data	Type	Rotary							
Qty		1	1	1	1	1	1	1	1
RLA	A	5.2	9.7	10.9	11.6	12.5	4.5	8.9	9.9
Condenser Data	Type	Tube in tube							
Water Inlet/Outlet Size	in	3/4	3/4	3/4	3/4	3/4	3/4	7/8	7/8
Outer Tube Diameter	in	1-1/8	1-1/8	1-1/8	1-1/8	1-1/8	1-1/8	1-1/8	1-1/8
Inner Tube Diameter	in	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Water Coil Operating Pressure	psig	20	20	20	20	20	20	20	20
Refrigerant Type		R32							
Dimensions (HxWxD)	mm	400 x 400 x 400			520 x 400 x 500				
Weight	kg	27	32	43	52	53	53	63	65

Note : 1.) Please see Table 3 for the piping connection size for each model.

2.) Condenser water pipe size is designed upon condenser water flow rate and may not be the same size as Condenser water Inlet/Outlet size.

3.) Product design and specification are subject to change without notice.

# Performance Data

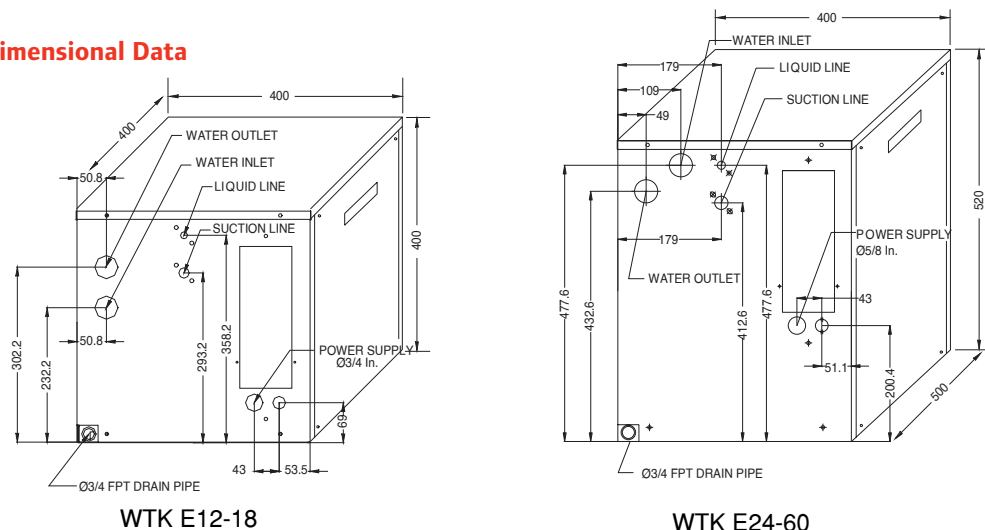
**Table 2- System Performance Matrix**

Cond. Unit Model	Fan coil Model	Supply Air cfm	Cooling Cap. Btu/h	Cond. Water GPM	Pressure Drop Ft of water	Fan Coil Unit Dimensions - (mm)			Weight (kg)
						Height	Width	Depth	
WTKE12	MCXE12SB5 MCDE12AA	400	12,000	3.0	1.0	675	1,068	235	27
						230	946	445	21
WTKE18	MCXE18SB5 MCDE18AA	600	18,000	4.5	1.4	675	1,068	235	28
						230	946	445	24
WTKE24	MCXE24SB5 MCDE24AA	800	24,000	6.0	2.2	675	1,285	235	33
						062	1,098	445	62
WTKE30	MCXE30SB5 MCDE30EB/DB	1,000	30,000	7.5	5.5	675	1,650	235	41
						300	1,150	610	36
WTKE36	MCXE36SB5 MCDE36EB/DB	1,200	36,000	9.0	8.0	675	1,650	235	44
						300	1,251	610	40
WTKE48	MCXE48SB MCDE48DB	1,600	48,000	12.0	12.8	675	1,650	235	44
						408	1,098	745	52
WTKE60	MCXE60SB MCDE60DB	2,000	60,000	15.0	20.0	675	1,650	235	44
						408	1,251	745	52

Notes :

1. At ARI system rating conditions of 80°F-DB/67°F-WB indoor.
2. Condensing water temperature inlet/outlet = 90/100°F.
3. Nominal cfm at high speed fan.
4. MCD-DB are both for Thailand and export market.  
MCD-AA and MCD-EB are for Thailand market only.

**Figure 2- Dimensional Data**



**Table 3- Piping Connection Size**

Model	Liquid Line (in)	Suction Line (in)
WTKE12-18	1/4	1/2
WTKE24	1/4	5/8
WTKE30-36	3/8	5/8
WTKE48-60	3/8	3/4



# Mechanical Specifications

## Condensing Section

The Trane split water-cooled condensing units are designed for commercial and industrial applications. They can be matched with a variety of air handlers in either convertible, ceiling, or ducted air handlers. These units could be arranged to meet different sizes of space to make them suitable for every application.

## Cabinet

Unit panels are fabricated of heavy-gauge steel and finished with a polyester powder painting and weather-resistant baked enamel finish. Unit surface has been tested 500 hours in salt spray test. Condenser water inlet/outlet and electrical wiring holes are provided. Base drain is a 3/4 -inch female connection.

## High Performance Compressor

Special low-friction valve ports and rubbing surfaces allow same capacity for less electrical power input-higher EER. Compressor is externally mounted on isolators to isolate the operating sound for quiet operation.

## Refrigerant Circuit

Refrigerant piping for condensing unit has been designed and installed to absorb vibration. Packed valves make the quicker and easier installation of refrigerant lines. Easy for refrigerant charging with charging port.

## Water-Cooled Condenser

Tube in tube condenser is constructed with copper tubing. Water copper pipe connections are provided for condenser water inlet and outlet.

## Fan Coil Section

### Ceiling Fan Coil Unit

Model MCX-SB fan coil unit is designed for horizontal concealed ceiling applications, commonly used within the closets of hotels, motels and apartment. Standard features include triple protection drain pan (galvanized steel, polystyrene foam, and plastic) providing maximum insulation. Servicing is made simple because the motor-blower section is completely removable from the coil section.



**MCX-- SB**

### Ducted Fan Coil Unit

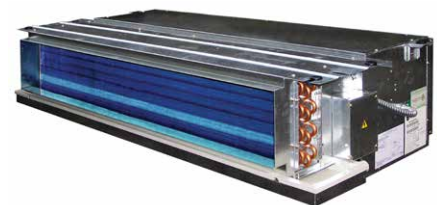
Model MCD-DB is the high static version of the model MCD-AA and MCD-EB unit. It utilizes the larger diameter fans operating at low RPM to achieve the increased static pressure requirements needed for limited distribution ducts. The standard unit has 1-inch supply air duct collar to facilitate field connection of the supply ductwork.



**MCD -- AA**

## Options

- Hi-Low pressure cut off (from WTKE12 to WTKE36)
- 3-minute time delay (for use with MCD)



**MCD -- EB/DB**



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