



**TRANE**<sup>®</sup>



# ODYSSEY

*Split System 5-20 Tons*

*Light Commercial*

*TTA/TTH R22 Series 50Hz*



# ODYSSEY – Light Commercial Split System Cooling Units

A new standard for the air conditioning industry, Trane sets new appearance and new standard for Serviceability...

Installability... Reliability... and Flexibility for all applications in split system air conditioning.



### Design for You

Trane consulted its customers during the split system design phase to bring a product to the market place which would meet job needs every time.

### Quality and Reliability

- Scroll compressors are available from 5 to 20 tons with excellent reliability and high efficiency.
- All units are 100 percent run tested prior to leaving the production line.

### Manifolding Scroll Compressors (TTA180-240RD)

- The key to this system is an oil equalized line connecting the two compressors. In addition, the discharge lines are simply manifolded together.
- Efficiency and proven Technology. A manifolded set of compressors is more efficient at part load than the compressors with independent circuits.
- Manifolded to be single circuit provides cost and time saving for installation.

### Maximum Efficiency

- Lower noise operation and higher efficiency with the new generation higher SEER Scroll Compressor.
- 64% fewer parts than a comparable capacity reciprocating compressor.
- Single rotating assembly minimizes the friction and mechanical losses.
- Smooth operation, similar to a centrifugal compressor, give low torque variation and extend motor life, and minimal vibration reducing wear.
- Solid mount with no internal suspension to be worn out.
- Integral inlet dirt separator removes contaminants.

- Rolling element bearings for higher efficiency reduced friction. No suction or discharge valves for improved efficiency compared to a reciprocating compressor.

### Flexibility

Trane Split System offers single and dual compressors allowing the right equipment to be matched to the job application and save on operating cost.

### Ease of Service

Reduction of service time and cost through

- Single side access on condenser.
- Multiple removable panels on air handlers.
- Colored and numbered wiring.
- Service valves.

### Convertibility (Option)

Trane air handler (TWE Model) can easily be converted for vertical or horizontal airflow in free blow and ducted applications. Please refer to TWE specification sheet for your further reference if needed.

### Free Blow Option

- Fan motor hp output will be specially to properly match with Free Blow application.

### System Performance Matrix

Model		Evaporator cfm	Total Capacity MBH	Sensible Capacity MBH
Outdoor	Indoor			
TTK060QD	TTH060BD	1,600	57	36
		2,000	60	39
		2,400	62	42
TTA075RD	TTH075BD	2,000	72	45
		2,500	75	49
		3,000	78	52
TTA100RD	TTH100BD	2,700	97	63
		3,400	101	69
		4,100	104	73
TTA120RD	TTH120BD	3,200	114	74
		4,000	120	82
		4,800	124	88
TTA150RD	TTH160BD	4,300	150	106
		5,300	155	117
		6,300	161	124
TTA180RD	TTH180BD	4,800	172	111
		6,000	180	121
		7,200	186	131
TTA200RD	TTH210BD	5,600	195	137
		7,000	201	151
		8,400	209	162
TTA240RD	TTH240BD	6,400	228	141
		8,000	241	152
		9,600	252	162

Note: Product design and specification are subject to change without notice.



# Designed With Your Needs In Mind

## General Data-Fan Coil Unit

UNIT MODELS		TTH060BD	TTH075BD	TTH100BD	TTH120BD	TTH160BD	TTH180BD	TTH210BD	TTH240BD
POWER CONNECTION	V/ph/Hz	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
MCA <sup>1</sup>	A	2	2.5	4.6	4.6	4.6	6.4	6.4	10.0
SYSTEM DATA									
Refrigerant Type		R22	R22	R22	R22	R22	R22	R22	R22
No. Refrigerant Circuits		1	1	1	1	2	2	2	2
Refrigerant Connection Type		BRAZE	BRAZE	BRAZE	BRAZE	BRAZE	BRAZE	BRAZE	BRAZE
Suction Line OD	in (mm)	1 1/8 (28.57)	1 1/8 (28.57)	1 3/8 (34.93)	1 3/8 (34.93)	1 3/8 (34.93)	1 3/8 (34.93)	1 3/8 (34.93)	1 3/8 (34.93)
Liquid Line OD	in (mm)	3/8 (9.53)	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)
COIL									
Fin Type		UNCOATED SLIT	UNCOATED SLIT	UNCOATED SLIT	UNCOATED SLIT	UNCOATED SLIT	UNCOATED SLIT	UNCOATED SLIT	UNCOATED SLIT
Fins per inch		15	15	15	15	14	14	14	14
Refrigerant Flow Control		Cap.Tube.				Thermostatic Expansion Valve			
Drain Connection Size	in (mm)	1 (25.4)	1 (25.4)	1 (25.4)	1 (25.4)	1 (25.4)	1 (25.4)	1 (25.4)	1 (25.4)
Drain Connection Type		STEEL PIPE - MPT							
FAN									
Fan Type		DOUBLE INLET CENTRIFUGAL WITH FORWARD CURVED WHEEL							
Qty		1	1	2	2	2	2	2	2
Drive Type		BELT-DRIVE							
STANDARD FAN MOTOR									
Qty		1	1	1	1	1	1	1	1
Motor Output	hp	3/4	1	2	2	2	3	3	5
No. of Speed		1	1	1	1	1	1	1	1
Motor Speed	rpm	1405	1400	1405	1405	1405	1425	1425	1440
RLA		1.61	1.99	3.66	3.66	3.66	5.16	5.16	8.80
FILTER									
Type		WASHABLE AIR FILTER							
DIMENSION (HxWxD)									
Unit (Net)	mm	520 x 1,406 x 916	520 x 1,406 x 916	520 x 1,774 x 916	620 x 1,774 x 916	798 x 2,059 x 1,260	798 x 2,059 x 1,260	849 x 2,366 x 1,319	849 x 2,366 x 1,319
WEIGHT									
Unit (Net)	kg	87	92	136	141	172	181	210	240

<sup>1</sup> MCA - Minimum Circuit Ampacity

Note : Product design and specification are subject to change without notice.

## General Data - Condensing Units

UNIT MODELS		TTK060KD	TTA075RD	TTA100RD	TTA120RD	TTA150RD	TTA180RD	TTA200RD	TTA240RD
POWER CONNECTION	V/ph/Hz	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
MCA <sup>1</sup>	A	14.10	17.94	25.20	27.08	31.45	38.40	45.60	48.98
SYSTEM DATA									
Refrigerant Type <sup>2</sup>		R22	R22	R22	R22	R22	R22	R22	R22
Refrigerant Connection Type		BRAZE	BRAZE	BRAZE	BRAZE	BRAZE	BRAZE	BRAZE	BRAZE
No of Refrigerant Circuit		1	1	1	1	1*	1*	1*	1*
Suction Line OD <sup>3</sup>	in (mm)	**	1 1/8 (28.6)	1 3/8 (34.9)	1 3/8 (34.9)	1 5/8 (41.3)	1 5/8 (41.3)	1 5/8 (41.3)	1 5/8 (41.3)
Liquid Line OD <sup>3</sup>	in (mm)	**	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)	5/8 (15.9)
COMPRESSOR									
Compressor Type		Hermetic Scroll							
Qty		1	1	1	1	1	2	2	2
RLA		10.0	13.5	19.2	20.7	24.2	16.0	19.2	20.7
COIL									
Fin Type		Uncoated Corrugate							
Fins per inch		17	16	16	16	16	16	16	16
FAN									
Fan Type		Propeller	Propeller	Propeller	Propeller	Propeller	Propeller	Propeller	Propeller
Qty		2	1	1	1	1	2	2	2
Drive Type		Direct	Direct	Direct	Direct	Direct	Direct	Direct	Direct
MOTOR									
Qty		2	1	1	1	1	2	2	2
Motor Output	Watt	98	290	400	400	400	400	400	400
No. of Speed		1	1	1	1	1	1	1	1
RLA		0.8	1.06	1.2	1.2	1.2	1.2	1.2	1.2
DIMENSION (HxWxD)									
Unit (Net)	mm	1,254 x 988 x 350	1,070 x 1,042 x 953	1,070 x 1,042 x 953	1,070 x 1,042 x 953	1,270 x 1,242 x 953	1,050 x 2,200 x 1,050	1,050 x 2,200 x 1,050	1,050 x 2,200 x 1,050
WEIGHT									
Unit (Net)	kg	94	164	180	192	245	415	428	462

<sup>1</sup> MCA - Minimum Circuit Ampacity.

<sup>2</sup> Refrigerant R22 is holding charged for TTA and fully charged for TTK.

<sup>3</sup> Piping connections for TTK060KD are 7/8 inch suction line and 1/2 inch liquid line for Thailand only.

Piping connections for TTK060KD are 3/8 inch suction line and 1 1/8 inch liquid line for export.

\* For TTA180-240RD, dual refrigerant circuit are standards for export.

\* TTA150RD standard 1 refrigerant circuit is 1-Fan type. For dual circuit is 2-Fan type.

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# Features and Benefits

## TTA Condensing Units



TTA075-150RD



TTA075-120RD (Option)



TTA180-240RD



Phase Protector



TTH Model



TWE Model (Option)



Trane Multi-Stage Thermostat (Option)



1, 2, 4 Stage Thermostat - Digital Display (Option)



1 or 2 Stage Thermostat - Without Display (Option)



AHU Starter Panel/Smart Starter (Option)

### Standard Features

- Powder paint finish.
- Innovative cabinet design.
- Single and dual compressors
- Refrigerant accessories as standard.
- Digital under / over voltage and phase protection device

### Optional

- Stainless casing / Copper fin / Blue fin
- Horizontal air discharge (for TTA075-120)
- Wire Guard.
- Dual circuits (Thailand) or manifolding single circuit (Export) for TTA150-240

### Benefits

- Full covering of all edges and a uniform paint finish for a smooth, attractive and durable cabinet exterior.
- The most attractive light commercial condensing unit available.
- Optimized operation and reduced service time.
- Each unit ships standard with the liquid and suction lines shut-off valve, hi-low pressure controls, liquid line filter drier.
- Protect compressor damage from unstable electrical source or mis-phase connection

### Benefits

- Designed to provide corrosion protection on sea coast application.
- Flexible application when vertical space limited.
- Protect coil from delivery damage.
- Dual circuits allow for comfort during service time.

## TTH/TWE Air Handler Units

### Standard Features

- 500 mm in height (TTH075-100).
- Excellent drain pan.

- Belt drive.

- Insulated galvanized steel fully drain pan
- Quiet operation.

- Thermal expansion valve. (except TTH060)

### Optional

- TWE model as vertical configuration application (as option for TTH120-240)
- Discharge Plenum.
- High static motor.
- Stainless casing / Copper fin / Blue fin
- Return air grille (for TWE model only).

### Benefits

- Designed to fit easily into tight ceiling spaces.
- Specially designed drain pan with a deep pitch to catch and drain water safely away.
- Fully adjustable airflow for application versatility and ease of servicing.
- Fully drain pan prevents condensation outside the unit
- Well-insulated cabinet with fire retardant Polyethylene foam and wide forward curved fans.
- For maximum application flexibility and performance, capacity modulation provides improved comfort.

### Benefits

- Provide more application flexibility
- Designed for free blow application.
- For high static pressure applications.
- Designed to provide corrosion protection on sea coast application.

**Trane Multi-Stage Thermostat** controlled by micro processor is available for 1, 2 and 4 stage monitor, 7-segment display, 15°C-30°C temperature setting, connectable with the external sensor & auto-restart function with ON/OFF switch.

**Trane AHU Starter Panel/Smart Starter** Particularly controls the HVAC system. Integrated with motor and and compressor protection system and temperature control, reliable according to UL/IEC/NEMA standard and easy to install.

**Trane 1,2,4 Stage Thermostat** provides with & without display, operation control of chilled water fan coil and AHU, 16°C - 30°C temperature setting, 4-level compressor monitor & display of compressor status.



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