



**TRANE®**



# ODYSSEY

*Split System 6-20 Tons*

*Light Commercial*

*TTA/TTH R407C Series 50Hz*



# ODYSSEY – with environmental friendly R407C refrigerant Split System Cooling Only Units

## Cool You, Cool the Earth

A new design of industrial air conditioner with non-ozone depletion refrigerant R407C to provide steady comfort with reliability and flexibility for all applications in split air conditioning system together with the effort to cool down the earth and protect our environment.



## Cool The Earth

## Quality and Reliability

- Scroll compressors are available from 6 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 (TTA180-240)

- 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 EER 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.

## 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.

## 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.

## Trane Split System Units

- A reputation for quality and reliability.
- Improvements in efficiency, flexibility and installation.

## System Performance Matrix

Model		Evaporator cfm	Total Capacity MBH	Sensible Capacity MBH
Outdoor	Indoor			
TTKD60QD	TTH060ED	1,600	57	36
		2,000	60	39
		2,400	62	42
TTA075ED	TTH075ED	2,000	72	45
		2,500	75	49
		3,000	78	52
TTA100ED	TTH100ED	2,700	96	62
		3,400	100	68
		4,100	103	72
TTA120ED	TTH120ED	3,200	115	75
		4,000	120	82
		4,800	124	88
TTA150ED	TTH160ED	4,300	145	103
		5,300	150	114
		6,300	156	120
TTA180ED	TTH180ED	4,800	171	110
		6,000	180	120
		7,200	185	130
TTA200ED	TTH210ED	5,600	193	135
		7,000	200	150
		8,400	207	160
TTA240ED	TTH240ED	6,400	227	140
		8,000	240	151
		9,600	250	161

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



# Designed With Your Needs In Mind

## General Data-Air Handler Units

UNIT MODELS		TTH060ED	TTH075ED	TTH100ED	TTH120ED	TTH160ED	TTH180ED	TTH210ED	TTH240ED
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		R407C	R407C	R407C	R407C	R407C	R407C	R407C	R407C
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 3/8 (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)	1/2 (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			
MOTOR									
Qty		1	1	1	1	1	1	1	1
Motor Output	hp (kW)	3/4 (0.55)	1 (0.75)	2 (1.5)	2 (1.5)	2 (1.5)	3 (2.2)	3 (2.2)	5 (3.7)
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	5.08	5.08	8.03
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	239

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

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## General Data - Condensing Units

UNIT MODELS		TTKD60QD	TTA075ED	TTA100ED	TTA120ED	TTA150ED	TTA180ED	TTA200ED	TTA240ED
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>		R407C	R407C	R407C	R407C	R407C	R407C	R407C	R407C
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> There is holding charge of refrigerant from factory. However, when install the unit, system must be vacuumed and recharged refrigerant in the field.

<sup>3</sup> For TTA180-240, Dual refrigerant circuits are standard for Export.

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

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# Features and Benefits



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)

## TTA Condensing Units

### Standard Features

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

### Optional

- Stainless casing / Copper fin / Blue fin
- Dual circuits (Thailand) or manifolding single circuit (Export) for TTA180-240
- Horizontal air discharge (for TTA075-120)
- Micro Processor controller
- Wire Guard.

## 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.
- Each unit ships standard with the liquid and suction lines shut-off valve, hi-low pressure controls, liquid line filter drier.
- Optimized operation and reduced service time.
- Protect compressor damage from unstable electrical source or mis-phase connection

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

## TTH/TWE Air Handler Units

### Standard Features

- 500 mm in height (TTH075-100).
- Excellent drain pan.
- Belt drive.
- Factory installed mounting channel (TTH060-240).
- Quiet operation.
- Thermal expansion valve.

### Optional

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

## 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.
- Supports the unit from below, and saves time and money for the installer.
- Well-insulated cabinet with fire retardant Polyethylene foam and wide forward curved fans.
- For maximum application flexibility and performance, capacity modulation provides improved comfort and backup in the event of a malfunction with one circuit.
- 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 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.

## Trane AHU Starter Panel/Smart Starter

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



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