



# Odyssey

Split System 5-20 Tons Light Commercial TTA / TTH / TWE Series 50 Hz





# 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 (TTA150-240RD)

- The key to this system is an oil equalized line connecting the two compressors. In addition, the discharge lines are simply manifolded togethers.
- 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

Trane air handler (TWE Model) can easily be converted for vertical or horizontal airf ow in free blow and ducted applications.

### **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, f exibility and installation.

## **System Performance Matrix**

Me	odel	Evaporator	Total Capacity	Sensible Capacity	
Outdoor	Indoor	cfm	MBH	MBH	
		1,600	57	36	
TTK060QD	TTH060BD	2,000	60	39	
		2,400	62	42	
		2,000	72	45	
TTA075RD	TTH075BD	2,500	75	49	
		3,000	78	36 39 42 45	
		2,700	97	63	
TTA100RD	TTH100BD	3,400	101	69	
		4,100	104	73	
		3,200	114	74	
TTA120RD	TTH120BD	4,000	120	82	
		4,800	124	88	
		4,300	150	106	
TTA150RD	TTH160BD	5,300	155	117	
		6,300	161	124	
		4,800	172	111	
TTA180RD	TTH180BD	6,000	180	121	
		7,200	186	131	
		5,600	198	139	
TTA200RD	TWE210CD	7,000	205	154	
		8,400	212	164	
		6,400	230	142	
TTA240RD	TWE240CD	8,000	243	153	
		9,600	253	163	



# Designed With Your Needs In Mind

# **General Data-Air Handler Units**

UNIT MODELS		TTH060BD	TTH075BD	TTH100BD	TTH120BD	TTH160BD	TTH180BD	TWE210CD	TWE240CD
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>	Α	1.8	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	SLIT COATED	SLIT COATED
Fins per inch		15	15	15	15	14	14	15	15
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 F	PIPE - MPT		PLA	STIC - FEMALE	PIPE	
FAN									
Fan Type				DOUBLE INLET	CENTRIFUGAL V	WITH FORWARD	CURVED WHEEL	-	
Qty		1	1	2	2	2	2	2	2
Drive Type		BELT-ADJUSTABLE DRIVE							
MOTOR									
Qty		1	1	1	1	1	1	1	1
Motor hp	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/LRA		1.61-8.40	1.99 - 11.0	3.66 - 21.0	3.66 - 21.0	3.66 - 21.0	5.08 - 34.0	5.08 - 34.0	8.03 - 63
FILTER									
Туре		WASHABLE AIR FILTER							
DIMENSION (HxWxD)									
Unit (Net)	mm	520 x 1,312 x 841	520 x 1,312 x 841	520 x 1,680 x 841	620 x 1,680 x 841	773x 1,909 x 987	773x 1,909 x 987	1,751 x 2,210 x 702	1,751 x 2,210 x 702
WEIGHT									
Unit (Net)	kg	87	92	136	141	172	181	355	365

MCA - Minimum Circuit Ampacity
 Note: Product design and specification are subject to change without notice.

# **General Data - Condensing Units**

UNIT MODELS		TTK060QD	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>	Α .	13.95	18.06	27.29	29.95	32.72	35.00	49.22	54.17
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					Hermet	ic Scroll			
Qty		1	1	1	1	2	2	2	2
RLA/LRA		10.0/74.0	13.6 / 98	20.7 / 130	22.9 / 145	13.6 / 98	14.3 / 130	20.7 / 130	22.9 / 145
COIL									
Fin Type		Uncoated Corrugate							
Fins per inch		20	16	16	16	16	16	16	16
FAN									
Fan Type		Propeller	Propeller	Propeller	Propeller	Propeller	Propeller	Propeller	Propeller
Qty		1	1	1	1	2	2	2	2
Drive Type		Direct	Direct	Direct	Direct	Direct	Direct	Direct	Direct
Nominal Airf ow <sup>2</sup>	cfm (cmh)	1903 (3233)	4885 (8300)	5768 (9800)	6828 (11600)	9770 (16600)	11536 (19600)	13537 (23000)	13537 (23000)
MOTOR									
Qty		1	1	1	1	2	2	2	2
Motor Output	Watt	165	290	300	300	290	300	300	300
No. of Speed		1	1	1	1	1	1	1	1
Motor Speed	rpm	900	750	875	875	750	875	875	875
RLA/LRA		1.45 / 2.68	1.06 / 2.27	1.2 / 2.80	1.2 / 2.80	1.06 / 2.27	1.2 / 2.80	1.2 / 2.80	1.32 / 2.80
DIMENSION (HxWxD)									
Unit (Net)	mm	795 x 1018 x 360	1050 x 950 x 1060	1050 x 950 x 1060	1050 x 950 x 1060	1050 x 2200 x 1050			
WEIGHT									
Unit (Net)	kg	92	164	180	192	382	415	428	462

<sup>&</sup>lt;sup>1</sup> MCA - Minimum Circuit Ampacity.

3 SSA5-SLB001-EN

MCA - Minimum Circuit Ampacity.
 Refrigerant R22 is holding charged for TTA and fully charged for TTK.
 Piping connections for TTK060QD 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 TTA150-240RD, dual refrigerant circuit are standards for export.
 Note: Product design and specification are subject to change without notice.



TTA075-120ED



TTA075-120ED (Option)



TTA150-240ED



Mirco processor controller (Option)



TTH Model



TWE Model



Trane Multi-Stage Thermostat (Option)



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



1 or 2 Stage Thermostat - Without Display (Option)

# Aeriscoat R (Option)







After Coated & Curing



AHU Starter Panel (Option)

TRANE<sup>®</sup>

# Features and Benefits

# **TTA Condensing Units**

#### **Standard Features**

- Powder paint finish.
- Innovative cabinet design.
- Refrigerant accessories as standard.
- Single and dual compressors

### **Optional**

- Stainless casing / Copper fin / Blue fin
- Dual circuits (Thailand) or manifolding single circuit (Export) for TTA150-240ED
- Horizontal air discharge (for TTA075-120)
- Mirco 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
- Designed to provide corrosion protection on sea coast application.
- Dual circuits allow for comfort during service time.
- Flexible application when vertical space limited.
- Troubleshooting status display helps reduce service time.
- Extend compressor life time by balancing compressors loading.
- 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 (TTH060-180).
- Quiet operation.
- Convertible for horizontal or vertical configuration (TWE200-240).
- Thermal expansion valve.

#### **Benefits**

- Designed to fit easily into tight ceiling
- 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.
- Maximum application flexibility without the extra inventory of dedicated models.
- For maximum application flexibility and performance, capacity modulation provides improved comfort and backup in the event of a malfunction with one circuit.
- Designed for free blow application.
- For high static pressure applications.
- Designed to provide corrosion protection on sea coast application.

# **Optional**

- Discharge Plenum.
- Return air grille (for TWE model only).
- High static motor.
- Stainless casing / Copper fin / Blue fin

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.

Aeriscoat R removes and protects all microorganisms, biofilm & corrosion in one step certified by CSIRO & approved by USEPA. The effectiveness lasts 5 years and reduces maintenance. Applicable to coil in heat exchanger & evaporator especially for use in humid climate, seaside, factories, hotels, etc.

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











Trane optimizes the performance of home and buildings around the world. A business of Ingersoll Rand, the leader in creating and sustaining safe, comfortable, and energy efficient environments, Trane offers a broad portfolio of advance controls and HVAC systems, comprehensive building services, and parts. For more information, visit www.tranethailand.com

เทรน (ประเทศไทย)

เลขที่ 1126/2 ชั้น 30-31 อาคารวานิช 2 ถ.เพชรบุรีตัดใหม่ แขวงมักกะสัน เขตราชเทวี กรุงเทพฯ 10400



