



Odyssey™

Split System 5-20 Tons

Light Commercial
TTA / TTH / TWE
Series 50 Hz

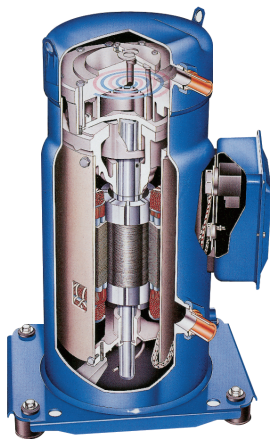




ODYSSEY - Light Commercial

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 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

Trane air handler (TWE Model) can easily be converted for vertical or horizontal airflow 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, flexibility and installation.

System Performance Matrix

Model		Evaporator cfm	Total Capacity MBH	Sensible Capacity MBH
Outdoor	Indoor			
TTK060QD/KD	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	TWE120CD	3,200	116	76
		4,000	121	83
		4,800	125	89
TTA150RD	TWE160CD	4,300	151	107
		5,300	156	118
		6,300	162	125
TTA180RD	TWE180CD	4,800	173	112
		6,000	181	122
		7,200	187	132
TTA200RD	TWE210CD	5,600	198	139
		7,000	205	154
		8,400	212	164
TTA240RD	TWE240CD	6,400	230	142
		8,000	243	153
		9,600	253	163

Designed With Your Needs In Mind

General Data-Air Handler Units

UNIT MODELS		TTH060BD	TTH075BD	TTH100BD	TWE120CD	TWE160CD	TWE180CD	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
MCA¹	A	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 1/8 (28.57)	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									
Tube Size OD	in (mm)	3/8 (9.53)	3/8 (9.53)	3/8 (9.53)	3/8 (9.53)	3/8 (9.53)	3/8 (9.53)	3/8 (9.53)	3/8 (9.53)
Rows		3	3	3	3	3	3	3	3
Fins per inch		15	15	15	14	14	12	15	15
Refrigerant Flow Control		CAP. TUBE	EXPANSION VALVE	EXPANSION VALVE	EXPANSION VALVE	EXPANSION VALVE	EXPANSION VALVE	EXPANSION VALVE	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			PLASTIC - FEMALE PIPE				
FAN									
Fan Type		DOUBLE INLET CENTRIFUGAL WITH FORWARD CURVED WHEEL							
No. used		1	1	2	1	1	1	2	2
Drive Type		BELT - ADJUSTABLE DRIVE							
MOTOR									
No. of Motor		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
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
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									
Type		WASHABLE ALUMINUM AIR FILTER							
No. used		2	2	3	4	4	4	4	4
Size (WxLxD)	mm	440x520x25	440x600x25	440x520x25	355 x 635 x 25	400x927x25	400x927x25	555x727x25	555x727x25
DIMENSION (HxWxD)									
Uncrated (Net)	mm	520x1,312x841	520x1,312x841	520x1,680x841	1523x1410x635	1751x1613x850	1751x1613x850	1751x2210x702	1751x2210x702
WEIGHT									
Uncrated (Net)	kg	87	92	136	154	275	285	355	365

¹MCA - Minimum Circuit Ampacity

General Data - Condensing Units

UNIT MODELS		TTK060QD/KD	TTA075RD	TTA100RD	TTA120RD	TTA150RD	TTA180RD	TTA200RD	TTA240RD
POWER CONNECTION	V/ph/Hz	380-415/3/50							
MCA¹	A	11.97	18.06	27.29	29.95	32.72	35.00	49.22	54.17
SYSTEM DATA									
No. Refrigerant Circuits		1	1	1	1	1*	1*	1*	1*
Refrigerant Connection Type		BRAZE	BRAZE	BRAZE	BRAZE	BRAZE	BRAZE	BRAZE	BRAZE
Refrigerant ²		R22							
Suction line OD ³	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)	2 1/8 (54.0)
Liquid line OD ³	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)	7/8 (22.2)
COMPRESSOR									
Compressor Type		Hermetic Scroll							
No. Used		1	1	1	1	2	2	2	2
V/ph/Hz		380/3/50	380/3/50	380/3/50	380/3/50	380/3/50	380/3/50	380/3/50	380/3/50
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									
Tube Size OD	in (mm)	3/8 (9.53)	3/8 (9.53)	3/8 (9.53)	3/8 (9.53)	3/8 (9.53)	3/8 (9.53)	3/8 (9.53)	3/8 (9.53)
Rows		2	2	2	2	2	2	2	2
Fins per inch		21	16	16	16	16	16	16	16
FAN									
Fan Type		Propeller	Propeller	Propeller	Propeller	Propeller	Propeller	Propeller	Propeller
No. used		2	1	1	1	2	2	2	2
Drive Type		Direct	Direct	Direct	Direct	Direct	Direct	Direct	Direct
Nominal Airflow	cfm (cmh)	2660 (4520)	4885 (8300)	5768 (9800)	6828 (11600)	9770 (16600)	11536 (19600)	13537 (23000)	13537 (23000)
MOTOR									
No. of Motor		2	1	1	1	2	2	2	2
Motor Output	Watt	98	290	420	300	290	420	300	300
No. of Speed		1	1	1	1	1	1	1	1
Motor Speed	rpm	900	750	830	875	750	830	875	875
V/ph/Hz		220/1/50	380/3/50	380/3/50	380/3/50	380/3/50	380/3/50	380/3/50	380/3/50
RLA/LRA		0.88 / 1.79	1.06 / 2.27	1.41 / 3.53	1.32 / 2.80	1.06 / 2.27	1.41 / 3.53	1.32 / 2.80	1.32 / 2.80
DIMENSION (HxWxD)									
Uncrated (Net)	mm	1254 x 988 x 350	1050x950x1060	1050x950x1060	1050x950x1060	1050x2200x1050	1050x2200x1050	1050x2200x1050	1050x2200x1050
WEIGHT									
Uncrated (Net)	kg	105	164	180	192	382	415	428	462

¹ MCA - Minimum Circuit Ampacity.

² Refrigerant is R22 holding charged for TTA and fully charged for TTK.

³ Piping connections of TTK060QD are 7/8 inch suction line and 1/2 inch liquid line for Thailand only.

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

* For TTA150-240, Dual refrigerant circuits are standard for Export.



TTK060QD



TTA075-120RD



Micro processor controller



TTA075-120RD



TTA150-240RD



TTH060-100BD



TWE120-240CD



Digital Thermostat

Feature and Benefits

TTA Condensing Units

Standard Feature

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

Optional

- Stainless casing / Copper fin / Blue fin / Aeris coating
- Dual circuits (Thailand) or manifold single circuit (Export) for TTA150-240.
- Micro processor controller with under and over voltage protection
- Horizontal air discharge (for TTA075-120RD)
- 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.
- Designed to provide corrosion protection on sea coast application.
- Allow for comfort during service time.
- Troubleshooting status display helps reduce service time.
- Extend compressor life time by balancing compressors loading.
- Flexible application when vertical space limited.
- Protect coil from delivery damage.

TTH/TWE Air Handler Units

Standard Features

- 500 mm in height (TTH060-100).
- Excellent drain pan.
- Belt drive.
- Factory installed mounting channel (TTH060-100).
- Quiet operation.
- Convertible for horizontal or vertical configuration (TWE120-240).
- Thermal expansion valve. (Except TTH060)

Optional

- Discharge Plenum.
- Return air grille (for TWE model only).
- High static motor.
- Single stage and two stages thermostat
- Stainless casing / Copper fin / Blue fin / Aeris coating

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.
- 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.
- Precise temperature control
- Troubleshooting status display helps reduce service time.
- Designed to provide corrosion protection on sea coast application



Trane
www.trane.com

For more information, contact your local district office

Literature Order Number: SSA5-SLB001-EN

Date: Jan 2010

Supersedes: Nov 2009

Stocking Location: Bangkok, Thailand

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

Trane has a policy of continuous product and product data improvement and reserves the right to change design and specifications without notice.