TRANE

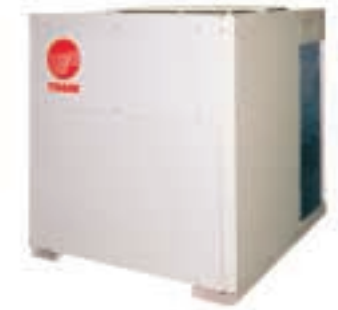
Odyssey™

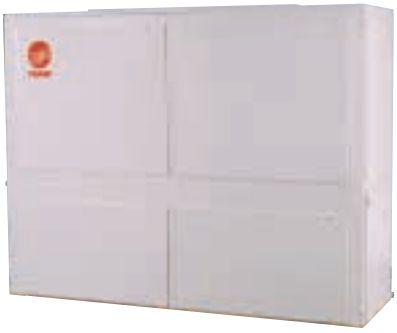
Split System 5-20 Tons

Light Commercial

TTA / TTH / TWE

Series 50 Hz





QUALITY ASSURED FIRM ISO 9001 SGS

UKAS QUALITY MANAGEMENT 005

THAILAND

SYSTEM CERTIFICATION OHSAS 18001 SGS

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 Option (TTA150-240RD)

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

System Performance Matrix

Outdoor Unit	Indoor Unit	Evaporator cfm	Total Capacity MBH
TTK060KD	TTH060BD	2,000	60
TTA075RD	TTH075BD	2,500	75
TTA100RD	TTH100BD	3,400	100
TTA120RD	TWE120AD	4,000	120
TTA150RD	TWE180BD	6,000	160
TTA200RD	TWE240BD	6,650	200
TTA240RD	TWE240BD	8,000	240

Notes :
1. Matched system ratings are ARI 360. Full load rating is at 95°F, entering condensing air temperature and 80/67 FDB/FWB entering air handler coil.
2. Indoor fan power accounts for ARI 360 required external static pressure and losser associated with air filter, casing and wet evaporator coil pressure.

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 can easily be converted for vertical or horizontal airflow in free blow and ducted applications.

Installation

- Compact design makes smaller footprint in the market so we can save the area cost.
- Installation is simplified through fully factory packaged assembled indoor and outdoor units. Ready to run when they arrive at the jobsites.

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.
- Dual circuits allow for comfort cooling even during service time. (TTA150-240)

Trane Split System Units

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

Designed With Your Needs In Mind

Product Line

Indoor Units						
Model	**TTH060**	**TTH075**	**TTH100**	**TWE120**	**TWE180**	**TWE240**
Single Circuit	x	x	x	x		
Dual Circuits					x	x

Outdoor Units							
Model	**TTK060**	**TTA075**	**TTA100**	**TTA120**	**TTA150**	**TTA200**	**TTA240**
Single Compressor	x	x	x	x			
Dual Circuits					x	x	x

General Data-Air Handler Units

UNIT MODELS		**TTH060BD**	**TTH075BD**	**TTH100BD**	**TWE120AD**	**TWE180BD**	**TWE240BD**
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
MCA[1]	A	1.8	2.5	4.6	4.6	6.4	10.0
SYSTEM DATA							
Refrigerant Type		R22	R22	R22	R22	R22	R22
No. Refrigerant Circuits		1	1	1	1	2	2
Refrigerant Connection Type		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)
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)
COIL							
Face Area	sq.ft. (m^2)	4.22 (0.39)	5.06 (0.47)	6.67 (0.62)	11.2 (1.04)	16.3 (1.51)	21.6 (2.00)
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)
Rows		3	3	3	3	3	3
Fins per inch		15	15	15	12	12	12
Refrigerant Flow Control		CAP. TUBE	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)
Drain Connection Type			STEEL PIPE - MPT			FEMALE PIPE	
FAN							
Fan Type		DOUBLE INLET CENTRIFUGAL WITH FORWARD CURVED WHEEL					
No. used		1	1	2	1	2	2
Diameter	in (mm)	10 (254)	10 (254)	10 (254)	15 (381.0)	15 (381.0)	15 (381.0)
Width	in (mm)	10 (254)	10 (254)	8 (203.2)	15 (381.0)	15 (381.0)	15 (381.0)
Drive Type		BELT - ADJUSTABLE DRIVE					
Nominal Airflow[2]	cfm (cmh)	2000	2500	3400	4000	6000	8000
MOTOR							
No. of Motor		1	1	1	1	1	1
Motor hp	hp (kW)	3/4 (0.55)	1 (0.75)	2 (1.5)	2 (1.5)	3 (2.2)	5 (3.7)
No. of Speed		1	1	1	1	1	1
Motor Speed	rpm	1360	1400	1405	1405	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
RLA / LRA		1.4 - 5.2	1.99 - 11.0	3.66 - 21.0	3.66 - 21.0	5.08 - 34.0	8.03 - 63
FILTER							
Type		WASHABLE ALUMINUM AIR FILTER					
No. used		2	2	3	4	4	4
Size (WxLxD)	mm	520x440x25	600x440x25	520x440x25	406x635x25	727x528x25	815x572x25
DIMENSION (HxWxD)							
Crated (Shipping)	mm	673x1,410x970	673x1,410x970	673x1,778x970	1,651x1,702x724	1,867x2,108x794	1,943x2,413x858
Uncrated (Net)	mm	520x1,312x841	520x1,312x841	520x1,680x841	1,523x1,613x635	1,751x2,019x702	1,824x2,350x773
WEIGHT							
Uncrated (Net)	kg	86.7	91.3	135.4	190	313	372

[1]MCA - Minimum Circuit Ampacity
[2]CFM is rated with standard air - dry coil.

General Data - Condensing Units

		TTK060KD	**TTA075RD**	**TTA100RD**	**TTA120RD**	**TTA150RD**	**TTA200RD**	**TTA240RD**
Electrical Data								
Main Power supply	V/ph/Hz				380-415/3/50			
Min.Brch.Cir.Ampacity	A	13.4	22.45	25.82	26.87	40.8	46.84	48.84
Compressor								
Number		1	1	1	1	2	2	2
Type					Hermetic Scroll			
Rated Amps (each)	A	10.0	16.4	19.2	19.6	16.4	19.2	19.6
Locked rotor Amps (each)	A	74	95	125	125	95	125	125
Motor RPM	rpm	2,900	2,900	2,900	2,900	2,900	2,900	2,900
System Data								
Refrigerant circuit		1	1	1	1	2	2	2
Suction line	in	1 1/8	1 1/8	1 3/8	1 3/8	1 1/8	1 3/8	1 3/8
Liquid line	in	3/8	1/2	1/2	1/2	1/2	1/2	1/2
Outdoor Coil								
Tube size	in	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Face Area	sq.ft.	11.7	15.1	20.0	25.0	30.2	40.0	42.5
Rows	#	2	2	2	2	2	2	2
Fins per inch (fpf)	#	21(252)	16(192)	16(192)	16(192)	16(192)	16(192)	16(192)
Outdoor Fan								
Type					Propeller			
Number		2	1	1	1	2	2	2
Diameter	in	18	28	28	28	28	28	28
Drive type					Direct			
Air flow	cfm	2,700	4,900	5,800	6,800	9,800	11,600	13,600
Motors Number		2	1	1	1	2	2	2
Motor HP (each)	hp	1/15	3/4	3/4	3/4	3/4	3/4	3/4
Rated Amps (each)	A	0.45	1.95	1.82	2.37	1.95	1.82	2.37
Locked rotor Amps (each)	A	0.95	2.33	3.07	7.46	2.33	3.07	7.46
Motor RPM	rpm	930	700	800	950	700	800	950
R-22 Refrigerant Charge					Holding Charge			
DIMENSIONS (HxWxD)								
Crated	mm	1,371x1,131x450	1,190x1,194x1,042	1,190x1,194x1,042	1,190x1,397x1,143	1,190x2,312x1,118	1,190x2,312x1,118	1,190x2,312x1,118
Uncrated	mm	1,254x988x350	1,050x1,060x950	1,050x1,060x950	1,050x1,260x1,050	1,050x2,200x1,050	1,050x2,200x1,050	1,050x2,200x1,050
Net Weight	kg	94	157	177	221	368	408	424

Feature and Benefits

TTK060KD

TTA075-120RD

TTA150-240RD

TTH060-100BD

TWE120-240BD

TTA Condensing Units

Features

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

Optional

- Copper fin / Blue fin.
- Manifolding single circuit (for TTA150-240RD).

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 service valves, hi-low pressure controls, liquid line filter drier.
- Optimized operation and reduced service time.
- Designed to provide corrosion protection on sea coast application.
- More efficiency at part load.

TTH/TWE Air Handler Units

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.

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 wide forward curved fans provide quiet operation.
- 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.

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