TRANE®



R-22

LARGE COMMERCIAL

Split System 23-55 Tons

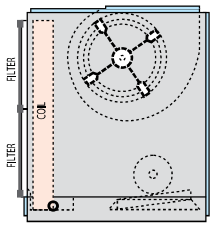
RAUP/TTV R22 Series 50Hz

System Performance Matrix

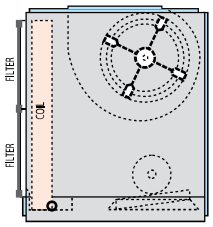
Model		Evaporator	Total Capacity	Sensible Capacity
Outdoor	Indoor	cfm	MBH	MBH
RAUP 250	TTV250	6600 7760 9050	270 278 286	184 197 211
RAUP 300	TTV250	6600 7760 8900	308 318 326	199 213 226
RAUP 300	TTV300	7900 9240 10600	323 333 341	222 237 251
RAUP 400	TTV300	7900 9240 10600	376 388 398	243 260 276
RAUP 400	TTV400	10300 12120 13900	408 421 432	283 303 321
RAUP 500	TTV400	10300 12120 13900	489 504 517	316 338 358
RAUP 500	TTV500	12900 15130 17400	525 541 555	369 395 419
RAUP 600	TTV500	12900 15130 17400	603 622 638	401 429 455
RAUP 600	TTV600	15400 18080 20800	638 658 674	461 493 523

Notes : 1. Matching capacities based on ambient temperature of 95 ° F and 80°/67° F air dry bulb/ wet bulb entering the air handler coil.
2. Product design and specification are subject to change without notice.

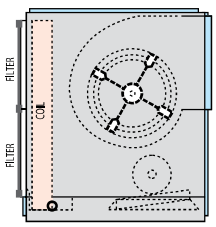
Fan Arrangement



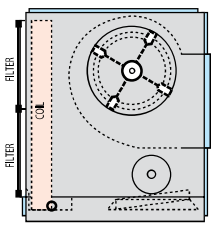
Arrangement 1
(Standard arrangement
for TTV250-600)



Arrangement 2



Arrangement 3



Arrangement 4

General Data - Condensing Units

UNIT MODELS		RAUP 250	RAUP 300	RAUP 400	RAUP 500	RAUP 600
POWER CONNECTION	V/ph/Hz			380-415/3/50		
MCA[1]	A	54.2	58.4	91.9	102.6	110.8
Unit Capacity Steps (%)		100-50	100-50	100-75-50-25	100-75-50-25	100-75-50-25
SYSTEM DATA						
Refrigerant Type		R22	R22	R22	R22	R22
No. Refrigerant Circuits		1	1	2	2	2
Refrigerant Connection Type		Brazed	Brazed	Brazed	Brazed	Brazed
Refrigerant Charge approximate per circuit	kg	20	27.5	19.5	20	27.5
Suction Line OD	in	2-1/8	2-1/8	1-5/8	2-1/8	2-1/8
Liquid line OD	in	7/8	7/8	7/8	7/8	7/8
COMPRESSOR						
Compressor Type				Hermetic Scroll		
Qty		2	2	4	4	4
Model		13T-13T	15T+15T	2x(10T+10T)	2x(13T+13T)	2x(15T+15T)
V/ph/Hz				380-415/3/50		
RLA (each) [2]	A	22.9	24.2	20.7	22.9	24.2
COIL						
Qty		1	1	2	2	2
Tube Size OD	in	3/8	3/8	3/8	3/8	3/8
Fins per inch		12	12	12	12	12
FAN						
Fan Type				Propeller		
Qty		2	3	3	4	6
Drive Type		Direct	Direct	Direct	Direct	Direct
MOTOR						
Qty		2	3	3	4	6
Motor Output (each)	hp (kW)	0.4 (0.3)	0.4 (0.3)	0.4 (0.3)	0.4 (0.3)	0.4 (0.3)
No. of Speed		1	1	1	1	1
V/ph/Hz				380-415/3/50		
RLA (each)		1.32	1.32	1.32	1.32	1.32
DIMENSION (HxWxD)						
Crated (Shipping)	mm	1,700x2,620x1,420	1,700x3,200x1,420	1,650x2,880x2,160	1,960x2,880x2,160	1,850x3,240x2,160
Unit (Net)	mm	1,465x2,294x1,222	1,465x2,952x1,222	1,414x2,583x1,920	1,718x2,583x1,920	1,515x2,980x1,920
WEIGHT						
Crated (Shipping)	kg	644	760	1,036	1,281	1,245
Unit (Net)	kg	624	740	1,001	1,246	1,210

[1] MCA - Minimum Circuit Ampacity.
[2] At 7 deg C SST and 35 deg C Ambient, Subcooling 8.3 K, Superheat 11.1 K.
[3] Nominal Airflow is rated with standard air-dry coil.

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

General Data - Air Handler Unit

UNIT MODELS		TTV 250	TTV 300	TTV 400	TTV 500	TTV 600
POWER CONNECTION	V/ph/Hz			380-415/3/50		
MCA[1]	A	10.0	15.0	15.0	19.0	27.5
SYSTEM DATA						
Refrigerant Type		R22	R22	R22	R22	R22
No. Refrigerant Circuits		2	2	2	2	2
Refrigerant Connection Type		Brazed	Brazed	Brazed	Brazed	Brazed
Suction Line OD	in	2-1/8	2-1/8	1-5/8	2-1/8	2-1/8
Liquid Line OD	in	7/8	7/8	7/8	7/8	7/8
COIL						
Tube Size OD	in	3/8	3/8	3/8	1/2	1/2
Fins per inch		12	12	12	12	12
Refrigerant Flow Control		Expansion Valve	Expansion Valve	Expansion Valve	Expansion Valve	Expansion Valve
Drain Connection Size	in	1.0	1.0	1.0	1.0	1.0
FAN						
Fan Type		Centrifugal FC	Centrifugal FC	Centrifugal FC	Centrifugal FC	Centrifugal FC
Qty		1	1	2	2	2
Fixed Drive Type		Belt and Pulley	Belt and Pulley	Belt and Pulley	Belt and Pulley	Belt and Pulley
Nominal Airflow[2]	cfm (cmh)	7,760 (13,180)	9,240 (15,700)	12,120 (20,590)	15,130 (25,700)	18,080 (30,720)
MOTOR						
Motor Type				TEFC		
Qty		1	1	1	1	1
Motor Output - Std	hp (kW)	5 (3.7)	7.5 (5.5)	7.5 (5.5)	10 (7.5)	15 (11)
Hi Static		7.5 (5.5) / 10 (7.5)	10 (7.5) / 15 (11)	10 (7.5) / 15 (11)	15 (11) / 20 (15)	20 (15)
No. of Speed		1	1	1	1	1
V/ph/Hz				380-415/3/50		
RLA		8.0	12.0	12.0	15.2	22.0
FILTER						
Type		Washable	Washable	Washable	Washable	Washable
Qty		8	9	9	12	9
DIMENSION (HxWxD)						
Crated (Shipping)	mm	1,500x2,100x1,290	1,650x2,100x1,290	1,780x2,390x1,290	1,900x2,900x1,520	1,980x2,900x1,520
Unit (Net)	mm	1,219x1,808x1,040	1,372x1,808x1,040	1,520x2,088x1,040	1,653x2,596x1,275	1,777x2,596x1,275
WEIGHT						
Crated (Shipping)	kg	402	470	543	768	832
Unit (Net)	kg	353	421	487	685	749

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

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

Product Specification

Condensing Units - RAUP Model



RAUP

Standard Features

- Hermetic Scroll compressor.
- Microprocessor Controller with trouble shooting.
- Factory leak and pressure tested at 400 psig.
- Unit panels constructed of 0.9 mm. galvanized steel.
- Exterior panels are cleaned and then chemically treated and finished with a weather-resistant baked polyester powder paint.
- Heavy gauge steel mounting/lifting rails under base.
- Direct-drive, vertical discharge.
- 3-phase motors with permanently lubricated ball bearings.
- Utilization range of plus or minus 10 percent of the nameplate voltage.
- Condenser fan motor(s) built-in thermal overload protection.
- Colored and numbered wiring.
- Come with build-in under/over voltage and phase protection to prevent compressor damage from unstable electrical source

Air Handling Units - TTV Model



TTV

Standard Features

- Vertical or Horizontal discharge configuration.
- Zinc coated, heavy gauge, galvanized steel cabinet finished with a baked polyester powder paint.
- Completely insulated with fire retardant polyethylene foam.
- Factory installed thermal expansion valve(s).
- Evaporator coil leak-tested
- Double inlet, double width, forward curved centrifugal type evaporotor fan(s) with fixed belt drive.
- Thermal overload protection for the evaporator fan motor.
- Washable air filters.
- Oversized motors for high static pressure applications (Optional).

Features Summary



Mirco processor controller (Option)



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



1 or 2 Stage Thermostat - Without Display (Option)



AHU Starter Panel/Smart Starter (Option)

- High compressor EERs.,
- Less vibration and a quieter operation
- Durability / Extended Life: Built in dirt separator to prevent dirt reaching the bearings. High volume oil sump prevents excessive oil loss.
- Compressor Protection: External Overload
- Protector: External high and low pressure switches.
- Tandem Capability: Achieves high part load efficiencies and additional part load control.
- 3 Wire DOL Starter, minimizing field installation.

Robust Casing

- Corrosion resistant coated coils as an option.
- Weather resistant baked matt polyester powder painted GI panels.
- Heavy gauge welded steel base with mounting holes.
- Aluminium Blade propeller fans.
- Fully Factory leak and pressure tested.

Micro Controller with labeled and numbered wiring.

- New PCB with 7-segment display is more user friendly and helpful to easily understand the code.
- Troubleshooting status display helps reduce service time.
- Higher reliability than traditional hard wired systems.

Option

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 compressor protection system and temperature control, reliable according to UL/IEC/NEMA standard and easy to install.

Factory Mounted Control DOL Starter

Take out Micro-P while still maintain necessary functions for easier operation.

TRANE

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