

## LARGE COMMERCIAL

## **Split System 25-55 Tons**

Large Commercial
Split System 25-55 Tons
RAUP/TTV Series 50 Hz







# LARGE COMMERCIAL Split System 50 Hz - Extend to 55 tons



#### **Quality And Reliability**

- Hermetic Scroll Compressors are available on all 25-55 ton units, providing excellent reliability and high efficiency.
- System reliability is improved by the passive manifolding of compressors with no mechanical parts.
- A weathertight cabinet protects the condenser coils.
- Dual compressor circuits are used, beginning with the RAUP40 model.
- Microprocessor controller with trouble shooting from LED output.

#### **Maximum Efficiency**

- Quieter and smoother operation with the improved Scroll Compressor. Low torque variations extend motor life and a minimal vibration reduces wear.
- Smooth operation, like a centrifugal compressor.
- Super efficient when compared to reciprocating compressors.
- 64% fewer parts than a comparable capacity reciprocating compressor.
- Patented 3-dimensional design.
   Tip seal allows for axial contact and maximum efficiency.
- A single rotating assembly minimizes friction and mechanical losses.
- Integrated inlet dirt separator removes contaminants.
- Rolling element bearings reduce friction for higher efficiency.
- The lack of suction or discharge valves further improves efficiency over a comparable reciprocating compressor.







#### **System Performance Matrix**

Outdoor unit	Indoor unit	Evaporator cfm	Total Capacity (MBH)	Sensible Capacity (MBH)	Total Unit Compressor kw	Condenser Fan kw each/total	Indoor Fan kw	Control kw	Total System kw
RAUP-C30	TTV250	7,760	320.0	214.4	25.20	0.75/2.25	3.7	0.25	31.40
RAUP-C30	TTV300	9,240	340.0	241.5	25.20	0.75/2.25	5.5	0.25	33.20
RAUP-C40	TTV300	9,240	380.0	254.6	33.60	0.75/2.25	5.5	0.34	41.69
RAUP-C40	TTV400	12,120	410.0	295.1	33.60	0.75/2.25	5.5	0.34	41.69
RAUP-C50	TTV400	12,120	500.0	335.0	42.00	0.75/3.00	5.5	0.49	50.99
RAUP-C50	TTV500	15,130	520.0	379.6	42.00	0.75/3.00	7.5	0.49	52.99
RAUP-C60	TTV500	15,130	610.0	420.9	50.40	0.75/4.50	7.5	0.49	62.89
RAUP-C60	TTV600	18,080	660.0	493.1	50.40	0.75/4.50	11.0	0.49	66.39

Notes: 1. Matched system ratings are per ARI 360. Full load ratings are at 95 °F entering condenser air temperature, and 80/67 °F air dry bulb/wet bulb entering the air handler coil.

© American Standard Inc. 2002 SSA5-SLB002-EN

<sup>2.</sup> Capacities are gross and do not include an evaporator fan motor heat deduction.



#### **General Data - Condensing Units**

OUTDOOR UNIT MODEL		RAUP-C30	RAUP-C40	RAUP-C50	RAUP-C60
POWER CONNSV/ph/Hz			380-41	5/3/50	
Min. Cir. Ampacity	Α	61.0	80.0	95.0	117.0
Max. Fuse Size	Α	87.0	93.0	122.0	144.0
COMPRESSOR DATA-Type			Hermet	ic Scroll	
No. Used-Size		2-15	4-10	2-10	4-15
				2-15	
Unit Capacity Steps (%)		100-50	100-75-50-25	100-80-50-21	100-75-50-25
V/ph/Hz			380-41	5/3/50	
R.L. Amps-L.R. (each)	Α	22-153	15-104	15-104	22-153
				22-153	
CONDENSER FAN DATA-Type			Direct Drive-l	Propeller Fan	
No. Used/Size	in	3/28"	3/28"	4/28"	6/28"
No. Motors/hp (each)		3/1.0	3/1.0	4/1.0	6/1.0
Nominal	cfm	15,000	17,100	22,280	29,400
V/ph/Hz			380/	3/50	
FLA-LRA (each)	Α	3.2-0.75	3.2-0.75	3.2-0.75	3.2-0.75
CONDENSER COIL DATA					
No. Coil		1	2 380/3/5	0 2	2
Face Area	sq.ft.	35.1	46.3	58.2	68.0
Rows/FPF		3/144	3/144	3/144	3/144
REFRIGERANT-Type			R-	22	
No. Refrigerant Circuits		1	2	2	2
Operating Charge	lbs.	22.0	43.0	44.1	60.6
Line Size O.D. Suction (each)	in	2 1/8	1 5/8	2 1/8	2 1/8
Line Size O.D. Liq. (each)	in	7/8	7/8	7/8	7/8
DIMENSIONAL DATA (HxWxD)					
Uncrated	mm	1,465x2,910x1,206	1,414x2,513x1,920	1,718x2,513x1,920	1,515x2,910x1,920
OPERATING WEIGHT	lbs. (kg)	2,339 (1,061)	2,943 (1,335)	3,494 (1,585)	3,935 (1,785)

Notes:

- 1. Minimum circuit ampacity equals the RLA of one compressor motor times 1.25 plus the total RLA of the remaining motors.
- 2. Local codes may take precedence for maximum fuse size.
- 3. Recommended dual element fuse size is 150 percent of the RLA of one compressor plus the RLA of the remaining motors.
- 4. Operating charge is approximate for condensing unit only, and does not include charge for low side or interconnecting lines.

#### General Data - Air Handling Units

INDOOR UNIT MODEL		TTV250	TTV300	TTV400	TTV500	TTV600
EVAPORATOR COIL DATA						
Face Area	sq.ft.	16.7	19.2	26.2	34.8	38.0
Rows/FPF		3/144	3/144	3/144	4/144	4/144
No. of Circuits		2	2	2	2	2
Fin Type (AI)		W3BS Slit	W3BS Slit	W3BS Slit	W3BS	W3BS
Drain Conn. Size	in	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4
EVAPORATOR FAN DATA-Type	:		Forward Cu	ırve, Centrifugal Typ	e, Belt drive	
No. Used/Size	mm	1/400	1/400	2/390	2/450	2/450
Std.Motor-No./hp		1/5.0	1/7.5	1/7.5	1/10.0	1/15
V/ph/Hz		380/3/50	380/3/50	380/3/50	380/3/50	380/3/50
FLA-LRA (each)	Α	8-42	12-82	16-104	16-104	23-153
Nominal	cfm	7,760	9,260	12,120	15,130	18,080
FILTER						
No. of Filters-Size	in	(8)-16x20x1	(2)-16x20x1,(4)-15x20x1	(6)-16x25x1	(2)-16x20x1,(1)-20x25x1	(3)20x20
			(1)-16x25x1,(2)-15x25x1	(3)-20x25x1	(6)-16x25x1,(3)-25x25x1	(6)20x25
DIMENSIONAL DATA (HxWxD)						
Uncrated	mm.	1,219x1,808x1,040	1,372x1,808x1,040	1,520x2,088x1,040	1,653x2,596x1,275	1,777x2,596x1,275
OPERATING WEIGHT	lbs. (kg)	1,366 (620)	1,415 (642)	1,680 (762)	2,160 (980)	2,246 (1019)

SSA5-SLB002-EN 3

### **Features Summary**

#### **Condensing Units**

#### Standard Features

- · Hermetic Scroll compressor.
- Microprocessor Controller with trouble shooting from LED output.
- Copper tube, aluminium W3BS plate fins coil with internal subcooled circuit.
- Factory leak and pressure tested at 250 and 400 psig.
- Standard ambient operating range of 40 °F to 115 °F.
- 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.
- Built-in current and thermal overload protection for condenser fan motor(s).
- · Colored and numbered wiring.
- 3 Wire DOL Starter.



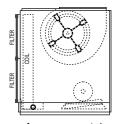


#### **Air Handling Units**

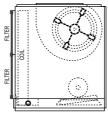
#### Standard Features

- Vertical or Horizontal discharge configuration.
- Zinc coated, heavy gauge, galvanized steel cabinet finished with a baked polyester powder paint.
- Completely insulated with fire-retardent, permanent, odorless fiberglass material covered with aluminium foil.
- · Factory installed thermal expansion valve(s).
- Evaporator coil proof tested at 375 psig and leak-tested at 250 psig.
- Double inlet, double width, forward cured, centrifugal type evaporotor fan(s) with fixed belt drive.
- Thermal overload protection on the evaporator fan motor.
- · Washable air filters.
- Oversized motors for high static pressure applications (Optional).

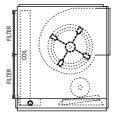
#### Fan Arrangement



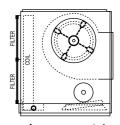
Arrangement 1 (standard)



Arrangement 2 (standard)



Arrangement 3 (optional)



Arrangement 4 (optional)



Trane Thailand 7th Floor, Ploenchit Center Building 2 Sukhumvit Road, Klongtoey Bangkok 10110

Amair Limited 35 Mu 8, Poochaosamingprai Road Samrong Tai, Samutprakarn 10130

http://www.trane.com An American Standard Company

	2045 OLDOOD EN 2000
Literature Order Number:	SSA5-SLB002-EN 0202
Supersedes:	SSA5-SLB002-EN 0400
Stocking Location:	Bangkok, Thailand

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