



**TRANE®**



# SELF-CONTAINED AIR COOLED

*Air Cooled Air Conditioners*

*7.5-20 Tons*

*SRUB R22 Series 50Hz*



# Self-Contained Air Cooled, 50 Hz

## No Water Required

You will find the efficiency, flexibility, and unobtrusive styling of the SRUB models. The SRUBs are hard to be beaten especially for the scarce water in the local area, and high-rise office buildings. The SRUB get along fine without cooling by water.

And this is another kind of Trane products which can serve the requirement in nearly every application.

## Designed For You

- Light and compact.
- Available in 7.5, 9, 10.5, 13.5, 16, 18 and 20 ton capacity.
- The cabinet is thermally and acoustically insulated to make it even quieter.

## Quality and Reliability

- Scroll compressors are available from 7.5 to 20 tons with excellent reliability and high efficiency.
- Dual compressors and independent circuits are standard in the SRUB160-SRUB250 models.
- All units are 100 percent run tested prior to leaving the production line.

## 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.



## System Advantage

- Factory assembly reduces installation costs - no field assembly is needed.
- No need for external heat ex-changers, water towers and other space requirement.
- Simply choose the location, install properly ducting, arrange drain piping and make electrical connection.
- Horizontal and vertical discharge arrangement.
- Quick-access panels for fast and easy servicing.
- Fully refrigerant charge R22.

## System Performance Matrix

| Model    | Evaporator CFM | Condenser CFM | Total Capacity (MBH) | Sensible Capacity (MBH) |
|----------|----------------|---------------|----------------------|-------------------------|
| SRUB 080 | 2,800          | 4,500         | 87                   | 61                      |
| SRUB 110 | 3,600          | 5,500         | 110                  | 73                      |
| SRUB 130 | 4,400          | 5,500         | 127                  | 92                      |
| SRUB 160 | 5,200          | 8,000         | 165                  | 113                     |
| SRUB 190 | 6,200          | 9,000         | 194                  | 141                     |
| SRUB 220 | 7,200          | 10,000        | 213                  | 159                     |
| SRUB 250 | 8,300          | 11,000        | 251                  | 184                     |

Note: 1. Matched system ratings are per ARI condition. 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.

2. Evaporator fan power accounts for ARI condition required external static pressure, and losses associated with air filters, casing and wet evaporator coil pressure drop.



## Product Specifications

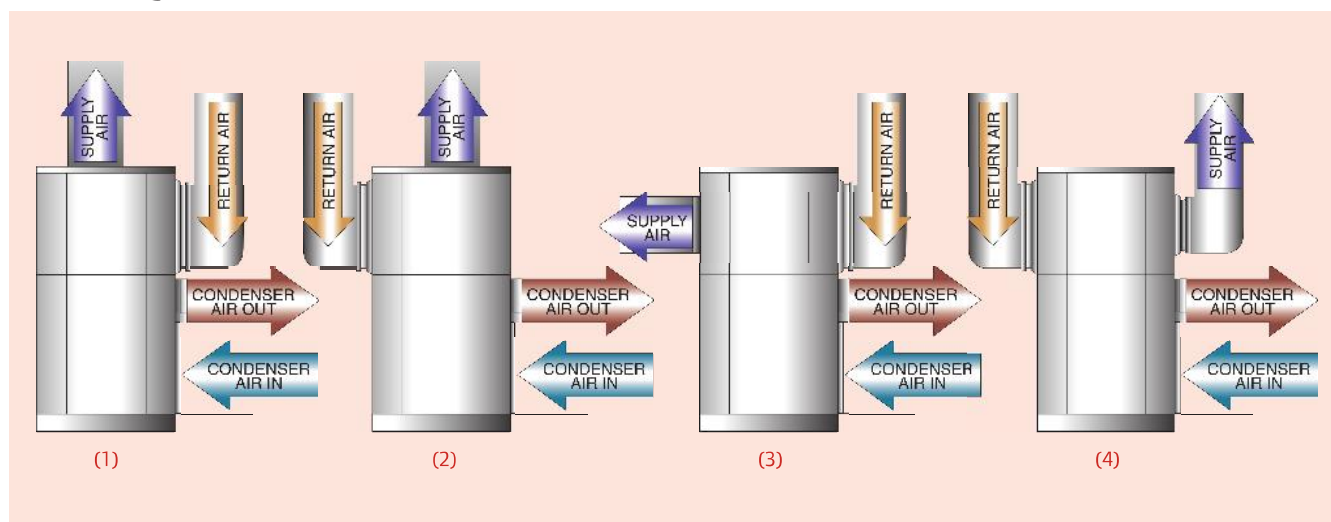
| UNIT MODELS                  |           | SRUB080AD  | SRUB110AD       | SRUB130AD       | SRUB160BD       | SRUB190BD       | SRUB220BD       | SRUB250BD       |
|------------------------------|-----------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| 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    |
| MCA <sup>1</sup>             | A         | 26.15  | 32.74           | 36.37           | 33.61           | 57.61           | 61.11           | 75.28           |
| SYSTEM DATA                  |           |  |                 |                 |                 |                 |                 |                 |
| Refrigerant Type             |           | R22  | R22             | R22             | R22             | R22             | R22             | R22             |
| No. Refrigerant Circuits     |           | 1  | 1               | 1               | 2               | 2               | 2               | 2               |
| EVAPORATOR COIL              |           |  |                 |                 |                 |                 |                 |                 |
| Tube Size OD                 | in        | 3/8  | 3/8             | 3/8             | 3/8             | 3/8             | 3/8             | 3/8             |
| Fins per inch                |           | 12   | 12              | 12              | 12              | 12              | 12              | 14              |
| Refrigerant Flow Control     |           | Expansion valve  | Expansion valve | Expansion valve | Expansion valve | Expansion valve | Expansion valve | Expansion valve |
| Drain Connection Size        | in        | 1  | 1               | 1               | 1               | 1               | 1               | 1               |
| Drain Connection Type        |           | Steel - MPT  | Steel - MPT     | Steel - MPT     | Steel - MPT     | Steel - MPT     | Steel - MPT     | Steel - MPT     |
| EVAPORATOR FAN               |           |  |                 |                 |                 |                 |                 |                 |
| Fan Type                     |           | Double Inlet Centrifugal with Forward Curved Wheel       |                 |                 |                 |                 |                 |                 |
| Qty                          |           | 1  | 1               | 1               | 1               | 1               | 2               | 2               |
| Drive Type                   |           | Belt drive   |                 |                 |                 |                 |                 |                 |
| Nominal Airflow <sup>2</sup> | cfm (cmh) | 2800 (4757)  | 3600 (6116)     | 4400 (7476)     | 5200 (8835)     | 6200 (10534)    | 7200 (12233)    | 8300 (14102)    |
| EVAPORATOR MOTOR             |           |  |                 |                 |                 |                 |                 |                 |
| Motor Type                   |           | Totally Enclosed-Fan Cooled, Three Phase Induction Motor |                 |                 |                 |                 |                 |                 |
| Qty                          |           | 1  | 1               | 1               | 1               | 1               | 1               | 1               |
| Motor hp                     | hp (kW)   | 1 (0.75)   | 2 (1.5)         | 2 (1.5)         | 3 (2.2)         | 3 (2.2)         | 3 (2.2)         | 5 (3.7)         |
| 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    |
| RLA                          |           | 1.99   | 3.66            | 3.66            | 5.08            | 5.08            | 5.08            | 8.03            |
| COMPRESSOR                   |           |  |                 |                 |                 |                 |                 |                 |
| Compressor Type              |           | Hermetic Scroll  |                 |                 |                 |                 |                 |                 |
| Qty                          |           | 1  | 1               | 1               | 2               | 1 - 1           | 2               | 2               |
| RLA                          |           | 16.4   | 19.2            | 22.1            | 16.4            | 16.4/19.2       | 19.2            | 22.1            |
| CONDENSER COIL               |           |  |                 |                 |                 |                 |                 |                 |
| Tube Size OD                 | in        | 3/8  | 3/8             | 3/8             | 3/8             | 3/8             | 3/8             | 3/8             |
| Fins per inch                |           | 12   | 12              | 12              | 12              | 12              | 12              | 14              |
| CONDENSER FAN                |           |  |                 |                 |                 |                 |                 |                 |
| Fan Type                     |           | Double Inlet Centrifugal with Forward Curved Wheel       |                 |                 |                 |                 |                 |                 |
| Qty                          |           | 1  | 2               | 2               | 2               | 2               | 2               | 2               |
| Drive Type                   |           | Belt drive   |                 |                 |                 |                 |                 |                 |
| Nominal Airflow <sup>2</sup> | cfm (cmh) | 4500 (7646)  | 5500 (9345)     | 5500 (9345)     | 8000 (13592)    | 9000 (15291)    | 10000 (16990)   | 11000 (18689)   |
| CONDENSER MOTOR              |           |  |                 |                 |                 |                 |                 |                 |
| Motor Type                   |           | Totally Enclosed-Fan Cooled, Three Phase Induction Motor |                 |                 |                 |                 |                 |                 |
| Qty                          |           | 1  | 1               | 1               | 1               | 1               | 1               | 1               |
| Motor Output                 | hp (kW)   | 2 (1.5)  | 3 (2.2)         | 3 (2.2)         | 5 (3.7)         | 5 (3.7)         | 5 (3.7)         | 7.5 (5.5)       |
| No. of Speed                 |           | 1  | 1               | 1               | 1               | 1               | 1               | 1               |
| 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    |
| RLA                          |           | 3.66   | 5.08            | 5.08            | 8.03            | 8.03            | 8.03            | 12.0            |
| FILTER                       |           |  |                 |                 |                 |                 |                 |                 |
| Type                         |           | Washable Aluminum Air Filter                             |                 |                 |                 |                 |                 |                 |
| Qty                          |           | 2  | 1 + 2           | 1 + 2           | 3               | 3               | 3               | 3               |
| DIMENSION (HxWxD)            |           |  |                 |                 |                 |                 |                 |                 |
| Crated (Shipping)            | mm        | 2083x1320x965  | 2083x1740x850   | 2083x1740x850   | 2502x1790x965   | 2502x1790x965   | 2502x2057x965   | 2502x2057x965   |
| Uncrated (Net)               | mm        | 1955x1295x965  | 1955x1700x845   | 1955x1700x845   | 2375x1765x965   | 2375x1765x965   | 2375x2030x965   | 2375x2030x965   |
| WEIGHT                       |           |  |                 |                 |                 |                 |                 |                 |
| Uncrated (Net)               | kg        | 522  | 638             | 678             | 814             | 968             | 1062            | 1070            |

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

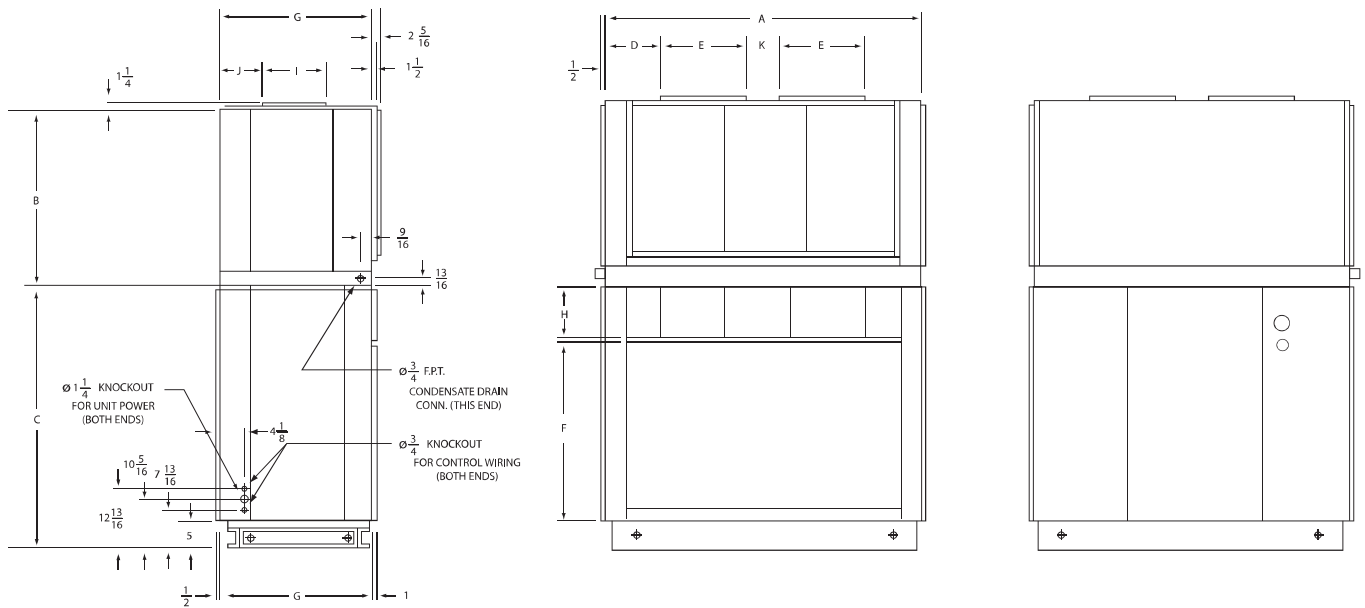
<sup>1</sup> MCA - Minimum Circuit Ampacity

<sup>2</sup> CFM is rated with standard air-dry coil

## Unit Configurations



## Feature Summary



### EVAPORATOR SECTION

For SRUB 080, 110, 130, 160, 190, with 1 Evaporator Blower.  
Except SRUB 220, 250 with 2 Evaporator Blowers.

### CONDENSING SECTION

For SRUB 110, 130, 190, 220, 250 with 2 Condenser Blowers.  
Except SRUB 080 with 1 Condenser Blower.

| MODEL        | A      | B      | C  | D       | E      | F       | G       | H  | I      | J     | K      |
|--------------|--------|--------|----|---------|--------|---------|---------|----|--------|-------|--------|
| SRUB 080     | 50 1/2 | 29 1/2 | 54 | 16 1/16 | 18 7/8 | 29 1/8  | 36 7/16 | 9  | 13 7/8 | 7 1/2 | -      |
| SRUB 110/130 | 67     | 29 1/2 | 47 | 24 1/16 | 18 7/8 | 29 1/8  | 31 3/4  | 9  | 13 7/8 | 7 1/2 | -      |
| SRUB 160/190 | 69     | 34 3/4 | 58 | 25 1/16 | 18 7/8 | 39 1/16 | 36 3/4  | 10 | 16 1/4 | 9 7/8 | -      |
| SRUB 220/250 | 79 1/2 | 34 3/4 | 58 | 17 1/16 | 16     | 39 1/16 | 36 1/4  | 10 | 16 1/4 | 8 7/8 | 13 3/8 |

Note: All dimensional data are in inch.

## PRODUCT SPECIFICATIONS

### EVAPORATOR SECTION

- Convertible horizontal or vertical air discharge.
- Evaporator coil with leak tested.
- Single refrigeration circuit for SRUB 080-130.
- Dual refrigeration circuits for SRUB 160-250.
- Thermal expansion valve(s), factory installed.
- Double inlet, double width, forward curve, centrifugal type evaporator fan(s) with adjustable belt drive.
- Thermal overload protection for evaporator fan motor.
- Completely insulated with fire-retardant, fire retardant polyethylene foam.
- 1" aluminum cleanable filter.

### CONDENSING SECTION

- Single compressor for SRUB 080-130.
- Dual compressors for SRUB 160-250 with 2- step capacity control.
- Filter driers and service valves.
- Factory leak tested at 400 psig air pressure.
- Copper tube, aluminum plate fin coil with integral subcooled circuit.
- Suction gas cooled, temperature and current-sensitive motor overload for compressor motor.
- Double inlet, double width, forward curve, centrifugal type fan(s) with belt drive.
- Build in current and thermal overload protection or condenser fan motors.
- External high and low pressure cut-out devices.
- Completely factory wired with 220 volt control circuit.
- Plus or minus 10 percents of name plate voltage for utilization range.



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