

# SELF-CONTAINED R-22

Water Cooled Air Conditioners 5-20 Tons SWUT R22 Series 50Hz







## Self-Contained Water Cooled Air Conditioner :



### **Quality And Reliability**

- Scroll compressors are available from 5 to 20 tons with excellent reliability and high efficiency.
- Dual compressors and independent circuits are standard in the SWUT 180 and SWUT 240 models.
- All units are 100 percent run tested prior to leaving the production line.

## **Maximum Efficiency**

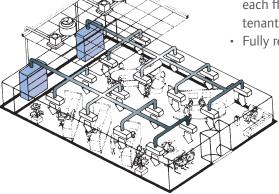
- Lower noise operation and higher efficiency with the new generation higher EER Scroll Compressor.
- 64% fewer parts than a comparable capacity reciprocation compressor.
- Single rotating assembly minimizes the friction and mechanical losses.
- Smooth operation, similar to a centrifugal compressor, 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.

## Economical Operations Especially For Tenant Building

- Complete HVAC system on each floor minimizes tenant inconvenience during routine maintenance.
- Floor-by-floor system control results in energy savings especially for the off peak operation or after working hours. Because of this feature, the annually energy consumption can be better than a central chilled water system.

### Low First Cost Compared To A Central System

- Complete factory assembly reduces the field labor, installation time and costs.
- Minimized need and cost for fire dampers and airshafts.
- Large equipment rooms and penthouses are not needed.
- Condenser water is available for each floor to the computerized tenant systems.
- Fully refrigerant charge R22.



### System Performance Matrix

Model	Nominal	Capacity	in MBH	Condenser	Pressure Drop		
Model	CFM	Total	Sensible	GPM	Foot of Water		
SWUT060 D	2,200	61.5	46.7	15.7	16.1		
SWUT090 D	3,300	93.5	70.2	23.9	12.2		
SWUT120 D	4,400	120.0	88.6	30.5	16.7		
SWUT180 D	6,600	185.8	141.6	48.2	13.9		
SWUT240 D	8,800	240.0	179.8	61.1	18.5		

Note: 1. Matched system ratings are pre ARI condition. Full load ratings are at 90°F entering condenser water 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.



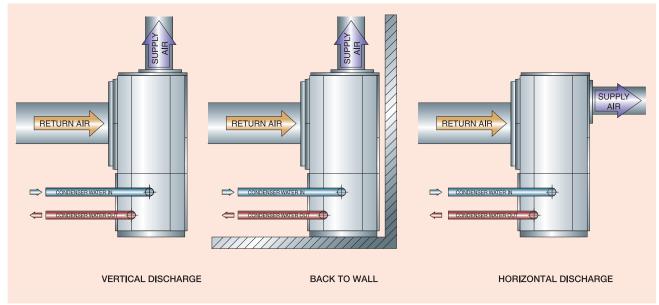
## **General Data**

UNIT MODELS		SWUT060D	SWUT090D	SWUT120D	SWUT180D	SWUT240D				
POWER CONNECTION	V/ph/Hz	380-415/3/50	380-415/3/50	380 <b>-</b> 415/3/50	380-415/3/50	380-415/3/50				
MCA <sup>1</sup>	A	14.5	23.6	27.7	44.0	51,2				
SYSTEM DATA										
Refrigerant Type				R22						
No. Refrigerant Circuits		1	1	1	2	2				
EVAPORATOR COIL										
Tube Size OD	in	3/8	3/8	3/8	3/8	3/8				
Fins per inch		12	12	12	12	12				
Refrigerant Flow Control				Expansion Valve						
Drain Connection Size	in	3/4"	3/4"	3/4"	3/4"	3/4"				
Drain Connection Type				Steel - MPT						
EVAPORATOR FAN										
Fan Type			Double Inlet C	entrifugal with Forward	Curved Wheel					
Qty		1	1	1	2	2				
Drive Type				Belt drive	_	_				
Nominal Airflow	cfm (cmh)	2200 (3738)	3300 (5607)	4400 (7476)	6600 (11213)	8800 (14951)				
EVAPORATOR MOTOR		2200 (0700)	0000 (0001)	4400 (1410)	0000 (11210)	0000 (14001)				
Motor Type	Totally Enclosed-Fan Cooled, Three Phase Induction Motor									
Qty		1	1	1	1	1				
Motor Output	hp (kW)	1 (0.75)	1 (0.75)	2 (1,5)	3 (2.2)	5.5(4.0)				
No, of Speed	np ((()))	1	1	1	1	1				
Motor Speed	rpm	1400	1400	1405	1425	1440				
V/ph/Hz	ipin	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50				
RLA		2,0	2.0	3.67	4.90	8.56				
COMPRESSOR		210	210	0.07	4,50	0.00				
Compressor Type				Hermetic Scrol						
Qty		1	1	1	2	2				
V/ph/Hz		380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50				
RLA		10,0	17,3	19,2	17,3	19,2				
CONDENSER						. 512				
Condenser Type				Tube in Tube						
Qty		1	2	2	4	4				
Water Connection Size	in	1 1/4	1 1/2	1 1/2	2	2				
Water Connection Type			1 1/2	Steel - MPT	-	-				
FILTER				0.000						
Туре			Wa	shable Aluminum Air Fi	Iter					
Qty		2	2	4	6	9				
DIMENSION (HxWxD)		-	-		•	-				
Uncrated (Net)	mm	1335 x 1022 x 868	1360 x 1429 x 1045	1545 x 1429 x 1045	1588 x 1670 x 1067	1930 x 1670 x 1067				
WEIGHT		1000 X 1022 X 000	1000 × 1420 × 1040	10-10 / 1-20 / 1040	1000 X 1070 X 1007	1000 X 1070 X 1007				
Uncrated (Net)	kg	190	288	329	494	604				
Unionaled (Net)	ng	130	200	020	404	004				

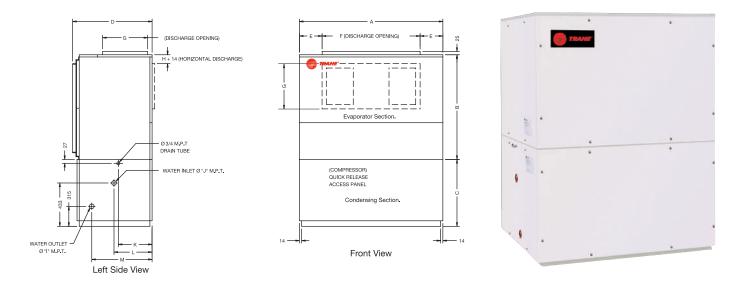
Note : Product design and specification are subject to change without notice.

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

## **Unit Configurations**



## **Feature Summary**



## **Evaporator Section**

For SWUT 060, 090, 120 have 1 evaporator blower, except SWUT 180, 240 have 2 evaporator blowers.

N	MODEL	Α	В	С	D	Е	F	G	н	ØI	ØJ	К	L	М
SV	VUT060D	1,022	687	622	868	342	338	292	54	1 1/4"	1 1/4"	416	309	503
SV	VUT090D	1,429	687	648	1,045	508	411	406	54	1 1/2"	1 1/2"	503	309	500
SV	VUT120D	1,429	872	648	1,045	475	478	406	54	1 1/2"	1 1/2"	503	309	500
SV	VUT180D	1,670	914	648	1,067	137	1,394	413	59	2"	2"	508	309	503
SV	VUT240D	1,670	1,257	648	1,067	137	1,394	413	59	2"	2"	508	309	503

Note: All dimensional data are in mm. unless otherwise specified.

## PRODUCT SPECIFICATIONS EVAPORATOR SECTION

- Convertible horizontal and vertical air discharge.
- Evaporator coil with leak tested.
- Single refrigeration circuits for SWUTO60D—120D.
- Dual refrigeration circuit for SWUT180D-240D.
- Thermal expansion valve(s), factory installed.
- Double inlet, double width, forward curve, centrifugal type. Evaporator fan(s) with adjustable belt drive.
- Thermal overload protection on evaporator fan motor.
- Completely insulated with fire—retardant, polyethylene foam.
- 1 inch aluminium cleanable filter.



## **CONDENSING SECTION**

- Single compressor for SWUT060D-120D.
- Dual compressors for SWUT180D—240D with 2-step capacity control.
- Filter driers and access valves.
- Tube in tube condenser.
- Suction gas cooled temperature and current—sensitive motor. Overload for compressor motor.
- 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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