



SELF-CONTAINED



Water Cooled Air Conditioners 5-20 Tons
SWUT R407C Series 50Hz

TRANE
TECHNOLOGIES





Self-Contained Air conditioners: Water-Cooled

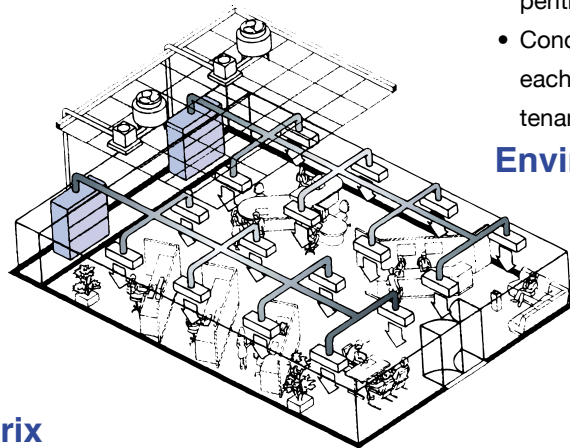


Quality And Reliability

- 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.

Environmentally-Friendly

- Apply with R407C compressor which has zero ozone depletion help protect the environment.



System Performance Matrix

Model	Nominal CFM	Capacity in MBH		Condenser GPM	Pressure Drop Foot of Water
		Total	Sensible		
SWUT060D0A	2,200	61.5	46.7	15.7	16.1
SWUT090D0A	3,300	93.5	70.2	23.9	12.2
SWUT120D0A	4,400	120.0	88.6	30.5	16.7
SWUT180D0A	6,600	185.8	141.6	48.2	13.9
SWUT240D0A	8,800	240.0	179.8	61.1	18.5

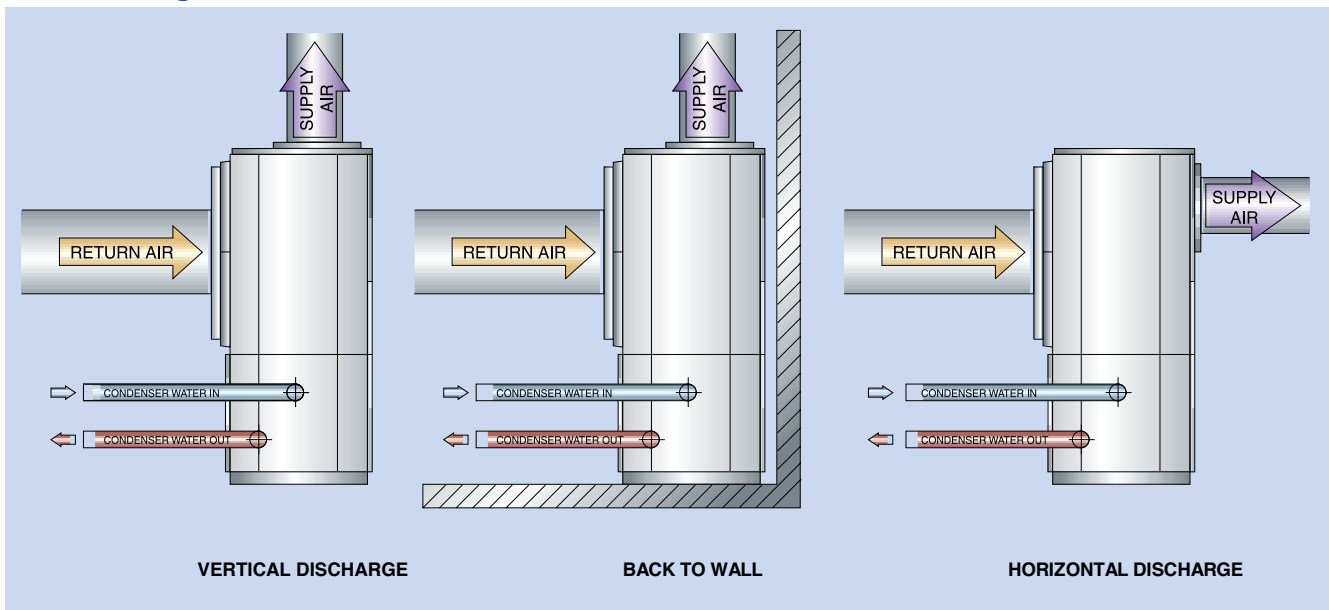
- Note :**
1. Matched system ratings are pre ARI condition. Full load ratings are at 90°F entering condenser water temperature, and 80/67° air dry bulb/wet bulb entering the air handler coil.
 2. Evaporator fan power accounts for ARI condition required external static pressure, and losses associated with air filters, casing and wet evaporator coil pressure drop.

General Data

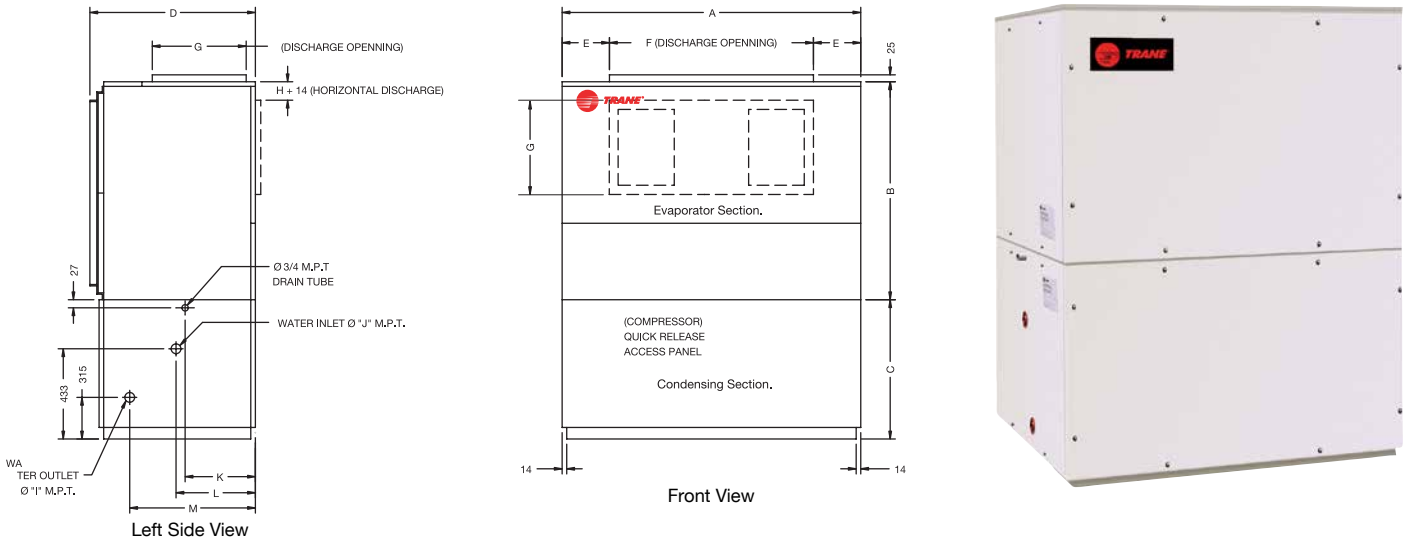
UNIT MODELS		SWUT060D0A	SWUT090D0A	SWUT120D0A	SWUT180D0A	SWUT240D0A	
POWER CONNECTION		V/ph/H	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	
MCA ¹		A	14.5	21.6	29.6	40.4	54.6
SYSTEM DATA							
Refrigerant Type				R407C			
No. Refrigerant Circuits		1	1	1	2	2	
EVAPORATOR COIL							
Rows		3	3	3	4	4	
Fins per inch		12	12	12	12	12	
Refrigerant Flow Control				Expansion Valve			
Drain Connection Size		in (mm)	3/4" (19.05)	3/4" (19.05)	3/4" (19.05)	3/4" (19.05)	
Drain Connection Type				Steel - MPT			
EVAPORATOR FAN							
Fan Type		Double Inlet Centrifugal with Forward Curved Wheel					
QTY		1	1	1	2	2	
Diameter		in (mm)	10 (254.0)	15 (381.0)	15 (381.0)	15 (381.0)	
Width		in (mm)	10 (254.0)	12 (304.8)	12 (304.8)	15 (381.0)	
Drive Type		Belt - adjustable drive					
Nominal Airflow		cfm (cmh)	2200 (3738)	3300 (5607)	4400 (7476)	6600 (11213)	8800 (14951)
EVAPORATOR MOTOR							
Motor Type		Totally Enclosed-Fan Cooled, Three Phase Induction Motor					
QTY		1	1	1	1	1	
Motor hp		hp (kW)	1 (0.75)	1 (0.75)	2 (1.5)	3 (2.2)	5 (3.7)
No. of Speed		1	1	1	1	1	
Motor Speed		rpm	1420	1420	1420	1420	1430
V/ph/Hz		380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	
RLA/LRA		2.0/11.0	2.0/11.0	3.7/21.0	5.1/34.0	8.0/63.0	
COMPRESSOR							
Compressor Type		Hermetic Scroll					
QTY		1	1	1	2	2	
V/ph/Hz		380-420/3/50	380-420/3/50	380-420/3/50	380-420/3/50	380-420/3/50	
RLA/LRA (each)		10.0/67.0	17.3/144.0	19.2/125.0	17.3/144.0	19.2/125.0	
CONDENSER							
Condenser Type		Tube-in-Tube					
QTY		1	2	2	4	4	
Water Connection Size		in (mm)	1 1/4 (31.8)	1 1/2 (38.1)	1 1/2 (38.1)	2 (50.8)	2 (50.8)
Water Connection Type		Steel - MPT					
FILTER							
Type		Washable Aluminum Air Filter					
QTY		2	2	4	6	9	
Size (WxLxD)		in	16 x 25 x 1	25 x 25 x 1	16 x 25 x 1	17 x 20 x 1	16 x 20 x 1
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							
Uncrated (Net)		lb (kg)	418.9 (190)	634.9 (288)	725.3 (329)	1089.1 (494)	1331.6 (604)

¹MCA - Minimum Circuit Ampacity

Unit Configurations



Feature Summary



Evaporator Section

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

MODEL	A	B	C	D	E	F	G	H	ØI	ØJ	K	L	M
SWUT060D	1,022	687	622	868	342	338	292	54	1 1/4"	1 1/4"	416	309	503
SWUT090D	1,429	687	648	1,045	508	411	406	54	1 1/2"	1 1/2"	503	309	500
SWUT120D	1,429	872	648	1,045	475	478	406	54	1 1/2"	1 1/2"	503	309	500
SWUT180D	1,670	914	648	1,067	137	1,394	413	59	2"	2"	508	309	503
SWUT240D	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 SWUT060D-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.
- 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, sight glasses and access valves.
- Tube-in-Tube condenser.
- Suction gas cooled temperature and current-sensitive motor. Overload for compressor motor.
- 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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