



SELF CONTAINED

Water-Cooled Air Conditioners

SWUT model 50 Hz
5-20 Tons





Self-Contained Air conditioners: Water-Cooled



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

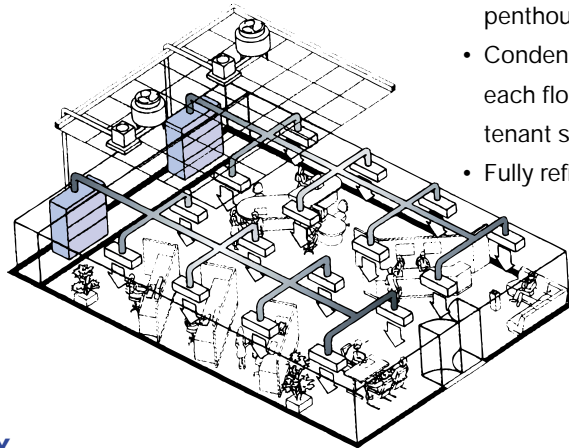
- Complete HVAC system on each floor minimizes tenant inconvenience during routine maintenance.
- Floor-by-floor system control results in energy savings especially for the off peak operation or after working hours. Because of this feature, the annually energy consumption can be better than a central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

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.



System Performance Matrix

Model	Nominal CFM	Capacity in MBH		Condenser GPM	Pressure Drop Foot of Water
		Total	Sensible		
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

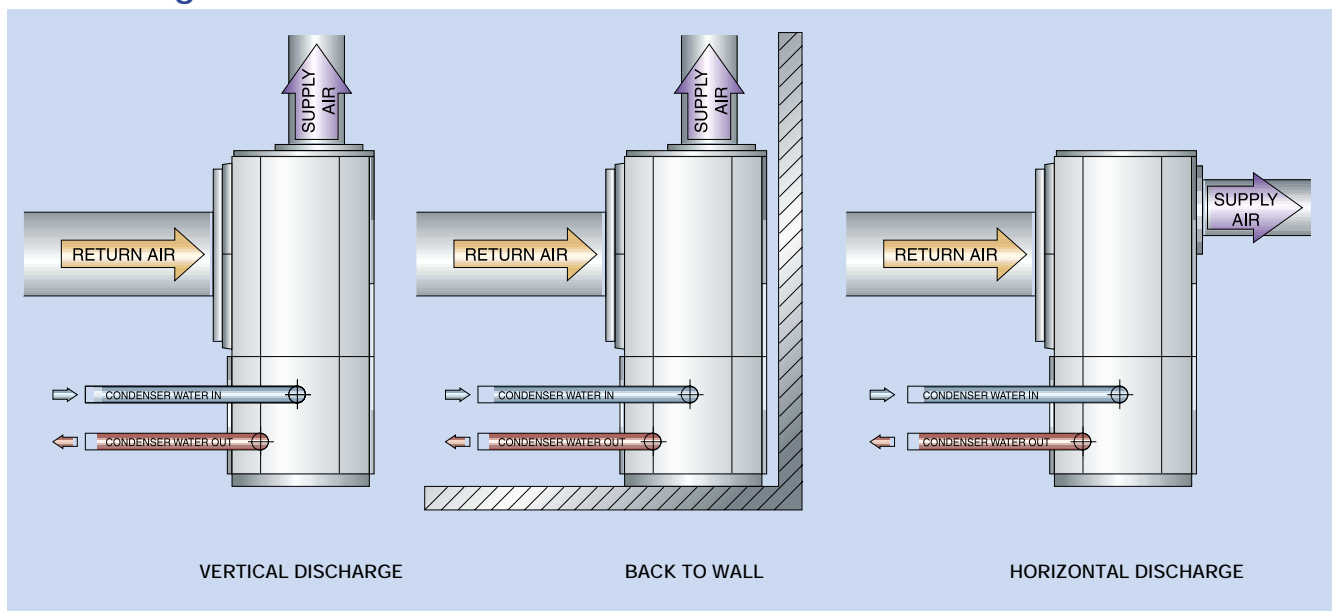
Note : 1. Matched system ratings are pre ARI condition. Full load ratings are at 90°F entering condenser water temperature, and 80/67° air dry bulb/wet bulb entering the air handler coil.
2. Evaporator fan power accounts for ARI condition required external static pressure, and losses associated with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

General Data

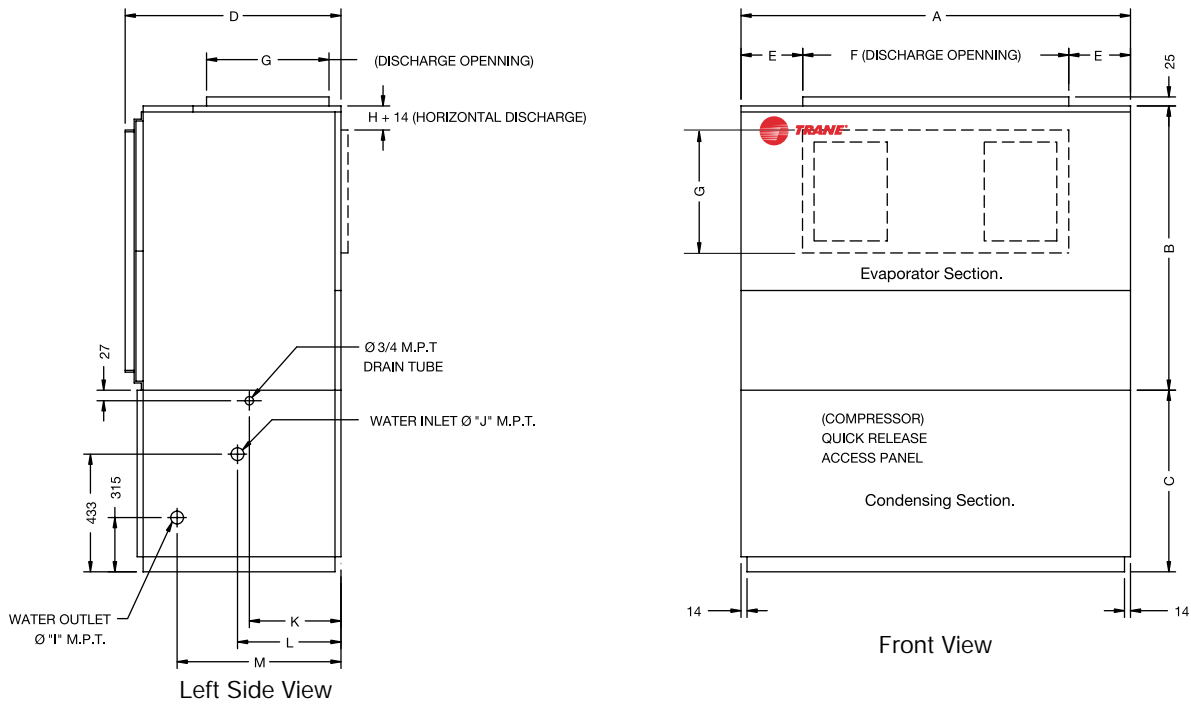
UNIT MODELS		SWUT060D00BA	SWUT090D00BA	SWUT120D00BA	SWUT180D00BA	SWUT240D00BA
POWER CONNECTION	V/ph/Hz	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50	380-415/3/50
MCA ¹	A	14.5	23.6	27.7	44.0	51.2
SYSTEM DATA						
Refrigerant Type		R22				
No. Refrigerant Circuits		1	1	1	2	2
EVAPORATOR COIL						
Face Area	sq ft (m ²)	5.00 (0.465)	7.67 (0.712)	10.22 (0.950)	13.00 (1.206)	18.33 (1.703)
Tube Size OD	in (mm)	3/8 (9.53)	3/8 (9.53)	3/8 (9.53)	3/8 (9.53)	3/8 (9.53)
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				
No. used		1	1	1	2	2
Diameter	in (mm)	10 (254.0)	15 (381.0)	15 (381.0)	15 (381.0)	15 (381.0)
Width	in (mm)	10 (254.0)	12 (304.8)	15 (381.0)	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				
No. of Motor		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				
No. Used		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		10.0/74.0	17.3/114.0	19.2/125.0	17.3/114.0	19.2/125.0
CONDENSER						
Condenser Type		Tube in Tube				
No. Used		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				
No. used		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.
- 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, sight glasses 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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