



# Product Bulletin

---

## WATER-COOLED SELF-CONTAINED

AIR CONDITIONERS 5-20 TONS

SWUT MODEL 50 Hz



### Models

SWUT060 D

SWUT090 D

SWUT120 D

SWUT180 D

SWUT240 D

---

July 2003

SWU5-PRC001-EN



# Contents

---

System Performance Matrix	4
Model Nomenclature	4
Applications Consideration	5
Water Pressure Drop Chart	5
General Data	6
Performance Data	7
Evaporator Fan Performance Data 5 Tons	10
Evaporator Fan Performance Data 7.5 Tons	11
Evaporator Fan Performance Data 10 Tons	12
Evaporator Fan Performance Data 15 Tons	13
Evaporator Fan Performance Data 20 Tons	14
Wiring Diagram SWUT 060, 090, 120 D	15
Wiring Diagram SWUT 180, 240 D	18
Dimensional Data	21
Mechanical Specifications	26



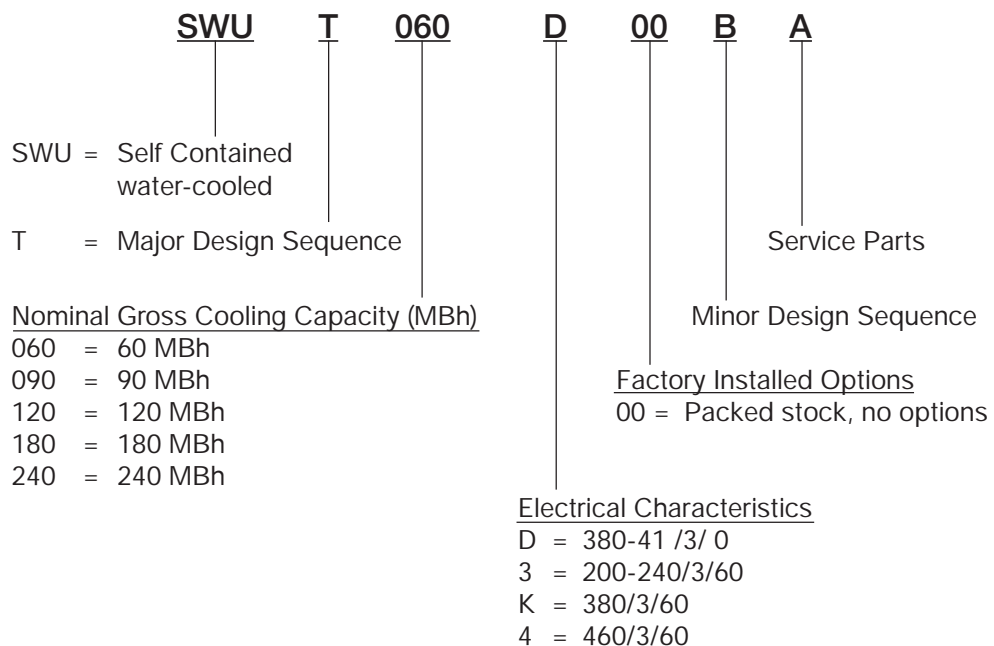
# System Performance

## System Performance Matrix

Model	Nominal CFM	Capacity in MBH		Condenser GPM	Pressure Drop Foot of Water
		Total	Sensible		
SWUT060 D	2200	61.5	46.7	15.7	16.1
SWUT090 D	3300	93.5	70.2	23.9	12.2
SWUT120 D	4400	120.0	88.6	30.5	16.7
SWUT180 D	6600	185.8	141.6	48.2	13.9
SWUT240 D	8800	240.0	179.8	61.1	18.5

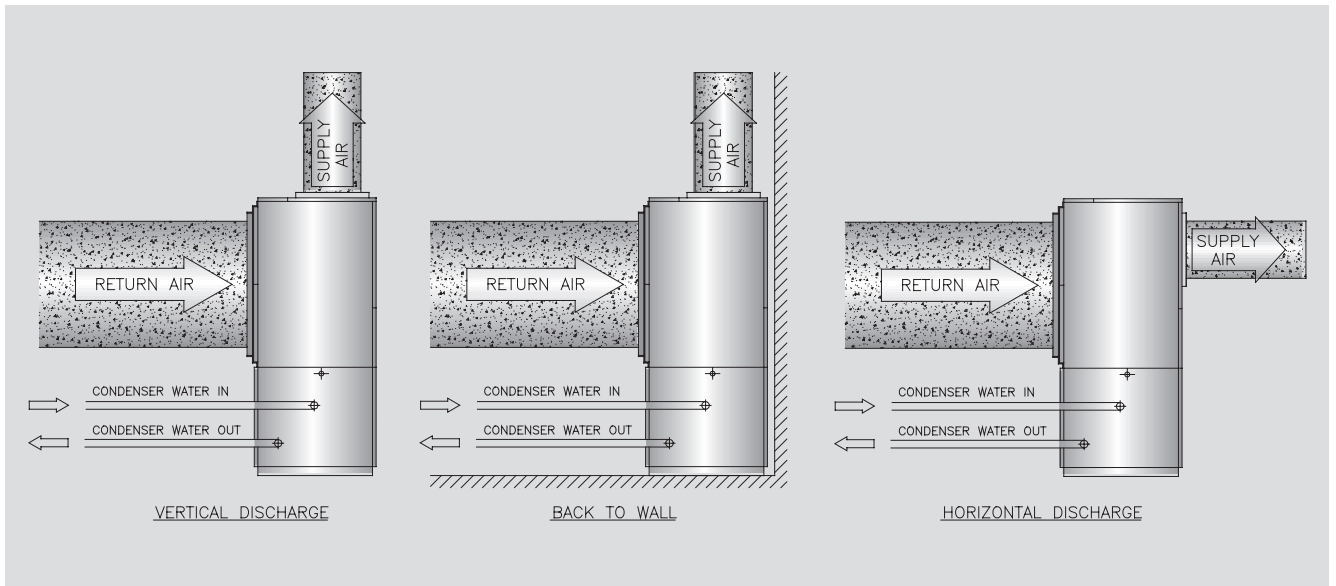
- Note :**
1. Matched system ratings are pre ARI condition. Full load ratings are at 90 F entering condenser water temperature, and 80/67' air dry bulb/wet bulb entering the air handler coil.
  2. Evaporator fan power accounts for ARI condition required external static pressure, and losses associated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

## Model Nomenclature

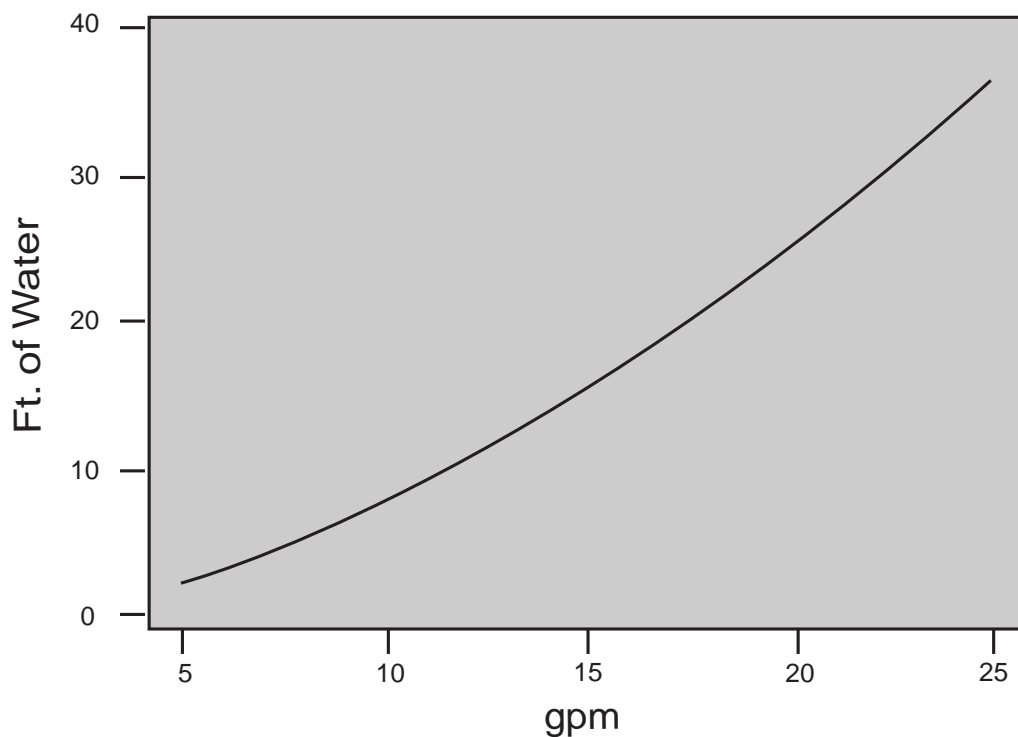


# Applications Consideration

## Unit Configurations



## Water Pressure Drop Chart





# General Data

# 50 Hz

## General Data

UNIT MODELS		SWUT060D00BA	SWUT090D00BA	SWUT120D00BA	SWUT180D00BA	SWUT240D00BA
<b>POWER CONNECTION</b>	V/ph/Hz	380-415/1/50	380-415/1/50	380-415/1/50	380-415/1/50	380-415/1/50
<b>MCA<sup>1</sup></b>	A	14.3	23.4	27.3	43.7	50.7
<b>SYSTEM DATA</b>						
Refrigerant Type		R22	R22	R22	R22	R22
No. Refrigerant Circuits		1	1	1	2	2
<b>EVAPORATOR COIL</b>						
Face Area	sq ft (m2)	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	Expansion Valve	Expansion Valve	Expansion Valve	Expansion Valve
Drain Connection Size	in (mm)	3/4" (19.05)	3/4" (19.05)	3/4" (19.05)	3/4" (19.05)	3/4" (19.05)
Drain Connection Type		Steel - MPT	Steel - MPT	Steel - MPT	Steel - MPT	Steel - MPT
<b>EVAPORATOR FAN</b>						
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 <sup>2</sup>	cfm (cmh)	2200 (3738)	3300 (5607)	4400 (7476)	6600 (11213)	8800 (14951)
<b>EVAPORATOR MOTOR</b>						
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		1.8/10.0	1.8/10.0	3.3/19.0	4.8/28.0	7.5/50.0
<b>COMPRESSOR</b>						
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
<b>CONDENSER</b>						
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	Steel - MPT	Steel - MPT	Steel - MPT	Steel - MPT
<b>FILTER</b>						
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
<b>DIMENSION (HxWxD)</b>						
Uncrated (Net)	mm	1335x1022x868	1360x1429x1045	1545x1429x1045	1588x1670x1067	1930x1670x1067
<b>WEIGHT</b>						
Uncrated (Net)	lb (kg)	418.9 (190)	634.9 (288)	725.3 (329)	1089.1 (494)	1331.6 (604)

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

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







# Performance Data

**Table 5 SWUT240 Cooling Performance Data**

CFM.	ENT.	CONDENSER LEAVING WATER TEMPERATURE (DELTA T = 10 °F)																													
		90 °F						95 °F						100 °F						105 °F						110 °F					
		WB.		TC	GPM	KW	SC. @ ENT. DB.			TC	GPM	KW	SC. @ ENT. DB.			TC	GPM	KW	SC. @ ENT. DB.			TC	GPM	KW	SC. @ ENT. DB.						
		(°F)					72	76	80				72	76	80				72	76	80				72	76	80	72	76	80	
6400	61	207.7	52.9	13.29	150.9	176.6	196.0	204.8	52.7	13.9	149.9	175.5	195.2	202.0	52.5	14.42	148.9	174.4	194.4	197.8	52.1	15.1	146.1	171.3	190.4	193.6	51.7	15.73	143.2	168.2	186.4
	65	224.3	56.6	13.84	125.0	150.7	176.3	221.0	56.3	14.4	123.8	149.5	175.1	217.8	56.1	15.00	122.6	148.3	173.9	213.5	55.7	15.7	120.0	145.7	171.2	209.2	55.3	16.32	117.5	143.1	168.6
	67	232.8	58.5	14.10	111.4	137.2	162.8	229.4	58.2	14.7	109.9	135.8	161.4	225.9	57.9	15.31	108.5	134.4	160.1	221.7	57.5	16.0	106.2	131.9	157.5	217.5	57.1	16.63	104.0	129.3	154.9
	71	250.2	62.4	14.68	83.1	108.8	134.8	246.5	62.1	15.3	82.1	107.7	133.7	242.8	61.7	15.91	81.1	106.6	132.7	237.9	61.2	16.6	85.0	104.2	130.1	232.9	60.7	17.28	88.9	101.7	127.4
7200	61	212.0	53.9	13.45	157.1	183.9	204.1	209.1	53.7	14.0	156.1	182.7	203.2	206.2	53.5	14.60	155.1	181.6	202.4	201.9	53.1	15.3	152.1	178.3	198.2	197.6	52.7	15.92	149.1	175.1	194.0
	65	229.0	57.6	14.01	130.1	156.9	183.5	225.6	57.4	14.6	128.9	155.7	182.3	222.3	57.1	15.18	127.6	154.4	181.0	218.0	56.7	15.8	125.0	151.7	178.3	213.6	56.3	16.52	122.3	149.0	175.5
	67	237.7	59.6	14.27	115.9	142.8	169.5	234.1	59.3	14.9	114.5	141.4	168.1	230.6	59.0	15.50	113.0	139.9	166.6	226.3	58.6	16.2	110.6	137.3	163.9	222.0	58.2	16.83	108.2	134.7	161.3
	71	255.4	63.5	14.86	86.6	113.3	140.3	251.6	63.2	15.5	85.5	112.1	139.2	247.9	62.9	16.10	84.4	111.0	138.2	242.8	62.4	16.8	88.5	108.5	135.4	237.8	61.8	17.50	92.6	105.9	132.6
8000	61	216.4	54.8	13.58	163.3	191.1	212.1	213.4	54.6	14.2	162.2	189.9	211.3	210.4	54.4	14.74	161.2	188.7	210.4	206.0	54.0	15.4	158.1	185.4	206.0	201.7	53.6	16.08	155.0	182.0	201.7
	65	233.6	58.7	14.15	135.3	163.1	190.8	230.2	58.4	14.7	134.0	161.8	189.5	226.9	58.1	15.34	132.7	160.5	188.2	222.4	57.7	16.0	129.9	157.7	185.3	217.9	57.3	16.68	127.2	154.9	182.5
	67	242.5	60.7	14.42	120.5	148.5	176.2	238.9	60.4	15.0	119.0	147.0	174.7	235.3	60.1	15.65	117.4	145.5	173.2	230.9	59.6	16.3	115.0	142.7	170.4	226.6	59.2	17.00	112.5	140.0	167.6
	71	260.6	64.7	15.01	90.0	117.7	145.9	256.8	64.4	15.6	88.9	116.6	144.7	252.9	64.0	16.27	87.8	115.4	143.6	247.8	63.5	17.0	92.0	112.8	140.8	242.6	62.9	17.67	96.2	110.1	137.9
8800	61	220.7	55.8	13.72	169.5	198.4	220.2	217.7	55.6	14.3	168.4	197.2	217.7	214.6	55.4	14.89	167.3	195.9	214.6	210.2	54.9	15.6	164.1	192.4	210.2	205.7	54.5	16.24	160.9	188.9	205.7
	65	238.3	59.7	14.29	140.4	169.3	198.0	234.9	59.4	14.9	139.1	168.0	196.7	231.4	59.2	15.49	137.7	166.6	195.3	226.9	58.7	16.2	134.9	163.7	192.4	222.3	58.3	16.85	132.0	160.8	189.4
	67	247.4	61.7	14.56	125.1	154.1	182.9	243.7	61.4	15.2	123.5	152.6	181.4	240.0	61.1	15.81	121.9	151.0	179.8	235.6	60.7	16.5	119.4	148.2	176.9	231.1	60.2	17.17	116.8	145.3	174.0
	71	265.8	65.8	15.16	93.4	122.2	151.4	261.9	65.5	15.8	92.3	121.0	150.3	258.0	65.1	16.43	91.1	119.8	149.1	252.8	64.6	17.1	95.5	117.1	146.1	247.5	64.0	17.85	99.9	114.3	143.1
9600	61	225.0	56.7	13.83	175.7	205.7	225.0	221.9	56.5	14.4	174.6	204.4	221.9	218.8	56.3	15.01	173.4	203.1	218.8	214.3	55.8	15.7	170.1	199.4	214.3	209.7	55.4	16.37	166.8	195.8	209.7
	65	243.0	60.7	14.40	145.5	175.5	205.2	239.5	60.4	15.0	144.1	174.1	203.8	235.9	60.2	15.61	142.7	172.7	202.4	231.3	59.7	16.3	139.8	169.7	199.4	226.7	59.2	16.98	136.8	166.7	196.3
	67	252.3	62.8	14.68	129.7	159.7	189.6	248.5	62.5	15.3	128.0	158.1	188.0	244.7	62.1	15.94	126.4	156.5	186.4	240.2	61.7	16.6	123.7	153.6	183.4	235.6	61.3	17.31	121.1	150.6	180.4
	71	271.0	67.0	15.28	96.8	126.7	156.9	267.0	66.6	15.9	95.6	125.4	155.8	263.1	66.3	16.56	94.4	124.2	154.6	257.7	65.7	17.3	99.0	121.3	151.4	252.4	65.1	17.99	103.6	118.5	148.3



# Evaporator Fan Performance Data

# 5 Tons

**Table 6 Evaporator Fan Performance 5 Tons SWUT 060 D**

External Static Pressure (Inches of Water Gauge)																												
		0.1"		0.2"		0.3"		0.4"		0.5"		0.6"		0.7"		0.8"		0.9"		1.0"		1.1"		1.2"				
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP		
1 HP Standard Motor																												
1600	619	0.26	674	0.30	729	0.34	781	0.39	831	0.43	881	0.46	929	0.51	976	0.56	1023	0.60	1069	0.66	1114	0.72	1158	0.78				
1800	678	0.36	731	0.41	780	0.45	827	0.50	873	0.54	918	0.59	962	0.64	1006	0.69	1049	0.74	1091	0.79	1132	0.84	1172	0.89				
2000	736	0.48	785	0.53	831	0.58	875	0.63	917	0.68	958	0.73	999	0.78	1040	0.83	1079	0.89	1118	0.94	1157	0.99	1195	1.05				
2200	793	0.61	839	0.68	882	0.73	923	0.79	963	0.84	1001	0.89	1039	0.94	1076	1.00	1113	1.05	1150	1.11	1186	1.18	1221	1.23				
2400	853	0.79	896	0.85	937	0.91	976	0.96	1013	1.03	1049	1.09	1085	1.14	1120	1.20	1153	1.26	1188	1.33	1221	1.39	1255	1.45				
2 HP Oversized Motor																												

**NOTE:**

Trane's factory supplied this standard product rated at 2000 CFM, and 0.3 inches of water for external static pressure.

Shaded areas indicate over efficient operating range.

Data include pressure drop due to wet coil and filter.

# Evaporator Fan Performance Data

# 7.5 Tons

**Table 7 Evaporator Fan Performance 7.5 Tons SWUT 090 D**

																										External Static Pressure (Inches of Water Gauge)																							
		0.1"		0.2"		0.3"		0.4"		0.5"		0.6"		0.7"		0.8"		0.9"		1.0"		1.1"		1.2"																									
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP																							
1 HP Standard Motor																																																	
2400	391	0.33	436	0.39	478	0.45	518	0.51	555	0.58	591	0.65	625	0.71	658	0.77	690	0.84	720	0.93	-	-	-	-	-	-	-	-																					
2700	423	0.44	465	0.50	504	0.58	541	0.64	576	0.71	609	0.79	642	0.86	673	0.94	703	1.01	732	1.09	761	1.18	788	1.27	817	1.36	841	1.44																					
3000	462	0.59	501	0.66	537	0.74	571	0.81	604	0.89	636	0.98	666	1.05	696	1.14	724	1.21	752	1.30	779	1.39	805	1.49	831	1.58	856	1.67																					
3300	496	0.75	532	0.83	566	0.91	598	1.00	629	1.09	659	1.16	688	1.25	716	1.35	744	1.44	770	1.53	796	1.61	822	1.71	847	1.80	871	1.89																					
3600	533	0.95	566	1.04	598	1.13	628	1.21	658	1.31	686	1.40	714	1.50	740	1.59	766	1.69	792	1.79	817	1.89	841	1.99	865	2.08	889	2.17																					
2 HP Oversized Motor																																																	

**NOTE:**

Trane's factory supplied this standard product rated at 3000 CFM, and 0.3 inches of water for external static pressure.

Shaded areas indicate over efficient operating range.

Data include pressure drop due to wet coil and filter.



# Evaporator Fan Performance Data

# 10 Tons

**Table 8 Evaporator Fan Performance 10 Tons SWUT 120 D**

		External Static Pressure (Inches of Water Gauge)																										
		0.1"		0.2"		0.3"		0.4"		0.5"		0.6"		0.7"		0.8"		0.9"		1.0"		1.1"		1.2"				
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP		
3200	406	0.49	449	0.55	491	0.63	531	0.71	567	0.79	602	0.88	635	0.95	667	1.04	698	1.13	728	1.23	757	1.33	785	1.43				
3600	442	0.66	480	0.74	519	0.81	555	0.90	590	0.99	624	1.09	655	1.18	685	1.26	714	1.36	743	1.46	771	1.56	798	1.66				
4000	485	0.89	519	0.98	553	1.06	588	1.15	620	1.25	652	1.35	682	1.45	711	1.55	739	1.65	766	1.75	792	1.86	818	1.96				
4400	524	1.15	554	1.24	585	1.34	616	1.44	647	1.54	677	1.65	706	1.75	734	1.86	761	1.98	787	2.09	812	2.20	837	2.31				
4800	565	1.48	592	1.56	620	1.66	649	1.78	667	1.88	706	2.00	733	2.11	760	2.23	786	2.35	811	2.46	836	2.59	859	2.71				
3 HP Oversized Motor																												

**NOTE:**

Trane's factory supplied this standard product rated at 4000 CFM, and 0.5 inches of water for external static pressure.

Shaded areas indicate over efficient operating range.

Data include pressure drop due to wet coil and filter.

(Continued)

		External Static Pressure (Inches of Water Gauge)									
		1.3"		1.4"		1.5"		1.6"		1.7"	
CFM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2 HP Standard Motor											
3200	813	1.53	-	-	-	-	-	-	-	-	-
3600	825	1.76	851	1.86	877	1.97	902	2.09	-	-	-
4000	843	2.08	868	2.19	892	2.30	917	2.41	940	2.52	-
4400	861	2.43	884	2.54	908	2.66	930	2.78	953	2.90	-
4800	883	2.83	905	2.95	-	-	-	-	-	-	-
3 HP Oversized Motor											

# Evaporator Fan Performance Data

# 15 Tons

**Table 9 Evaporator Fan Performance 15 Tons SWUT 180 D**

External Static Pressure (Inches of Water Gauge)																												
		0.1"		0.2"		0.3"		0.4"		0.5"		0.6"		0.7"		0.8"		0.9"		1.0"		1.1"		1.2"				
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP		
3 HP Standard Motor																												
4800	449	0.81	490	0.94	529	1.06	566	1.20	601	1.33	635	1.48	668	1.62	701	1.76	733	1.90	765	2.04	796	2.18	-	-	-	-	-	-
5400	492	1.10	530	1.24	565	1.39	599	1.53	632	1.68	664	1.83	694	1.98	724	2.14	752	2.30	779	2.46	805	2.62	830	2.78	-	-	-	-
6000	533	1.45	568	1.60	601	1.76	633	1.93	663	2.09	693	2.25	721	2.41	749	2.59	777	2.75	804	2.93	830	3.12	855	3.32	-	-	-	-
6600	576	1.88	608	2.04	638	2.21	668	2.39	697	2.56	725	2.74	752	2.93	778	3.10	804	3.29	829	3.48	854	3.68	878	3.85	-	-	-	-
7200	619	2.38	649	2.56	678	2.75	706	2.94	732	3.13	759	3.31	784	3.51	809	3.71	834	3.91	858	4.10	881	4.31	905	4.53	-	-	-	-
5 HP Oversized Motor																												

**NOTE:**

Trane's factory supplied this standard product rated at 6000 CFM, and 0.5 inches of water for external static pressure.

Shaded areas indicate over efficient operating range.

Data include pressure drop due to wet coil and filter.

(Continued)

External Static Pressure (Inches of Water Gauge)													
		1.3"		1.4"		1.5"		1.6"		1.7"		1.8"	
CFM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3 HP Standard Motor													
4800	-	-	-	-	-	-	-	-	-	-	-	-	-
5400	854	2.94	-	-	-	-	-	-	-	-	-	-	-
6000	879	3.52	903	3.72	927	3.92	951	4.13	-	-	-	-	-
6600	901	4.03	924	4.21	946	4.40	968	4.59	990	4.78	1012	4.98	-
7200	927	4.73	949	4.93	-	-	-	-	-	-	-	-	-
5 HP Oversized Motor													



# Evaporator Fan Performance Data

# 20 Tons

**Table 10 Evaporator Fan Performance 20 Tons SWUT 240 D**

External Static Pressure (Inches of Water Gauge)																												
		0.1"		0.2"		0.3"		0.4"		0.5"		0.6"		0.7"		0.8"		0.9"		1.0"		1.1"		1.2"				
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP		
5 HP Standard Motor																												
6400	449	1.11	491	1.26	531	1.41	567	1.58	602	1.74	635	1.91	667	2.09	698	2.25	728	2.45	758	2.65	787	2.85	816	3.06				
7200	492	1.51	530	1.69	566	1.86	601	2.04	633	2.23	664	2.40	694	2.59	723	2.78	751	2.98	779	3.18	806	3.38	833	3.58				
8000	536	2.03	571	2.21	604	2.40	636	2.60	667	2.80	697	3.00	725	3.20	752	3.40	779	3.61	805	3.83	830	4.04	855	4.25				
8800	578	2.63	610	2.83	641	3.04	671	3.25	701	3.46	729	3.68	756	3.90	782	4.13	807	4.35	832	4.58	856	4.80	880	5.04				
9600	620	3.33	649	3.54	677	3.76	706	3.99	733	4.23	760	4.45	786	4.69	811	4.94	836	5.18	859	5.41	883	5.66	905	5.91				
7.5 HP Oversized Motor																												

**NOTE:**

Trane's factory supplied this standard product rated at 8000 CFM, and 0.5 inches of water for external static pressure.

Shaded areas indicate over efficient operating range.

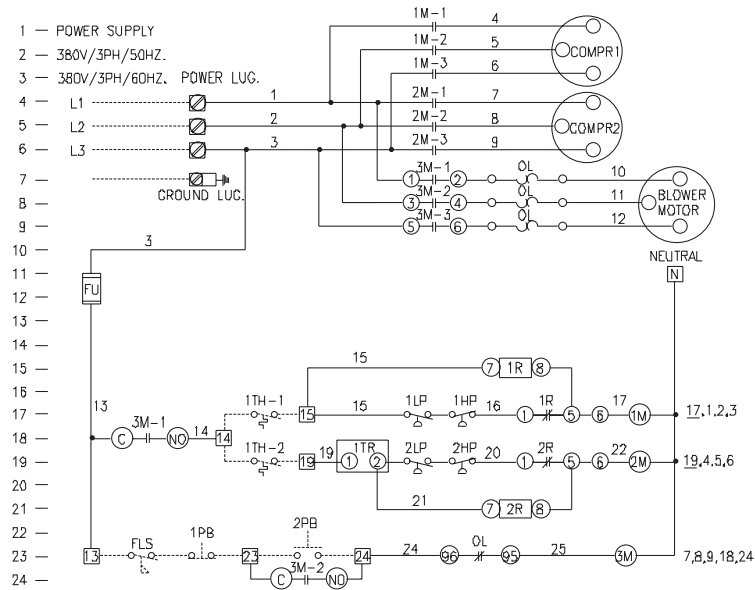
Data include pressure drop due to wet coil and filter.

(Continued)

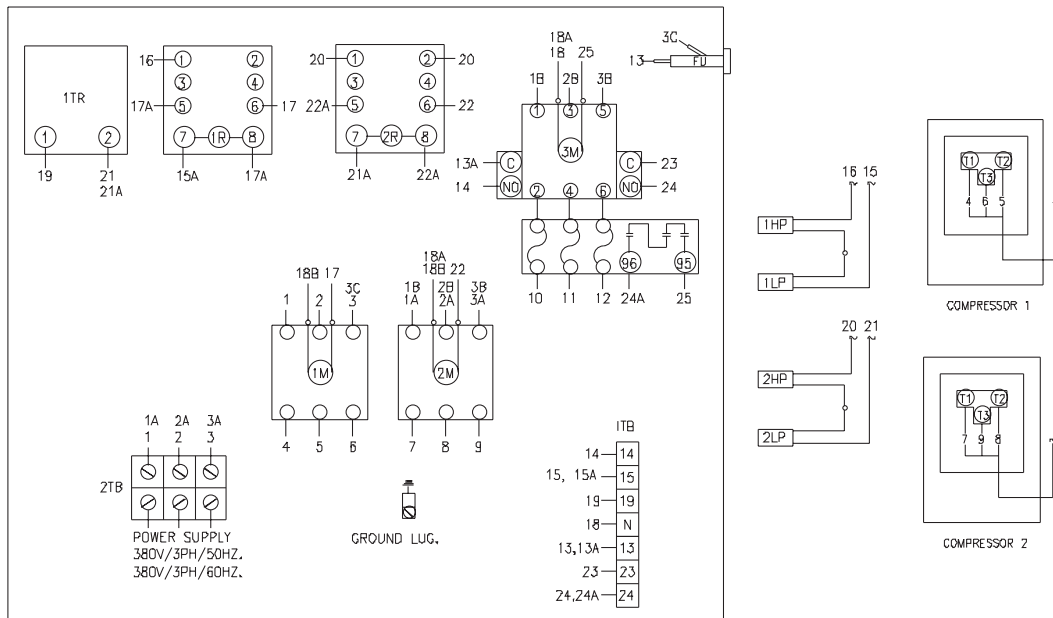
External Static Pressure (Inches of Water Gauge)															
		1.3"		1.4"		1.5"		1.6"		1.7"		1.8"		1.9"	
CFM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5 HP Standard Motor															
6400	844	3.26	-	-	-	-	-	-	-	-	-	-	-	-	-
7200	859	3.79	885	4.00	910	4.21	934	4.42	-	-	-	-	-	-	
8000	880	4.48	904	4.70	929	4.95	952	5.18	974	5.41	995	5.64	1016	5.87	
8800	903	5.26	926	5.51	949	5.75	971	6.00	993	6.25	1015	6.50	1035	6.75	
9600	928	6.16	949	6.41	971	6.66	992	6.93	1013	7.18	1034	7.45			
7.5 HP Oversized Motor															

# Wiring Diagram

## SWUT 180,240 DOOBA/KOوبا ELEMENTARY DIAGRAM



### CONNECTION DIAGRAM



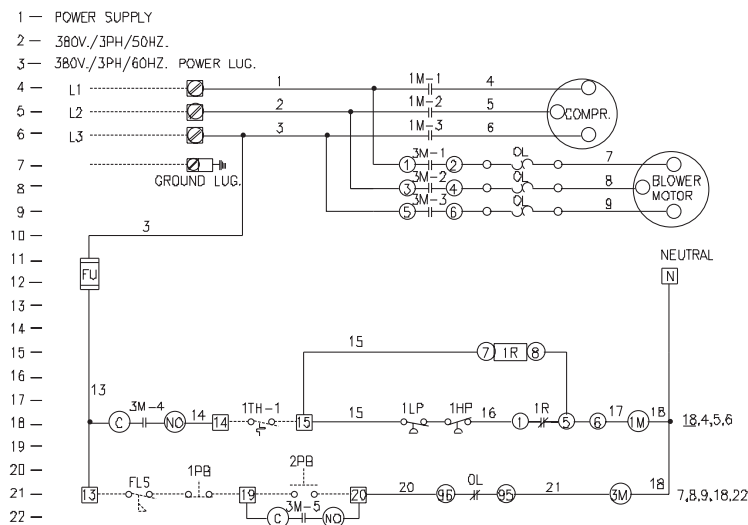
- LEGEND**
- FU FUSE 5 AMP.
  - 1HP,2HP CONTROL,HIGH PRESS.  
(OPEN : 310 PSIG, CLOSE : 240 PSIG)
  - 1LP,2LP CONTROL,LOW PRESS.  
(OPEN : 27 PSIG, CLOSE : 46 PSIG)
  - 1M,2M CONTACTOR,COMPR NO.1,2
  - 3M CONTACTOR,BLOWER MOTOR
  - 1R,2R RELAY,CONTROL LOCKOUT
  - 1PB,2PB SWITCH PUSH BOTTON
  - FLS FLOW SWITCH
  - 1TH THERMOSTAT 2 STAGES.
  - 1TR RELAY TIME DELAY 3.5 MIN
  - 1TB-TERMINAL BLOCK CONTROL CIRCUIT
  - 2TB-TERMINAL BLOCK HIGH VOLTAGE
  - FACTORY WIRING & DEVICES BY MFR.
  - FIELD WIRING & DEVICES BY OTHERS

- NOTES**
- 1 ALL FIELD WIRING TO BE IN ACCORDANCE WITH NATIONAL ELECTRIC CODE (N.E.C.) CANADIAN ELECTRIC CODE AND/OR LOCAL STATE AND CITY CODES. PROVIDE DISCONNECTS FOR ALL POWER SUPPLIES.
  - 2 DRAWING PRACTICES AND SYMBOLS ARE IN ACCORDANCE WITH AIR CONDITIONING & REFRIGERATION INSTITUTE (ARI) GRAPHIC ELECTRICAL STANDARDS.
  - 3 NUMBERS ALONG LEFT SIDE OF ELEMENTARY DIAGRAM DESIGNATE LINE IDENTIFICATION. NUMBERS ALONG RIGHT SIDE ARE LOCATIONS OF RELAY CONTACTS.
  - 4 COMPONENT TERMINAL MARKINGS ARE INDICATED BY ENCIRCLED NUMBERS AND/OR LETTER.
  - 5 NUMBERS ON VERTICAL & HORIZONTAL LINE ARE CIRCUIT IDENTIFICATION.
  - 6 MOTORS ARE INHERENTLY PROTECTED.
  - 7 THREE PHASE MOTOR IN THIS UNIT ARE PROTECTED UNDER PRIMARY SINGLE PHASE FAILURE CONDITIONS.
  - 8 THIS UNIT TO BE USE WITH EVAPORATORS OPERATING WITH IN A TEMPERATURE RANGE OF 32°F TO 53.5°F.

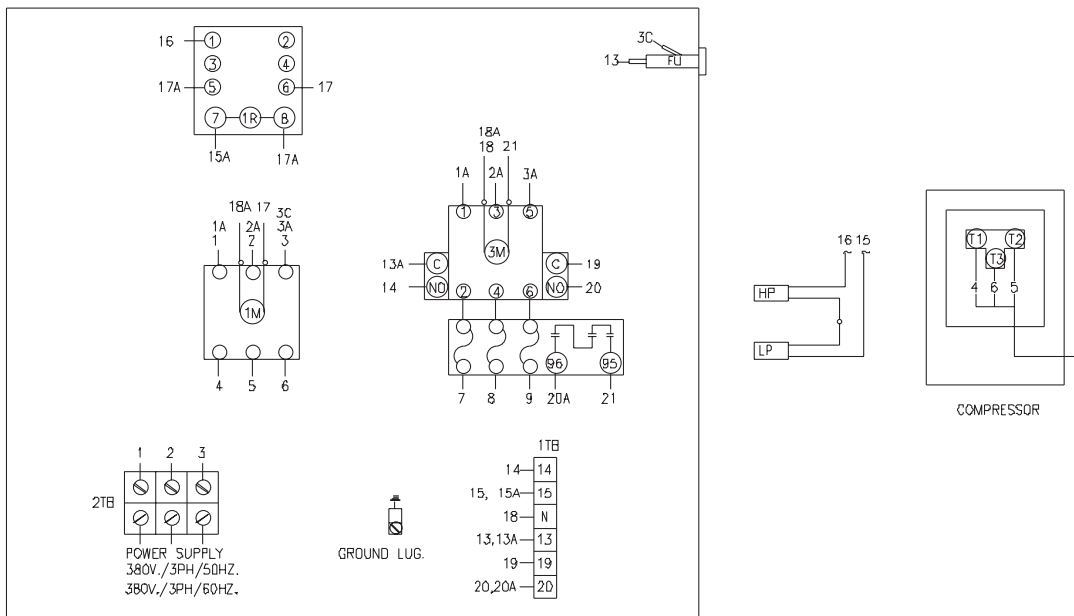
# Wiring Diagram

## SWUT 060,090,120 D00BA/K00BA

### ELEMENTARY DIAGRAM



### CONNECTION DIAGRAM



- LEGEND**
- FU FUSE 5 AMP.
  - HP CONTROL HIGH PRESS.  
(OPEN : 310 PSIG, CLOSE : 240 PSIG)
  - LP CONTROL LOW PRESS.  
(OPEN : 27 PSIG, CLOSE : 46 PSIG)
  - 1M CONTACTOR COMP.
  - 3M CONTACTOR, BLOWER MOTOR
  - 1R RELAY, CONTROL LOCKOUT
  - 1PB, 2PB SWITCH PUSH BOTTON
  - FLS FLOW SWITCH
  - 1TH THERMOSTAT 2 STAGES.
  - 1TB — TERMINAL BLOCK CONTROL CIRCUIT
  - 2TB — TERMINAL BLOCK HIGH VOLTAGE
  - FACTORY WIRING & DEVICES BY MFR.
  - FIELD WIRING & DEVICES BY OTHERS

- NOTES**
- 1 ALL FIELD WIRING TO BE IN ACCORDANCE WITH NATIONAL ELECTRIC CODE (N.E.C.) CANADIAN ELECTRIC CODE AND/OR LOCAL STATE AND CITY CODES. PROVIDE DISCONNECTS FOR ALL POWER SUPPLIES.
  - 2 DRAWING PRACTICES AND SYMBOLS ARE IN ACCORDANCE WITH AIR CONDITIONING & REFRIGERATION INSTITUTE (ARI) GRAPHIC ELECTRICAL STANDARDS.
  - 3 NUMBERS ALONG LEFT SIDE OF ELEMENTARY DIAGRAM DESIGNATE LINE IDENTIFICATION. NUMBERS ALONG RIGHT SIDE ARE LOCATIONS OF RELAY CONTACTS.
  - 4 COMPONENT TERMINAL MARKINGS ARE INDICATED BY ENCIRCLED NUMBERS AND/OR LETTER.
  - 5 NUMBERS ON VERTICAL & HORIZONTAL LINE ARE CIRCUIT IDENTIFICATION.
  - 6 MOTORS ARE INHERENTLY PROTECTED.
  - 7 THREE PHASE MOTOR IN THIS UNIT ARE PROTECTED UNDER PRIMARY SINGLE PHASE FAILURE CONDITIONS.
  - 8 THIS UNIT TO BE USE WITH EVAPORATORS OPERATING WITH IN A TEMPERATURE RANGE OF 32°F TO 53.5°F.



# Dimensional Data

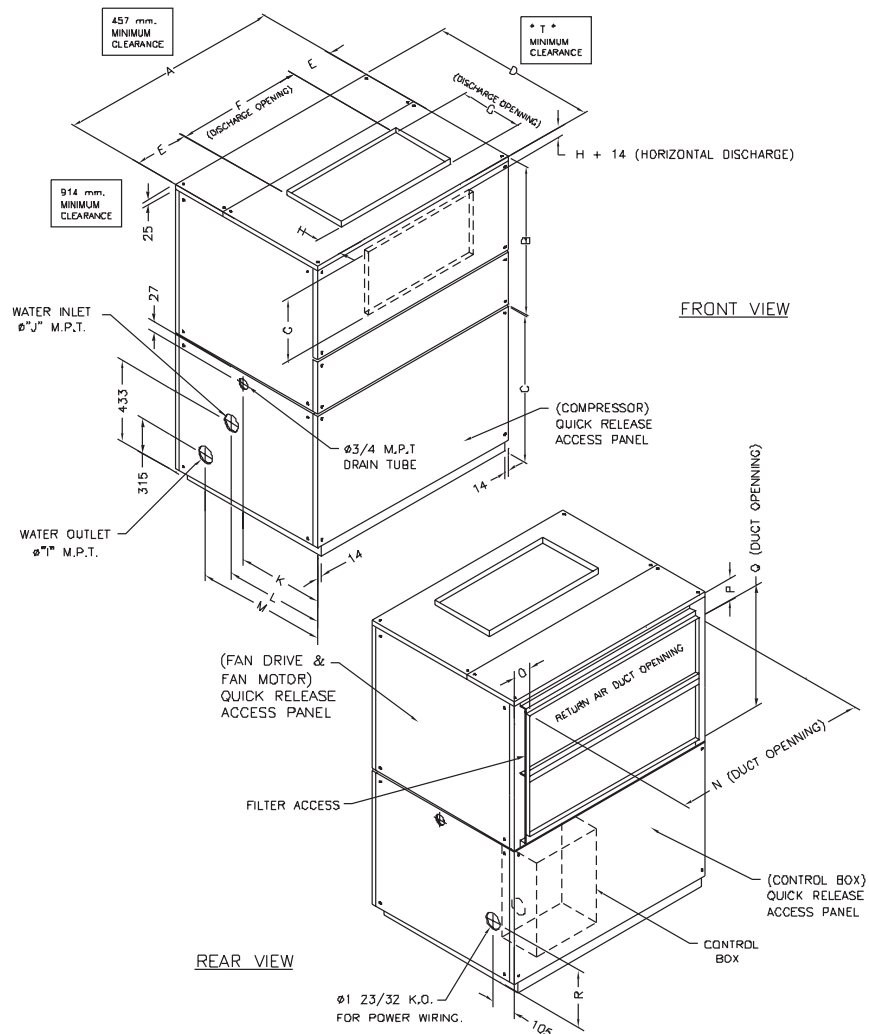
## OUTLINE DIMENSION SWUT060-240

UNIT SIZE SWUT (mm.)

MODEL NO.	A	B	C	D	E	F	G	H	ø I	ø J
SWUT 060	1022	687	622	868	342	338	292	54	1 1/4"	1 1/4"
SWUT 090	1429	687	648	1045	508	411	408	54	1 1/2"	1 1/2"
SWUT 120	1429	872	648	1045	475	478	406	54	1 1/2"	1 1/2"
SWUT 180	1670	914	648	1067	137	1394	413	59	2"	2"
SWUT 240	1670	1257	648	1067	137	1394	413	59	2"	2"

MODEL NO.	K	L	M	N	O	P	Q	R	T
SWUT 060	416	309	503	787	140	56	590	216	914
SWUT 090	503	309	500	1229	121	59	770	216	914
SWUT 120	503	309	500	1229	121	59	770	216	914
SWUT 180	508	309	503	1473	105	57	813	203	1524
SWUT 240	508	309	503	1473	105	57	1168	203	1524

Note : All dimensions are in mm, unless otherwise specified.



# Dimensional Data

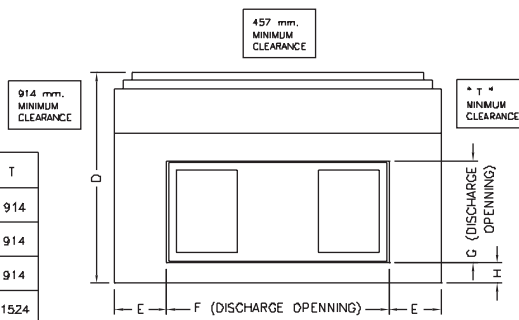
## OUTLINE DIMENSION SWUT060-240

UNIT SIZE SWUT (mm.)

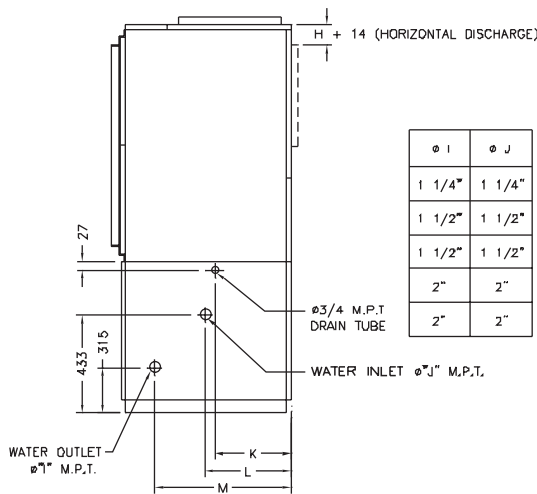
MODEL NO.	A	B	C	D	E	F	G	H
SWUT 060	1022	687	622	868	342	338	292	54
SWUT 090	1429	687	648	1045	508	411	406	54
SWUT 120	1429	872	648	1045	475	478	406	54
SWUT 180	1670	914	648	1067	137	1394	413	59
SWUT 240	1670	1257	648	1067	137	1394	413	59

MODEL NO.	K	L	M	N	O	P	Q	R	T
SWUT 060	416	309	503	787	140	56	590	216	914
SWUT 090	503	309	500	1229	121	59	770	216	914
SWUT 120	503	309	500	1229	121	59	770	216	914
SWUT 180	508	309	503	1473	105	57	813	203	1524
SWUT 240	508	309	503	1473	105	57	1168	203	1524

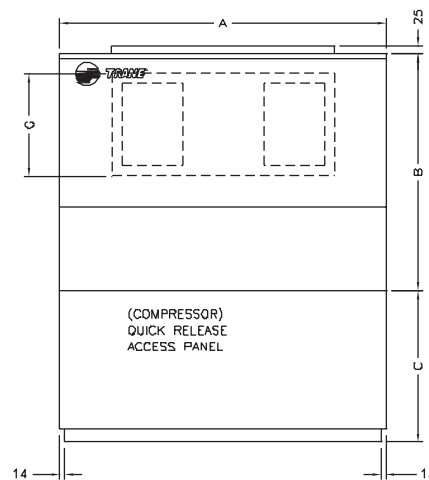
Note : All dimensions are in mm, unless otherwise specified.



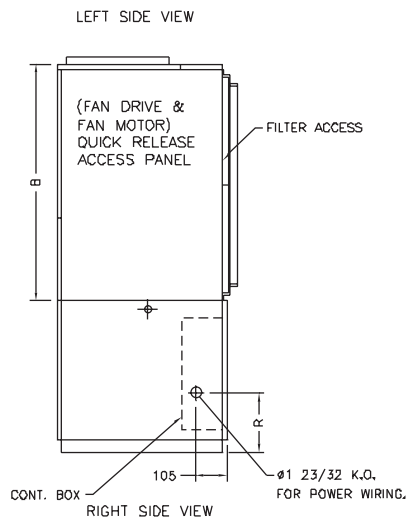
TOP VIEW



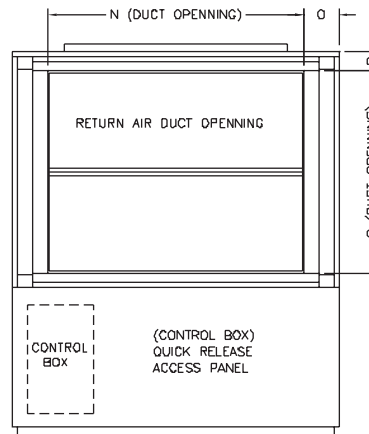
Ø I	Ø J
1 1/4"	1 1/4"
1 1/2"	1 1/2"
1 1/2"	1 1/2"
2"	2"
2"	2"



FRONT VIEW



RIGHT SIDE VIEW



REAR VIEW

# Dimensional Data

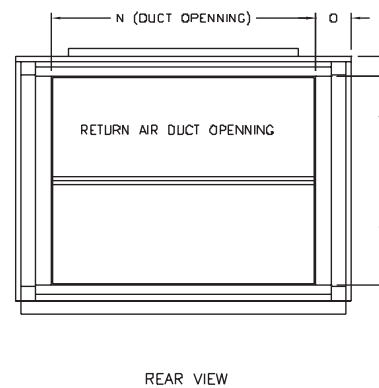
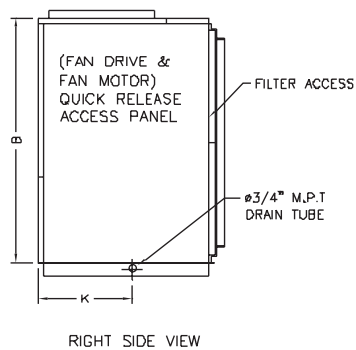
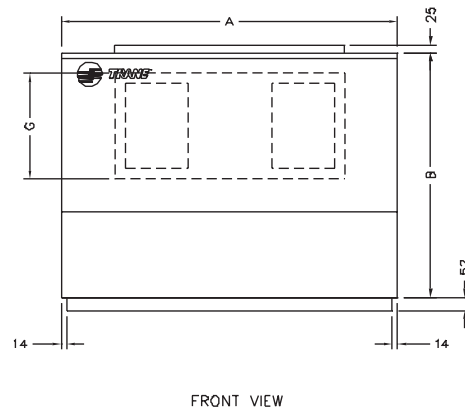
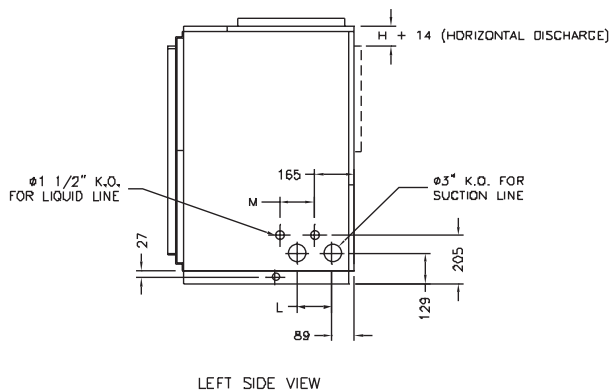
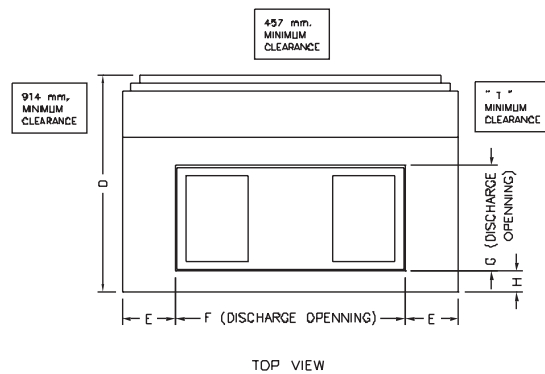
## OUTLINE DIMENSION ESWUT060-240 (Evaporator Section)

UNIT SIZE ESWUT (mm.)

MODEL NO.	A	B	D	E	F	G	H
ESWUT 060	1022	687	868	342	338	292	54
ESWUT 090	1429	687	1045	508	411	406	54
ESWUT 120	1429	872	1045	475	478	406	54
ESWUT 180	1670	914	1067	137	1394	413	59
ESWUT 240	1670	1257	1067	137	1394	413	59

MODEL NO.	K	L	M	N	O	P	Q	T
ESWUT 060	416	-	-	787	140	56	590	914
ESWUT 090	503	-	-	1229	121	59	770	914
ESWUT 120	503	-	-	1229	121	59	770	914
ESWUT 180	508	152	152	1473	105	57	813	1524
ESWUT 240	508	152	152	1473	105	57	1168	1524

Note : All dimensions are in mm, unless otherwise specified.



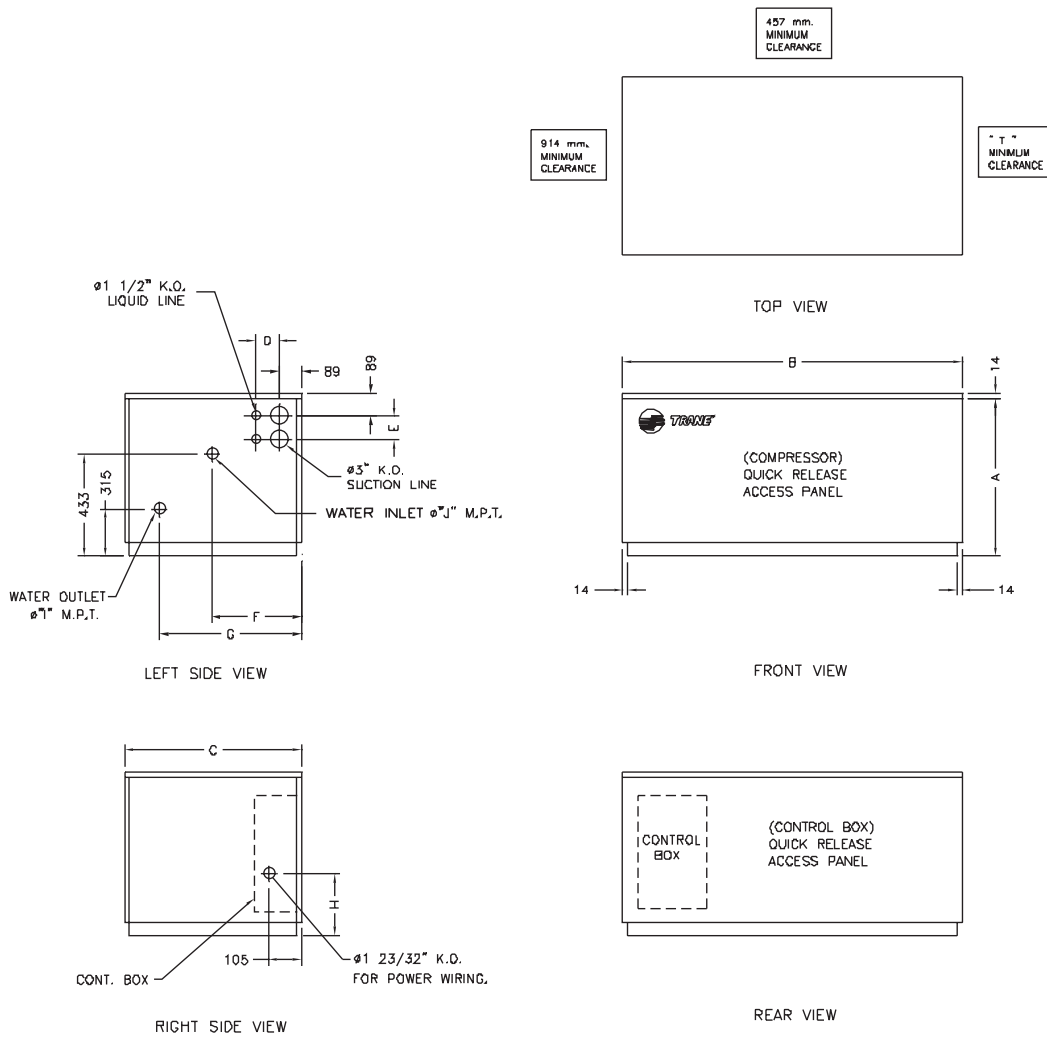
# Dimensional Data

## OUTLINE DIMENSION CSWUT060-240 (Condensing Section)

UNIT SIZE CSWUT (mm.)

MODEL NO.	A	B	C	D	E	F	G	H	Ø I	Ø J
CSWUT 060	622	1022	832	-	-	309	503	216	1 1/4"	1 1/4"
CSWUT 090	648	1429	1007	-	-	309	500	216	1 1/2"	1 1/2"
CSWUT 120	648	1429	1007	-	-	309	500	216	1 1/2"	1 1/2"
CSWUT 180	648	1670	1020	102	102	309	503	203	2"	2"
CSWUT 240	648	1670	1020	102	102	309	503	203	2"	2"

Note : All dimensions are in mm. unless otherwise specified.



# Mechanical Specifications

---

## GENERAL

The Trane commercial self-contained air conditioners are designed for commercial and industrial applications. Trane self-contained units are modular in design and can be arranged for a variety of air discharge patterns, in either the horizontal or vertical positions. These units may be arranged to meet almost any space or duct requirement. Each unit is available with a choice of blower motor's drive package and accessories to make them suitable for every application.

## CABINET

Unit panels are fabricated of heavy-gauge steel reinforced and braced with steel angle framework for maximum rigidity. Removable panels provide access to all internal parts. Metal parts of casing and all accessories are made of electro galvanized steel. Chemically cleaned and given protective paint finish. Removable panels and parts have baked enamel finish. Interior surfaces of unit panels are insulated with a 12.5 mm. (1/2-inch), 40 kg/m<sup>2</sup> (2 1/2-pound), glass fiber insulated faced with foil.

The panel has a 1-inch duct collar to facilitate connection of the supply air duct. Drain pan is provided under complete fan and coil section. 3/4-inch MPT. Drain connections are provided on both sides. Units have 3/4-inch connections on both ends for base drain.

## COMPRESSOR

The high efficient compressors are installed in Trane self contained air conditioners. Compressors shall be hermetic direct drive scroll type. Motor is suction gas cooled and has a voltage utilization range of plus or minus 10 percent of nameplate. Internal temperature and current sensitive motor overload are included for maximum protection. External high and low pressure cutout devices are provided.

Single compressor is used on 5, 7.5 and 10-ton units; and dual compressors on 15 and 20-ton units.

## WATER-COOLED CONDENSER

Trane tube-in tube condensers are specially designed for self-contained units. Condenser waterside working pressure is at 150 psig and 300 psig at refrigerant side. Male pipe thread connections are provided for condenser water inlet and outlet.

## EVAPORATOR

The evaporator coil is 3/8-inch OD seamless copper tubes expanded into aluminum fins, mechanically bonded. Single refrigeration circuit is equipped in 5, 7.5 and 10-ton units. Two separated and independent refrigeration circuits are in 15 and 20-ton units. Coils are tested at working pressure 150 psig air under-water and dehydrated.

## SUPPLY FAN

Supply fans are double width, double inlet, forward curved centrifugal fan, statically and dynamically balanced and tested after being installed on properly sized solid or hollow shafts.

Fan housing constructed with die-formed, streamlined inlets and side sheets. Fan bearings are grease lubricated ball bearings selected for 200,000 hours average life.

Belt drive assemblies are combined with adjustable motor pulley allows the air flow to meet the CFM requirements of the actual job conditions.

## FAN MOTOR

A choice of fan motor is available for field installation to almost any application requirement. All motors are mounted within the insulated cabinet of the units to minimize the transmission of sound to the surrounding space.

## FILTER SECTION

All filter sections are designed to hold 25 mm (1-inch) plated, permanent aluminum cleanable filters.

## Note

---

## Note

---



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.tranethailand.com>  
 An American Standard Company




---

Literature Order Number SWU5-PRC001-EN0703

Supersedes SWU5-PRC001-EN1098

Stocking Location Bangkok, Thailand

**บริษัท แอมแอร์ จำกัด** 35 หมู่ 8 ถนนเจ้าสมิงพราย ต.สำโรงใต้ อ.พระประแดง จ.สมุทรปราการ 10130

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.