

## Coil and Filter Data

### COIL FACE AREA AND FILTER DATA

Unit Size	Internal Cooling And Heating Coils	Discharge Section Heating Coil	2" Filters (Quantity) and Size	Filter Face Area
08	2.1 [0.20]	2.1 [0.20]	(1) 16 x 20 x 2 [406 x 508 x 51]	2.2 [0.20]
12	2.8 [0.26]	2.1 [0.20]	(1) 20 x 20 x 2 [508 x 508 x 51]	2.8 [0.26]
16	3.6 [0.33]	3.2 [0.30]	(1) 24 x 24 x 2 [610 x 610 x 51]	4.0 [0.37]
20	4.8 [0.45]	3.2 [0.30]	(1) 24 x 24 x 2 [610 x 610 x 51]	4.0 [0.37]
25	5.7 [0.53]	4.6 [0.43]	(1) 24 x 24 x 2 [610 x 610 x 51] (1) 12 x 24 x 2 [305 x 610 x 51]	6.0 [0.56]
30	6.8 [0.63]	5.7 [0.53]	(1) 24 x 24 x 2 [610 x 610 x 51] (1) 12 x 24 x 2 [305 x 610 x 51]	6.0 [0.56]

**Notes:**

1. Standard filters are 2" throwaway; optional filters are 2" pleated
2. Filter sizes are nominal and standard size, measured in inches [millimeters]
3. Coil and filter face areas are measured in square feet [square meters]

### NOMINAL COIL CONNECTION SIZES

Unit Size	Coil Type											
	Water				Steam				Refrigerant			
	1 Row	2 Row	4 Row	6 Row	1 Row		2 Row		4 Row		6 Row	
					STM.	COND.	STM.	COND.	Liquid	Suction	Liquid	Suction
08	5/8 [16]	5/8 [16]	7/8 [22]	7/8 [22]	1 1/8 [29]	7/8 [22]	1 1/8 [29]	7/8 [22]	5/8 [16]	5/8 [16]	5/8 [16]	5/8 [16]
12	5/8 [16]	5/8 [16]	7/8 [22]	7/8 [22]	1 1/8 [29]	7/8 [22]	1 1/8 [29]	7/8 [22]	5/8 [16]	7/8 [22]	5/8 [16]	7/8 [22]
16	5/8 [16]	5/8 [16]	7/8 [22]	1 1/8 [29]	1 1/8 [29]	7/8 [22]	1 3/8 [35]	1 1/8 [29]	5/8 [16]	7/8 [22]	5/8 [16]	7/8 [22]
20	5/8 [16]	5/8 [16]	7/8 [22]	1 1/8 [29]	1 3/8 [35]	1 1/8 [29]	1 3/8 [35]	1 1/8 [29]	5/8 [16]	7/8 [22]	5/8 [16]	7/8 [22]
25	5/8 [16]	7/8 [22]	1 1/8 [29]	1 3/8 [35]	1 3/8 [35]	1 1/8 [29]	1 5/8 [41]	1 1/8 [29]	5/8 [16]	7/8 [22]	5/8 [16]	1 1/8 [29]
30	7/8 [22]	7/8 [22]	1 1/8 [29]	1 3/8 [35]	1 5/8 [41]	1 1/8 [29]	1 5/8 [41]	1 1/8 [29]	5/8 [16]	1 1/8 [29]	5/8 [16]	1 1/8 [29]

**Notes:**

1. Water coils are based on Standard GPM Circuiting. Consult Titus for applications requiring special circuiting
2. For other selections, refer to TEAMS
3. Refrigerant coil connection sizes for single circuit coils and may vary with application. Contact Titus for double circuit coils
4. All dimensional data is outside diameter (O.D.), measured in inches [millimeters]

**COIL DATA**

**COILS**

Titus manufactures hot water, chilled water, direct expansion (DX), and standard steam coils for specific application with all Model TBL/TBS blower coils. AHRI 410 certified and labeled, and strict on-site inspection

before, during, and after installation guarantees the highest quality and performance available.

**Standard Features**

- » Designed, manufactured and tested by Titus
- » AHRI 410 certified and labeled
- » ½" O.D. seamless copper tubes
- » High efficiency aluminum fin surface for optimizing heat transfer, pressure drop and carryover
- » Mechanically expanded copper tubes leak tested to a minimum 450 PSIG air pressure under water
- » Manual air vent plug on all water coils
- » Copper ODM sweat connections
- » 450 PSIG working pressure at 200°F
- » Evaporator coils are factory sealed and charged with a minimum of 5 PSIG nitrogen or refrigerated dry air
- » Steam coils rated at 15 PSIG maximum operating pressure at above 35°F
- » 0.016" tube wall thickness (0.025" on steam)

**Optional Features**

- » Stainless steel coil casings
- » Automatic air vents on water coils
- » Elevated working pressure ratings
- » Heat pump compatible cooling coils
- » Double circuit DX coils (intertwined with 50-50 split)
- » 0.025" tube wall thickness

**COMPONENT STATIC PRESSURE LOSS – INCHES W.G.**

Unit Size	Nominal CFM	Cabinet	Filter (2" T/A)	Coil						Inlet Damper Section	Electric Heat Section
				Internal				External			
				1 Row	2 Row	4 Row	6 Row	1 Row	2 Row		
08	800	0.09	0.25	0.05	0.10	0.31	0.46	0.05	0.10	0.04	0.05
12	1200	0.09	0.25	0.06	0.12	0.37	0.55	0.10	0.19	0.06	0.05
16	1600	0.10	0.25	0.06	0.12	0.38	0.58	0.08	0.15	0.09	0.05
20	2000	0.11	0.25	0.06	0.11	0.35	0.52	0.11	0.22	0.05	0.05
25	2500	0.12	0.25	0.06	0.12	0.38	0.57	0.09	0.17	0.06	0.05
30	3000	0.14	0.25	0.06	0.12	0.38	0.57	0.08	0.16	0.08	0.05

**Notes:**

1. All static pressures are at nominal CFM
2. Coil static pressure for standard coil, 10FPI at 80/67 EAT and 45° EWT with 10° rise
3. For 12FPI, refer to TEAMS
4. Filter static pressure based on 50% loaded filter
5. If pleated filters are used in lieu of throwaway, the filter static pressure loss is 0.35



## Electric Heat

### Standard Features

- » Galvanized steel casing
- » Flanged construction for direct unit mounting, in blow-thru configuration
- » Listed for zero clearance installation
- » Meets National Electrical Code requirements
- » Ni-Chrome wire in ceramic insulators
- » Stainless steel element terminals and hardware
- » Element support brackets on maximum 3 1/2" centers
- » Solid cover with continuous full height hinge
- » Overtemperature protection
- » All internal wiring rated for 105°C minimum
- » Airflow switch
- » Incoming line power distribution block
- » ETL Listed in compliance with UL/ANSI Standard 1995
- » Single point power connection
- » Heater factory mounted to unit with ETL listing as an assembly

### Optional Features

- » Door interlocking disconnect switch
- » Fusing (main) (per stage)
- » Magnetic contactors wired for disconnecting operation
- » Fan control package with heater interlock contacts (required for single point power connection)

Heater AMP Calculation	
Voltage	AMPs per kW
115/1	8.70
208/1	4.81
230/1	4.35
277/1	3.61
208/3	2.78
230/3	2.51
460/3	1.26
575/3	1.00



### Electrical Calculations Information

1. Contact Titus for MCA and/or MOP calculations
2. Non-Fused Door Interlock Disconnect Switch shall be sized according to MCA
3. Fused Door Interlock Disconnect Switch and Main Fusing shall be sized according to MOP

Unit Voltage And Phase			Electric Heat KW Limits											
			Unit Size											
			08		12		16		20		25		30	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	
Single Phase	115	kW	3	5	3	5	3	5	4	5				
		AMPs	26.1	43.5	26.1	43.5	26.1	43.5	34.8	43.5				
	208	kW	3	9	3	9	3	9	4	9	6	9	6	9
		AMPs	14.4	43.3	14.4	43.3	14.4	43.3	19.2	43.3	28.8	43.3	28.8	43.3
	230	kW	3	11	3	11	3	11	4	11	6	11	6	11
		AMPs	13.0	47.8	13.0	47.8	13.0	47.8	17.4	47.8	26.1	47.8	26.1	47.8
	277	kW	3	13	3	13	3	13	4	13	6	13	6	13
		AMPs	10.8	46.9	10.8	46.9	10.8	46.9	14.4	46.9	21.7	46.9	21.7	46.9
Three Phase	208	kW	3	13	3	16	3	16	4	16	4	16	4	16
		AMPs	8.3	36.1	8.3	44.4	8.3	44.4	11.1	44.4	11.1	44.4	11.1	44.4
	230	kW	3	13	3	18	3	18	4	18	4	18	4	18
		AMPs	7.5	32.6	7.5	45.2	7.5	45.2	10.0	45.2	10.0	45.2	10.0	45.2
	460	kW	3	13	3	20	3	20	4	26	4	26	4	26
		AMPs	3.8	16.3	3.8	25.1	3.8	25.1	5.0	32.6	5.0	32.6	5.0	32.6
	575	kW	3	13	3	20	3	20	4	26	4	26	4	26
		AMPs	3.0	13.1	3.0	20.1	3.0	20.1	4.0	26.1	4.0	26.1	4.0	26.1

### Notes:

1. Electric heat sections may be shipped separate for field installation to unit
2. Factory certified submittals available upon request
3. Standard heater kW limits are maximum per unit size and voltage
4. Heater should be sized for a maximum leaving air temperature of 104°F



**ELECTRIC DATA**

**MOTOR ELECTRICAL DATA**

Horsepower	Maximum Motor Amperage							
	Voltage							
	115/1	208/1	230/1	277/1	208/3	230/3	460/3	575/3
1/3	6.3	3.5	3.2	2.6	1.7	1.5	0.8	-
1/2	7.8	4.3	3.9	3.6	2.2	2.1	1.1	0.9
3/4	10.6	5.4	5.3	5.0	3.2	3.0	1.5	1.2
1	15.0	8.3	7.5	5.5	4.0	3.6	1.8	1.4
1 1/2	-	-	-	-	5.3	5.0	2.5	1.9
2	-	-	-	-	7.0	6.4	3.2	2.5
3	-	-	-	-	9.1	9.0	4.5	3.2

**Notes:**

1. Actual motor nameplate AMPs may vary, but will not exceed values shown
2. Consult Titus for applications requiring special motors

**UNIT WEIGHT DATA**

Component							
		08	12	16	20	25	30
Base Unit		125 [57]	131 [60]	160 [73]	167 [76]	231 [105]	236 [107]
Damper Section		42 [19]	53 [24]	59 [27]	73 [33]	91 [41]	91 [41]
Blow-thru Electric Heater		42 [19]	42 [19]	42 [19]	50 [23]	55 [25]	55 [25]
Discharge Coil Section		35 [16]	37 [17]	49 [22]	53 [24]	76 [35]	80 [36]
Supply Plenum		22 [10]	26 [12]	35 [16]	38 [17]	76 [35]	76 [35]
Return Plenum (TBL)		29 [13]	30 [14]	33 [15]	35 [16]	44 [20]	44 [20]
Coil Rows	1 Row - Dry	12 [5]	14 [6]	17 [8]	21 [10]	23 [10]	27 [12]
	1 Row - Wet	14 [6]	17 [8]	21 [10]	26 [12]	28 [13]	34 [15]
	2 Row - Dry	17 [8]	21 [10]	26 [12]	32 [15]	37 [17]	43 [20]
	2 Row - Wet	21 [10]	27 [12]	33 [15]	42 [19]	48 [22]	56 [25]
	4 Row - Dry	29 [13]	36 [16]	45 [20]	57 [26]	65 [30]	76 [35]
	4 Row - Wet	37 [17]	47 [21]	58 [26]	75 [34]	86 [39]	101 [46]
	6 Row - Dry	40 [18]	51 [23]	64 [29]	81 [37]	93 [42]	109 [50]
	6 Row - Wet	52 [24]	66 [30]	84 [38]	109 [50]	124 [56]	146 [66]

**Notes:**

1. Unit weight data is shipping weight in pounds [kilograms]
2. Discharge section includes a 2 row coil

**MOTOR/DRIVE WEIGHT DATA**

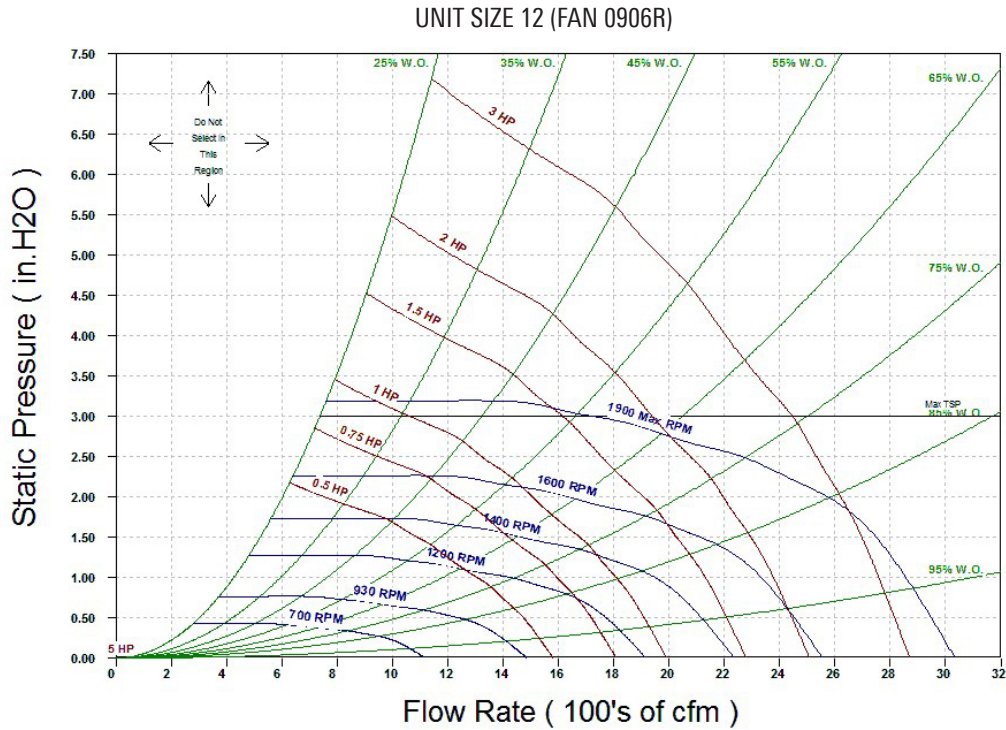
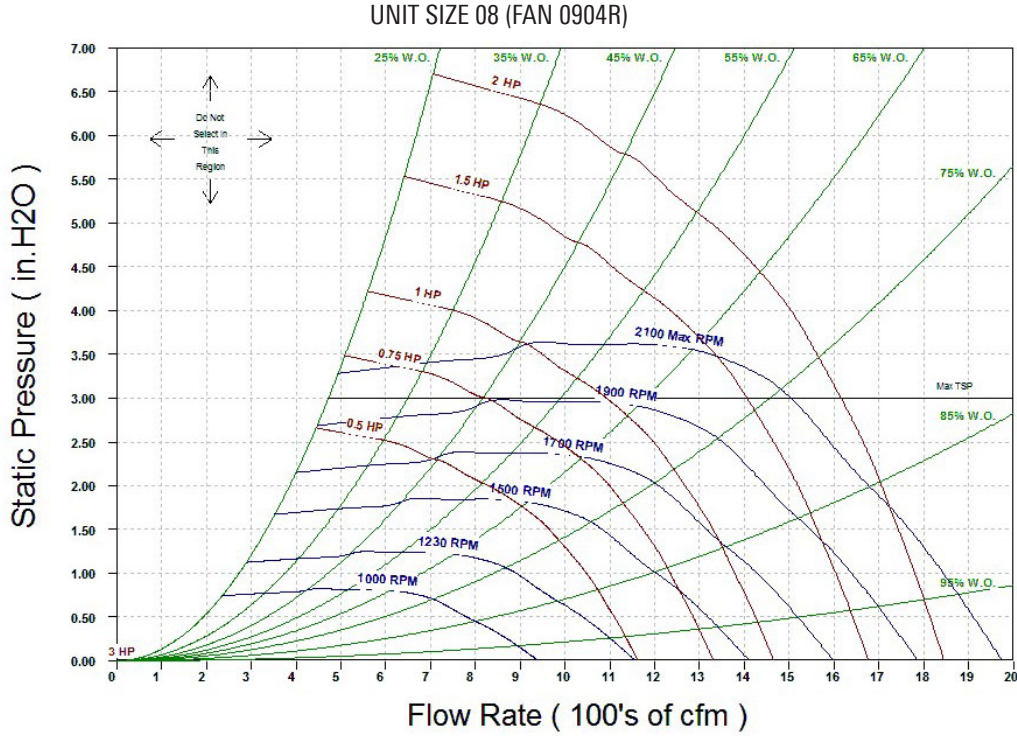
Type	Motor HP						
	1/3	1/2	3/4	1	1 1/2	2	3
Single Phase	37 [17]	37 [17]	45 [20]	47 [21]	-	-	-
Three Phase	34 [15]	34 [15]	40 [18]	43 [20]	46 [21]	53 [24]	81 [37]

**Notes:**

1. Includes motor, pulleys, belts, and motor base
2. Motor/drive weight data is shipping weight in pounds [kilograms]

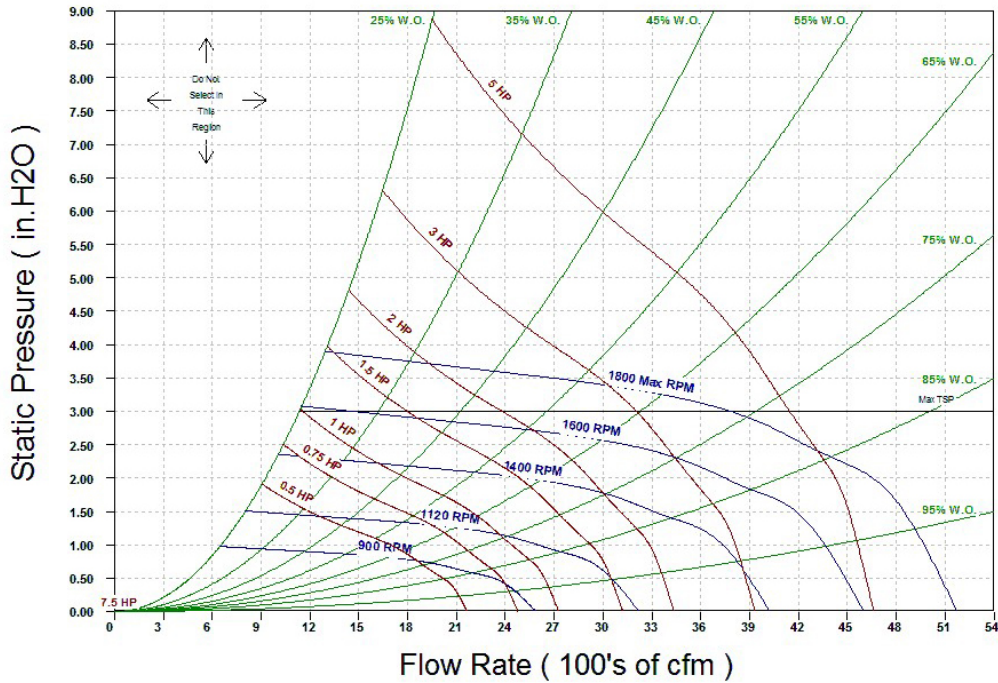


Fan Performance Curves

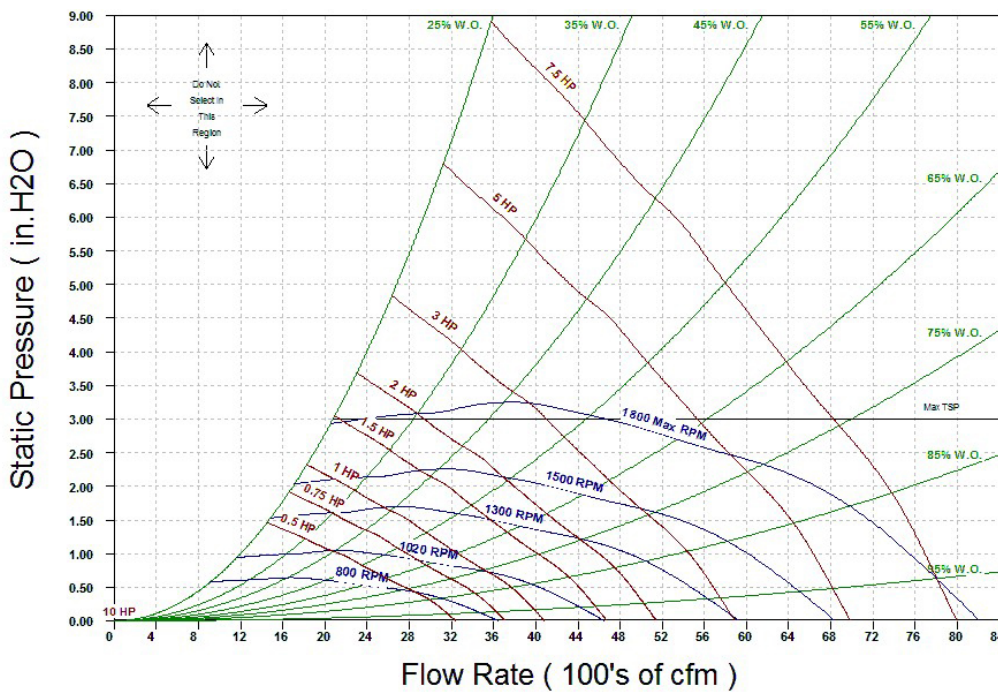


FAN CURVES

UNIT SIZE 16 (FAN 1008R)



UNIT SIZE 20 (FAN 1010R)



FAN CURVES

