

High Performance Fan Coils

FCHG Genesis® Series

Horizontal



Dimensional Data



57/8" (150) L
2" (51) D
14" (356)
31/4" (83)
W
Air
Filter
Electrical Control Box
Foam Lined Connection
Sloped Drain Pan
Externally Insulated with Foam
Shipped Loose for Field Installation
X
Optional: (CAD) Bottom Access Doors 4" x 63/4" (102 x 171)
Optional: Auxiliary Drain Pan for Piping Package
14" (355) Max. 3" (76) Max. 11/2" (38)
Optional: Removable Bottom Panel
H + 3" (76)
Optional: Second Drain Pan Connection

LH configuration shown.
Handing determined by looking at inlet

Size	W	H	Qty
20	20 7/8 [530]	10 1/4 [260]	1
30	20 7/8 [530]	10 1/4 [260]	1
40	25 7/8 [657]	12 1/4 [311]	1
50	20 7/8 [530]	10 1/4 [260]	2
60	23 7/8 [606]	12 1/4 [311]	2
70	29 7/8 [757]	12 1/4 [311]	2

Unit Size	Max. Fan Flow, cfm	Outlet Duct Size		W	H
		D	E		
20	500 [237]	21 [533]	9 [229]	21 [533]	10 1/2 [267]
30	800 [377]	21 [533]	9 [229]	21 [533]	10 1/2 [267]
40	950 [448]	26 [660]	11 1/2 [292]	26 [660]	12 1/2 [318]
50	1550 [731]	42 [1067]	9 [229]	42 [1067]	10 1/2 [267]
60	2050 [968]	48 [1219]	11 1/2 [292]	48 [1219]	12 1/2 [318]
70	2800 [1324]	60 [1524]	11 1/2 [292]	60 [1524]	12 1/2 [318]

Connection Size	Number of Rows		
	20 - 60	3 - 4	6
70	7/8 [22]	1 1/8 [29]	1 1/8 [29]

Coil Configurations

2 Pipe Cooling

Cooling
 1
 2
 3
 4
 6

2 Pipe Heating

Heating
 1
 2
 3
 4
 6

4 Pipe Preheat

Preheat
 1-3
 2-3
 1-4
 2-4
 1-6
 2-6

4 Pipe Reheat

Reheat
 3-1
 3-2
 4-1
 4-2
 6-1
 6-2

	IP (in.) / SI [mm]	Number of Rows									
		Cooling		Heating			Preheat		Reheat		
		1 & 2	3 & 4	6	1 & 2	3 & 4	6	1-3, 2-3, 1-4, 2-4	1-6, 2-6	3-1, 3-2, 4-1, 4-2	6-1, 6-2
L	20 - 40	35 5/8 [905]	37 1/8 [950]	39 1/8 [1000]	35 5/8 [905]	37 1/8 [950]	39 1/8 [1000]	42 3/8 [1077]	44 3/8 [1127]	42 3/8 [1077]	44 3/8 [1127]
	50 - 60	38 1/8 [969]	39 7/8 [1013]	41 7/8 [1064]	38 1/8 [969]	39 7/8 [1013]	41 7/8 [1064]	44 7/8 [1140]	46 7/8 [1191]	44 7/8 [1140]	46 7/8 [1191]
	70	41 1/8 [1045]	42 3/8 [1089]	44 7/8 [1140]	41 1/8 [1045]	42 3/8 [1089]	44 7/8 [1140]	47 1/8 [1216]	49 7/8 [1267]	47 1/8 [1216]	49 7/8 [1267]
X		14 1/8 [359]			n/a (no drain pan)			17 7/8 [452]		17 7/8 [452]	

Unit Size	Motor HP(s)		# of Motors	Full Load Amps (Single Phase and 60Hz)							
	PSC	ECM		115 Volts		208 Volts		240 Volts		277 Volts	
				PSC Amps	ECM Amps	PSC Amps	ECM Amps	PSC Amps	ECM Amps	PSC Amps	ECM Amps
20	1/3	1/3	1	1.73	3.25	.81	2.25	.81	1.90	.64	1.29
30	1/4	1/2	1	3.22	4.86	1.29	3.13	1.25	2.54	1.37	2.06
40	1/2	1/2	1	5.14	5.15	2.37	3.21	2.27	2.54	2.35	2.26
50	1/4 x 2	1/2 x 2	2	5.93	8.72	2.58	5.29	2.47	4.11	2.63	3.47
60	1/2 x 2	1/2 x 2	2	10	9.6	4.42	5.91	4.3	4.64	4.32	4.6
70	1/2 x 2	3/4 x 2	2	13.96	19.04	5.80	13.33	6.10	11.37	5.94	7.40

Notes: 1. Based on 2 row dry coil and 2 in. MERV 8 filter. Nameplate values for amperage may be higher. Amps are based on total unit current draw.

FAN COILS & BLOWER COILS PERFORMANCE

High Performance Fan Coils

FCHG Genesis® Series

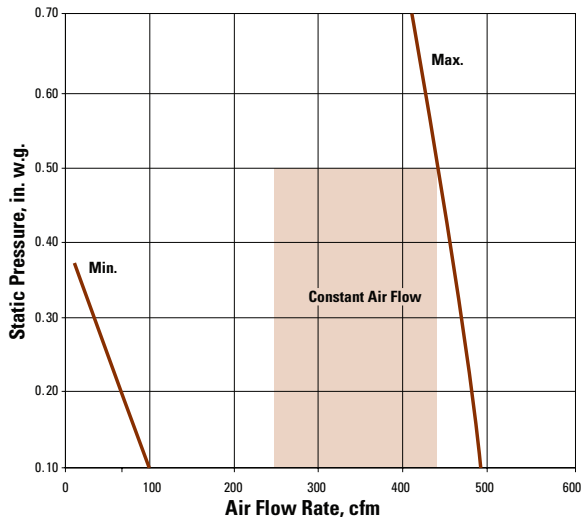
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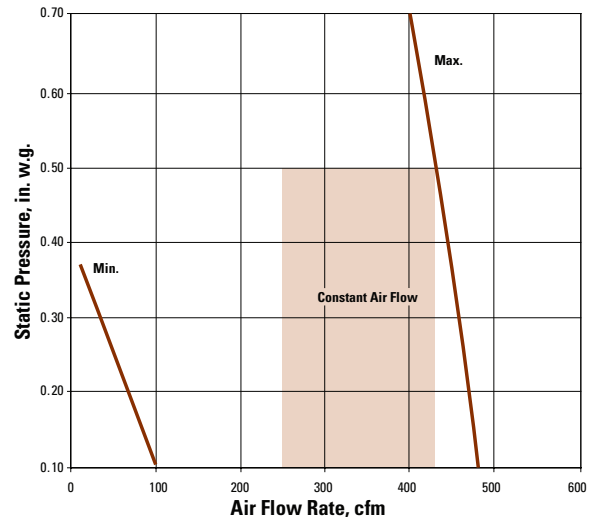
Fan Performance Curves – ECM Motor

FAN COILS & BLOWER COILS

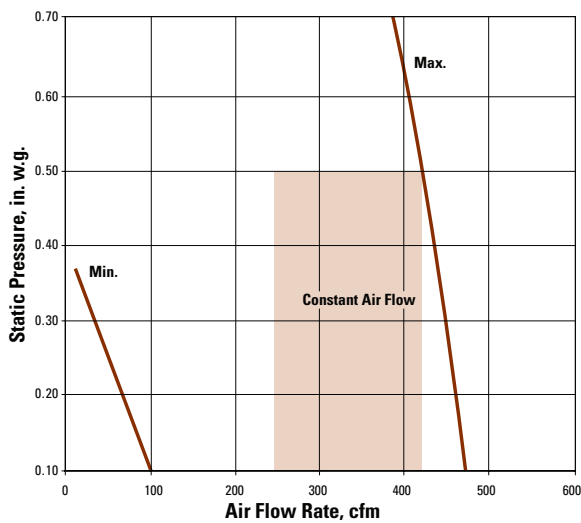
Unit Size 20 - 2 Row ECM Constant Flow



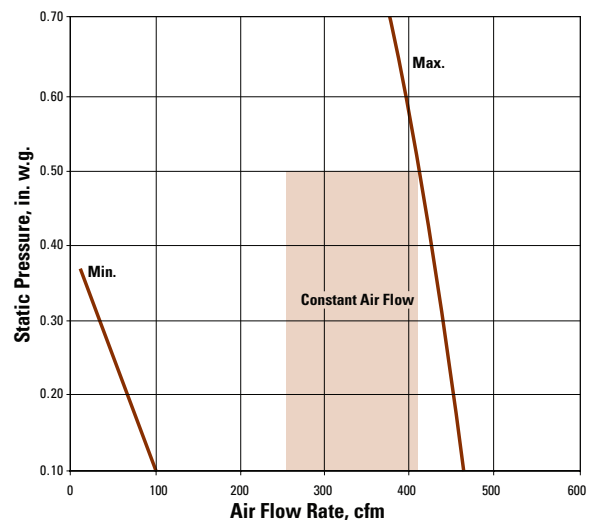
Unit Size 20 - 4 Row ECM Constant Flow



Unit Size 20 - 6 Row ECM Constant Flow



Unit Size 20 - 8 Row ECM Constant Flow



Caution to Contractors

Fan coil units are not intended for use as temporary heat or ventilation during building construction. The units are not designed nor equipped to operate in a dusty construction environment. Recirculating fan wheels can become coated with construction dust, resulting in an unbalanced wheel. This in turn can contribute to reduced motor life. Inlet air filters would provide little protection as they would quickly become plugged with construction dust.

Please Note: Price cannot warrant against unauthorized operation under conditions as outlined on this page.

Notes:

1. Fan curves include 2 in. MERV 8 filter.
2. To prevent condensate carry over in cooling applications, fan flow should not exceed 500 fpm average coil face velocity, see maximum fan flow chart.

Maximum Fan Flow Chart (Cooling Application)

Unit Size	Max. cfm
20/30	700
40	1100
50	1450
60	2050
70	2600

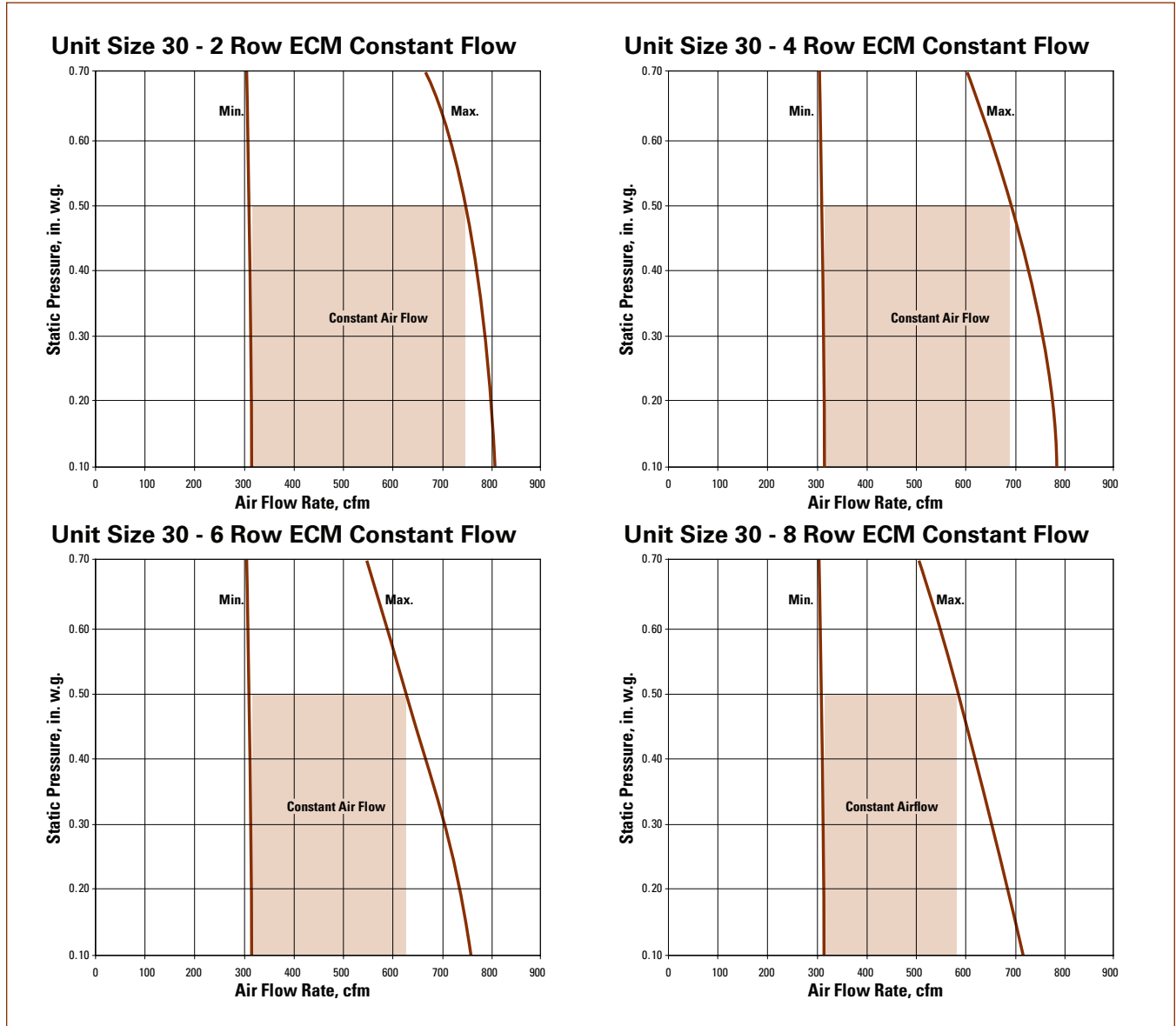
High Performance Fan Coils

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Horizontal



Fan Performance Curves – ECM Motor



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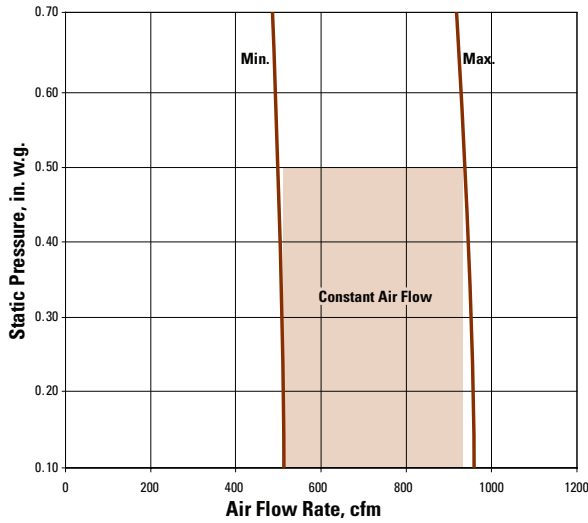
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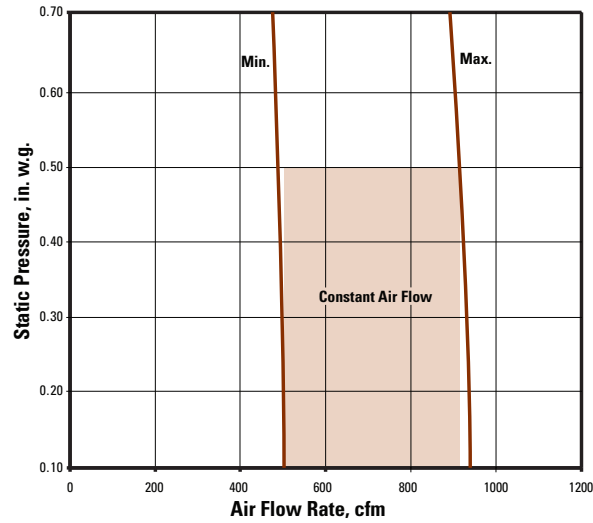
Fan Performance Curves – ECM Motor

FAN COILS & BLOWER COILS

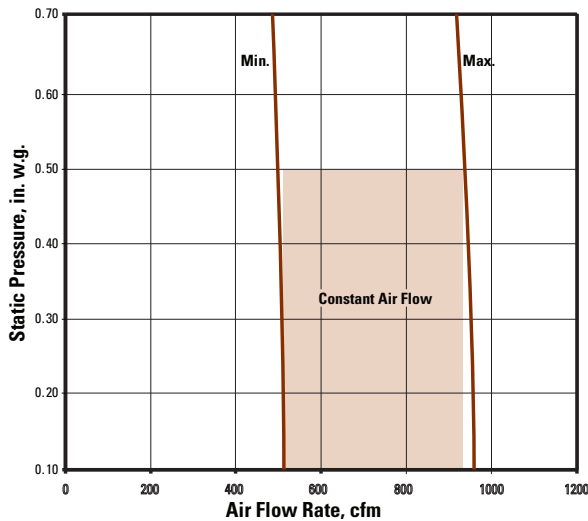
Unit Size 40 - 2 Row ECM Constant Flow



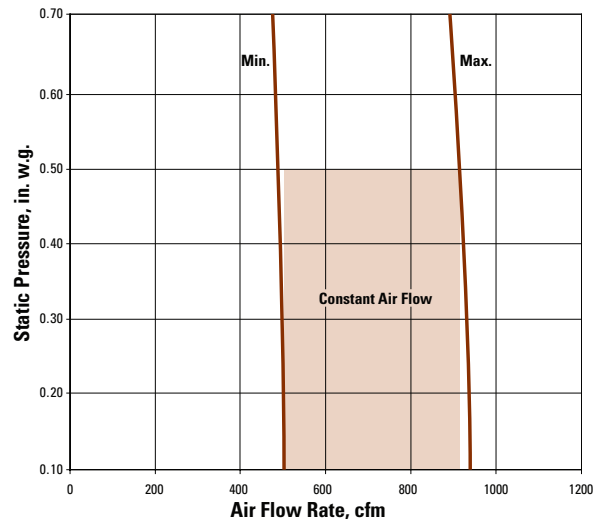
Unit Size 40 - 4 Row ECM Constant Flow



Unit Size 40 - 6 Row ECM Constant Flow



Unit Size 40 - 8 Row ECM Constant Flow



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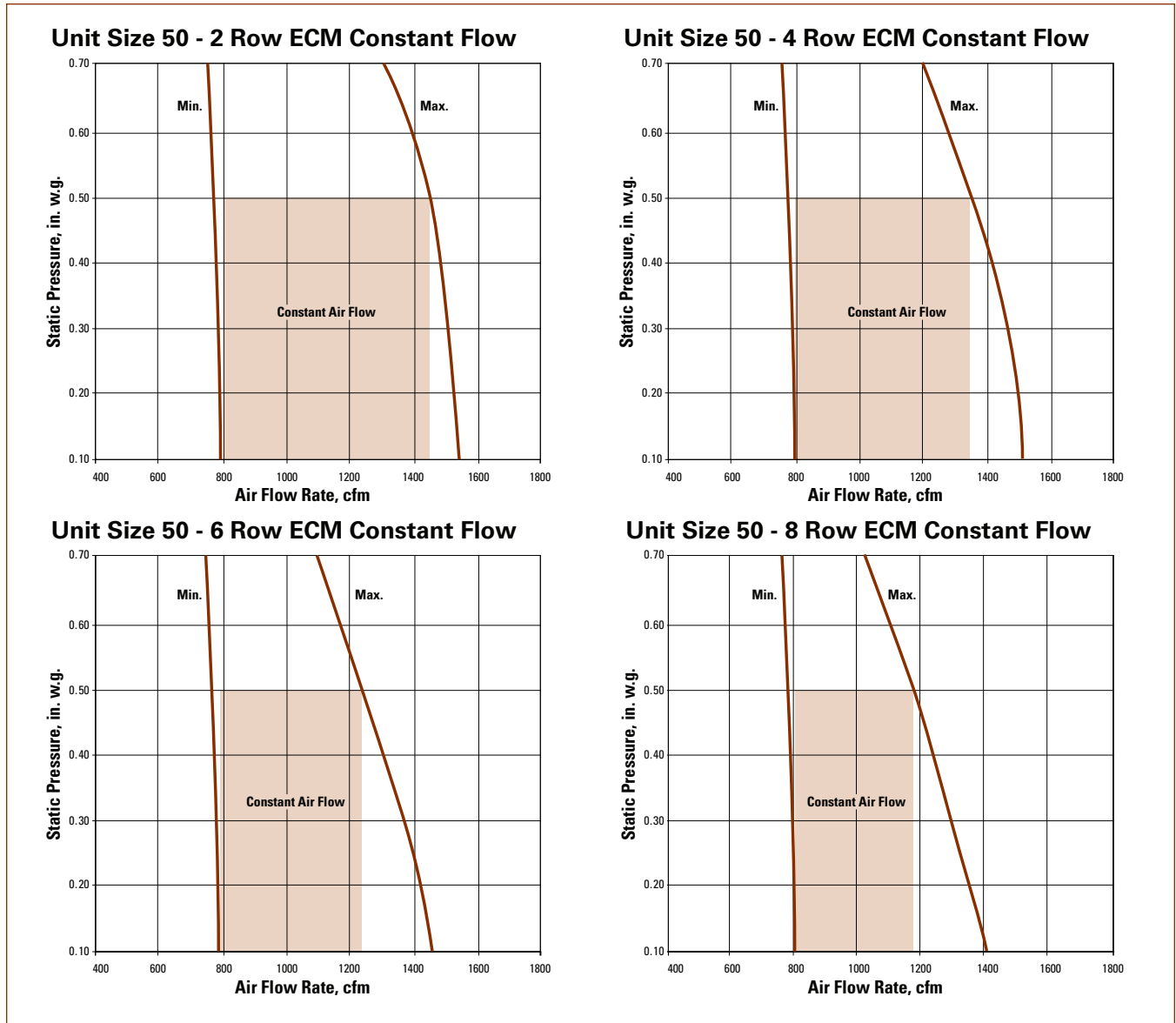
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Horizontal



Fan Performance Curves – ECM Motor



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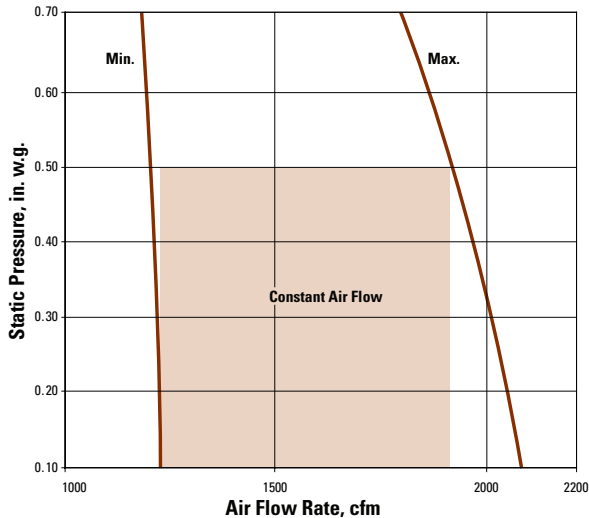
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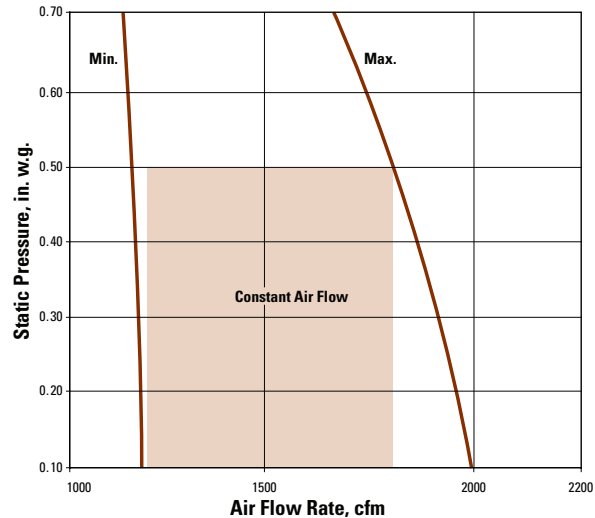
Fan Performance Curves – ECM Motor

FAN COILS & BLOWER COILS

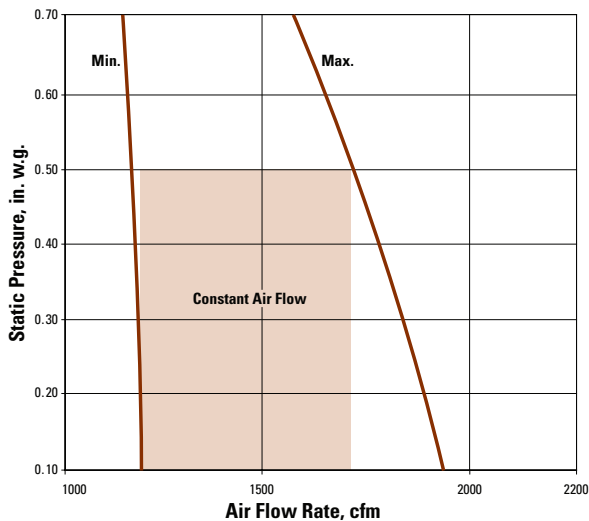
Unit Size 60 - 2 Row ECM Constant Flow



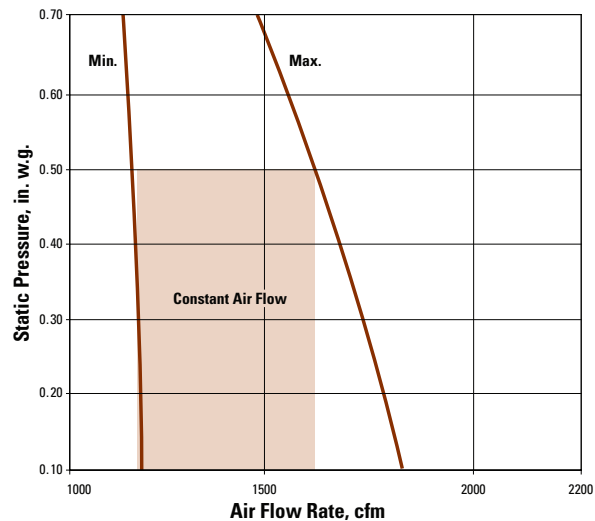
Unit Size 60 - 4 Row ECM Constant Flow



Unit Size 60 - 6 Row ECM Constant Flow



Unit Size 60 - 8 Row ECM Constant Flow



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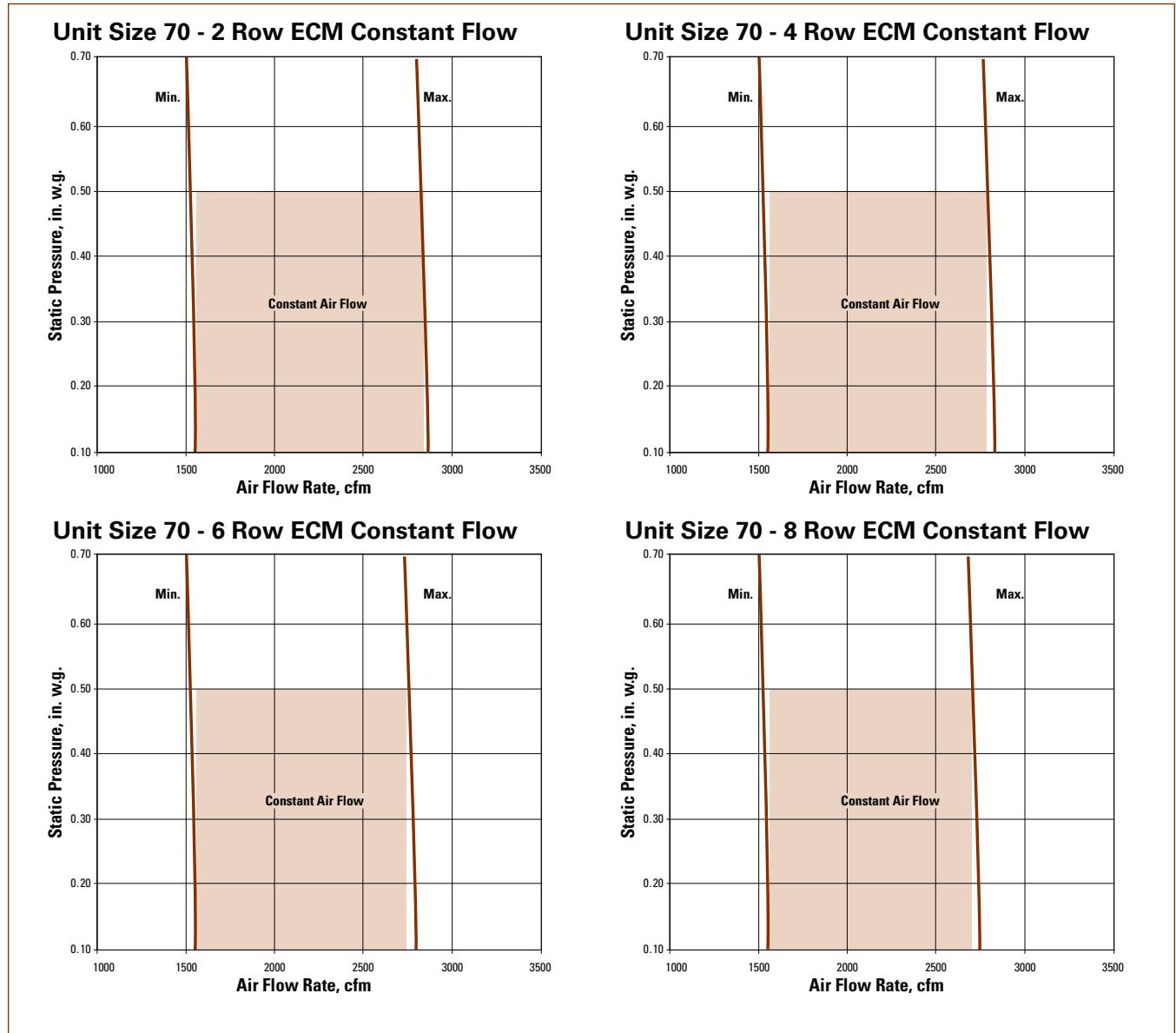
High Performance Fan Coils

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Horizontal



Fan Performance Curves – ECM Motor



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High Performance Fan Coils

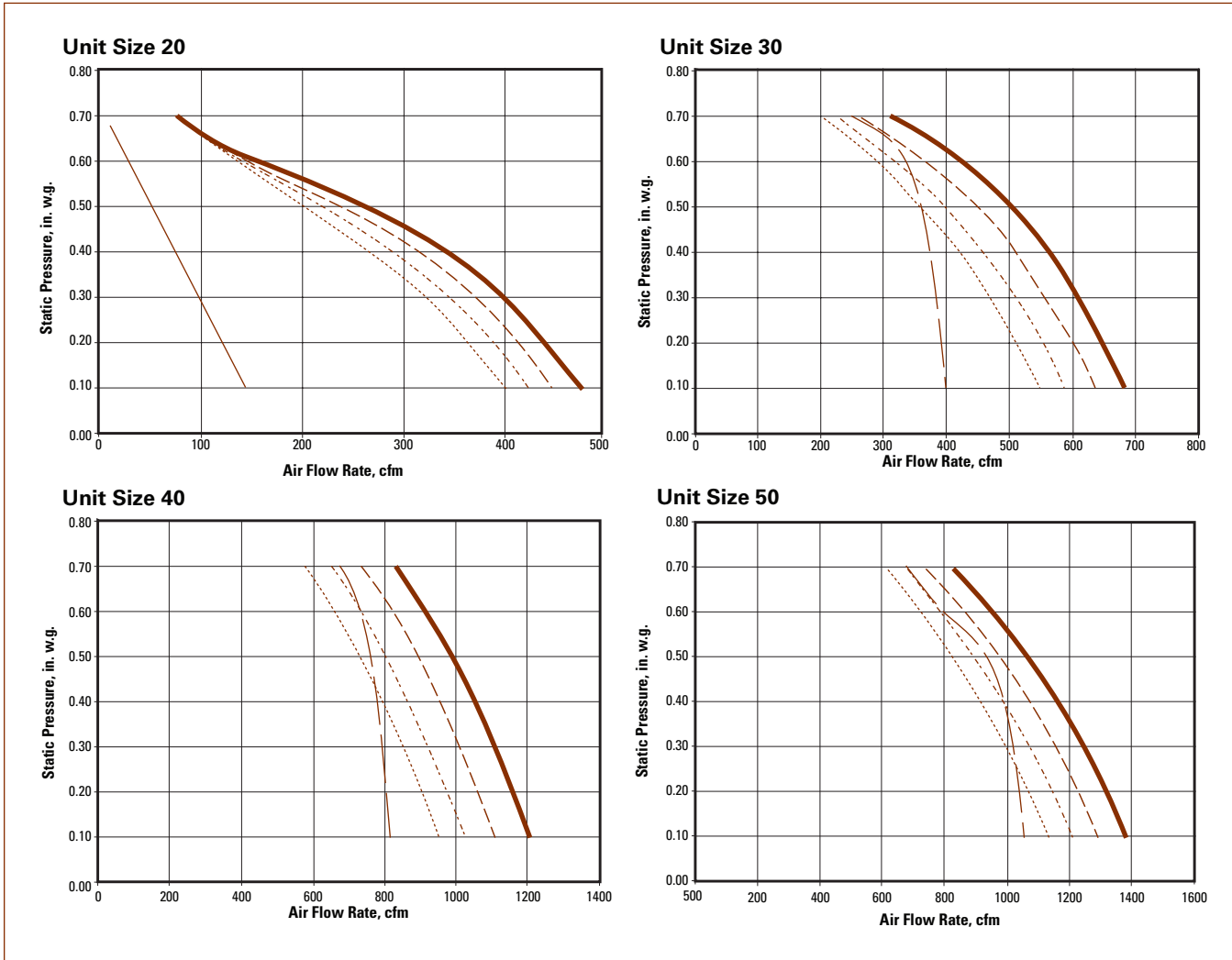
FCHG Genesis® Series

Horizontal



Fan Performance Curves – PSC Motor

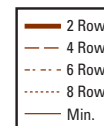
FAN COILS & BLOWER COILS



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Notes:

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3. For motor data and power consumption comparison, refer to FCHG. Data is the same for both models.

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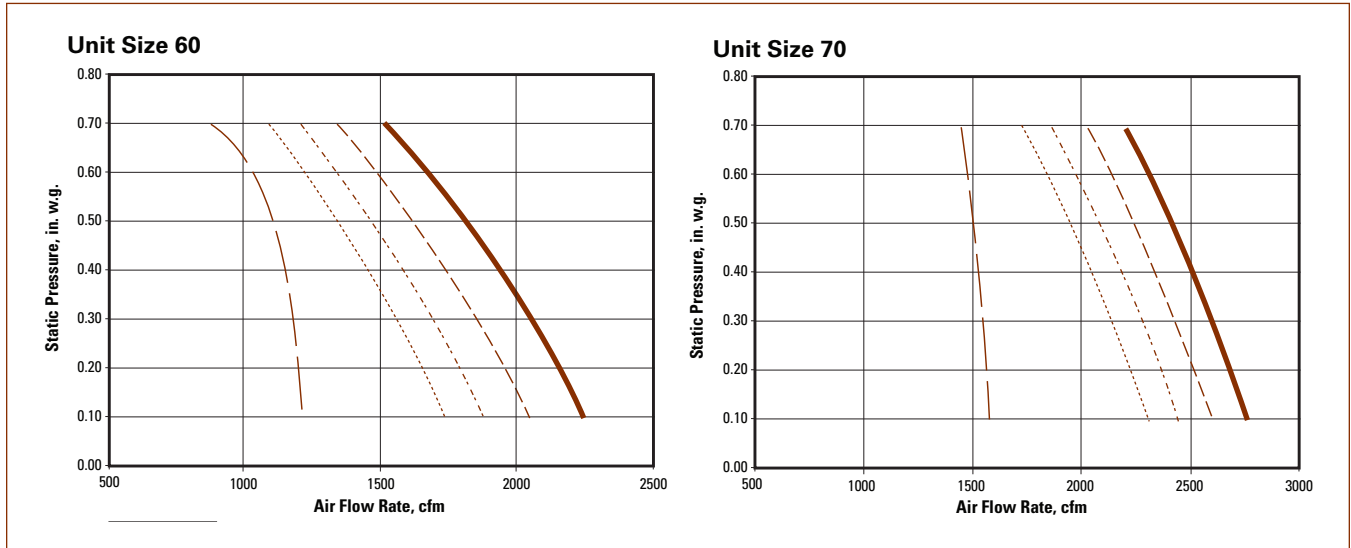
High Performance Fan Coils

FCHG Genesis® Series

Horizontal



Fan Performance Curves – PSC Motor



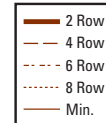
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40	1100
50	1450
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High Performance Fan Coils

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Horizontal



Sound Power Levels - Standard Unit



Sound Power Levels, Lw, dB, re 10⁻¹² Watts
Radiated Sound Power Levels Discharge Sound Power Levels

Unit Size	Air Flow		Octave Band							Radiated NC	Discharge						
	L/s	cfm	2	3	4	5	6	7	2		3	4	5	6	7	NC	
20	47	100	59	55	52	48	38	31	26	67	58	54	51	43	35	24	
	94	200	61	58	55	53	43	35	30	69	61	57	55	48	40	27	
	142	300	63	60	58	56	47	38	33	72	63	60	59	51	44	29	
	212	450	66	62	61	61	52	42	36	75	67	63	63	56	49	29	
30	142	300	62	60	58	56	47	37	33	65	62	59	59	52	45	22	
	212	450	65	63	62	60	52	43	37	69	66	64	64	58	52	25	
	283	600	69	66	65	64	57	48	40	72	70	67	68	63	58	30	
	330	700	71	68	66	66	59	51	42	74	73	69	70	66	61	33	
40	236	500	62	59	58	58	48	38	33	63	61	60	58	54	47	--	
	307	650	65	62	60	61	52	43	35	66	65	63	62	58	52	23	
	378	800	67	65	62	63	56	47	38	69	68	66	66	61	57	26	
	448	950	70	67	64	66	59	50	40	72	71	69	69	64	61	29	
50	378	800	66	63	62	61	52	43	37	67	66	64	64	58	53	23	
	496	1050	69	66	65	65	57	48	40	70	69	68	68	63	59	28	
	566	1200	71	68	67	66	59	51	42	72	71	70	70	65	61	30	
	661	1400	73	70	68	69	62	54	44	75	74	72	73	68	65	33	
60	566	1200	68	65	64	63	54	44	39	67	66	66	65	60	55	23	
	661	1400	70	67	65	65	56	47	41	69	68	68	68	63	58	26	
	850	1800	73	71	68	68	60	52	44	73	72	71	72	67	63	31	
	944	2000	75	72	69	70	62	54	45	75	74	73	74	69	66	33	
70	708	1500	70	65	65	63	54	46	41	70	66	67	65	61	57	24	
	850	1800	73	67	67	66	57	50	43	73	69	70	68	65	61	28	
	1038	2200	76	70	70	69	61	54	45	76	73	73	72	68	66	32	
	1227	2600	79	73	72	71	64	57	48	79	76	76	76	72	70	35	

FAN COILS & BLOWER COILS

Performance Notes:

1. Test data obtained in accordance with AHRI Standard 880-2008 and ASHRAE Standard 130-2008.
2. Sound Power Levels expressed in decibels (dB) re 10⁻¹² watts.
3. Data is raw without any corrections for room absorption, duct attenuation, or ceiling transmission loss.
4. Fan external static pressure is 0.25 in. w.g. [63 Pa] in all cases.
5. Discharge sound power levels are the same for units with or without an Inlet Silencer.
6. Radiated sound power levels are based on non-ducted return (includes inlet sound plus casing radiated).

7. NC values are calculated based on typical attenuation values outlined in Appendix E, 2002 Addendum to AHRI Standard 885-2008, "A Procedure for Estimating Occupied Space Sound Levels in the Application of air Terminals and Air Outlets".
8. **Radiated NC** is based on a mineral fiber tile ceiling and the environmental effect. The radiated attenuation deductions are as follows:

Radiated Attenuation	Octave Band						
	2	3	4	5	6	7	
Total Deductions	18	19	20	26	31	36	

9. **Discharge NC** is based on the environmental effect, duct lining effect, end reflection, flex duct effect and sound power division. The total discharge attenuation deductions are as follows:

Discharge Attenuation	Octave Band						
	2	3	4	5	6	7	
<300	24	28	39	53	59	40	
300-700 cfm	27	29	40	51	53	39	
>700 cfm	29	30	41	51	52	39	

10. Blanks (-) indicate NCs less than 20.

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Horizontal



Sound Power Levels with Fiberglass Inlet Silencers

Sound Power Levels, Lw, dB, re 10⁻¹² Watts
Radiated Sound Power Levels

Unit Size	Air Flow		Octave Band							Radiated NC
	L/s	cfm	2	3	4	5	6	7		
20	47	100	57	50	46	42	32	28	20	
	94	200	60	52	49	46	38	32	23	
	142	300	62	54	52	50	41	35	26	
	212	450	65	57	55	54	46	39	29	
30	142	300	61	58	54	52	44	39	28	
	212	450	65	61	57	56	49	44	32	
	283	600	68	64	60	59	54	49	35	
	330	700	70	66	62	62	56	52	37	
40	236	500	60	56	54	51	42	36	28	
	307	650	63	59	57	54	46	40	31	
	378	800	66	62	59	57	50	44	34	
	448	950	68	64	61	59	53	48	36	
50	378	800	65	61	57	56	49	42	32	
	496	1050	68	64	60	59	53	47	35	
	566	1200	70	65	61	61	55	49	36	
	661	1400	72	68	63	63	58	53	39	
60	566	1200	67	61	59	57	52	45	33	
	661	1400	69	63	60	59	54	47	35	
	850	1800	72	67	63	62	58	52	38	
	944	2000	74	68	64	64	60	55	40	
70	708	1500	66	61	62	56	47	45	37	
	850	1800	68	63	64	59	50	48	39	
	1038	2200	71	66	66	62	54	52	41	
	1227	2600	74	69	68	65	57	55	44	

Performance Notes:

- Test data obtained in accordance with AHRI Standard 880-2008 and ASHRAE Standard 130-2008.
- Sound Power Levels expressed in decibels (dB) re 10⁻¹² watts.
- Data is raw without any corrections for room absorption, duct attenuation, or ceiling transmission loss.
- Fan external static pressure is 0.25 in. w.g. [63 Pa] in all cases.
- Discharge sound power levels are the same for units with or without an Inlet Silencer.
- Radiated sound power levels are based on non-ducted return (includes inlet sound plus casing radiated).
- NC values are calculated based on typical attenuation values outlined in Appendix E, 2002 Addendum to AHRI Standard 885-2008, "A Procedure for Estimating Occupied Space Sound Levels in the Application of air Terminals and Air Outlets".
- Radiated NC** is based on a mineral fiber tile ceiling and the environmental effect. The radiated attenuation deductions are as follows:

Radiated Attenuation	Octave Band						
	2	3	4	5	6	7	
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- Discharge NC** is based on the environmental effect, duct lining effect, end reflection, flex duct effect and sound power division. The total discharge attenuation deductions are as follows:

Discharge Attenuation	Octave Band						
	2	3	4	5	6	7	
<300	24	28	39	53	59	40	
300-700 cfm	27	29	40	51	53	39	
>700 cfm	29	30	41	51	52	39	
- Blanks (--) indicate NCs less than 20.

AHRI 440 Standard Ratings



Unit Size	AHRI Certified	Rows	Coil Circuits	FPI	Dry Flow (cfm)	Qt (Btu/h)	Qs (Btu/h)	Flow (GPM)	WPD (ft w.g.)	Power Input (Watts)
20	YES	4	5	10	480	12200	9800	2.78	0.4	150
30	YES	4	5	10	670	13800	12600	3.09	0.7	330
40	YES	4	5	10	890	24500	19500	5.45	2.3	330
50	YES	4	5	10	1370	37000	29300	8.18	6.1	650
60		4	10	10	1920	49800	40400	10.78	4.4	702
70		4	10	10	2600	69200	55500	14.96	5.1	1314

Notes:

- Ratings based on 80 °F DB and 67 °F WB EAT, 45 °F EWT, 10 °F temperature rise, Max fan flow setting. Motor type is ECM Constant Volume and motor voltage is 115/1/60. Air flow under dry coil conditions with 0.20 in. external static pressure and 2 in. MERV 8 filter.
- The AHRI 440 certification program only covers air flow capacities up to 1500 cfm, therefore sizes 60 and 70 are not certified.
- For all application ratings, please contact your local Price representative.

