

PERFORMANCE DATA

Model QAF845

Acoustic Performance Ratings

	Measured at Octave Band Center Frequencies					
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
Free-Field Noise Reduction (dB)	11	13	16	21	18	14
Transmission Loss (dB)	5	7	10	15	12	8

Performance Notes:

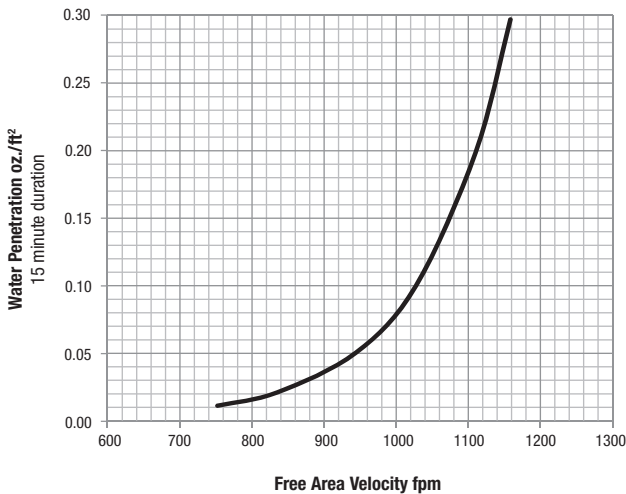
1. Test data obtained in accordance with ASTM E90 test standard for Transmission Loss.
2. Free Field Noise Reduction = Transmission Loss + 6 dB
3. Sound Transmission Class (STC) = 12, obtained in accordance with ASTM E413.

Free Area (sq. ft.)

Height in.	Width in.											
	12	18	24	30	36	42	48	54	60	66	72	
18	0.28	0.45	0.63	0.80	0.97	1.14	1.31	1.48	1.65	1.82	1.99	
24	0.45	0.73	1.00	1.27	1.55	1.82	2.09	2.37	2.64	2.91	3.18	
30	0.45	0.73	1.00	1.27	1.55	1.82	2.09	2.36	2.64	2.91	3.18	
36	0.63	1.00	1.38	1.75	2.13	2.50	2.88	3.25	3.63	4.00	4.38	
42	0.80	1.27	1.75	2.23	2.71	3.18	3.66	4.14	4.62	5.09	5.57	
48	0.97	1.55	2.13	2.71	3.29	3.87	4.44	5.02	5.60	6.18	6.76	
54	0.97	1.55	2.13	2.71	3.29	3.87	4.44	5.02	5.60	6.18	6.76	
60	1.14	1.82	2.50	3.18	3.86	4.55	5.23	5.91	6.59	7.28	7.96	
66	1.31	2.09	2.88	3.66	4.44	5.23	6.01	6.80	7.58	8.37	9.15	
72	1.48	2.36	3.25	4.14	5.02	5.91	6.80	7.68	8.57	9.46	10.34	
78	1.48	2.36	3.25	4.14	5.02	5.91	6.80	7.68	8.57	9.46	10.34	
84	1.65	2.64	3.63	4.61	5.60	6.59	7.58	8.57	9.56	10.55	11.54	
90	1.82	2.91	4.00	5.09	6.18	7.27	8.37	9.46	10.55	11.64	12.73	
96	1.99	3.18	4.38	5.57	6.76	7.96	9.15	10.34	11.54	12.73	13.92	

Water Penetration Rating

Louver test size 48 in. x 48 in.
748 fpm beginning of water penetration



Air Performance Rating

Louver test size 48 in. x 48 in.



Performance Notes:

1. Beginning point of water penetration is defined by AMCA standard 511 as the free area velocity at which 0.01 ounces of water per square foot of free area is measured to pass through a 4' x 4' louver during a 15 minute test.
2. Data corrected to standard air density and tested to AMCA 500-L figure 5.5.

PERFORMANCE DATA

Model QAF1245

Acoustic Performance Ratings

	Measured at Octave Band Center Frequencies					
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
Free-Field Noise Reduction (dB)	13	15	20	21	18	14
Transmission Loss (dB)	7	9	14	15	12	8

Performance Notes:

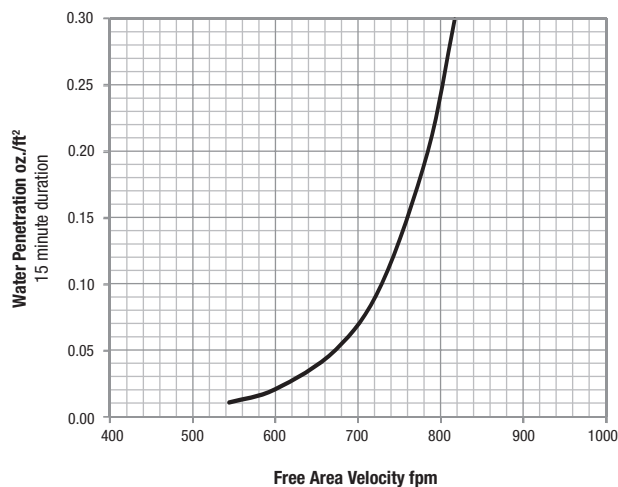
1. Test data obtained in accordance with ASTM E90 test standard for Transmission Loss.
2. Free Field Noise Reduction = Transmission Loss + 6 dB
3. Sound Transmission Class (STC) = 12, obtained in accordance with ASTM E413.

Free Area (sq. ft.)

Height in.	Width in.										
	12	18	24	30	36	42	48	54	60	66	72
24	0.38	0.61	0.84	1.07	1.30	1.52	1.75	1.98	2.21	2.44	2.67
30	0.60	0.61	0.84	1.07	1.30	1.52	1.75	1.98	2.21	2.44	2.67
36	0.60	0.97	1.33	1.69	2.06	2.42	2.78	3.14	3.51	3.87	4.23
42	0.83	0.97	1.33	1.69	2.06	2.42	2.78	3.14	3.51	3.87	4.23
48	0.83	1.33	1.82	2.32	2.82	3.31	3.90	4.31	4.80	5.30	5.80
54	1.05	1.33	1.82	2.32	2.82	3.31	3.90	4.31	4.80	5.30	5.80
60	1.05	1.68	2.31	2.95	3.58	4.21	4.84	5.47	6.10	6.73	7.36
66	1.28	1.68	2.31	2.95	3.58	4.21	4.84	5.47	6.10	6.73	7.36
72	1.28	2.04	2.81	3.57	4.34	5.10	5.87	6.63	7.40	8.16	8.93
78	1.50	2.04	2.81	3.57	4.34	5.10	5.87	6.63	7.40	8.16	8.93
84	1.50	2.40	3.30	4.20	5.10	6.00	6.90	7.80	8.70	9.60	10.50
90	1.72	2.40	3.30	4.20	5.10	6.00	6.90	7.80	8.70	9.60	10.50
96	1.72	2.76	3.79	4.82	5.86	6.89	7.93	8.96	9.99	11.03	12.06

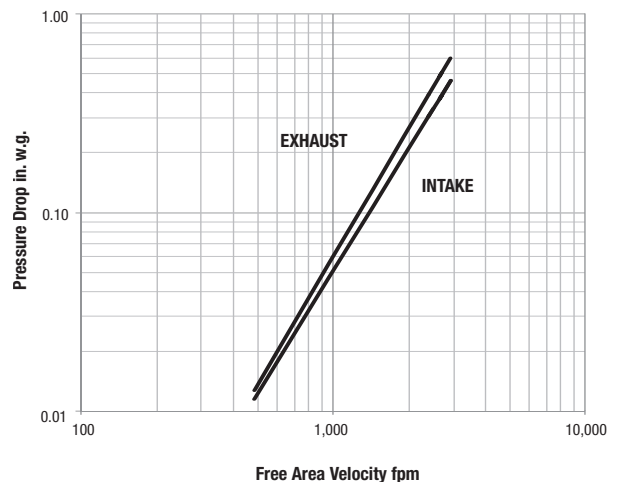
Water Penetration Rating

Louver test size 48 in. x 48 in.
546 fpm beginning of water penetration



Air Performance Rating

Louver test size 48 in. x 48 in.



Performance Notes:

1. Beginning point of water penetration is defined by AMCA standard 511 as the free area velocity at which 0.01 ounces of water per square foot of free area is measured to pass through a 4' x 4' louver during a 15 minute test.
2. Data corrected to standard air density and tested to AMCA 500-L figure 5.5.

PERFORMANCE DATA

Model QA645

Acoustic Performance Ratings

	Measured at Octave Band Center Frequencies					
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
Free-Field Noise Reduction (dB)	10	10	13	20	21	17
Transmission Loss (dB)	4	4	7	14	15	11

Performance Notes:

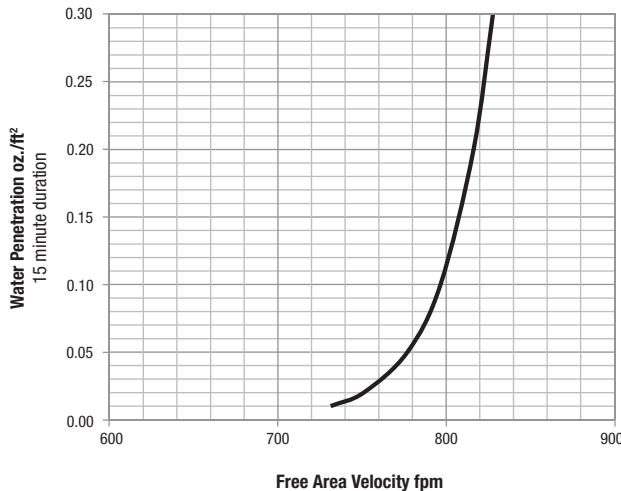
1. Test data obtained in accordance with ASTM E90 test standard for Transmission Loss.
2. Free Field Noise Reduction = Transmission Loss + 6 dB
3. Sound Transmission Class (STC) = 12, obtained in accordance with ASTM E413.

Free Area (sq. ft.)

Height in.	Width in.											
	12	18	24	30	36	42	48	54	60	66	72	
18	0.28	0.44	0.61	0.77	0.94	1.10	1.27	1.43	1.60	1.76	1.93	
24	0.41	0.66	0.91	1.16	1.41	1.66	1.91	2.16	2.41	2.65	2.90	
30	0.55	0.89	1.22	1.55	1.88	2.22	2.55	2.88	3.21	3.55	3.88	
36	0.69	1.11	1.53	1.94	2.36	2.78	3.19	3.61	4.02	4.44	4.86	
42	0.83	1.33	1.83	2.33	2.83	3.33	3.83	4.33	4.83	5.33	5.83	
48	0.97	1.56	2.14	2.72	3.31	3.89	4.48	5.06	5.64	6.23	6.81	
54	1.11	1.78	2.45	3.12	3.78	4.45	5.12	5.79	6.45	7.12	7.79	
60	1.25	2.00	2.75	3.51	4.26	5.01	5.76	6.51	7.26	8.01	8.77	
66	1.39	2.23	3.06	3.90	4.73	5.57	6.40	7.24	8.07	8.91	9.74	
72	1.53	2.45	3.37	4.29	5.21	6.13	7.04	7.96	8.88	9.80	10.72	
78	1.67	2.67	3.68	4.68	5.68	6.68	7.69	8.69	9.69	10.69	11.70	
84	1.81	2.90	3.98	5.07	6.16	7.24	8.33	9.41	10.50	11.59	12.67	
90	1.95	3.12	4.29	5.46	6.63	7.80	8.97	10.14	11.31	12.48	13.65	
96	2.09	3.34	4.60	5.85	7.11	8.36	9.61	10.87	12.12	13.37	14.63	

Water Penetration Rating

Louver test size 48 in. x 48 in.
734 fpm beginning of water penetration



Air Performance Rating

Louver test size 48 in. x 48 in.



Performance Notes:

1. Beginning point of water penetration is defined by AMCA standard 511 as the free area velocity at which 0.01 ounces of water per square foot of free area is measured to pass through a 4' x 4' louver during a 15 minute test.
2. Data corrected to standard air density and tested to AMCA 500-L figure 5.5.

PERFORMANCE DATA

Model QA845

Acoustic Performance Ratings

	Measured at Octave Band Center Frequencies					
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
Free-Field Noise Reduction (dB)	10	11	15	24	25	19
Transmission Loss (dB)	4	5	9	18	19	13

Performance Notes:

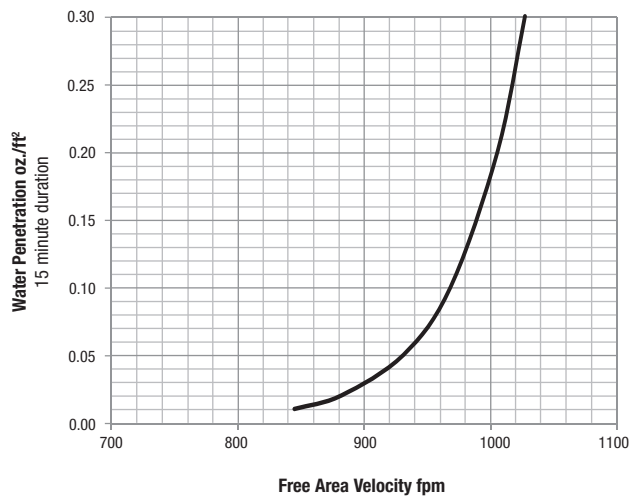
1. Test data obtained in accordance with ASTM E90 test standard for Transmission Loss.
2. Free Field Noise Reduction = Transmission Loss + 6 dB
3. Sound Transmission Class (STC) = 14, obtained in accordance with ASTM E413.

Free Area (sq. ft.)

Height in.	Width in.										
	12	18	24	30	36	42	48	54	60	66	72
18	0.25	0.40	0.56	0.71	0.86	1.01	1.16	1.31	1.47	1.62	1.77
24	0.39	0.63	0.86	1.10	1.33	1.57	1.80	2.04	2.27	2.51	2.75
30	0.53	0.85	1.17	1.49	1.81	2.13	2.45	2.77	3.08	3.40	3.72
36	0.67	1.07	1.48	1.88	2.28	2.69	3.09	3.49	3.89	4.30	4.70
42	0.81	1.30	1.78	2.27	2.76	3.24	3.73	4.22	4.70	5.19	5.68
48	0.95	1.52	2.09	2.66	3.23	3.80	4.37	4.94	5.51	6.08	6.65
54	1.09	1.74	2.40	3.05	3.71	4.36	5.01	5.67	6.32	6.98	7.63
60	1.23	1.97	2.71	3.44	4.18	4.92	5.66	6.39	7.13	7.87	8.61
66	1.37	2.19	3.01	3.83	4.66	5.48	6.30	7.12	7.94	8.76	9.58
72	1.51	2.41	3.32	4.22	5.13	6.04	6.94	7.85	8.75	9.66	10.56
78	1.65	2.64	3.63	4.62	5.60	6.59	7.58	8.57	9.56	10.55	11.54
84	1.79	2.86	3.93	5.01	6.08	7.15	8.22	9.30	10.37	11.44	12.52
90	1.93	3.08	4.24	5.40	6.55	7.71	8.87	10.02	11.18	12.34	13.49
96	2.07	3.31	4.55	5.79	7.03	8.27	9.51	10.75	11.99	13.23	14.47

Water Penetration Rating

Louver test size 48 in. x 48 in.
847 fpm beginning of water penetration



Air Performance Rating

Louver test size 48 in. x 48 in.



Performance Notes:

1. Beginning point of water penetration is defined by AMCA standard 511 as the free area velocity at which 0.01 ounces of water per square foot of free area is measured to pass through a 4' x 4' louver during a 15 minute test.
2. Data corrected to standard air density and tested to AMCA 500-L figure 5.5.

PERFORMANCE DATA

Model QA1245

Acoustic Performance Ratings

	Measured at Octave Band Center Frequencies					
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
Free-Field Noise Reduction (dB)	11	12	17	28	32	23
Transmission Loss (dB)	5	6	11	22	26	17

Performance Notes:

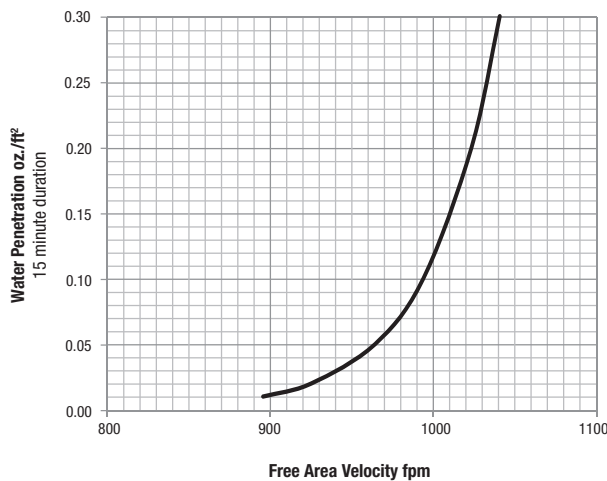
1. Test data obtained in accordance with ASTM E90 test standard for Transmission Loss.
2. Free Field Noise Reduction = Transmission Loss + 6 dB
3. Sound Transmission Class (STC) = 17, obtained in accordance with ASTM E413.

Free Area (sq. ft.)

Height in.	Width in.										
	12	18	24	30	36	42	48	54	60	66	72
24	0.28	0.44	0.61	0.77	0.94	1.10	1.27	1.43	1.60	1.76	1.93
30	0.41	0.66	0.91	1.16	1.41	1.66	1.91	2.16	2.41	2.65	2.90
36	0.55	0.89	1.22	1.55	1.88	2.22	2.55	2.88	3.21	3.55	3.88
42	0.69	1.11	1.53	1.94	2.36	2.78	3.19	3.61	4.02	4.44	4.86
48	0.83	1.33	1.83	2.33	2.83	3.33	3.83	4.33	4.83	5.33	5.83
54	0.97	1.56	2.14	2.72	3.31	3.89	4.48	5.06	5.64	6.23	6.81
60	1.11	1.78	2.45	3.12	3.78	4.45	5.12	5.79	6.45	7.12	7.79
66	1.25	2.00	2.75	3.51	4.26	5.01	5.76	6.51	7.26	8.01	8.77
72	1.39	2.23	3.06	3.90	4.73	5.57	6.40	7.24	8.07	8.91	9.74
78	1.53	2.45	3.37	4.29	5.21	6.13	7.04	7.96	8.88	9.80	10.72
84	1.67	2.67	3.68	4.68	5.68	6.68	7.69	8.69	9.69	10.69	11.70
90	1.81	2.90	3.98	5.07	6.16	7.24	8.33	9.41	10.50	11.59	12.67
96	1.95	3.12	4.29	5.46	6.63	7.80	8.97	10.14	11.31	12.48	13.65

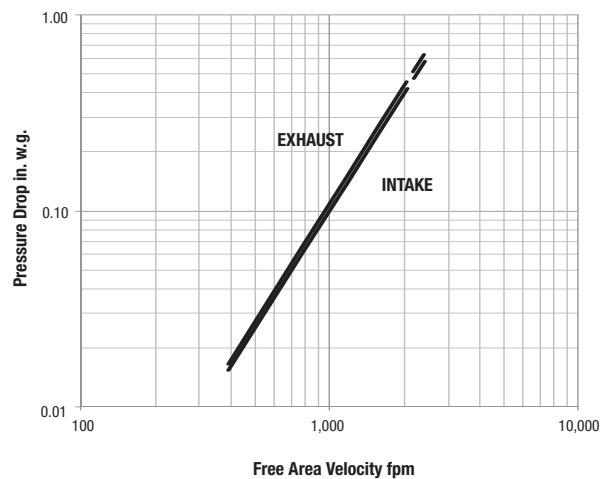
Water Penetration Rating

Louver test size 48 in. x 48 in.
896 fpm beginning of water penetration



Air Performance Rating

Louver test size 48 in. x 48 in.



Performance Notes:

1. Beginning point of water penetration is defined by AMCA standard 511 as the free area velocity at which 0.01 ounces of water per square foot of free area is measured to pass through a 4' x 4' louver during a 15 minute test.
2. Data corrected to standard air density and tested to AMCA 500-L figure 5.5.