

700HZE

Extreme Performance Louver

AMCA 540/AMCA 550

RELIABLE

APPLICATION

The 700HZE is a double frame extreme performance louver. Its two-piece blade design provides protection from wind-driven rain penetration, reducing damage and additional operating expenses. The 700HZE has visible mullion construction featuring horizontal front blade design for architecturally pleasing aesthetics.

STANDARD CONSTRUCTION

Frame	Double frame design produced from 6063T6 extruded aluminum with .080" (2.0) nominal wall thickness. Front frame depth is 4" (102) and rear frame depth is 3" (76). Combined frame depth is 7" (178).
Blades	Horizontal front blade-6063T6 extruded aluminum .080" (2.0) nominal wall thickness on a 3.8" (96.52) center to center spacing. Vertical rear blade 6063T6 extruded aluminum .050" (1.3) nominal wall thickness on a 3/4" (1.9) center to center spacing.
Screen	5/8" x .040" (16x1) expanded, flattened aluminum bird screen in removable frame.
Finish	Mill.
Approximate Shipping Weight	8 lbs./sq. ft. (39 kg/m ²).
Minimum Size	12" x 12" (305 x 305).
Maximum Size	60"x120" (1524x3048). Louvers larger than the maximum factory assembly size will require field assembly of smaller sections. See note at bottom of this page for unlimited sizing specifications.
Installation	The 700HZE must be installed per the appropriate installation detail. Reference the appropriate separate installation instruction sheets.

FEATURES

- 53% Free Area.
- AMCA 540 (Missile E) Listed.
- AMCA 550 Listed.
- Published performance ratings based on testing in accordance with AMCA 500-L.
- Mechanically Fastened.
- Approved for applications with design pressure of +/- 130 PSF (6.7 kPa).
- Intake Pressure Drop-0.3"w.g. at 1000 fpm free area velocity.
- Exhaust Pressure Drop-0.28"w.g. at 1000 fpm free area velocity.



VARIATIONS

- Variety of bird screens.
- Extended sill.
- Security bars.
- Sleeves.
- Blank off.
- Filter rack.
- Glazing frame.
- Front flange.
- Various installation in CMU, concrete and steel available.
- Optional finishes available at additional cost: Prime Coat, 50% & 70% PVDF (modified fluoropolymer), Epoxy, 50% & 70% Pearledize.

Note:

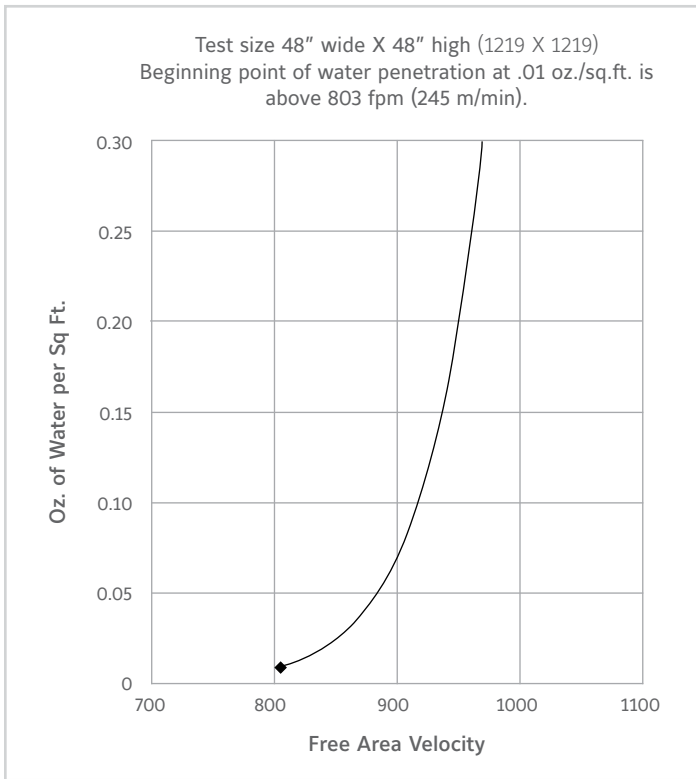
- Dimensions in inches, parenthesis () indicate millimeters.
- Units furnished 1/4" (6) smaller than given opening dimensions.
- Unlimited Maximum Sizing: Unlimited width x 120"h or 60"w x unlimited height.

FREE AREA GUIDE

Free Area Guide shows free area in ft² and m² for various sizes of 700HZE.

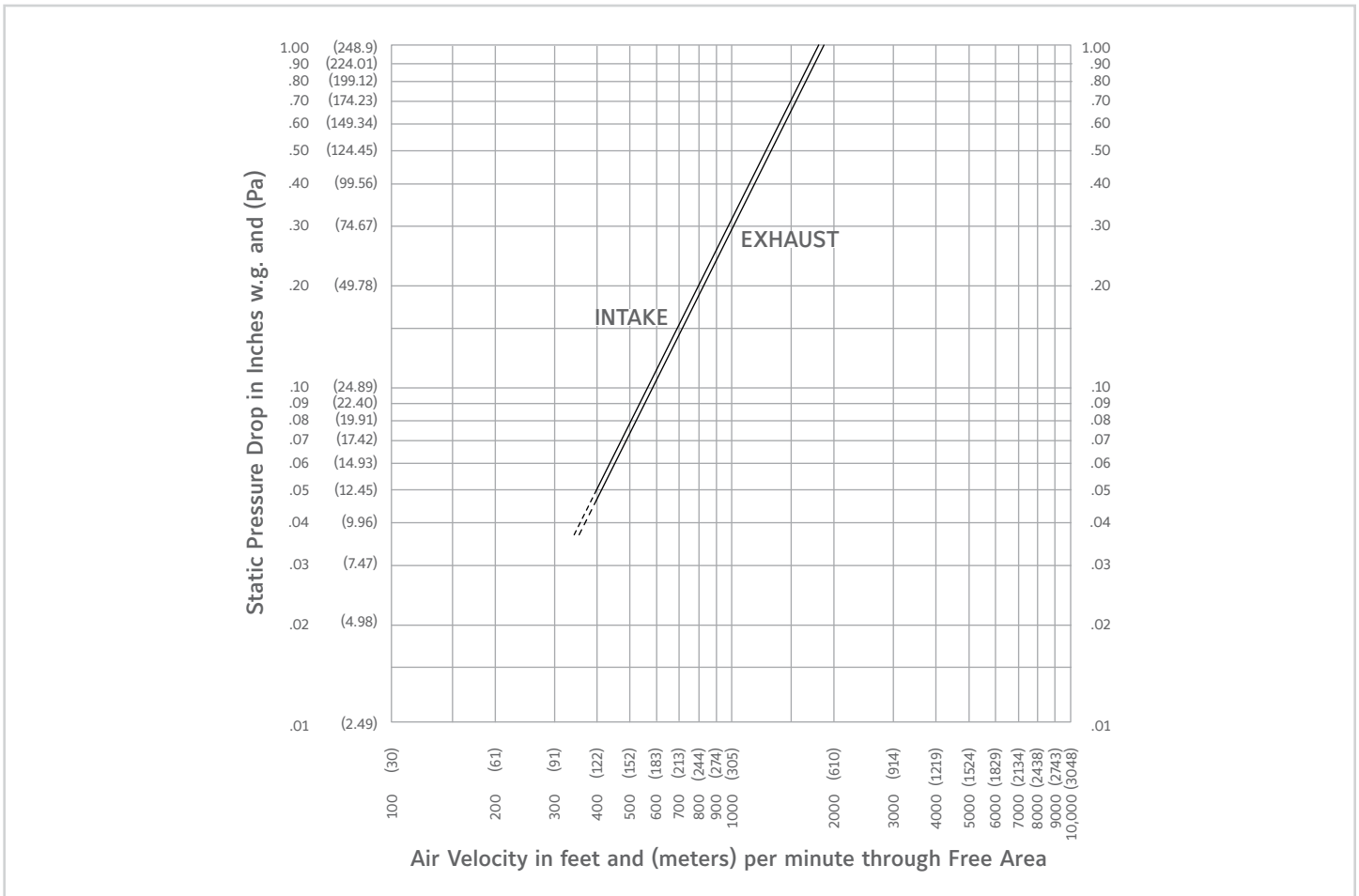
		Width – Inches and Meters									
		12 0.30	18 0.45	24 0.60	30 0.75	36 0.90	42 1.05	48 1.20	54 1.35	60 1.50	
Height – Inches and Meters	12 0.30	0.29 0.03	0.48 0.04	0.67 0.06	0.87 0.08	1.06 0.10	1.25 0.12	1.44 0.13	1.64 0.15	1.83 0.17	
	18 0.45	0.52 0.05	0.87 0.08	1.22 0.11	1.57 0.15	1.92 0.18	2.27 0.21	2.62 0.24	2.97 0.28	3.32 0.31	
	24 0.60	0.76 0.07	1.26 0.12	1.77 0.16	2.28 0.21	2.78 0.26	3.29 0.31	3.79 0.35	4.30 0.40	4.81 0.45	
	30 0.75	0.99 0.09	1.66 0.15	2.32 0.22	2.98 0.28	3.64 0.34	4.31 0.40	4.97 0.46	5.63 0.52	6.29 0.59	
	36 0.90	1.23 0.11	2.05 0.19	2.87 0.27	3.69 0.34	4.51 0.42	5.33 0.50	6.14 0.57	6.96 0.65	7.78 0.72	
	42 1.05	1.46 0.14	2.44 0.23	3.42 0.32	4.39 0.41	5.37 0.50	6.34 0.59	7.32 0.68	8.30 0.77	9.27 0.86	
	48 1.20	1.70 0.16	2.83 0.26	3.96 0.37	5.10 0.47	6.23 0.58	7.36 0.68	8.49 0.79	9.63 0.90	10.76 1.00	
	54 1.35	1.93 0.18	3.22 0.30	4.51 0.42	5.80 0.54	7.09 0.66	8.38 0.78	9.67 0.90	10.96 1.02	12.25 1.14	
	60 1.50	2.17 0.20	3.61 0.34	5.06 0.47	6.51 0.61	7.95 0.74	9.40 0.87	10.84 1.01	12.29 1.14	13.74 1.28	
	66 1.65	2.40 0.22	4.01 0.37	5.61 0.52	7.21 0.67	8.81 0.82	10.42 0.97	12.02 1.12	13.62 1.27	15.22 1.42	
	72 1.80	2.64 0.25	4.40 0.41	6.16 0.57	7.92 0.74	9.68 0.90	11.44 1.06	13.19 1.23	14.95 1.39	16.71 1.55	
	78 1.95	2.87 0.27	4.79 0.45	6.71 0.62	8.62 0.80	10.54 0.98	12.45 1.16	14.37 1.34	16.29 1.51	18.20 1.69	
	84 2.10	3.11 0.29	5.18 0.48	7.25 0.67	9.33 0.87	11.40 1.06	13.47 1.25	15.54 1.45	17.62 1.64	19.69 1.83	
	90 2.25	3.34 0.31	5.57 0.52	7.80 0.73	10.03 0.93	12.26 1.14	14.49 1.35	16.72 1.55	18.95 1.76	21.18 1.97	
	96 2.40	3.58 0.33	5.96 0.55	8.35 0.78	10.74 1.00	13.12 1.22	15.51 1.44	17.89 1.66	20.28 1.89	22.67 2.11	
	102 2.55	3.81 0.35	6.36 0.59	8.90 0.83	11.44 1.06	13.98 1.30	16.53 1.54	19.07 1.77	21.61 2.01	24.15 2.25	
	108 2.70	4.05 0.38	6.75 0.63	9.45 0.88	12.15 1.13	14.85 1.38	17.55 1.63	20.24 1.88	22.94 2.13	25.64 2.38	
	114 2.85	4.28 0.40	7.14 0.66	10.00 0.93	12.85 1.20	15.71 1.46	18.56 1.73	21.42 1.99	24.28 2.26	27.13 2.52	
120 3.00	4.52 0.42	7.53 0.70	10.54 0.98	13.56 1.26	16.57 1.54	19.58 1.82	22.59 2.10	25.61 2.38	28.62 2.66		

WATER PENETRATION GRAPH



Reliable Company certifies that the 700HZE is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to air performance ratings, water penetration ratings, and wind driven rain ratings only.

PRESSURE DROP



WIND-DRIVEN RAIN PERFORMANCE

Test size is 39.375" w x 39.375" h (1m x 1m) core area, 41.375" w x 44.2" h (1.05m x 1.12m) nominal. Free Area of test louver is 6.8 ft² (10.63m²).

Wind Velocity mph (kph)	Rain Fall Rate In./hr. (mm/hr.)	Core Velocity fpm (m/s ³)	Airflow cfm (m ³ /min)	Free Area Velocity, fpm (m/sec.)	Effectiveness Ratio	Class _{3, 4}	Discharge Loss Class ₅ Intake
29 (46.4)	3" (76.2)	986 (5)	10619 (300.70)	1562 (7.9)	99.8%	A	3
50 (80.5)	8" (203)	984 (5)	10593 (299.96)	1558 (7.9)	99.8%	A	3

NOTES:

1. Core area is the open area of the louver face (face area less louver frames.) Core Velocity is the airflow velocity through the Core Area of the louver (1m x 1m).

2. Free Area of test size is calculated per AMCA standard 500-L.

3. Wind-Driven Rain Penetration Classes:

Class Effectiveness

A	1 to .99
B	0.989 to .095
C	0.949 to 0.80
D	Below 0.8

4. Discharge Loss Coefficient is calculated by dividing a louvers' actual airflow rate vs. a theoretical airflow for the opening. It provides an indication of the louvers' airflow characteristics.

Class Discharge Loss Coefficient

1	0.4 and above
2	0.3 to 0.399
3	0.2 to 0.299
4	0.199 and below

(The higher the coefficient, the less resistance to airflow.)



Reliable certifies that the 700HZE shown herein is approved to bear the AMCA Listing Label. The ratings shown are based on tests and procedures performed in accordance with AMCA Publications and comply with the requirements of the AMCA Listing Label Program.

The AMCA Listing Label applies to Wind Borne Debris Impact Resistant Louvers with Enhanced Protection Level E.

The AMCA Listing Label applies to High Velocity Rain Resistant Louver Louvers with blades fully open.

SUGGESTED SPECIFICATION

Furnish and install louvers as hereinafter specified where shown on plans. Louvers shall be manufactured in an ISO9001 certified factory and tested in accordance with AMCA 540 – Test Method for Louvers Impacted by Wind Borne Debris and AMCA 550 – Test Method for High Velocity Wind Driven Rain Resistant Louvers. Louvers shall have vertical wind driven rain (WDR) louver blades in the rear and horizontal architectural blades in the front for high performance and aesthetics.

Optional extended sill can be provided for additional water protection. Louver drainable blades shall be contained within a combined 7" (178) frame. Louver components including heads, jambs, blades and extended sill shall be factory assembled by the louver manufacturer. Louver sizes too large for shipping shall be built up by the contractor from factory assembled louver sections to provide overall sizes required.

Louvers shall be Reliable Model 700HZE extruded 6063T6 extruded aluminum alloy construction as follows:

Material.

Frame: .080" (2.0) wall thickness.

Blades: Horizontal front blade-6063T6 extruded aluminum .080" (2.0) nominal wall thickness on a 3.8" (96.52) center to center spacing.
Vertical rear blade 6063T6 extruded aluminum .050" (1.3) nominal wall thickness on a 3/4" (1.9) center to center spacing.

Optional

Extended Sill: .080 (2.0) wall thickness.

Screen: 5/8" x .040" (16 x 1) expanded, flattened aluminum bird screen in removable frame.

Finish: Select finish specification from Reliable Finishes Brochure.

LINKS TO IMPORTANT DOCUMENTS

Document Title

Finishes and Color Guide

Limited Warranty Document

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