

Standard Construction

Mounting	Continuous aluminum angle along the jambs
Frame	Heavy gauge extruded 6063-T5 aluminum, 6 in. (152 mm) x 0.125 in. (3 mm) nominal wall thickness
Blades	Drainable style design, heavy gauge extruded 6063-T5 aluminum, 0.081 in. (2 mm) nominal wall thickness if RO height is ≤ 96.5 in. (2451 mm) or 0.125 in. (3 mm) if RO height is > 96.5 in. (2445 mm), flange/sleeve frame switches to thicker blade at > 96.25 in. (2445 mm), positioned at 37° angles on approximately 4 in. (102 mm) centers
Louver Depth	6 in. (152 mm)
Construction	Welded and mechanically fastened
Finish	Mill
Minimum Rough Opening Size	12 in. W x 12 in. H (305 mm W x 305 mm H)
Maximum Single Section Rough Opening Size	72.75 in. W x 144.5 in. H (1848 mm W x 3670 mm H)
Wind Load	Varies

Wind Load Table	
Design Pressure Rating	Maximum Single Section Size
+/- 150 PSF (7.2 kPa)	43 in. W x 144 in. H (1092 mm W x 3658 mm H)
+/- 130 (6.2 kPa)	49.5 in. W x 144 in. H (1257 mm W x 3658 mm H)
+/- 105 (5.0 kPa)	61.5 in. W x 144 in. H (1562 mm W x 3658 mm H)
+/- 90 (4.3 kPa)	72 in. W x 144 in. H (1829 mm W x 3658 mm H)

Performance Ratings



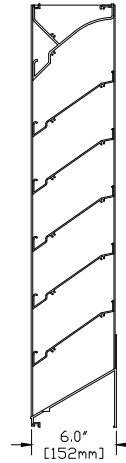
Greenheck Fan Corporation certifies that the ESD-635D channel frame and flange/sleeve frame louvers shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and

comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to Water Penetration and Air Performance ratings. Louvers were tested in accordance with AMCA Standard 500-L.

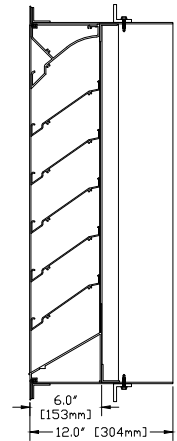
Performance of 48 in. x 48 in. (1219 mm x 1219 mm) Louver (channel frame and flange/sleeve frame)

Free Area	Area 9.41 sq. ft. (0.874 sq. m)
	Percent 58.8%
Performance at Beginning Point of Water Penetration	
Free Area Velocity	Above 1250 fpm (6.350 m/s)
Max Intake Volume	11,763 cfm (5.551 m³/s)
Performance at 6,000 CFM (2.832 m³/s) Intake	
Pressure Drop	0.061 in. wg (0.015 kPa)

*AMCA 550 when selected with VCD-40 Damper
Florida Product Approval No.: 10088
Miami-Dade, FL NOA No.: 24-0930.04, EXP. 12/6/2029



Channel Frame



Flange/Sleeve Frame

Options and Accessories

- [Bird Screen](#)
- [Blank-Off Panels](#)
- [Filter Rack/Filter](#)
- [Channel Frame w/Flange Frame](#)
- [Insect Screen](#)
- [Security Bars](#)
- [Sleeve Frame w/Flange Frame](#)
- [Variety of Architectural Finishes](#)
- Welded Construction
- 0.125 in. (3 mm) Nominal Blade Thickness

Product Details

[ESD-635D Standard Channel Frame Details](#)

[ESD-635D Optional Flange/Sleeve Frame Details](#)

[Flange/Sleeve Installation \(IOM #487071\)](#)

[Flange/Sleeve Installation with VCD-40 Damper \(IOM #487072\)](#)

[Channel Installation \(IOM #487069\)](#)

[Channel Installation with VCD-40 Damper \(IOM #487070\)](#)

[Miami-Dade County, FL Notice of Acceptance](#)

Structural reinforcing members may be required to adequately support and install multiple louver sections within a large opening. Structural reinforcing members along with any associated installation hardware is not provided by Greenheck unless indicated otherwise by Greenheck. Options and accessories including, but not limited to, screens, filter racks, louver doors, and blank off panels are not subject to structural analysis unless indicated otherwise by Greenheck.

Free Area Chart

Free Area Chart shows free area in square feet and square meters.
(channel frame and flange/sleeve frame)

Louver Height Inches (Meters)	Louver Width in Inches (Meters)										
	12	18	24	30	36	42	48	54	60	66	72
0.30	0.02	0.03	0.04	0.05	0.06	0.08	0.09	0.10	0.11	0.12	0.13
0.46	0.04	0.07	0.10	0.13	0.16	0.19	0.22	0.24	0.27	0.30	0.33
0.61	0.07	0.12	0.16	0.21	0.26	0.30	0.35	0.38	0.43	0.48	0.52
0.76	0.10	0.16	0.22	0.29	0.35	0.41	0.48	0.52	0.59	0.65	0.71
0.91	0.13	0.21	0.29	0.37	0.45	0.53	0.61	0.67	0.75	0.84	0.92
1.07	0.15	0.25	0.34	0.44	0.54	0.64	0.73	0.81	0.90	1.00	1.10
1.22	0.18	0.29	0.41	0.53	0.64	0.76	0.87	0.96	1.08	1.19	1.31
1.37	0.20	0.33	0.47	0.60	0.73	0.86	0.99	1.09	1.22	1.35	1.49
1.52	0.23	0.38	0.53	0.68	0.83	0.98	1.13	1.24	1.39	1.54	1.69
1.68	0.26	0.42	0.59	0.75	0.92	1.08	1.25	1.37	1.54	1.71	1.87
1.83	0.28	0.47	0.65	0.84	1.02	1.20	1.39	1.52	1.71	1.89	2.08
1.98	0.31	0.51	0.71	0.91	1.11	1.31	1.51	1.66	1.86	2.06	2.26
2.13	0.34	0.55	0.77	0.99	1.21	1.43	1.64	1.81	2.03	2.24	2.46
2.29	0.36	0.59	0.83	1.06	1.30	1.53	1.76	1.94	2.17	2.41	2.64
2.44	0.39	0.64	0.89	1.14	1.40	1.65	1.90	2.09	2.34	2.59	2.85
2.59	0.41	0.68	0.95	1.22	1.48	1.75	2.02	2.22	2.49	2.76	3.02
2.74	0.44	0.73	1.01	1.30	1.59	1.87	2.16	2.37	2.66	2.95	3.23
2.90	0.47	0.77	1.07	1.37	1.67	1.98	2.28	2.50	2.81	3.11	3.41
3.05	0.49	0.81	1.13	1.45	1.77	2.09	2.42	2.66	2.98	3.30	3.62
3.20	0.52	0.85	1.19	1.53	1.86	2.20	2.53	2.79	3.12	3.46	3.79
3.35	0.57	0.94	1.31	1.68	2.06	2.43	2.80	3.07	3.44	3.82	4.19
3.51	0.57	0.94	1.31	1.68	2.06	2.43	2.80	3.07	3.44	3.82	4.19
3.66	0.60	0.99	1.38	1.76	2.15	2.54	2.93	3.22	3.61	4.00	4.39

ESD-635D

AMCA 540 and 550* Listed Hurricane Louver
Miami-Dade and Florida Product Approved

Extruded Aluminum, Stationary

*AMCA 550 when selected with VCD-40 Damper



IMPACT
RESISTANT
LOUVER
Enhanced Protection Level E

See www.AMCA.org for all certified or listed products

This label does not signify
AMCA airflow performance
certification.

With 0.125 in. (3 mm) blade and frame material



IMPACT
RESISTANT
LOUVER
Basic Protection Level D

See www.AMCA.org for all certified or listed products

This label does not signify
AMCA airflow performance
certification.

With 0.081 in. (2 mm) blade and frame material.



HIGH VELOCITY RAIN
RESISTANT WITH BLADES
FULLY CLOSED AND
IMPACT RESISTANT LOUVER
Enhanced Protection Level E

See www.AMCA.org for all certified or listed products

This label does not signify
AMCA airflow performance
certification.

With 0.125 in. (3 mm) blade and frame material
and with factory attached VCD-40 damper in the
fully closed position.



HIGH VELOCITY RAIN
RESISTANT WITH BLADES
FULLY CLOSED AND
IMPACT RESISTANT LOUVER
Basic Protection Level D

See www.AMCA.org for all certified or listed products

This label does not signify
AMCA airflow performance
certification.

With 0.081 in. (2 mm) blade and frame material
and with factory attached VCD-40 damper in the
fully closed position.

Greenheck Fan Corporation certifies that the ESD-635D channel frame and flange/sleeve frame louvers shown herein are 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. With 0.081 in. (2 mm) thick blades, the AMCA Listing Label applies to Impact Resistant louvers rated for Basic Protection with a minimum blade span of less than 12 in. (305 mm) and a maximum unsupported blade span of 46 in. (1168 mm). With 0.125 in. (3 mm) thick blades, the AMCA Listing Label applies to Impact Resistant louvers rated for Enhanced Protection with a minimum blade span of less than 12 in. (305 mm) and a maximum unsupported blade span of 46 in. (1168 mm). For louvers with the VCD-40 Damper, the AMCA Listing Label also applies to High Velocity Wind Driven Rain Resistant Louver-Damper combinations tested in the fully closed position that stops airflow through the louver.

Document Links

[Louver Finishes & Colors](#)

[Louver Product Selection Guide](#)

[Louver Products Catalog](#)

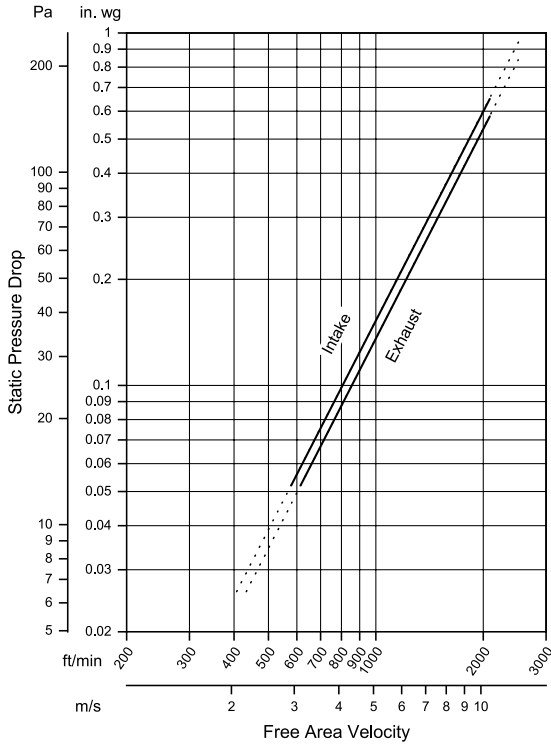
[Louver Warranty Statement](#)

Airflow Resistance

(channel frame and flange/sleeve frame)

Standard Air - 0.075 lb/ft³ (1.2 kg/m³)

Test size 48 in. x 48 in. (1219 mm x 1219 mm)



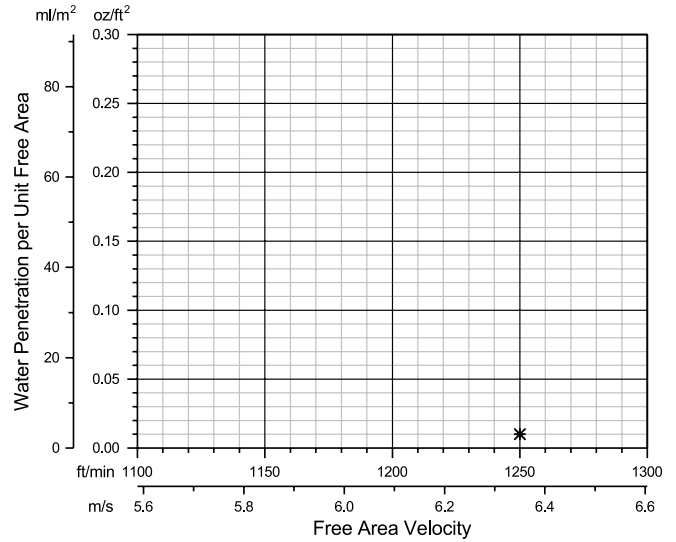
Model ESD-635D resistance to airflow (pressure drop) varies depending on louver application (air intake or air exhaust). Free area velocities (shown) are higher than average velocity through the overall louver size. See louver selection information. (Test Figure 5.5-6.5)

Water Penetration

(channel frame and flange/sleeve frame)

Standard Air - 0.075 lb/ft³ (1.2 kg/m³)

Test size 48 in. x 48 in. (1219 mm x 1219 mm) Test duration of 15 min.



The AMCA Water Penetration Test provides a method for comparing various louver models and designs as to their efficiency in resisting the penetration of rainfall under specific laboratory test conditions. The beginning point of water penetration is defined as that velocity where the water penetration curve projects through 0.01 oz. (3 g) of water (penetration) per sq. ft. (m²) of louver free area. *The beginning point of water penetration for Model ESD-635D (channel frame and flange/sleeve frame) is above 1250 fpm (6.350 m/s) free area velocity. These performance ratings do not guarantee a louver to be weatherproof or stormproof and should be used in combination with other factors including good engineering judgement in selecting louvers.