

Standard Construction

| | |
|------------------------------------|--|
| Mounting | Continuous aluminum angles along the head, sill, and jambs |
| Frame | Heavy gauge extruded 6063-T5 aluminum, 6 in. (152 mm) x 0.081 in. (2 mm) nominal wall thickness |
| Blades | Drainable design, heavy gauge extruded 6063-T5 aluminum, 0.081 in. (2 mm) nominal wall thickness, positioned 37° on approximately 4 in. (102 mm) centers |
| Louver Depth | 6 in. (152 mm) |
| Construction | Mechanically fastened |
| Finish | Mill |
| Minimum Size | 12 in. W x 12 in. H (305 mm W x 305 mm H) |
| Maximum Single Section Size | 84 in. W x 144 in. H or 120 in. W x 84 in. H (2134 mm W x 3658 mm H) or (3048 mm W x 2134 mm H) |
| Wind Load | Up to +/- 200 PSF (9.6 kPa) |

Performance Ratings



Greenheck Fan Corporation certifies that the ESD-635X 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, Air Performance, and Wind-Driven Rain ratings.

Louvers were tested in accordance with AMCA Standard 500-L.



IMPACT RESISTANT LOUVER
Basic Protection Level D

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



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.

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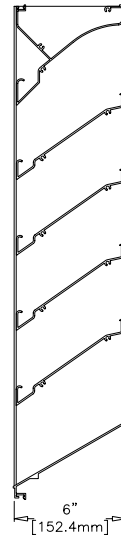
Greenheck Fan Corporation certifies that the ESD-635X louver shown herein is approved to bear the AMCA Listing Label. The ratings shown are based on tests and procedures performed in accordance with AMCA Publications and comply with the requirements of the AMCA Listing Label Program. With 0.081 in. (2 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).

Performance of 48 in. x 48 in. (1219 mm x 1219 mm) Louver

| | |
|--|--------------------------------------|
| 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 m ³ /s) |
| Performance at 6,000 CFM (2.832 m³/s) Intake | |
| Pressure Drop | 0.061 in. wg (0.015 kPa) |

*AMCA 540 when selected as an option
Florida Product Approval No.: FL6876, FL35289
UL Classified: R25119



Options and Accessories

- [Bird Screen](#)
- [Blank Off Panels](#)
- [Extended Sill](#)
- [Filter Rack/Filter](#)
- [Flange Frame](#)
- Impact Qualified
- [Insect Screen](#)
- [Security Bars](#)
- [Variety of Architectural Finishes](#)
- Welded Construction
- 0.125 in. (3 mm) Nominal Frame and/or Blade Thickness

Standard Details

[ESD-635X Standard Details](#)

[ESD-635X \(#475579 IOM\)](#)

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.

| Louver Height Inches (Meters) | Louver Width in Inches (Meters) | | | | | | | | | | | | | | | | | | |
|-------------------------------|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 12 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | 90 | 96 | 102 | 108 | 114 | 120 |
| 0.30 | 0.30 | 0.46 | 0.61 | 0.76 | 0.91 | 1.07 | 1.22 | 1.37 | 1.52 | 1.68 | 1.83 | 1.98 | 2.13 | 2.29 | 2.44 | 2.59 | 2.74 | 2.90 | 3.05 |
| 12 | 0.19 | 0.32 | 0.44 | 0.57 | 0.69 | 0.82 | 0.94 | 1.04 | 1.16 | 1.29 | 1.41 | 1.54 | 1.66 | 1.79 | 1.91 | 2.01 | 2.13 | 2.26 | 2.38 |
| 0.30 | 0.02 | 0.03 | 0.04 | 0.05 | 0.06 | 0.08 | 0.09 | 0.10 | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | 0.19 | 0.20 | 0.21 | 0.22 |
| 18 | 0.48 | 0.80 | 1.11 | 1.42 | 1.74 | 2.05 | 2.36 | 2.60 | 2.91 | 3.22 | 3.54 | 3.85 | 4.16 | 4.48 | 4.79 | 5.02 | 5.34 | 5.65 | 5.96 |
| 0.46 | 0.04 | 0.07 | 0.10 | 0.13 | 0.16 | 0.19 | 0.22 | 0.24 | 0.27 | 0.30 | 0.33 | 0.36 | 0.39 | 0.42 | 0.45 | 0.47 | 0.50 | 0.52 | 0.55 |
| 24 | 0.77 | 1.27 | 1.77 | 2.27 | 2.77 | 3.27 | 3.76 | 4.14 | 4.64 | 5.14 | 5.64 | 6.14 | 6.63 | 7.13 | 7.63 | 8.01 | 8.51 | 9.01 | 9.50 |
| 0.61 | 0.07 | 0.12 | 0.16 | 0.21 | 0.26 | 0.30 | 0.35 | 0.38 | 0.43 | 0.48 | 0.52 | 0.57 | 0.62 | 0.66 | 0.71 | 0.74 | 0.79 | 0.84 | 0.88 |
| 30 | 1.05 | 1.73 | 2.41 | 3.09 | 3.77 | 4.45 | 5.13 | 5.64 | 6.32 | 7.01 | 7.69 | 8.37 | 9.05 | 9.73 | 10.41 | 10.92 | 11.60 | 12.28 | 12.96 |
| 0.76 | 0.10 | 0.16 | 0.22 | 0.29 | 0.35 | 0.41 | 0.48 | 0.52 | 0.59 | 0.65 | 0.71 | 0.78 | 0.84 | 0.90 | 0.97 | 1.01 | 1.08 | 1.14 | 1.20 |
| 36 | 1.35 | 2.22 | 3.09 | 3.97 | 4.84 | 5.71 | 6.59 | 7.24 | 8.11 | 8.99 | 9.86 | 10.73 | 11.61 | 12.48 | 13.35 | 14.01 | 14.88 | 15.76 | 16.63 |
| 0.91 | 0.13 | 0.21 | 0.29 | 0.37 | 0.45 | 0.53 | 0.61 | 0.67 | 0.75 | 0.84 | 0.92 | 1.00 | 1.08 | 1.16 | 1.24 | 1.30 | 1.38 | 1.46 | 1.54 |
| 42 | 1.62 | 2.67 | 3.71 | 4.76 | 5.81 | 6.86 | 7.91 | 8.69 | 9.74 | 10.79 | 11.84 | 12.89 | 13.94 | 14.99 | 16.03 | 16.82 | 17.87 | 18.92 | 19.97 |
| 1.07 | 0.15 | 0.25 | 0.34 | 0.44 | 0.54 | 0.64 | 0.73 | 0.81 | 0.90 | 1.00 | 1.10 | 1.20 | 1.30 | 1.39 | 1.49 | 1.56 | 1.66 | 1.76 | 1.86 |
| 48 | 1.92 | 3.17 | 4.42 | 5.67 | 6.91 | 8.16 | 9.41 | 10.34 | 11.59 | 12.84 | 14.09 | 15.33 | 16.58 | 17.83 | 19.08 | 20.01 | 21.26 | 22.51 | 23.75 |
| 1.22 | 0.18 | 0.29 | 0.41 | 0.53 | 0.64 | 0.76 | 0.87 | 0.96 | 1.08 | 1.19 | 1.31 | 1.42 | 1.54 | 1.66 | 1.77 | 1.86 | 1.98 | 2.09 | 2.21 |
| 54 | 2.18 | 3.60 | 5.02 | 6.44 | 7.85 | 9.27 | 10.69 | 11.75 | 13.17 | 14.58 | 16.00 | 17.42 | 18.83 | 20.25 | 21.67 | 22.73 | 24.15 | 25.56 | 26.98 |
| 1.37 | 0.20 | 0.33 | 0.47 | 0.60 | 0.73 | 0.86 | 0.99 | 1.09 | 1.22 | 1.35 | 1.49 | 1.62 | 1.75 | 1.88 | 2.01 | 2.11 | 2.24 | 2.37 | 2.51 |
| 60 | 2.49 | 4.10 | 5.71 | 7.32 | 8.94 | 10.55 | 12.16 | 13.37 | 14.98 | 16.59 | 18.21 | 19.82 | 21.43 | 23.04 | 24.66 | 25.87 | 27.48 | 29.09 | 30.70 |
| 1.52 | 0.23 | 0.38 | 0.53 | 0.68 | 0.83 | 0.98 | 1.13 | 1.24 | 1.39 | 1.54 | 1.69 | 1.84 | 1.99 | 2.14 | 2.29 | 2.40 | 2.55 | 2.70 | 2.85 |
| 66 | 2.75 | 4.53 | 6.32 | 8.10 | 9.88 | 11.67 | 13.45 | 14.79 | 16.57 | 18.36 | 20.14 | 21.92 | 23.71 | 25.49 | 27.27 | 28.61 | 30.40 | 32.18 | 33.96 |
| 1.68 | 0.26 | 0.42 | 0.59 | 0.75 | 0.92 | 1.08 | 1.25 | 1.37 | 1.54 | 1.71 | 1.87 | 2.04 | 2.20 | 2.37 | 2.53 | 2.66 | 2.82 | 2.99 | 3.15 |
| 72 | 3.05 | 5.03 | 7.01 | 8.99 | 10.97 | 12.95 | 14.93 | 16.41 | 18.39 | 20.37 | 22.35 | 24.33 | 26.31 | 28.29 | 30.27 | 31.75 | 33.73 | 35.71 | 37.69 |
| 1.83 | 0.28 | 0.47 | 0.65 | 0.84 | 1.02 | 1.20 | 1.39 | 1.52 | 1.71 | 1.89 | 2.08 | 2.26 | 2.44 | 2.63 | 2.81 | 2.95 | 3.13 | 3.32 | 3.50 |
| 78 | 3.31 | 5.46 | 7.61 | 9.76 | 11.91 | 14.06 | 16.21 | 17.83 | 19.98 | 22.13 | 24.28 | 26.43 | 28.58 | 30.73 | 32.88 | 34.49 | 36.64 | 38.79 | 40.94 |
| 1.98 | 0.31 | 0.51 | 0.71 | 0.91 | 1.11 | 1.31 | 1.51 | 1.66 | 1.86 | 2.06 | 2.26 | 2.46 | 2.66 | 2.85 | 3.05 | 3.20 | 3.40 | 3.60 | 3.80 |
| 84 | 3.62 | 5.96 | 8.31 | 10.66 | 13.00 | 15.35 | 17.69 | 19.45 | 21.80 | 24.15 | 26.49 | 28.84 | 31.19 | 33.53 | 35.88 | 37.64 | 39.98 | 42.33 | 44.68 |
| 2.13 | 0.34 | 0.55 | 0.77 | 0.99 | 1.21 | 1.43 | 1.64 | 1.81 | 2.03 | 2.24 | 2.46 | 2.68 | 2.90 | 3.12 | 3.33 | 3.50 | 3.71 | 3.93 | 4.15 |
| 90 | 3.88 | 6.40 | 8.91 | 11.43 | 13.95 | 16.46 | 18.98 | 20.87 | 23.38 | 25.90 | 28.42 | 30.93 | 33.45 | | | | | | |
| 2.29 | 0.36 | 0.59 | 0.83 | 1.06 | 1.30 | 1.53 | 1.76 | 1.94 | 2.17 | 2.41 | 2.64 | 2.87 | 3.11 | | | | | | |
| 96 | 4.18 | 6.90 | 9.61 | 12.32 | 15.04 | 17.75 | 20.46 | 22.50 | 25.21 | 27.92 | 30.64 | 33.35 | 36.06 | | | | | | |
| 2.44 | 0.39 | 0.64 | 0.89 | 1.14 | 1.40 | 1.65 | 1.90 | 2.09 | 2.34 | 2.59 | 2.85 | 3.10 | 3.35 | | | | | | |
| 102 | 4.44 | 7.33 | 10.21 | 13.09 | 15.98 | 18.86 | 21.74 | 23.90 | 26.79 | 29.67 | 32.55 | 35.44 | 38.32 | | | | | | |
| 2.59 | 0.41 | 0.68 | 0.95 | 1.22 | 1.48 | 1.75 | 2.02 | 2.22 | 2.49 | 2.76 | 3.02 | 3.29 | 3.56 | | | | | | |
| 108 | 4.75 | 7.83 | 10.91 | 13.99 | 17.07 | 20.15 | 23.23 | 25.54 | 28.62 | 31.70 | 34.78 | 37.86 | 40.94 | | | | | | |
| 2.74 | 0.44 | 0.73 | 1.01 | 1.30 | 1.59 | 1.87 | 2.16 | 2.37 | 2.66 | 2.95 | 3.23 | 3.52 | 3.80 | | | | | | |
| 114 | 5.01 | 8.26 | 11.51 | 14.76 | 18.01 | 21.26 | 24.51 | 26.95 | 30.20 | 33.45 | 36.70 | 39.95 | 43.20 | | | | | | |
| 2.90 | 0.47 | 0.77 | 1.07 | 1.37 | 1.67 | 1.98 | 2.28 | 2.50 | 2.81 | 3.11 | 3.41 | 3.71 | 4.01 | | | | | | |
| 120 | 5.31 | 8.76 | 12.21 | 15.66 | 19.10 | 22.55 | 26.00 | 28.58 | 32.03 | 35.48 | 38.92 | 42.37 | 45.82 | | | | | | |
| 3.05 | 0.49 | 0.81 | 1.13 | 1.45 | 1.77 | 2.09 | 2.42 | 2.66 | 2.98 | 3.30 | 3.62 | 3.94 | 4.26 | | | | | | |
| 126 | 5.58 | 9.19 | 12.81 | 16.43 | 20.04 | 23.66 | 27.28 | 29.99 | 33.61 | 37.22 | 40.84 | 44.46 | 48.08 | | | | | | |
| 3.20 | 0.52 | 0.85 | 1.19 | 1.53 | 1.86 | 2.20 | 2.53 | 2.79 | 3.12 | 3.46 | 3.79 | 4.13 | 4.47 | | | | | | |
| 132 | 5.88 | 9.69 | 13.51 | 17.32 | 21.14 | 24.95 | 28.77 | 31.63 | 35.44 | 39.25 | 43.07 | 46.88 | 50.70 | | | | | | |
| 3.35 | 0.57 | 0.94 | 1.31 | 1.68 | 2.06 | 2.43 | 2.80 | 3.07 | 3.44 | 3.82 | 4.19 | 4.56 | 4.93 | | | | | | |
| 138 | 6.15 | 10.14 | 14.14 | 18.13 | 22.12 | 26.11 | 30.10 | 33.09 | 37.08 | 41.07 | 45.07 | 49.06 | 53.05 | | | | | | |
| 3.51 | 0.57 | 0.94 | 1.31 | 1.68 | 2.06 | 2.43 | 2.80 | 3.07 | 3.44 | 3.82 | 4.19 | 4.56 | 4.93 | | | | | | |
| 144 | 6.45 | 10.63 | 14.81 | 18.99 | 23.17 | 27.35 | 31.54 | 34.67 | 38.85 | 43.03 | 47.22 | 51.40 | 55.58 | | | | | | |
| 3.66 | 0.60 | 0.99 | 1.38 | 1.76 | 2.15 | 2.54 | 2.93 | 3.22 | 3.61 | 4.00 | 4.39 | 4.78 | 5.16 | | | | | | |

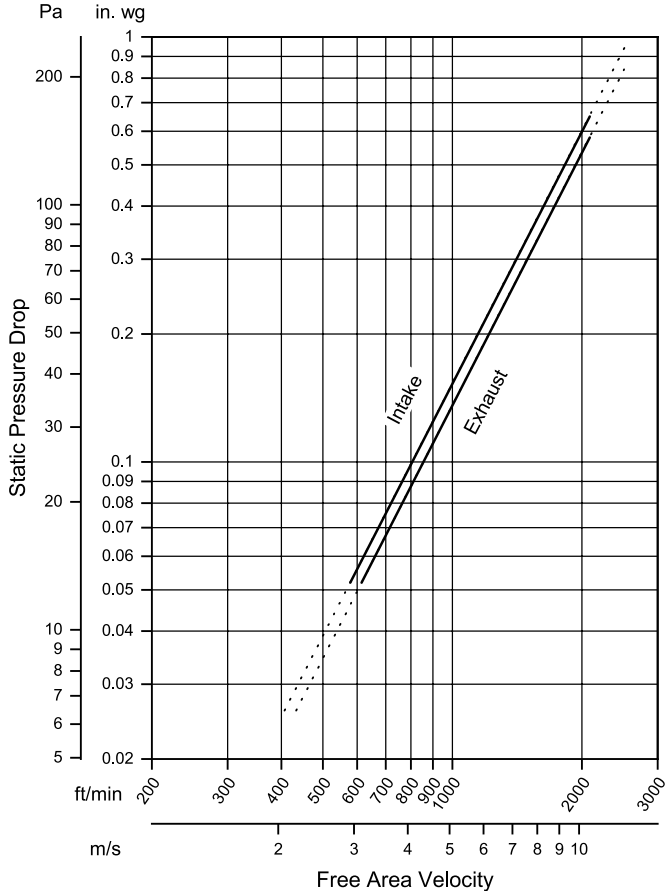
Document Links

- [Louver Finishes & Colors](#)
- [Louver Product Selection Guide](#)
- [Louver Products Catalog](#)
- [Louver Warranty Statement](#)

Airflow Resistance

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

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

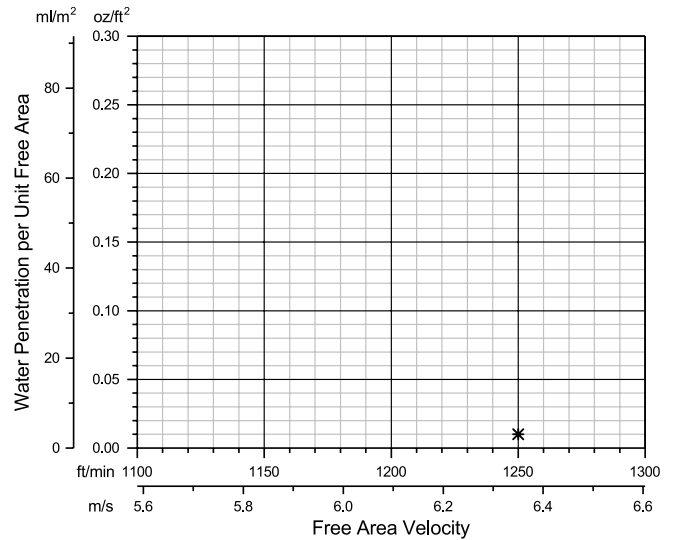


Model ESD-635X resistance to airflow (pressure drop) varies depending on louver application (air intake or air exhaust). Free area velocities (shown) are higher than average velocity through the overall louver size. See louver selection information. (Test Figure 5.5-6.5)

Water Penetration

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-635X 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.