



**MODEL EA-662-HSL****Severe Weather Louver • 6" Deep • Chevron Blades • Horizontal • Rain Resistant • Extruded Aluminum**

Page 2

Performance Data

Pressure Drop: .10 in. w.g. at 925 fpm (intake)

Free Area: 8.14 sq.ft. = 51% for 48"W x 48"H sample tested in accordance with AMCA Standard 500-L.

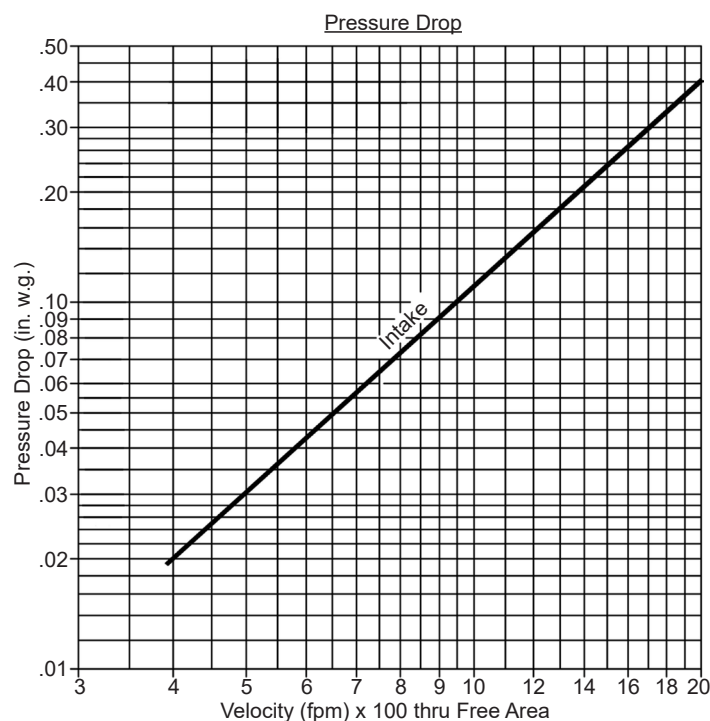
Beginning Point of Water Penetration: Over 1250 fpm

Class "A" Rating with 99.0% efficiency at 3 in. rain fall at intake velocity of 239 fpm (1,945 cfm) at wind speed of 29 mph.

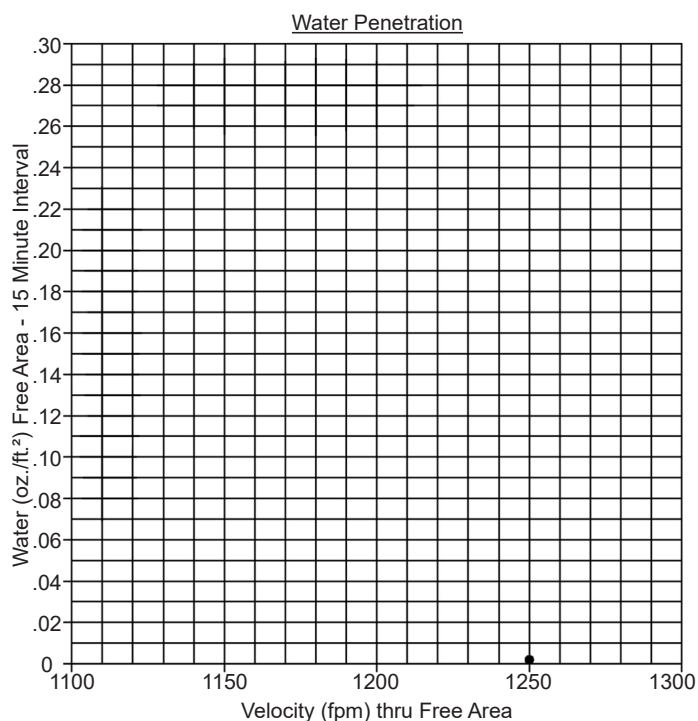
Class "B" Rating with 95.3% efficiency at 8 in. rain fall at intake velocity of 328 fpm (2,670 cfm) at wind speed of 50 mph.

Testing based on 48" x 48" based on AMCA Standard 500-L.

Ratings do not include effects of a screen.



Intake air converted to standard air density.  
Tested to AMCA Standard 500-L, Figure 5.5.



The Beginning Point of Water Penetration is above 1250 fpm  
through the free area of the louver.

AMCA Standard 500-L limits testing of water penetration to  
either a maximum velocity of 1250 fpm or 2.5 ounces of water  
per square foot of louver free area.

|                     |      | <u>Free Area (sq.ft.)</u> |       |       |       |       |       |       |       |       |       |
|---------------------|------|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                     |      | <u>Width (in.)</u>        |       |       |       |       |       |       |       |       |       |
|                     |      | 12"                       | 24"   | 36"   | 48"   | 60"   | 72"   | 84"   | 96"   | 108"  | 120"  |
| <u>Height (in.)</u> | 12"  | .29                       | .65   | 1.02  | 1.39  | 1.75  | 2.12  | 2.49  | 2.85  | 3.22  | 3.59  |
|                     | 24"  | .76                       | 1.73  | 2.70  | 3.67  | 4.64  | 5.61  | 6.58  | 7.56  | 8.53  | 9.50  |
|                     | 36"  | 1.24                      | 2.82  | 4.41  | 5.99  | 7.58  | 9.16  | 10.75 | 12.33 | 13.92 | 15.50 |
|                     | 48"  | 1.68                      | 3.84  | 5.99  | 8.14  | 10.29 | 12.45 | 14.60 | 16.75 | 18.91 | 21.06 |
|                     | 60"  | 2.16                      | 4.91  | 7.67  | 10.43 | 13.19 | 15.95 | 18.71 | 21.46 | 24.22 | 26.98 |
|                     | 72"  | 2.60                      | 5.93  | 9.26  | 12.59 | 15.92 | 19.24 | 22.57 | 25.90 | 29.23 | 32.56 |
|                     | 84"  | 3.08                      | 7.02  | 10.95 | 14.89 | 18.83 | 22.77 | 26.71 | 30.64 | 34.58 | 38.52 |
|                     | 96"  | 3.49                      | 7.96  | 12.42 | 16.89 | 21.35 | 25.82 | 30.28 | 34.75 | 39.21 | 43.68 |
|                     | 108" | 3.93                      | 8.97  | 14.00 | 19.04 | 24.07 | 29.10 | 34.14 | 39.17 | 44.21 | 49.24 |
|                     | 120" | 4.41                      | 10.05 | 15.68 | 21.32 | 26.96 | 32.60 | 38.24 | 43.88 | 49.52 | 55.16 |

\* For sizes highlighted, see Note 4 on Page 1.

# MODEL EA-662-HSL

**Severe Weather Louver • 6" Deep • Chevron Blades • Horizontal • Rain Resistant • Extruded Aluminum**

## Wind Driven Rainwater Penetration Test

Conducted to AMCA Standard 500-L.

Test size 1m x 1m (39.7" x 39.7") core area, 41.88" x 41.75" nominal.

Louver Free Area 6.13 square feet.

| Core Ventilation (m/s)      | 0.0  | 0.5   | 1.0   | 1.5   | 2.0   | 2.5   | 3.0   | 3.5   | 4.0   | 4.5   | 5.0    | Rain Fall / MPH                                       |
|-----------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|---|
| FPM                         | 0    | 136   | 189   | 279   | 372   | 474   | 591   | 685   | 797   | 879   | 986    | 3 in. / hr.<br>rain fall<br>and<br>29 mph<br>Velocity |
| Free Area Ventilation (cfm) | 0    | 1,464 | 2,030 | 3,000 | 4,004 | 5,106 | 6,360 | 7,377 | 8,585 | 9,459 | 10,612 |   |
| Free Area Velocity (fpm)    | 0    | 239   | 331   | 489   | 653   | 833   | 1,038 | 1,203 | 1,400 | 1,543 | 1,731  |   |
| Effective Rating Class      | A    | A     | B     | B     | B     | B     | B     | B     | C     | D     | D      |   |
| Effective Ratio %           | 99.1 | 99.0  | 98.9  | 98.7  | 98.6  | 98.2  | 97.6  | 95.4  | 88.6  | 77.2  | 60.7   |   |
| FPM                         | 0    | 99    | 187   | 275   | 392   | 491   | 578   | 688   | 789   | 878   | 967    | 8 in. / hr.<br>rain fall<br>and<br>50 mph<br>Velocity |
| Free Area Ventilation (cfm) | 0    | 1,061 | 2,013 | 2,962 | 4,216 | 5,287 | 6,221 | 7,413 | 8,491 | 9,545 | 10,414 |   |
| Free Area Velocity (fpm)    | 0    | 173   | 328   | 483   | 688   | 862   | 1,015 | 1,209 | 1,385 | 1,542 | 1,699  |   |
| Effective Rating Class      | B    | B     | B     | C     | C     | C     | C     | C     | D     | D     | D      |   |
| Effective Ratio %           | 97.1 | 96.0  | 95.3  | 94.2  | 92.1  | 90.3  | 87.3  | 82.0  | 78.3  | 74.5  | 71.2   |   |

### Wind Driven Rain Penetration Classifications

| Class | Effectiveness % |
|-------|-----------------|
| A     | 100 to 99%      |
| B     | 98.9% to 95%    |
| C     | 94.9% to 80%    |
| D     | Below 80%       |

### Discharge Loss Coefficient Classifications

| 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            |

Discharge Coefficient

Intake Cd= 0.44 (Class 1)

Class 1 Loss Coefficient has the least resistance to airflow.

1. Core area is the front opening of a louver assembly with the blades removed.
2. Core area velocity is the airflow rate through the louver divided by the core area (39.37" x 39.37").
3. Free area is the minimum area through which air can pass. It is determined by multiplying the sum of the minimum distance between intermediate blades, top blade and head, bottom blade and sill, by the minimum distance between jambs.
4. Discharge loss coefficient is calculated by dividing a louver actual airflow rate vs. a theoretical airflow for the opening, providing an indication of the louver air flow characteristics.



Arrow United Industries certifies that the Model EA-662-HSL shown herein 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 Water Penetration, Air Performance, and Wind Driven Rain Ratings only.