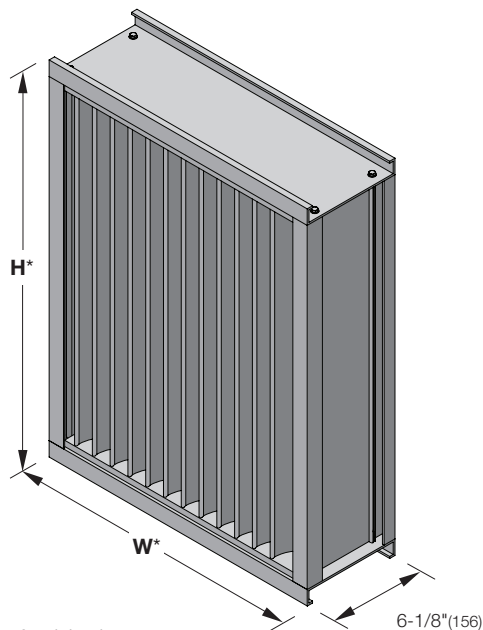


# ALL-LITE

## ECV-645

Extruded Aluminum Louver  
6" deep • Vertical Blade



### ECV-645

(standard)

\*Louver dimensions furnished approximately 1/2" (13) undersize.

## Ratings

**Free Area:** [48" x 48" (1219 x 1219) unit]: 7.4 ft<sup>2</sup> (0.68m<sup>2</sup>)  
46.0%

### Performance @ Beginning Point of Water Penetration

**Free Area Velocity:** 1,250 fpm (6.35 m/s)

**Air Volume Delivered:** 9,250 cfm (4.4 m<sup>3</sup>/s)

**Pressure Loss:** 0.15 in.wg. (37 Pa)

**Velocity @ 0.15 in.wg. Pressure Loss:** 1,270 fpm (6.4 m/s)

**AMCA 540 (impact resistant, Basic protection) listed**

**AMCA 550 (high velocity rain resistant) listed**

**Std. Design Load:** 30 psf

**5** year  
warranty



### Certified Ratings:

All-Lite certifies that the model ECV-645 shown herein is licensed to bear the AMCA seal. The ratings shown are based on test 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, water penetration and wind-driven rain ratings.

The ECV-645 offers exceptional protection against wind-driven rain under the most severe conditions and is ideally suited for high wind areas or applications that are sensitive to wind-driven rain penetration. The ECV-645 incorporates vertical blades and is available in a wide array of anodized and painted finishes including custom color matching.

## Standard Construction

**Material:** Mill finish 6063-T5 extruded aluminum

**Frame:** 6" deep x 0.081" thick (152 x 2) channel

**Blades:** 0.081" (2) thick vertical chevron style

**Screen:** 1/2" x 0.063" (12.7 x 1.6) expanded and flattened aluminum

**Mullion:** Visible

**Minimum Size:** 12" x 12" (305 x 305)

**Maximum Size:**

Single section: 60" x 120" (1524 x 3048)

120" x 60" (3048 x 1524)

Multiple section: Unlimited

**Shipping Weight (approximate):** 10 lbs/ft<sup>2</sup> (49 kg/m<sup>2</sup>)

## Options

### ■ Factory finish:

- High Performance Fluoropolymer
- Prime Coat
- Baked Enamel
- Clear Anodize
- Integral Color Anodize

### ■ Frame Options:

- 1-1/2" (38) flange frame
- Custom-size flange
- Stucco flange
- Glazing frame

### ■ Installation Hardware

- Clip angles
- Continuous angles

### ■ Alternate bird or insect screens

### ■ Insulated or non-insulated blank-off panels

### ■ Filter racks

### ■ Hinged frame

### ■ Subframe

### ■ Head and/or sill flashing

### ■ Frame closure

### ■ Burglar bars

### ■ Net OD (actual size)



**amca** INTERNATIONAL  
[www.amca.org](http://www.amca.org)

**NOTE:** Dimensions in parentheses ( ) are millimeters.  
Information is subject to change without notice or obligation.

# PERFORMANCE

## ECV-645

Extruded Aluminum Louver  
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### Free Area (ft<sup>2</sup>)

		Width (Inches)																		
		12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
Height (Inches)	12	0.2	0.4	0.5	0.7	0.9	1.1	1.3	1.5	1.6	1.8	2.0	2.2	2.4	2.6	2.7	2.9	3.1	3.3	3.5
	18	0.3	0.7	1.0	1.3	1.7	2.0	2.3	2.7	3.0	3.3	3.7	4.0	4.3	4.7	5.0	5.3	5.7	6.0	6.3
	24	0.5	0.9	1.4	1.9	2.4	2.9	3.4	3.9	4.3	4.8	5.3	5.8	6.3	6.8	7.2	7.7	8.2	8.7	9.2
	30	0.6	1.2	1.9	2.5	3.2	3.8	4.4	5.1	5.7	6.3	7.0	7.6	8.2	8.9	9.5	10.1	10.8	11.4	12.0
	36	0.8	1.5	2.3	3.1	3.9	4.7	5.5	6.3	7.0	7.8	8.6	9.4	10.2	11.0	11.8	12.5	13.3	14.1	14.9
	42	0.9	1.8	2.8	3.7	4.6	5.6	6.5	7.5	8.4	9.3	10.3	11.2	12.1	13.1	14.0	15.0	15.9	16.8	17.8
	48	1.0	2.1	3.1	4.2	5.2	6.3	7.4	8.4	9.5	10.5	11.6	12.6	13.7	14.8	15.8	16.9	17.9	19.0	20.1
	54	1.2	2.4	3.7	4.9	6.1	7.4	8.6	9.9	11.1	12.3	13.6	14.8	16.1	17.3	18.5	19.8	21.0	22.2	23.5
	60	1.3	2.7	4.0	5.4	6.7	8.1	9.5	10.8	12.2	13.5	14.9	16.3	17.6	19.0	20.3	21.7	23.1	24.4	25.8
	66	1.4	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5										
	72	1.6	3.3	4.9	6.6	8.2	9.9	11.6	13.2	14.9										
	78	1.7	3.5	5.4	7.2	9.0	10.8	12.6	14.4	16.2										
	84	1.9	3.8	5.7	7.6	9.6	11.5	13.4	15.4	17.3										
90	2.0	4.1	6.2	8.2	10.3	12.4	14.5	16.6	18.7											
96	2.1	4.4	6.6	8.8	11.1	13.3	15.5	17.8	20.0											
102	2.3	4.6	7.0	9.3	11.7	14.0	16.4	18.7	21.1											
108	2.4	4.9	7.4	9.9	12.4	14.9	17.4	19.9	22.4											
114	2.5	5.2	7.9	10.5	13.2	15.8	18.5	21.1	23.8											
120	2.7	5.5	8.3	11.1	13.9	16.7	19.5	22.3	25.2											



**HIGH VELOCITY  
RAIN RESISTANT  
WITH BLADES FULLY OPEN  
AND IMPACT RESISTANT  
LOUVER**  
*Basic Protection*

See [www.AMCA.org](http://www.AMCA.org) for all certified or listed products

This label does not signify  
AMCA airflow performance  
certification.

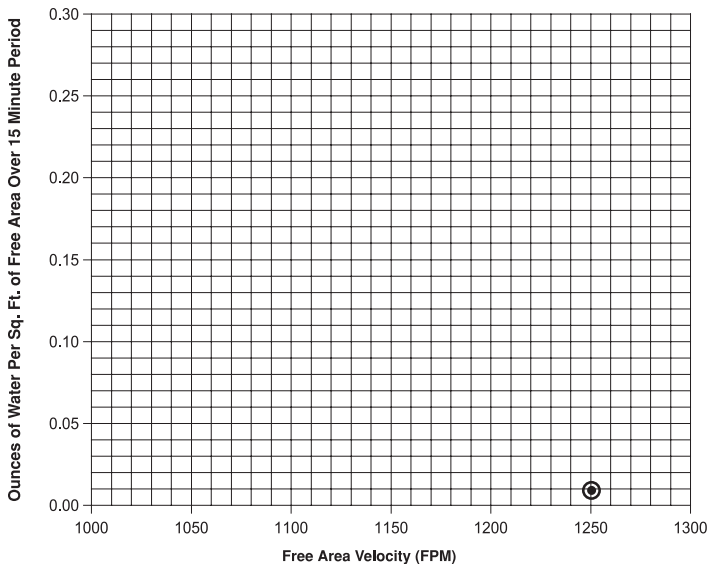
#### Certified Ratings:

All-Lite certifies that the model ECV-645 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 High Velocity Rain and Impact resistance.

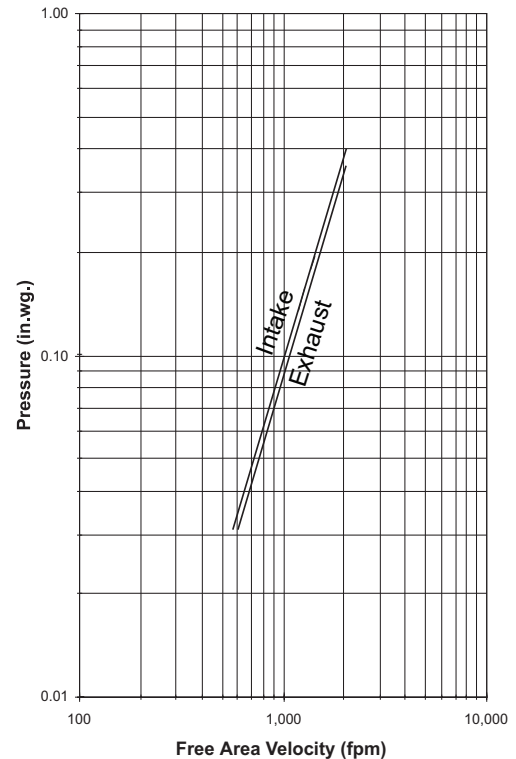
### Water Penetration

AMCA defines the beginning point of water penetration as the free area velocity at the intersection of a simple linear regression of test data and the line of 0.01 ounces of water per square foot of free area measured through a 48" x 48" louver during a 15 minute period. The AMCA water penetration test provides a method for comparing louver models and designs as to their efficiency in resisting the penetration of rainfall under specific lab conditions. We recommend that intake louvers are selected with a reasonable margin of safety below the beginning point of water penetration in order to avoid unwanted penetration during severe storm conditions.

**Beginning Point of Water Penetration = 1,250 fpm**



### Pressure Loss



Louver Test Size = 48" x 48" (1219 x 1219)  
Pressure loss tested in accordance with Figure 5.5 of AMCA  
Standard 500-L. Data corrected to standard air density.

# PERFORMANCE

## ECV-645

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### Wind Driven Rain Performance - AMCA 500L Wind-Driven Rain Test

Wind Velocity	Rainfall	Airflow cfm (m <sup>3</sup> /s)	Core Velocity <sup>1</sup> fpm (m/s)	Free Area Velocity <sup>2</sup> fpm (m/s)	Effectiveness Ratio	Wind-Driven Rain Penetration Class
50 mph	8 in/hr	10,390 (4.9)	965 (4.9)	2,045 (10.4)	100.0%	A

**NOTE:**

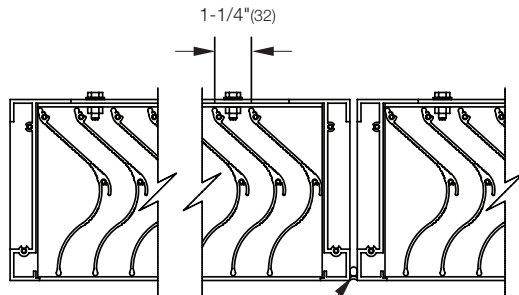
1. Core area is the open area of the louver face (face area less louver frame). Core velocity is the airflow divided by core area. Test louver core area is 10.77 ft<sup>2</sup> (1 m<sup>2</sup>).

2. Free area velocity is the airflow divided by free area. Test louver free area is 5.1 ft<sup>2</sup> (0.47 m<sup>2</sup>).

**Wind Driven Rain**

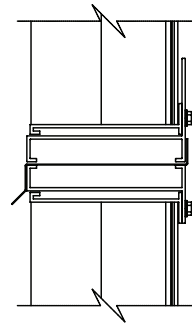
Class	Effectiveness
A	99% and above
B	95% to 98.9%
C	80% to 94.9%
D	below 80%

## Attributes

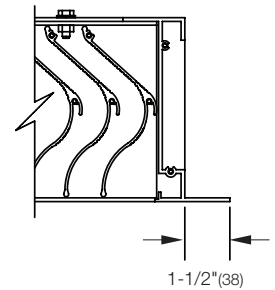


Caulk and Backer Rod  
(field-applied)

**Visible Vertical Mullion**  
(standard)



**Horizontal Mullion**  
(standard)

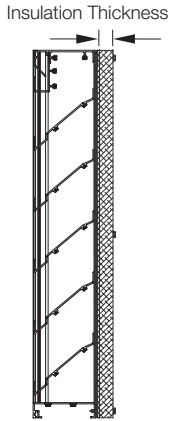


**Flange Frame**  
(optional)

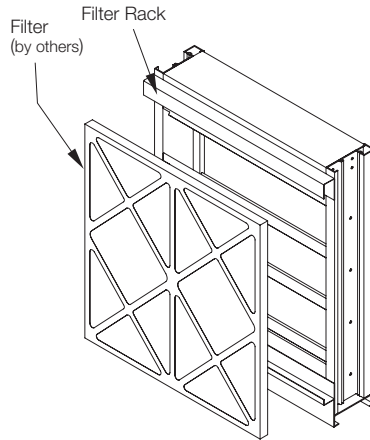
# Supplemental Options

# ECV-645

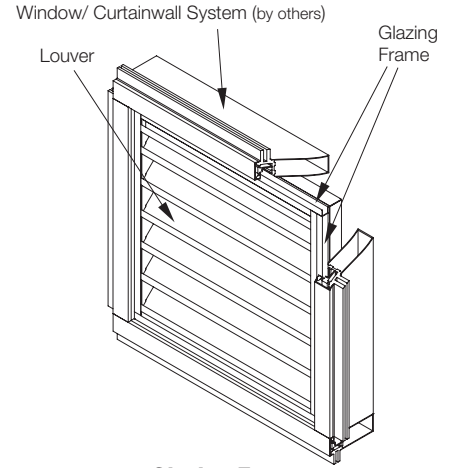
Extruded Aluminum Louver  
6" deep • Vertical Blade



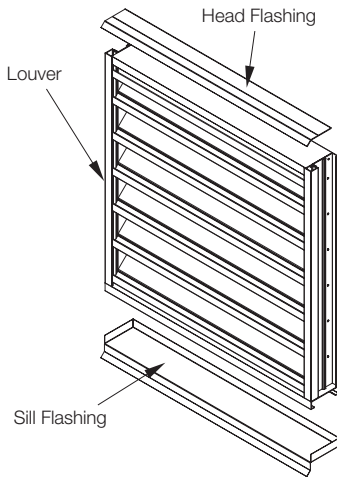
**Blank-Off Options**  
Non-Insulated and Gasketed  
1" Insulated (4.25 R-value)  
2" Insulated (8.75 R-value)



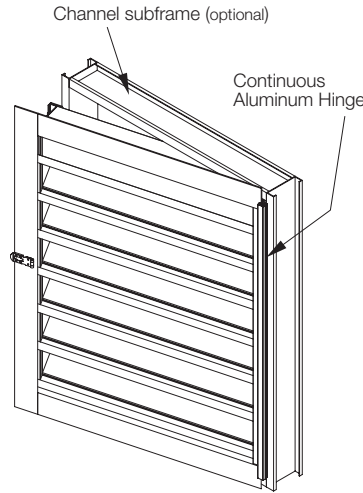
**Filter Rack**



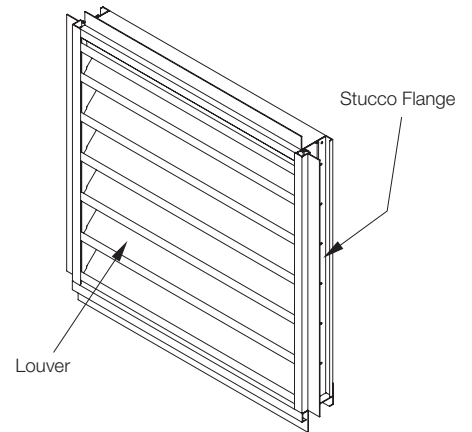
**Glazing Frame**



**Flashing Options**  
Head and Sill Available



**Hinge and Subframe**  
Right or Left Side Option Available



**Stucco Flange**