



FLORIDA BUILDING CODE & MIAMI-DADE APPROVED STORM CLASS™ LOUVER

LOUVER TYPE SCV501MD

Florida Product Approval No.: 19278.1
 Miami-Dade, FL NOA No.: 20-0602.03, EXP. 8/6/2025
 AMCA 540 and 550 Listed
 Maximum Wind-Load: 130 PSF

Visible Mullion Louver Type	SCV501MD
Material	Extruded Aluminum (Alloy 6063-T5)
Stationary Blade	0.063 in. (1.60 mm)
Frame	0.081 in. (2.06 mm)
Louver Depth	5 in. (127 mm)
Free Area – 4 ft. x 4 ft. Unit	8.77 sq. ft. (0.81 m ²)
Percent Free Area	54.8%
Free Area Velocity at Beginning Point of Water Penetration – 0.01 oz H₂O/sq. ft. Free Area	above 1,250 fpm (6.35 m/s)
Air Volume Flow Rate at Beginning Point of Water Penetration – 4 ft. x 4 ft. Unit	10,963 cfm (5.17 m ³ /s)
Pressure Drop at Beginning Point of Water Penetration	0.29 in. H ₂ O (0.07 kPa)

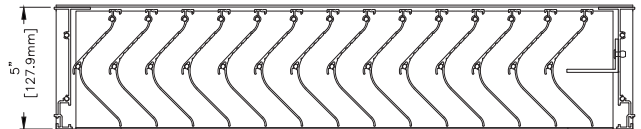
Wind-Driven Rain Water Penetration Data

Exterior Wind Velocity	29 mph (13 m/s)
Rainfall Rate	.3 in. (75 mm)/hr
Effectiveness	.99.8%
Core Ventilation Rate	991 fpm (5.0 m/s)
Exterior Wind Velocity	50 mph (22 m/s)
Rainfall Rate	.8 in. (200 mm)/hr
Effectiveness	.99.9%
Core Ventilation Rate	974 fpm (5.0 m/s)



HIGH VELOCITY RAIN RESISTANT WITH BLADES FULLY OPEN 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.



RECOMMENDED SPECIFICATION

GENERAL

Furnish and install where indicated on plans or described in schedules vertical blade Louver Type SCV501MD as designed and manufactured by The Aiolite Company LLC, Schofield, Wisconsin. Louvers shall be Florida Building Code and Miami-Dade approved for use where the room behind the louver is NOT designed to drain water penetrating into the room or the room will house non-water resistant or water proof equipment, components or supplies. Louvers shall be furnished with bird screen, insect screen, supports, installation hardware and finishes as specified and as required for a complete installation.

SUBMITTALS

Manufacturer shall submit shop drawings incorporating key plans, elevations, sections and details showing profiles, angles and spacing of louver blades and frames; unit dimensions related to wall openings and construction; and, anchorage details and locations. For each type of product specified, submit free areas, air performance, water penetration and wind driven rain ratings determined in accordance with AMCA Standard 500-L and licensed under the AMCA Certified Ratings Program, as well as 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. Include Florida Product Approval or Miami-Dade Notice of Acceptance to demonstrate compliance with applicable building code. Provide samples of manufacturer's finish and color charts showing the full range of colors available.

PRODUCTS

Louvers shall be vertical blade Louver Type SCV501MD with visible mullions. Louvers shall also be Florida Building Code and Miami-Dade Approved. Louvers shall be 5-inches (127 mm) deep and assembled entirely from extruded aluminum components. Blades shall be 0.063-

inch (1.60 mm) and frames shall be 0.081-inch (2.06 mm) thick aluminum. Blades shall be vertical, V-type with center hook and spaced on 1.5 inch (38.1 mm) centers.

STRUCTURAL DESIGN CRITERIA

Louvers shall be tested in accordance with Florida protocols TAS 201, TAS 202 and TAS 203. Maximum single section size shall be limited to 72-inch W x 120-inch H or 120 inch W x 72 inch H. Louvers must be installed in accordance with the manufacturer's published installation instructions. Multi-wide assemblies shall be permitted without any additional reinforcing provided the rough opening height is 120-inch or less. Multi-high assemblies shall be permitted provided suitable loading bearing structure is provided (not by louver manufacturer) at each louver section(s) head and sill condition so that the louver section(s) may be installed in accordance with the manufacturer's published installation instructions. Structural reinforcing members along with any associated installation hardware is not provided by Aiolite unless indicated otherwise by Aiolite. Options and are not subject to structural analysis unless indicated otherwise by Aiolite.

PERFORMANCE RATINGS

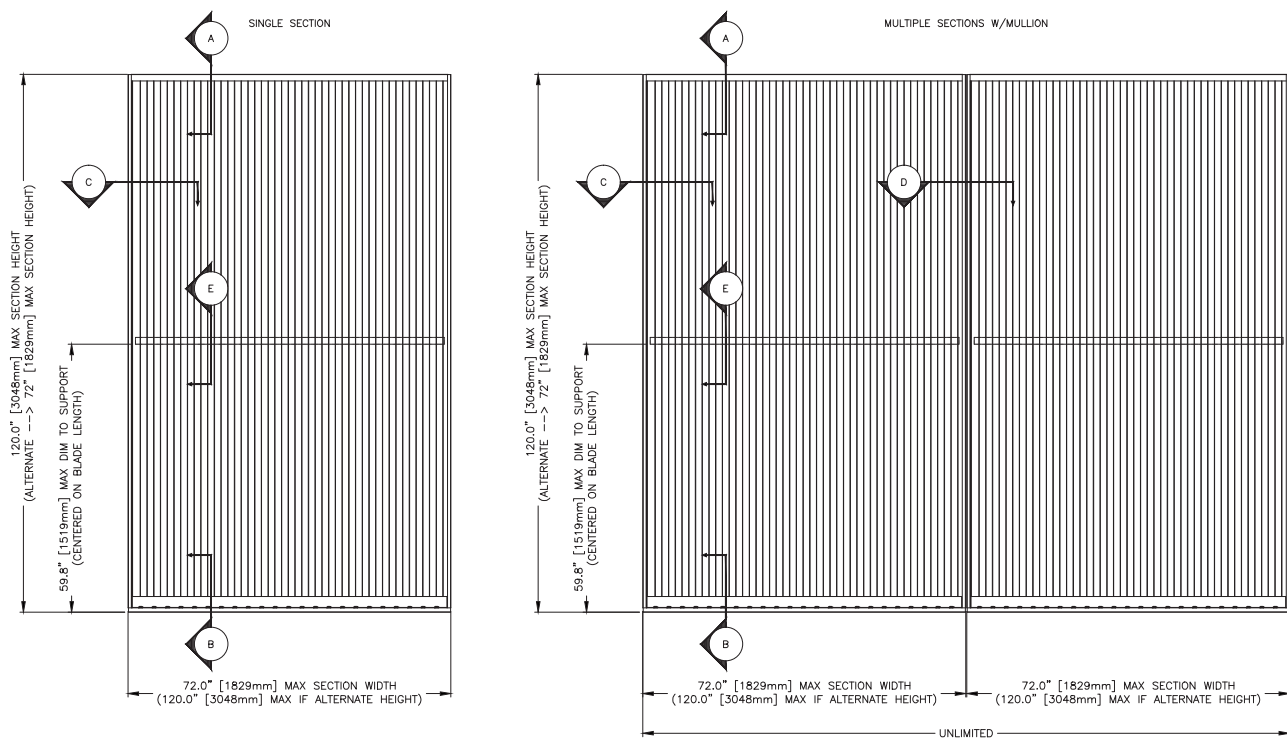
FREE AREA:	8.77 Square Feet (0.81 m ²)
MINIMUM FREE AREA VELOCITY at Beginning Point of Water Penetration:	1,250 fpm (6.35 m/s)
MINIMUM AIR VOLUME FLOW RATE at Beginning Point of Water Penetration:	10,963 cfm (5.17 m ³ /s)
MAXIMUM STATIC PRESSURE at Beginning Point of Water Penetration:	0.29 in. H ₂ O (0.07 kPa)

See page 5 for complete Wind-driven Rain Performance
 See page 6 for complete finish options

LOUVER TYPE SCV501MD PRODUCT DESCRIPTION & DETAILS

Airolite Louver Type SCV501MD is a 5-inch (127 mm) deep, vertical blade louver that is Florida Building Code Approved for use in the High Velocity Hurricane Zone and Miami-Dade Approved for use where the room behind the louver is NOT designed to drain water penetrating into the room or the room will house non-water resistant or water proof equipment, components or supplies. This product complies with Florida protocols TAS 201 (Large Missile Impact), TAS 202 (Uniform Static Air Pressure) and TAS 203 (Cyclic Wind Loading). In addition, Louver Type SCV501MD is rated 99.8% effective against water penetration at a core ventilation rate of 991 fpm (5.0 m/s) when tested under a 50 mph (22 m/s) wind velocity and 8-inch (200 mm) per hour rainfall rate. Louver Type SCV501MD is a highly effective louver with AMCA Licensed Air Performance, Water Penetration and Wind Driven Rain performance ratings as well as 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 that enables designers to select and specify this product with confidence. Please contact your local Airolite representative or the factory for assistance with the layout and design of support systems when required.

INSTALLATION DETAILS



Minimum Rough Opening Section Size:

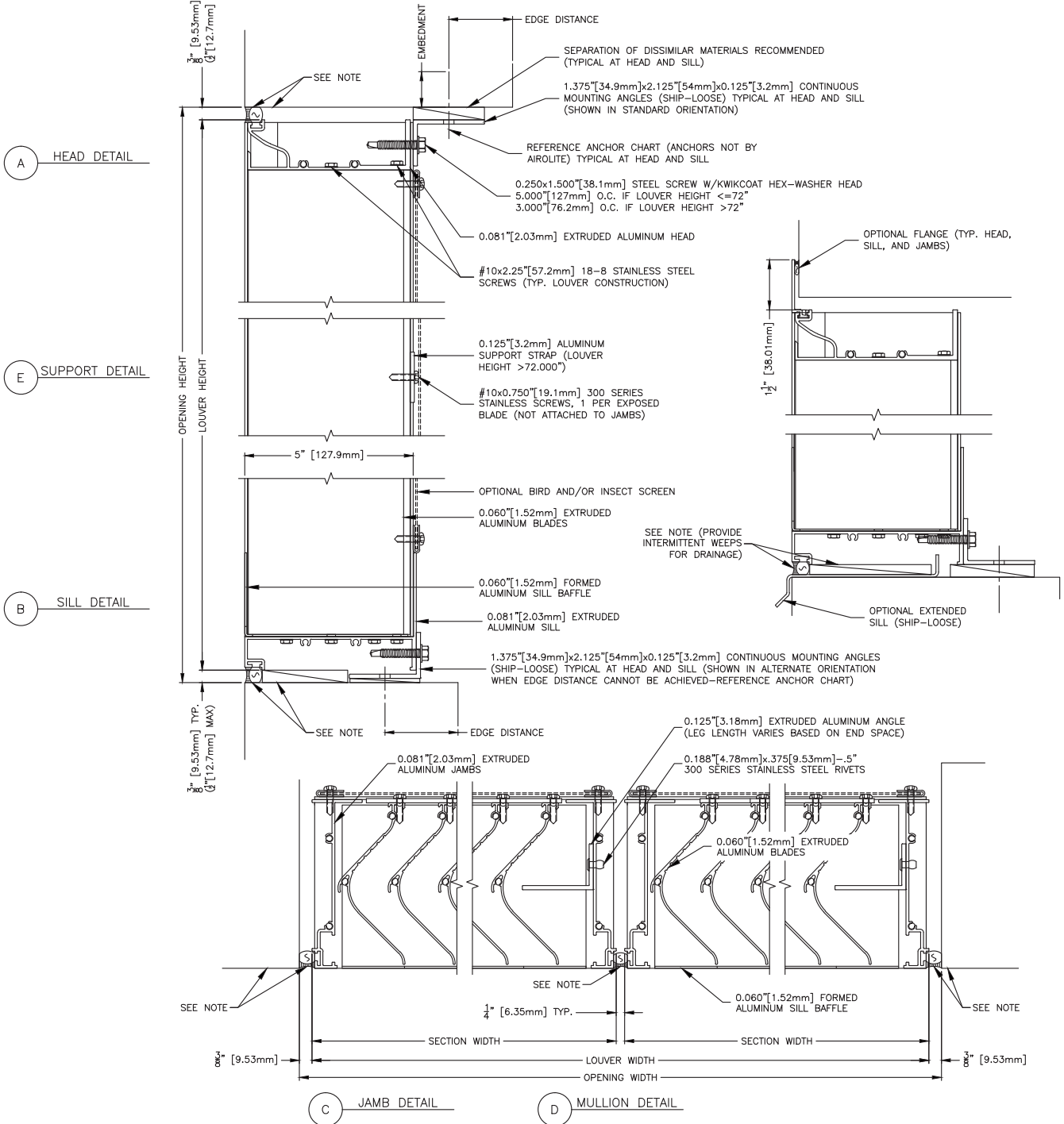
12 in. (30 cm) W x 12 in. (30 cm) H

Maximum Rough Opening Section Size:

72.75 in. (185 cm) W x 120.75 in. (307 cm) H or
120.75 in. (307 cm) W x 72.75 in. (185 cm) H

LOUVER TYPE SCV501MD PRODUCT DETAILS

NOTE: ALL SEALANT, BACKER RODS, NON-COMPRESSIBLE DEAD-LOAD SHIMS AND SUBSTRATE IS NOT BY AIROLITE (TYPICAL ALL DETAILS)



LOUVER TYPE SCV501MD FASTENER CHART

BUILDING SUBSTRATE MATERIAL		BUILDING SUBSTRATE ANCHORS/FASTENERS										ANGLE HOLE MAX.	SUBSTRATE HOLE, MAX.	
TYPE	MATERIAL MIN.	THICKNESS MIN.	TYPE (ALL FASTENERS ARE HEX HEAD STYLE)	MAT'L	DIA.	HEIGHT MAX.	SPACING MAX.	EDGE MIN.	EMBED. MIN.	WASHER/FLANGE MIN.	ANGLE HOLE MAX.	SUBSTRATE HOLE, MAX.		
WOOD	G OF 0.42	3	LAG SCREW	**	1/4	72	6	1 1/2	2 7/8	NA	1/4	SEE FASTENER MANUFACTURER INSTRUCTIONS		
						120	3 *	3/8	9	13/16 AT HEAD	3/8			
STEEL	A36	16 GA	BOLT W/ NUT OR THREAD CUTTING/TAPPING SCREW	**	1/4-20	72	6	3/4	SHOWN GAGE VALUE	NA	5/16	5/16, FOR USE WITH NUT CONNECTION ONLY		
		14 GA				120	3 *	72	9	1	13/32	3/8, FOR USE WITH NUT CONNECTION ONLY		
ALUMINIUM	6063-T5	1/8	BOLT W/ NUT OR THREAD CUTTING/TAPPING SCREW	**	1/4-20	72	6	1/2	1/8	NA	5/16	1/4		
		16 GA				120	9	3/4	3/4 AT NUT	13/32	3/8			
CONCRETE	3 KSI 2.3 KSI 2.9 KSI 3.4 KSI 3.4 KSI 2.5 KSI 2 KSI 2 KSI 3 KSI 2.3 KSI 3.4 KSI 3.4 KSI 2.5 KSI 2 KSI 2 KSI 2.5 KSI 2 KSI 2.5 KSI	3 KSI 2.3 KSI 2.9 KSI 3.4 KSI 3.4 KSI 2.5 KSI 2 KSI 2 KSI 3 KSI 2.3 KSI 3.4 KSI 3.4 KSI 2.5 KSI 2 KSI 2 KSI 2.5 KSI 2 KSI 2.5 KSI	BUILDEX TAPCON (BLUE, WHITE, OR 410 SS)	VARIABLES	1/4	72	6	2 1/8	1 3/4	3/4 AT NUT	1/4	SEE FASTENER MANUFACTURER INSTRUCTIONS		
			ELCO AGGRE-GATOR	300 SS	1 1/2	1 3/4	1/4	72	6	2 1/2	1 7/8	5/16	5/16	
			ELCO ULTRACON SS4	410 SS	1 1/2	1 3/4	1/4	72	6	2 1/2	1 7/8	5/16	5/16	
			ELCO CRETE-FLEX SS4, SMALL HEAD	410 SS	1 1/2	1 3/4	1/4	72	6	2 1/2	1 7/8	5/16	5/16	
			ELCO CRETE-FLEX SS4, FLANGED HEAD	410 SS	1 1/2	1 3/4	1/4	72	6	2 1/2	1 7/8	5/16	5/16	
			POWERS 316 STAINLESS STEEL WEDGE-BOLT	316 SS	1 1/2	1 3/4	1/4	72	6	2 1/2	1 7/8	5/16	5/16	
			POWERS WEDGE-BOLT PLUS	STEEL	1 1/2	1 3/4	1/4	72	6	2 1/2	1 7/8	5/16	5/16	
			BUILDEX TAPCON (BLUE, WHITE, OR 410 SS)	VARIABLES	1/4	72	6	2 1/8	1 3/4	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
			BUILDEX TAPCON (BLUE, WHITE, OR 410 SS)	VARIABLES	1/4	72	6	2 1/8	1 3/4	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
			ELCO ULTRACON SS4	300 SS	1 1/2	1 3/4	1/4	72	6	2 1/2	1 7/8	5/16	5/16	5/16
			ELCO CRETE-FLEX SS4, SMALL HEAD	410 SS	1 1/2	1 3/4	1/4	72	6	2 1/2	1 7/8	5/16	5/16	5/16
			ELCO CRETE-FLEX SS4, FLANGED HEAD	410 SS	1 1/2	1 3/4	1/4	72	6	2 1/2	1 7/8	5/16	5/16	5/16
			POWERS 316 STAINLESS STEEL WEDGE-BOLT	316 SS	1 1/2	1 3/4	1/4	72	6	2 1/2	1 7/8	5/16	5/16	5/16
			POWERS WEDGE-BOLT PLUS	STEEL	1 1/2	1 3/4	1/4	72	6	2 1/2	1 7/8	5/16	5/16	5/16
			POWERS 316 STAINLESS STEEL WEDGE-BOLT	316 SS	1 1/2	1 3/4	1/4	72	6	2 1/2	1 7/8	5/16	5/16	5/16
			POWERS WEDGE-BOLT PLUS	STEEL	1 1/2	1 3/4	1/4	72	6	2 1/2	1 7/8	5/16	5/16	5/16
			POWERS 316 STAINLESS STEEL WEDGE-BOLT	316 SS	1 1/2	1 3/4	1/4	72	6	2 1/2	1 7/8	5/16	5/16	5/16
			POWERS WEDGE-BOLT PLUS	STEEL	1 1/2	1 3/4	1/4	72	6	2 1/2	1 7/8	5/16	5/16	5/16
			CRACKED OR UNCRACKED, POWERS WEDGE-BOLT PLUS	STEEL	1 1/2	1 3/4	1/4	72	6	2 1/2	1 7/8	5/16	5/16	5/16
			ELCO AGGRE-GATOR	300 SS	1 1/2	1 3/4	1/4	72	6	2 1/2	1 7/8	5/16	5/16	5/16
ELCO ULTRACON SS4	410 SS	1 1/2	1 3/4	1/4	72	6	2 1/2	1 7/8	5/16	5/16	5/16			
POWERS WEDGE-BOLT PLUS	STEEL	1 1/2	1 3/4	1/4	72	6	2 1/2	1 7/8	5/16	5/16	5/16			
GROUT FILLED CMU	NOTE 1 NOTE 2 NOTE 3				3/8	120	6	2	2 1/2	NA	1/4	SEE FASTENER MANUFACTURER INSTRUCTIONS		

NOTE *: ALL 0.25" DIAMETER 30" CENTER FASTENER SETUPS (LOUVERS WITH HEIGHT < 120") CAN HAVE THEIR CENTERS INCREASED TO 5.0" AND BE USED ON A LOUVER WITH HEIGHT OF < 72" AS LONG AS NO OTHER ITEMS OF THE ORIGINAL SELECTED 0.25" DIAMETER 30" CENTER FASTENER SETUP CHANGE (IE. SUBSTRATE, EMBEDMENT, ETC.).

NOTE **: LAG SCREWS SHALL HAVE STRENGTHS OF MINIMUM GRADE 1 STEEL, OTHER BOLT AND SCREWS SHALL HAVE STRENGTHS OF MINIMUM GRADE 2 STEEL.

NOTE 1: CONCRETE MASONRY (CMU) SHALL BE > THE FOLLOWING; 6" WIDE, CMU CONFORMING TO ASTM C-90 FILLED WITH 4,747 KSI GROUT.

NOTE 2: CONCRETE MASONRY (CMU) SHALL BE > THE FOLLOWING; 6" WIDE, 2 KSI CMU CONFORMING TO ASTM C-90 WITH 1624 KSI GROUT.

NOTE 3: CONCRETE MASONRY (CMU) SHALL BE > THE FOLLOWING; 6" WIDE, GRADE N, TYPE II, LIGHT-WEIGHT/MEDIUM-WEIGHT CMU CONFORMING TO ASTM C-90. MORTAR MUST BE TYPE N.

LOUVER TYPE SCV501MD PERFORMANCE RATINGS

FREE AREA CHART - in square feet

Louver Height Inches	Louver Width in Inches																		
	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
12	0.26	0.45	0.65	0.84	1.04	1.23	1.43	1.62	1.82	2.01	2.21	2.40	2.60	2.79	2.99	3.18	3.38	3.57	3.76
18	0.48	0.84	1.20	1.57	1.93	2.29	2.65	3.01	3.37	3.74	4.10	4.46	4.82	5.18	5.55	5.91	6.27	6.63	6.99
24	0.70	1.23	1.76	2.29	2.82	3.35	3.88	4.40	4.93	5.46	5.99	6.52	7.05	7.58	8.10	8.63	9.16	9.69	10.22
30	0.93	1.62	2.32	3.01	3.71	4.40	5.10	5.79	6.49	7.19	7.88	8.58	9.27	9.97	10.66	11.36	12.05	12.75	13.45
36	1.15	2.01	2.87	3.74	4.60	5.46	6.32	7.19	8.05	8.91	9.77	10.64	11.50	12.36	13.22	14.09	14.95	15.81	16.67
42	1.37	2.40	3.43	4.46	5.49	6.52	7.55	8.58	9.61	10.64	11.66	12.69	13.72	14.75	15.78	16.81	17.84	18.87	19.90
48	1.59	2.79	3.99	5.18	6.38	7.57	8.77	9.97	11.16	12.36	13.56	14.75	15.95	17.15	18.34	19.54	20.73	21.93	23.13
54	1.81	3.18	4.54	5.90	7.27	8.63	9.99	11.36	12.72	14.08	15.45	16.81	18.17	19.54	20.90	22.26	23.63	24.99	26.35
60	2.04	3.57	5.10	6.63	8.16	9.69	11.22	12.75	14.28	15.81	17.34	18.87	20.40	21.93	23.46	24.99	26.52	28.05	29.58
66	2.26	3.96	5.65	7.35	9.05	10.74	12.44	14.14	15.84	17.53	19.23	20.93	22.63	24.32	26.02	27.72	29.41	31.11	32.81
72	2.48	4.35	6.21	8.07	9.94	11.80	13.67	15.53	17.39	19.26	21.12	22.99	24.85	26.71	28.58	30.44	32.31	34.17	36.04
78	2.65	4.64	6.63	8.62	10.61	12.59	14.58	16.57	18.56	20.55	22.54								
84	2.87	5.03	7.18	9.34	11.50	13.65	15.81	17.96	20.12	22.28	24.43								
90	3.09	5.42	7.74	10.06	12.39	14.71	17.03	19.35	21.68	24.00	26.32								
96	3.31	5.80	8.29	10.78	13.28	15.77	18.26	20.75	23.24	25.73	28.22								
102	3.54	6.19	8.85	11.51	14.17	16.82	19.48	22.14	24.79	27.45	30.11								
108	3.76	6.58	9.41	12.23	15.05	17.88	20.70	23.53	26.35	29.17	32.00								
114	3.98	6.97	9.96	12.95	15.94	18.94	21.93	24.92	27.91	30.90	33.89								
120	4.20	7.36	10.52	13.68	16.83	19.99	23.15	26.31	29.47	32.62	35.78								



The Airlite Company, LLC certifies that Louver Type SCV501MD 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.



HIGH VELOCITY RAIN RESISTANT WITH BLADES FULLY OPEN 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.

The Airlite Company, LLC certifies that Louver Type SCV501MD 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 and High Velocity Rain Resistant Louvers.

WATER PENETRATION

(Standard Air - .075 lb./ft.³; Test Size - 48 in. x 48 in.; Test Duration - 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. of water (penetration) per sq. ft. of louver free area. These performance ratings do not guarantee a louver to be weather-proof or stormproof and should be used in combination with other factors including good engineering judgement in selecting louvers. ***The beginning point of water penetration for Model SCV501MD is above 1,250 fpm (6.35 m/s) free area velocity.**

WIND-DRIVEN RAIN PERFORMANCE

Ventilation Air Core Velocity m/s (fpm)	75mm/h (3 in/hr) Rainfall & 13 m/s (29 mph) Wind Velocity		200mm/h (8 in/hr) Rainfall & 22 m/s (50 mph) Wind Velocity		
	Water Penetration Effectiveness %	Water Penetration Classification	Ventilation Air Core Velocity m/s (fpm)	Water Penetration Effectiveness %	
0.0 (0)		A	0.0 (0)	A	
0.5 (98)		A	0.5 (98)	A	
1.0 (196)		A	1.0 (196)	A	
1.5 (295)		A	1.5 (295)	A	
2.0 (393)		A	2.0 (393)	A	
2.5 (492)		A	2.5 (492)	A	
3.0 (590)		A	3.0 (590)	A	
3.5 (688)		A	3.5 (688)	A	
4.0 (782)	100.0	A	4.0 (787)	A	
4.4 (875)	99.9	A	4.4 (872)	100.0	A
5.0 (989)	99.8	A	5.0 (975)	99.9	A

Discharge Loss Coefficient Class (Intake) = 2

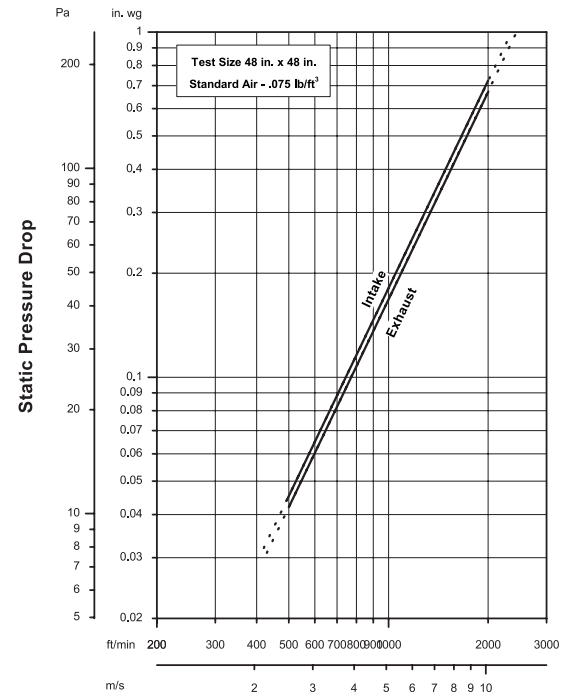
Weather louvers shall be classified by their ability to reject simulated rain. The table to the right shows different classifications based on the maximum simulated rain penetration per square meter (square feet) of louver. Water penetration rating at a given louver face velocity is determined by the water penetration while the louver is subjected to a selected simulated rainfall rate and wind velocity.

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

Wind-driven Rain Penetration Classes	
Class	Effectiveness
A	1 to 0.99
B	0.989 to 0.95
C	0.949 to 0.80
D	Below 0.80

AIRFLOW RESISTANCE

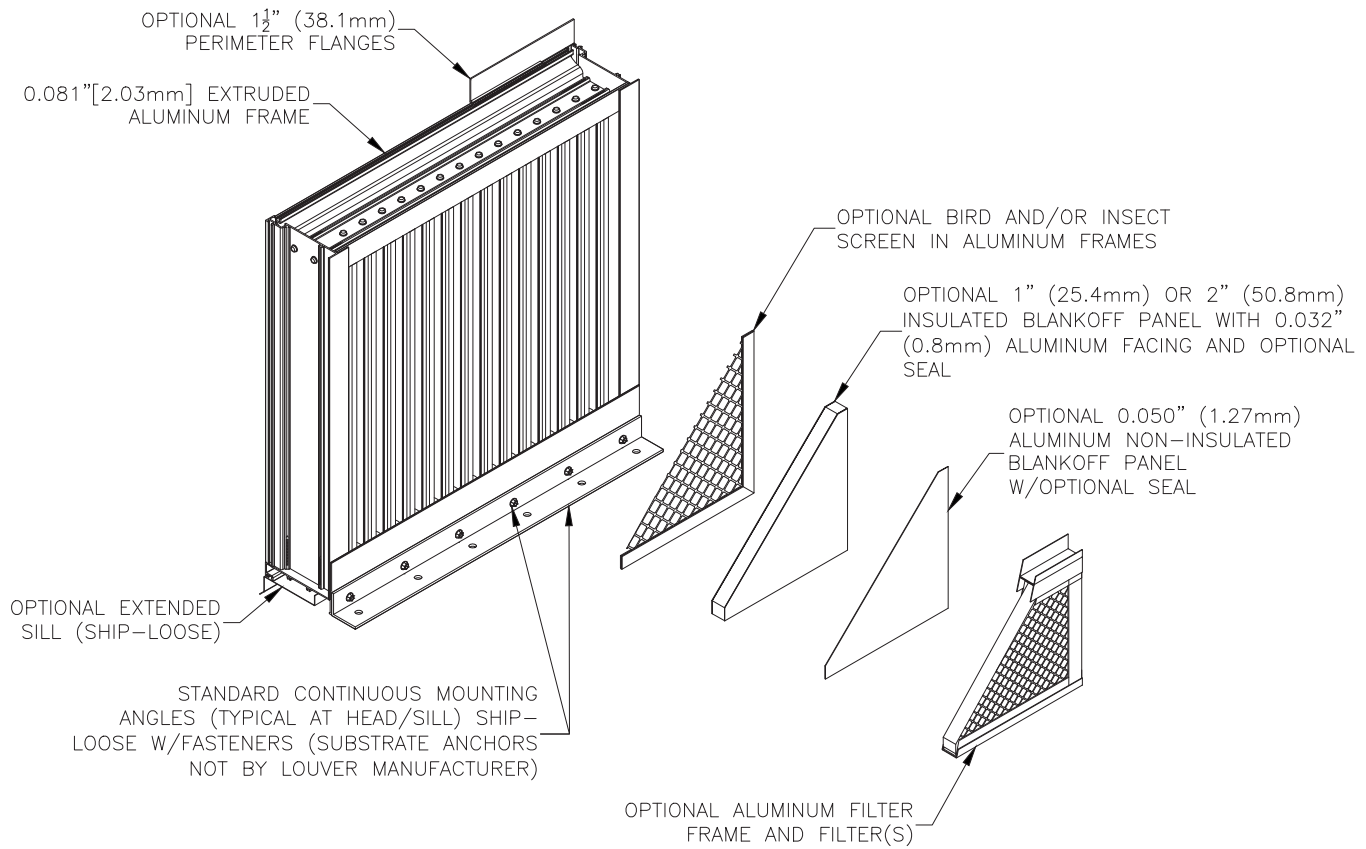
(Standard Air - .075 lb./ft.³)



Louver Type SCV501MD resistance to airflow varies depending on louver application (air intake or air exhaust). Free area velocities (shown) are higher than the average velocity through the overall louver size. (Test Figure 5.5-6.5)

LOUVER TYPE SCV501MD

METHOD OF INSTALLATION & ACCESSORY OPTIONS



FINISHES

Finish Type	Description/Application	Color Selection	Standard Warranty (Aluminum)
AAMA 2605 100% Fluoropolymer (FEVE) 2-Coat 70% Kynar® (PVDF) 3-Coat 70% Kynar® (PVDF) 4-Coat 70% Kynar® (PVDF)	"Best." The premier finish for extruded aluminum. Tough, long-lasting coating has superior color retention and abrasive properties. Resists chalking, fading, chemical abrasion and weathering.	Standard Colors: Any of the 27 standard colors shown can be furnished in 70% or 50% Kynar®, 100% Fluoropolymer or Baked Enamel. Mica Colors: Aiolrite offers 6 standard Mica colors for 70% Kynar® or 100% Fluoropolymer. Custom Colors: Custom color matching is available. Consult your Aiolrite representative for cost and/or lead-time implications if a custom color is required.	10 Years (20 Years Optional)
AAMA 2603 Baked Enamel	"Good." Provides good adhesion and resistance to weathering, corrosion and chemical stain.		1 Year
AA-M10C22A42 Integral Color Anodize	"Two-step" anodizing is produced by following the normal anodizing step with a second, colorfast process.	Light, Medium, Dark or Extra Dark Bronze; Champagne; Black	5 years
AA-M10C22A41 Clear Anodize 215 R-1	Clear, colorless and hard oxide aluminum coating that resists weathering and chemical attack.	Clear	5 years
AA-M10C22A31 Clear Anodize 204	Clear, colorless and hard oxide aluminum coating that resists weathering and chemical attack.	Clear	1 Year
Prime Coat	Louvers or architectural products shall be cleaned, pre-treated and receive a prime coat finish suitable for field painting. Aiolrite does not recommend prime coat or field painting of materials.		n/a
Mill	Materials may be supplied in natural aluminum or galvanized steel finish when normal weathering is acceptable and there is no concern for color or color change.		n/a

Finishes meet or exceed AAMA 2605, AAMA 2604, and AAMA 2603 requirements. Please consult www.aiolrite.com for complete information on standard and extended paint warranties. Paint finish warranties are not applicable to steel products.



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