

5DDWRDCV

Wind-Driven Rain Resistant Stationary Louver

Miami Dade NOA #22-0407.04

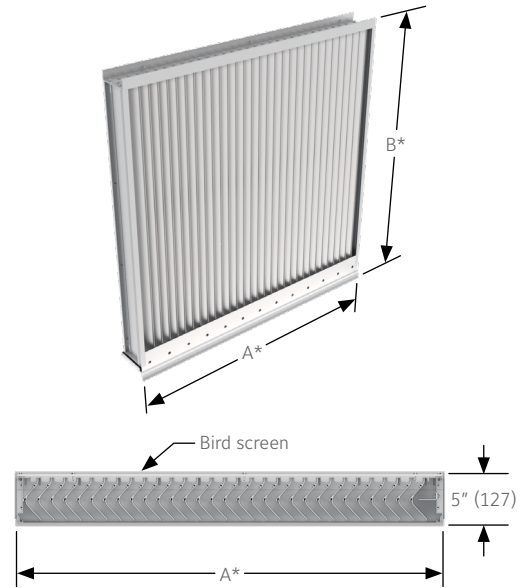
RELIABLE

APPLICATION

The 5DDWRDCV is a Miami Dade approved 5" deep mechanically fastened, extruded aluminum, vertical, stationary louver designed to protect air intake and exhaust openings in exterior walls in hurricane conditions. The 5DDWRDCV offers an exceptional water protection and meets enhanced protection building requirements.

STANDARD CONSTRUCTION

Frame	5" (127) deep, 6063T6 extruded aluminum with .080 (2) nominal wall thickness.
Blades	6063T6 extruded aluminum 0.080 (2.0) nominal wall thickness. Blades are mounted vertically and spaced approximately 1 1/2" (38) center to center.
Screen	5/8" x 0.040" (16 x 1) expanded flattened aluminum bird screen in removable frame.
Finish	Mill.
Minimum Size	12"w x 12"h (305 x 305).
Approximate Shipping Weight	10 lbs. per sq. ft. (49 kg/m ²)
Maximum Single Section Size	72" x 120" (1828 x 3048) max ship section. Unlimited Width by 120" tall. Louver assemblies over 120" tall will require additional horizontal supports not provided by Reliable. See engineer of record.



INSTALLATION

The 5DDWRDCV must be installed per the appropriate installation detail. Reference the appropriate separate installation instruction sheets.

Louvers larger than the maximum factory assembly size will require field assembly of smaller sections.

FEATURES

- 55% Free Area
- AMCA550 Listed
- AMCA540 Enhanced (Missile E) Listed
- Approved for applications with design pressure of +/- 160PSF (7.6 kPa)
- Mechanically Fastened
- Published performance rating based on testing in accordance with AMCA500-L
- Miami Dade Approved NOA #22-0407.04
- Aluminum construction for low maintenance and high resistance to corrosion
- Visible mullion construction. Hidden mullions and continuous blade construction are not available

VARIATIONS

- Variety of bird and insect screens
- Blank offs
- Extended Sills
- Front and rear flange
- CMU, Concrete, Steel, Aluminum and Wood installation available
- Universal Sleeve
- Filter Racks
- Security Bars
- Lifting Lugs
- Optional finishes available at additional cost: prime coat, 50% & 70% PVDF (modified fluoropolymer), epoxy, Pearledize

NOTES:

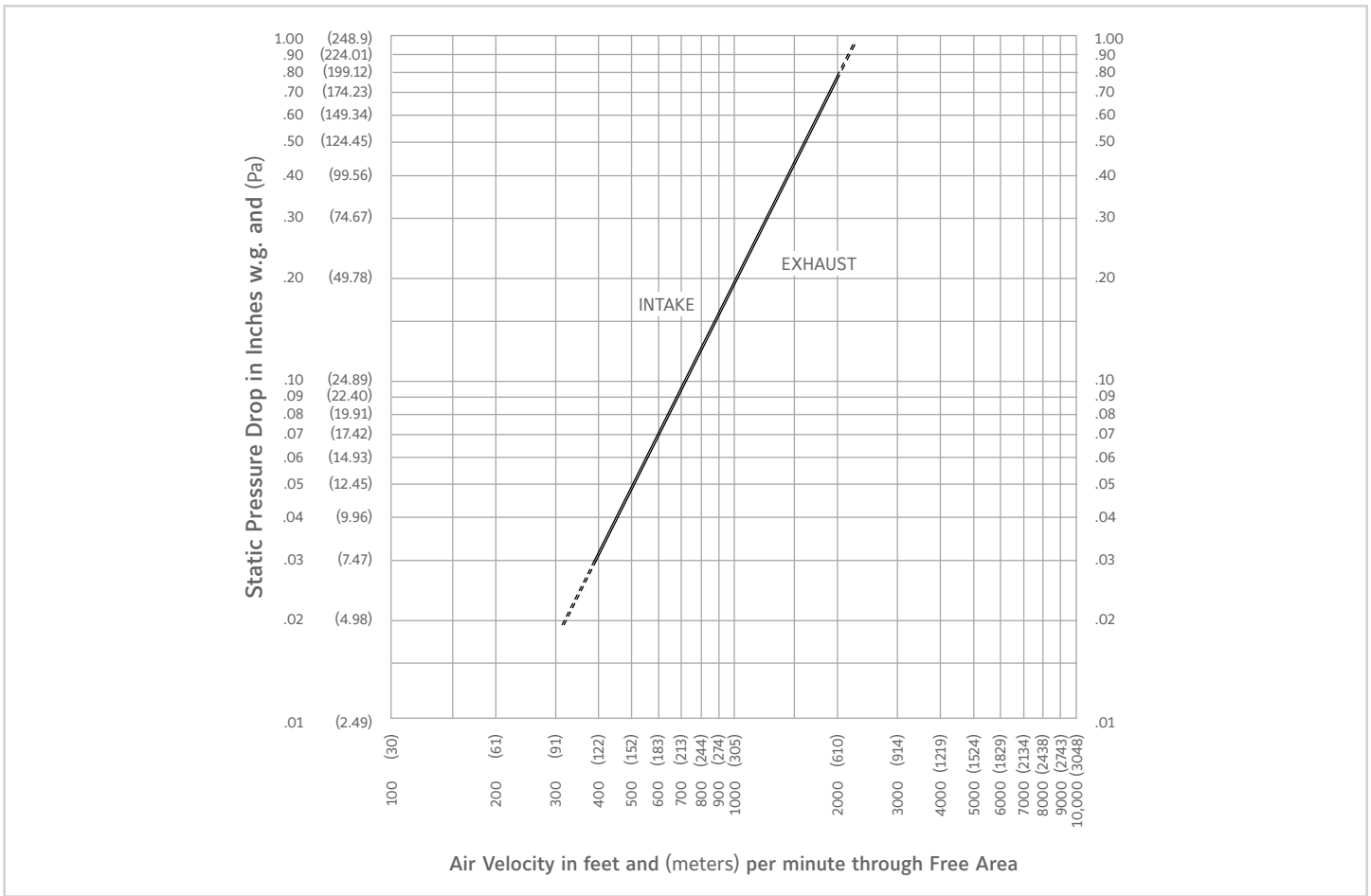
- Dimensions in inches, parenthesis () indicate millimeters.
- Units can be furnished actual size or with size deducts.

FREE AREA GUIDE

Free Area Guide shows free area in ft² and m² for various sizes of 5DDWRDCV.

		Width – Inches and Meters										
		12	18	24	30	36	42	48	54	60	66	72
Height – Inches and Meters		0.30	0.45	0.60	0.75	0.90	1.05	1.20	1.35	1.50	1.65	1.80
	12	0.26	0.45	0.65	0.85	1.04	1.24	1.43	1.63	1.83	2.02	2.22
	0.30	0.02	0.04	0.06	0.08	0.10	0.12	0.13	0.15	0.17	0.19	0.21
	18	0.48	0.84	1.21	1.57	1.94	2.30	2.66	3.03	3.39	3.76	4.12
	0.45	0.04	0.08	0.11	0.15	0.18	0.21	0.25	0.28	0.32	0.35	0.38
	24	0.70	1.23	1.77	2.30	2.83	3.36	3.89	4.43	4.96	5.49	6.02
	0.60	0.07	0.11	0.16	0.21	0.26	0.31	0.36	0.41	0.46	0.51	0.56
	30	0.92	1.62	2.32	3.02	3.72	4.42	5.12	5.82	6.52	7.22	7.92
	0.75	0.10	0.16	0.22	0.27	0.33	0.39	0.45	0.51	0.57	0.63	0.68
	36	1.15	2.01	2.88	3.75	4.62	5.49	6.35	7.22	8.09	8.96	9.83
	0.90	0.11	0.19	0.27	0.35	0.43	0.51	0.59	0.67	0.75	0.83	0.91
	42	1.37	2.40	3.44	4.48	5.51	6.55	7.58	8.62	9.66	10.69	11.73
	1.05	0.13	0.22	0.32	0.42	0.51	0.61	0.70	0.80	0.90	0.99	1.09
	48	1.59	2.79	4.00	5.20	6.41	7.61	8.81	10.02	11.22	12.43	13.63
	1.20	0.15	0.26	0.37	0.48	0.60	0.71	0.82	0.93	1.04	1.16	1.27
	54	1.81	3.18	4.55	5.93	7.30	8.67	10.04	11.41	12.79	14.16	15.53
	1.35	0.17	0.30	0.42	0.55	0.68	0.81	0.93	1.06	1.19	1.32	1.44
	60	2.03	3.57	5.11	6.65	8.19	9.73	11.27	12.81	14.35	15.89	17.43
1.50	0.19	0.33	0.48	0.62	0.76	0.90	1.05	1.19	1.33	1.48	1.62	
66	2.25	3.96	5.67	7.38	9.09	10.79	12.50	14.21	15.92	17.63	19.33	
1.65	0.21	0.37	0.53	0.69	0.85	1.00	1.16	1.32	1.48	1.64	1.80	
72	2.48	4.35	6.23	8.10	9.98	11.86	13.73	15.61	17.48	19.36	21.24	
1.80	0.23	0.40	0.58	0.75	0.93	1.10	1.28	1.45	1.63	1.80	1.98	
78	2.70	4.74	6.79	8.83	10.87	12.92	14.96	17.01	19.05	21.09	23.14	
1.95	0.25	0.44	0.63	0.82	1.01	1.20	1.39	1.58	1.77	1.96	2.15	
84	2.92	5.13	7.34	9.56	11.77	13.98	16.19	18.40	20.62	22.83	25.04	
2.10	0.27	0.48	0.68	0.89	1.09	1.30	1.51	1.71	1.92	2.12	2.33	
90	3.14	5.52	7.90	10.28	12.66	15.04	17.42	19.80	22.18	24.56	26.94	
2.25	0.29	0.51	0.73	0.96	1.18	1.40	1.62	1.84	2.06	2.28	2.51	
96	3.36	5.91	8.46	11.01	13.56	16.10	18.65	21.20	23.75	26.30	28.84	
2.40	0.31	0.55	0.79	1.02	1.26	1.50	1.73	1.97	2.21	2.45	2.68	
102	3.59	6.30	9.02	11.73	14.45	17.17	19.88	22.60	25.31	28.03	30.75	
2.55	0.33	0.59	0.84	1.09	1.34	1.60	1.85	2.10	2.35	2.61	2.86	
108	3.81	6.69	9.57	12.46	15.34	18.23	21.11	23.99	26.88	29.76	32.65	
2.70	0.35	0.62	0.89	1.16	1.43	1.70	1.93	2.23	2.23	2.77	3.04	
114	4.03	7.08	10.13	13.18	16.24	19.23	22.34	25.39	28.44	31.50	35.55	
2.85	0.37	0.66	0.94	1.23	1.51	1.79	2.08	2.36	2.64	2.93	3.21	
120	4.25	7.47	10.69	13.91	17.13	20.35	23.57	26.79	30.01	33.23	36.45	
3.00	0.40	0.69	0.99	1.29	1.59	1.89	2.19	2.49	2.79	3.09	3.39	

PRESSURE DROP



PERFORMANCE DATA



Reliable certifies that the 5DDWRDCV 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 Louvers.

The AMCA Listing Label applies to High Velocity Rain Resistant Louver Louvers.

WIND-DRIVEN RAIN PERFORMANCE – AMCA 500-L WIND-DRIVEN RAIN TEST

Test Size is 1m x 1m (39" x 39") core area, 1.05m x 1.08m, 40.875" x 44.375" nominal. Free Area of test louver is 6.795ft²

Wind Velocity MPH (kph)	Rainfall Rate In./hr. (mm/hr.)	Core Velocity FPM (m/s)	Airflow CFM (m ³ /min)	Free Area Velocity FPM (m/sec.)	Effectiveness Ratio	Class	Discharge Loss Class
29 (46)	3" (76)	984 (5)	10598 (300)	1559 (7.9)	99.90%	A	2
50 (80.5)	8" (203)	795 (4)	8560 (242)	1259 (6.4)	99.80%	A	2
50 (80.5)	8" (203)	888 (4.5)	9561 (270)	1407 (7.2)	99.70%	A	2
50 (80.5)	8" (203)	984 (5)	10597 (300)	1559 (7.9)	99.70%	A	2

NOTES:

1. Core area is the open area of the louver face (face area less louver frames). Core Velocity is the airflow velocity through the Core Area of the louver (1m x 1m). 5 m/s is the maximum core velocity utilized in this test.

2. Free Area of test size is calculated per AMCA standard 500-L.

3. Wind Driven Rain Penetration Classes:

Class	Effectiveness
A	1 to .99
B	0.989 to 0.95
C	0.949 to 0.80
D	Below 0.8

4. The 5DDWRDCV provides class A performance at all velocities up to and including 5 m/s core velocity.

5. Discharge Loss Coefficient is calculated by dividing a louver's actual airflow rate vs. a theoretical airflow for the opening. It provides an indication of the louver's airflow characteristics.

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

(The higher the coefficient, the less resistance to airflow.)

6. The AMCA Wind Driven Rain Test is performed in a laboratory environment and incorporates controlled wind, water and system airflow effects. In actual field installations, storms may create conditions not considered by the AMCA test. Penthouse and similar applications where wind can pass through multiple louvers in an enclosure is another condition that is not simulated by AMCA tests. These applications can create elevated water penetration rates through any louver. Because of these uncontrolled situations it is recommended that provisions to manage water penetration through louvers be included in the building design.



Reliable certifies that the 5DDWRDCV louver 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 air performance ratings and wind driven rain ratings only.

SUGGESTED SPECIFICATION

Furnish and install louvers as hereinafter specified where shown on plans or as described in schedules. Louvers shall possess stationary vertical blades designed to prevent the penetration of wind driven rain. Louver blades shall be contained within a 5" (127) frame. Extended sill shall be provided to capture and drain water to exterior of building. Louver components (heads, jambs, sill and blades) shall be factory assembled by the louver manufacturer. Louver sizes too large for shipping shall be built up by the contractor from factory assembled louver sections to provide overall sizes required. Louver design shall incorporate visible mullions on units larger than 72" x 120" (1828 x 3048). Louvers shall withstand a wind load of 160 lbs.

per sq. ft. (7.6kPa) (specifier may substitute any loading required).

Louvers shall be Reliable Model 5DDWRDCV extruded 6063T6 aluminum alloy construction as follows:

Frame:	0.08 (2) wall thickness, caulking surfaces provided.
Blades:	0.08 (2) wall thickness, installed vertically on approximately 1 1/2" (38) centers.
Extended Sill:	0.08 (2) wall thickness, with upturned side panels to prevent water leakage.
Screen:	5/8" x 0.040" (16 x 1) expanded flattened aluminum bird screen in removable frame.
Finish:	Select finish specification from Reliable Finishes Brochure.

LINKS TO IMPORTANT DOCUMENTS

Document Title
Finishes and Color Guide
Limited Warranty Document



1300 Enterprise Road, P.O. Box
580, Geneva, Alabama 36340
Tel: 334-684-3621
Tel: 800-624-3914
Fax: 800-508-1469