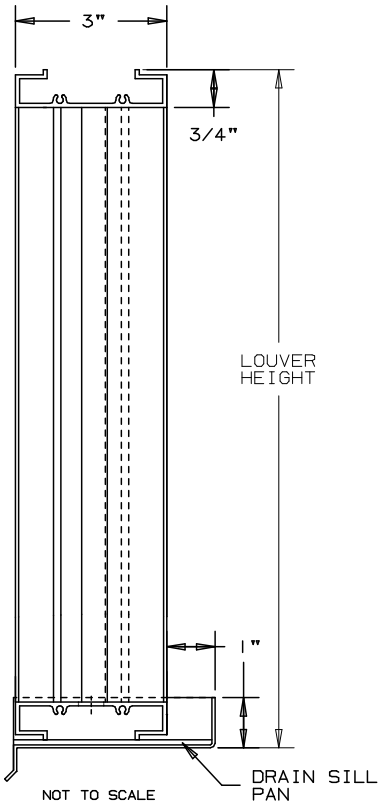
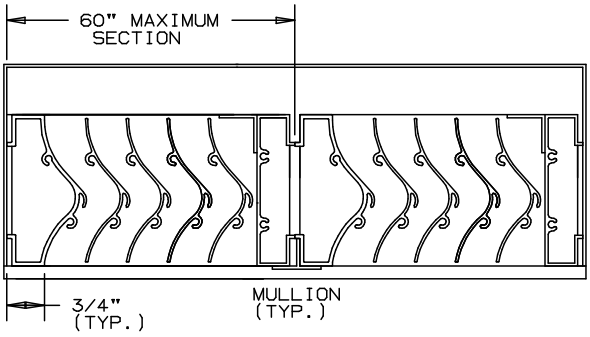
ARROW

EXTRUDED ALUMINUM LOUVERS 3"" DEEP - STATIONARY VERTICAL

TYPE EA-331

RAIN RESISTANT STORM LOUVER





SPECIFICATIONS

MATERIAL: EXTRUDED ALUMINUM 6063-T6/T52 ALLOY
FRAMES: .081" THICK NOMINAL.
BLADES: .040" THICK NOMINAL.
FACE OF LOUVER: ALL SURFACES ARE FLUSH WITH JAMBS CONTAINED WITHIN THE HEAD AND SILL.
APPROXIMATE BLADE CENTERS 13/16".
SCREENS: WHEN INDICATED, IN A REMOVABLE FRAME.
BIRD SCREEN - 1/2" FLATTENED ALUMINUM, .051" THK.
OR - 1/2" SQ. MESH, INTERMEDIATE DOUBLE-CRIMPED ALUMINUM WIRE, .063 DIA.
OR - 18/16 MESH, .011" DIA. ALUMINUM WIRE, INSECT SCREEN.
DRAIN SILL PAN: .060" THICK FORMED ALUMINUM.

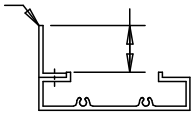
FINISH: _____

LOUVER SIZES: 12" x 12" MINIMUM PANEL SIZE.
60" x 96" MAXIMUM PANEL SIZE.

LOUVER PERFORMANCE STATEMENT

LOUVER MODEL EA-311 SHALL BE FABRICATED TO PROVIDE A MINIMUM FREE AREA (44%), 7.06 SQUARE FEET OF FREE AREA FOR A 48"x48" SIZE LOUVER. WITH .083 INCHES WATER GAUGE PRESSURE DROP AT 1000 FPM FOR AIR INTAKE. IN ADDITION, THIS LOUVER MODEL IS ALSO TESTED TO THE AMCA 500-L-99 WIND DRIVEN RAIN TEST STANDARD. WHERE THE LOUVER IS SUBJECTED TO SIMULATED WIND DRIVEN RAIN. THE RESULT OF THIS TEST SHALL SHOW A CLASS "A" RATING HAVING (100%) EFFICIENCY AT 3 INCHES OF RAINFALL AT AN INTAKE VELOCITY OF 1451 FPM (10,244 CFM) AT A WIND SPEED OF 29 MPH, AND 99.5% EFFICENCY AT 8 INCHES OF RAINFALL AT AN INTAKE VELOCITY OF 1439 FPM (10,159 CFM) AT WIND SPEED OF 50 MPH FOR A SIZE 48"x48".

FLANGE FRAME AVAILABLE ON (3) SIDES ONLY, NOT AT SILL



FLANGE FRAME AVAILABLE

FOR CERTIFIED RATINGS AUTHORIZED BY AMCA - SEE REVERSE SIDE

NOMINAL DEDUCTIONS WILL BE MADE TO THE OPENING SIZE GIVEN.

ITEM	QTY.	OPENING SIZE WIDTH	OPENING SIZE HEIGHT	LOUVER SIZE WIDTH	LOUVER SIZE HEIGHT	MULL	SCREENS TYPE	SCREENS LOC

UNION MADE

ARROW UNITED INDUSTRIES
A DIVISION OF MESTEK, INC.
314 RIVERSIDE DRIVE
WYALUSING, PA 18853
TEL: (570)746-1888 FAX: (570)746-9286

AGENT: _____

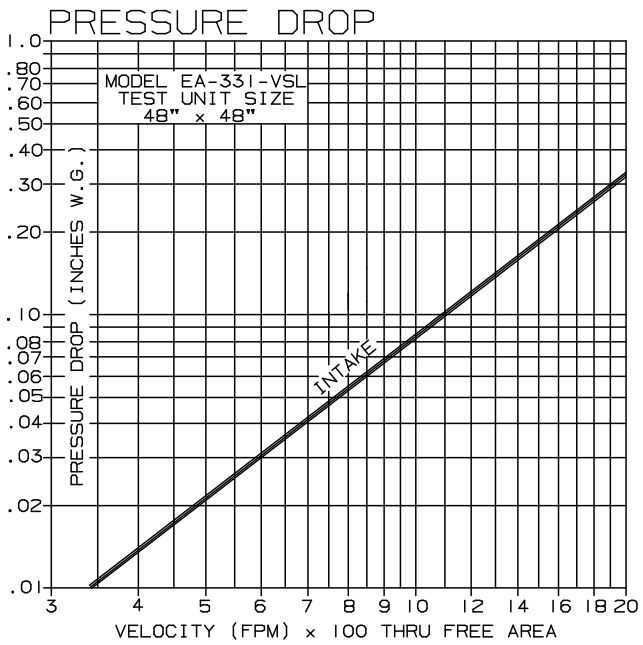
ARCH./ENG.:
CONTR.:
PROJECT:
EDR: ECN: JOB:
DATE: DWN.: DWG.:

LOUVER MODEL EA-331-VSL
WIND DRIVEN RAIN RESISTANT LOUVER
EXTRUDED ALUMINUM - STATIONARY

PERFORMANCE DATA

TESTS OF A 48"x48" ACCORDING TO AMCA STANDARD 500-L-99 SHOWS LESS THAN .083 INCHES WATER GAUGE PRESSURE DROP AT 1000 FPM (INTAKE).

RATINGS DO NOT INCLUDE EFFECTS OF BIRDSCREEN.



FREE AREA

FREE AREA (SQ. FT.)									
		WIDTH							
		12"	18"	24"	30"	36"	42"	48"	54"	60"
HEIGHT	12"	.34	.55	.76	.97	1.18	1.39	1.59	1.81	2.02
	24"	.73	1.18	1.64	2.09	2.53	2.98	3.42	3.89	4.34
	36"	1.12	1.80	2.52	3.21	3.88	4.57	5.24	5.97	6.66
	48"	1.52	2.43	3.40	4.33	5.24	6.17	7.06	8.05	8.98
	60"	1.91	3.06	4.28	5.45	6.59	7.76	8.90	10.13	11.30
	72"	2.30	3.69	5.16	6.57	7.94	9.35	10.72	12.21	13.63
	84"	2.69	4.32	6.04	7.69	9.29	10.95	12.55	14.29	15.95
	96"	3.08	4.95	6.92	8.81	10.65	12.54	14.37	16.38	18.27

LOUVER MODEL EA-331-VSL

PERFORMANCE DATA

WIND DRIVEN RAINWATER PENETRATION TEST CONDUCTED TO AMCA STANDARD 500-L-99

TEST SIZE 1M x 1M (39.37" x 39.37") CORE AREA, NOMINAL LOUVER FREE AREA 5.11 SQUARE FEET

WIND VELOCITY MPH	RAINFALL RATE IN./HR.	CORE AREA VELOCITY FPM	AIRFLOW CFM	FREE AREA VELOCITY FPM	EFFECTIVENESS RATIO	CLASS	DISCHARGE LOSS COEFFICIENT CLASS INTAKE
29	3"	689	7415	1451	100%	A	1
50	8"	683	7352	1439	99.5%	A	1

WIND DRIVEN RAIN PENETRATION CLASSIFICATIONS	
CLASS	EFFECTIVENESS %
A	1 TO 0.99%
B	0.989 TO 0.95%
C	0.949 TO 0.80%
D	BELOW 0.80%

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

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"x39.37").
3. FREE AREA IS THE MINIMUM AREA THROUGH WHICH AIR CAN PASS. IT IS DETERMINED BY MULTIPLYING THE SUM OF THE MINIMUM DISTANCES 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 CERTIFIES THAT THE MODEL EA-331-VSL SHOWN HEREIN IS LICENSED TO BEAR THE AMCA SEAL. THE RATINGS SHOWN ARE BASED ON TESTS AND PROCEDURES PERFORMED IN ACCORDANCE WITH THE AMCA PUBLICATION 511 AND COMPLY WITH THE REQUIREMENTS OF THE AMCA CERTIFIED RATINGS PROGRAM. THE AMCA CERTIFIED RATINGS SEAL APPLIES TO AIR PERFORMANCE AND WIND DRIVEN RAIN RATINGS ONLY.