**Bulletin AE09** 



## **POWERED AIRETTE**

Models: AC, AF Exhaust or Supply Hooded Propeller Roof Ventilators

MOVING YOUR WAY

## **Powered Airette**

Hooded Propeller Roof Ventilator

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- Flow capacity between 1,600 22,600 CFM

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- Flow capacity between 2,500 75,000 CFM Model: AF
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- Flow capacity between 2,900 47,650 CFM



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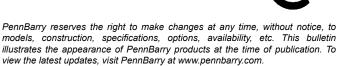
 Limited Warranty
 IBC

#### > UL and CSA Certification

PennBarry Powered Airettes carry the UL label, UL 705.

certified

PennBarry Powered Airettes are also certified by the Canadian Standard Association.



## Introduction

Powered Airette Hooded Propeller Roof Ventilator



### Introduction

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#### > PennBarry Powered Airette

The PennBarry Powered Airette has been job-proven in countless installations throughout the world.

Architects appreciate the low silhouette and crisp, clean contour. Engineers consider the Powered Airette's versatility and efficiency as their answer to many ventilation problems. PennBarry Powered Airettes can be used as an efficient power roof exhauster to remove hot, humid, foul air or can be arranged to supply fresh, cooler outside air.

Installation is quick and easy on existing or new construction. This unit is shipped as a complete package. A properly framed roof opening and an electrical connection are all that are required.

Total access to all moving parts for maintenance and inspection is attained by raising the hinged hood. Pulley sizes can be easily changed on the job to adjust air volumes if necessary.

The Powered Airette is a solid, compact unit. It is completely self-contained. The housing is low and unobtrusive but not too low or too close to hot or wet roof surfaces. All components are within the housing. They do not intrude nor protrude below the roof line.

The Powered Airette is not just another panel fan with a sheet metal hood. It is a substantial roof exhauster designed and engineered for the duty it serves.

#### > Powered Airette Direct Drive Series Model: AC

- Static pressure up to 0.50"
- · Flow capacity between 1,600 22,600 CFM

#### › Powered Airette Belt Drive Series Model: AC

- Static pressure up to 0.50"
- Flow capacity between 2,500 75,000 CFM Model: AF
- Static pressure up to 0.50"
- · Flow capacity between 2,900 47,650 CFM



Powered Airette Hooded Propeller Roof Ventilator

### Features & Benefits

Introduction

#### Housings

Built of heavy gauge galvanized steel. Pretreatment provided when units are to be painted in the field to match color of other exterior metal work or when factory painting is specified. The Powered Airette is also available in maintenance-free aluminum when specified.

#### > Motor and Drive Assemblies

Sturdy, structural steel mountings support these components. Mounts are properly designed for motor weight and fan speed. Mounting brackets are provided with slotted tracks for simple belt adjustment on standard belt-drive units.

#### > Propeller Fans

PennBarry's fan blades provide QUIET air movement at maximum efficiency. This means low noise level and minimum power consumption with maximum airflow.

#### > Weather Resistant Operation

Complete weather tightness has been incorporated in the housing design. The protected perimeter exhaust outlet areas on all four sides of the generously sized square hood establish the overall symmetry of the housing. Four even outlet areas reduce discharge velocities and turbulence. Passing air currents actually assist the exhaust action regardless of wind direction. Discharge or inlet openings can be screened to prevent birds or insects from entering the housing when such protection is desired.

#### > Adjustable Motor Pulleys

Adjustable motor pulleys are standard and can provide speed and capacity flexibility on the job site. Adjustment of 1" in pitch diameter is standard (a 4" pitch diameter pulley can be varied from 3 1/2" to 4 1/2" or + 12 1/2% of rated rpm). Larger size Powered Airettes use matched multiple belts and two-groove pulleys. Motors are mounted on slotted rails to vary center-to-center distances and to adjust for proper belt tension. Vertical flexibility is also provided to permit proper pulley alignment.



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## **Introduction** Powered Airette Hooded Propeller Roof Ventilator



### **Options & Accessories**

#### Backdraft Dampers

To prevent backdrafts, dampers are frequently used as accessories with the Powered Airette. PennBarry offers several types. Shown here, is an electric motor operated model which insures positive and tight closure for exhaust units. Others are self-acting dampers that open and close automatically with the start/stop of the fan. There are low velocity standard duty and high velocity heavy duty styles. Dampers have aluminum, felted edges with interconnecting rods that prevent blade chatter or 'over-opening'. Damper frames are rugged, galvanized steel roll formed channels and are provided with a knock-out to permit the passage of electrical conduit.



#### > Safety Guards

Plant Safety Committees and officials, at times, require protective guards around rotating machinery. Accordingly, roof openings for PennBarry's units can be easily and neatly fitted with framed safety guards. This is possible with the Powered Airette design because fan components do not intrude nor protrude below the roof line or into the well of the roof curb.

#### > Finishes

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Coatings such as air dry Enamel, Epoxy, or Heresite are available upon request. See the coatings brochure for details.

#### > Disconnect Switches

UL listed, non-fused, safety disconnect switches can be provided to match system electrical characteristics. These can be furnished in a weatherproof (NEMA 3R or 4) enclosure specifically designed for outdoor installation or in conventional (NEMA 1) enclosures mounted inside the airshaft under the hood.



#### > Bird Screens

PennBarry supplies aluminum bird screens when such protection is desired. This screen has an 85% free area for minimum air restriction and pressure drop. The screen cannot unravel, rust or corrode and is an effective barrier against birds or debris entering the building.

#### > Fresh Air Intake or Relief Hoods

Companion units to the Powered Airette exhaust or supply fan ventilators are the Gravity Airette Fresh Air Intake or Exhaust Hoods.

Gravity Airette Fresh Air Intake or Exhaust Hoods are the perfect way to insure uniformity on the roof for any ventilation function: exhaust, supply, gravity ventilation, pressure relief, interior fan discharge cap or outside air intake.

#### > Motors

Continuous, heavy-duty, ball bearing motors are standard. In belt-drive units, motors are provided on adjustable bases for easy adjustment of belt tension. Ratings of standard motors are for 40°C ambient. NEMA Class B and Class F insulation is available for temperatures up to 50°C. Explosion proof motors can also be furnished. All motor sizes have been conservatively selected to insure adequate protection under normal operating conditions. Totally enclosed and variable speed motors are also available on special order. Where severe heat conditions are prevalent, glass or other specially insulated motors are necessary. For acids, fumes, excessive moisture, etc., modified designs should be used. A proper selection can be insured by consultation with the factory.



## Introduction Powered Airette Hooded Propeller Roof Ventilator

Whether the installation is on the peak or a single slope of the

building, the Unibeam curb will accommodate the application.

Each curb is custom built to meet the needs of the project.

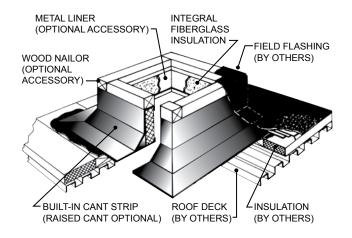
> Peaked or Sloped Curbs

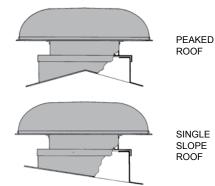
### **Options & Accessories**

#### > Roof Curbs

Roof curbs are furnished in a variety of types from canted or selfflashing to sloped or flat pitch. Standard construction includes galvanized or aluminum material, insulation, and metal, rubber gasketing or wood nailer mounting surface. See the roof curbs brochure for details.

Illustrated here, is the Unibeam which is most generally used. Costs of this device are normally less than field built curbs. The Unibeam shown is for flat roof installation.





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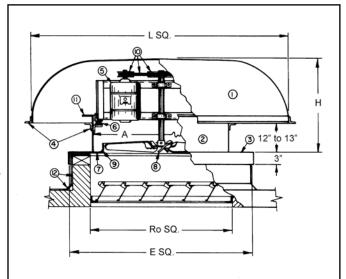
## **Dimensional Information**

Powered Airette Hooded Propeller Roof Ventilator



## AC & AF

#### > AC & AF Dimensional Drawings



#### > Legend

- 1. Access Hood
- 2. Fan Casing
- 3. Mounting Base
- Reinforcing Angle Frame
   Ball Bearing Motor
- 11. Weather Baffle

9.

12. Curb and Flashing (by others)

8. Axial Flow Propeller

Fan Inlet Ring

10. Belt and Pulleys

- 6. Anti-Vibration Mounts
- 7. Electric Conduit Space

> AC Dimensional Reference

#### > AC & AF Dimensional Information

Powered Airette ventilators are available in two standard drive arrangements. Direct drive fans with blades on the motor shaft. Belt drive units for general ventilation conditions where the motor and drive components are installed within the ventilator airshaft to take advantage of airstream cooling action. The exhausting air washes the motor and bearings to increase longevity of these components.

Because of physical size, the factory retains the option of shipping large units semi-knocked down when necessary. Units hoisted to the roof should have adequate slings or cradles provided. Installing contractors should secure mounting base to roof curbs with lag bolts and washers or other proper fasteners 12" O.C. When hoods are removed from airshafts during installation, contractors are cautioned to reset hoods properly with all fasteners drawn fully tight. In areas subject to high winds, it is recommended that large units be installed with guy wires.

Size	•	ц			Ro	Е	Gau	ges*
Size	Size A H -		Exhaust	Exhaust Supply		E	Alum.	Steel
24	26	21	39	48	25	35	16-20	18-24
30	32	25	48	57	31	41	12-18	16-20
36	38	25	57	66	36	47	12-18	16-20
42	44	29	66	75	44	53	12-18	16-20
48	50	29	75	84	50	59	12-18	16-20
54	56	31	84	93	55	65	10-16	16-20
60	62	33	93	101x121	62	71	10-14	16-20
72	74	43	93x160	93x190	72	83	10-14	14-20

All dimensions in inches.

\* Gauges listed first are for airshaft. Gauges listed second are for hoods.

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## **Dimensional Information**

Powered Airette Hooded Propeller Roof Ventilator

Clean and fresh outside air is vital to the proper functioning of

many ventilating systems. Air conditioning equipment and many other devices require a dust-free and dirt-free supply of air.

Powered Airette Supply Fans with cleanable filters satisfy such antipollutant requirements. Filter maintenance is important.

Resistance increases when filters are dirty and pollutant carry-

Caution: Due to the high humidity and moisture present at

the roof level, filters using hygroscopic media or cardboard

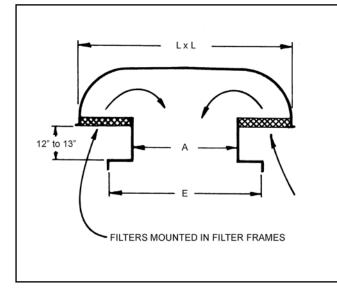
> AC & AF Filter Equipped Information

thru will result at .25 in. w.g.

frames should be avoided.

### AC & AF

#### > AC & AF Dimensional Drawings



#### > AC Filter Dimensional Reference

Size	Α	E	Filter Area	Number & Size of Filters	LxL	Maximu	Im CFM
Size	sq. in.	sq. in.	sq. ft.	Number & Size of Filters	in.	350 FPM	550 FPM
24	26	35	17.76	(6) @ 16x20 & (2) @ 16x25	61x61	6200	9700
30	32	41	21.22	(2) @ 16x20 & (6) @ 16x25	71x71	7400	11600
36	38	47	34.19	(2) @ 16x25 & (10) @ 20x25	81x91	12000	18800
42	44	53	48.58	(10) @ 20x25 & (4) @ 25x25	101x101*	17000	26600
48	50	59	63.88	(8) @ 16x25 & (24) @ 15x20	117x121*	22000	35000
54	56	65	83.28	(24) @ 20x25	101x161*	29000	45500
60	62	71	90.28	(28) @ 20x25	117x167*	31600	49650

All dimensions in inches.

\* Hoods shipped in one or more sections for field assembly.

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## **Performance Data**

Powered Airette Hooded Propeller Roof Ventilator



## AC - Cast Aluminum Propeller

#### > AC Direct Drive Performance Data

Model	RPM	TIP SPD	0.000	)" SP	0.125	5" SP	0.250" SP		0.375	5" SP	0.500	)" SP		Ship Lbs)
		(FPM)	CFM	BHP*	CFM	BHP*	CFM	BHP*	CFM	BHP*	CFM	BHP*	Alum.	Stee
AC24W1	860	5405	4050	0.29	2865	0.27	1605	0.28	-	-	-	-		
AC24W2	860	5405	4275	0.40	3150	0.40	1885	0.40	-	-	-	-	250	300
AC24T	1140	7165	5370	0.67	4520	0.65	3510	0.63	2565	0.64	1670	0.72		
AC30W	860	6755	6825	0.45	5715	0.46	3930	0.47	1990	0.50	-	-		
AC30T1	1140	8955	7755	0.68	6990	0.71	5995	0.71	4715	0.72	3435	0.74	300	350
AC30T2	1140	8955	10890	1.46	10290	1.48	9690	1.50	8900	1.49	7860	1.46		
AC36W1	860	8105	10500	0.90	9175	0.92	7270	0.94	4895	0.98	-	-	400	450
AC36W2	860	8105	11795	1.33	10165	1.34	7855	1.29	5155	1.28	2385	1.37		450
AC42W1	860	9455	17250	1.86	15690	1.90	13960	1.95	11715	2.00	-	-	550	625
AC42W2	860	9455	19730	2.98	17875	2.97	15710	2.95	13115	2.95	9590	2.96	550	020
AC48W1	860	10805	19395	1.89	17550	1.96	15540	1.96	13185	1.93	10285	1.90	675	750
AC48W2	860	10805	22610	2.85	20800	2.89	18820	2.90	16640	2.90	14150	2.91	075	750
AC Belt	Drive Pe	erformar TIP SPD	nce Data 0.000		0.125	5" SP	0.250	)" SP	0.375	5" SP	0.500	)" SP		Ship Lbs)
		(FPM)	CFM	BHP*	CFM	BHP*	CFM	BHP*	CFM	BHP*	CFM	BHP*	Alum.	Stee
	1000	6285	4015	0.23	3380	0.24	2625	0.25	-	-	-	-		
	4405	0045	4440	0.04	2070	0.00	2025	0.00	0540	0.00	0040	1		
	1105	6945	4440	0.31	3870	0.33	3235	0.33	2510	0.33	2840	-		

Model	RPM	TIP SPD	0.000	)" SP	0.12	5" SP	0.250	)" SP	0.375	5" SP	0.500	)" SP	Est. Wt. (	Ship Lbs)
		(FPM)	CFM	BHP*	Alum.	Stee								
	1000	6285	4015	0.23	3380	0.24	2625	0.25	-	-	-	-		
	1105	6945	4440	0.31	3870	0.33	3235	0.33	2510	0.33	2840	-	1	
AC24	1265	7950	5080	0.47	4590	0.48	4060	0.49	3470	0.50	3945	0.50	250	300
AC24	1450	9110	5825	0.70	5400	0.72	4950	0.74	4470	0.75	4745	0.75	250	300
	1595	10020	6405	0.94	6025	0.96	5620	0.98	5195	0.99	4964	1.00		
	1637	10286	6576	1.01	6200	1.04	5810	1.05	5400	1.07	-	1.08		
	705	5535	5915	0.23	4710	0.25	2935	0.24	-	-	-	-		
	780	6125	6545	0.31	5510	0.33	4010	0.32	1975	0.33	-	-		
	890	6990	7465	0.47	6630	0.49	5400	0.49	4035	0.48	2115	0.49		
AC30	1020	8010	8555	0.70	7860	0.73	6910	0.74	5740	0.73	4540	0.72	300	35
	1125	8835	9435	0.94	8815	0.97	8020	0.99	7060	1.00	5955	0.98	1	
	1280	10055	10735	1.39	10200	1.42	9580	1.45	8795	1.47	7920	1.47	1	
	1326	10414	11123	1.54	10608	1.58	10023	1.61	9279	1.63	8456	1.63		
	485	4570	7785	0.33	5740	0.33	2315	0.29	-	-	-	-		
	555	5230	8910	0.49	7160	0.49	4270	0.45	-	-	-	-		
	635	5985	10190	0.73	8700	0.74	6905	0.72	3980	0.66	-	-	1	
	700	6595	11235	0.98	9900	1.00	8430	0.98	5900	0.93	3670	0.88	1	45
AC36	800	7540	12840	1.47	11700	1.49	10425	1.48	9010	1.45	6540	1.37	400	45
	880	8295	14125	1.96	13115	1.98	11965	1.98	10810	1.96	9595	1.93	1	
	1010	9520	16210	2.96	15355	2.98	14370	2.99	13355	2.98	12355	2.96		
	1043	9830	16740	3.26	15912	3.28	14966	3.29	13988	3.29	13015	3.26	1	
	435	4785	10325	0.48	7525	0.49	3605	0.46	-	-	-	-		
	500	5500	11870	0.73	9815	0.74	6745	0.73	2775	0.73	-	-	1	
	550	6050	13055	0.98	11250	0.99	8490	0.98	5425	0.92	-	-	1	
AC42	630	6925	14955	1.47	13440	1.48	11155	1.48	8890	1.46	5955	1.39	550	62
	695	7640	16500	1.97	15105	1.98	13485	1.99	11105	1.98	9135	1.94	1	
	795	8740	18870	2.95	17660	2.96	16395	2.98	14485	2.97	12580	2.96	1	
	940	10335	22315	4.87	21295	4.89	20305	4.91	19130	4.93	17510	4.92	1	
	475	5970	15815	0.99	13050	0.98	9320	0.93	-	-	-	-		
	545	6850	18145	1.50	15810	1.49	12985	1.45	8240	1.37	-	-	1	
AC48	600	7540	19975	2.00	17880	2.00	15455	1.96	12735	1.89	7125	1.81	675	75
	685	8610	22805	2.97	20970	2.98	19000	2.95	16715	2.89	14195	2.81	1	
	810	10180	26970	4.91	25425	4.92	23845	4.91	22085	4.87	20165	4.80	1	
	590	8340	21615	1.44	19010	1.47	16010	1.45	12420	1.37	-	-		
	650	9190	23815	1.93	21485	1.96	18845	1.96	15895	1.91	12380	1.78	1	
AC54	745	10530	27295	2.90	25305	2.95	23080	2.96	20690	2.93	18050	2.87	900	100
	885	12510	32425	4.86	30795	4.94	28980	4.96	27070	4.95	25055	4.93	1	
	1015	14350	37190	7.34	35790	7.44	34250	7.47	32635	7.48	30955	7.47	1	
	355	5575	25855	1.96	22200	1.98	15915	1.93	-	-	-	-		
	405	6360	29495	2.91	26360	2.94	22565	2.93	13940	2.80	-	-	1	
AC60	480	7540	34955	4.84	32290	4.87	29495	4.90	25910	4.87	18225	4.67	1000	115
	550	8640	40055	7.28	37725	7.32	35420	7.36	32740	7.37	29515	7.33	1	
	605	9505	44060	9.68	41940	9.73	39880	9.78	37610	9.80	35120	9.80	1	
	380	7163	37210	2.00	28725	2.06	20860	2.06	8455	2.10	-	-		
	435	8200	42595	3.01	34670	3.08	28290	3.09	20540	3.09	8490	3.17	1	
	515	9708	50430	4.99	42345	5.07	38075	5.12	32315	5.12	25900	5.12	1	
AC72	590	11121	57775	7.50	50235	7.60	46370	7.69	41785	7.70	36690	7.70	1150	135
	650	12252	63650	10.03	56565	10.14	51775	10.23	48830	10.30	44425	10.30	1	
-	743	14005	72755	14.98	66320	15.10	61425	15.22	58955	15.34	55530	15.38	1	

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## **Performance Data**



Powered Airette Hooded Propeller Roof Ventilator

## **AF - Fabricated Steel Propeller**

#### > AF Belt Drive Performance Data

Model	RPM	TIP SPD	0.000	)" SP	0.125	5" SP	0.250	)" SP	0.375	S" SP	0.500	)" SP		Ship (Lbs)	
		(FPM)	CFM	BHP	Alum.	Stee									
	600	3770	4475	0.25	3901	0.25	2909	0.28	-	-	-	-			
	658	4134	4908	0.32	4411	0.32	3446	0.37	2922	0.39	-	-			
AF24	747	4694	5572	0.47	5162	0.47	4561	0.50	3671	0.55	3270	0.57	250	300	
	865	5435	6452	0.74	6118	0.74	5663	0.74	5059	0.82	4262	0.85			
	952	5982	7101	0.98	6797	0.98	6424	0.98	5947	1.02	5118	1.10			
	420	3299	6312	0.23	4678	0.25	2947	0.27	-	-	-	-			
	469	3684	7049	0.32	5680	0.34	3717	0.36	-	-	-	-			
AF30	545	4280	8191	0.51	7072	0.53	5519	0.55	4086	0.57	-	-	300	350	
AFJU	614	4822	9228	0.73	8263	0.75	7040	0.78	5454	0.80	4475	0.83	300	350	
	692	5435	10401	1.04	9560	1.06	8575	1.10	7322	1.13	5852	1.15			
	765	6008	11498	1.40	10746	1.43	9900	1.46	8891	1.51	7671	1.53			
	354	3336	8153	0.34	6564	0.37	4949	0.43	-	-	-	-			
	420	3958	9673	0.57	8453	0.61	6818	0.63	-	-	-	-			
	465	4383	10709	0.77	9667	0.81	8201	0.84	6994	0.93	-	-			
AF36	498	4694	11470	0.95	10538	0.99	9206	1.03	7891	1.08	6910	1.20	300	350	
	576	5429	13266	1.47	12540	1.51	11452	1.57	10250	1.61	9137	1.66			
	640	6032	14740	2.02	14146	2.06	13200	2.13	12152	2.18	11037	2.19			
	739	6965	17020	3.10	16506	3.15	15802	3.22	14956	3.30	14031	3.36			
	335	3684	12220	0.53	10253	0.56	7012	0.61	-	-	-	-			
	365	4013	13315	0.69	11616	0.71	8342	0.75	6682	0.92	-	-			
	423	4651	15430	1.07	14051	1.10	11906	1.12	9108	1.20	7783	1.43	400		
AF42	478	5256	17437	1.55	16248	1.58	14699	1.61	12045	1.64	10091	1.76		450	
	526	5784	19188	2.07	18135	2.10	16851	2.14	15028	2.16	12357	2.23			
	606	6663	22106	3.16	21205	3.20	20185	3.24	18958	3.28	17276	3.30			
	715	7862	26082	5.19	25319	5.24	24515	5.28	23623	5.33	22582	5.38			
	290	3644	14409	0.56	11847	0.61	-	-	-	-	-	-			
	330	4147	16397	0.82	14347	0.88	10576	0.97	-	-	-	-			
	354	4448	17590	1.01	15770	1.08	12191	1.15	-	-	-	-			
AF48	394	4951	19577	1.39	18048	1.47	15578	1.56	12252	1.68	-	-	675	750	
	427	5366	21217	1.77	19889	1.85	17861	1.93	14496	2.04	12278	2.21			
	507	6371	25192	2.97	24124	3.06	22671	3.17	20831	3.26	17770	3.38			
	604	7590	30012	5.02	29158	5.13	28134	5.25	26785	5.37	25268	5.47			
	263	3718	19185	0.84	15865	0.96	11762	1.08	-	-	-	-			
	310	4383	22614	1.38	19837	1.53	16657	1.65	-	-	-	-	]		
AF54	342	4835	24948	1.86	22459	2.02	19684	2.16	16686	2.29	-	-	900	1000	
	390	5513	28450	2.75	26298	2.94	23988	3.12	21307	3.25	18713	3.42			
	462	6531	33702	4.58	31901	4.80	29997	5.02	28037	5.21	25617	5.37	]		
	542	7662	39538	7.39	38016	7.65	36439	7.91	34778	8.18	33108	8.40			
	284	4461	26649	1.53	22369	1.61	18140	1.69	-	-	-	-			
	310	4869	29089	2.00	25311	2.08	21413	2.16	-	-	-	-			
AF60	352	5529	33030	2.92	29748	3.02	26054	3.10	22755	3.21	-	-	1000	1150	
	421	6613	39505	5.00	36802	5.12	33851	5.23	30789	5.33	28117	5.45			
	490	7697	45980	7.88	43688	8.03	41256	8.17	38526	8.27	35966	8.39			

Fan capacity ratings are certified to be in accordance with the Standard Test Code for axial fans as adopted by AMCA (AMCA Bulletin 210-07). Higher speed fans are intended for industrial use. Low noise level fans should be selected from the lower speeds. Shipping weights are for exhaust models.

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# **Engineering Specifications**

Powered Airette Hooded Propeller Roof Ventilator

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### **Engineering Specifications**

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AC = Cast Aluminum Propeller AF = Fabricated Steel Propeller

#### > Unit Size 24 36 30 42

Hooded Propeller Roof Ventilators

36	48
42	54

### > Drive Type

D = Direct Drive	
B = Belt Drive	

#### > Motor Tap

0 = None T = 1140 RPM T1 = 1140 RPM T2 = 1140 RPM W = 860 RPM W1 = 860 RPM W2 = 860 RPM

#### > Motor Speed

0 = None 1 = Single Speed 2 = 2 Speed 2 Winding 1800/1200 3 = 2 Speed 1 Winding 1800/900

#### Horse Power

0 = No	ne		
1/4	3/4	2	7 1/2
1/3	1	3	10
1/2	1 1/2	5	15
X = Sp	ecial		

#### > Enclosure

0	= Open Drip Proof
Т	= Totally Enclosed
Е	= Explosion Proof
Х	= Special

#### > Voltage

B = 115V D = 200V E = 208V G = 230V P = 460V R = 575V X = Special

#### > Phase

1 = Single 3 = Three

> Cycle 5 = 50 Hz

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10

## 6 = 60 Hz

#### > Efficiency S = Standard

P = Premium

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#### > Application E/S

- E = Exhaust
- S = Supply

#### > Paint / Coating

- 0 = None
- $B = Epoxy^*$
- Q = Enamel
- X = Special \* Not available with choice of color.

#### > Color

- 0 = None
- 51 = Light Bronze 53 = Aegean Blue
- 55 = Aegean B 55 = Patina
- 56 = Dove Grav
- 61 = Bone White
- 63 = Oxford Beige
- 65 = Dover White
- 66 = Desert Tan
- 70 = Black
- 73 = Smoke Gray
- 77 = Brick Red
- 79 = Peppercorn
- 81 = Medium Bronze
- 83 = Dark Bronze 85 = Statuary Bronze
- 94 = Charcoal
- X = Special

#### > Aluminum Housing

- 0 = None
- A = Aluminum

#### > Damper

- 0 = None BDD = Gravity Backdraft Damper CBD = Counter Balanced Supply Damper MD1 = Motor Operated Damper 115V MD2 = Motor Operated Damper 230V
- MD2 = Motor Operated Damper 250VMD4 = Motor Operated Damper 460V
- X =Special

#### > Roof Curb

K = UCA18 V = UG180 = None L = UG12 W = URA12 A = UCG8 B = UCG12 M = SA16 Y = URA18 C = UCG18 N = SFG12 1 = URG12 P = SFG182 = URG18 D = UCA8 E = UCA12 Q = SG16 X = Special F = SFA12 R = SRA16 G = SFA18 S = SRG16H = SCG16 T = UA12 J = SCA16 U = UA18

#### > Slope

- 0 = None
- S = Single
- D = Double

#### Metal Liner

- 0 = None
- L = Metal Liner

#### > Damper Holding Plate

PENNBARRY

- 0 = None
- P = Damper Holding Plate

#### > Neoprene Gasket

- 0 = None
- G = Gasket

#### > No Wooden Nailer

- 0 = Wood Nailer
- N = No Wooden Nailer

#### > Curb Paint/Coating

- B = Air Dried Epoxy
- Q = Enamel

#### > Screen

- 0 = None
- B = Bird Screen
- S = Insect/Bird Screen

#### Supply Hood / Filters

- 0 = None
- L = LFH Supply Hood with Filter
- N = NFH Supply Hood without Filter

#### > Lube Lines

- 0 = None
- L = Lube Lines

#### > Zerk Lube Fitting

- 0 = None F = Zerk Lube Fitting
- = Zerk Lube Fitting

#### > Belt Cover

- 0 = None
- B = Belt Cover

#### > Safety Guard

- 0 = None
- G = Safety Guard

#### > Thermal Protection

P = Thermal Protection

> Disconnect Switch

1 = NEMA 1 Disconnect Switch

4 = NEMA 4 Disconnect Switch

7 = NEMA 7 Disconnect Switch

9 = NEMA 9 Disconnect Switch

3R = NEMA 3R Disconnect Switch

0 = None

0 = None

X = Special



## **Engineering Specifications**

Powered Airette Hooded Propeller Roof Ventilator

## **Engineering Specifications**

#### Internal Wiring

- 0 = None
- 1 = NEMA 1 Internal Wiring
- 3R = NEMA 3R Internal Wiring

#### > Firestat Switch

- 0 = None
- F = Firestat Switch

#### > AC Belt Drive Fans

Belt drive Axial Hooded Roof Fans, exhaust or supply, shall be Powered Airette model AC manufactured by PennBarry of Richardson, TX 75081. Fans shall be weather resistant and properly installed to withstand prevailing winds and bird screen shall be optional. Fans shall be integrally mounted in the ventilator housing. No portion shall protrude below the roof line. Hoods shall be hinged for complete access and shall incorporate low silhouette design with four sided discharge or inlet. Units shall be constructed for curb mounting, be securely fastened, and properly flashed.

Statically and dynamically balanced propellers shall be cast aluminum airfoil. Motors shall be continuous duty, ball bearing design, positively cooled, and furnished at the specified voltage and phase.

#### > AF Belt Drive Fans

Belt drive Axial Hooded Roof Fans, exhaust or supply, shall be Powered Airette model AF manufactured by PennBarry of Richardson, TX 75081. Fans shall be weather resistant and properly installed to withstand prevailing winds and bird screen shall be optional. Fans shall be integrally mounted in the ventilator housing. No portion shall protrude below the roof line. Hoods shall be hinged for complete access and shall incorporate low silhouette design with four sided discharge or inlet. Units shall be constructed for curb mounting, be securely fastened, and properly flashed.

Statically and dynamically balanced propellers shall be heavy gauge fabricated steel. Motors shall be continuous duty, ball bearing design, positively cooled, and furnished at the specified voltage and phase.

#### > AC Direct Drive Fans

Direct drive Axial Hooded Roof Fans, exhaust or supply, shall be Powered Airette model AC manufactured by PennBarry of Richardson, TX 75081. Fans shall be weather resistant and properly installed to withstand prevailing winds and bird screen shall be optional. Fans shall be integrally mounted in the ventilator housing. No portion shall protrude below the roof line. Hoods shall be hinged for complete access and shall incorporate low silhouette design with four sided discharge or inlet. Units shall be constructed for curb mounting, be securely fastened, and properly flashed.

Statically and dynamically balanced propellers shall be cast aluminum airfoil. Motors shall be continuous duty, ball bearing design, positively cooled, and furnished at the psecified voltage and phase.

#### > Product Configuration

Reference PennBarry's Fansizer selection software to configure a Powered Airette product today.

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Hooded Propeller Roof Ventilators

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1-Year Limited Manufacturer Warranty

#### > Products Covered

PennBarry Fans and Ventilators (each, a "PennBarry Product")

#### > One Year Limited Warranty For PennBarry Products

PennBarry warrants to the original commercial purchaser that the PennBarry Products will be free from defects in material and workmanship for a period of one (1) year from the date of shipment.

#### > Exclusive Remedy

PennBarry will, at its option, repair or replace (without removal or installation) the affected components of any defective PennBarry Product; repair or replace (without removal or installation) the entire defective PennBarry Product; or refund the invoice price of the PennBarry Product. In all cases, a reasonable time period must be allowed for warranty repairs to be completed.

#### > What You Must Do

In order to make a claim under these warranties:

- You must be the original commercial purchaser of the PennBarry Product.
- You must promptly notify us, within the warranty period, of any defect and provide us with any substantiation that we may reasonably request.
- The PennBarry Product must have been installed and maintained in accordance with good industry practice and any specific PennBarry recommendations.

#### > Exclusions

These warranties do not cover defects caused by:

- Improper design or operation of the system into which the PennBarry Product is incorporated.
- Improper installation.
- · Accident, abuse or misuse.
- Unreasonable use (including any use for non-commercial purposes, failure to provide reasonable and necessary maintenance as specified by PennBarry, misapplication and operation in excess of stated performance characteristics).
- · Components not manufactured by PennBarry.

#### Limitations

- In all cases, PennBarry reserves the right to fully satisfy its obligations under the Limited Warranties by refunding the invoice price of the defective PennBarry Product (or, if the PennBarry Product has been discontinued, of the most nearly comparable current product).
- PennBarry reserves the right to furnish a substitute or replacement component or product in the event a PennBarry Product or any component of the product is discontinued or otherwise unavailable.
- PennBarry's only obligation with respect to components not manufactured by PennBarry shall be to pass through the warranty made by the manufacturer of the defective component.

#### > General

The foregoing warranties are exclusive and in lieu of all other warranties except that of title, whether written, oral or implied, in fact or in law (including any warranty of merchantability or fitness for a particular purpose).

PennBarry hereby disclaims any liability for special, punitive, indirect, incidental or consequential damages, including without limitation lost profits or revenues, loss of use of equipment, cost of capital, cost of substitute products, facilities or services, downtime, shutdown or slowdown costs.

The remedies of the original commercial purchaser set forth herein are exclusive and the liability of PennBarry with respect to the PennBarry Products, whether in contract, tort, warranty, strict liability or other legal theory shall not exceed the invoice price charged by PennBarry to its customer for the affected PennBarry Product at the time the claim is made.

Inquiries regarding these warranties should be sent to: PennBarry, 1401 North Plano Road, Richardson, TX 75081

## **Other PennBarry Products**

### Centrifugal Products



Domex
 Centrifugal
 Roof Exhausters



Fumex Fatrap
 Kitchen Hood Centrifugal
 Roof Exhausters



> Zephyr Ceiling and Inline Fans



> Dynamo Centrifugal Blowers



Centrex Inliner Centrifugal Inline Fan

### Axial / Gravity Products



LC Dynafan
 Low Contour Centrifugal
 Roof Exhausters



ESI Efficient Silent Inline Fan



Fume Exhaust Curb Mounted Centrifugal Fans



> Breezeway Propeller Wall Fan



Hi-Ex Power Roof Ventilator



Tubeaxial Inline Fans



Vaneaxial Inline Fans



Axcentrix Bifurcator Fan



> Powered Airette Axial Roof Ventilators



Airette Gravity Intake/Relief Hood



 Domex Axial Axial Roof Ventilators



For more information, contact your local PennBarry Sales Manufacturer Representative or visit us at www.PennBarry.com.