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

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, UL and CSA CertificationPennBarry Powered Airettes carry the ULlabel, UL 705.
PennBarry Powered Airettes are also certified by the Canadian Standard Association.

PennBarry reserves the right to make changes at any time, without notice, to models, construction, specifications, options, availability, etc. This bulletin illustrates the appearance of PennBarry products at the time of publication. To view the latest updates, visit PennBarry at www.pennbarry.com.

## Introduction

## > 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


## , 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 $31 / 2^{\prime \prime}$ to $41 / 2^{\prime \prime}$ or $+121 / 2 \%$ 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.


## 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

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 $40^{\circ} \mathrm{C}$ ambient. NEMA Class B and Class F insulation is available for temperatures up to $50^{\circ} \mathrm{C}$. 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.

## 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.


## > Peaked or Sloped Curbs

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 ROOF


SINGLE SLOPE ROOF

## AC \& AF

## , AC \& AF Dimensional Drawings



## , Legend

1. Access Hood
2. Axial Flow Propeller
3. Fan Casing
4. Fan Inlet Ring
5. Mounting Base
6. Reinforcing Angle Frame
7. Ball Bearing Motor
8. Anti-Vibration Mounts
9. Electric Conduit Space
10. Belt and Pulleys
11. Weather Baffle
12. Curb and Flashing (by others)
, AC Dimensional Reference

| Size | A | H | L |  | Ro | E | Gauges* |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Exhaust | Supply |  |  | 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 | 101×121 | 62 | 71 | 10-14 | 16-20 |
| 72 | 74 | 43 | $93 \times 160$ | 93x190 | 72 | 83 | 10-14 | 14-20 |

e All dimensions in inches.

* Gauges listed first are for airshaft. Gauges listed second are for hoods.
, AC \& AF Dimensional Drawings



## > AC \& AF Filter Equipped Information

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

Caution: Due to the high humidity and moisture present at the roof level, filters using hygroscopic media or cardboard frames should be avoided.

## , AC Filter Dimensional Reference

| Size | $\begin{gathered} \text { A } \\ \text { sq. in. } \end{gathered}$ | $\begin{gathered} E \\ \text { sq. in. } \end{gathered}$ | Filter Area sq. ft. | Number \& Size of Filters | $\begin{aligned} & \mathrm{LxL} \\ & \text { in. } \end{aligned}$ | Maximum CFM |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | 350 FPM | 550 FPM |
| 24 | 26 | 35 | 17.76 | (6) @ 16x20 \& (2) @ 16x25 | $61 \times 61$ | 6200 | 9700 |
| 30 | 32 | 41 | 21.22 | (2) @ 16x20 \& (6) @ 16x25 | 71x71 | 7400 | 11600 |
| 36 | 38 | 47 | 34.19 | (2) @ 16x25 \& (10)@ 20x25 | $81 \times 91$ | 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 | 101×161* | 29000 | 45500 |
| 60 | 62 | 71 | 90.28 | (28) @ 20x25 | 117×167* | 31600 | 49650 |

[^0]
## AC - Cast Aluminum Propeller

## , AC Direct Drive Performance Data

| Model | RPM |  | 0.000" SP |  | 0.125" SP |  | 0.250" SP |  | 0.375 " SP |  | 0.500" SP |  | Est. Ship Wt. (Lbs) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | CFM | BHP* | CFM | BHP* | CFM | BHP* | CFM | BHP* | CFM | BHP* | Alum. | Steel |
| 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 | 400 | 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 | 625 |
| 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 | 675 | 750 |

> AC Belt Drive Performance Data

| Model | RPM |  | 0.000" SP |  | 0.125" SP |  | 0.250" SP |  | 0.375 " SP |  | 0.500" SP |  | Est. Ship <br> Wt. (Lbs) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | CFM | BHP* | CFM | BHP* | CFM | BHP* | CFM | BHP* | CFM | BHP* | Alum. | Steel |
| AC24 | 1000 | 6285 | 4015 | 0.23 | 3380 | 0.24 | 2625 | 0.25 | - | - | - | - | 250 | 300 |
|  | 1105 | 6945 | 4440 | 0.31 | 3870 | 0.33 | 3235 | 0.33 | 2510 | 0.33 | 2840 | - |  |  |
|  | 1265 | 7950 | 5080 | 0.47 | 4590 | 0.48 | 4060 | 0.49 | 3470 | 0.50 | 3945 | 0.50 |  |  |
|  | 1450 | 9110 | 5825 | 0.70 | 5400 | 0.72 | 4950 | 0.74 | 4470 | 0.75 | 4745 | 0.75 |  |  |
|  | 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 |  |  |
| AC30 | 705 | 5535 | 5915 | 0.23 | 4710 | 0.25 | 2935 | 0.24 | - | - | - | - | 300 | 350 |
|  | 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 |  |  |
|  | 1020 | 8010 | 8555 | 0.70 | 7860 | 0.73 | 6910 | 0.74 | 5740 | 0.73 | 4540 | 0.72 |  |  |
|  | 1125 | 8835 | 9435 | 0.94 | 8815 | 0.97 | 8020 | 0.99 | 7060 | 1.00 | 5955 | 0.98 |  |  |
|  | 1280 | 10055 | 10735 | 1.39 | 10200 | 1.42 | 9580 | 1.45 | 8795 | 1.47 | 7920 | 1.47 |  |  |
|  | 1326 | 10414 | 11123 | 1.54 | 10608 | 1.58 | 10023 | 1.61 | 9279 | 1.63 | 8456 | 1.63 |  |  |
| AC36 | 485 | 4570 | 7785 | 0.33 | 5740 | 0.33 | 2315 | 0.29 | - | - | - | - | 400 | 450 |
|  | 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 | - | - |  |  |
|  | 700 | 6595 | 11235 | 0.98 | 9900 | 1.00 | 8430 | 0.98 | 5900 | 0.93 | 3670 | 0.88 |  |  |
|  | 800 | 7540 | 12840 | 1.47 | 11700 | 1.49 | 10425 | 1.48 | 9010 | 1.45 | 6540 | 1.37 |  |  |
|  | 880 | 8295 | 14125 | 1.96 | 13115 | 1.98 | 11965 | 1.98 | 10810 | 1.96 | 9595 | 1.93 |  |  |
|  | 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 |  |  |
| AC42 | 435 | 4785 | 10325 | 0.48 | 7525 | 0.49 | 3605 | 0.46 | - | - | - | - | 550 | 625 |
|  | 500 | 5500 | 11870 | 0.73 | 9815 | 0.74 | 6745 | 0.73 | 2775 | 0.73 | - | - |  |  |
|  | 550 | 6050 | 13055 | 0.98 | 11250 | 0.99 | 8490 | 0.98 | 5425 | 0.92 | - | - |  |  |
|  | 630 | 6925 | 14955 | 1.47 | 13440 | 1.48 | 11155 | 1.48 | 8890 | 1.46 | 5955 | 1.39 |  |  |
|  | 695 | 7640 | 16500 | 1.97 | 15105 | 1.98 | 13485 | 1.99 | 11105 | 1.98 | 9135 | 1.94 |  |  |
|  | 795 | 8740 | 18870 | 2.95 | 17660 | 2.96 | 16395 | 2.98 | 14485 | 2.97 | 12580 | 2.96 |  |  |
|  | 940 | 10335 | 22315 | 4.87 | 21295 | 4.89 | 20305 | 4.91 | 19130 | 4.93 | 17510 | 4.92 |  |  |
| AC48 | 475 | 5970 | 15815 | 0.99 | 13050 | 0.98 | 9320 | 0.93 | - | - | - | - | 675 | 750 |
|  | 545 | 6850 | 18145 | 1.50 | 15810 | 1.49 | 12985 | 1.45 | 8240 | 1.37 | - | - |  |  |
|  | 600 | 7540 | 19975 | 2.00 | 17880 | 2.00 | 15455 | 1.96 | 12735 | 1.89 | 7125 | 1.81 |  |  |
|  | 685 | 8610 | 22805 | 2.97 | 20970 | 2.98 | 19000 | 2.95 | 16715 | 2.89 | 14195 | 2.81 |  |  |
|  | 810 | 10180 | 26970 | 4.91 | 25425 | 4.92 | 23845 | 4.91 | 22085 | 4.87 | 20165 | 4.80 |  |  |
| AC54 | 590 | 8340 | 21615 | 1.44 | 19010 | 1.47 | 16010 | 1.45 | 12420 | 1.37 | - | - | 900 | 1000 |
|  | 650 | 9190 | 23815 | 1.93 | 21485 | 1.96 | 18845 | 1.96 | 15895 | 1.91 | 12380 | 1.78 |  |  |
|  | 745 | 10530 | 27295 | 2.90 | 25305 | 2.95 | 23080 | 2.96 | 20690 | 2.93 | 18050 | 2.87 |  |  |
|  | 885 | 12510 | 32425 | 4.86 | 30795 | 4.94 | 28980 | 4.96 | 27070 | 4.95 | 25055 | 4.93 |  |  |
|  | 1015 | 14350 | 37190 | 7.34 | 35790 | 7.44 | 34250 | 7.47 | 32635 | 7.48 | 30955 | 7.47 |  |  |
| AC60 | 355 | 5575 | 25855 | 1.96 | 22200 | 1.98 | 15915 | 1.93 | - | - | - | - | 1000 | 1150 |
|  | 405 | 6360 | 29495 | 2.91 | 26360 | 2.94 | 22565 | 2.93 | 13940 | 2.80 | - | - |  |  |
|  | 480 | 7540 | 34955 | 4.84 | 32290 | 4.87 | 29495 | 4.90 | 25910 | 4.87 | 18225 | 4.67 |  |  |
|  | 550 | 8640 | 40055 | 7.28 | 37725 | 7.32 | 35420 | 7.36 | 32740 | 7.37 | 29515 | 7.33 |  |  |
|  | 605 | 9505 | 44060 | 9.68 | 41940 | 9.73 | 39880 | 9.78 | 37610 | 9.80 | 35120 | 9.80 |  |  |
| AC72 | 380 | 7163 | 37210 | 2.00 | 28725 | 2.06 | 20860 | 2.06 | 8455 | 2.10 | - | - | 1150 | 1350 |
|  | 435 | 8200 | 42595 | 3.01 | 34670 | 3.08 | 28290 | 3.09 | 20540 | 3.09 | 8490 | 3.17 |  |  |
|  | 515 | 9708 | 50430 | 4.99 | 42345 | 5.07 | 38075 | 5.12 | 32315 | 5.12 | 25900 | 5.12 |  |  |
|  | 590 | 11121 | 57775 | 7.50 | 50235 | 7.60 | 46370 | 7.69 | 41785 | 7.70 | 36690 | 7.70 |  |  |
|  | 650 | 12252 | 63650 | 10.03 | 56565 | 10.14 | 51775 | 10.23 | 48830 | 10.30 | 44425 | 10.30 |  |  |
|  | 743 | 14005 | 72755 | 14.98 | 66320 | 15.10 | 61425 | 15.22 | 58955 | 15.34 | 55530 | 15.38 |  |  |

[^1], AF Belt Drive Performance Data

| Model | RPM | $\begin{gathered} \text { TIP } \\ \text { SPD } \\ \text { (FPM) } \end{gathered}$ | 0.000" SP |  | 0.125" SP |  | 0.250" SP |  | 0.375" SP |  | 0.500" SP |  | Est. Ship <br> Wt. (Lbs) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | CFM | BHP | CFM | BHP | CFM | BHP | CFM | BHP | CFM | BHP | Alum. | Steel |
| AF24 | 600 | 3770 | 4475 | 0.25 | 3901 | 0.25 | 2909 | 0.28 | - | - | - | - | 250 | 300 |
|  | 658 | 4134 | 4908 | 0.32 | 4411 | 0.32 | 3446 | 0.37 | 2922 | 0.39 | - | - |  |  |
|  | 747 | 4694 | 5572 | 0.47 | 5162 | 0.47 | 4561 | 0.50 | 3671 | 0.55 | 3270 | 0.57 |  |  |
|  | 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 |  |  |
| AF30 | 420 | 3299 | 6312 | 0.23 | 4678 | 0.25 | 2947 | 0.27 | - | - | - | - | 300 | 350 |
|  | 469 | 3684 | 7049 | 0.32 | 5680 | 0.34 | 3717 | 0.36 | - | - | - | - |  |  |
|  | 545 | 4280 | 8191 | 0.51 | 7072 | 0.53 | 5519 | 0.55 | 4086 | 0.57 | - | - |  |  |
|  | 614 | 4822 | 9228 | 0.73 | 8263 | 0.75 | 7040 | 0.78 | 5454 | 0.80 | 4475 | 0.83 |  |  |
|  | 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 |  |  |
| AF36 | 354 | 3336 | 8153 | 0.34 | 6564 | 0.37 | 4949 | 0.43 | - | - | - | - | 300 | 350 |
|  | 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 | - | - |  |  |
|  | 498 | 4694 | 11470 | 0.95 | 10538 | 0.99 | 9206 | 1.03 | 7891 | 1.08 | 6910 | 1.20 |  |  |
|  | 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 |  |  |
| AF42 | 335 | 3684 | 12220 | 0.53 | 10253 | 0.56 | 7012 | 0.61 | - | - | - | - | 400 | 450 |
|  | 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 |  |  |
|  | 478 | 5256 | 17437 | 1.55 | 16248 | 1.58 | 14699 | 1.61 | 12045 | 1.64 | 10091 | 1.76 |  |  |
|  | 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 |  |  |
| AF48 | 290 | 3644 | 14409 | 0.56 | 11847 | 0.61 | - | - | - | - | - | - | 675 | 750 |
|  | 330 | 4147 | 16397 | 0.82 | 14347 | 0.88 | 10576 | 0.97 | - | - | - | - |  |  |
|  | 354 | 4448 | 17590 | 1.01 | 15770 | 1.08 | 12191 | 1.15 | - | - | - | - |  |  |
|  | 394 | 4951 | 19577 | 1.39 | 18048 | 1.47 | 15578 | 1.56 | 12252 | 1.68 | - | - |  |  |
|  | 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 |  |  |
| AF54 | 263 | 3718 | 19185 | 0.84 | 15865 | 0.96 | 11762 | 1.08 | - | - | - | - | 900 | 1000 |
|  | 310 | 4383 | 22614 | 1.38 | 19837 | 1.53 | 16657 | 1.65 | - | - | - | - |  |  |
|  | 342 | 4835 | 24948 | 1.86 | 22459 | 2.02 | 19684 | 2.16 | 16686 | 2.29 | - | - |  |  |
|  | 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 |  |  |
| AF60 | 284 | 4461 | 26649 | 1.53 | 22369 | 1.61 | 18140 | 1.69 | - | - | - | - | 1000 | 1150 |
|  | 310 | 4869 | 29089 | 2.00 | 25311 | 2.08 | 21413 | 2.16 | - | - | - | - |  |  |
|  | 352 | 5529 | 33030 | 2.92 | 29748 | 3.02 | 26054 | 3.10 | 22755 | 3.21 | - | - |  |  |
|  | 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.

## Engineering Specifications

Powered Airette Hooded Propeller Roof Ventilator

## Engineering Specifications

| , Model |  |  |  |
| :---: | :---: | :---: | :---: |
| AC = Cast Aluminum Propeller |  |  |  |
| AF = Fabricated Steel Propeller |  |  |  |
| > Unit Size |  |  |  |
| 24 | 36 | 48 | 60 |
| 30 | 42 | 54 | 72 |
| ) Drive Type <br> D = Direct Drive <br> B = Belt Drive |  |  |  |
|  |  |  |  |
|  |  |  |  |
| > Motor Tap |  |  |  |
| 0 = None |  |  |  |
| $\mathrm{T}=1140 \mathrm{RPM}$ |  |  |  |
| $\mathrm{T} 1=1140 \mathrm{RPM}$ |  |  |  |
| $\mathrm{T} 2=1140 \mathrm{RPM}$ |  |  |  |
| $\mathrm{W}=860 \mathrm{RPM}$ |  |  |  |
| $\mathrm{W} 1=860 \mathrm{RPM}$ |  |  |  |
| $\mathrm{W} 2=860 \mathrm{RPM}$ |  |  |  |
| > Motor Speed |  |  |  |
| 0 = None |  |  |  |
| 1 = Single Speed |  |  |  |
| $2=2$ Speed 2 Winding 1800/1200 |  |  |  |
| 3 = 2 Speed 1 Winding 1800/900 |  |  |  |
| ) Horse Power |  |  |  |
| $0=$ None |  |  |  |
| 1/4 | 3/4 | 2 | 7 1/2 |
| 1/3 | 1 | 3 | 10 |
| 1/2 | $11 / 2$ | 5 | 15 |
| $\mathrm{X}=$ Special |  |  |  |
| ) Enclosure |  |  |  |
| O = Open Drip Proof |  |  |  |
| T = Totally Enclosed |  |  |  |
| E = Explosion Proof |  |  |  |
| X = Special |  |  |  |
| , Voltage |  |  |  |
| $\mathrm{B}=115 \mathrm{~V}$ |  |  |  |
| $\mathrm{D}=200 \mathrm{~V}$ |  |  |  |
| $\mathrm{E}=208 \mathrm{~V}$ |  |  |  |
| $\mathrm{G}=230 \mathrm{~V}$ |  |  |  |
| $\mathrm{P}=460 \mathrm{~V}$ |  |  |  |
| $\mathrm{R}=575 \mathrm{~V}$ |  |  |  |
| $\mathrm{X}=$ Special |  |  |  |
| ) Phase |  |  |  |
| 1 = Single |  |  |  |
| 3 = Three |  |  |  |
| , Cycle |  |  |  |
| $5=50 \mathrm{~Hz}$ |  |  |  |
| $6=60 \mathrm{~Hz}$ |  |  |  |
| , Efficiency |  |  |  |
| S = Standard |  |  |  |
|  | nium |  |  |

## ' 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
$55=$ Patina
$56=$ Dove Gray
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
MD4 $=$ Motor Operated Damper 460V
X = Special
, Roof Curb

| 0 = None | K = UCA18 | $V=$ UG18 |
| :---: | :---: | :---: |
| A = UCG8 | L = UG12 | W = URA12 |
| B = UCG12 | M = SA16 | $\mathrm{Y}=$ URA18 |
| $\mathrm{C}=$ UCG18 | $\mathrm{N}=$ SFG12 | 1 = URG12 |
| D = UCA8 | $\mathrm{P}=\mathrm{SFG} 18$ | 2 = URG18 |
| $\mathrm{E}=$ UCA12 | Q = SG16 | X = Special |
| $\mathrm{F}=$ SFA12 | $\mathrm{R}=$ SRA16 |  |
| G = SFA18 | $\mathrm{S}=$ SRG16 |  |
| H = SCG16 | T = UA12 |  |
| J = SCA16 | $\mathrm{U}=\mathrm{UA} 18$ |  |

## , Slope

$0=$ None
S = Single
D = Double


## Engineering Specifications

## Powered Airette Hooded Propeller Roof Ventilator

## Engineering Specifications

> Internal Wiring<br>0 = None<br>1 = NEMA 1 Internal Wiring<br>3R = NEMA 3R Internal Wiring<br>, Firestat Switch<br>0 = None<br>F = Firestat Switch


#### Abstract

, 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 specified voltage and phase.

## > Product Configuration

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

Powered Airette Hooded Propeller Roof Ventilator

Sales Agreement

## , 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.

[^2]
## Other PennBarry Products

Centrifugal Products

, Domex Centrifugal Roof Exhausters

, Centrex Inliner
Centrifugal Inline Fan

, Fumex Fatrap Kitchen Hood Centrifugal Roof Exhausters

, LC Dynafan Low Contour Centrifugal Roof Exhausters

, Zephyr Ceiling and Inline Fans

> Dynamo Centrifugal Blowers

, ESI Efficient Silent Inline Fan

, Fume Exhaust
Curb Mounted Centrifugal Fans

## Axial / Gravity Products




[^0]:    All dimensions in inches.

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

[^1]:    Explosion proof motors and disconnects are available WHEN SPECIFIED. * BHP does not include drive losses. See additional notes on next page.

[^2]:    Inquiries regarding these warranties should be sent to: PennBarry, 1401 North Plano Road, Richardson, TX 75081

