Bulletin AE08



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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> 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 - 72,500 CFM
- Model: AF
- Static pressure up to 0.50"
- Flow capacity between 2,900 45,950 CFM

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> UL and CSA Certification

PennBarry Powered Airettes carry the UL label.

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.

Powered Airette Hooded Propeller Roof Ventilator



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 72,500 CFM
- Model: AF
- Static pressure up to 0.50"
- Flow capacity between 2,900 45,950 CFM

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Powered Airette Hooded Propeller Roof Ventilator

Features & Benefits

[>] 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.

⁹ 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.





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, an electric motor operated model which insures positive and

Ventilators

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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.

› 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-tocenter distances and to adjust for proper belt tension. Vertical flexibility is also provided to permit proper pulley alignment.

> 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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W 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 access 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 Airette Gravity Fresh Air Intake or Exhaust Hoods.

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 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.



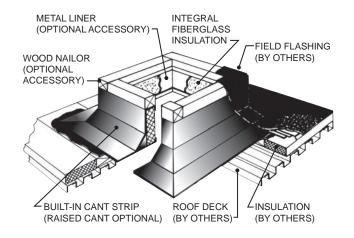
Powered Airette Hooded Propeller Roof Ventilator

Options & Accessories

> Roof Curbs

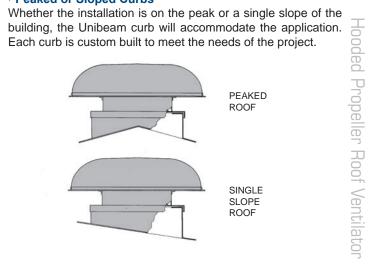
Roof curbs are furnished in a variety of types from canted or self-flashing to sloped or flat pitch. Standard construction includes galvanized or aluminum material, insulation, and metal, rubber gasketing or wood nailer mounting surface. See the roof curbs brochure for details.

Illustrated here, is the Unibeam which is most generally used with Hi-Ex vertical discharge ventilators. 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



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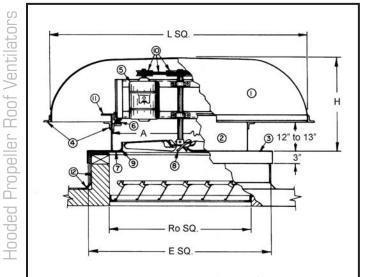
Dimensional Information

Powered Airette Hooded Propeller Roof Ventilator



AC & AF

› AC & AF Dimensional Drawings



› Legend

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

› AC Dimensional Reference

| Size | | • | ш | L Exhaust Supply | | De | E | Gauges* | | |
|------|---|----|----|---------------------|---------|----|----|---------|-------|--|
| 5120 | • | A | Н | | | Ro | 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 | |

* Gauges listed first are for airshaft. Gauges listed second are for hoods. All dimensions in inches.

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AC & AF Dimensional Information Development Airctite ventileters are available

Powered Airette ventilators are available in two standard drive arrangements. (1) Direct drive fans with blades on the motor shaft. (2) 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 increasing longevity of these components.

Because of physical size the factory retains the option of shipping large units semi-knocked down when necessary and appropriate advice will be given. 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 guyed down.



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.

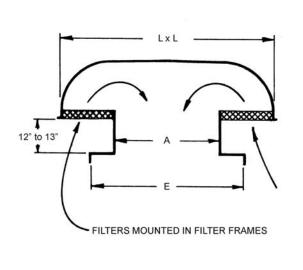
Powered Airette Supply Fans with cleanable filters satisfy such

antipollutant requirements. Filter maintenance is important. Resistance increases when filters are dirty and pollutant carry-thru

> AC & AF Filter Equipped Information

AC & AF

› AC & AF Dimensional Drawings



> AC Filter Dimensional Reference

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.

| Size | A | E | Filter Area | Number & Size of Filters | LxL | Maximu | ım CFM |
|------|---------|---------|-------------|----------------------------|----------|---------|---------|
| | sq. in. | sq. in. | sq. ft. | | 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 |

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

All dimensions in inches.

Performance Data

Powered Airette Hooded Propeller Roof Ventilator



AC - Aluminum Propeller

› AC Cast Aluminum Propeller Performance Data

| MODE | L NO. | RPM | TIP SPD | 0.000 |)" SP | 0.125 | 5" SP | 0.250 |)" SP | 0.37 | 5" SP | 0.500 |)" SP | | SHIP (LBS) |
|--------|--------|-------------------|-------------------------|-------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|-------------------------|------------------------|-------|---------------|
| DIRECT | BELT | | (FPM) | 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 | - | - | - | - | | |
| AC24T | - | 1140 | 7165 | 5370 | 0.67 | 4520 | 0.65 | 3510 | 0.63 | 2565 | 0.64 | 1670 | 0.72 | | |
| - | | 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 | - | 250 | 300 |
| - | AC24 | 1265 1450 | 7950 9110 | 5080 5825 | 0.47 | 4590 5400 | 0.48 | 4060 4950 | 0.49 | 3470 4470 | 0.50 | 3945 4745 | 0.50 | | |
| - | | 1450 | 10020 | 6405 | 0.70 | 6025 | 0.72 | 5620 | 0.74 | 5195 | 0.75 | 4745 | 1.00 | 1 | |
| - | | 1637 | 10020 | 6576 | 1.01 | 6200 | 1.04 | 5810 | 1.05 | 5400 | 1.07 | - 4904 | 1.08 | 4 | |
| 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 | 1 | |
| AC30T2 | - | 1140 | 8955 | 10890 | 1.46 | 10290 | 1.48 | 9690 | 1.50 | 8900 | 1.49 | 7860 | 1.46 | | |
| - | | 705 | 5535 | 5915 | 0.23 | 4710 | 0.25 | 2935 | 0.24 | - | - | - | - | 1 | |
| - | | 780 | 6125 | 6545 | 0.31 | 5510 | 0.33 | 4010 | 0.32 | 1975 | 0.33 | - | - | 000 | 050 |
| - | | 890 | 6990 | 7465 | 0.47 | 6630 | 0.49 | 5400 | 0.49 | 4035 | 0.48 | 2115 | 0.49 | 300 | 350 |
| - | AC30 | 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 | 1 | |
| - | | 1326 | 10414 | 11123 | 1.54 | 10608 | 1.58 | 10023 | 1.61 | 9279 | 1.63 | 8456 | 1.63 | | |
| AC36W1 | - | 860 | 8105 | 10500 | 0.90 | 9175 | 0.92 | 7270 | 0.94 | 4895 | 0.98 | - | - | | |
| AC36W2 | - | 860 | 8105 | 11795 | 1.33 | 10165 | 1.34 | 7855 | 1.29 | 5155 | 1.28 | 2385 | 1.37 | | |
| - | 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 | - | - 0.88 | 400 | 450 |
| - | AC36 | 700 800 | 6595 7540 | 11235 12840 | 1.47 | 9900 11700 | 1.00 1.49 | 8430 10425 | 0.98 | 5900 9010 | 0.93 | 3670 6540 | 1.37 | - | |
| - | 880 | | 8295 | 12040 | 1.47 | 13115 | 1.49 | 11965 | 1.40 | 10810 | 1.45 | 9595 | 1.93 | • | |
| - | | 1010 | 9520 | 16210 | 2.96 | 15355 | 2.98 | 14370 | 2.99 | 13355 | 2.98 | 12355 | 2.96 | - | |
| - | 1 1 | 1010 | 9830 | 16740 | 3.26 | 15912 | 3.28 | 14966 | 3.29 | 13988 | 3.29 | 13015 | 3.26 | | |
| AC42W1 | - | 860 | 9455 | 17250 | 1.86 | 15690 | 1.90 | 13960 | 1.95 | 11715 | 2.00 | - | | | |
| AC42W2 | - | 860 | 9455 | 19730 | 2.98 | 17875 | 2.97 | 15710 | 2.95 | 13115 | 2.95 | 9590 | 2.96 | 1 | |
| - | | 435 | 4785 | 10325 | 0.48 | 7525 | 0.49 | 3605 | 0.46 | - | - | - | - | 1 | |
| - | | 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 | - | - | 550 | 625 |
| - | AC42 | 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 | | |
| AC48W1 | - | 860 | 10805 | 19395 | 1.89 | 17550 | 1.96 | 15540 | 1.96 | 13185 | 1.93 | 10285 | 1.90 | | |
| AC48W2 | - | 860 | 10805 | 22610 | 2.85 | 20800 | 2.89 | 18820 | 2.90 | 16640 | 2.90 | 14150 | 2.91 | | |
| - | | 475 | 5970 | 15815 | 0.99 | 13050 | 0.98 | 9320 | 0.93 | - | - | - | - | 075 | 750 |
| | A C 40 | 545 | 6850 | 18145 | 1.50 2.00 | 15810 | 1.49 2.00 | 12985 | 1.45 | 8240 | 1.37 | 7125 | - | 675 | 750 |
| - | AC48 | 600 685 | 7540 8610 | 19975 22805 | 2.00 | 17880 20970 | 2.00 | 15455 19000 | 1.96 2.95 | 12735 16715 | 1.89 2.89 | 14195 | 1.81 2.81 | - | |
| - | | 810 | 10180 | 22805 | 4.91 | 20970 | 4.92 | 23845 | 4.91 | 22085 | 4.87 | 20165 | 4.80 | - | |
| - | | 590 | 8340 | 21615 | 1.44 | 19010 | 1.47 | 16010 | 1.45 | 12420 | 1.37 | - 20103 | 4.00 | | |
| - | | 650 | 9190 | 23815 | 1.93 | 21485 | 1.96 | 18845 | 1.96 | 15895 | 1.91 | 12380 | 1.78 | | |
| - | AC54 | 745 | 10530 | 27295 | 2.90 | 25305 | 2.95 | 23080 | 2.96 | 20690 | 2.93 | 18050 | 2.87 | 900 | 1000 |
| - | | 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 | - | - | - | - | 1 | 1 |
| - | | 405 | 6360 | 29495 | 2.91 | 26360 | 2.94 | 22565 | 2.93 | 13940 | 2.80 | - | - | | |
| - | AC60 | 480 | 7540 | 34955 | 4.84 | 32290 | 4.87 | 29495 | 4.90 | 25910 | 4.87 | 18225 | 4.67 | 1000 | 1150 |
| - | | 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 | | |
| - | | 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 | | |
| | | 515 | 9708 | 50430 | 4.99 | 42345 | 5.07 | 38075 | 5.12 | 32315 | 5.12 | 25900 | 5.12 | 1150 | 1350 |
| - | AC72 | | | | | | | | | | | | | 1150 | 1350 |
| - | AC72 | 590 | 11121 | 57775 | 7.50 | 50235 | 7.60 | 46370 | 7.69 | 41785 | 7.70 | 36690 | 7.70 | | |
| | AC72 | 590 650 743 | 11121 12252 14005 | 57775 63650 72755 | 7.50 10.03 14.98 | 50235 56565 66320 | 7.60 10.14 15.10 | 46370 51775 61425 | 7.69 10.23 15.22 | 41785 48830 58955 | 7.70 10.30 15.34 | 36690 44425 55530 | 7.70 10.30 15.38 | 1100 | |

Explosion proof motors and disconnects are available WHEN SPECIFIED. (*) BHP does not include drive losses.

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Performance Data

Powered Airette Hooded Propeller Roof Ventilator

AF - Steel Propeller

| MODEL NO. | RPM | TIP SPD | 0.000" SP | | 0.125 | 5" SP | 0.250 |)" SP | 0.375 | 5" SP | 0.500 |)" SP | | EST. SHIP WT. (LBS) | |
|--------------|-----|------------|-----------|------|-------|-------|-------|-------|---------|--------|----------|--------|-------|------------------------|--|
| DIRECT | | (FPM) | CFM | BHP | CFM | BHP | CFM | BHP | CFM | BHP | CFM | BHP | ALUM. | STEEL | |
| | 600 | 3770 | 4475 | 0.25 | 3901 | 0.25 | 2909 | 0.28 | - | - | - | - | | | |
| ĺ | 658 | 4134 | 4908 | 0.32 | 4411 | 0.32 | 3446 | 0.37 | 2922 | 0.39 | - | - | 1 | | |
| AF24 | 747 | 4694 | 5572 | 0.47 | 5162 | 0.47 | 4561 | 0.50 | 3671 | 0.55 | 3270 | 0.57 | 250 | 300 | |
| ſ | 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 | - | - | - 1 | - | | | |
| ſ | 469 | 3684 | 7049 | 0.32 | 5680 | 0.34 | 3717 | 0.36 | - | - | - | - | 1 | | |
| AF30 | 545 | 4280 | 8191 | 0.51 | 7072 | 0.53 | 5519 | 0.55 | 4086 | 0.57 | - 1 | - | 300 | 350 | |
| AF30 | 614 | 4822 | 9228 | 0.73 | 8263 | 0.75 | 7040 | 0.78 | 5454 | 0.80 | 4475 | 0.83 | | 350 | |
| Ĩ | 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 | 1 | | |
| | 354 | 3336 | 8153 | 0.34 | 6564 | 0.37 | 4949 | 0.43 | - | - | - | - | | | |
| Ì | 420 | 3958 | 9673 | 0.57 | 8453 | 0.61 | 6818 | 0.63 | - | - | - | - | 300 | | |
| Ì | 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 | | 350 | |
| Ì | 576 | 5429 | 13266 | 1.47 | 12540 | 1.51 | 11452 | 1.57 | 10250 | 1.61 | 9137 | 1.66 | | | |
| Ì | 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 | 1 | | |
| | 335 | 3684 | 12220 | 0.53 | 10253 | 0.56 | 7012 | 0.61 | - | - | - | - | 1 | | |
| 1 | 365 | 4013 | 13315 | 0.69 | 11616 | 0.71 | 8342 | 0.75 | 6682 | 0.92 | - | - | 400 | | |
| ľ | 423 | 4651 | 15430 | 1.07 | 14051 | 1.10 | 11906 | 1.12 | 9108 | 1.20 | 7783 | 1.43 | | | |
| AF42 | 478 | 5256 | 17437 | 1.55 | 16248 | 1.58 | 14699 | 1.61 | 12045 | 1.64 | 10091 | 1.76 | | 450 | |
| · · · · - i | 526 | 5784 | 19188 | 2.07 | 18135 | 2.10 | 16851 | 2.14 | 15028 | 2.16 | 12357 | 2.23 | | | |
| İ | 606 | 6663 | 22106 | 3.16 | 21205 | 3.20 | 20185 | 3.24 | 18958 | 3.28 | 17276 | 3.30 | | | |
| İ | 715 | 7862 | 26082 | 5.19 | 25319 | 5.24 | 24515 | 5.28 | 23623 | 5.33 | 22582 | 5.38 | | 1 | |
| i | 290 | 3644 | 14409 | 0.56 | 11847 | 0.61 | - | - | - | - | - | - | İ | | |
| ľ | 330 | 4147 | 16397 | 0.82 | 14347 | 0.88 | 10576 | 0.97 | - | - | - | - | | | |
| | 354 | 4448 | 17590 | 1.01 | 15770 | 1.08 | 12191 | 1.15 | - | - | - | - | 1 | | |
| 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 | 1 | | |
| | 507 | 6371 | 25192 | 2.97 | 24124 | 3.06 | 22671 | 3.17 | 20831 | 3.26 | 17770 | 3.38 | 1 | | |
| | 604 | 7590 | 30012 | 5.02 | 29158 | 5.13 | 28134 | 5.25 | 26785 | 5.37 | 25268 | 5.47 | 1 | | |
| | 263 | 3718 | 19185 | 0.84 | 15865 | 0.96 | 11762 | 1.08 | - | - | - | - | ì | | |
| ŀ | 310 | 4383 | 22614 | 1.38 | 19837 | 1.53 | 16657 | 1.65 | - | - | - | - | 1 | | |
| ŀ | 342 | 4835 | 24948 | 1.86 | 22459 | 2.02 | 19684 | 2.16 | 16686 | 2.29 | <u> </u> | - | 1 | | |
| AF54 | 390 | 5513 | 28450 | 2.75 | 26298 | 2.94 | 23988 | 3.12 | 21307 | 3.25 | 18713 | 3.42 | 900 | 1000 | |
| ŀ | 462 | 6531 | 33702 | 4.58 | 31901 | 4.80 | 23988 | 5.02 | 28037 | 5.25 | 25617 | 5.37 | 1 | | |
| ŀ | 542 | 7662 | 39538 | 7.39 | 38016 | 7.65 | 36439 | 7.91 | 34778 | 8.18 | 33108 | 8.40 | 1 | | |
| | 284 | 4461 | 26649 | 1.53 | 22369 | 1.61 | 18140 | 1.69 | - 34770 | - 0.10 | 33108 | - 0.40 | | | |
| | 310 | 4461 | 29089 | 2.00 | 25311 | 2.08 | 21413 | 2.16 | - | - | | - | 1 | | |
| AF60 | 352 | 5529 | 33030 | 2.00 | 29748 | 3.02 | 26054 | 3.10 | 22755 | 3.21 | | | 1000 | 1150 | |
| AFOU | 421 | 6613 | 39505 | 5.00 | 36802 | 5.12 | 33851 | 5.23 | 30789 | 5.33 | 28117 | 5.45 | 1000 | 1150 | |
| | | | | | | | | | | | | | - | | |
| | 490 | 7697 | 45980 | 7.88 | 43688 | 8.03 | 41256 | 8.17 | 38526 | 8.27 | 35966 | 8.39 | | | |

› AF Fabricated Steel Propeller Performance Data

Fan capacity ratings are certified to be in accordance with the Standard Test Code for axial fans as adopted by AMCA (Figure 14, AMCA Bulletin 210-85). Higher speed fans are intended for industrial use. Low noise level fans should be selected from the lower speeds. 24" Powered Airette can be furnished with an adapter base permitting their use over smaller roof openings. Shipping weights are for exhaust models.

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Engineering Specifications

Powered Airette Hooded Propeller Roof Ventilator

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AC = Cast Aluminum Propeller

AF = Fabricated Steel Propeller

48

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 |

24

30

› Model

> Unit Size

36

42

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 | 1 1/2 | 5 | 15 | | | | | | |
| X = Special | | | | | | | | | |

> Enclosure

- O = Open Drip Proof
- T = Totally Enclosed E = Explosion Proof
- X = Special

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› Voltage B = 115V

- D = 200V E = 208V G = 230V P = 460V
- R = 575V X = Special
- > Phase
- 1 = Single 3 = Three

› Cycle

5 = 50 Hz6 = 60 Hz

> Efficiency

S = Standard H = Premium

- 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 = None51 = Light Bronze 53 = Aegean Blue 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 MD4 = Motor Operated Damper 460V Х = Special

> Roof Curb

0 = NoneK = UCA18 V = UG18 A = UCG8L = UG12W = URA12B = UCG12 M = SA16 Y = URA18C = UCG18 N = SFG12 1 = URG12 P = SFG18D = UCA82 = URG18 E = UCA12Q = SG16 X = Special F = SFA12R = SRA16G = SFA18S = SRG16H = SCG16 T = UA12 J = SCA16 U = UA18

Slope

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

Metal Liner

0 = NoneL = Metal Liner

Damper Holding Plate

- 0 = NoneP = Damper Holding Plate
- Neoprene Gasket 0 = NoneG = 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 = NoneL = 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
- Belt Cover
- 0 = None
- B = Belt Cover

Safety Guard

0 = NoneG = Safety Guard

> Thermal Protection

- 0 = NoneP = Thermal Protection
- › Disconnect Switch

0 = None

- 1 = Nema 1 Disconnect Switch
- 3R = Nema 3R Disconnect Switch
- 4 = Nema 4 Disconnect Switch
- 7 = Nema 7 Disconnect Switch
- 9 = Nema 9 Disconnect Switch
- 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, to 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, to 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.

> 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, to be securely fastened and properly flashed.

Statically and dynamically balanced propellers shall be cast aluminum airfoil (model AC). Motors shall be continuous duty, ball bearing design, positively cooled, and fur- P nished at the specified voltage and phase.

› Product Configuration

Reference PennBarry's selection software to configure a Fumex product today.

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Notes

Powered Airette Hooded Propeller Roof Ventilator



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1-Year Limited Manufacturer Warranty

Products Covered

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

⁹ 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



• Centrex Inliner Centrifugal Inline Fan

Axial / Gravity Products



Fumex Fatrap
 Kitchen Hood Centrifugal
 Roof Exhausters



Zephyr
 Ceiling and Inline Fans



Dynamo
 Centrifugal Blowers



LC Dynafan
 Low Contour Centrifugal
 Roof Exhausters



• ESI Efficient Silent Inline Fan



Fume Exhaust Curb Mounted Centrifugal Fans



Breezeway Propeller Wall Fan



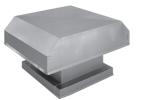
Powered Airette Axial Roof Ventilators



Hi-Ex
 Power Roof Ventilator



• **Tubeaxial** Inline Fans



 Airette Gravity Intake/Relief Hood



Domex Axial Axial Roof Ventilators



Vaneaxial



Axcentrix
 Bifurcator Fan



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