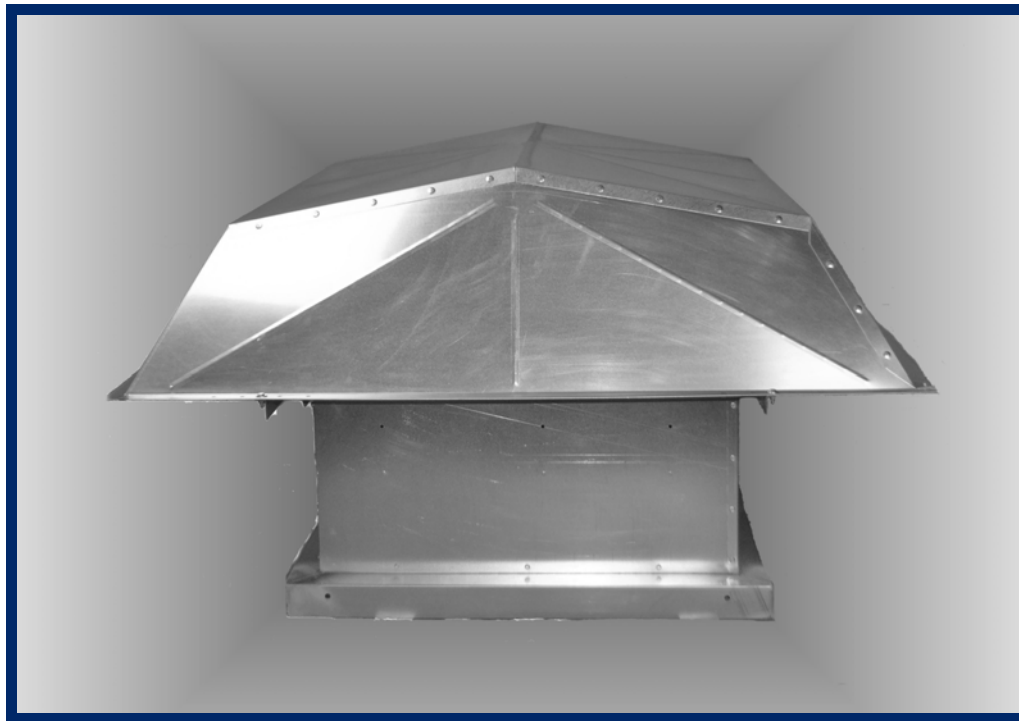


# Type P- Hooded Power Roof Ventilators



# Type P PRVs

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## Application

General ventilation power roof ventilators designed to move large volumes of air quietly, efficiently and dependably.

They are suggested for use in commercial and industrial applications including factories, warehouses and large commercial buildings.

These rugged PRVs are available in a broad range of CFMs and a variety of configurations.

There are types offering belt and direct driven propellers, exhaust, supply or reversible air movement, and filtered supply air.

Most hooded PRVs can be supplied less fan component for use as a gravity ventilator or as an air intake.

At a later date this unit can be converted to a power roof ventilator by simply installing the proper style American Coolair Type C fan.

Combinations of these various types can be used and still maintain a uniform and attractive rooftop appearance.

Use of the proper combination of hooded power roof ventilators assures an effective ventilation system at exceptionally low cost.

# Hooded PRVs

## Construction

Years of experience have gone into the design and construction of American Coolair power roof ventilators.

**MATERIALS:** The hood and PE, PS base are made of galvanized steel for rigidity, long life and years of protection against corrosion. A finish coat of epoxy can be specified.

The curb cap and support system is of heavy gauge steel for strength and rigidity.

Fan unit materials are described in the Fan Components section.

Painted parts are coated with epoxy to provide a protective coating rated excellent for hardness, impact resistance, adhesion and chemical resistance. For protective coating options see Accessories section.

**METHODS:** Fan unit construction methods are described in the Fan Components section.

The hood can be pivoted for rooftop access to the fan components.

All units except Types PB and PD have a large removable panel for access to the fan and backdraft damper.

Parts requiring painting are processed through the advanced American Coolair multi-stage pretreatment system prior to the application of any coatings to ensure maximum finish adhesion. These parts use a thermosetting epoxy powder paint with an average thickness of 3 mils and baked at 400°F to a smooth, hard, continuous finish.

## Drive Mechanism

**BELT DRIVE:** Available in sizes from 24 inch to 84 inch. Belt driven models are designed for quieter operation and lower initial cost. They use standardly available 1750 RPM motors.

**DIRECT DRIVE:** Available in sizes from 10 inch to 60 inch. Direct driven models require less maintenance, offer longer operating life, increased efficiency and reduced operating cost.

**VARIABLE PITCH PULLEYS:** Nearly all belt driven models are equipped with a variable pitch motor pulley which allows fan speed adjustment where desirable. The settings made at the factory allow the fan to operate within the maximum safe capabilities of the motor. The pulley may be opened to reduce fan speed and thus decrease air flow.

If an increase in fan speed is desired, contact your American Coolair representative for information on fan performance and motor load before making any adjustment.

## Bearings

See fan component section for bearing information.

## Motors

The American Coolair air-over-motor design provides extra capacity and economy because it serves to dissipate heat and thus increase horsepower capability. Totally enclosed motors are standard. Several alternatives, such as explosion proof motors, energy efficient motors and severe duty motors, are available to fit your specific needs.

Only nationally recognized brand motors with nationwide service facilities are used.

## Listings



UL705 – E39944

Type P, PE, PS, RP, PEUD and PSUD ventilators are listed by Underwriters Laboratory, Inc. to U.S. and Canadian safety standards.

Certified ratings licensed by AMCA (Air Movement and Control Association International, Inc.), for both air and sound performance, are available for Type P, PE and PS fans. These, along with dimensional drawings are included in this form.

## Additional Information Available

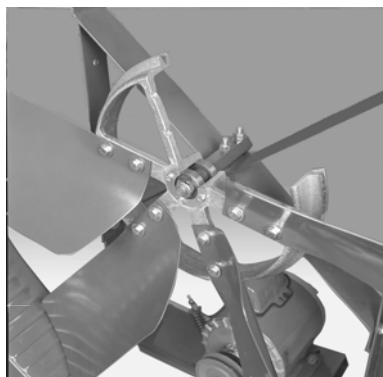
Octave band sound power levels are available for use by the acoustical engineer in predicting on-the-job sound levels.

American Coolair will provide installation instructions and maintenance information at your request, as well as information on any air movement need you may have. Simply contact your American Coolair representative.

American Coolair wishes to provide you with every assistance in determining your air movement requirements.

# Fan Components

All hooded PRVs incorporate American Coolair fan components. These fans are available in a large selection of CFMs and pressures. They are rugged and dependable. All blade assemblies are dynamically balanced.

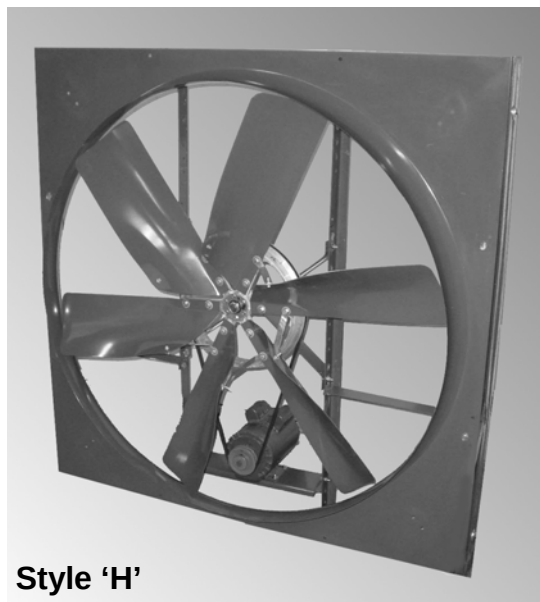


## Style 'H' (belt drive)

These fan components utilize an additional cross-frame to support American Coolair's unique bearing and shaft assembly. (See assembly cutaway above.) Power is applied directly to the fan/hub assembly in the same plane as the bearings. This reduces bearing load and dramatically increases fan life. Bearings are permanently lubricated and sealed.

The six die-formed steel propeller blades are securely attached to the hub to form a strong, rigid propeller assembly.

The motor pulley can be opened to reduce fan speed and thus decrease air flow on most models. If an increase in fan speed is desired, contact your American Coolair representative for information on fan performance and motor load before making any adjustment.



Style 'H'

## Style 'HX' (belt drive)

Similar to the Style 'H' components, the Style 'HX' fan utilizes a cross-frame to support American Coolair's unique bearing and shaft assembly. This stationary shaft mounts on the cross-frame member and the power is applied directly to the heavy-duty cast aluminum hub through a dual belt configuration. (See assembly cutaway below.)

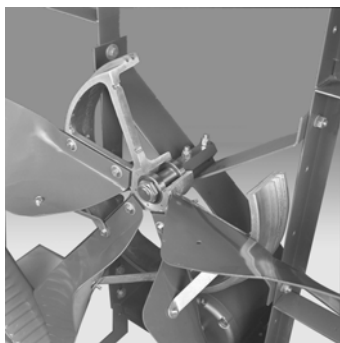
Bearings are permanently lubricated and sealed.

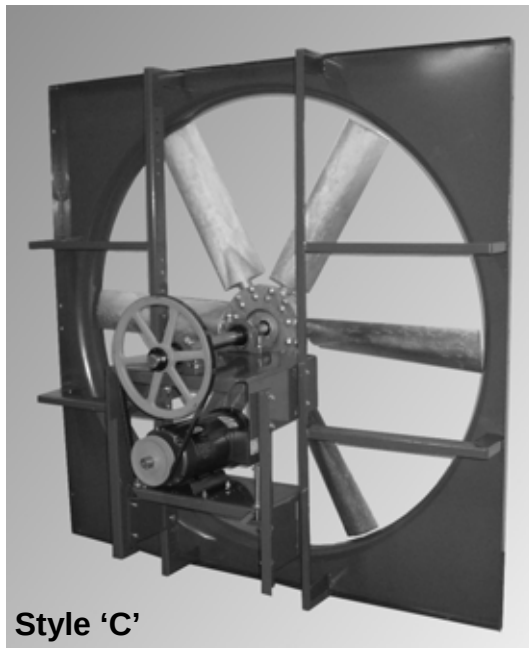
The six die-formed steel propeller blades are securely attached to the hub to form a strong, rigid propeller assembly.

If an increase in fan speed is desired, contact your American Coolair representative for information on fan performance and motor load before making any adjustments.



Style 'HX'





**Style 'C'**

### **Style C (direct drive)**

The structure for Style 'C' fan components is formed by American Coolair's Type 'C' panel and rugged angle frame.

The propeller assembly is connected directly to the motor shaft. There are no bearings or belts to require maintenance.

From 3 to 6 cast aluminum adjustable pitch airfoil blades are securely attached to a heavy cast aluminum hub. Blade pitch is set for catalog performance.

Style 'C' fan components incorporate specifically engineered airfoil sections and hub size for optimum efficiency and physical strength.

The blade pitch should not be adjusted without first contacting your American Coolair representative.



**Style 'U'**

### **Style C (belt drive)**

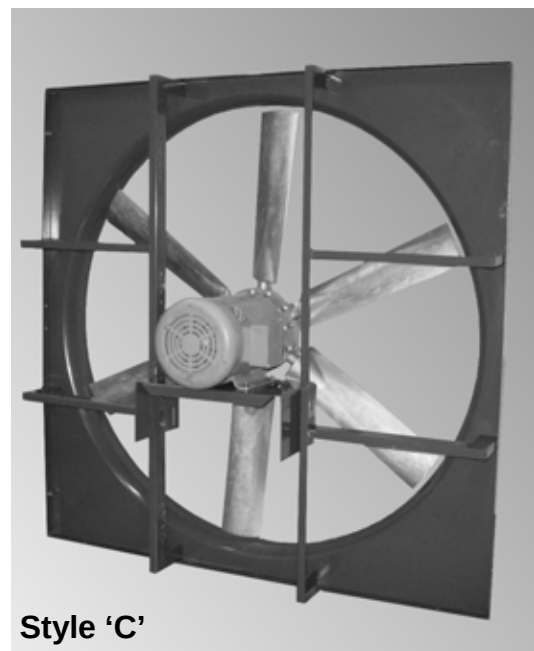
The structure for Style 'C' fan components is formed by American Coolair's Type 'C' panel and rugged angle frame. The steel shaft is supported by two pillow-block ball bearings attached to this frame.

Cast aluminum adjustable pitch airfoil blades are securely attached to a heavy cast aluminum hub. Blade pitch is set for catalog performance.

The blade pitch should not be adjusted without first contacting your American Coolair representative.

Style 'C' fan components incorporate specifically engineered airfoil sections and hub sizes for optimum efficiency and physical strength.

The motor pulley can be opened to reduce fan speed and thus decrease air flow on all models. If an increase in fan speed is desired, contact your American Coolair representative for information on fan performance and motor load before making any adjustment.



**Style 'C'**

### **Style U (direct drive)**

The structure for Style 'U' fan components is formed by American Coolair's Type 'UD' steel panel and rigid angle steel upright supports.

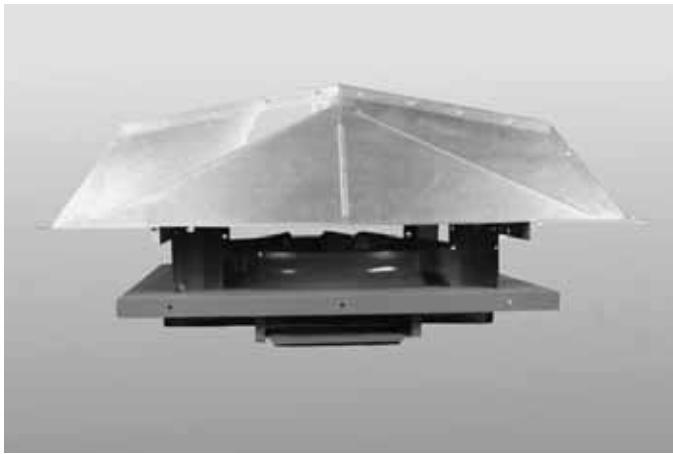
A formed orifice fan panel and unique blade design provide a super-quiet, efficient propeller fan.

The Type 'U' propeller assembly utilizes three formed steel blades for optimum efficient operation. Blades are statically and dynamically balanced.

The steel propeller assembly is connected directly to the motor shaft. There are no bearings or belts to require maintenance. Most motors are permanently lubricated.

# Type PB

**EXHAUST — BELT DRIVE — 2,900 to 85,500 CFM  
0" to  $\frac{3}{4}$ " STATIC PRESSURE**

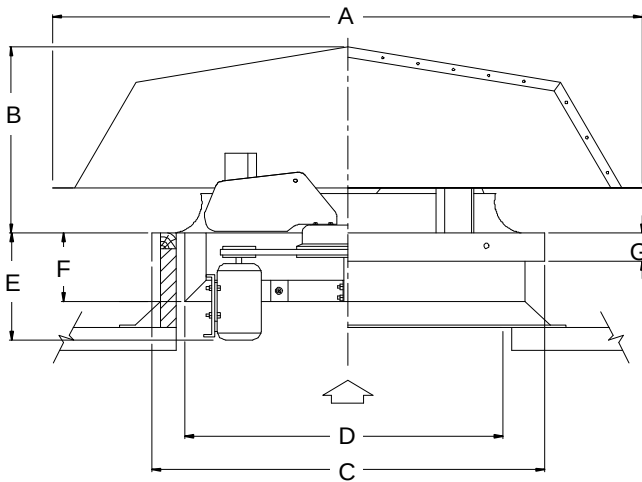


## Application and Features

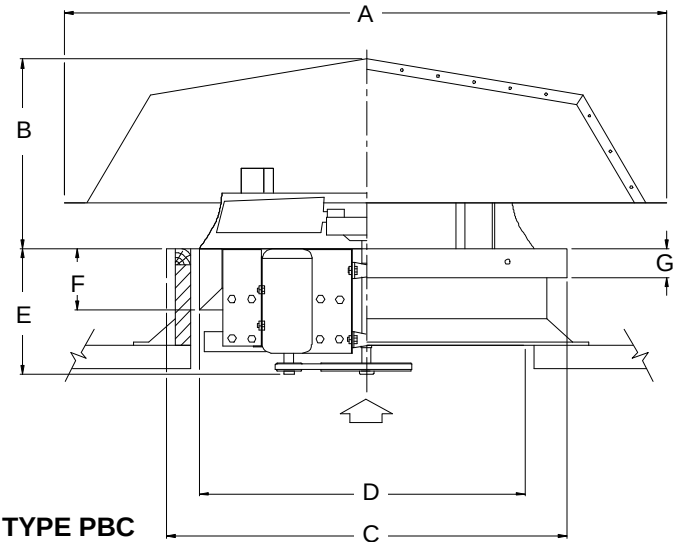
Type PB PRVs are designed to be economical, low-profile roof exhausters.

The pleasing appearance of its low profile is accomplished by recessing the fan unit into the curb opening. Consequently, a mounting sleeve or higher-than-standard curb may be required for clearance between fan motor and damper when a backdraft damper is used.

Type PB PRVs incorporate Style H fan components for models in the 24 inch to 54 inch sizes, Style HX components for models in the 48 inch to 60 inch sizes and Style C components for models in the 24 inch to 84 inch sizes. These fan styles are described in the *Fan Component* section on Pages 4-5.



**TYPE PBH and PBHX**



**TYPE PBC**

## Dimensions

Dimension A is the O.D. of the square hood.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the inside curb minimum.

Dimension E is the maximum projection of the motor below top of curb for constant speed, 3-phase TEFC motor of maximum frame size for PRV size and style indicated. This dimension will vary with the type and HP of the motor actually selected.

Dimension F is the depth of the fan angle structure.

Dimension G is the curb cap flange.

| Fan  | Dimensions in Inches |        |     |    |        |        |   |
|------|----------------------|--------|-----|----|--------|--------|---|
|      | A                    | B      | C   | D  | E      | F      | G |
| H24  | 57                   | 23 1/4 | 38  | 32 | 11 7/8 | 5 1/8  | 2 |
| C24  |                      |        |     |    | 18 1/4 |        |   |
| H30  | 57                   | 23 1/4 | 44  | 38 | 16 3/4 | 5 1/8  | 2 |
| C30  |                      |        |     |    | 18 1/4 |        |   |
| H36  | 67                   | 27     | 50  | 44 | 17     | 5 1/8  | 2 |
| C36  |                      |        |     |    | 19 1/2 |        |   |
| H42  | 78                   | 28 3/4 | 56  | 50 | 17     | 5 1/8  | 2 |
| C42  |                      |        |     |    | 19 1/2 |        |   |
| H48  | 88                   | 29 3/4 | 62  | 56 | 17     | 5 1/8  | 2 |
| HX48 |                      |        |     |    | 20 1/4 | 6 5/8  |   |
| C48  |                      |        |     |    | 24 1/2 | 6 5/8  |   |
| H54  | 98                   | 35 1/4 | 68  | 60 | 17     | 5 1/8  | 2 |
| HX54 |                      |        |     |    | 20 1/4 | 6 5/8  |   |
| C54  |                      |        |     |    | 24 1/2 | 6 5/8  |   |
| HX60 | 109                  | 42 1/4 | 77  | 69 | 21 1/4 | 7 5/8  | 3 |
| C60  |                      |        |     |    | 25 1/2 |        |   |
| 72   | 127 7/8              | 28 7/8 | 89  | 81 | 26     | 12 3/8 | 3 |
| 84   | 139 1/2              | 37 5/8 | 101 | 93 | 26     | 12 3/8 | 3 |



# Performance Ratings



American Coolair Corporation certifies that the Type PB PRVs shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

# Typical Specifications

Hooded exhaust power roof ventilators shall be American Coolair Type PBH, PBHX, and/or PBC, as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Curb cap and structural angle supports shall be of welded steel construction, hoods shall be of galvanized steel. (Insert additional specifications from below for specific style PRV.) PRVs shall be licensed to bear the AMCA Certified Ratings Seal for air performance and sound. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, bird screen, backdraft damper, prefabricated curb and special protective coating.)

**ADDITIONAL SPECIFICATIONS STYLE H and HX:** Die-formed steel blades shall be firmly attached to cast aluminum hub, which also serves as driven sheave. Fan hub shall rotate on fixed shaft using oversized sealed ball bearings. Belt load shall be applied to hub in the same plane as bearings, eliminating overhung load on bearings and increasing bearing life. Motor pulleys shall be variable pitch.

**ADDITIONAL SPECIFICATIONS STYLE C:** Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Ball bearings shall be of the heavy-duty pillow block type. Motor pulleys shall be variable pitch.

| Item No. | Cubic Feet Per Minute (CFM) at Static Pressure <sup>1,6</sup> |        |        |        |        |        |        | Fan Model <sup>2</sup> | Fan Size <sup>3</sup> | Motor HP | Fan RPM | Sone Rating <sup>4</sup> | Max BHP <sup>5,6</sup> | Approx. Ship Wt. |
|----------|---------------------------------------------------------------|--------|--------|--------|--------|--------|--------|------------------------|-----------------------|----------|---------|--------------------------|------------------------|------------------|
|          | 0"                                                            | 1/8"   | 1/4"   | 3/8"   | 1/2"   | 5/8"   | 3/4"   |                        |                       |          |         |                          |                        |                  |
| 1        | 4,903                                                         | 4,264  | 3,602  | ---    | ---    | ---    | ---    | PBH24H                 |                       | 1/3      | 740     | 14.4                     | 0.42                   | 230              |
| 2        | 5,552                                                         | 4,989  | 4,417  | 3,775  | ---    | ---    | ---    | PBH24J                 |                       | 1/2      | 838     | 18.2                     | 0.61                   | 235              |
| 3        | 6,334                                                         | 5,841  | 5,342  | 4,836  | 4,238  | ---    | ---    | PBH24K                 |                       | 3/4      | 956     | 23                       | 0.91                   | 250              |
| 4        | 7,070                                                         | 6,628  | 6,183  | 5,734  | 5,272  | 4,719  | ---    | PBH24L*                |                       | 1        | 1067    | 28                       | 1.26                   | 255              |
| 5        | 7,540                                                         | 7,127  | 6,710  | 6,289  | 5,866  | 5,410  | 4,823  | PBH24M*                |                       | 1 1/2    | 1138    | 30                       | 1.53                   | 285              |
| 6        | 5,232                                                         | 4,868  | 4,439  | 3,964  | 3,512  | ---    | ---    | PBC24J                 | 24                    | 1/2      | 1144    | 17.3                     | 0.61                   | 307              |
| 7        | 5,973                                                         | 5,659  | 5,305  | 4,905  | 4,488  | 4,091  | ---    | PBC24K                 |                       | 3/4      | 1306    | 22                       | 0.91                   | 312              |
| 8        | 6,640                                                         | 6,362  | 6,055  | 5,714  | 5,344  | 4,969  | 4,611  | PBC24L                 |                       | 1        | 1452    | 25                       | 1.25                   | 317              |
| 9        | 7,358                                                         | 7,109  | 6,840  | 6,547  | 6,228  | 5,892  | 5,553  | PBC24M                 |                       | 1 1/2    | 1609    | 30                       | 1.70                   | 323              |
| 10       | 8,149                                                         | 7,926  | 7,688  | 7,435  | 7,161  | 6,870  | 6,566  | PBC24N                 |                       | 2        | 1782    | 35                       | 2.23                   | 336              |
| 11       | 9,425                                                         | 9,233  | 9,033  | 8,823  | 8,602  | 8,368  | 8,121  | PBC24P                 |                       | 3        | 2061    | 45                       | 3.34                   | 354              |
| 12       | 6,234                                                         | 5,171  | 3,910  | ---    | ---    | ---    | ---    | PBH30H                 |                       | 1/3      | 548     | 11.5                     | 0.42                   | 305              |
| 13       | 7,042                                                         | 6,102  | 5,175  | ---    | ---    | ---    | ---    | PBH30J                 |                       | 1/2      | 619     | 15.3                     | 0.61                   | 310              |
| 14       | 8,077                                                         | 7,262  | 6,442  | 5,577  | ---    | ---    | ---    | PBH30K                 |                       | 3/4      | 710     | 19.1                     | 0.92                   | 330              |
| 15       | 8,930                                                         | 8,196  | 7,446  | 6,726  | 5,761  | ---    | ---    | PBH30L                 |                       | 1        | 785     | 22                       | 1.25                   | 330              |
| 16       | 9,908                                                         | 9,249  | 8,573  | 7,909  | 7,253  | 6,290  | ---    | PBH30M                 |                       | 1 1/2    | 871     | 27                       | 1.70                   | 365              |
| 17       | 10,853                                                        | 10,251 | 9,637  | 9,021  | 8,429  | 7,810  | 6,887  | PBH30N                 |                       | 2        | 954     | 33                       | 2.24                   | 370              |
| 18       | 12,229                                                        | 11,697 | 11,155 | 10,606 | 10,062 | 9,539  | 9,005  | PBH30P*                | 30                    | 3        | 1075    | 42                       | 3.20                   | 395              |
| 19       | 8,113                                                         | 7,446  | 6,636  | 5,873  | 5,174  | ---    | ---    | PBC30K                 |                       | 3/4      | 957     | 19.0                     | 0.91                   | 341              |
| 20       | 8,986                                                         | 8,395  | 7,693  | 6,958  | 6,301  | 5,670  | ---    | PBC30L                 |                       | 1        | 1060    | 22                       | 1.24                   | 344              |
| 21       | 9,969                                                         | 9,445  | 8,843  | 8,168  | 7,531  | 6,948  | 6,381  | PBC30M                 |                       | 1 1/2    | 1176    | 26                       | 1.70                   | 351              |
| 22       | 10,936                                                        | 10,463 | 9,935  | 9,338  | 8,725  | 8,158  | 7,630  | PBC30N                 |                       | 2        | 1290    | 30                       | 2.24                   | 357              |
| 23       | 12,487                                                        | 12,077 | 11,634 | 11,147 | 10,615 | 10,075 | 9,567  | PBC30P                 |                       | 3        | 1473    | 37                       | 3.33                   | 381              |
| 24       | 14,895                                                        | 14,555 | 14,197 | 13,817 | 13,410 | 12,974 | 12,520 | PBC30Q                 |                       | 5        | 1757    | 51                       | 5.58                   | 394              |
| 25       | 7,937                                                         | 6,334  | 4,551  | ---    | ---    | ---    | ---    | PBH36H                 |                       | 1/3      | 450     | 9.6                      | 0.42                   | 375              |
| 26       | 8,925                                                         | 7,505  | 6,027  | ---    | ---    | ---    | ---    | PBH36J                 |                       | 1/2      | 506     | 12.1                     | 0.61                   | 380              |
| 27       | 10,230                                                        | 8,988  | 7,718  | 6,418  | ---    | ---    | ---    | PBH36K                 |                       | 3/4      | 580     | 15.8                     | 0.91                   | 385              |
| 28       | 11,342                                                        | 10,217 | 9,100  | 7,919  | 6,654  | ---    | ---    | PBH36L                 |                       | 1        | 643     | 18.9                     | 1.25                   | 390              |
| 29       | 12,541                                                        | 11,521 | 10,520 | 9,467  | 8,416  | 7,179  | ---    | PBH36M                 |                       | 1 1/2    | 711     | 22                       | 1.69                   | 440              |
| 30       | 13,811                                                        | 12,882 | 11,974 | 11,048 | 10,072 | 9,128  | 8,002  | PBH36N                 |                       | 2        | 783     | 26                       | 2.25                   | 445              |
| 31       | 15,734                                                        | 14,916 | 14,114 | 13,317 | 12,496 | 11,637 | 10,799 | PBH36P                 |                       | 3        | 892     | 32                       | 3.34                   | 470              |
| 32       | 18,803                                                        | 18,117 | 17,440 | 16,771 | 16,106 | 15,430 | 14,729 | PBH36Q*                | 36                    | 5        | 1066    | 44                       | 5.62                   | 487              |
| 33       | 10,288                                                        | 9,313  | 8,272  | 7,335  | 6,275  | ---    | ---    | PBC36L                 |                       | 1        | 901     | 24                       | 1.24                   | 508              |
| 34       | 11,395                                                        | 10,525 | 9,579  | 8,696  | 7,841  | 6,856  | ---    | PBC36M                 |                       | 1 1/2    | 998     | 29                       | 1.68                   | 514              |
| 35       | 12,549                                                        | 11,765 | 10,917 | 10,070 | 9,303  | 8,508  | 7,608  | PBC36N                 |                       | 2        | 1099    | 33                       | 2.25                   | 520              |
| 36       | 14,284                                                        | 13,602 | 12,877 | 12,115 | 11,383 | 10,711 | 10,034 | PBC36P                 |                       | 3        | 1251    | 41                       | 3.31                   | 552              |
| 37       | 17,047                                                        | 16,480 | 15,890 | 15,272 | 14,633 | 14,003 | 13,411 | PBC36Q                 |                       | 5        | 1493    | 56                       | 5.62                   | 564              |
| 38       | 19,651                                                        | 19,161 | 18,657 | 18,136 | 17,597 | 17,043 | 16,490 | PBC36R                 |                       | 7 1/2    | 1721    | 72                       | 8.49                   | 621              |
| 39       | 21,649                                                        | 21,206 | 20,752 | 20,286 | 19,806 | 19,314 | 18,811 | PBC36S                 |                       | 10       | 1896    | 87                       | 11.21                  | 632              |

(chart continues next page)

# Type PB Performance Ratings (cont'd.)

| Item No. | Cubic Feet Per Minute (CFM) at Static Pressure <sup>1,6</sup> |        |        |        |        |        |        | Fan Model <sup>2</sup> | Fan Size <sup>3</sup> | Motor HP | Fan RPM | Sone Rating <sup>4</sup> | Max BHP <sup>5,6</sup> | Approx. Ship Wt. |
|----------|---------------------------------------------------------------|--------|--------|--------|--------|--------|--------|------------------------|-----------------------|----------|---------|--------------------------|------------------------|------------------|
|          | 0"                                                            | 1/8"   | 1/4"   | 3/8"   | 1/2"   | 5/8"   | 3/4"   |                        |                       |          |         |                          |                        |                  |
| 40       | 11,431                                                        | 9,069  | ---    | ---    | ---    | ---    | ---    | PBH42J                 | 42                    | 1/2      | 387     | 9.1                      | 0.61                   | 465              |
| 41       | 13,026                                                        | 10,942 | 9,088  | ---    | ---    | ---    | ---    | PBH42K                 |                       | 3/4      | 441     | 13.8                     | 0.91                   | 470              |
| 42       | 14,444                                                        | 12,595 | 10,812 | 9,036  | ---    | ---    | ---    | PBH42L                 |                       | 1        | 489     | 16.7                     | 1.26                   | 495              |
| 43       | 16,039                                                        | 14,409 | 12,676 | 11,239 | 9,403  | ---    | ---    | PBH42M                 |                       | 1 1/2    | 543     | 20                       | 1.70                   | 525              |
| 44       | 17,545                                                        | 16,078 | 14,443 | 13,071 | 11,693 | ---    | ---    | PBH42N                 |                       | 2        | 594     | 23                       | 2.24                   | 530              |
| 45       | 20,026                                                        | 18,763 | 17,349 | 15,973 | 14,816 | 13,628 | 12,150 | PBH42P                 |                       | 3        | 678     | 28                       | 3.34                   | 575              |
| 46       | 23,925                                                        | 22,885 | 21,761 | 20,548 | 19,381 | 18,371 | 17,426 | PBH42Q                 |                       | 5        | 810     | 38                       | 5.63                   | 592              |
| 47       | 15,210                                                        | 14,041 | 12,624 | 11,006 | 9,694  | ---    | ---    | PBC42M                 |                       | 1 1/2    | 832     | 28                       | 1.69                   | 641              |
| 48       | 16,691                                                        | 15,642 | 14,418 | 12,968 | 11,588 | 10,413 | ---    | PBC42N                 |                       | 2        | 913     | 33                       | 2.24                   | 627              |
| 49       | 19,068                                                        | 18,164 | 17,155 | 16,004 | 14,701 | 13,473 | 12,446 | PBC42P                 |                       | 3        | 1043    | 42                       | 3.34                   | 658              |
| 50       | 22,706                                                        | 21,958 | 21,154 | 20,279 | 19,317 | 18,258 | 17,144 | PBC42Q                 |                       | 5        | 1242    | 55                       | 5.60                   | 672              |
| 51       | 26,399                                                        | 25,762 | 25,090 | 24,379 | 23,620 | 22,806 | 21,933 | PBC42R                 |                       | 7 1/2    | 1444    | 71                       | 8.61                   | 729              |
| 52       | 28,903                                                        | 28,323 | 27,719 | 27,085 | 26,418 | 25,714 | 24,965 | PBC42S                 |                       | 10       | 1581    | 84                       | 11.15                  | 740              |
| 53       | 15,440                                                        | 12,728 | 9,775  | ---    | ---    | ---    | ---    | PBH48K                 | 48                    | 3/4      | 354     | 13.3                     | 0.91                   | 580              |
| 54       | 17,054                                                        | 14,639 | 11,885 | ---    | ---    | ---    | ---    | PBH48L                 |                       | 1        | 391     | 16.0                     | 1.24                   | 585              |
| 55       | 18,929                                                        | 16,778 | 14,319 | 11,999 | ---    | ---    | ---    | PBH48M                 |                       | 1 1/2    | 434     | 19.4                     | 1.69                   | 635              |
| 56       | 20,805                                                        | 18,861 | 16,730 | 14,452 | 12,165 | ---    | ---    | PBH48N                 |                       | 2        | 477     | 22                       | 2.25                   | 640              |
| 57       | 23,771                                                        | 22,082 | 20,300 | 18,304 | 16,367 | 14,499 | ---    | PBH48P                 |                       | 3        | 545     | 27                       | 3.35                   | 680              |
| 58       | 28,220                                                        | 26,807 | 25,345 | 23,813 | 22,133 | 20,405 | 18,903 | PBH48Q                 |                       | 5        | 647     | 36                       | 5.60                   | 697              |
| 59       | 32,580                                                        | 31,535 | 30,377 | 29,064 | 27,631 | 26,259 | 25,035 | PBH48R*                |                       | 7 1/2    | 751     | 55                       | 8.59                   | 825              |
| 60       | 35,574                                                        | 34,623 | 33,591 | 32,452 | 31,185 | 29,868 | 28,625 | PBH48S*                |                       | 10       | 820     | 65                       | 11.18                  | 836              |
| 61       | 20,393                                                        | 18,672 | 17,049 | 15,121 | 12,830 | 10,216 | ---    | PBC48N                 |                       | 2        | 724     | 31                       | 2.24                   | 701              |
| 62       | 23,322                                                        | 21,800 | 20,377 | 18,916 | 17,146 | 15,160 | 12,874 | PBC48P                 |                       | 3        | 828     | 38                       | 3.35                   | 743              |
| 63       | 27,688                                                        | 26,392 | 25,162 | 23,977 | 22,754 | 21,363 | 19,759 | PBC48Q                 |                       | 5        | 983     | 51                       | 5.60                   | 760              |
| 64       | 31,913                                                        | 30,782 | 29,694 | 28,647 | 27,620 | 26,570 | 25,433 | PBC48R                 |                       | 7 1/2    | 1133    | 66                       | 8.54                   | 840              |
| 65       | 35,012                                                        | 33,976 | 32,975 | 32,006 | 31,064 | 30,127 | 29,168 | PBC48S                 |                       | 10       | 1243    | 78                       | 11.17                  | 900              |
| 66       | 19,337                                                        | 16,123 | 12,532 | ---    | ---    | ---    | ---    | PBH54L                 | 54                    | 1        | 375     | 17.3                     | 1.24                   | 954              |
| 67       | 21,400                                                        | 18,376 | 15,547 | ---    | ---    | ---    | ---    | PBH54M                 |                       | 1 1/2    | 415     | 21                       | 1.70                   | 958              |
| 68       | 23,514                                                        | 20,642 | 18,355 | 15,095 | ---    | ---    | ---    | PBH54N                 |                       | 2        | 456     | 24                       | 2.25                   | 964              |
| 69       | 26,866                                                        | 24,193 | 22,266 | 19,955 | 16,997 | ---    | ---    | PBH54P                 |                       | 3        | 521     | 30                       | 3.36                   | 989              |
| 70       | 32,107                                                        | 30,140 | 27,954 | 25,592 | 23,249 | 21,056 | ---    | PBH54Q                 |                       | 5        | 549     | 34                       | 5.59                   | 1114             |
| 71       | 36,961                                                        | 35,274 | 33,450 | 31,475 | 29,411 | 27,362 | 25,421 | PBH54R                 |                       | 7 1/2    | 632     | 42                       | 8.53                   | 1166             |
| 72       | 39,885                                                        | 38,330 | 36,669 | 34,886 | 33,002 | 31,081 | 29,198 | PBH54S*                |                       | 10       | 682     | 48                       | 10.72                  | 1175             |
| 73       | 23,961                                                        | 21,709 | 18,954 | ---    | ---    | ---    | ---    | PBC54N                 |                       | 2        | 573     | 29                       | 2.23                   | 920              |
| 74       | 27,474                                                        | 25,557 | 23,312 | 20,760 | ---    | ---    | ---    | PBC54P                 |                       | 3        | 657     | 37                       | 3.37                   | 940              |
| 75       | 32,492                                                        | 30,905 | 29,138 | 27,150 | 24,993 | 22,621 | ---    | PBC54Q                 |                       | 5        | 777     | 49                       | 5.57                   | 975              |
| 76       | 37,468                                                        | 36,108 | 34,641 | 33,038 | 31,289 | 29,432 | 27,468 | PBC54R                 |                       | 7 1/2    | 896     | 63                       | 8.54                   | 1040             |
| 77       | 41,023                                                        | 39,788 | 38,475 | 37,066 | 35,544 | 33,916 | 32,213 | PBC54S                 |                       | 10       | 981     | 74                       | 11.21                  | 1075             |

(chart continues next page)



# Type PB Performance Ratings (cont'd.)

| Item No. | Cubic Feet Per Minute (CFM) at Static Pressure <sup>1,6</sup> |        |        |        |        |        |        | Fan Model <sup>2</sup> | Fan Size <sup>3</sup> | Motor HP | Fan RPM | Sone Rating <sup>4</sup> | Max BHP <sup>5,6</sup> | Approx. Ship Wt. |
|----------|---------------------------------------------------------------|--------|--------|--------|--------|--------|--------|------------------------|-----------------------|----------|---------|--------------------------|------------------------|------------------|
|          | 0"                                                            | 1/8"   | 1/4"   | 3/8"   | 1/2"   | 5/8"   | 3/4"   |                        |                       |          |         |                          |                        |                  |
| 78       | 24,174                                                        | 20,231 | ---    | ---    | ---    | ---    | ---    | PBHX60M                | 60                    | 1 1/2    | 321     | 14.5                     | 1.68                   | 1296             |
| 79       | 26,659                                                        | 23,533 | ---    | ---    | ---    | ---    | ---    | PBHX60N                |                       | 2        | 354     | 17.5                     | 2.24                   | 1302             |
| 80       | 30,349                                                        | 27,908 | 23,570 | 19,938 | ---    | ---    | ---    | PBHX60P                |                       | 3        | 403     | 22                       | 3.34                   | 1327             |
| 81       | 35,997                                                        | 34,097 | 31,069 | 27,418 | ---    | ---    | ---    | PBHX60Q                |                       | 5        | 478     | 30                       | 5.57                   | 1339             |
| 82       | 41,494                                                        | 39,912 | 37,840 | 34,526 | 31,572 | 29,110 | ---    | PBHX60R                |                       | 7 1/2    | 551     | 38                       | 8.53                   | 1391             |
| 83       | 45,485                                                        | 44,068 | 42,337 | 39,880 | 36,597 | 34,182 | 31,930 | PBHX60S                |                       | 10       | 604     | 45                       | 11.24                  | 1404             |
| 84       | 26,116                                                        | 22,283 | 19,402 | 14,451 | ---    | ---    | ---    | PBC60N                 |                       | 2        | 545     | 29                       | 2.24                   | 1140             |
| 85       | 29,854                                                        | 26,650 | 23,541 | 21,203 | 16,051 | ---    | ---    | PBC60P                 |                       | 3        | 623     | 36                       | 3.35                   | 1165             |
| 86       | 35,221                                                        | 32,686 | 29,527 | 27,364 | 25,422 | 21,885 | ---    | PBC60Q                 | 72                    | 5        | 735     | 47                       | 5.50                   | 1175             |
| 87       | 40,588                                                        | 38,470 | 35,791 | 33,269 | 31,508 | 29,864 | 27,685 | PBC60R                 |                       | 7 1/2    | 847     | 59                       | 8.42                   | 1250             |
| 88       | 44,613                                                        | 42,721 | 40,435 | 37,871 | 35,914 | 34,387 | 32,892 | PBC60S                 |                       | 10       | 931     | 70                       | 11.19                  | 1280             |
| 89       | 32,432                                                        | 24,996 | 17,360 | ---    | ---    | ---    | ---    | PBC72N                 |                       | 2        | 309     | 18.9                     | 2.30                   | 1560             |
| 90       | 37,051                                                        | 31,027 | 23,247 | ---    | ---    | ---    | ---    | PBC72P                 |                       | 3        | 353     | 24                       | 3.44                   | 1578             |
| 91       | 43,873                                                        | 39,397 | 32,737 | 26,483 | ---    | ---    | ---    | PBC72Q                 |                       | 5        | 418     | 31                       | 5.72                   | 1592             |
| 92       | 50,276                                                        | 46,615 | 41,112 | 35,441 | 30,089 | 26,057 | ---    | PBC72R                 |                       | 7.5      | 479     | 38                       | 8.60                   | 1643             |
| 93       | 55,314                                                        | 52,085 | 47,595 | 42,170 | 37,025 | 32,522 | 28,885 | PBC72S*                |                       | 10       | 527     | 44                       | 11.46                  | 1671             |
| 94       | 63,291                                                        | 60,553 | 57,157 | 52,594 | 47,933 | 43,484 | 39,073 | PBC72T*                |                       | 15       | 603     | 56                       | 17.18                  | 1735             |
| 95       | 69,588                                                        | 67,138 | 64,255 | 60,581 | 56,159 | 52,050 | 48,000 | PBC72U*                |                       | 20       | 663     | 68                       | 22.82                  | 1765             |
| 96       | 39,659                                                        | 28,137 | ---    | ---    | ---    | ---    | ---    | PBC84N                 | 84                    | 2        | 239     | 16.0                     | 2.28                   | 2028             |
| 97       | 45,467                                                        | 35,816 | 25,427 | ---    | ---    | ---    | ---    | PBC84P                 |                       | 3        | 274     | 20                       | 3.44                   | 2049             |
| 98       | 53,763                                                        | 46,528 | 36,519 | 28,663 | ---    | ---    | ---    | PBC84Q                 |                       | 5        | 324     | 27                       | 5.71                   | 2072             |
| 99       | 61,562                                                        | 55,800 | 47,081 | 38,612 | 32,386 | ---    | ---    | PBC84R                 |                       | 7.5      | 371     | 35                       | 8.58                   | 2123             |
| 100      | 67,868                                                        | 62,865 | 55,321 | 47,595 | 40,383 | 34,838 | ---    | PBC84S                 |                       | 10       | 409     | 41                       | 11.49                  | 2151             |
| 101      | 77,658                                                        | 73,462 | 67,804 | 60,612 | 53,965 | 47,417 | 42,663 | PBC84T*                |                       | 15       | 468     | 49                       | 17.22                  | 2217             |
| 102      | 85,457                                                        | 81,721 | 77,065 | 70,809 | 64,480 | 58,389 | 52,454 | PBC84U*                |                       | 20       | 515     | 57                       | 22.96                  | 2247             |

- 1 — Performance certified is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).
- 2 — The first three or four letters of the model number identify **fan type**, **drive configuration** and **style**. The next two numbers indicate **fan size**, the next letter identifies motor **horsepower**. Example: Model PBH24H is Type 'P,' belt drive, Style 'H,' 24" size, 1/3 HP.
- 3 — On Style 'H' & 'HX,' die-formed steel blades are standard. On Style 'C,' an adjustable pitch propeller with cast aluminum airfoil blades is standard.
- 4 — The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for: Installation Type A: free inlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 5 — Maximum brake horsepower (BHP) within the catalog performance range. Power ratings (BHP) do not include transmission losses. Bearing losses are included. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate rating on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m<sup>3</sup>/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

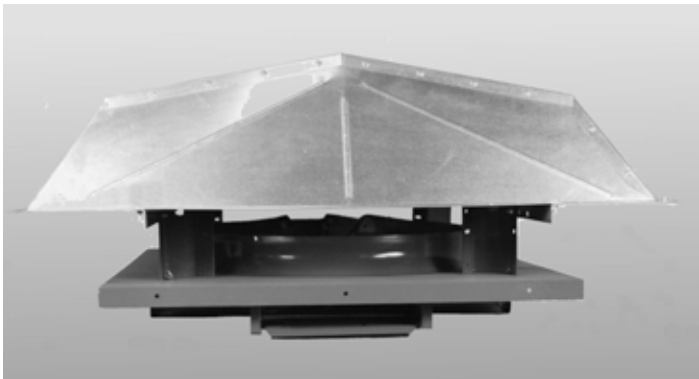
**Example:** 3904 CFM x .000472 = 1.8427 m<sup>3</sup>/s  
0.125 SP x 248.36 = 31.05 Pa  
0.886 BHP x .7457 = 0.661 kW

\*These models have fixed pitch motor pulleys.

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

# Type PDC

EXHAUST — DIRECT DRIVE — 2,600 to 39,000 CFM  
0" to 3/4" STATIC PRESSURE

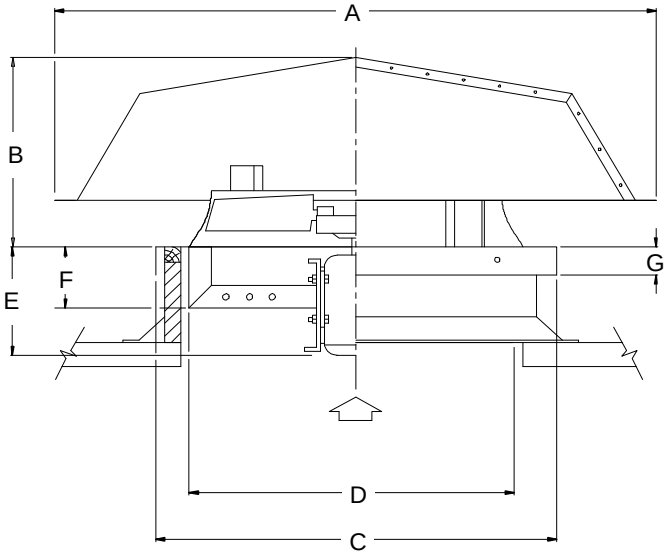


## Application and Features

Type PDC PRVs are designed to be economical, low-profile roof exhausters.

The pleasing appearance of its low profile is accomplished by recessing the fan unit into the curb opening. Consequently a mounting sleeve or higher-than-standard curb may be required for clearance between the fan motor and damper when backdraft damper is used. Type PD PRVs incorporate Style 'C' fan components.

This fan style is described in the *Fan Component* section on Pages 4-5.



## Dimensions

Dimension A is the O.D. of the square hood.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the inside curb minimum.

Dimension E is the maximum projection of the motor below top of curb for constant speed, 3-phase TEFC motor of maximum frame size for PRV size and style indicated. This dimension will vary with the type and HP of the motor actually selected.

Dimension F is the depth of the fan angle structure.

Dimension G is the curb cap flange.

| Fan Size | Dimensions in Inches |        |    |    |        |       |   |
|----------|----------------------|--------|----|----|--------|-------|---|
|          | A                    | B      | C  | D  | E      | F     | G |
| 24       | 57                   | 23 1/4 | 38 | 32 | 12 3/8 | 5 1/8 | 2 |
| 30       | 57                   | 23 1/4 | 44 | 38 | 13 3/4 | 5 1/8 | 2 |
| 36       | 67                   | 27     | 50 | 44 | 15 1/4 | 5 1/8 | 2 |
| 42       | 78                   | 28 3/4 | 56 | 50 | 15 1/4 | 5 1/8 | 2 |
| 48       | 88                   | 29 3/4 | 62 | 56 | 19 3/8 | 6 5/8 | 2 |
| 54       | 98                   | 35 1/4 | 68 | 62 | 19 3/4 | 6 5/8 | 2 |
| 60       | 109                  | 42 1/4 | 77 | 69 | 20 3/4 | 7 5/8 | 3 |

# Performance Ratings



American Coolair Corporation certifies that the Type PDC PRVs shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

# Typical Specifications

Hooded exhaust power roof ventilators shall be American Coolair Type PDC, as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Curb cap and structural angle supports shall be of welded steel construction, hoods shall be of galvanized steel. Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Entire blade assembly shall be mounted directly to the motor shaft. PRVs shall be licensed to bear the AMCA Certified Ratings Seal for air performance and sound. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, bird screen, backdraft damper, prefabricated curb and special protective coating.)

| Item No. | Cubic Feet Per Minute (CFM) at Static Pressure <sup>1,6</sup> |        |        |        |        |        |        | Fan Model <sup>2</sup> | Fan Size | Motor HP | Fan RPM | Sone Rating <sup>3</sup> | Max BHP <sup>4,6</sup> | Blade Desc. <sup>5</sup> |       | Approx. Ship Wt. |
|----------|---------------------------------------------------------------|--------|--------|--------|--------|--------|--------|------------------------|----------|----------|---------|--------------------------|------------------------|--------------------------|-------|------------------|
|          | 0"                                                            | 1/8"   | 1/4"   | 3/8"   | 1/2"   | 5/8"   | 3/4"   |                        |          |          |         |                          |                        | No.                      | Pitch |                  |
| 1        | 3,981                                                         | 3,541  | 2,937  | ---    | ---    | ---    | ---    | PDC24G8                |          | 1/4      | 870     | 14.0                     | 0.28                   | 6                        | 18.5° | 308              |
| 2        | 4,667                                                         | 4,239  | 3,739  | 3,024  | ---    | ---    | ---    | PDC24H11               |          | 1/3      | 1160    | 19.8                     | 0.37                   | 3                        | 15.5° | 293              |
| 3        | 5,402                                                         | 5,058  | 4,602  | 3,961  | ---    | ---    | ---    | PDC24J11               |          | 1/2      | 1160    | 27                       | 0.58                   | 4                        | 20.5° | 303              |
| 4        | 6,306                                                         | 5,953  | 5,557  | 5,048  | 4,151  | ---    | ---    | PDC24K11               |          | 3/4      | 1160    | 27                       | 0.85                   | 4                        | 27°   | 321              |
| 5        | 5,914                                                         | 5,622  | 5,317  | 4,973  | 4,564  | 4,073  | 3,488  | PDC24K17               | 24       | 3/4      | 1750    | 38                       | 0.84                   | 3                        | 11°   | 293              |
| 6        | 6,695                                                         | 6,404  | 6,098  | 5,785  | 5,445  | 5,047  | 4,553  | PDC24L17               |          | 1        | 1750    | 38                       | 1.13                   | 3                        | 14°   | 293              |
| 7        | 7,833                                                         | 7,577  | 7,310  | 7,029  | 6,724  | 6,383  | 5,992  | PDC24M17               |          | 1 1/2    | 1750    | 40                       | 1.70                   | 3                        | 19.5° | 318              |
| 8        | 8,935                                                         | 8,681  | 8,417  | 8,141  | 7,847  | 7,529  | 7,174  | PDC24N17               |          | 2        | 1750    | 46                       | 2.27                   | 3                        | 26.5° | 323              |
| 9        | 10,176                                                        | 9,929  | 9,674  | 9,409  | 9,131  | 8,840  | 8,529  | PDC24P17               |          | 3        | 1750    | 51                       | 3.38                   | 4                        | 30.5° | 349              |
| 10       | 6,714                                                         | 6,085  | 5,289  | 3,998  | ---    | ---    | ---    | PDC30J8                |          | 1/2      | 870     | 18.5                     | 0.57                   | 4                        | 18.5° | 425              |
| 11       | 7,753                                                         | 7,241  | 6,643  | 5,883  | 4,606  | ---    | ---    | PDC30K8                |          | 3/4      | 870     | 19.0                     | 0.85                   | 6                        | 19°   | 446              |
| 12       | 8,677                                                         | 8,199  | 7,644  | 6,953  | 5,979  | ---    | ---    | PDC30L11               |          | 1        | 1160    | 25                       | 1.14                   | 3                        | 19.5° | 436              |
| 13       | 9,759                                                         | 9,332  | 8,853  | 8,298  | 7,615  | 6,681  | 5,173  | PDC30M11               | 30       | 1 1/2    | 1160    | 29                       | 1.70                   | 4                        | 22°   | 463              |
| 14       | 10,857                                                        | 10,494 | 10,097 | 9,656  | 9,161  | 8,594  | 7,906  | PDC30N11               |          | 2        | 1160    | 33                       | 2.24                   | 6                        | 20.5° | 484              |
| 15       | 10,470                                                        | 10,148 | 9,805  | 9,434  | 9,021  | 8,544  | 7,971  | PDC30N17               |          | 2        | 1750    | 46                       | 2.25                   | 3                        | 12°   | 426              |
| 16       | 12,239                                                        | 11,925 | 11,595 | 11,245 | 10,868 | 10,457 | 9,999  | PDC30P17               |          | 3        | 1750    | 47                       | 3.39                   | 3                        | 17°   | 458              |
| 17       | 14,683                                                        | 14,378 | 14,057 | 13,716 | 13,350 | 12,954 | 12,520 | PDC30Q17               |          | 5        | 1750    | 54                       | 5.60                   | 3                        | 25.5° | 474              |
| 18       | 8,530                                                         | 7,779  | 6,797  | 5,207  | ---    | ---    | ---    | PDC36K8                |          | 3/4      | 870     | 26                       | 0.84                   | 3                        | 15°   | 506              |
| 19       | 9,112                                                         | 8,527  | 7,852  | 7,034  | 6,003  | 4,573  | ---    | PDC36L8                |          | 1        | 870     | 29                       | 1.14                   | 6                        | 11°   | 533              |
| 20       | 10,792                                                        | 10,228 | 9,575  | 8,779  | 7,737  | 6,193  | ---    | PDC36M8                |          | 1 1/2    | 870     | 31                       | 1.72                   | 6                        | 17°   | 544              |
| 21       | 12,052                                                        | 11,448 | 10,763 | 9,957  | 8,934  | 7,434  | 5,091  | PDC36N8                |          | 2        | 870     | 34                       | 2.27                   | 6                        | 22.5° | 590              |
| 22       | 10,545                                                        | 9,991  | 9,360  | 8,604  | 7,661  | 6,443  | ---    | PDC36M11               |          | 1 1/2    | 1160    | 39                       | 1.70                   | 3                        | 12.5° | 530              |
| 23       | 11,905                                                        | 11,384 | 10,783 | 10,078 | 9,232  | 8,139  | 6,378  | PDC36N11               | 36       | 2        | 1160    | 40                       | 2.28                   | 3                        | 17.5° | 544              |
| 24       | 13,517                                                        | 13,098 | 12,645 | 12,147 | 11,595 | 10,971 | 10,251 | PDC36P11               |          | 3        | 1160    | 56                       | 3.44                   | 6                        | 14.5° | 586              |
| 25       | 16,320                                                        | 15,869 | 15,386 | 14,864 | 14,296 | 13,669 | 12,961 | PDC36Q11               |          | 5        | 1160    | 65                       | 5.61                   | 6                        | 23.5° | 610              |
| 26       | 15,084                                                        | 14,740 | 14,381 | 14,003 | 13,602 | 13,166 | 12,688 | PDC36Q17               |          | 5        | 1750    | 103                      | 5.56                   | 3                        | 10.5° | 540              |
| 27       | 17,939                                                        | 17,608 | 17,262 | 16,901 | 16,522 | 16,122 | 15,695 | PDC36R17               |          | 7 1/2    | 1750    | 106                      | 8.52                   | 3                        | 16.5° | 582              |
| 28       | 19,838                                                        | 19,514 | 19,178 | 18,831 | 18,472 | 18,100 | 17,709 | PDC36S17               |          | 10       | 1750    | 109                      | 11.40                  | 3                        | 21°   | 602              |
| 29       | 12,001                                                        | 10,986 | 9,735  | 7,705  | ---    | ---    | ---    | PDC42L6                |          | 1        | 680     | 22                       | 1.15                   | 4                        | 15°   | 575              |
| 30       | 13,735                                                        | 12,863 | 11,772 | 10,270 | 7,947  | ---    | ---    | PDC42M6                |          | 1 1/2    | 680     | 25                       | 1.69                   | 6                        | 16°   | 621              |
| 31       | 15,309                                                        | 14,482 | 13,521 | 12,189 | 9,356  | ---    | ---    | PDC42N6                |          | 2        | 680     | 27                       | 2.30                   | 6                        | 21.5° | 641              |
| 32       | 11,600                                                        | 10,571 | 9,379  | 7,784  | ---    | ---    | ---    | PDC42L8                |          | 1        | 870     | 27                       | 1.14                   | 3                        | 8°    | 562              |
| 33       | 13,417                                                        | 12,563 | 11,612 | 10,486 | 8,977  | ---    | ---    | PDC42M8                |          | 1 1/2    | 870     | 31                       | 1.69                   | 4                        | 10°   | 575              |
| 34       | 14,954                                                        | 14,175 | 13,305 | 12,279 | 10,967 | 8,926  | ---    | PDC42N8                | 42       | 2        | 870     | 34                       | 2.25                   | 4                        | 14°   | 615              |
| 35       | 17,385                                                        | 16,723 | 15,983 | 15,132 | 14,124 | 12,878 | 11,242 | PDC42P8                |          | 3        | 870     | 37                       | 3.42                   | 6                        | 15.5° | 641              |
| 36       | 14,376                                                        | 13,648 | 12,858 | 11,967 | 10,884 | 9,411  | 7,436  | PDC42N11               |          | 2        | 1160    | 43                       | 2.29                   | 3                        | 6°    | 569              |
| 37       | 17,141                                                        | 16,435 | 15,655 | 14,778 | 13,788 | 12,660 | 11,301 | PDC42P11               |          | 3        | 1160    | 46                       | 3.42                   | 3                        | 11°   | 612              |
| 38       | 20,725                                                        | 20,043 | 19,318 | 18,539 | 17,685 | 16,729 | 15,608 | PDC42Q11               |          | 5        | 1160    | 51                       | 5.55                   | 3                        | 18.5° | 641              |
| 39       | 22,481                                                        | 21,998 | 21,502 | 20,991 | 20,464 | 19,916 | 19,343 | PDC42R17               |          | 7 1/2    | 1750    | 93                       | 8.57                   | 3                        | 7°    | 610              |
| 40       | 25,496                                                        | 25,036 | 24,557 | 24,056 | 23,529 | 22,976 | 22,394 | PDC42S17               |          | 10       | 1750    | 98                       | 11.35                  | 3                        | 10.5° | 631              |

(chart continues next page)

# Type PDC Performance Ratings (cont'd.)

| Item No. | Cubic Feet Per Minute (CFM) at Static Pressure <sup>1,6</sup> |        |        |        |        |        |        | Fan Model <sup>2</sup> | Fan Size | Motor HP | Fan RPM | Sone Rating <sup>3</sup> | Max BHP <sup>4,6</sup> | Blade Desc. <sup>5</sup> |       | Approx. Ship Wt. |
|----------|---------------------------------------------------------------|--------|--------|--------|--------|--------|--------|------------------------|----------|----------|---------|--------------------------|------------------------|--------------------------|-------|------------------|
|          | 0"                                                            | 1/8"   | 1/4"   | 3/8"   | 1/2"   | 5/8"   | 3/4"   |                        |          |          |         |                          |                        | No.                      | Pitch |                  |
| 41       | 14,345                                                        | 12,819 | 11,240 | 8,720  | ---    | ---    | ---    | PDC48L6                | 48       | 1        | 680     | 29                       | 1.14                   | 4                        | 5.5°  | 713              |
| 42       | 17,028                                                        | 15,638 | 14,003 | 11,855 | ---    | ---    | ---    | PDC48M6                |          | 1 1/2    | 680     | 28                       | 1.70                   | 4                        | 11°   | 755              |
| 43       | 18,644                                                        | 17,544 | 16,308 | 14,775 | 12,573 | ---    | ---    | PDC48N6                |          | 2        | 680     | 34                       | 2.27                   | 6                        | 10.5° | 787              |
| 44       | 18,591                                                        | 17,273 | 15,859 | 14,237 | 11,860 | ---    | ---    | PDC48N8                |          | 2        | 870     | 51                       | 2.30                   | 3                        | 8.5°  | 752              |
| 45       | 21,534                                                        | 20,471 | 19,299 | 18,016 | 16,555 | 14,660 | 11,305 | PDC48P8                |          | 3        | 870     | 43                       | 3.45                   | 4                        | 10.5° | 787              |
| 46       | 25,463                                                        | 24,620 | 23,716 | 22,737 | 21,655 | 20,419 | 18,913 | PDC48Q8                |          | 5        | 870     | 52                       | 5.56                   | 6                        | 13°   | 828              |
| 47       | 29,683                                                        | 28,857 | 27,990 | 27,063 | 26,043 | 24,899 | 23,600 | PDC48R8                |          | 7 1/2    | 870     | 58                       | 8.68                   | 6                        | 21°   | 857              |
| 48       | 25,221                                                        | 24,262 | 23,252 | 22,198 | 21,093 | 19,894 | 18,498 | PDC48Q11               |          | 5        | 1160    | 97                       | 5.67                   | 3                        | 9°    | 775              |
| 49       | 30,106                                                        | 29,205 | 28,262 | 27,273 | 26,221 | 25,077 | 23,787 | PDC48R11               |          | 7 1/2    | 1160    | 99                       | 8.40                   | 3                        | 15°   | 816              |
| 50       | 31,805                                                        | 31,178 | 30,533 | 29,867 | 29,174 | 28,448 | 27,677 | PDC48S11               |          | 10       | 1160    | 91                       | 11.24                  | 6                        | 10.5° | 857              |
| 51       | 19,538                                                        | 17,882 | 15,952 | ---    | ---    | ---    | ---    | PDC54M6                | 54       | 1 1/2    | 680     | 38                       | 1.71                   | 4                        | 5.5°  | 964              |
| 52       | 21,682                                                        | 19,979 | 17,954 | 15,567 | ---    | ---    | ---    | PDC54N6                |          | 2        | 680     | 39                       | 2.22                   | 4                        | 8.5°  | 984              |
| 53       | 25,260                                                        | 23,798 | 22,096 | 20,166 | 17,833 | ---    | ---    | PDC54P8                |          | 3        | 870     | 57                       | 3.44                   | 3                        | 8°    | 979              |
| 54       | 29,801                                                        | 28,586 | 27,281 | 25,806 | 24,053 | 22,013 | 19,561 | PDC54Q8                |          | 5        | 870     | 65                       | 5.61                   | 4                        | 11°   | 1035             |
| 55       | 34,664                                                        | 33,744 | 32,744 | 31,636 | 30,400 | 29,032 | 27,552 | PDC54R8                |          | 7 1/2    | 870     | 73                       | 8.55                   | 6                        | 12.5° | 1064             |
| 56       | 34,222                                                        | 33,202 | 32,083 | 30,847 | 29,490 | 28,023 | 26,448 | PDC54R11               |          | 7 1/2    | 1160    | 96                       | 8.50                   | 3                        | 8.5°  | 1011             |
| 57       | 37,788                                                        | 36,821 | 35,856 | 34,862 | 33,801 | 32,596 | 31,134 | PDC54S11               |          | 10       | 1160    | 101                      | 11.20                  | 3                        | 12.5° | 1054             |
| 58       | 25,304                                                        | 22,096 | 19,082 | ---    | ---    | ---    | ---    | PDC60N6                | 60       | 2        | 680     | 41                       | 2.27                   | 3                        | 6°    | 1430             |
| 59       | 34,247                                                        | 32,278 | 29,844 | 27,035 | 24,465 | 21,049 | ---    | PDC60Q8                |          | 5        | 870     | 65                       | 5.57                   | 3                        | 8°    | 1471             |
| 60       | 39,274                                                        | 38,000 | 36,664 | 35,209 | 33,601 | 31,822 | 29,852 | PDC60R8                |          | 7 1/2    | 870     | 85                       | 8.58                   | 6                        | 6°    | 1515             |

- 1 — Performance certified is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).
- 2 — The first three letters of the model number identify **fan type**, **drive configuration** and **style**. The next two numbers indicate **fan size**, the next letter identifies motor **horsepower**, the last number (or numbers) indicates **RPM** in hundreds. Example: Model PDC24G8 is Type 'P,' direct drive, Style 'C,' 24" size, 1/4 HP, 870 RPM.
- 3 — The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for: Installation Type A: free inlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 4 — Maximum brake horsepower (BHP) within the catalog performance range. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate rating on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 5 — An adjustable pitch propeller with cast aluminum airfoil blades is standard.
- 6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m<sup>3</sup>/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

**Example:** 3904 CFM x .000472 = 1.8427 m<sup>3</sup>/s  
0.125 SP x 248.36 = 31.05 Pa  
0.886 BHP x .7457 = 0.661 kW

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

# Type PEB

**EXHAUST — BELT DRIVE — 3,900 to 90,800 CFM  
0" to  $\frac{3}{4}$ " STATIC PRESSURE**



## Application and Features

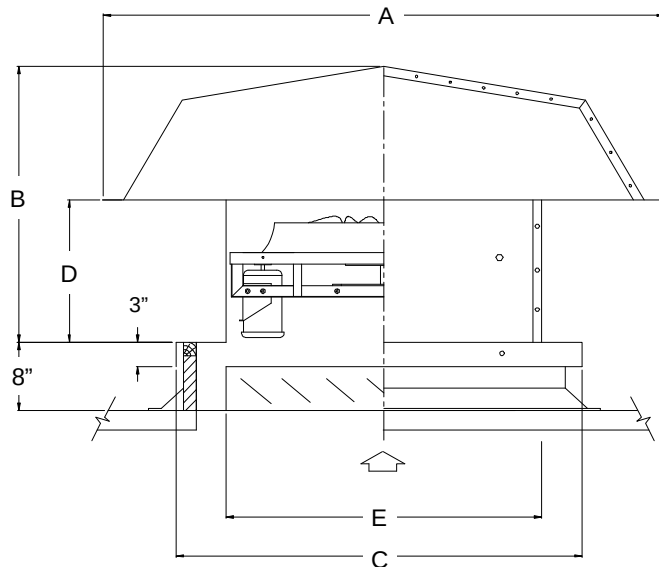
Type PEB exhaust power roof ventilators are designed for maximum efficiency, ease of damper installation and a uniform appearance for both exhaust and supply roof ventilators. They are compatible in appearance and design with the PS, PS-F, RP and P-UD units.

The fan unit is elevated above the roof curb, eliminating the possible damper clearance problem of the Type PB unit.

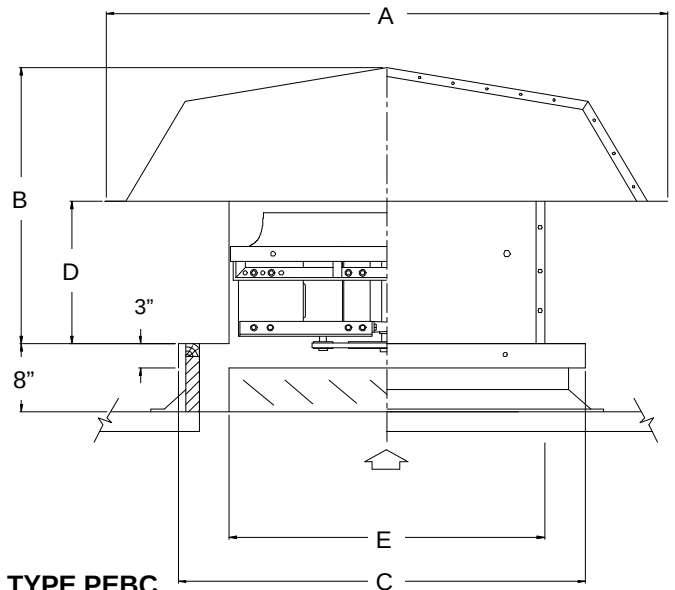
The backdraft damper should be mounted in the standard roof curb.

Type PEB PRVs incorporate Style 'H' fan components for models in the 24 inch to 54 inch size, Style 'HX' fan components for models in the 48 inch to 60 inch size and Style 'C' fan components for models in the 24 inch to 84 inch size. These fan styles are described in the *Fan Component* section on Pages 4-5.

The unit can also be specified less the fan component for use as a gravity ventilator.



**TYPE PEBH and PEBHX**



**TYPE PEBC**

## Dimensions

Dimension A is the O.D. of the square hood.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the distance from the curb to the hood.

Dimension E is the damper net length and width, flanges add 1-11/16 inches on all sides.

| Fan | Dimensions in Inches |        |     |        |        |
|-----|----------------------|--------|-----|--------|--------|
|     | A                    | B      | C   | D      | E      |
| 24  | 67                   | 38 1/4 | 38  | 20 3/4 | 28 3/8 |
| 30  | 78                   | 40     | 44  | 20 3/4 | 34 3/8 |
| 36  | 88                   | 41     | 50  | 20 3/4 | 40 3/8 |
| 42  | 98                   | 46 1/2 | 56  | 20 3/4 | 46 3/8 |
| 48  | 109                  | 55 3/8 | 62  | 23 5/8 | 52 3/8 |
| 54  | 118                  | 58 5/8 | 68  | 23 5/8 | 58 3/8 |
| 60  | 118                  | 58 5/8 | 77  | 23 5/8 | 64 3/8 |
| 72  | 127 7/8              | 54     | 89  | 33 5/8 | 80 3/4 |
| 84  | 139 1/2              | 62 3/4 | 101 | 33 5/8 | 92 3/4 |

# Performance Ratings



American Coolair Corporation certifies that the Type PEB PRVs shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

# Typical Specifications

Hooded exhaust power roof ventilators shall be American Coolair Type PEBH, PEBHX, and/or PEBBC, as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan component shall be of welded steel construction, PRV hood and base shall be of galvanized steel. (Insert additional specifications from below for specific style PRV.) PRVs shall be licensed to bear the AMCA Certified Ratings Seal for air performance and sound. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, bird screen, backdraft damper, prefabricated curb and special protective coating.)

ADDITIONAL SPECIFICATIONS STYLE H and HX: Die-formed steel blades shall be firmly attached to cast aluminum hub, which also serves as driven sheave. Fan hub shall rotate on fixed shaft using oversized sealed ball bearings. Belt load shall be applied to hub in the same plane as bearings, eliminating overhung load on bearings and increasing bearing life. Motor pulleys shall be variable pitch.

ADDITIONAL SPECIFICATIONS STYLE C: Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Ball bearings shall be of the heavy-duty pillow block type. Motor pulleys shall be variable pitch.

| Item No. | Cubic Feet Per Minute (CFM) at Static Pressure <sup>1,6</sup> |        |        |        |        |        |        | Fan Model <sup>2</sup> | Fan Size <sup>3</sup> | Motor HP | Fan RPM | Sone Rating <sup>4</sup> | Max BHP <sup>5,6</sup> | Approx. Ship Wt. |
|----------|---------------------------------------------------------------|--------|--------|--------|--------|--------|--------|------------------------|-----------------------|----------|---------|--------------------------|------------------------|------------------|
|          | 0"                                                            | 1/8"   | 1/4"   | 3/8"   | 1/2"   | 5/8"   | 3/4"   |                        |                       |          |         |                          |                        |                  |
| 1        | 5,023                                                         | 4,380  | 3,748  | 3,028  | ---    | ---    | ---    | PEBH24H                |                       | 1/3      | 740     | 15.2                     | 0.42                   | 330              |
| 2        | 5,688                                                         | 5,124  | 4,550  | 4,001  | 3,311  | ---    | ---    | PEBH24J                |                       | 1/2      | 838     | 19.5                     | 0.61                   | 335              |
| 3        | 6,496                                                         | 6,005  | 5,498  | 5,010  | 4,524  | 3,928  | ---    | PEBH24K                |                       | 3/4      | 957     | 26                       | 0.91                   | 350              |
| 4        | 7,222                                                         | 6,782  | 6,329  | 5,876  | 5,447  | 5,003  | 4,474  | PEBH24L*               |                       | 1        | 1064    | 31                       | 1.25                   | 355              |
| 5        | 7,772                                                         | 7,364  | 6,945  | 6,521  | 6,111  | 5,716  | 5,289  | PEBH24M*               |                       | 1 1/2    | 1145    | 34                       | 1.56                   | 375              |
| 6        | 5,301                                                         | 4,877  | 4,474  | 4,068  | 3,639  | 3,105  | ---    | PEBC24J                | 24                    | 1/2      | 1140    | 18.2                     | 0.61                   | 359              |
| 7        | 6,050                                                         | 5,675  | 5,317  | 4,967  | 4,608  | 4,234  | 3,819  | PEBC24K                |                       | 3/4      | 1301    | 22                       | 0.91                   | 364              |
| 8        | 6,761                                                         | 6,425  | 6,100  | 5,785  | 5,471  | 5,149  | 4,816  | PEBC24L                |                       | 1        | 1454    | 27                       | 1.26                   | 369              |
| 9        | 7,487                                                         | 7,182  | 6,886  | 6,598  | 6,315  | 6,030  | 5,740  | PEBC24M                |                       | 1 1/2    | 1610    | 31                       | 1.68                   | 375              |
| 10       | 8,291                                                         | 8,015  | 7,746  | 7,483  | 7,225  | 6,969  | 6,713  | PEBC24N                |                       | 2        | 1783    | 37                       | 2.23                   | 388              |
| 11       | 9,602                                                         | 9,363  | 9,128  | 8,898  | 8,672  | 8,449  | 8,228  | PEBC24P                |                       | 3        | 2065    | 49                       | 3.34                   | 406              |
| 12       | 6,812                                                         | 5,584  | 4,413  | ---    | ---    | ---    | ---    | PEBH30H                |                       | 1/3      | 540     | 12.2                     | 0.41                   | 420              |
| 13       | 7,783                                                         | 6,681  | 5,548  | 4,679  | ---    | ---    | ---    | PEBH30J                |                       | 1/2      | 617     | 16.7                     | 0.61                   | 425              |
| 14       | 8,893                                                         | 7,891  | 6,999  | 6,036  | 5,228  | ---    | ---    | PEBH30K                |                       | 3/4      | 705     | 21                       | 0.91                   | 445              |
| 15       | 9,877                                                         | 8,947  | 8,180  | 7,236  | 6,522  | 5,664  | ---    | PEBH30L                |                       | 1        | 783     | 24                       | 1.25                   | 450              |
| 16       | 10,911                                                        | 10,048 | 9,343  | 8,597  | 7,729  | 7,141  | 6,442  | PEBH30M                |                       | 1 1/2    | 865     | 30                       | 1.69                   | 480              |
| 17       | 11,971                                                        | 11,168 | 10,504 | 9,872  | 9,106  | 8,364  | 7,843  | PEBH30N                |                       | 2        | 949     | 36                       | 2.23                   | 485              |
| 18       | 13,699                                                        | 12,979 | 12,365 | 11,813 | 11,256 | 10,598 | 9,885  | PEBH30P*               | 30                    | 3        | 1086    | 49                       | 3.33                   | 515              |
| 19       | 8,624                                                         | 7,885  | 7,091  | 6,224  | 5,372  | ---    | ---    | PEBC30K                |                       | 3/4      | 953     | 19.8                     | 0.91                   | 491              |
| 20       | 9,574                                                         | 8,912  | 8,214  | 7,459  | 6,679  | 5,904  | ---    | PEBC30L                |                       | 1        | 1058    | 23                       | 1.25                   | 494              |
| 21       | 10,569                                                        | 9,973  | 9,350  | 8,694  | 7,988  | 7,289  | 6,591  | PEBC30M                |                       | 1 1/2    | 1168    | 27                       | 1.68                   | 501              |
| 22       | 11,610                                                        | 11,069 | 10,509 | 9,926  | 9,310  | 8,661  | 8,027  | PEBC30N                |                       | 2        | 1283    | 31                       | 2.23                   | 507              |
| 23       | 13,311                                                        | 12,841 | 12,359 | 11,863 | 11,351 | 10,817 | 10,256 | PEBC30P                |                       | 3        | 1471    | 40                       | 3.32                   | 531              |
| 24       | 16,017                                                        | 15,628 | 15,232 | 14,828 | 14,417 | 13,998 | 13,568 | PEBC30Q                |                       | 5        | 1770    | 55                       | 5.61                   | 544              |
| 25       | 8,495                                                         | 6,826  | 4,782  | ---    | ---    | ---    | ---    | PEBH36H                |                       | 1/3      | 451     | 9.3                      | 0.42                   | 487              |
| 26       | 9,569                                                         | 8,128  | 6,407  | ---    | ---    | ---    | ---    | PEBH36J                |                       | 1/2      | 508     | 11.6                     | 0.61                   | 493              |
| 27       | 10,963                                                        | 9,717  | 8,262  | 6,811  | ---    | ---    | ---    | PEBH36K                |                       | 3/4      | 582     | 15.1                     | 0.91                   | 498              |
| 28       | 12,149                                                        | 11,028 | 9,825  | 8,408  | ---    | ---    | ---    | PEBH36L                |                       | 1        | 645     | 18.2                     | 1.25                   | 520              |
| 29       | 13,411                                                        | 12,396 | 11,353 | 10,099 | 8,902  | ---    | ---    | PEBH36M                |                       | 1 1/2    | 712     | 21                       | 1.68                   | 550              |
| 30       | 14,749                                                        | 13,826 | 12,894 | 11,867 | 10,660 | 9,626  | ---    | PEBH36N                |                       | 2        | 783     | 25                       | 2.24                   | 555              |
| 31       | 16,858                                                        | 16,052 | 15,242 | 14,410 | 13,484 | 12,418 | 11,470 | PEBH36P                |                       | 3        | 895     | 31                       | 3.34                   | 585              |
| 32       | 20,023                                                        | 19,345 | 18,664 | 17,980 | 17,282 | 16,540 | 15,701 | PEBH36Q*               | 36                    | 5        | 1063    | 43                       | 5.52                   | 602              |
| 33       | 10,658                                                        | 9,703  | 8,778  | 7,874  | 6,706  | ---    | ---    | PEBC36L                |                       | 1        | 897     | 23                       | 1.25                   | 658              |
| 34       | 11,763                                                        | 10,896 | 10,050 | 9,231  | 8,380  | 7,239  | ---    | PEBC36M                |                       | 1 1/2    | 990     | 27                       | 1.68                   | 664              |
| 35       | 12,939                                                        | 12,149 | 11,375 | 10,619 | 9,881  | 9,077  | 8,021  | PEBC36N                |                       | 2        | 1089    | 32                       | 2.23                   | 670              |
| 36       | 14,757                                                        | 14,063 | 13,379 | 12,706 | 12,047 | 11,401 | 10,729 | PEBC36P                |                       | 3        | 1242    | 39                       | 3.31                   | 702              |
| 37       | 17,644                                                        | 17,062 | 16,487 | 15,917 | 15,354 | 14,797 | 14,251 | PEBC36Q                |                       | 5        | 1485    | 52                       | 5.60                   | 714              |
| 38       | 20,460                                                        | 19,958 | 19,459 | 18,965 | 18,474 | 17,987 | 17,505 | PEBC36R                |                       | 7 1/2    | 1722    | 68                       | 8.52                   | 771              |
| 39       | 22,539                                                        | 22,083 | 21,630 | 21,179 | 20,732 | 20,287 | 19,845 | PEBC36S                |                       | 10       | 1897    | 82                       | 11.19                  | 783              |

(chart continues next page)



# Type PEB Performance Ratings (cont'd.)

| Item No. | Cubic Feet Per Minute (CFM) at Static Pressure <sup>1,6</sup> |        |        |        |        |        |        | Fan Model <sup>2</sup> | Fan Size <sup>3</sup> | Motor HP | Fan RPM | Sone Rating <sup>4</sup> | Max BHP <sup>5,6</sup> | Approx. Ship Wt. |
|----------|---------------------------------------------------------------|--------|--------|--------|--------|--------|--------|------------------------|-----------------------|----------|---------|--------------------------|------------------------|------------------|
|          | 0"                                                            | 1/8"   | 1/4"   | 3/8"   | 1/2"   | 5/8"   | 3/4"   |                        |                       |          |         |                          |                        |                  |
| 40       | 12,089                                                        | 9,713  | 7,383  | ---    | ---    | ---    | ---    | PEBH42J                |                       | 1/2      | 385     | 9.7                      | 0.61                   | 641              |
| 41       | 13,785                                                        | 11,759 | 9,665  | 7,500  | ---    | ---    | ---    | PEBH42K                |                       | 3/4      | 439     | 12.6                     | 0.91                   | 646              |
| 42       | 15,230                                                        | 13,453 | 11,465 | 9,638  | ---    | ---    | ---    | PEBH42L                |                       | 1        | 485     | 15.3                     | 1.23                   | 668              |
| 43       | 16,862                                                        | 15,303 | 13,451 | 11,811 | 10,104 | ---    | ---    | PEBH42M                |                       | 1 1/2    | 537     | 18.4                     | 1.67                   | 697              |
| 44       | 18,558                                                        | 17,171 | 15,506 | 13,926 | 12,449 | 10,867 | ---    | PEBH42N                |                       | 2        | 591     | 22                       | 2.23                   | 700              |
| 45       | 21,259                                                        | 20,074 | 18,702 | 17,210 | 15,871 | 14,589 | 13,239 | PEBH42P                |                       | 3        | 677     | 26                       | 3.35                   | 730              |
| 46       | 25,152                                                        | 24,170 | 23,087 | 21,875 | 20,607 | 19,435 | 18,347 | PEBH42Q                | 42                    | 5        | 801     | 34                       | 5.53                   | 747              |
| 47       | 15,611                                                        | 14,161 | 12,756 | 11,350 | 9,783  | ---    | ---    | PEBC42M                |                       | 1 1/2    | 809     | 26                       | 1.68                   | 822              |
| 48       | 17,135                                                        | 15,811 | 14,523 | 13,253 | 11,938 | 10,459 | ---    | PEBC42N                |                       | 2        | 888     | 30                       | 2.23                   | 808              |
| 49       | 19,566                                                        | 18,403 | 17,265 | 16,147 | 15,035 | 13,890 | 12,639 | PEBC42P                |                       | 3        | 1014    | 39                       | 3.32                   | 839              |
| 50       | 23,387                                                        | 22,410 | 21,448 | 20,502 | 19,566 | 18,636 | 17,704 | PEBC42Q                |                       | 5        | 1212    | 50                       | 5.62                   | 853              |
| 51       | 26,976                                                        | 26,127 | 25,289 | 24,460 | 23,641 | 22,829 | 22,022 | PEBC42R                |                       | 7 1/2    | 1398    | 63                       | 8.48                   | 910              |
| 52       | 29,736                                                        | 28,965 | 28,201 | 27,446 | 26,697 | 25,956 | 25,219 | PEBC42S                |                       | 10       | 1541    | 76                       | 11.22                  | 921              |
| 53       | 16,309                                                        | 13,047 | ---    | ---    | ---    | ---    | ---    | PEBH48K                |                       | 3/4      | 352     | 12.2                     | 0.91                   | 840              |
| 54       | 18,116                                                        | 15,210 | 12,153 | ---    | ---    | ---    | ---    | PEBH48L                |                       | 1        | 391     | 15.0                     | 1.25                   | 845              |
| 55       | 19,969                                                        | 17,344 | 14,532 | 11,833 | ---    | ---    | ---    | PEBH48M                |                       | 1 1/2    | 431     | 18.0                     | 1.68                   | 902              |
| 56       | 21,962                                                        | 19,579 | 17,079 | 14,593 | ---    | ---    | ---    | PEBH48N                |                       | 2        | 474     | 21                       | 2.22                   | 905              |
| 57       | 25,158                                                        | 23,081 | 20,968 | 18,702 | 16,590 | ---    | ---    | PEBH48P                |                       | 3        | 543     | 26                       | 3.35                   | 950              |
| 58       | 29,931                                                        | 28,187 | 26,432 | 24,634 | 22,723 | 20,865 | 19,156 | PEBH48Q                |                       | 5        | 646     | 34                       | 5.64                   | 968              |
| 59       | 33,831                                                        | 32,406 | 31,057 | 29,771 | 28,499 | 27,179 | 25,749 | PEBH48R*               | 48                    | 7 1/2    | 736     | 46                       | 8.16                   | 1149             |
| 60       | 37,141                                                        | 35,836 | 34,590 | 33,398 | 32,239 | 31,076 | 29,870 | PEBH48S*               |                       | 10       | 808     | 54                       | 10.79                  | 1160             |
| 61       | 20,842                                                        | 19,062 | 16,718 | 14,525 | 12,363 | ---    | ---    | PEBC48N                |                       | 2        | 724     | 31                       | 2.22                   | 1115             |
| 62       | 23,923                                                        | 22,431 | 20,526 | 18,461 | 16,585 | 14,728 | 12,651 | PEBC48P                |                       | 3        | 831     | 38                       | 3.36                   | 1143             |
| 63       | 28,385                                                        | 27,166 | 25,735 | 24,025 | 22,275 | 20,657 | 19,112 | PEBC48Q                |                       | 5        | 986     | 51                       | 5.61                   | 1160             |
| 64       | 32,588                                                        | 31,545 | 30,377 | 29,031 | 27,511 | 25,974 | 24,533 | PEBC48R                |                       | 7 1/2    | 1132    | 65                       | 8.50                   | 1215             |
| 65       | 35,783                                                        | 34,842 | 33,812 | 32,663 | 31,364 | 29,956 | 28,559 | PEBC48S                |                       | 10       | 1243    | 77                       | 11.23                  | 1265             |
| 66       | 20,793                                                        | 17,202 | ---    | ---    | ---    | ---    | ---    | PEBH54L                |                       | 1        | 371     | 15.0                     | 1.25                   | 1136             |
| 67       | 22,811                                                        | 19,643 | 16,067 | ---    | ---    | ---    | ---    | PEBH54M                |                       | 1 1/2    | 407     | 17.7                     | 1.65                   | 1140             |
| 68       | 25,221                                                        | 22,455 | 19,100 | 16,168 | ---    | ---    | ---    | PEBH54N                |                       | 2        | 450     | 21                       | 2.23                   | 1146             |
| 69       | 28,920                                                        | 26,602 | 23,729 | 20,911 | 18,390 | ---    | ---    | PEBH54P                |                       | 3        | 516     | 26                       | 3.35                   | 1171             |
| 70       | 34,978                                                        | 32,755 | 30,647 | 28,271 | 25,057 | 22,750 | 20,403 | PEBH54Q                |                       | 5        | 544     | 33                       | 5.54                   | 1296             |
| 71       | 40,250                                                        | 38,303 | 36,449 | 34,606 | 32,463 | 29,606 | 27,339 | PEBH54R                | 54                    | 7 1/2    | 626     | 41                       | 8.45                   | 1348             |
| 72       | 43,851                                                        | 42,057 | 40,336 | 38,664 | 36,906 | 34,751 | 32,089 | PEBH54S*               |                       | 10       | 682     | 49                       | 10.91                  | 1357             |
| 73       | 25,940                                                        | 22,636 | 18,955 | ---    | ---    | ---    | ---    | PEBC54N                |                       | 2        | 574     | 28                       | 2.23                   | 1235             |
| 74       | 29,646                                                        | 26,737 | 23,703 | 20,748 | 18,871 | ---    | ---    | PEBC54P                |                       | 3        | 656     | 35                       | 3.33                   | 1260             |
| 75       | 35,159                                                        | 32,683 | 30,285 | 27,542 | 25,006 | 23,377 | ---    | PEBC54Q                |                       | 5        | 778     | 47                       | 5.56                   | 1290             |
| 76       | 40,446                                                        | 38,280 | 36,192 | 34,071 | 31,605 | 29,289 | 27,716 | PEBC54R                |                       | 7 1/2    | 895     | 61                       | 8.46                   | 1350             |
| 77       | 44,423                                                        | 42,445 | 40,527 | 38,637 | 36,628 | 34,294 | 32,223 | PEBC54S                |                       | 10       | 983     | 72                       | 11.21                  | 1380             |

(chart continues next page)

# Type PEB Performance Ratings (cont'd.)

| Item No. | Cubic Feet Per Minute (CFM) at Static Pressure <sup>1,6</sup> |        |        |        |        |        |        | Fan Model <sup>2</sup> | Fan Size <sup>3</sup> | Motor HP | Fan RPM | Sone Rating <sup>4</sup> | Max BHP <sup>5,6</sup> | Approx. Ship Wt. |
|----------|---------------------------------------------------------------|--------|--------|--------|--------|--------|--------|------------------------|-----------------------|----------|---------|--------------------------|------------------------|------------------|
|          | 0"                                                            | 1/8"   | 1/4"   | 3/8"   | 1/2"   | 5/8"   | 3/4"   |                        |                       |          |         |                          |                        |                  |
| 78       | 25,154                                                        | 21,231 | ---    | ---    | ---    | ---    | ---    | PEBHX60M               |                       | 1 1/2    | 320     | 16.4                     | 1.65                   | 1341             |
| 79       | 27,591                                                        | 23,998 | 20,352 | ---    | ---    | ---    | ---    | PEBHX60N               |                       | 2        | 351     | 19.3                     | 2.23                   | 1347             |
| 80       | 31,522                                                        | 28,343 | 25,239 | 22,093 | ---    | ---    | ---    | PEBHX60P               |                       | 3        | 401     | 25                       | 3.34                   | 1372             |
| 81       | 37,339                                                        | 34,620 | 32,042 | 29,358 | 26,680 | 24,201 | ---    | PEBHX60Q               |                       | 5        | 475     | 33                       | 5.57                   | 1384             |
| 82       | 42,920                                                        | 40,536 | 38,266 | 36,024 | 33,659 | 31,295 | 29,165 | PEBHX60R               |                       | 7 1/2    | 546     | 42                       | 8.46                   | 1436             |
| 83       | 47,243                                                        | 45,067 | 42,982 | 40,952 | 38,888 | 36,711 | 34,567 | PEBHX60S               | 60                    | 10       | 601     | 50                       | 11.20                  | 1449             |
| 84       | 27,387                                                        | 23,306 | 19,172 | ---    | ---    | ---    | ---    | PEBC60N                |                       | 2        | 545     | 28                       | 2.24                   | 1360             |
| 85       | 31,257                                                        | 27,500 | 24,199 | 20,906 | ---    | ---    | ---    | PEBC60P                |                       | 3        | 622     | 35                       | 3.33                   | 1385             |
| 86       | 36,985                                                        | 33,602 | 31,025 | 27,894 | 25,125 | 23,278 | ---    | PEBC60Q                |                       | 5        | 736     | 46                       | 5.52                   | 1415             |
| 87       | 42,614                                                        | 39,539 | 37,181 | 34,953 | 32,083 | 29,511 | 27,827 | PEBC60R                |                       | 7 1/2    | 848     | 59                       | 8.44                   | 1475             |
| 88       | 46,835                                                        | 43,961 | 41,705 | 39,704 | 37,561 | 34,780 | 32,502 | PEBC60S                |                       | 10       | 932     | 70                       | 11.21                  | 1510             |
| 89       | 34,440                                                        | 27,475 | 20,343 | ---    | ---    | ---    | ---    | PEBC72N                |                       | 2        | 304     | 19.9                     | 2.30                   | 1732             |
| 90       | 39,425                                                        | 33,429 | 27,009 | 21,416 | ---    | ---    | ---    | PEBC72P                |                       | 3        | 348     | 26                       | 3.45                   | 1754             |
| 91       | 46,675                                                        | 41,602 | 36,317 | 30,984 | 26,140 | ---    | ---    | PEBC72Q                |                       | 5        | 412     | 34                       | 5.71                   | 1769             |
| 92       | 53,473                                                        | 49,016 | 44,611 | 39,764 | 35,219 | 30,868 | 27,562 | PEBC72R                | 72                    | 7.5      | 472     | 40                       | 8.60                   | 1826             |
| 93       | 58,797                                                        | 54,726 | 50,764 | 46,527 | 42,116 | 38,064 | 34,104 | PEBC72S                |                       | 10       | 519     | 46                       | 11.43                  | 1857             |
| 94       | 67,407                                                        | 63,838 | 60,375 | 56,881 | 53,117 | 49,240 | 45,643 | PEBC72T*               |                       | 15       | 595     | 60                       | 17.24                  | 1928             |
| 95       | 74,205                                                        | 70,953 | 67,787 | 64,655 | 61,410 | 57,932 | 54,408 | PEBC72U*               |                       | 20       | 655     | 75                       | 22.99                  | 1962             |
| 96       | 42,090                                                        | 31,405 | 21,826 | ---    | ---    | ---    | ---    | PEBC84N                |                       | 2        | 235     | 16.3                     | 2.27                   | 2254             |
| 97       | 48,179                                                        | 39,056 | 29,558 | ---    | ---    | ---    | ---    | PEBC84P                |                       | 3        | 269     | 21                       | 3.42                   | 2277             |
| 98       | 57,314                                                        | 49,724 | 41,564 | 33,907 | ---    | ---    | ---    | PEBC84Q                |                       | 5        | 320     | 29                       | 5.57                   | 2302             |
| 99       | 65,553                                                        | 58,890 | 52,054 | 44,923 | 38,315 | 33,314 | ---    | PEBC84R                | 84                    | 7.5      | 366     | 39                       | 8.59                   | 2352             |
| 100      | 72,180                                                        | 66,100 | 60,084 | 53,465 | 47,283 | 41,387 | 36,939 | PEBC84S                |                       | 10       | 403     | 45                       | 11.49                  | 2390             |
| 101      | 82,568                                                        | 77,221 | 72,029 | 66,569 | 60,733 | 55,321 | 49,993 | PEBC84T*               |                       | 15       | 461     | 54                       | 17.19                  | 2463             |
| 102      | 90,807                                                        | 85,928 | 81,196 | 76,412 | 71,244 | 65,957 | 61,068 | PEBC84U*               |                       | 20       | 507     | 61                       | 22.88                  | 2497             |

- 1 — Performance certified is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).
- 2 — The first four or five letters of the model number identify **fan type**, **drive configuration** and **style**. The next two numbers indicate **fan size**, the next letter identifies motor **horsepower**. Example: Model PEBH24H is Type 'PE,' belt drive, Style 'H,' 24" size, 1/3 HP.
- 3 — On Style 'H' and 'HX,' die-formed steel blades are standard. On Style 'C,' an adjustable pitch propeller with cast aluminum airfoil blades is standard.
- 4 — The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for: Installation Type A: free inlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 5 — Maximum brake horsepower (BHP) within the catalog performance range. Power ratings (BHP) do not include transmission losses. Bearing losses are included. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate rating on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m<sup>3</sup>/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

**Example:** 3904 CFM x .000472 = 1.8427 m<sup>3</sup>/s  
0.125 SP x 248.36 = 31.05 Pa  
0.886 BHP x .7457 = 0.661 kW

\*These models have fixed pitch motor pulleys.

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

# Type PEDC

**EXHAUST — DIRECT DRIVE — 2,900 to 40,400 CFM  
0" to  $\frac{3}{4}$ " STATIC PRESSURE**



## Application and Features

Type PEDC exhaust power roof ventilators are designed for maximum efficiency, ease of damper installation and a uniform appearance for both exhaust and supply roof ventilators.

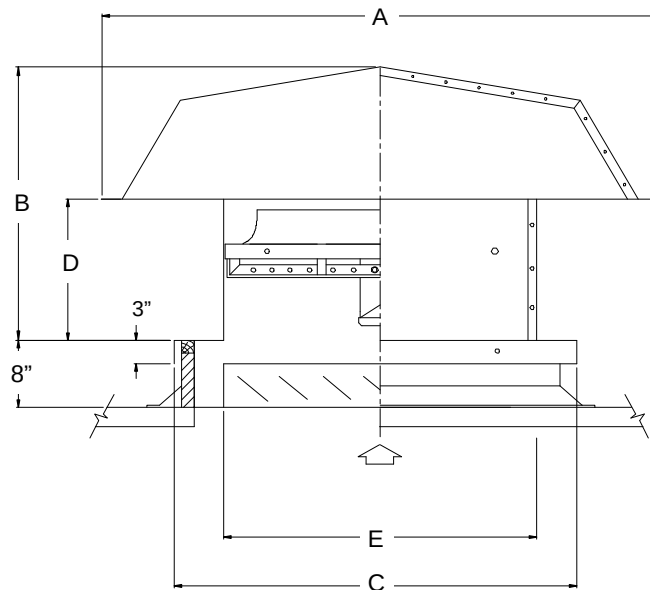
They are compatible in appearance and design with the PS, PSF, RP and PUD units.

The fan unit is elevated above the roof curb, eliminating the possible damper clearance problem of the Type PDC unit.

The backdraft damper should be mounted in the standard roof curb.

Type PEDC PRVs incorporate Style 'C' fan components. This fan style is described in the *Fan Component* section on Pages 4-5.

The unit can be specified less the fan component for use as a gravity ventilator.



**TYPE PEDC**

## Dimensions

Dimension A is the O.D. of the square hood.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the distance from the curb to the hood.

Dimension E is the damper net length and width, flanges add 1-11/16 inches on all sides.

| Fan Size | Dimensions in Inches |        |    |        |        |
|----------|----------------------|--------|----|--------|--------|
|          | A                    | B      | C  | D      | E      |
| 24       | 67                   | 38 1/4 | 38 | 20 3/4 | 28 3/8 |
| 30       | 78                   | 40     | 44 | 20 3/4 | 34 3/8 |
| 36       | 88                   | 41     | 50 | 20 3/4 | 40 3/8 |
| 42       | 98                   | 46 1/2 | 56 | 20 3/4 | 46 3/8 |
| 48       | 109                  | 55 3/8 | 62 | 23 5/8 | 52 3/8 |
| 54       | 118                  | 58 5/8 | 68 | 23 5/8 | 58 3/8 |
| 60       | 118                  | 58 5/8 | 77 | 23 5/8 | 64 3/8 |

# Performance Ratings

# Typical Specifications



American Coolair Corporation certifies that the Type PEDC PRVs shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Hooded exhaust power roof ventilators shall be American Coolair Type PEDC, as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan component shall be of welded steel construction, PRV hood and base shall be of galvanized steel. Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Entire blade assembly shall be mounted directly to the motor shaft. PRVs shall be licensed to bear the AMCA Certified Ratings Seal for air performance and sound. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, bird screen, backdraft damper, prefabricated curb and special protective coating.)

| Item No. | Cubic Feet Per Minute (CFM) at Static Pressure <sup>1,6</sup> |        |        |        |        |        |        | Fan Model <sup>2</sup> | Fan Size | Motor HP | Fan RPM | Sone Rating <sup>3</sup> | Max BHP <sup>4,6</sup> | Blade Desc. <sup>5</sup> |       | Approx. Ship Wt. |
|----------|---------------------------------------------------------------|--------|--------|--------|--------|--------|--------|------------------------|----------|----------|---------|--------------------------|------------------------|--------------------------|-------|------------------|
|          | 0"                                                            | 1/8"   | 1/4"   | 3/8"   | 1/2"   | 5/8"   | 3/4"   |                        |          |          |         |                          |                        | No.                      | Pitch |                  |
| 1        | 4,531                                                         | 4,078  | 3,369  | ---    | ---    | ---    | ---    | PEDC24G8               |          | 1/4      | 870     | 12.4                     | 0.29                   | 3                        | 27.5° | 375              |
| 2        | 5,493                                                         | 5,146  | 4,698  | 3,839  | ---    | ---    | ---    | PEDC24J8               |          | 1/2      | 870     | 15.3                     | 0.57                   | 6                        | 30.5° | 385              |
| 3        | 4,703                                                         | 4,360  | 3,922  | 3,278  | ---    | ---    | ---    | PEDC24H11              |          | 1/3      | 1160    | 17.3                     | 0.38                   | 3                        | 16°   | 370              |
| 4        | 5,606                                                         | 5,283  | 4,902  | 4,404  | 3,399  | ---    | ---    | PEDC24J11              |          | 1/2      | 1160    | 18.4                     | 0.58                   | 3                        | 23°   | 380              |
| 5        | 5,973                                                         | 5,716  | 5,423  | 5,070  | 4,588  | 3,795  | 3,065  | PEDC24K11              | 24       | 3/4      | 1160    | 21                       | 0.87                   | 6                        | 22.5° | 385              |
| 6        | 6,769                                                         | 6,516  | 6,235  | 5,906  | 5,481  | 4,779  | 3,723  | PEDC24L11              |          | 1        | 1160    | 23                       | 1.13                   | 6                        | 27°   | 396              |
| 7        | 6,647                                                         | 6,407  | 6,152  | 5,882  | 5,588  | 5,242  | 4,772  | PEDC24L17              |          | 1        | 1750    | 32                       | 1.13                   | 3                        | 14°   | 385              |
| 8        | 7,834                                                         | 7,623  | 7,401  | 7,164  | 6,907  | 6,617  | 6,279  | PEDC24M17              |          | 1 1/2    | 1750    | 34                       | 1.70                   | 3                        | 19.5° | 390              |
| 9        | 8,993                                                         | 8,787  | 8,570  | 8,340  | 8,095  | 7,827  | 7,527  | PEDC24N17              |          | 2        | 1750    | 40                       | 2.26                   | 3                        | 26.5° | 396              |
| 10       | 9,776                                                         | 9,617  | 9,452  | 9,279  | 9,095  | 8,899  | 8,686  | PEDC24P17              |          | 3        | 1750    | 43                       | 3.48                   | 6                        | 25°   | 426              |
| 11       | 7,209                                                         | 6,528  | 5,566  | ---    | ---    | ---    | ---    | PEDC30J8               |          | 1/2      | 870     | 15.7                     | 0.58                   | 3                        | 22.5° | 500              |
| 12       | 9,041                                                         | 8,556  | 7,998  | 7,305  | 6,313  | ---    | ---    | PEDC30L11              |          | 1        | 1160    | 24                       | 1.14                   | 3                        | 19.5° | 515              |
| 13       | 9,757                                                         | 9,385  | 8,993  | 8,563  | 8,061  | 7,451  | 6,685  | PEDC30M11              | 30       | 1 1/2    | 1160    | 28                       | 1.72                   | 6                        | 16.5° | 545              |
| 14       | 11,296                                                        | 10,938 | 10,544 | 10,104 | 9,604  | 9,026  | 8,328  | PEDC30N11              |          | 2        | 1160    | 29                       | 2.24                   | 6                        | 20.5° | 560              |
| 15       | 10,848                                                        | 10,515 | 10,165 | 9,790  | 9,377  | 8,906  | 8,336  | PEDC30N17              |          | 2        | 1750    | 45                       | 2.25                   | 3                        | 12°   | 510              |
| 16       | 12,739                                                        | 12,415 | 12,076 | 11,719 | 11,336 | 10,920 | 10,459 | PEDC30P17              |          | 3        | 1750    | 47                       | 3.39                   | 3                        | 17°   | 535              |
| 17       | 15,360                                                        | 15,053 | 14,730 | 14,388 | 14,024 | 13,629 | 13,197 | PEDC30Q17              |          | 5        | 1750    | 57                       | 5.68                   | 3                        | 25.5° | 550              |
| 18       | 12,252                                                        | 11,357 | 10,249 | 7,992  | ---    | ---    | ---    | PEDC36L6               |          | 1        | 680     | 24                       | 1.13                   | 6                        | 23.5° | 625              |
| 19       | 13,913                                                        | 12,896 | 11,647 | 9,847  | ---    | ---    | ---    | PEDC36M6               |          | 1 1/2    | 680     | 23                       | 1.67                   | 6                        | 30°   | 670              |
| 20       | 11,557                                                        | 10,772 | 9,877  | 8,725  | 6,217  | ---    | ---    | PEDC36L8               |          | 1        | 870     | 27                       | 1.14                   | 4                        | 15.5° | 615              |
| 21       | 13,282                                                        | 12,669 | 11,968 | 11,147 | 10,076 | 7,870  | ---    | PEDC36M8               |          | 1 1/2    | 870     | 30                       | 1.72                   | 6                        | 17°   | 620              |
| 22       | 15,312                                                        | 14,638 | 13,910 | 13,078 | 11,959 | 9,878  | ---    | PEDC36N8               |          | 2        | 870     | 34                       | 2.26                   | 6                        | 22.5° | 670              |
| 23       | 17,621                                                        | 16,858 | 16,006 | 15,044 | 13,914 | 12,120 | ---    | PEDC36P8               |          | 3        | 870     | 34                       | 3.41                   | 6                        | 29.5° | 690              |
| 24       | 13,001                                                        | 12,315 | 11,557 | 10,671 | 9,556  | 7,621  | ---    | PEDC36M11              | 36       | 1 1/2    | 1160    | 36                       | 1.70                   | 3                        | 12.5° | 615              |
| 25       | 14,858                                                        | 14,097 | 13,269 | 12,456 | 11,543 | 10,084 | 7,574  | PEDC36N11              |          | 2        | 1160    | 38                       | 2.23                   | 3                        | 17°   | 620              |
| 26       | 16,493                                                        | 16,032 | 15,535 | 15,024 | 14,466 | 13,835 | 13,089 | PEDC36P11              |          | 3        | 1160    | 55                       | 3.41                   | 6                        | 14.5° | 670              |
| 27       | 20,900                                                        | 20,403 | 19,878 | 19,322 | 18,727 | 18,079 | 17,341 | PEDC36Q11              |          | 5        | 1160    | 66                       | 5.66                   | 6                        | 23.5° | 690              |
| 28       | 18,310                                                        | 17,875 | 17,428 | 16,966 | 16,485 | 15,980 | 15,446 | PEDC36Q17              |          | 5        | 1750    | 82                       | 5.56                   | 3                        | 10.5° | 620              |
| 29       | 22,312                                                        | 21,884 | 21,445 | 20,995 | 20,532 | 20,052 | 19,550 | PEDC36R17              |          | 7 1/2    | 1750    | 90                       | 8.52                   | 3                        | 16.5° | 670              |
| 30       | 25,093                                                        | 24,641 | 24,178 | 23,702 | 23,213 | 22,707 | 22,184 | PEDC36S17              |          | 10       | 1750    | 90                       | 11.19                  | 3                        | 20.5° | 690              |
| 31       | 14,237                                                        | 12,782 | 11,087 | 8,502  | ---    | ---    | ---    | PEDC42L6               |          | 1        | 680     | 20                       | 1.15                   | 4                        | 15°   | 740              |
| 32       | 16,117                                                        | 15,037 | 13,794 | 12,074 | 8,485  | ---    | ---    | PEDC42M6               |          | 1 1/2    | 680     | 28                       | 1.69                   | 6                        | 16°   | 790              |
| 33       | 18,125                                                        | 17,033 | 15,808 | 14,336 | 11,524 | ---    | ---    | PEDC42N6               |          | 2        | 680     | 29                       | 2.29                   | 6                        | 21.5° | 810              |
| 34       | 15,752                                                        | 14,658 | 13,366 | 11,831 | 9,858  | ---    | ---    | PEDC42M8               |          | 1 1/2    | 870     | 30                       | 1.69                   | 4                        | 10°   | 740              |
| 35       | 17,693                                                        | 16,577 | 15,373 | 14,037 | 12,379 | 9,562  | ---    | PEDC42N8               |          | 2        | 870     | 31                       | 2.25                   | 4                        | 14°   | 790              |
| 36       | 20,383                                                        | 19,559 | 18,681 | 17,699 | 16,541 | 15,021 | 12,697 | PEDC42P8               | 42       | 3        | 870     | 44                       | 3.42                   | 6                        | 15.5° | 810              |
| 37       | 16,859                                                        | 15,795 | 14,667 | 13,477 | 12,124 | 10,247 | ---    | PEDC42N11              |          | 2        | 1160    | 46                       | 2.29                   | 3                        | 6°    | 740              |
| 38       | 20,237                                                        | 19,279 | 18,265 | 17,142 | 15,827 | 14,191 | 12,219 | PEDC42P11              |          | 3        | 1160    | 52                       | 3.43                   | 3                        | 11°   | 790              |
| 39       | 24,287                                                        | 23,472 | 22,620 | 21,722 | 20,776 | 19,780 | 18,714 | PEDC42Q11              |          | 5        | 1160    | 50                       | 5.70                   | 4                        | 15°   | 810              |
| 40       | 26,495                                                        | 25,819 | 25,116 | 24,383 | 23,620 | 22,828 | 22,012 | PEDC42R17              |          | 7 1/2    | 1750    | 104                      | 8.57                   | 3                        | 7°    | 790              |
| 41       | 30,061                                                        | 29,442 | 28,811 | 28,164 | 27,491 | 26,788 | 26,048 | PEDC42S17              |          | 10       | 1750    | 127                      | 11.35                  | 3                        | 10.5° | 810              |

(chart continues next page)

# Type PEDC Performance Ratings (cont'd.)

| Item No. | Cubic Feet Per Minute (CFM) at Static Pressure <sup>1,6</sup> |        |        |        |        |        |        | Fan Model <sup>2</sup> | Fan Size | Motor HP | Fan RPM | Sone Rating <sup>3</sup> | Max BHP <sup>4,6</sup> | Blade No. | Desc. <sup>5</sup> Pitch | Approx. Ship Wt. |
|----------|---------------------------------------------------------------|--------|--------|--------|--------|--------|--------|------------------------|----------|----------|---------|--------------------------|------------------------|-----------|--------------------------|------------------|
|          | 0"                                                            | 1/8"   | 1/4"   | 3/8"   | 1/2"   | 5/8"   | 3/4"   |                        |          |          |         |                          |                        |           |                          |                  |
| 42       | 15,381                                                        | 13,432 | 11,383 | 8,395  | ---    | ---    | ---    | PEDC48L6               |          | 1        | 680     | 30                       | 1.14                   | 4         | 5.5°                     | 970              |
| 43       | 18,276                                                        | 16,467 | 14,333 | 11,678 | ---    | ---    | ---    | PEDC48M6               |          | 1 1/2    | 680     | 28                       | 1.70                   | 4         | 11°                      | 1010             |
| 44       | 20,002                                                        | 18,556 | 16,989 | 15,103 | 12,350 | ---    | ---    | PEDC48N6               |          | 2        | 680     | 33                       | 2.26                   | 6         | 10.5°                    | 1035             |
| 45       | 19,701                                                        | 17,881 | 15,983 | 13,942 | 11,148 | ---    | ---    | PEDC48N8               |          | 2        | 870     | 46                       | 2.22                   | 3         | 8°                       | 1010             |
| 46       | 23,123                                                        | 21,741 | 20,204 | 18,520 | 16,687 | 14,367 | ---    | PEDC48P8               | 48       | 3        | 870     | 42                       | 3.45                   | 4         | 10.5°                    | 1030             |
| 47       | 27,681                                                        | 26,588 | 25,434 | 24,193 | 22,827 | 21,272 | 19,384 | PEDC48Q8               |          | 5        | 870     | 55                       | 5.73                   | 6         | 13.5°                    | 1075             |
| 48       | 31,747                                                        | 30,531 | 29,344 | 28,133 | 26,833 | 25,366 | 23,681 | PEDC48R8               |          | 7 1/2    | 870     | 61                       | 8.67                   | 6         | 21°                      | 1150             |
| 49       | 26,239                                                        | 25,175 | 24,042 | 22,797 | 21,509 | 20,322 | 19,218 | PEDC48Q11              |          | 5        | 1160    | 79                       | 5.65                   | 4         | 5.5°                     | 1030             |
| 50       | 31,176                                                        | 30,164 | 29,109 | 27,986 | 26,790 | 25,527 | 24,210 | PEDC48R11              |          | 7 1/2    | 1160    | 74                       | 8.44                   | 4         | 11°                      | 1065             |
| 51       | 34,120                                                        | 33,294 | 32,445 | 31,576 | 30,683 | 29,764 | 28,805 | PEDC48S11              |          | 10       | 1160    | 91                       | 11.24                  | 6         | 10.5°                    | 1105             |
| 52       | 21,557                                                        | 19,055 | 16,630 | ---    | ---    | ---    | ---    | PEDC54M6               |          | 1 1/2    | 680     | 35                       | 1.70                   | 4         | 5.5°                     | 1150             |
| 53       | 23,797                                                        | 21,586 | 18,881 | ---    | ---    | ---    | ---    | PEDC54N6               |          | 2        | 680     | 36                       | 2.22                   | 4         | 8.5°                     | 1170             |
| 54       | 27,243                                                        | 25,329 | 23,057 | 20,470 | 17,541 | ---    | ---    | PEDC54P8               |          | 3        | 870     | 60                       | 3.31                   | 3         | 7.5°                     | 1165             |
| 55       | 31,188                                                        | 29,869 | 28,602 | 27,300 | 25,785 | 23,883 | 21,799 | PEDC54Q8               | 54       | 5        | 870     | 74                       | 5.56                   | 6         | 6.5°                     | 1215             |
| 56       | 37,725                                                        | 36,463 | 35,211 | 33,902 | 32,434 | 30,705 | 28,719 | PEDC54R8               |          | 7 1/2    | 870     | 68                       | 8.51                   | 6         | 12.5°                    | 1245             |
| 57       | 36,774                                                        | 35,314 | 33,812 | 32,380 | 31,010 | 29,612 | 28,075 | PEDC54R11              |          | 7 1/2    | 1160    | 91                       | 8.46                   | 4         | 5.5°                     | 1205             |
| 58       | 40,595                                                        | 39,323 | 38,047 | 36,698 | 35,231 | 33,612 | 31,897 | PEDC54S11              |          | 10       | 1160    | 93                       | 11.03                  | 4         | 8.5°                     | 1235             |
| 59       | 26,064                                                        | 23,253 | 19,792 | ---    | ---    | ---    | ---    | PEDC60N6               |          | 2        | 680     | 41                       | 2.28                   | 3         | 6°                       | 1350             |
| 60       | 35,398                                                        | 33,491 | 31,311 | 28,437 | 25,579 | 22,348 | ---    | PEDC60Q8               | 60       | 5        | 870     | 64                       | 5.63                   | 3         | 8°                       | 1390             |
| 61       | 40,215                                                        | 38,948 | 37,646 | 36,259 | 34,722 | 33,001 | 31,076 | PEDC60R8               |          | 7 1/2    | 870     | 78                       | 8.58                   | 6         | 6°                       | 1440             |

- 1 — Performance certified is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).
- 2 — The first four letters of the model number identify **fan type, drive configuration** and **style**. The next two numbers indicate **fan size**, the next letter identifies motor **horsepower**; the last number (or numbers) indicates **RPM** in hundreds. Example: Model PEDC24G8 is Type 'PE,' direct drive, Style 'C,' 24" size, 1/4 HP, 870 RPM.
- 3 — The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for: Installation Type A: free inlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 4 — Maximum brake horsepower (BHP) within the catalog performance range. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate rating on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 5 — An adjustable pitch propeller with cast aluminum airfoil blades is standard.
- 6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m<sup>3</sup>/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

**Example:** 3904 CFM x .000472 = 1.8427 m<sup>3</sup>/s  
0.125 SP x 248.36 = 31.05 Pa  
0.886 BHP x .7457 = 0.661 kW

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

# Type PSB

SUPPLY — BELT DRIVE — 3,300 to 106,500 CFM  
0" to 3/4" STATIC PRESSURE



## Application and Features

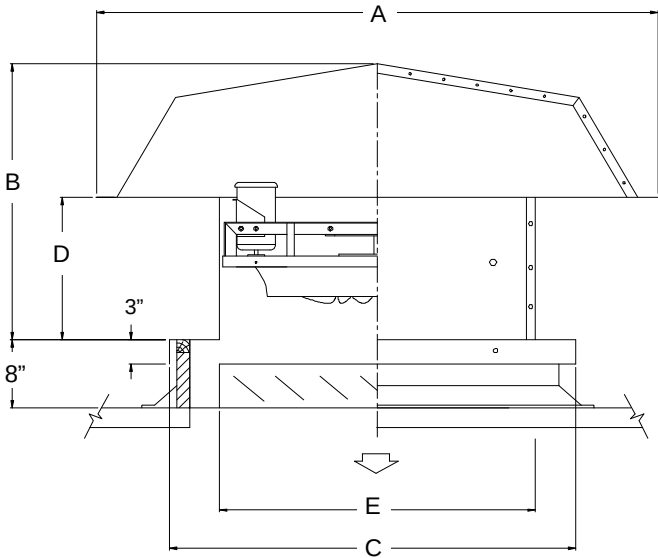
American Coolair's Type PSB unit is identical to the Type PEB unit, but with the fan component inverted to produce air supply rather than exhaust.

A PSB unit can be converted to PEB, and vice versa, after the unit has been installed. Simply remove the fan component, turn it over and re-install it in the PRV base.

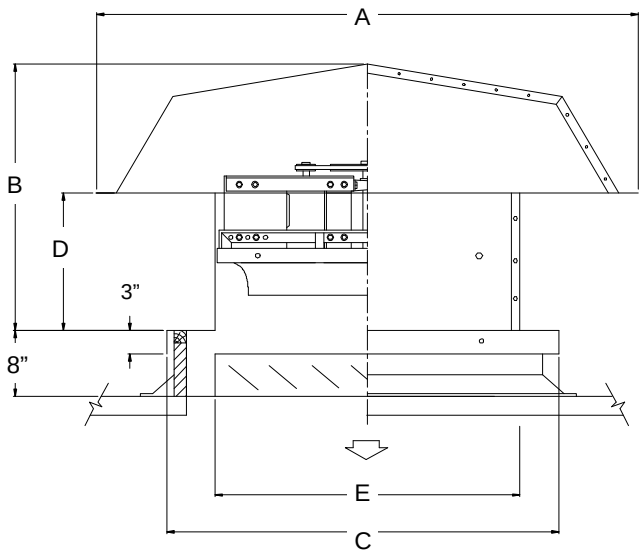
The combination of PEs and PSs allows a complete ventilation system with a uniform appearance on the building roof.

Type PSB PRVs incorporate Style 'H' fan components for models in the 24 inch to 54 inch size, Style 'HX' fan components for models in the 48 inch to 60 inch size and Style 'C' fan components for models in the 24 inch to 84 inch size. These fan styles are described in the *Fan Component* section on Pages 4-5.

The unit can also be specified less the fan component for use as a gravity ventilator.



TYPE PSBH and PSBHX



TYPE PSBC

## Dimensions

Dimension A is the O.D. of the square hood.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the distance from the curb to the hood.

Dimension E is the damper net length and width, flanges add 1-11/16 inches on all sides.

| Fan | Dimensions in Inches |        |     |        |        |
|-----|----------------------|--------|-----|--------|--------|
|     | A                    | B      | C   | D      | E      |
| 24  | 57                   | 33 3/4 | 38  | 20 3/4 | 28 3/8 |
| 30  | 67                   | 38 1/2 | 44  | 20 3/4 | 34 3/8 |
| 36  | 78                   | 41 3/4 | 50  | 20 3/4 | 40 3/8 |
| 42  | 88                   | 43 7/8 | 56  | 20 3/4 | 46 3/8 |
| 48  | 98                   | 51     | 62  | 23 5/8 | 52 3/8 |
| 54  | 109                  | 55 5/8 | 68  | 23 5/8 | 58 3/8 |
| 60  | 109                  | 55 5/8 | 77  | 23 5/8 | 64 3/8 |
| 72  | 127 7/8              | 54     | 89  | 33 5/8 | 80 3/4 |
| 84  | 139 1/2              | 62 3/4 | 101 | 33 5/8 | 92 3/4 |



# Performance Ratings



American Coolair Corporation certifies that the Type PSB PRVs shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

# Typical Specifications

Hooded supply power roof ventilators shall be American Coolair Type PSBH, PSBH, and/or PSBC, as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan component shall be of welded steel construction, PRV hood and base shall be of galvanized steel. (Insert additional specifications from below for specific style PRV.) PRVs shall be licensed to bear the AMCA Certified Ratings Seal for air performance and sound. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, bird screen, backdraft damper, prefabricated curb and special protective coating.)

**ADDITIONAL SPECIFICATIONS STYLE H and HX:** Die-formed steel blades shall be firmly attached to cast aluminum hub, which also serves as driven sheave. Fan hub shall rotate on fixed shaft using oversized sealed ball bearings. Belt load shall be applied to hub in the same plane as bearings, eliminating overhung load on bearings and increasing bearing life. Motor pulleys shall be variable pitch.

**ADDITIONAL SPECIFICATIONS STYLE C:** Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Ball bearings shall be of the heavy-duty pillow block type. Motor pulleys shall be variable pitch.

| Item No. | Cubic Feet Per Minute (CFM) at Static Pressure <sup>1,6</sup> |        |        |        |        |        |        | Fan Model <sup>2</sup> | Fan Size <sup>3</sup> | Motor HP | Fan RPM | Sone Rating <sup>4</sup> | Max BHP <sup>5,6</sup> | Approx. Ship Wt. |
|----------|---------------------------------------------------------------|--------|--------|--------|--------|--------|--------|------------------------|-----------------------|----------|---------|--------------------------|------------------------|------------------|
|          | 0"                                                            | 1/8"   | 1/4"   | 3/8"   | 1/2"   | 5/8"   | 3/4"   |                        |                       |          |         |                          |                        |                  |
| 1        | 5,225                                                         | 4,344  | 3,316  | ---    | ---    | ---    | ---    | PSBH24H                |                       | 1/3      | 723     | 15.9                     | 0.41                   | 330              |
| 2        | 5,919                                                         | 5,218  | 4,266  | 3,390  | ---    | ---    | ---    | PSBH24J                |                       | 1/2      | 819     | 19.6                     | 0.61                   | 335              |
| 3        | 6,757                                                         | 6,198  | 5,334  | 4,563  | 3,805  | ---    | ---    | PSBH24K                |                       | 3/4      | 935     | 25                       | 0.91                   | 350              |
| 4        | 7,487                                                         | 7,007  | 6,270  | 5,533  | 4,828  | 4,157  | ---    | PSBH24L*               |                       | 1        | 1036    | 29                       | 1.24                   | 355              |
| 5        | 8,297                                                         | 7,879  | 7,289  | 6,559  | 5,936  | 5,293  | 4,689  | PSBH24M*               |                       | 1 1/2    | 1148    | 35                       | 1.68                   | 375              |
| 6        | 6,088                                                         | 5,279  | 3,985  | ---    | ---    | ---    | ---    | PSBC24H                | 24                    | 1/3      | 987     | 17.6                     | 0.41                   | 355              |
| 7        | 6,970                                                         | 6,264  | 5,409  | 4,132  | ---    | ---    | ---    | PSBC24J                |                       | 1/2      | 1130    | 22                       | 0.62                   | 359              |
| 8        | 7,969                                                         | 7,350  | 6,720  | 5,691  | 4,646  | ---    | ---    | PSBC24K                |                       | 3/4      | 1292    | 28                       | 0.93                   | 364              |
| 9        | 8,790                                                         | 8,227  | 7,670  | 6,997  | 5,912  | 5,002  | ---    | PSBC24L                |                       | 1        | 1425    | 32                       | 1.24                   | 369              |
| 10       | 9,715                                                         | 9,205  | 8,702  | 8,176  | 7,428  | 6,437  | 5,617  | PSBC24M                |                       | 1 1/2    | 1575    | 39                       | 1.67                   | 375              |
| 11       | 10,689                                                        | 10,225 | 9,767  | 9,308  | 8,793  | 8,023  | 7,124  | PSBC24N                |                       | 2        | 1733    | 46                       | 2.23                   | 388              |
| 12       | 12,293                                                        | 11,889 | 11,489 | 11,092 | 10,691 | 10,255 | 9,699  | PSBC24P                |                       | 3        | 1993    | 60                       | 3.37                   | 406              |
| 13       | 7,394                                                         | 5,623  | ---    | ---    | ---    | ---    | ---    | PSBH30H                |                       | 1/3      | 529     | 13.8                     | 0.39                   | 420              |
| 14       | 8,428                                                         | 6,983  | 5,211  | ---    | ---    | ---    | ---    | PSBH30J                |                       | 1/2      | 603     | 17.7                     | 0.61                   | 425              |
| 15       | 9,616                                                         | 8,631  | 6,890  | 5,310  | ---    | ---    | ---    | PSBH30K                |                       | 3/4      | 688     | 22                       | 0.91                   | 445              |
| 16       | 10,706                                                        | 9,919  | 8,265  | 6,954  | 5,462  | ---    | ---    | PSBH30L                |                       | 1        | 766     | 27                       | 1.25                   | 450              |
| 17       | 11,838                                                        | 11,171 | 9,760  | 8,517  | 7,249  | ---    | ---    | PSBH30M                |                       | 1 1/2    | 847     | 32                       | 1.69                   | 480              |
| 18       | 12,984                                                        | 12,400 | 11,404 | 9,962  | 8,919  | 7,727  | ---    | PSBH30N                |                       | 2        | 929     | 37                       | 2.24                   | 485              |
| 19       | 14,606                                                        | 14,105 | 13,416 | 12,106 | 11,018 | 10,095 | 9,038  | PSBH30P*               | 30                    | 3        | 1045    | 47                       | 3.17                   | 515              |
| 20       | 10,823                                                        | 9,540  | 8,272  | ---    | ---    | ---    | ---    | PSBC30K                |                       | 3/4      | 964     | 25                       | 0.91                   | 491              |
| 21       | 12,047                                                        | 10,854 | 9,853  | 8,262  | ---    | ---    | ---    | PSBC30L                |                       | 1        | 1073    | 30                       | 1.25                   | 494              |
| 22       | 13,316                                                        | 12,202 | 11,310 | 10,217 | ---    | ---    | ---    | PSBC30M                |                       | 1 1/2    | 1186    | 35                       | 1.69                   | 501              |
| 23       | 14,629                                                        | 13,589 | 12,758 | 11,917 | 10,682 | ---    | ---    | PSBC30N                |                       | 2        | 1303    | 41                       | 2.24                   | 507              |
| 24       | 16,695                                                        | 15,754 | 14,984 | 14,283 | 13,522 | 12,464 | 11,132 | PSBC30P                |                       | 3        | 1487    | 52                       | 3.34                   | 531              |
| 25       | 19,884                                                        | 19,067 | 18,369 | 17,748 | 17,161 | 16,556 | 15,860 | PSBC30Q                |                       | 5        | 1771    | 73                       | 5.64                   | 544              |
| 26       | 9,167                                                         | 7,050  | ---    | ---    | ---    | ---    | ---    | PSBH36H                |                       | 1/3      | 445     | 13.6                     | 0.41                   | 487              |
| 27       | 10,671                                                        | 9,080  | ---    | ---    | ---    | ---    | ---    | PSBH36J                |                       | 1/2      | 518     | 18.1                     | 0.61                   | 493              |
| 28       | 11,825                                                        | 10,483 | 8,351  | ---    | ---    | ---    | ---    | PSBH36K                |                       | 3/4      | 574     | 22                       | 0.91                   | 498              |
| 29       | 12,958                                                        | 11,787 | 9,960  | 8,120  | ---    | ---    | ---    | PSBH36L                |                       | 1        | 629     | 26                       | 1.24                   | 520              |
| 30       | 14,297                                                        | 13,272 | 11,813 | 9,972  | 8,307  | ---    | ---    | PSBH36M                |                       | 1 1/2    | 694     | 30                       | 1.67                   | 550              |
| 31       | 15,801                                                        | 14,897 | 13,721 | 12,099 | 10,552 | 8,952  | ---    | PSBH36N                |                       | 2        | 767     | 35                       | 2.25                   | 555              |
| 32       | 18,026                                                        | 17,254 | 16,330 | 15,142 | 13,656 | 12,287 | 11,033 | PSBH36P                |                       | 3        | 875     | 44                       | 3.35                   | 585              |
| 33       | 21,857                                                        | 21,236 | 20,544 | 19,750 | 18,805 | 17,670 | 16,411 | PSBH36Q*               | 36                    | 5        | 1061    | 65                       | 5.62                   | 602              |
| 34       | 13,354                                                        | 11,760 | 9,939  | ---    | ---    | ---    | ---    | PSBC36L                |                       | 1        | 858     | 28                       | 1.23                   | 658              |
| 35       | 14,770                                                        | 13,335 | 11,801 | 9,731  | ---    | ---    | ---    | PSBC36M                |                       | 1 1/2    | 949     | 33                       | 1.68                   | 664              |
| 36       | 16,218                                                        | 14,914 | 13,560 | 11,980 | 9,605  | ---    | ---    | PSBC36N                |                       | 2        | 1042    | 38                       | 2.24                   | 670              |
| 37       | 18,568                                                        | 17,432 | 16,273 | 15,046 | 13,608 | 11,635 | ---    | PSBC36P                |                       | 3        | 1193    | 48                       | 3.35                   | 702              |
| 38       | 22,132                                                        | 21,182 | 20,219 | 19,240 | 18,217 | 17,091 | 15,774 | PSBC36Q                |                       | 5        | 1422    | 65                       | 5.61                   | 714              |
| 39       | 25,432                                                        | 24,606 | 23,772 | 22,930 | 22,075 | 21,191 | 20,249 | PSBC36R                |                       | 7 1/2    | 1634    | 86                       | 8.49                   | 771              |
| 40       | 27,876                                                        | 27,123 | 26,364 | 25,599 | 24,827 | 24,042 | 23,232 | PSBC36S                |                       | 10       | 1791    | 103                      | 11.16                  | 785              |

(chart continues next page)

# Type PSB Performance Ratings (cont'd.)

| Item No. | Cubic Feet Per Minute (CFM) at Static Pressure <sup>1,6</sup> |        |        |        |        |        |        | Fan Model <sup>2</sup> | Fan Size <sup>3</sup> | Motor HP | Fan RPM | Sone Rating <sup>4</sup> | Max BHP <sup>5,6</sup> | Approx. Ship Wt. |
|----------|---------------------------------------------------------------|--------|--------|--------|--------|--------|--------|------------------------|-----------------------|----------|---------|--------------------------|------------------------|------------------|
|          | 0"                                                            | 1/8"   | 1/4"   | 3/8"   | 1/2"   | 5/8"   | 3/4"   |                        |                       |          |         |                          |                        |                  |
| 41       | 13,153                                                        | 10,469 | ---    | ---    | ---    | ---    | ---    | PSBH42J                |                       | 1/2      | 385     | 14.4                     | 0.61                   | 641              |
| 42       | 14,690                                                        | 12,485 | ---    | ---    | ---    | ---    | ---    | PSBH42K                |                       | 3/4      | 430     | 17.6                     | 0.91                   | 646              |
| 43       | 16,432                                                        | 14,567 | 11,622 | ---    | ---    | ---    | ---    | PSBH42L                |                       | 1        | 481     | 21                       | 1.24                   | 668              |
| 44       | 18,038                                                        | 16,393 | 13,999 | 11,212 | ---    | ---    | ---    | PSBH42M                |                       | 1 1/2    | 528     | 25                       | 1.68                   | 697              |
| 45       | 19,746                                                        | 18,278 | 16,352 | 13,689 | 11,071 | ---    | ---    | PSBH42N                |                       | 2        | 578     | 30                       | 2.24                   | 700              |
| 46       | 22,684                                                        | 21,440 | 19,954 | 17,996 | 15,639 | 13,496 | ---    | PSBH42P                |                       | 3        | 664     | 37                       | 3.36                   | 730              |
| 47       | 27,091                                                        | 26,073 | 24,936 | 23,623 | 22,020 | 20,014 | 18,172 | PSBH42Q                | 42                    | 5        | 793     | 51                       | 5.62                   | 747              |
| 48       | 18,821                                                        | 16,743 | 14,046 | ---    | ---    | ---    | ---    | PSBC42M                |                       | 1 1/2    | 789     | 33                       | 1.68                   | 822              |
| 49       | 20,753                                                        | 18,946 | 16,523 | 13,784 | ---    | ---    | ---    | PSBC42N                |                       | 2        | 870     | 39                       | 2.25                   | 808              |
| 50       | 23,687                                                        | 22,164 | 20,180 | 18,036 | 15,397 | ---    | ---    | PSBC42P                |                       | 3        | 993     | 49                       | 3.34                   | 839              |
| 51       | 28,052                                                        | 26,809 | 25,330 | 23,534 | 21,726 | 19,839 | 16,582 | PSBC42Q                |                       | 5        | 1176    | 66                       | 5.60                   | 853              |
| 52       | 32,370                                                        | 31,312 | 30,123 | 28,733 | 27,148 | 25,567 | 24,022 | PSBC42R                |                       | 7 1/2    | 1357    | 85                       | 8.53                   | 910              |
| 53       | 35,399                                                        | 34,441 | 33,388 | 32,202 | 30,842 | 29,368 | 27,932 | PSBC42S                |                       | 10       | 1484    | 100                      | 11.15                  | 921              |
| 54       | 18,030                                                        | 12,716 | ---    | ---    | ---    | ---    | ---    | PSBH48K                |                       | 3/4      | 348     | 17.8                     | 0.91                   | 840              |
| 55       | 20,051                                                        | 15,199 | ---    | ---    | ---    | ---    | ---    | PSBH48L                |                       | 1        | 387     | 22                       | 1.25                   | 845              |
| 56       | 22,071                                                        | 17,730 | 13,124 | ---    | ---    | ---    | ---    | PSBH48M                |                       | 1 1/2    | 426     | 26                       | 1.69                   | 902              |
| 57       | 24,299                                                        | 20,788 | 16,383 | ---    | ---    | ---    | ---    | PSBH48N                |                       | 2        | 469     | 30                       | 2.24                   | 905              |
| 58       | 27,667                                                        | 25,042 | 20,658 | 17,002 | ---    | ---    | ---    | PSBH48P                |                       | 3        | 534     | 38                       | 3.32                   | 950              |
| 59       | 32,951                                                        | 30,965 | 27,441 | 24,166 | 21,126 | 18,012 | ---    | PSBH48Q                |                       | 5        | 636     | 51                       | 5.61                   | 967              |
| 60       | 37,200                                                        | 35,511 | 33,093 | 29,378 | 26,861 | 24,151 | 21,274 | PSBHX48R*              | 48                    | 7 1/2    | 718     | 66                       | 8.07                   | 1149             |
| 61       | 41,863                                                        | 40,404 | 38,562 | 35,698 | 32,554 | 30,367 | 28,063 | PSBHX48S*              |                       | 10       | 808     | 66                       | 11.47                  | 1160             |
| 62       | 23,180                                                        | 20,538 | 17,247 | ---    | ---    | ---    | ---    | PSBC48N                |                       | 2        | 707     | 39                       | 2.26                   | 1145             |
| 63       | 26,360                                                        | 24,010 | 21,674 | 17,115 | ---    | ---    | ---    | PSBC48P                |                       | 3        | 804     | 49                       | 3.33                   | 1148             |
| 64       | 31,442                                                        | 29,444 | 27,559 | 25,489 | 21,942 | ---    | ---    | PSBC48Q                |                       | 5        | 959     | 69                       | 5.65                   | 1160             |
| 65       | 35,999                                                        | 34,240 | 32,569 | 30,921 | 29,038 | 26,139 | ---    | PSBC48R                |                       | 7 1/2    | 1098    | 91                       | 8.47                   | 1215             |
| 66       | 39,606                                                        | 37,999 | 36,461 | 34,973 | 33,437 | 31,622 | 28,939 | PSBC48S                |                       | 10       | 1208    | 111                      | 11.28                  | 1265             |
| 67       | 24,391                                                        | 21,525 | ---    | ---    | ---    | ---    | ---    | PSBH54M                |                       | 1 1/2    | 416     | 26                       | 1.66                   | 1140             |
| 68       | 26,560                                                        | 23,971 | 20,847 | ---    | ---    | ---    | ---    | PSBH54N                |                       | 2        | 453     | 30                       | 2.23                   | 1146             |
| 69       | 30,019                                                        | 27,778 | 25,219 | 21,679 | ---    | ---    | ---    | PSBH54P                |                       | 3        | 512     | 38                       | 3.32                   | 1171             |
| 70       | 36,147                                                        | 34,176 | 32,040 | 29,582 | 26,230 | 21,417 | ---    | PSBHX54Q               |                       | 5        | 541     | 56                       | 5.56                   | 1296             |
| 71       | 41,893                                                        | 40,208 | 38,426 | 36,517 | 34,355 | 31,633 | 28,008 | PSBHX54R               |                       | 7 1/2    | 627     | 71                       | 8.48                   | 1348             |
| 72       | 45,568                                                        | 44,025 | 42,409 | 40,706 | 38,870 | 36,770 | 34,163 | PSBHX54S*              | 54                    | 10       | 682     | 82                       | 10.56                  | 1357             |
| 73       | 26,327                                                        | 22,299 | ---    | ---    | ---    | ---    | ---    | PSBC54N                |                       | 2        | 592     | 37                       | 2.24                   | 1235             |
| 74       | 30,063                                                        | 26,917 | 22,551 | ---    | ---    | ---    | ---    | PSBC54P                |                       | 3        | 676     | 45                       | 3.34                   | 1260             |
| 75       | 35,399                                                        | 32,926 | 29,228 | 25,776 | 21,529 | ---    | ---    | PSBC54Q                |                       | 5        | 796     | 58                       | 5.45                   | 1290             |
| 76       | 40,958                                                        | 38,850 | 36,195 | 32,812 | 29,872 | 26,459 | ---    | PSBC54R                |                       | 7 1/2    | 921     | 78                       | 8.44                   | 1350             |
| 77       | 45,050                                                        | 43,131 | 41,010 | 37,924 | 35,092 | 32,409 | 29,279 | PSBC54S                |                       | 10       | 1013    | 95                       | 11.23                  | 1380             |

(chart continues next page)

# Type PSB Performance Ratings (cont'd.)

| Item No. | Cubic Feet Per Minute (CFM) at Static Pressure <sup>1,6</sup> |         |        |        |        |        |        | Fan Model <sup>2</sup> | Fan Size <sup>3</sup> | Motor HP | Fan RPM | Sone Rating <sup>4</sup> | Max BHP <sup>5,6</sup> | Approx. Ship Wt. |
|----------|---------------------------------------------------------------|---------|--------|--------|--------|--------|--------|------------------------|-----------------------|----------|---------|--------------------------|------------------------|------------------|
|          | 0"                                                            | 1/8"    | 1/4"   | 3/8"   | 1/2"   | 5/8"   | 3/4"   |                        |                       |          |         |                          |                        |                  |
| 78       | 27,512                                                        | 23,427  | ---    | ---    | ---    | ---    | ---    | PSBHX60M               | 60                    | 1 1/2    | 328     | 24                       | 1.65                   | 1341             |
| 79       | 30,112                                                        | 26,499  | 22,087 | ---    | ---    | ---    | ---    | PSBHX60N               |                       | 2        | 359     | 29                       | 2.25                   | 1347             |
| 80       | 34,054                                                        | 30,988  | 27,215 | 22,259 | ---    | ---    | ---    | PSBHX60P               |                       | 3        | 406     | 37                       | 3.32                   | 1372             |
| 81       | 40,093                                                        | 37,591  | 34,546 | 31,311 | 27,203 | 21,722 | ---    | PSBHX60Q               |                       | 5        | 478     | 50                       | 5.61                   | 1384             |
| 82       | 46,132                                                        | 44,007  | 41,544 | 38,746 | 35,948 | 32,694 | 27,601 | PSBHX60R               |                       | 7 1/2    | 550     | 63                       | 8.39                   | 1436             |
| 83       | 51,249                                                        | 49,360  | 47,245 | 44,840 | 42,283 | 39,774 | 36,932 | PSBHX60S               |                       | 10       | 611     | 76                       | 11.15                  | 1449             |
| 84       | 29,633                                                        | 24,807  | ---    | ---    | ---    | ---    | ---    | PSBC60N                |                       | 2        | 555     | 40                       | 2.23                   | 1360             |
| 85       | 33,851                                                        | 29,693  | 25,082 | ---    | ---    | ---    | ---    | PSBC60P                |                       | 3        | 634     | 49                       | 3.33                   | 1385             |
| 86       | 39,831                                                        | 36,412  | 32,626 | 28,475 | 24,321 | ---    | ---    | PSBC60Q                | 72                    | 5        | 746     | 64                       | 5.42                   | 1415             |
| 87       | 46,132                                                        | 43,267  | 39,992 | 36,751 | 33,072 | 29,501 | 24,220 | PSBC60R                |                       | 7 1/2    | 864     | 85                       | 8.42                   | 1475             |
| 88       | 50,830                                                        | 48,275  | 45,354 | 42,385 | 39,384 | 35,939 | 32,727 | PSBC60S                |                       | 10       | 952     | 104                      | 11.27                  | 1510             |
| 89       | 40,092                                                        | 34,163  | 27,135 | ---    | ---    | ---    | ---    | PSBC72N                |                       | 2        | 308     | 26                       | 2.18                   | 1732             |
| 90       | 46,080                                                        | 41,207  | 35,450 | 24,115 | ---    | ---    | ---    | PSBC72P                | 84                    | 3        | 354     | 33                       | 3.32                   | 1754             |
| 91       | 54,671                                                        | 50,648  | 45,845 | 41,225 | 33,973 | ---    | ---    | PSBC72Q                |                       | 5        | 420     | 44                       | 5.52                   | 1769             |
| 92       | 62,611                                                        | 59,087  | 55,343 | 50,869 | 46,951 | 41,423 | ---    | PSBC72R                |                       | 7.5      | 481     | 56                       | 8.32                   | 1826             |
| 93       | 69,119                                                        | 65,910  | 62,707 | 58,781 | 54,919 | 51,359 | 46,405 | PSBC72S*               |                       | 10       | 531     | 67                       | 11.18                  | 1857             |
| 94       | 79,142                                                        | 76,321  | 73,583 | 70,611 | 67,060 | 63,641 | 60,576 | PSBC72T*               |                       | 15       | 608     | 87                       | 16.80                  | 1928             |
| 95       | 87,083                                                        | 84,511  | 82,018 | 79,471 | 76,565 | 73,267 | 70,178 | PSBC72U*               |                       | 20       | 669     | 105                      | 22.38                  | 1962             |
| 96       | 49,066                                                        | 39,776  | ---    | ---    | ---    | ---    | ---    | PSBC84N                | 84                    | 2        | 239     | 22                       | 2.17                   | 2254             |
| 97       | 56,251                                                        | 48,472  | 39,689 | ---    | ---    | ---    | ---    | PSBC84P                |                       | 3        | 274     | 28                       | 3.29                   | 2277             |
| 98       | 66,722                                                        | 60,560  | 53,058 | 45,028 | ---    | ---    | ---    | PSBC84Q                |                       | 5        | 325     | 38                       | 5.50                   | 2302             |
| 99       | 76,576                                                        | 71,270  | 64,949 | 58,776 | 51,127 | ---    | ---    | PSBC84R                |                       | 7.5      | 373     | 48                       | 8.30                   | 2352             |
| 100      | 84,377                                                        | 79,562  | 74,283 | 68,166 | 62,802 | 54,650 | ---    | PSBC84S                |                       | 10       | 411     | 58                       | 11.13                  | 2390             |
| 101      | 96,695                                                        | 92,475  | 88,221 | 83,069 | 77,830 | 73,204 | 67,602 | PSBC84T                |                       | 15       | 471     | 74                       | 16.74                  | 2463             |
| 102      | 106,549                                                       | 102,706 | 98,920 | 94,708 | 89,729 | 85,154 | 80,971 | PSBC84U*               |                       | 20       | 519     | 89                       | 22.37                  | 2497             |

- 1 — Performance certified is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).
- 2 — The first four or five letters of the model number identify **fan type**, **drive configuration** and **style**. The next two numbers indicate **fan size**, the next letter identifies motor **horsepower**. Example: Model PSBH24H is Type 'PS,' belt drive, Style 'H,' 24" size, 1/3 HP.
- 3 — On Style 'H' & 'HX,' die-formed steel blades are standard. On Style 'C,' an adjustable pitch propeller with cast aluminum airfoil blades is standard.
- 4 — The sound ratings shown are loudness values in hemispherical sones at a distance of 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for: Installation Type A: free outlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 5 — Maximum brake horsepower (BHP) within the catalog performance range. Power ratings (BHP) do not include transmission losses. Bearing losses are included. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate rating on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m<sup>3</sup>/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

**Example:** 3904 CFM x .000472 = 1.8427 m<sup>3</sup>/s  
0.125 SP x 248.36 = 31.05 Pa  
0.886 BHP x .7457 = 0.661 kW

\*These models have fixed pitch motor pulleys.

# Type PSDC

SUPPLY — DIRECT DRIVE — 3,200 to 48,200 CFM  
0" to 3/4" STATIC PRESSURE



## Application and Features

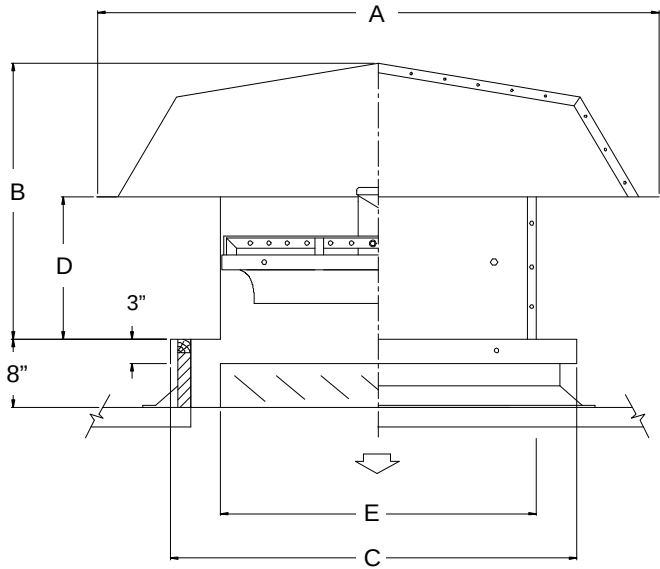
American Coolair 's Type PSDC unit is identical to the Type PEDC unit, but with the fan component inverted to produce air supply rather than exhaust.

A PSDC unit can be converted to PEDC, and vice versa, after the unit has been installed. Simply remove the fan component, turn it over and re-install it in the PRV base.

The combination of PEs and PSs allow a complete ventilation system with a uniform appearance on the building roof.

Type PSD PRVs incorporate Style 'C' fan components. This fan style is described in the *Fan Component* section on Pages 4-5.

The unit can also be specified less the fan component for use as a gravity ventilator.



TYPE PSDC

## Dimensions

Dimension A is the O.D. of the square hood.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the distance from the curb to the hood.

Dimension E is the damper net length and width, flanges add 1-11/16 inches on all sides.

| Fan Size | Dimensions in Inches |        |    |        |        |
|----------|----------------------|--------|----|--------|--------|
|          | A                    | B      | C  | D      | E      |
| 24       | 57                   | 34 1/2 | 38 | 20 3/4 | 28 3/8 |
| 30       | 67                   | 38 1/4 | 44 | 20 3/4 | 34 3/8 |
| 36       | 78                   | 40     | 50 | 20 3/4 | 40 3/8 |
| 42       | 88                   | 41     | 56 | 20 3/4 | 46 3/8 |
| 48       | 98                   | 49 3/8 | 62 | 23 5/8 | 52 3/8 |
| 54       | 109                  | 55 3/8 | 68 | 23 5/8 | 58 3/8 |
| 60       | 109                  | 55 3/8 | 77 | 23 5/8 | 64 3/8 |

# Performance Ratings

# Typical Specifications



American Coolair Corporation certifies that the Type PSDC PRVs shown herein are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Hooded supply power roof ventilators shall be American Coolair Type PSDC, as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan component shall be of welded steel construction, PRV hood and base shall be of galvanized steel. Fan blades shall be of aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Entire blade assembly shall be mounted directly to the motor shaft. PRVs shall be licensed to bear the AMCA Certified Ratings Seal for air performance and sound. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, bird screen, backdraft damper, prefabricated curb and special protective coating.)

| Item No. | Cubic Feet Per Minute (CFM) at Static Pressure <sup>1,6</sup> |        |        |        |        |        |        | Fan Model <sup>2</sup> | Fan Size | Motor HP | Fan RPM | Sone Rating <sup>3</sup> | Max BHP <sup>4,6</sup> | Blade No. | Desc. <sup>5</sup> Pitch | Approx. Ship Wt. |
|----------|---------------------------------------------------------------|--------|--------|--------|--------|--------|--------|------------------------|----------|----------|---------|--------------------------|------------------------|-----------|--------------------------|------------------|
|          | 0"                                                            | 1/8"   | 1/4"   | 3/8"   | 1/2"   | 5/8"   | 3/4"   |                        |          |          |         |                          |                        |           |                          |                  |
| 1        | 5,112                                                         | 4,202  | 2,957  | ---    | ---    | ---    | ---    | PSDC24G8               |          | 1/4      | 870     | 14.5                     | 0.29                   | 3         | 27.5°                    | 375              |
| 2        | 6,220                                                         | 5,573  | 4,736  | 3,168  | ---    | ---    | ---    | PSDC24J8               |          | 1/2      | 870     | 17.8                     | 0.58                   | 6         | 30.5°                    | 385              |
| 3        | 5,132                                                         | 4,632  | 3,886  | 2,892  | ---    | ---    | ---    | PSDC24H11              |          | 1/3      | 1160    | 19.7                     | 0.37                   | 3         | 15.5°                    | 370              |
| 4        | 6,313                                                         | 5,688  | 5,000  | 4,158  | ---    | ---    | ---    | PSDC24J11              |          | 1/2      | 1160    | 22                       | 0.57                   | 3         | 23°                      | 380              |
| 5        | 6,753                                                         | 6,278  | 5,810  | 5,229  | 4,403  | 3,391  | ---    | PSDC24K11              | 24       | 3/4      | 1160    | 27                       | 0.86                   | 6         | 22.5°                    | 385              |
| 6        | 7,634                                                         | 7,215  | 6,711  | 6,133  | 5,345  | 4,094  | ---    | PSDC24L11              |          | 1        | 1160    | 28                       | 1.13                   | 6         | 27°                      | 396              |
| 7        | 7,373                                                         | 7,034  | 6,681  | 6,180  | 5,694  | 5,153  | 4,469  | PSDC24L17              |          | 1        | 1750    | 37                       | 1.13                   | 3         | 14°                      | 385              |
| 8        | 8,821                                                         | 8,433  | 7,998  | 7,563  | 7,120  | 6,637  | 6,074  | PSDC24M17              |          | 1 1/2    | 1750    | 43                       | 1.70                   | 3         | 19.5°                    | 390              |
| 9        | 10,148                                                        | 9,724  | 9,280  | 8,825  | 8,360  | 7,877  | 7,346  | PSDC24N17              |          | 2        | 1750    | 48                       | 2.26                   | 3         | 26.5°                    | 396              |
| 10       | 11,056                                                        | 10,781 | 10,481 | 10,163 | 9,841  | 9,509  | 9,155  | PSDC24P17              |          | 3        | 1750    | 53                       | 3.44                   | 6         | 25°                      | 426              |
| 11       | 8,874                                                         | 7,597  | 6,046  | ---    | ---    | ---    | ---    | PSDC30J8               |          | 1/2      | 870     | 20                       | 0.56                   | 3         | 22°                      | 525              |
| 12       | 9,692                                                         | 8,953  | 8,076  | 6,858  | ---    | ---    | ---    | PSDC30K8               |          | 3/4      | 870     | 22                       | 0.85                   | 6         | 19°                      | 515              |
| 13       | 11,067                                                        | 10,268 | 9,401  | 8,281  | 6,231  | ---    | ---    | PSDC30L8               |          | 1        | 870     | 23                       | 1.14                   | 6         | 23.5°                    | 545              |
| 14       | 9,573                                                         | 8,727  | 7,736  | 6,619  | ---    | ---    | ---    | PSDC30K11              |          | 3/4      | 1160    | 29                       | 0.83                   | 3         | 14.5°                    | 500              |
| 15       | 11,195                                                        | 10,243 | 9,278  | 8,206  | 6,554  | ---    | ---    | PSDC30L11              | 30       | 1        | 1160    | 32                       | 1.14                   | 3         | 19.5°                    | 515              |
| 16       | 12,914                                                        | 11,918 | 10,882 | 9,790  | 8,228  | ---    | ---    | PSDC30M11              |          | 1 1/2    | 1160    | 34                       | 1.70                   | 3         | 26°                      | 545              |
| 17       | 13,781                                                        | 13,208 | 12,633 | 12,034 | 11,354 | 10,500 | 9,342  | PSDC30N11              |          | 2        | 1160    | 37                       | 2.32                   | 6         | 21°                      | 560              |
| 18       | 13,086                                                        | 12,493 | 11,879 | 11,270 | 10,638 | 9,969  | 9,196  | PSDC30N17              |          | 2        | 1750    | 57                       | 2.25                   | 3         | 12°                      | 510              |
| 19       | 15,680                                                        | 14,994 | 14,450 | 13,864 | 13,214 | 12,522 | 11,798 | PSDC30P17              |          | 3        | 1750    | 60                       | 3.39                   | 3         | 17°                      | 535              |
| 20       | 19,297                                                        | 18,651 | 17,970 | 17,283 | 16,614 | 15,952 | 15,261 | PSDC30Q17              |          | 5        | 1750    | 69                       | 5.68                   | 3         | 25.5°                    | 550              |
| 21       | 13,365                                                        | 11,880 | 10,119 | ---    | ---    | ---    | ---    | PSDC36L6               |          | 1        | 680     | 25                       | 1.13                   | 6         | 23.5°                    | 625              |
| 22       | 15,379                                                        | 13,503 | 11,220 | ---    | ---    | ---    | ---    | PSDC36M6               |          | 1 1/2    | 680     | 28                       | 1.67                   | 6         | 30°                      | 670              |
| 23       | 11,643                                                        | 9,977  | 8,446  | ---    | ---    | ---    | ---    | PSDC36K8               |          | 3/4      | 870     | 27                       | 0.86                   | 3         | 15.5°                    | 585              |
| 24       | 13,201                                                        | 11,467 | 9,413  | 6,758  | ---    | ---    | ---    | PSDC36L8               |          | 1        | 870     | 30                       | 1.15                   | 3         | 20°                      | 615              |
| 25       | 15,155                                                        | 13,315 | 11,310 | ---    | ---    | ---    | ---    | PSDC36M8               |          | 1 1/2    | 870     | 33                       | 1.72                   | 3         | 28°                      | 620              |
| 26       | 16,643                                                        | 15,199 | 13,377 | 10,444 | ---    | ---    | ---    | PSDC36N8               |          | 2        | 870     | 38                       | 2.29                   | 4         | 28.5°                    | 670              |
| 27       | 14,124                                                        | 12,985 | 11,869 | 10,614 | 9,070  | ---    | ---    | PSDC36M11              | 36       | 1 1/2    | 1160    | 41                       | 1.70                   | 3         | 12.5°                    | 615              |
| 28       | 16,390                                                        | 15,169 | 13,747 | 12,477 | 11,187 | 9,063  | ---    | PSDC36N11              |          | 2        | 1160    | 48                       | 2.30                   | 3         | 17.5°                    | 620              |
| 29       | 18,973                                                        | 17,724 | 16,393 | 14,798 | 13,192 | 10,655 | ---    | PSDC36P11              |          | 3        | 1160    | 55                       | 3.43                   | 3         | 24°                      | 670              |
| 30       | 22,798                                                        | 21,945 | 21,082 | 20,184 | 19,236 | 18,219 | 17,024 | PSDC36Q11              |          | 5        | 1160    | 66                       | 5.64                   | 6         | 23.5°                    | 690              |
| 31       | 20,184                                                        | 19,472 | 18,772 | 18,075 | 17,373 | 16,656 | 15,914 | PSDC36Q17              |          | 5        | 1750    | 84                       | 5.80                   | 3         | 11°                      | 620              |
| 32       | 24,228                                                        | 23,477 | 22,737 | 22,004 | 21,275 | 20,547 | 19,811 | PSDC36R17              |          | 7 1/2    | 1750    | 94                       | 8.52                   | 3         | 16.5°                    | 670              |
| 33       | 27,423                                                        | 26,593 | 25,743 | 24,889 | 24,041 | 23,198 | 22,359 | PSDC36S17              |          | 10       | 1750    | 103                      | 11.19                  | 3         | 20.5°                    | 690              |
| 34       | 16,467                                                        | 13,643 | 10,366 | ---    | ---    | ---    | ---    | PSDC42L6               |          | 1        | 680     | 29                       | 1.15                   | 3         | 18.5°                    | 740              |
| 35       | 18,342                                                        | 15,822 | 13,467 | 10,562 | ---    | ---    | ---    | PSDC42M6               |          | 1 1/2    | 680     | 31                       | 1.69                   | 4         | 21.5°                    | 790              |
| 36       | 19,855                                                        | 18,245 | 16,644 | 14,747 | ---    | ---    | ---    | PSDC42N6               |          | 2        | 680     | 39                       | 2.28                   | 6         | 21.5°                    | 810              |
| 37       | 14,893                                                        | 13,065 | 10,848 | 8,246  | ---    | ---    | ---    | PSDC42L8               | 42       | 1        | 870     | 36                       | 1.14                   | 3         | 8°                       | 730              |
| 38       | 17,989                                                        | 15,882 | 13,794 | 11,259 | ---    | ---    | ---    | PSDC42M8               |          | 1 1/2    | 870     | 40                       | 1.69                   | 3         | 13°                      | 740              |
| 39       | 20,503                                                        | 18,398 | 16,118 | 13,574 | ---    | ---    | ---    | PSDC42N8               |          | 2        | 870     | 44                       | 2.27                   | 3         | 17.5°                    | 790              |
| 40       | 23,909                                                        | 21,701 | 19,076 | 16,189 | 13,297 | ---    | ---    | PSDC42P8               |          | 3        | 870     | 55                       | 3.43                   | 3         | 25°                      | 810              |

(chart continues next page)

# Type PSDC Performance Ratings (cont'd.)

| Item No. | Cubic Feet Per Minute (CFM) at Static Pressure <sup>1,6</sup> |        |        |        |        |        |        | Fan Model <sup>2</sup> | Fan Size | Motor HP | Fan RPM | Sone Rating <sup>3</sup> | Max BHP <sup>4,6</sup> | Blade Desc. <sup>5</sup> |       | Approx. Ship Wt. |
|----------|---------------------------------------------------------------|--------|--------|--------|--------|--------|--------|------------------------|----------|----------|---------|--------------------------|------------------------|--------------------------|-------|------------------|
|          | 0"                                                            | 1/8"   | 1/4"   | 3/8"   | 1/2"   | 5/8"   | 3/4"   |                        |          |          |         |                          |                        | No.                      | Pitch |                  |
| 41       | 18,325                                                        | 16,918 | 15,409 | 13,872 | 12,224 | 9,943  | ---    | PSDC42N11              |          | 2        | 1160    | 57                       | 2.29                   | 3                        | 6°    | 740              |
| 42       | 22,207                                                        | 20,745 | 19,354 | 17,907 | 16,238 | 14,120 | 11,737 | PSDC42P11              |          | 3        | 1160    | 66                       | 3.43                   | 3                        | 11°   | 790              |
| 43       | 27,700                                                        | 26,120 | 24,490 | 22,793 | 20,998 | 19,081 | 16,961 | PSDC42Q11              | 42       | 5        | 1160    | 76                       | 5.53                   | 3                        | 18°   | 810              |
| 44       | 28,796                                                        | 27,878 | 27,011 | 26,054 | 25,059 | 24,018 | 22,939 | PSDC42R17              |          | 7 1/2    | 1750    | 129                      | 8.57                   | 3                        | 7°    | 790              |
| 45       | 32,874                                                        | 31,921 | 31,002 | 30,103 | 29,207 | 28,297 | 27,352 | PSDC42S17              |          | 10       | 1750    | 143                      | 11.35                  | 3                        | 10.5° | 810              |
| 46       | 16,711                                                        | 13,732 | 10,579 | ---    | ---    | ---    | ---    | PSDC48L6               |          | 1        | 680     | 30                       | 1.13                   | 3                        | 8.5°  | 970              |
| 47       | 19,378                                                        | 17,161 | 14,580 | 11,403 | ---    | ---    | ---    | PSDC48M6               |          | 1 1/2    | 680     | 37                       | 1.70                   | 4                        | 11°   | 1010             |
| 48       | 21,466                                                        | 18,964 | 16,588 | 13,701 | ---    | ---    | ---    | PSDC48N6               |          | 2        | 680     | 36                       | 2.24                   | 4                        | 15°   | 1035             |
| 49       | 21,001                                                        | 18,732 | 16,321 | 13,920 | 10,668 | ---    | ---    | PSDC48N8               |          | 2        | 870     | 46                       | 2.26                   | 3                        | 8°    | 1010             |
| 50       | 24,879                                                        | 22,601 | 20,251 | 17,673 | 14,602 | ---    | ---    | PSDC48P8               |          | 3        | 870     | 51                       | 3.40                   | 3                        | 13.5° | 1030             |
| 51       | 29,047                                                        | 27,086 | 24,925 | 22,676 | 20,478 | 18,053 | ---    | PSDC48Q8               | 48       | 5        | 870     | 60                       | 5.48                   | 4                        | 17.5° | 1075             |
| 52       | 33,860                                                        | 32,042 | 30,403 | 28,891 | 27,338 | 25,573 | 23,501 | PSDC48R8               |          | 7 1/2    | 870     | 76                       | 8.63                   | 6                        | 20.5° | 1105             |
| 53       | 28,507                                                        | 26,827 | 25,096 | 23,261 | 21,489 | 19,718 | 17,641 | PSDC48Q11              |          | 5        | 1160    | 80                       | 5.59                   | 3                        | 8.5°  | 1030             |
| 54       | 34,271                                                        | 32,471 | 30,693 | 28,903 | 27,101 | 25,220 | 23,114 | PSDC48R11              |          | 7 1/2    | 1160    | 90                       | 8.63                   | 3                        | 14.5° | 1065             |
| 55       | 37,592                                                        | 35,903 | 34,146 | 32,168 | 29,752 | 27,200 | 24,872 | PSDC48S11              |          | 10       | 1160    | 96                       | 11.33                  | 3                        | 19°   | 1105             |
| 56       | 23,085                                                        | 19,927 | ---    | ---    | ---    | ---    | ---    | PSDC54M6               |          | 1 1/2    | 680     | 39                       | 1.67                   | 3                        | 8°    | 1150             |
| 57       | 26,188                                                        | 22,366 | 19,358 | ---    | ---    | ---    | ---    | PSDC54N6               |          | 2        | 680     | 43                       | 2.27                   | 3                        | 12°   | 1170             |
| 58       | 28,938                                                        | 26,560 | 23,963 | 20,863 | ---    | ---    | ---    | PSDC54P8               |          | 3        | 870     | 61                       | 3.34                   | 3                        | 7.5°  | 1165             |
| 59       | 35,293                                                        | 32,929 | 29,145 | 26,733 | 24,200 | ---    | ---    | PSDC54Q8               | 54       | 5        | 870     | 73                       | 5.47                   | 3                        | 14°   | 1215             |
| 60       | 41,389                                                        | 37,842 | 33,814 | 30,995 | 28,199 | 23,587 | ---    | PSDC54R8               |          | 7 1/2    | 870     | 88                       | 8.58                   | 3                        | 22°   | 1245             |
| 61       | 39,381                                                        | 37,351 | 35,627 | 33,825 | 31,763 | 29,394 | 26,938 | PSDC54R11              |          | 7 1/2    | 1160    | 105                      | 8.28                   | 3                        | 8°    | 1205             |
| 62       | 44,674                                                        | 42,600 | 40,142 | 37,980 | 36,225 | 34,547 | 32,637 | PSDC54S11              |          | 10       | 1160    | 117                      | 11.29                  | 3                        | 12°   | 1235             |
| 63       | 27,520                                                        | 24,515 | 20,042 | ---    | ---    | ---    | ---    | PSDC60N6               |          | 2        | 680     | 49                       | 2.29                   | 3                        | 6°    | 1350             |
| 64       | 37,691                                                        | 35,181 | 32,651 | 29,313 | 25,741 | ---    | ---    | PSDC60Q8               |          | 5        | 870     | 80                       | 5.72                   | 3                        | 8°    | 1390             |
| 65       | 44,218                                                        | 41,704 | 39,122 | 35,682 | 30,970 | 26,301 | ---    | PSDC60R8               | 60       | 7 1/2    | 870     | 90                       | 8.53                   | 3                        | 14°   | 1440             |
| 66       | 46,947                                                        | 45,289 | 43,598 | 41,618 | 38,747 | 35,916 | 33,834 | PSDC60S11              |          | 10       | 1160    | 137                      | 11.37                  | 3                        | 6°    | 1440             |

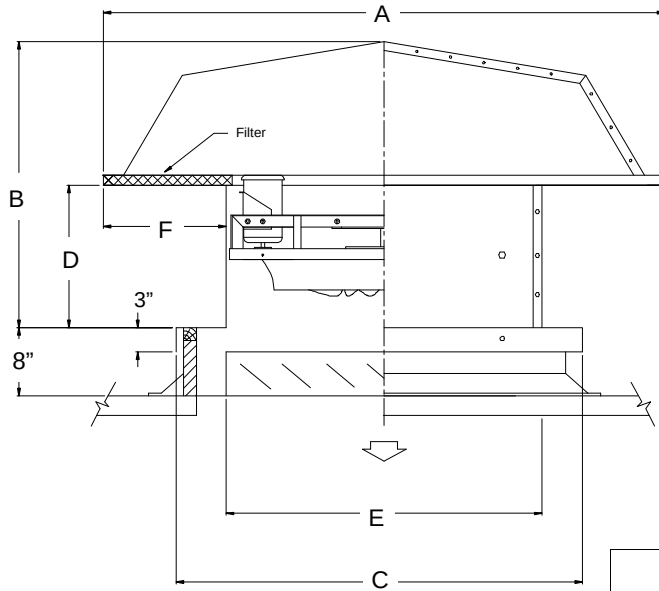
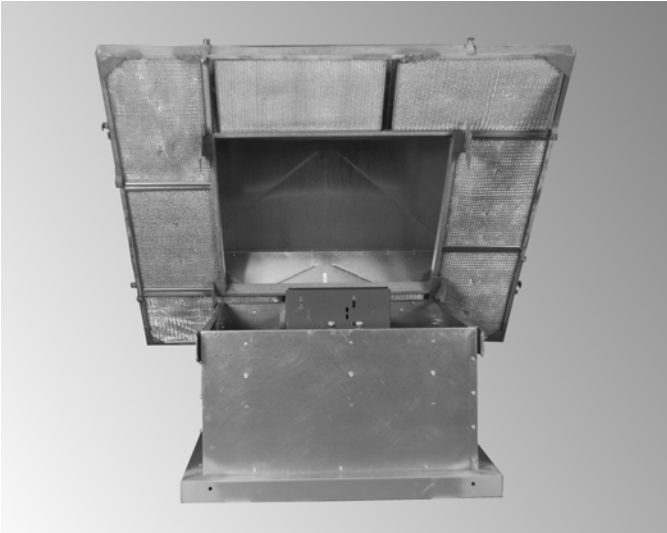
- 1 — Performance certified is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories).
- 2 — The first four letters of the model number identify **fan type**, **drive configuration** and **style**. The next two numbers indicate **fan size**, the next letter identifies motor **horsepower**; the last number (or numbers) indicates **RPM** in hundreds. Example: Model PSDC24G8 is Type "PS", direct drive, Style "C", 24" size, 1/4 H.P., 870 RPM.
- 3 — The sound ratings shown are loudness values in hemispherical sones at a distance of 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for: Installation Type A: free outlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 4 — Maximum brake horsepower (BHP) within the catalog performance range. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate ratings on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 5 — An adjustable pitch propeller with cast aluminum airfoil blades is standard.
- 6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m<sup>3</sup>/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

Example: 3904 CFM x .000472 = 1.8427 m<sup>3</sup>/s  
0.125 SP x 248.36 = 31.05 Pa  
0.886 BHP x .7457 = 0.661 kW



# Type PSB-F

**FILTERED SUPPLY — BELT DRIVE — 3,400 to 49,700 CFM — 0" to  $\frac{3}{4}$ " STATIC PRESSURE**



**TYPE PSBH-F and PSBH-X-F**

## Dimensions

Dimension A is the O.D. of the square hood.  
 Dimension B is the overall height above the curb.  
 Dimension C is the I.D. of the curb cap flange.  
 Dimension D is the distance from the curb to the hood.  
 Dimension E is the damper net length and width, flanges add 1-11/16 inches on all sides.  
 Dimension F is the distance of the filter overhang.

## Application and Features

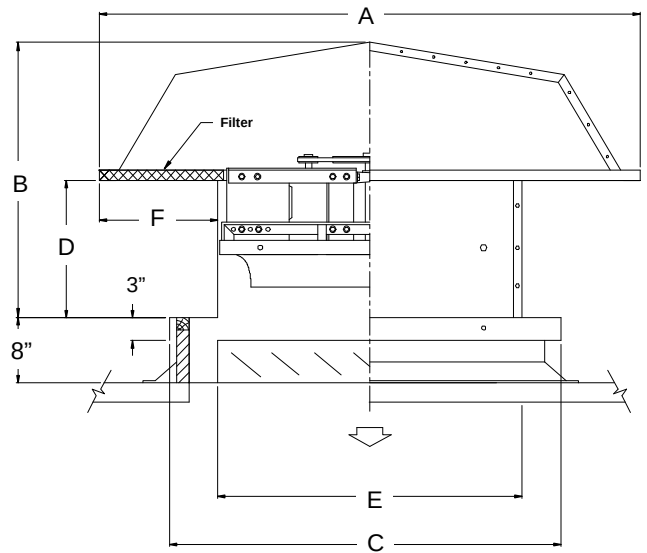
Type PSB-F PRVs provide filtered make-up air from an economical roof mounted unit.

The Type PSB-F unit is similar to the Type PSB, except that the PSB-F unit is furnished with two-inch thick, permanent, cleanable filters.

The filters are easily mounted into the filter rack when the unit is installed at the job site.

American Coolair's performance data provides net CFM ratings with hood and filters in place. We have eliminated the need to estimate the effect of filters on the PRV performance!

Type PSB-F PRVs incorporate Style 'H' fan components for models in the 24 inch to 54 inch size, Style 'HX' fan components for models in the 48 inch to 60 inch size and Style 'C' fan components for models in the 24 inch to 72 inch size. These fan styles are described in the *Fan Component* section on Pages 4-5.



**TYPE PSBC-F**

| Item No. <sup>1</sup> | Fan Size | Dimensions in Inches |        |    |        |        |        | Filter Area, ft <sup>2</sup> |
|-----------------------|----------|----------------------|--------|----|--------|--------|--------|------------------------------|
|                       |          | A                    | B      | C  | D      | E      | F      |                              |
| 1-3, 6-8              | 24       | 57                   | 36 1/4 | 38 | 20 1/4 | 28 3/8 | 12 1/2 | 13.2                         |
| 4, 5, 9-12            |          | 67                   | 40     |    |        |        | 17 1/2 | 21.3                         |
| 13-15, 20, 21         | 30       | 67                   | 40     | 44 | 20 1/4 | 34 3/8 | 14 1/2 | 18.4                         |
| 16-19, 22-24          |          | 78                   | 41 3/4 |    |        |        | 20     | 29.0                         |
| 25-27, 33, 34         | 36       | 78                   | 41 3/4 | 50 | 20 1/4 | 40 3/8 | 17     | 25.6                         |
| 28-32, 35-37          |          | 88                   | 42 3/4 |    |        |        | 22     | 36.7                         |
| 38-40, 45             | 42       | 88                   | 42 3/4 | 56 | 20 1/4 | 46 3/8 | 19     | 32.8                         |
| 41-44, 46-48          |          | 98                   | 48 1/4 |    |        |        | 24     | 45.3                         |
| 49-52, 56             | 48       | 98                   | 51 1/8 | 62 | 23 1/8 | 52 3/8 | 21     | 40.9                         |
| 53-55, 57-59          |          | 109                  | 57 1/8 |    |        |        | 26 1/2 | 56.3                         |
| 60-62, 66, 67         | 54       | 109                  | 57 1/8 | 68 | 23 1/8 | 58 3/8 | 23 1/2 | 51.3                         |
| 63-65, 68-70          |          | 127 7/8              | 45 3/4 |    |        |        | 32 7/8 | 81.8                         |
| 71-74, 77-79          | 60       | 127 7/8              | 57 3/8 | 77 | 23 1/8 | 64 3/8 | 29 7/8 | 76.4                         |
| 75, 76, 80, 81        |          | 139 1/2              | 45 3/4 |    |        |        | 35 3/4 | 97.3                         |
| 82                    | 72       | 127 7/8              | 56 3/8 | 89 | 33 1/2 | 80 3/4 | 23 3/4 | 64.1                         |
| 83, 84                |          | 139 1/2              | 65 1/4 |    |        |        | 29 1/2 | 84.9                         |

# Performance Ratings Typical Specifications

American Coolair Corporation certifies that the performance data for the type PSB-F PRV models shown below are based on tests conducted in an accredited laboratory in accordance with ANSI Standards 210-07 and 300-08.

Hooded supply power roof ventilators shall be American Coolair Type PSBH-F and/or PSBC-F, as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan component shall be of welded steel construction, PRV hood and base shall be of galvanized steel. PRVs shall be furnished with 2" thick, permanent, cleanable filters. (Insert additional specifications from below for specific style PRV.) Performance ratings shall be from tests of complete PRV and so certified by the PRV manufacturer. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, bird screen, backdraft damper, prefabricated curb and special protective coating.)

ADDITIONAL SPECIFICATIONS STYLE H and HX: Die-formed steel blades shall be firmly attached to cast aluminum hub, which also serves as driven sheave. Fan hub shall rotate on fixed shaft using oversized sealed ball bearings. Belt load shall be applied to hub in the same plane as bearings, eliminating overhung load on bearings and increasing bearing life. Motor pulleys shall be variable pitch.

ADDITIONAL SPECIFICATIONS STYLE C: Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Ball bearings shall be of the heavy-duty pillow block type. Motor pulleys shall be variable pitch.

| Item No. | 0"     | Cubic Feet Per Minute (CFM) at Static Pressure <sup>1,6</sup> |        |        |        |        |        | Fan Model <sup>2</sup> | Fan Size <sup>3</sup> | Motor HP | Fan RPM | Sone Rating <sup>4</sup> | Max BHP <sup>5,6</sup> | Approx. Ship Wt. |
|----------|--------|---------------------------------------------------------------|--------|--------|--------|--------|--------|------------------------|-----------------------|----------|---------|--------------------------|------------------------|------------------|
|          |        | 1/8"                                                          | 1/4"   | 3/8"   | 1/2"   | 5/8"   | 3/4"   |                        |                       |          |         |                          |                        |                  |
| 1        | 4,830  | 3,948                                                         | 3,094  | ---    | ---    | ---    | ---    | PSBH24HF               |                       | 1/3      | 723     | 16.3                     | 0.45                   | 355              |
| 2        | 5,472  | 4,683                                                         | 3,935  | 3,186  | ---    | ---    | ---    | PSBH24JF               |                       | 1/2      | 819     | 19.3                     | 0.62                   | 360              |
| 3        | 6,247  | 5,559                                                         | 4,896  | 4,226  | 3,575  | ---    | ---    | PSBH24KF               |                       | 3/4      | 935     | 24                       | 0.91                   | 375              |
| 4        | 7,274  | 6,738                                                         | 6,003  | 5,353  | 4,686  | 4,055  | ---    | PSBH24LF*              |                       | 1        | 1036    | 29                       | 1.25                   | 390              |
| 5        | 8,061  | 7,597                                                         | 6,957  | 6,325  | 5,745  | 5,140  | 4,575  | PSBH24MF*              |                       | 1 1/2    | 1148    | 31                       | 1.44                   | 410              |
| 6        | 5,473  | 4,678                                                         | 3,564  | ---    | ---    | ---    | ---    | PSBC24HF               | 24                    | 1/3      | 987     | 17.6                     | 0.41                   | 455              |
| 7        | 6,266  | 5,633                                                         | 4,648  | 3,729  | ---    | ---    | ---    | PSBC24JF               |                       | 1/2      | 1130    | 22                       | 0.62                   | 458              |
| 8        | 7,164  | 6,635                                                         | 5,858  | 5,006  | 4,201  | ---    | ---    | PSBC24KF               |                       | 3/4      | 1292    | 28                       | 0.93                   | 463              |
| 9        | 8,401  | 7,890                                                         | 7,351  | 6,552  | 5,626  | 4,799  | ---    | PSBC24LF               |                       | 1        | 1425    | 32                       | 1.24                   | 468              |
| 10       | 9,285  | 8,823                                                         | 8,352  | 7,790  | 6,927  | 6,133  | 5,385  | PSBC24MF               |                       | 1 1/2    | 1575    | 39                       | 1.67                   | 474              |
| 11       | 10,216 | 9,796                                                         | 9,375  | 8,919  | 8,320  | 7,496  | 6,785  | PSBC24NF               |                       | 2        | 1733    | 46                       | 2.23                   | 487              |
| 12       | 11,749 | 11,383                                                        | 11,019 | 10,647 | 10,243 | 9,747  | 9,065  | PSBC24PF               |                       | 3        | 1993    | 60                       | 3.37                   | 505              |
| 13       | 6,715  | 5,047                                                         | ---    | ---    | ---    | ---    | ---    | PSBH30HF               |                       | 1/3      | 529     | 14.2                     | 0.44                   | 455              |
| 14       | 7,654  | 6,151                                                         | 4,712  | ---    | ---    | ---    | ---    | PSBH30JF               |                       | 1/2      | 603     | 19.9                     | 0.70                   | 460              |
| 15       | 8,733  | 7,352                                                         | 6,169  | 4,791  | ---    | ---    | ---    | PSBH30KF               |                       | 3/4      | 688     | 23                       | 0.96                   | 480              |
| 16       | 10,345 | 9,272                                                         | 7,883  | 6,634  | 5,202  | ---    | ---    | PSBH30LF               |                       | 1        | 766     | 27                       | 1.31                   | 495              |
| 17       | 11,439 | 10,572                                                        | 9,173  | 8,130  | 6,939  | ---    | ---    | PSBH30MF               |                       | 1 1/2    | 847     | 32                       | 1.72                   | 525              |
| 18       | 12,546 | 11,812                                                        | 10,496 | 9,507  | 8,501  | 7,408  | ---    | PSBH30NF               | 30                    | 2        | 929     | 38                       | 2.24                   | 530              |
| 19       | 14,113 | 13,499                                                        | 12,467 | 11,357 | 10,526 | 9,622  | 8,647  | PSBH30PF*              |                       | 3        | 1045    | 49                       | 3.38                   | 560              |
| 20       | 9,378  | 8,404                                                         | 6,976  | 5,250  | ---    | ---    | ---    | PSBC30KF               |                       | 3/4      | 964     | 25                       | 0.91                   | 642              |
| 21       | 10,439 | 9,604                                                         | 8,403  | 6,987  | 5,435  | ---    | ---    | PSBC30LF               |                       | 1        | 1073    | 30                       | 1.25                   | 645              |
| 22       | 12,389 | 11,570                                                        | 10,719 | 9,457  | 7,952  | 6,259  | ---    | PSBC30MF               |                       | 1 1/2    | 1186    | 35                       | 1.69                   | 652              |
| 23       | 13,611 | 12,860                                                        | 12,123 | 11,175 | 9,894  | 8,463  | 6,924  | PSBC30NF               |                       | 2        | 1303    | 41                       | 2.24                   | 658              |
| 24       | 15,533 | 14,867                                                        | 14,235 | 13,550 | 12,659 | 11,531 | 10,349 | PSBC30PF               |                       | 3        | 1487    | 52                       | 3.34                   | 682              |
| 25       | 8,434  | 6,341                                                         | ---    | ---    | ---    | ---    | ---    | PSBH36HF               |                       | 1/3      | 445     | 12.7                     | 0.42                   | 547              |
| 26       | 9,818  | 8,058                                                         | 6,163  | ---    | ---    | ---    | ---    | PSBH36JF               |                       | 1/2      | 518     | 15.9                     | 0.59                   | 553              |
| 27       | 10,879 | 9,349                                                         | 7,653  | 5,699  | ---    | ---    | ---    | PSBH36KF               |                       | 3/4      | 574     | 20                       | 0.90                   | 553              |
| 28       | 12,446 | 11,182                                                        | 9,395  | 7,755  | ---    | ---    | ---    | PSBH36LF               |                       | 1        | 629     | 24                       | 1.27                   | 595              |
| 29       | 13,733 | 12,630                                                        | 11,095 | 9,538  | 7,876  | ---    | ---    | PSBH36MF               |                       | 1 1/2    | 694     | 28                       | 1.73                   | 625              |
| 30       | 15,177 | 14,210                                                        | 12,935 | 11,419 | 10,113 | 8,493  | ---    | PSBH36NF               |                       | 2        | 767     | 32                       | 2.27                   | 630              |
| 31       | 17,314 | 16,491                                                        | 15,482 | 14,233 | 12,908 | 11,770 | 10,503 | PSBH36PF               | 36                    | 3        | 875     | 43                       | 3.45                   | 660              |
| 32       | 20,995 | 20,335                                                        | 19,588 | 18,718 | 17,709 | 16,598 | 15,533 | PSBH36QF*              |                       | 5        | 1061    | 50                       | 5.54                   | 687              |
| 33       | 11,843 | 10,469                                                        | 8,640  | 6,005  | ---    | ---    | ---    | PSBC36LF               |                       | 1        | 858     | 28                       | 1.23                   | 802              |
| 34       | 13,099 | 11,878                                                        | 10,398 | 8,236  | ---    | ---    | ---    | PSBC36MF               |                       | 1 1/2    | 949     | 33                       | 1.68                   | 808              |
| 35       | 15,227 | 14,047                                                        | 12,764 | 11,166 | 8,765  | ---    | ---    | PSBC36NF               |                       | 2        | 1042    | 38                       | 2.24                   | 814              |
| 36       | 17,433 | 16,408                                                        | 15,336 | 14,138 | 12,670 | 10,629 | ---    | PSBC36PF               |                       | 3        | 1193    | 48                       | 3.35                   | 846              |
| 37       | 20,780 | 19,923                                                        | 19,048 | 18,130 | 17,133 | 16,000 | 14,636 | PSBC36QF               |                       | 5        | 1422    | 65                       | 5.61                   | 858              |
| 38       | 11,909 | 9,146                                                         | ---    | ---    | ---    | ---    | ---    | PSBH42JF               |                       | 1/2      | 385     | 14.1                     | 0.64                   | 706              |
| 39       | 13,301 | 10,895                                                        | 8,059  | ---    | ---    | ---    | ---    | PSBH42KF               |                       | 3/4      | 430     | 17.9                     | 0.94                   | 711              |
| 40       | 14,879 | 12,831                                                        | 10,422 | ---    | ---    | ---    | ---    | PSBH42LF               |                       | 1        | 481     | 21                       | 1.29                   | 733              |
| 41       | 17,114 | 15,394                                                        | 12,955 | 10,522 | ---    | ---    | ---    | PSBH42MF               | 42                    | 1 1/2    | 528     | 26                       | 1.76                   | 777              |
| 42       | 18,735 | 17,206                                                        | 15,133 | 12,896 | 10,293 | ---    | ---    | PSBH42NF               |                       | 2        | 578     | 30                       | 2.38                   | 785              |
| 43       | 21,522 | 20,231                                                        | 18,649 | 16,624 | 14,741 | 12,589 | ---    | PSBH42PF               |                       | 3        | 664     | 37                       | 3.35                   | 815              |
| 44       | 25,703 | 24,651                                                        | 23,456 | 22,046 | 20,345 | 18,674 | 17,148 | PSBH42QF               |                       | 5        | 793     | 49                       | 5.50                   | 842              |

(chart continues next page)

# Type PSB-F Performance Ratings (cont'd.)

| Item No. | 0"     | Cubic Feet Per Minute (CFM) at Static Pressure <sup>1,6</sup> |        |        |        |        |        | Fan Model <sup>2</sup> | Fan Size <sup>3</sup> | Motor HP | Fan RPM | Sone Rating <sup>4</sup> | Max BHP <sup>5,6</sup> | Approx. Ship Wt. |
|----------|--------|---------------------------------------------------------------|--------|--------|--------|--------|--------|------------------------|-----------------------|----------|---------|--------------------------|------------------------|------------------|
|          | 1/8"   | 1/4"                                                          | 3/8"   | 1/2"   | 5/8"   | 3/4"   |        |                        |                       |          |         |                          |                        |                  |
| 45       | 16,442 | 14,432                                                        | 11,922 | ---    | ---    | ---    | ---    | PSBC42MF               | 42                    | 1 1/2    | 789     | 33                       | 1.68                   | 997              |
| 46       | 19,343 | 17,381                                                        | 15,305 | 12,015 | ---    | ---    | ---    | PSBC42NF               |                       | 2        | 870     | 39                       | 2.25                   | 983              |
| 47       | 22,078 | 20,399                                                        | 18,574 | 16,659 | 13,253 | ---    | ---    | PSBC42PF               |                       | 3        | 993     | 49                       | 3.34                   | 1014             |
| 48       | 26,146 | 24,772                                                        | 23,224 | 21,704 | 20,107 | 17,949 | 14,311 | PSBC42QF               |                       | 5        | 1176    | 66                       | 5.60                   | 1028             |
| 49       | 15,212 | 10,937                                                        | ---    | ---    | ---    | ---    | ---    | PSBH48KF               | 48                    | 3/4      | 348     | 17.5                     | 0.92                   | 965              |
| 50       | 16,917 | 13,145                                                        | 9,183  | ---    | ---    | ---    | ---    | PSBH48LF               |                       | 1        | 387     | 21                       | 1.25                   | 920              |
| 51       | 18,622 | 15,225                                                        | 11,664 | ---    | ---    | ---    | ---    | PSBH48MF               |                       | 1 1/2    | 426     | 26                       | 1.77                   | 977              |
| 52       | 20,501 | 17,380                                                        | 14,144 | 10,898 | ---    | ---    | ---    | PSBH48NF               |                       | 2        | 469     | 29                       | 2.24                   | 980              |
| 53       | 25,541 | 21,956                                                        | 19,084 | 15,793 | ---    | ---    | ---    | PSBH48PF               |                       | 3        | 534     | 37                       | 3.35                   | 1040             |
| 54       | 30,419 | 27,478                                                        | 24,701 | 22,299 | 19,470 | 16,945 | ---    | PSBH48QF               |                       | 5        | 636     | 51                       | 5.52                   | 1230             |
| 55       | 34,760 | 33,585                                                        | 32,380 | 31,055 | 29,344 | 26,824 | 24,553 | PSBH48RF*              |                       | 7 1/2    | 760     | 74                       | 8.48                   | 1350             |
| 56       | 20,440 | 18,112                                                        | ---    | ---    | ---    | ---    | ---    | PSBC48NF               |                       | 2        | 707     | 39                       | 2.27                   | 1223             |
| 57       | 24,492 | 22,510                                                        | 19,913 | ---    | ---    | ---    | ---    | PSBC48PF               |                       | 3        | 804     | 49                       | 3.34                   | 1228             |
| 58       | 28,635 | 26,952                                                        | 25,118 | 22,405 | ---    | ---    | ---    | PSBC48QF               |                       | 5        | 940     | 66                       | 5.33                   | 1342             |
| 59       | 32,899 | 31,435                                                        | 29,932 | 28,166 | 25,620 | 21,751 | 17,688 | PSBC48RF               |                       | 7 1/2    | 1080    | 85                       | 8.10                   | 1398             |
| 60       | 22,208 | 19,491                                                        | 14,166 | ---    | ---    | ---    | ---    | PSBH54MF               | 54                    | 1 1/2    | 416     | 25                       | 1.69                   | 1370             |
| 61       | 24,184 | 21,738                                                        | 17,987 | ---    | ---    | ---    | ---    | PSBH54NF               |                       | 2        | 453     | 30                       | 2.28                   | 1376             |
| 62       | 27,333 | 25,207                                                        | 22,606 | 17,645 | ---    | ---    | ---    | PSBH54PF               |                       | 3        | 512     | 32                       | 3.37                   | 1401             |
| 63       | 34,916 | 33,025                                                        | 30,947 | 28,426 | 25,019 | ---    | ---    | PSBH54QF               |                       | 5        | 546     | 57                       | 5.56                   | 1526             |
| 64       | 40,160 | 38,531                                                        | 36,799 | 34,889 | 32,615 | 29,745 | ---    | PSBH54RF               |                       | 7 1/2    | 628     | 71                       | 8.38                   | 1578             |
| 65       | 43,741 | 42,252                                                        | 40,689 | 39,014 | 37,141 | 34,914 | 32,194 | PSBH54SF*              |                       | 10       | 691     | 85                       | 10.85                  | 1587             |
| 66       | 23,152 | 19,451                                                        | ---    | ---    | ---    | ---    | ---    | PSBC54NF               |                       | 2        | 592     | 37                       | 2.21                   | 1545             |
| 67       | 26,437 | 23,152                                                        | 19,809 | ---    | ---    | ---    | ---    | PSBC54PF               |                       | 3        | 676     | 45                       | 3.29                   | 1576             |
| 68       | 33,894 | 31,120                                                        | 27,816 | 24,697 | 20,374 | ---    | ---    | PSBC54QF               |                       | 5        | 801     | 70                       | 5.52                   | 1621             |
| 69       | 38,844 | 36,593                                                        | 33,574 | 30,902 | 28,126 | 24,565 | ---    | PSBC54RF               |                       | 7 1/2    | 918     | 95                       | 8.30                   | 1681             |
| 70       | 42,991 | 41,045                                                        | 38,366 | 35,801 | 33,425 | 30,849 | 27,667 | PSBC54SF               |                       | 10       | 1016    | 114                      | 11.26                  | 1693             |
| 71       | 25,051 | 21,008                                                        | 15,034 | ---    | ---    | ---    | ---    | PSBH60MF               | 60                    | 1 1/2    | 320     | 23                       | 1.67                   | 1825             |
| 72       | 27,869 | 24,254                                                        | 19,639 | ---    | ---    | ---    | ---    | PSBH60NF               |                       | 2        | 356     | 28                       | 2.24                   | 1831             |
| 73       | 31,783 | 28,648                                                        | 25,302 | 20,143 | ---    | ---    | ---    | PSBH60PF               |                       | 3        | 406     | 37                       | 3.38                   | 1856             |
| 74       | 37,889 | 35,315                                                        | 32,562 | 29,654 | 25,184 | ---    | ---    | PSBH60QF               |                       | 5        | 484     | 51                       | 5.68                   | 1868             |
| 75       | 44,362 | 42,174                                                        | 39,696 | 37,144 | 34,520 | 30,826 | ---    | PSBH60RF               |                       | 7 1/2    | 552     | 64                       | 8.33                   | 1920             |
| 76       | 49,024 | 47,069                                                        | 44,887 | 42,569 | 40,278 | 37,845 | 34,513 | PSBH60SF               |                       | 10       | 613     | 77                       | 11.22                  | 1933             |
| 77       | 27,364 | 23,056                                                        | ---    | ---    | ---    | ---    | ---    | PSBC60NF               |                       | 2        | 558     | 40                       | 2.23                   | 1902             |
| 78       | 31,385 | 27,666                                                        | 23,484 | ---    | ---    | ---    | ---    | PSBC60PF               |                       | 3        | 640     | 49                       | 3.36                   | 1927             |
| 79       | 37,122 | 33,971                                                        | 30,718 | 27,076 | 23,271 | ---    | ---    | PSBC60QF               |                       | 5        | 757     | 69                       | 5.57                   | 1935             |
| 80       | 43,755 | 40,867                                                        | 37,947 | 34,876 | 31,453 | 28,229 | ---    | PSBC60RF               |                       | 7 1/2    | 864     | 89                       | 8.33                   | 2003             |
| 81       | 48,161 | 45,552                                                        | 42,878 | 40,223 | 37,248 | 34,170 | 31,255 | PSBC60SF               |                       | 10       | 951     | 110                      | 11.11                  | 2015             |
| 82       | 34,018 | 28,954                                                        | 18,543 | ---    | ---    | ---    | ---    | PSBC72NF               | 72                    | 2        | 308     | 26                       | 2.18                   | 2139             |
| 83       | 41,875 | 36,930                                                        | 31,965 | 17,715 | ---    | ---    | ---    | PSBC72PF               |                       | 3        | 354     | 33                       | 3.32                   | 2159             |
| 84       | 49,682 | 45,522                                                        | 41,486 | 36,840 | 24,597 | ---    | ---    | PSBC72QF               |                       | 5        | 420     | 44                       | 5.52                   | 2175             |

- 1 — Performance shown for Installation Type A: free inlet, free outlet. Performance ratings include the effects of 2" aluminum filters.
- 2 — The first four or five letters of the model number identify **fan type**, **drive configuration** and **style**. The next two numbers indicate **fan size**, the next letter identifies motor **horsepower**. The following 'F' indicates that it is a **filtered** unit. Example: Model PSBH24HF is Type 'PS,' belt drive, Style 'H,' 24" size, 1/3 HP, filtered.
- 3 — On Style 'H' & 'HX,' die-formed steel blades are standard. On Style 'C,' an adjustable pitch propeller with cast aluminum airfoil blades is standard.
- 4 — The sound ratings shown are loudness values in hemispherical sones at a distance of 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for: Installation Type A: free outlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 5 — Maximum brake horsepower (BHP) within the catalog performance range. Power ratings (BHP) do not include transmission losses. Bearing losses are included. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate rating on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m<sup>3</sup>/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

\*These models have fixed pitch motor pulleys.

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

# Type PSD-F

FILTERED SUPPLY — DIRECT DRIVE — 2,700 to 46,000 CFM — 0" to 3/4" STATIC PRESSURE



## Application and Features

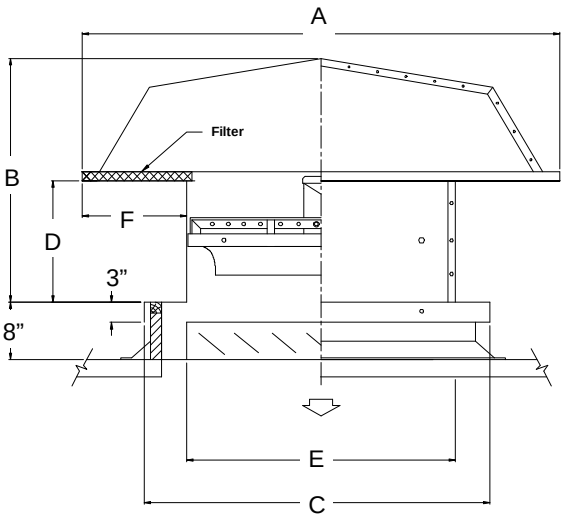
Type PSD-F PRVs provide filtered make-up air from an economical roof mounted unit.

The Type PSD-F unit is similar to the Type PSDC, except that the PSD-F unit is furnished with two-inch thick, permanent, cleanable filters.

The filters are easily mounted into the filter rack when the unit is installed at the job site.

American Coolair's performance data provides net CFM ratings with hood and filters in place. We have eliminated the need to estimate the effect of filters on the PRV performance!

Type PSD-F PRVs incorporate the Style C fan components. This fan style is described in the *Fan Component* section on Pages 4-5.



TYPE PSDC-F

| Item No. <sup>1</sup> | Fan Size | Dimensions in Inches |        |    |        |        |        | Filter Area ft <sup>2</sup> |
|-----------------------|----------|----------------------|--------|----|--------|--------|--------|-----------------------------|
|                       |          | A                    | B      | C  | D      | E      | F      |                             |
| 1-5                   | 24       | 57                   | 36 1/4 | 38 | 20 1/4 | 28 3/8 | 12 1/2 | 13.2                        |
| 6-10                  |          | 67                   | 40     |    |        |        | 17 1/2 | 21.3                        |
| 11,12                 | 30       | 67                   | 40     | 44 | 20 1/4 | 34 3/8 | 14 1/2 | 18.4                        |
| 13-20                 |          | 78                   | 41 3/4 |    |        |        | 20     | 29.0                        |
| 21,23,24              | 36       | 78                   | 41 3/4 | 50 | 20 1/4 | 40 3/8 | 17     | 25.6                        |
| 22,25-33              |          | 88                   | 42 3/4 |    |        |        | 22     | 36.7                        |
| 34,35,37,38           | 42       | 88                   | 42 3/4 | 56 | 20 1/4 | 46 3/8 | 19     | 32.8                        |
| 36,39-45              |          | 98                   | 48 1/4 |    |        |        | 24     | 45.3                        |
| 46-49                 | 48       | 98                   | 51 1/8 | 62 | 23 1/8 | 52 3/8 | 21     | 40.9                        |
| 50-55                 |          | 109                  | 57 1/8 |    |        |        | 26 1/2 | 56.3                        |
| 56,57                 | 54       | 109                  | 57 1/8 | 68 | 23 1/8 | 58 3/8 | 23 1/2 | 51.3                        |
| 58-62                 |          | 127 7/8              | 45 3/4 |    |        |        | 32 7/8 | 81.8                        |
| 63,64                 | 60       | 127 7/8              | 57 3/8 | 77 | 23 1/8 | 64 3/8 | 29 7/8 | 76.4                        |
| 65,66                 |          | 139 1/2              | 45 3/4 |    |        |        | 35 3/4 | 97.3                        |

1 — Numbers are inclusive and identify each model for which dimensions apply.

## Dimensions

Dimension A is the O.D. of the square hood.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the distance from the curb to the hood.

Dimension E is the damper net length and width, flanges add 1-11/16 inches on all sides.

Dimension F is the distance of the filter overhang

# Performance Ratings

American Coolair Corporation certifies that the performance data for the type PSD-F PRV models shown below are based on tests conducted in an accredited laboratory in accordance with ANSI Standards 210-07 and 300-08.

# Typical Specifications

Hooded supply power roof ventilators shall be American Coolair Type PSDC-F, as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan component shall be of welded steel construction, PRV hood and base shall be of galvanized steel. PRVs shall be furnished with 2" thick, permanent, cleanable filters. Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable. Entire blade assembly shall be mounted directly to the motor shaft. Performance ratings shall be from tests of complete PRV and so certified by the PRV manufacturer. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, bird screen, backdraft damper, prefabricated curb and special protective coating.)

| Item No. | Cubic Feet Per Minute (CFM) at Static Pressure <sup>1,6</sup> |        |        |        |        |        |        |            | Fan Model <sup>2</sup> | Fan Size | Motor HP | Fan RPM | Sone Rating <sup>3</sup> | Max BHP <sup>4,6</sup> | Blade Desc. <sup>5</sup> |     | Approx. Ship Wt. |
|----------|---------------------------------------------------------------|--------|--------|--------|--------|--------|--------|------------|------------------------|----------|----------|---------|--------------------------|------------------------|--------------------------|-----|------------------|
|          | 0"                                                            | 1/8"   | 1/4"   | 3/8"   | 1/2"   | 5/8"   | 3/4"   | No.        |                        |          |          |         |                          |                        | Pitch                    |     |                  |
| 1        | 4,653                                                         | 3,848  | 2,555  | ---    | ---    | ---    | ---    | PSDC24G8F  | 24                     | 1/4      | 870      | 14.5    | 0.29                     | 3                      | 27.5°                    | 400 |                  |
| 2        | 5,724                                                         | 5,097  | 4,194  | 2,867  | ---    | ---    | ---    | PSDC24J8F  |                        | 1/2      | 870      | 17.8    | 0.58                     | 6                      | 30.5°                    | 410 |                  |
| 3        | 4,860                                                         | 4,317  | 3,633  | 2,659  | ---    | ---    | ---    | PSDC24H11F |                        | 1/3      | 1160     | 19.7    | 0.37                     | 3                      | 15.5°                    | 400 |                  |
| 4        | 5,813                                                         | 5,246  | 4,604  | 3,776  | ---    | ---    | ---    | PSDC24J11F |                        | 1/2      | 1160     | 22      | 0.58                     | 3                      | 23°                      | 405 |                  |
| 5        | 6,300                                                         | 5,896  | 5,418  | 4,820  | 4,000  | 3,179  | ---    | PSDC24K11F |                        | 3/4      | 1160     | 27      | 0.86                     | 6                      | 22.5°                    | 410 |                  |
| 6        | 7,432                                                         | 6,999  | 6,498  | 5,916  | 5,088  | 3,920  | ---    | PSDC24L11F |                        | 1        | 1160     | 28      | 1.13                     | 6                      | 27°                      | 431 |                  |
| 7        | 6,985                                                         | 6,655  | 6,218  | 5,791  | 5,339  | 4,798  | 4,140  | PSDC24L17F |                        | 1        | 1750     | 37      | 1.13                     | 3                      | 14°                      | 420 |                  |
| 8        | 8,173                                                         | 7,802  | 7,424  | 7,036  | 6,614  | 6,136  | 5,573  | PSDC24M17F |                        | 1 1/2    | 1750     | 43      | 1.70                     | 3                      | 19.5°                    | 425 |                  |
| 9        | 9,259                                                         | 8,879  | 8,491  | 8,092  | 7,671  | 7,207  | 6,680  | PSDC24N17F |                        | 2        | 1750     | 48      | 2.26                     | 3                      | 26.5°                    | 431 |                  |
| 10       | 10,764                                                        | 10,479 | 10,179 | 9,875  | 9,564  | 9,235  | 8,874  | PSDC24P17F |                        | 3        | 1750     | 53      | 3.49                     | 6                      | 25°                      | 461 |                  |
| 11       | 7,906                                                         | 6,802  | 5,177  | ---    | ---    | ---    | ---    | PSDC30J8F  | 30                     | 1/2      | 870      | 20      | 0.56                     | 3                      | 22°                      | 560 |                  |
| 12       | 8,963                                                         | 8,238  | 7,323  | 6,115  | ---    | ---    | ---    | PSDC30K8F  |                        | 3/4      | 870      | 22      | 0.85                     | 6                      | 19°                      | 550 |                  |
| 13       | 10,627                                                        | 9,866  | 9,004  | 7,816  | 5,608  | ---    | ---    | PSDC30L8F  |                        | 1        | 870      | 23      | 1.15                     | 6                      | 23.5°                    | 590 |                  |
| 14       | 9,244                                                         | 8,376  | 7,458  | 6,335  | ---    | ---    | ---    | PSDC30K11F |                        | 3/4      | 1160     | 29      | 0.84                     | 3                      | 14.5°                    | 545 |                  |
| 15       | 10,676                                                        | 9,774  | 8,888  | 7,812  | 6,085  | ---    | ---    | PSDC30L11F |                        | 1        | 1160     | 32      | 1.14                     | 3                      | 19.5°                    | 560 |                  |
| 16       | 12,192                                                        | 11,263 | 10,330 | 9,231  | 7,546  | ---    | ---    | PSDC30M11F |                        | 1 1/2    | 1160     | 34      | 1.70                     | 3                      | 26°                      | 590 |                  |
| 17       | 13,281                                                        | 12,746 | 12,197 | 11,596 | 10,882 | 9,979  | 8,786  | PSDC30N11F |                        | 2        | 1160     | 37      | 2.32                     | 6                      | 21°                      | 605 |                  |
| 18       | 12,639                                                        | 12,047 | 11,484 | 10,902 | 10,294 | 9,634  | 8,835  | PSDC30N17F |                        | 2        | 1750     | 57      | 2.24                     | 3                      | 12°                      | 555 |                  |
| 19       | 14,931                                                        | 14,433 | 13,893 | 13,298 | 12,667 | 12,011 | 11,301 | PSDC30P17F |                        | 3        | 1750     | 60      | 3.39                     | 3                      | 17°                      | 580 |                  |
| 20       | 18,217                                                        | 17,603 | 16,993 | 16,397 | 15,794 | 15,162 | 14,466 | PSDC30Q17F |                        | 5        | 1750     | 69      | 5.67                     | 3                      | 25.5°                    | 595 |                  |
| 21       | 12,011                                                        | 10,672 | 8,740  | ---    | ---    | ---    | ---    | PSDC36L6F  | 36                     | 1        | 680      | 25      | 1.13                     | 6                      | 23.5°                    | 685 |                  |
| 22       | 14,266                                                        | 12,436 | 10,401 | ---    | ---    | ---    | ---    | PSDC36M6F  |                        | 1 1/2    | 680      | 28      | 1.66                     | 6                      | 30°                      | 745 |                  |
| 23       | 10,975                                                        | 9,489  | 7,990  | ---    | ---    | ---    | ---    | PSDC36K8F  |                        | 3/4      | 870      | 27      | 0.86                     | 3                      | 15.5°                    | 645 |                  |
| 24       | 12,278                                                        | 10,592 | 8,915  | 6,207  | ---    | ---    | ---    | PSDC36L8F  |                        | 1        | 870      | 30      | 1.14                     | 3                      | 20°                      | 675 |                  |
| 25       | 15,030                                                        | 13,223 | 11,216 | ---    | ---    | ---    | ---    | PSDC36M8F  |                        | 1 1/2    | 870      | 33      | 1.71                     | 3                      | 28°                      | 695 |                  |
| 26       | 15,592                                                        | 14,110 | 12,365 | 8,907  | ---    | ---    | ---    | PSDC36N8F  |                        | 2        | 870      | 38      | 2.27                     | 4                      | 28.5°                    | 745 |                  |
| 27       | 14,042                                                        | 12,929 | 11,820 | 10,569 | 9,021  | ---    | ---    | PSDC36M11F |                        | 1 1/2    | 1160     | 41      | 1.70                     | 3                      | 12.5°                    | 690 |                  |
| 28       | 16,292                                                        | 15,081 | 13,665 | 12,423 | 11,126 | 8,998  | ---    | PSDC36N11F |                        | 2        | 1160     | 48      | 2.29                     | 3                      | 17.5°                    | 695 |                  |
| 29       | 18,835                                                        | 17,607 | 16,274 | 14,692 | 13,104 | 10,508 | ---    | PSDC36P11F |                        | 3        | 1160     | 55      | 3.40                     | 3                      | 24°                      | 745 |                  |
| 30       | 21,570                                                        | 20,786 | 19,969 | 19,111 | 18,195 | 17,147 | 15,810 | PSDC36Q11F |                        | 5        | 1160     | 66      | 5.65                     | 6                      | 23.5°                    | 765 |                  |
| 31       | 19,361                                                        | 18,715 | 18,069 | 17,417 | 16,753 | 16,067 | 15,349 | PSDC36Q17F |                        | 5        | 1750     | 84      | 5.79                     | 3                      | 11°                      | 695 |                  |
| 32       | 23,006                                                        | 22,340 | 21,675 | 21,011 | 20,343 | 19,665 | 18,967 | PSDC36R17F |                        | 7 1/2    | 1750     | 94      | 8.52                     | 3                      | 16.5°                    | 745 |                  |
| 33       | 25,708                                                        | 24,954 | 24,202 | 23,452 | 22,701 | 21,949 | 21,191 | PSDC36S17F |                        | 10       | 1750     | 103     | 11.20                    | 3                      | 20.5°                    | 765 |                  |
| 34       | 14,265                                                        | 11,932 | 9,035  | ---    | ---    | ---    | ---    | PSDC42L6F  | 42                     | 1        | 680      | 29      | 1.13                     | 3                      | 18.5°                    | 805 |                  |
| 35       | 15,883                                                        | 14,015 | 12,108 | ---    | ---    | ---    | ---    | PSDC42M6F  |                        | 1 1/2    | 680      | 31      | 1.68                     | 4                      | 21.5°                    | 855 |                  |
| 36       | 18,701                                                        | 17,292 | 15,746 | 13,849 | ---    | ---    | ---    | PSDC42N6F  |                        | 2        | 680      | 39      | 2.29                     | 6                      | 21.5°                    | 895 |                  |
| 37       | 13,604                                                        | 11,908 | 9,925  | 7,502  | ---    | ---    | ---    | PSDC42L8F  |                        | 1        | 870      | 36      | 1.14                     | 3                      | 8°                       | 795 |                  |
| 38       | 15,923                                                        | 14,252 | 12,403 | 9,941  | ---    | ---    | ---    | PSDC42M8F  |                        | 1 1/2    | 870      | 40      | 1.67                     | 3                      | 13°                      | 805 |                  |
| 39       | 18,980                                                        | 17,077 | 14,997 | 12,643 | ---    | ---    | ---    | PSDC42N8F  |                        | 2        | 870      | 44      | 2.26                     | 3                      | 17.5°                    | 875 |                  |
| 40       | 21,791                                                        | 19,677 | 17,309 | 14,958 | 11,959 | ---    | ---    | PSDC42P8F  |                        | 3        | 870      | 55      | 3.38                     | 3                      | 25°                      | 895 |                  |

(chart continues next page)

# Type PSD-F Performance Ratings (cont'd.)

| Item No. | Cubic Feet Per Minute (CFM) at Static Pressure <sup>1,6</sup> |        |        |         |        |        |        | Fan Model <sup>2</sup> | Fan Motor |       | Fan RPM | Sone Rating <sup>3</sup> | Max BHP <sup>4,6</sup> | Blade Desc. <sup>5</sup> |       | Approx. Ship Wt. |
|----------|---------------------------------------------------------------|--------|--------|---------|--------|--------|--------|------------------------|-----------|-------|---------|--------------------------|------------------------|--------------------------|-------|------------------|
|          | 0"                                                            | 1/8"   | 1/4"   | 3/8"    | 1/2"   | 5/8"   | 3/4"   |                        | Size      | HP    |         |                          |                        | No.                      | Pitch |                  |
| 41       | 17,470                                                        | 16,131 | 14,733 | 13,308  | 11,698 | 9,419  | ---    | PSDC42N11F             | 42        | 2     | 1160    | 57                       | 2.29                   | 3                        | 6°    | 825              |
| 42       | 20,906                                                        | 19,655 | 18,379 | 16,973  | 15,293 | 13,285 | 11,100 | PSDC42P11F             |           | 3     | 1160    | 66                       | 3.43                   | 3                        | 11°   | 875              |
| 43       | 25,592                                                        | 24,182 | 22,713 | 21,168  | 19,528 | 17,762 | 15,729 | PSDC42Q11F             |           | 5     | 1160    | 76                       | 5.50                   | 3                        | 18°   | 895              |
| 44       | 27,429                                                        | 26,600 | 25,720 | 24,806  | 23,854 | 22,873 | 21,878 | PSDC42R17F             |           | 7 1/2 | 1750    | 129                      | 8.57                   | 3                        | 7°    | 875              |
| 45       | 31,044                                                        | 30,234 | 29,427 | 28,610  | 27,771 | 26,895 | 25,969 | PSDC42S17F             |           | 10    | 1750    | 143                      | 11.35                  | 3                        | 10.5° | 895              |
| 46       | 15,081                                                        | 12,547 | 9,644  | ---     | ---    | ---    | ---    | PSDC48L6F              | 48        | 1     | 680     | 30                       | 1.11                   | 3                        | 8.5°  | 1045             |
| 47       | 17,673                                                        | 15,640 | 13,329 | 10,239  | ---    | ---    | ---    | PSDC48M6F              |           | 1 1/2 | 680     | 37                       | 1.70                   | 4                        | 11°   | 1085             |
| 48       | 19,170                                                        | 17,230 | 15,071 | 12,229  | ---    | ---    | ---    | PSDC48N6F              |           | 2     | 680     | 36                       | 2.17                   | 4                        | 15°   | 1110             |
| 49       | 18,980                                                        | 16,980 | 15,036 | 12,717  | 9,700  | ---    | ---    | PSDC48N8F              |           | 2     | 870     | 46                       | 2.22                   | 3                        | 8°    | 1085             |
| 50       | 23,267                                                        | 21,223 | 19,069 | 16,623  | 13,734 | ---    | ---    | PSDC48P8F              |           | 3     | 870     | 51                       | 3.32                   | 3                        | 13.5° | 1120             |
| 51       | 27,153                                                        | 25,286 | 23,318 | 21,358  | 19,354 | 16,895 | ---    | PSDC48Q8F              |           | 5     | 870     | 60                       | 5.33                   | 4                        | 17.5° | 1165             |
| 52       | 31,519                                                        | 30,112 | 28,762 | 27,367  | 25,811 | 24,033 | 22,008 | PSDC48R8F              |           | 7 1/2 | 870     | 76                       | 8.46                   | 6                        | 20.5° | 1195             |
| 53       | 26,909                                                        | 25,374 | 23,738 | 22,112  | 20,527 | 18,809 | 16,760 | PSDC48Q11F             |           | 5     | 1160    | 80                       | 5.52                   | 3                        | 8.5°  | 1120             |
| 54       | 31,879                                                        | 30,324 | 28,751 | 27,159  | 25,505 | 23,698 | 21,653 | PSDC48R11F             |           | 7 1/2 | 1160    | 90                       | 8.38                   | 3                        | 14.5° | 1155             |
| 55       | 34,872                                                        | 33,290 | 31,489 | 29,402  | 27,260 | 25,245 | 23,249 | PSDC48S11F             |           | 10    | 1160    | 96                       | 11.04                  | 3                        | 19°   | 1195             |
| 56       | 20,879                                                        | 18,063 | 14,603 | ---     | ---    | ---    | ---    | PSDC54M6F              | 54        | 1 1/2 | 680     | 39                       | 1.65                   | 3                        | 8°    | 1240             |
| 57       | 22,955                                                        | 20,424 | 17,169 | 11,877  | ---    | ---    | ---    | PSDC54N6F              |           | 2     | 680     | 43                       | 2.22                   | 3                        | 12°   | 1260             |
| 58       | 27,764                                                        | 25,573 | 22,974 | 20,070  | 16,818 | ---    | ---    | PSDC54P8F              |           | 3     | 870     | 61                       | 3.31                   | 3                        | 7.5°  | 1275             |
| 59       | 33,753                                                        | 30,648 | 27,887 | 25,802  | 22,879 | 17,131 | ---    | PSDC54Q8F              |           | 5     | 870     | 73                       | 5.37                   | 3                        | 14°   | 1325             |
| 60       | 38,226                                                        | 34,690 | 31,952 | 29,555  | 26,572 | 21,602 | ---    | PSDC54R8F              |           | 7 1/2 | 870     | 88                       | 8.36                   | 3                        | 22°   | 1355             |
| 61       | 37,562                                                        | 35,966 | 34,323 | 32,511  | 30,423 | 28,180 | 25,900 | PSDC54R11F             |           | 7 1/2 | 1160    | 105                      | 8.25                   | 3                        | 8°    | 1315             |
| 62       | 42,331                                                        | 40,139 | 38,162 | 36,511  | 34,958 | 33,286 | 31,126 | PSDC54S11F             |           | 10    | 1160    | 117                      | 11.15                  | 3                        | 12°   | 1345             |
| 63       | 26,144                                                        | 22,746 | 19,157 | 13661.9 | ---    | ---    | ---    | PSDC60N6F              | 60        | 2     | 680     | 49                       | 2.28                   | 3                        | 6°    | 1460             |
| 64       | 35,440                                                        | 33,219 | 30,591 | 27,277  | 24,386 | 20,377 | ---    | PSDC60Q8F              |           | 5     | 870     | 80                       | 5.63                   | 3                        | 8°    | 1500             |
| 65       | 42,237                                                        | 39,932 | 37,219 | 33,388  | 29,264 | 24,823 | ---    | PSDC60R8F              |           | 7 1/2 | 870     | 90                       | 8.43                   | 3                        | 14°   | 1555             |
| 66       | 45,441                                                        | 43,870 | 42,107 | 39,728  | 36,922 | 34,772 | 32,892 | PSDC60S11F             |           | 10    | 1160    | 137                      | 11.35                  | 3                        | 6°    | 1555             |

- 1 — Performance shown for Installation Type A: free inlet, free outlet. Performance ratings include the effects of 2" aluminum filters.
- 2 — The first four letters of the model number identify **fan type**, **drive configuration** and **style**. The next two numbers indicate **fan size**, the next letter identifies motor **horsepower**; the next number (or numbers) indicates **RPM** in hundreds. The following 'F' indicates that it is a **filtered** unit. Example: Model PSDC24G8F is Type 'PS,' direct drive, Style 'C,' 24" size, 1/4 HP, 870 RPM, filtered.
- 3 — The sound ratings shown are loudness values in hemispherical sones at a distance of 1.5 m (5 ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for: Installation Type A: free outlet hemispherical sone levels. The sound ratings shown are at 0" static pressure.
- 4 — Maximum brake horsepower (BHP) within the catalog performance range. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate ratings on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 5 — An adjustable pitch propeller with cast aluminum airfoil blades is standard.
- 6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m<sup>3</sup>/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

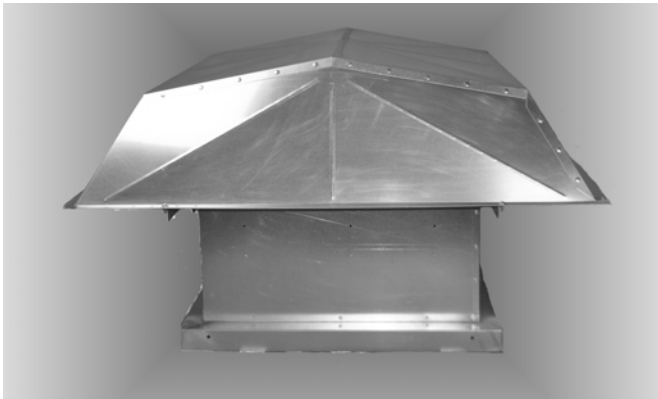
**Example:** 3904 CFM x .000472 = 1.8427 m<sup>3</sup>/s  
0.125 SP x 248.36 = 31.05 Pa  
0.886 BHP x .7457 = 0.661 kW

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE



# Type RPBC and RPDC

**REVERSIBLE — BELT OR DIRECT DRIVE —  
2,600 to 42,000 CFM  
0" to  $\frac{3}{4}$ " STATIC PRESSURE**



## Application and Features

Type RPBC (belt drive) and RPDC (direct drive) PRVs are single units designed for both exhaust and supply.

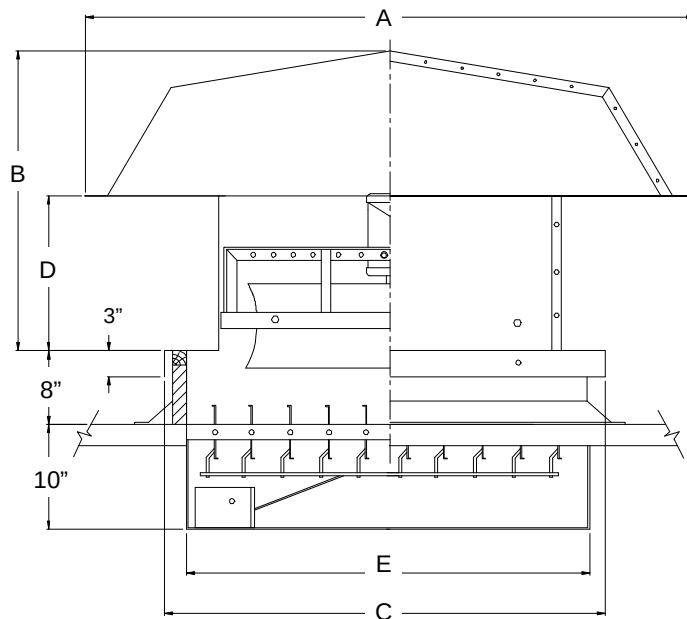
They are identical in exterior appearance to the PE, PS and PS-F units.

Type RPBC and RPDC PRVs use adjustable pitch cast aluminum airfoil propeller blades with alternate blades turned 180° and a double orifice attached to the fan panel. The result is essentially equal air movement abilities in either exhaust or supply mode.

The exhaust capability is reduced slightly due to air flow restrictions imposed by the hood, even though the propeller performs equally in both directions.

To prevent backdraft when the unit is not energized, a center pivoted, motorized damper is recommended.

Type RP models incorporate American Coolair Style 'C' fan components. These fans are described in the *Fan Component* section on Pages 4-5.



**TYPE RPB-RPD**



## Dimensions

Dimension A is the O.D. of the square hood.

Dimension B is the overall height above the curb.

Dimension C is the I.D. of the curb cap flange.

Dimension D is the distance from the curb to the hood.

Dimension E is the damper net length and width, flanges add 1-3/8 inches on all sides.

| Fan Size | Dimensions in Inches |        |    |        |        |
|----------|----------------------|--------|----|--------|--------|
|          | A                    | B      | C  | D      | E      |
| 24       | 57                   | 34 1/2 | 38 | 20 3/4 | 28 3/8 |
| 30       | 67                   | 38 1/4 | 44 | 20 3/4 | 34 3/8 |
| 36       | 78                   | 40     | 50 | 20 3/4 | 40 3/8 |
| 42       | 88                   | 41     | 56 | 20 3/4 | 46 3/8 |
| 48       | 98                   | 49 3/8 | 62 | 23 5/8 | 52 3/8 |
| 54       | 109                  | 55 3/8 | 68 | 23 5/8 | 58 3/8 |
| 60       | 109                  | 55 3/8 | 77 | 23 5/8 | 64 3/8 |

# Performance Ratings

American Coolair Corporation certifies that the performance data for the type RPB & RPD PRV models shown below are based on tests conducted in an accredited laboratory in accordance with ANSI Standards 210-07 and 300-08.

# Typical Specifications

Reversible hooded power roof ventilators shall be American Coolair Type RP, as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Fan component shall be of welded steel construction, PRV hood and base shall be of galvanized steel. Fan blades shall be of high strength cast aluminum airfoil securely attached to a heavy cast aluminum hub. Blade pitch shall be adjustable and blade shall be designed to move air equally in either direction, exhaust or supply. (For belt drive models: Ball bearings shall be of the heavy-duty pillow block type. Motor pulleys shall be variable pitch.) (For direct drive models: Entire propeller assembly shall be mounted directly to the motor shaft.) Performance ratings shall be based on tests in accordance with industry test standards and procedures and so certified by the manufacturer. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch; bird screen; heavy duty, center-pivoted, motor operated, backdraft damper; prefabricated curb and special protective coating.)

| Item No. | Cubic Feet Per Minute (CFM) at Static Pressure <sup>1,6</sup> |        |        |        |        |        |        | Fan Model <sup>2</sup> | Fan Size | Motor HP | Fan RPM | Sone Rating <sup>3</sup> | Max BHP <sup>4,6</sup> | Blade <sup>5</sup> Pitch | Approx. Ship Wt. |
|----------|---------------------------------------------------------------|--------|--------|--------|--------|--------|--------|------------------------|----------|----------|---------|--------------------------|------------------------|--------------------------|------------------|
|          | 0"                                                            | 1/8"   | 1/4"   | 3/8"   | 1/2"   | 5/8"   | 3/4"   |                        |          |          |         |                          |                        |                          |                  |
| 1        | 5,013                                                         | 4,204  | 2,555  | ---    | ---    | ---    | ---    | RP-C24H11              |          | 1/3      | 1160    | 20                       | 0.38                   | 20°                      | 415              |
| 2        | 6,253                                                         | 5,297  | 3,648  | ---    | ---    | ---    | ---    | RP-C24J11              |          | 1/2      | 1160    | 24                       | 0.58                   | 29°                      | 430              |
| 3        | 6,402                                                         | 5,890  | 5,369  | 4,720  | 3,531  | ---    | ---    | RP-C24K17              | 24       | 3/4      | 1750    | 35                       | 0.90                   | 15°                      | 435              |
| 4        | 7,562                                                         | 7,057  | 6,514  | 5,830  | 4,943  | ---    | ---    | RP-C24L17              |          | 1        | 1750    | 40                       | 1.23                   | 20°                      | 440              |
| 5        | 8,602                                                         | 8,066  | 7,447  | 6,716  | 5,851  | 4,187  | ---    | RP-C24M17              |          | 1 1/2    | 1750    | 43                       | 1.79                   | 25°                      | 445              |
| 6        | 7,558                                                         | 6,137  | 3,232  | ---    | ---    | ---    | ---    | RP-C30J8               |          | 1/2      | 870     | 18.8                     | 0.53                   | 20.5°                    | 540              |
| 7        | 7,302                                                         | 6,247  | 4,962  | ---    | ---    | ---    | ---    | RP-C30J11              |          | 1/2      | 1160    | 27                       | 0.60                   | 12°                      | 540              |
| 8        | 8,716                                                         | 7,674  | 6,547  | 4,329  | ---    | ---    | ---    | RP-C30K11              |          | 3/4      | 1160    | 28                       | 0.89                   | 16°                      | 545              |
| 9        | 10,496                                                        | 9,418  | 8,213  | 6,199  | ---    | ---    | ---    | RP-C30L11              | 30       | 1        | 1160    | 32                       | 1.26                   | 22°                      | 560              |
| 10       | 11,335                                                        | 10,292 | 8,975  | 7,124  | 4,618  | ---    | ---    | RP-C30M11              |          | 1 1/2    | 1160    | 33                       | 1.69                   | 25°                      | 560              |
| 11       | 11,293                                                        | 10,624 | 9,939  | 9,159  | 8,295  | 7,215  | 5,625  | RP-C30N17              |          | 2        | 1750    | 53                       | 2.31                   | 12.5°                    | 565              |
| 12       | 14,308                                                        | 13,652 | 12,980 | 12,228 | 11,403 | 10,519 | 9,358  | RP-C30P17              |          | 3        | 1750    | 59                       | 3.41                   | 18.5°                    | 585              |
| 13       | 18,147                                                        | 17,495 | 16,760 | 15,929 | 15,001 | 13,994 | 12,926 | RP-C30Q17              |          | 5        | 1750    | 67                       | 5.69                   | 27.5°                    | 600              |
| 14       | 8,900                                                         | 7,215  | 4,298  | ---    | ---    | ---    | ---    | RP-C36J8               |          | 1/2      | 870     | 24                       | 0.59                   | 10.5°                    | 630              |
| 15       | 11,738                                                        | 9,993  | 7,844  | ---    | ---    | ---    | ---    | RP-C36K8               |          | 3/4      | 870     | 26                       | 0.90                   | 16.5°                    | 635              |
| 16       | 13,194                                                        | 11,541 | 9,399  | 5,252  | ---    | ---    | ---    | RP-C36L8               |          | 1        | 870     | 28                       | 1.28                   | 20°                      | 645              |
| 17       | 15,432                                                        | 13,716 | 11,356 | 6,953  | ---    | ---    | ---    | RP-C36M8               |          | 1 1/2    | 870     | 32                       | 1.79                   | 26°                      | 650              |
| 18       | 11,538                                                        | 10,292 | 9,105  | 6,649  | ---    | ---    | ---    | RP-C36L11              |          | 1        | 1160    | 39                       | 1.27                   | 10°                      | 645              |
| 19       | 12,850                                                        | 11,586 | 10,173 | 8,489  | 5,767  | ---    | ---    | RP-C36M11              | 36       | 1 1/2    | 1160    | 40                       | 1.64                   | 12°                      | 650              |
| 20       | 15,373                                                        | 14,087 | 12,777 | 11,347 | 8,645  | 6,112  | ---    | RP-C36N11              |          | 2        | 1160    | 43                       | 2.31                   | 16°                      | 655              |
| 21       | 18,835                                                        | 17,537 | 16,124 | 14,572 | 12,527 | 8,768  | ---    | RP-C36P11              |          | 3        | 1160    | 51                       | 3.46                   | 22.5°                    | 675              |
| 22       | 14,355                                                        | 13,446 | 12,570 | 11,521 | 10,264 | 8,906  | 7,614  | RP-C36P17              |          | 3        | 1750    | 73                       | 3.41                   | 7°                       | 675              |
| 23       | 20,871                                                        | 20,019 | 19,202 | 18,406 | 17,551 | 16,564 | 15,446 | RP-C36Q17              |          | 5        | 1750    | 83                       | 5.64                   | 13.5°                    | 690              |
| 24       | 26,121                                                        | 25,296 | 24,477 | 23,663 | 22,821 | 21,903 | 20,879 | RP-C36R17              |          | 7 1/2    | 1750    | 95                       | 8.57                   | 19.5°                    | 740              |
| 25       | 29,540                                                        | 28,755 | 27,935 | 27,024 | 26,045 | 25,030 | 23,950 | RP-C36S17              |          | 10       | 1750    | 108                      | 11.50                  | 24°                      | 760              |
| 26       | 13,138                                                        | 11,437 | 8,849  | 5,584  | ---    | ---    | ---    | RP-C42L8               |          | 1        | 870     | 36                       | 1.26                   | 10°                      | 765              |
| 27       | 15,996                                                        | 14,263 | 12,022 | 8,382  | ---    | ---    | ---    | RP-C42M8               |          | 1 1/2    | 870     | 39                       | 1.72                   | 14°                      | 770              |
| 28       | 17,905                                                        | 16,026 | 13,979 | 10,313 | 7,074  | ---    | ---    | RP-C42N8               |          | 2        | 870     | 41                       | 2.31                   | 17°                      | 775              |
| 29       | 21,483                                                        | 19,521 | 17,293 | 14,083 | 9,729  | ---    | ---    | RP-C42P8               | 42       | 3        | 870     | 49                       | 3.45                   | 23.5°                    | 795              |
| 30       | 15,022                                                        | 13,605 | 11,833 | 9,583  | 7,530  | ---    | ---    | RP-C42N11              |          | 2        | 1160    | 55                       | 2.31                   | 7.5°                     | 775              |
| 31       | 18,490                                                        | 17,083 | 15,690 | 14,176 | 11,609 | 8,917  | 6,875  | RP-C42P11              |          | 3        | 1160    | 60                       | 3.39                   | 11°                      | 795              |
| 32       | 25,053                                                        | 23,750 | 22,292 | 20,686 | 18,945 | 16,513 | 12,631 | RP-C42Q11              |          | 5        | 1160    | 71                       | 5.71                   | 18.5°                    | 810              |

(chart continues next page)

# Type RPB & RPD Performance Ratings (cont'd.)

| Item No. | Cubic Feet Per Minute (CFM) at Static Pressure <sup>1,6</sup> |        |        |        |        |        |        | Fan Model <sup>2</sup> | Fan  |       | Fan RPM | Sone Rating <sup>3</sup> | Max BHP <sup>4,6</sup> | Blade <sup>5</sup> Pitch | Approx. Ship Wt. |
|----------|---------------------------------------------------------------|--------|--------|--------|--------|--------|--------|------------------------|------|-------|---------|--------------------------|------------------------|--------------------------|------------------|
|          | 0"                                                            | 1/8"   | 1/4"   | 3/8"   | 1/2"   | 5/8"   | 3/4"   |                        | Size | HP    |         |                          |                        |                          |                  |
| 33       | 19,751                                                        | 17,160 | 13,504 | ---    | ---    | ---    | ---    | RP-C48M6               |      | 1 1/2 | 680     | 32                       | 1.77                   | 16°                      | 1110             |
| 34       | 22,443                                                        | 19,886 | 16,425 | ---    | ---    | ---    | ---    | RP-C48N6               |      | 2     | 680     | 33                       | 2.27                   | 20°                      | 1115             |
| 35       | 25,314                                                        | 22,430 | 18,847 | 12,515 | ---    | ---    | ---    | RP-C48P6               |      | 3     | 680     | 37                       | 3.42                   | 25°                      | 1135             |
| 36       | 19,295                                                        | 17,421 | 15,328 | 11,007 | ---    | ---    | ---    | RP-C48N8               |      | 2     | 870     | 44                       | 2.29                   | 10°                      | 1115             |
| 37       | 23,419                                                        | 21,523 | 19,297 | 16,149 | 11,909 | ---    | ---    | RP-C48P8               | 48   | 3     | 870     | 47                       | 3.38                   | 14°                      | 1135             |
| 38       | 29,350                                                        | 27,367 | 25,143 | 22,373 | 18,129 | 13,353 | ---    | RP-C48Q8               |      | 5     | 870     | 52                       | 5.74                   | 21°                      | 1150             |
| 39       | 25,727                                                        | 24,308 | 22,914 | 21,418 | 19,420 | 15,699 | 13,115 | RP-C48Q11              |      | 5     | 1160    | 75                       | 5.61                   | 10°                      | 1150             |
| 40       | 33,134                                                        | 31,671 | 30,200 | 28,679 | 27,019 | 24,940 | 21,832 | RP-C48R11              |      | 7 1/2 | 1160    | 83                       | 8.53                   | 15.5°                    | 1205             |
| 41       | 38,285                                                        | 36,878 | 35,402 | 33,769 | 31,909 | 29,860 | 27,569 | RP-C48S11              |      | 10    | 1160    | 88                       | 11.33                  | 20°                      | 1255             |
| 42       | 22,792                                                        | 19,722 | 16,065 | 10,023 | ---    | ---    | ---    | RP-C54N6               |      | 2     | 680     | 37                       | 2.21                   | 10.5°                    | 1235             |
| 43       | 28,268                                                        | 25,318 | 22,100 | 15,999 | 10,245 | ---    | ---    | RP-C54P6               |      | 3     | 680     | 42                       | 3.31                   | 15°                      | 1260             |
| 44       | 36,574                                                        | 33,283 | 29,556 | 24,654 | 16,639 | ---    | ---    | RP-C54Q6               |      | 5     | 680     | 49                       | 5.74                   | 23.5°                    | 1290             |
| 45       | 33,037                                                        | 30,726 | 28,207 | 25,201 | 21,423 | 16,082 | ---    | RP-C54Q8               | 54   | 5     | 870     | 64                       | 5.64                   | 13°                      | 1290             |
| 46       | 42,053                                                        | 39,775 | 37,373 | 34,555 | 31,305 | 26,903 | ---    | RP-C54R8               |      | 7 1/2 | 870     | 77                       | 8.48                   | 19.5°                    | 1350             |
| 47       | 34,533                                                        | 32,689 | 30,899 | 28,970 | 26,739 | 23,262 | 20,021 | RP-C54R11              |      | 7 1/2 | 1160    | 95                       | 8.55                   | 8.5°                     | 1350             |
| 48       | 41,961                                                        | 40,202 | 38,403 | 36,421 | 34,386 | 32,240 | 29,844 | RP-C54S11              |      | 10    | 1160    | 103                      | 11.24                  | 12°                      | 1380             |
| 49       | 29,192                                                        | 26,251 | 22,755 | 15,941 | ---    | ---    | ---    | RP-C60P6               |      | 3     | 680     | 49                       | 3.39                   | 10°                      | 1375             |
| 50       | 38,113                                                        | 34,973 | 31,625 | 26,766 | 19,707 | ---    | ---    | RP-C60Q6               |      | 5     | 680     | 55                       | 5.76                   | 16°                      | 1405             |
| 51       | 31,032                                                        | 28,414 | 24,996 | 21,103 | 17,215 | 13,704 | ---    | RP-C60Q8               | 60   | 5     | 870     | 73                       | 5.65                   | 7°                       | 1405             |
| 52       | 40,352                                                        | 37,767 | 35,130 | 32,350 | 28,926 | 23,306 | 19,053 | RP-C60R8               |      | 7 1/2 | 870     | 80                       | 8.55                   | 11.5°                    | 1465             |

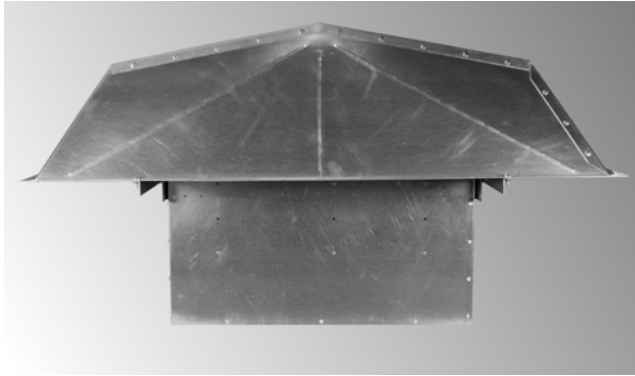
- 1 — Performance shown is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances in the airstream.
- 2 — The first four letters of the model number identify **fan type**, **drive configuration** and **style**. (Drive configuration has been omitted in the above table. Replace the '-' with a 'D' for direct drive or 'B' for belt drive to complete model number.) The next two numbers indicate **fan size**, the next letter identifies motor **horsepower**; the last number (or numbers) indicates **RPM** in hundreds. Example: Model RPDC24H11 is Type 'RP,' direct drive, Style 'C,' 24" size, 1/3 HP, 1160 RPM.
- 3 — The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet fan sone levels. The sound ratings shown are at 0" static pressure.
- 4 — Maximum brake horsepower (BHP) within the catalog performance range. On belt drive models, power ratings (BHP) do not include transmission losses. Bearing losses are included. On both belt and direct drive models, BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate ratings on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- 5 — All models use a four bladed adjustable pitch propeller with cast aluminum airfoil blades. Alternate blades are pitched 180° apart. Blade pitch in degrees from plane of hub is shown.
- 6 — To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m³/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

**Example:** 3904 CFM x .000472 = 1.8427 m³/s  
0.125 SP x 248.36 = 31.05 Pa  
0.886 BHP x .7457 = 0.661 kW

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

# Type P-UD

**LOW CFM — DIRECT DRIVE — 460 to 4,800 CFM**  
**0" to 1/2" STATIC PRESSURE**



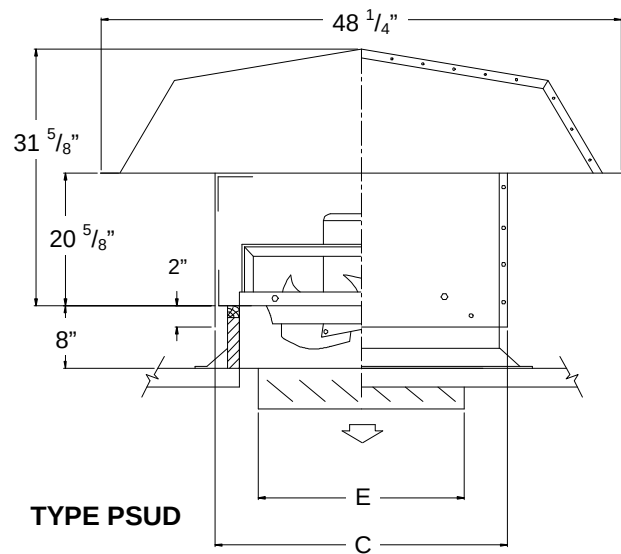
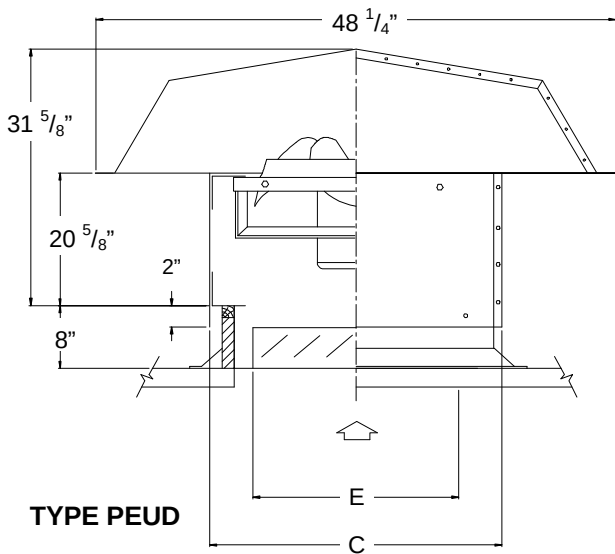
## Application and Features

Type P-UD PRVs combine the heavy-duty construction and reliability needed for industrial applications with unusually low noise levels.

P-UD PRVs can be specified for exhaust, supply or filtered supply. A wide selection of motor speeds are offered.

In addition, many models can be supplied with a solid state speed control for precise adjustment of performance.

Type P-UD PRVs incorporate Style U fan components. This fan style is described in the fan component section.



## Dimensions

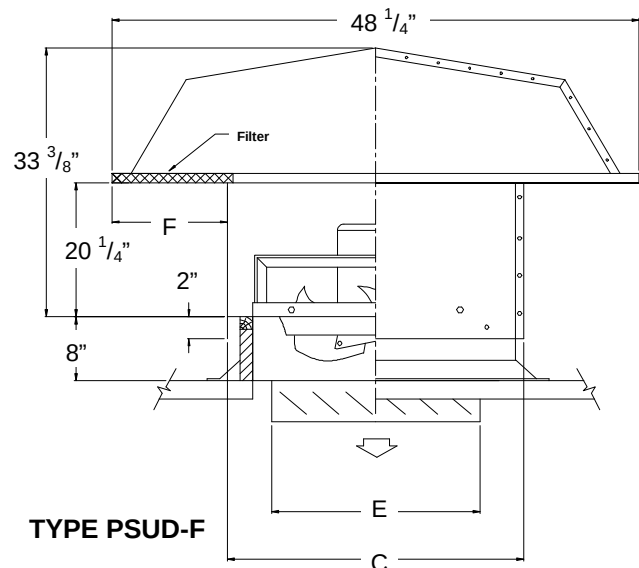
Dimension C is the I.D. of the internal curb cap flange.

Dimension E is the damper net length and width, flanges add 1-5/8 inches on all sides.

Dimension F is the distance of the filter overhang for Type PSUD-F.

| Fan Size | Dimensions in Inches |        |        |                              |
|----------|----------------------|--------|--------|------------------------------|
|          | C                    | E      | F      | Filter Area, ft <sup>2</sup> |
| 10* & 12 | 24                   | 14 1/4 | 12 1/8 | 9.9                          |
| 14 & 16  | 28                   | 18 1/4 | 10 1/8 | 8.6                          |
| 18 & 20  | 32                   | 22 1/4 | 8 1/8  | 7.1                          |

\* - The P-UD10 models feature aluminum blades, all other sizes feature epoxy-coated steel blades.



# Performance Ratings

American Coolair Corporation certifies that the performance data for the type P-UD PRV models shown below are based on tests conducted in an accredited laboratory in accordance with ANSI Standards 210-07 and 300-08.

# Typical Specifications

Hooded propeller power roof ventilators shall be American Coolair Type PEUD, PSUD, and/or PSUD-F as manufactured by American Coolair Corporation, Jacksonville, Florida; specific models shall be as shown in the fan schedule. Propellers shall be designed for high efficiency and low noise level. PRV hood and base shall be of galvanized steel for protection against rust and corrosion. Entire blade assembly shall be mounted directly to the motor shaft. Performance ratings shall be based on tests in accordance with industry test standards and procedures and so certified by the manufacturer. (Specify for each PRV model in the schedule the required CFM and static pressure; motor enclosure, phase and volts; and accessories such as safety disconnect switch, bird screen, backdraft damper, prefabricated roof curb and special protective coating.)

| Item No.        | Cubic Feet Per Minute (CFM) at Static Pressure <sup>1,6</sup> |       |       |       |       | Fan Model <sup>2</sup>  | Fan Size | Motor HP | Fan RPM | Sone Rating <sup>3</sup> | Max BHP <sup>4,6</sup> | Blade Pitch | Approx. Ship Wt. |
|-----------------|---------------------------------------------------------------|-------|-------|-------|-------|-------------------------|----------|----------|---------|--------------------------|------------------------|-------------|------------------|
|                 | 0"                                                            | 1/8"  | 1/4"  | 3/8"  | 1/2"  |                         |          |          |         |                          |                        |             |                  |
| EXHAUST         |                                                               |       |       |       |       |                         |          |          |         |                          |                        |             |                  |
| 1               | 790                                                           | 635   | ---   | ---   | ---   | PEUD10B15 <sup>5</sup>  | 10       | 1/20     | 1550    | 7.1                      | 0.05                   | 40°         | 83               |
| 2               | 1,470                                                         | 1,354 | 1,190 | 904   | 603   | PEUD12F17               | 12       | 1/6      | 1750    | 7.2                      | 0.16                   | 33°         | 96               |
| 3               | 1,625                                                         | 1,449 | 941   | 469   | ---   | PEUD14H11 <sup>5</sup>  | 14       | 1/3      | 1160    | 6.5                      | 0.16                   | 41°         | 106              |
| 4               | 1,985                                                         | 1,873 | 1,749 | 1,424 | 1,188 | PEUD14F17               | 14       | 1/6      | 1750    | 8.8                      | 0.22                   | 29°         | 113              |
| 5               | 2,286                                                         | 2,059 | 1,800 | 1,137 | ---   | PEUD16H11 <sup>5</sup>  | 16       | 1/3      | 1160    | 8.9                      | 0.23                   | 41°         | 107              |
| 6               | 2,735                                                         | 2,619 | 2,478 | 2,319 | 2,124 | PEUD16H17               | 16       | 1/3      | 1750    | 15.5                     | 0.39                   | 32°         | 115              |
| 7               | 2,677                                                         | 2,487 | 2,241 | 1,557 | 1,242 | PEUD18H11 <sup>5</sup>  | 18       | 1/3      | 1160    | 8.4                      | 0.29                   | 32°         | 136              |
| 8               | 3,387                                                         | 3,301 | 3,165 | 3,024 | 2,849 | PEUD18J17               | 18       | 1/2      | 1750    | 15.1                     | 0.57                   | 25°         | 135              |
| 9               | 3,530                                                         | 3,314 | 3,068 | 2,790 | ---   | PEUD20H11 <sup>5</sup>  | 20       | 1/3      | 1160    | 10.8                     | 0.39                   | 31°         | 137              |
| 10              | 4,575                                                         | 4,462 | 4,328 | 4,186 | 4,026 | PEUD20K17               | 20       | 3/4      | 1750    | 22                       | 0.89                   | 24°         | 142              |
| SUPPLY          |                                                               |       |       |       |       |                         |          |          |         |                          |                        |             |                  |
| 11              | 786                                                           | 632   | ---   | ---   | ---   | PSUD10B15 <sup>5</sup>  | 10       | 1/20     | 1550    | 7.1                      | 0.05                   | 40°         | 83               |
| 12              | 1,485                                                         | 1,368 | 1,202 | 913   | 610   | PSUD12F17               | 12       | 1/6      | 1750    | 7.2                      | 0.16                   | 33°         | 96               |
| 13              | 1,634                                                         | 1,456 | 946   | 471   | ---   | PSUD14H11 <sup>5</sup>  | 14       | 1/3      | 1160    | 6.5                      | 0.16                   | 41°         | 106              |
| 14              | 2,005                                                         | 1,892 | 1,767 | 1,438 | 1,200 | PSUD14F17               | 14       | 1/6      | 1750    | 8.8                      | 0.22                   | 29°         | 113              |
| 15              | 2,358                                                         | 2,123 | 1,857 | 1,173 | ---   | PSUD16H11 <sup>5</sup>  | 16       | 1/3      | 1160    | 8.9                      | 0.23                   | 41°         | 107              |
| 16              | 2,913                                                         | 2,790 | 2,640 | 2,471 | 2,263 | PSUD16H17               | 16       | 1/3      | 1750    | 15.5                     | 0.39                   | 32°         | 115              |
| 17              | 2,820                                                         | 2,619 | 2,360 | 1,640 | 1,308 | PSUD18H11 <sup>5</sup>  | 18       | 1/3      | 1160    | 8.4                      | 0.29                   | 32°         | 136              |
| 18              | 3,662                                                         | 3,569 | 3,421 | 3,269 | 3,080 | PSUD18J17               | 18       | 1/2      | 1750    | 15.1                     | 0.57                   | 25°         | 135              |
| 19              | 3,604                                                         | 3,384 | 3,136 | 2,802 | 1,903 | PSUD20H11 <sup>5</sup>  | 20       | 1/3      | 1160    | 10.8                     | 0.39                   | 31°         | 137              |
| 20              | 4,793                                                         | 4,674 | 4,534 | 4,385 | 4,217 | PSUD20K17               | 20       | 3/4      | 1750    | 22                       | 0.89                   | 24°         | 142              |
| FILTERED SUPPLY |                                                               |       |       |       |       |                         |          |          |         |                          |                        |             |                  |
| 21              | 760                                                           | 611   | ---   | ---   | ---   | PSUD10B15F <sup>5</sup> | 10       | 1/20     | 1550    | 7.1                      | 0.05                   | 40°         | 118              |
| 22              | 1,440                                                         | 1,326 | 1,165 | 885   | 591   | PSUD12F17F              | 12       | 1/6      | 1750    | 7.2                      | 0.16                   | 33°         | 131              |
| 23              | 1,590                                                         | 1,417 | 921   | 459   | ---   | PSUD14H11F <sup>5</sup> | 14       | 1/3      | 1160    | 6.5                      | 0.16                   | 41°         | 146              |
| 24              | 1,944                                                         | 1,834 | 1,713 | 1,394 | 1,163 | PSUD14F17F              | 14       | 1/6      | 1750    | 8.8                      | 0.22                   | 29°         | 153              |
| 25              | 2,234                                                         | 2,012 | 1,759 | 1,111 | ---   | PSUD16H11F <sup>5</sup> | 16       | 1/3      | 1160    | 8.9                      | 0.23                   | 41°         | 147              |
| 26              | 2,675                                                         | 2,563 | 2,424 | 2,269 | 2,078 | PSUD16H17F              | 16       | 1/3      | 1750    | 15.5                     | 0.39                   | 32°         | 155              |
| 27              | 2,529                                                         | 2,349 | 2,117 | 1,471 | 1,173 | PSUD18H11F <sup>5</sup> | 18       | 1/3      | 1160    | 8.4                      | 0.29                   | 32°         | 181              |
| 28              | 3,271                                                         | 3,188 | 3,056 | 2,920 | 2,751 | PSUD18J17F              | 18       | 1/2      | 1750    | 15.1                     | 0.57                   | 25°         | 180              |
| 29              | 3,483                                                         | 3,270 | 3,027 | 2,753 | ---   | PSUD20H11F <sup>5</sup> | 20       | 1/3      | 1160    | 10.8                     | 0.39                   | 31°         | 182              |
| 30              | 4,511                                                         | 4,399 | 4,267 | 4,128 | 3,970 | PSUD20K17F              | 20       | 3/4      | 1750    | 22                       | 0.89                   | 24°         | 187              |

- Performance shown is for Installation Type A: free inlet, free outlet. Performance ratings do not include the effects of appurtenances (accessories). Models PSUD-F include the effects of filters in the airstream.
- The first four letters of the model number identify **fan type, drive configuration and style**. The next two numbers indicate **fan size**, the next letter identifies motor **horsepower**; the next number (or numbers) indicates **RPM** in hundreds. An additional letter 'F' is added for **filtered** model. Example: Model PEUD10B15 is Type 'PE,' Style 'U,' direct drive, 10" size, 1/20 HP, 1550 RPM.
- The sound ratings shown are loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: free inlet fan sone levels. The sound ratings shown are at 0" static pressure.
- Maximum brake horsepower (BHP) within the catalog performance range. BHP at most static pressures listed is less than that shown, in some cases substantially less. For specific BHP values at individual static pressure points contact your American Coolair representative. Because of the cooling the motor receives from the moving air stream, motor loading beyond the nominal nameplate ratings on these American Coolair fans does not overheat the motor and is within NEMA recommended limits and motor service factor. It is not detrimental to the motor and is economically desirable.
- Manually adjustable variable speed control is available as an option with these models. Control provides infinite variation of motor from full speed to 50 percent of full speed. It is available only with single phase motors. Specify "variable speed control" when this accessory is desired.
- To convert air performance (CFM and SP) and power (BHP) to metric units, multiply CFM x .000472 to obtain cubic meters per second (m<sup>3</sup>/s). Multiply SP x 248.36 to obtain pascals (Pa). Multiply BHP x .7457 to obtain kilowatts (kW).

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

## Installation, Selection, and Maintenance

**INSTALLATION:** Hooded PRVs are shipped in two packages (fan base and hood) for quick assembly and installation onto a roof curb. Type PSF units have additional packages containing filter rack and filters. The base section, fan, and motor should be securely attached to a roof curb. The hood (and filter rack, if applicable) can then be easily attached to the base. Before connecting the fan motor to a power source, check the motor nameplate to be sure of correct phase and voltage. Also, check the motor wiring connections on dual-voltage motors to make sure of the correct motor voltage. Make sure propeller turns freely without striking fan frame or any foreign object which may interfere with its operation. Note the arrow on the fan orifice to make sure the propeller is rotating in the correct direction when power is applied.

**SOUND RATINGS:** When sound is a critical issue, ventilator selection should be made from accurate sound data. The only completely accurate sound ratings are octave band sound power levels. Your American Coolair representative can furnish these for each PRV model on request. With this data, the acoustical engineer can accurately predict on-the-job sound levels. Published sound ratings are in Sones. Your American Coolair representative can also provide sound ratings in dBA. Both Sones and dBA ratings are calculated from the octave band sound power ratings. They may be used as a guide in ventilator selection where noise is NOT critical. Both Sones and dBA ratings are determined from laboratory testing according to AMCA Standards 300 & 301.

**MAINTENANCE:** American Coolair's power roof ventilators are factory lubricated for extended service. Fan bearings on Style 'H' and 'HX' belt drive units are permanently lubricated, and require no further maintenance for the life of the fan. Style 'C' belt drive units use pillow-block ball bearings and should be lubricated annually or more frequently, depending upon conditions and operating cycle. Refer to the maintenance instructions shipped with the fan. For lubrication of the electric motor, see the motor manufacturer's instructions.

On belt drive units, the belt tension should be checked within the first 24 hours of the fan's operation. After which, belt tension should be checked as part of maintenance routine to assure maximum efficiency and belt life. Refer to the instructions shipped with the fan for proper belt tension maintenance.

## Accessories

American Coolair provides a complete line of accessories for its hooded roof ventilators. Note that fan ratings are determined without accessories. An allowance for resistance for a backdraft damper or other accessory is recommended. As resistance (static pressure loss) is dependent upon the fan's flow rate, there can be no precise resistance figure or average pressure loss for a given accessory. For specific resistance values for a given accessory for a particular fan unit, consult your American Coolair representative.

**BACKDRAFT DAMPER:** An aluminum backdraft damper prevents the intrusion of outside air when the unit is not running. The damper features American Coolair's exclusive "Type S" shutter design modified to operate in a horizontal position. A mounting sleeve for the damper or an extended height curb may be required to provide proper clearance between the ventilator motor and damper for PBH, PBHX, PBC, and PDC units. Refer to dimension drawings for details.

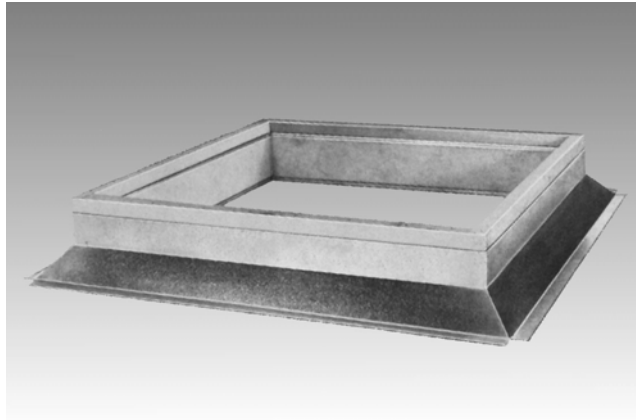


**BIRD SCREEN:** This galvanized or PVC coated wire mesh will prevent entry of birds and rodents. This accessory not necessary on filtered units, as filters provide this protection.

**CENTER PIVOTED BACKDRAFT DAMPER:** A heavy duty motorized backdraft damper specifically suited for reversible air flow (for RPBC and RBDC units) is available. It features extruded aluminum blades and frame, and a heavy-duty damper motor. With center pivoted blades, no fan delay switch is necessary. The damper should be mounted in the base of the roof curb, as the damper and damper motor require 12 inches of clearance.

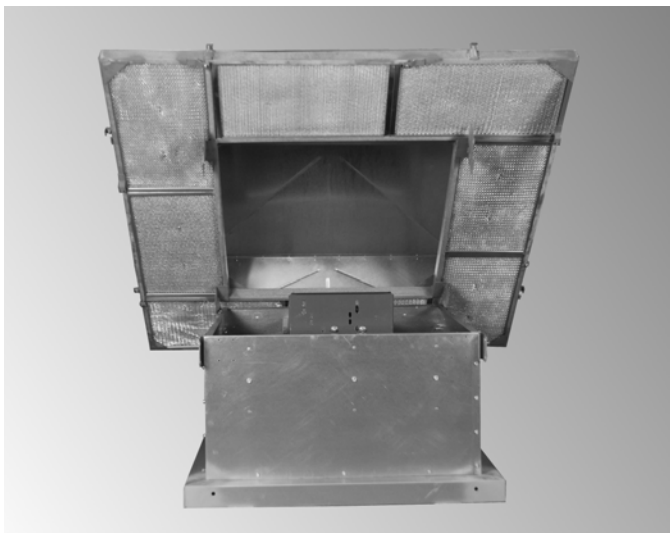


**PRE-FABRICATED ROOF CURB:** You may specify surface mount or bulb-T style 8-inch standard height curbs. Constructed of welded galvanized steel, these roof curbs are insulated, and feature a wood nailer. Construction to accommodate a single- or double-pitched roof slope is also available.



**SPARK RESISTANT CONSTRUCTION:** For hazardous locations, most PRV's not standardly supplied with an aluminum blade assembly can be ordered with a non-ferrous blade assembly and explosion-proof motors. Motors only qualify for Class I Group D and Class II Groups F & G hazards.

**FILTERS:** (Type PS-F) Type PS-F units come with a set of filters for mounting during installation. They are 2-inch thick, permanent, cleanable filters as manufactured by Research Products Corp., or equivalent. They are factory coated with filter adhesive. Filters are easily cleaned by flushing with water. Adhesive must be reapplied after cleaning. Filter racks are designed for easy filter removal and replacement. Filters are designed to handle air velocities up to 650 feet per minute. They should not be specified where ambient temperature will be above 120°F.



**FILTER GAUGE:** (Type PS-F) A factory installed filter gauge with signal light alarm is preset for recommended maximum filter load. The gauge measures the pressure differential across the filters and signals when the filters require cleaning. It operates on a 24 volt power supply.

**PROTECTIVE COATINGS:** For most applications, the American Coolair powder coating system will provide the necessary surface protection for painted parts. This system includes a thermosetting epoxy powder coating to an average thickness of 3 mils and baked at 400° F for hardness, impact resistance, adhesion, and chemical resistance.

The hood on Type PB and PD PRVs is made of galvanized steel. Both hood and base on all other units are made of galvanized steel. A finish coat of epoxy can be specified. For maximum corrosion resistance, hot dip galvanized finish on fan frame and supports (and curb cap on Type P PRV) may be specified.

For applications that require more specialized surface protection, American Coolair offers alternatives: 6 mil epoxy, hot dip galvanizing, and others. For more information about special protective coatings, contact your American Coolair representative.

**UNDERCOATING:** A special undercoating to reduce condensation and add sound-deadening insulation may be specified. This coating is factory applied to interior surfaces of the hood on Type P units and hood and base for Type PE, PS, and Type RP models.

**FIBERGLASS INSULATION:** The inner crown of the hood on all units and inside the base section on models other than Type P can be lined with one inch thick fiberglass insulation to eliminate condensation in cold weather.

### Limited Warranty

In the sale of its products, American Coolair Corporation agrees to correct, by repairs or replacement, any defects in workmanship or material that may develop under proper and normal use during the period of one year from the date of shipment from the factory. Any product or part proving, upon American Coolair's examination, to be defective during limited warranty period will be repaired or replaced, at American Coolair's option, f.o.b. factory, without charge.

Deterioration or wear caused by chemicals, abrasive action or excessive heat shall not constitute defects.

Motors are guaranteed only to the extent of the manufacturer's warranty.

American Coolair's limited warranty does not apply to any of its products or parts that have been subject to accidental damage, misuse by the user, unauthorized modifications, improper installation or electrical wiring, or lack of proper lubrication or other service requirements as established by American Coolair.

Repairs or replacements provided under the above terms shall constitute fulfillment of all American Coolair's obligations with respect to limited warranty.

THE LIMITED WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, STATUTORY OR IMPLIED, INCLUDING WITHOUT LIMITATION THAT OF MERCHANTABILITY AND FITNESS.

NO LIABILITY FOR REINSTALLATION COST OR FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY NATURE IS ASSUMED OR SHALL BE IMPOSED UPON AMERICAN COOLAIR.

### WARNING



### CAUTION

**DO NOT** INSTALL FAN WITH MOVING PARTS WITHIN 8 FEET OF FLOOR OR GRADE LEVEL WITHOUT A GUARD THAT COMPLIES WITH OSHA REGULATIONS. **DO NOT** USE UNLESS ELECTRICAL WIRING COMPLIES WITH ALL APPLICABLE CODES. **DO NOT** WIRE WITHOUT PROVIDING FOR A POWER SOURCE DISCONNECT AT THE FAN ITSELF. **DO NOT** SERVICE EXCEPT BY A QUALIFIED MAINTENANCE TECHNICIAN AND ONLY AFTER DISCONNECTING THE POWER SOURCE. FAILURE TO OBSERVE THESE PRECAUTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.



REPRESENTED BY:

Form No. 340-15-9 (September, 2010)