

# Direct Drive Centrifugal Roof/Wall Exhauster



## Models PDURF and PDURG Restaurant Exhauster

Models PDURF and PDURG (restaurant exhauster) are direct drive upblast centrifugal exhausters. Capacities up to 5,317 CFM and up to 1 1/4 inch static pressure. The PDURF is a clean air ventilator designed for high velocity vertical discharge. Model PDURG is ideally suited for removal of grease laden exhaust found in restaurant and commercial kitchen applications. Other applications include a wide range of commercial, industrial, and institutional facilities such as schools, hospitals, prisons, and assembly areas.



| DIMENSIONS   |       |       |       |       |                 |              |              |                 |            |        |  |  |  |
|--------------|-------|-------|-------|-------|-----------------|--------------|--------------|-----------------|------------|--------|--|--|--|
| Fan<br>Model | Α     | В     | С     | D     | Roof<br>Opening | Est.<br>Unit | Est.<br>Ship | Damper<br>Model | Roof<br>RF | Curb ‡ |  |  |  |
|              |       |       |       |       | *‡              | Wt.          | Wt.          |                 |            |        |  |  |  |
| PDU080       | 13.50 | 13.06 | 20.63 | 12.84 | 9 x 9           | 23           | 36           | AR8.75          | C12        | CR12   |  |  |  |
| PDU100       | 13.50 | 16.10 | 20.63 | 12.84 | 9 x 9           | 30           | 43           | AR8.75          | C12        | CR12   |  |  |  |
| PDU110       | 13.50 | 16.41 | 20.63 | 12.84 | 9 x 9           | 30           | 43           | AR8.75          | C12        | CR12   |  |  |  |
| PDU120       | 19.00 | 19.48 | 26.41 | 16.59 | 14.5 x 14.5     | 50           | 72           | AR14            | C17.5      | CR17.5 |  |  |  |
| PDU135       | 19.00 | 20.87 | 26.41 | 16.59 | 14.5 x 14.5     | 50           | 72           | AR14            | C17.5      | CR17.5 |  |  |  |
| PDU150       | 24.00 | 23.89 | 30.16 | 21.92 | 19.5 x 19.5     | 76           | 102          | AR18            | C22.5      | CR22.5 |  |  |  |
| PDU165       | 24.00 | 23.89 | 30.16 | 21.92 | 19.5 x 19.5     | 76           | 102          | AR18            | C22.5      | CR22.5 |  |  |  |
| PDU185       | 28.00 | 25.75 | 34.65 | 21.99 | 23.5 x 23.5     | 94           | 179          | AR22            | C26.5      | CR26.5 |  |  |  |
| PDU200       | 28.00 | 25.75 | 34.65 | 21.99 | 23.5 x 23.5     | 94           | 179          | AR22            | C26.5      | CR26.5 |  |  |  |

Dimensions are shown in inches.

Weights are shown in pounds.

\*Recommended maximum.

‡ Please contact your local representative for correct rated sizing for hurricane construction



Acme Engineering & Manufacturing Corporation certifies that the models 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.

## **Construction Features**

#### Housing

- Windband constructed of heavy gauge aluminum with rolled bead for strength
- · Sealed windband perimeter to prevent leakage
- Quick release latches allow easy removal of motor compartment cover without special tools
- Heavy gauge galvanized wire birdscreen (PDURF only)
- Aluminum curb cap

### **Centrifugal Wheel**

- · Aluminum construction backward curved blade
- · Non-overloading design for safe operation
- · Wheel optimally matched with die-formed orifice
- Precision balanced for smooth vibration free operation



#### **Motors**

- Continuous duty motors with sealed ball bearings located outside the airstream
- Large breather tube directs outside air into the motor compartment resulting in maximum life
- · Motor compartment cooled by fins located on top of impeller

# **Options/Accessories**

- Roof Curbs
- Dampers
- Coatings
- Wall Bracket (PDU080-200)
- Birdscreen (PDURG)
- Grease Trough
- Curb Hinge



Model PDURF is Listed for Electrical (UL/C-UL 705) File No. E39982. Model PDURG is Listed for (UL 762) File No. MH11542.

Consult your Acme representative for availability.

| PERFORMANCE DATA |        |       |       |                                   |       |      |       |      |       |      |       |      |       |      |       |       |        |      |        |      |       |
|------------------|--------|-------|-------|-----------------------------------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|-------|--------|------|--------|------|-------|
|                  |        | Motor |       | CFM and Sones vs. Static Pressure |       |      |       |      |       |      |       |      |       |      |       |       |        |      |        |      |       |
| Fan<br>Model     | HP RPM | DDM   | .000" |                                   | .125" |      | .250" |      | .375" |      | .500" |      | .625" |      | .750" |       | 1.000" |      | 1.250" |      | Max.  |
|                  |        | RPM   | CFM   | Sone                              | CFM   | Sone | CFM   | Sone | CFM   | Sone | CFM   | Sone | CFM   | Sone | CFM   | Sone  | CFM    | Sone | CFM    | Sone | ВНР   |
| PDU080 1/        | 4/40   | 1600  | 385   | 9.7                               | 368   | 9.5  | 350   | 9.2  | 323   | 8.8  | 253   | 8.5  |       |      |       |       |        |      |        |      | .040  |
|                  | 1/10   | 1300  | 313   | 7.4                               | 292   | 7.7  | 261   | 11.0 |       |      |       |      |       |      |       |       |        |      |        |      | .020  |
| PDU100 1         | 1/10   | 1630  | 850   | 12.0                              | 788   | 11.8 | 735   | 11.3 | 681   | 10.6 | 625   | 9.6  | 573   | 8.9  |       |       |        |      |        |      | .085  |
|                  | 1/10   | 1300  | 678   | 8.3                               | 604   | 7.8  | 537   | 7.5  | 468   | 6.9  |       |      |       |      |       |       |        |      |        |      | .042  |
|                  |        | 1550  | 1017  | 10.1                              | 951   | 10.2 | 885   | 10.6 | 816   | 9.6  | 731   | 9.5  | 617   | 9.5  | 506   | 9.5   |        |      |        |      | .098  |
| PDU110 1/        | 4/40   | 1300  | 853   | 8.1                               | 774   | 8.3  | 693   | 7.6  | 588   | 7.5  | 454   | 7.5  | 270   | 7.5  |       |       |        |      |        |      | .057  |
|                  | 1/10   | 1050  | 689   | 6.0                               | 591   | 6.2  | 468   | 5.5  | 292   | 5.5  |       |      |       |      |       |       |        |      |        |      | .030  |
|                  |        | 860   | 564   | 4.5                               | 441   | 4.2  | 243   | 4.2  |       |      |       |      |       |      |       |       |        |      |        |      | .016  |
| PDU120E4 1       |        | 1680  | 1753  | 13.8                              | 1689  | 13.7 | 1611  | 13.6 | 1522  | 13.6 | 1433  | 13.5 | 1295  | 13.2 | 1155  | 13.1  |        |      |        |      | .250  |
|                  |        | 1550  | 1617  | 13.5                              | 1548  | 13.5 | 1457  | 13.1 | 1361  | 12.7 | 1233  | 12.4 | 1082  | 12.0 |       |       |        |      |        |      | .200  |
|                  | 1/4    | 1300  | 1356  | 10.8                              | 1269  | 9.9  | 1154  | 9.5  | 1001  | 9.6  |       |      |       |      |       |       |        |      |        |      | .110  |
|                  |        | 1160  | 1210  | 9.0                               | 1106  | 8.8  | 972   | 8.7  | 770   | 8.2  |       |      |       |      |       |       |        |      |        |      | .080  |
|                  |        | 860   | 897   | 5.3                               | 742   | 5.3  |       |      |       |      |       |      |       |      |       |       |        |      |        |      | .030  |
|                  | 1/3    | 1160  | 1840  | 11.9                              | 1718  | 11.6 | 1597  | 11.1 | 1470  | 11.0 | 1311  | 10.6 |       |      |       |       |        |      |        |      | .164  |
| PDU135F6         |        | 1050  | 1665  | 10.5                              | 1531  | 10.0 | 1397  | 9.7  | 1242  | 9.4  |       |      |       |      |       |       |        |      |        |      | .122  |
|                  |        | 860   | 1364  | 8.5                               | 1201  | 8.1  | 1020  | 7.6  |       |      |       |      |       |      |       |       |        |      |        |      | .067  |
|                  | 1/2    | 1725  | 2736  | 20                                | 2654  | 19.2 | 2572  | 19.2 | 2491  | 19.0 | 2410  | 18.5 | 2328  | 18.4 | 2243  | 18.3  | 2052   | 18.1 | 1782   | 17.5 | .540  |
| PDU135G4         |        | 1550  | 2458  | 17.6                              | 2367  | 17.1 | 2276  | 16.9 | 2186  | 16.5 | 2095  | 16.2 | 2000  | 16.1 | 1897  | 16.0  | 1614   | 15.0 |        |      | .392  |
|                  |        | 1300  | 2062  | 14.0                              | 1953  | 13.6 | 1845  | 13.1 | 1737  | 12.9 | 1619  | 12.7 | 1473  | 12.0 |       |       |        |      |        |      | .231  |
|                  |        | 1050  | 1665  | 10.5                              | 1531  | 10.0 | 1397  | 9.7  | 1242  | 9.4  |       |      |       |      |       |       |        |      |        |      | .122  |
|                  |        | 860   | 1364  | 8.5                               | 1201  | 8.1  | 1020  | 7.6  |       |      |       |      |       |      |       |       |        |      |        |      | .067  |
| PDU150F6         | 1/3    | 1160  | 2230  | 11.6                              | 2073  | 10.9 | 1911  | 9.9  | 1748  | 10.0 | 1583  | 9.5  | 1353  | 8.9  |       |       |        |      |        |      | .220  |
|                  |        | 860   | 1652  | 8.0                               | 1439  | 8.4  | 1218  | 8.5  | 909   | 7.9  |       | 0.0  |       |      |       |       |        |      |        |      | .090  |
| PDU165G6         | 1/2    | 1160  | 3242  | 18.2                              | 3087  | 18.5 | 2934  | 18.1 | 2781  | 17.0 | 2621  | 16.2 | 2439  | 16.1 | 2194  | 15.2  | 1692   | 15.9 |        |      | .500  |
|                  |        | 1050  | 2935  | 15.9                              | 2764  | 16.3 | 2595  | 16.0 | 2421  | 14.9 | 2227  | 13.7 | 1962  | 13.4 | 1680  | 13.8  |        |      |        |      | .373  |
|                  |        | 860   | 2404  | 11.9                              | 2196  | 12.4 | 1986  | 10.7 | 1725  | 10.6 | 1385  | 10.2 |       |      |       | . 3.0 |        |      |        |      | .205  |
| PDU185G6         | 1/2    | 1160  | 4340  | 15.0                              | 4193  | 15.0 | 4047  | 14.5 | 3900  | 14.0 | 3751  | 13.3 | 3602  | 12.6 | 3426  | 12.7  |        |      |        |      | .600  |
| PDU200J6         | 1      | 1160  | 5317  | 19.5                              | 5155  | 18.2 | 4994  | 17.8 | 4830  | 17.8 | 4657  | 17.0 | 4483  | 17.0 | 4305  | 16.8  | 3898   | 16.1 | 3415   | 15.4 | 1.215 |

Performance certified is for Installation Type A: Free Inlet, Free Outlet. Performance ratings do not include the effects of appurtenances (accessories). The sound ratings shown are loudness values in hemispherical sones at 1.5 m (5ft) in a hemispherical free field calculated per AMCA Standard 301. Values shown are for Installation Type A: Free Inlet hemispherical sone levels. The brake horsepower capability of an exhauster motor is dependent on the degree of cooling the motor receives from the air moving through the motor. The motor loading beyond the motor nameplate rating does not overheat the motor and is in accordance with the motor manufacturer's recommendations. It is therefore not detrimental to the motor and is economically desirable. Maximum RPM shown obtained with the standard one speed motor, for all other RPM's use solid state controller.

ACME