



INDUSTRIAL PROCESS AND  
COMMERCIAL VENTILATION SYSTEMS

# SQUARE INLINE CENTRIFUGAL FANS

DSI | BSI



# SQUARE INLINE CENTRIFUGAL FANS



DSI  
Direct Drive

Now Available with



see page 8



All DSI and BSI models are UL/cUL 705 listed, for electrical, File No. E158680.



Twin City Fan & Blower certifies that the Models DSI and BSI 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.



Fan Efficiency Grade (FEG) certification applies to Model DSI Sizes 135A, 135AE, 150A, 150AE, 150AN, 150ANE, 165A, 165AE, 165AN and 165ANE and Model BSI, Sizes 080A, 090A, 100A, 120A, 120AHP, 135A, 135AHP, 150A, 150AHP, 165A, 165AHP, 180A, 180AHP, 210A, 210AHP, 225A, 225AHP, 245A, 245AHP, 270A, 270AHP, 300A, 300AHP, 330A, 330AHP, 365A, 365AHP, 402A, 402AHP.

## Overview

DSI | BSI

Twin City Fan & Blower's Model DSI direct drive and Model BSI belt driven square inline fans are specifically designed for duct applications handling relatively clean air, including supply, exhaust and return air systems. These fans offer high efficiency and quiet operation in a compact design that can be mounted in any position (horizontal, vertical or angular). Duct collars are provided for easy mounting without the need for square to round duct transitions. The units can be easily serviced through the side access panels without removing duct connections.

Square inline centrifugal units feature high efficient, non-overloading, backward inclined centrifugal wheels precisely matched to a spun venturi. All wheels are statically and dynamically balanced. Units are manufactured under strict quality assurance standards to insure cataloged performance and years of maintenance-free operation. Square inline fans are not intended for outdoor applications.

### Typical Applications Include

General HVAC (exhaust, filtration, return and supply, air of commercial buildings), Air Pollution Control, Airport Exhaust, Automotive, Fertilizer, Food & Beverage, Laboratory Exhaust, Metal & Mineral Processing, Office Exhaust, Restroom Exhaust, Warehouse Exhaust and Water Treatment

### Wheel Types

Backward Inclined

### Optional Construction

Spark Resistant Construction (Type B and C), Easy Access Construction

### Certifications

AMCA Sound/Air and FEG, UL 705 Listed for Electrical, OSHPD Seismic Preapproval per OSP-0271-10



For complete product performance, drawings and available accessories, download our Fan Selector program at [tcf.com](http://tcf.com).

# SQUARE INLINE CENTRIFUGAL FANS

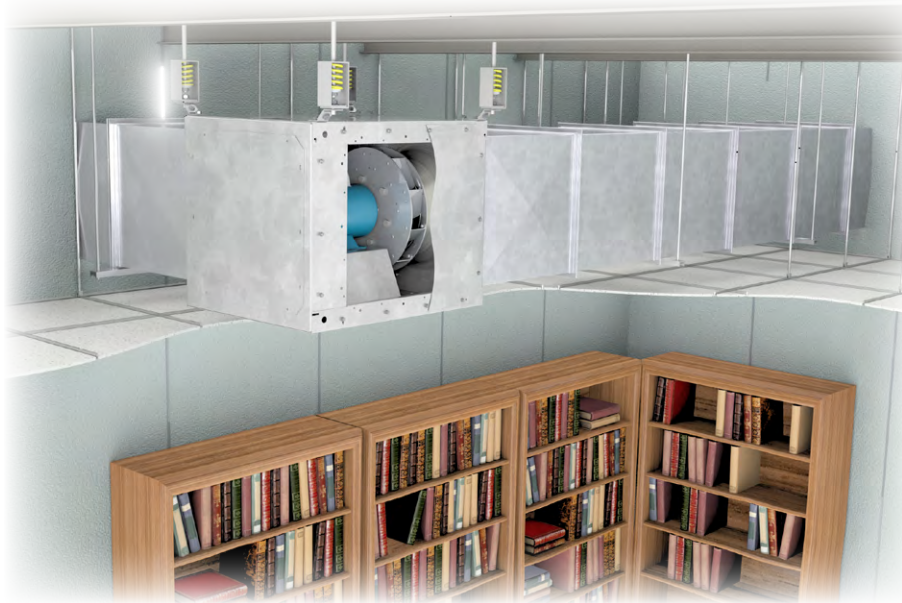
## Overview

**DSI | BSI**

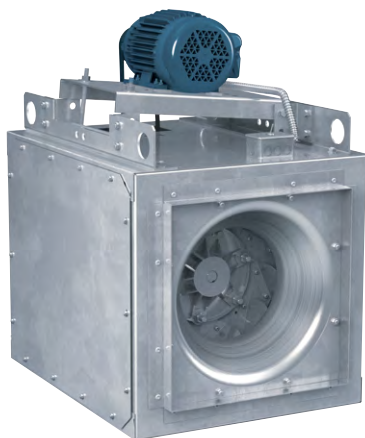


### Model DSI

Available in 10 sizes from 080 through 165  
Airflow to 5,800 CFM  
Static pressure to 2" w.g.



General HVAC  
(90 Degree Turn)



### Model BSI

Available in 29 sizes from 080 through 402  
Airflow to 27,400 CFM  
Static pressure to 3.5" w.g.



General HVAC  
(Straight Inline)



# CONSTRUCTION FEATURES



**Housings** - Housing assembly features heavy-gauge galvanized steel construction

**Removable Side Panels** - Removable side panels provide easy access for service and maintenance without the need to remove duct connections. Complete removal of the power assembly is also possible through side access panels. Side panels can provide a 90-degree side discharge. Requires optional side discharge accessory.

**Duct Collars** - Duct collars provide ready attachment to ductwork and eliminate the need for square to round duct transitions.

**Belt Tube/Bearing Cover** - Constructed of heavy gauge galvanized steel, the belt tube and bearing cover enclose the belts, fan sheave and bearings within the airstream (Model BSI).

**Drive Frame** - Motor and drive frame are constructed of heavy gauge galvanized steel. The pivoting motor base makes for simple belt tensioning (Model BSI).

**Wheel** - Backward inclined non-overloading, all-aluminum wheel and hub statically and dynamically balanced to assure long life and quiet operation.

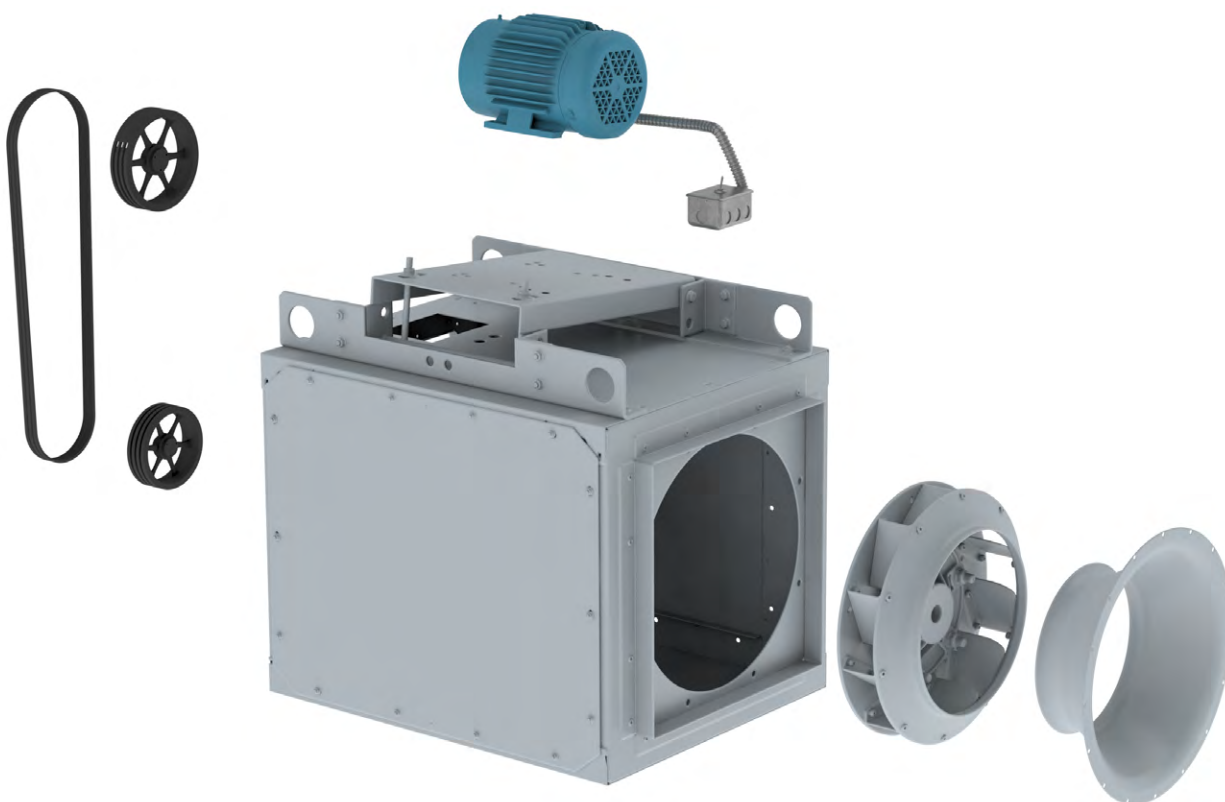
**Mounting Brackets** - Galvanized steel mounting brackets for easy mounting in horizontal or vertical position.

**Pulleys** - Heavy-duty cast iron adjustable pulleys to permit speed variation (Model BSI).

**Shaft** - Precision ground and polished with a first critical speed of at least 125% of the fan's maximum operating speed (Model BSI).

**Bearings** - All models are furnished with prelubricated cast iron pillow block bearings with zerk fittings, designed for an average life (L-50) of 500,000 hours or more at maximum cataloged operating speeds (Model BSI).

**Disconnect Switch** - Mounted and prewired NEMA 1 disconnect switch provided as standard for servicing the unit without the danger of an accidental start.



Disconnect switches provide positive electrical shutoff during fan cleaning or maintenance.

## **NEMA 1 Disconnect Switch (Standard)**

A NEMA 1 disconnect switch is available shipped loose for field mounting and wiring or factory mounted and wired with ODP or TEFC motors.



NEMA 1 Disconnect Switch

## **NEMA 3R Disconnect Switch**

A NEMA 3R, rain proof, disconnect is available shipped loose for field mounting and wiring or factory mounted and wired externally.



NEMA 3R Disconnect Switch

## **NEMA 4 Disconnect Switch**

A NEMA 4, water and dust tight, disconnect is available shipped loose for field mounting and wiring or factory mounted and wired externally.

## **NEMA 7/9 Disconnect Switch**

A NEMA 7/9 disconnect switch is recommended on fans with explosion proof motors. The NEMA 7/9 switch is designed for use with fans operating in hazardous environments. Available shipped loose for field mounting and wiring. (Not shown.)

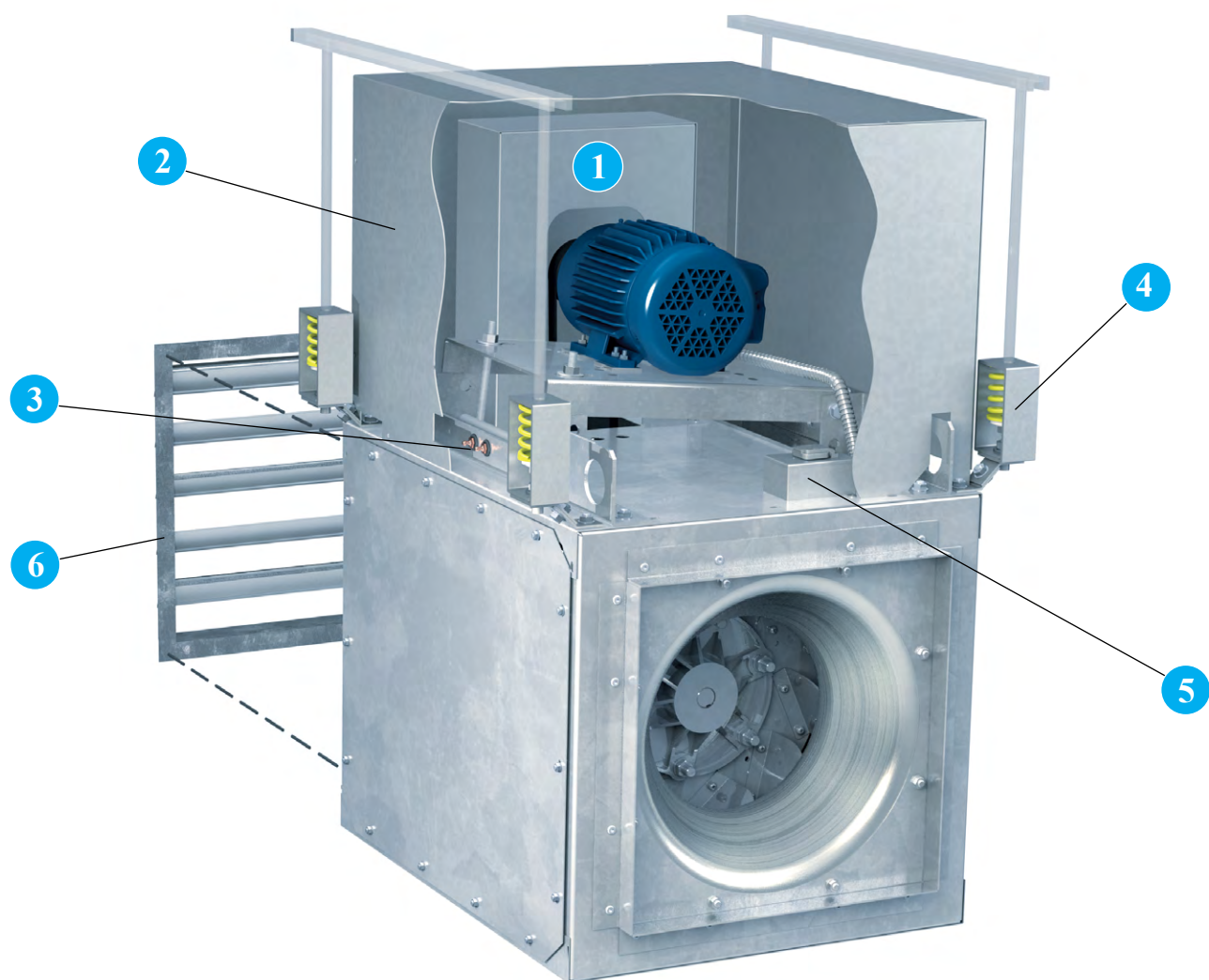


NEMA 4 Disconnect Switch



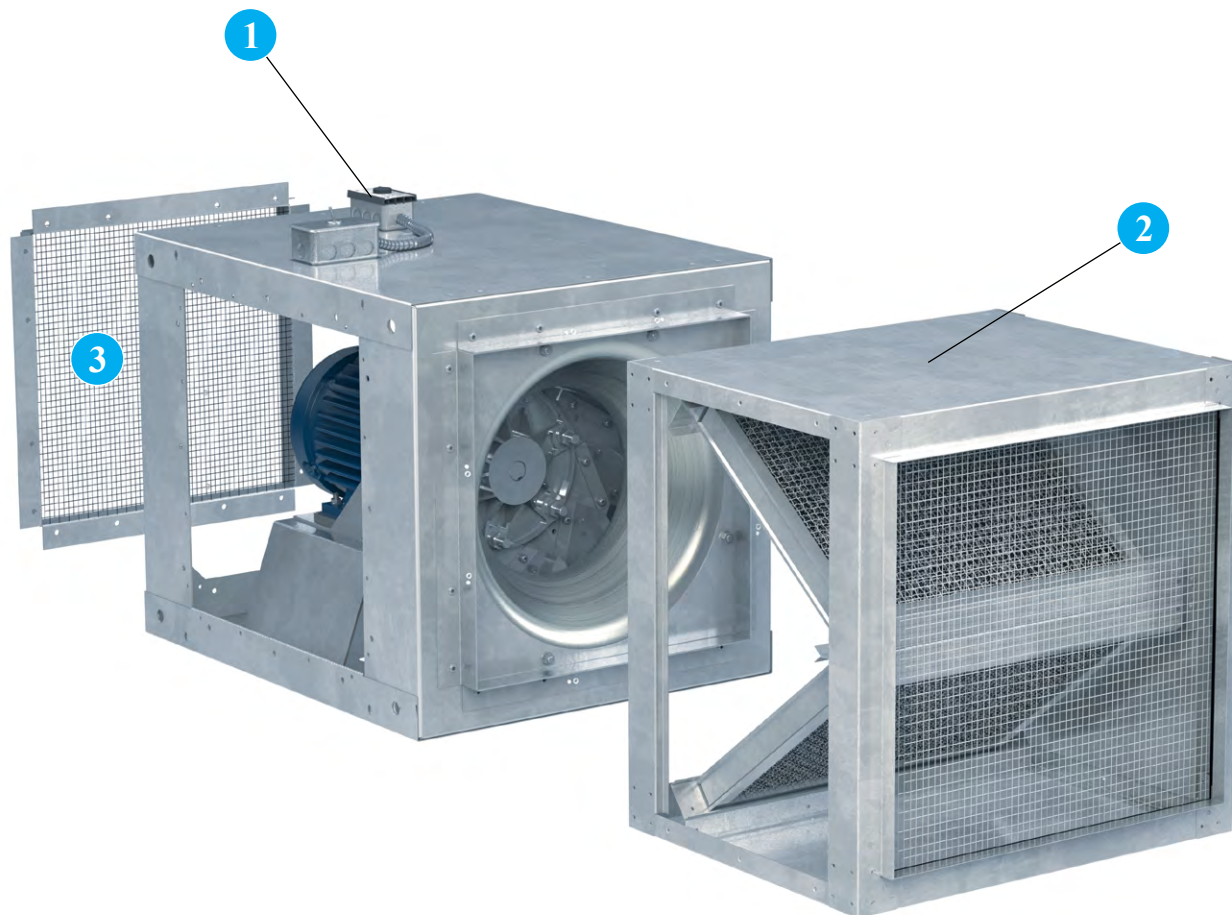
DSI  
Direct Drive





- 1 Belt Guard** is a formed galvanized steel guard available to cover the drive assembly on Model BSI. Belt guard is offered in lieu of motor cover.
  - 2 Motor Cover** is a formed galvanized steel cover available on Model BSI to completely cover the motor and drives. Motor cover serves as OSHA belt guard.
  - 3 Extended Lube Lines** Exterior mounting zerk fittings are available with lines to the fan shaft bearings (Model BSI) for relubrication from outside the unit.
  - 4 Vibration Isolators** Spring or neoprene type vibration isolators are available for ceiling suspended or floor mounted installations.
  - 5 NEMA 3R** rain proof safety disconnect switch is available for positive electrical shutoff of the fan and the protection of service personnel.
  - 6 Backdraft Dampers**, with automatic or motorized operation, feature felt-edged damper blades for quiet operation. Damper frames are constructed of galvanized steel and blades are constructed of 26-gauge aluminum. All dampers ship loose for field mounting in ductwork.
- Motorized dampers are recommended for low CFM applications to assure unrestricted airflow. Motorized dampers are available with 115, 208, 230, 460, 575 or 24 volt service. End switches are available. See dimensional data for sizing.





**1 Variable Speed Control** Variable speed control is an optional accessory on all DSI models, to allow the adjustment of airflow for system balancing. Variable speed controllers are solid-state (Tri-ac) design and are designed to start the motor on high speed for better startup characteristics. Variable speed controls can be shipped separately, factory installed, or field installed on the unit at a later date. Motor must be ODP 115V, PSC or shaded pole type.

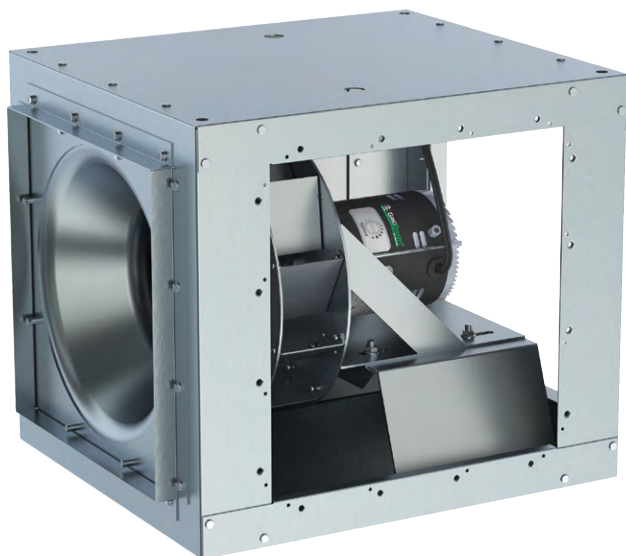
**2 Filter Box** A filter box containing two inch aluminum wire mesh, removable and washable filters is available for attachment to the fan inlet side. The filter box is constructed of galvanized steel, with duct collars for easy mounting and removable side panels for easy filter cleaning or replacement. Disposable paper filters are also available. One inch filters are available on either type. For filter box pressure drops contact factory. See page 26 for dimensional data.

**3 Outlet Guard** Inlet and outlet guards are available for all models. Guards mount inside the unit and do not interfere with the attachment of ductwork.

## Other Accessories Include:

- Special Coatings
- Insulated Housings
- Aluminum Construction
- Stainless Steel Hardware
- NEMA 4 & 7/9 Disconnect Switches

# ELECTRONICALLY COMMUTATED MOTORS



Model DSI  
With GridSmart™ EC Motor



Twin City Fan & Blower offers its own line of custom engineered Electronically Commutated (EC) motors. Electronic commutation is the latest motor technology to be used in direct drive fans. Also known in the industry as Brush Free or Brushless DC, the EC motors utilize an electronic circuit board to control the functionality of the motor. The motor operates off of single phase AC power, which is converted to DC power within the motor's circuitry. TCF has motor options available for 115V, 208-230V or 277V single phase electrical power. The result is a highly efficient motor, even at part load, with an expanded speed control range and a variety of speed control options from which to choose. EC motors are available in ODP, TENV and TEFC enclosures.



## Benefits

- Efficiencies up to 85%
- Constant efficiency as the motor speed is varied
- Up to 66% energy savings over traditional PSC motors
- Performance range comparable to a belt drive fan with reduced maintenance benefits of a direct drive fan
- 80% usable turndown range as compared with 40% maximum on PSC motors
- Soft start gives fans smooth, quiet start
- Lower operating temperatures result in longer life and reduces energy consumption
- Heavy-duty ball bearings are permanently lubricated
- Elimination of VFD results in lower initial cost

## EC Motor Options

### 1/6HP to 1HP

- 1/6HP: 115V, single phase
- 1/4HP – 1HP: 115V, 208-230V, 277V, single phase
- ODP or TENV Enclosure
- Motor mounted speed control dial as standard
- 0-10VDC control leads as standard
- Available with remote mounted speed control dial

### 1HP & 2HP

- 1HP: 115V, 208-230V, single phase
- 2HP: 208-230V, single phase
- TEFC enclosure (totally enclosed fan cooled)
- Available with motor mounted speed dial or 0-10VDC control lead



1HP & 2HP  
GridSmart™ EC Motors



1/6HP to 1HP  
GridSmart™ EC Motors



Side discharge kits (including panels, mounting collars and necessary hardware) are available to provide 1-way, 2-way or 3-way discharges. This option provides exceptional adaptability for any installation, as well as avoiding the system effect of disrupted airflow when the ductwork has to take a 90-degree turn.

## Configurations

| OPTION   | FIGURE | CONFIGURATION        |
|----------|--------|----------------------|
| Standard | A      | Rear                 |
| 1-Way    | B      | Left                 |
|          | C      | Right                |
| 2-Way    | D      | Left and Right       |
|          | E      | Left and Rear        |
|          | F      | Right and Rear       |
| 3-Way    | G      | Left, Right and Rear |

**NOTE:** Performance will change depending on the position of the discharge. See correction factor table below. Percentages based on (inline) cataloged performance, but are not AMCA certified. Always check BHP when selecting motor HP and fan size.

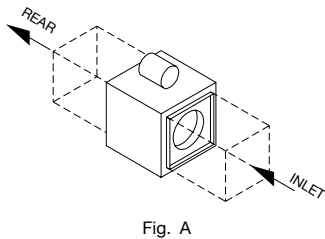


Fig. A

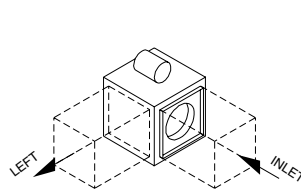


FIG. B

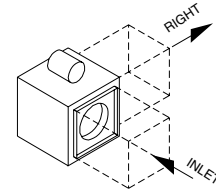


FIG. C

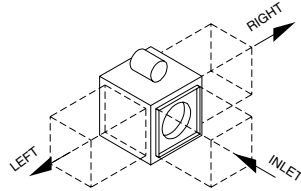


FIG. D

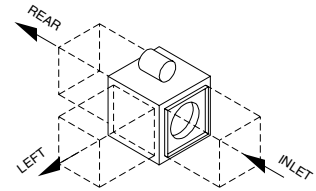


FIG. E

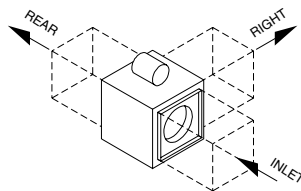


FIG. F

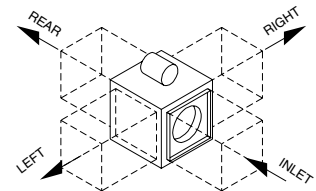


FIG. G

## Performance Correction Factors

| DISCHARGE | 0.50" SP |        | 1.00" SP |        | 1.50" SP |        | 2.00" SP |        | AVG.   |        |
|-----------|----------|--------|----------|--------|----------|--------|----------|--------|--------|--------|
|           | CFM      | BHP    | CFM      | BHP    | CFM      | BHP    | CFM      | BHP    | CFM    | BHP    |
| 1-Way     | 110.7%   | 113.0% | 114.0%   | 110.8% | 115.8%   | 108.5% | 120.0%   | 102.3% | 115.1% | 108.7% |
| 2-Way     | 114.7%   | 106.5% | 118.1%   | 109.7% | 120.3%   | 112.4% | 126.8%   | 114.0% | 120.0% | 110.7% |
| 3-Way     | 113.2%   | 105.9% | 117.4%   | 109.7% | 121.6%   | 113.0% | 127.1%   | 114.0% | 119.8% | 110.7% |

**NOTE:** The performance correction factors shown above are not licensed to bear the AMCA Certified Ratings Seal.

## Duct Openings

| MODEL<br>BSI | MODEL<br>DSI | LEFT AND RIGHT DISCHARGE |        |                       | REAR DISCHARGE/INLET |        |                       |
|--------------|--------------|--------------------------|--------|-----------------------|----------------------|--------|-----------------------|
|              |              | DUCT COLLAR              |        | DUCT SIZE<br>REQUIRED | DUCT COLLAR          |        | DUCT SIZE<br>REQUIRED |
|              |              | WIDTH                    | HEIGHT |                       | WIDTH                | HEIGHT |                       |
| 080          | 080          | 11.88                    | 11.88  | 12 x 12               | 11.88                | 11.88  | 12 x 12               |
| 090          | 090          | 11.88                    | 11.88  | 12 x 12               | 11.88                | 11.88  | 12 x 12               |
| 100          | 100          | 13.88                    | 13.88  | 14 x 14               | 13.88                | 13.88  | 14 x 14               |
| 120          | 120          | 15.88                    | 15.88  | 16 x 16               | 15.88                | 15.88  | 16 x 16               |
| 135          | 135          | 17.88                    | 17.88  | 18 x 18               | 17.88                | 17.88  | 18 x 18               |
| 150          | 150          | 19.88                    | 19.88  | 20 x 20               | 19.88                | 19.88  | 20 x 20               |
| 165          | 165          | 22.88                    | 22.88  | 23 x 23               | 22.88                | 22.88  | 23 x 23               |
| 180          | —            | 23.88                    | 23.88  | 24 x 24               | 23.88                | 23.88  | 24 x 24               |
| 210          | —            | 27.88                    | 27.88  | 28 x 28               | 27.88                | 27.88  | 28 x 28               |
| 225          | —            | 25.88                    | 28.88  | 26 x 29               | 29.88                | 29.88  | 30 x 30               |
| 245          | —            | 27.88                    | 31.88  | 28 x 32               | 32.88                | 32.88  | 33 x 33               |
| 270          | —            | 29.88                    | 33.88  | 30 x 34               | 35.88                | 35.88  | 36 x 36               |
| 300          | —            | 29.88                    | 37.88  | 30 x 38               | 39.88                | 39.88  | 40 x 40               |
| 330          | —            | 31.88                    | 39.88  | 32 x 40               | 43.88                | 43.88  | 44 x 44               |
| 365          | —            | 32.88                    | 41.88  | 33 x 42               | 45.88                | 45.88  | 46 x 46               |
| 402          | —            | 34.88                    | 46.88  | 35 x 47               | 51.88                | 51.88  | 52 x 52               |

**NOTE:** Damper size should be 1/8" less than duct size required, or same size as duct collar.

## DSI - 60 Hz

| EC MOTOR              |        | PSC MOTOR |        | RPM        | MAX. BHP   | STATIC PRESSURE (INCHES W.G.) |              |              |              |              |              |              |              |              |              |              |       | FAN EFF. GRADE |
|-----------------------|--------|-----------|--------|------------|------------|-------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------|----------------|
| SIZE                  | MTR HP | SIZE      | MTR HP |            |            | 0                             | 0.125        | 0.25         | 0.375        | 0.50         | 0.625        | 0.75         | 1.00         | 1.25         | 1.50         | 1.75         | 2.00  |                |
|                       |        |           |        |            |            | CFM SONE                      |              |              |              |              |              |              |              |              |              |              |       |                |
| 080AE                 | 1/6    | 080A      | 1/8    | 860        | 0.01       | 323<br>4.2                    | 247<br>3.4   |              |              |              |              |              |              |              |              |              | N/A   |                |
|                       |        |           | 1/8    | 1160       | 0.03       | 436<br>7.4                    | 382<br>6.3   | 321<br>6.1   | 232<br>5.5   |              |              |              |              |              |              |              |       |                |
|                       |        |           | 1/8    | 1650       | 0.10       | 620<br>10.4                   | 583<br>10.4  | 545<br>8.7   | 505<br>8.0   | 459<br>8.6   | 403<br>8.3   | 335<br>7.3   |              |              |              |              |       |                |
|                       |        | ---       | ---    | 1750       | 0.12       | 658<br>10.9                   | 623<br>10.9  | 587<br>9.5   | 550<br>8.8   | 510<br>9.0   | 461<br>9.1   | 405<br>8.0   |              |              |              |              |       |                |
| 090AE                 | 1/4    | 090A      | 1/8    | 860        | 0.02       | 495<br>5.9                    | 390<br>4.4   |              |              |              |              |              |              |              |              |              | N/A   |                |
|                       |        |           | 1/8    | 1160       | 0.05       | 668<br>9.8                    | 592<br>8.2   | 510<br>7.9   | 401<br>6.4   |              |              |              |              |              |              |              |       |                |
|                       |        |           | 1/8    | 1650       | 0.14       | 950<br>13.0                   | 897<br>13.0  | 843<br>11.2  | 789<br>10.3  | 729<br>11.1  | 660<br>10.7  | 578<br>8.5   |              |              |              |              |       |                |
|                       |        | ---       | ---    | 1750       | 0.17       | 1008<br>13.7                  | 958<br>13.7  | 907<br>12.3  | 856<br>11.3  | 803<br>11.4  | 742<br>11.8  | 673<br>10.9  |              |              |              |              |       |                |
| 100AE                 | 1/2    | 100A      | 1/8    | 860        | 0.04       | 787<br>7.8                    | 666<br>6.0   | 520<br>6.2   |              |              |              |              |              |              |              |              | N/A   |                |
|                       |        |           | 1/8    | 1160       | 0.11       | 1061<br>13.3                  | 973<br>12.1  | 882<br>10.0  | 780<br>10.9  | 651<br>9.0   |              |              |              |              |              |              |       |                |
|                       |        |           | 1/3    | 1750       | 0.36       | 1601<br>17.8                  | 1543<br>17.8 | 1484<br>17.6 | 1424<br>15.9 | 1365<br>14.7 | 1303<br>14.8 | 1236<br>15.6 | 1083<br>14.9 | 877<br>11.7  |              |              |       |                |
| 120AE                 | 3/4    | 120A      | 1/8    | 860        | 0.07       | 1047<br>5.8                   | 951<br>5.3   | 830<br>5.1   | 586<br>4.3   |              |              |              |              |              |              |              | N/A   |                |
|                       |        |           | 1/4    | 1160       | 0.18       | 1413<br>9.3                   | 1344<br>9.3  | 1268<br>8.1  | 1183<br>7.7  | 1079<br>8.3  | 923<br>6.9   |              |              |              |              |              |       |                |
|                       |        |           | 3/4    | 1750       | 0.63       | 2132<br>17.9                  | 2087<br>17.9 | 2041<br>17.9 | 1993<br>17.7 | 1942<br>16.5 | 1889<br>15.5 | 1834<br>14.8 | 1709<br>15.6 | 1551<br>16.1 | 1288<br>14.2 |              |       |                |
| 135ANE                | 3/4    | 135AN     | 1/8    | 860        | 0.08       | 1041<br>6.9                   | 941<br>6.2   | 819<br>5.5   | 670<br>5.2   |              |              |              |              |              |              |              | N/A   |                |
|                       |        |           | 1/4    | 1160       | 0.20       | 1404<br>11.4                  | 1332<br>11.4 | 1254<br>9.6  | 1165<br>8.4  | 1070<br>9.1  | 962<br>9.1   | 823<br>7.9   |              |              |              |              |       |                |
|                       |        |           | 3/4    | 1750       | 0.69       | 2118<br>17.8                  | 2071<br>17.8 | 2024<br>17.8 | 1974<br>17.8 | 1922<br>16.9 | 1867<br>15.7 | 1808<br>15.4 | 1685<br>15.9 | 1554<br>16.6 | 1401<br>14.8 | 1203<br>14.6 |       | 899<br>14.6    |
| Outlet Area: 3.22 ft² |        |           |        |            |            |                               |              |              |              |              |              |              |              |              |              |              |       |                |
| 135AE                 | 1, 2   | 135A      | 1/4    | 860        | 0.13       | 1437<br>7.1                   | 1331<br>6.7  | 1208<br>5.9  | 1041<br>6.1  |              |              |              |              |              |              |              | FEG56 |                |
|                       |        |           | 1/2    | 1160       | 0.31       | 1938<br>11.2                  | 1862<br>11.2 | 1780<br>10.7 | 1691<br>9.4  | 1591<br>9.4  | 1471<br>10.0 | 1306<br>8.9  |              |              |              |              |       |                |
|                       |        |           | 1*     | 1750       | 1.07       | 2924<br>22                    | 2875<br>22   | 2824<br>22   | 2771<br>22   | 2717<br>21   | 2660<br>20   | 2601<br>19.0 | 2476<br>18.3 | 2334<br>19.4 | 2161<br>19.6 | 1918<br>17.5 |       |                |
| Outlet Area: 3.90 ft² |        |           |        |            |            |                               |              |              |              |              |              |              |              |              |              |              |       |                |
| 150ANE                | 1, 2   | 150AN     | 1/4    | 860        | 0.13       | 1385<br>8.2                   | 1277<br>7.9  | 1150<br>6.3  | 1005<br>6.9  | 810<br>5.9   |              |              |              |              |              |              | FEG53 |                |
|                       |        |           | 1/2    | 1160       | 0.32       | 1868<br>13.7                  | 1790<br>13.7 | 1707<br>12.1 | 1615<br>10.5 | 1513<br>10.1 | 1407<br>11.0 | 1288<br>11.0 | 940<br>9.5   |              |              |              |       |                |
|                       |        |           | 1*     | 1750       | 1.11       | 2818<br>21                    | 2767<br>21   | 2715<br>21   | 2662<br>21   | 2606<br>20   | 2549<br>19.6 | 2488<br>18.6 | 2359<br>18.0 | 2221<br>19.2 | 2077<br>19.7 | 1913<br>18.5 |       | 1713<br>17.2   |
| Outlet Area: 3.90 ft² |        |           |        |            |            |                               |              |              |              |              |              |              |              |              |              |              |       |                |
| 150AE                 | 1      | 150A      | 1/4    | 860        | 0.20       | 1913<br>8.5                   | 1798<br>8.5  | 1668<br>7.1  | 1513<br>7.5  | 1286<br>6.7  |              |              |              |              |              |              | FEG56 |                |
|                       |        |           | 1/2    | 1160       | 0.50       | 2580<br>13.5                  | 2497<br>13.5 | 2409<br>13.3 | 2315<br>11.9 | 2213<br>11.3 | 2099<br>11.4 | 1965<br>12.1 | 1514<br>10.0 |              |              |              |       |                |
|                       | 1 1/2* | 1200      | 0.55   | 2669<br>20 | 2589<br>20 | 2504<br>20                    | 2414<br>20   | 2317<br>19.3 | 2212<br>18.2 | 2091<br>17.5 | 1742<br>17.2 | 18.3         | 17.0         |              |              |              |       |                |
|                       |        | 1750      | 1.72   | 3892<br>26 | 3838<br>26 | 3783<br>26                    | 3726<br>26   | 3667<br>26   | 3607<br>25   | 3545<br>24   | 3414<br>22   | 3273<br>22   | 3116<br>22   | 2931<br>23   | 2699<br>22   |              |       |                |
| Outlet Area: 4.83 ft² |        |           |        |            |            |                               |              |              |              |              |              |              |              |              |              |              |       |                |
| 165ANE                | 1**    | 165AN     | 1/4    | 860        | 0.23       | 2094<br>7.7                   | 1953<br>7.6  | 1805<br>6.9  | 1647<br>7.2  | 1472<br>7.3  | 1248<br>7.2  |              |              |              |              |              | FEG60 |                |
|                       |        |           | 1/2    | 1160       | 0.56       | 2825<br>12.4                  | 2721<br>12.4 | 2615<br>12.0 | 2506<br>11.4 | 2394<br>11.0 | 2277<br>11.2 | 2155<br>12.0 | 1877<br>11.2 | 1457<br>11.3 |              |              |       |                |
|                       | 2      |           | 2*     | 1750       | 1.93       | 4261<br>22                    | 4193<br>22   | 4124<br>22   | 4054<br>22   | 3984<br>21   | 3912<br>21   | 3840<br>21   | 3694<br>20   | 3543<br>20   | 3386<br>21   | 3223<br>22   |       | 3048<br>23     |
| Outlet Area: 4.83 ft² |        |           |        |            |            |                               |              |              |              |              |              |              |              |              |              |              |       |                |
| 165AE                 | 1      | 165A      | 1/2    | 860        | 0.33       | 2898<br>10.1                  | 2683<br>9.9  | 2499<br>8.9  | 2323<br>9.2  | 2069<br>9.4  | 1773<br>8.2  |              |              |              |              |              | FEG60 |                |
|                       |        |           | 1      | 1160       | 0.81       | 3909<br>16.5                  | 3744<br>16.5 | 3592<br>15.6 | 3452<br>14.7 | 3327<br>14.2 | 3199<br>14.8 | 3044<br>15.7 | 2640<br>13.7 | 2152<br>13.5 |              |              |       |                |
|                       | 2      | 3*        | 1500   | 1.76       | 5055<br>24 | 4925<br>24                    | 4802<br>24   | 4684<br>23   | 4571<br>22   | 4465<br>21   | 4368<br>21   | 4174<br>21   | 3941<br>22   | 3637<br>22   | 3310<br>19.2 | 2935<br>19.8 |       |                |
|                       |        |           | 1750   | 2.8        | 5898<br>30 | 5786<br>30                    | 5678<br>30   | 5574<br>30   | 5473<br>29   | 5375<br>28   | 5281<br>27   | 5109<br>26   | 4945<br>26   | 4769<br>27   | 4552<br>28   | 4289<br>27   |       |                |

\* Designates motors that cannot be used with speed controller.  
EC Motor is an Electronically Commutated Motor.  
PSC Motor is a Permanent Split Capacitor Motor.

\*\* Performance available with 1 HP 1160 RPM ECODP motors or 1 HP 1750 RPM ECTEFC motors. 1160 RPM maximum.

### NOTES:

1. Performance certified is for Installation Type B: Free inlet, ducted outlet.
2. Performance ratings do not include the effects of appurtenances (accessories).
3. The sound ratings shown are loudness values in fan sones at 1.5m (5 ft.) in a hemispherical free field calculated per AMCA International Standard 301.
4. Values shown are for Installation Type B: free inlet hemispherical sone levels.

## BSI 080A

Outlet Area = 1.17 ft<sup>2</sup>

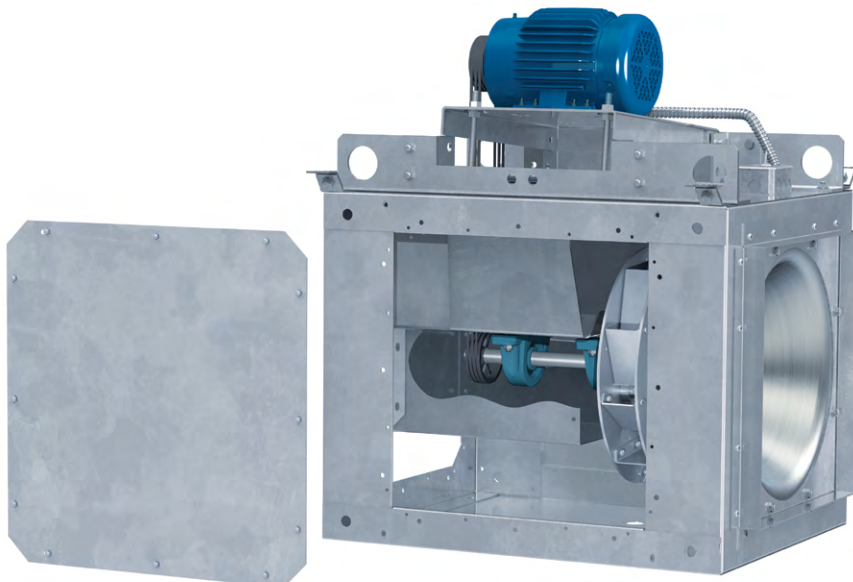
Fan Efficiency Grade: FEG50

| HP  | RPM  | STATIC PRESSURE (INCHES W.G.) |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----|------|-------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|     |      | 0.125                         |      | 0.25 |      | 0.50 |      | 0.75 |      | 1.00 |      | 1.25 |      | 1.50 |      | 1.75 |      |
|     |      | CFM                           |      | CFM  |      | CFM  |      | CFM  |      | CFM  |      | CFM  |      | CFM  |      | CFM  |      |
|     |      | BHP                           | Sone | BHP  | Sone | BHP  | Sone | BHP  | Sone | BHP  | Sone | BHP  | Sone | BHP  | Sone | BHP  | Sone |
| 1/4 | 850  | 241                           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|     |      | 0.01                          | 3.1  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|     | 1050 | 333                           |      | 261  |      |      |      |      |      |      |      |      |      |      |      |      |      |
|     |      | 0.03                          | 4.6  | 0.03 | 4.7  |      |      |      |      |      |      |      |      |      |      |      |      |
|     | 1250 | 419                           |      | 363  |      |      |      |      |      |      |      |      |      |      |      |      |      |
|     |      | 0.04                          | 6.6  | 0.04 | 5.9  |      |      |      |      |      |      |      |      |      |      |      |      |
|     | 1450 | 502                           |      | 455  |      | 349  |      |      |      |      |      |      |      |      |      |      |      |
|     |      | 0.06                          | 9.0  | 0.07 | 7.3  | 0.07 | 7.5  |      |      |      |      |      |      |      |      |      |      |
|     | 1650 | 584                           |      | 542  |      | 457  |      | 344  |      |      |      |      |      |      |      |      |      |
|     |      | 0.09                          | 11.0 | 0.10 | 9.1  | 0.10 | 9.2  | 0.10 | 7.8  |      |      |      |      |      |      |      |      |
|     | 1850 | 664                           |      | 627  |      | 552  |      | 470  |      | 352  |      |      |      |      |      |      |      |
|     |      | 0.13                          | 11.8 | 0.14 | 11.0 | 0.14 | 9.9  | 0.14 | 10.7 | 0.13 | 9.1  |      |      |      |      |      |      |
| 1/3 | 2050 | 744                           |      | 710  |      | 643  |      | 574  |      | 493  |      | 376  |      |      |      |      |      |
|     |      | 0.18                          | 13.9 | 0.18 | 12.8 | 0.19 | 11.2 | 0.19 | 12.2 | 0.19 | 11.7 | 0.18 | 10.6 |      |      |      |      |
|     | 2250 | 823                           |      | 792  |      | 730  |      | 669  |      | 604  |      | 525  |      | 416  |      |      |      |
|     |      | 0.24                          | 15.6 | 0.24 | 15.1 | 0.25 | 13.0 | 0.26 | 13.0 | 0.26 | 14.2 | 0.26 | 13.2 | 0.24 | 12.3 |      |      |
|     | 2375 | 872                           |      | 843  |      | 784  |      | 726  |      | 667  |      | 599  |      | 516  |      | 390  |      |
|     |      | 0.28                          | 16.8 | 0.28 | 16.8 | 0.29 | 14.3 | 0.30 | 13.8 | 0.30 | 14.8 | 0.30 | 15.2 | 0.30 | 13.0 | 0.27 | 13.3 |
| 1/2 | 2500 | 921                           |      | 893  |      | 837  |      | 783  |      | 727  |      | 667  |      | 597  |      | 509  |      |
|     |      | 0.32                          | 18.3 | 0.33 | 18.3 | 0.34 | 16.0 | 0.35 | 15.1 | 0.35 | 15.6 | 0.35 | 16.5 | 0.35 | 15.8 | 0.34 | 14.3 |
|     | 2660 | 984                           |      | 957  |      | 904  |      | 853  |      | 801  |      | 748  |      | 689  |      | 620  |      |
|     |      | 0.39                          | 20   | 0.39 | 20   | 0.40 | 18.4 | 0.41 | 16.7 | 0.42 | 16.4 | 0.43 | 18.1 | 0.43 | 18.3 | 0.42 | 16.8 |
| 3/4 | 2860 | 1062                          |      | 1037 |      | 988  |      | 940  |      | 892  |      | 843  |      | 793  |      | 737  |      |
|     |      | 0.48                          | 23   | 0.49 | 23   | 0.50 | 21   | 0.51 | 19.6 | 0.52 | 18.6 | 0.53 | 19.1 | 0.53 | 20   | 0.53 | 21   |
|     | 3060 | 1139                          |      | 1116 |      | 1070 |      | 1025 |      | 980  |      | 935  |      | 889  |      | 842  |      |
|     |      | 0.59                          | 26   | 0.59 | 26   | 0.61 | 25   | 0.62 | 23   | 0.63 | 21   | 0.64 | 21   | 0.65 | 21   | 0.65 | 22   |
| 1   | 3260 | 1217                          |      | 1195 |      | 1152 |      | 1109 |      | 1067 |      | 1025 |      | 982  |      | 939  |      |
|     |      | 0.71                          | 29   | 0.72 | 29   | 0.73 | 29   | 0.74 | 25   | 0.76 | 24   | 0.77 | 23   | 0.78 | 23   | 0.79 | 24   |
|     | 3425 | 1281                          |      | 1260 |      | 1218 |      | 1177 |      | 1137 |      | 1097 |      | 1057 |      | 1016 |      |
|     |      | 0.82                          | 33   | 0.83 | 33   | 0.84 | 32   | 0.86 | 29   | 0.87 | 26   | 0.88 | 25   | 0.89 | 24   | 0.90 | 25   |
|     | 3590 | 1344                          |      | 1324 |      | 1285 |      | 1246 |      | 1207 |      | 1169 |      | 1131 |      | 1092 |      |
|     |      | 0.94                          | 35   | 0.95 | 35   | 0.97 | 35   | 0.98 | 33   | 1.00 | 30   | 1.01 | 28   | 1.02 | 27   | 1.03 | 27   |

MAXIMUM MOTOR FRAME SIZE: 145T

### NOTES:

1. Performance certified is for Installation Type B: Free inlet, ducted outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound ratings shown are loudness values in fan sones at 1.5m (5 ft.) in a hemispherical free field calculated per AMCA International Standard 301.
5. Values shown are for installation Type B: free inlet hemispherical sone levels.



**TCF**  
TWIN CITY FAN



## BSI 090A

Outlet Area = 1.62 ft<sup>2</sup>

Fan Efficiency Grade: FEG60

| HP  | RPM  | STATIC PRESSURE (INCHES W.G.) |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----|------|-------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|     |      | 0.125                         |      | 0.25 |      | 0.50 |      | 0.75 |      | 1.00 |      | 1.25 |      | 1.50 |      |
|     |      | CFM                           | Sone | CFM  | Sone | CFM  | Sone | CFM  | Sone | CFM  | Sone | CFM  | Sone | CFM  | Sone |
|     |      | BHP                           | Sone | BHP  | Sone | BHP  | Sone | BHP  | Sone | BHP  | Sone | BHP  | Sone | BHP  | Sone |
| 1/4 | 1450 | 752                           | 697  | 562  |      |      |      |      |      |      |      |      |      |      |      |
|     |      | 0.09                          | 9.0  | 0.09 | 8.2  | 0.10 | 8.8  |      |      |      |      |      |      |      |      |
|     | 1650 | 869                           | 822  | 715  |      | 576  |      |      |      |      |      |      |      |      |      |
|     |      | 0.13                          | 11.1 | 0.13 | 10.6 | 0.14 | 10.1 | 0.14 | 10.9 |      |      |      |      |      |      |
| 1/3 | 1850 | 984                           | 944  | 854  |      | 748  |      | 608  |      |      |      |      |      |      |      |
|     |      | 0.18                          | 13.2 | 0.18 | 13.3 | 0.19 | 12.0 | 0.20 | 12.8 | 0.20 | 12.4 |      |      |      |      |
|     | 2015 | 1079                          | 1042 | 962  |      | 872  |      | 764  |      | 616  |      |      |      |      |      |
|     |      | 0.23                          | 14.8 | 0.23 | 14.8 | 0.25 | 13.5 | 0.26 | 13.1 | 0.26 | 14.4 | 0.25 | 12.7 |      |      |
| 1/2 | 2120 | 1139                          | 1104 | 1029 |      | 946  |      | 851  |      | 734  |      | 505  |      |      |      |
|     |      | 0.27                          | 15.8 | 0.27 | 15.8 | 0.28 | 14.4 | 0.30 | 13.9 | 0.30 | 14.8 | 0.27 | 13.2 |      |      |
|     | 2230 | 1201                          | 1168 | 1099 |      | 1022 |      | 935  |      | 835  |      | 703  |      |      |      |
|     |      | 0.31                          | 16.8 | 0.31 | 16.8 | 0.33 | 15.9 | 0.34 | 14.7 | 0.35 | 15.5 | 0.35 | 14.1 |      |      |
| 3/4 | 2390 | 1292                          | 1262 | 1197 |      | 1128 |      | 1052 |      | 967  |      | 868  |      | 736  |      |
|     |      | 0.38                          | 17.9 | 0.38 | 17.9 | 0.40 | 17.6 | 0.41 | 16.3 | 0.43 | 17.3 | 0.44 | 17.3 | 0.42 | 14.4 |
|     | 2550 | 1382                          | 1354 | 1295 |      | 1231 |      | 1163 |      | 1088 |      | 1004 |      | 908  |      |
|     |      | 0.46                          | 19.8 | 0.47 | 19.8 | 0.48 | 19.6 | 0.49 | 18.7 | 0.51 | 17.9 | 0.52 | 18.4 | 0.53 | 18.6 |
| 1   | 2735 | 1487                          | 1460 | 1406 |      | 1348 |      | 1286 |      | 1220 |      | 1149 |      | 1069 |      |
|     |      | 0.56                          | 22   | 0.57 | 22   | 0.59 | 22   | 0.60 | 21   | 0.62 | 20   | 0.63 | 20   | 0.65 | 21   |
|     | 2920 | 1591                          | 1566 | 1515 |      | 1462 |      | 1406 |      | 1347 |      | 1283 |      | 1215 |      |
|     |      | 0.69                          | 25   | 0.69 | 25   | 0.71 | 25   | 0.73 | 24   | 0.74 | 23   | 0.76 | 22   | 0.78 | 22   |
| 1   | 3060 | 1669                          | 1646 | 1598 |      | 1547 |      | 1495 |      | 1440 |      | 1381 |      | 1319 |      |
|     |      | 0.79                          | 26   | 0.80 | 26   | 0.81 | 26   | 0.83 | 26   | 0.85 | 25   | 0.87 | 24   | 0.90 | 24   |
|     | 3205 | 1750                          | 1728 | 1682 |      | 1635 |      | 1585 |      | 1534 |      | 1480 |      | 1422 |      |
|     |      | 0.90                          | 28   | 0.91 | 28   | 0.93 | 28   | 0.95 | 28   | 0.97 | 27   | 0.99 | 26   | 1.01 | 26   |

MAXIMUM MOTOR FRAME SIZE: 145T

## BSI 100A

Outlet Area = 2.20 ft<sup>2</sup>

Fan Efficiency Grade: FEG56

| HP  | RPM  | STATIC PRESSURE (INCHES W.G.) |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----|------|-------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|     |      | 0.13                          |      | 0.25 |      | 0.38 |      | 0.50 |      | 0.75 |      | 1.00 |      | 1.25 |      |
|     |      | CFM                           | Sone | CFM  | Sone | CFM  | Sone | CFM  | Sone | CFM  | Sone | CFM  | Sone | CFM  | Sone |
|     |      | BHP                           | Sone | BHP  | Sone | BHP  | Sone | BHP  | Sone | BHP  | Sone | BHP  | Sone | BHP  | Sone |
| 1/4 | 1025 | 816                           | 716  | 592  |      |      |      |      |      |      |      |      |      |      |      |
|     |      | 0.07                          | 6.8  | 0.07 | 6.2  | 0.07 | 6.9  |      |      |      |      |      |      |      |      |
|     | 1275 | 1053                          | 981  | 899  |      | 806  |      |      |      |      |      |      |      |      |      |
|     |      | 0.13                          | 9.9  | 0.13 | 9.1  | 0.14 | 8.7  | 0.14 | 9.5  |      |      |      |      |      |      |
| 1/3 | 1465 | 1229                          | 1169 | 1103 |      | 1030 |      | 859  |      |      |      |      |      |      |      |
|     |      | 0.19                          | 12.3 | 0.20 | 12.1 | 0.20 | 11.2 | 0.21 | 10.8 | 0.22 | 12.1 |      |      |      |      |
|     | 1565 | 1321                          | 1265 | 1205 |      | 1140 |      | 992  |      | 790  |      |      |      |      |      |
|     |      | 0.23                          | 13.7 | 0.24 | 13.7 | 0.25 | 12.8 | 0.25 | 12.2 | 0.26 | 13.1 | 0.26 | 12.7 |      |      |
| 1/2 | 1645 | 1394                          | 1341 | 1285 |      | 1225 |      | 1090 |      | 924  |      |      |      |      |      |
|     |      | 0.27                          | 15.0 | 0.28 | 14.5 | 0.28 | 13.9 | 0.29 | 13.2 | 0.30 | 13.9 | 0.31 | 14.3 |      |      |
|     | 1725 | 1467                          | 1417 | 1364 |      | 1308 |      | 1184 |      | 1038 |      | 833  |      |      |      |
|     |      | 0.31                          | 16.0 | 0.32 | 16.0 | 0.33 | 15.4 | 0.33 | 14.5 | 0.35 | 14.4 | 0.35 | 15.6 | 0.34 | 14.4 |
| 3/4 | 1850 | 1580                          | 1534 | 1485 |      | 1434 |      | 1324 |      | 1199 |      | 1049 |      | 818  |      |
|     |      | 0.38                          | 17.9 | 0.39 | 17.9 | 0.40 | 17.1 | 0.41 | 16.3 | 0.42 | 15.5 | 0.43 | 16.7 | 0.44 | 17.5 |
|     | 1980 | 1697                          | 1654 | 1610 |      | 1563 |      | 1463 |      | 1353 |      | 1229 |      | 1077 |      |
|     |      | 0.47                          | 19.2 | 0.47 | 19.2 | 0.48 | 19.0 | 0.49 | 18.3 | 0.51 | 17.2 | 0.53 | 17.3 | 0.53 | 18.8 |
| 1   | 2120 | 1823                          | 1783 | 1742 |      | 1699 |      | 1609 |      | 1510 |      | 1403 |      | 1281 |      |
|     |      | 0.57                          | 21   | 0.58 | 21   | 0.59 | 20   | 0.60 | 20   | 0.62 | 19.2 | 0.64 | 18.6 | 0.65 | 19.5 |
|     | 2255 | 1944                          | 1906 | 1868 |      | 1829 |      | 1746 |      | 1656 |      | 1560 |      | 1455 |      |
|     |      | 0.68                          | 22   | 0.69 | 22   | 0.70 | 22   | 0.71 | 22   | 0.74 | 21   | 0.76 | 19.9 | 0.77 | 19.9 |
| 1   | 2370 | 2046                          | 2011 | 1975 |      | 1938 |      | 1860 |      | 1777 |      | 1689 |      | 1593 |      |
|     |      | 0.79                          | 24   | 0.80 | 24   | 0.81 | 24   | 0.83 | 24   | 0.85 | 23   | 0.87 | 22   | 0.89 | 22   |
|     | 2480 | 2145                          | 2111 | 2077 |      | 2041 |      | 1968 |      | 1891 |      | 1808 |      | 1720 |      |
|     |      | 0.91                          | 25   | 0.92 | 25   | 0.93 | 25   | 0.94 | 25   | 0.96 | 24   | 0.99 | 23   | 1.01 | 23   |

MAXIMUM MOTOR FRAME SIZE: 145T

### NOTES:

1. Performance certified is for Installation Type B: Free inlet, ducted outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound ratings shown are loudness values in fan sones at 1.5m (5 ft.) in a hemispherical free field calculated per AMCA International Standard 301.
5. Values shown are for installation type B: free inlet hemispherical sone levels.

## BSI 120A

Outlet Area = 2.67 ft<sup>2</sup>

Fan Efficiency Grade: FEG56

| HP    | RPM  | STATIC PRESSURE (INCHES W.G.) |          |      |          |       |          |      |          |       |          |      |          |      |          |
|-------|------|-------------------------------|----------|------|----------|-------|----------|------|----------|-------|----------|------|----------|------|----------|
|       |      | 0.125                         |          | 0.25 |          | 0.375 |          | 0.50 |          | 0.625 |          | 0.75 |          | 1.00 |          |
|       |      | CFM                           | BHP Sone | CFM  | BHP Sone | CFM   | BHP Sone | CFM  | BHP Sone | CFM   | BHP Sone | CFM  | BHP Sone | CFM  | BHP Sone |
| 1/4   | 700  | 716                           |          | 489  |          |       |          |      |          |       |          |      |          |      |          |
|       |      | 0.04                          | 3.5      | 0.04 | 3.0      |       |          |      |          |       |          |      |          |      |          |
|       | 900  | 990                           |          | 880  |          | 710   |          |      |          |       |          |      |          |      |          |
|       |      | 0.08                          | 6.2      | 0.09 | 6.0      | 0.09  | 5.7      |      |          |       |          |      |          |      |          |
|       | 1100 | 1252                          |          | 1166 |          | 1074  |          | 944  |          | 748   |          |      |          |      |          |
| 1/3   | 1290 | 1495                          |          | 1423 |          | 1349  |          | 1271 |          | 1169  |          | 1041 |          |      |          |
|       |      | 0.24                          | 11.6     | 0.25 | 10.9     | 0.25  | 10.0     | 0.26 | 10.1     | 0.26  | 10.8     | 0.26 | 10.3     |      |          |
|       | 1355 | 1578                          |          | 1509 |          | 1439  |          | 1367 |          | 1282  |          | 1172 |          |      |          |
|       |      | 0.27                          | 12.5     | 0.28 | 11.9     | 0.29  | 10.9     | 0.30 | 10.7     | 0.30  | 11.3     | 0.30 | 11.6     |      |          |
|       | 1420 | 1660                          |          | 1595 |          | 1528  |          | 1461 |          | 1387  |          | 1293 |          | 1040 |          |
| 1/2   |      | 0.31                          | 13.6     | 0.32 | 13.0     | 0.33  | 11.8     | 0.34 | 11.6     | 0.35  | 11.7     | 0.35 | 12.4     | 0.34 | 10.5     |
|       | 1525 | 1792                          |          | 1732 |          | 1670  |          | 1607 |          | 1543  |          | 1471 |          | 1275 |          |
|       |      | 0.39                          | 14.9     | 0.40 | 14.9     | 0.41  | 13.9     | 0.42 | 13.1     | 0.43  | 12.8     | 0.43 | 13.4     | 0.43 | 13.6     |
|       | 1630 | 1923                          |          | 1867 |          | 1810  |          | 1751 |          | 1693  |          | 1631 |          | 1476 | 1267     |
|       |      | 0.47                          | 16.7     | 0.48 | 16.7     | 0.49  | 15.8     | 0.50 | 14.5     | 0.51  | 14.3     | 0.52 | 14.3     | 0.53 | 15.2     |
| 3/4   | 1750 | 2072                          |          | 2020 |          | 1968  |          | 1913 |          | 1859  |          | 1804 |          | 1681 | 1514     |
|       |      | 0.58                          | 18.6     | 0.59 | 18.6     | 0.61  | 17.7     | 0.62 | 16.8     | 0.63  | 15.8     | 0.64 | 15.6     | 0.65 | 16.4     |
|       | 1865 | 2215                          |          | 2166 |          | 2117  |          | 2067 |          | 2016  |          | 1965 |          | 1858 | 1726     |
|       |      | 0.70                          | 21       | 0.71 | 21       | 0.73  | 20       | 0.74 | 19.4     | 0.75  | 18.3     | 0.76 | 17.6     | 0.78 | 17.6     |
|       | 1955 | 2326                          |          | 2280 |          | 2233  |          | 2186 |          | 2137  |          | 2089 |          | 1990 | 1877     |
| 1     |      | 0.80                          | 22       | 0.82 | 22       | 0.83  | 22       | 0.85 | 22       | 0.86  | 20       | 0.87 | 19.4     | 0.90 | 18.9     |
|       | 2045 | 2437                          |          | 2393 |          | 2349  |          | 2304 |          | 2258  |          | 2211 |          | 2118 | 2017     |
|       |      | 0.92                          | 24       | 0.93 | 24       | 0.95  | 24       | 0.97 | 23       | 0.98  | 22       | 0.99 | 22       | 1.02 | 20       |
|       | 2195 | 2622                          |          | 2582 |          | 2540  |          | 2498 |          | 2456  |          | 2413 |          | 2326 | 2238     |
|       |      | 1.13                          | 26       | 1.15 | 26       | 1.17  | 26       | 1.18 | 26       | 1.20  | 25       | 1.22 | 25       | 1.24 | 23       |
| 1 1/2 | 2345 | 2807                          |          | 2769 |          | 2730  |          | 2691 |          | 2652  |          | 2612 |          | 2531 | 2450     |
|       |      | 1.38                          | 30       | 1.40 | 30       | 1.42  | 30       | 1.43 | 30       | 1.45  | 29       | 1.47 | 28       | 1.50 | 26       |

MAXIMUM MOTOR FRAME SIZE: 145T

## BSI 120AHP

Outlet Area = 2.67 ft<sup>2</sup>

Fan Efficiency Grade: FEG53

| HP    | RPM  | STATIC PRESSURE (INCHES W.G.) |          |      |          |      |          |      |          |      |          |      |          |      |          |
|-------|------|-------------------------------|----------|------|----------|------|----------|------|----------|------|----------|------|----------|------|----------|
|       |      | 0.75                          |          | 1.00 |          | 1.25 |          | 1.50 |          | 1.75 |          | 2.00 |          | 2.25 |          |
|       |      | CFM                           | BHP Sone | CFM  | BHP Sone | CFM  | BHP Sone | CFM  | BHP Sone | CFM  | BHP Sone | CFM  | BHP Sone | CFM  | BHP Sone |
| 1/2   | 1240 | 586                           |          |      |          |      |          |      |          |      |          |      |          |      |          |
|       |      | 0.15                          | 7.6      |      |          |      |          |      |          |      |          |      |          |      |          |
|       | 1450 | 921                           |          | 720  |          |      |          |      |          |      |          |      |          |      |          |
| 1/3   |      | 0.26                          | 10.7     | 0.24 | 9.6      |      |          |      |          |      |          |      |          |      |          |
|       | 1525 | 1020                          |          | 855  |          |      |          |      |          |      |          |      |          |      |          |
|       |      | 0.30                          | 11.3     | 0.30 | 10.9     |      |          |      |          |      |          |      |          |      |          |
| 1/2   | 1600 | 1112                          |          | 963  |          | 754  |          |      |          |      |          |      |          |      |          |
|       |      | 0.34                          | 11.8     | 0.35 | 12.2     | 0.32 | 10.8     |      |          |      |          |      |          |      |          |
|       | 1720 | 1249                          |          | 1125 |          | 978  |          |      |          |      |          |      |          |      |          |
| 3/4   |      | 0.42                          | 13.1     | 0.43 | 13.6     | 0.43 | 13.1     |      |          |      |          |      |          |      |          |
|       | 1840 | 1378                          |          | 1275 |          | 1146 |          | 1004 |          |      |          |      |          |      |          |
|       |      | 0.51                          | 14.4     | 0.52 | 14.4     | 0.53 | 15.3     | 0.52 | 14.2     |      |          |      |          |      |          |
| 1     | 1970 | 1513                          |          | 1424 |          | 1318 |          | 1193 |          | 1055 |          |      |          |      |          |
|       |      | 0.62                          | 16.9     | 0.63 | 16.0     | 0.64 | 16.4     | 0.64 | 16.6     | 0.63 | 15.2     |      |          |      |          |
|       | 2105 | 1650                          |          | 1571 |          | 1482 |          | 1375 |          | 1257 |          | 1126 |          |      |          |
| 1 1/2 |      | 0.75                          | 19.3     | 0.77 | 18.0     | 0.78 | 17.5     | 0.79 | 18.4     | 0.79 | 18.2     | 0.77 | 17.0     |      |          |
|       | 2210 | 1755                          |          | 1681 |          | 1601 |          | 1509 |          | 1401 |          | 1287 |          | 1153 |          |
|       |      | 0.86                          | 21       | 0.88 | 20       | 0.90 | 19.0     | 0.91 | 19.2     | 0.91 | 20       | 0.91 | 19.8     | 0.88 | 17.8     |
| 1 1/2 | 2315 | 1858                          |          | 1788 |          | 1715 |          | 1634 |          | 1539 |          | 1433 |          | 1323 | 1187     |
|       |      | 0.98                          | 24       | 1.00 | 21       | 1.02 | 20       | 1.04 | 20       | 1.05 | 21       | 1.05 | 21       | 1.04 | 21       |
|       | 2485 | 2024                          |          | 1960 |          | 1894 |          | 1824 |          | 1747 |          | 1658 |          | 1560 | 1459     |
| 1 1/2 |      | 1.21                          | 27       | 1.23 | 25       | 1.25 | 24       | 1.27 | 23       | 1.28 | 23       | 1.29 | 23       | 1.30 | 24       |
|       | 2655 | 2187                          |          | 2128 |          | 2067 |          | 2005 |          | 1938 |          | 1866 |          | 1784 | 1692     |
|       |      | 1.46                          | 30       | 1.49 | 29       | 1.51 | 27       | 1.53 | 26       | 1.55 | 25       | 1.56 | 25       | 1.58 | 26       |

MAXIMUM MOTOR FRAME SIZE: 145T

### NOTES:

1. Performance certified is for Installation Type B: Free inlet, ducted outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound ratings shown are loudness values in fan sones at 1.5m (5 ft.) in a hemispherical free field calculated per AMCA International Standard 301.
5. Values shown are for installation type B: free inlet hemispherical sone levels.

## BSI 135A

Outlet Area = 3.22 ft<sup>2</sup>

Fan Efficiency Grade: FEG53

| HP    | RPM  | STATIC PRESSURE (INCHES W.G.) |             |             |             |             |             |             |             |             |             |           |           |          |          |
|-------|------|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------|-----------|----------|----------|
|       |      | 0.125                         | 0.25        | 0.375       | 0.50        | 0.625       | 0.75        | 1.00        | 1.25        | 1.50        | 1.75        | 2.00      | 2.25      |          |          |
|       |      | CFM                           | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM       | CFM       | CFM      | CFM      |
|       |      | BHP Sone                      | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone  | BHP Sone  | BHP Sone | BHP Sone |
| 1/4   | 900  | 1386                          | 1268        | 1120        | 894         |             |             |             |             |             |             |           |           |          |          |
|       |      | 0.14   8.0                    | 0.15   7.1  | 0.15   7.7  | 0.15   6.1  |             |             |             |             |             |             |           |           |          |          |
| 1/3   | 1075 | 1696                          | 1599        | 1500        | 1380        | 1217        |             |             |             |             |             |           |           |          |          |
|       |      | 0.23   11.0                   | 0.24   9.8  | 0.25   9.4  | 0.26   10.0 | 0.26   9.8  |             |             |             |             |             |           |           |          |          |
| 1/2   | 1130 | 1792                          | 1700        | 1607        | 1503        | 1365        | 1192        |             |             |             |             |           |           |          |          |
|       |      | 0.27   11.8                   | 0.28   10.8 | 0.29   10.1 | 0.30   10.3 | 0.30   10.9 | 0.29   9.6  |             |             |             |             |           |           |          |          |
| 3/4   | 1190 | 1897                          | 1810        | 1721        | 1629        | 1515        | 1367        |             |             |             |             |           |           |          |          |
|       |      | 0.31   12.6                   | 0.33   12.0 | 0.34   10.9 | 0.34   10.9 | 0.35   11.7 | 0.35   11.4 |             |             |             |             |           |           |          |          |
| 1     | 1280 | 2053                          | 1973        | 1890        | 1807        | 1716        | 1602        | 1292        |             |             |             |           |           |          |          |
|       |      | 0.39   13.9                   | 0.40   13.4 | 0.41   12.4 | 0.42   12.0 | 0.43   12.2 | 0.43   13.0 | 0.42   10.8 |             |             |             |           |           |          |          |
| 1 1/2 | 1370 | 2208                          | 2133        | 2057        | 1980        | 1901        | 1811        | 1568        |             |             |             |           |           |          |          |
|       |      | 0.47   15.4                   | 0.49   15.4 | 0.50   14.4 | 0.51   13.3 | 0.52   13.2 | 0.53   14.0 | 0.53   14.1 |             |             |             |           |           |          |          |
| 3/4   | 1465 | 2370                          | 2301        | 2231        | 2158        | 2086        | 2010        | 1818        | 1559        |             |             |           |           |          |          |
|       |      | 0.58   17.0                   | 0.59   17.0 | 0.61   16.0 | 0.62   15.0 | 0.63   14.8 | 0.64   14.8 | 0.65   15.8 | 0.64   14.3 |             |             |           |           |          |          |
| 1     | 1565 | 2541                          | 2477        | 2411        | 2344        | 2277        | 2208        | 2054        | 1843        | 1572        |             |           |           |          |          |
|       |      | 0.70   19.0                   | 0.72   19.0 | 0.73   18.3 | 0.75   17.2 | 0.76   16.5 | 0.77   16.2 | 0.79   17.2 | 0.79   17.3 | 0.77   14.8 |             |           |           |          |          |
| 1 1/2 | 1640 | 2669                          | 2608        | 2545        | 2482        | 2417        | 2353        | 2215        | 2038        | 1813        |             |           |           |          |          |
|       |      | 0.81   20                     | 0.82   20   | 0.84   20   | 0.86   19.1 | 0.87   18.1 | 0.88   17.4 | 0.91   17.6 | 0.91   18.9 | 0.9   17.7  |             |           |           |          |          |
| 3/4   | 1720 | 2805                          | 2747        | 2687        | 2627        | 2566        | 2504        | 2378        | 2229        | 2034        | 1801        |           |           |          |          |
|       |      | 0.93   22                     | 0.95   22   | 0.96   22   | 0.98   21   | 1.00   19.8 | 1.01   19.1 | 1.04   18.6 | 1.05   19.7 | 1.05   19.9 | 1.04   18.1 |           |           |          |          |
| 1     | 1845 | 3017                          | 2963        | 2908        | 2852        | 2795        | 2738        | 2623        | 2500        | 2350        | 2163        | 1946      |           |          |          |
|       |      | 1.14   25                     | 1.16   25   | 1.18   25   | 1.20   24   | 1.22   23   | 1.23   22   | 1.27   21   | 1.29   21   | 1.30   22   | 1.29   22   | 1.28   21 |           |          |          |
| 1 1/2 | 1970 | 3228                          | 3178        | 3127        | 3075        | 3022        | 2969        | 2862        | 2752        | 2632        | 2484        | 2305      | 2105      |          |          |
|       |      | 1.39   27                     | 1.41   27   | 1.43   27   | 1.45   27   | 1.47   26   | 1.49   25   | 1.52   24   | 1.55   23   | 1.58   24   | 1.58   25   | 1.58   24 | 1.56   23 |          |          |

MAXIMUM MOTOR FRAME SIZE: 145T

## BSI 135AHP

Outlet Area = 3.22 ft<sup>2</sup>

Fan Efficiency Grade: FEG53

| HP    | RPM  | STATIC PRESSURE (INCHES W.G.) |             |             |             |             |             |             |             |             |             |           |           |          |          |
|-------|------|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------|-----------|----------|----------|
|       |      | 0.25                          | 0.50        | 0.75        | 1.00        | 1.25        | 1.50        | 1.75        | 2.00        | 2.25        | 2.50        | 2.75      | 3.00      |          |          |
|       |      | CFM                           | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM       | CFM       | CFM      | CFM      |
|       |      | BHP Sone                      | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone  | BHP Sone  | BHP Sone | BHP Sone |
| 1/4   | 1050 | 1116                          | 899         |             |             |             |             |             |             |             |             |           |           |          |          |
|       |      | 0.16   8.5                    | 0.17   8.1  |             |             |             |             |             |             |             |             |           |           |          |          |
| 1/3   | 1200 | 1321                          | 1161        | 937         |             |             |             |             |             |             |             |           |           |          |          |
|       |      | 0.23   11.4                   | 0.24   9.3  | 0.25   9.5  |             |             |             |             |             |             |             |           |           |          |          |
| 1/2   | 1275 | 1421                          | 1276        | 1081        | 789         |             |             |             |             |             |             |           |           |          |          |
|       |      | 0.28   12.6                   | 0.29   10.1 | 0.30   10.8 | 0.26   9.7  |             |             |             |             |             |             |           |           |          |          |
| 3/4   | 1350 | 1520                          | 1387        | 1219        | 1007        |             |             |             |             |             |             |           |           |          |          |
|       |      | 0.33   14.0                   | 0.34   11.5 | 0.35   11.7 | 0.35   11.0 |             |             |             |             |             |             |           |           |          |          |
| 1     | 1450 | 1651                          | 1529        | 1390        | 1206        | 966         |             |             |             |             |             |           |           |          |          |
|       |      | 0.40   15.5                   | 0.42   13.2 | 0.43   12.4 | 0.44   13.0 | 0.41   11.6 |             |             |             |             |             |           |           |          |          |
| 1 1/2 | 1550 | 1780                          | 1668        | 1546        | 1392        | 1212        |             |             |             |             |             |           |           |          |          |
|       |      | 0.49   17.2                   | 0.51   15.0 | 0.52   13.6 | 0.53   14.4 | 0.53   13.9 |             |             |             |             |             |           |           |          |          |
| 3/4   | 1655 | 1915                          | 1812        | 1701        | 1573        | 1412        | 1237        |             |             |             |             |           |           |          |          |
|       |      | 0.59   19.0                   | 0.61   17.4 | 0.63   15.2 | 0.64   15.2 | 0.65   16.0 | 0.64   14.6 |             |             |             |             |           |           |          |          |
| 1     | 1765 | 2055                          | 1959        | 1858        | 1747        | 1613        | 1457        | 1283        |             |             |             |           |           |          |          |
|       |      | 0.71   21                     | 0.74   19.7 | 0.76   17.6 | 0.77   16.2 | 0.78   17.1 | 0.79   17.2 | 0.77   15.5 |             |             |             |           |           |          |          |
| 1 1/2 | 1855 | 2169                          | 2079        | 1983        | 1882        | 1767        | 1625        | 1475        | 1286        |             |             |           |           |          |          |
|       |      | 0.82   22                     | 0.85   21   | 0.87   19.1 | 0.89   18.0 | 0.91   17.6 | 0.91   18.4 | 0.91   18.2 | 0.87   16.4 |             |             |           |           |          |          |
| 3/4   | 1945 | 2282                          | 2197        | 2107        | 2013        | 1910        | 1788        | 1646        | 1501        | 1294        |             |           |           |          |          |
|       |      | 0.94   24                     | 0.97   23   | 1.00   21   | 1.02   19.4 | 1.04   18.6 | 1.05   19.5 | 1.05   19.9 | 1.04   19.3 | 0.98   17.8 |             |           |           |          |          |
| 1     | 2085 | 2458                          | 2379        | 2297        | 2211        | 2121        | 2021        | 1903        | 1771        | 1637        | 1470        |           |           |          |          |
|       |      | 1.16   26                     | 1.19   26   | 1.22   24   | 1.24   22   | 1.26   21   | 1.28   21   | 1.29   22   | 1.30   22   | 1.29   22   | 1.25   19.7 |           |           |          |          |
| 1 1/2 | 2225 | 2633                          | 2560        | 2484        | 2405        | 2323        | 2236        | 2139        | 2027        | 1903        | 1779        | 1639      | 1423      |          |          |
|       |      | 1.40   29                     | 1.44   29   | 1.47   27   | 1.50   26   | 1.52   24   | 1.54   23   | 1.56   23   | 1.57   24   | 1.57   24   | 1.57   24   | 1.55   23 | 1.43   22 |          |          |

MAXIMUM MOTOR FRAME SIZE: 145T

### NOTES:

1. Performance certified is for Installation Type B: Free inlet, ducted outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound ratings shown are loudness values in fan sones at 1.5m (5 ft.) in a hemispherical free field calculated per AMCA International Standard 301.
5. Values shown are for installation type B: free inlet hemispherical sone levels.



## BSI 150A

Outlet Area = 3.90 ft<sup>2</sup>

Fan Efficiency Grade: FEG53

| HP    | RPM  | STATIC PRESSURE (INCHES W.G.) |             |             |             |             |             |             |             |             |             |           |           |          |          |
|-------|------|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------|-----------|----------|----------|
|       |      | 0.125                         | 0.25        | 0.375       | 0.50        | 0.625       | 0.75        | 1.00        | 1.25        | 1.50        | 1.75        | 2.00      | 2.25      |          |          |
|       |      | CFM                           | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM       | CFM       | CFM      | CFM      |
|       |      | BHP Sone                      | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone  | BHP Sone  | BHP Sone | BHP Sone |
| 1/4   | 825  | 1693                          | 1552        | 1378        | 1115        |             |             |             |             |             |             |           |           |          |          |
|       |      | 0.17   8.2                    | 0.18   7.3  | 0.19   7.9  | 0.18   6.6  |             |             |             |             |             |             |           |           |          |          |
| 1/3   | 920  | 1918                          | 1793        | 1660        | 1481        | 1235        |             |             |             |             |             |           |           |          |          |
|       |      | 0.24   10.2                   | 0.25   9.1  | 0.26   8.7  | 0.26   9.5  | 0.25   7.7  |             |             |             |             |             |           |           |          |          |
| 1/2   | 1020 | 2035                          | 1917        | 1795        | 1646        | 1444        |             |             |             |             |             |           |           |          |          |
|       |      | 0.28   10.9                   | 0.29   9.9  | 0.30   9.3  | 0.30   10.1 | 0.30   9.8  |             |             |             |             |             |           |           |          |          |
| 3/4   | 1095 | 2152                          | 2040        | 1925        | 1798        | 1626        | 1410        |             |             |             |             |           |           |          |          |
|       |      | 0.32   11.7                   | 0.33   11.1 | 0.34   10.1 | 0.35   10.7 | 0.35   10.9 | 0.35   9.8  |             |             |             |             |           |           |          |          |
| 1     | 1170 | 2326                          | 2222        | 2116        | 2006        | 1874        | 1701        |             |             |             |             |           |           |          |          |
|       |      | 0.39   13.2                   | 0.41   12.6 | 0.42   11.5 | 0.43   11.4 | 0.44   12.3 | 0.44   12.4 |             |             |             |             |           |           |          |          |
| 1 1/2 | 1250 | 2498                          | 2402        | 2303        | 2203        | 2094        | 1959        | 1593        |             |             |             |           |           |          |          |
|       |      | 0.48   14.6                   | 0.49   14.2 | 0.51   13.0 | 0.52   12.5 | 0.53   12.9 | 0.53   13.4 | 0.52   11.7 |             |             |             |           |           |          |          |
| 2     | 1335 | 2682                          | 2592        | 2500        | 2407        | 2311        | 2204        | 1913        |             |             |             |           |           |          |          |
|       |      | 0.58   16.2                   | 0.60   15.8 | 0.61   14.8 | 0.63   14.0 | 0.64   13.6 | 0.65   14.3 | 0.65   14.7 |             |             |             |           |           |          |          |
| 2 1/2 | 1400 | 2876                          | 2792        | 2707        | 2620        | 2532        | 2440        | 2209        | 1898        |             |             |           |           |          |          |
|       |      | 0.70   18.0                   | 0.72   18.0 | 0.74   17.1 | 0.76   15.8 | 0.77   15.3 | 0.78   15.3 | 0.79   16.7 | 0.78   15.1 |             |             |           |           |          |          |
| 3     | 1465 | 3024                          | 2944        | 2863        | 2780        | 2697        | 2613        | 2416        | 2147        | 1771        |             |           |           |          |          |
|       |      | 0.81   18.8                   | 0.83   18.8 | 0.85   18.5 | 0.87   17.5 | 0.88   16.8 | 0.90   16.1 | 0.91   17.3 | 0.91   17.3 | 0.88   14.4 |             |           |           |          |          |
| 3 1/2 | 1570 | 3171                          | 3096        | 3019        | 2940        | 2860        | 2781        | 2607        | 2377        | 2090        |             |           |           |          |          |
|       |      | 0.93   20                     | 0.95   20   | 0.97   20   | 0.99   19.0 | 1.00   18.1 | 1.02   17.7 | 1.04   17.7 | 1.05   18.9 | 1.03   17.2 |             |           |           |          |          |
| 4     | 1680 | 3409                          | 3339        | 3267        | 3195        | 3120        | 3046        | 2894        | 2715        | 2483        | 2206        |           |           |          |          |
|       |      | 1.14   23                     | 1.16   23   | 1.18   23   | 1.20   22   | 1.22   20   | 1.24   19.8 | 1.27   19.4 | 1.29   21   | 1.29   21   | 1.27   18.9 |           |           |          |          |
| 4 1/2 | 1760 | 3657                          | 3592        | 3525        | 3458        | 3389        | 3320        | 3181        | 3032        | 2851        | 2625        | 2365      |           |          |          |
|       |      | 1.39   25                     | 1.41   25   | 1.44   25   | 1.46   25   | 1.48   24   | 1.50   22   | 1.54   21   | 1.57   21   | 1.58   23   | 1.57   23   | 1.56   21 |           |          |          |
| 5     | 1845 | 3837                          | 3775        | 3712        | 3648        | 3583        | 3517        | 3385        | 3248        | 3094        | 2903        | 2676      | 2412      |          |          |
|       |      | 1.59   27                     | 1.62   27   | 1.64   27   | 1.67   27   | 1.69   25   | 1.71   24   | 1.75   23   | 1.79   23   | 1.81   24   | 1.82   25   | 1.81   24 | 1.78   21 |          |          |
| 5 1/2 |      | 4028                          | 3969        | 3909        | 3848        | 3787        | 3724        | 3598        | 3471        | 3334        | 3174        | 2979      | 2758      |          |          |
|       |      | 1.83   29                     | 1.86   29   | 1.89   29   | 1.91   29   | 1.94   28   | 1.96   27   | 2.00   25   | 2.04   25   | 2.08   25   | 2.09   26   | 2.09   27 | 2.08   26 |          |          |

MAXIMUM MOTOR FRAME SIZE: 184T

## BSI 150AHP

Outlet Area = 3.90 ft<sup>2</sup>

Fan Efficiency Grade: FEG53

| HP    | RPM  | STATIC PRESSURE (INCHES W.G.) |             |             |             |             |             |             |             |           |           |           |           |          |          |
|-------|------|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------|-----------|-----------|-----------|----------|----------|
|       |      | 0.50                          | 0.75        | 1.00        | 1.25        | 1.50        | 1.75        | 2.00        | 2.25        | 2.50      | 2.75      | 3.00      | 3.25      |          |          |
|       |      | CFM                           | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM       | CFM       | CFM       | CFM       | CFM      | CFM      |
|       |      | BHP Sone                      | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone  | BHP Sone  | BHP Sone  | BHP Sone  | BHP Sone | BHP Sone |
| 1/3   | 950  | 1078                          |             |             |             |             |             |             |             |           |           |           |           |          |          |
|       |      | 0.20   8.3                    |             |             |             |             |             |             |             |           |           |           |           |          |          |
| 1/2   | 1140 | 1505                          | 1261        |             |             |             |             |             |             |           |           |           |           |          |          |
|       |      | 0.34   10.4                   | 0.34   10.8 |             |             |             |             |             |             |           |           |           |           |          |          |
| 1 1/2 | 1230 | 1682                          | 1481        | 1226        |             |             |             |             |             |           |           |           |           |          |          |
|       |      | 0.42   11.9                   | 0.43   12.0 | 0.42   11.5 |             |             |             |             |             |           |           |           |           |          |          |
| 2     | 1320 | 1853                          | 1684        | 1465        | 1175        |             |             |             |             |           |           |           |           |          |          |
|       |      | 0.51   13.6                   | 0.52   12.8 | 0.53   13.6 | 0.49   11.9 |             |             |             |             |           |           |           |           |          |          |
| 2 1/2 | 1415 | 2029                          | 1881        | 1698        | 1482        |             |             |             |             |           |           |           |           |          |          |
|       |      | 0.62   15.9                   | 0.64   14.4 | 0.65   14.8 | 0.65   14.5 |             |             |             |             |           |           |           |           |          |          |
| 3     | 1510 | 2201                          | 2067        | 1914        | 1723        | 1512        |             |             |             |           |           |           |           |          |          |
|       |      | 0.75   17.8                   | 0.77   16.1 | 0.79   15.5 | 0.79   16.5 | 0.78   15.6 |             |             |             |           |           |           |           |          |          |
| 3 1/2 | 1585 | 2335                          | 2210        | 2073        | 1906        | 1714        | 1484        |             |             |           |           |           |           |          |          |
|       |      | 0.86   19.6                   | 0.88   17.9 | 0.90   16.9 | 0.92   17.5 | 0.92   17.6 | 0.88   15.6 |             |             |           |           |           |           |          |          |
| 4     | 1660 | 2468                          | 2350        | 2224        | 2078        | 1902        | 1715        | 1444        |             |           |           |           |           |          |          |
|       |      | 0.98   21                     | 1.01   19.0 | 1.03   18.0 | 1.05   18.1 | 1.05   19.0 | 1.05   17.8 | 0.97   16.6 |             |           |           |           |           |          |          |
| 4 1/2 | 1780 | 2679                          | 2570        | 2457        | 2333        | 2189        | 2023        | 1848        | 1615        |           |           |           |           |          |          |
|       |      | 1.20   24                     | 1.23   22   | 1.26   20   | 1.28   19.4 | 1.29   20   | 1.30   21   | 1.29   19.9 | 1.23   18.4 |           |           |           |           |          |          |
| 5     | 1900 | 2887                          | 2787        | 2682        | 2573        | 2453        | 2313        | 2155        | 1992        | 1794      |           |           |           |          |          |
|       |      | 1.45   27                     | 1.48   25   | 1.51   23   | 1.54   22   | 1.56   22   | 1.58   22   | 1.58   23   | 1.57   22   | 1.53   20 |           |           |           |          |          |
| 5 1/2 | 1995 | 3050                          | 2956        | 2858        | 2756        | 2648        | 2527        | 2387        | 2235        | 2079      | 1889      |           |           |          |          |
|       |      | 1.67   29                     | 1.71   27   | 1.74   26   | 1.77   24   | 1.79   23   | 1.81   23   | 1.83   25   | 1.83   25   | 1.82   24 | 1.77   22 |           |           |          |          |
| 6     | 2090 | 3213                          | 3123        | 3031        | 2935        | 2835        | 2728        | 2607        | 2469        | 2324      | 2175      | 1995      | 1721      |          |          |
|       |      | 1.91   31                     | 1.95   29   | 1.99   28   | 2.02   26   | 2.05   25   | 2.07   25   | 2.09   25   | 2.10   26   | 2.10   26 | 2.09   26 | 2.04   24 | 1.86   24 |          |          |

MAXIMUM MOTOR FRAME SIZE: 184T

### NOTES:

1. Performance certified is for Installation Type B: Free inlet, ducted outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound ratings shown are loudness values in fan sones at 1.5m (5 ft.) in a hemispherical free field calculated per AMCA International Standard 301.
5. Values shown are for installation type B: free inlet hemispherical sone levels.

## BSI 165A

Outlet Area = 4.83 ft<sup>2</sup>

Fan Efficiency Grade: FEG56

| HP    | RPM  | STATIC PRESSURE (INCHES W.G.) |             |             |             |             |             |             |             |             |             |           |             |          |          |
|-------|------|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------|-------------|----------|----------|
|       |      | 0.125                         | 0.25        | 0.375       | 0.50        | 0.625       | 0.75        | 1.00        | 1.25        | 1.50        | 1.75        | 2.00      | 2.25        |          |          |
|       |      | CFM                           | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM       | CFM         | CFM      | CFM      |
|       |      | BHP Sone                      | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone  | BHP Sone    | BHP Sone | BHP Sone |
| 1/3   | 810  | 2636                          | 2420        | 2167        | 1919        | 1441        |             |             |             |             |             |           |             |          |          |
|       |      | 0.27   10.1                   | 0.29   7.9  | 0.30   8    | 0.30   8.6  | 0.27   8.2  |             |             |             |             |             |           |             |          |          |
| 1/2   | 875  | 2876                          | 2690        | 2450        | 2238        | 1965        | 1403        |             |             |             |             |           |             |          |          |
|       |      | 0.34   11.5                   | 0.36   9.6  | 0.37   8.6  | 0.38   9.6  | 0.37   9.6  | 0.33   9.4  |             |             |             |             |           |             |          |          |
| 1     | 940  | 3114                          | 2948        | 2737        | 2522        | 2324        | 2029        |             |             |             |             |           |             |          |          |
|       |      | 0.42   13.1                   | 0.44   11.4 | 0.45   9.7  | 0.46   10.2 | 0.47   11   | 0.46   10.5 |             |             |             |             |           |             |          |          |
| 3/4   | 1000 | 3332                          | 3180        | 2998        | 2783        | 2598        | 2394        |             |             |             |             |           |             |          |          |
|       |      | 0.51   14.2                   | 0.52   13.1 | 0.54   11.5 | 0.55   10.8 | 0.56   11.7 | 0.56   11.9 |             |             |             |             |           |             |          |          |
| 1     | 1075 | 3602                          | 3464        | 3308        | 3115        | 2924        | 2756        | 2269        |             |             |             |           |             |          |          |
|       |      | 0.63   16.1                   | 0.65   15.2 | 0.66   13.4 | 0.68   12.3 | 0.69   12.3 | 0.70   13.3 | 0.68   12.7 |             |             |             |           |             |          |          |
| 1 1/2 | 1145 | 3853                          | 3726        | 3586        | 3420        | 3230        | 3062        | 2711        | 2031        |             |             |           |             |          |          |
|       |      | 0.76   17.5                   | 0.77   17   | 0.79   15.6 | 0.81   14.1 | 0.82   13.4 | 0.83   14.1 | 0.84   14.7 | 0.77   13.8 |             |             |           |             |          |          |
| 2     | 1205 | 4067                          | 3948        | 3819        | 3672        | 3496        | 3322        | 3016        | 2559        |             |             |           |             |          |          |
|       |      | 0.88   18.6                   | 0.90   18.6 | 0.92   17.1 | 0.94   15.8 | 0.95   14.5 | 0.96   14.5 | 0.98   15.9 | 0.96   14.5 |             |             |           |             |          |          |
| 3     | 1260 | 4263                          | 4150        | 4029        | 3896        | 3737        | 3564        | 3265        | 2916        | 2290        |             |           |             |          |          |
|       |      | 1.00   19.8                   | 1.02   19.7 | 1.04   18.9 | 1.06   17.3 | 1.08   16   | 1.10   15.3 | 1.12   16.7 | 1.12   16.4 | 1.04   15.2 |             |           |             |          |          |
| 1 1/2 | 1355 | 4600                          | 4497        | 4387        | 4269        | 4137        | 3984        | 3678        | 3408        | 3040        | 2406        |           |             |          |          |
|       |      | 1.24   22                     | 1.27   22   | 1.29   21   | 1.31   20   | 1.33   18.9 | 1.35   17.9 | 1.38   17.9 | 1.40   19.2 | 1.38   18.1 | 1.28   16.9 |           |             |          |          |
| 2     | 1445 | 4919                          | 4823        | 4722        | 4615        | 4500        | 4369        | 4071        | 3809        | 3545        | 3162        | 2529      |             |          |          |
|       |      | 1.51   24                     | 1.53   24   | 1.55   24   | 1.58   23   | 1.60   22   | 1.62   20   | 1.66   19.2 | 1.68   20   | 1.69   21   | 1.66   18.9 | 1.54   18 |             |          |          |
| 3     | 1520 | 5183                          | 5093        | 4998        | 4898        | 4792        | 4678        | 4404        | 4134        | 3896        | 3616        | 3207      | 2508        |          |          |
|       |      | 1.75   26                     | 1.77   26   | 1.80   26   | 1.82   25   | 1.85   24   | 1.87   23   | 1.91   21   | 1.94   21   | 1.97   23   | 1.97   23   | 1.92   19 | 1.74   18.8 |          |          |
| 1 1/2 | 1590 | 5430                          | 5344        | 5254        | 5161        | 5062        | 4957        | 4710        | 4439        | 4204        | 3970        | 3667      | 3234        |          |          |
|       |      | 2.00   28                     | 2.03   28   | 2.05   28   | 2.08   27   | 2.10   26   | 2.13   25   | 2.17   23   | 2.21   22   | 2.24   23   | 2.26   24   | 2.24   23 | 2.17   20   |          |          |
| 2     | 1705 | 5834                          | 5755        | 5673        | 5587        | 5498        | 5404        | 5197        | 4948        | 4702        | 4487        | 4269      | 3997        |          |          |
|       |      | 2.46   30                     | 2.49   30   | 2.52   30   | 2.55   30   | 2.57   30   | 2.60   29   | 2.65   27   | 2.70   25   | 2.73   25   | 2.76   26   | 2.78   27 | 2.77   26   |          |          |
| 3     | 1780 | 6098                          | 6022        | 5944        | 5863        | 5778        | 5691        | 5502        | 5276        | 5032        | 4812        | 4609      | 4392        |          |          |
|       |      | 2.80   34                     | 2.83   34   | 2.86   34   | 2.89   34   | 2.92   32   | 2.94   32   | 3.00   29   | 3.05   27   | 3.09   26   | 3.12   27   | 3.15   29 | 3.17   29   |          |          |

MAXIMUM MOTOR FRAME SIZE: 145T

## BSI 165AHP

Outlet Area = 4.83 ft<sup>2</sup>

Fan Efficiency Grade: FEG56

| HP    | RPM  | STATIC PRESSURE (INCHES W.G.) |             |             |             |             |             |             |             |             |             |             |             |          |          |
|-------|------|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------|----------|
|       |      | 0.75                          | 1.00        | 1.25        | 1.50        | 1.75        | 2.00        | 2.25        | 2.50        | 2.75        | 3.00        | 3.25        | 3.50        |          |          |
|       |      | CFM                           | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM      | CFM      |
|       |      | BHP Sone                      | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone | BHP Sone |
| 1/2   | 1000 | 1620                          | 1053        |             |             |             |             |             |             |             |             |             |             |          |          |
|       |      | 0.37   9.2                    | 0.33   8.2  |             |             |             |             |             |             |             |             |             |             |          |          |
| 3/4   | 1130 | 2070                          | 1776        | 1294        |             |             |             |             |             |             |             |             |             |          |          |
|       |      | 0.53   10.6                   | 0.53   10.6 | 0.49   9.7  |             |             |             |             |             |             |             |             |             |          |          |
| 1     | 1210 | 2322                          | 2071        | 1764        |             |             |             |             |             |             |             |             |             |          |          |
|       |      | 0.65   11.3                   | 0.65   12.1 | 0.65   10.5 |             |             |             |             |             |             |             |             |             |          |          |
| 1 1/2 | 1290 | 2564                          | 2342        | 2088        | 1758        |             |             |             |             |             |             |             |             |          |          |
|       |      | 0.78   12.3                   | 0.79   12.8 | 0.79   12.7 | 0.78   11.5 |             |             |             |             |             |             |             |             |          |          |
| 2     | 1350 | 2741                          | 2535        | 2306        | 2039        | 1631        |             |             |             |             |             |             |             |          |          |
|       |      | 0.88   13.3                   | 0.90   13.0 | 0.91   13.9 | 0.91   12.9 | 0.86   12.4 |             |             |             |             |             |             |             |          |          |
| 3     | 1415 | 2928                          | 2736        | 2529        | 2294        | 2009        | 1498        |             |             |             |             |             |             |          |          |
|       |      | 1.01   14.4                   | 1.03   13.8 | 1.04   14.2 | 1.05   14.5 | 1.04   13.0 | 0.93   13.0 |             |             |             |             |             |             |          |          |
| 1 1/2 | 1520 | 3222                          | 3051        | 2867        | 2669        | 2446        | 2182        | 1769        |             |             |             |             |             |          |          |
|       |      | 1.24   16.7                   | 1.27   15.2 | 1.29   15.2 | 1.30   16.1 | 1.30   15.7 | 1.29   14.5 | 1.21   14.6 |             |             |             |             |             |          |          |
| 2     | 1620 | 3495                          | 3341        | 3175        | 2998        | 2808        | 2597        | 2351        | 1995        |             |             |             |             |          |          |
|       |      | 1.48   18.9                   | 1.52   17.0 | 1.54   16.2 | 1.56   16.8 | 1.57   17.2 | 1.57   17.2 | 1.56   15.7 | 1.49   15.7 |             |             |             |             |          |          |
| 3     | 1700 | 3710                          | 3567        | 3413        | 3250        | 3077        | 2890        | 2684        | 2443        | 2099        |             |             |             |          |          |
|       |      | 1.69   20                     | 1.74   18.9 | 1.77   17.9 | 1.79   17.4 | 1.81   18.0 | 1.81   18.6 | 1.82   18.2 | 1.8   16.7  | 1.72   16.8 |             |             |             |          |          |
| 1 1/2 | 1785 | 3936                          | 3803        | 3660        | 3509        | 3350        | 3182        | 3000        | 2802        | 2572        | 2254        |             |             |          |          |
|       |      | 1.94   23                     | 1.99   21   | 2.03   19.3 | 2.06   18.9 | 2.09   18.9 | 2.10   19.3 | 2.10   19.6 | 2.10   19.0 | 2.09   17.9 | 2.01   18.0 |             |             |          |          |
| 2     | 1920 | 4289                          | 4169        | 4042        | 3907        | 3766        | 3618        | 3464        | 3299        | 3121        | 2928        | 2697        | 2382        |          |          |
|       |      | 2.39   26                     | 2.45   24   | 2.50   23   | 2.54   21   | 2.57   20   | 2.59   20   | 2.61   21   | 2.61   22   | 2.62   22   | 2.62   20   | 2.59   19.7 | 2.49   19.7 |          |          |
| 3     | 2040 | 4600                          | 4489        | 4373        | 4250        | 4122        | 3988        | 3849        | 3704        | 3551        | 3388        | 3214        | 3020        |          |          |
|       |      | 2.84   28                     | 2.91   27   | 2.97   25   | 3.01   24   | 3.05   23   | 3.08   22   | 3.11   22   | 3.13   23   | 3.13   24   | 3.14   24   | 3.14   23   | 3.13   22   |          |          |

MAXIMUM MOTOR FRAME SIZE: 145T

### NOTES:

- Performance certified is for Installation Type B: Free inlet, ducted outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- The sound ratings shown are loudness values in fan sones at 1.5m (5 ft.) in a hemispherical free field calculated per AMCA International Standard 301.
- Values shown are for installation type B: free inlet hemispherical sone levels.

**BSI 180A**Outlet Area = 5.82 ft<sup>2</sup>

Fan Efficiency Grade: FEG56

| HP    | RPM  | STATIC PRESSURE (INCHES W.G.) |             |             |             |             |             |             |             |             |             |             |           |          |          |
|-------|------|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------|----------|----------|
|       |      | 0.125                         | 0.25        | 0.375       | 0.50        | 0.625       | 0.75        | 1.00        | 1.25        | 1.50        | 1.75        | 2.00        | 2.25      |          |          |
|       |      | CFM                           | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM       | CFM      | CFM      |
|       |      | BHP Sone                      | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone  | BHP Sone | BHP Sone |
| 1/3   | 675  | 2849                          | 2536        | 2228        | 1733        |             |             |             |             |             |             |             |           |          |          |
|       |      | 0.25   8.4                    | 0.27   6.6  | 0.27   7.4  | 0.26   7.3  |             |             |             |             |             |             |             |           |          |          |
| 1/2   | 730  | 3121                          | 2854        | 2550        | 2237        | 1565        |             |             |             |             |             |             |           |          |          |
|       |      | 0.32   10                     | 0.33   7.9  | 0.34   8    | 0.34   8.6  | 0.30   8.2  |             |             |             |             |             |             |           |          |          |
| 3/4   | 785  | 3389                          | 3159        | 2864        | 2607        | 2243        |             |             |             |             |             |             |           |          |          |
|       |      | 0.39   11.4                   | 0.41   9.5  | 0.42   8.6  | 0.43   9.5  | 0.42   9.5  |             |             |             |             |             |             |           |          |          |
| 1     | 840  | 3654                          | 3449        | 3184        | 2928        | 2673        | 2267        |             |             |             |             |             |           |          |          |
|       |      | 0.48   13                     | 0.50   11.2 | 0.51   9.6  | 0.52   10.2 | 0.53   10.9 | 0.51   10.6 |             |             |             |             |             |           |          |          |
| 3/4   | 900  | 3941                          | 3756        | 3529        | 3270        | 3048        | 2784        |             |             |             |             |             |           |          |          |
|       |      | 0.59   14.6                   | 0.60   13.1 | 0.62   11.3 | 0.64   10.9 | 0.64   11.7 | 0.64   12   |             |             |             |             |             |           |          |          |
| 1     | 960  | 4227                          | 4056        | 3861        | 3619        | 3393        | 3184        | 2512        |             |             |             |             |           |          |          |
|       |      | 0.71   16.1                   | 0.73   15.1 | 0.75   13.3 | 0.76   12.2 | 0.78   12.4 | 0.78   13.4 | 0.75   13.2 |             |             |             |             |           |          |          |
| 1 1/2 | 1010 | 4463                          | 4304        | 4126        | 3909        | 3678        | 3479        | 2985        |             |             |             |             |           |          |          |
|       |      | 0.82   17.2                   | 0.84   16.5 | 0.86   14.7 | 0.88   13.3 | 0.90   13.2 | 0.91   14.2 | 0.90   14.3 |             |             |             |             |           |          |          |
| 2     | 1055 | 4675                          | 4525        | 4359        | 4164        | 3939        | 3736        | 3329        | 2586        |             |             |             |           |          |          |
|       |      | 0.93   18.3                   | 0.96   17.8 | 0.98   16.4 | 1.00   14.8 | 1.02   14.1 | 1.03   14.3 | 1.04   15.4 | 0.97   14.7 |             |             |             |           |          |          |
| 2 1/2 | 1135 | 5051                          | 4913        | 4764        | 4600        | 4403        | 4194        | 3835        | 3385        | 2510        |             |             |           |          |          |
|       |      | 1.16   20                     | 1.18   19.9 | 1.21   18.9 | 1.23   17.3 | 1.25   15.9 | 1.27   15.8 | 1.29   17   | 1.29   17.1 | 1.16   16   |             |             |           |          |          |
| 3     | 1210 | 5401                          | 5274        | 5138        | 4991        | 4824        | 4631        | 4267        | 3927        | 3418        |             |             |           |          |          |
|       |      | 1.40   22                     | 1.43   22   | 1.45   21   | 1.48   20   | 1.50   18.4 | 1.52   17.4 | 1.55   18.1 | 1.57   19.1 | 1.54   17.5 |             |             |           |          |          |
| 4     | 1275 | 5704                          | 5585        | 5458        | 5322        | 5175        | 5004        | 4638        | 4323        | 3954        | 3378        |             |           |          |          |
|       |      | 1.64   24                     | 1.66   24   | 1.69   24   | 1.72   22   | 1.74   21   | 1.77   19.5 | 1.81   18.9 | 1.83   20   | 1.83   21   | 1.76   18.3 |             |           |          |          |
| 5     | 1330 | 5960                          | 5846        | 5726        | 5599        | 5463        | 5310        | 4956        | 4640        | 4331        | 3897        | 3210        |           |          |          |
|       |      | 1.85   25                     | 1.88   25   | 1.91   25   | 1.94   24   | 1.97   23   | 1.99   21   | 2.04   19.6 | 2.07   21   | 2.09   22   | 2.06   21   | 1.94   19.5 |           |          |          |
| 6     | 1430 | 6424                          | 6319        | 6210        | 6095        | 5973        | 5844        | 5537        | 5211        | 4929        | 4636        | 4235        | 3654      |          |          |
|       |      | 2.30   28                     | 2.33   28   | 2.36   28   | 2.39   27   | 2.42   26   | 2.45   25   | 2.50   23   | 2.55   22   | 2.58   24   | 2.60   24   | 2.57   23   | 2.46   21 |          |          |
| 7     | 1525 | 6864                          | 6767        | 6665        | 6560        | 6449        | 6333        | 6072        | 5763        | 5471        | 5211        | 4932        | 4560      |          |          |
|       |      | 2.79   30                     | 2.82   30   | 2.85   30   | 2.88   30   | 2.92   29   | 2.95   29   | 3.01   26   | 3.06   25   | 3.10   25   | 3.13   26   | 3.15   27   | 3.12   25 |          |          |

MAXIMUM MOTOR FRAME SIZE: 184T

**BSI 180AHP**Outlet Area = 5.82 ft<sup>2</sup>

Fan Efficiency Grade: FEG56

| HP    | RPM  | STATIC PRESSURE (INCHES W.G.) |             |             |             |             |             |             |             |             |             |             |           |          |          |
|-------|------|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------|----------|----------|
|       |      | 0.75                          | 1.00        | 1.25        | 1.50        | 1.75        | 2.00        | 2.25        | 2.50        | 2.75        | 3.00        | 3.25        | 3.50      |          |          |
|       |      | CFM                           | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM       | CFM      | CFM      |
|       |      | BHP Sone                      | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone  | BHP Sone | BHP Sone |
| 1/2   | 875  | 1753                          |             |             |             |             |             |             |             |             |             |             |           |          |          |
|       |      | 0.39   8.3                    |             |             |             |             |             |             |             |             |             |             |           |          |          |
| 3/4   | 970  | 2218                          | 1785        |             |             |             |             |             |             |             |             |             |           |          |          |
|       |      | 0.53   10.4                   | 0.53   9.4  |             |             |             |             |             |             |             |             |             |           |          |          |
| 1     | 1040 | 2524                          | 2179        | 1645        |             |             |             |             |             |             |             |             |           |          |          |
|       |      | 0.65   11.2                   | 0.66   11.3 | 0.62   10.5 |             |             |             |             |             |             |             |             |           |          |          |
| 1 1/2 | 1105 | 2793                          | 2492        | 2124        |             |             |             |             |             |             |             |             |           |          |          |
|       |      | 0.78   11.8                   | 0.79   12.6 | 0.78   11.0 |             |             |             |             |             |             |             |             |           |          |          |
| 2     | 1160 | 3013                          | 2739        | 2422        | 1982        |             |             |             |             |             |             |             |           |          |          |
|       |      | 0.89   12.7                   | 0.91   13.4 | 0.91   13.0 | 0.88   11.9 |             |             |             |             |             |             |             |           |          |          |
| 2 1/2 | 1215 | 3227                          | 2974        | 2691        | 2354        | 1778        |             |             |             |             |             |             |           |          |          |
|       |      | 1.02   13.6                   | 1.04   13.6 | 1.05   14.4 | 1.04   12.7 | 0.96   12.7 |             |             |             |             |             |             |           |          |          |
| 3     | 1300 | 3549                          | 3322        | 3075        | 2799        | 2468        | 1915        |             |             |             |             |             |           |          |          |
|       |      | 1.24   15.4                   | 1.26   14.7 | 1.28   15.5 | 1.28   15.7 | 1.28   13.8 | 1.17   13.8 |             |             |             |             |             |           |          |          |
| 4     | 1390 | 3881                          | 3676        | 3456        | 3219        | 2954        | 2640        | 2155        |             |             |             |             |           |          |          |
|       |      | 1.49   17.4                   | 1.53   16.1 | 1.55   16.0 | 1.57   17.0 | 1.57   16.8 | 1.56   15.4 | 1.46   15.4 |             |             |             |             |           |          |          |
| 5     | 1460 | 4133                          | 3944        | 3740        | 3524        | 3288        | 3027        | 2710        | 2217        |             |             |             |           |          |          |
|       |      | 1.71   19.1                   | 1.76   17.8 | 1.79   17.0 | 1.81   17.2 | 1.82   18.1 | 1.82   17.5 | 1.80   16.4 | 1.68   16.4 |             |             |             |           |          |          |
| 6     | 1530 | 4381                          | 4206        | 4016        | 3816        | 3603        | 3371        | 3114        | 2797        | 2311        |             |             |           |          |          |
|       |      | 1.96   21                     | 2.01   19.1 | 2.04   18.2 | 2.07   18.0 | 2.09   19.1 | 2.09   19.4 | 2.09   18.3 | 2.06   17.6 | 1.93   17.5 |             |             |           |          |          |
| 7     | 1640 | 4766                          | 4608        | 4438        | 4258        | 4070        | 3871        | 3657        | 3423        | 3157        | 2800        | 2202        |           |          |          |
|       |      | 2.38   24                     | 2.44   22   | 2.49   21   | 2.53   20   | 2.55   19.8 | 2.57   20   | 2.58   21   | 2.58   20   | 2.57   18.9 | 2.49   18.9 | 2.26   18.9 |           |          |          |
| 8     | 1750 | 5145                          | 5000        | 4847        | 4685        | 4515        | 4338        | 4152        | 3953        | 3740        | 3507        | 3226        | 2843      |          |          |
|       |      | 2.86   26                     | 2.93   24   | 2.99   23   | 3.04   22   | 3.08   21   | 3.10   21   | 3.12   23   | 3.13   23   | 3.13   22   | 3.13   21   | 3.09   21   | 2.97   21 |          |          |

MAXIMUM MOTOR FRAME SIZE: 184T

**NOTES:**

- Performance certified is for Installation Type AB Free inlet, ducted outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- The sound ratings shown are loudness values in fan sones at 1.5m (5 ft.) in a hemispherical free field calculated per AMCA International Standard 301.
- Values shown are for installation type B: free inlet hemispherical sone levels.



## BSI 210A

Outlet Area = 7.18 ft<sup>2</sup>

Fan Efficiency Grade: FEG56

| HP    | RPM  | STATIC PRESSURE (INCHES W.G.) |             |             |             |             |             |             |             |             |             |           |           |          |          |
|-------|------|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------|-----------|----------|----------|
|       |      | 0.125                         | 0.25        | 0.375       | 0.50        | 0.625       | 0.75        | 1.00        | 1.25        | 1.50        | 1.75        | 2.00      | 2.25      |          |          |
|       |      | CFM                           | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM       | CFM       | CFM      | CFM      |
|       |      | BHP Sone                      | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone  | BHP Sone  | BHP Sone | BHP Sone |
| 1/3   | 550  | 3133                          | 2689        | 2192        |             |             |             |             |             |             |             |           |           |          |          |
|       |      | 0.24   6.8                    | 0.25   6    | 0.25   6.4  |             |             |             |             |             |             |             |           |           |          |          |
| 1/2   | 610  | 3549                          | 3165        | 2785        | 2195        |             |             |             |             |             |             |           |           |          |          |
|       |      | 0.32   8.6                    | 0.33   6.9  | 0.34   7.7  | 0.33   7.4  |             |             |             |             |             |             |           |           |          |          |
| 3/4   | 660  | 3889                          | 3563        | 3187        | 2808        | 2042        |             |             |             |             |             |           |           |          |          |
|       |      | 0.40   10.2                   | 0.42   8.3  | 0.43   8.3  | 0.43   9    | 0.39   8.6  |             |             |             |             |             |           |           |          |          |
| 1     | 700  | 4157                          | 3868        | 3500        | 3179        | 2704        |             |             |             |             |             |           |           |          |          |
|       |      | 0.47   11.5                   | 0.49   9.5  | 0.51   8.8  | 0.52   9.6  | 0.51   9.7  |             |             |             |             |             |           |           |          |          |
| 1 1/2 | 755  | 4523                          | 4268        | 3940        | 3624        | 3308        | 2804        |             |             |             |             |           |           |          |          |
|       |      | 0.59   13.4                   | 0.61   11.4 | 0.63   10   | 0.65   10.4 | 0.65   11   | 0.63   11.1 |             |             |             |             |           |           |          |          |
| 2     | 805  | 4852                          | 4621        | 4337        | 4016        | 3740        | 3405        |             |             |             |             |           |           |          |          |
|       |      | 0.71   15.1                   | 0.74   13.4 | 0.76   11.4 | 0.78   10.9 | 0.79   12.1 | 0.79   12.4 |             |             |             |             |           |           |          |          |
| 3     | 845  | 5114                          | 4898        | 4645        | 4335        | 4058        | 3787        | 2802        |             |             |             |           |           |          |          |
|       |      | 0.82   16.3                   | 0.85   15   | 0.87   13   | 0.89   12   | 0.90   12.5 | 0.91   13.3 | 0.85   13.2 |             |             |             |           |           |          |          |
| 1 1/2 | 885  | 5375                          | 5172        | 4942        | 4656        | 4372        | 4122        | 3415        |             |             |             |           |           |          |          |
|       |      | 0.94   17.4                   | 0.97   16.2 | 0.99   14.5 | 1.02   13   | 1.03   13.2 | 1.04   14.1 | 1.02   14.3 |             |             |             |           |           |          |          |
| 2     | 950  | 5797                          | 5612        | 5407        | 5167        | 4888        | 4637        | 4137        | 3231        |             |             |           |           |          |          |
|       |      | 1.16   19.2                   | 1.19   18.6 | 1.22   16.9 | 1.24   15.5 | 1.26   14.3 | 1.28   14.9 | 1.30   16   | 1.21   16.1 |             |             |           |           |          |          |
| 3     | 1010 | 6185                          | 6013        | 5826        | 5619        | 5369        | 5109        | 4663        | 4072        |             |             |           |           |          |          |
|       |      | 1.39   21                     | 1.42   21   | 1.45   19.4 | 1.48   17.7 | 1.51   16   | 1.53   16   | 1.55   17.3 | 1.54   17.3 |             |             |           |           |          |          |
| 1 1/2 | 1065 | 6540                          | 6378        | 6205        | 6017        | 5799        | 5551        | 5103        | 4652        | 3927        |             |           |           |          |          |
|       |      | 1.63   22                     | 1.66   22   | 1.69   21   | 1.72   19.9 | 1.75   18.1 | 1.78   17.1 | 1.81   18.2 | 1.83   19.2 | 1.76   18.2 |             |           |           |          |          |
| 2     | 1115 | 6861                          | 6708        | 6545        | 6371        | 6177        | 5950        | 5495        | 5096        | 4560        | 3650        |           |           |          |          |
|       |      | 1.87   24                     | 1.90   24   | 1.93   24   | 1.96   22   | 1.99   20   | 2.02   19.1 | 2.07   19.1 | 2.09   20   | 2.07   20   | 1.93   19.3 |           |           |          |          |
| 3     | 1200 | 7406                          | 7265        | 7118        | 6961        | 6793        | 6606        | 6170        | 5779        | 5400        | 4875        | 4057      |           |          |          |
|       |      | 2.32   26                     | 2.36   26   | 2.39   26   | 2.43   25   | 2.46   24   | 2.49   22   | 2.55   21   | 2.59   22   | 2.61   23   | 2.58   22   | 2.44   21 |           |          |          |
| 1 1/2 | 1275 | 7885                          | 7754        | 7617        | 7473        | 7321        | 7159        | 6771        | 6367        | 6018        | 5644        | 5120      | 4343      |          |          |
|       |      | 2.78   29                     | 2.82   29   | 2.86   29   | 2.89   28   | 2.93   27   | 2.96   26   | 3.03   23   | 3.08   23   | 3.12   24   | 3.13   25   | 3.09   24 | 2.94   23 |          |          |

MAXIMUM MOTOR FRAME SIZE: 184T

## BSI 210AHP

Outlet Area = 7.18 ft<sup>2</sup>

Fan Efficiency Grade: FEG56

| HP    | RPM  | STATIC PRESSURE (INCHES W.G.) |             |             |             |             |             |             |             |             |             |             |          |          |          |
|-------|------|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------|----------|----------|
|       |      | 0.25                          | 0.50        | 0.75        | 1.00        | 1.25        | 1.50        | 1.75        | 2.00        | 2.25        | 2.50        | 2.75        | 3.00     |          |          |
|       |      | CFM                           | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM      | CFM      | CFM      |
|       |      | BHP Sone                      | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone | BHP Sone | BHP Sone |
| 1/2   | 700  | 2665                          | 2166        |             |             |             |             |             |             |             |             |             |          |          |          |
|       |      | 0.33   7.3                    | 0.34   7.4  |             |             |             |             |             |             |             |             |             |          |          |          |
| 3/4   | 810  | 3208                          | 2816        | 2338        |             |             |             |             |             |             |             |             |          |          |          |
|       |      | 0.49   10.0                   | 0.52   8.8  | 0.53   9.3  |             |             |             |             |             |             |             |             |          |          |          |
| 1     | 865  | 3471                          | 3118        | 2702        | 2144        |             |             |             |             |             |             |             |          |          |          |
|       |      | 0.59   11.3                   | 0.63   10.0 | 0.64   10.6 | 0.63   9.5  |             |             |             |             |             |             |             |          |          |          |
| 1 1/2 | 925  | 3755                          | 3435        | 3066        | 2628        | 1894        |             |             |             |             |             |             |          |          |          |
|       |      | 0.72   12.9                   | 0.76   11.7 | 0.78   11.7 | 0.79   11.6 | 0.72   10.6 |             |             |             |             |             |             |          |          |          |
| 2     | 970  | 3966                          | 3668        | 3325        | 2934        | 2424        |             |             |             |             |             |             |          |          |          |
|       |      | 0.82   14.0                   | 0.87   12.6 | 0.90   12.2 | 0.91   13.0 | 0.89   11.5 |             |             |             |             |             |             |          |          |          |
| 3     | 1015 | 4175                          | 3895        | 3576        | 3221        | 2798        | 2102        |             |             |             |             |             |          |          |          |
|       |      | 0.93   14.9                   | 0.99   13.9 | 1.02   13.0 | 1.04   13.8 | 1.04   12.6 | 0.96   12.2 |             |             |             |             |             |          |          |          |
| 1 1/2 | 1090 | 4521                          | 4267        | 3982        | 3668        | 3316        | 2895        | 2164        |             |             |             |             |          |          |          |
|       |      | 1.15   16.7                   | 1.21   15.8 | 1.26   14.3 | 1.28   14.3 | 1.29   15.1 | 1.28   13.2 | 1.17   13.2 |             |             |             |             |          |          |          |
| 2     | 1165 | 4864                          | 4630        | 4374        | 4091        | 3785        | 3440        | 3024        | 2309        |             |             |             |          |          |          |
|       |      | 1.39   18.3                   | 1.46   17.4 | 1.52   16.3 | 1.55   15.5 | 1.57   16.3 | 1.58   16.4 | 1.56   14.8 | 1.42   14.4 |             |             |             |          |          |          |
| 3     | 1220 | 5115                          | 4894        | 4654        | 4391        | 4109        | 3800        | 3450        | 2999        |             |             |             |          |          |          |
|       |      | 1.59   19.4                   | 1.66   18.8 | 1.73   17.6 | 1.77   16.6 | 1.80   16.7 | 1.81   17.5 | 1.81   16.7 | 1.77   15.5 |             |             |             |          |          |          |
| 1 1/2 | 1280 | 5387                          | 5178        | 4955        | 4711        | 4449        | 4169        | 3860        | 3510        | 3037        |             |             |          |          |          |
|       |      | 1.82   21                     | 1.91   21   | 1.98   19.0 | 2.03   17.9 | 2.06   17.6 | 2.08   18.5 | 2.09   18.7 | 2.09   17.2 | 2.02   16.6 |             |             |          |          |          |
| 2     | 1370 | 5793                          | 5600        | 5396        | 5178        | 4942        | 4693        | 4428        | 4137        | 3815        | 3412        | 2776        |          |          |          |
|       |      | 2.22   23                     | 2.31   23   | 2.39   22   | 2.46   20   | 2.50   19.1 | 2.54   19.1 | 2.55   20   | 2.56   20   | 2.56   19.1 | 2.52   18.4 | 2.34   18.4 |          |          |          |
| 3     | 1465 | 6220                          | 6041        | 5854        | 5656        | 5445        | 5220        | 4985        | 4736        | 4466        | 4172        | 3830        | 3361     |          |          |
|       |      | 2.70   25                     | 2.80   25   | 2.89   24   | 2.97   23   | 3.03   21   | 3.07   21   | 3.11   21   | 3.12   22   | 3.13   22   | 3.13   21   | 3.11   19.8 | 3   19.9 |          |          |

MAXIMUM MOTOR FRAME SIZE: 184T

### NOTES:

1. Performance certified is for Installation Type B: Free inlet, ducted outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound ratings shown are loudness values in fan sones at 1.5m (5 ft.) in a hemispherical free field calculated per AMCA International Standard 301.
5. Values shown are for installation type B: free inlet hemispherical sone levels.

**BSI 225A**Outlet Area = 8.03 ft<sup>2</sup>

Fan Efficiency Grade: FEG56

| HP    | RPM  | STATIC PRESSURE (INCHES W.G.) |             |             |             |             |             |             |             |             |             |             |           |          |          |
|-------|------|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------|----------|----------|
|       |      | 0.125                         | 0.25        | 0.375       | 0.50        | 0.625       | 0.75        | 1.00        | 1.25        | 1.50        | 1.75        | 2.00        | 2.25      |          |          |
|       |      | CFM                           | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM       | CFM      | CFM      |
|       |      | BHP Sone                      | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone  | BHP Sone | BHP Sone |
| 1/3   | 450  | 3358                          | 2784        |             |             |             |             |             |             |             |             |             |           |          |          |
|       |      | 0.21   5.5                    | 0.22   5.7  |             |             |             |             |             |             |             |             |             |           |          |          |
| 1/2   | 520  | 4017                          | 3578        | 3008        |             |             |             |             |             |             |             |             |           |          |          |
|       |      | 0.32   7.5                    | 0.34   7.0  | 0.35   7.5  |             |             |             |             |             |             |             |             |           |          |          |
| 3/4   | 560  | 4384                          | 3994        | 3518        | 2870        |             |             |             |             |             |             |             |           |          |          |
|       |      | 0.40   8.7                    | 0.42   8.1  | 0.43   8.7  | 0.42   7.5  |             |             |             |             |             |             |             |           |          |          |
| 1     | 600  | 4746                          | 4395        | 3981        | 3467        | 2620        |             |             |             |             |             |             |           |          |          |
|       |      | 0.48   9.9                    | 0.51   8.9  | 0.53   9.3  | 0.53   9.5  | 0.49   8.0  |             |             |             |             |             |             |           |          |          |
| 3/4   | 640  | 5105                          | 4783        | 4416        | 3982        | 3436        |             |             |             |             |             |             |           |          |          |
|       |      | 0.58   11.1                   | 0.61   10.1 | 0.63   9.9  | 0.65   10.7 | 0.63   9.7  |             |             |             |             |             |             |           |          |          |
| 1     | 685  | 5505                          | 5211        | 4883        | 4509        | 4065        | 3500        |             |             |             |             |             |           |          |          |
|       |      | 0.71   12.1                   | 0.74   11.5 | 0.77   10.9 | 0.79   11.6 | 0.79   11.6 | 0.77   10.3 |             |             |             |             |             |           |          |          |
| 1 1/2 | 720  | 5814                          | 5538        | 5235        | 4896        | 4506        | 4041        |             |             |             |             |             |           |          |          |
|       |      | 0.82   13.1                   | 0.85   12.8 | 0.89   11.8 | 0.91   11.9 | 0.92   12.6 | 0.91   12.5 |             |             |             |             |             |           |          |          |
| 2     | 750  | 6078                          | 5816        | 5531        | 5215        | 4861        | 4448        |             |             |             |             |             |           |          |          |
|       |      | 0.92   14.1                   | 0.96   13.9 | 0.99   12.6 | 1.02   12.6 | 1.04   13.3 | 1.04   13.5 |             |             |             |             |             |           |          |          |
| 3     | 810  | 6603                          | 6364        | 6109        | 5831        | 5528        | 5190        | 4353        |             |             |             |             |           |          |          |
|       |      | 1.15   15.6                   | 1.19   15.6 | 1.23   14.3 | 1.27   13.6 | 1.29   13.8 | 1.31   14.6 | 1.29   13.9 |             |             |             |             |           |          |          |
| 1 1/2 | 865  | 7081                          | 6861        | 6626        | 6376        | 6106        | 5813        | 5123        | 4138        |             |             |             |           |          |          |
|       |      | 1.39   16.8                   | 1.44   16.8 | 1.49   15.9 | 1.52   14.7 | 1.56   14.7 | 1.58   15.3 | 1.59   15.9 | 1.52   13.6 |             |             |             |           |          |          |
| 2     | 910  | 7472                          | 7263        | 7044        | 6812        | 6564        | 6297        | 5691        | 4933        |             |             |             |           |          |          |
|       |      | 1.61   17.9                   | 1.67   17.9 | 1.72   17.2 | 1.76   15.8 | 1.79   15.5 | 1.82   15.5 | 1.86   16.9 | 1.83   15.9 |             |             |             |           |          |          |
| 3     | 950  | 7817                          | 7619        | 7411        | 7193        | 6961        | 6714        | 6163        | 5500        | 4586        |             |             |           |          |          |
|       |      | 1.83   18.4                   | 1.89   18.4 | 1.94   18.3 | 1.99   16.9 | 2.03   16.5 | 2.06   16.0 | 2.10   17.4 | 2.10   17.7 | 2.01   15.6 |             |             |           |          |          |
| 5     | 1025 | 8464                          | 8282        | 8093        | 7895        | 7689        | 7471        | 6996        | 6454        | 5810        | 4930        |             |           |          |          |
|       |      | 2.29   19.9                   | 2.35   19.9 | 2.41   19.9 | 2.46   19.0 | 2.51   18.4 | 2.55   17.8 | 2.62   17.9 | 2.65   19.5 | 2.64   19.1 | 2.53   17.1 |             |           |          |          |
| 3     | 1085 | 8980                          | 8809        | 8632        | 8448        | 8258        | 8058        | 7629        | 7152        | 6604        | 5960        | 5019        |           |          |          |
|       |      | 2.71   21                     | 2.77   21   | 2.84   21   | 2.89   21   | 2.95   20   | 3.00   19.4 | 3.07   18.8 | 3.13   20   | 3.15   21   | 3.11   20   | 2.96   18.3 |           |          |          |
| 5     | 1185 | 9837                          | 9682        | 9522        | 9358        | 9188        | 9012        | 8641        | 8237        | 7794        | 7297        | 6729        | 6036      |          |          |
|       |      | 3.51   23                     | 3.59   23   | 3.66   23   | 3.72   23   | 3.78   23   | 3.84   22   | 3.94   21   | 4.02   20   | 4.07   22   | 4.10   23   | 4.07   23   | 3.97   21 |          |          |
| 5     | 1285 | 10692                         | 10550       | 10404       | 10255       | 10101       | 9944        | 9615        | 9263        | 8885        | 8476        | 8024        | 7519      |          |          |
|       |      | 4.47   26                     | 4.55   26   | 4.62   26   | 4.70   26   | 4.77   26   | 4.83   25   | 4.95   24   | 5.05   23   | 5.13   23   | 5.19   24   | 5.22   25   | 5.21   25 |          |          |

MAXIMUM MOTOR FRAME SIZE: 215T

**BSI 225AHP**Outlet Area = 8.03 ft<sup>2</sup>

Fan Efficiency Grade: FEG56

| HP    | RPM  | STATIC PRESSURE (INCHES W.G.) |             |             |             |             |             |             |             |             |           |           |           |          |          |
|-------|------|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------|-----------|-----------|----------|----------|
|       |      | 0.75                          | 1.00        | 1.25        | 1.50        | 1.75        | 2.00        | 2.25        | 2.50        | 2.75        | 3.00      | 3.25      | 3.50      |          |          |
|       |      | CFM                           | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM       | CFM       | CFM       | CFM      | CFM      |
|       |      | BHP Sone                      | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone  | BHP Sone  | BHP Sone  | BHP Sone | BHP Sone |
| 3/4   | 725  | 2733                          |             |             |             |             |             |             |             |             |           |           |           |          |          |
|       |      | 0.62   9.1                    |             |             |             |             |             |             |             |             |           |           |           |          |          |
| 1     | 785  | 3288                          | 2568        |             |             |             |             |             |             |             |           |           |           |          |          |
|       |      | 0.79   10.8                   | 0.76   9.7  |             |             |             |             |             |             |             |           |           |           |          |          |
| 1 1/2 | 820  | 3625                          | 2986        |             |             |             |             |             |             |             |           |           |           |          |          |
|       |      | 0.91   11.5                   | 0.89   10.9 |             |             |             |             |             |             |             |           |           |           |          |          |
| 2     | 860  | 3982                          | 3369        | 2599        |             |             |             |             |             |             |           |           |           |          |          |
|       |      | 1.04   11.8                   | 1.04   11.8 | 0.98   11.1 |             |             |             |             |             |             |           |           |           |          |          |
| 3     | 920  | 4451                          | 3927        | 3372        | 2337        |             |             |             |             |             |           |           |           |          |          |
|       |      | 1.26   12.6                   | 1.28   13.4 | 1.26   12.9 | 1.12   12.1 |             |             |             |             |             |           |           |           |          |          |
| 5     | 985  | 4919                          | 4530        | 3981        | 3446        | 2228        |             |             |             |             |           |           |           |          |          |
|       |      | 1.52   14.0                   | 1.56   14.3 | 1.57   14.8 | 1.53   13.7 | 1.30   12.9 |             |             |             |             |           |           |           |          |          |
| 3     | 1035 | 5266                          | 4933        | 4453        | 3956        | 3349        |             |             |             |             |           |           |           |          |          |
|       |      | 1.75   15.0                   | 1.80   15.0 | 1.82   16.0 | 1.81   15.6 | 1.74   14.5 |             |             |             |             |           |           |           |          |          |
| 5     | 1085 | 5606                          | 5306        | 4923        | 4416        | 3953        | 3238        |             |             |             |           |           |           |          |          |
|       |      | 1.99   15.9                   | 2.05   15.8 | 2.09   16.8 | 2.09   17.0 | 2.06   16.3 | 1.95   15.4 |             |             |             |           |           |           |          |          |
| 3     | 1160 | 6108                          | 5838        | 5537        | 5130        | 4660        | 4227        | 3590        |             |             |           |           |           |          |          |
|       |      | 2.40   17.9                   | 2.47   17.5 | 2.53   17.5 | 2.56   18.6 | 2.56   18.6 | 2.52   17.6 | 2.42   16.9 |             |             |           |           |           |          |          |
| 5     | 1240 | 6635                          | 6387        | 6126        | 5826        | 5417        | 4981        | 4580        | 4044        | 2974        |           |           |           |          |          |
|       |      | 2.91   19.9                   | 2.98   19.5 | 3.05   18.8 | 3.11   19.7 | 3.13   20   | 3.12   20   | 3.09   19.6 | 3.00   18.6 | 2.67   18.0 |           |           |           |          |          |
| 5     | 1355 | 7378                          | 7156        | 6927        | 6687        | 6417        | 6069        | 5651        | 5282        | 4902        | 4383      | 3466      |           |          |          |
|       |      | 3.75   24                     | 3.83   22   | 3.90   22   | 3.98   22   | 4.05   22   | 4.08   24   | 4.06   24   | 4.06   23   | 4.02   22   | 3.91   21 | 3.58   21 |           |          |          |
| 5     | 1470 | 8110                          | 7910        | 7702        | 7490        | 7268        | 7025        | 6731        | 6358        | 5987        | 5654      | 5297      | 4825      |          |          |
|       |      | 4.74   27                     | 4.82   26   | 4.91   26   | 5.00   25   | 5.08   25   | 5.15   25   | 5.20   26   | 5.22   27   | 5.21   27   | 5.18   26 | 5.12   25 | 5.01   24 |          |          |

MAXIMUM MOTOR FRAME SIZE: 215T

**NOTES:**

1. Performance certified is for Installation Type B: Free inlet, ducted outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound ratings shown are loudness values in fan sones at 1.5m (5 ft.) in a hemispherical free field calculated per AMCA International Standard 301.
5. Values shown are for installation type B: free inlet hemispherical sone levels.

## BSI 245A

Outlet Area = 9.77 ft<sup>2</sup>

Fan Efficiency Grade: FEG56

| HP    | RPM  | STATIC PRESSURE (INCHES W.G.) |             |             |             |             |             |             |             |             |             |           |           |       |          |
|-------|------|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------|-----------|-------|----------|
|       |      | 0.125                         |             | 0.25        |             | 0.375       |             | 0.50        |             | 0.625       |             | 0.75      |           | 1.00  |          |
|       |      | CFM                           | BHP Sone    | CFM         | BHP Sone    | CFM         | BHP Sone    | CFM         | BHP Sone    | CFM         | BHP Sone    | CFM       | BHP Sone  | CFM   | BHP Sone |
| 1/2   | 475  | 4748                          |             | 4292        |             | 3692        |             |             |             |             |             |           |           |       |          |
|       |      | 0.41   8.3                    | 0.44   7.3  | 0.44   7.6  |             |             |             |             |             |             |             |           |           |       |          |
| 3/4   | 505  | 5097                          |             | 4686        |             | 4171        |             | 3523        |             |             |             |           |           |       |          |
|       |      | 0.49   9.4                    | 0.52   8.0  | 0.53   8.6  | 0.52   7.8  |             |             |             |             |             |             |           |           |       |          |
| 1     | 540  | 5500                          |             | 5129        |             | 4684        |             | 4122        |             | 3387        |             |           |           |       |          |
|       |      | 0.59   10.3                   | 0.63   9.4  | 0.65   9.1  | 0.65   9.4  | 0.61   7.7  |             |             |             |             |             |           |           |       |          |
| 1 1/2 | 575  | 5900                          |             | 5561        |             | 5166        |             | 4690        |             | 4122        |             |           |           |       |          |
|       |      | 0.70   11.5                   | 0.75   10.6 | 0.77   9.8  | 0.79   10.5 | 0.78   9.9  |             |             |             |             |             |           |           |       |          |
| 2     | 600  | 6183                          |             | 5864        |             | 5498        |             | 5070        |             | 4545        |             | 3946      |           |       |          |
|       |      | 0.79   12.3                   | 0.84   11.4 | 0.87   10.5 | 0.89   11.1 | 0.89   11.4 | 0.86   9.6  |             |             |             |             |           |           |       |          |
| 3     | 630  | 6522                          |             | 6222        |             | 5886        |             | 5499        |             | 5040        |             | 4517      |           |       |          |
|       |      | 0.91   13.3                   | 0.97   12.7 | 1.00   11.8 | 1.02   11.5 | 1.03   12.3 | 1.02   11.7 |             |             |             |             |           |           |       |          |
| 4     | 675  | 7027                          |             | 6752        |             | 6452        |             | 6113        |             | 5729        |             | 5275      |           |       |          |
|       |      | 1.12   14.4                   | 1.17   13.9 | 1.22   12.9 | 1.25   12.2 | 1.27   13.0 | 1.27   13.3 |             |             |             |             |           |           |       |          |
| 5     | 725  | 7585                          |             | 7334        |             | 7063        |             | 6765        |             | 6434        |             | 6062      |           | 5173  |          |
|       |      | 1.37   15.8                   | 1.44   15.8 | 1.49   14.4 | 1.53   13.8 | 1.55   13.8 | 1.57   14.7 | 1.56   14.1 |             |             |             |           |           |       |          |
| 6     | 760  | 7974                          |             | 7736        |             | 7483        |             | 7208        |             | 6906        |             | 6572      |           | 5767  | 4638     |
|       |      | 1.57   16.6                   | 1.64   16.2 | 1.70   15.6 | 1.75   14.7 | 1.78   14.5 | 1.80   14.9 | 1.81   15.9 | 1.67   13.6 |             |             |           |           |       |          |
| 7     | 795  | 8362                          |             | 8136        |             | 7898        |             | 7642        |             | 7364        |             | 7059      |           | 6345  | 5506     |
|       |      | 1.79   17.1                   | 1.87   17.1 | 1.93   16.9 | 1.98   16.3 | 2.02   15.5 | 2.05   15.6 | 2.08   16.8 | 2.04   16.0 |             |             |           |           |       |          |
| 8     | 850  | 8969                          |             | 8761        |             | 8542        |             | 8310        |             | 8062        |             | 7795      |           | 7191  | 6453     |
|       |      | 2.18   18.3                   | 2.26   18.3 | 2.33   18.4 | 2.39   17.6 | 2.44   16.9 | 2.48   16.9 | 2.53   17.7 | 2.53   18.0 | 2.45   16.9 |             |           |           |       |          |
| 9     | 910  | 9630                          |             | 9437        |             | 9236        |             | 9025        |             | 8803        |             | 8566      |           | 8042  | 7429     |
|       |      | 2.66   19.8                   | 2.75   19.8 | 2.83   19.6 | 2.90   19.0 | 2.96   18.8 | 3.01   18.3 | 3.08   18.0 | 3.11   19.3 | 3.10   19.5 | 2.97   18.2 |           |           |       |          |
| 10    | 995  | 10563                         |             | 10389       |             | 10208       |             | 10020       |             | 9825        |             | 9620      |           | 9177  | 8680     |
|       |      | 3.46   21                     | 3.56   21   | 3.65   21   | 3.73   21   | 3.81   21   | 3.87   20   | 3.97   20   | 4.03   20   | 4.07   22   | 4.06   22   | 3.97   22 |           |       |          |
| 11    | 1080 | 11494                         |             | 11334       |             | 11170       |             | 11000       |             | 10825       |             | 10644     |           | 10259 | 9835     |
|       |      | 4.41   25                     | 4.51   25   | 4.61   25   | 4.71   25   | 4.79   24   | 4.87   23   | 5.01   23   | 5.10   22   | 5.16   23   | 5.20   25   | 5.20   25 | 5.13   25 |       |          |
| 12    | 1160 | 12367                         |             | 12220       |             | 12068       |             | 11913       |             | 11753       |             | 11589     |           | 11244 | 10871    |
|       |      | 5.45   28                     | 5.56   28   | 5.67   28   | 5.77   28   | 5.87   27   | 5.96   27   | 6.13   26   | 6.25   25   | 6.34   25   | 6.40   26   | 6.45   27 | 6.45   28 |       |          |
| 13    | 1235 | 13185                         |             | 13047       |             | 12906       |             | 12762       |             | 12614       |             | 12462     |           | 12147 | 11812    |
|       |      | 6.56   30                     | 6.68   30   | 6.79   30   | 6.91   30   | 7.01   30   | 7.12   30   | 7.30   29   | 7.46   28   | 7.58   28   | 7.66   28   | 7.73   28 | 7.78   30 |       |          |

MAXIMUM MOTOR FRAME SIZE: 215T

## BSI 245AHP

Outlet Area = 9.77 ft<sup>2</sup>

Fan Efficiency Grade: FEG56

| HP    | RPM  | STATIC PRESSURE (INCHES W.G.) |             |             |             |             |             |             |           |           |           |           |           |      |          |
|-------|------|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------|-----------|-----------|-----------|-----------|------|----------|
|       |      | 0.75                          |             | 1.00        |             | 1.25        |             | 1.50        |           | 1.75      |           | 2.00      |           | 2.25 |          |
|       |      | CFM                           | BHP Sone    | CFM         | BHP Sone    | CFM         | BHP Sone    | CFM         | BHP Sone  | CFM       | BHP Sone  | CFM       | BHP Sone  | CFM  | BHP Sone |
| 1     | 650  | 3332                          |             |             |             |             |             |             |           |           |           |           |           |      |          |
|       |      | 0.74   9.8                    |             |             |             |             |             |             |           |           |           |           |           |      |          |
| 1 1/2 | 730  | 4232                          |             | 3570        |             |             |             |             |           |           |           |           |           |      |          |
|       |      | 1.04   12.0                   | 1.05   10.9 |             |             |             |             |             |           |           |           |           |           |      |          |
| 2     | 780  | 4731                          |             | 4208        |             | 3435        |             |             |           |           |           |           |           |      |          |
|       |      | 1.26   12.7                   | 1.29   13.1 | 1.25   11.5 |             |             |             |             |           |           |           |           |           |      |          |
| 3     | 835  | 5257                          |             | 4806        |             | 4248        |             | 3404        |           |           |           |           |           |      |          |
|       |      | 1.52   13.3                   | 1.56   14.6 | 1.58   14.2 | 1.48   12.6 |             |             |             |           |           |           |           |           |      |          |
| 4     | 875  | 5627                          |             | 5210        |             | 4739        |             | 4092        |           |           |           |           |           |      |          |
|       |      | 1.73   14.3                   | 1.78   15.4 | 1.81   16.0 | 1.79   13.9 |             |             |             |           |           |           |           |           |      |          |
| 5     | 915  | 5989                          |             | 5602        |             | 5179        |             | 4658        |           | 3927      |           |           |           |      |          |
|       |      | 1.96   15.2                   | 2.02   16.0 | 2.06   17.1 | 2.08   16.5 | 2.00   14.8 |             |             |           |           |           |           |           |      |          |
| 6     | 980  | 6566                          |             | 6218        |             | 5842        |             | 5432        |           | 4920      |           | 4231      |           |      |          |
|       |      | 2.37   17.2                   | 2.45   17.4 | 2.51   18.6 | 2.54   19.2 | 2.55   18.0 | 2.46   16.5 |             |           |           |           |           |           |      |          |
| 7     | 1050 | 7176                          |             | 6857        |             | 6523        |             | 6165        |           | 5773      |           | 5292      |           | 4667 |          |
|       |      | 2.87   19.8                   | 2.96   18.9 | 3.04   19.7 | 3.10   21   | 3.13   21   | 3.13   20   | 3.06   18.6 |           |           |           |           |           |      |          |
| 8     | 1150 | 8030                          |             | 7743        |             | 7450        |             | 7143        |           | 6818      |           | 6472      |           | 6075 | 5585     |
|       |      | 3.70   24                     | 3.81   22   | 3.91   22   | 3.99   23   | 4.06   24   | 4.10   25   | 4.12   24   | 4.1   23  | 3.98   22 |           |           |           |      |          |
| 9     | 1245 | 8828                          |             | 8566        |             | 8300        |             | 8027        |           | 7743      |           | 7443      |           | 7131 | 6788     |
|       |      | 4.62   27                     | 4.76   26   | 4.87   25   | 4.97   25   | 5.06   25   | 5.13   26   | 5.19   28   | 5.23   28 | 5.23   27 | 5.18   25 | 5.02   24 |           |      |          |
| 10    | 1335 | 9575                          |             | 9332        |             | 9086        |             | 8837        |           | 8581      |           | 8315      |           | 8038 | 7750     |
|       |      | 5.63   30                     | 5.78   30   | 5.92   28   | 6.04   28   | 6.14   28   | 6.23   28   | 6.31   30   | 6.38   30 | 6.43   30 | 6.45   31 | 6.44   29 | 6.37   27 |      |          |
| 11    | 1425 | 10314                         |             | 10089       |             | 9860        |             | 9628        |           | 9394      |           | 9154      |           | 8905 | 8646     |
|       |      | 6.77   34                     | 6.94   34   | 7.10   33   | 7.24   32   | 7.36   31   | 7.47   31   | 7.57   31   | 7.66   32 | 7.73   33 | 7.79   34 | 7.83   34 | 7.85   34 |      |          |

MAXIMUM MOTOR FRAME SIZE: 215T

### NOTES:

- Performance certified is for Installation Type B: Free inlet, ducted outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- The sound ratings shown are loudness values in fan sones at 1.5m (5 ft.) in a hemispherical free field calculated per AMCA International Standard 301.
- Values shown are for installation type B: free inlet hemispherical sone levels.

**BSI 270A**Outlet Area = 11.11 ft<sup>2</sup>

Fan Efficiency Grade: FEG56

| HP    | RPM  | STATIC PRESSURE (INCHES W.G.) |             |             |             |             |             |             |             |             |           |           |           |          |          |
|-------|------|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------|-----------|-----------|----------|----------|
|       |      | 0.125                         | 0.25        | 0.375       | 0.50        | 0.625       | 0.75        | 1.00        | 1.25        | 1.50        | 1.75      | 2.00      | 2.25      |          |          |
|       |      | CFM                           | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM       | CFM       | CFM       | CFM      | CFM      |
|       |      | BHP Sone                      | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone  | BHP Sone  | BHP Sone  | BHP Sone | BHP Sone |
| 1/2   | 375  | 5140                          | 4357        |             |             |             |             |             |             |             |           |           |           |          |          |
|       |      | 0.36   9.2                    | 0.38   7.0  |             |             |             |             |             |             |             |           |           |           |          |          |
| 3/4   | 420  | 5895                          | 5263        | 4470        |             |             |             |             |             |             |           |           |           |          |          |
|       |      | 0.49   11.6                   | 0.52   8.5  | 0.53   8.7  |             |             |             |             |             |             |           |           |           |          |          |
| 1     | 450  | 6387                          | 5839        | 5140        | 4277        |             |             |             |             |             |           |           |           |          |          |
|       |      | 0.60   12.6                   | 0.64   10.4 | 0.65   10.0 | 0.64   8.2  |             |             |             |             |             |           |           |           |          |          |
| 1 1/2 | 480  | 6874                          | 6390        | 5762        | 5043        |             |             |             |             |             |           |           |           |          |          |
|       |      | 0.72   14.1                   | 0.77   12.9 | 0.79   10.3 | 0.79   10.6 |             |             |             |             |             |           |           |           |          |          |
| 2     | 500  | 7196                          | 6744        | 6162        | 5507        | 4690        |             |             |             |             |           |           |           |          |          |
|       |      | 0.82   15.0                   | 0.86   14.2 | 0.89   11.5 | 0.89   11.8 | 0.87   9.5  |             |             |             |             |           |           |           |          |          |
| 2 1/2 | 525  | 7595                          | 7178        | 6653        | 6050        | 5356        |             |             |             |             |           |           |           |          |          |
|       |      | 0.94   14.7                   | 0.99   15.5 | 1.02   12.5 | 1.03   12.2 | 1.02   11.7 |             |             |             |             |           |           |           |          |          |
| 3     | 565  | 8230                          | 7855        | 7409        | 6869        | 6290        | 5614        |             |             |             |           |           |           |          |          |
|       |      | 1.16   16.0                   | 1.21   16.0 | 1.26   14.8 | 1.28   13.4 | 1.29   13.9 | 1.27   12.8 |             |             |             |           |           |           |          |          |
| 3 1/2 | 605  | 8861                          | 8519        | 8130        | 7659        | 7140        | 6578        |             |             |             |           |           |           |          |          |
|       |      | 1.42   17.5                   | 1.47   17.5 | 1.53   17.3 | 1.56   15.2 | 1.58   14.8 | 1.58   15.6 |             |             |             |           |           |           |          |          |
| 4     | 635  | 9332                          | 9010        | 8653        | 8232        | 7746        | 7240        | 6008        |             |             |           |           |           |          |          |
|       |      | 1.63   18.7                   | 1.69   18.7 | 1.75   19.3 | 1.79   16.9 | 1.82   16.0 | 1.83   16.4 | 1.79   14.1 |             |             |           |           |           |          |          |
| 4 1/2 | 665  | 9801                          | 9498        | 9166        | 8786        | 8340        | 7867        | 6798        |             |             |           |           |           |          |          |
|       |      | 1.87   20                     | 1.93   20   | 1.99   20   | 2.04   18.9 | 2.08   17.3 | 2.10   17.3 | 2.08   17.0 |             |             |           |           |           |          |          |
| 5     | 710  | 10502                         | 10223       | 9921        | 9589        | 9204        | 8772        | 7853        | 6719        |             |           |           |           |          |          |
|       |      | 2.26   22                     | 2.33   22   | 2.40   22   | 2.46   22   | 2.51   19.9 | 2.54   19.0 | 2.56   20   | 2.50   17.0 |             |           |           |           |          |          |
| 5 1/2 | 760  | 11278                         | 11021       | 10746       | 10450       | 10122       | 9746        | 8922        | 7999        | 6755        |           |           |           |          |          |
|       |      | 2.76   23                     | 2.84   23   | 2.91   23   | 2.98   23   | 3.04   22   | 3.08   21   | 3.14   21   | 3.12   22   | 2.98   17.4 |           |           |           |          |          |
| 6     | 830  | 12361                         | 12128       | 11884       | 11624       | 11347       | 11042       | 10330       | 9564        | 8702        | 7635      |           |           |          |          |
|       |      | 3.58   26                     | 3.67   26   | 3.75   26   | 3.83   26   | 3.90   26   | 3.96   25   | 4.05   24   | 4.09   25   | 4.06   24   | 3.95   20 |           |           |          |          |
| 6 1/2 | 900  | 13440                         | 13228       | 13007       | 12775       | 12531       | 12272       | 11678       | 10994       | 10281       | 9482      | 8555      |           |          |          |
|       |      | 4.55   30                     | 4.64   30   | 4.73   30   | 4.82   30   | 4.90   30   | 4.98   30   | 5.10   27   | 5.18   27   | 5.21   29   | 5.18   28 | 5.09   24 |           |          |          |
| 7     | 965  | 14439                         | 14243       | 14040       | 13829       | 13608       | 13376       | 12869       | 12272       | 11625       | 10952     | 10205     | 9365      |          |          |
|       |      | 5.59   33                     | 5.69   33   | 5.79   33   | 5.89   33   | 5.98   33   | 6.06   33   | 6.21   32   | 6.33   31   | 6.40   30   | 6.42   31 | 6.39   31 | 6.31   28 |          |          |
| 7 1/2 | 1030 | 15437                         | 15254       | 15066       | 14872       | 14670       | 14460       | 14011       | 13499       | 12916       | 12307     | 11673     | 10978     |          |          |
|       |      | 6.78   37                     | 6.89   37   | 7.00   37   | 7.10   37   | 7.20   37   | 7.30   37   | 7.47   36   | 7.62   35   | 7.73   33   | 7.79   34 | 7.81   36 | 7.78   34 |          |          |

MAXIMUM MOTOR FRAME SIZE: 215T

**BSI 270AHP**Outlet Area = 11.11 ft<sup>2</sup>

Fan Efficiency Grade: FEG60

| HP    | RPM  | STATIC PRESSURE (INCHES W.G.) |             |             |             |             |             |           |           |           |           |           |           |          |          |
|-------|------|-------------------------------|-------------|-------------|-------------|-------------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|----------|----------|
|       |      | 0.75                          | 1.00        | 1.25        | 1.50        | 1.75        | 2.00        | 2.25      | 2.50      | 2.75      | 3.00      | 3.25      | 3.50      |          |          |
|       |      | CFM                           | CFM         | CFM         | CFM         | CFM         | CFM         | CFM       | CFM       | CFM       | CFM       | CFM       | CFM       | CFM      | CFM      |
|       |      | BHP Sone                      | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone  | BHP Sone  | BHP Sone  | BHP Sone  | BHP Sone  | BHP Sone  | BHP Sone | BHP Sone |
| 1     | 530  | 2972                          |             |             |             |             |             |           |           |           |           |           |           |          |          |
|       |      | 0.64   7.7                    |             |             |             |             |             |           |           |           |           |           |           |          |          |
| 1 1/2 | 605  | 4674                          |             |             |             |             |             |           |           |           |           |           |           |          |          |
|       |      | 1.04   10.1                   |             |             |             |             |             |           |           |           |           |           |           |          |          |
| 2     | 650  | 5444                          | 4515        |             |             |             |             |           |           |           |           |           |           |          |          |
|       |      | 1.29   12.2                   | 1.28   11.1 |             |             |             |             |           |           |           |           |           |           |          |          |
| 2 1/2 | 695  | 6139                          | 5335        | 4251        |             |             |             |           |           |           |           |           |           |          |          |
|       |      | 1.56   13.6                   | 1.58   12.5 | 1.50   12.5 |             |             |             |           |           |           |           |           |           |          |          |
| 3     | 730  | 6631                          | 5941        | 5113        |             |             |             |           |           |           |           |           |           |          |          |
|       |      | 1.80   14.0                   | 1.83   14.4 | 1.81   13.4 |             |             |             |           |           |           |           |           |           |          |          |
| 3 1/2 | 760  | 7032                          | 6440        | 5666        | 4611        |             |             |           |           |           |           |           |           |          |          |
|       |      | 2.02   14.7                   | 2.06   15.8 | 2.06   14.2 | 1.96   14.3 |             |             |           |           |           |           |           |           |          |          |
| 4     | 815  | 7744                          | 7269        | 6623        | 5891        | 4762        |             |           |           |           |           |           |           |          |          |
|       |      | 2.47   17.0                   | 2.51   17.0 | 2.55   17.1 | 2.53   15.9 | 2.37   16.4 |             |           |           |           |           |           |           |          |          |
| 4 1/2 | 870  | 8438                          | 8020        | 7519        | 6861        | 6171        | 5040        |           |           |           |           |           |           |          |          |
|       |      | 2.98   19.0                   | 3.04   18.4 | 3.08   19.0 | 3.11   18.8 | 3.07   17.7 | 2.88   18.1 |           |           |           |           |           |           |          |          |
| 5     | 950  | 9431                          | 9055        | 8663        | 8189        | 7589        | 6965        | 6216      |           |           |           |           |           |          |          |
|       |      | 3.83   23                     | 3.91   21   | 3.96   21   | 4.01   22   | 4.05   22   | 4.02   20   | 3.92   21 |           |           |           |           |           |          |          |
| 5 1/2 | 1030 | 10411                         | 10061       | 9714        | 9345        | 8905        | 8362        | 7784      | 7184      | 6276      |           |           |           |          |          |
|       |      | 4.81   26                     | 4.93   25   | 5.01   24   | 5.06   23   | 5.11   25   | 5.15   25   | 5.15   23 | 5.08   23 | 4.88   23 |           |           |           |          |          |
| 6     | 1105 | 11318                         | 10989       | 10666       | 10340       | 9990        | 9580        | 9082      | 8541      | 8004      | 7374      | 6259      |           |          |          |
|       |      | 5.87   29                     | 6.02   28   | 6.13   27   | 6.20   26   | 6.25   26   | 6.31   27   | 6.36   27 | 6.36   26 | 6.32   25 | 6.20   26 | 5.84   26 |           |          |          |
| 6 1/2 | 1185 | 12275                         | 11969       | 11663       | 11363       | 11057       | 10731       | 10357     | 9911      | 9411      | 8912      | 8398      | 7756      |          |          |
|       |      | 7.15   33                     | 7.33   33   | 7.48   31   | 7.58   30   | 7.65   29   | 7.70   29   | 7.76   30 | 7.82   31 | 7.85   30 | 7.83   28 | 7.76   29 | 7.61   29 |          |          |

MAXIMUM MOTOR FRAME SIZE: 215T

**NOTES:**

1. Performance certified is for Installation Type B: Free inlet, ducted outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound ratings shown are loudness values in fan sones at 1.5m (5 ft.) in a hemispherical free field calculated per AMCA International Standard 301.
5. Values shown are for installation type B: free inlet hemispherical sone levels.



## BSI 300A

Outlet Area = 13.44 ft<sup>2</sup>

Fan Efficiency Grade: FEG56

| HP | RPM | STATIC PRESSURE (INCHES W.G.) |             |             |             |             |             |             |             |           |           |           |           |  |  |
|----|-----|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------|-----------|-----------|-----------|--|--|
|    |     | 0.125                         | 0.25        | 0.375       | 0.50        | 0.625       | 0.75        | 1.00        | 1.25        | 1.50      | 1.75      | 2.00      | 2.25      |  |  |
|    |     | CFM                           | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM       | CFM       | CFM       | CFM       |  |  |
|    |     | BHP Sone                      | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone  | BHP Sone  | BHP Sone  | BHP Sone  |  |  |
| 1  | 400 | 7531                          | 6837        | 5958        | 4778        |             |             |             |             |           |           |           |           |  |  |
|    |     | 0.68   12.9                   | 0.72   10.2 | 0.74   9.8  | 0.70   7.3  |             |             |             |             |           |           |           |           |  |  |
|    | 450 | 8610                          | 8054        | 7336        | 6527        | 5478        |             |             |             |           |           |           |           |  |  |
|    |     | 0.96   14.9                   | 1.01   14.3 | 1.04   11.4 | 1.05   11.8 | 1.01   9.0  |             |             |             |           |           |           |           |  |  |
| 1½ | 480 | 9248                          | 8747        | 8121        | 7397        | 6570        |             |             |             |           |           |           |           |  |  |
|    |     | 1.15   16.8                   | 1.21   16.8 | 1.25   13.4 | 1.27   13.2 | 1.26   12.7 |             |             |             |           |           |           |           |  |  |
|    | 515 | 9988                          | 9535        | 8999        | 8348        | 7651        | 6839        |             |             |           |           |           |           |  |  |
|    |     | 1.42   17.5                   | 1.48   17.5 | 1.53   15.9 | 1.56   14.2 | 1.57   14.4 | 1.55   13.4 |             |             |           |           |           |           |  |  |
| 2  | 540 | 10513                         | 10088       | 9602        | 9007        | 8363        | 7650        |             |             |           |           |           |           |  |  |
|    |     | 1.62   18.5                   | 1.69   18.5 | 1.75   18.0 | 1.79   15.2 | 1.81   15.3 | 1.80   15.5 |             |             |           |           |           |           |  |  |
|    | 565 | 11035                         | 10636       | 10188       | 9651        | 9045        | 8406        | 6721        |             |           |           |           |           |  |  |
|    |     | 1.85   19.2                   | 1.93   19.2 | 1.99   19.3 | 2.04   16.8 | 2.07   15.7 | 2.08   16.6 | 1.98   12.8 |             |           |           |           |           |  |  |
| 3  | 605 | 11869                         | 11502       | 11101       | 10642       | 10104       | 9532        | 8240        |             |           |           |           |           |  |  |
|    |     | 2.26   21                     | 2.34   21   | 2.42   21   | 2.48   20   | 2.52   18.2 | 2.55   17.7 | 2.53   17.3 |             |           |           |           |           |  |  |
|    | 645 | 12698                         | 12360       | 11994       | 11592       | 11126       | 10602       | 9488        | 8112        |           |           |           |           |  |  |
|    |     | 2.73   23                     | 2.82   23   | 2.90   23   | 2.97   23   | 3.03   20   | 3.07   19.6 | 3.09   20   | 3.01   17.4 |           |           |           |           |  |  |
| 5  | 710 | 14040                         | 13739       | 13418       | 13074       | 12700       | 12273       | 11316       | 10274       | 9019      |           |           |           |  |  |
|    |     | 3.62   26                     | 3.72   26   | 3.81   26   | 3.89   26   | 3.97   26   | 4.03   24   | 4.11   23   | 4.11   24   | 4.03   20 |           |           |           |  |  |
|    | 770 | 15274                         | 14999       | 14711       | 14406       | 14081       | 13729       | 12903       | 12002       | 11016     | 9858      |           |           |  |  |
|    |     | 4.60   28                     | 4.71   28   | 4.81   28   | 4.90   28   | 4.99   28   | 5.07   28   | 5.19   25   | 5.25   25   | 5.24   27 | 5.15   24 |           |           |  |  |
| 7½ | 825 | 16402                         | 16148       | 15883       | 15606       | 15314       | 15005       | 14300       | 13484       | 12632     | 11690     | 10607     |           |  |  |
|    |     | 5.64   31                     | 5.76   31   | 5.87   31   | 5.97   31   | 6.07   31   | 6.16   31   | 6.32   30   | 6.42   28   | 6.47   30 | 6.44   29 | 6.34   26 |           |  |  |
|    | 880 | 17527                         | 17291       | 17046       | 16791       | 16525       | 16247       | 15636       | 14919       | 14139     | 13330     | 12435     | 11429     |  |  |
|    |     | 6.83   34                     | 6.95   34   | 7.07   34   | 7.19   34   | 7.30   34   | 7.40   34   | 7.59   32   | 7.73   32   | 7.82   31 | 7.85   33 | 7.81   33 | 7.71   30 |  |  |

MAXIMUM MOTOR FRAME SIZE: 215T

## BSI 300AHP

Outlet Area = 13.44 ft<sup>2</sup>

Fan Efficiency Grade: FEG60

| HP | RPM  | STATIC PRESSURE (INCHES W.G.) |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |      |      |      |      |      |      |
|----|------|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|------|------|------|------|------|------|
|    |      | 0.50                          |      | 0.75  |      | 1.00  |      | 1.25  |      | 1.50  |      | 1.75  |      | 2.00  |      | 2.25  |      | 2.50  |      | 2.75 |      | 3.00 |      | 3.25 |      |
|    |      | CFM                           |      | CFM   |      | CFM   |      | CFM   |      | CFM   |      | CFM   |      | CFM   |      | CFM   |      | CFM   |      | CFM  |      | CFM  |      | CFM  |      |
|    |      | BHP                           | Sone | BHP   | Sone | BHP   | Sone | BHP   | Sone | BHP   | Sone | BHP   | Sone | BHP   | Sone | BHP   | Sone | BHP   | Sone | BHP  | Sone | BHP  | Sone | BHP  | Sone |
| 1  | 390  | 2715                          |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |      |      |      |      |      |      |
|    |      | 0.40                          | 5.6  |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |      |      |      |      |      |      |
|    | 515  | 6049                          |      | 4817  |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |      |      |      |      |      |      |
|    |      | 1.02                          | 9.6  | 1.02  | 8.8  |       |      |       |      |       |      |       |      |       |      |       |      |       |      |      |      |      |      |      |      |
| 1½ | 550  | 6697                          |      | 5656  |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |      |      |      |      |      |      |
|    |      | 1.24                          | 10.5 | 1.26  | 10.3 |       |      |       |      |       |      |       |      |       |      |       |      |       |      |      |      |      |      |      |      |
|    | 590  | 7396                          |      | 6568  |      | 5439  |      |       |      |       |      |       |      |       |      |       |      |       |      |      |      |      |      |      |      |
|    |      | 1.52                          | 12.1 | 1.55  | 12.5 | 1.54  | 11.2 |       |      |       |      |       |      |       |      |       |      |       |      |      |      |      |      |      |      |
| 2  | 620  | 7905                          |      | 7196  |      | 6180  |      | 4525  |      |       |      |       |      |       |      |       |      |       |      |      |      |      |      |      |      |
|    |      | 1.75                          | 13.6 | 1.79  | 13.9 | 1.81  | 12.0 | 1.63  | 12.3 |       |      |       |      |       |      |       |      |       |      |      |      |      |      |      |      |
|    | 650  | 8407                          |      | 7773  |      | 6876  |      | 5807  |      |       |      |       |      |       |      |       |      |       |      |      |      |      |      |      |      |
|    |      | 2.00                          | 15.4 | 2.05  | 14.1 | 2.09  | 14.4 | 2.04  | 13.6 |       |      |       |      |       |      |       |      |       |      |      |      |      |      |      |      |
| 3  | 700  | 9233                          |      | 8668  |      | 7984  |      | 7069  |      | 5958  |      |       |      |       |      |       |      |       |      |      |      |      |      |      |      |
|    |      | 2.47                          | 18.2 | 2.54  | 15.7 | 2.59  | 16.7 | 2.60  | 15.1 | 2.51  | 15.2 |       |      |       |      |       |      |       |      |      |      |      |      |      |      |
|    | 745  | 9968                          |      | 9440  |      | 8872  |      | 8107  |      | 7228  |      | 5967  |      |       |      |       |      |       |      |      |      |      |      |      |      |
|    |      | 2.95                          | 21   | 3.04  | 17.5 | 3.09  | 17.6 | 3.14  | 18.0 | 3.12  | 16.2 | 2.96  | 16.8 |       |      |       |      |       |      |      |      |      |      |      |      |
| 5  | 810  | 11018                         |      | 10527 |      | 10039 |      | 9480  |      | 8742  |      | 7935  |      | 6942  |      |       |      |       |      |      |      |      |      |      |      |
|    |      | 3.73                          | 23   | 3.87  | 21   | 3.94  | 19.4 | 3.99  | 20   | 4.04  | 20   | 4.02  | 18.6 | 3.89  | 19.5 |       |      |       |      |      |      |      |      |      |      |
|    | 880  | 12133                         |      | 11679 |      | 11233 |      | 10774 |      | 10241 |      | 9558  |      | 8815  |      | 8022  |      | 6584  |      |      |      |      |      |      |      |
|    |      | 4.71                          | 25   | 4.89  | 25   | 5.00  | 23   | 5.06  | 22   | 5.12  | 23   | 5.17  | 23   | 5.17  | 22   | 5.08  | 22   | 4.73  | 22   |      |      |      |      |      |      |
| 7½ | 945  | 13157                         |      | 12737 |      | 12316 |      | 11901 |      | 11464 |      | 10951 |      | 10314 |      | 9620  |      | 8917  |      | 7959 |      |      |      |      |      |
|    |      | 5.77                          | 28   | 5.98  | 28   | 6.13  | 26   | 6.22  | 25   | 6.28  | 25   | 6.35  | 26   | 6.40  | 26   | 6.41  | 24   | 6.34  | 24   | 6.15 | 25   |      |      |      |      |
|    | 1010 | 14173                         |      | 13782 |      | 13386 |      | 12997 |      | 12605 |      | 12188 |      | 11702 |      | 11112 |      | 10461 |      | 9818 |      | 9087 |      | 7869 |      |
|    |      | 6.97                          | 30   | 7.21  | 30   | 7.40  | 30   | 7.53  | 27   | 7.61  | 27   | 7.68  | 27   | 7.75  | 28   | 7.81  | 28   | 7.83  | 28   | 7.78 | 26   | 7.66 | 26   | 7.28 | 27   |

MAXIMUM MOTOR FRAME SIZE: 215T

### NOTES:

1. Performance certified is for Installation Type B: Free inlet, ducted outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound ratings shown are loudness values in fan sones at 1.5m (5 ft.) in a hemispherical free field calculated per AMCA International Standard 301.
5. Values shown are for installation type B: free inlet hemispherical sone levels.

**BSI 330A**Outlet Area = 16.46 ft<sup>2</sup>

Fan Efficiency Grade: FEG56

| HP    | RPM | STATIC PRESSURE (INCHES W.G.) |             |             |             |             |             |             |            |            |            |            |            |          |          |
|-------|-----|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|------------|------------|------------|----------|----------|
|       |     | 0.125                         | 0.25        | 0.375       | 0.50        | 0.625       | 0.75        | 1.00        | 1.25       | 1.50       | 1.75       | 2.00       | 2.25       |          |          |
|       |     | CFM                           | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM        | CFM        | CFM        | CFM        | CFM        | CFM      | CFM      |
|       |     | BHP Sone                      | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone   | BHP Sone   | BHP Sone   | BHP Sone   | BHP Sone   | BHP Sone | BHP Sone |
| 1     | 310 | 7663                          | 6517        | 4805        |             |             |             |             |            |            |            |            |            |          |          |
|       |     | 0.54   8.7                    | 0.57   6.7  | 0.53   5.4  |             |             |             |             |            |            |            |            |            |          |          |
| 1 1/2 | 380 | 9752                          | 8983        | 7994        | 6823        |             |             |             |            |            |            |            |            |          |          |
|       |     | 0.96   14.0                   | 1.02   12.2 | 1.05   10.7 | 1.03   9.9  |             |             |             |            |            |            |            |            |          |          |
| 2     | 405 | 10479                         | 9795        | 8908        | 7908        | 6582        |             |             |            |            |            |            |            |          |          |
|       |     | 1.16   15.6                   | 1.22   14.9 | 1.26   11.9 | 1.26   12.3 | 1.21   9.4  |             |             |            |            |            |            |            |          |          |
| 3     | 435 | 11343                         | 10732       | 9970        | 9088        | 8082        |             |             |            |            |            |            |            |          |          |
|       |     | 1.42   17.6                   | 1.49   17.6 | 1.55   14.0 | 1.57   13.7 | 1.56   13.3 |             |             |            |            |            |            |            |          |          |
| 4     | 455 | 11916                         | 11343       | 10654       | 9829        | 8932        | 7858        |             |            |            |            |            |            |          |          |
|       |     | 1.62   18.7                   | 1.70   18.7 | 1.76   15.7 | 1.79   14.1 | 1.79   14.8 | 1.76   12.4 |             |            |            |            |            |            |          |          |
| 5     | 475 | 12485                         | 11946       | 11318       | 10550       | 9727        | 8787        |             |            |            |            |            |            |          |          |
|       |     | 1.84   19.3                   | 1.92   19.3 | 1.98   17.6 | 2.03   15.4 | 2.04   15.6 | 2.02   15.1 |             |            |            |            |            |            |          |          |
| 6     | 510 | 13477                         | 12987       | 12438       | 11779       | 11036       | 10251       | 8162        |            |            |            |            |            |          |          |
|       |     | 2.26   21                     | 2.35   21   | 2.42   21   | 2.49   17.5 | 2.52   16.8 | 2.53   17.2 | 2.40   13.2 |            |            |            |            |            |          |          |
| 7     | 545 | 14463                         | 14013       | 13519       | 12954       | 12290       | 11588       | 9992        |            |            |            |            |            |          |          |
|       |     | 2.74   22                     | 2.84   22   | 2.93   22   | 3.00   21   | 3.05   18.5 | 3.08   18.3 | 3.05   18.0 |            |            |            |            |            |          |          |
| 8     | 600 | 16005                         | 15606       | 15176       | 14708       | 14175       | 13569       | 12272       | 10750      |            |            |            |            |          |          |
|       |     | 3.63   25                     | 3.74   25   | 3.84   25   | 3.94   25   | 4.01   23   | 4.07   21   | 4.12   21   | 4.06   20  |            |            |            |            |          |          |
| 9     | 650 | 17401                         | 17037       | 16652       | 16240       | 15792       | 15286       | 14137       | 12898      | 11434      |            |            |            |          |          |
|       |     | 4.60   28                     | 4.72   28   | 4.83   28   | 4.94   28   | 5.03   28   | 5.11   26   | 5.21   23   | 5.23   25  | 5.15   22  |            |            |            |          |          |
| 10    | 700 | 18792                         | 18458       | 18108       | 17737       | 17344       | 16918       | 15920       | 14826      | 13637      | 12250      |            |            |          |          |
|       |     | 5.72   32                     | 5.85   32   | 5.98   32   | 6.09   32   | 6.20   32   | 6.30   30   | 6.45   27   | 6.53   27  | 6.52   28  | 6.42   25  |            |            |          |          |
| 11    | 745 | 20040                         | 19729       | 19405       | 19065       | 18707       | 18329       | 17465       | 16464      | 15420      | 14263      | 12932      |            |          |          |
|       |     | 6.88   34                     | 7.02   34   | 7.15   34   | 7.28   34   | 7.40   34   | 7.52   34   | 7.71   30   | 7.83   29  | 7.88   31  | 7.84   31  | 7.73   27  |            |          |          |
| 12    | 780 | 21010                         | 20714       | 20407       | 20088       | 19753       | 19401       | 18623       | 17707      | 16728      | 15697      | 14538      | 13186      |          |          |
|       |     | 7.88   35                     | 8.03   35   | 8.17   35   | 8.31   35   | 8.44   35   | 8.56   35   | 8.78   33   | 8.93   32  | 9.03   32  | 9.04   33  | 8.97   32  | 8.8   28   |          |          |
| 13    | 820 | 22116                         | 21837       | 21547       | 21247       | 20935       | 20610       | 19907       | 19089      | 18175      | 17235      | 16226      | 15099      |          |          |
|       |     | 9.14   38                     | 9.29   38   | 9.44   38   | 9.59   38   | 9.73   38   | 9.86   38   | 10.11   36  | 10.30   35 | 10.43   34 | 10.50   35 | 10.49   36 | 10.41   34 |          |          |

MAXIMUM MOTOR FRAME SIZE: 256T

**BSI 330AHP**Outlet Area = 16.46 ft<sup>2</sup>

Fan Efficiency Grade: FEG60

| HP    | RPM | STATIC PRESSURE (INCHES W.G.) |             |             |             |             |            |            |            |            |            |            |          |          |          |
|-------|-----|-------------------------------|-------------|-------------|-------------|-------------|------------|------------|------------|------------|------------|------------|----------|----------|----------|
|       |     | 0.75                          | 1.00        | 1.25        | 1.50        | 1.75        | 2.00       | 2.25       | 2.50       | 2.75       | 3.00       | 3.25       | 3.50     |          |          |
|       |     | CFM                           | CFM         | CFM         | CFM         | CFM         | CFM        | CFM        | CFM        | CFM        | CFM        | CFM        | CFM      | CFM      | CFM      |
|       |     | BHP Sone                      | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone   | BHP Sone   | BHP Sone   | BHP Sone   | BHP Sone   | BHP Sone   | BHP Sone | BHP Sone | BHP Sone |
| 1 1/2 | 440 | 4716                          |             |             |             |             |            |            |            |            |            |            |          |          |          |
|       |     | 1.00   8.4                    |             |             |             |             |            |            |            |            |            |            |          |          |          |
| 2     | 500 | 7005                          | 4831        |             |             |             |            |            |            |            |            |            |          |          |          |
|       |     | 1.57   10.7                   | 1.40   10.3 |             |             |             |            |            |            |            |            |            |          |          |          |
| 3     | 525 | 7782                          | 6329        |             |             |             |            |            |            |            |            |            |          |          |          |
|       |     | 1.82   12.4                   | 1.78   11.2 |             |             |             |            |            |            |            |            |            |          |          |          |
| 4     | 550 | 8512                          | 7221        |             |             |             |            |            |            |            |            |            |          |          |          |
|       |     | 2.08   13.3                   | 2.08   11.9 |             |             |             |            |            |            |            |            |            |          |          |          |
| 5     | 590 | 9567                          | 8485        | 7198        |             |             |            |            |            |            |            |            |          |          |          |
|       |     | 2.54   14.6                   | 2.58   15.0 | 2.53   13.8 |             |             |            |            |            |            |            |            |          |          |          |
| 6     | 630 | 10536                         | 9686        | 8557        | 7137        |             |            |            |            |            |            |            |          |          |          |
|       |     | 3.07   16.4                   | 3.12   16.9 | 3.14   15.3 | 3.01   15.6 |             |            |            |            |            |            |            |          |          |          |
| 7     | 690 | 11923                         | 11264       | 10413       | 9369        | 8178        |            |            |            |            |            |            |          |          |          |
|       |     | 3.99   19.5                   | 4.05   18.7 | 4.12   19.8 | 4.12   17.7 | 4.01   17.8 |            |            |            |            |            |            |          |          |          |
| 8     | 745 | 13162                         | 12577       | 11928       | 11082       | 10111       | 9053       |            |            |            |            |            |          |          |          |
|       |     | 4.97   23                     | 5.06   21   | 5.12   21   | 5.19   22   | 5.19   19.8 | 5.08   20  |            |            |            |            |            |          |          |          |
| 9     | 800 | 14385                         | 13842       | 13285       | 12645       | 11827       | 10922      | 9976       | 8380       |            |            |            |          |          |          |
|       |     | 6.07   27                     | 6.21   24   | 6.29   23   | 6.36   24   | 6.43   24   | 6.43   22  | 6.34   22  | 5.98   23  |            |            |            |          |          |          |
| 10    | 855 | 15596                         | 15081       | 14573       | 14039       | 13413       | 12637      | 11787      | 10930      | 9770       |            |            |          |          |          |
|       |     | 7.33   29                     | 7.51   27   | 7.62   26   | 7.70   25   | 7.78   27   | 7.85   27  | 7.85   25  | 7.78   25  | 7.54   25  |            |            |          |          |          |
| 11    | 900 | 16576                         | 16084       | 15602       | 15113       | 14583       | 13953      | 13193      | 12386      | 11574      | 10550      | 8575       |          |          |          |
|       |     | 8.46   31                     | 8.69   31   | 8.84   28   | 8.93   27   | 9.01   28   | 9.10   29  | 9.16   29  | 9.16   27  | 9.08   26  | 8.87   27  | 8.12   26  |          |          |          |
| 12    | 940 | 17440                         | 16970       | 16504       | 16043       | 15562       | 15027      | 14386      | 13638      | 12867      | 12088      | 11130      | 9424     |          |          |
|       |     | 9.57   33                     | 9.82   33   | 10.01   31  | 10.13   30  | 10.21   30  | 10.30   30 | 10.39   32 | 10.44   30 | 10.43   29 | 10.35   28 | 10.14   29 | 9.5   29 |          |          |

MAXIMUM MOTOR FRAME SIZE: 256T

**NOTES:**

1. Performance certified is for Installation Type B: Free inlet, ducted outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound ratings shown are loudness values in fan sones at 1.5m (5 ft.) in a hemispherical free field calculated per AMCA International Standard 301.
5. Values shown are for installation type B: free inlet hemispherical sone levels.

## BSI 365A

Outlet Area = 17.36 ft<sup>2</sup>

Fan Efficiency Grade: FEG53

| HP    | RPM | STATIC PRESSURE (INCHES W.G.) |       |       |      |       |      |       |      |       |      |       |      |       |       |
|-------|-----|-------------------------------|-------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|-------|
|       |     | 0.125                         |       | 0.25  |      | 0.375 |      | 0.50  |      | 0.625 |      | 0.75  |      | 0.875 |       |
|       |     | CFM                           | Sone  | CFM   | Sone | CFM   | Sone | CFM   | Sone | CFM   | Sone | CFM   | Sone | CFM   | Sone  |
|       |     | BHP                           | Sone  | BHP   | Sone | BHP   | Sone | BHP   | Sone | BHP   | Sone | BHP   | Sone | BHP   | Sone  |
| 1     | 240 | 7252                          | 5314  |       |      |       |      |       |      |       |      |       |      |       |       |
|       |     | 0.43                          | 4.2   | 0.41  | 4.0  |       |      |       |      |       |      |       |      |       |       |
| 1 1/2 | 320 | 10451                         | 9423  | 8064  |      |       |      |       |      |       |      |       |      |       |       |
|       |     | 0.98                          | 8.7   | 1.01  | 7.7  | 1.01  | 8.3  |       |      |       |      |       |      |       |       |
| 2     | 345 | 11407                         | 10491 | 9375  |      |       |      | 7885  |      |       |      |       |      |       |       |
|       |     | 1.21                          | 10.6  | 1.26  | 9.2  | 1.28  | 9.8  | 1.23  | 8.7  |       |      |       |      |       |       |
| 3     | 370 | 12351                         | 11523 | 10562 |      |       |      | 9338  |      |       |      |       |      |       |       |
|       |     | 1.48                          | 12.1  | 1.55  | 11.1 | 1.57  | 11.0 | 1.57  | 11.6 |       |      |       |      |       |       |
| 4     | 385 | 12914                         | 12129 | 11237 |      |       |      | 10145 |      | 8770  |      |       |      |       |       |
|       |     | 1.67                          | 13.2  | 1.73  | 12.3 | 1.77  | 11.6 | 1.77  | 12.4 | 1.71  | 11.0 |       |      |       |       |
| 5     | 405 | 13659                         | 12926 | 12107 |      |       |      | 11150 |      | 9953  |      |       |      |       |       |
|       |     | 1.93                          | 14.3  | 2.01  | 13.8 | 2.05  | 12.9 | 2.06  | 13.6 | 2.04  | 13.5 |       |      |       |       |
| 6     | 435 | 14771                         | 14101 | 13368 |      |       |      | 12548 |      | 11578 |      | 10406 |      |       |       |
|       |     | 2.38                          | 15.9  | 2.46  | 15.7 | 2.52  | 14.5 | 2.55  | 14.5 | 2.56  | 15.4 | 2.51  | 14.5 |       |       |
| 7     | 465 | 15875                         | 15258 | 14592 |      |       |      | 13866 |      | 13049 |      | 12081 |      | 10956 |       |
|       |     | 2.89                          | 17.3  | 2.99  | 17.3 | 3.06  | 16.1 | 3.10  | 15.6 | 3.12  | 16.5 | 3.12  | 16.6 | 3.06  | 15.7  |
| 8     | 505 | 17338                         | 16779 | 16185 |      |       |      | 15548 |      | 14857 |      | 14087 |      | 13194 | 12173 |
|       |     | 3.68                          | 19.9  | 3.79  | 19.9 | 3.88  | 19.4 | 3.95  | 18.0 | 3.98  | 17.9 | 4.00  | 18.1 | 4.00  | 19.0  |
| 9     | 550 | 18976                         | 18469 | 17937 |      |       |      | 17374 |      | 16777 |      | 16135 |      | 15430 | 14633 |
|       |     | 4.72                          | 23    | 4.85  | 23   | 4.96  | 23   | 5.05  | 21   | 5.11  | 19.9 | 5.14  | 19.7 | 5.16  | 21    |
| 10    | 590 | 20425                         | 19957 | 19470 |      |       |      | 18959 |      | 18422 |      | 17854 |      | 17248 | 16591 |
|       |     | 5.81                          | 25    | 5.95  | 25   | 6.07  | 25   | 6.18  | 24   | 6.27  | 23   | 6.32  | 22   | 6.35  | 22    |
| 11    | 630 | 21870                         | 21435 | 20984 |      |       |      | 20516 |      | 20027 |      | 19515 |      | 18977 | 18407 |
|       |     | 7.05                          | 29    | 7.20  | 29   | 7.34  | 29   | 7.46  | 27   | 7.57  | 26   | 7.65  | 25   | 7.70  | 24    |
| 12    | 660 | 22951                         | 22538 | 22111 |      |       |      | 21669 |      | 21211 |      | 20733 |      | 20235 | 19712 |
|       |     | 8.09                          | 31    | 8.25  | 31   | 8.40  | 31   | 8.53  | 31   | 8.65  | 29   | 8.75  | 27   | 8.82  | 27    |
| 13    | 695 | 24210                         | 23820 | 23418 |      |       |      | 23003 |      | 22575 |      | 22131 |      | 21671 | 21192 |
|       |     | 9.43                          | 34    | 9.60  | 34   | 9.76  | 34   | 9.90  | 34   | 10.04 | 33   | 10.15 | 31   | 10.25 | 29    |

MAXIMUM MOTOR FRAME SIZE: 256T

## BSI 365AHP

Outlet Area = 17.36 ft<sup>2</sup>

Fan Efficiency Grade: FEG56

| HP    | RPM | STATIC PRESSURE (INCHES W.G.) |       |       |      |      |      |       |      |       |      |       |      |       |       |
|-------|-----|-------------------------------|-------|-------|------|------|------|-------|------|-------|------|-------|------|-------|-------|
|       |     | 0.25                          |       | 0.50  |      | 0.75 |      | 1.00  |      | 1.25  |      | 1.50  |      | 1.75  |       |
|       |     | CFM                           | Sone  | CFM   | Sone | CFM  | Sone | CFM   | Sone | CFM   | Sone | CFM   | Sone | CFM   | Sone  |
|       |     | BHP                           | Sone  | BHP   | Sone | BHP  | Sone | BHP   | Sone | BHP   | Sone | BHP   | Sone | BHP   | Sone  |
| 1 1/2 | 380 | 8578                          | 7022  |       |      |      |      |       |      |       |      |       |      |       |       |
|       |     | 1.10                          | 8.6   | 1.15  | 8.9  |      |      |       |      |       |      |       |      |       |       |
| 2     | 420 | 9743                          | 8471  | 6844  |      |      |      |       |      |       |      |       |      |       |       |
|       |     | 1.47                          | 11.0  | 1.54  | 10.3 | 1.56 | 10.9 |       |      |       |      |       |      |       |       |
| 3     | 440 | 10320                         | 9147  | 7646  |      |      |      |       |      |       |      |       |      |       |       |
|       |     | 1.67                          | 12.3  | 1.75  | 10.9 | 1.80 | 12.0 |       |      |       |      |       |      |       |       |
| 4     | 460 | 10895                         | 9791  | 8397  |      |      |      | 6313  |      |       |      |       |      |       |       |
|       |     | 1.90                          | 13.7  | 1.99  | 11.2 | 2.04 | 12.5 | 1.82  | 12.5 |       |      |       |      |       |       |
| 5     | 495 | 11892                         | 10869 | 9691  |      |      |      | 8320  |      |       |      |       |      |       |       |
|       |     | 2.33                          | 15.5  | 2.46  | 13.1 | 2.53 | 13.6 | 2.56  | 14.3 |       |      |       |      |       |       |
| 6     | 530 | 12878                         | 11913 | 10907 |      |      |      | 9652  |      | 8246  |      |       |      |       |       |
|       |     | 2.82                          | 17.9  | 3.00  | 14.6 | 3.07 | 14.6 | 3.13  | 15.4 | 3.09  | 14.9 |       |      |       |       |
| 7     | 575 | 14135                         | 13229 | 12355 |      |      |      | 11313 |      | 10134 |      | 8699  |      |       |       |
|       |     | 3.55                          | 21    | 3.78  | 17.4 | 3.88 | 16.0 | 3.96  | 17.0 | 4.01  | 17.0 | 3.87  | 16.2 |       |       |
| 8     | 625 | 15519                         | 14674 | 13874 |      |      |      | 13026 |      | 12001 |      | 10917 |      | 9638  |       |
|       |     | 4.50                          | 23    | 4.79  | 20   | 4.93 | 18.3 | 5.02  | 18.1 | 5.10  | 19.3 | 5.15  | 18.6 | 5.04  | 17.3  |
| 9     | 670 | 16756                         | 15964 | 15204 |      |      |      | 14454 |      | 13598 |      | 12604 |      | 11599 | 10408 |
|       |     | 5.49                          | 26    | 5.83  | 24   | 6.03 | 21   | 6.13  | 20   | 6.22  | 21   | 6.30  | 21   | 6.35  | 21    |
| 10    | 720 | 18122                         | 17382 | 16660 |      |      |      | 15970 |      | 15249 |      | 14414 |      | 13477 | 12542 |
|       |     | 6.74                          | 30    | 7.13  | 28   | 7.41 | 25   | 7.55  | 23   | 7.64  | 23   | 7.75  | 24   | 7.83  | 25    |
| 11    | 755 | 19074                         | 18366 | 17671 |      |      |      | 17008 |      | 16343 |      | 15607 |      | 14763 | 13855 |
|       |     | 7.72                          | 32    | 8.15  | 31   | 8.47 | 28   | 8.65  | 26   | 8.76  | 25   | 8.86  | 25   | 8.97  | 27    |
| 12    | 790 | 20023                         | 19345 | 18677 |      |      |      | 18034 |      | 17406 |      | 16745 |      | 15995 | 15159 |
|       |     | 8.80                          | 35    | 9.27  | 34   | 9.62 | 31   | 9.86  | 29   | 9.99  | 28   | 10.09 | 28   | 10.21 | 28    |

MAXIMUM MOTOR FRAME SIZE: 256T

### NOTES:

1. Performance certified is for Installation Type B: Free inlet, ducted outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. The sound ratings shown are loudness values in fan sones at 1.5m (5 ft.) in a hemispherical free field calculated per AMCA International Standard 301.
5. Values shown are for installation type B: free inlet hemispherical sone levels.

**BSI 402A**Outlet Area = 21.20 ft<sup>2</sup>

Fan Efficiency Grade: FEG53

| HP  | RPM | STATIC PRESSURE (INCHES W.G.) |             |             |             |             |             |             |             |             |            |            |           |          |          |
|-----|-----|-------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|-----------|----------|----------|
|     |     | 0.125                         | 0.25        | 0.375       | 0.50        | 0.625       | 0.75        | 0.875       | 1.00        | 1.125       | 1.25       | 1.50       | 1.75      |          |          |
|     |     | CFM                           | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM         | CFM        | CFM        | CFM       | CFM      | CFM      |
|     |     | BHP Sone                      | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone   | BHP Sone   | BHP Sone  | BHP Sone | BHP Sone |
| 1½  | 290 | 12803                         | 11551       | 9898        |             |             |             |             |             |             |            |            |           |          |          |
|     |     | 1.20   8.6                    | 1.25   7.5  | 1.25   8.1  |             |             |             |             |             |             |            |            |           |          |          |
| 310 |     | 13837                         | 12708       | 11321       | 9460        |             |             |             |             |             |            |            |           |          |          |
|     |     | 1.45   10.3                   | 1.51   8.9  | 1.53   9.4  | 1.47   8.2  |             |             |             |             |             |            |            |           |          |          |
| 325 |     | 14605                         | 13550       | 12305       | 10677       |             |             |             |             |             |            |            |           |          |          |
|     |     | 1.67   11.1                   | 1.74   10.1 | 1.76   10.1 | 1.74   10.2 |             |             |             |             |             |            |            |           |          |          |
| 340 |     | 15368                         | 14377       | 13238       | 11810       | 9946        |             |             |             |             |            |            |           |          |          |
|     |     | 1.90   12.4                   | 1.98   11.4 | 2.01   11.1 | 2.01   11.5 | 1.90   10.1 |             |             |             |             |            |            |           |          |          |
| 365 |     | 16630                         | 15729       | 14722       | 13542       | 12064       |             |             |             |             |            |            |           |          |          |
|     |     | 2.33   14.5                   | 2.43   13.5 | 2.48   12.7 | 2.50   13.4 | 2.47   13.4 |             |             |             |             |            |            |           |          |          |
| 390 |     | 17882                         | 17054       | 16146       | 15127       | 13911       | 12447       |             |             |             |            |            |           |          |          |
|     |     | 2.83   16.1                   | 2.94   15.8 | 3.01   14.7 | 3.04   14.6 | 3.05   15.5 | 2.98   14.5 |             |             |             |            |            |           |          |          |
| 430 |     | 19870                         | 19136       | 18347       | 17491       | 16540       | 15433       | 14130       | 12574       |             |            |            |           |          |          |
|     |     | 3.76   19.1                   | 3.89   19.1 | 3.99   17.6 | 4.05   16.7 | 4.07   17.3 | 4.08   17.8 | 4.03   17.4 | 3.85   15.8 |             |            |            |           |          |          |
| 465 |     | 21599                         | 20929       | 20220       | 19462       | 18644       | 17742       | 16707       | 15514       | 14190       |            |            |           |          |          |
|     |     | 4.73   22                     | 4.88   22   | 4.99   20   | 5.08   19.1 | 5.13   18.7 | 5.15   19.2 | 5.16   20   | 5.12   19.8 | 4.96   17.8 |            |            |           |          |          |
| 500 |     | 23319                         | 22703       | 22057       | 21374       | 20649       | 19871       | 19021       | 18061       | 16972       | 15788      |            |           |          |          |
|     |     | 5.86   24                     | 6.02   24   | 6.15   23   | 6.27   22   | 6.34   21   | 6.38   21   | 6.41   22   | 6.42   23   | 6.39   22   | 6.26   20  |            |           |          |          |
| 535 |     | 25032                         | 24462       | 23867       | 23251       | 22591       | 21900       | 21163       | 20365       | 19476       | 18483      | 16212      |           |          |          |
|     |     | 7.15   27                     | 7.32   27   | 7.48   27   | 7.61   25   | 7.72   24   | 7.78   23   | 7.82   23   | 7.85   23   | 7.87   25   | 7.84   24  | 7.54   21  |           |          |          |
| 555 |     | 26009                         | 25462       | 24893       | 24300       | 23679       | 23028       | 22340       | 21604       | 20804       | 19915      | 17876      |           |          |          |
|     |     | 7.97   28                     | 8.15   28   | 8.31   28   | 8.46   27   | 8.58   25   | 8.66   25   | 8.71   24   | 8.75   24   | 8.77   25   | 8.78   25  | 8.62   24  |           |          |          |
| 585 |     | 27471                         | 26955       | 26421       | 25867       | 25290       | 24689       | 24060       | 23396       | 22690       | 21928      | 20169      | 18133     |          |          |
|     |     | 9.31   30                     | 9.50   30   | 9.68   30   | 9.84   30   | 9.98   28   | 10.09   27  | 10.17   26  | 10.21   26  | 10.25   26  | 10.27   27 | 10.25   27 | 9.95   24 |          |          |

MAXIMUM MOTOR FRAME SIZE: 256T

**BSI 402AHP**Outlet Area = 21.20 ft<sup>2</sup>

Fan Efficiency Grade: FEG56

| HP  | RPM | STATIC PRESSURE (INCHES W.G.) |             |             |             |             |             |            |            |            |            |            |            |          |          |
|-----|-----|-------------------------------|-------------|-------------|-------------|-------------|-------------|------------|------------|------------|------------|------------|------------|----------|----------|
|     |     | 0.50                          | 0.75        | 1.00        | 1.25        | 1.50        | 1.75        | 2.00       | 2.25       | 2.50       | 2.75       | 3.00       | 3.25       |          |          |
|     |     | CFM                           | CFM         | CFM         | CFM         | CFM         | CFM         | CFM        | CFM        | CFM        | CFM        | CFM        | CFM        | CFM      | CFM      |
|     |     | BHP Sone                      | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone    | BHP Sone   | BHP Sone   | BHP Sone   | BHP Sone   | BHP Sone   | BHP Sone   | BHP Sone | BHP Sone |
| 1½  | 300 | 6115                          |             |             |             |             |             |            |            |            |            |            |            |          |          |
|     |     | 0.91   6.6                    |             |             |             |             |             |            |            |            |            |            |            |          |          |
| 355 |     | 9151                          |             |             |             |             |             |            |            |            |            |            |            |          |          |
|     |     | 1.55   9.6                    |             |             |             |             |             |            |            |            |            |            |            |          |          |
| 370 |     | 9886                          | 7706        |             |             |             |             |            |            |            |            |            |            |          |          |
|     |     | 1.74   10.2                   | 1.73   10.7 |             |             |             |             |            |            |            |            |            |            |          |          |
| 390 |     | 10821                         | 8929        |             |             |             |             |            |            |            |            |            |            |          |          |
|     |     | 2.02   10.8                   | 2.07   12.0 |             |             |             |             |            |            |            |            |            |            |          |          |
| 420 |     | 12135                         | 10463       | 8217        |             |             |             |            |            |            |            |            |            |          |          |
|     |     | 2.50   12.2                   | 2.57   13.2 | 2.40   13.4 |             |             |             |            |            |            |            |            |            |          |          |
| 445 |     | 13174                         | 11713       | 10021       |             |             |             |            |            |            |            |            |            |          |          |
|     |     | 2.95   13.2                   | 3.04   14.1 | 3.07   14.3 |             |             |             |            |            |            |            |            |            |          |          |
| 490 |     | 14984                         | 13808       | 12337       | 10775       |             |             |            |            |            |            |            |            |          |          |
|     |     | 3.90   15.7                   | 3.99   15.3 | 4.08   16.7 | 4.09   16.3 |             |             |            |            |            |            |            |            |          |          |
| 530 |     | 16559                         | 15516       | 14303       | 12888       | 11382       |             |            |            |            |            |            |            |          |          |
|     |     | 4.88   18.7                   | 5.00   17.1 | 5.11   17.7 | 5.17   18.5 | 5.14   17.8 |             |            |            |            |            |            |            |          |          |
| 570 |     | 18119                         | 17148       | 16129       | 14901       | 13583       | 12127       |            |            |            |            |            |            |          |          |
|     |     | 6.00   22                     | 6.18   19.2 | 6.28   19.1 | 6.39   20   | 6.45   20   | 6.38   19.0 |            |            |            |            |            |            |          |          |
| 605 |     | 19474                         | 18544       | 17626       | 16575       | 15355       | 14125       | 12645      |            |            |            |            |            |          |          |
|     |     | 7.09   24                     | 7.33   22   | 7.45   21   | 7.57   22   | 7.67   22   | 7.72   21   | 7.56   20  |            |            |            |            |            |          |          |
| 640 |     | 20817                         | 19924       | 19066       | 18152       | 17082       | 15903       | 14747      | 13278      |            |            |            |            |          |          |
|     |     | 8.30   28                     | 8.61   24   | 8.77   22   | 8.88   22   | 9.01   24   | 9.09   24   | 9.14   23  | 8.91   22  |            |            |            |            |          |          |
| 670 |     | 21960                         | 21097       | 20275       | 19437       | 18492       | 17412       | 16282      | 15169      | 13598      |            |            |            |          |          |
|     |     | 9.45   30                     | 9.81   27   | 10.01   25  | 10.13   24  | 10.26   25  | 10.38   26  | 10.45   26 | 10.49   24 | 10.06   23 |            |            |            |          |          |
| 715 |     | 23663                         | 22847       | 22062       | 21294       | 20488       | 19572       | 18551      | 17490      | 16459      | 15234      | 12566      |            |          |          |
|     |     | 11.35   35                    | 11.79   31  | 12.07   28  | 12.23   28  | 12.35   28  | 12.50   28  | 12.62   30 | 12.69   28 | 12.75   27 | 12.59   26 | 10.93   26 |            |          |          |
| 765 |     | 25541                         | 24774       | 24023       | 23303       | 22582       | 21815       | 20953      | 20004      | 19011      | 18045      | 17034      | 15602      |          |          |
|     |     | 13.74   40                    | 14.25   36  | 14.63   34  | 14.87   32  | 15.01   31  | 15.15   31  | 15.31   32 | 15.44   34 | 15.53   33 | 15.59   32 | 15.59   30 | 15.03   30 |          |          |

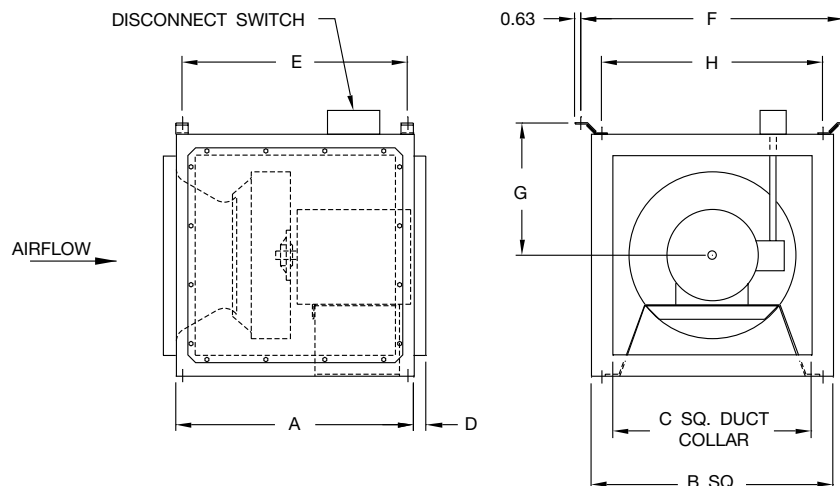
MAXIMUM MOTOR FRAME SIZE: 256T

**NOTES:**

- Performance certified is for Installation Type B: Free inlet, ducted outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (accessories).
- The sound ratings shown are loudness values in fan sones at 1.5m (5 ft.) in a hemispherical free field calculated per AMCA International Standard 301.
- Values shown are for installation type B: free inlet hemispherical sone levels.



## Model DSI, Direct Drive



| MODEL DSI  | EC MOTOR SIZES | A     | B     | C     | D    | E     | F     | G     | H     | DAMPER SIZE   | AVG. SHIP WT. (LBS.) | SIDE DISCHARGE SIZE |
|------------|----------------|-------|-------|-------|------|-------|-------|-------|-------|---------------|----------------------|---------------------|
| 080A       | 080AE          | 19.00 | 15.33 | 11.88 | 1.00 | 16.50 | 19.50 | 8.63  | 13.56 | 12.00 x 12.00 | 93                   | 11.88 x 11.88       |
| 090A       | 090AE          | 19.00 | 15.33 | 11.88 | 1.00 | 16.50 | 19.50 | 8.63  | 13.56 | 12.00 x 12.00 | 96                   | 11.88 x 11.88       |
| 100A       | 100AE          | 20.50 | 17.81 | 13.88 | 1.00 | 19.00 | 21.06 | 10.38 | 16.00 | 14.00 x 14.00 | 106                  | 13.88 x 13.88       |
| 120A       | 120AE          | 21.50 | 19.38 | 15.88 | 1.00 | 20.00 | 22.06 | 11.13 | 17.00 | 16.00 x 16.00 | 127                  | 15.88 x 15.88       |
| 135A/135AN | 135AE/ANE      | 23.00 | 21.56 | 17.88 | 1.00 | 21.50 | 24.25 | 12.19 | 19.16 | 18.00 x 18.00 | 132                  | 17.88 x 17.88       |
| 150A/150AN | 150AE/ANE      | 24.00 | 23.82 | 19.88 | 1.00 | 22.50 | 26.38 | 13.29 | 21.31 | 20.00 x 20.00 | 157                  | 19.88 x 19.88       |
| 165A/165AN | 165AE/ANE      | 26.00 | 26.50 | 22.88 | 1.00 | 24.50 | 29.06 | 14.64 | 24.00 | 23.00 x 23.00 | 167                  | 22.88 x 22.88       |

### Notes:

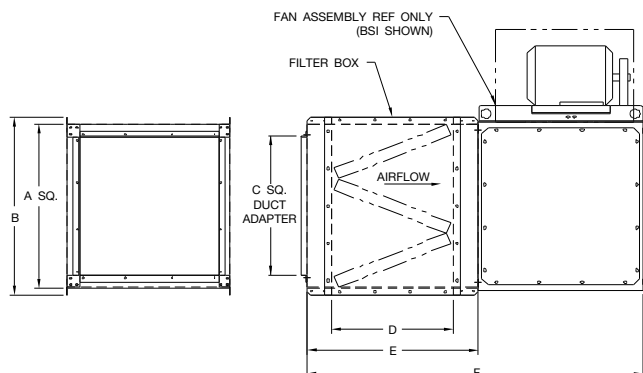
1. All figures are in inches unless noted otherwise.
2. Average ship weight is for fan and motor assembly.
3. Dimensions are not to be used for construction.

D-4210J

## Filter Box Assembly

| SIZE      | A SQ. | B     | C     | D     | E     | F     | FILTER SIZE | FILTER QTY. | AVG. SHIP WT. (LBS.) |
|-----------|-------|-------|-------|-------|-------|-------|-------------|-------------|----------------------|
| 080/090   | 16.00 | 18.50 | 11.88 | 21.44 | 28.38 | 47.38 | 25x16x2     | 1           | 99                   |
| 100       | 18.06 | 20.56 | 13.88 | 19.88 | 26.75 | 47.25 | 25x16x2     | 1           | 113                  |
| 120/120HP | 19.62 | 22.12 | 15.88 | 24.50 | 31.38 | 52.88 | 25x16x2     | 2           | 148                  |
| 135/135HP | 21.75 | 24.25 | 17.88 | 24.00 | 32.00 | 55.00 | 25x20x2     | 2           | 181                  |
| 150/150HP | 23.94 | 26.44 | 19.88 | 23.75 | 32.00 | 56.00 | 25x20x2     | 2           | 200                  |
| 165/165HP | 26.62 | 29.12 | 22.88 | 19.56 | 28.00 | 54.00 | 25x20x2     | 3           | 203                  |
| 180/180HP | 29.12 | 31.62 | 23.88 | 19.25 | 26.50 | 55.00 | 25x20x2     | 3           | 220                  |
| 210/210HP | 32.44 | 34.94 | 27.88 | 21.00 | 31.00 | 63.00 | 25x16x2     | 4           | 290                  |
| 225/225HP | 34.25 | 36.75 | 29.88 | 24.00 | 33.00 | 67.00 | 25x16x2     | 6           | 397                  |
| 245/245HP | 37.75 | 40.25 | 32.88 | 18.88 | 30.00 | 56.50 | 25x20x2     | 2           | 439                  |
|           |       |       |       |       |       |       | 25x16x2     | 2           |                      |
|           |       |       |       |       |       |       | 25x20x2     | 6           |                      |
| 270/270HP | 40.25 | 42.75 | 35.88 | 23.00 | 33.00 | 72.00 | 25x20x2     | 8           | 568                  |
| 300/300HP | 44.25 | 46.75 | 39.88 | 24.00 | 33.00 | 74.50 | 25x20x2     | 12          | 654                  |
| 330/330HP | 48.94 | 51.44 | 43.88 | 23.50 | 34.00 | 79.50 | 25x16x2     | 12          | 842                  |
| 365/365HP | 50.25 | 52.75 | 45.88 | 19.75 | 30.50 | 77.38 | 25x20x2     | 12          | 850                  |
| 402/402HP | 55.50 | 58.00 | 51.88 | 24.75 | 36.00 | 88.00 | 25x20x2     | 12          | 1150                 |
|           |       |       |       |       |       |       | 25x16x2     | 6           |                      |

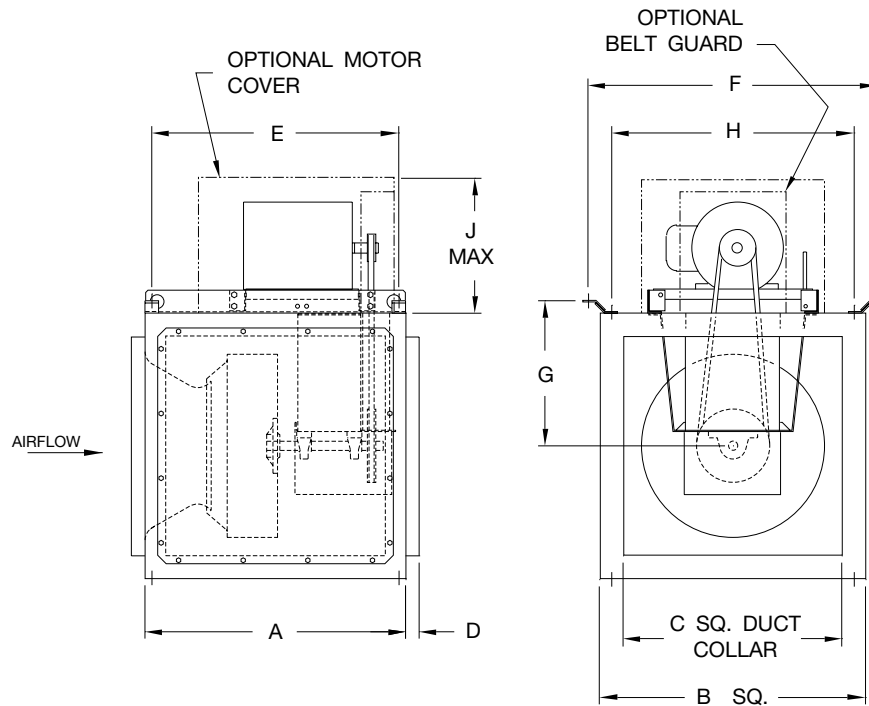
D-4205-1



### Notes:

1. All figures are in inches unless noted otherwise.
2. Filter box option is shipped separately for field installation.
3. For filter box information, see page 7.

# Model BSI, Belt Driven



| MODEL<br>BSI | A     | B     | C     | D    | E     | F     | G     | H     | J     | DAMPER<br>SIZE | AVG. SHIP<br>WT. (LBS.) | SIDE DISCHARGE<br>SIZE |
|--------------|-------|-------|-------|------|-------|-------|-------|-------|-------|----------------|-------------------------|------------------------|
| 080A         | 19.00 | 15.33 | 11.88 | 1.00 | 16.50 | 19.50 | 8.63  | 13.56 | 12.00 | 12.00 x 12.00  | 93                      | 11.88 x 11.88          |
| 090A         | 19.00 | 15.33 | 11.88 | 1.00 | 16.50 | 19.50 | 8.63  | 13.56 | 12.00 | 12.00 x 12.00  | 96                      | 11.88 x 11.88          |
| 100A         | 20.50 | 17.81 | 13.88 | 1.00 | 19.00 | 21.06 | 10.38 | 16.00 | 12.00 | 14.00 x 14.00  | 106                     | 13.88 x 13.88          |
| 120A/120AHP  | 21.50 | 19.38 | 15.88 | 1.00 | 20.00 | 22.06 | 11.13 | 17.00 | 12.00 | 16.00 x 16.00  | 127                     | 15.88 x 15.88          |
| 135A/135AHP  | 23.00 | 21.56 | 17.88 | 1.00 | 21.50 | 24.25 | 12.19 | 19.16 | 12.75 | 18.00 x 18.00  | 132                     | 17.88 x 17.88          |
| 150A/150AHP  | 24.00 | 23.82 | 19.88 | 1.00 | 22.50 | 26.38 | 13.29 | 21.31 | 12.75 | 20.00 x 20.00  | 157                     | 19.88 x 19.88          |
| 165A/165AHP  | 26.00 | 26.50 | 22.88 | 1.00 | 24.50 | 29.06 | 14.64 | 24.00 | 14.56 | 23.00 x 23.00  | 167                     | 22.88 x 22.88          |
| 180A/180AHP  | 28.50 | 29.00 | 23.88 | 1.50 | 27.00 | 31.56 | 15.89 | 26.50 | 16.25 | 24.00 x 24.00  | 193                     | 23.88 x 23.88          |
| 210A/210AHP  | 32.00 | 32.34 | 27.88 | 1.50 | 30.50 | 35.06 | 17.54 | 30.00 | 16.25 | 28.00 x 28.00  | 223                     | 27.88 x 27.88          |
| 225A/225AHP  | 34.00 | 34.00 | 29.88 | 1.50 | 32.50 | 36.89 | 18.45 | 31.81 | 18.50 | 30.00 x 30.00  | 287                     | 25.88 x 28.88          |
| 245A/245AHP  | 36.50 | 37.50 | 32.88 | 1.50 | 35.00 | 40.38 | 20.20 | 35.31 | 18.50 | 33.00 x 33.00  | 352                     | 27.88 x 31.88          |
| 270A/270AHP  | 39.00 | 40.13 | 35.88 | 1.50 | 37.50 | 43.00 | 21.45 | 37.88 | 20.00 | 36.00 x 36.00  | 394                     | 29.88 x 33.88          |
| 300A/300AHP  | 41.50 | 44.13 | 39.88 | 1.50 | 39.50 | 47.62 | 23.83 | 41.88 | 20.00 | 40.00 x 40.00  | 442                     | 29.88 x 37.88          |
| 330A/330AHP  | 45.50 | 48.81 | 43.88 | 1.50 | 43.50 | 52.31 | 26.19 | 46.56 | 20.00 | 44.00 x 44.00  | 554                     | 31.88 x 39.88          |
| 365A/365AHP  | 48.50 | 50.13 | 45.88 | 1.50 | 46.50 | 53.63 | 26.84 | 47.88 | 20.00 | 46.00 x 46.00  | 665                     | 32.88 x 41.88          |
| 402A/402AHP  | 52.00 | 55.25 | 51.88 | 1.50 | 50.00 | 58.88 | 29.47 | 53.13 | 20.00 | 52.00 x 52.00  | 743                     | 34.88 x 46.88          |

D-4205J

## Notes:

1. All figures are in inches unless noted otherwise.
2. Average ship weight is for fan and motor assembly.
3. Dimensions are not to be used for construction.

## TYPICAL SPECIFICATIONS



### Model

#### DSI

Supply or exhaust fans shall be of the direct drive model DSI centrifugal square inline type, as manufactured by Twin City Fan, Minneapolis, Minnesota.

**PERFORMANCE** — Performance ratings shall conform to AMCA Standard 205 (fan efficiency grade), 211 (air performance) and 311 (sound performance). Fans shall be tested in accordance with ANSI/AMCA Standard 210 (air performance) and 300 (sound performance) in an AMCA accredited laboratory. Fans shall be licensed to bear the AMCA certified ratings seal for both sound and air, and fan efficiency grade (FEG). Model DSI shall be UL 705 listed.

**CONSTRUCTION** — Unit exterior shall be constructed of heavy gauge galvanized steel. The fan housing shall be square in shape and readily attachable to building ductwork. Unit side panels shall be removable for easy access for maintenance and service. The power assembly shall be removable as a complete module through the side access panel. Fan housings shall have universal mounting brackets to accommodate horizontal or vertical installations. Fans shall bear a permanently attached nameplate displaying model and serial number of the unit for future identification.

**WHEEL** — Fan wheels shall be of the non-overloading centrifugal backward inclined type, constructed of aluminum and containing a matching inlet venturi for optimum unit performance. Wheels shall be statically and dynamically balanced.

**MOTOR** — Motors shall be of the heavy-duty ball bearing type, closely matched to the fan load. A disconnect switch shall be factory installed and wired to the fan motor as standard. All motors shall be UL recognized.

**ACCESSORIES** — When specified, accessories such as backdraft damper, belt guard, motor cover, insulated housing, vibration isolators, side discharge, remote lubrication lines, inlet and outlet guards, special coatings, and filter box option shall be provided by Twin City Fan to maintain one source responsibility.

**FACTORY RUN TEST** — All fans prior to shipment shall be completely assembled and test run as a unit at operating speed or maximum RPM allowed for the particular construction type. Each wheel shall be statically and dynamically balanced in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. Balance readings shall be taken by electronic type equipment in the axial, vertical, and horizontal directions. Records shall be maintained and a written copy shall be available upon request.

**GUARANTEE** — The manufacturer shall guarantee the workmanship and materials for its DSI Square Inline Fans for at least one (1) year from startup or eighteen (18) months from ship date, whichever occurs first.





## Model

### BSI

Supply or exhaust fans shall be of the belt driven model BSI centrifugal square inline type, as manufactured by Twin City Fan, Minneapolis, Minnesota.

**PERFORMANCE** — Performance ratings shall conform to AMCA Standard 205 (fan efficiency grade), 211 (air performance) and 311 (sound performance). Fans shall be tested in accordance with ANSI/AMCA Standard 210 (air performance) and 300 (sound performance) in an AMCA accredited laboratory. Fans shall be licensed to bear the AMCA certified ratings seal for both sound and air, and fan efficiency grade (FEG). Model BSI shall be UL 705 listed. Fans shall bear a permanently attached nameplate displaying model and serial number of the unit for future identification.

**CONSTRUCTION** — Unit exterior shall be constructed of heavy gauge galvanized steel. The fan housing shall be square in shape and readily attachable to building ductwork. Unit side panels shall be removable for easy access for maintenance and service. The power assembly shall be removable as a complete module through the side access panel. Fan housings shall have universal mounting brackets to accommodate horizontal or vertical installations.

**WHEEL** — Fan wheels shall be of the non-overloading centrifugal backward inclined type, constructed of aluminum and containing a matching inlet venturi for optimum unit performance. Wheels shall be statically and dynamically balanced.

**SHAFT** — Fan shafts shall be precision ground and polished. Shafts shall have a first critical speed of at least 125% of the fan's maximum operating speed.

**BEARINGS** — Bearings shall be of the one-piece, pillow block type with relubricable zerk fittings. Bearings shall be designed for air handling service with a minimum L-10 life in excess of 100,000 hours; L-50 500,000 hours at the maximum cataloged operating speed. Bearing mounting plate shall have self-aligning tabs for exact locating and alignment of bearings.

**DRIVE** — Drives shall be sized for a minimum of 150% of driven horsepower. Machined, cast iron motor sheaves shall be adjustable for final system balancing. The belt and pillow block ball bearings shall be protected from the airstream by an enclosure.

**MOTOR** — Motors shall be of the heavy-duty ball bearing type, closely matched to the fan load. A disconnect switch shall be factory installed and wired to the fan motor as standard. Motor shall be mounted on the outside of the unit, isolated from the airstream. All motors shall be UL recognized.

**ACCESSORIES** — When specified, accessories such as backdraft damper, belt guard, motor cover, insulated housing, vibration isolators, side discharge, remote lubrication lines, inlet and outlet guards, special coatings, and filter box option shall be provided by Twin City Fan to maintain one source responsibility.

**FACTORY RUN TEST** — All fans prior to shipment shall be completely assembled and test run as a unit at operating speed or maximum RPM allowed for the particular construction type. Each wheel shall be statically and dynamically balanced in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. Balance readings shall be taken by electronic type equipment in the axial, vertical, and horizontal directions on each of the bearings. Records shall be maintained and a written copy shall be available upon request.

**GUARANTEE** — The manufacturer shall guarantee the workmanship and materials for its BSI Square Inline Fans for at least one (1) year from startup or eighteen (18) months from ship date, whichever occurs first.



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