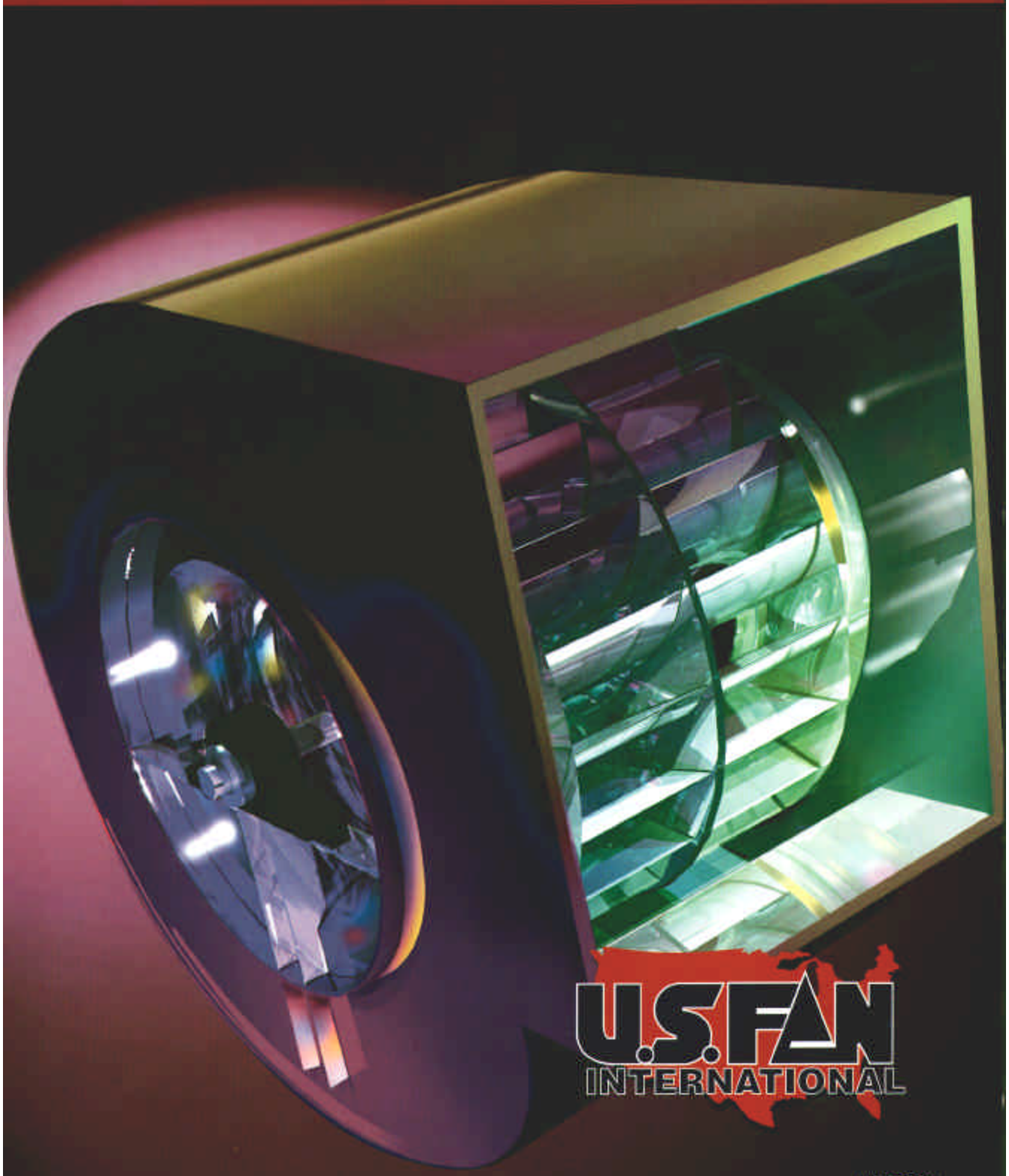
USAF SERIES

Airfoil High-Efficiency Centrifugal Fans



U.S. FAN INTERNATIONAL

USC92A

USAF SERIES

U.S. FAN INTERNATIONAL®, certifies that the USAF Series fans shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests & procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program. For Sound Performance Data refer to Sound Bulletin USS92.

Member Air Movement and Control Association International, Inc.

USAF SERIES

DESIGN FEATURES

GENERAL

USAF Series Airfoil Centrifugal Fans utilize the latest design techniques to produce a quiet, highly efficient air mover. Aerodynamically designed airfoil blades and air passages allow more air to be handled with less horsepower and at a lower sound level. This fan has been designed for applications where low operating cost and quiet operation are prime considerations.

EFFICIENCY

Most important is sustained high efficiency over the range of optimum selection. The ultimate measure of fan performance is operating efficiency. High efficiency means low operating costs throughout the life of the equipment. Normal selection is slightly to the right of peak efficiency, thereby assuring adequate pressure reserve.

HORSEPOWER

The horsepower curve is self-limiting and reaches a maximum in the normal selection range at a given speed. Motors selected using this self-limiting power as a basis will not overload as long as the speed is not changed.

QUIET OPERATION

Precise orientation of wheel blades, combined with careful aerodynamic design of wheel and casing, decreases air turbulence and increases pressure conversion efficiency. The result is a quieter operating fan.

AIRFOIL BLADING

Provides full streamline airflow for greater operating efficiency and perceptibly quieter performance.

USAF Series A.F.

THESE ACROSS THE BOARD AIRFOIL ADVANTAGES...

- Steeply Rising Pressure Curve… Ensures minimum variation in volume with change in system pressure and provides a pressure reserve above the normal selection range.
- Low Operating Cost… Maximum peak and operating efficiencies, with minimum power requirements.
- Quieter Operation… Aerodynamically correct airflow provided by airfoil blading permits quiet operation, so important whenever air is moved.
- Full Value… Superior design, workmanship, application and service.
- Wide Range of Application… Fans are available to meet many commercial and industrial requirements in both general purpose and heavy duty construction.

ADD UP TO

- **Real Savings…** low initial cost … minimum operating expense… minimum maintenance expense.

General Purpose...Classes I and II for medium pressures

Heavy Duty...Classes III and IV for maximum pressures

USAF SERIES

TYPICAL CONSTRUCTION FEATURES
GENERAL PURPOSE FAN

BEARINGS
Self-aligning, grease lubricated, anti-friction bearings are standard. Minimum starting friction, simple maintenance and long trouble-free life expectancy make them ideal for fan service. In general, ball bearings are used for the higher speeds and roller bearings for heavy loads and at slower speed.

SPUN INLETS
Deep streamlined inlets reduce incoming air turbulence and losses to a minimum. Overlapping of the inlet with the contoured wheel rims allows air to move into the wheel without obstruction.

REINFORCING BRACES
Angle bracing, which essentially forms a beam section, eliminates the possibility of casing pulsation and vibration. In certain fan sizes, the bracing angles are used to permit simple connection of square or rectangular ducts directly to the fan. This eliminates the usual duct transition piece.

HOUSING DESIGN
The spiral shaped housing is designed to receive the air leaving the wheel and reduce its velocity with a minimum of turbulence, thereby efficiently converting the velocity pressure to static pressure for increased performance.

CUTOFF
The discharge cutoff is specially shaped for maximum efficiency and strength.

WHEEL CONSTRUCTION
Shock-free flow at the leading edge of the blades, plus streamlined flow over the blade surfaces, increases wheel efficiency and quietness.

Wheels have die-formed airfoil blades welded to backplate and rims to provide a particularly rigid assembly.

All wheels are statically and dynamically balanced to ensure smooth operation.

SHAFTS
Shafts are fabricated from medium carbon steel (larger fans utilize forged shafts) and all are carefully turned, ground and polished to size. All shafts are correctly designed to give safe deflection and operate well below the first critical speeds.

BASE
The base is fabricated from steel angles for maximum support and stiffness.

HEAVY BEARING SUPPORT
Heavy steel bearing supports maintain accurate alignment, prevent bearing distortion and offer a minimum of resistance to airflow.

USAF SERIES

ARRANGEMENTS

SINGLE WIDTH (SWSI)

Arrangement 1... Belt driven fan with wheel overhung, has two bearings mounted on a pedestal. This arrangement is generally used for industrial applications and is the preferred arrangement for corrosive or hazardous gas applications or for handling gases at elevated temperatures since no bearings are located in the inlet. All sizes are suitable for belt drive (Arr. 1) or direct drive (Arr. 8), Classes I through IV.

ARR. 1

Arrangement 3... Sin gle width fans are belt driven with bear ings sup ported by heavy steel mem bers on each side of the fan hous ing. This ar range ment is gen er ally used for ven ti la tion, air con di tion ing and clean am bi ent air ap pli ca tions, since the bear ings are lo cated in the airstream. Avail able in sizes 18 through 81 for Classes I, II, III and IV.

ARR. 3

Arrangement 4... Di rect driven has fan wheel over hung on mo tor shaft and mo tor mounted on a ped es tal. Avail able in Classes I and II in sizes 18 through 37 only.

ARR. 4

Arrangement 9... Sim i lar in con struc tion and ap pli ca tion to Ar range ment 1, ex cept the fan as sem bly has pro vi sion for mount ing the mo tor on the side of the bear ing sup port ped es tal. Mount ing the mo tor in te gral with the fan pro vides a pack age which uses a min i mum of floor area and is eas ily mov able. Avail able in all sizes,

ARR. 9

Classes I, II, III and IV. Limited by max i mum mo tor frame.

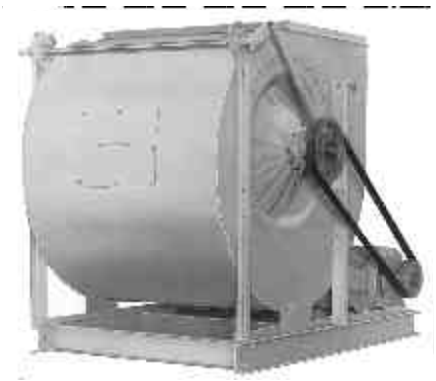
Arrangement 10... Sim i lar to Ar range ment 9, ex cept that the mo tor is mounted within the bear ing sup port base. This pack age fan uses a min i mum of floor space, pro tects the mo tor and is avail able with a weather cover or belt guard. Fur nished in Classes I and II, sizes 18 through 54. Class III con struc tion also avail able.

ARR. 10

DOUBLE WIDTH (DWDI)

Arrangement 3... Belt driven with both bear ings mounted in the in lets. Sim i lar in con struc tion and ap pli ca tion to Ar range ment 3, SWSI. Dou ble width fans de liver a max i mum vol ume of air with a min i mum amount of space re quired. Avail able in sizes 18 through 81, Classes I, II, III and IV.

General purpose, Arrangement 3, Double Width, Double Inlet fan.



Arrangement 3, Double Width, Double Inlet Fan, with inlet vane controls and interconnecting linkage, featuring optional subbase with adjustable motor slide rails.

Other Ar range ments Available... Ar range ments 7 and 8 are di rect driven with the mo tor mounted on a mo tor base. Bear ings are lo cated in the airstream in Ar range ment 7, both SWSI and DWDI, and on a ped es tal base in Ar range ment 8. The ap pli ca tion of these fans is sim i lar to that of Ar range ments 3 and 1 re spec tively. Ar range ments 7 and 8 are, in ef fect, di rect driven pack aged fans.

USAF SERIES

FAN CONSTRUCTION

HOUSING
All SWSI and DWDI housings are fabricated from rigidly braced steel and provided with streamlined spun inlets which guide the air into the wheel with a minimum of interference.

Either fixed or rotatable discharge housings are available for sizes 18 through 37, both single and double width. Fixed discharge housings are standard for sizes 40 and larger, and are continuously welded.

Housings are fabricated using beaded or welded types of construction depending on fan size or class. Split housings to meet specific job and/or shipping requirements are also available. All Class III and IV, SWSI or DWDI housings are continuously welded.

WHEELS
The rotating elements of a fan are most important and must be designed and fabricated to provide the highest practical aerodynamic performance with smooth vibration-free operation. This complete line of airfoil wheels features:

- Shock-free airflow, minimizing turbulence and sound.
- Hubs designed to guide the air into the blades.
- Wheels statically and dynamically balanced.

USAF DWDI

USAF SWSI

USAF DWDI AND SWSI AIRFOIL WHEELS
Heavy Duty Class III and IV blades are available with internal struts for superior strength.

Welding of the double thickness airfoil blades to the wheel back or center plate and rim(s) provides the necessary strength and rigidity for all classes of construction. Continuous welding of the trailing edge of the blades, not only minimizes trailing eddies which contribute to the sound output of the fan, but helps protect the hollow blading from internal corrosion.

INTENDED SERVICE
In general, fans are built to suit the service for which they are intended to perform. Variations in rotation, discharge, class of construction, arrangements, bearing type and location are but a few of the many different options that are available. Fans may also be built to handle air at elevated temperatures with protective coatings or special metals to resist the effects of corrosive air or gases, and with spark resistant construction.

HIGH TEMPERATURE FANS
Series USAF fans are available for handling air at temperatures up to 800°F (427°C). The correct fan arrangement, special construction, and limitations placed upon the maximum operating speeds are important considerations that must be taken into account when elevated temperatures are involved.

In addition, particularly with larger fans, the temperature rate of change required to be handled becomes extremely important. The rates of expansion of the wheel hub and shaft must be carefully reviewed to insure continued trouble-free operation. Maximum temperature change for any 10 minute period exceeding 40°F (22°C) change should be referred to the factory.

Refer to top of capacity table page for maximum class fan RPM at standard conditions. The chart on page 11 shows the RPM corrections required when operating a USAF fan above 70°F (21°C). For more specific information concerning high temperature applications consult your local U.S. FAN INTERNATIONAL Representative.

PROTECTIVE COATINGS
Standard finish for USAF Series fans consists of one primer and overcoat of gray acrylic alkyd paint applied inside and out. An aluminum silicone paint or equal is applied for high temperature applications exceeding 300°F (149°C). Industrial use of fans handling corrosive gases requires special consideration in the construction and finish of the fans. Fans are available with neoprene, phenolic, vinyl, epoxy and special paints to meet most applications. Refer to factory for additional coating information.

SPECIAL METALS
USAF SERIES fans can be constructed of stainless steel, aluminum and other special metals. Fans constructed of special metals are used in applications where a standard fan with a special coating will not give satisfactory results. Fans of special metals are generally higher in first cost, but may be justified because life expectancy is increased. When non-standard materials are used to fabricate the wheel and/or shaft, the “Maximum Design RPM” may also change. See Application Data for correct RPM or contact U.S. Fan.

SPARK RESISTANT FANS
Application of fans on systems where hazardous, explosive or flammable conditions exist requires careful attention on the part of the designer, manufacturer and installer. USAF SERIES fans are available with spark resistant construction as covered by the following table. Fans with this construction are only available in arrangements 1, 4, 8, 9 and 10. Aluminum wheels for Type A or B construction are available for Class I, II, and III fans in sizes 18 through 81. Type C construction is available for all sizes and classes.

Fans must be installed with all fan parts electrically grounded.

Table of Standard Classifications for Spark Resistant Construction.	
Type A...	All parts of the fan in contact with the air or gas being handled shall be made of non-ferrous material. Steps must also be taken to assure that the wheel, bearings, and shaft are adequately attached and/or restrained to prevent a lateral or axial shift in these components.
Type B...	The fan shall have a non-ferrous wheel and non-ferrous ring about the opening through which the shaft passes. Ferrous hubs, shafts and hardware are allowed if construction is such that a shift of the wheel or shaft will not permit two ferrous parts of the fan to rub or strike. Steps must also be taken to assure that the wheel, bearings, and shaft are adequately attached and/or restrained to prevent a lateral or axial shift in these components.
Type C...	The fan shall be so constructed that a shift of the wheel or shaft will not permit two ferrous parts of the fan to rub or strike.
Notes:	**1.** Bearings shall not be placed in the air or gas stream. **2.** The user shall electrically ground all fan parts. **3.** Explosion proof motors and static resistant belts should be used.

Refer to AMCA Standard 99-0401-86 for more detailed information.

PHYSICAL DATA

AMCA Standard 99-2408-69 defines three performance Classes, I through III. Class IV is defined by U.S. Fan.

Housings

Class I and II Fans

Sizes 15 through 37 SWSI or DWDI, tack welded, beaded seams. Continuous welding optional.

Sizes 40 and larger, SWSI or DWDI, continuous welded seams.

Class III and IV Fans

All sizes, SWSI or DWDI, continuous welded seams.

Inlets

SWSI fans, Class I and II are furnished with circular Slip Joint Inlets as standard (Arr. 1, 4, 8, 9 and 10). The above applies to all fan Arrangements, except 3 and 7, which for Class I and II, sizes 12-37 have a round flange punched inlet as standard for both SW and DW. For Arr. 3 and 7, Class I and II, SW or DW, Sizes 40-81, the standard inlet is a square flange open type unpunched. For Class III and IV, all arrangements, a round flanged punched inlet is standard, punched to U.S. Fan standard pattern.

Outlets

Slip joint outlets are standard for Class I and II fans. Flanged outlets are standard for Classes III and IV and an available option for Classes I and II. If a flanged type outlet damper is specified, a fan outlet flange is also required. Outlet is unpunched.

Wheels

Class I, II, III and IV Fans

All SWSI or DWDI wheels are fabricated with die-formed blades.

Blades

Wheel blades are welded to the rim, center or backplate.

Hubs

Hubs are fabricated from steel bar and plate or cast iron.

Shafts

Turned, ground and polished of SAE 1045 medium carbon steel, designed to operate well below and away from the first critical speeds.

Shaft Seals

Standard design shaft seal consists of a flat, non-asbestos type gasket material secured by a flat steel retaining plate to the fan housing. Standard shaft seals are designed to reduce but not eliminate the amount of air leakage past the shaft. Consult factory when air tight shaft seal designs are required.

Bearings

Class I and II Fans

All sizes and arrangements, SWSI or DWDI, are supplied with pillow block type, ball or roller bearings as standard.

Class III and IV Fans

All sizes and arrangements, SWSI or DWDI, are supplied with heavy duty, pillow block type, roller bearings as standard.

With proper belt tension, U.S. Fan bearings are rated at a L-10 life of 20,000 hours. However, certain high speed and high horsepower configurations may lead to reduced bearing life. Your U.S. Fan Representative can furnish information on the actual bearing selection for a given configuration along with bearing life estimates. L-10 lives of 40,000 and 80,000 hours are available options.

Outlet Dampers

Class I and II Fans

Dampers for all sizes and arrangements, SWSI or DWDI, have independent frames and slip joint type duct connection. They are multi-louver type, interconnected and fabricated with bearings. A hand lever and locking quadrant are furnished for manual operation and a stub shaft for automatic control.

Class III and IV Fans

Dampers for all sizes and arrangements, SWSI or DWDI, have independent frames and a flange type duct connection. Dampers are of the paraflow type (opposed blade) with each blade opening in a direction opposite the adjacent blade. The blades are interconnected and operate with flanged type, sealed and permanently lubricated bearings.

Inlet Vane Controls

IVC's are available in either nested, internally mounted, or separately encased, externally mounted type designs, for fan size, width, class, and arrangement as required. All IVC's are available with single point operation for either manual or automatic control. Standard design for both nested and external type, Classes I through IV, consist of heavy construction suitable for clean air or gas applications.

Arrangement 1, SWSI, Class III fan with rigidly braced housing, split for ease of wheel removal and inlet vane control.

USAF SERIES

OPTIONAL ACCESSORIES

- Access Doors
- Special Coatings
- Coupling Guards
- Extended Lube Fittings
- Flanged Inlet & Outlet
- Heat Shield
- High Temp. Construction
- Housing Extensions
- Inlet & Outlet Screens
- Inlet Boxes
- Inlet Vane Controls
- Motor & V-Belt Drives
- Outlet Dampers
- Shaft & Bearing Guards
- Shaft Seals
- Spark Resistant Const.
- Special Bearings
- Special Nameplates
- Special Widths
- Split Housings
- Std. & Flanged Drains
- Unitary Subbases
- V-Belt Drive Guards
- Weather Covers

Split Housing

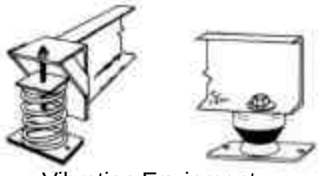
Access Doors

Drive Guards

Screens

Shaft Seal

Drain



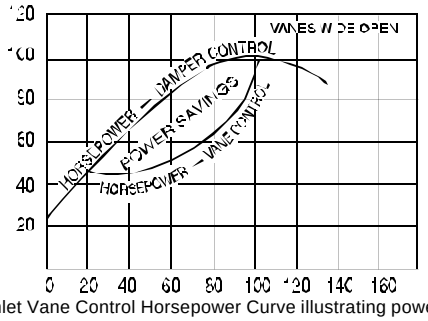
Vibration Equipment

Outlet Dampers

INLET VANE CONTROL (IVC)

Vane control is a simple and efficient means of regulating fan output over a wide range of operating conditions. It combines the advantages of instantaneous regulation of fan capacity (to meet exact pressure and volume requirements of the system) with substantial power savings during those periods when the full rated delivery of the fan is not required. Vanes may be operated automatically or manually without shutting the fan down. Vane control is available for all fan sizes.

The control of fan output by movable inlet vanes has been accepted as one of the most economical means of varying fan capacity at high efficiency.



Typical Inlet Vane Control Horsepower Curve illustrating power savings.

Inlet Vane Control offers these advantages for Variable Air Volume Systems:

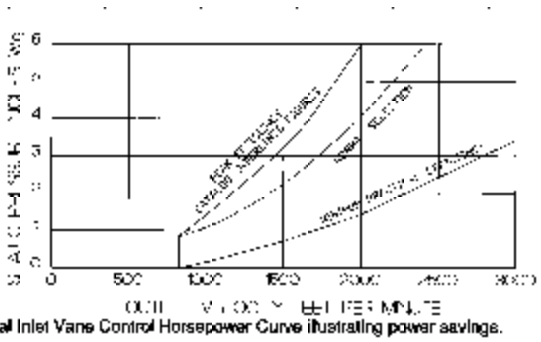
- **Immediate Response…** Vane control effects a change in fan pressure and volume without requiring a speed change of either the fan or motor.
- **Saves Power…** As the vanes are closed, a reduction in fan output occurs, with a resulting lower motor power input.
- **Quietness…** Overall sound level will not increase substantially from full open to the closed vane position.
- **Present-Future Operation…** Partially closed vanes permit use of a fan without change for present low occupancy or load. Vanes can be opened as load increases.
- **Usable at all times…** Vanes may be operated without shutting down the fan, ensuring continuous system performance.
- **Stabilizes Fan…** Partially closed vanes steepen the fan curve, minimizing volume variation when the system resistance changes.
- **Simple…** Regulating fan output by vane control permits the use of highly efficient squirrel cage motor and simple starting equipment.
- **Economical…** Vane control is a most economical means of controlling fan capacity by combining power savings with low first cost.

Internal (Nested) IVC

External IVC with stub shaft and lever

Efficient fan selection minimizes internal energy losses and sound generation. Acoustical laboratory tests confirm that low sound output occurs at high operating efficiency. The figures with a • in each pressure column of the performance table are near peak efficiency. Fan selections near the peak efficiency provide low sound output consistent with adequate pressure reserve and self-limiting horsepower - another advantage of carefully coordinated design.

Selection for relatively quiet operation... Selection at higher efficiencies minimizes sound generation. For lower sound output, together with other benefits of low power consumption and operating cost throughout fan life, select fans near **Normal Selection Curve**. When higher sound levels are acceptable, together with smaller fans and higher operating costs selection can be made at lower efficiencies. Under these circumstances, sound attenuation may be desirable.



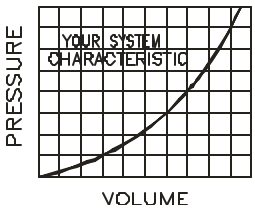
Typical Inlet Vane Control Horsepower Curve illustrating power savings.

SELECTION CONSIDERATIONS

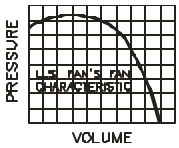
Selection of the proper fan for a given application involves not only the operating characteristics of the fan, but a careful analysis of first cost versus operating cost, as well as expected life, quietness of operation, location of equipment and any other job limitations. Generally speaking, permanent types of fan installations such as public buildings, schools, or hospitals are expected to operate for many years, during which time operating and maintenance costs can be substantial factors. Quite often an analysis of first cost versus operating costs for the life expectancy of the fan can justify a higher initial investment using a larger fan with higher efficiency. Industrial applications, on the other hand, have indeterminate life expectancies and often permit smaller fans to be selected at lower efficiencies. Each installation should be thoroughly analyzed in its design stage to insure that the ultimate objective is accomplished.

U.S. FAN'S FAN... YOUR SYSTEM

Fan selections are based on static pressure capability when handling a given volume of air. The static pressure is calculated for each system by following certain accepted industry practices. This calculation of static pressure is at best an inexact science with the error often compounded by the addition of safety factors.

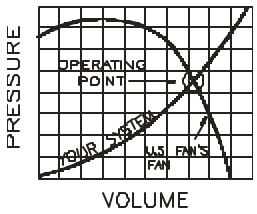


If the system pressure requirements for a given volume of flow is known, the system characteristic curve is a parabola and can be predicted mathematically. Such a system curve is illustrated to the left.



A fan at a given RPM has a characteristic pressure-volume curve from wide open to blocked tight. Such a fan curve is illustrated to the left.

If the curves are superimposed as illustrated to the right, the intersection is the only point on the system at which the fan can operate. If this balance point does not satisfy the system pressure and volume requirements, the system requirements or fan speed must be adjusted until the required operating characteristics are obtained.



In the selection of a fan to meet calculated or specified pressure-volume conditions, it is important to apply, where possible, an adjustable fan drive with sufficient variation to compensate for variances between actual and calculated operating conditions.

FAN STARTING REQUIREMENTS

A fan is an energy converter. Electrical energy rotates the fan wheel through a driving motor and increases the static pressure (potential energy) of the air handled by the fan in order to overcome resistance to air flow offered by the duct system. The wheel also increases the velocity pressure (kinetic energy) of the air which is the energy required to maintain the air in motion. The driving motor must be capable of starting the fan from rest and accelerating it to operating speed, with a minimum of disturbance to the electrical system. The information given below is useful in understanding the motor problems that may arise.

To start and accelerate a fan to operating speed it is necessary to:

1. **Overcome bearing resistance.** This resistance can vary with the type of bearing used. It is low for anti-friction types and relatively high for sleeve types.

2. **Accelerate the inertia of the fan wheel and shaft.** This inertia is generally designated as the moment of inertia or WR^2. The motor must provide energy to accelerate it together with the inertia of the drive sheaves or coupling. The moment of inertia for Class III and IV fans will be greater than Class I and II fans, because heavier wheels and shafts are used.

3. **Provide energy to the fan wheel as it begins to deliver air into the duct system.** The horsepower required varies with the cube of the fan speed ratio. It is insignificant at low speeds, but increases rapidly as the fan wheel comes up to operating speed.

At lower static pressures it is possible to select motors that are too small. The fan operating brake horsepower could be significantly less than the WR^2 necessary to accelerate the fan to the point of operation. If the motor was sized to the required operating brake horsepower **without** consideration for the fan WR^2, drive loss, and bearing loss, then it is very possible to overheat the motor and overload the electrical system. To assure the proper motor size you should refer to the appropriate Application Data Booklet for this product.

USAF SERIES

SELECTION AND APPLICATION

The minimum motor sizes indicated in the fan performance data are based upon the use of standard, open dripproof or enclosed, normal torque motors for across-the-line starting. The use of other motors for reduced voltage starting, high or low starting torques, designed with high inertia capabilities, etc., should be checked to be sure they will start and accelerate the fan without overheating the motor or overloading the electrical circuit. The motors listed in the performance data have been selected based on one start per day and operation in an ambient temperature not exceeding 104°F (40°C). More frequent starting or operation in higher temperatures will probably require a motor larger than the minimum sizes listed.

Motor recommendations for fan sizes 37 through 81 are based on the use of four pole, 1800 RPM motors. Under certain operating conditions it may be possible to use motors smaller than those listed in the performance tables. The selection of smaller motors should be reviewed with the motor supplier.

In general, smaller fans do not present a starting problem. Hence, when a fractional horsepower is used, its starting and accelerating characteristics should be carefully checked.

A directly driven fan requires a larger motor to bring it up to its operating speed than a belt driven unit. The required inertia capability of the motor to start a fan and accelerate it, varies as the square of the fan-motor speed ratio. Belt driven arrangements are advantageous for the motor since a relatively low motor inertia capability is required due to the effect of the square of the fan-motor speed ratio. However, a fan directly connected to a motor does not have this speed difference and the mechanical advantage of the drive ratio is nonexistent. The driving motor must, of necessity, be larger than that indicated in the performance tables and should be reviewed with the motor supplier.

Whenever inlet vanes or outlet dampers are used, the starting load and motor heating are reduced, if such devices are kept closed until after the fan has accelerated to operating speed.

CORRECTION OF FAN PERFORMANCE FOR OTHER THAN STANDARD AIR CONDITIONS

Air volumes to be handled by the fan must be calculated to satisfy the application. A fan operating on a given system at a given speed is a constant volume machine. The density of air entering the fan (affected by temperature and/or altitude) can vary, but the air volume delivered will remain unchanged. The system resistance, the fan pressure capability and brake horsepower will vary directly with the air density.

In general practice the design system resistance is calculated in the usual manner using standard air density and the fan pressure requirements are determined for “standard” conditions. This is sometimes known as the equivalent pressure (SP_E). Select the fan from the catalog in the normal manner using the equivalent pressure (SP_E), noting the fan RPM and BHP. As indicated by fan law #2, the design air volume and selected fan speed will remain unchanged, but the fan pressure and horsepower will vary with the air density. The system resistance will also vary with the air density.

The design of many systems involves the calculation and specification of air quantities by weight as in product drying or combustion. Before a fan can be selected, the air quantity must be converted to an air volume based upon actual air density entering the fan inlet. The system resistance equivalent static pressure (SP_E) must be determined using the air volume. The fan selection is now made from the catalog using the calculated air volume and the equivalent static pressure (SP_E). Fan brake horsepower corrections are made for air density variations as indicated under Fan Law #2C.

For ease in calculations the table to follow contains air density ratios for temperatures from -20°F to 800°F (-29°C to 427°C) and barometric pressures from 29.92" to 20.58" Hg (760 mm to 536 mm Hg).

FAN LAWS

Two basic fan laws relate performance variables for any fan of a given design (such as the Series USAF). An understanding of these relationships is necessary to select fans when they are handling air or gas which is different than standard or when fan performance adjustments must be made on existing systems. **Both of these laws apply to a given unchanged duct system.**

FAN LAW #1
SPEED VARIABLE - CONSTANT AIR DENSITY

A. Volume (CFM)... Varies directly as the ratio of the speeds.

$$CFM_2 = CFM_1 \, X \left(\frac{RPM_2}{RPM_1} \right)$$

B. Pressure (SP or TP)... Varies directly as the square of the speed ratio.

$$Pressure_2 = Pressure_1 \, X \left(\frac{RPM_2}{RPM_1} \right)^2$$

C. Power... Varies directly as the cube of the speed ratio.

$$BHP_2 = BHP_1 \, X \left(\frac{RPM_2}{RPM_1} \right)^3$$

FAN LAW #2
AIR DENSITY VARIABLE - CONSTANT SPEED

A. Volume (CFM)... Remains unchanged

B. Pressure (SP or TP)... Varies directly as the ratio of the air densities.

$$Pressure_2 = Pressure_1 \, X \left(\frac{Air\ Density_2}{Air\ Density_1} \right)$$

C. Power... Varies directly as the ratio of the air densities.

$$BHP_2 = BHP_1 \, X \left(\frac{Air\ Density_2}{Air\ Density_1} \right)$$

SELECTION AND APPLICATION

SAMPLE SELECTION

A size 60 SWSI fan must deliver 37,278 CFM (17.59 m^3/sec) at 1½ inches wg (373 Pa) static pressure. The fan must perform at an altitude of 4000 feet (1219 m) with air entering the fan inlet at 300°F (148.8°C).

1. Obtain the density factor from the table below. For 300°F (148.8°C) at an altitude of 4000 feet (1219 m), the factor is 1.656. This same ratio can be obtained by interpolation using the corresponding metric table (see illustration).
2. Convert the actual static pressure to standard conditions (SP_E).

   SP_E = 1.5" wg (373 Pa) x 1.66 = 2.48" wg (616.5 Pa).
3. Use the specified airflow rate and equivalent static pressure (SP_E) to obtain the fan speed and power requirements from the fan rating tables.

   From the performance table on page 24, a size 60 fan must operate at 497 RPM and requires 19.0 HP (14.2 kW).
4. The speed is correct as selected from the performance table (when elevated temperatures are involved, compare with the maximum allowable speed of the fan). The power requirements must be converted back to the actual operating conditions by using the ratio of the actual density to standard density.

   Divide the tabular power from step 3 by the density ratio from step 1:

   $$\text{Power} = \frac{19.0\,HP\ (14.2\,kW)}{166} = 1147\,HP\ (8.57\,kW)$$
5. Check specifications to determine if the fan will be expected to operate at lower temperatures (such as at start up of a system). If it is, check the power requirement at this lower temperature).

   Assume the system will start with the fan handling air at 70°F (21°C).

   a. The air density ratio for 70°F (21°C) and 4000 feet (1219 m) is 1.16.

   b. Convert the power at standard conditions [70°F (21°C) and sea level] to 70°F (21°C) and 4000 feet (1219 m) elevation:

   $$\text{Power} = \frac{19.0\,HP\ (144\,kW)}{1.16} = 16.4\,HP\ (12.2\,kW).$$

   c. Select a motor based upon the maximum power required or 16.4 HP (12.2 kW).

AIR DENSITY RATIOS AT VARIOUS ALTITUDES AND AIR TEMPERATURES

AIR GAS TEMP °F	Altitude In Ft. Above Sea Level With Corresponding Barometric Pressure in Inches Hg.										
	0 29.92	1000 28.86	2000 27.82	3000 26.81	4000 25.84	5000 24.89	6000 23.98	7000 23.09	8000 22.22	9000 21.38	10000 20.58
-20	0.83	0.86	0.89	0.93	0.96	1.00	1.04	1.08	1.12	1.16	1.21
0	0.87	0.91	0.94	0.97	1.01	1.04	1.08	1.13	1.17	1.22	1.26
50	0.96	1.00	1.04	1.07	1.11	1.16	1.20	1.25	1.30	1.35	1.40
70	1.00	1.04	1.08	1.12	1.16	1.20	1.25	1.30	1.35	1.40	1.45
100	1.06	1.10	1.14	1.18	1.22	1.27	1.32	1.37	1.42	1.48	1.54
150	1.15	1.19	1.24	1.30	1.33	1.38	1.44	1.49	1.55	1.61	1.67
200	1.25	1.29	1.34	1.39	1.44	1.50	1.56	1.61	1.68	1.75	1.81
250	1.34	1.39	1.44	1.50	1.55	1.61	1.67	1.74	1.80	1.88	1.95
300	1.44	1.49	1.54	1.60	1.66	1.72	1.79	1.86	1.93	2.01	2.08
350	1.53	1.59	1.65	1.71	1.77	1.84	1.91	1.98	2.06	2.14	2.22
400	1.62	1.68	1.75	1.81	1.88	1.95	2.03	2.10	2.18	2.27	2.36
450	1.72	1.78	1.85	1.92	1.99	2.07	2.15	2.23	2.31	2.40	2.49
500	1.81	1.88	1.95	2.02	2.10	2.18	2.26	2.35	2.44	2.54	2.63
550	1.91	1.98	2.05	2.13	2.20	2.29	2.38	2.47	2.56	2.67	2.77
600	2.00	2.08	2.15	2.23	2.32	2.40	2.50	2.59	2.69	2.84	2.91
650	2.10	2.17	2.25	2.34	2.43	2.52	2.62	2.72	2.83	2.93	3.05
700	2.19	2.27	2.35	2.44	2.53	2.63	2.73	2.83	2.94	3.07	3.18
800	2.38	2.46	2.55	2.65	2.75	2.86	2.97	3.08	3.20	3.32	3.45

AIR GAS TEMP °C	Altitude in Meters Above Sea Level With Corresponding Barometric Pressure in Millimeters Hg.										
	0 760	250 738	500 717	750 697	1000 677	1250 657	1500 639	1750 620	2000 603	2500 569	3000 536
0	0.93	0.95	0.98	1.01	1.04	1.08	1.10	1.14	1.16	1.23	1.32
21	1.00	1.03	1.05	1.09	1.12	1.15	1.19	1.22	1.27	1.33	1.41
50	1.10	1.12	1.16	1.19	1.23	1.27	1.30	1.33	1.39	1.47	1.56
75	1.18	1.22	1.25	1.28	1.33	1.37	1.41	1.45	1.49	1.59	1.67
100	1.27	1.30	1.33	1.39	1.43	1.47	1.52	1.54	1.59	1.69	1.79
125	1.35	1.39	1.43	1.47	1.52	1.56	1.61	1.67	1.69	1.82	1.92
150	1.43	1.47	1.52	1.56	1.61	1.67	1.69	1.75	1.82	1.92	2.04
175	1.52	1.56	1.61	1.67	1.69	1.75	1.82	1.85	1.92	2.04	2.17
250	1.79	1.82	1.89	1.92	2.00	2.04	2.13	2.17	2.22	2.38	2.50
275	1.85	1.92	1.96	2.04	2.08	2.13	2.22	2.27	2.33	2.50	2.63
300	1.96	2.00	2.04	2.13	2.17	2.22	2.33	2.38	2.44	2.63	2.78
325	2.04	2.08	2.13	2.22	2.27	2.33	2.44	2.50	2.56	2.70	2.86
350	2.13	2.17	2.22	2.33	2.38	2.44	2.50	2.56	2.63	2.86	3.03
375	2.17	2.27	2.33	2.38	2.44	2.56	2.63	2.70	2.78	2.94	3.13
400	2.27	2.33	2.44	2.50	2.56	2.63	2.70	2.78	2.86	3.03	3.23
425	2.38	2.44	2.50	2.56	2.63	2.70	2.86	2.94	3.03	3.13	3.33

TEMPERATURE/RPM CORRECTIONS

Maximum allowable class speeds shown above each fan performance table refer to fans of standard construction operating at 70°F (21°C). Since the strength of steel decreases appreciably with temperature rise, maximum allowable speeds must be corrected accordingly.

Reduce maximum allowable fan speed by applying RPM correction factors from the following table.

TEMPERATURE/RPM CORRECTION FACTORS

TEMP	-20°F - 150°F (-29°C - 66°C)	151°F - 300°F (66°C - 149°C)	301°F - 600°F (149°C - 316°C)	601°F - 800°F (316°C - 427°C)
FACTOR	1.0	0.957	0.880	0.790

USAF SERIES

SIZE 18

SINGLE WIDTH
SINGLE INLET

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

Wheel Diameter	18 ¼ inches	464 mm
Wheel Circumference	4.78 feet	1.457 m
Inlet Diameter/Area	20 inches dia./2.18 sq. ft.	508 mm/.2025 m^2
Outlet Size/Area	19 $\frac{1}{16}$ x 14 ¼ inches I.D./1.90 sq. ft.	484 x 362 mm/.1765 m^2
Tip Speed	4.78 x RPM ft./minute	1.457 x RPM m/minute
Maximum BHP	.43 x (RPM÷1000)^3 BHP	.3207 x (RPM ÷1000)^3 kW

SIZE 18	-20° to 150°F -29° to 66°C
CLASS I	2393
CLASS II	3122
CLASS III	3933
CLASS IV	4326

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1144	600	•551	•0.07	•617	•0.10	•679	•0.12	•736	•0.15												
1335	700	598	0.09	659	0.12	715	0.15	768	0.18	•820	•0.21	•868	•0.25								
1526	800	649	0.11	704	0.14	758	0.18	807	0.22	852	0.25	900	0.29	•944	• 0.33	•1028	•0.41				
1716	900	701	0.13	754	0.17	802	0.21	850	0.25	894	0.29	935	0.33	976	0.38	1057	0.46	•1131	•0.54		
1907	1000	755	0.16	805	0.21	851	0.25	894	0.29	937	0.34	977	0.38	1015	0.43	1089	0.52	1163	0.61	•1230	•0.71
2098	1100	810	0.20	858	0.24	902	0.29	942	0.34	981	0.39	1020	0.44	1058	0.48	1127	0.59	1195	0.69	1262	0.79
2288	1200	865	0.23	911	0.29	953	0.34	993	0.39	1029	0.44	1065	0.49	1101	0.55	1170	0.66	1233	0.77	1294	0.88
2479	1300	922	0.28	965	0.33	1006	0.39	1044	0.45	1080	0.50	1114	0.56	1146	0.62	1213	0.73	1275	0.85	1333	0.97
2670	1400	979	0.33	1021	0.39	1060	0.45	1097	0.51	1131	0.57	1164	0.63	1196	0.69	1257	0.81	1318	0.94	1375	1.07
2861	1500	1036	0.39	1077	0.45	1114	0.51	1150	0.58	1183	0.65	1215	0.71	1246	0.77	1304	0.90	1362	1.04	1418	1.17
3051	1600	1095	0.45	1133	0.52	1169	0.58	1204	0.65	1236	0.72	1268	0.79	1297	0.86	1354	1.00	1407	1.14	1462	1.28
3242	1700	1154	0.52	1190	0.59	1225	0.66	1258	0.74	1290	0.81	1320	0.89	1349	0.96	1405	1.10	1456	1.25	1506	1.40
3433	1800	1213	0.60	1248	0.68	1281	0.75	1313	0.83	1344	0.90	1374	0.98	1402	1.06	1456	1.22	1507	1.37	1555	1.53
3623	1900	1273	0.69	1306	0.77	1338	0.85	1369	0.93	1399	1.01	1428	1.09	1455	1.17	1508	1.34	1558	1.50	1605	1.66
3814	2000	1333	0.78	1364	0.87	1395	0.95	1425	1.04	1454	1.12	1482	1.21	1509	1.29	1561	1.47	1609	1.64	1656	1.81
4195	2200	1454	1.00	1483	1.10	1511	1.19	1539	1.28	1566	1.37	1593	1.47	1618	1.56	1667	1.75	1714	1.94	1759	2.14
4577	2400	1576	1.26	1603	1.37	1629	1.47	1655	1.57	1680	1.67	1705	1.77	1729	1.87	1776	2.07	1821	2.28	1864	2.49
4958	2600	1698	1.57	1723	1.68	1748	1.79	1771	1.90	1796	2.01	1819	2.12	1842	2.23	1887	2.44	1930	2.67	1971	2.89
5340	2800	1822	1.92	1845	2.04	1868	2.16	1890	2.28	1912	2.40	1935	2.52	1956	2.63	1999	2.86	2040	3.10	2079	3.34
5721	3000	1945	2.32	1967	2.45	1989	2.58	2010	2.71	2030	2.84	2051	2.97	2072	3.09	2112	3.34	2151	3.59	2189	3.84
6102	3200	2069	2.78	2090	2.92	2110	3.05	2130	3.19	2150	3.33	2169	3.47	2188	3.60	2227	3.87	2264	4.13	2301	4.40
6484	3400	2193	3.30	2213	3.44	2232	3.59	2251	3.73	2270	3.88	2288	4.03	2306	4.18	2343	4.46	2379	4.74	2413	5.02
6865	3600	2318	3.88	2336	4.03	2354	4.18	2372	4.34	2390	4.49	2408	4.65	2425	4.80	2459	5.11	2494	5.40	2527	5.70
7247	3800	2442	4.53	2460	4.69	2477	4.85	2494	5.01	2511	5.17	2528	5.33	2545	5.50	2577	5.83	2610	6.14	2642	6.45

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2479	1300	1389	1.09	1503	1.33	•1607	•1.57														
2670	1400	1429	1.20	1535	1.46	1638	1.71	•1734	•1.98												
2861	1500	1471	1.31	1570	1.59	1670	1.86	1765	2.14	•1854	•2.42										
3051	1600	1514	1.42	1612	1.72	1702	2.02	1797	2.31	1886	2.61	•1969	•2.90	2053	3.24						
3242	1700	1558	1.55	1654	1.86	1743	2.17	1829	2.49	1917	2.80	2001	3.11	•2079	•3.43	•2155	•3.75				
3433	1800	1602	1.69	1697	2.01	1785	2.33	1867	2.67	1949	3.01	2032	3.33	2111	3.66	2186	4.00	•2257	•4.34		
3623	1900	1650	1.83	1741	2.16	1828	2.51	1909	2.86	1986	3.21	2064	3.56	2142	3.91	2217	4.26	2289	4.61	•2357	•4.97
3814	2000	1700	1.98	1785	2.33	1871	2.69	1951	3.05	2027	3.42	2099	3.80	2174	4.16	2249	4.53	2320	4.89	2388	5.26
4195	2200	1801	2.32	1882	2.70	1959	3.09	2038	3.47	2112	3.87	2183	4.27	2250	4.68	2315	5.10	2384	5.50	2452	5.90
4577	2400	1905	2.70	1983	3.11	2056	3.52	2126	3.95	2199	4.37	2268	4.79	2335	5.23	2398	5.67	2459	6.12	2518	6.57
4958	2600	2010	3.12	2086	3.57	2156	4.01	2224	4.46	2288	4.92	2355	5.37	2421	5.83	2483	6.29	2543	6.77	2602	7.24
5340	2800	2117	3.58	2190	4.07	2259	4.55	2324	5.03	2387	5.51	2446	6.00	2508	6.49	2570	6.98	2629	7.48	2687	7.98
5721	3000	2226	4.10	2296	4.62	2363	5.15	2427	5.65	2487	6.16	2546	6.67	2602	7.20	2658	7.72	2716	8.25	2773	8.77
6102	3200	2336	4.67	2404	5.22	2469	5.78	2531	6.34	2590	6.87	2647	7.42	2701	7.96	2754	8.52	2806	9.08	2861	9.63
6484	3400	2448	5.30	2513	5.88	2576	6.46	2636	7.06	2694	7.66	2749	8.22	2802	8.80	2854	9.38	2905	9.96	2954	10.56
6865	3600	2560	6.00	2623	6.60	2684	7.22	2742	7.84	2799	8.48	2853	9.10	2905	9.70	2956	10.31	3005	10.92	3053	11.54
7247	3800	2674	6.77	2735	7.40	2794	8.04	2850	8.69	2905	9.35	2958	10.02	3009	10.68	3058	11.31	3106	11.95	3153	12.59
7628	4000	2788	7.61	2847	8.27	2904	8.94	2959	9.62	3012	10.30	3064	11.00	3114	11.70	3162	12.40	3209	13.06	3255	13.73
8009	4200	2903	8.52	2961	9.21	3016	9.91	3069	10.61	3121	11.33	3171	12.05	3220	12.78	3267	13.52	3313	14.26	3358	14.95
8391	4400	3019	9.51	3075	10.23	3128	10.96	3180	11.69	3230	12.44	3279	13.19	3327	13.94	3373	14.71	3418	15.48	3462	16.26
8772	4600	3136	10.59	3190	11.34	3242	12.09	3292	12.86	3341	13.63	3388	14.40	3435	15.19	3480	15.98	3524	16.78	3567	17.58
9154	4800	3254	11.75	3305	12.53	3356	13.32	3405	14.11	3452	14.90	3498	15.71	3544	16.52	3588	17.34	3631	18.16	3673	19.00
9535	5000	3373	12.98	3422	13.82	3471	14.63	3518	15.45	3564	16.27	3609	17.11	3653	17.94	3697	18.79	3739	19.64	3780	20.50
9916	5200	3492	14.30	3539	15.20	3586	16.04	3632	16.88	3677	17.74	3721	18.60	3764	19.46	3806	20.34	3847	21.22	3888	22.10

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4195	2200	2517	6.30	•2642	•7.11	•2759	•7.93														
4577	2400	2581	7.01	2705	7.88	2822	8.76	•2932	•9.65	•3040	•10.58										
4958	2600	2658	7.73	2769	8.70	2885	9.64	2995	10.58	3100	11.54	•3200	•12.50	•3301	•13.56						
5340	2800	2742	8.49	2849	9.52	2949	10.57	3058	11.58	3162	12.59	3262	13.61	3358	14.64	•3450	•15.67	•3544	•16.80		
5721	3000	2828	9.31	2933	10.39	3032	11.49	3127	12.61	3226	13.71	3325	14.78	3420	15.87	3512	16.96	3601	18.06	•3687	•19.17
6102	3200	2915	10.19	3018	11.32	3116	12.48	3210	13.65	3300	14.84	3389	16.03	3484	17.17	3575	18.31	3663	19.47	3749	20.63
6484	3400	3003	11.15	3105	12.33	3202	13.53	3295	14.75	3383	15.99	3469	17.24	3551	18.52	3639	19.74	3727	20.95	3812	22.17
6865	3600	3099	12.16	3193	13.41	3289	14.66	3380	15.93	3468	17.22	3552	18.52	3634	19.84	3713	21.17	3790	22.51	3875	23.79
7247	3800	3199	13.24	3287	14.55	3377	15.87	3467	17.19	3553	18.53	3637	19.88	3718	21.24	3796	22.63	3871	24.02	3945	25.44
7628	4000	3300	14.40	3387	15.76	3470	17.15	3555	18.53	3640	19.92	3723	21.32	3802	22.73	3879	24.16	3954	25.61	4027	27.07
8009	4200	3402	15.65	3487	17.06	3569	18.49	3647	19.95	3728	21.40	3809	22.85	3888	24.31	3964	25.79	4039	27.28	4111	28.79
8391	4400	3505	16.98	3589	18.44	3669	19.93	3746	21.43	3820	22.95	3897	24.47	3975	25.98	4050	27.51	4124	29.05	4195	30.60
8772	4600	3610	18.40	3691	19.92	3770	21.45	3846	23.00	3919	24.57	3990	26.16	4063	27.74	4137	29.32	4210	30.91	4280	32.51
9154	4800	3715	19.83	3795	21.49	3872	23.08	3946	24.68	4018	26.29	4088	27.93	4156	29.58	4225	31.23	4297	32.87		

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐ CL. IV ☐
The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.
For minimum motor size required see "Fan Starting Requirements," page 9.
Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1° C & 0 m).
Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

SINGLE WIDTH
SINGLE INLET

SIZE 20

SIZE 20	-20° to 150°F -29° to 66°C
CLASS I	2183
CLASS II	2848
CLASS III	3588
CLASS IV	3947

Wheel Diameter	20 inches	508 mm
Wheel Circumference	5.24 feet	1.597 m
Inlet Diameter/Area	21¾ inches dia./2.58 sq. ft.	552 mm/.2397 m^2
Outlet Size/Area	21 x 15 13/16 inches I.D./2.32 sq. ft.	533 x 402 mm/.2155 m^2
Tip Speed	5.24 x RPM ft./minute	1.597 x RPM m/minute
Maximum BHP	.67 x (RPM ÷1000)^3 BHP	.4996 x (RPM ÷1000)^3 kW

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1¼" SP		1½" SP		1¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1392	600	•506	•0.08	•566	•0.12	•622	•0.15	•674	•0.19												
1624	700	550	0.11	605	0.14	656	0.18	704	0.22	•751	•0.26	•795	•0.30	•839	•0.35						
1856	800	597	0.13	647	0.17	696	0.22	740	0.26	781	0.31	824	0.35	865	0.40	•939	•0.49				
2088	900	646	0.16	693	0.21	736	0.26	780	0.31	820	0.36	858	0.41	894	0.46	968	0.56	•1036	•0.66		
2320	1000	695	0.20	741	0.25	782	0.30	821	0.36	860	0.41	897	0.47	931	0.52	998	0.64	1065	0.75	•1126	•0.86
2552	1100	746	0.24	790	0.30	829	0.36	866	0.41	901	0.47	937	0.53	971	0.59	1034	0.72	1094	0.84	1156	0.96
2784	1200	797	0.29	839	0.35	877	0.42	913	0.48	946	0.54	978	0.61	1011	0.67	1074	0.80	1131	0.94	1185	1.07
3016	1300	850	0.34	889	0.41	926	0.48	961	0.55	993	0.62	1024	0.68	1053	0.75	1114	0.89	1170	1.04	1223	1.18
3248	1400	903	0.41	941	0.48	976	0.55	1009	0.63	1041	0.70	1071	0.77	1099	0.85	1154	1.00	1210	1.15	1262	1.30
3480	1500	956	0.48	992	0.55	1026	0.63	1059	0.71	1089	0.79	1118	0.87	1146	0.95	1199	1.11	1251	1.27	1302	1.43
3712	1600	1010	0.56	1045	0.64	1077	0.72	1109	0.80	1138	0.89	1167	0.98	1194	1.06	1245	1.23	1293	1.40	1342	1.57
3944	1700	1065	0.65	1098	0.73	1129	0.82	1159	0.91	1188	1.00	1215	1.09	1242	1.18	1292	1.36	1339	1.53	1384	1.72
4176	1800	1120	0.75	1151	0.84	1181	0.93	1210	1.02	1238	1.11	1265	1.21	1291	1.31	1340	1.50	1386	1.68	1429	1.87
4408	1900	1175	0.85	1205	0.95	1234	1.05	1262	1.14	1289	1.24	1315	1.34	1340	1.44	1388	1.65	1433	1.84	1476	2.04
4640	2000	1231	0.97	1259	1.08	1287	1.18	1314	1.28	1340	1.38	1365	1.49	1390	1.59	1437	1.81	1481	2.02	1523	2.22
5104	2200	1343	1.25	1369	1.36	1394	1.48	1420	1.59	1444	1.70	1468	1.81	1491	1.92	1536	2.15	1578	2.39	1618	2.62
5568	2400	1455	1.57	1480	1.70	1503	1.82	1526	1.94	1550	2.06	1572	2.19	1594	2.31	1636	2.56	1677	2.81	1716	3.07
6032	2600	1569	1.95	1591	2.08	1613	2.22	1635	2.36	1656	2.49	1678	2.62	1699	2.75	1739	3.02	1778	3.29	1815	3.56
6496	2800	1683	2.39	1704	2.53	1724	2.68	1744	2.83	1764	2.98	1785	3.11	1804	3.25	1843	3.54	1880	3.82	1915	4.11
6960	3000	1797	2.89	1817	3.05	1836	3.20	1855	3.36	1874	3.52	1892	3.68	1911	3.82	1948	4.12	1983	4.43	2018	4.74
7424	3200	1911	3.46	1930	3.63	1948	3.80	1966	3.96	1984	4.13	2002	4.30	2019	4.47	2054	4.78	2088	5.11	2121	5.43
7888	3400	2026	4.11	2044	4.29	2061	4.46	2078	4.64	2095	4.82	2112	4.99	2128	5.17	2161	5.52	2194	5.86	2225	6.20
8352	3600	2141	4.84	2158	5.02	2175	5.20	2191	5.39	2207	5.58	2223	5.77	2238	5.96	2269	6.33	2300	6.69	2331	7.05
8816	3800	2257	5.64	2273	5.84	2288	6.03	2304	6.23	2319	6.42	2334	6.62	2349	6.82	2378	7.22	2408	7.61	2437	7.99

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3016	1300	1273	1.33	1376	1.62	•1471	•1.92														
3248	1400	1311	1.46	1406	1.78	1500	2.09	•1588	•2.41	1675	2.77										
3480	1500	1350	1.60	1440	1.94	1530	2.27	1617	2.61	•1698	•2.95	1778	3.32								
3712	1600	1390	1.74	1479	2.10	1561	2.46	1646	2.82	1727	3.18	•1803	•3.54	•1875	•3.91						
3944	1700	1431	1.90	1518	2.27	1599	2.65	1676	3.04	1756	3.42	1832	3.80	1904	4.18	•1972	•4.57				
4176	1800	1472	2.07	1558	2.45	1638	2.85	1713	3.26	1786	3.67	1861	4.07	1933	4.47	2001	4.88	•2067	•5.29	2134	5.76
4408	1900	1517	2.24	1599	2.65	1678	3.06	1752	3.49	1821	3.92	1891	4.35	1962	4.77	2030	5.19	2095	5.62	•2158	•6.05
4640	2000	1563	2.43	1640	2.86	1718	3.29	1791	3.73	1860	4.17	1925	4.63	1992	5.08	2060	5.52	2124	5.97	2187	6.42
5104	2200	1657	2.85	1730	3.31	1799	3.78	1871	4.25	1938	4.73	2003	5.22	2064	5.71	2123	6.22	2184	6.71	2245	7.19
5568	2400	1753	3.33	1824	3.82	1890	4.32	1953	4.83	2019	5.34	2082	5.86	2142	6.39	2200	6.92	2256	7.46	2310	8.01
6032	2600	1851	3.84	1919	4.39	1983	4.92	2044	5.46	2103	6.02	2163	6.57	2222	7.13	2279	7.69	2334	8.27	2387	8.84
6496	2800	1950	4.41	2016	5.01	2079	5.59	2138	6.17	2194	6.75	2249	7.35	2304	7.94	2360	8.54	2414	9.14	2466	9.75
6960	3000	2051	5.05	2115	5.68	2175	6.33	2233	6.94	2288	7.56	2341	8.18	2392	8.82	2441	9.46	2494	10.09	2546	10.73
7424	3200	2153	5.76	2214	6.42	2273	7.10	2329	7.79	2383	8.44	2434	9.10	2484	9.76	2532	10.44	2579	11.12	2627	11.80
7888	3400	2256	6.55	2315	7.25	2372	7.96	2427	8.68	2479	9.42	2529	10.10	2578	10.80	2625	11.50	2671	12.21	2715	12.93
8352	3600	2360	7.41	2418	8.15	2472	8.89	2525	9.65	2576	10.42	2625	11.19	2673	11.92	2719	12.65	2764	13.39	2807	14.14
8816	3800	2465	8.37	2521	9.13	2574	9.91	2625	10.70	2675	11.51	2723	12.32	2769	13.14	2814	13.90	2858	14.67	2900	15.45
9280	4000	2571	9.41	2625	10.21	2676	11.03	2726	11.85	2774	12.68	2821	13.53	2866	14.38	2910	15.24	2953	16.05	2995	16.86
9744	4200	2678	10.55	2730	11.39	2780	12.23	2828	13.09	2875	13.96	2920	14.84	2964	15.72	3007	16.62	3049	17.52	3090	18.37
10208	4400	2786	11.79	2836	12.66	2884	13.54	2931	14.43	2976	15.33	3021	16.24	3064	17.16	3106	18.09	3147	19.03	3187	19.97
10672	4600	2894	13.13	2942	14.04	2989	14.95	3034	15.88	3079	16.81	3122	17.75	3164	18.71	3205	19.67	3245	20.64	3284	21.61
11136	4800	3003	14.56	3049	15.52	3095	16.47	3139	17.43	3182	18.40	3224	19.38	3265	20.36	3305	21.35	3344	22.36	3382	23.37
11600	5000	3113	16.09	3157	17.12	3201	18.11	3244	19.10	3286	20.10	3327	21.11	3366	22.13	3406	23.16	3444	24.19	3481	25.23
12064	5200	3224	17.74	3265	18.84	3308	19.86	3350	20.89	3390	21.92	3430	22.97	3469	24.02	3507	25.08	3544	26.14	3581	27.22

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5104	2200	2305	7.68	2419	8.67	•2526	•9.66														
5568	2400	2364	8.56	2477	9.61	2584	10.68	•2684	•11.75	•2781	•12.85										
6032	2600	2438	9.43	2537	10.62	2642	11.76	2742	12.90	2838	14.06	•2929	•15.23	•3017	•16.41						
6496	2800	2516	10.36	2613	11.62	2705	12.89	2801	14.13	2896	15.36	2987	16.59	3074	17.84	•3159	•19.10	•3240	•20.37		
6960	3000	2596	11.38	2691	12.69	2782	14.02	2868	15.38	2955	16.73	3046	18.04	3132	19.35	3216	20.68	3297	22.01	•3375	•23.35
7424	3200	2676	12.47	2770	13.84	2860	15.24	2945	16.66	3027	18.10	3106	19.56	3191	20.95	3274	22.34	3355	23.74	3433	25.15
7888	3400	2758	13.65	2851	15.09	2939	16.54	3023	18.02	3104	19.52	3182	21.04	3257	22.58	3333	24.10	3413	25.57	3491	27.04
8352	3600	2849	14.90	2933	16.42	3019	17.94	3103	19.48	3183	21.04	3259	22.61	3334	24.21	3405	25.83	3475	27.46	3550	29.04
8816	3800	2942	16.24	3022	17.83	3101	19.44	3183	21.03	3262	22.65	3338	24.29	3411	25.94	3482	27.62	3551	29.31	3618	31.02
9280	4000	3035	17.67	3114	19.33	3189	21.00	3265	22.69	3342	24.37	3417	26.07	3490	27.78	3560	29.52	3628	31.27	3694	33.03
9744	4200	3130	19.22	3207	20.93	3281	22.67	3352	24.43	3424	26.20	3498	27.96	3569	29.73	3639	31.52	3706	33.33	3772	35.15
10208	4400	3226	20.87	3301	22.65	3374	24.44	3444	26.26	3512	28.11	3579	29.96	3650	31.79	3719	33.64	3785	35.51	3850	37.39
10672	4600	3322	22.60	3396	24.48	3468	26.33	3536	28.21	3603	30.12	3667	32.04	3732	33.97	3799	35.88	3865	37.81	3929	39.75
11136	4800	3420	24.38	3493	26.43	3562	28.35	3630	30.28	3695	32.25	3759	34.23	3820	36.23	3881	38.25	3946	40.23		

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐ CL. IV ☐
The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.
For minimum motor size required see "Fan Starting Requirements," page 9.
Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1° C & 0 m).
Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

SIZE 22

SINGLE WIDTH
SINGLE INLET

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

Wheel Diameter	22 ¼ inches	565 mm
Wheel Circumference	5.83 feet	1.777 m
Inlet Diameter/Area	24 inches dia./3.14 sq. ft.	610 mm/.2917 m^2
Outlet Size/Area	23 5/16 x 17 7/16 inches I.D./2.82 sq. ft.	592 x 443 mm/.2620 m^2
Tip Speed	5.83 x RPM ft./minute	1.777 x RPM m/minute
Maximum BHP	1.15 x (RPM÷1000)^3 BHP	.8576 x (RPM÷1000)^3 kW

SIZE 22	-20° to 150°F -29° to 66°C
CLASS I	1962
CLASS II	2560
CLASS III	3226
CLASS IV	3549

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1692	600	•451	•0.10	•505	•0.14	•556	•0.18	•603	•0.22												
1974	700	489	0.13	540	0.17	585	0.22	629	0.27	•672	•0.32	•711	•0.37								
2256	800	531	0.16	576	0.21	620	0.26	660	0.32	698	0.37	737	0.43	•773	•0.48	•843	•0.60				
2538	900	573	0.20	616	0.25	656	0.31	695	0.37	731	0.43	765	0.49	800	0.56	866	0.68	•927	•0.80		
2820	1000	617	0.24	658	0.30	696	0.37	731	0.43	767	0.50	800	0.56	831	0.63	892	0.77	952	0.91	•1008	•1.05
3102	1100	661	0.29	701	0.36	737	0.43	770	0.50	802	0.57	835	0.64	866	0.72	923	0.87	978	1.02	1034	1.17
3384	1200	707	0.34	745	0.42	779	0.50	812	0.57	842	0.65	871	0.73	901	0.81	957	0.97	1009	1.13	1060	1.30
3666	1300	753	0.41	789	0.49	822	0.58	854	0.66	883	0.74	911	0.82	937	0.91	993	1.08	1043	1.25	1091	1.43
3948	1400	799	0.48	834	0.57	866	0.66	896	0.75	925	0.84	952	0.93	978	1.02	1028	1.20	1079	1.38	1125	1.57
4230	1500	846	0.57	879	0.66	910	0.75	940	0.85	967	0.95	994	1.04	1019	1.14	1066	1.33	1114	1.53	1161	1.73
4512	1600	894	0.66	926	0.76	955	0.86	984	0.96	1010	1.07	1036	1.17	1061	1.27	1107	1.47	1151	1.68	1196	1.89
4794	1700	942	0.77	972	0.87	1001	0.98	1028	1.08	1054	1.19	1079	1.30	1103	1.41	1148	1.63	1191	1.84	1232	2.07
5076	1800	990	0.88	1019	0.99	1047	1.10	1073	1.22	1098	1.33	1123	1.45	1146	1.57	1190	1.79	1232	2.02	1272	2.25
5358	1900	1039	1.01	1066	1.13	1093	1.24	1118	1.36	1143	1.48	1167	1.60	1189	1.73	1233	1.97	1274	2.21	1312	2.45
5640	2000	1088	1.15	1114	1.28	1140	1.40	1164	1.52	1188	1.65	1211	1.77	1233	1.90	1276	2.16	1316	2.42	1354	2.67
6204	2200	1187	1.47	1211	1.61	1234	1.75	1257	1.88	1280	2.02	1301	2.16	1322	2.29	1363	2.58	1401	2.86	1438	3.14
6768	2400	1286	1.85	1308	2.00	1330	2.16	1351	2.31	1372	2.45	1393	2.60	1413	2.75	1451	3.05	1488	3.36	1523	3.67
7332	2600	1386	2.30	1407	2.46	1427	2.63	1447	2.79	1466	2.95	1486	3.11	1505	3.27	1542	3.59	1577	3.92	1610	4.26
7896	2800	1487	2.81	1506	2.99	1525	3.17	1543	3.35	1562	3.52	1580	3.69	1598	3.86	1633	4.21	1667	4.56	1699	4.91
8460	3000	1588	3.40	1606	3.59	1623	3.78	1641	3.97	1658	4.17	1675	4.35	1692	4.54	1725	4.90	1758	5.27	1789	5.65
9024	3200	1689	4.08	1706	4.28	1722	4.48	1739	4.68	1755	4.89	1771	5.09	1787	5.29	1819	5.68	1850	6.07	1880	6.47
9588	3400	1790	4.83	1806	5.05	1822	5.26	1838	5.48	1853	5.69	1868	5.91	1883	6.13	1913	6.54	1943	6.96	1972	7.37
10152	3600	1892	5.69	1907	5.91	1922	6.13	1937	6.36	1951	6.59	1966	6.82	1980	7.05	2008	7.50	2037	7.94	2064	8.38
10716	3800	1993	6.63	2008	6.87	2022	7.11	2036	7.34	2050	7.58	2064	7.83	2078	8.07	2104	8.56	2131	9.02	2158	9.48

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3666	1300	1137	1.61	1231	1.97	•1316	•2.33														
3948	1400	1170	1.77	1257	2.15	1342	2.53	•1421	•2.92												
4230	1500	1204	1.93	1285	2.34	1368	2.75	1446	3.16	•1519	•3.58										
4512	1600	1239	2.10	1319	2.54	1394	2.98	1472	3.41	1545	3.85	•1613	•4.29	1683	4.80						
4794	1700	1275	2.29	1354	2.74	1427	3.21	1498	3.68	1570	4.14	1639	4.60	•1703	•5.07	•1767	•5.57				
5076	1800	1311	2.49	1389	2.96	1461	3.45	1528	3.95	1597	4.44	1664	4.92	1729	5.41	1790	5.91	•1849	•6.41		
5358	1900	1349	2.70	1425	3.19	1496	3.70	1563	4.22	1625	4.75	1691	5.26	1755	5.77	1816	6.29	1875	6.81	•1931	•7.34
5640	2000	1390	2.92	1461	3.44	1531	3.97	1597	4.50	1659	5.05	1718	5.61	1781	6.15	1842	6.69	1900	7.23	1956	7.78
6204	2200	1473	3.42	1539	3.98	1603	4.55	1667	5.13	1728	5.71	1786	6.31	1842	6.91	1895	7.53	1952	8.12	2008	8.71
6768	2400	1557	3.98	1621	4.58	1681	5.20	1739	5.82	1799	6.44	1856	7.08	1911	7.72	1963	8.37	2013	9.03	2062	9.71
7332	2600	1643	4.59	1705	5.26	1763	5.91	1818	6.57	1871	7.25	1927	7.92	1981	8.60	2032	9.29	2082	9.99	2129	10.70
7896	2800	1730	5.27	1790	6.00	1847	6.70	1900	7.41	1952	8.12	2001	8.85	2052	9.57	2103	10.30	2151	11.03	2199	11.78
8460	3000	1819	6.03	1877	6.80	1932	7.59	1984	8.33	2034	9.08	2082	9.84	2128	10.62	2175	11.39	2223	12.16	2269	12.95
9024	3200	1909	6.87	1965	7.68	2018	8.51	2069	9.34	2117	10.13	2164	10.93	2209	11.74	2253	12.56	2295	13.39	2341	14.21
9588	3400	2000	7.79	2053	8.65	2105	9.52	2154	10.40	2202	11.28	2247	12.11	2291	12.96	2334	13.82	2375	14.69	2416	15.57
10152	3600	2091	8.82	2143	9.71	2193	10.62	2241	11.55	2287	12.48	2332	13.41	2375	14.29	2417	15.19	2457	16.09	2496	17.01
10716	3800	2184	9.94	2234	10.88	2283	11.83	2329	12.79	2374	13.77	2418	14.76	2460	15.73	2500	16.66	2540	17.61	2578	18.56
11280	4000	2277	11.17	2326	12.15	2373	13.14	2418	14.15	2462	15.16	2504	16.19	2545	17.24	2585	18.26	2624	19.24	2661	20.23
11844	4200	2371	12.51	2418	13.53	2464	14.57	2508	15.61	2550	16.67	2591	17.74	2631	18.82	2670	19.91	2708	20.99	2745	22.02
12408	4400	2466	13.97	2511	15.03	2555	16.11	2598	17.19	2639	18.29	2679	19.40	2719	20.52	2757	21.66	2794	22.80	2830	23.94
12972	4600	2561	15.55	2605	16.65	2648	17.77	2689	18.90	2729	20.04	2769	21.19	2807	22.35	2844	23.52	2880	24.70	2916	25.90
13536	4800	2657	17.24	2699	18.40	2741	19.56	2781	20.73	2820	21.91	2858	23.10	2896	24.30	2932	25.52	2967	26.74	3002	27.97
14100	5000	2754	19.05	2794	20.29	2834	21.49	2874	22.70	2912	23.92	2949	25.15	2985	26.39	3021	27.64	3055	28.91	3089	30.18
14664	5200	2851	20.99	2890	22.31	2929	23.55	2967	24.80	3004	26.07	3040	27.34	3075	28.62	3110	29.91	3144	31.21	3177	32.52

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6204	2200	2062	9.30	•2164	•10.51	•2260	•11.73														
6768	2400	2114	10.35	2215	11.64	2311	12.94	•2402	•14.25	•2492	•15.69										
7332	2600	2176	11.42	2268	12.85	2363	14.23	2453	15.63	2539	17.05	•2621	•18.48	2707	20.11						
7896	2800	2244	12.53	2332	14.06	2415	15.62	2505	17.10	2590	18.60	2672	20.11	•2751	•21.63	•2826	•23.17	2905	24.92		
8460	3000	2314	13.74	2400	15.34	2482	16.97	2560	18.64	2642	20.24	2723	21.83	2802	23.44	2877	25.06	•2950	•26.68	•3020	•28.32
9024	3200	2385	15.04	2470	16.71	2550	18.42	2627	20.15	2701	21.92	2776	23.67	2853	25.35	2928	27.05	3001	28.76	3071	30.48
9588	3400	2457	16.44	2540	18.19	2620	19.97	2696	21.78	2769	23.61	2839	25.47	2907	27.35	2980	29.15	3052	30.94	3122	32.75
10152	3600	2535	17.93	2612	19.78	2691	21.64	2766	23.51	2838	25.42	2907	27.35	2974	29.30	3039	31.28	3104	33.25	3173	35.13
10716	3800	2616	19.52	2689	21.46	2762	23.41	2837	25.36	2908	27.34	2976	29.34	3042	31.37	3107	33.41	3169	35.49	3229	37.58
11280	4000	2698	21.22	2769	23.24	2838	25.29	2908	27.34	2978	29.39	3046	31.46	3112	33.56	3175	35.67	3236	37.81	3296	39.98
11844	4200	2781	23.05	2851	25.14	2918	27.27	2983	29.42	3050	31.56	3117	33.71	3182	35.87	3244	38.06	3305	40.27	3364	42.51
12408	4400	2866	25.01	2934	27.18	3000	29.37	3063	31.60	3124	33.85	3188	36.09	3252	38.33	3314	40.59	3374	42.87	3433	45.17
12972	4600	2951	27.10	3018	29.34	3082	31.61	3144	33.91	3205	36.23	3263	38.58	3324	40.92	3385	43.25	3445	45.61	3503	47.98
13536	4800	3036	29.21	3102	31.65	3166	33.99	3227	36.36	3286	38.76	3343	41.18	3399	43.63	3457	46.06	3516	48.49		

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐ CL. IV ☐
The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.
For minimum motor size required see "Fan Starting Requirements," page 9.
Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1° C & 0 m).
Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

SIZE 24

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

SINGLE WIDTH
SINGLE INLET

SIZE 24	-20° to 150°F -29° to 66°C
CLASS I	1782
CLASS II	2325
CLASS III	2929
CLASS IV	3222

Wheel Diameter	24 ½ inches	622 mm
Wheel Circumference	6.41 feet	1.954 m
Inlet Diameter/Area	27 inches dia./3.98 sq. ft.	685 mm/.3697 m^2
Outlet Size/Area	25 11/16 x19 5/16 inches I.D./3.46 sq. ft.	652 x 491 mm/.3214 m^2
Tip Speed	6.41 x RPM ft./minute	1.954 x RPM m/minute
Maximum BHP	1.80 x (RPM ÷ 1000)^3 BHP	1.342 x (RPM ÷ 1000)^3 kW

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1¼" SP		1½" SP		1¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2076	600	•412	•0.12	•461	•0.17	•507	•0.23	•550	•0.28												
2422	700	447	0.16	493	0.21	534	0.27	573	0.33	•612	•0.39	•648	•0.45								
2768	800	486	0.20	526	0.26	566	0.32	603	0.39	636	0.46	672	0.53	•705	•0.59	•766	•0.73				
3114	900	525	0.24	564	0.31	599	0.38	635	0.46	668	0.53	698	0.61	729	0.68	789	0.83	•844	•0.99		
3460	1000	565	0.30	602	0.37	636	0.45	668	0.53	700	0.61	730	0.69	758	0.78	813	0.95	868	1.12	•918	•1.29
3806	1100	606	0.36	642	0.44	674	0.53	704	0.62	733	0.70	763	0.79	790	0.88	842	1.07	892	1.25	942	1.44
4152	1200	648	0.43	682	0.52	713	0.62	742	0.71	770	0.80	796	0.90	823	1.00	874	1.19	921	1.39	966	1.60
4498	1300	690	0.51	723	0.61	753	0.71	781	0.82	808	0.92	833	1.02	857	1.12	906	1.33	953	1.54	996	1.76
4844	1400	733	0.60	764	0.71	793	0.82	821	0.93	846	1.04	871	1.15	894	1.26	939	1.48	985	1.71	1027	1.94
5190	1500	776	0.71	806	0.82	834	0.94	860	1.06	885	1.18	909	1.29	932	1.41	975	1.64	1018	1.88	1060	2.13
5536	1600	820	0.83	849	0.95	875	1.07	901	1.19	925	1.32	948	1.45	971	1.57	1013	1.82	1052	2.08	1092	2.33
5882	1700	864	0.96	891	1.08	917	1.21	942	1.35	965	1.48	988	1.61	1010	1.75	1051	2.01	1089	2.28	1126	2.55
6228	1800	909	1.10	935	1.24	960	1.37	983	1.51	1006	1.65	1028	1.79	1049	1.94	1089	2.22	1127	2.50	1163	2.78
6574	1900	954	1.26	978	1.41	1002	1.55	1025	1.69	1047	1.84	1069	1.99	1089	2.14	1128	2.45	1165	2.74	1200	3.03
6920	2000	999	1.44	1022	1.59	1045	1.74	1067	1.89	1089	2.05	1110	2.20	1130	2.36	1168	2.68	1204	2.99	1238	3.30
7612	2200	1090	1.84	1111	2.01	1132	2.18	1153	2.35	1173	2.51	1193	2.68	1212	2.85	1248	3.19	1283	3.55	1316	3.89
8304	2400	1181	2.32	1201	2.50	1220	2.69	1240	2.88	1259	3.05	1277	3.24	1295	3.42	1330	3.79	1363	4.17	1395	4.55
8996	2600	1273	2.88	1292	3.08	1310	3.28	1327	3.49	1345	3.68	1363	3.87	1380	4.07	1413	4.47	1444	4.87	1475	5.28
9688	2800	1366	3.52	1383	3.74	1400	3.96	1416	4.18	1433	4.40	1449	4.61	1465	4.81	1497	5.24	1527	5.66	1557	6.10
10380	3000	1458	4.27	1474	4.50	1490	4.73	1506	4.96	1521	5.20	1537	5.43	1552	5.66	1582	6.10	1611	6.56	1639	7.02
11072	3200	1551	5.11	1566	5.36	1582	5.60	1596	5.85	1611	6.10	1625	6.36	1639	6.60	1668	7.08	1696	7.56	1723	8.04
11764	3400	1644	6.06	1659	6.32	1673	6.58	1687	6.85	1701	7.11	1714	7.38	1728	7.65	1755	8.16	1782	8.67	1807	9.18
12456	3600	1738	7.13	1751	7.40	1765	7.68	1778	7.96	1791	8.24	1804	8.52	1817	8.80	1842	9.36	1868	9.90	1893	10.43
13148	3800	1831	8.32	1844	8.61	1857	8.90	1870	9.19	1882	9.49	1895	9.78	1907	10.08	1931	10.68	1955	11.25	1979	11.81

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4498	1300	1037	1.99	1122	2.42	•1199	•2.86														
4844	1400	1067	2.17	1146	2.65	1223	3.11	•1294	•3.59												
5190	1500	1099	2.37	1173	2.88	1247	3.38	1317	3.89	•1384	•4.39	1450	4.97								
5536	1600	1132	2.59	1204	3.12	1271	3.67	1341	4.20	1407	4.73	•1469	•5.28	•1530	•5.85						
5882	1700	1164	2.82	1236	3.38	1302	3.95	1365	4.53	1431	5.09	1493	5.66	1552	6.23	•1608	•6.81				
6228	1800	1198	3.07	1268	3.65	1334	4.24	1395	4.85	1455	5.46	1517	6.06	1575	6.66	1631	7.26	•1684	•7.88	1742	8.62
6574	1900	1234	3.33	1301	3.94	1366	4.56	1426	5.19	1483	5.84	1541	6.48	1599	7.10	1654	7.74	1708	8.37	•1759	•9.02
6920	2000	1271	3.61	1334	4.25	1398	4.89	1458	5.55	1514	6.22	1568	6.90	1623	7.57	1678	8.23	1731	8.89	1782	9.56
7612	2200	1347	4.23	1407	4.92	1464	5.62	1523	6.32	1578	7.04	1631	7.76	1681	8.51	1729	9.26	1779	9.99	1830	10.71
8304	2400	1425	4.93	1483	5.67	1537	6.42	1589	7.18	1643	7.95	1695	8.72	1744	9.51	1791	10.30	1837	11.11	1881	11.94
8996	2600	1504	5.69	1560	6.51	1613	7.31	1663	8.12	1710	8.95	1760	9.77	1809	10.60	1855	11.45	1900	12.30	1944	13.17
9688	2800	1585	6.54	1639	7.43	1690	8.30	1738	9.16	1785	10.03	1829	10.92	1875	11.81	1920	12.70	1965	13.60	2007	14.51
10380	3000	1666	7.48	1719	8.43	1768	9.39	1815	10.31	1860	11.23	1904	12.16	1946	13.11	1987	14.06	2030	15.01	2072	15.96
11072	3200	1749	8.53	1800	9.53	1848	10.54	1894	11.57	1937	12.54	1980	13.51	2020	14.51	2060	15.51	2098	16.53	2138	17.54
11764	3400	1833	9.69	1881	10.74	1928	11.80	1972	12.88	2015	13.97	2056	15.00	2096	16.03	2135	17.08	2172	18.14	2209	19.22
12456	3600	1917	10.97	1964	12.07	2009	13.18	2052	14.31	2094	15.46	2134	16.61	2173	17.69	2211	18.79	2247	19.89	2283	21.01
13148	3800	2002	12.38	2048	13.53	2091	14.69	2133	15.87	2174	17.07	2213	18.28	2251	19.49	2288	20.63	2324	21.78	2359	22.95
13840	4000	2088	13.92	2132	15.12	2174	16.33	2215	17.56	2255	18.81	2293	20.07	2330	21.34	2366	22.62	2401	23.82	2435	25.03
14532	4200	2175	15.60	2217	16.85	2258	18.12	2298	19.40	2336	20.69	2373	22.00	2410	23.32	2445	24.66	2479	26.01	2513	27.27
15224	4400	2262	17.43	2303	18.73	2343	20.04	2381	21.38	2418	22.72	2455	24.08	2490	25.45	2524	26.84	2558	28.23	2591	29.65
15916	4600	2350	19.41	2389	20.76	2428	22.13	2465	23.51	2501	24.90	2537	26.31	2571	27.73	2605	29.17	2637	30.61	2670	32.07
16608	4800	2438	21.52	2476	22.95	2513	24.37	2550	25.80	2585	27.25	2619	28.71	2653	30.18	2686	31.66	2718	33.16	2749	34.66
17300	5000	2527	23.78	2564	25.31	2600	26.78	2635	28.27	2669	29.76	2703	31.27	2735	32.79	2767	34.32	2799	35.87	2829	37.42
17992	5200	2617	26.21	2651	27.85	2686	29.37	2721	30.90	2754	32.45	2787	34.01	2818	35.58	2850	37.16	2880	38.75	2910	40.35

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7612	2200	1879	11.44	•1971	•12.91	•2059	•14.40														
8304	2400	1926	12.74	2019	14.31	2106	15.90	•2188	•17.52	•2266	•19.15										
8996	2600	1985	14.04	2067	15.82	2153	17.51	2235	19.22	2313	20.95	•2388	•22.70	•2460	•24.50						
9688	2800	2049	15.43	2128	17.30	2203	19.21	2283	21.04	2360	22.87	2434	24.72	2506	26.58	•2574	•28.46	•2641	•30.36		
10380	3000	2113	16.93	2191	18.89	2265	20.88	2336	22.92	2408	24.91	2482	26.86	2553	28.82	2621	30.80	2687	32.79	•2751	•34.80
11072	3200	2178	18.55	2255	20.60	2328	22.68	2398	24.80	2465	26.96	2530	29.13	2600	31.20	2668	33.27	2734	35.37	2798	37.47
11764	3400	2245	20.30	2320	22.44	2392	24.61	2461	26.82	2527	29.06	2591	31.33	2652	33.63	2716	35.88	2781	38.07	2845	40.28
12456	3600	2318	22.14	2386	24.42	2458	26.68	2526	28.98	2591	31.31	2654	33.67	2714	36.05	2773	38.47	2830	40.91	2892	43.23
13148	3800	2393	24.12	2458	26.50	2524	28.90	2591	31.28	2655	33.70	2717	36.15	2777	38.62	2835	41.12	2892	43.65	2946	46.21
13840	4000	2468	26.25	2533	28.72	2594	31.22	2657	33.74	2720	36.25	2782	38.78	2841	41.34	2898	43.93	2954	46.55	3008	49.19
14532	4200	2545	28.53	2608	31.09	2669	33.68	2727	36.32	2786	38.95	2847	41.58	2905	44.23	2962	46.90	3017	49.61	3071	52.33
15224	4400	2623	30.98	2684	33.62	2744	36.31	2801	39.03	2857	41.78	2913	44.54	2971	47.28	3027	50.04	3081	52.83	3134	55.65
15916	4600	2701	33.54	2762	36.33	2820	39.10	2876	41.91	2931	44.75	2983	47.63	3037	50.51	3092	53.36	3146	56.24	3198	59.14
16608	4800	2780	36.18	2839	39.21	2897	42.08	2952	44.98	3005	47.90	3057	50.87	3108	53.86	3158	56.86	3211	59.83		

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐ CL. IV ☐
The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.
For minimum motor size required see "Fan Starting Requirements," page 9.
Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1° C & 0 m).
Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

SIZE 27

SINGLE WIDTH
SINGLE INLET

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

Wheel Diameter	27 inches	686 mm
Wheel Circumference	7.07 feet	2.155 m
Inlet Diameter/Area	29½ inches dia./4.75 sq. ft.	749 mm/.4413 m^2
Outlet Size/Area	28 3/8 x 21 5/16 inches I.D./4.20 sq. ft.	721 x 541 mm/.3902 m^2
Tip Speed	7.07 x RPM ft./minute	2.155 x RPM m/minute
Maximum BHP	3.05 x (RPM ÷1000)^3 BHP	2.274 x (RPM ÷1000)^3 kW

SIZE 27	-20° to 150°F -29° to 66°C
CLASS I	1548
CLASS II	2020
CLASS III	2546
CLASS IV	2800

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2520	600	•356	•0.14	•401	•0.19	•446	•0.25	494	0.32												
2940	700	386	0.17	427	0.23	465	0.30	•501	•0.37	544	0.45										
3360	800	418	0.21	455	0.28	490	0.36	523	0.43	•556	•0.51	•591	•0.59	627	0.68						
3780	900	451	0.26	486	0.34	518	0.42	550	0.50	579	0.59	609	0.67	•637	•0.76	702	0.96				
4200	1000	486	0.32	518	0.40	549	0.49	577	0.58	606	0.67	633	0.76	659	0.86	•710	•1.05	770	1.28	825	1.51
4620	1100	522	0.38	552	0.47	581	0.57	608	0.67	634	0.77	660	0.87	685	0.97	733	1.18	•779	•1.39	833	1.63
5040	1200	558	0.46	586	0.56	614	0.66	640	0.77	664	0.87	688	0.98	712	1.09	758	1.31	802	1.54	•844	•1.77
5460	1300	595	0.55	622	0.65	647	0.76	672	0.87	696	0.99	719	1.11	741	1.22	784	1.46	826	1.70	866	1.94
5880	1400	632	0.64	658	0.76	682	0.88	705	0.99	728	1.12	750	1.24	771	1.37	812	1.62	853	1.87	891	2.13
6300	1500	669	0.75	694	0.88	718	1.00	740	1.13	761	1.26	783	1.39	803	1.52	842	1.79	880	2.06	917	2.33
6720	1600	707	0.87	731	1.02	754	1.14	775	1.28	795	1.41	816	1.55	835	1.69	873	1.98	909	2.26	944	2.55
7140	1700	745	1.01	768	1.16	790	1.30	811	1.44	830	1.58	849	1.73	868	1.87	905	2.17	940	2.48	973	2.78
7560	1800	784	1.16	806	1.32	827	1.47	847	1.62	866	1.77	884	1.92	902	2.07	938	2.38	971	2.71	1004	3.03
7980	1900	822	1.32	843	1.49	864	1.66	883	1.82	901	1.97	919	2.13	936	2.29	970	2.61	1004	2.95	1035	3.29
8400	2000	861	1.51	881	1.68	901	1.86	920	2.03	937	2.19	955	2.36	971	2.52	1004	2.86	1036	3.21	1067	3.56
9240	2200	939	1.93	958	2.12	976	2.31	994	2.51	1011	2.70	1027	2.87	1043	3.05	1073	3.42	1102	3.79	1132	4.17
10080	2400	1018	2.42	1035	2.63	1052	2.84	1069	3.05	1085	3.26	1100	3.47	1115	3.67	1144	4.06	1172	4.45	1199	4.86
10920	2600	1097	3.00	1113	3.22	1129	3.45	1144	3.68	1160	3.91	1174	4.14	1189	4.37	1216	4.79	1243	5.21	1268	5.64
11760	2800	1176	3.67	1191	3.91	1206	4.15	1221	4.39	1235	4.64	1249	4.89	1263	5.14	1289	5.62	1315	6.07	1339	6.53
12600	3000	1255	4.44	1270	4.70	1284	4.95	1298	5.21	1312	5.47	1325	5.74	1338	6.00	1363	6.54	1388	7.03	1411	7.52
13440	3200	1335	5.32	1349	5.59	1362	5.86	1375	6.13	1388	6.41	1401	6.69	1413	6.97	1438	7.54	1461	8.11	1484	8.62
14280	3400	1415	6.30	1428	6.59	1441	6.88	1453	7.17	1466	7.46	1478	7.75	1490	8.05	1513	8.65	1535	9.26	1557	9.85
15120	3600	1496	7.41	1508	7.71	1520	8.01	1532	8.32	1543	8.63	1555	8.94	1566	9.25	1588	9.88	1610	10.52	1631	11.16
15960	3800	1576	8.64	1588	8.96	1599	9.28	1610	9.60	1622	9.92	1632	10.25	1643	10.58	1665	11.24	1685	11.90	1706	12.58

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5880	1400	928	2.40	•1002	•2.94	1087	3.58														
6300	1500	953	2.61	1023	3.18	•1095	•3.79	1173	4.48												
6720	1600	980	2.84	1046	3.44	1111	4.04	1181	4.72	1253	5.46										
7140	1700	1007	3.09	1071	3.71	1133	4.35	•1193	•5.00	1261	5.74	1329	6.52	1394	7.33						
7560	1800	1035	3.35	1098	4.00	1157	4.67	1216	5.35	•1272	•6.04	1337	6.83	1401	7.66	1463	8.51				
7980	1900	1066	3.63	1125	4.31	1183	5.01	1238	5.72	1294	6.43	•1346	•7.16	1409	8.01	1470	8.88	1529	9.78		
8400	2000	1097	3.92	1153	4.64	1210	5.36	1264	6.10	1316	6.85	1368	7.60	•1418	•8.37	•1478	•9.26	1537	10.18	1593	11.12
9240	2200	1160	4.56	1214	5.34	1265	6.13	1317	6.93	1367	7.73	1415	8.55	1463	9.37	1510	10.20	•1555	•11.04	•1608	•12.01
10080	2400	1226	5.27	1278	6.12	1327	6.98	1373	7.84	1421	8.70	1467	9.57	1512	10.45	1555	11.35	1599	12.24	1642	13.15
10920	2600	1293	6.08	1343	6.98	1390	7.90	1435	8.83	1478	9.75	1521	10.69	1565	11.63	1607	12.57	1648	13.53	1687	14.50
11760	2800	1363	6.99	1409	7.94	1454	8.91	1498	9.90	1540	10.90	1580	11.90	1619	12.91	1661	13.91	1700	14.92	1739	15.94
12600	3000	1434	8.01	1477	9.00	1520	10.03	1562	11.07	1603	12.13	1642	13.20	1680	14.27	1717	15.34	1754	16.42	1792	17.49
13440	3200	1506	9.14	1548	10.19	1588	11.26	1628	12.35	1667	13.47	1705	14.60	1742	15.74	1778	16.87	1813	18.01	1847	19.17
14280	3400	1578	10.39	1619	11.50	1658	12.62	1695	13.76	1733	14.92	1770	16.11	1806	17.31	1840	18.52	1874	19.72	1907	20.92
15120	3600	1651	11.78	1691	12.93	1728	14.11	1764	15.30	1799	16.51	1835	17.74	1870	18.99	1904	20.26	1937	21.54	1969	22.82
15960	3800	1725	13.26	1763	14.50	1800	15.73	1835	16.98	1869	18.24	1902	19.52	1936	20.82	1969	22.14	2001	23.47	2032	24.82
16800	4000	1800	14.84	1837	16.22	1872	17.50	1906	18.80	1939	20.11	1971	21.44	2002	22.79	2034	24.16	2066	25.54	2096	26.94
17640	4200	1875	16.56	1910	18.06	1944	19.42	1977	20.77	2009	22.14	2040	23.52	2071	24.92	2100	26.33	2131	27.76	2161	29.21
18480	4400	1950	18.43	1984	19.99	2018	21.51	2050	22.91	2081	24.33	2111	25.76	2140	27.21	2169	28.67	2197	30.14	2227	31.64
19320	4600	2026	20.46	2059	22.08	2092	23.72	2123	25.21	2153	26.68	2182	28.17	2211	29.66	2239	31.17	2266	32.70	2293	34.24
20160	4800	2102	22.64	2134	24.32	2166	26.02	2196	27.68	2225	29.21	2254	30.75	2282	32.30	2309	33.86	2336	35.43	2362	37.02
21000	5000	2178	25.00	2210	26.74	2240	28.50	2270	30.28	2299	31.92	2326	33.51	2354	35.11	2380	36.72	2406	38.35	2432	39.99
21840	5200	2255	27.52	2285	29.33	2315	31.15	2344	32.99	2372	34.82	2399	36.46	2426	38.11	2452	39.78	2477	41.46	2502	43.15
22680	5400	2332	30.24	2362	32.10	2390	33.98	2418	35.88	2446	37.80	2473	39.61	2498	41.31	2524	43.03	2549	44.76	2573	46.50

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
10080	2400	•1683	•14.06	1780	16.15	1876	18.36	1966	20.62												
10920	2600	1728	15.47	•1806	•17.43	•1891	•19.60	1982	21.97	2068	24.38										
11760	2800	1776	16.97	1851	19.05	1924	21.16	•1997	•23.35	2083	25.88	2165	28.44	2244	31.05						
12600	3000	1829	18.57	1900	20.77	1969	23.00	2038	25.24	•2104	•27.51	2181	30.09	2259	32.80	2335	35.56	2407	38.35		
13440	3200	1883	20.30	1952	22.60	2018	24.94	2082	27.31	2148	29.69	•2211	•32.09	•2275	•34.60	2350	37.47	2423	40.37	2493	43.30
14280	3400	1940	22.14	2006	24.57	2071	27.01	2133	29.48	2193	32.00	2255	34.51	2315	37.04	•2373	•39.60	•2438	•42.43	2508	45.47
15120	3600	2001	24.08	2062	26.65	2125	29.21	2186	31.79	2245	34.40	2302	37.05	2359	39.70	2417	42.36	2472	45.05	•2526	•47.76
15960	3800	2063	26.17	2123	28.84	2180	31.55	2239	34.24	2298	36.96	2354	39.70	2408	42.48	2461	45.27	2517	48.07	2570	50.88
16800	4000	2126	28.35	2184	31.18	2241	33.99	2295	36.84	2351	39.67	2407	42.51	2460	45.39	2512	48.29	2562	51.23	2614	54.15
17640	4200	2190	30.67	2247	33.63	2302	36.58	2355	39.54	2406	42.53	2460	45.49	2513	48.46	2564	51.47	2614	54.50	2663	57.56
18480	4400	2255	33.15	2311	36.21	2364	39.32	2416	42.40	2467	45.49	2516	48.62	2567	51.71	2618	54.82	2667	57.95	2715	61.10
19320	4600	2321	35.80	2376	38.96	2428	42.17	2479	45.42	2528	48.62	2576	51.85	2623	55.11	2671	58.35	2720	61.57	2767	64.83
20160	4800	2388	38.62	2441	41.88	2492	45.19	2542	48.54	2590	51.94	2637	55.26	2683	58.62	2728	62.01	2774	65.39		
21000	5000	2457	41.64	2507	44.99	2557	48.40	2606	51.85	2653	55.34	2699	58.87	2745	62.32	2789	65.80				

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐ CL. IV ☐
The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.
For minimum motor size required see "Fan Starting Requirements," page 9.
Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1° C & 0 m).
Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

SINGLE WIDTH
SINGLE INLET

SIZE 30

SIZE 30	-20° to 150°F -29° to 66°C
CLASS I	1391
CLASS II	1818
CLASS III	2291
CLASS IV	2520

Wheel Diameter	30 inches	762 mm
Wheel Circumference	7.85 feet	2.393 m
Inlet Diameter/Area	32½ inches dia./5.76 sq. ft.	826 mm/.5351 m^2
Outlet Size/Area	23 7/16 x 31½ inches I.D./5.13 sq. ft.	595 x 800 mm/.4766 m^2
Tip Speed	7.85 x RPM ft./minute	2.393 x RPM m/minute
Maximum BHP	5.15 x (RPM ÷ 1000)^3 BHP	3.840 x (RPM ÷ 1000)^3 kW

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1¼" SP		1½" SP		1¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3078	600	•319	•0.17	•360	•0.23	•401	•0.31														
3591	700	345	0.21	382	0.29	417	0.37	•451	•0.45	489	0.55										
4104	800	374	0.26	407	0.34	439	0.43	469	0.52	•499	•0.62	•531	•0.72	564	0.84						
4617	900	403	0.31	435	0.41	464	0.51	492	0.61	519	0.71	546	0.82	•571	•0.92	631	1.18				
5130	1000	434	0.38	463	0.49	491	0.60	517	0.71	543	0.82	567	0.93	591	1.05	•638	•1.28	692	1.56		
5643	1100	466	0.46	493	0.57	519	0.69	544	0.81	567	0.93	591	1.06	614	1.18	657	1.43	•699	•1.69	749	2.00
6156	1200	498	0.55	524	0.67	548	0.80	572	0.93	594	1.06	616	1.19	637	1.33	679	1.60	719	1.87	•757	•2.15
6669	1300	531	0.66	555	0.79	578	0.92	601	1.06	622	1.20	643	1.34	663	1.49	703	1.77	740	2.07	777	2.37
7182	1400	564	0.78	587	0.92	609	1.06	630	1.20	651	1.35	671	1.51	690	1.66	727	1.97	764	2.28	798	2.60
7695	1500	597	0.90	620	1.06	641	1.21	661	1.37	680	1.52	700	1.68	718	1.85	753	2.18	788	2.51	822	2.84
8208	1600	631	1.05	652	1.22	673	1.38	692	1.54	710	1.71	729	1.88	747	2.05	781	2.40	814	2.75	846	3.10
8721	1700	664	1.21	685	1.40	705	1.57	724	1.74	741	1.91	759	2.09	776	2.27	809	2.64	841	3.01	871	3.38
9234	1800	699	1.39	719	1.59	738	1.78	756	1.96	773	2.14	789	2.32	806	2.51	838	2.89	869	3.29	898	3.68
9747	1900	733	1.59	752	1.80	771	2.00	788	2.19	805	2.38	821	2.57	836	2.77	867	3.17	897	3.58	926	3.99
10260	2000	767	1.81	786	2.02	804	2.24	821	2.45	837	2.65	852	2.85	868	3.05	897	3.47	926	3.89	954	4.33
11286	2200	837	2.31	854	2.54	870	2.78	886	3.02	902	3.25	917	3.47	931	3.69	958	4.13	985	4.59	1012	5.05
12312	2400	907	2.91	923	3.16	938	3.41	953	3.67	968	3.93	982	4.19	995	4.42	1022	4.90	1047	5.39	1071	5.88
13338	2600	977	3.60	992	3.87	1006	4.15	1021	4.42	1034	4.71	1048	4.99	1061	5.27	1086	5.78	1110	6.30	1133	6.83
14364	2800	1048	4.40	1062	4.69	1075	4.99	1089	5.29	1102	5.59	1114	5.89	1127	6.19	1151	6.78	1174	7.33	1196	7.89
15390	3000	1118	5.32	1132	5.63	1144	5.95	1157	6.26	1169	6.58	1181	6.91	1193	7.23	1216	7.89	1238	8.48	1260	9.08
16416	3200	1190	6.37	1202	6.70	1214	7.03	1226	7.37	1238	7.71	1249	8.05	1260	8.39	1282	9.09	1304	9.78	1324	10.40
17442	3400	1261	7.55	1273	7.90	1284	8.25	1295	8.61	1306	8.96	1317	9.32	1328	9.69	1349	10.42	1370	11.16	1389	11.87
18468	3600	1332	8.87	1343	9.24	1354	9.61	1365	9.99	1376	10.36	1386	10.74	1396	11.13	1416	11.89	1436	12.67	1455	13.46
19494	3800	1404	10.35	1414	10.73	1425	11.13	1435	11.52	1445	11.92	1455	12.31	1465	12.71	1484	13.52	1503	14.34	1521	15.16

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7182	1400	833	2.92	•901	•3.59	977	4.38														
7695	1500	854	3.18	918	3.87	984	4.63	1054	5.48												
8208	1600	878	3.46	938	4.19	•996	•4.93	1061	5.78	1127	6.68										
8721	1700	902	3.76	960	4.52	1016	5.30	•1070	•6.09	1134	7.02	1195	7.98								
9234	1800	926	4.08	984	4.87	1037	5.69	1090	6.52	•1141	•7.36	1202	8.36	1260	9.38	1315	10.42				
9747	1900	953	4.41	1008	5.25	1060	6.10	1110	6.96	1160	7.84	•1209	•8.75	1267	9.80	1322	10.88	1375	11.97		
10260	2000	981	4.76	1032	5.64	1084	6.53	1133	7.43	1180	8.34	1227	9.27	•1274	•10.23	1329	11.34	1381	12.46	1432	13.61
11286	2200	1037	5.53	1086	6.49	1132	7.46	1180	8.43	1225	9.41	1268	10.41	1312	11.42	•1354	•12.44	•1395	•13.48	1446	14.70
12312	2400	1096	6.39	1142	7.43	1187	8.47	1229	9.53	1272	10.58	1314	11.65	1355	12.73	1394	13.82	1434	14.92	•1473	•16.03
13338	2600	1155	7.36	1200	8.46	1243	9.59	1284	10.72	1323	11.86	1362	13.00	1402	14.14	1440	15.30	1476	16.48	1512	17.67
14364	2800	1217	8.46	1259	9.61	1300	10.80	1340	12.02	1377	13.24	1414	14.46	1450	15.69	1487	16.91	1523	18.15	1558	19.40
15390	3000	1280	9.68	1320	10.90	1359	12.15	1397	13.43	1433	14.73	1469	16.03	1503	17.33	1536	18.65	1571	19.96	1605	21.28
16416	3200	1344	11.04	1382	12.32	1418	13.63	1455	14.97	1491	16.34	1525	17.72	1558	19.11	1591	20.50	1622	21.89	1653	23.30
17442	3400	1408	12.54	1445	13.89	1480	15.26	1514	16.66	1549	18.09	1582	19.54	1615	21.01	1646	22.49	1677	23.95	1707	25.43
18468	3600	1474	14.20	1509	15.61	1543	17.05	1576	18.51	1608	19.99	1640	21.51	1672	23.04	1703	24.59	1732	26.16	1761	27.71
19494	3800	1539	15.99	1574	17.50	1607	19.00	1638	20.53	1669	22.07	1699	23.64	1730	25.23	1760	26.85	1789	28.48	1817	30.13
20520	4000	1605	17.89	1639	19.56	1671	21.13	1701	22.71	1731	24.32	1760	25.95	1789	27.60	1818	29.28	1847	30.97	1874	32.68
21546	4200	1672	19.96	1704	21.79	1735	23.43	1765	25.09	1794	26.76	1822	28.45	1850	30.15	1877	31.89	1905	33.64	1932	35.42
22572	4400	1739	22.20	1770	24.11	1801	25.93	1829	27.65	1858	29.38	1885	31.14	1912	32.91	1938	34.70	1964	36.51	1990	38.34
23598	4600	1806	24.63	1837	26.61	1866	28.62	1894	30.41	1922	32.21	1948	34.02	1974	35.86	2000	37.71	2024	39.58	2049	41.46
24624	4800	1874	27.25	1903	29.30	1932	31.38	1960	33.38	1986	35.24	2012	37.12	2037	39.02	2062	40.93	2086	42.86	2110	44.81
25650	5000	1942	30.07	1971	32.20	1998	34.35	2025	36.53	2051	38.49	2076	40.44	2101	42.40	2125	44.38	2149	46.37	2172	48.37
26676	5200	2010	33.10	2038	35.30	2065	37.53	2091	39.78	2117	41.97	2141	43.98	2165	46.00	2189	48.04	2212	50.10	2234	52.17
27702	5400	2079	36.34	2106	38.62	2132	40.92	2157	43.24	2182	45.59	2206	47.76	2230	49.84	2253	51.95	2275	54.06	2297	56.20

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
12312	2400	•1510	•17.15	1600	19.77	1686	22.48														
13338	2600	1549	18.85	•1620	•21.26	1700	23.98	1782	26.89	1859	29.85										
14364	2800	1592	20.67	1660	23.22	•1726	•25.79	•1795	•28.57	1873	31.67	1947	34.82	2017	38.01						
15390	3000	1639	22.60	1702	25.30	1765	28.02	1828	30.77	•1887	•33.55	1960	36.82	2031	40.15	2099	43.53	2164	46.95		
16416	3200	1686	24.69	1749	27.51	1808	30.38	1867	33.27	1926	36.18	•1983	•39.13	•2045	•42.34	2113	45.85	2178	49.41	2241	53.01
17442	3400	1736	26.92	1796	29.88	1855	32.87	1911	35.90	1966	38.98	2022	42.05	2076	45.15	•2128	•48.29	2192	51.92	2255	55.65
18468	3600	1790	29.26	1845	32.41	1903	35.53	1958	38.69	2011	41.89	2063	45.13	2116	48.37	2168	51.63	•2218	•54.93	•2269	•58.35
19494	3800	1845	31.77	1899	35.04	1951	38.37	2006	41.65	2058	44.97	2109	48.34	2158	51.74	2207	55.15	2257	58.57	2305	62.02
20520	4000	1901	34.41	1954	37.86	2005	41.30	2054	44.80	2106	48.24	2156	51.73	2204	55.25	2251	58.81	2297	62.41	2345	65.98
21546	4200	1958	37.21	2010	40.83	2059	44.43	2107	48.05	2154	51.71	2203	55.32	2251	58.97	2297	62.65	2342	66.36	2386	70.11
22572	4400	2016	40.19	2066	43.94	2115	47.75	2162	51.50	2207	55.28	2252	59.12	2299	62.89	2345	66.69	2389	70.52	2432	74.39
23598	4600	2075	43.38	2124	47.25	2171	51.18	2217	55.16	2262	59.06	2305	63.01	2347	67.01	2392	70.94	2436	74.90	2479	78.89
24624	4800	2134	46.77	2182	50.77	2228	54.82	2273	58.93	2317	63.06	2360	67.12	2401	71.24	2441	75.39	2484	79.50		
25650	5000	2195	50.40	2240	54.50	2286	58.67	2330	62.90	2373	67.18	2414	71.47	2455	75.70	2495	79.97				

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐ CL. IV ☐
The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.
For minimum motor size required see "Fan Starting Requirements," page 9.
Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1 ° C & 0 m).
Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

SIZE 33

SINGLE WIDTH
SINGLE INLET

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

Wheel Diameter	33 inches	838 mm
Wheel Circumference	8.64 feet	2.633 m
Inlet Diameter/Area	35½ inches dia./6.87 sq. ft.	902 mm/.6382 m^2
Outlet Size/Area	34 11/16 x 26 inches I.D./6.26 sq. ft.	881 x 660 mm/.5816 m^2
Tip Speed	8.64 x RPM ft./minute	2.633 RPM m/minute
Maximum BHP	8.25 x (RPM ÷1000)^3 BHP	6.152 x (RPM ÷1000)^3 kW

SIZE 33	-20° to 150°F -29° to 66°C
CLASS I	1265
CLASS II	1652
CLASS III	2083
CLASS IV	2291

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3756	600	•291	•0.20	•328	•0.29	•365	•0.38	404	0.48												
4382	700	315	0.25	349	0.35	380	0.45	•410	•0.55	445	0.67										
5008	800	341	0.31	372	0.42	401	0.53	428	0.64	•455	•0.75	•483	•0.88	513	1.02						
5634	900	368	0.39	397	0.50	423	0.62	449	0.75	474	0.87	498	1.00	•521	•1.13	574	1.43				
6260	1000	397	0.47	424	0.60	448	0.73	472	0.87	495	1.00	517	1.14	539	1.28	•581	•1.56	630	1.90	675	2.26
6886	1100	426	0.57	451	0.71	475	0.85	497	1.00	518	1.14	539	1.29	560	1.44	599	1.75	•637	•2.07	681	2.44
7512	1200	456	0.68	479	0.83	501	0.98	523	1.14	543	1.30	562	1.46	582	1.62	619	1.95	655	2.29	•690	•2.63
8138	1300	486	0.81	508	0.97	529	1.13	549	1.30	569	1.47	587	1.65	605	1.82	641	2.17	675	2.53	708	2.90
8764	1400	516	0.96	537	1.13	557	1.30	576	1.48	595	1.66	613	1.85	630	2.03	663	2.41	697	2.79	728	3.18
9390	1500	547	1.12	567	1.31	586	1.49	604	1.68	622	1.87	639	2.07	656	2.27	688	2.67	719	3.07	750	3.48
10016	1600	577	1.30	597	1.51	616	1.70	633	1.90	650	2.10	666	2.30	683	2.51	714	2.94	743	3.37	772	3.80
10642	1700	609	1.50	627	1.72	645	1.94	662	2.14	678	2.35	694	2.57	709	2.79	740	3.23	768	3.69	795	4.14
11268	1800	640	1.72	658	1.96	675	2.19	691	2.41	707	2.63	722	2.85	737	3.08	766	3.55	794	4.03	820	4.51
11894	1900	671	1.97	689	2.21	705	2.47	721	2.70	736	2.93	751	3.17	765	3.40	793	3.89	820	4.39	846	4.90
12520	2000	703	2.24	720	2.50	736	2.76	751	3.02	766	3.26	780	3.51	794	3.75	820	4.26	846	4.78	872	5.31
13772	2200	767	2.86	782	3.14	797	3.43	812	3.72	825	4.01	839	4.27	852	4.54	877	5.08	901	5.64	925	6.20
15024	2400	831	3.60	845	3.90	859	4.21	873	4.53	886	4.85	899	5.16	911	5.45	935	6.03	957	6.63	979	7.23
16276	2600	895	4.46	909	4.79	922	5.12	935	5.46	947	5.80	959	6.15	971	6.50	993	7.12	1015	7.75	1036	8.39
17528	2800	960	5.45	973	5.81	985	6.17	997	6.53	1009	6.89	1020	7.26	1031	7.64	1053	8.35	1074	9.02	1094	9.71
18780	3000	1025	6.59	1037	6.97	1048	7.36	1060	7.74	1071	8.13	1082	8.52	1093	8.92	1113	9.72	1133	10.46	1152	11.18
20032	3200	1090	7.89	1101	8.29	1112	8.70	1123	9.11	1134	9.52	1144	9.94	1154	10.36	1174	11.20	1193	12.06	1212	12.82
21284	3400	1156	9.36	1166	9.78	1177	10.21	1187	10.64	1197	11.08	1207	11.52	1216	11.96	1235	12.85	1254	13.76	1272	14.64
22536	3600	1221	11.00	1231	11.45	1241	11.90	1251	12.36	1260	12.82	1270	13.28	1279	13.74	1297	14.68	1315	15.63	1332	16.59
23788	3800	1287	12.82	1296	13.30	1306	13.78	1315	14.26	1324	14.74	1333	15.22	1342	15.71	1359	16.70	1376	17.69	1393	18.70

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
8764	1400	759	3.57	•820	•4.38	889	5.34														
9390	1500	779	3.89	837	4.73	•896	•5.65	959	6.68												
10016	1600	801	4.23	855	5.12	908	6.03	966	7.04	1025	8.14										
10642	1700	823	4.60	876	5.53	926	6.48	•976	•7.45	1032	8.55	1087	9.73	1140	10.93						
11268	1800	846	4.99	897	5.96	946	6.96	994	7.97	•1040	•8.99	1094	10.19	1146	11.43	1196	12.69				
11894	1900	871	5.40	919	6.42	967	7.46	1012	8.52	1058	9.58	•1101	•10.67	1153	11.94	1203	13.25	1251	14.58		
12520	2000	896	5.84	942	6.91	989	7.99	1033	9.08	1076	10.20	1119	11.33	•1159	•12.47	•1209	•13.81	1257	15.18	1303	16.58
13772	2200	948	6.78	992	7.95	1034	9.13	1077	10.31	1118	11.51	1156	12.73	1196	13.96	1234	15.20	•1271	•16.45	•1316	•17.91
15024	2400	1001	7.85	1044	9.11	1084	10.38	1122	11.67	1161	12.96	1199	14.25	1236	15.57	1271	16.90	1307	18.24	1342	19.59
16276	2600	1056	9.05	1097	10.38	1136	11.76	1173	13.14	1208	14.52	1243	15.92	1279	17.31	1314	18.73	1347	20.16	1379	21.60
17528	2800	1113	10.40	1151	11.81	1188	13.26	1224	14.74	1258	16.23	1291	17.71	1323	19.22	1357	20.71	1390	22.21	1421	23.74
18780	3000	1171	11.91	1207	13.39	1242	14.92	1277	16.47	1310	18.06	1342	19.65	1373	21.24	1403	22.85	1434	24.45	1465	26.05
20032	3200	1230	13.59	1264	15.15	1297	16.75	1330	18.38	1362	20.04	1393	21.73	1423	23.44	1453	25.12	1481	26.82	1509	28.54
21284	3400	1289	15.45	1322	17.09	1354	18.77	1385	20.47	1416	22.21	1446	23.97	1475	25.76	1504	27.58	1532	29.35	1559	31.15
22536	3600	1349	17.50	1381	19.23	1412	20.98	1441	22.76	1470	24.56	1499	26.40	1528	28.27	1556	30.16	1583	32.07	1609	33.96
23788	3800	1409	19.71	1440	21.56	1470	23.39	1499	25.25	1526	27.13	1554	29.04	1581	30.98	1608	32.94	1635	34.93	1660	36.94
25040	4000	1470	22.06	1500	24.11	1529	26.02	1557	27.96	1584	29.91	1610	31.90	1635	33.90	1662	35.94	1688	38.01	1713	40.09
26292	4200	1531	24.62	1560	26.85	1588	28.88	1615	30.89	1641	32.92	1667	34.98	1691	37.06	1716	39.17	1741	41.31	1766	43.47
27544	4400	1592	27.39	1621	29.72	1648	31.97	1674	34.06	1700	36.17	1724	38.31	1748	40.47	1772	42.64	1795	44.84	1819	47.08
28796	4600	1654	30.40	1682	32.81	1708	35.26	1734	37.48	1758	39.67	1782	41.88	1806	44.12	1829	46.37	1851	48.64	1873	50.94
30048	4800	1716	33.64	1743	36.15	1769	38.68	1794	41.15	1818	43.42	1841	45.71	1864	48.03	1886	50.36	1908	52.71	1930	55.08
31300	5000	1779	37.14	1804	39.73	1829	42.36	1854	45.01	1877	47.45	1900	49.82	1922	52.21	1944	54.61	1966	57.04	1987	59.48
32552	5200	1841	40.89	1866	43.58	1891	46.29	1914	49.03	1937	51.75	1959	54.20	1981	56.67	2003	59.15	2023	61.65	2044	64.17
33804	5400	1904	44.91	1928	47.69	1952	50.49	1975	53.33	1998	56.18	2019	58.87	2041	61.42	2061	63.98	2082	66.56	2102	69.16

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
15024	2400	•1376	•20.95	1456	24.09	1534	27.38	1608	30.75												
16276	2600	1413	23.05	•1477	•25.97	•1547	•29.22	1621	32.76	1691	36.36										
17528	2800	1452	25.28	1513	28.38	1573	31.52	•1634	•34.82	1704	38.58	1771	42.41	1835	46.30						
18780	3000	1495	27.66	1553	30.94	1609	34.26	1666	37.60	•1720	•40.99	1784	44.86	1848	48.91	1910	53.02	1969	57.19		
20032	3200	1539	30.23	1596	33.66	1650	37.15	1702	40.69	1756	44.23	•1807	•47.81	•1861	•51.59	1922	55.86	1982	60.19	2039	64.57
21284	3400	1585	32.97	1639	36.58	1693	40.22	1744	43.92	1793	47.66	1844	51.41	1893	55.19	•1940	•59.00	•1994	•63.26	2052	67.80
22536	3600	1635	35.85	1685	39.69	1736	43.50	1787	47.34	1835	51.24	1881	55.19	1929	59.14	1976	63.11	2021	67.12	•2066	•71.17
23788	3800	1685	38.96	1735	42.93	1781	46.98	1830	50.99	1878	55.04	1924	59.13	1968	63.27	2012	67.44	2058	71.61	2101	75.80
25040	4000	1737	42.19	1785	46.41	1831	50.60	1875	54.86	1922	59.07	1967	63.31	2011	67.60	2053	71.93	2095	76.31	2137	80.67
26292	4200	1790	45.65	1836	50.06	1881	54.46	1925	58.87	1967	63.33	2011	67.74	2054	72.18	2096	76.65	2137	81.18	2176	85.74
27544	4400	1843	49.33	1888	53.90	1932	58.54	1975	63.12	2016	67.73	2056	72.39	2098	77.01	2139	81.63	2180	86.30	2219	91.01
28796	4600	1896	53.27	1941	57.98	1984	62.77	2025	67.62	2066	72.39	2105	77.19	2144	82.06	2183	86.88	2223	91.69	2262	96.55
30048	4800	1951	57.46	1994	62.33	2036	67.26	2077	72.26	2116	77.32	2155	82.27	2193	87.27	2229	92.33	2267	97.37		
31300	5000	2007	61.95	2048	66.94	2089	72.02	2129	77.17	2168	82.38	2206	87.63	2243	92.78	2279	97.97				

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐ CL. IV ☐
The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.
For minimum motor size required see "Fan Starting Requirements," page 9.
Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1° C & 0 m).
Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

SINGLE WIDTH
SINGLE INLET

SIZE 37

SIZE 37	-20° to 150°F -29° to 66°C
CLASS I	1129
CLASS II	1473
CLASS III	1855
CLASS IV	2041

Wheel Diameter	36½ inches	927 mm
Wheel Circumference	9.56 feet	2.914 m
Inlet Diameter/Area	39 inches dia./8.30 sq. ft.	991 mm/.7711 m^2
Outlet Size/Area	38⅜ x 28⅝ inches I.D./7.63 sq. ft.	975 x 727 mm/.7088 m^2
Tip Speed	9.56 x RPM ft./minute	2.914 x RPM m/minute
Maximum BHP	13.04 x (RPM ÷1000)^3 BHP	9.724 x (RPM ÷1000)^3 kW

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1¼" SP		1½" SP		1¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4578	600	•264	•0.24	•298	•0.34	•335	•0.45														
5341	700	285	0.29	317	0.41	345	0.53	•377	•0.65	407	0.79										
6104	800	306	0.35	337	0.49	364	0.62	389	0.75	•415	•0.90	443	1.05	469	1.20						
6867	900	329	0.43	357	0.57	384	0.73	408	0.88	431	1.02	•452	•1.18	•478	•1.34	525	1.69				
7630	1000	354	0.52	379	0.67	404	0.84	428	1.01	450	1.17	471	1.34	490	1.50	•533	•1.86	576	2.24		
8393	1100	379	0.62	402	0.79	426	0.96	448	1.14	470	1.33	490	1.51	509	1.69	544	2.06	•585	•2.46	624	2.88
9156	1200	405	0.75	427	0.92	447	1.10	469	1.30	490	1.49	510	1.70	528	1.90	563	2.29	595	2.70	•632	•3.13
9919	1300	431	0.88	452	1.07	472	1.26	491	1.46	511	1.67	530	1.89	548	2.11	582	2.54	614	2.97	644	3.41
10682	1400	458	1.04	478	1.24	497	1.44	514	1.65	532	1.87	551	2.10	569	2.33	602	2.81	633	3.27	662	3.73
11445	1500	485	1.21	504	1.43	522	1.64	539	1.87	555	2.09	572	2.33	590	2.57	622	3.08	653	3.59	682	4.07
12208	1600	512	1.40	530	1.64	548	1.87	564	2.10	580	2.34	595	2.58	611	2.84	643	3.36	673	3.90	701	4.45
12971	1700	539	1.61	557	1.88	574	2.12	590	2.36	605	2.61	619	2.86	633	3.12	664	3.67	693	4.23	721	4.81
13734	1800	567	1.85	584	2.13	600	2.39	615	2.64	630	2.90	644	3.17	658	3.44	686	4.00	714	4.59	741	5.19
14497	1900	594	2.11	611	2.40	626	2.68	641	2.95	655	3.23	669	3.50	682	3.79	708	4.36	735	4.97	762	5.59
15260	2000	622	2.39	638	2.70	653	3.01	667	3.29	681	3.58	695	3.86	707	4.16	732	4.76	757	5.38	783	6.02
16786	2200	678	3.04	693	3.38	707	3.72	720	4.06	733	4.36	746	4.68	758	4.99	782	5.64	804	6.29	826	6.97
18312	2400	734	3.82	748	4.18	761	4.54	774	4.91	786	5.28	798	5.62	810	5.96	832	6.65	854	7.35	874	8.07
19838	2600	791	4.72	804	5.11	816	5.50	828	5.90	840	6.30	851	6.70	862	7.06	884	7.80	904	8.55	924	9.31
21364	2800	848	5.76	860	6.17	872	6.60	883	7.02	894	7.45	905	7.89	916	8.32	936	9.10	955	9.90	974	10.71
22890	3000	905	6.95	917	7.40	928	7.84	938	8.30	949	8.75	959	9.21	969	9.68	989	10.57	1007	11.41	1025	12.27
24416	3200	963	8.31	973	8.78	984	9.25	994	9.73	1004	10.22	1014	10.71	1023	11.20	1042	12.19	1060	13.10	1077	14.00
25942	3400	1020	9.83	1030	10.33	1040	10.84	1050	11.34	1059	11.86	1069	12.37	1078	12.89	1096	13.94	1113	14.98	1130	15.93
27468	3600	1078	11.55	1087	12.07	1097	12.60	1106	13.14	1115	13.68	1124	14.22	1133	14.77	1150	15.87	1166	16.98	1183	18.05
28994	3800	1136	13.45	1145	14.01	1154	14.56	1162	15.13	1171	15.69	1179	16.26	1188	16.84	1204	17.99	1220	19.16	1236	20.34

VOL CFM	OUT VEL	2" SP		2½" SP		3" SP		3½" SP		4" SP		4½" SP		5" SP		5½" SP		6" SP		6½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
10682	1400	690	4.20	•752	•5.22	812	6.28														
11445	1500	709	4.57	761	5.59	821	6.71	876	7.85												
12208	1600	728	4.96	778	6.02	•830	•7.15	885	8.35	936	9.57										
12971	1700	747	5.39	796	6.49	842	7.63	•894	•8.86	945	10.13	993	11.43								
13734	1800	767	5.81	816	6.99	860	8.17	903	9.39	•954	•10.72	1002	12.07	1047	13.44						
14497	1900	787	6.23	835	7.52	879	8.75	921	10.01	962	11.32	•1010	•12.72	1056	14.15	1099	15.59				
15260	2000	808	6.69	855	8.05	899	9.36	940	10.66	978	11.99	1019	13.39	•1065	•14.87	1108	16.37	1149	17.89		
16786	2200	850	7.68	896	9.13	938	10.63	978	12.08	1016	13.50	1052	14.95	1086	16.43	•1125	•17.99	•1166	•19.61	1206	21.26
18312	2400	894	8.80	938	10.34	979	11.93	1018	13.56	1055	15.16	1090	16.70	1124	18.27	1156	19.86	1188	21.47	•1223	•23.17
19838	2600	943	10.08	980	11.68	1021	13.36	1059	15.09	1094	16.85	1129	18.63	1162	20.28	1194	21.96	1225	23.66	1255	25.38
21364	2800	992	11.53	1027	13.20	1063	14.94	1100	16.76	1135	18.61	1169	20.50	1201	22.43	1233	24.24	1263	26.03	1292	27.84
22890	3000	1043	13.13	1077	14.90	1109	16.70	1143	18.59	1177	20.53	1210	22.51	1242	24.52	1272	26.57	1302	28.60	1331	30.50
24416	3200	1094	14.92	1127	16.77	1158	18.66	1187	20.60	1220	22.62	1252	24.69	1283	26.79	1313	28.92	1342	31.09	1370	33.29
25942	3400	1146	16.88	1177	18.83	1207	20.82	1236	22.84	1263	24.89	1294	27.04	1325	29.24	1354	31.46	1383	33.71	1410	36.00
27468	3600	1198	19.05	1229	21.09	1258	23.17	1285	25.28	1312	27.42	1338	29.60	1367	31.88	1396	34.19	1424	36.53	1451	38.91
28994	3800	1251	21.43	1280	23.56	1308	25.73	1335	27.93	1362	30.16	1387	32.43	1411	34.73	1439	37.12	1466	39.55	1493	42.01
30520	4000	1304	24.03	1333	26.26	1360	28.51	1386	30.81	1411	33.13	1436	35.48	1460	37.87	1483	40.28	1509	42.79	1535	45.34
32046	4200	1358	26.73	1385	29.18	1412	31.53	1437	33.92	1462	36.33	1486	38.77	1509	41.25	1532	43.75	1554	46.28	1578	48.88
33572	4400	1412	29.66	1438	32.35	1464	34.80	1489	37.27	1513	39.78	1536	42.31	1559	44.87	1581	47.46	1602	50.07	1624	52.72
35098	4600	1466	32.83	1492	35.67	1517	38.31	1541	40.88	1564	43.48	1587	46.10	1609	48.75	1631	51.43	1652	54.13	1672	56.86
36624	4800	1520	36.25	1545	39.20	1570	42.10	1593	44.76	1616	47.45	1638	50.16	1660	52.90	1681	55.67	1701	58.46	1721	61.27
38150	5000	1575	39.92	1599	42.98	1623	46.07	1646	48.92	1668	51.70	1689	54.50	1711	57.33	1731	60.19	1751	63.07	1771	65.97
39676	5200	1630	43.87	1654	47.03	1677	50.22	1699	53.36	1720	56.24	1741	59.13	1762	62.05	1782	65.00	1802	67.96	1821	70.96
41202	5400	1685	48.10	1708	51.36	1730	54.66	1752	57.99	1773	61.08	1794	64.06	1814	67.07	1833	70.11	1853	73.17	1871	76.25

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
18312	2400	•1261	•24.94	1333	28.52	1401	32.16														
19838	2600	1283	27.12	•1351	•30.85	1418	34.70	1482	38.62												
21364	2800	1321	29.67	1375	33.40	•1436	•37.35	•1499	•41.47	1560	45.65	1618	49.88								
22890	3000	1359	32.42	1412	36.32	1463	40.29	1517	44.44	•1577	•48.82	1635	53.26	1690	57.74	1744	62.28				
24416	3200	1397	35.38	1450	39.45	1500	43.60	1548	47.82	1595	52.12	•1652	•56.76	1708	61.45	1761	66.19	1812	70.98	1862	75.81
25942	3400	1437	38.31	1489	42.82	1538	47.14	1586	51.53	1631	55.99	1675	60.51	•1725	•65.29	•1778	•70.24	1829	75.23	1879	80.26
27468	3600	1478	41.31	1528	46.19	1577	50.91	1624	55.48	1669	60.11	1712	64.80	1753	69.55	1796	74.42	•1847	•79.61	•1896	•84.85
28994	3800	1519	44.50	1569	49.56	1616	54.73	1662	59.68	1707	64.49	1749	69.35	1790	74.27	1830	79.25	1869	84.28	1913	89.59
30520	4000	1561	47.92	1610	53.15	1657	58.49	1701	63.92	1745	69.13	1787	74.17	1828	79.26	1867	84.41	1906	89.61	1943	94.87
32046	4200	1603	51.55	1651	56.96	1698	62.47	1742	68.08	1784	73.78	1826	79.26	1866	84.53	1905	89.85	1943	95.22	1980	100.65
33572	4400	1646	55.42	1693	61.01	1739	66.70	1783	72.47	1825	78.34	1865	84.30	1905	90.09	1943	95.58	1981	101.13	2017	106.72
35098	4600	1692	59.62	1736	65.30	1781	71.17	1824	77.12	1865	83.16	1905	89.28	1944	95.49	1982	101.62	2019	107.34		
36624	4800	1741	64.12	1779	69.87	1823	75.89	1866	82.02	1906	88.23	1946	94.53	1984	100.91	2021	107.36				
38150	5000	1790	68.90	1828	74.82	1866	80.88	1908	87.19	1948	93.58	1987	100.05	2025	106.59						

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐ CL. IV ☐
The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.
For minimum motor size required see "Fan Starting Requirements," page 9.
Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1° C & 0 m).
Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

SIZE 40

SINGLE WIDTH
SINGLE INLET

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

Wheel Diameter	40 ¼ inches	1022 mm
Wheel Circumference	10.5 feet	3.200 m
Inlet Diameter/Area	43 ½ inches sq./10.31 sq. ft.	1105 mm/.9578 m^2
Outlet Size/Area	42 7/16 x 31 11/16 inches I.D./9.35 sq. ft.	1078 x 805 mm/.8686 m^2
Tip Speed	10.5 x RPM ft./minute	3.200 x RPM m/minute
Maximum BHP	21.29 x (RPM ÷1000)^3 BHP	15.88 x (RPM ÷1000)^3 kW

SIZE 40	-20° to 150°F -29° to 66°C
CLASS I	1023
CLASS II	1335
CLASS III	1682
CLASS IV	1850

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5610	600	•240	•0.29	•271	•0.41	•304	•0.55														
6545	700	259	0.36	288	0.50	314	0.64	•342	•0.80	369	0.96										
7480	800	278	0.44	306	0.60	331	0.76	354	0.93	•377	•1.10	•402	•1.28	426	1.47						
8415	900	300	0.53	325	0.71	349	0.89	371	1.08	392	1.26	411	1.44	•434	•1.65	476	2.06				
9350	1000	323	0.64	345	0.83	368	1.03	389	1.24	409	1.44	428	1.64	446	1.85	•484	•2.29	523	2.75		
10285	1100	346	0.77	367	0.97	388	1.18	408	1.41	427	1.64	446	1.86	463	2.08	495	2.53	•531	•3.02	566	3.52
11220	1200	370	0.92	390	1.13	408	1.36	427	1.59	446	1.84	464	2.09	481	2.34	512	2.81	541	3.31	•574	•3.84
12155	1300	394	1.09	413	1.32	430	1.56	447	1.80	465	2.06	483	2.32	499	2.59	530	3.13	559	3.65	585	4.18
13090	1400	418	1.29	436	1.53	453	1.78	469	2.04	485	2.30	502	2.58	518	2.87	548	3.45	576	4.02	603	4.58
14025	1500	443	1.50	460	1.77	476	2.03	491	2.30	506	2.58	521	2.87	537	3.17	567	3.78	594	4.42	620	5.01
14960	1600	467	1.73	484	2.03	500	2.31	514	2.59	529	2.88	542	3.18	557	3.49	586	4.13	612	4.80	638	5.47
15895	1700	492	2.00	508	2.32	523	2.61	538	2.91	551	3.22	564	3.53	577	3.85	605	4.51	631	5.20	656	5.91
16830	1800	517	2.29	533	2.63	547	2.95	561	3.26	574	3.58	587	3.91	599	4.24	624	4.92	650	5.64	675	6.38
17765	1900	543	2.61	557	2.97	572	3.32	585	3.65	598	3.98	610	4.32	622	4.67	645	5.37	670	6.11	694	6.88
18700	2000	568	2.97	582	3.34	596	3.72	609	4.07	621	4.42	633	4.77	645	5.13	667	5.86	689	6.62	713	7.41
20570	2200	619	3.78	632	4.18	645	4.60	657	5.02	669	5.40	680	5.78	692	6.16	713	6.95	733	7.76	752	8.58
22440	2400	671	4.74	683	5.18	695	5.62	706	6.08	718	6.53	728	6.94	739	7.36	759	8.21	778	9.07	797	9.94
24310	2600	723	5.86	734	6.33	745	6.81	756	7.30	767	7.79	777	8.29	787	8.73	806	9.63	825	10.55	842	11.48
26180	2800	775	7.15	785	7.66	796	8.17	806	8.70	816	9.22	826	9.75	835	10.29	854	11.25	871	12.23	888	13.21
28050	3000	827	8.63	837	9.18	847	9.73	857	10.28	866	10.84	875	11.40	884	11.97	902	13.07	919	14.10	935	15.15
29920	3200	879	10.32	889	10.90	898	11.48	907	12.07	916	12.66	925	13.26	934	13.86	951	15.08	967	16.20	983	17.30
31790	3400	932	12.22	941	12.83	950	13.45	959	14.07	967	14.69	976	15.32	984	15.96	1000	17.24	1016	18.53	1031	19.69
33660	3600	985	14.35	993	14.99	1002	15.64	1010	16.30	1018	16.96	1026	17.62	1034	18.29	1049	19.64	1065	21.01	1079	22.32
35530	3800	1037	16.72	1046	17.40	1054	18.08	1062	18.77	1069	19.46	1077	20.16	1085	20.86	1099	22.28	1114	23.71	1128	25.16

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
13090	1400	628	5.15	•683	•6.39	738	7.69														
14025	1500	645	5.61	691	6.85	746	8.22	796	9.62												
14960	1600	662	6.10	707	7.39	•754	•8.76	803	10.23	850	11.72										
15895	1700	680	6.62	725	7.97	766	9.36	•811	•10.86	858	12.41	902	14.00								
16830	1800	698	7.13	742	8.59	783	10.03	821	11.52	•866	•13.13	909	14.78	951	16.46						
17765	1900	717	7.66	760	9.24	800	10.74	838	12.28	874	13.87	•917	•15.59	959	17.33	998	19.10				
18700	2000	736	8.22	778	9.89	818	11.50	855	13.09	890	14.72	926	16.42	•967	•18.22	1006	20.06	1043	21.91	1079	23.79
20570	2200	774	9.45	815	11.22	854	13.06	890	14.84	924	16.58	957	18.35	988	20.16	•1022	•22.05	•1059	•24.03	1095	26.04
22440	2400	815	10.84	854	12.72	891	14.66	926	16.66	960	18.64	992	20.52	1022	22.43	1052	24.37	1080	26.35	•111	•28.40
24310	2600	859	12.43	893	14.38	929	16.43	964	18.54	996	20.70	1027	22.90	1057	24.92	1086	26.97	1114	29.05	1141	31.15
26180	2800	905	14.22	936	16.26	968	18.39	1002	20.61	1034	22.87	1064	25.18	1093	27.54	1122	29.79	1149	31.98	1176	34.19
28050	3000	951	16.21	982	18.37	1010	20.57	1041	22.87	1072	25.25	1102	27.67	1130	30.13	1158	32.63	1185	35.16	1211	37.48
29920	3200	998	18.42	1027	20.69	1055	23.01	1082	25.37	1111	27.83	1140	30.36	1168	32.93	1195	35.54	1221	38.19	1247	40.87
31790	3400	1045	20.86	1074	23.25	1101	25.67	1127	28.15	1152	30.66	1179	33.28	1206	35.96	1233	38.68	1259	41.43	1284	44.23
33660	3600	1093	23.56	1121	26.05	1147	28.59	1172	31.17	1196	33.80	1220	36.46	1245	39.23	1272	42.06	1297	44.92	1321	47.82
35530	3800	1142	26.51	1168	29.12	1193	31.77	1218	34.46	1241	37.19	1264	39.96	1286	42.77	1310	45.68	1335	48.66	1359	51.67
37400	4000	1190	29.71	1216	32.46	1240	35.22	1264	38.03	1287	40.87	1309	43.75	1331	46.67	1352	49.62	1374	52.66	1398	55.78
39270	4200	1239	33.06	1264	36.09	1288	38.97	1311	41.88	1333	44.84	1355	47.83	1376	50.85	1396	53.91	1416	57.00	1437	60.17
41140	4400	1289	36.70	1313	40.03	1336	43.02	1358	46.05	1380	49.11	1401	52.21	1421	55.34	1441	58.51	1461	61.71	1480	64.94
43010	4600	1338	40.64	1361	44.12	1384	47.39	1406	50.53	1427	53.70	1447	56.91	1467	60.16	1487	63.43	1506	66.74	1524	70.07
44880	4800	1388	44.88	1411	48.49	1432	52.09	1454	55.34	1474	58.63	1494	61.95	1513	65.30	1533	68.69	1551	72.10	1569	75.54
46750	5000	1438	49.45	1460	53.19	1481	56.97	1502	60.50	1522	63.90	1541	67.33	1560	70.80	1579	74.29	1597	77.81	1615	81.36
48620	5200	1488	54.35	1510	58.22	1530	62.13	1550	66.02	1570	69.54	1589	73.08	1607	76.65	1625	80.26	1643	83.89	1661	87.55
50490	5400	1539	59.60	1559	63.60	1579	67.64	1599	71.72	1618	75.55	1636	79.20	1655	82.89	1672	86.60	1690	90.34	1707	94.11

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
22440	2400	•1145	•30.56	1211	34.94	1272	39.39														
24310	2600	1167	33.28	•1226	•37.81	1288	42.52	1346	47.30	1401	52.15										
26180	2800	1201	36.43	1251	40.98	•1304	•45.77	•1361	•50.81	1416	55.92	1469	61.09								
28050	3000	1236	39.83	1285	44.59	1331	49.45	1377	54.46	•1432	•59.82	1485	65.25	1535	70.73	1583	76.27				
29920	3200	1271	43.49	1319	48.47	1365	53.54	1408	58.69	1450	63.93	•1500	•69.56	•1551	•75.30	1599	81.09	1645	86.94	1690	92.84
31790	3400	1308	47.06	1355	52.62	1400	57.91	1443	63.28	1484	68.72	1523	74.24	1566	80.02	•1615	•86.07	1661	92.17	1706	98.32
33660	3600	1345	50.76	1391	56.73	1435	62.57	1477	68.16	1518	73.82	1557	79.55	1595	85.36	1631	91.23	•1677	•97.57	•1722	•103.97
35530	3800	1383	54.71	1428	60.89	1471	67.20	1512	73.35	1553	79.23	1591	85.17	1629	91.19	1665	97.27	1700	103.42	1737	109.80
37400	4000	1421	58.93	1466	65.33	1508	71.85	1549	78.49	1588	84.96	1626	91.13	1663	97.35	1699	103.65	1733	110.00	1767	116.42
39270	4200	1460	63.43	1504	70.05	1545	76.78	1585	83.63	1624	90.60	1661	97.42	1698	103.86	1733	110.37	1768	116.94	1801	123.56
41140	4400	1499	68.22	1542	75.06	1583	82.01	1623	89.07	1661	96.24	1697	103.52	1733	110.74	1768	117.46	1802	124.23	1835	131.07
43010	4600	1543	73.44	1581	80.37	1622	87.54	1661	94.81	1698	102.20	1734	109.68	1769	117.27	1803	124.92	1837	131.91		
44880	4800	1587	79.02	1622	86.05	1660	93.39	1699	100.88	1736	108.47	1772	116.17	1806	123.96	1840	131.85				
46750	5000	1632	84.94	1666	92.19	1699	99.57	1737	107.28	1774	115.09	1809	122.99	1843	130.99						

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐ CL. IV ☐
The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.
For minimum motor size required see "Fan Starting Requirements," page 9.
Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1° C & 0 m).
Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

SINGLE WIDTH
SINGLE INLET

SIZE 45

SIZE 45	-20° to 150°F -29° to 66°C
CLASS I	926
CLASS II	1208
CLASS III	1521
CLASS IV	1673

Wheel Diameter	44 ½ inches	1130 mm
Wheel Circumference	11.65 feet	3.551 m
Inlet Diameter/Area	47 ¾ inches sq./12.42 sq. ft.	1213 mm/1.154 m^2
Outlet Size/Area	46 15/16 x 35 inches I.D./11.41 sq. ft.	1192 x 889 mm/1.060 m^2
Tip Speed	11.65 x RPM ft./minute	3.551 x RPM m/minute
Maximum BHP	35.09 x (RPM ÷1000)^3 BHP	26.17 x (RPM ÷1000)^3 kW

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1¼" SP		1½" SP		1¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6846	600	•217	•0.36	•245	•0.50	•275	•0.67														
7987	700	234	0.44	261	0.61	284	0.79	•309	•0.98	334	1.18										
9128	800	252	0.53	277	0.73	300	0.93	320	1.13	•341	•1.34	•364	•1.56	385	1.79						
10269	900	271	0.65	294	0.86	316	1.09	336	1.31	354	1.53	371	1.76	•392	•2.01	431	2.52				
11410	1000	292	0.78	312	1.01	333	1.25	352	1.51	370	1.76	387	2.00	403	2.25	•438	•2.79	473	3.35		
12551	1100	313	0.94	331	1.18	350	1.44	369	1.71	386	2.00	403	2.27	418	2.54	448	3.08	•480	•3.68	512	4.30
13692	1200	334	1.12	352	1.38	368	1.65	386	1.94	403	2.24	419	2.55	434	2.85	463	3.43	489	4.03	•519	•4.68
14833	1300	356	1.33	373	1.61	389	1.90	404	2.20	421	2.51	436	2.83	451	3.17	479	3.81	505	4.45	529	5.10
15974	1400	378	1.57	394	1.86	409	2.17	424	2.48	438	2.81	454	3.15	468	3.50	495	4.21	521	4.90	545	5.58
17115	1500	400	1.83	415	2.15	430	2.47	444	2.80	457	3.14	471	3.50	485	3.86	512	4.61	537	5.38	560	6.10
18256	1600	422	2.11	437	2.47	451	2.81	465	3.16	478	3.52	490	3.88	503	4.26	529	5.04	554	5.85	576	6.67
19397	1700	445	2.43	459	2.83	473	3.18	486	3.55	498	3.92	510	4.30	521	4.69	547	5.50	571	6.35	593	7.21
20538	1800	467	2.79	481	3.20	494	3.59	507	3.98	519	4.37	530	4.76	542	5.17	564	6.00	588	6.88	610	7.78
21679	1900	490	3.18	504	3.62	516	4.04	528	4.45	540	4.85	551	5.27	562	5.69	583	6.55	605	7.45	627	8.39
22820	2000	513	3.61	526	4.07	538	4.53	550	4.96	561	5.38	572	5.81	583	6.25	603	7.14	623	8.07	644	9.04
25102	2200	559	4.60	571	5.09	583	5.60	594	6.11	604	6.57	615	7.04	625	7.51	644	8.47	662	9.45	680	10.46
27384	2400	606	5.76	617	6.30	628	6.85	638	7.40	648	7.96	658	8.46	667	8.97	686	10.00	703	11.05	720	12.12
29666	2600	653	7.13	663	7.71	673	8.29	683	8.89	692	9.49	702	10.09	711	10.63	728	11.74	745	12.86	761	13.99
31948	2800	700	8.70	709	9.32	719	9.95	728	10.59	737	11.23	746	11.88	755	12.53	771	13.70	787	14.89	803	16.10
34230	3000	747	10.51	756	11.17	765	11.84	774	12.52	782	13.20	791	13.89	799	14.58	815	15.92	830	17.18	845	18.46
36512	3200	794	12.56	803	13.26	811	13.97	820	14.69	828	15.41	836	16.14	844	16.88	859	18.37	874	19.73	888	21.08
38794	3400	842	14.87	850	15.61	858	16.37	866	17.12	873	17.89	881	18.66	889	19.43	903	21.00	917	22.57	931	23.98
41076	3600	889	17.46	897	18.24	905	19.04	912	19.84	919	20.64	927	21.45	934	22.27	948	23.92	962	25.58	975	27.19
43358	3800	937	20.34	944	21.17	952	22.00	959	22.85	966	23.69	973	24.54	980	25.40	993	27.13	1006	28.87	1019	30.64

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
15974	1400	567	6.29	•618	•7.80	667	9.39														
17115	1500	583	6.84	625	8.36	674	10.03	719	11.74												
18256	1600	599	7.43	639	9.01	•681	•10.69	727	12.48	769	14.30										
19397	1700	615	8.07	655	9.72	692	11.42	•734	•13.25	776	15.15	815	17.09								
20538	1800	631	8.70	671	10.47	707	12.24	742	14.05	•783	•16.02	822	18.04	860	20.09						
21679	1900	648	9.34	687	11.27	723	13.10	757	14.98	790	16.93	•830	•19.02	867	21.15	902	23.31				
22820	2000	665	10.02	703	12.06	739	14.02	773	15.97	804	17.96	837	20.03	•874	•22.24	909	24.47	943	26.74	976	29.04
25102	2200	700	11.52	737	13.69	772	15.93	804	18.10	835	20.23	865	22.39	893	24.59	•924	•26.90	•958	•29.33	990	31.78
27384	2400	736	13.21	772	15.51	805	17.88	837	20.32	867	22.73	896	25.03	924	27.36	951	29.73	976	32.14	•1005	•34.66
29666	2600	776	15.15	807	17.53	840	20.04	871	22.61	900	25.24	928	27.92	956	30.39	982	32.90	1007	35.43	1032	38.00
31948	2800	818	17.33	846	19.82	875	22.42	905	25.13	934	27.89	962	30.71	988	33.59	1014	36.33	1039	39.01	1063	41.71
34230	3000	859	19.75	887	22.38	913	25.08	940	27.89	969	30.79	996	33.74	1022	36.74	1047	39.80	1071	42.87	1094	45.71
36512	3200	902	22.44	928	25.21	953	28.04	978	30.93	1004	33.93	1030	37.02	1056	40.16	1080	43.34	1104	46.58	1127	49.86
38794	3400	944	25.42	970	28.32	994	31.29	1018	34.31	1040	37.38	1065	40.58	1090	43.85	1114	47.17	1138	50.53	1160	53.94
41076	3600	988	28.69	1012	31.74	1036	34.84	1059	37.99	1081	41.19	1102	44.44	1125	47.83	1149	51.28	1172	54.78	1194	58.32
43358	3800	1031	32.28	1055	35.47	1078	38.70	1100	41.99	1121	45.33	1142	48.71	1162	52.14	1184	55.70	1207	59.33	1229	63.00
45640	4000	1075	36.18	1098	39.53	1121	42.91	1142	46.33	1163	49.80	1183	53.32	1202	56.88	1221	60.48	1242	64.20	1263	68.01
47922	4200	1119	40.27	1142	43.95	1163	47.47	1184	51.03	1204	54.63	1224	58.28	1243	61.97	1261	65.71	1280	69.48	1299	73.36
50204	4400	1164	44.70	1186	48.74	1207	52.40	1227	56.09	1246	59.83	1265	63.62	1284	67.44	1302	71.31	1320	75.21	1337	79.16
52486	4600	1209	49.49	1230	53.73	1250	57.71	1270	61.55	1289	65.42	1307	69.34	1325	73.30	1343	77.30	1360	81.33	1377	85.41
54768	4800	1254	54.65	1274	59.05	1294	63.43	1313	67.40	1332	71.42	1350	75.47	1367	79.56	1385	83.69	1401	87.86	1418	92.07
57050	5000	1299	60.21	1319	64.77	1338	69.39	1357	73.68	1375	77.84	1392	82.03	1409	86.25	1426	90.52	1443	94.82	1459	99.15
59332	5200	1344	66.17	1363	70.89	1382	75.66	1400	80.40	1418	84.69	1435	89.02	1452	93.38	1468	97.78	1484	102.21	1500	106.68
61614	5400	1390	72.56	1408	77.44	1427	82.36	1444	87.35	1462	92.01	1478	96.47	1495	100.97	1511	105.50	1526	110.06	1542	114.66

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
27384	2400	•1036	•37.29	1095	42.64	1150	48.08														
29666	2600	1055	40.60	•1109	•46.14	1164	51.89	1217	57.73	1267	63.65										
31948	2800	1086	44.44	1130	50.00	•1179	•55.86	•1231	•62.01	1281	68.24	1328	74.55								
34230	3000	1117	48.58	1161	54.39	1203	60.32	1245	66.46	•1295	•73.01	1342	79.63	1388	86.32	1432	93.09				
36512	3200	1149	53.03	1193	59.12	1234	65.30	1273	71.60	1311	77.99	•1357	•84.88	•1402	•91.89	1446	98.96	1488	106.10	1528	113.31
38794	3400	1182	57.39	1224	64.17	1265	70.63	1304	77.18	1341	83.83	1377	90.58	1416	97.65	•1460	•105.03	1502	112.48	1543	119.99
41076	3600	1216	61.90	1257	69.19	1297	76.31	1335	83.13	1372	90.04	1407	97.04	1441	104.13	1474	111.30	•1516	•119.06	•1557	•126.88
43358	3800	1250	66.72	1291	74.27	1329	81.97	1367	89.46	1403	96.63	1438	103.89	1472	111.23	1505	118.66	1536	126.17	1571	133.99
45640	4000	1284	71.86	1324	79.67	1363	87.64	1400	95.74	1435	103.62	1470	111.14	1503	118.74	1535	126.43	1567	134.19	1597	142.03
47922	4200	1319	77.34	1359	85.42	1397	93.64	1433	102.00	1468	110.51	1502	118.81	1535	126.67	1567	134.62	1598	142.63	1628	150.73
50204	4400	1355	83.17	1394	91.52	1431	100.00	1467	108.63	1501	117.38	1534	126.27	1566	135.04	1598	143.25	1629	151.52	1659	159.87
52486	4600	1394	89.52	1429	97.99	1465	106.74	1501	115.62	1535	124.64	1567	133.78	1599	143.04	1630	152.34	1660	160.87		
54768	4800	1434	96.31	1465	104.90	1500	113.86	1535	123.01	1569	132.28	1601	141.68	1632	151.19	1663	160.83				
57050	5000	1475	103.52	1505	112.37	1536	121.39	1570	130.80	1603	140.33	1635	149.99	1666	159.76						

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐ CL. IV ☐
The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.
For minimum motor size required see "Fan Starting Requirements," page 9.
Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1 ° C & 0 m).
Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

SIZE 49

SINGLE WIDTH
SINGLE INLET

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

Wheel Diameter	49 inches	1245 mm
Wheel Circumference	12.8 feet	3.901 m
Inlet Diameter/Area	52½ inches sq./15.02 sq. ft.	1334 mm/1.395 m^2
Outlet Size/Area	51⅞ x 38 13/16 inches I.D./13.9 sq. ft.	1311 x 986 mm/1.291 m^2
Tip Speed	12.8 x RPM ft./minute	3.901 x RPM m/minute
Maximum BHP	56.78 x (RPM ÷1000)^3 BHP	42.34 x (RPM ÷ 1000)^3 kW

SIZE 49	-20° to 150°F -29° to 66°C
CLASS I	840
CLASS II	1097
CLASS III	1381
CLASS IV	1519

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
8346	600	•198	•0.44	•223	•0.62	•250	•0.82														
9737	700	213	0.53	237	0.75	258	0.96	•281	•1.19	303	1.43										
11128	800	229	0.65	252	0.89	273	1.14	291	1.38	•310	•1.63	•331	•1.91	350	2.18						
12519	900	247	0.79	268	1.05	288	1.33	306	1.60	322	1.87	338	2.15	•356	•2.45	391	3.07				
13910	1000	266	0.96	284	1.23	303	1.53	321	1.84	337	2.15	352	2.44	367	2.75	•398	•3.40	430	4.09		
15301	1100	285	1.15	302	1.45	319	1.76	336	2.09	352	2.44	367	2.77	381	3.10	407	3.76	•436	•4.49	465	5.24
16692	1200	305	1.38	321	1.69	336	2.02	352	2.37	367	2.74	382	3.11	396	3.48	422	4.19	445	4.92	•472	•5.71
18083	1300	324	1.63	340	1.97	354	2.32	368	2.69	383	3.07	397	3.46	411	3.87	436	4.66	460	5.43	482	6.22
19474	1400	344	1.92	359	2.29	373	2.66	386	3.04	399	3.44	413	3.85	426	4.27	451	5.15	474	5.98	496	6.82
20865	1500	365	2.24	379	2.64	392	3.03	405	3.43	417	3.85	429	4.28	442	4.72	466	5.63	489	6.58	510	7.46
22256	1600	385	2.59	399	3.03	412	3.45	424	3.87	435	4.30	446	4.75	458	5.20	482	6.16	504	7.14	525	8.14
23647	1700	406	2.99	419	3.47	431	3.90	443	4.35	454	4.80	465	5.27	475	5.74	498	6.73	520	7.75	540	8.81
25038	1800	426	3.42	439	3.93	451	4.41	462	4.88	473	5.35	484	5.83	494	6.33	514	7.34	535	8.41	555	9.50
26429	1900	447	3.91	459	4.44	471	4.96	482	5.45	492	5.95	503	6.45	512	6.96	531	8.01	551	9.11	571	10.25
27820	2000	468	4.44	480	4.99	491	5.56	502	6.08	512	6.60	522	7.12	531	7.66	550	8.74	568	9.87	587	11.04
30602	2200	510	5.65	521	6.26	532	6.88	542	7.50	551	8.06	561	8.63	570	9.21	587	10.38	604	11.57	619	12.80
33384	2400	553	7.09	563	7.74	573	8.41	582	9.09	591	9.77	600	10.38	609	11.00	625	12.25	641	13.53	656	14.83
36166	2600	596	8.77	605	9.47	614	10.19	623	10.91	632	11.65	640	12.39	648	13.05	664	14.39	679	15.75	694	17.14
38948	2800	639	10.71	647	11.46	656	12.23	664	13.01	673	13.79	681	14.58	688	15.38	703	16.81	718	18.26	732	19.73
41730	3000	682	12.93	690	13.74	698	14.55	706	15.38	714	16.21	721	17.05	729	17.90	743	19.54	757	21.07	771	22.63
44512	3200	725	15.46	733	16.31	740	17.18	748	18.05	755	18.94	763	19.83	770	20.72	784	22.53	797	24.21	810	25.85
47294	3400	768	18.30	776	19.21	783	20.13	790	21.05	797	21.98	804	22.92	811	23.87	824	25.78	837	27.70	849	29.43
50076	3600	812	21.49	819	22.45	826	23.42	832	24.40	839	25.38	846	26.36	852	27.36	865	29.36	877	31.40	889	33.37
52858	3800	855	25.05	862	26.06	869	27.08	875	28.10	881	29.13	888	30.17	894	31.21	906	33.31	918	35.44	929	37.60

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
19474	1400	516	7.67	•562	•9.51	606	11.44														
20865	1500	530	8.35	568	10.20	613	12.22	654	14.30												
22256	1600	545	9.08	582	11.00	•619	•13.04	660	15.21	699	17.43										
23647	1700	559	9.86	596	11.87	630	13.93	•667	•16.15	705	18.47	741	20.82								
25038	1800	575	10.62	611	12.79	644	14.94	675	17.14	•712	•19.54	748	21.99	781	24.48						
26429	1900	590	11.41	625	13.77	658	16.00	689	18.29	718	20.64	•754	•23.19	788	25.78	820	28.41				
27820	2000	606	12.25	640	14.72	673	17.13	703	19.50	732	21.92	761	24.42	•795	•27.11	827	29.83	857	32.59	887	35.38
30602	2200	637	14.08	671	16.72	703	19.45	732	22.11	760	24.70	787	27.33	813	30.01	•840	•32.80	•871	•35.75	900	38.74
33384	2400	671	16.16	703	18.95	733	21.84	762	24.81	790	27.77	816	30.57	841	33.41	865	36.29	888	39.22	•913	•42.26
36166	2600	708	18.55	735	21.44	765	24.49	793	27.62	820	30.83	845	34.10	870	37.12	894	40.17	917	43.26	939	46.39
38948	2800	745	21.22	771	24.26	797	27.42	825	30.71	851	34.08	876	37.51	900	41.01	923	44.39	945	47.64	967	50.93
41730	3000	784	24.20	808	27.41	832	30.69	857	34.10	882	37.63	907	41.22	930	44.88	953	48.60	975	52.37	996	55.84
44512	3200	822	27.51	846	30.88	869	34.33	891	37.84	914	41.49	938	45.25	961	49.07	984	52.95	1005	56.88	1026	60.87
47294	3400	861	31.17	884	34.71	907	38.32	928	41.99	948	45.73	970	49.61	993	53.60	1015	57.64	1036	61.73	1057	65.88
50076	3600	901	35.20	923	38.91	945	42.68	965	46.52	985	50.42	1004	54.38	1025	58.48	1047	62.69	1067	66.94	1088	71.25
52858	3800	941	39.62	962	43.50	983	47.44	1003	51.44	1022	55.50	1041	59.62	1059	63.80	1079	68.11	1099	72.53	1119	77.00
55640	4000	981	44.39	1002	48.50	1022	52.61	1041	56.78	1060	61.00	1078	65.28	1096	69.62	1113	74.01	1131	78.52	1151	83.15
58422	4200	1021	49.42	1042	53.94	1061	58.22	1080	62.55	1098	66.94	1116	71.38	1133	75.88	1150	80.43	1166	85.02	1183	89.72
61204	4400	1062	54.87	1082	59.83	1100	64.28	1119	68.78	1137	73.34	1154	77.94	1171	82.60	1187	87.31	1203	92.06	1219	96.86
63986	4600	1103	60.76	1122	65.94	1140	70.82	1158	75.49	1175	80.21	1192	84.98	1209	89.80	1224	94.67	1240	99.58	1255	104.54
66768	4800	1144	67.12	1162	72.48	1180	77.86	1198	82.70	1214	87.59	1231	92.52	1247	97.50	1262	102.53	1278	107.61	1293	112.73
69550	5000	1185	73.96	1203	79.51	1221	85.14	1237	90.42	1254	95.48	1270	100.58	1285	105.73	1300	110.92	1315	116.16	1330	121.44
72332	5200	1227	81.30	1244	87.05	1261	92.86	1277	98.69	1293	103.91	1309	109.18	1324	114.50	1339	119.85	1353	125.25	1368	130.69
75114	5400	1268	89.17	1285	95.11	1302	101.11	1318	107.18	1333	112.91	1348	118.35	1363	123.83	1378	129.34	1392	134.90	1406	140.50

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
33384	2400	•941	•45.47	995	51.97	1045	58.59														
36166	2600	960	49.55	•1008	•56.25	1058	63.25	1106	70.36	1151	77.57										
38948	2800	988	54.25	1029	61.01	•1072	•68.10	•1119	•75.59	1164	83.18	1207	90.86								
41730	3000	1017	59.33	1057	66.41	1095	73.62	1132	81.03	•1177	•89.00	1220	97.06	1261	105.21	1301	113.44				
44512	3200	1046	64.79	1086	72.20	1123	79.73	1159	87.39	1193	95.16	•1233	•103.49	•1274	•112.01	1314	120.62	1352	129.32	1389	138.09
47294	3400	1076	70.08	1115	78.40	1152	86.26	1187	94.23	1220	102.32	1253	110.53	1288	119.06	•1327	•128.05	1365	137.11	1402	146.26
50076	3600	1107	75.61	1145	84.48	1181	93.23	1215	101.53	1249	109.94	1281	118.45	1312	127.08	1342	135.81	•1378	•145.16	•1415	•154.68
52858	3800	1138	81.52	1175	90.71	1210	100.09	1244	109.29	1277	118.02	1309	126.85	1340	135.79	1369	144.83	1398	153.97	1428	163.37
55640	4000	1170	87.83	1206	97.34	1241	107.03	1274	116.90	1307	126.59	1338	135.75	1368	145.00	1398	154.35	1426	163.80	1454	173.34
58422	4200	1202	94.56	1238	104.39	1272	114.40	1305	124.58	1336	134.92	1367	145.16	1397	154.73	1426	164.39	1454	174.15	1481	184.00
61204	4400	1234	101.73	1269	111.88	1303	122.21	1336	132.70	1367	143.36	1397	154.17	1426	165.00	1455	174.98	1483	185.05	1510	195.21
63986	4600	1270	109.55	1302	119.83	1335	130.48	1367	141.29	1398	152.26	1427	163.38	1456	174.65	1484	186.07	1512	196.52		
66768	4800	1307	117.89	1336	128.35	1367	139.22	1398	150.36	1429	161.64	1458	173.07	1486	184.65	1514	196.37				
69550	5000	1344	126.76	1372	137.52	1399	148.46	1430	159.92	1460	171.52	1489	183.27	1517	195.16						

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐ CL. IV ☐
The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.
For minimum motor size required see "Fan Starting Requirements," page 9.
Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1° C & 0 m).
Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

SIZE 54

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

SINGLE WIDTH
SINGLE INLET

SIZE 54	-20° to 150°F -29° to 66°C
CLASS I	759
CLASS II	991
CLASS III	1248
CLASS IV	1373

Wheel Diameter	54 ¼ inches	1378 mm
Wheel Circumference	14.2 feet	4.328 m
Inlet Diameter/Area	54 ¼ inches sq./18.49 sq. ft.	1480 mm/1.718 m^2
Outlet Size/Area	57 ¼ x 42 ¾ inches I.D./16.98 sq. ft.	1454 x 1086 mm/1.577 m^2
Tip Speed	14.2 x RPM ft./minute	4.328 x RPM m/minute
Maximum BHP	94.51 x (RPM ÷1000)^3 BHP	70.48 x (RPM ÷1000)^3 kW

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
10188	600	•178	•0.53	•201	•0.75	•225	•1.00														
11886	700	192	0.65	214	0.91	233	1.17	•254	•1.45	274	1.75										
13584	800	207	0.79	227	1.09	246	1.39	263	1.68	•280	•1.99	•298	•2.33	316	2.67						
15282	900	222	0.96	241	1.28	259	1.62	276	1.95	291	2.28	305	2.62	•322	•2.99	353	3.75				
16980	1000	239	1.17	256	1.50	273	1.87	289	2.25	304	2.62	318	2.98	331	3.35	•359	•4.15	388	4.99		
18678	1100	257	1.40	272	1.76	287	2.15	303	2.55	317	2.97	331	3.38	343	3.78	367	4.59	•394	•5.48	420	6.40
20376	1200	274	1.67	289	2.06	302	2.46	317	2.89	331	3.34	344	3.79	357	4.24	380	5.11	402	6.01	•426	•6.97
22074	1300	292	1.98	306	2.40	319	2.83	332	3.27	345	3.74	358	4.22	370	4.71	393	5.68	414	6.62	434	7.59
23772	1400	310	2.34	324	2.78	336	3.23	348	3.70	360	4.18	372	4.69	384	5.21	406	6.27	427	7.29	447	8.31
25470	1500	328	2.72	341	3.21	353	3.69	365	4.18	375	4.68	387	5.21	398	5.75	420	6.86	441	8.02	460	9.09
27168	1600	347	3.15	359	3.68	371	4.19	382	4.71	392	5.24	402	5.78	413	6.34	434	7.50	454	8.71	473	9.92
28866	1700	365	3.63	377	4.21	388	4.74	399	5.29	409	5.84	419	6.41	428	6.98	449	8.20	468	9.45	487	10.74
30564	1800	384	4.16	395	4.78	406	5.36	416	5.93	426	6.51	436	7.10	445	7.70	463	8.94	482	10.25	501	11.58
32262	1900	403	4.74	413	5.39	424	6.03	434	6.63	443	7.23	453	7.85	461	8.47	478	9.75	497	11.10	515	12.49
33960	2000	421	5.38	432	6.06	442	6.76	452	7.39	461	8.02	470	8.66	478	9.31	495	10.64	511	12.02	529	13.45
37356	2200	459	6.85	469	7.59	479	8.35	488	9.11	496	9.79	505	10.49	513	11.19	529	12.62	544	14.08	558	15.58
40752	2400	498	8.59	507	9.40	515	10.21	524	11.04	532	11.86	540	12.61	548	13.36	563	14.90	577	16.46	591	18.05
44148	2600	536	10.63	544	11.49	553	12.37	561	13.25	569	14.15	576	15.04	584	15.85	598	17.49	612	19.15	625	20.85
47544	2800	575	12.98	583	13.90	590	14.84	598	15.78	605	16.74	613	17.71	620	18.68	633	20.42	646	22.19	659	23.99
50940	3000	613	15.67	621	16.66	628	17.65	635	18.66	642	19.68	649	20.70	656	21.74	669	23.73	682	25.60	694	27.50
54336	3200	652	18.73	659	19.78	666	20.84	673	21.90	680	22.98	686	24.06	693	25.16	705	27.37	717	29.41	729	31.41
57732	3400	691	22.18	698	23.29	705	24.41	711	25.54	717	26.67	724	27.82	730	28.97	742	31.30	753	33.64	765	35.75
61128	3600	730	26.04	737	27.21	743	28.39	749	29.58	755	30.78	761	31.99	767	33.20	778	35.65	790	38.13	800	40.53
64524	3800	769	30.34	776	31.58	781	32.82	787	34.07	793	35.33	799	36.60	804	37.87	815	40.44	826	43.04	837	45.67

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
23772	1400	466	9.36	•507	•11.61	547	13.97														
25470	1500	478	10.18	513	12.44	553	14.92	590	17.46												
27168	1600	491	11.07	525	13.42	•559	•15.91	596	18.57	631	21.28										
28866	1700	504	12.02	537	14.47	568	17.00	•602	•19.72	636	22.55	669	25.43								
30564	1800	518	12.95	550	15.59	581	18.22	609	20.91	•642	•23.85	675	26.85	705	29.89						
32262	1900	532	13.91	564	16.78	593	19.51	621	22.30	648	25.19	•681	•28.31	711	31.47	740	34.68				
33960	2000	546	14.92	577	17.95	607	20.88	634	23.77	660	26.73	687	29.81	•717	•33.09	746	36.42	774	39.79	801	43.21
37356	2200	574	17.15	605	20.38	633	23.71	660	26.95	686	30.11	710	33.33	733	36.61	•758	•40.04	•786	•43.65	812	47.29
40752	2400	604	19.67	633	23.09	661	26.62	687	30.25	712	33.84	736	37.26	758	40.74	780	44.26	801	47.84	•824	•51.58
44148	2600	637	22.57	662	26.11	689	29.84	715	33.67	739	37.58	762	41.57	784	45.25	806	48.97	827	52.75	847	56.57
47544	2800	671	25.81	695	29.53	718	33.39	743	37.42	767	41.53	789	45.73	811	50.00	832	54.10	852	58.07	872	62.09
50940	3000	706	29.43	728	33.35	749	37.36	772	41.53	795	45.84	817	50.23	839	54.70	859	59.25	879	63.84	898	68.06
54336	3200	740	33.44	762	37.56	783	41.77	803	46.06	824	50.53	846	55.13	867	59.79	887	64.53	906	69.34	925	74.22
57732	3400	775	37.88	796	42.20	816	46.61	836	51.10	854	55.67	875	60.43	895	65.29	915	70.23	934	75.24	952	80.31
61128	3600	811	42.76	831	47.29	851	51.90	869	56.59	887	61.36	905	66.20	924	71.22	943	76.36	962	81.57	980	86.83
64524	3800	847	48.12	866	52.86	885	57.67	903	62.56	921	67.53	938	72.56	954	77.66	972	82.95	991	88.35	1008	93.82
67920	4000	883	53.93	902	58.92	920	63.94	938	69.04	955	74.20	971	79.43	987	84.73	1003	90.09	1019	95.62	1037	101.28
71316	4200	919	60.02	938	65.51	955	70.74	972	76.04	989	81.40	1005	86.83	1021	92.32	1036	97.88	1050	103.50	1066	109.25
74712	4400	956	66.63	974	72.66	991	78.09	1007	83.59	1023	89.16	1039	94.79	1054	100.48	1069	106.23	1084	112.04	1098	117.91
78108	4600	993	73.77	1010	80.09	1026	86.02	1043	91.73	1058	97.49	1073	103.32	1088	109.21	1103	115.16	1117	121.16	1131	127.23
81504	4800	1029	81.47	1046	88.03	1062	94.55	1078	100.46	1093	106.44	1108	112.47	1123	118.55	1137	124.70	1151	130.90	1164	137.16
84900	5000	1067	89.76	1083	96.55	1099	103.42	1114	109.83	1129	116.01	1143	122.24	1157	128.53	1171	134.87	1185	141.27	1198	147.72
88296	5200	1104	98.66	1120	105.68	1135	112.78	1150	119.85	1164	126.23	1178	132.67	1192	139.16	1206	145.70	1219	152.30	1232	158.94
91692	5400	1141	108.19	1157	115.45	1172	122.78	1186	130.19	1200	137.14	1214	143.78	1227	150.47	1240	157.21	1253	164.01	1266	170.85

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
40752	2400	•850	•55.50	898	63.45	944	71.54														
44148	2600	866	60.44	•910	•68.66	955	77.22	998	85.90	1039	94.72										
47544	2800	891	66.16	928	74.42	•967	•83.13	•1010	•92.28	1051	101.55	1090	110.94								
50940	3000	917	72.32	953	80.98	987	89.79	1022	98.91	•1063	•108.64	1101	118.49	1139	128.45	1175	138.52				
54336	3200	943	78.96	979	88.01	1013	97.22	1045	106.58	1076	116.09	•1113	•126.32	•1150	•136.74	1186	147.27	1221	157.89	1254	168.61
57732	3400	970	85.45	1005	95.55	1038	105.15	1070	114.90	1101	124.79	1130	134.82	1162	145.32	•1198	•156.31	1232	167.39	1266	178.56
61128	3600	998	92.16	1032	103.01	1064	113.62	1096	123.76	1126	134.04	1155	144.46	1183	155.00	1210	165.67	•1244	•177.19	•1277	•188.82
64524	3800	1026	99.34	1059	110.57	1091	122.04	1122	133.19	1152	143.86	1180	154.66	1208	165.59	1235	176.64	1261	187.81	1289	199.40
67920	4000	1054	107.01	1087	118.63	1119	130.47	1149	142.53	1178	154.28	1206	165.47	1234	176.78	1260	188.21	1286	199.76	1311	211.42
71316	4200	1083	115.18	1115	127.19	1146	139.42	1176	151.87	1205	164.51	1232	176.90	1260	188.60	1286	200.42	1311	212.34	1336	224.38
74712	4400	1112	123.87	1144	136.28	1174	148.91	1204	161.73	1232	174.76	1259	187.98	1286	201.08	1312	213.28	1337	225.59	1361	238.01
78108	4600	1144	133.34	1173	145.93	1203	158.95	1232	172.16	1260	185.57	1287	199.17	1313	212.95	1338	226.82	1363	239.52		
81504	4800	1177	143.47	1203	156.24	1232	169.57	1260	183.17	1288	196.97	1314	210.94	1340	225.10	1365	239.43				
84900	5000	1211	154.22	1236	167.38	1261	180.79	1289	194.79	1316	208.97	1342	223.33	1367	237.86						

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐ CL. IV ☐
The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.
For minimum motor size required see "Fan Starting Requirements," page 9.
Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1 ° C & 0 m).
Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

SIZE 60

SINGLE WIDTH
SINGLE INLET

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

Wheel Diameter	60 inches	1524 mm
Wheel Circumference	15.7 feet	4.785 m
Inlet Diameter/Area	64 inches sq./22.32 sq. ft.	1626 mm/2.074 m^2
Outlet Size/Area	63 ¼ x 47 ⅛ inches I.D./20.71 sq. ft.	1607 x 1197 mm/1.924 m^2
Tip Speed	15.7 x RPM ft./minute	4.785 x RPM m/minute
Maximum BHP	156.66 x (RPM ÷1000)^3 BHP	116.8 x (RPM ÷ 1000)^3 kW

SIZE 60	-20° to 150°F -29° to 66°C
CLASS I	686
CLASS II	896
CLASS III	1128
CLASS IV	1241

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
12426	600	•161	•0.65	•182	•0.92	•204	•1.22														
14497	700	174	0.79	193	1.11	210	1.43	•229	•1.77	248	2.13										
16568	800	186	0.97	205	1.33	222	1.69	237	2.05	•253	•2.43	•270	•2.84	285	3.25						
18639	900	201	1.17	218	1.56	234	1.98	249	2.38	263	2.78	275	3.19	•291	•3.64	319	4.57				
20710	1000	216	1.42	231	1.83	247	2.28	261	2.74	274	3.19	287	3.63	299	4.08	•325	•5.06	350	6.09		
22781	1100	232	1.70	245	2.15	260	2.62	273	3.11	286	3.62	299	4.12	310	4.60	332	5.60	•356	•6.68	380	7.81
24852	1200	247	2.03	261	2.51	273	3.00	286	3.52	299	4.06	311	4.62	322	5.17	343	6.23	363	7.32	•385	•8.50
26923	1300	263	2.41	276	2.92	288	3.44	299	3.98	312	4.55	323	5.14	334	5.74	355	6.92	374	8.07	392	9.26
28994	1400	280	2.84	292	3.38	303	3.93	314	4.50	325	5.10	336	5.71	347	6.34	367	7.65	386	8.89	404	10.13
31065	1500	296	3.31	308	3.90	319	4.48	329	5.08	339	5.70	349	6.34	360	7.00	379	8.36	398	9.77	415	11.07
33136	1600	313	3.83	324	4.48	334	5.09	344	5.73	354	6.37	363	7.03	373	7.72	392	9.14	410	10.61	427	12.09
35207	1700	329	4.41	340	5.12	350	5.77	360	6.43	369	7.11	378	7.80	386	8.50	405	9.98	423	11.51	440	13.09
37278	1800	346	5.05	356	5.80	366	6.51	376	7.21	384	7.92	393	8.64	401	9.37	418	10.89	436	12.48	452	14.11
39349	1900	363	5.76	373	6.55	382	7.33	391	8.06	400	8.80	408	9.55	416	10.31	432	11.87	449	13.52	465	15.21
41420	2000	380	6.54	390	7.37	399	8.21	407	8.98	416	9.75	424	10.53	432	11.33	447	12.95	462	14.63	478	16.39
45562	2200	414	8.32	423	9.23	432	10.14	440	11.07	448	11.91	455	12.75	463	13.61	477	15.36	491	17.14	504	18.97
49704	2400	449	10.43	457	11.41	465	12.40	473	13.41	480	14.41	487	15.33	494	16.25	508	18.12	521	20.03	533	21.97
53846	2600	483	12.90	491	13.95	499	15.02	506	16.10	513	17.19	520	18.28	526	19.27	539	21.27	552	23.30	564	25.37
57988	2800	518	15.75	525	16.88	532	18.02	539	19.17	546	20.34	553	21.52	559	22.70	571	24.83	583	26.99	595	29.18
62130	3000	553	19.02	560	20.22	567	21.44	573	22.66	579	23.90	586	25.15	592	26.42	604	28.84	615	31.13	626	33.45
66272	3200	588	22.73	595	24.00	601	25.30	607	26.60	613	27.91	619	29.23	625	30.57	636	33.27	647	35.75	658	38.19
70414	3400	623	26.91	629	28.26	635	29.63	641	31.00	647	32.39	653	33.79	658	35.20	669	38.04	680	40.88	690	43.45
74556	3600	658	31.59	664	33.02	670	34.46	675	35.92	681	37.38	686	38.85	692	40.33	702	43.32	712	46.35	722	49.25
78698	3800	694	36.81	699	38.32	705	39.83	710	41.36	715	42.89	720	44.44	725	45.99	735	49.13	745	52.30	755	55.51

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
28994	1400	420	11.40	•458	•14.16	495	17.04														
31065	1500	432	12.41	463	15.18	500	18.20	533	21.30												
33136	1600	444	13.49	474	16.36	•505	•19.41	539	22.65	570	25.96										
35207	1700	455	14.64	485	17.63	513	20.72	•544	•24.05	575	27.50	605	31.02								
37278	1800	468	15.79	497	19.00	524	22.20	550	25.50	•581	•29.09	610	32.75	637	36.47						
39349	1900	480	16.95	509	20.44	536	23.77	561	27.19	586	30.72	•615	•34.53	643	38.39	669	42.31				
41420	2000	493	18.18	521	21.88	548	25.44	573	28.97	596	32.59	621	36.36	•648	•40.36	674	44.43	699	48.54	724	52.71
45562	2200	518	20.89	546	24.83	572	28.90	596	32.84	619	36.70	641	40.62	662	44.63	•685	•48.83	•710	•53.23	734	57.68
49704	2400	545	23.95	572	28.12	597	32.43	620	36.86	643	41.23	664	45.40	685	49.64	705	53.95	724	58.32	•745	•62.91
53846	2600	575	27.47	598	31.79	622	36.35	645	41.02	667	45.80	688	50.65	708	55.13	728	59.68	747	64.29	765	68.95
57988	2800	606	31.40	627	35.94	648	40.66	671	45.58	692	50.60	713	55.72	732	60.94	751	65.91	770	70.76	788	75.67
62130	3000	637	35.80	657	40.58	676	45.47	697	50.57	718	55.84	738	61.20	757	66.66	776	72.20	793	77.77	811	82.92
66272	3200	668	40.67	688	45.70	706	50.83	724	56.07	744	61.54	763	67.14	782	72.84	801	78.63	818	84.50	835	90.46
70414	3400	700	46.05	719	51.33	737	56.71	754	62.19	771	67.77	789	73.58	808	79.53	826	85.55	843	91.66	860	97.86
74556	3600	732	51.98	750	57.51	768	63.14	784	68.86	801	74.68	816	80.58	834	86.73	851	93.00	868	99.35	885	105.79
78698	3800	764	58.48	782	64.27	799	70.14	815	76.11	831	82.17	846	88.31	861	94.54	878	101.00	894	107.60	910	114.27
82840	4000	796	65.55	814	71.63	830	77.76	846	83.97	861	90.27	876	96.66	891	103.12	905	109.66	920	116.43	936	123.34
86982	4200	829	72.95	846	79.63	862	86.01	877	92.47	892	99.02	907	105.64	921	112.35	935	119.13	948	125.98	962	133.03
91124	4400	862	80.96	878	88.30	894	94.93	909	101.64	923	108.43	937	115.30	951	122.25	965	129.27	978	136.36	991	143.52
95266	4600	895	89.63	911	97.34	926	104.55	941	111.51	955	118.55	968	125.67	982	132.85	995	140.11	1008	147.44	1020	154.84
99408	4800	928	98.98	944	106.98	958	114.91	973	122.12	986	129.41	1000	136.77	1013	144.20	1026	151.70	1038	159.27	1050	166.90
103550	5000	962	109.04	977	117.32	991	125.70	1005	133.49	1018	141.03	1031	148.63	1044	156.31	1057	164.05	1069	171.86	1081	179.73
107692	5200	996	119.84	1010	128.40	1024	137.07	1037	145.65	1050	153.44	1063	161.29	1076	169.21	1088	177.20	1100	185.25	1111	193.36
111834	5400	1029	131.40	1043	140.25	1057	149.20	1070	158.24	1083	166.68	1095	174.78	1107	182.94	1119	191.17	1131	199.46	1142	207.81

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
49704	2400	•768	•67.69	812	77.40	853	87.28														
53846	2600	782	73.68	•822	•83.74	863	94.18	902	104.79												
57988	2800	805	80.63	838	90.72	•874	•101.38	•913	•112.55	950	123.87	985	135.34								
62130	3000	828	88.13	861	98.69	892	109.46	923	120.63	•960	•132.51	995	144.54	1029	156.69	1062	168.98				
66272	3200	852	96.20	884	107.24	914	118.48	944	129.91	971	141.52	•1006	•154.07	•1040	•166.79	1072	179.64	1103	192.60	1133	205.69
70414	3400	876	104.13	907	116.41	938	128.13	966	140.03	994	152.11	1020	164.36	1050	177.23	•1083	•190.64	1114	204.17	1144	217.81
74556	3600	901	112.29	932	125.53	961	138.43	990	150.81	1017	163.36	1043	176.07	1068	188.94	1093	202.01	•1124	•216.11	•1154	•230.31
78698	3800	926	121.02	956	134.73	985	148.73	1013	162.27	1040	175.30	1066	188.48	1091	201.82	1115	215.31	1139	228.95	1165	243.19
82840	4000	952	130.33	982	144.52	1010	158.98	1037	173.71	1064	187.96	1089	201.62	1114	215.43	1138	229.38	1161	243.48	1184	257.72
86982	4200	978	140.26	1007	154.93	1035	169.86	1062	185.05	1088	200.49	1113	215.51	1137	229.80	1161	244.22	1184	258.78	1207	273.48
91124	4400	1004	150.82	1033	165.98	1060	181.39	1087	197.05	1112	212.95	1137	229.09	1161	244.96	1184	259.86	1207	274.89	1229	290.05
95266	4600	1033	162.31	1059	177.70	1086	193.59	1112	209.72	1137	226.09	1162	242.69	1185	259.52	1208	276.32	1231	291.82		
99408	4800	1062	174.60	1086	190.20	1112	206.49	1138	223.10	1162	239.94	1186	257.00	1210	274.29	1232	291.78				
103550	5000	1092	187.67	1115	203.73	1138	220.12	1163	237.21	1188	254.52	1212	272.05	1235	289.80						

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐ CL. IV ☐
The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.
For minimum motor size required see "Fan Starting Requirements," page 9.
Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1° C & 0 m).
Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

SIZE 66

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

SINGLE WIDTH
SINGLE INLET

SIZE 66	-20° to 150°F -29° to 66°C
CLASS I	624
CLASS II	814
CLASS III	1025
CLASS IV	1128

Wheel Diameter	66 inches	1676 mm
Wheel Circumference	17.28 feet	5.267 m
Inlet Diameter/Area	70 inches sq./26.70 sq. ft.	1778 mm/2.480 m^2
Outlet Size/Area	69 9/16 x 52 3/8 inches I.D./25.30 sq. ft.	1767 x 1330 mm/2.350 m^2
Tip Speed	17.28 x RPM ft./minute	5.267 x RPM m/minute
Maximum BHP	252.01 x (RPM ÷1000)^3 BHP	187.9 x (RPM ÷1000)^3 kW

VOL CFM	OUT VEL	1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1 1/4" SP		1 1/2" SP		1 3/4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
15180	600	•147	•0.79	•166	•1.12	•185	•1.49														
17710	700	159	0.97	176	1.36	192	1.75	•209	•2.17	225	2.61										
20240	800	170	1.19	187	1.63	203	2.07	216	2.51	•230	•2.97	•246	•3.47	260	3.97						
22770	900	184	1.44	199	1.92	214	2.42	227	2.92	240	3.41	251	3.91	•265	•4.45	291	5.58				
25300	1000	198	1.75	211	2.25	225	2.79	238	3.36	250	3.91	262	4.45	272	5.00	•296	•6.18	319	7.44		
27830	1100	212	2.10	225	2.64	237	3.21	250	3.81	261	4.43	273	5.05	283	5.64	303	6.85	•324	•8.16	346	9.53
30360	1200	227	2.51	239	3.09	250	3.69	262	4.32	273	4.98	284	5.66	294	6.34	313	7.63	331	8.96	•351	•10.38
32890	1300	241	2.98	253	3.60	263	4.23	274	4.89	285	5.59	295	6.30	305	7.04	324	8.48	342	9.89	358	11.33
35420	1400	256	3.51	267	4.17	278	4.84	287	5.54	297	6.26	307	7.01	317	7.78	335	9.36	352	10.89	368	12.41
37950	1500	271	4.09	282	4.81	292	5.53	301	6.26	310	7.01	319	7.79	329	8.59	347	10.25	363	11.97	379	13.57
40480	1600	287	4.73	297	5.53	306	6.28	315	7.06	324	7.84	332	8.65	341	9.48	358	11.21	375	13.00	390	14.83
43010	1700	302	5.45	312	6.33	321	7.12	329	7.93	338	8.76	346	9.60	353	10.45	370	12.25	386	14.12	401	16.03
45540	1800	317	6.25	327	7.17	335	8.04	344	8.89	352	9.76	360	10.64	367	11.53	382	13.37	398	15.31	413	17.30
48070	1900	333	7.13	342	8.10	350	9.06	358	9.94	366	10.85	374	11.76	381	12.69	395	14.60	410	16.60	425	18.66
50600	2000	348	8.10	357	9.11	365	10.15	373	11.09	381	12.03	388	12.99	395	13.96	409	15.93	422	17.97	436	20.11
55660	2200	380	10.32	388	11.42	396	12.55	403	13.69	410	14.71	417	15.74	424	16.79	437	18.91	449	21.09	461	23.31
60720	2400	411	12.95	419	14.14	426	15.35	433	16.58	440	17.82	446	18.93	453	20.06	465	22.34	477	24.66	488	27.03
65780	2600	443	16.01	450	17.30	457	18.60	464	19.92	470	21.25	476	22.60	482	23.80	494	26.24	505	28.72	516	31.24
70840	2800	475	19.56	482	20.94	488	22.33	494	23.74	500	25.16	506	26.60	512	28.05	523	30.66	534	33.30	544	35.97
75900	3000	507	23.62	514	25.09	520	26.58	525	28.08	531	29.59	537	31.12	542	32.66	553	35.65	563	38.44	573	41.26
80960	3200	540	28.24	545	29.80	551	31.38	557	32.96	562	34.57	567	36.18	573	37.81	583	41.11	593	44.17	602	47.15
86020	3400	572	33.44	577	35.10	583	36.76	588	38.44	593	40.14	598	41.84	603	43.56	613	47.03	623	50.54	632	53.68
91080	3600	604	39.27	609	41.02	614	42.78	619	44.55	624	46.33	629	48.13	634	49.94	644	53.59	653	57.28	662	60.88
96140	3800	637	45.77	642	47.61	646	49.46	651	51.32	656	53.19	661	55.08	665	56.98	674	60.80	683	64.67	691	68.59

VOL CFM	OUT VEL	2" SP		2 1/2" SP		3" SP		3 1/2" SP		4" SP		4 1/2" SP		5" SP		5 1/2" SP		6" SP		6 1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
35420	1400	384	13.96	•417	•17.30	450	20.81														
37950	1500	394	15.20	422	18.55	455	22.23	486	26.01												
40480	1600	405	16.53	432	20.02	•460	•23.71	490	27.67	519	31.70										
43010	1700	416	17.96	443	21.60	468	25.36	•495	•29.38	524	33.59	550	37.87								
45540	1800	427	19.34	454	23.28	479	27.19	502	31.20	•529	•35.53	555	39.99	580	44.52						
48070	1900	439	20.77	465	25.07	489	29.12	512	33.28	534	37.54	•560	•42.18	585	46.88	609	51.66				
50600	2000	450	22.30	476	26.80	500	31.18	523	35.48	544	39.89	565	44.42	•590	•49.31	614	54.26	637	59.27	659	64.34
55660	2200	474	25.65	499	30.44	522	35.40	544	40.26	565	44.96	585	49.74	604	54.61	•624	•59.67	•647	•65.03	•668	•70.45
60720	2400	499	29.44	522	34.52	545	39.77	567	45.16	587	50.56	606	55.64	625	60.81	643	66.05	660	71.37	678	76.87
65780	2600	526	33.80	547	39.05	569	44.60	590	50.29	609	56.11	628	62.06	647	67.58	664	73.12	681	78.73	698	84.41
70840	2800	554	38.68	573	44.21	593	49.94	613	55.93	632	62.04	651	68.28	669	74.64	686	80.81	703	86.72	719	92.70
75900	3000	583	44.13	601	49.95	619	55.92	637	62.11	656	68.52	674	75.05	692	81.70	708	88.45	725	95.31	740	101.66
80960	3200	612	50.17	629	56.30	646	62.56	663	68.94	680	75.57	698	82.40	715	89.34	731	96.39	747	103.54	763	110.79
86020	3400	641	56.85	658	63.29	674	69.85	690	76.53	705	83.32	722	90.37	738	97.61	755	104.95	770	112.39	785	119.93
91080	3600	670	64.21	687	70.95	703	77.81	718	84.79	733	91.88	747	99.07	762	106.52	778	114.16	794	121.90	808	129.73
96140	3800	700	72.28	716	79.33	731	86.50	746	93.78	760	101.16	774	108.65	788	116.23	802	124.06	817	132.09	832	140.22
101200	4000	730	80.98	745	88.47	760	95.94	775	103.52	788	111.20	802	118.98	815	126.86	828	134.83	841	143.02	856	151.44
106260	4200	760	90.16	775	98.40	789	106.18	803	114.06	817	122.04	830	130.12	843	138.29	855	146.55	867	154.91	880	163.42
111320	4400	790	100.12	805	109.17	819	117.26	832	125.44	845	133.72	858	142.10	871	150.56	883	159.12	895	167.76	906	176.49
116380	4600	820	110.88	835	120.29	848	129.20	861	137.69	874	146.28	887	154.95	899	163.71	911	172.56	922	181.49	934	190.51
121440	4800	851	122.50	865	132.25	878	142.06	891	150.86	903	159.74	915	168.72	927	177.78	939	186.92	950	196.14	961	205.45
126500	5000	882	135.00	895	145.10	908	155.32	921	164.97	933	174.16	944	183.44	956	192.79	967	202.23	978	211.75	989	221.35
131560	5200	913	148.41	926	158.86	938	169.43	950	180.07	962	189.57	974	199.15	985	208.80	996	218.54	1007	228.35	1017	238.24
136620	5400	944	162.78	956	173.58	968	184.50	980	195.53	992	206.00	1003	215.89	1014	225.84	1025	235.88	1035	245.98	1046	256.16

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
60720	2400	•699	•82.70	739	94.52	776	106.55														
65780	2600	714	90.17	•749	•102.31	786	115.03	821	127.95	855	141.05										
70840	2800	735	98.74	764	111.03	•796	•123.87	•831	•137.48	865	151.27	897	165.23								
75900	3000	756	108.00	785	120.86	814	133.97	841	147.40	•874	•161.88	906	176.53	937	191.34	966	206.30				
80960	3200	778	117.97	807	131.42	835	145.11	861	159.03	886	173.16	•916	•188.23	•947	•203.73	976	219.38	1004	235.17	1032	251.12
86020	3400	800	127.56	828	142.74	856	157.02	882	171.51	907	186.22	931	201.13	956	216.56	•986	•232.90	1014	249.37	1041	265.99
91080	3600	823	137.65	851	153.77	878	169.74	903	184.82	928	200.10	952	215.58	975	231.25	997	247.12	•1024	•264.03	•1051	•281.33
96140	3800	846	148.44	874	165.13	900	182.17	925	198.97	949	214.84	973	230.90	996	247.14	1018	263.56	1039	280.17	1061	297.16
101200	4000	870	159.95	897	177.23	923	194.84	947	212.77	971	230.48	994	247.12	1017	263.94	1039	280.93	1060	298.09	1080	315.43
106260	4200	893	172.23	920	190.10	946	208.28	970	226.78	993	245.57	1016	264.28	1038	281.68	1060	299.25	1081	316.98	1101	334.87
111320	4400	918	185.30	944	203.76	969	222.53	993	241.60	1016	260.96	1038	280.61	1060	300.41	1081	318.56	1102	336.86	1122	355.32
116380	4600	945	199.60	968	218.26	992	237.62	1016	257.27	1039	277.20	1061	297.41	1082	317.89	1103	338.63	1123	357.78		
121440	4800	972	214.83	993	233.83	1016	253.58	1040	273.81	1062	294.32	1084	315.10	1105	336.14	1125	357.43				
126500	5000	1000	231.02	1020	250.59	1040	270.45	1063	291.26	1086	312.35	1107	333.70	1128	355.30						

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐ CL. IV ☐
The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.
For minimum motor size required see "Fan Starting Requirements," page 9.
Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1 ° C & 0 m).
Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

SIZE 73

SINGLE WIDTH
SINGLE INLET

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

Wheel Diameter	73 inches	1854 mm
Wheel Circumference	19.1 feet	5.822 m
Inlet Diameter/Area	82 inches sq./36.3 sq. ft.	2083 mm/3.372 m^2
Outlet Size/Area	76 15/16 x 57 11/16 inches I.D./30.82 sq. ft.	1954 x 1465 mm/2.863 m^2
Tip Speed	19.1 x RPM ft./minute	5.822 x RPM m/minute
Maximum BHP	417.40 x (RPM ÷1000)^3 BHP	311.3 x (RPM ÷ 1000)^3 kW

SIZE 73	-20° to 150°F -29° to 66°C
CLASS I	564
CLASS II	736
CLASS III	927
CLASS IV	1020

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
18492	600	•133	•0.96	•149	•1.36	•168	•1.81														
21574	700	143	1.18	159	1.66	173	2.13	•189	•2.64	204	3.17										
24656	800	154	1.44	169	1.98	183	2.52	195	3.05	•208	•3.62	•222	•4.22	235	4.84						
27738	900	166	1.75	180	2.33	193	2.95	205	3.55	216	4.14	227	4.76	•239	•5.42	263	6.80				
30820	1000	178	2.12	190	2.73	203	3.39	215	4.08	226	4.75	236	5.41	246	6.09	•267	•7.53	288	9.06		
33902	1100	191	2.55	203	3.21	214	3.90	225	4.64	236	5.40	246	6.14	256	6.86	273	8.34	•293	•9.94	312	11.61
36984	1200	204	3.04	215	3.75	225	4.48	236	5.26	246	6.06	256	6.89	265	7.71	283	9.28	299	10.91	•317	•12.65
40066	1300	217	3.61	228	4.36	238	5.14	247	5.94	257	6.80	266	7.67	275	8.56	292	10.31	308	12.03	323	13.79
43148	1400	231	4.26	241	5.06	250	5.88	259	6.73	268	7.61	277	8.52	286	9.46	302	11.39	318	13.25	333	15.10
46230	1500	244	4.95	254	5.83	263	6.71	271	7.60	279	8.51	288	9.46	296	10.45	313	12.47	328	14.56	342	16.51
49312	1600	258	5.73	267	6.70	276	7.62	284	8.56	292	9.52	299	10.50	307	11.52	323	13.64	338	15.82	352	18.03
52394	1700	272	6.60	281	7.67	289	8.64	297	9.62	304	10.63	312	11.65	319	12.70	334	14.89	348	17.17	362	19.50
55476	1800	286	7.57	294	8.69	302	9.75	310	10.79	317	11.84	324	12.91	331	14.00	345	16.25	359	18.62	373	21.04
58558	1900	300	8.63	308	9.81	316	10.97	323	12.06	330	13.16	337	14.28	344	15.41	356	17.73	370	20.17	383	22.69
61640	2000	314	9.81	322	11.04	329	12.30	336	13.44	343	14.59	350	15.76	356	16.94	368	19.35	381	21.84	394	24.45
67804	2200	342	12.49	349	13.83	356	15.20	363	16.58	370	17.83	376	19.09	382	20.36	394	22.96	405	25.61	415	28.32
73968	2400	371	15.66	377	17.12	384	18.59	390	20.09	396	21.59	402	22.95	408	24.32	419	27.10	430	29.94	440	32.83
80132	2600	399	19.37	406	20.93	412	22.52	418	24.13	423	25.76	429	27.39	435	28.85	445	31.82	455	34.85	465	37.92
86296	2800	428	23.65	434	25.33	440	27.03	445	28.75	451	30.48	456	32.24	461	34.01	472	37.17	481	40.39	491	43.64
92460	3000	457	28.56	462	30.35	468	32.16	473	33.99	478	35.83	484	37.69	489	39.57	498	43.20	508	46.60	517	50.05
98624	3200	486	34.14	491	36.04	496	37.96	501	39.90	506	41.85	511	43.82	516	45.81	525	49.83	534	53.54	543	57.17
104788	3400	515	40.43	520	42.44	525	44.48	530	46.52	534	48.59	539	50.67	543	52.76	552	56.99	561	61.24	569	65.07
110952	3600	544	47.47	549	49.60	553	51.74	558	53.90	562	56.08	567	58.26	571	60.47	580	64.92	588	69.42	596	73.78
117116	3800	573	55.32	578	57.56	582	59.81	586	62.08	591	64.37	595	66.67	599	68.98	607	73.64	615	78.36	623	83.13

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
43148	1400	346	16.99	•377	•21.07	407	25.35														
46230	1500	356	18.49	381	22.59	411	27.09	439	31.69												
49312	1600	365	20.11	390	24.37	•416	•28.89	443	33.71	469	38.63										
52394	1700	375	21.84	400	26.28	422	30.86	•448	•35.79	473	40.92	497	46.15								
55476	1800	385	23.53	410	28.32	432	33.08	453	37.98	•478	•43.28	502	48.72	524	54.25						
58558	1900	396	25.27	419	30.49	441	35.43	462	40.51	482	45.72	•506	•51.38	529	57.12	550	62.94				
61640	2000	406	27.12	429	32.61	451	37.92	472	43.18	491	48.55	510	54.11	•533	•60.07	555	66.10	575	72.22	595	78.41
67804	2200	427	31.17	450	37.02	471	43.07	491	48.96	510	54.69	528	60.53	545	66.48	•564	•72.68	•584	•79.22	604	85.83
73968	2400	450	35.77	471	41.96	492	48.36	511	54.94	530	61.49	547	67.69	564	73.99	580	80.38	596	86.87	•613	•93.63
80132	2600	475	41.04	493	47.45	513	54.23	532	61.16	550	68.26	567	75.52	584	82.20	600	88.96	615	95.80	630	102.73
86296	2800	500	46.95	517	53.69	535	60.69	553	68.00	571	75.45	587	83.06	603	90.82	619	98.28	634	105.49	649	112.78
92460	3000	525	53.54	542	60.64	558	67.92	575	75.48	592	83.30	608	91.27	624	99.38	639	107.62	654	115.99	668	123.64
98624	3200	551	60.85	567	68.32	583	75.96	597	83.74	613	91.84	629	100.18	645	108.64	660	117.24	674	125.96	688	134.81
104788	3400	577	68.93	593	76.78	608	84.78	622	92.92	636	101.21	651	109.82	666	118.65	681	127.61	695	136.69	709	145.89
110952	3600	604	77.83	619	86.05	633	94.42	647	102.93	660	111.57	673	120.34	687	129.45	702	138.77	716	148.21	729	157.76
117116	3800	631	87.60	645	96.19	659	104.93	672	113.80	685	122.81	698	131.94	710	141.19	723	150.76	737	160.56	750	170.48
123280	4000	657	98.16	671	107.25	685	116.36	698	125.60	711	134.96	723	144.45	735	154.06	746	163.78	759	173.79	772	184.07
129444	4200	684	109.26	698	119.26	711	128.74	724	138.35	736	148.08	748	157.93	760	167.89	771	177.97	782	188.16	793	198.58
135608	4400	712	121.30	725	132.28	738	142.14	750	152.12	762	162.21	774	172.43	785	182.75	796	193.18	807	203.72	817	214.36
141772	4600	739	134.32	752	145.79	764	156.59	776	166.94	788	177.40	799	187.98	810	198.66	821	209.45	831	220.34	842	231.34
147936	4800	767	148.37	779	160.25	791	172.13	803	182.86	814	193.70	825	204.64	836	215.68	846	226.83	857	238.08	867	249.43
154100	5000	794	163.48	806	175.79	818	188.25	829	199.93	840	211.14	851	222.45	862	233.85	872	245.36	882	256.97	892	268.67
160264	5200	822	179.70	834	192.43	845	205.32	856	218.20	867	229.77	877	241.45	888	253.22	898	265.09	907	277.06	917	289.11
166428	5400	850	197.07	861	210.23	872	223.54	883	236.98	894	249.65	904	261.70	914	273.84	924	286.07	933	298.39	942	310.81

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
73968	2400	•632	•100.74	668	115.16	702	129.83														
80132	2600	644	109.75	•676	•124.63	710	140.14	742	155.90	773	171.88										
86296	2800	663	120.16	690	135.14	•719	•150.89	•751	•167.49	781	184.30	810	201.33								
92460	3000	682	131.38	709	147.07	734	163.06	760	179.54	•790	•197.20	819	215.06	847	233.13	873	251.39				
98624	3200	702	143.46	728	159.87	753	176.57	777	193.55	800	210.79	•828	•229.29	•855	•248.19	882	267.28	907	286.55	932	305.99
104788	3400	722	155.20	748	173.60	772	191.01	796	208.69	819	226.63	840	244.82	864	263.78	•891	•283.71	916	303.81	941	324.07
110952	3600	742	167.43	768	187.10	792	206.43	815	224.82	838	243.46	859	262.35	880	281.47	900	300.83	•925	•321.62	•950	•342.72
117116	3800	763	180.50	788	200.87	812	221.65	835	241.98	857	261.34	878	280.92	899	300.74	919	320.77	938	341.03	958	361.95
123280	4000	784	194.45	809	215.53	832	237.01	855	258.88	876	280.29	897	300.59	918	321.10	937	341.83	956	362.77	975	383.92
129444	4200	806	209.32	830	231.12	853	253.30	875	275.87	896	298.80	917	321.40	937	342.62	956	364.05	975	385.68	994	407.51
135608	4400	828	225.16	851	247.67	874	270.57	896	293.83	917	317.45	937	341.43	956	365.32	976	387.46	994	409.78	1013	432.30
141772	4600	852	242.43	873	265.24	895	288.85	917	312.82	937	337.13	957	361.79	977	386.78	995	412.09	1014	435.14		
147936	4800	876	260.87	895	284.05	917	308.18	938	332.86	958	357.88	978	383.23	997	408.90	1015	434.88				
154100	5000	901	280.46	920	304.33	938	328.61	959	354.01	979	379.73	999	405.77	1017	432.13						

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐ CL. IV ☐
The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.
For minimum motor size required see "Fan Starting Requirements," page 9.
Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1° C & 0 m).
Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

SINGLE WIDTH
SINGLE INLET

SIZE 81

SIZE 81	-20° to 150°F -29° to 66°C
CLASS I	510
CLASS II	665
CLASS III	838
CLASS IV	922

Wheel Diameter	80¾ inches	2051 mm
Wheel Circumference	21.1 feet	6.431 m
Inlet Diameter/Area	89¾ inches sq./43.6 sq. ft.	2280 mm/4.050 m^2
Outlet Size/Area	85⅛ x 63⅝ inches I.D./37.61 sq. ft.	2162 x 1616 mm/3.494 m^2
Tip Speed	21.1 x RPM ft./minute	6.431 x RPM m/minute
Maximum BHP	690.82 x (RPM ÷1000)^3 BHP	515.1 x (RPM ÷1000)^3 kW

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1¼" SP		1½" SP		1¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
22566	600	•120	•1.18	•135	•1.66	•151	•2.21														
26327	700	129	1.44	144	2.02	156	2.59	•170	•3.22	184	3.87										
30088	800	139	1.76	153	2.41	165	3.07	176	3.72	•188	•4.41	•200	•5.15	212	5.91						
33849	900	149	2.13	162	2.84	174	3.59	185	4.32	195	5.05	205	5.80	•216	•6.62	237	8.30				
37610	1000	161	2.58	172	3.33	183	4.14	194	4.98	204	5.79	213	6.60	222	7.42	•241	•9.19	261	11.06		
41371	1100	172	3.10	183	3.90	193	4.76	203	5.65	213	6.58	222	7.48	231	8.36	247	10.17	•265	•12.13	282	14.18
45132	1200	184	3.70	194	4.56	203	5.46	213	6.41	222	7.39	231	8.40	240	9.40	255	11.32	270	13.30	•286	•15.44
48893	1300	196	4.39	206	5.31	214	6.26	223	7.24	232	8.28	241	9.35	249	10.44	264	12.58	278	14.67	292	16.82
52654	1400	208	5.18	217	6.15	226	7.16	234	8.19	242	9.27	250	10.39	258	11.53	273	13.89	287	16.15	300	18.41
56415	1500	220	6.02	229	7.10	237	8.16	245	9.25	252	10.37	260	11.53	268	12.73	282	15.20	296	17.76	309	20.13
60176	1600	233	6.97	241	8.15	249	9.28	256	10.42	263	11.60	270	12.79	277	14.04	292	16.62	305	19.29	318	21.98
63937	1700	245	8.03	253	9.33	261	10.51	268	11.71	275	12.94	281	14.19	288	15.47	301	18.15	315	20.93	327	23.78
67698	1800	258	9.20	265	10.57	273	11.86	280	13.13	286	14.41	293	15.72	299	17.05	311	19.80	324	22.69	336	25.66
71459	1900	270	10.49	278	11.93	285	13.35	291	14.67	298	16.01	304	17.38	310	18.76	321	21.60	334	24.58	346	27.66
75220	2000	283	11.92	290	13.42	297	14.96	303	16.35	310	17.76	316	19.18	321	20.62	332	23.56	344	26.61	355	29.80
82742	2200	308	15.18	315	16.82	321	18.48	328	20.17	333	21.69	339	23.23	345	24.78	355	27.95	365	31.19	375	34.50
90264	2400	334	19.03	340	20.80	346	22.61	352	24.44	358	26.26	363	27.92	368	29.59	378	32.99	388	36.45	397	39.98
97786	2600	360	23.53	366	25.44	371	27.38	377	29.34	382	31.33	387	33.31	392	35.10	402	38.73	411	42.42	420	46.17
105308	2800	386	28.73	391	30.78	397	32.85	402	34.95	407	37.07	411	39.21	416	41.36	425	45.23	434	49.15	443	53.13
112830	3000	412	34.69	417	36.88	422	39.09	427	41.31	431	43.57	436	45.84	441	48.13	449	52.54	458	56.70	466	60.90
120352	3200	438	41.46	443	43.79	448	46.13	452	48.49	457	50.88	461	53.28	465	55.71	474	60.61	482	65.12	490	69.56
127874	3400	464	49.10	469	51.56	473	54.04	478	56.54	482	59.05	486	61.59	490	64.15	498	69.32	506	74.48	514	79.15
135396	3600	491	57.65	495	60.25	499	62.86	503	65.50	507	68.15	511	70.82	515	73.51	523	78.94	530	84.44	538	89.73
142918	3800	517	67.17	521	69.91	525	72.66	529	75.43	533	78.22	537	81.02	540	83.84	548	89.54	555	95.30	562	101.12

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
52654	1400	313	20.72	•341	•25.71	368	30.94														
56415	1500	321	22.55	345	27.56	372	33.06	397	38.68												
60176	1600	330	24.51	352	29.72	•376	•35.25	400	41.13	424	47.14										
63937	1700	339	26.62	361	32.05	382	37.65	•404	•43.67	428	49.94	449	56.32								
67698	1800	348	28.69	370	34.53	390	40.34	409	46.32	•432	•52.82	453	59.46	474	66.22						
71459	1900	357	30.80	379	37.16	399	43.21	417	49.40	436	55.79	•457	•62.70	478	69.71	497	76.82				
75220	2000	367	33.05	388	39.76	407	46.23	426	52.65	443	59.21	461	66.03	•482	•73.30	501	80.67	520	88.14	538	95.70
82742	2200	386	37.99	406	45.13	425	52.52	443	59.69	461	66.69	477	73.82	492	81.08	•509	•88.69	•528	•96.67	546	104.75
90264	2400	406	43.57	425	51.14	444	58.96	462	67.00	478	74.95	494	82.53	509	90.22	524	98.03	538	105.96	•554	•114.25
97786	2600	428	49.98	445	57.82	463	66.09	480	74.56	496	83.23	512	92.07	527	100.21	541	108.47	555	116.83	569	125.29
105308	2800	451	57.16	467	65.40	482	73.95	499	82.87	515	91.98	530	101.27	545	110.74	559	119.81	573	128.62	586	137.52
112830	3000	474	65.17	489	73.85	503	82.73	519	91.97	534	101.52	549	111.26	563	121.16	577	131.22	590	141.39	603	150.73
120352	3200	497	74.05	512	83.18	526	92.50	539	102.01	553	111.91	568	122.09	582	132.43	596	142.93	609	153.58	621	164.39
127874	3400	521	83.87	535	93.45	548	103.22	561	113.17	574	123.28	587	133.82	601	144.60	614	155.54	627	166.63	640	177.86
135396	3600	545	94.68	558	104.72	571	114.94	584	125.33	596	135.88	608	146.60	621	157.74	634	169.12	646	180.64	658	192.31
142918	3800	569	106.55	582	117.04	595	127.71	607	138.54	618	149.54	630	160.69	641	171.99	653	183.70	665	195.67	677	207.77
150440	4000	593	119.41	606	130.47	618	141.59	630	152.87	641	164.31	652	175.90	663	187.63	673	199.50	685	211.75	697	224.30
157962	4200	617	132.90	630	145.06	642	156.64	653	168.38	664	180.26	675	192.28	685	204.45	696	216.75	706	229.20	716	241.95
165484	4400	642	147.52	654	160.88	665	172.92	677	185.10	687	197.43	698	209.90	708	222.50	718	235.24	728	248.11	737	261.11
173006	4600	667	163.34	678	177.34	689	190.47	700	203.11	711	215.88	721	228.80	731	241.84	741	255.01	750	268.32	759	281.74
180528	4800	691	180.39	703	194.91	714	209.36	724	222.45	734	235.68	744	249.04	754	262.52	764	276.14	773	289.87	782	303.73
188050	5000	716	198.75	727	213.77	738	228.99	748	243.19	758	256.87	768	270.67	777	284.60	787	298.66	796	312.83	805	327.12
195572	5200	741	218.44	752	233.99	762	249.72	772	265.37	782	279.51	791	293.77	801	308.14	810	322.63	819	337.24	827	351.96
203094	5400	767	239.55	777	255.61	787	271.85	797	288.27	806	303.66	815	318.36	824	333.19	833	348.12	842	363.17	850	378.33

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
90264	2400	•571	•122.93	603	140.54	634	158.47														
97786	2600	582	133.87	•611	•152.08	642	171.03	671	190.27	698	209.79										
105308	2800	599	146.53	623	164.83	•650	•184.12	•679	•204.39	706	224.93	732	245.73								
112830	3000	616	160.18	640	179.34	663	198.88	686	219.07	•714	•240.64	740	262.46	765	284.52	789	306.82				
120352	3200	634	174.88	658	194.92	680	215.32	702	236.05	722	257.12	•748	•279.80	•773	•302.88	797	326.19	820	349.73	842	373.48
127874	3400	652	189.24	675	211.62	697	232.89	719	254.48	739	276.39	759	298.61	781	321.88	•805	•346.21	828	370.76	850	395.51
135396	3600	670	204.12	693	228.14	715	251.64	736	274.11	756	296.88	776	319.94	795	343.30	813	366.94	•836	•392.46	•858	•418.24
142918	3800	689	220.02	712	244.89	733	270.28	754	294.99	774	318.62	793	342.54	812	366.74	830	391.22	847	415.97	866	441.66
150440	4000	708	236.98	730	262.73	751	288.97	772	315.68	791	341.69	810	366.47	829	391.53	847	416.85	864	442.42	881	468.26
157962	4200	727	255.07	749	281.69	770	308.78	790	336.34	809	364.36	828	391.78	846	417.70	864	443.87	881	470.29	897	496.96
165484	4400	747	274.33	768	301.82	789	329.78	809	358.20	828	387.05	846	416.33	864	445.32	881	472.36	898	499.63	914	527.13
173006	4600	769	295.29	788	323.18	808	352.02	827	381.29	846	410.99	864	441.11	882	471.63	899	502.35	915	530.48		
180528	4800	791	317.70	808	346.01	827	375.53	846	405.67	865	436.22	883	467.18	900	498.54	917	530.28				
188050	5000	813	341.52	830	370.67	847	400.37	866	431.38	884	462.80	902	494.60	919	526.80						

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐ CL. IV ☐
The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.
For minimum motor size required see "Fan Starting Requirements," page 9.
Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1 ° C & 0 m).
Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

SIZE 18

DOUBLE WIDTH
DOUBLE INLET

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

Wheel Diameter	18 1/4 inches	464 mm
Wheel Circumference	4.78 feet	1.457 m
Inlet Diameter/Area	20 inches dia./4.36 sq. ft.	508 mm/.4050 m^2
Outlet Size/Area	19 1/16 x 25 5/8 inches I.D./3.39 sq. ft.	484 x 651 mm/.3149 m^2
Tip Speed	4.78 x RPM ft./minute	1.457 x RPM m/minute
Maximum BHP	.85 x (RPM ÷1000)^3 BHP	.6338 x (RPM ÷ 1000)^3 kW

SIZE 18	-20° to 150°F -29° to 66°C
CLASS I	2228
CLASS II	2904
CLASS III	3660
CLASS IV	N/A

VOL CFM	OUT VEL	1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1 1/4" SP		1 1/2" SP		1 3/4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2034	600	•508	•0.11	•581	•0.16	665	0.22														
2373	700	547	0.14	609	0.19	•672	•0.25	744	0.32	811	0.40										
2712	800	588	0.17	648	0.23	700	0.29	•753	•0.35	816	0.43	879	0.52	935	0.60						
3051	900	631	0.20	688	0.27	738	0.34	785	0.40	•832	•0.47	886	0.56	941	0.65	1046	0.85				
3390	1000	677	0.24	729	0.32	778	0.39	823	0.47	865	0.54	•906	•0.62	•951	•0.70	1052	0.91	1148	1.13		
3729	1100	724	0.29	772	0.37	819	0.45	862	0.54	903	0.62	942	0.70	978	0.78	1061	0.97	1153	1.20	1242	1.44
4068	1200	772	0.35	818	0.43	861	0.52	903	0.61	943	0.70	980	0.79	1016	0.88	•1084	•1.06	1162	1.27	1245	1.52
4407	1300	821	0.41	864	0.50	904	0.60	945	0.69	983	0.79	1020	0.89	1055	0.98	1120	1.17	•1183	•1.37	1255	1.60
4746	1400	870	0.48	912	0.58	951	0.68	987	0.78	1025	0.89	1060	0.99	1094	1.10	1158	1.30	1217	1.50	•1277	•1.72
5085	1500	921	0.56	960	0.67	997	0.77	1032	0.88	1067	0.99	1102	1.10	1135	1.22	1197	1.44	1255	1.66	1310	1.88
5424	1600	972	0.65	1009	0.76	1045	0.87	1079	0.99	1111	1.10	1144	1.22	1176	1.34	1237	1.59	1294	1.82	1348	2.05
5763	1700	1024	0.75	1058	0.87	1093	0.99	1126	1.11	1157	1.23	1187	1.35	1218	1.48	1278	1.73	1334	1.99	1387	2.24
6102	1800	1076	0.86	1109	0.99	1142	1.11	1173	1.24	1204	1.36	1233	1.49	1261	1.63	1320	1.89	1374	2.17	1426	2.44
6441	1900	1128	0.99	1160	1.12	1191	1.25	1222	1.38	1251	1.51	1280	1.65	1307	1.79	1362	2.06	1415	2.35	1466	2.64
6780	2000	1181	1.12	1211	1.26	1240	1.40	1270	1.53	1299	1.67	1327	1.81	1353	1.96	1404	2.25	1457	2.54	1507	2.84
7458	2200	1287	1.43	1315	1.58	1342	1.73	1369	1.88	1396	2.03	1422	2.19	1447	2.34	1496	2.65	1542	2.98	1590	3.30
8136	2400	1393	1.79	1420	1.96	1445	2.12	1470	2.29	1494	2.45	1519	2.62	1543	2.78	1590	3.12	1634	3.46	1676	3.81
8814	2600	1501	2.22	1525	2.39	1549	2.57	1573	2.75	1595	2.93	1617	3.11	1640	3.29	1685	3.65	1727	4.01	1768	4.39
9492	2800	1609	2.71	1632	2.90	1654	3.09	1676	3.28	1698	3.47	1719	3.67	1739	3.86	1782	4.25	1822	4.63	1861	5.03
10170	3000	1717	3.28	1739	3.48	1760	3.68	1781	3.88	1801	4.09	1821	4.29	1840	4.50	1879	4.92	1919	5.33	1956	5.74
10848	3200	1826	3.92	1846	4.13	1866	4.35	1886	4.56	1905	4.78	1924	5.00	1943	5.22	1979	5.66	2016	6.10	2052	6.54
11526	3400	1935	4.64	1954	4.87	1973	5.09	1992	5.32	2010	5.55	2028	5.78	2046	6.02	2081	6.49	2115	6.96	2149	7.42
12204	3600	2044	5.45	2062	5.69	2081	5.93	2098	6.17	2116	6.41	2133	6.66	2150	6.90	2183	7.40	2215	7.90	2248	8.39
12882	3800	2154	6.36	2171	6.61	2188	6.86	2205	7.11	2222	7.37	2238	7.62	2255	7.88	2286	8.40	2317	8.92	2347	9.45

VOL CFM	OUT VEL	2" SP		2 1/2" SP		3" SP		3 1/2" SP		4" SP		4 1/2" SP		5" SP		5 1/2" SP		6" SP		6 1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4068	1200	1328	1.78																		
4407	1300	1332	1.87	1483	2.44																
4746	1400	1343	1.97	1487	2.55	1620	3.16														
5085	1500	•1366	•2.11	1493	2.67	1627	3.31	1748	3.95												
5424	1600	1399	2.28	•1505	•2.80	1630	3.44	1757	4.14	1868	4.82										
5763	1700	1437	2.48	1533	2.99	1642	3.59	1760	4.29	1877	5.04	1981	5.76								
6102	1800	1475	2.69	1568	3.22	•1661	•3.78	1769	4.46	1880	5.21	1991	6.00	2089	6.77						
6441	1900	1515	2.92	1606	3.46	1690	4.03	•1781	•4.65	1888	5.40	1994	6.20	2098	7.04	2192	7.85				
6780	2000	1554	3.15	1644	3.73	1727	4.31	1810	4.92	•1900	•5.61	2000	6.40	2101	7.25	2200	8.13	2292	9.00		
7458	2200	1636	3.63	1723	4.30	1804	4.93	1880	5.56	1952	6.21	•2031	•6.93	2119	7.74	2209	8.61	2301	9.55	2392	10.51
8136	2400	1720	4.16	1804	4.88	1883	5.62	1957	6.30	2028	6.99	2095	7.69	•2164	•8.43	•2235	•9.21	2319	10.13	2401	11.09
8814	2600	1807	4.76	1887	5.53	1964	6.31	2036	7.11	2105	7.84	2171	8.58	2234	9.34	2295	10.11	•2361	•10.93	•2426	•11.78
9492	2800	1899	5.43	1972	6.24	2047	7.07	2117	7.91	2184	8.77	2249	9.56	2311	10.36	2370	11.17	2428	11.98	2484	12.82
10170	3000	1993	6.17	2062	7.03	2131	7.90	2200	8.79	2265	9.69	2328	10.61	2389	11.47	2447	12.32	2504	13.18	2558	14.05
10848	3200	2087	6.99	2155	7.89	2219	8.81	2284	9.75	2348	10.70	2409	11.66	2468	12.63	2525	13.58	2581	14.48	2635	15.39
11526	3400	2183	7.89	2249	8.84	2311	9.81	2370	10.79	2432	11.78	2492	12.79	2550	13.81	2606	14.84	2660	15.87	2713	16.83
12204	3600	2280	8.88	2344	9.88	2404	10.89	2461	11.92	2517	12.97	2576	14.01	2632	15.08	2687	16.15	2740	17.24	2792	18.34
12882	3800	2378	9.97	2440	11.01	2498	12.07	2554	13.14	2608	14.23	2660	15.34	2716	16.44	2770	17.56	2822	18.69	2873	19.84
13560	4000	2477	11.16	2536	12.24	2593	13.34	2648	14.46	2700	15.60	2751	16.75	2801	17.91	2854	19.07	2905	20.24	2955	21.43
14238	4200	2579	12.43	2634	13.58	2689	14.73	2742	15.89	2794	17.07	2843	18.26	2891	19.47	2939	20.69	2989	21.91	3038	23.14
14916	4400	2681	13.81	2733	15.03	2786	16.22	2838	17.43	2888	18.65	2936	19.89	2983	21.14	3029	22.40	3074	23.68	3122	24.95
15594	4600	2783	15.31	2833	16.58	2884	17.83	2934	19.09	2983	20.35	3030	21.63	3076	22.93	3121	24.23	3165	25.55	3207	26.89
16272	4800	2887	16.92	2935	18.24	2983	19.57	3031	20.86	3079	22.17	3125	23.50	3170	24.83	3214	26.18	3256	27.55	3298	28.92
16950	5000	2990	18.65	3037	20.02	3083	21.41	3129	22.76	3176	24.12	3221	25.49	3264	26.87	3307	28.26	3349	29.67	3390	31.09

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7458	2200	2479	11.50																		
8136	2400	2485	12.09	2650	14.20	2796	16.21														
8814	2600	2504	12.79	2657	14.88	2812	17.14	2956	19.42												
9492	2800	•2546	•13.72	2678	15.70	2819	17.92	2964	20.32	3104	22.79	3228	25.12								
10170	3000	2611	14.93	•2722	•16.79	•2843	•18.86	2976	21.22	3110	23.72	3243	26.33	3370	29.00	3480	31.39				
10848	3200	2687	16.30	2787	18.16	2891	20.14	•3000	•22.27	3126	24.77	3249	27.35	3376	30.10	3498	32.90	3615	35.70		
11526	3400	2764	17.78	2863	19.73	2957	21.70	3054	23.78	•3153	•25.98	3271	28.57	3386	31.25	3504	34.08	3622	37.02		
12204	3600	2842	19.38	2940	21.40	3032	23.46	3121	25.54	3211	27.72	•3306	•30.03	3410	32.60	3521	35.42	3628	38.29		
12882	3800	2922	20.99	3018	23.19	3109	25.33	3197	27.50	3280	29.69	3363	31.94	•3454	•34.37	•3545	•36.88	•3651	•39.82		
13560	4000	3003	22.63	3097	25.06	3187	27.33	3273	29.58	3356	31.85	3436	34.16	3513	36.48	3598	39.00				
14238	4200	3086	24.38	3178	26.89	3265	29.45	3351	31.79	3433	34.15	3511	36.53	3588	38.93						
14916	4400	3169	26.24	3259	28.84	3346	31.48	3429	34.13	3510	36.57	3588	39.04								
15594	4600	3253	28.21	3342	30.90	3427	33.62	3509	36.39	3588	39.14										
16272	4800	3339	30.31	3426	33.08	3510	35.89	3590	38.74												

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐ CL. IV ☐

The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.

For minimum motor size required see "Fan Starting Requirements," page 9.

Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1 ° C & 0 m).

Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

DOUBLE WIDTH
DOUBLE INLET

SIZE 20

SIZE 20	-20° to 150°F -29° to 66°C
CLASS I	2033
CLASS II	2650
CLASS III	3340
CLASS IV	N/A

Wheel Diameter	20 inches	508 mm
Wheel Circumference	5.24 feet	1.597 m
Inlet Diameter/Area	21¾ inches dia./5.16 sq. ft.	552 mm/.4794 m^2
Outlet Size/Area	21 x 28 7/16 inches I.D./4.15 sq. ft.	533 x 722 mm/.3855 m^2
Tip Speed	5.24 x RPM ft./minute	1.597 x RPM m/minute
Maximum BHP	1.34 x (RPM ÷1000)^3 BHP	.9992 x (RPM ÷1000)^3 kW

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1¼" SP		1½" SP		1¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2490	600	• 468	•0.14	•532	•0.19	607	0.27														
2905	700	504	0.17	560	0.23	•615	•0.30	679	0.39	742	0.48										
3320	800	543	0.21	596	0.28	644	0.35	•691	•0.43	746	0.52	803	0.63	855	0.74						
3735	900	583	0.25	634	0.33	680	0.42	722	0.50	•763	•0.58	•810	•0.68	860	0.79	957	1.04				
4150	1000	626	0.30	673	0.39	717	0.49	758	0.58	796	0.67	832	0.76	•871	•0.86	961	1.10	1049	1.37		
4565	1100	670	0.37	713	0.46	755	0.56	795	0.67	832	0.76	867	0.86	900	0.96	•971	•1.18	1052	1.45	1134	1.75
4980	1200	715	0.43	756	0.54	795	0.65	833	0.76	869	0.87	903	0.97	935	1.08	996	1.30	•1063	•1.55	1137	1.84
5395	1300	760	0.51	800	0.63	836	0.74	872	0.86	907	0.98	940	1.10	971	1.21	1030	1.44	1087	1.68	•1148	•1.95
5810	1400	806	0.61	844	0.72	879	0.85	912	0.97	946	1.10	978	1.23	1008	1.36	1066	1.61	1120	1.85	1172	2.12
6225	1500	854	0.71	889	0.83	923	0.96	954	1.09	985	1.23	1016	1.36	1046	1.50	1103	1.78	1156	2.04	1205	2.31
6640	1600	901	0.82	935	0.96	967	1.09	998	1.23	1027	1.37	1056	1.52	1085	1.66	1140	1.96	1192	2.25	1241	2.53
7055	1700	950	0.95	981	1.09	1012	1.23	1042	1.38	1070	1.53	1097	1.68	1124	1.83	1179	2.14	1229	2.46	1277	2.76
7470	1800	998	1.09	1028	1.24	1057	1.39	1086	1.54	1114	1.70	1140	1.86	1165	2.02	1217	2.34	1267	2.68	1314	3.01
7885	1900	1047	1.24	1075	1.40	1103	1.56	1131	1.72	1158	1.89	1183	2.05	1208	2.22	1257	2.56	1305	2.90	1351	3.26
8300	2000	1096	1.41	1123	1.58	1150	1.75	1176	1.92	1202	2.09	1227	2.26	1251	2.43	1297	2.79	1344	3.15	1390	3.52
9130	2200	1195	1.80	1220	1.99	1245	2.17	1268	2.36	1293	2.54	1316	2.73	1339	2.92	1383	3.30	1425	3.69	1467	4.09
9960	2400	1294	2.27	1318	2.46	1341	2.66	1363	2.87	1384	3.07	1407	3.27	1429	3.48	1470	3.89	1510	4.30	1549	4.73
10790	2600	1394	2.81	1416	3.02	1438	3.24	1459	3.45	1479	3.68	1499	3.90	1519	4.12	1559	4.55	1598	5.00	1634	5.45
11620	2800	1495	3.43	1515	3.66	1536	3.89	1555	4.13	1575	4.36	1593	4.60	1612	4.84	1650	5.31	1686	5.78	1722	6.26
12450	3000	1596	4.15	1615	4.39	1634	4.64	1653	4.89	1671	5.14	1689	5.39	1706	5.65	1741	6.16	1776	6.66	1810	7.17
13280	3200	1697	4.97	1715	5.22	1733	5.49	1751	5.75	1768	6.02	1785	6.28	1802	6.55	1834	7.10	1867	7.64	1900	8.17
14110	3400	1798	5.88	1816	6.16	1833	6.44	1849	6.71	1866	7.00	1882	7.28	1898	7.56	1929	8.14	1959	8.72	1991	9.28
14940	3600	1900	6.91	1916	7.20	1933	7.50	1949	7.79	1964	8.09	1980	8.38	1995	8.68	2025	9.29	2054	9.90	2082	10.51
15770	3800	2002	8.06	2017	8.37	2033	8.68	2048	8.98	2063	9.30	2078	9.61	2092	9.92	2121	10.56	2149	11.20	2176	11.84

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4565	1100	1205	2.03																		
4980	1200	1213	2.16																		
5395	1300	1217	2.27	1354	2.97																
5810	1400	•1228	•2.40	1357	3.10	1482	3.86														
6225	1500	1254	2.59	1366	3.25	1486	4.02	1599	4.83												
6640	1600	1287	2.81	•1381	•3.43	1491	4.19	1604	5.03	1709	5.88										
7055	1700	1323	3.06	1408	3.68	•1502	•4.38	1607	5.21	1714	6.12	1812	7.03								
7470	1800	1359	3.33	1442	3.96	1525	4.64	1618	5.43	1717	6.33	1817	7.29	1911	8.26						
7885	1900	1395	3.61	1478	4.27	1554	4.96	•1635	•5.70	1727	6.57	1820	7.53	1915	8.54	2005	9.58	2083	10.51		
8300	2000	1433	3.89	1514	4.60	1590	5.31	1662	6.04	•1739	•6.84	1829	7.80	1918	8.81	2009	9.87	2095	10.97	2170	11.96
9130	2200	1509	4.49	1588	5.31	1661	6.08	1731	6.86	1796	7.65	• 1865	•8.50	•1938	•9.43	2020	10.49	2101	11.60	2184	12.77
9960	2400	1587	5.16	1664	6.04	1735	6.94	1803	7.78	1867	8.62	1928	9.48	1987	10.35	•2052	•11.30	•2121	•12.34	2196	13.50
10790	2600	1670	5.91	1741	6.85	1811	7.80	1876	8.77	1939	9.69	1999	10.59	2056	11.51	2111	12.45	2168	13.42	•2227	•14.45
11620	2800	1756	6.75	1821	7.74	1888	8.75	1952	9.78	2013	10.82	2071	11.82	2128	12.79	2182	13.78	2234	14.77	2284	15.78
12450	3000	1843	7.68	1906	8.73	1967	9.80	2029	10.88	2089	11.98	2146	13.10	2200	14.19	2254	15.22	2305	16.27	2355	17.33
13280	3200	1932	8.71	1993	9.82	2050	10.94	2108	12.09	2166	13.24	2222	14.41	2275	15.60	2327	16.79	2377	17.89	2426	19.00
14110	3400	2021	9.85	2080	11.01	2136	12.19	2190	13.39	2244	14.61	2299	15.83	2351	17.07	2402	18.33	2451	19.60	2499	20.80
14940	3600	2112	11.11	2169	12.32	2223	13.56	2275	14.81	2325	16.09	2377	17.37	2428	18.66	2478	19.97	2526	21.30	2573	22.64
15770	3800	2203	12.48	2258	13.75	2311	15.04	2362	16.35	2411	17.68	2458	19.03	2507	20.38	2556	21.74	2603	23.12	2649	24.51
16600	4000	2296	13.98	2349	15.31	2400	16.65	2449	18.02	2497	19.40	2543	20.80	2587	22.22	2634	23.64	2680	25.07	2726	26.51
17430	4200	2391	15.59	2440	17.00	2490	18.40	2538	19.82	2584	21.25	2629	22.71	2672	24.18	2715	25.67	2759	27.16	2803	28.65
18260	4400	2486	17.33	2532	18.83	2580	20.29	2627	21.76	2672	23.25	2716	24.76	2758	26.28	2800	27.82	2840	29.38	2882	30.94
19090	4600	2582	19.23	2627	20.78	2672	22.32	2717	23.85	2761	25.40	2803	26.96	2845	28.53	2885	30.13	2925	31.73	2963	33.36
19920	4800	2678	21.27	2721	22.88	2764	24.51	2808	26.10	2850	27.69	2892	29.31	2933	30.94	2972	32.59	3011	34.25	3048	35.92

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
9130	2200	2263	13.96	2403	16.20																
9960	2400	2269	14.69	2420	17.24	2557	19.79														
10790	2600	•2291	•15.58	2427	18.10	2567	20.82	2701	23.64	2817	26.24										
11620	2800	2338	16.84	•2450	•19.13	2578	21.82	2707	24.68	2834	27.67	2953	30.67	3057	33.40						
12450	3000	2403	18.39	2500	20.61	•2601	•22.99	2722	25.85	2839	28.81	2961	31.98	3077	35.21	3183	38.33				
13280	3200	2474	20.12	2565	22.38	2654	24.73	•2750	•27.25	2859	30.18	2969	33.27	3082	36.55	3194	39.95	3302	43.41		
14110	3400	2546	21.97	2635	24.34	2721	26.74	2804	29.20	•2895	•31.87	2992	34.81	3097	38.06	3200	41.40	3307	44.96		
14940	3600	2619	23.97	2707	26.44	2791	28.94	2872	31.48	2949	34.05	• 3035	•36.85	•3119	•39.73	3220	43.14	3318	46.61		
15770	3800	2694	25.92	2780	28.68	2863	31.29	2942	33.93	3019	36.60	3092	39.30	3171	42.18	•3251	•45.17	•3340	•48.52		
16600	4000	2770	27.97	2854	30.93	2936	33.79	3014	36.53	3089	39.30	3162	42.10	3232	44.93	3304	47.88				
17430	4200	2846	30.16	2930	33.23	3009	36.34	3086	39.30	3161	42.17	3232	45.07	3302	48.00						
18260	4400	2924	32.50	3006	35.67	3085	38.88	3160	42.15	3233	45.21	3304	48.21								
19090	4600	3003	34.99	3083	38.26	3161	41.58	3235	44.94	3307	48.36										
19920	4800	3085	37.61	3162	41.00	3238	44.43	3311	47.89												

• Approximate Max. Static Efficiency and Quietest Selection. CL. I CL. II CL. III CL. IV

The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.

For minimum motor size required see "Fan Starting Requirements," page 9.

Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1 ° C & 0 m).

Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

SIZE 22

DOUBLE WIDTH
DOUBLE INLET

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

Wheel Diameter	22 ¼ inches	565 mm
Wheel Circumference	5.83 feet	1.777 m
Inlet Diameter/Area	24 inches dia./6.28 sq. ft.	610 mm/.5834 m^2
Outlet Size/Area	23 5/16 x 31 5/16 inches I.D./5.07 sq. ft.	592 x 795 mm/.4710 m^2
Tip Speed	5.83 x RPM ft./minute	1.777 x RPM m/minute
Maximum BHP	2.27 x (RPM ÷1000)^3 BHP	1.693 x (RPM ÷1000)^3 kW

SIZE 22	-20° to 150°F -29° to 66°C
CLASS I	1827
CLASS II	2382
CLASS III	3002
CLASS IV	N/A

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3042	600	•418	•0.16	•477	•0.24	545	0.33														
3549	700	450	0.21	501	0.28	•552	•0.37	610	0.48	666	0.59										
4056	800	484	0.25	533	0.34	576	0.43	•619	•0.52	670	0.64	721	0.77	768	0.90						
4563	900	520	0.31	566	0.41	607	0.51	645	0.60	•683	•0.71	727	0.83	772	0.97	859	1.27				
5070	1000	558	0.37	600	0.48	640	0.59	677	0.70	711	0.81	•745	•0.92	•781	•1.05	863	1.36	942	1.69		
5577	1100	597	0.44	635	0.56	674	0.68	710	0.81	743	0.93	775	1.05	804	1.17	•871	•1.45	946	1.79	1019	2.15
6084	1200	636	0.52	673	0.65	709	0.78	743	0.92	776	1.06	806	1.18	836	1.31	891	1.58	954	1.90	1022	2.26
6591	1300	676	0.62	712	0.76	745	0.90	778	1.04	809	1.19	839	1.34	868	1.47	921	1.76	•973	•2.05	1030	2.40
7098	1400	717	0.73	751	0.87	783	1.02	813	1.17	844	1.33	873	1.49	900	1.65	953	1.95	1001	2.26	•1049	•2.58
7605	1500	759	0.85	791	1.00	822	1.16	850	1.32	878	1.49	907	1.65	934	1.82	985	2.16	1033	2.48	1077	2.81
8112	1600	801	0.98	832	1.15	861	1.32	889	1.49	915	1.66	942	1.84	968	2.01	1018	2.38	1065	2.73	1109	3.07
8619	1700	844	1.14	872	1.31	901	1.49	928	1.67	953	1.85	978	2.03	1003	2.22	1052	2.60	1097	2.99	1141	3.35
9126	1800	887	1.30	914	1.49	941	1.68	967	1.86	992	2.05	1016	2.25	1039	2.44	1086	2.84	1131	3.25	1173	3.66
9633	1900	930	1.49	956	1.68	981	1.88	1007	2.08	1031	2.28	1054	2.48	1076	2.68	1121	3.10	1165	3.52	1206	3.96
10140	2000	974	1.69	999	1.90	1022	2.11	1047	2.31	1070	2.52	1093	2.73	1115	2.94	1156	3.38	1199	3.82	1240	4.27
11154	2200	1061	2.16	1084	2.38	1107	2.61	1128	2.84	1150	3.06	1172	3.29	1192	3.52	1232	3.99	1270	4.47	1309	4.95
12168	2400	1149	2.71	1171	2.95	1192	3.20	1212	3.45	1232	3.70	1252	3.94	1272	4.19	1310	4.69	1346	5.20	1380	5.73
13182	2600	1238	3.35	1258	3.62	1278	3.88	1297	4.15	1315	4.42	1333	4.69	1352	4.95	1388	5.49	1423	6.04	1456	6.59
14196	2800	1327	4.10	1346	4.38	1364	4.66	1382	4.95	1400	5.24	1417	5.53	1433	5.82	1468	6.39	1501	6.97	1533	7.56
15210	3000	1417	4.96	1434	5.25	1452	5.55	1469	5.86	1485	6.17	1501	6.47	1517	6.79	1549	7.41	1581	8.02	1612	8.64
16224	3200	1506	5.93	1523	6.24	1539	6.56	1556	6.89	1571	7.21	1587	7.54	1602	7.87	1631	8.53	1662	9.19	1691	9.85
17238	3400	1596	7.02	1612	7.36	1628	7.70	1643	8.04	1658	8.38	1673	8.73	1687	9.07	1715	9.78	1743	10.49	1771	11.18
18252	3600	1687	8.25	1702	8.60	1716	8.96	1731	9.32	1745	9.68	1759	10.05	1773	10.41	1800	11.15	1826	11.90	1853	12.64
19266	3800	1777	9.62	1791	9.99	1805	10.37	1819	10.74	1833	11.12	1846	11.51	1859	11.89	1885	12.67	1911	13.45	1935	14.24

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6084	1200	1090	2.66																		
6591	1300	1092	2.79	1217	3.65																
7098	1400	•1102	•2.94	1220	3.81	1330	4.72														
7605	1500	1122	3.16	1226	3.98	1335	4.94	1435	5.91												
8112	1600	1150	3.42	•1236	•4.18	1338	5.13	1441	6.18	1533	7.20										
8619	1700	1182	3.72	1260	4.48	1348	5.37	1444	6.40	1540	7.52	1626	8.60								
9126	1800	1214	4.04	1289	4.82	•1365	•5.66	1452	6.66	1543	7.77	1633	8.96	1715	10.11						
9633	1900	1246	4.38	1321	5.19	1390	6.03	•1464	•6.95	1549	8.06	1636	9.24	1721	10.49	1800	11.73				
10140	2000	1279	4.73	1353	5.59	1421	6.46	1487	7.37	•1560	•8.38	1642	9.56	1724	10.81	1805	12.13	1881	13.45	1948	14.65
11154	2200	1347	5.44	1418	6.45	1484	7.39	1547	8.34	1605	9.31	•1669	•10.37	•1739	•11.55	1813	12.86	1888	14.24	1962	15.68
12168	2400	1416	6.25	1485	7.33	1549	8.43	1610	9.44	1668	10.47	1723	11.52	1779	12.62	•1837	•13.79	1903	15.13	1971	16.55
13182	2600	1488	7.16	1554	8.30	1616	9.46	1675	10.66	1732	11.76	1786	12.87	1838	14.00	1887	15.14	•1940	•16.36	•1994	•17.63
14196	2800	1564	8.16	1623	9.38	1685	10.61	1742	11.87	1797	13.15	1850	14.35	1901	15.54	1950	16.74	1997	17.96	2042	19.20
15210	3000	1642	9.27	1698	10.56	1754	11.87	1811	13.19	1864	14.54	1915	15.91	1965	17.21	2013	18.48	2060	19.76	2104	21.06
16224	3200	1720	10.51	1775	11.86	1827	13.24	1880	14.64	1932	16.05	1983	17.49	2031	18.95	2078	20.37	2123	21.72	2168	23.07
17238	3400	1799	11.87	1852	13.29	1903	14.74	1952	16.21	2002	17.69	2051	19.19	2098	20.72	2144	22.26	2188	23.82	2232	25.24
18252	3600	1879	13.37	1931	14.86	1980	16.37	2027	17.91	2073	19.47	2120	21.04	2167	22.63	2212	24.23	2255	25.86	2297	27.51
19266	3800	1960	15.02	2010	16.57	2058	18.15	2104	19.75	2148	21.38	2191	23.03	2236	24.69	2280	26.36	2323	28.05	2364	29.75
20280	4000	2042	16.81	2090	18.44	2137	20.08	2181	21.75	2224	23.44	2266	25.16	2306	26.90	2349	28.63	2391	30.39	2432	32.16
21294	4200	2126	18.73	2171	20.46	2216	22.17	2259	23.91	2301	25.67	2342	27.45	2381	29.25	2420	31.07	2461	32.89	2501	34.73
22308	4400	2210	20.82	2253	22.65	2296	24.43	2338	26.23	2379	28.06	2419	29.90	2457	31.77	2495	33.66	2531	35.57	2570	37.47
23322	4600	2295	23.08	2336	24.98	2377	26.86	2418	28.73	2458	30.62	2497	32.54	2534	34.47	2571	36.42	2606	38.39	2641	40.38
24336	4800	2380	25.52	2420	27.49	2458	29.48	2498	31.42	2537	33.37	2575	35.35	2612	37.35	2647	39.37	2682	41.40	2716	43.45
25350	5000	2466	28.14	2504	30.19	2541	32.26	2579	34.29	2617	36.32	2654	38.36	2690	40.42	2725	42.50	2759	44.60	2792	46.72

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
11154	2200	2034	17.15																		
12168	2400	2039	18.04	2174	21.18	2295	24.22														
13182	2600	2056	19.09	2179	22.20	2307	25.57	2426	29.02												
14196	2800	•2093	•20.53	•2199	•23.44	2314	26.75	2432	30.31	2546	33.99	2650	37.54								
15210	3000	2148	22.37	2237	25.13	•2334	•28.16	2443	31.69	2551	35.39	2660	39.28	2765	43.25	2857	46.91				
16224	3200	2210	24.44	2292	27.22	2376	30.15	•2463	•33.26	2566	36.99	2665	40.80	2770	44.90	2870	49.07	2967	53.33		
17238	3400	2274	26.68	2355	29.58	2432	32.52	2510	35.60	•2591	•38.88	2685	42.66	2779	46.66	2875	50.85	2972	55.22		
18252	3600	2339	29.07	2418	32.10	2494	35.17	2567	38.28	2639	41.49	•2717	•44.94	•2799	•48.69	2890	52.88	2977	57.15		
19266	3800	2405	31.48	2483	34.80	2558	37.99	2629	41.23	2698	44.50	2764	47.82	2838	51.44	•2910	•55.10	•2997	•59.47		
20280	4000	2472	33.95	2548	37.58	2622	41.00	2692	44.36	2760	47.76	2826	51.19	2889	54.66	2957	58.37				
21294	4200	2540	36.58	2615	40.34	2687	44.16	2757	47.69	2824	51.21	2888	54.77	2951	58.36						
22308	4400	2609	39.39	2683	43.27	2753	47.21	2821	51.22	2888	54.87	2952	58.55								
23322	4600	2678	42.37	2751	46.38	2821	50.45	2888	54.58	2952	58.74										
24336	4800	2750	45.53	2820	49.67	2889	53.87	2955	58.12												

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐ CL. IV ☐

The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.

For minimum motor size required see "Fan Starting Requirements," page 9.

Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1 ° C & 0 m).

Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

DOUBLE WIDTH
DOUBLE INLET

SIZE 24

SIZE 24	-20° to 150°F -29° to 66°C
CLASS I	1660
CLASS II	2163
CLASS III	2726
CLASS IV	N/A

Wheel Diameter	24 ½ inches	622 mm
Wheel Circumference	6.41 feet	1.954 m
Inlet Diameter/Area	27 inches dia./7.96 sq. ft.	685 mm/.7395 m^2
Outlet Size/Area	25 11/16 x 34 ¾ inches I.D/.6.20 sq. ft.	652 x 883/.5760 m^2
Tip Speed	6.41 x RPM ft./minute	1.954 x RPM m/minute
Maximum BHP	3.65 x (RPM ÷1000)^3 BHP	2.722 x (RPM ÷1000)^3 kW

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1¼" SP		1½" SP		1¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3720	600	•381	•0.20	•434	•0.29	495	0.41														
4340	700	411	0.25	457	0.35	•501	•0.45	554	0.58	605	0.72										
4960	800	442	0.31	486	0.42	525	0.53	•563	•0.64	609	0.78	655	0.94	698	1.10						
5580	900	474	0.38	516	0.50	554	0.62	588	0.74	•622	•0.87	661	1.02	702	1.19	781	1.55				
6200	1000	509	0.45	548	0.59	584	0.73	617	0.86	648	0.99	•678	•1.13	•710	•1.28	784	1.65	857	2.06		
6820	1100	545	0.54	580	0.69	615	0.84	647	0.99	678	1.14	706	1.28	733	1.43	•792	•1.77	859	2.18	926	2.62
7440	1200	581	0.65	615	0.80	647	0.96	678	1.13	708	1.30	735	1.45	762	1.61	812	1.94	•867	•2.32	928	2.76
8060	1300	618	0.77	651	0.93	680	1.10	710	1.28	738	1.46	765	1.64	791	1.81	840	2.15	886	2.52	•937	•2.92
8680	1400	656	0.90	687	1.08	715	1.26	742	1.45	770	1.63	796	1.83	821	2.02	869	2.39	913	2.77	956	3.16
9300	1500	694	1.05	723	1.24	751	1.43	777	1.63	802	1.83	828	2.03	852	2.24	898	2.65	942	3.05	982	3.45
9920	1600	733	1.22	760	1.42	787	1.62	812	1.83	836	2.04	860	2.26	884	2.47	929	2.92	971	3.35	1011	3.77
10540	1700	772	1.41	798	1.62	823	1.84	848	2.05	871	2.27	893	2.50	915	2.73	960	3.19	1001	3.67	1040	4.12
11160	1800	812	1.61	836	1.84	860	2.07	884	2.30	906	2.53	928	2.77	948	3.01	991	3.49	1032	3.99	1070	4.49
11780	1900	851	1.84	875	2.08	897	2.32	920	2.56	942	2.81	963	3.05	983	3.30	1023	3.81	1063	4.33	1101	4.86
12400	2000	891	2.10	914	2.35	935	2.60	957	2.85	978	3.11	999	3.36	1018	3.62	1056	4.15	1095	4.69	1132	5.24
13640	2200	971	2.68	992	2.95	1012	3.23	1032	3.51	1052	3.78	1071	4.06	1090	4.34	1126	4.91	1160	5.50	1195	6.09
14880	2400	1052	3.36	1072	3.66	1090	3.96	1108	4.26	1126	4.57	1144	4.87	1162	5.17	1197	5.78	1229	6.41	1260	7.05
16120	2600	1133	4.16	1152	4.48	1169	4.80	1186	5.13	1203	5.46	1219	5.79	1236	6.12	1269	6.77	1300	7.44	1330	8.12
17360	2800	1215	5.09	1232	5.43	1249	5.78	1265	6.12	1280	6.48	1296	6.83	1311	7.19	1342	7.89	1372	8.60	1401	9.32
18600	3000	1297	6.15	1313	6.52	1329	6.88	1344	7.26	1359	7.63	1373	8.01	1388	8.39	1416	9.15	1445	9.90	1473	10.66
19840	3200	1379	7.36	1394	7.75	1409	8.14	1424	8.53	1438	8.93	1452	9.33	1465	9.73	1492	10.55	1519	11.35	1546	12.15
21080	3400	1462	8.72	1476	9.13	1490	9.54	1504	9.96	1517	10.38	1530	10.80	1543	11.23	1569	12.09	1594	12.96	1620	13.80
22320	3600	1544	10.25	1558	10.68	1571	11.12	1584	11.56	1597	12.00	1610	12.44	1622	12.89	1647	13.79	1670	14.71	1694	15.62
23560	3800	1627	11.95	1640	12.40	1653	12.86	1665	13.32	1677	13.79	1689	14.26	1701	14.73	1725	15.67	1748	16.63	1770	17.60

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6820	1100	983	3.04																		
7440	1200	990	3.24																		
8060	1300	993	3.40	1106	4.44																
8680	1400	•1002	•3.59	1108	4.64	1209	5.77														
9300	1500	1022	3.87	1114	4.86	1213	6.02	1305	7.22												
9920	1600	1049	4.20	•1126	•5.12	1216	6.26	1309	7.52	1394	8.80										
10540	1700	1078	4.57	1148	5.49	1226	6.55	1312	7.80	1399	9.16	1479	10.51								
11160	1800	1107	4.96	1175	5.91	•1243	•6.93	1320	8.13	1401	9.47	1483	10.91	1559	12.35						
11780	1900	1137	5.38	1204	6.37	1267	7.39	•1333	•8.51	1409	9.83	1486	11.27	1563	12.79	1636	14.32				
12400	2000	1167	5.80	1233	6.86	1295	7.92	1355	9.02	•1418	•10.22	1492	11.66	1566	13.18	1640	14.78	1710	16.42	1771	17.89
13640	2200	1229	6.69	1293	7.92	1353	9.07	1410	10.23	1463	11.41	•1520	•12.69	•1581	•14.10	1648	15.69	1715	17.36	1782	19.11
14880	2400	1292	7.69	1355	9.00	1413	10.34	1468	11.59	1521	12.85	1571	14.13	1620	15.45	•1673	•16.88	•1730	•18.46	1792	20.20
16120	2600	1359	8.81	1418	10.20	1475	11.62	1528	13.08	1579	14.44	1628	15.80	1675	17.17	1720	18.57	1767	20.04	•1815	•21.58
17360	2800	1429	10.05	1482	11.53	1537	13.04	1590	14.57	1639	16.14	1687	17.62	1733	19.07	1777	20.55	1820	22.03	1861	23.54
18600	3000	1500	11.43	1551	13.00	1601	14.60	1652	16.21	1701	17.86	1747	19.53	1792	21.15	1836	22.69	1878	24.26	1918	25.84
19840	3200	1572	12.96	1622	14.61	1669	16.29	1716	18.00	1764	19.73	1809	21.48	1853	23.26	1895	25.03	1936	26.67	1976	28.33
21080	3400	1645	14.65	1693	16.38	1739	18.15	1782	19.95	1827	21.76	1872	23.59	1915	25.45	1956	27.33	1996	29.23	2035	31.01
22320	3600	1718	16.51	1765	18.33	1809	20.17	1852	22.05	1893	23.96	1935	25.87	1977	27.81	2018	29.77	2057	31.75	2096	33.76
23560	3800	1792	18.55	1837	20.45	1881	22.38	1922	24.33	1962	26.32	2000	28.34	2041	30.36	2081	32.39	2120	34.45	2157	36.54
24800	4000	1868	20.77	1911	22.76	1953	24.77	1993	26.81	2032	28.87	2070	30.97	2106	33.09	2144	35.21	2182	37.35	2219	39.51
26040	4200	1945	23.16	1985	25.27	2026	27.36	2065	29.48	2103	31.63	2139	33.80	2175	36.00	2210	38.23	2246	40.45	2282	42.69
27280	4400	2022	25.75	2060	27.99	2099	30.16	2137	32.36	2174	34.59	2210	36.84	2245	39.12	2279	41.43	2312	43.75	2346	46.08
28520	4600	2099	28.55	2136	30.88	2173	33.18	2210	35.46	2246	37.77	2281	40.11	2315	42.46	2348	44.85	2381	47.25	2412	49.68
29760	4800	2178	31.58	2213	33.99	2248	36.42	2284	38.79	2319	41.18	2353	43.60	2386	46.03	2419	48.49	2450	50.98	2481	53.48

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
13640	2200	1847	20.89	1961	24.22																
14880	2400	1852	21.99	1975	25.81	2086	29.58														
16120	2600	•1869	•23.30	1980	27.07	2095	31.16	2204	35.38	2299	39.23										
17360	2800	1906	25.14	•1999	•28.60	2104	32.64	2209	36.93	2313	41.41	2409	45.85								
18600	3000	1958	27.43	2038	30.77	•2122	•34.37	2221	38.66	2317	43.12	2416	47.86	2511	52.70	2597	57.29				
19840	3200	2015	30.00	2090	33.38	2164	36.92	•2242	•40.70	2333	45.13	2423	49.77	2516	54.71	2607	59.80	2695	64.98		
21080	3400	2074	32.76	2147	36.29	2217	39.89	2285	43.60	•2360	•47.59	2441	52.05	2527	56.93	2612	61.96	2699	67.29		
22320	3600	2133	35.72	2205	39.41	2274	43.16	2340	46.95	2403	50.81	•2474	•55.02	•2545	•59.42	2627	64.53	2707	69.72		
23560	3800	2194	38.64	2264	42.75	2332	46.65	2397	50.59	2459	54.59	2519	58.63	2585	62.98	•2650	•67.44	•2725	•72.57		
24800	4000	2255	41.70	2325	46.12	2391	50.37	2455	54.46	2517	58.61	2576	62.80	2633	67.03	2693	71.48				
26040	4200	2318	44.95	2386	49.53	2451	54.19	2514	58.58	2575	62.87	2633	67.21	2690	71.59						
27280	4400	2381	48.42	2448	53.16	2512	57.97	2574	62.85	2633	67.39	2691	71.88								
28520	4600	2445	52.11	2511	57.00	2574	61.97	2635	67.00	2693	72.11										
29760	4800	2511	56.01	2574	61.08	2636	66.20	2696	71.39												

• Approximate Max. Static Efficiency and Quietest Selection. CL. I CL. II CL. III CL. IV
The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.
For minimum motor size required see "Fan Starting Requirements," page 9.
Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1° C & 0 m).
Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

SIZE 27

DOUBLE WIDTH
DOUBLE INLET

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

Wheel Diameter	27 inches	686 mm
Wheel Circumference	7.07 feet	2.155 m
Inlet Diameter/Area	29 ½ inches dia./9.50 sq. ft.	749 mm/.8826 m^2
Outlet Size/Area	28 ⅜ x 38 ⅜ inches I.D/.7.562 sq. ft.	721 x 975 mm/.7025 m^2
Tip Speed	7.07 x RPM ft./minute	2.155 x RPM m/minute
Maximum BHP	5.90 x (RPM ÷1000)^3 BHP	4.400 x (RPM ÷1000)^3 kW

SIZE 27	-20° to 150°F -29° to 66°C
CLASS I	1517
CLASS II	1977
CLASS III	2492
CLASS IV	N/A

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4537	600	•344	•0.24	•391	•0.34	438	0.45														
5293	700	370	0.30	413	0.41	•453	•0.53	•492	•0.66	536	0.80										
6050	800	398	0.36	438	0.49	475	0.62	510	0.76	•543	•0.90	580	1.06	618	1.23						
6806	900	429	0.44	465	0.58	500	0.73	532	0.88	564	1.03	•593	•1.18	•624	•1.35	691	1.73				
7562	1000	460	0.53	494	0.69	526	0.85	557	1.01	586	1.17	615	1.34	642	1.51	•697	•1.87	758	2.29		
8318	1100	493	0.64	524	0.81	554	0.99	584	1.16	611	1.33	637	1.52	664	1.70	714	2.07	•764	•2.47	819	2.92
9074	1200	526	0.77	556	0.95	584	1.13	611	1.32	638	1.51	663	1.71	687	1.90	736	2.30	781	2.70	•826	•3.14
9831	1300	560	0.91	588	1.10	615	1.30	640	1.50	665	1.71	690	1.91	714	2.12	758	2.55	803	2.98	844	3.42
10587	1400	595	1.07	621	1.27	646	1.48	671	1.70	694	1.92	717	2.14	740	2.36	784	2.81	825	3.28	866	3.74
11343	1500	630	1.25	655	1.47	678	1.69	702	1.92	724	2.15	745	2.39	767	2.63	810	3.10	850	3.59	888	4.08
12099	1600	665	1.45	689	1.68	711	1.92	734	2.16	755	2.41	776	2.66	796	2.91	837	3.41	876	3.92	912	4.45
12855	1700	701	1.68	723	1.92	745	2.17	766	2.43	787	2.68	807	2.95	826	3.21	864	3.75	902	4.28	938	4.83
13612	1800	737	1.93	758	2.18	779	2.45	799	2.72	819	2.99	838	3.26	857	3.54	893	4.11	929	4.67	965	5.24
14368	1900	773	2.20	793	2.48	813	2.75	832	3.03	851	3.32	870	3.60	888	3.89	923	4.49	957	5.09	992	5.68
15124	2000	809	2.51	829	2.79	848	3.08	867	3.38	884	3.67	902	3.97	920	4.28	954	4.89	986	5.52	1019	6.15
16636	2200	882	3.21	900	3.52	918	3.83	936	4.15	952	4.48	969	4.80	984	5.13	1017	5.80	1048	6.47	1077	7.17
18149	2400	955	4.03	972	4.38	989	4.72	1006	5.06	1021	5.41	1037	5.76	1052	6.12	1081	6.83	1111	7.56	1139	8.30
19661	2600	1029	5.00	1045	5.37	1061	5.74	1076	6.11	1091	6.48	1106	6.86	1120	7.24	1147	8.01	1175	8.79	1202	9.58
21174	2800	1103	6.12	1118	6.51	1133	6.91	1148	7.31	1162	7.71	1176	8.11	1189	8.52	1215	9.34	1240	10.17	1266	11.01
22686	3000	1177	7.40	1192	7.82	1206	8.25	1220	8.68	1233	9.10	1246	9.53	1259	9.96	1284	10.83	1308	11.71	1331	12.61
24198	3200	1252	8.86	1266	9.30	1279	9.76	1292	10.21	1305	10.67	1317	11.12	1329	11.58	1353	12.50	1376	13.43	1399	14.37
25711	3400	1327	10.50	1340	10.97	1352	11.45	1365	11.94	1377	12.42	1389	12.91	1401	13.39	1423	14.36	1445	15.34	1467	16.33
27223	3600	1402	12.34	1414	12.84	1426	13.35	1438	13.86	1449	14.37	1461	14.89	1472	15.40	1494	16.42	1515	17.45	1536	18.49
28736	3800	1477	14.39	1489	14.92	1500	15.45	1511	15.99	1522	16.53	1533	17.07	1544	17.61	1565	18.69	1585	19.77	1605	20.86

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
8318	1100	873	3.41																		
9074	1200	876	3.62																		
9831	1300	•885	•3.88	978	4.95																
10587	1400	904	4.21	984	5.24	1071	6.43														
11343	1500	926	4.58	•997	•5.59	1074	6.75	1156	8.05												
12099	1600	948	4.97	1018	6.04	•1084	•7.15	1159	8.43	1235	9.82										
12855	1700	972	5.39	1040	6.50	1104	7.65	•1168	•8.87	1238	10.25	1310	11.73								
13612	1800	998	5.82	1063	7.00	1126	8.19	1184	9.41	1246	10.74	1313	12.21	1381	13.78						
14368	1900	1025	6.28	1087	7.52	1148	8.77	1206	10.03	•1260	•11.32	1321	12.76	1384	14.31	1448	15.96				
15124	2000	1052	6.78	1113	8.06	1170	9.38	1228	10.69	1282	12.02	•1333	•13.39	•1391	•14.92	1451	16.55	1513	18.28	1572	20.04
16636	2200	1106	7.87	1166	9.24	1221	10.65	1272	12.10	1326	13.53	1376	14.99	1425	16.47	•1471	•17.97	•1524	•19.67	1578	21.42
18149	2400	1166	9.05	1220	10.56	1274	12.07	1324	13.60	1372	15.17	1420	16.74	1468	18.31	1514	19.91	1558	21.52	•1600	•23.16
19661	2600	1228	10.37	1278	12.00	1328	13.64	1377	15.27	1424	16.92	1469	18.61	1513	20.32	1558	22.01	1601	23.72	1643	25.44
21174	2800	1291	11.85	1339	13.58	1385	15.35	1432	17.10	1478	18.85	1522	20.62	1564	22.43	1604	24.26	1645	26.09	1687	27.91
22686	3000	1355	13.50	1402	15.32	1446	17.18	1488	19.08	1532	20.95	1575	22.82	1616	24.71	1656	26.63	1694	28.58	1731	30.55
24198	3200	1421	15.33	1465	17.25	1508	19.20	1549	21.19	1588	23.22	1629	25.20	1670	27.19	1709	29.20	1746	31.24	1783	33.30
25711	3400	1488	17.33	1529	19.36	1571	21.41	1611	23.49	1649	25.61	1685	27.76	1724	29.88	1762	31.98	1799	34.11	1835	36.26
27223	3600	1556	19.54	1595	21.67	1635	23.82	1673	26.00	1710	28.21	1746	30.45	1781	32.73	1817	34.97	1853	37.19	1889	39.43
28736	3800	1625	21.96	1662	24.19	1699	26.45	1737	28.72	1773	31.03	1808	33.36	1842	35.73	1874	38.12	1908	40.51	1943	42.84
30248	4000	1694	24.60	1730	26.93	1766	29.30	1801	31.68	1836	34.07	1870	36.50	1903	38.96	1935	41.44	1967	43.96	1997	46.49
31760	4200	1764	27.48	1799	29.91	1833	32.37	1866	34.86	1900	37.36	1933	39.88	1965	42.43	1997	45.01	2027	47.61	2057	50.24
33273	4400	1834	30.61	1868	33.13	1901	35.69	1933	38.28	1964	40.90	1997	43.51	2028	46.15	2059	48.82	2089	51.52	2118	54.24
34785	4600	1905	33.99	1938	36.61	1970	39.27	2001	41.96	2031	44.67	2061	47.40	2092	50.14	2122	52.90	2151	55.69	2180	58.50
36298	4800	1976	37.65	2008	40.37	2039	43.12	2069	45.90	2098	48.71	2127	51.56	2156	54.40	2185	57.25	2214	60.13	2242	63.03

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
16636	2200	1634	23.31																		
18149	2400	•1648	•24.98	1748	28.87	1849	33.03														
19661	2600	1683	27.19	•1765	•30.87	1855	34.95	1950	39.40	2041	43.95										
21174	2800	1726	29.75	1803	33.48	•1876	•37.31	1960	41.65	2047	46.28	2133	51.11								
22686	3000	1771	32.49	1846	36.41	1917	40.39	•1985	•44.44	•2061	•48.93	2139	53.66	2222	58.77	2301	63.96				
24198	3200	1818	35.38	1890	39.54	1961	43.71	2028	47.94	2092	52.23	•2159	•56.77	2232	61.72	2307	66.92	2384	72.38	2458	77.91
25711	3400	1870	38.43	1937	42.83	2005	47.24	2072	51.66	2135	56.13	2197	60.65	•2255	•65.23	•2324	•70.37	2391	75.65	2464	81.29
27223	3600	1923	41.69	1989	46.28	2052	50.94	2116	55.60	2179	60.26	2240	64.97	2298	69.73	2354	74.54	•2413	•79.59	•2478	•85.11
28736	3800	1977	45.19	2042	49.96	2104	54.80	2163	59.71	2223	64.63	2283	69.52	2341	74.46	2397	79.45	2451	84.49		
30248	4000	2031	48.93	2095	53.88	2156	58.90	2215	63.99	2271	69.15	2327	74.32	2385	79.45	2440	84.63				
31760	4200	2086	52.90	2149	58.06	2209	63.25	2267	68.52	2322	73.86	2376	79.27	2429	84.70	2484	90.06				
33273	4400	2147	56.99	2203	62.50	2263	67.88	2320	73.33	2375	78.84	2428	84.42	2479	90.06						
34785	4600	2208	61.33	2262	67.08	2317	72.78	2373	78.41	2428	84.11	2480	89.86								
36298	4800	2269	65.96	2322	71.89	2374	77.91	2427	83.79	2481	89.66										

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐ CL. IV ☐

The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.

For minimum motor size required see "Fan Starting Requirements," page 9.

Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1 ° C & 0 m).

Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

DOUBLE WIDTH
DOUBLE INLET

SIZE 30

SIZE 30	-20° to 150°F -29° to 66°C
CLASS I	1365
CLASS II	1779
CLASS III	2243
CLASS IV	N/A

Wheel Diameter	30 inches	762 mm
Wheel Circumference	7.85 feet	2.393 m
Inlet Diameter/Area	32½ inches dia./11.5 sq. ft.	826 mm/1.068 m^2
Outlet Size/Area	31½ x 42¼ inches I.D./9.242 sq. ft.	800 x 1073 mm/.8586 m^2
Tip Speed ft./minute	7.85 x RPM ft./minute	2.393 x RPM m/minute
Maximum BHP	9.94 x (RPM ÷1000)^3 BHP	7.412 x (RPM ÷1000)^3 kW

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1¼" SP		1½" SP		1¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5545	600	•308	•0.29	•350	•0.41	394	0.56														
6469	700	332	0.36	370	0.50	•406	•0.64	•442	•0.80	482	0.99										
7394	800	356	0.44	392	0.60	426	0.76	457	0.92	•488	•1.10	522	1.29	556	1.51						
8318	900	383	0.54	416	0.71	448	0.89	477	1.07	505	1.25	•532	•1.44	•561	•1.65	622	2.12				
9242	1000	411	0.65	441	0.84	471	1.03	499	1.23	525	1.43	551	1.63	576	1.84	•626	•2.29	682	2.81		
10166	1100	440	0.78	469	0.98	496	1.20	523	1.41	548	1.62	571	1.85	595	2.07	640	2.52	•686	•3.02	737	3.59
11090	1200	470	0.93	497	1.15	522	1.38	547	1.61	571	1.84	594	2.08	616	2.32	660	2.80	700	3.30	•742	•3.84
12015	1300	500	1.09	525	1.33	550	1.58	572	1.83	595	2.08	618	2.33	639	2.58	680	3.11	720	3.63	757	4.17
12939	1400	531	1.29	554	1.54	578	1.80	600	2.06	620	2.34	642	2.60	663	2.87	702	3.43	739	3.99	776	4.56
13863	1500	562	1.50	585	1.77	606	2.05	627	2.33	648	2.61	667	2.91	687	3.19	725	3.77	761	4.37	796	4.97
14787	1600	594	1.75	615	2.03	635	2.32	656	2.62	675	2.92	694	3.23	712	3.54	749	4.15	784	4.78	817	5.42
15711	1700	625	2.02	646	2.32	665	2.63	684	2.94	703	3.25	721	3.57	739	3.90	773	4.56	808	5.21	840	5.88
16636	1800	657	2.32	677	2.64	696	2.96	713	3.29	732	3.62	749	3.95	766	4.29	799	4.99	832	5.68	864	6.38
17560	1900	689	2.65	708	2.98	726	3.32	743	3.67	760	4.01	778	4.36	794	4.72	826	5.45	856	6.18	888	6.91
18484	2000	721	3.02	740	3.37	757	3.72	774	4.08	790	4.44	806	4.81	822	5.18	853	5.94	882	6.71	912	7.48
20332	2200	786	3.86	803	4.24	819	4.62	835	5.01	850	5.41	865	5.81	880	6.21	909	7.03	937	7.86	964	8.70
22181	2400	851	4.85	867	5.27	883	5.68	897	6.10	912	6.53	926	6.96	939	7.39	966	8.27	993	9.16	1018	10.07
24029	2600	917	6.01	932	6.46	946	6.91	960	7.36	974	7.82	987	8.28	1000	8.75	1025	9.69	1050	10.64	1074	11.60
25878	2800	983	7.35	997	7.83	1011	8.32	1024	8.81	1037	9.29	1049	9.78	1061	10.28	1085	11.28	1108	12.30	1131	13.33
27726	3000	1049	8.88	1063	9.40	1075	9.92	1088	10.45	1100	10.97	1112	11.49	1124	12.01	1146	13.08	1168	14.16	1189	15.25
29574	3200	1116	10.63	1128	11.18	1140	11.73	1152	12.29	1164	12.85	1175	13.40	1186	13.96	1208	15.08	1229	16.22	1249	17.38
31423	3400	1183	12.60	1194	13.18	1206	13.77	1217	14.36	1228	14.95	1239	15.54	1250	16.13	1270	17.32	1290	18.52	1310	19.73
33271	3600	1249	14.80	1260	15.42	1271	16.04	1282	16.66	1293	17.29	1303	17.92	1313	18.54	1333	19.79	1352	21.05	1371	22.32
35120	3800	1316	17.26	1327	17.91	1337	18.56	1347	19.22	1358	19.88	1368	20.54	1377	21.20	1396	22.51	1415	23.84	1433	25.17

VOL CFM	OUT VEL	2" SP		2½" SP		3" SP		3½" SP		4" SP		4½" SP		5" SP		5½" SP		6" SP		6½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
11090	1200	788	4.44																		
12015	1300	•795	•4.74	880	6.07																
12939	1400	811	5.13	884	6.41	963	7.88														
13863	1500	831	5.58	•894	•6.83	966	8.28	1040	9.87												
14787	1600	850	6.06	913	7.36	•974	•8.74	1042	10.33	1111	12.04										
15711	1700	871	6.56	933	7.93	990	9.33	1049	10.85	1114	12.56	1178	14.38								
16636	1800	894	7.09	953	8.53	1009	9.99	•1062	•11.48	1120	13.14	1181	14.97	1242	16.89						
17560	1900	918	7.65	973	9.16	1029	10.69	1081	12.24	•1131	•13.82	1187	15.61	1245	17.54	1303	19.56				
18484	2000	942	8.24	997	9.82	1049	11.42	1101	13.03	1150	14.67	•1196	•16.35	•1250	•18.25	1306	20.28	1361	22.40		
20332	2200	990	9.56	1044	11.24	1094	12.97	1140	14.74	1189	16.49	1234	18.28	1278	20.09	•1321	•21.97	•1370	•24.06	1419	26.26
22181	2400	1043	10.99	1092	12.84	1141	14.68	1186	16.56	1229	18.48	1274	20.40	1317	22.32	1358	24.28	1397	26.26	•1436	•28.29
24029	2600	1098	12.58	1143	14.58	1189	16.57	1233	18.57	1276	20.60	1316	22.67	1356	24.75	1397	26.82	1436	28.91	1473	31.03
25878	2800	1154	14.37	1198	16.48	1239	18.64	1281	20.77	1323	22.92	1363	25.10	1401	27.31	1437	29.56	1475	31.78	1512	34.01
27726	3000	1211	16.35	1253	18.58	1293	20.86	1331	23.18	1371	25.46	1410	27.75	1447	30.07	1483	32.43	1518	34.81	1552	37.22
29574	3200	1269	18.55	1309	20.89	1348	23.29	1385	25.72	1420	28.21	1458	30.63	1495	33.06	1530	35.53	1564	38.02	1597	40.55
31423	3400	1329	20.96	1366	23.44	1404	25.95	1440	28.50	1475	31.09	1508	33.73	1543	36.30	1578	38.88	1611	41.48	1644	44.12
33271	3600	1389	23.61	1425	26.23	1461	28.85	1496	31.52	1529	34.23	1562	36.98	1593	39.77	1626	42.49	1659	45.21	1691	47.95
35120	3800	1450	26.52	1485	29.25	1518	32.02	1552	34.80	1585	37.62	1616	40.48	1647	43.38	1677	46.32	1708	49.21	1739	52.06
36968	4000	1512	29.69	1545	32.54	1577	35.44	1609	38.35	1641	41.29	1672	44.26	1702	47.27	1731	50.32	1759	53.40	1788	56.46
38816	4200	1574	33.15	1606	36.12	1637	39.14	1667	42.19	1698	45.24	1728	48.33	1757	51.45	1785	54.61	1813	57.80	1840	61.03
40665	4400	1637	36.91	1668	40.00	1697	43.13	1726	46.30	1755	49.50	1784	52.70	1813	55.93	1841	59.20	1868	62.51	1894	65.84
42513	4600	1700	40.97	1730	44.18	1758	47.43	1786	50.72	1814	54.05	1841	57.38	1869	60.73	1897	64.11	1923	67.53	1949	70.97
44362	4800	1763	45.36	1792	48.69	1820	52.06	1847	55.46	1874	58.91	1899	62.39	1926	65.86	1953	69.35	1979	72.88	2004	76.44
46210	5000	1826	50.08	1854	53.53	1882	57.02	1908	60.55	1934	64.11	1959	67.70	1984	71.33	2010	74.94	2035	78.58	2060	82.24

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
20332	2200	1470	28.58																		
22181	2400	•1481	•30.57	1573	35.39	1663	40.50														
24029	2600	1510	33.17	•1586	•37.76	1669	42.84	1754	48.31												
25878	2800	1548	36.27	1617	40.84	•1685	•45.64	1761	50.97	1841	56.73	1919	62.66								
27726	3000	1587	39.59	1656	44.39	1720	49.27	•1781	•54.23	1852	59.87	1924	65.77	1999	72.05	2070	78.42				
29574	3200	1629	43.10	1695	48.18	1758	53.29	1819	58.47	•1877	•63.73	•1940	•69.45	2006	75.52	2076	82.03	2145	88.73	2211	95.52
31423	3400	1675	46.78	1736	52.18	1798	57.56	1858	62.97	1915	68.45	1970	74.00	•2025	•79.72	2088	86.10	2150	92.62	2216	99.64
33271	3600	1722	50.72	1782	56.34	1838	62.06	1897	67.74	1954	73.45	2009	79.22	2061	85.06	•2112	•90.96	•2168	•97.36	•2227	•104.14
35120	3800	1770	54.95	1828	60.78	1884	66.72	1938	72.75	1993	78.73	2047	84.73	2100	90.79	2150	96.91	2199	103.09		
36968	4000	1818	59.46	1876	65.52	1931	71.67	1984	77.91	2034	84.25	2087	90.54	2138	96.82	2188	103.17	2237	109.57		
38816	4200	1867	64.27	1924	70.56	1978	76.93	2030	83.39	2080	89.93	2129	96.56	2178	103.17	2227	109.74				
40665	4400	1920	69.21	1972	75.92	2026	82.51	2077	89.19	2127	95.95	2175	102.79	2221	109.71						
42513	4600	1974	74.45	2023	81.50	2074	88.43	2125	95.32	2174	102.30	2221	109.36								
44362	4800	2029	80.02	2077	87.29	2123	94.67	2173	101.81	2221	109.01										

• Approximate Max. Static Efficiency and Quietest Selection. CL. I CL. II CL. III CL. IV
The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.
For minimum motor size required see "Fan Starting Requirements," page 9.
Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1 ° C & 0 m).
Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

SIZE 33

DOUBLE WIDTH
DOUBLE INLET

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

Wheel Diameter	33 inches	838 mm
Wheel Circumference	8.64 feet	2.633 m
Inlet Diameter/Area	35 ½ inches dia./13.7 sq. ft.	902 mm/1.273 m^2
Outlet Size/Area	34 11/16 x 46 ¾ inches I.D./11.26 sq. ft.	881 x 1187 mm/1.046 m^2
Tip Speed	8.64 x RPM ft./minute	2.633 RPM m/minute
Maximum BHP	15.95 x (RPM ÷1000)^3 BHP	11.89 x (RPM ÷1000)^3 kW

SIZE 33	-20° to 150°F -29° to 66°C
CLASS I	1241
CLASS II	1618
CLASS III	2039
CLASS IV	N/A

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6756	600	•281	•0.35	•319	•0.50	359	0.68														
7882	700	302	0.44	337	0.61	•370	•0.78	•403	•0.98	438	1.20										
9008	800	325	0.54	358	0.73	388	0.93	417	1.12	•444	•1.33	475	1.57	506	1.83						
10134	900	350	0.66	380	0.87	408	1.08	435	1.30	461	1.53	•485	•1.75	•510	•2.00	566	2.57				
11260	1000	376	0.79	403	1.03	430	1.26	455	1.50	479	1.75	502	1.99	525	2.24	•570	•2.79	620	3.42		
12386	1100	402	0.95	428	1.20	452	1.46	477	1.72	499	1.98	521	2.26	543	2.52	583	3.07	•625	•3.68	670	4.36
13512	1200	429	1.14	454	1.41	477	1.68	499	1.97	521	2.25	542	2.54	562	2.83	601	3.42	638	4.02	•676	•4.67
14638	1300	457	1.34	480	1.63	502	1.93	522	2.23	543	2.54	564	2.85	583	3.16	619	3.79	656	4.43	690	5.08
15764	1400	485	1.58	507	1.89	528	2.20	548	2.53	566	2.86	586	3.19	605	3.51	640	4.19	674	4.87	708	5.56
16890	1500	514	1.85	534	2.18	554	2.51	573	2.85	591	3.20	609	3.56	627	3.91	662	4.61	694	5.34	726	6.07
18016	1600	543	2.15	562	2.49	580	2.85	599	3.21	617	3.57	634	3.95	650	4.33	684	5.07	715	5.83	745	6.61
19142	1700	572	2.48	590	2.85	608	3.22	625	3.60	642	3.99	659	4.38	675	4.77	706	5.57	737	6.37	767	7.18
20268	1800	601	2.86	619	3.24	636	3.63	652	4.03	668	4.43	684	4.84	700	5.26	729	6.11	759	6.95	788	7.79
21394	1900	630	3.27	647	3.67	664	4.08	679	4.50	695	4.92	710	5.35	725	5.78	754	6.67	781	7.56	810	8.45
22520	2000	660	3.72	676	4.14	692	4.57	707	5.01	722	5.45	736	5.90	751	6.35	779	7.27	805	8.21	832	9.15
24772	2200	719	4.75	735	5.22	749	5.69	763	6.16	777	6.64	790	7.13	804	7.62	830	8.61	856	9.62	880	10.65
27024	2400	779	5.97	793	6.48	807	6.99	820	7.50	833	8.02	846	8.54	858	9.07	882	10.15	907	11.23	930	12.33
29276	2600	839	7.40	853	7.95	866	8.51	878	9.06	890	9.61	902	10.17	914	10.74	936	11.89	959	13.05	981	14.22
31528	2800	900	9.06	912	9.65	924	10.24	936	10.84	948	11.43	959	12.03	970	12.63	992	13.85	1012	15.09	1033	16.34
33780	3000	960	10.95	972	11.58	984	12.22	995	12.86	1006	13.49	1017	14.13	1027	14.77	1048	16.06	1067	17.38	1087	18.71
36032	3200	1021	13.11	1032	13.78	1043	14.45	1054	15.13	1065	15.82	1075	16.49	1085	17.17	1104	18.54	1123	19.92	1142	21.33
38284	3400	1082	15.54	1093	16.25	1103	16.96	1113	17.68	1123	18.41	1133	19.13	1143	19.84	1161	21.29	1180	22.75	1197	24.23
40536	3600	1143	18.27	1153	19.02	1163	19.77	1173	20.53	1182	21.29	1192	22.06	1201	22.82	1219	24.34	1236	25.87	1253	27.42
42788	3800	1205	21.30	1214	22.09	1224	22.88	1233	23.68	1242	24.48	1251	25.29	1260	26.10	1277	27.70	1294	29.31	1310	30.93

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
13512	1200	717	5.40																		
14638	1300	•724	•5.77	800	7.38																
15764	1400	739	6.26	804	7.80	876	9.58														
16890	1500	757	6.81	•815	•8.32	878	10.06	945	12.00												
18016	1600	775	7.40	832	8.98	•887	•10.65	948	12.56	1010	14.64										
19142	1700	794	8.01	850	9.68	902	11.38	•955	•13.21	1013	15.28	1072	17.48								
20268	1800	816	8.66	868	10.42	920	12.19	968	14.00	1019	16.00	1074	18.20	1130	20.53						
21394	1900	837	9.34	888	11.19	938	13.04	985	14.93	•1030	•16.85	1080	19.00	1132	21.33	1185	23.79				
22520	2000	859	10.08	909	11.99	956	13.95	1003	15.90	1048	17.89	•1090	•19.92	•1138	•22.22	1187	24.66	1238	27.24	1286	29.87
24772	2200	903	11.69	952	13.74	997	15.84	1040	18.00	1083	20.13	1125	22.30	1164	24.51	•1202	•26.75	•1247	•29.30	1291	31.93
27024	2400	952	13.45	996	15.70	1041	17.94	1082	20.23	1121	22.57	1161	24.90	1200	27.25	1237	29.62	1273	32.03	•1308	•34.47
29276	2600	1003	15.41	1044	17.84	1085	20.27	1125	22.70	1164	25.17	1200	27.68	1236	30.22	1273	32.74	1308	35.29	1343	37.86
31528	2800	1054	17.60	1094	20.17	1131	22.81	1169	25.41	1207	28.02	1243	30.67	1277	33.36	1310	36.09	1344	38.80	1378	41.52
33780	3000	1106	20.05	1144	22.76	1181	25.53	1215	28.36	1251	31.13	1286	33.92	1320	36.75	1353	39.61	1384	42.51	1415	45.45
36032	3200	1159	22.75	1196	25.61	1231	28.52	1265	31.48	1297	34.50	1331	37.46	1364	40.42	1396	43.42	1427	46.46	1457	49.53
38284	3400	1214	25.72	1248	28.74	1282	31.79	1315	34.90	1346	38.05	1376	41.26	1408	44.40	1439	47.54	1470	50.71	1499	53.91
40536	3600	1270	28.99	1302	32.17	1334	35.37	1366	38.61	1397	41.91	1426	45.25	1454	48.64	1484	51.98	1514	55.28	1543	58.62
42788	3800	1326	32.57	1357	35.90	1387	39.27	1418	42.65	1447	46.08	1476	49.56	1504	53.09	1531	56.66	1558	60.20	1587	63.67
45040	4000	1382	36.49	1412	39.96	1441	43.48	1470	47.03	1499	50.60	1527	54.21	1554	57.88	1580	61.58	1606	65.33	1631	69.08
47292	4200	1439	40.75	1468	44.36	1496	48.03	1523	51.75	1551	55.47	1578	59.22	1605	63.02	1630	66.86	1655	70.74	1680	74.66
49544	4400	1497	45.38	1525	49.14	1551	52.95	1578	56.81	1603	60.71	1630	64.60	1656	68.54	1681	72.51	1706	76.53	1729	80.59
51796	4600	1554	50.39	1581	54.30	1607	58.25	1633	62.25	1657	66.30	1682	70.37	1708	74.44	1732	78.56	1756	82.71	1780	86.90
54048	4800	1612	55.80	1638	59.85	1664	63.95	1688	68.10	1712	72.29	1736	76.53	1760	80.76	1784	85.01	1807	89.30	1830	93.62
56300	5000	1670	61.63	1696	65.83	1720	70.07	1744	74.36	1768	78.70	1790	83.07	1813	87.49	1836	91.88	1859	96.31	1882	100.77

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
24772	2200	1337	34.74																		
27024	2400	•1348	•37.21	1430	43.03	1513	49.23														
29276	2600	1376	40.46	•1443	•45.97	1517	52.09	1595	58.73	1669	65.51										
31528	2800	1411	44.26	1473	49.82	•1534	•55.57	1603	62.05	1674	68.98	1745	76.18								
33780	3000	1447	48.33	1509	54.17	1567	60.11	•1623	•66.14	1686	72.89	1750	79.98	1817	87.60	1883	95.33				
36032	3200	1486	52.63	1545	58.82	1602	65.03	1658	71.34	•1710	•77.73	•1766	•84.56	1825	91.94	1887	99.74	1950	107.88	2011	116.13
38284	3400	1528	57.15	1583	63.72	1638	70.28	1693	76.86	1745	83.52	1795	90.27	•1843	•97.09	1900	104.83	1956	112.68	2015	121.16
40536	3600	1571	61.99	1625	68.82	1676	75.78	1729	82.71	1781	89.65	1830	96.67	1878	103.76	•1924	•110.93	•1973	•118.54	•2027	•126.78
42788	3800	1614	67.18	1668	74.28	1719	81.50	1767	88.83	1817	96.13	1866	103.42	1913	110.79	1959	118.23	2003	125.74		
45040	4000	1659	72.73	1711	80.10	1761	87.58	1809	95.17	1855	102.86	1902	110.55	1949	118.20	1994	125.91	2038	133.69		
47292	4200	1704	78.63	1755	86.29	1804	94.04	1852	101.89	1897	109.85	1941	117.91	1985	125.99	2030	133.97				
49544	4400	1753	84.68	1799	92.88	1848	100.90	1895	109.02	1940	117.24	1983	125.55	2025	133.96						
51796	4600	1803	91.13	1847	99.70	1892	108.17	1939	116.56	1983	125.04	2026	133.62								
54048	4800	1853	97.99	1896	106.82	1938	115.79	1983	124.53	2026	133.28										

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐ CL. IV ☐

The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.

For minimum motor size required see "Fan Starting Requirements," page 9.

Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1 ° C & 0 m).

Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

DOUBLE WIDTH
DOUBLE INLET

SIZE 37

SIZE 37	-20° to 150°F -29° to 66°C
CLASS I	1111
CLASS II	1448
CLASS III	1825
CLASS IV	N/A

Wheel Diameter	36 ½ inches	927 mm
Wheel Circumference	9.56 feet	2.914 m
Inlet Diameter/Area	39 inches dia./16.6 sq. ft.	991 mm/1.542 m^2
Outlet Size/Area	38 ⅜ x 51 9/16 inches I.D./13.74 sq. ft.	975 x 1310 mm/1.276 m^2
Tip Speed	9.56 x RPM ft./minute	2.914 x RPM m/minute
Maximum BHP	26.95 x (RPM ÷1000)^3 BHP	20.10 x (RPM ÷1000)^3 kW

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1¼" SP		1½" SP		1¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
8244	600	•253	•0.43	•287	•0.61																
9618	700	272	0.54	304	0.74	•332	•0.95	•362	•1.19												
10992	800	292	0.65	322	0.89	349	1.12	374	1.37	•400	•1.63										
12366	900	313	0.79	341	1.06	367	1.32	391	1.58	414	1.85	•436	•2.13	•460	•2.44						
13740	1000	336	0.95	361	1.24	386	1.55	410	1.83	431	2.12	452	2.42	472	2.72	513	3.40				
15114	1100	359	1.15	383	1.44	406	1.77	428	2.11	449	2.42	469	2.74	488	3.07	•524	•3.73	563	4.48		
16488	1200	383	1.37	406	1.69	426	2.02	448	2.39	468	2.76	488	3.10	506	3.44	541	4.15	•573	•4.88	•609	•5.70
17862	1300	408	1.62	429	1.96	449	2.31	468	2.68	488	3.09	506	3.49	524	3.86	558	4.61	590	5.38	620	6.17
19236	1400	432	1.90	453	2.27	472	2.65	489	3.03	508	3.44	526	3.87	543	4.31	576	5.11	607	5.92	636	6.75
20610	1500	457	2.21	477	2.62	495	3.02	512	3.42	528	3.83	546	4.28	563	4.75	595	5.65	625	6.50	653	7.38
21984	1600	483	2.56	501	3.00	519	3.43	535	3.85	551	4.28	566	4.73	583	5.21	614	6.21	644	7.13	671	8.05
23358	1700	508	2.95	526	3.42	543	3.88	559	4.33	574	4.78	589	5.24	603	5.72	634	6.76	662	7.81	690	8.77
24732	1800	534	3.39	551	3.88	567	4.38	583	4.85	597	5.33	612	5.81	625	6.30	654	7.35	682	8.47	708	9.55
26106	1900	559	3.86	576	4.38	592	4.91	607	5.42	621	5.92	635	6.42	648	6.93	674	7.98	702	9.15	728	10.34
27480	2000	585	4.39	601	4.93	616	5.48	631	6.04	645	6.56	658	7.09	671	7.62	696	8.71	722	9.87	747	11.10
30228	2200	637	5.60	652	6.19	666	6.79	680	7.39	693	8.01	706	8.58	718	9.16	742	10.33	765	11.52	787	12.78
32976	2400	690	7.03	704	7.66	717	8.31	730	8.97	742	9.63	754	10.30	766	10.93	789	12.19	811	13.47	831	14.77
35724	2600	743	8.70	756	9.38	768	10.08	780	10.78	792	11.49	804	12.21	815	12.94	837	14.31	857	15.68	877	17.06
38472	2800	796	10.63	808	11.36	820	12.11	832	12.86	843	13.62	854	14.38	864	15.16	885	16.71	905	18.16	924	19.63
41220	3000	850	12.84	861	13.62	872	14.41	883	15.21	894	16.02	904	16.84	914	17.66	934	19.32	953	20.95	971	22.51
43968	3200	903	15.35	914	16.18	925	17.02	935	17.87	945	18.73	955	19.59	964	20.46	983	22.22	1001	24.00	1019	25.71
46716	3400	957	18.18	967	19.06	977	19.96	987	20.85	997	21.76	1006	22.67	1015	23.58	1033	25.43	1051	27.31	1068	29.21
49464	3600	1011	21.35	1021	22.29	1030	23.23	1039	24.17	1049	25.13	1058	26.09	1066	27.05	1084	29.00	1100	30.96	1117	32.95
52212	3800	1065	24.89	1074	25.87	1083	26.86	1092	27.86	1101	28.86	1109	29.86	1118	30.88	1134	32.92	1151	34.98	1166	37.07

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
17862	1300	•652	•7.05																		
19236	1400	664	7.61	724	9.50																
20610	1500	681	8.27	•734	•10.15																
21984	1600	697	8.98	748	10.91	•799	•13.00														
23358	1700	716	9.75	765	11.75	811	13.82	860	16.12												
24732	1800	734	10.57	782	12.65	827	14.81	•870	•17.03	918	19.51										
26106	1900	753	11.44	800	13.61	844	15.84	886	18.13	•928	•20.54	973	23.16								
27480	2000	772	12.36	818	14.63	861	16.94	902	19.31	942	21.74	•982	•24.32	1025	27.08						
30228	2200	811	14.13	856	16.86	898	19.34	937	21.87	975	24.45	1011	27.09	•1046	•29.77	•1084	•32.67	1123	35.71		
32976	2400	851	16.11	895	19.05	935	22.01	974	24.71	1010	27.46	1045	30.25	1079	33.09	1112	35.98	•1144	•38.91	•1179	•42.08
35724	2600	896	18.47	935	21.43	974	24.63	1011	27.84	1047	30.76	1081	33.72	1113	36.72	1145	39.77	1177	42.86	1207	45.99
38472	2800	942	21.12	977	24.16	1014	27.44	1050	30.90	1084	34.38	1118	37.52	1150	40.68	1181	43.89	1210	47.14	1240	50.43
41220	3000	989	24.08	1023	27.29	1055	30.56	1090	34.15	1123	37.85	1156	41.62	1187	44.99	1217	48.37	1247	51.78	1275	55.23
43968	3200	1036	27.37	1069	30.74	1100	34.18	1130	37.69	1163	41.56	1195	45.50	1225	49.51	1255	53.21	1283	56.80	1311	60.41
46716	3400	1084	30.99	1116	34.54	1146	38.15	1175	41.81	1204	45.58	1235	49.69	1264	53.87	1293	58.11	1321	62.20	1348	65.99
49464	3600	1133	34.97	1163	38.70	1193	42.48	1221	46.31	1248	50.21	1275	54.21	1304	58.55	1332	62.96	1360	67.43	1386	71.96
52212	3800	1182	39.17	1211	43.25	1240	47.20	1267	51.20	1294	55.26	1319	59.37	1345	63.59	1372	68.17	1399	72.80	1425	77.49
54960	4000	1231	43.76	1260	48.21	1287	52.33	1314	56.50	1340	60.72	1365	65.00	1389	69.33	1413	73.74	1439	78.54	1465	83.40
57708	4200	1281	48.74	1309	53.38	1335	57.89	1361	62.23	1386	66.62	1411	71.06	1434	75.55	1457	80.09	1479	84.68	1505	89.70
60456	4400	1331	54.15	1358	58.98	1384	63.88	1409	68.41	1433	72.97	1457	77.57	1480	82.23	1503	86.93	1524	91.68	1546	96.47
63204	4600	1382	60.01	1408	65.02	1433	70.10	1457	75.06	1481	79.79	1504	84.56	1527	89.38	1548	94.24	1570	99.15	1591	104.11
65952	4800	1432	66.32	1458	71.52	1482	76.78	1506	82.11	1529	87.10	1551	92.04	1573	97.03	1595	102.06	1616	107.13	1636	112.24
68700	5000	1483	73.11	1508	78.50	1532	83.95	1555	89.45	1577	94.92	1599	100.03	1620	105.19	1641	110.38	1662	115.62	1682	120.89
71448	5200	1535	80.41	1558	85.98	1581	91.61	1604	97.30	1626	103.05	1647	108.56	1668	113.88	1688	119.24	1708	124.64	1728	130.08

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
32976	2400	1214	45.38																		
35724	2600	•1236	•49.16	•1301	•56.09																
38472	2800	1269	53.76	1324	60.52	•1383	•67.85	1443	75.57												
41220	3000	1302	58.71	1357	65.80	1408	73.02	•1462	•80.66	1518	88.85										
43968	3200	1338	64.06	1390	71.44	1441	78.99	1490	86.65	•1537	•94.51	•1591	•103.18	1643	111.97						
46716	3400	1375	69.80	1426	77.52	1474	85.36	1523	93.35	1569	101.45	1613	109.65	•1662	•118.56	1712	127.81	1760	137.17		
49464	3600	1412	75.96	1463	84.01	1510	92.18	1556	100.46	1602	108.89	1646	117.42	1688	126.04	•1731	•134.99	•1779	•144.69	•1825	•154.50
52212	3800	1450	82.24	1500	90.95	1547	99.45	1592	108.06	1635	116.77	1678	125.62	1720	134.57	1761	143.62	1800	152.75		
54960	4000	1489	88.31	1537	98.30	1584	107.18	1628	116.12	1671	125.16	1713	134.30	1753	143.56	1793	152.93				
57708	4200	1529	94.78	1576	105.09	1621	115.40	1665	124.68	1708	134.04	1749	143.51	1788	153.06						
60456	4400	1569	101.64	1616	112.29	1660	123.13	1703	133.73	1745	143.44	1785	153.23	1824	163.11						
63204	4600	1611	109.10	1655	119.91	1699	131.08	1741	142.44	1782	153.36	1822	163.48								
65952	4800	1656	117.40	1696	127.98	1739	139.48	1780	151.16	1820	163.01										
68700	5000	1701	126.21	1739	136.96	1779	148.34	1820	160.34												

• Approximate Max. Static Efficiency and Quietest Selection. CL. I CL. II CL. III CL. IV

The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.

For minimum motor size required see "Fan Starting Requirements," page 9.

Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1 ° C & 0 m).

Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

SIZE 40

DOUBLE WIDTH
DOUBLE INLET

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

Wheel Diameter	40 ¼ inches	1022 mm
Wheel Circumference	10.54 feet	3.213 m
Inlet Diameter/Area	43 ½ inches sq./20.62 sq. ft.	1105 mm/1.916 m^2
Outlet Size/Area	57 ⅛ x 42 7/16 inches I.D./16.83 sq. ft.	1451 x 1078 mm/1.564 m^2
Tip Speed	10.54 x RPM ft./minute	3.213 x RPM m/minute
Maximum BHP	43.98 x (RPM ÷1000)^3 BHP	32.80 x (RPM ÷1000)^3 kW

SIZE 40	-20° to 150°F -29° to 66°C
CLASS I	1007
CLASS II	1313
CLASS III	1655
CLASS IV	N/A

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
10098	600	•230	•0.53	•261	•0.75																
11781	700	247	0.66	276	0.91	•302	•1.17	•329	•1.46												
13464	800	265	0.80	293	1.10	317	1.38	340	1.68	•363	•1.99										
15147	900	285	0.97	311	1.30	334	1.63	356	1.95	376	2.28	•396	•2.61	•417	•2.99						
16830	1000	306	1.18	329	1.52	352	1.90	373	2.25	392	2.61	411	2.97	429	3.34	•466	•4.16				
18513	1100	328	1.41	349	1.78	370	2.17	390	2.60	409	2.98	427	3.37	444	3.76	477	4.58	•511	•5.48		
20196	1200	350	1.69	370	2.08	388	2.48	408	2.93	426	3.39	444	3.81	460	4.23	492	5.10	521	5.99	•553	•6.98
21879	1300	372	2.00	391	2.42	409	2.85	426	3.30	444	3.79	461	4.29	477	4.74	508	5.66	536	6.60	564	7.57
23562	1400	394	2.34	413	2.81	430	3.26	446	3.73	462	4.23	479	4.76	494	5.30	524	6.27	552	7.27	579	8.29
25245	1500	417	2.73	435	3.24	451	3.72	467	4.21	481	4.72	497	5.26	512	5.83	541	6.94	569	7.99	594	9.06
26928	1600	440	3.17	457	3.71	473	4.23	488	4.75	502	5.28	516	5.82	531	6.41	559	7.63	586	8.77	611	9.89
28611	1700	463	3.65	480	4.22	495	4.79	509	5.34	523	5.89	537	6.46	549	7.03	577	8.31	603	9.61	628	10.78
30294	1800	487	4.19	502	4.79	517	5.41	531	5.99	545	6.57	558	7.16	570	7.76	595	9.04	621	10.40	645	11.74
31977	1900	510	4.78	525	5.42	540	6.06	553	6.69	566	7.30	579	7.92	591	8.54	614	9.82	639	11.24	662	12.70
33660	2000	534	5.44	549	6.10	562	6.77	575	7.46	588	8.10	600	8.74	612	9.39	634	10.72	657	12.13	680	13.64
37026	2200	582	6.94	595	7.66	608	8.39	620	9.13	632	9.89	644	10.59	655	11.30	676	12.73	697	14.19	717	15.72
40392	2400	630	8.71	642	9.49	654	10.28	666	11.08	677	11.90	688	12.72	699	13.50	719	15.04	739	16.60	757	18.19
43758	2600	678	10.78	690	11.62	701	12.47	712	13.33	723	14.20	733	15.08	743	15.97	763	17.66	781	19.33	799	21.03
47124	2800	727	13.18	738	14.08	748	14.99	759	15.91	769	16.84	779	17.78	788	18.72	807	20.64	825	22.41	842	24.21
50490	3000	776	15.92	786	16.89	796	17.86	806	18.84	815	19.82	825	20.82	834	21.82	852	23.86	869	25.87	885	27.78
53856	3200	825	19.04	834	20.07	844	21.10	853	22.14	862	23.18	871	24.24	880	25.30	897	27.45	913	29.63	929	31.74
57222	3400	874	22.56	883	23.65	892	24.74	901	25.84	910	26.94	918	28.06	926	29.18	943	31.44	958	33.74	974	36.06
60588	3600	923	26.50	932	27.65	940	28.80	949	29.96	957	31.12	965	32.30	973	33.48	989	35.86	1004	38.27	1019	40.70
63954	3800	972	30.89	981	32.10	989	33.31	997	34.53	1005	35.76	1013	36.99	1020	38.23	1035	40.73	1050	43.25	1064	45.80

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
21879	1300	•592	•8.63																		
23562	1400	604	9.33	658	11.64																
25245	1500	619	10.15	•666	•12.43	717	14.98														
26928	1600	634	11.03	680	13.38	•726	•15.91														
28611	1700	651	11.98	695	14.43	737	16.95	781	19.73												
30294	1800	668	12.99	711	15.54	752	18.17	•790	•20.86	834	23.88										
31977	1900	685	14.07	728	16.72	767	19.45	805	22.24	•842	•25.15	883	28.36								
33660	2000	702	15.18	744	17.98	783	20.80	820	23.70	856	26.66	•892	•29.78	•930	•33.15						
37026	2200	738	17.36	779	20.73	817	23.76	852	26.86	886	30.02	919	33.24	951	36.51	•985	•40.01	•1020	•43.71		
40392	2400	775	19.81	814	23.41	851	27.06	886	30.36	919	33.72	950	37.14	981	40.61	1011	44.14	1040	47.72	•1071	•51.53
43758	2600	817	22.75	851	26.35	887	30.27	920	34.24	953	37.81	983	41.42	1013	45.09	1041	48.81	1070	52.59	1097	56.42
47124	2800	859	26.04	891	29.75	923	33.74	956	37.96	987	42.28	1017	46.11	1046	49.99	1074	53.91	1101	57.87	1127	61.90
50490	3000	901	29.70	932	33.62	961	37.63	992	41.98	1023	46.50	1052	51.11	1080	55.31	1108	59.44	1134	63.61	1160	67.82
53856	3200	945	33.77	975	37.90	1003	42.10	1030	46.39	1059	51.09	1088	55.90	1115	60.80	1142	65.43	1168	69.81	1193	74.22
57222	3400	989	38.27	1017	42.60	1045	47.01	1071	51.50	1096	56.06	1124	61.08	1151	66.19	1177	71.37	1202	76.49	1227	81.11
60588	3600	1033	43.17	1061	47.76	1087	52.38	1113	57.07	1137	61.83	1161	66.67	1187	71.98	1213	77.37	1238	82.83	1261	88.36
63954	3800	1078	48.38	1105	53.40	1130	58.23	1155	63.12	1179	68.09	1202	73.12	1224	78.21	1249	83.81	1274	89.47	1297	95.20
67320	4000	1123	54.06	1149	59.51	1174	64.58	1198	69.69	1221	74.85	1244	80.08	1265	85.37	1287	90.73	1310	96.57	1333	102.50
70686	4200	1168	60.25	1194	65.92	1218	71.47	1241	76.78	1264	82.15	1286	87.59	1307	93.08	1328	98.63	1348	104.24	1370	110.29
74052	4400	1214	66.96	1239	72.86	1262	78.85	1285	84.44	1307	90.02	1328	95.65	1349	101.35	1369	107.10	1389	112.90	1408	118.76
77418	4600	1261	74.22	1284	80.35	1307	86.56	1329	92.69	1350	98.47	1371	104.31	1391	110.20	1411	116.15	1430	122.16	1449	128.21
80784	4800	1307	82.05	1330	88.41	1352	94.85	1373	101.36	1394	107.53	1414	113.58	1434	119.68	1454	125.83	1472	132.03	1491	138.28
84150	5000	1354	90.48	1376	97.07	1397	103.73	1418	110.47	1438	117.23	1458	123.48	1477	129.79	1496	136.14	1515	142.54	1533	149.00
87516	5200	1400	99.53	1422	106.35	1443	113.24	1463	120.20	1483	127.24	1502	134.06	1521	140.56	1539	147.12	1557	153.72	1575	160.38

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
40392	2400	•1103	•55.56																		
43758	2600	1124	60.29	•1181	•68.68																
47124	2800	1154	65.97	1204	74.23	•1256	•83.09	1310	92.51												
50490	3000	1184	72.08	1234	80.74	1280	89.56	•1327	•98.78	1379	108.79										
53856	3200	1217	78.68	1264	87.71	1310	96.93	1354	106.30	•1397	•115.80	•1445	•126.34	1492	137.08						
57222	3400	1251	85.78	1297	95.22	1341	104.80	1384	114.56	1426	124.46	1466	134.48	•1509	•145.18	1555	156.48	1598	167.92		
60588	3600	1285	93.39	1331	103.24	1374	113.22	1415	123.34	1456	133.63	1496	144.06	1534	154.60	•1572	•165.31	•1615	•177.17		
63954	3800	1320	101.00	1365	111.81	1407	122.20	1448	132.73	1487	143.37	1526	154.18	1564	165.12	1601	176.17	1637	187.34		
67320	4000	1356	108.51	1399	120.71	1441	131.76	1482	142.69	1520	153.74	1558	164.90	1594	176.21	1631	187.66				
70686	4200	1392	116.50	1435	129.10	1476	141.91	1515	153.25	1554	164.71	1591	176.28	1626	187.95						
74052	4400	1429	124.99	1471	138.00	1511	151.24	1550	164.45	1588	176.31	1624	188.29								
77418	4600	1468	134.32	1507	147.42	1547	161.07	1585	174.95	1622	188.58										
80784	4800	1509	144.59	1544	157.40	1583	171.45	1621	185.73												
84150	5000	1550	155.50	1585	168.64	1620	182.41														

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐ CL. IV ☐

The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.

For minimum motor size required see "Fan Starting Requirements," page 9.

Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1 ° C & 0 m).

Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

DOUBLE WIDTH
DOUBLE INLET

SIZE 45

SIZE 45	-20° to 150°F -29° to 66°C
CLASS I	911
CLASS II	1188
CLASS III	1497
CLASS IV	N/A

Wheel Diameter	44 ½ inches	1130 mm
Wheel Circumference	11.65 feet	3.551 m
Inlet Diameter/Area	47 ¾ inches sq./24.84 sq. ft.	1213 mm/2.308 m^2
Outlet Size/Area	46 15/16 x 63 inches I.D./20.54 sq. ft.	1192 x 1600 mm/1.908 m^2
Tip Speed	11.65 x RPM ft./minute	3.551 x RPM m/minute
Maximum BHP	72.50 x (RPM ÷1000)^3 BHP	54.06 x (RPM ÷1000)^3 kW

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1¼" SP		1½" SP		1¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
12324	600	•208	•0.65	•236	•0.91																
14378	700	224	0.81	250	1.11	•273	•1.43	•298	•1.78												
16432	800	240	0.98	265	1.34	287	1.68	308	2.04	•329	•2.43										
18486	900	258	1.18	281	1.59	302	1.98	322	2.37	340	2.78	•358	•3.19	•377	•3.65						
20540	1000	277	1.43	297	1.85	318	2.32	337	2.75	354	3.18	371	3.62	388	4.08	•421	•5.07				
22594	1100	296	1.72	315	2.17	334	2.65	352	3.17	370	3.63	386	4.11	401	4.59	431	5.59	•462	•6.69		
24648	1200	316	2.06	334	2.53	351	3.03	369	3.58	385	4.14	401	4.64	416	5.16	444	6.22	471	7.31	•500	•8.51
26702	1300	336	2.44	353	2.95	369	3.47	385	4.03	401	4.63	417	5.23	431	5.78	459	6.90	485	8.06	509	9.24
28756	1400	356	2.85	373	3.42	388	3.97	403	4.54	418	5.16	433	5.80	447	6.47	474	7.65	499	8.86	523	10.11
30810	1500	377	3.33	393	3.95	408	4.53	422	5.14	435	5.75	449	6.42	463	7.11	489	8.47	514	9.74	537	11.05
32864	1600	398	3.86	413	4.52	427	5.15	441	5.79	454	6.43	466	7.09	480	7.81	505	9.31	529	10.69	552	12.06
34918	1700	419	4.45	433	5.15	447	5.84	460	6.51	473	7.18	485	7.87	496	8.57	521	10.13	545	11.72	567	13.15
36972	1800	440	5.10	454	5.84	467	6.59	480	7.29	492	8.00	504	8.72	515	9.46	538	11.02	561	12.69	583	14.32
39026	1900	461	5.83	475	6.60	487	7.38	500	8.15	512	8.90	523	9.65	534	10.41	555	11.97	577	13.71	599	15.48
41080	2000	482	6.62	495	7.43	508	8.25	520	9.09	531	9.87	542	10.65	553	11.45	573	13.07	594	14.80	615	16.64
45188	2200	526	8.45	538	9.32	549	10.22	560	11.13	571	12.05	582	12.91	592	13.77	611	15.52	630	17.30	648	19.17
49296	2400	569	10.60	580	11.56	591	12.52	602	13.50	612	14.49	622	15.50	631	16.45	650	18.32	667	20.23	684	22.18
53404	2600	613	13.12	623	14.15	633	15.19	643	16.24	653	17.30	662	18.38	671	19.46	689	21.52	706	23.56	722	25.63
57512	2800	657	16.04	666	17.14	676	18.25	685	19.38	695	20.51	703	21.65	712	22.81	729	25.15	745	27.31	761	29.51
61620	3000	701	19.38	710	20.56	719	21.74	728	22.94	737	24.14	745	25.36	753	26.58	769	29.07	785	31.52	800	33.84
65728	3200	745	23.18	754	24.43	762	25.68	771	26.95	779	28.23	787	29.52	795	30.82	810	33.44	825	36.10	840	38.67
69836	3400	789	27.46	798	28.78	806	30.11	814	31.45	822	32.80	829	34.16	837	35.53	852	38.30	866	41.10	880	43.93
73944	3600	834	32.26	842	33.65	849	35.06	857	36.47	864	37.89	872	39.33	879	40.77	893	43.67	907	46.61	920	49.59
78052	3800	878	37.60	886	39.07	893	40.55	900	42.03	908	43.53	915	45.03	921	46.55	935	49.60	948	52.68	961	55.79

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
26702	1300	•536	•10.53																		
28756	1400	546	11.39	595	14.20																
30810	1500	560	12.39	•602	•15.17																
32864	1600	573	13.46	615	16.33	•656	•19.42														
34918	1700	588	14.61	629	17.60	666	20.69	707	24.08												
36972	1800	604	15.84	643	18.95	680	22.16	•715	•25.45	754	29.15										
39026	1900	619	17.16	658	20.39	693	23.72	728	27.14	•762	•30.70	799	34.61								
41080	2000	635	18.52	673	21.93	708	25.38	742	28.91	774	32.53	•806	•36.34	•841	•40.47						
45188	2200	667	21.18	704	25.28	738	28.98	770	32.76	801	36.62	831	40.55	860	44.55	•890	•48.83	•922	•53.36		
49296	2400	701	24.16	736	28.55	769	33.00	801	37.03	831	41.13	859	45.30	887	49.55	914	53.86	940	58.22	•968	•62.89
53404	2600	738	27.73	769	32.14	801	36.91	832	41.75	861	46.11	889	50.52	915	55.00	941	59.55	967	64.16	992	68.83
57512	2800	776	31.73	805	36.27	834	41.14	864	46.30	892	51.56	919	56.24	946	60.97	971	65.75	995	70.60	1019	75.51
61620	3000	814	36.20	842	40.98	869	45.87	897	51.19	924	56.71	951	62.34	976	67.45	1001	72.49	1025	77.58	1048	82.73
65728	3200	854	41.15	881	46.19	906	51.32	930	56.56	957	62.30	983	68.18	1008	74.16	1032	79.79	1055	85.13	1078	90.53
69836	3400	893	46.62	919	51.91	944	57.30	968	62.78	991	68.36	1016	74.49	1040	80.72	1064	87.05	1086	93.27	1109	98.92
73944	3600	933	52.59	958	58.20	982	63.83	1005	69.56	1028	75.37	1049	81.30	1073	87.78	1096	94.36	1118	101.02	1140	107.78
78052	3800	974	58.94	998	65.06	1021	70.96	1044	76.93	1065	82.99	1086	89.13	1106	95.37	1129	102.20	1151	109.11	1172	116.11
82160	4000	1014	65.86	1038	72.51	1061	78.69	1082	84.92	1103	91.23	1124	97.61	1143	104.07	1163	110.61	1184	117.76	1205	125.01
86268	4200	1056	73.39	1078	80.32	1100	87.08	1121	93.56	1142	100.12	1162	106.75	1181	113.46	1200	120.23	1218	127.08	1238	134.49
90376	4400	1097	81.55	1119	88.76	1140	96.07	1161	102.89	1181	109.69	1200	116.57	1219	123.52	1237	130.54	1255	137.63	1272	144.78
94484	4600	1139	90.39	1160	97.87	1180	105.46	1200	112.92	1220	119.98	1239	127.11	1257	134.31	1275	141.57	1292	148.90	1310	156.29
98592	4800	1181	99.92	1201	107.69	1221	115.55	1241	123.50	1259	131.01	1278	138.39	1296	145.84	1313	153.35	1330	160.92	1347	168.56
102700	5000	1223	110.18	1243	118.22	1262	126.36	1281	134.59	1299	142.82	1317	150.46	1335	158.15	1352	165.91	1369	173.72	1385	181.60
106808	5200	1265	121.20	1284	129.52	1303	137.93	1322	146.43	1339	155.02	1357	163.33	1374	171.27	1391	179.27	1407	187.34	1423	195.46

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
49296	2400	•997	•67.81																		
53404	2600	1016	73.56	•1068	•83.83																
57512	2800	1043	80.48	1088	90.57	•1136	•101.41	1185	112.92												
61620	3000	1071	87.92	1115	98.50	1157	109.27	•1200	•120.55	1247	132.78										
65728	3200	1100	95.97	1143	107.00	1184	118.25	1224	129.69	•1263	•141.29	•1307	•154.21	1349	167.32						
69836	3400	1131	104.61	1172	116.14	1212	127.83	1251	139.76	1289	151.84	1326	164.08	•1365	•177.20	1406	190.99	1445	204.96		
73944	3600	1161	113.88	1203	125.91	1242	138.10	1279	150.46	1316	163.02	1352	175.75	1387	188.63	•1421	•201.76	•1461	•216.24		
78052	3800	1193	123.20	1233	136.35	1272	149.04	1309	161.89	1345	174.89	1380	188.08	1414	201.44	1447	214.94	1479	228.57		
82160	4000	1225	132.34	1265	147.24	1303	160.68	1339	174.02	1374	187.51	1408	201.15	1441	214.96	1474	228.94				
86268	4200	1258	142.07	1297	157.46	1334	173.05	1370	186.89	1404	200.88	1438	215.00	1470	229.26						
90376	4400	1291	152.41	1329	168.30	1366	184.47	1401	200.53	1435	215.02	1468	229.63								
94484	4600	1326	163.75	1362	179.78	1398	196.44	1432	213.39	1466	229.96										
98592	4800	1363	176.25	1395	191.93	1431	209.09	1465	226.52	1497	244.20										
102700	5000	1401	189.54	1432	205.58	1464	222.43	1497	240.35												

• Approximate Max. Static Efficiency and Quietest Selection. CL. I CL. II CL. III CL. IV

The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.

For minimum motor size required see "Fan Starting Requirements," page 9.

Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1 ° C & 0 m).

Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

SIZE 49

DOUBLE WIDTH
DOUBLE INLET

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

Wheel Diameter	49 inches	1245 mm
Wheel Circumference	12.83 feet	3.911 m
Inlet Diameter/Area	52 ½ inches sq./30.04 sq. ft.	1334 mm/2.791 m^2
Outlet Size/Area	51⅞ x 69¾ inches I.D./25.34	1311 x 1772 mm/2.354 m^2
Tip Speed	12.83 x RPM ft./minute	3.911 x RPM m/minute
Maximum BHP	117.32 x (RPM ÷1000)^3 BHP	87.49 x (RPM ÷ 1000)^3 kW

SIZE 49	-20° to 150°F -29° to 66°C
CLASS I	828
CLASS II	1079
CLASS III	1359
CLASS IV	N/A

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
15024	600	•189	•0.79	•215	•1.12																
17528	700	204	0.99	227	1.35	•249	•1.74	•271	•2.17												
20032	800	219	1.19	241	1.64	261	2.06	280	2.50	•299	•2.96										
22536	900	235	1.45	256	1.94	275	2.42	293	2.90	310	3.39	•326	•3.89	•343	•4.45						
25040	1000	252	1.75	271	2.26	289	2.83	307	3.36	323	3.88	338	4.42	353	4.98	•383	•6.18				
27544	1100	270	2.11	287	2.65	304	3.24	321	3.87	336	4.44	351	5.02	365	5.61	392	6.82	•420	•8.16		
30048	1200	288	2.52	304	3.10	320	3.70	336	4.37	351	5.06	365	5.67	379	6.30	404	7.59	429	8.92	•454	•10.38
32552	1300	306	2.99	322	3.61	337	4.25	351	4.92	365	5.65	379	6.40	393	7.07	418	8.43	441	9.83	464	11.28
35056	1400	325	3.50	340	4.19	354	4.87	367	5.56	381	6.30	394	7.09	407	7.90	431	9.35	454	10.83	476	12.34
37560	1500	344	4.08	358	4.84	372	5.56	384	6.29	396	7.04	409	7.85	422	8.69	446	10.35	468	11.91	489	13.49
40064	1600	363	4.74	377	5.54	390	6.32	402	7.09	414	7.88	425	8.68	437	9.55	460	11.37	482	13.07	503	14.74
42568	1700	382	5.46	395	6.31	408	7.16	420	7.97	431	8.80	442	9.64	452	10.49	475	12.38	496	14.33	516	16.07
45072	1800	401	6.27	414	7.16	426	8.08	438	8.94	449	9.81	459	10.68	469	11.58	490	13.47	511	15.50	531	17.51
47576	1900	421	7.16	433	8.10	445	9.06	456	10.00	466	10.90	477	11.82	487	12.75	505	14.65	526	16.75	545	18.92
50080	2000	440	8.14	452	9.12	463	10.12	474	11.14	484	12.10	494	13.06	504	14.02	523	16.00	541	18.09	560	20.33
55088	2200	480	10.39	491	11.46	501	12.55	511	13.65	521	14.77	530	15.83	540	16.88	557	19.00	574	21.18	590	23.44
60096	2400	519	13.04	529	14.20	539	15.38	549	16.57	558	17.78	567	19.00	576	20.17	592	22.46	608	24.78	624	27.15
65104	2600	559	16.15	569	17.40	578	18.66	587	19.94	596	21.24	604	22.55	612	23.87	628	26.39	644	28.87	658	31.39
70112	2800	599	19.74	608	21.08	617	22.43	625	23.80	634	25.18	642	26.58	650	27.99	665	30.84	679	33.48	694	36.16
75120	3000	640	23.86	648	25.29	656	26.73	664	28.19	672	29.66	680	31.14	687	32.63	702	35.66	716	38.66	729	41.49
80128	3200	680	28.53	688	30.05	696	31.59	703	33.13	711	34.69	718	36.26	725	37.84	739	41.03	753	44.27	766	47.42
85136	3400	721	33.81	728	35.42	735	37.04	743	38.67	750	40.32	757	41.98	763	43.64	777	47.01	790	50.42	802	53.88
90144	3600	761	39.71	768	41.42	775	43.13	782	44.85	789	46.59	796	48.33	802	50.09	815	53.63	827	57.21	839	60.83
95152	3800	802	46.30	809	48.09	815	49.89	822	51.70	828	53.53	835	55.36	841	57.20	853	60.92	865	64.67	877	68.47

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
32552	1300	•487	•12.84																		
35056	1400	497	13.89	541	17.31																
37560	1500	509	15.12	•548	•18.49	590	22.28														
40064	1600	522	16.43	559	19.93	•597	•23.67														
42568	1700	536	17.85	572	21.49	606	25.24	642	29.35												
45072	1800	550	19.36	585	23.14	619	27.05	•650	•31.06	685	35.52										
47576	1900	564	20.97	599	24.92	631	28.96	662	33.12	•692	•37.42	726	42.18								
50080	2000	578	22.62	613	26.80	644	30.99	675	35.30	704	39.70	•733	•44.30	•765	•49.31						
55088	2200	608	25.88	641	30.91	672	35.42	701	40.02	729	44.71	756	49.50	782	54.37	•809	•59.51	•838	•65.02		
60096	2400	638	29.55	670	34.88	700	40.35	729	45.26	756	50.25	782	55.32	807	60.49	832	65.73	855	71.05	•880	•76.66
65104	2600	673	33.95	701	39.29	730	45.11	757	51.05	784	56.35	809	61.73	833	67.18	857	72.71	880	78.33	903	84.01
70112	2800	707	38.87	733	44.39	760	50.30	787	56.57	812	62.98	837	68.74	861	74.50	884	80.33	906	86.22	927	92.19
75120	3000	743	44.36	768	50.18	792	56.14	817	62.58	842	69.30	866	76.15	889	82.46	911	88.59	933	94.79	954	101.05
80128	3200	778	50.45	803	56.58	826	62.83	848	69.21	872	76.16	895	83.31	918	90.59	940	97.54	961	104.05	982	110.62
85136	3400	814	57.18	838	63.62	861	70.18	882	76.85	903	83.63	925	91.06	947	98.64	969	106.34	989	114.04	1010	120.92
90144	3600	851	64.49	874	71.35	896	78.21	916	85.19	937	92.26	956	99.44	977	107.31	998	115.31	1019	123.42	1038	131.64
95152	3800	888	72.30	910	79.79	931	86.97	951	94.25	971	101.62	990	109.10	1008	116.67	1029	124.94	1048	133.35	1068	141.87
100160	4000	925	80.81	947	88.91	967	96.48	987	104.07	1006	111.75	1024	119.52	1042	127.39	1059	135.34	1079	143.97	1098	152.79
105168	4200	963	90.07	983	98.51	1003	106.80	1022	114.69	1041	122.68	1059	130.75	1076	138.92	1093	147.17	1110	155.50	1128	164.43
110176	4400	1001	100.12	1021	108.90	1040	117.81	1058	126.16	1076	134.45	1094	142.83	1111	151.29	1128	159.84	1144	168.46	1160	177.17
115184	4600	1039	111.00	1058	120.11	1077	129.35	1095	138.50	1112	147.10	1129	155.78	1146	164.55	1162	173.39	1178	182.31	1194	191.32
120192	4800	1077	122.73	1096	132.19	1114	141.76	1131	151.45	1148	160.67	1165	169.66	1181	178.73	1197	187.87	1213	197.09	1228	206.38
125200	5000	1116	135.36	1134	145.16	1151	155.07	1168	165.09	1185	175.20	1201	184.49	1217	193.86	1232	203.31	1248	212.83	1262	222.42
130208	5200	1154	148.92	1172	159.06	1189	169.31	1205	179.66	1222	190.12	1237	200.32	1253	210.00	1268	219.74	1283	229.56	1297	239.45

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
60096	2400	•907	•82.64																		
65104	2600	924	89.76	•971	•102.17	1018	115.28														
70112	2800	949	98.24	990	110.52	•1032	•123.60	1077	137.60												
75120	3000	974	107.37	1015	120.25	1053	133.35	•1091	•146.94	1133	161.82	1174	176.93								
80128	3200	1002	117.24	1040	130.67	1078	144.36	1114	158.28	•1149	•172.40	•1188	•187.94	1227	203.90						
85136	3400	1029	127.85	1067	141.88	1103	156.12	1139	170.62	1173	185.33	1206	200.23	•1241	•215.98	1278	232.77	1314	249.75		
90144	3600	1058	139.23	1095	153.87	1131	168.71	1164	183.75	1198	199.04	1231	214.53	1262	230.19	•1293	•246.03	•1328	•263.55		
95152	3800	1086	150.49	1123	166.68	1158	182.13	1192	197.77	1224	213.59	1255	229.64	1287	245.90	1317	262.33	1346	278.91		
100160	4000	1116	161.71	1152	179.84	1186	196.41	1219	212.66	1251	229.08	1282	245.68	1312	262.47	1341	279.49				
105168	4200	1146	173.65	1181	192.38	1214	211.47	1247	228.45	1279	245.48	1309	262.67	1338	280.02						
110176	4400	1176	186.35	1211	205.68	1244	225.37	1275	245.19	1306	262.83	1336	280.62								
115184	4600	1209	200.39	1241	219.78	1273	240.06	1304	260.68	1335	281.16										
120192	4800	1243	215.75	1271	234.71	1303	255.58	1334	276.79												
125200	5000	1277	232.08	1305	251.62	1334	271.96														

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐ CL. IV ☐
The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.
For minimum motor size required see "Fan Starting Requirements," page 9.
Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1 ° C & 0 m).
Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

DOUBLE WIDTH
DOUBLE INLET

SIZE 54

SIZE 54	-20° to 150°F -29° to 66°C
CLASS I	747
CLASS II	974
CLASS III	1228
CLASS IV	N/A

Wheel Diameter	54 ¼ inches	1378 mm
Wheel Circumference	14.2 feet	4.328 m
Inlet Diameter/Area	58 ¼ inches sq./36.98 sq. ft.	1480 mm/3.435 m^2
Outlet Size/Area	57 ¼ x 76 ⅞ inches I.D./30.56 sq. ft.	1454 x 1953 mm/2.839 m^2
Tip Speed	14.2 x RPM ft./minute	4.328 x RPM m/minute
Maximum BHP	195.30 x (RPM ÷1000)^3 BHP	145.64 x (RPM ÷1000)^3 kW

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
18336	600	•171	•0.96	•193	•1.36																
21392	700	183	1.20	205	1.65	•224	•2.12	•244	•2.65												
24448	800	197	1.46	217	1.99	236	2.51	253	3.04	•270	•3.62										
27504	900	211	1.76	230	2.36	248	2.95	264	3.53	279	4.13	•294	•4.75	•310	•5.43						
30560	1000	227	2.13	244	2.76	261	3.45	276	4.09	291	4.73	305	5.39	318	6.07	•346	•7.55				
33616	1100	243	2.57	259	3.22	274	3.95	289	4.71	303	5.41	317	6.11	329	6.83	354	8.32	•379	•9.96		
36672	1200	259	3.07	274	3.77	288	4.50	302	5.32	316	6.16	329	6.91	341	7.68	365	9.25	387	10.88	•410	•12.67
39728	1300	276	3.63	290	4.39	303	5.17	316	5.99	329	6.88	342	7.79	354	8.61	377	10.27	398	11.99	418	13.75
42784	1400	293	4.25	306	5.09	319	5.92	331	6.77	343	7.68	355	8.64	367	9.62	389	11.39	409	13.19	429	15.05
45840	1500	309	4.96	322	5.88	335	6.75	346	7.65	357	8.56	369	9.55	380	10.59	402	12.60	422	14.50	441	16.44
48896	1600	327	5.75	339	6.73	351	7.68	362	8.62	373	9.58	383	10.56	394	11.63	415	13.85	434	15.92	453	17.95
51952	1700	344	6.63	356	7.67	367	8.70	378	9.69	388	10.70	398	11.72	407	12.77	428	15.08	447	17.44	466	19.58
55008	1800	361	7.60	373	8.70	384	9.81	394	10.86	404	11.92	414	12.99	423	14.08	442	16.40	460	18.89	478	21.32
58064	1900	379	8.68	390	9.83	400	11.00	410	12.15	420	13.25	429	14.37	438	15.51	455	17.83	474	20.40	491	23.05
61120	2000	396	9.87	407	11.07	417	12.29	427	13.54	436	14.70	445	15.87	454	17.05	471	19.46	487	22.03	505	24.76
67232	2200	432	12.59	441	13.90	451	15.23	460	16.58	469	17.95	477	19.23	486	20.51	502	23.11	517	25.76	532	28.53
73344	2400	467	15.80	476	17.22	485	18.66	494	20.11	502	21.59	510	23.08	518	24.50	533	27.29	548	30.13	562	33.02
79456	2600	503	19.56	512	21.09	520	22.63	528	24.20	536	25.78	544	27.38	551	28.99	566	32.06	580	35.09	593	38.17
85568	2800	539	23.91	547	25.55	555	27.20	563	28.87	570	30.56	578	32.26	585	33.98	598	37.46	612	40.68	625	43.95
91680	3000	575	28.89	583	30.64	590	32.40	598	34.18	605	35.97	612	37.78	618	39.61	632	43.30	644	46.95	657	50.41
97792	3200	612	34.55	619	36.41	626	38.28	633	40.17	640	42.07	646	43.98	653	45.91	665	49.82	677	53.77	689	57.60
103904	3400	648	40.93	655	42.90	662	44.88	668	46.88	675	48.89	681	50.91	687	52.95	699	57.06	711	61.22	722	65.44
110016	3600	685	48.09	691	50.16	697	52.25	704	54.36	710	56.48	716	58.61	722	60.75	733	65.07	745	69.45	755	73.87
116128	3800	721	56.05	727	58.24	733	60.44	739	62.65	745	64.88	751	67.12	757	69.37	768	73.90	779	78.49	789	83.12

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
39728	1300	•440	•15.67																		
42784	1400	448	16.94	488	21.13																
45840	1500	459	18.43	•494	•22.56																
48896	1600	471	20.03	505	24.30	•539	•28.89														
51952	1700	483	21.74	516	26.19	547	30.78	580	35.83												
55008	1800	495	23.58	527	28.21	558	32.98	•586	•37.88	618	43.36										
58064	1900	508	25.54	540	30.36	569	35.31	597	40.39	•625	•45.67	655	51.49								
61120	2000	521	27.56	552	32.64	581	37.77	609	43.03	635	48.41	•662	•54.07	•690	•60.20						
67232	2200	548	31.52	578	37.63	606	43.14	632	48.76	657	54.50	682	60.35	706	66.30	•730	•72.64	•756	•79.38		
73344	2400	575	35.97	604	42.49	631	49.12	657	55.13	682	61.22	705	67.42	728	73.74	750	80.15	771	86.64	•794	•93.57
79456	2600	606	41.29	631	47.84	658	54.95	683	62.15	707	68.63	729	75.21	751	81.87	772	88.62	794	95.49	814	102.44
85568	2800	637	47.26	661	54.01	685	61.25	709	68.91	732	76.75	755	83.71	776	90.75	797	97.87	817	105.07	836	112.37
91680	3000	669	53.91	691	61.03	713	68.30	736	76.20	759	84.42	780	92.79	801	100.41	822	107.91	841	115.48	860	123.13
97792	3200	701	61.29	723	68.79	744	76.43	764	84.21	786	92.74	807	101.49	827	110.38	847	118.78	866	126.73	885	134.75
103904	3400	733	69.45	755	77.32	775	85.33	794	93.48	813	101.77	834	110.89	854	120.16	873	129.57	892	138.85	910	147.25
110016	3600	766	78.34	787	86.68	806	95.07	825	103.59	844	112.23	861	121.04	881	130.68	900	140.46	918	150.37	936	160.42
116128	3800	799	87.80	819	96.92	838	105.68	857	114.57	874	123.59	892	132.72	908	141.98	927	152.14	945	162.42	962	172.84
122240	4000	833	98.11	852	108.01	871	117.22	888	126.48	906	135.86	922	145.36	939	154.97	954	164.69	972	175.31	989	186.09
128352	4200	867	109.34	885	119.64	903	129.72	921	139.36	937	149.11	954	158.98	969	168.95	985	179.03	1000	189.21	1016	200.21
134464	4400	901	121.51	919	132.23	936	143.11	953	153.25	969	163.38	985	173.62	1001	183.95	1016	194.39	1030	204.93	1044	215.57
140576	4600	935	134.68	952	145.81	969	157.10	986	168.21	1001	178.72	1017	189.32	1032	200.03	1047	210.83	1061	221.73	1075	232.73
146688	4800	969	148.89	986	160.44	1003	172.13	1018	183.96	1034	195.16	1049	206.14	1064	217.21	1078	228.38	1092	239.65	1106	251.00
152800	5000	1004	164.19	1020	176.15	1036	188.25	1052	200.49	1067	212.76	1081	224.11	1096	235.56	1110	247.10	1123	258.72	1137	270.44
158912	5200	1039	180.61	1055	192.99	1070	205.50	1085	218.15	1100	230.92	1114	243.30	1128	255.11	1142	267.02	1155	279.01	1168	291.09

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
73344	2400	•818	•100.89																		
79456	2600	834	109.46	•876	•124.72																
85568	2800	856	119.77	893	134.78	•932	•150.87	972	167.99												
91680	3000	879	130.86	915	146.59	950	162.61	•985	•179.36	1023	197.54										
97792	3200	903	142.85	938	159.25	972	175.99	1005	193.00	•1036	•210.25	•1072	•229.42	1107	248.92						
103904	3400	928	155.72	962	172.86	995	190.26	1027	207.99	1058	225.97	1088	244.18	•1120	•263.63	1153	284.15	1186	304.91		
110016	3600	953	169.54	987	187.42	1019	205.56	1050	223.94	1080	242.62	1110	261.56	1138	280.70	•1166	•300.18	•1198	•321.71		
116128	3800	979	183.37	1012	202.97	1044	221.85	1074	240.96	1103	260.30	1132	279.92	1160	299.79	1188	319.87	1214	340.14		
122240	4000	1006	196.99	1038	219.15	1069	239.19	1099	259.04	1128	279.11	1155	299.39	1183	319.92	1210	340.72				
128352	4200	1033	211.49	1064	234.38	1094	257.62	1124	278.22	1153	299.02	1180	320.02	1206	341.23						
134464	4400	1060	226.90	1091	250.52	1121	274.58	1149	298.54	1178	320.08	1205	341.82								
140576	4600	1089	243.82	1118	267.63	1147	292.42	1176	317.61	1203	342.34										
146688	4800	1119	262.45	1145	285.73	1174	311.26	1202	337.17												
152800	5000	1150	282.25	1175	306.12	1202	331.13														

• Approximate Max. Static Efficiency and Quietest Selection. CL. I CL. II CL. III CL. IV
The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.
For minimum motor size required see "Fan Starting Requirements," page 9.
Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1 ° C & 0 m).
Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

SIZE 60

DOUBLE WIDTH
DOUBLE INLET

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

Wheel Diameter	60 inches	1524 mm
Wheel Circumference	15.71 feet	4.788 m
Inlet Diameter/Area	64 inches sq./44.64 sq. ft.	1626 mm/4.147 m^2
Outlet Size/Area	63 ¼ x 84 ⅞ inches I.D./37.28 sq. ft.	1607 x 2156 mm/3.463 m^2
Tip Speed	15.71 x RPM ft./minute	4.788 x RPM m/minute
Maximum BHP	323.71 x (RPM ÷1000)^3 BHP	241.4 x (RPM ÷ 1000)^3 kW

SIZE 60	-20° to 150°F -29° to 66°C
CLASS I	676
CLASS II	881
CLASS III	1110
CLASS IV	N/A

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
22368	600	•154	•1.17	•175	•1.66																
26096	700	166	1.47	185	2.01	•203	•2.59	•221	•3.23												
29824	800	178	1.77	196	2.43	213	3.06	228	3.71	•244	•4.41										
33552	900	191	2.14	208	2.88	224	3.60	238	4.31	252	5.04	•265	•5.79	•280	•6.63						
37280	1000	205	2.60	220	3.36	235	4.21	250	4.98	263	5.77	275	6.57	287	7.40	•312	•9.21				
41008	1100	219	3.12	233	3.93	248	4.81	261	5.74	274	6.59	286	7.45	297	8.33	319	10.14	•343	•12.15		
44736	1200	234	3.73	247	4.59	260	5.49	273	6.48	285	7.50	297	8.42	308	9.36	329	11.28	349	13.26	•371	•15.45
48464	1300	249	4.41	262	5.35	274	6.30	285	7.30	297	8.39	309	9.49	320	10.49	340	12.52	359	14.62	378	16.77
52192	1400	264	5.17	276	6.20	288	7.20	299	8.24	310	9.35	321	10.53	331	11.73	351	13.88	370	16.08	388	18.34
55920	1500	279	6.03	291	7.15	302	8.22	312	9.31	322	10.42	333	11.64	343	12.90	363	15.35	381	17.67	398	20.04
59648	1600	295	6.98	306	8.19	317	9.34	327	10.49	336	11.66	345	12.86	355	14.17	374	16.88	392	19.39	409	21.88
63376	1700	310	8.05	321	9.32	331	10.58	341	11.79	350	13.02	359	14.27	368	15.55	386	18.38	404	21.25	420	23.85
67104	1800	326	9.24	336	10.57	346	11.94	355	13.22	365	14.50	373	15.81	382	17.14	399	19.98	416	23.01	432	25.97
70832	1900	341	10.55	352	11.95	361	13.38	370	14.77	379	16.12	387	17.49	395	18.88	411	21.71	428	24.86	444	28.09
74560	2000	357	11.99	367	13.45	376	14.95	385	16.47	394	17.88	402	19.31	410	20.75	425	23.69	440	26.83	456	30.17
82016	2200	389	15.29	398	16.89	407	18.51	415	20.16	423	21.83	431	23.39	438	24.95	453	28.12	466	31.36	480	34.76
89472	2400	421	19.19	430	20.92	438	22.68	446	24.45	453	26.25	460	28.08	468	29.80	481	33.20	494	36.67	507	40.20
96928	2600	454	23.76	462	25.62	469	27.50	476	29.41	484	31.34	491	33.29	497	35.26	510	39.00	523	42.70	535	46.45
104384	2800	486	29.03	494	31.03	501	33.05	508	35.08	514	37.14	521	39.22	527	41.32	540	45.55	552	49.49	564	53.48
111840	3000	519	35.08	526	37.21	532	39.36	539	41.53	545	43.72	552	45.93	558	48.15	570	52.66	581	57.10	593	61.32
119296	3200	552	41.95	558	44.21	564	46.49	571	48.80	577	51.12	583	53.45	589	55.81	600	60.57	611	65.40	622	70.06
126752	3400	584	49.69	591	52.09	597	54.51	603	56.94	608	59.39	614	61.86	620	64.35	631	69.37	641	74.45	652	79.60
134208	3600	617	58.37	623	60.90	629	63.45	635	66.02	640	68.61	646	71.20	651	73.82	661	79.10	672	84.44	682	89.83
141664	3800	650	68.04	656	70.70	661	73.39	667	76.09	672	78.80	677	81.54	682	84.28	693	89.82	702	95.41	712	101.06

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
48464	1300	•397	•19.12																		
52192	1400	405	20.66	441	25.78																
55920	1500	415	22.47	•447	•27.53																
59648	1600	425	24.41	456	29.62	•487	•35.25														
63376	1700	436	26.50	466	31.93	494	37.53	524	43.72												
67104	1800	447	28.73	476	34.38	504	40.21	•530	•46.19	559	52.91										
70832	1900	459	31.11	487	36.99	514	43.04	540	49.24	•565	•55.71	592	62.82								
74560	2000	470	33.59	499	39.77	525	46.03	550	52.46	574	59.02	•598	•65.96	•624	•73.45						
82016	2200	495	38.41	522	45.84	547	52.57	571	59.43	594	66.43	616	73.57	637	80.84	•660	•88.63	684	96.85		
89472	2400	519	43.81	545	51.77	570	59.84	593	67.16	616	74.61	637	82.17	657	89.89	678	97.71	•697	•105.64	•718	•114.15
96928	2600	547	50.27	570	58.28	594	66.95	616	75.71	638	83.62	659	91.64	679	99.77	698	108.03	717	116.41	735	124.89
104384	2800	575	57.52	596	65.75	618	74.61	640	83.97	661	93.50	681	101.99	701	110.58	720	119.27	738	128.06	755	136.98
111840	3000	603	65.60	624	74.28	644	83.16	664	92.84	685	102.86	704	113.09	724	122.33	742	131.48	760	140.72	777	150.06
119296	3200	632	74.56	652	83.71	671	93.03	689	102.54	709	112.98	728	123.66	747	134.52	765	144.69	782	154.40	799	164.19
126752	3400	662	84.47	681	94.08	699	103.86	717	113.80	734	123.96	753	135.09	771	146.41	788	157.90	805	169.14	822	179.39
134208	3600	691	95.29	710	105.45	728	115.69	745	126.08	761	136.64	777	147.42	795	159.20	812	171.14	829	183.24	845	195.51
141664	3800	721	106.77	739	117.88	757	128.58	773	139.43	789	150.43	805	161.58	820	172.94	837	185.34	853	197.89	869	210.61
149120	4000	751	119.30	769	131.38	786	142.59	802	153.89	817	165.34	832	176.94	847	188.67	861	200.54	877	213.55	893	226.72
156576	4200	782	132.93	799	145.51	815	157.77	831	169.54	846	181.44	861	193.48	875	205.65	889	217.96	902	230.39	917	243.89
164032	4400	812	147.71	829	160.79	845	174.07	860	186.41	875	198.77	889	211.26	903	223.88	917	236.63	930	249.49	943	262.48
171488	4600	843	163.70	859	177.29	874	191.06	889	204.58	904	217.40	918	230.34	931	243.41	945	256.60	958	269.90	970	283.33
178944	4800	874	180.95	890	195.05	904	209.32	919	223.76	933	237.37	947	250.77	960	264.28	973	277.92	986	291.67	998	305.53
186400	5000	906	199.52	920	214.12	935	228.89	949	243.83	962	258.75	976	272.60	989	286.57	1001	300.65	1014	314.85	1026	329.15
193856	5200	937	219.46	951	234.57	965	249.84	979	265.27	992	280.86	1005	295.90	1018	310.32	1030	324.85	1042	339.49	1054	354.23

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
89472	2400	•739	•123.09																		
96928	2600	753	133.47	•792	•152.16																
104384	2800	773	146.01	807	164.33	•842	•184.07	878	204.97												
111840	3000	793	159.49	827	178.71	858	198.27	•890	•218.82	924	241.02										
119296	3200	816	174.07	847	194.10	878	214.54	908	235.31	•936	•256.41	•969	•279.90	1000	303.72						
126752	3400	838	189.73	869	210.65	898	231.90	928	253.55	956	275.50	983	297.73	•1012	•321.63	1042	346.69	1071	372.04		
134208	3600	861	206.53	891	228.36	920	250.50	948	272.94	976	295.76	1002	318.87	1028	342.25	•1054	•366.21	•1083	•392.50		
141664	3800	884	223.47	914	247.27	943	270.31	970	293.64	996	317.25	1023	341.21	1048	365.48	1073	389.99	1097	414.74		
149120	4000	908	240.03	937	267.09	965	291.40	992	315.63	1019	340.12	1044	364.88	1068	389.96	1093	415.35				
156576	4200	932	257.65	961	285.60	988	313.80	1015	338.94	1041	364.34	1066	389.98	1090	415.88						
164032	4400	957	276.39	985	305.23	1012	334.61	1038	363.65	1063	389.95	1088	416.49								
171488	4600	983	296.87	1009	326.03	1036	356.29	1061	387.06	1086	417.01	1110	444.45								
178944	4800	1010	319.50	1034	348.03	1060	379.19	1085	410.84	1110	442.96										
186400	5000	1038	343.56	1061	372.70	1085	403.36	1110	435.89												

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐ CL. IV ☐

The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.

For minimum motor size required see "Fan Starting Requirements," page 9.

Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1 ° C & 0 m).

Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

DOUBLE WIDTH
DOUBLE INLET

SIZE 66

SIZE 66	-20° to 150°F -29° to 66°C
CLASS I	614
CLASS II	801
CLASS III	1009
CLASS IV	N/A

Wheel Diameter	66 inches	1676 mm
Wheel Circumference	17.3 feet	5.273 m
Inlet Diameter/Area	70 inches sq./53.40 sq. ft.	1778 mm/4.961 m^2
Outlet Size/Area	69 9/16 x 94 3/16 inches I.D./45.5 sq. ft.	1767 x 2392 mm/4.227 m^2
Tip Speed	17.3 x RPM ft./minute	5.273 x RPM m/minute
Maximum BHP	520.70 x (RPM ÷1000)^3 BHP	388.3 x (RPM ÷1000)^3 kW

VOL CFM	OUT VEL	1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1 1/4" SP		1 1/2" SP		1 3/4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
27300	600	•141	•1.43	•159	•2.03																
31850	700	151	1.80	169	2.46	•185	•3.16	•201	•3.94												
36400	800	162	2.17	179	2.97	194	3.74	208	4.54	•222	•5.39										
40950	900	175	2.63	190	3.53	204	4.41	218	5.27	230	6.16	•242	•7.07	•255	•8.09						
45500	1000	187	3.19	201	4.12	215	5.15	228	6.10	240	7.06	251	8.04	262	9.05	•285	•11.23				
50050	1100	201	3.84	213	4.82	226	5.89	238	7.04	250	8.07	261	9.12	271	10.19	291	12.40	•312	•14.82		
54600	1200	214	4.59	226	5.64	238	6.73	249	7.94	261	9.20	271	10.32	281	11.46	300	13.80	319	16.21	•337	•18.85
59150	1300	228	5.44	239	6.58	250	7.73	261	8.95	272	10.28	282	11.64	292	12.85	310	15.33	328	17.88	344	20.50
63700	1400	242	6.38	253	7.63	263	8.86	273	10.12	283	11.46	293	12.89	302	14.36	321	17.00	337	19.68	354	22.44
68250	1500	256	7.44	266	8.81	276	10.11	286	11.44	295	12.80	304	14.27	313	15.80	331	18.82	348	21.65	363	24.53
72800	1600	270	8.62	280	10.09	290	11.50	299	12.90	307	14.33	316	15.79	325	17.37	342	20.67	358	23.77	373	26.79
77350	1700	284	9.95	294	11.49	303	13.04	312	14.51	320	16.01	328	17.53	336	19.09	353	22.51	369	26.06	384	29.23
81900	1800	298	11.42	308	13.04	317	14.71	325	16.27	333	17.85	341	19.44	349	21.06	364	24.50	380	28.19	394	31.83
86450	1900	313	13.04	322	14.75	330	16.49	339	18.20	347	19.85	354	21.51	362	23.20	376	26.65	391	30.46	405	34.39
91000	2000	327	14.83	336	16.61	344	18.43	352	20.28	360	22.02	367	23.76	375	25.52	388	29.10	402	32.89	416	36.97
100100	2200	357	18.92	365	20.86	372	22.84	380	24.85	387	26.89	394	28.81	401	30.71	414	34.58	426	38.53	439	42.62
109200	2400	386	23.76	394	25.87	401	28.01	408	30.17	415	32.37	421	34.59	428	36.72	440	40.87	452	45.09	464	49.39
118300	2600	416	29.42	423	31.69	430	33.99	436	36.32	443	38.67	449	41.05	455	43.45	467	48.03	478	52.54	489	57.12
127400	2800	446	35.97	452	38.40	459	40.86	465	43.35	471	45.86	477	48.39	483	50.95	494	56.13	505	60.94	516	65.80
136500	3000	476	43.47	482	46.07	488	48.69	494	51.34	500	54.00	505	56.70	511	59.41	522	64.90	532	70.37	542	75.52
145600	3200	506	51.99	511	54.75	517	57.54	523	60.35	528	63.18	534	66.03	539	68.90	549	74.70	559	80.59	569	86.33
154700	3400	536	61.60	541	64.53	547	67.48	552	70.45	557	73.44	563	76.45	568	79.48	577	85.60	587	91.79	596	98.07
163800	3600	566	72.37	571	75.46	576	78.58	581	81.71	586	84.86	591	88.03	596	91.22	606	97.65	615	104.16	624	110.74
172900	3800	596	84.37	601	87.63	606	90.90	611	94.19	616	97.51	621	100.84	625	104.19	634	110.94	643	117.76	652	124.65

VOL CFM	OUT VEL	2" SP		2 1/2" SP		3" SP		3 1/2" SP		4" SP		4 1/2" SP		5" SP		5 1/2" SP		6" SP		6 1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
59150	1300	•362	•23.32																		
63700	1400	369	25.25	401	31.44																
68250	1500	378	27.48	•407	•33.59	438	40.48														
72800	1600	388	29.88	416	36.22	•443	•43.01														
77350	1700	398	32.45	425	39.06	450	45.88	477	53.33												
81900	1800	408	35.20	435	42.08	460	49.17	•483	•56.45	509	64.54										
86450	1900	419	38.14	445	45.30	469	52.65	492	60.21	•514	•67.98	539	76.63								
91000	2000	430	41.13	455	48.73	479	56.35	501	64.17	523	72.16	•545	•80.49	•568	•89.60						
100100	2200	452	47.06	476	56.20	499	64.40	521	72.76	542	81.28	562	89.98	581	98.82	•601	•108.14	•622	•118.14	643	128.30
109200	2400	474	53.76	498	63.43	520	73.38	542	82.30	562	91.37	581	100.58	600	109.96	618	119.49	635	129.14	•654	•139.28
118300	2600	500	61.76	521	71.46	542	82.01	563	92.84	582	102.47	601	112.24	619	122.14	636	132.18	654	142.39	670	152.71
127400	2800	526	70.73	545	80.76	565	91.47	585	102.86	604	114.51	622	125.00	640	135.46	657	146.05	673	156.75	689	167.60
136500	3000	552	80.72	571	91.30	588	102.12	607	113.80	626	126.00	643	138.44	660	149.95	677	161.10	693	172.36	709	183.73
145600	3200	579	91.81	597	102.96	614	114.32	630	125.89	648	138.49	665	151.49	682	164.71	698	177.39	714	189.22	729	201.14
154700	3400	605	104.08	623	115.78	640	127.70	655	139.82	671	152.13	688	165.59	704	179.36	720	193.35	735	207.40	750	219.89
163800	3600	633	117.39	650	129.86	666	142.33	681	154.99	696	167.85	710	180.89	726	195.15	742	209.68	757	224.41	771	239.34
172900	3800	660	131.60	676	145.24	692	158.28	707	171.50	722	184.90	736	198.47	749	212.22	764	227.20	779	242.49	793	257.96
182000	4000	688	147.12	704	161.84	719	175.61	733	189.39	748	203.34	761	217.46	774	231.75	787	246.20	801	261.82	816	277.84
191100	4200	716	163.99	731	179.33	746	194.41	760	208.74	774	223.25	787	237.92	800	252.74	813	267.73	825	282.87	838	299.03
200200	4400	744	182.31	759	198.25	773	214.43	787	229.63	800	244.69	813	259.91	826	275.28	838	290.80	850	306.48	862	322.29
209300	4600	772	202.12	787	218.68	800	235.46	814	252.12	827	267.74	839	283.51	852	299.43	864	315.49	876	331.70	887	348.05
218400	4800	801	223.50	815	240.68	828	258.07	841	275.67	854	292.46	866	308.79	878	325.25	890	341.86	901	358.61	913	375.50
227500	5000	829	246.51	843	264.31	856	282.31	868	300.51	881	318.91	893	335.81	905	352.83	916	369.98	927	387.28	938	404.70
236600	5200	858	271.22	871	289.64	884	308.26	896	327.07	908	346.06	920	364.64	931	382.22	942	399.93	953	417.76	964	435.72

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
109200	2400	•673	•150.16																		
118300	2600	687	163.15	•721	•185.64	756	209.44														
127400	2800	705	178.59	735	200.89	•767	•224.58	800	250.01												
136500	3000	724	195.21	754	218.59	782	242.39	•810	•267.00	842	294.02	872	321.45								
145600	3200	744	213.18	773	237.56	801	262.43	828	287.71	•853	•313.34	•882	•341.49	911	370.46						
154700	3400	765	232.48	793	257.96	820	283.82	846	310.16	871	336.88	896	363.93	•922	•392.44	949	422.92	976	453.77		
163800	3600	786	253.20	814	279.79	840	306.75	865	334.07	890	361.82	914	389.96	938	418.41	•960	•447.18	•986	•478.87		
172900	3800	807	273.62	834	303.11	860	331.18	885	359.58	909	388.33	933	417.47	956	447.00	978	476.83	1000	506.96		
182000	4000	829	294.04	856	326.97	881	357.18	906	386.68	929	416.51	952	446.66	974	477.15	996	508.06				
191100	4200	852	315.79	878	349.80	902	384.47	927	415.44	950	446.36	972	477.59	994	509.11						
200200	4400	874	338.91	900	374.02	924	409.77	948	445.91	971	477.95	993	510.27								
209300	4600	898	364.54	922	399.68	946	436.52	969	473.96	992	511.33										
218400	4800	924	392.51	945	426.95	968	464.78	991	503.30												
227500	5000	949	422.25	970	457.73	991	494.61														

• Approximate Max. Static Efficiency and Quietest Selection. CL. I CL. II CL. III CL. IV

The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.

For minimum motor size required see "Fan Starting Requirements," page 9.

Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1 ° C & 0 m).

Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

SIZE 73

DOUBLE WIDTH
DOUBLE INLET

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

Wheel Diameter	73 inches	1854 mm
Wheel Circumference	19.1 feet	5.822 m
Inlet Diameter/Area	82 inches sq./72.6 sq. ft.	2083 mm/6.745 m^2
Outlet Size/Area	76 15/16 x 103 7/8 inches I.D./55.5 sq.ft.	1954 x 2638 mm/5.156 m^2
Tip Speed	19.1 x RPM ft./minute	5.822 x RPM m/minute
Maximum BHP	862.50 x (RPM ÷1000)^3 BHP	643.2 x (RPM ÷ 1000)^3 kW

SIZE 73	-20° to 150°F -29° to 66°C
CLASS I	556
CLASS II	724
CLASS III	913
CLASS IV	N/A

VOL CFM	OUT VEL	1/4" SP		3/8" SP		1/2" SP		5/8" SP		3/4" SP		7/8" SP		1" SP		1 1/4" SP		1 1/2" SP		1 3/4" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
33300	600	•127	•1.75	•144	•2.47																
38850	700	137	2.19	152	3.00	•167	•3.85	•182	•4.80												
44400	800	147	2.65	162	3.62	175	4.56	188	5.53	•200	•6.57										
49950	900	157	3.21	171	4.30	185	5.37	196	6.42	208	7.51	•218	•8.62	•230	•9.87						
55500	1000	169	3.88	182	5.01	194	6.27	206	7.43	216	8.60	227	9.80	237	11.03	•257	•13.71				
61050	1100	181	4.67	193	5.87	204	7.18	215	8.57	226	9.83	236	11.11	245	12.42	263	15.11	•282	•18.08		
66600	1200	193	5.59	204	6.87	214	8.20	225	9.68	235	11.20	245	12.57	254	13.96	271	16.81	288	19.76	•305	•23.00
72150	1300	205	6.61	216	8.00	226	9.41	235	10.90	245	12.52	254	14.17	263	15.65	280	18.68	296	21.79	311	24.99
77700	1400	218	7.75	228	9.28	237	10.78	246	12.32	255	13.96	264	15.71	273	17.50	289	20.71	305	23.99	319	27.35
83250	1500	231	9.04	240	10.71	249	12.30	258	13.92	266	15.58	274	17.38	283	19.25	299	22.92	314	26.37	328	29.89
88800	1600	243	10.48	253	12.27	261	13.99	270	15.70	277	17.44	285	19.22	293	21.16	309	25.18	323	28.95	337	32.64
94350	1700	256	12.08	265	13.97	273	15.85	281	17.65	289	19.48	296	21.34	303	23.23	319	27.42	333	31.73	346	35.60
99900	1800	269	13.87	278	15.85	286	17.88	293	19.79	301	21.71	308	23.65	315	25.63	329	29.84	343	34.34	356	38.77
105450	1900	282	15.84	290	17.92	298	20.04	306	22.13	313	24.14	320	26.17	326	28.23	339	32.44	353	37.11	366	41.90
111000	2000	295	18.00	303	20.18	311	22.40	318	24.66	325	26.78	332	28.90	338	31.05	350	35.42	363	40.06	376	45.03
122100	2200	322	22.97	329	25.34	336	27.76	343	30.21	349	32.70	356	35.03	362	37.35	374	42.07	385	46.89	396	51.90
133200	2400	348	28.84	355	31.42	362	34.02	368	36.67	374	39.35	380	42.06	386	44.64	397	49.71	408	54.86	418	60.11
144300	2600	375	35.71	381	38.48	387	41.29	393	44.12	399	46.99	405	49.89	411	52.82	421	58.41	432	63.91	442	69.49
155400	2800	402	43.65	408	46.62	414	49.62	419	52.66	425	55.72	430	58.81	436	61.93	446	68.26	456	74.11	465	80.04
166500	3000	429	52.75	434	55.92	440	59.12	445	62.35	451	65.60	456	68.89	461	72.20	471	78.90	480	85.56	489	91.83
177600	3200	456	63.08	461	66.46	466	69.85	471	73.28	476	76.73	481	80.21	486	83.71	496	90.80	505	97.98	513	104.96
188700	3400	483	74.74	488	78.31	493	81.91	498	85.53	503	89.18	507	92.85	512	96.55	521	104.02	529	111.58	538	119.23
199800	3600	510	87.81	515	91.58	520	95.37	524	99.19	529	103.04	533	106.91	538	110.80	546	118.65	555	126.59	563	134.62
210900	3800	537	102.36	542	106.33	547	110.32	551	114.34	555	118.38	560	122.45	564	126.53	572	134.77	580	143.09	588	151.50

VOL CFM	OUT VEL	2" SP		2 1/2" SP		3" SP		3 1/2" SP		4" SP		4 1/2" SP		5" SP		5 1/2" SP		6" SP		6 1/2" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
72150	1300	•327	•28.45																		
77700	1400	333	30.79	363	38.36																
83250	1500	342	33.50	•368	•40.97	396	49.38														
88800	1600	350	36.41	375	44.16	•400	•52.47														
94350	1700	359	39.53	384	47.60	407	55.93	431	65.06												
99900	1800	369	42.88	392	51.28	415	59.94	•436	•68.82	460	78.74										
105450	1900	378	46.45	402	55.20	423	64.17	444	73.40	•465	•82.93	487	93.49								
111000	2000	388	50.11	411	59.36	432	68.67	453	78.21	472	87.97	•492	•98.19	•513	•109.31						
122100	2200	408	57.33	430	68.45	451	78.46	470	88.65	489	99.05	507	109.68	525	120.47	•543	•131.92	•562	•144.14		
133200	2400	428	65.44	450	77.27	470	89.36	489	100.25	507	111.32	524	122.56	541	134.02	558	145.65	574	157.44	•591	•169.91
144300	2600	451	75.16	470	87.02	490	99.91	508	113.06	526	124.82	543	136.75	559	148.83	575	161.09	590	173.55	606	186.16
155400	2800	474	86.05	492	98.29	510	111.40	528	125.31	545	139.53	562	152.25	577	165.03	593	177.95	608	191.01	622	204.26
166500	3000	498	98.18	515	111.10	531	124.30	548	138.60	565	153.50	581	168.70	596	182.63	611	196.24	626	209.98	640	223.87
177600	3200	522	111.65	538	125.25	554	139.12	569	153.25	585	168.68	600	184.55	616	200.69	630	216.05	645	230.48	659	245.04
188700	3400	546	126.54	562	140.83	577	155.37	591	170.16	605	185.19	621	201.69	635	218.50	650	235.57	664	252.58	677	267.83
199800	3600	571	142.74	586	157.91	601	173.14	615	188.60	628	204.29	641	220.20	656	237.68	670	255.42	683	273.41	696	291.64
210900	3800	595	159.99	610	176.59	624	192.50	638	208.63	651	224.99	664	241.56	676	258.35	690	276.72	703	295.38	716	314.27
222000	4000	620	178.82	635	196.78	648	213.55	662	230.36	674	247.39	687	264.62	699	282.06	711	299.70	723	318.87	736	338.43
233100	4200	646	199.30	659	218.01	673	236.36	686	253.86	698	271.56	710	289.46	722	307.56	733	325.85	744	344.33	756	364.18
244200	4400	671	221.53	684	240.99	697	260.73	710	279.22	722	297.60	734	316.17	745	334.93	756	353.88	767	373.01	778	392.32
255300	4600	696	245.57	709	265.78	722	286.26	734	306.51	746	325.58	757	344.83	769	364.26	779	383.86	790	403.65	800	423.60
266400	4800	722	271.51	735	292.48	747	313.70	759	335.18	770	355.59	781	375.51	792	395.61	803	415.89	813	436.33	823	456.94
277500	5000	748	299.44	760	321.16	772	343.13	783	365.34	794	387.71	805	408.32	816	429.09	826	450.03	837	471.13	847	492.40
288600	5200	774	329.42	786	351.90	797	374.61	808	397.57	819	420.76	830	443.32	840	464.77	850	486.38	860	508.15	870	530.07

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
133200	2400	•608	•183.19																		
144300	2600	620	198.90	•652	•226.47	683	255.54														
155400	2800	637	217.68	664	244.90	•693	•273.97	723	305.02												
166500	3000	654	237.88	681	266.43	707	295.49	•732	•325.71	761	358.70										
177600	3200	672	259.73	698	289.49	723	319.86	747	350.72	•771	•382.02	•797	•416.59	823	451.97						
188700	3400	691	283.20	716	314.30	740	345.87	764	378.03	787	410.65	809	443.68	•833	•478.73	858	515.96	882	553.62		
199800	3600	709	308.37	735	340.83	758	373.74	781	407.09	804	440.99	826	475.34	847	510.08	•867	•545.20	•891	•584.18		
210900	3800	729	333.39	753	369.18	777	403.43	799	438.11	821	473.20	842	508.79	863	544.85	883	581.27	903	618.05		
222000	4000	749	358.21	772	398.42	796	435.04	818	471.06	839	507.47	860	544.27	880	581.51	900	619.25				
233100	4200	769	384.64	792	426.17	815	468.50	837	506.01	858	543.76	878	581.88	898	620.36						
244200	4400	789	412.73	812	455.60	834	499.25	855	543.05	876	582.15	896	621.60								
255300	4600	811	443.73	832	486.79	854	531.76	875	577.47	895	622.72										
266400	4800	833	477.71	853	519.79	874	566.10	895	613.13												
277500	5000	856	513.82	875	557.14	894	602.34														

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐ CL. IV ☐
The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.
For minimum motor size required see "Fan Starting Requirements," page 9.
Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.
All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1 ° C & 0 m).
Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

MAXIMUM CLASS OPERATING RPM
FAN TEMPERATURE

DOUBLE WIDTH
DOUBLE INLET

SIZE 81

SIZE 81	-20° to 150°F -29° to 66°C
CLASS I	502
CLASS II	655
CLASS III	825
CLASS IV	N/A

Wheel Diameter	80 ¾ inches	2051 mm
Wheel Circumference	21.1 feet	6.431 m
Inlet Diameter/Area	89 ¾ inches sq./87.2 sq. ft.	2280 mm/8.101 m^2
Outlet Size/Area	85 ⅛ x 114 ½ inches I.D./67.69 sq. ft.	2162 x 2908 mm/6.288 m^2
Tip Speed	21.1 x RPM ft./minute	6.431 x RPM m/minute
Maximum BHP	1427.44 x (RPM ÷1000)^3 BHP	1064. x (RPM ÷1000)^3 kW

VOL CFM	OUT VEL	¼" SP		⅜" SP		½" SP		⅝" SP		¾" SP		⅞" SP		1" SP		1 ¼" SP		1 ½" SP		1 ¾" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
40614	600	•115	•2.13	•130	•3.01																
47383	700	123	2.67	138	3.66	•151	•4.70	•164	•5.86												
54152	800	132	3.22	146	4.41	158	5.55	170	6.74	•181	•8.02										
60921	900	142	3.90	155	5.23	167	6.54	177	7.82	188	9.15	•197	•10.51	•208	•12.04						
67690	1000	153	4.72	164	6.11	175	7.64	186	9.05	195	10.48	205	11.94	214	13.44	•232	•16.72				
74459	1100	163	5.68	174	7.14	184	8.74	194	10.44	204	11.97	213	13.54	221	15.13	238	18.42	•255	•22.06		
81228	1200	174	6.79	184	8.35	193	9.97	203	11.79	212	13.63	221	15.30	229	17.00	245	20.49	260	24.09	•276	•28.05
87997	1300	185	8.03	195	9.73	204	11.45	212	13.27	221	15.25	230	17.26	238	19.06	253	22.75	267	26.55	281	30.46
94766	1400	196	9.42	206	11.28	214	13.11	222	14.98	230	17.00	239	19.13	246	21.31	261	25.22	275	29.22	288	33.33
101535	1500	208	10.98	217	13.02	225	14.95	233	16.93	240	18.96	248	21.16	255	23.45	270	27.91	283	32.12	296	36.42
108304	1600	219	12.72	228	14.91	236	17.00	243	19.09	250	21.22	257	23.39	264	25.76	278	30.68	292	35.25	304	39.76
115073	1700	231	14.67	239	16.98	247	19.26	254	21.46	261	23.69	267	25.96	274	28.27	287	33.40	300	38.63	313	43.35
121842	1800	243	16.84	250	19.26	258	21.73	265	24.06	271	26.40	278	28.77	284	31.19	297	36.33	309	41.83	321	47.21
128611	1900	254	19.22	262	21.76	269	24.36	276	26.90	282	29.34	288	31.83	294	34.34	306	39.48	318	45.19	330	51.05
135380	2000	266	21.85	273	24.51	280	27.22	287	29.98	293	32.55	299	35.14	305	37.76	316	43.10	327	48.78	339	54.85
148918	2200	290	27.87	296	30.77	303	33.71	309	36.70	315	39.74	321	42.58	326	45.41	337	51.17	347	57.05	357	63.19
162456	2400	314	34.99	320	38.13	326	41.31	332	44.54	337	47.81	343	51.11	348	54.25	358	60.43	368	66.73	377	73.13
175994	2600	338	43.31	344	46.69	349	50.12	355	53.58	360	57.08	365	60.62	370	64.20	380	70.99	389	77.70	398	84.52
189532	2800	362	52.94	368	56.56	373	60.23	378	63.93	383	67.66	388	71.44	393	75.24	402	82.94	411	90.08	420	97.32
203070	3000	386	63.97	392	67.83	397	71.74	401	75.68	406	79.65	411	83.66	415	87.70	424	95.88	433	103.97	441	111.63
216608	3200	411	76.50	416	80.61	420	84.75	425	88.93	430	93.14	434	97.39	438	101.66	447	110.31	455	119.07	463	127.55
230146	3400	435	90.63	440	94.98	444	99.37	449	103.79	453	108.24	457	112.72	461	117.23	470	126.34	477	135.57	485	144.91
243684	3600	460	106.46	464	111.06	468	115.69	473	120.35	477	125.04	481	129.76	485	134.51	493	144.09	500	153.78	507	163.57
257222	3800	484	124.09	489	128.94	493	133.81	497	138.71	501	143.64	504	148.60	508	153.59	516	163.64	523	173.79	530	184.05

VOL CFM	OUT VEL	2" SP		2 ½" SP		3" SP		3 ½" SP		4" SP		4 ½" SP		5" SP		5 ½" SP		6" SP		6 ½" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
87997	1300	•295	•34.70																		
94766	1400	301	37.53	328	46.80																
101535	1500	308	40.82	•332	•49.98																
108304	1600	316	44.36	339	53.82	•362	•64.00														
115073	1700	324	48.16	346	58.01	367	68.18	389	79.37												
121842	1800	333	52.22	354	62.47	375	73.05	•394	•83.89	415	96.05										
128611	1900	341	56.56	363	67.23	382	78.19	401	89.45	•420	•101.16	440	114.05								
135380	2000	350	61.05	371	72.29	390	83.65	409	95.31	427	107.22	•445	•119.76	•464	•133.35						
148918	2200	368	69.81	388	83.34	407	95.55	425	108.00	442	120.70	458	133.66	474	146.84	•491	•160.91	•508	•175.83		
162456	2400	386	79.65	406	94.11	424	108.80	441	122.09	458	135.60	473	149.32	489	163.32	504	177.52	518	191.90	•534	•207.25
175994	2600	407	91.44	424	105.95	442	121.69	458	137.65	475	152.01	490	166.56	505	181.32	519	196.29	533	211.50	547	226.88
189532	2800	428	104.65	444	119.60	460	135.64	476	152.63	492	169.99	507	185.40	521	200.99	535	216.76	549	232.71	562	248.89
203070	3000	449	119.38	464	135.15	479	151.26	494	168.77	510	186.96	524	205.51	538	222.38	552	238.99	565	255.77	578	272.71
216608	3200	471	135.72	486	152.32	500	169.25	513	186.49	528	205.40	542	224.77	556	244.48	569	263.05	582	280.67	594	298.44
230146	3400	493	153.79	507	171.22	521	188.97	534	207.02	546	225.38	560	245.59	573	266.12	586	286.96	599	307.51	611	326.12
243684	3600	515	173.48	528	191.95	542	210.53	554	229.40	567	248.55	578	268.05	592	289.41	604	311.07	617	333.04	629	355.29
257222	3800	537	194.41	550	214.61	563	234.03	575	253.72	587	273.68	599	293.91	610	314.45	623	336.94	635	359.72	646	382.79
270760	4000	559	217.25	572	239.17	585	259.56	597	280.08	608	300.87	620	321.90	630	343.19	641	364.72	653	388.25	664	412.13
284298	4200	582	242.10	595	264.93	607	287.24	618	308.60	630	330.20	641	352.05	651	374.14	661	396.47	672	419.03	683	443.41
297836	4400	605	269.05	617	292.80	629	316.89	640	339.36	651	361.79	662	384.46	672	407.36	682	430.49	692	453.84	702	477.41
311374	4600	628	298.21	640	322.87	651	347.86	662	372.48	673	395.74	683	419.23	693	442.95	703	466.88	713	491.03	722	515.39
324912	4800	651	329.67	662	355.25	673	381.15	684	407.36	694	432.15	705	456.47	714	481.00	724	505.74	734	530.69	743	555.85
338450	5000	674	363.53	685	390.03	696	416.84	706	443.95	716	471.12	726	496.27	736	521.62	745	547.18	755	572.93	764	598.89
351988	5200	698	399.90	708	427.32	719	455.04	729	483.05	739	511.34	748	538.74	758	564.91	767	591.29	776	617.85	785	644.61

VOL CFM	OUT VEL	7" SP		8" SP		9" SP		10" SP		11" SP		12" SP		13" SP		14" SP		15" SP		16" SP	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
162456	2400	•550	•223.47																		
175994	2600	560	242.45	•589	•276.25																
189532	2800	575	265.27	600	298.51	•626	•334.18	653	372.10												
203070	3000	590	289.83	615	324.68	638	360.17	•662	•397.28	687	437.56										
216608	3200	607	316.37	630	352.70	653	389.79	675	427.47	•696	•465.69	•720	•508.17	744	551.37						
230146	3400	623	344.88	646	382.85	668	421.39	690	460.67	711	500.49	731	540.82	•752	•583.94	775	629.40	796	675.39		
243684	3600	640	375.47	663	415.09	685	455.26	705	495.97	726	537.37	746	579.31	765	621.72	•783	•664.90	•805	•712.59		
257222	3800	658	406.13	680	449.53	701	491.34	722	533.67	741	576.51	760	619.98	779	664.00	798	708.46	816	753.37		
270760	4000	676	436.28	697	485.37	718	529.74	738	573.70	758	618.15	776	663.08	794	708.56	813	754.63				
284298	4200	694	468.38	715	519.09	735	570.54	755	616.17	774	662.24	793	708.78	810	755.76						
297836	4400	712	502.50	733	554.84	753	608.13	772	661.16	791	708.88	809	757.04								
311374	4600	731	539.96	751	592.72	771	647.62	790	703.44	808	758.17										
324912	4800	752	581.20	769	632.80	789	689.34	808	746.75												
338450	5000	772	625.04	790	677.91	807	733.35														

• Approximate Max. Static Efficiency and Quietest Selection. CL. I ☐ CL. II ☐ CL. III ☐ CL. IV ☐

The standard AMCA class range is shown by the shaded areas. Standard carbon steel fans may be used up to the Maximum Design RPM as listed above for each fan class.

For minimum motor size required see "Fan Starting Requirements," page 9.

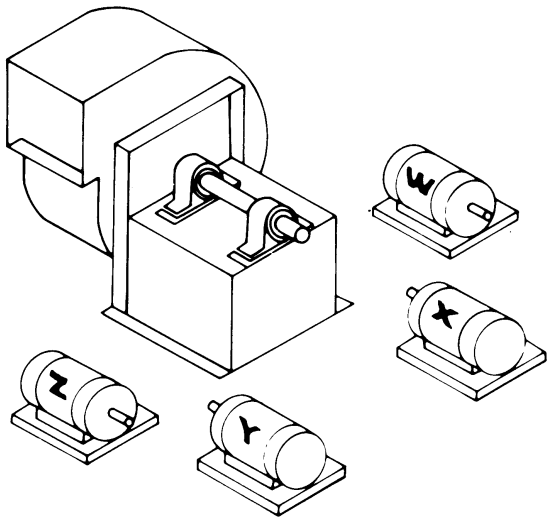
Performance shown is for installation Type B - Free Inlet, Ducted Outlet. Power rating (BHP) does not include drive losses. Performance ratings do not include the effects of appurtenances in the airstream.

All capacities listed above are based on standard Air Density of 0.075 Lbs./Cu. Ft. at 70° F & 0 Ft. Elevation (1.2 kg/m^3 at 21.1 ° C & 0 m).

Refer to factors on page 45 to convert numbers above to the desired metric units.

USAF SERIES

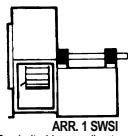
AMCA STANDARD ARRANGEMENTS AND DISCHARGES



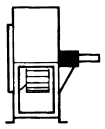
Location of motor is determined by facing the drive side of fan and designating the motor positions by letters W, X, Y, or Z as the case may be.

ARRANGEMENTS OF DRIVE FOR CENTRIFUGAL FANS

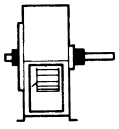
The following tables illustrate designations for fan drive operations adopted by the Air Movement and Control Association.



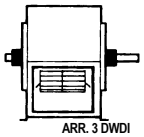
ARR. 1 SWSI
For belt drive or direct connection. Wheel overhung. Two bearings on base.



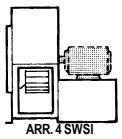
ARR. 2 SWSI
For belt drive or direct connection. Wheel overhung. Bearings in bracket supported by fan housing.



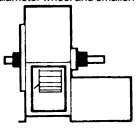
ARR. 3 SWSI
For belt drive or direct connection. One bearing on each side and sup- ported by fan housing. Not recom- mended in sizes 27-inch diameter wheel and smaller.



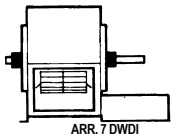
ARR. 3 DWDI
For belt drive or direct connection. One bearing on each side and sup- ported by fan housing.



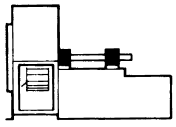
ARR. 4 SWSI
For direct connection. Wheel over- hung on prime mover shaft. No bearings on fan. Prime mover mounted on base integrally attached to fan housing.



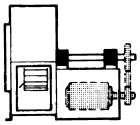
ARR. 7 SWSI
For direct connection. Arrangement 3 plus base for prime mover. Not recommended in sizes 27-inch diameter wheel and smaller.



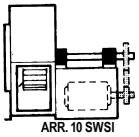
ARR. 7 DWDI
For direct connection. Arrangement 3 plus base for prime mover.



ARR. 8 SWSI
For direct connection. Arrangement 1 plus extended base for prime mover.



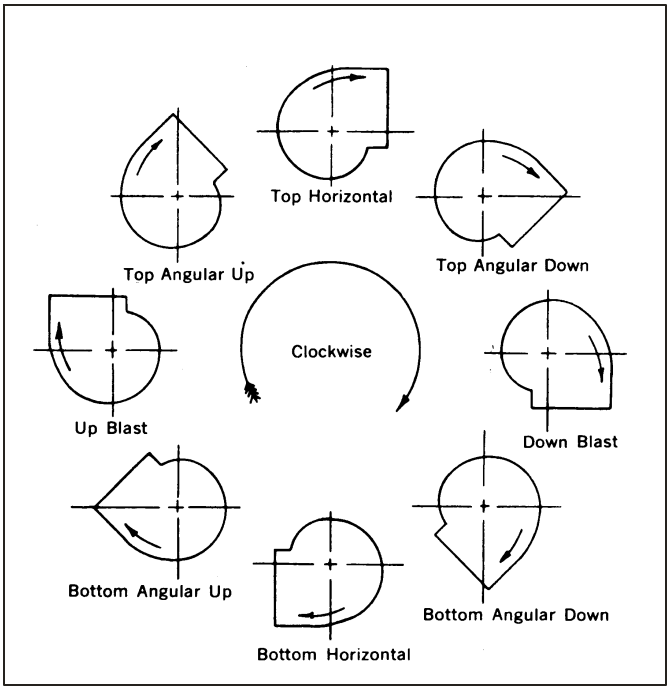
ARR. 9 SWSI
For belt drive. Wheel overhung, two bearings, with prime mover outside base.

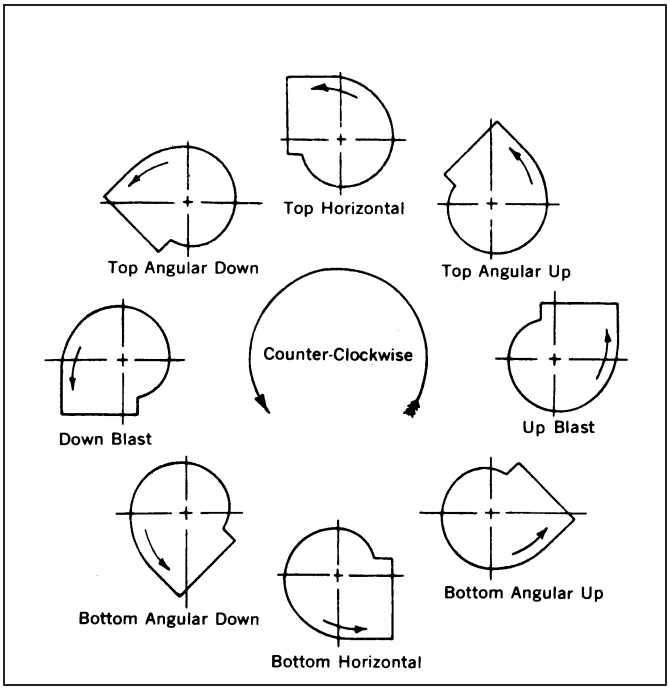


ARR. 10 SWSI
For belt drive. Wheel overhung, two bearings, with prime mover inside base.

DESIGNATION FOR DIRECTION OF ROTATION AND DISCHARGE

Direction of Rotation is determined from drive side for either single or double width, or single or double inlet fans. (The driving side of a single inlet fan is considered to be the side opposite the inlet regardless of actual location of the drive.) For fan inverted for ceiling suspension, Direction of Rotation and Discharge is determined when fan is resting on floor.





USAF SERIES

TYPICAL SPECIFICATIONS

FURNISH AND INSTALL WHERE SHOWN ON THE PLANS, USAF SERIES, CENTRIFUGAL A.F. FANS.

PERFORMANCE: Fans shall be licensed to bear the AMCA Sound and Air Performance Seal with performance ratings based on tests conducted in accordance with AMCA Publication 211 and AMCA Publication 311, and comply with the requirements of the AMCA Certified Ratings Program. Fans shall have a sharply rising pressure characteristic which shall extend throughout the operating range and continue to rise well beyond the efficiency peak to insure quiet, stable operation under most conditions. The horsepower characteristic shall be truly non-overloading and shall peak within the normal selection range.

DESIGN AND CONSTRUCTION: Housings shall be of scroll centrifugal type, rigidly braced and reinforced to help prevent vibration or pulsation. Wheel diameters and outlet areas shall be in accordance with the Standard Sizes adopted by AMCA for non-overloading fans. Inlets shall be fully streamlined.

WHEELS: Fan wheels shall be furnished with die-formed airfoil blades for maximum efficiency and quiet operation. Airfoil blades shall be continuously welded to both backplate, rim, and along the back edge of the blade to help prevent internal corrosion due to moisture entry.

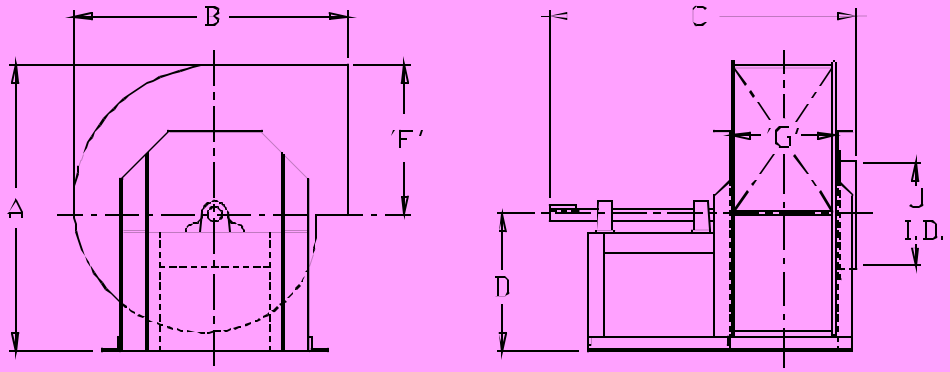
INLET VANE CONTROL: Shall be provided in either nested, internally mounted, or separately encased, externally mounted type designs, to permit volume reduction with a corresponding horsepower savings, and where appropriate, designed for inlet duct attachment. The blade area shall be equalized so that the vanes shall remain partially open should control devices fail. Nested and external type design shall be furnished with either a lever and locking hand quadrant for manual operation, or a stub shaft, with lever for automatic control. DWDI fans shall be furnished with interconnecting linkage for single point operation.

ACCESSORIES: Fans shall be furnished with accessories as shown in the schedules.

	CONVERSION TABLE			
	I-P Equivalents of Metric Units		Metric Equivalents of I-P Units	
Area	1 m^2 (square meter)	= 10.764 ft^2	1 ft^2 (square foot)	= .09290 m^2
Density	1 kg/m^3	= .062428 lbm/ft^3	1 lbm/ft^3	= 16.018 kg/m^3
	1 g/cm^3	= 62.428 lbm/ft^3	1 lbm/ft^3	= .016018 g/cm^3
Energy	1 *J* (Joule) or *N-m* (Newton-meter)	= .73756 *ft-lb*	1 *ft-lb* (foot pound)	= 1.3558 *N-m*
	1 *kcal* (kilo calorie)	= 3.9683 *Btu*	1 *Btu* (British thermal unit)	= 252 *cal*
Flow Rate (Volume)	1 m^3/s (cubic meter per second) CMS	= 2118.9 *CFM*	1 *CFM* (Cu. ft/min)	= .00047195 m^3/s
	1 m^3/min (cubic meter per minute) CMM	= 35.315 *CFM*	1 *CFM*	= .02832 m^3/min
	1 m^3/hr (cubic meter per hour) CMH	= .58858 *CFM*	1 *CFM*	= 1.6990 m^3/hr
	1 *l/s* (liter per second)	= 2.1189 *CFM*	1 *CFM*	= .47195 *l/s*
Force	1 *N* (Newton)	= .22481 *lb*	1 *lb* (pound)	= 4.4482 *N*
	1 *kp* (kilopond)	= 2.2046 *lb*	1 *lb*	= .45359 *kp*
Gas Constant	1 *J/kg-K* (Joule per kilogram Kelvin)	= .18586 *ft-lb/lbm-°R*	1 *ft-lb/lbm- °R**	= 5.3803 *J/kg-K*
	1 m^2/s^2-*K* (sq. mtr per sec. sq. Kelvin)	= 5.9800 ft^2/s^2- *°R*	1 ft^2/s^2 - *°R***	= .16723 m^2/s^2-*K*
	1 *cal/g-°C* (calorie per gram *°C*)	= 4186.8 *J/kg-K*	1 *Btu/lbm - °R*	= 1.0000 *cal/g- °C*
			*(foot-pound per poundmass degree Rankine)	
			**(square-foot per second-square degree Rankine)	
Length	1 *mm* (millimeter)	= .03937 *inch*	1" (inch)	= 25.4 *mm*
	1 *cm* (centimeter)	= .39370 *inch*	1"	= 2.54 *cm*
	1 *m* (meter)	= 3.2808 *ft*	1 *ft* (foot)	= .30480 *m*
	1 *km* (kilometer)	= .62137 *mi*	1 *mi* (mile)	= 1.6093 *km*
Mass	1 *kg* (kilogram)	= 2.2046 *lbm*	1 *lbm* (pound mass)	= .45359 *kg*
Power	1 *W* (Watt)	= .00134 *HP*	1 *hp* (horsepower)	= .7457 *kW*
	1 *kW* (kilo-Watt)	= 1.3410 *hp*	1 *hp*	= 745.70 *W*
	1 *mhp* (metric horsepower)	= .98632 *hp*	1 *hp*	= 1.0139 *mhp*
Pressure or Stress	1 N/m^2 (Newton per m^2) or *Pa* (Pascal)	= .0040264" *wg*	1" *wg* (inches water gauge)	= 248.66 *Pa* or N/m^2
	1 *mm Hg* or *torr* (*mm* Mercury)	= .53616" *wg*	1" *wg* *torr*	= 1.8651 *mm Hg* or
	1 *kPa* (kilo Pascal)	= .1450 *psi*	1 *psi* (pounds per sq. inch)	= 6894.8 *Pa* or N/m^2
	1 *atm* (atmosphere)	= 29.921" *Hg*	1" *Hg* (inch Mercury)	= 3386.4 *Pa* or N/m^2
	(*mm Hg* at 0°*C* or 68°*F*)		(inches *wg* at 68°*F* or 20°*C*)	
	1 oz./in ^{2}	= 1.732" *wg*	*1"wg*	= 0.5774 *oz./in* ^{2}
Temperature	For temperature intervals and rise,		For temperature intervals and rise,	
	1°*C* (degree Celcius)	= 9/5 *°F*	1°*F* (degree Fahrenheit)	= 5/9 *°C*
	For temperature in *°F* (Fahrenheit)	= t_C x 9/5 + 32	For temperature in *°C*	= (t_F-32) x 5/9
Torque	1 *N-m* (Newton meter)	= 8.8507 *lb-in.*	1 *lb-in.* (pound inch)	= .11298 *N-m*
	1 *N-m* (Newton-meter)	= .73756 *lb-ft.*	1 *lb-ft.* (pound foot)	= 1.3558 *N-m*
Velocity & Speed	1 *m/s*	= 196.5 *fpm*	1 *fpm* (feet per minute)	= .00508 *m/s*
	1 *km/hr* (kilometer per hour)	= .62137 *mph*	1 *mph* (mile per hour)	= 1.6093 *km/hr*
	1 *rps* (revolution per second)	= .016667 *rpm*	1 *rpm* (revolution per minute)	= 60 *rps*
Viscosity	1 *cP* (Centipoise)	= .00067197 *lbm/ft-s*	1 *lbm/ft-s* (pound/foot second)	= 1488.2 *cP*

USAF SERIES

DIMENSIONAL DATA
Sizes 18-81
Arrangement 1 & 10



SIZE	A						B				C	D				F	G	J	EST. WGT. *
	TH	BH	UB	DB	TAU	BAU	TH BH	UB DB	TAU	BAU		TH	BH BAU	UB TAU	DB				
18	44	41	40	43	49	41	35	37	37	42	41	24	24	24	24	19 1/4	14 1/2	20	275
20	46	43	41	44	51	43	38	40	40	46	42	24	24	24	24	21 1/8	16	21 3/4	330
22	49	46	44	48	55	46	41	44	44	51	44	25 1/2	25 1/2	25 1/2	25 1/2	23 1/2	17 5/8	24	380
24	53	52	49	54	62	52	45	49	49	55	51	29	29	29	29	25 7/8	19 1/2	27	520
27	60	56	53	58	67	56	50	54	54	61	53	31	31	31	31	28 1/2	21 1/2	29 1/2	580
30	66	62	58	64	74	62	54	60	60	67	55	34	34	34	34	31 5/8	23 5/8	32 1/2	775
33	78	70	69	76	86	69	60	63	61	74	66	42 1/4	42 1/4	42 1/4	42 1/4	34 7/8	26 1/4	35 1/2	950
37	81	73	71	79	90	71	66	70	67	81	68	42 1/4	42 1/4	42 1/4	42 1/4	38 1/2	28 7/8	39	1050
40	80	80	76	73	109	78	73	77	74	105	72	37	46	43 3/4	32	42 5/8	32	43 3/4	1350
45	88	88	83	80	118	86	80	85	82	111	75	40 1/2	50 1/2	48	35	47 1/8	35 1/4	48	1530
49	97	97	91	88	128	94	88	94	90	121	79	44 1/4	55 1/4	52 1/2	38 1/4	51 7/8	39	52 3/4	1875
54	107	107	100	97	140	104	97	104	100	133	84	48 3/4	61	57 1/2	42	57 1/2	43	58 1/2	2220
60	118	118	109	106	153	114	106	115	110	145	92	53 1/2	67	63 1/4	46	63 1/2	47 3/8	64 1/4	2900
66	129	129	120	117	167	125	117	126	121	159	97	58 1/2	73 1/4	69 1/4	50 1/4	69 3/4	52 5/8	70 1/4	3615
73	144	143	137	131	167	139	131	139	134	161	110	66 3/4	81 1/2	78 3/4	57 3/4	77 1/4	57 7/8	82 3/8	5765
81	159	157	150	144	186	153	144	154	148	180	121	73 1/4	89 1/2	86 1/2	63 1/4	85 3/8	63 7/8	90 1/8	7000

* SW Arrangement 1 Class 2 weights (LBS.). Arrangement 10 available through size 54 only.

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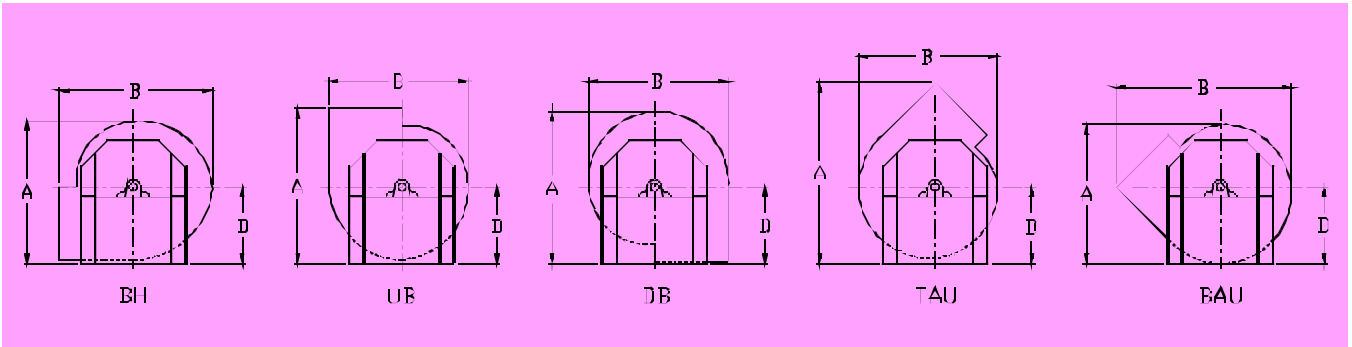
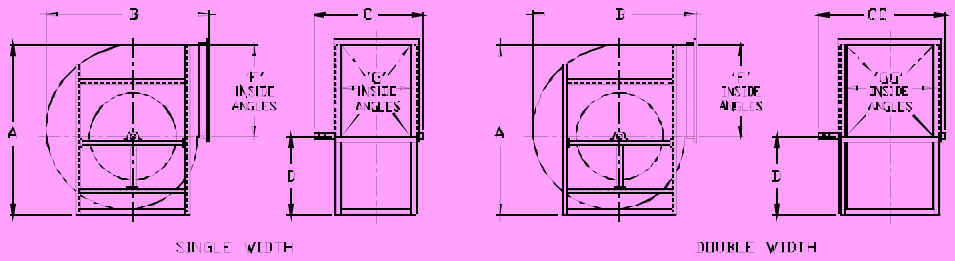
Angular Discharge Dimensions



USAF SERIES

DIMENSIONAL DATA
Sizes 18-81 Arrangement 3



SINGLE WIDTH

SIZE	A						B				C	CC	D				F	G	GG	J	EST. WGT. *	
	TH	BH	UB	DB	TAU	BAU	TH BH	UB DB	TAU	BAU			TH	BH BAU	UB TAU	DB					SW	DW
18	42	38	38	41	47	37	35	35	34	42	26	37	22	22	22	22	19¼	14½	25⅞	20	235	260
20	48	44	44	47	54	43	38	39	37	46	28	40	26¼	26¼	26¼	26¼	21⅛	16	28½	21¾	300	320
22	51	46	45	49	56	44	41	43	41	51	30	43	26¼	26¼	26¼	26¼	23½	17⅝	31⅛	24	350	400
24	58	52	52	56	64	51	45	47	45	55	32	47	31¼	31¼	31¼	31¼	25⅞	19½	34½	27	435	515
27	60	54	53	59	67	53	50	52	50	61	35	53	31¼	31¼	31¼	31¼	28½	21½	38⅝	29½	500	560
30	68	61	60	66	75	59	55	58	55	67	38	57	35⅜	35⅜	35⅜	35⅜	31⅝	23⅝	42½	32½	675	750
33	69	70	69	76	86	69	60	63	61	74	40	61	42¼	42¼	42¼	42¼	34⅞	26¼	47	35½	815	900
37	81	73	71	79	90	71	66	70	67	81	43	66	42¼	42¼	42¼	42¼	38½	28⅞	51¾	39	940	1055
40	80	80	76	73	109	78	73	77	74	105	52	78	37	46	43¾	32	42⅝	32	57⅜	43¾	1195	1615
45	88	88	83	80	118	86	80	85	82	111	57	84	40½	50½	48	35	47⅛	35¼	63¼	48	1380	1925
49	97	97	91	88	128	94	88	94	90	121	60	92	44¼	55¼	52½	38¼	51⅞	39	70	52¾	1785	2510
54	107	107	100	97	140	104	98	104	100	133	64	99	48¾	61	57½	42	57½	43	77⅛	58½	2125	3055
60	118	118	109	106	153	114	106	115	110	145	68	109	53½	67	63¼	46	63½	47⅜	85⅛	64¼	2670	3910
66	129	129	120	117	167	125	117	126	121	159	76	119	58½	73¼	69¼	50¼	69¾	52⅝	94⅜	70¼	3050	5225
73	144	143	137	131	167	139	131	139	134	161	80	128	66¾	81½	78¾	57¾	77¼	57⅞	104⅛	82⅜	4940	6940
81	159	157	150	144	186	153	144	154	148	180	86	139	73¼	89½	86½	63¼	85⅜	63⅞	114¾	90⅛	5945	8750

DOUBLE WIDTH

SIZE	A						B				C	CC	D				F	G	GG	J	EST. WGT. *	
	TH	BH	UB	DB	TAU	BAU	TH BH	UB DB	TAU	BAU			TH	BH BAU	UB TAU	DB					SW	DW
18	37	37	37	35	43	36	35	35	34	42	26	37	17	21	21	16	19¼	14½	25⅞	20	235	260
20	40	40	40	38	47	39	38	39	37	46	28	40	18½	22¾	22¾		21⅛	16	28½	21¾	300	320
22	44	45	43	41	52	43	41	43	41	51	30	43	20¼	26¼	24¾	18⅞	23½	17⅝	31⅛	24	350	400
24	49	48	47	45	57	47	45	47	45	55	32	47	22¼	27¾	27¾	20⅜	25⅞	19½	34½	27	435	515
27	54	54	52	50	62	51	50	52	50	61	35	53	24½	30½	29¾	22⅜	28½	21½	38⅝	29½	500	560
30	59	59	56	55	69	57	55	58	55	67	38	57	26¾	33½	31¼	24¾	31⅝	23⅝	42½	32½	675	750
33	65	65	61	60	75	63	60	63	61	74	40	61	29½	36¾	34¾	26½	34⅞	26¼	47	35½	815	900
37	71	71	68	66	83	69	66	70	67	81	43	66	32¼	40½	39½	29	38½	28⅞	51¾	39	940	1055
40	80	80	76	73	109	78	73	77	74	105	52	78	37	46	43¾	32	42⅝	32	57⅜	43¾	1195	1615
45	88	88	83	80	118	86	80	85	82	111	57	84	40½	50½	48	35	47⅛	35¼	63¼	48	1380	1925
49	97	97	91	88	128	94	88	94	90	121	60	92	44¼	55¼	52½	38¼	51⅞	39	70	52¾	1785	2510
54	107	107	100	97	140	104	98	104	100	133	64	99	48¾	61	57½	42	57½	43	77⅛	58½	2125	3055
60	118	118	109	106	153	114	106	115	110	145	68	109	53½	67	63¼	46	63½	47⅜	85⅛	64¼	2670	3910
66	129	129	120	117	167	125	117	126	121	159	76	119	58½	73¼	69¼	50¼	69¾	52⅝	94⅜	70¼	3050	5225
73	144	143	137	131	167	139	131	139	134	161	80	128	66¾	81½	78¾	57¾	77¼	57⅞	104⅛	82⅜	4940	6940
81	159	157	150	144	186	153	144	154	148	180	86	139	73¼	89½	86½	63¼	85⅜	63⅞	114¾	90⅛	5945	8750

* Class 2 weights (LBS.).

Data shown on these pages is for general information only and should not be used for exact installation dimensions. Columns A, B and C have been rounded up to the nearest 1". All other columns are rounded to the nearest 1/8". For detailed dimensional data refer to the appropriate submittal drawing. All dimensional drawings represent clockwise rotation. Counterclockwise would be a mirror image and would not affect dimensions. Rotation is determined from the drive side of the unit.

Refer to factors on page 45 to convert numbers to the desired metric units.

TERMS AND CON DI TIONS

ACCEPTANCE All or ders and sales are sub ject to writ ten ap proval and ac cep tance by an ex ec u tive of fi cer of U.S. Fan In ter na tional® at Ft. Smith, Ar-kan sas, and are not bind ing on the Com pany un til so ap proved.

DELIVERY De liv ery of the equip ment herein spec i-fied shall be made F.O.B. point of ship ment, un less oth er wise stated. The Com pany shall not be li a ble for de lay due to causes be yond its rea son able con-trol, such as Acts of God, acts of the purchaser, acts of civil or mil i tary au thor i ties, pri or i ties, fires, strikes, floods, epidemics, war, riots, delays in trans por ta tion, car short ages, and in abil ity, due to reasons beyond its reasonable control, to obtain nec es sary la bor, ma te rial, or man u fac tur ing fa cil i-ties. In the event of such a de lay, the date of de liv-ery shall be ex tended for a pe riod equal to the time lost by rea son of the de lay.

TERMS OF PAYMENT If, in the judg ment of the Com pany, the fi nan cial con di tion of the pur chaser at any time does not jus tify con tin u a tion of man u-fac ture or ship ment on the terms of pay ment spec i-fied, the Com pany may re quire full or par tial pay-ment in ad vance.

Pro rata pay ments shall be come due as ship ments are made. Each ship ment or de liv ery shall con sti-tute a sep a rate sale, and the de fault of any ship-ment or de liv ery shall con sti tute a sep a rate sale, and the de fault of any ship ment or de liv ery shall not vi ti ate the con tract as to other ship ments or de-liveries.

PRICE ADJUSTMENT In the event of a price change prior to com ple tion of this of fer, price will be that pre vail ing at time of ship ment.

SALES AND SIMILAR TAXES The Company's prices do not in clude sales, use, ex cise, or sim i lar taxes. Con se quently, in ad di tion to the price spec i-fied herein, the amount of any present or future sales, use, ex cise, or other sim i lar tax ap pli ca ble to the sale of the equip ment herein shall be paid by the Purchaser, or in lieu thereof the Purchaser shall pro vide the Com pany with a tax ex emp tion cer tifi cate ac cept able to the tax ing au thor i ties.

CANCELLATION Any con tract re sult ing from this quo ta tion may be cancelled by the Pur chaser only by ne go ti a tions and upon pay ments of rea son able can cel la tion charges which will take into ac count expenses already incurred and commitments made by the Com pany.

DESIGN CHANGES The company reserves the right to make changes in design, improvements and ad di tions in and to its prod ucts any time with-out im pos ing any li a bil ity or ob li ga tions to it self to ap ply or in stall the same in any prod uct man u fac-tured by it.

TITLE The title and right of possession of the equip ment sold herein shall re main with the Com-pany and such equipment shall remain personal property until all payments herein (including de-ferred payments whether evidenced by notes or otherwise) shall have been made in full in cash and the Pur chaser agrees to do all acts nec es sary to per fect and main tain such right and ti tle in the Company.

PRICE ADJUSTMENTS AND PROTECTION Prices on equipment manufactured by the Com-pany are firm for ship ment up to four months from the date of the orig i nal or der en try. Such prices are sub ject to ad just ment if ship ment is made af ter four months and up to ten months from the date of the original order entry, if equipment is shipped ten months from the date of the original or der en try, prices will be ad justed to the price in ef fect at the time of ship ment au to mat i cally. All com plete com-po nent ac ces sory ma te rial man u fac tured by oth ers and fur nished with the Com pany's equip ment such as mo tors, drives, vi bra tion equip ment, con trols or other com pletely as sem bled com po nent struc tures, are sub ject to ad just ment to the price at time of ship ment re gard less of the date of orig i nal or der entry.

SAFETY AC CES SORIES The Com pany man u fac-tures equip ment de signed to serve mul ti ple ap pli-ca tions and of fers a wide range of safety equip-ment, in clud ing guards and other de vices, as may be re quired to meet cus tomer spec i fi ca tions. With-out ex cep tion, the Com pany rec om mends that all orders include applicable safety devices. Equip-ment or dered with out ap pli ca ble safety de vices is clearly the re spon si bil ity of the Pur chaser. Fur ther, the Purchaser warrants that he has determined and ac quired any and all safety de vices re quired for equip ment sold by the Com pany. Weather cov-ers and guards for mo tor and V-belt drives, cou-plings, shafts and bearings, along with inlet and out let screens, are op tional ac ces so ries noted in the price list.

WARNING U.S. Fan In ter na tional® prod ucts are de signed and man u fac tured to pro vide re li able per for mance but they are not guar an teed to be 100% free of de-fects. Even re li able prod ucts will ex pe ri ence oc ca sional fail ures and this pos si bil ity should be rec og nized by the User. If these prod ucts are used in a life sup port ven ti la tion sys tem where fail ure could re sult in loss or in jury, the User should pro vide ad e quate back-up ven ti la tion, sup ple men tary nat u ral ven ti la tion or fail ure alarm sys tem, or ac knowl edge will ing ness to ac cept the risk of such loss or in jury.

WARNING DO NOT use in HAZ ARD OUS EN VI RON MENTS where fan's elec tri cal sys tem could pro vide ig ni tion to com bus ti ble or flam ma ble ma te ri als un less unit is spe ci fi cally built for haz ard ous en vi ron ments.

CAUTION Guards must be in stalled when fan is within reach of per son nel or within seven (7) feet (2.134 m) of work ing level or when deemed ad vis able for safety.

DISCLAIMER The Com pany has made a dil i gent ef fort to il lus trate and de scribe the prod ucts in this liter a ture ac cu rately; how ever, such il lus tra tions and de scrip-tions are for the sole pur pose of iden ti fi ca tion, and do not ex press or im ply a war ranty that the prod ucts are mer chant able, or fit for a par tic u lar pur pose, or that the prod ucts will nec es sar ily con form to the il lus tra tions or de scrip tions or di men sion.

LIMITED WAR RANTY

WARRANTY AND DISCLAIMER U.S. Fan International® extends this limited warranty to the original buyer and warrants that products manufactured by the Company shall be free from original defects in workmanship and materials for two years from date of shipment, provided same have been properly stored, installed, serviced, maintained and operated. This warranty shall not apply to products which have been altered or repaired without the Company's express authorization, or altered or repaired in any way so as, in the Company's judgment, to affect its performance or reliability, nor which have been improperly installed or subjected to misuse, negligence, or accident, or incorrectly used in combination with other substances. The Buyer assumes all risks and liability for results of use of the products. Warranties on purchased parts, such as but not limited to bearings, sheaves, belts, couplings, electric motors, pumps and controls are limited to the terms of warranty extended by our supplier.

Polyethylene tubing and cooling pads are war-ranted to be free of de fects in ma te rial and work-man ship for a pe riod of 90 days from date of ship-ment and a like war ranty ap plies to the cross fluted cel lu lar type cool ing cells for a pe riod of two years from date of ship ment pro vided same have been prop erly han dled, stored, in stalled, ser viced, main-tained and op er ated. And fur ther, not sub jected to ex ces sive heat, cor ro sive agents or chem i cals, or me chan i cal abuse that may cause tear ing, crush-ing or un due de te ri o ra tion nor used on a sys tem or in a man ner other than that for which it was de-signed as ex plained in the prod uct lit er a ture.

LIMITATION OF REMEDY AND DAMAGES All claims un der this war ranty must be made in writ ing and de liv ered to 408 South Phoe nix, Ft. Smith, Ar kan sas 72916, within 15 days af ter dis cov ery of the de fect and prior to the ex pi ra tion of two years from the date of ship ment by the Com pany of the product claimed defective, and Buyer shall be barred from any rem edy if Buyer fails to make such claim within such pe riod.

Within 30 days af ter re ceipt of a timely claim, the Company shall have the option either to inspect the prod uct while in Buyer's pos ses sion or to re-quest Buyer to re turn the prod uct to the Com pany at Buyer's ex pense for in spec tion by the Com pany. The Com pany shall re place, or at its op tion re pair, free of charge, any prod uct it de ter mines to be de-fec tive, and it shall ship the re paired or re place-ment prod uct to Buyer F.O.B. point of ship ment; pro vided, how ever, if cir cum stances are such as in the Com pany's judg ment to pro hibit re pair or re-placement to remedy the warranted defects, the Buyer's sole and ex clu sive rem edy shall be a re-fund to the Buyer of any part of the in voice price, paid to the Com pany, for the de fec tive prod uct or part.

The Com pany is not re spon si ble for the cost of re-moval of the defective prod uct or part, dam ages due to re moval, or any ex penses in curred in ship-ping the prod uct or part to or from the Com pany's plant, or the in stal la tion of the re paired or re placed prod uct or part.

Implied warranties, when applicable, shall com-mence upon the same date as the ex press war-ranty pro vided above, and shall, ex cept for war-ranties of ti tle, ex tend only for the du ra tion of the ex-press warranty. Some states do not allow limita-tions on how long an im plied war ranty lasts, so the above limitation may not apply to you. The only rem edy pro vided to you un der an ap pli ca ble im-plied war ranty and the ex press war ranty shall be the rem edy pro vided un der the ex press war-ranty, subject to the terms and conditions contained therein. The Company shall not be liable for incidental and consequential losses and dam ages un der the ex press war-ranty, any applicable implied warranty, or claims for neg li gence, ex cept to the ex tent that this lim i ta tion is found to be un en force able un der ap pli-ca ble state law. Some states do not al low the ex-clu sion or lim i ta tion of in ci den tal or con se quen tial dam ages, so the above lim i ta tion or ex clu sion may not ap ply to you. This war ranty gives you spe cific le gal rights, and you may also have other rights which vary from state to state.

No em ployee, agent, dealer, or other per son is au-thorized to give any warranties on behalf of the Com pany or to as sume for the Com pany any other li a bil ity in con nec tion with any of its prod ucts ex-cept in writ ing and signed by an of fi cer of the Com-pany.

RE PLACE MENT PARTS If re place ment parts are or dered, buyer war rants that the orig i nal com po-nents in which these replacement parts will be placed are in satisfactory working condition, and when said re place ment parts are in stalled, the re-sul tant in stal la tion will op er ate in a safe man ner, at speeds and temperatures for which the original equip ment was pur chased.

TECHNICAL ADVICE AND RECOMMENDA-TIONS, DISCLAIMER Notwithstanding any past prac tice or deal ings or any cus tom of the trade, sales shall not in clude the fur nish ing of tech ni cal ad vice or as sis tance or sys tem de sign. Any such as sis tance shall be at the Com pany's sole op tion and may be sub ject to ad di tional charge.

The Com pany as sumes no ob li ga tion or li a bil ity on ac count of any rec om men da tions, opin ions or ad-vice as to the choice, in stal la tion or use of prod-ucts. Any such rec om men da tions, opin ions or ad-vice are given and shall be ac cepted at your own risk and shall not con sti tute any war ranty or guar-an tee of such prod ucts or their per for mance.

GENERAL In no event shall any claim for con se-quential damages be made by either party. The Com pany will com ply with all ap pli ca ble Fed eral, State, and lo cal laws.

U.S. Fan In ter na tional®
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Fax: 501-646-8895