



Rotron MAXIAX[®] 4.20 Large Vaneaxial Fans

General Large Vaneaxial Information

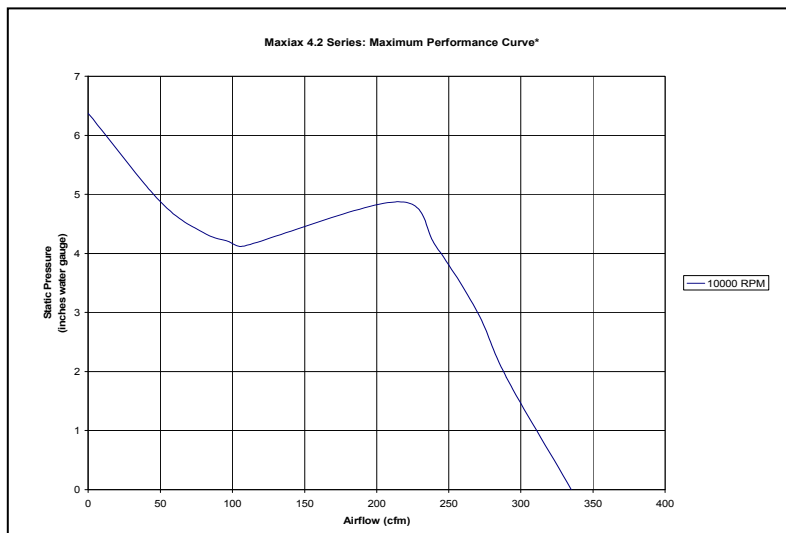
MAXIAX[®] fans provide relatively high flows against high impedance in a compact axial flow package. They operate at high rotational speeds, typically with 400 Hz motors or internal ECDC brushless motors. MAXIAX[®] fans are extremely efficient and highly customizable, allowing for precise airflow design.

MAXIAX[®] fans are typically utilized to cool airborne radar and other devices with high power transmitters. They are also employed as evaporator/condenser fans in environmental controls systems and to duct air to

various aircraft avionics bays, cockpit displays and cabin compartments. MAXIAX[®] fans are also used extensively in general aviation aircraft, military vehicles and shelters and shipboard applications.

They come in a variety of voltages and frequencies and are available with lead wires, terminal blocks and MS connectors. Most units are available with an optional internal Fan Performance Sensor (FPS) or an internal or external Low Speed Warning Device (LSWD).

Rotron MAXIAX[®] 4.20



*Individual Performance Curve Characteristics Available Upon Request

General

- Physical envelope: 4.20" diameter, 5.38" to 8.00" lengths ¹.
- Weight: 3.5 to 5.0 lbs.
- Specially designed for avionics/equipment cooling and environmental control systems.
- Speeds as high as 11,700 RPM.
- Airflow as high as 360 CFM.
- Functional Static Pressures: as high as 5.0 IWG.

Materials and Finishes

- All aluminum components finished with a chemical conversion coating per MIL-C-5541, top coat of lusterless black enamel, color #37038, per Federal Standard 595 conforming to TT-E-489 Type B.
- Corrosion-resistant stainless steel shaft and hardware.
- Impeller runs on two high-precision, double-shielded, stainless steel ball bearings (ABEC Class 5) for a long, maintenance-free life.
- Motors have stator winding insulation which is rated for continuous duty for either Class F or Class H.

¹ Note: See specific part-number drawing for complete product dimensions

Options/Accessories

- Flanges
- Beads
- Check Valves
- Custom Designs Available
- Integral EMI filter
- LSWD (Low Speed Warning Device)
- FPS (Fan Performance Sensor)



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Specifications subject to change without notice

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AC Line Powered Units ¹

- 3-phase and 1-phase permanent-split capacitor motor designs.
- Fixed speeds (performance) based on input frequency.
- Meets or exceeds the requirements of MIL-B-23071 and other applicable U.S. military and commercial aerospace specifications ².
- Max free delivery airflow of 360 CFM at 400 Hz.
- Ambient temperature range: -54 °C to 100 °C.
- Acoustic levels as low as 78 dBA.

DC Powered Units – E.C.D.C.® ¹

- Brushless permanent magnet design (Electronically Commutated DC).
- Speed (performance) fixed by input voltage.
- Meets or exceeds the requirements of MIL-B-28873 and other applicable U.S. military and commercial aerospace specifications ².
- Max free delivery airflow of 334 CFM.
- Ambient temperature range: -40 °C to 90 °C.
- Acoustic levels as low as 75 dBA.
- Standard 24 and 28 volt designs.

¹ Airflow, maximum ambient and acoustic levels will vary depending on design parameters

² Please call for further information concerning applicable U.S. military and commercial aerospace specifications

Optional DC-AC Inverters and AC-AC Converters for AC Powered Models¹

BATAC® Inverter Driven Units

- AC square wave fans driven from a DC power source through a BATAC® Inverter.
- Low cost alternative when multiple fans are used in a single application or area.
- Allows for greater than 100 VDC input voltage.

¹ See Accessories: Power Conversion

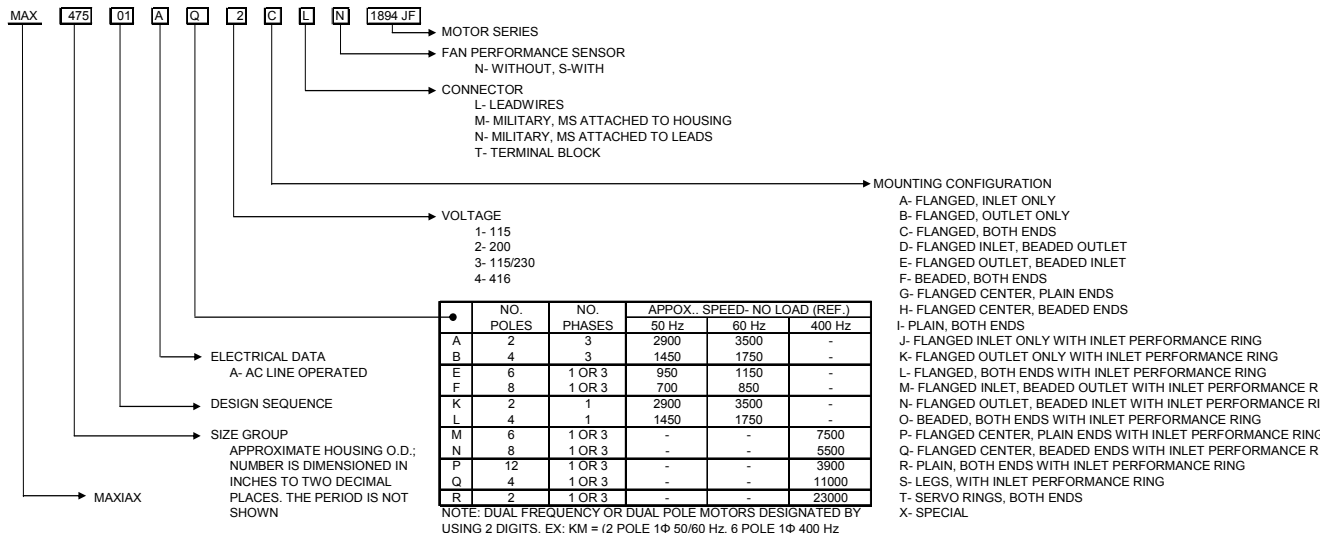
DELTAAC® Converter Driven Units

- DELTAAC® converters allow high frequency (typically 400 Hz) fans to be driven by variable frequency (typically 360-800 Hz) power or low frequency 50/60 Hz power to obtain the higher frequency performance.

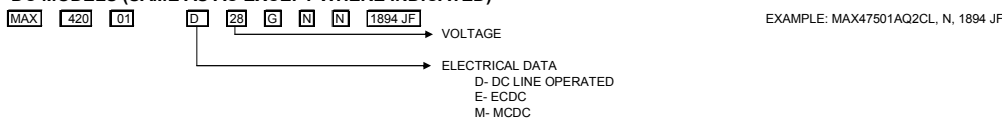
Unit Description Key

The unit description key is for reference only and should not be confused with a part number. While most units are custom configurations, not all variations of the key shown below are possible. Please contact the Application Engineering department for more information regarding possible custom configurations.

AC MODELS



DC MODELS (SAME AS AC EXCEPT WHERE INDICATED)





Ordering Information

When ordering, please specify the specific Rotron part number listed on the model table below. Further ordering information, based on the configuration and motor series, may be obtained by contacting customer service. Please refer to the Unit Description Key explanation above.

Standard Product Offering of AC Powered Models

Part #	Product Description	Flow (CFM)	Max Pressure (IWG)	Nom. RPM	Nom. Watts	Line Amps (A)	Max Amb (C)	Weight	Volts	Phase	Hz	Capacitor	Airflow Source Data	Features
034134000	MAX42000 1881JF	274	3.9	11100	209	0.7	85	5.0	200	3	400	N/A	A235-16A	LEADS
034403000	MAX42002 2615XF	254	3.3	7500	166	0.6	100	3.5	208	3	400	N/A	A450-1	CONNECTOR
034720000	MAX42002 2719JF	170	1.6	5510	61	0.3	100	3.5	208	3	400	N/A	A334-5	CONNECTOR

Standard Product Offering of DC Powered Models

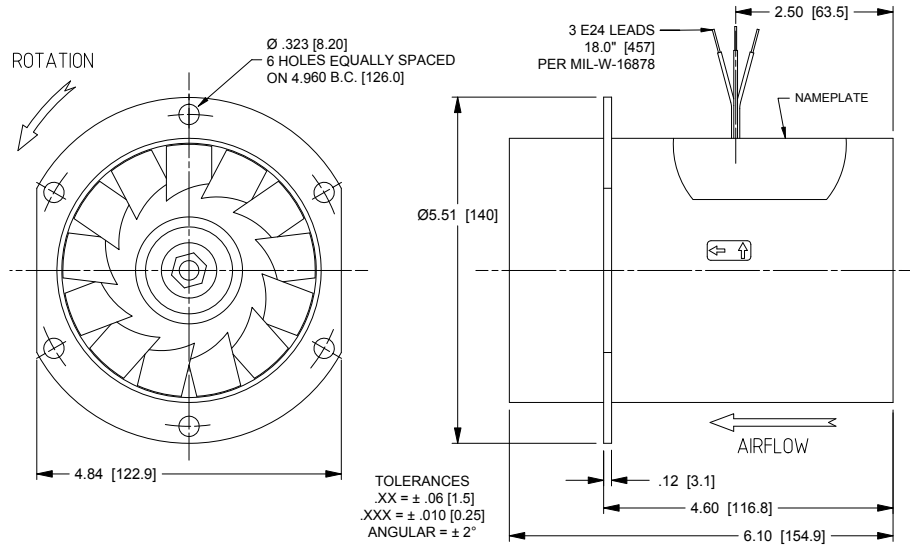
Part #	Product Description	Flow (CFM)	Max Pressure (IWG)	Nom. RPM	Nom. Watts	Line Amps (A)	Max Amb (C)	Weight	Volts	Airflow Source Data	Features
012266000	MAX42006 3394SF	334	6.4	10000	364	13.0	70	3.6	28	A523-18	LEADS / MS CONNECTOR
011833000	MAX42006 3304SF	312	4.2	8800	217	8.5	70	3.7	28	A483-8A	LEADS
012265000	MAX42011 3437SF	310	4.5	9400	280	9.5	70	4.1	28	A663-12	CONNECTOR, LSWD



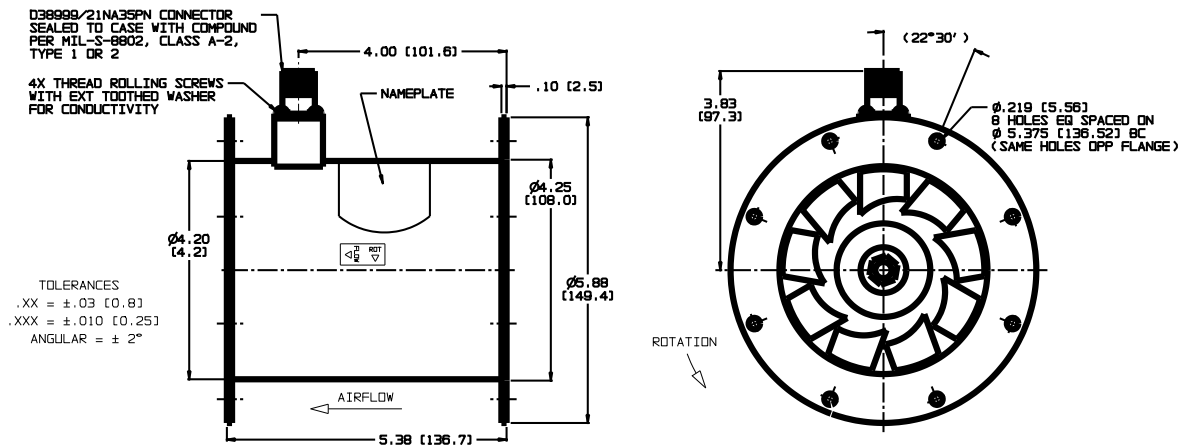
Rotron / Airscrew



MAXIAX 42000 – AC



MAXIAX 42002 – AC

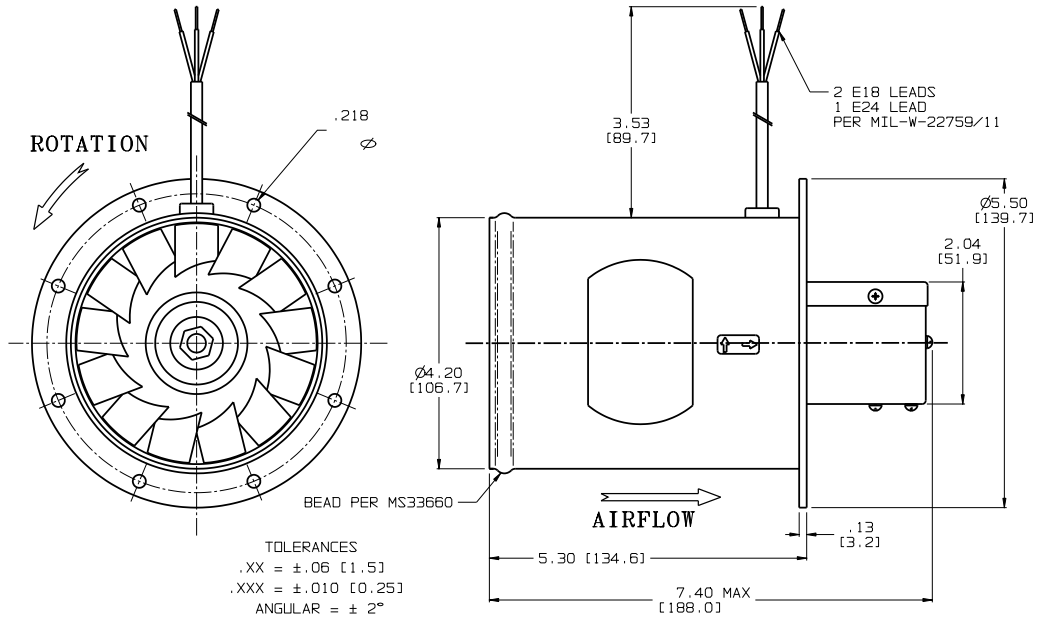




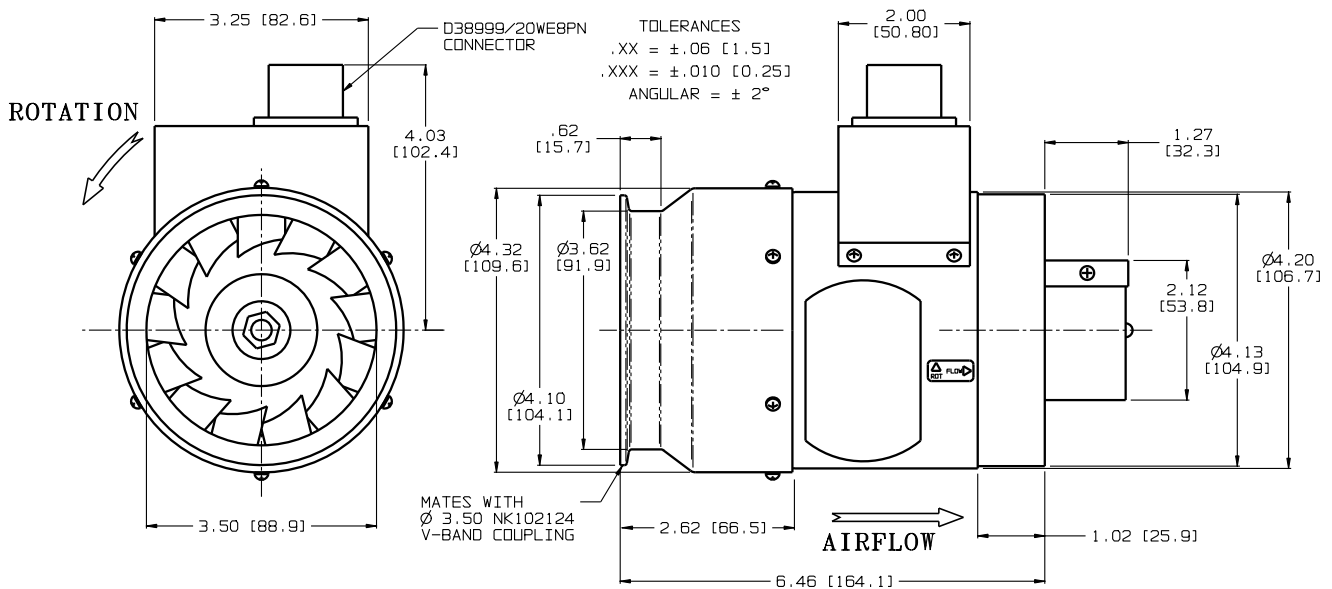
Rotron / Airscrew



MAXIAX 42006 – DC



MAXIAX 42011 – DC

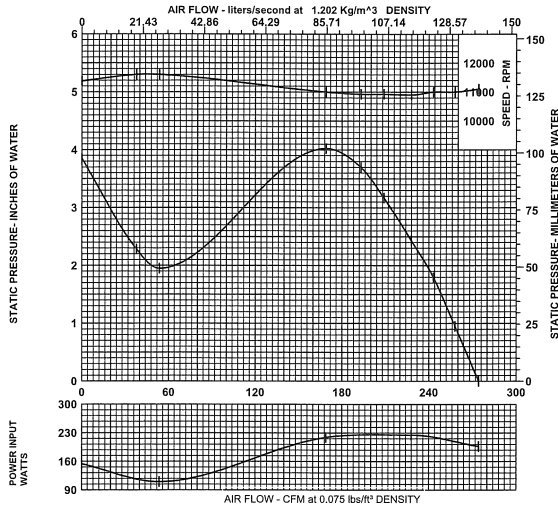




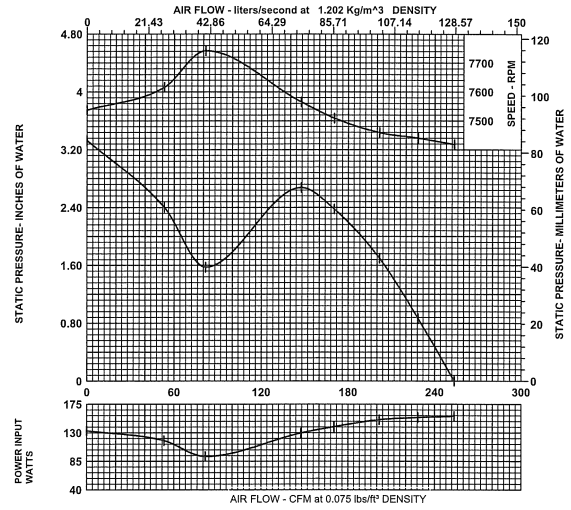
Rotron / Airscrew



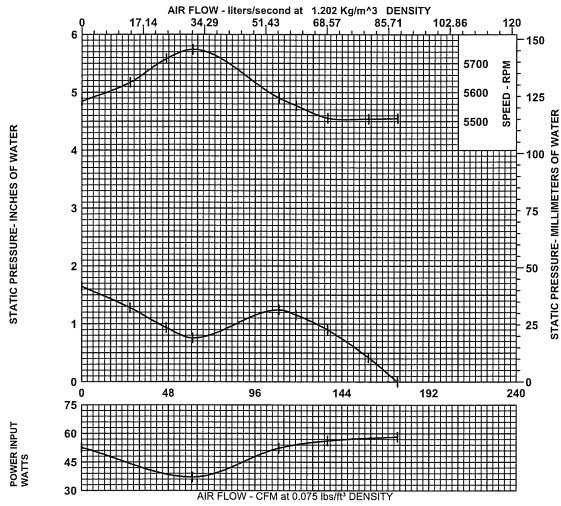
P/N 034134000 MAX42000 1881JF A235-16A



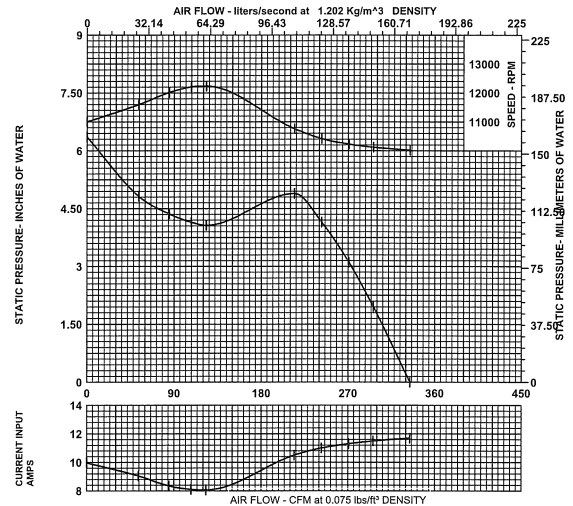
P/N 034403000 MAX42002 2615XF A450-1



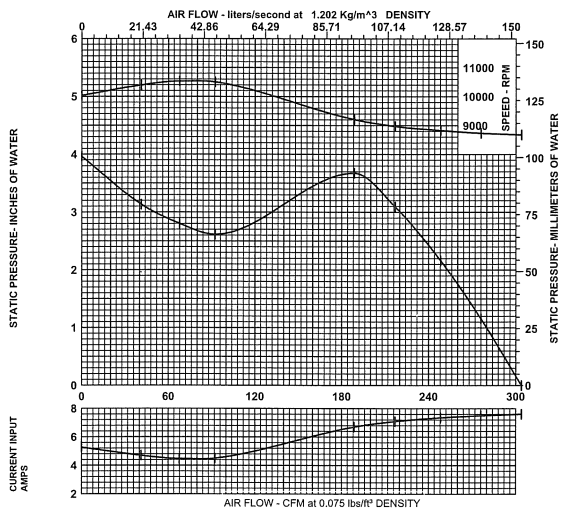
P/N 034720000 MAX42002 2719JF RM5257



P/N 012266000 MAX42006 3394SF A523-18



P/N 011833000 MAX42006 3304SF A483-8A



P/N 012265000 MAX42011 3437SF A663-12

