



Rotron MAXIAX[®] 3.56 Large Vaneaxial Fan

General Large Vaneaxial Information

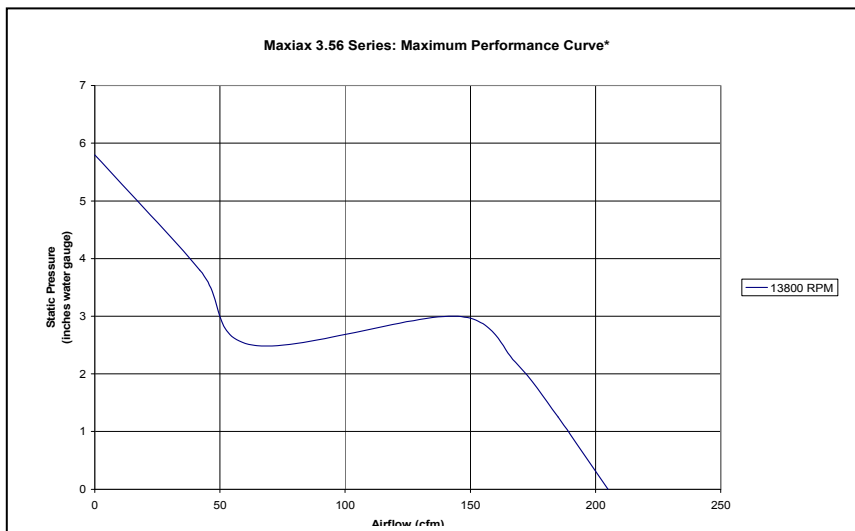
MAXIAX[®] fans provide relatively high flows against high impedance in a compact axial flow package. They operate at high rotational speeds, typically with 400 Hz motors or internal ECDC brushless motors. MAXIAX[®] fans are extremely efficient and highly customizable, allowing for precise airflow design.

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[®] 3.56



*Individual Performance Curve Characteristics Available Upon Request

General

- Physical envelope: 3.75" diameter, 2.50" length ¹.
- Weight: 1.35 lbs.
- Standard servo ring mounting.
- Specially designed for avionics/equipment cooling and environmental control systems.
- Speeds as high as 13,800 RPM.
- Airflow as high as 204 CFM.
- Functional Static Pressures: as high as 3.0 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)





AC Line Powered Units ¹

- Not available in this model fan.

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 204 CFM.
- Ambient temperature range: -40 °C to 85 °C.
- Acoustic levels as low as 84 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 ¹

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

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

MAX 475 01 A Q 2 C L N 1894 JF

MOTOR SERIES
FAN PERFORMANCE SENSOR
N- WITHOUT, S-WITH
CONNECTOR
L- LEADWIRES
M- MILITARY, MS ATTACHED TO HOUSING
N- MILITARY, MS ATTACHED TO LEADS
T- TERMINAL BLOCK

MOUNTING CONFIGURATION
A- FLANGED, INLET ONLY
B- FLANGED, OUTLET ONLY
C- FLANGED, BOTH ENDS
D- FLANGED INLET, BEADED OUTLET
E- FLANGED OUTLET, BEADED INLET
F- BEADED, BOTH ENDS
G- FLANGED CENTER, PLAIN ENDS
H- FLANGED CENTER, BEADED ENDS
I- PLAIN, BOTH ENDS
J- FLANGED INLET ONLY WITH INLET PERFORMANCE RING
K- FLANGED OUTLET ONLY WITH INLET PERFORMANCE RING
L- FLANGED, BOTH ENDS WITH INLET PERFORMANCE RING
M- FLANGED INLET, BEADED OUTLET WITH INLET PERFORMANCE RING
N- FLANGED OUTLET, BEADED INLET WITH INLET PERFORMANCE RING
O- BEADED, BOTH ENDS WITH INLET PERFORMANCE RING
P- FLANGED CENTER, PLAIN ENDS WITH INLET PERFORMANCE RING
Q- FLANGED CENTER, BEADED ENDS WITH INLET PERFORMANCE RING
R- PLAIN, BOTH ENDS WITH INLET PERFORMANCE RING
S- LEGS, WITH INLET PERFORMANCE RING
T- SERVO RINGS, BOTH ENDS
X- SPECIAL

VOLTAGE
1- 115
2- 200
3- 115/230
4- 416

	NO. POLES	NO. PHASES	APPOX. SPEED- NO LOAD (REF.)		
			50 Hz	60 Hz	400 Hz
A	2	3	2900	3500	-
B	4	3	1450	1750	-
E	6	1 OR 3	950	1150	-
F	8	1 OR 3	700	850	-
K	2	1	2900	3500	-
L	4	1	1450	1750	-
M	6	1 OR 3	-	-	7500
N	8	1 OR 3	-	-	5500
P	12	1 OR 3	-	-	3900
Q	4	1 OR 3	-	-	11000
R	2	1 OR 3	-	-	23000

NOTE: DUAL FREQUENCY OR DUAL POLE MOTORS DESIGNATED BY USING 2 DIGITS. EX: KM = 2 POLE 1Φ 50/60 Hz, 6 POLE 1Φ 400 Hz

ELECTRICAL DATA
A- AC LINE OPERATED

DESIGN SEQUENCE

SIZE GROUP
APPROXIMATE HOUSING O.D.:
NUMBER IS DIMENSIONED IN
INCHES TO TWO DECIMAL
PLACES. THE PERIOD IS NOT
SHOWN

MAXIAX

DC MODELS (SAME AS AC EXCEPT WHERE INDICATED)

MAX 420 01 D 28 G N N 1894 JF

VOLTAGE

ELECTRICAL DATA
D- DC LINE OPERATED
E- ECDC
M- MCDC

EXAMPLE: MAX47501AQ2CL, N, 1894 JF

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.



North America
T: +1 845-679-1361
F: +1 845-679-1870

United Kingdom
T: +44 (0) 1932 765822
F: +44 (0) 1932 761098

Specifications subject to change without notice

Europe
T: +49 8145 951767
F: +49 8145 951768

Asia Pacific
T: +65 6484 2388
F: +65 6481 6588

Contact E-mail: mlinquiry@ametek.com

www.ametekaerodefense.com



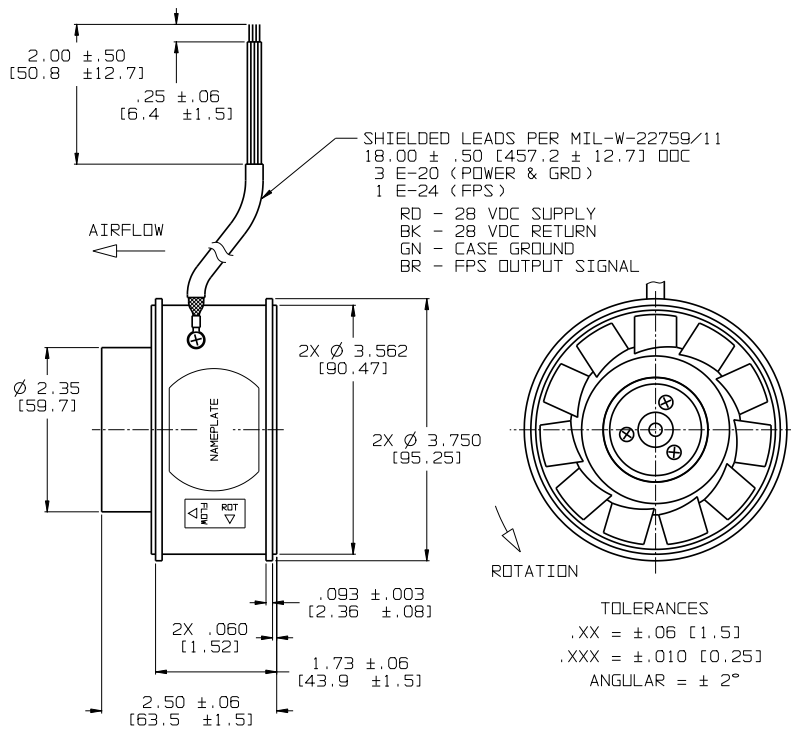
Rotron / Aircrew



Standard Product Offering of DC Line 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
012120000	MAX35600 3849XF	196	5.5	13400	145	5.2	85	1.5	28	A777-6B	LEADS, FPS
012102000	MAX35600 3832XF	204	5.8	13800	163	5.8	85	1.4	28	A777-14A	LEADS, FPS

MAXIAX 35600 – DC

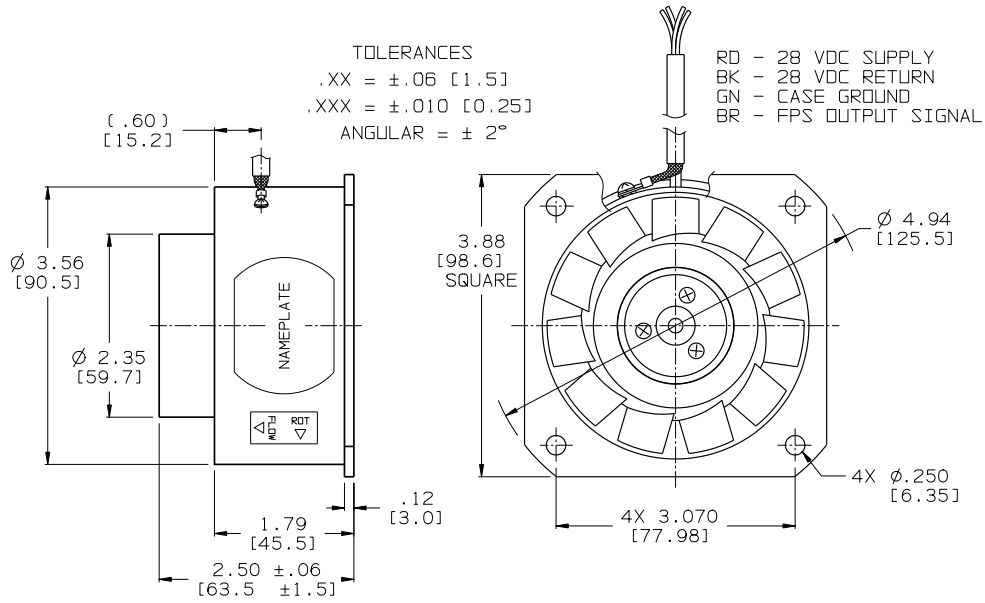




Rotron / Airscrew



MAXIAX 35600 – DC continued

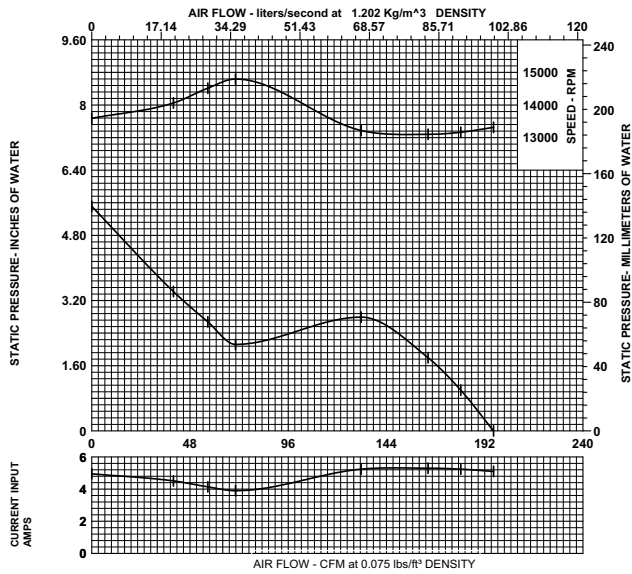




Rotron / Aircrew



P/N 012120000 MAX35600 3849XF A777-6B



P/N 012102000 MAX35600 3832XF A777-14A

