ROTRON / AMETEK®

Rotron AXIMAX® 3
Small Vaneaxial Fans

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General Small Vaneaxial Information

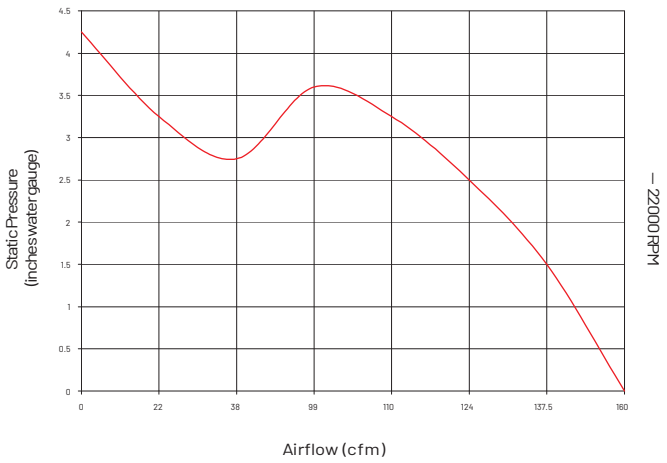
Small Vaneaxial Fans are compact, high-speed fans whose airflow is parallel to the motor shaft. The impeller and guide vanes are of airfoil construction for maximum aerodynamic efficiency and minimum acoustical noise.

These fans are designed for use in tightly packaged airborne "black boxes" where sizes and weight must be held to an absolute minimum, where reliability is critical, and where high heat loads must be dissipated with cooling air.

Small Vaneaxial Fans 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 external Low Speed Warning Device (LSWD).

Rotron AXIMAX® 3

Aximax 3 Series: Maximum Performance Curve*



*Individual Performance Curve Characteristics Available Upon Request



General

- Physical envelope: 3.00" Dia. x 2.52"L 1.
- Weight: approximately 14 oz.
- Specially designed for electronics box cooling, such as avionics, radar, electronic countermeasures, displays, and communications equipment in aircraft, ground and shipboard applications.
- Custom mounting configurations, such as flanges or servo rings and synclamps, are available[2].

[1] See specific part-number drawing for complete product dimensions
[2] Please contact the Application Engineering Department for further information

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) with an integral lubricant reservoir for a long, maintenancefree life.
- Stator wound in accordance with the specifications for Class F insulation.

Options/Accessories

- Finger Guards
- Synclamps
- Custom Paints Available
- LSWD (Low Speed Warning Device)
- FPS (Fan Performance Sensor)

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 17.6 CFM at 50 Hz, 21 CFM at 60 Hz, 155 CFM at 400 Hz.
- Ambient temperature range: -54 °C to 125 °C.
- Acoustic levels as low as 66.2 dBA.

[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

DC Line 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 145 CFM.
- Ambient temperature range: -54 °C to 100 °C.
- Acoustic levels as low as 57 dBA.

Optional DC-AC Inverters and AC-AC Converters for AC Powered Models[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.

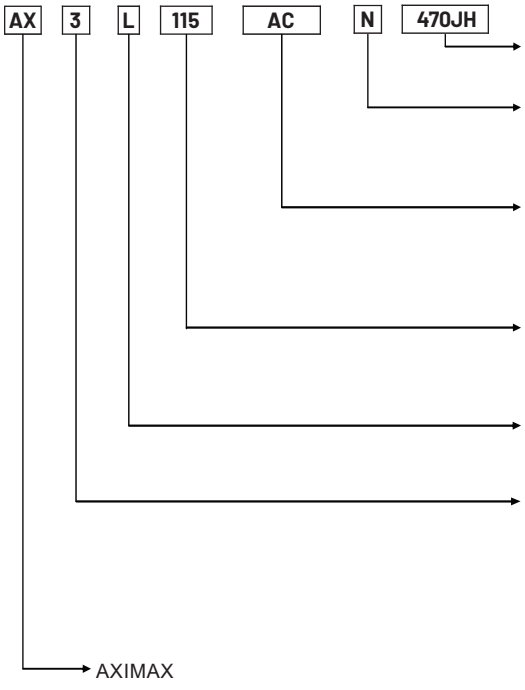
[1] See Accessories: Power Conversion

DELTAC® Converter Driven Units

- DELTAC® 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.



MOTOR SERIES
PER ROTRON STD 3.201

VOLTAGE TYPE
AC - AC LINE OPERATED
ECDC - ELECTRONICALLY COMMUTATED DC LINE OPERATED

VOLTAGE TYPE
AC - AC LINE OPERATED
ECDC - ELECTRONICALLY COMMUTATED DC LINE OPERATED
DC - DC LINE OPERATED

NOMINAL DESIGN COLTAGE
FOR AC OR DC FAN, USE 3 DIGITS (ENTER "0" PRECEEDING SIGNIFICANT NUMBER(S) FOR 1 OR 2 DIGIT VOLTAGE)

HOOK-UP CONFIGURATION
L - LEADWIRES, T - TERMINAL BLOCK, M - MS CONNECTOR**

STD	CASE	BLADES
3	Std. Servo Rings	4 Blades
3A	Std. Servo Rings	6 Blades
3E	Special Case, High Pressure	11 Blades
3R	Special Case, High Pressure - Low Volume Smaller Hub O.D.	6 Blades
3RA	3R Case/ Flow L	Cut Down

EXAMPLE: AX3L, 115 AC, N, 470JH

* "X" IN ANY POSITION DENOTES SPECIAL FOR THAT FEATURE
* * TERMINAL BLOCK AND MS CONNECTOR NOT AVAILABLE ON AX3R/ 3RA

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.

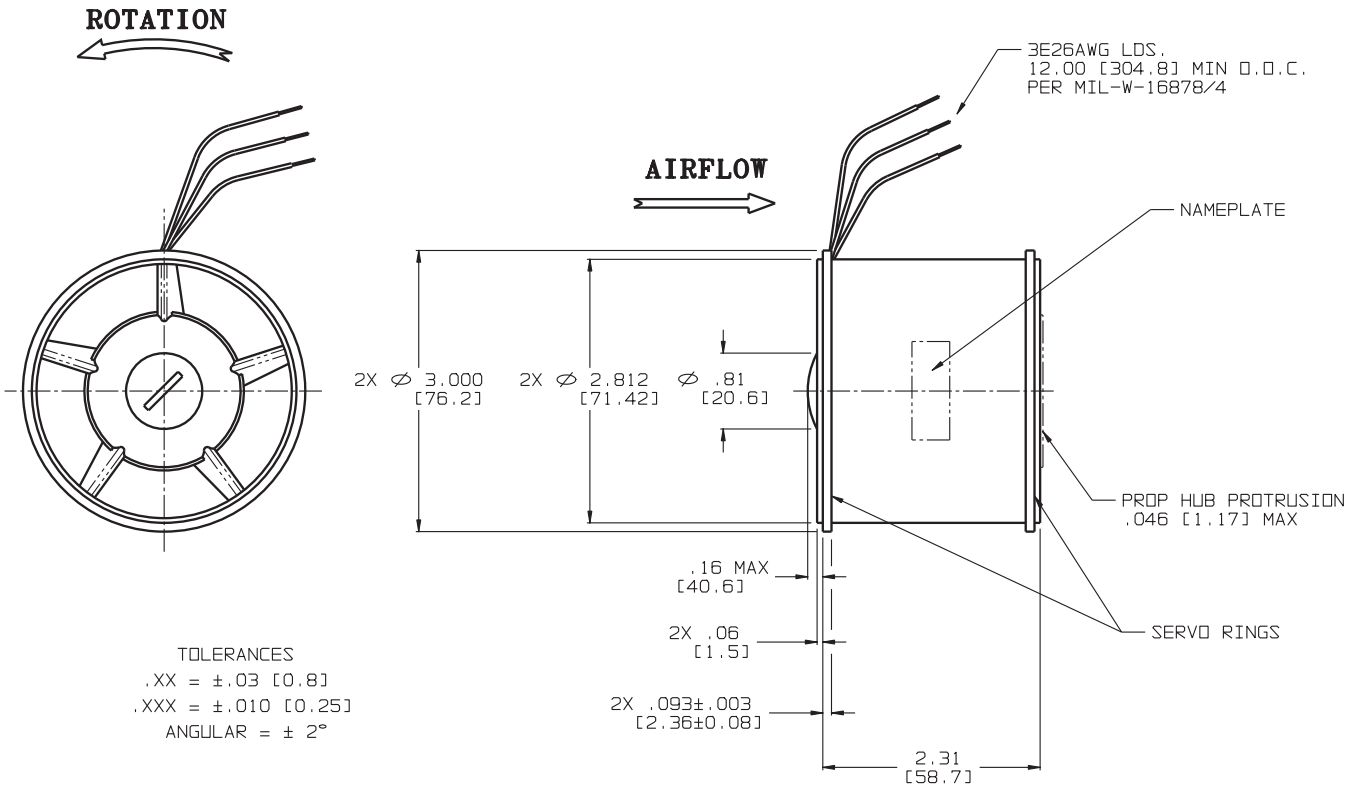
Standard Product Offering of AC Line Powered Models

Part #	Prod. Desc.	Flow (CFM)	Max Pressure (IWG)	Nom. RPM	Nom. Watts	Line Amps (A)	Max Amb (°C)	Weight (lbs)	Volts	Phase	Hz	Capacitor	Airflow Source Data	Features
035430000	AX3L 470JH	155	4.2	22,500	116	0.7	125	0.9	115	3	400	N/A	A558-6	LEADS
020372000	AX3T 341JH	153	4.5	22,000	123	0.4	125	0.9	200	3	400	N/A	A558-5	TERMINALS
034660000	AX3L 341JH	153	4.5	22,000	123	0.4	125	0.9	200	3	400	N/A	A558-5	LEADS, FPS
026963000	AX3T 528YH	150	4.2	22,300	128	1.2	100	0.9	115	1	400	2.0/220	A558-11	TERMINALS
041189000	AX3T 528YH	150	4.2	22,300	128	1.2	100	0.9	115	1	400	2.0/220	A558-11	TERMINALS, FPS
035709000	AX3L 501YH	125	3.1	17,000	90	0.9	100	0.9	115	1	400	2.0/220	A558-12	TERMINALS, FPS
041190000	AX3T 501YH	125	3.1	17,000	90	0.9	100	0.9	115	1	400	2.0/220	A558-12	LEADS, FPS
041186000	AX3EL 3753JH	121	11.1	22,500	214	0.8	80	0.9	200	3	400	N/A	A633-2	LEADS, SQUARE FLANGE
024061000	AX3M 500JH	114	2.6	16,600	73	0.2	125	0.9	200	3	400	N/A	A558-9	CONNECTOR, ALTIVAR
034137000	AX3T 387JH	98	1.8	13,700	56	0.3	125	0.9	200	3	400	N/A	A152-13	TERMINALS, FPS
026962000	AX3T 387JH	98	1.8	13,700	56	0.3	100	0.9	200	3	400	N/A	A152-13	TERMINALS
024884000	AX3T 668YH	90	1.7	13,250	62	0.7	100	0.9	115	1	400	2.0/220	A558-16	TERMINALS, ALTIVAR
027656000	AX3L 473JH	79	1.2	11,600	31	0.2	125	0.9	200	3	400	N/A	A558-8	LEADS, CASE GROUND
026964000	AX3T 422DH	76	1.2	11,200	26	0.3	125	0.9	115	1	400	1.0/220	A558-14	TERMINALS
026961000	AX3T 400YH	74	1.1	9,400	39	0.3	100	0.9	115	1	400	0.5/220	A152-16	CONNECTOR, ALTIVAR
026965000	AX3T 599JH	22	0.1	3300	4	0.0	125	0.9	115	1	60	0.5/220	A558-13	TERMINALS

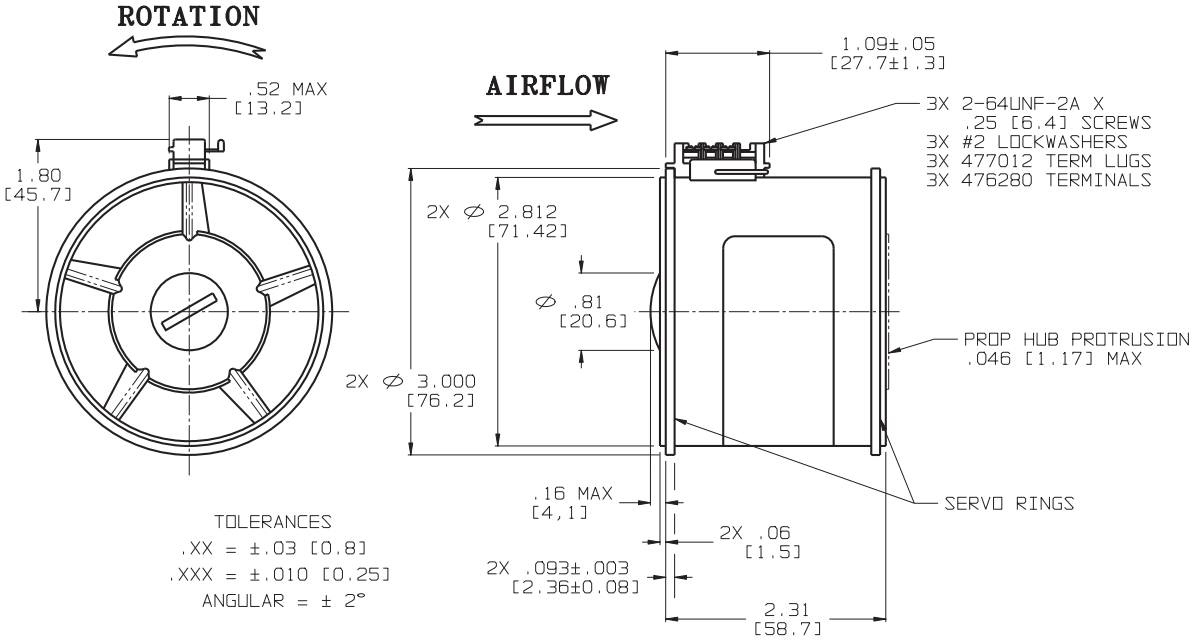
Standard Product Offering of DC Line Powered Models

Part #	Prod. Desc.	Flow (CFM)	Max Pressure (IWG)	Nom. RPM	Nom. Watts	Line Amps (A)	Max Amb (°C)	Weight (lbs)	Volts (DC)	Airflow Source Data	Features
011242000	AX3L 2524SF	104	2.2	15400	53	1.8	85	1.7	26	A289-19A	Leads, FPS
011653000	AX3AL 3509SF	100	2.0	14600	43	1.7	85	0.9	26	A515-11A	Leads, FPS
011179000	AX3L 2653SF	73	0.9	11000	18	0.6	100	0.9	26	A755-14A	Leads, FPS

AX3L



AX3T



*Part Number Specific Drawings Available Upon Request

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Specifications subject to change without notice