ROTRON / AMETEK®
AEROSPACE & DEFENSE

Rotron MIL901
Tubeaxial Fans



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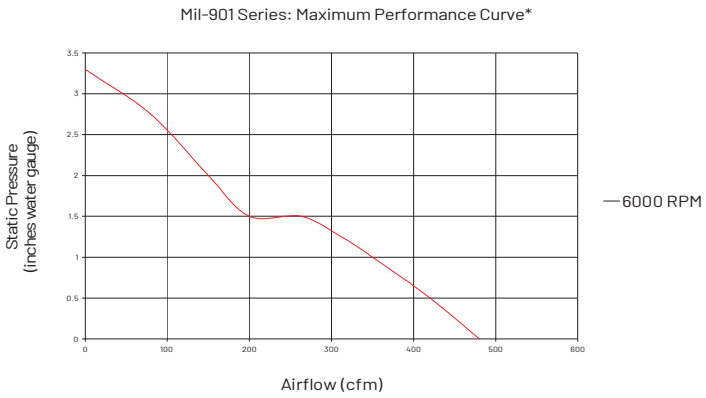
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General Tubeaxial Information

Tubeaxial Fans are integrated axial flow air moving devices in which the motor rotor is cast inside the impeller to achieve the smallest possible axial dimension. Higher aerodynamic performance and efficiencies can be achieved with these true airfoil blade designs. These fans typically operate near free delivery, but can achieve static pressures above those of Propeller Fans due to high speed operations.

The Tubeaxial Fan is suitable for operation in severeenvironmental conditions in air, ground, and shipboard applications. They come in a variety of AC voltages and frequencies, as well as DC voltages. Hook up options include: lead wires, terminal blocks, or MS connectors. All Tubeaxial Fans are finely balanced to meet the requirements of MIL-B-23071. All units are available with an optional internal Fan Performance Sensor (FPS) and an external Low Speed Warning Device (LSWD). Some units are available with an internal Low Speed Warning Device (LSWD).

Rotron MIL901



*Individual Performance Curve Characteristics Available Upon Request



General

- Physical envelope: 5.92" x 6.75" x 2.00" [1].
- Weight: approximately 2.1 lbs.
- Cast aluminum Venturi in round or flatted.
- 5 or 7 bladed configurations for Glass-filled composite Impeller.
- Specially designed for cooling electronics in shipboard and submarine rack applications, and Telecom and Datacom racks.
- Designed to meet the high shock requirements of MIL-S-901.
- Custom mounting configurations available [2].

[1] Note: 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.
- Motors have stator winding insulation which is rated for continuous duty for Class F.

Options/Accessories

- Helicoil Inserts
- Finger Guards
- Explosion Proof (NEC Class 1, Div II)
- In-line EMI Filters
- 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.
- Available as a QPL product (MIL-B-23071/29-001)
- Max free delivery airflow of 190 CFM at 50 Hz, 228 CFM at 60 Hz, 262 CFM at 400 Hz.
- Ambient temperature range: -54 °C to 100 °C.
- Acoustic levels as low as 69 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

C 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 432 CFM.
- Ambient temperature range: -40 °C to 85 °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.

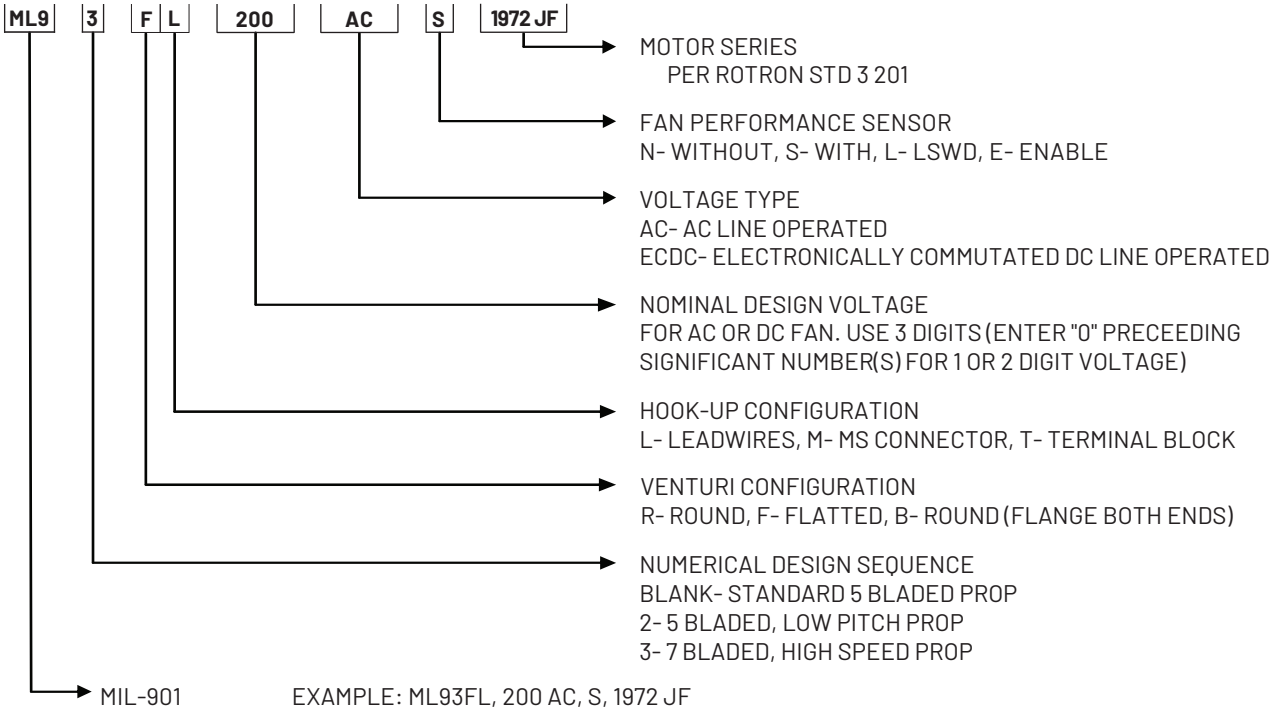
[1] See Accessories: Power Conversion

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.



EXAMPLE: ML93FL, 200 AC, S, 1972 JF

* "X" IN ANY POSITION DENOTES SPECIAL FOR THAT FEATURE

Ordering Information

When ordering, please specify the specific Rotron part number listed on the following model table. 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.

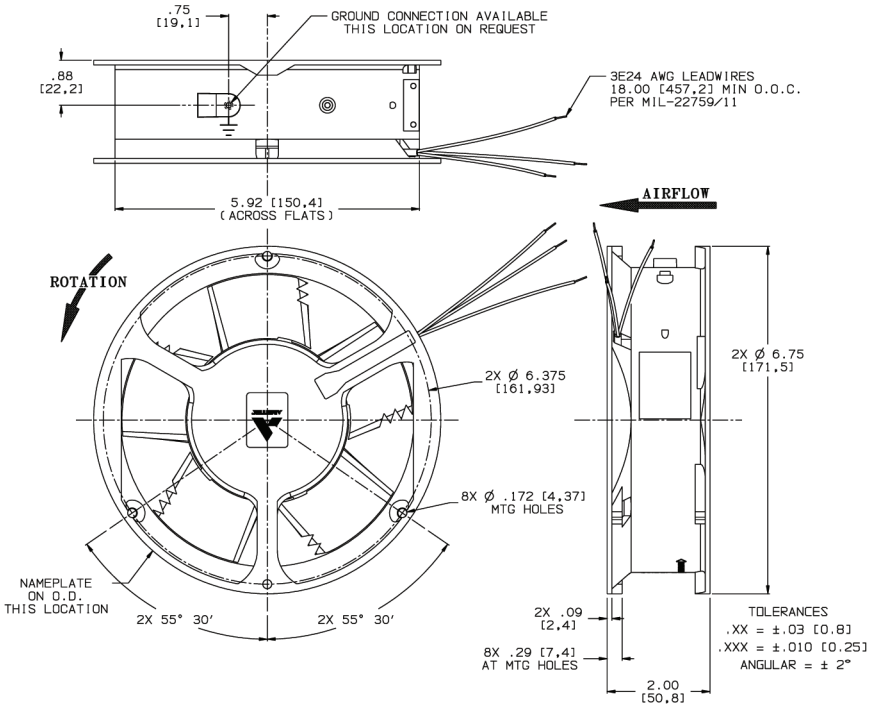
Standard Product Offering of AC Line Powered Models

Part #	Product Description	Flow (CFM)	Max Pressure (IWG)	Nom. RPM	Nom. Watts	Line Amps (A)	Max Amb (C)	Weight	Volts	Phase	Hz	Capaciotr	Airflow Source Data	Features
034419000	ML9FL 1972JF	396	2.4	5525	80	0.6	80	2.2	200	3	400	N/A	A595-24	LEADS
033454000	ML9FL 1833YF	250	1.0	3400	37	0.7	100	2.2	115	1	400	0.18/440	A476-17	LEADS, GROUND CONNECTION
033089000	ML9FL 1805WF	248	1.0	3400	43	0.4	100	2.2	200	3	400	N/A	A476-12	LEADS
034100000	ML9FL 1962XF	239	0.6	3500	38	0.4	100	2.1	115	1	400	1.5/220	A262-27B	LEADS, 50/60 400 Hz
035202000	ML9RL 1839JF	231	0.9	3300	25	0.1	125	2.1	230	3	60	N/A	A228-9A	LEADS, FPS
035461000	ML9FL 1839JF	230	0.9	3300	25	0.1	90	2.1	200-230	3	60	N/A	A228-9	LEADS
033037000	ML9FL 1790YF	230	0.9	3250	30	0.3	100	2.2	115	1	60	3.0/170	A226-8A	LEADS
035898000	ML9RXM 1849JF	230	0.9	3300	18	0.1	130	2.1	115	3	60	N/A	A230-4	LEADS
034301000	ML9RL 1791YF	226	0.9	3300	33	0.1	100	2.1	208-230	1	50	0.75/340	A230-6A	LEADS
035551000	ML9RL 1791YF	226	0.9	3300	33	0.1	100	2.1	208-230	1	60	0.75/340	A230-6A	FLEADS, FPS, GROUND CASE
041029000	ML9FL 1791YF	226	0.9	3300	33	0.1	100	2.1	230	1	60	0.75/340	A230-6A	LEADS, GROUND BOSS
034100000	ML9FL 1962XF	221	0.6	3250	31	0.3	100	2.1	115	1	60	3.0/220	A262-27	LEADS, 50/60 400 Hz

Standard Product Offering of DC Line Powered Models

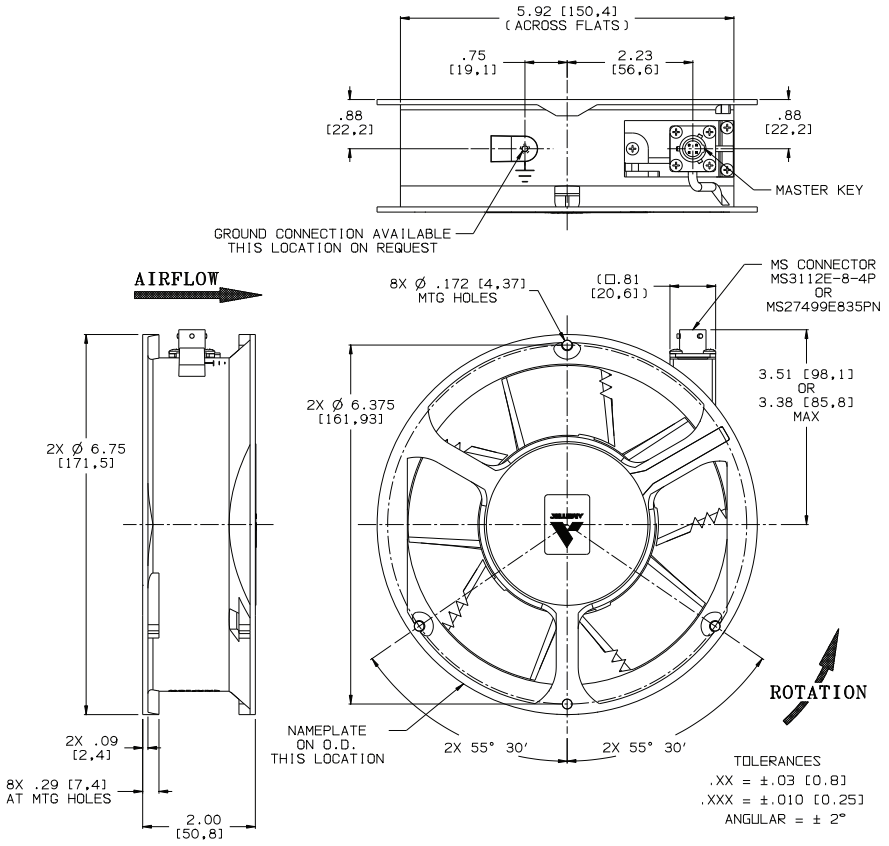
Part #	Product Description	Flow (CFM)	Max Pressure (IWG)	Nom. RPM	Nom. Watts	Line Amps (A)	Max Amb (C)	Weight	Volts	Airflow Source Data	Features
011619000	ML9FL 3382SF	432	2.7	6000	87	3.5	85	2.1	28	A659-11B	LEADS, FPS
011619000	ML9FL 3382SF	400	2.4	5700	72	3.0	85	2.1	26	A659-11A	LEADS, FPS
011578000	ML9FL 3346SF	395	2.3	5500	70	2.8	85	2.1	28	A659-6	LEADS, FPS
011692000	ML9FLM 3554SF	356	1.9	5000	69	2.5	85	2.1	28	A696-9B	LEADS, FPS
011618000	ML9FL 3381SF	354	1.9	5000	54	2.1	85	2.1	28	A659-10Bm	LEADS, FPS, EMI
011578000	ML9FL 3346SF	339	1.7	4800	44	2.0	85	2.1	48	A659-6C	LEADS, FPS
011617000	ML9FL 3380SF	320	1.6	4500	41	1.6	85	2.1	28	A465-23	LEADS, FPS
011614000	ML9FL 3377SF	283	1.2	4000	31	1.2	85	2.1	28	A469-5	LEADS, FPS
011613000	ML9FL 3376SF	247	1.0	3500	23	0.9	85	2.1	28	A467-27A	LEADS, FPS
011612000	ML9FL 3375SF	214	0.7	3000	18	0.6	85	2.1	28	A627-9	LEADS, FPS

ML9BL

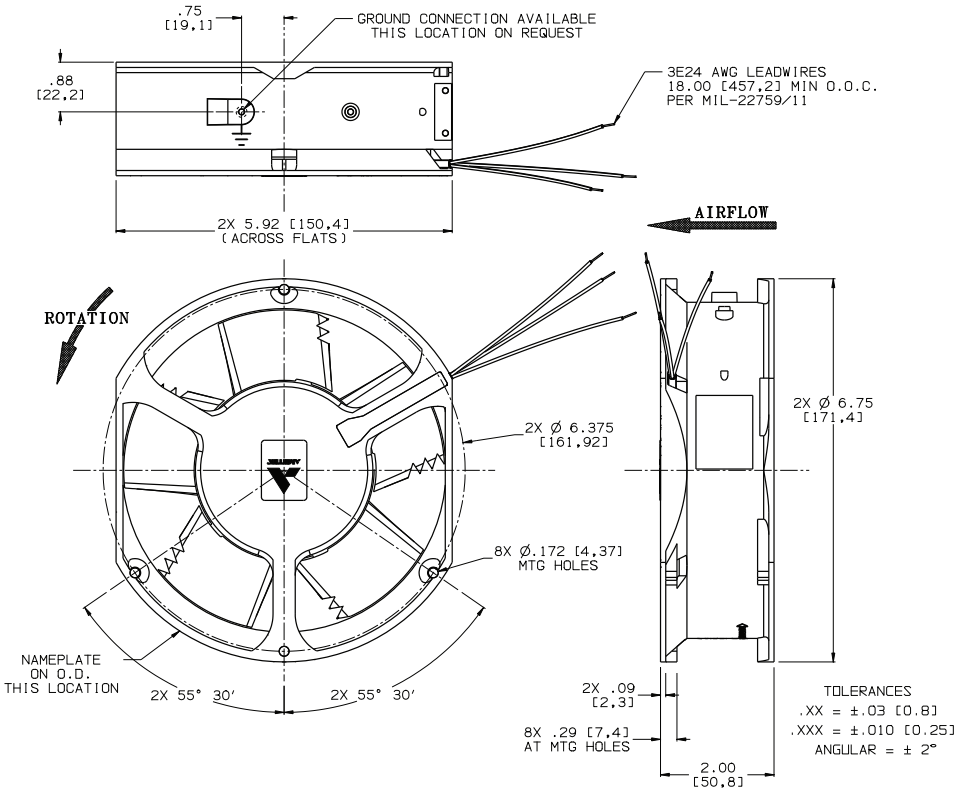


*Part Number Specific Drawings Available Upon Request

ML9BM



ML9FL



*Part Number Specific Drawings Available Upon Request

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Specifications subject to change without notice