ROTRON / AMETEK®
AEROSPACE & DEFENSE

Rotron MAXIAX® 5.00 – 5.25
Large Vaneaxial Fans

NORTH AMERICA
T: +1 845-679-1361
F: +1 845-679-1870

UNITED KINGDOM
T: +44 (0) 1932 765822
F: +44 (0) 1932 761098

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

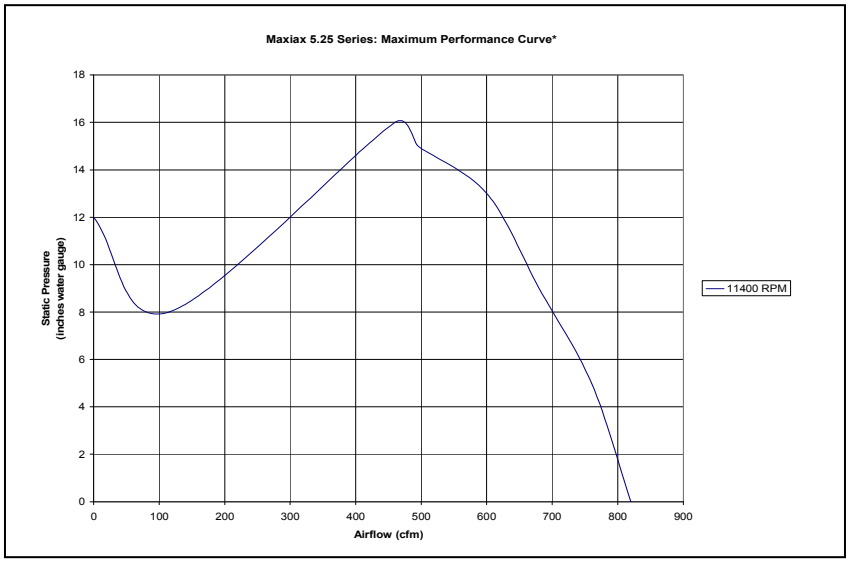
ASIA PACIFIC
T: +65 6484 2388
F: +65 6481 6588

www.rotron.com

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® 5.00 - 5.25





General Large Vaneaxial Information

- Physical envelope: 5.00" to 5.25" diameters, 4.33" to 8.0" lengths[1]
- Weight: 5.2 to 7.8 lbs.
- Specially designed for avionics/equipment cooling and environmental control systems.
- Speeds as high as 15,100 RPM.
- Airflow as high as 809 CFM.
- Functional Static Pressures: as high as 18 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. 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]

- 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 809 CFM at 400 Hz.
- Ambient temperature range: -54 °C to 100 °C.
- Acoustic levels as low as 68 dBA.+

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 512 CFM.
- Ambient temperature range: -40 °C to 90 °C.
- Acoustic levels as low as 72 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 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.

AC MODELS

MAX | 475 | 01 | A | Q | 2 | C | L | N | 1894 JF

- 1894 JF → MOTOR SERIES
- N → FAN PERFORMANCE SENSOR
  - N- WITHOUT, S-WITH
- L → CONNECTOR
  - L- LEADWIRES
  - M- MILITARY, MS ATTACHED TO HOUSING
  - N- MILITARY, MS ATTACHED TO LEADS
  - T- TERMINAL BLOCK
- C → 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
- 2 → VOLTAGE
  - 1- 115
  - 2- 200
  - 3- 115/230
  - 4- 416
- Q → NO. POLES / NO. PHASES / APPOX.. SPEED- NO LOAD (REF.)

	NO. POLES	NO. PHASES	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 10 50/60 Hz, 6 POLE 10 400 Hz

- A → ELECTRICAL DATA
  - A- AC LINE OPERATED
- 01 → DESIGN SEQUENCE
- 475 → SIZE GROUP
  - APPROXIMATE HOUSING O.D.; NUMBER IS DIMENSIONED IN INCHES TO TWO DECIMAL PLACES. THE PERIOD IS NOT SHOWN
- MAX → MAXIAX

DC MODELS (SAME AS AC EXCEPT WHERE INDICATED)

MAX | 420 | 01 | D | 28 | G | N | N | 1894 JF

- 28 → VOLTAGE
- D → 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 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.

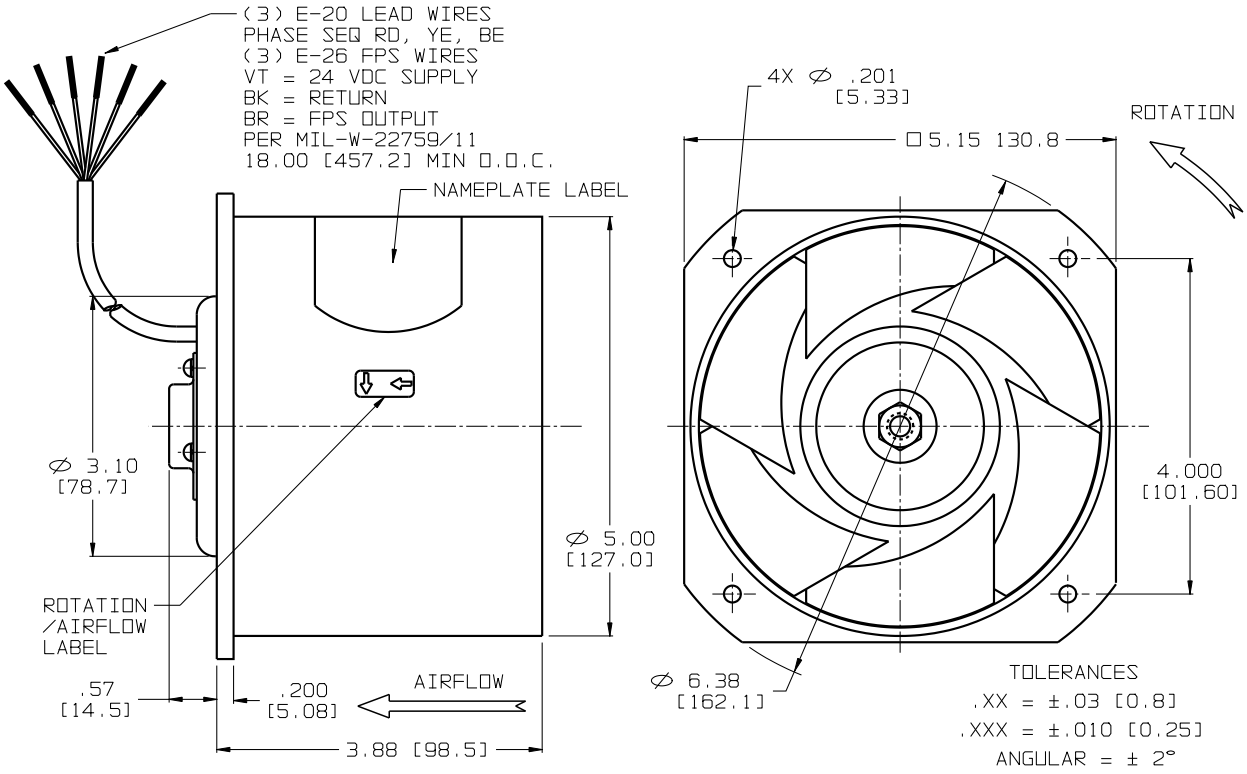
Standard Product Offering of AC Line Powered Models

Part #	Product Description	Flow (CFM)	Max Pressure (IWG)	Nom. RPM	Nom. Watts	Line Amps (A)	Max Amb (C)	Weight	Volts	Phase	Hz	Capacitor	Airflow Source Data	Features
034469000	MAX50003 1952JF	321	12.0	11600	351	1.5	100	6.2	200	3	400	N/A	A402-13A	LEADS
034892000	MAX50001 2600WF	214	5.9	7750	141	0.9	100	5.7	200	3	400	N/A	A290-23	CONNECTOR
035175000	MAX50013 1952JF	315	12.6	11600	351	1.6	100	5.6	200	3	400	N/A	A406-27	LEADS
035391000	MAX50004 1952Q7	329	13.7	11600	351	1.6	100	6.4	200	3	400	N/A	A363-33A	CONNECTOR
035393000	MAX50008 3038JH	545	10.2	11650	392	1.8	85	4.5	200	3	400	N/A	A451-21	CONNECTOR
041491000	MAX52501 3139JF	376	19.3	11750	1138	4.9	72	7.6	200	3	400	N/A	A498-6	CONNECTOR
035546000	MAX50016 3325JH	312	5.7	8600	302	1.0	96	6.2	200	3	400	N/A	A498-9	ALTIVAR
035663000	MAX52500 3260	809	11.9	11300	1752	7.0	60	7.5	200	3	400	N/A	A498-3	CONNECTOR
035786000	MAX50010 2900QH	508	10.8	11350	683	3.0	72	6.3	200	3	400	N/A	A371-28	CONNECTOR
035826000	MAX50020 3573CH	169	3.0	5750	75	0.3	72	6.4	440	1	400	0.22/480	A534-30	LEADS, FPS
041489000	MAX50021 2900S7	541	8.7	11300	783	3.2	72	6.0	200	3	400	N/A	A647-24A	CONNECTOR, FPS
035969000	MAX50000 1956JF	281	10.4	10400	264	1.6	100	5.6	115	3	400	N/A	A367-24	LEADS, FPS
041011000	MAX50006 2664Q7	456	10.8	11600	582	2.8	100	6.4	200	3	400	N/A	A377-23	CONNECTOR
041490000	MAX50026 3770Q7	406	6.5	10800	396	1.6	70	6.3	200	3	400	N/A	A653-18	CONNECTOR, THERMAL PROTECTOR
041495000	MAX50007 2900Q7	430	10.3	11500	496	2.5	100	6.6	200	3	400	N/A	A456-15	CONNECTOR, THERMAL PROTECTOR
035661000	MAX50001 1952QF	324	13.9	11600	319	1.4	100	6.0	200	3	400	N/A	A325-7	CONNECTOR
041298000	MAX50008 3071ZH	531	9.1	11100	437	3.9	72	4.5	115	1	400	3.0/220	A702-1B	CONNECTOR, FPS
041427000	MAX50019 1952J7	4	9.5	11300	501	2.0	72	6.3	200	3	400	N/A	A489-27	CONNECTOR, THERMAL PROTECTOR

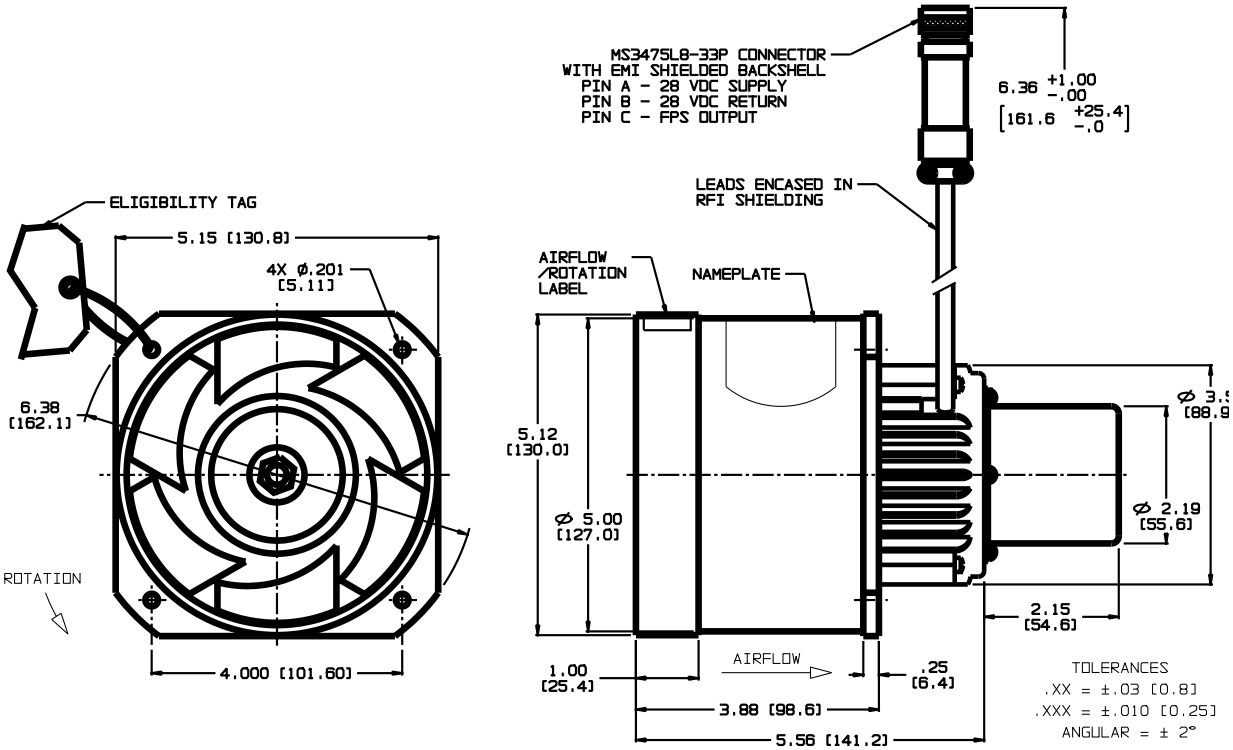
Standard Product Offering of AC Line Powered Models

Part #	Product Description	Flow (CFM)	Max Pressure (IWG)	Nom. RPM	Nom. Watts	Line Amps (A)	Max Amb (°C)	Weight	Volts	Airflow Source Data	Features
011355000	MAX5000 2793SF	237	7.8	8900	178	6.5	80	7.1	28	A408-3A	FPS, EMI
012269000	MAX50017 3559SF	512	11.7	10700	616	22.0	75	6.5	28	A717-9	CONNECTOR
011813000	MAX50018 3744XF	467	16.7	15100	739	27.0	72	7.0	28	A613-6	CONNECTOR
011335000	MAX50012 2793SF	248	7.8	8900	178	6.5	80	6.0	28	A597-19B	LEADS
012003000	MAX50022 3472XF	485	13.6	13300	476	27.0	85	6.6	28	A659-5	CONNECTOR, FPS

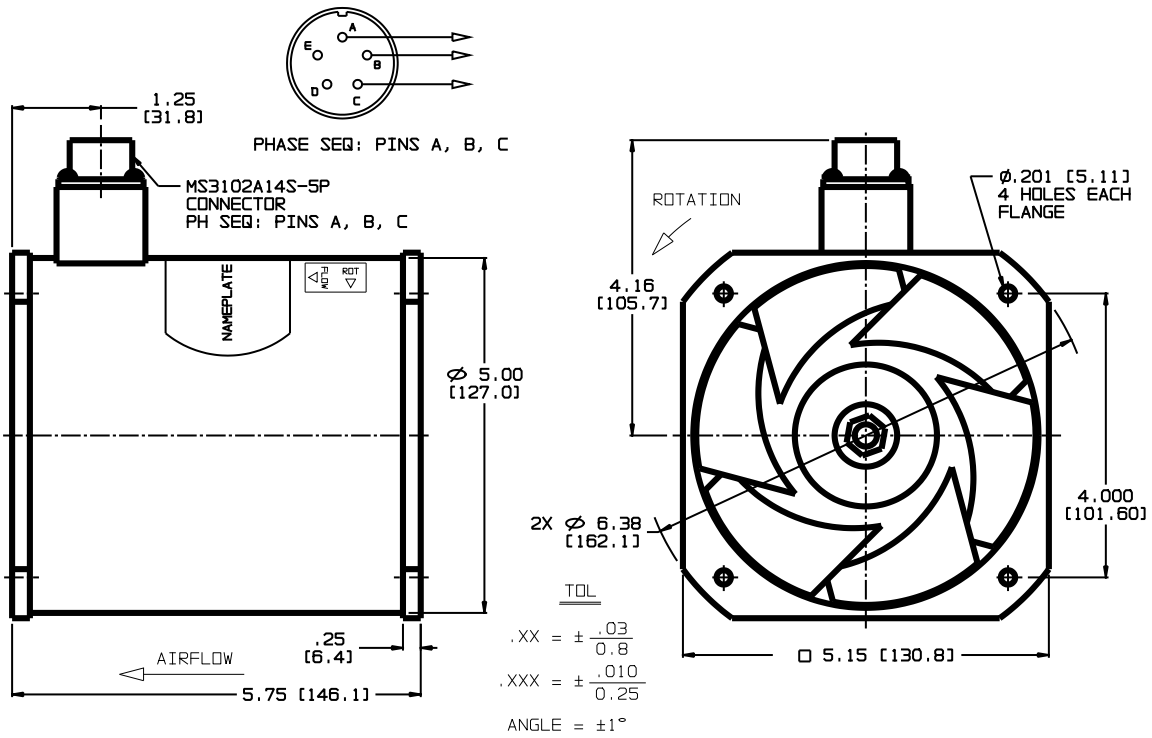
MAXIAX 50000/13 - AC



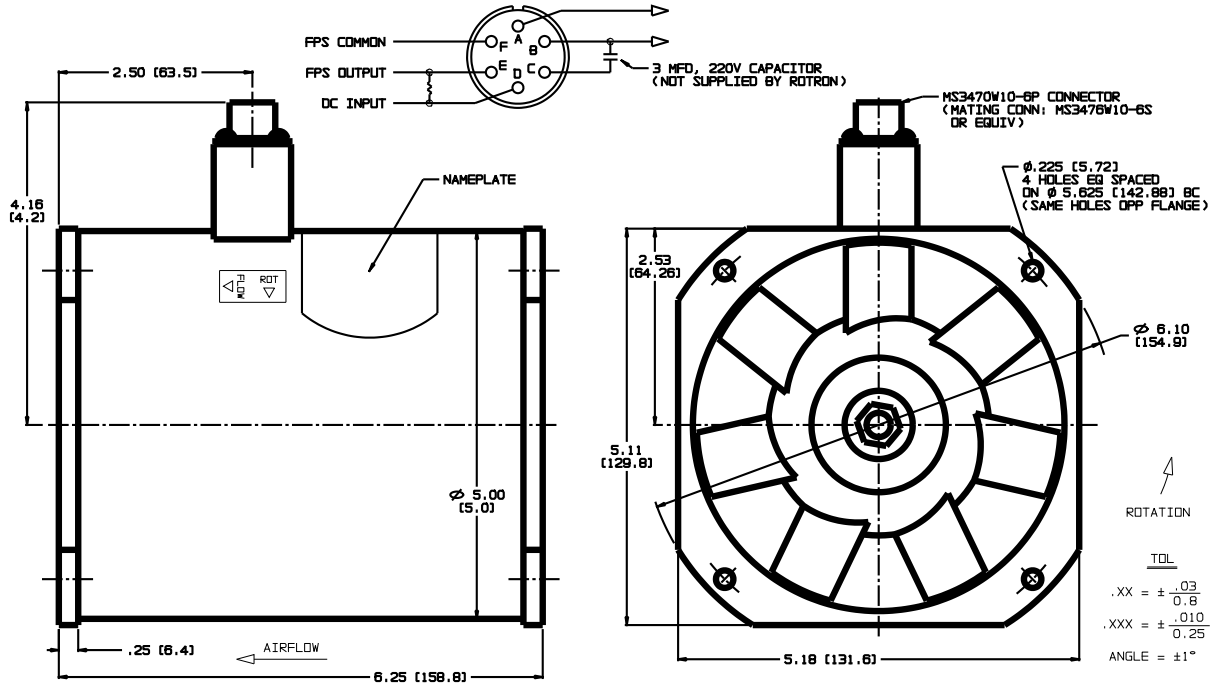
MAXIAX 50000 - DC



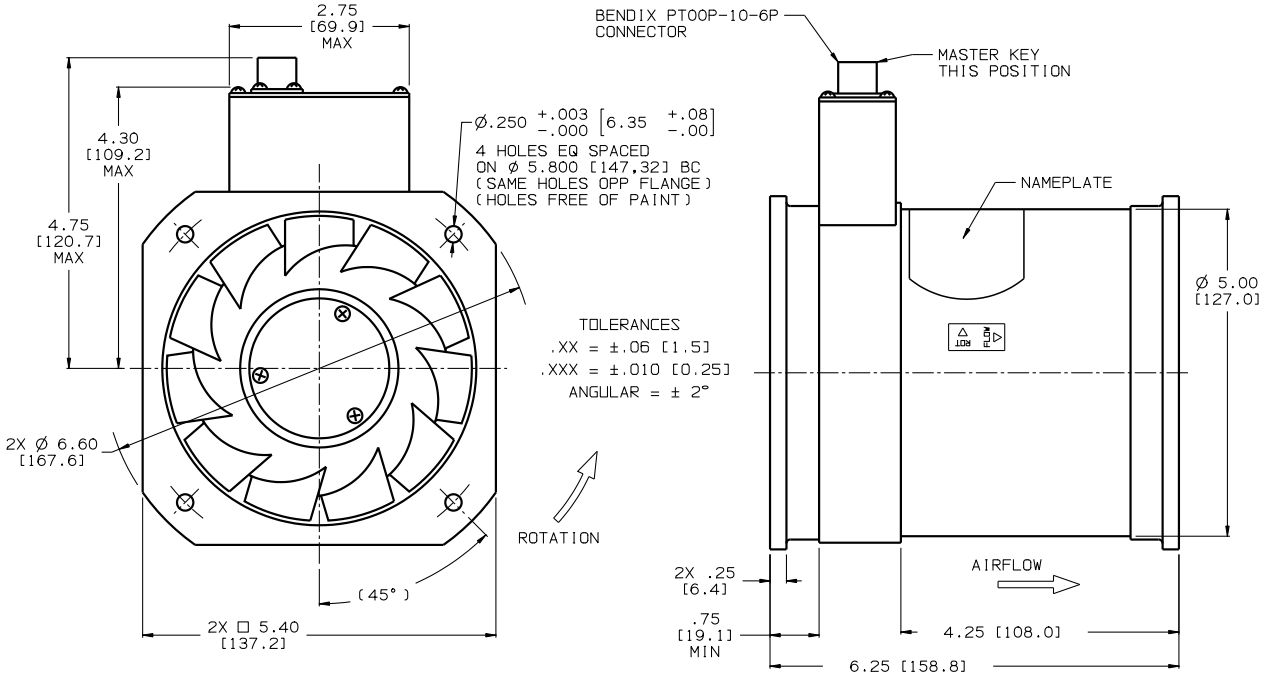
MAXIAX 50003/16 - AC



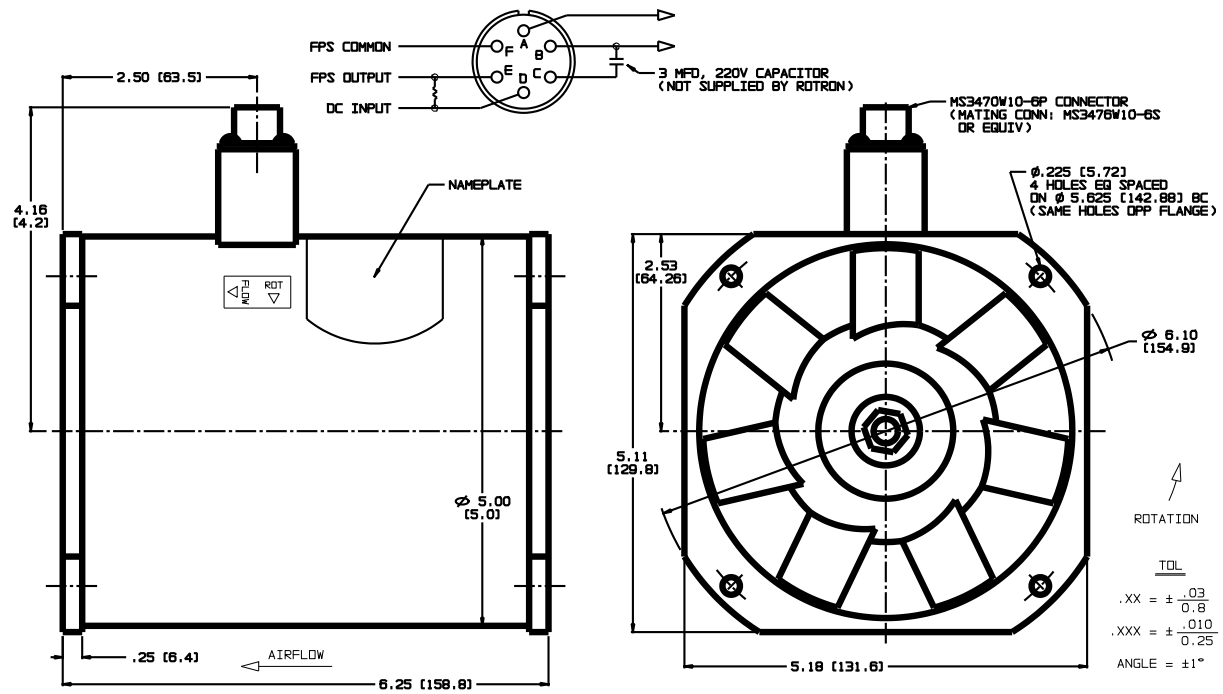
MAXIAX 50006 - AC



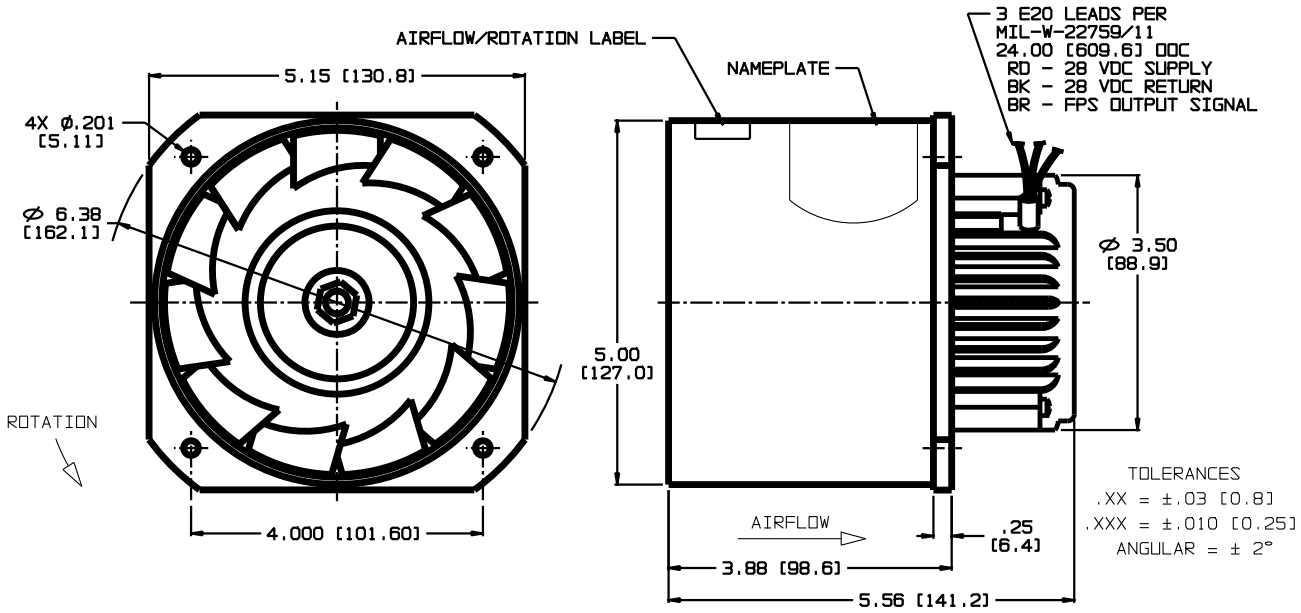
MAXIAX 50007 - AC



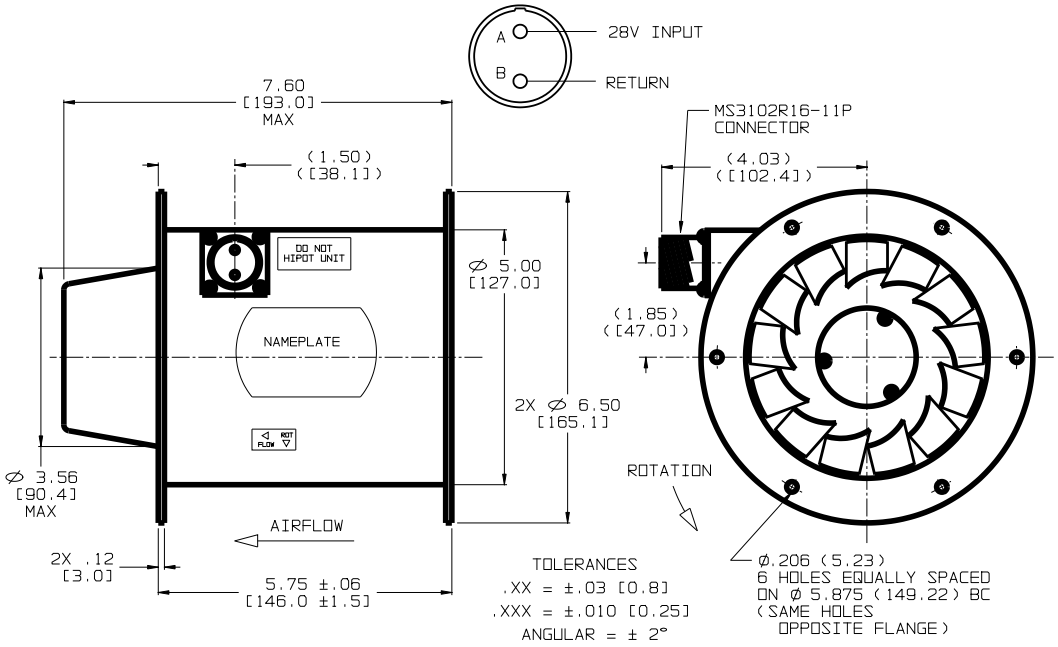
MAXIAX 50008 - AC



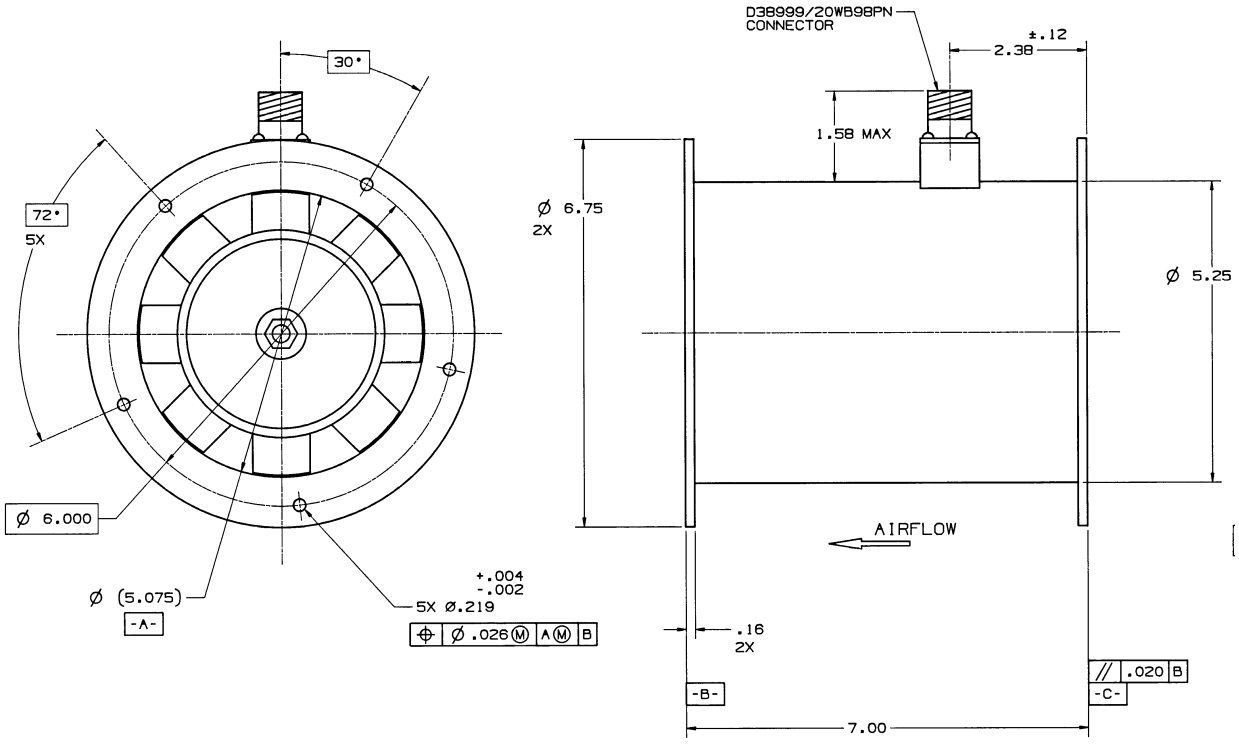
MAXIAX 50012 - DC



MAXIAX 50017 - DC



MAXIAX 52500 - AC



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F: +1 845-679-1870

UNITED KINGDOM
T: +44 (0) 1932 765822
F: +44 (0) 1932 761098

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

ASIA PACIFIC
T: +65 6484 2388
F: +65 6481 6588

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