



Rotron / Airscrew



Rotron AXIMAX[®] 2 Small Vaneaxial Fans

General Small Vaneaxial Information

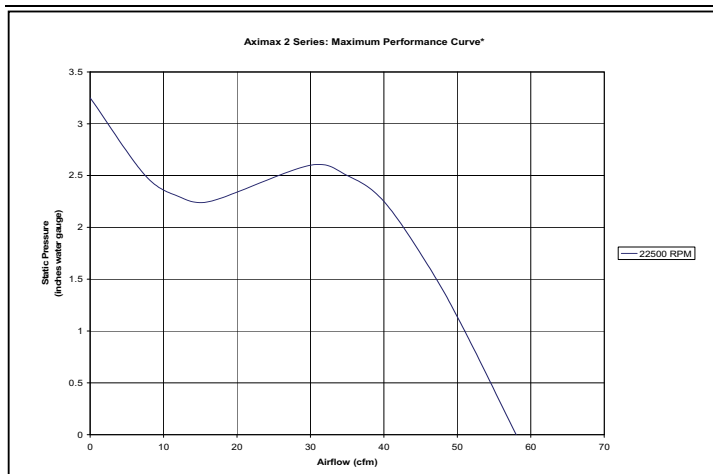
Small Vaneaxial Fans are compact, high-speed fans whose airflow is parallel to the motor shaft. The impeller and guide waves are of airfoil construction for maximum aerodynamic efficiency and minimum acoustical noise.

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).

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*Individual Performance Curve Characteristics Available Upon Request

General

- Physical envelope: 2.176" Dia. x 1.66"L¹
- Weight: approximately 4.25 oz.
- Specially designed for electronics box cooling, such as avionics, radar, electronic counter-measures, displays, and communications equipment in aircraft, ground and shipboard applications
- Custom mounting configurations, such as flanges or servo rings and synclamps, are available²

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, maintenance-free life
- Motors have stator winding insulation which is rated for continuous duty for Class F

Options/Accessories

- Synclamp
- Reverse Synclamp
- Finger Guard
- LSWD (Low Speed Warning Device)
- FPS (Fan Performance Sensor)



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AC Line Powered Units¹

- 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 specifications²
- Max free delivery airflow of 6 CFM at 50 Hz, 8 CFM at 60 Hz, 60 CFM at 400 Hz
- Ambient temperature range: -54°C to 125°C
- Acoustic levels as low as 55 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 specifications²
- Max free delivery airflow of 59 CFM
- Ambient temperature range: -54°C to 100°C
- Acoustic levels as low as 55 dBA

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

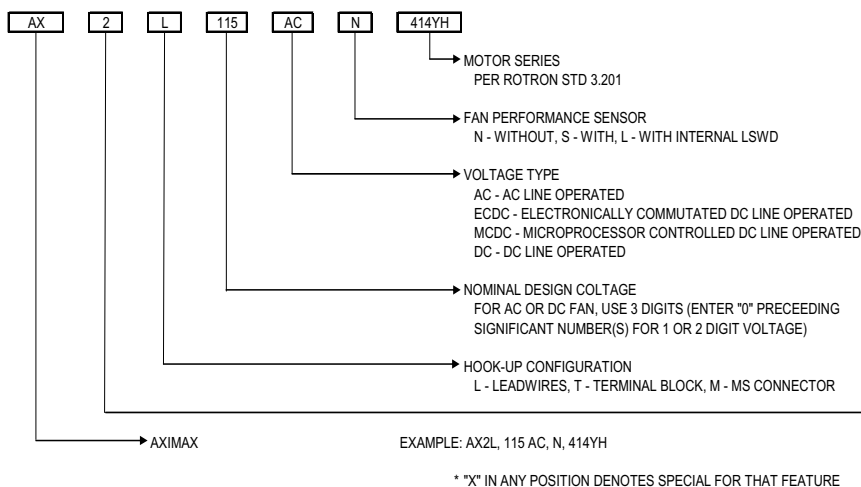
¹ See Accessories: Power Conversion

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.



STD.	CASE	BLADES
2	3 pt. mounting - terminal block	Std.
2D	3 pt. mounting - leads thru sleeving	Std.
2K	3 pt. mounting - with thin s.s. screw	Std.
2E	3 pt. mounting	Low Pitch
2H	std. servo rings	Std.
2C	std. servo rings with ring at prop end removed	Std.
2J	std. servo rings	Low Pitch
2F	2" sq. flange, 1/8" thick at prop end, 1.468" lg. (4) 0.157" holes on 2.375" dia.	Std.
2L	2 1/8" sq. flange 1/16" thick at prop end, (4) 0.173" dia. holes on 1.750" sq.	Std.
2N	2 1/4" sq. flange 1/4" thick at prop end, (4) 0.159" dia. or 6-32 UNC holes on 1.750" sq.	Low Pitch
2Q	2 1/4" sq. flange 1/4" thick at prop end, (4) 0.166" dia. or 6-32 UNC holes on 1.750" sq.	Std.
2P	2 1/4" sq. flange 3/16" thick at prop end, (4) 0.166" dia. or 6-32 UNC holes on 1.750" sq.	Std.
2B	2 1/4" sq. flange 1/4" thick at prop end, 1.468" lg. (4) 0.159" dia. or 6-32 UNC holes on 1.750" sq.	Std.
2G	2 1/4" sq. flange 3/16" thick at prop end, (4) 0.166" dia. or 6-32 UNC holes on 1.750" sq.	Std.

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.



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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	Volts	Phase	Hz	Capacitor	Airflow Source Data	Features
026951000	AX2HT 367JH	58	3.1	20500	35	0.1	125	0.3	200	3	400	N/A	A301-24	TERMINALS, SERVO RING
026949000	AX2HT 368YH	56	2.9	20700	36	0.3	125	0.3	115	1	400	0.5/220	A645-10	TERMINALS, SERVO RING
034714000	AX2HL 414YH	45	1.7	16500	24	0.2	125	0.3	115	1	400	0.25/220	A307-31	LEADS, SERVRO RING
027991000	AX2HL 454JH	45	1.9	16100	25	0.2	125	0.3	115	3	400	N/A	A301-6	LEADS, SERVO RINGS
020554000	AX2HT 398JH	44	1.9	16400	24	0.1	125	0.3	200	3	400	N/A	A301-5	TERMINALS, SERVO RING
023539000	AX2HT 437YH	39	1.4	13000	24	0.3	100	0.3	115	1	Var.	0.2/220	A301-4	TERMINALS, SERVO RING
026956000	AX2T 395JH	34	1.1	12000	22	0.1	125/*100	0.3	200	3	400	N/A	A290-3	TERMINALS, 3 POINT MOUNT
026954000	AX2T 415YH	33	1.0	11800	18	0.2	100	0.3	115	1	400	0.15/220	A260-17	TERMINALS, 3 POINT MOUNT
025258000	AX2ET 414YH	33	3.1	21500	16	0.2	125	0.3	115	1	400	0.25/220	A218-13	TERMINALS, 3 POINT MOUNT
41099000	AX2L 992WH	30	1.1	11300	18	0.2	100	0.3	115	3	400	N/A	A536-18	LEADS, 3 POINT MOUNT
026952000	AX2T 464YH	30	0.8	10600	11	0.1	125	0.3	115	1	400	0.15/220	A294-27	TERMINALS, 3 POINT MOUNT
025396000	AX2HT 429YH	23	0.5	7700	15	0.2	100	0.3	115	1	Var.	0.2/220	A121-5	TERMINALS, SERVO RING
026958000	AX2T 606NH	14	0.2	4800	10	0.1	100	0.3	115	1	400	1.0/220	A242-3B	TERMINALS, 3 POINT MOUNT
026958000	AX2T 606NH	8	0.1	3000	7	0.1	100	0.3	115	1	60	1.0/220	A242-3	TERMINALS, 3 POINT LEADS

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	Volts	Airflow Source Data	Features
011372000	A2HL 2955SF	55	2.8	20000	41	1.5	85	0.3	28	A774-7	LEADS, FPS, SERVO RINGS
011314000	AX2HL 2935SF	48	2.3	17850	27	1.0	100	0.3	28	A774-19B	LEADS, FPS, SERVO RINGS
011960000	AX2HT 2686SF	41	1.7	14600	15	0.6	85	0.3	28	A774-3	LEADS, FPS, SERVO RINGS
011224000	AX2T 2963SF	40	1.6	13750	14	0.5	70	0.3	28	A777-18B	FPS, SERVO RINGS
012218000	AX2HT 3879SF	38	1.5	15000	21	0.7	85	0.3	28	A778-23	TERMINALS, FPS, SERVO RINGS
011839000	AX2HL 3119SF	32	1.1	11500	9	0.3	85	0.3	28	A775-24B	LEADS, FPS, SERVO RINGS

Specifications subject to change without notice



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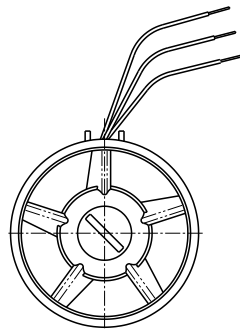


*Part Number Specific Drawings Available Upon Request

AXIMAX 2 - AC

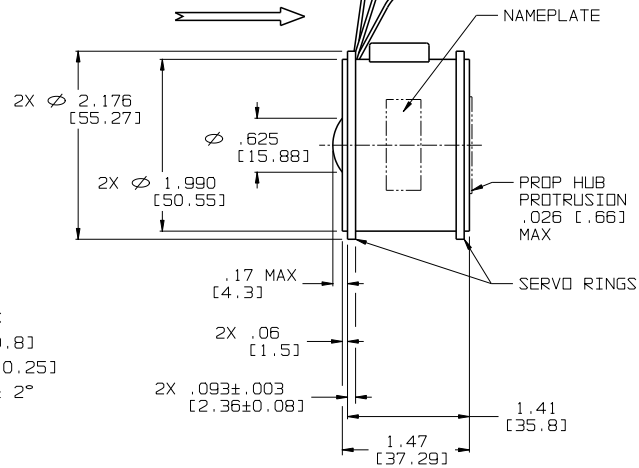
AX2HL

ROTATION



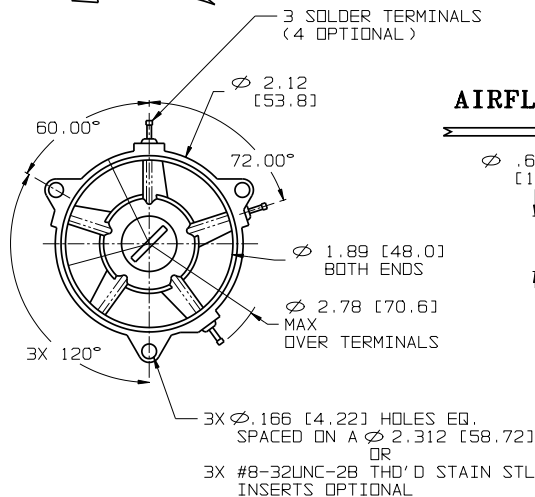
3 E26 AWG LDS.
12.00 [304.8] MIN O.D.C.
PER MIL-W-22759/11

AIRFLOW

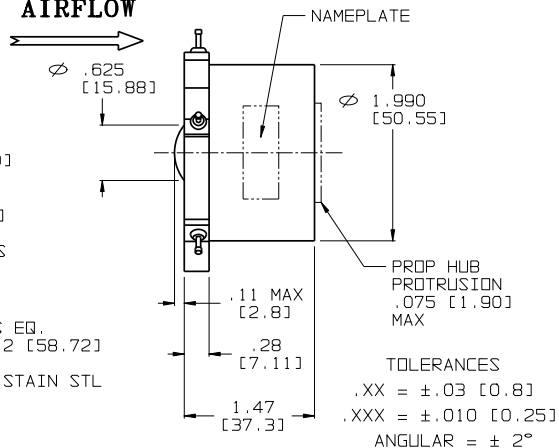


TOLERANCES
.XX = ± 0.03 [0.8]
.XXX = ± 0.010 [0.25]
ANGULAR = $\pm 2^\circ$

AX2T
ROTATION



AIRFLOW



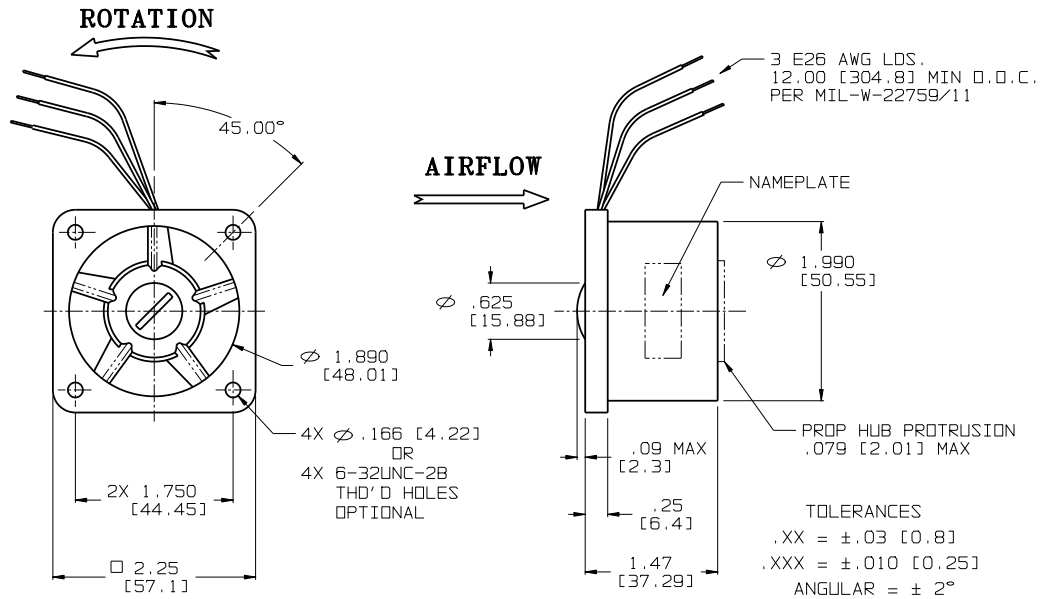
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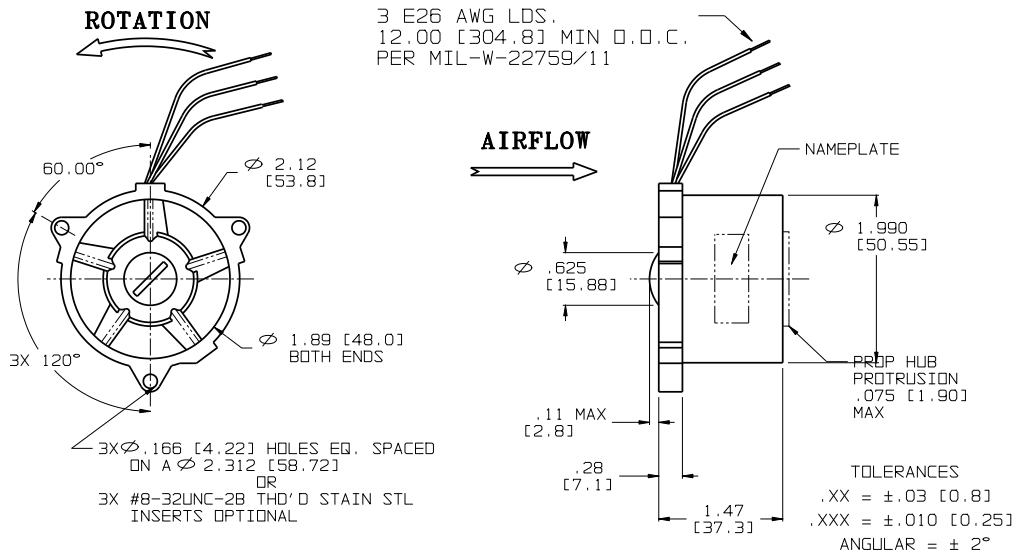
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AX2QL



AX2L



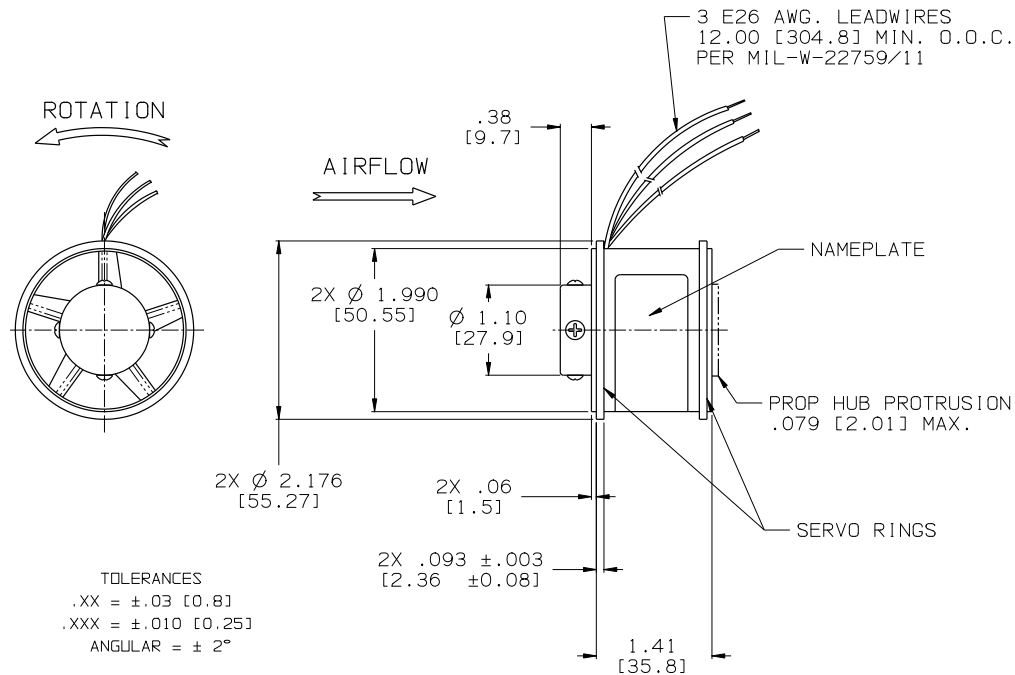


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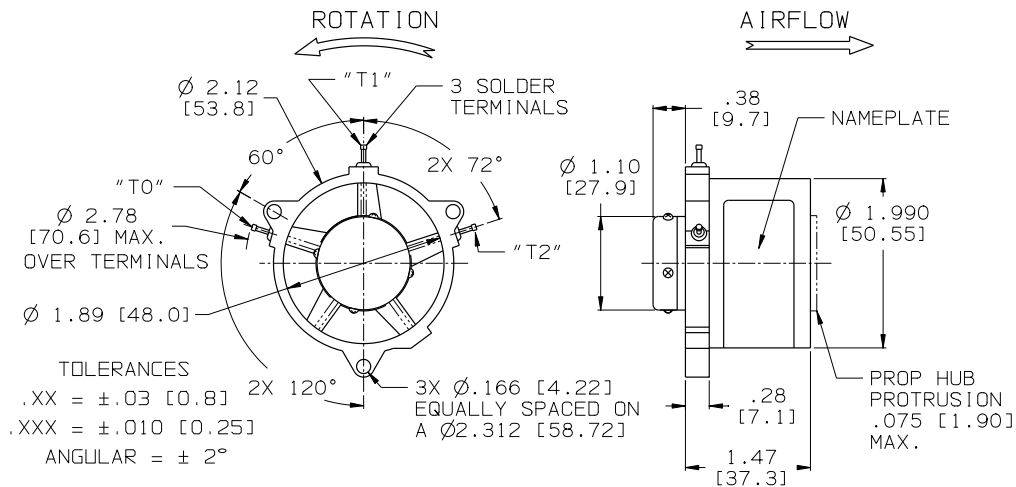


AXIMAX 2 - DC

AX2HL



AX2T

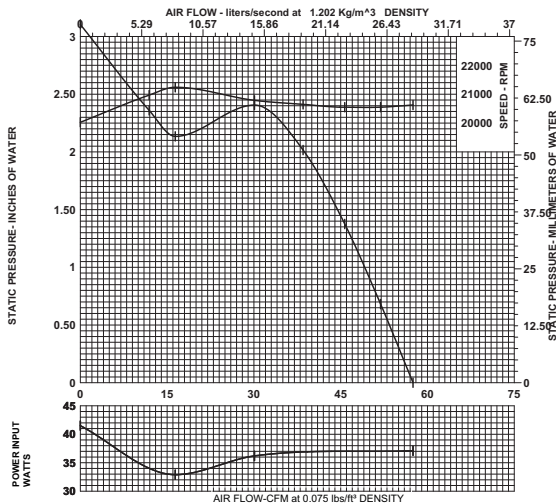




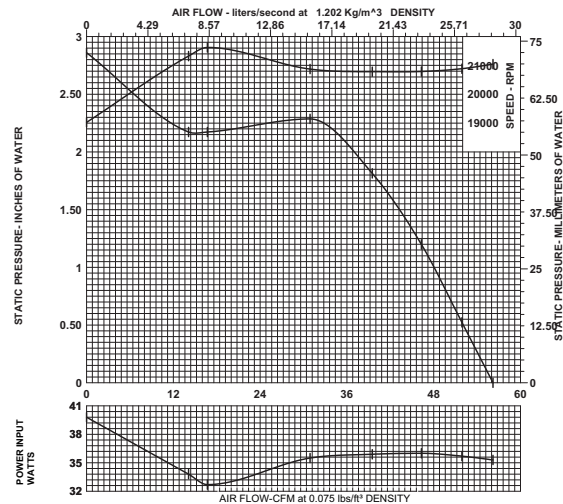
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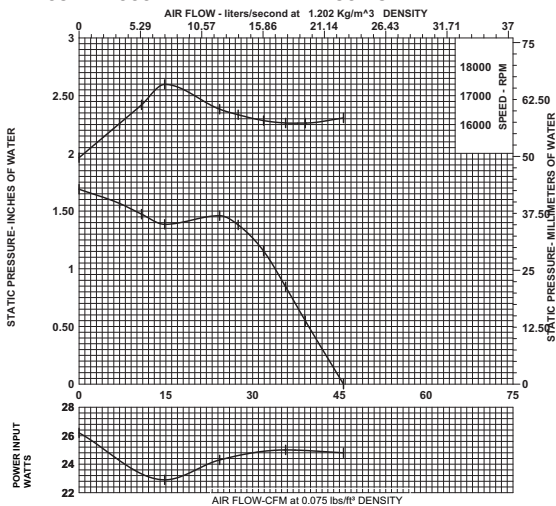
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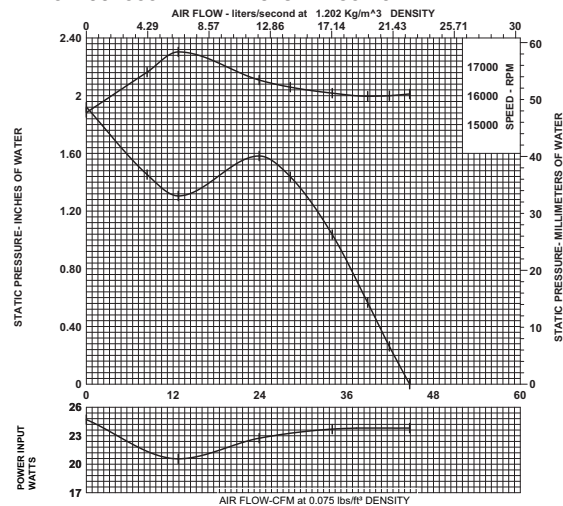
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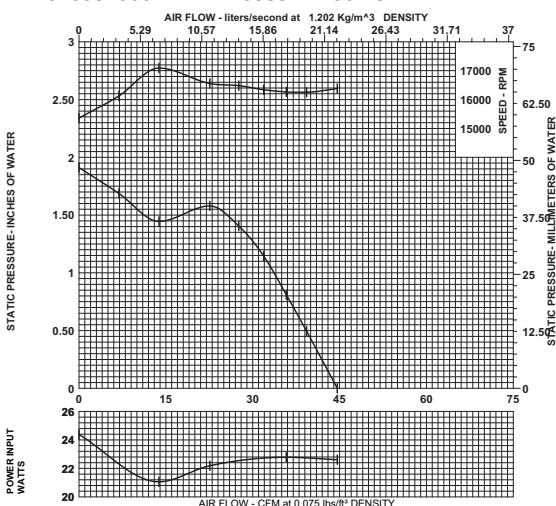
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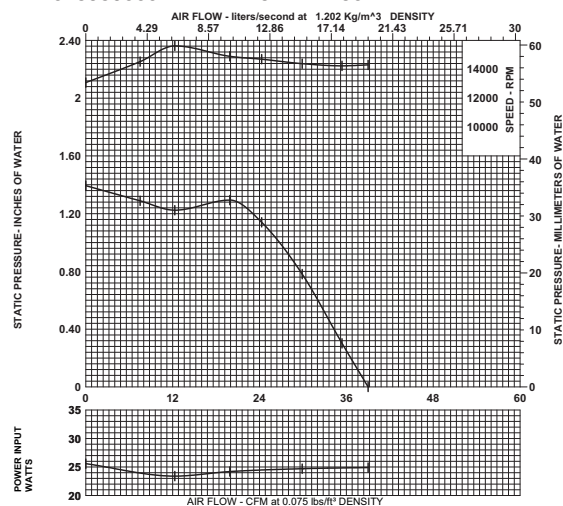
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P/N 020554000 AX2HT 398JH A301-5



P/N 023539000 AX2HT 437YH A301-4



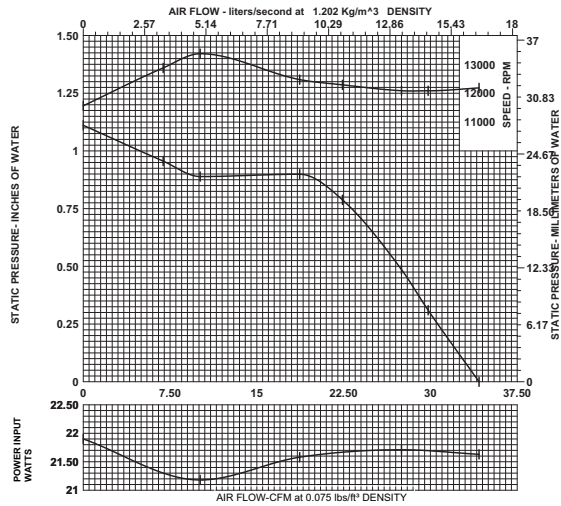
Specifications subject to change without notice



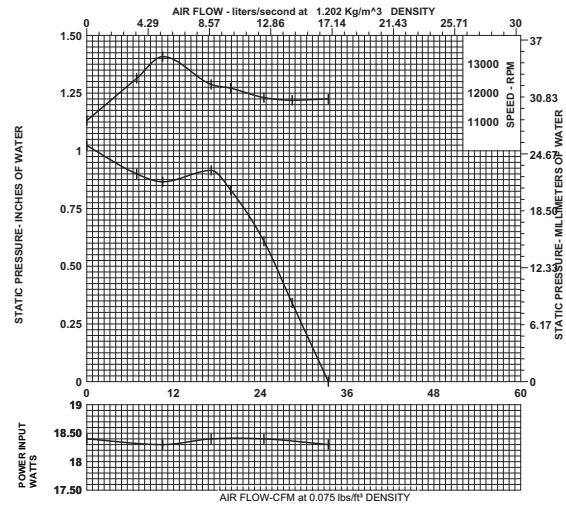
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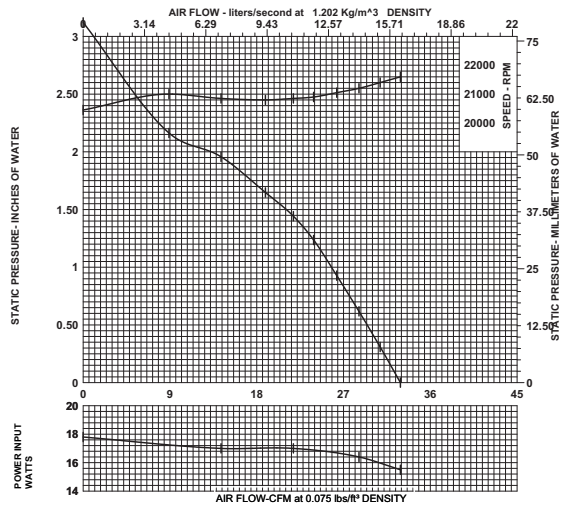
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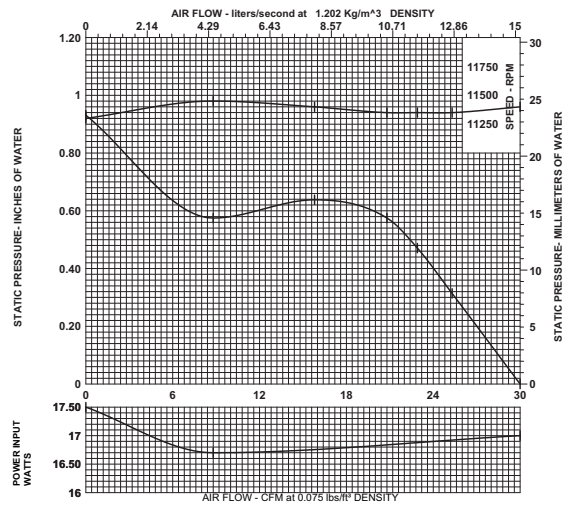
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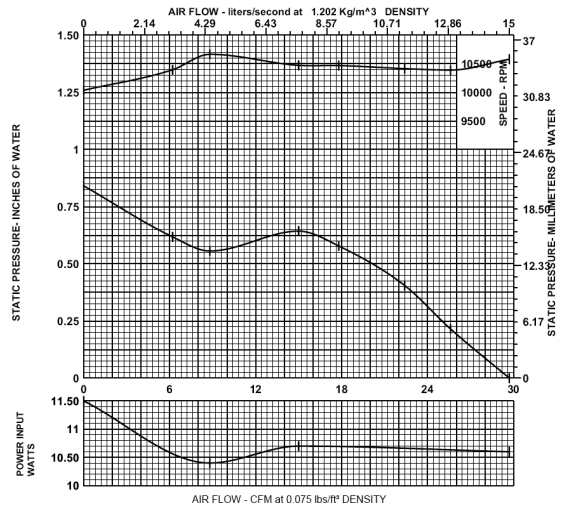
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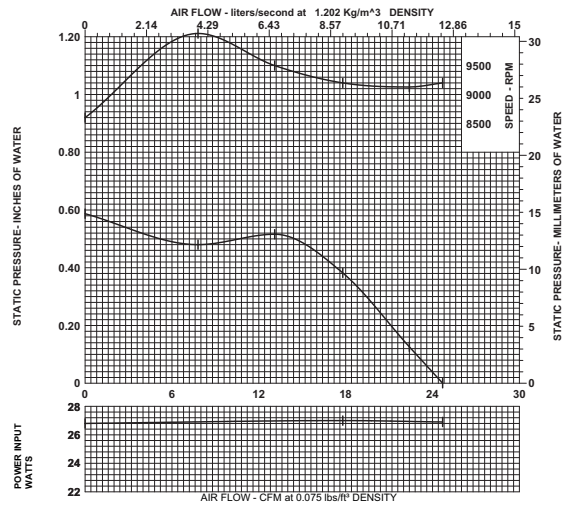
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P/N 026952000 AX2T 464YH A294-27



P/N 025396000 AX2HT 429YH A121-5



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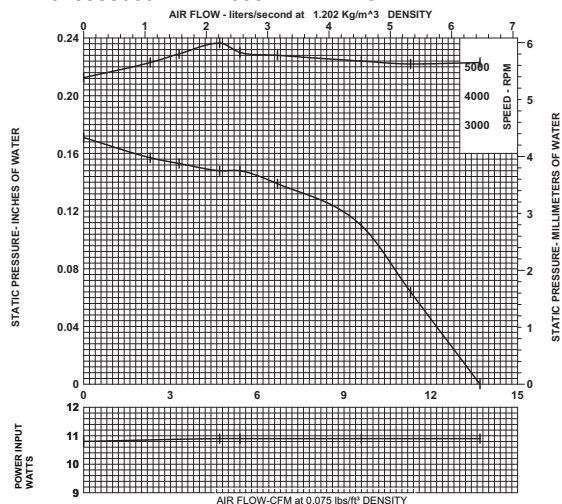
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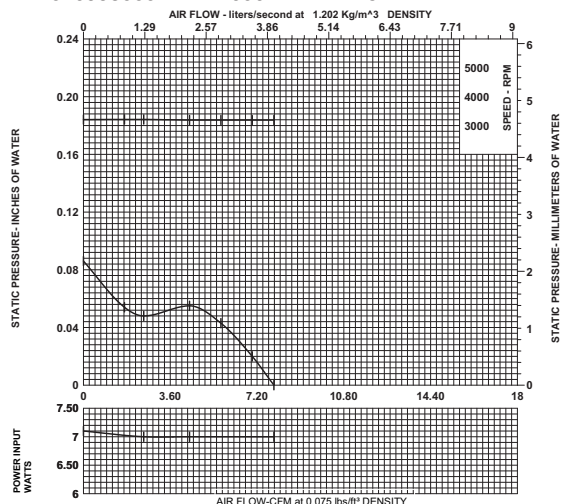
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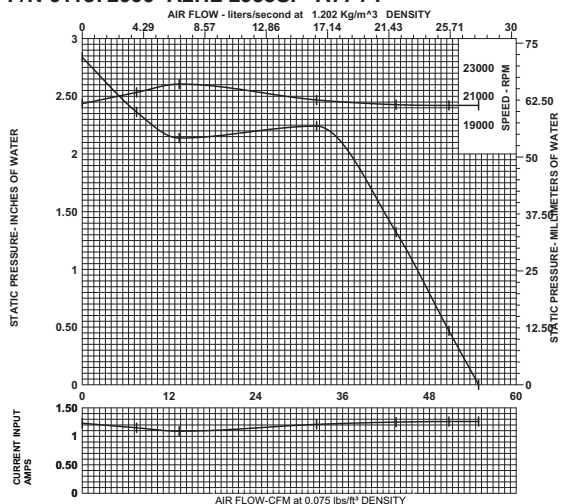
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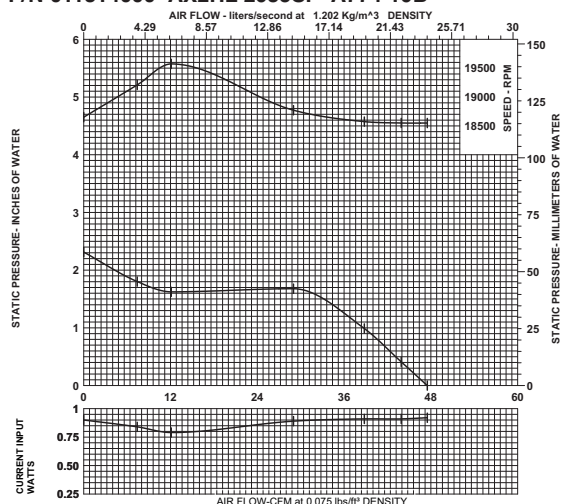
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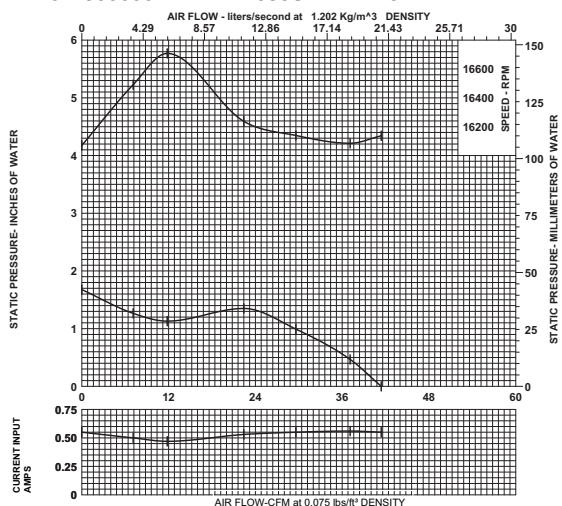
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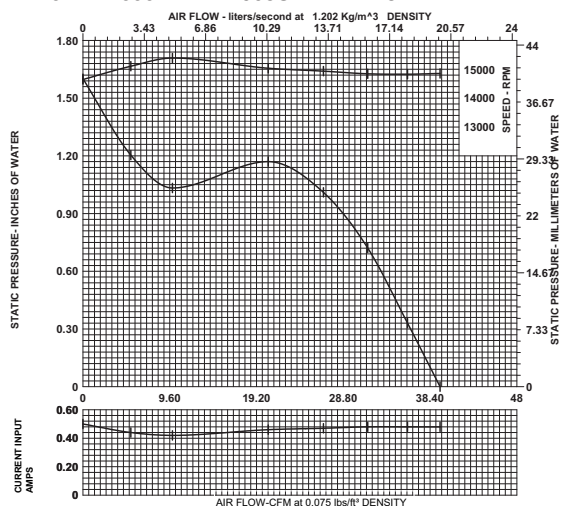
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P/N 011960000 AX2HT 2686SF A774-3



P/N 011224000 AX2T 2963SF A777-18B



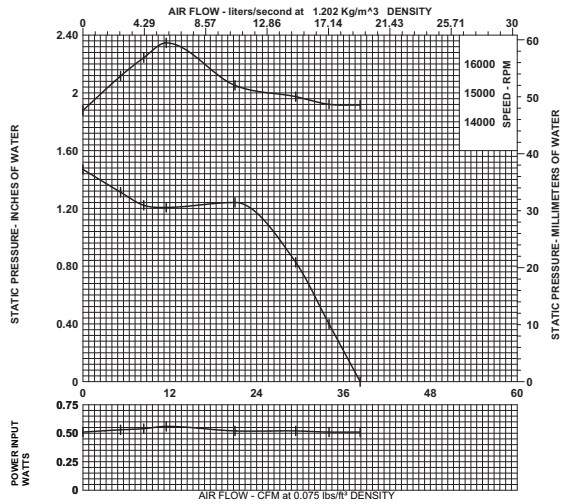
Specifications subject to change without notice



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P/N 011839000 AX2HL 3119SF A775-24B

