ROTRON / AMETEK®
AEROSPACE & DEFENSE

ROTRON PROPIMAX® 2
Tubeaxial Fans



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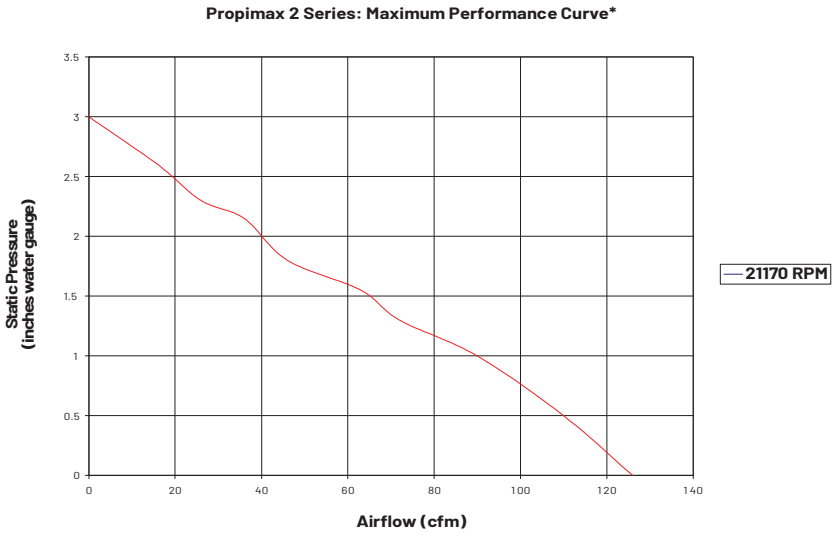
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General Spartan 2 Tubeaxial Information

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 severe environmental 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 SPARTAN® 2





[1] *Individual Performance Curve Characteristics Available Upon Request

General

- Physical envelope: 3.25" Dia. x 1.54" L 1.
- Weight: approximately 0.41 lbs.
- Die cast aluminum Venturi and Rotorprop.
- Specially designed for cooling electronics in aircraft, ground-based and shipboard applications.
- Excels in cooling electronic counter-measures, communications equipment, power supplies, avionics and radar.
- 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

Standard Materials and Finishes

- All aluminum components finished with 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 either Class F or Class H.

Options/Accessories

- Synclamp Mounting
- Helicoil Inserts
- Finger Guards
- 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 12.7 CFM at 50 Hz, 16.9 CFM at 60 Hz, 125 CFM at 400 Hz.
- Ambient temperature range: -54 °C to 125 °C.
- Acoustic levels as low as 43 dBA.

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.
- M.C.D.C.® version offers locked rotor protection and integral LSWD or FPS with 1 or 2 pulse per revolution.
- Max free delivery airflow at 119 CFM.
- Ambient temperature range: -40 °C to 100 °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

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

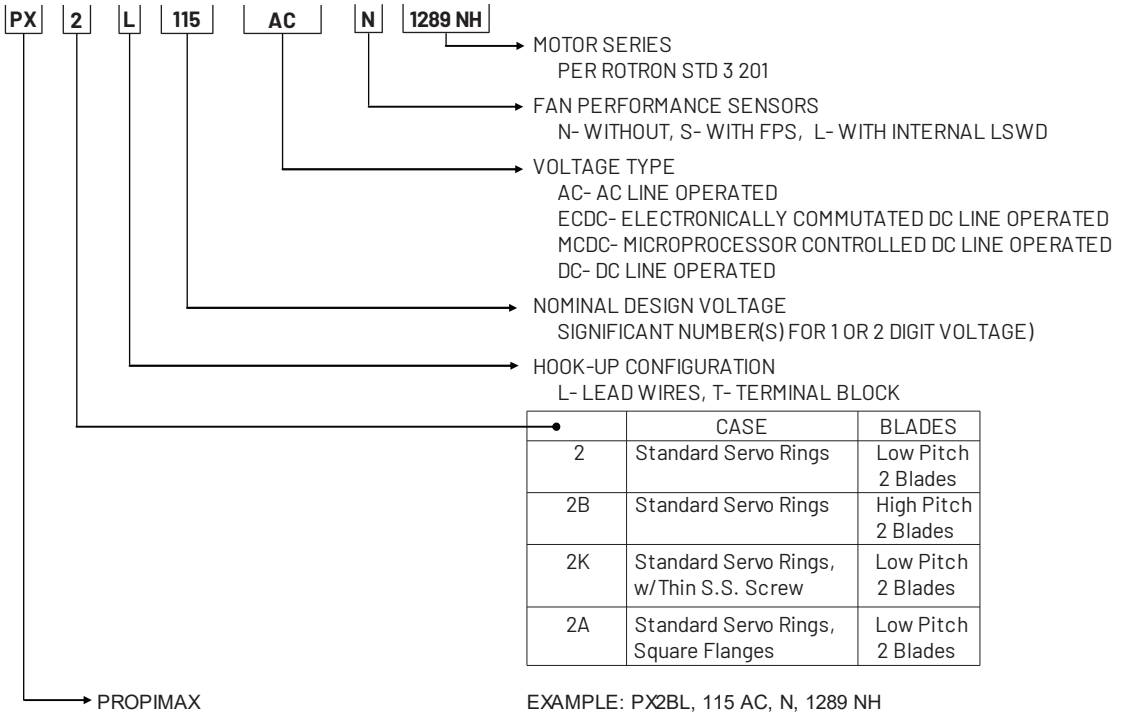
DELTAC® Converter Driven Units

- 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

[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.



	CASE	BLADES
2	Standard Servo Rings	Low Pitch 2 Blades
2B	Standard Servo Rings	High Pitch 2 Blades
2K	Standard Servo Rings, w/Thin S.S. Screw	Low Pitch 2 Blades
2A	Standard Servo Rings, Square Flanges	Low Pitch 2 Blades

EXAMPLE: PX2BL, 115 AC, N, 1289 NH

* "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

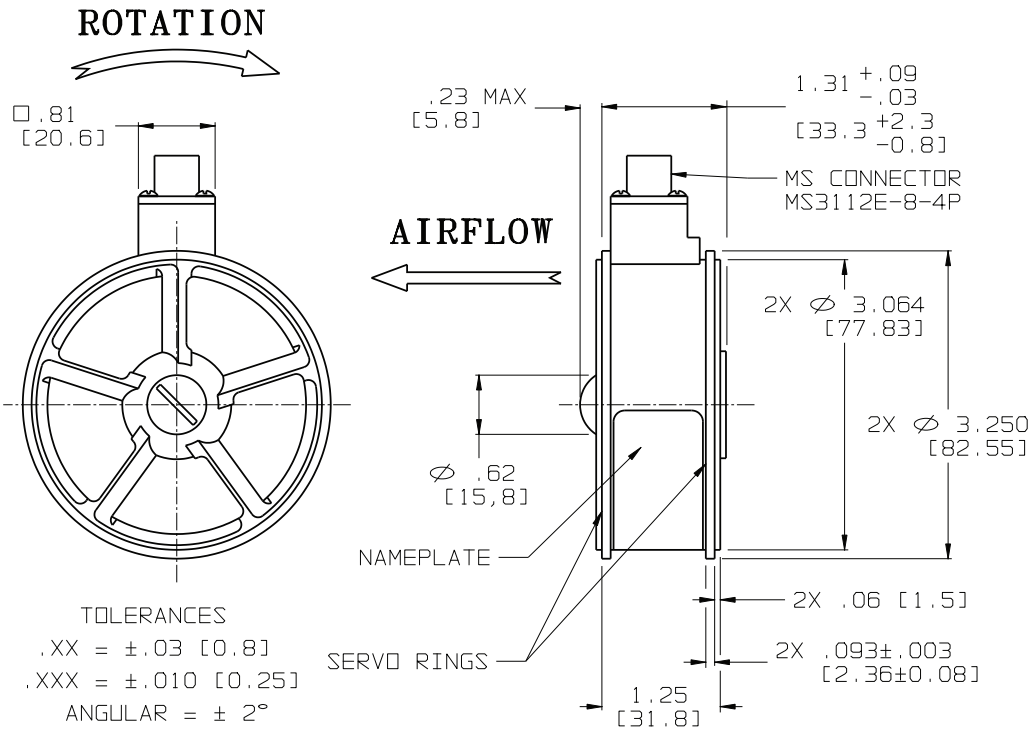
Part #	Prod. Desc.	Flow (CFM)	Max Pressure (IWG)	Nom. RPM	Nom. Watts	Line Amps (A)	Max Amb (C)	Weight	Volts	Phase	Hz	Capacitor	Data	Features
035543000	PX2L 366ZH	125	2.9	21170	42	0.37	100	0.4	115	1	400	0.75/220	A287-27	LEADS, FPS
021170000	PX2T 369JH	117	3.1	20500	39	0.24	100	0.4	115	3	400	N/A	A479-9D	LEADS
041323000	PX2L 367JH	117	3.1	20500	39	0.13	100	0.4	200	3	400	N/A	A479-9D	LEADS
035810000	PX2BT 1970JH	109	1.2	12270	40	0.14	100	0.4	200	3	400	N/A	A268-16	TERMINALS, ALTIVAR
034217000	PX2T 1970JH	100	2.4	17300	27	0.11	125	0.4	200	3	400	N/A	A265-22	TERMINALS
041207000	PX2L 398JH	93	2.0	16010	25	0.09	125	0.4	200	3	400	N/A	A287-29	LEADS, FPS
034585000	PX2L 414ZH	88	1.5	15245	25	0.22	100	0.4	115	1	400	0.25/220	A294-28	LEADS, FPS
020616000	PX2T 437ZH	83	1.3	14200	23	0.22	100	0.4	115	1	400	0.20/220	A296-33	TERMINALS
025542000	PX2BT 542JH	71	0.5	8500	23	0.12	125	0.4	200	3	400	N/A	A133-18	TERMINALS, ALTIVARA
023388000	PX2L 395JH	67	1.0	12000	21	0.11	125	0.4	200	3	400	N/A	A493-20	LEADS, ALTIVARA
026971000	PX2T 415ZH	66	0.9	11600	17	0.17	100	0.4	200	1	400	0.15/220	A151-13	TERMINALS, ALTIVARA
026967000	PX2T 464ZH	60	1.0	10700	12	0.11	125	0.4	115	1	400	0.15/220	A287-26	TERMINALS
033052000	PX2T 606NH	24	0.1	4530	10	0.06	100	0.4	115	1	400	1.0/220	A287-34B	TERMINALS
033052000	PX2T 606NH	17	0.1	3190	7	0.06	100	0.4	115	1	60	1.0/220	A287-34A	TERMINALS

Standard Product Offering of DC Line Powered Models

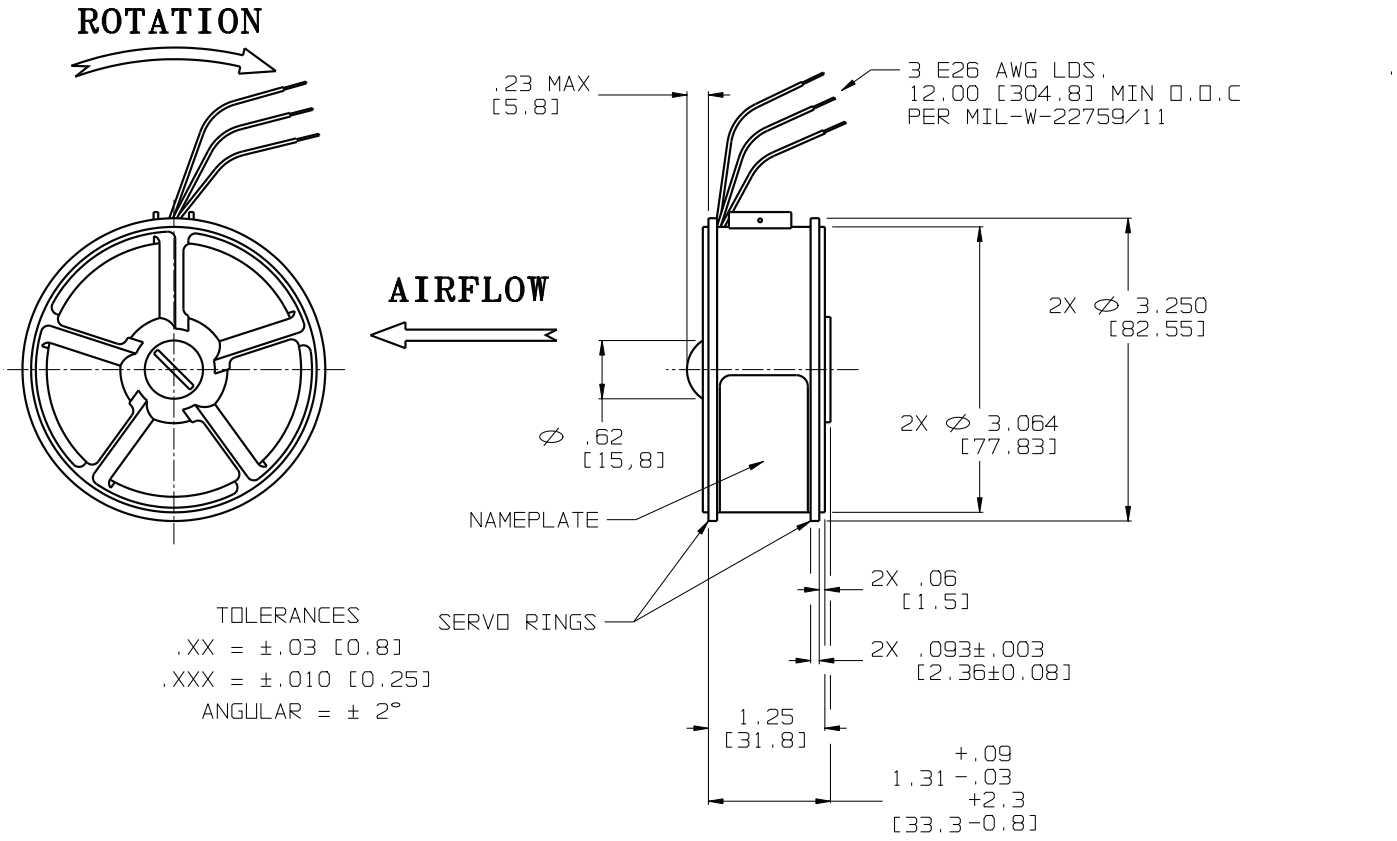
Part #	Product Description	Flow (CFM)	Max Pressure (IWG)	Nom. RPM	Nom. Watts	Line Amps (A)	Max Amb (C)	Weight	Volts	Airflow Source Data	Features
011384000	PX2L 3055SF	118	3.1	19500	36	1.3	85	0.4	28	A775-21B	LEADS, FPS
011675000	PX2L 3159SF	1.9	1.9	15000	28	1.0	85	0.4	28	A775-20A	LEADS, FPS
011816000	PX2L 3076SF	1.6	1.6	12900	11	0.5	100	0.4	28	A776-7C	LEADS, FPS
011139000	PX2T 1992SF	1.1	1.1	11500	11	0.3	85	0.4	28	A335-1B	TERMINALS, FPS

PROPIMAX 2 – AC*

PX2M

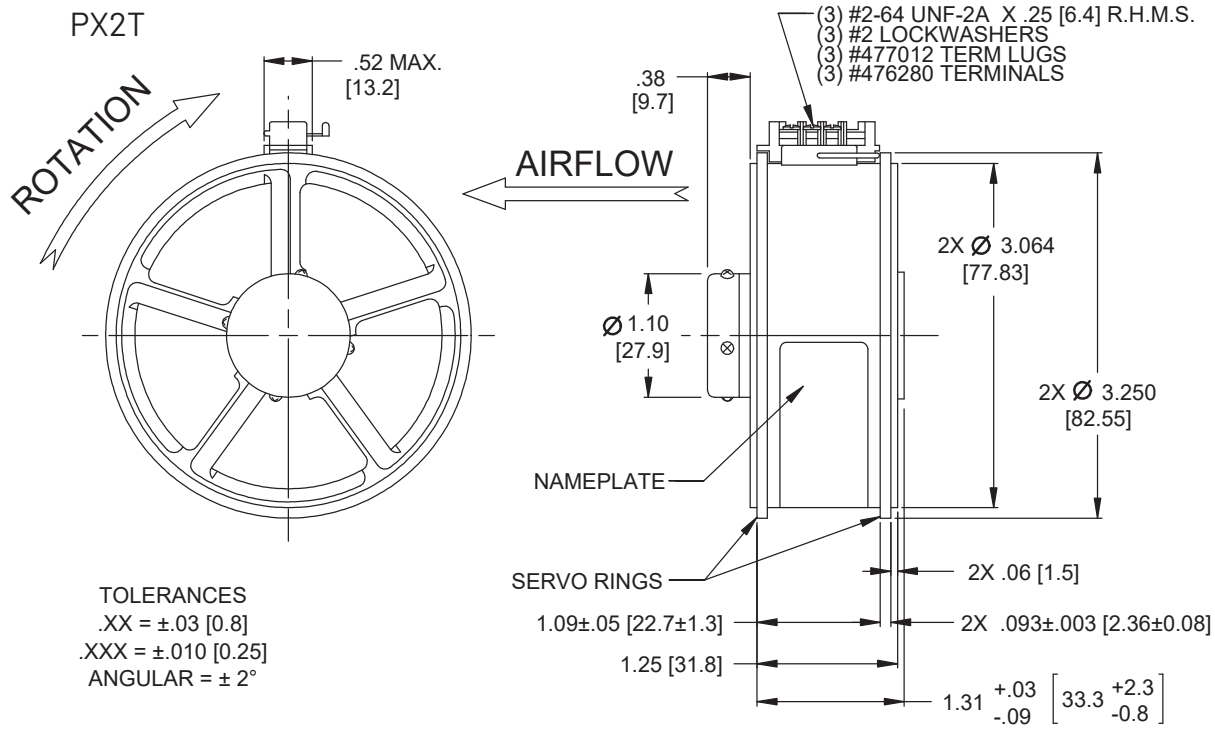


PX2L



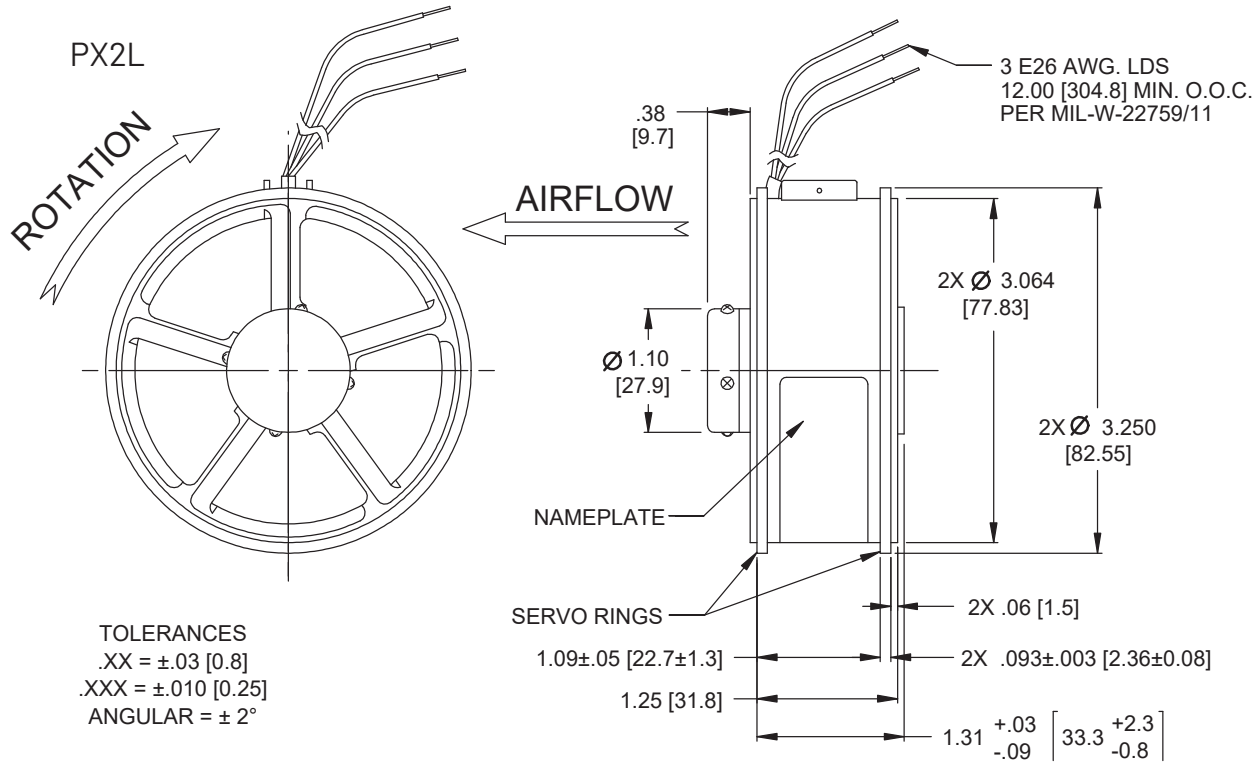
PROPIMAX 2 – DC*

PX2T



TOLERANCES
.XX = ±.03 [0.8]
.XXX = ±.010 [0.25]
ANGULAR = ± 2°

PX2L



TOLERANCES
.XX = ±.03 [0.8]
.XXX = ±.010 [0.25]
ANGULAR = ± 2°

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Specifications subject to change without notice