



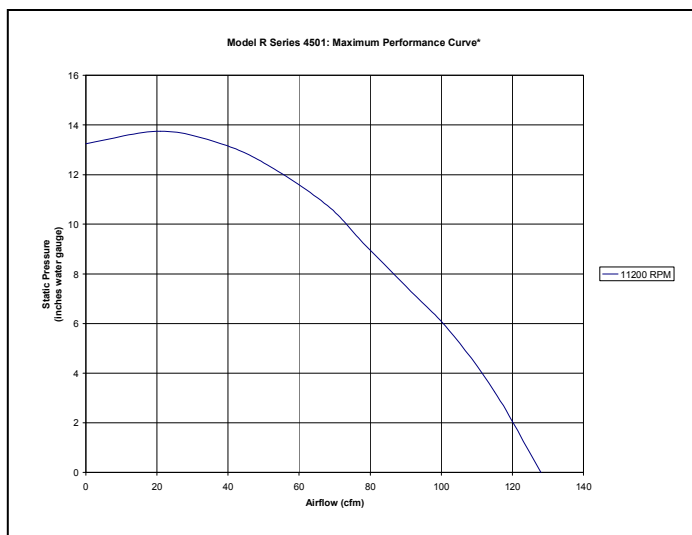
Rotron Model R Type 4501 Radial Blowers

General Radial Blower Information

Rotron Radial Blowers are unusually small and compact in design. They are available in CW or CCW, and in either simplex or duplex models. Duplex Blowers simplify ductwork and allow for greater volume performance in tight locations. Models are available for AC or DC power.

Radial Blowers come in a variety of voltages and frequencies and are available with a variety of inlet and outlet configurations. Most units are available with an optional internal Fan Performance Sensor (FPS) or external Low Speed Warning Device (LSWD).

Rotron Model R Type 4501



*Individual Performance Curve Characteristics Available Upon Request

General

- Physical envelope: inlet diameter is 2.00"; length is 6.383"¹.
- Weight: varies— between 5 and 7 lbs.
- Produces higher pressure-to-volume ration than is obtainable from the centrifugal blowers.
- Suitable for use in airborne applications and in tightly packed electronic equipment.
- For high-altitude low-density airborne applications, the Altivar[®] motor is available, automatically increasing speed with altitude to deliver maximum airflow with minimum power draw.

Materials and Finishes

- 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.
- Steel housing coated with a black epoxy powder coat.
- Corrosion-resistant stainless steel shaft and hardware.
- Impeller runs on two high-precision, double-shielded, stainless steel ball bearings (ABEC Class 5)
- 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

- 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 152 CFM at 400 Hz.
- Ambient temperature range: -54 °C to 125 °C.
- Acoustic levels as low as 80.9 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 160 CFM.
- Ambient temperature range: -54 °C to 85 °C.
- Acoustic levels as low as 80.9 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.

¹ See Accessories: Power Conversion

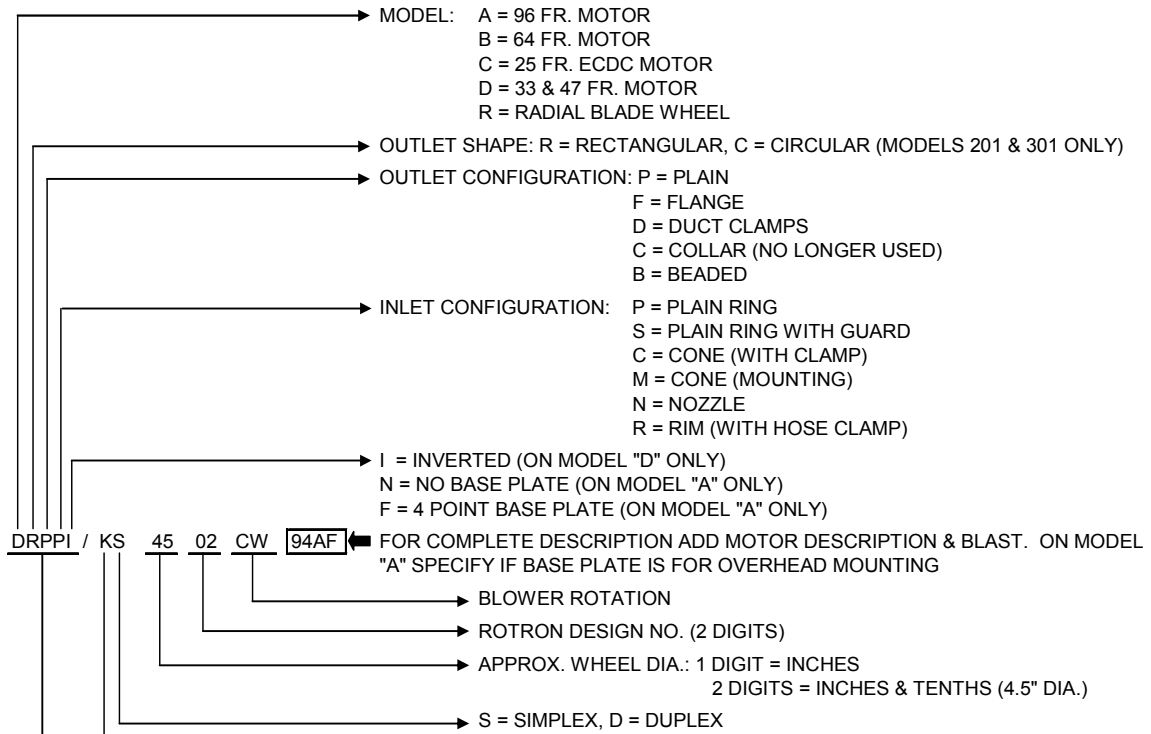
DELTAC® Converter Driven Units

- 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.



"X" IN ANY POSITION DENOTES SPECIAL FOR THAT FEATURE

EXAMPLE: DRPPI/KS 4502 CW

DUPLEX VARIATIONS:

*1st CALLOUT IS THE STD SIMPLEX

*2nd CALLOUT IS THE DUPLEX END

EX: DRPP/KD4502CW (3:00) CCW (12:00)

EX: DRPP/DRFS/KD4502

●	NO. POLES	NO. PHASES	APPROX. SPEED- NO LOAD (REF.)		
			50 Hz	60 Hz	400 Hz
A	2	3	2900	3400	-
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
V	ECDC				

NOTE: DUAL FREQUENCY OR DUAL POLE MOTORS DESIGNATED BY USING 2 DIGITS. EX: KM = (2 POLE 1Φ 50/60 Hz, 6 POLE 1Φ 400 Hz)

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.

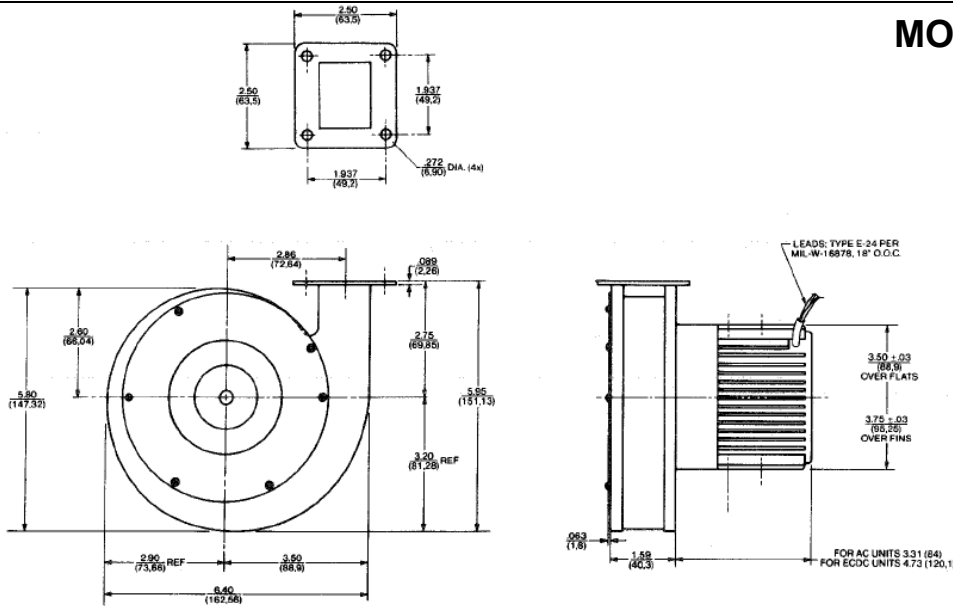


Rotron / Airscrew



RADIAL BLADE BLOWERS

MODEL R TYPE 4501



WT. 7LB (3.13 KG)

Tolerances
.xx ± .03 (0.76)
.xxx ± .010 (0.25)
Unless Otherwise Specified

ELECTRICAL SPECIFICATIONS

See Hookup Section for Motor Wiring

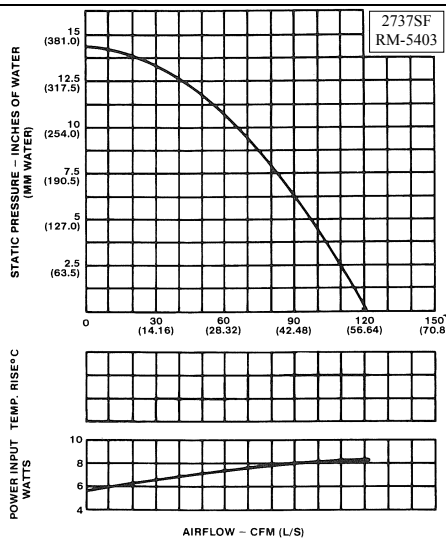
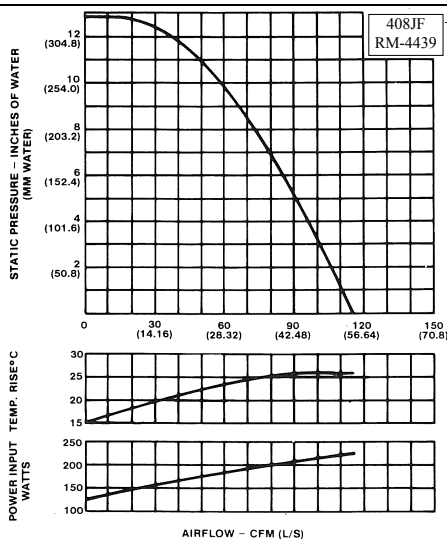
AC UNITS

Motor Series	Type	Frame	Volts	Phase	Hz	Cap. † Mfd.	Nom. RPM	Full Load Watts	Line Amps	Lock. Rotor Amps	Air CFM at Free Del.
408JF	QS-4501	DB-1	200	3	400	-	11,250	220	.80	-	116

E.C.D.C.™ Units

Motor Series	Volts Nominal	Volts Range	Nominal RPM	Input Watts Nom.	Current Nom. Run	Current Nom. Start	Free Del CFM. Nom.	Fan Max Amb °C
2737SF	27	20-28	11,100	243	9.0	-	120	85°C

PERFORMANCE CURVES



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Rotron / Airtechnology Products

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