



Rotron Model R Type 505/ 3501 Radial Duplex Blowers

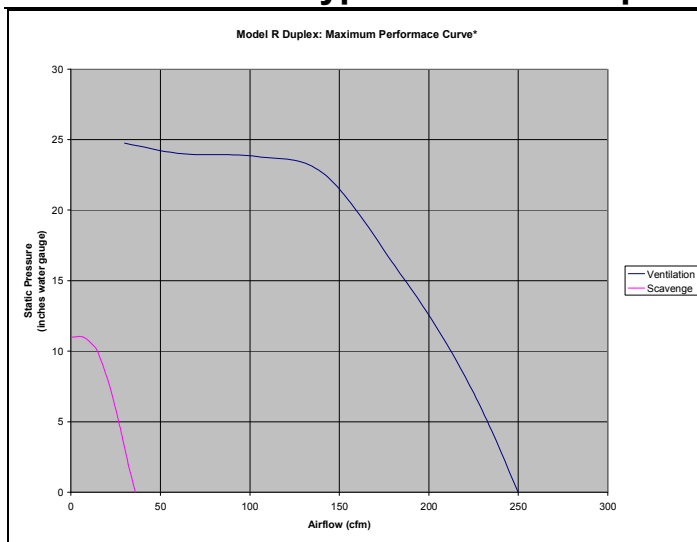
General Radial Blower Information

The Duplex (two impeller) Blower consists of a main blower and a scavenge blower. It is typically used on military vehicles in two ways; the larger ventilation blower at one end, serves to pull air through Nuclear, Biological and Chemical (NBC) filtration while the smaller blower at the other end, serves as a scavenge blower. The impeller for the ventilation function is rigidly attached to the blower motor shaft while the

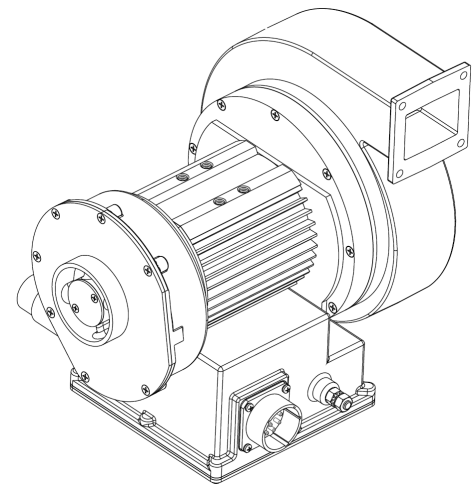
scavenge impeller is isolated mechanically and operates by magnetic drive.

The brushless D.C. motor is capable of variable speed via an external D.C. voltage input, ranging from 3 to 10 volts D.C. Internal electronic circuitry continuously detects and indicates motor speed.

Rotron Model R Type 505/ 3501 Duplex



*Individual Performance Curve Characteristics Available Upon Request



General

- Physical envelope: inlet scavenge; 2.2" diameter; outlet scavenge; .99" diameter; inlet ventilation; 2.4" diameter; outlet ventilation 2.5" square flange; length: 10.8".
- Weight: 13 lbs.
- Produces higher pressure-to-volume ratio than is obtainable from the centrifugal blowers.
- Provides clean air, positive-pressure suitable for use in military vehicles and civil emergency vehicles where ventilation and NBC filtration² is critical for crew members.

¹ See specific part-number drawing for complete product dimensions

² As part of proper filtration system

Materials and Finishes

- Aluminum components finished with a chemical conversion coating per MIL-C-5541, top coat epoxy per Mil-P22750.
- Cast aluminum impeller housing.
- Corrosion-resistant stainless steel shaft and hardware.
- Impellers run on two high-precision, double-shielded, stainless steel ball bearings (ABEC Class 7) contain integral grease reservoir for a long, maintenance-free life.
- Stator wound in accordance with the specifications for Class H or F insulation.

Options/Accessories

- LSWD (Low Speed Warning Device)
- Speed Control
- FPS (Fan Performance Sensor)



AC Line Powered Units

- Not available in this model blower.

DC Line Powered Units - E.C.D.C.^{® 1}

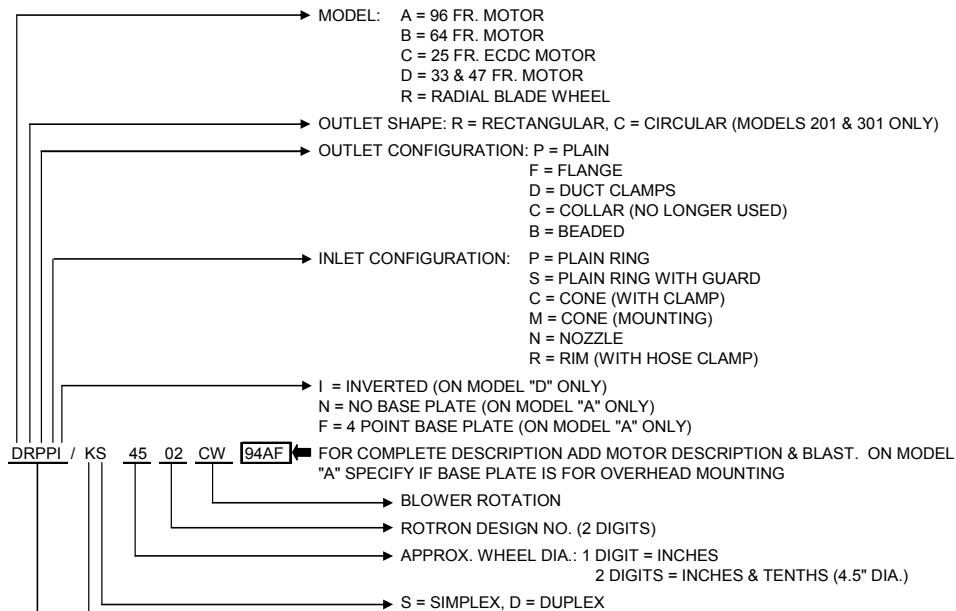
- Brushless permanent magnet design (Electronically Commutated DC).
- Speed (performance) fixed by input voltage.
- Meets or exceeds the requirements of MIL-B-28873 and other applicable U.S. military and commercial aerospace specifications².
- Ambient temperature range: -54 °C to 85 °C¹.
- Acoustic levels as low as 80.9 dBA¹.

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

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.



North America
T: +1 845-679-1361
F: +1 845-679-1870

United Kingdom
T: +44 (0) 1932 765822
F: +44 (0) 1932 761098

Specifications subject to change without notice

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

Asia Pacific
T: +65 6484 2388
F: +65 6481 6588

www.ametekaerodefense.com

Contact E-mail: mlinquiry@ametek.com

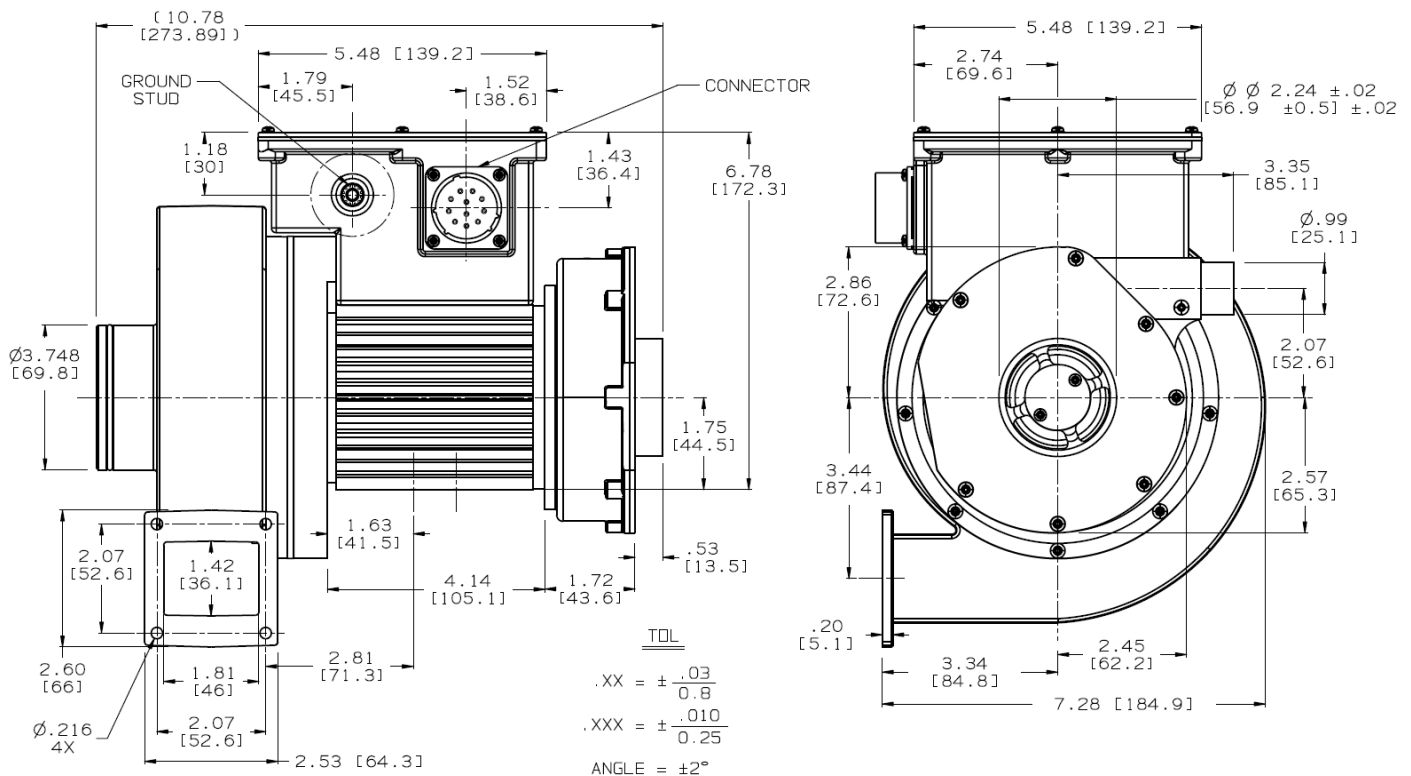


Rotron / Airscrew



P/N	Product Description	Volts (DC)	Range (volts DC)	Nom RPM	Nom Watts (W)	Line Amps (A)	Flow F.D. (CFM)	Press (S.O.) (IWG)	Max Amb (°C)	Airflow Source Data
012249000	Ventilation RRFX/505-RCPN/3503 3887XF	24	18-28	12500	1000	40	250	28	60	A792-23D
	Scavenge						37	11		A782-11A

MODEL R DUPLEX - DC



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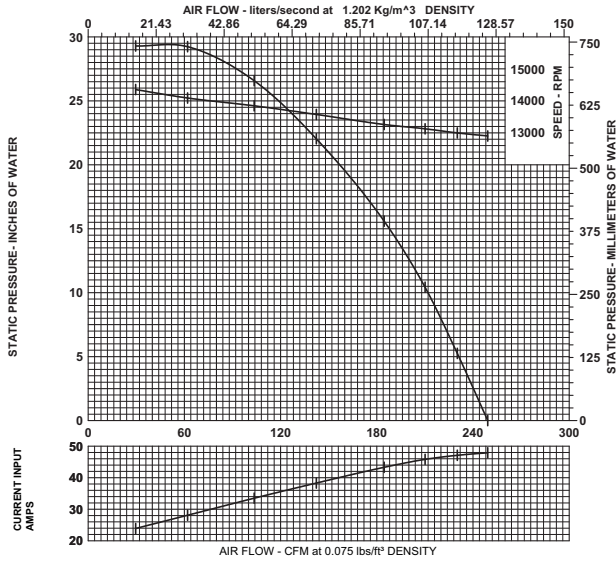


Rotron / Airscrew

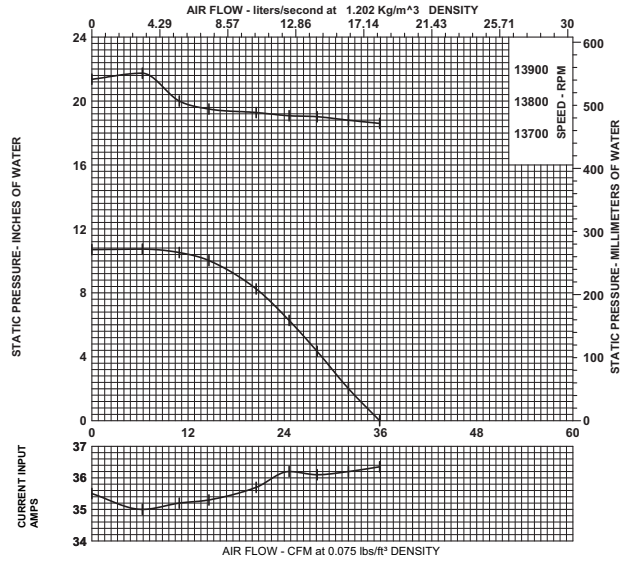


P/N 012249000 RRF/505-RCPN/3503 3887XF

Ventilation (Airflow Source Data A792-23D)



Scavenge (Airflow Source Data A782-11A)



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Rotron / Airscrew



NOTES:

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AEROSPACE & DEFENSE
Rotron / Airtechnology Products

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