

SPACE-RATED FANS

LOW COST, VERSATILE FANS

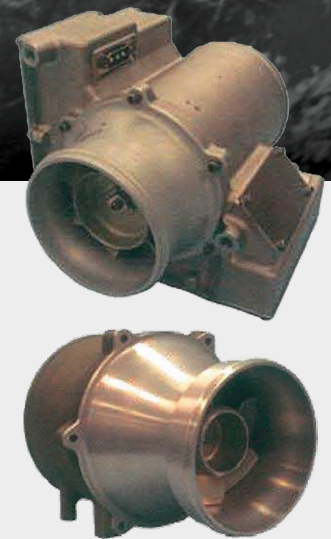
A broad range of applications for manned spacecraft

Collins Aerospace fans provide for a broad range of use in environmental control, avionics cooling, air circulation, or other manned space applications. Our fans are designed to operate during ascent, orbit, descent, and ground operations and are capable of surviving high vibration and shock loads. Collins Aerospace fans are designed around specific air flow, pressure rise, and power needs. This will ensure the fans long life expectancy and efficiency over a wide operating range. These fans can operate at fixed or variable speeds.

Variations of these fans are currently (early 2017) being qualified for use in two Commercial Crew applications and an ISS Flight Experiment.

We have been designing and manufacturing fans for manned spaceflight for over 50 years on over two dozen platforms. Collins Aerospace brings this unsurpassed experience to these designs, which are mechanically and electrically adaptable to a wide range of customer requirements.

We can provide low cost fans for commercial space applications. The fans can be tested in Collins facilities to verify strict adherence to commercial, NASA, and military requirements. We can also provide a cost-effective approach for testing in real or simulated environments to support evolving requirements, configurations and integration needs.



KEY FEATURES AND BENEFITS

- Designs tailored to customer applications
- Long Operational Life
- High Efficiency
- Variable speed brushless DC motor
- Proper flow, pressure rise, and power for the application
- Low Acoustic Signature
- Balanced weight, size, and packaging
- Structural robustness
- NASA compliant materials for human spaceflight
- Integral Safety Controls





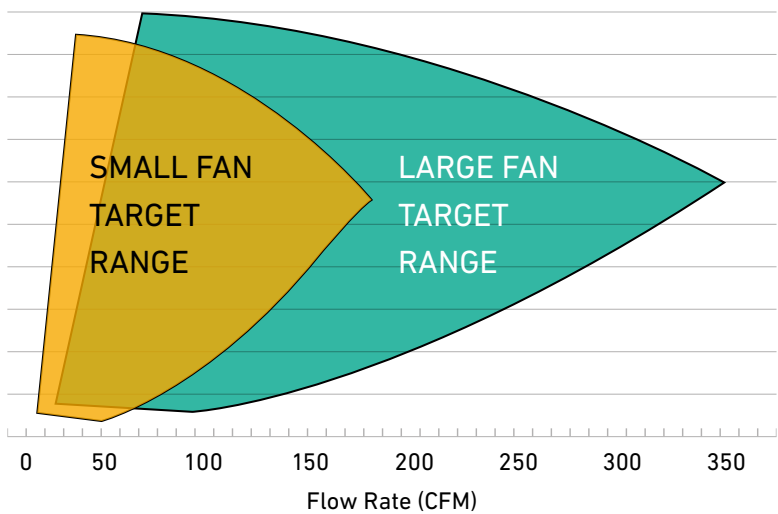
SPECIFICATIONS

Power	+28 VDC, 200 watts (transmit), 50 watts (receive)
Weight	5.5 kg (12.2 lbs)
Width	12.7 cm (5 in)
Height	14.2 cm (5.6 in)
Length	25 cm (9.85 in)
Test Specifications	MIL-STD-461F, MIL-STD-810G, MIL-STD-704D/E/F

KEY CHARACTERISTICS

Fluid type	Air
Technical Design (Air)	Voltage: 28 (Vdc) -120 (Vdc)
Small Fan	Flow: 150 (cfm) Mass (lbm): < 5.0 Envelope (in3): 330
Large Fan	Flow: 300 (cfm) Mass (lbm): < 13.3 Envelope (in3): 650

RANGE OF CUSTOMIZED PERFORMANCE BASED ON 14.7 PSIA INLET AIR



High Flow Fan
(controller not shown)



Low Flow Fan with
integral controller

Specifications subject to change without notice.



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