



*Technologies and Solutions
yet to be imagined.*

04008: C-5 EMERGENCY LANDING GEAR EXTENSION MOTOR

C-5 Emergency Landing Gear Extension Motor is used during a gear hydraulic failure by locking the gear actuator arm in place to safely land the aircraft.

The original motor had serious internal corrosion intrusion and high failure rates. With eight (8) motors per aircraft, the potential for failure put the aircraft at risk if a landing gear emergency occurred.

United Dynamics' mechanical and electrical engineers designed and developed a solution "from the ground up." We worked closely with the Air Force engineers and the C-5 System Program Office to thoroughly analyze the mechanical and electrical requirements of the existing motor.

Our robust form, fit, function, and interface (F3I) design incorporates improvements to key performance parameters, surpassing the original motor's performance and reliability. Full up qualification and flight test proved our design approach, assembly, and manufacturing techniques. The success of the program can be measured by the U.S. Air Force's decision to retrofit the entire fleet with our new motor rather than change by attrition.

- ✓ AC and DC electrical power
- ✓ Exceeds high torque requirements
- ✓ DC breaking capability
- ✓ Sealed housing
- ✓ Pressurized with nitrogen
- ✓ Sole source supplier
- ✓ Improved Mean Time Between Failure

"We were experiencing a 75% failure rate during the scheduled Programmed Depot Maintenance, or about 120 motors per year.

With United Dynamics' motor, we have achieved a zero failure rate in the last ten (10) years."

Equipment Specialist
Tinker AFB



TECHNICAL SPECIFICATIONS

Electric Motor

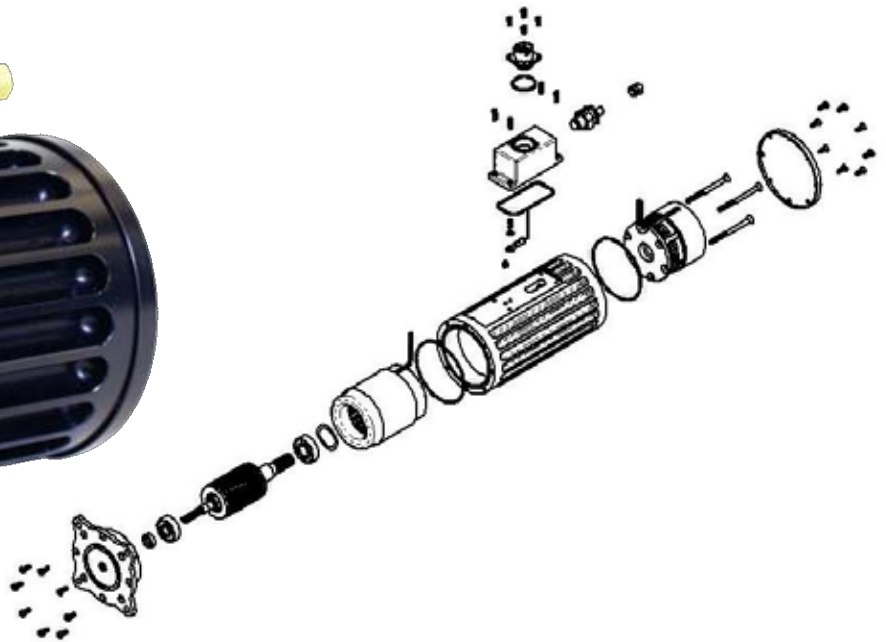
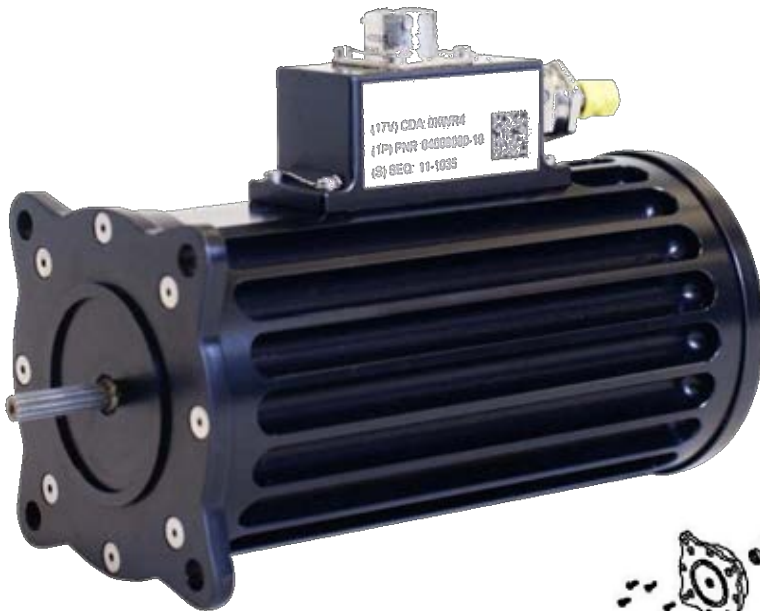
Rated Voltage:	115 VAC, L-N, 3-phase, 400 Hz
Power Output:	0.75 hp nominal at 7,300 rpm
Torque Output:	6 lb-ins nominal at 7,300 rpm
Rated Full Load Current:	3.2 amps
Duty Cycle:	Intermittent, not exceeding 3-min on and 1-min off

Electric Brakes

Power Requirement:	28 VDC
Brake Static Torque:	30 lb-ins minimum
Rotation:	Reversible
Operating Temperature Range:	-65 to 160° F (-54 to 71° C)

Dimensions

Length:	7.50 inches
Diameter of Body:	3.25 inches
Width of Face Plate Square:	3.35 inches
Height at Junction Box and Connector:	4.93 inches
Weight:	6.63 lbs



AS 9100 REV D
INDEPENDENTLY CERTIFIED



ISO 9001:2015
INDEPENDENTLY CERTIFIED



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