KOLLMORGEN
A REGAL REXNORD BRAND

SOLUTION GUIDE

Space-worthy motors for crewed and uncrewed space missions

When your space vehicle is designed to last for decades, or when the safety of astronauts is paramount, you need motors you can absolutely rely on.

Launch with frameless motor solutions designed for the rigors of space

- **A broad range of frameless motors.** Choose the ideal servo motor to fit the form factor and performance requirements of applications ranging from reaction wheels to thrust vector controllers and more. Keep your spacecraft precisely positioned and controlled.
- **Robust performance in a lighter payload.** Compact, efficient motors save weight, endure the shock and vibration of launch, and perform flawlessly in extreme temperatures and radiation.
- **Adapted for near-earth and deep-space environments.** We cost-effectively modify our standard motor platforms to meet 1x10E8 Rad radiation, 10E-7 Torr vacuum, and NASA-STD-6016A outgassing standards.

Speed your time from design to liftoff

- **Motion expertise to advance your application capabilities.** With space experience from the Gemini program to the Perseverance Mars rover and beyond, we can help solve your most demanding motion challenges.
- **A faster launch for your engineering concept.** We can typically prototype and deliver your motion solutions within just a few weeks, anywhere in the world.

Count on consistent, scalable supply

- **Dependable quality and delivery.** Lean manufacturing processes and industry-leading quality programs at our AS9100 certified Main Street manufacturing site in Radford, Virginia, ensure delivery of specialized motors in the quantities you require now and in the future.
- **Long-term regional support.** Our global footprint of manufacturing, design, application and service centers provides all the support you need, anywhere in the world.

Kollmorgen Servo Motor Application Examples

Kollmorgen Motors Designed for Space Program Success

Choose from a broad range of frameless motor solutions with sizes and performance characteristics to meet any application requirement, from high-torque motion for flight-control surfaces to high-velocity motion for inertial guidance subsystems, ultra-precise motion for instrument control, and more. All of these motors can be supplied in specialized designs and materials for no-fail performance in the most extreme conditions of space travel.

	Space Vehicles	Ground Stations	Satellites	Deep Space Applications	Space Habitation	Planetary Surface Applications
Motors	KBM, TBM, RBE	EKM, KBM, TBM, RBE, TBM2G	KBM, TBM, RBE, TBM2G	KBM, TBM, RBE	KBM, TBM, RBE	KBM, TBM, RBE
Temp	-126° C to 149° C	-51° C to 80° C	-65° C to 125° C	-130° C to 149° C	-130° C to 149° C	-130° C to 149° C
Location	LEO to deep space	Terrestrial	LEO	Deep space	LEO to deep space	Extraterrestrial surface applications
Bus Voltages	28-325 Vdc	28-650 Vdc	28-100 Vdc	28-200 Vdc	28-200 Vdc	28-200 Vdc
Typical Application Life	10+ years	15+ years	3-5 years	30+ years	30+ years	30+ years
Typical Applications	• Cryogenic cooling pumps • Reaction wheels • Torque tools • Robotic arms	• Azimuth / elevation • Recovery support	• Cryogenic cooling pumps • Reaction wheel and gyroscope motors • Solar panels • Arrays	• Cryogenic cooling pumps • Reaction wheels • Torque tools • Robotic arms	• Cryogenic cooling pumps • Door actuators, torque tools • Robotic arms	• Cryogenic cooling pumps • Robotic arms

About Kollmorgen

Kollmorgen, a Regal Rexnord Brand, has more than 100 years of motion experience, proven in the industry's highest-performing, most reliable motors, drives, linear actuators, AGV control solutions and automation platforms. We deliver breakthrough solutions that are unmatched in performance, reliability and ease of use, giving machine builders an irrefutable marketplace advantage.

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