



Space-worthy motors for low Earth orbit satellites

When launching constellations of many satellites, a reliable supply of frameless motors that can endure the rigors of space is key to mission success.

Launch with frameless motor solutions ideally suited to small satellites

- **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 solar panel deployment and more. Keep your spacecraft precisely positioned and controlled.
- **Robust performance.** Compact, lightweight motors are engineered to endure the shock and vibration of launch and years of extreme temperatures and radiation.
- **Designed for the LEO environment.** We cost-effectively modified our standard motor platforms to meet 1×10^8 Rad radiation, 10^{-7} Torr vacuum, and NASA-STD-6016A outgassing standards. Our motors are also capable of achieving higher levels of vacuum and radiation specifications.

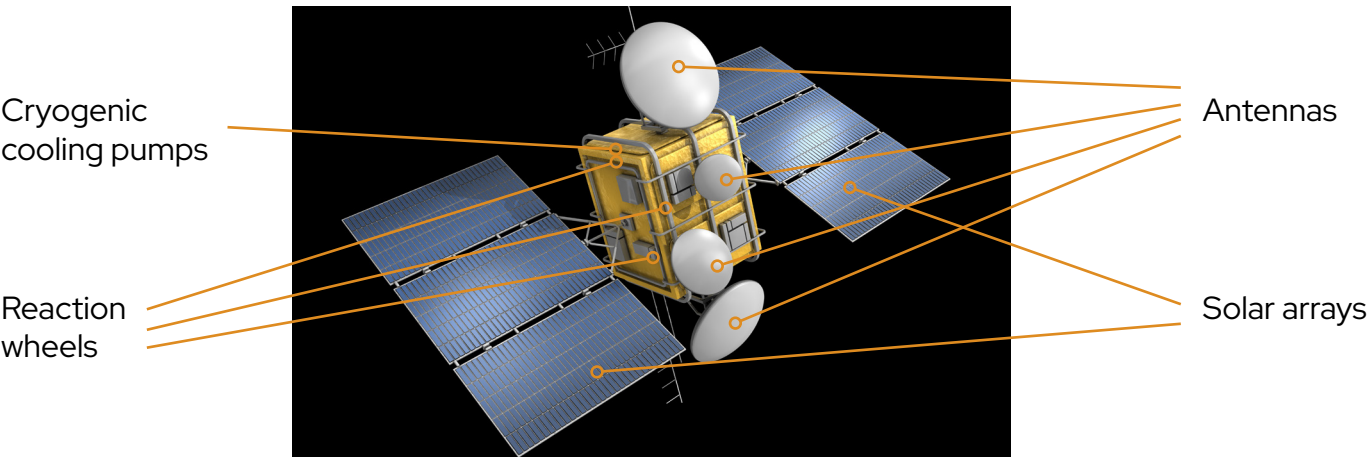
Speed your time from design into orbit

- **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 satellite design.** 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 attitude control to positioning of solar panels, optical systems and more. All of these motors can be supplied in specialized designs and materials for no-fail performance in the extreme conditions of space.

	Satellites	Ground Stations	Space Vehicles	Deep Space Applications	Space Habitation	Planetary Surface Applications
Motors	KBM, TBM, RBE, BM, TBM2G	EKM, KBM, TBM, RBE, BM, TBM2G	KBM, TBM, RBE	KBM, TBM, RBE	KBM, TBM, RBE	KBM, TBM, RBE
Temp	-65° C to 125° C	-51° C to 80° C	-126° C to 149° C	-130° C to 149° C	-130° C to 149° C	-130° C to 149° C
Location	LEO	Terrestrial	LEO to deep space	Deep space	LEO to deep space	Extraterrestrial surface applications
Bus Voltages	28-100 Vdc	28-650 Vdc	28-325 Vdc	28-200 Vdc	28-200 Vdc	28-200 Vdc
Typical Application Life	3-5 years	15+ years	10+ years	30+ years	30+ years	30+ years
Typical Applications	<ul style="list-style-type: none">• Cryogenic cooling pumps• Reaction wheel and gyroscope motors• Solar panels• Arrays	<ul style="list-style-type: none">• Azimuth / elevation• Recovery support	<ul style="list-style-type: none">• Cryogenic cooling pumps• Reaction wheels• Torque tools• Robotic arms	<ul style="list-style-type: none">• Cryogenic cooling pumps• Reaction wheels• Torque tools• Robotic arms	<ul style="list-style-type: none">• Cryogenic cooling pumps• Door actuators• Torque tools• Robotic arms	<ul style="list-style-type: none">• 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.