



The new LSI 105-21 builds on
ThinGap's gimbal motor experience

Product Release

Zero-Cogging and with a Low-Profile, the LSI 105-21 is the Latest Expansion to ThinGap's Mid-size Motor Kits

With an outer diameter of 105 mm, and a 21 mm axial height, the LSI 105-21 provides 1.2 N-m of continuous torque output, yet only weighs 414 grams

The latest LS Series motor set uses a fiber-wound technique to bolster magnet retention of the rotor assembly

Camarillo, CA (May 31, 2024) – ThinGap continues to build out its LS Series of slotless motor kits with the latest release, the LSI 105-21. The new part has an outer diameter (OD) of 105 mm, and an axial height of 21 mm. With a maximum operating speed of 3,000 RPM, the LSI 105-21 has a 1-second peak torque output of 13.5 N-m, and a continuous one of 1.2 N-m.

Designed from the ground up, the LSI 105-21 was developed for use in space-based gimbals, such as Coarse Pointing Assemblies (CPAs) that perform critical laser-based satellite communications. All types of multi-axial gimbal systems can leverage the benefits of high-performance cogless motors, such as ThinGap's LS Series, to directly drive movement and maintain position, while offering a large aperture and significant Size, Weight, and Power (SWaP) savings.

The LSI 105-21 marks the first time that an LS Series motor kit comes standard with a fiber-wound rotor. For high-speed and fail-safe applications, ThinGap deploys a thin, but strong filament of epoxy-coated fiberglass over the magnets in building the rotor assembly. This enhanced rotor provides an additional safety margin called out by some customers.

ThinGap's LS Series of slotless motor kits range in size from 25 to 267 mm diameter, and torque from 0.1 to 12 N-m continuous and voltages from 24-400 volts. Most LS motors are available with an optional space-rating that includes the use of low outgassing materials, leaded-circuit boards and a Materials and Processes (M&P) list that conforms to NASA's standards.

For additional information on custom motor development, please contact the company at info@thingap.com or visit www.thingap.com.

About ThinGap

For over twenty years, ThinGap has been a world leader in the design and manufacturing of USA-made, high performance frameless electric motor and generator kits.