

ThinGap's TGR 29-12 Motor Kit with a US Nickel (21 mm) for scale

Product Brief

ThinGap Demonstrates Small Motor Capability with the Delivery of its TGR 29-12

With the smallest stator yet, the TGR 29-12 demonstrates the scalability of ThinGap's slotless motor technology.

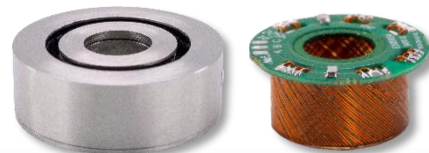
Camarillo, CA (December 27, 2022) – ThinGap has delivered its latest small-size product, the TGR 29-12, to several commercial customers. The TGR 29-12 motor kit has an outer diameter (OD) of 29 mm and an axial height of just 12 mm, providing a continuous in-vacuum torque output of 0.0028 N-m, and a peak torque of 0.034 N-m. A [complete datasheet is available on ThinGap's website](#).

With a total part mass of 31 grams, and a coil OD of 19.2 mm, the TGR 29-12 has the smallest stator of any ThinGap motor to date, showcasing the company's highly scalable architecture. Designed for Attitude Control in CubeSat applications, the new part continues the build out of the Space focused TGR product line.

Prior TG Series models have been widely used in Reaction Wheel Assemblies (RWA), due to a patented architecture's inherent advantages when used in any type of flywheel applications. Because of the efficient lightweight ironless core, zero-cogging stator, and high power-to-weight ratio, the TGR 29-12 offers more than double the torque of the closest competitor with minimal losses and no radial forces between the stator and rotor.

With more than two decades of experience in the design and production of slotless motor kits, ThinGap can leverage proven designs and analytical modeling that results in highly accurate transitions from predicted performance to real world operation. Furthermore, the process steps needed to produce motors of all sizes is highly scalable; ThinGap has shipped motors from 19 mm up to 600 mm in size.

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



The TGR 29-12 stator coil is ThinGap's smallest to date, with a 19.2 mm diameter, as well as magnets on both surfaces of the rotor allowing for best-in-class performance.

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. In May 2022, ThinGap became part of Allied Motion's global organization and remains a standalone business unit.