



Product Brief

The TGR 60-30 is the Latest Release of a Purpose-Built, High Efficiency Motor

Designed for Reaction Wheel Assemblies (RWA) and Flywheel Applications

Optimized for maximum inertia, giving the greatest momentum for the least amount of mass

Specifically built for use in vacuum, making it space compatible by design

Camarillo, CA (January 29, 2024) – ThinGap has delivered to a commercial customer its latest purpose-built reaction wheel motor kit, the TGR 60-30. This newest motor kit has an outer diameter (OD) of 60 mm and an axial height of just 29.6 mm, providing a continuous in-vacuum torque output of 0.08 N-m, and a peak torque of 1.61 N-m. A [complete datasheet](#) is available on ThinGap's website.

With a total part mass of 273 grams, the TGR 60-30 fits between the already released TGR 89-26 and TGR 29-12, showcasing the Company's highly scalable stator architecture. In addition, the rotor of the TGR 60-30 is optimized for maximum inertia, giving the motor the greatest momentum for the least mass. As part of the industry's first clean-sheet reaction wheel assembly product line, the TGR Series is designed for Attitude Control in SmallSat applications and other high precision systems.

Prior TG Series models have been widely used in Reaction Wheel Assemblies (RWA), due to the patented architecture's inherent advantages when used in flywheel applications. Because of the efficient, lightweight ironless core, zero-cogging stator, and high power-to-weight ratio, the TGR 60-30 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 25 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.

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.