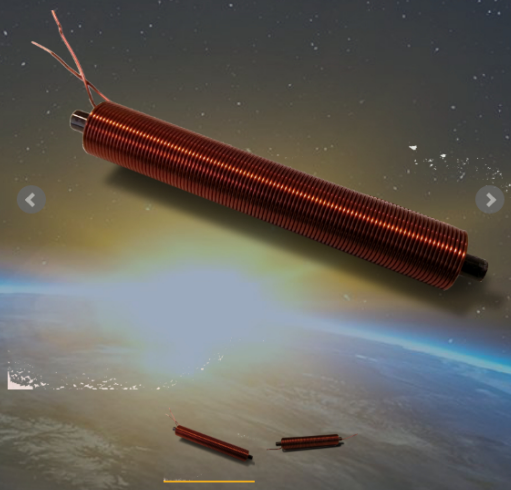
MTQ400

The MTQ400 magnetorquers are aimed at applications in 6-12U CubeSats. Offering one of the highest energy efficiencies in the industry, combined with fine-grained dipole-moment strength control, it allows precise pointing and rapid de-saturation of any reaction wheels in the satellite.

Two models are available in the MTQ400 series: The standard MTQ400.50 and the lower profile MTQ400.40, perfectly suited for vertical installation in limited space.

With a unique boost-mode, these magnetorquers can be pushed up to higher magnetic dipole moments for short duration manoeuvres, through sacrificing some energy efficiency. In return however, these magnetorquers will offer the fastest de-tumbing of any satellite in this mass class, allowing the users to start their operations in the shortest amount of time. They furthermore feature an inherently safe, passive detumbling mode, which works without any external controller.



Specifications

- Available as MTQ400.50 or MTQ400.40
- Includes drive electronics
- Nominal dipole moment: 0.5 / 0.4 A.m²
- Boost mode dipole moment: up to 2 Am² / up to 1.5 A.m²
- Dimensions: 11.5 x 80 mm / 11.5 x 65 mm (Ø x l)
- Mass: 44.1 / 34.5 g
- Dipole moment directly controllable, in steps of 1 mA.m²
- Power consumption at nominal dipole moment only 270 / 350 mW, including drive electronics (TBC)
- Inherently safe, passive detumbling mode

FAQ

What is this product's flight heritage?
The MTQ400 has not flown yet, but it is scheduled to fly within an iADCS400.

What is this product's TRL?
The TRL of the MTQ200 is 7.

What is the difference between an Engineering and a Flight model of this product?
All MTQ400 are Flight models. You may use them as Engineering models.

What kind of testing is available?
We offer acceptance testing of the Flight Model as well as qualification testing.