



*Ultra-lightweight, high performance
integrated motor and ESC with embedded position sensor*

VERTIQ



Propulsion unit with
position sensor.

Compact design

- Lightweight
- highly efficient
- highly responsive
- Safe and reliable
- Positioning functionality

About VERTIQ

VERTIQ is a drone propulsion module development company spun out from the University of Pennsylvania in the United States in 2017.

The motors equipped with positioning sensor technology developed at the GRASP Lab of the University of Pennsylvania have been commercialized, and the company continues to grow through partnerships with commercial and defense drone companies and support from venture capital. Additionally, in August 2022, Vijay Kumar (Dean of the School of Engineering at the University of Pennsylvania and former Assistant Director of the White House Office of Science and Technology Policy during the Obama administration) was appointed as a director.

Features

Compact

The integration of motors and ESC minimizes aluminum parts and wires, leading to extended flight time and increased payload.

High Efficiency

Vertiq, with its unique control method, achieves a 5% efficiency improvement compared to FOC controllers and up to a 20% efficiency improvement compared to 6-step commutation controllers.

High Responsiveness

The communication response speed is 2 to 4 times faster than standard motors and ESCs, ensuring a safe flight environment for more effective control of the aircraft.


Safe & Reliable

Advanced telemetry functions allow for real-time monitoring of motor health. In the event of an anomaly, it alerts the pilot and assists in ensuring the safety of the aircraft.

Positioning Function

Equipped with position sensors, it not only maximizes motor performance during high-speed flight but also allows for the precise identification of propeller rotation positions.

Product Line Up

Product name		Dimensions	Weight	Voltage	Current
23-06 G1 Module (2200Kv) (Kv option: 220 Kv)		Φ 28.4mm × H22.0mm	37.4 g	25.2 (6S)	30A
23-14 G1 Module (920Kv)		Φ 28.4mm × H30.1mm	62.9 g	25.2 (6S)	12.5A
40-06 G2 Module (770Kv) (Kv option: 370 Kv)		Φ 39.0mm × H6.0mm	95.0g	25.2 (6S)	13A
40-14 G2 Module (400Kv)		Φ 39.0mm × H14.0mm	158.0g	25.2 (6S)	21 A
81-08 G2 Module (140Kv) (Kv option: 85Kv , 240Kv)		Φ 87.1mm × H26.0mm	292.0g	58.8(14S)	60 A

For thrust data for each product, please check the 'EXEDY Drone Products Official Website'.

EXEDY

株式会社 エクセディ

〒572-8570 大阪府寝屋川市木田元宮 1-1-1

<https://www.exedy.com/drone/>

For inquiries regarding drone products, please use the contact form on the 'EXEDY Drone Products Official Website'.

