



FALCON SERIES

PRODUCT BROCHURE



OVERVIEW OF FALCON SERIES

The Falcon Series delivers an exceptional blend of control, management, and smart features, setting a new standard for powerful while agile UAV propulsion. Using ePConnect™, Falcon-enabled UAVs gain enhanced observability, eliminate maintenance blind spots, and offer programmable in-flight optimization. Engineered to be compact and lightweight, Falcon systems maximize output without increasing size, while delivering powerful performance and extended ranges. The curved magnets and self-cooling designs withstand extreme temperatures, ensuring consistent performance in harsh and high-altitude environments.

SPECIFICATIONS FOR FALCON MOTORS & CONTROLLERS



APM100

The ePropelled APM100 Falcon Series motor offers high power and reliability in a compact design. It excels in challenging environments and high-altitude conditions, making it ideal for demanding industrial applications.

Kv Rating	Voltage	Maximum Thrust	Motor Dimension	Weight	Maximum Power (180s)
96 Kv	12S – 20S	Up to 12 Kg	φ99.2 mm x 39.8 mm	525 g	2.5 kW



APM300

The ePropelled APM300 Falcon Series motor delivers high power and efficiency in a compact, robust design. Its brushless technology ensures reliable performance and effective cooling, even in challenging environments and high altitudes.

Kv Rating	Voltage	Maximum Thrust	Motor Dimension	Weight	Maximum Power (180s)
101 Kv	14S – 24S	Up to 25 Kg	φ122.2 mm x 48.6 mm	975 g	5.5 kW



APM600

The ePropelled APM600 Falcon Series motor delivers high power in a compact, efficient design. Its frameless brushless technology ensures excellent cooling, reliability, and durability, making it ideal for demanding and high-altitude applications.

Kv Rating	Voltage	Maximum Thrust	Motor Dimension	Weight	Maximum Power (180s)
87 Kv	14S – 24S	Up to 40 Kg	φ149 mm x 59.2 mm	1,840 g	10 kW



APM900

The ePropelled APM900 Falcon Series motor is built for high-power, compact applications, offering exceptional performance and efficiency. Its frameless design ensures superior cooling and durability, making it ideal for high-altitude and demanding conditions with long-term reliability.

Kv Rating	Voltage	Maximum Thrust	Motor Dimension	Weight	Maximum Power (180s)
65 Kv	14S – 24S	Up to 52 Kg	φ149.2 mm x 69.5 mm	2,600 g	12.5 kW



APM1200

The ePropelled APM1200 Falcon Series propulsion motor is a high-power, compact solution featuring frameless stators and rotors. Engineered for exceptional performance and durability, it offers superior efficiency and reliability, even at higher altitudes.

Kv Rating	Voltage	Maximum Thrust	Motor Dimension	Weight	Maximum Power (10s)
83 Kv	14S – 24S	Up to 56 Kg	φ171.1 mm x 69.3 mm	3,100 g	21 kW



iAMC100

The ePropelled iAMC100 Falcon Series controllers optimize lightweight aircraft propulsion with waterproof, precise control, converting DC to 3-phase AC. ePConnect™ for enhanced software control.

Voltage	Peak Power	Dimension (L x W x H)	Weight	Communication	Speed Command
6S - 20S	2.5 kW	110 mm x 59 mm x 46 mm	150 g	CAN 2.0	PWM, ProShot, DShot (Telemetry shared via CAN)



iAMC300

The ePropelled iAMC300 Falcon Series converts DC to 3-phase AC, enhancing aircraft propulsion with real-time adaptation for optimal performance and stability. ePConnect™ - Enhanced with software control.

Voltage	Peak Power	Dimension (L x W x H)	Weight	Communication	Speed Command
6S - 24S	8.2 kW	130 mm x 92 mm x 53 mm	200 g	CAN 2.0	PWM, ProShot, DShot (Telemetry shared via CAN)



iAMC600

The ePropelled iAMC600 Falcon Series is an advanced controller for UAV air motors, optimizing performance with real-time monitoring and adaptive control for precise operation in varying conditions. ePConnect™ - Enhanced with software control.

Voltage	Peak Current	Peak Power	Dimension (L x W x H)	Weight	Communication	Speed Command
14S – 24S	110 A	10 kW	131 mm x 157 mm x 39 mm	565 g	CAN 2.0A	PWM or CAN Command via ePConnect™



iAMC1200

The ePropelled iAMC1200 Falcon Series controllers convert DC to 3-phase AC, offering high efficiency and real-time adaptation for optimal stability and precision in aircraft propulsion. ePConnect™ - Enhanced with software control.

Voltage	Peak Current	Peak Power	Dimension (L x W x H)	Weight	Communication	Speed Command
12S - 24S	248 A	15 kW	180 mm x 190 mm x 91.5 mm	565 g	CAN 2.0A	PWM or CAN Command via ePConnect™

About ePropelled

ePropelled develops advanced propulsion and power systems for uncrewed platforms, built as a unified architecture (ePUA™) rather than standalone components. This reduces integration complexity, accelerates development, and improves operational confidence for OEMs and integrators.

Our solutions support UAVs, UGVs, USVs, robotics, and hybrid-electric platforms, delivering high power density, intelligent energy management, thermal efficiency, extended endurance, and improved mission readiness.

With a focus on performance, connectivity, and scalable electrification, ePropelled powers the next generation of autonomous and uncrewed mobility systems.

ePropelled - US | 144 Lexington Drive Laconia, NH 03246 US



info@epropelled.com



+1 (603) 236 7444



www.epropelled.com