AIRBUDDY AEROSPACE

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VyomX

Power that touches the sky

Motor & Controller

Highly integrated brushless controller facilitates precision flight control, reducing overall power consumption and maximizing flight time.

Soar higher with less

VyomX's ultra-compact printed winding design cuts down size, weight — unlocking limitless drone designs that are lighter, quieter, and radically more efficient.

65% Less copper

45% Less weight

70% Less noise

upto **98** % Efficient

Powered by our cutting-edge printed stator technology, **VyomX** delivers industry-leading efficiency in a sleek, ultra-compact form. With versatile power ranges from 250W to 5kW and minimal frame sizes, it's built to bring intelligent motor performance to the heart of every modern drone. IoT-ready and tailor-made for next-gen UAV applications,

VyomX redefines what a drone motor can do — and where it can fly.

Fully Customizable

- **Modular printed stator design** allows rapid customization of motor size, torque, and KV rating to suit unique drone models and flight profiles.
- **Firmware-tunable control interface** enables, seamless integration with any flight controller or ESC for precise speed, torque, and thermal behavior.

Optimized efficiency

- **Flexible by design**, VyomX adapts to your specific drone application — whether you're optimizing for **ultra-long endurance**, **high thrust-to-weight ratio**, or **thermal limits**
- **Smart customization, zero compromise** —your perfect flight performance curve, pre-loaded, with no added R&D or hardware changes.

Sustainable solutions

- **Printed winding stator architecture** uses up to **65% less copper** and eliminates core losses — delivering **10x higher reliability** than traditional iron-core drone motors.
- **Modular, serviceable design** allows easy disassembly, **component reuse**, and extended motor lifespan — reducing e-waste and maximizing sustainability.

At Air Buddy Aerospace, we're not just building motors — we're redefining how drones perform, endure, and evolve. Born from aerospace-grade innovation, **VyomX** brings unmatched precision, ultra-lightweight design, and class-leading efficiency into next-generation UAV propulsion — engineered for endurance, agility, and total reliability in every flight.

"**Powering innovation at the speed of imagination**"

A crisp comparison between a Normal Drone Motor and VyomX Motor:

Feature	Traditional Motor	VyomX Motor
Copper Usage	100% (Wound Coils)	35% (Printed Copper Traces)
Weight	Heavy Iron Core	Up to 45% Lighter
Efficiency	75–85%	Up to 98%
Noise Level	High — Audible Whirring	70% Lower — Near Silent
Thermal Output	High Heat Generation	Cooler Operation, Less Heat Loss
Reliability	Moderate — Winding Failures	10× More Reliable
Customization	Fixed, Limited	Fully Modular & Application-Specific

Applications

Their low weight, silent operation, and compact size make them ideal for such applications where efficiency and stealth are crucial.

- **Agriculture** – Enables lightweight drones for precision spraying, crop health monitoring, and field mapping.
- **Defense & Surveillance** – Ideal for tactical UAVs due to silent operation, low weight, and fast response —perfect for recon missions.
- **Cinematography** – Supports ultra-stable, low-noise drone shots with smoother motor performance and reduced vibration.
- **Infrastructure & Inspection** – Allows compact drone designs for detailed inspection of bridges, towers, and power lines.

VyomX: Custom-Engineered Drone Motor for High-Performance UAVs

Parameter	VyomX (Customizable Range)
Motor Type	PCB-Based Axial Flux
Power Output	Up to **5 kW**
Voltage Compatibility	**6S–14S**
Efficiency	Up to **98%**
Weight	As low as **<150 grams**
Control Interface	PWM, ESC-Compatible
Customization	Dimensions, Torque, Voltage, Mounting Layout etc.

The VyomX Series – Customizable Drone & UAV's Motors

- VyomX is a customizable drone motor series, engineered to meet diverse thrust, efficiency, and payload requirements across recreational, commercial, and industrial UAV applications.
- While every unit can be tailored to specific requirements, the configurations below are among **the most widely used and market-demanded models.**

Model 1: Specification Table

Parameter	Value
Dimension (OD / ID)	90 mm / 40mm
Rotor / Stator Configuration	8 stator 9 rotor
Ef1iciency (%)	97.8
Losses percentage (%)	2.1
Losses (W)	54 W
Voltage / Current (V/A)	16.8V/150Amps
Power In / Out (W)	2.52 KW /2.46KW
Torque (Nm)	3.56 Nm
RPM	6614

Model 2: Specification Table

Parameter	Value
Dimension (OD / ID)	90 mm / 60 mm
Rotor / Stator Configuration	12 stator 13 rotor
Ef1iciency (%)	96.7
Loss percentage (%)	3.2
Losses (W)	103 W
Voltage / Current (V/A)	12.6V/250Amps
Power In / Out (W)	3.15 KW / 3.04KW
Torque (Nm)	5.65 Nm
RPM	5147

Redefine performance. Redefine endurance. Choose VyomX- Where innovation meets sky.
Contact us today to integrate VyomX into your next-generation drones.