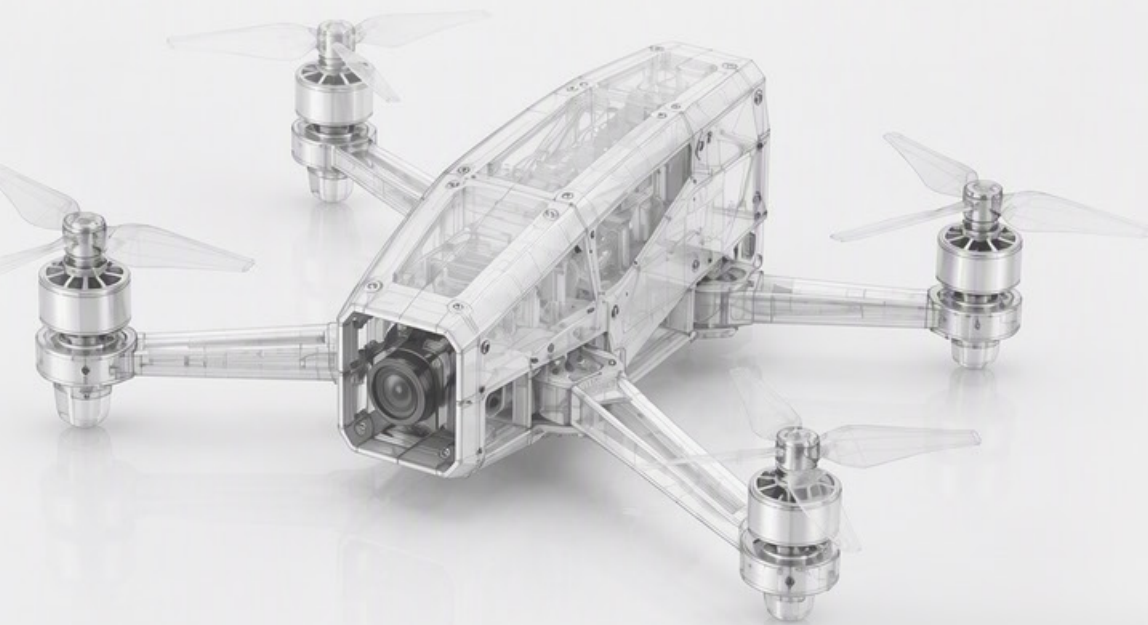


EVERLINE®
EV1400 SERIES
UAV PROPULSION MOTORS



FOR COMPACT UAVS

- | Micro UAVs
- | Inspection
- | Research
- | OEM Development



DEFENSE
COMPLIANT



HIGH
EFFICIENCY



FULL
POWER RANGE



UAV
OPTIMIZED



Everline® EV1400 Series motors provide compact propulsion solutions for micro UAVs, lightweight multirotors, inspection platforms, research aircraft, and OEM development programs. Built around a common 1404-class platform, the series supports applications requiring lightweight construction, high rotational speed, and efficient integration within space-constrained UAV designs.

TESTED PERFORMANCE OPTIONS

The EV1400 series has been evaluated with multiple propeller and voltage combinations to support a variety of mission requirements. Published test results allow engineers to review how different configurations affect overall propulsion performance.

CONSISTENT 1404 MOTOR PLATFORM

Shared mechanical and electrical characteristics simplify propulsion evaluation and system integration. Common family features include a 1404 stator platform, 9N12P configuration, 18 × 16 mm dimensions, bolt-mounted propeller interface, and 165 mm lead wires, providing a consistent foundation for aircraft development and testing.

PERFORMANCE DATA FOR MOTOR SELECTION

Detailed performance data provides a foundation for motor selection and system optimization. Thrust, current, RPM, power, voltage, and efficiency measurements help engineers compare configurations and identify the best solution for compact UAV platforms.

ENGINEERED FOR OEM UAV PROGRAMS

The EV1400 Series can be evaluated as a standard propulsion platform and reviewed for production requirements including alternate KV targets, cable lengths, connector options, labeling, documentation, application support, and production integration needs.

FEATURES & SPECIFICATIONS

- 2900 KV, 1404-class motor platform
- Compact 18 × 16 mm dimensions
- 9N12P configuration
- Bolt-mounted propeller interface
- Lightweight 10.1 g platform
- 165 mm lead-wire length
- 24 AWG lead wires
- Published 2S and 4S performance configurations
- Up to 238 g maximum tested thrust
- Up to 36,700 RPM maximum tested speed
- Published thrust, power, current, RPM, and efficiency data
- OEM customization and application support available
- Defense-compliant sourcing and program support available

APPLICATIONS

- Micro UAVs
- Compact Multirotors
- Inspection UAVs
- Research Platforms
- OEM Development Programs
- Flight-Test Aircraft

Everline® EV1400 Series motors provide compact propulsion solutions for micro UAVs, lightweight multirotors, inspection platforms, research aircraft, and OEM development programs.

For additional information or assistance with your UAV propulsion application, contact Pelonis Technologies.

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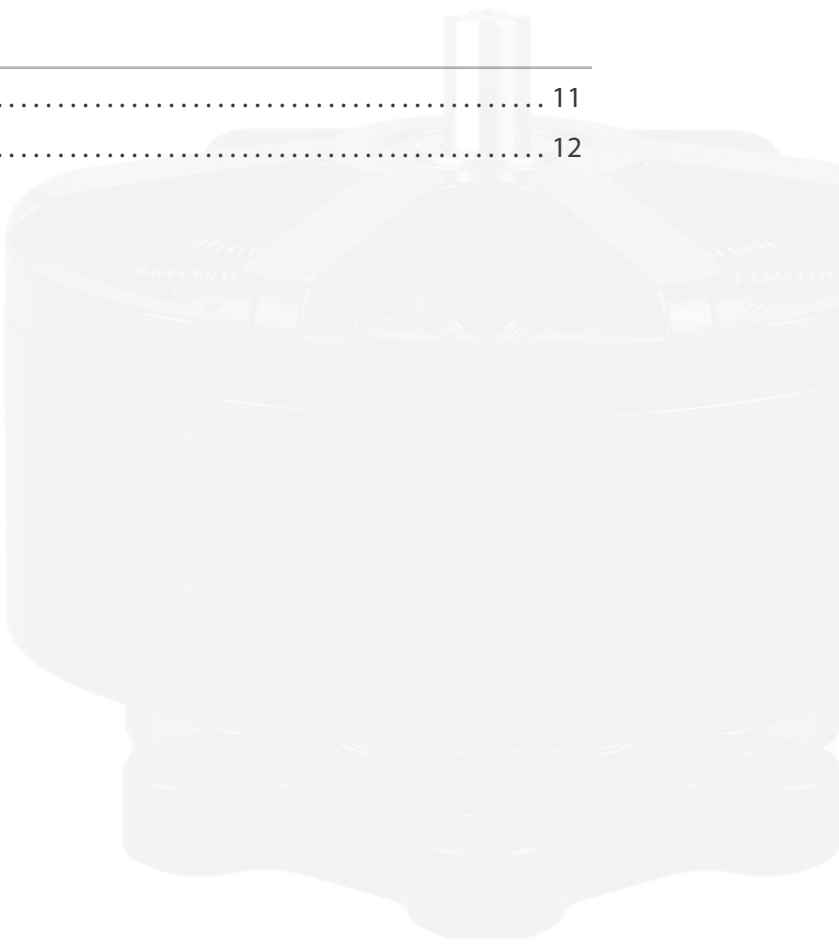
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EV1400 SERIES OVERVIEW

The Everline® EV1400 UAV Propulsion Motor Series is built around a common 1404-class, 2900 KV motor platform optimized for compact UAV applications. Published performance data across multiple propeller and voltage configurations allows engineers to evaluate thrust, power consumption, current draw, RPM, and efficiency using a single common propulsion platform.

Model Number	KV	Application	Best-Fit Mission	Features
EV1404-2900	2900	Compact UAV Propulsion	Micro UAVs, compact multirotors, inspection platforms, research aircraft, and OEM development programs.	Compact 1404-class platform with published performance data across multiple 2S and 4S propeller configurations.

QUICK REFERENCE & PRODUCT COMPARISONS

Payload / Endurance / Speed Comparisons					
Model Number	Payload Rating	Endurance Rating	Speed Rating	Published Test Coverage	Best-Fit Application
EV1404-2900	★★★★☆	★★★★☆	★★★★☆	Multiple 2S and 4S configurations	Micro UAV / Compact Multirotor

NOTE: Ratings provide relative application guidance based on the overall propulsion configuration and are not determined solely by maximum tested thrust, speed, or efficiency.

Weight / Power / Current / Thrust Comparisons					
Model Number	Weight	Maximum Power	Peak Current	Maximum Tested Thrust	Best-Fit Application
EV1404-2900	10.1 g	250 W	10 A	238 g	Compact Multirotor / Inspection UAV

NOTE: Maximum thrust values are based on tested operating conditions and should not be directly compared without considering aircraft design, battery selection, propeller selection, airflow conditions, and ESC configuration.

MISSION-BASED MOTOR SELECTION GUIDE

Recommended propeller configurations by UAV application.

UAV Mission	Primary Motor	Alternate Motor	Why This Fit	Propeller & Data Notes
Micro UAVs	EV1404-2900	Application-Specific Review	Lightweight 10.1 g platform for compact UAV integration.	3 × 1.6 × 3 at 2S produces up to 60 g maximum tested thrust.
Compact Multirotors	EV1404-2900	Application-Specific Review	Compact propulsion platform for general multirotor evaluation and development.	4 × 2 × 3 at 2S produces up to 135 g maximum tested thrust.
Inspection UAVs	EV1404-2900	Application-Specific Review	Higher-thrust configurations support compact inspection-platform evaluation.	5 × 2 × 3 at 2S produces up to 147 g maximum tested thrust.
Research & Development Platforms	EV1404-2900	Application-Specific Review	Multiple published configurations support propulsion testing and engineering comparison.	Compare thrust, current, RPM, power, and efficiency across the available Propeller Performance Datasheets.
OEM Development Programs	EV1404-2900	Application-Specific Review	Supports application-specific propulsion and integration evaluation.	Review available propeller and battery configurations during preliminary system development.
Maximum Performance Applications	EV1404-2900	Application-Specific Review	The published 4S configuration provides the highest tested thrust and speed.	3 × 1.6 × 3 at 4S produces up to 238 g thrust and 36,700 RPM.

RECOMMENDATION:

Start with aircraft size, weight, mission profile, battery selection, propeller envelope, and performance requirements. Then evaluate the EV1404-2900 with the appropriate propeller and battery configuration for engineering evaluation and propulsion testing.

ENGINEERING OVERVIEW

The Everline® EV1400 Series uses a compact 1404-class, 2900 KV motor platform designed for micro UAVs, lightweight multirotors, inspection platforms, research aircraft, and OEM development programs. Published performance data across multiple propeller and voltage configurations helps engineers evaluate thrust, power consumption, current draw, RPM, and efficiency using a single common motor platform.

Common Platform Attributes	EV1404-2900
Stator Class	1404
KV	2900 KV
Dimensions	18 × 16 mm
Configuration	9N12P
Shaft Interface	Bolt-mounted propeller
Weight	10.1 g
Cable Length	165 mm
Cells	2S–6S
Maximum Rated Speed	39,300 RPM
Idle Current (10 V)	0.50 A
Maximum Rated Power	250 W
Peak Current	10 A
Resistance	310 mΩ
Lead Wires	24 AWG

Model Number	KV	Relative Role	Technical Comments
EV1404-2900	2900	Compact High-Speed	Lightweight 1404-class platform optimized for micro UAVs, compact multirotors, inspection platforms, research aircraft, and OEM development programs.

NOTE: EV1400 performance varies by propeller selection and battery configuration. Selection should be based on aircraft size, total aircraft weight, propeller envelope, target thrust, battery voltage, current limits, ESC configuration, and required flight performance.



EV1404-2900

Compact UAV Propulsion Motor

The EV1404-2900 is a compact propulsion solution for micro UAVs, lightweight multirotors, inspection platforms, research aircraft, and OEM development programs requiring low weight, high rotational speed, and flexible propeller configuration options.

Applications

- Micro UAVs
- Compact Multirotors
- Inspection UAVs
- Research Platforms
- OEM Development Programs

SPECIFICATIONS	
Part Number	: EV1404-2900
Stator Size	: 1404
KV:	: 2900 KV
Dimensions	: 18 × 16 mm (0.71 × 0.63 in)
Configuration	: 9N12P
Shaft Interface	: Bolt-mounted propeller
Weight	: 10.1 g
Cable Length	: 165 mm
Cells	: 2S–6S
Maximum Rated Speed	: 39,300 RPM
Idle Current (10 V)	: 0.50 A
Maximum Rated Power	: 250 W
Peak Current	: 10 A
Resistance	: 310 mΩ
Lead Wires (AWG)	: 24 AWG

* For detailed specifications and motor performance curves, please refer to the complete product specification sheet.

PROPELLER SELECTION GUIDE

The EV1400 Series has been tested across multiple propeller and battery configurations to support UAV propulsion evaluation, aircraft optimization, and propulsion-system development. This guide provides a quick-reference overview of recommended motor and propeller combinations based on application objectives. Detailed thrust, RPM, current, power, efficiency, and performance curve data are available in the individual Propeller Performance Datasheets. Recommendations are intended for preliminary configuration screening and should be validated through application-specific aircraft testing.

RECOMMENDED CONFIGURATIONS

Mission Profile	Recommended Configuration	Maximum Tested Thrust
Micro UAV / Compact Platform	EV1404-2900 + 3 × 1.6 × 3 @ 2S	60 g
General-Purpose Compact UAV	EV1404-2900 + 4 × 2 × 3 @ 2S	135 g
Higher-Thrust 2S Platform	EV1404-2900 + 5 × 2 × 3 @ 2S	147 g
Maximum Tested Performance	EV1404-2900 + 3 × 1.6 × 3 @ 4S	238 g

* Maximum thrust values shown are based on published bench-test performance data.

PROPELLER CLASS GUIDELINES

Propeller	Typical Use Case
3-Inch Class	Micro UAVs, compact aircraft, and space-constrained platforms.
4-Inch Class	General-purpose compact multirotors and propulsion evaluation.
5-Inch Class	Higher-thrust 2S platforms and compact inspection UAVs.

NOTE: The EV1400 Series propulsion platform includes performance data across multiple tested motor, propeller, and battery configurations covering micro UAV propulsion, general-purpose compact multirotors, higher-thrust 2S platforms, and maximum tested 4S performance. Detailed Propeller Performance Datasheets include measured thrust, RPM, electrical power, current, efficiency, and normalized performance curves for engineering evaluation and propulsion-system optimization.

Detailed Propeller Performance Datasheets Available Upon Request

Motor, Propeller & Battery Test Configurations • 2S & 4S Testing • Thrust, RPM, Current, Power & Efficiency Data

OEM CUSTOMIZATION OPTIONS

The Everline® EV1400 UAV Propulsion Motor Series can be evaluated as a standard propulsion platform and then reviewed for production program requirements, including customization, documentation, integration support, and support for Pelonis Technologies' thermal management solutions, including Air-G Micro Fans, Air-G Micro Blowers, and Ultra-Thin Flexible Heaters. The EV1400 platform is built around a compact 1404-class, 2900 KV motor architecture optimized for micro UAV, compact multirotor, inspection, research, and OEM development applications.

Customization	Description
KV / Winding Review	Custom winding requirements or alternate KV targets for production programs.
Cable Length	Customer-specific lead length requirements.
Connector Options	Connector termination preferences for OEM assemblies.
Mounting Review	Evaluate mounting requirements subject to feasibility review.
Documentation Package	Provide Datasheets, performance tables, drawings, and application notes for design review.
Prototype-to-Production Support	Support prototype evaluation, quotation development, and production planning.
Thermal System Review	Battery heating, ESC cooling, avionics cooling, electronics cooling, and payload thermal management.
Defense Program Support	Supply chain, documentation, and application review support for government and defense UAV programs.

INTEGRATED UAV THERMAL MANAGEMENT SOLUTIONS

An integrated UAV subsystem solution combines compact propulsion, battery thermal management, avionics cooling, and payload cooling into a unified platform designed to enhance performance, reliability, and mission endurance. Everline® EV1400 Series UAV Motors provide compact propulsion, while Ultra-Thin Flexible Heaters help maintain optimal battery temperatures in cold environments, supporting improved energy efficiency and operational readiness.

Air-G Micro Fans deliver targeted cooling for electronic speed controllers, flight-control electronics, and electronics bays, while Air-G Micro Blowers provide focused airflow for cameras, sensors, communications equipment, and other mission-critical payloads. Together, these technologies help improve thermal management, protect sensitive electronics, extend component life, and support reliable operation across micro UAV, inspection, research, commercial, security, defense, and OEM development applications.

Product Area	UAV Use Cases	Customer Benefits
Everline® EV1400 Motors	Micro UAV propulsion, compact multirotors, inspection platforms, research systems, and OEM development programs.	Compact propulsion platform for micro UAVs, inspection systems, research aircraft, and OEM development programs.
Ultra-Thin Flexible Heaters	Battery warming, avionics heating, camera/payload heating, cold-weather operation.	Supports reliability in cold or variable environments.
Air-G Micro Fans	ESC cooling, electronics-bay airflow, and flight-control electronics cooling.	Supports compact UAV electronics thermal control.
Air-G Micro Blowers	Directed avionics cooling, sensor cooling, communications-equipment cooling, and payload cooling.	Provides focused airflow for avionics, sensors, communications equipment, and payloads in compact areas.



GLOSSARY

Terms and Definitions.

TERM	DEFINITION
KV	Motor speed constant. Higher KV generally supports higher RPM and faster propeller speeds.
Thrust	Measured motor + propeller force under stated test conditions.
Efficiency	Grams of thrust per watt in the supplied performance table.
ESC	Electronic speed controller used to drive the BLDC motor.
RPM	Revolutions per minute; a measure of motor rotational speed.
BLDC	Brushless DC motor technology commonly used in UAV propulsion systems.
9N12P	Motor configuration consisting of 9 stator slots and 12 rotor poles.
2S–6S	Supported battery cell range for the EV1404-2900 propulsion platform.
Diameter × Pitch × Number of Blades	Standard propeller format. Example: 3 × 1.6 × 3 indicates a 3-inch diameter, 1.6-inch pitch, three-blade propeller.
Micro UAV	A compact unmanned aerial vehicle designed for lightweight propulsion systems, inspection missions, research platforms, or OEM development programs.
UAV	Unmanned aerial vehicle, including multirotor, inspection, and research aircraft.
LiPo	Lithium Polymer battery technology commonly used in UAV power systems.
Payload	Mission-specific equipment carried by the UAV, including sensors, cameras, communications equipment, and specialized systems.
Propeller Reference	A standardized propeller designation showing diameter × pitch × blade count. For example, 3 × 1.6 × 3 represents a 3-inch diameter, 1.6-inch pitch, three-blade propeller.
Torque	Rotational force generated by the motor. Torque helps determine the motor's ability to drive propellers under load.
OEM	Original equipment manufacturer integrating Everline motors into its own UAV platform.



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