

## Industrial Servo Motor High-torque Line-up Notice of Release "BLA34-12U-AB1/BLA34-28U-AB1"

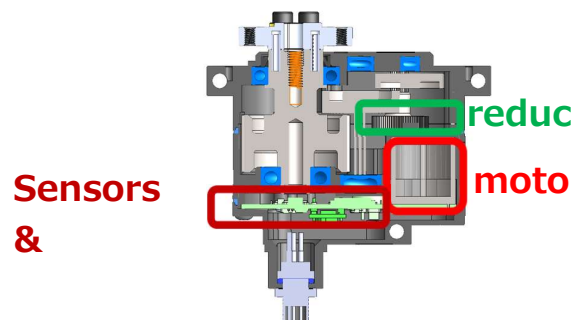


We will launch the BLA34-12U-AB1 and BLA34-28U-AB1 as high-torque lineups of industrial servo motors on June 1, 2025, and July 1, 2025, respectively. The "BLA34" series is equivalent in size to our previous high-torque lineup ("AJ9DA" series), but has more than twice the torque in performance, and is waterproof, dustproof, and CAN-compatible. The product can be used in a wide range of fields, including the UAV market and the industrial equipment market.

### Main Features

#### Feature 1 "All-in-one motor module"

This product integrates the motor and peripheral devices necessary for motor control, such as reduction gears, motors, angle sensors, and motor drivers. This allows customers to significantly reduce man-hours required for parts selection, design, development, and assembly.



#### Feature 2 "High torque and light weight"

In response to customer requests for a product that can deliver high torque, we have

developed this product that boasts the highest torque performance among our waterproof servomotors by employing a high-power brushless motor. Compared to our conventional products, the new product has a higher rated torque of 4.5 N·m, allowing it to be used under higher load conditions. The lightweight design is also expected to improve flight efficiency in UAV applications by reducing airframe weight. Furthermore, in FA (Factory Automation)-related end-effector applications, the weight of workpieces that can be carried by the robot is expected to increase.

### **Feature 3: "Long life and high durability"**

The newly designed gearbox, brushless motor, and non-contact angle sensor provide high durability and long life. When replacing the conventional product with this product, it will contribute to the improvement of the overall life of the equipment.

### **Feature 4: "Compatible with CAN communication".**

This product adopts the DroneCAN communication in method, which has been widely adopted in the UAV and UGV markets. This makes it possible to acquire angle, temperature, and other information directly from a servo, which was not possible with the S.BUS communication of the previous products. It also supports bidirectional communication with multiple servo motors connected by a bus, which is expected to improve overall equipment controllability, ensure safe operation, and support more efficient maintenance activities.



### **Main specifications**

Compared to our "AJ9DA" series of high-torque servo motors, these series have achieved a significant improvement in performance while maintaining the same dimensions and footprint. This product can be used under severe conditions.

#### **Comparison with AJ9DA series**

High durability	2 times or more (calculated value from our test)
High torque	More than twice the rated torque
Weight reduction	17% weight reduction

		BLA34-12U-AB1 	(Conventional product) AJ9DA43 
Supply voltage [V]		12.0	14.8
Output (e.g. of dynamo)	Instantaneous maximum torque [N·m]	16.5	10.8
	Rated torque [N·m].	4.5	2.1
	No-load RPM [min <sup>-1</sup> ]	40.0	50.0
Size	Dimensions [mm] (mm)	63.0× 34.0× 52.4	64.2× 34.0× 73.7
	Weight [g] (g) (Cable included)	297	355
(Technical) Specification	Operating temperature [° C]	-40 to +70	-30 to +70
	Waterproof and Dustproof	IP67 ※	IP67 ※
	Communication	DroneCAN v1, PWM	RS485, S. BUS, PWM
	Life span (MTTF)	281h or more (testing ongoing) (Load torque 4.5 N·m)	190h (Load torque 2.1 N·m)
Parts	Motor	Brushless motor	Coreless Brush Motor
	Sensor	Magnetic non-contact angle sensor	Contact Angle Sensors

\*Excluding cable ends

### **[Main application]**

It can be used in a wide variety of situations where durability is required.

(Example.)

«UAV (Unmanned Aerial Vehicle): Rudder and flap control

«Industrial robots» Robot hands, end effectors, grippers

«Automated guided vehicle/robot (AGV, AMR)» Axle rotation, cargo bed lock, lid and door opening/closing

«Production/Equipment» Opening and closing valves, adjusting louvers, opening and closing locks

### **Selling price**

Open price

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