

Standard AC Motors

Clutch & Brake Motors

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Overview

Three-Phase Induction Motors

Induction Motors

Reversible Motors

Electromagnetic Brake Motors

Clutch & Brake Motors

Low-Speed Synchronous Motors

Torque Motors

IP67 Watertight, Dust-Resistant Motors

Brake Pack

AC Speed Control Motors

AC input DSC

Clutch & Brake Motors

C·B Motors



● For detailed information about regulations and standards, please see the Oriental Motor website.



Gearhead sold separately.

- A compact precision motor with built-in clutch and brake, used in combination with a gearhead.
- Perfect for high-frequency operation, positioning, indexing, and intermittent inching feeding.



See Full Product Details Online
www.orientalmotor.com

● Manual

● Specifications

● Dimensions

● CAD

● Characteristics

● Connection and Operation

Features

● Suitable for High-frequency Operation

The combination of a constantly rotating induction motor and a clutch and brake unit enables high frequency starting and stopping.

● Compact and Easy to Handle

The compact design simplifies handling and enables the drive unit of the machine to be mounted into a small area.

● Highly Reliable Gearhead Employed

GC type and **GCH** type gearheads are specifically designed for **C·B** motors and boast excellent impact resistance, greater strength and high reliability.

Other gearheads including **GN-S** gearhead cannot be combined.

Characteristics of C·B Motors

C·B motor's output shaft runs and stops by being controlled through the clutch and brake while the motor is running continuously.

Output shaft rotation is controlled through the use of the clutch and brake mechanism. The load is stopped by disengaging the clutch and applying the brake. The motor is always affected by the rotor inertia. However, with a clutch and brake unit, the load is not affected by the rotor inertia.

For these reasons, **C·B** motors boast superior response over other AC standard motors, starting and stopping in considerably less time.

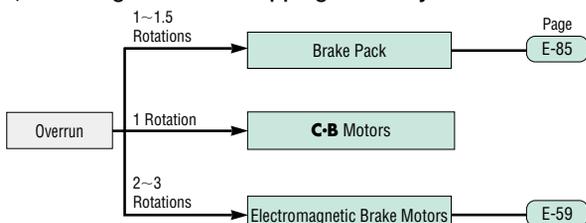
To meet high-frequency, starting and stopping applications, Oriental Motor uses an induction motor for its continuous duty rating. An induction motor is best suited for uni-directional movements. The **C·B** motor is not suitable for frequent bi-directional starting and stopping motion.

Other Motor Braking Options

In addition to the **C·B** motors, various other brake options are available to suit a variety of applications.

● How to Select a Brake Motor

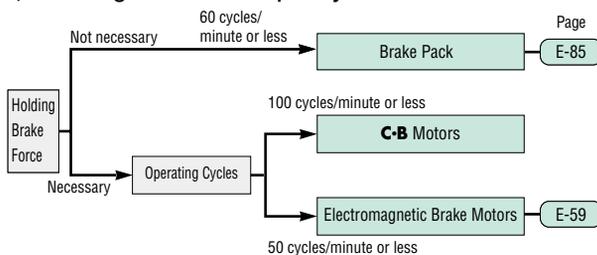
◇ Selecting Based on Stopping Accuracy



● The values for overrun applies to the motor only.

● For low-speed synchronous motors, the motor can be stopped instantly within $\pm 10^\circ$ of stopping accuracy by turning off the power supply. Refer to page E-71 for details.

◇ Selecting Based on Frequency of Use

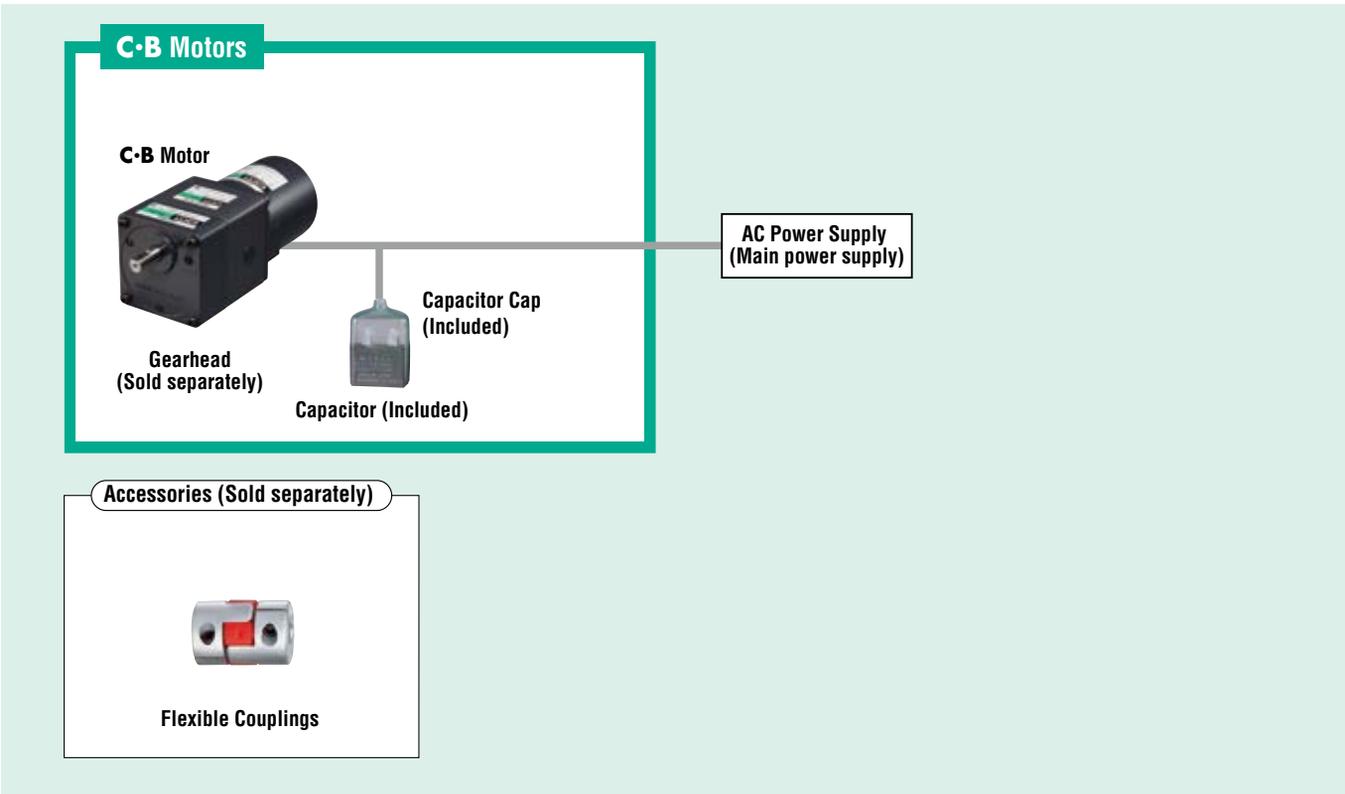


Note

- The operating cycles are based merely on brake response. The value specified above is the maximum, so it may not be possible to repeat braking operation at this frequency.
- In an actual application, be certain the surface temperature of the motor case remains at 90°C (194°F) or less by considering a rise in motor temperature.

● For low-speed synchronous motors, if operated within the permissible load inertia, the motor can start, stop and reverse within 1.5 cycles of power supply frequency. Refer to page E-71 for details.

System Configuration



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Product Number

Motor

CB I 5 40 - 7 0 1W U

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

①	CB: Clutch & Brake Motor
②	Motor Type I: Induction Motor
③	Motor Frame Size 5: 90 mm (3.54 in.)
④	Output Power (W) (Example) 40: 40 W (1/19 HP)
⑤	Type of Pinion 7: GC Type Pinion Shaft 8: GCH Type Pinion Shaft
⑥	Clutch Brake Type O: Power On Activated Type
⑦	Power Supply Voltage 1W: Single-Phase 110/115 VAC
⑧	Included Capacitor U: For Single-Phase 110/115 VAC

Gearhead

5 GC 30 KA

① ② ③ ④

①	Gearhead Frame Size 5: 90 mm (3.54 in.)
②	Type of Pinion GC: GC Type Pinion Shaft GCH: GCH Type Pinion Shaft
③	Gear Ratio (Example) 30: Gear Ratio of 30:1
④	Type of Gearhead KA: Ball Bearing Type (inch size)

Product Line

Motor

Output Power	Power Supply Voltage	Product Name	Motor Product Name	List Price
40 W (1/19 HP)	Single-Phase 110/115 VAC	CB1540-701WU	5IK40GN-AW-CB1	\$469.00
60 W (1/12 HP)		CB1560-801WU	5IK60GU-AW-CB1	\$487.00
90 W (1/8 HP)		CB1590-801WU	5IK90GU-AW-CB1	\$511.00

● When the motor is approved under various standards, the product name on the nameplate is the approved product name.
(Example) Model: **CB1540-701WU** → Motor nameplate and product approved under various standards: 5IK40GN-AW-CB1

Note

- The **GC** and **GCH** type gearheads are designed specifically for use with the **C-B** motor. Other types of gearheads should not be used.
- The clutch and brake sections cannot be disassembled.

The following items are included with each product.

Motor, Capacitor, Capacitor Cap,
Surge Suppressor, Operating Manual

Gearhead (Sold separately)

Applicable Motor Output Power	Product Name	Gear Ratio	List Price
40 W (1/19 HP)	5GC□KA	3.6, 6, 9, 15, 18	\$76.00
		30, 36	\$84.00
		60, 90, 120, 180	\$91.00
60 W (1/12 HP) 90 W (1/8 HP)	5GCH□KA	3.6, 6, 9	\$117.00
		15, 18	\$131.00
		30, 36, 60	\$143.00
		90, 120, 180	\$149.00

● A number indicating the gear ratio is entered where the box □ is located within the product name.

The following items are included with each product.

Gearhead, Installation Screws, Parallel Key*, Operating Manual
*Only for **5GCH□KA**

For details (specifications, characteristics, dimensions and more) on these products, please either refer to our website or contact technical support or your nearest Oriental Motor sales office.

www.orientalmotor.com

