

Standard AC Motors

Constant Speed Motors

Reversible Motors

Reversible Motors

Overview, Product Series

Constant Speed Motors

Three-Phase Induction Motors

Single-Phase Induction Motors

Reversible Motors

Electromagnetic Brake Motors

Clutch & Brake Motors

Low-Speed Synchronous Motors

Torque Motors

Watertight, Dust-Resistant Motors

Right-Angle Gearheads

Linear Heads

Brake Pack

Accessories

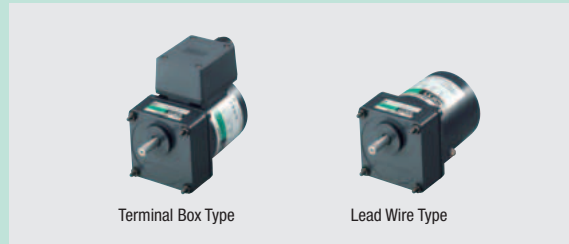
Installation

Reversible Motors

For details on this product please refer to our website.
www.orientalmotor.com/catalog



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



Terminal Box Type

Lead Wire Type



View Expanded Product Information, Specifications, CAD, Accessories & more online. Visit www.orientalmotor.com/catalog or use the QR code and select "Reversible Motors".

- Ideal for Bi-Directional Operation
- Conforms to Standards
- Compatible with Gearheads or Linear Heads

Features of Reversible Motors

● Ideal for Bi-Directional Operation

Reversible motors have a 30 minute rating to permit instantaneous switching of the rotational direction. A friction brake is equipped at the back of the motor, which makes reversible motors an ideal choice for applications where the rotational direction changes.

- 30 minute rating: The motors may be operated continuously for 30 minutes, but depending on operating conditions (intermittent operation, etc.), they can be operated for more than 30 minutes.

● Easy Operation

All you need is to connect a capacitor and plug the motor into an AC power supply and the motor can be easily operated.

● Extensive Lineup



We have models with an output power range of 1 W (1/750 HP) to 90 W (1/8 HP), so you can find a motor that meets your specific application.

● Compatible with Gearheads or Linear Heads

Combination with a gearhead allows the motor speed to be reduced to the required speed or generate higher torque.

Combination with a linear head allows the motor to convert rotation to linear motion with great ease.

Types of Reversible Motors

Series	Features, Lineup						
<p>World K Series</p> 	<ul style="list-style-type: none"> ● Conforms to Standards All World K Series models have an overheat protection device built-in and conform to major standards. ● Applicable Standards UL/CSA Standards Certified under the China Compulsory Certification System (CCC System) CE Marking (Low Voltage Directive) ● Motor Overheat Protection Device Thermal protector, Impedance protected ● Global Voltage Specifications The World K Series supports the power supply voltages used in major countries. Motors meeting the local voltage standard are readily available in major countries in Europe, Asia and North America. ● The Motor Bearing Life is Twice as Long as a Conventional Type A motor's life is determined by its bearing. We adopted high-performance bearing grease to lubricate this important component. As a result, the bearings of World K Series motors last twice as long as conventional bearings. [Excluding 1 W (1/750 HP) type.] ● Protective Earth Terminal on the Motor  <p style="text-align: center;">Protective Earth Terminal</p> <ul style="list-style-type: none"> ● Lineup <table border="1" data-bbox="990 1764 1508 1900"> <tr> <td>Frame Size</td> <td>□42 mm (□1.65 in.)~□90 mm (□3.54 in.)</td> </tr> <tr> <td>Output Power</td> <td>Terminal Box Type: 25 W~90 W (1/30 HP~1/8 HP) Lead Wire Type: 1 W~90 W (1/750 HP~1/8 HP)</td> </tr> <tr> <td>Voltage</td> <td>Single-Phase 110/115 VAC Single-Phase 220/230 VAC</td> </tr> </table>	Frame Size	□42 mm (□1.65 in.)~□90 mm (□3.54 in.)	Output Power	Terminal Box Type: 25 W~90 W (1/30 HP~1/8 HP) Lead Wire Type: 1 W~90 W (1/750 HP~1/8 HP)	Voltage	Single-Phase 110/115 VAC Single-Phase 220/230 VAC
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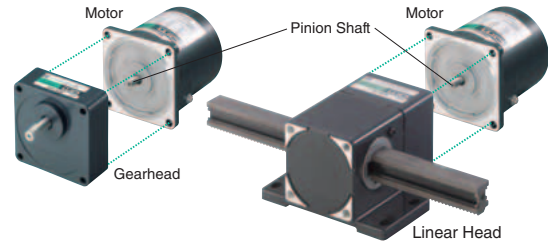
Features of Gearheads and Linear Heads

● Gearheads: Easy Speed Reduction and Torque Increase

Combination with a gearhead allows the motor speed to be reduced to the required speed or generate higher torque. Gearheads come in various types including the long life, low noise gearhead and right-angle gearhead.


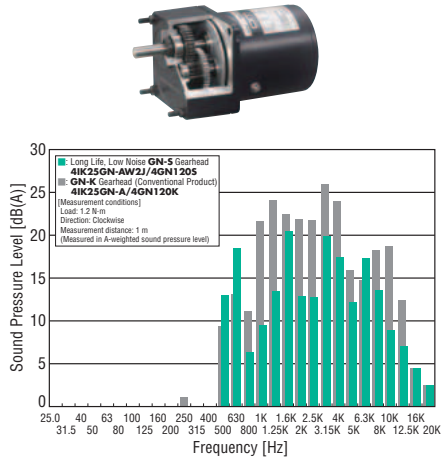



● Linear Heads: Convert Motor Rotation to Linear Motion

Combination with a linear head allows the motor to convert rotation to linear motion with great ease. Linear heads are available with a square sectioned rack.



- Combine gearheads and linear heads with a pinion shaft type motor.
- Gearheads and linear heads are sold separately.

Types of Gearheads and Linear Heads

Types	Features	
<p>Long Life, Low Noise GN-S Gearhead</p> 	<ul style="list-style-type: none"> ● Long Rated Life of 10000 Hours The GN-S gearhead achieves a long rated life of 10000 hours, twice the level of a conventional gearhead, by adopting a large, specially designed bearing and reinforced gears. ● Low Noise Design The GN-S gearhead generates less noise thanks to gears with a special shape and surface machining assembled with the use of advanced technology. ● Applicable Products 6 W (1/125 HP), 15 W (1/50 HP), 25 W (1/30 HP) or 40 W (1/19 HP) GN pinion motor 	 <p>The graph shows Sound Pressure Level [dB(A)] vs Frequency [Hz]. The GN-S gearhead (green bars) shows significantly lower noise levels compared to the conventional GN-K gearhead (grey bars) across the frequency spectrum.</p>
<p>Long Life GE-S Gearhead</p> 	<ul style="list-style-type: none"> ● Long Rated Life of 10000 Hours The GE-S gearhead achieves a long rated life of 10000 hours, twice the level of a conventional gearhead, by adopting a large, specially designed bearing and reinforced gears. ● The GE-S gearhead comes with a tapped hole at the tip of the output shaft. 	<ul style="list-style-type: none"> ● Applicable Products 60 W (1/12 HP) or 90 W (1/8 HP) GE pinion motor
<p>Right-Angle Gearhead → Page C-181</p> 	<ul style="list-style-type: none"> ● Ideal Space-Saving Solution The gear shaft is positioned at right angles with the motor shaft, enabling space-saving. ● Applicable Products 25 W (1/30 HP), 40 W (1/19 HP), 60 W (1/12 HP) or 90 W (1/8 HP) pinion motor 	<ul style="list-style-type: none"> ● Hollow Shaft and Solid Shaft Types are Available Select an appropriate type that suits your specific application. ● Solid shaft type of GE pinion gearhead comes with a tapped hole at the tip of the output shaft.
<p>Rack-and-Pinion Mechanism LS Linear Heads → Page C-185</p> 	<ul style="list-style-type: none"> ● Easy to Achieve Linear Motion A rack-and-pinion mechanism is combined with a reduction mechanism, which allows the motor to convert rotation to linear motion with great ease. 	

Overview, Product Series

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Right-Angle Gearheads

Linear Heads

Brake Pack

Accessories

Installation

Product Line of Reversible Motors

Series	Voltage (VAC)	Type	Motor Frame Size, Output Power						
			□42 mm (□1.65 in.)	□60 mm (□2.36 in.)	□70 mm (□2.76 in.)	□80 mm (□3.15 in.)	□90 mm (□3.54 in.)		
			1 W (1/750 HP)	6 W (1/125 HP)	15 W (1/50 HP)	25 W (1/30 HP)	40 W (1/19 HP)	60 W (1/12 HP)	90 W (1/8 HP)
World K Series	Single-Phase 110/115	Terminal Box				●	●	●	●
		Lead Wire	●	●	●	●	●	●	●
	Single-Phase 220/230	Terminal Box				●	●	●	●
		Lead Wire		●	●	●	●	●	●

Product Line of Gearheads and Linear Heads

● Gearheads

Gearhead		Type of Pinion	Series	Applicable Motor		Rated Life (hours)	Low Noise
Type of Gearhead	Type of Pinion			Output Power	Type of Pinion		
Parallel Shaft	Long Life, Low Noise GN-S Gearhead	GN Type Pinion Shaft	World K Series	6 W~40 W (1/125 HP~1/19 HP)	GN Type Pinion Shaft	10000	●
	GN-K Gearhead	GN Type Pinion Shaft	World K Series	1 W (1/750 HP)	GN Type Pinion Shaft	5000	
	Long Life GE-S Gearhead	GE Type Pinion Shaft	World K Series	60 W, 90 W (1/12 HP, 1/8 HP)	GE Type Pinion Shaft	10000	
Right-Angle Shaft	Hollow Shaft Gearhead	GN Type Pinion Shaft	World K Series	25 W, 40 W (1/30 HP, 1/19 HP)	GN Type Pinion Shaft	5000	
		GE Type Pinion Shaft	World K Series	60 W, 90 W (1/12 HP, 1/8 HP)	GE Type Pinion Shaft	5000	
	Solid Shaft Gearhead	GN Type Pinion Shaft	World K Series	25 W, 40 W (1/30 HP, 1/19 HP)	GN Type Pinion Shaft	5000	
		GE Type Pinion Shaft	World K Series	60 W, 90 W (1/12 HP, 1/8 HP)	GE Type Pinion Shaft	5000	

● Linear Heads

Type of Linear Head		Applicable Motor		
		Series	Output Power	Type of Pinion
Square Sectioned Rack	LS Linear Head	World K Series	6 W, 25 W (1/125 HP, 1/30 HP)	GN Type Pinion Shaft

System Configuration

Gearheads and Linear Heads (Sold separately)

Parallel Shaft Gearheads



Right-Angle Gearheads (→ Page C-181)

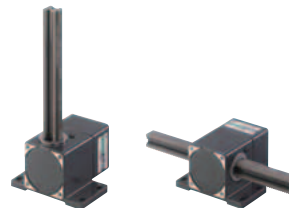
Hollow Shaft Type



Solid Shaft Type



Linear Heads (→ Page C-185)



Reversible Motors

Motor
(Pinion Shaft)



Capacitor Cap
(Included)



Capacitor (Included)

AC Power Supply
(Main power supply)

Peripheral Equipment (Sold separately)

Brake Pack
SB50W
(→ Page C-191)



Accessories (Sold separately)



Mounting Brackets



Flexible Couplings



CR Circuit for
Surge Suppression

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Product
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Electromagnetic
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Clutch &
Brake Motors

Low-Speed
Synchronous
Motors

Torque
Motors

Watertight,
Dust-Resistant
Motors

Right-Angle
Gearheads

Linear
Heads

Brake Pack

Accessories

Installation

Product Number

● World K Series

5 R K 40 GN - AW 2 T U

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

①	Motor Frame Size	0: 42 mm (1.65 in.) 2: 60 mm (2.36 in.) 3: 70 mm (2.76 in.) 4: 80 mm (3.15 in.) 5: 90 mm (3.54 in.)
②	Motor Type	R: Reversible Motor
③	Series	K: K Series
④	Output Power (W)	(Example) 40: 40 W (1/19 HP)
⑤	Motor Shaft Type, Type of Pinion	A: Round Shaft GN: GN Type Pinion Shaft GE: GE Type Pinion Shaft
⑥	Power Supply Voltage	AW: Single-Phase 110/115 VAC CW: Single-Phase 220/230 VAC
⑦	2, 3: RoHS-Compliant	
⑧	T: Terminal Box Type	
⑨	Included Capacitor	U: For Single-Phase 110/115 VAC E: For Single-Phase 220/230 VAC

● The **U** and **E** at the end of the product name indicate that the unit includes a capacitor. These letters are not listed on the motor nameplate. When the motor is approved under various standards, the product name on the nameplate is the approved product name.
 (Example) Model: **5RK40GN-AW2U** → Motor nameplate and product approved under various standards: **5RK40GN-AW2**

● Gearhead

5 GN 50 SA

① ② ③ ④

①	Gearhead Frame Size	0: 42 mm (1.65 in.) 2: 60 mm (2.36 in.) 3: 70 mm (2.76 in.) 4: 80 mm (3.15 in.) 5: 90 mm (3.54 in.)
②	Type of Pinion	GN: GN Type Pinion GE: GE Type Pinion
③	Gear Ratio	(Example) 50: Gear Ratio of 50:1 10X denotes the decimal gearhead of gear ratio 10:1
④	GN Type Pinion	SA: Long Life, Low Noise GN-S Gearhead KA: GN-K Gearhead RH: Right-Angle, Hollow Shaft Gearhead RAA: Right-Angle, Solid Shaft Gearhead
	GE Type Pinion	SA: Long Life GE-S Gearhead RH: Right-Angle, Hollow Shaft Gearhead RAA: Right-Angle, Solid Shaft Gearhead

Product Line

● Motor, Terminal Box Type

Output Power	Power Supply Voltage	Product Name		List Price
		Pinion Shaft Type	Round Shaft Type	
25 W (1/30 HP)	Single-Phase 110/115 VAC	4RK25GN-AW2TU	4RK25A-AW2TU	\$130.00
	Single-Phase 220/230 VAC	4RK25GN-CW2TE	4RK25A-CW2TE	\$134.00
40 W (1/19 HP)	Single-Phase 110/115 VAC	5RK40GN-AW2TU	5RK40A-AW2TU	\$150.00
	Single-Phase 220/230 VAC	5RK40GN-CW2TE	5RK40A-CW2TE	\$155.00
60 W (1/12 HP)	Single-Phase 110/115 VAC	5RK60GE-AW2TU	5RK60A-AW2TU	\$169.00
	Single-Phase 220/230 VAC	5RK60GE-CW2TE	5RK60A-CW2TE	\$174.00
90 W (1/8 HP)	Single-Phase 110/115 VAC	5RK90GE-AW2TU	5RK90A-AW2TU	\$191.00
	Single-Phase 220/230 VAC	5RK90GE-CW3TE	5RK90A-CW3TE	\$196.00

● Motor, Lead Wire Type

Output Power	Power Supply Voltage	Product Name		List Price
		Pinion Shaft Type	Round Shaft Type	
1 W (1/750 HP)	Single-Phase 110/115 VAC	0RK1GN-AW3U	0RK1A-AW3U	\$87.00
6 W (1/125 HP)	Single-Phase 110/115 VAC	2RK6GN-AW2U	2RK6A-AW2U	\$80.00
	Single-Phase 220/230 VAC	2RK6GN-CW2E	2RK6A-CW2E	\$82.00
15 W (1/50 HP)	Single-Phase 110/115 VAC	3RK15GN-AW2U	3RK15A-AW2U	\$87.00
	Single-Phase 220/230 VAC	3RK15GN-CW2E	3RK15A-CW2E	\$88.00
25 W (1/30 HP)	Single-Phase 110/115 VAC	4RK25GN-AW2U	4RK25A-AW2U	\$97.00
	Single-Phase 220/230 VAC	4RK25GN-CW2E	4RK25A-CW2E	\$100.00
40 W (1/19 HP)	Single-Phase 110/115 VAC	5RK40GN-AW2U	5RK40A-AW2U	\$116.00
	Single-Phase 220/230 VAC	5RK40GN-CW2E	5RK40A-CW2E	\$120.00
60 W (1/12 HP)	Single-Phase 110/115 VAC	5RK60GE-AW2U	5RK60A-AW2U	\$137.00
	Single-Phase 220/230 VAC	5RK60GE-CW2E	5RK60A-CW2E	\$142.00
90 W (1/8 HP)	Single-Phase 110/115 VAC	5RK90GE-AW2U	5RK90A-AW2U	\$157.00
	Single-Phase 220/230 VAC	5RK90GE-CW3E	5RK90A-CW3E	\$162.00

The following items are included with each product.
 Motor, Capacitor, Capacitor Cap, Operating Manual

● Parallel Shaft Gearhead (Sold separately)

Gearhead Type	Product Name	Gear Ratio	List Price	
GN-K Gearhead	0GN□KA	3, 3.6, 5, 6, 7.5, 9	\$60.00	
		12.5, 15, 18	\$66.00	
		25, 30, 36, 50, 60	\$72.00	
		75, 90, 100, 120, 150, 180	\$80.00	
Long Life, Low Noise GN-S Gearhead	2GN□SA	3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18	\$76.00	
		25, 30, 36	\$83.00	
		50, 60, 75, 90, 100, 120, 150, 180	\$91.00	
	2GN10XS (Decimal Geahead)			\$77.00
	3GN□SA	3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18	\$81.00	
		25, 30, 36	\$89.00	
		50, 60, 75, 90, 100, 120, 150, 180	\$97.00	
	3GN10XS (Decimal Geahead)			\$82.00
	4GN□SA	3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18	\$83.00	
		25, 30, 36	\$90.00	
		50, 60, 75, 90, 100, 120, 150, 180	\$99.00	
	4GN10XS (Decimal Geahead)			\$84.00
5GN□SA	3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18	\$97.00		
	25, 30, 36	\$107.00		
	50, 60, 75, 90, 100, 120, 150, 180	\$118.00		
5GN10XS (Decimal Geahead)			\$103.00	
Long Life GE-S Gearhead	5GE□SA	3, 3.6, 5, 6, 7.5, 9	\$138.00	
		12.5, 15, 18	\$151.00	
		25, 30, 36, 50, 60	\$163.00	
		75, 90, 100, 120, 150, 180	\$174.00	
	5GE10XS (Decimal Geahead)			\$154.00

● Right-Angle Gearhead (Sold separately)

Gearhead Type	Product Name	Gear Ratio	List Price	
Hollow Shaft	4GN□RH	3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18	\$96.00	
		25, 30, 36	\$103.00	
		50, 60, 75, 90, 100, 120, 150, 180	\$113.00	
	5GN□RH	3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18	\$123.00	
		25, 30, 36	\$137.00	
		50, 60, 75, 90, 100, 120, 150, 180	\$147.00	
	5GE□RH	3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18, 25	\$189.00	
		30, 36, 50, 60	\$209.00	
		75, 90, 100, 120, 150, 180	\$225.00	
	Solid Shaft	4GN□RAA	3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18	\$81.00
			25, 30, 36	\$89.00
			50, 60, 75, 90, 100, 120, 150, 180	\$98.00
5GN□RAA		3, 3.6, 5, 6, 7.5, 9, 12.5, 15, 18	\$108.00	
		25, 30, 36	\$116.00	
		50, 60, 75, 90, 100, 120, 150, 180	\$131.00	
5GE□RAA		3, 3.6, 5, 6, 7.5, 9	\$165.00	
		12.5, 15, 18	\$167.00	
		25	\$172.00	
		30, 36, 50, 60	\$179.00	
		75, 90, 100, 120, 150, 180	\$194.00	

The following items are included with each product.

- Parallel Shaft Gearhead
Gearhead, Installation Screws, Parallel Key*, Operating Manual
 - Hollow Shaft Gearhead
Gearhead, Installation Screws, Parallel Key, Safety Cover (with screws), Gasket, Operating Manual
 - Solid Shaft Gearhead
Gearhead, Installation Screws, Parallel Key*, Gasket, Operating Manual
- *Only for the products with a key slot on the output shaft.

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Dust-Resistant
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Right-Angle
Gearheads

Linear
Heads

Brake Pack

Accessories

Installation



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

www.orientalmotor.com/catalog

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

