

Standard AC Motors

Constant Speed Motors

Electromagnetic Brake Motors

Electromagnetic Brake 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

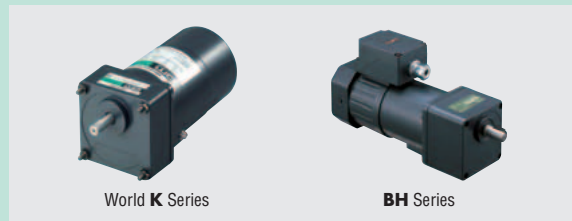
Installation

Electromagnetic Brake 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.



World **K** Series

BH Series



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

- Power Off Activated Type Electromagnetic Brake Equipped
- Ideal for Applications Required Load Holding
- Compatible with Gearheads or Linear Heads

Features of Electromagnetic Brake Motors


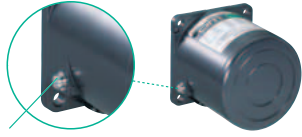

● Power Off Activated Type Electromagnetic Brake Equipped

An AC power off activated type electromagnetic brake is equipped to allow the motor to stop instantaneously when the power is cut off, while still holding the load in position.

● Ideal for Applications Required Load Holding

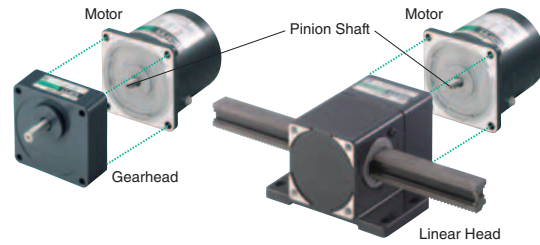
This configuration is ideal for vertical applications in which the load must be held.

Types of Electromagnetic Brake 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 	<ul style="list-style-type: none"> ● Protective Earth Terminal on the Motor  <p>Protective Earth Terminal</p> ● Lineup <table border="1" data-bbox="990 1381 1464 1516"> <tr> <td>Frame Size</td> <td>□60 mm (□2.36 in.)~□90 mm (□3.54 in.)</td> </tr> <tr> <td>Output Power</td> <td>6 W~90 W (1/125 HP~1/8 HP)</td> </tr> <tr> <td>Voltage</td> <td>Three-Phase 220/230 VAC Single-Phase 110/115 VAC Single-Phase 220/230 VAC</td> </tr> </table> 	Frame Size	□60 mm (□2.36 in.)~□90 mm (□3.54 in.)	Output Power	6 W~90 W (1/125 HP~1/8 HP)	Voltage	Three-Phase 220/230 VAC Single-Phase 110/115 VAC Single-Phase 220/230 VAC		
Frame Size	□60 mm (□2.36 in.)~□90 mm (□3.54 in.)									
Output Power	6 W~90 W (1/125 HP~1/8 HP)									
Voltage	Three-Phase 220/230 VAC Single-Phase 110/115 VAC Single-Phase 220/230 VAC									
<p>BH Series</p> 	<ul style="list-style-type: none"> ● Smallest Frame Size among 200 W (1/4 HP) Motors These motors achieve a high output of 200 W (1/4 HP) with a frame size of 104 mm (4.09 in.). ● Hypoid Gear Right Angle Type is Available. ● “Combination Type” for Easy Installation ● Conforms to Standards and Global Voltage Specifications 	<ul style="list-style-type: none"> ● Tapped Hole at the Output Shaft End ● Lineup <table border="1" data-bbox="990 1642 1464 1852"> <tr> <td>Frame Size</td> <td>□104 mm (□4.09 in.)</td> </tr> <tr> <td>Output Power</td> <td>200 W (1/4 HP)</td> </tr> <tr> <td>Type</td> <td>Right-Angle, Hollow Shaft Type, Right-Angle, Solid Shaft Type, Parallel Shaft Type, Round Shaft Type</td> </tr> <tr> <td>Voltage</td> <td>Three-Phase 220/230 VAC Single-Phase 110/115 VAC Single-Phase 220/230 VAC</td> </tr> </table> 	Frame Size	□104 mm (□4.09 in.)	Output Power	200 W (1/4 HP)	Type	Right-Angle, Hollow Shaft Type, Right-Angle, Solid Shaft Type, Parallel Shaft Type, Round Shaft Type	Voltage	Three-Phase 220/230 VAC Single-Phase 110/115 VAC Single-Phase 220/230 VAC
Frame Size	□104 mm (□4.09 in.)									
Output Power	200 W (1/4 HP)									
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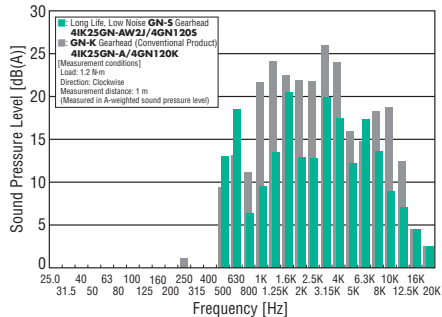



Features of Gearheads and Linear Heads

- **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.
- **BH Series** comes with the gearhead pre-assembled.

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>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

Constant Speed Induction Motors

Three-Phase Induction Motors

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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

Product Line of Electromagnetic Brake Motors

Series	Voltage (VAC)	Motor Frame Size, Output Power						
		□60 mm (□2.36 in.)	□70 mm (□2.76 in.)	□80 mm (□3.15 in.)	□90 mm (□3.54 in.)		□104 mm (□4.09 in.)	
		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)	200 W (1/4 HP)
World K Series	Three-Phase 220/230	●	●	●	●	●	●	
	Single-Phase 110/115	●	●	●	●	●	●	
	Single-Phase 220/230	●	●	●	●	●	●	
BH Series	Three-Phase 220/230							●
	Single-Phase 110/115							●
	Single-Phase 220/230							●

Product Line of Gearheads and Linear Heads

● Gearheads

Gearhead		Applicable Motor			Rated Life (hours)	Low Noise	
Type of Gearhead	Type of Pinion	Series	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	●
	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)

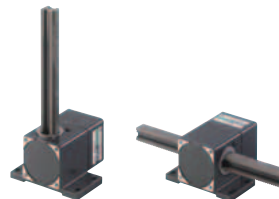
Hollow Shaft Type



Solid Shaft Type



Linear Heads (→ Page C-185)



Electromagnetic Brake Motors

Motor
(Pinion Shaft)



Capacitor Cap
(Included)



Capacitor (Included)

Peripheral Equipment (Sold separately)

Brake Pack
SB50W
(→ Page C-191)



Programmable
Controller*

AC Power Supply
(Main power supply)

24 VDC Power
Supply* (For signal)

Accessories (Sold separately)



Mounting Brackets



Flexible Couplings



CR Circuit for
Surge Suppression

* Not supplied

Overview,
Product
Series

Constant
Speed
Motors

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Electromagnetic
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Clutch &
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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 M U

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

①	Motor Frame Size	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	I: Induction Motor 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	SW: Three-Phase 220/230 VAC AW: Single-Phase 110/115 VAC CW: Single-Phase 220/230 VAC
⑦		2: RoHS-Compliant
⑧		M: Power Off Activated Type Electromagnetic Brake
⑨	Included Capacitor	U: For Single-Phase 110/115 VAC E: For Single-Phase 220/230 VAC Blank: Three-Phase Type

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-AW2MU** → Motor nameplate and product approved under various standards: **5RK40GN-AW2M**

Gearhead

5 GN 50 SA

① ② ③ ④

①	Gearhead Frame Size	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 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

BH Series

BH I 6 2 F M T - 100 RH

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

①	Series	BH: BH Series
②	Motor Type	I: Induction Motor
③	Motor Frame Size	6: 104 mm (4.09 in.)
④	Output Power (W)	(Example) 2: 200 W (1/4 HP)
⑤	Power Supply Voltage	S: Three-Phase 220/230 VAC F: Single-Phase 110/115 VAC E: Single-Phase 220/230 VAC
⑥		M: Power Off Activated Type Electromagnetic Brake
⑦		T: Terminal Box Type
⑧	Gear Ratio, Motor Shaft Type	A: Round Shaft Type Number: Gear Ratio of Combination Type
⑨	Type of Gearhead (Combination type only)	RH: Right-Angle, Hollow Shaft Type RA: Right-Angle, Solid Shaft Type Blank: Parallel Shaft Type

Product Line

World K series

Motor

Output Power	Power Supply Voltage	Product Name		List Price
		Pinion Shaft Type	Round Shaft Type	
6 W (1/125 HP)	Three-Phase 220/230 VAC	2IK6GN-SW2M	2IK6A-SW2M	\$178.00
	Single-Phase 110/115 VAC	2RK6GN-AW2MU	2RK6A-AW2MU	\$175.00
	Single-Phase 220/230 VAC	2RK6GN-CW2ME	2RK6A-CW2ME	\$178.00
15 W (1/50 HP)	Three-Phase 220/230 VAC	3IK15GN-SW2M	3IK15A-SW2M	\$197.00
	Single-Phase 110/115 VAC	3RK15GN-AW2MU	3RK15A-AW2MU	\$193.00
	Single-Phase 220/230 VAC	3RK15GN-CW2ME	3RK15A-CW2ME	\$197.00
25 W (1/30 HP)	Three-Phase 220/230 VAC	4IK25GN-SW2M	4IK25A-SW2M	\$222.00
	Single-Phase 110/115 VAC	4RK25GN-AW2MU	4RK25A-AW2MU	\$218.00
	Single-Phase 220/230 VAC	4RK25GN-CW2ME	4RK25A-CW2ME	\$222.00
40 W (1/19 HP)	Three-Phase 220/230 VAC	5IK40GN-SW2M	5IK40A-SW2M	\$278.00
	Single-Phase 110/115 VAC	5RK40GN-AW2MU	5RK40A-AW2MU	\$274.00
	Single-Phase 220/230 VAC	5RK40GN-CW2ME	5RK40A-CW2ME	\$278.00
60 W (1/12 HP)	Three-Phase 220/230 VAC	5IK60GE-SW2M	5IK60A-SW2M	\$312.00
	Single-Phase 110/115 VAC	5RK60GE-AW2MU	5RK60A-AW2MU	\$306.00
	Single-Phase 220/230 VAC	5RK60GE-CW2ME	5RK60A-CW2ME	\$312.00
90 W (1/8 HP)	Three-Phase 220/230 VAC	5IK90GE-SW2M	5IK90A-SW2M	\$352.00
	Single-Phase 110/115 VAC	5RK90GE-AW2MU	5RK90A-AW2MU	\$344.00
	Single-Phase 220/230 VAC	5RK90GE-CW2ME	5RK90A-CW2ME	\$352.00

The following items are included with each product.
 Motor, Capacitor*, Capacitor Cap*, Operating Manual
 *Only for single-phase motors

Parallel Shaft Gearhead (Sold separately)

Gearhead Type	Product Name	Gear Ratio	List Price
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.

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

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Reversible Motors

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Watertight, Dust-Resistant Motors

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Linear Heads

Brake Pack

Accessories

Installation

● **BH Series**

Combination Type The combination type comes with a motor and gearhead pre-assembled.
 The combination of motors and gearheads can be changed, and they are also available separately.
 In addition, the gearhead can be removed and the assembly position can be changed in 90° increments.

◇ **Combination Type, Right-Angle Shaft**

Output Power	Type	Power Supply Voltage	Product Name	Gear Ratio	List Price	
200 W (1/4 HP)	Hollow Shaft	Three-Phase 220/230 VAC	BHI62SMT-□RH	5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36	\$693.00	
				50, 60, 75, 90, 100, 120, 150, 180	\$713.00	
		Single-Phase 110/115 VAC	BHI62FMT-□RH	5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36	\$686.00	
					50, 60, 75, 90, 100, 120, 150, 180	\$706.00
		Solid Shaft	Three-Phase 220/230 VAC	BHI62SMT-□RA	5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36	\$693.00
	50, 60, 75, 90, 100, 120, 150, 180				\$713.00	
	Single-Phase 110/115 VAC		BHI62FMT-□RA	5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36	\$680.00	
					50, 60, 75, 90, 100, 120, 150, 180	\$700.00
			Single-Phase 220/230 VAC	BHI62EMT-□RA	5, 6, 7.5, 9, 12.5, 15, 18, 25, 30, 36	\$687.00
				50, 60, 75, 90, 100, 120, 150, 180	\$707.00	

The following items are included with each product.
 Motor, Gearhead, Capacitor*, Capacitor Cap*, Parallel Key, Operating Manual
 * Only for single-phase motors

◇ **Combination Type, Parallel Shaft**

Output Power	Power Supply Voltage	Product Name	Gear Ratio	List Price
200 W (1/4 HP)	Three-Phase 220/230 VAC	BHI62SMT-□	3, 3.6, 5, 6, 7.5, 9	\$632.00
			12.5, 15, 18, 25, 30, 36	\$641.00
			50, 60, 75, 90, 100, 120, 150, 180	\$651.00
	Single-Phase 110/115 VAC	BHI62FMT-□	3, 3.6, 5, 6, 7.5, 9	\$625.00
			12.5, 15, 18, 25, 30, 36	\$634.00
			50, 60, 75, 90, 100, 120, 150, 180	\$644.00
	Single-Phase 220/230 VAC	BHI62EMT-□	3, 3.6, 5, 6, 7.5, 9	\$632.00
			12.5, 15, 18, 25, 30, 36	\$641.00
			50, 60, 75, 90, 100, 120, 150, 180	\$651.00

The following items are included with each product.
 Motor, Gearhead, Capacitor*, Capacitor Cap*, Installation Screws, Parallel Key, Operating Manual
 * Only for single-phase motors

◇ **Round Shaft**

Output Power	Power Supply Voltage	Product Name	List Price
200 W (1/4 HP)	Three-Phase 220/230 VAC	BHI62SMT-A	\$481.00
	Single-Phase 110/115 VAC	BHI62FMT-A	\$474.00
	Single-Phase 220/230 VAC	BHI62EMT-A	\$481.00

The following items are included with each product.
 Motor, Capacitor*, Capacitor Cap*, Operating Manual
 * Only for single-phase motors

➔ 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.