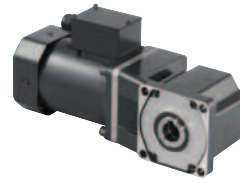


High Power Induction Motors BH Series

200 W

□ 104 mm



Right-Angle Hollow Shaft



Parallel Shaft

Features

● High Power 200 W

Smallest frame size among 200 W output power.

● Right-Angle Gearheads Employing Hypoid Gears

The right-angle gearheads employ hypoid gears. Hollow shafts and solid shafts are available to enable space saving.

● Tapped Hole at the Shaft End

The gearhead shafts feature a tapped hole for convenient connection with loads.

● "Combination Type" for Easy Mounting

The combination type comes with the motor and its dedicated gearhead pre-assembled. This enables easy mounting in equipment.

Combination Type:	This type comes with the motor and its dedicated gearhead pre-assembled. This simplifies installation in equipment. Motors and gearheads are also available separately to facilitate changes in motor and gearhead combinations and if spare gearheads are required.
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Specifications – Continuous Rating



Product Name and Type Combination Type (): Round Shaft Type	Output Power W	Voltage VAC	Frequency Hz	Current A	Starting Torque N-m	Rated Torque N-m	Rated Speed r/min	Capacitor μF
(TP) BHI62ET-□RH BHI62ET-□RA BHI62ET-□ (BHI62ET-A)	200	Single-Phase 220	50	1.5	0.98	1.52	1250	10
			60			1.27	1500	
		Single-Phase 230	50	1.52	1250			
			60	1.27	1500			
(TP) BHI62ST-□RH BHI62ST-□RA BHI62ST-□ (BHI62ST-A)	200	Three-Phase 200	50	1.1	1.49	1.49	1250	-
			60		1.25	1.25	1500	
		Three-Phase 220	60	0.95	1.23	1.23	1550	
					1.18	1.18	1600	
		Three-Phase 380	50	0.56	1.47	1.47	1300	
			60	0.54	1.24	1.24	1550	
Three-Phase 400	50	0.55	1.47	1.47	1300			
	60	0.52	1.24	1.24	1550			
(TP) BHI62UT2-□RH* BHI62UT2-□RA* BHI62UT2-□* (BHI62UT2-A*)	200	Three-Phase 415	50	0.54	1.47	1.47	1300	

● A number indicating the gear ratio is entered where the box □ is located within the product name. Also, the values in the table are characteristics for the motor only.

● Safety standards → Page H-2

* These products only conform to the China Compulsory Certification (CCC) System. The CE Marking is affixed.

Note

● A three-phase 400 VAC specification motor cannot be used with an inverter. Using them together may lead to deterioration of the motor winding insulation and damage the products.

(TP): This indicates that there is a built-in thermal protector (automatic return type). If a motor overheats for any reason, the thermal protector is activated and the motor is stopped. When the motor temperature drops, the thermal protector closes and the motor restarts. Be sure to turn the power supply off before inspecting.

● Degree of Protection

Product Name				Degree of Protection
Hollow Shaft Type	Solid Shaft Type	Parallel Shaft Type	Round Shaft Type	
BHI62ET-□RH BHI62ST-□RH BHI62UT2-□RH	BHI62ET-□RA BHI62ST-□RA BHI62UT2-□RA	BHI62ET-□ BHI62ST-□ BHI62UT2-□	BHI62ET-A* BHI62ST-A* BHI62UT2-A*	IP54

*Excluding the installation surface of the round shaft type.

Product Line

● Combination Type (RoHS)

◇ Right-Angle Shaft

Type	Power Supply Voltage	Product Name	Gear Ratio
Hollow Shaft Terminal Box Type	Single-Phase 220/230 VAC	BHI62ET-□RH	5~180
	Three-Phase 200/220/230 VAC	BHI62ST-□RH	5~180
	Three-Phase 380/400/415 VAC	BHI62UT2-□RH	5~180
Solid Shaft Terminal Box Type	Single-Phase 220/230 VAC	BHI62ET-□RA	5~180
	Three-Phase 200/220/230 VAC	BHI62ST-□RA	5~180
	Three-Phase 380/400/415 VAC	BHI62UT2-□RA	5~180

The following items are included in each product.

Motor, Gearhead, Capacitor*, Capacitor Cap*, Parallel Key, Operating Manual
*Single-phase motors only

● Round Shaft Type (RoHS)

Type	Power Supply Voltage	Product Name
Terminal Box Type	Single-Phase 220/230 VAC	BHI62ET-A
	Three-Phase 200/220/230 VAC	BHI62ST-A
	Three-Phase 380/400/415 VAC	BHI62UT2-A

The following items are included in each product.

Motor, Capacitor*, Capacitor Cap*, Operating Manual
*Single-phase motors only

◇ Parallel Shaft

Type	Power Supply Voltage	Product Name	Gear Ratio
Terminal Box Type	Single-Phase 220/230 VAC	BHI62ET-□	3~180
	Three-Phase 200/220/230 VAC	BHI62ST-□	3~180
	Three-Phase 380/400/415 VAC	BHI62UT2-□	3~180

The following items are included in each product.

Motor, Gearhead, Capacitor*, Capacitor Cap*, Mounting Screws, Parallel Key, Operating Manual
*Single-phase motors only

6 W

15 W

25 W

40 W

60 W

90 W

IP65 Terminal
Box Types
6 W to 40 W200 W
BH Series2-pole
40 W to 150 W

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

Permissible Torque of Combination Type

- A number indicating the gear ratio is entered where the box □ is located within the product name.
- A colored background □ indicates gear shaft rotation in the same direction as the motor shaft. Others rotate in the opposite direction.
- The speed is calculated by dividing the motor's synchronous speed (50 Hz: 1500 r/min, 60 Hz: 1800 r/min) by the gear ratio. The actual speed is 2 to 20% less than the displayed value, depending on the load.
- Decimal gearheads are not available.

Right-Angle Shaft - 50 Hz

Unit = N·m

Product Name	Speed r/min	300	250	200	167	120	100	83	60	50	42	30	25	20	17	15	12.5	10	8.3
	Gear Ratio	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180
BHI62ET-□RH, BHI62ET-□RA		5.5	6.7	8.3	10.0	13.9	16.6	20.0	27.7	33.3	36	40	43	47	51.5	54.5	60	60	60
BHI62ST-□RH, BHI62ST-□RA		5.4	6.5	8.2	9.8	13.6	16.3	19.6	27.2	32.6	36	40	43	47	51.5	54.5	60	60	60
BHI62UT2-□RH, BHI62UT2-□RA		5.4	6.4	8.0	9.7	13.4	16.1	19.3	26.8	32.2	36	40	43	47	51.5	54.5	60	60	60

Right-Angle Shaft - 60 Hz

Unit = N·m

Product Name	Speed r/min	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10
	Gear Ratio	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180
BHI62ET-□RH, BHI62ET-□RA		4.6	5.6	7.0	8.3	11.6	13.9	16.7	23.2	27.8	33.4	40	43	47	51.5	54.5	60	60	60
BHI62ST-□RH, BHI62ST-□RA (200 VAC)		4.6	5.5	6.8	8.2	11.4	13.7	16.4	22.8	27.4	32.9	40	43	47	51.5	54.5	60	60	60
BHI62ST-□RH, BHI62ST-□RA (220 VAC)		4.5	5.4	6.7	8.1	11.2	13.5	16.2	22.4	26.9	32.3	40	43	47	51.5	54.5	60	60	60
BHI62ST-□RH, BHI62ST-□RA (230 VAC)		4.3	5.2	6.5	7.8	10.8	12.9	15.5	21.5	25.8	31.0	40	43	47	51.5	54.5	60	60	60
BHI62UT2-□RH, BHI62UT2-□RA		4.5	5.4	6.8	8.1	11.3	13.6	16.3	22.6	27.2	32.6	40	43	47	51.5	54.5	60	60	60

Parallel Shaft - 50 Hz

Unit = N·m

Product Name	Speed r/min	500	417	300	250	200	167	120	100	83	60	50	42	30	25	20	17	15	12.5	10	8.3	
	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	
BHI62ET-□		4.1	4.9	6.8	8.2	10.3	12.3	16.3	19.6	23.5	32.7	39.2	40	40	40	40	40	40	40	40	40	40
BHI62ST-□		4.0	4.8	6.7	8.0	10.1	12.1	16.0	19.2	23.1	32.0	38.4	40	40	40	40	40	40	40	40	40	40
BHI62UT2-□		4.0	4.8	6.6	7.9	9.9	11.9	15.8	19.0	22.8	31.6	37.9	40	40	40	40	40	40	40	40	40	40

Parallel Shaft - 60 Hz

Unit = N·m

Product Name	Speed r/min	600	500	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10	
	Gear Ratio	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180	
BHI62ET-□		3.4	4.1	5.7	6.9	8.6	10.3	13.7	16.4	19.7	27.3	32.8	39.3	40	40	40	40	40	40	40	40	40
BHI62ST-□ (200 VAC)		3.4	4.1	5.6	6.8	8.4	10.1	13.4	16.1	19.4	26.9	32.3	38.7	40	40	40	40	40	40	40	40	40
BHI62ST-□ (220 VAC)		3.3	4.0	5.5	6.6	8.3	10.0	13.2	15.9	19.0	26.4	31.7	38.1	40	40	40	40	40	40	40	40	40
BHI62ST-□ (230 VAC)		3.2	3.8	5.3	6.4	8.0	9.6	12.7	15.2	18.3	25.4	30.4	36.5	40	40	40	40	40	40	40	40	40
BHI62UT2-□		3.3	4.0	5.6	6.7	8.4	10.0	13.3	16.0	19.2	26.7	32.0	38.4	40	40	40	40	40	40	40	40	40

Permissible Overhung Load and Permissible Thrust Load

Combination type → Page C-16

Round shaft type → Page C-16

Permissible Load Inertia: J of Gearhead

→ Page C-17

Dimensions (Unit = mm)

- Mounting screws are included with the combination type with a parallel shaft. Mounting screw dimensions → Page C-254
- A number indicating the gear ratio is entered where the box □ is located within the product name.

◇ Combination Type - Right-Angle Shaft, Hollow Shaft (Terminal box type)

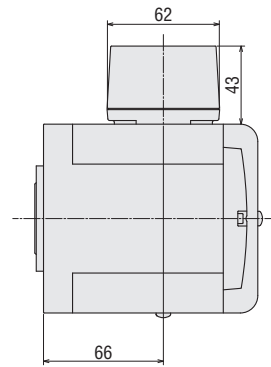
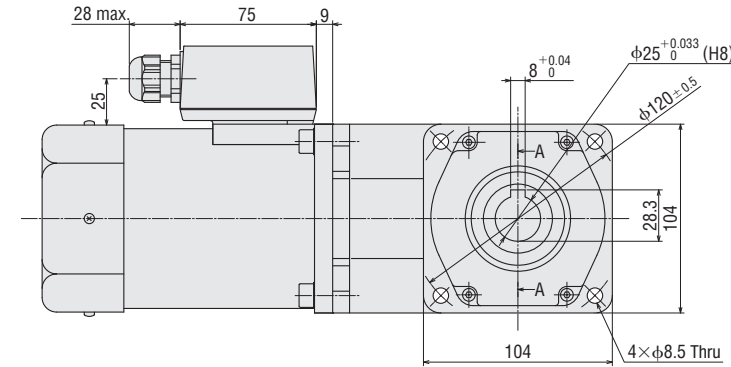
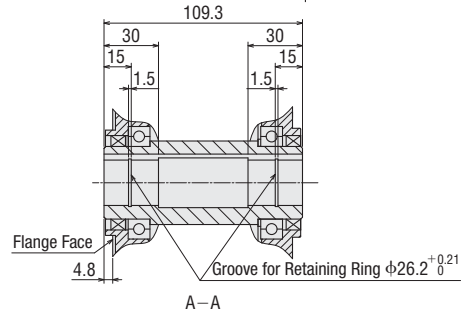
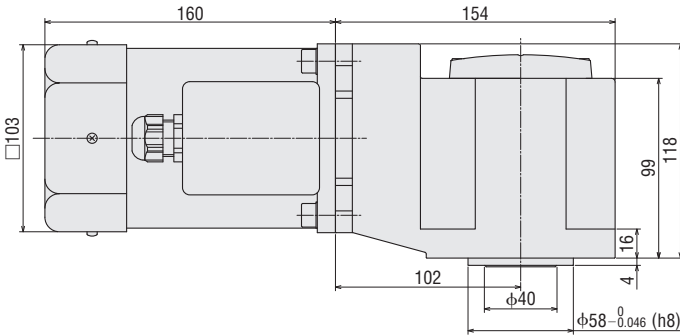
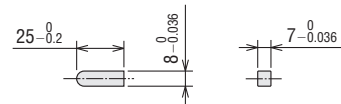
BHI62ET-□RH, BHI62ST-□RH

Motor: BHI62ET-G2, BHI62ST-G2

Gearhead: BH6G2-□RH

Mass: 10.0 kg

◇ Key (Included)



- Applicable cable diameter is φ6~φ12.
- Details of terminal box → Page C-255

◇ Combination Type - Right-Angle Shaft, Hollow Shaft (Terminal box type)

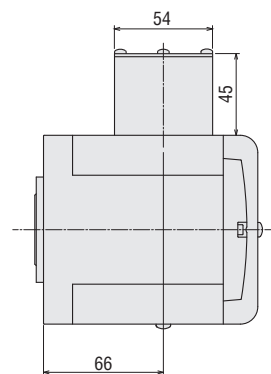
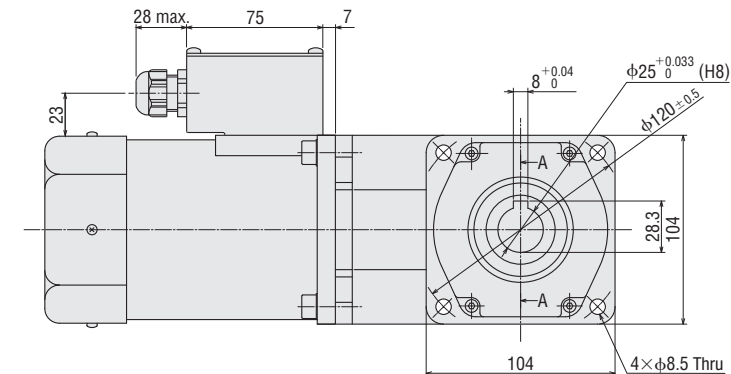
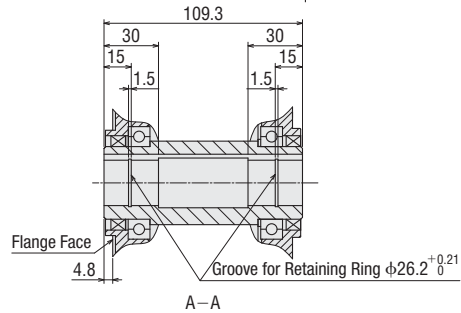
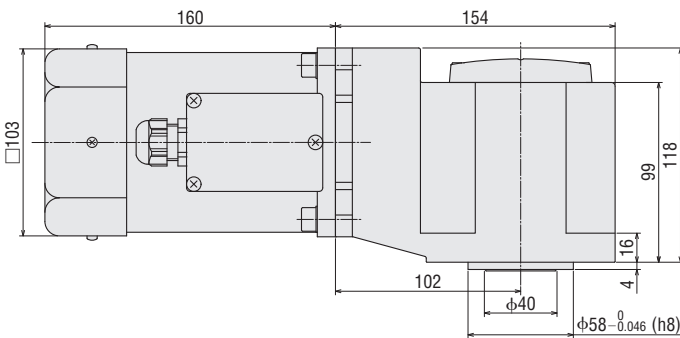
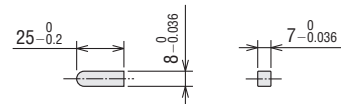
BHI62UT2-□RH

Motor: BHI62UT2-G2

Gearhead: BH6G2-□RH

Mass: 10.0 kg

◇ Key (Included)



- Applicable cable diameter is φ6~φ12.
- Details of terminal box → Page C-255

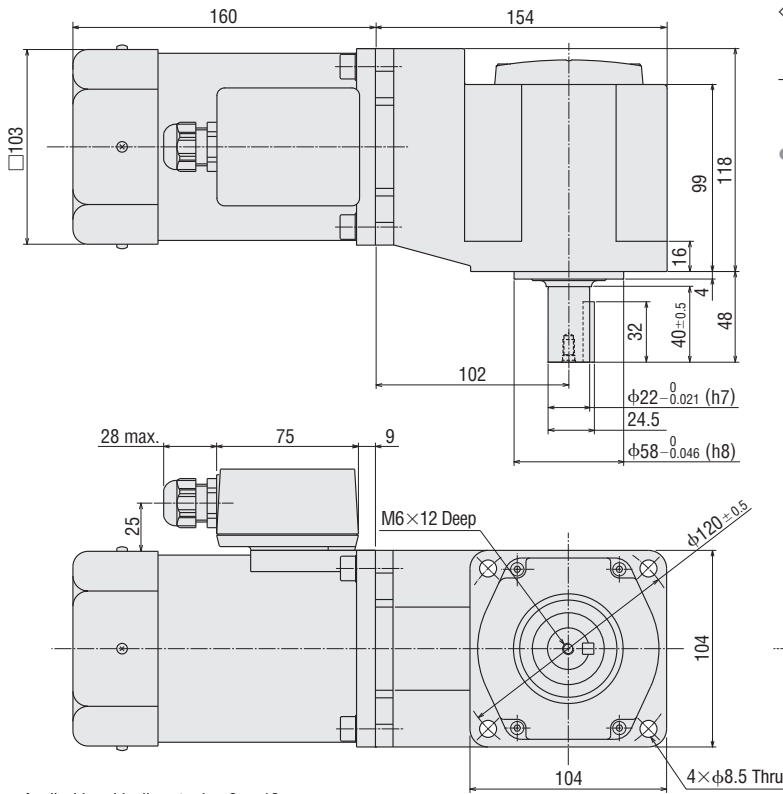
◇ Combination Type - Right-Angle Shaft, Solid Shaft (Terminal box type)

BHI62ET-□RA, BHI62ST-□RA

Motor: BHI62ET-G2, BHI62ST-G2

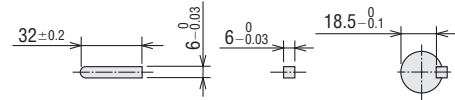
Gearhead: BH6G2-□RA

Mass: 10.0 kg



- Applicable cable diameter is $\phi 6 \sim \phi 12$.
- Details of terminal box → Page C-255

◇ Key and Key Slot (Included)



- At the time of shipment, a key is inserted in the key slot of the gearhead shaft.

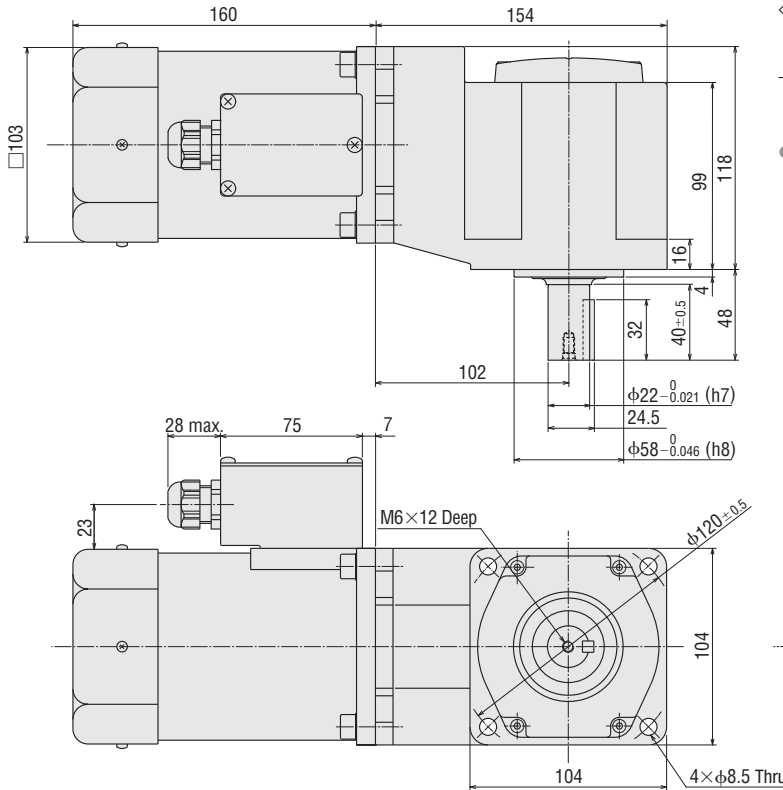
◇ Combination Type - Right-Angle Shaft, Solid Shaft (Terminal box type)

BHI62UT2-□RA

Motor: BHI62UT2-G2

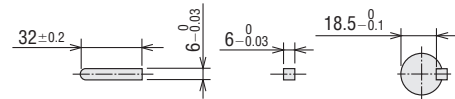
Gearhead: BH6G2-□RA

Mass: 10.0 kg



- Applicable cable diameter is $\phi 6 \sim \phi 12$.
- Details of terminal box → Page C-255

◇ Key and Key Slot (Included)



- At the time of shipment, a key is inserted in the key slot of the gearhead shaft.

◇ Combination Type - Parallel Shaft (Terminal box type)

BHI62ET-□

BHI62ST-□

Motor:

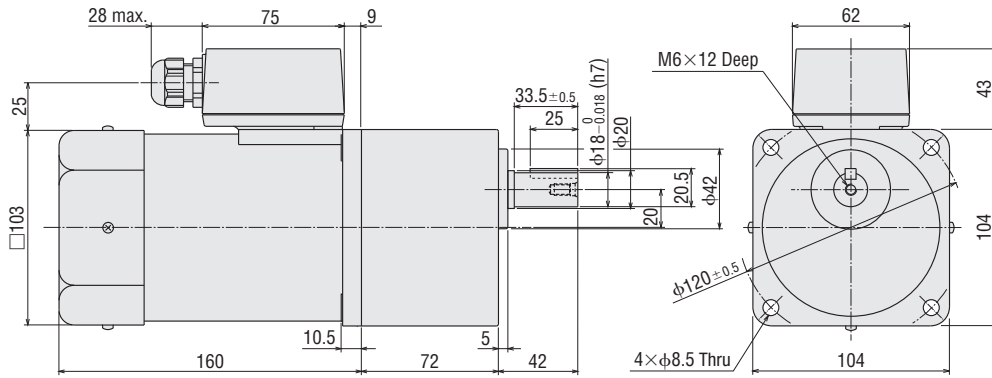
BHI62ET-G2

BHI62ST-G2

Gearhead:

BH6G2-□

Mass: 8.0 kg



- Applicable cable diameter is $\phi 6 \sim \phi 12$.
- Details of terminal box → Page C-255

◇ Combination Type - Parallel Shaft (Terminal box type)

BHI62UT2-□

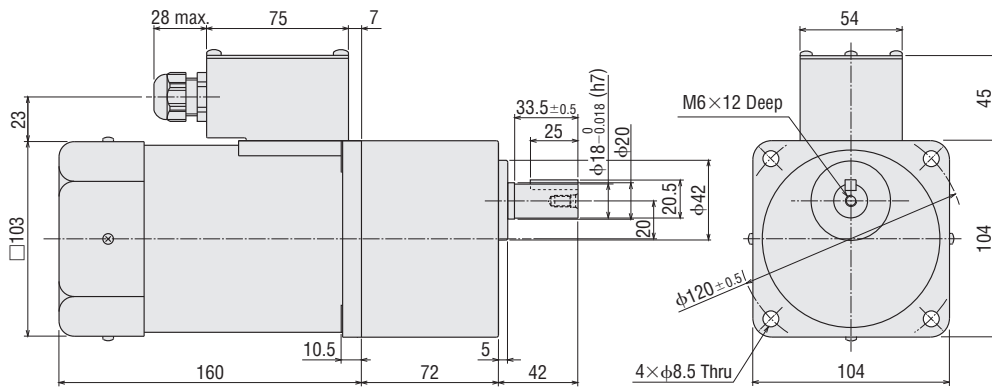
Motor:

BHI62UT2-G2

Gearhead:

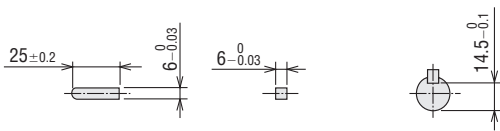
BH6G2-□

Mass: 8.0 kg



- Applicable cable diameter is $\phi 6 \sim \phi 12$.
- Details of terminal box → Page C-255

◇ Key and Key Slot (Included, common to BHI62 type)

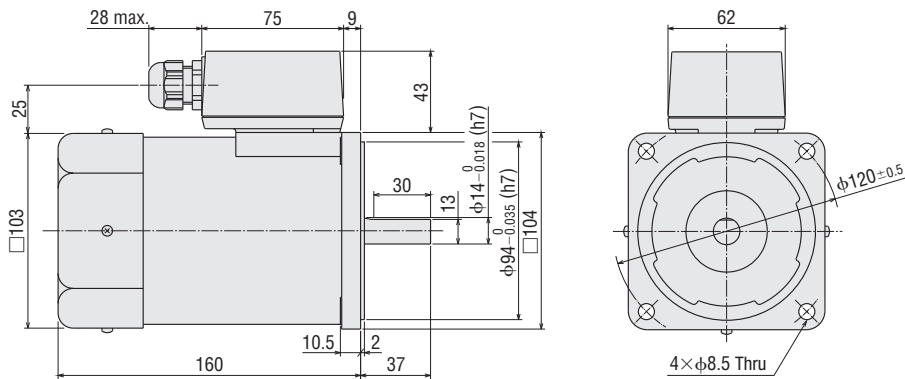


- At the time of shipment, a key is inserted in the key slot of the gearhead shaft.

◇ Round Shaft Type - Terminal Box Type

BHI62ET-A, BHI62ST-A

Mass: 5.0 kg

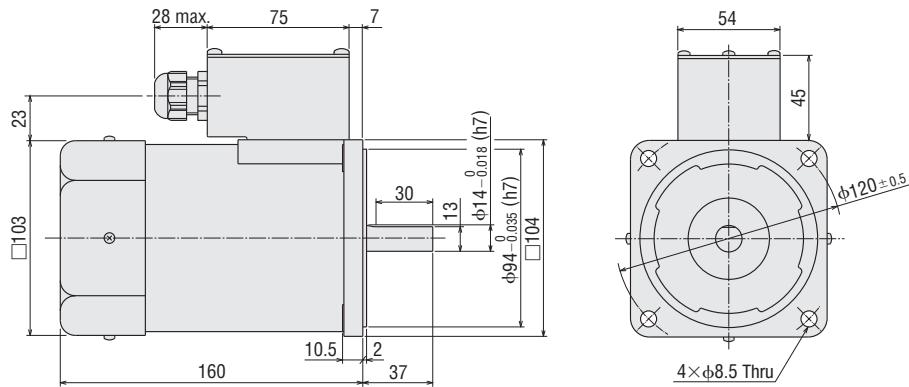


- Applicable cable diameter is $\phi 6 \sim \phi 12$.
- Details of terminal box → Page C-255

◇ Round Shaft Type - Terminal Box Type

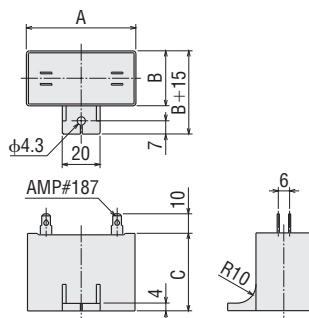
BHI62UT2-A

Mass: 5.0 kg



- Applicable cable diameter is $\phi 6 \sim \phi 12$.
- Details of terminal box → Page C-255

◇ Capacitor (Included with single-phase motors)



◇ Capacitor Dimensions (mm)

Product Name	Capacitor Product Name	A	B	C	Mass (g)
BHI62ET-□RH BHI62ET-□RA BHI62ET-□ BHI62ET-A	CH100BFAUL	58	35	50	132

- A capacitor cap is included with the capacitor.
- A number indicating the gear ratio is entered where the box □ is located within the product name.

■ Mounting Method for Right Angle - Hollow Shaft Type

→ Page C-220

Introduction

Induction Motors

Reversible Motors

Constant Speed Motors

Electromagnetic Brake Motors

V Series

TM Series Torque Motors

Torque Motors

Water-tight, Dust-Resistant Motors

Right-Angle Gearheads

Brake Pack

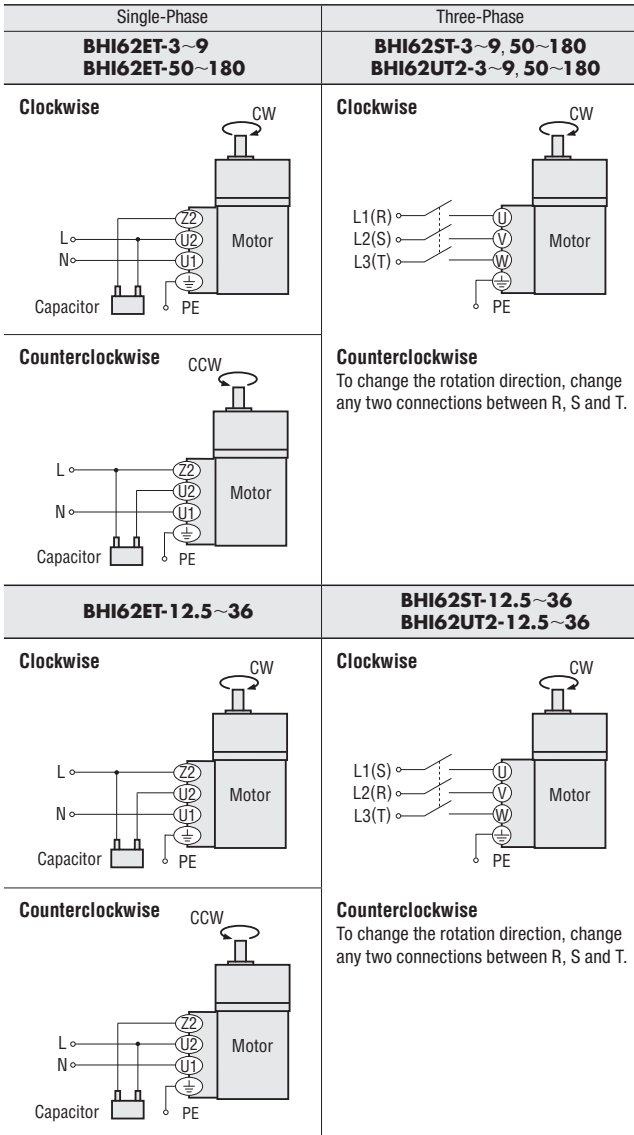
Accessories

Installation

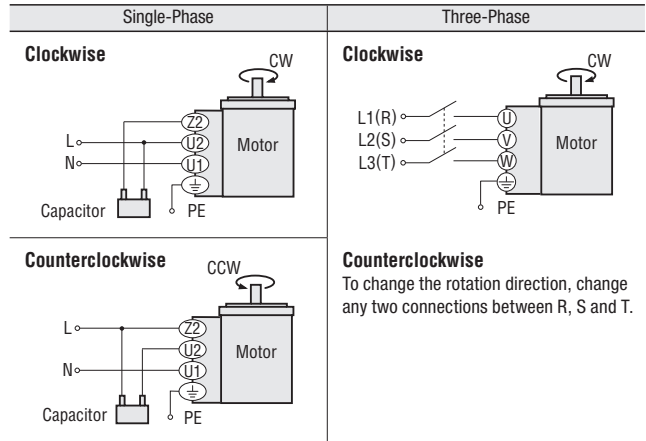
Connection Diagrams

● The direction of motor rotation is as viewed from the shaft end of the motor. CW represents the clockwise direction, while CCW represents the counterclockwise direction.

● Combination Type: Parallel Shaft



● Round Shaft Type



Note

- Change the direction of single-phase motor rotation only after bringing the motor to a stop. If an attempt is made to change the direction of rotation while the motor is rotating, motor may ignore reversing command or change its direction of rotation after some delay.
- Connect a CR circuit to protect the connector point of switches.
Connecting CR circuit, contact capacity → Page C-255
- For added safety, provide a breaker or fuse on the power supply input.
- How to connect a capacitor → Page C-255

List of Motor and Gearhead Combinations

Motor and gearhead combinations are shown below.

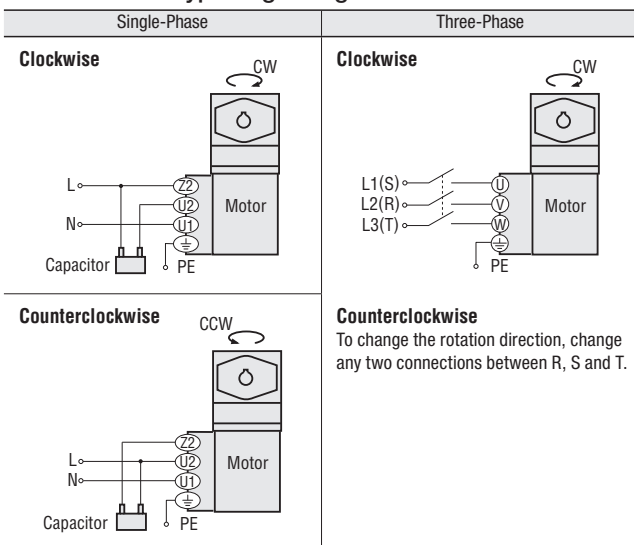
● Combination Type: Right Angle Shaft

Product Name	Motor Product Name	Gearhead Product Name
BHI62ET-□RH	BHI62ET-G2	BH6G2-□RH
BHI62ET-□RA		BH6G2-□RA
BHI62ST-□RH	BHI62ST-G2	BH6G2-□RH
BHI62ST-□RA		BH6G2-□RA
BHI62UT2-□RH	BHI62UT2-G2	BH6G2-□RH
BHI62UT2-□RA		BH6G2-□RA

● Combination Type: Parallel Shaft

Product Name	Motor Product Name	Gearhead Product Name
BHI62ET-□	BHI62ET-G2	BH6G2-□
BHI62ST-□	BHI62ST-G2	BH6G2-□
BHI62UT2-□	BHI62UT2-G2	BH6G2-□

● Combination Type: Right Angle Shaft



Peripheral Equipment

Speed Control

Inverters
→ Page D-136



Accessories

Mounting Brackets
→ Page C-240



Couplings
→ Page C-245



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