

Gear Motor TA Series Specifications

Motorized type

GEAR MOTOR TA Series

Specifications

| | | | |
|--------------------|---------------------|---|-----------------------------------|
| Motor | Output | Three-phase : 0.1, 0.2, 0.4, 0.75, 1.5, 2.2, 3.7, 5.5kW | Single-phase : 100, 200W |
| | | Non-brake type · Brake type | Non-brake type · Brake type |
| | Power supply | 200/200/220V 50/60/60Hz | |
| | Number of poles | 4 | |
| | Protection type | 0.1 kW - Totally-enclosed type (IP44), 0.2-5.5 kW - Totally-enclosed external fan type (IP44) | Drip-proof protection type (IP22) |
| | Cooling method | 0.1 kW - Self-cooled type (IC410), 0.2-5.5 kW - Self-managed type (IC411) | Draft type (IC01) |
| | Starting method | — | |
| | Rating | Continuous | |
| | Insulation | 0.1 kW-3.7 kW - Class E, 5.5 kW - Class B | Class E |
| | Brake | Non-excitation type · DC electromagnetic brake | |
| Reducer | Reduction ratio | 1/5 to 1/1200 | |
| | Lubricating method | Grease | |
| | Shaft end key way | New JIS key (JIS B1301-1976): Output shaft key attached (Ordinary-class key way) | |
| | Output shaft end | Tapped | |
| Ambient conditions | Installation place | Indoor not exposed to dust or water | |
| | Ambient temperature | -20°C to 40°C | |
| | Ambient humidity | Less than 85% (non condensing) | |
| | Altitude | Elevations below 1000 m | |
| | Atmosphere | Free from corrosive gases, explosive gases and steam | |
| | Mounting direction | No limitations on mounting angles: horizontal, vertical or inclined | |
| Paint color | Munsell 2.5G6/3 | | |

Note) The protective construction for the brake-type is IP20.

Motor specifications

| Number of phases | Output | Number of poles | Frequency Hz | Voltage V | Rated current A | Rated revolution r/min | AC-side brake current Reference value at 20°C |
|------------------|--------|-----------------|--------------|------------------------------|------------------------------------|------------------------------------|---|
| Three-phase | 0.1kW | 4 | 50/60/60 | 200/200/220 (400/400/440) | 0.63/0.57/0.58 (0.32/0.29/0.29) | 1410/1700/1710 (1410/1700/1710) | 0.12 A |
| | 0.2kW | | | | 1.2/1.1/1.1 (0.59/0.55/0.55) | 1420/1700/1720 (1410/1690/1720) | 0.12 A |
| | 0.4kW | | | | 2.3/2.0/2.0 (1.2/1.0/1.0) | 1360/1665/1685 (1360/1665/1685) | 0.16 A |
| | 0.75kW | | | | 3.8/3.4/3.4 (2.0/1.7/1.7) | 1410/1690/1710 (1410/1690/1710) | 0.17 A |
| | 1.5kW | | | | 7.0/6.2/6.0 (3.5/3.1/3.0) | 1420/1710/1730 (1420/1710/1730) | 0.10 A |
| | 2.2kW | | | | 9.8/8.9/8.5 (4.9/4.5/4.3) | 1420/1710/1730 (1420/1710/1730) | 0.10 A |
| | 3.7kW | | | | 16.0/14.8/14.0 (8.0/7.4/7.0) | 1420/1710/1730 (1420/1710/1730) | 0.08 A |
| | 5.5kW | | | | 23.8/21.0/20.0 (11.9/10.5/10.0) | 1430/1730/1740 (1430/1730/1740) | 0.10 A |
| Single-phase | 100W | 4 | 50/60 | 100 | 3.2/2.8 | 1440/1730 | 0.21 A |
| | 200W | | | | 5.2/4.6 | 1430/1710 | 0.21 A |

Note 1) The values in parentheses under "Rated current" and "Rated revolution" are for 400/400/440 V.

Note 2) For brake-type models, the brake current shown above is added for the phase where the brake lead wire is connected to the motor lead wire. The AC-side brake current is for 200 V AC 60 Hz and 100 V AC 60 Hz.

Gear Motor TA Series Specifications

GEAR MOTOR TA Series

■ **Special motor types (Applied to gear motors and gear motors with brakes)** ○ Quick delivery product
△ Made-to-order product

| Motor specifications | | | Three-phase motor type | | | | | | | | | | | | | | | |
|----------------------|---------------------------|----------------------------|------------------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|-------|--|
| | | | 0.1kW | | 0.2kW | | 0.4kW | | 0.75kW | | 1.5kW | | 2.2kW | | 3.7kW | | 5.5kW | |
| | | | Brake | | Brake | | Brake | | Brake | | Brake | | Brake | | Brake | | Brake | |
| | | | Not provided | Provided | Not provided | Provided | Not provided | Provided | Not provided | Provided | Not provided | Provided | Not provided | Provided | Not provided | Provided | | |
| Voltage | Double voltage | 400/400/440V 50/60/60Hz | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | △ | |
| | Other voltage (Note 1) | 200 V · 400 V level | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | △ | |
| | Other voltage | Special voltage | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | |
| Terminal box type | Standard voltage | | Standard model | | | | | | | | | | | | | | △ | |
| | Double voltage | 400/400/440V 50/60/60Hz | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | △ | |
| | Other voltage (Note 1) | 200 V level | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | △ | |
| | Other voltage (Note 1) | 400 V level | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | △ | |
| | Other voltage | Special voltage | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | |
| Outdoor type | Standard voltage | | ○ | △ | ○ | △ | ○ | △ | ○ | △ | ○ | △ | ○ | △ | ○ | △ | △ | |
| | Double voltage | 400/400/440V 50/60/60Hz | ○ | △ | ○ | △ | ○ | △ | ○ | △ | ○ | △ | ○ | △ | ○ | △ | △ | |
| | Other voltage (Note 1) | 200 V · 400 V level | ○ | △ | ○ | △ | ○ | △ | ○ | △ | ○ | △ | ○ | △ | ○ | △ | △ | |
| | Other voltage | Special voltage | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | △ | |
| Explosion-proof type | Standard voltage (Note 2) | | ○ | - | ○ | - | ○ | - | ○ | - | △ | - | △ | - | △ | - | - | |
| | Double voltage (Note 2) | 400/400/440V 50/60/60Hz | ○ | - | ○ | - | ○ | - | ○ | - | △ | - | △ | - | △ | - | - | |
| | Other voltage (Note 2) | Special voltage | △ | - | △ | - | △ | - | △ | - | △ | - | △ | - | △ | - | - | |

(Note 1) The other voltage 200 V level and 400 V level function at the levels indicated by "○" in the table below.
(Note 2) The explosion-proof-type 0.1 kW device is of the same size and dimensions as the 0.2 kW device.

(1) 0.1kW · 0.2kW · 0.4kW · 0.75kW · 1.5kW · 2.2kW · 3.7kW

| | Three-phase 200 V level | | | | Three-phase 400 V level | | | | | | | |
|------------|-------------------------|-----|--------------------|-----|-------------------------|-----|-----|--------------------|-----|-----|-----|--|
| | Frequency of 50 Hz | | Frequency of 60 Hz | | Frequency of 50 Hz | | | Frequency of 60 Hz | | | | |
| | Voltage (V) | | Voltage (V) | | Voltage (V) | | | Voltage (V) | | | | |
| | 210 | 220 | 210 | 230 | 380 | 415 | 420 | 380 | 415 | 420 | 460 | |
| Non-Brake | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| Brake-type | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |

(2) 5.5kW

| | Three-phase 200 V level | | | | Three-phase 400 V level | | | | | | | |
|------------|-------------------------|-----|--------------------|-----|-------------------------|-----|-----|--------------------|-----|-----|-----|--|
| | Frequency of 50 Hz | | Frequency of 60 Hz | | Frequency of 50 Hz | | | Frequency of 60 Hz | | | | |
| | Voltage (V) | | Voltage (V) | | Voltage (V) | | | Voltage (V) | | | | |
| | 210 | 220 | 210 | 230 | 380 | 415 | 420 | 380 | 415 | 420 | 460 | |
| Non-Brake | △ | △ | ○ | ○ | ○ | ○ | △ | △ | ○ | ○ | ○ | |
| Brake-type | △ | △ | ○ | ○ | ○ | ○ | △ | △ | ○ | ○ | ○ | |

■ One-touch manual release brake-type

○ Quick delivery product
△ Made-to-order product

| | Three-phase brake motor type | | | | | | | | | Single-phase brake motor type | |
|-------------------------------------|------------------------------|-------|-------|--------|-------|-------|-------|-------|------|-------------------------------|--|
| | 0.1kW | 0.2kW | 0.4kW | 0.75kW | 1.5kW | 2.2kW | 3.7kW | 5.5kW | 100W | 200W | |
| One-touch manual release brake-type | ○ | ○ | ○ | ○ | ○ | ○ | ○ | △ | ○ | ○ | |

Specifications

0.1, 0.2
0.4, 0.75
1.5, 2.2
3.7, 5.5

Brake Part Specifications (Common to Hypoid Motors and Gear Motors)

GEAR MOTOR TA Series

1. Features

(1) Non-excitation type (spring-close type)

Because this type allows the brake to be actuated with the power OFF, it can cope with a sudden power failure.

(2) SLB brake, VNB brake: Dry multiple-plate DC system SBH brake: Dry single-plate DC system

The construction is simple and compact. It is possible to brake and release with low noise.

(3) No asbestos

Harmful asbestos is not used in the brake lining.

(4) Ready for various applications

It is possible to use with external wiring and for external operation.

The SLB brake comes with a manual release.

The optional one-touch manual release is also available.

2. Brake specifications

| Motor output | Three-phase | 0.1kW | 0.2kW | 0.4kW | 0.75kW | 1.5kW | 2.2kW | 3.7kW | 5.5kW | |
|--|-------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--------------------------|----------------------|--------|
| | Single-phase | 100W | 200W | — | — | — | — | — | — | |
| Brake model number | Three-phase 200V | SLB01 | SLB02 | SLB04 | SLB07 | VNB158K | VNB228K | VNB371K | VNB55K | |
| | Three-phase 400V | SLB01 | SLB02 | SLB04V | SLB07V | VNB158KV | VNB228KV | VNB371KV | — | |
| | Single-phase | SBH01 | SBH02 | — | — | — | — | — | — | |
| DC module model number | Three-phase 200V | DM200D | | | | | — | | PM90B | PM180B |
| | Three-phase 400V | DM200D | | | | HD-12MYH | | | | — |
| | Single-phase | DM100A | | | — | — | — | — | — | — |
| Rated torque | Static friction torque | 0.98 | 1.96 | 3.92 | 7.35 | 14.7 | 21.6 | 36.3 | 53.5 | |
| | | {kgf·m} | 0.1 | 0.2 | 0.40 | 0.75 | 1.50 | 2.20 | 3.70 | 5.50 |
| | Dynamic friction torque | 0.78 | 1.57 | 3.14 | 5.88 | 11.8 | 17.2 | 29.0 | 43.1 | |
| | | {kgf·m} | 0.08 | 0.16 | 0.32 | 0.60 | 1.20 | 1.76 | 2.96 | 4.40 |
| Voltage | Three-phase 200V | DC90V | | | | | — | | | DC54V |
| | Three-phase 400V | DC90V | | | | DC180V | | | | — |
| | Single-phase | DC90V | | | — | — | — | — | — | — |
| Current at 20°C | A | 0.178 | 0.178 | 0.232 | 0.273 | 0.273 | 0.273 | 0.261 | 0.288 | |
| Capacity at 20°C | W | 16.0 | 16.0 | 20.9 | 24.6 | 27.3 | 27.3 | 26.1 | 16.7 | |
| Normal gap | mm | 0.15~0.20 | 0.15~0.20 | 0.15~0.20 | 0.15~0.20 | 0.2 | 0.2 | 0.2 | 0.35 | |
| Maximum gap | mm | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.7 | 1.2 | |
| Total braking workload | J | 1.31×10 ⁸ | 1.85×10 ⁸ | 1.85×10 ⁸ | 3.66×10 ⁸ | 10.8×10 ⁸ | 10.8×10 ⁸ | 13.5×10 ⁸ | 24.7×10 ⁸ | |
| | {kgf·m} | 1.34×10 ⁷ | 1.89×10 ⁷ | 1.89×10 ⁷ | 3.73×10 ⁷ | 11.0×10 ⁷ | 11.0×10 ⁷ | 13.8×10 ⁷ | 25.2×10 ⁷ | |
| Allowable starting frequency | | 10 times/minute | | | | | | | | |
| Braking delay time S (reference value) | AC internal wiring | 0.18~0.25 | 0.15~0.21 | 0.14~0.17 | 0.20~0.24 | 0.30~0.40 | 0.30~0.40 | 0.15~0.25 (0.50~0.70) | 0.20~0.30 | |
| | AC external wiring | 0.11~0.18 | 0.09~0.12 | 0.06~0.09 | 0.10~0.13 | 0.10~0.20 | 0.10~0.20 | 0.05~0.15 (0.20~0.40) | 0.03~0.13 | |
| | AC external operation | 0.11~0.18 | 0.09~0.12 | 0.06~0.09 | 0.10~0.13 | 0.10~0.20 | 0.10~0.20 | 0.05~0.15 (0.20~0.40) | 0.03~0.13 | |
| | DC external wiring | 0.05~0.07 | 0.04~0.06 | 0.03~0.05 | 0.04~0.06 | 0.01~0.02 | 0.01~0.02 | (0.02~0.04) | — | |

Note 1) If the single-phase motor starting frequency is 6 times/minute, keep the duty rate below 50% ED (5 seconds running, 5 seconds stopping). The life of the contacts in the built-in centrifugal switch (governor switch) is approximately 300,000 cycles.

Note 2) The rated torque values shown above are static and dynamic friction torque values after rubbing.

Note 3) The braking delay time is a reference value, which may differ depending on the brake condition, use conditions, individual part differences, etc. If you want to shorten the braking delay time (for elevators, etc.), we recommend that you employ DC external wiring.

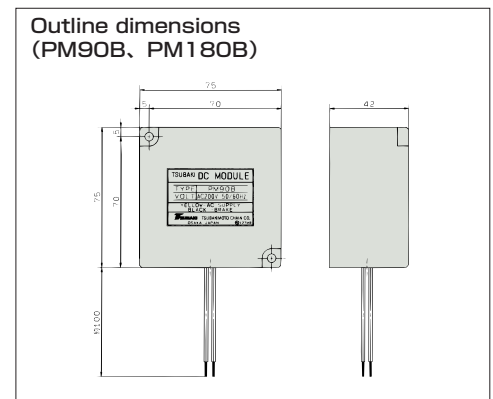
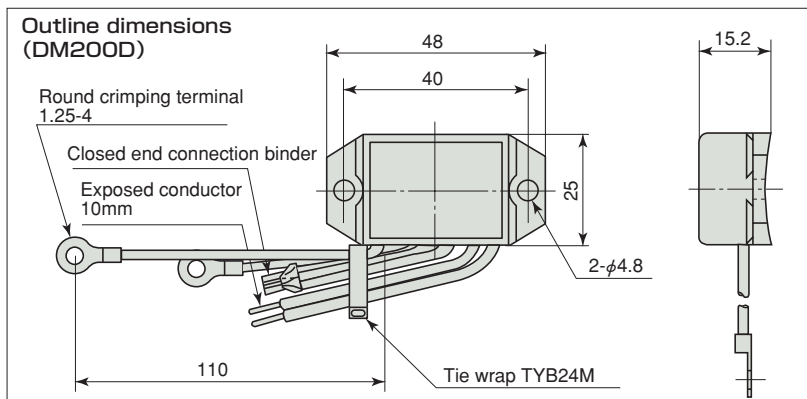
Note 4) The values in parentheses in the box of the braking delay time of the 3.7 kW device are for 400 V. If you want to shorten this braking delay time, employ DC external wiring.

Note 5) The 5.5 kW device is a made-to-order product. Please contact us for details.

3. Rectifier (DC module)

The built-in DC module is connected with the motor lead wire. If you intend to employ a DC external wiring circuit, please inform us at the time of order placement or make the connections according to the wiring diagram on page 105.

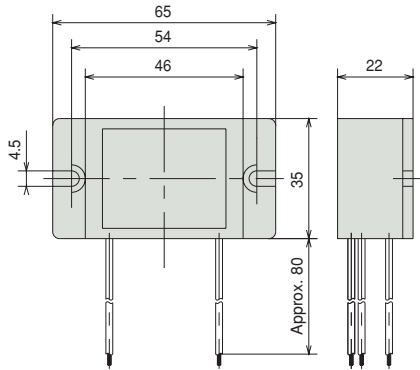
If you want us to deliver the DC module separately for use in the control panel, etc., please instruct us to do so at the time of placement of the order.



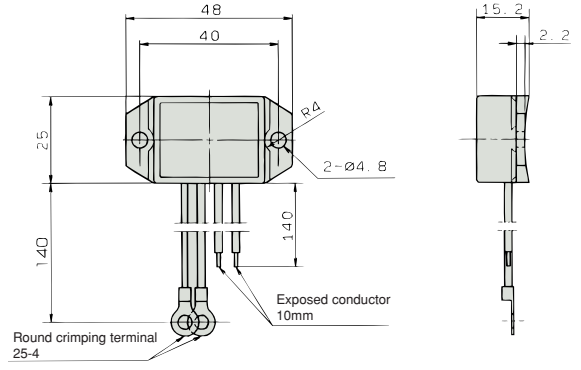
Gear Motor TA Series Specifications

GEAR MOTOR TA Series

Outline dimensions (HD-12MYH)

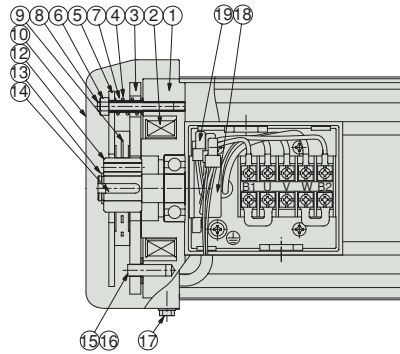


Outline dimensions (DM100A)



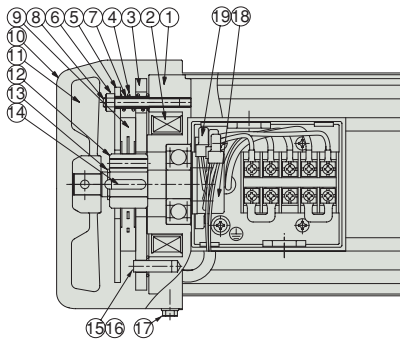
4. Brake structure

- GMTA010 (SLB01)
- HMTA010 (SLB01)



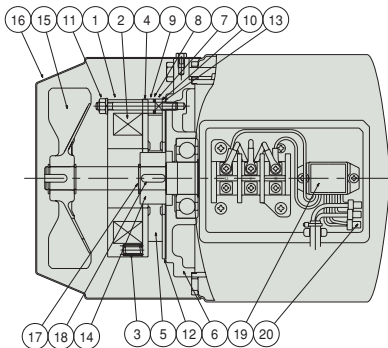
1. Anti-load bracket with yoke
2. Coil
3. Armature
4. Presser bar spring
5. Brake plate
6. U nut
7. Collar
8. Guide bolt
9. Lining
10. Fan cover
12. Square hub
13. Snap ring
14. Key
15. Spring pin
16. Brake spring
17. Fan cover fastening screw
18. DC module
19. Closed end connection binder

- GMTA020 (SLB02)
- GMTA040 (SLB04)
- GMTA075 (SLB07)
- HMTA020 (SLB02)
- HMTA040 (SLB04)
- HMTA075 (SLB07)



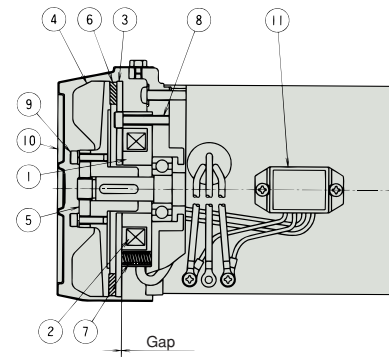
1. Anti-load bracket with yoke
2. Coil
3. Armature
4. Presser bar spring
5. Brake plate
6. U nut
7. Collar
8. Guide bolt
9. Lining
10. Fan cover
11. Fan (not provided in the figure above)
12. Square hub
13. Snap ring
14. Key
15. Spring pin
16. Brake spring
17. Fan cover fastening screw
18. DC module
19. Closed end connection binder

- GMTA150 (VNB158K)
- GMTA220 (VNB228K)
- GMTA370 (VNB371K)
- GMTA550 (VNB55K)
- HMTA150 (VNB158K)
- HMTA220 (VNB228K)
- HMTA370 (VNB371K)
- HMTA550 (VNB55K)



1. Yoke
2. Coil
3. Brake spring
4. Armature
5. Lining
6. Anti-load bracket
7. Stud bolt
8. Liner
9. Distance collar
10. Protective liner
11. Hexagon nut
12. Brake plate
13. Sheet packing
14. Center hub
15. Fan
16. Fan cover
17. Snap ring
18. Key
19. DC module
20. Closed end connection binder

- GMTA100 (SBH01)
- GMTA200 (SBH02)
- HMTA100 (SBH01)
- HMTA200 (SBH02)



1. Yoke
2. Coil
3. Armature
4. Brake plate
5. Adjusting nut
6. Lining
7. Brake spring
8. Mounting bolt
9. Hexagon socket head bolt
10. Fan cover
11. DC module

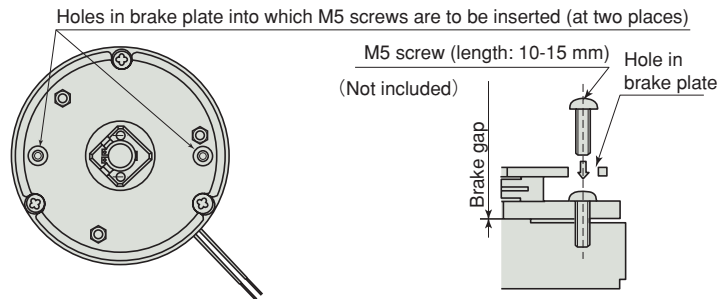
Specifications

0.1, 0.2
0.4, 0.75
1.5, 2.2
3.7, 5.5

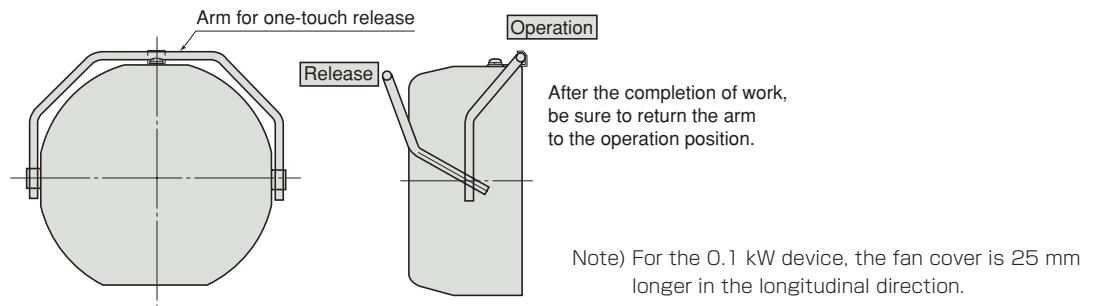
5. Manual release

(1) For 0.1 kW-0.75 kW: SLB brake ※The manual release is included as standard equipment.

- Perform release with no load applied to the output shaft.
- Remove the fan cover and install the screws.
- After the completion of work, be sure to remove the screws and install the cover before starting operation.

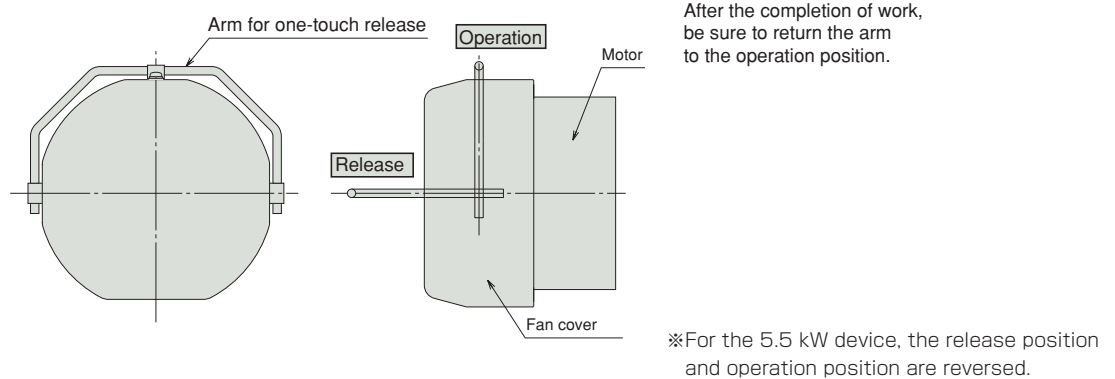


The one-touch manual release is optional. Can be supplied made-to-order with short lead times.



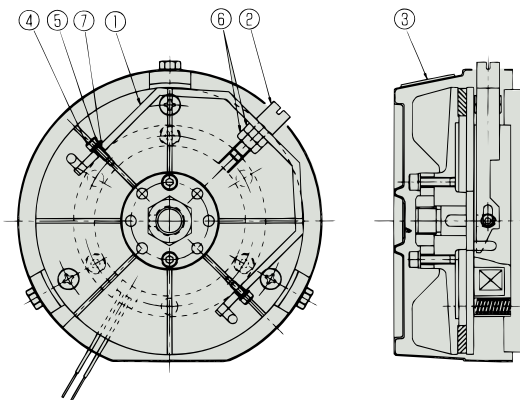
(2) For 1.5 kW-5.5 kW: VNB brake

The one-touch manual release type is optional. Can be supplied made-to-order with short lead times.



(3) For 100 W-200 W: SBH brake

The one-touch manual release type is optional. We can supply with short lead times.



1. Release arm
2. Release bolt
3. Release nameplate
4. Hexagon socket head bolt
5. Flat washer
6. U nut
7. Spacer

* The outline dimensions are the same as those of the standard product.

| | Manual release | Brake operation |
|---------------------|--|---|
| Operating procedure | <p>For brake release, turn the release bolt about five turns clockwise until it touches the stopper, using a flat-blade screwdriver or similar tool.</p> | <p>For brake operation, turn the release bolt about seven turns counterclockwise until it turns freely. * Before starting operation, make sure that the brake works properly.</p> |

6. Formula for brake life span and braking distance

SI units

1. Braking workload

$$E_e = \frac{(I_M + I_e) \times n^2}{182.5} \times \frac{T_b}{(T_b \pm T_e)}$$

- E_e : Braking workload per operation J
- I_M : Moment of inertia of hypoid motor (gear motor) with brake $\text{kg} \cdot \text{m}^2$ (Table 2 on page 233)
- I_e : Moment of inertia of motor-shaft-equivalent load $\text{kg} \cdot \text{m}^2$
- n : Motor shaft revolution r/min
- T_b : Dynamic friction torque of brake $\text{N} \cdot \text{m}$ (Brake characteristics chart on page 60)
- T_e : Motor-shaft-equivalent load torque $\text{N} \cdot \text{m}$
- \pm sign : ($-T_e$) is applied for a negative load such as a suspension load.

2. Brake life span

$$Z = \frac{E_T}{E_e} \quad Z : \text{Total number of working cycles}$$

$$E_T : \text{Total braking workload J}$$

(Refer to the brake specifications on page 60)

3. Braking time

$$t = t_a + t_b$$

$$t_b = \frac{(I_M + I_e) \times n}{9.55 \times (T_b \pm T_e)}$$

- t_a : Braking delay time s
Time between operation signal issuing and brake operation (Refer to the brake specifications on page 60.)

4. Braking distance

$$S = \left(t_a + \frac{1}{2} t_b \right) \times V \quad S : \text{Braking distance mm}$$

$$V : \text{Speed of linear motion mm/s}$$

Gravitational units

1. Braking workload

$$E_e = \frac{(GD_M^2 + GD_e^2) \times n^2}{7160} \times \frac{T_b}{(T_b \pm T_e)}$$

- E_e : Braking workload per operation $\text{kgf} \cdot \text{m}$
- GD_M^2 : GD^2 of hypoid motor (gear motor) with brake $\text{kg} \cdot \text{m}^2$ (Table 2 on page 233)
- GD_e^2 : GD^2 of motor-shaft-equivalent load $\text{kgf} \cdot \text{m}^2$
- n : Motor shaft revolution r/min
- T_b : Dynamic friction torque of brake $\text{kgf} \cdot \text{m}$ (Brake characteristics chart on page 60)
- T_e : Motor-shaft-equivalent load torque $\text{kgf} \cdot \text{m}$
- \pm sign : ($-T_e$) is applied for a negative load such as a suspension load.

2. Brake life span

$$Z = \frac{E_T}{E_e} \quad Z : \text{Total number of working cycles}$$

$$E_T : \text{Total braking workload kgf} \cdot \text{m}$$

(Refer to the brake specifications on page 60)

3. Braking time

$$t = t_a + t_b$$

$$t_b = \frac{(I_M + I_e) \times n}{9.55 \times (T_b \pm T_e)}$$

- t_a : Braking delay time s
Time between operation signal issuing and brake operation (Refer to the brake specifications on page 60.)

4. Braking distance

$$S = \left(t_a + \frac{1}{2} t_b \right) \times V \quad S : \text{Braking distance mm}$$

$$V : \text{Speed of linear motion mm/s}$$

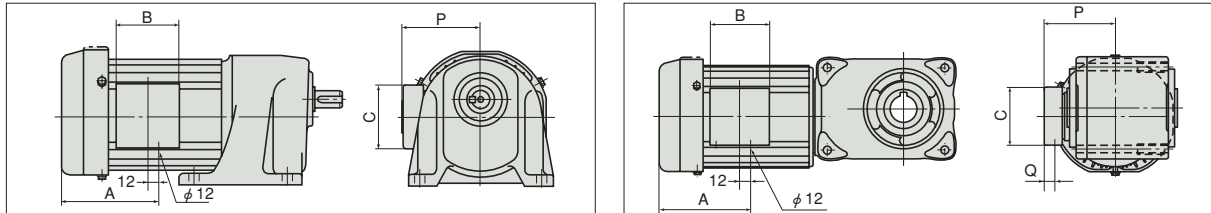
About terminal boxes (common to gear motors and hypoid motors) 0.1 kW-0.75 kW

1. Standard terminal boxes

(1) A resin terminal box is included as standard equipment.

Note) If you need a hard terminal box type (made of die-cast aluminum), order it using the option code.

(2) Position and dimensions of terminal box



| Motor output | A | B | C | P | Q |
|--------------|-------|----|----|----|------|
| 0.1kW | 64.5 | 67 | 67 | 81 | 12.5 |
| 0.2kW | 102.5 | 67 | 67 | 81 | 12.5 |
| 0.4kW | 102.5 | 67 | 67 | 81 | 12.5 |
| 0.75kW | 98.5 | 67 | 67 | 90 | 12.5 |

(3) Change of the position of the terminal box

If you want to change the position of the terminal box because, for example, it is positioned inconveniently for you, please instruct us to do so. The position of the terminal box can be changed by changing the tightening position of the through bolt for fastening the motor.

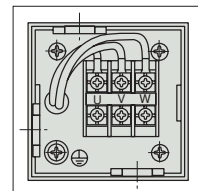
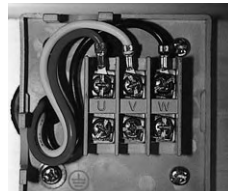
Change of position: For a 180° swing for a gear motor or a hypoid motor, or a 90° or 270° swing for a face mount or hollow shaft type, use an option code to instruct us to change the position.

(4) Change of the lead outlet direction of the terminal box

The lead outlet direction can be changed 90° to the left (anti-load side) or 180° (upper side) by changing the top cover mounting direction. For the hard terminal box, the lead outlet direction can be changed 90°.

(5) Construction of the terminal box

- Resin terminal box (standard)

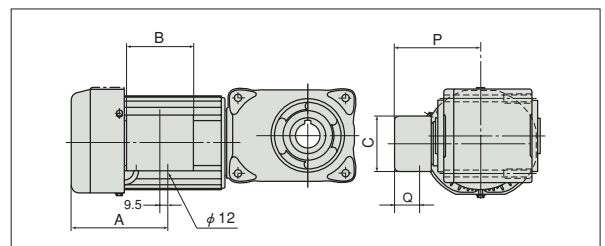


- The hard terminal box (optional) is of the same specifications as the outdoor type. Refer to this type. The cable port is φ18.

2. Terminal box of brake-types

(1) A resin terminal box is included as standard equipment.

(2) Position and dimensions of the terminal box



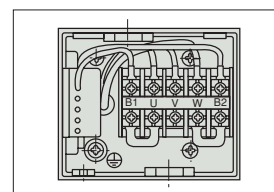
| Motor output | A | B | C | P | Q |
|--------------|-------|----|----|-------|----|
| 0.1kW | 102.5 | 83 | 70 | 104.5 | 31 |
| 0.2kW | 119.5 | 83 | 70 | 104.5 | 31 |
| 0.4kW | 119.5 | 83 | 70 | 104.5 | 31 |
| 0.75kW | 125.5 | 83 | 70 | 113.5 | 31 |

(3) Change of the lead outlet direction of the terminal box

The lead outlet direction can be changed by 180° upper side by changing the top cover mounting direction.

(4) Construction of terminal box

- Resin terminal box (standard)



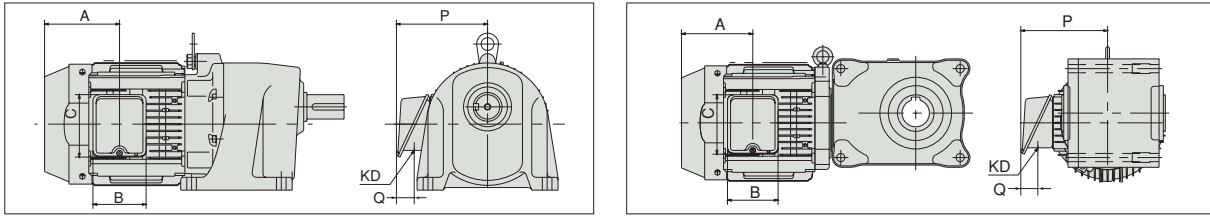
Gear Motor TA Series Specifications

Terminal boxes (common to gear motors and hypoid motors) for 1.5 kW-5.5 kW

1. Standard terminal boxes

(1) A steel plate terminal box is included as standard equipment.

(2) Position and dimensions of the terminal box



| Motor output | A | B | C | P | Q | ϕ KD | θ° |
|--------------|-------|-----|-----|-----|----|-----------|----------------|
| 1.5kW | 117 | 83 | 97 | 143 | 37 | 27 | 0 |
| 2.2kW | 117 | 83 | 97 | 143 | 37 | 27 | 0 |
| 3.7kW | 137.5 | 83 | 97 | 151 | 37 | 27 | 0 |
| 5.5kW | 151.5 | 123 | 128 | 202 | 32 | 35 | 15 |

Note) For the 5.5 kW device, the position of the terminal box is turned 15 degrees clockwise (upward) from the horizontal.

(3) Change of the position of the terminal box

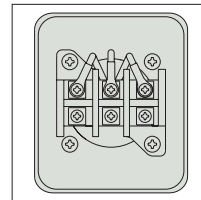
If you want to change the position of the terminal box because, for example, it is positioned inconveniently for you, please instruct us to do so. The position of the terminal box can be changed by changing the tightening position of the through bolt for fastening the motor.

Change of position: 90° swing is possible for both the gear motor and hypoid motor. Use the option code to instruct us to change the position.

(4) Change of lead outlet direction of the terminal box The lead outlet direction can be changed by 90° .

(5) Construction of terminal boxes

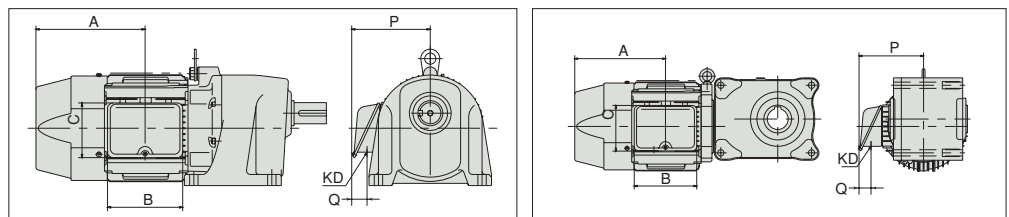
- Steel plate terminal boxes (standard)



2. Terminal boxes of brake-types

(1) A resin terminal box is included as standard equipment.

(2) Position and dimensions of the terminal box



| Motor output | A | B | C | P | Q | ϕ KD |
|--------------|-------|-------|----|-----|------|-----------|
| 1.5kW | 196 | 135 | 96 | 141 | 35.5 | 27 |
| 2.2kW | 196 | 135 | 96 | 141 | 35.5 | 27 |
| 3.7kW | 211.5 | 176.5 | 97 | 154 | 35.5 | 27 |

(3) Change of the position of the terminal box

If you want to change the position of the terminal box because, for example, it is positioned inconveniently for you, please instruct us to do so. The position of the terminal box can be changed by changing the tightening position of the through bolt for fastening the motor.

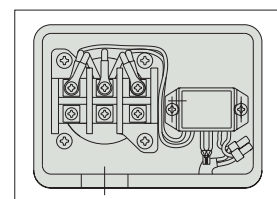
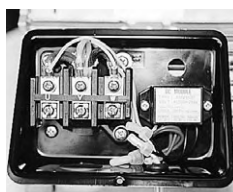
Change of position: 90° swing is possible for both gear motors and hypoid motors. Use the option code to instruct us to change the position.

(4) Change of the lead outlet direction of the terminal box

The lead outlet direction can be changed by 90° .

(5) Construction of the terminal box

- Steel plate terminal box (standard)

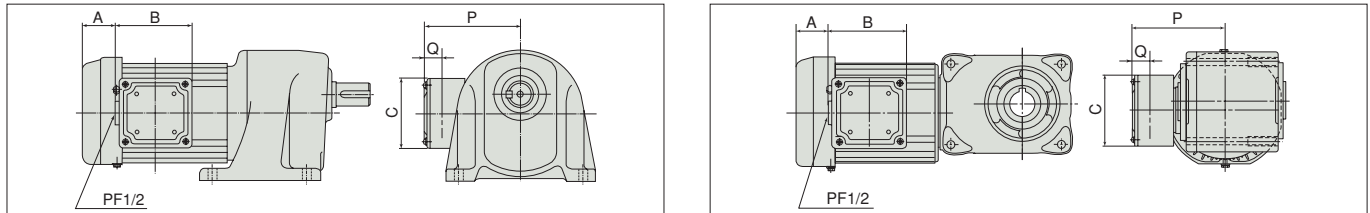


Note) For the 3.7 kW device, the DC module is positioned outside the terminal box.

Gear Motor TA Series Specifications

Outdoor type (common to gear motors and hypoid motors) 0.1 kW-0.75 kW (Protective construction IP55)

(1) Position and dimensions of the terminal box (Note) If the motor is not to be installed horizontally, please contact us.



| Motor output | A | B | C | P | Q |
|--------------|------|----|----|-----|------|
| 0.1kW | 2.5 | 95 | 84 | 118 | 21.5 |
| 0.2kW | 40.5 | 95 | 84 | 118 | 21.5 |
| 0.4kW | 40.5 | 95 | 84 | 118 | 21.5 |
| 0.75kW | 36.5 | 95 | 84 | 127 | 21.5 |

Note) The entire length is the same as that of the indoor-type standard product.

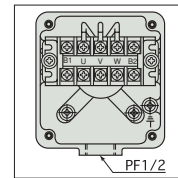
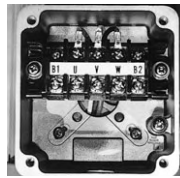
(2) Change of the position of the terminal box

If you want to change the position of the terminal box because, for example, it is positioned inconveniently for you, please instruct us to do so. The position of the terminal box can be changed by changing the tightening position of the through bolt for fastening the motor.

Change of position: For a 180° swing for a gear motor or hypoid motor, or a 90° or 270° swing for a face mount type or a hollow shaft type, use the option code to instruct us to change the position.

(3) Change of the lead outlet direction of the terminal box The lead outlet direction can be changed by 90°.

(4) Construction of the terminal box



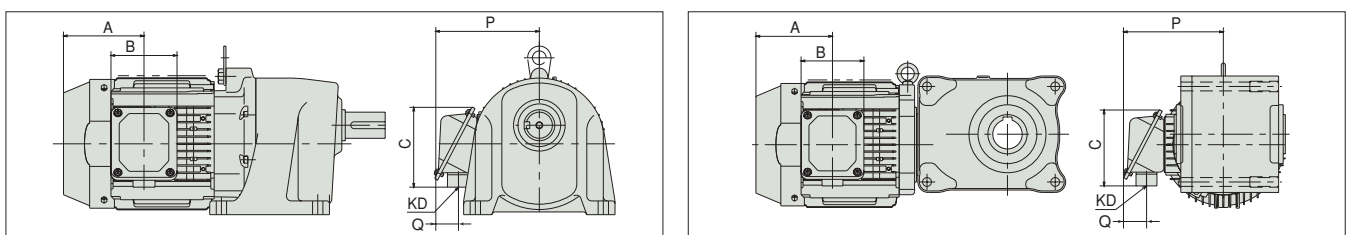
(5) Restrictions on types of gear motor foot mounting bolts

For a combination of the outdoor type, hard terminal box type and foot mount type, the terminal box interferes with tools and bolts in some models. The type of bolt should therefore be restricted as shown below.

- GMTA020-28L100 to 200: Hexagon socket head bolts should be used.
- GMTA010-18L10 to 50, GMTA020-18L10 to 25: The thread length of bolts to be used should be M 8-25 mm or less.

Outdoor type (common to gear motors and hypoid motors) 1.5 kW-5.5 kW (Protective construction IP55)

(1) Position and dimensions of the terminal box (Note) If the motor is not to be installed horizontally, please contact us.



(2) Change of the position of the terminal box

If you want to change the position of the terminal box because, for example, it is positioned inconveniently for you, please instruct us to do so. The position of the terminal box can be changed by changing the tightening position of the through bolt for fastening the motor.

Change of position: 90° swing is possible for both gear motors and hypoid motors. Use the option code to instruct us to change the position.

| Motor output | A | B | C | P | Q | KD | θ° |
|--------------|-------|-----|-----|-----|----|-------|----|
| 1.5kW | 117 | 96 | 116 | 153 | 47 | PF3/4 | 0 |
| 2.2kW | 117 | 96 | 116 | 153 | 47 | PF3/4 | 0 |
| 3.7kW | 137.5 | 96 | 116 | 162 | 47 | PF3/4 | 0 |
| 5.5kW | 151.5 | 158 | 185 | 254 | 54 | PF1 | 15 |

Note) The entire length is the same as that of the indoor-type standard product.

Note) For the 5.5 kW device, the position of the terminal box is turned 15 degrees clockwise (upward) from the horizontal.

(3) Change of the lead outlet direction of the terminal box The lead outlet direction can be changed by 90°.

(4) Construction of the terminal box

