Hypoid Motor TA Series Features

Space savings realized with hypoid gear and orthogonal-axis-type reducer that is ready for multiple applications

Unlike parallel-axis-type gear motors, the shaft of the hypoid motor does not protrude in the longitudinal direction, allowing the hypoid motor to be mounted on the inside of machinery. Even when mounted on the outside of machinery, a compact layout can be realized because it does not extend outward much, leading to space savings. The face mount type and hollow shaft type using Tsubaki’s unique multi-fit system are ready for various installation modes, making it possible to simplify the layout of the whole equipment.

1. Compact
   Special emphasis is placed on the height of Tsubaki’s hypoid motor - a compact reducer with as low a height as has ever been realized.

2. High efficiency
   The hypoid motor has less slippage than worm gear motors, thus providing higher efficiency. This means that the hypoid motor uses less power for the same output, which results in economical operation.

3. Low noise
   The hypoid motor employs the new processing technology incorporated in our T series gear motor providing low noise and high reliability.

4. Usability
   Because the product is delivered with grease injected, it can be used immediately. There is no limitation on the mounting direction. A tapped (screw) hole is included in the end of the output shaft to aid installation. For the hollow shaft type, a torque arm and a safety cap are available as options.

5. Inverter motor type
   (Quick-delivery make-to-order product)
   An inverter-ready motor is connected directly. Continuous operation with 100% constant torque is possible even at low frequencies (6 Hz or more).
   (For the 2.2 kW and 3.7 kW devices, reduction of torque is produced at frequencies of 10 Hz or less.)

   In addition…
   1. Quick delivery
      Available on short delivery
   2. Compact
      Exactly the same size as the standard product
   3. Low price
      A slight increase over the standard product of about 20%
Hypoid Motor TA Series Features

**Space saving**
- Mounted on inside of conveyor
- Mounted on outside of conveyor
- Multiple drive

**Multi-fit system**
- Mounted on outside of conveyor
- Mounted on inside of conveyor
- Mounted on shaft

**Options**
- Mounted on shaft with torque arm
- Safety cap for added safety

The face mount type offers a compact layout. Small dead space ensures easy transfer.

Because the upper and lower pitches are the same, different applications are possible without adjustment.

Through-hole

Tap hole

Safety cap
Nomenclature

Model number 1 (0.1kW~0.75kW)

HMTA010-38L1200L

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<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>HMTA</td>
<td>Motorized type</td>
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<tr>
<td>HRMT</td>
<td>Inline reducer type and adapter type</td>
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<td>Three-phase 0.1 kW</td>
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<td>100</td>
<td>Single-phase 100 W</td>
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<td>38</td>
<td>Frame number 38 (Note 1)</td>
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<td>L</td>
<td>Foot mount</td>
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<td>Hollow shaft type</td>
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<td>1/1200</td>
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</table>

Shaft arrangement:
- L: Output shaft located to the left as viewed from the motor side
- T: Output shaft located on both sides
- R: Output shaft located to the right as viewed from the motor side
- S: Output shaft located on one side (face side) (For face mount type only)

Hollow shaft type:

Speciation code:
- No code: Without B, K or BE
- B: Brake type
- Fl: Adapter type
- K: Power lock type (For hollow shaft type with standard shaft hole diameter only)
- BE: Encoder type
- SR: Shock relay type for 0.1 and 0.2 kW only

Option code:
1. Z: Inverter motor type
2. W: Outdoor type
3. V: 400 V class (400/400/440V 50/60/60Hz)
4. V1: 380V50Hz
5. V2: 380V60Hz
6. V3: 415V50Hz
7. V4: 460V60Hz
8. N: Ready for CE marking
9. H: Hard terminal box type
10. Q: One-touch manual release type
11. M: Manual shaft type

Note 1: For the frame number, refer to the specification chart and outline dimensional drawing.

Position of terminal box:
- P1: 90° swing
- P2: 180° swing
- P3: 270° swing

Position of lead outlet of hard terminal box:
- D1: 90° swing
- D2: 180° swing
- D3: 270° swing

Paint color:
- C1: Light silver metallic
- C2: Ivory white (Munsell 7.5Y9/1)
- C3: Dark silver metallic

Combination of specification and option codes

Codes for position of terminal box:
When the reduction is 1/300 or more, the terminal box is positioned differently. In this case, please contact us for details.

Codes for positions of the lead outlet of a hard terminal box of an outdoor type:
Positions D1, D2 and D3 are obtained by rotating the lead outlet clockwise as viewed toward the terminal box by 90, 180, and 270 degrees, respectively, from the standard position of the lead outlet.

Note: A combination of "brake type" and "outdoor use type" are made-to-order product.

[Diagram showing various codes and options]

The directions shown by D1 and D3 in the figure above are for the outdoor-type motor with a hard terminal box. For the standard motor, change the position of the lead outlet by changing the terminal box top cover mounting direction.
# Nomenclature

## Model number 2 (1.5kW~5.5kW)

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### Supplementary codes (indicated on the second line of the model number)
- Position of terminal box: Hollow shaft hole diameter
  - P 1: 90° swing
  - P 2: 180° swing
  - P 3: 270° swing
- Position of the lead outlet of a terminal box of the outdoor type and standard products
  - E 1: 90° swing
  - E 2: 180° swing
  - E 3: 270° swing
- Paint color (The standard color is Munsell 2.5G6/3, in which case no code is shown.)
  - C 1: Light silver metallic
  - C 2: Ivory white (Munsell 7.5Y9/1)
  - C 3: Dark silver metallic

### Combination of specification and option codes

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### Encoder type

| Z | ZW | ZWV |
| V | V | V |

### Codes for positions of the lead outlet of a terminal box of the outdoor type and standard products

Positions E 1, E 2 and E 3 are obtained by rotating the lead outlet clockwise as viewed toward the terminal box by 90, 180, and 270 degrees, respectively, from the standard position of the lead outlet.