

Features:

- A 2-phase stepping motor is mounted directly onto the shaft end of a Ct7 grade Rolled Ball Screw for compact and multipurpose product
- Ball Screw Shaft is ideally constructed to form the motor rotor shaft
- Flexible length can be provided by the end journal turning
- Stable mounting is secured by the exclusive Support Unit
- Accessories are also provided as mounting kit, such as nut block and motor plate



Specifications

| Specification | PBA2TMB0801 | PBA2TMB0802 | PBA2TMB0805 | PBA2TMB0812 |
|------------------------------------|-------------------------------|-------------|-------------|-------------|
| Shaft Nominal Diameter | Ø8mm | | | |
| Lead (mm) | 1 | 2 | 5 | 12 |
| Travel (mm) | 150 | | | |
| Travel Per Pulse (µm) | 5 | 10 | 25 | 60 |
| Reference Thrust (N) | 75 | 100 | 50 | 25 |
| Mass (g) | 350 | 400 | | |
| Repeatability (reference) | max ±0.01mm | | | |
| Lost Motion (reference) | max 0.01mm | | | |
| Motor Specifications | | | | |
| Motor Size (mm) | 42 | | | |
| Rated Voltage (V) | DC 2.2 | | | |
| Rated Current (A/phase) | 2.0 | | | |
| Winding Resistance (Ω) | 1.1 | | | |
| Holding Torque (Nm) | 0.24 | | | |
| Rotor Inertia (g·cm ²) | 42 | | | |
| Driving Method | 2-phase bipolar | | | |
| Basic Step Angle | 1.8° | | | |
| Recommended Driver | SD4030B2 | | | |
| Operating Temperature | -20°C ~ 50°C | | | |
| Ball Screw Specifications | | | | |
| Accuracy Grade | Equivalent to JIS Ct7 | | | |
| Thread Direction | Right | | | |
| Axial Play | 0.03mm or less | | | |
| Shaft Material | Stainless Steel | | | |
| Nut Material | Chrome-molybdenum Steel | | | |
| Surface Hardness | Min. HRC55 (thread area) | | | |
| Lubricant | KSS original grease MSG No. 2 | | | |
| Recommended Accessories | | | | |
| Motor Side Supporting Plate | MP-42A or MP-42B | | | |
| Exclusive Support Unit | SP-42S | | | |
| Nut Block | NB-0801R | NB-0802R | NB-0805R | NB-0812R |

Reference about repeatability and lost motion represents value built-in to original actuator.

Travel per pulse represents the value for a full step.

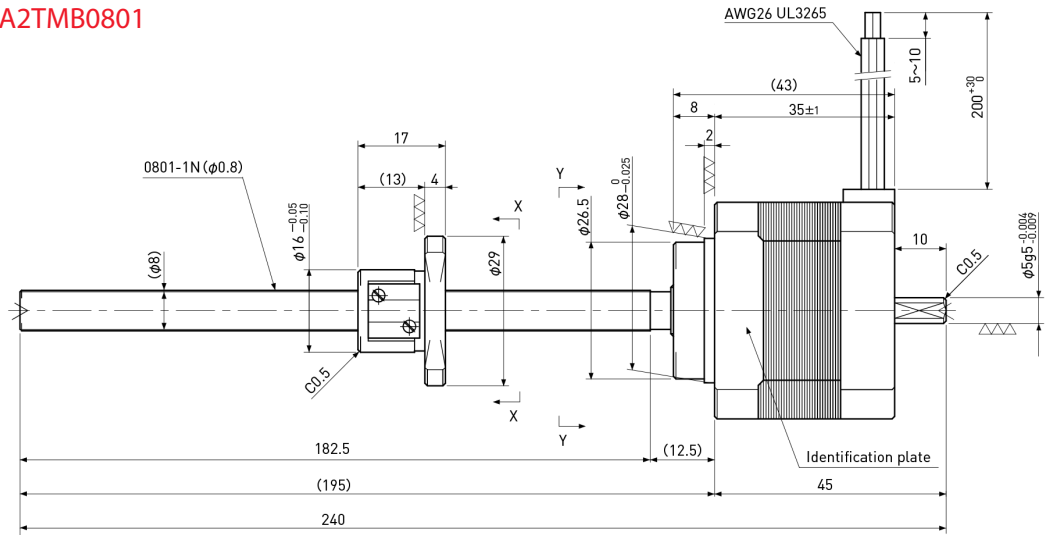
Acceleration/deceleration rate should be 50ms/kHz or more.

Reference thrust may vary depending on the operating condition.

Rotor Inertia includes ball screw shaft.

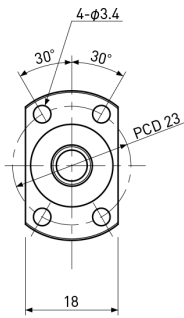
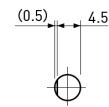
Motor characteristics will vary depending on driver type and operating conditions.

PBA2TMB0801

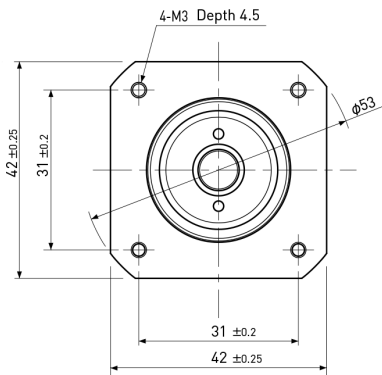


Motor wire

| | |
|----|--------|
| A | Red |
| Ā | Blue |
| B | Yellow |
| B̄ | White |

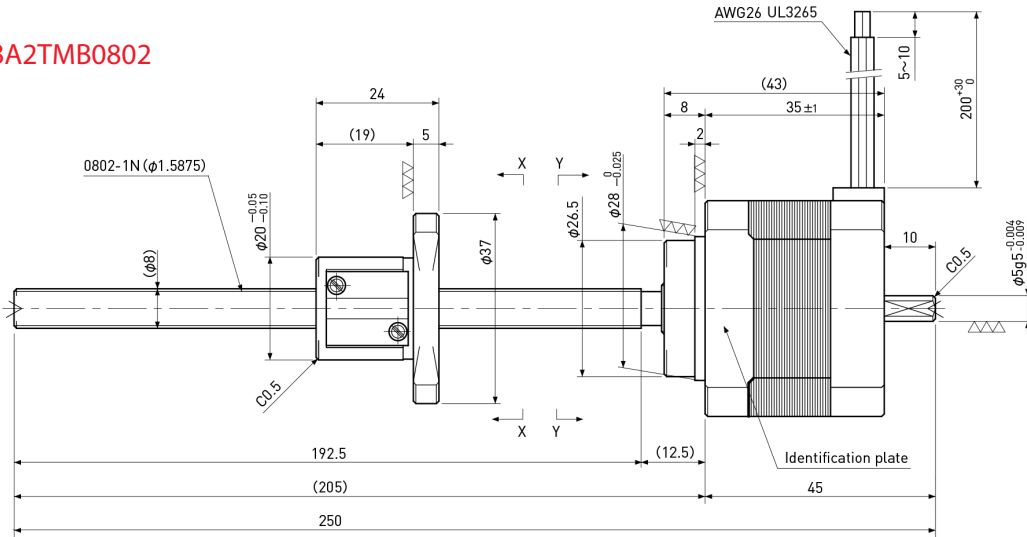


View X-X



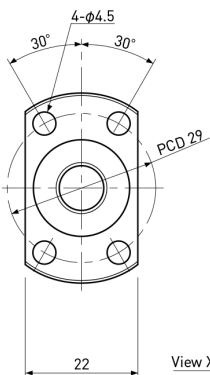
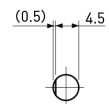
View Y-Y

PBA2TMB0802

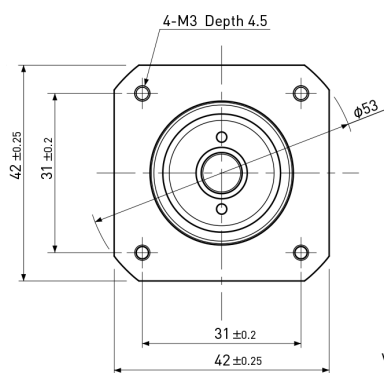


Motor wire

| | |
|----|--------|
| A | Red |
| Ā | Blue |
| B | Yellow |
| B̄ | White |

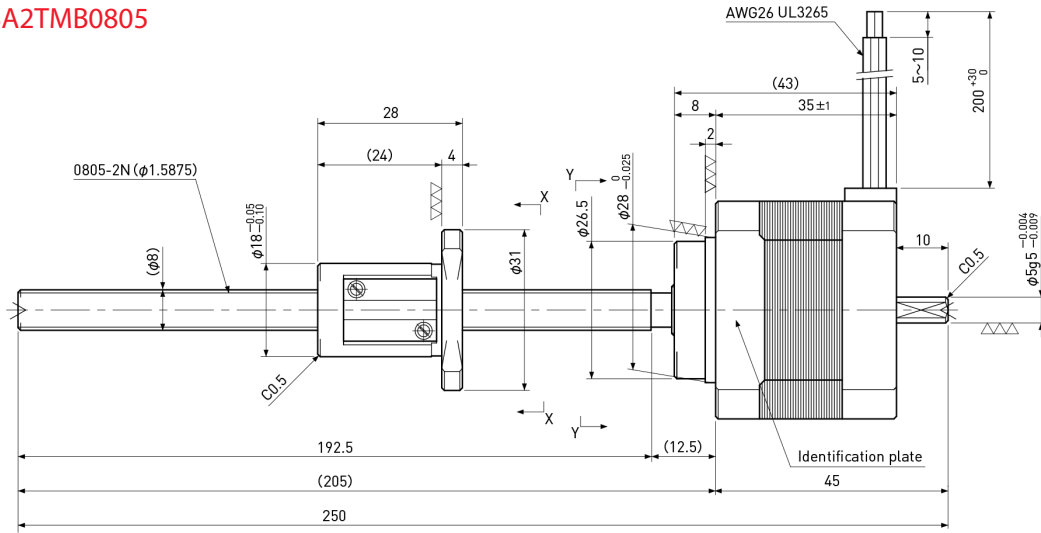


View X-X



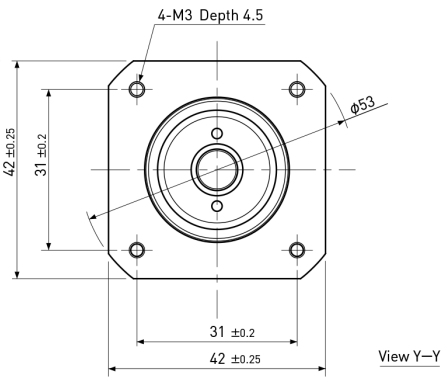
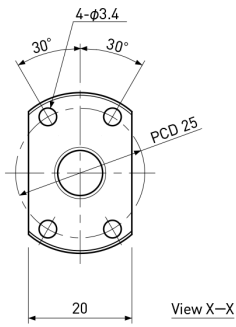
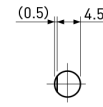
View Y-Y

PBA2TMB0805

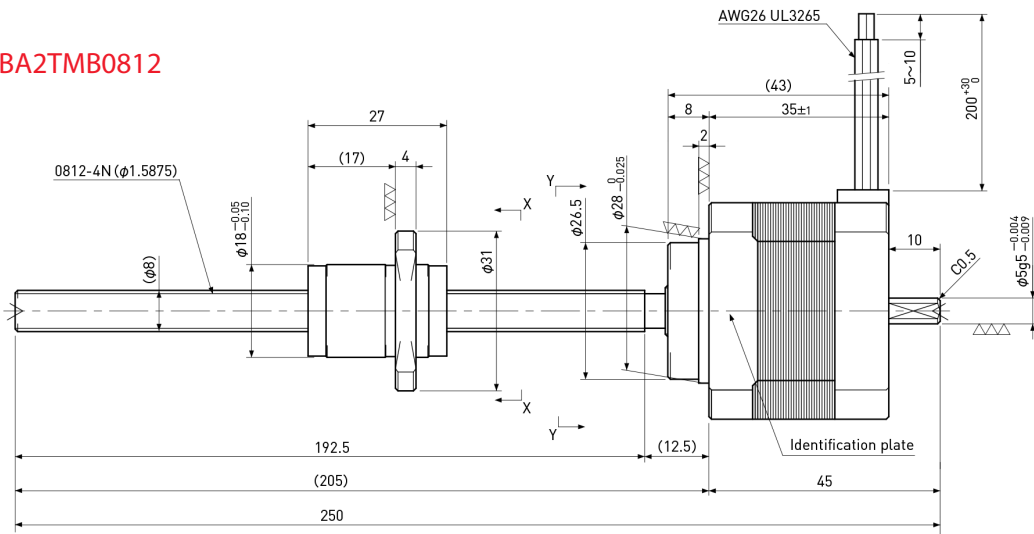


Motor wire

| | |
|----|--------|
| A | Red |
| Ā | Blue |
| B | Yellow |
| B̄ | White |



PBA2TMB0812



Motor wire

| | |
|----|--------|
| A | Red |
| Ā | Blue |
| B | Yellow |
| B̄ | White |

