2TMB Series
Rolled Ball Screw + 2 Phase Stepping Motor

Features
• A 2-phase Stepping Motor is mounted directly onto the shaft end of a C7 grade Rolled Ball Screw, which means compact and multipurpose type product.
• Ball Screw Shaft is ideally constructed to form the Motor Rotor Shaft.
• Since combining the Motor Shaft and Ball Screw Shaft, Coupling-less, saving total length, and reducing labor cost can be achieved.
• Recommended Driver for 2-phase Stepping Motor is available.
• Flexible length can be provided by the end journal turning.
• Stable mounting is secured by the exclusive Support Unit.

Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Shaft Nominal Dia</th>
<th>Lead</th>
<th>Travel</th>
<th>Travel per pulse</th>
<th>Reference Thrust</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td>2TMB0801</td>
<td>ø 8</td>
<td>1</td>
<td>150</td>
<td>5</td>
<td>75</td>
<td>350</td>
</tr>
<tr>
<td>2TMB0802</td>
<td>ø 8</td>
<td>2</td>
<td>150</td>
<td>10</td>
<td>100</td>
<td>400</td>
</tr>
<tr>
<td>2TMB0805</td>
<td>ø 8</td>
<td>5</td>
<td>150</td>
<td>25</td>
<td>50</td>
<td>400</td>
</tr>
<tr>
<td>2TMB0812</td>
<td>ø 8</td>
<td>12</td>
<td>150</td>
<td>60</td>
<td>25</td>
<td>400</td>
</tr>
</tbody>
</table>

Repeatability (reference) max. ± 0.01mm
Lost Motion (reference) max. 0.01mm

Note1) Detail specifications & dimensions are shown in drawings from page P120.
Note2) Travel per pulse represents the value for full step.
Note3) Acceleration & Deceleration Rate should be 50ms/kHz or more.
Note4) Reference Thrust may vary depending on the operating condition, please ask KSS for more detail.

Motor Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Motor size</th>
<th>Rated voltage</th>
<th>Rated current</th>
<th>Winding resistance</th>
<th>Holding torque</th>
<th>Rotor Inertia</th>
<th>Load Limit in Vertical Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>2TMB0801</td>
<td>NEMA 17 (C/42)</td>
<td>DC 2.2</td>
<td>2.0</td>
<td>1.1</td>
<td>0.24</td>
<td>42</td>
<td>300</td>
</tr>
<tr>
<td>2TMB0802</td>
<td>NEMA 17 (C/42)</td>
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<td>300</td>
</tr>
</tbody>
</table>

Driving method 2-phase Bi-polar
Basic step angle 1.8°

Motor Characteristic

Test condition
• Driver : Maker Standard
• Input Voltage : DC24V
• Phase Current : 2.0A

Note) Motor characteristic will vary depending on Driver type, operating conditions.

Model number notation

Model number notation for customized 2TMB series is as follows.
In case of standard style, model number is described in catalogue in page P120.
End-journal turning & Exclusive Support Unit

All of 2TMB series are in stock. In order to meet the request of flexible length, Shaft end journal turning is available. Please note that re-work is only for cutting and turning down (see photo below). KSS does not process Ring groove machining on the end of Shaft. Exclusive Support Unit with Brg. & Retaining ring for hole is provided by KSS.

Please note that minimum re-work length is 150mm (except re-work portion) as shown in figure above. Total length shorter than 150mm (except re-work portion) should be used as cantilever. If supported journal with ring groove or total length of less than 150mm is required, it will be available as a customized order.

Regarding the profile and dimension of KSS Exclusive Support Unit (SP-42S) for 2TMB series, please see below. Special profile of Support Unit is required, please ask KSS representative.

SP-42S
Support unit exclusive for 2TMB series

Note: Please refer to page P119 for about end-journal turning.