Nippon Pulse Stepper Motors

Unipolar Constant Voltage (48C1)

Bipolar Constant Voltage (48P1)

Bipolar Constant Current (48Q1)

Unipolar Constant Current (48D1)

Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Unit</th>
<th>PFC42H-48</th>
</tr>
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<tbody>
<tr>
<td>Type of Winding</td>
<td></td>
<td>Unipolar</td>
</tr>
<tr>
<td>Excitation Mode*</td>
<td></td>
<td>Full step (2-2)</td>
</tr>
<tr>
<td>Step Angle</td>
<td>°</td>
<td>7.5 ±5%</td>
</tr>
<tr>
<td>Steps Per Revolution*</td>
<td></td>
<td>48</td>
</tr>
<tr>
<td>Rated Voltage</td>
<td>V</td>
<td>12</td>
</tr>
<tr>
<td>Resistance</td>
<td>Ω</td>
<td>70</td>
</tr>
<tr>
<td>Inductance</td>
<td>mH</td>
<td>39</td>
</tr>
<tr>
<td>Holding Torque</td>
<td>mN·m</td>
<td>50</td>
</tr>
<tr>
<td>Rotor Inertia</td>
<td>kg·m²</td>
<td>27 x 10⁻⁷</td>
</tr>
<tr>
<td>Starting Pulse Rate*</td>
<td>pps</td>
<td>290</td>
</tr>
<tr>
<td>Slewing Pulse Rate*</td>
<td>pps</td>
<td>320</td>
</tr>
<tr>
<td>Operating Temp. Range</td>
<td>°C</td>
<td>-30 to +80</td>
</tr>
<tr>
<td>Temperature Rise*</td>
<td>°C</td>
<td>55</td>
</tr>
<tr>
<td>Weight</td>
<td>g</td>
<td>160</td>
</tr>
</tbody>
</table>

Torque Curve (pull-out torque)*

Dimensions of Geared Model

PFC42H w/H Gear Head


Maximum Torque: 200mN·m 250mN·m

Gear Ratio: 1/30 1/50 1/60 2/125 1/75

Maximum Torque: 300mN·m

Gear Ratio: 1/100 1/120 1/125 1/130 1/200 1/300

Maximum Torque: 400mN·m

* All tin-can motor specifications are based on full-step constant voltage operation
Magnet type: Anisotropic

Note: Torque curves are for reference only and are not guaranteed.