

## Item # PK296-03AA, Stepper Motor

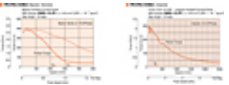


### Stepper Motor

The standard PK series stepper motor offers balanced performance enhanced by high torque, low vibration and low noise.



## SPECIFICATIONS

Motor Type	2-Phase
Frame Size	3.35 in
Motor Length	2.6 in.
Speed-Torque Characteristics	 Speed - Torque Characteristics
Holding Torque	Bipolar (Series) 440 oz-in Unipolar 310 oz-in
Shaft/Gear Type	Round Shaft (No Gearhead)
Shaft	Single
Type	Standard
Encoder	None

Basic Step Angle	1.8°
Step Angle	1.8 °
Motor Connection Type	Flying Leads
Connection Type	Bipolar (Series) Unipolar
Current per Phase (A/phase)	3.18 [Bipolar (Series)] 4.5 [Unipolar]
Lead Wires	6
Voltage (VDC)	2.8 [Bipolar (Series)] 2 [Unipolar]
Resistance ( $\Omega$ /phase)	0.96 [Bipolar (Series)] 0.48 [Unipolar]
Inductance (mH/phase)	6 [Bipolar (Series)] 1.5 [Unipolar]
Rotor Inertia	7.7 oz-in <sup>2</sup>
RoHS Compliant	Yes
Insulation Resistance	100 M $\Omega$ or more when 500 VDC megger is applied between the windings and the case under normal ambient temperature and humidity.
Dielectric Strength	Sufficient to withstand 1.0 kVAC at 50 Hz or 60 Hz applied between the windings and the case for 1 minute under normal ambient temperature and humidity.
Temperature Rise	Temperature rise of the windings is 176°F (80°C) or less measured by the change resistance method. (at rated voltage, at standstill, 2 phases energized)
Insulation Class	Class B [266°F (130°C)]
Ambient Temperature Range	14 ~ 122°F (-10 ~ 50°C) (non-freezing)
Ambient Humidity	85% or less (non-condensing)
Shaft Runout	0.05 mm (0.002 in.) T.I.R.
Concentricity	0.075 mm (0.003 in.) T.I.R.
Perpendicularity	0.075 mm (0.003 in.) T.I.R.
Radial Play	0.025 mm (0.001 in.) maximum of 5 N (1.12 lb.)
Axial Play	0.075 mm (0.003 in.) maximum of 10 N (2.2 lb.)
Step Accuracy	±3 arc minutes (±0.05°)

Permissible Overhung Load	0 in. from Shaft End = 58 lb 0.2 in. from Shaft End = 65 lb 0.39 in. from Shaft End = 76 lb 0.59 in. from Shaft End = 87 lb 0.79 in. from Shaft End = 108 lb
Permissible Thrust Load	The permissible thrust load shall be no greater than the motor mass.