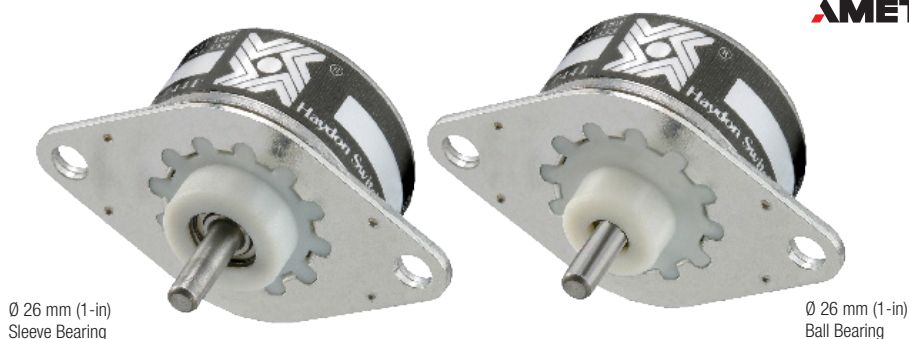


Z26000 Series Can-Stack Rotary Motors

Designed for high volume production

Sleeve or Ball Bearing



Specifications

Ø 26 mm (1-inch) Z Series Rotary Motors

Wiring	Bipolar				Unipolar			
Part No. (Sleeve)	Z26440-05*	Z26440-12*	Z26540-05*	Z26540-12*	Z26460-05*	Z26460-12*	Z26560-05*	Z26560-12*
Step Angle	7.5°		15°		7.5°		15°	
Winding Voltage	5 VDC	12 VDC	5 VDC	12 VDC	5 VDC	12 VDC	5 VDC	12 VDC
Current (RMS)/phase	340 mA	140 mA	340 mA	140 mA	340 mA	140 mA	340 mA	140 mA
Resistance/phase	14.7 Ω	84 Ω	14.7 Ω	84 Ω	14.7 Ω	84 Ω	14.7 Ω	84 Ω
Inductance/phase	8.5 mH	55 mH	6.7 mH	44 mH	4.3 mH	24 mH	3.4 mH	19 mH
Hold Torque	1.8 oz-in. (1.27 Ncm)		1.5 oz-in. (1.06 Ncm)		1.3 oz-in. (.92 Ncm)		1 oz-in. (.71 Ncm)	
Detent Torque	.25 oz-in. (.18 Ncm)		.35 oz-in. (.25 Ncm)		.25 oz-in. (.18 Ncm)		.35 oz-in. (.25 Ncm)	
Power Consumption	3.4 W							
Rotor Inertia	1.40 gcm²							
Weight	1.15 oz. (32.6 g)							
Insulation Resistance	20 MΩ							
Insulation Class	Class B							

*For Ball Bearings, add "-999" to the end of this number.

Identifying the Rotary Motor Number Codes when Ordering

Z	26	4	4	0	05	001
Prefix	Series Number Designation	Style	Coils	Code ID Resolution Travel/Step	Voltage	Suffix
Z = Economy Series	26 = 26000 (Series numbers represent approximate diameters of motor body)	4 = 7.5° 5 = 15°	4 = Bipolar (4 wire) 6 = Unipolar (6 wire)	0 = Rotary Motor	05 = 5 VDC 12 = 12 VDC Custom V available	-999 = Ball bearings -001 = Ball bearings for Z Series Rotary Stepper Motors -000 = Sleeve bearings -XXX = Proprietary suffix assigned to a specific customer application. Identifier can apply to either a standard or custom part.

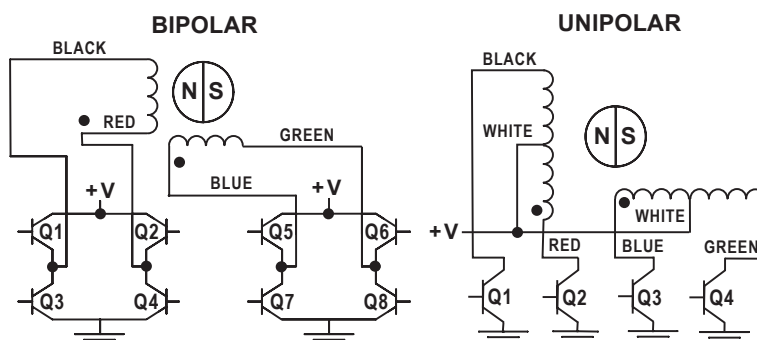
NOTE: Dashes must be included in Part Number (–) as shown above. For assistance call our Engineering Team at 203 756 7441.

Rotary Motors: Stepping Sequence

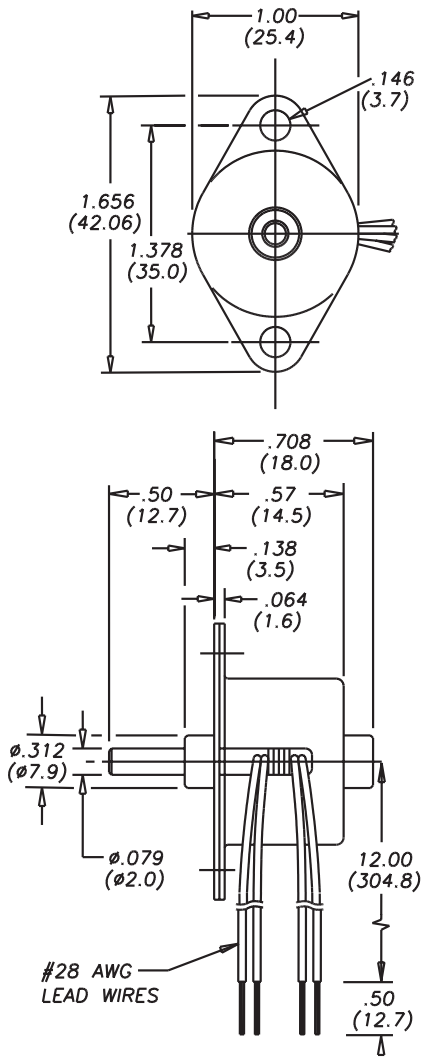
	Bipolar	Q2-Q3	Q1-Q4	Q6-Q7	Q5-Q8
Unipolar		Q1	Q2	Q3	Q4
Step					
1		ON	OFF	ON	OFF
2		OFF	ON	ON	OFF
3		OFF	ON	OFF	ON
4		ON	OFF	OFF	ON
1		ON	OFF	ON	OFF

Note: Half stepping is accomplished by inserting an off state between transitioning phases. Shaft rotation as viewed from the output shaft.

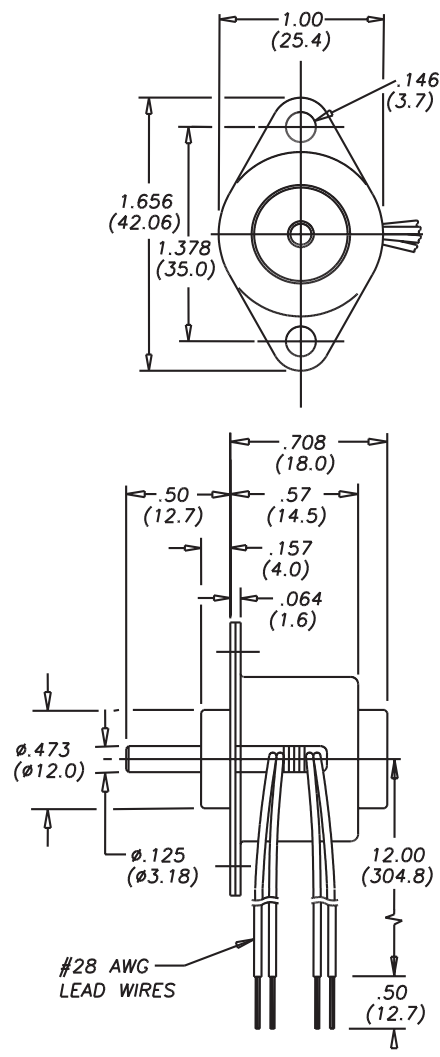
Rotary Motors: Wiring



Sleeve Bearing



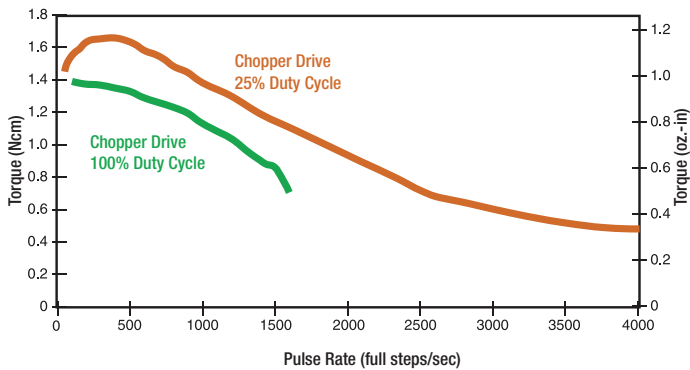
Ball Bearing



Z26000 Series Can-Stack Rotary Motors • Performance Curves

TORQUE vs. PULSE RATE

– Chopper Drive – Bipolar – 7.5% Step Angle

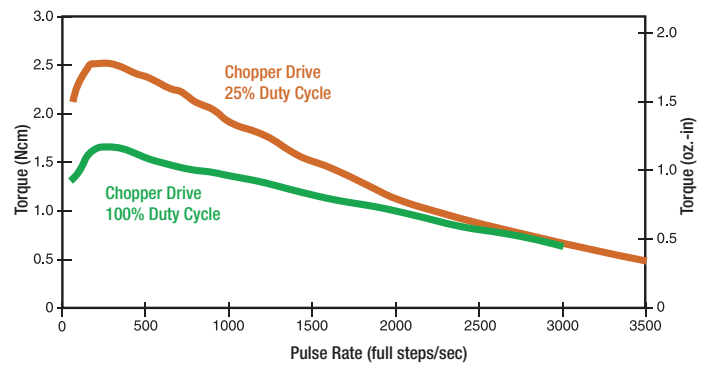


25% duty cycle is obtained by a special winding or running a standard motor at double the rated voltage.

NOTE: All chopper drive curves were created with a 5 volt motor and a 40 volt power supply.

TORQUE vs. PULSE RATE

– Chopper Drive – Bipolar – 15% Step Angle

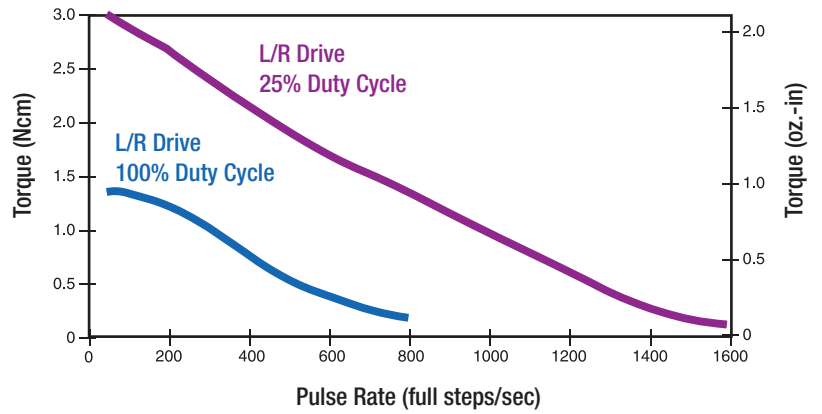


Ramping can increase the performance of a motor either by increasing the top speed or getting a heavier load accelerated up to speed faster. Also, deceleration can be used to stop the motor without overshoot.

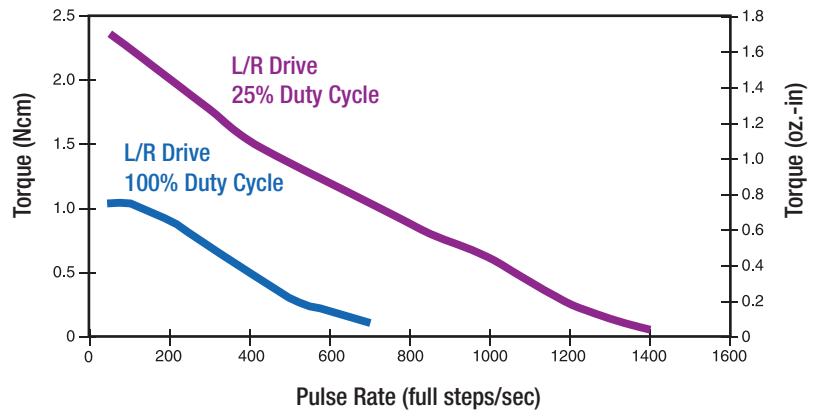
TORQUE vs. PULSE RATE

- L/R Drive
- Bipolar
- 7.5% Step Angle

25% duty cycle is obtained by a special winding or running a standard motor at double the rate voltage.

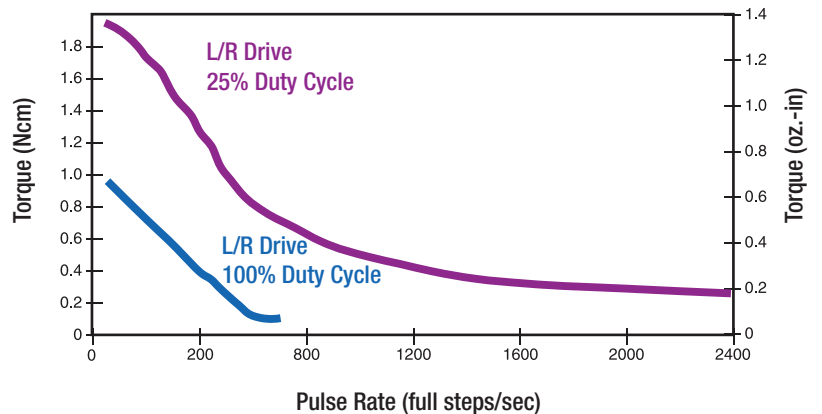
**TORQUE vs. PULSE RATE**

- L/R Drive
- Bipolar
- 15% Step Angle

**TORQUE vs. PULSE RATE**

- L/R Drive
- Unipolar
- 7.5% Step Angle

25% duty cycle is obtained by a special winding or running a standard motor at double the rate voltage.

**TORQUE vs. PULSE RATE**

- L/R Drive
- Unipolar
- 15% Step Angle

Ramping can increase the performance of a motor either by increasing the top speed or getting a heavier load accelerated up to speed faster. Also, deceleration can be used to stop the motor without overshoot.

