

## AC Can-Stack Linear Actuators

Stepping motors can also be run on Alternating Current (AC). However, one phase must be energized through a properly selected capacitor. In this case, the motor is limited to only one synchronous speed.

For instance, if 60 hertz is being supplied, there are 120 reversals or alterations of the power source. The phase being energized by a capacitor is also producing the same number of alterations at an offset time sequence. The motor is really being energized at the equivalent of 240 steps per second.

In the case of a linear actuator the linear speed produced is dependent on the resolution per step of the motor. For example, if 60 hertz is supplied to a .001-in/step motor the resulting speed is .240-in per second (240 steps per second times .001-in/step). Many of our stepping motors are available as 300 or 600 RPM AC synchronous motors.



Ø 36mm (1.4-in)  
Non-Captive

$$\frac{240 \text{ Steps per Revolution} \times 60 \text{ Seconds}}{24 \text{ Steps per Revolution}} = 600 \text{ RPM}$$

### Identifying the AC Can-Stack Part Number Codes when Ordering

A	35	5	4	2			24	800
<b>Prefix</b>	<b>Series Number Designation</b>	<b>Style</b>	<b>Coils</b>	<b>20000 and Z20000 Series Code ID Resolution Travel/Step</b>	<b>26000 Series Code ID Resolution Travel/Step</b>	<b>36000 Series Code ID Resolution Travel/Step</b>	<b>Voltage</b>	<b>Suffix</b>
A = A Coil	<b>20 = 20000</b> (Ø20mm, .79-in)	3 = 7.5° Non-Captive	4 = Bipolar (4 wire)	1 = .001-in (.0254) 2 = .002-in (.051) 4 = .004-in (.102)	1 = .001-in (.0254) 2 = .002-in (.051) 3 = .0005-in (.013) 4 = .004-in (.102) 9 = .00025-in (.00635)	1 = .001-in (.0254) 2 = .002-in (.051) 3 = .0005-in (.013) 4 = .004-in (.102)	24 = 24 VDC	-800 = External linear (added to Captive shaft part number) -XXX = Proprietary suffix assigned to a specific customer application. The identifier can apply to either a standard or custom part.
Z = Economy Series (For 20000 and 26000 Series only)	<b>26 = 26000</b> (Ø26mm, 1-in) <b>36 = 36000</b> (Ø36mm, 1.4-in) <b>46 = 46000</b> (Ø46mm, 1.8-in)	4 = 7.5° Captive or External (use "E" or "K" Prefix for External version) 5 = 15° Captive or External (use "E" or "K" Prefix for External version) 8 = 15° Non-Captive			<b>Z26000 Series Code ID Resolution Travel/Step</b> 1 = .001-in (.0254) 2 = .002-in (.051) 3 = .0005-in (.013) 4 = .004-in (.102) AS = .04166-in (.00164)	<b>High Resolution</b> 7 = .000125-in (.0032) 9 = .00025-in (.00635) <b>46000 Series Code ID Resolution Travel/Step</b> 1 = .001-in (.0254) 2 = .002-in (.051) 3 = .0005-in (.013) 4 = .004-in (.102) 8 = .0008-in (.203) G = .016-in (.406)		

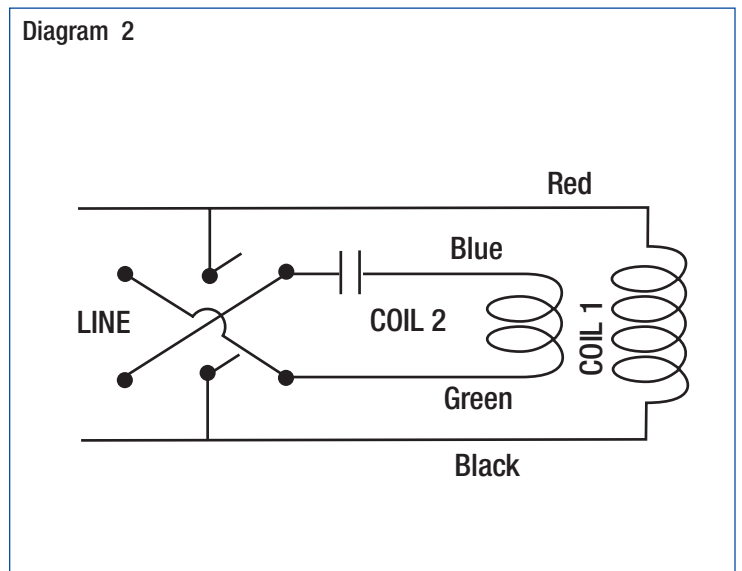
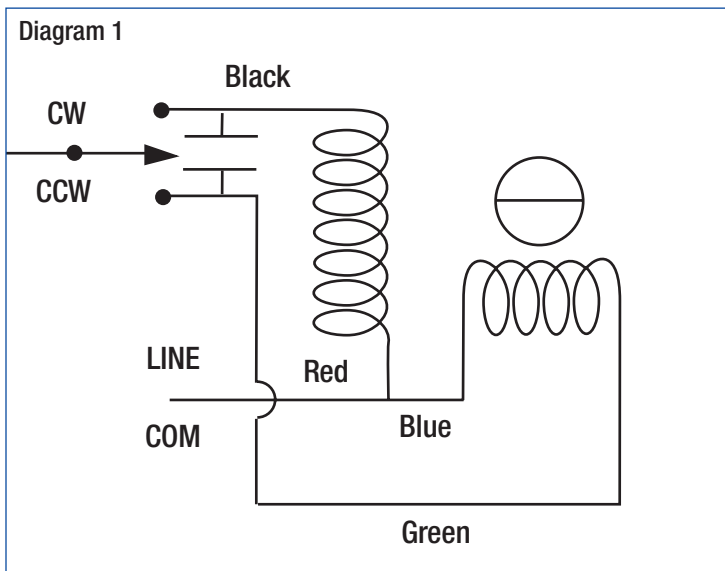
NOTE: Dashes must be included in Part Number (-) as shown above. For assistance call our Engineering Team at 203 756 7441.

Motor part numbers are for a captive shaft. For a non-captive shaft, change the third digit from a "4" to an "3". Example 1: A26441-24 with a non-captive shaft becomes A26341-24. Exception: When the third digit is "5" for a non-captive shaft substitute "8". Example 2: A26544-24 with a non-captive shaft becomes A26844-24.

For an external linear shaft, add the three digit suffix - 800 to the captive shaft part number. Example 3: A26441-24 with an external linear shaft becomes A26441-24 - 800. All standard motors operate at 24 Volts, represented in the part number by the suffix - 24 (A36443-24).

Specifications						
Motor Part No.	Linear Speed @ 60 Hz		Linear Speed @ 50 Hz		Maximum Force	
	(inches/sec.)	(cm/sec.)	(inches/sec.)	(cm/sec.)	(lbs.)	(Newtons)
Z20541-24-700	0.24	0.610	0.20	0.508	5.5	24
Z20542-24-700	0.48	1.219	0.40	1.016	3.0	13
Z20544-24-700	0.96	2.438	0.80	2.032	1.8	8
A26443-24	0.12	0.305	0.10	0.254	7.4	33
A26441-24	0.24	0.610	0.20	0.508	4.4	20
A26542-24	0.48	1.219	0.40	1.016	3.5	16
A26544-24	0.96	2.438	0.80	2.032	2.0	9
Z26443-24-700	0.12	0.305	0.10	0.254	13.0	58
Z26441-24-700	0.24	0.610	0.20	0.508	8.3	37
Z26542-24-700	0.48	1.219	0.40	1.016	6.6	29
Z26544-24-700	0.96	2.438	0.80	2.032	3.3	15
A36443-24**	0.12	0.305	0.10	0.254	16.0	71
A36441-24**	0.24	0.610	0.20	0.508	12.0	53
A36442-24**	0.48	1.219	0.40	1.016	6.0	27
A36544-24**	0.96	2.438	0.80	2.032	3.0	13
A46443-24**	0.12	0.305	0.10	0.254	43	191
A46441-24**	0.24	0.610	0.20	0.508	34	151
A46442-24**	0.48	1.219	0.40	1.016	20	89
A46544-24**	0.96	2.438	0.80	2.032	11	49
A46548-24**	1.92	4.877	1.60	4.064	5.4	24
A4654G-24**	3.84	9.754	3.20	8.128	2.7	12

\*\* Select motors available with 24 Volts or 120 Volts (replace 24 with 120).



NOTE: Capacitors not furnished with production units.