

LN & LC SERIES

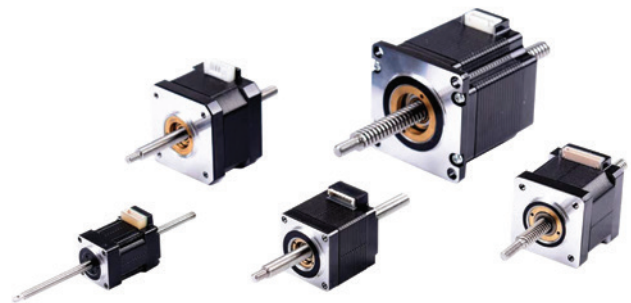


Screw Driven Linear Actuators

LN Series Non-Captive Type Pages 02–16

A lead-screw nut is integrated into the motor rotor, and the lead screw passes through the center of the motor. As the motor rotates it moves linearly along the lead screw. The lead-screw can be completely unscrewed from the motor, and can be any length. The motor can be fixed so that the screw moves in out of the motor, or the lead-screw can be fixed so that the motor moves along the lead screw.

- Five frame sizes: NEMA 08/11/14/17/23
- Multiple motor lengths and motor sizes
- Each motor size has a rich range of lead screws
- Standard nut



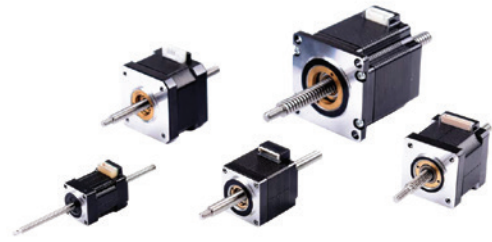
LC Series Captive Type Pages 17–31

A lead-screw nut is integrated into the motor rotor, and a leadscrew passes through the center of the motor. The leadscrew drives an integral plunger in and out. The plunger is supported by a housing that is part of the motor. This is a complete assembly with a shaft that moves in and out. No separate supports are needed for the screw or nut. The LC Series captive actuators are a fully integrated small size actuator with quiet operation ideal for plungers, pushers, and perform well in sorting and assembly operations.

- Five frame sizes: NEMA 08/11/14/17/23
- Multiple motor lengths and motor sizes
- Each motor size has a rich range of lead screws



LN Series Configuration Table (Inch Screw)



LN 174S - E06008 - 100 - S - XXX

①

②

③

④

⑤

⑥

SeriesL Motor type Lead screw type Screw length
(mm) S=Screw End Machining XXX=X.XX(A)

Nominal Diameter		Lead		Lead Screw Code	Motor Options								
inch	mm	inch	mm		LN081SL	N111SL	N143SL	N174S	LN172S	LN176S	LN234S	LN238S	LN23AS
0.138	3.51	0.024	0.61	E03006	●	--		---				--	
		0.048	1.22	E03012	●	-	--		---			--	
		0.096	2.44	E03024	●	--		---				--	
0.188	4.78	0.025	0.64	E04006	--	●		---				--	
		0.05	1.27	E04012	--	●		---				--	
		0.1	2.54	E04025	--	●		---				--	
0.218	5.54	0.024	0.61	E05006	--		●	●	●	●	--		-
		0.048	1.22	E05012	--		●	●	●	●	--		-
		0.192	4.88	E05048	--		●	●	●	●	--		-
0.25	6.35	0.031	0.79	E06008	--		●	●	●	●	--		-
		0.063	1.60	E06016	--		●	●	●	●	--		-
		0.125	3.18	E06032	--		●	●	●	●	--		-
		0.25	6.35	E06063	--		●	●	●	●	--		-
		0.333	8.46	E06085	--		●	●	●	●	--		-
		0.5	12.70	E06127	--		●	●	●	●	--		-
0.375	9.53	0.1	2.54	E09025	--		-	---			●	●	●
		0.2	5.08	E09050	--		--		--		●	●	●
		0.4	10.16	E09102	--		--		--		●	●	●
0.382	9.70	1	25.40	E09254	--		-	---			--		-

Note: 1. Marked with ● was recommend matches
2. The table shown is standard leadscrew options

LN Series Standard Models for stock

Size (mm)	Motor Series	Lead Screw Options	Screw Length Options	End Machining Code	Rated Current Options
20X20	LN081S	E03006	70, 80, 90, 100, 110, 125	S	050
	LN081S	E03024			
28X28	LN111S	E04006	70, 80, 90, 100, 110, 125, 150, 180	S	050,067,100
	LN111S	E04025			
35X35	LN143S	W0601	70, 80, 100, 125, 150	S	050,100,150
	LN143S	E06008			
	LN143S	E06063			
	LN143S	E06127			
42X42	LN174S	W0601	80, 90, 100, 110, 125, 155, 170, 180, 210, 250, 300	S	065,100,150
	LN174S	E06008			
	LN174S	E06063			
	LN174S	E06127			
	LN172S	W0601	80, 90, 100, 110, 125, 155, 170, 180, 210, 250, 300	S	100,150,200
	LN172S	E06008			
	LN172S	E06063			
	LN172S	E06127			
	LN176S	W0601	80, 90, 100, 110, 125, 155, 170, 180, 210, 250, 300	S	100,200
	LN176S	E06008			
	LN176S	E06063			
	LN176S	E06127			
57X57	LN234S	T0803	100, 155, 180, 210, 250, 300, 350,400	S	150,210
	LN234S	E09050			
	LN234S	E09102			
	LN238S	T0803	100, 155, 180, 210, 250, 300, 350,400	S	220
	LN238S	E09050			
	LN238S	E09102			
	LN23AS	T0803	100, 155,180, 210, 250, 300, 350,400	S	300
	LN23AS	E09050			
	LN23AS	E09102			

Order sample	① Select configuration codes					
	Motor Series	Lead Screw Options	Screw Length Options	End Machining Code	Rated Current Options	
	LN111S	E04006	70, 80, 90, 100, 110, 125, 150, 180	S	050, 067,100	
② Determine the order Models						
LN111S - E04006 - 100 - S - 067						

LN08 Series

Phases	2
Step Accuracy	±5 %
IP Rating	40
Approvals	RoHS
Operating Temp.	-20°C~+50°C
Insulation Class	B(130°C)
Insulation Resistance	100MegOhms



Ordering Information

LN 08 1S - E03006 - 100 - S - XXX

<p>Lead Screw Motor Type Code</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Structure Type</th> </tr> </thead> <tbody> <tr> <td>LN</td> <td>Non-captive Shaft</td> </tr> </tbody> </table>	Code	Structure Type	LN	Non-captive Shaft		<p>Rated Current Code</p> <p>XXX=X.XX(A)</p> <p>Special Custom Type Code</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Custom Type</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Non Special Custom</td> </tr> <tr> <td>S</td> <td>Lead Screw End Machining</td> </tr> <tr> <td>C</td> <td>Other Special Custom Type</td> </tr> </tbody> </table>	Code	Custom Type	0	Non Special Custom	S	Lead Screw End Machining	C	Other Special Custom Type																												
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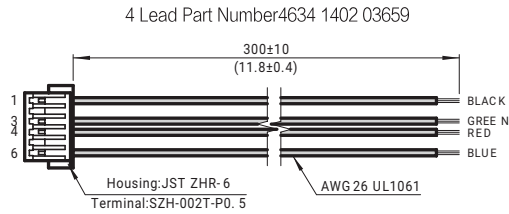
The number with * is abbreviated.

LN08 Series

LN08 Step Motor - 4 Lead Bi-Polar

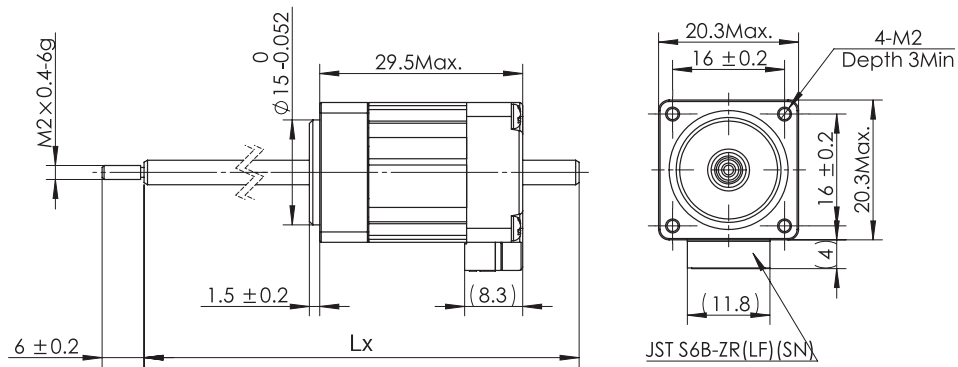
Motor Type Code	Motor Body Length (mm)	Step Angle (°)	Electrical Connection	Rated Current (Amps)	Winding	
					Resistanc(Ohms) ±10%@20°C	Inductance(mH) Typ.
LN081S	30	1.8	Plug In Connector	0.5	8.6	6.5

Mating Connector With Leads (order separately)

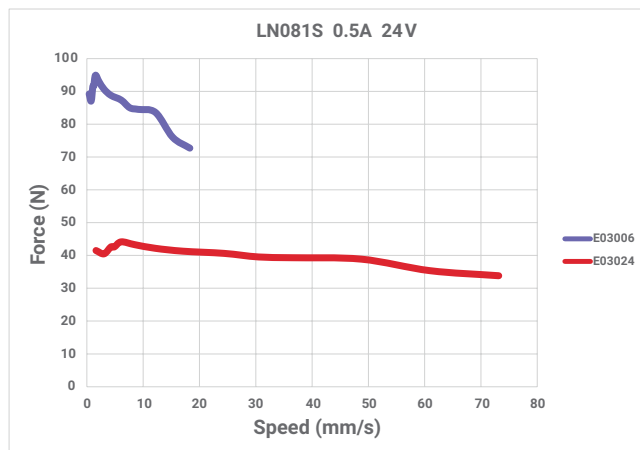


Dimensional Information

UNIT:mm



Speed - Force Reference Curve



LN11 Series

Phases	2
Step Accuracy	±5%
IP Rating	40
Approvals	RoHS
Operating Temp.	-20°C~+50°C
Insulation Class	B(130°C)
Insulation Resistance	100MegOhms



Ordering Information

LN 11 1S - E04006 - 100 - AR - S - XXX

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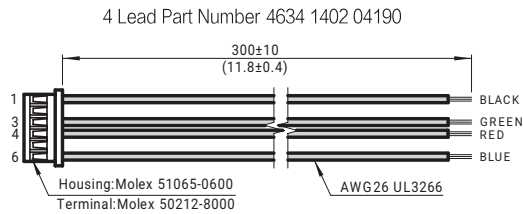
###	See page 4 for standard lengths per motor size
	Note: Non-standard cut-to-length screws available in 1 mm increments, contact an Application Engineer for details.

LN11 Series

LN Step Motor - 4 Lead Bi-Polar

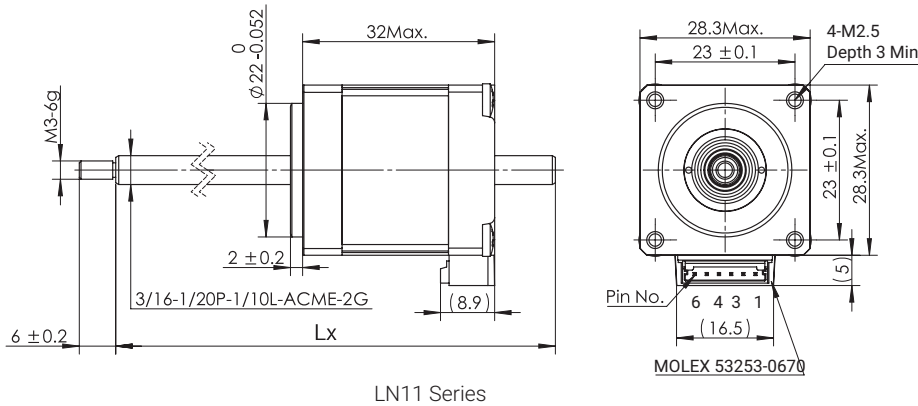
Motor Type Code	Motor Body Length (mm)	Step Angle (°)	Electrical Connection	Rated Current (Amps)	Winding	
					Resistance(Ohms) $\pm 10\% @ 20^\circ\text{C}$	Inductance(mH) Typ.
LN111S	32	1.8	Plug In Connector	0.67	6.1	5.5
				1.00	2.7	2.5

Mating Connector With Leads (order separately)

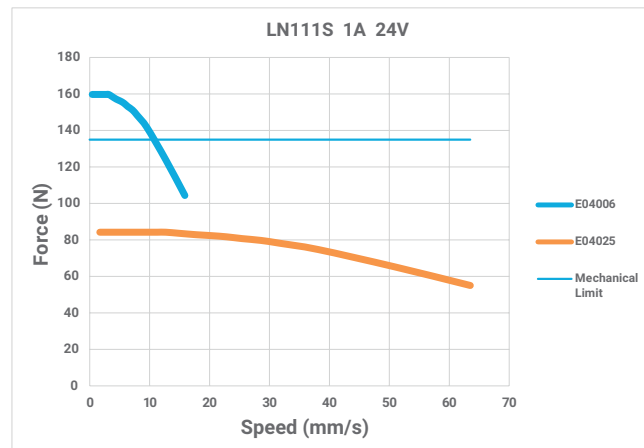
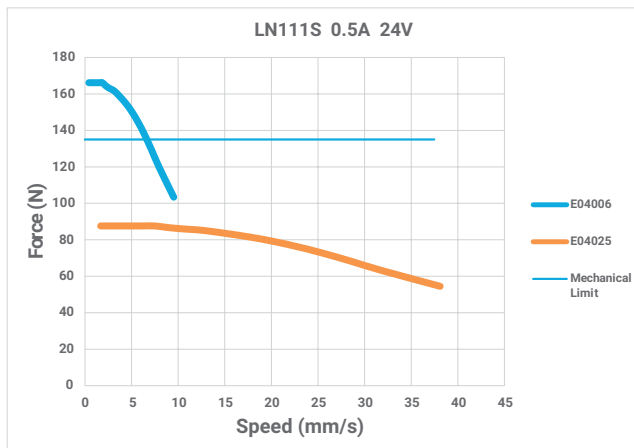


Dimensional Information

UNIT:mm



Speed - Force Reference Curve



LN14 Series

Phases	2
Step Accuracy	±5 %
IP Rating	40
Approvals	RoHS
Operating Temp.	-20°C~+50°C
Insulation Class	B (130°C)
Insulation Resistance	100MegOhms



Ordering Information

LN 14 3S - W0601 - 100 - AR - S - XXX

Lead Screw Motor Type Code

Code	Structure Type
LN	Non-captive Shaft

Frame Size Code

Code	Frame Size
14	35 mm

Motor Body Length Code

Code	Motor Body Length Max(mm)	Step Angle (°)
3S	35	1.8

Lead Screw Type Code

Code	Nominal Diameter (mm)	Lead (mm)	Travel(mm)
			Travel Per 1.8°
W0601	6	1	0.005
M0602		2	0.010
T6503	6.5	3	0.015

Code	Nominal Diameter		Lead		Travel(mm)
	inch	mm	inch	mm	Travel Per 1.8°
E05006	0.218	5.54	0.024	0.61	0.0030*
E05012			0.048	1.22	0.0061*
E05048			0.192	4.88	0.0244*
E06008	0.25	6.35	0.031	0.79	0.0039
E06016			0.063	1.60	0.0080
E06032			0.125	3.18	0.0159*
E06063			0.250	6.35	0.0318*
E06085			0.333	8.46	0.0423*
E06127			0.500	12.70	0.0635
E06254			1.000	25.40	0.127

The number with * is abbreviated.

Rated Current Code

XXX=X.XX(A)

Special Custom Type Code

Code	Custom Type
0	Non Special Custom
S	Lead Screw End Machining
C	Other Special Custom Type

Nut Type Code

Code	Nut Type
AR	Standard Nut

Lx

See page 4 for standard lengths per motor size
Note: Non-standard cut-to-length screws available in 1 mm increments, contact an Application Engineer for details.

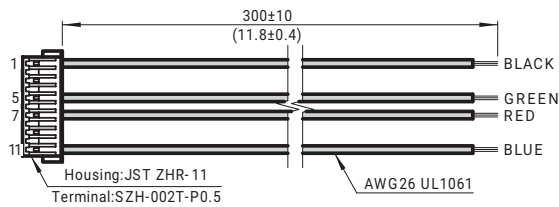
LN14 Series

LN14 Step Motor - 4 Lead Bi-Polar

Motor Type Code	Motor Body Length (mm)	Step Angle (°)	Electrical Connection	Rated Current (Amps)	Winding	
					Resistanc(Ohms) ±10%@20°C	Inductance(mH) Typ.
LN143S	35	1.8	Plug In Connector	0.5	15.10	25.0
				1.0	3.40	5.3
				1.5	1.61	2.5

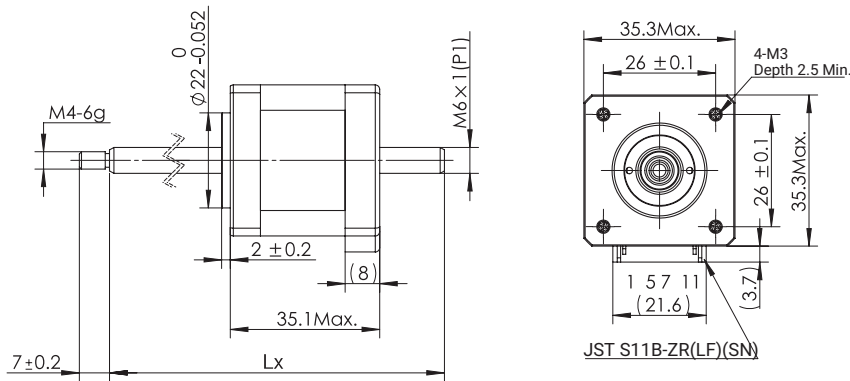
Mating Connector With Leads (order separately)

4 Lead Part Number 4634 1402 04581



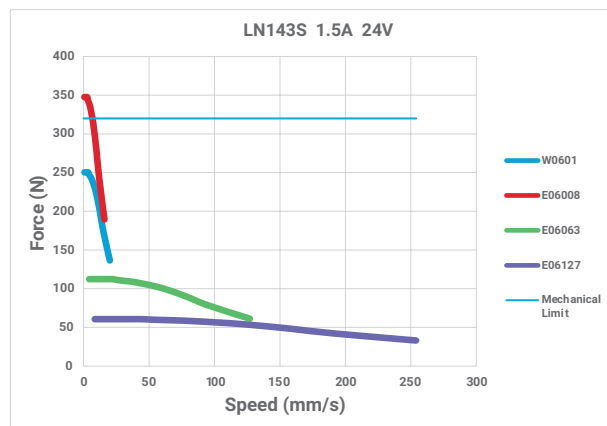
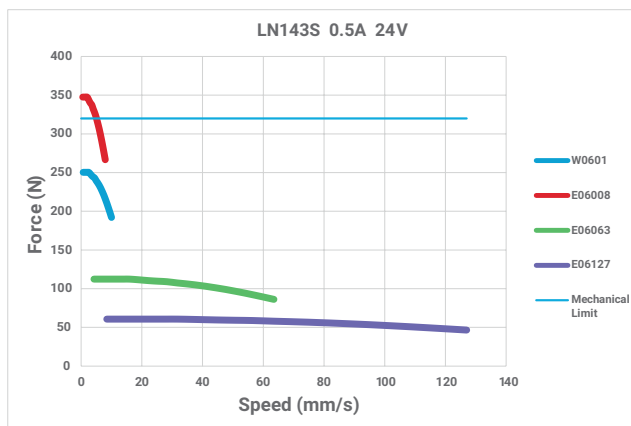
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UNIT:mm



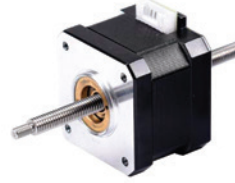
LN14 Series

Speed - Force Reference Curve



LN17 Series

Phases	2
Step Accuracy	±5 %
IP Rating	40
Approvals	RoHS
Operating Temp.	-20°C~+50°C
Insulation Class	B (130°C)
Insulation Resistance	100MegOhms



Ordering Information

LN 17 2S – M0602 – 100 – AR – S – XXX

<p>Lead Screw Motor Type Code</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Structure Type</th> </tr> </thead> <tbody> <tr> <td>LN</td> <td>Non-captive Shaft</td> </tr> </tbody> </table> <p>Frame Size Code</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Frame Size</th> </tr> </thead> <tbody> <tr> <td>17</td> <td>42 mm</td> </tr> </tbody> </table> <p>Motor Body Length Code</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Motor Body Length Max(mm)</th> <th>Step Angle (°)</th> </tr> </thead> <tbody> <tr> <td>4S</td> <td>34</td> <td rowspan="3">1.8</td> </tr> <tr> <td>2S</td> <td>40</td> </tr> <tr> <td>6S</td> <td>48</td> </tr> </tbody> </table> <p>Lead Screw Type Code</p> <table border="1"> <thead> <tr> <th rowspan="2">Code</th> <th rowspan="2">Nominal Diameter (mm)</th> <th rowspan="2">Lead (mm)</th> <th>Travel(mm)</th> </tr> <tr> <th>Travel Per1.8°</th> </tr> </thead> <tbody> <tr> <td>W0601</td> <td rowspan="2">6</td> <td>1</td> <td>0.005</td> </tr> <tr> <td>M0602</td> <td>2</td> <td>0.010</td> </tr> <tr> <td>T6503</td> <td>6.5</td> <td>3</td> <td>0.015</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th rowspan="2">Code</th> <th colspan="2">Nominal Diameter</th> <th colspan="2">Lead</th> <th>Travel(mm)</th> </tr> <tr> <th>inch</th> <th>mm</th> <th>inch</th> <th>mm</th> <th>Travel Per1.8°</th> </tr> </thead> <tbody> <tr> <td>E05006</td> <td rowspan="3">0.218</td> <td rowspan="3">5.54</td> <td>0.024</td> <td>0.61</td> <td>0.0030*</td> </tr> <tr> <td>E05012</td> <td>0.048</td> <td>1.22</td> <td>0.0061*</td> </tr> <tr> <td>E05048</td> <td>0.192</td> <td>4.88</td> <td>0.0244*</td> </tr> <tr> <td>E06008</td> <td rowspan="8">0.25</td> <td rowspan="8">6.35</td> <td>0.031</td> <td>0.79</td> <td>0.0039*</td> </tr> <tr> <td>E06016</td> <td>0.063</td> <td>1.60</td> <td>0.0080</td> </tr> <tr> <td>E06032</td> <td>0.125</td> <td>3.18</td> <td>0.0159*</td> </tr> <tr> <td>E06063</td> <td>0.250</td> <td>6.35</td> <td>0.0318*</td> </tr> <tr> <td>E06085</td> <td>0.333</td> <td>8.46</td> <td>0.0423*</td> </tr> <tr> <td>E06127</td> <td>0.500</td> <td>12.70</td> <td>0.0635</td> </tr> <tr> <td>E06254</td> <td>1.000</td> <td>25.40</td> <td>0.1270</td> </tr> </tbody> </table>	Code	Structure Type	LN	Non-captive Shaft	Code	Frame Size	17	42 mm	Code	Motor Body Length Max(mm)	Step Angle (°)	4S	34	1.8	2S	40	6S	48	Code	Nominal Diameter (mm)	Lead (mm)	Travel(mm)	Travel Per1.8°	W0601	6	1	0.005	M0602	2	0.010	T6503	6.5	3	0.015	Code	Nominal Diameter		Lead		Travel(mm)	inch	mm	inch	mm	Travel Per1.8°	E05006	0.218	5.54	0.024	0.61	0.0030*	E05012	0.048	1.22	0.0061*	E05048	0.192	4.88	0.0244*	E06008	0.25	6.35	0.031	0.79	0.0039*	E06016	0.063	1.60	0.0080	E06032	0.125	3.18	0.0159*	E06063	0.250	6.35	0.0318*	E06085	0.333	8.46	0.0423*	E06127	0.500	12.70	0.0635	E06254	1.000	25.40	0.1270	<p>Rated Current Code</p> <p>XXX=X.XX(A)</p> <p>Special Custom Type Code</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Custom Type</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Non Special Custom</td> </tr> <tr> <td>S</td> <td>Lead Screw End Machining</td> </tr> <tr> <td>C</td> <td>Other Special Custom Type</td> </tr> </tbody> </table> <p>Nut Type Code</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Nut Type</th> </tr> </thead> <tbody> <tr> <td>AR</td> <td>Standard Nut</td> </tr> </tbody> </table>	Code	Custom Type	0	Non Special Custom	S	Lead Screw End Machining	C	Other Special Custom Type	Code	Nut Type	AR	Standard Nut
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See page 4 for standard lengths per motor size
Note: Non-standard cut-to-length screws available in 1 mm increments, contact an Application Engineer for details.

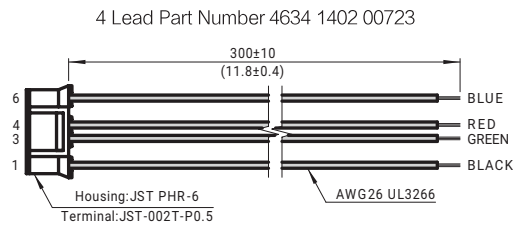
The number with * is abbreviated.

LN17 Series

LN17 Step Motor - 4 Lead Bi-Polar

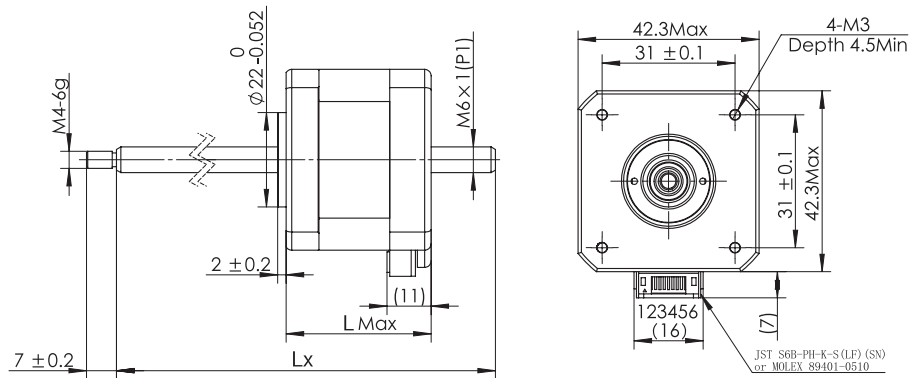
Motor Type Code	Motor Body Length (mm)	Step Angle (°)	Electrical Connection	Rated Current (Amps)	Winding	
					Resistanc(Ohms) ±10%@20°C	Inductance(mH) Typ.
LN174S	34	1.8	Plug In Connector	0.65	8.70	15.2
				1.00	4.20	7.0
				1.50	1.75	2.8
LN172S	40	1.8	Plug In Connector	1.00	3.90	10.8
				1.50	1.98	4.9
				2.00	1.04	2.5
LN176S	48	1.8	Plug In Connector	1.00	4.90	10.2
				2.00	1.25	2.8

Mating Connector With Leads (order separately)



Dimensional Information

UNIT:mm

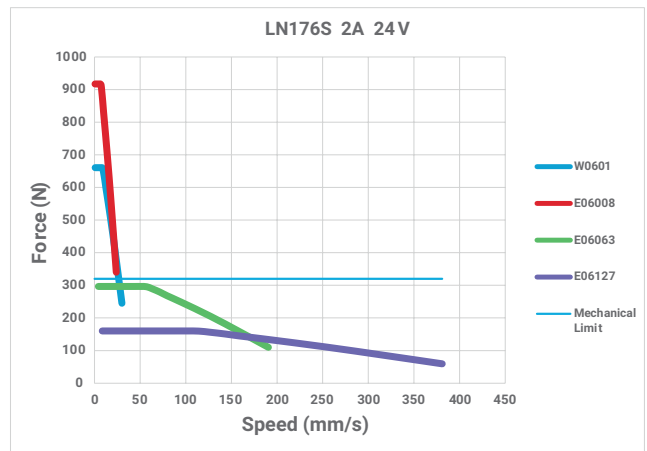
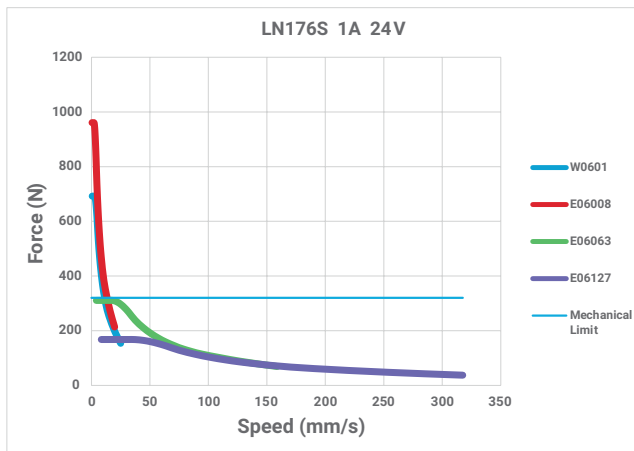
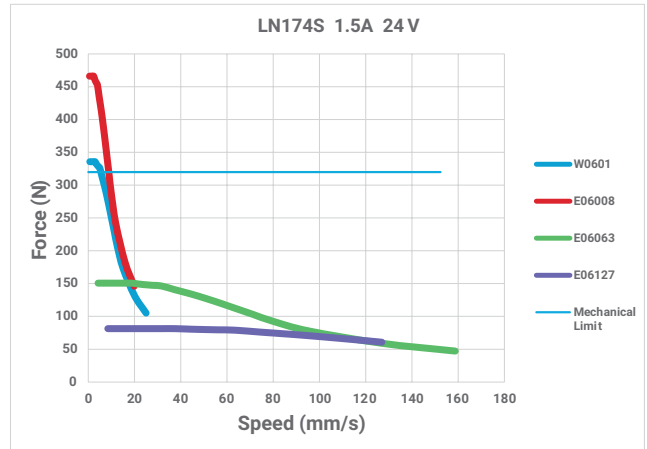
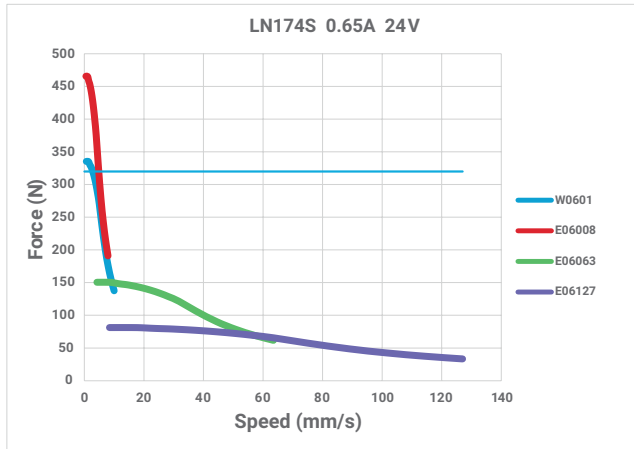
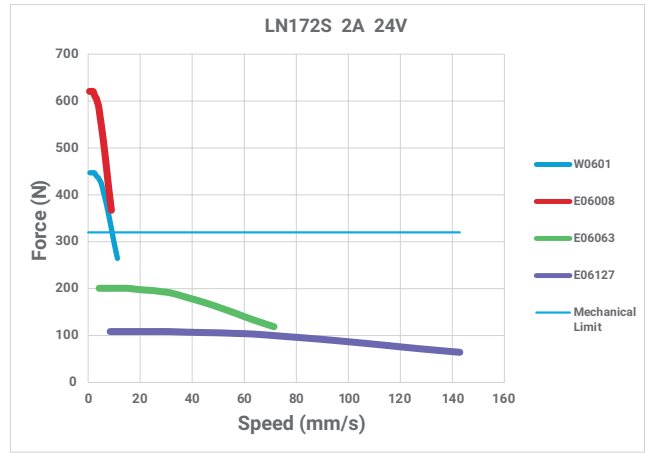
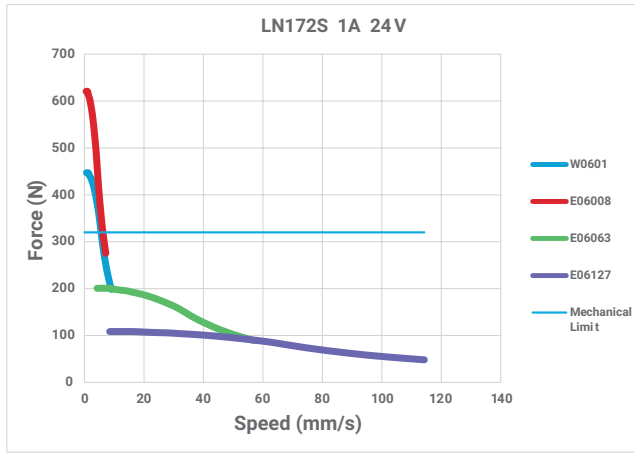


LN17 Series

Motor Type	Dimension "L"
LN174S	34.3
LN172S	39.8
LN176S	48.3

LN17 Series

Speed - Force Reference Curve



LN23 Series

Phases	2
Step Accuracy	±5 %
IP Rating	40
Approvals	RoHS
Operating Temp.	-20°C~+50°C
Insulation Class	B (130°C)
Insulation Resistance	100MegOhms



Ordering Information

LN 23 8S - M1001 - 100 - AR - S - XXX

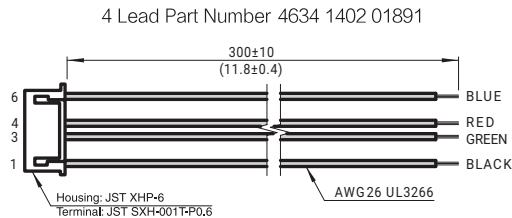
Lead Screw Motor Type Code						Rated Current Code		
Code	Structure Type					XXX=X.XX(A)		
LN	Non-captive Shaft							
Frame Size Code						Special Custom Type Code		
Code	Frame Size							
23	57 mm							
Motor Body Length Code								
Code	Motor Body Length Max(mm)	Step Angle (°)						
4S	45	1.8						
8S	57							
Lead Screw Type Code						Nut Type Code		
Code	Nominal Diameter (mm)	Lead (mm)	Travel(mm) Travel Per1.8°	Code	Nominal Diameter	Lead	Travel(mm) Travel Per1.8°	
T0801	8	1.00	0.0050	E09025	0.375	9.53	0.1 2.54 0.0127	
T08012		1.25	0.0063*	E09050			0.2 5.08 0.0254	
T0802		2.00	0.0100	E09102			0.4 10.16 0.0508*	
T0803		3.00	0.0150					
T0804		4.00	0.0200					
T0805		5.00	0.0250					
T0808		8.00	0.040					
T0810		10.00	0.0500					
T0812		12.00	0.0600					
T0815		15.00	0.0750					
T0830		30.00	0.1500					
M1001		10	1.00	0.0050				
M1002			2.00	0.0100				
M1003			3.00	0.0150				
T10105			10.50	0.0525*				
T1015	15.00		0.0750					
						Lx		
						### See page 4 for standard lengths per motor size		
						Note: Non-standard cut-to-length screws available in 1 mm increments, contact an Application Engineer for details.		

LN23 Series

LN23 Step Motor - 4 Lead Bi-Polar

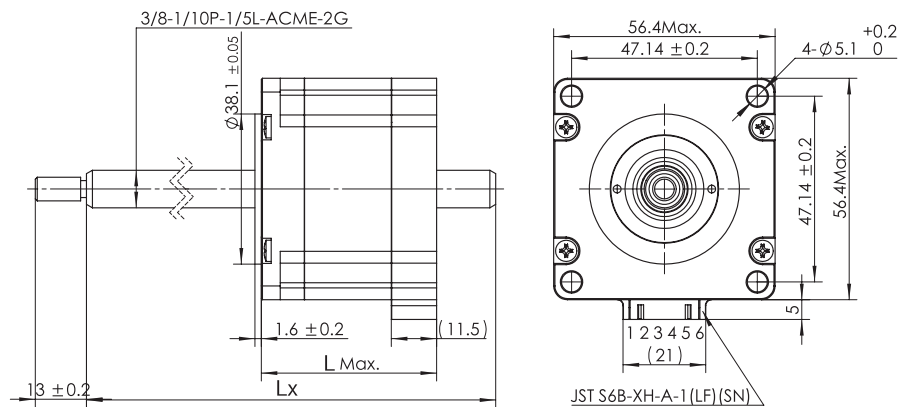
Motor Type Code	Motor Body Length (mm)	Step Angle (°)	Electrical Connection	Rated Current (Amps)	Winding	
					Resistance(Ohms) ±10%@20°C	Inductance(mH) Typ.
LN234S	45	1.8	Plug In Connector	1.5	2.9	7.5
				2.1	1.6	3.9
LN238S	57	1.8	Plug In Connector	1.5	3.9	15.0
				2.2	1.6	7.2
LN23AS	79	1.8	Plug In Connector	1.5	4.3	18.5
				3.0	1.1	5.0

Mating Connector With Leads (order separately)



Dimensional Information

UNIT:mm

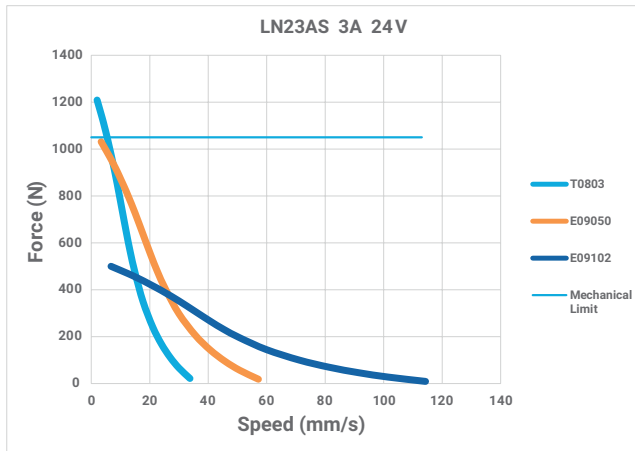
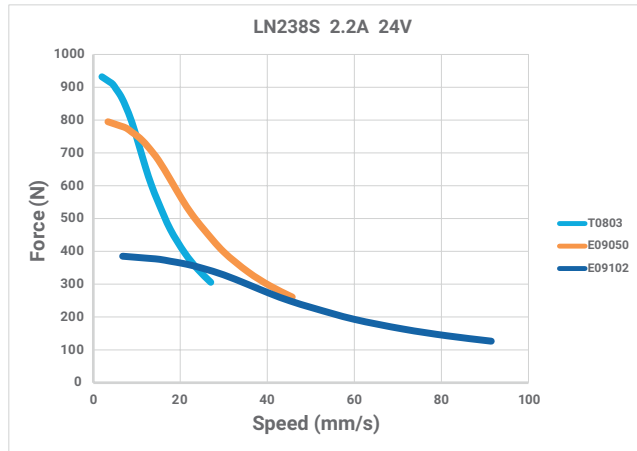
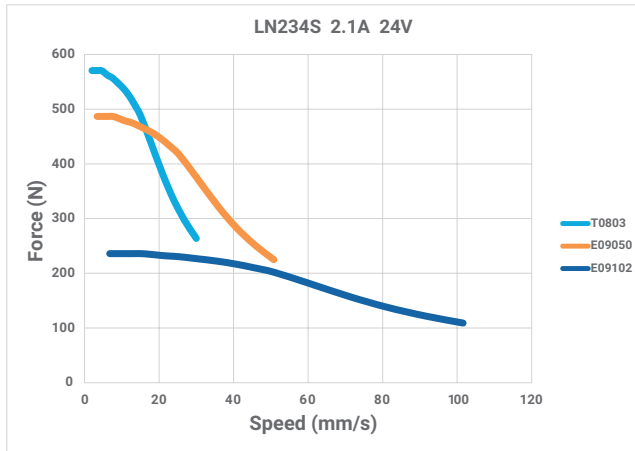


LN23 Series

Motor Type	Dimension "L"
LN234S	45
LN238S	57
LN23AS	79

LN23 Series

Speed - Force Reference Curve



LC Series Configuration Table (Inch Screw)



LC 174S - E06008 - 25 - S - XXX

①

②

③

④

⑤

⑥

SeriesL

Motor type

Lead screw type

Stroke Code

Customized Code

Rated Current

25.4 (mm)

S=Screw End Machining

XXX=X.XX(A)

Nominal Diameter		Lead		Lead Screw Code	Motor Options								
inch	mm	inch	mm		LC081S	LC111S	LC143S	LC174S	LC172S	LC176S	LC234S	LC238S	LC23AS
0.138	3.51	0.024	0.61	E03006	●	-----							
		0.048	1.22	E03012	●	-----							
		0.096	2.44	E03024	●	-----							
0.188	4.78	0.025	0.64	E04006	-	●	----						-
		0.05	1.27	E04012	-	●	----						-
		0.1	2.54	E04025	--	●		----					
0.218	5.54	0.024	0.61	E05006	--		●	●	●	●	--		-
		0.048	1.22	E05012	--		●	●	●	●	--		-
		0.192	4.88	E05048	--		●	●	●	●	--		-
0.25	6.35	0.031	0.79	E06008	--		●	●	●	●	--		-
		0.063	1.60	E06015	--		●	●	●	●	--		-
		0.125	3.18	E06031	--		●	●	●	●	--		-
		0.25	6.35	E06063	--		●	●	●	●	---		
		0.333	8.46	E06084	--		●	●	●	●	---		
		0.5	12.70	E06127	--		●	●	●	●	---		
0.375	9.53	1	25.40	E06254	--		●	●	●	●	--		-
		0.1	2.54	E09025	-----						●	●	●
		0.2	5.08	E09050	-----						●	●	●
		0.4	10.16	E09101	-	----				-	●	●	●

Note: 1. Marked with ● are recommend matches
2. The table shown is standard leadscrew options

LC Series Standard Models for stock

Size (mm)	Motor Series	Lead Screw Options	Stroke Options	End Machining Code	Rated Current Options
20X20	LC081S	E03006	25	S	050
	LC081S	E03024			
28X28	LC111S	E04006	12, 25, 38	S	050,067,100
	LC111S	E04025			
35X35	LC143S	E06008	25	S	050,100,150
	LC143S	E06063			
	LC143S	E06127			
42X42	LC174S	E06008	25	S	065,100,150
	LC174S	E06063			
	LC174S	E06127			
	LC172S	E06008	25	S	100,150,200
	LC172S	E06063			
	LC172S	E06127			
	LC176S	E06008	25	S	100,200
	LC176S	E06063			
LC176S	E06127				
57X57	LC234S	E09025	25	S	150,210
	LC234S	E09050			
	LC234S	E09102			
	LC238S	E09025	25	S	220
	LC238S	E09050			
	LC238S	E09102			
	LC23AS	E09025	25	S	300
	LC23AS	E09050			
LC23AS	E09102				

Order sample	1 Select configuration codes					
	Motor Series	Lead Screw Options	Stroke Options	End Machining Code	Rated Current Options	
	LC111S	E04006	12, 25, 38	S	050, 067, 100	
	2 Determine the order Models					
LC111S - E04006 - 25 - S - 067						

LC08 Series

Phases	2
Step Accuracy	±5%
IP Rating	40
Approvals	RoHS
Operating Temp.	-20°C~+50°C
Insulation Class	B (130°C)
Insulation Resistance	100MegOhms



Ordering Information

LC 08 1S - E03006 - 25 - S - XXX

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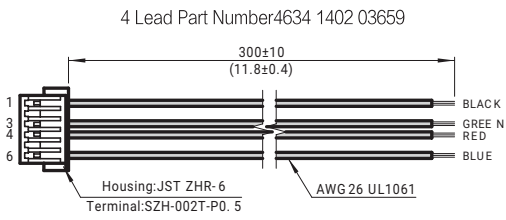
The number with * is abbreviated.

LC08 Step Motor - 4 Lead Bi-Polar

Motor Type Code	Motor Body Length (mm)	Step Angle (°)	Electrical Connection	Rated Current (Amps)	Winding	
					Resistanc(Ohms) ±10%@20°C	Inductance(mH) Typ.
LC081S	30	1.8	Plug In Connector	0.5	8.6	6.5

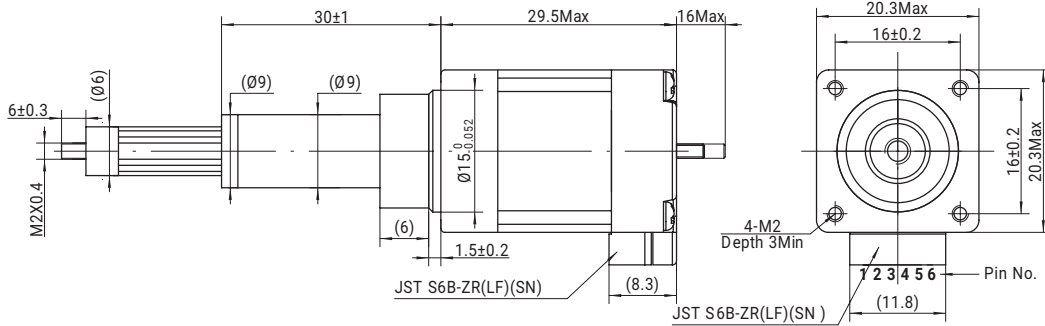
LC08 Series

Mating Connector With Leads (order separately)

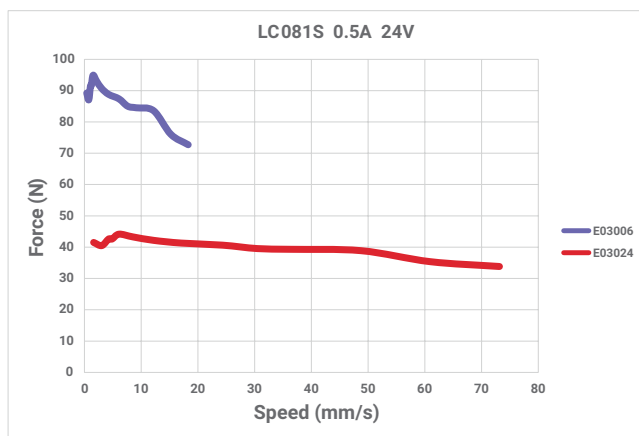


Dimensional Information

UNIT:mm

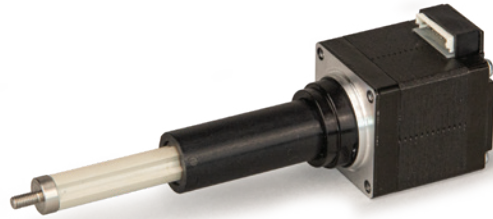


Speed - Force Reference Curve



LC11 Series

Phases	2
Step Accuracy	±5%
IP Rating	40
Approvals	RoHS
Operating Temp.	-20°C~+50°C
Insulation Class	B(130°C)
Insulation Resistance	100MegOhms



Ordering Information

LC 11 1S - E04006 - 25 - S - XXX

<p>Lead Screw Motor Type Code</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Code</th> <th>Structure Type</th> </tr> </thead> <tbody> <tr> <td>LC</td> <td>Captive Shaft</td> </tr> </tbody> </table> <p>Frame Size Code</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Code</th> <th>Frame Size</th> </tr> </thead> <tbody> <tr> <td>11</td> <td>28 mm</td> </tr> </tbody> </table> <p>Motor Body Length Code</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Code</th> <th>Motor Body Length Max(mm)</th> <th>Step Angle (°)</th> </tr> </thead> <tbody> <tr> <td>1S</td> <td>32</td> <td rowspan="2">1.8</td> </tr> <tr> <td>3S</td> <td>41</td> </tr> </tbody> </table> <p>Lead Screw Type Code</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Code</th> <th colspan="2">Nominal Diameter</th> <th colspan="2">Lead</th> <th>Travel(mm)</th> </tr> <tr> <th>inch</th> <th>mm</th> <th>inch</th> <th>mm</th> <th>Travel Per 1.8°</th> </tr> </thead> <tbody> <tr> <td>E04006</td> <td rowspan="3">0.188</td> <td rowspan="3">4.78</td> <td>0.025</td> <td>0.64</td> <td>0.0032*</td> </tr> <tr> <td>E04012</td> <td>0.050</td> <td>1.27</td> <td>0.0064*</td> </tr> <tr> <td>E04025</td> <td>0.100</td> <td>2.54</td> <td>0.0127*</td> </tr> </tbody> </table>	Code	Structure Type	LC	Captive Shaft	Code	Frame Size	11	28 mm	Code	Motor Body Length Max(mm)	Step Angle (°)	1S	32	1.8	3S	41	Code	Nominal Diameter		Lead		Travel(mm)	inch	mm	inch	mm	Travel Per 1.8°	E04006	0.188	4.78	0.025	0.64	0.0032*	E04012	0.050	1.27	0.0064*	E04025	0.100	2.54	0.0127*	<p>Rated Current Code</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td>XXX=X.XX(A)</td> </tr> </tbody> </table> <p>Special Custom Type Code</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Code</th> <th>Custom Type</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Non Special Custom</td> </tr> <tr> <td>S</td> <td>Lead Screw End Machining</td> </tr> <tr> <td>C</td> <td>Other Special Custom Type</td> </tr> </tbody> </table> <p>Stroke Code</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Code</th> <th>Stroke(mm)</th> </tr> </thead> <tbody> <tr> <td>12</td> <td>12.7</td> </tr> <tr> <td>25</td> <td>25.4</td> </tr> <tr> <td>38</td> <td>38.1</td> </tr> </tbody> </table>	XXX=X.XX(A)	Code	Custom Type	0	Non Special Custom	S	Lead Screw End Machining	C	Other Special Custom Type	Code	Stroke(mm)	12	12.7	25	25.4	38	38.1
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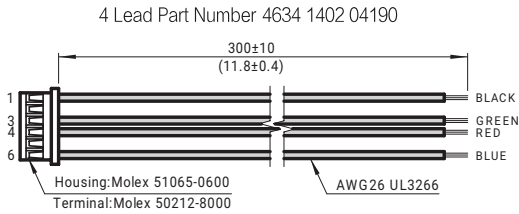
The number with * is abbreviated.

LC11 Step Motor - 4 Lead Bi-Polar

Motor Type Code	Motor Body Length (mm)	Step Angle (°)	Electrical Connection	Rated Current (Amps)	Winding	
					Resistanc(Ohms)	Inductance(mH)
					±10%@20°C	Typ.
LC111S	32	1.8	Plug In Connector	0.67	6.1	5.5
				1.00	2.7	2.5

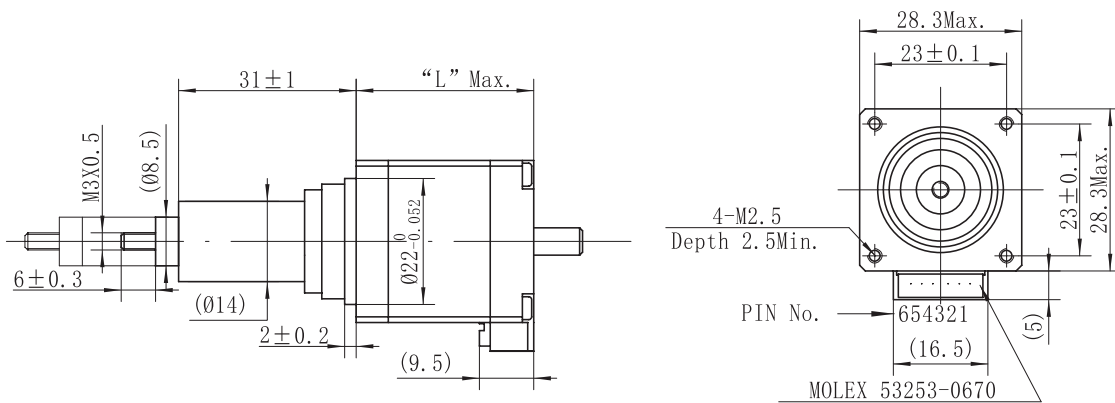
LC11 Series

Mating Connector With Leads (order separately)



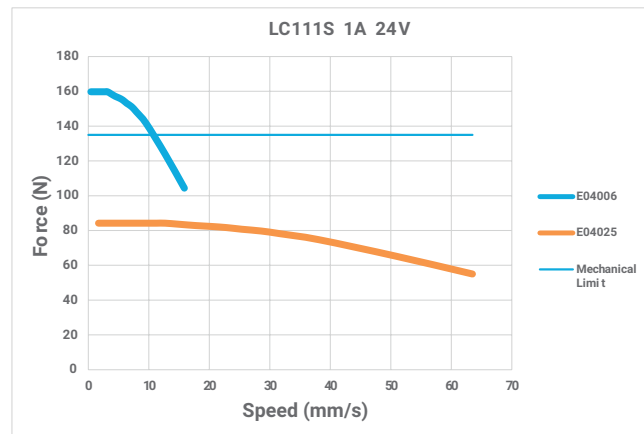
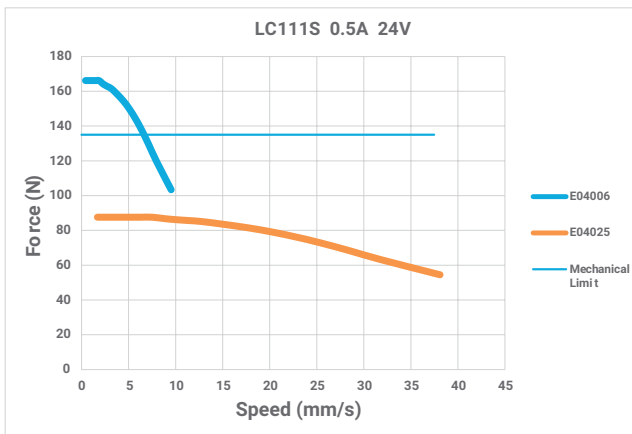
Dimensional Information

UNIT:mm



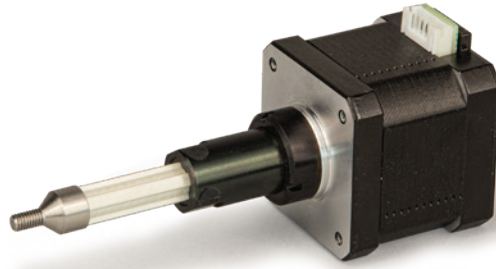
Motor Type	Dimension "L"
LC111S	32
LC113S	41

Speed - Force Reference Curve



LC14 Series

Phases	2
Step Accuracy	±5%
IP Rating	40
Approvals	RoHS
Operating Temp.	-20°C~+50°C
Insulation Class	B(130°C)
Insulation Resistance	100MegOhms



Ordering Information

LC 14 3S - E05006 - 25 - S - XXX

<p>Lead Screw Motor Type Code</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Code</th> <th>Structure Type</th> </tr> </thead> <tbody> <tr> <td>LC</td> <td>Captive Shaft</td> </tr> </tbody> </table> <p>Frame Size Code</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Code</th> <th>Frame Size</th> </tr> </thead> <tbody> <tr> <td>14</td> <td>35 mm</td> </tr> </tbody> </table> <p>Motor Body Length Code</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Code</th> <th>Motor Body Length Max(mm)</th> <th>Step Angle (°)</th> </tr> </thead> <tbody> <tr> <td>3S</td> <td>35</td> <td>1.8</td> </tr> </tbody> </table> <p>Lead Screw Type Code</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Code</th> <th colspan="2">Nominal Diameter</th> <th colspan="2">Lead</th> <th>Travel(mm)</th> </tr> <tr> <th>inch</th> <th>mm</th> <th>inch</th> <th>mm</th> <th>Travel Per1.8°</th> </tr> </thead> <tbody> <tr> <td>E05006</td> <td rowspan="3">0.218</td> <td rowspan="3">5.54</td> <td>0.024</td> <td>0.61</td> <td>0.0030*</td> </tr> <tr> <td>E05012</td> <td>0.048</td> <td>1.22</td> <td>0.0061*</td> </tr> <tr> <td>E05048</td> <td>0.192</td> <td>4.88</td> <td>0.0244*</td> </tr> <tr> <td>E06008</td> <td rowspan="8">0.25</td> <td rowspan="8">6.35</td> <td>0.031</td> <td>0.79</td> <td>0.0039</td> </tr> <tr> <td>E06016</td> <td>0.063</td> <td>1.60</td> <td>0.0080</td> </tr> <tr> <td>E06032</td> <td>0.125</td> <td>3.18</td> <td>0.0159*</td> </tr> <tr> <td>E06063</td> <td>0.250</td> <td>6.35</td> <td>0.0318*</td> </tr> <tr> <td>E06085</td> <td>0.333</td> <td>8.46</td> <td>0.0423*</td> </tr> <tr> <td>E06127</td> <td>0.500</td> <td>12.70</td> <td>0.0635</td> </tr> <tr> <td>E06254</td> <td>1.000</td> <td>25.40</td> <td>0.1270</td> </tr> </tbody> </table>	Code	Structure Type	LC	Captive Shaft	Code	Frame Size	14	35 mm	Code	Motor Body Length Max(mm)	Step Angle (°)	3S	35	1.8	Code	Nominal Diameter		Lead		Travel(mm)	inch	mm	inch	mm	Travel Per1.8°	E05006	0.218	5.54	0.024	0.61	0.0030*	E05012	0.048	1.22	0.0061*	E05048	0.192	4.88	0.0244*	E06008	0.25	6.35	0.031	0.79	0.0039	E06016	0.063	1.60	0.0080	E06032	0.125	3.18	0.0159*	E06063	0.250	6.35	0.0318*	E06085	0.333	8.46	0.0423*	E06127	0.500	12.70	0.0635	E06254	1.000	25.40	0.1270	<p>Rated Current Code</p> <p>XXX=X.XX(A)</p> <p>Special Custom Type Code</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Code</th> <th>Custom Type</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Non Special Custom</td> </tr> <tr> <td>S</td> <td>Lead Screw End Machining</td> </tr> <tr> <td>C</td> <td>Other Special Custom Type</td> </tr> </tbody> </table> <p>Stroke Code</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Code</th> <th>Stroke(mm)</th> </tr> </thead> <tbody> <tr> <td>25</td> <td>25.4</td> </tr> </tbody> </table>	Code	Custom Type	0	Non Special Custom	S	Lead Screw End Machining	C	Other Special Custom Type	Code	Stroke(mm)	25	25.4
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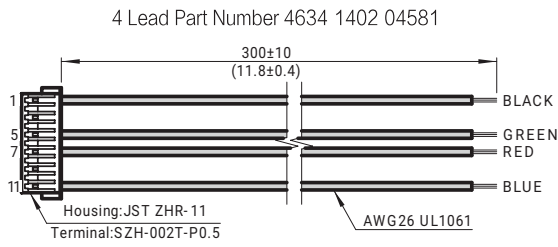
The number with * is abbreviated.

LC14 Step Motor - 4 Lead Bi-Polar

Motor Type Code	Motor Body Length (mm)	Step Angle (°)	Electrical Connection	Rated Current (Amps)	Winding	
					Resistanc(Ohms) ±10%@20°C	Inductance(mH) Typ.
LC143S	35	1.8	Plug In Connector	0.5	15.1	25.0
				1.0	3.40	5.3
				1.5	1.61	2.5

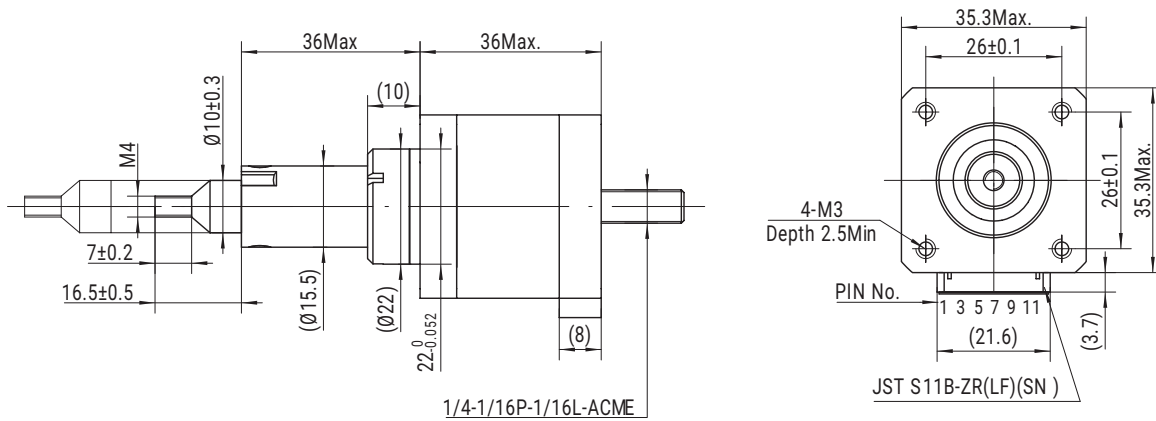
LC14 Series

Mating Connector With Leads (order separately)

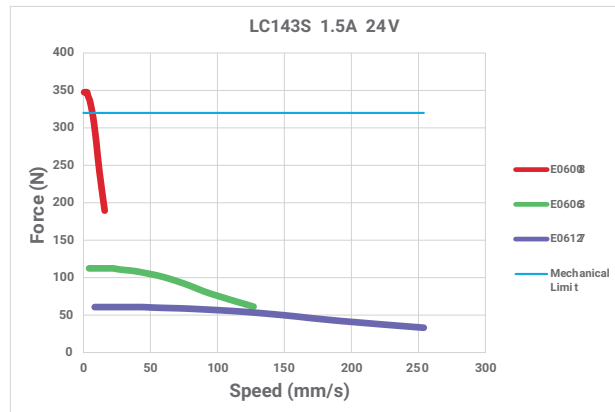
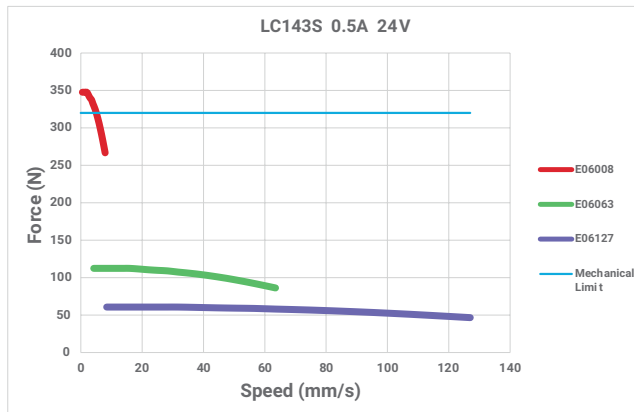


Dimensional Information

UNIT:mm

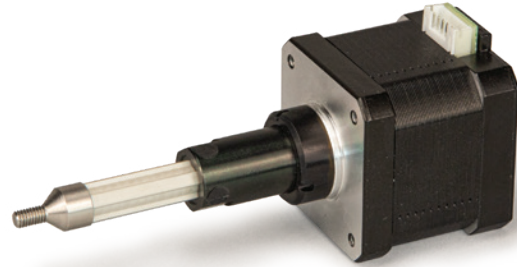


Speed - Force Reference Curve



LC17 Series

Phases	2
Step Accuracy	±5%
IP Rating	40
Approvals	RoHS
Operating Temp.	-20°C~+50°C
Insulation Class	B(130°C)
Insulation Resistance	100MegOhms



LC 17 2S - E05006 - 25 - S - XXX

Lead Screw Motor Type Code

Code	Structure Type
LC	Captive Shaft

Frame Size Code

Code	Frame Size
17	42 mm

Motor Body Length Code

Code	Motor Body Length Max(mm)	Step Angle (°)
4S	34	1.8
2S	40	
6S	48	

Lead Screw Type Code

Code	Nominal Diameter		Lead		Travel(mm)
	inch	mm	inch	mm	Travel Per 1.8°
E05006	0.218	5.54	0.024	0.61	0.0030*
E05012			0.048	1.22	0.0061*
E05048			0.192	4.88	0.0244*
E06008	0.25	6.35	0.031	0.79	0.0039
E06016			0.063	1.60	0.0080
E06032			0.125	3.18	0.0159*
E06063			0.250	6.35	0.0318*
E06085			0.333	8.46	0.0423*
E06127			0.500	12.70	0.0635
E06254			1.000	25.40	0.1270

The number with * is abbreviated.

Rated Current Code

XXX=X.XX(A)

Special Custom Type Code

Code	Custom Type
0	Non Special Custom
S	Lead Screw End Machining
C	Other Special Custom Type

Stroke Code

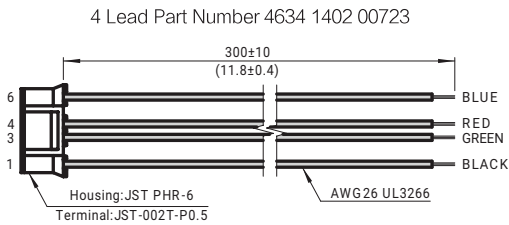
Code	Stroke(mm)
25	25.4

LC17 Series

LC17 Step Motor - 4 Lead Bi-Polar

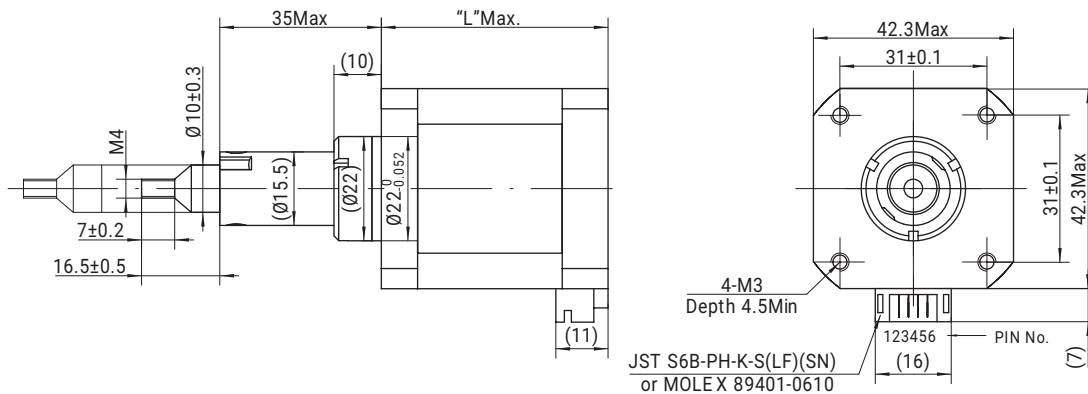
Motor Type Code	Motor Body Length (mm)	Step Angle (°)	Electrical Connection	Rated Current (Amps)	Winding	
					Resistanc(Ohms) ±10%@20°C	Inductance(mH) Typ.
LC174S	34	1.8	Plug In Connector	0.65	8.70	15.2
				1.00	4.20	7.0
				1.50	1.75	2.8
LC172S	40	1.8	Plug In Connector	1.00	3.90	10.8
				1.50	1.98	4.9
				2.00	1.04	2.5
LC176S	48	1.8	Plug In Connector	1.00	4.90	10.2
				2.00	1.25	2.8

Mating Connector With Leads (order separately)



Dimensional Information

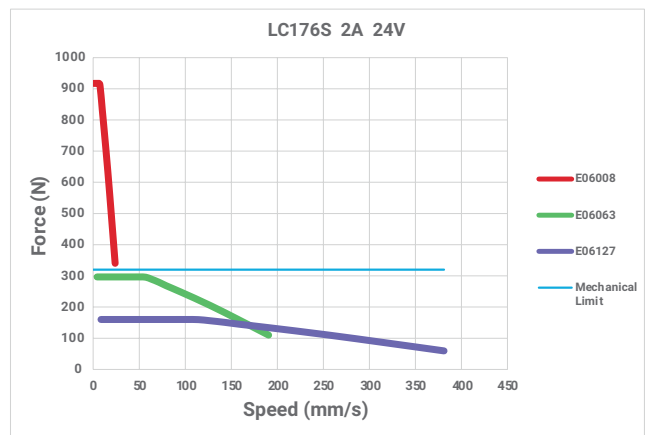
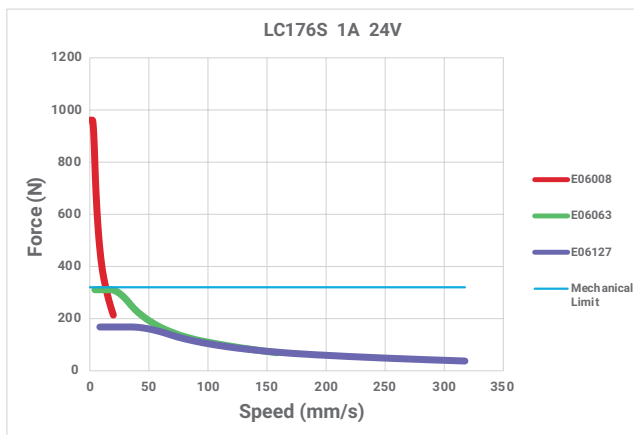
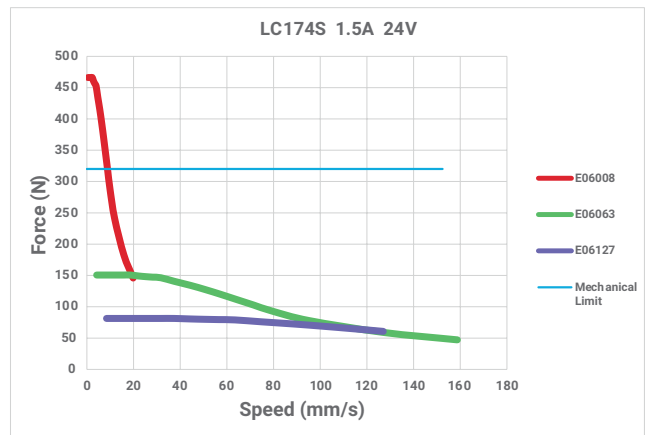
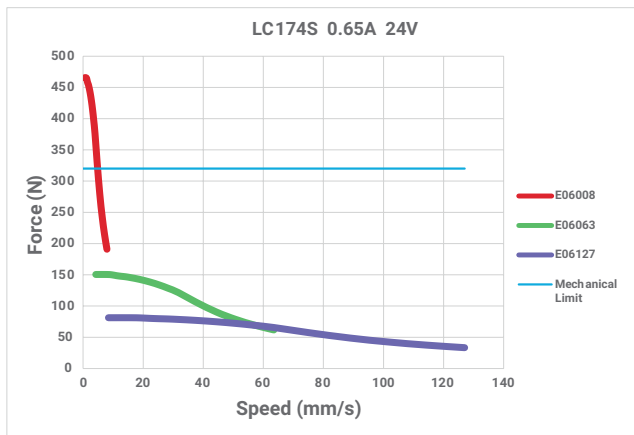
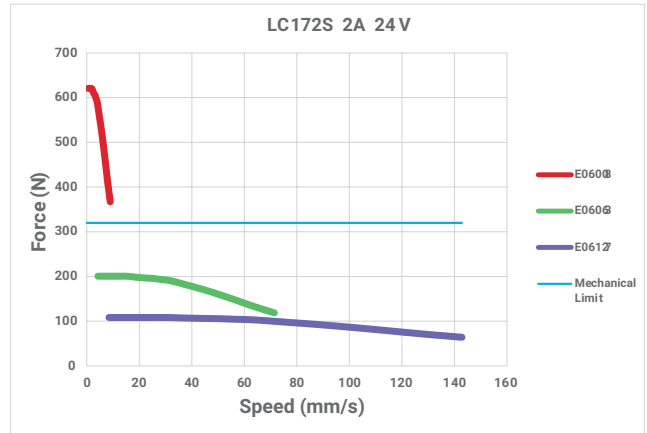
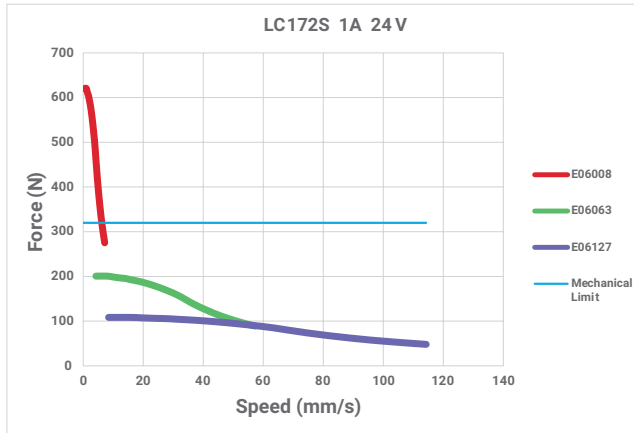
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Motor Type	Dimension "L"
LC174S	34.3
LC172S	39.8
LC176S	48.3

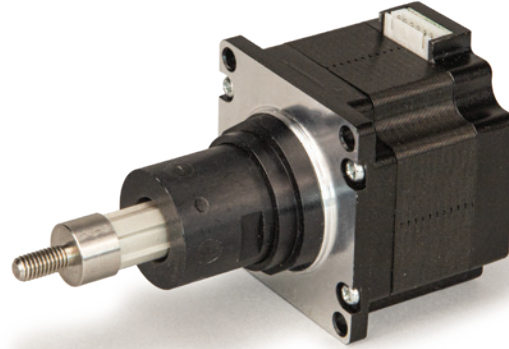
LC17 Series

Speed - Force Reference Curve



LC23 Series

Phases	2
Step Accuracy	±5 %
IP Rating	40
Approvals	RoHS
Operating Temp.	-20°C~+50°C
Insulation Class	B (130°C)
Insulation Resistance	100MegOhms



Ordering Information

LC 23 8S - E09050 - 25 - S - XXX

Lead Screw Motor Type Code

Code	Structure Type
LC	Captive Shaft

Frame Size Code

Code	Frame Size
23	57 mm

Motor Body Length Code

Code	Motor Body Length Max(mm)	Step Angle (°)
4S	45	1.8
8S	57	
AS	79	

Lead Screw Type Code

Code	Nominal Diameter		Lead		Travel(mm)
	inch	mm	inch	mm	Travel Per 1.8°
E09025	0.375	9.53	0.1	2.54	0.0127
E09050			0.2	5.08	0.0254
E09102			0.4	10.16	0.0508*
E09254	0.382	9.70	1.0	25.40	0.1270

The number with * is abbreviated.

Rated Current Code

XXX=X.XX(A)

Special Custom Type Code

Code	Custom Type
0	Non Special Custom
S	Lead Screw End Machining
C	Other Special Custom Type

Stroke Code

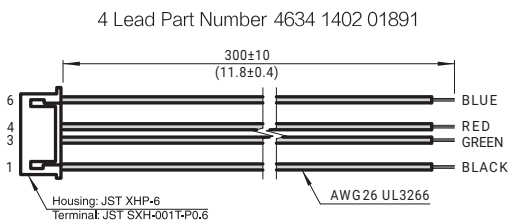
Code	Stroke(mm)
25	25.4

LC23 Series

LC23 Step Motor - 4 Lead Bi-Polar

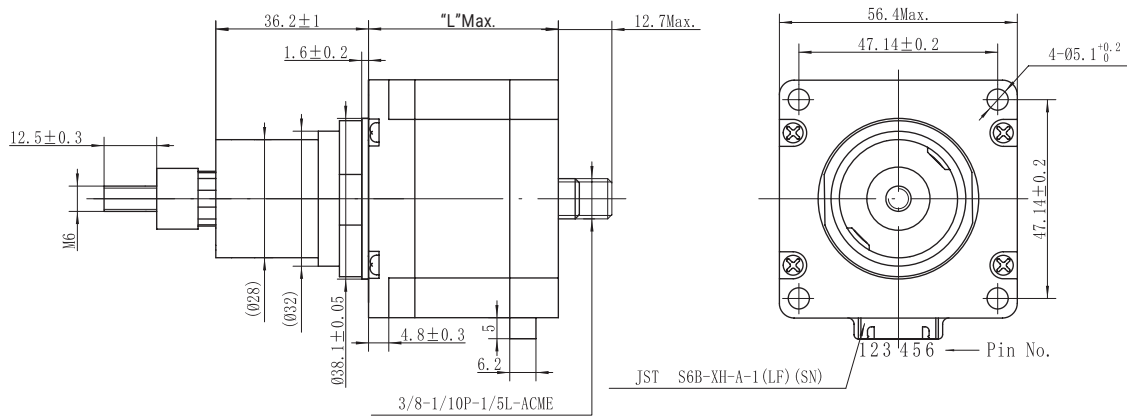
Motor Type Code	Motor Body Length (mm)	Step Angle (°)	Electrical Connection	Rated Current (Amps)	Winding	
					Resistanc(Ohms) ±10%@20°C	Inductance(mH) Typ.
LC234S	45	1.8	Plug In Connector	1.5	2.9	7.5
				2.1	1.6	3.9
LC238S	57	1.8	Plug In Connector	1.5	3.9	15
				2.2	1.6	7.2
LC23AS	79	1.8	Plug In Connector	1.5	4.3	18.5
				3.0	1.1	5.0

Mating Connector With Leads (order separately)



Dimensional Information

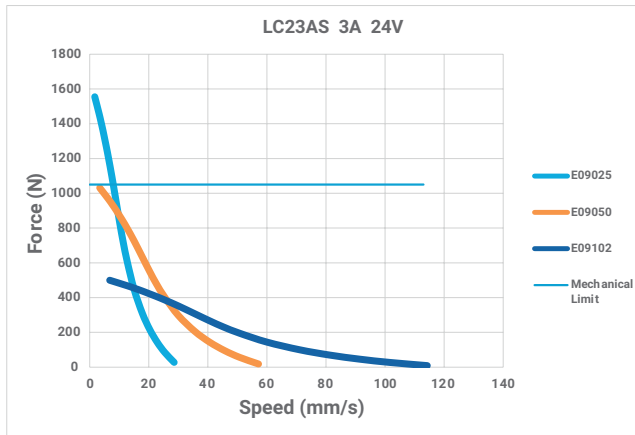
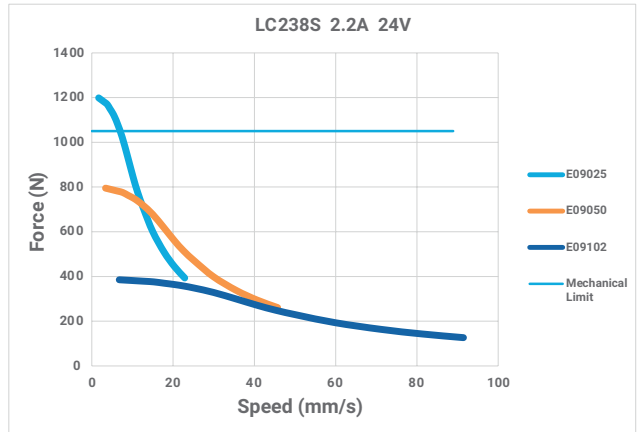
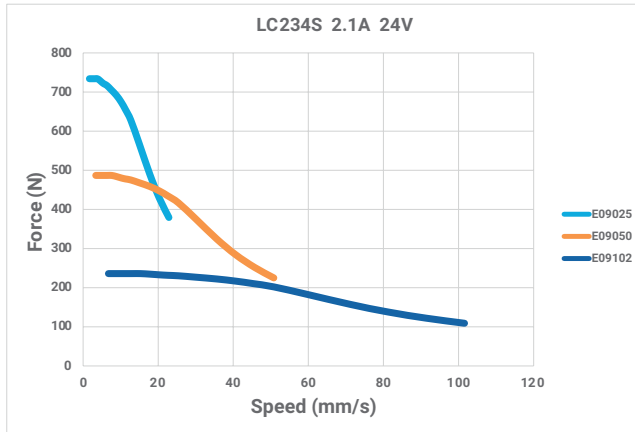
UNIT:mm



Motor Type	Dimension "L"
LC234S	45
LC238S	57
LC23AS	79

LC23 Series

Speed - Force Reference Curve

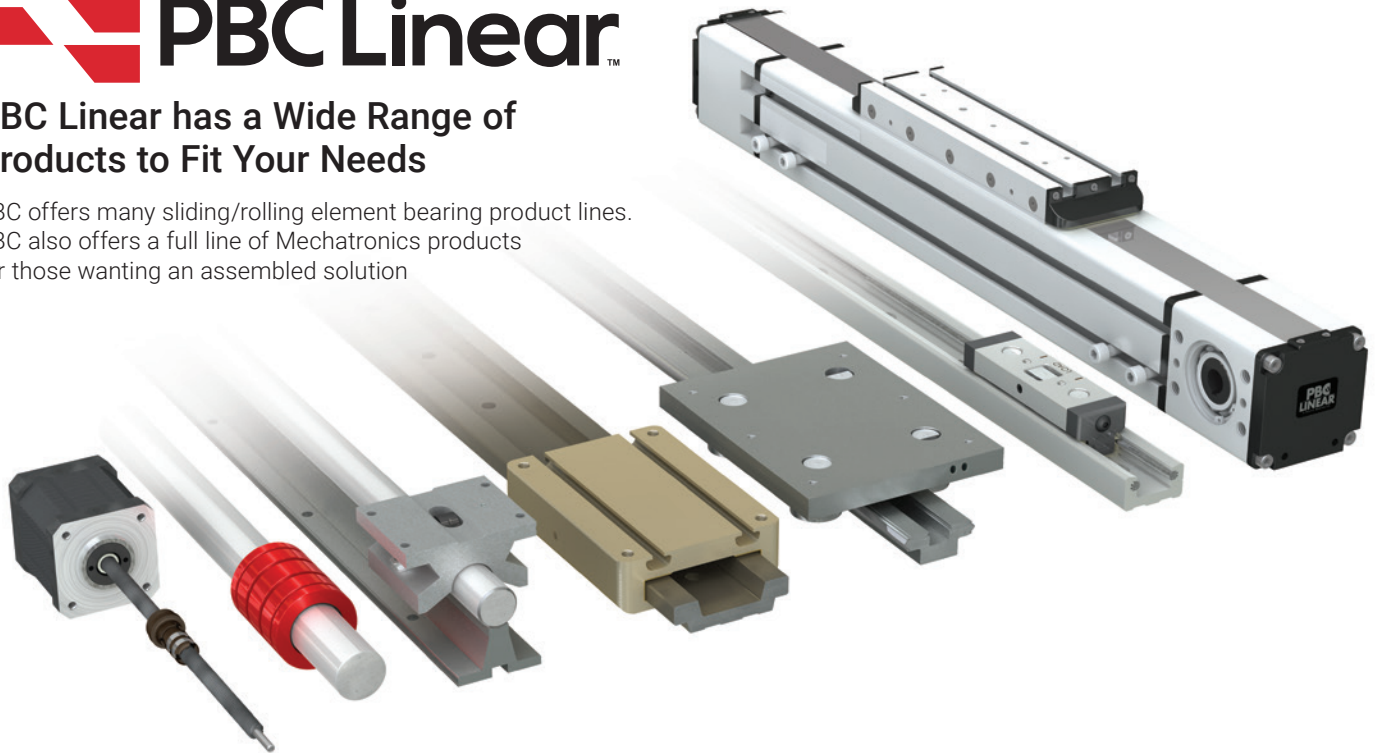


Additional Application Specific Technologies



PBC Linear has a Wide Range of Products to Fit Your Needs

PBC offers many sliding/rolling element bearing product lines. PBC also offers a full line of Mechatronics products for those wanting an assembled solution



PBC Technologies	Lead Screw	Simplicity	Roller Pillow Block	Glide Surface	Integral-V	Cam Roller	Mechatronics
Inexpensive	•	•	•	•	•	•	•
Low Maintenance	•	•	•	•			•
Compact Size	•			•			•
Low Noise	•	•					•
Multiple Configurations	•	•	•	•	•	•	•
Washdown Applications	•	•		•			•
Custom Design Support	•	•	•	•	•	•	•
Moderate to High Speed	•	•	•	•	•	•	•
Vacuum and Cleanroom Applications	•	•		•			•
Food Processing	•	•	•	•			
Ease of Installation	•				•	•	•



**PBC Linear
Worldwide Headquarters**

6402 E. Rockton Road
Roscoe, Illinois 61073
USA
Tel: +1.815.389.5600
Toll-Free: +1.800.962.8979
Fax: +1.815.389.5790

sales@pbclinear.com
pbclinear.com

**PBC Linear Europe GmbH
European Headquarters**

Bonner Straße 363
40589 Duesseldorf
Germany
Tel: +49 211 545590 20
Fax: +49 211 545590 39

info@pbclinear.eu
pbclinear.eu

**PBC-MOONS
China Headquarters**

168 Mingjia Road, Minhang District,
Shanghai 201107,
P.R. China
Tel: +86 21 52634688
Fax: +86 21 52634098

info@moons.com.cn
www.moons.com.cn

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