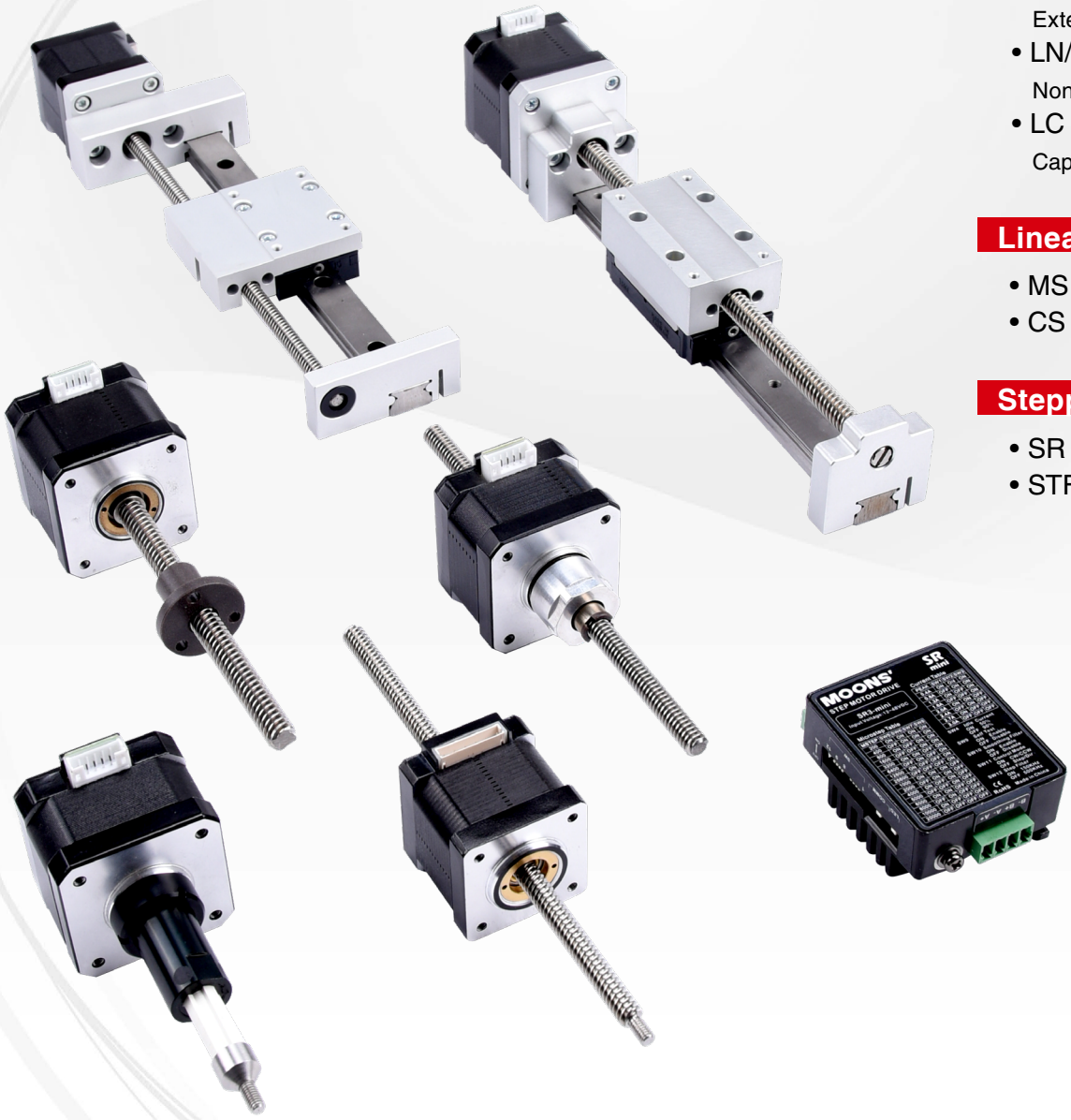
MOONS'
moving in better ways

L Series Linear Step Motors & Slides



Lead Screw Motors

- LE Series
  External Nut Type
- LN/LNSM Series
  Non-Captive Type
- LC Series
  Captive Shaft Type

Linear Slides

- MS Series
- CS Series

Stepper Drives

- SR Series
- STF Series

• Quick Response • Design Flexibility • Stable Performance

Milestones

MAR. 2018	MOONS' Electric acquired Changzhou Yunkong Electronic CO., LTD.
MAY. 2017	AMP & MOONS' Automation (Germany) GmbH was officially registered in Frankfurt, Germany
MAY. 2017	MOONS' Electric was successfully listed on the Shanghai Stock Exchange
JUN. 2015	MOONS' acquired LIN ENGINEERING
MAY. 2015	MOONS' Electric and PBC Linear officially established Joint Venture
JUN. 2014	MOONS' acquired Applied Motion Products
MAR. 2014	MOONS' Guangzhou Branch Office opened
OCT. 2013	MOONS' Industries Japan was established in Yokohama
OCT. 2013	MOONS' Ningbo Branch Office opened
DEC. 2012	MOONS' Xin'an Branch Office opened
JUN. 2012	MOONS' Chengdu Branch Office opened
AUG. 2011	MOONS' Wuhan Branch Office opened
JUN. 2010	MOONS' Industries (South-East Asia) Pte Ltd. was established in Singapore
SEP. 2009	MOONS' Industries (Europe) S.R.L was established in Milan, Italy
JAN. 2009	MOONS' Qingdao Branch Office opened
MAR. 2008	MOONS' PM Stepper Motor production started
FEB. 2007	MOONS' established joint venture with Applied Motion Products and a driver company was set up
JUL. 2006	MOONS' Nanjing Branch Office opened
MAY. 2006	MOONS' new facility was built and factory relocation was completed
JAN. 2005	First LED Driver was introduced to the market
SEP. 2002	MOONS' Beijing Branch Office opened
OTC. 2001	MOONS' Shenzhen Branch Office opened
DEC. 2000	MOONS' Industries (America), Inc. was established in Chicago, USA
OCT. 2000	MOONS' Power Supply Factory was set up and production started
APR. 1998	MOONS' International Trading Company was established
FEB. 1998	MOONS' Motor Factory was set up and HB Stepper Motor production started
AUG. 1997	MOONS' Mini-Detective Polling System was introduced to the China market
FEB. 1994	MOONS' was founded

Catalogue

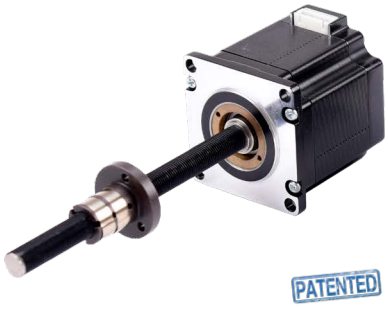
L Series Linear Step Motors

MOONS' has combined years of hybrid step motor experience, with quality leadscrews and nuts, to create the L Series linear step motors. The L Series linear step motors provide more force, high precision, and options to fit the application needs of machine designers.

- Three styles of linear step motors
- Five frame sizes: NEMA08/11/14/17/23
- Multiple motor lengths and motor sizes
- Each motor size has a rich range of lead screws
- Each frame size motor has standard options to offering rapid delivery

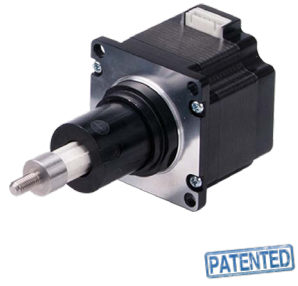
In addition, MOONS' makes customized services. We has committed to product innovation design and technical improvement, with excellent product quality,application technology, fast and flexible services,which provide customers with high level Linear motion solutions.

Basic Styles



External Nut - Leadscrew Shaft

Non-Captive Shaft



Linear Captive Shaft

★ All of MOONS'Linear Stepping Motor Products that involved the unique technologies have been applied for patents.

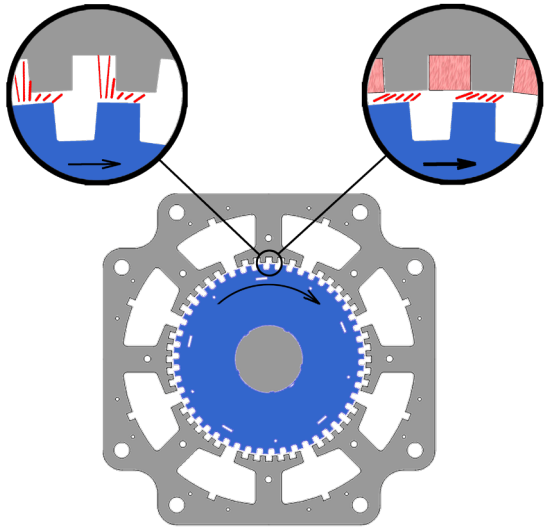
MOONS' Technology

PowerPlus Technology

MOONS' PowerPlus technology provides 25% to 40% more torque across the entire speed range of the motor. The increased torque is a result of higher motor efficiency, and is available without increasing the drive voltage or current.

Conventional Motor

Some of the torque producing magnetic flux that links the rotor to the stator is outside the stator teeth. This stray flux adds little to motor torque.



PowerPlus Technology

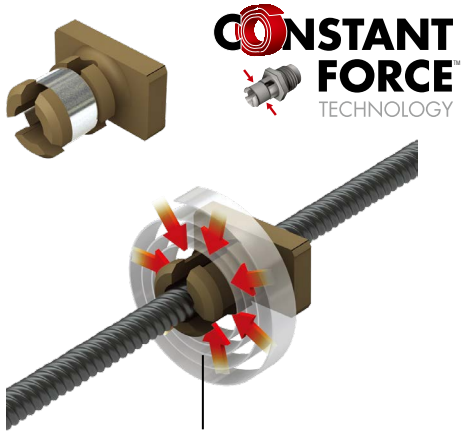
Magnets placed between the stator teeth redirect most of the stray magnetic flux into the stator teeth. This produces additional torque with the same input power.

Constant Force Technology

Constant Force™ Anti-Backlash Nut

An intuitive leap forward in nut design for lead screw applications,Constant Force Technology utilizes a constant force spring to apply a uniform pressure to the nut at all stages of the motion profile.

- Greater consistency and resistance to backlash
- Configurable for various torque requirements
- Patent pending self-adjusting anti-backlash feature
- Polymer nuts are self-lubricating and maintenance free



Patent pending Constant Force Technology nut provides consistent anti-backlash operation

MOONS' Technology

■ Integrated solution

MOONS' also provide many integrated solutions in order to satisfy the wider application,such as Integrated encoder type,Integrated brake type,Integrated Step-Servo type and so on.

Integrated encoder type

Integrated brake type

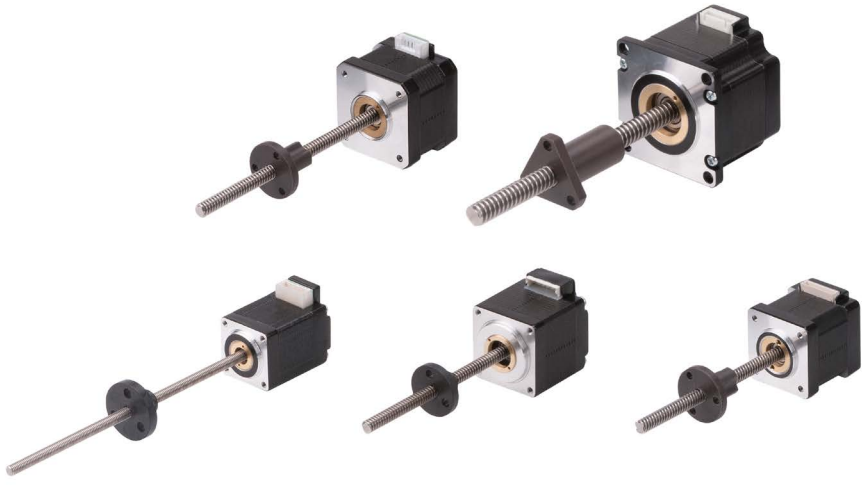
Integrated Step-Servo type

LE : External Nut Type

A leadscrew is integrated into the motor to become the motor shaft. The nut is external to the motor and attached to the driven mechanism. As the motor rotates the nut moves along the shaft. Leadscrew lengths are often customized for specific applications.

- Five frame sizes: NEMA08/11/14/17/23
- Multiple motor lengths and motor sizes
- Each motor size has a rich range of lead screws
- Standard nut or anti-backlash nut options

This series of products has a variety of motors, lead screws and nuts optional collocation, to provide customers with more suitable for the application needs, more stable, reliable linear motion solution.



■ Numbering System

LE	174S	–	T0808	–	100	–	AR1	–	S	–	XXX
①	②		③		④		⑤		⑥		⑦
Series	Motor type		Lead screw type		Screw length (mm)		Nut type		Customized Code S=Screw End Machining		Rated Current XXX=X.XX(A)

LE Series Configuration Table (Metric Screw)

Nominal Diameter (mm)	Lead (mm)	Lead Screw Code	LE080K	LE081K	LE081S	LE111S	LE113S	LE115S
3.5	1	M3501	◎	◎	◎	-	-	-
5	1	M0501	-	-	-	◎	◎	◎
	5	M0505	-	-	-	◎	◎	◎
	20	M0520	-	-	-	◎	◎	◎
6	1	W0601	-	-	-	◎	◎	◎
	2	M0602	-	-	-	◎	◎	◎
6.5	3	T6503	-	-	-	◎	◎	◎
8	1	T0801	-	-	-	-	-	-
	1.25	T08012	-	-	-	-	-	-
	2	T0802	-	-	-	-	-	-
	3	T0803	-	-	-	-	-	-
	4	T0804	-	-	-	-	-	-
	5	T0805	-	-	-	-	-	-
	8	T0808	-	-	-	-	-	-
	10	T0810	-	-	-	-	-	-
	12	T0812	-	-	-	-	-	-
	15	T0815	-	-	-	-	-	-
	30	T0830	-	-	-	-	-	-
10	1	M1001	-	-	-	-	-	-
	2	M1002	-	-	-	-	-	-
	3	M1003	-	-	-	-	-	-
	10.5	T10105	-	-	-	-	-	-
	15	T1015	-	-	-	-	-	-
12	2	T1202	-	-	-	-	-	-
	6	T1206	-	-	-	-	-	-
14	4	T1404	-	-	-	-	-	-

Note: 1.Marked with " ◎ " was recommend matches,for more matches please contact with MOONS'.
2.The table shown is standard leadscrew options,for PTFE Coating screw please contact with MOONS'.

Motor Options										
LE141A	LE141S	LE143S	LE174A	LE174S	LE172S	LE176S	LE234S	LE238S	LE23AS	LE23ASP
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
◎	◎	◎	-	-	-	-	-	-	-	-
◎	◎	◎	-	-	-	-	-	-	-	-
◎	◎	◎	-	-	-	-	-	-	-	-
◎	◎	◎	◎	◎	◎	◎	-	-	-	-
◎	◎	◎	◎	◎	◎	◎	-	-	-	-
◎	◎	◎	◎	◎	◎	◎	-	-	-	-
◎	◎	◎	◎	◎	◎	◎	-	-	-	-
◎	◎	◎	◎	◎	◎	◎	-	-	-	-
◎	◎	◎	◎	◎	◎	◎	-	-	-	-
◎	◎	◎	◎	◎	◎	◎	-	-	-	-
◎	◎	◎	◎	◎	◎	◎	-	-	-	-
◎	◎	◎	◎	◎	◎	◎	-	-	-	-
◎	◎	◎	◎	◎	◎	◎	-	-	-	-
◎	◎	◎	◎	◎	◎	◎	-	-	-	-
-	-	-	◎	◎	◎	◎	◎	◎	◎	◎
-	-	-	◎	◎	◎	◎	◎	◎	◎	◎
-	-	-	◎	◎	◎	◎	◎	◎	◎	◎
-	-	-	◎	◎	◎	◎	◎	◎	◎	◎
-	-	-	◎	◎	◎	◎	◎	◎	◎	◎
-	-	-	-	-	-	-	◎	◎	◎	◎
-	-	-	-	-	-	-	◎	◎	◎	◎
-	-	-	-	-	-	-	◎	◎	◎	◎

LE Series Configuration Table (Inch Screw)

Nominal Diameter		Lead		Lead Screw Code						
inch	mm	inch	mm		LE080K	LE081K	LE081S	LE111S	LE113S	LE115S
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	-	-	-	◎	◎	◎
		1	25.40	E06254	-	-	-	◎	◎	◎
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	-	-	-	-	-	-
0.472	11.99	1	25.40	E12254	-	-	-	-	-	-

Note: 1.Marked with " ◎ " was recommend matches,for more matches please contact with MOONS'.
2.The table shown is standard leadscrew options,for PTFE Coating screw please contact with MOONS'.

Motor Options										
LE141A	LE141S	LE143S	LE174A	LE174S	LE172S	LE176S	LE234S	LE238S	LE23AS	LE23ASP
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
◎	◎	◎	◎	◎	◎	◎	-	-	-	-
◎	◎	◎	◎	◎	◎	◎	-	-	-	-
◎	◎	◎	◎	◎	◎	◎	-	-	-	-
◎	◎	◎	◎	◎	◎	◎	-	-	-	-
◎	◎	◎	◎	◎	◎	◎	-	-	-	-
◎	◎	◎	◎	◎	◎	◎	-	-	-	-
◎	◎	◎	◎	◎	◎	◎	-	-	-	-
-	-	-	◎	◎	◎	◎	◎	◎	◎	◎
-	-	-	◎	◎	◎	◎	◎	◎	◎	◎
-	-	-	◎	◎	◎	◎	◎	◎	◎	◎
-	-	-	◎	◎	◎	◎	◎	◎	◎	◎
-	-	-	-	-	-	-	◎	◎	◎	◎

LE Series Standard Models for stock

Size (mm)	Motor Series		Lead Screw Options		Screw Length Options		Nut Options		End Machining Code		Rated Current Options	Page
20X20	LE080K	-	E03006	-	30, 40, 50, 60, 70, 80, 90, 100, 110, 120,130, 140, 150	-	AR0	-	S	-	040	P10
	LE080K	-	E04025	-		-	AR0	-	S	-	040	
	LE081K	-	E03006	-	30, 40, 50, 60, 70, 80, 90, 100, 110, 120,130, 140, 150	-	AR0	-	S	-	040	
	LE081K	-	E04025	-		-	AR0	-	S	-	040	
28X28	LE111S	-	W0601	-	50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200	-	AR1	-	S	-	050, 100	P13
	LE111S	-	T6503	-		-	AR1	-	S	-	050, 100	
	LE111S	-	E06063	-		-	AR1	-	S	-	050, 100	
	LE111S	-	E06127	-		-	AR1	-	S	-	050, 100	
	LE115S	-	W0601	-	50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200	-	AR1	-	S	-	100	
	LE115S	-	T6503	-		-	AR1	-	S	-	100	
	LE115S	-	E06063	-		-	AR1	-	S	-	100	
	LE115S	-	E06127	-		-	AR1	-	S	-	100	
35X35	LE141S	-	W0601	-	50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200	-	AR1	-	S	-	100	P17
	LE141S	-	T6503	-		-	AR1	-	S	-	100	
	LE141S	-	E06063	-		-	AR1	-	S	-	100	
	LE141S	-	E06127	-		-	AR1	-	S	-	100	
	LE143S	-	W0601	-	50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200	-	AR1	-	S	-	050, 150	
	LE143S	-	T6503	-		-	AR1	-	S	-	050, 150	
	LE143S	-	E06063	-		-	AR1	-	S	-	050, 150	
	LE143S	-	E06127	-		-	AR1	-	S	-	050, 150	
42X42	LE174S	-	T08012	-	50, 60, 75, 90, 100, 110, 125, 140, 150, 160, 175, 190, 200, 210, 225, 240, 250, 260, 275, 290, 300	-	AR3	-	S	-	065,150	P20
	LE174S	-	T0804	-		-	AR3	-	S	-	065,150	
	LE174S	-	T0808	-		-	AR3	-	S	-	065,150	
	LE172S	-	T08012	-	50, 60, 75, 90, 100, 110, 125, 140, 150, 160, 175, 190, 200, 210, 225, 240, 250, 260, 275, 290, 300	-	AR3	-	S	-	100,200	
	LE172S	-	T0804	-		-	AR3	-	S	-	100,200	
	LE172S	-	T0808	-		-	AR3	-	S	-	100,200	
	LE176S	-	T08012	-	50, 60, 75, 90, 100, 110, 125, 140, 150, 160, 175, 190, 200, 210, 225, 240, 250, 260, 275, 290, 300	-	AR3	-	S	-	100,200	
	LE176S	-	T0804	-		-	AR3	-	S	-	100,200	
	LE176S	-	T0808	-		-	AR3	-	S	-	100,200	
	LE176S	-	T10105	-		-	AR2	-	S	-	100,200	
57X57	LE234S	-	T1202	-	100, 125, 150, 175, 200, 225, 250, 275, 300, 325, 350, 375, 400	-	AR6	-	S	-	210	P25
	LE234S	-	T1206	-		-	AR6	-	S	-	210	
	LE234S	-	T10105	-		-	AR2	-	S	-	210	
	LE234S	-	E12254	-		-	AR6	-	S	-	210	
	LE238S	-	T1202	-	100, 125, 150, 175, 200, 225, 250, 275, 300, 325, 350, 375, 400	-	AR6	-	S	-	220	
	LE238S	-	T1206	-		-	AR6	-	S	-	220	
	LE238S	-	T10105	-		-	AR2	-	S	-	220	
	LE238S	-	E12254	-		-	AR6	-	S	-	220	
	LE23AS	-	T1202	-	100, 125, 150, 175, 200, 225, 250, 275, 300, 325, 350, 375, 400	-	AR6	-	S	-	150, 300	
	LE23AS	-	T1206	-		-	AR6	-	S	-	150, 300	
	LE23AS	-	T10105	-		-	AR2	-	S	-	150, 300	
	LE23AS	-	E12254	-		-	AR6	-	S	-	150, 300	

Order sample

① Select configuration codes

Motor Series		Lead Screw Options		Screw Length Options		Nut Options		End Machining Code		Rated Current Options
LE111S	-	W0601	-	50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200	-	AR1	-	S	-	050, 100

② Determine the order Models

LE111S - W0601 - 100 - AR1 - S - 050

In addition to the standard order Models, also provides a wealth of customized configuration options, for more information please contact the factory.

LE08 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

LE 08 0K – E03006 – 100 – AR0 – 0 – XXX

Lead Screw Motor Type Code

Code	Structure Type
LE	External Nut - Lead screw Shaft

Frame Size Code

Code	Frame Size
08	20mm

Motor Body Length Code

Code	Motor Body Length Max(mm)	Step Angle (°)
0K	20	1.8
1K	27	
1S	30	

Lead Screw Type Code

Code	Nominal Diameter (mm)	Lead (mm)	Travel(mm) Travel Per1.8°
M3501	3.5	1	0.005

Code	Nominal Diameter		Lead		Travel(mm)
	inch	mm	inch	mm	Travel Per1.8°
E03006	0.138	3.51	0.024	0.61	0.0030*
E03012			0.048	1.22	0.0061*
E03024			0.096	2.44	0.0122*
E04006	0.188	4.78	0.025	0.64	0.0032*
E04012			0.05	1.27	0.0064*
E04025			0.1	2.54	0.0127*

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
AR0	Round Standard Nut
BR0	Round Anti-Backlash Nut
AT0	Triangular Standard Nut
BT0	Triangular Anti-Backlash Nut
CN	Custom Made Nut

Lx

###	Provided in 1 mm increments

Note:Choose the standard order models can get the sample quickly, please see P9 for standard models.

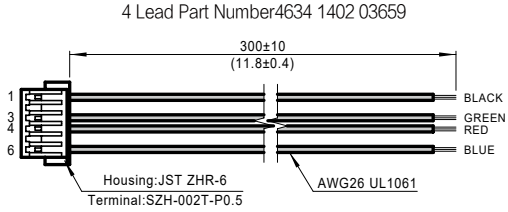
LE08 Series

■ LE08 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.
LE080K	20	1.8	Leads	0.4	8.5	2.7
LE081K	27		Leads	0.4	12.7	4.1
LE081S	30		Plug In Connector	0.5	8.6	6.5

Note: Recommended Driver, DC Input: SR2-Plus, SR3-mini.

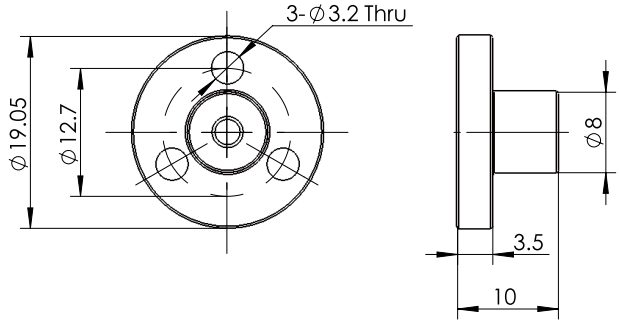
■ Mating Connector With Leads (order separately)



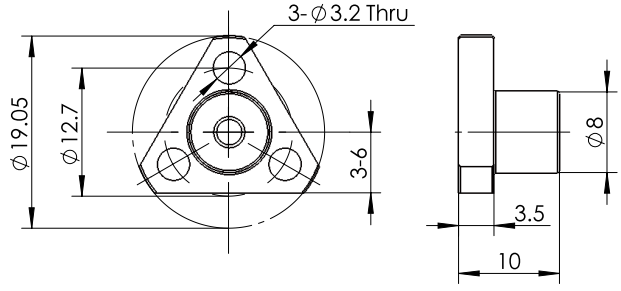
■ Nut Type

UNIT:mm

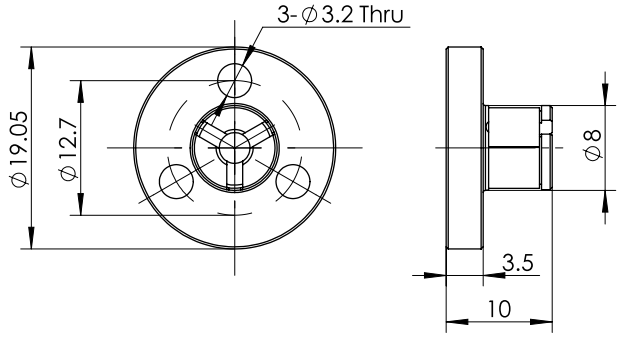
Round Standard Nut AR0



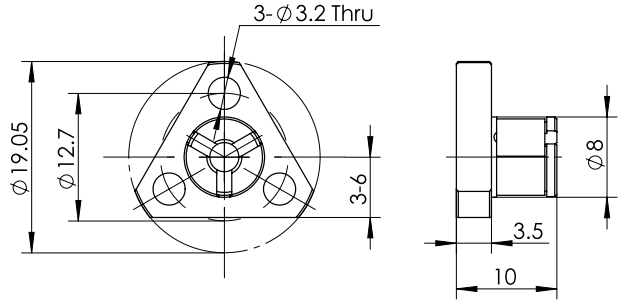
Triangular Standard Nut AT0



Round Anti-Backlash Nut BR0



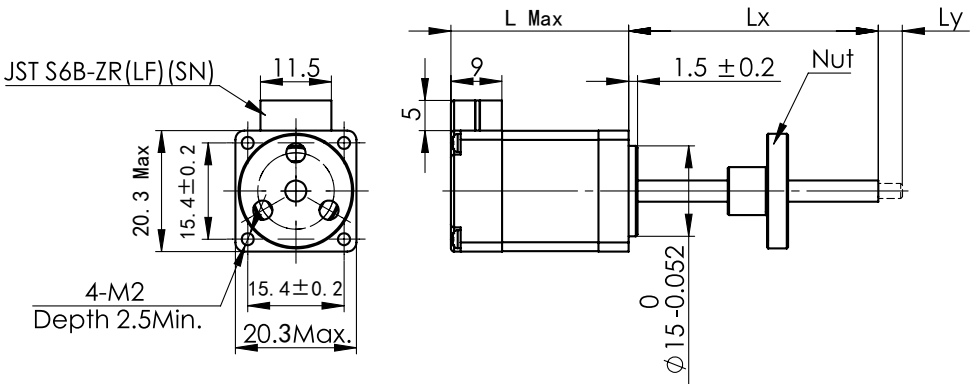
Triangular Anti-Backlash Nut BT0



LE08 Series

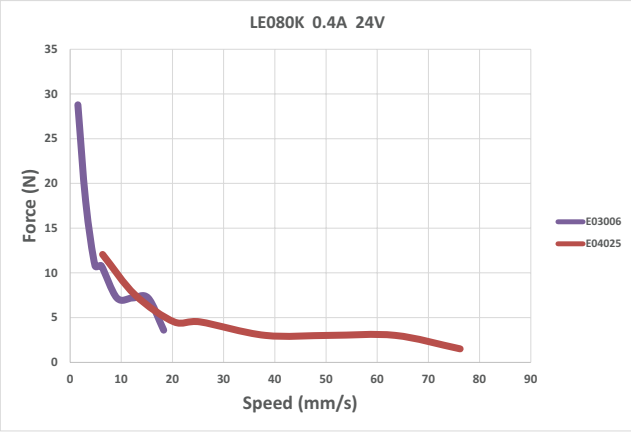
■ Dimensional Information

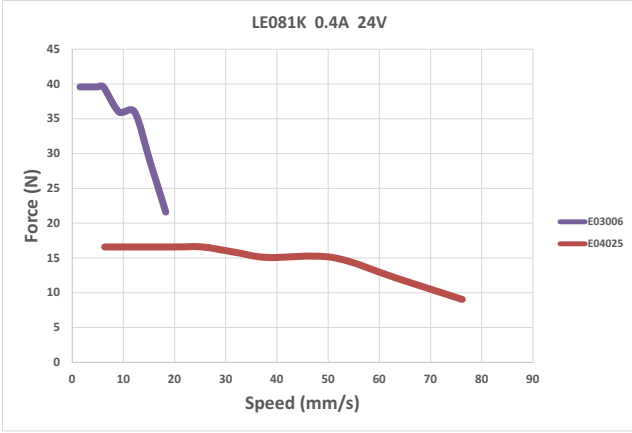
UNIT:mm



Motor Type	Dimension"L"
LE080K	20
LE081K	27
LE081S	30

■ Speed - Force Reference Curve





LE11 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

LE 11 1S − W0601 − 100 − AR1 − 0 − XXX

Lead Screw Motor Type Code

Code	Structure Type
LE	External Nut - Lead screw Shaft

Frame Size Code

Code	Frame Size
11	28mm

Motor Body Length Code

Code	Motor Body Length Max(mm)	Step Angle (°)
1S	32	1.8
3S	41	
5S	52	

Lead Screw Type Code

Code	Nominal Diameter (mm)	Lead (mm)	Travel(mm) Travel Per1.8°
M0501	5	1	0.005
M0505		5	0.025
M0520		20	0.1
W0601	6	1	0.005
M0602		2	0.01
T6503	6.5	3	0.015

Code	Nominal Diameter inch	Nominal Diameter mm	Lead inch	Lead mm	Travel(mm) Travel Per1.8°
E04006	0.188	4.78	0.025	0.64	0.0032*
E04012			0.05	1.27	0.0064*
E04025			0.1	2.54	0.0127*
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	0.008
E06032			0.125	3.18	0.0159*
E06063			0.25	6.35	0.0318*
E06085			0.333	8.46	0.0423*
E06127			0.5	12.70	0.0635
E06254			1	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
E	Add Encoder
B	Add Brake
C	Other Special Custom Type

Nut Type Code

Code	Nut Type	Mating Lead Screw
AR0	Round Standard Nut	E04006 E04012 E04025 M0501 M0505 M0520
BR0	Round Anti-Backlash Nut	
AT0	Triangular Standard Nut	
BT0	Triangular Anti-Backlash Nut	
AR1	Round Standard Nut	E05006 E05012 E05048 E06008 E06015 E06032 E06063 E06085 E06127 E06254 W0601 M0602 T6503
BR1	Round Anti-Backlash Nut	
AT1	Triangular Standard Nut	
BT1	Triangular Anti-Backlash Nut	
CN	Custom Made Nut	

Lx

###	Provided in 1 mm increments

Note:Choose the standard order models can get the sample quickly, please see P9 for standard models.

LE11 Series

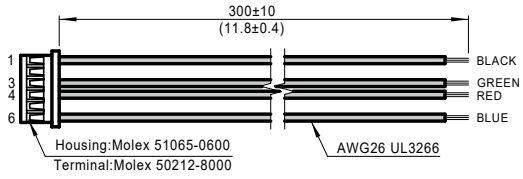
LE11 Step Motor - 4 Lead Bi-Polar

Motor Type Code	Motor Body Length (mm)	Step Angle (°)	Electrical Connection	Rated Current (Amps)	Winding Resistanc(Ohms) ±10%@20°C	Winding Inductance(mH) Typ.
LE111S	32	1.8	Plug In Connector	0.5	10.9	9.7
				0.67	6.1	5.5
				1	2.7	2.5
LE113S	41		Plug In Connector	0.95	3.8	3.5
LE115S	52		Plug In Connector	1	3.7	3.1

Note: Recommended Driver, DC Input: SR2-Plus.

Mating Connector With Leads (order separately)

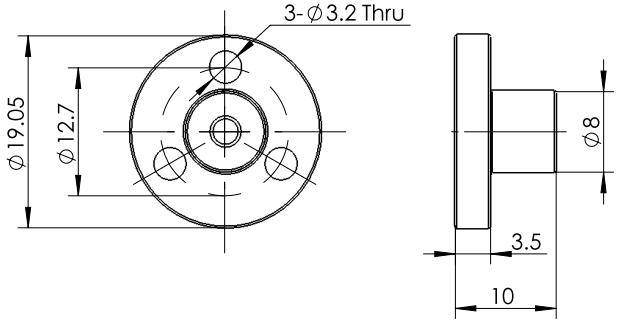
4 Lead Part Number 4634 1402 04190



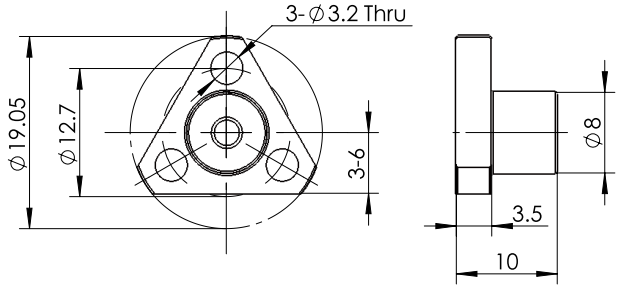
Nut Type

UNIT:mm

Round Standard Nut AR0

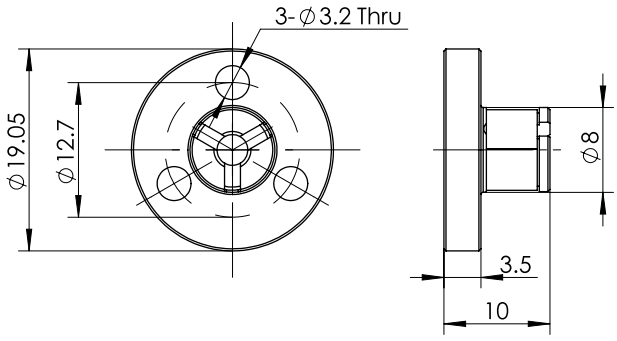


Triangular Standard Nut AT0

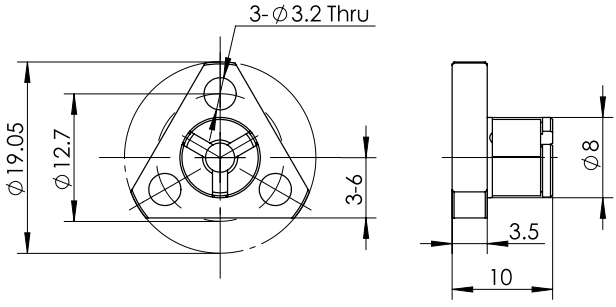


LE11 Series

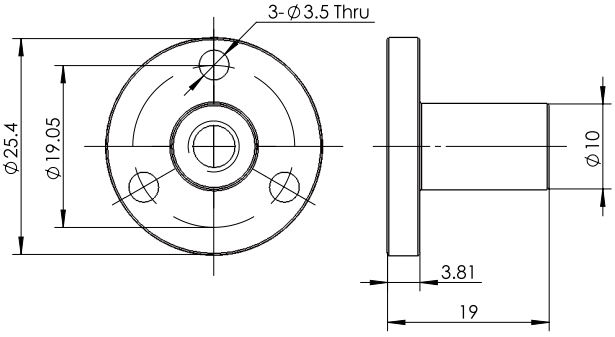
Round Anti-Backlash Nut BR0



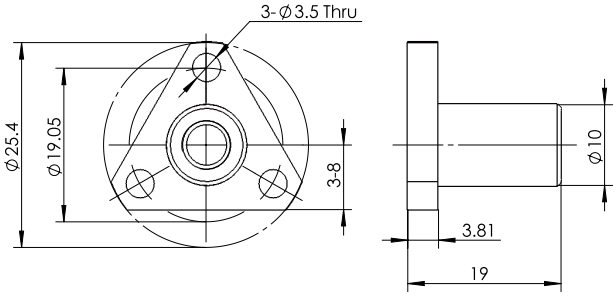
Triangular Anti-Backlash Nut BT0



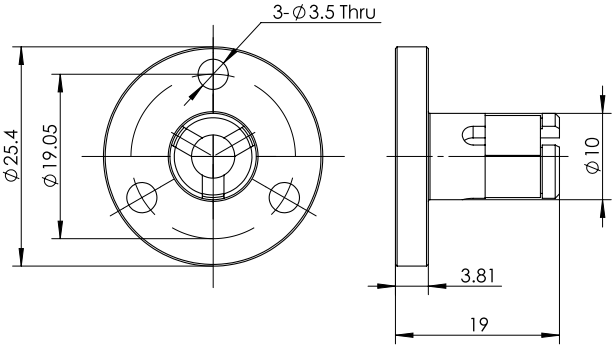
Round Standard Nut AR1



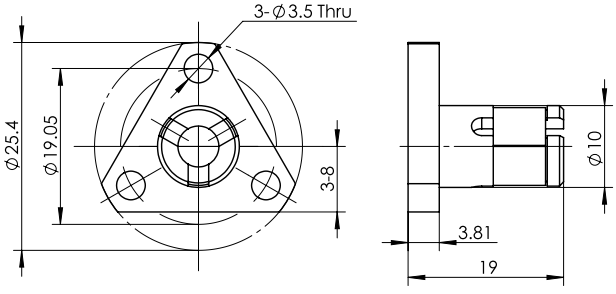
Triangular Standard Nut AT1



Round Anti-Backlash Nut BR1



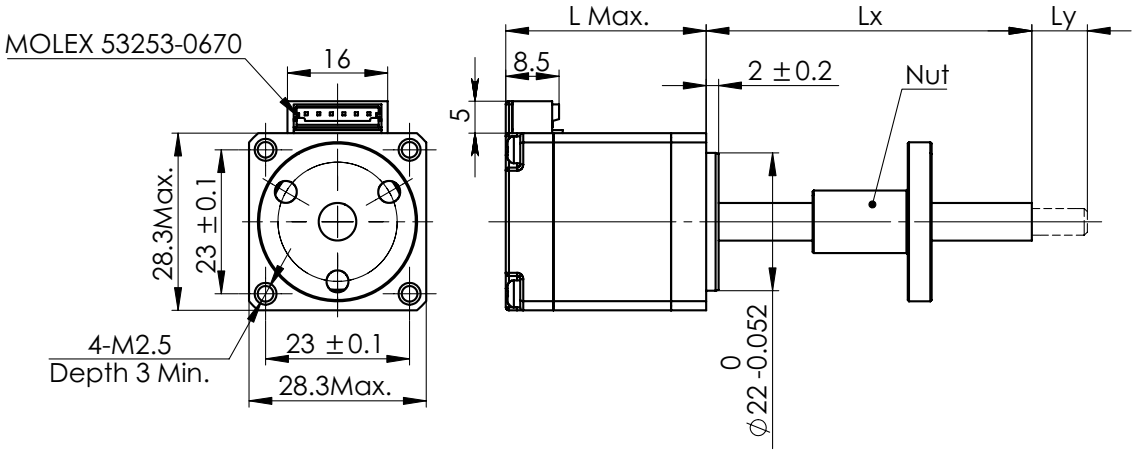
Triangular Anti-Backlash Nut BT1



LE11 Series

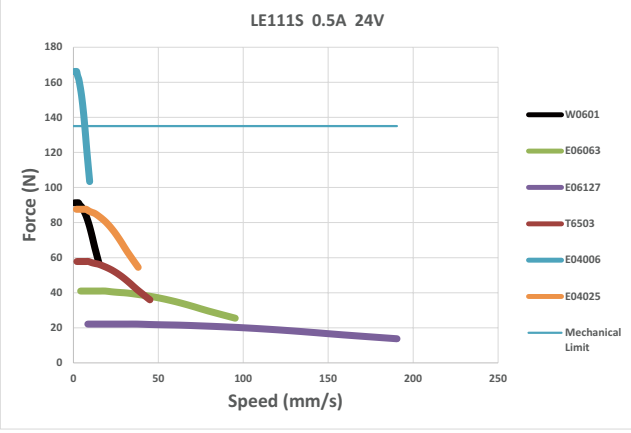
Dimensional Information

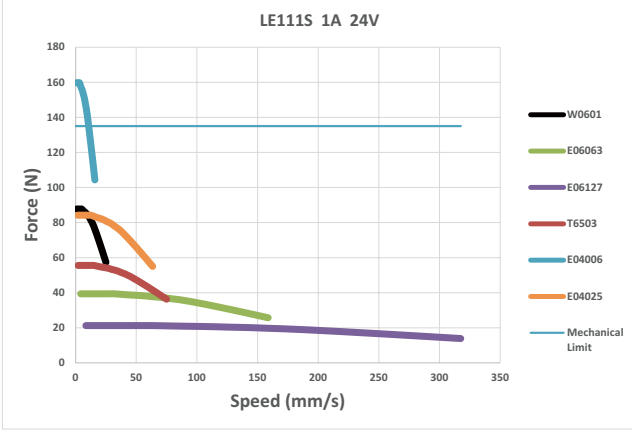
UNIT:mm



Motor Type	Dimension"L"
LE111S	32
LE113S	41
LE115S	52

Speed - Force Reference Curve





LE14 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

LE 14 1S − W0601 − 100 − AR1 − 0 − XXX

Lead Screw Motor Type Code

Code	Structure Type
LE	External Nut - Lead screw Shaft

Frame Size Code

Code	Frame Size
14	35mm

Motor Body Length Code

Code	Motor Body Length Max(mm)	Step Angle (°)
1A	28	0.9
1S	27	1.8
3S	35	

Lead Screw Type Code

Code	Nominal Diameter (mm)	Lead (mm)	Travel(mm)	
			Travel Per0.9°	Travel Per1.8°
W0601	6	1	0.0025	0.005
M0602		2	0.005	0.01
T6503	6.5	3	0.0075	0.015
T0801	8	1	0.0025	0.005
T08012		1.25	0.0031*	0.0063*
T0802		2	0.005	0.01
T0803		3	0.0075	0.015
T0804		4	0.01	0.02
T0805		5	0.0125	0.025
T0808		8	0.02	0.04
T0810		10	0.025	0.05
T0812		12	0.03	0.06
T0815		15	0.0375	0.075
T0830		30	0.075	0.15

Code	Nominal Diameter		Lead		Travel(mm)	
	inch	mm	inch	mm	Travel Per0.9°	Travel Per1.8°
E06008	0.25	6.35	0.031	0.79	0.0020*	0.0039*
E06016			0.063	1.60	0.0040	0.0080
E06032			0.125	3.18	0.0079*	0.0159*
E06063			0.25	6.35	0.0159*	0.0318*
E06085			0.333	8.46	0.0211*	0.0423*
E06127			0.5	12.70	0.0318	0.0635
E06254			1	25.40	0.0635	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
E	Add Encoder
B	Add Brake
C	Other Special Custom Type

Nut Type Code

Code	Nut Type
AR1	Round Standard Nut
BR1	Round Anti-Backlash Nut
AT1	Triangular Standard Nut
BT1	Triangular Anti-Backlash Nut
CN	Custom Made Nut

Lx

###	Provided in 1 mm increments

Note:Choose the standard order models can get the sample quickly, please see P9 for standard models.

LE14 Series

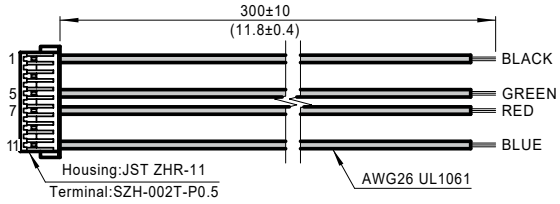
■ LE14 Step Motor - 4 Lead Bi-Polar

Motor Type Code	Motor Body Length (mm)	Step Angle (°)	Electrical Connection	Rated Current (Amps)	Winding	
					Resistanc(Ohms) ±10%@20°C	Inductance(mH) Typ.
LE141A	28	0.9	Plug In Connector	0.6	10.6	12.6
LE141S	27	1.8	Plug In Connector	0.7	6.6	7.5
				1	3.1	3.7
LE143S	35		Plug In Connector	0.5	15.1	25
				0.75	6	9.8
				1	3.4	5.3
				1.5	1.61	2.5

Note: Recommended Driver, DC Input: SR2-Plus.

■ Mating Connector With Leads (order separately)

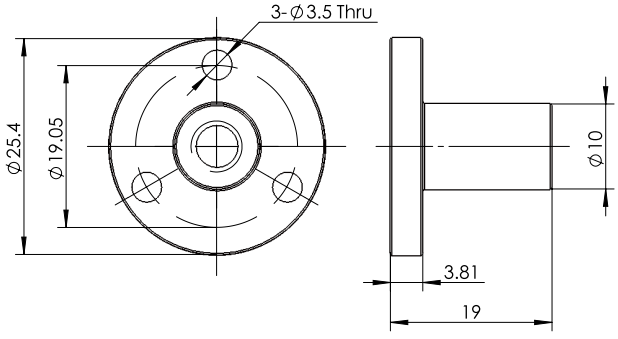
4 Lead Part Number 4634 1402 04581



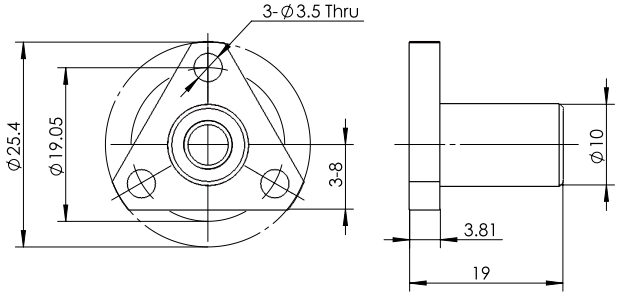
■ Nut Type

UNIT:mm

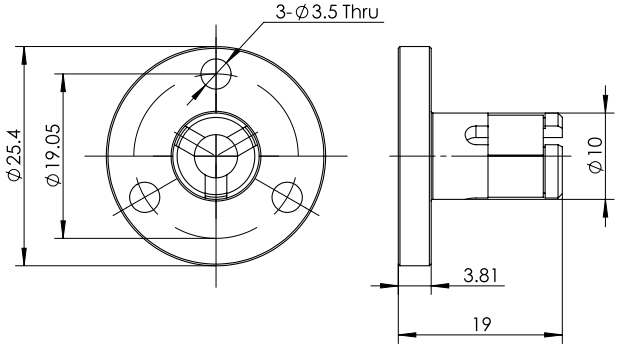
Round Standard Nut AR1



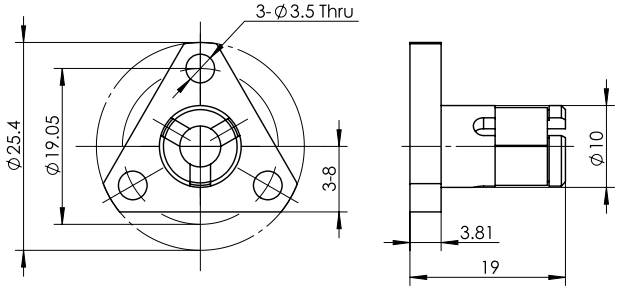
Triangular Standard Nut AT1



Round Anti-Backlash Nut BR1



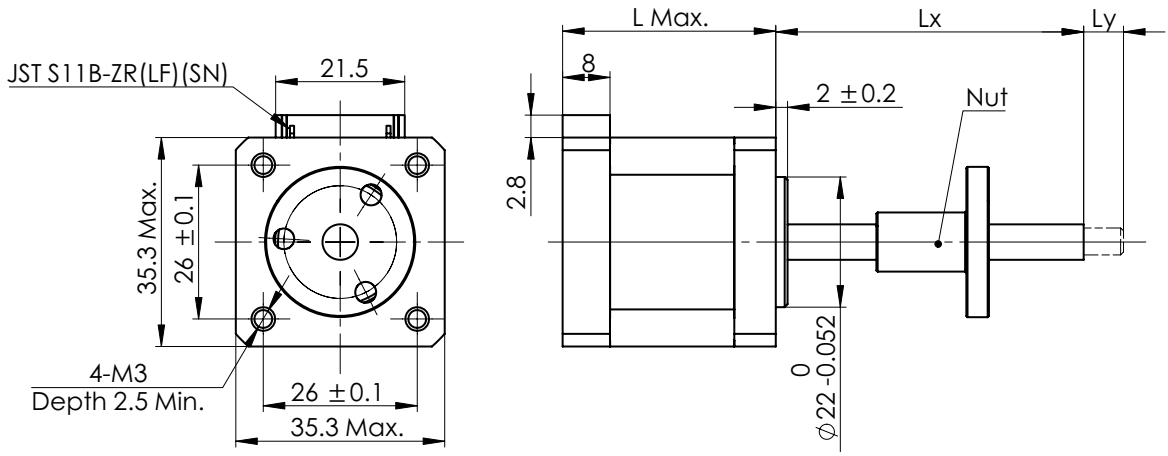
Triangular Anti-Backlash Nut BT1



LE14 Series

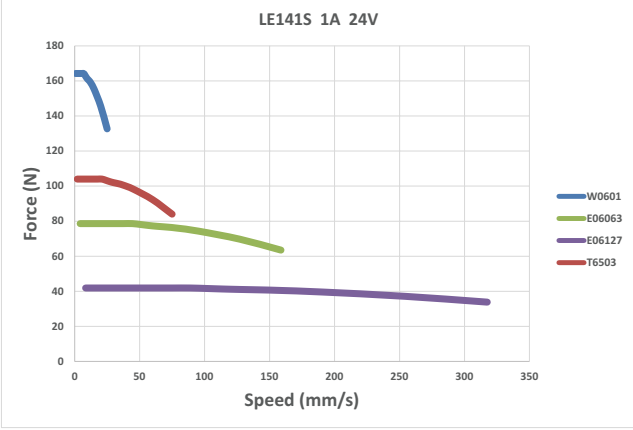
■ Dimensional Information

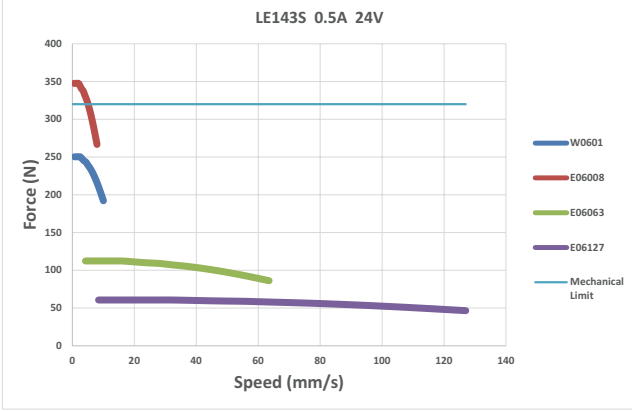
UNIT:mm

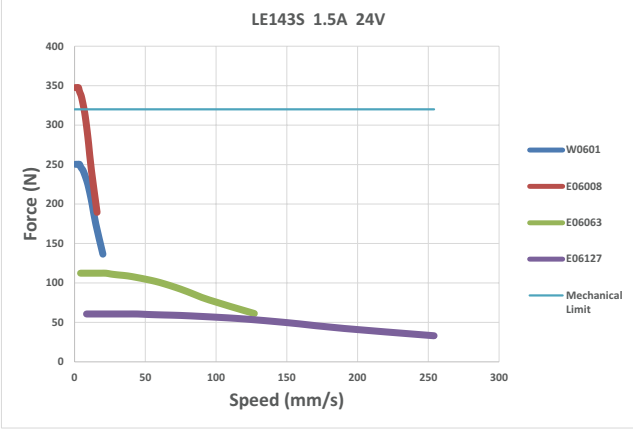


Motor Type	Dimension"L"
LE141A	28
LE141S	28
LE143S	36

■ Speed - Force Reference Curve







LE17 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

LE 17 2S – M0602 – 100 – AR1 – 0 – XXX

Lead Screw Motor Type Code

Code	Structure Type
LE	External Nut - Lead screw Shaft

Frame Size Code

Code	Frame Size
17	42mm

Motor Body Length Code

Code	Motor Body Length Max(mm)	Step Angle (°)
4A	34	0.9
4S	34	1.8
2S	40	
6S	48	

Lead Screw Type Code

Code	Nominal Diameter (mm)	Lead (mm)	Travel(mm)	
			Travel Per0.9°	Travel Per1.8°
T0801	8	1	0.0025	0.005
T08012		1.25	0.0031	0.0063
T0802		2	0.005	0.01
T0803		3	0.0075	0.015
T0804		4	0.01	0.02
T0805		5	0.0125	0.025
T0808		8	0.02	0.04
T0810		10	0.025	0.05
T0812		12	0.03	0.06
T0815		15	0.0375	0.075
T0830		30	0.075	0.15
M1001	10	1	0.0025	0.005
M1002		2	0.005	0.01
M1003		3	0.0075	0.015
T10105		10.5	0.0263*	0.0525*
T1015		15	0.0375	0.075

The number with * is abbreviated.

Code	Nominal Diameter		Lead		Travel(mm)	
	inch	mm	inch	mm	Travel Per0.9°	Travel Per1.8°
E06008	0.25	6.35	0.031	0.79	0.0020*	0.0039*
E06016			0.063	1.60	0.0040	0.0080
E06032			0.125	3.18	0.0079*	0.0159*
E06063			0.25	6.35	0.0159*	0.0318*
E06085			0.333	8.46	0.0211*	0.0423*
E06127			0.5	12.70	0.0318	0.0635
E06254			1	25.40	0.0635	0.1270
E09025	0.375	9.53	0.1	2.54	0.0064	0.0127
E09050			0.2	5.08	0.0127	0.0254
E09102			0.4	10.16	0.0254*	0.0508*
E09254	0.382	9.70	1	25.40	0.0635	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
B	Add Encoder
E	Add Brake
C	Other Special Custom Type

Nut Type Code

Code	Nut Type	Mating Lead Screw	
AR1	Round Standard Nut	E06008 E06015 E06032 E06063	E06085 E06127 E06254
BR1	Round Anti-Backlash Nut		
AT1	Triangular Standard Nut		
BT1	Triangular Anti-Backlash Nut		
AR2	Round Standard Nut	E09025 E09050 E09102 E09254	M1001 M1002 M1003 T10105 T1015
BR2	Round Anti-Backlash Nut		
AT2	Triangular Standard Nut		
BT2	Triangular Anti-Backlash Nut		
AR3	Round Standard Nut	T0801 T080125 T0802 T0803 T0804 T0805	T0808 T0810 T0812 T0815 T0830
BR3	Round Anti-Backlash Nut		
AT3	Triangular Standard Nut		
BT3	Triangular Anti-Backlash Nut		
CN	Custom Made Nut		

Lx

###	Provided in 1 mm increments

Note:Choose the standard order models can get the sample quickly, please see P9 for standard models.

LE17 Series

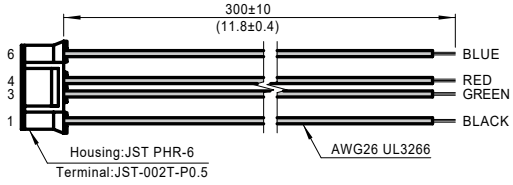
LE17 Step Motor - 4 Lead Bi-Polar

Motor Type Code	Motor Body Length (mm)	Step Angle (°)	Electrical Connection	Rated Current (Amps)	Winding Resistanc(Ohms) ±10%@20°C	Winding Inductance(mH) Typ.
LE174A	34	0.9	Plug In Connector	0.7	5.4	14
LE174S	34	1.8	Plug In Connector	0.65	8.7	15.2
				1	4.2	7
				1.5	1.75	2.8
LE172S	40		Plug In Connector	1	3.9	10.8
				1.5	1.98	4.9
				2	1.04	2.5
LE176S	48		Plug In Connector	1	4.9	10.2
				1.5	2.1	4.3
				2	1.25	2.8

Note: Recommended Driver, DC Input: SR2-Plus, SR4-Plus.

Mating Connector With Leads (order separately)

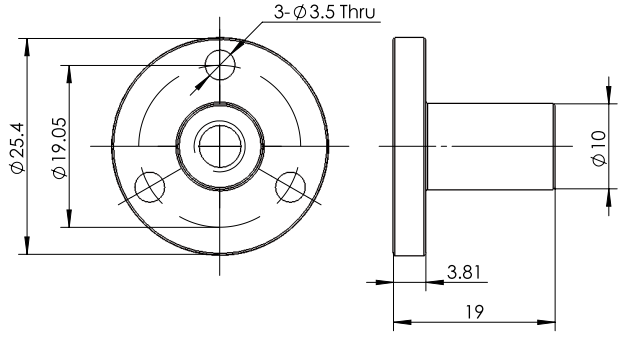
4 Lead Part Number 4634 1402 00723



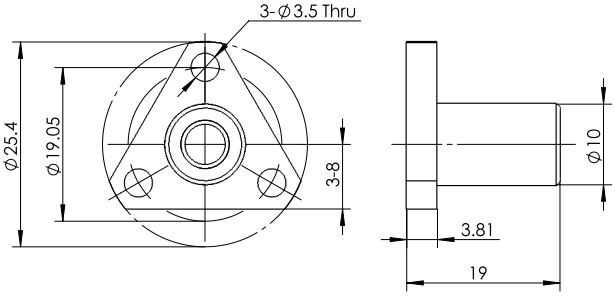
Nut Type

UNIT:mm

Round Standard Nut AR1

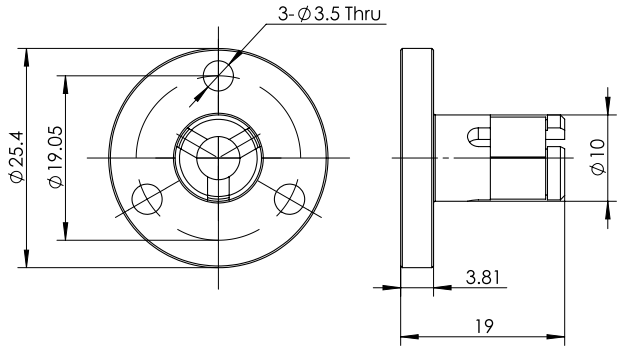


Triangular Standard Nut AT1

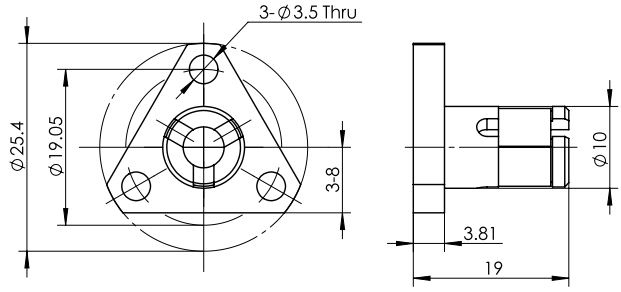


LE17 Series

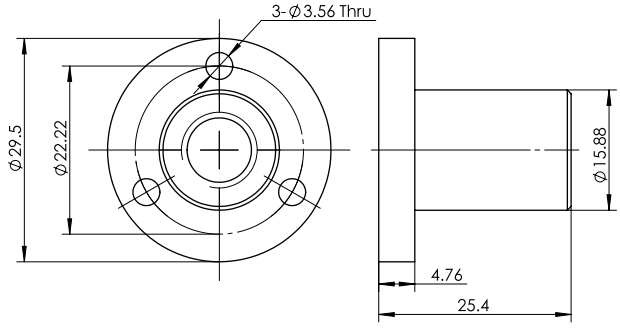
Round Anti-Backlash Nut BR1



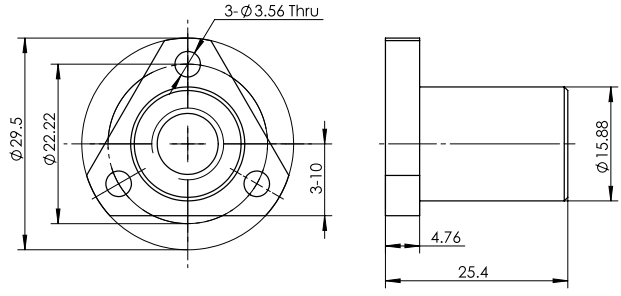
Triangular Anti-Backlash Nut BT1



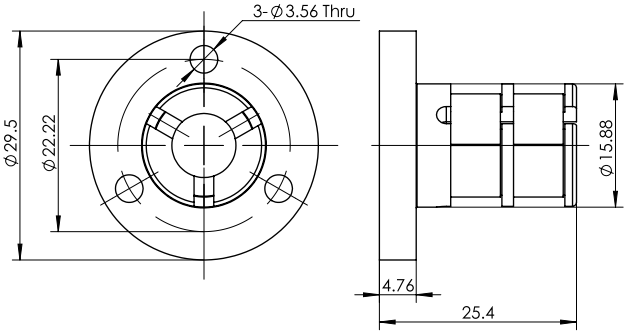
Round Standard Nut AR2



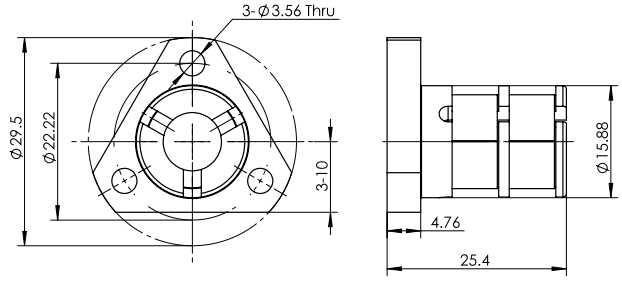
Triangular Standard Nut AT2



Round Anti-Backlash Nut BR2

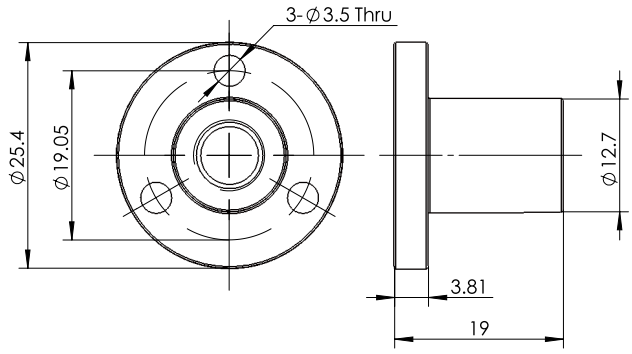


Triangular Anti-Backlash Nut BT2

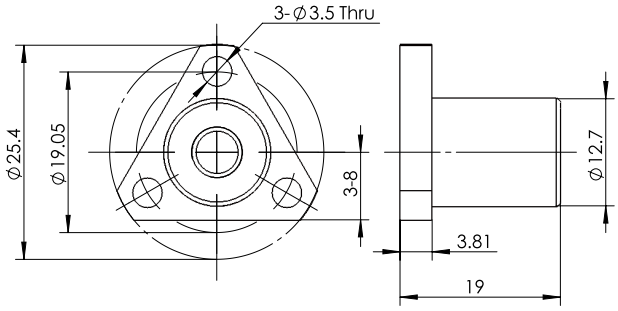


LE17 Series

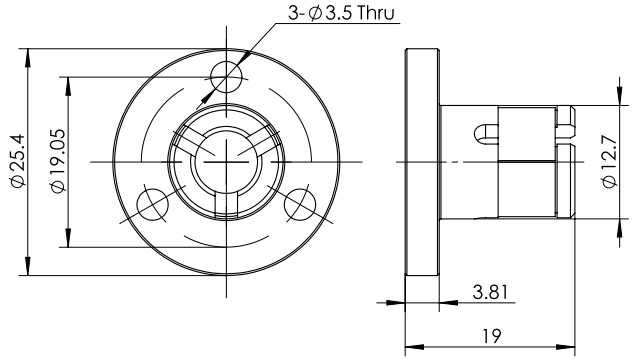
Round Standard Nut AR3



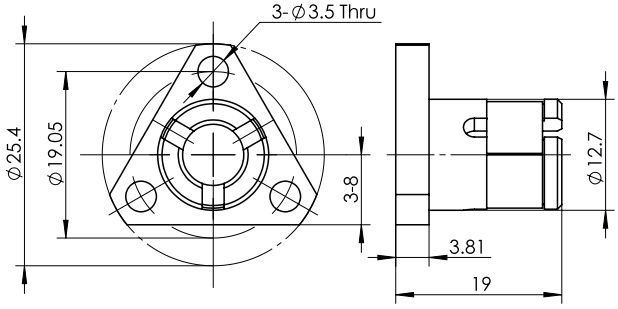
Triangular Standard Nut AT3



Round Anti-Backlash Nut BR3

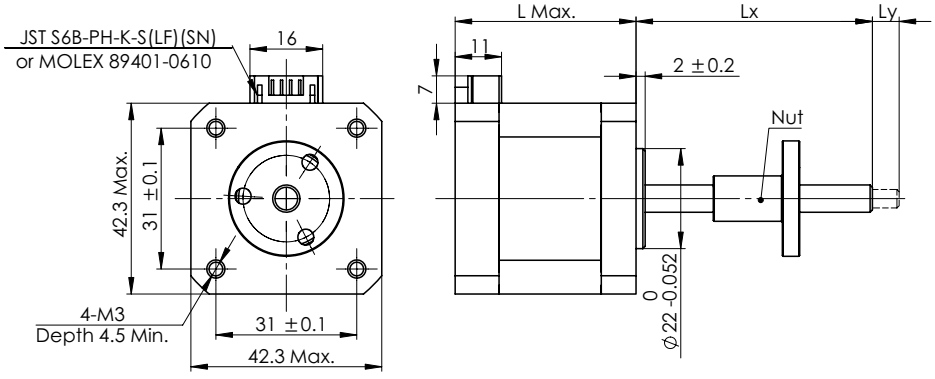


Triangular Anti-Backlash Nut BT3



■ Dimensional Information

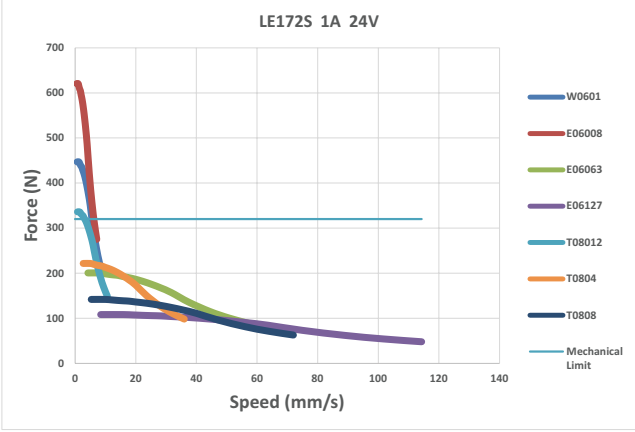
UNIT:mm

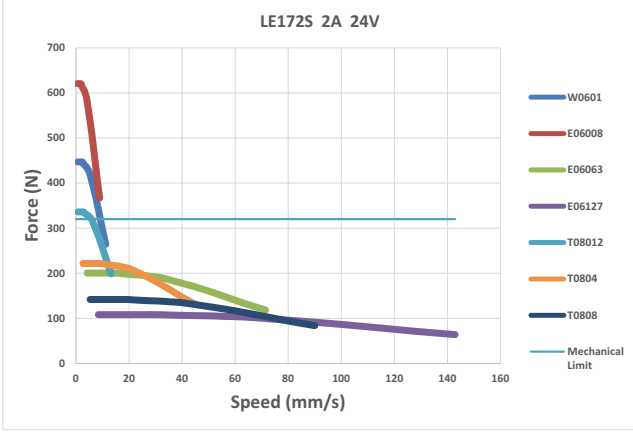


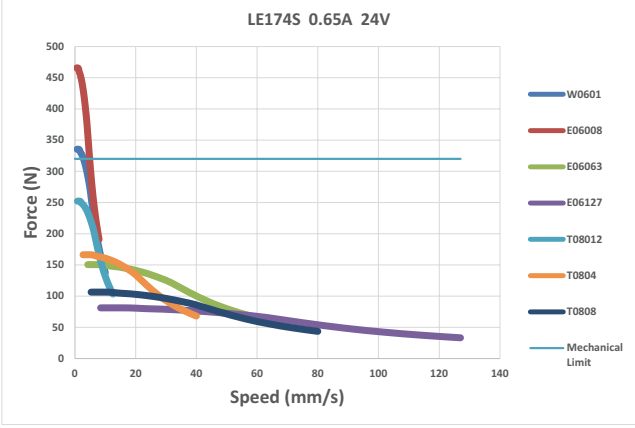
Motor Type	Dimension"L"
LE174A	34.3
LE174S	34.3
LE172S	39.8
LE176S	48.3

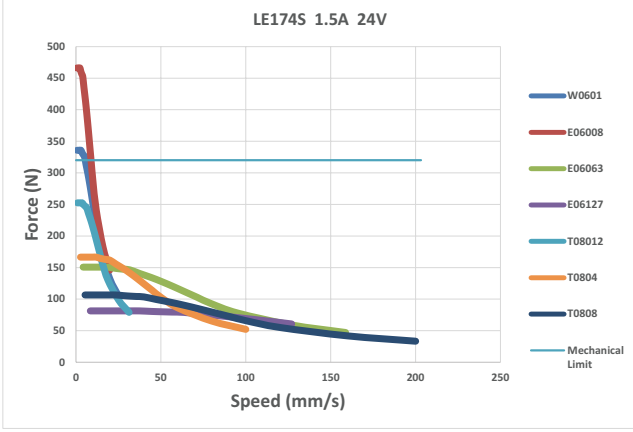
LE17 Series

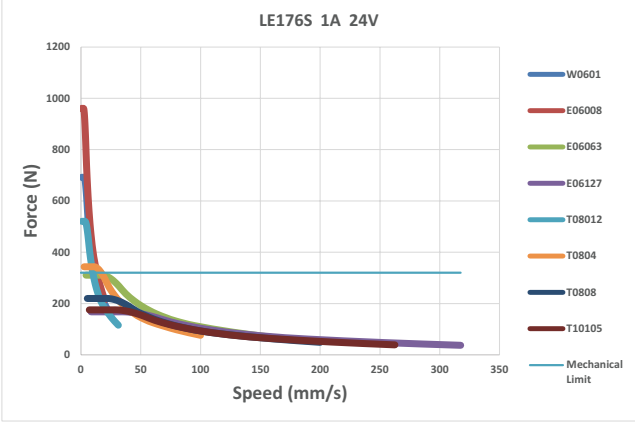
■ Speed - Force Reference Curve

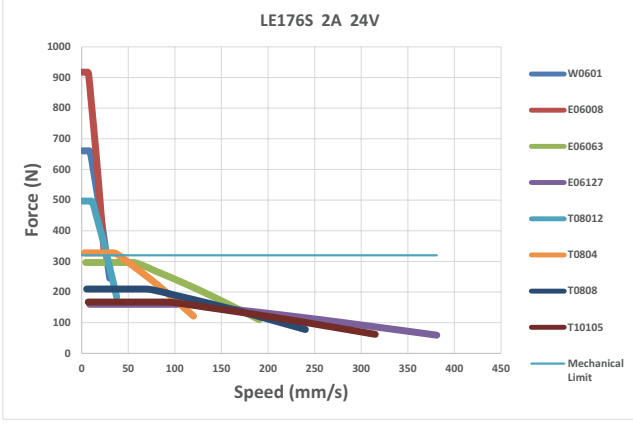






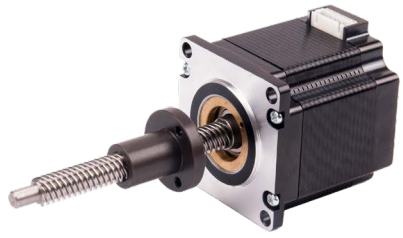






LE23 Series

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

LE 23 8S – M1001 – 100 – AR2 – 0 – XXX

Lead Screw Motor Type Code

Code	Structure Type
LE	External Nut - Lead screw Shaft

Frame Size Code

Code	Frame Size
23	57mm

Motor Body Length Code

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

Lead Screw Type Code

Code	Nominal Diameter (mm)	Lead (mm)	Travel(mm) Travel Per1.8°
M1001	10	1	0.005
M1002		2	0.01
M1003		3	0.015
T10105		10.5	0.0525*
T1015		15	0.075
T1202	12	2	0.01
T1206		6	0.03
T1404	14	4	0.02

Code	Nominal Diameter		Lead		Travel(mm)
	inch	mm	inch	mm	Travel Per1.8°
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	25.40	0.127
E12254	0.472	11.99	1	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
E	Add Encoder
B	Add Brake
C	Other Special Custom Type

Nut Type Code

Code	Nut Type	Mating Lead Screw
AR2	Round Standard Nut	E09025 E09050 E09102 E09254 M1001 M1002 M1003 T10105 T1015
BR2	Round Anti-Backlash Nut	
AT2	Triangular Standard Nut	
BT2	Triangular Anti-Backlash Nut	
AR6	Round Standard Nut	T1202 T1206 T1404 E12254
BR4	Round Anti-Backlash Nut	
AT6	Triangular Standard Nut	
BT4	Triangular Anti-Backlash Nut	
CN	Custom Made Nut	

Lx

###	Provided in 1 mm increments

Note:Choose the standard order models can get the sample quickly, please see P9 for standard models.

LE23 Series

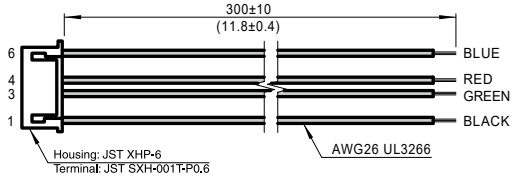
LE23 Selection Of Standard Models

Motor Type Code	Motor Body Length (mm)	Step Angle (°)	Electrical Connection	Rated Current (Amps)	Winding	
					Resistanc(Ohms) ±10%@20°C	Inductance(mH) Typ.
LE234S	45	1.8	Plug In Connector	1.5	2.9	7.5
				2.1	1.6	3.9
LE238S	57		Plug In Connector	1.5	3.9	15
				2.2	1.6	7.2
LE23AS	79		Plug In Connector	1.5	4.3	18.5
				3	1.1	5
LE23ASP (Power Plus)	79		Plug In Connector	3	1.1	3.7

Note: Recommended Driver, DC Input: SR8-Plus.

Mating Connector With Leads (order separately)

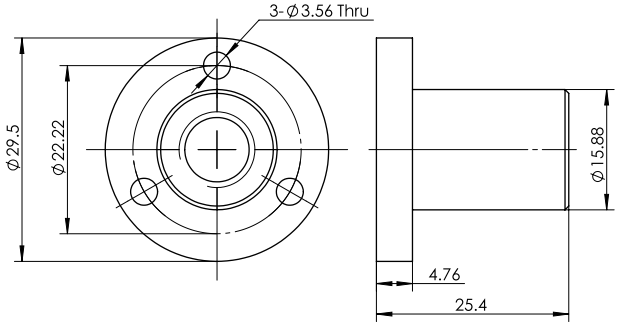
4 Lead Part Number 4634 1402 01891



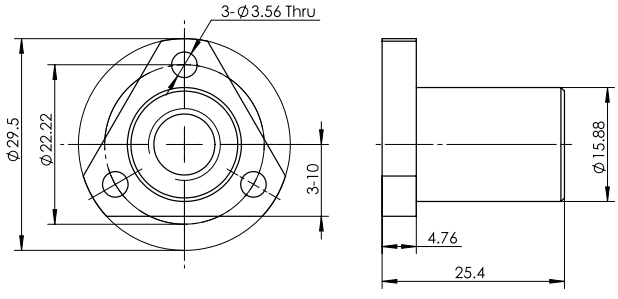
Nut Type

UNIT:mm

Round Standard Nut AR2

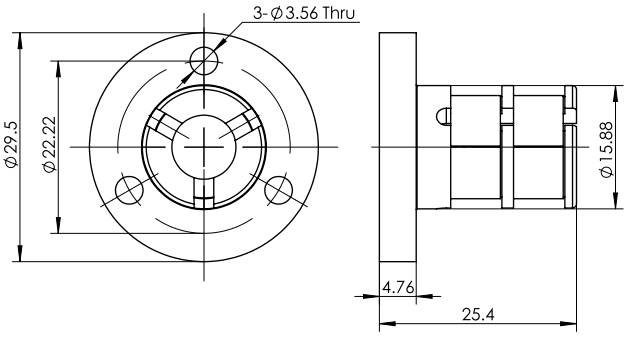


Triangular Standard Nut AT2

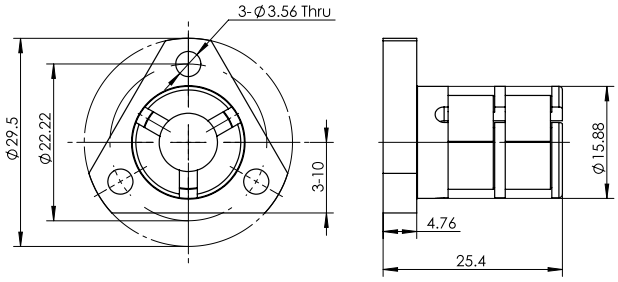


LE23 Series

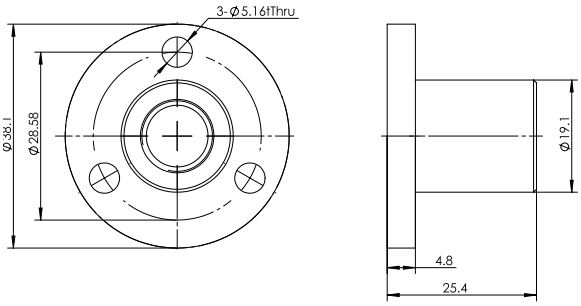
Round Anti-Backlash Nut BR2



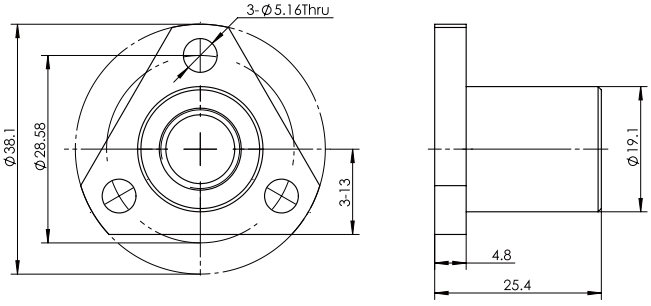
Triangular Anti-Backlash Nut BT2



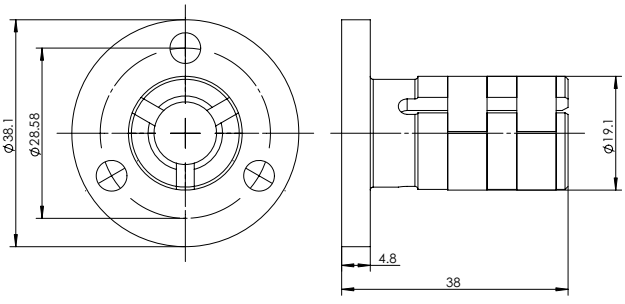
Round Standard Nut AR6



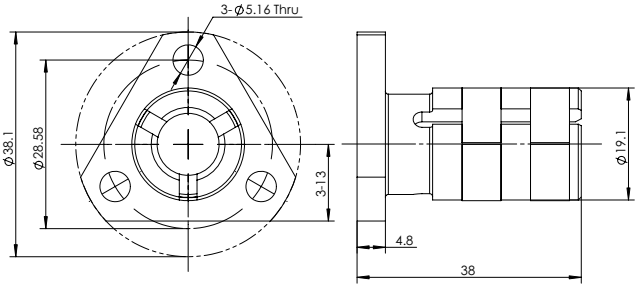
Triangular Standard Nut AT6



Round Anti-Backlash Nut BR4



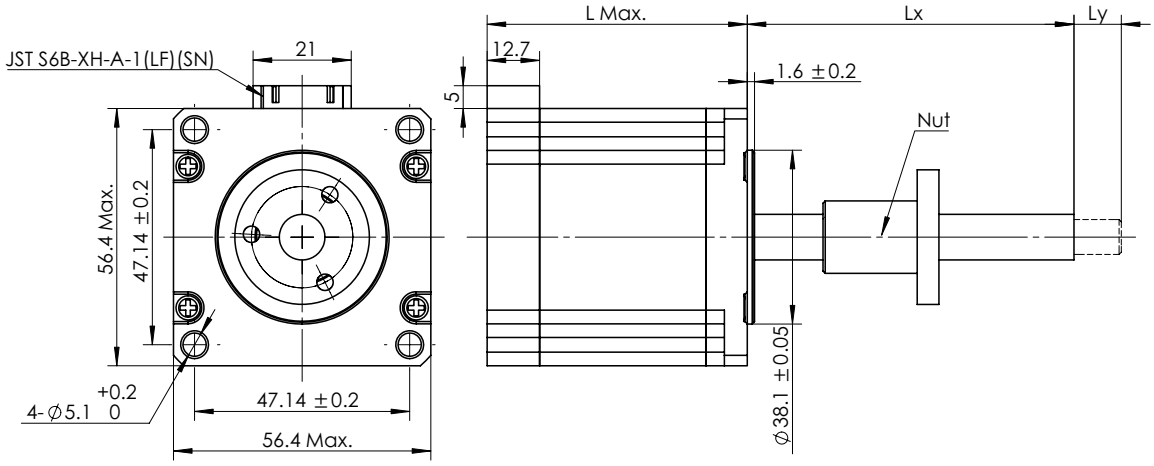
Triangular Anti-Backlash Nut BT4



LE23 Series

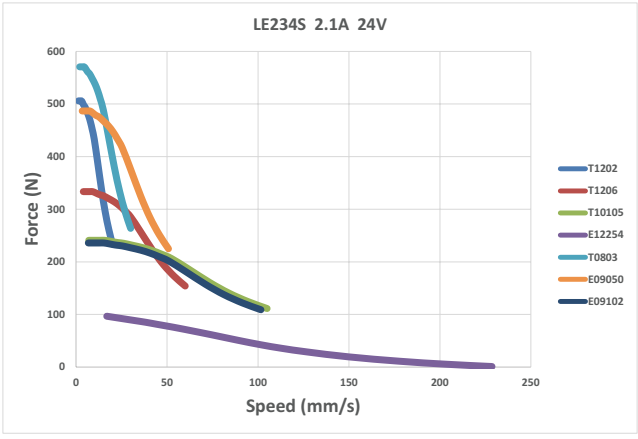
Dimensional Information

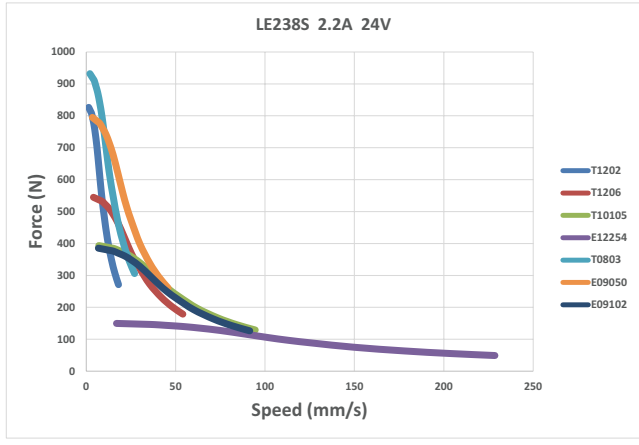
UNIT:mm

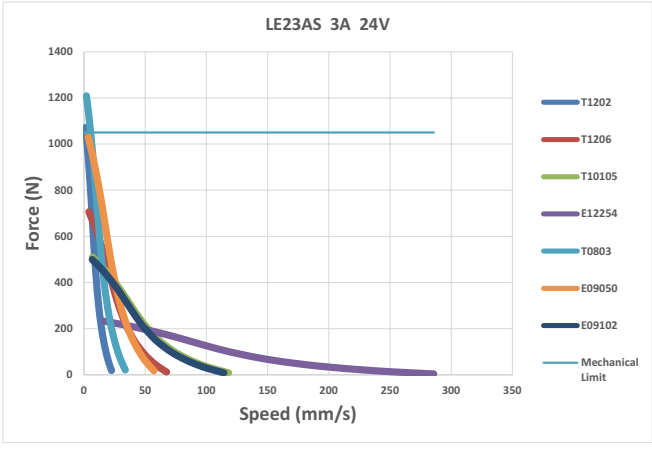


Motor Type	Dimension"L"	Note
LE238S	57	Standard
LE23AS	79	Standard
LE23ASP	79	Power Plus

Speed - Force Reference Curve







Encoder Options-Suitable for applications that require feedback

Parameter

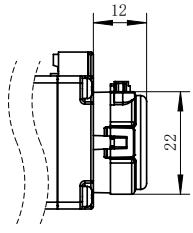
Mating Motor	Supply Voltage (VDC)			CPR	PPR	Operating Temperature(°C)		Vibration (g) (5HZ-2KHZ)	Output	
	Min.	Typ.	Max.			Low	High	Max.		
LE08/11	4.5	5	5.5	400	1600	-20	100	20	Single-ended Electrical	Differential Electrical
LE14/17/23				1000	4000	-40	100			

LE11 with encoder

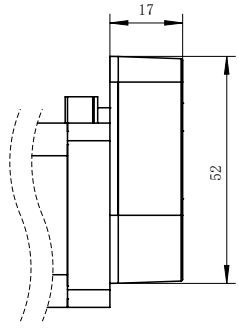
LE17 with encoder

Dimensional Information

Unit: mm



The encoder mating LE08/11

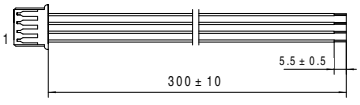


The encoder mating LE14/17/23

Mating Connector With Leads

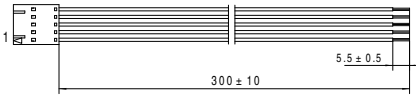
Single-ended Electrical

Pin	Function	Color
1	+5VDC Power	Black
2	A Channel	Green
3	Ground	Red
4	B Channel	Blud



For the encoder mating LE08/11

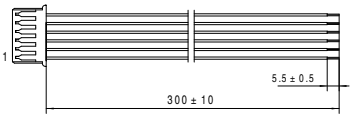
Pin	Function	Color
1	Ground	Black
2	Index	Green
3	A Channel	Red
4	+5VDC Power	Blud
5	B Channel	Yellow



For the encoder mating LE14/17/23

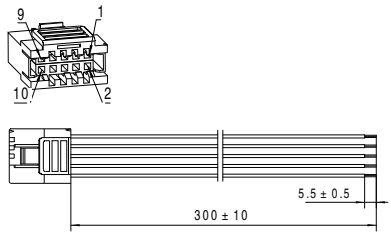
Differential Electrical

Pin	Function	Color
1	Ground	Black
2	A+Channel	Green
3	A- Channel	Red
4	Power	Blud
5	B+Channel	Yellow
6	B- Channel	White



For the encoder mating LE08/11

Pin	Function	Color
1	-	-
2	Ground	Black
3	I- Channel	Green
4	I+Channel	Red
5	A- Channel	Blud
6	A+Channel	Yellow
7	Power	White
8	-	-
9	B- Channel	Orange
10	B+Channel	Brown



For the encoder mating LE14/17/23

Brake Options

Parameter

Mating Motor	Supply Voltage (VDC)	Braking Torque (N·M)	Power (W)	Reaction Time (ms)	Insulation Grade
LE11/14	24	0.4	4	15	B
LE17	24	0.6	5	50	B
LE23	24	1.2	4.5	50	B

Note:
1. All the brakes with 300mm leads.
2. 12 VDC brake options are available, please consult our technical department for further information.

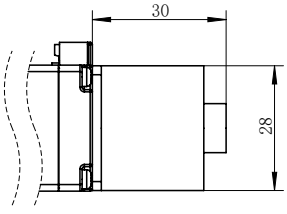
LE11 with brake

LE17 with brake

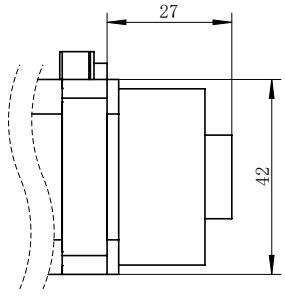
LE23 with brake

Dimensional Information

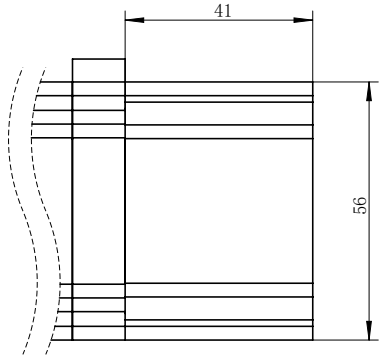
Unit: mm



The brake mating LE11/14



The brake mating LE17



The brake mating LE23

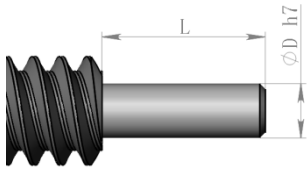
Optional Construction & Modifications

MOONS' often modifies linear actuators to meet application needs. Typical changes include:

· Leadscrews: lengths, end machining and so on.
· Nuts: basic style, materials, lengths, mounting and so on.

To help our customers design efforts, standardized leadscrew features are available.

■ Lead screw End Machining



NO.	Lead Screw Nominal Diameter (mm)	Dimension	
		D(mm)	L(mm)
1	3.505	2.5	2.5
2	4.76	2.5	2.5
3	5.54	4	5
4	6	4	5
5	6.35	4	5
6	6.5	4	5
7	8	6	6
8	9.53	6	6
9	10	6	6
10	12	8	8

LN/LNSM : Non-captive Type

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. In addition, the unique LNSM series can be compatible with clearance nut and more screw options.

- Five frame sizes: NEMA08/11/14/17/23
- Multiple motor lengths and motor sizes
- Each motor size has a rich range of lead screws
- Standard nut or anti-backlash nut options

This series of products has a variety of motors, lead screws and nuts optional collocation, to provide customers with more suitable for the application needs, more stable, reliable linear motion solution.

LN Series

LNSM Series

Numbering System

LN 174S – E06008 – 100 – S – XXX

①	②	③	④	⑤	⑥
Series	Motor type	Lead screw type	Screw length (mm)	Customized Code S=Screw End Machining	Rated Current XXX=X.XX(A)

LNSM 174S – E06008 – 100 – BR – S – XXX

①	②	③	④	⑤	⑥	⑦
Series	Motor type	Lead screw type	Screw length (mm)	Nut type BR=Anti-backlash Nut	Customized Code S=Screw End Machining	Rated Current XXX=X.XX(A)

LN/LNSM Series Configuration Table (Metric Screw)

Nominal Diameter (mm)	Lead (mm)	Lead Screw Code	Motor Options													
			LN081S	LN143S	LNSM 143S	LN174S	LNSM 174S	LN172S	LNSM 172S	LN176S	LNSM 176S	LN234S	LNSM 234S	LN238S	LNSM 238S	LN23AS
3.5	1	M3501	◎	-		-		-		-		-		-		-
6	1	W0601	-	◎		◎		◎		◎		-		-		-
	2	M0602	-	◎		◎		◎		◎		-		-		-
6.5	3	T6503	-	◎		◎		◎		◎		-		-		-
8	1	T0801	-	-		-		-		-		◎		◎		◎
	1.25	T08012	-	-		-		-		-		◎		◎		◎
	2	T0802	-	-		-		-		-		◎		◎		◎
	3	T0803	-	-		-		-		-		◎		◎		◎
	4	T0804	-	-		-		-		-		◎		◎		◎
	5	T0805	-	-		-		-		-		◎		◎		◎
	8	T0808	-	-		-		-		-		◎		◎		◎
	10	T0810	-	-		-		-		-		◎		◎		◎
	12	T0812	-	-		-		-		-		◎		◎		◎
	15	T0815	-	-		-		-		-		◎		◎		◎
	30	T0830	-	-		-		-		-		◎		◎		◎
10	1	M1001	-	-		-		-		-		-	◎	-	◎	-
	2	M1002	-	-		-		-		-		-	◎	-	◎	-
	3	M1003	-	-		-		-		-		-	◎	-	◎	-
	10.5	T10105	-	-		-		-		-		-	◎	-	◎	-
	15	T1015	-	-		-		-		-		-	◎	-	◎	-

Note: 1.Marked with " ◎ " was recommend matches,for more matches please contact with MOONS'.
2.The table shown is standard leadscrew options,for PTFE Coating screw please contact with MOONS'.

LN/LNSM Series Configuration Table (Inch Screw)

Nominal Diameter		Lead		Lead Screw Code	Motor Options																
inch	mm	inch	mm		LN081S	LN111S	LNSM 111S	LNSM 113S	LN143S	LNSM 143S	LN174S	LNSM 174S	LN172S	LNSM 172S	LN176S	LNSM 176S	LN234S	LNSM 234S	LN238S	LNSM 238S	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	-	-			◎		◎		◎		◎		-		-		-
		1	25.40	E06254	-	-			◎		◎		◎		◎		-		-		-
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,for more matches please contact with MOONS'.
2.The table shown is standard leadscrew options,for PTFE Coating screw please contact with MOONS'.

LN Series Standard Models for stock

Size (mm)	Motor Series		Lead Screw Options		Screw Length Options		End Machining Code		Rated Current Options	Page
20X20	LN081S	-	E03006	-	70, 80, 90, 100, 110, 125	-	S	-	050	P36
	LN081S	-	E03024	-		-	S	-		
28X28	LN111S	-	E04006	-	70, 80, 90, 100, 110, 125, 150, 180	-	S	-	050,067,100	P38
	LN111S	-	E04025	-		-	S	-		
35X35	LN143S	-	W0601	-	70, 80, 100, 125, 150	-	S	-	050,100,150	P41
	LN143S	-	E06008	-		-	S	-		
	LN143S	-	E06063	-		-	S	-		
	LN143S	-	E06127	-		-	S	-		
42X42	LN174S	-	W0601	-	80, 90, 100, 110, 125, 155, 170, 180, 210, 250, 300	-	S	-	065,100,150	P44
	LN174S	-	E06008	-		-	S	-		
	LN174S	-	E06063	-		-	S	-		
	LN174S	-	E06127	-		-	S	-		
	LN172S	-	W0601	-	80, 90, 100, 110, 125, 155, 170, 180, 210, 250, 300	-	S	-	100,150,200	
	LN172S	-	E06008	-		-	S	-		
	LN172S	-	E06063	-		-	S	-		
	LN172S	-	E06127	-		-	S	-		
	LN176S	-	W0601	-	80, 90, 100, 110, 125, 155, 170, 180, 210, 250, 300	-	S	-	100,200	
	LN176S	-	E06008	-		-	S	-		
	LN176S	-	E06063	-		-	S	-		
	LN176S	-	E06127	-		-	S	-		
57X57	LN234S	-	T0803	-	100, 155, 180, 210, 250, 300, 350,400	-	S	-	150,210	P48
	LN234S	-	E09050	-		-	S	-		
	LN234S	-	E09102	-		-	S	-		
	LN238S	-	T0803	-	100, 155, 180, 210, 250, 300, 350,400	-	S	-	220	
	LN238S	-	E09050	-		-	S	-		
	LN238S	-	E09102	-		-	S	-		
	LN23AS	-	T0803	-	100, 155,180, 210, 250, 300, 350,400	-	S	-	300	
	LN23AS	-	E09050	-		-	S	-		
	LN23AS	-	E09102	-		-	S	-		

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

In addition to the standard number, also provides a wealth of customized configuration options, for more information please contact the factory.

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

Lead Screw Motor Type Code

Code	Structure Type
LN	Non-captive Shaft

Frame Size Code

Code	Frame Size
08	20mm

Lead Screw Type Code

Code	Motor Body Length Max(mm)	Step Angle (°)
1S	30	1.8

Lead Screw Type Code

Code	Nominal Diameter (mm)	Lead (mm)	Travel(mm)
			Travel Per1.8°
M3501	3.5	1	0.005

Code	Nominal Diameter		Lead		Travel(mm)
	inch	mm	inch	mm	Travel Per1.8°
E03006	0.138	3.51	0.024	0.61	0.0030*
E03012			0.048	1.22	0.0061*
E03024			0.096	2.44	0.0122*

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

Lx

###	Provided in 1 mm increments

Note:Choose the standard order models can get the sample quickly, please see P35 for standard models.

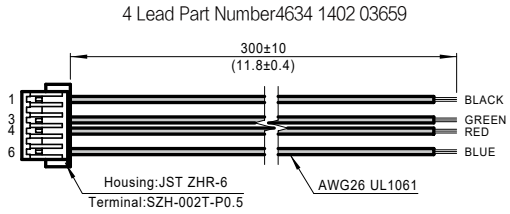
LN08 Series

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

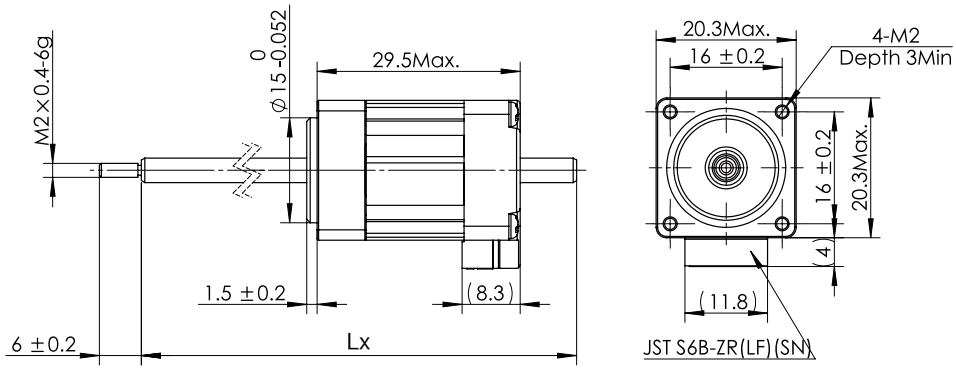
Note: Recommended Driver, DC Input: SR2-Plus, SR3-mini.

Mating Connector With Leads (order separately)

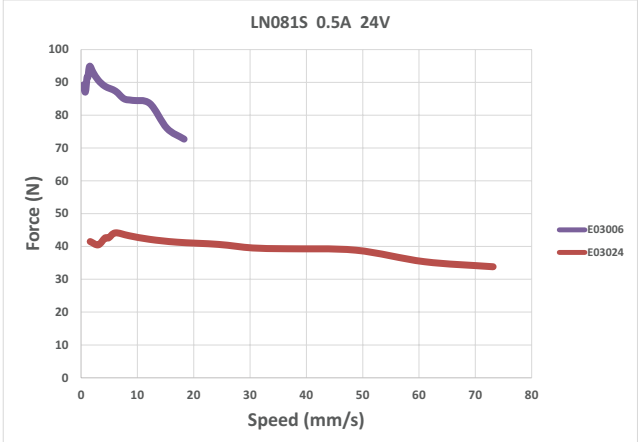


Dimensional Information

UNIT:mm



Speed - Force Reference Curve



LN/LNSM11 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

Lead Screw Motor Type Code

Code	Structure Type
LN	Non-captive Shaft
LNSM	

Frame Size Code

Code	Frame Size
11	28mm

Motor Body Length Code

Code	Motor Body Length Max(mm)	Step Angle (°)
1S	32	1.8
3S*	41	

Only LNSM series can match the "3S"code motor.

Lead Screw Type Code

Code	Nominal Diameter		Lead		Travel(mm)
	inch	mm	inch	mm	Travel Per1.8°
E04006	0.188	4.78	0.025	0.64	0.0032*
E04012			0.05	1.27	0.0064*
E04025			0.1	2.54	0.0127*

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
BR*	Anti-backlash Nut

Only LNSM series can match the Anti-backlash nut.

Lx

###	Provided in 1 mm increments

Note:Choose the standard order models can get the sample quickly, please see P35 for standard models.

LN/LNSM11 Series

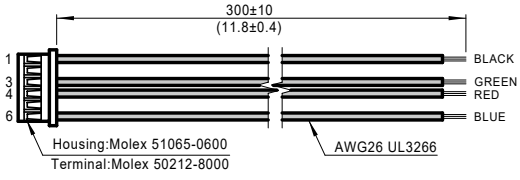
LN/LNSM11 Step Motor - 4 Lead Bi-Polar

Motor Type Code	Motor Body Length (mm)	Step Angle (°)	Electrical Connection	Rated Current (Amps)	Winding Resistanc(Ohms) ±10%@20°C	Winding Inductance(mH) Typ.
LN111S	32	1.8	Plug In Connector	0.67	6.1	5.5
				1	2.7	2.5
LNSM111S	32	1.8	Plug In Connector	0.5	10.9	9.7
				0.67	6.1	5.5
LNSM113S	41		Plug In Connector	0.95	3.8	3.5

Note: Recommended Driver, DC Input: SR2-Plus.

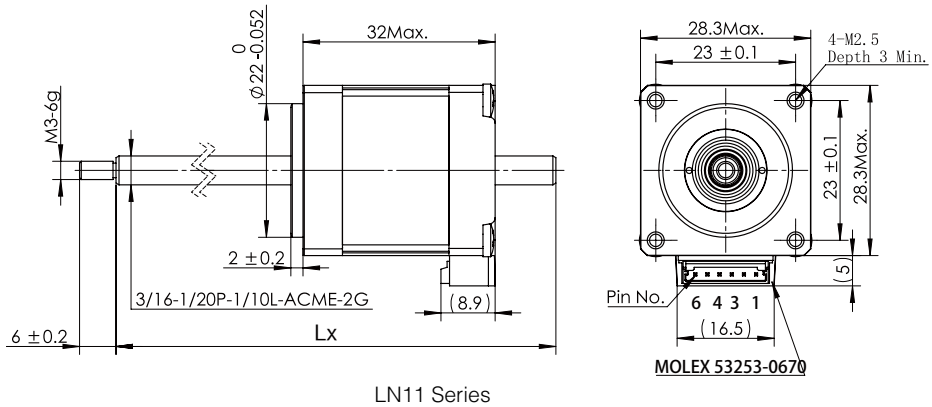
Mating Connector With Leads (order separately)

4 Lead Part Number 4634 1402 04190



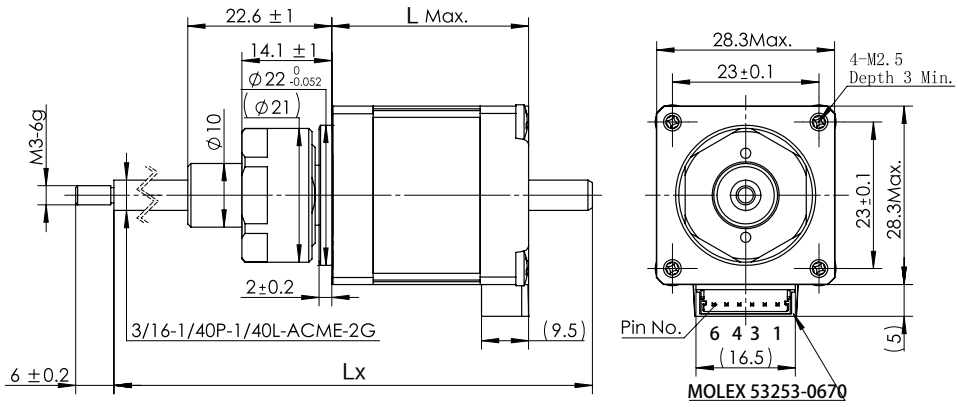
Dimensional Information

UNIT:mm



LN11 Series

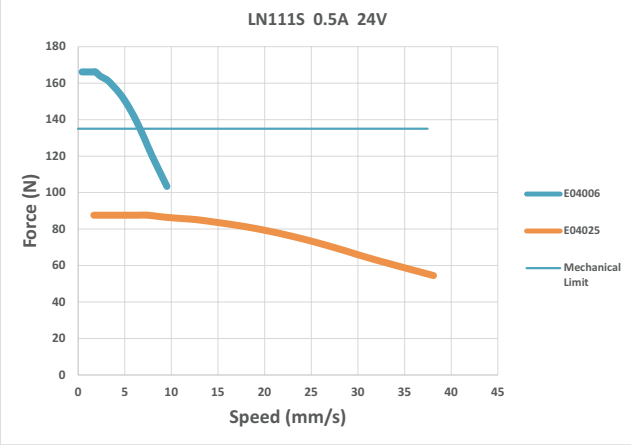
LN/LNSM11 Series

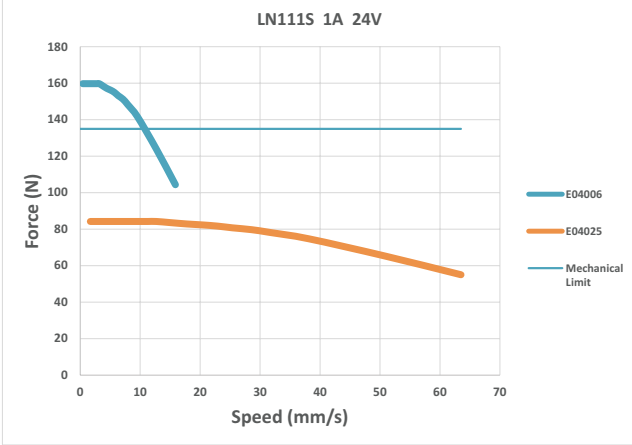


LNSM 11 Series

Motor Type	Dimension"L"
LNSM111S	32
LNSM113S	41

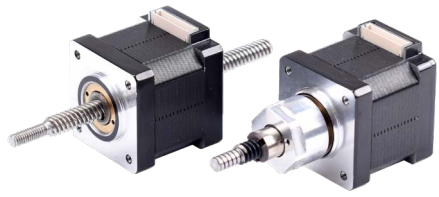
■ Speed - Force Reference Curve





LN/LNSM14 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
LNSM	

Frame Size Code

Code	Frame Size
14	35mm

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 Per1.8°
W0601	6	1	0.005
M0602		2	0.01
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			0.25	6.35	0.0318*
E06085			0.333	8.46	0.0423*
E06127			0.5	12.70	0.0635
E06254			1	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
BR*	Anti-backlash Nut

Only LNSM series can match the Anti-backlash nut.

Lx

###	Provided in 1 mm increments

Note:Choose the standard order models can get the sample quickly, please see P35 for standard models.

LN/LNSM14 Series

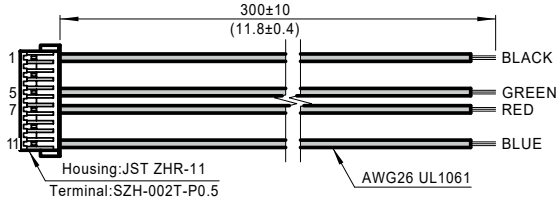
LN/LNSM14 Step Motor - 4 Lead Bi-Polar

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	15.1	25
				1	3.4	5.3
				1.5	1.61	2.5
LNSM143S	35	1.8	Plug In Connector	1	3.4	5.3
				1.5	1.61	2.5

Note: Recommended Driver, DC Input: SR2-Plus.

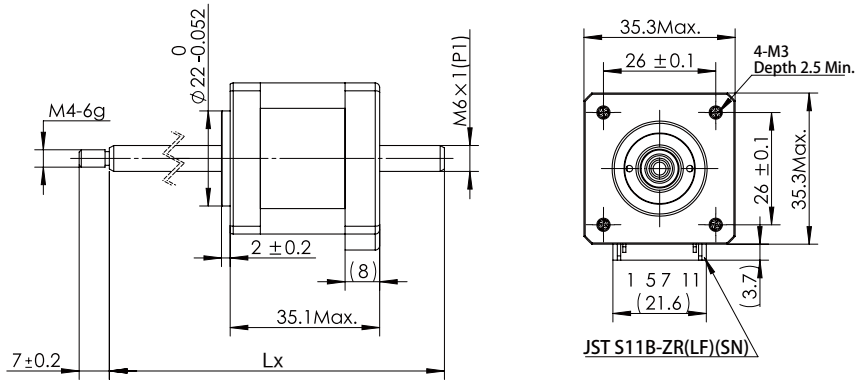
Mating Connector With Leads (order separately)

4 Lead Part Number 4634 1402 04581



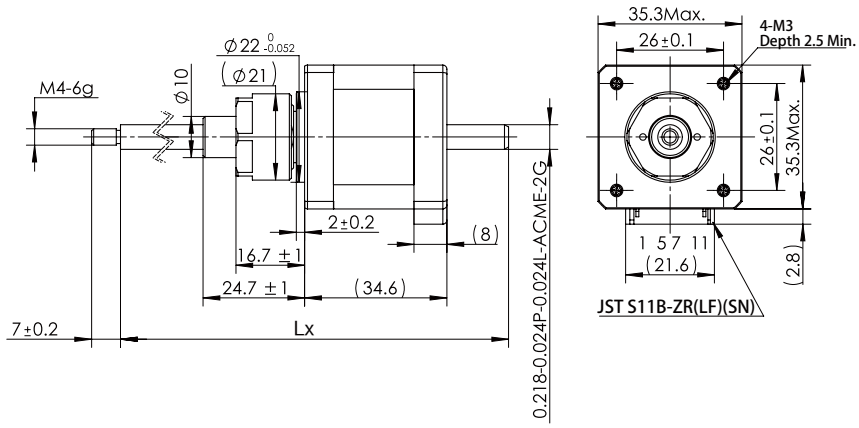
Dimensional Information

UNIT:mm



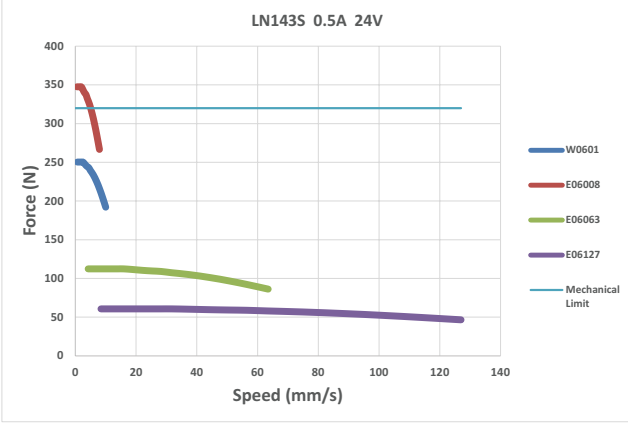
LN14 Series

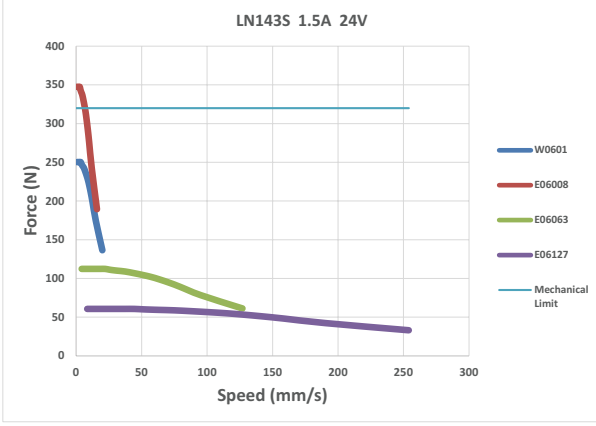
LN/LNSM14 Series



LNSM14 Series

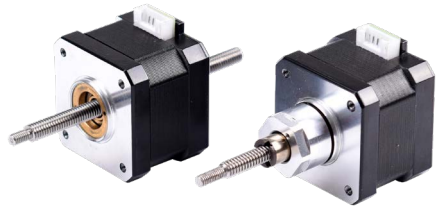
■ Speed - Force Reference Curve





LN/LNSM17 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

Lead Screw Motor Type Code

Code	Structure Type
LN	Non-captive Shaft
LNSM	

Frame Size Code

Code	Frame Size
17	42mm

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 (mm)	Lead (mm)	Travel(mm) Travel Per1.8°
W0601	6	1	0.005
M0602		2	0.01
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			0.25	6.35	0.0318*
E06085			0.333	8.46	0.0423*
E06127			0.5	12.70	0.0635
E06254			1	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

Nut Type Code

Code	Nut Type
AR	Standard Nut
BR*	Anti-backlash Nut

Only LNSM series can match the Anti-backlash nut.

Lx

###	Provided in 1 mm increments

Note:Choose the standard order models can get the sample quickly, please see P35 for standard models.

LN/LNSM17 Series

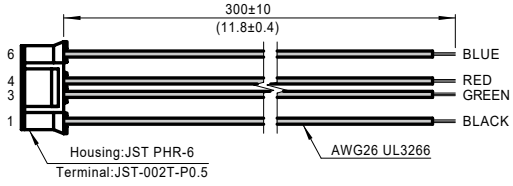
LN/LNSM17 Step Motor - 4 Lead Bi-Polar

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	8.7	15.2
				1	4.2	7
				1.5	1.75	2.8
LNSM174S	34	1.8	Plug In Connector	0.65	8.7	15.2
				1	4.2	7
LN172S	40	1.8	Plug In Connector	1	3.9	10.8
				1.5	1.98	4.9
				2	1.04	2.5
LNSM172S	40	1.8	Plug In Connector	1.5	1.98	4.9
LN176S	48	1.8	Plug In Connector	1	4.9	10.2
				2	1.25	2.8
LNSM176S	48	1.8	Plug In Connector	1	4.9	10.2
				2	1.25	2.8

Note: Recommended Driver, DC Input: SR2-Plus, SR4-Plus.

Mating Connector With Leads (order separately)

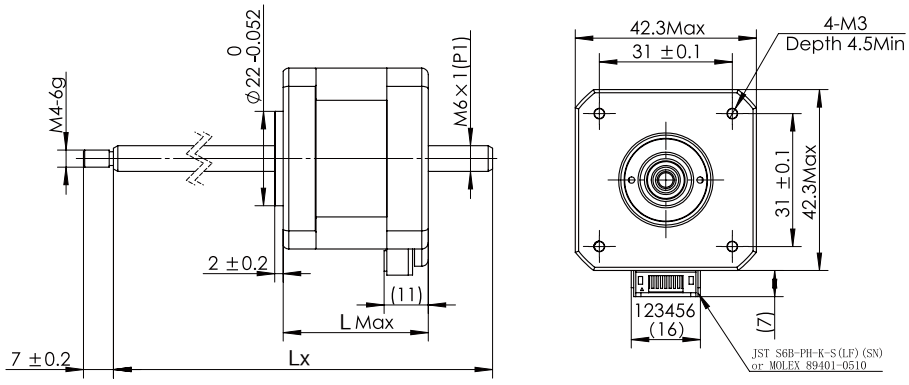
4 Lead Part Number 4634 1402 00723



LN/LNSM17 Series

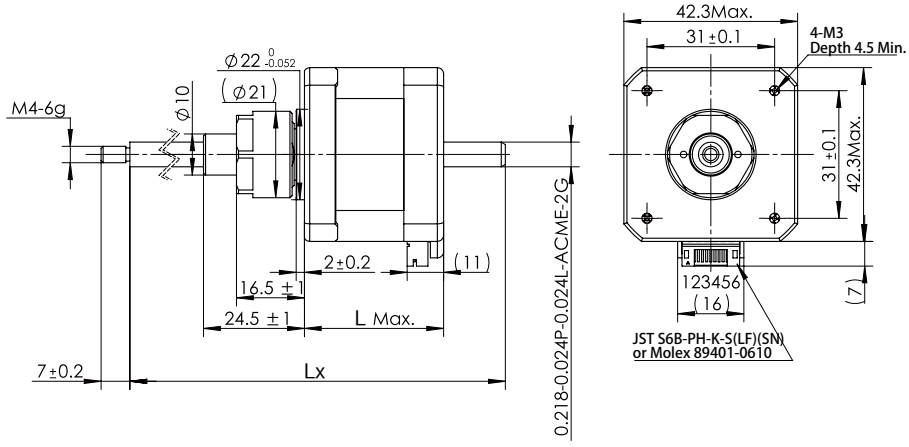
■ Dimensional Information

UNIT:mm



LN17 Series

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

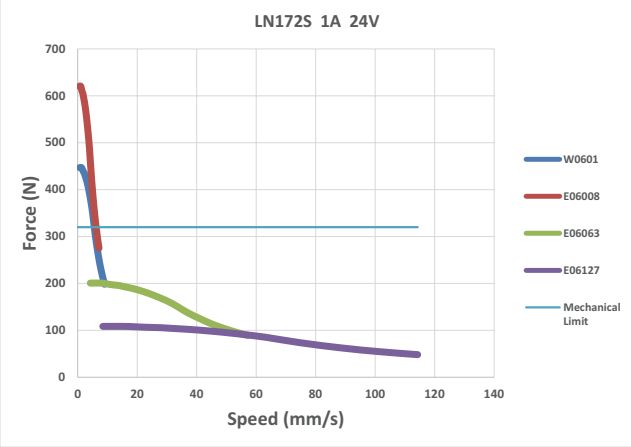


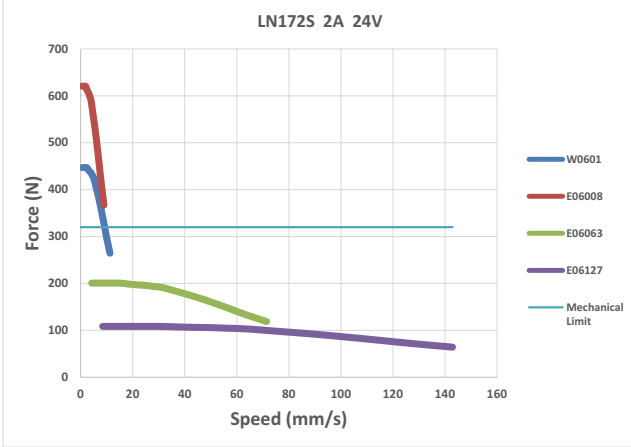
LNSM17 Series

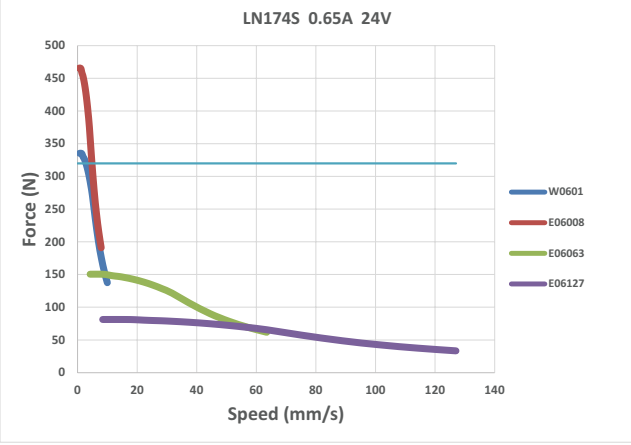
Motor Type	Dimension"L"
LNSM174S	34.3
LNSM172S	39.8
LNSM176S	48.3

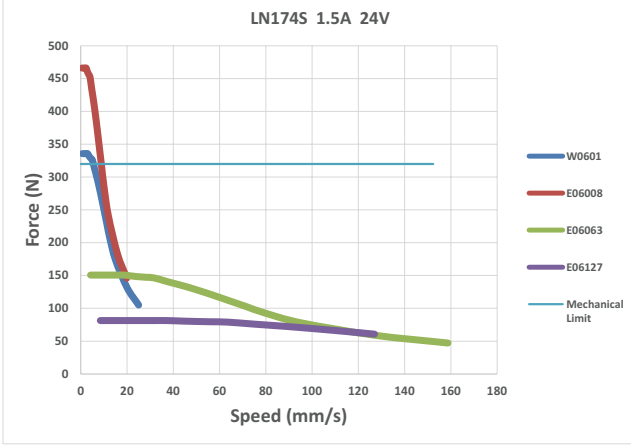
LN/LNSM17 Series

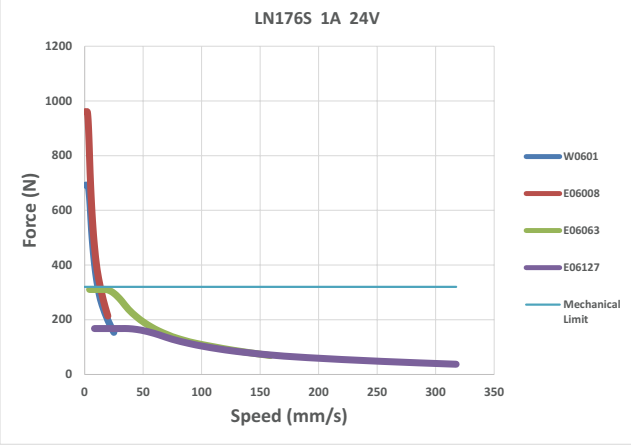
■ Speed - Force Reference Curve

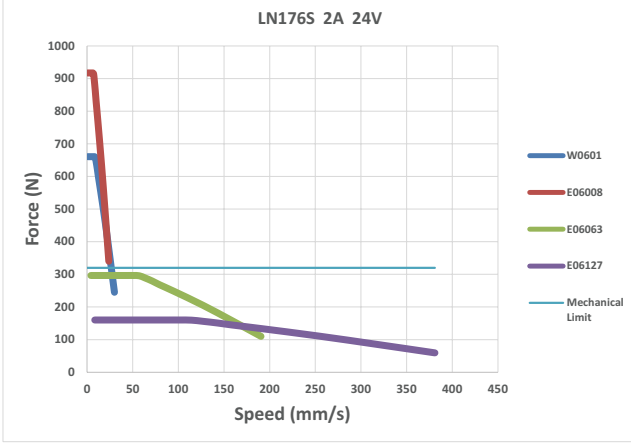






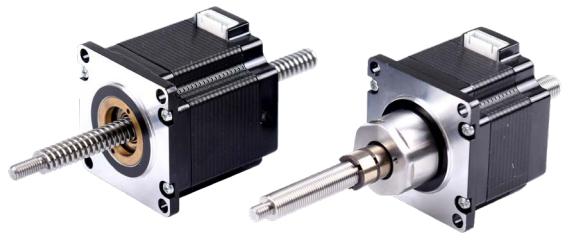






LN/LNSM23 Series

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

Code	Structure Type
LN	Non-captive Shaft
LNSM	

Frame Size Code

Code	Frame Size
23	57mm

Motor Body Length Code

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

Only LNSM series can match the "AS"code motor.

Lead Screw Type Code

Code	Nominal Diameter (mm)	Lead (mm)	Travel(mm) Travel Per1.8°
T0801	8	1	0.005
T08012		1.25	0.0063*
T0802		2	0.01
T0803		3	0.015
T0804		4	0.02
T0805		5	0.025
T0808		8	0.04
T0810		10	0.05
T0812		12	0.06
T0815		15	0.075
T0830		30	0.15
M1001	10	1	0.005
M1002		2	0.01
M1003		3	0.015
T10105		10.5	0.0525*
T1015		15	0.075

Code	Nominal Diameter		Lead		Travel(mm)
	inch	mm	inch	mm	Travel Per1.8°
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	25.40	0.1270

1.The number with * is abbreviated.
2.Only LNSM series can match the ϕ 9.7/10 mm screw..

Nut Type Code

Code	Nut Type
AR	Standard Nut
BR*	Anti-backlash Nut

Only LNSM series can match the Anti-backlash nut.

Special Custom Type Code

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

Rated Current Code

XXX=X.XX(A)

Lx

###	Provided in 1 mm increments

Note:Choose the standard order models can get the sample quickly, please see P35 for standard models.

LN/LNSM23 Series

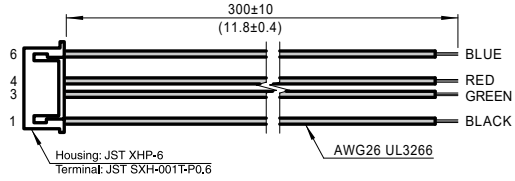
LN/LNSM23 Step Motor - 4 Lead Bi-Polar

Motor Type Code	Motor Body Length (mm)	Step Angle (°)	Electrical Connection	Rated Current (Amps)	Winding	
					Resistanc(Ohms) ±10%@20°C	Inductance(mH) Typ.
LN234S	45	1.8	Plug In Connector	1.5	2.9	7.5
				2.1	1.6	3.9
LNSM234S	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
				2.2	1.6	7.2
LNSM238S	57	1.8	Plug In Connector	1.5	3.9	15
				2.2	1.6	7.2
LN23AS	79	1.8	Plug In Connector	1.5	4.3	18.5
				3	1.1	5

Note: Recommended Driver, DC Input: SR8-Plus.

Mating Connector With Leads (order separately)

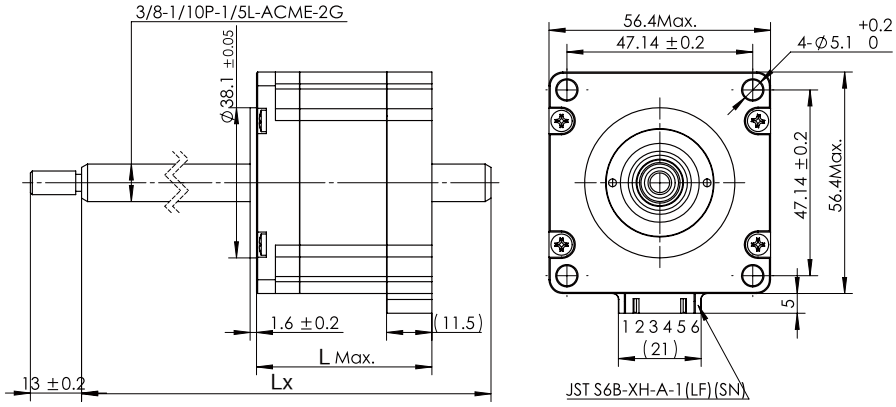
4 Lead Part Number 4634 1402 01891



LN/LNSM23 Series

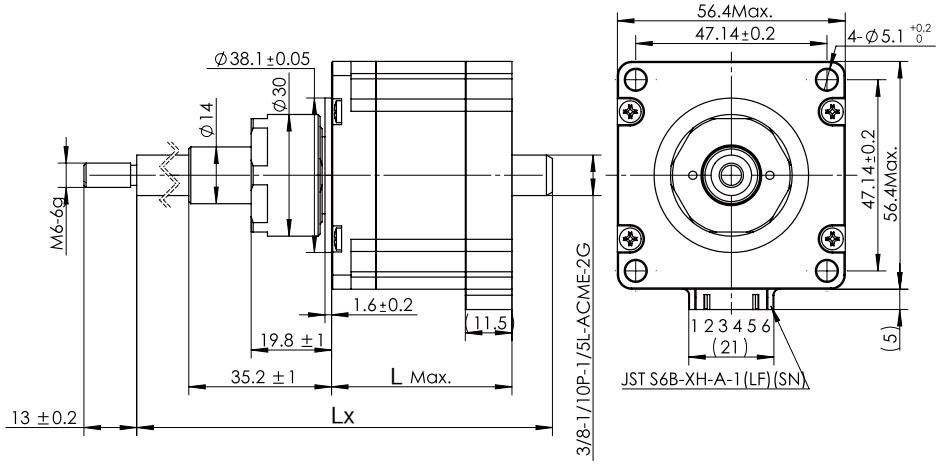
■ Dimensional Information

UNIT:mm



LN23 Series

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

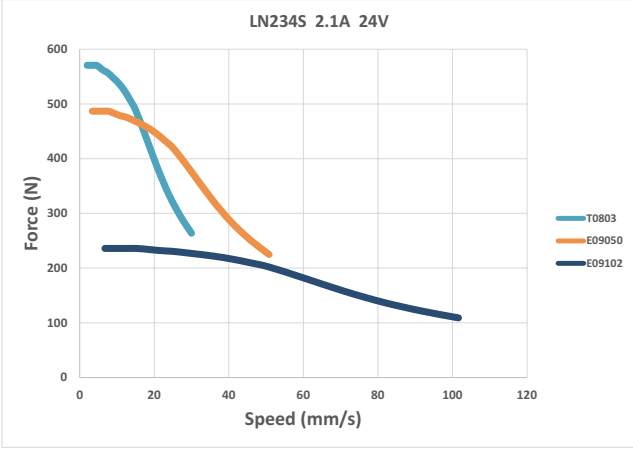


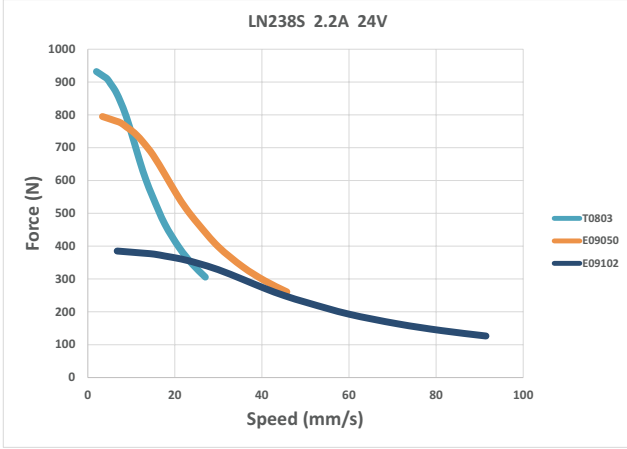
LNSM23 Series

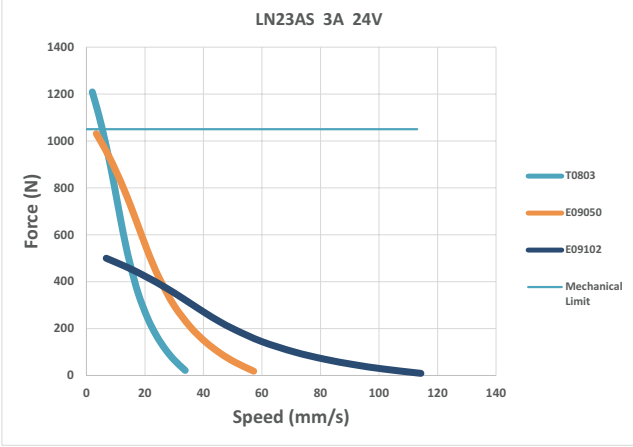
Motor Type	Dimension"L"
LNSM234S	45
LNSM238S	57

LN/LNSM23 Series

■ Speed - Force Reference Curve







LC : Captive Type

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.

- Five frame sizes: NEMA08/11/14/17/23
- Multiple motor lengths and motor sizes
- Each motor size has a rich range of lead screws

This series products offer many advantages such as high integration, small size, quieter operation and stable product quality. Not only provides the best performance but also easier to use.

Numbering System

LC	174S	–	E06008	–	25	–	S	–	XXX
①	②		③		④		⑤		⑥
Series	Motor type		Lead screw type		Stroke Code 25.4 (mm)		Customized Code S=Screw End Machining		Rated Current XXX=X.XX(A)

LC Series Configuration Table (Inch Screw)

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	-	-	◎	◎	◎	◎	-	-	-
		1	25.40	E06254	-	-	◎	◎	◎	◎	-	-	-
0.375	9.53	0.1	2.54	E09025	-	-	-	-	-	-	◎	◎	◎
		0.2	5.08	E09050	-	-	-	-	-	-	◎	◎	◎
		0.4	10.16	E09101	-	-	-	-	-	-	◎	◎	◎

Note: 1.Marked with " ◎ " was recommend matches,for more matches please contact with MOONS'.
2.The table shown is standard leadscrew options,for PTFE Coating screw please contact with MOONS'.

LC Series Standard Models for stock

Size (mm)	Motor Series		Lead Screw Options		Stroke Options		End Machining Code		Rated Current Options	Page
20X20	LC081S	–	E03006	–	25	–	S	–	050	P56
	LC081S	–	E03024	–		–	S	–		
28X28	LC111S	–	E04006	–	12，25，38	–	S	–	050,067,100	P58
	LC111S	–	E04025	–		–	S	–		
35X35	LC143S	–	E06008	–	25	–	S	–	050,100,150	P61
	LC143S	–	E06063	–		–	S	–		
	LC143S	–	E06127	–		–	S	–		
42X42	LC174S	–	E06008	–	25	–	S	–	065,100,150	P64
	LC174S	–	E06063	–		–	S	–		
	LC174S	–	E06127	–		–	S	–		
	LC172S	–	E06008	–	25	–	S	–	100,150,200	
	LC172S	–	E06063	–		–	S	–		
	LC172S	–	E06127	–		–	S	–		
	LC176S	–	E06008	–	25	–	S	–	100,200	
	LC176S	–	E06063	–		–	S	–		
	LC176S	–	E06127	–		–	S	–		
57X57	LC234S	–	E09025	–	25	–	S	–	150,210	P68
	LC234S	–	E09050	–		–	S	–		
	LC234S	–	E09102	–		–	S	–		
	LC238S	–	E09025	–	25	–	S	–	220	
	LC238S	–	E09050	–		–	S	–		
	LC238S	–	E09102	–		–	S	–		
	LC23AS	–	E09025	–	25	–	S	–	300	
	LC23AS	–	E09050	–		–	S	–		
	LC23AS	–	E09102	–		–	S	–		

LC Series

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

In addition to the standard number, also provides a wealth of customized configuration options, for more information please contact the factory.

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

Lead Screw Motor Type Code

Code	Structure Type
LN	Captive Shaft

Frame Size Code

Code	Frame Size
08	20mm

Lead Screw Type Code

Code	Motor Body Length Max(mm)	Step Angle (°)
1S	30	1.8

Lead Screw Type Code

Code	Nominal Diameter		Lead		Travel(mm)
	inch	mm	inch	mm	Travel Per1.8°
E03006	0.138	3.51	0.024	0.61	0.0030*
E03012			0.048	1.22	0.0061*
E03024			0.096	2.44	0.0122*

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

Note:Choose the standard order models can get the sample quickly, please see P54 for standard models.

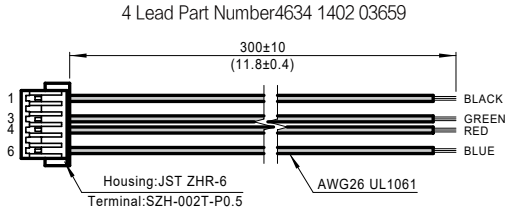
LC08 Step Motor - 4 Lead Bi-Polar

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

Note: Recommended Driver, DC Input: SR2-Plus, SR3-mini.

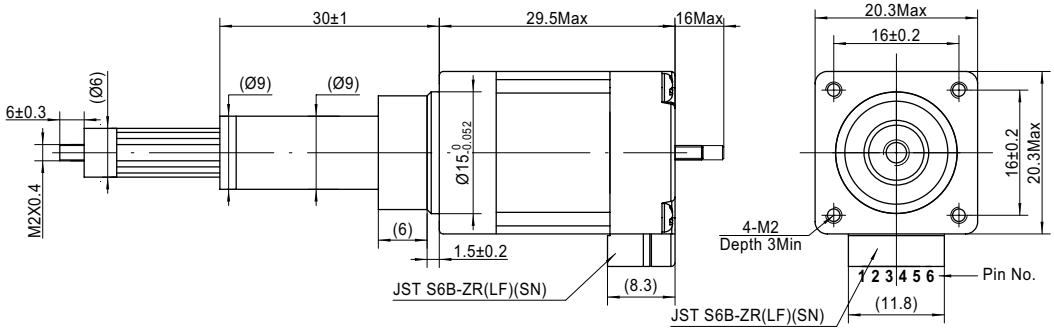
LC08 Series

■ Mating Connector With Leads (order separately)

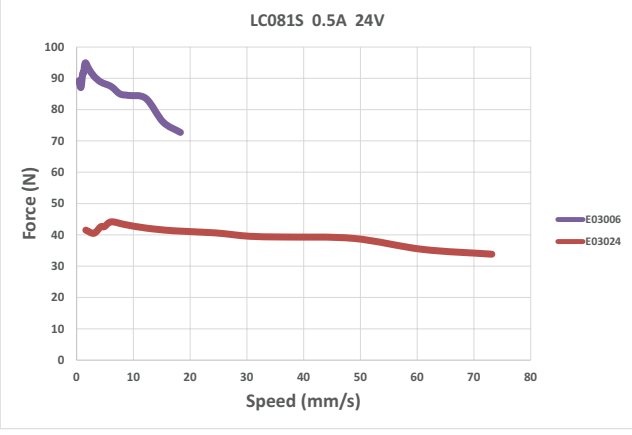


■ Dimensional Information

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

Lead Screw Motor Type Code

Code	Structure Type
LC	Captive Shaft

Frame Size Code

Code	Frame Size
11	28mm

Motor Body Length Code

Code	Motor Body Length Max(mm)	Step Angle (°)
1S	32	1.8
3S	41	

Lead Screw Type Code

Code	Nominal Diameter		Lead		Travel(mm)
	inch	mm	inch	mm	Travel Per1.8°
E04006	0.188	4.78	0.025	0.64	0.0032*
E04012			0.05	1.27	0.0064*
E04025			0.1	2.54	0.0127*

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)
12	12.7
25	25.4
38	38.1

Note:Choose the standard order models can get the sample quickly, please see P54 for standard models.

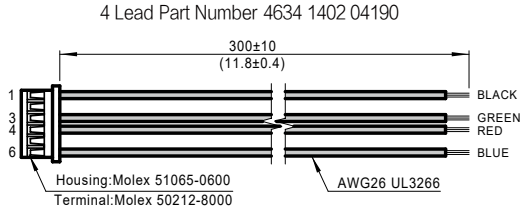
LC11 Step Motor - 4 Lead Bi-Polar

Motor Type Code	Motor Body Length (mm)	Step Angle (°)	Electrical Connection	Rated Current (Amps)	Winding	
					Resistanc(Ohms) ±10%@20°C	Inductance(mH) Typ.
LC111S	32	1.8	Plug In Connector	0.67	6.1	5.5
				1	2.7	2.5

Note: Recommended Driver, DC Input: SR2-Plus.

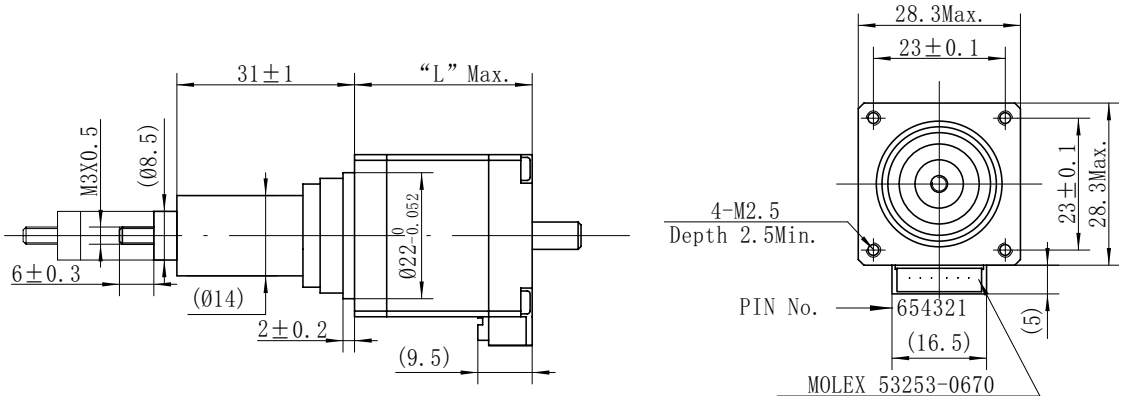
LC11 Series

Mating Connector With Leads (order separately)



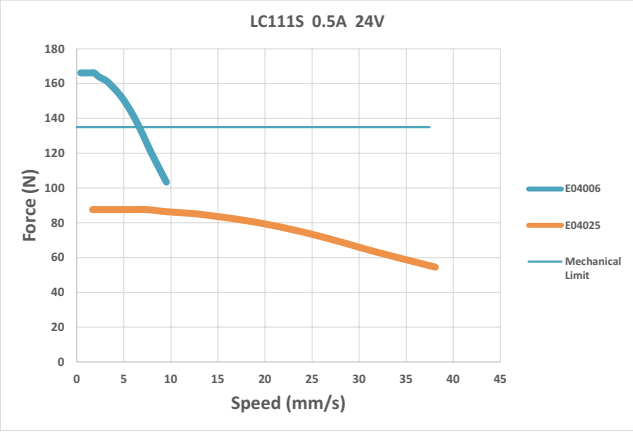
Dimensional Information

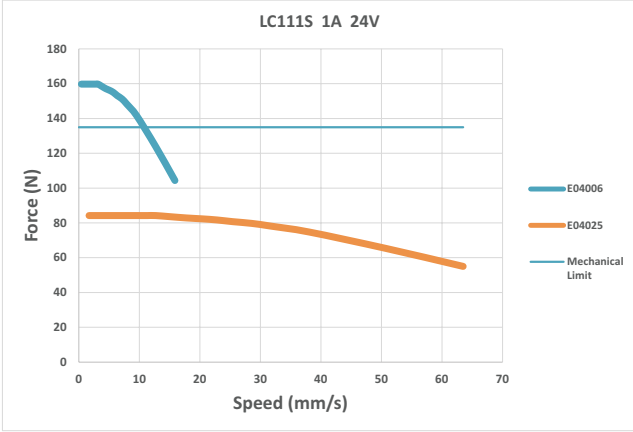
UNIT:mm



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

■ 订购型号

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

Lead Screw Motor Type Code

Code	Structure Type
LC	Captive Shaft

Frame Size Code

Code	Frame Size
14	35mm

Motor Body Length Code

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

Lead Screw Type Code

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			0.25	6.35	0.0318*
E06085			0.333	8.46	0.0423*
E06127			0.5	12.70	0.0635
E06254			1	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

Note:Choose the standard order models can get the sample quickly, please see P54 for standard models.

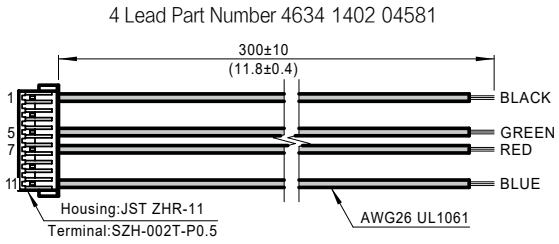
■ LC14 Step Motor - 4 Lead Bi-Polar

Motor Type Code	Motor Body Length (mm)	Step Angle (°)	Electrical Connection	Rated Current (Amps)	Winding Resistanc(Ohms) ±10%@20°C	Winding Inductance(mH) Typ.
LC143S	35	1.8	Plug In Connector	0.5	15.1	25
				1	3.4	5.3
				1.5	1.61	2.5

Note: Recommended Driver, DC Input: SR2-Plus.

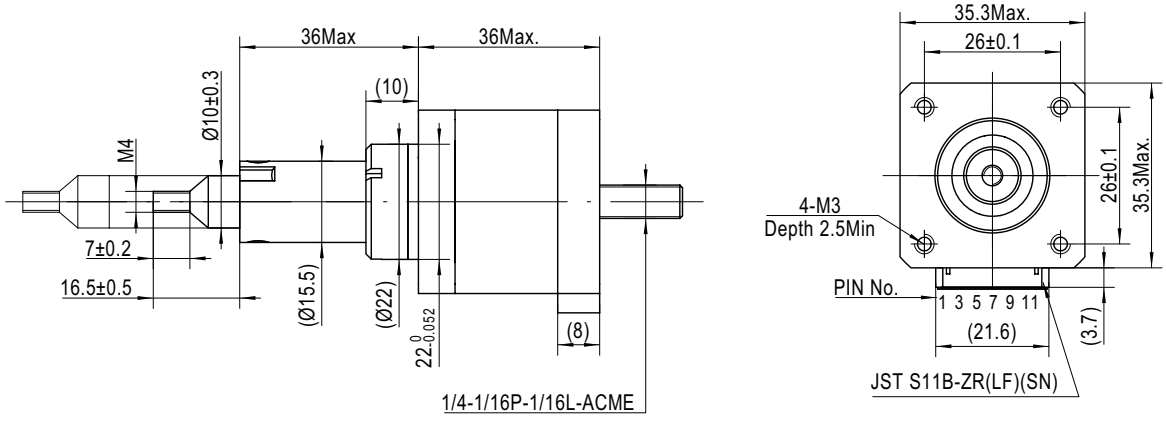
LC14 Series

■ Mating Connector With Leads (order separately)

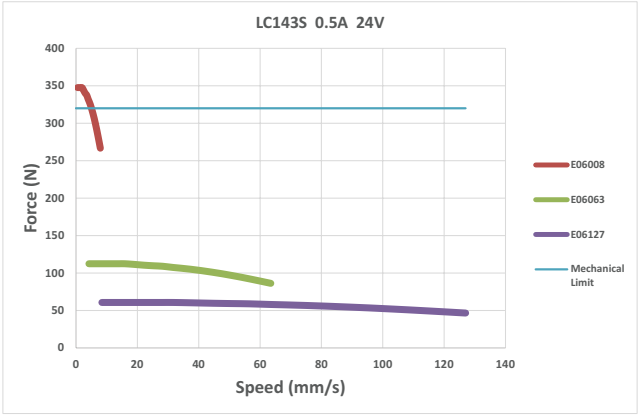


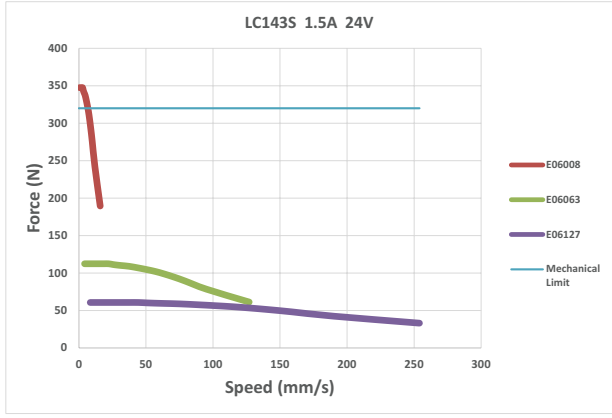
■ Dimensional Information

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

Ordering Information

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	42mm

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 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			0.25	6.35	0.0318*
E06085			0.333	8.46	0.0423*
E06127			0.5	12.70	0.0635
E06254			1	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

Note:Choose the standard order models can get the sample quickly, please see P54 for standard models.

LC17 Series

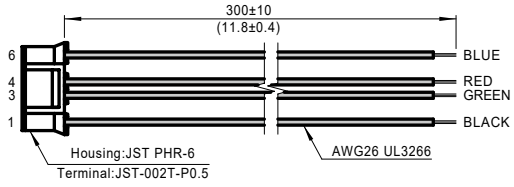
LC17 Step Motor - 4 Lead Bi-Polar

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	8.7	15.2
				1	4.2	7
				1.5	1.75	2.8
LC172S	40	1.8	Plug In Connector	1	3.9	10.8
				1.5	1.98	4.9
				2	1.04	2.5
LC176S	48	1.8	Plug In Connector	1	4.9	10.2
				2	1.25	2.8

Note: Recommended Driver, DC Input: SR2-Plus, SR4-Plus.

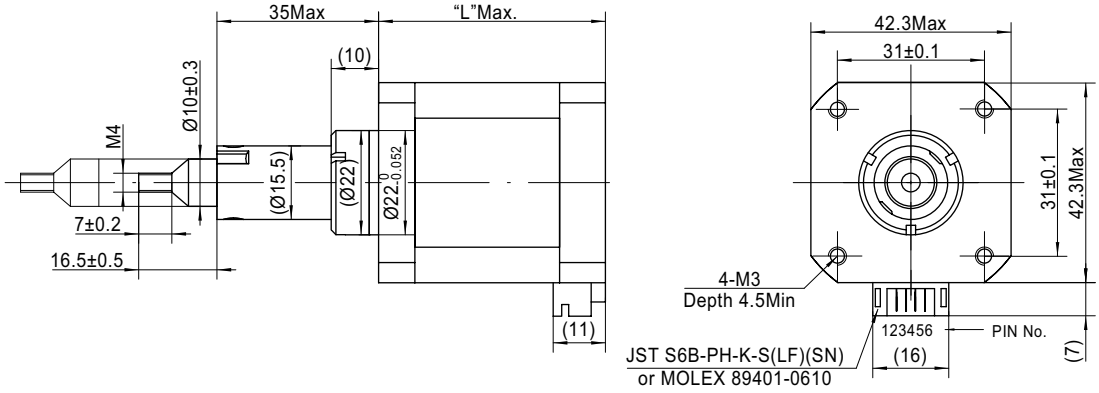
Mating Connector With Leads (order separately)

4 Lead Part Number 4634 1402 00723



Dimensional Information

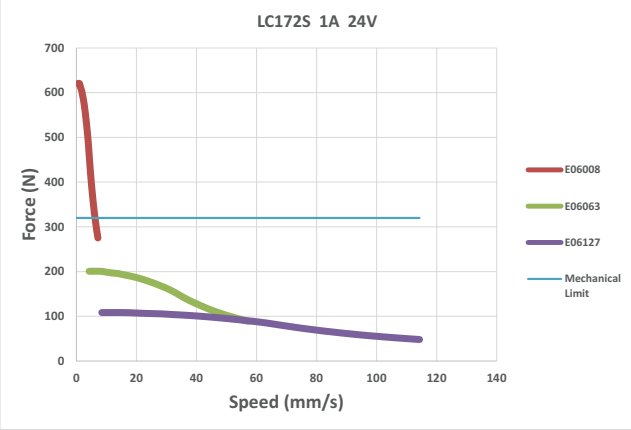
UNIT:mm

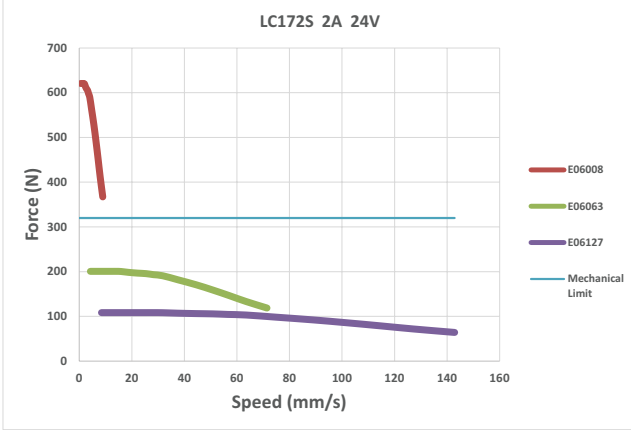


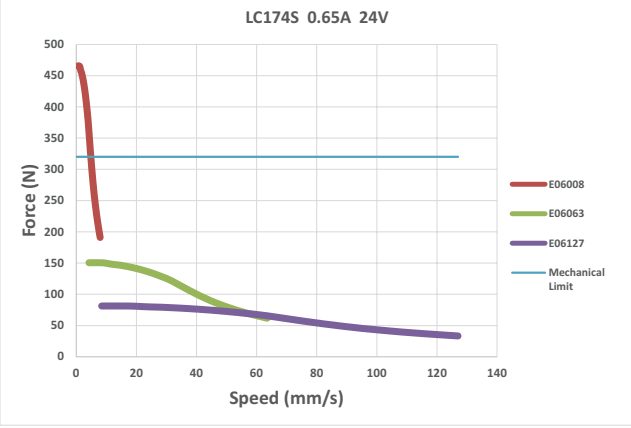
Motor Type	Dimension"L"
LC174S	34.3
LC172S	39.8
LC176S	48.3

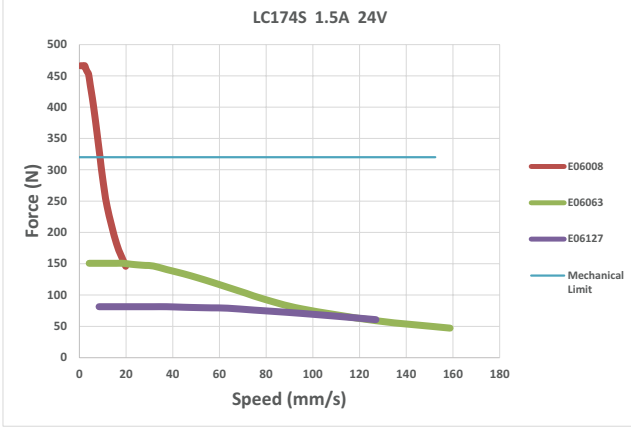
LC17 Series

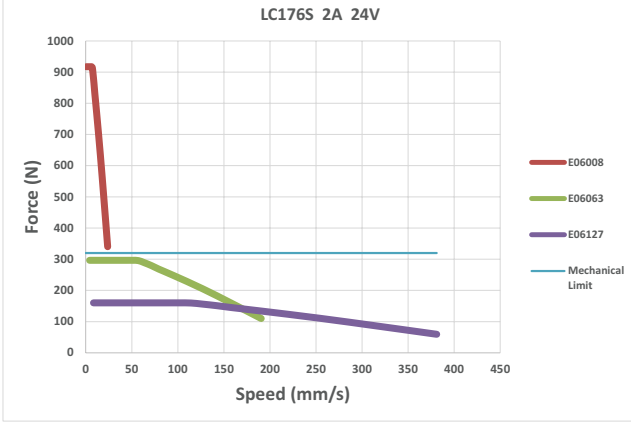
■ Speed - Force Reference Curve











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	57mm

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 Per1.8°
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	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

Note:Choose the standard order models can get the sample quickly, please see P54 for standard models.

LC23 Series

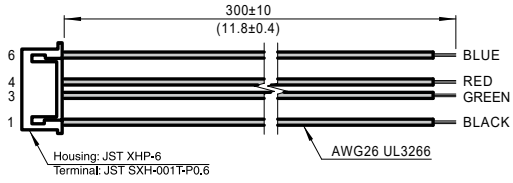
■ LC23 Step Motor - 4 Lead Bi-Polar

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	1.1	5

Note: Recommended Driver, DC Input: SR8-Plus.

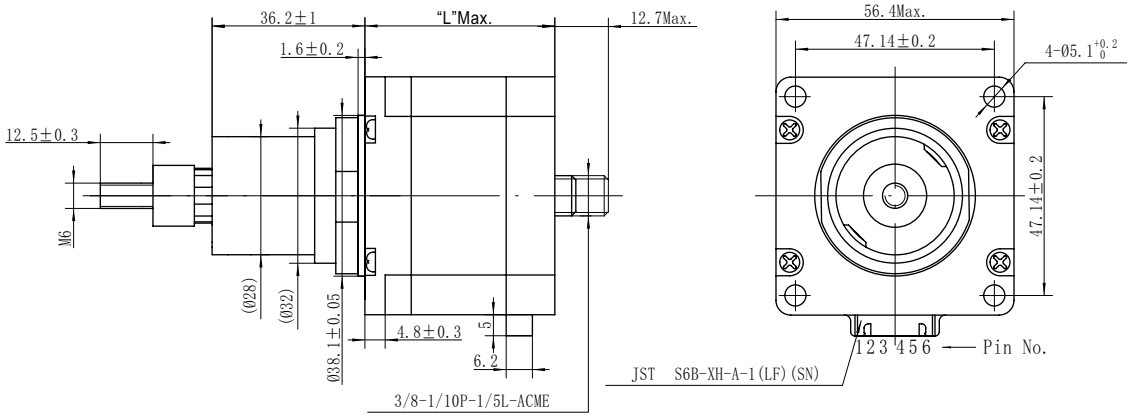
■ Mating Connector With Leads (order separately)

4 Lead Part Number 4634 1402 01891



■ Dimensional Information

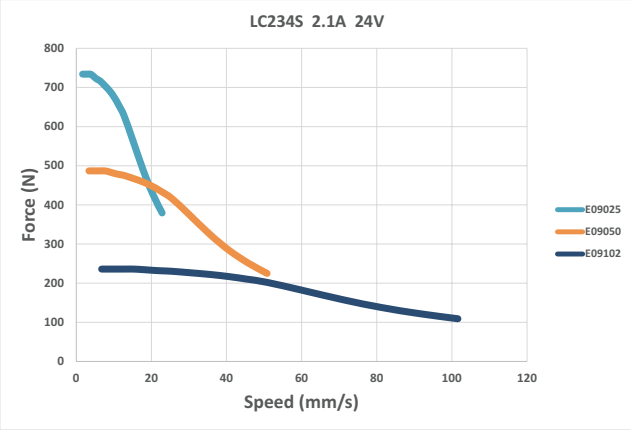
UNIT:mm

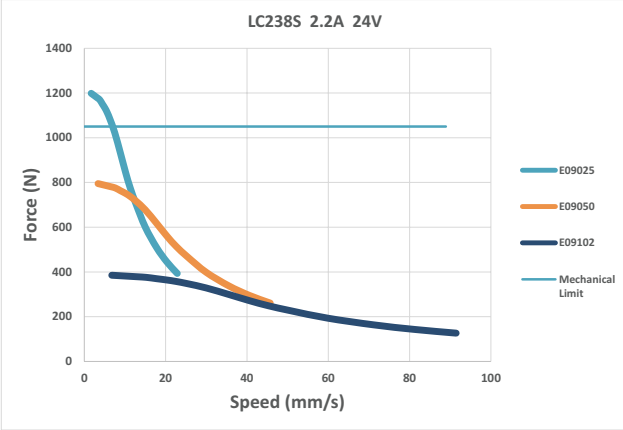


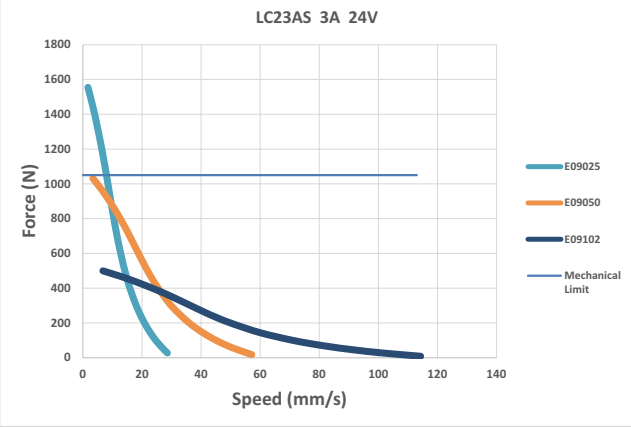
Motor Type	Dimension"L"
LC234S	45
LC238S	57
LC23AS	79

LC23 Series

■ Speed - Force Reference Curve







Linear Slides(Lead screws)

MOONS' Linear Slides are designed to meet the needs of customers' compact structure. These products offer many advantages such as high integration, small size, quieter operation, stable product quality and lower cost. Not only provides the best performance but also easier to use.

- Structural features of MS and CS Series:Can meet the requirements of compact space in different directions
- Three sizes motor options: NEMA11/14/17
- Each size of Linear Slides has a variety of lead options.
- Each size of Linear Slides has encoder & brake options.

MOONS' has committed to product innovation design and technical improvement, with excellent product quality,application technology, fast and flexible services,which provide customers with high level motion control solutions.

MS28 Series

MS35 Series

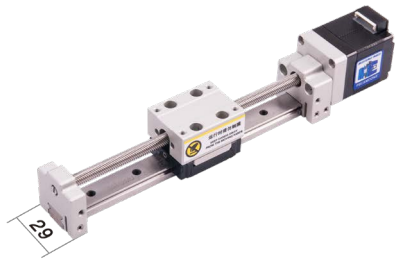
MS42 Series

CS35 Series

CS42 Series

MS28 Series

- **Integrated design, Easy installation**
- **Small Size, Width 29mm**
- **Anti-Backlash technology, High repeatability**



Ordering Information

MS28 - 3D1 0 T - L AE 1 - XX - 0 - XXXX

Series Code

Code	Mating Motor
MS28	NEMA11

Motor Length Code

Code	Motor Length Max(mm)
3D1	32 (LE111S)
3D2	41 (LE113S)

Additional Options Code

Code	Additional Options*
0	No additional
B	Brake
E	Encoder

Outlet Direction Code

Code	Outlet Direction**
T	Top
B	Bottom
L	Left
R	Right

Screw Type Code

Code	Screw Type
L	Standard Leadscrews

Special Custom Type Code

This code defines by our technical department

Sensor Options Code

Code	Sensor Quantity
0	No Sensor
1	1
2	2

Stroke Options (mm)

###	**Options: 30,60,90,120**

Nut Type Code

Code	Nut Type
1	Standard Nut
2	Anti-Backlash Nut

Lead code

Code	Lead (inch)	Code	Lead (mm)
ED	0.024	AH	1
EC	0.025	AG	2
EB	0.048	AE	3
AM	0.1	AX	5
EQ	0.192	AJ	10
AB	0.25	BD	12
AC	0.5		

Note:

*Additional Options: Additional Options: MOONS' provides encoders & brakes for LE11 series motors as additional options,see page 29 & page 30 for more details.

**Outlet Direction:Customer can choose the outlet direction according to the actual requirements,see the dimensional information for outlet direction definition in next page.

MS28 Series

■ Technical Data

Series	Lead code	Lead	Maximum Speed (mm/s)	Maximum Load(kg) Motor: LE111S		Maximum Load(kg) Motor: LE113S	
				Horizontal	Vertical	Horizontal	Vertical
MS28	ED	0.024"	6.096	3	2	3	2
	EC	0.025"	6.35	3	2	3	2
	EB	0.048"	12.192	3	2	3	2
	AM	0.1"	25.4	3	2	3	2
	EQ	0.192"	48.768	2.4	1.6	3	2
	AB	0.25"	63.5	1.8	1.2	3	2
	AC	0.5"	127	1	0.6	1.6	1.1
	AH	1mm	10	3	2	3	2
	AG	2mm	20	3	2	3	2
	AE	3mm	30	3	2	3	2
	AX	5mm	50	2.3	1.5	3	2
	AJ	10mm	100	1.3	0.9	2.1	1.4
	BD	12mm	120	1.1	0.7	1.8	1.2

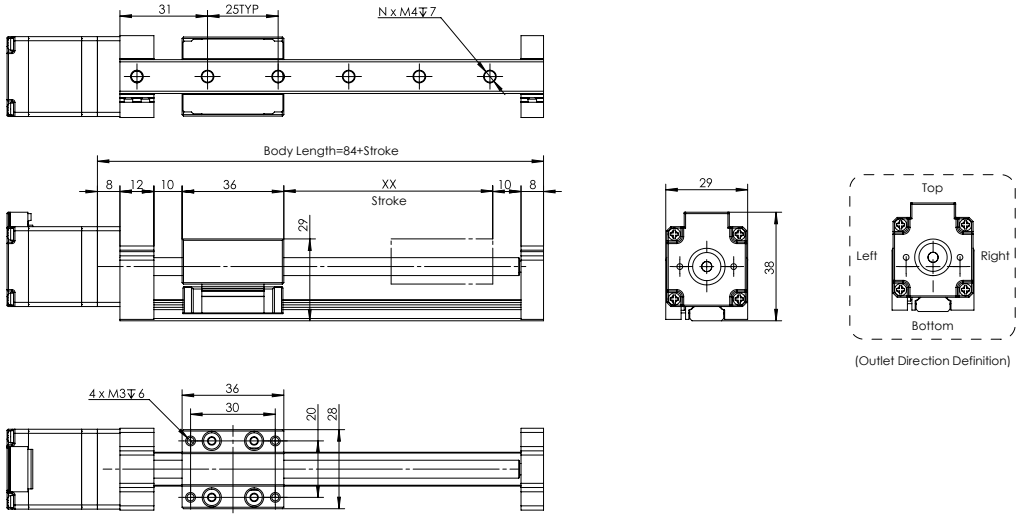
Note:

1.The above options are common choices, please consult our technical department for further information.

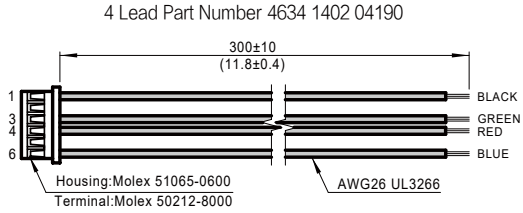
2.Recommended Driver, DC Input: SR2-Plus.

■ Dimensional Information

Unit: mm



■ Mating Connector With Leads



MS35 Series

- **Integrated design, Easy installation**
- **Small Size, Width 36mm**
- **Anti-Backlash technology, High repeatability**

Ordering Information

MS35 - 3C2 0 T - L AE 1 - XX - 0 - XXXX

Series Code

Code	Mating Motor
MS35	NEMA14

Motor Length Code

Code	Motor Length Max(mm)
3C2	36 (LE143S)

Additional Options Code

Code	Additional Options*
0	No additiona
B	Brake
E	Encoder

Outlet Direction Code

Code	Outlet Direction**
T	Top
B	Bottom
L	Left
R	Right

Screw Type Code

Code	Screw Type
L	Standard Leadscrews

Special Custom Type Code

This code defines by our technical department

Sensor Options Code

Code	Sensor Quantity
0	No Sensor
1	1
2	2

Stroke Options (mm)

###	Options: 50,100,150

Nut Type Code

Code	Nut Type
1	Standard Nut
2	Anti-Backlash Nut

Lead code

Code	Lead (inch)	Code	Lead (mm)
ED	0.024	AH	1
EB	0.048	AG	2
EQ	0.192	AE	3
AB	0.25	AX	5
AC	0.5	AJ	10
		BD	12

Note:

*Additional Options: Additional Options: MOONS' provides encoders & brakes for LE14 series motors as additional options,see page 29 & page 30 for more details.

**Outlet Direction:Customer can choose the outlet direction according to the actual requirements,see the dimensional information for outlet direction definition in next page.

MS35 Series

Technical Data

Series	Lead code	Lead	Maximum Speed (mm/s)	Maximum Load(kg) Motor: LE143S	
				Horizontal	Vertical
MS35	ED	0.024"	6.096	5	3
	EB	0.048"	12.192	5	3
	EQ	0.192"	48.768	5	3
	AB	0.25"	63.5	4.5	3
	AC	0.5"	127	2.4	1.6
	AH	1mm	10	5	3
	AG	2mm	20	5	3
	AE	3mm	30	5	3
	AX	5mm	50	5	3
	AJ	10mm	100	3.2	2.1
	BD	12mm	120	2.7	1.8

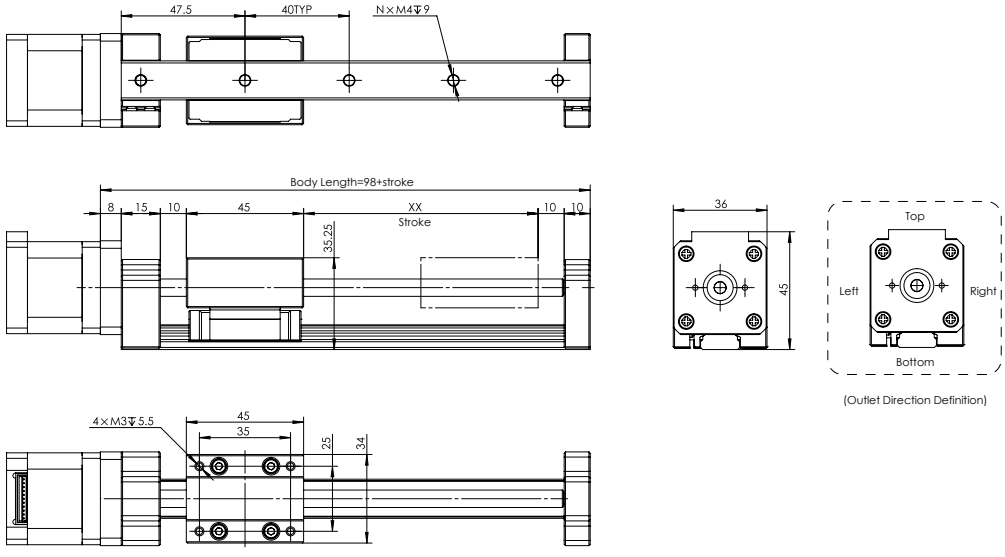
Note:

1.The above options are common choices, please consult our technical department for further information.

2.Recommended Driver, DC Input: SR2-Plus.

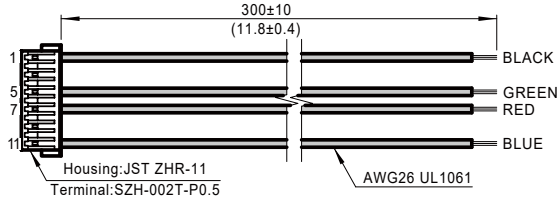
Dimensional Information

Unit: mm



Mating Connector With Leads

4 Lead Part Number 4634 1402 04581



MS42 Series

- **Integrated design, Easy installation**
- **Small Size, Width 42mm**
- **Anti-Backlash technology, High repeatability**

Ordering Information

MS42 - 3A1 0 T - L AR 1 - XX - 0 - XXXX

Series Code

Code	Mating Motor
MS42	NEMA17

Motor Length Code

Code	Motor Length Max(mm)
3A1	39.8 (LE172S)
3A2	48.3 (LE176S)

Additional Options Code

Code	Additional Options*
0	No additional
B	Brake
E	Encoder

Outlet Direction Code

Code	Outlet Direction **
T	Top
B	Bottom
L	Left
R	Right

Screw Type Code

Code	Screw Type
L	Standard Leadscrews

Special Custom Type Code

This code defines by our technical department

Sensor Options Code

Code	Sensor Quantity
0	No Sensor
1	1
2	2

Stroke Options (mm)

###	Options: 50,100,150,200

Nut Type Code

Code	Nut Type
1	Standard Nut
2	Anti-Backlash Nut

Lead code

Code	Lead (mm)	Code	Lead (mm)
CG	1.25	AX	5
AA	5.08	BH	8
BX	10.5	AJ	10
AH	1	BD	12
AG	2	AF	16
AR	4	AW	25

Note:

*Additional Options: Additional Options: MOONS' provides encoders & brakes for LE17 series motors as additional options,see page 29 & page 30 for more details.

**Outlet Direction:Customer can choose the outlet direction according to the actual requirements,see the dimensional information for outlet direction definition in next page.

MS42 Series

Technical Data

Series	Lead code	Lead	Maximum Speed (mm/s)	Maximum Load(kg) Motor: LE172S		Maximum Load(kg) Motor: LE176S	
				Horizontal	Vertical	Horizontal	Vertical
MS42	CG	1.25mm	12.5	5	3	5	3
	AA	5.08mm	50.8	5	3	5	3
	BX	10.5mm	105	5	3	5	3
	AH	1mm	10	5	3	5	3
	AG	2mm	20	5	3	5	3
	AR	4mm	40	5	3	5	3
	AX	5mm	50	5	3	5	3
	BH	8mm	80	5	3	5	3
	AJ	10mm	100	5	3	5	3
	BD	12mm	120	5	3	5	3
	AF	16mm	160	3.8	2.5	4.8	3
	AW	25mm	250	2.4	1.6	3.1	2

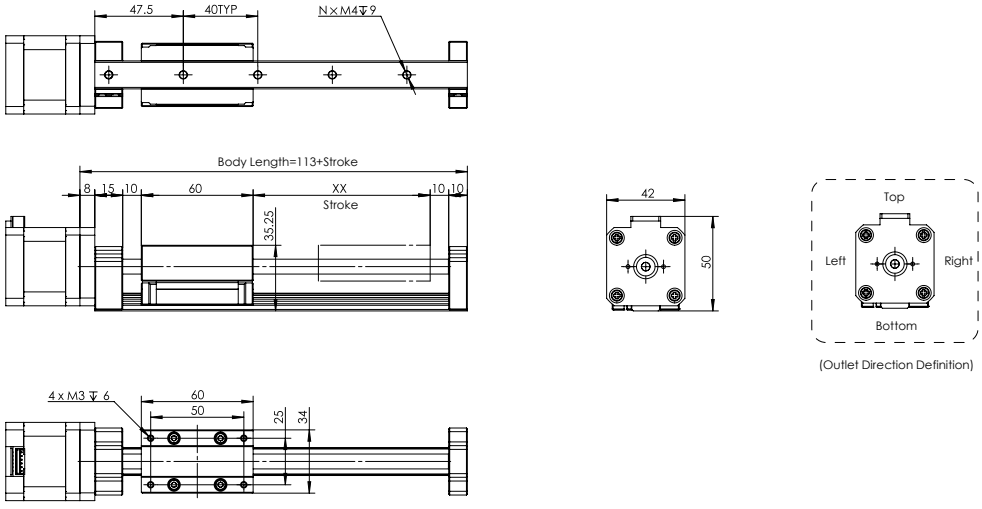
Note:

1.The above options are common choices, please consult our technical department for further information.

2.Recommended Driver, DC Input: SR2-Plus.

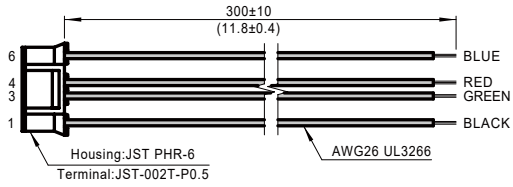
Dimensional Information

Unit: mm



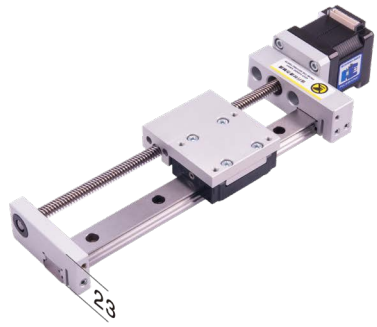
Mating Connector With Leads

4 Lead Part Number 4634 1402 00723



CS35 Series

- **Integrated design, Easy installation**
- **Small Size, Height 23mm**
- **Anti-Backlash technology, High repeatability**



Ordering Information

CS35 - 3C2 0 T - L AE 1 - XX - 0 - XXXX

Series Code

Code	Mating Motor
CS35	NEMA14

Motor Length Code

Code	Motor Length Max(mm)
3C2	36 (LE143S)

Additional Options Code

Code	Additional Options*
0	No additional
B	Brake
E	Encoder

Outlet Direction Code

Code	Outlet Direction**
T	Top
B	Bottom
L	Left
R	Right

Screw Type Code

Code	Screw Type
L	Standard Leadscrews

Special Custom Type Code

This code defines by our technical department

Sensor Options Code

Code	Sensor Quantity
0	No Sensor
1	1
2	2

Stroke Options (mm)

###	Options: 50,100,150

Nut Type Code

Code	Nut Type
1	Standard Nut
2	Anti-Backlash Nut

Lead code

Code	Lead (inch)	Code	Lead (mm)
ED	0.024	AH	1
EB	0.048	AG	2
EQ	0.192	AE	3
AB	0.25	AX	5
AC	0.5	AJ	10
		BD	12

Note:

*Additional Options: Additional Options: MOONS' provides encoders & brakes for LE14 series motors as additional options,see page 29 & page 30 for more details.

**Outlet Direction:Customer can choose the outlet direction according to the actual requirements,see the dimensional information for outlet direction definition in next page.

CS35 Series

Technical Data

Series	Lead code	Lead	Maximum Speed (mm/s)	Maximum Load(kg) Motor: LE143S	
				Horizontal	Vertical
CS35	ED	0.024"	6.096	5	3
	EB	0.048"	12.192	5	3
	EQ	0.192"	48.768	5	3
	AB	0.25"	63.5	4.5	3
	AC	0.5"	127	2.4	1.6
	AH	1mm	10	5	3
	AG	2mm	20	5	3
	AE	3mm	30	5	3
	AX	5mm	50	5	3
	AJ	10mm	100	3.2	2.1
	BD	12mm	120	2.7	1.8

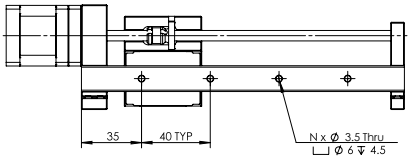
Note:

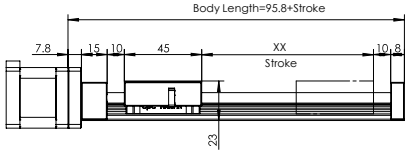
1.The above options are common choices, please consult our technical department for further information.

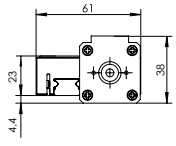
2.Recommended Driver, DC Input: SR2-Plus.

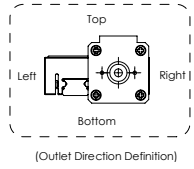
Dimensional Information

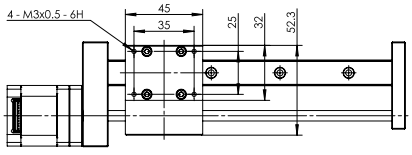
Unit: mm





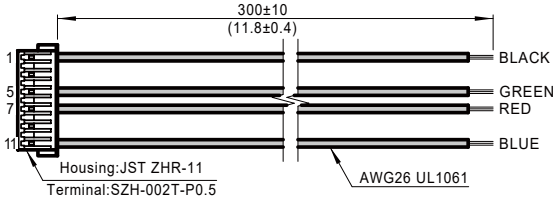






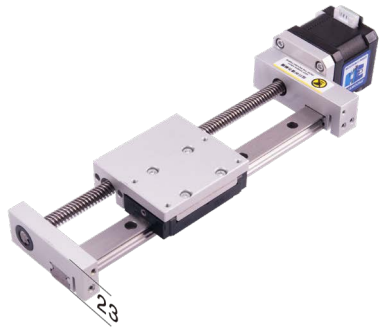
Mating Connector With Leads

4 Lead Part Number 4634 1402 04581



CS42 Series

- **Integrated design, Easy installation**
- **Small Size, Height 23mm**
- **Anti-Backlash technology, High repeatability**



Ordering Information

CS42 - 3A1 0 T - L AR 1 - XX - 0 - XXXX

Series Code

Code	Mating Motor
CS42	NEMA17

Motor Length Code

Code	Motor Length Max(mm)
3A1	39.8 (LE172S)
3A2	48.3 (LE176S)

Additional Options Code

Code	Additional Options*
0	No additional
B	Brake
E	Encoder

Outlet Direction Code

Code	Outlet Direction **
T	Top
B	Bottom
L	Left
R	Right

Screw Type Code

Code	Screw Type
L	Standard Leadscrews

Special Custom Type Code

This code defines by our technical department

Sensor Options Code

Code	Sensor Quantity
0	No Sensor
1	1
2	2

Stroke Options (mm)

###	**Options: 50,100,150,200**

Nut Type Code

Code	Nut Type
1	Standard Nut
2	Anti-Backlash Nut

Lead code

Code	Lead (mm)	Code	Lead (mm)
CG	1.25	AX	5
AA	5.08	BH	8
BX	10.5	AJ	10
AH	1	BD	12
AG	2	AF	16
AR	4	AW	25

Note:

*Additional Options: Additional Options: MOONS' provides encoders & brakes for LE17 series motors as additional options,see page 29 & page 30 for more details.

**Outlet Direction:Customer can choose the outlet direction according to the actual requirements,see the dimensional information for outlet direction definition in next page.

CS42 Series

Technical Data

Series	Lead code	Lead	Maximum Speed (mm/s)	Maximum Load(kg) Motor: LE172S		Maximum Load(kg) Motor: LE176S	
				Horizontal	Vertical	Horizontal	Vertical
CS42	CG	1.25mm	12.5	5	3	5	3
	AA	5.08mm	50.8	5	3	5	3
	BX	10.5mm	105	5	3	5	3
	AH	1mm	10	5	3	5	3
	AG	2mm	20	5	3	5	3
	AR	4mm	40	5	3	5	3
	AX	5mm	50	5	3	5	3
	BH	8mm	80	5	3	5	3
	AJ	10mm	100	5	3	5	3
	BD	12mm	120	5	3	5	3
	AF	16mm	160	3.8	2.5	4.8	3
	AW	25mm	250	2.4	1.6	3.1	2

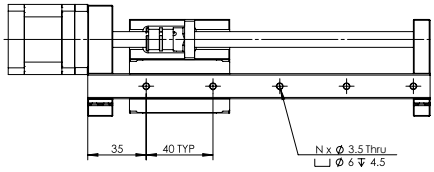
Note:

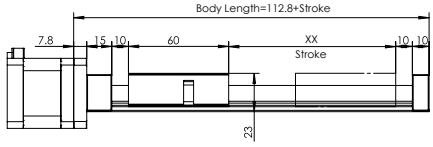
1.The above options are common choices, please consult our technical department for further information.

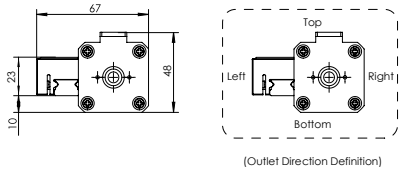
2.Recommended Driver, DC Input: SR2-Plus.

Dimensional Information

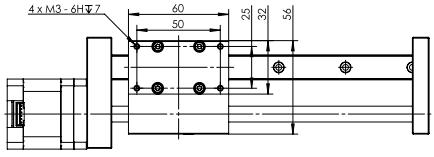
Unit: mm





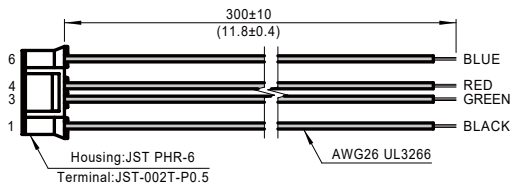


(Outlet Direction Definition)



Mating Connector With Leads

4 Lead Part Number 4634 1402 00723



DC Input Stepper Drive-SR Series

SR Series Drives

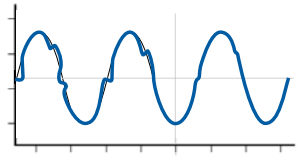
The SR series are compact, powerful, digital stepper drives feature advanced microstepping performance and sophisticated current control.All drive setup is done via dip or rotary switches.

- **Advanced Current Control**
- **Anti-Resonance**
- **Torque Ripple Smoothing**
- **Microstep Emulation**
- **Self Test**

Features

Anti-Resonance

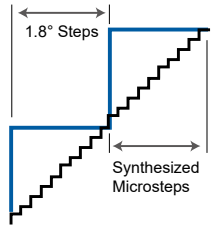
Step motor systems have a natural tendency to resonate at certain speeds. The SR drives automatically calculate the system's natural frequency and apply damping to the control algorithm. This greatly improves midrange stability, allows higher speeds and greater torque utilization, and also improves settling times.



Provides better motor performance and higher speeds

Microstep Emulation

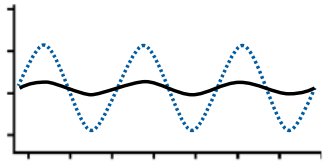
With Microstep Emulation, low resolution systems can still provide smooth motion. The drive can take low resolution step pulses and create fine resolution motion.



Delivers smoother motion in any application

Torque Ripple Smoothing

All step motors have an inherent low speed torque ripple that can affect the motion profile of the motor. By analyzing this torque ripple the system can apply a negative harmonic to counter this effect. This gives the motor much smoother motion at low speed.



Produces smoother motion at low speeds

Command Signal Smoothing

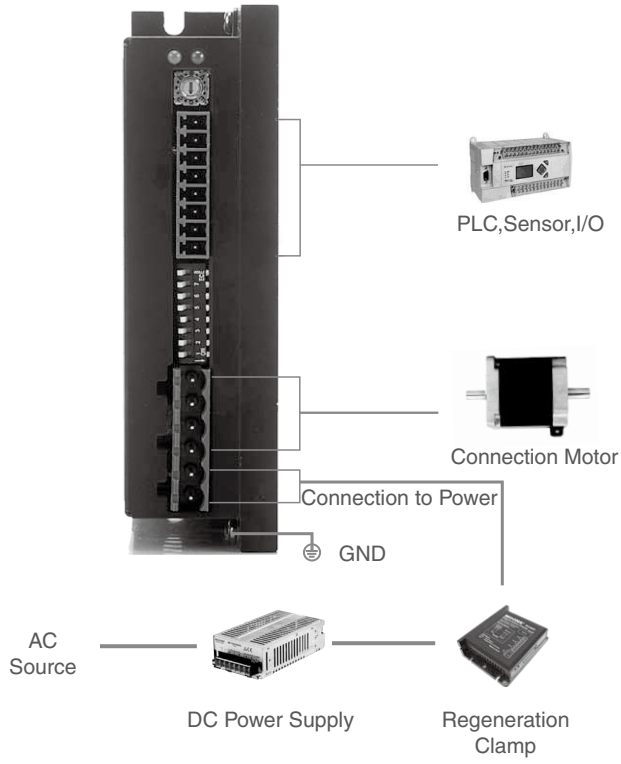
Command Signal smoothing can soften the effect of immediate changes in velocity and direction, making the motion of the motor less jerky. An added advantage is that it can reduce the wear on mechanical components.

Improves overall system performance

Auto Setup & Self Test

At start-up the drive measures motor parameters, including the resistance and inductance, then uses this information to optimize system performance. The drive can also detect open and short circuits.

System Configuration



Numbering System

SR 2 - PLUS

Series	Max.Current	Blank=Standard
	2=2.2A Max.	Plus=Enhanced
	3=3.0A Max.	Mini=Compact
	4=4.5A Max.	
	8=7.8A Max.	

Ordering Information

Model	Current	Voltage	Microstep Selection	Current Selection
SR2-Plus	0.3-2.2A	12-48VDC	16	8
SR3-mini	0.4-3.0A	12-48VDC	16	8
SR4-Plus	1.0-4.5A	24-48VDC	16	8
SR8-Plus	2.4-7.8A	24-75VDC	16	8

Drive Specifications

Specification	
Speed Range	Up to 3000RPM
Operating Temperature	0 - 40C°
Ambient Humidity	90% or less(non-condensing)
Vibration Resistance	5.9m/s^2 maximum
Storage Temperature	-10 - 70C°
Heat Sinking Method	Natural cooling or fan-forced cooling
Atmosphere	Avoid dust, oily mist and corrosive air
Mass	SR2-Plus/SR3-mini: Approx. 120g
	SR4/8-Plus: Approx. 310g
Certicification	RoHS , CE (EMC): EN 61800-3:2004
Features	
Idle Current	Automatic idle current reduction to reduce heat after motor stops moving for 1 second Dip switch selectable 50% or 90%
Anti-Resonance	Raises the system-damping ratio to eliminate midrange instability and allow stable operation throughout the speed range of the motor, dip switch selectable load inertia
Control Mode	Pulse input control Step&Dir
Inupt Signal Filter	Digital filters prevent position error from electrical noise on command signals, Dip switch selectable 2MHz or 150KHz
Microstep Emulation	Switch selectable microstep emulation provides smoother, more reliable motion
Motor Database	Rotary switch easily selects from many popular motors
Self Test	Switch selectable automatic self test, while self test, drive will rotate the motor back and forth, two turns in each direction
Fault output	Optically isolated,30VDC max, 100mA max

Electrical Specifications

SR2-Plus

Parameter	Min.	Typical	Max.	UNIT
Power Supply	12	-	42	VDC
Output Current (Peak)	0.3	-	2.2	Amps
Cost current of digital input signal	6	10	15	mA
Step Frequency	2	-	2M	Hz
STEP minimum pulse width	250	-	-	ns
DIR minimum pulse width	80	-	-	us
Under Voltage Protection	-	10	-	VDC
Over Voltage Protection	-	52	-	VDC
Input Signal Voltage	4	-	28	VDC
Initialization time	-	-	2.5	S
OUT maximum output current	-	-	100	mA
OUT maximum voltage	-	-	30	VDC

SR3-mini

Parameter	Min.	Typical	Max.	UNIT
Power Supply	12	-	48	VDC
Output Current (Peak)	0.4	-	3	Amps
Cost current of digital input signal	6	10	15	mA
Step Frequency	2	-	500K	Hz
STEP minimum pulse width	1000	-	-	ns
DIR minimum pulse width	80	-	-	us
Under Voltage Protection	-	10	-	VDC
Over Voltage Protection	-	53	-	VDC
Input Signal Voltage	4	-	28	VDC
Initialization time	-	-	2.5	S

SR4-Plus

Parameter	Min.	Typical	Max.	UNIT
Power Supply	24	-	48	VDC
Output Current (Peak)	1	-	4.5	Amps
Cost current of digital input signal	6	10	15	mA
Step Frequency	2	-	2M	Hz
STEP minimum pulse width	250	-	-	ns
DIR minimum pulse width	80	-	-	us
Under Voltage Protection	-	20	-	VDC
Over Voltage Protection	-	60	-	VDC
Input Signal Voltage	4	-	28	VDC
Initialization time	-	-	2.5	S
OUT maximum output current	-	-	100	mA
OUT maximum voltage	-	-	30	VDC

SR8-Plus

Parameter	Min.	Typical	Max.	UNIT
Power Supply	24	-	75	VDC
Output Current (Peak)	2.4	-	7.8	Amps
Cost current of digital input signal	6	10	15	mA
Step Frequency	2	-	2M	Hz
STEP minimum pulse width	250	-	-	ns
DIR minimum pulse width	80	-	-	us
Under Voltage Protection	-	20	-	VDC
Over Voltage Protection	-	85	-	VDC
Input Signal Voltage	4	-	28	VDC
Initialization time	-	-	2.5	S
OUT maximum output current	-	-	100	mA
OUT maximum voltage	-	-	30	VDC

DC Input Intelligent Fieldbus Control Stepper Driver-STF Series

STF Series Drives

The STF series are high performance fieldbus control stepper drive which also integrates with built-in motion controller. The drives can be controlled by SCL, Modbus，CANopen, eSCL, EtherNet/IP or EtherCAT in real time. Motion profiles can also be programmed and stored in drives(Q Program) and then be triggered by fieldbus commands.

- **Compact size**
- **Anti resonance**
- **Advanced current control**
- **Torque ripple smoothing**

■ Feature

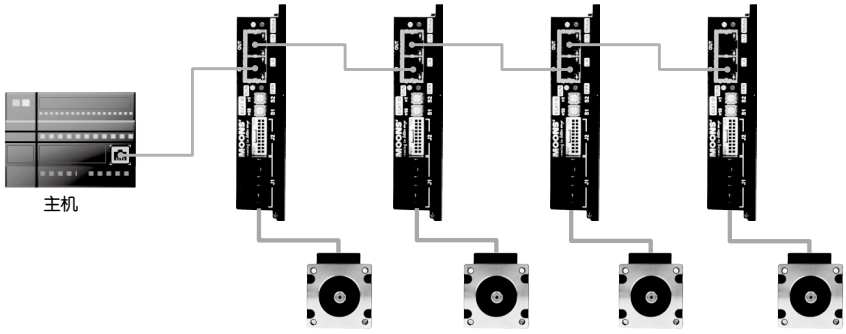
Host Control

- Accepts commands from host PC or PLC
- Real time control
- Multi-axes capable

CANopen 112-axis | Modbus SCL RS-485/422 32-axis | EtherCAT Ethernet/IP eSCL

Stand Alone Programmable

- Stored program execution
- Multi-tasking
- Conditional processing
- Math functions
- Data registers



Safe & convenient

- Support communication and motor power cables disconnected protection

—— ***Make equipments more safer***

- Support on-line configuration by fieldbus

—— ***Make operation more convenient***

Rich and flexible I/O

- 8 Digital Inputs, 4 Digital Outputs

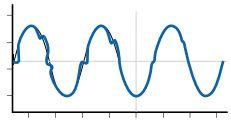
—— ***Support for more feature settings***

- Dual Port RJ45 Bus Conmmunication Control

—— ***Support daisy chain connection***

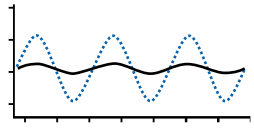
Anti-Resonance

Step motor systems have a natural tendency to resonate at certain speeds.The STF drives automatically calculate the system's natural frequency and apply damping to the control algorithm. This greatly improves midrange stability, allows higher speeds and greater torque utilization, and also improves settling times.
Provides better motor performance and higher speeds



Torque Ripple Smoothing

All step motors have an inherent low speed torque ripple that can affect the motion profile of the motor. By analyzing this torque ripple the system can apply a negative harmonic to counter this effect. This gives the motor much smoother motion at low speed.
Produces smoother motion at low speed running

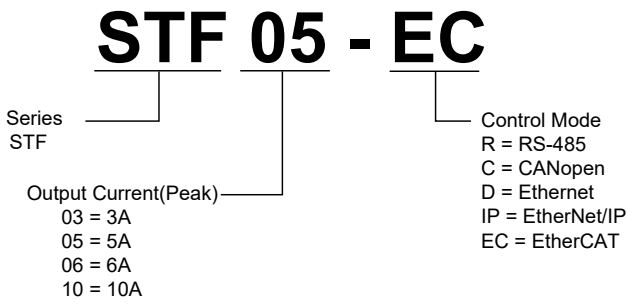


Auto Setup & Self Test

At start-up the drive measures motor parameters, including the resistance and inductance, then uses this information to optimize the system performance. The drive can also detect open and short circuits.

DC Input Intelligent Fieldbus Control Stepper Driver-STF Series

■ Numbering System



■ Ordering Information

Model	Current	Voltage	RS-485	Modbus/RTU	CANopen	Q Program
STF03-R	0.1 – 3.0 A	12 – 48 VDC	√	√		√
STF05-R	0.1 – 5.0 A	24 – 48 VDC	√	√		√
STF06-R	0.1 – 6.0 A	12 – 48 VDC	√	√		√
STF10-R	0.1 – 10.0 A	24 – 70 VDC	√	√		√
STF03-C	0.1 – 3.0 A	12 – 48 VDC			√	√
STF05-C	0.1 – 5.0 A	24 – 48 VDC			√	√
STF06-C	0.1 – 6.0 A	12 – 48 VDC			√	√
STF10-C	0.1 – 10.0 A	24 – 70 VDC			√	√

Model	Current	Voltage	Ethernet	Modbus/TCP	EtherNet/IP	EtherCAT	Q Program
STF03-D	0.1 – 3.0 A	12 – 48 VDC	√	√			√
STF05-D	0.1 – 5.0 A	24 – 48 VDC	√	√			√
STF06-D	0.1 – 6.0 A	12 – 48 VDC	√	√			√
STF10-D	0.1 – 10.0 A	24 – 70 VDC	√	√			√
STF03-IP	0.1 – 3.0 A	12 – 48 VDC	√		√		√
STF05-IP	0.1 – 5.0 A	24 – 48 VDC	√		√		√
STF06-IP	0.1 – 6.0 A	12 – 48 VDC	√		√		√
STF10-IP	0.1 – 10.0 A	24 – 70 VDC	√		√		√
STF03-EC	0.1 – 3.0 A	12 – 48 VDC				√	√
STF05-EC	0.1 – 5.0 A	24 – 48 VDC				√	√
STF06-EC	0.1 – 6.0 A	12 – 48 VDC				√	√
STF10-EC	0.1 – 10.0 A	24 – 70 VDC				√	√

DC Input Intelligent Fieldbus Control Stepper Driver-STF Series

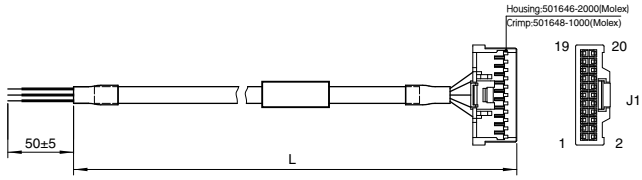
■ Drive Specifications

Power Amplifier	
Amplifier Type	Dual H-Bridge, 4 Quadrant
Current Control	PWM at 20 KHz
Output Current	STF03: 0.1 - 3.0A/phase (peak-of-sine) in 0.01 amp increments
	STF05: 0.1 - 5.0A/phase (peak-of-sine) in 0.01 amp increments
	STF06: 0.1 - 6.0A/phase (peak-of-sine) in 0.01 amp increments
	STF10: 0.1 - 10.0A/phase (peak-of-sine) in 0.01 amp increments
Input Voltage Range	STF03：12 - 48VDC
	STF05：24 - 48VDC
	STF06：12 - 48VDC
	STF10：24 - 70VDC
Maximum Input Voltage Range	STF03：11 - 53VDC
	STF05：18 - 53VDC
	STF06：11 - 53VDC
	STF10：18 - 75VDC
Protection	Over voltage, under voltage, over temp, over current, open winding, communication cable disconnection
Idle Current Reduction	Reduction range of 0 - 90% of running current after a delay selectable in milliseconds
Controller	
Anti-Resonance	Raises the system-damping ratio to eliminate midrange instability and allow stable operation throughout the speed range of the motor
Torque Ripple Smoothing	Allows for fine adjustment of phase current waveform harmonic content to reduce low-speed torque ripple in the range of 0.25 to 1.5 rps
Auto Test & Auto Setup	Auto test and setup at power on (ie. motor resistance and Inductance) to optimize your system performance.
Non-Volatile Storage	Configurations are saved in FLASH memory on-board the DSP
Operation Mode	-R Type: SCL, Q, Modbus/RTU
	-C Type: CANopen (CiA301 and CiA402 protocol). Q program can also be triggered via CANopen Command
	-D Type: eSCL, Q, Modbus/TCP
	-IP Type: EtherNet/IP, Q program also can be triggered via EtherNet/IP Command
	-EC Type: EtherCAT (CoE) with full support of CiA402, Support PP, PV, CSP&HM mode and Q mode
Digital Input	8 digital inputs
	X1, X2: Optically isolated, differential, 5-24VDC for high level voltage, minimum pulse width = 250ns, maximum pulse frequency = 2MHz
	X3, X4: Optically isolated, differential, 5-24VDC for high level voltage, minimum pulse width = 100μs, maximum pulse frequency = 5KHz
	X5 ~ X8: Optically isolated, single-ended, 5-24VDC for high level voltage, minimum pulse width = 100μs, maximum pulse frequency = 5KHz
Digital Output	4 digital outputs Y1 ~ Y4: Optically isolated, maximum voltage 30V, maximum sinking or sourcing current 100mA
Communication Port	-R Type: Dual port RS-485 (RJ45 connector)
	-C Type: Dual port CANopen (RJ45 connector) RS-232 included
	-D Type: Dual port Ethernet (RJ45 connector)
	-IP Type: Dual port Ethernet (RJ45 connector)
	-EC Type: Dual port Ethernet(RJ45 connector)and RS-232(RS-232 serial port for configuration)
Physical	
Ambient Temperature	0 - 40°C when mounted to a suitable heat sink
Humidity	90% non-condensing
Mass	STF03: 0.36kg
	STF05: 0.4kg
	STF06: 0.36kg
	STF10: 0.4kg

DC Input Intelligent Fieldbus Control Stepper Driver-STF Series

I/O Cable

P/N	Length (L)
1015-030	0.3m
1015-100	1m
1015-200	2m

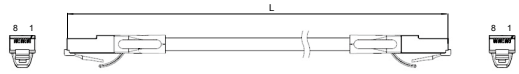


Pin No.	Assignment	Description	Color	Pin No.	Assignment	Description	Color
1	X1+	X1 Digital Input	Blue/White	11	X7	X7 Digital Input	Yellow
2	X1-		Blue/Black	12	X8	X8 Digital Input	Green
3	X2+	X2 Digital Input	Green/White	13	SHIELD	Shield	Shield
4	X2-		Green/Black	14	XCOM	X5-X8 Digital Input COM	Red
5	X3+	X3 Digital Input	Yellow/White	15	Y1	Y1 Digital Output	Brown
6	X3-		Yellow/Black	16	Y2	Y2 Digital Output	Gray
7	X4+	X4 Digital Input	Orange/White	17	Y3	Y3 Digital Output	White
8	X4-		Orange/Black	18	YCOM	Y1-Y3 Digital Output COM	Black
9	X5	X5 Digital Input	Blue	19	Y4+	Y4 Digital Output	Purple/White
10	X6	X6 Digital Input	Purple	20	Y4-		Purple/Black

Bus Communication Daisy Chain Cable

Common Type	Shielded Type	Length (L)
2012-030 *	2013-030	0.3m
2012-300	2013-300	3m

* 2012-030 is included in the drive package.



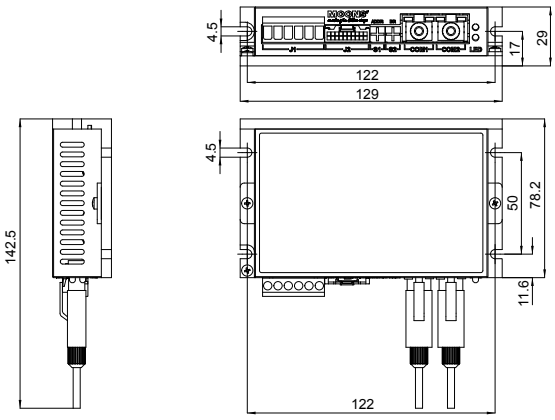
RC-880 Regeneration Clamp

RC-880 can clamp the regeneration and prevent the power supply and/or drive being damaged or destroyed. Connect the RC-880 between the power supply and the drive.
Max. Supply Voltage: 80V
Max. Output Current: 8A(rms)
Continuous Power: 50W

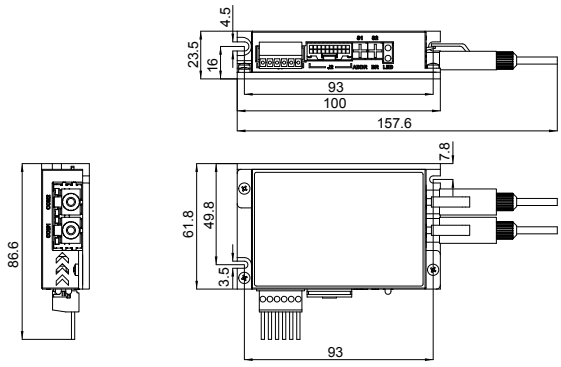
DC Input Intelligent Fieldbus Control Stepper Driver-STF Series

■ Ordering Information

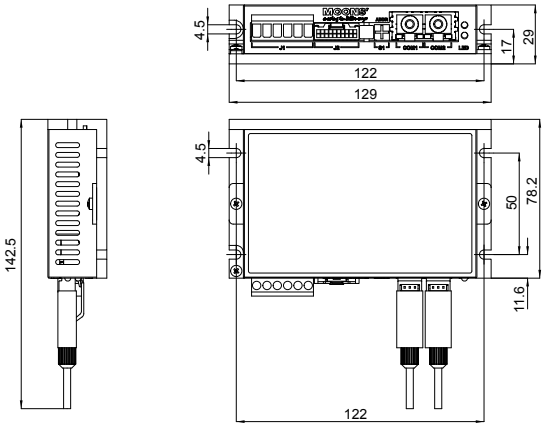
STF05/10-R, STF05/10-C



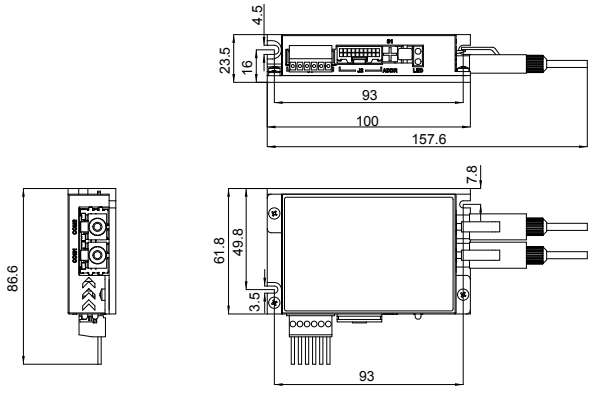
STF03/06-R, STF03/06-C



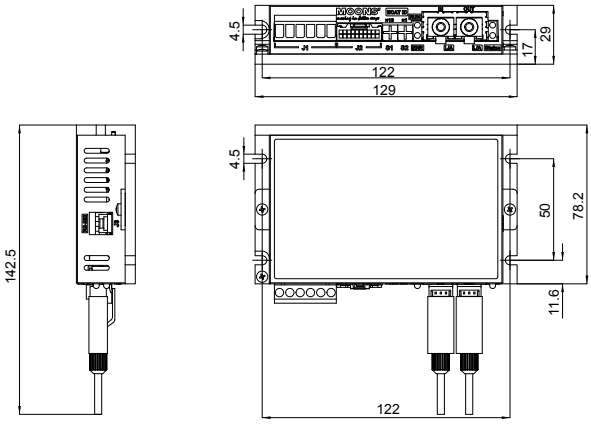
STF05/10-D, STF05/10-IP



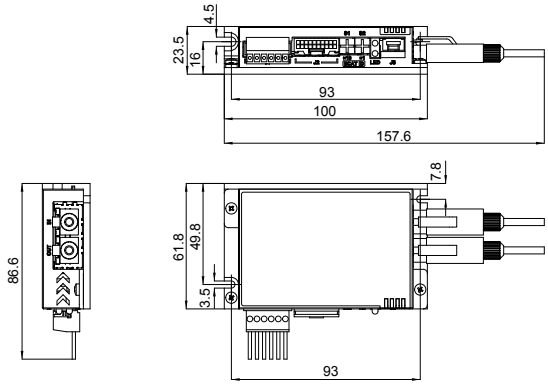
STF03/06-D, STF03/06-IP



STF05/10-EC



STF03/06-EC



Stepper Drives

How To Get Samples Quickly

If you require a specific configuration, and wish for our engineering department to provide samples that meet your critical parameters, please fill out the application data sheet below and sent to MOONS' .

(E-mail : info@moons.com.cn)

Application info. of Linear Step Motors & Linear Slides

Customer Info.

Customer: _____ Contact Info.: _____

Project No.: _____ Telephone: _____

Project Info.

Products Category : ☐ Linear Step Motors ☐ Linear Slides ☐ Stepper Drive

Background: ☐ New Design ,Competitor: _____ ☐ Substitution Project ,Current State: _____

Quantity of samples: _____ EAU: _____ Pain: _____

Expected Delivery Time: _____ Target Price: _____ USD/EA

Design Info.

Installation: ☐ Horizontal ☐ Vertical

Driving Condition: Voltage : _____ V Current : _____ A

Thrust Force: _____ N Working Speed: _____ mm/s

Stroke: _____ mm Repeatability: ± _____ mm

Working Frequency: _____ cycles per hour, _____ hours per day.

Additional Options : ☐ Add Encoder ☐ Add Brake ☐ No additional

Environment : ☐ Indoor(Normal) ☐ Indoor(Dust-free) ☐ Medium or Heavy Dust ☐ Sticky Substance
☐ High Humidity ☐ Salt Spray ☐ High Temp. _____ ℃ ☐ Low Temp. _____℃
☐ Vacuum ☐ Others: _____

Industry

☐ Factory Automation ☐ Biochemical Analysis ☐ Medical Science ☐ 3D Printer ☐ Automatic Vending
☐ Semiconductor Mfg. ☐ Lithium Battery Mfg. ☐ Photovoltaic Mfg. ☐ Electron Mfg. ☐ Measuring Instrument
☐ Coordinate Robot ☐ Packaging Equipment ☐ Others: _____

Application Description

(Please describe your application so we can ensure the best possible solution.)

Worldwide Service Map

MOONS' Business Philosophies

• Customer satisfaction

MOONS' aims to enhance customer satisfaction through the provision development of innovative solutions, manufacture of high quality products, on-time delivery and outstanding customer support.

• Employee satisfaction

MOONS' values and respects our employees' input and encourages them to grow together with the company. We have been working to develop tools and trainings to build a thriving culture of excellence internally to support the future growth of our employees and the company.

• Partnership

MOONS' strongly believes in a true integrated partnership between all partners in business including customers, distributors and all these in supply chain. As a result of this philosophy, we endeavor to provide the best value contribution to all partners, which can help our partners improve their competiveness to achieve the win-win situation.

MOONS' Headquarter

168 Mingjia Road, Minhang District, Shanghai 201107,
P.R. China
Tel: +86 (0)21 52634688
Fax:+86 (0)21 52634098

MOONS' International Trading Company

4/F, Building 30, 69 Guiqing Road, Cao He Jin Hi-Tech
Park, Shanghai 200233, P.R. China
Tel: +86 (0)21 64952755
Fax:+86 (0)21 64951993

Domestic Offices

Shenzhen

Room 2209, 22/F, Kerry Center, 2008 Renminnan Road,
Luohu District, Shenzhen 518001, P.R. China
Tel: +86 (0)755 25472080
Fax:+86 (0)755 25472081

Beijing

Room 1206,Jing Liang Mansion, No.16 Middle Road of East
3rd Ring, Chaoyang District, Beijing 100022, P.R. China
Tel: +86 (0)10 87661889
Fax:+86 (0)10 87661880

Nanjing

Room 1101-1102, Building 2, New Town Development
Center, No.126 Tianyuan Road , Moling Street,
Jiangning District, Nanjing 211106, P.R. China
Tel: +86 (0)25 52785841
Fax:+86 (0)25 52785485

Qingdao

Room 1012, Zhuoyue Tower, No.16 Fengcheng Road,
Shibei District, Qingdao 26000, P.R. China
Tel: +86 (0)532 80969935
Fax:+86 (0)532 80919938

Wuhan

Room 3001, World Trade Tower, 686 Jiefang Avenue,
Jianghan District, Wuhan 430022, P.R. China
Tel: +86 (0)27 85448742
Fax:+86 (0)27 85448355

Chengdu

Room 1917, Western Tower, 19, 4th Section of South People
Road, Wuhou District, Chengdu 610041, P.R. China
Tel: +86 (0)28 85268102
Fax:+86 (0)28 85268103

Xi'an

Room 1006, Tower D, Wangzuo International City,
1 Tangyan Road, Xi'an 710065, P.R. China
Tel: +86 (0)29 81870400
Fax:+86 (0)29 81870340

Ningbo

Room 309, Tower B, Taifu Plaza, 565 Jiangjia Road,
Jiangdong District, Ningbo, 315040, P.R. China
Tel: +86 (0)574 87052739
Fax:+86 (0)574 87052365

Guangzhou

Room 4006, Tower B, China Shine Plaza, 9 Linhe Xi Road,
Tianhe District, Guangzhou 510610, P.R. China
Tel: +86 (0)20 38010153
Fax:+86 (0)20 38103661

North America

MOONS' INDUSTRIES (AMERICA), INC.
1113 North Prospect Avenue, Itasca, IL 60143 USA
Tel: +1 630 8335940
Fax: +1 630 8335946

MOONS' INDUSTRIES (AMERICA), INC.
Boston Office
36 Cordage Park Circle, Suite 310
Plymouth, MA 02360 USA

APPLIED MOTION PRODUCTS, INC.
404 Westridge Dr. Watsonville, CA 95076, USA
Tel: +1 831 7616555

LIN ENGINEERING, INC.
16245 Vineyard Blvd., Morgan Hill, CA 95037
Tel: +1 408 9190200
Fax:+1 408 9190201

European

MOONS' INDUSTRIES EUROPE HEAD QUARTER S.R.L.
Via Torri Bianche 1, 20871 Vimercate (MB), Italy
Tel: +39 039 6260 521
E-mail: info@moonsindustries.eu

AMP & MOONS' AUTOMATION (GERMANY) GMBH
Börsenstraße 14
60313 Frankfurt am Main Germany

South-East Asia

MOONS' INDUSTRIES (SOUTH-EAST ASIA) PTE. LTD.
33 Ubi Avenue 3 #08-23 Vertex Singapore 408868
Tel: +65 66341198
Fax: +65 66341138

Japan

MOONS' INDUSTRIES JAPAN CO., LTD.
Room 601, 6F, Shin Yokohama Koushin Building,
2-12-1, Shin-Yokohama, Kohoku-ku, Yokohama,
Kanagawa, 222-0033, Janpan
Tel: +81 (0)45 4755788
Fax: +81 (0)45 4755787

https://www.moonsindustries.eu
E-mail: info@moonsindustries.eu
MOONS'
moving in better ways

CHINA / 1ST PRINT / 4th / MAR / 2019

- All specifications and technical parameters of the products provided in this catalog are for reference only, and are subject to change without notice. For details, please contact our sales team.