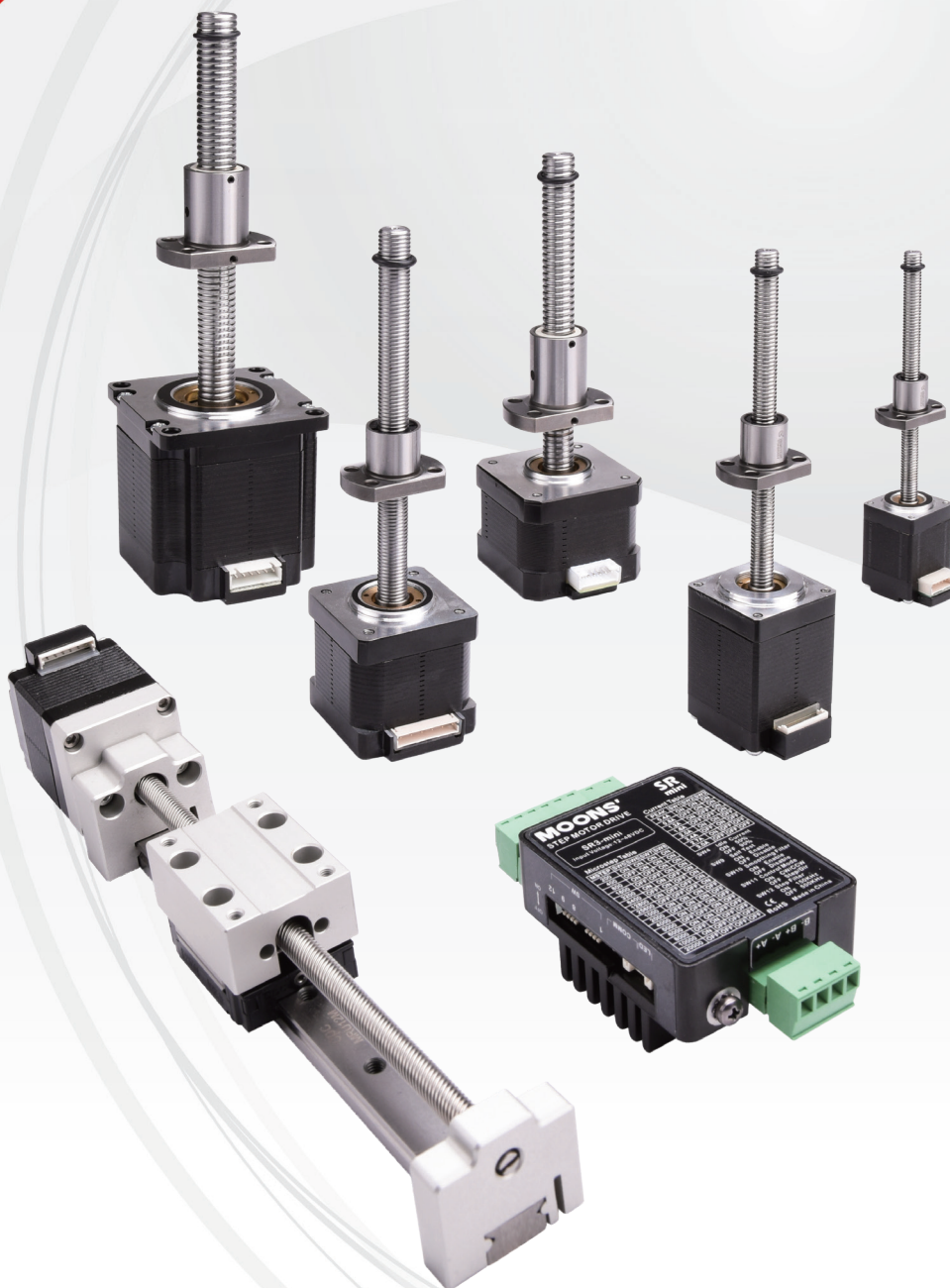


Linear Step Motors & Linear Slides

(Ball Screws)



Ball Screw Motors

- BE08 Series
- BE11 Series
- BE14 Series
- BE17 Series
- BE23 Series

Linear Slides

- MS20 Series
- MS28 Series
- MS35 Series
- MS42 Series

Stepper Drives

- SR Series
- ST Series

• Quick Response • Design Flexibility • Stable Performance



Milestones

- 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
- NOV. 2000 MOONS' Wiring Harness Factory was set up and put into production.
- 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

Ball Screw Motors

01

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MS28 Series

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SR Series

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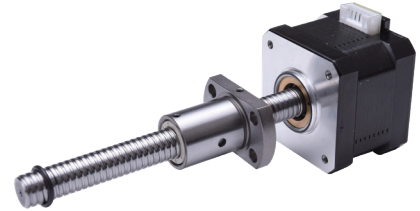
How To Get Samples Quickly

38

Ball Screw Motors

MOONS' BE Series products are designed based on the know-how technology of hybrid step motors , ball screws and nuts. Provide high torque, high precision, and high efficiency to fit the application needs of designers. The combination of motor styles, motor sizes, ball screws and nuts, gives the freedom to use motors of different form factors to exactly fit in the application. And, it provides the best performance with any drive and power supply.

- Five frame Sizes: NEMA08, 11, 14, 17, 23
- Multiple motor lengths and motor sizes
- Each frame size motor has a variety of lead options
- Each frame size motor has a variety of nut options

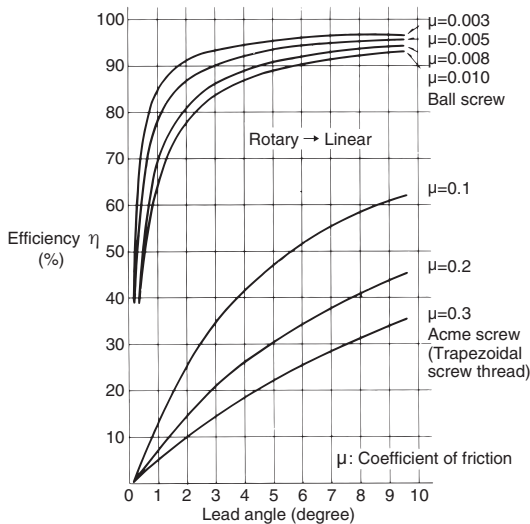


MOONS' has committed to product innovation design and technical improvement, with excellent product quality,application technology, fast and flexible services,which provide customers with high level Linear motion solutions.

Features of BE Series

High mechanical efficiency

The Ball screws of BE Series have outstanding transmission efficiency of over 90%, incomparably higher than lead screws. Their required torque is just less than a third of what the lead screws require. Therefore, it is easier to transfer a linear motion into a rotary motion.



Mechanical efficiency of ball screws

Efficiency of ball screws (Rotary → Linear)

$$\text{Normal operation: } P = \frac{2\pi \eta_1 \times T}{\ell}$$

T=Load torque kgf x cm

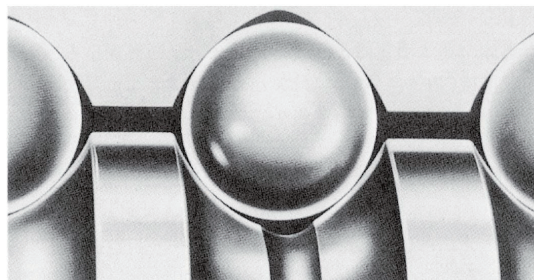
P=Axial external load kgf

ℓ=lead cm

η₁= Efficiency of ball screws

Small axial clearance, High accuracy, High rigidity

The Ball screws of BE Series adopt a gothic-arch groove profile, its axial clearance can be adjusted in a highly fine pitch as well as it can be lightly rotated. In addition, by giving a preload to the screw, the axial clearance could be adjusted to 0 to achieve advanced rigidity.



Ball screw groove profile

High hardness, Excellent durability

The Ball screws of BE Series maintain excellent durability achieved by carefully selected materials, proper heat treatment, and machining with advanced product technologies. Ball screws are generally manufactured to maintain the minimum standard hardness at 58 HRC with the materials listed in right table .

	Material	Hardness
Screw shaft	SCM450 S55C	HRC 58° ~ 64°
Nut	SCM415H	HRC 58° ~ 64°
Steel balls	SUJ2	More than 60 HRC

Materials and hardness

For Safety Use

Lubrication

When using the BE series products, lubricant should be required. If lubricant is not applied with, the problem such as increase of torque and shortened life occurs. Applying lubricant can minimize temperature increases, decline of mechanical efficiency due to friction, and deterioration of accuracy caused by wear.

Be careful with falling off of components due to their own weight.

Since a ball screw has a low friction factor, its shaft or nut could potentially fall off due to its own weight. Be careful not to have your hand or fingers be caught under the fallen component.

Do not disassemble a nut.

When balls have been dropped off the nut or the nut has been removed from a shaft, do not attempt to reassemble them yourself and return them to our company for repair.

(In this case, repairing charges are required.)

If it necessary to disassemble the nut by yourself, Please consult with our technical department first.

Pay careful attention to mounting accuracy.

A moment load caused by misalignment of a ball screw, bearing, guide, nut, and housing and improper angularity may result in malfunction, extraordinary noise, abnormal vibration, shorter product life as well as breakage of screw shaft due to rotating bending fatigue. Be careful with such defects because they may lead to a serious accident.

Working Temperature

Normally, The BE Series work temperature range is 0~60°C .If it necessary to work beyond the recommended temperatures, Please consult with our technical department first.

Model Numbering System

BE 172S - B0801 - 100 - AK1 - 0 - XXX

Ball Screw Motor Type Code

Code	Structure Type
BE	External Nut - Ball screw Shaft

Motor Size Code

Code	Motor Body Length Max(mm)	Step Angle (°)
08	0S	28.3
	0G	29.5
11	1S	32
	5S	52
14	1A	28
	1S	28
	3S	36
17	4A	34.3
	4S	34.3
	6S	48.3
23	8S	57
	AS	79

Ball Screw Type Code

Code	Nominal Diameter (mm)	Lead (mm)	Code	Nominal Diameter (mm)	Lead (mm)
B0401	4	1	B1002	10	2
B0601	6	1	B1004	10	4
B0801	8	1	B1010	10	10
B0802	8	2	B1202	12	2
B08025	8	2.5	B1204	12	4
B0805	8	5	B1205	12	5
B0808	8	8	B1210	12	10

Ball Screw Lengths(Lx)

###	Provided in 1 mm increments
-----	-----------------------------

Rated Current Code

XXX=X.XX(A)	This code defines by our technical department
-------------	---

Special Custom Type

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	Mating Ball Screw	
AK	1	B0401
		B0601
		B0801
		B0802
		B08025
		B1002
		B1202
BU	2	B1004
		B1204
BM	1	B0805
		B0808
		B1010
AV	2	B1204
		B1205
		B1210

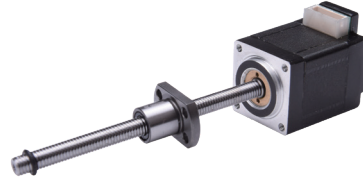
Configuration Table

Nominal Diameter (mm)	Lead (mm)	Ball Screw Code	Motor Options													
			BE080S	BE080G	BE111S	BE115S	BE141A	BE141S	BE143S	BE174A	BE174S	BE176S	BE238S	BE238AS		
4	1	B0401	⊙	⊙	-	-	-	-	-	-	-	-	-	-	-	-
6	1	B0601	-	-	⊙	⊙	-	-	-	-	-	-	-	-	-	-
8	1	B0801	-	-	-	-	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
8	2	B0802	-	-	-	-	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
8	2.5	B08025	-	-	-	-	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
8	5	B0805	-	-	-	-	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
8	8	B0808	-	-	-	-	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
10	2	B1002	-	-	-	-	-	-	-	-	-	-	-	⊙	⊙	⊙
10	4	B1004	-	-	-	-	-	-	-	-	-	-	-	⊙	⊙	⊙
10	10	B1010	-	-	-	-	-	-	-	-	-	-	-	⊙	⊙	⊙
12	2	B1202	-	-	-	-	-	-	-	-	-	-	-	⊙	⊙	⊙
12	4	B1204	-	-	-	-	-	-	-	-	-	-	-	⊙	⊙	⊙
12	5	B1205	-	-	-	-	-	-	-	-	-	-	-	⊙	⊙	⊙
12	10	B1210	-	-	-	-	-	-	-	-	-	-	-	⊙	⊙	⊙

Note: Marked with "⊙" is available.

BE08 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

BE 08 0S – B0401 – 100 – AK1 – 0 – XXX

Ball Screw Motor Type Code

Code	Structure Type
BE	External Nut - Ball screw Shaft

Frame Size Code

Code	Frame Size
08	20mm

Motor Body Length Code

Code	Motor Body Length Max(mm)	Step Angle (°)
0S	28.3	1.8
0G	29.5	5

Ball Screw Type Code

Code	Nominal Diameter(mm)	Lead (mm)	Travel(mm)	
			Travel Per 1.8°	Travel Per 5°
B0401	4	1	0.005	0.013889

Rated Current Code

XXX=X.XX(A)	This code defines by our technical department
-------------	---

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
AK 1	B0401

Lx

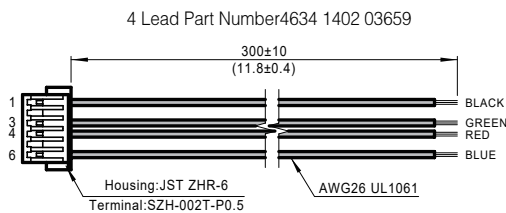
Provided in 1 mm increments

BE08 Step Motor - 4 Lead Bi-Polar

Motor Type Code	Motor Body Length (mm)	Step Angle (°)	Electrical Connection	Rated Current (Amps)	Winding	
					Resistanc(Ohms)	Inductance(mH)
					±10% @ 20°C	Typ.
BE080S	28.3	1.8°	Plug In Connector	0.4	12.65	4.1
BE080G	29.5	5°	Plug In Connector	0.6	6.2	1.6

Note: Recommended Driver, DC Input: SR2-Plus, SR3-mini; DC Input Controller Type: ST5-S/Q/C-AN(RN)。

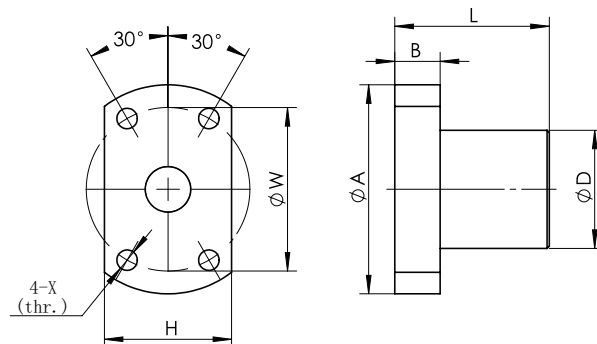
Mating Connector With Leads (order separately)



BE08 Series

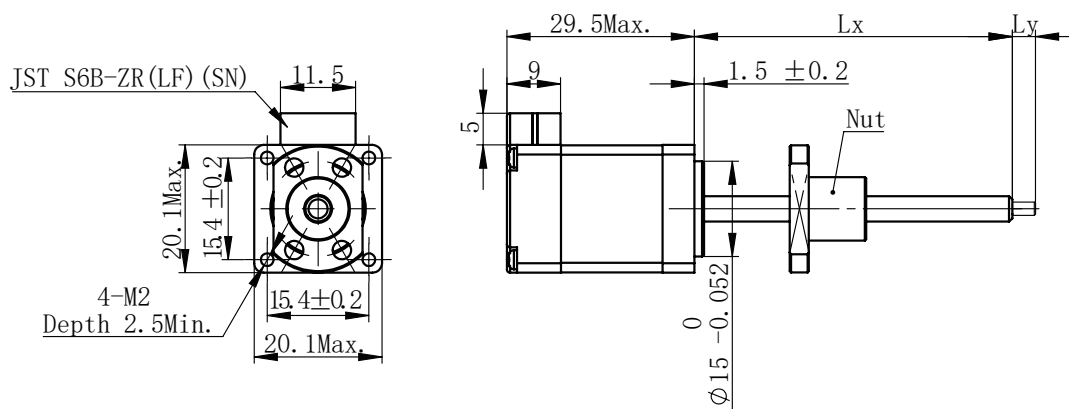
■ Nut Dimension

UNIT:mm



Screw Type	Nut Code		D	A	B	L	W	H	X
B0401	AK	1	10	20	3	12	15	14	2.9

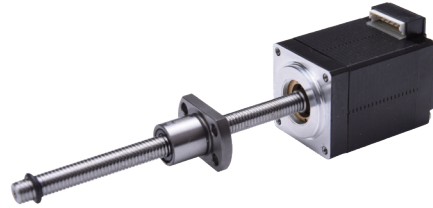
■ Motor Dimension



Note: The Mounting hole size of BE080G is 16 ± 0.2 mm.

BE11 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

BE 11 1S – B0601 – 100 – AK1 – 0 – XXX

<p>Ball Screw Motor Type Code</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Code</th> <th>Structure Type</th> </tr> </thead> <tbody> <tr> <td>BE</td> <td>External Nut - Ball screw Shaft</td> </tr> </tbody> </table> <p>Frame Size Code</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Code</th> <th>Frame Size</th> </tr> </thead> <tbody> <tr> <td>11</td> <td>28mm</td> </tr> </tbody> </table> <p>Motor Body Length Code</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Code</th> <th>Motor Body Length Max(mm)</th> <th>Step Angle (°)</th> </tr> </thead> <tbody> <tr> <td>1S</td> <td>32</td> <td>1.8</td> </tr> <tr> <td>5S</td> <td>52</td> <td>1.8</td> </tr> </tbody> </table> <p>Ball Screw Type Code</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Code</th> <th rowspan="2">Nominal Diameter(mm)</th> <th rowspan="2">Lead (mm)</th> <th>Travel(mm)</th> </tr> <tr> <th>Travel Per1.8°</th> </tr> </thead> <tbody> <tr> <td>B0601</td> <td>6</td> <td>1</td> <td>0.005</td> </tr> </tbody> </table>	Code	Structure Type	BE	External Nut - Ball screw Shaft	Code	Frame Size	11	28mm	Code	Motor Body Length Max(mm)	Step Angle (°)	1S	32	1.8	5S	52	1.8	Code	Nominal Diameter(mm)	Lead (mm)	Travel(mm)	Travel Per1.8°	B0601	6	1	0.005	<p>Rated Current Code</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Code</th> <th>Custom Type</th> </tr> </thead> <tbody> <tr> <td>XXX=X.XX(A)</td> <td>This code defines by our technical department</td> </tr> </tbody> </table> <p>Special Custom Type Code</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Code</th> <th>Custom Type</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Non Special Custom</td> </tr> <tr> <td>S</td> <td>Lead Screw End Machining</td> </tr> <tr> <td>C</td> <td>Other Special Custom Type</td> </tr> </tbody> </table> <p>Nut Type Code</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Code</th> <th>Nut Type</th> </tr> </thead> <tbody> <tr> <td>AK</td> <td>1</td> </tr> <tr> <td></td> <td>B0601</td> </tr> </tbody> </table> <p style="text-align: right;">Lx</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Code</th> <th>Travel Per 1mm</th> </tr> </thead> <tbody> <tr> <td>###</td> <td>Provided in 1 mm increments</td> </tr> </tbody> </table>	Code	Custom Type	XXX=X.XX(A)	This code defines by our technical department	Code	Custom Type	0	Non Special Custom	S	Lead Screw End Machining	C	Other Special Custom Type	Code	Nut Type	AK	1		B0601	Code	Travel Per 1mm	###	Provided in 1 mm increments
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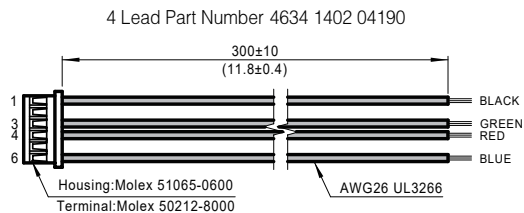
BE11 Step Motor - 4 Lead Bi-Polar

Motor Type Code	Motor Body Length (mm)	Step Angle (°)	Electrical Connection	Rated Current (Amps)	Winding	
					Resistanc(Ohms) ±10%@20°C	Inductance(mH) Typ.
BE111S	32	1.8°	Plug In Connector	1	2.7	2.5
BE115S	52	1.8°	Plug In Connector	1.5	1.65	1.48

Note: Recommended Driver, DC Input: SR2-Plus; DC Input Controller Type: ST5-S/Q/C-AN(RN)。

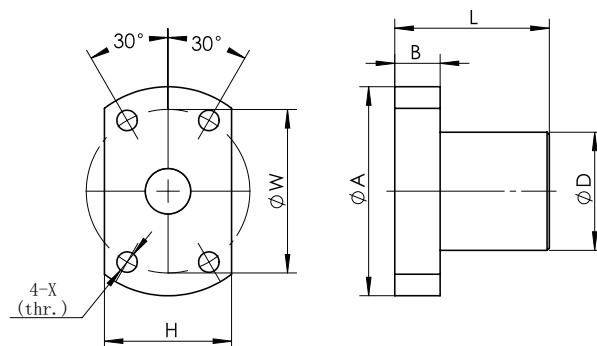
BE11 Series

■ Mating Connector With Leads (order separately)



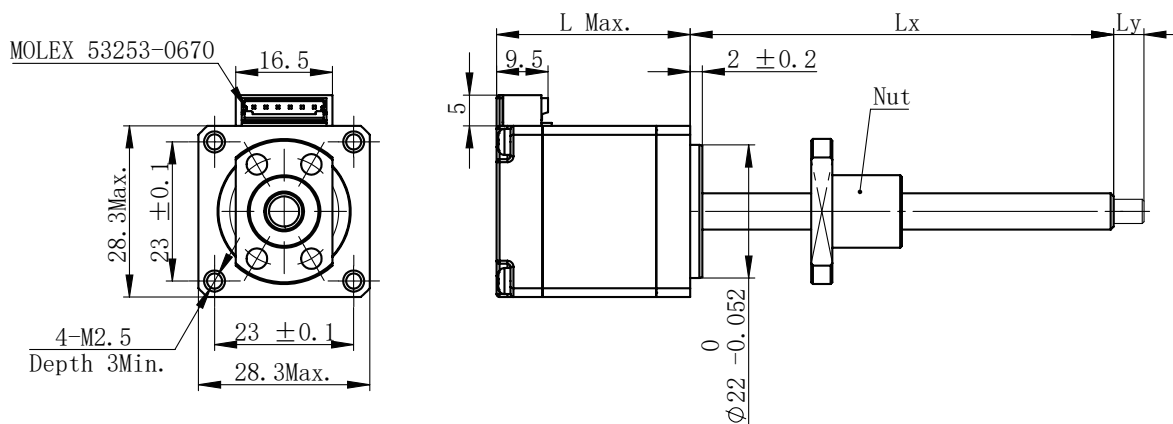
■ Nut Dimension

UNIT:mm



Screw Type	Nut Code	D	A	B	L	W	H	X
B0601	AK 1	12	24	3.5	15	18	16	3.4

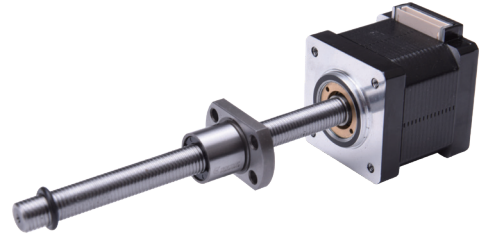
■ Motor Dimension



Motor type	Dimension "L"
BE111S	32 mm
BE115S	52 mm

BE14 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

BE 14 1S - B0801 - 100 - AK1 - 0 - XXX

Ball Screw Motor Type Code

Code	Structure Type
BE	External Nut - Ball 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	28	1.8
3S	36	1.8

Ball Screw Type Code

Code	Nominal Diameter(mm)	Lead (mm)	Travel(mm)	
			Travel Per 0.9°	Travel Per 1.8°
B0801	8	1	0.0025	0.005
B0802	8	2	0.005	0.01
B08025	8	2.5	0.00625	0.0125
B0805	8	5	0.0125	0.025
B0808	8	8	0.02	0.04

Rated Current Code

XXX=X.XX(A)	This code defines by our technical department
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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
AK	1	B0801
		B0802
		B08025
BU	1	B0805
BM	1	B0808

Lx

Provided in 1 mm increments

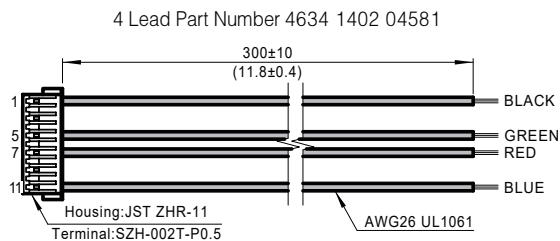
BE14 Step Motor - 4 Lead Bi-Polar

Motor Type Code	Motor Body Length (mm)	Step Angle (°)	Electrical Connection	Rated Current (Amps)	Winding	
					Resistanc(Ohms)	Inductance(mH)
					±10% @ 20°C	Typ.
BE141A	28	0.9°	Plug In Connector	0.6	10.6	12.6
BE141S	28	1.8°	Plug In Connector	1.5	1.55	1.53
BE143S	36	1.8°	Plug In Connector	1.5	1.61	2.5

Note: Recommended Driver, DC Input: SR2-Plus; DC Input Controller Type: ST5-S/Q/C-AN(RN)。

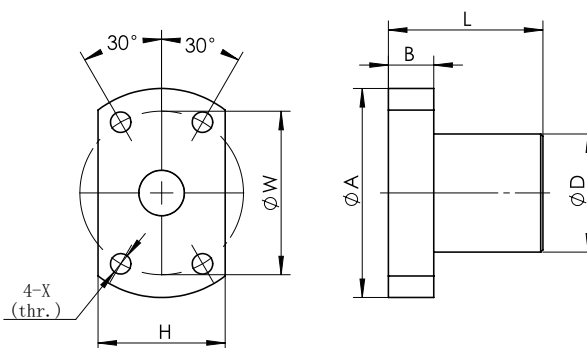
BE14 Series

■ Mating Connector With Leads (order separately)



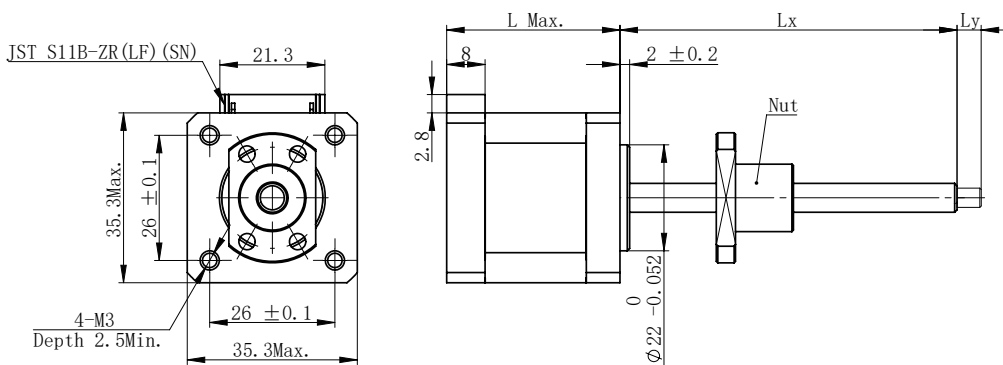
■ Nut Dimension

UNIT:mm



Screw Type	Nut Code		D	A	B	L	W	H	X
B0801	AK	1	14	27	4	16	21	18	3.4
B0802	AK	1	14	27	4	16	21	18	3.4
B08025	AK	1	16	29	4	26	23	20	3.4
B0805	BU	1	22	38	6	27	29	22	3.4
B0808	BM	1	23	38	5	28	30	24	3.4

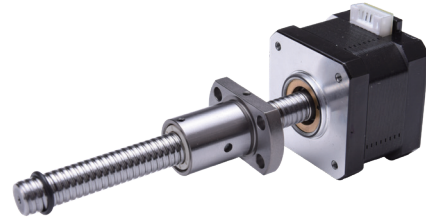
■ Motor Dimension



Motor type	Dimension "L"
BE141A	28 mm
BE141S	28 mm
BE143S	36 mm

BE17 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

BE 17 4S – B0801 – 100 – AK1 – 0 – XXX

Ball Screw Motor Type Code

Code	Structure Type
BE	External Nut - Ball screw Shaft

Frame Size Code

Code	Frame Size
17	42mm

Motor Body Length Code

Code	Motor Body Length Max(mm)	Step Angle (°)
4A	34.3	0.9
4S	34.3	1.8
6S	48.3	1.8

Lead Screw Type Code

Code	Nominal Diameter (mm)	Lead (mm)	Travel(mm)	
			Travel Per 0.9°	Travel Per 1.8°
B0801	8	1	0.0025	0.005
B0802	8	2	0.05	0.01
B08025	8	2.5	0.00625	0.0125
B0805	8	5	0.0125	0.025
B0808	8	8	0.02	0.04
B1002	10	2	0.005	0.01
B1004	10	4	0.01	0.02
B1010	10	10	0.025	0.05

Lx

###	Provided in 1 mm increments
-----	-----------------------------

Rated Current Code

XXX=X.XX(A)	This code defines by our technical department
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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
AK	1	B0801
		B0802
		B08025
		B1002
AK	2	B1004
		B0805
BU	1	B0805
BM	1	B0808
		B1010

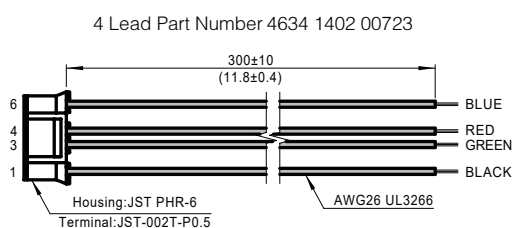
BE17 Series

BE17 Step Motor - 4 Lead Bi-Polar

Motor Type Code	Motor Body Length (mm)	Step Angle (°)	Electrical Connection	Rated Current (Amps)	Winding	
					Resistanc(Ohms)	Inductance(mH)
					±10%@20°C	Typ.
BE174A	34.3	0.9°	Plug In Connector	0.7	5.4	14
BE174S	34.3	1.8°	Plug In Connector	1	4.3	7.7
BE176S	48.3	1.8°	Plug In Connector	2	1.3	2.9

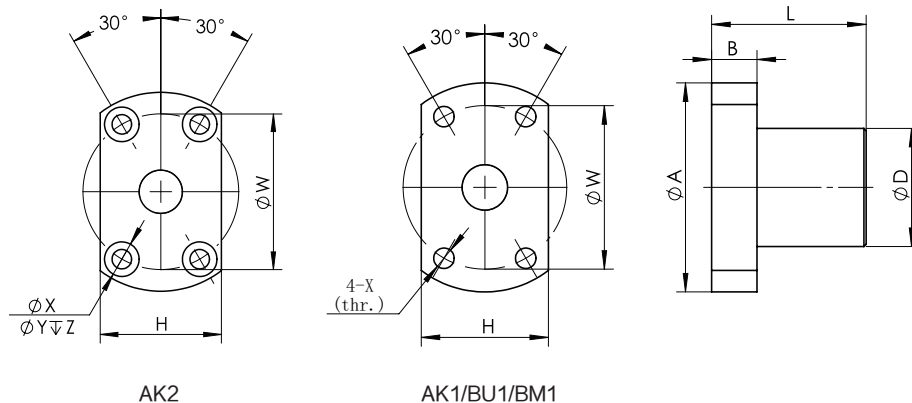
Note: Recommended Driver, DC Input: SR2-Plus, SR4-Plus; DC Input Controller Type: ST5-S/Q/C-AN(RN)。

Mating Connector With Leads (order separately)



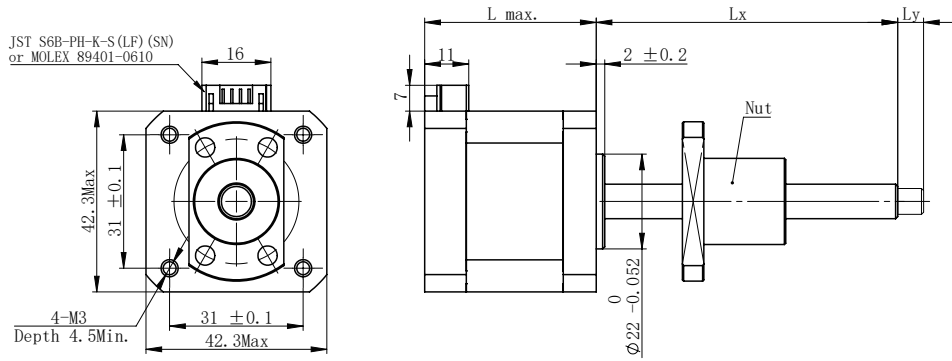
Nut Dimension

UNIT:mm



Screw Type	Nut Code	D	A	B	L	W	H	X	Y	Z
B0801	AK 1	14	27	4	16	21	18	3.4	-	-
B0802	AK 1	14	27	4	16	21	18	3.4	-	-
B08025	AK 1	16	29	4	26	23	20	3.4	-	-
B0805	BU 1	22	38	6	27	29	22	3.4	-	-
B0808	BM 1	23	38	5	28	30	24	3.4	-	-
B1002	AK 1	18	35	5	28	27	22	4.5	-	-
B1004	AK 2	26	46	10	34	36	28	4.5	8	4.5
B1010	BM 1	28	47	8	34	36	30	4.5	-	-

Motor Dimension



Motor type	Dimension "L"
BE174A	34.3 mm
BE174S	34.3 mm
BE176S	48.3 mm

BE23 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

BE 23 8S – B1002 – 100 – AK1 – 0 – XXX

Ball Screw Motor Type Code

Code	Structure Type
BE	External Nut - Ball screw Shaft

Frame Size Code

Code	Frame Size
23	57mm

Motor Body Length Code

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

Lead Screw Type Code

Code	Nominal Diameter (mm)	Lead (mm)	Travel Per 1.8° (mm)
B1002	10	2	0.01
B1004	10	4	0.02
B1010	10	10	0.05
B1202	12	2	0.01
B1204	12	4	0.02
B1205	12	5	0.025
B1210	12	10	0.05

Lx

###	Provided in 1 mm increments

Rated Current Code

XXX=X.XX(A)	This code defines by our technical department
-------------	---

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
AK	1	B1002
		B1202
BM	1	B1004
		B1204
AV	2	B1010
		B1205
		B1210

BE23 Series

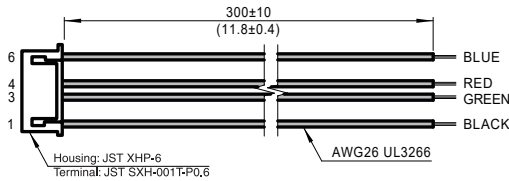
BE23 Step Motor - 4 Lead Bi-Polar

Motor Type Code	Motor Body Length (mm)	Step Angle (°)	Electrical Connection	Rated Current (Amps)	Winding	
					Resistanc(Ohms) ±10%@20°C	Inductance(mH) Typ.
BE238S	57	1.8°	Plug In Connector	2.2	1.6	7.2
BE23AS	79	1.8°	Plug In Connector	3	1.1	5.0

Note: Recommended Driver, DC Input: SR8-Plus; DC Input Controller Type: ST5-S/Q/C-AN(RN), ST10-S/Q/C-AN(RN).

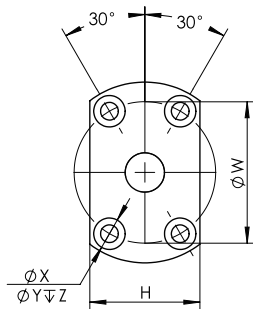
Mating Connector With Leads (order separately)

4 Lead Part Number 4634 1402 01891

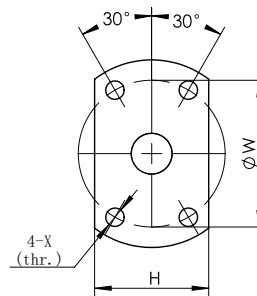


Nut Dimension

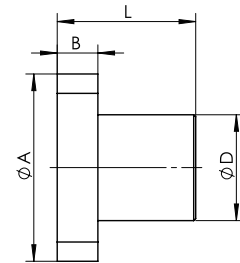
UNIT:mm



AK2/AV2

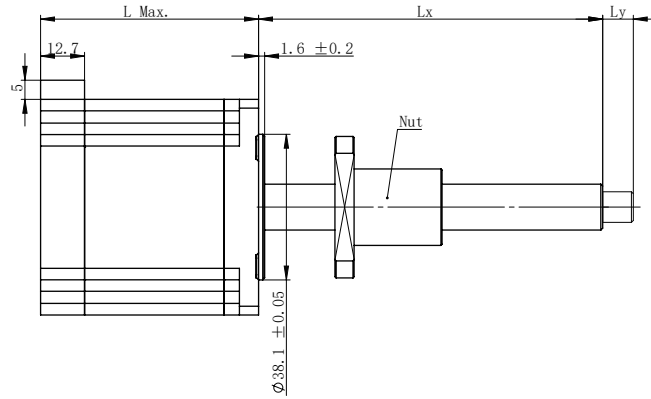
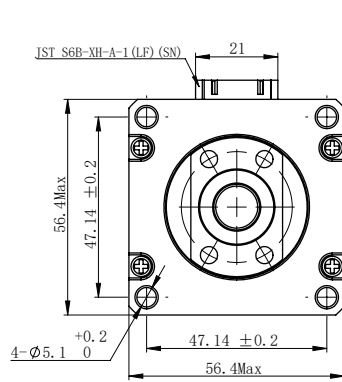


AK1/BU1/BM1



Screw Type	Nut Code		D	A	B	L	W	H	X	Y	Z
B1002	AK	1	18	35	5	28	27	22	4.5	-	-
B1004	AK	2	26	46	10	34	36	28	4.5	8	4.5
B1010	BM	1	28	47	8	34	36	30	4.5	-	-
B1202	AK	1	20	37	5	28	29	24	4.5	-	-
B1204	BM	1	24	40	10	40	32	30	4.5	-	-
B1205	AV	2	30	50	8	35	40	30	4.5	8	4.5
B1210			30	50	10	42	40	32	4.5	8	4.5

■ Motor Dimension



Motor type	Dimension "L"
BE238S	57 mm
BE23AS	79 mm

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			
BE08/11	4.5	5	5.5	400	1600	-20	100	20	Single-ended Electrical	Differential Electrical
BE14/17/23				1000	4000	-40	100			



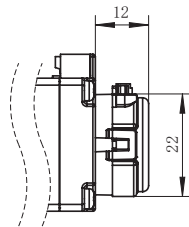
BE11 with encoder



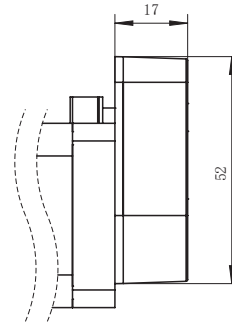
BE17 with encoder

Dimensional Information

Unit: mm



The encoder mating BE08/11

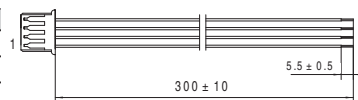


The encoder mating BE14/17/23

Mating Connector With Leads

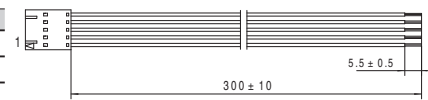
Single-ended Electrical

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



For the encoder mating BE08/11

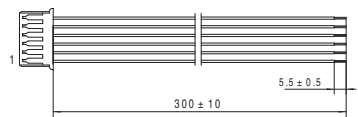
Pin	Function	Color
1	Ground	Black
2	Index	Green
3	A Channel	Red
4	+5VDC Power	Blud
5	B Channel	Yellow



For the encoder mating BE14/17/23

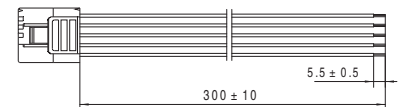
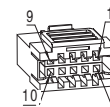
Differential Electrical

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 BE08/11

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 BE14/17/23

Brake Options

Parameter

Mating Motor	Supply Voltage (VDC)	Braking Torque (N·M)	Power (W)	Reaction Time (ms)	Insulation Grade
BE11/14	24	0.4	4	15	B
BE17	24	0.6	5	50	B
BE23	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.



BE11 with brake



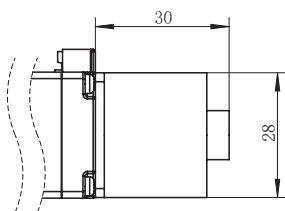
BE17 with brake



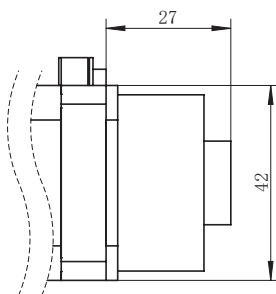
BE23 with brake

Dimensional Information

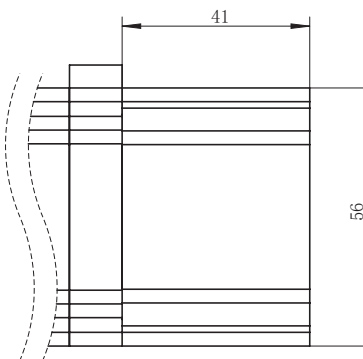
Unit: mm



The brake mating BE11/14



The brake mating BE17



The brake mating BE23

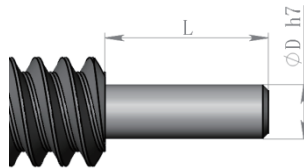
Optional Construction & Modifications

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

- Ball screws: lengths, end machining and so on.
- Nuts: basic style, mounting and so on.

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

■ Ball screw End Machining



NO.	Nominal Diameter (mm)	Dimension	
		D(mm)	L(mm)
1	4	2.5	2.5
2	6	4	5
3	8	6	6
4	10	6	6
5	12	8	8

Linear Slides (Ball 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.

- Integrated design, Easy installation
- 4 Sizes motor options: NEMA08, NEMA11, NEMA14, NEMA17
- 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.



MS20 Series



MS28 Series



MS35 Series



MS42 Series

MS20 Series

- Integrated design, Easy installation
- Small size, Width 23mm
- Ball screws, High accuracy



Linear Slides

Ordering Information

MS20 - 3E1 0 T - B AH 1 - XX - 0 - XXXX

Series Code

Code	Mating Motor
MS20	NEMA08

Motor Length Code

Code	Motor Length Max(mm)
3E1	29.5(BE080S)

Additional Options Code

Code	Additional Options*
0	No additional
E	Encoder

Outlet Direction Code

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

Screw Type Code

Code	Screw Type
B	Ball Screw

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 (MAX:80mm)

Effective stroke(Customize), Provided in 10 mm increments

Nut Type Code

Code	Nut Type
1	Standard Nut

Lead code

Code	Lead (mm)
AH	1

Note:

*Additional Options: MOONS' provides encoders for BE08 series motors as additional options, see page 17 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.

MS20 Series

Technical Data

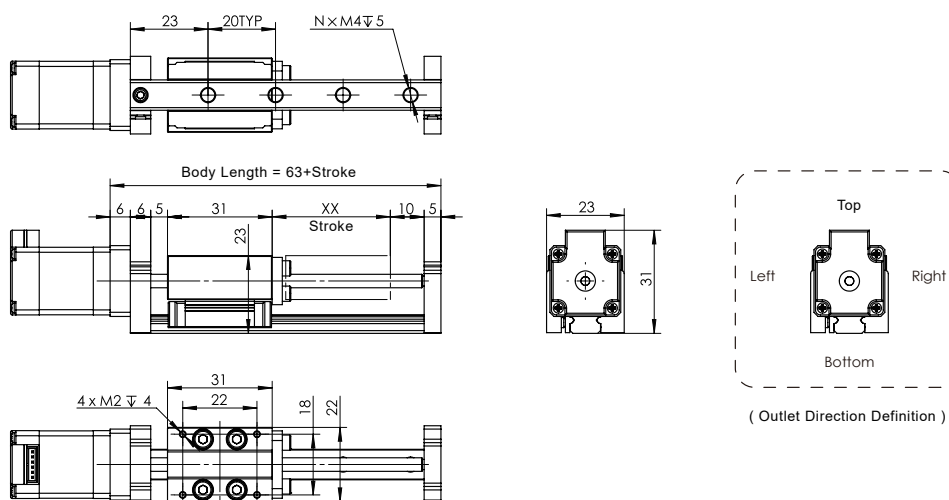
Series	Lead code	Lead	Maximum Speed (mm/s)	Maximum Load(kg) Motor: BE080S	
				Horizontal	Vertical
MS20	AH	1	10	1	0.5

Note:

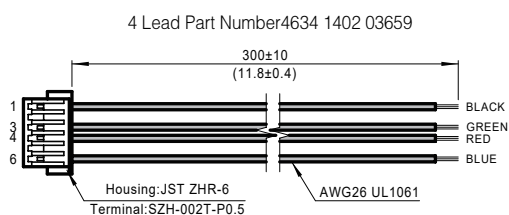
- 1.The above options are common choices, please consult our technical department for further information.
- 2.Recommended Driver, DC Input: SR2-Plus; DC Input Controller Type: ST5-S/Q/C-AN(RN).

Dimensional Information

Unit: mm



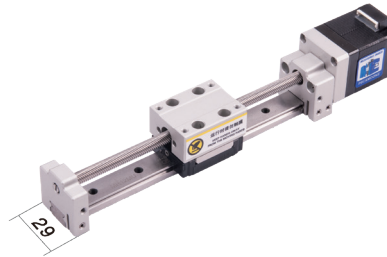
Mating Connector With Leads



Linear Slides

MS28 Series

- Integrated design, Easy installation
- Small size, Width 29mm
- Ball screws, High accuracy



Linear Slides

Ordering Information

MS28 - 3D1 0 T - B AH 1 - XX - 0 - XXXX

Series Code

Code	Mating Motor
MS28	NEMA11

Motor Length Code

Code	Motor Length Max(mm)
3D1	32 (BE111S)

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
B	Ball Screw

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 (MAX:150mm)

Effective stroke(Customize), Provided in 10 mm increments

Nut Type Code

Code	Nut Type
1	Standard Nut

Lead code

Code	Lead (mm)
AH	1

Note:

*Additional Options: Additional Options: MOONS' provides encoders & brakes for BE11 series motors as additional options,see page 17 & page 18 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

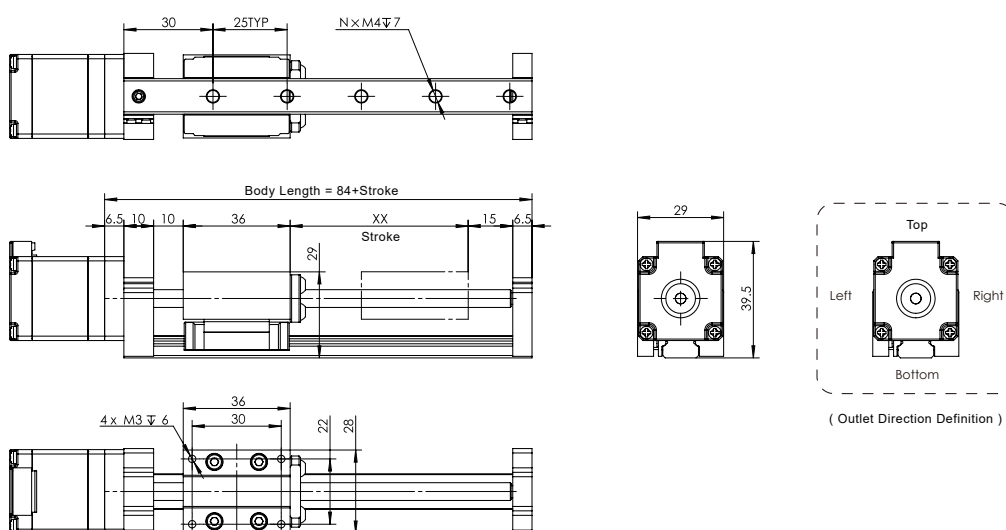
Series	Lead code	Lead	Maximum Speed (mm/s)	Maximum Load(kg) Motor: BE111S	
				Horizontal	Vertical
MS28	AH	1	10	3	2

Note:

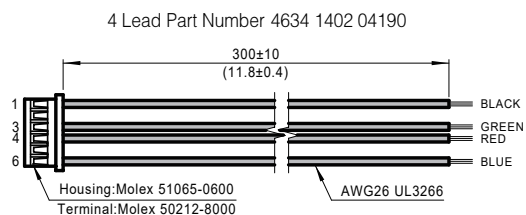
- The above options are common choices, please consult our technical department for further information.
- Recommended Driver, DC Input: SR2-Plus; DC Input Controller Type: ST5-S/Q/C-AN(RN).

Dimensional Information

Unit: mm



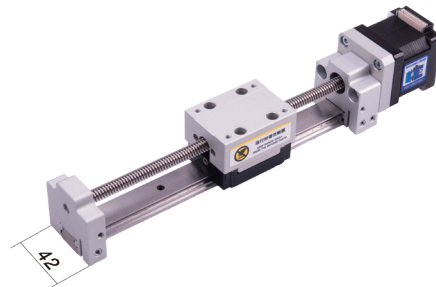
Mating Connector With Leads



Linear Slides

MS35 Series

- Integrated design, Easy installation
- Small size, Width 42mm
- Ball screws, High accuracy



Linear Slides

Ordering Information

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

Series Code

Code	Mating Motor
MS35	NEMA14

Motor Length Code

Code	Motor Length Max(mm)
3C1	27.3 (BE141S)
3C2	36 (BE143S)

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
B	Ball Screw

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 (MAX:250mm)

Effective stroke(Customize), Provided in 10 mm increments

Nut Type Code

Code	Nut Type
1	Standard Nut

Lead code

Code	Lead (mm)
AH	1
AG	2
AD	2.5
AX	5
BH	8

Note:

*Additional Options: Additional Options: MOONS' provides encoders & brakes for BE14 series motors as additional options,see page 17 & page 18 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

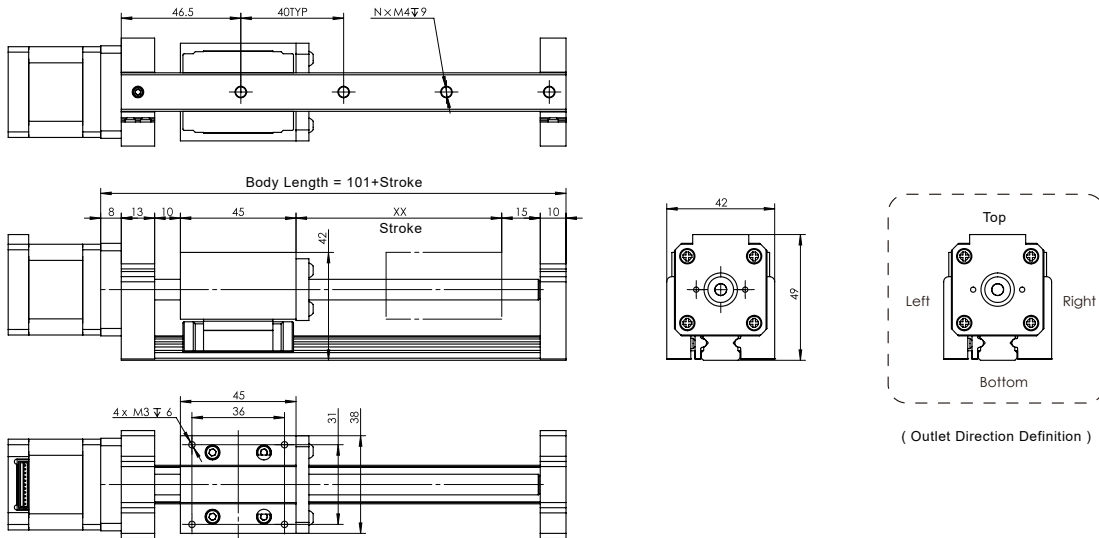
Series	Lead code	Lead	Maximum Speed (mm/s)	Maximum Load(kg) Motor: BE141S		Maximum Load(kg) Motor: BE143S	
				Horizontal	Vertical	Horizontal	Vertical
MS35	AH	1	10	5	3	5	3
	AG	2	20	5	3	5	3
	AD	2.5	25	5	3	5	3
	AX	5	50	5	3	5	3
	BH	8	80	3.3	2.2	4.4	2.9

Note:

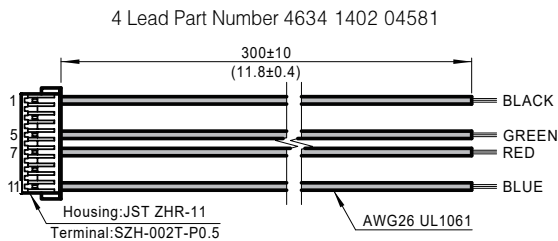
- 1.The above options are common choices, please consult our technical department for further information.
- 2.Recommended Driver, DC Input: SR2-Plus; DC Input Controller Type: ST5-S/Q/C-AN(RN).

Dimensional Information

Unit: mm



Mating Connector With Leads



MS42 Series

- Integrated design, Easy installation
- Small size, Width 42mm
- Ball screws, High accuracy



Linear Slides

Ordering Information

MS42 - 3A1 0 T - B AH 1 - XX - 0 - XXXX

Series Code

Code	Mating Motor
MS42	NEMA17

Motor Length Code

Code	Motor Length Max(mm)
3A1	39.8 (BE172S)

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
B	Ball Screw

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 (MAX:350mm)

Effective stroke(Customize), Provided in 10 mm increments

Nut Type Code

Code	Nut Type
1	Standard Nut

Lead code

Code	Lead (mm)
AH	1
AG	2
AD	2.5
AX	5
BH	8

Note:

*Additional Options: Additional Options: MOONS' provides encoders & brakes for BE17 series motors as additional options,see page 17 & page 18 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

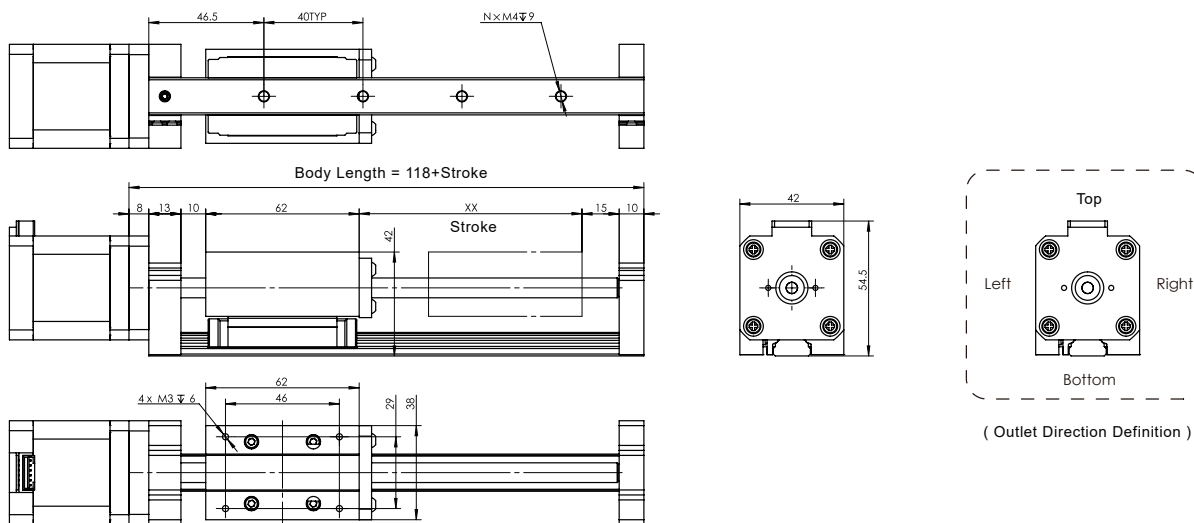
Series	Lead code	Lead	Maximum Speed (mm/s)	Maximum Load(kg) Motor: BE172S	
				Horizontal	Vertical
MS42	AH	1	10	5	3
	AG	2	20	5	3
	AD	2.5	25	5	3
	AX	5	50	5	3
	BH	8	80	5	3

Note:

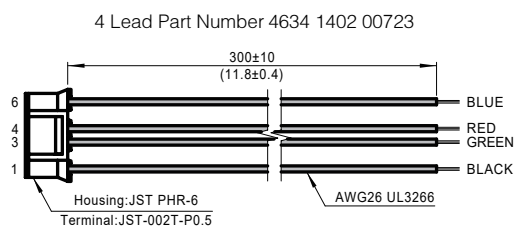
- 1.The above options are common choices, please consult our technical department for further information.
- 2.Recommended Driver, DC Input: SR2-Plus; DC Input Controller Type: ST5-S/Q/C-AN(RN).

Dimensional Information

Unit: mm



Mating Connector With Leads



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.

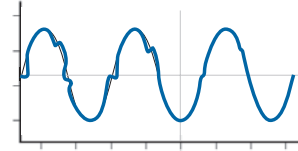
- **Advanced Current Control**
- **Torque Ripple Smoothing**
- **Self Test**
- **Anti-Resonance**
- **Microstep Emulation**



■ Features

Anti-Resonance

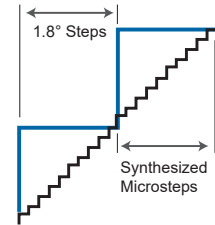
Step motor systems have a natural tendency to resonate at certain speeds. The SR drives automatically calculate the system's natural frequency and apply damping to the control algorithm. This greatly improves midrange stability, allows higher speeds and greater torque utilization, and also improves settling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



Provides better motor performance and higher speeds

Microstep Emulation

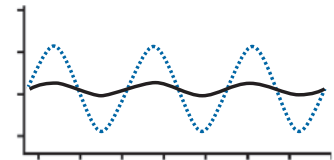
With Microstep Emulation, low resolution systems can still provide smooth motion. The drive can take low resolution step pulses and create fine resolution motion.



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.

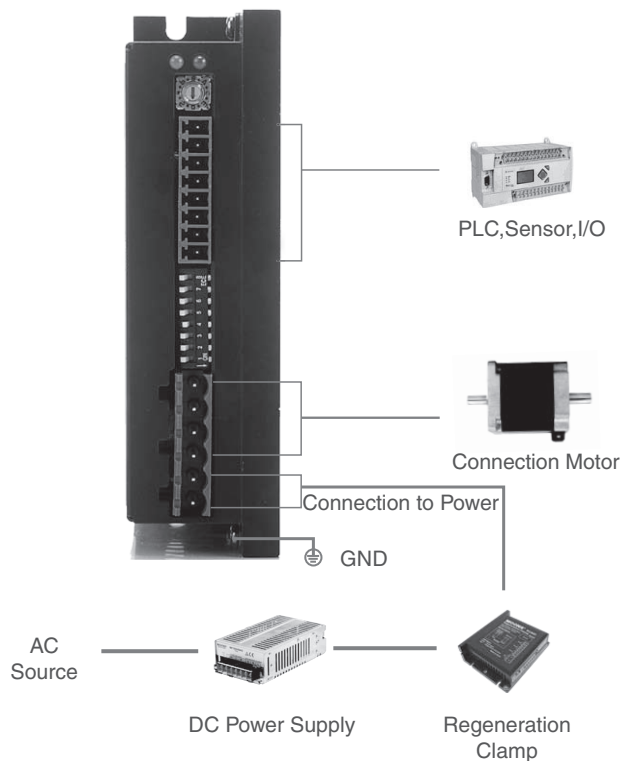


Improves overall system performance

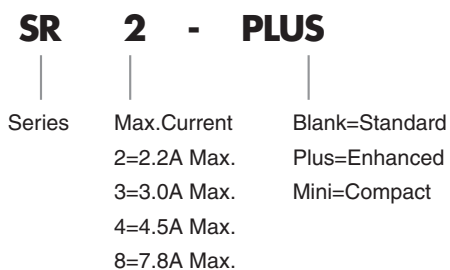
Auto Setup & Self Test

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



■ 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

Stepper Drives

■ Drive Specifications

Specification	
Speed Range	Up to 3000RPM
Operating Temperature	0 - 40°C
Ambient Humidity	90% or less(non-condensing)
Vibration Resistance	5.9m/s ² maximum
Storage Temperature	-10 - 70°C
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
Certification	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

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

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

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 Controller Type Stepper Drive-ST Series

ST Series

The ST series are compact digital stepper drives with multiple control options and many sophisticated features. Step motors run smoother and faster than ever with features of advanced current control.

With mutiple control options, ST series support stand-alone programming and various bus control as RS-232/485, Ethernet UDP/TCP, CANopen and Ethernet/IP.

The ST series also has optional encoder feedback with close loop for improved system performance and reliability.

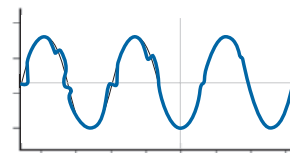


- Advanced Current Control**
- Anti-Resonance**
- Torque Ripple Smoothing**
- Microstep Emulation**
- Stall Detection and Stall Prevention**

■ Features

Anti-Resonance

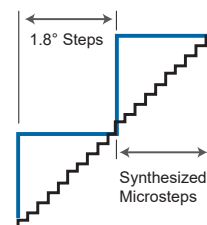
Step motor systems have a natural tendency to resonate at certain speeds. The MSST drives automatically calculate the system's natural frequency and apply damping to the control algorithm. This greatly improves midrange stability, allows higher speeds and greater torque utilization, and also improves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



Provides better motor performance and higher speeds

Microstep Emulation

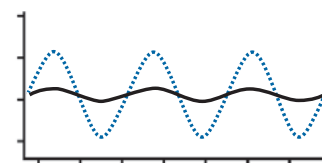
With Microstep Emulation, low resolution systems can still provide smooth motion. The drive can take low resolution step pulses and create fine resolution motion.



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

Stall detection & Stall prevention (only available on drives with encoder option)

The optional encoder detects the rotor's position to provide Stall Detection and Stall Prevention unctions.

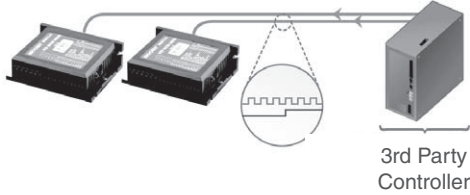
Stepper Drives

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.

Which model is right for your application?

Step & Direction



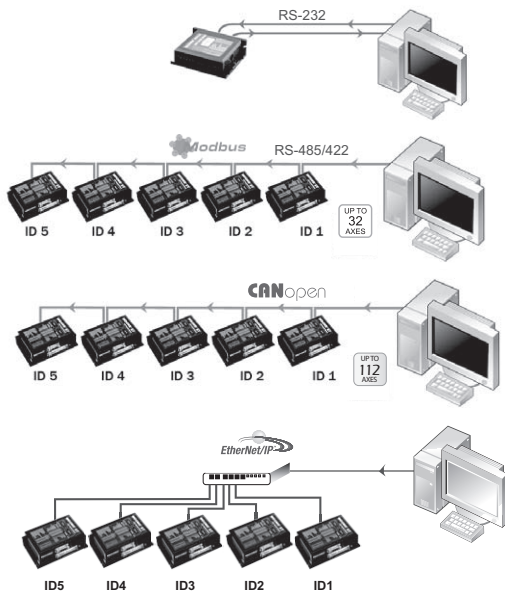
- Step & Direction
- CW & CCW pulse
- Master Encoder

Oscillator / Run-Stop



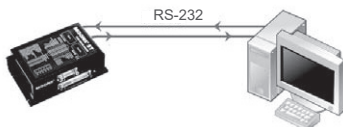
- Software Configuration
- Two Speeds
- Vary speed with analog input
- Joystick compatible

Host Control



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

Stand Alone Programmable



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

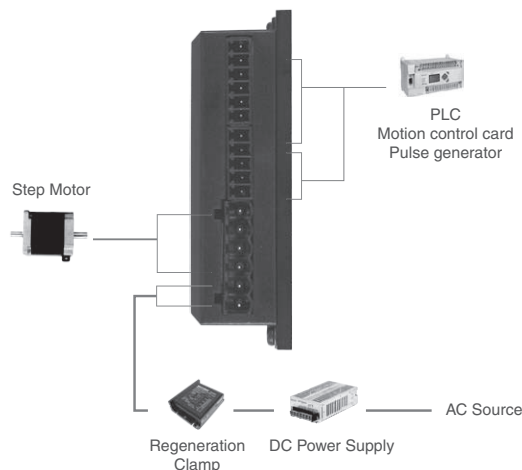
■ **ST Lineup** Control Modes

-S Pulse Input Control

Controlled via pulse generator.

Main Features

- Accepts three types of pulse signal input as Pulse&Direction, CW/CCW and A/B Quadrature

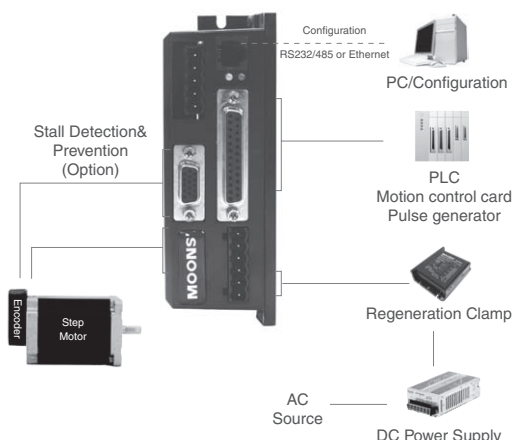


-Q Built-in programmable motion controller (Includes Modbus/RTU Type)

Run stand-alone with sophisticated and functional programs. Commands for controlling motion, inputs & outputs, drive configuration and status, as well as math operations, register manipulation, and multi-tasking.

Main Features

- Stand-alone operation plus Serial host control
- Math operations
- Register manipulation
- Multi-tasking
- With all features in S type

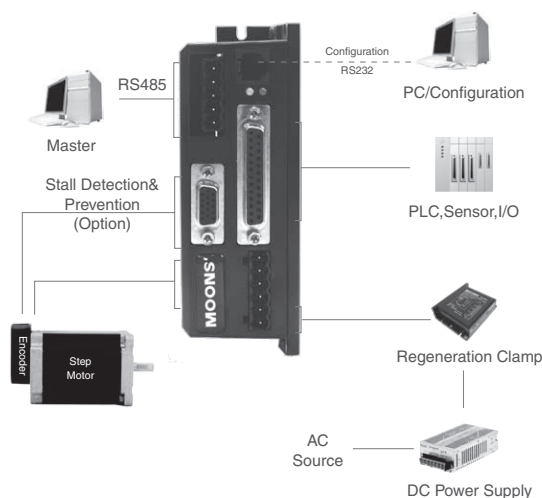


-S/Q Basic type with RS-232/RS-485 communication

Controlled via pulse signals, analog signal or MOONS' SCL streaming series commands.

Main Features

- Pulse control
- Analog control
- Host real time control using SCL via RS-232/RS-485
- Up to 32 axes per channel for RS-485



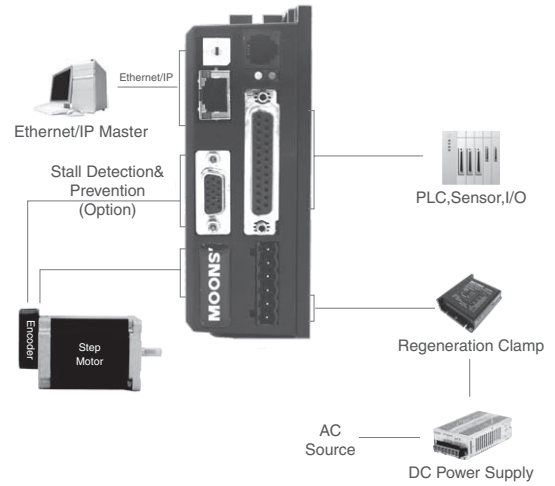
Stepper Drives

-Q With Ethernet communication

Run stand-alone with sophisticated and functional programs, controlled via MOONS' SCL streaming commands.

Main Features

- Stand-alone operation
- Host real time control using SCL via Ethernet UDP/TCP

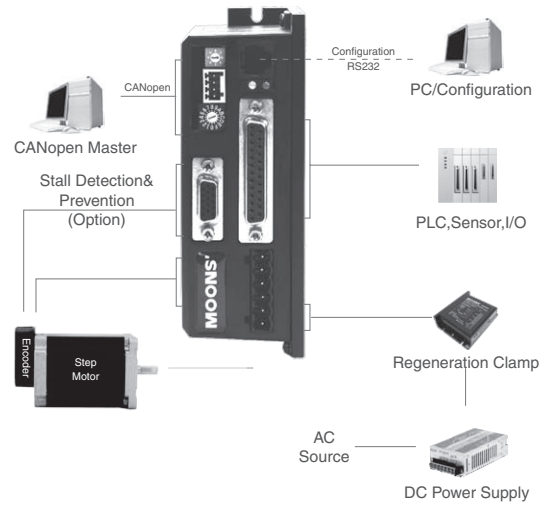


-C With CANopen communication

Operates on a CANopen communication network and conforms to CiA301 and CiA402. It supports running stored Q programs via MOONS'-specific CANopen objects.

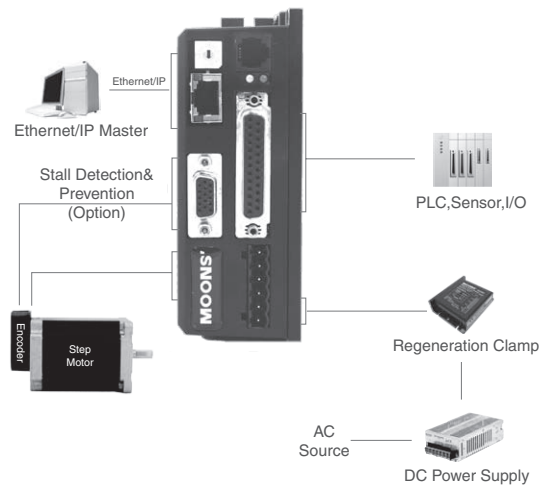
Main Features

- CANopen network
- Up to 112 axes per channel
- Objects for Q programming

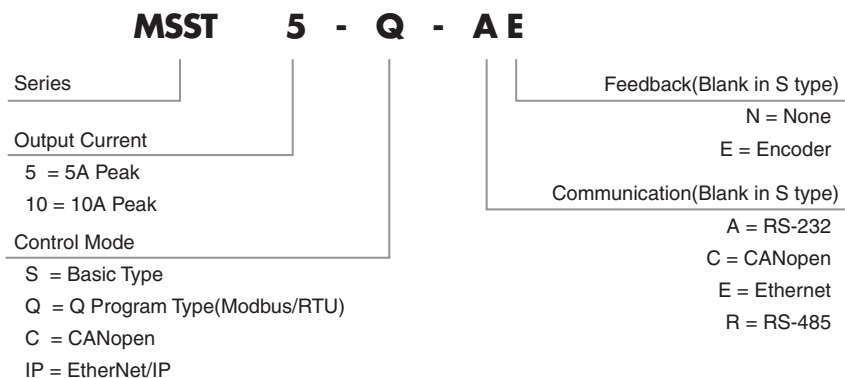


-IP With EtherNet/IP communication

Communicate with PLCs and other industrial devices supporting the Ethernet/IP standard. They can also be commanded to execute stored Q programs.



■ Numbering System



■ Ordering Information

Model	Control	Current	Voltage	Encoder	RS-232	RS-485	Modbus/RTU	CANopen	Ethernet	EtherNet/IP	
MSST5-S	S	0.1-5A	24-48VDC		✓						
MSST10-S		0.1-10A	24-75VDC		✓						
MSST5-Q-AN	Q	0.1-5A	24-48VDC		✓						
MSST5-Q-AE				✓	✓	✓	✓				
MSST5-Q-RN					✓	✓	✓				
MSST5-Q-RE				✓	✓						
MSST5-Q-EN										✓	
MSST5-Q-EE				✓						✓	
MSST10-Q-AN		0.1-10A	24-75VDC		✓						
MSST10-Q-AE				✓	✓						
MSST10-Q-RN					✓	✓	✓				
MSST10-Q-RE				✓	✓	✓	✓				
MSST10-Q-EN										✓	
MSST10-Q-EE				✓						✓	
MSST5-C-CN		C	0.1-5A	24-48VDC		✓			✓		
MSST5-C-CE					✓	✓		✓			
MSST10-C-CN	0.1-10A		24-75VDC		✓			✓			
MSST10-C-CE				✓	✓		✓				
MSST5-IP-EN	IP	0.1-5A	24-48VDC						✓	✓	
MSST5-IP-EE				✓					✓	✓	
MSST10-IP-EN		0.1-10A	24-75VDC						✓	✓	
MSST10-IP-EE				✓					✓	✓	

Stepper Drives

■ Drive Specifications

Amplifier Type	Dual H-Bridge, 4 Quadrant
Current Control	4 state PWM at 16 KHz
Protection	Over-voltage, under-voltage, over-temp, internal motor shorts (phase-to-phase, phase-to-ground)
Idle Current	Automatic idle current reduction to reduce heat after motor stops moving, software selectable current and idle delay
Microstep Resolution	Software selectable from 200 to 51200 steps/rev in increments of 2 steps/rev
Microstep Emulation	Performs high resolution stepping by synthesizing fine microsteps from coarse steps. Reduces jerk and extraneous system resonances.
Anti-Resonance	Raises the system damping ratio to eliminate midrange instability and allow stable operation throughout the speed range and improves settling time
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
Encoder Feedback	Optional encoder feedback for stall detection and stall prevention
Non-Volatile Storage	Configurations are saved in FLASH memory on-board the DSP
Approvals	RoHS, CE
Humidity	90% non-condensing
Ambient Temperature	0 - 40°C when mounted to a suitable heat sink
Mass	-S: Approx. 0.2Kg, -Q/C/IP: Approx. 0.3Kg

■ I/O Specifications

-S	<p>STEP, DIR inputs: Optically isolated, differential, 5 VDC, minimum pulse width = 250 ns, maximum pulse frequency = 2 MHz</p> <p>EN input: Optically isolated, 5-12 VDC</p> <p>OUT output: Optically isolated, 24 VDC max, 10 mA max</p> <p>AIN analog input: Range = 0-5 VDC, resolution = 12 bits</p>
-Q/C/IP	<p>X1, X2 inputs: Optically isolated, differential, 5 VDC, minimum pulse width = 250 ns, maximum pulse frequency = 2 MHz</p> <p>X3-X6 inputs: Optically isolated, single-ended, shared common, sinking or sourcing, 12-24 VDC</p> <p>X7, X8 inputs: Optically isolated, differential, 12-24 VDC</p> <p>Y1-Y3 outputs: Optical darlington, single-ended, shared common, sinking, 30 VDC max, 100 mA max</p> <p>Y4 output: Optical darlington, sinking or sourcing, 30 VDC max, 100 mA max</p> <p>Analog inputs IN1, IN2: Can be used as two single-ended inputs or one differential input. Range =software selectable 0-5, +/-5, 0-10, or +/-10 VDC.</p> <p>Software configurable offset, deadband, and filtering. Resolution = 12 bits (+/-10 volt range), 11 bits (+/-5 or 0-10 volt range), or 10 bits (0-5 volt range).</p>

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. _____ °C Low Temp. _____ °C
 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 competitiveness to achieve the win-win situation.

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MOONS'
moving in better ways

- 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.