

# Stepper Motor Catalog

2026V1.0



# ABOUT US

Chongqing UMot Technology Co., Ltd, which is dedicated to R&D and sales of stepper motor, linear module and related motion control products. It provides customized and designed high-quality motor for customers all over the world, and provides full solutions for motion control systems. Our products are exported to more than 30 countries and regions, such as The United States, Germany, France, Italy, Russia, and Switzerland. Our main product and solution has been widely applied to many industries, such as automation control, precision instruments, medical equipment, smart home, 3D printing and so on.

# COMPANY PROFILE

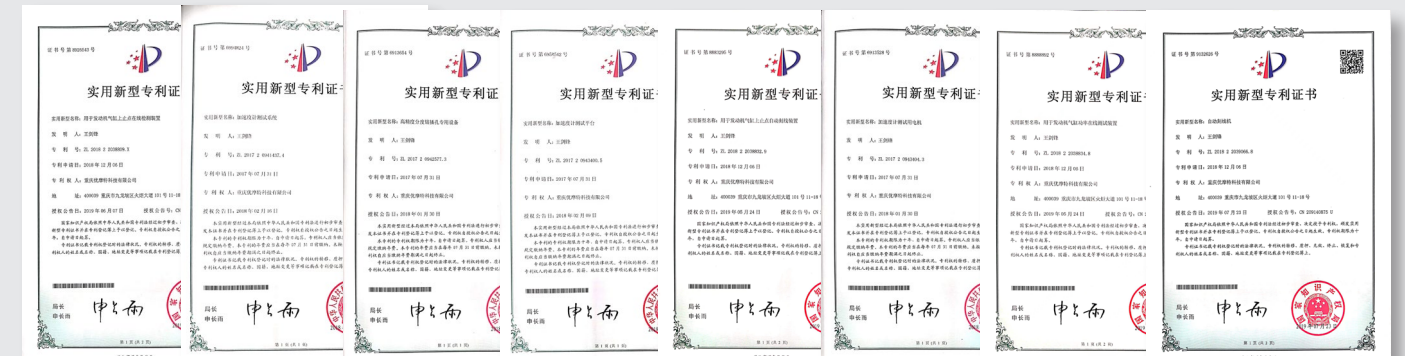
The company has been recognized as a high-tech enterprise by the relevant departments. It has obtained ISO9001, CE, RoHs and other related certifications under the complete quality management system, as well as holds a number of electrical patent certificates. "Concentrate, professional, focus" in the motor and motion control solution for automation industry is the company's business objectives. "Be your most trusted partner" is the company's persistent pursuit. We have been aiming at "making best quality products with professional technology". Developing with the advance of the times and making unceasing innovation, and providing better products and services to more customers.



# CERTIFICATE DISPLAY

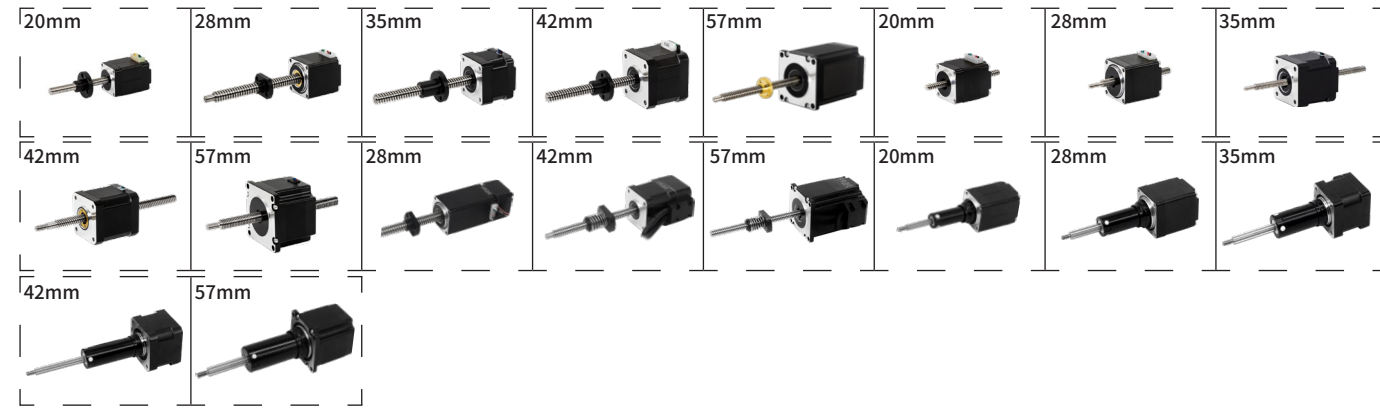


# PATENT DISPLAY

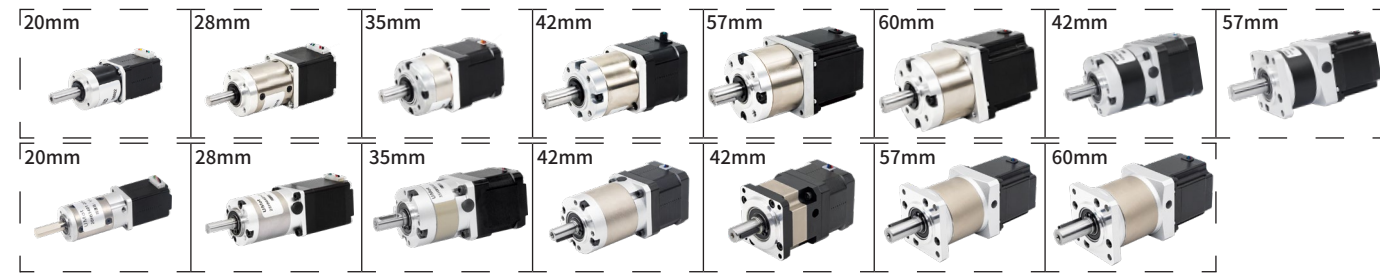


# STEPPER MOTOR TYPE

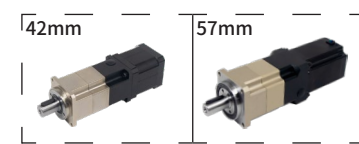
## Linear Stepper Motor



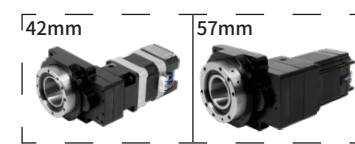
## Geared Stepper Motor



## Stepper Motor with Helical Planetary Gearbox



## Stepper Motor with Hollow Rotary Platform



## Worm Geared Stepper Motor



## Stepper Motor



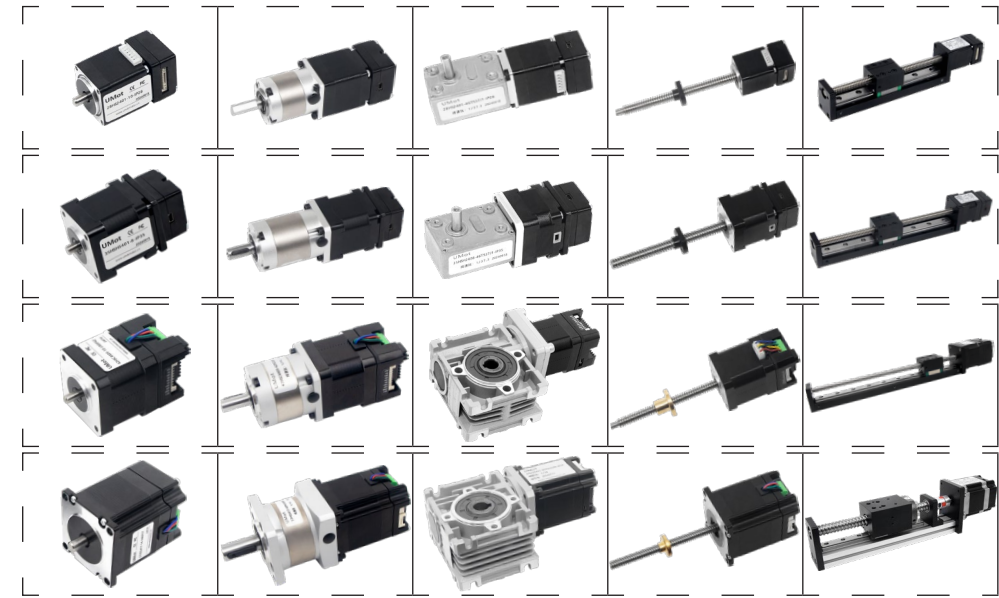
## Integrated Stepper Motor

28mm  
Options:  
Pulse/RS485/  
CANopen

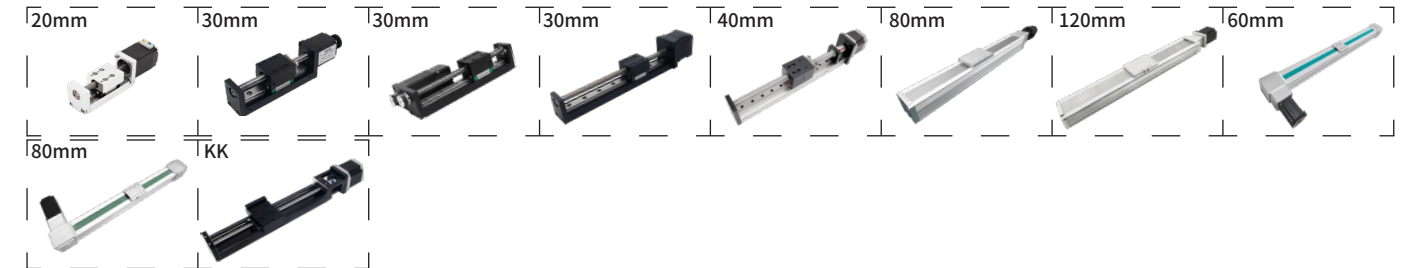
35mm  
Options:  
Pulse/RS485/  
CANopen

42mm  
Options:  
Pulse/RS485/  
CANopen

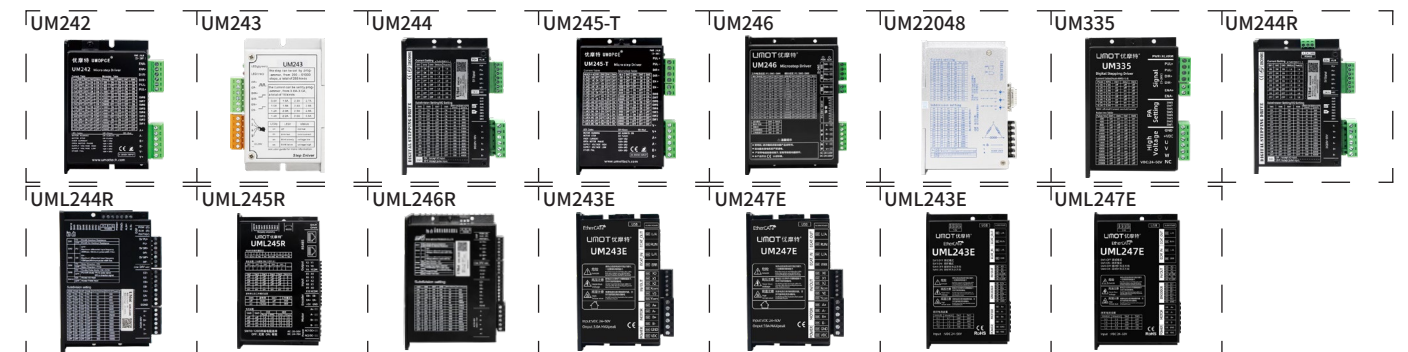
57mm  
Options:  
Pulse/RS485/  
CANopen



## Linear Stage



## Stepper Motor Driver



# CONTENTS

## Linear Stepper Motor

Naming Convention .....	002
Screw Lead Options .....	003
Size 20/Nema 8.....	005
Size 28/Nema 11.....	007
Size 35/Nema 14.....	009
Size 42/Nema 17.....	011
Size 57/Nema 23.....	013
Size 28/Nema 11 Closed Loop.....	015
Size 42/Nema 17 Closed Loop.....	016
Size 57/Nema 23 Closed Loop.....	017
Size 20/Nema 8 Captive.....	018
Size 28/Nema 11 Captive.....	019
Size 35/Nema 14 Captive.....	020
Size 42/Nema 17 Captive.....	021
Size 57/Nema 23 Captive.....	022

## Geared Stepper Motor

Naming Convention .....	024
Size 20/Nema 8(Backlash $\leq$ 15 arcmin).....	025
Size 28/Nema 11(Backlash $\leq$ 15 arcmin) .....	027
Size 35/Nema 14(Backlash $\leq$ 15 arcmin) .....	029
Size 42/Nema 17 Round Flange(Backlash $\leq$ 15 arcmin) ...	031
Size 42/Nema 17 Square Flange(Backlash $\leq$ 15 arcmin) ....	033
Size 57/Nema 23(Backlash $\leq$ 15 arcmin).....	035
Size 60/Nema 24(Backlash $\leq$ 15 arcmin).....	036
Size 42/Nema 17(Backlash $\leq$ 30 arcmin).....	037
Size 57/Nema 23(Backlash $\leq$ 30 arcmin) .....	039
Size 20/Nema 8(Backlash $\leq$ 1.8 degree).....	041
Size 28/Nema 11(Backlash $\leq$ 1.8 degree).....	042
Size 35/Nema 14(Backlash $\leq$ 1.8 degree).....	044
Size 42/Nema 17(Backlash $\leq$ 1.8 degree).....	045
Size 57/Nema 23(Backlash $\leq$ 1.8 degree).....	046
Size 60/Nema 24(Backlash $\leq$ 1.8 degree).....	047

## Worm Geared Stepper Motor

Naming Convention .....	050
Size 28/Nema 11(Backlash $\leq$ 1.5 degree).....	051
Size 35/Nema 14(Backlash $\leq$ 1.5 degree).....	052
Size 42/Nema 17(Backlash $\leq$ 1.5 degree).....	053
Size 42/Nema 17(Backlash $\leq$ 15 arcmin).....	054
Size 57/Nema 23(Backlash $\leq$ 15 arcmin).....	056
Size 86/Nema 34(Backlash $\leq$ 15 arcmin).....	058
Size 86/Nema 34(Backlash $\leq$ 15 arcmin)(Heavy-duty) ....	060

## Stepper Motor with Helical Planetary Gearbox

Naming Convention .....	064
Size 42/Nema 17.....	065
Size 57/Nema 23.....	066

## Stepper Motor with Hollow Rotary Platform

Naming Convention .....	068
Size 42/Nema 17.....	069
Size 57/Nema 23.....	070

## Stepper Motor

Naming Convention .....	072
Size 20/Nema 8.....	073
Size 28/Nema 11.....	074
Size 35/Nema 14.....	075
Size 36/Nema 15.....	077
Size 39/Nema 16.....	078
Size 42/Nema 17.....	079
Size 57/Nema 23.....	081
Size 60/Nema 24.....	082
Size 86/Nema 34.....	083
Size 20/Nema 8 Closed Loop.....	084
Size 28/Nema 11 Closed Loop.....	085
Size 35/Nema 14 Closed Loop.....	086
Size 42/Nema 17 Closed Loop.....	087
Size 57/Nema 23 Closed Loop.....	088
Size 60/Nema 24 Closed Loop.....	089

Size 86/Nema 34 Closed Loop.....	090
Size 20/Nema 8 Hollow Shaft .....	091
Size 28/Nema 11 Hollow Shaft .....	092
Size 35/Nema 14 Hollow Shaft .....	093
Size 42/Nema 17 Hollow Shaft .....	094
Size 57/Nema 23 Hollow Shaft .....	095

## Integrated Stepper Motor

Naming Convention .....	097
Size 28/Nema 11(Pulse/RS485/CANopen).....	099
Size 35/Nema 14(Pulse/RS485/CANopen) .....	101
Size 42/Nema 17(Pulse/RS485/CANopen).....	103
Size 57/Nema 23(Pulse/RS485/CANopen).....	105

## Linear Stage

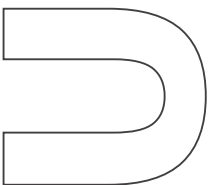
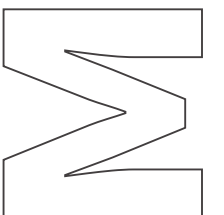
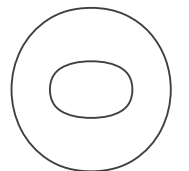
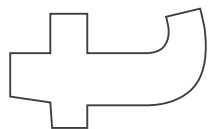
Naming Convention.....	108
Size 20 T-screw .....	109
Size 30 T-screw .....	110
Size 30 Ball Screw .....	112
Size 30 Side Installed Motor .....	113
Size 40 Ball Screw .....	115
Size 80 Ball Screw .....	116
Size 120 Ball Screw .....	117
Size 60 Width Belt Driven .....	118
Size 80 Width Belt Driven .....	119
KK.....	120

## Stepper Motor Driver

UM242 .....	122
UM243 .....	123
UM244 .....	124
UM245-T .....	125
UM246 .....	126
UM22048 .....	127
UM335 .....	128
UM244R .....	129
UML244R .....	130

UML245R .....	131
UML246R .....	132
UM243E .....	133
UM247E .....	134
UML243E .....	135
UML247E .....	136

## Thrust Details for Linear Stepper Motor .....137



# LINEAR STEPPER MOTOR



UMot

## Naming Convention for Linear Stepper Motor

**42H-S-C-6-6-XX/XXX-65-NE-2-400**

### Motor Size

20 28 35 42 57

### Motor Type

H: Hybrid

### Step Angle

KStep Angle 0.9°  
EStep Angle 1.2°  
SStep Angle 1.8°

### Motor Shape

C or No Mark; Square Flange  
Y: Round Flange  
SH: 35 39 Standard

### Motor Height

Size 20: 0:24.5/1:30/ 2:28/5:38/6:41  
Size 28: 1:28/2:32/4:40/5:45/7:52  
Size 35: 2:25.5/3:32.5/5:37.5/6:48/7:51  
Size 42: 1:34/4:40/6:48/8:60.5  
Size 57: 1:45/5:55/6:65/7:76

### No. of Wires

3: 3 Wires、 4: 4 Wires、 5: 5 Wires、 6: 6 Wires

### Wire Length

Numbers: Wire Length  
No Mark: Connector

### Screw Lead

1.2.3.4.6.8.10.12.20(mm)

### Screw Type

NE: Non-captive  
N: External Driven

### Screw Length(mm)

### Factory No.

### General Specifications

- Screw Precision:0.18mm/300mm
- Screw Efficiency:50%-80%,depends on material of nut
- Working Temperature:-40° C~80° C
- Backlash:about 0.02mm
- Nut Material:POM,PEEK IGUS Brass Nut
- Life Time:Depends on load,speed and envirmnt,normally 10000 hours
- Screw Material:Precision cold rolled steel
- Repeated Positioning Accuracy:±0.03mm

Linear Stepper Motor

Gearred Stepper Motor

Worm Gear Stepper Motor

Helical Planetary Gearbox

Hollow Rotary Platform

Stepper Motor

Integrated Stepper Motor

Linear Stage

Stepper Motor Driver

# Screw Lead Options

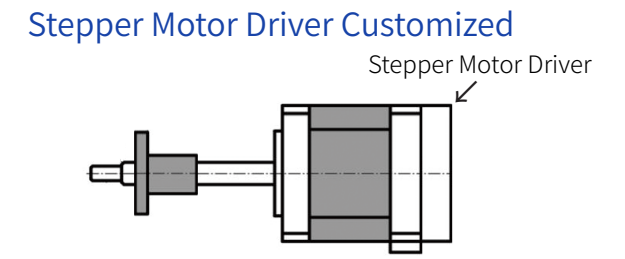
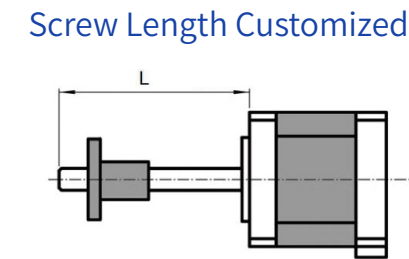
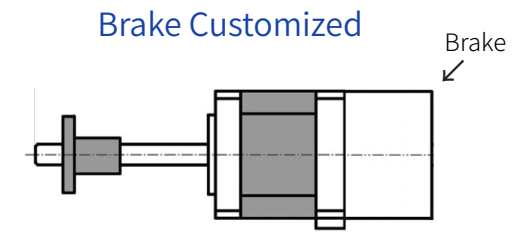
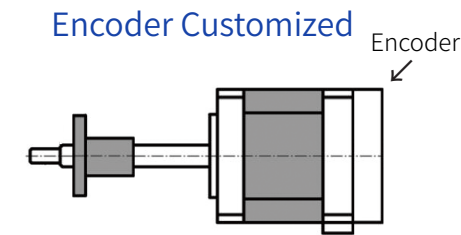
Screw Specifications					Size 20/ Nema 8		Size 28/ Nema 11		Size 35/ Nema 14		Size 42/ Nema 17		Size 57(Nema 23)/ 60(Nema 24)	
Diameter (mm)	Screw Diameter (inch)	Lead (mm)	Lead (inch)	Step Length	Non-capitive	External	Non-capitive	External	Non-capitive	External	Non-capitive	External	Non-capitive	External
3.5	0.1378	0.61	0.024	0.00305	*	*								
3.5	0.1378	1.22	0.048	0.0061	*	*	*	*						
3.5	0.1378	2.44	0.0961	0.0122	*	*	*	*						
3.5	0.1378	4	0.1575	0.02	*	*	*	*						
5	0.1969	1	0.0394	0.005		*	*	*						
5	0.1969	2	0.0787	0.01		*	*	*	*	*	*	*		
5	0.1969	4	0.1575	0.02		*	*	*	*	*	*	*		
5	0.1969	8	0.315	0.04			*	*	*	*	*	*		
5.56	0.2189	4.8768	0.192	0.024384			*	*	*	*	*	*		
5.56	0.2189	9.7536	0.384	0.048768			*	*	*	*	*	*		
6.35	0.25	0.61	0.024	0.00305			*	*	*	*	*	*		
6.35	0.25	1.27	0.05	0.00635			*	*	*	*	*	*		
6.35	0.25	1.5875	0.0625	0.0079375			*	*	*	*	*	*		
6.35	0.25	3.175	0.125	0.015875			*	*	*	*	*	*		
6.35	0.25	4.8768	0.192	0.024384			*	*	*	*	*	*		
6.35	0.25	6.35	0.25	0.03175			*	*	*	*	*	*		
6.35	0.25	9.7536	0.384	0.048768			*	*	*	*	*	*		
8	0.315	1	0.0394	0.005				*		*	*	*		
8	0.315	2	0.3937	0.01				*		*	*	*	*	*
8	0.315	4	0.3937	0.02				*		*	*	*	*	*
8	0.315	8	0.315	0.04				*		*	*	*	*	*
8	0.315	12	0.4724	0.06				*		*	*	*	*	*
8	0.315	20	0.7874	0.1						*	*	*	*	*
9.525	0.375	1.5875	0.0625	0.0079375								*	*	*
9.525	0.375	3.175	0.125	0.015875								*	*	*
10	0.3937	4	0.1575	0.02								*	*	*
10	0.3937	10	0.3937	0.05								*	*	*
12	0.4724	2	0.3937	0.01									*	*
12	0.4724	4	0.3937	0.02									*	*

## Customized Product

In order to meet customer application needs, UMOT provides product customization services. Typical product customizations include:

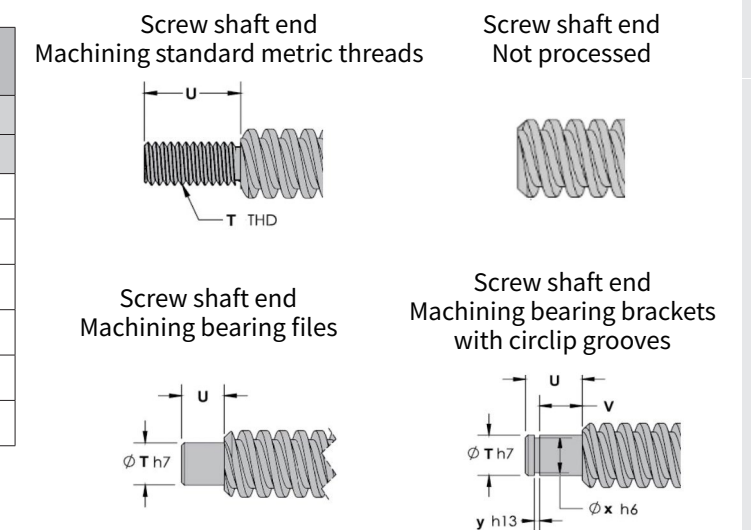
- Screw: screw shaft length, shaft end processing, customized lead, etc.
- Nut: structure type, material, length, mounting holes, etc.
- Motor: windings, lead wires, connectors, bearings, etc.
- Special customization: high and low temperature, corrosion resistance
- Others: Feedback element, IP seal, integrated driver

## Customized Solutions



## Screw Shaft End Processing

Motor Size	Screw Diameter	Details Size	
		T THD	U mm
20/28	3.5	M2x0.4	6
20/28	5	M2x0.4	6
28/35	5	M3x0.5	6
35/42	6.35	M4x0.7	7
28/35/42	8	M4x0.7	7
57/60	8/9.5/10	M6x1.0	13

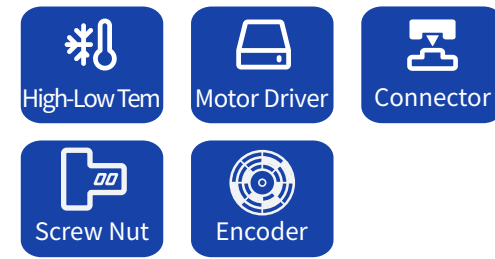


Linear Stepper Motor

Size 20 / Nema 8



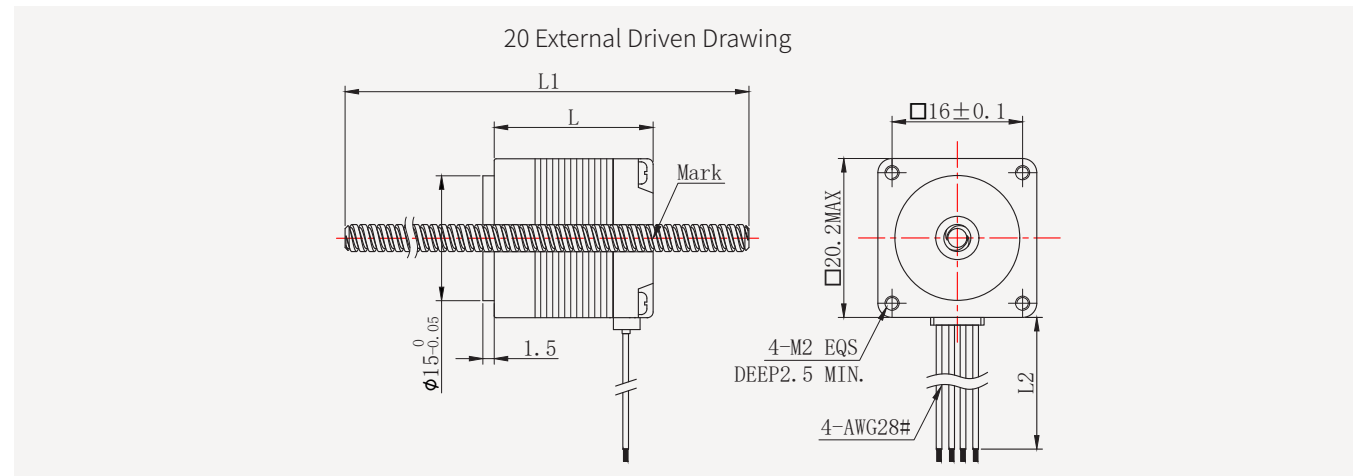
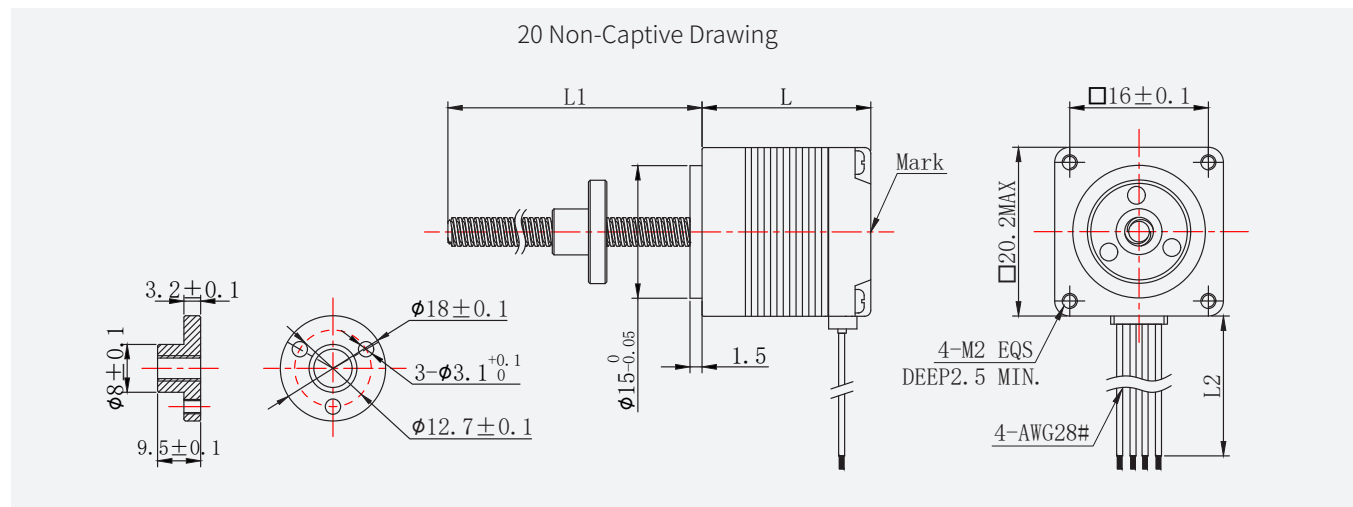
Options



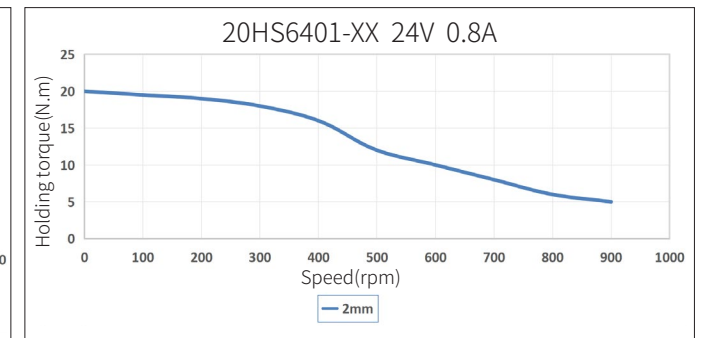
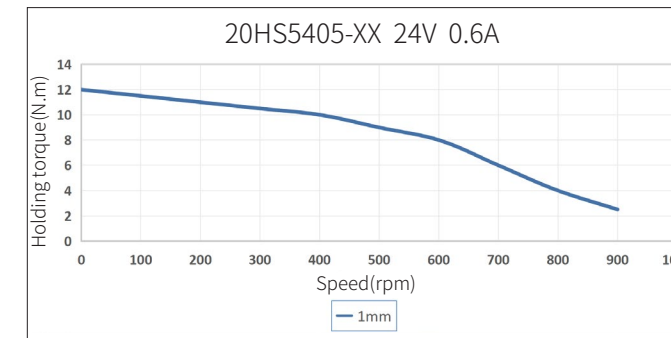
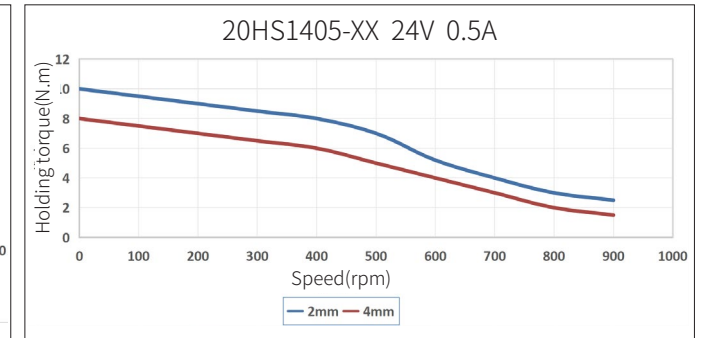
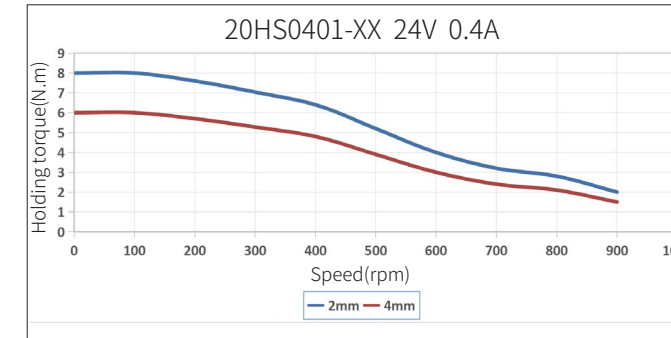
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Rotor Inertia (g-cm <sup>2</sup> )	Wiring (No.)	Weight (kg)	Motor Height (L) (mm)
20HS0401	8	0.4	6	2.4	2	4	0.05	25
20HS1405	18	0.5	6.5	3.25	2	4	0.06	30
20HS5405	15	0.6	4.5	2.7	3	4	0.1	38
20HS6401	30	0.8	5.5	4.4	3	4	0.12	41

Dimensions

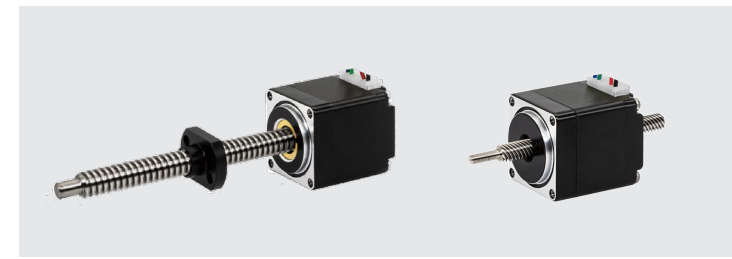


Torque Curve

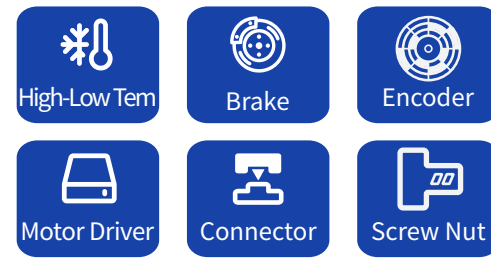


Linear Stepper Motor

Size 28 / Nema 11



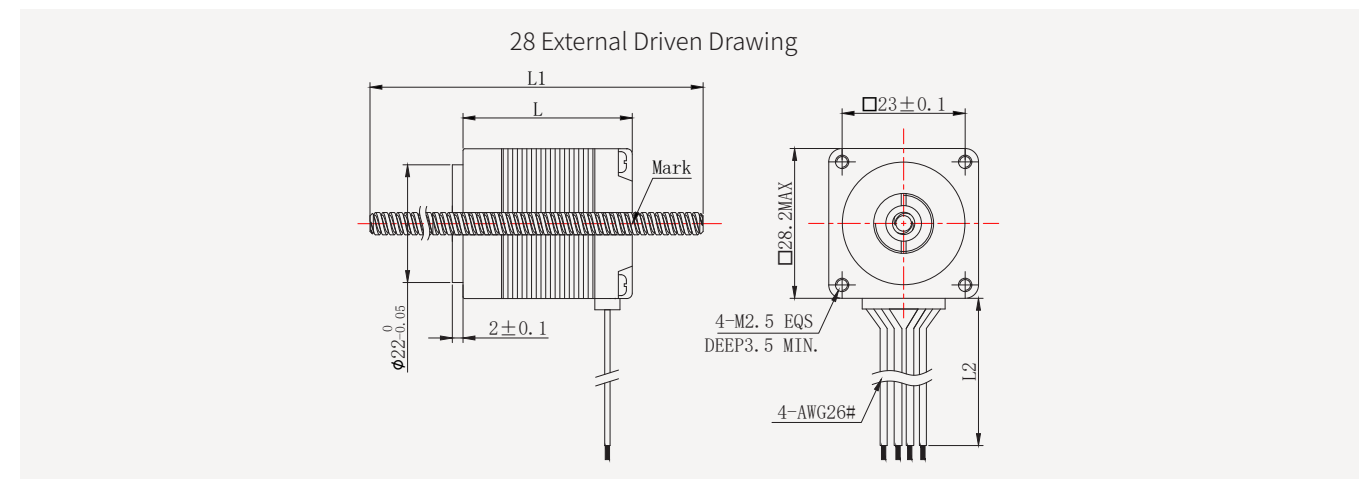
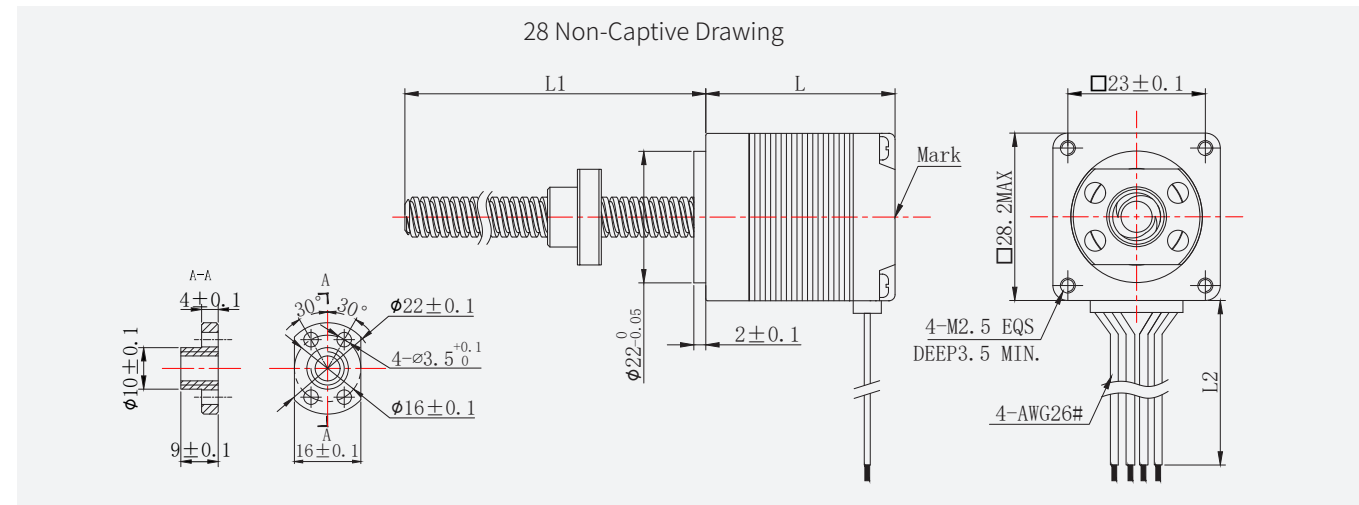
Options



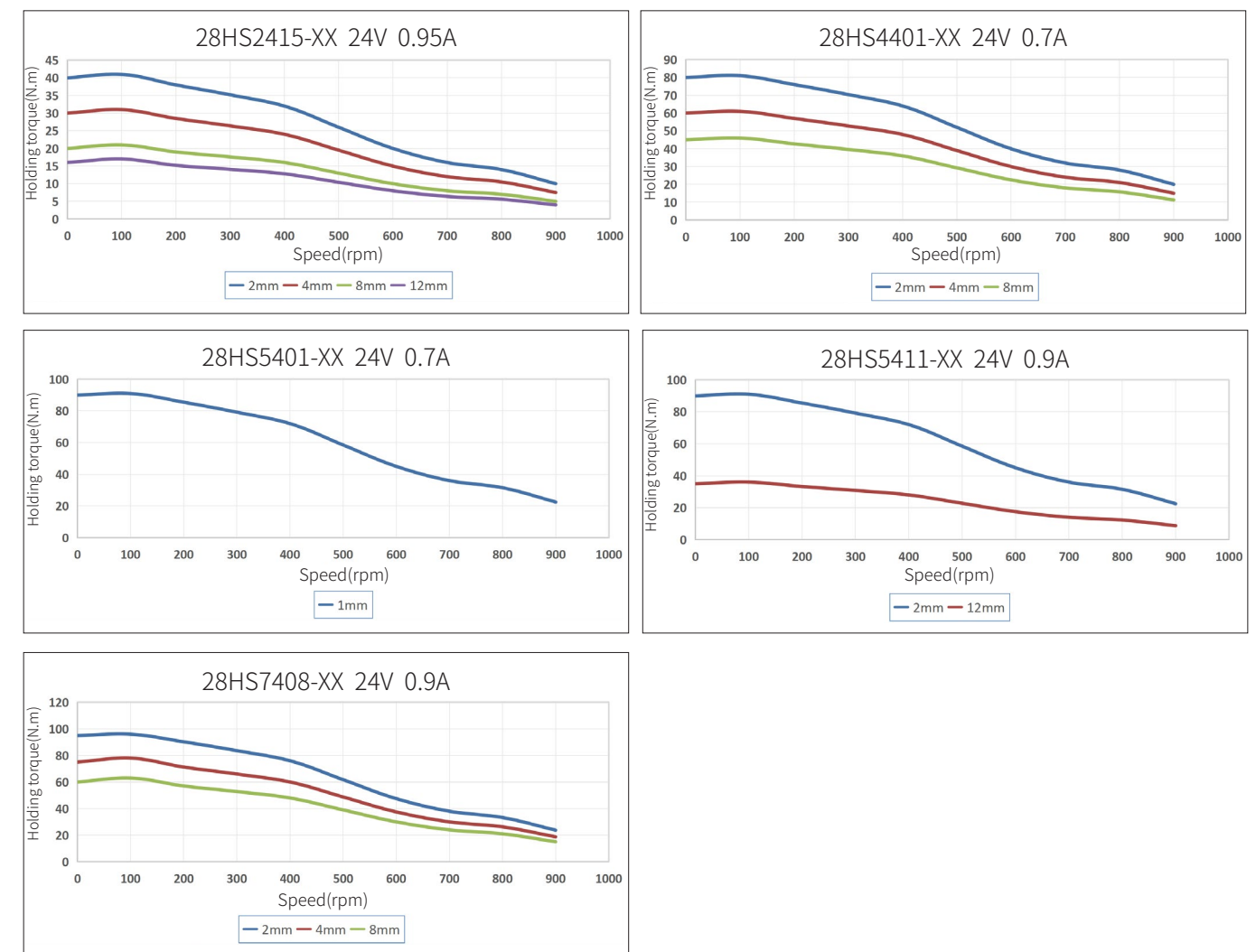
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Rotor Inertia (g-cm <sup>2</sup> )	Wiring (No.)	Weight (kg)	Motor Height (L) (mm)
28HS2415	65	0.95	3.2	3.04	15	4	0.15	32.5
28HS4401	90	0.7	6.5	4.9	25	4	0.16	40
28HS5401	95	0.7	7	4.9	28	4	0.2	45
28HS5411	110	0.9	1.4	2.66	36	4	0.2	45
28HS7408	105	0.9	6	4.5	45	4	0.25	52

Dimensions

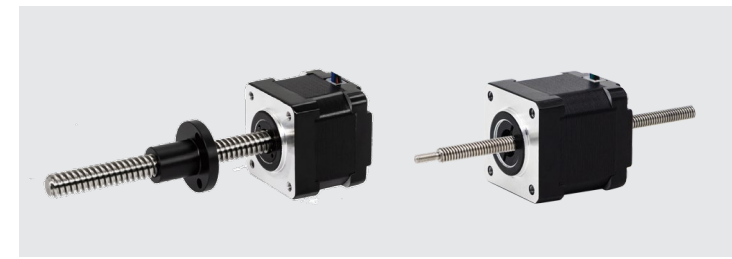


Torque Curve

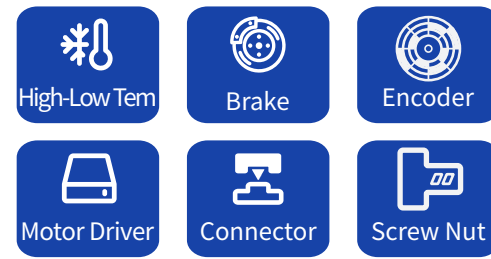


Linear Stepper Motor

Size 35 / Nema 14



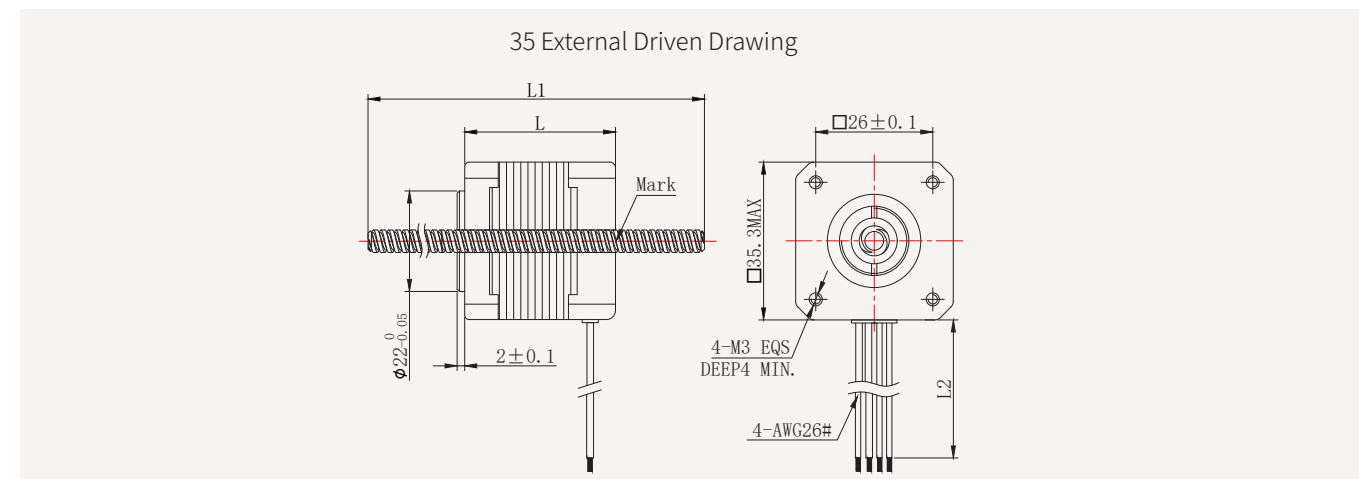
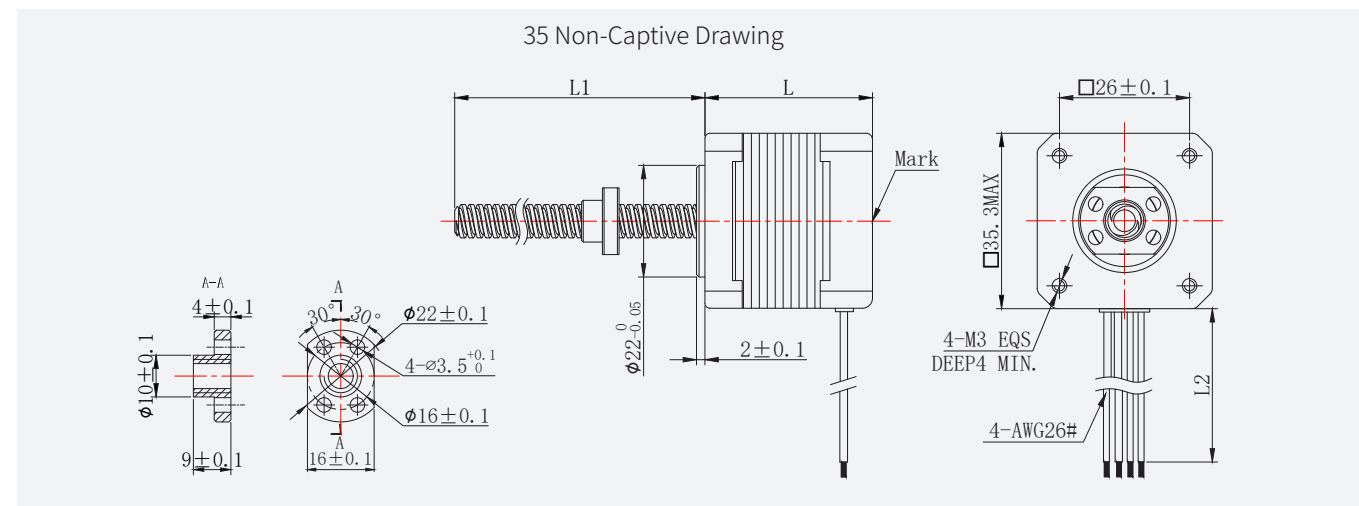
Options



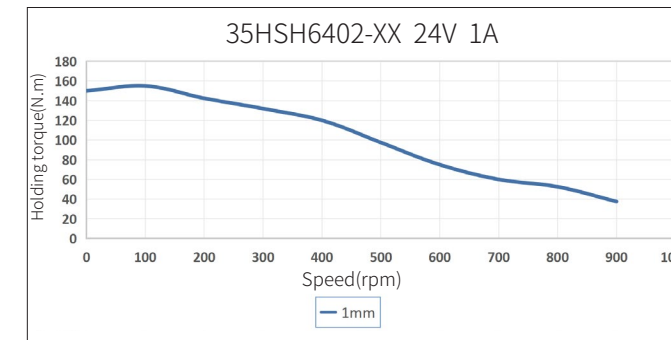
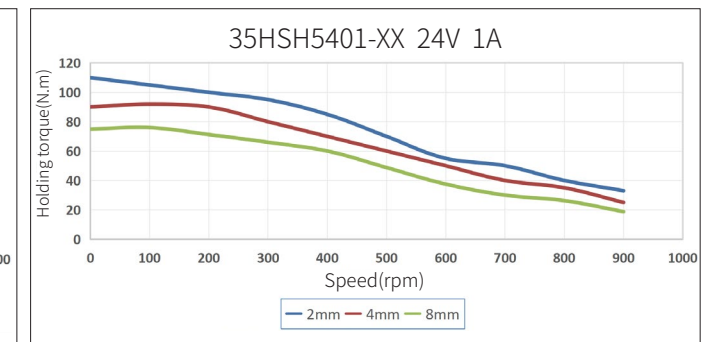
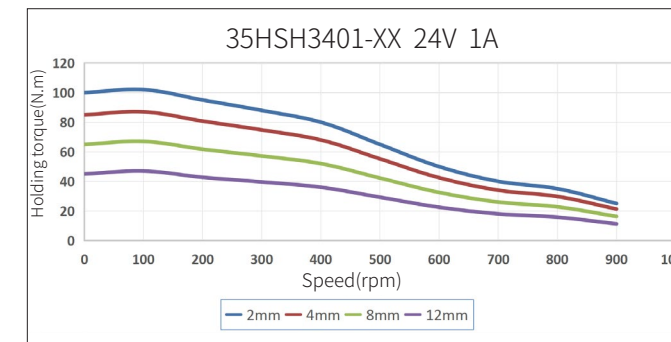
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Rotor Inertia (g-cm <sup>2</sup> )	Wiring (No.)	Weight (kg)	Motor Height (L) (mm)
35HSH3401	170	1	2.7	2.7	45	4	0.3	32.5
35HSH5401	250	1	4.5	4.5	30	4	0.35	38.5
35HSH6402	280	1	6	2.5	45	4	0.4	45.5

Dimensions

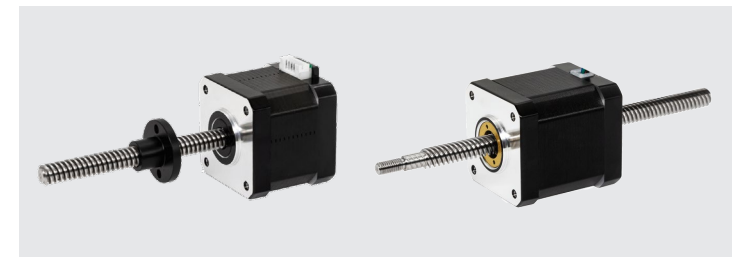


Torque Curve

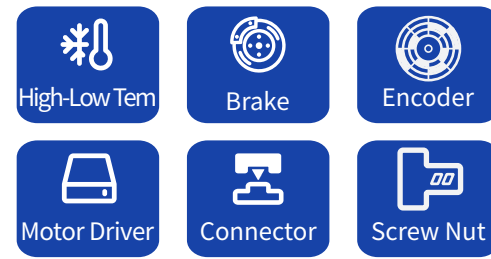


Linear Stepper Motor

Size 42 / Nema 17



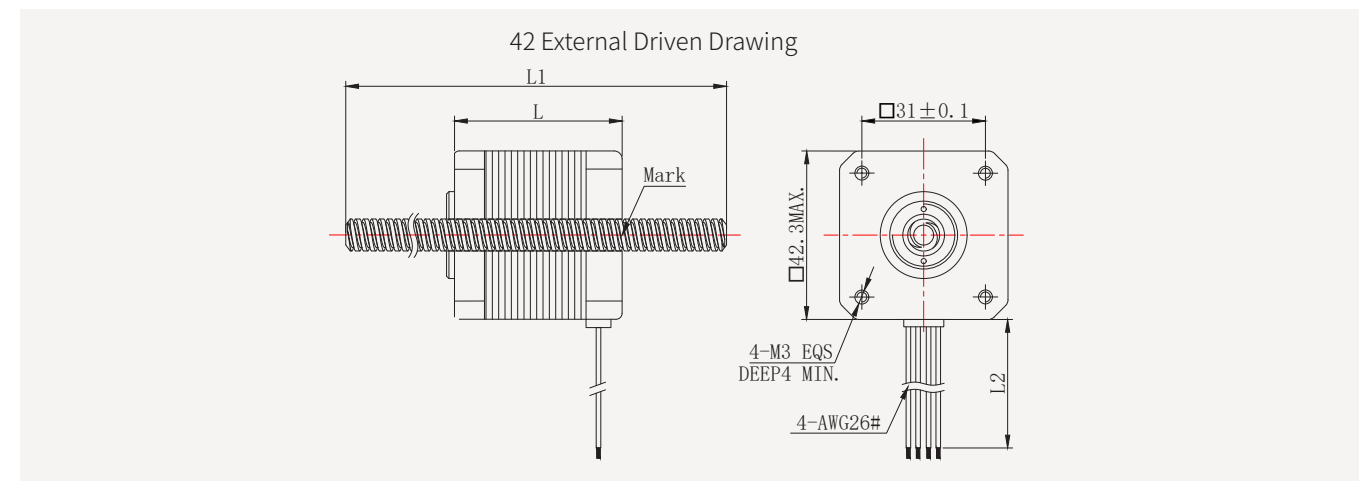
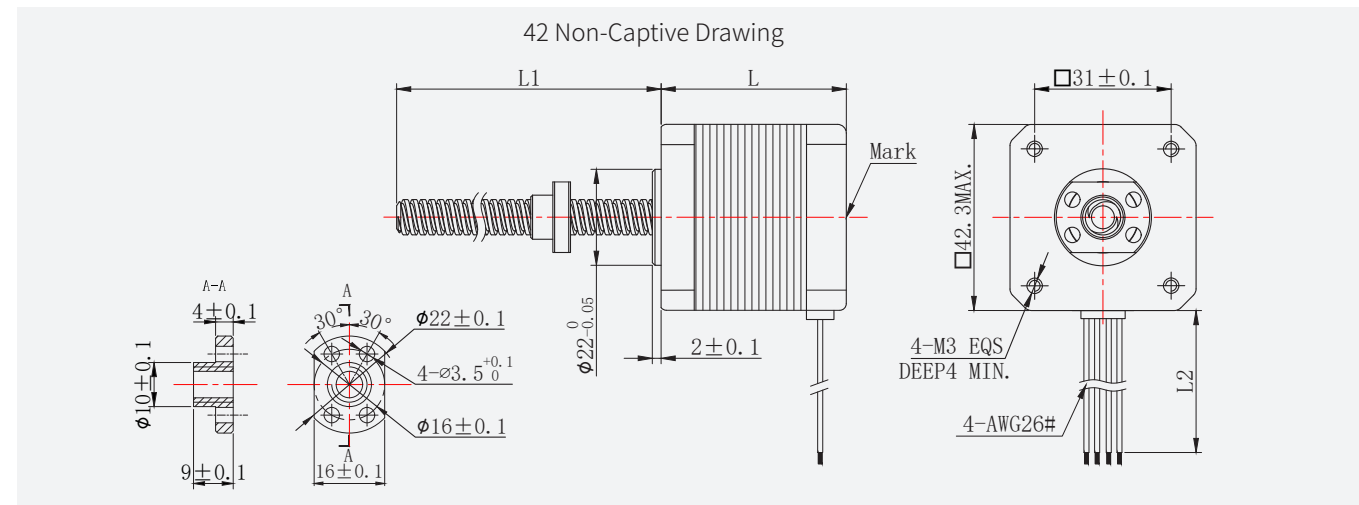
Options



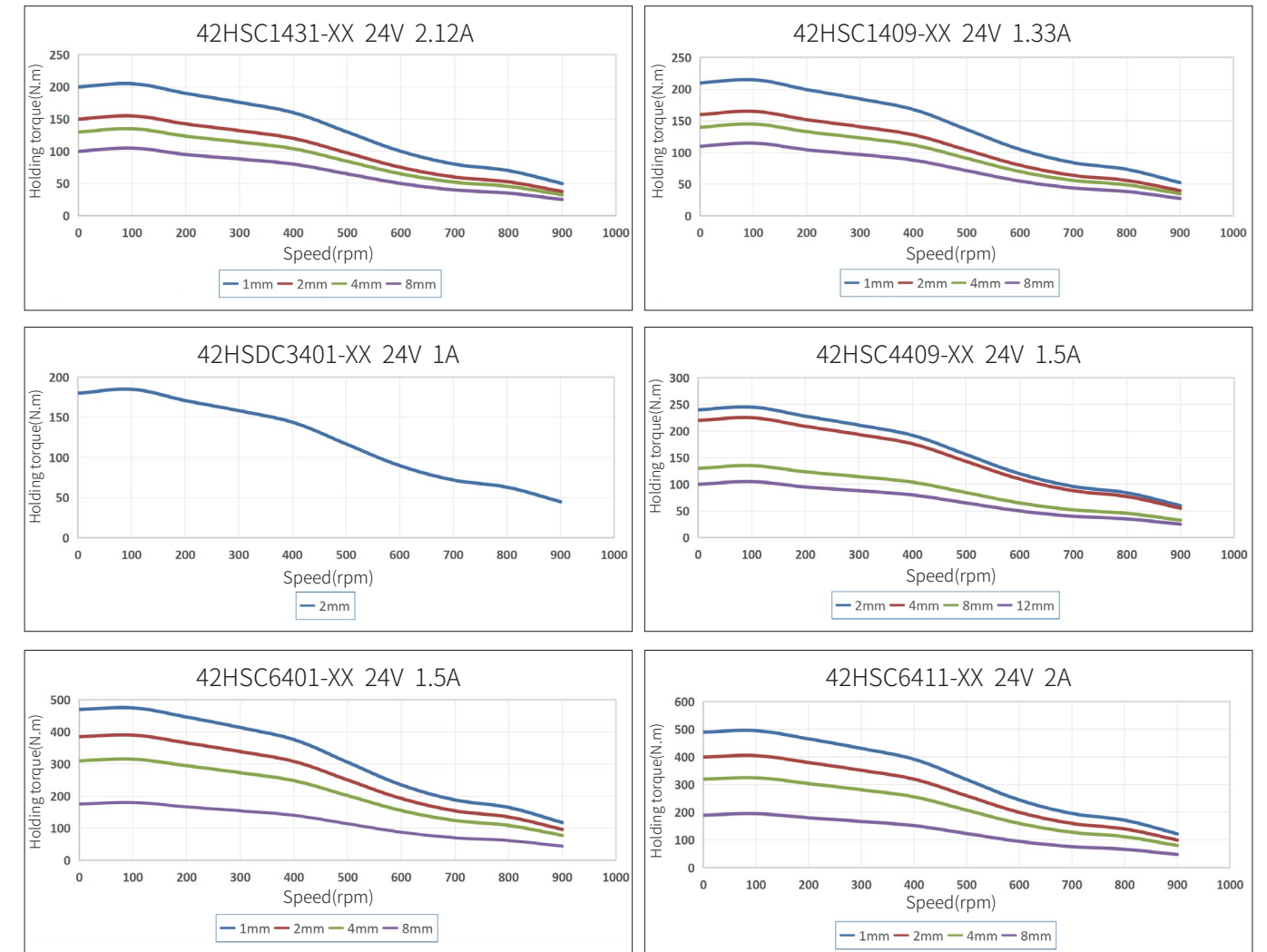
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Rotor Inertia (g-cm <sup>2</sup> )	Wiring (No.)	Weight (kg)	Motor Height (L) (mm)
42HSC1431	380	2.12	1.1	2.33	35	4	0.3	34
42HSC1409	270	1.33	3.2	2.93	35	4	0.3	34.5
42HSDC3401	320	1	2.2	2.2	35	4	0.4	38
42HSC4409	380	1.5	1.65	2.5	40	4	0.3	40
42HSC6401	520	1.5	3.2	4.8	75	4	0.35	48
42HSC6411	550	2	1.65	3.3	68	4	0.35	48

Dimensions



Torque Curve

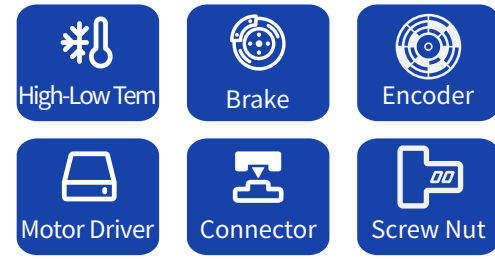


Linear Stepper Motor

Size 57 / Nema 23



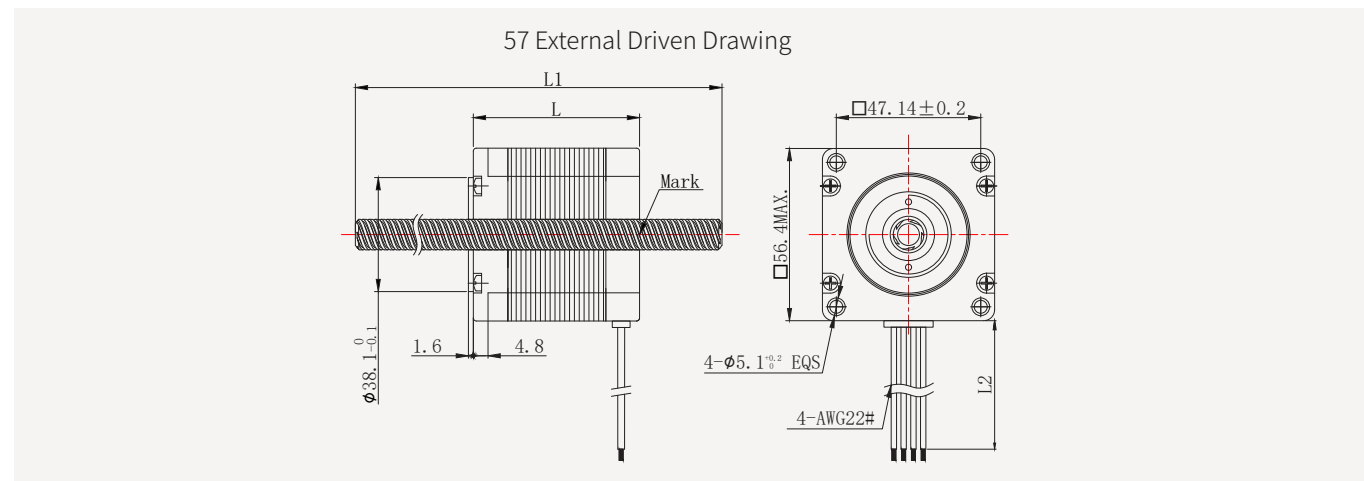
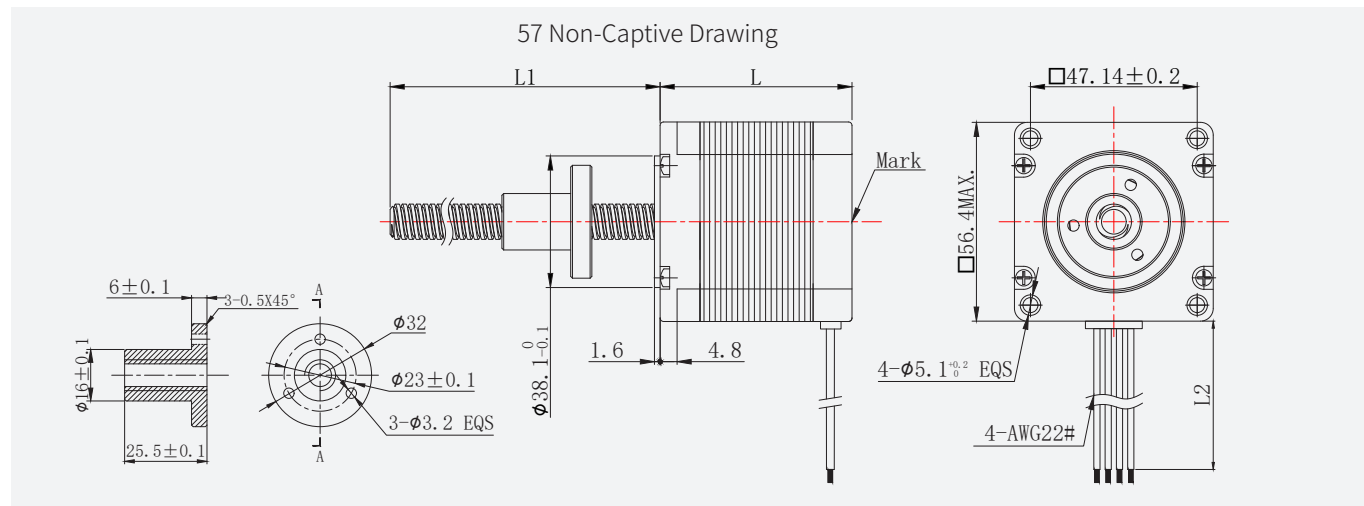
Options



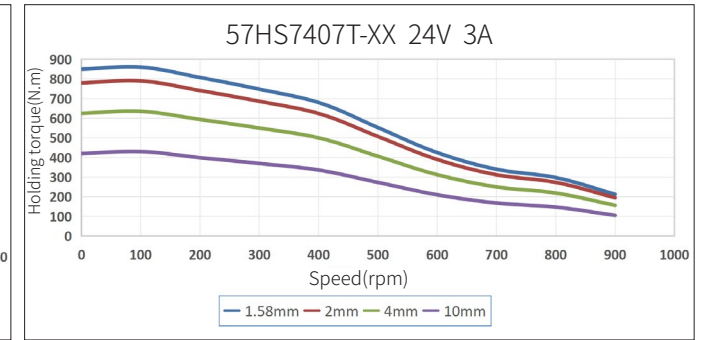
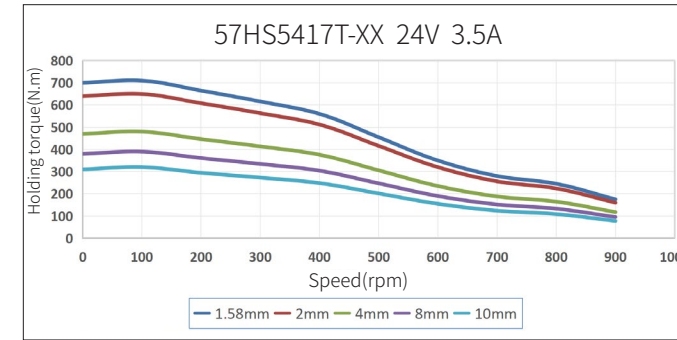
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Rotor Inertia (g-cm <sup>2</sup> )	Wiring (No.)	Weight (kg)	Motor Height (L) (mm)
57HS5417T	1300	3.5	0.85	2.98	200	4	0.7	55
57HS7407T	1900	3	0.7	2.1	230	4	1.1	76

Dimensions



Torque Curve



Linear Stepper Motor  
Geared Stepper Motor  
Worm Geared Stepper Motor  
Helical Planetary Gearbox  
Hollow Rotary Platform  
Stepper Motor  
Integrated Stepper Motor  
Linear Stage  
Stepper Motor Driver

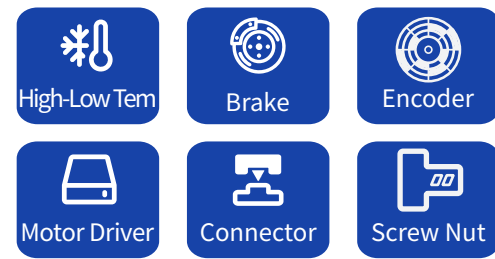
Linear Stepper Motor  
Geared Stepper Motor  
Worm Geared Stepper Motor  
Helical Planetary Gearbox  
Hollow Rotary Platform  
Stepper Motor  
Integrated Stepper Motor  
Linear Stage  
Stepper Motor Driver

Closed Loop Linear Stepper Motor

Size 28 / Nema 11



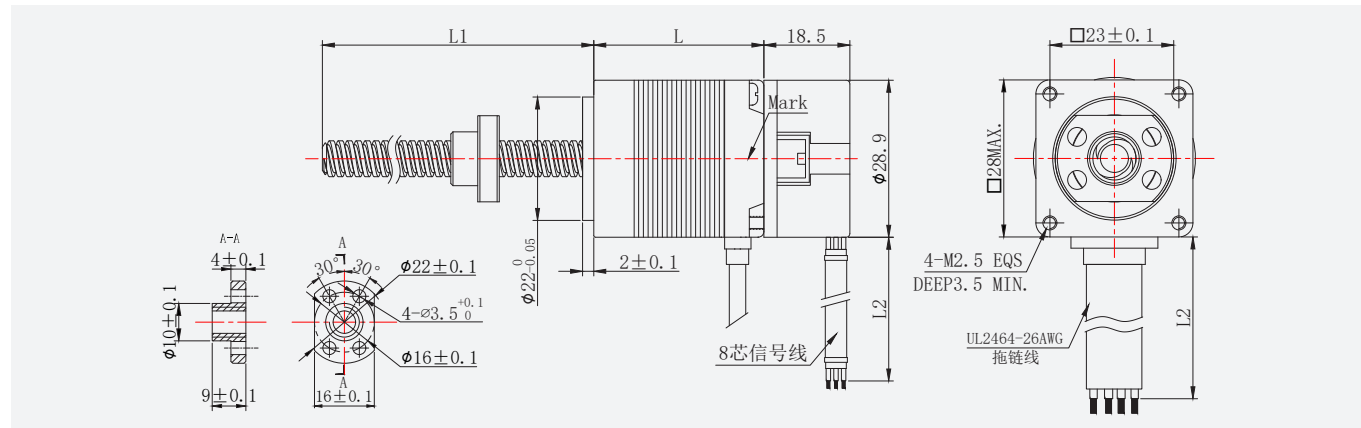
Options



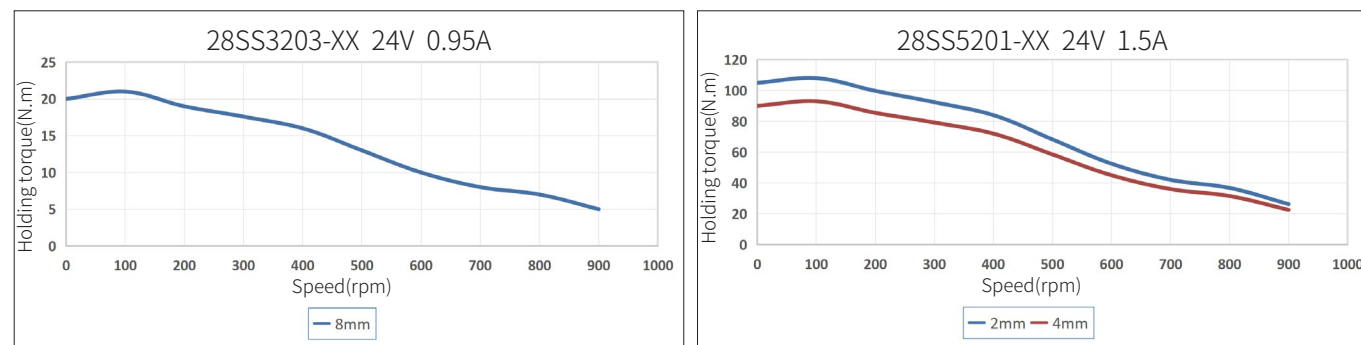
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Rotor Inertia (g·cm <sup>2</sup> )	Wiring (No.)	Weight (kg)	Encoder Height (mm)	Motor Height(L) (mm)
28SS3203	65	0.95	3.2	3.04	15	4	0.2	18	32.5
28SS5201	130	1.5	2.8	4.2	35	4	0.28	18	52

Dimensions

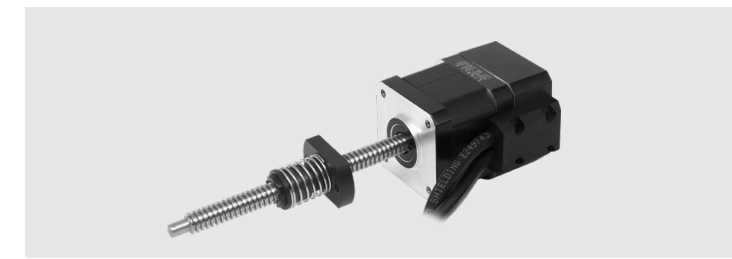


Torque Curve

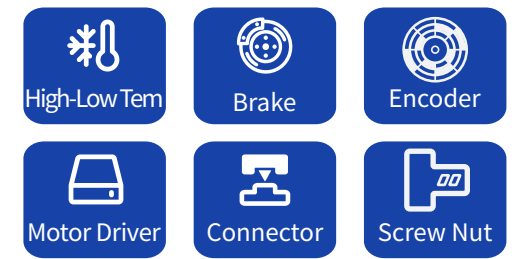


Closed Loop Linear Stepper Motor

Size 42 / Nema 17



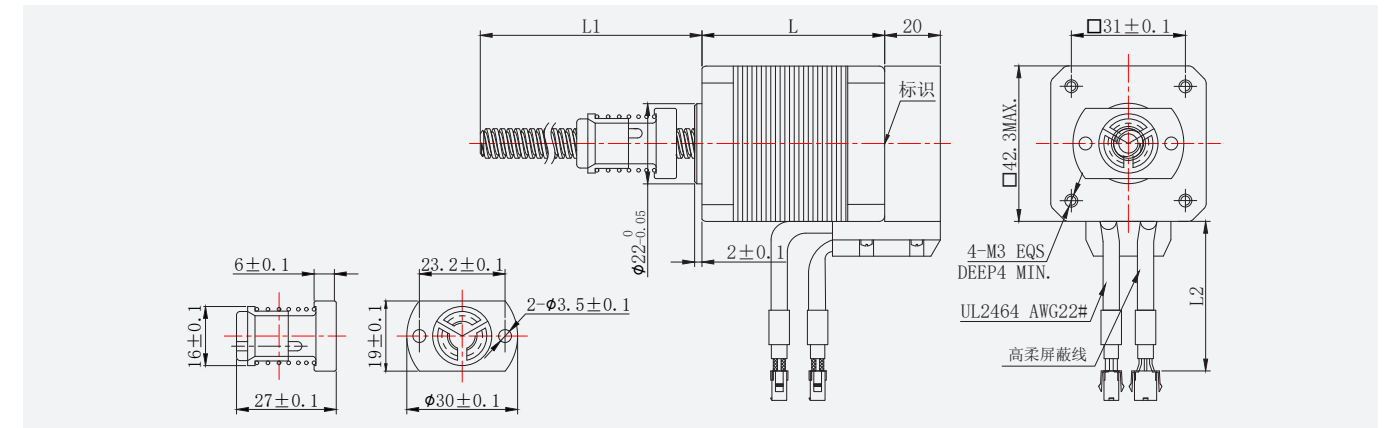
Options



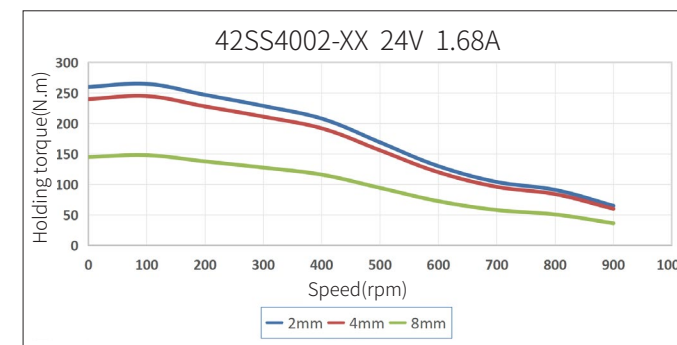
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Rotor Inertia (g·cm <sup>2</sup> )	Wiring (No.)	Weight (kg)	Encoder Height (mm)	Motor Height(L) (mm)
42SS4002	450	1.68	1.65	2.8	40	4	0.35	20	40

Dimensions

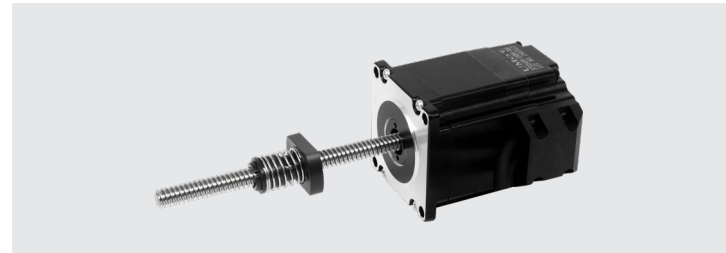


Torque Curve

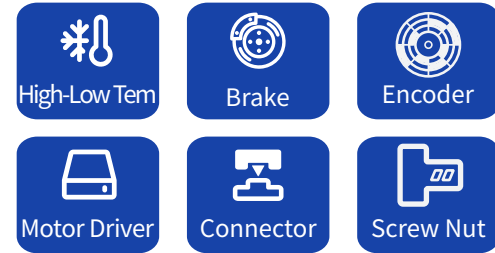


Closed Loop Linear Stepper Motor

Size 57 / Nema 23



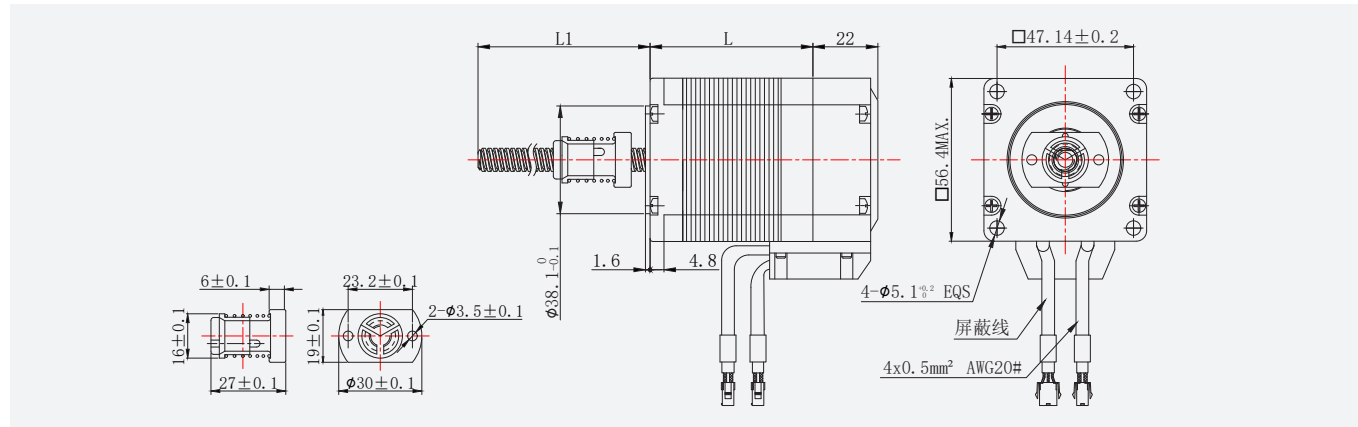
Options



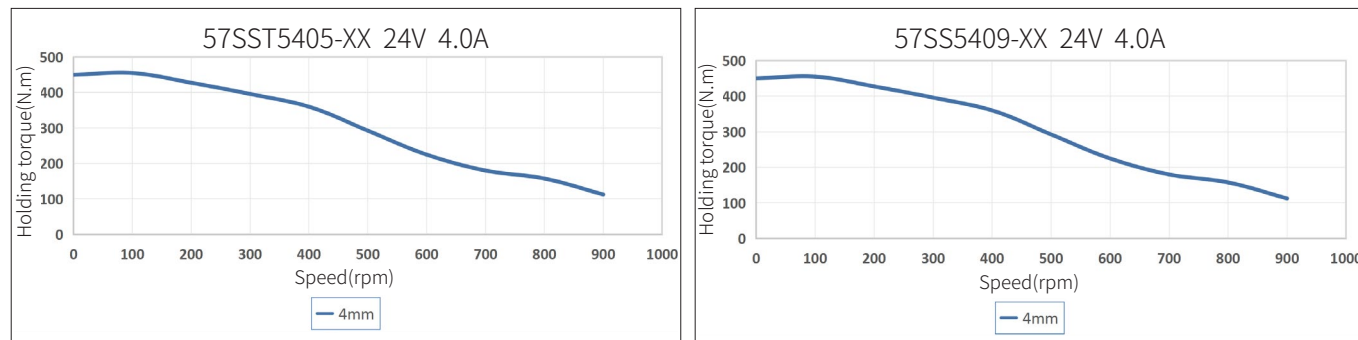
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Rotor Inertia (g·cm <sup>2</sup> )	Wiring (No.)	Weight (kg)	Encoder Height (mm)	Motor Height(L) (mm)
57SST5405	1200	4	0.5	2	200	4	1	22	55
57SS5409	1200	4	0.5	2	200	4	1	22	55

Dimensions



Torque Curve

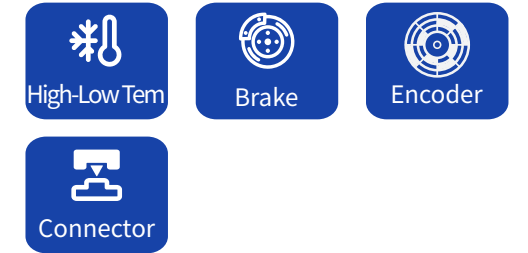


Captive Linear Stepper Motor

Size 20 / Nema 8



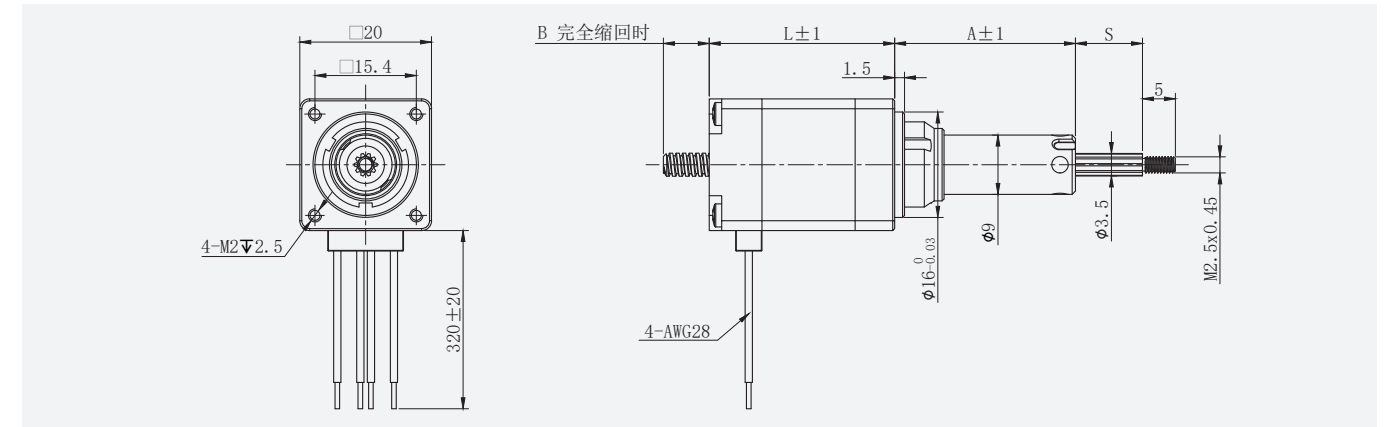
Options



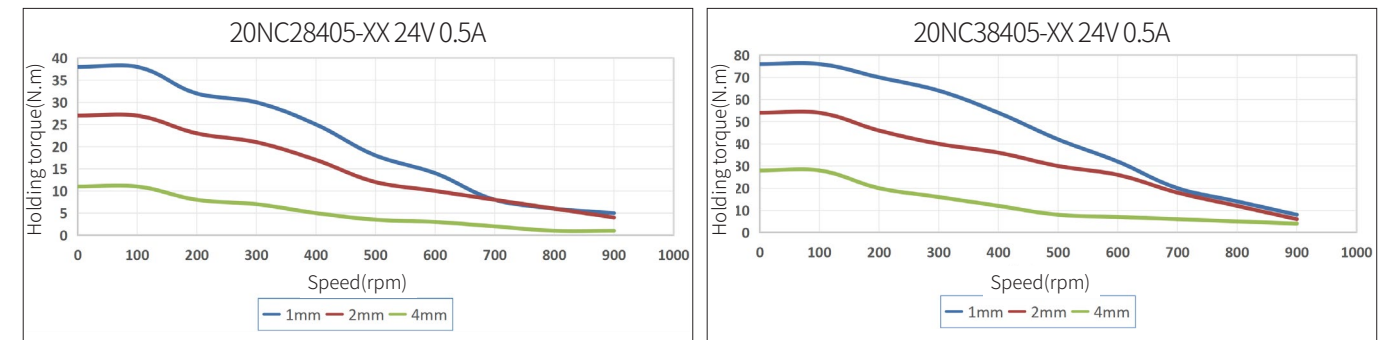
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Wiring (No.)	Weight (kg)	Motor Height (L) (mm)
20NC28405	15	0.5	4.9	2.45	4	0.055	28
20NC38405	20	0.5	11.2	5.56	4	0.075	38

Dimensions

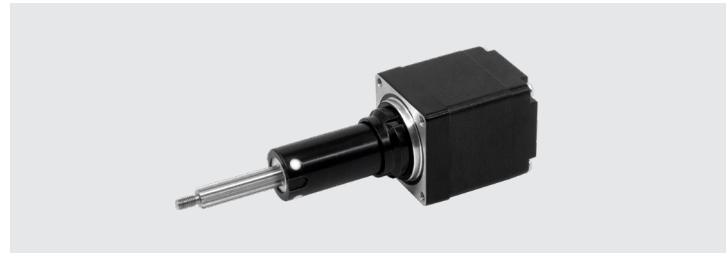


Torque Curve

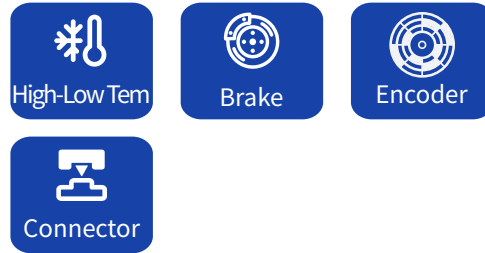


Captive Linear Stepper Motor

Size 28 / Nema 11



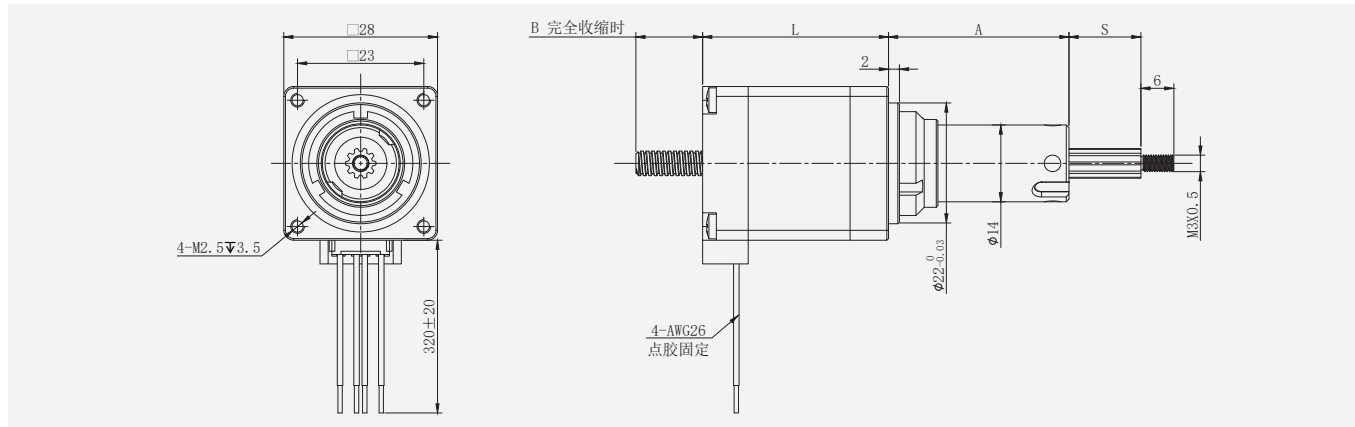
Options



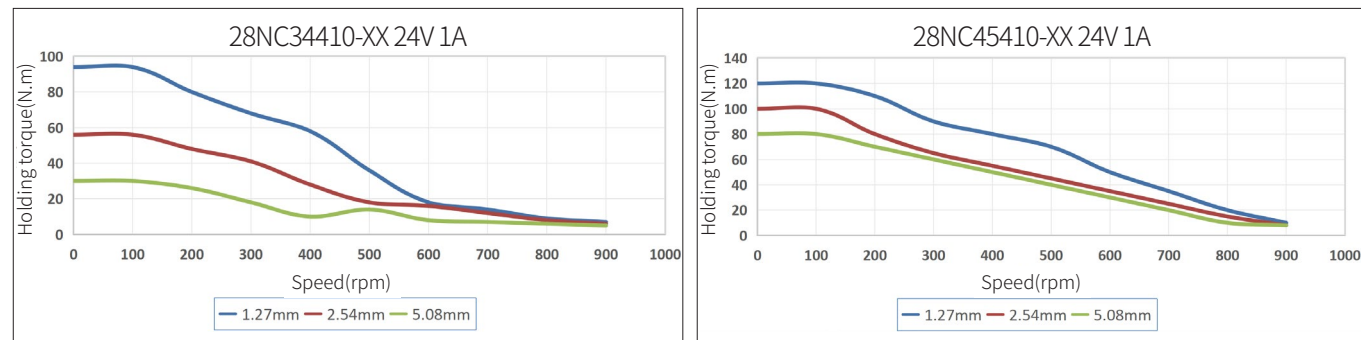
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Wiring (No.)	Weight (kg)	Motor Height (L) (mm)
28NC34410	60	1	2.66	2.66	4	0.13	34
28NC45410	120	1	3.6	3.6	4	0.15	45

Dimensions



Torque Curve

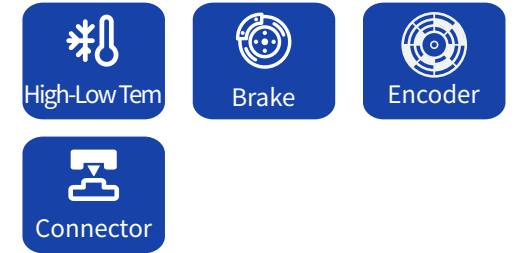


Captive Linear Stepper Motor

Size 35 / Nema 14



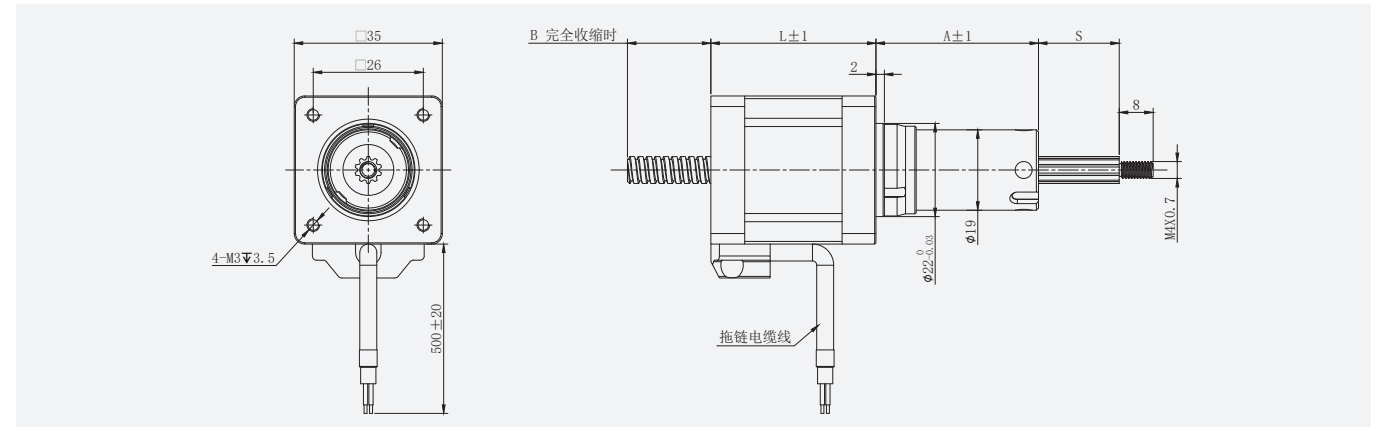
Options



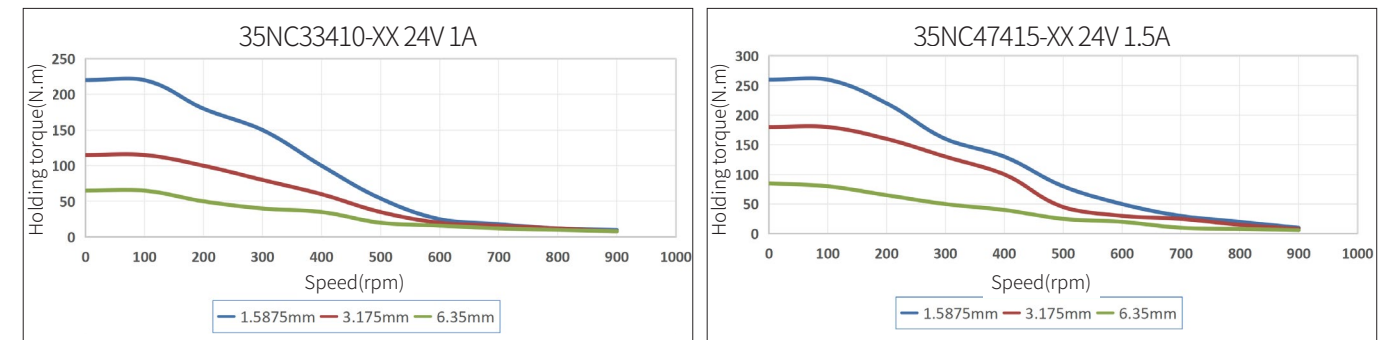
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Wiring (No.)	Weight (kg)	Motor Height (L) (mm)
35NC33410	140	1	2.3	2.3	4	0.2	33
35NC47415	350	1.5	1.35	2	4	0.3	47

Dimensions



Torque Curve

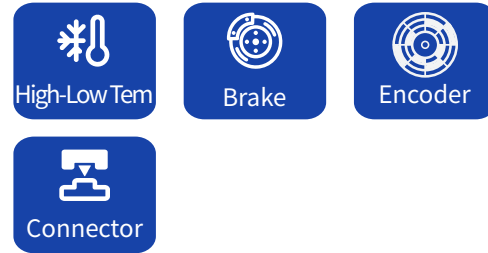


Captive Linear Stepper Motor

Size 42/ Nema 17



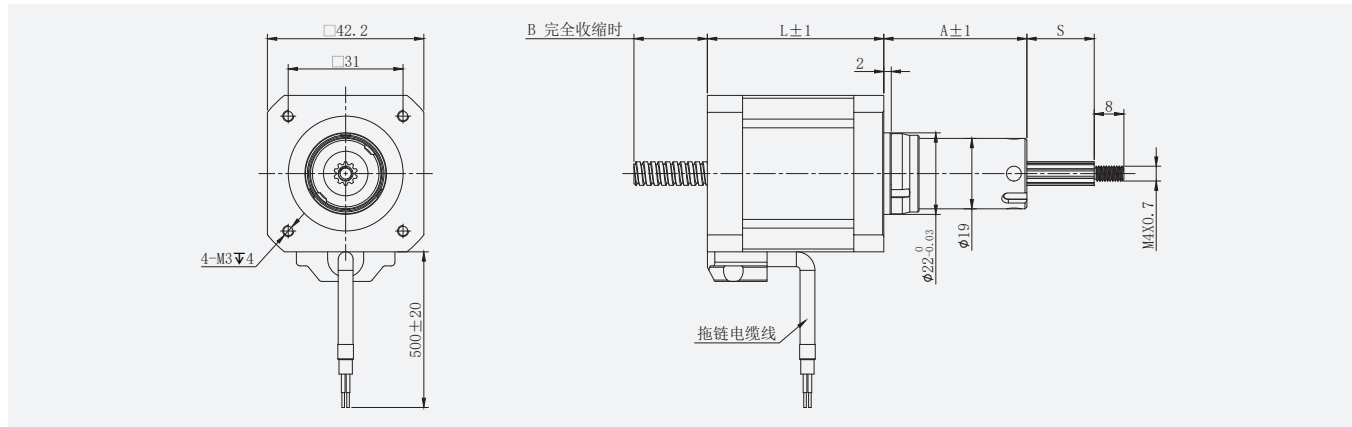
Options



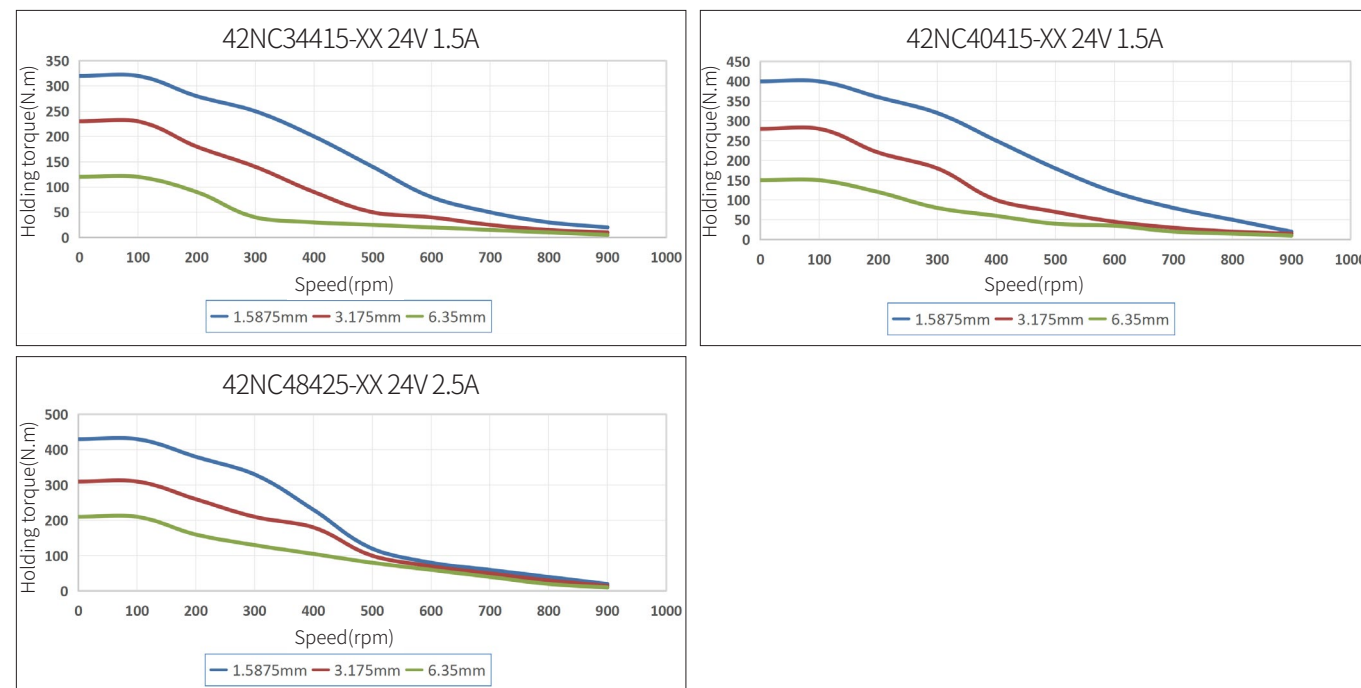
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Wiring (No.)	Weight (kg)	Motor Height (L) (mm)
42NC34415	250	1.5	1.7	2.55	4	0.28	34
42NC40415	400	1.5	2	3	4	0.38	40
42NC48425	500	2.5	0.7	1.75	4	0.48	48

Dimensions

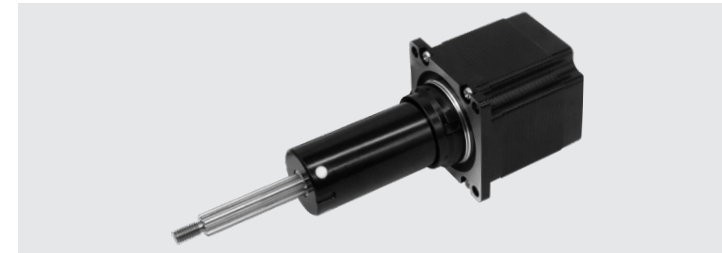


Torque Curve

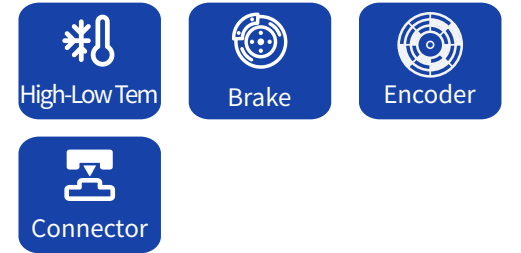


Captive Linear Stepper Motor

Size 57 / Nema 23



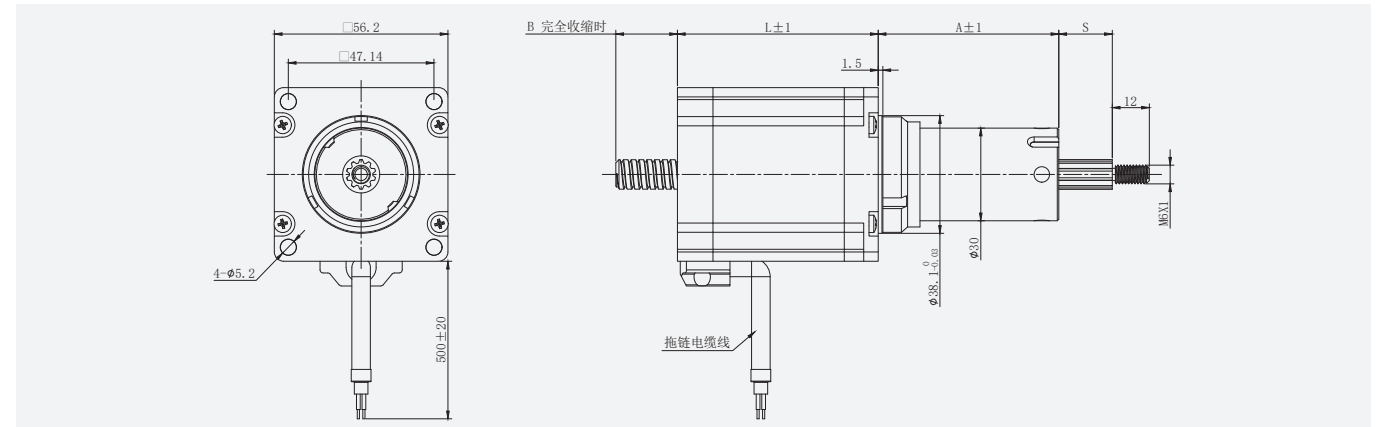
Options



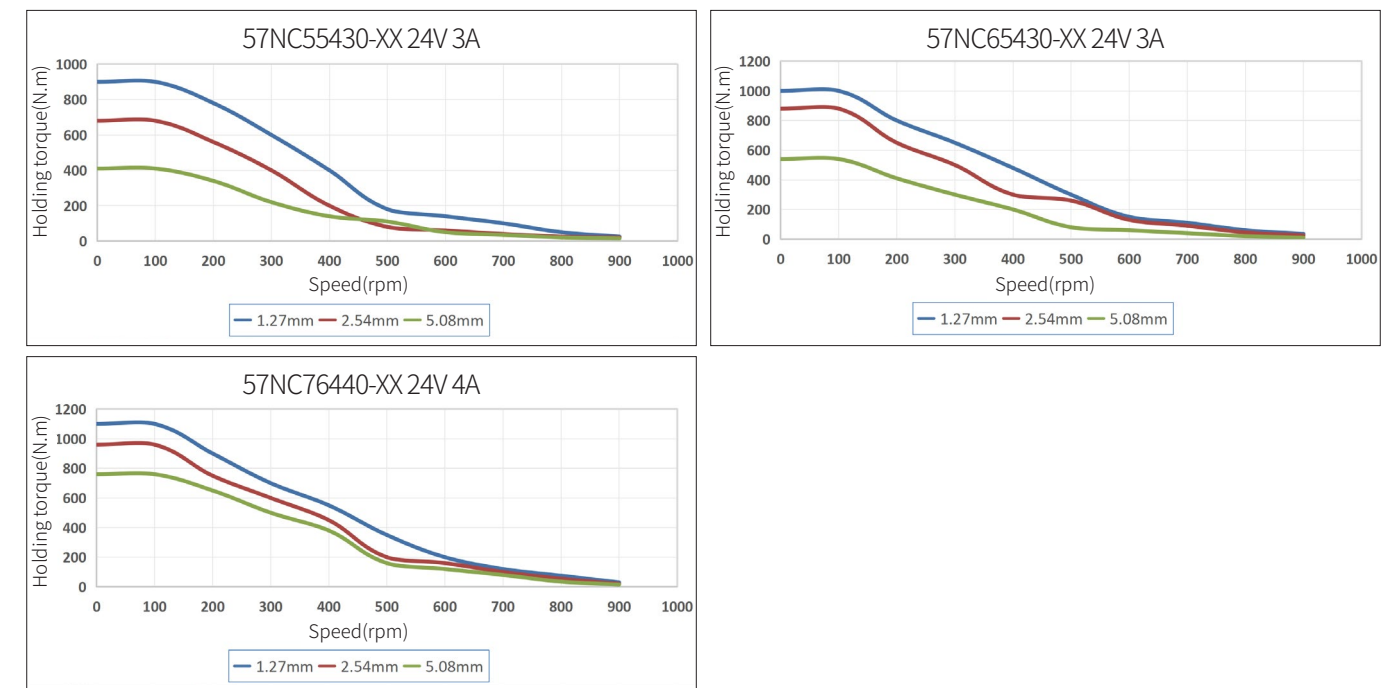
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Wiring (No.)	Weight (kg)	Motor Height (L) (mm)
57NC55430	1000	3	1.1	3.3	4	0.8	55
57NC65430	1500	3	0.78	3.12	4	1	65
57NC76440	1800	4	0.9	3.6	4	1.2	76

Dimensions



Torque Curve



# PLANRTARY GEARED STEPPER MOTOR



UMot

## NAMEPLATE DEFINITION OF THE PLANETARY GEARED STEPPER MOTOR

### 28HS - 7401 - T15 - 20 - PG - 051 - JM - SC - 300

**Motor Size**

20 28 35  
42 57 60

**Motor Height**

Size 20: 30 40  
Size 28: 25 32 45 52  
Size 35: 28 39 48  
Size 42: 34 40 48  
Size 57: 55 76  
Size 60: 55

**Back Shaft**

T15: Back Shaft at 15mm  
No Back Shaft

**Gearbox Size(mm)**

20 22 28 35 42 57 60

**Wire Length**

Numbers: Wire Length

SC: With Brake  
E: With Encoder

**Backlash**

J: Planetary Gearbox Backlash  $\leq 1.8^\circ$   
PM: Planetary Gearbox Backlash  $\leq 30$  arcmin  
JM: Planetary Gearbox Backlash  $\leq 15$  arcmin

**Reduction ratio**

Standard: 3.7 5.2 14 19 27 51 71 100 139 189 254 369  
High Precision: 4 5 7 10 16 20 25 28 35 40 50 70 100  
Precision: 4 5 10 20 25 50

**Planetary Gear Reducer**

Linear Stepper Motor

Geared Stepper Motor

Worm Geared Stepper Motor

Helical Planetary Gearbox

Hollow Rotary Platform

Stepper Motor

Integrated Stepper Motor

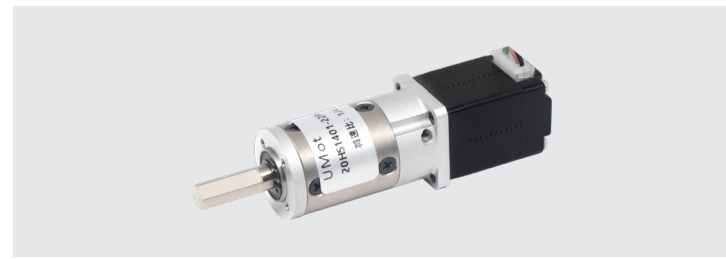
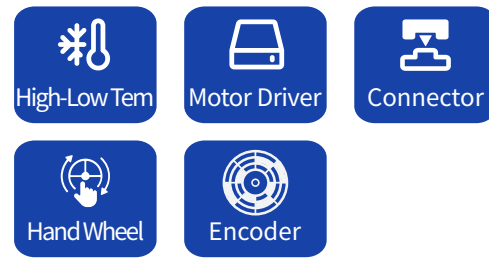
Linear Stage

Stepper Motor Driver

Planetary Geared Stepper Motor (Backlash  $\leq 15$  arcmin)

Size 20 / Nema 8

Options



Technical Data

Model No.	Rated Voltage (V)	Rated Current (A)	Resistance/Phase ( $\Omega$ )	Inductance/Phase (mH)	Holding Torque (mN.m)	Wiring (No.)	Rotor Inertia ( $g\cdot cm^2$ )	Weight (kg)	Length (L) (mm)	Reduction Ratio
20HS1405	3.25	0.5	6.5	1.5	15	4	2	0.06	30	$\leq 1: 70$
20HS6401	4.4	0.8	5.50	1.5	30	4	3	0.1	41	$\leq 1: 70$

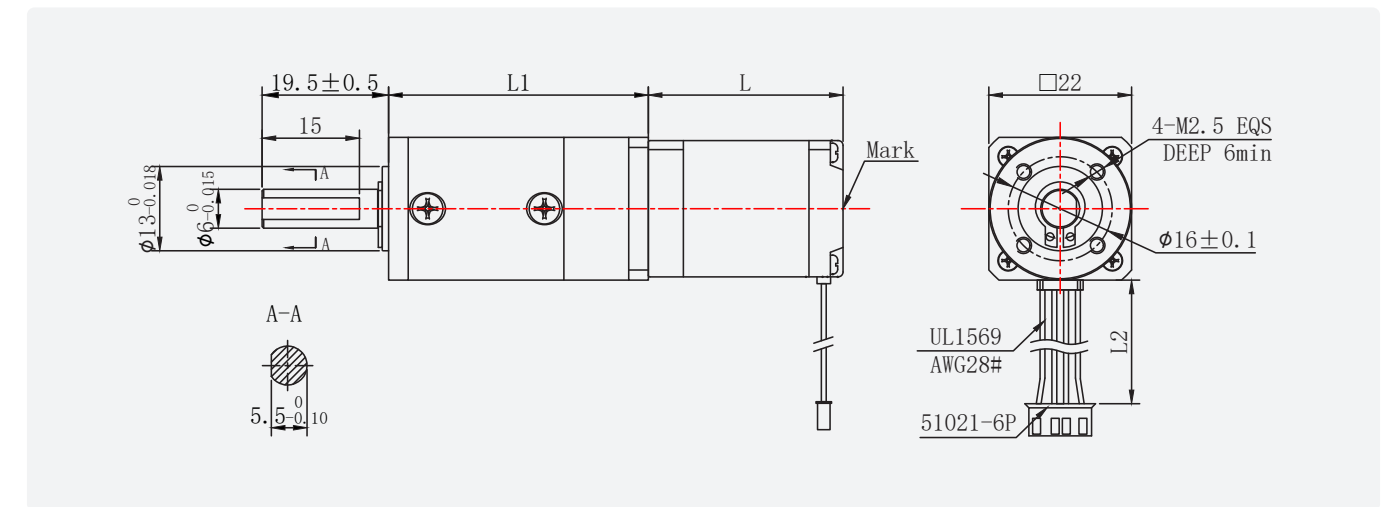
Geared Stepper Motor Specifications(20HS1405)

Ratio	4	5	7	10	16	20	25	28	35	40	50	70
Holding Torque for Gearbox(mN.m)	57	72	100	144	225	282	352	394	493	564	705	987
Total Length (L+L1)	70				78							
Total Weight (g)	156				176							
No.of Stage	1				2							
Gearbox Length (L1)	40				48							
Backlash (No load)	15arcmin~20arcmin											
Efficiency	96%				94%							

Geared Stepper Motor Specifications(20HS6401)

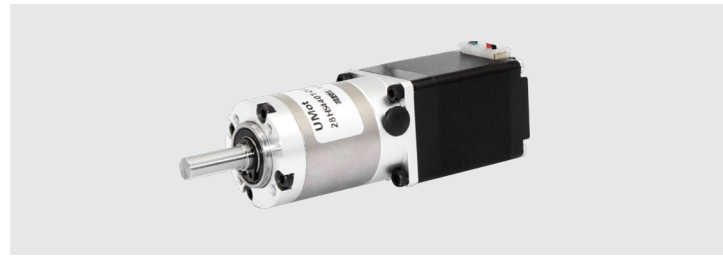
Ratio	4	5	7	10	16	20	25	28	35	40	50	70
Holding Torque for Gearbox(mN.m)	115	144	202	288	451	564	705	790	987	1128	1410	1974
Total Length (L+L1)	81				89							
Total Weight (g)	196				216							
No.of Stage	1				2							
Gearbox Length (L1)	40				48							
Backlash (No load)	15arcmin~20arcmin											
Efficiency	96%				94%							

Dimensions

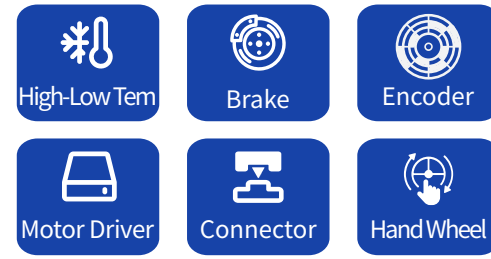


Round Flange Planetary Geared Stepper Motor (Backlash  $\leq 15$  arcmin)

Size 28 / Nema 11



Options



Technical Data

Model No.	Rated Voltage (V)	Rated Current (A)	Resistance/Phase ( $\Omega$ )	Inductance/Phase (mH)	Holding Torque (mN.m)	Wiring (No.)	Rotor Inertia (g-cm <sup>2</sup> )	Weight (kg)	Length (L) (mm)	Reduction Ratio
28HS0405	2.8	0.8	3.5	1.5	25	4	6	0.08	25.5	$\leq 1: 200$
28HS2401	3.88	0.67	5.8	4.2	70	4	15	0.13	32.5	$\leq 1: 200$
28HS4401	4.55	0.7	6.5	6	90	4	25	0.16	40	$\leq 1: 200$
28HS5401	4.9	0.7	7	5	95	4	28	0.2	45	$\leq 1: 200$
28HS7401	6.03	0.67	9	7	110	4	45	0.25	52	$\leq 1: 200$

Geared Stepper Motor Specifications (28HS0405)

Ratio	4	5	7	10	16	20	25	28	35	40	50	70	64	80	100	125	140	175	200		
Holding Torque for Gearbox (mN.m)	96	120	168	240	376	470	587	658	822	940	1175	1306	1440	1800	2550	2812	3150	3938	4500		
Total Length (L+L1)	58.5			67			74.5														
Total Weight (g)	180			210			240														
No. of Stage	1			2			3														
Gearbox Length (L1)	33			41.5			49														
Backlash (No Load)	$\leq 15$ arcmin			$\leq 20$ arcmin			$\leq 25$ arcmin														
Efficiency	96%			94%			90%														

Geared Stepper Motor Specifications (28HS2401)

Ratio	4	5	7	10	16	20	25	28	35	40	50	70	64	80	100	125	140	175	200		
Holding Torque for Gearbox (mN.m)	268	336	470	672	1052	1316	1645	1842	2303	2632	3000	3000	4032	5040	6000	6000	6000	6000	6000		
Total Length (L+L1)	65.5			74			81.5														
Total Weight (g)	230			260			290														
No. of Stage	1			2			3														
Gearbox Length (L1)	33			41.5			49														
Backlash (No Load)	$\leq 15$ arcmin			$\leq 20$ arcmin			$\leq 25$ arcmin														
Efficiency	96%			94%			90%														

Geared Stepper Motor Specifications (28HS4401)

Ratio	4	5	7	10	16	20	25	28	35	40	50	70	64	80	100	125	140	175	200		
Holding Torque for Gearbox (mN.m)	346	432	605	864	1354	1692	2115	2369	2961	3000	3000	3000	5184	6000	6000	6000	6000	6000	6000		
Total Length (L+L1)	73			81.5			89														
Total Weight (g)	260			290			320														
No. of Stage	1			2			3														
Gearbox Length (L1)	33			41.5			49														
Backlash (No Load)	$\leq 15$ arcmin			$\leq 20$ arcmin			$\leq 25$ arcmin														
Efficiency	96%			94%			90%														

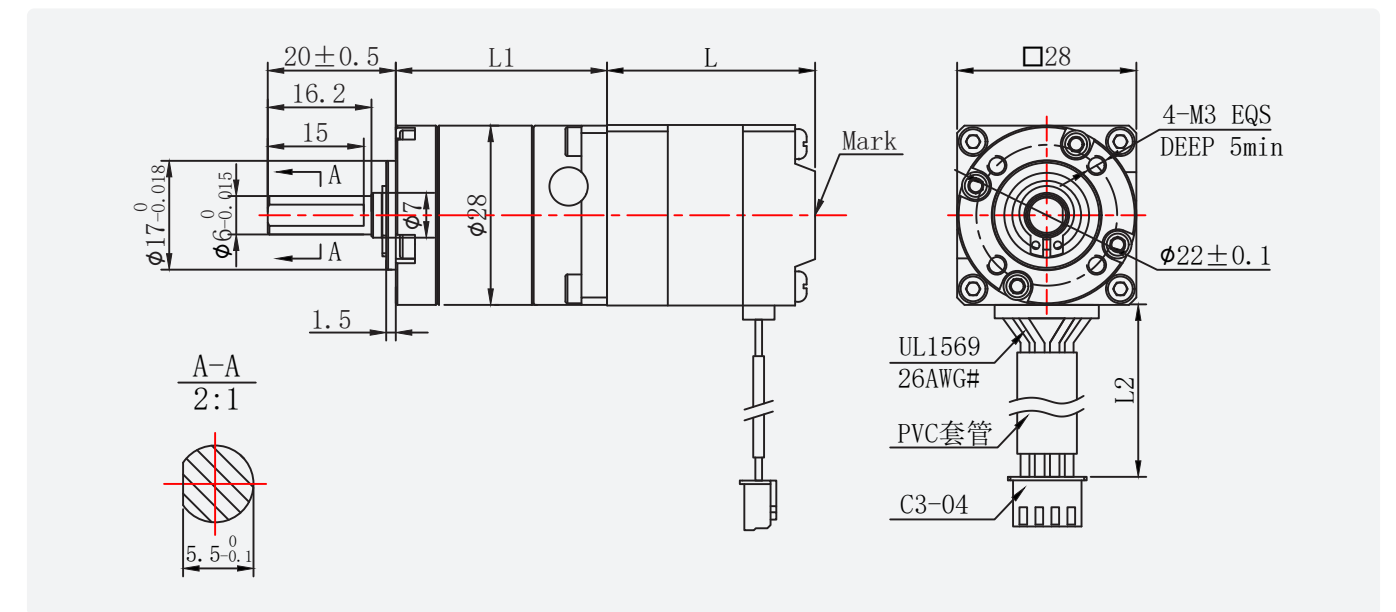
Geared Stepper Motor Specifications (28HS5401)

Ratio	4	5	7	10	16	20	25	28	35	40	50	70	64	80	100	125	140	175	200		
Holding Torque for Gearbox (mN.m)	364	456	638	912	1422	1786	2232	2500	3125	3000	3000	3000	5472	6000	6000	6000	6000	6000	6000		
Total Length (L+L1)	78			86.5			94														
Total Weight (g)	300			330			360														
No. of Stage	1			2			3														
Gearbox Length (L1)	33			41.5			49														
Backlash (No Load)	$\leq 15$ arcmin			$\leq 20$ arcmin			$\leq 25$ arcmin														
Efficiency	96%			94%			90%														

Geared Stepper Motor Specifications (28HS7401)

Ratio	4	5	7	10	16	20	25	28	35	40	50	70	64	80	100	125	140	175	200		
Holding Torque for Gearbox (mN.m)	422	528	739	1000	1654	2068	2585	2895	3619	3000	3000	3000	6000	6000	6000	6000	6000	6000	6000		
Total Length (L+L1)	85			93.5			101														
Total Weight (g)	350			380			410														
No. of Stage	1			2			3														
Gearbox Length (L1)	33			41.5			49														
Backlash (No Load)	$\leq 15$ arcmin			$\leq 20$ arcmin			$\leq 25$ arcmin														
Efficiency	96%			94%			90%														

Dimensions



Planetary Geared Stepper Motor (Backlash  $\leq 15$  arcmin)

Size 35 / Nema 14



Options

High-Low Tem   Brake   Encoder

Motor Driver   Connector   Hand Wheel

Technical Data

Model No.	Rated Voltage (V)	Rated Current (A)	Resistance/Phase ( $\Omega$ )	Inductance/Phase (mH)	Holding Torque (mN.m)	Wiring (No.)	Rotor Inertia ( $g\cdot cm^2$ )	Weight (kg)	Length (L) (mm)	Reduction Ratio
35HSH2408	4.5	1	4.5	5.5	200	4	25	0.15	28	$\leq 1: 210$
35HSH5401	4.5	1	4.5	7	250	4	35	0.25	38.5	$\leq 1: 210$
35HSH6403	2.77	1.68	1.65	2.5	320	4	40	0.28	48	$\leq 1: 210$

Geared Stepper Motor Specifications(35HSH2408)

Ratio	3	4	5	6	7	9	15	20	25	30	35	42	45	100	120	140	150	175	210
Holding Torque for Gearbox(mN.m)	576	768	960	1152	1344	1692	2820	3760	4700	5640	6580	7000	8100	9000	9000	9000	8500	8500	8500
Total Length (L+L1)	68			77.5									87						
Total Weight (g)	320			370									430						
No.of Stage	1			2									3						
Gearbox Length (L1)	40			49.5									59						
Backlash (No Load)	$\leq 15$ arcmin			$\leq 20$ arcmin									$\leq 25'$ arcmin						
Efficiency	96%			94%									90%						

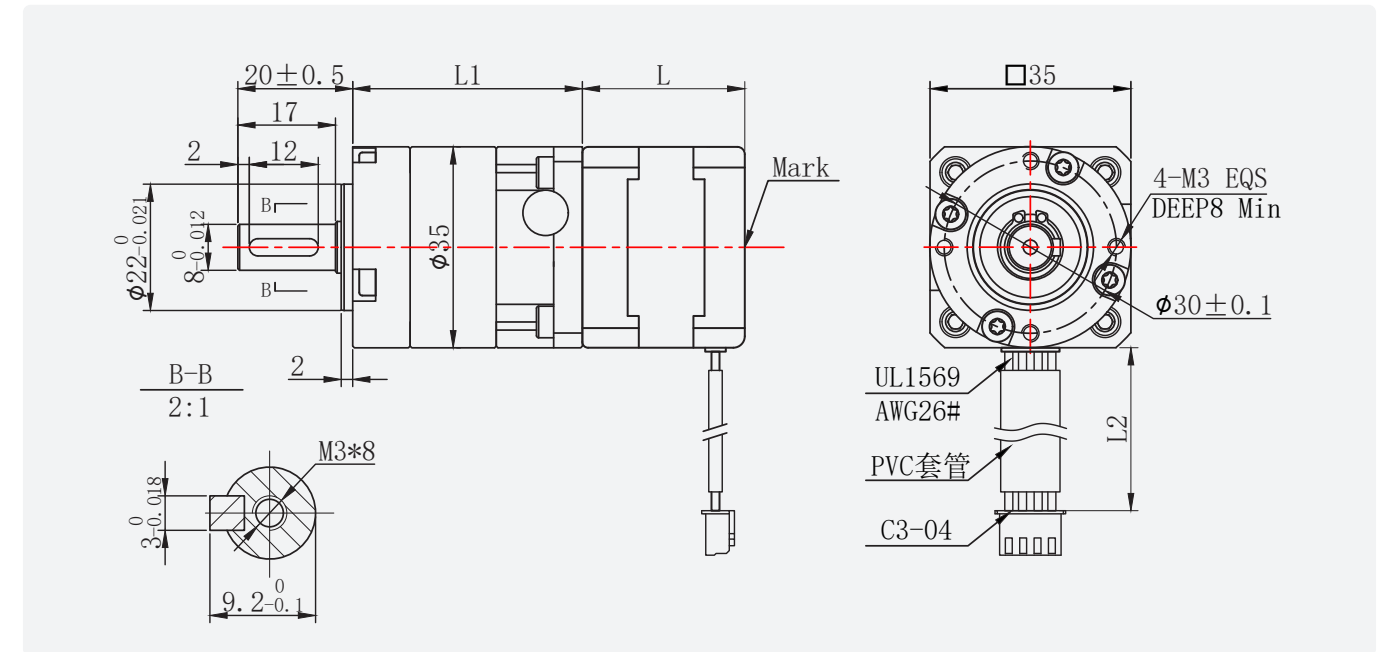
Geared Stepper Motor Specifications(35HSH5401)

Ratio	3	4	5	6	7	9	15	20	25	30	35	42	45	100	120	140	150	175	210
Holding Torque for Gearbox(mN.m)	720	960	1200	1440	1680	2115	3525	4700	5875	7000	7000	7000	10000	9000	9000	9000	8500	8500	8500
Total Length (L+L1)	78.5			88									97.5						
Total Weight (g)	420			470									530						
No.of Stage	1			2									3						
Gearbox Length (L1)	40			49.5									59						
Backlash (No Load)	$\leq 15$ arcmin			$\leq 20$ arcmin									$\leq 25'$ arcmin						
Efficiency	96%			94%									90%						

Geared Stepper Motor Specifications(35HSH6403)

Ratio	3	4	5	6	7	9	15	20	25	30	35	42	45	100	120	140	150	175	210
Holding Torque for Gearbox(mN.m)	921	1228	1536	1843	2000	2707	4512	6016	7520	7000	7000	7000	10000	9000	9000	9000	8500	8500	8500
Total Length (L+L1)	88			97.5									107						
Total Weight (g)	450			500									560						
No.of Stage	1			2									3						
Gearbox Length (L1)	40			49.5									59						
Backlash (No Load)	$\leq 15$ arcmin			$\leq 20$ arcmin									$\leq 25'$ arcmin						
Efficiency	96%			94%									90%						

Dimensions



Round Flange Planetary Geared Stepper Motor (Backlash  $\leq 15$  arcmin)

Size 42 / Nema 17



Options

- High-Low Tem
- Brake
- Encoder
- Motor Driver
- Connector
- Hand Wheel

Technical Data

Model No.	Rated Voltage (V)	Rated Current (A)	Resistance/Phase ( $\Omega$ )	Inductance/Phase (mH)	Holding Torque (mN.m)	Wiring (No.)	Rotor Inertia ( $g\cdot cm^2$ )	Weight (kg)	Length (L) (mm)	Reduction Ratio
42HSC1409	2.93	1.33	2.2	3.5	270	4	30	0.22	34	$\leq 1: 100$
42HSC4409	2.5	1.5	1.65	3.3	380	4	40	0.3	40	$\leq 1: 100$
42HSC8416	3.3	2	1.65	4	800	4	100	0.5	60.5	$\leq 1: 100$

Geared Stepper Motor Specifications (42HSC1409)

Ratio	3	4	5	7	10	15	16	20	25	28	35	40	50	70	100
Holding Torque for Gearbox (mN.m)	777	1036	1296	1814	2592	3807	4060	5076	6345	7106	8883	10000	10000	10000	5000
Total Length (L+L1)	74					85									
Total Weight (g)	470					570									
No. of Stage	1					2									
Gearbox Length (L1)	40					51									
Backlash (No Load)	$\leq 15$ arcmin					$\leq 20$ arcmin									
Efficiency	96%					94%									

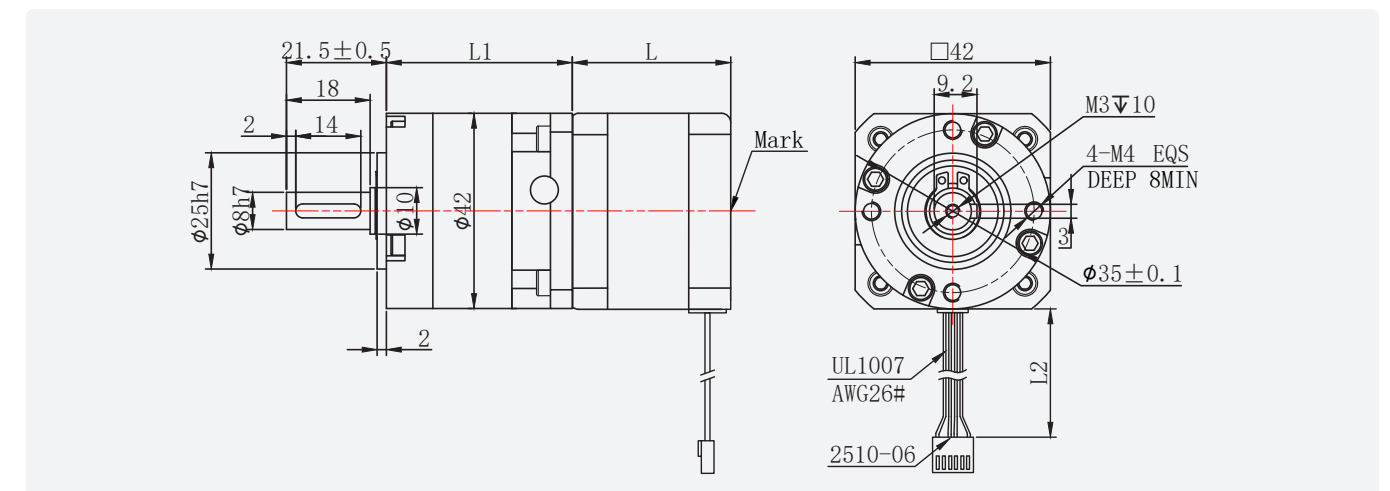
Geared Stepper Motor Specifications (42HSC4409)

Ratio	3	4	5	7	10	15	16	20	25	28	35	40	50	70	100
Holding Torque for Gearbox (mN.m)	1094	1459	1824	2553	3648	5358	5715	7144	8930	10000	10000	10000	10000	10000	5000
Total Length (L+L1)	80					91									
Total Weight (g)	550					650									
No. of Stage	1					2									
Gearbox Length (L1)	40					51									
Backlash (No Load)	$\leq 15$ arcmin					$\leq 20$ arcmin									
Efficiency	96%					94%									

Geared Stepper Motor Specifications (42HSC8416)

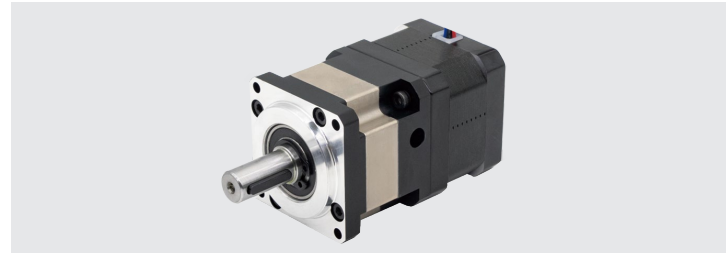
Ratio	3	4	5	7	10	15	16	20	25	28	35	40	50	70	100
Holding Torque for Gearbox (mN.m)	2304	3072	3840	5000	5000	10000	12000	10000	10000	10000	10000	10000	10000	10000	5000
Total Length (L+L1)	100.5					111.5									
Total Weight (g)	750					850									
No. of Stage	1					2									
Gearbox Length (L1)	40					51									
Backlash (No Load)	$\leq 15$ arcmin					$\leq 20$ arcmin									
Efficiency	96%					94%									

Dimensions

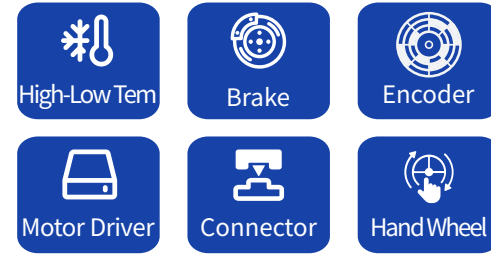


Square Flange Planetary Geared Stepper Motor(Backlash  $\leq 15$  arcmin)

Size 42 / Nema 17



Options



Technical Data

Model No.	Rated Voltage (V)	Rated Current (A)	Resistance/Phase ( $\Omega$ )	Inductance/Phase (mH)	Holding Torque (mN.m)	Wiring (No.)	Rotor Inertia ( $g\cdot cm^2$ )	Weight (kg)	Length (L) (mm)	Reduction Ratio
42HSC1409	2.93	1.33	2.2	3.5	270	4	30	0.22	34	$\leq 1: 100$
42HSC4409	2.5	1.5	1.65	3.3	380	4	40	0.3	40	$\leq 1: 100$
42HSC8416	3.3	2	1.65	4	800	4	100	0.5	60.5	$\leq 1: 100$

Geared Stepper Motor Specifications(42HSC1409)

Ratio	4	5	7	10	16	20	25	28	35	40	50	70	100	
Holding Torque for Gearbox(mN.m)	1036	1296	1817	2592	4060	5076	6345	7106	8883	10000	10000	10000	5000	
Total Length (L+L1)	69								80					
Total Weight (g)	470								570					
No.of Stage	1								2					
Gearbox Length (L1)	35								46					
Backlash (No Load)	$\leq 15$ arcmin								$\leq 20$ arcmin					
Efficiency	96%								94%					

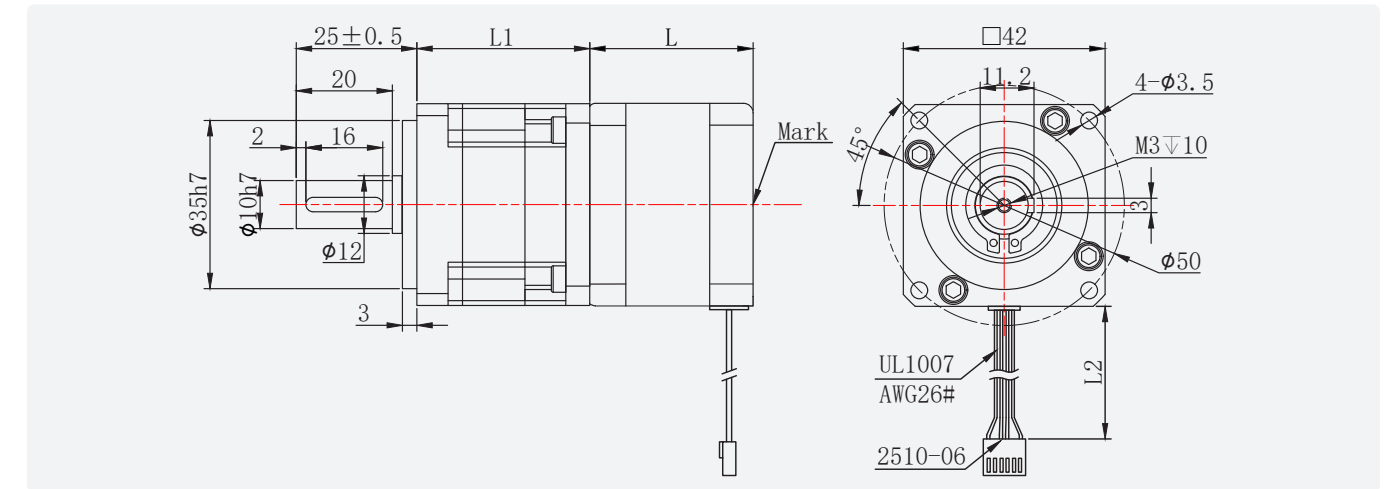
Geared Stepper Motor Specifications(42HSC4409)

Ratio	4	5	7	10	16	20	25	28	35	40	50	70	100	
Holding Torque for Gearbox(mN.m)	1459	1824	3553	3648	5715	7144	8930	10000	10000	10000	10000	10000	5000	
Total Length (L+L1)	75								86					
Total Weight (g)	550								650					
No.of Stage	1								2					
Gearbox Length (L1)	35								46					
Backlash (No Load)	$\leq 15$ arcmin								$\leq 20$ arcmin					
Efficiency	96%								94%					

Geared Stepper Motor Specifications(42HSC8416)

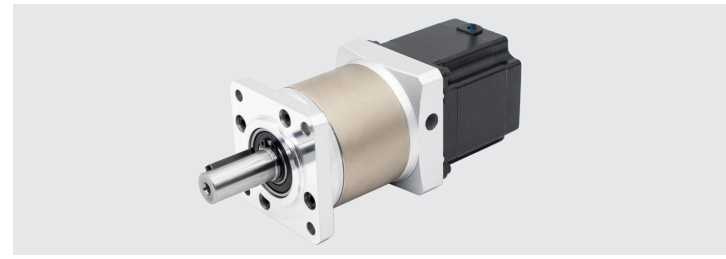
Ratio	4	5	7	10	16	20	25	28	35	40	50	70	100	
Holding Torque for Gearbox(mN.m)	3072	3840	5000	5000	12000	12000	10000	10000	10000	10000	10000	10000	5000	
Total Length (L+L1)	95.5								106.5					
Total Weight (g)	750								850					
No.of Stage	1								2					
Gearbox Length (L1)	35								46					
Backlash (No Load)	$\leq 15$ arcmin								$\leq 20$ arcmin					
Efficiency	96%								94%					

Dimensions

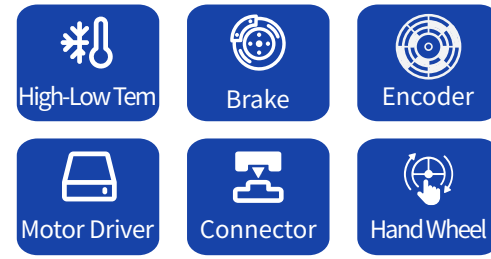


Planetary Geared Stepper Motor (Backlash  $\leq 15$  arcmin)

Size 57 / Nema 23



Options



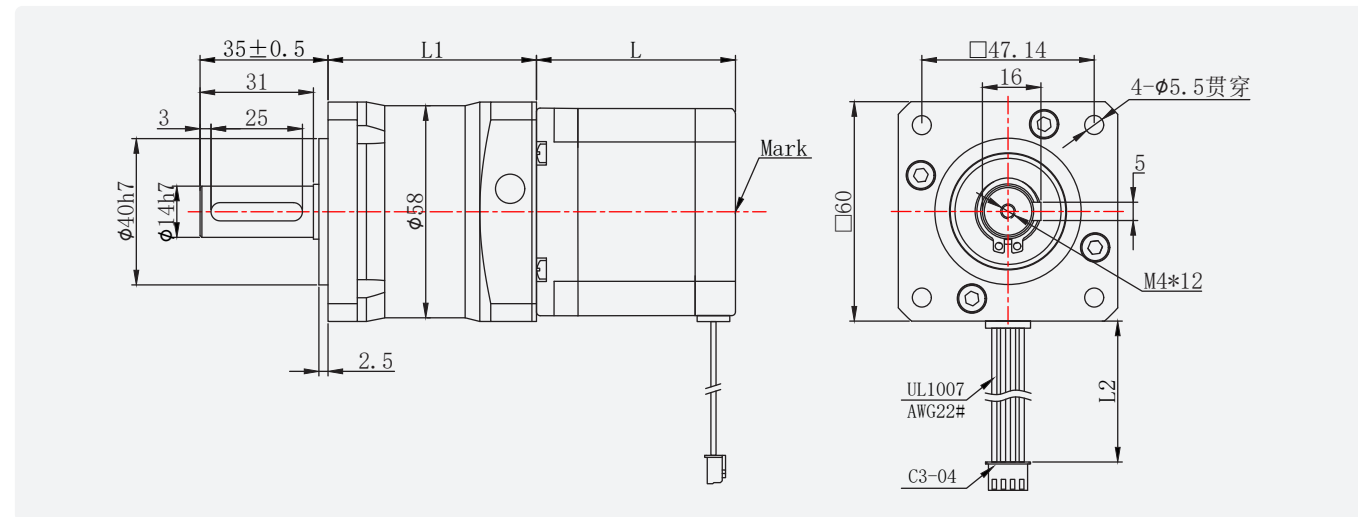
Technical Data

Model No.	Rated Voltage (V)	Rated Current (A)	Resistance/Phase ( $\Omega$ )	Inductance/Phase (mH)	Holding Torque (mN.m)	Wiring (No.)	Rotor Inertia ( $g\cdot cm^2$ )	Weight (kg)	Length (L) (mm)	Reduction Ratio
57HS5417	1.7	2	0.85	2.5	950	4	200	0.64	55	$\leq 1: 70$

Geared Stepper Motor Specifications(57HS5417)

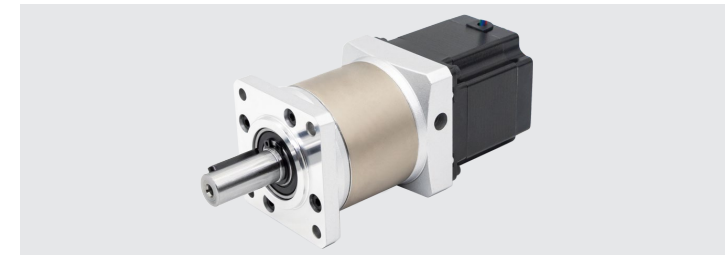
Ratio	4	5	7	10	16	20	25	28	35	40	50	70
Holding Torque for Gearbox(mN.m)	3648	4560	6384	9120	14288	17860	22325	25004	30000	25000	25000	20000
Total Length (L+L1)	112				128							
Total Weight (g)	1360				1590							
No.of Stage	1				2							
Gearbox Length (L1)	57				73							
Backlash (No Load)	$\leq 15$ arcmin				$\leq 20$ arcmin							
Efficiency	96%				94%							

Dimensions

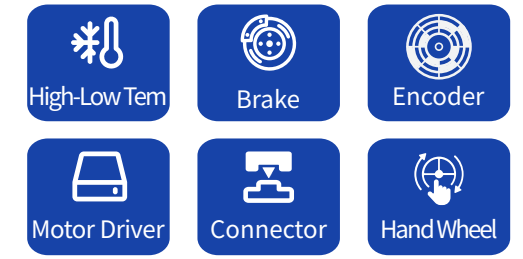


Planetary Geared Stepper Motor (Backlash  $\leq 15$  arcmin)

Size 60 / Nema 24



Options



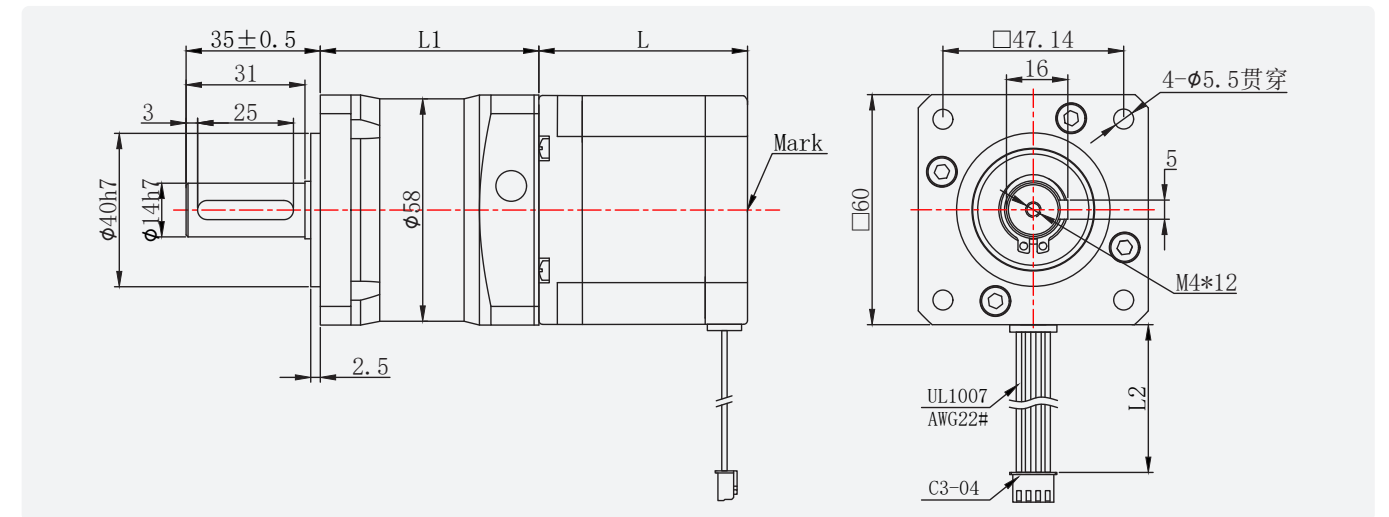
Technical Data

Model No.	Rated Voltage (V)	Rated Current (A)	Resistance/Phase ( $\Omega$ )	Inductance/Phase (mH)	Holding Torque (mN.m)	Wiring (No.)	Rotor Inertia ( $g\cdot cm^2$ )	Weight (kg)	Length (L) (mm)	Reduction Ratio
60HS5405	2.98	3.5	0.85	3	1900	4	300	0.7	55	$\leq 1: 70$

Geared Stepper Motor Specifications(60HS5405)

Ratio	4	5	7	10	16	20	25	28	35	40	50	70
Holding Torque for Gearbox(mN.m)	7296	9120	12768	10000	28576	30000	32000	30000	30000	25000	25000	20000
Total Length (L+L1)	112				128							
Total Weight (g)	1420				1650							
No.of Stage	1				2							
Gearbox Length (L1)	57				73							
Backlash (No Load)	$\leq 15$ arcmin				$\leq 20$ arcmin							
Efficiency	96%				94%							

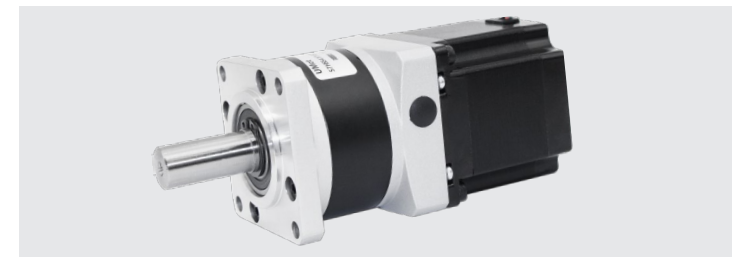
Dimensions





Planetary Geared Stepper Motor (Backlash ≤ 30arcmin)

Size 57 / Nema 23



Options

High-Low Tem   Brake   Encoder

Motor Driver   Connector   Hand Wheel

Technical Data

Model No.	Rated Voltage (V)	Rated Current (A)	Resistance/Phase (Ω)	Inductance/Phase (mH)	Holding Torque (mN.m)	Wiring (No.)	Rotor Inertia (g-cm <sup>2</sup> )	Weight (kg)	Length (L) (mm)	Reduction Ratio
57HSC5417	1.7	2	0.85	2.5	950	4	200	0.64	55	≤ 1: 50
57HS7407	2.8	4	0.7	2	1900	4	230	1.1	76	≤ 1: 50
57HS11402	3.2	4	0.8	3.5	2800	4	800	1.7	113.5	≤ 1: 50

Geared Stepper Motor Specifications(57HSC5417)

Ratio	4	5	10	20	25	50
Holding Torque for Gearbox(mN.m)	3420	4275	8550	15200	19000	20000
Total Length (L+L1)	110.5			123		
Total Weight (g)	1290			1440		
No.of Stage	1			2		
Gearbox Length (L1)	55.5			68		
Backlash (No Load)	≤ 30arcmin			≤ 45arcmin		
Efficiency	90%			80%		

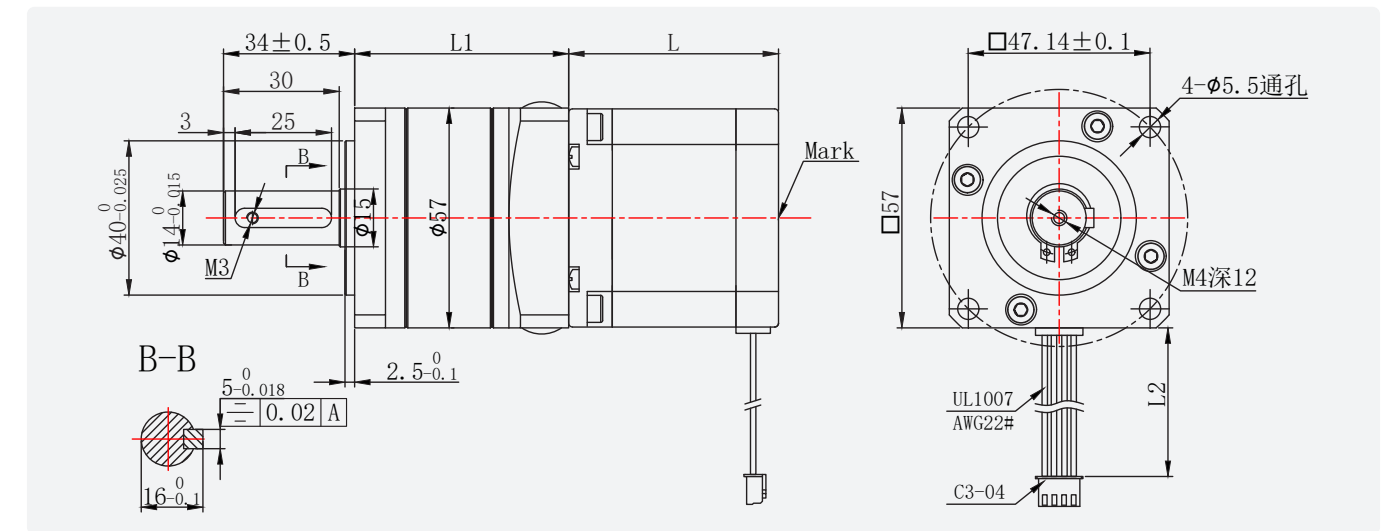
Geared Stepper Motor Specifications(57HSC7407)

Ratio	4	5	10	20	25	50
Holding Torque for Gearbox(mN.m)	6840	8550	10000	25000	25000	25000
Total Length (L+L1)	131.5			144		
Total Weight (g)	1650			1800		
No.of Stage	1			2		
Gearbox Length (L1)	55.5			68		
Backlash (No Load)	≤ 30arcmin			≤ 45arcmin		
Efficiency	90%			80%		

Geared Stepper Motor Specifications(57HSC11402)

Ratio	4	5	10	20	25	50
Holding Torque for Gearbox(mN.m)	10080	12600	10000	25000	25000	25000
Total Length (L+L1)	169			181.5		
Total Weight (g)	2350			2500		
No.of Stage	1			2		
Gearbox Length (L1)	55.5			68		
Backlash (No Load)	≤ 30arcmin			≤ 45arcmin		
Efficiency	90%			80%		

Dimensions

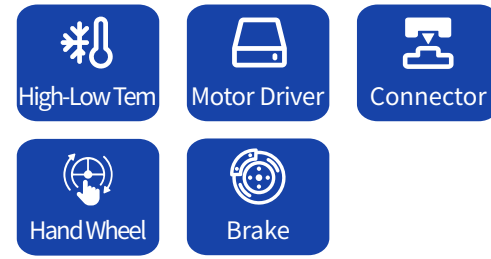


Planetary Geared Stepper Motor (Backlash  $\leq 1.8$  degree)

Size 20 / Nema 8



Options



Technical Data

Model No.	Rated Voltage (V)	Rated Current (A)	Resistance/Phase ( $\Omega$ )	Inductance/Phase (mH)	Holding Torque (mN.m)	Wiring (No.)	Rotor Inertia ( $g\cdot cm^2$ )	Weight (kg)	Length (L) (mm)	Reduction Ratio
20HS1405	3.25	0.5	6.5	1.5	15	4	2	0.06	30	$\leq 1: 369$
20HS6401	4.4	0.8	5.5	1.5	30	4	3	0.1	41	$\leq 1: 369$

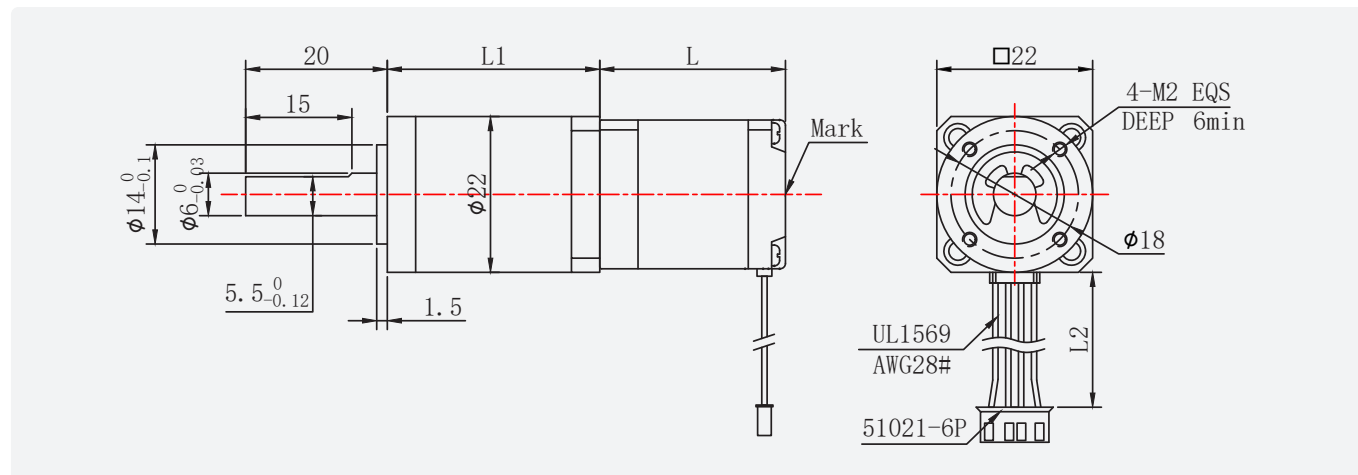
Geared Stepper Motor Specifications(20HS1405)

Ratio	3.7	5.2	14	19	27	51	71	100	139	189	254	369
Holding Torque for Gearbox(mN.m)	50	70	170	231	328	558	777	1095	1522	1871	2000	2000
Total Length (L+L1)	53.4		60				66.4				72.8	
Total Weight (g)	100		110				120				130	
No.of Stage	1		2				3				4	
Gearbox Length (L1)	23.4		30				36.4				42.8	
Backlash (No Load)	$\leq 1^\circ$		$\leq 1.2^\circ$				$\leq 1.5^\circ$				$\leq 1.8^\circ$	
Efficiency	90%		81%				73%				66%	

Geared Stepper Motor Specifications(20HS6401)

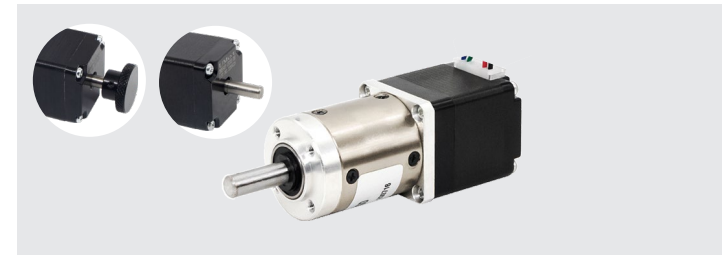
Ratio	3.7	5.2	14	19	27	51	71	100	139	189	254	369
Holding Torque for Gearbox(mN.m)	100	140	340	462	656	1117	1555	2000	2000	2000	2000	2000
Total Length (L+L1)	64.4		71				77.4				83.8	
Total Weight (g)	140		150				160				170	
No.of Stage	1		2				3				4	
Gearbox Length (L1)	23.4		30				36.4				42.8	
Backlash (No Load)	$\leq 1^\circ$		$\leq 1.2^\circ$				$\leq 1.5^\circ$				$\leq 1.8^\circ$	
Efficiency	90%		81%				73%				66%	

Dimensions

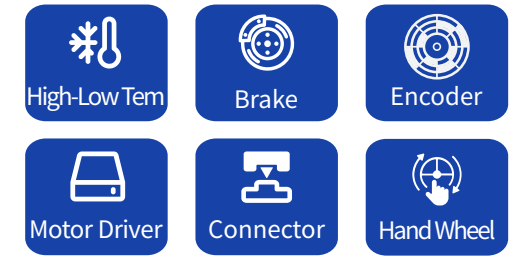


Planetary Geared Stepper Motor (Backlash  $\leq 1.8$  degree)

Size 28 / Nema 11



Options



Technical Data

Model No.	Rated Voltage (V)	Rated Current (A)	Resistance/Phase ( $\Omega$ )	Inductance/Phase (mH)	Holding Torque (mN.m)	Wiring (No.)	Rotor Inertia ( $g\cdot cm^2$ )	Weight (kg)	Length (L) (mm)	Reduction Ratio
28HS0405	2.8	0.8	3.5	1.5	25	4	6	0.08	25.5	$\leq 1: 369$
28HS2401	3.88	0.67	5.8	4.2	70	4	15	0.13	32.5	$\leq 1: 369$
28HS4401	4.55	0.7	6.5	6	90	4	25	0.16	40	$\leq 1: 369$
28HS5401	4.9	0.7	7	5	95	4	28	0.2	45	$\leq 1: 369$
28HS7401	6.03	0.67	9	7	110	4	45	0.25	52	$\leq 1: 369$

Geared Stepper Motor Specifications(28HS0405)

Ratio	3.7	5.2	14	19	27	51	71	100	139	189	254	369
Holding Torque for Gearbox(mN.m)	83	117	284	385	547	931	1296	1825	2537	3119	4000	4000
Total Length (L+L1)	54.5		61.6				68.5				75.4	
Total Weight (g)	160		180				200				220	
No.of Stage	1		2				3				4	
Gearbox Length (L1)	29		36.1				43				49.9	
Backlash (No Load)	$\leq 1^\circ$		$\leq 1.2^\circ$				$\leq 1.5^\circ$				$\leq 1.8^\circ$	
Efficiency	90%		81%				73%				66%	

Geared Stepper Motor Specifications(28HS2401)

Ratio	3.7	5.2	14	19	27	51	71	100	139	189	254	369
Holding Torque for Gearbox(mN.m)	234	327	794	1077	1531	2606	3628	4000	4000	4000	4000	4000
Total Length (L+L1)	61.5		68.6				75.5				82.4	
Total Weight (g)	210		230				250				270	
No.of Stage	1		2				3				4	
Gearbox Length (L1)	29		36.1				43				49.9	
Backlash (No Load)	$\leq 1^\circ$		$\leq 1.2^\circ$				$\leq 1.5^\circ$				$\leq 1.8^\circ$	
Efficiency	90%		81%				73%				66%	

Geared Stepper Motor Specifications(28HS4401)

Ratio	3.7	5.2	14	19	27	51	71	100	139	189	254	369
Holding Torque for Gearbox(mN.m)	300	421	1021	1385	1968	3351	4000	4000	4000	4000	4000	4000
Total Length (L+L1)	69		76.1				83				89.9	
Total Weight (g)	240		260				280				300	
No.of Stage	1		2				3				4	
Gearbox Length (L1)	29		36.1				43				49.9	
Backlash (No Load)	$\leq 1^\circ$		$\leq 1.2^\circ$				$\leq 1.5^\circ$				$\leq 1.8^\circ$	
Efficiency	90%		81%				73%				66%	

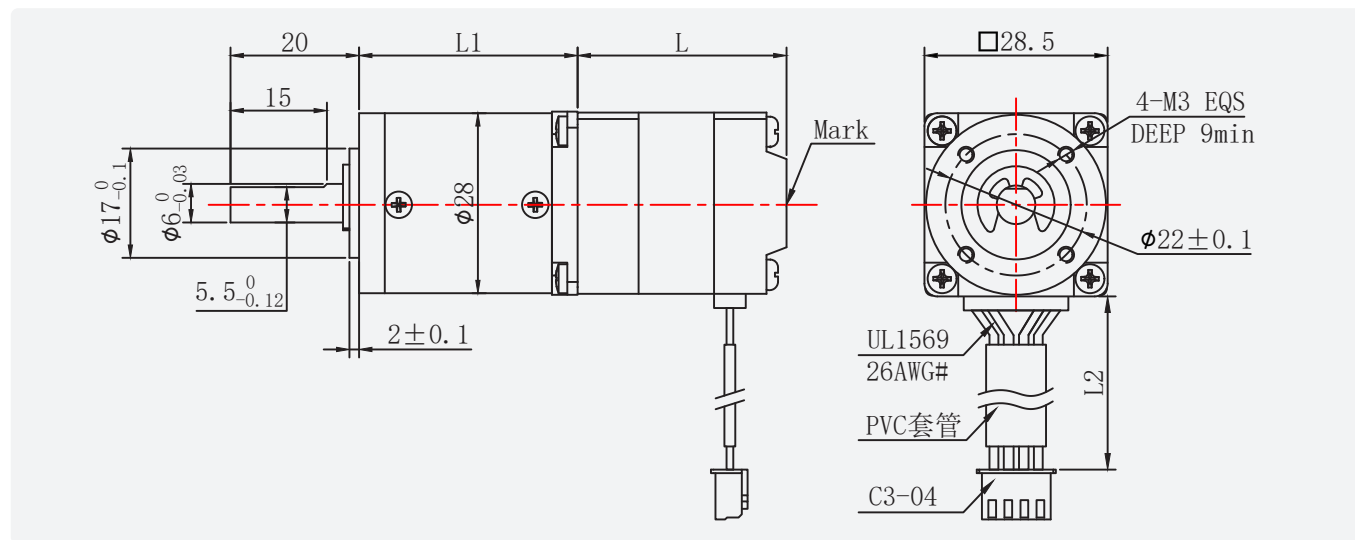
Geared Stepper Motor Specifications(28HS5401)

Ratio	3.7	5.2	14	19	27	51	71	100	139	189	254	369
Holding Torque for Gearbox(mN.m)	317	443	1077	1462	2000	3537	4000	4000	4000	4000	4000	4000
Total Length (L+L1)	74		81.1				88				94.9	
Total Weight (g)	280		300				320				340	
No.of Stage	1		2				3				4	
Gearbox Length (L1)	29		36.1				43				49.9	
Backlash (No Load)	≤ 1°		≤ 1.2°				≤ 1.5°				≤ 1.8°	
Efficiency	90%		81%				73%				66%	

Geared Stepper Motor Specifications(28HS7401)

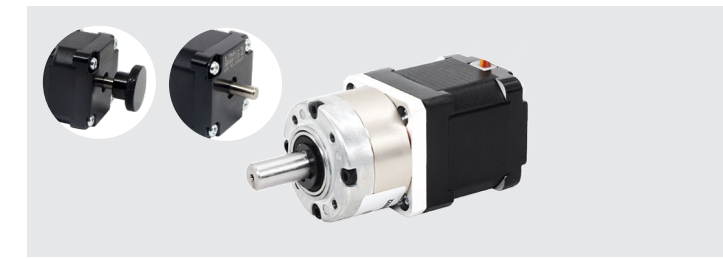
Ratio	3.7	5.2	14	19	27	51	71	100	139	189	254	369
Holding Torque for Gearbox(mN.m)	367	513	1247	1693	2000	4000	4000	4000	4000	4000	4000	4000
Total Length (L+L1)	81		88.1				95				101.9	
Total Weight (g)	330		350				370				390	
No.of Stage	1		2				3				4	
Gearbox Length (L1)	29		36.1				43				49.9	
Backlash (No Load)	≤ 1°		≤ 1.2°				≤ 1.5°				≤ 1.8°	
Efficiency	90%		81%				73%				66%	

Dimensions

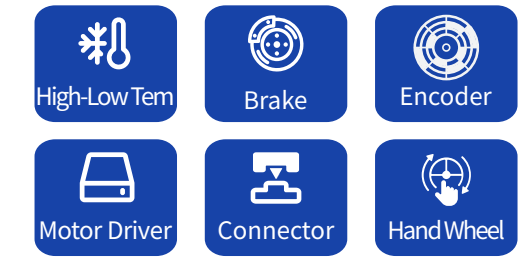


Planetary Geared Stepper Motor (Backlash ≤ 1.8 degree)

Size 35 / Nema 14



Options



Technical Data

Model No.	Rated Voltage (V)	Rated Current (A)	Resistance/Phase (Ω)	Inductance/Phase (mH)	Holding Torque (mN.m)	Wiring (No.)	Rotor Inertia (g·cm <sup>2</sup> )	Weight (kg)	Length (L) (mm)	Reduction Ratio
35HS2408	4.5	1	4.5	5.5	200	4	25	0.15	28	≤ 1: 139
35HS5401	4.5	1	4.5	7	250	4	35	0.25	38.5	≤ 1: 139

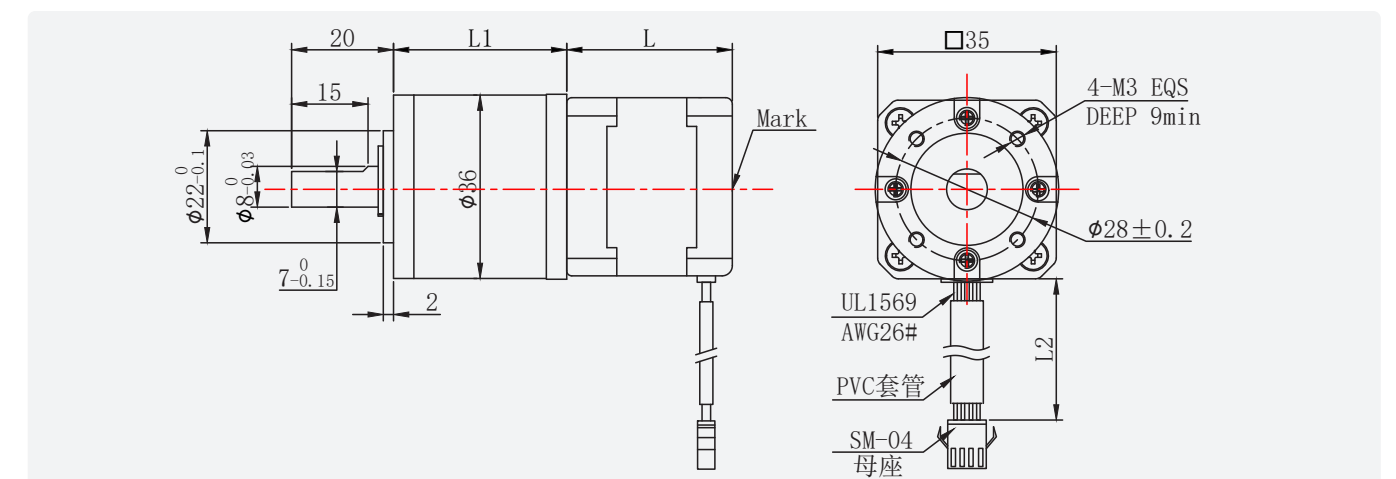
Geared Stepper Motor Specifications(35HS2408)

Ratio	3.7	5.2	14	19	27	51	71	100	139	
Holding Torque for Gearbox(mN.m)	668	932	2268	3000	3000	6000	6000	6000	6000	
Total Length (L+L1)	55		62.2				69.1			
Total Weight (g)	290		330				370			
No.of Stage	1		2				3			
Gearbox Length (L1)	27		34.2				41.1			
Backlash (No Load)	≤ 1°		≤ 1.2°				≤ 1.5°			
Efficiency	90%		81%				73%			

Geared Stepper Motor Specifications(35HS5401)

Ratio	3.7	5.2	14	19	27	51	71	100	139	
Holding Torque for Gearbox(mN.m)	835	1166	2835	3000	3000	6000	6000	6000	6000	
Total Length (L+L1)	65.5		72.7				79.6			
Total Weight (g)	390		430				470			
No.of Stage	1		2				3			
Gearbox Length (L1)	27		34.2				41.1			
Backlash (No Load)	≤ 1°		≤ 1.2°				≤ 1.5°			
Efficiency	90%		81%				73%			

Dimensions

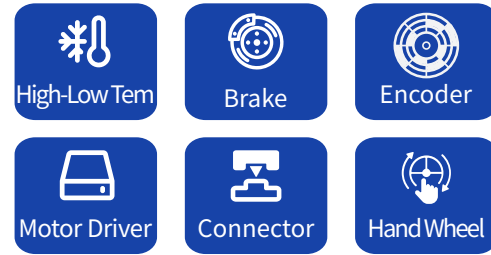


Planetary Geared Stepper Motor (Backlash  $\leq 1.8$  degree)

Size 42 / Nema 17



Options



Technical Data

Model No.	Rated Voltage (V)	Rated Current (A)	Resistance/Phase ( $\Omega$ )	Inductance/Phase (mH)	Holding Torque (mN.m)	Wiring (No.)	Rotor Inertia ( $g\cdot cm^2$ )	Weight (kg)	Length (L) (mm)	Reduction Ratio
42HSC1409	2.93	1.33	2.2	3.5	270	4	30	0.22	34	$\leq 1: 369$
42HSC4409	2.5	1.5	1.65	3.3	380	4	40	0.3	40	$\leq 1: 369$

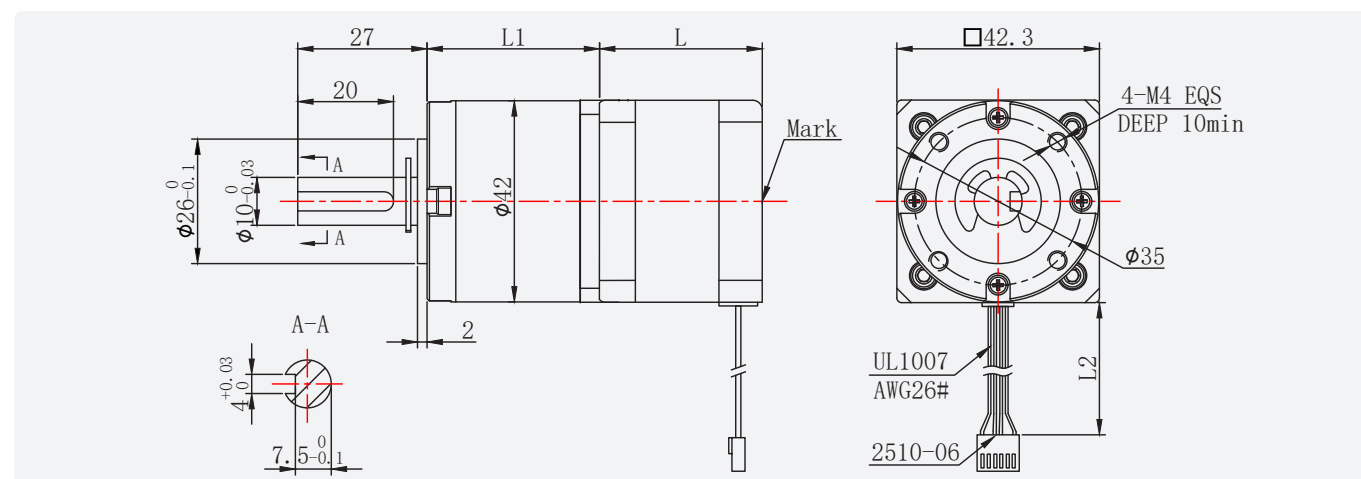
Geared Stepper Motor Specifications(42HSC1409)

Ratio	3.7	5.2	14	19	27	51	71	100	139	189	264	369
Holding Torque for Gearbox(mN.m)	902	1259	3062	4155	5000	10000	10000	10000	10000	10000	10000	10000
Total Length (L+L1)	65.5		76.1				86.5			96.9		
Total Weight (g)	430		510				590			670		
No.of Stage	1		2				3			4		
Gearbox Length (L1)	31.5		42.1				52.5			62.9		
Backlash (No Load)	$\leq 1^\circ$		$\leq 1.2^\circ$				$\leq 1.5^\circ$			$\leq 1.8^\circ$		
Efficiency	90%		81%				73%			66%		

Geared Stepper Motor Specifications(42HSC4409)

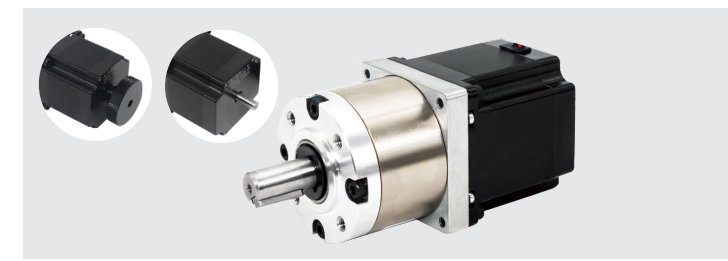
Ratio	3.7	5.2	14	19	27	51	71	100	139	189	264	369
Holding Torque for Gearbox(mN.m)	1269	1772	4309	5000	5000	10000	10000	10000	10000	10000	10000	10000
Total Length (L+L1)	71.5		82.1				92.5			102.9		
Total Weight (g)	510		590				670			760		
No.of Stage	1		2				3			4		
Gearbox Length (L1)	31.5		42.1				52.5			62.9		
Backlash (No Load)	$\leq 1^\circ$		$\leq 1.2^\circ$				$\leq 1.5^\circ$			$\leq 1.8^\circ$		
Efficiency	90%		81%				73%			66%		

Dimensions

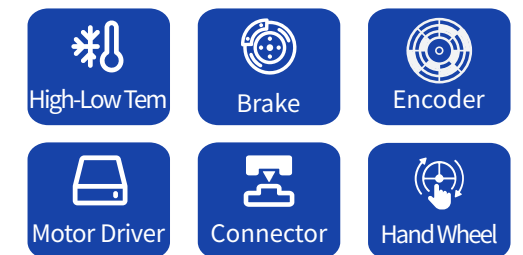


Planetary Geared Stepper Motor (Backlash  $\leq 1.8$  degree)

Size 57 / Nema 23



Options



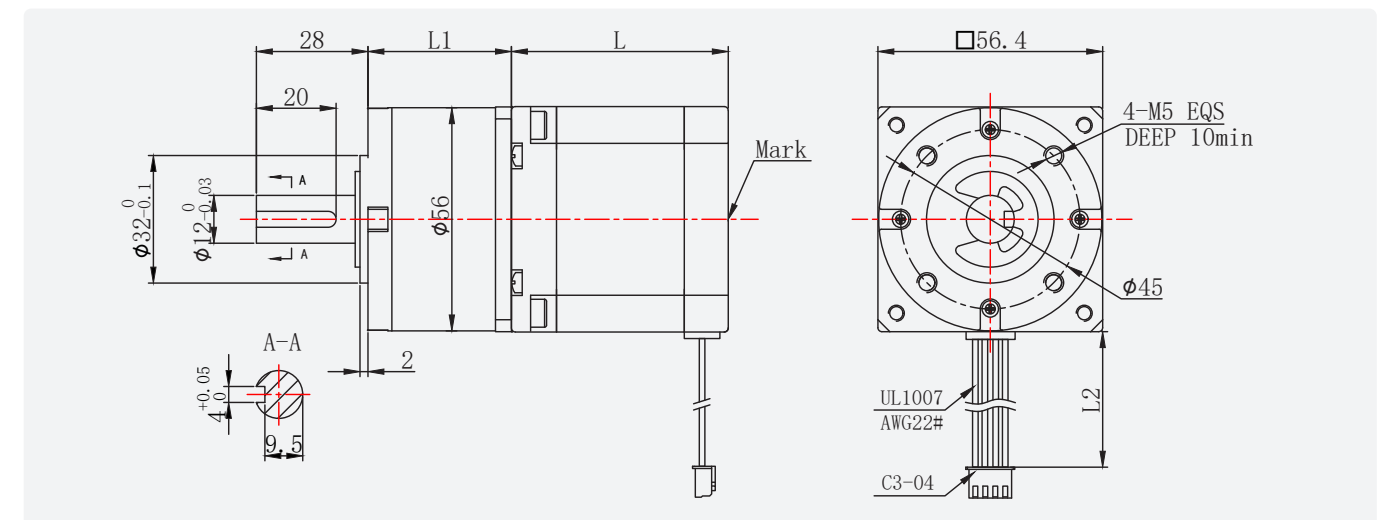
Technical Data

Model No.	Rated Voltage (V)	Rated Current (A)	Resistance/Phase ( $\Omega$ )	Inductance/Phase (mH)	Holding Torque (mN.m)	Wiring (No.)	Rotor Inertia ( $g\cdot cm^2$ )	Weight (kg)	Length (L) (mm)	Reduction Ratio
57HS5417	1.7	2	0.85	2.5	950	4	200	0.64	55	$\leq 1: 187$

Geared Stepper Motor Specifications(57HS5417)

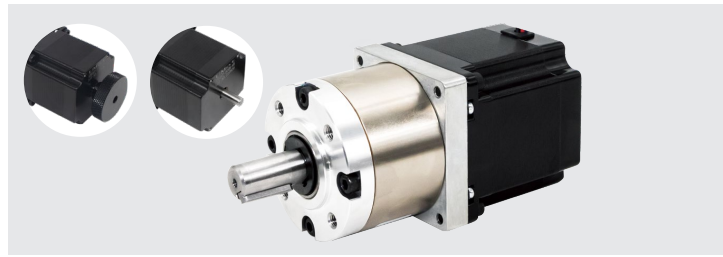
Ratio	3.6	4.3	13	15	18	23	47	55	65	77	96	121	153	187
Holding Torque for Gearbox(mN.m)	3078	3634	10004	11543	13851	15000	30000	30000	30000	30000	30000	30000	30000	30000
Total Length (L+L1)	92.8		104.4				115.8			126.9				
Total Weight (g)	1100		1250				1400			1560				
No.of Stage	1		2				3			4				
Gearbox Length (L1)	37.8		49.4				60.8			71.9				
Backlash (No Load)	$\leq 1^\circ$		$\leq 1.2^\circ$				$\leq 1.5^\circ$			$\leq 1.8^\circ$				
Efficiency	90%		81%				73%			66%				

Dimensions

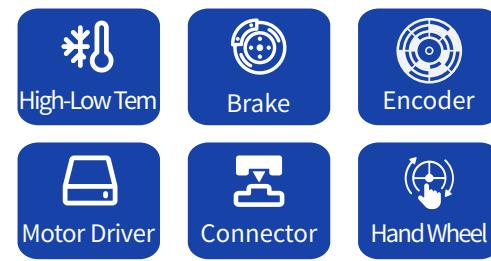


Planetary Geared Stepper Motor (Backlash  $\leq 1.8$  degree)

Size 60 / Nema 24



Options



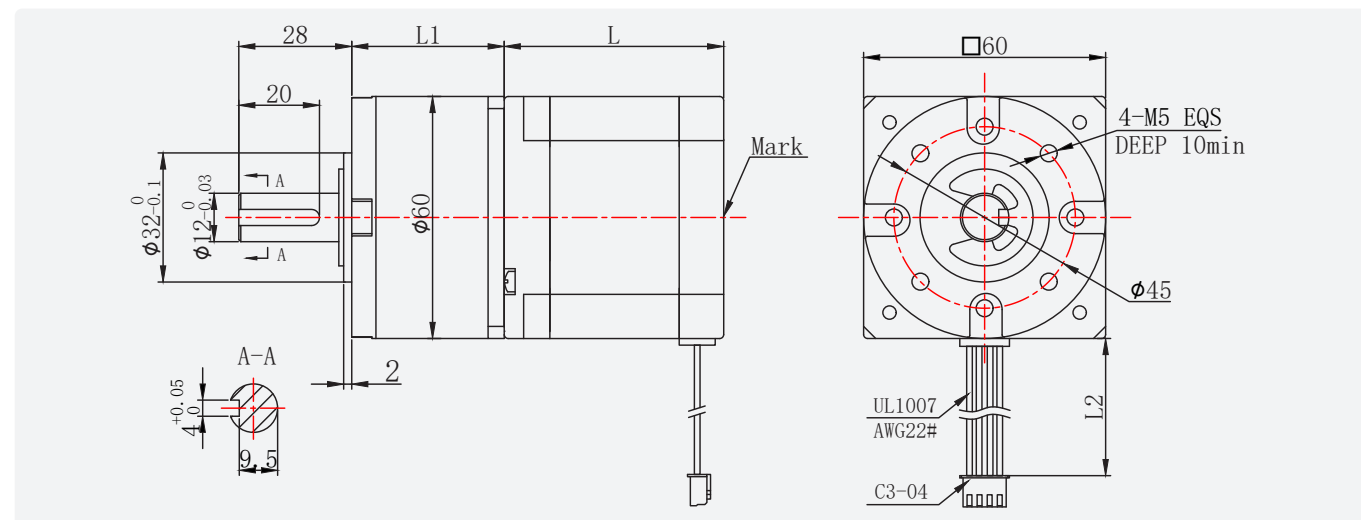
Technical Data

Model No.	Rated Voltage (V)	Rated Current (A)	Resistance/Phase ( $\Omega$ )	Inductance/Phase (mH)	Holding Torque (mN.m)	Wiring (No.)	Rotor Inertia ( $g\cdot cm^2$ )	Weight (kg)	Length (L) (mm)	Reduction Ratio
60HS5405	2.98	3.5	0.85	3	1900	4	300	0.7	55	$\leq 1: 187$

Geared Stepper Motor Specifications(60HS5405)

Ratio	3.6	4.3	13	15	18	23	47	55	65	77	96	121	153	187
Holding Torque for Gearbox(mN.m)	6156	7268	15000	15000	15000	30000	30000	30000	30000	30000	30000	30000	30000	30000
Total Length (L+L1)	92.8			104.4					115.8					126.9
Total Weight (g)	1200			1390					1580					1620
No.of Stage	1			2					3					4
Gearbox Length (L1)	37.8			49.4					60.8					71.9
Backlash (No Load)	$\leq 1^\circ$			$\leq 1.2^\circ$					$\leq 1.5^\circ$					$\leq 1.8^\circ$
Efficiency	90%			81%					73%					66%

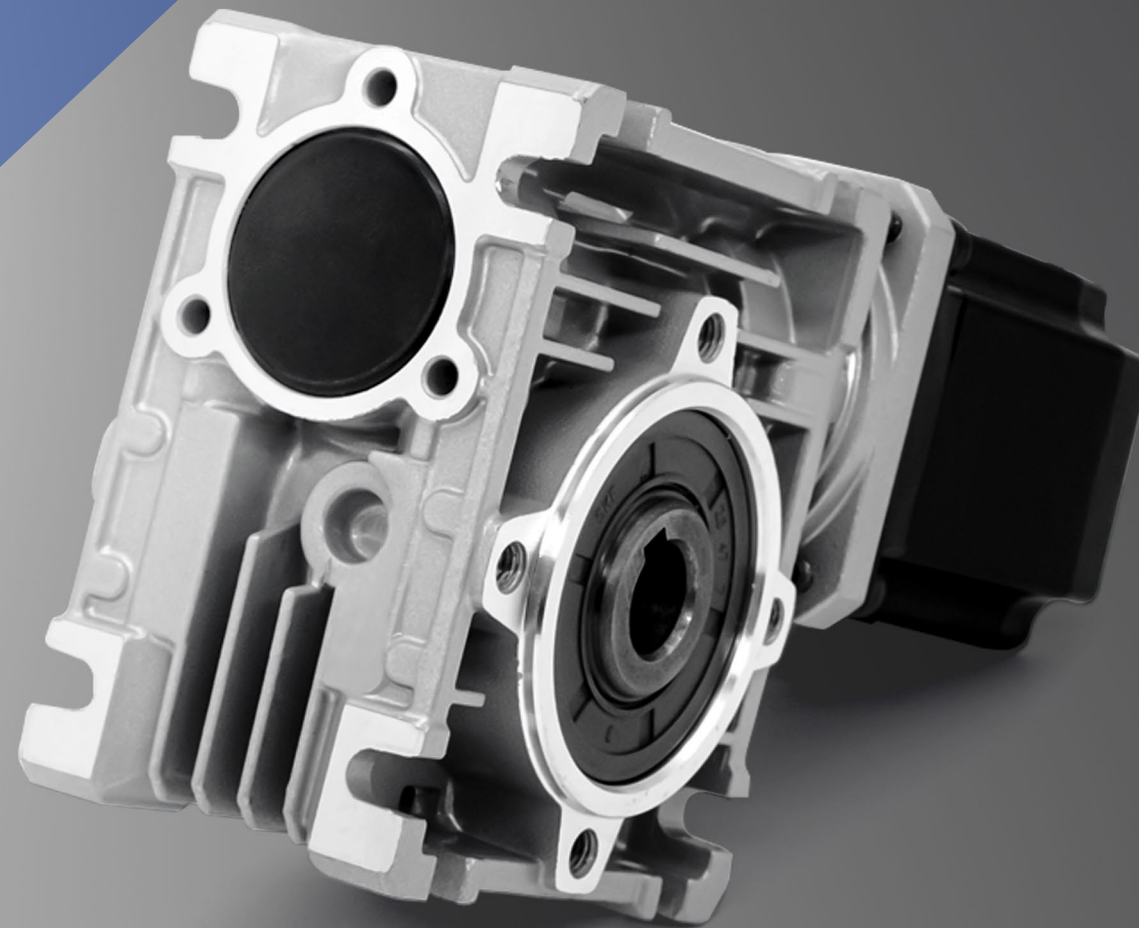
Dimensions



Linear Stepper Motor  
 Geared Stepper Motor  
 Worm Geared Stepper Motor  
 Helical Planetary Gearbox  
 Hollow Rotary Platform  
 Stepper Motor  
 Integrated Stepper Motor  
 Linear Stage  
 Stepper Motor Driver

Linear Stepper Motor  
 Geared Stepper Motor  
 Worm Geared Stepper Motor  
 Helical Planetary Gearbox  
 Hollow Rotary Platform  
 Stepper Motor  
 Integrated Stepper Motor  
 Linear Stage  
 Stepper Motor Driver

# WORM GEARED STEPPER MOTOR



UMot

## NAMEPLATE DEFINITION OF THE WORM GEARED STEPPER MOTOR

**42HSC - 4409 - 88 - TS - 051 - JM - 1 - SC - 300**

**Motor Size**

28 35 42 57 86

**Motor Height**

Size 28: 32.5 45  
 Size 35: 28 38.5  
 Size 42: 40 48  
 Size 57: 55 76  
 Size 86: 78

**Gearbox Size(mm)**

46 88 95 122 140

TS: Worm Gearbox

**Wire Length**

Numbers: Wire Length  
 No Mark: Connector

**Options**

SC: With Brake  
 E: With Encoder

**Output Shaft**

No Mark: Hole Output  
 1: Single Shaft  
 2: Double Shaft

**Backlash**

J: Backlash  $\leq 1.5^\circ$   
 JM: Backlash  $\leq 15$  arcmin

**Ratio**

Standard(J)28/35: 37.3 62 87 149 192 252 324 576 970  
 Standard(J)42: 17 31 50 100 290 505  
 High Precision(JM)42: 5 7.5 10 15 20 30 40 50 60  
 High Precision(JM)57: 5 7.5 10 15 20 25 30 40 50 60 80  
 High Precision(JM)86: 5 7.5 10 15 20 25 30 40 50 60 80 100

Linear Stepper Motor

Gear Stepper Motor

Worm Geared Stepper Motor

Helical Planetary Gearbox

Hollow Rotary Platform

Stepper Motor

Integrated Stepper Motor

Linear Stage

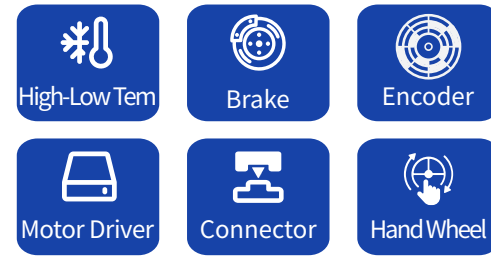
Stepper Motor Driver

Worm Geared Stepper Motor (Backlash  $\leq 1.5$  degree)

Size 28 / Nema 11



Options



Technical Data

Model No.	Rated Voltage (V)	Rated Current (A)	Resistance/Phase ( $\Omega$ )	Inductance/Phase (mH)	Holding Torque (mN.m)	Wiring (No.)	Rotor Inertia (g-cm <sup>2</sup> )	Weight (kg)	Length (L) (mm)	Reduction Ratio
28HS2401	3.88	0.67	5.8	4.2	70	4	15	0.13	32.5	$\leq 1: 970$
28HS5401	4.9	0.7	7	5	95	4	28	0.20	45	$\leq 1: 970$

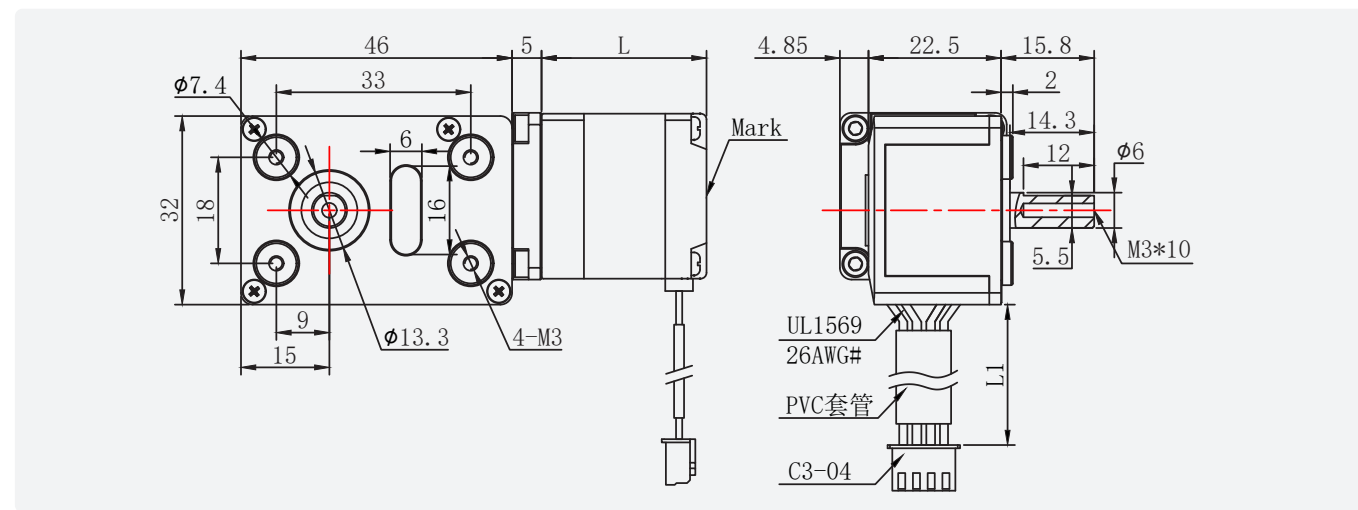
Gearbox Specifications(28HS2401)

Ratio	37.3	62	87	149	192	252	324	576	970
Holding Torque for Gearbox(mN.m)	1900	1900	2300	2300	2800	2800	3200	3200	3200
Total Length(mm)	83.5								
Total Weight (g)	222								
Gearbox Length(mm)	46								
Speed After Gearbox	24.13	14.52	10.34	6.04	4.69	3.57	2.78	1.56	0.93
Backlash(No Load)	1°~1.5°								
Efficiency	73%	73%	70%	67%	65%	63%	61%	45%	25%

Gearbox Specifications(28HS5401)

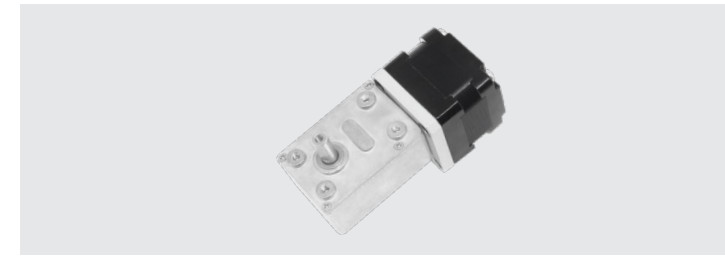
Ratio	37.3	62	87	149	192	252	324	576	970
Holding Torque for Gearbox(mN.m)	2200	2200	2600	2600	3100	3100	3400	3400	3400
Total Length(mm)	96								
Total Weight (g)	292								
Gearbox Length(mm)	46								
Speed After Gearbox	24.13	14.52	10.34	6.04	4.69	3.57	2.78	1.56	0.93
Backlash(No Load)	1°~1.5°								
Efficiency	73%	73%	70%	67%	65%	63%	61%	45%	25%

Dimensions

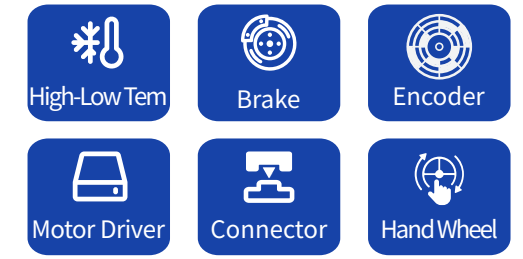


Worm Geared Stepper Motor (Backlash  $\leq 1.5$  degree)

Size 35 / Nema 14



Options



Technical Data

Model No.	Rated Voltage (V)	Rated Current (A)	Resistance/Phase ( $\Omega$ )	Inductance/Phase (mH)	Holding Torque (mN.m)	Wiring (No.)	Rotor Inertia (g-cm <sup>2</sup> )	Weight (kg)	Length (L) (mm)	Reduction Ratio
35HS2408	4.5	1	4.5	5.5	200	4	25	0.15	28	$\leq 1: 970$
35HS5401	4.5	1	4.5	7	250	4	35	0.25	38.5	$\leq 1: 970$

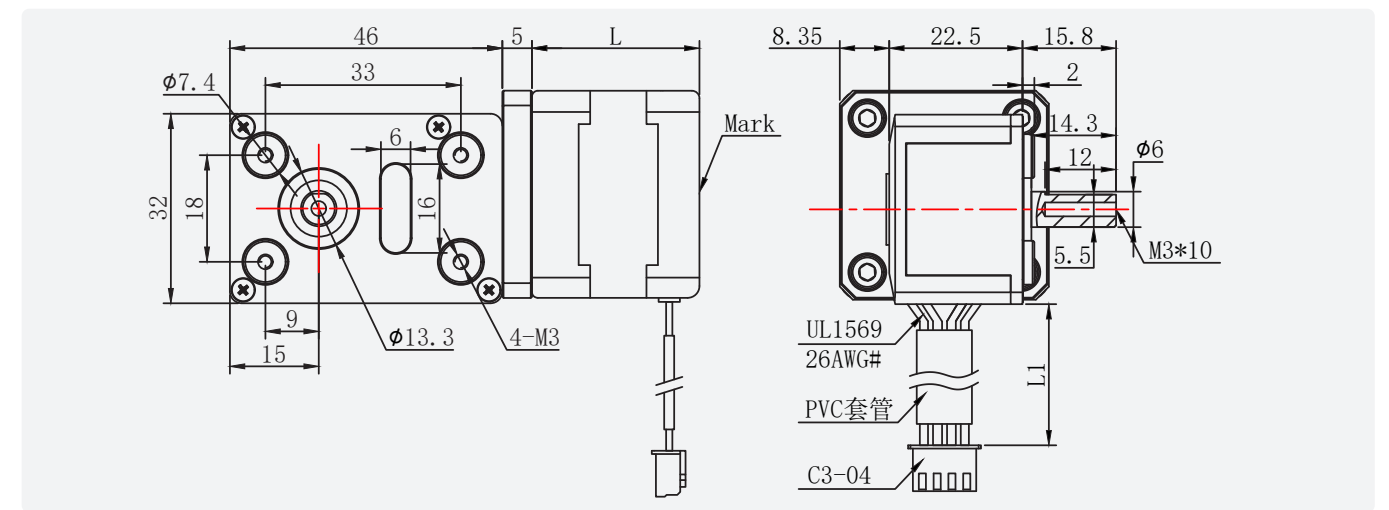
Gearbox Specifications(35HS2408)

Ratio	37.3	62	87	149	192	252	324	576	970
Holding Torque for Gearbox(mN.m)	2200	2200	2600	2600	3100	3100	3400	3400	3400
Total Length(mm)	79								
Total Weight (g)	253								
Gearbox Length(mm)	46								
Speed After Gearbox	24.13	14.52	10.34	6.04	4.69	3.57	2.78	1.56	0.93
Backlash(No Load)	1°~1.5°								
Efficiency	73%	73%	70%	67%	65%	63%	61%	45%	25%

Gearbox Specifications(35HS5401)

Ratio	37.3	62	87	149	192	252	324	576	970
Holding Torque for Gearbox(mN.m)	2500	2500	2900	2900	3200	3200	3500	3500	3500
Total Length(mm)	89.5								
Total Weight (g)	353								
Gearbox Length(mm)	46								
Speed After Gearbox	24.13	14.52	10.34	6.04	4.69	3.57	2.78	1.56	0.93
Backlash(No Load)	1°~1.5°								
Efficiency	73%	73%	70%	67%	65%	63%	61%	45%	25%

Dimensions

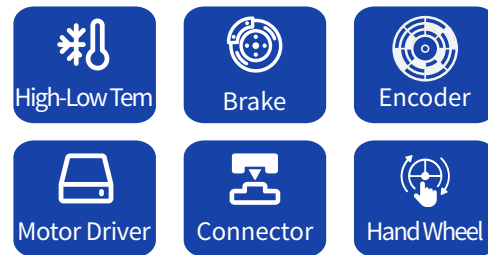


Worm Geared Stepper Motor (Backlash  $\leq 1.5$  degree)

Size 42 / Nema 17



Options



Technical Data

Model No.	Rated Voltage (V)	Rated Current (A)	Resistance/Phase ( $\Omega$ )	Inductance/Phase (mH)	Holding Torque (mN.m)	Wiring (No.)	Rotor Inertia ( $g\cdot cm^2$ )	Weight (kg)	Length (L) (mm)	Reduction Ratio
42HSC1409	2.93	1.33	2.2	3.5	270	4	30	0.22	34	$\leq 1: 505$
42HSC4409	2.5	1.5	1.65	3.3	380	4	40	0.30	40	$\leq 1: 505$

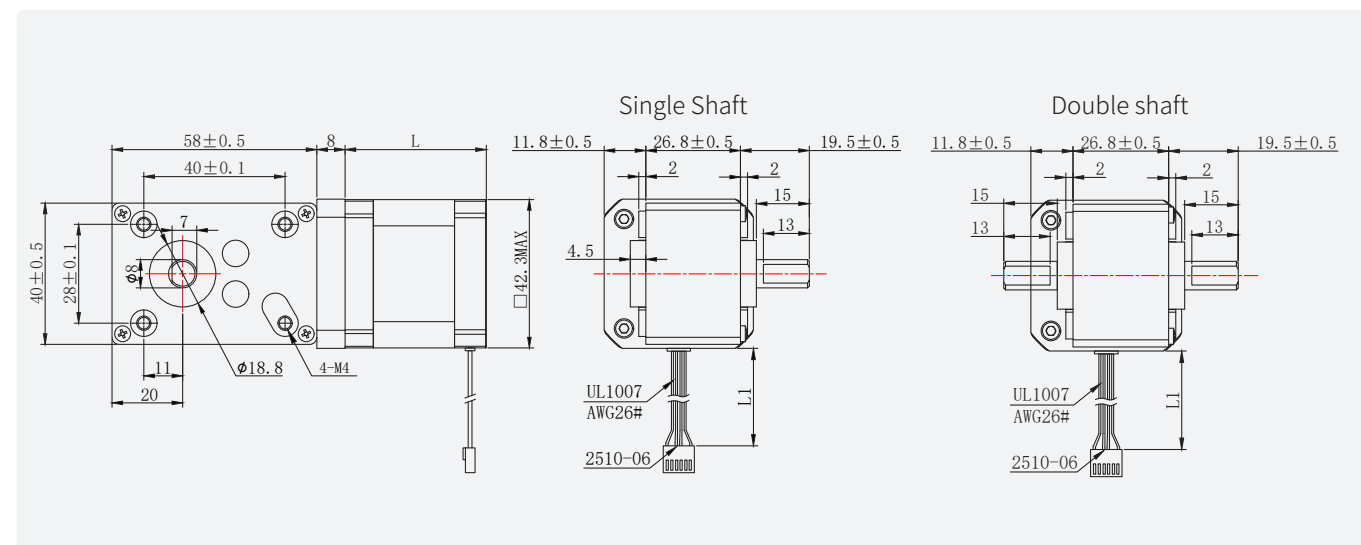
Gearbox Specifications(42HSC1409)

Ratio	17	31	50	100	290	505
Holding Torque for Gearbox(mN.m)	900	1700	2400	4000	4000	4000
Total Length(mm)	100					
Total Weight (g)	600					
Gearbox Length(mm)	66					
Speed After Gearbox	52.94	29.03	18.00	9.00	3.10	1.78
Backlash(No Load)	1°~15°					
Efficiency	81%	81%	73%	73%	66%	50%

Gearbox Specifications(42HSC4409)

Ratio	17	31	50	100	290	505
Holding Torque for Gearbox(mN.m)	1100	2200	3000	5000	5000	5000
Total Length(mm)	106					
Total Weight (g)	680					
Gearbox Length(mm)	66					
Speed After Gearbox	52.94	29.03	18.00	9.00	3.10	1.78
Backlash(No Load)	1°~15°					
Efficiency	81%	81%	73%	73%	66%	50%

Dimensions

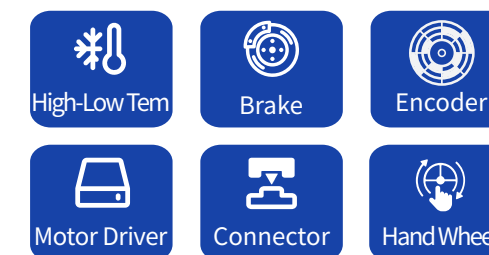


Worm Geared Stepper Motor (Backlash  $\leq 15$  arcmin)

Size 42 / Nema 17



Options



Technical Data

Model No.	Rated Voltage (V)	Rated Current (A)	Resistance/Phase ( $\Omega$ )	Inductance/Phase (mH)	Holding Torque (mN.m)	Wiring (No.)	Rotor Inertia ( $g\cdot cm^2$ )	Weight (kg)	Length (L) (mm)	Reduction Ratio
42HSC4409	2.75	1.5	1.65	3.3	380	4	40	0.3	40	$\leq 1: 60$
42HSC6411	2.77	1.68	1.65	2.8	500	4	68	0.35	48	$\leq 1: 60$
42HSC8416	3.3	2	1.65	4	800	4	100	0.5	60.5	$\leq 1: 60$

Gearbox Specifications(42HSC4409)

Ratio	5	7.5	10	15	20	30	40	50	60
Holding Torque for Gearbox(mN.m)	817	1197	1558	2223	2531	3762	4636	5415	6156
Total Length(mm)	127.5								
Total Weight (g)	1000								
Gearbox Length(mm)	87.5								
Speed After Gearbox	180	120	90	60	45	30	22.5	18	15
Backlash(No Load)	15arcmin~18arcmin								
Efficiency	86%	84%	82%	78%	74%	66%	61%	57%	54%

Gearbox Specifications(42HSC6411)

Ratio	5	7.5	10	15	20	30	40	50	60
Holding Torque for Gearbox(mN.m)	1075	1575	2050	2925	3330	3960	5000	6000	7000
Total Length(mm)	135.5								
Total Weight (g)	1100								
Gearbox Length(mm)	87.5								
Speed After Gearbox	180	120	90	60	45	30	22.5	18	15
Backlash(No Load)	15arcmin~18arcmin								
Efficiency	86%	84%	82%	78%	74%	66%	61%	57%	54%

Gearbox Specifications(42HSC8416)

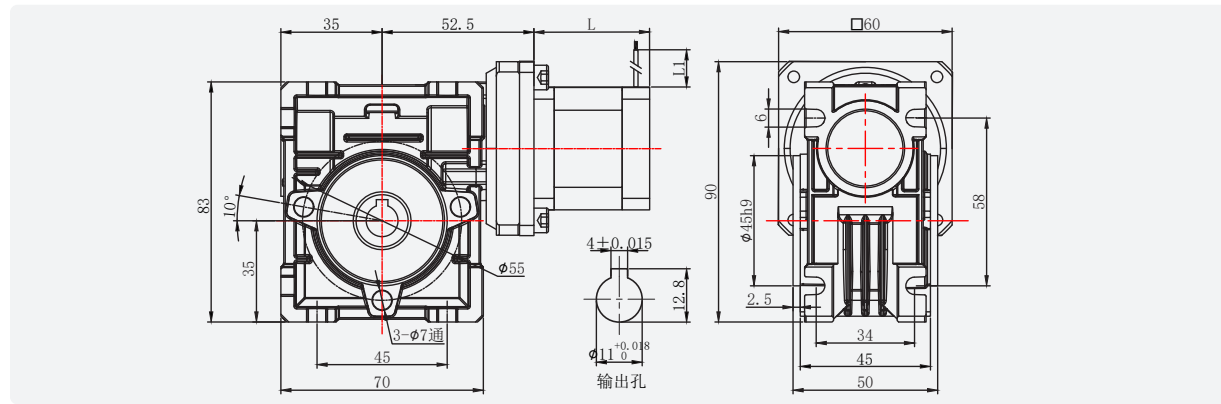
Ratio	5	7.5	10	15	20	30	40	50	60
Holding Torque for Gearbox(mN.m)	1800	2500	3400	4500	5400	6100	7100	8200	9000
Total Length(mm)	148								
Total Weight (g)	1250								
Gearbox Length(mm)	87.5								
Speed After Gearbox	180	120	90	60	45	30	22.5	18	15
Backlash(No Load)	15arcmin~18arcmin								
Efficiency	86%	84%	82%	78%	74%	66%	61%	57%	54%

Gearbox Shaft Options

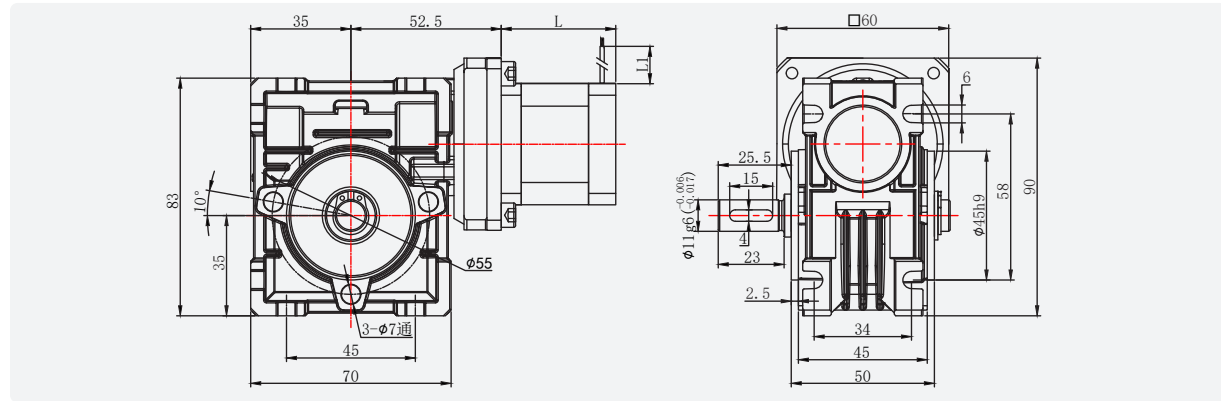


Dimensions

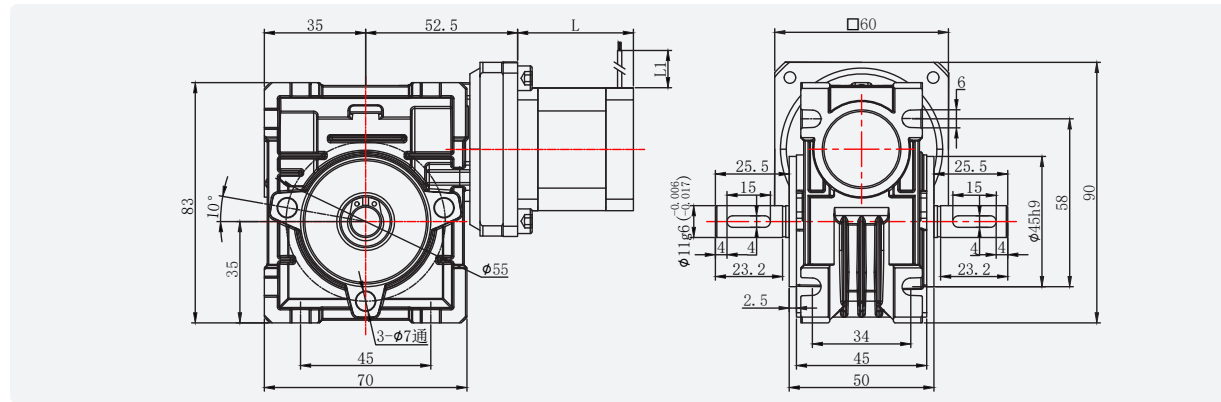
Hollow Shaft



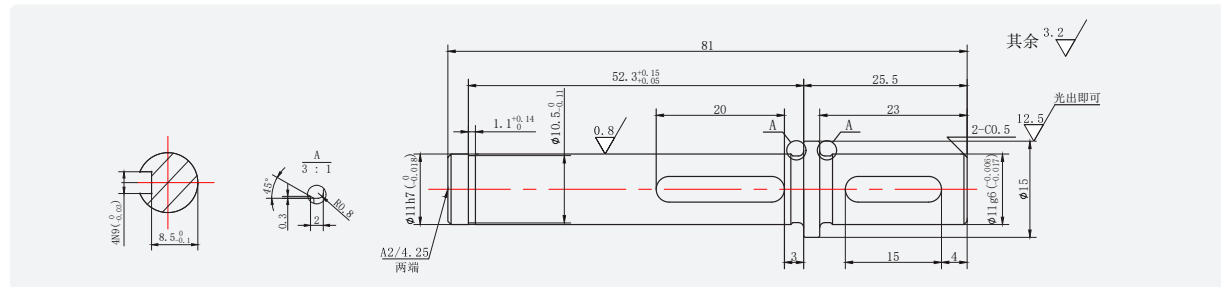
Single Shaft



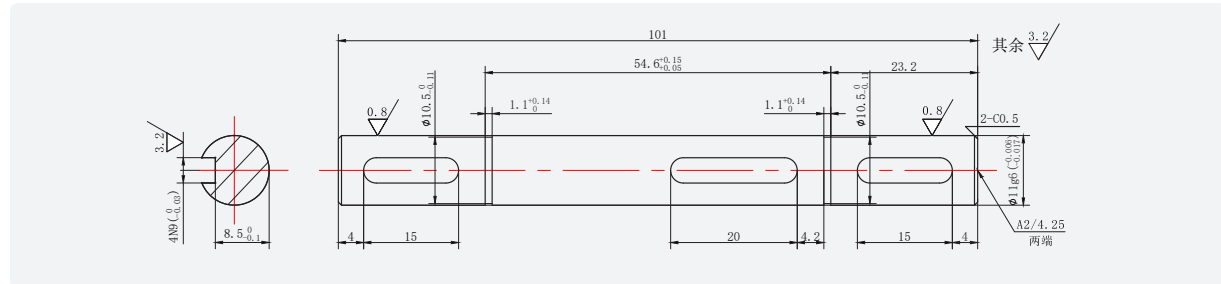
Double Shaft



Shaft Dimensions  
Single Shaft



Shaft Dimensions  
Double Shaft

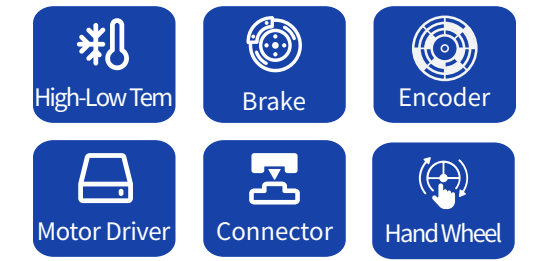


Worm Geared Stepper Motor (Backlash ≤ 15 arcmin)

Size 57 / Nema 23



Options



Technical Data

Model No.	Rated Voltage (V)	Rated Current (A)	Resistance/Phase (Ω)	Inductance/Phase (mH)	Holding Torque (mN.m)	Wiring (No.)	Rotor Inertia (g·cm <sup>2</sup> )	Weight (kg)	Length (L) (mm)	Reduction Ratio
57HS5417	1.7	2	0.85	2.5	950	4	200	0.64	55	≤ 1: 80
57HS7407	2.1	3	0.7	2	1900	4	230	1.1	76	≤ 1: 80

Gearbox Stepper Motor Specifications(57HS5417)

Ratio	5	7.5	10	15	20	25	30	40	50	60	80
Holding Torque for Gearbox(mN.m)	3268	5087	6926	10830	13680	15913	18240	20000	18000	17000	15000
Total Length(mm)	150										
Total Weight (g)	1860										
Gearbox Length(mm)	95										
Speed After Gearbox	180	120	90	60	45	36	30	22.5	18	15	11.25
Backlash(No Load)	15arcmin-18arcmin										
Efficiency	86%	84%	81%	76%	72%	67%	64%	58%	54%	50%	44%

Gearbox Stepper Motor Specifications(57HS7407)

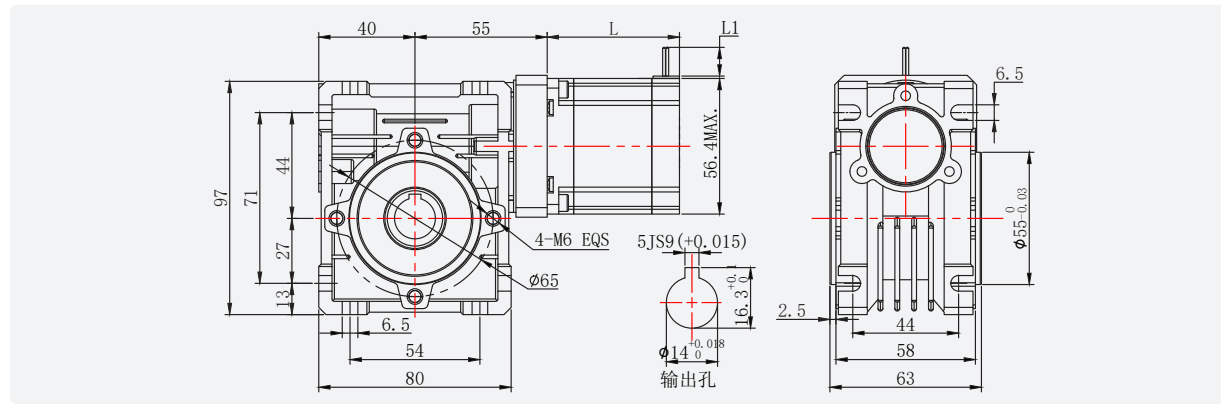
Ratio	5	7.5	10	15	20	25	30	40	50	60	80
Holding Torque for Gearbox(mN.m)	6536	10174.5	13851	20000	20000	23000	21000	17000	18000	17000	15000
Total Length(mm)	171										
Total Weight (g)	2320										
Gearbox Length(mm)	95										
Speed After Gearbox	180	120	90	60	45	36	30	22.5	18	15	11.25
Backlash(No Load)	15arcmin-18arcmin										
Efficiency	86%	84%	81%	76%	72%	67%	64%	58%	54%	50%	44%

Gearbox Shaft Options

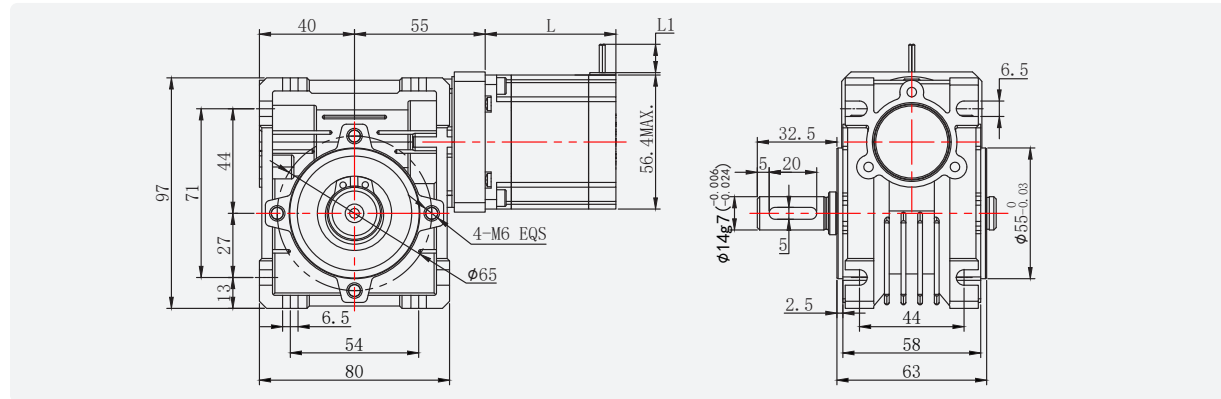


Dimensions

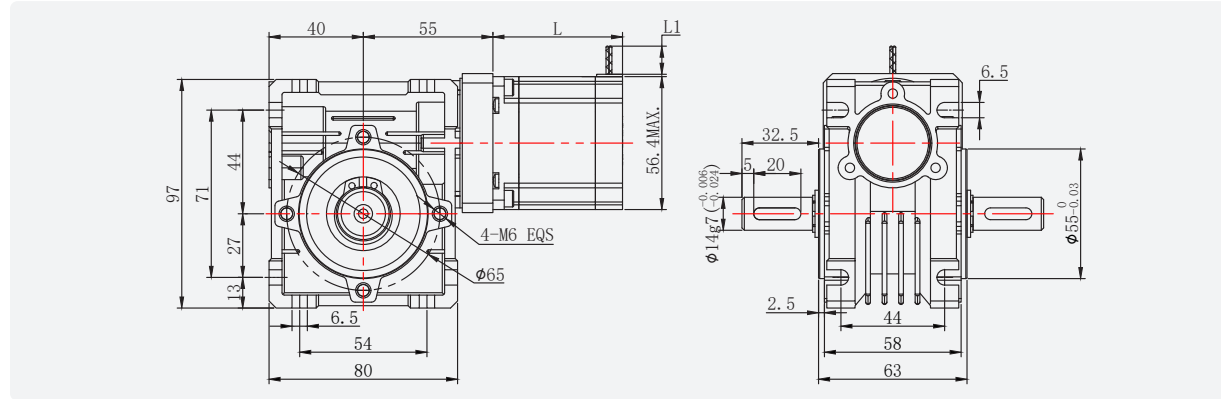
Hollow Shaft



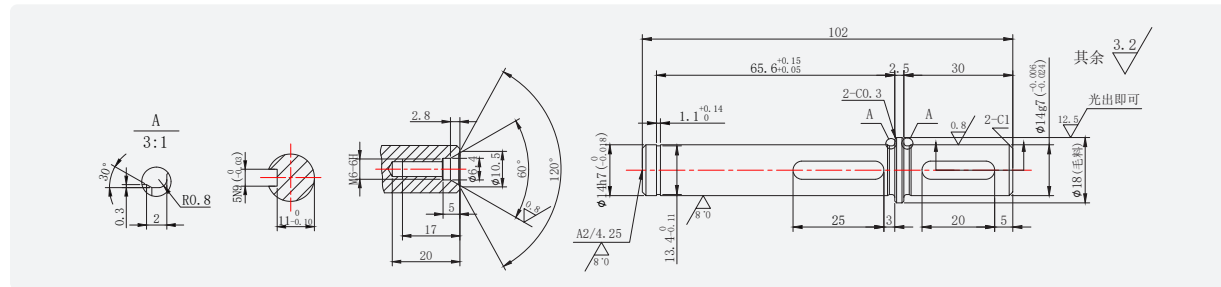
Single Shaft



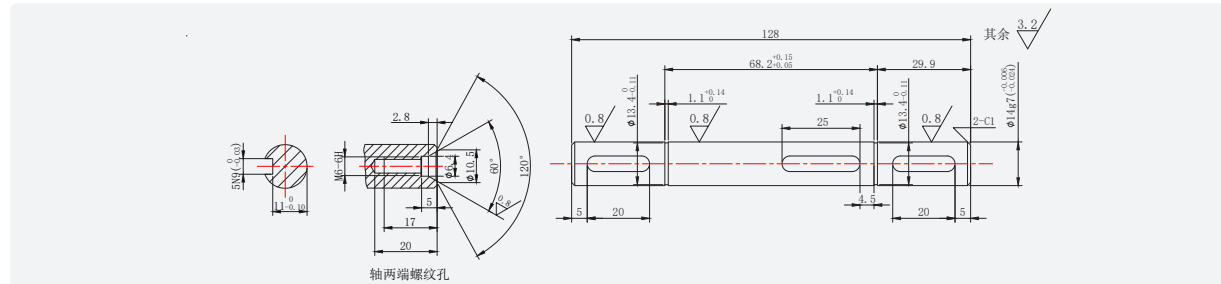
Double Shaft



Shaft Dimensions  
Single Shaft



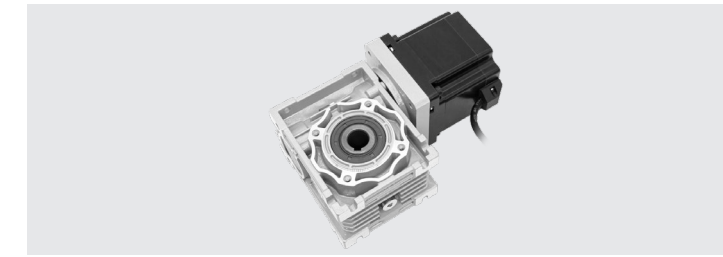
Shaft Dimensions  
Double Shaft



Worm Geared Stepper Motor (Backlash ≤ 15 arcmin)

Size 86 / Nema 34

Options



Options:

- High-Low Tem
- Brake
- Encoder
- Motor Driver
- Connector
- Hand Wheel

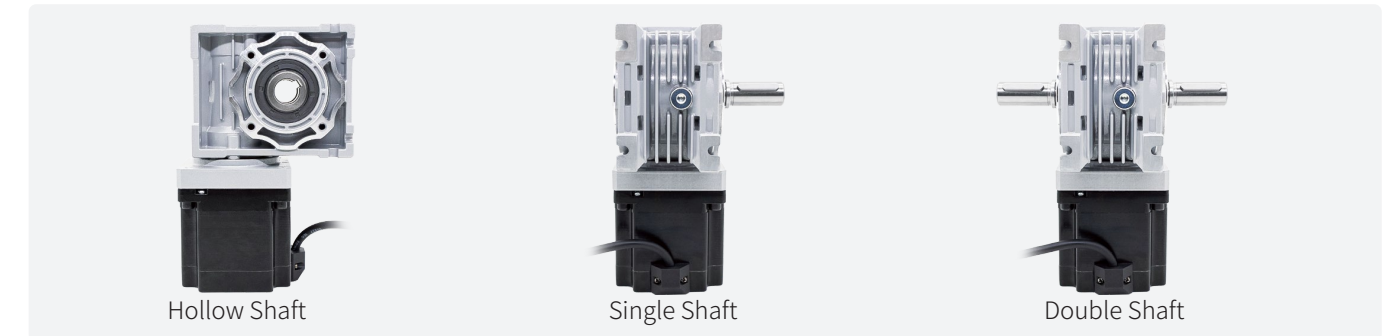
Technical Data

Model No.	Rated Voltage (V)	Rated Current (A)	Resistance/Phase (Ω)	Inductance/Phase (mH)	Holding Torque (mN.m)	Wiring (No.)	Rotor Inertia (g·cm <sup>2</sup> )	Weight (kg)	Length (L) (mm)	Reduction Ratio
86HS2401	1.76	4.4	0.4	3.2	4500	4	1400	2.35	80	≤ 1: 100

Gearbox Stepper Motor Specifications(86HS2401)

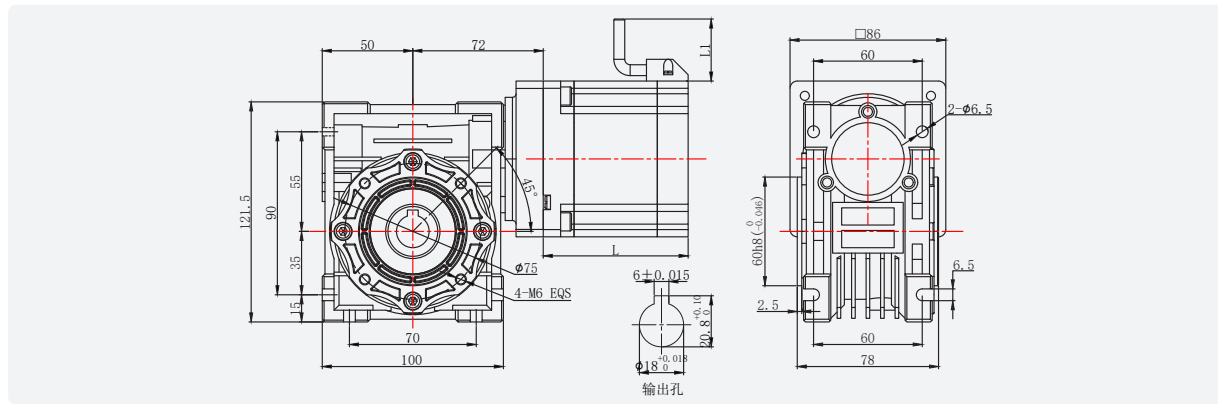
Ratio	5	7.5	10	15	20	25	30	40	50	60	80	100
Holding Torque for Gearbox(mN.m)	15840	24671	34425	45000	44000	43000	49000	45000	42000	39000	35000	32000
Total Length(mm)	202											
Total Weight (g)	4900											
Gearbox Length(mm)	122											
Speed After Gearbox	180	120	90	60	45	36	30	22.5	18	15	11.25	9
Backlash(No Load)	15arcmin-18arcmin											
Efficiency	88%	86%	85%	81%	77%	74%	69%	64%	61%	57%	51%	47%

Gearbox Shaft Options

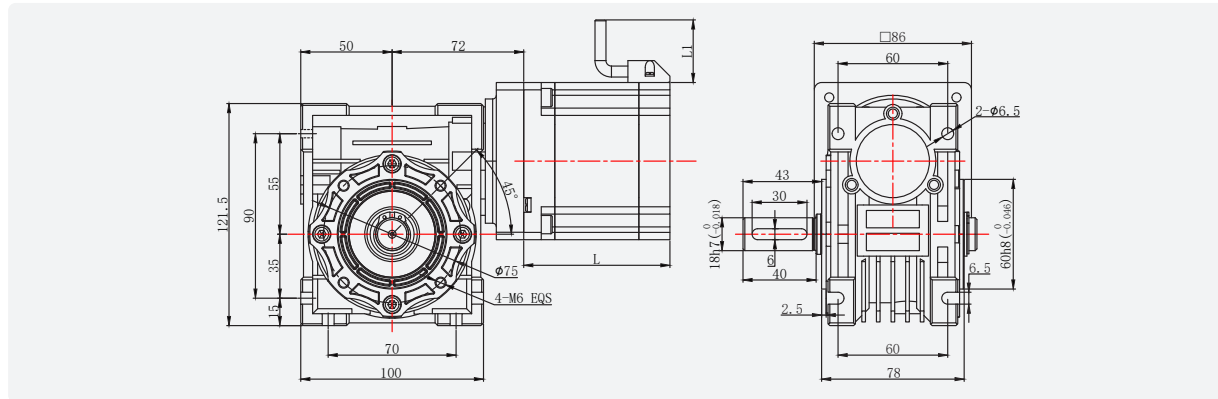


Dimensions

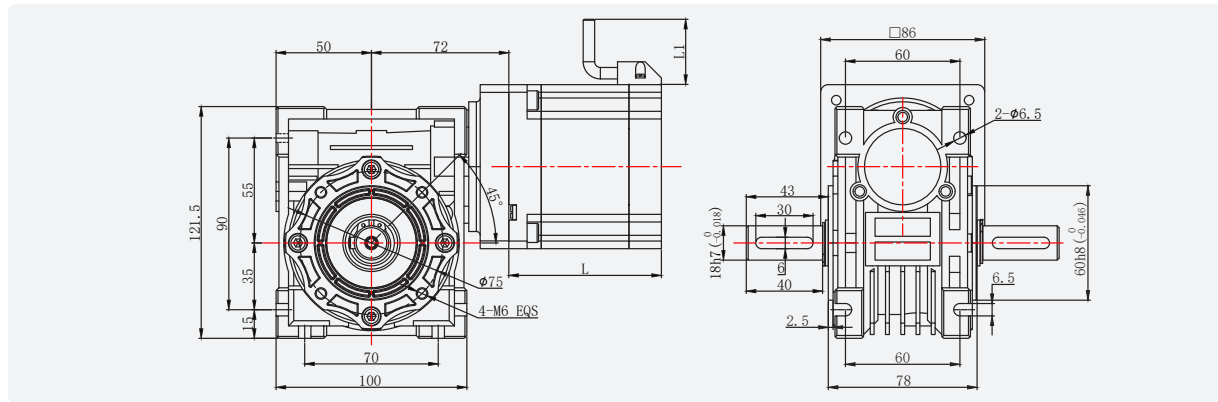
Hollow Shaft



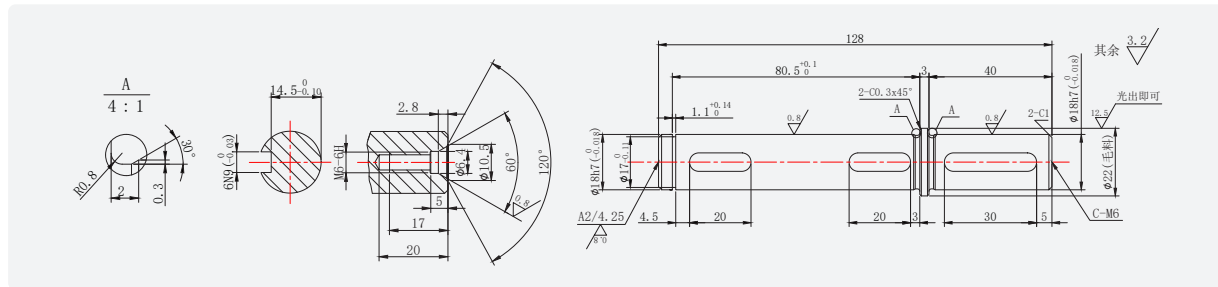
Single Shaft



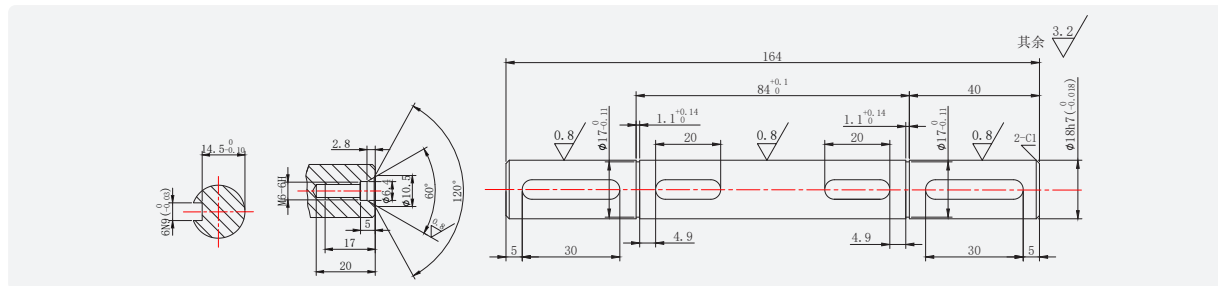
Double Shaft



Shaft Dimensions  
Single Shaft



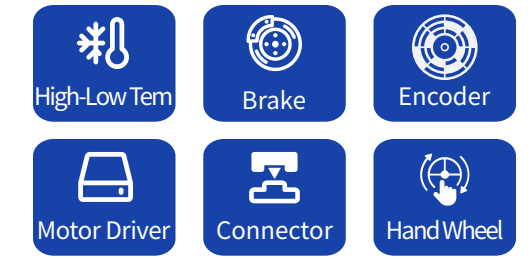
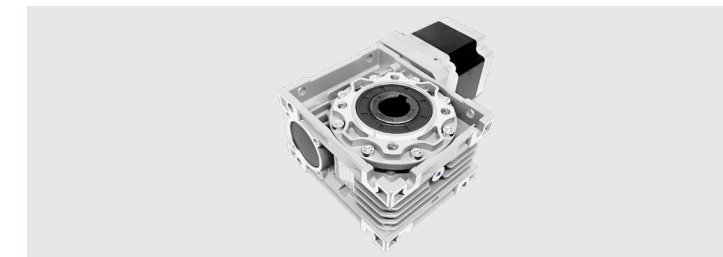
Shaft Dimensions  
Double Shaft



Worm Geared Stepper Motor (Backlash  $\leq 15$  arcmin)

Size 86 / Nema 34 (Heavy-duty)

Options



Technical Data

Model No.	Rated Voltage (V)	Rated Current (A)	Resistance/Phase ( $\Omega$ )	Inductance/Phase (mH)	Holding Torque (mN.m)	Wiring (No.)	Rotor Inertia ( $g \cdot cm^2$ )	Weight (kg)	Length (L) (mm)	Reduction Ratio
86HS2401	1.76	4.4	0.4	3.2	4500	4	1400	2.35	80	$\leq 1: 100$

Gearbox Stepper Motor Specifications(86HS2401)

Ratio	5	7.5	10	15	20	25	30	40	50	60	80	100
Holding Torque for Gearbox(mN.m)	15660	24671	34020	54000	69300	75000	90000	82000	77000	72000	68000	56000
Total Length(mm)	220											
Total Weight (g)	6750											
Gearbox Length(mm)	140											
Speed After Gearbox	180	120	90	60	45	36	30	22.5	18	15	11.25	9
Backlash(No Load)	15arcmin-18arcmin											
Efficiency	87%	86%	84%	80%	77%	74%	70%	65%	61%	57%	51%	49%

Gearbox Shaft Options



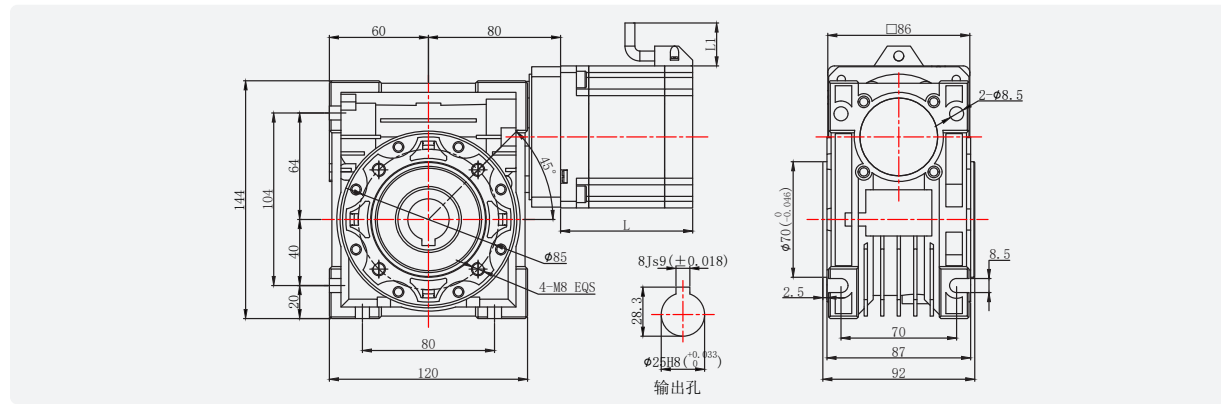
Hollow Shaft

Single Shaft

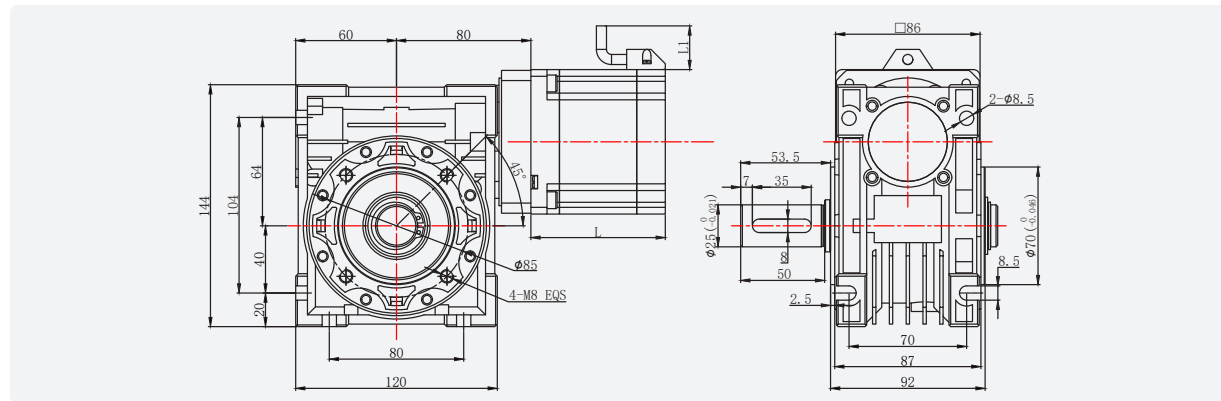
Double Shaft

Dimensions

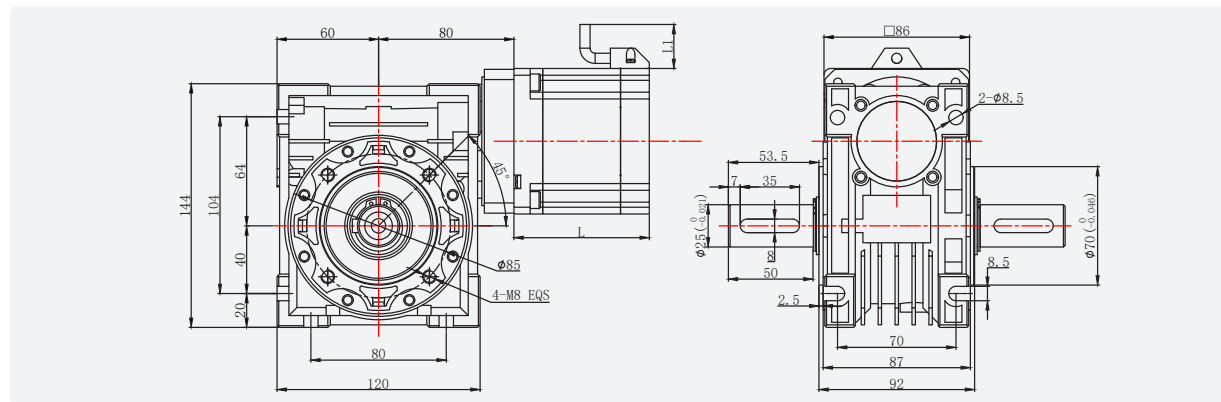
Hollow Shaft



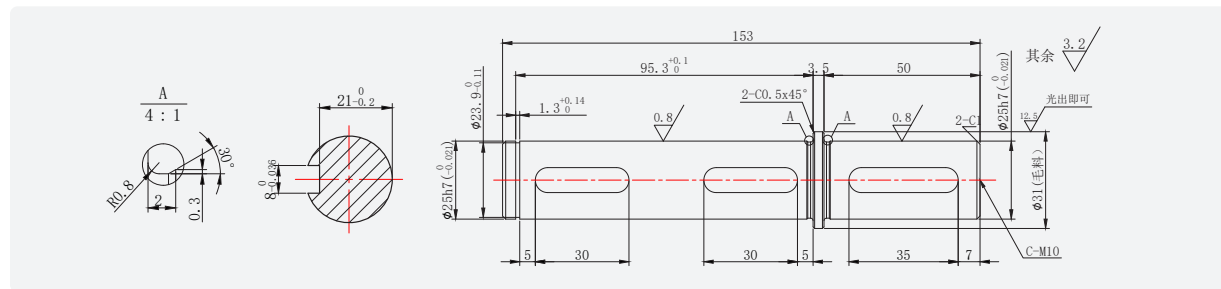
Single Shaft



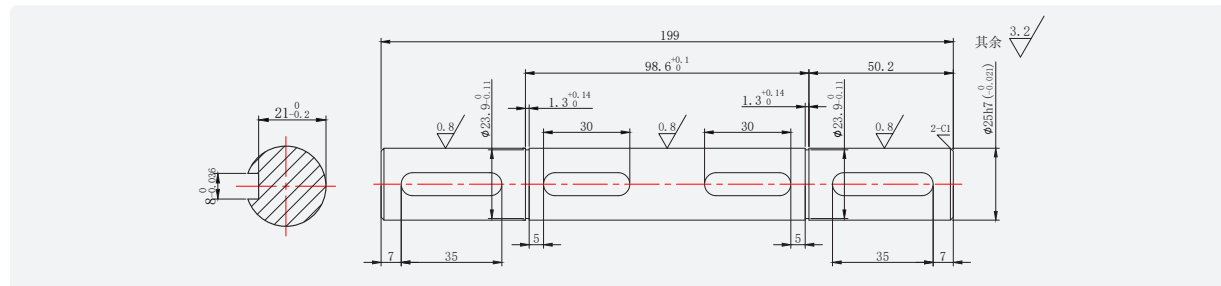
Double Shaft



Shaft Dimensions  
Single Shaft



Shaft Dimensions  
Double Shaft



Linear Stepper Motor

Gear Stepper Motor

Worm Geared Stepper Motor

Helical Planetary Gearbox

Hollow Rotary Platform

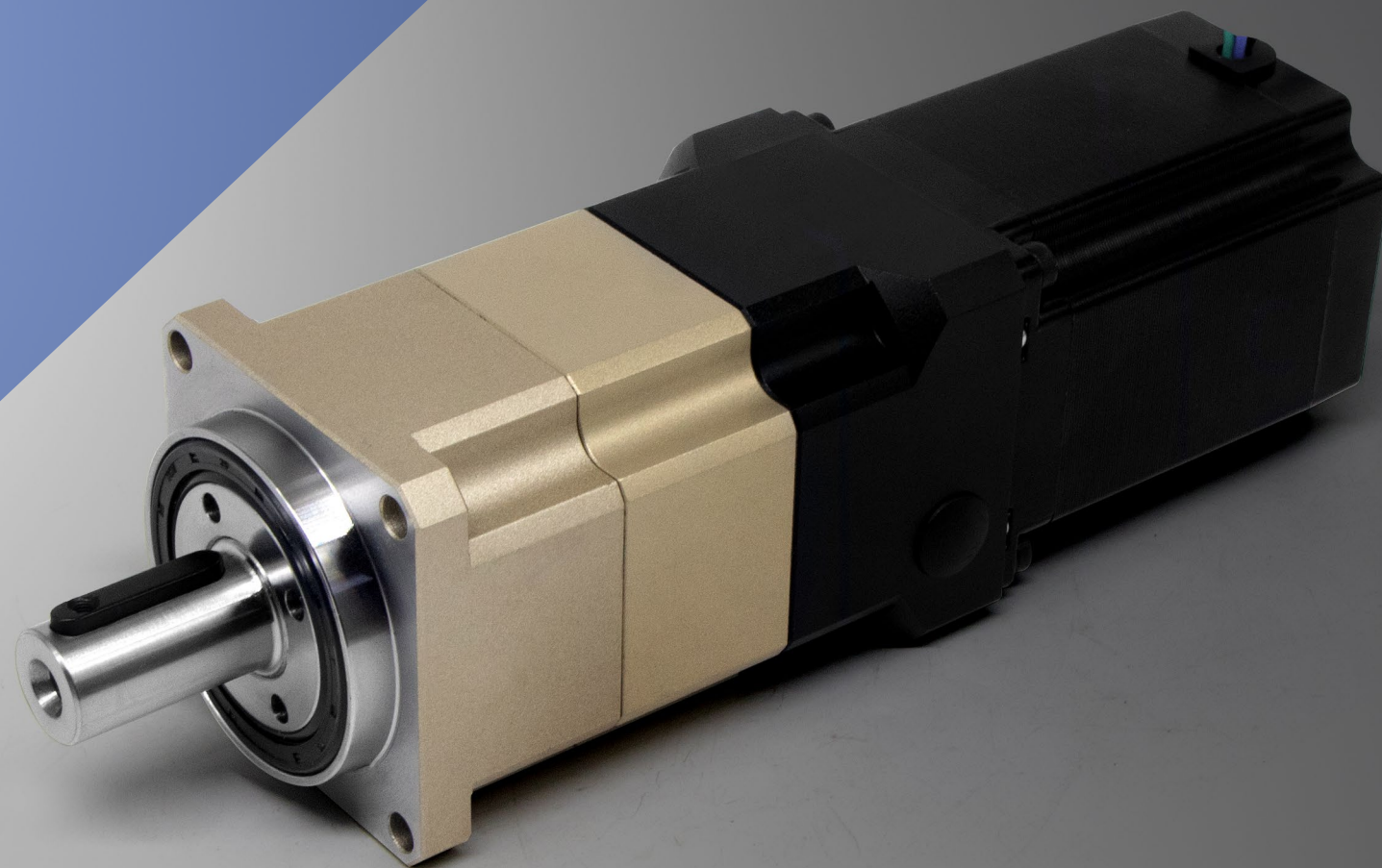
Stepper Motor

Integrated Stepper Motor

Linear Stage

Stepper Motor Driver

# STEPPER MOTOR WITH HELICAL PLANETARY GEARBOX



UMot

## NAMEPLATE DEFINITION OF THE STEPPER MOTOR WITH HELICAL PLANETARY GEARBOX

**42HS - 6413 - T15 - 42 - PX - 051 - JM - SC - 400**

**Motor Size**

42 57

**Motor Height**

Size 42: 48 60.5

Size 57: 76 113.5

**Back Shaft**

T15: Back Shaft at 15mm

No Back Shaft

**Gearbox flange size(mm)**

42 57

Numbers: Wire Length  
No Mark: Connector

**Options**

SC: With Brake  
E: With Encoder

**Backlash**

JM: Planetary Gearbox Backlash  $\leq$  5 arcmin

**Reduction ratio**

42: 4 5 7 10 16 20 25 28 35 40 50 70  
57: 3 4 5 7 10 12 16 20 25 28 30 35 40 50 70 100

**Helical Planetary Gearbox**

Linear Stepper Motor

Geared Stepper Motor

Worm Geared Stepper Motor

Helical Planetary Gearbox

Hollow Rotary Platform

Stepper Motor

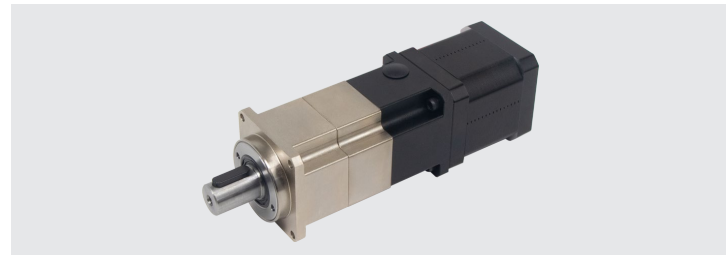
Integrated Stepper Motor

Linear Stage

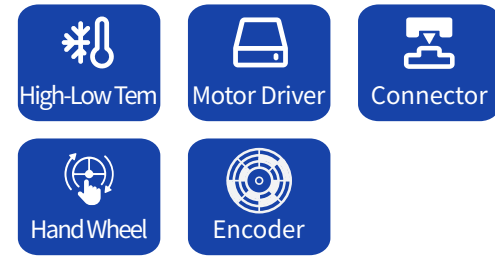
Stepper Motor Driver

Stepper Motor with Helical Planetary Gearbox

Size 42 / Nema 17



Options



Technical Data

Model No.	Rated Voltage (V)	Rated Current (A)	Resistance/Phase (Ω)	Inductance/Phase (mH)	Holding Torque (mN.m)	Wiring (No.)	Rotor Inertia (g·cm <sup>2</sup> )	Weight (kg)	Length (L) (mm)	Reduction Ratio
42HSC6413	3.75	1.5	2.5	3.5	480	4	68	0.35	48	≤ 1: 70
42HSC8416	3.3	2	1.65	4	800	4	100	0.5	60.5	≤ 1: 70

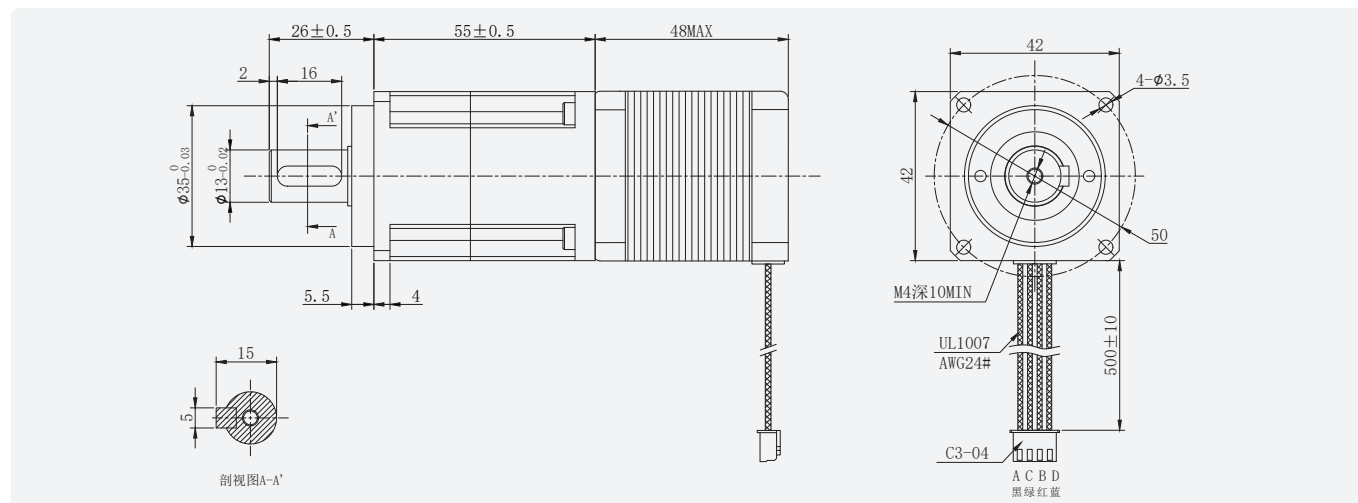
Geared Stepper Motor Specifications(42HSC6413)

Ratio	4	5	7	10	16	20	25	28	35	40	50	70
Holding Torque for Gearbox(mN.m)	1583	1979	2770	3958	6136	7670	9588	10738	13423	15000	15000	10000
Total Length (L+L1)	103						124					
Total Weight (g)	800						1000					
No.of Stage	1						2					
Gearbox Length (L1)	55						76					
Backlash (No load)	5arcmin~8arcmin											
Efficiency	97%						94%					

Geared Stepper Motor Specifications(42HSC8416)

Ratio	4	5	7	10	16	20	25	28	35	40	50	70
Holding Torque for Gearbox(mN.m)	2638	3298	4617	6596	10227	12784	15980	15000	15000	15000	15000	10000
Total Length (L+L1)	115.5						136.5					
Total Weight (g)	950						1150					
No.of Stage	1						2					
Gearbox Length (L1)	55						76					
Backlash (No load)	5arcmin~8arcmin											
Efficiency	97%						94%					

Dimensions

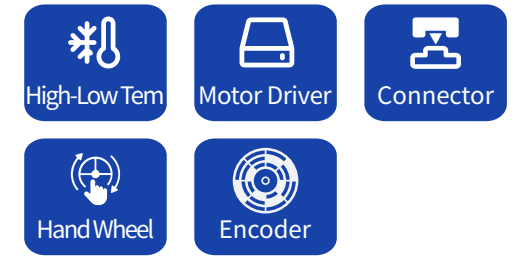


Stepper Motor with Helical Planetary Gearbox

Size 57 / Nema 23



Options



Technical Data

Model No.	Rated Voltage (V)	Rated Current (A)	Resistance/Phase (Ω)	Inductance/Phase (mH)	Holding Torque (mN.m)	Wiring (No.)	Rotor Inertia (g·cm <sup>2</sup> )	Weight (kg)	Length (L) (mm)	Reduction Ratio
57HS7407	2.8	4	0.7	2	1900	4	230	1.1	76	≤ 1: 100
57HS11402	3.2	4	0.8	3.5	2800	4	800	1.7	113.5	≤ 1: 100

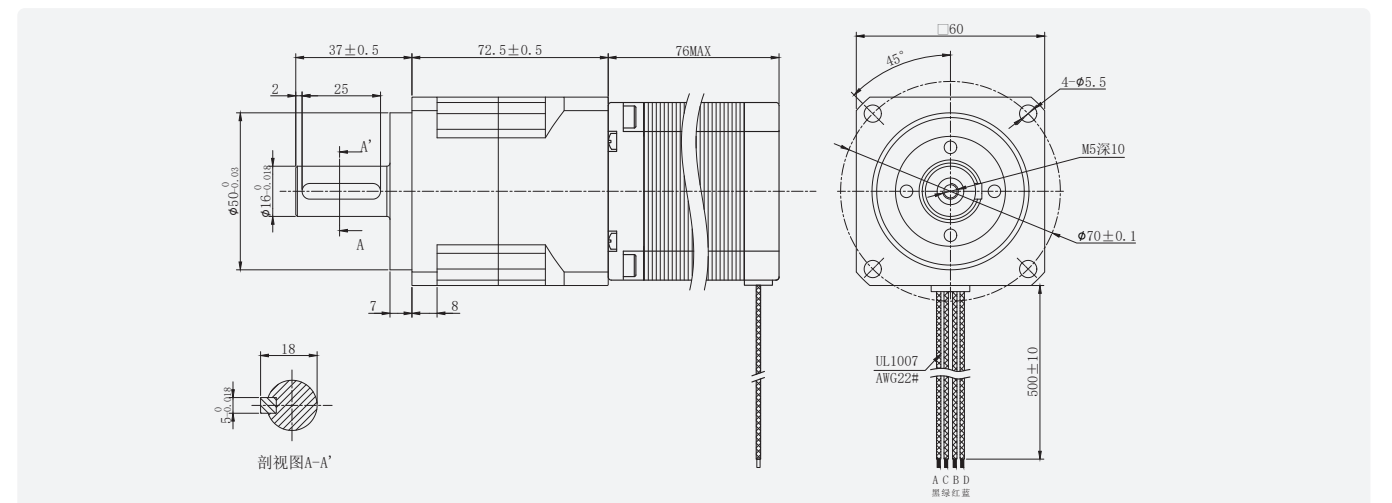
Geared Stepper Motor Specifications(57HS7407)

Ratio	3	4	5	7	10	12	16	20	25	28	30	35	40	50	70	100
Holding Torque for Gearbox(mN.m)	4700	6266	7833	10966	15666	18217	24290	30362	37953	42507	35000	45000	45000	45000	40000	22000
Total Length (L+L1)	148.5						177.5									
Total Weight (g)	2200						2500									
No.of Stage	1						2									
Gearbox Length (L1)	72.5						101.5									
Backlash (No load)	5arcmin~7arcmin															
Efficiency	97%						94%									

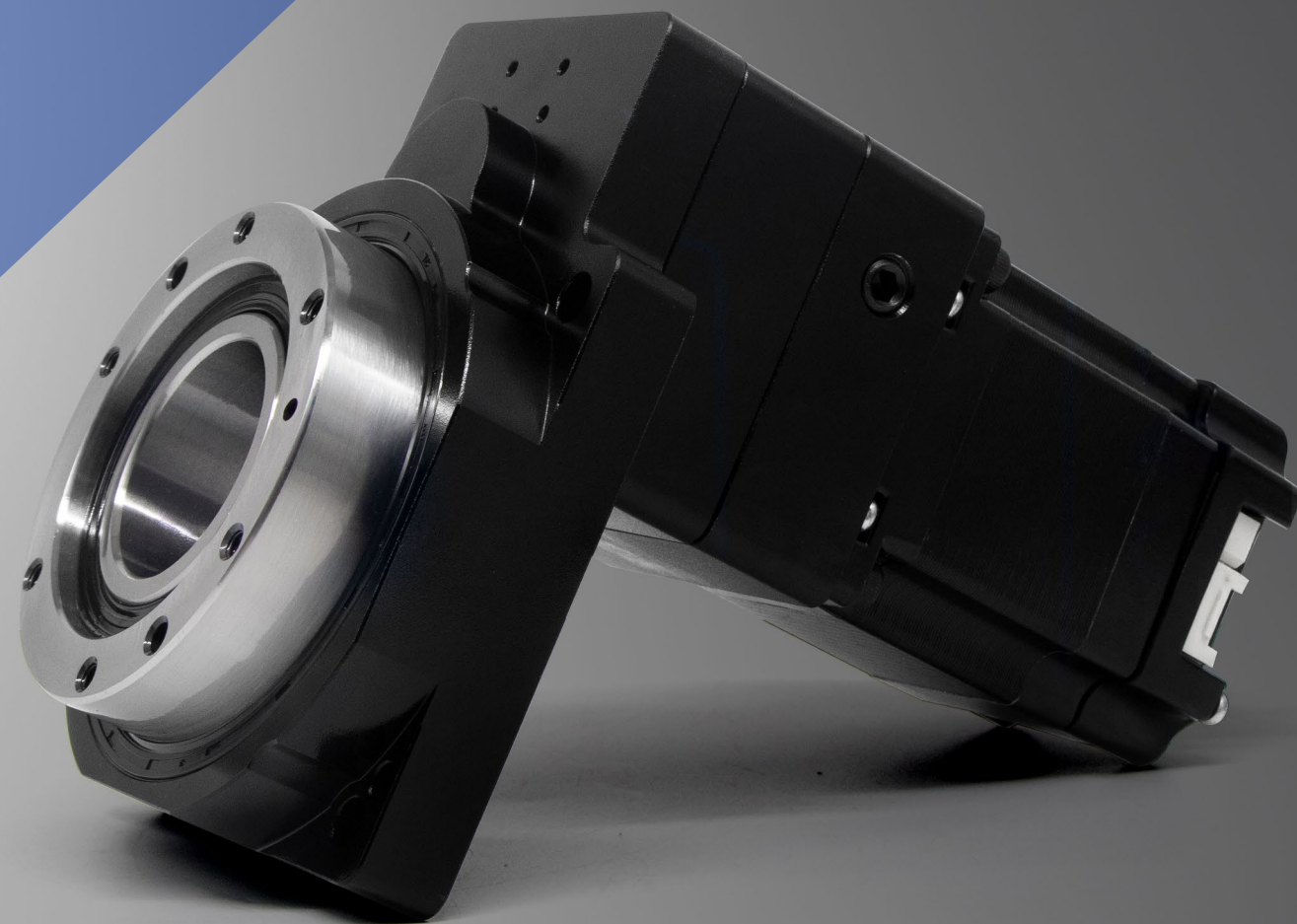
Geared Stepper Motor Specifications(57HS11402)

Ratio	3	4	5	7	10	12	16	20	25	28	30	35	40	50	70	100
Holding Torque for Gearbox(mN.m)	6926	9234	11543	16160	22000	26846	35795	44744	45000	45000	35000	45000	45000	45000	40000	22000
Total Length (L+L1)	186						215									
Total Weight (g)	2800						3100									
No.of Stage	1						2									
Gearbox Length (L1)	72.5						101.5									
Backlash (No load)	5arcmin~7arcmin															
Efficiency	97%						94%									

Dimensions



# STEPPER MOTOR WITH HOLLOW ROTARY PLATFORM



UMot

## NAMEPLATE DEFINITION OF THE STEPPER MOTOR WITH HOLLOW ROTARY PLATFORM

**42HS - 3418 - T15 - 42 - PK - 051 - JM - SC - 400**

**Motor Size**

42 57

**Motor Height**

Size 42: 40 48

Size 57: 55 76

**Back Shaft**

T15: Back Shaft at 15mm

No Back Shaft

**Gearbox flange size(mm)**

60 85

Numbers: Wire Length  
No Mark: Connector

**Options**

SC: With Brake

E: With Encoder

**Backlash**

JM: Planetary Gearbox Backlash  $\leq 0.5$  arcmin

**Reduction ratio**

5 10

Stepper Motor With Hollow Rotary Platform

Linear Stepper Motor

Geared Stepper Motor

Worm Geared Stepper Motor

Helical Planetary Gearbox

Hollow Rotary Platform

Stepper Motor

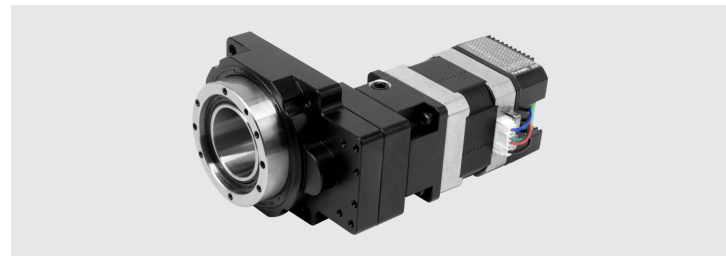
Integrated Stepper Motor

Linear Stage

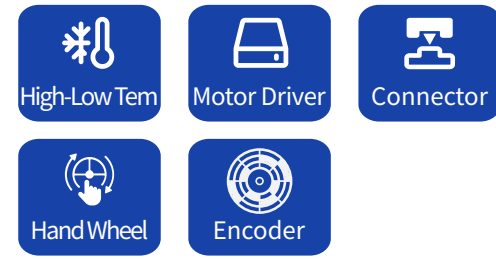
Stepper Motor Driver

Stepper Motor with Hollow Rotary Platform

Size 42 / Nema 17



Options



Technical Data

Model No.	Rated Voltage (V)	Rated Current (A)	Resistance/Phase (Ω)	Inductance/Phase (mH)	Holding Torque (mN.m)	Wiring (No.)	Rotor Inertia (g·cm <sup>2</sup> )	Weight (kg)	Length (L) (mm)	Reduction Ratio
D42HS3418-24B22	2.8	1.68	1.65	3.2	380	4	50	0.3	40	≤ 1: 10
D42HS6403-24B15	2.77	1.68	1.65	2.8	500	4	68	0.35	48	≤ 1: 10

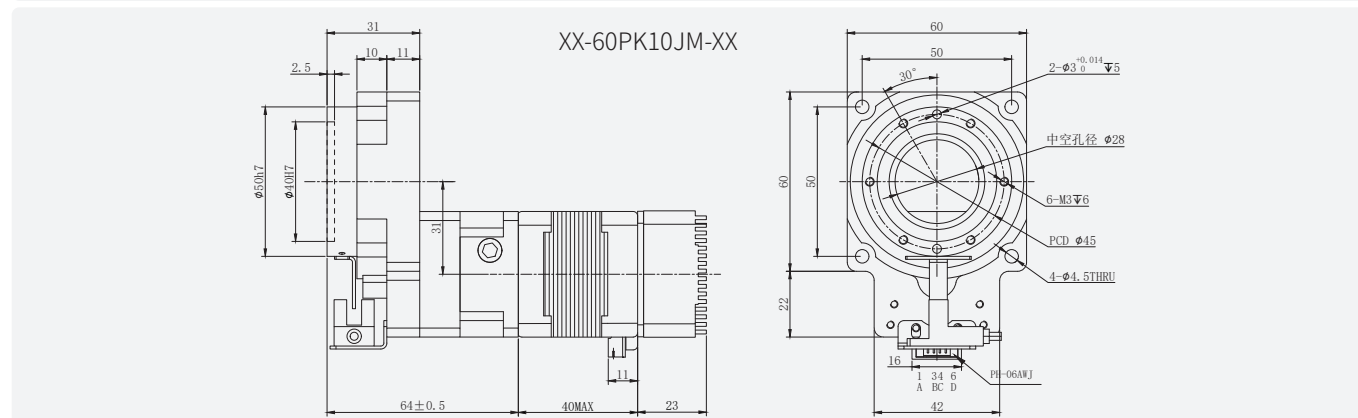
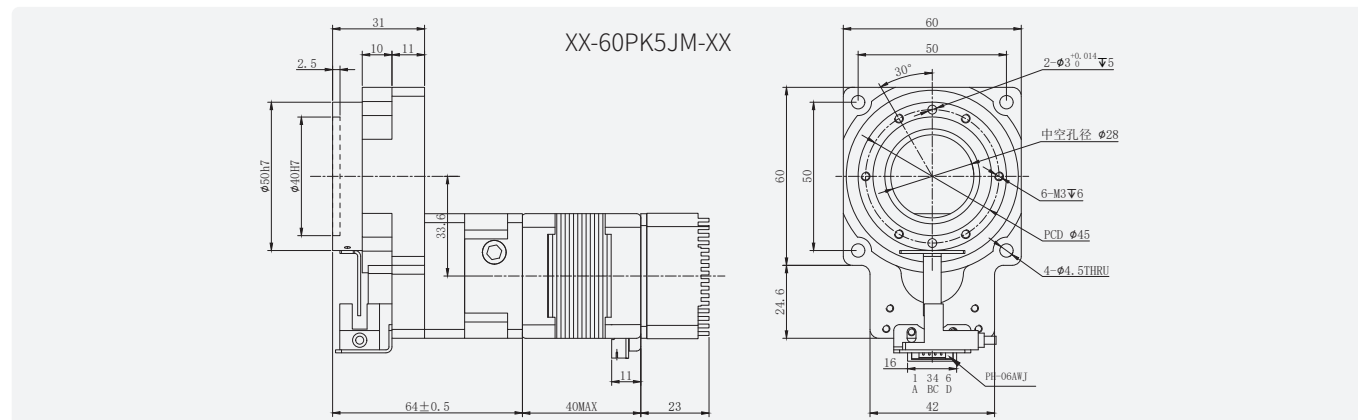
Geared Stepper Motor Specifications(D42HS3418)

Ratio	5	10
Holding Torque for Gearbox(mN.m)	1444	2888
Total Length (L+L1+23)	127	
Total Weight (g)	850	
No.of Stage	1	
Gearbox Length (L1)	64	
Backlash (No load)	≤ 0.5arcmin	
Efficiency	95%	

Geared Stepper Motor Specifications(D42HS6403)

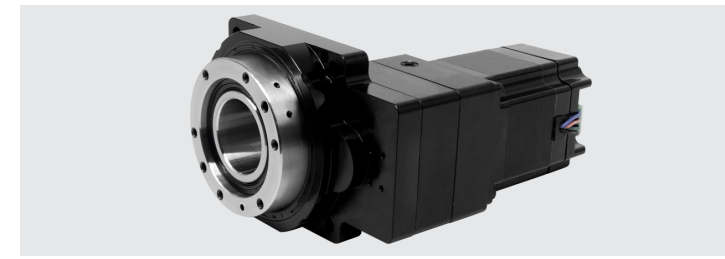
Ratio	5	10
Holding Torque for Gearbox(mN.m)	1900	3800
Total Length (L+L1+23)	135	
Total Weight (g)	900	
No.of Stage	1	
Gearbox Length (L1)	64	
Backlash (No load)	≤ 0.5arcmin	
Efficiency	95%	

Dimensions

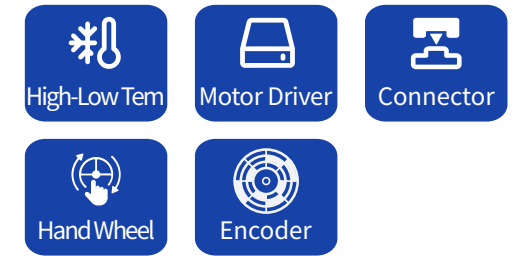


Stepper Motor with Hollow Rotary Platform

Size 57 / Nema 23



Options



Technical Data

Model No.	Rated Voltage (V)	Rated Current (A)	Resistance/Phase (Ω)	Inductance/Phase (mH)	Holding Torque (mN.m)	Wiring (No.)	Rotor Inertia (g·cm <sup>2</sup> )	Weight (kg)	Length (L) (mm)	Reduction Ratio
57HS5417-21-500	1.7	2	0.85	2.5	950	4	200	0.7	55	≤ 1: 10
57HS7407-21B18-500A	2.8	4	0.7	2.0	1900	4	230	1.1	76	≤ 1: 10

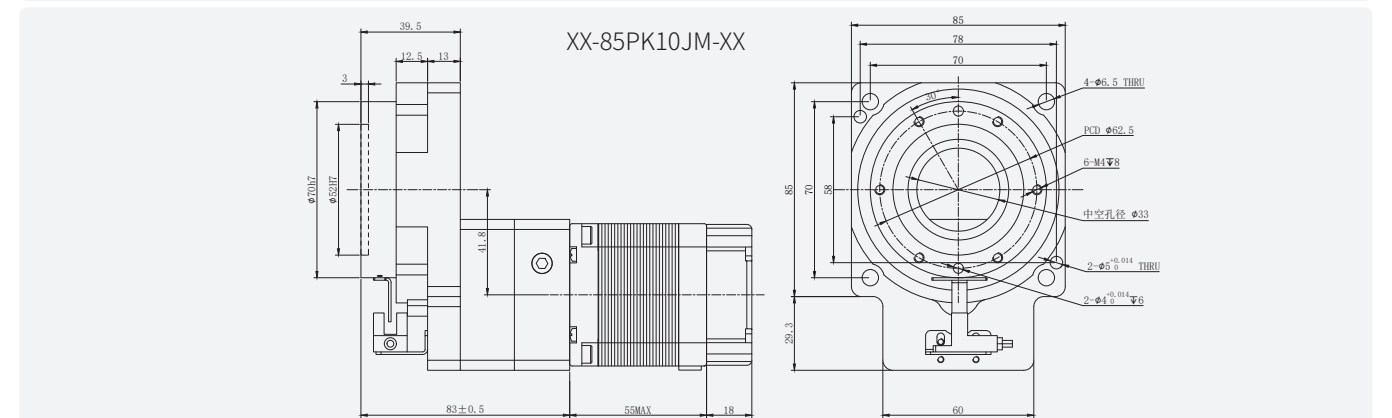
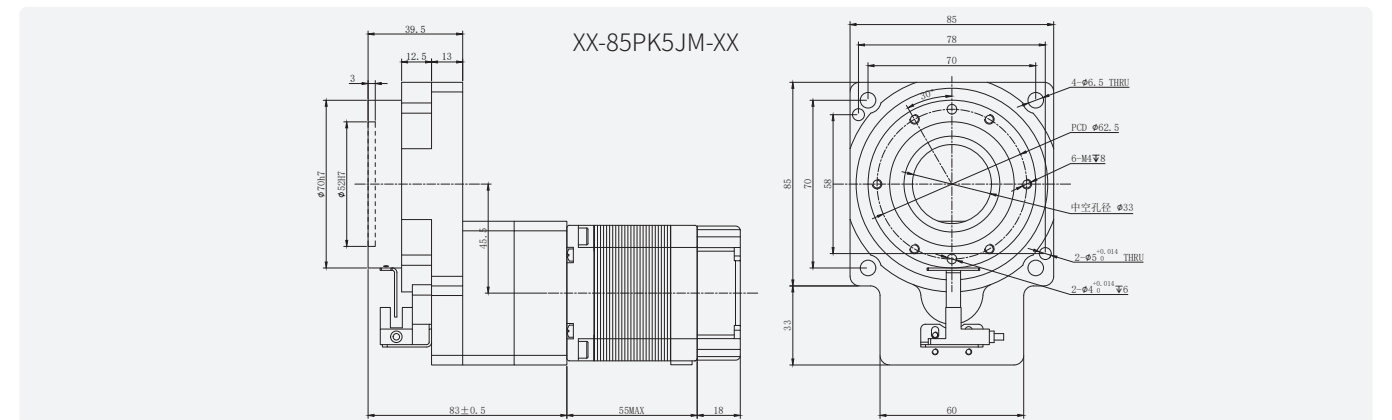
Geared Stepper Motor Specifications(57HS5417)

Ratio	5	10
Holding Torque for Gearbox(mN.m)	3610	7220
Total Length (L+L1+18)	156	
Total Weight (g)	2100	
No.of Stage	1	
Gearbox Length (L1)	83	
Backlash (No load)	≤ 0.5arcmin	
Efficiency	95%	

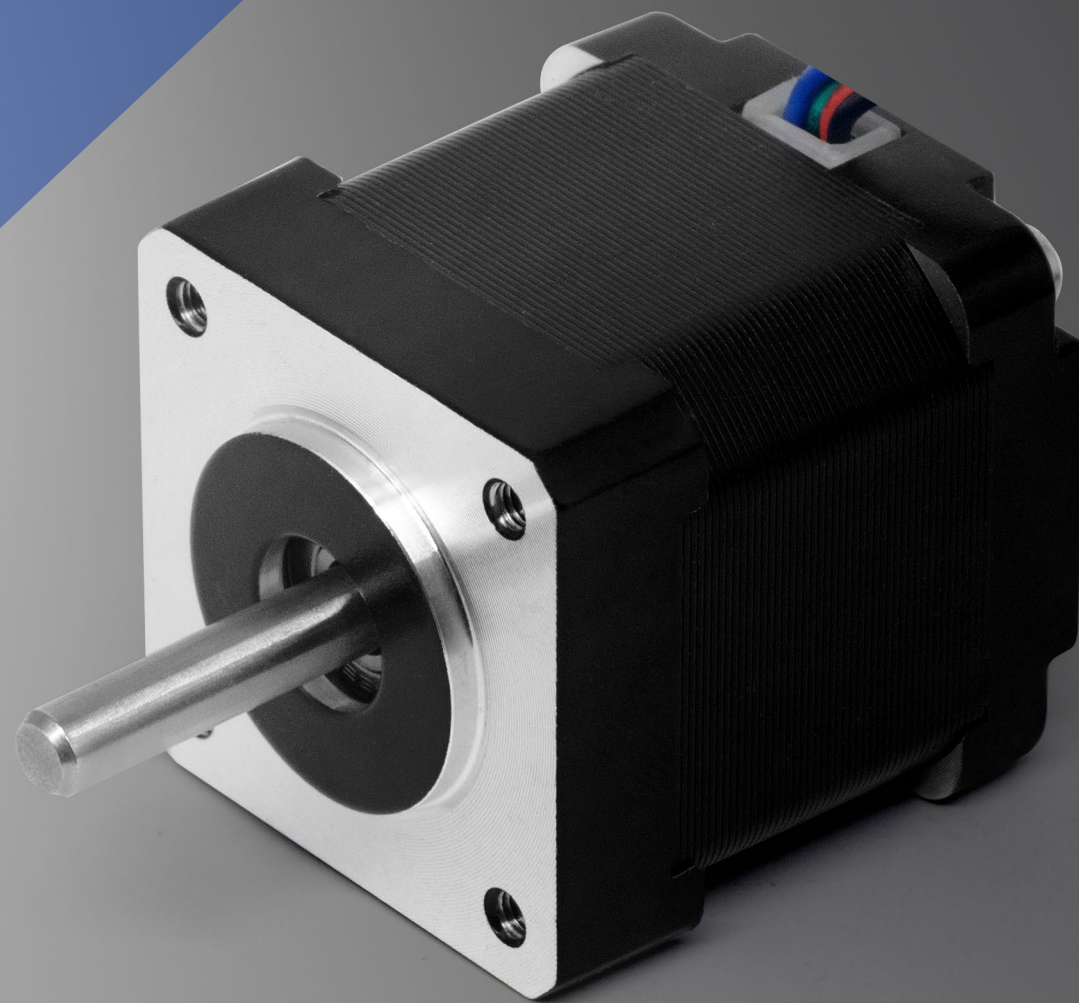
Geared Stepper Motor Specifications(57HS7407)

Ratio	5	10
Holding Torque for Gearbox(mN.m)	7220	14440
Total Length (L+L1+18)	177	
Total Weight (g)	2500	
No.of Stage	1	
Gearbox Length (L1)	83	
Backlash (No load)	≤ 0.5arcmin	
Efficiency	95%	

Dimensions



# STEPPER MOTOR



UMot

## NAMEPLATE DEFINITION OF THE HYBRID STEPPER MOTOR

**42H-S-C-6-6-XX/XXX-24-B-2-400**

**Motor Size**

20 28 35 36 39 42 57  
60 86

**Motor Type**

H: Hybrid

**Step Angle**

K Step Angle 0.9°  
E Step Angle 1.2°  
S Step Angle 1.8°

**Flange Type**

C or No Mark: Square  
Y: Round  
SH: 35 39 Standard Model

**Motor Height**

Size 20: 0:24.5 6:41  
Size 28: 0:25.5 2:32 4:40 5:45 7:52  
Size 35: 0:20.5 2:25.5 3:32.5 5:37.5 6:48 7:51  
Size 36: 0:13 3:18  
Size 39: 0:20.5 1:22.5 2:30 3:28.8 4:34  
Size 42: 0:26 1:34 3:38 4:40 6:48 8:60.5 11:81  
Size 57: 1:45 3:51 5:55 6:65 7:76 10:100 11:113.5  
Size 60: 6:55  
Size 86: 2:78 5:55 9:128

**Wire Length**

Numbers: Wire Length  
No Mark: Connector

**D-shaft Specifications**

Numbers: D Shaft Length  
No Mark: No D Shaft

**Shaft Type**

A or No Mark: Round Shaft  
B: D Shaft  
J: Key with Keyway

**Shaft Length(mm)**

**Factory Number**

**No.of Wires**

3: 3 Wires、4: 4 Wires、6: 6 Wires

Linear Stepper Motor

Gear Stepper Motor

Worm Gear Stepper Motor

Helical Planetary Gearbox

Hollow Rotary Platform

Stepper Motor

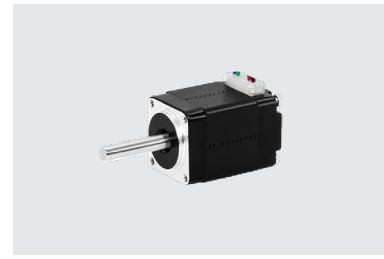
Integrated Stepper Motor

Linear Stage

Stepper Motor Driver

Stepper Motor

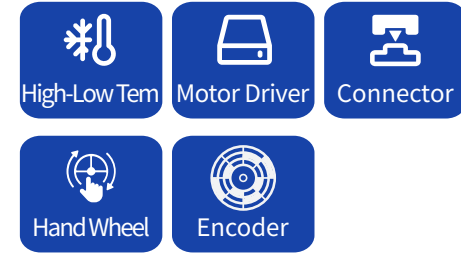
Size 20 / Nema 8



General Specifications

Step Angle	1.8°
Temperature Rise	80° C Max(Rated Current,2 phase power)
Ambient Temperature	-20° C ~ 80° C
Insulation Resistance	100MQMin,500VDC
Radial Runout	0.02 Max.(450g load)
Axial Runout	0.08 Max.(450g load)
Radial Load	20N(20mm from Flange)
Axial Load	2N

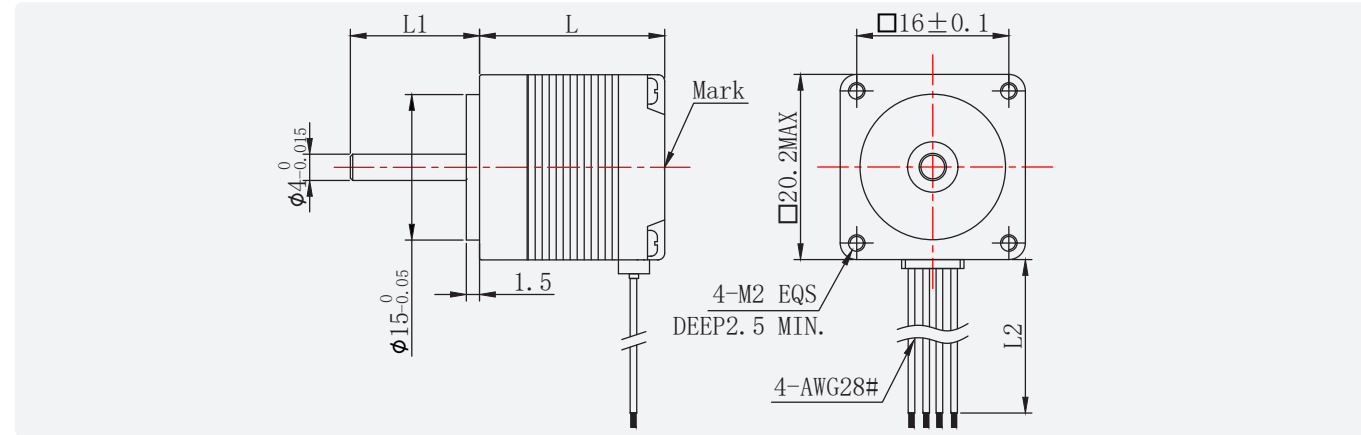
Options



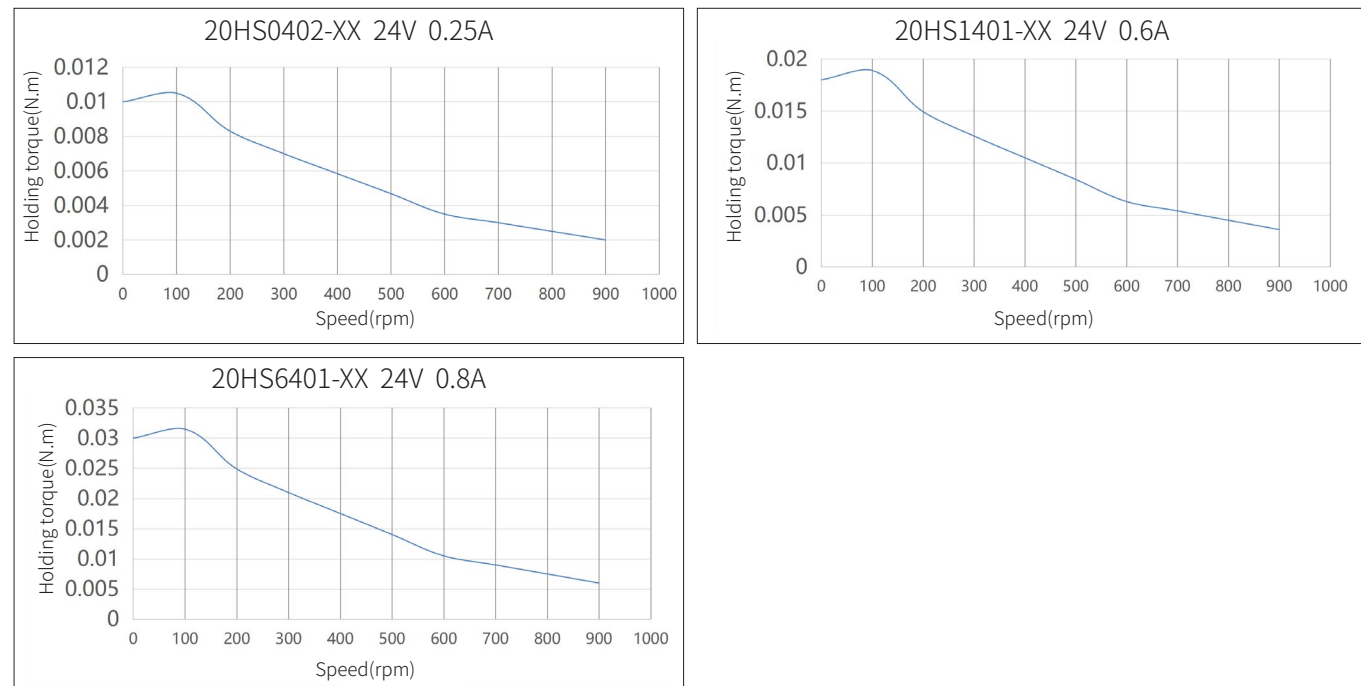
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Rotor Inertia (g-cm <sup>2</sup> )	Wiring (No.)	Weight (kg)	Motor Height(L) (mm)
20HS0402	10	0.25	19	4.75	1	4	0.04	25
20HS1401	18	0.6	6.5	3.9	2	4	0.05	30
20HS6401	30	0.8	5.5	4.4	3	4	0.1	41

Dimensions



Torque Curve



Stepper Motor

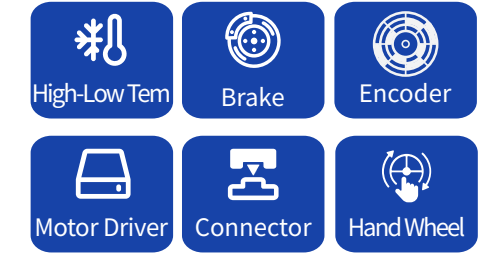
Size 28 / Nema 11



General Specifications

Step Angle	1.8°
Temperature Rise	80° C Max(Rated Current,2 phase power)
Ambient Temperature	-20° C ~ 80° C
Insulation Resistance	100MQMin,500VDC
Radial Runout	0.02 Max.(450g load)
Axial Runout	0.08 Max.(450g load)
Radial Load	28N(20mm from Flange)
Axial Load	10N

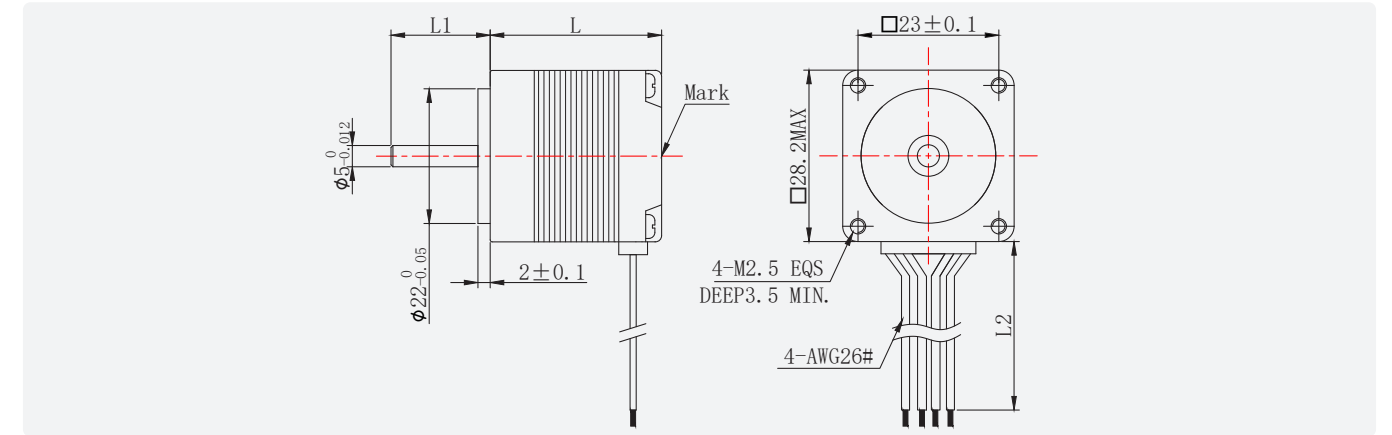
Options



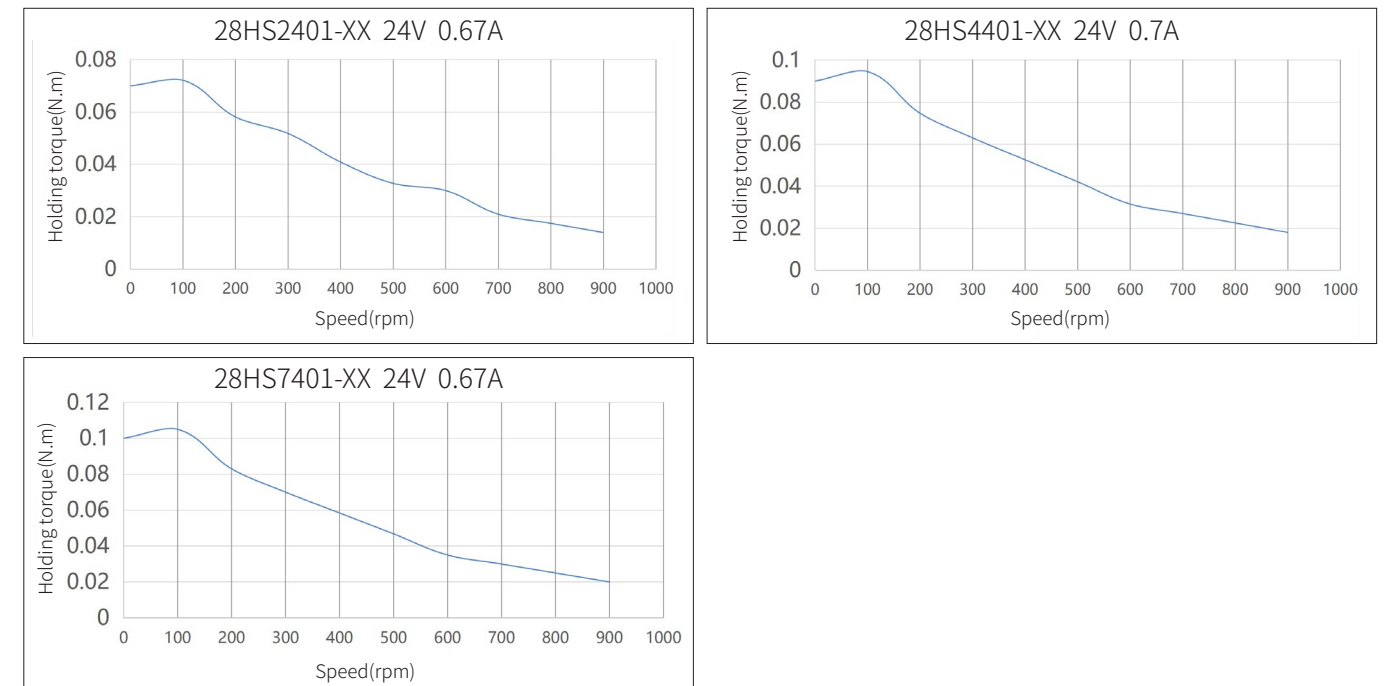
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Rotor Inertia (g-cm <sup>2</sup> )	Wiring (No.)	Weight (kg)	Motor Height(L) (mm)
28HS2401	70	0.67	5.8	3.88	15	4	0.13	32.5
28HS4401	90	0.7	6.5	4.5	25	4	0.16	40
28HS7401	100	0.67	9	6.03	30	4	0.2	52

Dimensions

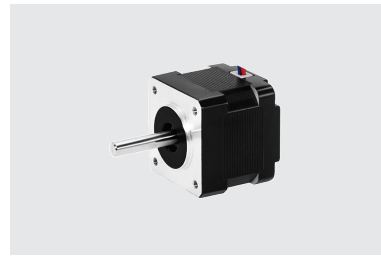


Torque Curve



Stepper Motor

Size 35 / Nema 14



General Specifications

Step Angle	1.8°/0.9°
Temperature Rise	80° C Max(Rated Current,2 phase power)
Ambient Temperature	-20° C ~ 80° C
Insulation Resistance	100MQMin,500VDC
Radial Runout	0.02 Max.(450g load)
Axial Runout	0.08 Max.(450g load)
Radial Load	28N(20mm from Flange)
Axial Load	10N

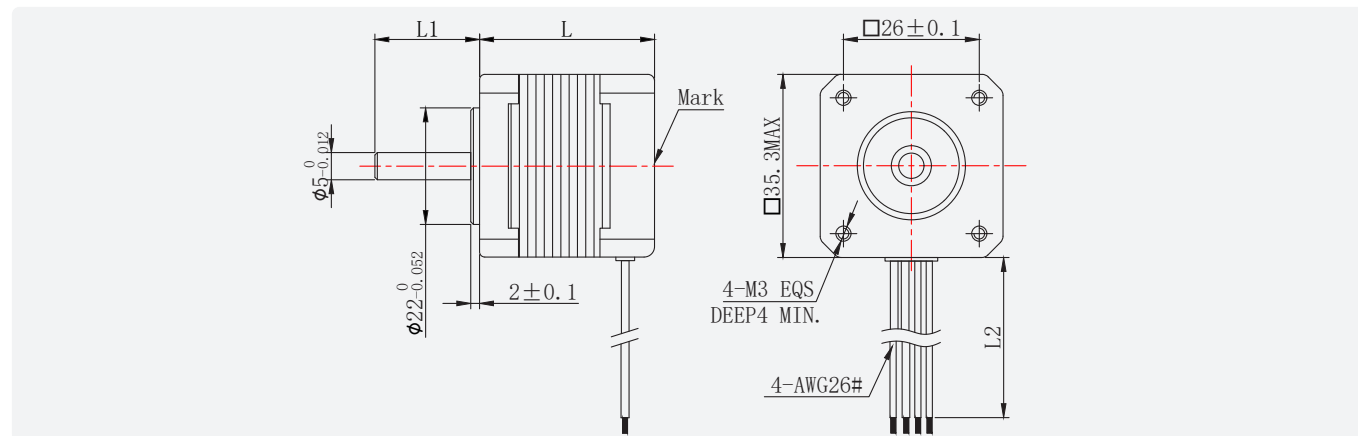
Options

High-Low Tem  
 Brake  
 Encoder  
 Motor Driver  
 Connector  
 Hand Wheel

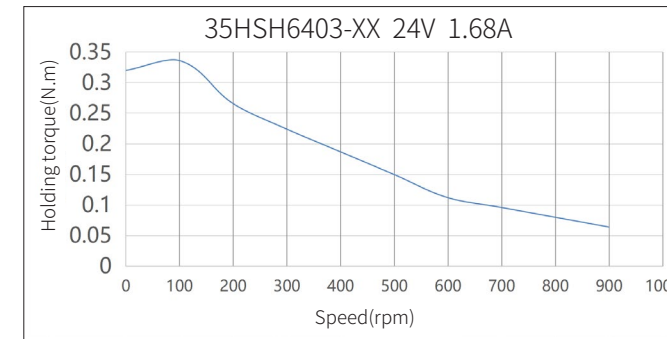
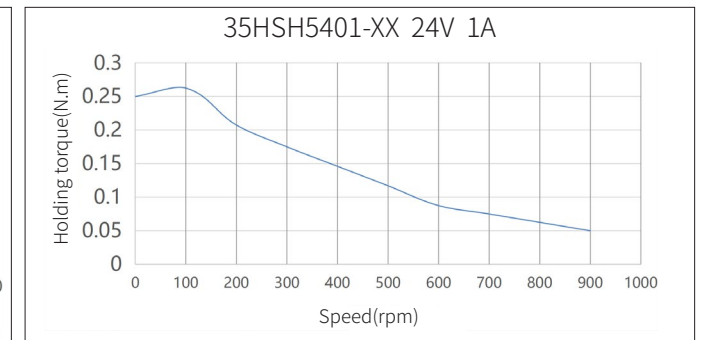
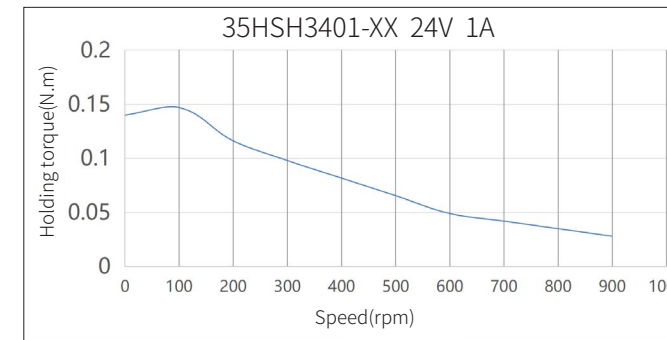
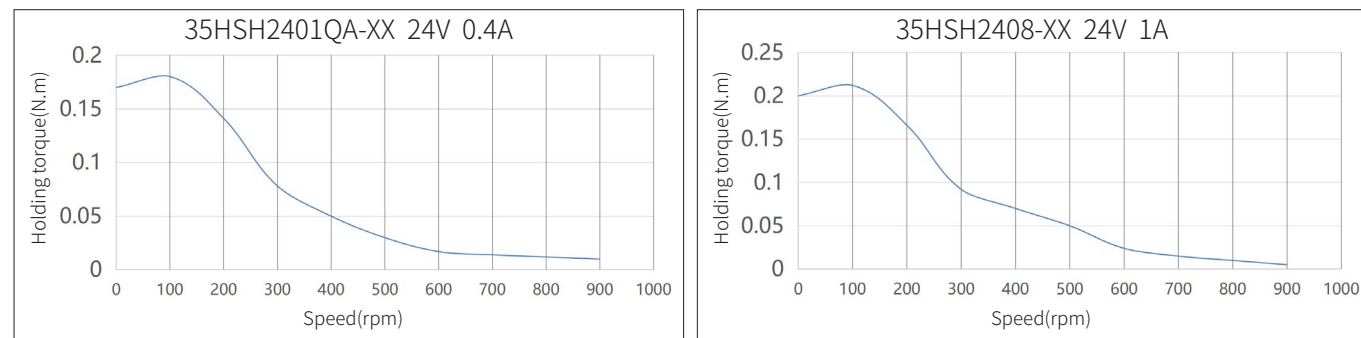
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Rotor Inertia (g·cm <sup>2</sup> )	Wiring (No.)	Weight (kg)	Motor Height(L) (mm)
35HSH2401QA	170	0.4	23	9.2	15	4	0.12	25.5
35HSH2408	200	1	4.5	4.5	25	4	0.15	28
35HSH3401	140	1	2.7	2.7	20	4	0.16	32.5
35HSH5401	250	1	4.5	4.5	35	4	0.25	38.5
35HSH6403	320	1.68	1.65	2.77	40	4	0.28	48

Dimensions



Torque Curve



Linear Stepper Motor  
Geared Stepper Motor  
Worm Geared Stepper Motor  
Helical Planetary Gearbox  
Hollow Rotary Platform  
Stepper Motor  
Integrated Stepper Motor  
Linear Stage  
Stepper Motor Driver

Linear Stepper Motor  
Geared Stepper Motor  
Worm Geared Stepper Motor  
Helical Planetary Gearbox  
Hollow Rotary Platform  
Stepper Motor  
Integrated Stepper Motor  
Linear Stage  
Stepper Motor Driver

Stepper Motor

Size 36 / Nema 15



General Specifications

Step Angle	1.8°/0.9°
Temperature Rise	80° C Max(Rated Current,2 phase power)
Ambient Temperature	-20° C ~ 80° C
Insulation Resistance	100MQMin,500VDC
Radial Runout	0.02 Max.(450g load)
Axial Runout	0.08 Max.(450g load)
Radial Load	28N(20mm from Flange)
Axial Load	10N

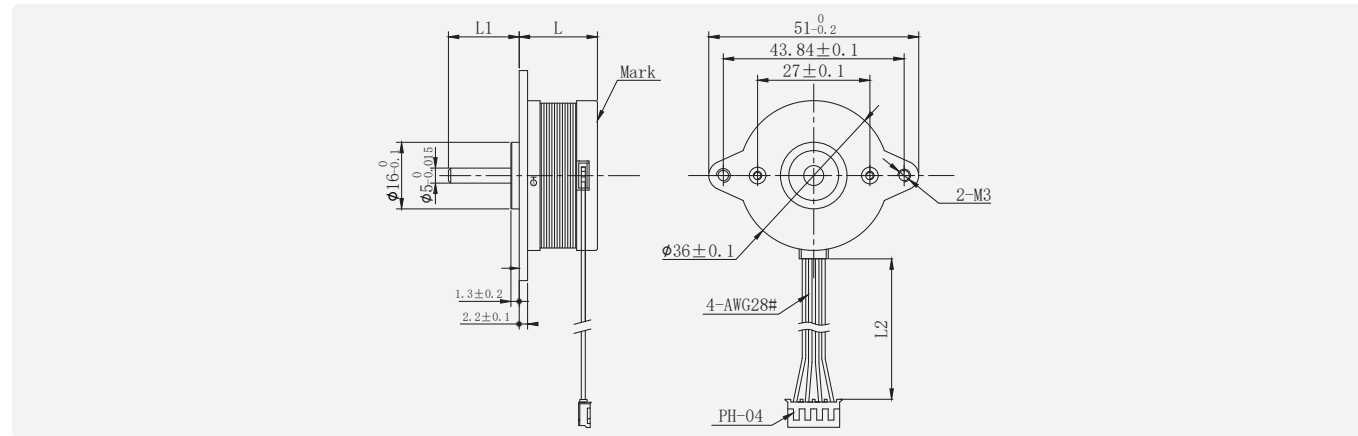
Options

High-Low Tem Brake Encoder Motor Driver Connector Hand Wheel

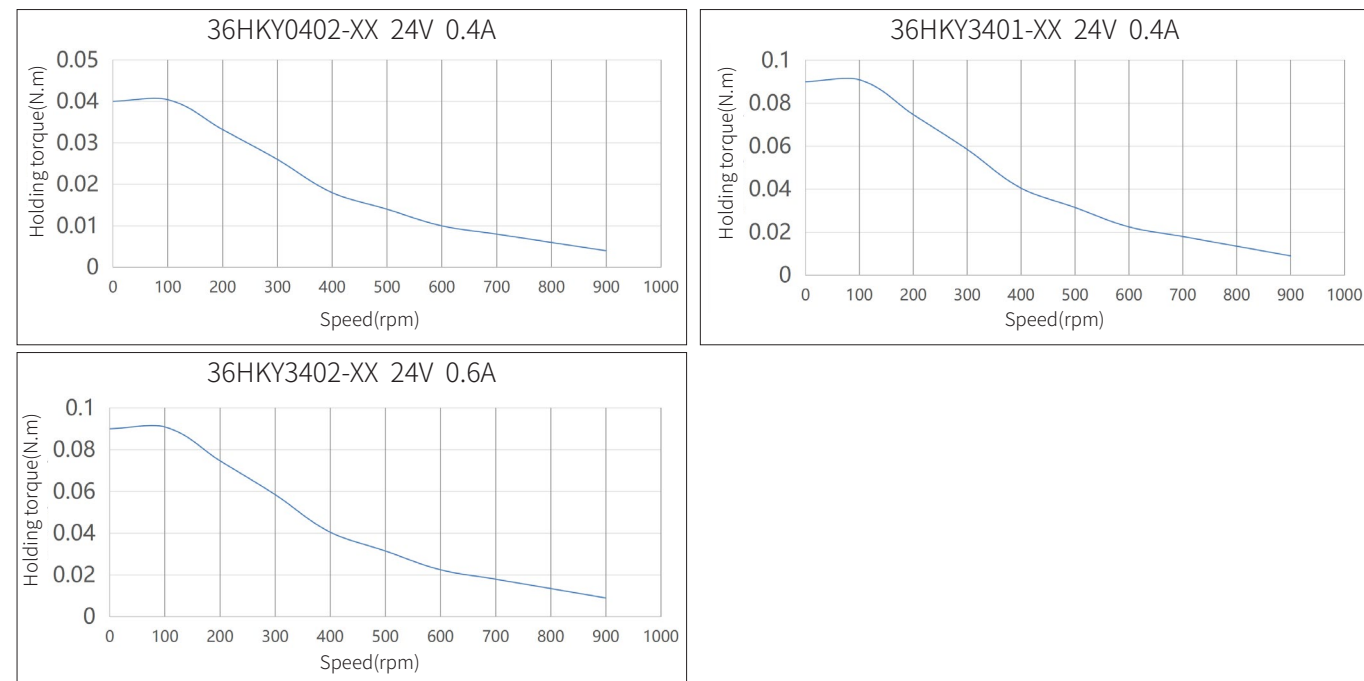
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Rotor Inertia (g·cm <sup>2</sup> )	Wiring (No.)	Weight (kg)	Motor Height(L) (mm)
36HKY0402	40	0.4	14	5.6	6	4	0.06	13
36HKY3401	90	0.4	29	11.6	15	4	0.1	18
36HSY3402	90	0.3	26	7.8	15	4	0.1	20

Dimensions



Torque Curve



Stepper Motor

Size 39 / Nema 16



General Specifications

Step Angle	1.8°
Temperature Rise	80° C Max(Rated Current,2 phase power)
Ambient Temperature	-20° C ~ 80° C
Insulation Resistance	100MQMin,500VDC
Radial Runout	0.02 Max.(450g load)
Axial Runout	0.08 Max.(450g load)
Radial Load	28N(20mm from Flange)
Axial Load	10N

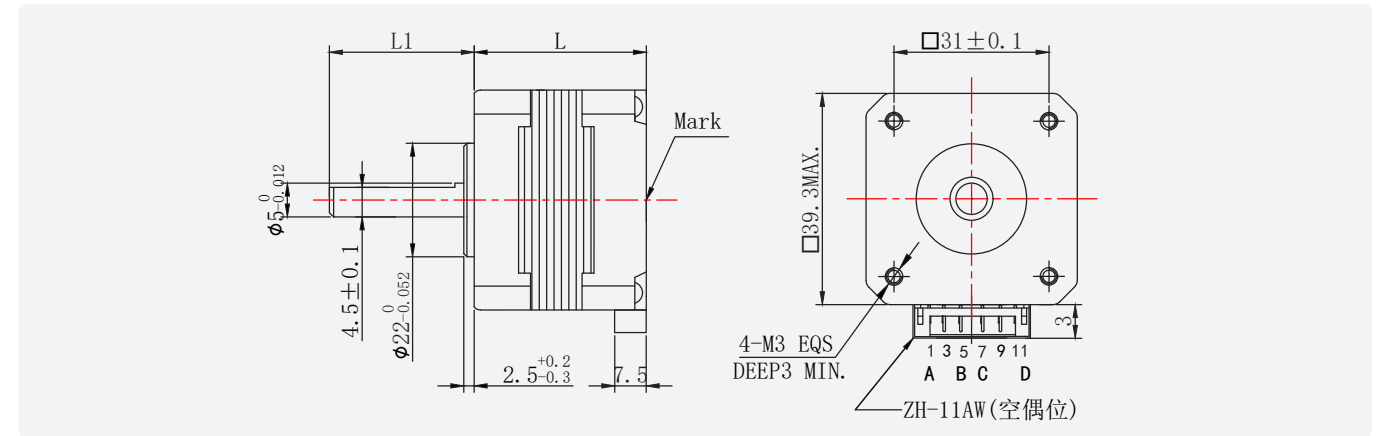
Options

High-Low Tem Brake Encoder Motor Driver Connector Hand Wheel

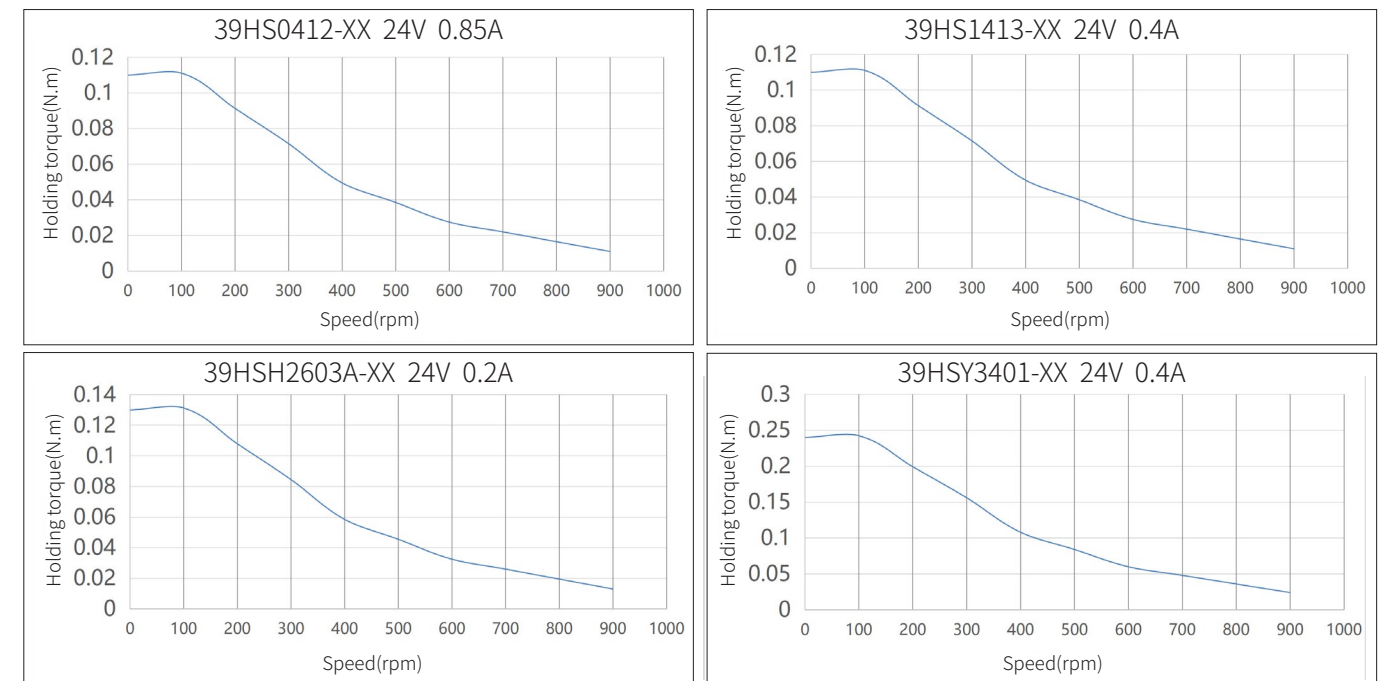
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Rotor Inertia (g·cm <sup>2</sup> )	Wiring (No.)	Weight (kg)	Motor Height(L) (mm)
39HS0412	110	0.85	5.5	4.675	10	4	0.11	20.5
39HS1413	110	0.4	7	2.8	15	4	0.15	22.5
39HSH2603A	130	0.2	50	10	35	4	0.2	30
39HSY3401	240	0.4	23	9.2	18	4	0.2	28.8

Dimensions

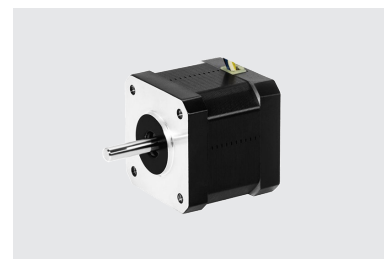


Torque Curve



Stepper Motor

Size 42 / Nema 17



General Specifications

Step Angle	1.8°
Temperature Rise	80° C Max(Rated Current,2 phase power)
Ambient Temperature	-20° C ~ 80° C
Insulation Resistance	100MQMin,500VDC
Radial Runout	0.02 Max.(450g load)
Axial Runout	0.08 Max.(450g load)
Radial Load	28N(20mm from Flange)
Axial Load	10N

Options

High-Low Tem

Brake

Encoder

Motor Driver

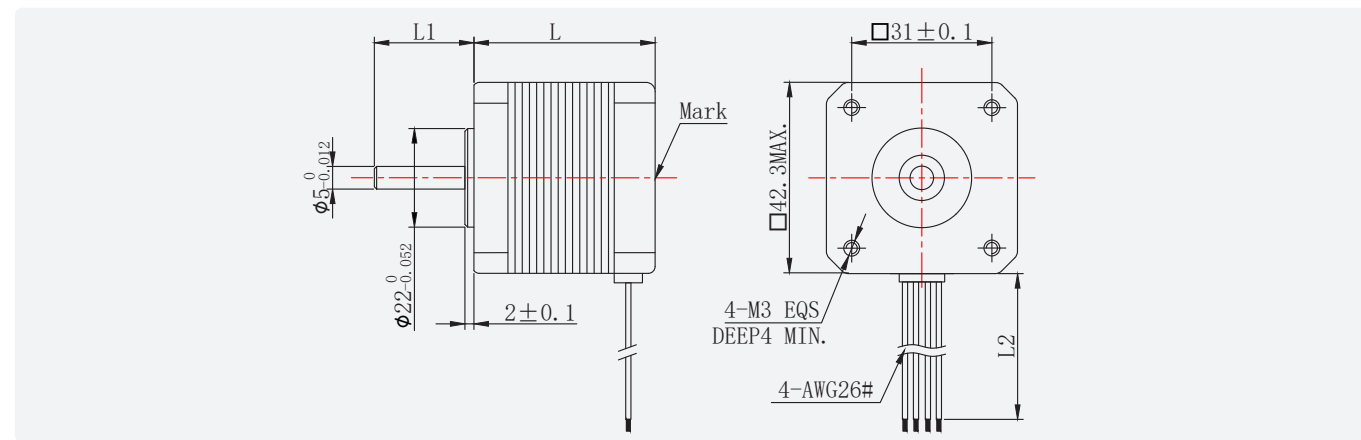
Connector

Hand Wheel

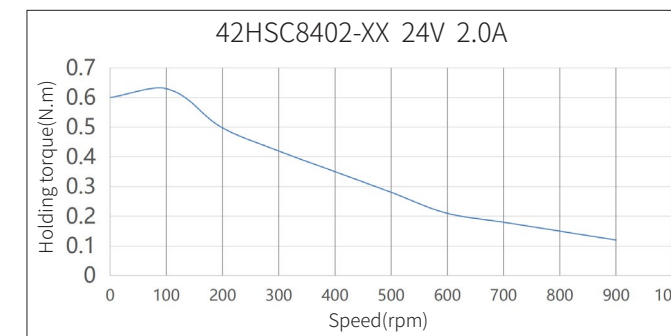
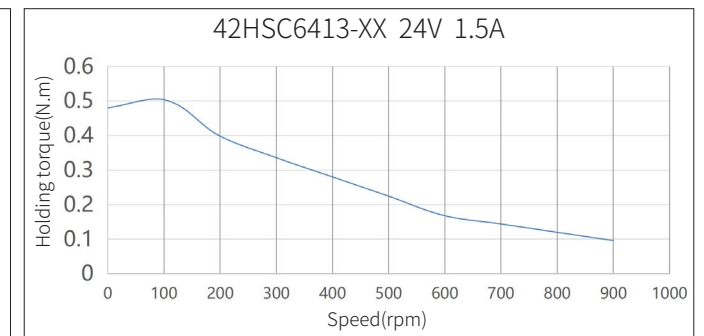
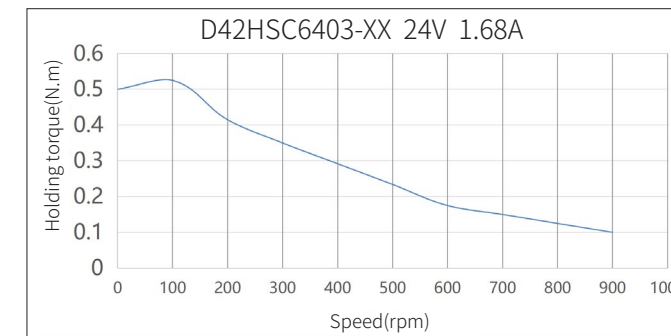
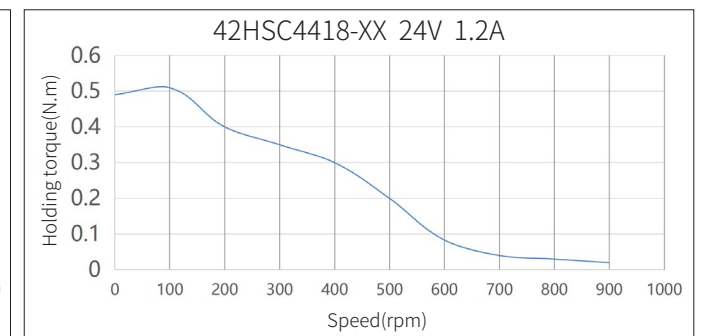
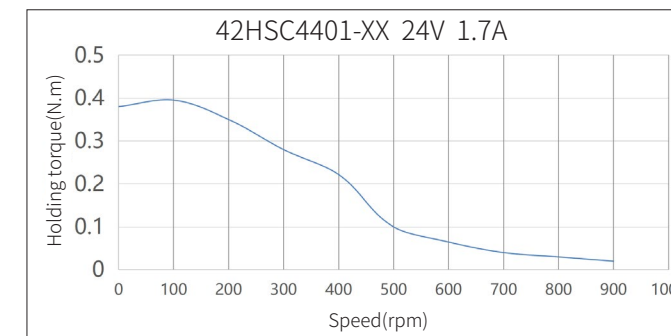
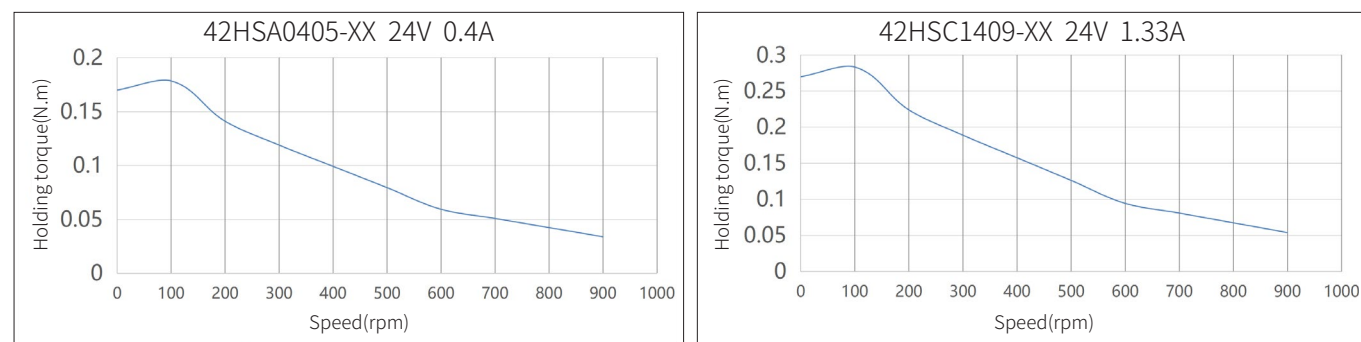
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Rotor Inertia (g·cm <sup>2</sup> )	Wiring (No.)	Weight (kg)	Motor Height(L) (mm)
42HSA0405	170	0.4	24	9.6	20	4	0.15	26
42HSC1409	270	1.33	2.2	2.93	40	4	0.22	34
42HSC4401	380	1.7	1.4	2.38	45	4	0.3	40
42HSC4418	490	1.2	5	6	40	4	0.35	40
D42HS6403	500	1.68	1.65	2.77	68	4	0.35	48
42HSC6413	480	1.5	2.5	3	68	4	0.35	48
42HSC8402	600	2	2	4	100	4	0.5	60.5

Dimensions

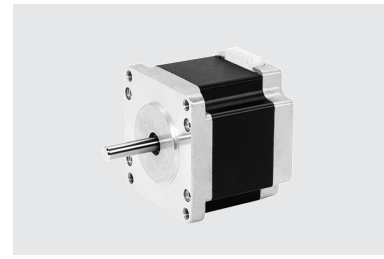


Torque Curve



Stepper Motor

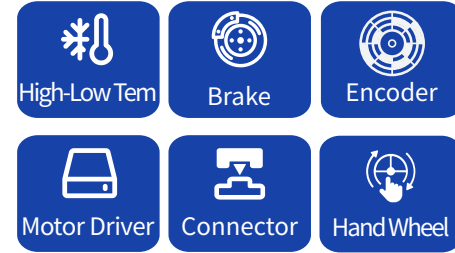
Size 57 / Nema 23



General Specifications

Step Angle	1.8°/0.9°
Temperature Rise	80° C Max(Rated Current,2 phase power)
Ambient Temperature	-20° C ~ 80° C
Insulation Resistance	100MQMin,500VDC
Radial Runout	0.02 Max.(450g load)
Axial Runout	0.08 Max.(450g load)
Radial Load	75N(20mm from Flange)
Axial Load	15N

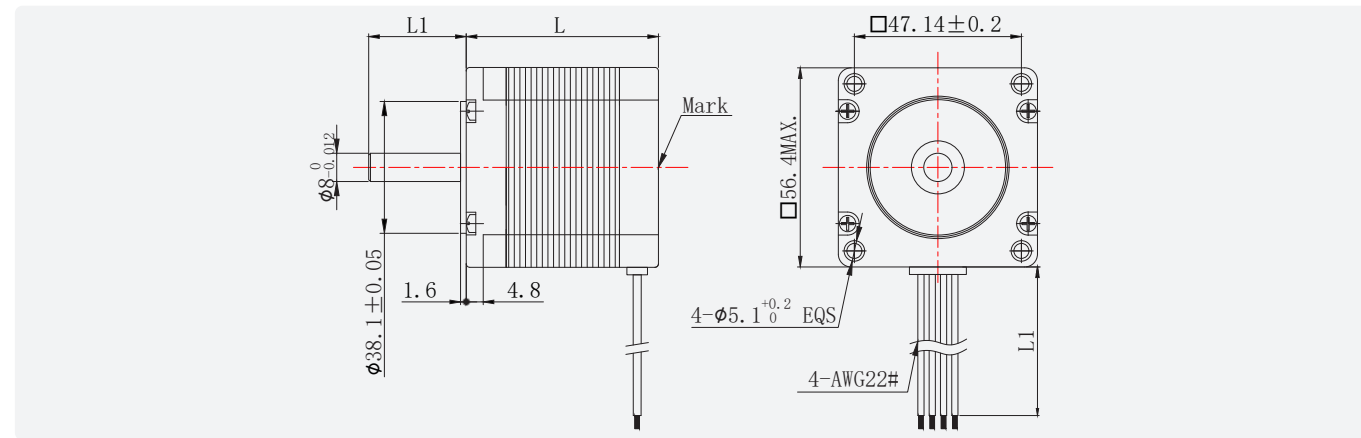
Options



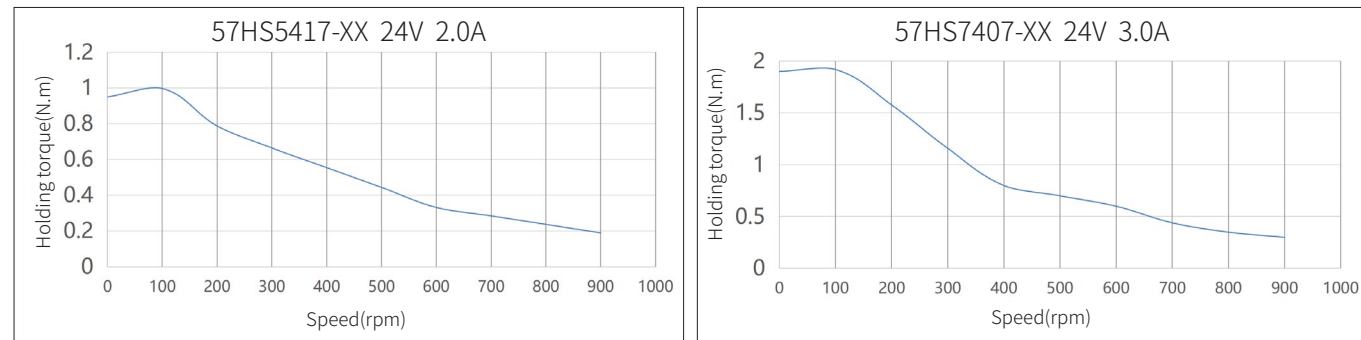
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Rotor Inertia (g·cm <sup>2</sup> )	Wiring (No.)	Weight (kg)	Motor Height(L) (mm)
57HS5417	950	2	0.85	1.7	200	4	0.7	55
57HS7407	1900	4	0.55	2.2	460	4	1.1	76

Dimensions



Torque Curve



Stepper Motor

Size 60 / Nema 24



General Specifications

Step Angle	1.8°/0.9°
Temperature Rise	80° C Max(Rated Current,2 phase power)
Ambient Temperature	-20° C ~ 80° C
Insulation Resistance	100MQMin,500VDC
Radial Runout	0.02 Max.(450g load)
Axial Runout	0.08 Max.(450g load)
Radial Load	75N(20mm from Flange)
Axial Load	15N

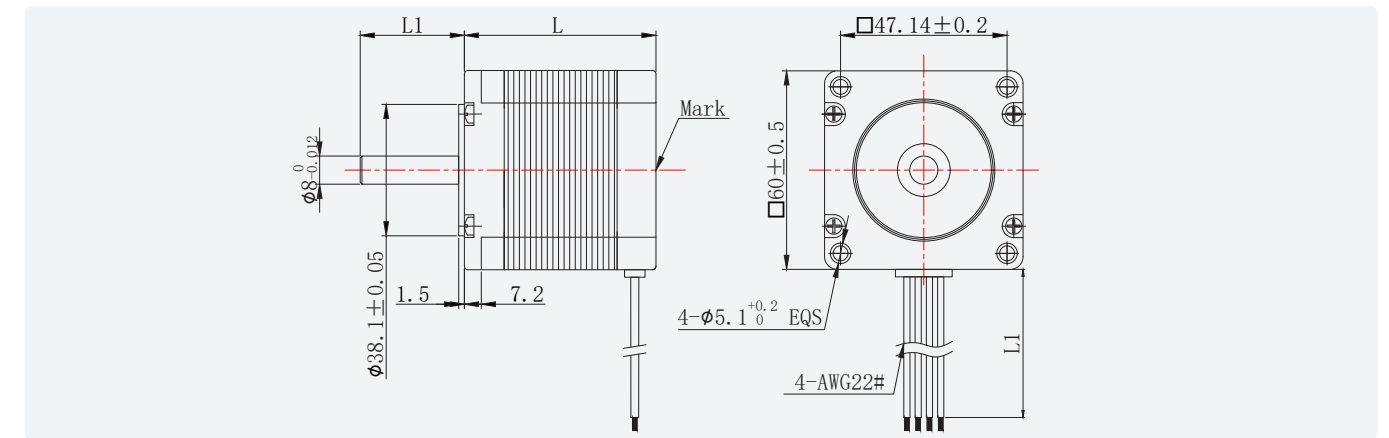
Options



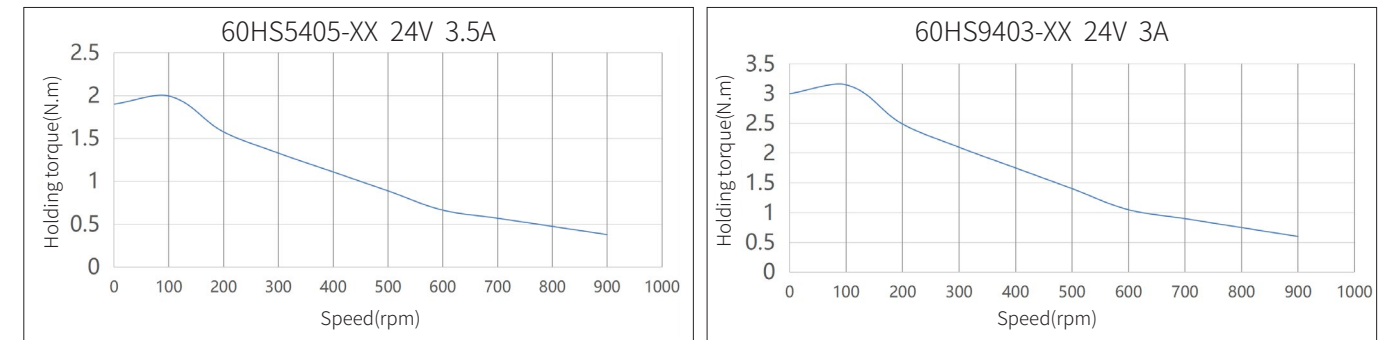
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Rotor Inertia (g·cm <sup>2</sup> )	Wiring (No.)	Weight (kg)	Motor Height(L) (mm)
60HS5405-14	1900	3.5	0.85	2.98	300	4	0.7	55
60HS9403-21B	3060	4.5	0.7	2.1	400	4	1	86.5

Dimensions



Torque Curve



Stepper Motor

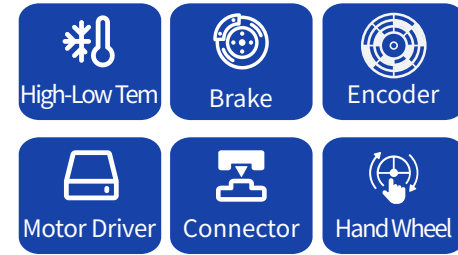
Size 86 / Nema 34



General Specifications

Step Angle	1.8°/0.9°
Temperature Rise	80° C Max(Rated Current,2 phase power)
Ambient Temperature	-20° C ~ 80° C
Insulation Resistance	100MQMin,500VDC
Radial Runout	0.02 Max.(450g load)
Axial Runout	0.08 Max.(450g load)
Radial Load	75N(20mm from Flange)
Axial Load	75N

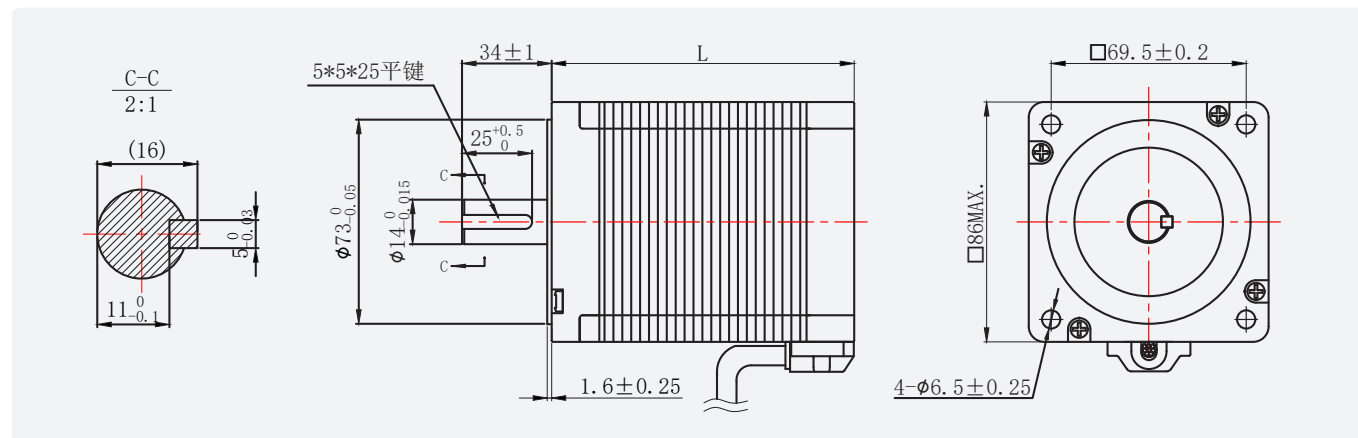
Options



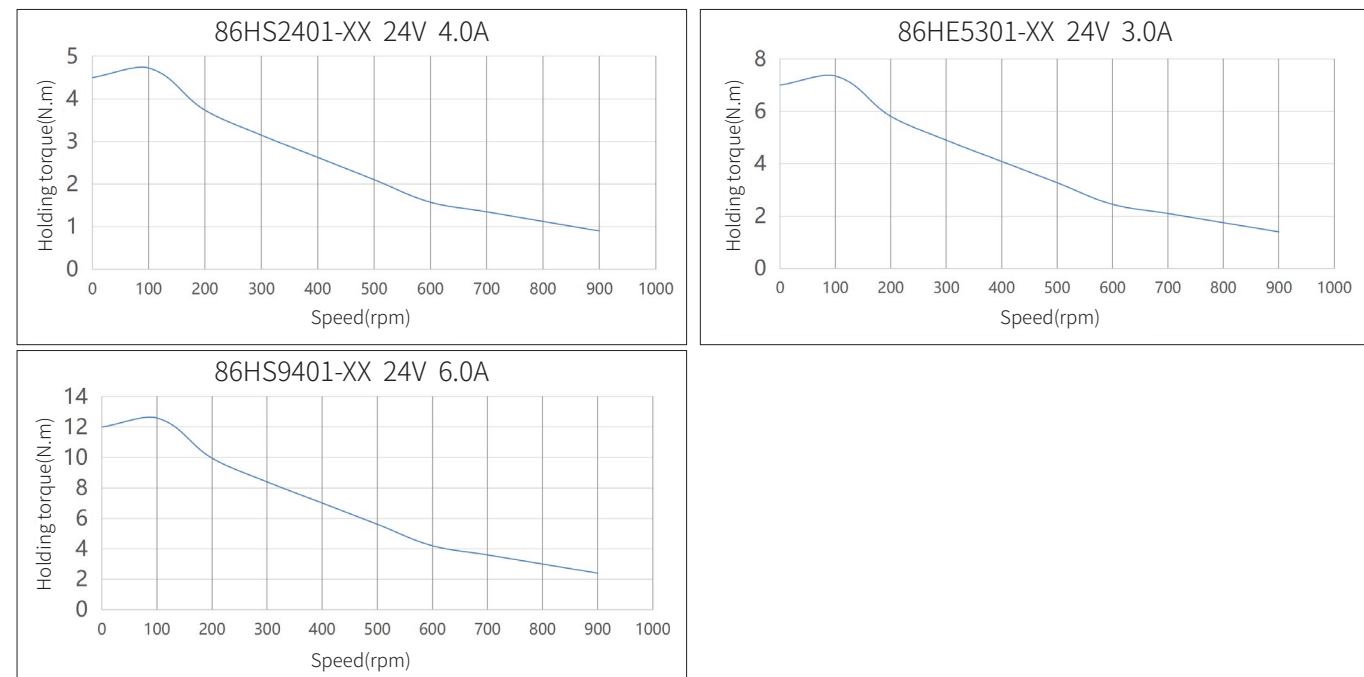
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Rotor Inertia (g·cm <sup>2</sup> )	Wiring (No.)	Weight (kg)	Motor Height(L) (mm)
86HS2401 (2 phase)	4500	4	0.34	1.36	1400	4	2.2	78
86HE5301 (3 phase)	7000	3	2.48	7.44	3300	3	4	128
86HS9401 (2 phase)	12000	6	0.83	4.98	1600	4	4.5	150

Dimensions



Torque Curve



Closed Loop Stepper Motor

Size 20 / Nema 8



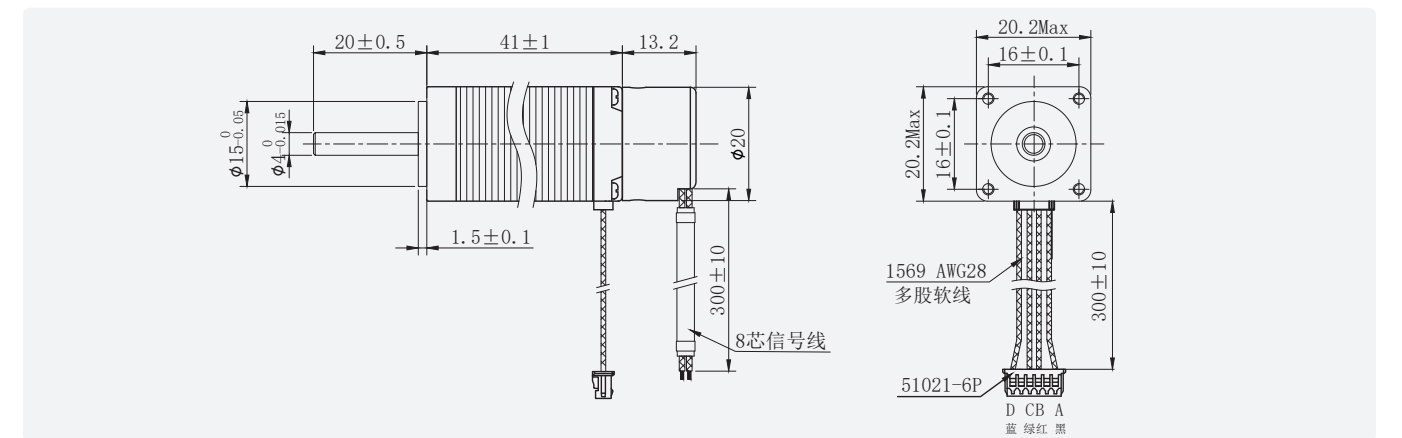
Options



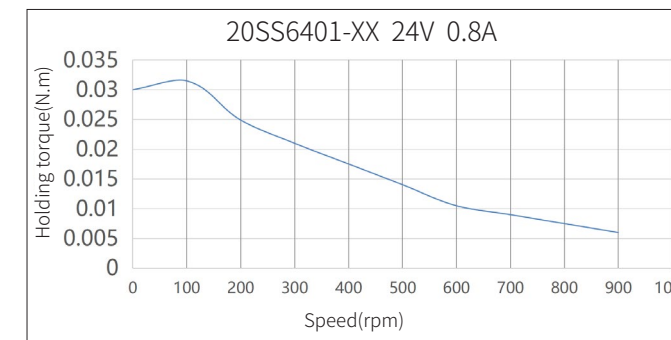
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Rotor Inertia (g·cm <sup>2</sup> )	Wiring (No.)	Weight (kg)	Encoder Height (mm)	Motor Height(L) (mm)
20SS6401	30	0.8	5.5	4.4	3	4	0.1	13	41

Dimensions



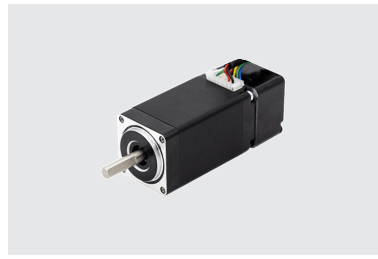
Torque Curve



Closed Loop Stepper Motor

Size 28 / Nema 11

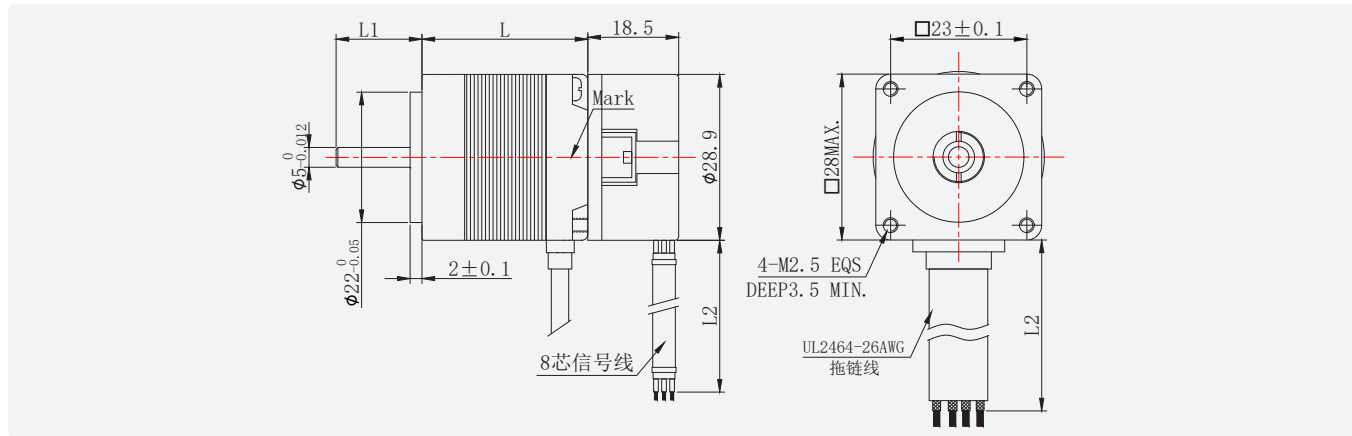
Options



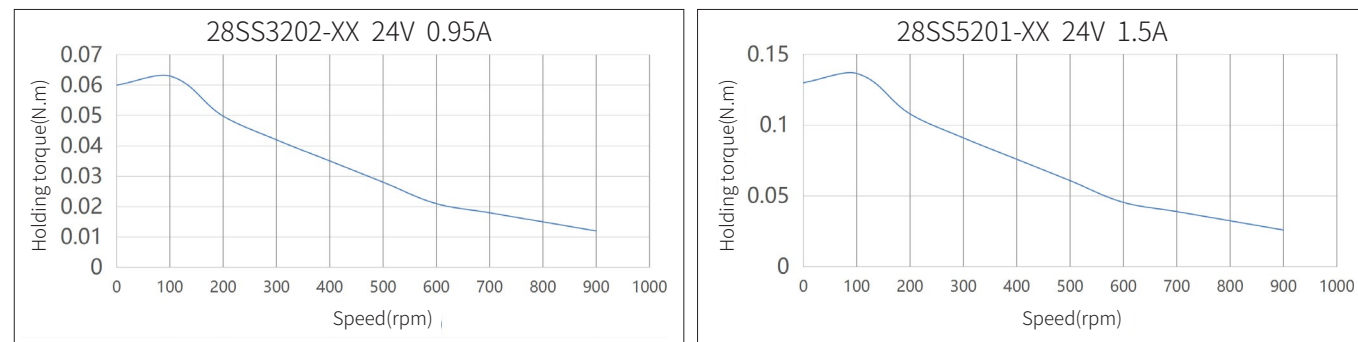
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Rotor Inertia (g-cm <sup>2</sup> )	Wiring (No.)	Weight (kg)	Encoder Height (mm)	Motor Height(L) (mm)
28SS3202	60	0.95	2.5	2.38	15	4	0.18	18	32.5
28SS5201	130	1.5	2.8	4.2	35	4	0.28	18	52

Dimensions



Torque Curve



Closed Loop Stepper Motor

Size 35 / Nema 14

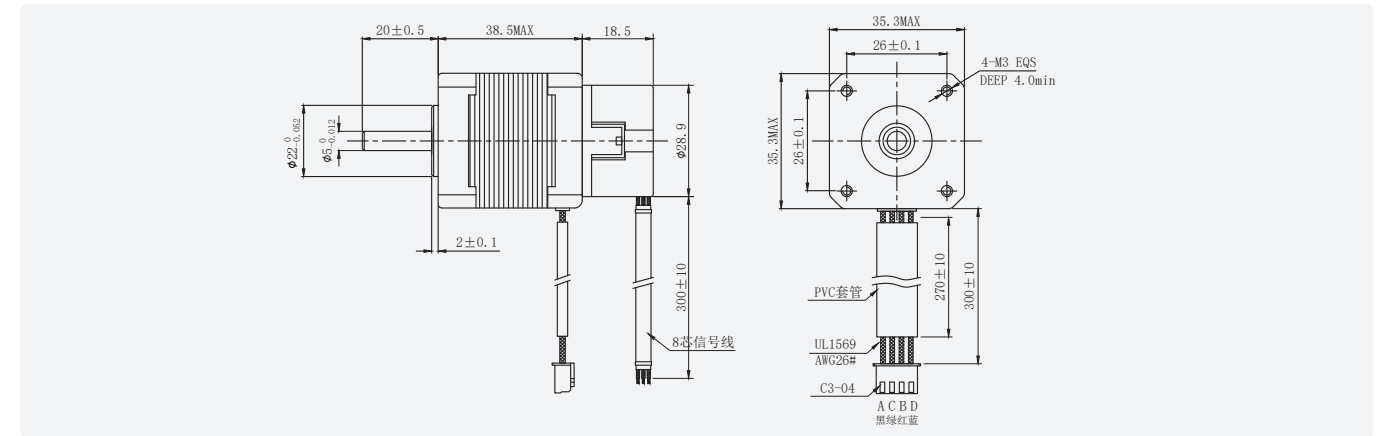
Options



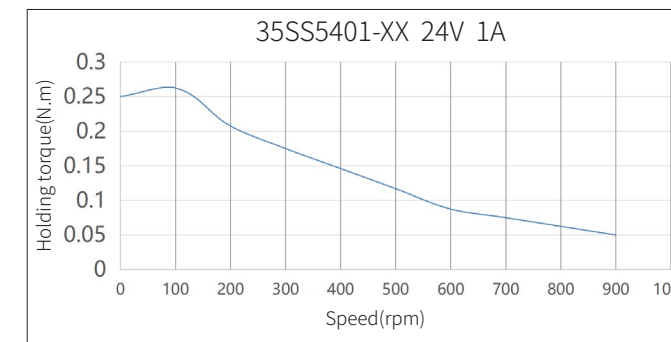
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Rotor Inertia (g-cm <sup>2</sup> )	Wiring (No.)	Weight (kg)	Encoder Height (mm)	Motor Height(L) (mm)
35SS5401	250	1	4.5	4.5	35	4	0.25	18.5	38.5

Dimensions



Torque Curve



Closed Loop Stepper Motor

Size 42 / Nema 17

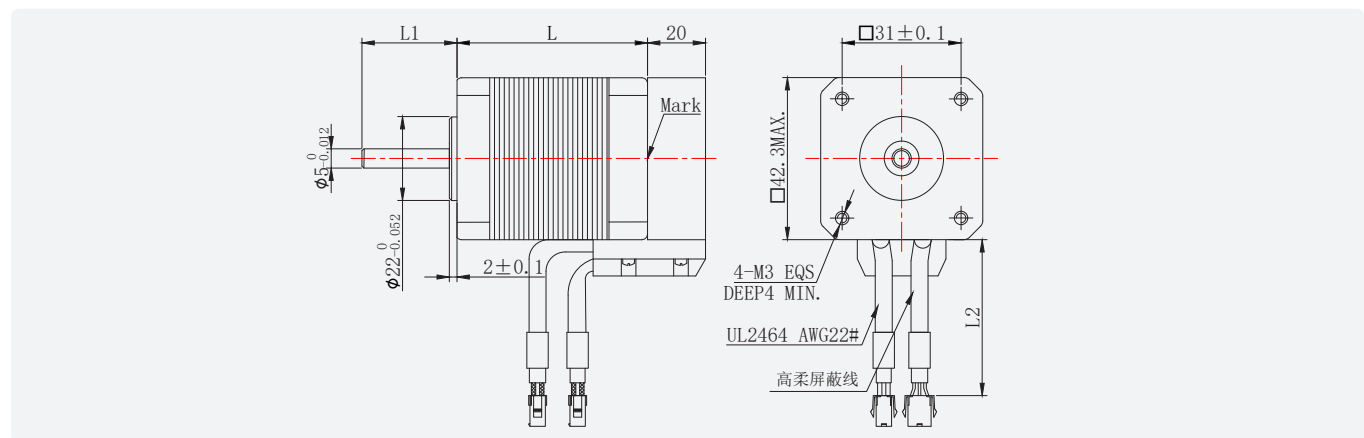
Options



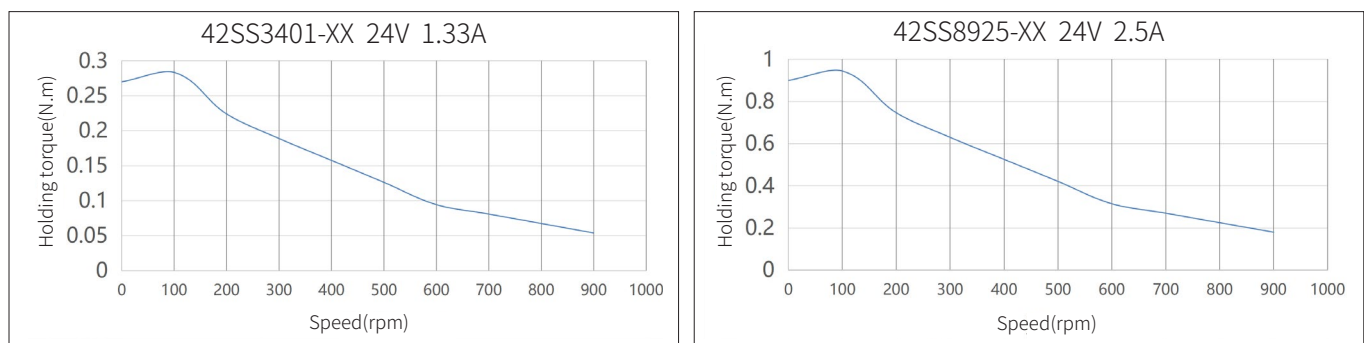
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Rotor Inertia (g-cm <sup>2</sup> )	Wiring (No.)	Weight (kg)	Encoder Height (mm)	Motor Height(L) (mm)
42SS3401	270	1.33	2.2	2.93	30	4	0.3	20	34
42SS8925	900	2.5	1.3	3.25	110	4	0.65	25	64

Dimensions



Torque Curve



Closed Loop Stepper Motor

Size 57 / Nema 23

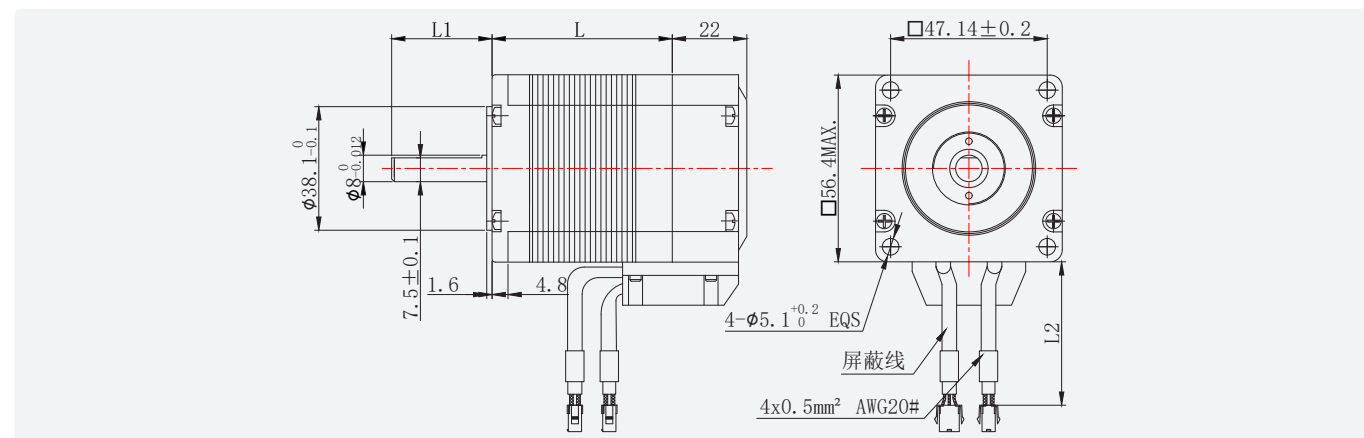
Options



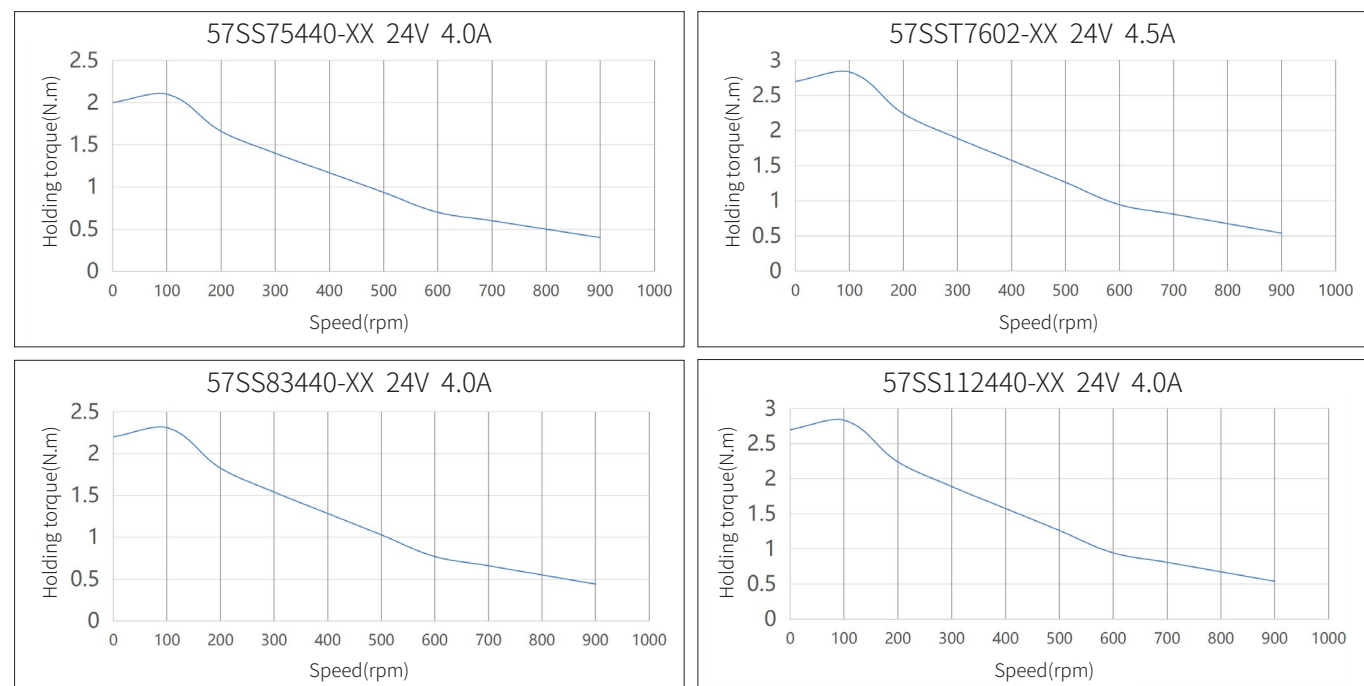
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Rotor Inertia (g-cm <sup>2</sup> )	Wiring (No.)	Weight (kg)	Encoder Height (mm)	Motor Height(L) (mm)
57SS75440	2000	4	0.42	2	480	4	1.1	21	75.5
57SS7602	2700	4.5	0.55	2.48	460	4	1.2	22	76
57SS83440	2200	4	0.57	2.28	530	4	1.2	21	83.5
57SS112440	2700	4	0.65	2.6	700	4	1.57	21	112

Dimensions



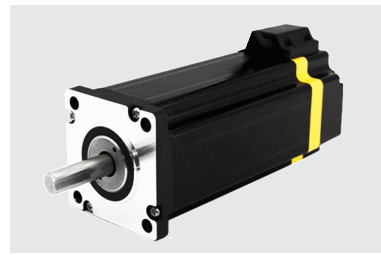
Torque Curve



Closed Loop Stepper Motor

Size 60 / Nema 24

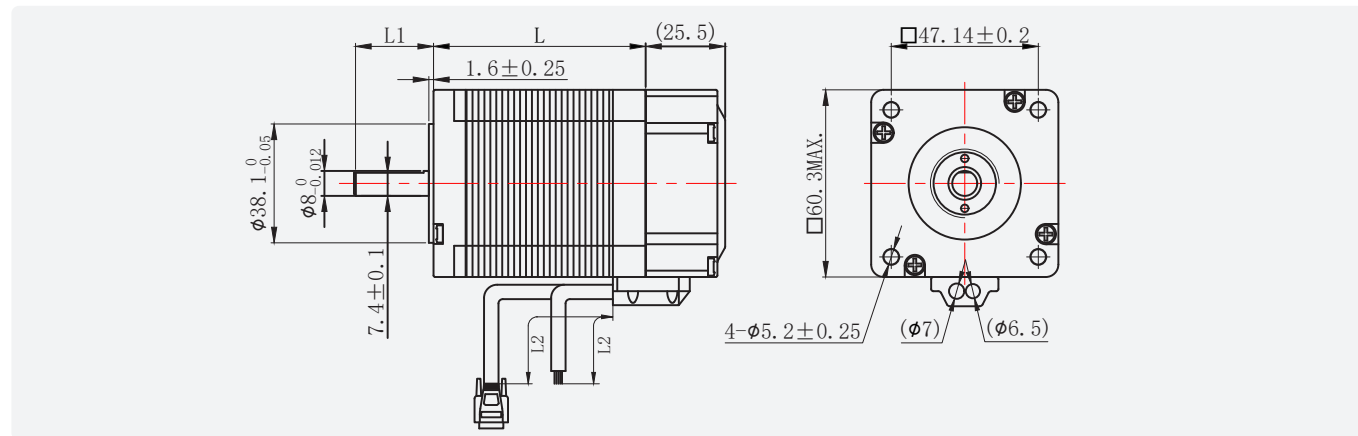
Options



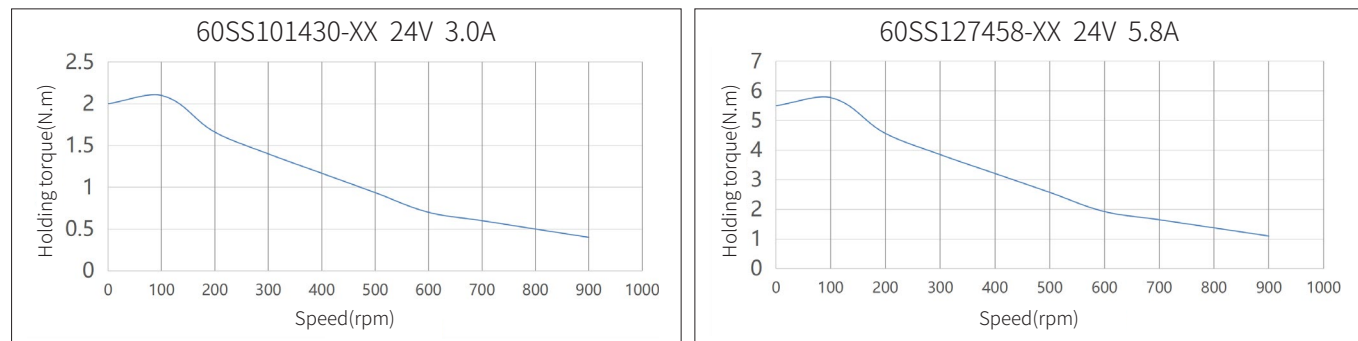
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Rotor Inertia (g-cm <sup>2</sup> )	Wiring (No.)	Weight (kg)	Encoder Height (mm)	Motor Height(L) (mm)
60SS101430	2000	3	0.66	2	1000	4	1.65	25.5	101.5
60SS127458	5500	5.8	1.5	8.7	1370	4	2.5	25.5	127

Dimensions



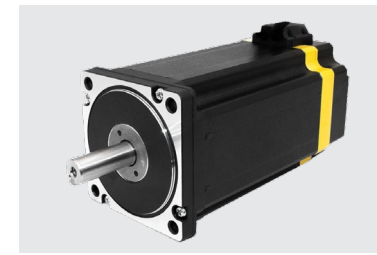
Torque Curve



Closed Loop Stepper Motor

Size 86 / Nema 34

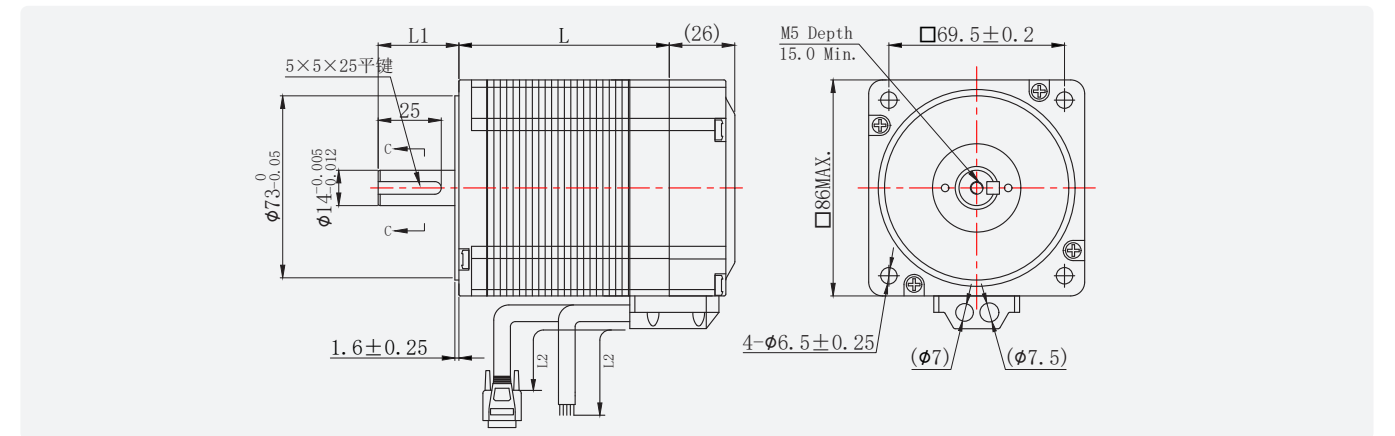
Options



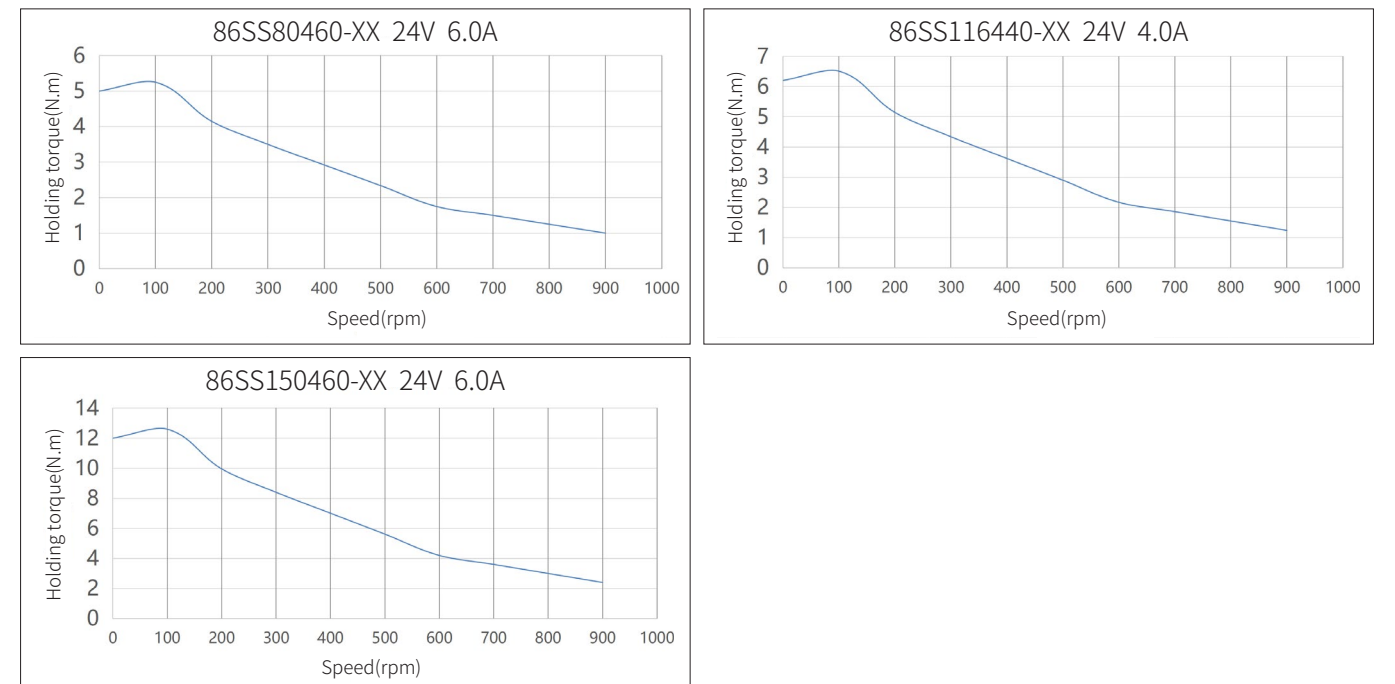
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Resistance/Phase (Ω)	Rated Voltage (V)	Rotor Inertia (g-cm <sup>2</sup> )	Wiring (No.)	Weight (kg)	Encoder Height (mm)	Motor Height(L) (mm)
86SS80460	5000	6	0.6	2.43	1400	4	2.8	26	79.5
86SS116440	6200	4	0.5	12	2100	4	4.5	26	116.5
86SS150460	12000	6	0.69	3	5400	4	6	26	150

Dimensions



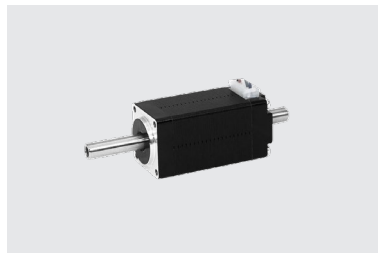
Torque Curve



Hollow Shaft Stepper Motor

Size 20 / Nema 8

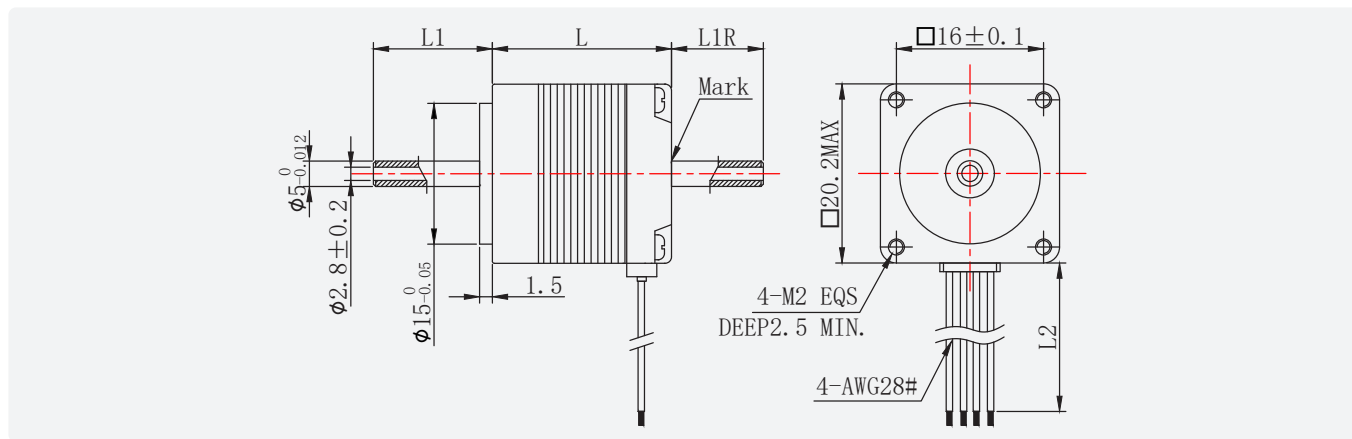
Options



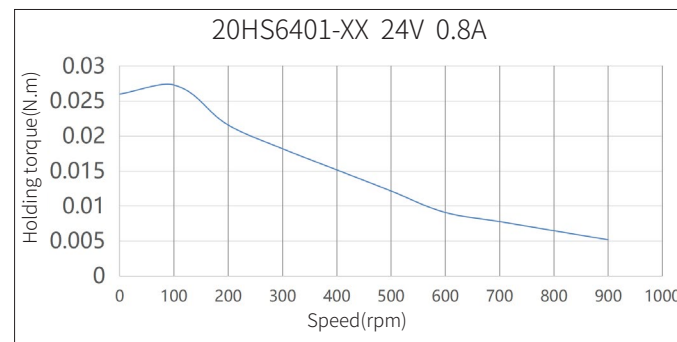
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Front Shaft (mm)	Back Shaft (mm)	Shaft Diameter (mm)	Hole Diameter (mm)	Weight (kg)	Motor Length(L) (mm)
20HS6401	26	0.8	20	10	5	2.8	0.1	41

Dimensions



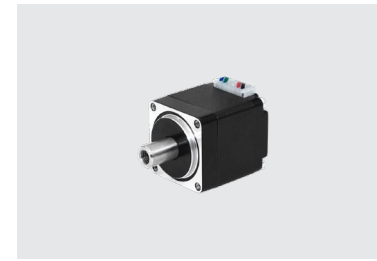
Torque Curve



Hollow Shaft Stepper Motor

Size 28 / Nema 11

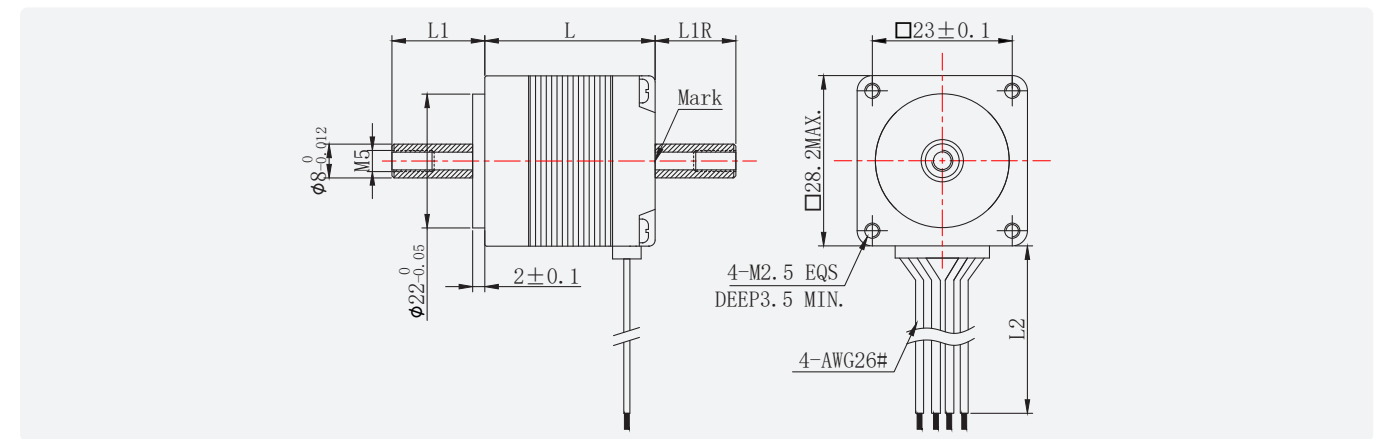
Options



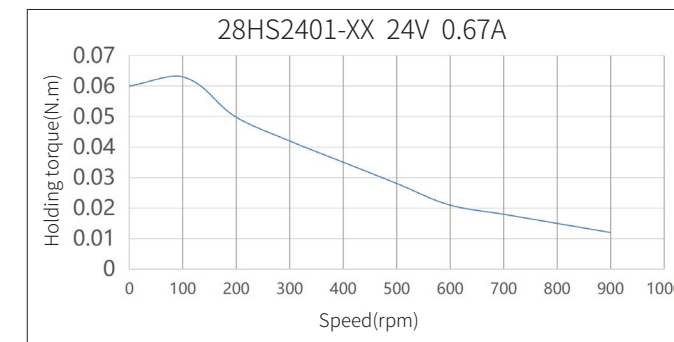
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Front Shaft (mm)	Back Shaft (mm)	Shaft Diameter (mm)	Hole Diameter (mm)	Weight (kg)	Motor Length(L) (mm)
28HS2401	60	0.67	14	10	8	4.2	0.14	32.5

Dimensions



Torque Curve



Hollow Shaft Stepper Motor

Size 35 / Nema 14

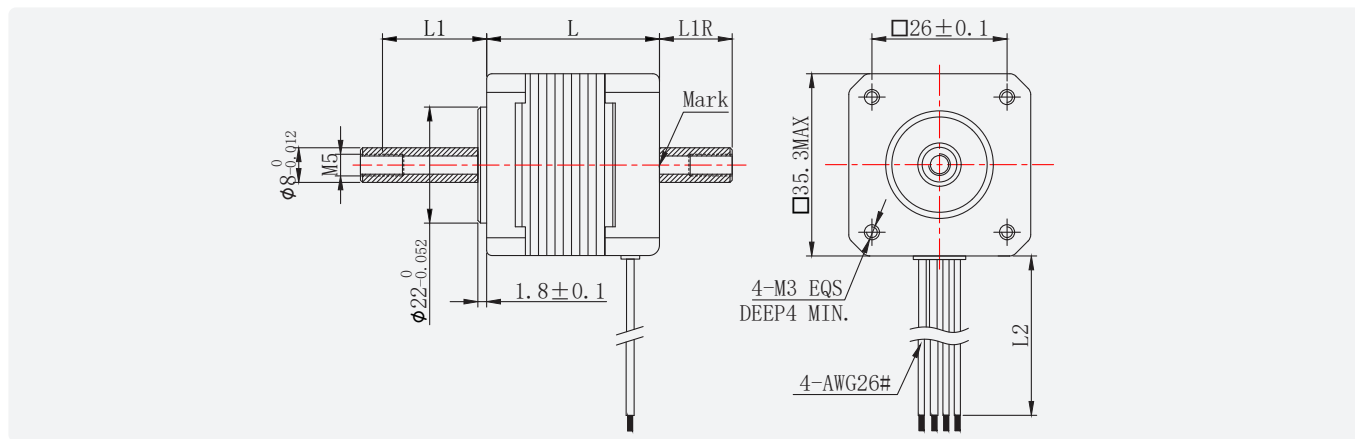
Options



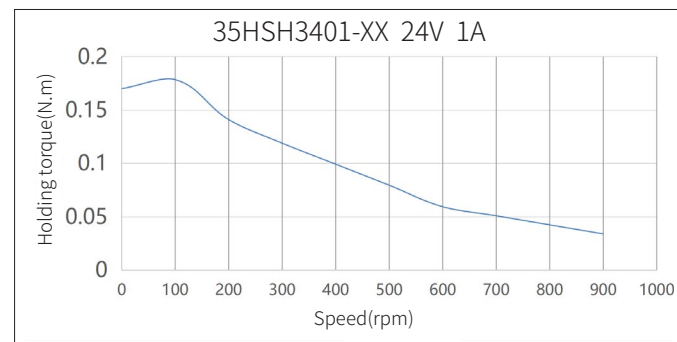
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Front Shaft (mm)	Back Shaft (mm)	Shaft Diameter (mm)	Hole Diameter (mm)	Weight (kg)	Motor Length(L) (mm)
35HSH3401	170	1	14	7	8	4.2	0.15	32.5

Dimensions



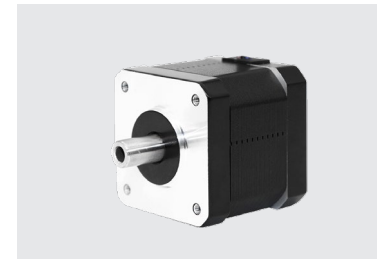
Torque Curve



Hollow Shaft Stepper Motor

Size 42 / Nema 17

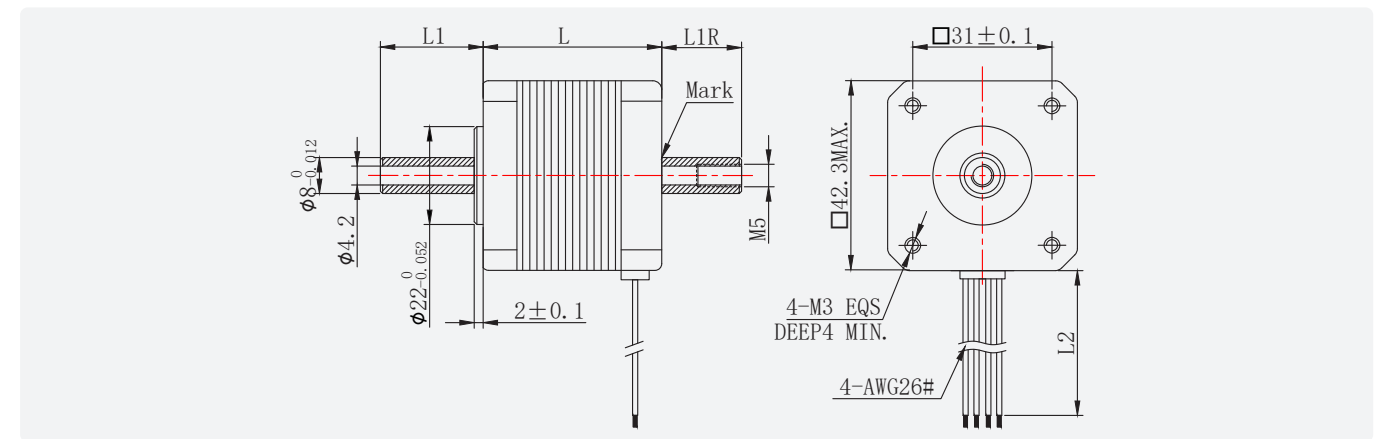
Options



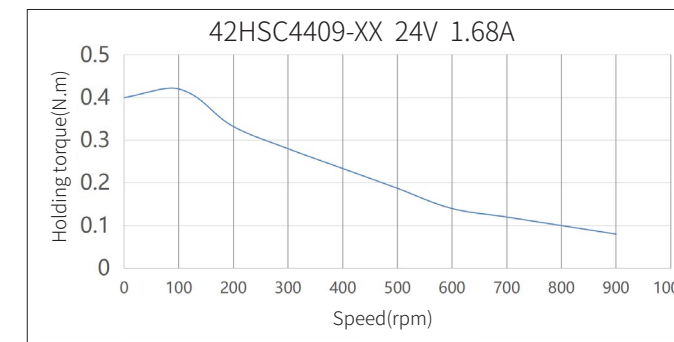
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Front Shaft (mm)	Back Shaft (mm)	Shaft Diameter (mm)	Hole Diameter (mm)	Weight (kg)	Motor Length(L) (mm)
42HSC4409	400	1.68	15	10	8	4.2	0.3	40

Dimensions



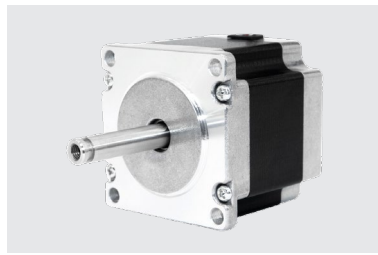
Torque Curve



Hollow Shaft Stepper Motor

Size 57 / Nema 23

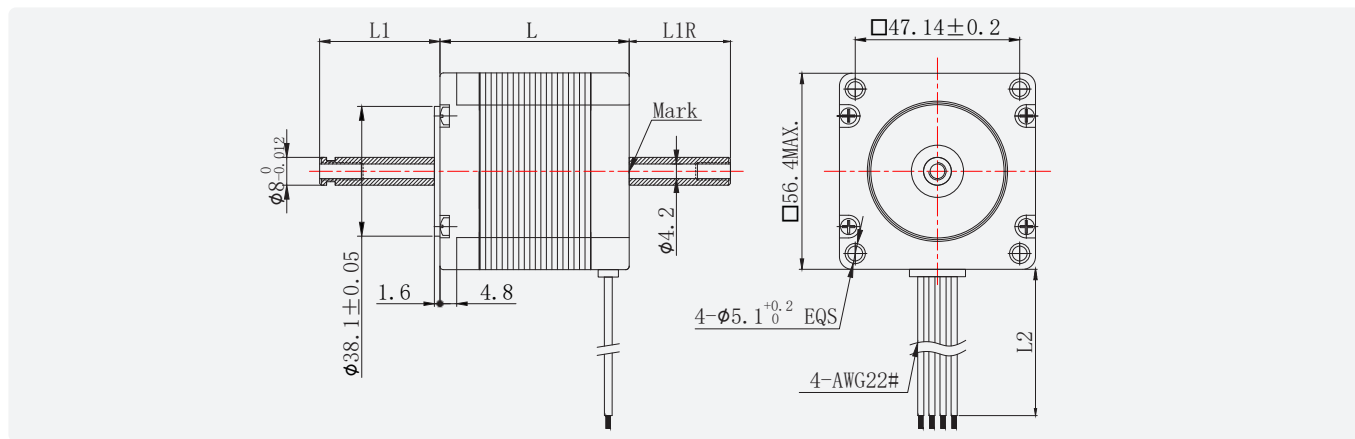
Options



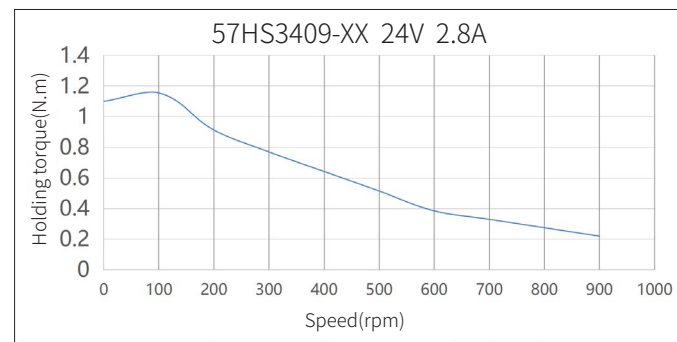
Technical Data

Model No.	Holding Torque (mN.m)	Rated Current (A)	Front Shaft (mm)	Back Shaft (mm)	Shaft Diameter (mm)	Hole Diameter (mm)	Weight (kg)	Motor Length(L) (mm)
57HS3409	1100	2.8	37	20	8	4.2	0.64	51

Dimensions



Torque Curve

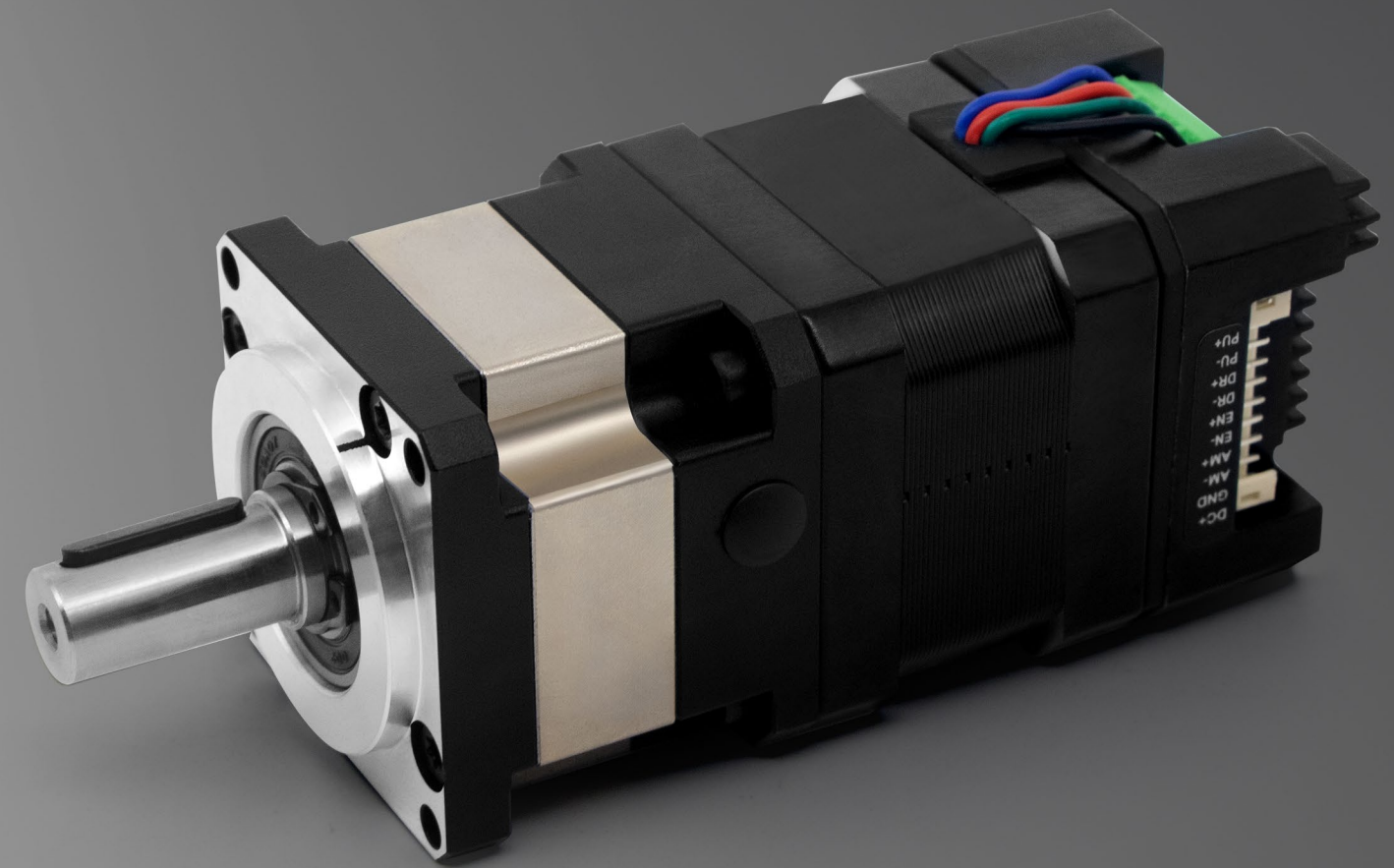


Linear Stepper Motor  
Geared Stepper Motor  
Worm Geared Stepper Motor  
Helical Planetary Gearbox  
Hollow Rotary Platform  
Stepper Motor  
Integrated Stepper Motor  
Linear Stage  
Stepper Motor Driver

Linear Stepper Motor  
Geared Stepper Motor  
Worm Geared Stepper Motor  
Helical Planetary Gearbox  
Hollow Rotary Platform  
Stepper Motor  
Integrated Stepper Motor  
Linear Stage  
Stepper Motor Driver

# INTEGRATED STEPPER MOTOR

# UMot



## NAMEPLATE DEFINITION OF THE INTEGRATED STEPPER MOTOR DRIVER

**UM-I-P-42**

### Company Logo

UMot

### Size

28: For Size 28 Stepper Motor 35: For Size 35 Stepper Motor  
42: For Size 42 Stepper Motor 57: For Size 57 Stepper Motor

### Driver Type

I:Open Driver E:Closed Loop Driver

### Type

P:Pulse R: RS485 C: CANopen

Integrated Stepper Motor

Size 28 / Nema 11

Options

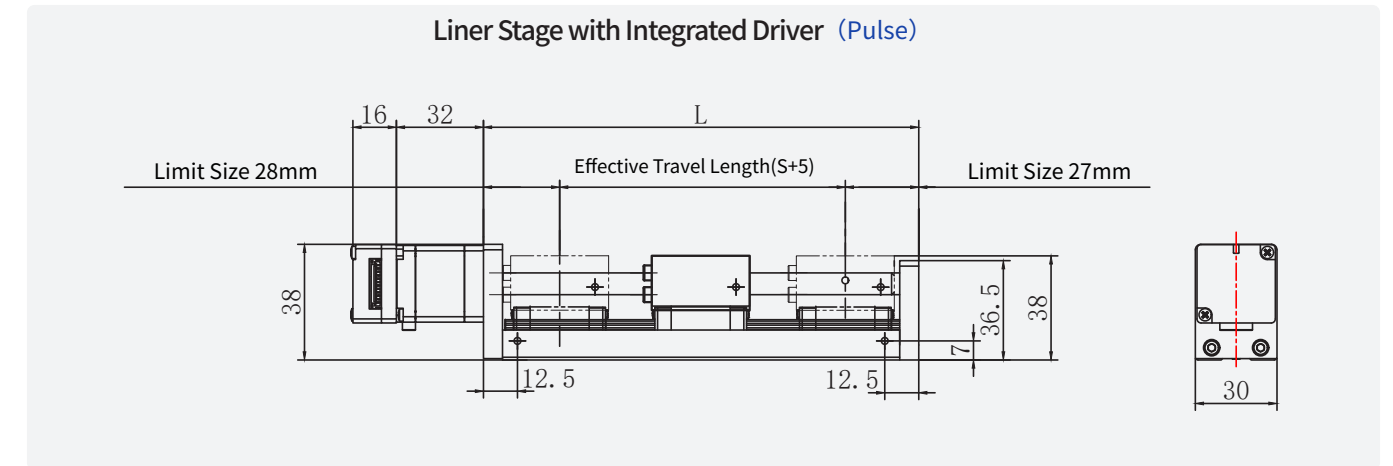
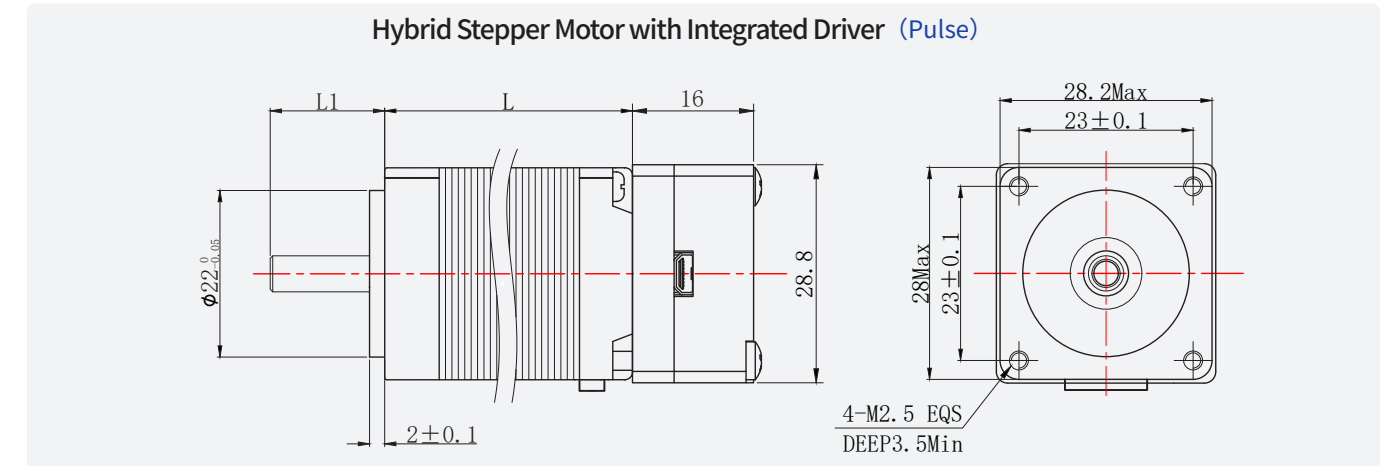
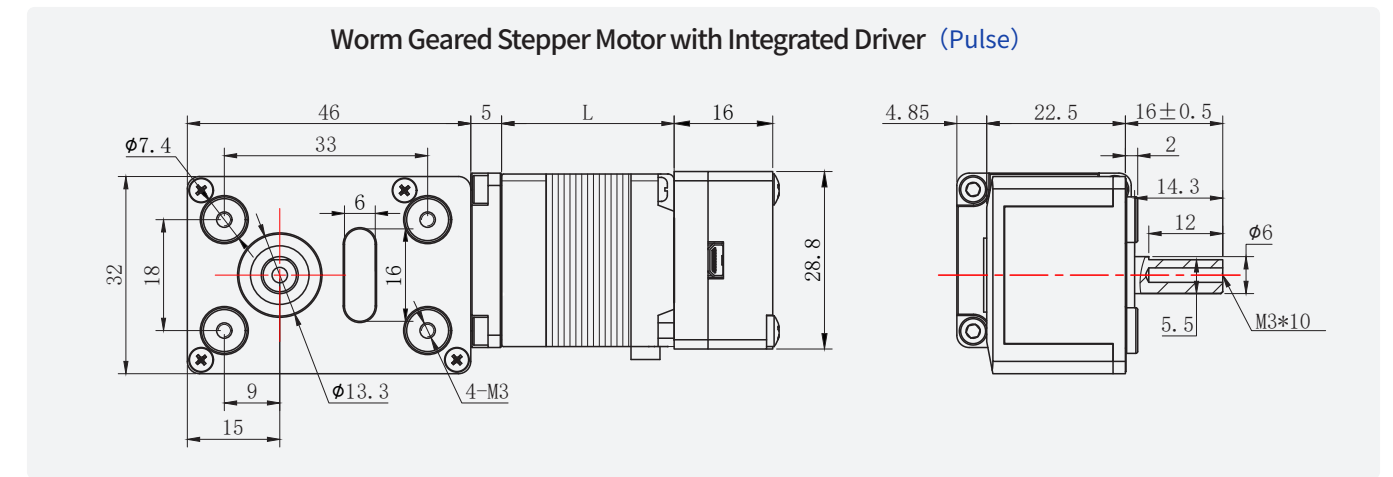
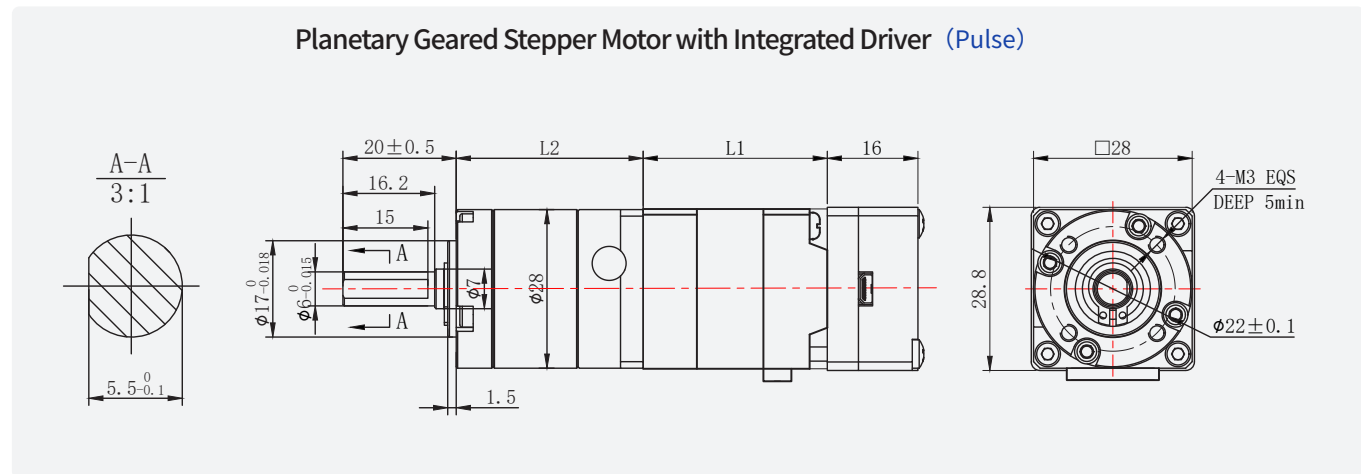
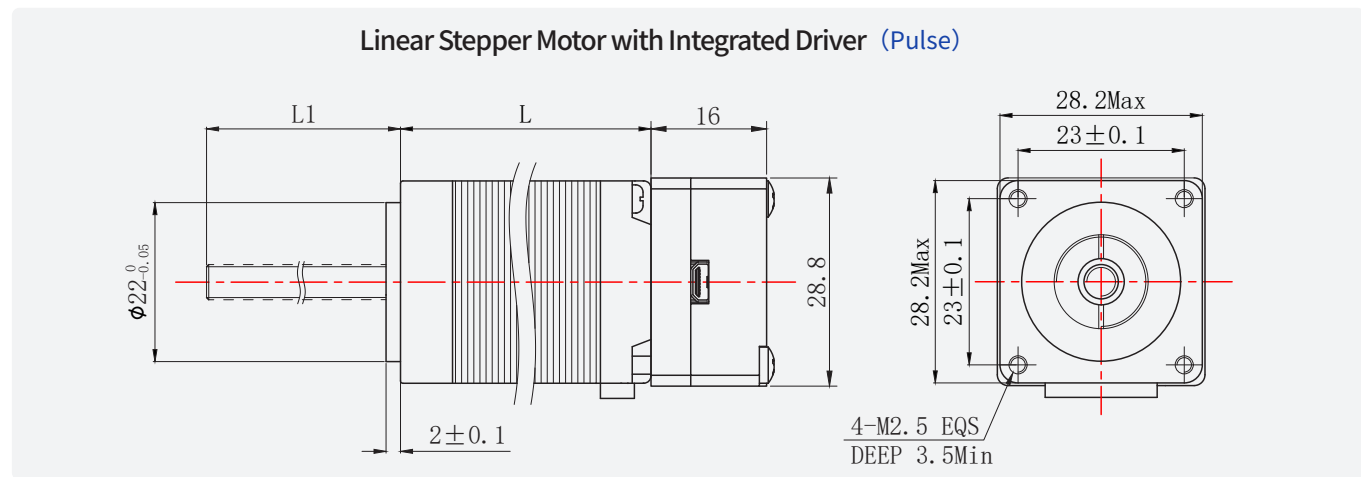


General Specifications

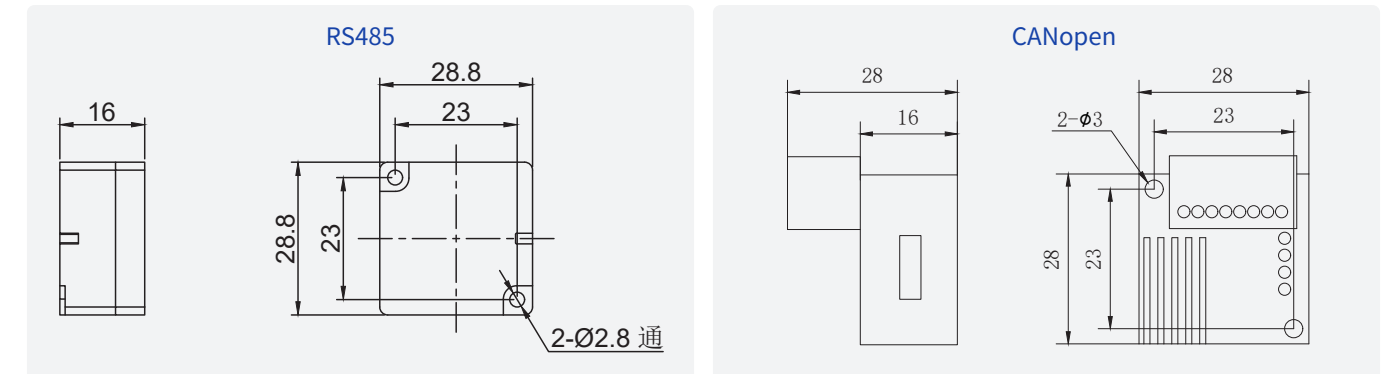
Driver Type	For 2 Phase Hybrid Stepper Motor
Voltage	DC 12-40V
Current	DC 0.1-1.5A
Control Signal	5V/24V
Control Mode	Pulse+Direction, Double Pulse
Frequency Response	200Kpps
Size	28*28*20mm
Weight	18.2g
Matched Motor	Size 28/Nema 11



Dimensions



Driver Selection (Pulse/RS485/CANopen) :



Integrated Stepper Motor

Size 35 / Nema 14

Options



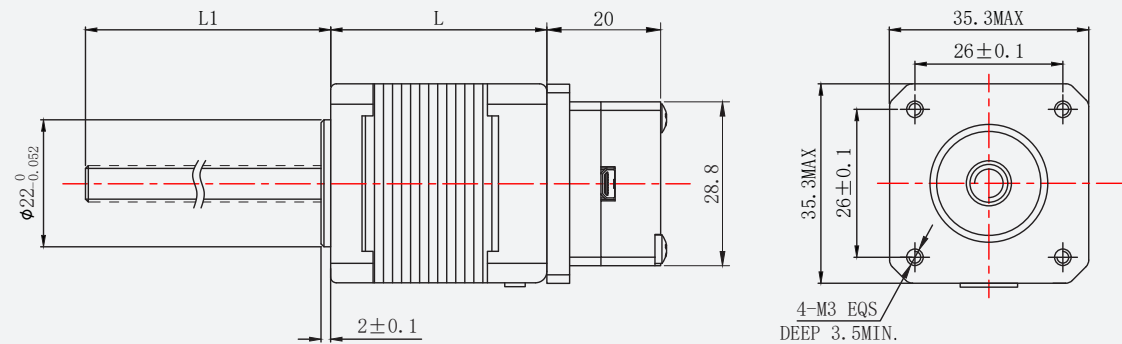
General Specifications

Driver Type	For 2 Phase Hybrid Stepper Motor
Voltage	DC 12-40V
Current	DC 0.1-1.5A
Control Signal	5V/24V
Control Mode	Pulse+Direction, Double Pulse
Frequency Response	200Kpps
Size	35*35*20mm
Weight	29g
Matched Motor	Size 35/Nema 14

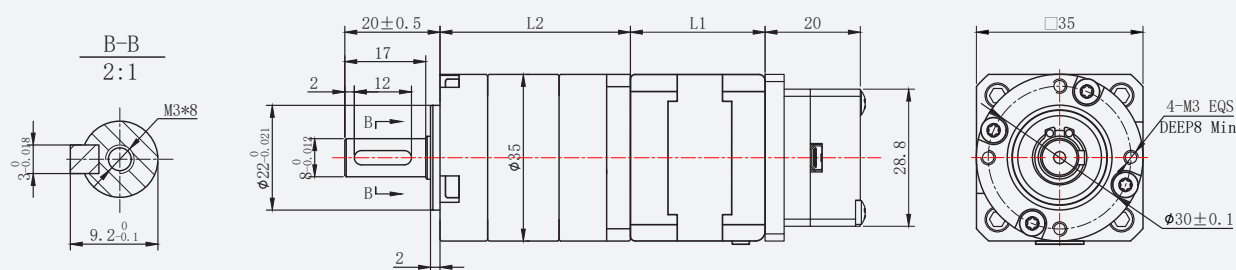


Dimensions

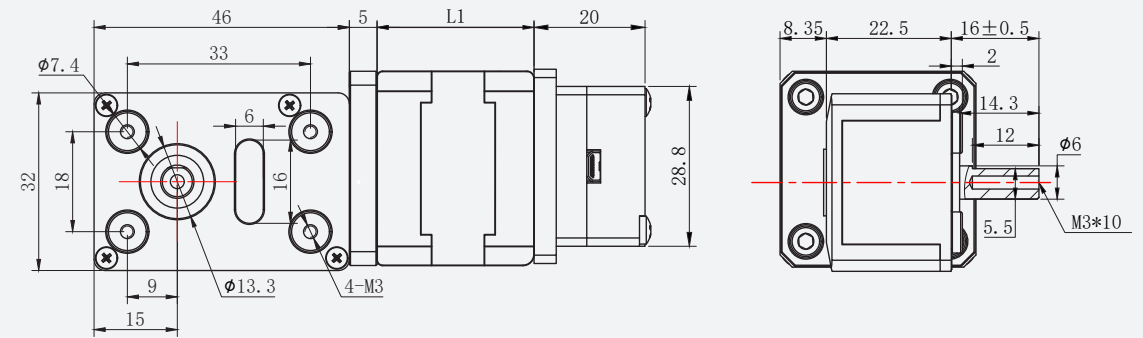
Linear Stepper Motor with Integrated Driver (Pulse)



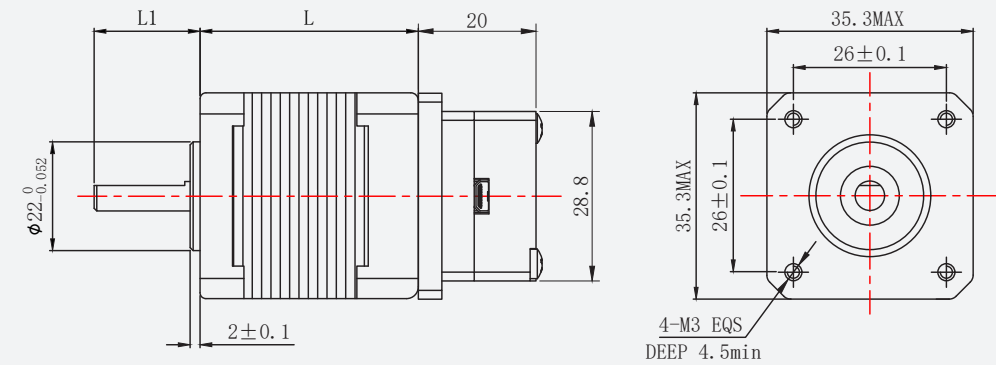
Planetary Geared Stepper Motor with Integrated Driver (Pulse)



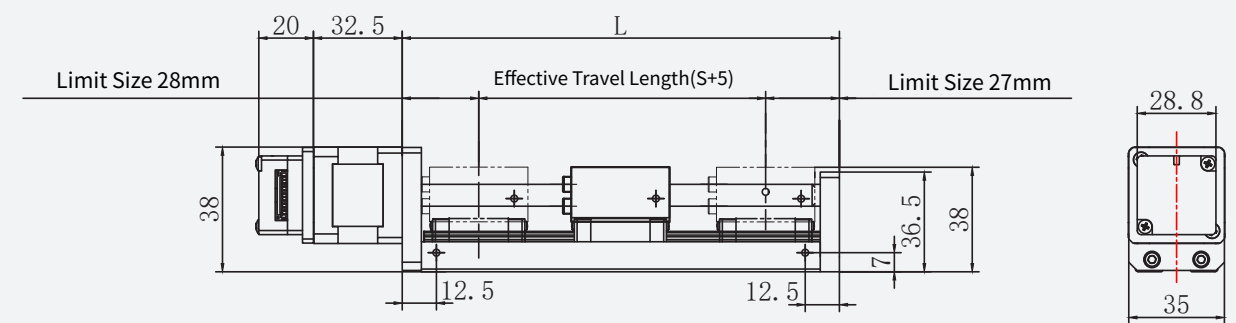
Worm Geared Stepper Motor with Integrated Driver (Pulse)



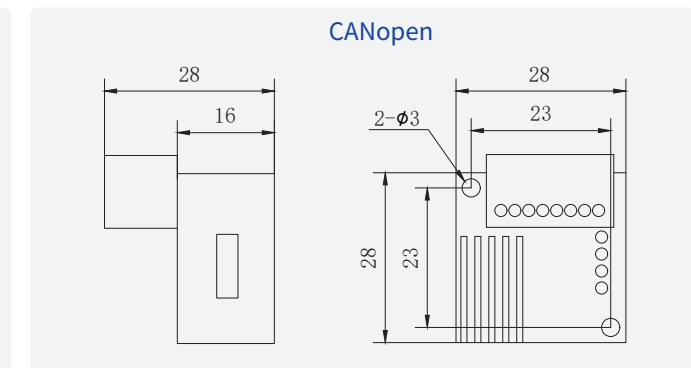
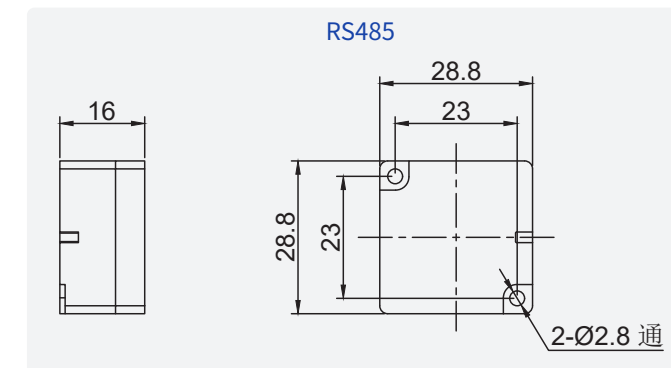
Hybrid Stepper Motor with Integrated Driver (Pulse)



Liner Stage with Integrated Driver (Pulse)



Driver Selection (Pulse/RS485/CANopen) :



Integrated Stepper Motor

Size 42 / Nema 17

Options



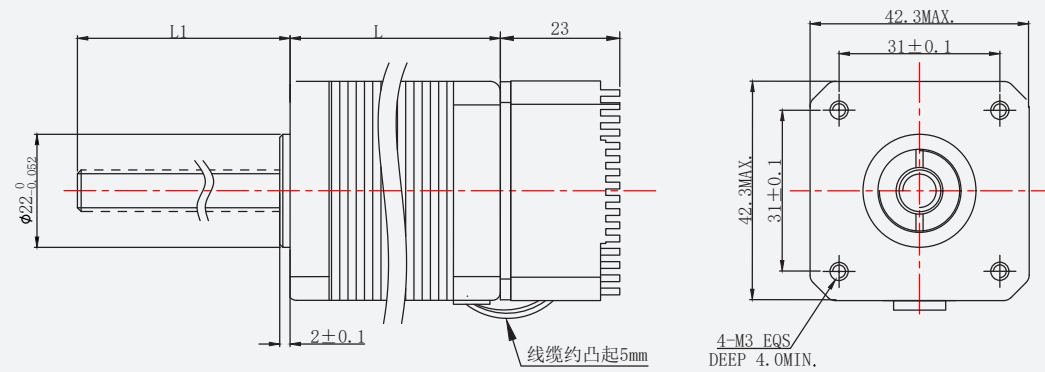
General Specifications

Driver Type	For 2 Phase Hybrid Stepper Motor
Voltage	DC 12-40V
Current	DC 0.1-2A
Control Signal	5V/24V
Control Mode	Pulse+Direction, Double Pulse
Frequency Response	200Kpps
Size	42*42*20mm
Weight	37g
Matched Motor	Size 42/Nema 17

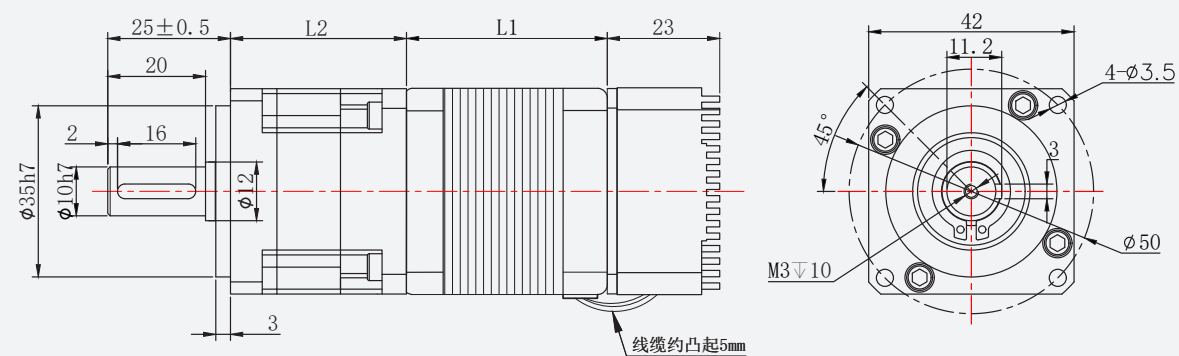


Dimensions

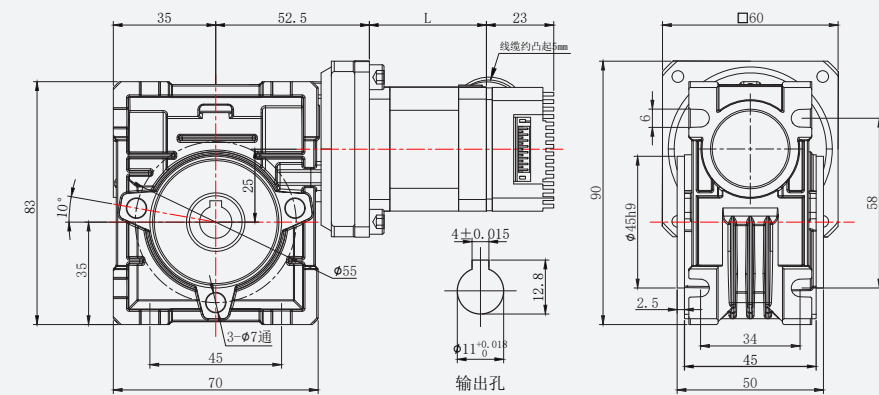
Linear Stepper Motor with Integrated Driver (Pulse)



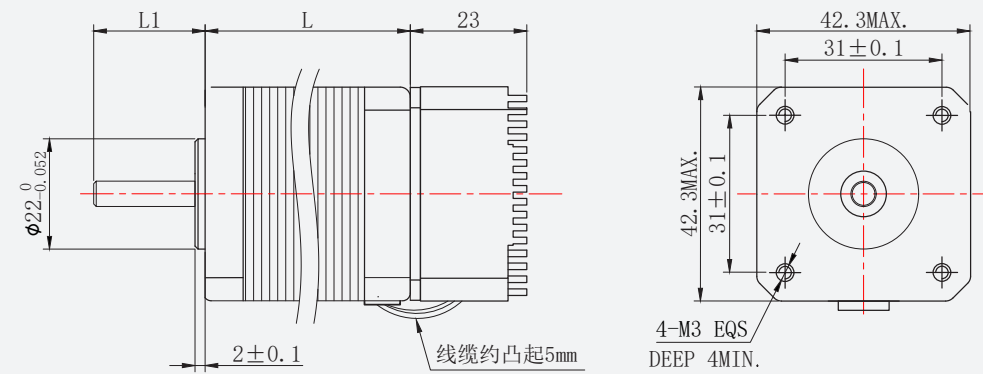
Planetary Geared Stepper Motor with Integrated Driver (Pulse)



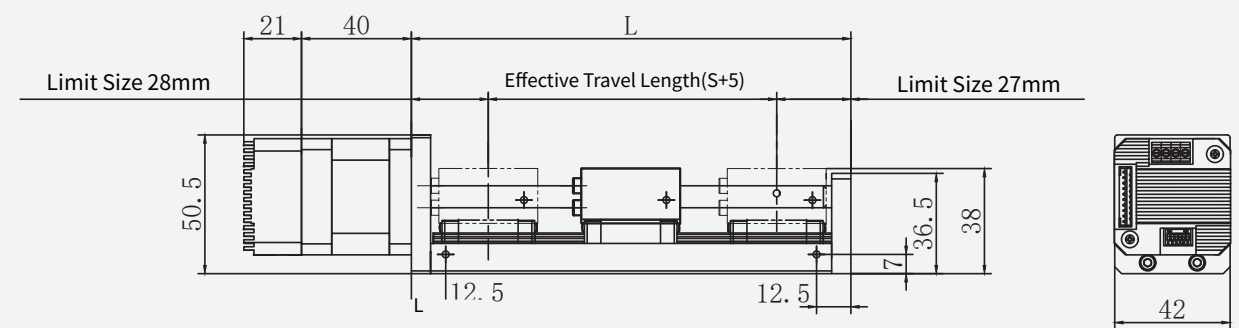
Worm Geared Stepper Motor with Integrated Driver (Pulse)



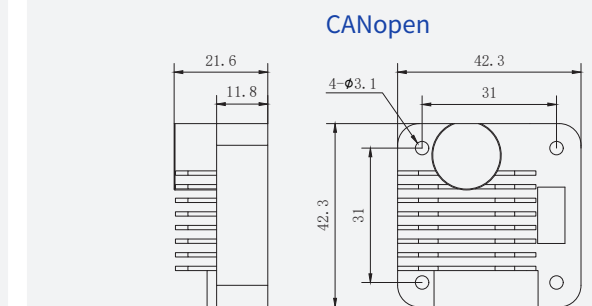
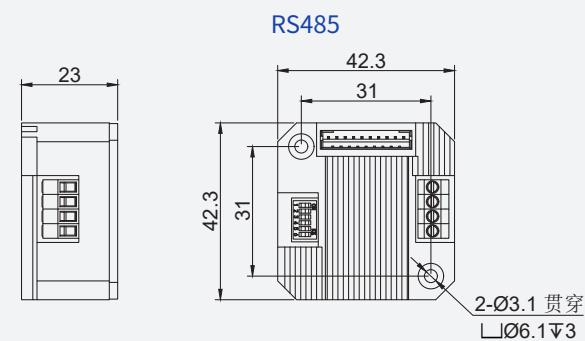
Hybrid Stepper Motor with Integrated Driver (Pulse)



Liner Stage with Integrated Driver (Pulse)



Driver Selection (Pulse/RS485/CANopen) :



Integrated Stepper Motor

Size 57 / Nema 23

Options



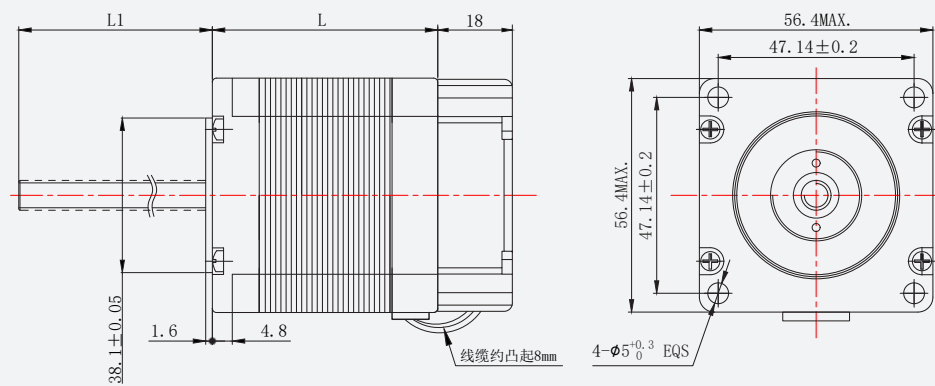
General Specifications

Driver Type	For 2 Phase Hybrid Stepper Motor
Voltage	DC 12-50V
Current	DC 0.1-3.5A
Control Signal	5V/24V
Control Mode	Pulse+Direction, Double Pulse
Frequency Response	200Kpps
Size	57*57*20mm
Weight	50g
Matched Motor	Size 57/Nema 23

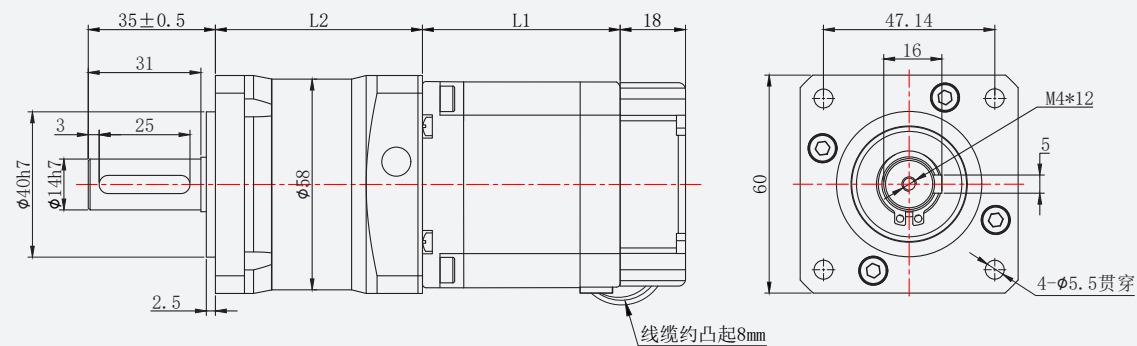


Dimensions

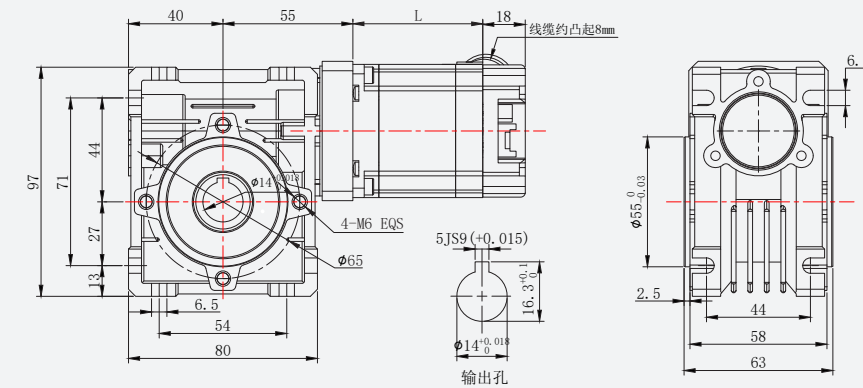
Linear Stepper Motor with Integrated Driver (Pulse)



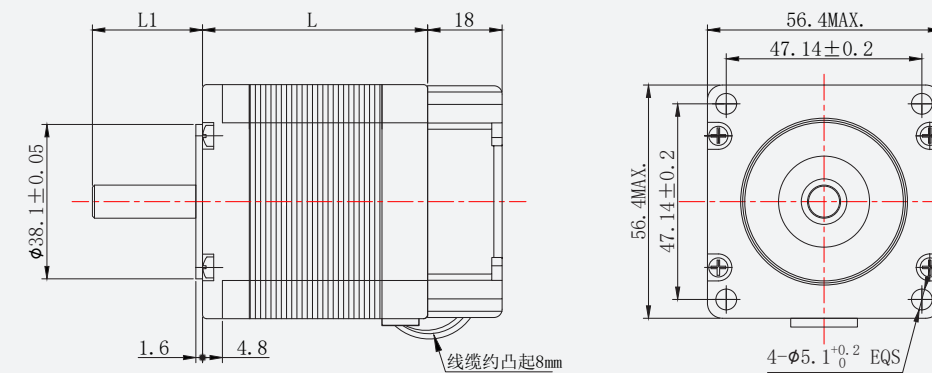
Planetary Geared Stepper Motor with Integrated Driver (Pulse)



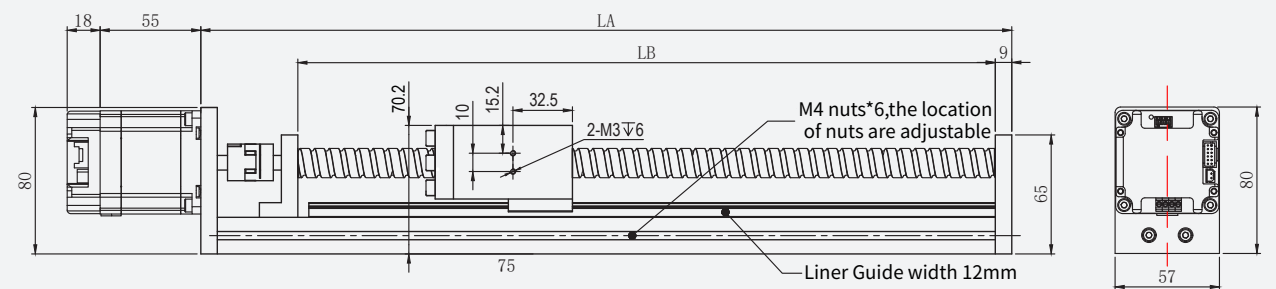
Worm Geared Stepper Motor with Integrated Driver (Pulse)



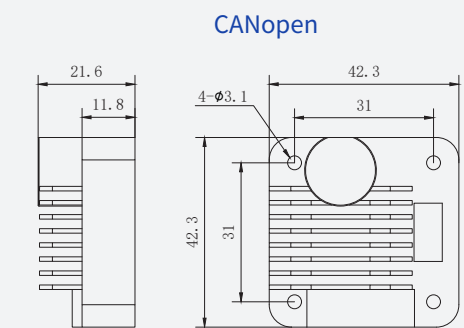
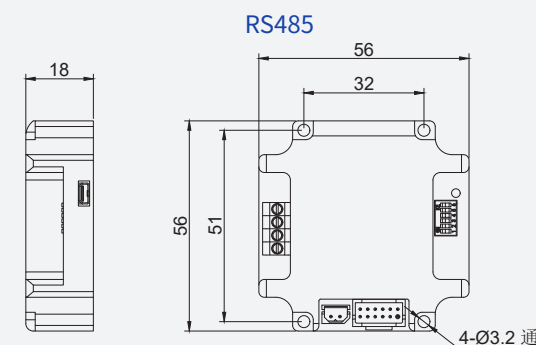
Hybrid Stepper Motor with Integrated Driver (Pulse)



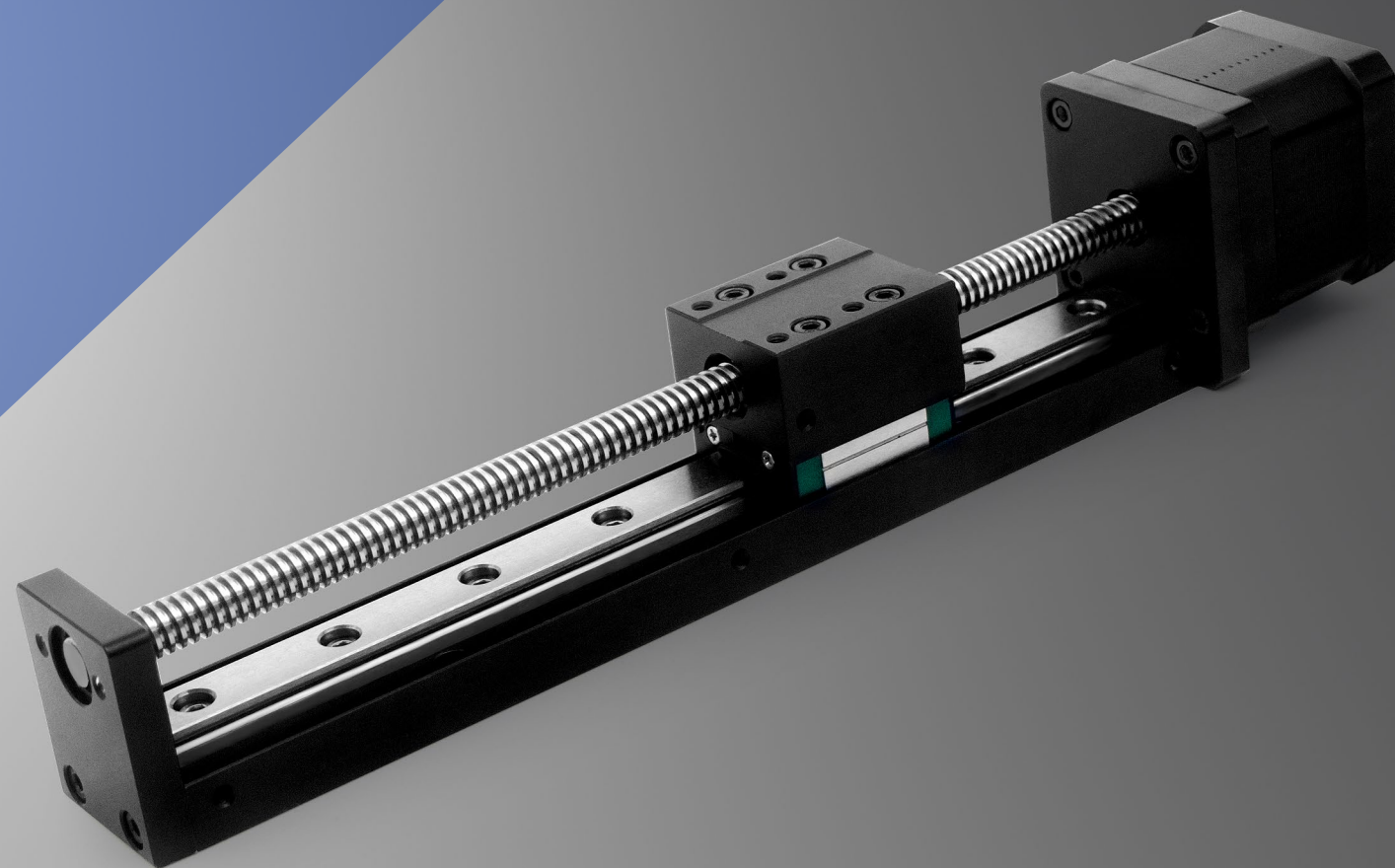
Liner Stage with Integrated Driver (Pulse)



Driver Selection (Pulse/RS485/CANopen) :



# Linear Stage



UMot

## NAMEPLATE DEFINITION OF THE LINEAR STAGE

**SW H 30 L100 T 02 - 28 32 SC - 10 BL - XXX**

### Linear Stage Structure Type

**SW:** Screw Driven  
**BW:** Stage Width

### Color

**H:** Black  
**K:** Open Model  
**No Mark:** Silver

### Stage Width Code

**20:** 20mm Model  
**30:** 30mm Model  
**40:** 40mm Model  
**60:** 60mm Model  
**80:** 80mm Model  
**120:** 120mm Model

### Effective Stroke(mm)

**50:** 50 Effective Stroke;  
**100:** 100 Effective Stroke...

### Screw Type

**T:** T-screw  
**G:** Ball Screw  
**P:** Stage Width

### Screw Lead/Pulley Circumference(mm)

**T02:** 2 Lead;  
**T04:** 4 Lead;  
**T08:** 8 Lead;  
**T12:** 12 Lead;  
**P135:** Pulley Circumference 135mm;  
**P165:** Pulley Circumference 165mm;

### Customized Model Code

**BL:** Motor Left Side  
**BR:** Motor Right Side  
**BD:** Motor Down Side  
**No Mark:** Motor Direct Side

### Linear Stage ID

**10:** Default

**SC:** Motor With Brake  
**SS:** Closed-loop

**IP:** Pulse Open-loop Integrated Driver  
**IR:** RS485 Open-loop Integrated Driver  
**LP:** Pulse Closed-loop Integrated Driver  
**LR:** RS485 Closed-loop Integrated Driver  
**IC:** CANopen Integrated Driver

### Motor Height

**32:** 32.5mm Motor Length  
**40:** 40mm Motor Length

### Motor Size(mm)

**20:** 20 Stepper Motor  
**28:** 28 Stepper Motor  
**35:** 35 Stepper Motor  
**42:** 42 Stepper Motor  
**57:** 57 Stepper Motor  
**60:** 60 Stepper Motor  
**86:** 86 Stepper Motor

Linear Stepper Motor

Gear Stepper Motor

Worm Gear Stepper Motor

Helical Planetary Gearbox

Hollow Rotary Platform

Stepper Motor

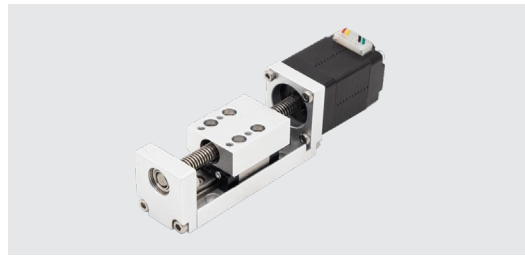
Integrated Stepper Motor

Linear Stage

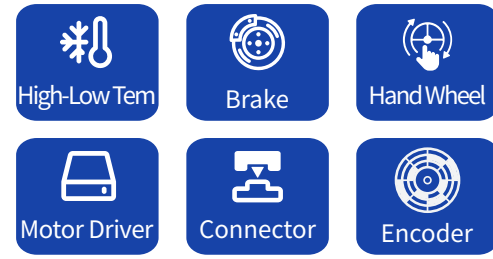
Stepper Motor Driver

Linear Stage with T-screw

Size 20mm



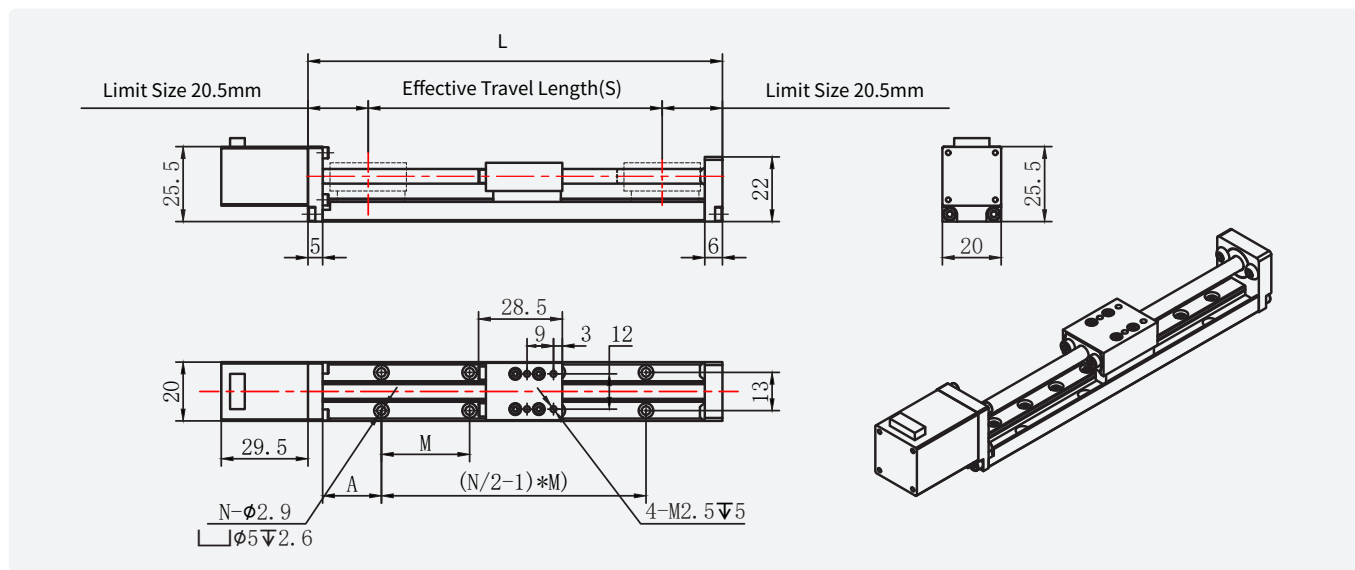
Options



Technical Data

Motor Size (mm)	Screw Diameter (mm)	Repeat Positioning Accuracy (mm)	Holding Torque (mN.m)	Rated a Celeration (mm/s <sup>2</sup> )	Screw Lead (mm)	Horizontal Full Load (kg)	Vertical Full Load (kg)	Full Speed (mm/s)	No Load Speed (mm/s)
20	Φ5	±0.03	18	100	2	2	0.5	20	30
					4	1.5	0.25	40	60

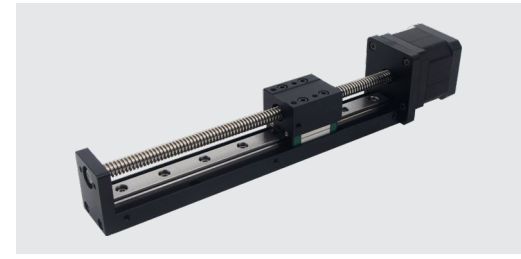
Dimensions



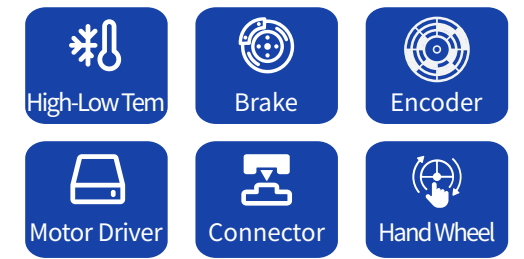
S	20	30	40	50	60	70	80	90	100
L	61	71	81	91	101	111	121	131	141
Weight	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2
Effective Travel Length	20	30	40	50	60	70	80	90	100
A	10	15	20	10	15	20	10	15	20
M	30	30	30	30	30	30	30	30	30
N	4	4	4	6	6	6	8	8	8

Linear Stage with T-screw

Size 30mm



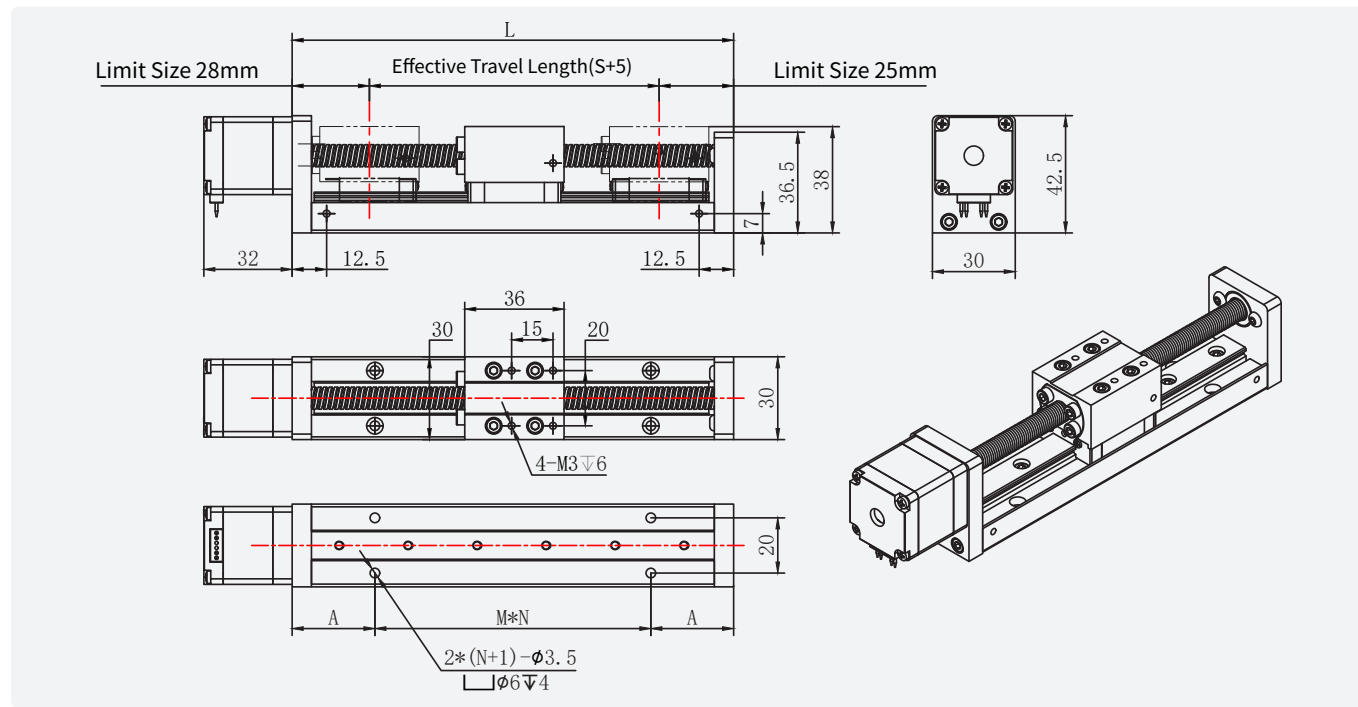
Options



Technical Data

Motor Size (mm)	Screw Diameter (mm)	Repeat Positioning Accuracy (mm)	Holding Torque (mN.m)	Rated a Celeration (mm/s <sup>2</sup> )	Screw Lead (mm)	Horizontal Full Load (kg)	Vertical Full Load (kg)	Full Speed (mm/s)	No Load Speed (mm/s)
28	Φ8	±0.03	65	100	2	6	1.5	20	30
					4	5.2	1.3	40	60
					8	4	0.8	80	120
					12	3	0.4	120	180
35*32.5	Φ8	±0.03	170	100	2	9.5	5	20	30
					4	8	4	40	60
					8	5	2	80	120
					12	4	1	120	180
35*38.5	Φ8	±0.03	250	100	2	12	5	20	30
					4	8.5	4	40	60
					8	6	2.5	80	120
42*40	Φ8	±0.03	400	100	2	20	10	20	30
					4	16	8	40	60
					8	12	5	80	120
42*48	Φ8	±0.03	520	100	1	30	18	10	15
					2	25	13	20	30
					4	20	10	40	60
					8	18	8	80	120
					12	15	5	120	180
					20	9	2.5	200	300

Dimensions



S	50	100	150	200	250	300	350	400
L	110	160	210	260	310	360	410	460
Weight	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4

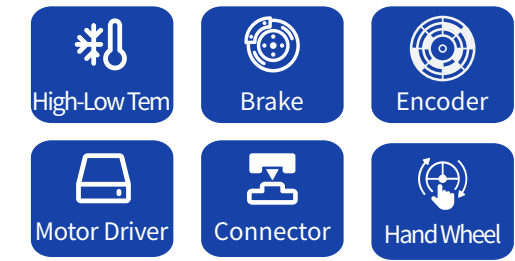
Effective Travel Length	50	100	150	200	250	300	350	400
A	30	30	55	30	55	30	55	30
M	50	100	100	100	100	100	100	100
N	1	1	1	2	2	3	3	4

Linear Stage with Ball Screw

Size 30mm



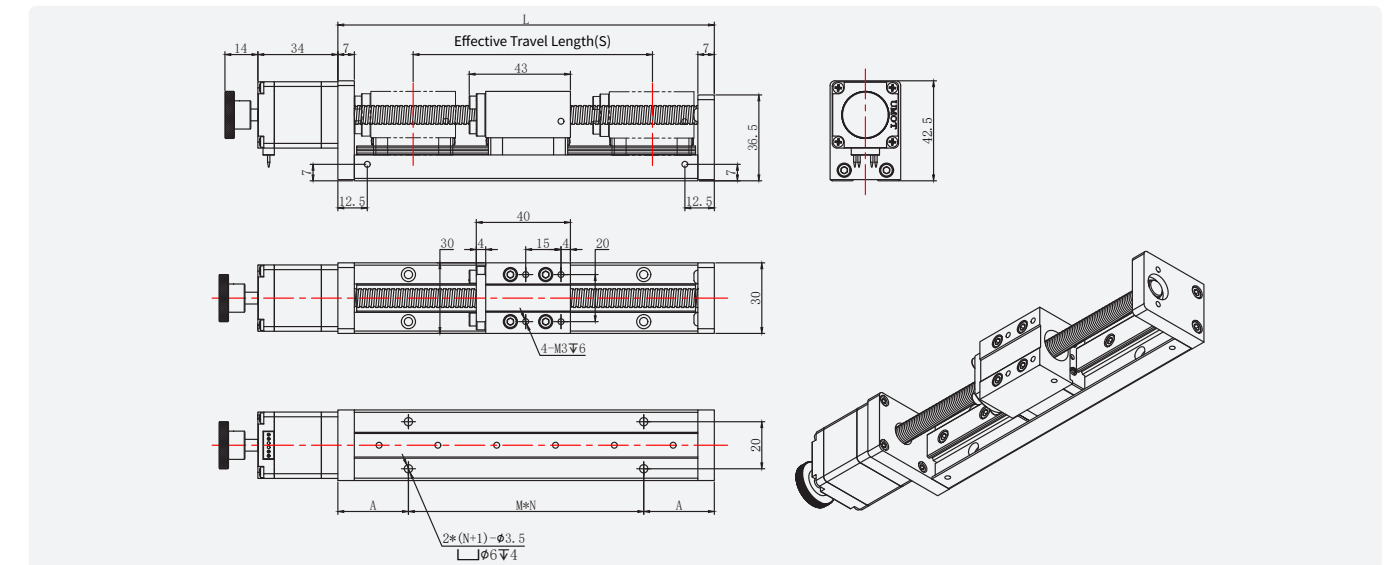
Options



Technical Data

Motor Size (mm)	Screw Diameter (mm)	Repeat Positioning Accuracy (mm)	Holding Torque (mN.m)	Rated a Celeration (mm/s <sup>2</sup> )	Screw Lead (mm)	Horizontal Full Load (kg)	Vertical Full Load (kg)	Full Speed (mm/s)	No Load Speed (mm/s)
28	∅8	±0.01	60	100	2	5	1.5	20	30

Dimensions

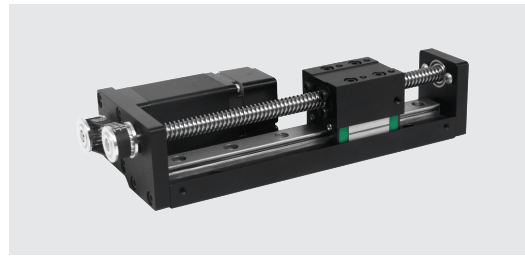


S	50	100	150	200
L	110	160	210	260

Effective travel length	50	100	150	200
A	30	30	55	30
M	50	100	100	100
N	1	1	1	2

Linear Stage with Side Installed Motor

Size 30mm



Options

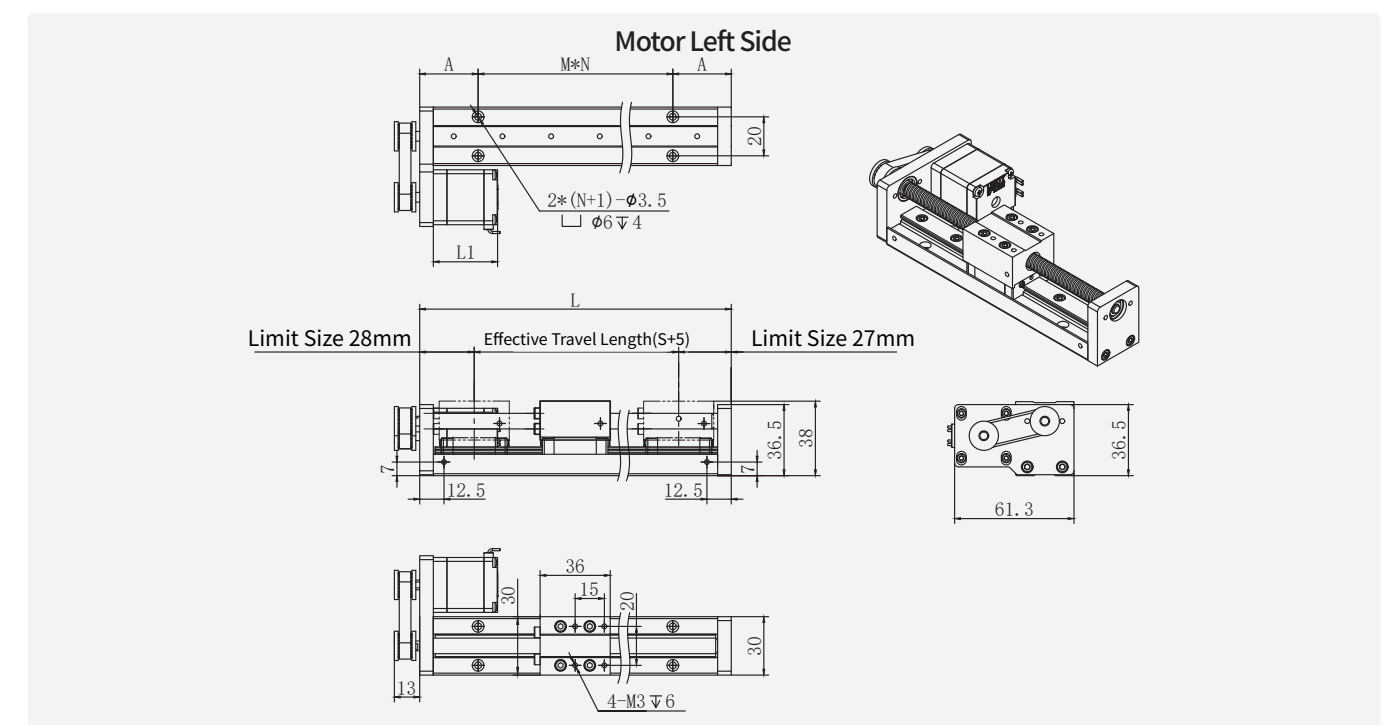
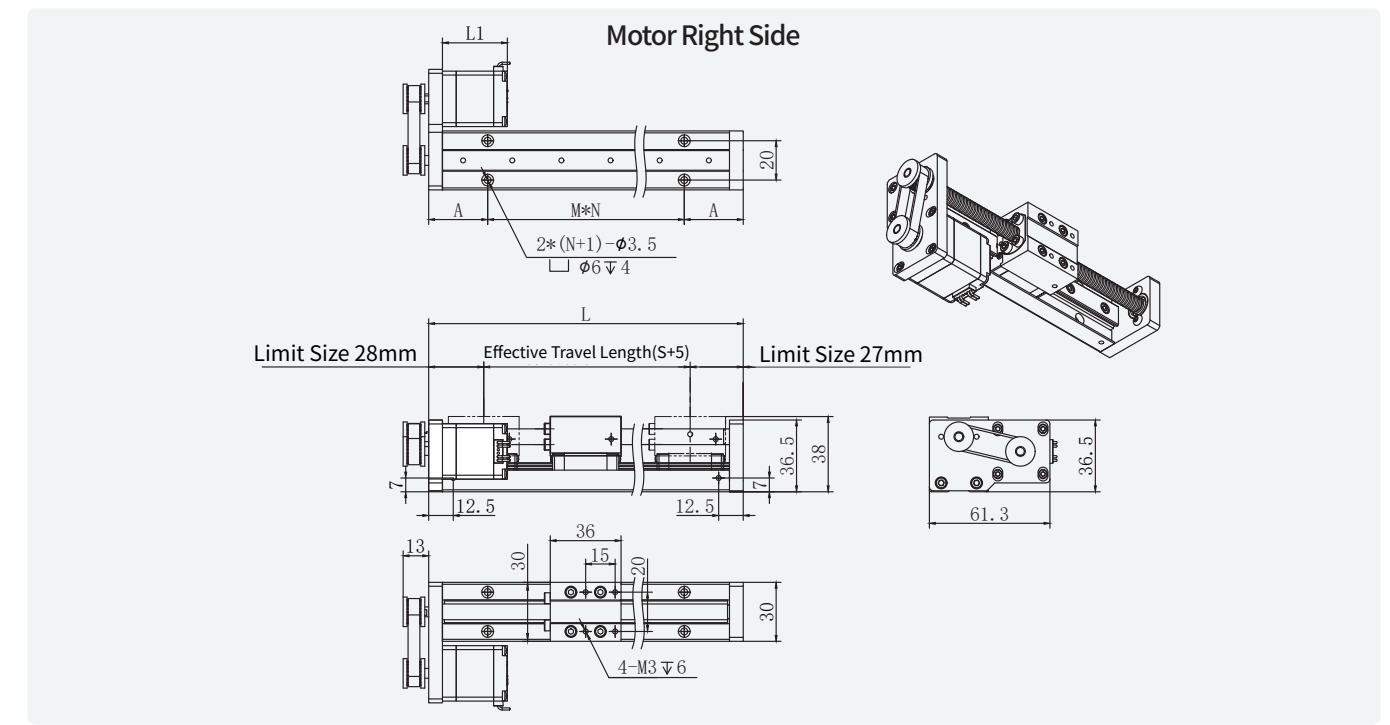
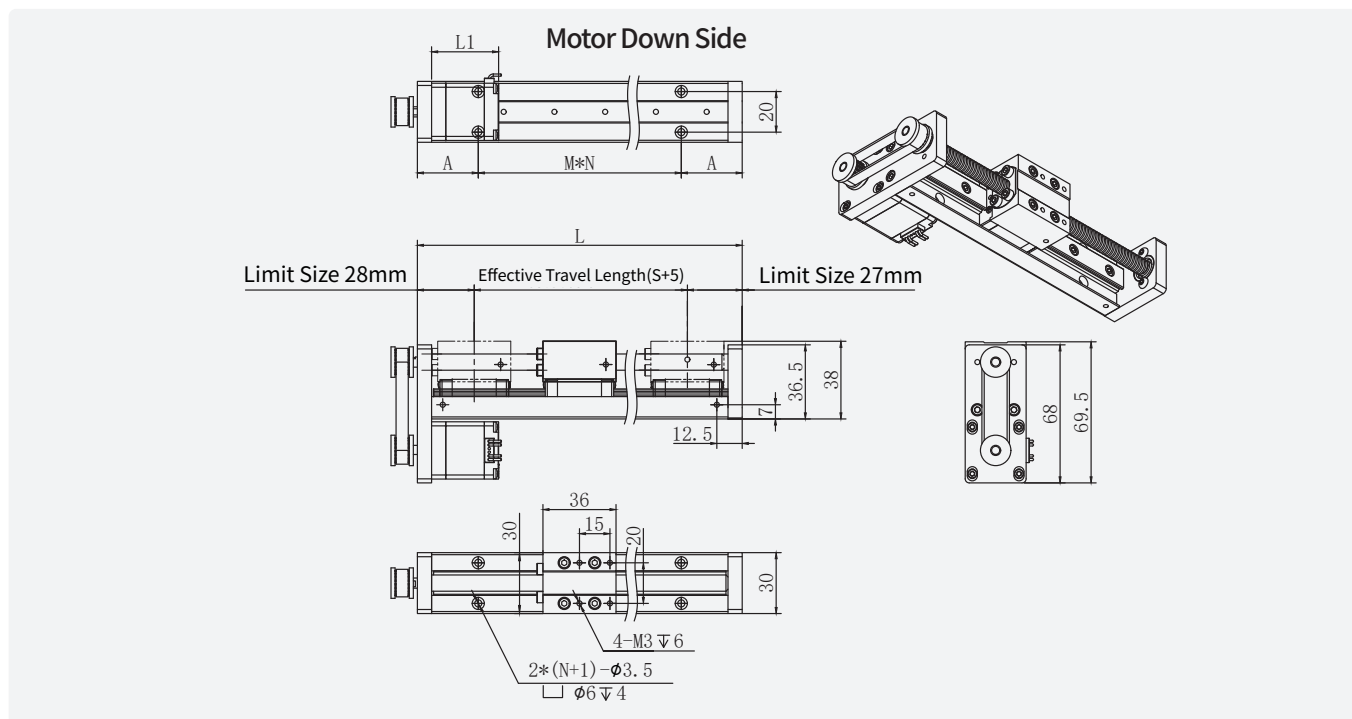
High-Low Tem   Brake   Encoder  
 Motor Driver   Connector   Hand Wheel

Technical Data

Motor Size (mm)	Screw Diameter (mm)	Repeat Positioning Accuracy (mm)	Holding Torque (mN.m)	Rated Celeration (mm/s <sup>2</sup> )	Screw Lead (mm)	Horizontal Full Load (kg)	Vertical Full Load (kg)	Full Speed (mm/s)	No Load Speed (mm/s)
28	Φ8	±0.05	65	100	2	6	1.5	20	30
					4	5.2	1.3	40	60
					8	4	0.8	80	120

\* 35 and 42 size stepper motor for options, contact us for details.

Dimensions

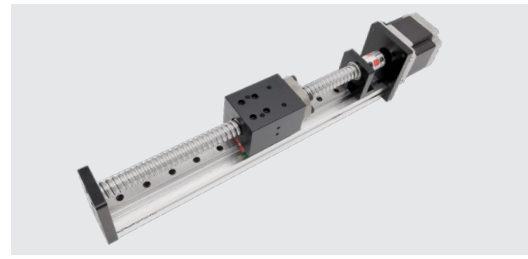


S	50	100	150	200
L	110	160	210	260
Weight	0.7	0.8	0.9	1.0

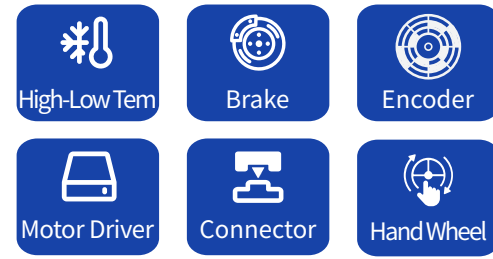
Effective Travel Length	50	100	150	200
A	30	30	55	30
M	50	100	100	100
N	1	1	1	2

Linear Stage with Ball Screw

Size 40mm



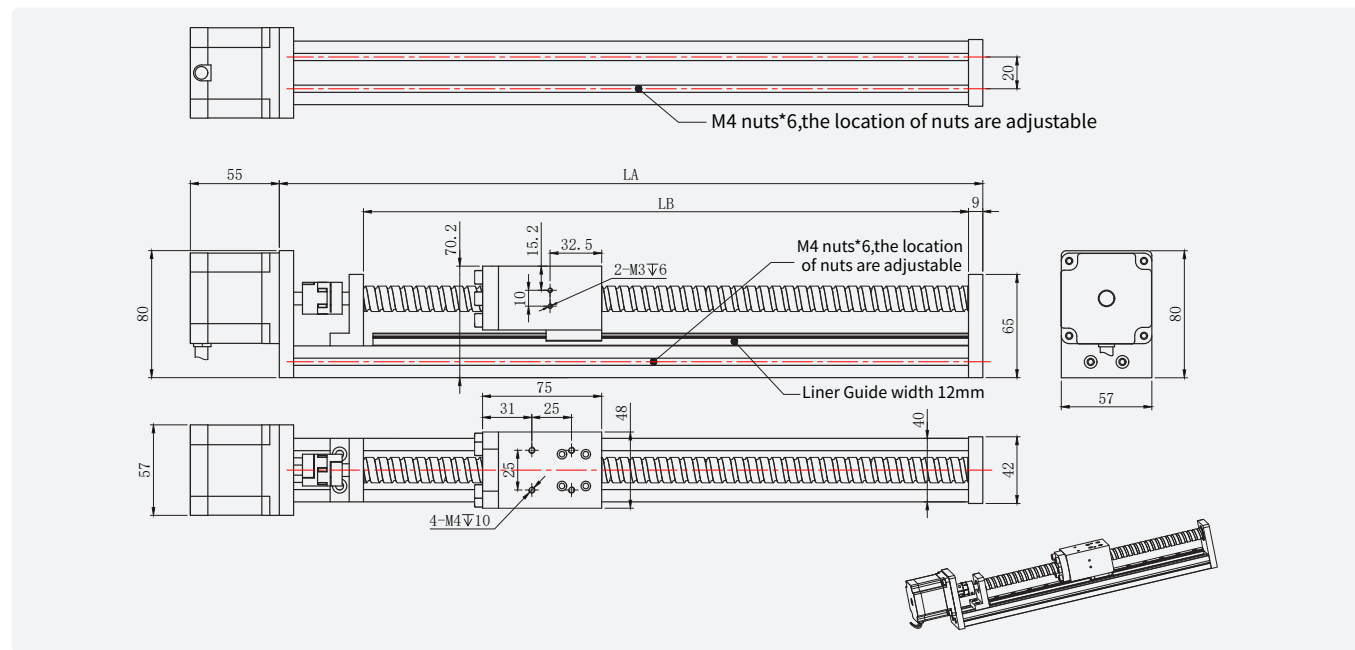
Options



Technical Data

Motor Size (mm)	Ball Screw Diameter (mm)	Repeat Positioning Accuracy (mm)	Holding Torque (mN.m)	Rated a Celeration (mm/s <sup>2</sup> )	Ball Screw Lead (mm)	Horizontal Full Load (kg)	Vertical Full Load (kg)	Full Speed (mm/s)	No Load Speed (mm/s)
42	φ16	±0.03	268	100	5	25	8	75	150
			134		10	18	5	75	150
57	φ16	±0.03	376	100	5	35	10	75	150
			188		10	20	6	75	150

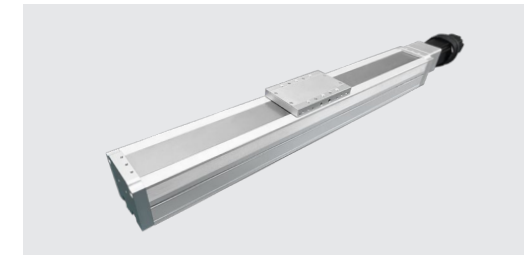
Dimensions



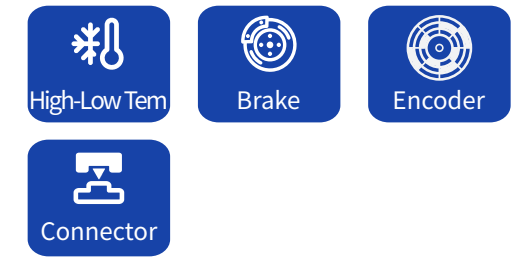
S	50	100	150	200
L	110	160	210	260
Weight	0.7	0.8	0.9	1.0

Linear Stage with Ball Screw

Size 80mm



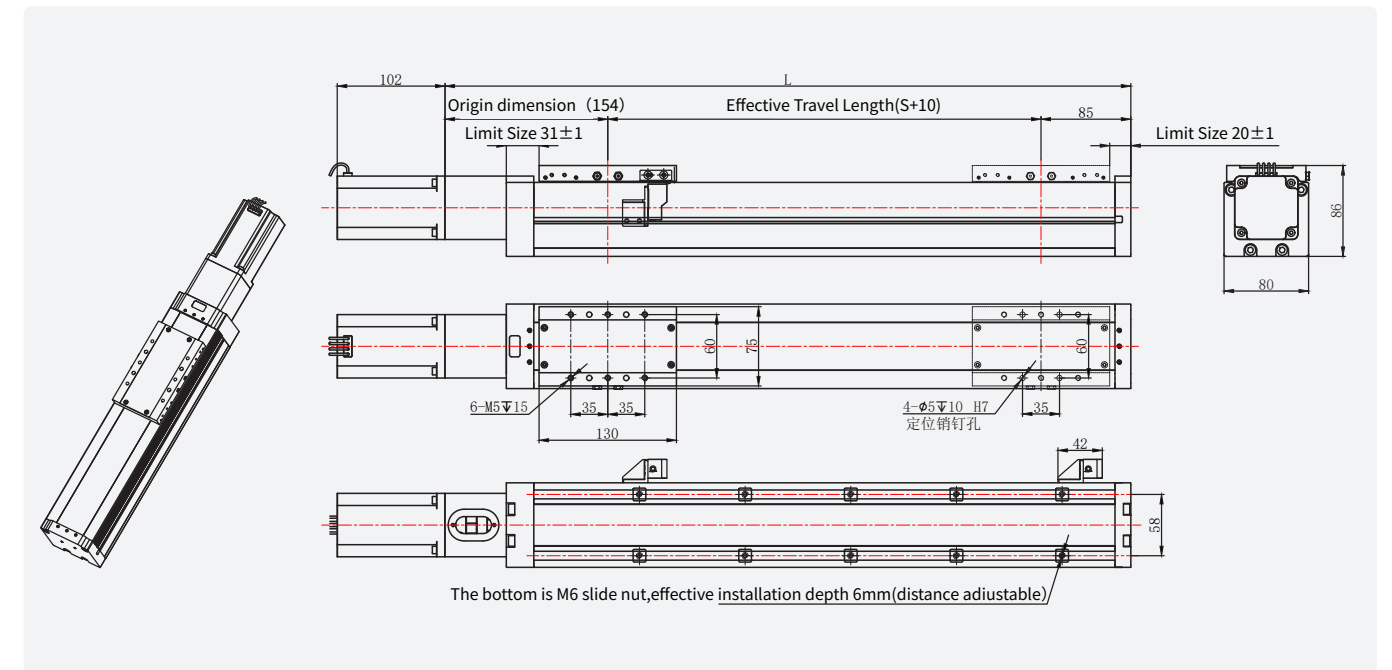
Options



Technical Data

Motor Size (mm)	Ball Screw Diameter (mm)	Repeat Positioning Accuracy (mm)	Holding Torque (mN.m)	Rated a Celeration (mm/s <sup>2</sup> )	Ball Screw Lead (mm)	Horizontal Full Load (kg)	Vertical Full Load (kg)	Full Speed (mm/s)	No Load Speed (mm/s)
60	φ16	±0.03	3000	100	10	40	20	150	150

Dimensions

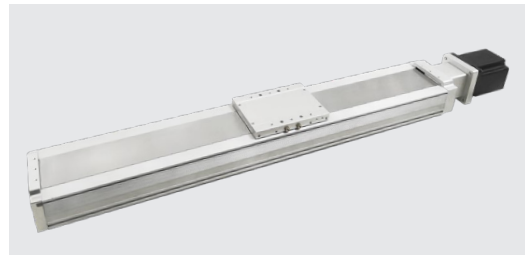


S	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	
L	299	349	399	449	499	549	599	649	699	749	799	849	899	949	999	1049	1099	1149	1199	1249	1299	
Number of M6 slider nuts installed at the bottom (symmetrical on both sides of the bottom)																						
No.	4*2	4*2	4*2	4*2	6*2	6*2	6*2	6*2	6*2	6*2	8*2	8*2	8*2	8*2	8*2	8*2	8*2	10*2	10*2	10*2	10*2	

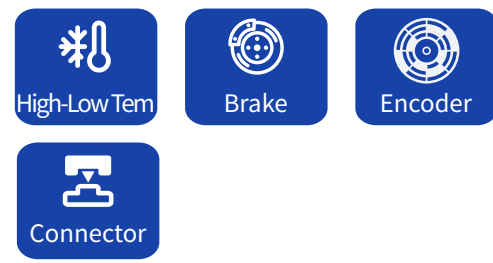
Optional	Weight(KG)	D
Size 60	1.6	60
Size 86	4.2	82
Servo 400W	1.6	70
Servo 750W	3.0	82

Linear Stage with Ball Screw

Size 120mm



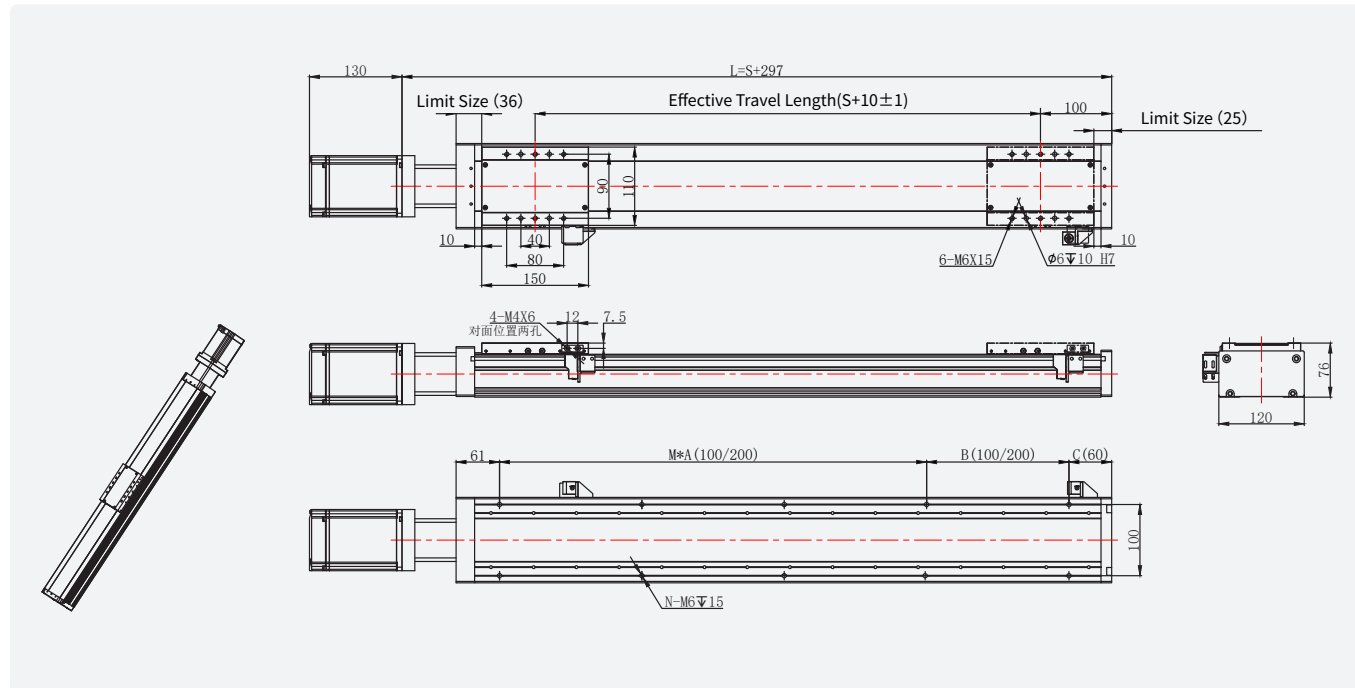
Options



Technical Data

Motor Size (mm)	Ball Screw Diameter (mm)	Repeat Positioning Accuracy (mm)	Holding Torque (mN.m)	Rated a Celeration (mm/s <sup>2</sup> )	Ball Screw Lead (mm)	Horizontal Full Load (kg)	Vertical Full Load (kg)	Full Speed (mm/s)	No Load Speed (mm/s)
86	Φ20	±0.03	7000	100	10	100	50	150	150

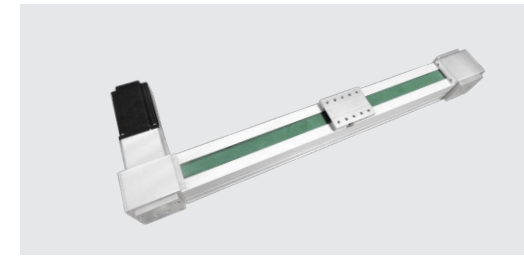
Dimensions



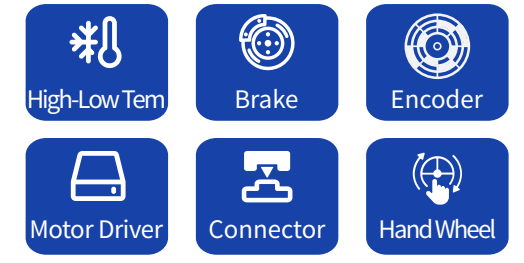
S	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300
L	397	497	597	697	797	898	997	1097	1197	1297	1397	1497	1597
A	100	100	100	100	100	100	100	100	200	200	200	200	200
B	100	100	100	100	100	100	100	100	200	100	200	100	200
C	60	60	60	60	60	60	60	60	60	60	60	60	60
M	1	2	3	4	5	6	7	8	4	5	5	6	6
N	6	8	10	12	14	16	18	20	12	14	14	16	16

Width Belt Driven Linear Stage

Size 60mm



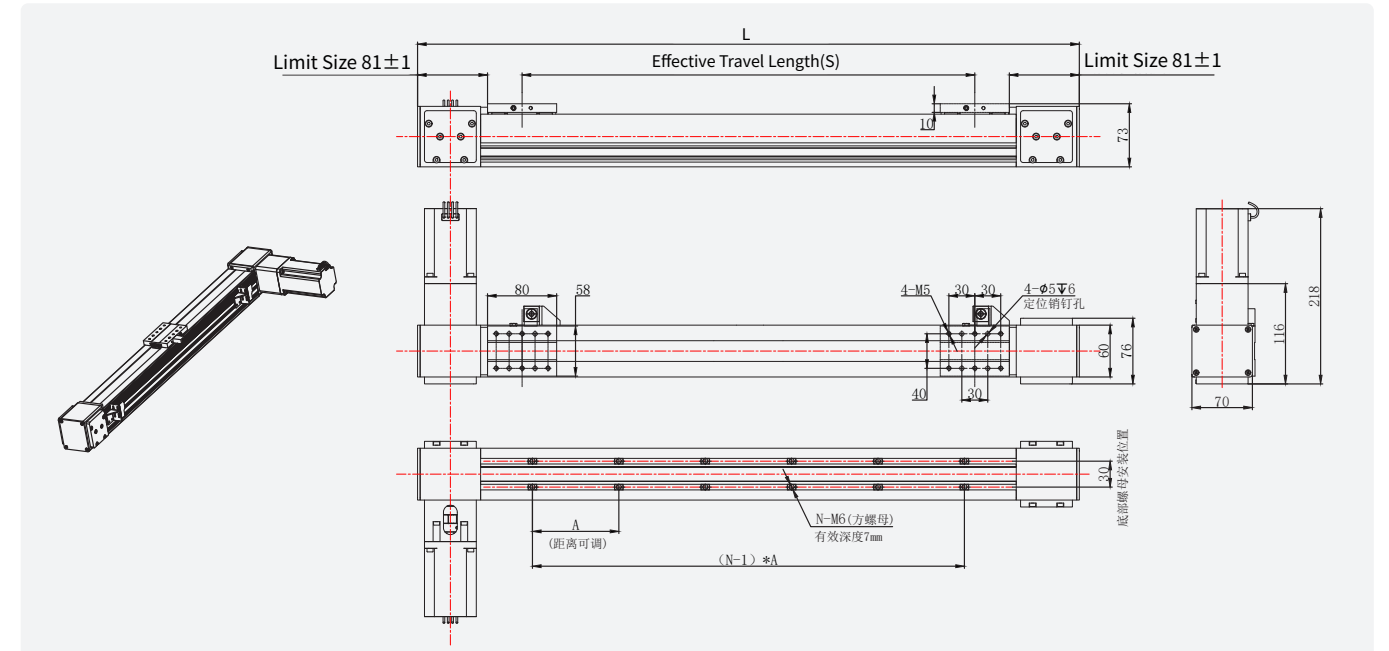
Options



Technical Data

Motor Size (mm)	Repeat Positioning Accuracy (mm)	Operating Life (h)	Pulley Circumference (mm)	Holding Torque (mN.m)	Rated a Celeration (mm/s <sup>2</sup> )	Horizontal Full Load (kg)	Vertical Full Load (kg)	Full Speed (mm/s)	No Load Speed (mm/s)
60	±0.1	10000	135	3000	100	25	Not Recommended	500	930

Dimensions



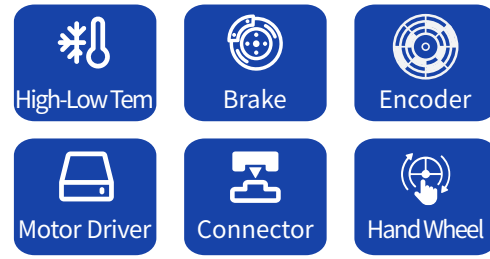
S	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100
L	766	866	966	1066	1166	1266	1366	1466	1566	1666	1766	1866	1966	2066	2166	2266	2366
N	4*2	4*2	4*2	4*2	6*2	6*2	6*2	6*2	6*2	6*2	6*2	6*2	6*2	6*2	6*2	8*2	8*2
S	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200	3300	3400	3500	3600	3700	3800
L	2466	2566	2666	2766	2866	2966	3066	3166	3266	3366	3466	3566	3666	3766	3866	3966	4066
N	8*2	8*2	8*2	8*2	8*2	8*2	8*2	8*2	12*2	12*2	12*2	12*2	12*2	12*2	12*2	12*2	12*2

Width Belt Driven Linear Stage

Size 80mm



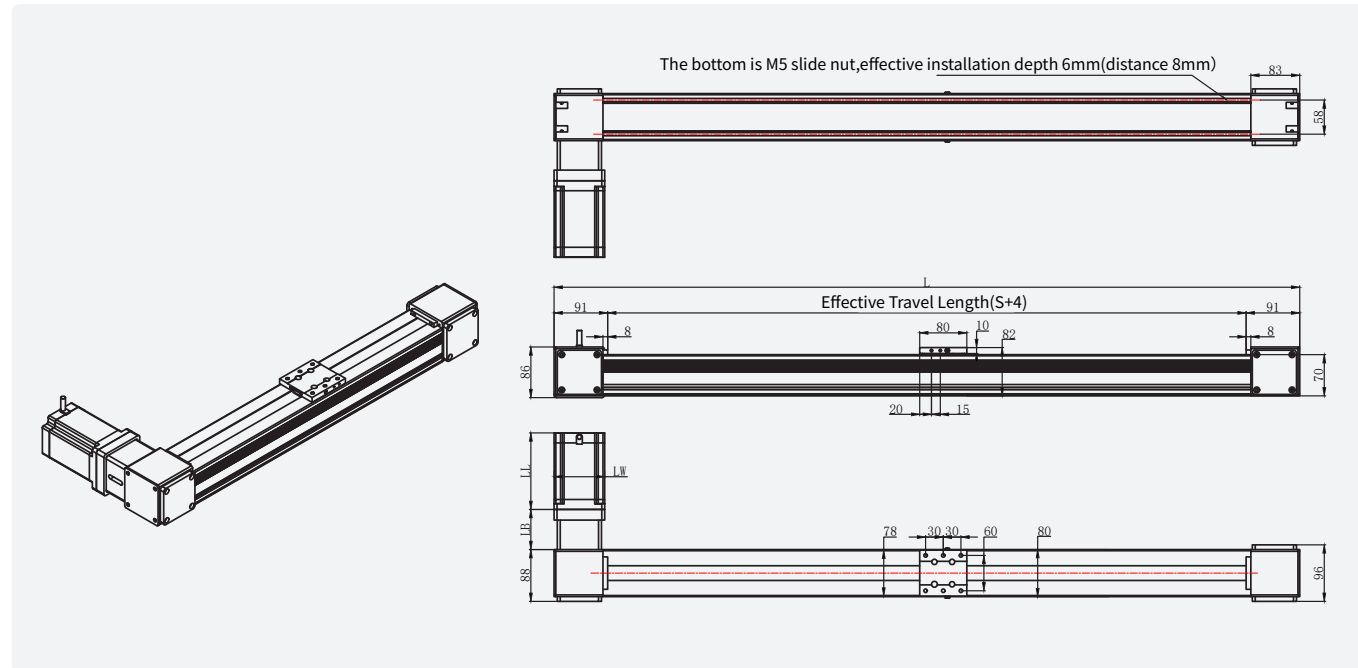
Options



Technical Data

Motor Size (mm)	Repeat Positioning Accuracy (mm)	Operating Life (h)	Pulley Circumference (mm)	Holding Torque (mN.m)	Rated a Celeration (mm/s <sup>2</sup> )	Horizontal Full Load (kg)	Vertical Full Load (kg)	Full Speed (mm/s)	No Load Speed (mm/s)
86	±0.1	10000	165	5000	100	30	5	1700	3000

Dimensions



S	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200
L	766	866	966	1066	1166	1266	1366	1466	1566	1666	1766	1866	1966	2066	2166	2266	2366	2466

S	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200	3300	3400	3500	3600	3700	3800	3800	3900
L	2566	2666	2766	2866	2966	3066	3166	3266	3366	3466	3566	3666	3766	3866	3966	4066	4066	4166

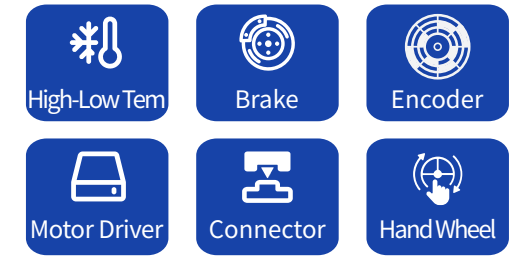
Motor	LB	LL	LW	Optional	Weight(KG)	D
86	68	130	86	Size 60	1.6	60
750w	76	138	80	Size 86	4.2	82
60	50	102	无	Servo 400W	1.6	70
				Servo 750W	3.0	82

KK Linear Stage

KK



Options



Naming convention

UMKK 60 10 P E - 400 E A 2 E - F0 C S0 M

UMKK ..... M: With Motor  
 Size: 60 ..... No Mark: No  
 Screw Lead: UMKK60:5,10  
 Precision: P: High Precision C: Normal  
 E: Customized Ball Screw No Mark: Standard Ball Screw  
 Travel Length(mm): UMKK60: 150, 200, 300, 400, 500, 600  
 E: Customized No Mark: Standard  
 Slider Type: A: Standard S: Light-duty  
 No. of Slider: 1, 2  
 E: Customized Slider No Mark: Standard Slider  
 Motor Flange: FE: Customized  
 ..... With Limit Switch  
 S0: Only Limit Switch  
 S1: Omron EE-SX671  
 S2: Omron EE-SX674  
 S3: Panasonic GX-F12A  
 S4: Panasonic GX-F12A-P  
 No Mark: No  
 ..... C: Aluminum Cover  
 B: Telescopic Cover  
 No Mark: No Cover

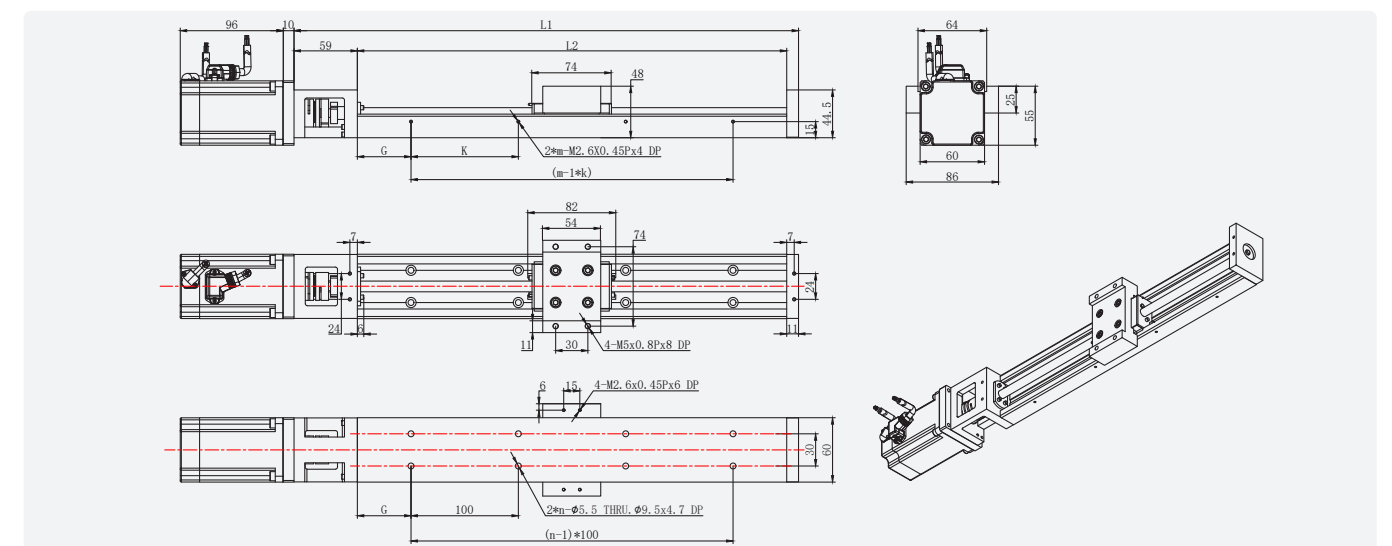
Technical Data

Linear Guide Length L2(mm)	Total Length L1(mm)	Max Travel Length(mm)		G(mm)	K(mm)	n	m
		A1 Slider	A2 Slider				
150	220	60	-	25	100	2	2
200	270	110	-	50	100	2	2
300	370	210	135	50	200	3	2
400	470	310	235	50	100	4	4
500	570	410	335	50	200	5	3
600	670	510	435	50	100	6	6

Model	Linear Guide Length	Precision Grade				Working Parallelism	Max Torque (N-cm)	
		Positioning Reproducibility	Positioning Accuracy	Working Parallelism	Max Torque (N-cm)			
KK60	150	Precision	Normal	Precision	Normal	Precision	Normal	
	200	±0.003	±0.005	0.020	-	0.010	-	
	300							
	400							
	500							
	600	±0.003	±0.005	0.025	-	0.015	-	15

Model	Ball Screw Lead(mm)	Max Speed		
		Liner Guide Length L2(mm)	Precision	Speed(mm/ses)
KK60	05	150	550	390
		200	550	390
		300	550	390
		400	550	390
		500	550	390
		600	340	340
	10	150	1100	790
		200	1100	790
		300	1100	790
		400	1100	790
		500	1100	790
		600	670	670

Dimensions



# Stepper Motor Driver



# UMot

## Stepper Motor Driver

### UM242



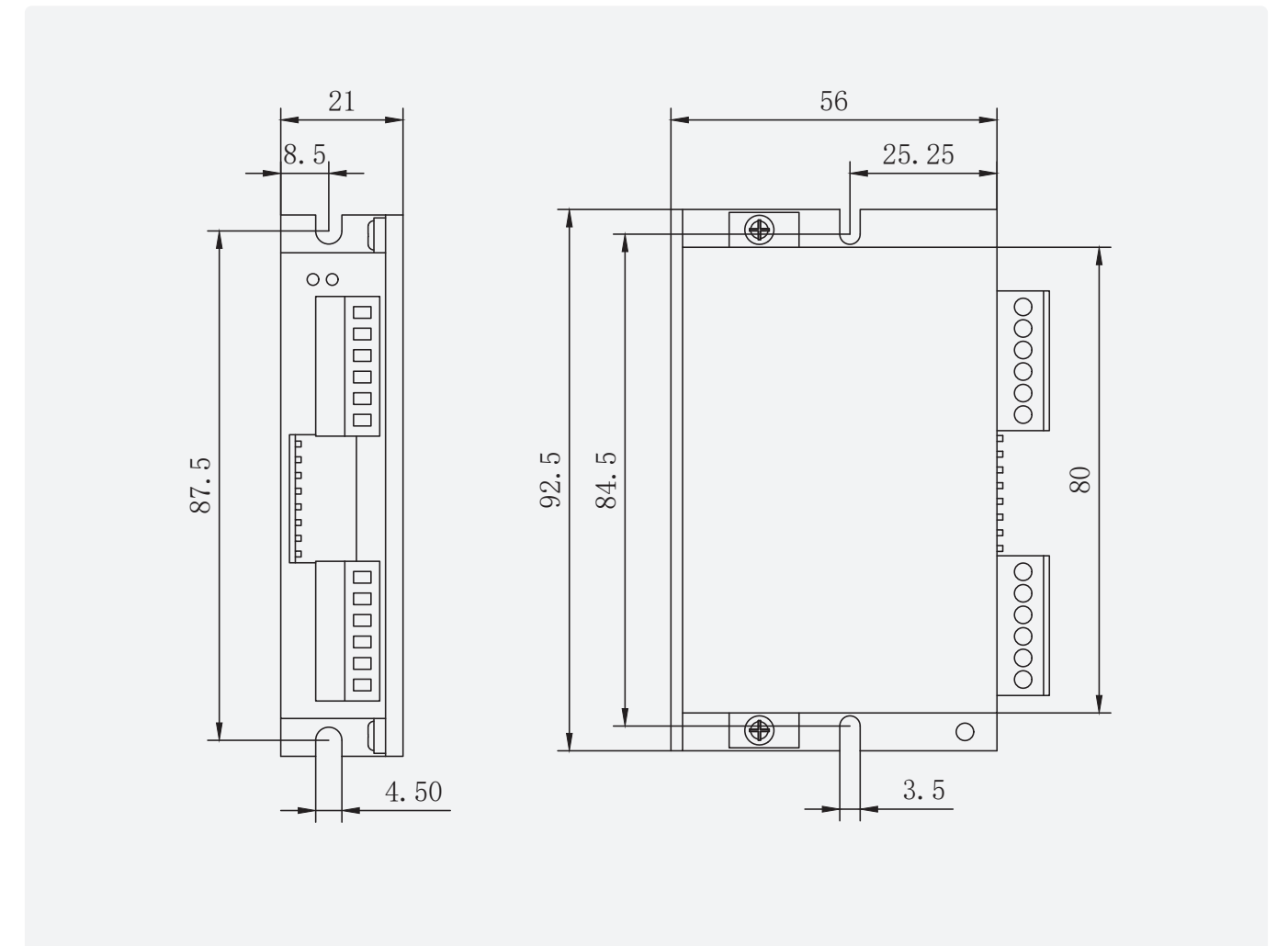
### General Specifications

Drive Type	2 Phase Hybrid Stepper Motor
Voltage	DC8-36V
Current	0.2-2.2A
Control Signal	5V/24V
Control Mode	Pulse + Direction, A/B Orthogonal Pulse Input
Wiring for Signal	Common Cathode, Common Anode, Differential
Maximum Resolution	25000PPR
Frequency Response	200kpps
Segment Settings	16 Sections
Current Setting	16 Sections
Size	92.5*56*21mm
Weight	0.1kg
Matched Motor	20、28、35、42mm

### Features

- Here are 16 subdivisions and 16 current selections, with overvoltage, undervoltage and overcurrent protection.
- Detection function: Automatically detect whether the motor phase is missing and the pulse signal is missing.
- Idle current: The current is automatically halved after the motor stops running.

### Dimensions

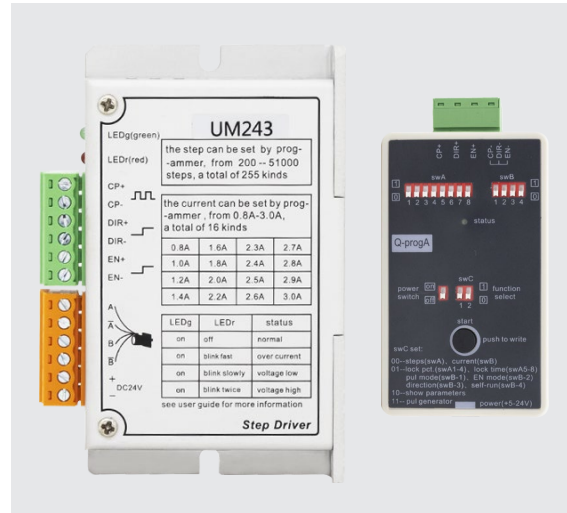


Linear Stepper Motor  
Geared Stepper Motor  
Worm Geared Stepper Motor  
Helical Planetary Gearbox  
Hollow Rotary Platform  
Stepper Motor  
Integrated Stepper Motor  
Linear Stage  
Stepper Motor Driver

Stepper Motor Driver

UM243

General Specifications

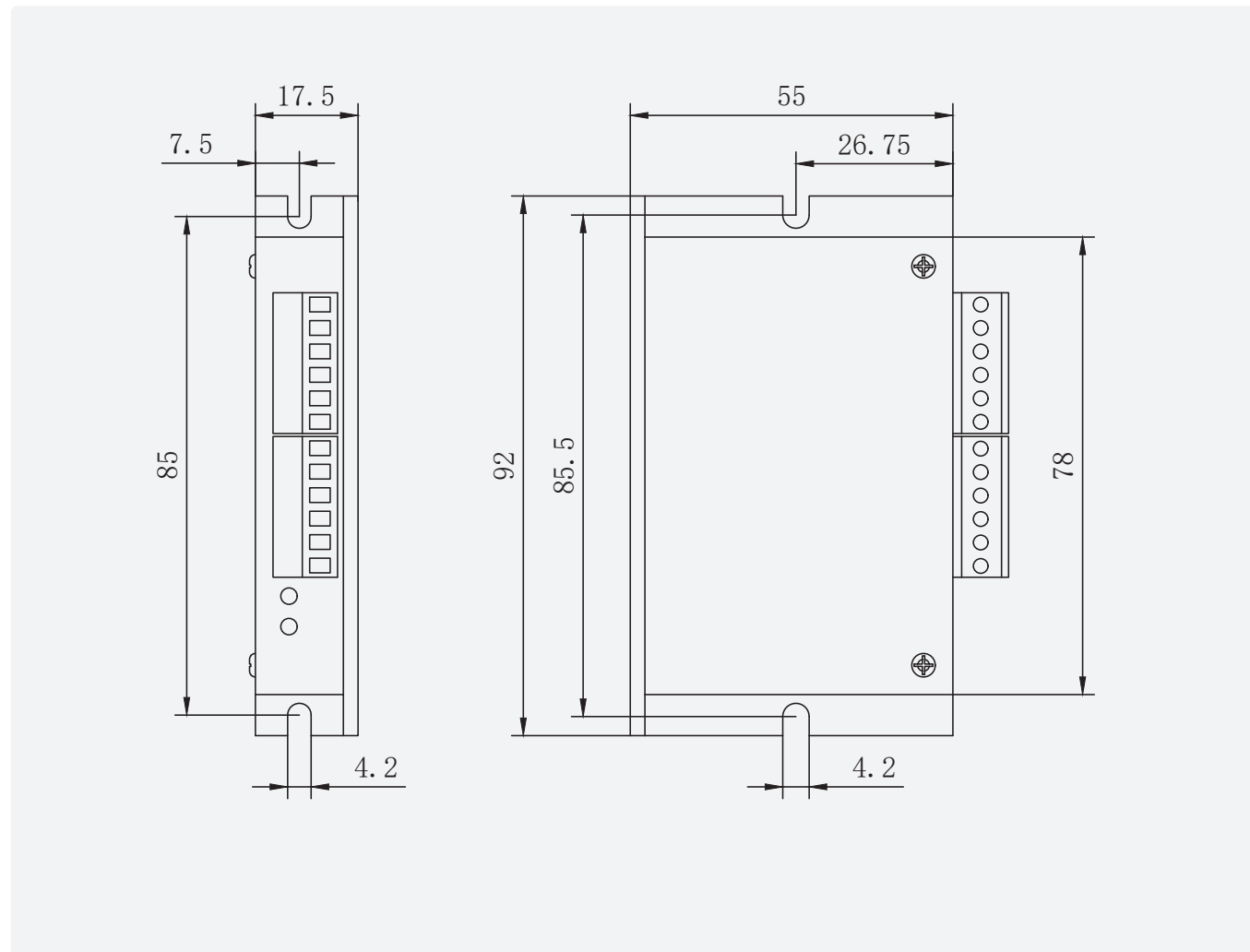


Drive Type	2 Phase Hybrid Stepper Motor
Voltage	DC24V
Current	0.8-3A
Control Signal	5V/24V
Control Mode	Pulse + Direction
Wiring for Signal	Common Cathode, Common Anode, Differential
Maximum Resolution	50800PPR
Frequency Response	200kpps
Segment Settings	255 Sections
Current Setting	12 Sections
Size	92*55*17.5mm
Weight	0.1kg
Matched Motor	28、35、39、42、57mm

Features

- 255 levels of selectable subdivision, single and double pulse signal input methods, adaptable to various controllers.
- 0.8A-3.0A current subdivision is more accurate, adapting to more possible stepper motors.
- Input signal 3-24V adaptive design, no need for external current limiting resistor, more convenient to use.
- Low noise, low vibration, low heat, the overall motor operation is more stable.

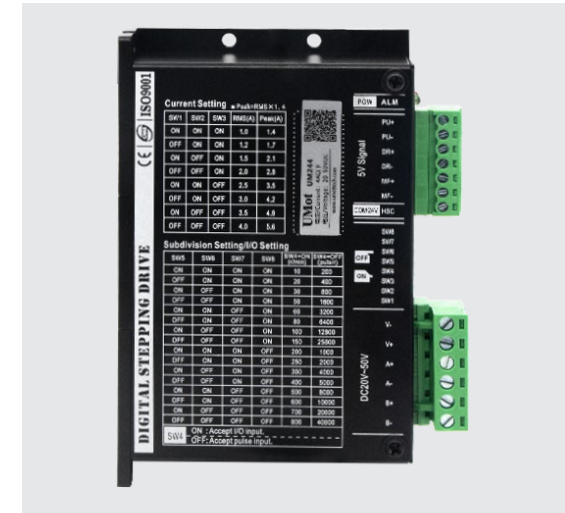
Dimensions



Stepper Motor Driver

UM244

General Specifications

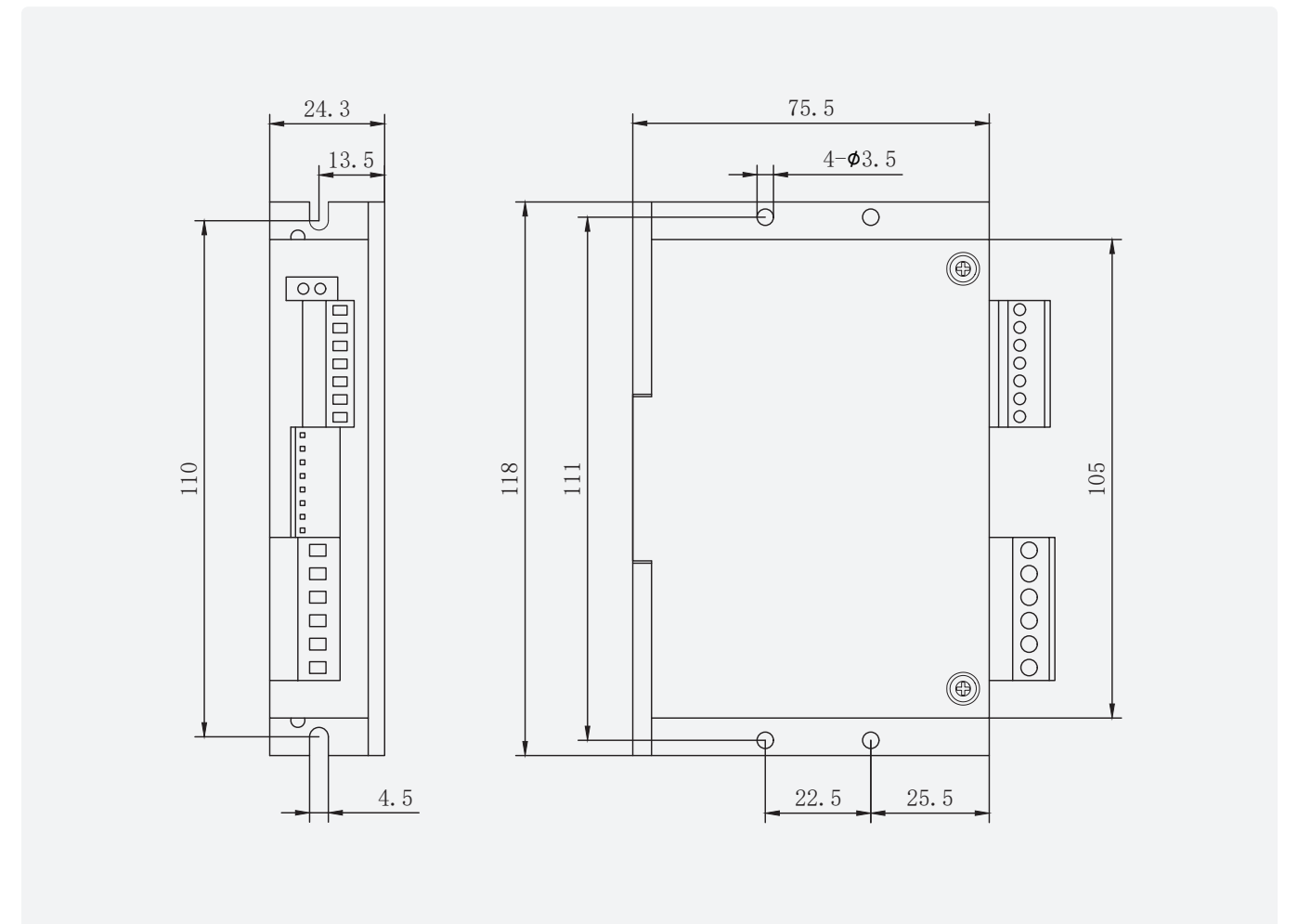


Drive Type	2 Phase Hybrid Stepper Motor
Voltage	DC20-50V
Current	1-4A
Control Signal	5V/24V
Control Mode	Pulse + Direction
Wiring for Signal	Common Cathode, Common Anode, Differential
Maximum Resolution	40000PPR
Frequency Response	200kpps
Segment Settings	16 Sections
Current Setting	8 Sections
Size	118*75.5*24.3mm
Weight	0.2kg
Matched Motor	35、42、57、60mm

Features

- Motion mode: position mode and I/O speed mode, controlled by SW4 DIP switch.
- Equipped with 16 levels of equal-angle constant torque subdivision, with a maximum resolution of 40,000 steps/revolution.
- When the step pulse stops for more than 1.5s, the coil current will automatically reduce to half of the set current.
- Drive current 1.0A/phase to 4.0A/phase adjustable in 8 levels.
- DC power input, voltage range: DC20V~50V.

Dimensions



UM245-T

General Specifications

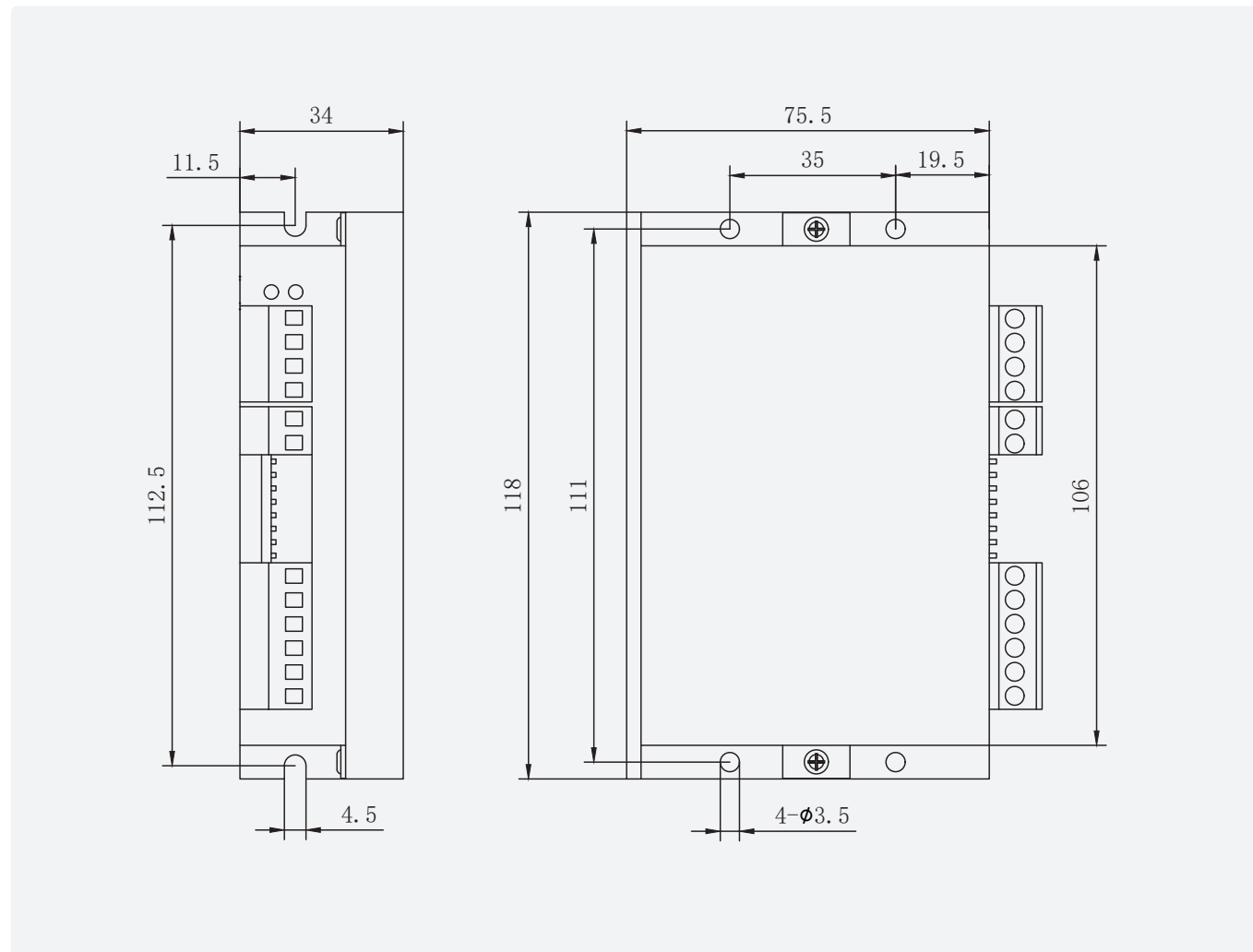


Drive Type	2 Phase Hybrid Stepper Motor
Voltage	DC24-90V
Current	2-5A
Control Signal	5V/24V
Control Mode	Pulse + Direction
Wiring for Signal	Common Cathode, Common Anode, Differential
Maximum Resolution	25000PPR
Frequency Response	200kpps
Segment Settings	16 Sections
Current Setting	8 Sections
Size	118*75.5*34mm
Weight	0.3kg
Matched Motor	57、60、86mm

Features

- Output current is set by DIP switch, 8 options, maximum 7.0 amps (peak value).
- Subdivision setting adopts DIP switch setting, up to 16 choices.
- The idle current is automatically halved after the motor stops running.

Dimensions



UM246

General Specifications

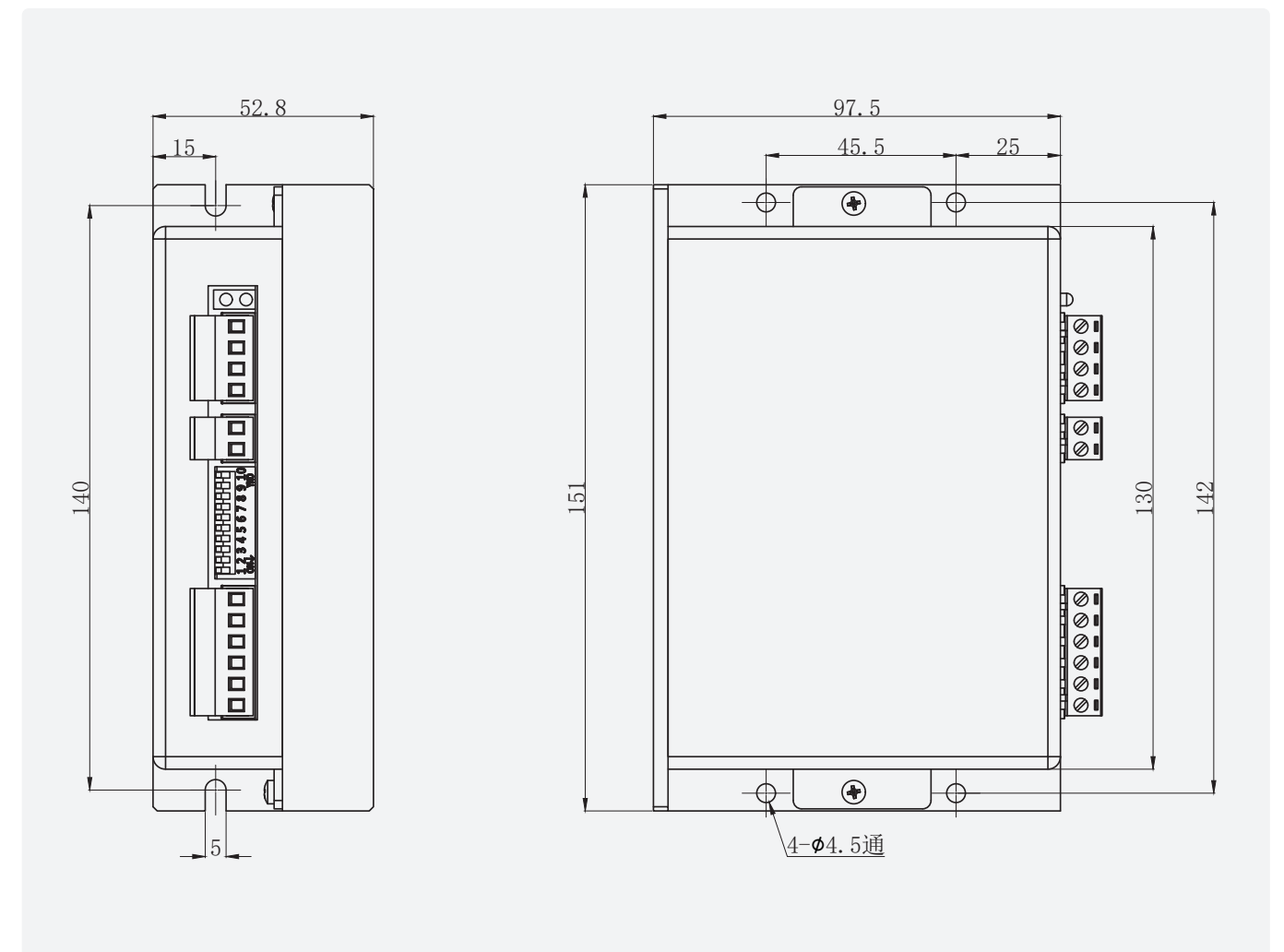


Drive Type	2 Phase Pulse Stepper Driver
Voltage	DC24-160V AC20-110V
Current	1.6-6A
Pulse Level	3.3-24V
Control Mode	Pulse + Direction, IO Speed Mode
Wiring for Signal	Common Cathode, Common Anode, Differential
Maximum Resolution	40000PPR
Subdivision Setting	40000
Segment Settings	16 Sections
Current Setting	16 Sections
Size	651*97.5*52.8mm
Weight	0.46kg
Matched Motor	57、60、86mm

Features

- Output current is set by DIP switch, 16 options, maximum 7.0 amps (peak value)
- PID current control algorithm.
- Auto-resonance suppression for mid-frequency vibration
- Complete OVP/OCP/UV protection. All I/O signals optically isolated

Dimensions



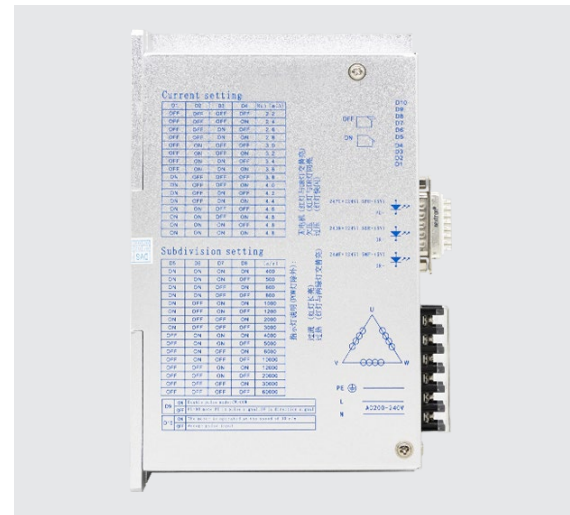
Linear Stepper Motor  
Geared Stepper Motor  
Worm Geared Stepper Motor  
Helical Planetary Gearbox  
Hollow Rotary Platform  
Stepper Motor  
Integrated Stepper Motor  
Linear Stage  
Stepper Motor Driver

Linear Stepper Motor  
Geared Stepper Motor  
Worm Geared Stepper Motor  
Helical Planetary Gearbox  
Hollow Rotary Platform  
Stepper Motor  
Integrated Stepper Motor  
Linear Stage  
Stepper Motor Driver

Stepper Motor Driver

UM22048

General Specifications

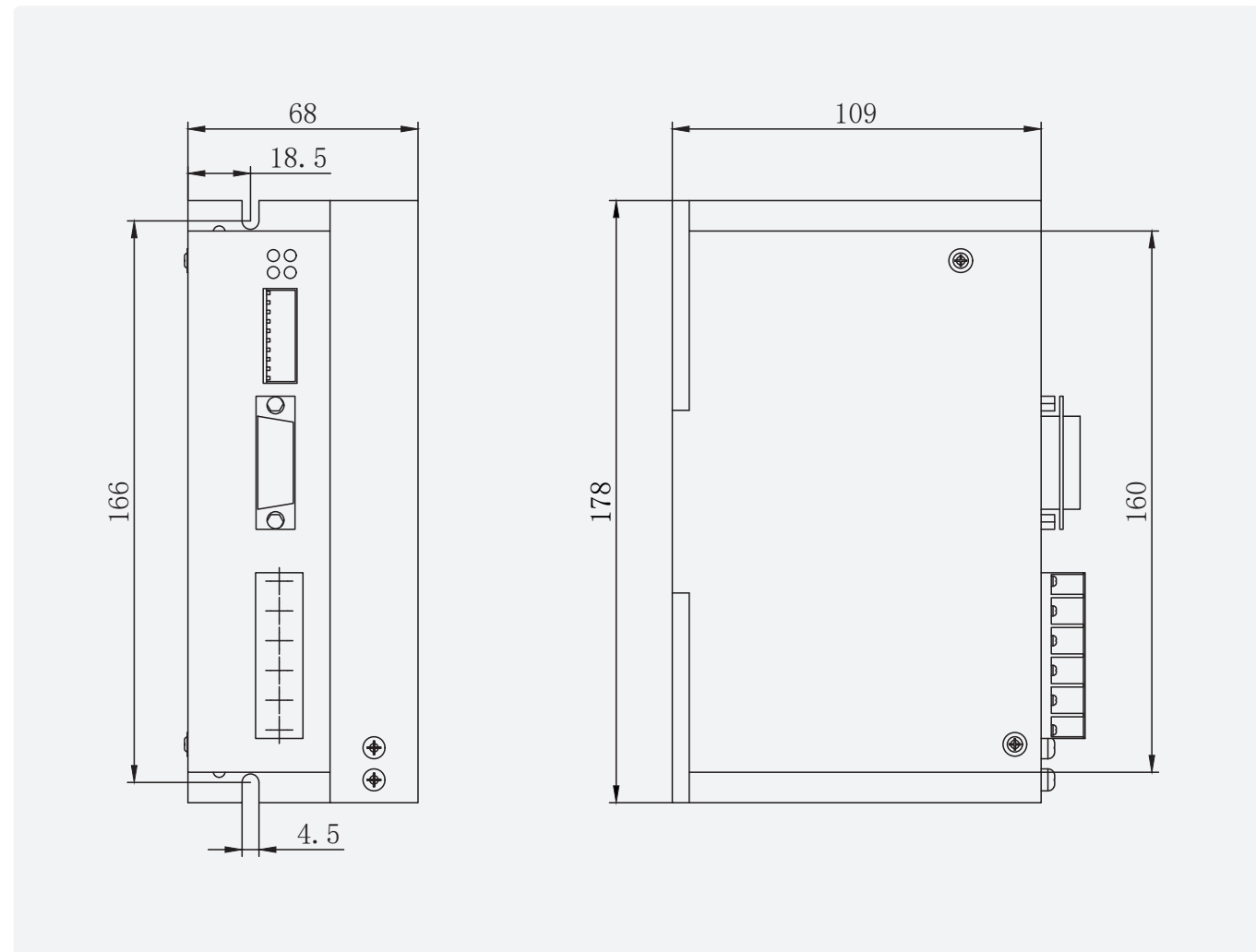


Drive Type	3 Phase Hybrid Stepper Motor
Voltage	DC200-240V AC
Current	2.2-4.8A
Control Signal	5V/24V
Control Mode	Pulse + Direction
Wiring for Signal	Common Cathode, Common Anode, Differential
Maximum Resolution	60000PPR
Frequency Response	200kpps
Segment Settings	16 Sections
Current Setting	16 Sections
Size	178*109*68mm
Weight	1kg
Matched Motor	86mm 3 Phase Stepper Motor

Features

- Equipped with 16 levels of equal-angle constant torque subdivision, with a maximum resolution of 60,000 steps/revolution.
- Drive current 2.2A-4.8A, 16 levels adjustable.
- Voltage range: AC200-240V.

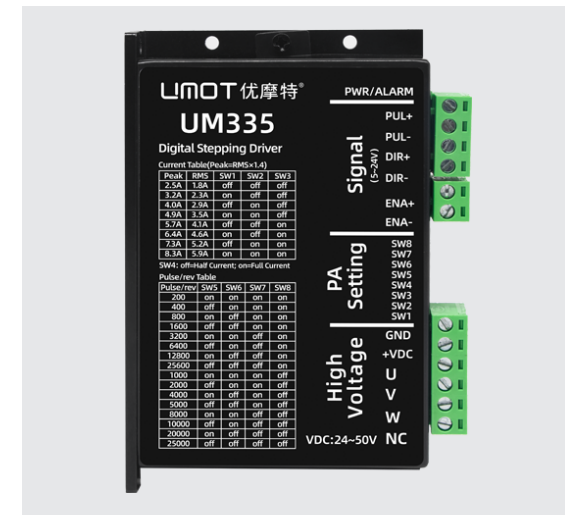
Dimensions



Stepper Motor Driver

UM335

General Specifications

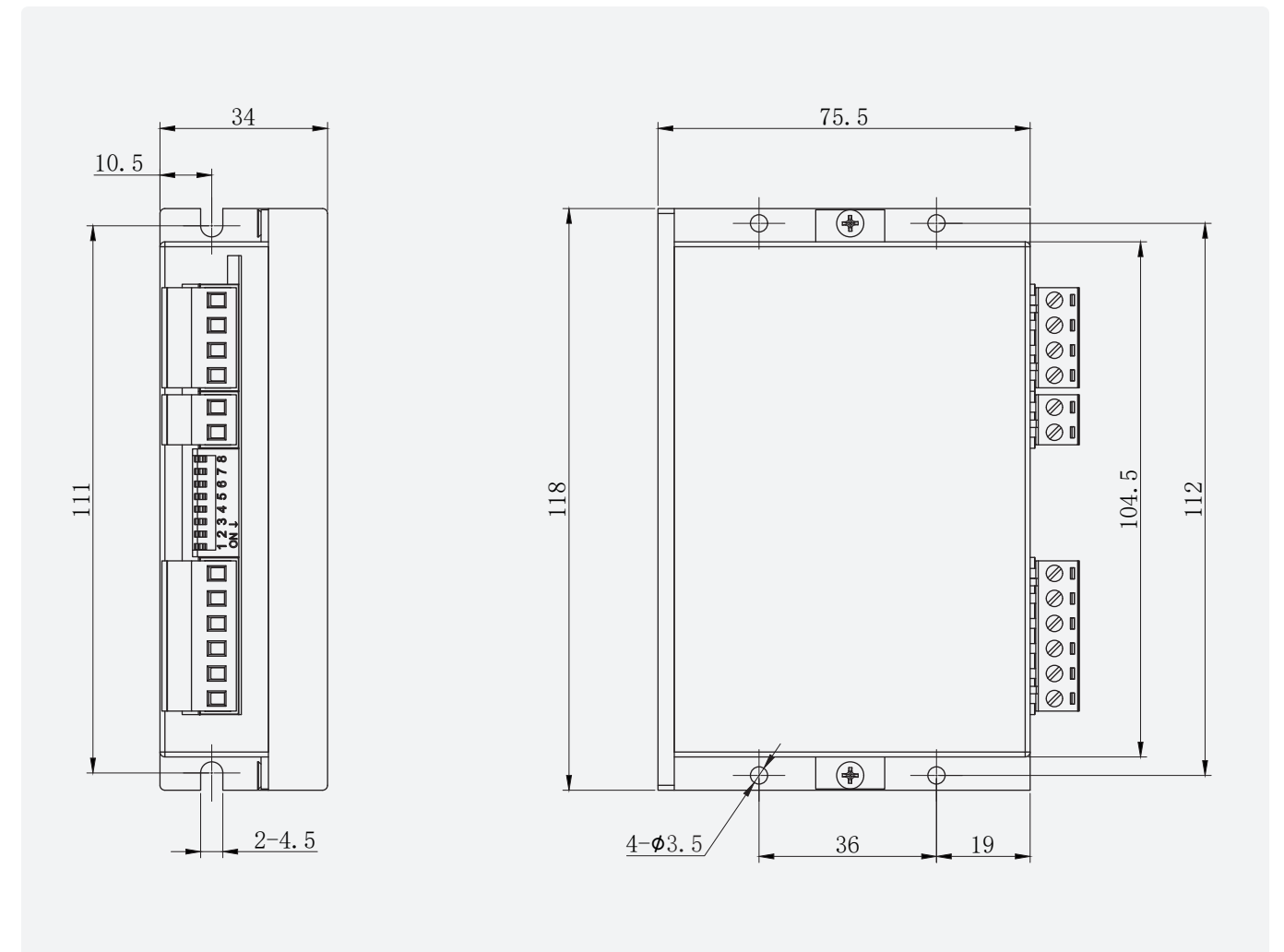


Drive Type	3 Phase Hybrid Stepper Motor
Voltage	24-50V DC
Current	1.8-5.9A
Control Mode	Pulse + Direction
Wiring for Signal	Common Cathode, Common Anode, Differential
Maximum Resolution	25000PPR
Frequency Response	200KHz
Segment Settings	16 Sections
Current Setting	8 Sections
Size	118*75.5*34mm
Weight	0.2kg
Matched Motor	57、60、86mm

Features

- New 32-bit DSP
- Drives 3-phase stepper motors
- Precision current control reduces heating, vibration & noise
- With Over/Voltage Protection, phase loss protection

Dimensions



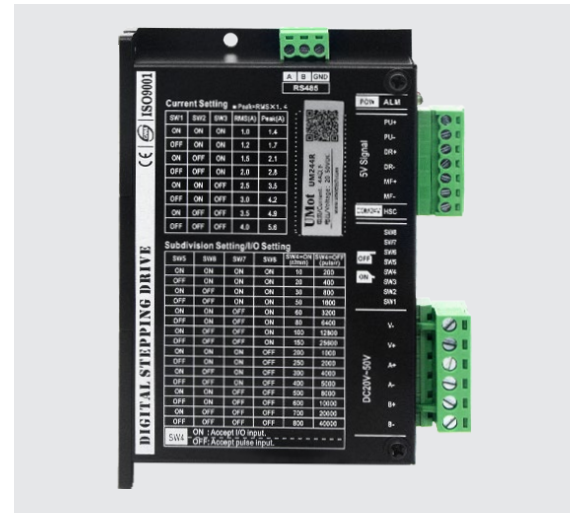
Linear Stepper Motor  
Geared Stepper Motor  
Worm Geared Stepper Motor  
Helical Planetary Gearbox  
Hollow Rotary Platform  
Stepper Motor  
Integrated Stepper Motor  
Linear Stage  
Stepper Motor Driver

Linear Stepper Motor  
Geared Stepper Motor  
Worm Geared Stepper Motor  
Helical Planetary Gearbox  
Hollow Rotary Platform  
Stepper Motor  
Integrated Stepper Motor  
Linear Stage  
Stepper Motor Driver

Stepper Motor Driver

UM244R

General Specifications

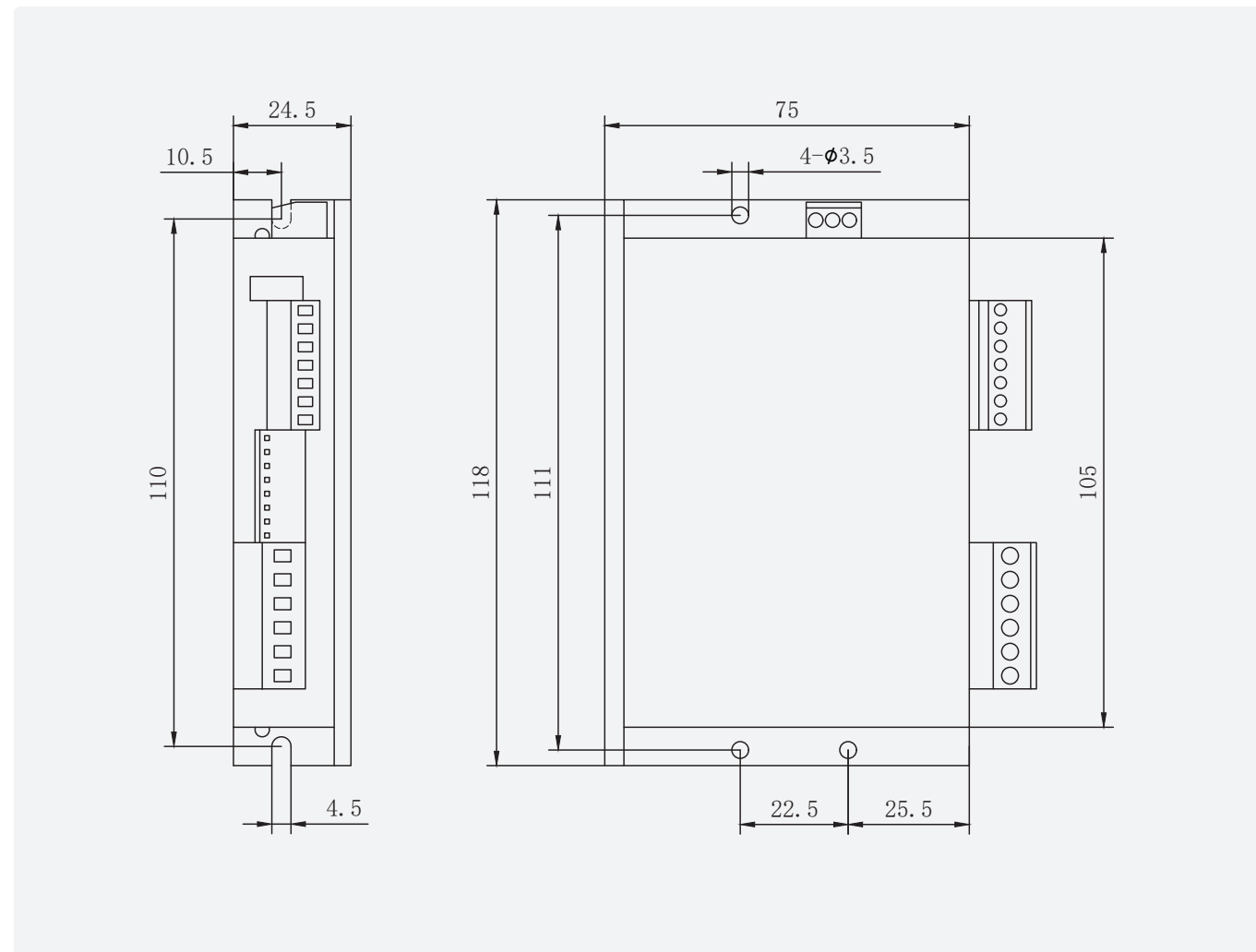


Drive Type	2 Phase Hybrid Stepper Motor
Voltage	DC20-50V
Current	0.1-4A
Control Signal	5V/24V
Control Mode	Pulse+ Direction、RS485
Wiring for Signal	Common Cathode, Common Anode, Differential
Maximum Resolution	40000PPR
Frequency Response	200kpps
Segment Settings	16 Sections
Current Setting	8 Sections
Size	118*75*24.5mm
Weight	0.3kg
Matched Motor	20、28、35、42、57、60mm

Features

- New 32-bit motor control dedicated DSP chip.
- Can drive stepper motors of series 60 and below.
- IO input supports DC5-24V photoelectric isolation signal input/output.
- Accept 485 control operation.

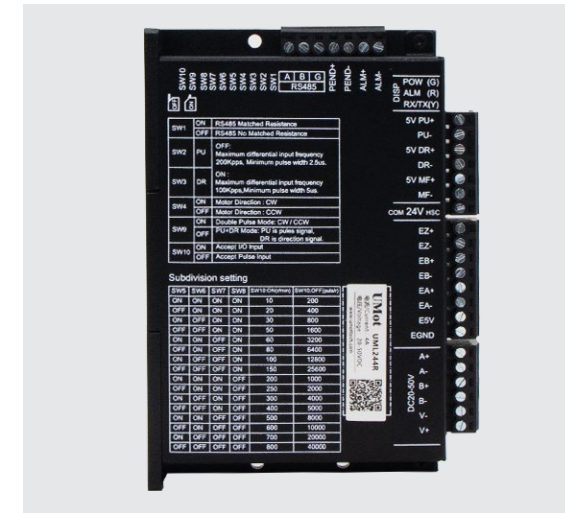
Dimensions



Stepper Motor Driver

UML244R

General Specifications

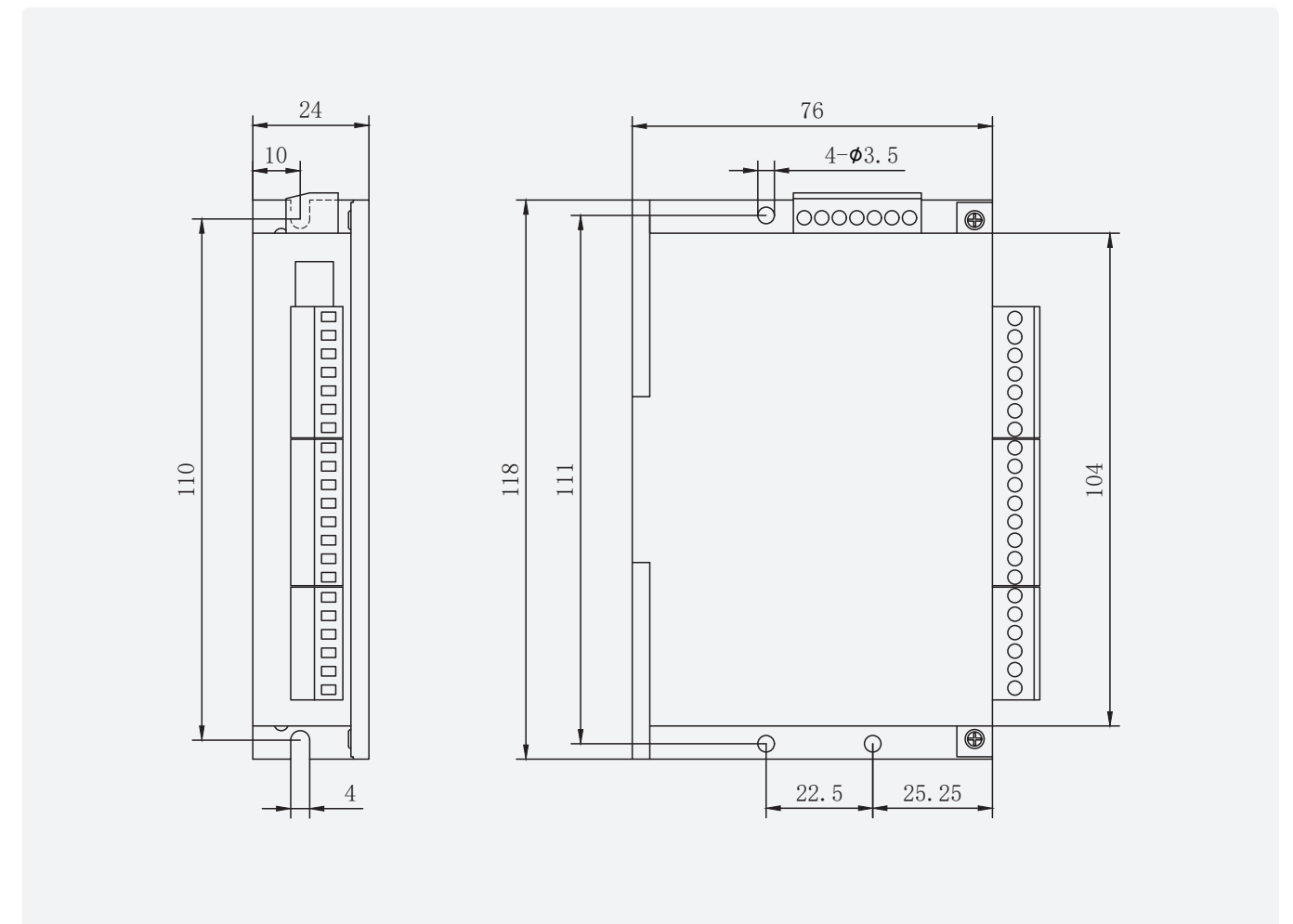


Drive Type	2 Phase Hybrid Stepper Motor
Voltage	DC20-50V AC
Current	0.1-4A
Control Signal	5V/24V
Control Mode	Pulse+ Direction、RS485
Wiring for Signal	Common Cathode, Common Anode, Differential
Maximum Resolution	40000PPR
Frequency Response	200kpps
Segment Settings	16 Sections
Current Setting	50 Sections
Size	118*76*24.5mm
Weight	0.2kg
Matched Motor	20、28、35、39、42、57、60mm

Features

- Compared with open-loop stepper motors, it runs smoothly, has less vibration and low noise.
- With over-current, over-voltage and tracking error over-tolerance protection.
- External 4-digit digital display tube, parameters can be adjusted through the display panel.

Dimensions



Linear Stepper Motor  
Geared Stepper Motor  
Worm Geared Stepper Motor  
Helical Planetary Gearbox  
Hollow Rotary Platform  
Stepper Motor  
Integrated Stepper Motor  
Linear Stage  
Stepper Motor Driver

Linear Stepper Motor  
Geared Stepper Motor  
Worm Geared Stepper Motor  
Helical Planetary Gearbox  
Hollow Rotary Platform  
Stepper Motor  
Integrated Stepper Motor  
Linear Stage  
Stepper Motor Driver

UML245R

General Specifications

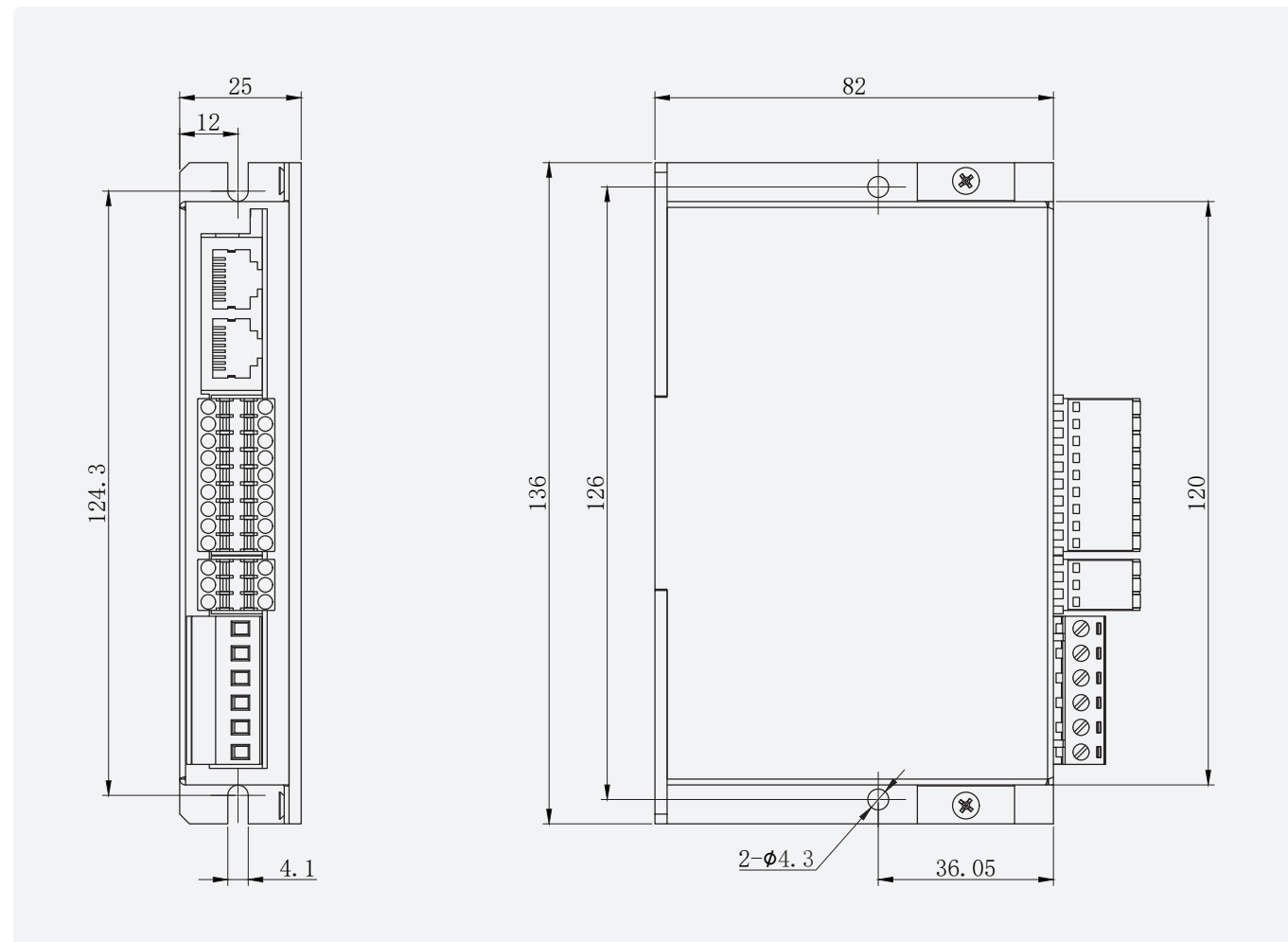
Drive Type	RS485 Closed-loop Stepper Driver
Voltage	DC24-70V AC20-50V
Current	0.1-5A
Communication Protocol	Modbus-RTU
Control Mode	RS485
Maximum Resolution	60000PPR
Subdivision Setting	200-60000
Size	136*82*25mm
Weight	0.28kg
Matched Motor	20、28、35、42、57、60、86mm



Features

- New generation 32-bit DSP. Stable, high compatibility, cost-effective
- Supports open/closed loop switch, speed/position/multi-step/homing modes
- Current, lock current, microstepping & PI parameters adjustable & queryable via master station
- Adopts RS485 bus with isolation, supporting standard MODBUS-RTU protocol
- Features over-current/over-voltage/under-voltage/loss-of-phase/difference protection

Dimensions



UML246R

General Specifications

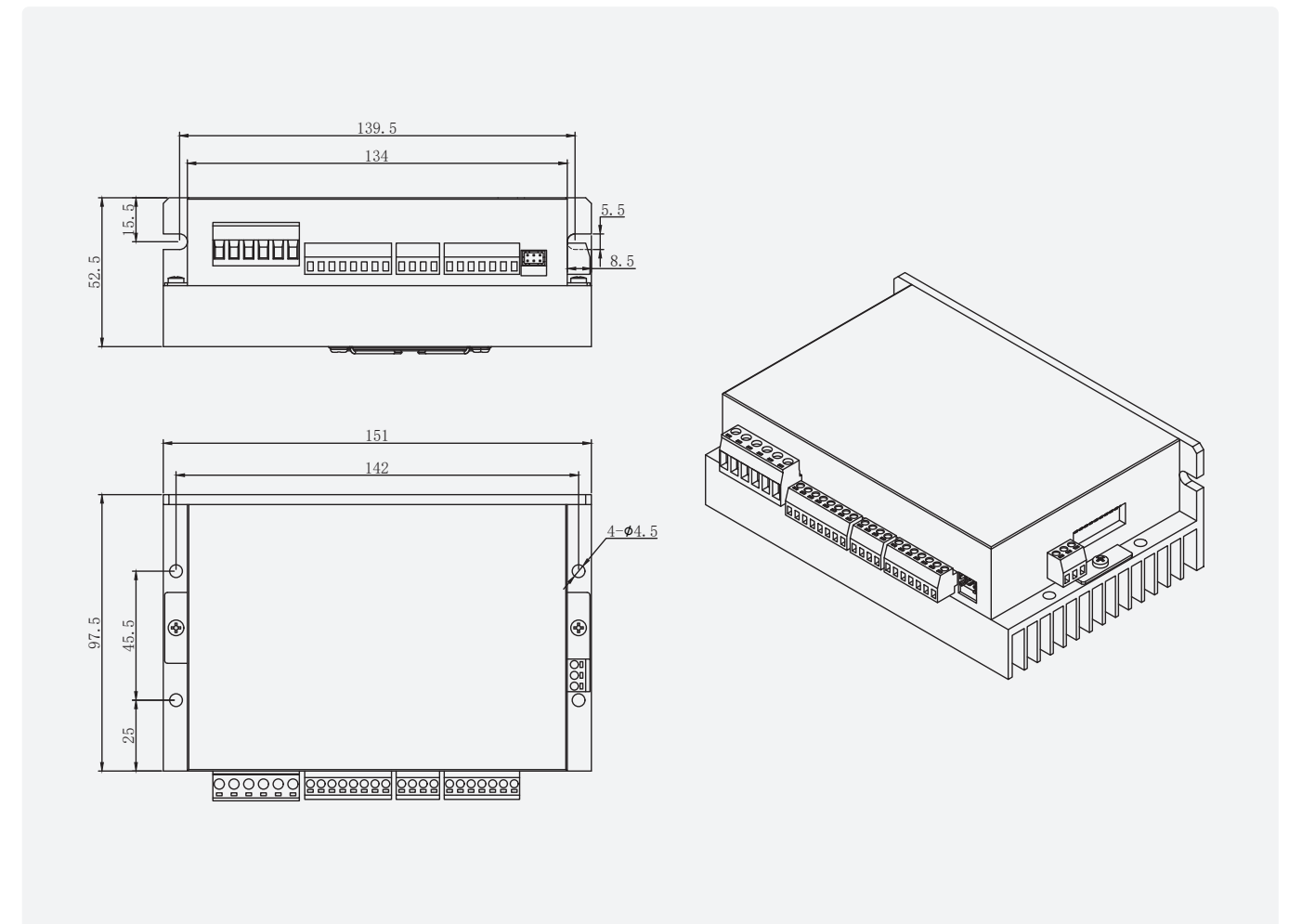
Drive Type	2 Phase Hybrid Stepper Motor
Voltage	DC24-110V
Current	0.1-6A
Control Signal	5V/24V
Control Mode	Pulse+ Direction、RS485
Wiring for Signal	Common Cathode, Common Anode, Differential
Maximum Resolution	40000PPR
Frequency Response	200kpps
Segment Settings	16 Sections
Current Setting	60 Sections
Size	151*97.5*52.5mm
Weight	0.6kg
Matched Motor	20、28、35、42、57、60、86mm



Features

- According to the load operation condition, the current output is controlled in real time to minimize the heat generated by the motor.
- With over-current, over-voltage and tracking error over-tolerance protection.
- Can drive 57 series and 86 series stepper motors.
- External 4-digit digital display tube, parameters, electronic gear ratio, command filtering and other parameters can be adjusted through the display panel.

Dimensions



Stepper Motor Driver

UM243E

General Specifications

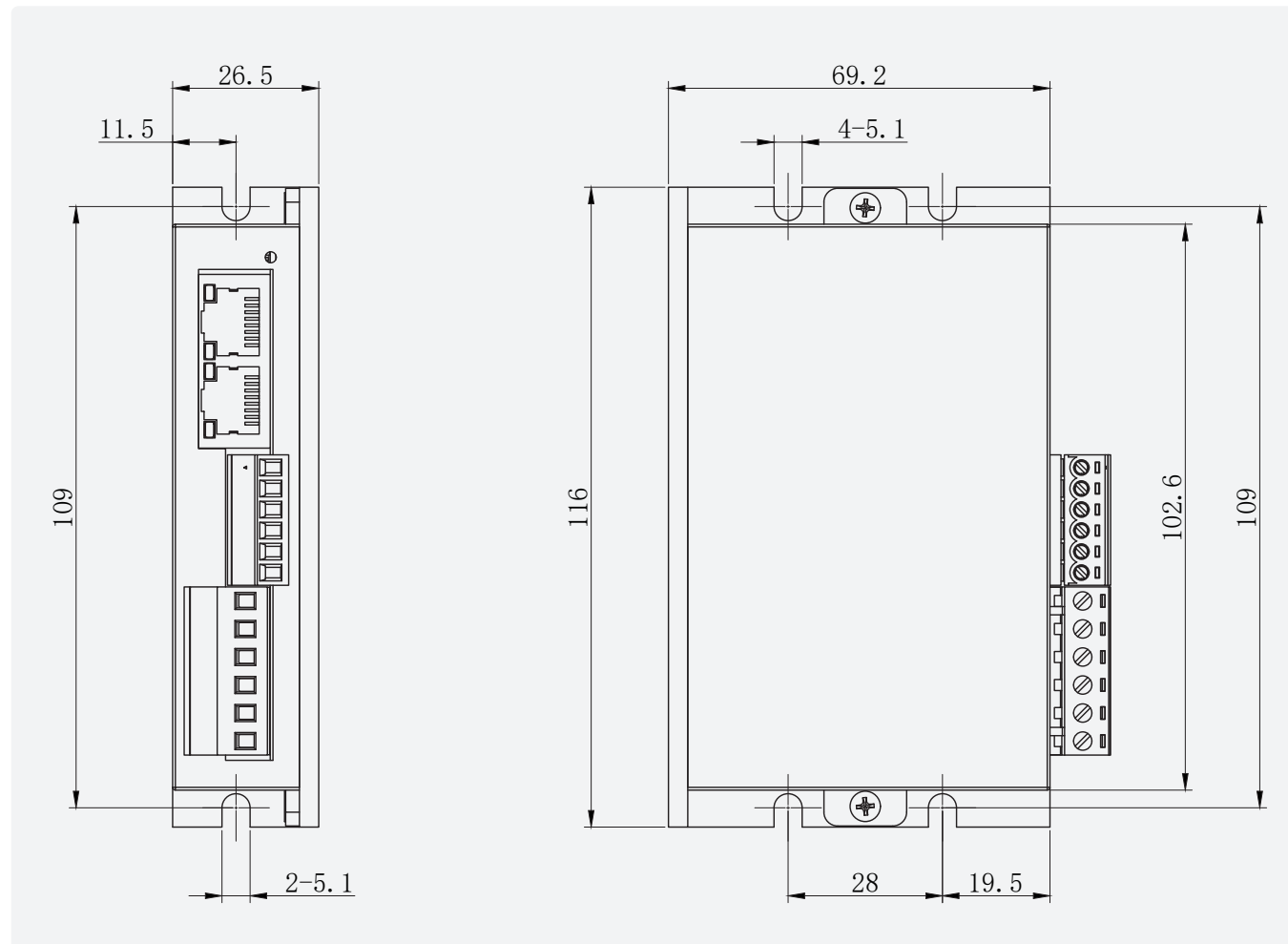


Drive Type	EtherCAT Open-loop Stepper Driver
Voltage	24-50VDC
Current	0.1-3A
Control Mode	EtherCAT
Communication Protocol	CIA301 & CIA402 Sub-protocol
Maximum Resolution	60000PPR
Subdivision Setting	200-60000
Segment Settings	16 Sections
Size	116*69.2*26.5mm
Weight	0.18kg
Matched Motor	20、28、35、42mm

Features

- New generation 32-bit RISC-V MCU. Stable, low noise, low vibration
- Built-in single control controller. Parameters can be set via bus: movement mode, positioning mode, origin return mode
- Built-in microdifferentiation, motor parameter settings, positioning delay, current vibration reduction
- Pure DC current control effectively reduces heating loss
- Supports arbitrary microstepping with smooth low-speed performance

Dimensions



Stepper Motor Driver

UM247E

General Specifications

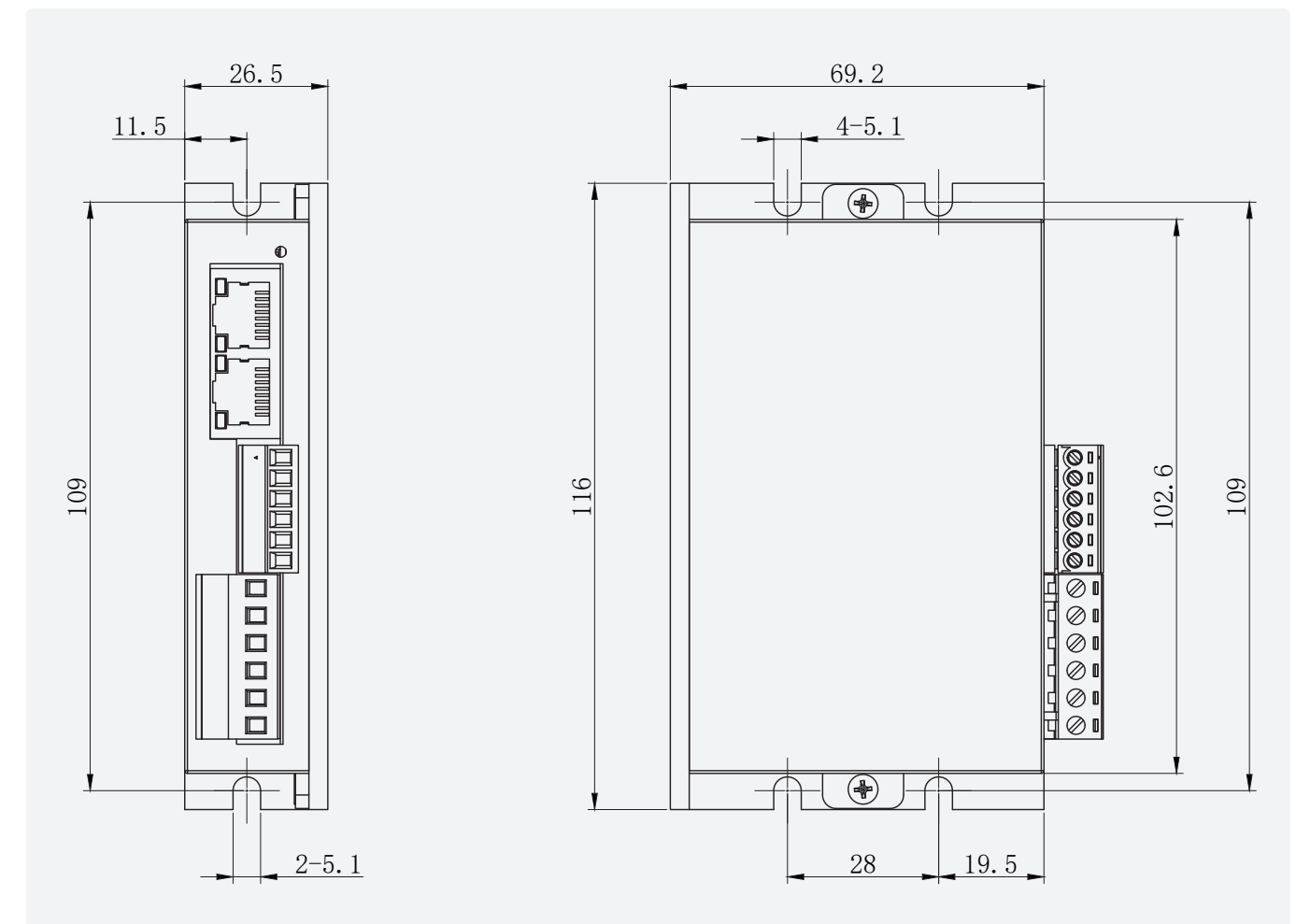


Drive Type	EtherCAT Open-loop Stepper Driver
Voltage	24-50VDC
Current	0.1-7A
Control Mode	EtherCAT
Communication Protocol	CIA301 & CIA402 Sub-protocol
Maximum Resolution	60000PPR
Subdivision Setting	200-60000
Segment Settings	16 Sections
Size	116*69.2*26.5mm
Weight	0.18kg
Matched Motor	57、60、86mm

Features

- New generation 32-bit RISC-V MCU. Stable, low noise, low vibration
- Built-in single control controller. Parameters can be set via bus: movement mode, positioning mode, origin return mode
- Built-in microdifferentiation, motor parameter settings, positioning delay, current vibration reduction
- Pure DC current control effectively reduces heating loss
- Supports arbitrary microstepping with smooth low-speed performance

Dimensions



UML243E

General Specifications

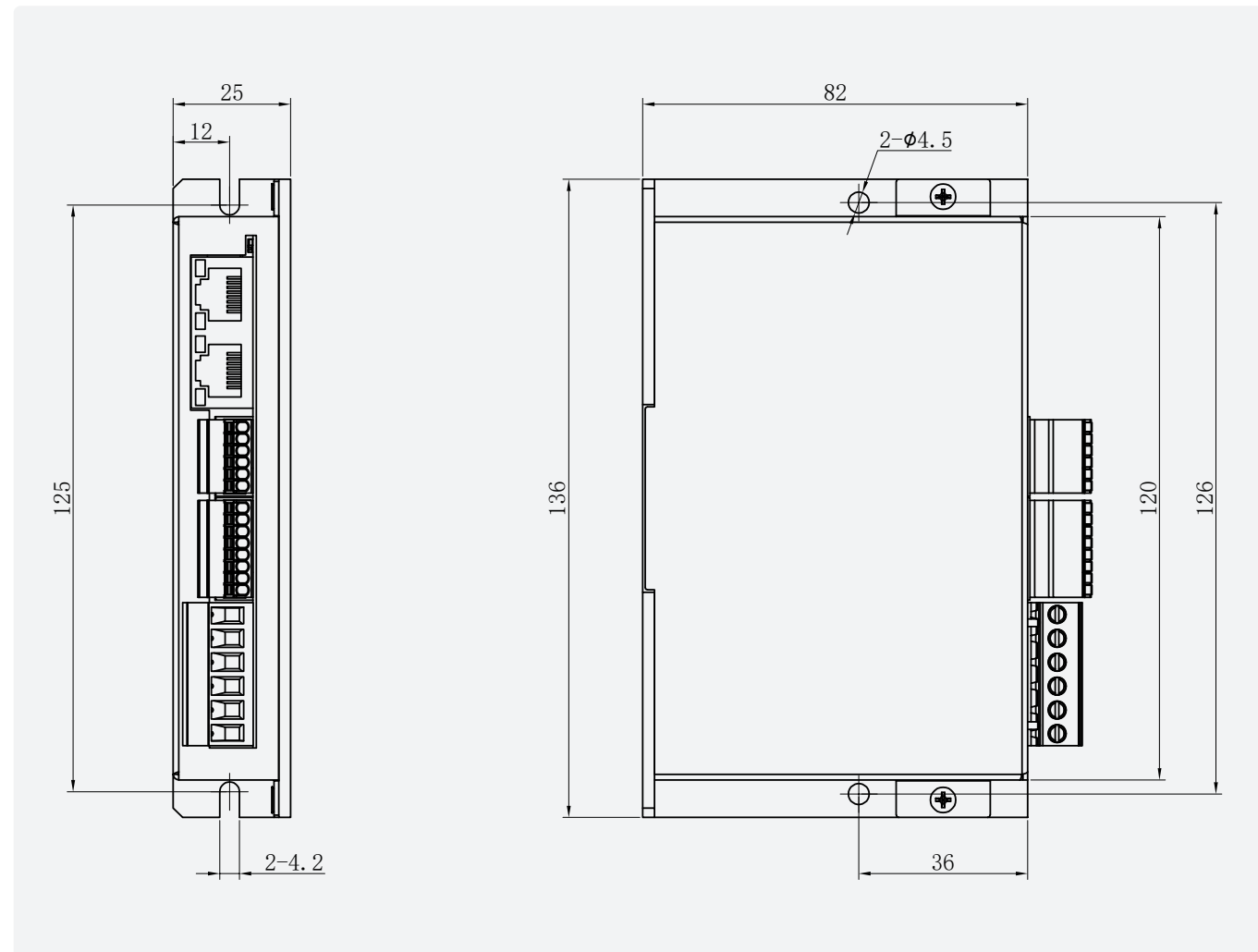


Drive Type	EtherCAT Closed-loop Stepper Driver
Voltage	24-50VDC
Current	0.2-3A
Control Mode	EtherCAT
Communication Protocol	CIA301 & CIA402 Sub-protocol
Subdivision Setting	200-60000
Size	136*82*25mm
Weight	0.2kg
Matched Motor	20、28、35、42mm

Features

- New generation 32-bit RISC-V MCU, high cost-performance. Stable, low noise, low vibration, supports OTA firmware upgrade
- Built-in single control controller. Parameters can be set via bus: movement mode, positioning mode, origin return mode
- Built-in microdifferentiation, motor parameter settings, positioning delay, current vibration reduction
- Pure DC current control effectively reduces heating loss

Dimensions



UML247E

General Specifications

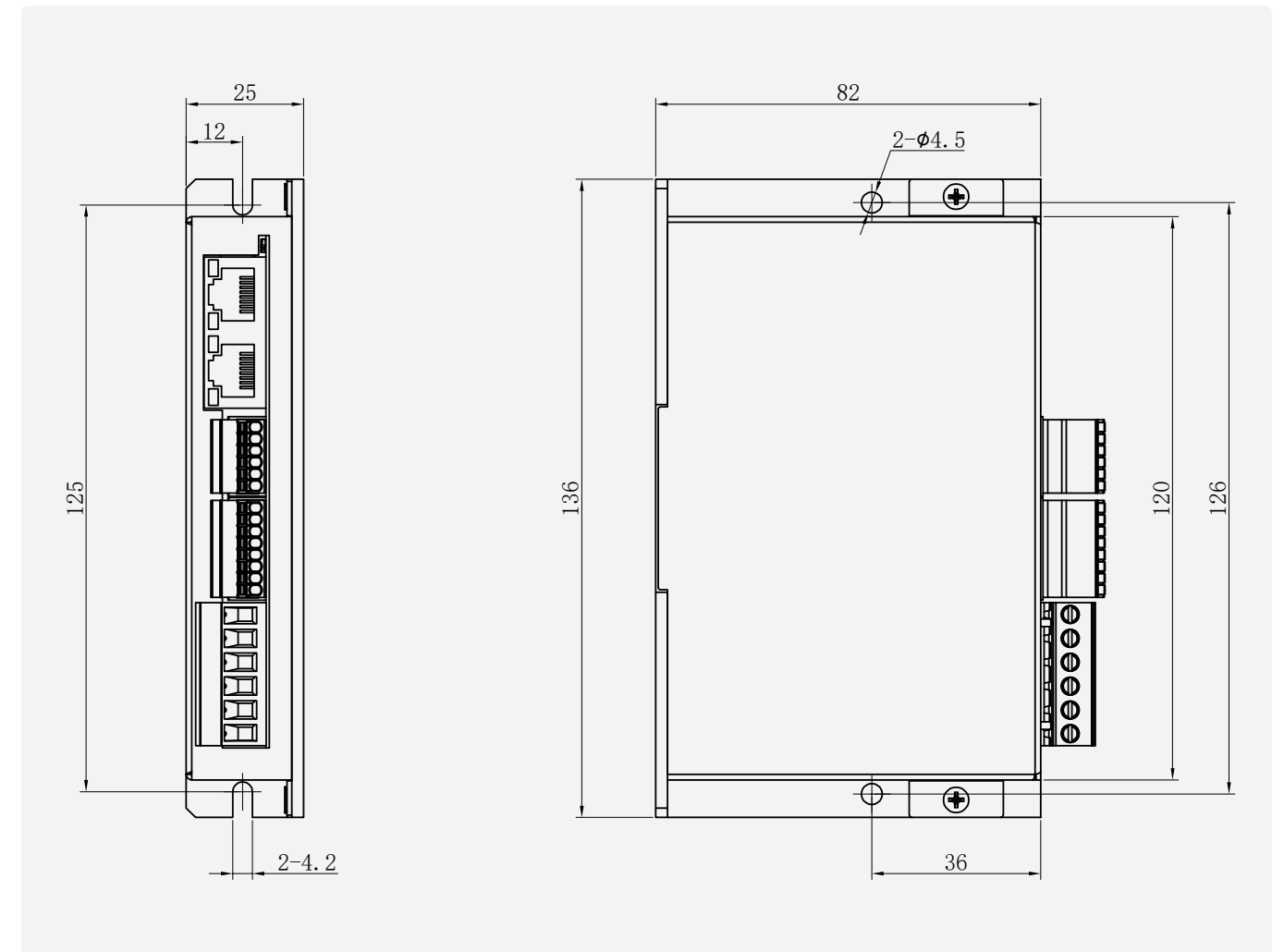


Drive Type	EtherCAT Closed-loop Stepper Driver
Voltage	24-50VDC
Current	0.5-7A
Control Mode	EtherCAT
Communication Protocol	CIA301 & CIA402 Sub-protocol
Subdivision Setting	200-60000
Size	136*82*25mm
Weight	0.2kg
Matched Motor	57、60、86mm

Features

- New generation 32-bit RISC-V MCU, high cost-performance. Stable, low noise, low vibration, supports OTA firmware upgrade
- Built-in single control controller. Parameters can be set via bus: movement mode, positioning mode, origin return mode
- Built-in microdifferentiation, motor parameter settings, positioning delay, current vibration reduction
- Pure DC current control effectively reduces heating loss

Dimensions



Linear Stepper Motor  
Geared Stepper Motor  
Worm Geared Stepper Motor  
Helical Planetary Gearbox  
Hollow Rotary Platform  
Stepper Motor  
Integrated Stepper Motor  
Linear Stage  
Stepper Motor Driver

Linear Stepper Motor  
Geared Stepper Motor  
Worm Geared Stepper Motor  
Helical Planetary Gearbox  
Hollow Rotary Platform  
Stepper Motor  
Integrated Stepper Motor  
Linear Stage  
Stepper Motor Driver

Thrust Details for Linear Stepper Motor

Motor Size	Model Name	Holding Torque mN.m	Rated Current (A)	Motor Height (mm)	Screw Length (mm)	Screw Diameter (mm)	Screw Lead (mm)		Max Load for Horizontal Work(kg)	Max Load for Vertical Work(kg)	Horizontal No-load Max Speed(mm/s)	Vertical No-load Max Speed(mm/s)	Working Speed (450RPM)(mm/s)	Life Time (h)	Rated Power (W)
20	20HS1405-60N2-150	18	0.5	30	60	Tr5	2		2	0.5	30	30	15	10000	3
	20HS1405-110N4-150	18	0.5	30	110	Tr3.5	4		1.5	0.4	60	60	30		3
28	28HS1405-60N2-150	90	0.7	40	65	Tr5	2		8	2	30	30	15	10000	5
	28HS2401-150N2-300	60	0.67	32	150	Tr8	2		6	1.6	30	30	15		4
	28HS2415-360N2-500	65	0.95	32	360	Tr8	2		6	1.6	30	30	15		4
	28HS2415-360N4-500	65	0.95	32	360	Tr8	4		5.5	1.4	60	60	30		4
	28HS2415-117N8-500	65	0.95	32	117	Tr8	8		4	0.8	120	120	60		4
	28HS2415-360N8-500	65	0.95	32	360	Tr8	8		4	0.8	120	120	60		4
	28HS2415-360N12-500	65	0.95	32	360	Tr8	12		3	0.4	180	180	90		4
28HS7408-150N4-2500	105	0.95	52	150	Tr8	4		7	1.8	60	60	30	6		
35	35HSH3403-55N6D-500	150	0.57	34	55	Tr6.35	6.35		7	2.5	90	90	45	10000	5.8
	35HSH3401-150N2-300	170	1	32	150	Tr8	2		9.5	5	30	30	15		5.5
	35HSH5401-300N2-500	250	1	38.5	300	Tr8	2		12	6	30	30	15		6
	35HSH5401-300N4-500	250	1	38.5	300	Tr8	4		8.5	4.5	60	60	30		6
	35HSH5401-300N8-500	250	1	38.5	300	Tr8	8		6	2.5	120	120	60		6
	35HSH5401-110N8-500	250	1	38.5	110	Tr8	8		6	2.5	120	120	60		6
	35HSH3401-100N4-500	170	1	32	100	Tr8	4		8	3	60	60	30		5.5
42	42HSC1405-162N8	380	1	34.5	162	Tr8	8		12	4	120	120	60	10000	7
	42HSDC3401-210N2-150	230	1	38	210	Tr8	2		18	10	30	30	15		9
	42HSC6401-100N2	520	1.5	48	100	Tr8	2		33	13	30	30	15		13
	42HSC6401-360N8	520	1.5	48	360	Tr8	8		22	8	120	120	60		13
	42HSC4409-350N2-500	400	1.68	40	350	Tr8	2		28	15	30	30	15		9.5
	42HSC4409-350N4-500	400	1.68	40	350	Tr8	4		20	10	60	60	30		9.5
	42HSC4409-350N8-500	400	1.68	40	350	Tr8	8		16	6	120	120	60		9.5
57	57HS7407T-300N2-500	1900	3	76	300	Tr8	2		54	45	30	30	15	10000	27
	57HS5417T-300N2-500	1300	3.5	55	300	Tr8	2		46	36	30	30	15		20
	57HS7407T-300N1-500	1900	3	76	300	Tr9.52	1.58		57	50	23	23	16.5		27
	57HS5417T-300N1-500	1300	3.5	55	300	Tr9.52	1.58		52	45	23	23	16.5		20
	57HS7407-300N4-500	1900	3	76	300	Tr10	4		48	35	60	60	30		27
	57HS5417T-200N10-500	1300	3.5	55	200	Tr8	10		30	21	150	150	75		20
	57HS5417T-200N4D10-500	1300	3.5	55	200	Tr8	10		40	30	60	60	30		20
	57HS5417T-200N1-500	1300	3.5	55	200	Tr8	1		52	45	15	15	7.5		20
	57HS5417T-300N10-500	1300	3.5	55	300	Tr8	10		30	21	150	150	75		20

Notice:

1. The above actual measured data of the screw motor are measured under a specific driver and specific current and voltage parameters. They can be used as a reference for engineers to select models. Actual selection needs to be considered. Consider the mechanical structure and related variables;
2. Relevant variable factors: acceleration and deceleration time and conditions/drive performance and load capacity/load installation form/efficiency and friction coefficient of the transmission mechanism.

# Focus Profession Dedication

Chongqing UMot Technology Co.,Ltd



☎ +86-023-86132606  
🌐 [www.umotmotor.cn](http://www.umotmotor.cn)  
✉ [info@umottech.com](mailto:info@umottech.com)



Follow us  
on WeChat

Qumot优摩特

.....  
No.101, Huoju Avenue, Jiulongpo District, Chongqing,China