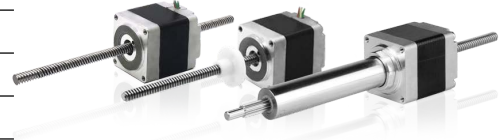


## NEMA 11 Lead Screw Type

## Hybrid Linear Actuator

### PHBL28 Series

Ambient Temperature	-20 °C ~ +50 °C
Temperature Rise	80 °C Max. (rated current, 2 phase on)
Dielectric Strength	500 VAC for one minute
Insulation Resistance	Class B (Class F also available)



### Motor Specs

Model	Voltage	Current	Resistance	Inductance	Lead Wire	Motor Length	
	V/∅	A/∅	Ω/∅	mH/∅	Pin	inch	mm
PHBL28□34-4S05	4.5	0.5	9.1	6.0	4	1.3386	33.3
PHBL28□34-4S10	2.2	1.0	2.2	1.5	4	1.3386	33.3
PHBL28□45-4S10	3.9	0.95	4.1	4.0	4	1.7717	45.0
PHBL28□45-4S16	2.4	1.6	1.5	1.3	4	1.7717	45.0

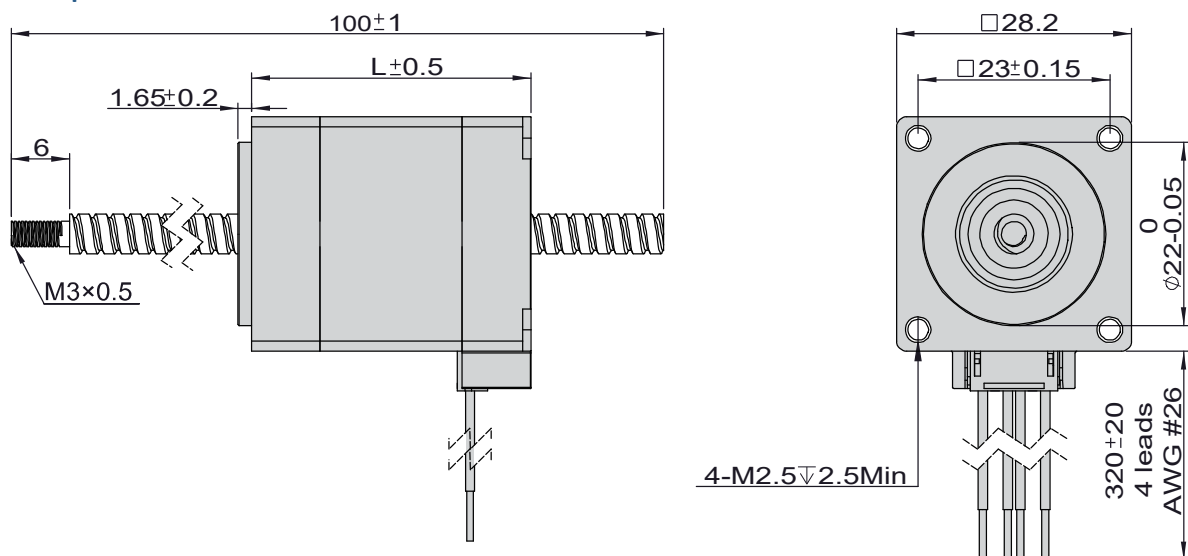
Note: Non-captive type (N) or External type (E) or captive(C) is available, and please specify it with the blank box when ordering.

### Lead Screw Specs

Lead Code	Screw Dia.		Lead		Travel/Step	
	inch	mm	inch	mm	inch	mm
AL	0.188	4.7752	0.0125	0.3175	0.0016	0.04064
A	0.188	4.7752	0.025	0.635	0.000125	0.003175
D	0.188	4.7752	0.05	1.27	0.00025	0.00635
J	0.218	5.5372	0.096	2.4384	0.0127	0.32258
K	0.188	4.7752	0.1	2.54	0.0005	0.0127
Q	0.218	5.5372	0.192	4.8768	0.0244	0.61976
R	0.188	4.7752	0.2	5.08	0.001	0.0254
X	0.188	4.7752	0.4	10.16	0.002	0.0508

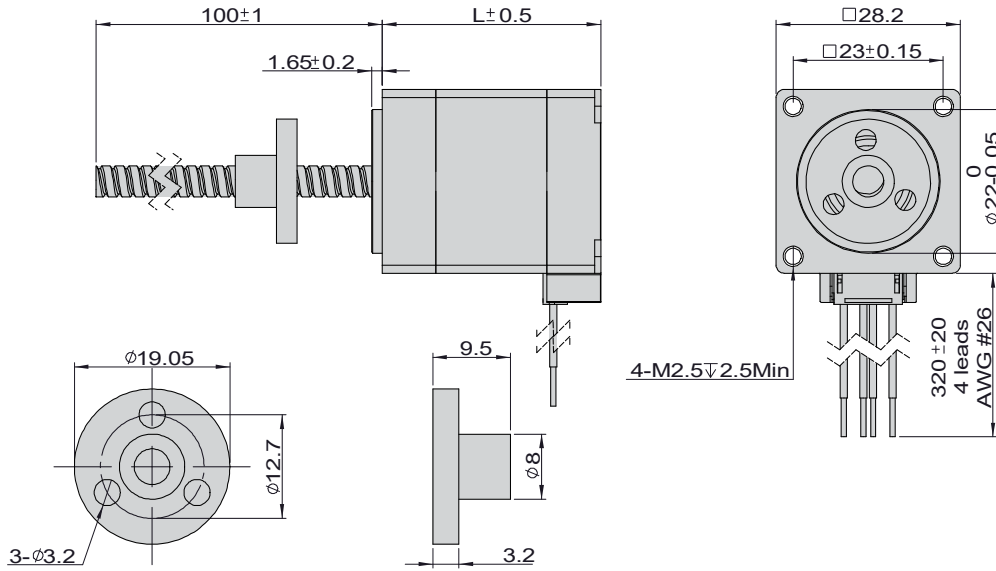
### Typical Dimension

#### Non-captive

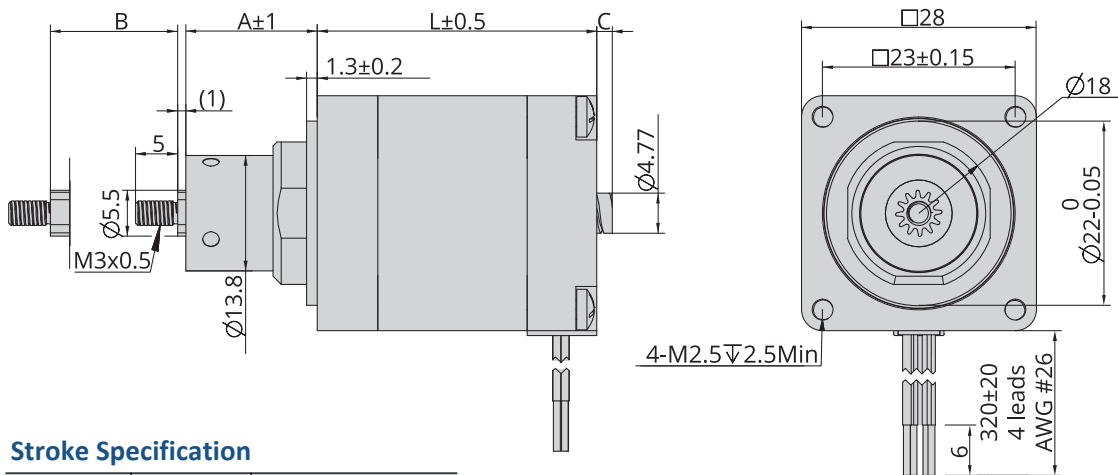


PHBL28 Series

External



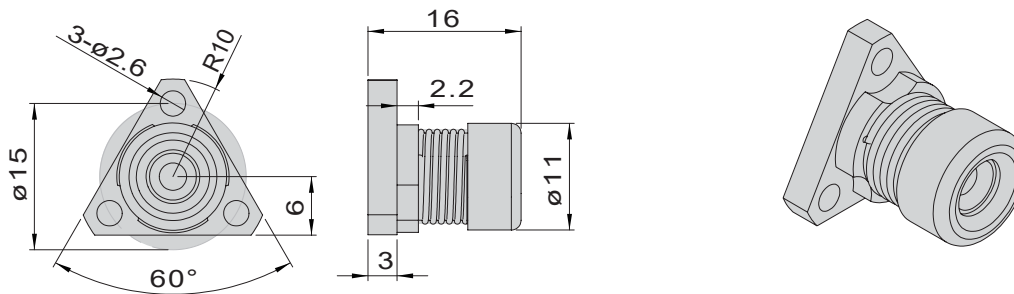
Captive



Stroke Specification

A (mm)	Stroke B (mm)	C (mm)	
		L=33.35	L=45.0
15.70	12.70	1.0	0.0
22.10	19.05	7.4	0.0
28.40	25.40	13.7	4.0
34.80	31.80	20.1	10.4
41.10	38.10	26.4	16.8
53.80	50.80	39.0	29.4
66.50	63.50	52.7	42.1

Anti-backlash Nut



2Phase Hybrid Stepper Motor

3Phase Hybrid Stepper Motor

5Phase Hybrid Stepper Motor

Hybrid Stepper Gear Motor

Lead Screw Linear Actuator

Ball Screw Linear Actuator

IP65 Stepper Motor

Hollow Shaft Stepper Motor

Stepper Motor With Brake

Pancake Stepper Motor

PM Stepper Motor

Can-Stack Stepper Linear Actuator

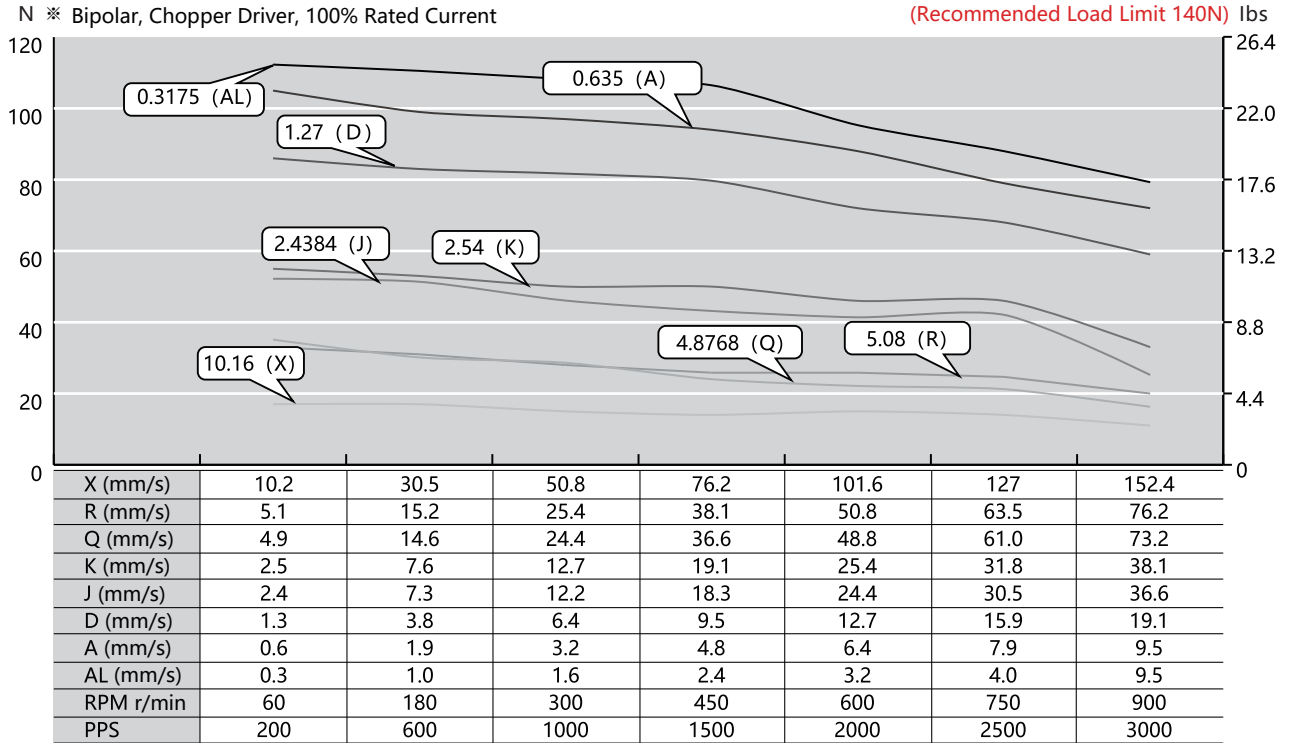
PM Stepper Gear Motor

Stepper Motor Drive

PHBL28 Series

Speed Thrust Curves

Size 11 Single Stack Speed Thrust Curves



Size 11 Double Stack Speed Thrust Curves

