

Stepper Motor NEMA 17

This document describes mechanical and electrical specifications for PBC Linear stepper motors; including standard, hollow, and extended shaft variations.



Phases 2 Steps/Revolution 200 Step Accuracy ±5%

Shaft Load 20,000 Hours at 1000 RPM Axial 25 N (5.6 lbs.) Push 65 N (15 lbs.) Pull

Radial 29 N (6.5 lbs.) At Flat Center

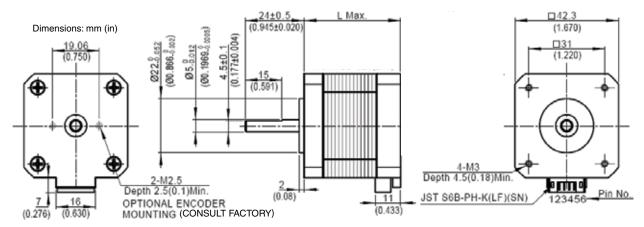
IP Rating 40 Approvals RoHS

Operating Temp -20° C to +40° C Insulation Class B, 130° C Insulation Resistance 100 MegOhms

Standard shaft motor shown.

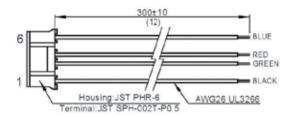
Description	Length	Mounted Rated Current	Mounted Holding Torque		Winding Ohms mH		Detent Torque		Rotor Inertia		Motor Weight	
(Stack)	"L" Max	Amps	Nm Typ.	oz-in Typ.	±10% @ 20°C	Тур.	mNm	oz-in	g cm2	oz-in2	kg	lbs
Single	39.8 mm (1.57 in)	2	0.48	68	1.04	2.2	15	2.1	57	0.31	0.28	0.62
Double	48.3 mm (1.90 in)	2	0.63	89	1.3	2.9	25	3.5	82	0.45	0.36	0.79
Triple	62.8 mm (2.47 in)	2	0.83	120	1.49	3.8	30	4.2	123	0.67	0.6	1.3

^{*}All standard motors have plug connector. Consult factory for other options.



Standard shaft dimensions shown. All other dimensions apply to hollow and extended shaft options.

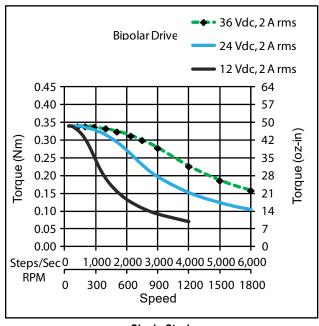
Dimensions: mm (in) 4 Lead Connector, PBC Part#6200490 (Consult factory for optional motor connectors)

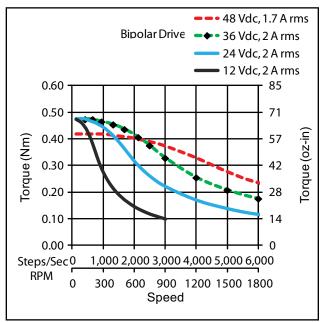




NEMA 17 Stepper Motor

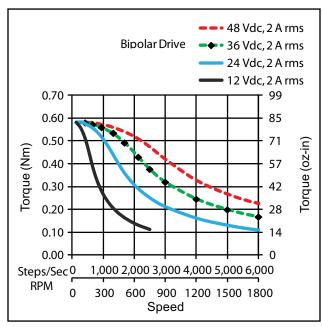
*Performance curves apply to continuous duty cycles. Consult factory for intermittent cycles or other voltages.





Single Stack

Double Stack



Triple Stack



Stepper Motor NEMA 23

This document describes mechanical and electrical specifications for PBC Linear stepper motors; including standard, hollow, and extended shaft variations.



Phases 2 Steps/Revolution 200 Step Accuracy ±5%

Shaft Load 20,000 Hours at 1000 RPM Axial 40 N (9 lbs.) Push

130 N (30 lbs.) Pull Radial 70 N (15.5 lbs.) At Flat Center

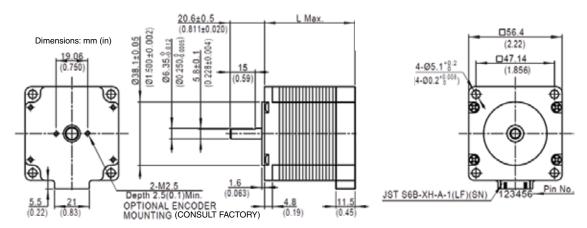
IP Rating 40 Approvals RoHS

Operating Temp -20° C to +40° C Insulation Class B, 130° C Insulation Resistance 100 MegOhms

Standard shaft motor shown.

Description	Length	Mounted Rated Current	Mounted Holding Torque	Winding Ohms mH		Detent Torque	Rotor Inertia	Motor Weight	
(Stack)	"L" Max	Amps	Nm oz-in Typ. Typ.	±10% @ 20°C	Тур.	mNm oz-in	g cm2 oz-in2	kg lbs	
Single	55.0 mm (2.17 in)	2.2	1.50 210	1.6	6.9	45 6.4	220 1.2	0.6 1.3	
Double	77.0 mm (3.03 in)	3	2.30 330	1.1	4.5	75 11	390 2.1	1 2.2	
Power Plus (Triple)	77.0 mm (3.03 in)	3	3.30 470	1.1	3.7	150 21	390 2.1	1.1 2.4	

*All standard motors have plug connector. Consult factory for other options.



Motor with leads: Lead wire is 22 AWG UL3266, 300 \pm 10 (12 \pm .5) long

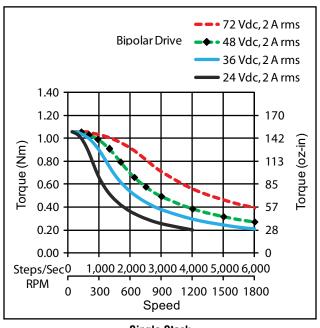
Standard shaft dimensions shown. All other dimensions apply to hollow and extended shaft options.

Dimensions: mm (in) 4 Lead Connector, PBC Part#6200491 (Consult factory for optional motor connectors)



NEMA 23 **Stepper Motor**

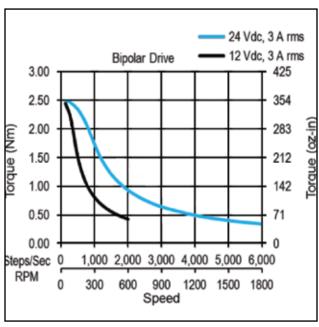
*Performance curves apply to continuous duty cycles. Consult factory for intermittent cycles or other voltages.



24 Vdc, 3 A rms Bipolar Drive 12 Vdc, 3 A rms 2.00 283 1.80 255 1.60 227 1.40 198 Torque (oz-in) Torque (Nm) 170 1.20 1.00 142 0.80 113 0.60 85 57 0.40 0.20 28 0.00 Steps/Sec0 1,000 2,000 3,000 5,000 6,000 **RPM** 300 600 900 1200 1500 1800 Speed

Single Stack

Double Stack



Power Plus (Triple Stack)