

	SX100D		SX100T		SX100Q	
Electrical Specs	SX100D	SX100D-DC	SX100T	SX100T-DC	SX100Q	SX100Q-DC
Continuous Force <sup>1</sup>	4.1N (0.92lbs)	3.9N (0.88lbs)	5.7N (1.28lbs)	5.8N (1.30lbs)	7.8N (1.75lbs)	7.6N (1.71lbs)
Continuous Current <sup>1</sup>	0.46Arms	1.1Arms	0.46Arms	1.1Arms	0.45Arms	2.2Arms
Acceleration Force <sup>2</sup>	16N (3.60lbs)		23N (5.17lbs)		31N (6.97lbs)	
Acceleration Current <sup>2</sup>	1.8Arms	4.3Arms	1.8Arms	4.3Arms	1.8Arms	8.9Arms
Force Constant (K <sub>f</sub> )	8.9N/Arms (2.00lbs/amp)	3.6N/Arms (0.81lbs/amp)	13N/Arms (2.92lbs/amp)	5.4N/Arms (1.21lbs/amp)	17N/Arms (3.82lbs/amp)	3.4N/Arms (0.76lbs/amp)
Back EMF (K <sub>e</sub> )	3.0V/m/s (118.1V/in/s)	1.2V/m/s (47.2V/in/s)	4.2Vrms/m/s (165.4V/in/s)	1.8V/m/s (70.9V/in/s)	5.8Vrms/m/s (228.3V/in/s)	1.1V/m/s (43.3V/in/s)
Resistance 25°C <sup>3</sup>	18Ω	2.8Ω	25Ω	4.2Ω	33Ω	1.5Ω
Inductance <sup>3</sup>	3.5mH	0.5mH	5.1mH	0.8mH	6.8mH	0.3mH
Magnetic Pitch (North-North)	36mm					

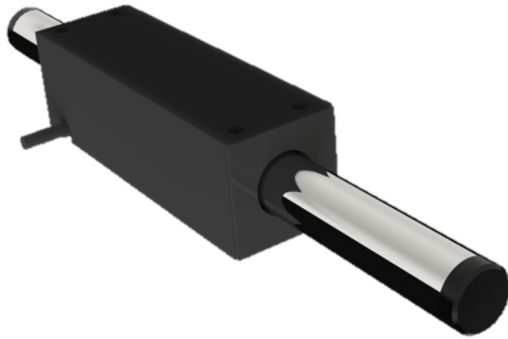
Is this the proper Linear Shaft Motor for your application? Use our [SMART sizing program](#) to assist in your decision.

This motor can be customized to fit your application demands; contact your application engineer for more information.

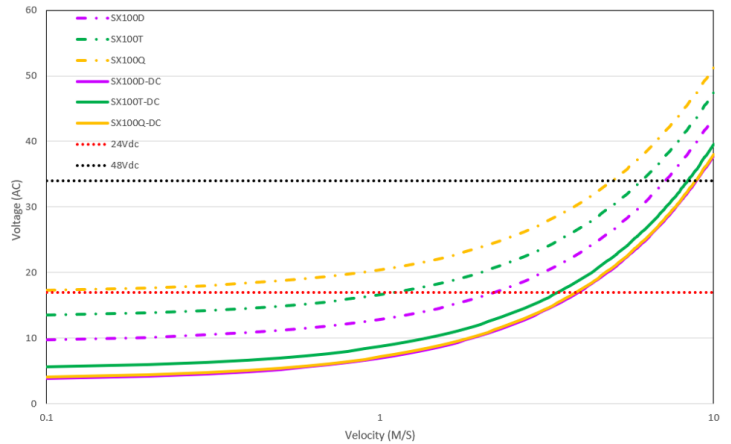
<sup>1</sup> Based on a temp rise of coil surface of 110°K over 25°C ambient temperature stalled forcer, and no external cooling or heat sinking.

<sup>2</sup> Can be maintained for a maximum of 40 seconds. Higher forces and current possible for short periods of time, contact Nippon Pulse for more information.

<sup>3</sup> All winding parameters listed are measured line-to-line (phase-to-phase).



### Bus Voltage



### Part Numbering System

SX	—	Shaft Size 100	—	Forcer Size (A) <u>X</u>	—	Winding <u>XX</u>	—	Shaft Type <u>XX</u>	—	Usable Stroke (S) <u>XXst</u>	—	Options <u>XX</u>
				D: Double (2) windings T: Triple (3) windings Q: Quadruple (4) windings		Blank: Standard DC: Low voltage		Blank: Standard XO: Strong magnets		50-300mm		Blank: Standard FO: Forcer Only SO: Shaft Only

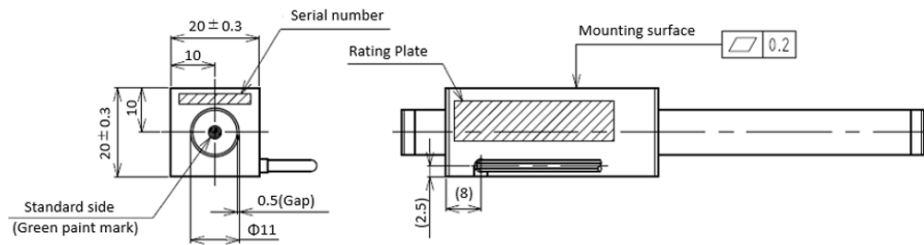
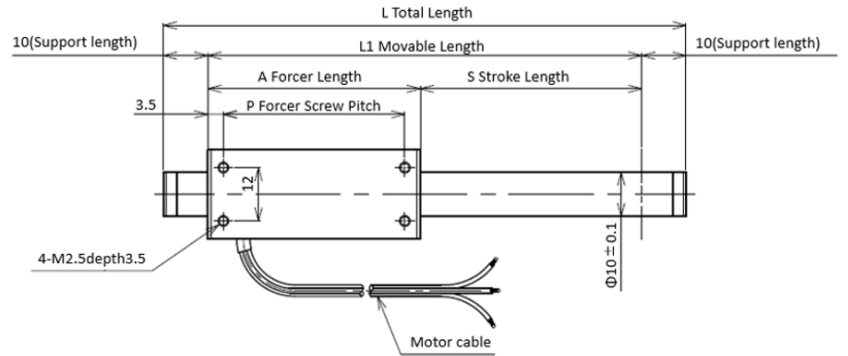
Forcer Specs	SX100D	SX100T	SX100Q
Forcer Length (A)	48mm (1.89in)	66mm (2.60in)	84mm (3.31in)
Forcer Width	20mm (0.79in)		
Forcer Screw Pitch (P)	41mm (1.61in)	59mm (2.32in)	77mm (3.03in)
Forcer Weight	0.051kg (0.112lbs)	0.063kg (0.139lbs)	0.082kg (0.181lbs)
Gap	0.50mm (0.02in)		
Screw	M2.5		

Tolerances are as follows:

Dimension (mm)	Tolerance (mm)
0 - 6	±0.1
7 - 30	±0.2
31 - 120	±0.3
121 - 315	±0.5
316 - 1000	±0.8
1001 - 2000	±1.2
2000 -	±1.5

L = See Shaft Length  
L1 = Usable Stroke + A  
L2 = See Support Length  
A = See Forcer Length  
P = See Forcer Screw Pitch

*Unless otherwise specified,  
dimensions are in mm*



Note: Metric units guaranteed. Imperial (United States customary) units are calculated.

For assistance in selecting the best motor for your application, contact Nippon Pulse to speak with an applications engineer. 1-540-633-1677

[www.nipponpulse.com](http://www.nipponpulse.com)