

	SX080D	SX080T		SX080Q	
Electrical Specs	SX080D	SX080T	SX080T-DC	SX080Q	SX080Q-DC
Continuous Force <sup>1</sup>	2.1N (0.47lbs)	3.1N (0.70lbs)		4.1N (0.91lbs)	
Continuous Current <sup>1</sup>	0.84Arms		2.52Arms	0.84Arms	1.7Arms
Acceleration Force <sup>2</sup>	8N (1.86lbs)	12N (2.80lbs)		16N (3.64lbs)	
Acceleration Current <sup>2</sup>	3.4Arms		10.1Arms	3.4Arms	6.7Arms
Force Constant (K <sub>f</sub> )	2.5N/Arms	4N/Arms	1N/Arms	5N/Arms	2.4N/Arms
Back EMF (K <sub>e</sub> )	0.8V/m/s (32.3V/in/s)	1.2V/m/s (48.6V/in/s)	0.4V/m/s (16.2V/in/s)	1.6V/m/s (63.3V/in/s)	0.8V/m/s (31.7V/in/s)
Resistance 25°C <sup>3</sup>	5Ω	7Ω	1Ω	9Ω	2.3Ω
Inductance <sup>3</sup>	0.7mH	1.0mH	0.1mH	1.3mH	0.3mH
Magnetic Pitch (North-North)	30mm				

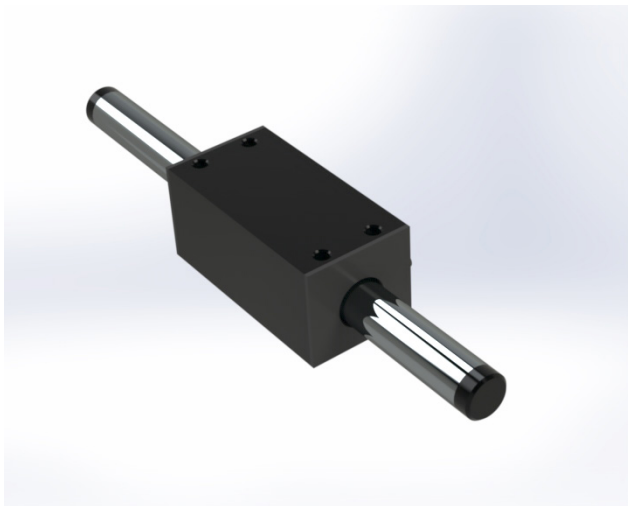
Is this the proper Linear Shaft Motor for your application? Use our **SMART sizing program** to assist in your decision.

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

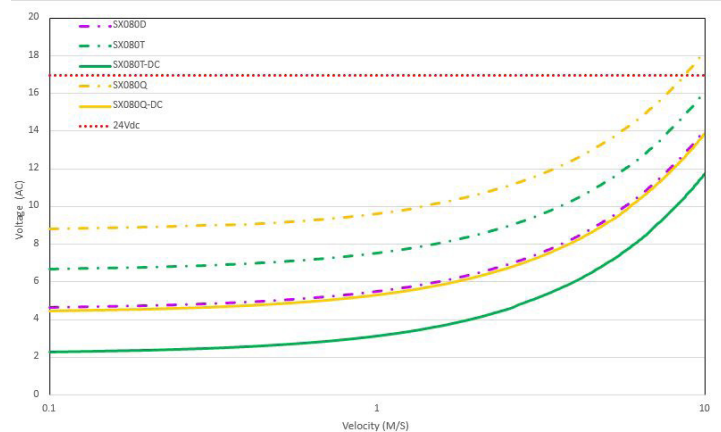
<sup>1</sup> Based on a temp rise of coil surface of 110°K over 25°C ambient temperature stalled forcer, and no external cooling or heat sinking.

<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 080	—	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 X0: Strong magnets		50-300mm		Blank: Standard FO: Forcer Only SO: Shaft Only

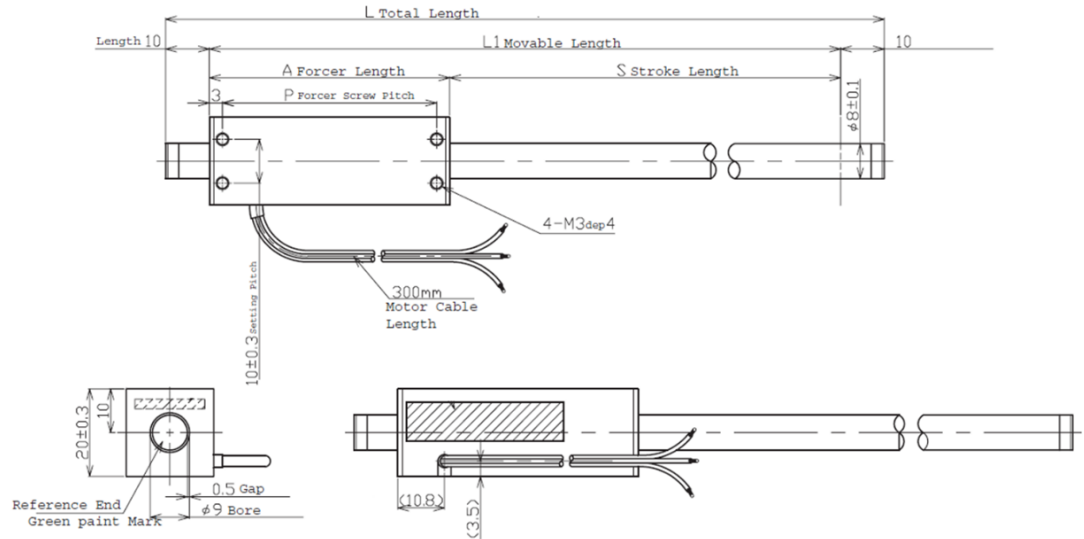
Forcer Specs	SX080D	SX080T	SX080T-DC	SX080Q	SX080Q-DC
Forcer Length (A)	40mm (1.57in)	55mm (2.17in)		70mm (2.76in)	
Forcer Width	20mm (0.79in)				
Forcer Screw Pitch (P)	34mm (1.34in)	49mm (1.93in)		64mm (2.25in)	
Forcer Weight	0.050kg (0.110lbs)	0.054kg (0.119lbs)		0.072kg (0.159lbs)	
Gap	0.50mm (0.02in)				
Screw	M3				

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)