Electrical and Mechanical Characteristics

1.The electrical and mechanical characteristics of inner shaft refer to VID29 spec.

2.The following list is only for out shaft

T_{amb}=25ºC, In micro step mode @ Max. voltage 4.2V, unless other specified.

Parameter	Symbol	Test Conditions	Min.	Typ.	Max	Units
Electrical Characteristics						
Operating Temperature	T_a		-40		105	ºC
Coil Resistance	R_b			280		Ω
Operating Current	I_m	f_a=200Hz			20	mA
Start-Stop Frequency	f_{ss}	$J_L=0.2x10^{-6}kgm^2$	125			Hz
Maximum Driving Frequency	f_{mm}	$J_L=0.2x10^{-6}kgm^2$	400			Hz
Mechanical Characteristics						
Dynamic Torque	M200 M400	f_a=200Hz f_a=400Hz		1.1 0.7		mNm mNm
Static Torque	Ms	U_b=5V	3.5	4.0		mNm
Equivalent Motor Inertia @ Output	J_m			5.064 E-7		Kgm^2
Gear ratio				180:1		
Step size in full step mode				1		Degree
Step size in partial step mode				1/3		Degree
Step size in micro step mode				1/12		Degree
Backlash				0.7		Degree
Noise						
Noise Level	SPL	@200º/sec		46		dBA
Others						
Angle of Rotation	f_l	Motors with internal Stop			280	Degree
Force allowed on the pointer shaft: Axial force (push) Axial force (pull) Perpendicular force Imposed acceleration	 Fa Fa Fq α_p				 60 60 6 1000	 N N N rad/s^2
Number of allowed pointer insertion					1	Time

Note: f_a – full-step frequency J_L – Load inertia