



5-Phase Hybrid Stepping Motors 90 Series

High Torque/Volume Ratio, Low Resonance



Insulation Resistance:	500VDC 100MΩ Min
Shaft Axial Play:	1 mm Max
Shaft Radial Play:	0.02mm Max
Temperature Rise:	65K Max
Dielectric Strength:	1000VAC 1Minute
Ambient Temperature:	-25°C ~ +40°C
Class of Insulation:	B

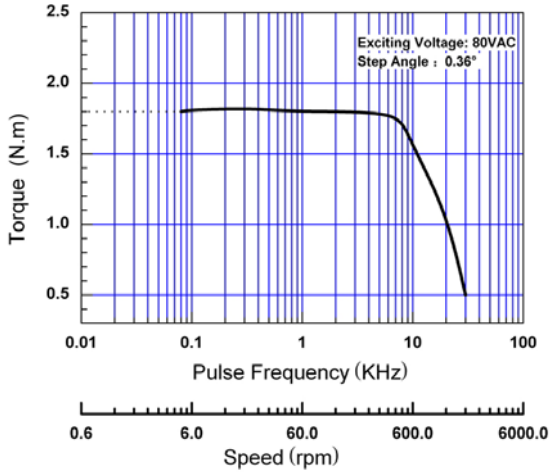
Electrical Ratings

Items	Module	Phase	Step Angle (°)	Phase Current (A)	Phase Resistance(Ω) (Ω)	Phase Inductance (mH)	Holding Torque (N.m)	Detent Torque (N.m)	No Load Starting Frequency at Half Step Mode (KHz)	Weight (kg)	Rotor Inertia (gcm ²)
000270	90BYG550A-SAKRML-0301	5	0.36/0.72	3	0.25	2.0	2	0.1	3	2.2	2300
000280	90BYG550B-SAKRML-0301	5	0.36/0.72	3	0.4	4.0	4	0.2	2.7	3.4	4500
000300	90BYG550C-SAKRML-0301	5	0.36/0.72	3	1.6	7.9	6	1.0	2.4	4.6	8000
000310	90BYG5200B-SAKRML-0301	5	0.09/0.18	3	0.4	4.0	5	0.5	5	3.4	4500
000320	90BYG5200D-SAKRML-0301	5	0.09/0.18	3	0.8	8.0	10	1.0	2	5.9	9000

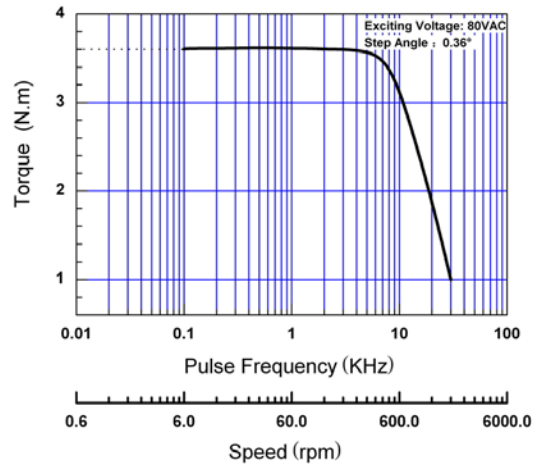
Notes: The exciting voltage for testing the no load starting frequency is 80VDC.

Pullout torque Speed Curves

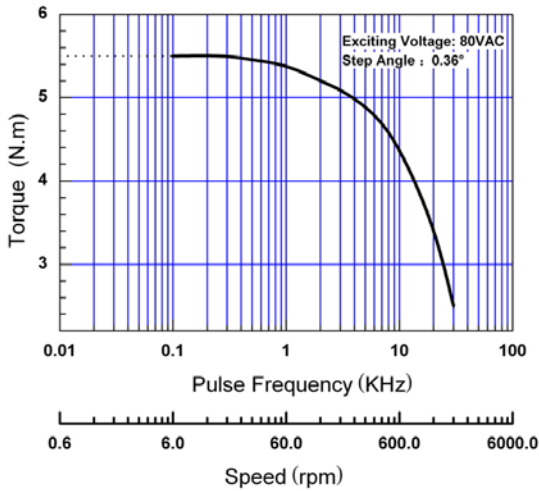
90BYG550A-SAKRML-0301



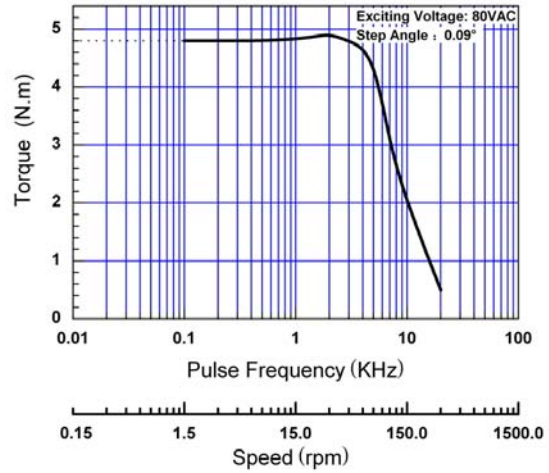
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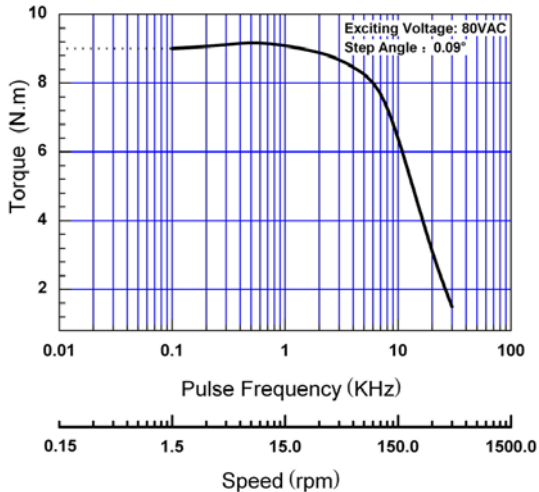
90BYG550C-SAKRML-0301



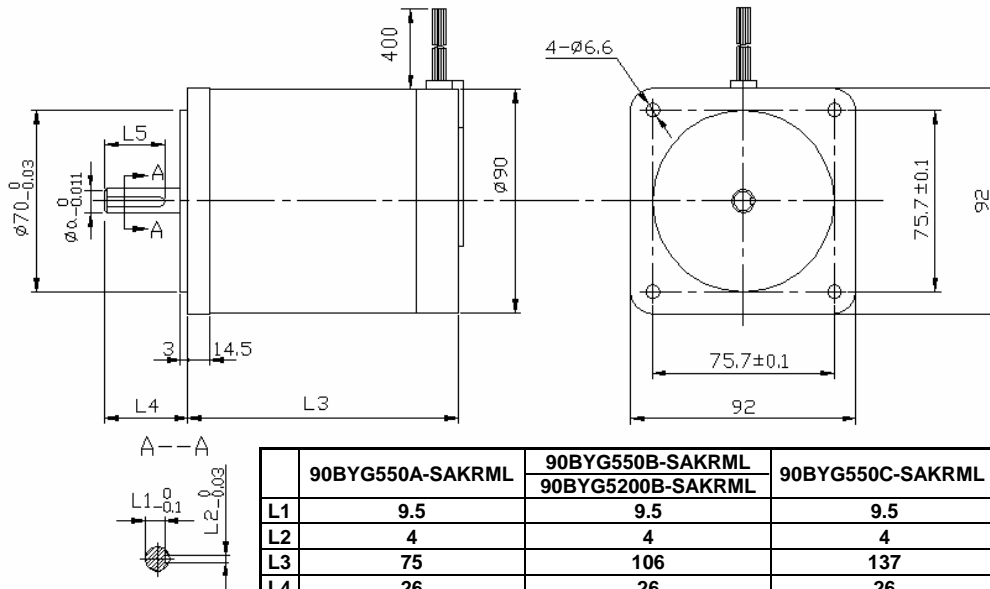
90BYG5200B-SAKRML-0301



90BYG5200D-SAKRML-0301



Dimensions [Unit: mm]



	90BYG550A-SAKRML	90BYG550B-SAKRML 90BYG5200B-SAKRML	90BYG550C-SAKRML	90BYG5200D-SAKRML
L1	9.5	9.5	9.5	11
L2	4	4	4	5
L3	75	106	137	168
L4	26	26	26	36
L5	15	15	15	25
øa	12	12	12	14

Wiring Diagram

Color of cable	Red	Yellow	Green	Blue	Orange
Motor windings	A	B	C	D	E

⚠ Cautions:

1. Flange mounting is mandatory for concentricity.
2. Hazard will happen for wrong connection.