## 2S28A Series - High Torque Stepper Motors



- 28mm Frame Size
- 1.8° Step Angle
- High Torque Up To 0.11 Nm
- High Step Accuracy and Resolution
- Low Vibration and Noise
- Can be Customized for
  - Winding Current
  - Shaft Options
  - Cables and Connectors
- CE Certified and RoHS Compliant

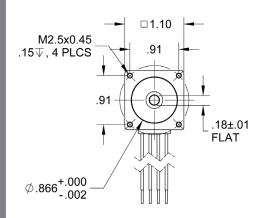


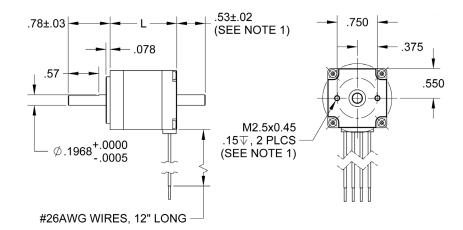
The 2S28A Series High Torque Step Motors come in a small package with high torque density. These motors offer a great value without sacrificing quality. These motors were designed to offer the highest possible torque while minimizing vibration and audible noise. A board line of motor windings and stack lengths are available off-the-shelf, or the motors can be customized to fit your machine requirements. The standard 4 lead wire motors can be connected to allow the flexibility for your voltage, current, and maximum operating speed.

Model #	Frame Size (mm)	Bipolar Torque (Nm)	Bipolar Current (A)	Bipolar Voltage (V)	Bipolar Resistance (ohms)	Bipolar Inductance (mH)	Rotor Inertia (g-cm²)	Shaft Diameter (mm)	# Lead Wires	Weight (kg)	"L" Length (mm)
2S28A-032-007-4X	28	0.05	0.7	3.92	5.6	3.4	9	5	4	.11	32
2S28A-045-007-4X	28	0.09	0.7	4.76	6.8	4.9	12	5	4	.14	45
2S28A-051-007-4X	28	0.11	0.7	6.44	9.2	7.2	18	5	4	.20	51

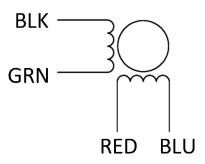
Notes: The 16th character "X" denotes a single or dual shaft. Use "S" for single shaft, or "D" for dual shaft. Dual shafts include encoder mounting provisions. Custom leadwires, cables, connectors, and windings are available upon request.







Note 1: Dual Shaft option only



Step Angle	1.8°				
Step Angle Accuracy	±5% (full step, no load)				
Resistance Accuracy	±10% @ 20°C				
Inductance Accuracy	±20% @ 1kHz				
Temperature Rise	80°C Max.(rated current, 2 phase on)				
Ambient Temperature	-20°C~+50°C				
Insulation Resistance	100MΩMin. , 500VDC				
Dielectric Strength	500VAC for one minute				
Shaft Radial Play	0.02Max. (450 g-load)				
Shaft Axial Play	0.08Max. (450 g-load)				
Max. Radial Force	28N (20mm from the flange)				
Max. Axial Force	10N				

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