2S86A Series - High Torque Stepper Motors



- 86mm Frame Size
- 1.8° Step Angle
- High Torque Up To 12.0 Nm
- High Step Accuracy and Resolution
- Low Vibration and Noise
- Standard Keyway
- Can be Customized for
 - Winding Current
 - Shaft Options
 - Cables and Connectors
- CE Certified and RoHS Compliant



The 2S86A Series High Torque Step 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 broad line of motor windings and stack lengths are available off-the-shelf, or the motors can be customized to fit your machine requirements. We can customize the winding to perfectly match your voltage, current, and maximum operating speed for maximum flexibility.

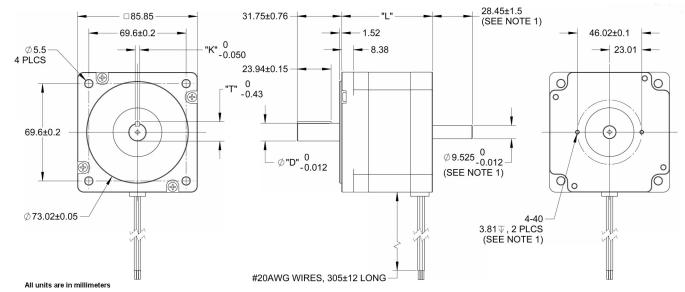
Model #	Frame Size (mm)	Bipolar Torque (Nm)	Bipolar Current (A)	Bipolar Voltage (V)	Bipolar Resistance (ohms)	Bipolar Inductance (mH)	Rotor Inertia (g-cm²)	Shaft Diameter (mm)	# Lead Wires	Weight (kg)	"L" Length (mm)
2S86A-065-028-4X	86	3.3	2.8	3.7	1.3	8.5	1000	12.700	4	1.7	65
2S86A-080-028-4X	86	4.5	2.8	4.6	1.6	15.2	1400	12.700	4	2.3	80
2S86A-080-043-4X	86	4.5	4.3	3.4	0.7	6.8	1400	12.700	4	2.3	80
2S86A-118-025-4X	86	8.5	2.5	6.4	2.6	33.2	2700	12.700	4	3.8	118
2S86A-118-049-4X	86	8.5	4.9	4.1	0.8	9.2	2700	12.700	4	3.8	118
2S86A-156-025-4X	86	12.0	2.5	9.0	3.6	48.0	4000	15.875	4	5.4	156
2S86A-156-049-4X	86	12.0	4.9	5.5	1.1	14.2	4000	15.875	4	5.4	156

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.

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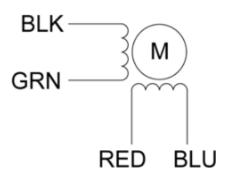




Note 1: Applies to dual shaft option only

Part Number	"D"	"K"	"T"	"L"
2S86A-065-XXX-8X	12.7	3.175	14.097	65
2S86A-080-XXX-8X	12.7	3.175	14.097	80
2S86A-118-XXX-8X	12.7	3.175	14.097	118
2S86A-156-XXX-8X	15.9	4.763	17.907	156

Connection	Lead Wire Connection	Lead Wire Color
	Phase 1 (A) Phase 3 (A\)	Black Green
4 - Lead Bipolar	Phase 2 (B)	Red
	Phase 4 (B\)	Blue



Step Angle Accuracy:	±5% (Full Step, No Load)	Insulation Resistance:	100M Ohm Min, 500VDC	
Max Axial Force:	60N	Dielectric Strength:	820VAC, 1 sec, 3mA	
Inductance Accuracy:	±20%	Shaft Radial Play:	0.02 Max (450g-load)	
Temperature Rise:	80° C Max (2 Phases On)	Shaft Axial Play:	0.08 Max (450g-load)	
Ambient Temperature:	-20° to +50° C	Max Radial Force:	220N (20mm from flange)	
Insulation Type:	Class B			