

NEMA 34 Series 3-phase Stepping Motor Datasheet



General Specifications

Step Angle Accuracy	+5%(full step, no load)
Temperature Rise	80°C (176°F) Max
Ambient Temperature	-10°C -- +50°C (14 - 122°F)
Insulation Resistance	100MΩ min. 500VDC
Dielectric Strength	500VAC for one minute
Shaft Radial Play	0.06 Max.(450g-load)
Shaft Axial Play	0.08 max.(450g-load)

Electrical Specifications

Model	Step Angle	Holding Torque Oz-In	Current / Phase A	Inductance / Phase mH	Resistance / Phase Ohm	# of Leads	Rotor Inertia g.cm ²	Motor Weight lb	Motor Length Inch
	(°)								
863S22	1.2	283	5	1.7	2.8	6	1200	4.63	2.87
863S42	1.2	566	5.0	1.35	4.5	6	2500	6.61	4.13
863S68H	1.2	960	3.5	1.7	20	6	3300	8.37	5.00

* **Note:** although step angles for those 3-phase stepper motors are 1.2° degree, they will move 200 steps per resolution when driven by Leadshine 3-phase stepper drives, which is same as 2-phase 1.8° stepper motors. So there is no control system configuration between switch to 3-phase stepper motors from 2-phase stepper motors.

Mechanical Specifications

Dimensions are in millimeters and 1 inch=25.4mm

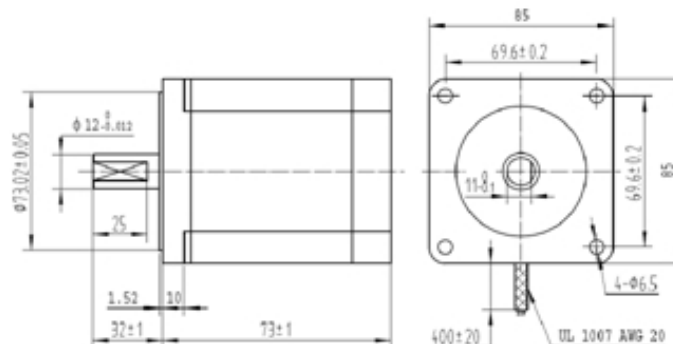


Figure 1 863S22 Mechanical Specifications

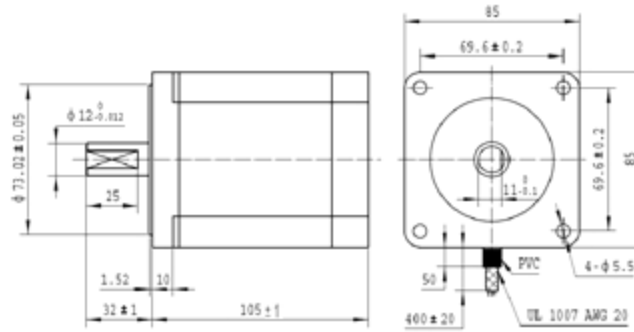


Figure 2 863S42 Mechanical Specifications

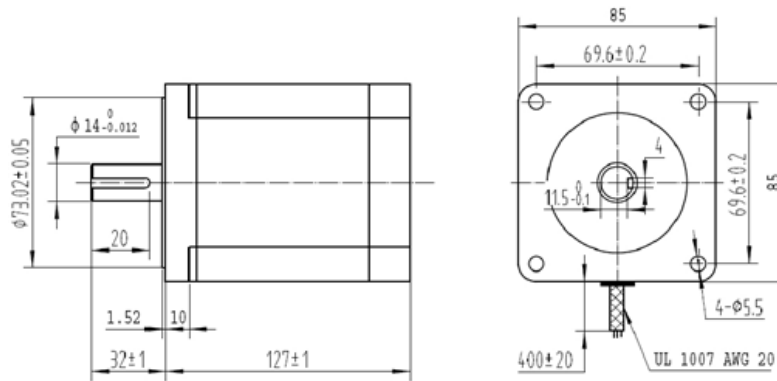


Figure 3 863S68H Mechanical Specifications

Wiring Diagrams

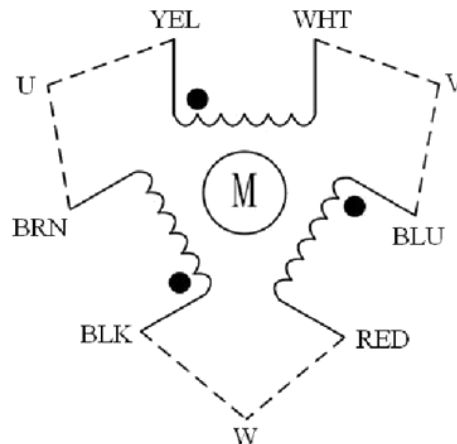


Figure 4 Wiring Diagram

Speed Torque Curves

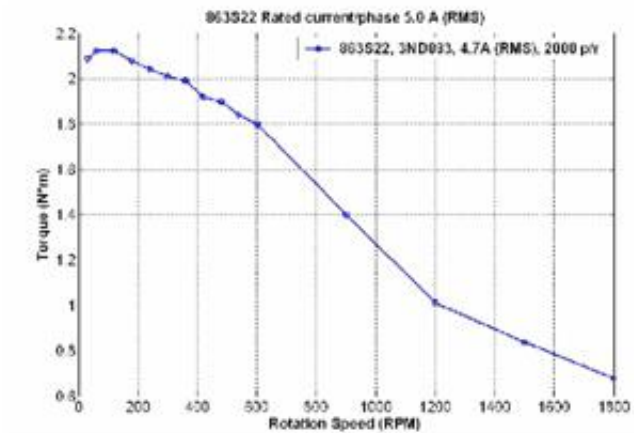


Figure 5 863S22 Speed Torque Curve

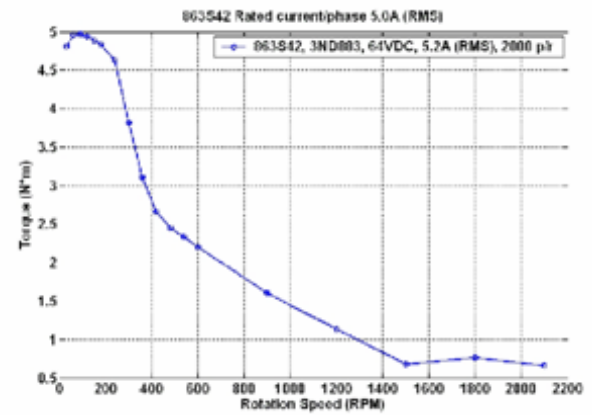


Figure 6 863S42 Speed Torque Curve

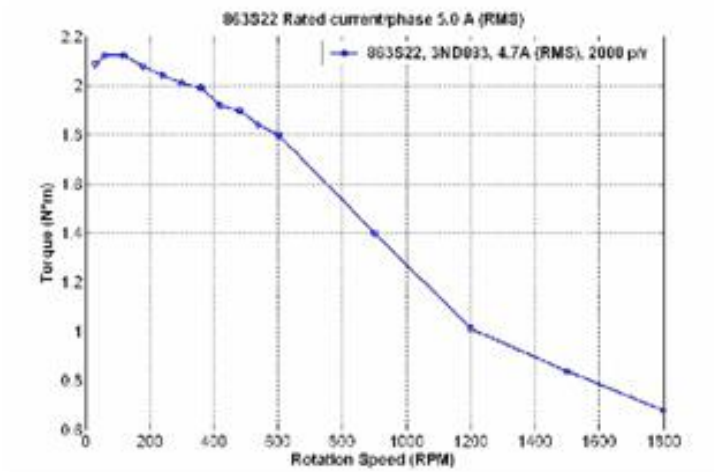


Figure 7 863S68H Speed Torque Curve

- * **Note:** the actual characteristics will vary depending on the test stepper drive. Please use these curves only for reference purposes when selecting a motor.