

24YPG Series - High Torque Stepper Gearmotor



FEATURES

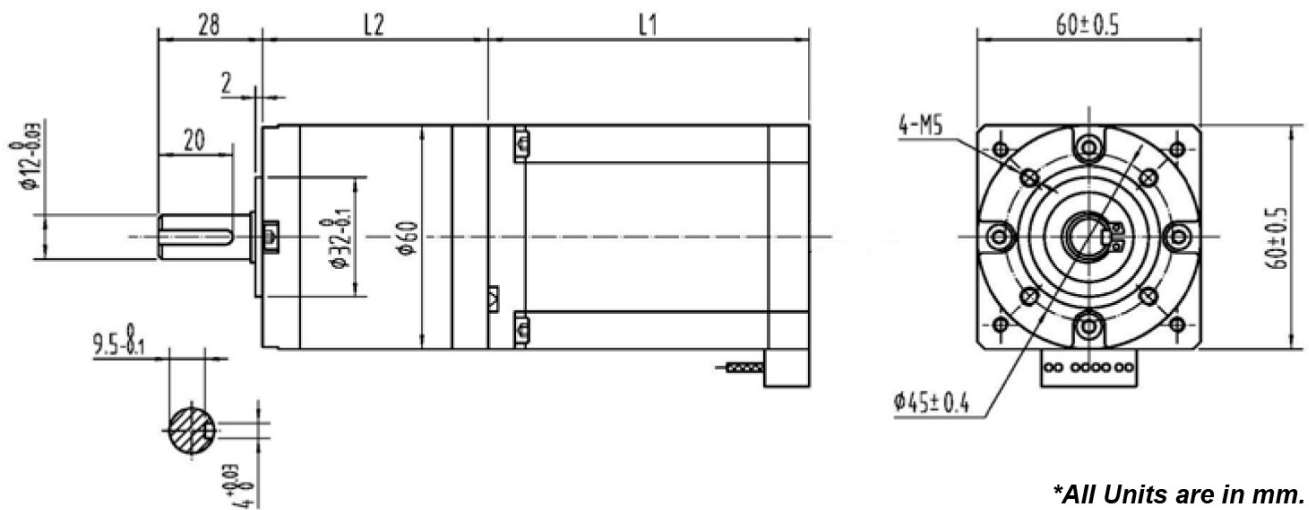
- **NEMA Size 24 Integrated Gearmotor**
- **High-Torque Stepper Motor**
- **Economy Planetary Gearbox**
- **High Torque - Up to 12,744 oz-in**
- **Can be Customized for**
 - **Winding Currents**
 - **Shaft Options**
 - **Cables and Connectors**
- **CE Certified and RoHS Compliant**



DESCRIPTION

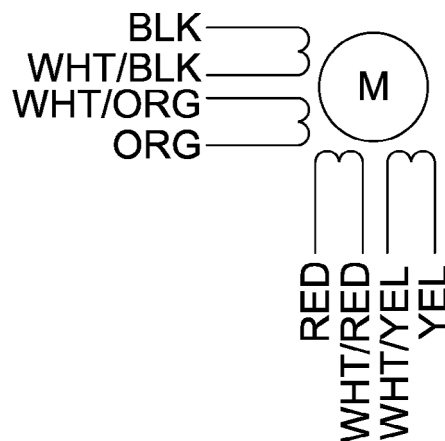
The 24YPG Series Gearmotor incorporates a High-Torque Stepper Motor and an Economic Planetary Gearbox to offer you an exceptional value. This compact package can deliver rated torque up to 12,744 oz-in. This gearmotor is ideal for applications that require high torque in a small package. The gearmotor can be customized to perfectly match your voltage, current, and maximum operating speed for maximum flexibility.

DIMENSIONS



**All Units are in mm.*

WIRING



L011103

- Speed of the output shaft (after gearbox) = (Motor Speed)/(Gear Ratio)
- Torque of the output shaft (after gearbox) = (Motor Torque/) X (Gear Ratio)
- Rotor Inertia of the output (shaft after gearbox) = (Rotor Motor Inertia) X (Gear Ratio)²

Create a complete Model Number by selecting a motor from Table 1 and Gearbox from Table 2

24YPG104S - LW8 - R3.6

Table 1		Output Shaft of Motor Before Gearbox								
Model #	NEMA Size	Bipolar Torque (oz-in)	Bipolar Series Current (A)	Bipolar Series Voltage (V)	Bipolar Series Resistance Per Phase (ohm)	Bipolar Inductance (mH)	Rotor Inertia (oz-in-sec ²)	# of Lead Wires	Motor Weight (lbs)	"L1" Length (mm)
24YPG104S-LW8	24	153	1.4	4.2	3.0	8.0	.0039	8	1.85	47
24YPG204S-LW8	24	229	1.4	5.0	3.6	14.4	.0057	8	2.20	56
24YPG304S-LW8	24	292	1.4	6.7	4.8	18.4	.0018	8	2.64	67
24YPG404S-LW8	24	380	1.4	6.2	4.4	20.0	.0082	8	3.03	77
24YPG504S-LW8	24	431	1.4	8.4	6.0	27.2	.0119	8	3.46	88

Gearbox Ratio (R)	Exact Reduction Ratio	Rated Torque (oz-in)	Max Torque (oz-in)	Efficiency	"L2" (mm)	Gearbox Weight (lbs)
R3.6	3.6	1274	3823	90%	37.8	1.10
R4.3	4.25	1274	3823	90%	37.8	1.10
R13	13	2974	8921	81%	49.4	1.51
R15	15	2974	8921	81%	49.4	1.51
R18	18	2974	8921	81%	49.4	1.51
R23	23	2974	8921	81%	49.4	1.51
R47	47	4248	12744	73%	60.8	1.93
R55	55	4248	12744	73%	60.8	1.93
R65	65	4248	12744	73%	60.8	1.93
R77	77	4248	12744	73%	60.8	1.93

SPECIFICATION CONVERSION TABLE			
Connection	Current (A)	Resistance (R)	Inductance (L)
Series Standard	A	R	L
Parallel	2A	R / 4	L / 4
Unipolar	1.414A	R / 2	L / 4

Housing Material:	Metal	Radial Play at Shaft:	0.08mm
Bearing at Output:	Ball Bearing	Axial Play of Shaft:	0.4mm
Max Radial Load (at 12mm):	67 lbs	Backlash, at No-Load:	<1.5°
Max Shaft Axial Load:	44.9 lbs	Gearbox Shaft Diameter:	12mm
Step Angle Accuracy:	± 5% Full Step, No Load	Ambient Temperature:	-20° to +80° C
Resistance Accuracy:	± 10%	Insulation Type:	Class B
Inductance Accuracy:	± 20%	Insulation Resistance:	100MΩ, 500 VDC
Temperature Rise:	80°C Max	Dielectric Strength:	500VDC for 1 minute

Note: Custom leadwires, cables, connectors, and windings are available upon request.