

FEATURES

- **NEMA Size 23 BLDC Motors**
- **Compact Size and Power Density**
- **Cost-Effective Solution**
- **Integrated Spur Gearbox**
- **Available in Dual Shaft: BLYSG23xD**
- **Can be Customized for**
 - **Maximum Speed/Winding Current**
 - **Shaft Options**
 - **Cables and Connectors**
- **CE Certified and RoHS Compliant**



DESCRIPTION

The BLWSG23 Series Brushless DC Motors come in a compact package with high power density. These motors are cost-effective solutions to many velocity control applications. They come in four different stack lengths to provide you with just the right torque for your application. A number of windings are available off-the-shelf and the motors can be customized to fit your machine requirements. The motors come in a standard 8- lead configuration. We can also customize the windings to perfectly match your voltage, current, and maximum operating speed. Special shaft modifications, cables and connectors are also available upon request.

DIMENSIONS

Model #	FRAME Size	Rated Voltage (V)	Rated Speed (RPM)	Rated Power (W)	Peak Torque (oz-in)	Peak Current (A)	Torque Constant (oz-in/A)	Back EMF Voltage (V/kRPM)	Reflected Inertia (oz-in-sec ²)	Weight* (lbs)	L1 (in)	L2** (in)	Total Length (in)
BLWSG231D-36V-4000-R75	NEMA 23	36	53	25	23.37	3.50	7.51	5.5	2.36	1.46	1.65	1.77	3.42
BLWSG232D-36V-4000-R7.5	NEMA 23	36	533	50	412	7.00	59	50	0.06	1.62	1.26	2.16	3.42
BLWSG232D-36V-4000-R75	NEMA 23	36	53	50	4125	7.00	8.50	4.5	5.96	1.62	1.65	2.16	3.81
BLWSG233D-36V-4000-R7.5	NEMA 23	36	533	95	750	15.0	50	50	0.10	2.38	1.26	2.95	4.21
BLWSG233D-36V-4000-R75	NEMA 23	36	53	95	7500	15.0	8.50	4.45	9.50	2.38	1.65	2.95	4.60
BLWSG234D-36V-4000-R3	NEMA 23	36	1333	135	435	18.0	24	20	0.02	2.72	1.26	3.74	5.00
BLWSG234D-36V-4000-R50	NEMA 23	36	80	135	7250	18.0	403	330	6.13	2.72	1.65	3.74	5.39
BLWSG234D-36V-4000-R7.5	NEMA 23	36	533	135	1087	18.0	60	50	0.14	2.72	1.26	3.74	5.00
BLWSG234D-36V-4000-R75	NEMA 23	36	53	135	94.88	18.0	8.92	4.8	13.8	2.72	1.65	3.74	5.39
BLWSG235D-36V-4000-R12.5	NEMA 23	36	320	180	2313	22.5	103	83	0.51	3.32	1.26	4.53	5.79
BLWSG235D-36V-4000-R3	NEMA 23	36	1333	180	555	22.5	25	20	0.03	3.32	1.65	4.53	5.79
BLWSG235D-36V-4000-R50	NEMA 23	36	80	180	9250	22.5	411	330	8.15	3.32	1.26	4.53	6.18
BLWSG235D-36V-4000-R7.5	NEMA 23	36	533	180	1388	22.5	62	50	0.18	3.32	1.65	4.53	5.79

Available Gearbox Ratios: 3, 7.5, 12.5, 15, 25, 30, 50, 75, 90, 100, 120, 150

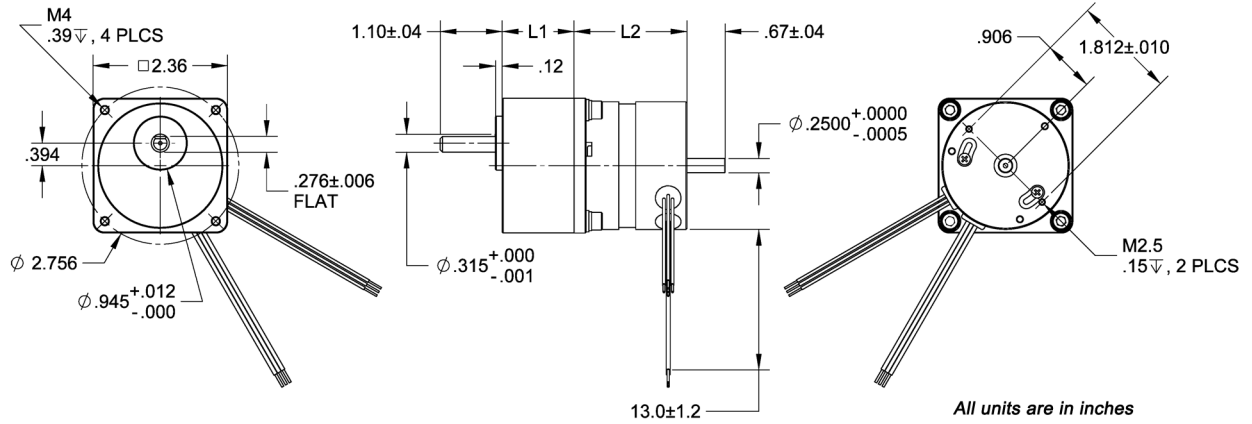
Notes: The above specs are for motors hooked up with the star configuration. For different rated speeds, please contact the factory. Custom leadwires, cables, connectors, and windings are available upon request.

*Weight will vary based on gear ratio selected

**Length of gearmotor will vary based on gear ratio selected

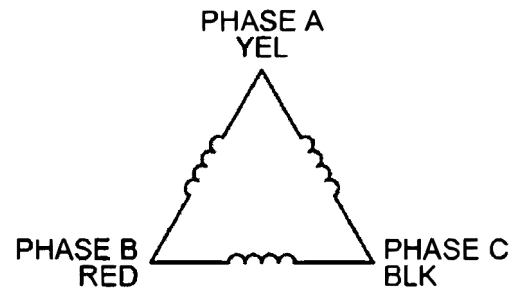
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DIMENSIONS



WIRING INFORMATION

Wire Color	Description
Red	Hall Supply
Blue	Hall A
Green	Hall B
White	Hall C
Black	Hall Ground
Yellow	Phase A
Red	Phase B
Black	Phase C



SPECIFICATIONS

Hall Effect:	120° Electrical Angle	Number of Poles:	4
Insulation Class:	Class B	Number of Phases:	3
Dielectric Strength:	500VDC for one minute	Temperature Rise:	70°C
Insulation Resistance:	100MOhms Min, 500VDC	Life Expectancy:	Over 2,000 Hours

Ratio:	3.0	7.5	12.5	15	25	30	50	75	90	100	120	150
Average Backlash at No Load:	4 deg			3.5 deg			3.0 deg			2.5 deg		