

STEPPING MOTOR FAMILY

Series 42mm (LSG42) Geared Stepping Motor



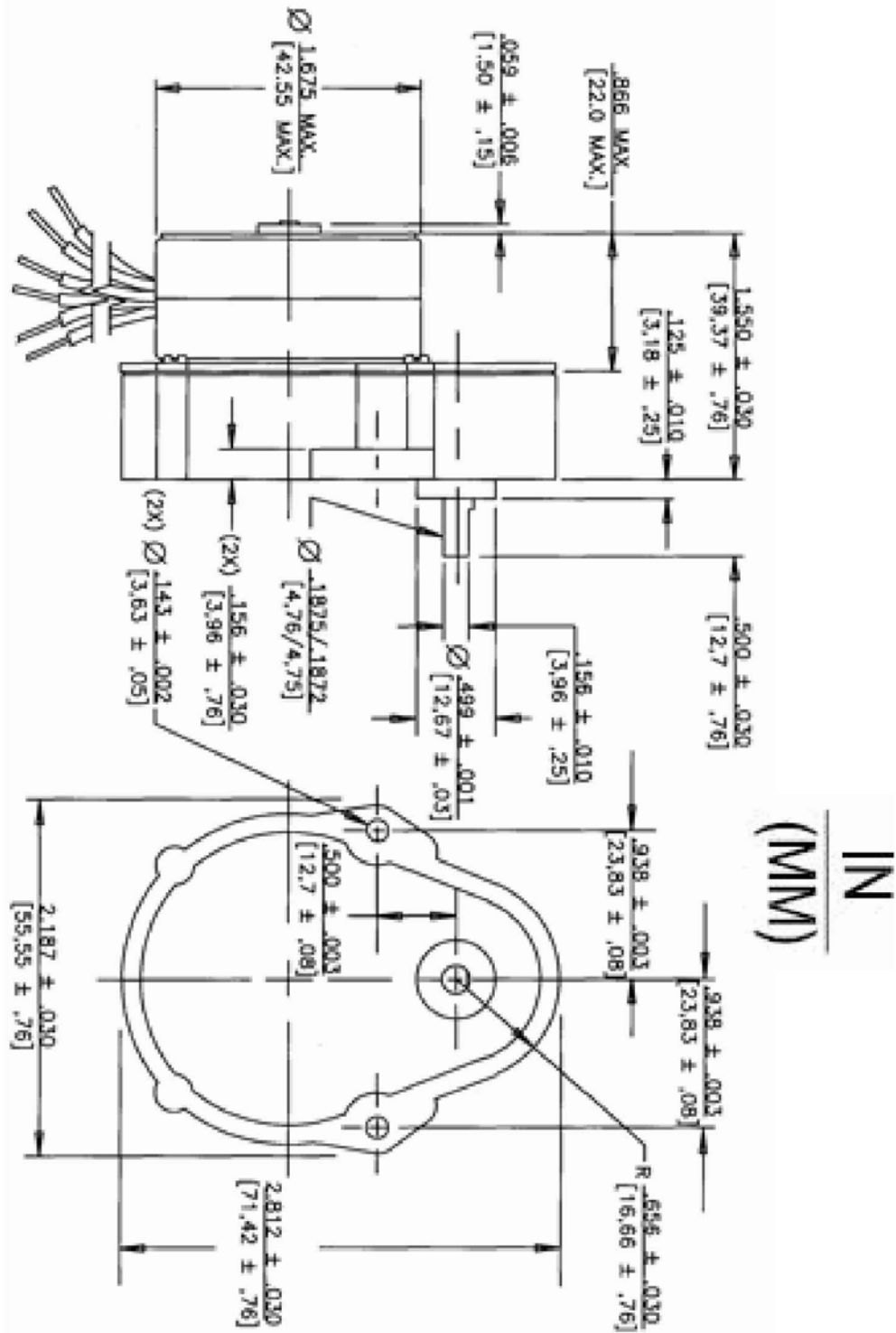
Frame Size:	42mm
Max Torque:	150 oz-in [1059 mN-m]
Step Angle:	7.5°
Position Accuracy:	+/- 5% max.
Number of Phases:	4 phase bifilar
Insulation Class:	Class A (105°C)
Insulation Resistance:	100 MΩ at 500Vdc
Dielectric Strength:	600 Vac/second
Lead Wire:	6 leads 28AWG (approx. 9 inches [228.6 mm])
Operation Ambient Temp:	-10°C to +40°C (approx.)
Temperature Rise:	60°C max
Case Length:	.866 in [
Gear Housing:	Die cast housing with hardened steel gears
Note: Typical data subject to change without notification	

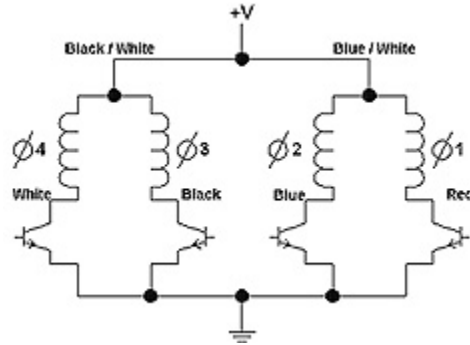
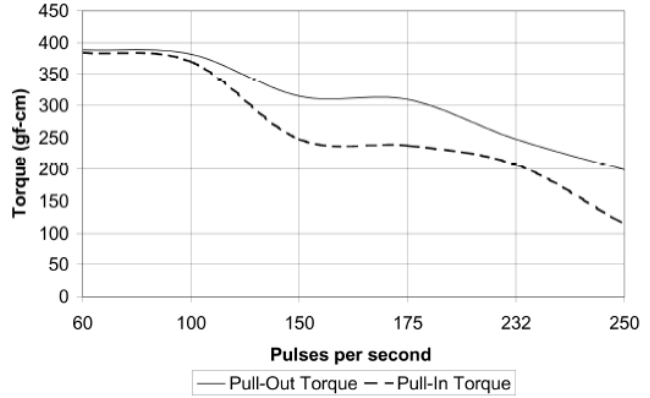
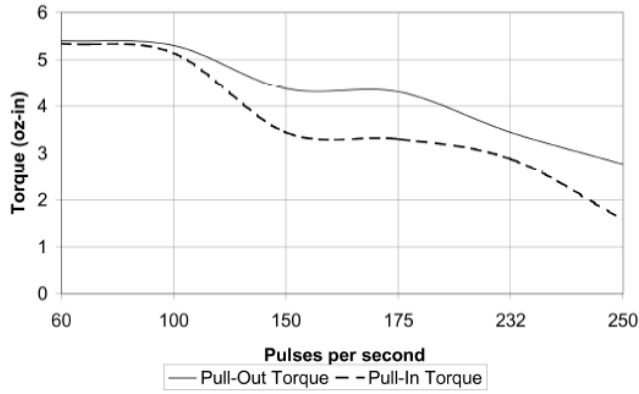
Example: LS G 35 12 E02 P

	Motor Family	Gearing	Motor Size	Voltage	Gear Ratio	Gear Box
Options	LS	D=Direct Drive G=Geared	35=35MM 42=42MM	005=5VDC 006=6VDC 012=12VDC 024=24VDC	Gear Options	P=Peer-Shaped Gearbox

Part Number	Reduction	Step Angle (deg.)	Steps per Rev.	Rated Torque @ 175 p/s (oz-in)	Rated Torque @ 175 p/s (mN-m)	Output Speed (RPM)	Input Power (watts)	Nominal Voltage (Vdc)	Winding Res. (ohms)	Rated Ind. (mH)	Rotor Inertia (oz-in ²)	Rotor Inertia (g-cm ²)	Case Length (in)	Case Length (mm)	Weight (oz)	Weight (g)
LSG42012E98P	300	0.025	14400	150	1059.2	0.73	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012E96P	250	0.03	12000	150	1059.2	0.88	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012E90P	150	0.05	7200	150	1059.2	1.46	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012E88P	125	0.06	6000	150	1059.2	1.75	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012E86P	120	0.063	5760	150	1059.2	1.82	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012E84P	112.5	0.067	5400	150	1059.2	1.94	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012E82P	100	0.075	4800	150	1059.2	2.19	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012F80P	83.333	0.09	4000	150	1059.2	2.63	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2

Part Number	Reduction	Step Angle (deg.)	Steps per Rev.	Rated Torque @ 175 p/s (oz-in)	Rated Torque @ 175 p/s (mN-m)	Output Speed (RPM)	Input Power (watts)	Nominal Voltage (Vdc)	Winding Res. (ohms)	Rated Ind. (mH)	Rotor Inertia (oz-in ²)	Rotor Inertia (g-cm ²)	Case Length (in)	Case Length (mm)	Weight (oz)	Weight (g)
LSG42012F78P	80	0.094	3840	150	1059.2	2.73	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012F76P	75	0.1	3600	150	1059.2	2.92	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42024F76P	75	0.1	3600	150	1059.2	2.92	6.1	24	190	215	0.0394	7.2	0.866	22	10.2	289.2
LSG42012F74P	66.667	0.113	3200	150	1059.2	3.28	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012F72P	62.5	0.12	3000	144	1016.9	3.5	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012F70P	60	0.125	2880	138.24	976.2	3.65	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012F68P	56.25	0.133	2700	129.6	915.2	3.89	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012F66P	54	0.139	2592	124.416	878.5	4.05	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012F64P	50	0.15	2400	115.2	813.5	4.38	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012F62P	41.667	0.18	2000	96	677.9	5.25	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012F60P	40	0.188	1920	92.16	650.8	5.47	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012F58P	37.5	0.2	1800	86.4	610.1	5.83	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012F56P	33.333	0.225	1600	76.8	542.3	6.56	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012F54P	31.25	0.24	1500	72	508.4	7	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012F52P	30	0.25	1440	69.12	488.1	7.29	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012F50P	25	0.3	1200	57.6	406.7	8.75	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012F48P	20.833	0.36	1000	48	339	10.5	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012F46P	20	0.375	960	46.08	325.4	10.94	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012E44P	16.667	0.45	800	42	296.6	13.13	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012E42P	16	0.469	768	40.32	284.7	13.67	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012E40P	15	0.5	720	37.8	266.9	14.58	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012E38P	13.333	0.563	640	33.6	237.3	16.41	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012E36P	12.5	0.6	600	31.5	222.4	17.5	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012E34P	12	0.625	576	30.24	213.5	18.23	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012E30P	10	0.75	480	25.2	178	21.88	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012E28P	8.333	0.9	400	21	148.3	26.25	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012E24P	7.5	1	360	18.9	133.5	29.17	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012E22P	6.25	1.2	300	15.75	111.2	35	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012E20P	5	1.5	240	12.6	89	43.75	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012E18P	4.167	1.8	200	10.5	74.1	52.5	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012E16P	4	1.875	192	10.08	71.2	54.69	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012E12P	3.333	2.25	160	8.4	59.3	65.63	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012E10P	3	2.5	144	7.56	53.4	72.92	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012E08P	2.5	3	120	6.3	44.5	87.5	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012E06P	2.083	3.6	100	5.25	37.1	105	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012E04P	2	3.75	96	5.04	35.6	109.38	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2
LSG42012E02P	1.667	4.5	80	4.2	29.7	131.25	5.8	12	50	33	0.0394	7.2	0.866	22	10.2	289.2





	Ø4 White	Ø3 Black	Ø2 Blue	Ø1 Red	
CCW ROTATION ↑	1	0	1	0	↓ CW ROTATION
	1	0	0	1	
	0	1	0	1	
	0	1	1	0	

1 = ON, 0 = OFF

SWITCHING SEQUENCE