


SYNCHRONOUS MOTOR FAMILY

Series 42mm (LYG42) Geared Synchronous Motor



Frame Size:	42mm
Torque Range:	Up to 150 oz-in [1059 mN-m]
Output Speed:	.3 to 300 RPM
Standard Voltages:	115 Vac & 24 Vac 50/60 Hz
Insulation Class:	Class A (105°C)
Lead Wire:	4 leads 28AWG (approx. 9 inches [228.6 mm])
Operation Ambient Temp:	-10°C to +40°C (approx.)
Gear Unit:	Zinc Die Cast - AGMA 7 Standard with hardened steel gears
Shaft Bearings:	Sleeve bearings
 Recognition:	E53578(N), Component-Impedance Protected Motors
Capacitor is required for operation. Capacitor supplied with 115 Vac motors.	
Note: Typical data subject to change without notification	

Example: LY G 35 115 E02 P

	Motor Family	Gearing	Motor Size	Voltage	Gear Ratio	Gear Box
Options	LY	D=Direct Drive G=Geared	35=35MM 42=42MM	024=24VAC 50/60Hz 115=115VAC 50/60Hz	Gear Options	P=Pear-Shaped Gearbox R=Round-Shaped Gearbox

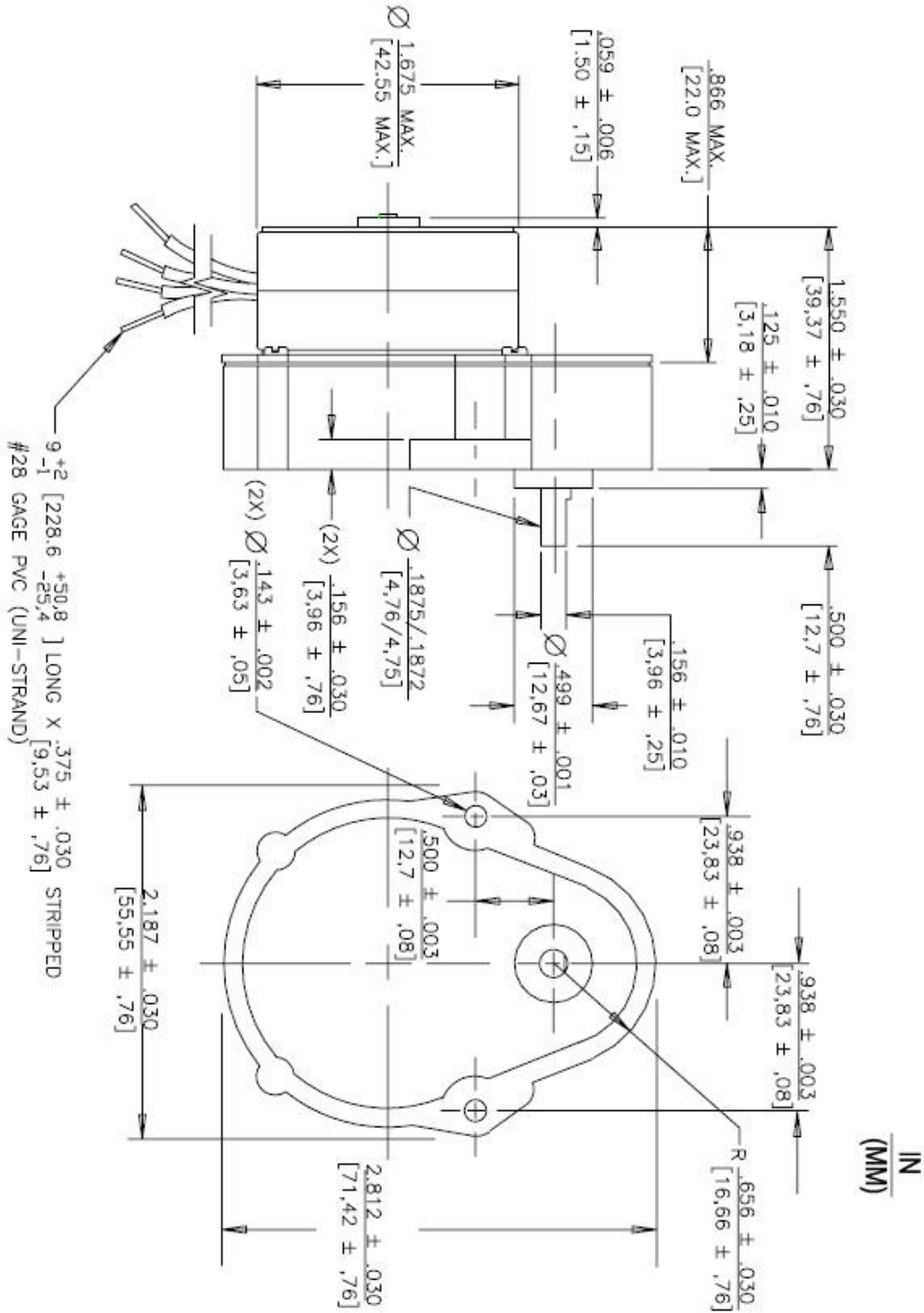
Model	Part Number	Reduction	Minimum Torque (oz-in)	Minimum Torque (mN-m)	Output Speed 60 Hz (RPM)	Input Power (watts)	Nominal Voltage (VAC) 50/60 Hz	Winding Resistance (ohms)	Inductance (mH/phase)	Capacitor Value (mFd)	Weight (oz)	Weight (g)	Length (L, in)	Length (L, mm)
LYG42	LYG42115E02P	1 2/3	5	35.3	180	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115E04P	2	6	42.4	150	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115E06P	2 1/12	6	42.4	144	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115E08P	2 1/2	7	49.4	120	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115E10P	3	8	56.5	100	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115E12P	3 1/3	9	63.6	90	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4

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LYG42	LYG42115E16P	4	11	77.7	75	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115E18P	4 1/6	12	84.7	72	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115E20P	5	14	98.9	60	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115E22P	6 1/4	19	134.2	48	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115E24P	7 1/2	21	148.3	40	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115E28P	8 1/3	23	162.4	36	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115E30P	10	28	197.7	30	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115E34P	12	34	240.1	25	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115E036P	12 1/2	35	247.2	24	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115E38P	13 1/3	37	261.3	22.5	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115E40P	15	42	296.6	20	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115E42P	16	45	317.8	18.8	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115E44P	16 2/3	47	331.9	18	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115F46P	20	51	360.1	15	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115F48P	20 5/6	53	374.3	14.4	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115F50P	25	64	451.9	12	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115F52P	30	77	543.7	10	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4

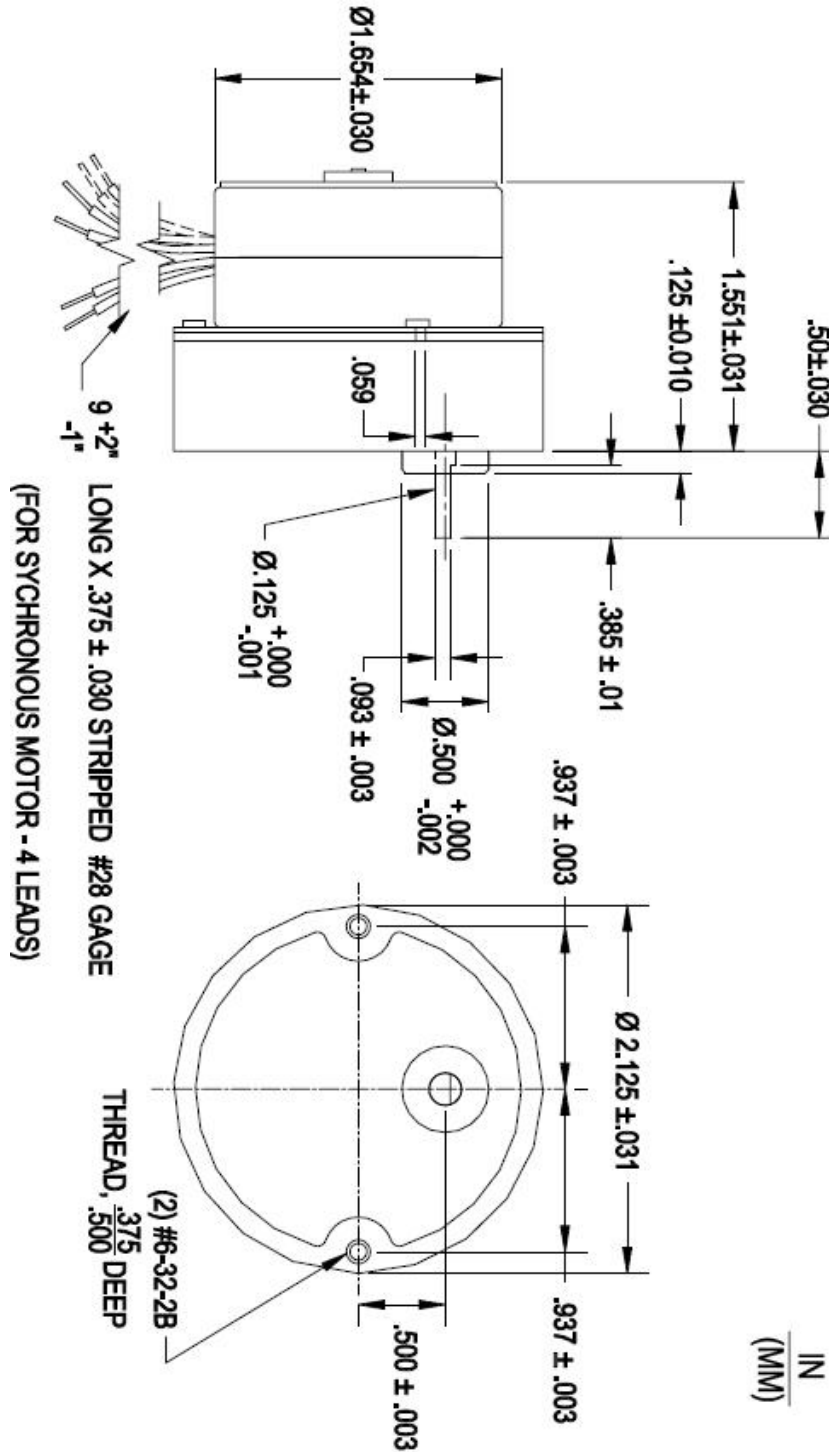
Model	Part Number	Reduction	Minimum Torque (oz-in)	Minimum Torque (mN-m)	Output Speed 60 Hz (RPM)	Input Power (watts)	Nominal Voltage (VAC) 50/60 Hz	Winding Resistance (ohms)	Inductance (mH/phase)	Capacitor Value (mFd)	Weight (oz)	Weight (g)	Length (L, in)	Length (L, mm)
LYG42	LYG42115F54P	31 1/4	80	564.9	9.6	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115F56P	33 1/3	85	600.2	9	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115F58P	37 1/2	96	677.9	8	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115F60P	40	102	720.3	7.5	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115F62P	41 2/3	107	755.6	7.2	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115F64P	50	128	903.9	6	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115F66P	54	138	974.5	5.6	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115F68P	56 1/4	144	1016.9	5.3	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115F70P	60	150	1059.2	5	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115F72P	62 1/2	150	1059.2	4.8	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115F74P	66 2/3	150	1059.2	4.5	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115F76P	75	150	1059.2	4	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115F78P	80	150	1059.2	3.8	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115F80P	83 1/3	150	1059.2	3.6	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115E82P	100	150	1059.2	3	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115E84P	112 1/2	150	1059.2	2.7	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115E86P	120	150	1059.2	2.5	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4

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LYG42	LYG42115E88P	125	150	1059.2	2.4	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115E90P	150	150	1059.2	2	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115E96P	250	150	1059.2	1.2	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115E98P	300	150	1059.2	1	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4
LYG42	LYG42115F99P	900	150	1059.2	0.3	4	115	3700	4.7	0.39 400 VDC +/-5%	10.2	289.2	1.55	39.4

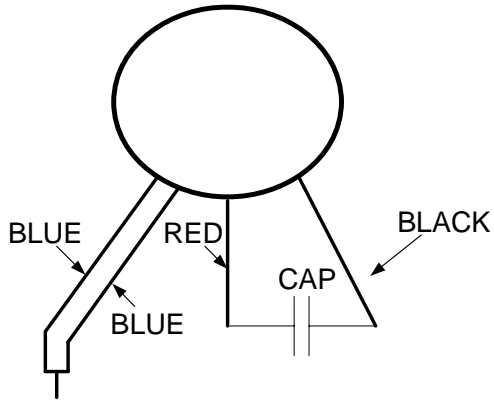
Pear-Shaped Gear:



Round-Shaped Gear:

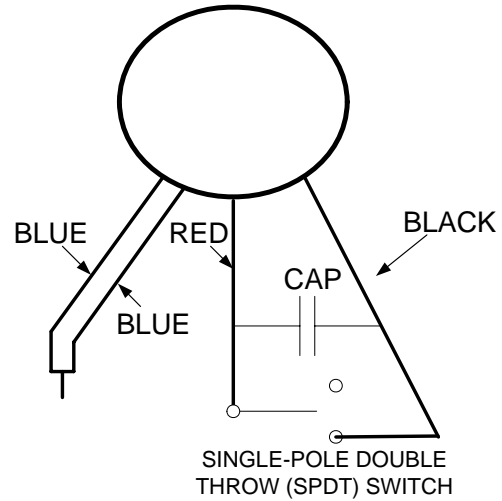


Wiring Diagram



Capacitors are non-polarized and must always be connected between the red and black leads. Always connect the (2) coil blue leads together. Connect the power supply to the blue leads and red lead to produce clockwise (CW) rotation viewing shaft end. Connect the power supply to the blue leads and black lead to produce counter-clockwise (CCW) rotation viewing shaft end.

Optional Wiring Diagram with Switch



Capacitors are non-polarized and must always be connected between the red and black leads. Always connect the (2) coil blue leads together. Connect the power supply to the blue leads and red lead to produce clockwise (CW) rotation viewing shaft end. Connect the power supply to the blue leads and black lead to produce counter-clockwise (CCW) rotation viewing shaft end.