

SYNCHRONOUS MOTOR FAMILY

Series 35mm (LYG35) Geared Synchronous Motor



Frame Size:	35mm
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 (mF _d)	Weight (oz)	Weight (g)	Length (L, in)	Length (L, mm)
LYG35	LYG35115E02P	1 2/3	3	21.2	180	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115E04P	2	3	21.2	150	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115E06P	2 1/12	3	21.2	144	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115E08P	2 1/2	4	28.2	120	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115E10P	3	5	35.3	100	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115E12P	3 1/3	5	35.3	90	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4

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LYG35	LYG35115E16P	4	6	42.4	75	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115E18P	4 1/6	7	49.4	72	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115E20P	5	8	56.5	60	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115E22P	6 1/4	10	70.6	48	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115E24P	7 1/2	12	84.7	40	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115E28P	8 1/3	13	91.8	36	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115E30P	10	16	113	30	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115E34P	12	19	134.2	25	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115E036P	12 1/2	20	141.2	24	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115E38P	13 1/3	21	148.3	22.5	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115E40P	15	24	169.5	20	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115E42P	16	26	183.6	18.8	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115E44P	16 2/3	27	190.7	18	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115F46P	20	29	204.8	15	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115F48P	20 5/6	31	218.9	14.4	2.5	115	6115	5.4	0.254 00 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115F50P	25	37	261.3	12	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115F52P	30	44	310.7	10	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4

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LYG35	LYG35115F54P	31 1/4	46	324.8	9.6	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115F56P	33 1/3	49	346	9	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115F58P	37 1/2	55	388.4	8	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115F60P	40	59	416.6	7.5	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115F62P	41 2/3	61	430.8	7.2	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115F64P	50	74	522.6	6	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115F66P	54	79	557.9	5.6	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115F68P	56 1/4	83	586.1	5.3	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115F70P	60	88	621.4	5	2.5	115	6115	5.4	0.25400 VDC+/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115F72P	62 1/2	92	649.7	4.8	2.5	115	6115	5.4	0.25400 VDC+/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115F74P	66 2/3	98	692	4.5	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115F76P	75	110	776.8	4	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115F78P	80	118	833.3	3.8	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115F80P	83 1/3	123	868.6	3.6	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115E82P	100	120	847.4	3	2.5	115	6115	5.4	0.25400 VDC+/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115E84P	112 1/2	135	953.3	2.7	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115E86P	120	144	1016.9	2.5	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115E88P	125	150	1059.2	2.4	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4

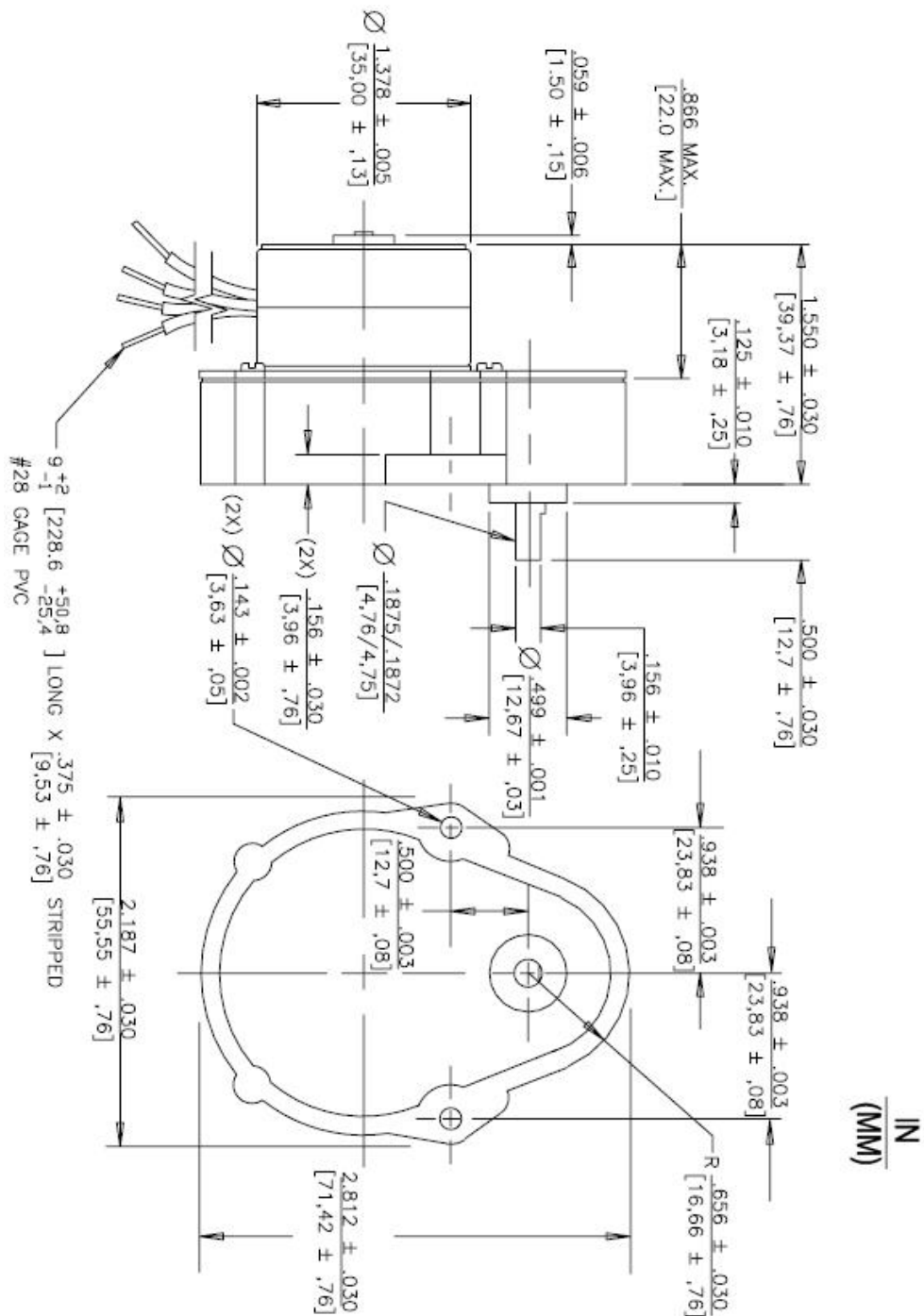
Model	Part Number	Reduction	Minimum Torque (oz-in)	Minimum Torque (mN-m)	Output Speed 60 Hz (RPM)	Input Power (watts)	Nominal Voltage (VAC) 50/60 Hz	Winding Resistance (ohms)	Inductance (mH/phase)	Capacitor Value (mFd)	Weight (oz)	Weight (g)	Length (L, in)	Length (L, mm)
LYG35	LYG35115E90P	150	150	1059.2	2	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115E96P	250	150	1059.2	1.2	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115E98P	300	150	1059.2	1	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115F99P	900	150	1059.2	0.33	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35024F99P	900	150	1059.2	0.33	2.5	24	316	.368	4	9.2	260.8	1.55	39.4

NEW ROUND-SHAPED GEAR MOUNTINGS:

NOTE: ALL LYG35 Models listed have sleeve bearings.

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LYG35	LYG35115ER70	60	88	621.4	5	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115FR52	30	44	310.7	10	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115FR40	15	24	169.5	20	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4
LYG35	LYG35115FR30	10	16	113	30	2.5	115	6115	5.4	0.25 400 VDC +/-5%	9.2	260.8	1.55	39.4

Pear-Shaped Gear:



IN
(MM)

.50 ± .030

1.551 ± .031

.125 ± 0.010

Ø1.378 ± .030

.059

.385 ± .01

**Ø.500 +.000
-.002**

.093 ± .003

**Ø.125 +.000
-.001**

.937 ± .003

Ø 2.125 ± .031

.937 ± .003

.500 ± .003

(2) #6-32-2B

THREAD, .375 DEEP

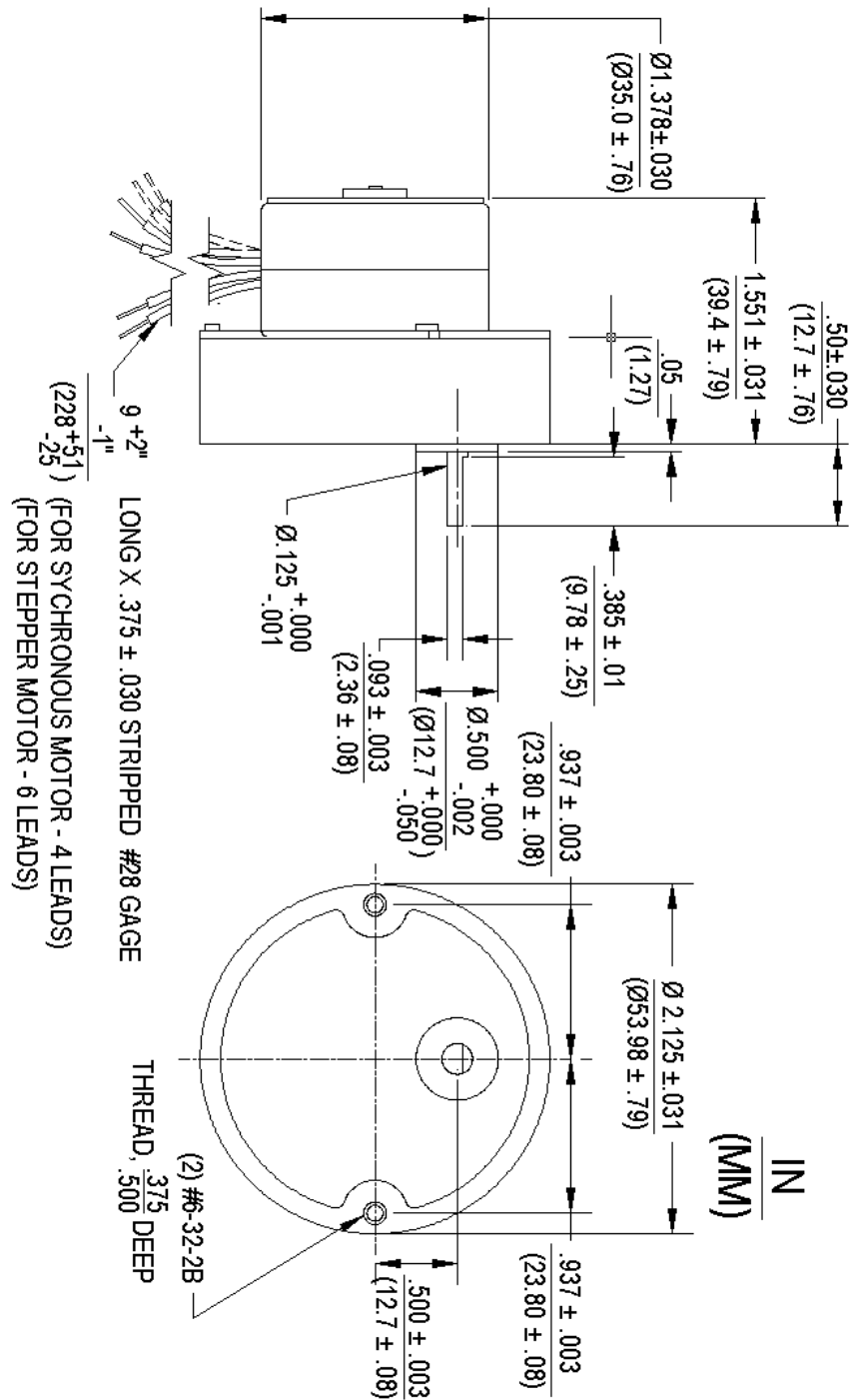
**9+2°
-1"**

LONG X .375 ± .030 STRIPPED #28 GAGE

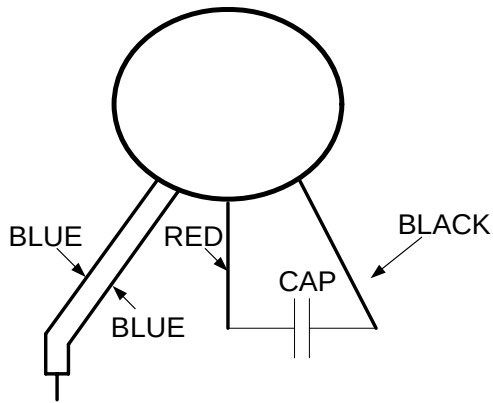
(FOR SYNCHRONOUS MOTOR - 4 LEADS)

Round-Shaped Gear with Ball Bearings:

Note: (Contact Factory if you desire this construction)

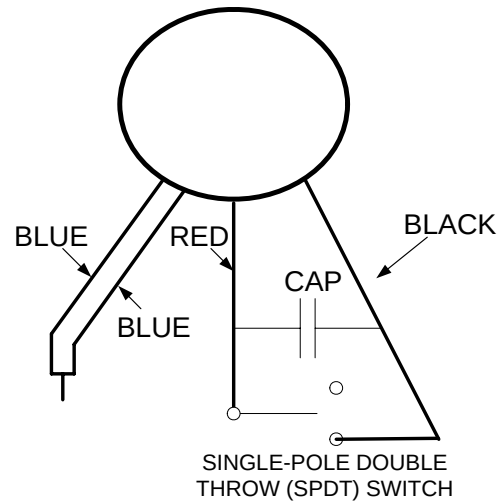


Wiring Diagram



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.