# SYNCHRONOUS MOTOR FAMILY

## Series 55mm (LYD55) Direct Drive Synchronous Motor

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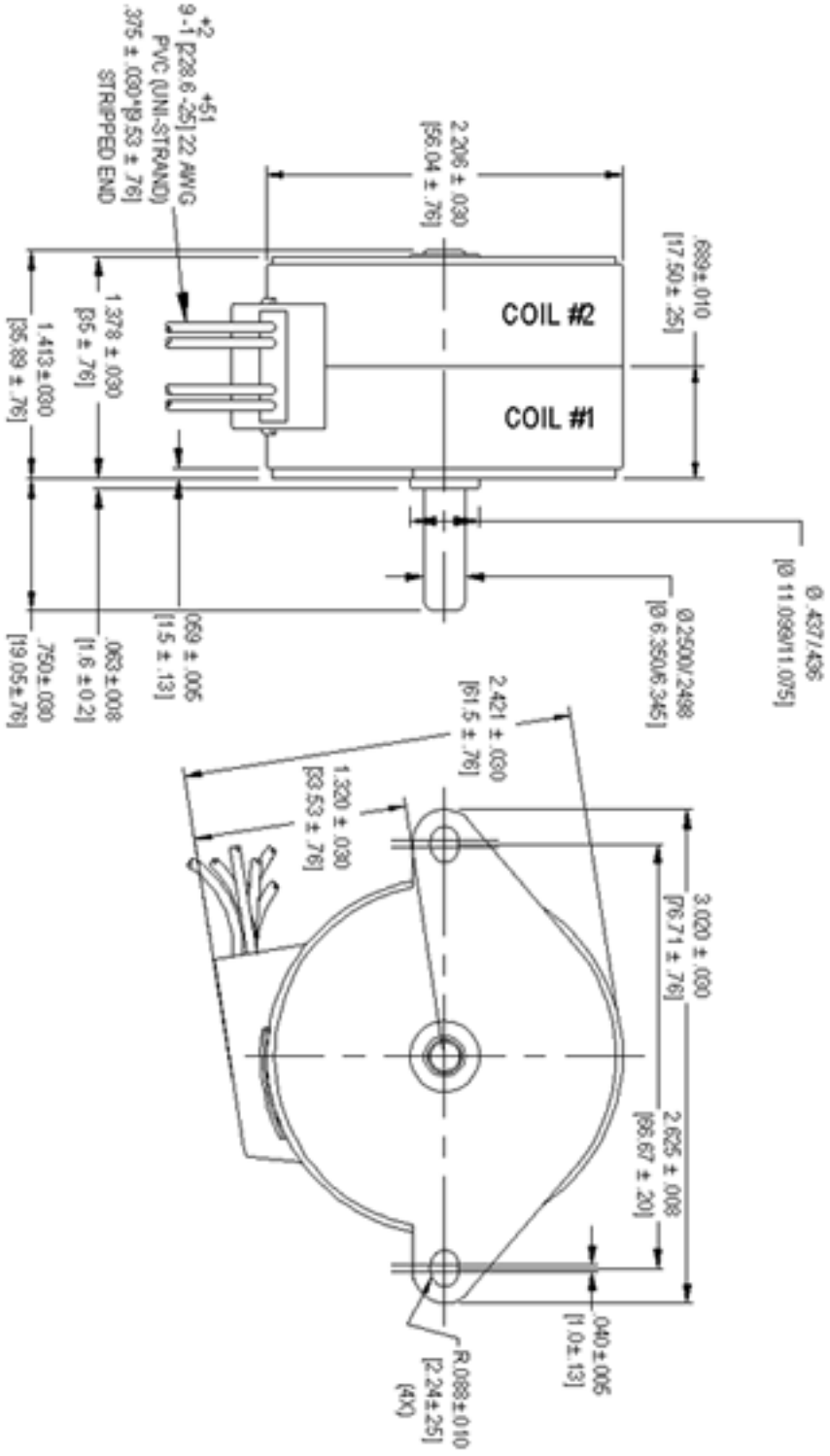
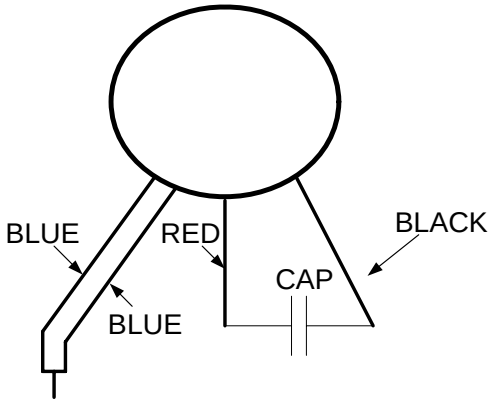
|---|---|
| Frame Size: | 55mm |
| Output Speed: | 250/300 RPM (50/60 Hz respectively) |
| Standard Voltages: | 115/230 Vac & 24 Vac 50/60 Hz |
| Insulation Class: | Class A (105°C) |
| Lead Wire: | 4 leads 22AWG (approx. 9 inches [228.6 mm]) |
| Operation Ambient Temp: | -10°C to +40°C (approx.) |
| Shaft Bearings: | Sleeve bearings |
| UL 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 | |

| Part Number | "SA" P/N REF. | Voltage (Vac) | Minimum Holding Torque (g-cm) | Minimum Holding Torque (oz-in) | Output Speed (RPM) 50Hz | Output Speed (RPM) 60Hz | Capacitor Value (mfd) (50/60 Hz) | Resistance (Ohms/Phase) | Input Watts (W) |
|---|---|---|---|---|---|---|---|---|---|
| LYD55T-024DL | 4001-003 | 24 | 468 | 6.5 | 250 | 300 | 15/12 | 75 | 5 |
| LYD55T-115DL | 4001-001 | 115 | 468 | 6.5 | 250 | 300 | .62/0.5 | 1530 | 5 |
| LYD55T-230DL | | 220/230/240 | 468 | 6.5 | 250 | 300 | .15/.12 | 5997 | 5 |
| LYD55T-024DS | | 24 | 612 | 8.5 | 250 | 300 | 20/15 | 63 | 7 |
| LYD55T-115DS | 4017-001 | 115 | 612 | 8.5 | 250 | 300 | .85/0.68 | 1265 | 7 |
| LYD55T-230DS | | 220/230/240 | 612 | 8.5 | 250 | 300 | .22/.18 | 4960 | 7 |
| LYD55T-024DH | | 24 | 792 | 11 | 250 | 300 | 24/20 | | 9.5 |
| LYD55T-115DH | | 115 | 792 | 11 | 250 | 300 | 1.0/.85 | | 9.5 |
| LYD55T-230DH | | 220/230/240 | 792 | 11 | 250 | 300 | .27/.22 | | 9.5 |

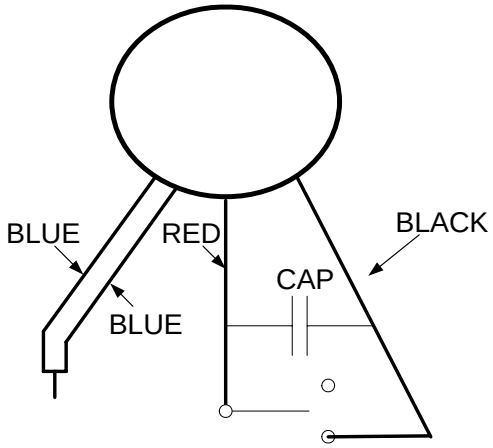

*2
9-1 [228.6 -25] 22 AWG
PVC (UNI-STRAND)
.375 ± .030 [9.53 ± .76]
STRIPPED END
*1
2.206 ± .030
[56.04 ± .76]
.689 ± .010
[17.50 ± .25]
COIL #2
COIL #1
1.378 ± .030
[35 ± .76]
1.413 ± .030
[35.89 ± .76]
Ø .437/.436
[Ø 11.099/11.075]
Ø.2500/.2498
[Ø 6.350/6.345]
.059 ± .005
[1.5 ± .13]
.063 ± .008
[1.6 ± 0.2]
.750 ± .030
[19.05 ± .76]
2.421 ± .030
[61.5 ± .76]
1.320 ± .030
[33.53 ± .76]
3.000 ± .000
[76.71 ± .76]
2.625 ± .008
[66.67 ± .20]
.040 ± .005
[1.0 ± .13]
R.088 ± .010
[2.24 ± .25]
(4X)

## 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




SINGLE-POLE DOUBLE THROW (SPDT) SWITCH

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