

## STEPPING MOTOR FAMILY

### Series 35mm (LSD35) Direct Drive Stepping Motor

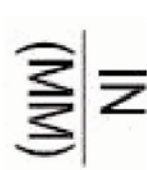


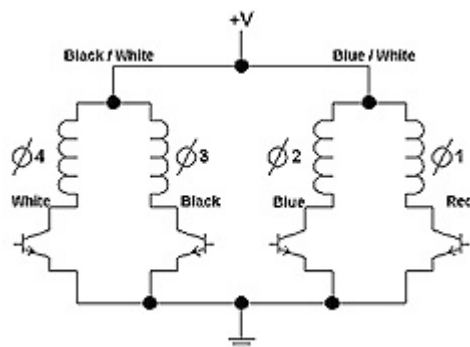
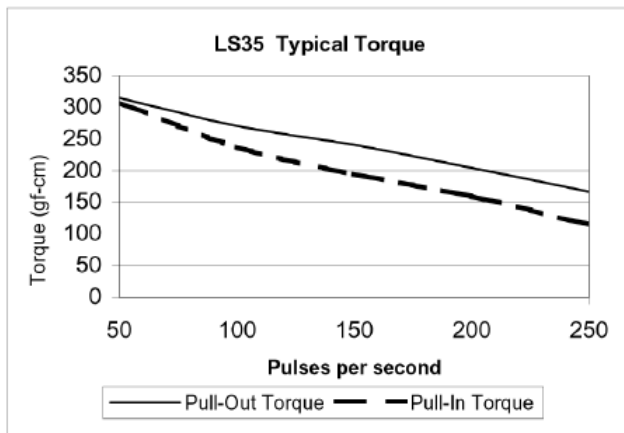
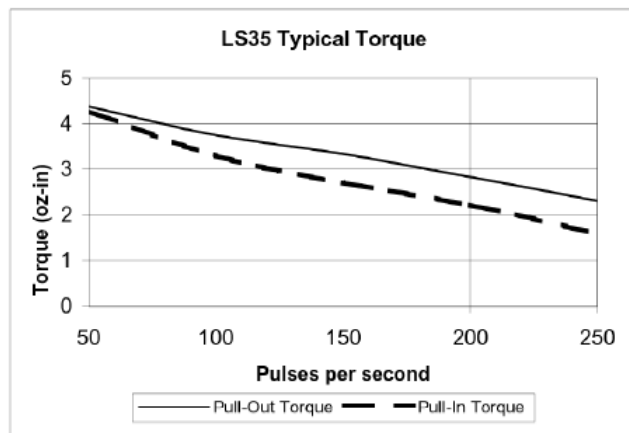
|                                                           |                                             |
|-----------------------------------------------------------|---------------------------------------------|
| Frame Size:                                               | 35mm                                        |
| Step Angle:                                               | 7.5°                                        |
| Steps per Revolution:                                     | 48                                          |
| Position Accuracy:                                        | +/- 5% max.                                 |
| Number of Phases:                                         | 4 phase bifilar                             |
| Insulation Class:                                         | Class A (105°C)                             |
| 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                                   |
| 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<br>G=Geared | 35=35MM<br>42=42MM | 005=5VDC<br>006=6VDC<br>012=12VDC<br>024=24VDC | Gear Options | P=Pear-Shaped Gearbox<br>R=Round Gearbox |

| Model | Part Number | Rated Torque @ 175 p/s (oz-in) | Rated Torque @ 175 p/s (mN-m) | Holding Torque (oz-in) | Holding Torque (mN-m) | Detent Torque (oz-in) | Detent Torque (mN-m) | Output Speed (RPM) | Input Power (watts) | Nominal Voltage (VDC) | Winding Res. (ohms) | Rated Ind. (mh) | Rotor Inertia (oz-in <sup>2</sup> ) | Rotor Inertia (g-cm <sup>2</sup> ) | Case Length (in) | Case Length (mm) | Weight (oz) | Weight (g) |
|-------|-------------|--------------------------------|-------------------------------|------------------------|-----------------------|-----------------------|----------------------|--------------------|---------------------|-----------------------|---------------------|-----------------|-------------------------------------|------------------------------------|------------------|------------------|-------------|------------|
| LSD35 | LSD35005D   | 2.1                            | 14.8                          | 5.8                    | 41                    | 1.8                   | 12.7                 | 300                | 3.2                 | 5                     | 16                  | 6.9             | 0.0372                              | 6.8                                | 0.866            | 22               | 2.9         | 82.2       |
| LSD35 | LSD35006D   | 2.1                            | 14.8                          | 6                      | 42.4                  | 1.8                   | 12.7                 | 300                | 4.2                 | 6                     | 17.5                | 9               | 0.0372                              | 6.8                                | 0.866            | 22               | 2.9         | 82.2       |
| LSD35 | LSD35012D   | 2.1                            | 14.8                          | 6.25                   | 44.1                  | 1.8                   | 12.7                 | 300                | 4.5                 | 12                    | 65                  | 27              | 0.0372                              | 6.8                                | 0.866            | 22               | 2.9         | 82.2       |
| LSD35 | LSD35024D   | 2.1                            | 14.8                          | 6                      | 42.4                  | 1.8                   | 12.7                 | 300                | 4.2                 | 24                    | 280                 | 215             | 0.0372                              | 6.8                                | 0.866            | 22               | 2.9         | 82.2       |





|                   | Ø4<br>White | Ø3<br>Black | Ø2<br>Blue | Ø1<br>Red |                  |
|-------------------|-------------|-------------|------------|-----------|------------------|
| ↑<br>CCW ROTATION | 1           | 0           | 1          | 0         | ↓<br>CW ROTATION |
|                   | 1           | 0           | 0          | 1         |                  |
|                   | 0           | 1           | 0          | 1         |                  |
|                   | 0           | 1           | 1          | 0         |                  |

**1 = ON, 0 = OFF**

**SWITCHING SEQUENCE**