

# 86MC120 Stepper Motor

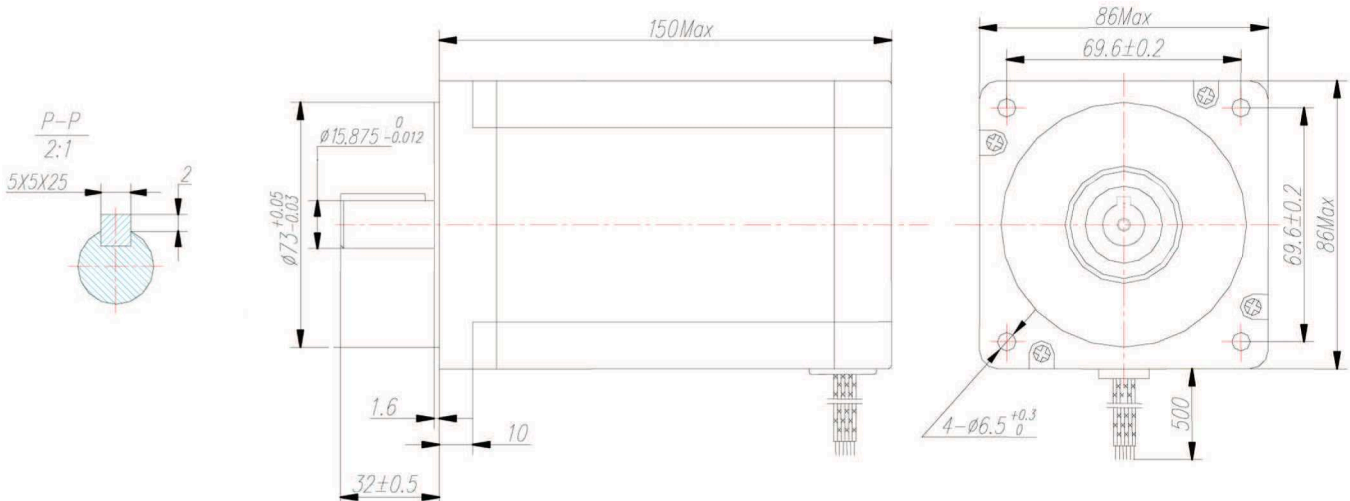
## GENERAL SPECIFICATIONS

| ITEM                  | VALUE                                 |
|-----------------------|---------------------------------------|
| Step Angle            | 1.8 °                                 |
| Step Angle Accuracy   | ± 5% (full step, no load)             |
| Resistance Accuracy   | ± 10%                                 |
| Inductance Accuracy   | ± 20%                                 |
| Temperature Rise      | 80 °C Max.(rated current, 2 phase on) |
| Ambient Temperature   | -20 °C ~ +50 °C                       |
| Insulation Resistance | 100 MΩ Min., 500VDC                   |
| Dielectric Strength   | 820VAC, 1s, 3mA                       |
| Shaft Radial Play     | 0.02 Max. (450 g-load)                |
| Shaft Axial Play      | 0.08 Max. (450 g-load)                |
| Max. Radial Force     | 220 N (20 mm from the flange)         |
| Max. Axial Force      | 60 N                                  |

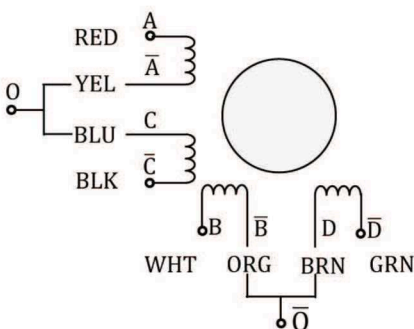
## TECHNICAL SPECIFICATIONS

| MODEL   | WIRE CONNECTION  | CURRENT | RESISTANCE | INDUCTANCE | HOLDING TORQUE | DETENT TORQUE | ROTOR INERTIA     | LEAD WIRE | MASS | LENGTH |
|---------|------------------|---------|------------|------------|----------------|---------------|-------------------|-----------|------|--------|
|         |                  | A/φ     | Ω/φ        | mH/φ       | N.cm           | N.cm          | g.cm <sup>2</sup> | Pin       | Kg   | mm     |
| 86MC120 | Bipolar-Parallel | 5.6     | 0.7        | 9.2        | 1200           | 24.5          | 2500              | 8         | 5.0  | 150    |
|         | Bipolar-Series   | 2.8     | 2.8        | 36.8       | 1200           |               |                   |           |      |        |
|         | Unipolar         | 4.0     | 1.4        | 9.2        | 850            |               |                   |           |      |        |

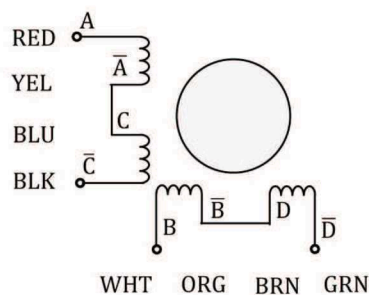
## MECHANICAL DIMENSION



Wiring Diagram (unipolar)



Wiring Diagram (bipolar-series)



Wiring Diagram (bipolar-parallel)

