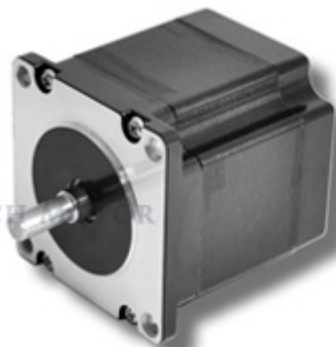


# 1.8°Size 23(57mm)

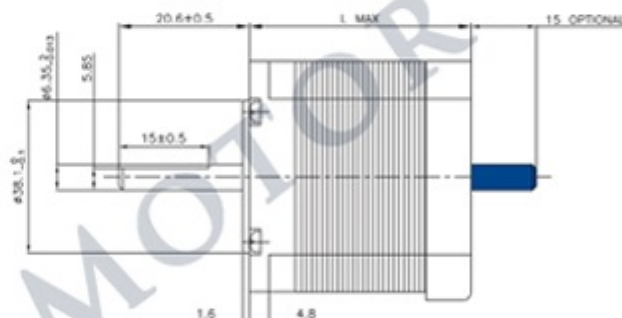
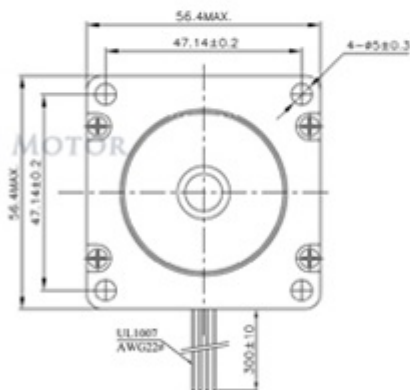


**Bipolar**

| Item                  | Specifications                |
|-----------------------|-------------------------------|
| Step Angle            | 1.8°                          |
| Step Angle Accuracy   | 1.8° ±5% (full step, no load) |
| Resistance Accuracy   | ±10%                          |
| Inductance Accuracy   | ±20%                          |
| Temperature Rise      | 85°C Max. (2 phase on)        |
| Ambient Temperature   | -20°C~+50°C                   |
| Insulation Resistance | 100MΩMin. , 500VDC            |
| Dielectric Strength   | 500VAC for one minute         |
| Shaft Radial Play     | 0.02Max. (450 g-load)         |
| Shaft Axial Play      | 0.08Max. (450 g-load)         |
| Max. radial force     | 75N (20mm from the flange)    |
| Max. axial force      | 15N                           |

| Dimension<br>"L" Max | Model #    | Rated<br>Current<br>(Amps/Phase) | Holding<br>Torque<br>(oz.in) | Holding<br>Torque<br>(kg.cm) | Resistance<br>(Ohms/Phase) | Inductance<br>(mH/Phase) | Inertia<br>(g.cm²) | Detent<br>Torque<br>(g.cm) | Weight<br>(kg) |
|----------------------|------------|----------------------------------|------------------------------|------------------------------|----------------------------|--------------------------|--------------------|----------------------------|----------------|
| 41.0mm<br>(1.62")    | 2301HS200A | 2.00                             | 84.0                         | 6.0                          | 1.10                       | 3.4                      | 120                | 210                        | 0.45           |
|                      | 2301HS280A | 2.80                             | 84.0                         | 6.0                          | 0.70                       | 1.4                      |                    |                            |                |
| 51.0mm<br>(2.00")    | 2302HS200A | 2.00                             | 160.0                        | 11.5                         | 1.40                       | 5.1                      | 275                | 360                        | 0.65           |
|                      | 2302HS280A | 2.80                             | 160.0                        | 11.5                         | 0.83                       | 2.2                      |                    |                            |                |
| 56.0mm<br>(2.20")    | 2303HS200A | 2.00                             | 175.0                        | 12.6                         | 1.40                       | 5.1                      | 300                | 400                        | 0.72           |
|                      | 2303HS280A | 2.80                             | 175.0                        | 12.6                         | 0.90                       | 2.5                      |                    |                            |                |
| 65.0mm<br>(2.56")    | 2304HS250A | 2.50                             | 223.0                        | 16.0                         | 2.00                       | 7.6                      | 340                | 400                        | 0.85           |
| 77.0mm<br>(3.03")    | 2305HS280A | 2.80                             | 265.0                        | 19.1                         | 1.13                       | 3.6                      | 480                | 680                        | 1.00           |

## DIMENSIONS (STANDARD WIRE MOTOR)



## DIMENSIONS (INTEGRAL CONNECTOR)

\* Only for Current smaller or equal to 2.0A/phase

