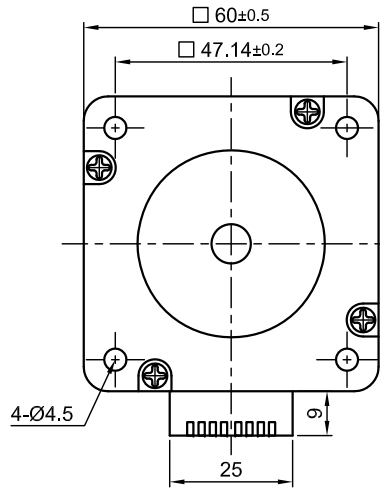
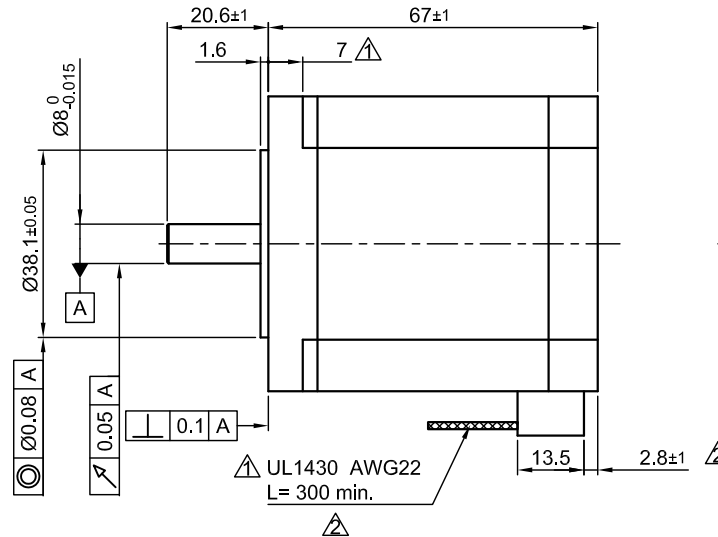


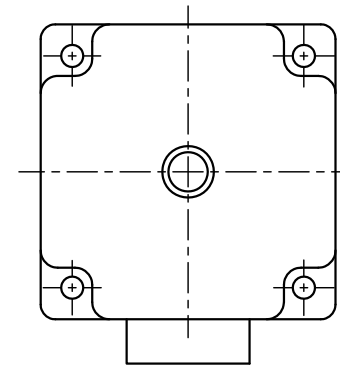
Front view and mounting



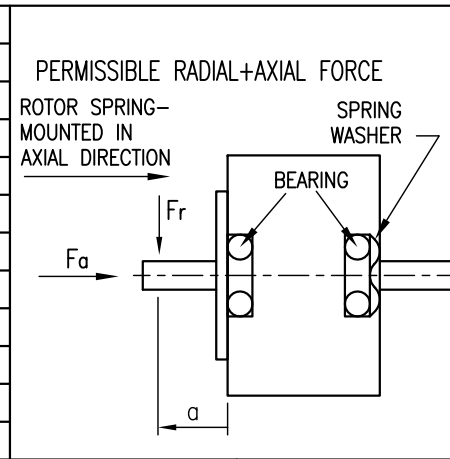
Side view



Rear view



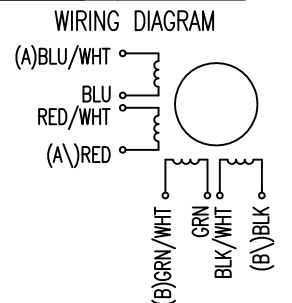
| SPECIFICATION  | CONNECTION | UNIPOLAR OR<br>BIPOLAR-1 WINDING | BIPOLAR      |              |
|--|------------|----------------------------------|--------------|--------------|
|  |            |                                  | SERIAL       | PARALLEL     |
| VOLTAGE (VDC)  |            | 4.8                              |              |              |
| AMPS/PHASE   |            | 2.0                              | 1.41         | 2.82         |
| RESISTANCE/PHASE (Ohms)@25°C                             |            | 2.4±15%                          | 4.8±15%      | 1.2±15%      |
| INDUCTANCE/PHASE (mH) @1KHz                              |            | 4.6±20%                          | 18.4±20%     | 4.6±20%      |
| HOLDING TORQUE (Nm) [lb-in]                              |            | 1.5 [13.28]                      | 2.12 [18.76] | 2.12 [18.76] |
| DETENT TORQUE (Nm) [lb-in]                               |            | 0.045 [0.398]                    |              |              |
| STEP ANGLE (°)   |            | 1.8                              |              |              |
| STEP ACCURACY (NON-ACCUM)                                |            | ±5%                              |              |              |
| ROTOR INERTIA (Kg-m <sup>2</sup> ) [lb-in <sup>2</sup> ] |            | 5.7x10 <sup>-5</sup> [0.195]     |              |              |
| WEIGHT (Kg) [lb]   |            | 1.2 [2.65]                       |              |              |



| TYPE OF CONNECTION (EXTERN) |          |        |          | MOTOR   |         |
|-----------------------------|----------|--------|----------|---------|---------|
| UNIPOLAR                    | BIPOLAR  |        |          | LEADS   | WINDING |
|                             | 1WINDING | SERIAL | PARALLEL |         |         |
| A                           | A        | A      | A        | BLU/WHT | A       |
| COM                         |          |        |          | BLU     |         |
| A\                          | A\       | A\     | A\       | RED/WHT | A\      |
| B                           | B        | B      | B        | RED     |         |
| COM                         |          |        |          | GRN/WHT | B       |
| B\                          | B\       | B\     | B\       | GRN     |         |
|                             |          |        |          | BLK/WHT | B\      |
|                             |          |        |          | BLK     |         |

FULL STEP 2 PHASE-Ex.,  
WHEN FACING MOUNTING END (X)

| STEP | A | B | A\ | B\ | CCW | CW |
|------|---|---|----|----|-----|----|
| 1    | + | + | -  | -  | ↓   | ↑  |
| 2    | - | + | +  | -  | ↑   | ↓  |
| 3    | - | - | +  | +  | ↓   | ↑  |
| 4    | + | - | -  | +  | ↑   | ↓  |



| TEMPERATURE RISE: MAX.80°C (MOTOR STANDSTILL; FOR 2 PHASE ENERGIZED)               | AXIAL-FORCE Fa (N)  | Fa=14 |     |        |    |
|--|---------------------|-------|-----|--------|----|
| AMBIENT TEMPERATURE -10~ 50°C [14°F ~ 122°F]                                       | DISTANCE a (mm)     | 5     | 10  | 15     | 20 |
| INSULATION RESISTANCE 100 MOhm (UNDER NORMAL TEMPERATURE AND HUMIDITY)             | RADIAL-FORCE Fr (N) | 163   | 112 | 85     | 63 |
| INSULATION CLASS B 130° [266°F]  |                     | AXIAL |     | RADIAL |    |
| DIELECTRIC STRENGTH 500VAC FOR 1 MIN. (BETWEEN THE MOTOR COILS AND THE MOTOR CASE) | SHAFT PLAY (mm)     | 0.075 |     | 0.025  |    |
| AMBIENT HUMIDITY MAX. 85% (NO CONDENSATION)  | AT LOAD MAX: (N)    | 10    |     | 5.0    |    |

|     |                               |          |      |                                       |  |                                  |           |              |          |                       |
|-----|-------------------------------|----------|------|---------------------------------------|--|----------------------------------|-----------|--------------|----------|-----------------------|
|     |                               |          |      | <b>Nanotec</b><br>PLUG & DRIVE        |  |                                  | APVD      | <i>S.Ha.</i> | 16.01.07 | <b>STEPPING MOTOR</b> |
| 2   | change tol. cable/rework draw | 09.03.16 | A.S. | Surface specification<br>DIN ISO 1302 | General tolerances<br>DIN ISO 2768- cH | Work piece edge<br>DIN ISO 13715 | CHKD      |              |          |                       |
| 1   | LENGTH+UL NO.                 | 04.08.09 | J.W. |                                       |  |                                  | DRN       | <i>J.W.</i>  | 13.07.06 | DWG.NO                |
| REV | DESCRIPTION                   | DATE     | DRN  |                                       |  |                                  | SIGNATURE |              | DATE     | ST6018K2008-A         |