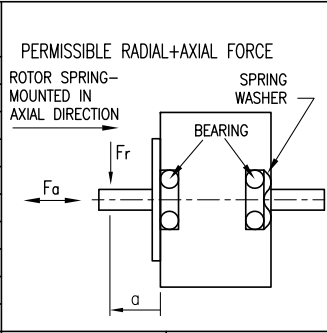


| SPECIFICATION  | CONNECTION | BIPOLAR  |
|--|------------|--|
| VOLTAGE (VDC)  |            | 2.8  |
| AMPS/PHASE   |            | 1.4  |
| RESISTANCE/PHASE (Ohms)@25°C                             |            | 2.0±15%  |
| INDUCTANCE/PHASE (mH) @1KHz                              |            | 3.6±20%  |
| HOLDING TORQUE (Nm) [lb-in]                              |            | 0.2 [1.77]                                     |
| DETENT TORQUE (Nm) [lb-in]                               |            | 5.9x10 <sup>-3</sup> [5.222x10 <sup>-2</sup> ] |
| STEP ANGLE (°)   |            | 1.8  |
| STEP ACCURACY (NON-ACCUM)                                |            | ±5%  |
| ROTOR INERTIA (Kg-m <sup>2</sup> ) [lb-in <sup>2</sup> ] |            | 3.8x10 <sup>-6</sup> [1.3x10 <sup>-2</sup> ]   |
| WEIGHT (Kg) [lb]   |            | 0.2 [0.44]                                     |

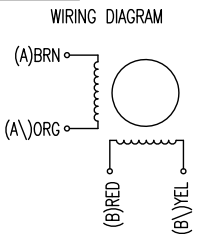


| AXIAL-FORCE Fa (N)  | Fa=7  |        |    |    |
|---------------------|-------|--------|----|----|
| DISTANCE a (mm)     | 5     | 10     | 15 | 20 |
| RADIAL-FORCE Fr (N) | 58    | 36     | 26 | 20 |
|                     | AXIAL | RADIAL |    |    |
| SHAFT PLAY (mm)     | 0.9 * | 0.02   |    |    |
| AT LOAD MAX: (N)    | 90 *  | 4.5    |    |    |

| TYPE OF CONNECTION (EXTERN) | MOTOR   |       |         |
|-----------------------------|---------|-------|---------|
|                             | BIPOLAR | LEADS | WINDING |
| PIN NO                      |         |       |         |
| 1                           | A —     | BRN   | A —     |
| 2                           | A \ —   | ORG   | A \ —   |
| 3                           | B —     | RED   | B —     |
| 4                           | B \ —   | YEL   | B \ —   |

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

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



|     |             |      |      |   |            |      |          |                      |                                 |
|-----|-------------|------|------|---|------------|------|----------|----------------------|---------------------------------|
|     |             |      |      | <br><b>Nanotec</b> <sup>®</sup><br>PLUG & DRIVE | SCALE FREE | APVD | S.R.     | 25.10.10             | <b>STEPPING MOTOR</b><br>DWG.NO |
|     |             |      |      |   | X ±0.5     | CHKD |          |                      |                                 |
|     |             |      |      | 1PL ±0.2  | DRN        | J.W. | 25.10.10 | LS4118S1404-T6x2-150 |                                 |
| REV | DESCRIPTION | DATE | APVD | 2PL ±0.1  | SIGNATURE  |      | DATE     |                      | LS4118S1404-T6x2-150            |
|     |             |      |      | ANGLE ±30'                                      |            |      |          |                      |                                 |