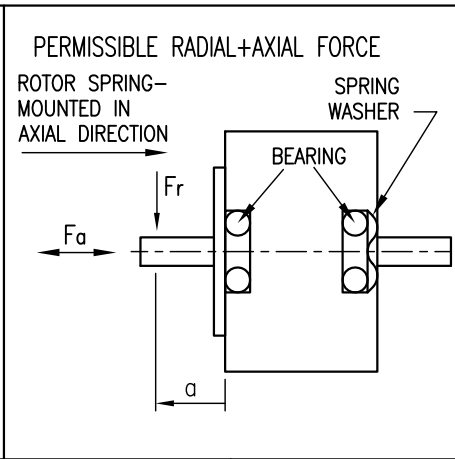


| SPECIFICATION | CONNECTION | BIPOLAR PARALLEL |
|--|------------|------------------------------|
| VOLTAGE (VDC) | | 3.15 |
| AMPS/PHASE | | 1.8 |
| RESISTANCE/PHASE (Ohms)@25°C | | 1.75±10% |
| INDUCTANCE/PHASE (mH) @1KHz | | 3.3±20% |
| HOLDING TORQUE (Nm) [lb-in] | | 0.5 [4.425] |
| DETENT TORQUE (Nm) [lb-in] | | 0.022 [0.1946] |
| STEP ANGLE (°) ± ACCURACY | | 1.8±5% (NON-ACCUM) |
| BACK-EMF (V) (300 RPM) | | 6.9 |
| ROTOR INERTIA (Kg-m ²) [lb-in ²] | | 8.2x10 ⁻⁶ [0.028] |
| WEIGHT (Kg) [lb] | | 0.42 [0.95] |

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

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



| M12-5 POLE MOTOR | |
|------------------|------------|
| PIN. NO. | ASSIGNMENT |
| 1 | A\ |
| 2 | A |
| 3 | B |
| 4 | B\ |
| 5 | HOUSING |

| BRAKE CONNECTOR M8 | |
|--------------------|------------|
| PIN. NO. | ASSIGNMENT |
| 1 | BRAKE +24V |
| 3 | BRAKE/GND |
| 4 | NC |

| M12-8 POLE ENCODER | |
|--------------------|---------------|
| PIN. NO. | ASSIGNMENT |
| 1 | A |
| 2 | A\ |
| 3 | B |
| 4 | B\ |
| 5 | GND |
| 6 | I\ |
| 7 | I |
| 8 | Vcc (24V) |
| HOUSING | GND/SHIELDING |

| TEMPERATURE RISE: MAX.80°C (MOTOR STANDSTILL; FOR 2 PHASE ENERGIZED) | AXIAL-FORCE Fa (N) | Fa=15 |
|--|---------------------|-------------------|
| 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) | 58 36 26 20 |
| 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) | 0.08 0.02 |
| AMBIENT HUMIDITY MAX. 85% (NO CONDENSATION) | AT LOAD MAX: (N) | 4.5 4.5 |

CABLE MOTOR:
ZK-M12-5-2m(5m)
STRAIGHT OR 90°
ANGLED

CABLE ENCODER:
ZK-M12-8-2m(5m)
STRAIGHT OR 90°
ANGLED

| | | | | | | | | | |
|-----|---------------------------|----------|------|--------------------------------|------------|-----------|------|----------|------------------------------------|
| 2 | changed PIN assignment M8 | 07.01.16 | A.S. | Nanotec PLUG & DRIVE | SCALE FREE | APVD | S.G. | 14.02.14 | STEPPER MOTOR IN PROTECTION |
| 1 | M3 DEPTH + M12 HEIGHT | 25.08.14 | J.D. | | X ±0.5 | CHKD | | | |
| A | Add blue varnish | 24.04.14 | B.L. | | 1PL ±0.2 | DRN | GYQ | 14.02.14 | DWG.NO |
| REV | DESCRIPTION | DATE | DRN | | 2PL ±0.1 | SIGNATURE | | DATE | AS4118L1804-ENM24B |
| | | | | ANGLE ±30' | | | | | |