| SPECIFICATIONS:                            |   |  |  |  |
|--|---|--|--|--|
| STEPS PER REVOLUTION: 200                  | ROTOR INERTIA: 123 G-CM <sup>2</sup> (0.670Z-IN <sup>2</sup> )REF |  |  |  |
| STEP ANGLE: 1.8°                           | DETENT TORQUE: 25 mNm (3.540Z-IN) MIN                             |  |  |  |
| STEP TO STEP ACCURACY: ±.09 DEGREES 1, 2   | INSULATION CLASS: B   |  |  |  |
| POSITIONAL ACCURACY: ±.09 DEGREES 1,3      | BEARINGS: ABEC 3 , DOUBLE SHIELDED                                |  |  |  |
| HYSTERESIS: - %                            | WEIGHT: 600 G (21.1 OZ) APPROXIMATE                               |  |  |  |
| SHAFT RUNOUT: 0.03 T.I.R.                  | TEMP. RISE: 80 °C MAX.  |  |  |  |
| RADIAL PLAY: 0.02 MAX W/A .5KG RADIAL LOAD | OPERATING TEMP. RANGE: -20 TO +50 °C                              |  |  |  |
| END PLAY: 0.08 MAX W/A .5KG AXIAL LOAD     | STORAGE TEMP. RANGE: -30 TO +70 °C                                |  |  |  |
| SHAFT DYNAMIC AXIAL LOAD: 10N MAX          | RELATIVE HUMIDITY RANGE: 15 TO 85 %                               |  |  |  |
| SHAFT DYNAMIC RADIAL LOAD: 21N MAX         |   |  |  |  |

| $\alpha$       |
|----------------|
| $\tilde{\sim}$ |
| Ō              |
|                |
| خ              |
| _              |
| ⊱              |
| H              |
|                |

|         | REVISIONS |                  |               |          |  |  |  |  |
|---------|-----------|------------------|---------------|----------|--|--|--|--|
| ECO NO. | REV       | DESCRIPTION      | DATE APPROVED |          |  |  |  |  |
| 6517    | Α         | INITIAL RELEASE  | 5/8/12        | J Kordik |  |  |  |  |
| 6625    | В         | ADD SPECS        | 3/5/13        | J Kordik |  |  |  |  |
| 7247    | С         | ADD UL TO LABEL  | 1/26/16       | J Kordik |  |  |  |  |
| 7446    | D         | REVISE NOTE 10   | 1/26/16       | J Kordik |  |  |  |  |
| 8209    | Ε         | DOCUMENT CLEANUP | 4/29/19       | J Kordik |  |  |  |  |
|         |           |                  |               |          |  |  |  |  |
|         |           |                  |               |          |  |  |  |  |

7

| SPECIFICATION     | NUMBER | RESISTANCE | INDUCTANCE | RATED   | HOLDING |   |
|-------------------|--------|------------|------------|---------|---------|---|
|                   | OF     | PER PHASE  | PER PHASE  | CURRENT | TORQUE  |   |
| CONNECTION        | PHASE  | OHM ±10%   | mH ±20%    | Amp     | N.m Min | 1 |
| BI-POLAR SERIES   | 2      | 6.4        | 12         | 1.0     | 0.80    |   |
| BI-POLAR PARALLEL | 2      | 1.6        | 3.0        | 2.0     | 0.80    |   |
| UNI-POLAR         | 4      | 3.2        | 3.0        | 1.4     | 0.56    |   |

## NOTES, UNLESS OTHERWISE SPECIFIED:

- 1 MEASUREMENTS MADE AT RATED CURRENT IN EACH PHASE.
- 2 BETWEEN ANY TWO ADJACENT STEP POSITIONS.
- 3 MAXIMUM ERROR IN 360°.

CW

- 4. HIPOT 500 VAC, 60 Hz FOR ONE MINUTE.
- 5. LEADS: 8, 26 AWG, 7 STRAND MIN., UL AND CSA APPROVED, UL 1430 OR UL 3265.
- 6. INSULATION RESISTANCE: 100 MEGOHMS MIN AT 500 VDC.
- 7 AS MEASURED USING AN A.C. INDUCTANCE BRIDGE, AT 1KHz.
- 8 AS MEASURED BY THE CHANGE IN RESISTANCE METHOD, WITH RATED VOLTAGE APPLIED TO 2 PHASES; WITH MOTOR AT REST.
- 9 SHAFT OPTION: IF DOUBLE SHAFT REQUIRED ADD "D" TO END OF PART NUMBER, DOUBLE SHAFT REQUIRES ADDED HOLES FOR ENCODER OPTIONS.
- 10. THIS MOTOR IS MANUFACTURED IN COMPLIANCE WITH THE CURRENT EU ROHS DIRECTIVE.
- [1] MOTOR LABEL TO INCLUDE "ROHS" COMPLIANT, 'MADE IN (COUNTRY OF ORIGIN)' AND DATE CODE.

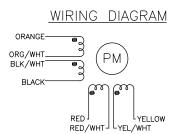
CCW

## APPLIED MOTION INC. HT17-278 XX-XX SERIES - 1.04/6.4 OHM PARALLEL - 2.04/1.6 OHM HOLDING TORQUE - 0.80 N.m ROHS MADE IN X RATED AMBIENT TEMP:50°C INSULATION CLASS B www.applied-motion.com

DRIVE SEQUENCE MODEL BI-POLAR FULL STEP

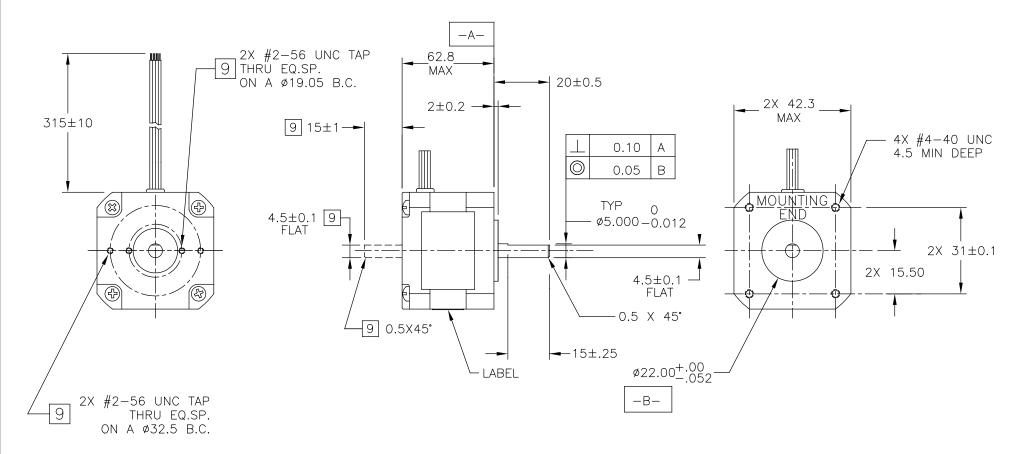
| STEP | ORANGE &<br>BLK/WHT | BLACK & ORG/WHT | RED &<br>YEL/WHT | YELLOW &<br>RED/WHT |
|------|---------------------|-----------------|------------------|---------------------|
| 1    | +                   | _               | +                | _                   |
| 2    | _                   | +               | +                | _                   |
| 3    | _                   | +               | _                | +                   |
| 4    | +                   | _               | _                | +                   |

CW(CLOCKWISE) AND CCW(COUNTER-CLOCKWISE) ROTATION WHEN SEEN FROM THE FLANGE SIDE OF THE MOTOR



| CONTRACT NO.     |        |                    |              |           | APPLIED<br>MOTION<br>PRODUCTS, | INC.         |     |  |
|------------------|--------|--------------------|--------------|-----------|--------------------------------|--------------|-----|--|
| APPROVALS        | DATE   |                    |              |           |                                |              |     |  |
| DRAWN<br>R.JONEZ | 5/7/12 | STEP MOTOR OUTLINE |              |           |                                |              |     |  |
| CHECKED          |        |                    |              |           |                                |              |     |  |
|                  |        | D                  | COMPL        | JTER DATA | DWG NO.                        |              | REV |  |
| APPROVED         |        | D                  | BASE DRAWING |           | HT17-278                       |              |     |  |
| APPROVED         |        | SCALE: NONE        |              |           |                                | SHEET 1 OF 2 |     |  |

## MOTOR DRAWING



| TOLERANCES  | THIRD ANGLE P         | ROJECTION |                    |         |   |              |
|---|-----------------------|-----------|--------------------|---------|---|--------------|
| DECIMALS: MM (INCH)<br>X.XXX= ±0.013(.005)                    | <del></del>           |           |                    |         | APPLIED<br>MOTION<br>PRODUCTS, INC.           |              |
| $X.XX = \pm 0.25  (.01)$<br>$X.X = \pm 2.5  (0.1)$<br>ANGLES: | APPROVALS             | DATE      | STEP MOTOR OUTLINE |         |   | INE          |
| $MACH. = \pm .5^{\circ}$                                      | DRAWN R.JONEZ CHECKED | 5/7/12    | D                  | DWG NO. | T. N. ONG                                     | REV          |
| COMPUTER DATA BASE DRAWING                                    | APPROVED              |           | SCALE:             |         | $\frac{\Gamma 17 - 278}{\text{SHEET 2 OF 2}}$ | <u>    E</u> |

## **Mouser Electronics**

**Authorized Distributor** 

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Applied Motion: HT17-278D