

| SPECIFICATIONS: | |
|---|--|
| STEPS PER REVOLUTION: 200 | ROTOR INERTIA: 35.0 G-CM ² (0.19 OZ-IN ²) REF |
| STEP ANGLE: 1.8° | HOLDING TORQUE: 1.6KG-CM (22.2 OZ-IN)MIN ¹ |
| STEP TO STEP ACCURACY: ±5 % ¹ , ² | DETENT TORQUE: 36 G-CM (0.5 OZ-IN) MIN |
| POSITIONAL ACCURACY: ±5 % ¹ , ³ | |
| HYSTERESIS: - % | INSULATION CLASS: B |
| WINDING RESISTANCE: 4.2 OHM ±10% AT 25° ⁷ | BEARINGS: ABEC 3, DOUBLE SHIELDED |
| WINDING INDUCTANCE: 2.8 mH ± 20% ⁸ | WIEGHT: 200 G (7.0 OZ) APPROXIMATE |
| PHASE VOLTAGE: 4.0 VDC | TEMP. RISE: 80°C MAX. ⁹ |
| PHASE CURRENT: .95 AMP (RATED) | OPERATING TEMP. RANGE: -10 TO 40 °C |
| | STORAGE TEMP. RANGE: -40 TO 70 °C |
| SHAFT RUNOUT: 0.013 T.I.R. | RELATIVE HUMIDITY RANGE: 5 TO 95 % |
| RADIAL PLAY: 0.025 MAX WITH .5KG RADIAL LOAD. | |
| END PLAY: 0.075 MAX WITH 1.0KG AXIAL LOAD. | |

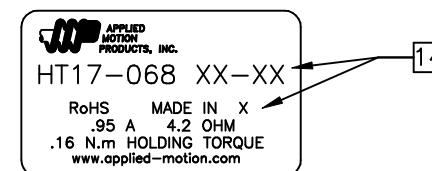
HT17-068

| REVISIONS | | | | |
|-----------|-----|--------------------------|----------|--------------|
| ECO NO. | REV | DESCRIPTION | DATE | APPROVED |
| 3847 | A | INITIAL RELEASE | 2-16-94 | K. Kordik |
| 3930 | B | ADD HT17-068P NOTE | 5-25-95 | K. Kordik |
| 5000 | C | ADD "17HT33D" NOTATION | | |
| 5235 | D | ADD EU COMPLIANCE NOTES | 8/25/05 | R. Hazelwood |
| 5251 | E | Chg HT17-068P to 17HT33P | 22/11/05 | R. Hazelwood |
| 6018 | F | ADD MECH DATA | 10/29/09 | J. Kordik |
| 6042 | G | REVISE ENCODER HOLES | 12/23/09 | J. Kordik |
| 6082 | H | ADD ENCODER HOLES | 3/3/10 | J. Kordik |
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NOTES, UNLESS OTHERWISE SPECIFIED:

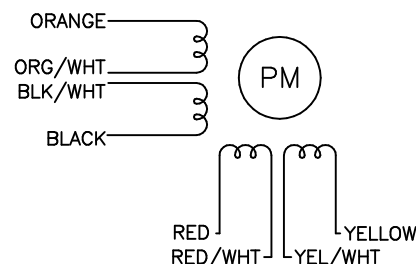
- ¹ MEASURMENTS MADE AT RATED CURRENT IN EACH PHASE.
- ² BETWEEN ANY TWO ADJACENT STEP POSITIONS.
- ³ MAXIMUM ERROR IN 360°.
4. HIPOT 500 VAC FOR ONE MINUTE.
- ⁵ LEADS: 8 ,AWG 26,7 STRAND MIN.,UL AND CSA APPROVED, UL 3265.
6. INSULATION RESISTANCE: 100 MEGOHMS MIN AT 500 VDC.
- ⁷ AS MEASURED ACROSS ANY WINDING.
- ⁸ AS MEASURED ACROSS ANY WINDING USING AN A.C. INDUCTANCE BRIDGE (1 KHz).
- ⁹ AS MEASURED BY THE CHANGE IN RESISTANCE METHOD, WITH RATED VOLTAGE APPLIED TO 2 PHASES; WITH MOTOR AT REST.
10. HIGH TORQUE MOTOR DESIGN.
11. ROTOR & STATOR LAMINATION MATERIAL: 0.5mm thk, SEE AMP STD SPEC #1500-062.
- ¹² IF DOUBLE SHAFT IS REQUIRED, ADD "D" TO END OF PART NUMBER.
13. THIS MOTOR TO BE MANUFACTURED IN COMPLIANCE WITH EU DIRECTIVE "ROHS 2002/95/EC".
- ¹⁴ MOTOR LABEL TO INCLUDE "ROHS" COMPLIANT, 'MADE IN (COUNTRY OF ORIGIN)' AND DATE CODE.

LABEL DETAIL



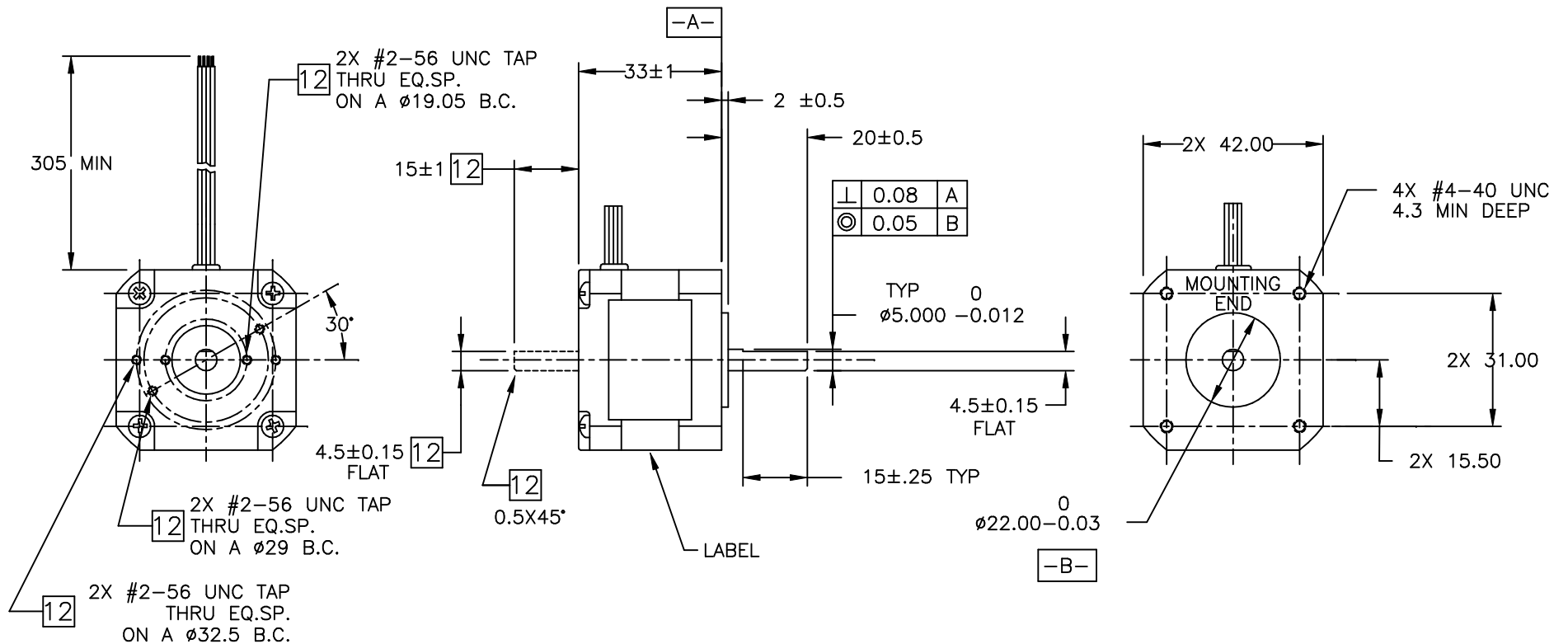
SWITCHING SEQUENCE FOR CW ROTATION
FACING MOUNTING END


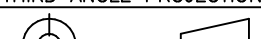
| STEP | ORANGE | BLACK | RED | YELLOW |
|------|--------|-------|-----|--------|
| 0 | + | - | + | - |
| 1 | - | + | + | - |
| 2 | - | + | - | + |
| 3 | + | - | - | + |
| 4 | + | - | + | - |



| | | | | |
|--------------------|---------|-------------------------------|-------------------------------|---------------------------|
| CONTRACT NO. CAT | | APPLIED MOTION PRODUCTS, INC. | | |
| APPROVALS | DATE | STEP MOTOR OUTLINE | | |
| DRAWN R. BARRICK | 1/10/94 | | | |
| CHECKED B. Corser | 2/16/94 | | | |
| APPROVED K. Kordik | 2/16/94 | | | |
| APPROVED | | B | COMPUTER DATA BASE DRAWING | DWG NO. HT17-068 REV H |
| SCALE: FULL | | SHEET 1 OF 2 | | |

MOTOR DRAWING



| TOLERANCES | | THIRD ANGLE PROJECTION | |  APPLIED MOTION PRODUCTS, INC. | | |
|---|--|---|----------|---|---------------------|--------------|
| DECIMALS: MM (INCH) X.XXX= ± (.005) X.XX = ±0.13 (.010) X.X = ±0.25 (.020) ANGLES: MACH. = ±.5° CHAM. = ±5° | |  | | STEP MOTOR OUTLINE | | |
| | | APPROVALS | DATE | | | |
| COMPUTER DATA BASE DRAWING | | DRAWN <i>R. JONEZ</i> CHECKED | 10/22/09 | B | DWG NO. HT17-068 | REV H |
| | | APPROVED | | | SCALE: NONE | SHEET 2 OF 2 |