

SPECIFICATIONS:

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| STEPS PER REVOLUTION: 200 | ROTOR INERTIA: 260 G-CM ² (1.42 OZ-IN ²) REF |
| STEP ANGLE: 1.8° | HOLDING TORQUE: 0.87 N-m (123.2 OZ-IN) MIN [1] |
| STEP TO STEP ACCURACY: ±5 % [1], [2] | DETENT TORQUE: 40 mN-m (5.66 OZ-IN) MIN |
| POSITIONAL ACCURACY: ±5 % [1], [3] | |
| HYSTERESIS: - % | INSULATION CLASS: B |
| WINDING RESISTANCE: 0.73 OHM ±15% AT 20° [12] | BEARINGS: ABEC 3, DOUBLE SHIELDED |
| WINDING INDUCTANCE: 1.6 mH ± 20% [7] | WEIGHT: 600 G (21 OZ) APPROXIMATE |
| PHASE VOLTAGE: 2.0 VDC | TEMP. RISE: 80°C MAX. [8] |
| PHASE CURRENT: 2.8 AMP (RATED) | OPERATING TEMP. RANGE: -20 TO +50 °C |
| NUMBER OF PHASES: 2 | STORAGE TEMP. RANGE: -30 TO +70 °C |
| SHAFT RUNOUT: 0.03 T.I.R. | RELATIVE HUMIDITY RANGE: 15 TO 85 % |
| RADIAL PLAY: 0.02mm MAX WITH .5KG RADIAL LOAD. | |
| END PLAY: 0.08mm MAX WITH .5KG AXIAL LOAD. | |

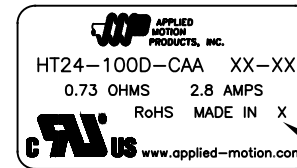
HT24-100D-CAA

REVISIONS

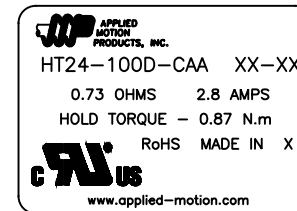
| ECO NO. | REV | DESCRIPTION | DATE | APPROVED |
|---------|-----|-------------------|----------|----------|
| 7710 | A | INITIAL RELEASE | 9/27/17 | J KORDIK |
| 7750 | B | CORRECTED TYPO | 10/27/17 | J KORDIK |
| 7877 | C | DIMENSION MISSING | 3/8/18 | J KORDIK |
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NOTES, UNLESS OTHERWISE SPECIFIED:

- [1] MEASUREMENTS MADE AT RATED CURRENT IN EACH PHASE.
- [2] BETWEEN ANY TWO ADJACENT STEP POSITIONS.
- [3] MAXIMUM ERROR IN 360°.
- 4. HIPOT 500 VAC, 60 Hz FOR ONE MINUTE.
- [5] LEADS: 4, 22 AWG, 7 STRAND MIN., UL AND CSA APPROVED, UL 1430 OR UL 1007.
- 6. INSULATION RESISTANCE: 100 MEGAOHMS 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] ENCODER 970-1024 INSTALLED PER AMP ASSEMBLY PRACTICES. ENCODER CABLE SOLD SEPARATELY.
- 10. THIS MOTOR IS MANUFACTURED IN COMPLIANCE WITH THE CURRENT EU RoHS DIRECTIVE.
- [11] MOTOR LABEL TO INCLUDE "ROHS" COMPLIANT, 'MADE IN (COUNTRY OF ORIGIN)' AND DATE CODE.
- [12] AS MEASURED ACROSS ANY WINDING.
- 13. OTHER TAPPED HOLES MAY BE PRESENT ON REAR OF MOTOR.



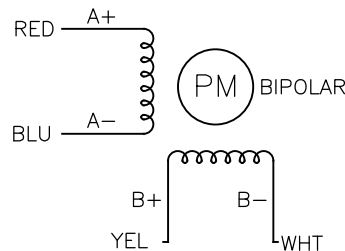
LABEL DETAIL
BOTH OPTIONS ACCEPTABLE



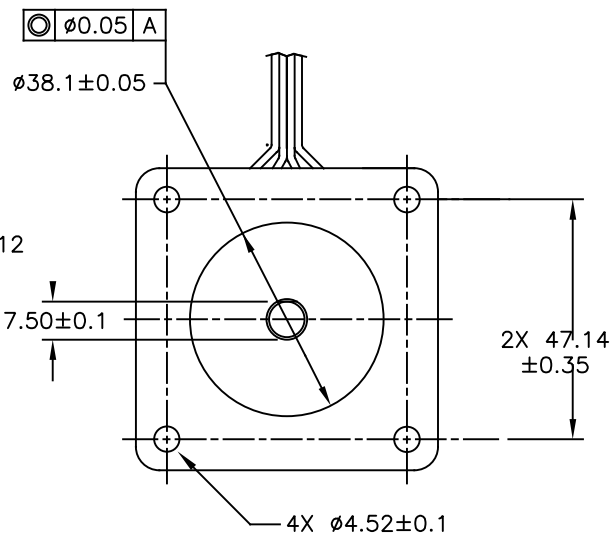
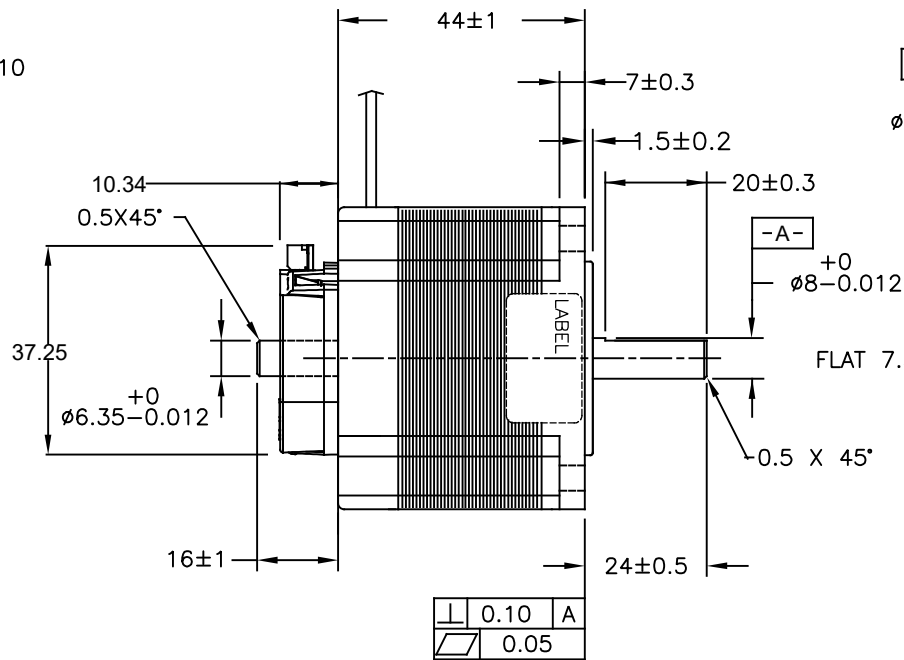
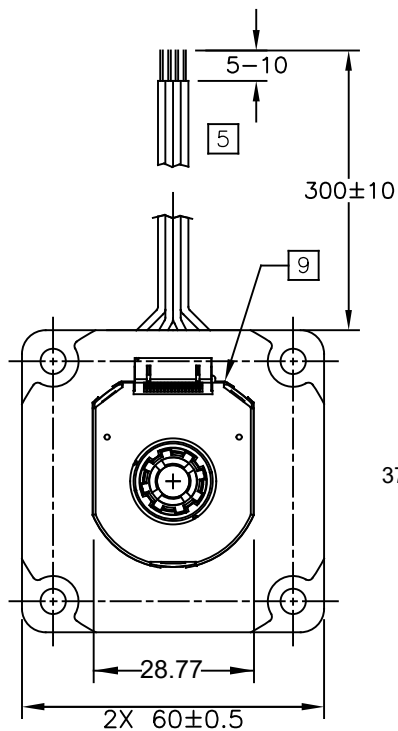
[11]

**SWITCHING SEQUENCE FOR CW ROTATION
FACING MOUNTING END**

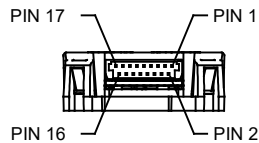
| STEP | A+ | B+ | A- | B- |
|------|----|----|----|----|
| 1 | + | + | - | - |
| 2 | - | + | + | - |
| 3 | - | - | + | + |
| 4 | + | - | - | + |



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|-----------------------------|----------|--------------------------------------|-------------------------------|---------------------------------|-----------------|
| CONTRACT NO. | | APPLIED MOTION PRODUCTS, INC. | | | |
| APPROVALS | DATE | STEP MOTOR OUTLINE | | | |
| DRAWN <i>N. DEY</i> | 10/26/17 | | | | |
| CHECKED <i>K. KESLER</i> | 10/26/17 | | | | |
| APPROVED | | | | | |
| APPROVED | | B | COMPUTER DATA BASE DRAWING | DWG NO. HT24-100D-CAA | REV C |
| APPROVED | | SCALE: 7:10 | SHEET 1 OF 2 | | |



| CONNECTOR | |
|-----------|---------|
| PIN NO. | SIGNAL |
| 1 | TX_ENC+ |
| 2 | RX_ENC+ |
| 3 | N/A |
| 4 | GND |
| 5 | N/A |
| 6 | +5 V |
| 7 | N/A |
| 8 | B+ |
| 9 | B- |
| 10 | A+ |
| 11 | A- |
| 12 | Z+ |
| 13 | Z- |
| 14 | MCLR B |
| 15 | N/A |
| 16 | N/A |
| 17 | N/A |



| TOLERANCES | THIRD ANGLE PROJECTION | |
|--|------------------------|----------|
| DECIMALS: MM X.XXX = ±0.013 X.XX = ±0.25 X.X = ±2.5 | | |
| ANGLES: MACH. = ±5° CHAM. = ±5° | | |
| COMPUTER DATA BASE DRAWING | APPROVALS | DATE |
| | DRAWN N.DEY | 10/26/17 |
| | CHECKED K.KESLER | 10/26/17 |
| | APPROVED | |



STEP MOTOR OUTLINE

B DWG. NO. HT24-100D-CAA REV C

SCALE: 7:10

SHEET 2 OF 2