

SPECIFICATIONS:

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| STEPS PER REVOLUTION: 200 | ROTOR INERTIA: 460 G-CM ² (6.51E-03 oz-in-sec ²)NOM |
| STEP ANGLE: 1.8° | DETENT TORQUE: 0.070 N-m (9.91 oz-in) MIN |
| STEP TO STEP ACCURACY: ±.09 DEGREES [1], [2] | INSULATION CLASS: B |
| RADIAL PLAY: 0.02 mm MAX W/.5KG RADIAL LOAD | WEIGHT: 1.0 KG (2.2 LB) |
| END PLAY: 0.08 MAX W/1.0 KG AXIAL LOAD | OPERATING TEMP. RANGE: -20 TO +50 °C |
| SHAFT RUNOUT: 0.05 T.I.R. | STORAGE TEMP. RANGE: -30 TO +70 °C |
| TEMP. RISE: 80 °C MAX. [8] | RELATIVE HUMIDITY RANGE: 15 TO 99 % |

| SPECIFICATION CONNECTION | [3] RESISTANCE PER PHASE OHM ±10% | [7] INDUCTANCE PER PHASE mH ±20% | [1] RATED CURRENT Amp | [1] HOLDING TORQUE N-m Min | HOLDING TORQUE oz-in Min |
|--------------------------|-----------------------------------|----------------------------------|-----------------------|----------------------------|--------------------------|
| BI-POLAR SERIES | 2.6 | 6.8 | 2.12 | 1.90 | 269 |
| BI-POLAR PARALLEL | 0.65 | 1.7 | 4.24 | 1.90 | 269 |
| UNI-POLAR | 1.3 | 1.7 | 3.00 | 1.35 | 191 |

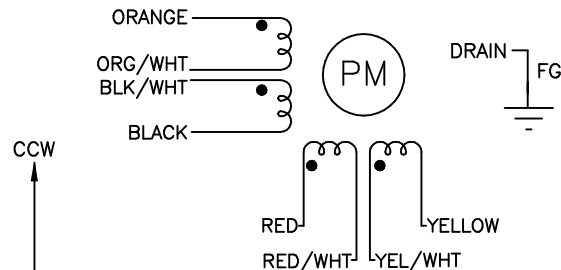
NOTES, UNLESS OTHERWISE SPECIFIED:

- [1] MEASUREMENTS MADE AT RATED CURRENT IN BOTH PHASES.
- [2] BETWEEN ANY TWO ADJACENT FULL STEP POSITIONS.
- [3] MEASUREMENTS MADE AT LEAD ENDS.
- 4. HIPOT 500 VAC, 60 Hz FOR ONE MINUTE.
- 5. LEADS: 8, 22 AWG, 7 STRAND MIN. UL AND CSA APPROVED. 105°C RATED SHIELDED CABLE, 8 COND W/ DRAIN. CABLE MUST MEET AMP SPECIFICATION 666-2126.
- 6. INSULATION RESISTANCE: 100 MEGOHMS MIN AT 500 VDC.
- [7] MEASURED USING AN A.C. INDUCTANCE BRIDGE, AT 1KHz AT LEAD ENDS.
- [8] AS MEASURED BY THE CHANGE IN RESISTANCE METHOD, WITH RATED CURRENT APPLIED TO 2 PHASES; WITH MOTOR AT REST.
- [9] MOTOR TO MEET IP65 STANDARDS. REAR END BELL OPTIONS INCLUDE A SOLID END BELL OR A BRASS PLUG COVERING THE SHAFT BEARING, A 3M LABEL MUST COVER THE BRASS PLUG. CABLE GLAND TO BE NICKEL-PLATED BRASS, ASI P/N 3012215 OR EQUIVALENT.
- 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] DRAIN WIRE TO BE CONNECTED TO INSIDE OF REAR ENDBELL.
- 13. END BELLS TO BE PROTECTED WITH BLACK COATING.

BIPOLAR, FULL STEP, 2 PHASE ON PARALLEL CONNECTED

SWITCHING SEQUENCE FOR CW ROTATION FACING MOUNTING END

| STEP | ORANGE & BLK/WHT | BLACK & ORN/WHT | RED & YEL/WHT | YELLOW & RED/WHT |
|------|------------------|-----------------|---------------|------------------|
| 0 | + | - | + | - |
| 1 | - | + | + | - |
| 2 | - | + | - | + |
| 3 | + | - | - | + |
| 4 | + | - | + | - |

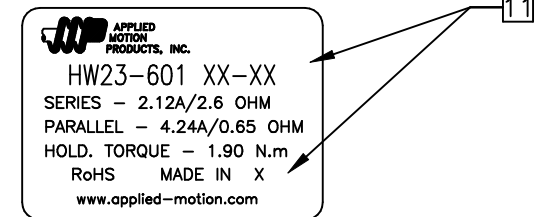


HW23-601

REVISIONS

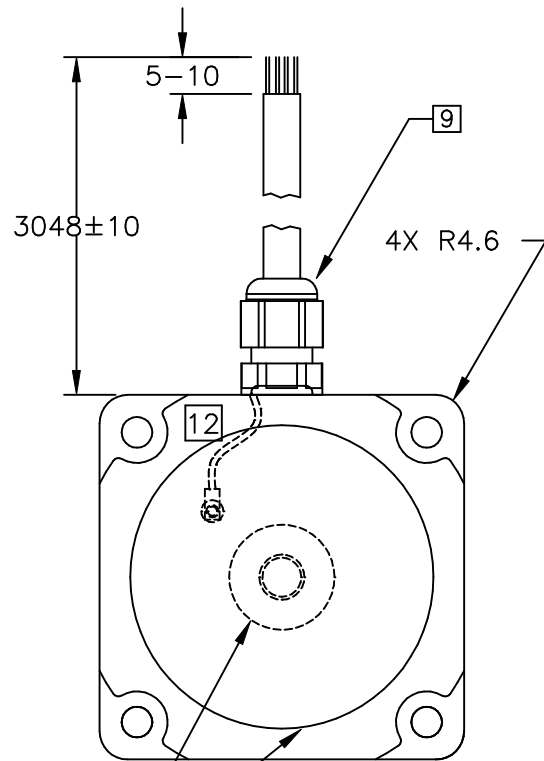
| ECO NO. | REV | DESCRIPTION | DATE | APPROVED |
|---------|-----|-----------------------------|---------|----------|
| 6449 | A | INITIAL RELEASE | 2/8/12 | |
| 6356 | B | REVISE SPECS | 5/2/12 | J Kordik |
| 6578 | C | 105°C CABLE/DRAWING CLEANUP | 8/22/12 | J Kordik |
| 6723 | D | ADD NOTE 13 | 3/22/13 | J Kordik |
| 7373 | E | END BELL SEALING OPTIONS | 2/12/16 | J Kordik |
| 7445 | F | REVISE NOTE 10 | 6/6/16 | J Kordik |

LABEL DETAIL

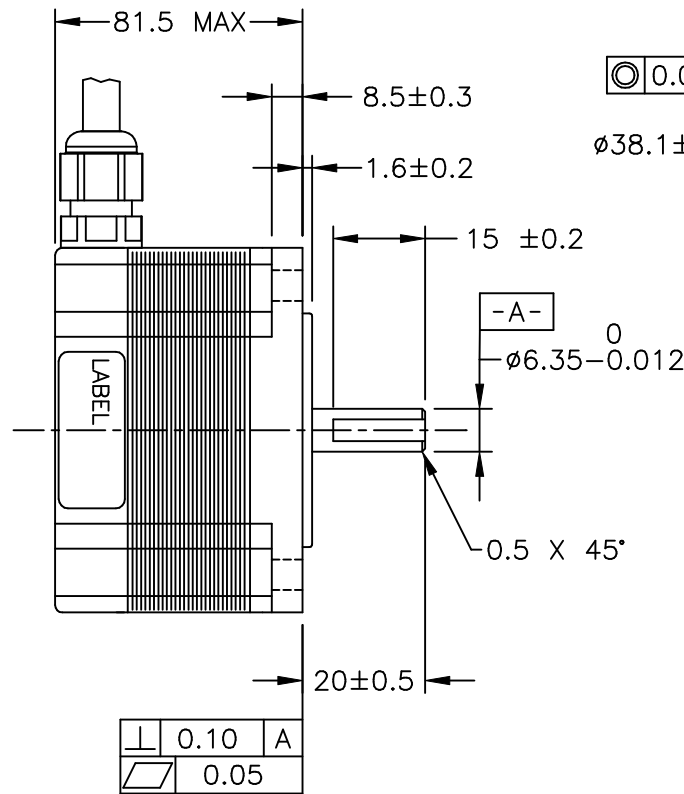


| | | | | | |
|----------------------|---------------|-------------------------------|-------------------------------|----------------------------|----------|
| CONTRACT NO. - | | APPLIED MOTION PRODUCTS, INC. | | | |
| APPROVALS | DATE | STEP MOTOR OUTLINE | | | |
| DRAWN <i>R.JONEZ</i> | <i>2/8/12</i> | | | | |
| CHECKED | | | | | |
| APPROVED | | | | | |
| APPROVED | | B | COMPUTER DATA BASE DRAWING | DWG NO. HW23-601 | REV F |
| SCALE: NONE | | | SHEET 1 OF 2 | | |

MOTOR DRAWING



9 SEAL REAR SHAFT OPENING WITH A BRASS PLUG AND 3M 7872 LABEL OR USE A SOLID END BELL.



0.05 A

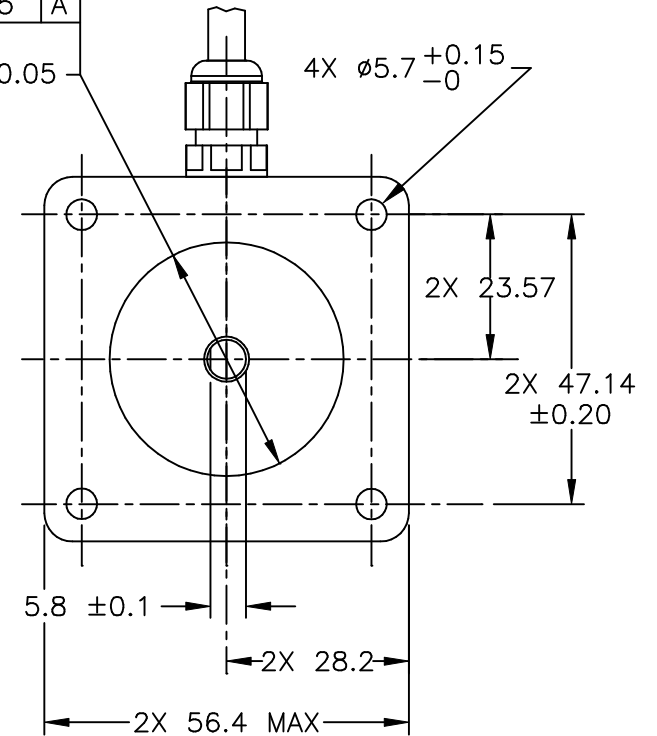
ø38.1±0.05

4X ø5.7^{+0.15}₋₀

-A-
ø6.35⁰_{-0.012}

0.5 X 45°

0.10 A
0.05



| TOLERANCES | | THIRD ANGLE PROJECTION | | APPLIED MOTION PRODUCTS, INC. | |
|---------------------|--------|------------------------|--|-------------------------------|--|
| DECIMALS: MM (INCH) | | | | | |
| X.XXX = ± | (.005) | | | | |
| X.XX = ±0.13 | (.010) | APPROVALS | | DATE | |
| X.X = ±0.25 | (.020) | DRAWN | | 2/8/11 | |
| ANGLES: | | CHECKED | | STEP MOTOR OUTLINE | |
| MACH. = ±5° | | APPROVED | | | |
| CHAM. = ±5° | | COMPUTER DATA | | B DWG NO. | |
| BASE DRAWING | | BASE DRAWING | | HW23-601 | |
| | | | | REV F | |
| | | | | SCALE: NONE | |
| | | | | SHEET 2 OF 2 | |