

## SPECIFICATIONS:

|                                            |                                                                     |
|--------------------------------------------|---------------------------------------------------------------------|
| STEPS PER REVOLUTION: 200                  | ROTOR INERTIA: 135 G-CM <sup>2</sup> (0.73 OZ-IN <sup>2</sup> ) NOM |
| STEP ANGLE: 1.8°                           | DETENT TORQUE: 224 G-CM ( 3.11 OZ-IN) MIN                           |
| STEP TO STEP ACCURACY: ±5 % [1], [2]       | INSULATION CLASS: B                                                 |
| POSITIONAL ACCURACY: ±5 % [1], [3]         | BEARINGS: ABEC 3, DOUBLE SHIELDED                                   |
| HYSTERESIS: - %                            | WEIGHT: 0.42 KG (0.92 LB) APPX.                                     |
| SHAFT RUNOUT: 0.05 T.I.R.                  | TEMP. RISE: 80 °C MAX. [8]                                          |
| 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                                  |
|                                            | RELATIVE HUMIDITY RANGE: 15 TO 85 %                                 |

[7]

| CONNECTION        | SPECIFICATION | NUMBER OF PHASE | RESISTANCE PER PHASE OHM ±10% | INDUCTANCE PER PHASE mH ±20% | RATED CURRENT Amp | RATED VOLTAGE V | HOLDING TORQUE Nm Min |
|-------------------|---------------|-----------------|-------------------------------|------------------------------|-------------------|-----------------|-----------------------|
| BI-POLAR SERIES   |               | 2               | 10.4                          | 26.1                         | 0.71              | 7.4             | 0.56                  |
| BI-POLAR PARALLEL |               | 2               | 2.6                           | 6.6                          | 1.41              | 3.7             | 0.56                  |
| UNI-POLAR         |               | 4               | 5.2                           | 6.6                          | 1.00              | 5.2             | 0.42                  |

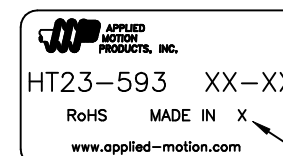
HT23-593

## REVISIONS

| ECO NO. | REV | DESCRIPTION               | DATE    | APPROVED |
|---------|-----|---------------------------|---------|----------|
| 5976    | A   | INITIAL RELEASE           | 8/28/09 | J KORDIK |
| 6090    | B   | STANDARDIZE ENCODER HOLES | 3/29/10 | J KORDIK |
| 6807    | C   | REVISE FLANGE THICKNESS   | 9/9/13  | J KORDIK |
|         |     |                           |         |          |
|         |     |                           |         |          |
|         |     |                           |         |          |
|         |     |                           |         |          |

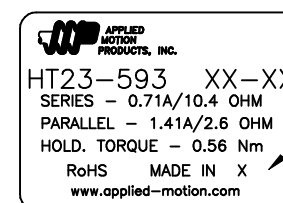
## NOTES, UNLESS OTHERWISE SPECIFIED:

- MEASUREMENTS MADE AT RATED CURRENT IN EACH PHASE.
- BETWEEN ANY TWO ADJACENT STEP POSITIONS.
- MAXIMUM ERROR IN 360°.
- HIPOT 500 VAC, 60 Hz FOR ONE MINUTE.
- LEADS: 8, 22AWG, 7 STRAND MIN.,UL AND CSA APPROVED, UL 1430 OR UL 3265.
- INSULATION RESISTANCE: 100 MEGOHMS MIN AT 500 VDC.
- AS MEASURED USING AN A.C. INDUCTANCE BRIDGE, AT 1KHz.
- AS MEASURED BY THE CHANGE IN RESISTANCE METHOD, WITH RATED VOLTAGE APPLIED TO 2 PHASES; WITH MOTOR AT REST.
- SHAFT OPTION: IF DOUBLE SHAFT REQUIRED ADD "D" TO END OF PART NUMBER. DOUBLE SHAFT REQUIRES ADDED HOLES FOR ENCODER OPTIONS.
- THIS MOTOR TO BE MANUFACTURED IN COMPLIANCE WITH EU DIRECTIVE "ROHS 2002/95/EC".
- MOTOR LABEL TO INCLUDE "ROHS" COMPLIANT, 'MADE IN (COUNTRY OF ORIGIN)' AND DATE CODE.

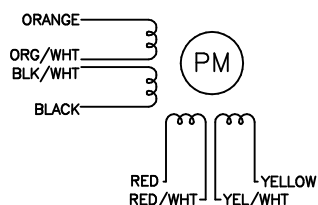


## LABEL DETAIL

BOTH OPTIONS ACCEPTABLE



## WIRING DIAGRAM



## DRIVE SEQUENCE MODEL

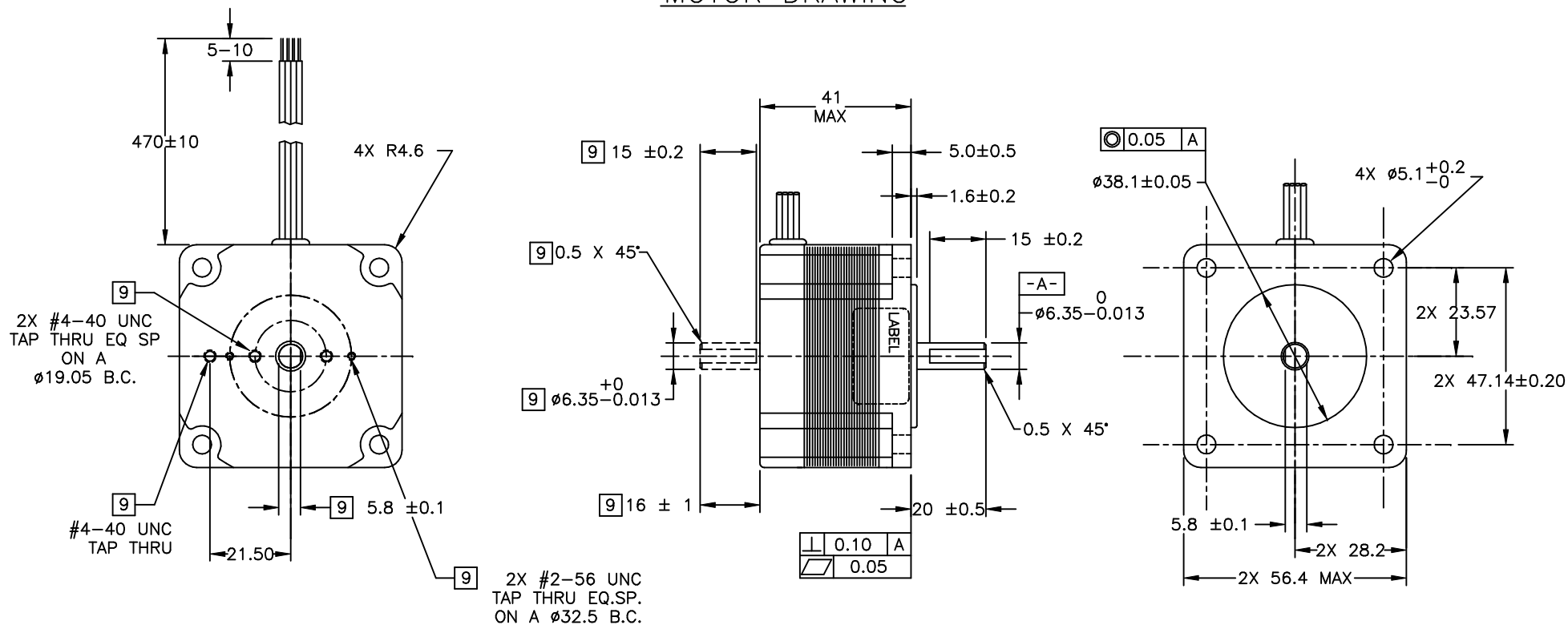
BI-POLAR FULL STEP

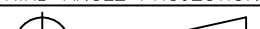
| STEP | A | B | C | D |  |
|------|---|---|---|---|--|
| 1    | + | + | - | - |  |
| 2    | - | + | + | - |  |
| 3    | - | - | + | + |  |
| 4    | + | - | - | + |  |

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

|               |         |                               |                            |                  |       |
|---------------|---------|-------------------------------|----------------------------|------------------|-------|
| CONTRACT NO.  |         | APPLIED MOTION PRODUCTS, INC. |                            |                  |       |
| APPROVALS     | DATE    | STEP MOTOR OUTLINE            |                            |                  |       |
| DRAWN R.JONEZ | 8/18/09 |                               |                            |                  |       |
| CHECKED       |         |                               |                            |                  |       |
| APPROVED      |         |                               |                            |                  |       |
| APPROVED      |         | B                             | COMPUTER DATA BASE DRAWING | DWG NO. HT23-593 | REV C |
| SCALE: NONE   |         |                               |                            | SHEET 1 OF 2     |       |

## MOTOR DRAWING



|                                                                                                                               |  |                                                                                       |  |                                                                                                                           |                       |
|-------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------|-----------------------|
| TOLERANCES                                                                                                                    |  | THIRD ANGLE PROJECTION                                                                |  |  APPLIED<br>MOTION<br>PRODUCTS, INC. |                       |
| DECIMALS: MM (INCH)<br>X.XXX = ± (.005)<br>X.XX = ±0.13 (.010)<br>X.X = ±0.25 (.020)<br>ANGLES:<br>MACH. = ±5°<br>CHAM. = ±5° |  |  |  | <h1>STEP MOTOR OUTLINE</h1>                                                                                               |                       |
| APPROVALS<br>DRAWN <i>R. JONEZ</i><br>CHECKED<br>APPROVED                                                                     |  | DATE<br><i>8/18/09</i>                                                                |  |                                                                                                                           |                       |
| COMPUTER DATA<br>BASE DRAWING                                                                                                 |  |                                                                                       |  | B                                                                                                                         | DWG NO. HT23-593      |
|                                                                                                                               |  |                                                                                       |  | SCALE: NONE                                                                                                               | REV C<br>SHEET 2 OF 2 |