

**SPECIFICATIONS:**

STEPS PER REVOLUTION: 200	ROTOR INERTIA: 460 G-CM <sup>2</sup> (2.51 OZ-IN <sup>2</sup> ) NOM
STEP ANGLE: 1.8°	DETENT TORQUE: 714 G-CM (9.91 OZ-IN) MIN
STEP TO STEP ACCURACY: ± 5 %	INSULATION CLASS: B
POSITIONAL ACCURACY: ± 5 %	BEARINGS: ABEC 3, DOUBLE SHIELDED
HYSTERESIS: - %	WEIGHT: 1.0 KG (2.2 LB)
SHAFT RUNOUT: 0.05 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
	RELATIVE HUMIDITY RANGE: 15 TO 85 %

HT23-599

**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
7445	D	REVISE NOTE 10	6/6/16	J KORDIK

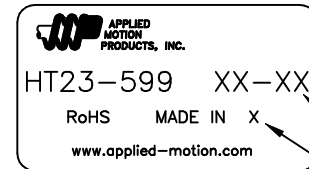
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SPECIFICATION CONNECTION	NUMBER OF PHASE	RESISTANCE PER PHASE OHM ±10%	INDUCTANCE PER PHASE mH ±20%	RATED CURRENT Amp	RATED VOLTAGE V	HOLDING TORQUE Nm Min
BI-POLAR SERIES	2	16.0	61.6	0.71	11.4	1.74
BI-POLAR PARALLEL	2	4.0	15.4	1.41	5.6	1.74
UNI-POLAR	4	8.0	15.4	1.00	8.0	1.23

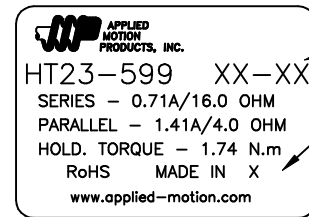
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**NOTES, UNLESS OTHERWISE SPECIFIED:**

- 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: 8, 22AWG, 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.
- 11 MOTOR LABEL TO INCLUDE "ROHS" COMPLIANT, 'MADE IN (COUNTRY OF ORIGIN)' AND DATE CODE.

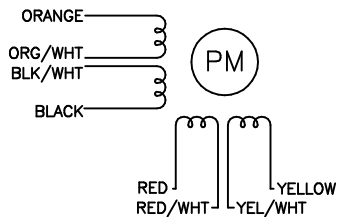


**LABEL DETAIL**  
BOTH OPTIONS ACCEPTABLE



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**WIRING DIAGRAM**



**DRIVE SEQUENCE MODEL**  
BI-POLAR FULL STEP

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

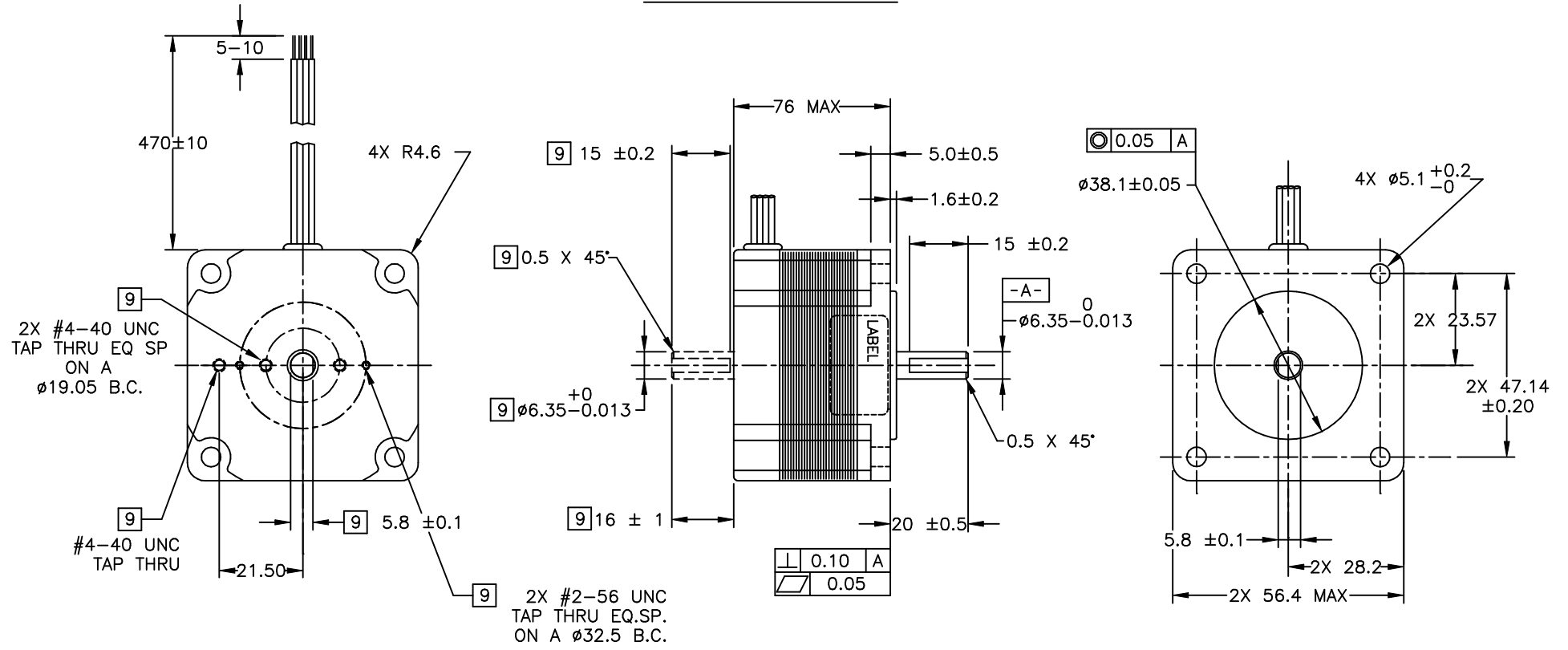
CW  
↓

↑  
CCW

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

CONTRACT NO. -					
APPROVALS	DATE	<b>STEP MOTOR OUTLINE</b>			
DRAWN <i>R.JONEZ</i>	<i>8/20/09</i>				
CHECKED		<b>B</b>	COMPUTER DATA BASE DRAWING	DWG NO. <b>HT23-599</b>	REV <b>D</b>
APPROVED			SCALE: NONE	SHEET 1 OF 2	

# MOTOR DRAWING



TOLERANCES		THIRD ANGLE PROJECTION		APPLIED MOTION PRODUCTS, INC.	
DECIMALS: MM (INCH) X.XXX = $\pm$ (.005) X.XX = $\pm 0.13$ (.010) X.X = $\pm 0.25$ (.020) ANGLES: MACH. = $\pm 5^\circ$ CHAM. = $\pm 5^\circ$					
APPROVALS DRAWN <i>R. JONES</i> CHECKED		DATE 8/20/09		<b>STEP MOTOR OUTLINE</b>	
COMPUTER DATA BASE DRAWING		APPROVED		B DWG NO.	HT23-599 REV D
				SCALE: NONE	SHEET 2 OF 2