

**SPECIFICATIONS:**

NUMBER OF PHASES: 4	ROTOR INERTIA: 260 g-cm <sup>2</sup> ( 1.42 oz-in <sup>2</sup> ) NOM
STEPS PER REVOLUTION: 400	DETENT TORQUE: 48 mNm ( 6.80 oz-in) MIN
STEP ANGLE: 0.9°	BEARINGS: 608ZZ
STEP TO STEP ACCURACY: ±0.045° [1], [2]	INSULATION CLASS: B
POSITIONAL ACCURACY: ±5% [1], [3]	HYSTERESIS: N/A%
SHAFT RUNOUT: 0.03 mm T.I.R. MAX	TEMP. RISE: 80 °C MAX. [9]
RADIAL PLAY: 0.02 mm MAX (.5KG RADIAL LOAD)	OPERATING TEMP. RANGE: -20 TO +50 °C
END PLAY: 0.08 mm MAX (.5KG AXIAL LOAD)	STORAGE TEMP. RANGE: -30 TO +70 °C
MAXIMUM RADIAL LOAD: 71N (15.96lb)	RELATIVE HUMIDITY RANGE: 15 TO 85 %
MAXIMUM AXIAL LOAD: 15N ( 3.37lb)	WEIGHT: 0.6 kg (1.32 lb)

	[7]	[8]	[1]	[1]	
SPECIFICATION	RESISTANCE PER PHASE (ohm ±10%)	INDUCTANCE PER PHASE (mH ±20%)	RATED CURRENT (amp)	HOLDING TORQUE (Nm MIN)	HOLDING TORQUE (oz-in Min)
UNI-POLAR	1.8	4.1	2.0	0.9	127.45
BI-POLAR SERIES	3.6	16.5	1.4	1.1	155.77

NOTES, UNLESS OTHERWISE SPECIFIED:

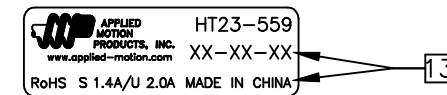
- [1] MEASUREMENTS MADE AT RATED CURRENT IN EACH PHASE.
- [2] BETWEEN ANY TWO ADJACENT FULL STEP POSITIONS.
- [3] MAXIMUM ERROR IN 360°.
- 4. HIPOT 500 VAC, 60 Hz FOR ONE MINUTE.
- [5] LEADS: 6, AWG 22, 7 STRAND MIN., UL AND CSA APPROVED, UL 3266
- 6. INSULATION RESISTANCE: 100 MEGOHMS MIN AT 500 VDC.
- [7] AS MEASURED ACROSS EACH PHASE.
- [8] AS MEASURED ACROSS EACH PHASE USING AN A.C. INDUCTANCE BRIDGE AT 1 KHz.
- [9] AS MEASURED BY THE CHANGE IN RESISTANCE METHOD, WITH RATED CURRENT APPLIED TO 2 PHASES; WITH MOTOR AT REST.
- [10] ADD "D" TO END OF PART NUMBER IF DOUBLE SHAFT IS REQUIRED. ENCODER HOLES INCLUDED WITH REAR SHAFT VERSION ONLY.
- 11. ROTOR & STATOR LAMINATED CONSTRUCTION.
- 12. THIS MOTOR IS MANUFACTURED IN COMPLIANCE WITH THE CURRENT EU RoHS DIRECTIVE.
- [13] MOTOR LABEL TO INCLUDE "ROHS" COMPLIANT, AMP P/N, 'MADE IN (COUNTRY OF ORIGIN)', AND DATE CODE.
- 14. HIGH TORQUE MOTOR DESIGN

HT23-559

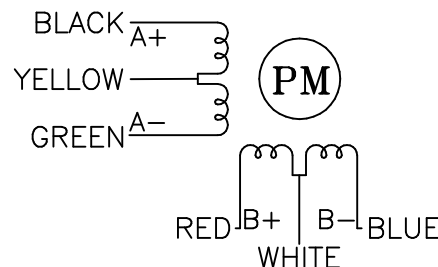
REVISIONS

ECO NO.	REV	DESCRIPTION	DATE	APPROVED
6947	A	PRELIMINARY RELEASE	4/11/14	D.MACLEOD
7048	B	ERROR CORRECTION	8/11/14	D.MACLEOD
7069	C	MANU. SPEC. CHANGES	9/30/14	D.MACLEOD
7445	D	REVISE NOTE 12	6/6/16	J KORDIK
7567	E	REVISE NOTE 5	1/5/17	J KORDIK
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

LABEL DETAIL



PHASE DETAIL



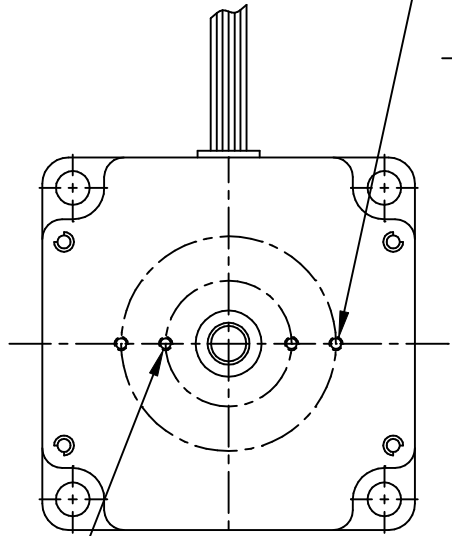
FULL STEP SWITCHING SEQUENCE  
BI-POLAR, FACING MOUNTING END

STEP	A+	A-	B+	B-	CCW
0	+	-	+	-	
1	-	+	+	-	
2	-	+	-	+	
3	+	-	-	+	
4	+	-	+	-	

CONTRACT NO. -					
APPROVALS	DATE	<h1>STEP MOTOR OUTLINE</h1>			
DRAWN K.KESLER	9/23/14				
CHECKED -	-	<span style="font-size: 2em;">B</span>	COMPUTER DATA BASE DRAWING	DWG NO. HT23-559	REV E
APPROVED -	-		SCALE: NONE	SHEET 1 OF 2	

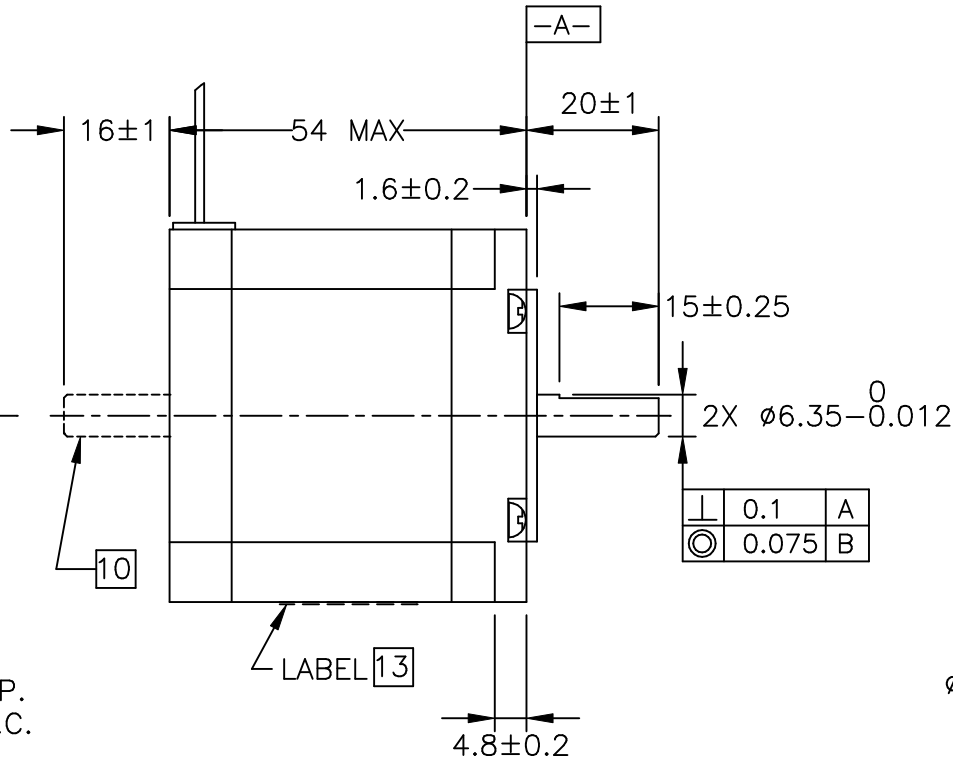
2X #2-56 UNC  
TAP 2.5 MIN EQ.SP.  
ON  $\phi 32.5 \pm 0.1$  B.C.

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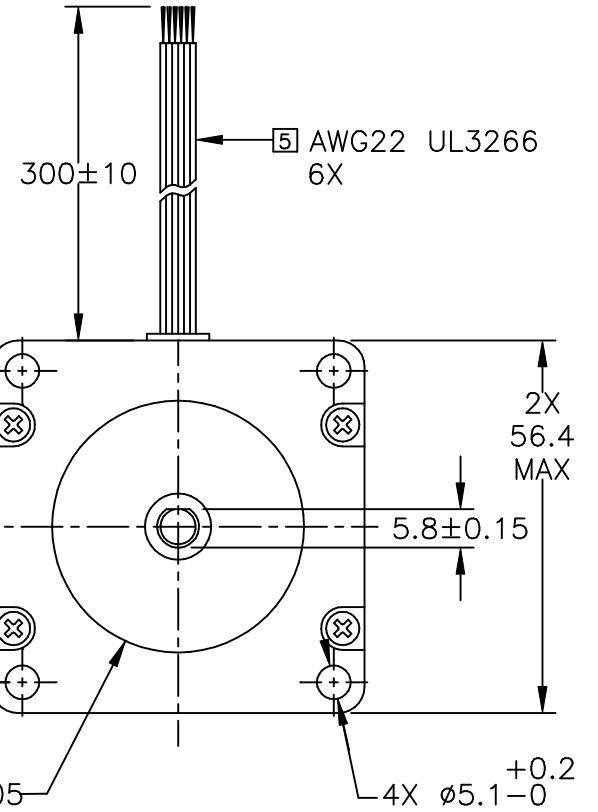



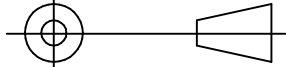
2X #2-56 UNC  
TAP 2.5 MIN EQ.SP.  
ON  $\phi 19.05 \pm 0.1$  B.C.

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$\perp$	0.1	A
$\odot$	0.075	B



TOLERANCES		THIRD ANGLE PROJECTION		 <b>APPLIED MOTION PRODUCTS, INC.</b>		
*ALL DIMENSIONS IN MM DECIMALS: MM X.XX = $\pm 0.13$ X.X = $\pm 0.25$ ANGLES: MACH. = $\pm 0.5^\circ$ CHAM. = $\pm 5^\circ$						
		APPROVALS	DATE	<b>STEP MOTOR OUTLINE</b>		
		DRAWN K.KESLER	9/23/14			
		CHECKED -	-			
COMPUTER DATA BASE DRAWING		APPROVED -	-	B	DWG NO. HT23-559	REV E
				SCALE: NONE	SHEET 2 OF 2	