

**SPECIFICATIONS:**

NUMBER OF PHASES: 2	ROTOR INERTIA: 135 g-cm <sup>2</sup> ( 0.74 oz-in <sup>2</sup> ) NOM
STEPS PER REVOLUTION: 400	DETENT TORQUE: 25 mNm ( 3.54 oz-in) MIN
STEP ANGLE: 0.9°	BEARINGS: 608ZZ
STEP TO STEP ACCURACY: ±0.045°	INSULATION CLASS: B
POSITIONAL ACCURACY: ±5%	HYSTERESIS: N/A%
SHAFT RUNOUT: 0.03 mm T.I.R. MAX	TEMP. RISE: 80 °C MAX.
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: 71 N (15.96lb)	RELATIVE HUMIDITY RANGE: 15 TO 85 %
MAXIMUM AXIAL LOAD: 15 N ( 3.37lb)	WEIGHT: 0.42 kg ( 0.93 lb)

	[7]	[8]	[1]	[1]
CONNECTION	RESISTANCE PER PHASE (ohm ±10%)	INDUCTANCE PER PHASE (mH ±20%)	RATED CURRENT (amp)	HOLDING TORQUE (Nm MIN)
BI-POLAR SERIES	2.0	6.6	1.5	0.48

NOTES, UNLESS OTHERWISE SPECIFIED:

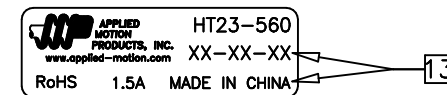
- [1] MEASUREMENTS MADE AT RATED CURRENT IN EACH PHASE.
- [2] BETWEEN ANY TWO ADJACENT FULL STEP POSITIONS.
- [3] MAXIMUM ERROR IN 360°.
- 4. HIPOT 500 VAC, 60 Hz FOR ONE MINUTE.
- [5] LEADS: 4, AWG 22, 7 STRAND MIN., UL AND CSA APPROVED, UL 1007
- 6. INSULATION RESISTANCE: 100 MEGOHMS MIN AT 500 VDC.
- [7] AS MEASURED ACROSS EACH PHASE.
- [8] AS MEASURED ACROSS EACH PHASE USING AN A.C. INDUCTANCE BRIDGE AT 1Khz.
- [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 TO BE MANUFACTURED IN COMPLIANCE WITH EU DIRECTIVE "ROHS 2002/95/EC".
- [13] MOTOR LABEL TO INCLUDE "ROHS" COMPLIANT, AMP P/N, 'MADE IN (COUNTRY OF ORIGIN)', AND DATE CODE.
- 14. HIGH TORQUE MOTOR DESIGN

HT23-560

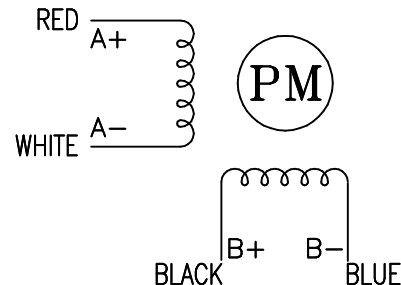
REVISIONS

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	9/23/14	D.MACLEOD
7243	D	ERROR CORRECTION	7/1/15	D.MACLEOD
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

LABEL DETAIL



PHASE DETAIL



FULL STEP SWITCHING SEQUENCE  
BI-POLAR, FACING MOUNTING END

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

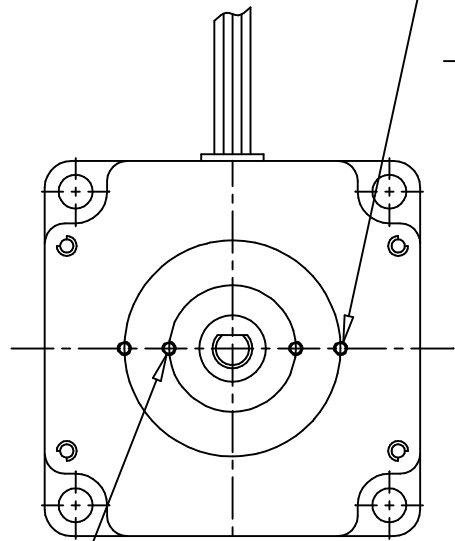
CCW ↑

↓ CW

CONTRACT NO. -		APPLIED MOTION PRODUCTS, INC.		
APPROVALS	DATE	<b>STEP MOTOR OUTLINE</b>		
DRAWN K.KESLER	7/1/2015			
CHECKED -	-	<b>B</b>	COMPUTER DATA BASE DRAWING	DWG NO. HT23-560
APPROVED -	-		REV D	
APPROVED -	-	SCALE: NONE	SHEET 1 OF 2	

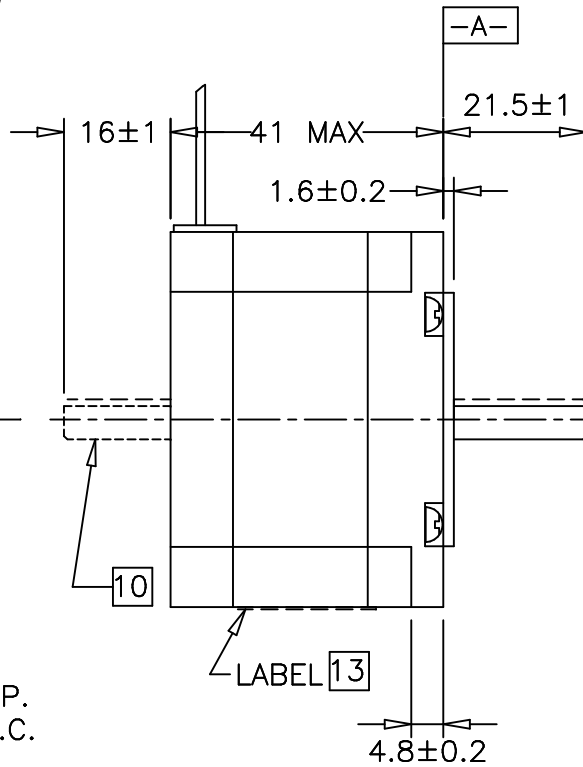
2X #2-56 UNC  
TAP 2.5 MIN EQ.SP.  
ON  $\phi 32.5 \pm 0.1$  B.C.

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

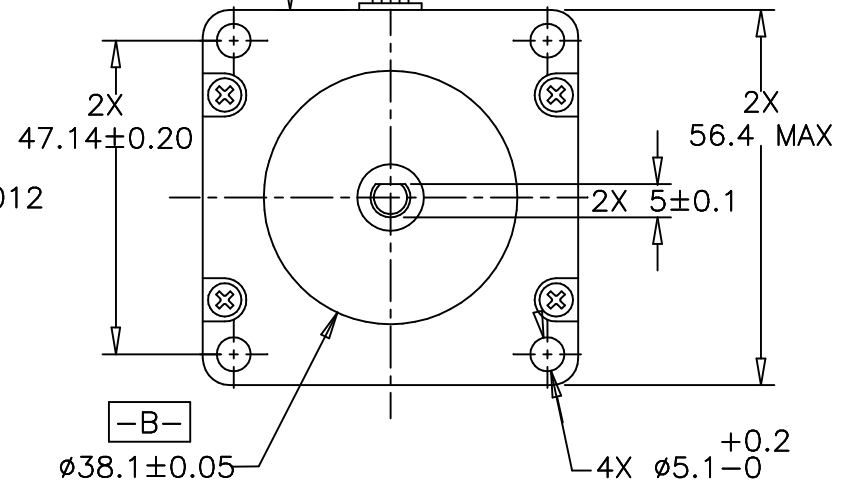
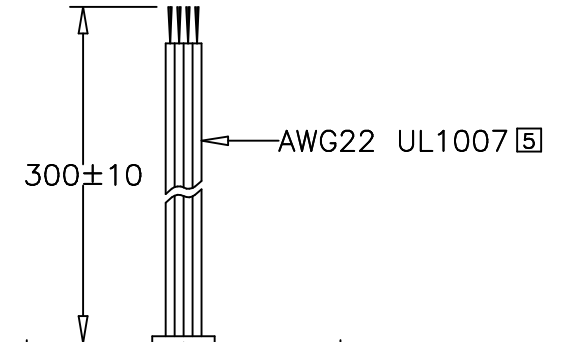
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$\perp$	0.1	A
$\odot$	0.075	B

2X  $\phi 6.35 - 0.012^0$

2X C0.5



TOLERANCES	THIRD ANGLE PROJECTION		APPLIED MOTION PRODUCTS, INC.	
*ALL DIMENSIONS IN MM DECIMALS: MM X.XX = ±0.13 X.X = ±0.25 ANGLES: MACH. = ±0.5° CHAM. = ±5°				
	APPROVALS	DATE	STEP MOTOR OUTLINE	
	DRAWN K.KESLER	7/1/2015	B	DWG NO. HT23-560
	CHECKED -	-		REV D
COMPUTER DATA BASE DRAWING	APPROVED -	-	SCALE: NONE	SHEET 2 OF 2