

**SPECIFICATIONS:**

NUMBER OF PHASES: 2	ROTOR INERTIA: 38 g-cm <sup>2</sup> ( 0.21 oz-in <sup>2</sup> ) NOM
STEPS PER REVOLUTION: 400	DETENT TORQUE: 12 mNm ( 1.7 oz-in) MIN
STEP ANGLE: 0.9°	BEARINGS: 625ZZ
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: 21 N ( 4.72lb)	RELATIVE HUMIDITY RANGE: 15 TO 85 %
MAXIMUM AXIAL LOAD: 10 N ( 2.25lb)	WEIGHT: 0.23 kg ( 0.51 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	20	23	0.5	0.22

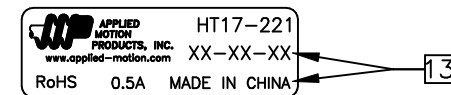
NOTES, UNLESS OTHERWISE SPECIFIED:

- [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 26, 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 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 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

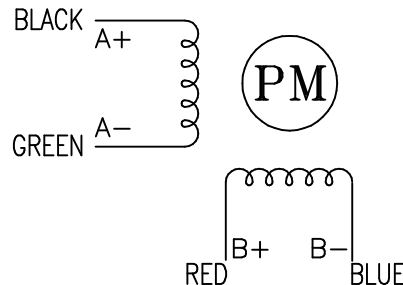
REVISIONS				
ECO NO.	REV	DESCRIPTION	DATE	APPROVED
6947	A	PRELIMINARY RELEASE	4/11/14	D.MACLEOD
7048	B	ERROR CORRECTION	8/11/14	D.MACLEOD
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

HT17-221

LABEL DETAIL



PHASE DETAIL



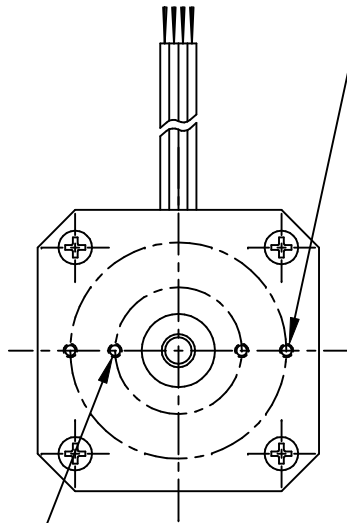
FULL STEP SWITCHING SEQUENCE  
BI-POLAR, FACING MOUNTING END

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

CONTRACT NO. -		APPLIED MOTION PRODUCTS, INC.			
APPROVALS		DATE		<h1>STEP MOTOR OUTLINE</h1>	
DRAWN K.KESLER		8/11/14			
CHECKED -		-			
APPROVED -		-			
APPROVED -		-		B	COMPUTER DATA BASE DRAWING
		DWG NO. HT17-221		REV B	
SCALE: NONE		SHEET 1 OF 2			

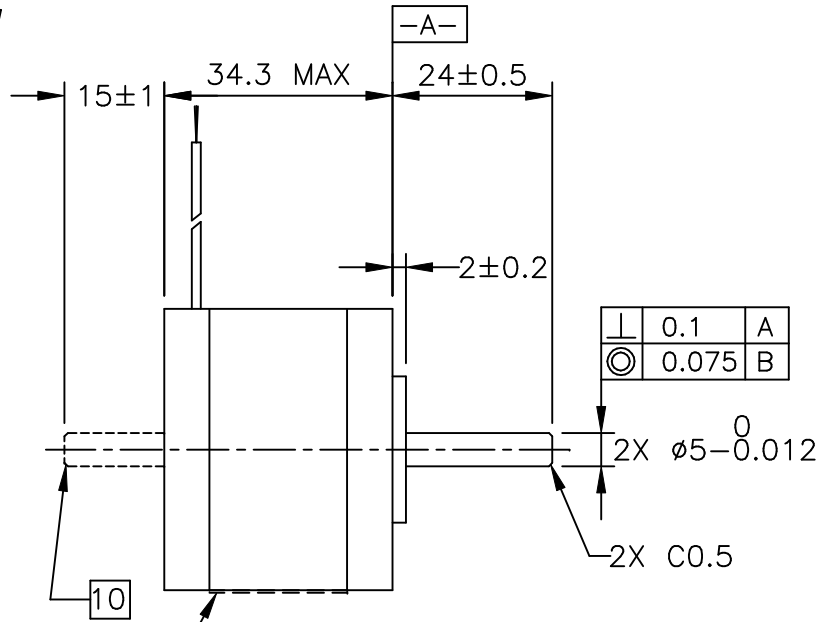
2X #2-56 UNC  
TAP THRU EQ.SP.  
ON A  $\phi 32.5$  B.C.

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2X #2-56 UNC  
TAP THRU EQ.SP.  
ON A  $\phi 19.05$  B.C.

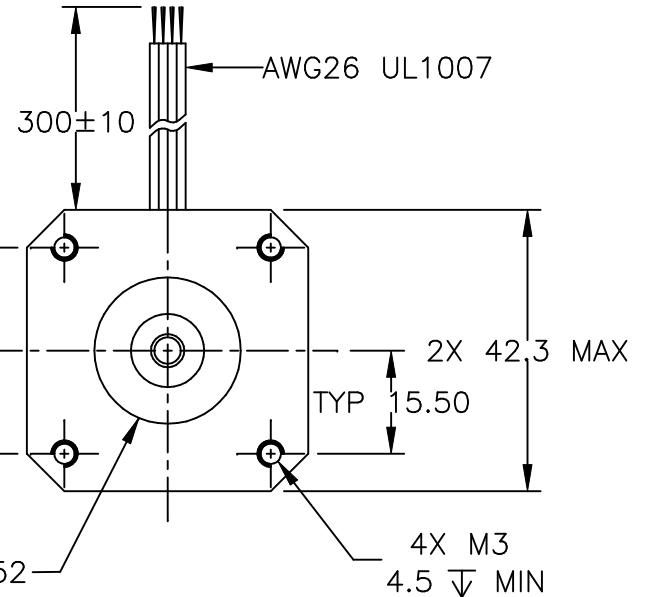
10



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

10

LABEL 13



AWG26 UL1007

-B-

<p>TOLERANCES</p> <p>*ALL DIMENSIONS IN MM</p> <p>DECIMALS: MM</p> <p>X.XX = <math>\pm 0.13</math></p> <p>X.X = <math>\pm 0.25</math></p> <p>ANGLES:</p> <p>MACH. = <math>\pm 0.5^\circ</math></p> <p>CHAM. = <math>\pm 5^\circ</math></p> <p>COMPUTER DATA</p> <p>BASE DRAWING</p>	THIRD ANGLE PROJECTION		<p>APPLIED MOTION PRODUCTS, INC.</p>		
					<p><b>STEP MOTOR OUTLINE</b></p>
	APPROVALS	DATE	B	DWG NO.	
	DRAWN K.KESLER	8/11/14			HT17-221
CHECKED -	-	SCALE: NONE		SHEET 2 OF 2	
APPROVED -	-				