

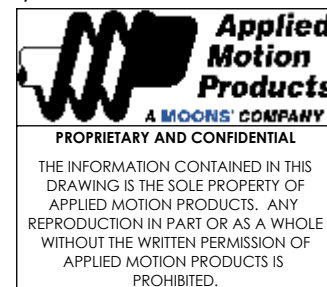
SPECIFICATIONS:

NUMBER OF PHASES: 2	ROTOR INERTIA: 450 g-cm ² (2.46 oz-in ²) NOM
STEPS PER REVOLUTION: 200	DETENT TORQUE: 90 mNm (12.7 oz-in) MIN
STEP ANGLE: 1.8°	INSULATION CLASS: B
STEP TO STEP ACCURACY: ±5% <div><div>1</div>, <div>2</div></div>	BEARINGS: ABEC 3, DOUBLE SHIELDED
POSITION ACCURACY: ±5% <div><div>1</div>, <div>3</div></div>	TEMP. RISE: 80°C MAX. <div>9</div>
HYSTERESIS: N/A%	OPERATING TEMP. RANGE: -20 TO +50°C
SHAFT RUNOUT: 0.03 mm T.I.R. MAX	STORAGE TEMP. RANGE: -30 TO +70°C
RADIAL PLAY: 0.02 mm MAX (0.5 kg RADIAL LOAD)	RELATIVE HUMIDITY RANGE: 15 TO 85%
END PLAY: 0.08 mm MAX (0.5 kg AXIAL LOAD)	MAX. DYNAMIC AXIAL LOAD: 15N
WEIGHT: 830 g (1.8 Lbs) APPROXIMATE	MAX. DYNAMIC RADIAL LOAD: 75N

CONNECTION	RESISTANCE PER PHASE (ohm $\pm 15\%$) 7	INDUCTANCE PER PHASE (mH $\pm 20\%$) 8	RATED CURRENT (Amp)	HOLDING TORQUE (Nm MIN) 1	HOLDING TORQUE (oz-in MIN) 1
BI-POLAR	0.43	1.1	4.0	1.25	177

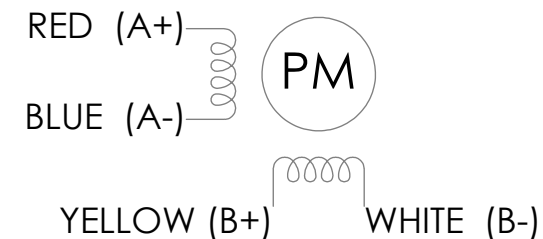
NOTES, UNLESS OTHER WISE SPECIFIED:

- 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, 60Hz FOR ONE MINUTE.
- 5 LEADS: 4, 22 AWG, 7 STRAND MIN. UL AND CSA APPROVED. UL 1430
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. ROTOR AND STATOR LAMINATED CONSTRUCTION.
11. THIS MOTOR IS MANUFACTURED IN COMPLIANCE WITH CURRENT EU RoHS DIRECTIVE.
- 12 MOTOR LABEL TO INCLUDE AMP LOGO, AMP WEBSITE ADDRESS, "RoHS" COMPLIANCE LOGO,
AMP P/N, "MADE IN (COUNTRY)", AND DATE CODE.
13. THE MOTOR IS UL RECOGNIZED IN THE US AND CANADA, FILE NO. E472271.
- 14 ADD "D" TO END OF PART NUMBER IF DOUBLE SHAFT IS REQUIRED.
DOUBLE SHAFT REQUIRES ADDED HOLES FOR ENCODER OPTION.



REVISIONS				
ECO #	REV.	DESCRIPTION	DATE	APPROVED
5896	A	INITIAL RELEASE	02/17/09	J. KORDIK
5961	B	REV'D SPECS, HOLES, WIRE COLORS	09/04/09	J. KORDIK
6022	C	CONN CHG, TOLERANCE CHG	11/04/09	J. KORDIK
6303	D	CONN ORIENTATION CHG	05/12/11	J. AMOS
7172	E	SPEC CLEANUP	04/15/15	J. KORDIK
7238	F	WIRING DETAIL REVISED	06/22/15	J. KORDIK
7247	G	ADD UL TO LABEL	01/26/16	J. KORDIK
7447	H	REVISE NOTE 10	06/07/16	J. KORDIK
8774	J	CHANGED LAM STACK/ END BELL SHAPE	04/18/22	K.KESLER

WIRING DIAGRAM




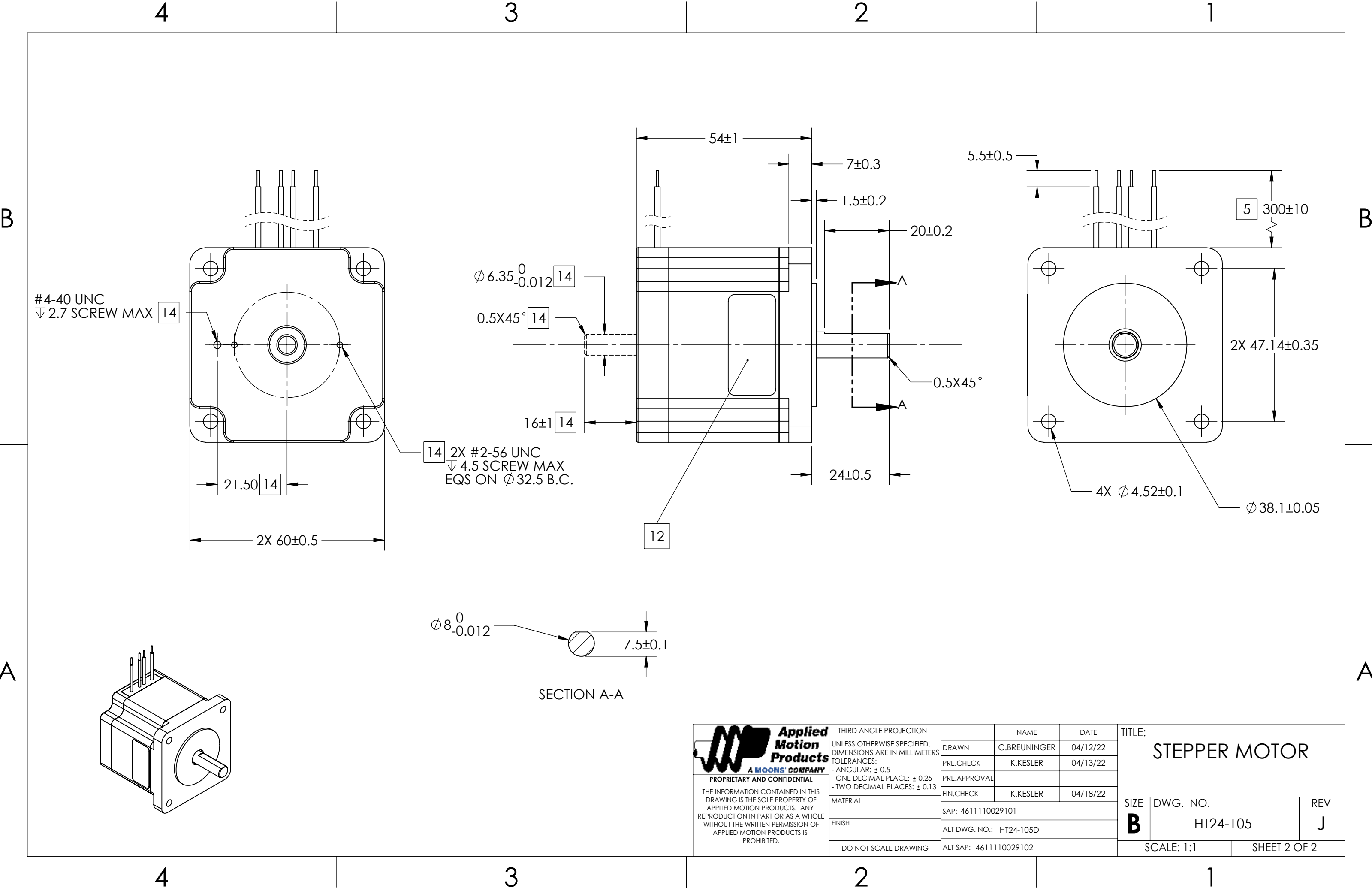
DRIVE SEQUENCE MODEL BI-POLAR FULL STEP


The diagram shows a 4x4 grid with a clockwise arrow on the left and a counter-clockwise arrow on the right. The grid contains the following values:

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

CW (CLOCKWISE) AND CCW (COUNTER-CLOCKWISE) ROTATION
WHEN SEEN FROM THE MOUNTING FACE END OF THE MOTOR

<div><div><div>Applied Motion Products</div><div>A MOONS COMPANY</div></div></div> <div>PROPRIETARY AND CONFIDENTIAL</div> <div>THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APPLIED MOTION PRODUCTS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF APPLIED MOTION PRODUCTS IS PROHIBITED.</div>	THIRD ANGLE PROJECTION		NAME	DATE	TITLE: STEPPER MOTOR		
	UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS TOLERANCES: - ANGULAR: ± 0.5 - ONE DECIMAL PLACE: ± 0.25 - TWO DECIMAL PLACES: ± 0.13	DRAWN	C.BREUNINGER	04/12/22			
		PRE.CHECK	K.KESLER	04/13/22			
		PRE.APPROVAL					
		FIN.CHECK	K.KESLER	04/18/22			
MATERIAL	SAP: 4611110029101			SIZE	DWG. NO.	REV	
FINISH	ALT DWG. NO.: HT24-105D			B	HT24-105	J	
DO NOT SCALE DRAWING	ALT SAP: 4611110029102			SCALE: 1:1		SHEET 1 OF 2	



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	TOLERANCES: - ANGULAR: ± 0.5 - ONE DECIMAL PLACE: ± 0.25 - TWO DECIMAL PLACES: ± 0.13	PRE.CHECK	K.KESLER	04/13/22			
	MATERIAL	FIN.CHECK	K.KESLER	04/18/22	SIZE	DWG. NO.	REV
	FINISH	DO NOT SCALE DRAWING	SAP: 4611110029101	ALT DWG. NO.: HT24-105D	B	HT24-105	J
					SCALE: 1:1		SHEET 2 OF 2