

SPECIFICATION			
NUMBER OF PHASES: 2		ROTOR INERTIA: 18 g-cm <sup>2</sup> (0.1 oz-in <sup>2</sup> ) NOM	
STEPS PER REVOLUTION: 200		DETENT TORQUE: 8 mNm ( 1.13 oz-in) MIN	
STEP ANGLE: 1.8°		INSULATION CLASS: B	
STEP TO STEP ACCURACY: ±0.09°	1	,	2
POSITION ACCURACY: ±0.09°	1	,	3
HYSTERESIS: N/A%		TEMP. RISE: 80°C MAX. 9	
SHAFT RUNOUT: 0.03 mm T.I.R. MAX		OPERATING TEMP. RANGE: -20 TO +50°C	
RADIAL PLAY: 0.02 mm MAX (0.5 kg RADIAL LOAD)		STORAGE TEMP. RANGE: -30 TO +70°C	
END PLAY: 0.08 mm MAX (0.5 kg AXIAL LOAD)		RELATIVE HUMIDITY RANGE: 15 TO 85%	
		WEIGHT: 0.2kg (0.44lb ) APPROXIMATE	

CONNECTION	RESISTANCE PER PHASE (ohm $\pm 10\%$ ) <span>7</span>	INDUCTANCE PER PHASE (mH $\pm 20\%$ ) <span>8</span>	RATED CURRENT (Amp)	HOLDING TORQUE (mNm MIN) <span>1</span>	HOLDING TORQUE (oz-in MIN) <span>1</span>
BI-POLAR	2	2.4	1.0	100	14.16

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, 26 AWG, 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.
11. ROTOR AND STATOR LAMINATED CONSTRUCTION.
12. THIS MOTOR IS MANUFACTURED IN COMPLIANCE WITH CURRENT EU RoHS DIRECTIVE.
- 13 MOTOR LABEL TO INCLUDE AMP LOGO, AMP WEBSITE ADDRESS, "RoHS" COMPLIANCE LOGO, AMP P/N, "MADE IN (COUNTRY)", AND DATE CODE.
14. HI TORQUE MOTOR DESIGN.

REVISIONS				
ECO #	REV.	DESCRIPTION	DATE	APPROVED
7000	A	INITIAL RELEASE	5/29/14	J.KORDIK
8497	B	NEW FORMAT, 3D MODEL, 4X MOUNTING SCREWS FROM M2.6 TO M2.5	6/25/2020	LEO. L

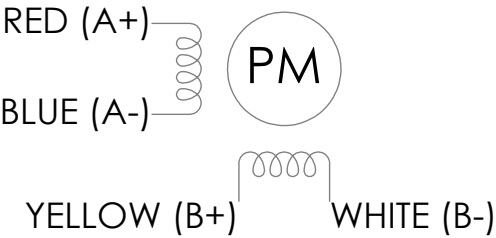
## DRIVE SEQUENCE MODEL BI-POLAR FULL STEP


The diagram shows a 5x5 grid with a clockwise arrow (CW) on the left and a counter-clockwise arrow (CCW) 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 FLANGE SIDE OF THE MOTOR

## WIRING DIAGRAM



<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>	UNLESS OTHERWISE SPECIFIED:			TITLE:									
	DIMENSIONS ARE IN MILLIMETERS			NAME	DATE								
	TOLERANCES:			DRAWN	ALAN. N 6/25/20								
	ANGULAR: ± 0.5			CHECKED	KEVIN. K 6/25/20								
	ONE PLACE DECIMAL ± 0.25			COMMENTS:									
	TWO PLACE DECIMAL ± 0.13												
	THIRD ANGLE PROJECTION												
	MATERIAL			<div>STEPPER MOTOR OUTLINE</div> <table><tr><td>SIZE</td><td>DWG. NO.</td><td>REV</td></tr><tr><td>B</td><td>HT11-021</td><td>B</td></tr><tr><td>SCALE: 1:1</td><td>WEIGHT:</td><td>SHEET 1 OF 2</td></tr></table>		SIZE	DWG. NO.	REV	B	HT11-021	B	SCALE: 1:1	WEIGHT:
SIZE	DWG. NO.	REV											
B	HT11-021	B											
SCALE: 1:1	WEIGHT:	SHEET 1 OF 2											
FINISH													
DO NOT SCALE DRAWING													

4

3

2

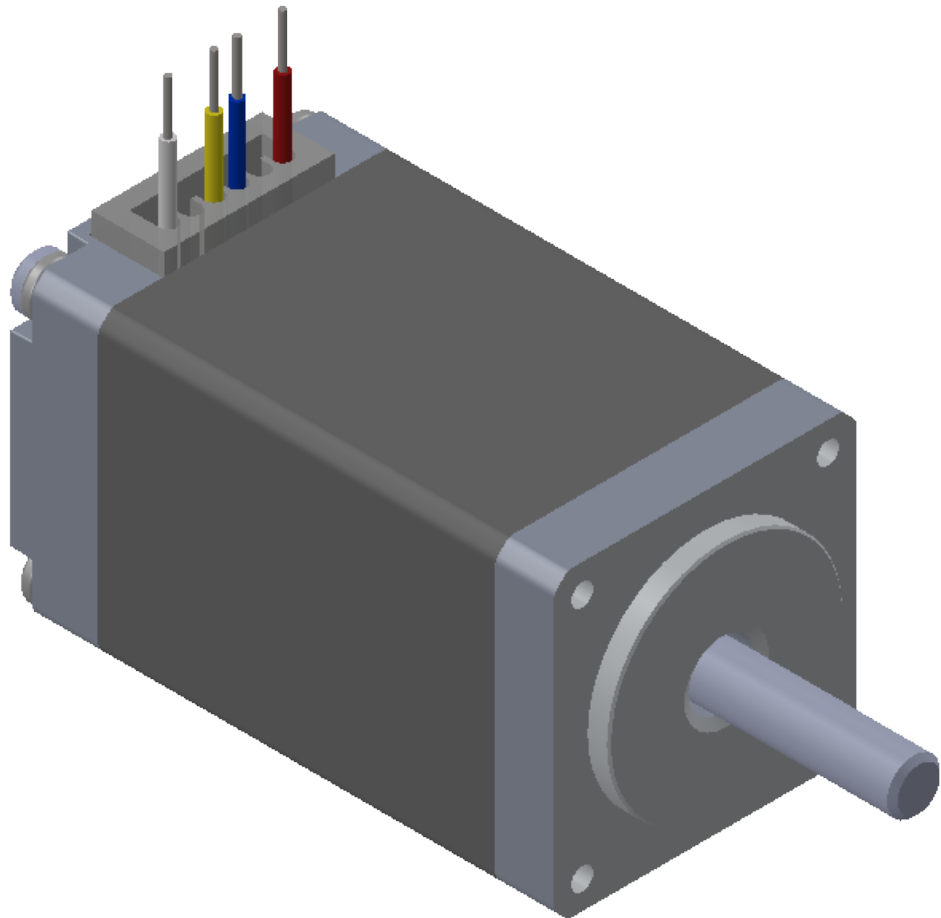
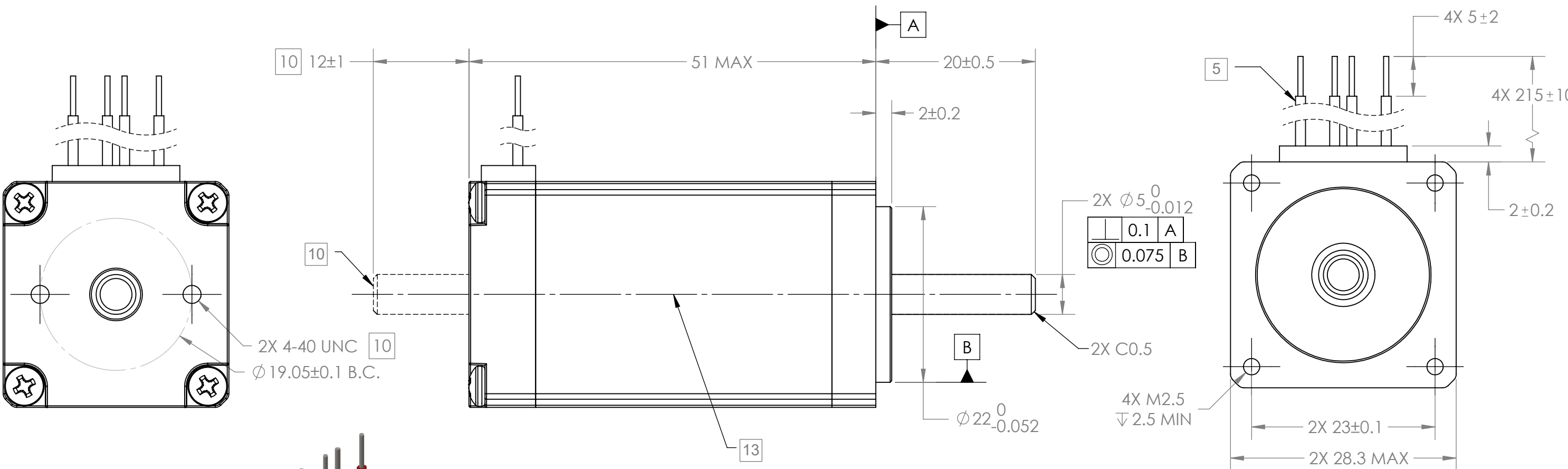
1


B

B

A

A



 <b>Applied Motion Products</b> <small>A MOONS' COMPANY</small>	UNLESS OTHERWISE SPECIFIED:		NAME	DATE	TITLE:  <h1>STEPPER MOTOR OUTLINE</h1>				
	DIMENSIONS ARE IN MILLIMETERS TOLERANCES: ANGULAR: ± 0.5 ONE PLACE DECIMAL ± 0.25 TWO PLACE DECIMAL ± 0.13 THRID ANGLE PROJECTION		DRAWN	ALAN. N				6/25/20	
			CHECKED	KEVIN. K				6/25/20	
			COMMENTS:						
<b>PROPRIETARY AND CONFIDENTIAL</b>  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.			MATERIAL			SIZE	DWG. NO.		REV
			FINISH			<b>B</b>	HT11-021		B
			DO NOT SCALE DRAWING						
						SCALE: 2:1		WEIGHT:	SHEET 2 OF 2

4

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