

SPECIFICATIONS:

NUMBER OF PHASES: 4	ROTOR INERTIA: 480 g-cm^2 (2.62 oz-in 2) NOM
STEPS PER REVOLUTION: 200	DETENT TORQUE: N/A mNm (N/A oz-in) MIN
STEP ANGLE: 1.8°	INSULATION CLASS: B
STEP TO STEP ACCURACY: $\pm 0.09^\circ$	BEARINGS: ABEC 3, DOUBLE SHIELDED
POSITION ACCURACY: $\pm 0.09^\circ$	TEMP. RISE: 80°C MAX.
ENCODER RESOLUTION: 2000 LINES (8000 CPR)	OPERATING TEMP. RANGE: -20 TO +50°C
SHAFT RUNOUT: 0.05 mm T.I.R. MAX	STORAGE TEMP. RANGE: -40 TO +70°C
RADIAL PLAY: 0.02mm MAX (450g LOAD)	RELATIVE HUMIDITY RANGE: 5 TO 95%
AXIAL PLAY: 0.08mm MAX (1 kg LOAD)	WEIGHT: 1.0 kg (2.2 lbf) APPROXIMATE

REVISIONS				
ECO #	REV.	DESCRIPTION	DATE	APPROVED
6941	A	INITIAL RELEASE	06/16/14	J.KORDIK
8034	B	CHG REAR SHAFT LENGTH/TYPO	08/28/18	M.MARONEY
8991	C	MOVE TO SOLIDWORKS FORMAT	09/29/23	K.KESLER

B

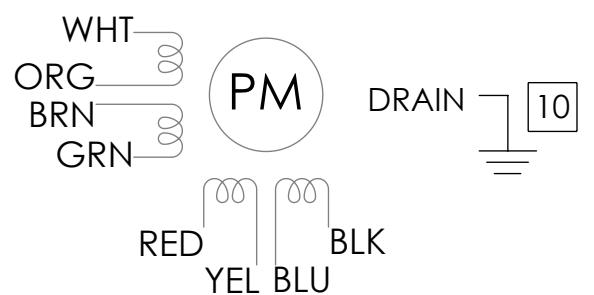
B

CONNECTION	NUMBER OF PHASES	RESISTANCE PER PHASE (ohm $\pm 10\%$)	INDUCTANCE PER PHASE (mH $\pm 20\%$)	RATED CURRENT (Amp)	HOLDING TORQUE (Nm) Min.	HOLDING TORQUE (ozf-in.) Min.
BI-POLAR SERIES	2	18	60.8	0.71	1.6	226
BI-POLAR PARALLEL	2	4.5	15.2	1.41	1.6	226
UNIPOLAR	4	9.0	15.2	1.0	1.3	184

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, 60Hz FOR ONE MINUTE.
- 5 LEADS: 8, 24 AWG, 7 STRAND MIN. UL AND CSA APPROVED. UL 1430 OR UL 3265. CABLE, 8 COND. W/DRAIN. CABLE 666-2107
6. INSULATION RESISTANCE: 100 MEGOHMS MIN AT 500 VDC.
- 7 MEASUREMENTS MADE WITHOUT CABLE.
- 8 AS MEASURED ACROSS ANY WINDING USING AN A.C. INDUCTANCE BRIDGE AT 1KHz.
- MEASUREMENTS MADE WITHOUT CABLE.
- 9 AS MEASURED BY THE CHANGE IN RESISTANCE METHOD, WITH RATED CURRENT APPLIED TO 2 PHASES WITH MOTOR AT REST.
- 10 DRAIN WIRE TO BE CONNECTED TO INSIDE OF REAR END BELL. LOCATION MAY VARY
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 ENCODER 970-1001 INSTALLED PER AMP ASSEMBLY PRACTICES.

WIRING DIAGRAM

DRIVE SEQUENCE MODEL
BI-POLAR SERIES FULL STEP

STEP	(A+) WHT	(A-) GRN	(B+) RED	(B-) BLK
1	+	-	+	-
2	-	+	+	-
3	-	+	-	+
4	+	-	-	+
1	+	-	+	-

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

Applied Motion Products		THIRD ANGLE PROJECTION	NAME	DATE	TITLE: STEP MOTOR W/ ENCODER
PROPRIETARY AND CONFIDENTIAL		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS	DRAWN	C.BREUNINGER	
		TOLERANCES: - ANGULAR: $\pm 0.5^\circ$	PRE.CHECK	-	
		- ONE DECIMAL PLACE: ± 0.25	PRE.APPROVAL	-	
		- TWO DECIMAL PLACES: ± 0.13	FIN.CHECK	E.MERINO	
				09/29/23	
		MATERIAL	SAP: 4611110060798		
		FINISH	ALT DWG. NO.: -		
			DO NOT SCALE DRAWING	ALT SAP: -	

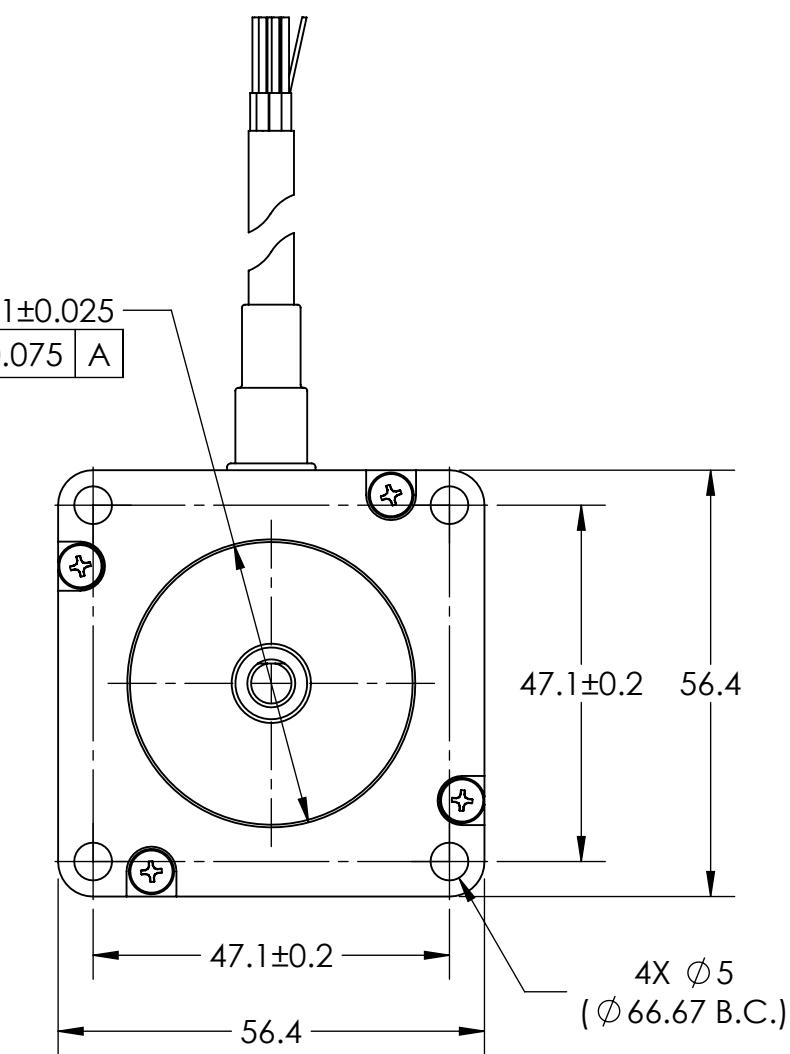
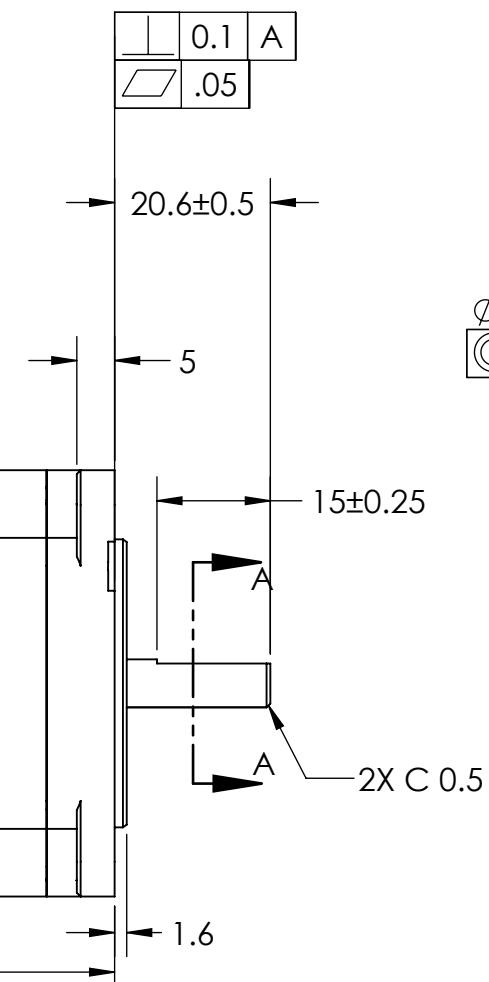
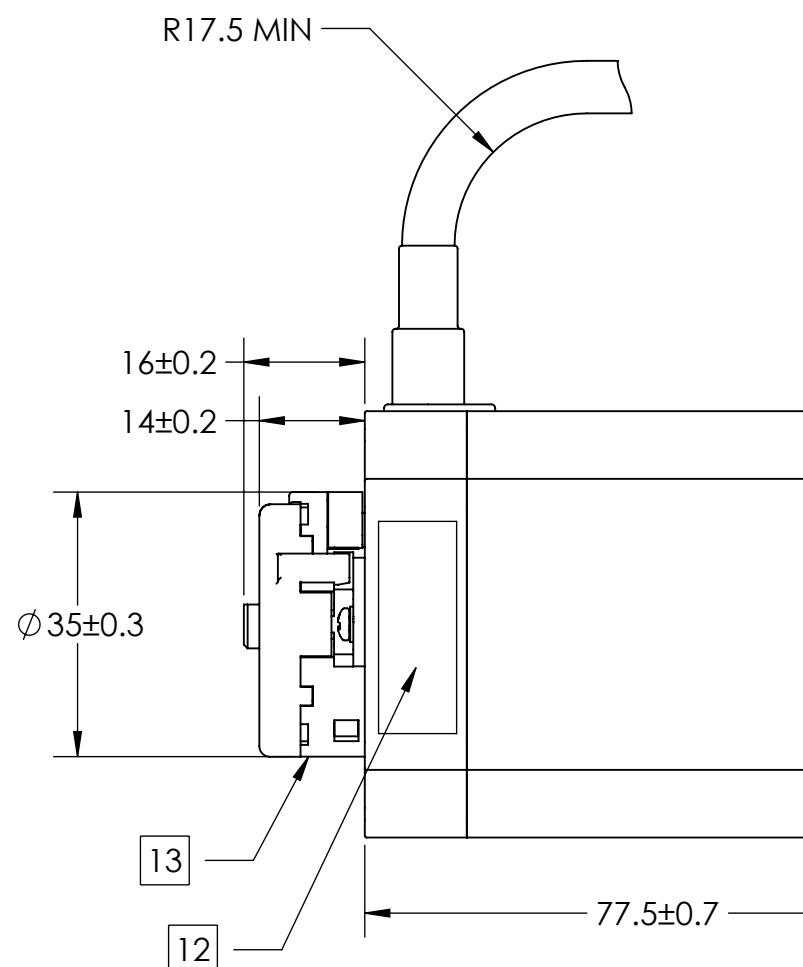
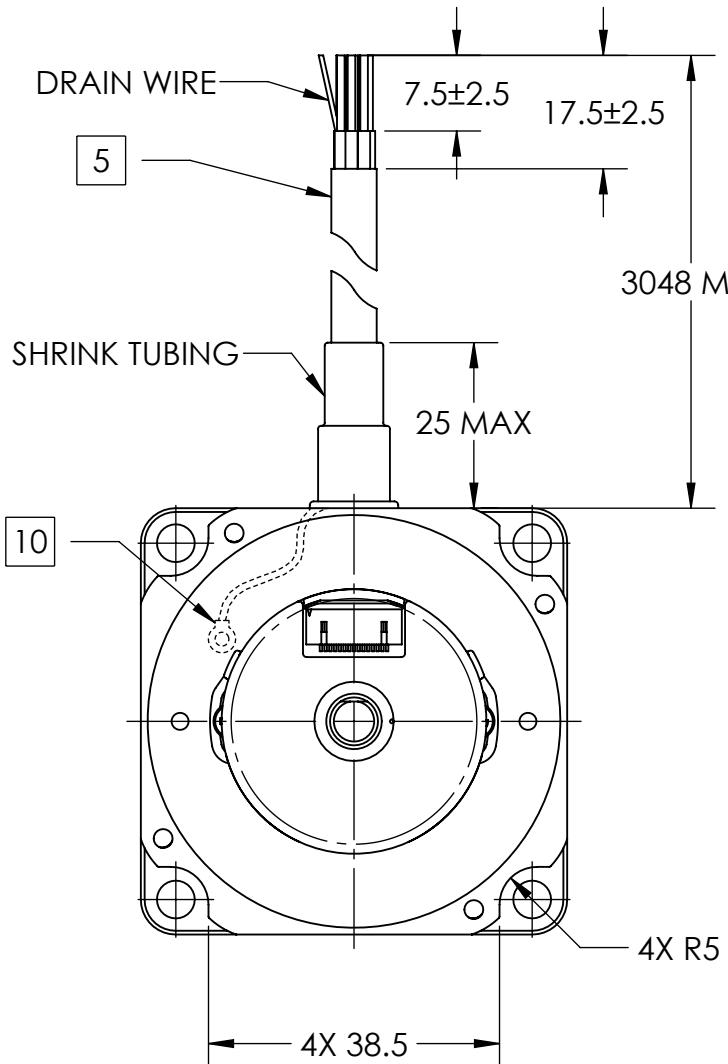
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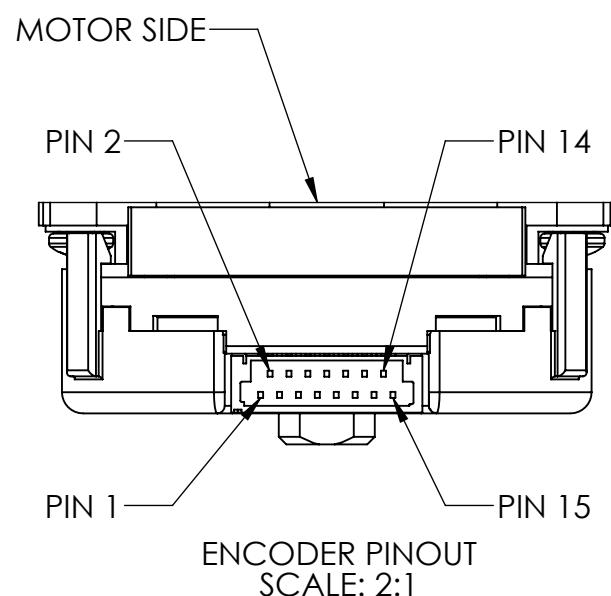
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1



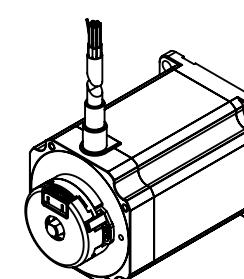
ENCODER CONNECTIONS	
PIN #	SIGNAL
1	CH A+
2	CH A-
3	CH B+
4	CH B-
5	INDEX+
6	INDEX-
7	N/C
8	N/C
9	N/C
10	N/C
11	N/C
12	N/C
13	+VCC
14	GND
15	N/C



A MOON'S COMPANY

PROPRIETARY AND CONFIDENTIAL
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.

THIRD ANGLE PROJECTION		NAME	DATE	TITLE:
UNLESS OTHERWISE SPECIFIED:		C.BREUNINGER	09/29/23	
DIMENSIONS ARE IN MILLIMETERS				
TOLERANCES:				
- ANGULAR: ± 0.5				
- ONE DECIMAL PLACE: ± 0.25				
- TWO DECIMAL PLACES: ± 0.13				
MATERIAL	-	E.MERINO	09/29/23	
FINISH	-			
DO NOT SCALE DRAWING		ALT DWG. NO.:	-	
ALT SAP:				
SCALE: 1:1		SHEET 2 OF 2		



SECTION A-A
SCALE 2 : 1

